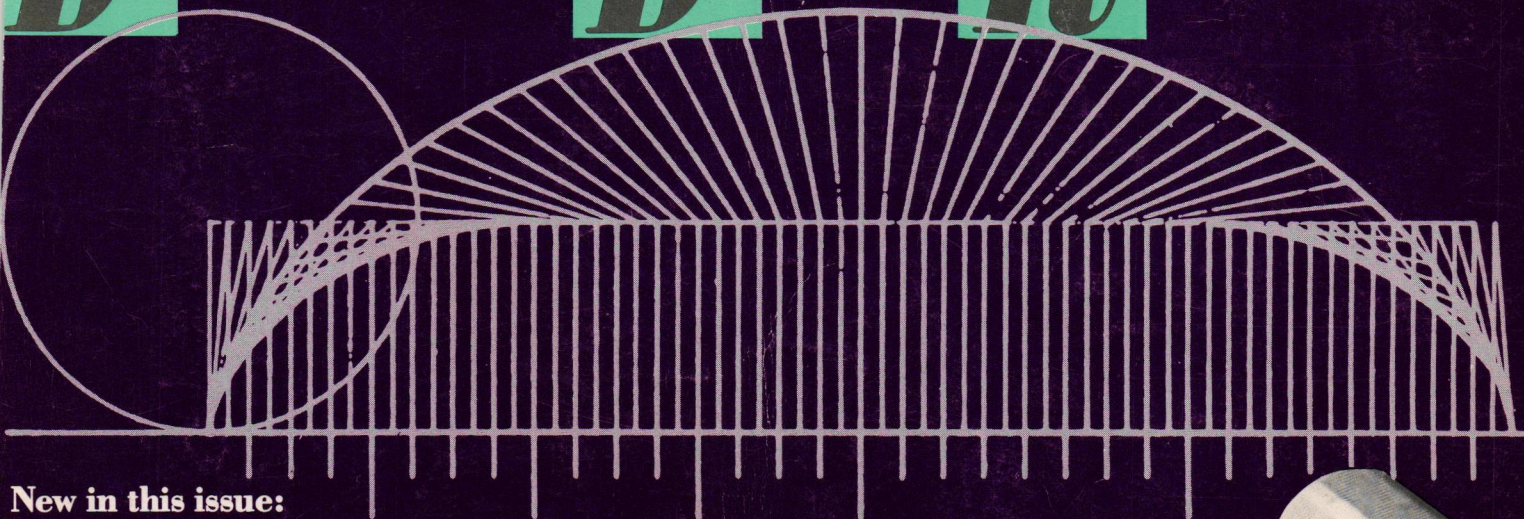


DESIGN BOOK REVIEW



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AFTER ARCHITECTURE

Kahn's Kimbell Art Museum

Doug Suisman, Dana Cuff,
Peter McCleary, Pat Loud

also ...

ALVIN BOYARSKY:
The AA—London's Architectural Club

SAM BASS WARNER, Jr.:
Suburbia Felix

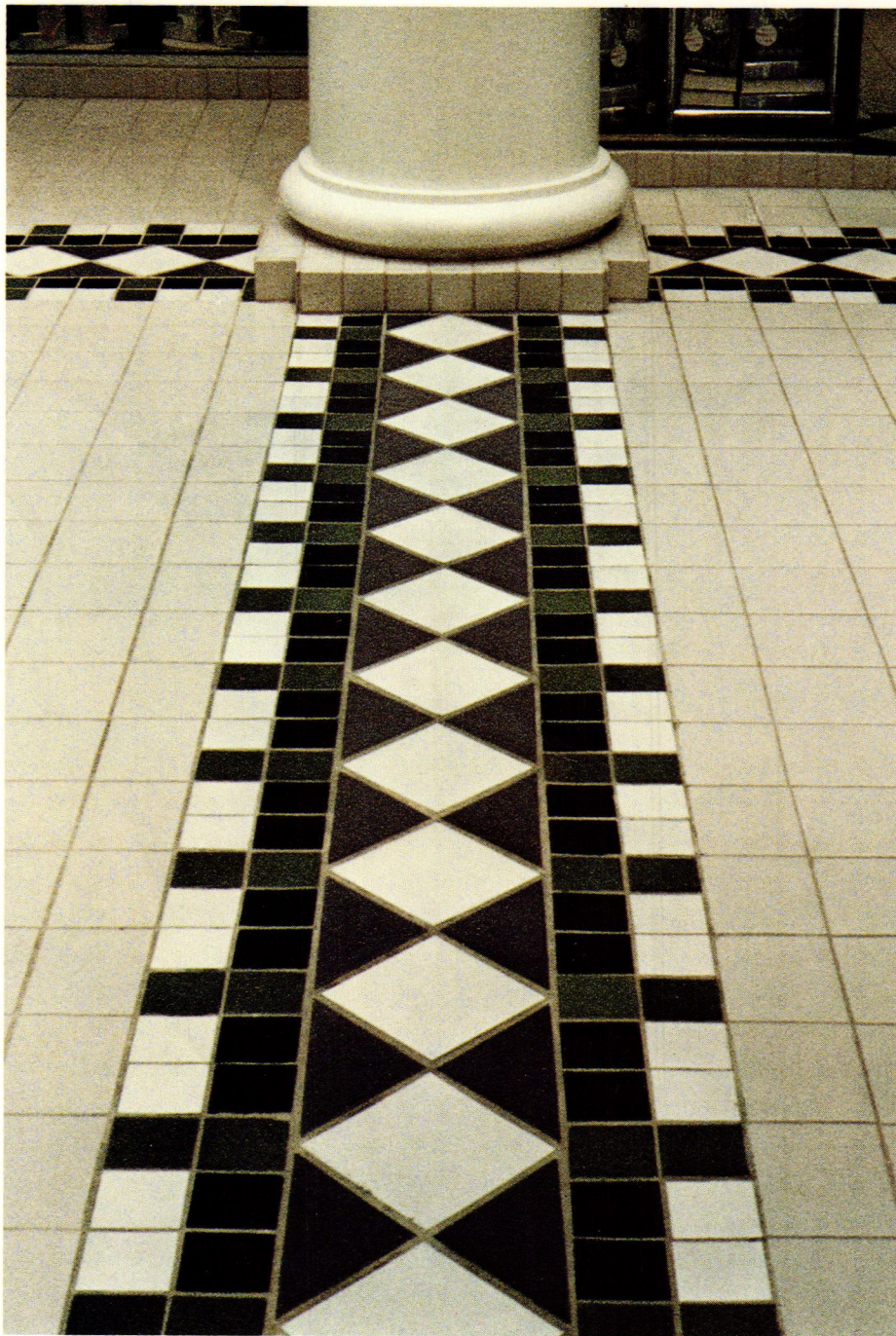
FRANCES BUTLER:
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COVER: below: AERIAL VIEW OF THE KIMBELL MUSEUM, FORT WORTH, FROM THE SOUTHWEST. PHOTO ©BOB SHAW. above: DERIVATION OF A CYCLOID CURVE, USED IN THE VAULTS OF THE KIMBELL. THE CURVE IS TRACED OUT BY A POINT ON THE CIRCUMFERENCE OF A CIRCLE AS THE CIRCLE ROLLS 360 DEGREES ALONG A STRAIGHT LINE.

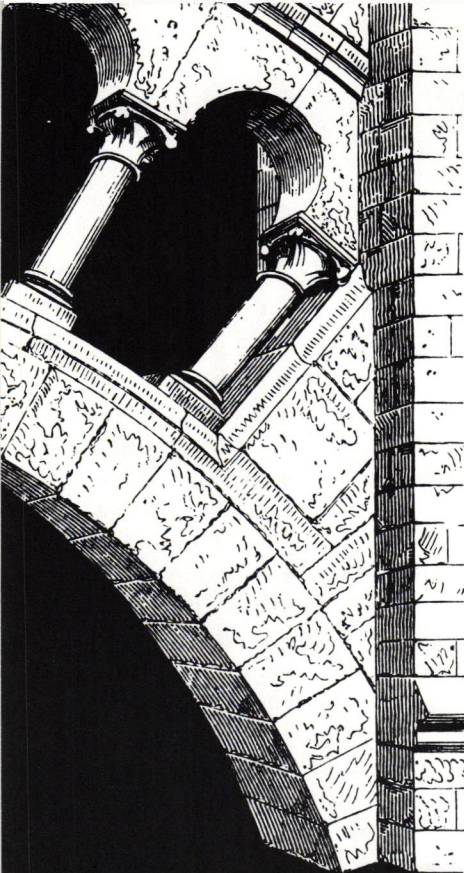
AFTER ARCHITECTURE

Regular readers of *DBR* will perhaps be shocked to find a sizable portion of this issue occupied by things other than book reviews. This is not a case of literary displacement—the “After Architecture” series that debuts herein diverges from the subject of architectural books to provide a forum for serious criticism of architecture itself. If over a century ago Victor Hugo lamented the semantic primacy of written media over the built with the prophecy, “this will kill that,” then we may simply be adding a few more lines of ammunition. But, while the book most certainly has replaced the cathedral, it is doubtful that architectural criticism, in this country at least, has killed anything yet. Rarely does architectural writing get beyond the image of a building, and thus as criticism it scores merely surface wounds. To pursue the metaphor of critic as assassin, we hope to accomplish a ritual slaying that will deepen the discourse and clarify the ideas for both the design and the appreciation of architecture. In each issue, several critics will consider the same building from specialized points of view. Rather than select new projects, we will look at buildings that are in their “prehistory” phase, ones that have had a few years to age and influence lives, yet have not reached the threshold of either the historical apotheosis or the dustbin. To help us, we have invited the veteran critics Reyner Banham, Peter Blake, Kenneth Frampton, and Robert Gutman to be our advisers for the selection of buildings worth reconsidering, for their cultural, programmatic, or technological importance. The choice of Louis I. Kahn’s Kimbell Art Museum in Fort Worth, Texas, despite the building’s “instant immortality,” has proved a rich, even mortal, subject. In the following issue, we will try to get under the skin of Cesar Pelli’s Pacific Design Center in Los Angeles.

The major issues dug up at the

Kimbell are the struggle over the program, the suitability of technology, and the significance of its context. Kahn’s poetics of space and light are found to be at odds with the realities of transportation to and working within the building; but still the strength of the architecture prevails. This attitude would undoubtedly be shared by Alvin Boyarsky, director of the Architectural Association in London, who in a dialogue with *DBR* jauntily defends architecture against the demoralizing progress of institutionalization, proposing it as a cultural rather than strictly professional activity, even at the risk of appearing elitist (which he doesn’t seem to regret). The Kimbell is essentially a suburban building, and the nonurban siting adds strength to the argument of Sam Bass Warner, Jr., in his review of recent books on American suburbs. Though not everyone’s ideal substitute for the city, suburbs have an unmistakable vitality that is dependent on high-speed travel between private and public space. Warner asks us to consider what factors really lead to the production of a humane environment, concluding that city form is less a priority than access to satisfying employment. While Kahn searched in the suburbs of Fort Worth for meaning to emerge from the primal interchange of structure, materials, and light, somewhere in the suburbs of Los Angeles and in the more urban reaches of London, Charles Jencks has built his houses, seeking to “restore” language to architecture, as not just predictably self-serving, but also, according to reviewer Herbert Muschamp, surprisingly reductive in its insistence on a prescriptive system of architectural signs. Jencks’s flagrant acts of architectural necrophilia Frances Butler criticizes as the “taxonomic fallacy” in visual forms of communication. The power of visual cognition is proposed to have exceeded that of verbalization, bringing us back to the media-cidal issue of what will kill what.

Richard Ingersoll



School of Thought: The Architectural Association

8

Alvin Boyarsky, chairman of the Architectural Association, explains how his school survives, even flourishes, without tenure, studios ("the reason Berkeley is so depressing"), or subsidy.

Suburbia Felix

14

The Northeast Corridor, the Midwest conurbation, the Pacific megalopolis—are they lost causes, or good and bad prospects on the way to some still newer urbanity? Four new books on the question reviewed by Sam Bass Warner, Jr.

Hejduk's Comet

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Hejduk is revealed in his *Mask of Medusa* as romantic, deeply American, more concerned about architecture's heart than its future. A guide through the enigma by Lars Lerup.

Just Looking

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The visual culture of advertising is more supple than the culture of language, but less prestigious. Four new books on advertising continue the class war between mass visual culture and the verbal systems of the literati. Reviewed by Frances Butler.

Latrobe and the Beginning of Professionalism in American Architecture

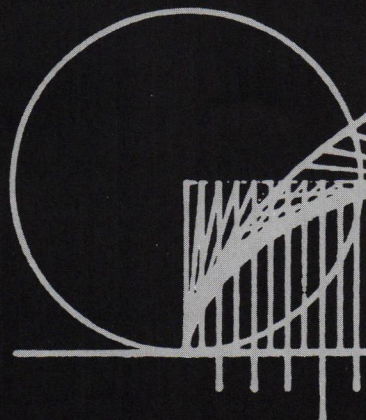
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The story of Benjamin Henry Latrobe, who rescued American architecture from the hands of carpenters and gentleman amateurs. His papers, recently exhaustively published, surveyed by Gene Waddell.

After Architecture: The Kimbell Art Museum

35

Wondering whether ornament is in fact the "adoration of the joint," light the "great maker of presences," *DBR* journeys to Fort Worth to see Louis Kahn's last building. Doug Suisman (architect), Dana Cuff (sociologist), Peter McCleary (structural expert), Pat Loud (archivist), and Jeff Howard (photographer) recreate the nuances of this hitherto notoriously unphotogenic building.



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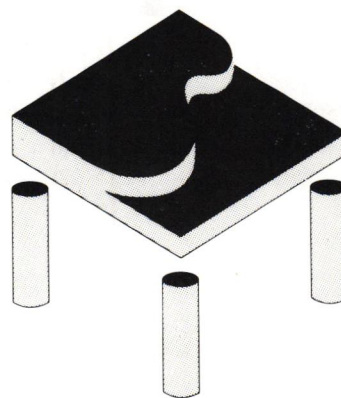
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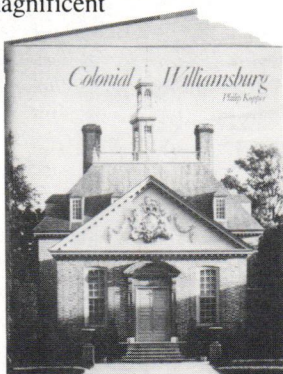
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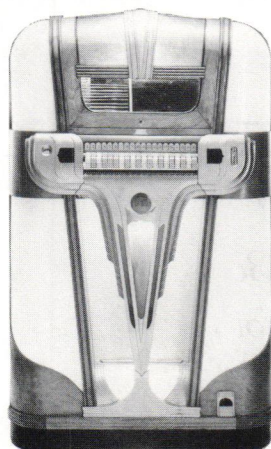


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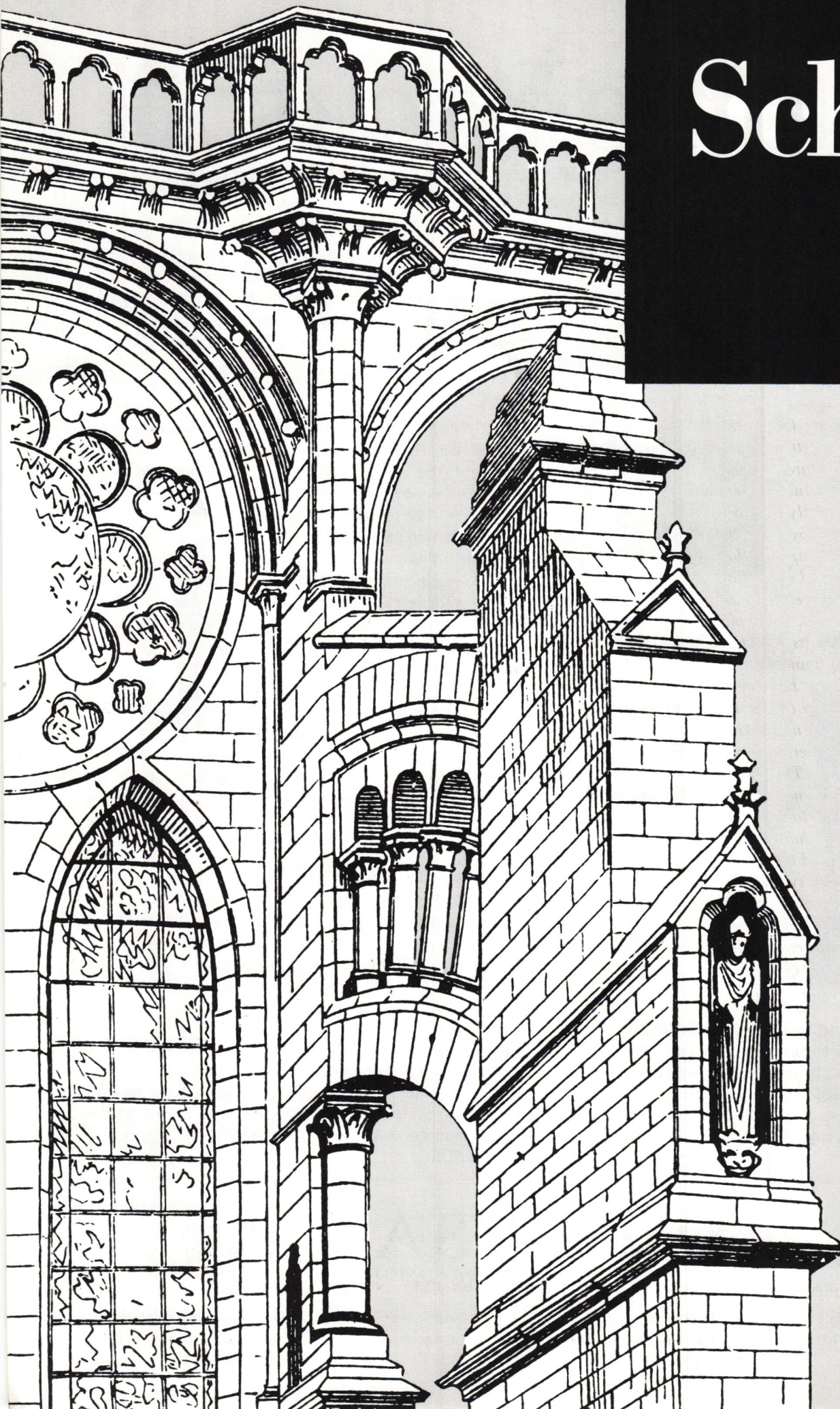
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CATHEDRAL. FROM
AA FILES 9.

of Thought

AN INTERVIEW WITH ALVIN BOYARSKY
OF THE ARCHITECTURAL ASSOCIATION

Since 1971 Alvin Boyarsky has been the chairman of the Architectural Association (better known as the AA) in London. Unlike any other architectural school in the world, the AA offers a culture of architecture rather than an institutional environment, and it is mostly due to the ideas, energy, and organizing capacity of Boyarsky that such an original premise has survived. Throughout the year the AA hosts an ambitious lecture series and exhibitions open to the general public, besides producing related catalogues and publications, such as the AA Files, to supplement the design work carried out in the 25 "units." With 450 students and 175 academic, administrative, and technical staff it is the largest architecture school in Britain and by far the most international. The AA lacks all the things that other architectural schools spend so much time anguishing about: There is no curriculum, there are no studios, there are no exams, the teachers work. The structure of education depends very much upon the motivation of both the students and the teachers, what Boyarsky would call a sort of "Jeffersonian democracy" that allows maximum autonomy, with maximum choices, and minimum interference. The key to the program is the unit system. At the beginning of the term each unit master presents a platform of issues and methods that will be part of his or her research during that period, and the students then decide which unit best suits their interests. It is a highly competitive process and insures that the 25 units maintain their differences. The student works in private and arranges to meet individually with the unit master and with the other teachers that the leader has hired as part of his team. The unit meets for seminars and at appointed moments has a jury to review the work. During five years of study a student will have had his or her work discussed in public at least thirty times by what Boyarsky calls an "international convoy" of architects and critics.

Boyarsky, originally from Montreal, trained at McGill and Cornell universities in the late 1950s. He taught in Oregon and London in the early 1960s, and then in Chicago. His duties at the AA have interrupted his life as a practicing architect. We interviewed him about the AA and architectural education in Los Angeles, in April of 1986:

I always feel a little squeezed, like an old tube of toothpaste, when it comes to seeking alternatives in architectural education. People always turn to the AA looking for a glowing LA sunset because we're set up as the anti-

statement to the boredom and disappointment which exists universally in the world of architectural education. It's hard work on the part of the staff, students, and service people alike to maintain standards in what we do.

The idea of the AA at the moment (for it had a long history before I arrived; it was founded in 1843) is one based on the participation of teachers with something urgent to discuss and to research. After some fourteen years, I'm into my third generation of teachers. I inherited people like Bernard Tschumi, Michael Gold, Peter Cook, Elia Zenghelis, and opened an opportunity for them to operate. Some of them have gone on and now we're partially dealing with the culture of the issues that they raised—so that, for example, Zaha Hadid is a direct descendant of Rem Koolhaas and Elia Zenghelis and Nigel Coates took over Bernard Tschumi's unit, which has since given birth to the NATO Group (Narrative Architecture TOday). Three or four of his students are now teaching in the school and in two or three years will become significant contributors. It's conversations across the generations. I try to blend people from different age groups who are trying to solve different kinds of problems and the teaching, exhibitions, and publications all become part of it.

I found the school barefoot, pregnant, and bankrupt. The story of how the AA got to be this way goes back to the late fifties when in Britain they decided to merge all the various bits and pieces of higher education into a binary system of polytechnics and universities because of the pressure caused by the post-World War II baby boom. In the end they built about eighteen new universities and so the AA—which relied on the government only inasmuch as it gave all students a grant to cover their fees and living allowances—was threatened with losing the grants if it didn't join the national system. The politics in the AA ranged from those who said: "Well, we gotta survive" to others who said: "If we go into the system, we'll be like everybody else in five years' time, we'll just be bureaucratic, tenured, etc." Eventually there was an international plebiscite of all the members and they voted to go into the system. A "guerrilla" group fought this and was such an irritant that London University turned down the merger. The AA Council then decided to close down the school in December 1970, as they could not see a financial future. They made a deal with the government to allow those

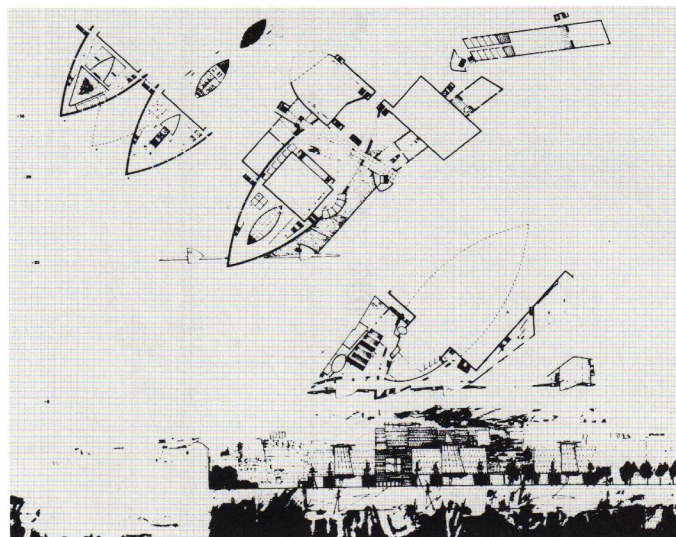
already in the program to get their grants and to stop taking in new students, so it had a two-to-three year running down period. The guerrilla group then fought the battle to get someone in to save the school, and I was brought in as the hired gun to do it. I was at the AA in the mid-sixties as a famous, or rather, infamous Year Master and later while in Chicago I organized some summer sessions under the banner of the International Institute of Design that used London as a base, and brought people there from all over the world to do projects and discuss certain issues—a place where Superstudio met Archigram side-by-side with third world and energy conservation conversations. I developed a certain momentum from this and in the end when I was elected to take over the AA it seemed like business as usual. In September 1971 the AA seemed demoralized: The furniture was in piles ready to go to Imperial College, students were finding places in other schools, and teachers hadn't been doing anything with their students for some time because of the question of survival. Everything about the AA was notorious in the press and everyone wanted to wash their hands of it.

The good teachers were already there; there used to be a Year Master who would draw up a program, the secretary would make appointments for students to come and see tutors whenever they liked, but no one was responsible. I thought London had more potential than that, and so we set up the unit system whereby each of the Unit Masters had to attract the students with a program of their own making. Suddenly, people with great intelligence and potential who came through the sixties in London were faced with the question: "What do you stand for?" There was an incredible burst of energy, theoretical positions were assumed, enormous rivalry emerged between the teachers, and students were able to select a series of workshops from appetite and interest and help develop the ongoing propositions. Added to that was the tough assessment of student portfolios—students couldn't get into a unit of their choice unless they had something to show. Teachers in the end had to keep performing, because if students didn't want to work with them, they would have to resign. Once you get started the unit constantly transforms itself because there are twenty other units at work and the students each year bring ideas from one to the other. It's been fabulous watching the transformation and the enrichment of both staff and students' work over the years.

There is no tenure. I've only got limited tenure. I've been elected and reelected five times now as chairman. At election time a big political snarl inevitably arises—the London scene is loaded with wet "Ingleses," worse than any other species anywhere, who still think that the Welfare State should be put back in place and that the AA should be totally concerned with town planning and housing. That's the old post-World War II generation, they're now sixty or seventy years old. Another kind of problem

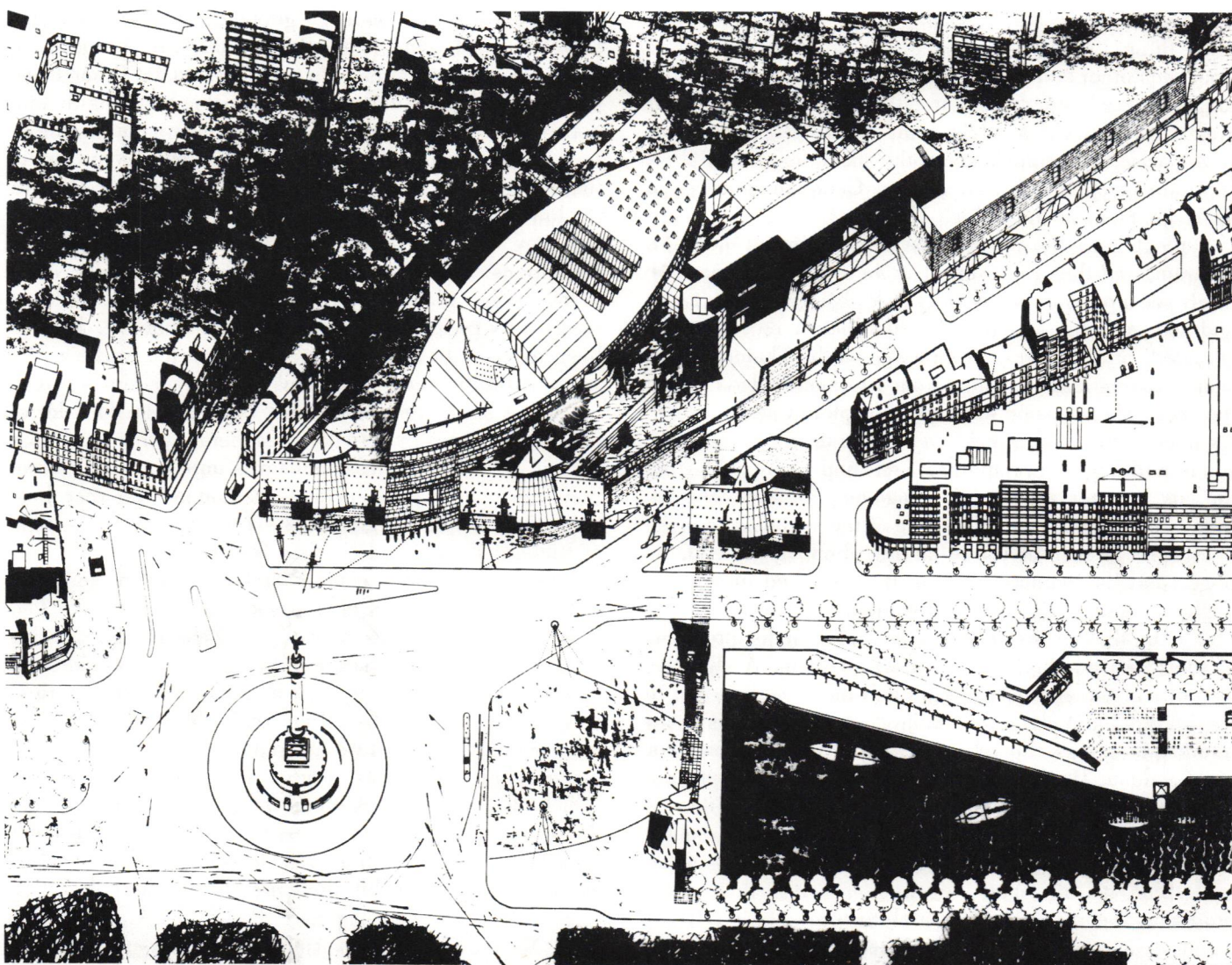
that's built in is that we can't get many English students. We exist independently on the open world market with fees—less than half the cost of places like Yale or Harvard—but well beyond what the average English student can afford. So we're seen as an elitist operation, even though everything is open to the public—the lectures and exhibitions, our library, bookshop, restaurant, and bar. We can seat 250 in our Lecture Hall but often there are 400; they stand on each other's shoulders and sit on the floor. Sometimes there must be about a hundred people on the floor, crowding the front, and the speaker can hardly stand to give his lecture. It's a charged, intense atmosphere.

Let me go back to this elitist problem. Every English student going to a polytechnic or university gets free



PLANS AND FAÇADE OF THE OPERA SHIP. FROM AA FILES 9.

tuition—ours don't, so we're pretty much cut off. Only about 20 percent of our students are from Britain, the rest come from all over the world: Japanese, Spaniards, Italians, Americans and Brazilians, and so on, and students, of necessity, have to pay their way. The third problem is our style. We are seen to be spending money—on exhibitions, publications, international lecture series. We spent a million pounds fixing up the building. We subsidize our restaurant and make space for lots of things that other government-sponsored places wouldn't even dream of. We throw enormous parties and we dress up. Our units travel widely. I do it out of a sense of: "To hell with those bastards. If they're going down, we're not going down with them." You see, the English prefer to wear hair shirts publicly and remain in a horrific state economically. Ba-



OPERA DE LA BASTILLE—COMPETITION ENTRY BY PETER WILSON WITH JULIA BOLLES. AXONOMETRIC OF THE OPERA SHIP “ENTERING” THE PLACE DE LA BASTILLE. FROM *AA FILES* 9.

sically, the AA is a club, you walk in the door and there's an exhibition gallery to the left, a lecture hall to the right, a reception desk. There's a bar, a members' room, the library on the main floor, downstairs there's the bookshop and a restaurant and it's all public. All the events are open, we even advertise them every week in a widely read Events List. Students are quite often unrecognizable from the general public, because they have no place to work.

There are no studios. This is absolutely the way it should be. The reason Berkeley is so depressing is that awful silo they're in, full of studios with no one in them except when they're having a crit. Every Unit Master at the AA has an office and there are about eight to ten jury rooms for seminars and informal juries. The teachers see students by appointment, either at home, in their office at

the school, or at the student's home—however it works out. They have informal meetings, they go on trips together, there's an awful lot of visiting of Spain or Italy or much further afield—wherever an interesting project is. The students work at home on their own, with their own music and apples in the refrigerator. I think that students working together in large studios is one of the most stultifying things that you can imagine—that's why so much architectural education is poor. It's trade union stuff. You know—you go into a studio and students are all working on the same project. They more or less decide how many sheets of paper they're going to hand in and how it's going to be drawn. They watch each other every day of the week, every hour of the day to see what's new, so that there are never any novel moves possible and the teachers can walk around

the studio in each other's shoes, saying approximately the same things. Whereas, when the students are separated from each other and every once in a while they get together to discuss each other's work in public, there's a chance for creativity. A jury is a celebration. It's full of anticipation. In any case, we couldn't afford the space for studios if we continue to operate in our elegant Georgian quarters in Bloomsbury, near the British Museum.

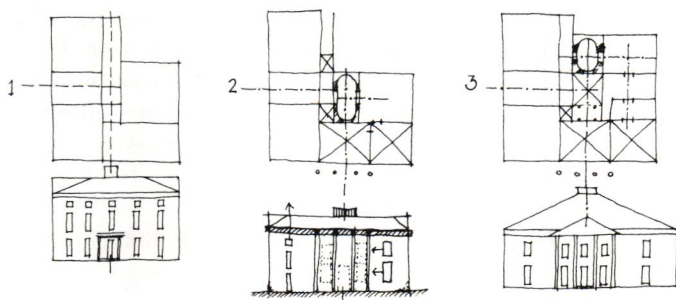
Students have to write their own script, invent their own program, and then represent it in an original manner. We rarely see a program where the site is objectively described and the accommodation is listed. Take a recent jury I attended. Students were given a site on the Thames where some existing masonry piers from a former bridge crossed the river. The occasion was used to explore various issues. It's unconventional because even if you decide what to do, you're building on an improbable site and you're colonizing the city in a certain way with fragments, objects, characters, whatever you like. The style of the school is to make it tectonic. Whatever you're talking about in the end, its bones and its character have to be described in a pretty explicit manner. By the time students get to the end of fifth year, they've invented ten or twelve major programs of their own making and materialized them. A student's portfolio at the end of five years will have one hundred to one hundred and fifty drawings in it—good drawings about interesting things. Sometimes we interview students for our Graduate Design program and can't allow them into the Diploma School (years four and five) because they've done only three or four standard little routines that require no thought, no programming, no realization. If you mean well, then it's all right. But we're not into that, we're producing people for whom architecture is addictive. I suppose Cooper Union is about the only place similar to the AA that I know of, but at the AA there are about twenty influences going on at once and projects have to be realized so that there's an architectonic base to them in the end.

I would never use professional standards as a measure for education. I mean, if you think of what all of those

whores out there are doing . . . professionalism is a curious thing. You get some crummy office that's been doing the same thing for ten years—figuring how to get through the codes or whatever, and just because they're doing it, that doesn't make them professionals. It means that architecture is often just about the everyday grind. My feeling is that the people we turn out are more than capable of doing the low-level stuff with their hands tied behind their backs, but they have the added momentum to actually lift the aspirations of the profession. This is because they've heard a lot—every night of the week there are a couple of lectures by people addressing a public audience. They've been exposed to a lot and seen a lot on the wall—we do a new exhibition every five weeks or so, sometimes two go up at the same time. They've been urged to do a lot of interesting things by articulate teachers; by the end of that period, so-called professionalism is unimportant because they can operate and, in fact, in London the very best offices are full of our graduates—I mean even to the tune of Richard Rogers and Norman Foster.

London is an architectural backwater. If you took the AA out and the expatriates associated with it, like Leo Krier, Peter Wilson, Rem Koolhaas, Zaha Hadid, Charles Jencks, and the three hardnosed offices, there wouldn't be much left. For the AA to work as a model in other cities, it would require a metropolitan scale. Most of our people are very part-time and we use philosophers, poets, painters, writers, journalists, who thrive in capital cities. If somebody writes a book on an interesting subject, we get them to give three lectures, pay them for that, but don't have to pay them for life. You do need a dense cultural environment for that, but there are lots of cities other than London that have that capacity: Paris, Los Angeles, New York, Mexico City, Buenos Aires, Tokyo, Toronto. It should be possible to have a network of schools which are anti-institutional acting as a cultural forum. What Peter Eisenman tried to do was important. He tried to make a base for a number of fellows to be in a position to do research and write, and he sponsored exhibitions and lectures. His interests were not in an educational institution. The difference is that we have been doing what he tried to do with many times the intensity but we're also a very large and powerful experimental school of architecture.

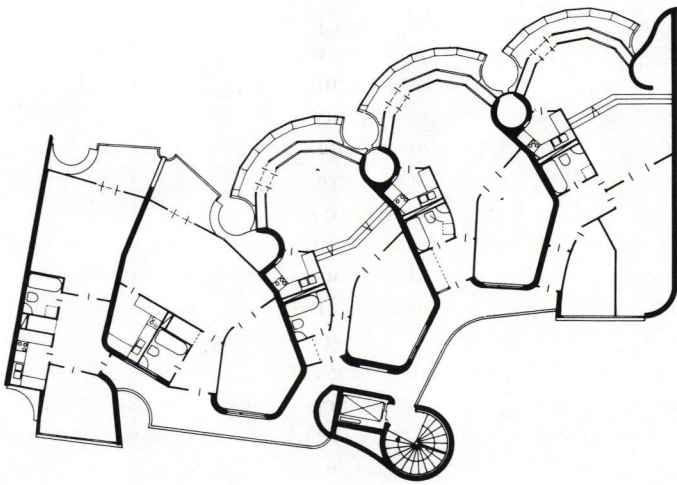
I'm kind of an outsider type but I don't know if that has anything to do with what goes on at the AA. On one level there are many interesting people involved and there's a special ambience. On the other level there's determination on everyone's part to make it happen and that's what I've achieved. It's a continuing process. It's financing an organization, it's dealing with the entire ambience, it's maintaining an elegant conversation about architecture, standards for the students, and an international stance. Putting it all together, it's really about creating the sort of world one approves of. It's quite an ambitious program.



SKELTON CASTLE, YORKSHIRE, 1787. THREE PLANS BY SIR JOHN SOANE, FROM AA FILES 9.

Richard Ingersoll: AA FILES

AA Files, The Architectural Association (AA Publications, 36 Bedford Square, London, WC1B 3ES), subscriptions £25.00 yearly.



HINRICH & INKEN BALLER, HOUSING AT LIETZENBURGER STRASSE, BERLIN-CHARLOTTENBURG, 1978. FROM AA FILES 9.

The AA publications in the last five years have done an enormous job for us. Everywhere I go people are more aware of our activity and that produces more interesting students. It's like a cult. The students come from everywhere. When a student is leaving Cornell, ETH (Zurich), or a school in Tokyo, they've searched and come knowing who we are. They're ready to contribute and that's an incredible advantage. We don't turn down students by the dozen but we usually have to offer them a place lower than they would expect, because of the awful education they've been exposed to universally.

Among the teaching staff there is a profound distrust for academic architectural studies for the sake of being academic, but this is not to say that our students wouldn't be able to analyze the architecture of Brunelleschi or be unfamiliar with historical and technical tools. We don't require them to take humanities and sciences, instead we offer a stimulating lecture and seminar program on a daily basis. The students are required to write a general studies paper each year based on one of the lecture topics—the paper is researched and often developed with the aid of the guest lecturer. As to the technical aspects of architecture, each unit has one expert and several of the student's projects during the course of the years are developed as an extension of the design process. The school is accredited by the Royal Institute of British Architects. One thing that students won't hear a lot about is the "role" of the architect. Once you get involved with the program of society, you begin to think like someone from an Eastern bloc country who can only reason in terms of system and efficiency and you lose all sense of the quality of the place and the poetics of architecture.

By now it should be clear to most Americans involved with architecture that the AA in London does nothing to prevent alcoholism and even less to encourage anonymity. The publishing arm of the AA plays a vital role in the life of the school, assembling catalogues from exhibits and student work, special box sets of architect's drawings (see Alice Jurow's "Opera Comique: Two Boxes from the AA," in *DBR* 9), and most importantly the *AA Files*, a descendant of the *AA Quarterly*. *AA Files* is perhaps the most lively architectural periodical in the English language today, containing a rich alloy of history, theory, speculative musings, graphic ideas, and reviews of exhibits and books. Its pages are like a bulletin board for the intense cultural convergence at the school—typeset transmission of the lectures, seminars, and exhibits it has hosted. *AA Files* functions as the school's memory, or, as chairman Boyarsky would put it, "It's Proustian—you watch yourself with one eye and listen with one ear."

Compared to the major "school" publications in America, *AA Files* offers relief from the *gravitas* of the genre. *Harvard Architectural Review*, *Precis*, *Perspecta*, *Via*, and the like, come out so infrequently (Harvard's publication had a gap of three years between the second and third issues) that they can hardly be thought of as representing the continuum of the school's thinking or activities, and furthermore they may rely on so many "ringers" (who are usually suffering from bad cases of tenuritis) for their essays that it is hard to see what relationship the publication has to the institution, aside from sponsorship. Rather than promoting a "theme," as if a hot topic can be resolved by one ponderous chunk of essays, *AA Files* resists such presumption. It comes out two or three times a year and welcomes the diversity of its participants. The second issue (July 1982), for instance, mixes an erudite excursus by Joseph Rykwert about Francesco di Giorgio's misreading of Vitruvius on the Corinthian order with Andrew Saint's chatty essay on the vernacular use of materials in the London cityscape and Joseph Connor's ground-breaking enquiry into Borromini's "imagist" urban-ism—both of these latter articles urge us to consider the city from a more intimate scale. Among the twelve other pieces in the same issue are: a scholarly discovery of the work of Josef Plecnik (1872–1957), a Yugoslavian pupil of Otto Wagner working in Ljubljana, a text-image composition on "Randomness vs. Arbitrariness" by Zaha Hadid, and analytical reviews of the exhibits of Gertrude Jekyll's work and the Fascist new town of Sabaudia. Successive issues have maintained a similar tenor of both scholarly and colloquial tracts, with much attention devoted to the graphic material that has been on the school's walls. The publication reflects the eccentric blend of activities encouraged at the AA and is an intellectual portrait of a real "school." It should serve as a lesson to other so-called schools of the precious pedagogical value of editorial continuity and intense cultural exchange.

Suburbia Felix

Crabgrass Frontier: The Suburbanization of the United States, Kenneth T. Jackson, Oxford University Press, 1985, 305 pp., illus., \$21.95.

Early Twentieth-Century Suburbs in North Carolina: Essays in History, Architecture, and Planning, Catherine W. Bishir and Lawrence S. Earley, editors, North Carolina Department of Cultural Resources, 1985, 105 pp., illus., \$8.00 pb.

Atlantic Heights: A World War I Shipbuilder's Community, Richard M. Candee, Portsmouth Marine Society, publication no. 7, 1985, 147 pp., illus., \$19.95.

The First Suburbs: Residential Communities on the Boston Periphery 1815-1860, Henry C. Binford, University of Chicago Press, 1985, 229 pp., illus., \$25.00.

Crabgrass Frontier is a correct history (I noticed no errors of fact), a fashionable history (lamenting the loss of urbanity and community), a prize-winning history (Francis Parkman Prize of the Society of American Historians, and the Bancroft Prize awarded by Columbia University), but it is not a history which will tell a reader what he needs to know about

the past of the American metropolis.

The whole focus of the book is distorted. If you believe, as Professor Jackson does, that "by 1985 reasonable people could debate whether the United States was a racist nation, or an imperialist nation, or a religious nation, but scarcely anyone could quarrel with its designation as a suburban nation," then suburbanization is sure to fail you as a concept. If our patterns of settlement in the United States have become those of decentralized, multicentered metropolises, then to examine such patterns through the lens of a concept of a single-centered city is to put yourself out of focus. To go on to title a work *Crabgrass Frontier* is to add insult to error.

What cripples this ambitious 150-year history are not isolated failings of an individual scholar. Professor Jackson's book is built out of his own fine studies of commuting and federal policy, and summaries of the work of the most recent generation of American historians. The only major evidentiary flaw comes from a failure to carry themes consistently through all the 150 years. The domestic ideals of the early 19th century are dealt with at some length, but not those of the

1920s or the 1970s; the commuting studies stop in the 19th century, even though significant and better data exists for the 20th; 20th-century home finance is taken up, but not 19th; and so forth. These are, however, comparatively minor matters. The main problem is that Professor Jackson and the scholarship, as he cites it, do not comprehend the new American cities as complete, functioning entities in their own right.

The spread city, the multi-nucleated megalopolis, the Northeast Corridor, the Midwest conurbation, the Pacific megalopolis have not abandoned or forgotten correct ways of urban living; they are, instead, potent mixtures of good and bad ways to some still newer urbanity.

The focus of *Crabgrass Frontier* is the detached single-family house and the question of how this house and land style became dominant. As Jackson tells it, first came a sentimental early 19th-century image of the family and its domestic arrangements, the sort of ideas and values you might find in Victorian popular novels, ladies' magazines, and Currier & Ives prints. Next the designers—Downing, Vaux, and Olmsted—made

RURAL COTTAGE OF THE TYPE FAVORED BY ANDREW JACKSON DOWNING. FROM JACKSON, *CRABGRASS FRONTIER*.
CONSTRUCTION IN WESTWOOD, OUTSIDE LOS ANGELES, 1922. FROM JACKSON, *CRABGRASS FRONTIER*.

By Sam Bass Warner, Jr.



these ideals concrete with site designs and houses for the well-to-do. Then a succession of transportation innovations, steam trains, horse cars, electric traction, and automobiles opened up more and more land at the edge of cities. Then came the federal government with its mortgage financing, income tax deductions, and interstate highways. At the end of this causal chain were the private developers, who worked up successful packaging of the single-family house as a luxury item suitable for mass marketing. After World War II the suburban house and the suburban development were ready to be offered in a full range of equivalents to the everyman's Chevy, the striver's Oldsmobile, and the nouveau's Cadillac.

The very fact that neither scholars nor popular writers have found a word to label our contemporary settlements is a sign of the failure of our literary imagination. The pictorial vogue of urban objects—highways, gas stations, shopping strips, and incongruous houses, old and new—is a further clue to our emotional mumbling. We have as yet no accepted set of human images to mirror to ourselves our new middle-class and working-class cir-



cumstances. Neither a Manet nor a Degas has poured visual meaning into contemporary Miami or Chicago in the way that such painters taught viewers how to comprehend the life and the excitement of Haussmann's new bourgeois Paris.

In our time we have experienced a failure of sympathy, and hence a failure of nerve. In such moments design and scholarship limp along together. To those who learned to see America through the values of the works of Emerson, Whitman, Frank Lloyd Wright, and Kevin Lynch, these seem to be times when people are mistaking the ornaments for the buildings, and mistaking the buildings and the spaces for the actions they afford.

The book maintains that this housing and land form is responsible for "the loss of community in metropolitan America" (chapter 15's title), but people in action, American urban community activities, are never the subject of the history. What was the community life of Olmsted's suburban Brookline, Massachusetts, during the 1880s? If modern settlements are trickle-down versions of these former fashions of the wealthy, how do Americans make their community life in today's Park Forest, Illinois, or Panorama City, California?

Jackson's answer to such questions is to attack the superficialities of the container, not to glance at the residents in action. The core chapter, "Drive-In Culture," is set, of course, in Los Angeles:

Los Angeles, in particular, provides the nation's most dramatic example of urban sprawl tailored to the mobility of the automobile. Its vast, amorphous conglomeration of housing tracts, shopping centers, industrial parks, freeways, and independent towns blend into each other in a seamless fabric of concrete and asphalt, and nothing over the years has succeeded in gluing this automobile-oriented civilization into any kind of cohesion—save that of individual routine.

The late Kevin Lynch was a notable student of Los Angeles and from it developed important elements of his humane place utopia—in particular his fast-grid and slow-grid model of transportation routes.¹ Lynch saw in the freeways not just impatient drivers, smog, and traffic jams, but possibilities for more equitable and less destructive ways of living. For him Los Angeles was full of life—not Venice or Paris scorned, but a human creation which could be either a city on the way to something very much better, or a city on the way to something very much worse. Jackson, by contrast, is censorious, urging us to be more productive like the Japanese, to densify, and to be more energy-efficient: in short, to build cities more the way they built them in 19th-century Europe.

The concentration on the post-World War II developer's package also distorts the author's sensible concerns for social equity. Professor Jackson regards the class and racial segregation of the contemporary American metropolis as one of the nation's major failings. He attributes the segregation to two reinforcing causes—the pricing and marketing of the developers' houses, and the abandonment of public housing by the federal government. These are perfectly correct observations so far as they go, but they don't take us to the nub of the issues of urban class and racial injustice. Indeed, as peripheral issues they severely constrain our understanding of causes and thereby our vision of possible remedies.

The basic organization of the city lies in the world of work. The denial of access to work for millions of adolescents and adults is the cruelest injustice of the contemporary metropolis. The solution to racial and class injustice in America is not to be found in lamentations about burned-out lots in the Bronx or Newark. After all, what could be more wholesome than giving up on the mean, dark, and overbuilt blocks of 19th- and early

20th-century speculators! Neither does the contrast between the decaying old cottages of the western city's ghetto and the tidy houses of the new subdivisions tell you what you need to know. The ghetto is not a housing problem, its housing is a manifestation of human life denied and confined.²

If we wish to imagine more equity and justice then we must try to see the American metropolis in terms as various and multiple as it is. Jane Jacobs tells us that, despite the tremendous concentration of economic activity in the hands of large corporations, the distribution of establishments by size continues in about the same proportions as in 1910!³ The huge shopping mall may be dominated by J. C. Penney and a host of national franchises, but the strip and small highway are also full of stores, offices, and factories. If, like Professor Jackson, you see only that all the right and left turns off Ventura Boulevard lead to Burger King and Taco Bell, you miss the economy and life of the American metropolis.

The core of the matter lies in the networks of relationships, the city of people at work. To see this you must imagine the city in all its variety, as Walt Whitman imagined his New York and his America in 1855:

The pure contralto sings in the organ loft,
The carpenter dresses his plank, the
tongue of his foreplane whistles in its
wild ascending lisp,
The married and unmarried children
ride home to their Thanksgiving
dinner, . . .
The spinning-girl retreats and advances
to the hum of the big wheel. . . .
The jour printer with gray head and
gaunt jaws works at his case,
He turns his quid of tobacco while his
eyes blur with the manuscript; . . .⁴

Once you understand this, it is possible to put Professor Jackson's interest in land and single-family houses in a proper perspective. Your attention is directed immediately to

the city and the nation as a society of land speculators, and to the public role as facilitator in the process of turning public resources into private wealth. Long before Los Angeles became a city, the Californian Henry George explained this social process. In this tradition, the scholar arrives at the land-building package at the end of his analysis, not the beginning.⁵

Consider a few cases covered quite adequately by Jackson but interpreted much too narrowly. The streetcar was extended by public franchises and private capital out to the fringes of the city. The goal was not to open up land and to make houselots available for homesteading, but to realize the capital gains on the advancing prices. The municipal governments of the United States built elaborate water and sewer systems but never found a way to give tenants the power necessary to gain access to toilet and bathing facilities when the landlord failed to make the connections to the city utilities or did not provide the fixtures. The highway and the automobile together make a packaged mass luxury: very expensive equipment is laid out for a wide variety of choices of origins and destinations and for frequent travel at high speeds. As a mass luxury the package excludes 15–20 percent of the population from effective use. Given such an observation you may ask either of two related questions. Why is the system not made available to all? Or, why was public transportation not modernized to become a universal luxury in its own right? Why did the federal government undertake the very costly process of subsidizing inner city land values instead of managing a much more useful and very inexpensive program in which it would make a market in cheap inner city buildings and abandoned land?

The answer to such questions lies in the operation of the American system of land management. In this tradition the top of the market, the most expensive commercial and in-

dustrial land, is given the first and most elaborate public attention. In the 18th century such land was provided with wharf privileges, public markets, and paving; in the 19th, it was given the railroad, the telegraph, water, sewers, and fire and police protection; and in the 20th century, telephones, highway interchanges, and urban renewal. Next in line came the top of the residential market: Fifth Avenue, the old Olmsted-like suburbs, the Gold Coast, Shaker Heights, Santa Monica. These places were given the best utilities, the best transportation access to the center of the city, and zoning protection. Here private builders and developers experimented with the latest fashions in domestic architecture in preparation for the knockdown imitations of Queens, Levittown, Daly City, and West Covina. In such a climate to focus on the single-family house, the mobile home, the shopping mall, and the drive-in is to miss the logic and life of the American city.

There is abundant creativity in the vast metropolitan regions of the United States. These regions don't want European designs "to encourage the elevation of the human spirit." If one's concern is for a less destructive human environment, more social justice, or a more expressive urban design, then one must look to the denials of human energy which the American city has long imposed on its residents. These are denials of access: to decent well-paid work, and to inexpensive land. To my view the metropolis of the 1980s holds more possibilities for multiplying access than the city and the suburb of the 1880s.

Early Twentieth-Century Suburbs in North Carolina is an interesting book of case studies which nicely demonstrates the point that suburban building is just one form of city building: North Carolinians were not trying to escape big cities, immigrants, or Afro-Americans, they were building their cities according to the ruling

fashions of the day. The book consists of 15 short essays which document the building of a variety of residential subdivisions in the five North Carolina cities of Raleigh, Durham, Greensboro, Winston-Salem, and Charlotte. All these neighborhoods now lie close to the centers of their respective cities and are currently being refashioned by stores, offices, automobile parking, apartment conversion, and rezoning. The essays were written by preservationists who want to ensure the survival of the former land and building designs.

Events in North Carolina proceeded as in the rest of the United States. The same styles caught the developers' fancies. John Olmsted did a plan for a traction magnate in Atlanta (Druid Hills), so Charlotte's traction man commissioned a similar one. Not only did the subdivision layouts repeat contemporary American practice, but the houses followed the fashion parade from Queen Anne cottages to bungalows to Colonial revivals, Tudors, Spanish, and other historical adaptations. The book's illustrations are contemporary to the years of first construction so that altogether it makes a nice presentation of the 1900–1940 housing packages and a convenient source of comparison to other American cities. Building in North Carolina went forward in small cities, places of 15,000 to 30,000 in 1910, 45,000 to 100,000 in 1940. These were not suburbs of large cities, but city homes built in the Piedmont mill towns of a predominantly rural state. The new residents were coming right off the farms.

Because these were mill towns, there were special subdivisions for mill workers, places like the streets of small cottages of Cone Mill Village in Greensboro, or the one-story singles and duplexes of Durham. As everywhere else in the United States, the cheap houses were sited upon the worst land, on "cheap tracts of uneven, gullied terrain."

Race control and exploitation added

a special dimension to the city building process. Municipal politics consisted of the all-white primary, at-large elections, and commission or city manager executives; the intent was to perpetuate control of the cities by the white elite and foreclose the possibility of any effective neighborhood politics, white or black. The full set of Jim Crow laws supplemented this concentration of power so that new housing for blacks was separated from that of the whites, and most black housing did not filter down from prior white occupancy but was built for blacks in the first place. The difference in social meaning of family, community, and city life in these southern cases, as opposed to their northern look-alikes, is a valuable caution to those environmentalists who like to imagine suburban idylls when they see white clapboards.

Atlantic Heights, the study of the building of a World War I shipyard workers' project under federal contract, is a poignant reminder of the frustration of goodwill, talent, and energy which has characterized the United States public housing program since its inception during the Great Depression. Twenty years ago, when I was teaching at the Washington University School of Architecture, I first found the volumes of the Emergency Fleet Corporation—page after page of photographs and plans of decent well-built houses for factory workers. Each project had been designed by local architects according to local tastes and contemporary fashions, and often with local materials. I recall a handsome two-story stone house in Alliance, Ohio; double houses with dramatic roofs in Vallejo, California; neat small shingle cottages in Bremerton, Washington; big awkward clapboard four-families in Quincy, Massachusetts; and tasteful brick row houses in Bridgeport, Connecticut. Here surely, I thought, was proof that no American family need be ill-housed. As I read of the government standards

—simple, adequate housing which would make working-class families comfortable and thereby encourage the skilled men to stay on the job at the shipyards—it became clear to me that the essential step in the solution to the shortage of decent housing was to determine to make common decency a universal practice. Given the willingness to do so (opposed by many even in these moments of wartime enthusiasm), the federal government had only to purchase sites, hire architects and builders, lease and sell to the occupants, and the nation's housing problems would be solved.

Surely *Atlantic Heights* justifies my early hopes. Candee offers a complete study of a handsome cluster of 278 small houses in the Colonial style, built on 64 acres of land next to a shipyard in Portsmouth, New Hampshire, from May 1918 to May 1919. The houses conform to the middle-class standards of the day, but are smaller and more simplified. At *Atlantic Heights* three-quarters of the units are a story-and-a-half, gambrel roof, four rooms, with kitchen, living room, two bedrooms, and a bath, all laid out on approximately twelve hundred square feet of floor area. Such houses were a little larger than the common one-floor apartments in the contemporary three-decker, and about one-third smaller than the contemporary single-family house.

The reasons for the high quality of shipyard projects are not hard to find. The architects were experienced and they believed in what they were doing. The Emergency Fleet Program itself had been pressed upon President Wilson and Congress by Lawrence Vellier and a group of housing reformers who had been active for the previous two decades with building code regulations and model tenement design. Housing reform architects Robert D. Kohn and Frederick L. Ackerman headed the Washington staff. The Washington administrators selected Walter H. Kilham of Boston for the Portsmouth, New Hampshire,

job because they knew him from this same network.

Kilham lived in the comfortable suburb of Brookline, and from this base established a successful practice in building suburban and country homes for the well-to-do. In addition, he had a lot of experience with workers' housing. He had done company housing, and in 1911, with the Olmsted Brothers, designed the houses for a model project, Woodbourne, at one end of the new Boston Elevated Railway line. Woodbourne is a miniaturized English garden suburb done in Colonial American and English styles. It remains popular and well preserved to this day. Walter Kilham also served as architect for the Massachusetts Homestead Commission, which built in 1917 freestanding small single and double houses in Lowell as a public housing experiment.

All of these designs followed the basic concept of building according to the best taste of the day, but simplifying and reducing in size to make the houses fit skilled workers' budgets. This background made it possible for Kilham's firm to design and complete the Portsmouth, New Hampshire, job in one year. The houses are decent, comfortable, and treated with details taken from nearby federal-style houses. The site design was carefully developed with an eye to taking advantage of the contours of the land, the existing trees, and the views from along the river. Some of the proposed community space was canceled out by Washington, but most of the firm's land plan was approved and executed. Years later, the children of the shipyard workers who had grown up in the project recalled the housing as "well built" and remarked on the "natural beauty" of the place.

I no longer think that the United States can overcome its housing injustices by federal projects, and I distrust the power relationships of federal real estate politics and housing project management. The best solution would put land and housing directly

into the hands of metropolitan homesteaders and community development corporations. I may well be mistaken; if so, surely these World War I projects are compelling examples of a wartime spirit of goodwill toward workers enabling professionals to build high-quality housing for ordinary American citizens.

The First Suburbs, Residential Communities in the Boston Periphery 1815–1860, Binford's study of Cambridge and Somerville, Massachusetts, two cities adjacent to Boston, is one of the pieces of research Professor Jackson relied on for *Crabgrass Frontier*. Binford documents an important moment in American social history, when these towns at the city's edge shifted their outlook and politics. In this fine little book Binford tells how, during the 1840s, Cambridge and Somerville first accommodated a few commuters into communities governed by a local elite in behalf of residents of many occupations and scattered home sites. In the 1850s, under the pressure of immigrants, factories, and many more commuters, the towns' politics and style of building were reoriented toward the values of commuting families.

One goal of the book is to rescue suburban history from the tyranny of technological explanations. Street railways and automobiles allowed a variety of new behaviors, but they did not require the patterns of the American residential suburb. For Binford, as for Jackson, this form of settlement evolved out of a succession of choices about how to live and how to build.

Cambridge is an ancient Massachusetts town; its neighbor Somerville, was only set off as an independent municipality in 1846. Both began as old-fashioned suburbs. That is, they were not settlements beneath the walls, but villages with activities not possible in the dense center of the parent city of Boston. The two villages served the center city with inns, coachmen, teamsters, stockyards, tanning pits,

soap boilers, brickyards, and farms. They also served as sites for gentlemen's country seats, and Cambridge was home to Harvard College, established for gentlemen's sons. Both towns were ruled by local men of power and prestige—large landowners and church deacons. Before 1840 the most frequent travelers to Boston were people with occasional errands and as often as not they walked.

The possibilities for a different sort of fringe life and fringe settlement began during the 1840s when coachmen began frequent omnibus services, and the steam railroads were built. After much digging in the manuscript censuses, Professor Binford found the "yuppies" of the era—the first commuting generation—wholesale merchants, middle-level bank employees, and lawyers. These new commuters did not choose to settle along the lines of easiest travel; they eschewed the railroad station areas. Instead they settled in the old villages, next to the families of high prestige. Here they joined with the existing elite in churches, fraternal associations, fire companies, and politics. So ended the first commuter-suburb phase. Cambridge and Somerville were still towns of "small enterprise, scattered residential settlements, simple, cheap, municipal corporations, leadership by the 'natural' stewards of the community—deacons, tradesmen, a mix of old and new residents to the town."

The second stage came when the two towns were forced to face up to three new conditions. First, the filling in of open land so that the houses of one class and ethnic group came to be close to another; second, the building of large rail-based industrial communities with highly transient, low-paid populations; third, the influx of immigrants—the towns became 30 to 40 percent foreign born, indeed, Irish vs. Yankee towns.

With such changes, growth no longer meant just more people "like us." Therefore during the 1850s the towns' politics turned toward the commuting

middle-class residents and their desires. New subdivisions often carried covenants against manufacturing and commercial uses, speculators encouraged the building of new Protestant churches as aids to neighborhood formation, the municipalities took up Horace Mann's program for reforming schools so that schools might make up the deficits in "governance" of poor families, and temperance campaigns attempted to enforce some of the manners of the new-style Victorian families. By 1860 Cambridge and Somerville commuters, landowners, and politicians were managing their cities as if they were modern middle-class residential enclaves.

Franklin Pierce's Cambridge and Somerville are separated by a long span of time and by substantial changes in politics and building styles from Ronald Reagan's Alexandria and McLean, Virginia. The Fourteenth Amendment and many state and federal programs have softened the harshness of the 1850s. The differences in housing are less extreme, and the lines between the respectable and the unworthy are drawn more vaguely and subtly by schools and employers than they were by the proprietors of President Pierce's day. Yet the very differences between these old suburbs and today's metropolises encourage the reader to ask once more that essential question: Why are poor Americans such a threat to the ways of life of the settled and the comfortable?

1. Kevin Lynch, *A Theory of Good City Form* (MIT, 1981), 286–288.
2. Bettylou Valentine, *Hustling and Other Hard Work* (The Free Press, 1978).
3. Jane Jacobs, *Cities and the Wealth of Nations* (Random House, 1985).
4. Walt Whitman, "Song of Myself," *Complete Poetry and Collected Prose* (The Library of America, 1982), 200.
5. Henry George, *Progress and Poverty* (1877), and David Harvey, *Social Justice and the City* (Johns Hopkins, 1975, first American edition), chapter 6.

HEJDUK'S

Mask of Medusa, John Hejduk, edited by Kim Shkapich, introduction by Daniel Libeskind, Rizzoli, 1986, 480 pp., illus., cloth \$50.00; paper \$35.00.

Rizzoli's issuing of John Hejduk's *Mask of Medusa* will prove both a unique and significant event on our discipline's horizon. To me, it is one in a stellar constellation of three: Aldo Rossi's *A Scientific Autobiography* (that I read for my soul), Peter Eisenman's *House X* (that I read for my mind), and John Hejduk's *Mask* (that I read for my heart).

The description inside the jacket reveals that the organization of the book is unusual and complex:

The cross-referenced time frames into which the book is divided evoke places where Hejduk's works were produced and events that inspired him.

Mask of Medusa is both a kind of pedagogical text probing the nature and limits of architectural programs, and a gallery of designs and projects often bordering on the enigmatic.

I shall choose an "enigmatic" trajectory since a pedagogical one tends to be both pedantic and demagogic. In fact, the "reading" of the *Mask* is only possible if we think of reading as a privileged, selective, and in the case of this essay, highly personal

excursion—there is no such thing as a "complete reading" in the face of 36 years and 65 projects. The *Mask* is a very serious book. My reading may in this light appear almost irreverent, but it is not, because the other side of the book is its emotive power that heats up the sincerity and gets directly to the heart.

That Halley's comet and John Hejduk's almost-complete works appear at the same time is of course just coincidence, yet there are many analogies between the two events. Like Halley's comet, Hejduk's is unique, and mysterious, and it follows its own independent trajectory: first, with much fanfare, under the auspices of the Five Whites, then more obscurely

COMET

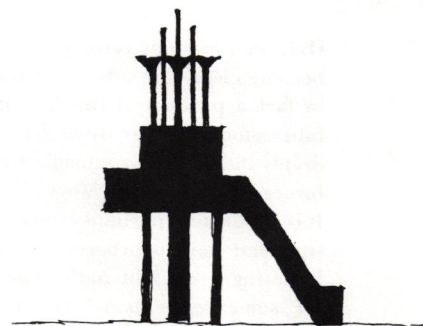
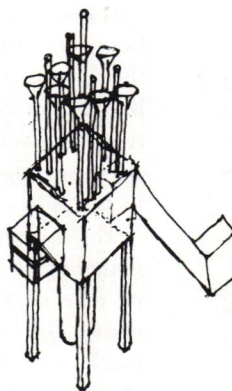
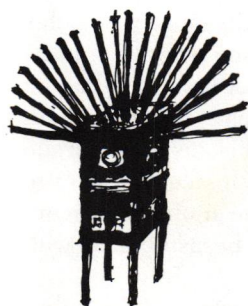
BY LARS LERUP

under those of the IAUS, and now, glamorously, under Rizzoli's architecture series. On another level, the cross-referenced time frames bring together projects done at different times, suggesting that each of them, cometlike, has its own path. More obscurely, the specific appearance of a project in the text is caused by some inner affinity between it and the context. In other words the whole 65 works seem to circulate in a gravitational field, in which, like a truffle hog, this reader shall search. My search, like the hog's, is for a particular delectable morsel that appears as a drawn and built project without much text or explanation. First, in the margins of a "savannah of furry animals" (to para-

phrase a remark by Peter Eisenman), simply as number 40. Its next appearance is under the title *Security*: black, stark, like a cross between a crane-as-bird, a crane-as-machine, and a hieroglyph. It will appear, more or less in the same form, some ten times throughout the book, but before we embark, a few remarks about the book and its contents and layout.

The book is large, floppy, and drab with a gray cover, black text and image—in stark contrast to the common glitz of one-man books on architects and their work. Its organization, which is only fully revealed 160 pages into the book, is ambiguous, almost haphazard. It consists of both word and image, divided into time frames

and cross-referenced to create an intricate maze, or labyrinth in a pleasure garden. Many readers may find this confusing, yet—staying with the book—this interweaving of ideas and projects may be what leaves the most powerful impression. For me, this impression is one of great depth, sincerity, and obsession, depending more on the content of architectural work than on the image as the message. The ambition permeating the book is Melvillian in dimension, not forbidding or pretentious, but engaging and fundamentally modest. Hejduk stands tall throughout, as architect, writer, and poet, bending occasionally (particularly under the burden of language), but ultimately victorious.



DESIGNS FOR LANCASTER/HANOVER MASQUE

In the end, the work seems more reflective than revolutionary—more about the condition of the discipline—more about its heart than its future course.

The beginning, with its double introduction by Daniel Libeskind, is standard and predictable. Libeskind spins two safety nets around our hero, the first from 1978, the second from 1984. A genealogy of cult figures (Nietzsche, Rilke, Pound, Flaubert, Benjamin) and cults (Mimesis versus Autonomy, the Greeks versus the Professionals) are skillfully woven around Hejduk and his work. Since the book celebrates synthesis rather than analysis, I wish Libeskind the architect had drawn one of his own magical webs, if only to show the fertility and inspiration of Hejduk's work, rather than falling into the black hole of the hired historian. Libeskind's Piranesian rhetoric, however, is in itself a feat of textual mastery that, seen apart from Hejduk, clearly displays its own synthetic inferiority.

Following the introduction, Hejduk's frames begin, prefaced by a marvelous statement about the nature of work:

Only in conscious retrospect does it become clear that a body of work is in fact a product of the time it was fabricated in. Our time has been deeply influenced by schizoid/frenetic forces let loose after World War II. It is an illusion (perhaps even a necessity) that work is progressive, neatly following a straight path. The path for some segments is straight; yet suddenly, its datum is radically interrupted . . . faint lines appear . . . a fault is observed . . . the direction is adjusted.

It is this "adjusted path" that produces the labyrinth of the seven frames, but the reader must spin his own Ariadne's thread to find the way both in and out. Very crudely speaking, the crossover is the dividing line, before which first textual fragments and then the visual material of each

of the frames are displayed. But rather than attempt to describe the entire "gravitational field," I prefer to go for my prey with the eagerness of the truffle hog.

Most simply, Hejduk's work seems to be about an unabashed love for objects. As he writes, "each thought is still intact—precise," rendering each object discrete, as shapes in a Hopper painting. This passion for thoughts as things has led Hejduk from the early research of his Texas houses, perhaps one of the more important pieces of his entire oeuvre, to the latest work on the Berlin Masque. His search can be seen as an elliptical trajectory that brings the late work back to Texas, not quite like a boomerang but, again, more like a comet sweeping over the same territory—older, if not wiser, a bit crustier, more weathered, and more economical. A certain youthful optimism combined with painstaking penmanship has been exchanged for a grain of pessimism and flamboyance. Let us now look more closely at this elliptical trajectory.

"Architecture," writes Hejduk, "is always an edge condition." It is not surprising that the wall, as the edge between the past and the future, as the break between the gray and the brightly colored, or the threshold between movement and rest, has been such an important generator of ideas in his work.

For example, there is an object/image of Le Corbusier's Villa Garches in one of Hejduk's more important texts, *Out of Time into Space*, that marks and prefigures the emergence of one of the architectonic figures of Hejdukdom, The Stair and Landing leading to the villa from the garden. This object, much like a crane with one leg, is also an essential element in Le Corbusier's "architectural promenade"—a stepping-stone in the larger narrative of the house—but Hejduk stops and hovers at the threshold of the bourgeois family narrative for almost thirty-six years. We can find aspects of his whole enterprise, it

seems, in Le Corbusier's simple prosthesis with its semienclosed stair, landing, oblong central "leg" and round column as "crutch," and various subtle surface articulations. This same entry piece seems for Hejduk to serve both as a formal inspiration and as a model of space and time. For example, in the Cemetery for the Ashes of Thought, the Garches stair-landing assembly has been transformed, and the villa itself has become a bulbous appendix to the stair. The condensation has resulted in living space that is much closer to *existence minimum* than to the splendor of the original villa. In fact, it appears as if Hejduk has always remained outside this "splendor" and instead thought of dwelling as modest rather than primal. (Libeskind suggests that this is an attack on the entire practice of architecture, and a reflection of Hejduk's refusal to truly take part.) A wall is inserted between the stair and other links of circulation and the living cubicles. This wall can be seen as the landing itself, but now rendered two-dimensional, like a painter's canvas—the rest is no longer for the body but for the eye. The wall serves also as a model of the "present," with the stair as the "past" and the (space) cubicles as the "future." Long before the post-modernists, Hejduk had seen that the presence of the past was important and inevitable. This, as I will argue below, constitutes his commitment to "figuration," not the abolition of figure that has come to be associated with modernism.

The shape and details of the Ashes of Thought are very fundamental—a kind of primal modernism—brightly colored, reminding us of surgical charts rather than the anesthetized rooms of his fellow whites. When the same assembly shows up again, now in Berlin, it is an object without a specific name, painted pitch-black. Unlike other objects in the book, it is simply referred to as a Fabrication. Its profile occupies the back cover. Despite its lack of bright colors, the

assembly has become "furrier" and more apparent in its form, like a "prehistoric animal," to use Peter Eisenman's phrase. Simultaneously, all the objects in the Berlin series have also become more constructed than the previous wall houses. This attention to the buildability of the object seems to have begun around 1979, in projects such as the New England Masque and the Retreat Masque. Much like Leonardo's war-machines, these "furry" creatures take us back to the constructed obsessiveness of the old Texas houses—closing the ellipse of the comet like trajectory. And lo and behold, some of them have been built in Berlin. Thus, a curious double action is at work: the object at once becomes less functional and more symbolic, while also becoming more buildable and less abstract. Again, this promotes the object's enigmatic status, challenging its very purpose—eminently buildable, but for what? For the sake of architecture? Or more pointedly, for the sake of our hearts?

And despite all analogical references, what are these objects? These Silent Witnesses that, larger than life, occupy some distant hall in Berlin. Are they, like Medusa, supposed to petrify us with their size, darkness, and inscrutable muteness? Or are they our mirror image, already petrified, returned to some distant savannah? Will their shadow, cast across our faces as we approach them, blind us forever, like the dust of a comet's tail, to their true purpose?

There is something peculiarly American about this amalgamation, the machinelike yet romantic figure. Hejduk's book is filled with these objects. Randomly, the reader can choose from a Gunn House or a $\frac{3}{4}$ House to spot this double action of machine and house figure. The Gunn House appears both as stretched oil-tanker (stretching being peculiarly American, or peculiar to Manhattan with its fleets of limousines) and as a rifle from the American Revolution, while

the $\frac{3}{4}$ House seems derived from a sitar, complete with a Corbusian hand resting on its neck. (India and Chandigarh rush by in the periphery.) Loaded and roving through the architectural universe, these houses are instruments, tools, machines, and projectiles, besides being houses. This brings to mind both the American car, with its combination of myth, technology, and domesticity, and—perhaps more important—its discreteness, both physical and psychological. Hejduk's houses, despite their purported European leanings, seem deeply American: discrete and complete like any suburban house, each element within each house presented intact and enclosed in its own figurative armor. Solitary, almost puritanical, these objects enclose and define life to the point that they are all comets in Hejduk's stellar system, in which rest can only be had momentarily and in a fetal position.

The hermeneutics of Hejduk's objects may not always be as clear as in the case of the transformations of the stair-landing at Garches, but this example allows me to make a general hypothesis about American modernism, and particularly its branch of Corbusianism. Hejduk's work on the stair at Garches is, as much as Meier's work on Le Corbusier's vocabulary of forms, "work on the language." Eventually both the syntax and the vocabulary are manipulated to such a degree that the "newness" is exchanged for a profound familiarity. As if by sleight of hand, the radical object has become a figure. In this sense, the American modernists have laid the groundwork for the new generation of so-called modernists. What "we" have not yet understood is that even with a talent like Hejduk's, it will take time and much work before the figures can stand by themselves.

The forces that produce Hejduk's objects are both obscure and varied, ranging from the lead soldiers of his childhood to Proust and Melville, with plenty of inspiration drawn from

friends and associates. As David Shapiro writes in *House (Blown Apart)*:

I can see traces of old work
Embedded in this page, like your bed
Within a bed . . .

The book hints obscurely at these sources, occasionally with some tendentiousness, but, on the whole, leaves the work open to the desires and imagination of the reader.

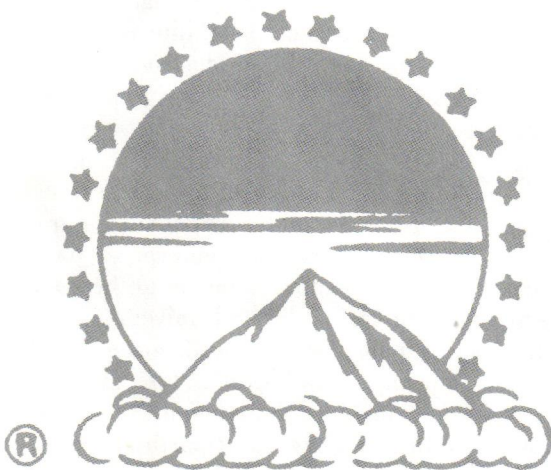
For me, the stair-machine, discussed above, stands as an emblem of John Hejduk's work. The stair leads not to a parlor but to the edge of things. Much like Melville's harpoonist's rig, it is mounted to construct a place or a harness that will allow its rider to see things eye to eye. In fact, the hair is already flying, and the harpoon, like a horseman's lance, is hoisted and almost ready for action. The stair-machine is a true figure: Le Corbusier's pilotis (as spindly legs), the ramp-or-stair (as tail), the strip window (as mouth), and terrace-landing (as head, complete with plumage). The elegant road-warrior lacks only a heart, which the viewer by then should be more than willing to supply.

I hope that this book will end up not only on the aficionado's desk but also in the hands of students and professionals. The work suggests very simply that our discipline is a marvelous one, the profession, too (at least when you are your own client and the lawyers are suing someone else), and most important, architecture can be life itself, even if at times it is lonely and cold when the trajectory takes your enterprise away from the center of things to the edge of our all-too-limited universe.

Finally, Hejduk's work suggests that our understanding of architectural figure cannot be limited to the classical, with its orders and tripartite façades, but must now include the domain of modernism. Just as the core of Halley's comet may not be a dirty ball of ice, the architectural figure may not be as static and empty as the postmodernists suggest.



Just Looking®



Advertising the American Dream: Making Way for Modernity, 1920-1940, Roland Marchand, University of California Press, 1985, 448 pp., illus., \$27.50.

Image Worlds: Corporate Identities at General Electric, 1890-1930, David E. Nye, MIT, 1985, 188 pages, \$20.00.

Just Looking: Consumer Culture in Dreiser, Gissing and Zola, Rachel Bowlby, Methuen, 1985, 188 pp., illus., cloth \$25.00; paper \$9.95.

Social Communication in Advertising: Persons, Products, and Images of Well-being, William Leiss, Stephen Kline, Sut Jhally, Methuen, 1986, 237 pp., illus., \$13.95 pb.

In the 18th century Diderot longed for a melodrama of stories told by the shape of the outlined gesticulating body, in place of the theater of the French king, a theater of long speeches



B Y F R A N C E S B U T L E R

by immobile actors, requiring literate attention to the spoken word. In Diderot's day public stories were either told on the street where gesture was most effective for the masses, or on the stage, before a relatively silent royal audience. In the 20th century we still read public stories, but increasingly we see and hear them on television, where we follow Diderot's recipe for conveying information by the recognition of visible shapes, not invisible sounds. President Ronald Reagan was elected by people who liked the shape of his televised body gesture, especially women who were, according to a study published in the *Wall Street Journal*, "thrilled" when he exhibited what they recognized as male movements of anger. The development of a mass visual culture over

the last half-century has substituted the use of nonverbal symbolism of experiential, or mundane (worldly), wisdom (for example, knowledge of the shape of the threatening male) for the conventions of scholarly wisdom, or statements of cause and effect held in language. Nonverbal symbolism is not based on the equivalence of recognition, naming, and meaning, but is very like the cognitive system of oral societies, where the barest recognition of outlined shapes recalls an infinite, if fragmentary, range of experiences, which do not have meanings, but are held as a fluid symbolism of questions, not definitions. The symbolic field is primarily a punctuation system, whose content is its organizing possibilities within the experience of the individual and

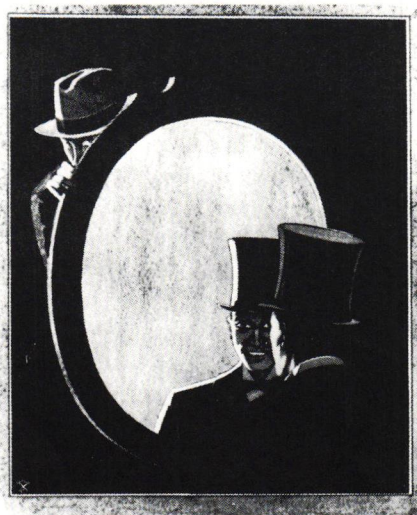
society. It is both a more general and a far more supple mode of knowledge than the explicit culture of language, since every symbol has multiple meanings which develop as the person's life develops, whereas language is relatively unchanging.

But many writers and scholars still long for the authority accruing to them through the old system of privileged access to knowledge isolated in educationally determined linguistic meaning, where only the literati can get at them. They are fearful of the recognition of nonverbal cognition as a mode of intelligence and, when they do recognize it as such, attempt to redefine it within the kind of taxonomic tradition they know how to know, treating images as though they were words.

The books reviewed here all cast this struggle, essentially a class struggle over the value assigned to communicative techniques, into the recent past, discussing advertising from 1920–1940, publicity at General Electric from 1890–1930, or turn-of-the-century English, French, and American authors. But the ongoing decline of the authority of the word and verbal skill, and the predominance of the mundane wisdom of visual cognition are now dire issues for the literati because of the power of skilled practitioners of visual symbolism like Ronald Reagan. They have responded with a proliferation of books that attempt to define and control this cognitive shift.

The history of scholarly attempts to understand the nature of and differences between verbal and visual communication patterns is intertwined with the history of the realization of differences in thought structuring in oral and literate societies. Shakespeare used the difference between oral and literate society and the developing disadvantage of the oral mode of thought as the turning point of *Othello*. The realization that cognition was nothing more than a tension field of questions, a series of many talking heads all looking at and continually questioning their left- and right-hand neighbors, seems to have been especially close to those of the Russian intelligentsia thrust into close encounters with the oral societies in Soviet Russia. A. R. Luria, for example, or Mikhail Bakhtin, whose writings in the 1920s and 1930s have excited the contemporary resurgence of interest in the difference between the workings of literate and oral traditions. Developing practices in cinematic editing at the same time showed the complete flexibility of human visual thinking, that whatever “followed” could be used to “connect,” even though the importance of this example of the economy of visual cognition was not fully understood until half a century later.

Then in the 1960s Marshall McLuhan began to undermine the essentially medieval epistemological assumptions connecting printed images to linguistic “meanings.” He understood that the organizational or punctuational system devised for the presentation of material in each medium, whether print analogues or electronic bit maps, was not just the support, but the substance of each medium. McLuhan died mocked, surprised victim of a



Does Your Customer See Himself in Your Advertising?

AGENCIES FEARED THAT THEIR BIASES WOULD DISTORT THEIR APPEAL TO THE CONSUMER. FROM MARCHAND, *ADVERTISING THE AMERICAN DREAM*.

media pattern by now all too familiar to us, but the last decade has seen his aphoristic insights bulked by many parallel studies. Anthropologists like Dan Sperber have shown that preliterate tribes use symbolism as an organizational slipknot, a holding pattern for experience which cannot be named but which can be used. The French philosophers Michel de Certeau and Jean-François Lyotard have found that, in modern France, a coun-

try awash in academics and other taxonomic paraphernalia since the 17th century, contemporary French subjects still organize their cognitive cosmos through an immaterial symbolism that refers to past experience, not to language references. In his recent *No Sense of Place*, Joshua Meyerowitz, applying these and other ideas held within the phrase “the medium is the message,” shifted the focus of visual analysis from the confines of the two-dimensional informational plane of the book to study the impact of the enlarged spatial placement of televised information on the nature of communication and its reception. Following Erving Goffman’s thesis of the spatial metaphor underlying the presentation of the self in everyday life, he divided this cognitive space into “front-stage” and “back-stage” zones. He then noticed that, despite the narrow range of visual conventions employed in television to project the front-stage story, the levels of information about human tactics for power revealed in the ad hoc, or accidental back-stage of the live-coverage component of television had swamped specific storytelling conventions with a much different scale of informational access and use. As usual, scholarly wisdom lags behind mundane wisdom, and airline magazine authors had already noted the impact of television on society myths: “TV has been responsible for the stripping away of that star aura that defined Hollywood’s golden era. It made stars too close to the public, changed how people look at stars.”

The recognition and destruction of the conventions of front-stage and back-stage, especially between males and females, have even been made the content of a popular television program, *Love Connection*. In this program men and women treat each other, and the television audience, to both the conventions of front-stage presentation to the other sex, and the expression of their real, back-stage responses. *Time* magazine commen-

tators asked why anyone would listen to the program, much less participate in it. They suggested that the program centered on sadism and masochism—demonstrating once again the failure of the literati to grasp popular preference for large-scale organizational questions, like the structures of gender power revealed and undercut by this program.

Yet another example of the scale of organizational information that is visual symbolism can be seen in the responses of females to their media presentation, which still shows women's bodies held in the S-curve of inactivity, or in those positions equated with sexual invitation. But women notice not only this male ideological tactic, they notice and are empowered by the fact that they are now actually pictured, that is, *present*, in much of the media where they were *absent* only a short while before. Investigation of this scale of spatial cognitive tactics is critical to the understanding of nonverbal symbolism. So far, however, the literati have preferred the thrilling games of radical taxonomy, assigning meanings to the smallest detail of visual evidence, that have beguiled them for centuries.

While Meyerowitz or Sperber work to overturn the older structuralist cognitive systems that supported the ideological assumptions of literate society, the ghosts of the earlier cognitive systems still walk. Semiotics, in which the construction of meaning is a linguistic process largely separate from human involvement, has been discredited. But Lévi Strauss' blithe assumption that his mind was identical with the world mind still surfaces in contemporary writers on the meaning of imagery, who assume that their equations of experience and meaning accord with those of everyone else. Another structuralist theory, the more recent making and matching theory of J. J. Gibson, popularized by Sir Ernst Gombrich, does incorporate human agency, since humans are assumed to make the symbolic cate-



THE HYPNOTIC SEQUENCE OF THE COMIC-STRIP GAVE EARLY ADS A TIME DIMENSION. FROM MARCHAND, *ADVERTISING THE AMERICAN DREAM*.

gories which they then use to match with meaning. But unlike the later theories of Sperber et al., making and matching contends that symbols, once generated by either an individual or a social group, provide definitions or answers to the questions raised by experience, not holding patterns of more questions. The Gombrich thesis is founded on the belief that there are uniform and absolute behavioral norms structuring symbolism and

society. In fact, although there are some very slowly changing norms in human society, for example, traditional family patterns and the ancient assignment of value through labor, nonverbal symbolism gains its usefulness precisely as a slipknot to incorporate the unknown into the known through the contrast of its continually changing symbolism with social norms.

Roland Marchand, in *Advertising the American Dream*, and David Nye,

in *Image Worlds: Corporate Identities at General Electric*, are among those who limit the communicative importance of nonverbal symbolism, thus protecting their literate flanks. At the same time they overdefine it through their use of semiotic omniscience and Gombrich's normative structure. They do investigate the interaction between the narrow strip of front-stage tactics of advertising agencies or General Electric's publications (the expressed intention) and the back-stage of economic and social constraints (economies of scale, technical limitations, work habits) which have had a previously unobserved impact on the ultimate appearance of the image. But both authors waver between omniscient interpretation and lamentations that visual cognition will not sustain taxonomic assumptions about the nature of communication. Marchand fabricates the idea of a clenched smile in a section about clenched fists, happily sure that we will all follow his educated eye. Nye defines the "meanings" to be read into the constrained positions of workers jammed together for group portraits, versus the bizarre body freedom of a fully dressed "Scientist-Inventor" lying like a seal on a very small rock in the middle of a bay. He applies a late 20th-century reading to a body photographed half a century earlier, although posture is perhaps the most evanescent of social habits.

Both Nye and Marchand find that their chosen band of propagandists are playing tricks with mirrors, speaking only of and to themselves. Marchand concentrates on the advertising agency's story line, constructed from their trade publications and office records, and is adept in connecting the class anxieties of the members of the advertising trade to the picture-stories they produced, including the type of emotion—emulation or fear—that was fashionable during the rising and falling economic tides of the 1920s and 1930s. He delights in noting the contortions that these groups

of white bourgeois males went through to maintain their self-conception of being an educated elite, serving the information needs of a free, competitive society, while selling the mass, often female, consumer, by practices they considered to be vulgar kitsch-mongering.

It is interesting to learn that males are often pictured turning their backs to the viewer, looking out of high windows over extensive factory-scapes, while females are shown in enclosed rooms, looking toward, not away from, the viewer. However Marchand's interpretation of these gender stereotypes does not consider the possibility that women might judge eye contact to be the location of interpersonal power, and see the evasive glance of the males as evidence of cowardly unwillingness to be engaged. For the last twenty-five years anthropologists have attempted to deal with the imposition of their own cognitive systems on the practices of others, and have analyzed how the transfer of ideological assumption into explanation is made—even if they were not always able to avoid it. Not only are Marchand and Nye mired in attempts to translate nonverbal symbolism into the conventions of literacy, they continue the cycle of white males explaining the stories of other white males. Therefore their interpretations, although interesting as examples of the latest manifestation of taxonomic longing in the scholar class, are as convincing an explanation of the meaning of the world as the earnest equations in a 17th-century emblem book.

Basil Bernstein divided the cognitive categories for worldly organization into those projected by the explicit language typical of the scholar class ("Please do not continue to make that noise dear, because noise exacerbates Mummy's headache"); or implicit mundane symbolism, based on a long tradition of behavioral reward and punishment ("Shut up kid or I'll belt ya," or, relying more on implicit symbolism, "NO!"). These differences

between implicit and explicit communication matrices can be translated from speech into text or shifted from textual to nonverbal modes. In all areas implicit meaning is activated by the slightest of clues, and its initial imprecision evokes an infinite range of precise individual memories of experience, while the techniques of traditional literature emphasize explicit definitions which result in institutionalized, impersonal translations. The adjustments made by George Gissing, Theodore Dreiser, and Emil Zola to the growing use of the implicit mode over the explicit in the early 20th century is the subject of *Just Looking* by Rachel Bowlby. Having the most accurate grasp of the nature of nonverbal cognition of the three present authors, as her title, *Just Looking*, indicates, Rachel Bowlby understood that the experiences of a new tactic in marketing (the policy of "just looking") by department stores, world's fairs, and museums could and would be shifted into the world of reading. Even as the new visual displays offered to female voyeurs and the vast audience of previously dispossessed others the pleasure of making up their own stories, generated by the display of mute objects, so they undercut the authority of the traditional literati, whose stories had left little room for interaction with personal memories. The new literary product, to accord with new customer preferences, would have to rely increasingly on the simple clue, the barest description of visual shapes.

Bowlby connects the fearful outcries of the literati at the development of these theaters of visual cognition for female shoppers with class hatred. Dreiser and Zola, she contends, adjusted their craft to meet the communicative needs of the expanding audience for implicit symbolism, while Gissing justified not doing so on class- and gender-biased ideological grounds. Gissing scorned the cognitive economy of generalized memory activated by experience, and, not

understanding the quality of memory in the life defined by implicit, non-verbal understanding, stressed the losses to detailed "individuality" in the implicit mode of expression. Theodore Dreiser and Emil Zola accepted the need for a literature of melodramatic shapes that would operate as a tool for rapid cognitive organization. Dreiser used the shapes of assembled possessions as a descriptive shorthand, for example, the chocolate brown clutter of new furnishings in Sister Carrie's apartment, which could be remembered long after the dialogue of the novel disappeared. Zola was even more concerned with the artist's attempts to produce the exact shape necessary for communication within implicit visual cognition, and no more. His hero therefore is not the painter Lantier, who could never put *enough* of himself into a painting, and failed because his scale of information was too explicit and personal. Zola understood that description of the specific refinements of consciousness, for example, the exact, individual responses to a dead child's face, was of little use as a model for the construction of a "self" to those who could not afford the myth of individualism, which was dependent on the economy of the new managerial class. He knew that scale represents an absolute, not a relative change, in the information system, and that the communicative gap between the explicit, small-scale detail of the bourgeois leisure novel and the large-scale, rapid-access organizational generalizations necessary to the mass audience created by a mass production economy had to be closed by a symbolic shorthand of the object before literature would be useful to them. Zola's hero is therefore the second-rate painter Fagerolle, who closes the gap by reworking Lantier's painting of his dying child into generalized palatability.

Despite its title, Bowlby's text only skirts the issues of the impact of the expanded social access to goods

on changing modes of communicative symbolism. Her authors, after all, were writing at the beginning of consumer society, and were still immersed in arguments about the morality of mass production and mass possession of goods rather than in speculation about the interaction of language and vision and changing cognitive and communicative preferences.

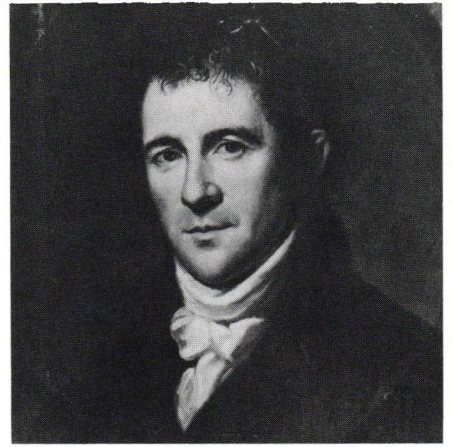
Social Communication in Advertising, by William Leiss, Stephen Kline, and Sut Jhally, was written by academics specializing in communications, not history or English literature. It reflects the fact that those in the field of communications need make no value judgments about the impact of changing communication techniques on the traditional content of their fields. In an era some consider the twilight of consumer society, they are in a much better position to address the twists and turns of the use of "goods to think with," and the academic theories advanced to understand that history. Of the four books discussed, theirs is the most useful for its survey of the books and theories in the field, from Stuart Ewen's *Captains of Consciousness* (1976), to the application of semiotic theory in Judith Williamson's *Decoding Advertisements* (1978), to R. W. Pollay's identification of the conservative pattern of shifts in the social values advocated in advertising, to the context of their own methodology of Content Analysis. While not offering the glamour of the art historian's *aperçu*, or the illusory precision of the semiotician's insight, their methodology assembles the data into large-scale organizational categories that are somewhat closer to the real scale of human symbolic usage. Their thesis is that goods are now marketed through the presentation of a "theater of consumption," offering images of longings assuaged by social and psychological satisfaction, rather than by fulfilled material needs. The imagery of satisfaction has changed from one engendered by kinship and productive work to more transitory

social relationships, as, following Mary Douglas and Brian Isherwood, they emphasize the correlation between social connections and information, now crucial to all participants in a society based, not on production, but on exchange.

Despite their emphasis on an implicit nonverbal symbolism of value held within emotional experience, these authors still attribute far too much specificity to the human recognition of the "messages" which scholars claim are "encoded" within imagery. Yes, we can recognize the difference between pictures of Margaux Hemingway and Catherine Deneuve in milliseconds, but no, we do not understand the differences between these two faces through making codes and matching them. Advertisers and art historians have long said that we do, anthropologists and cognitive psychologists now say that we do not. Implicit symbolism, visual or textual, operates on much less "information" than that assumed by believers in the literary tradition; our symbolism of questions floats us along quite nicely without specific connections.

The moral of this story is that implicit nonverbal symbolism is a more economical cognitive mode than explicit verbal cognition, and designers, being ecologically skilled, can produce, or reproduce, the visual shapes that attract the attention of human beings, and provide them with *the exact amount of information needed to organize the world, and no more.*

This melodrama of the politics underlying the assignment of value to stories told by shape or told by language did not begin with Diderot, and will not end with these four books. The principal use designers can make of these and other books built on the taxonomic fallacy is to note the positions of the players in this ongoing ideological fray, and, having surveyed the field, prepare for the real work of the future, understanding and adjusting to the evasive silence that both parallels and propels cognitive practices.



BENJAMIN HENRY LATROBE, PORTRAIT BY
CHARLES WILLSON PEALE, c. 1804

LATROBE

A N D T H E B E G I N N I N G O F P R O F E S S I O N A L I S M I N A M E R I C A N A R C H I T E C T U R E

BY GENE WADDELL

The Papers of Benjamin Henry Latrobe, Edward C. Carter II, editor in chief, Yale University Press for the Maryland Historical Society. Seven of nine volumes issued to date:

Series I, Journals: *Virginia, 1795-1798* (two volumes, 575 pp. total, \$104.00 together); *Philadelphia to New Orleans, 1799-1820* (one vol., 351 pp., \$77.00), Edward C. Carter II, Angeline Polites et al., editors, 1977-1980 (series complete).

Series II, Drawings: *Engineering Drawings*, Darwin H. Stapleton, editor, 1980 (one vol., 256 pp.), \$97.00. (Architecture volume in preparation.)

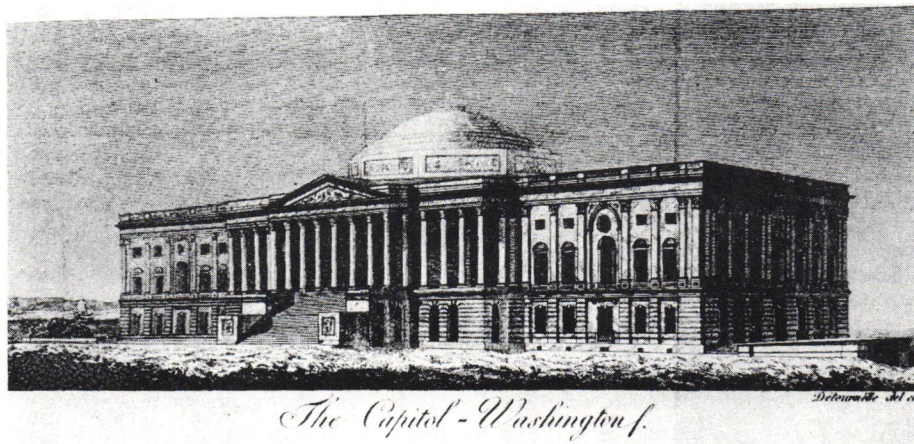
Series III, Sketchbooks and Miscellaneous Drawings: *Latrobe's View of America, 1795-1820*, Edward C. Carter II, John C. Van Horne, Charles E. Brownell, et al., editors (400 pp., series complete in one vol.), 1985, \$37.50.

Series IV, Correspondence and Miscellaneous Papers: *1784-1804* (vol. 1, 612 pp., \$65.00); *1805-1810* (vol. 2, 952 pp. + index, \$75.00), John C. Van Horne, Lee W. Formwalt, Jeffrey A. Cohen, Darwin H. Stapleton, et al., 1984-1986. (Vol. 3 in preparation).

Benjamin Henry Latrobe was the first professional architect to have an extensive practice in the United States. When he came to this country from England in 1796, he found that architectural designs were usually prepared by gentlemen amateurs or master builders. He summarized the situation:

The profession of Architecture has been hitherto in the hands of two sets of Men. The first, of those, who from travelling or from books have acquired some knowledge of the Theory of the art, but know nothing of its practice, the second of those who know nothing but the practice, and whose early life being spent in labor, and in the habits of a laborious life, have had no opportunity of acquiring the theory.

The design by Dr. William Thornton for the United States Capitol was, for example, the work of a gentleman amateur, and the design by James Hoban for the White House was the work of a master builder. Another gentleman amateur, George Washington, had chosen both designs from competitions held before Latrobe arrived. On first seeing the Capitol under construction, Latrobe felt that, although "faulty in external detail," it was nonetheless "one of the first designs of modern times." About a decade later, when he was placed in charge of executing designs for the Capitol and the White House, he was less objective about the merits of nonprofessional designers: "General Washington knew how to give liberty to his country, but he was wholly ignorant of art. It is therefore not to be wondered that the design of a physician, who was very ignorant of Architecture, was adopted for the Capitol, and of a carpenter for the



THE CAPITOL. DESIGNED BY DR. WILLIAM THORNTON BUT EXECUTED BY LATROBE.

president's house." Latrobe's principal objection to the work of "American book architects" was that "a picture is not a design."

Latrobe's definition of a professional architect was someone trained in both design and construction through a lengthy apprenticeship under a practicing architect. He asserted that an architect needed to master eighteen trades to prepare competent specifications, let contracts, and oversee construction. He explained to clients that the "merit of the design of a professional man of experience and integrity is, that nothing is proposed but what is *practical; permanent; economical*, with a view to ultimate expenditure; and in point of taste, capable of encountering the severest criticism."

Having had excellent training, Latrobe considered himself as fully professional as a lawyer. He made the analogy that a client had every right to expect his lawyer to understand all

requirements for a business arrangement, but a lawyer could then expect a client to leave the form of a contract entirely to him. Latrobe was not unwilling to accept a client's requirements for a building, even to the point of letting a client decide if the style would be Gothic or Classical, but once requirements were established, he insisted on control over the building's design and construction. He sought to protect himself from blame for design elements added by others and for expense that he could not anticipate without full control.

Latrobe did not consider ornament a requirement to be set by a client. He felt that decorative details should be an integral part of a building, preferably achieved through incising or recessing, rather than additions in the "heavy wooden taste" of the first half of the 18th century. He was convinced that "a graceful and refined simplicity is the highest achievement of taste and art; not only in archi-

ture, but in poetry, in rhetoric, in dress, and in manners." While in charge of constructing the Capitol, he wrote in a printed letter to Congress that "excepting in a few of the details, all my ideas of good taste, and even of good sense in architecture were shocked by the style of the building." He added, gratuitously, "we find ornaments increase in proportion as art declines, or as ignorance abounds."

How Latrobe went about producing designs himself is revealed in his papers: "if the operation of design is the same in other heads as mine, arrangement, construction, and decoration are [arrived at] so simultaneously, that I seldom materially change the design first elaborated in my idea." The best designs undoubtedly coalesced only after all requirements were assimilated, but then, Latrobe asserted, "my designs come of themselves, unasked in multitudes, and I commonly welcome the first that comes and execute it with very little if any alteration." He believed literally that he had inherited "an immense store of knowledge, chiefly mechanical, and mathematical," but admitted that even in the best of circumstances, the adoption of a design was followed by "months of dry mechanical labor in drawing, and the more dry and tedious toil of calculation." In the worst of circumstances, the requirements changed, for financial or other reasons, after a design was completed, and the design process had to start over. In the case of the Baltimore Cathedral, Latrobe successively prepared seven different sets of designs.

When the remaining two volumes of Latrobe's papers are published, more can be said about how he passed on his design ability as an architect and engineer to his students, including Robert Mills and William Strickland, the first native-born American architects who can be considered fully professional in their training and methods. Such distinguished students show that Latrobe was a good judge of ability and a good teacher, but he was

so uncompromising that he eventually fell out with his best students—as he did also with most of his clients.

Latrobe tried even the patience of Thomas Jefferson with numerous attempts to alter the design of the Capitol. He was hired primarily to execute a design, not to prepare one, and Jefferson cautioned him that "nothing impedes progress so much as perpetual changes of design." Where Thornton's designs were insufficiently specific, as they often were, Jefferson usually welcomed Latrobe's suggestions and praised them, but he, like Latrobe, resisted changes in features that had already been adopted.

A confrontation arose over Jefferson's own design of skylights for the House chamber. Latrobe was adamant that the design was impractical. He repeatedly proposed, in place of a wooden dome with wedge-shaped skylights, a solid dome surmounted by a lantern light or glazed cupola. He argued that a lantern would be less likely to leak, or cause glare, and better aesthetically for the "Unity of light" it would provide. Jefferson was ready to abandon his design, one that was based on the partially glazed dome of the Halle au Blé in Paris, providing that Latrobe was certain the skylights could not be made waterproof, but he felt that skylights would "solely have made it the handsomest room in the world without a single exception." Jefferson considered cupolas "most offensive to my eye," and he challenged Latrobe with the statement that "it is to overcome difficulties that we employ men of genius." Latrobe reconsidered and proposed, instead, separate panels of glass with louvers to control glare. Jefferson was delighted that a similar effect could be achieved by an original means. He approved Latrobe's design and considered the matter settled. Latrobe reconsidered and concluded that condensation would still be a problem with the skylights he had proposed (it had become a problem even though

he had installed a lantern on the dome of his Bank of Pennsylvania). Without asking Jefferson's permission he had the Capitol dome framed with no provision for skylights. When Jefferson discovered the change, he was uncharacteristically furious and demanded provisions for skylights be made immediately. Latrobe wrote contritely to Jefferson, "if I offend it will be by too indiscreetly laying before the chief magistrate of the union the nervous, irritable, and perhaps petulant feelings of an artist," but on the same day he wrote to someone else that "the president continues to vex me with his whims. I write him pretty smartly, and shall I believe venture to disobey him at last." Later, Latrobe tried to build another lantern on another part of the Capitol, ingeniously combining a large number of chimneys into a circular pattern with glazing in between. Jefferson wrote firmly that chimneys were less objectionable.

Before these incidents, Latrobe had complained bitterly that "one president was blockhead enough to *adopt* a plan, which *another* was fool enough to *retain*, when he might have altered it." Jefferson warned the next president, Madison, that although Latrobe was a "masterly agent in the line of his employment, you will find that the reins must be held with a firmness that never relaxes."

When Latrobe had left England, he was 31 years old. Although born there, he claimed not to have "a drop of English blood." His father's ancestry was French and his mother's German. His mother was born in the United States and he considered himself "an American of the fourth generation . . . having *travelled home*." In England he had evidently felt alienated after attending schools in Germany from the age of twelve to nineteen. Although his father was a deservedly famous and revered minister, he was a dissenter, which limited Latrobe's social acceptability in spite of aristocratic ancestry.

Latrobe prepared himself to become an architect by studying engineering in the office of John Smeaton and then spending three years in the office of the architect Samuel Pepys Cockerell. After some of the best training available, he was made surveyor to the police of London, but lost favor for refusing to countenance a dishonest arrangement desired by a government leader. While still in England he received two substantial private commissions for country houses, and he prepared proposals for navigational improvements. When his first wife died, he temporarily lost interest in his profession, and when his mother died the year after his wife, he inherited sufficient means to be independent. At loose ends, he decided to come to the United States.

Arriving in Virginia, Latrobe prepared a few designs, but resisted returning to a regular practice and spent most of his initial years in this country in "philosophic leisure," keeping extensive journals of his observations and making watercolors of what impressed him most. He wrote two vivid short stories, one based on recollections of a young lady seduced into marriage by a blackguard and the other on a cobbler who used his inheritance to buy into the German nobility. Although his prose is of professional quality, his scientific research and his paintings are on the level of an accomplished amateur, a level he despised in others. He considered his sketchbooks primarily a "consoling companion in solitude," but had also as his goals to record scenes that he knew were disappearing and scenes which gave him such pleasure that he wanted to share them.

Less than two years after arriving, Latrobe was fully employed constructing a model penitentiary for the State of Virginia. Within three years of his arrival, he designed the Bank of Pennsylvania, an exemplary temple-form building with a domed central block. Soon afterward he designed a waterworks for Philadelphia and spent his

patrimony to speed its completion and to acquire an interest in an iron manufacturing works that used its temporarily unneeded power. The waterworks set a pattern for conflicts of interest which included, for example, selling the federal government iron roofing produced by him and his partners to use on buildings for which he controlled the contracts. This investment was also the first of many financial disasters.

About the same time his patrimony was being absorbed by bad investments, Latrobe remarried and soon had a "large and expensive family." Now he was forced to seek work, and he took on two jobs—Superintendent of Public Buildings for the Federal Government and engineer for the Chesapeake and Delaware Canal Company—either of which could have occupied him full-time. Consequently, both positions were neglected. Throughout the rest of his life his desperation to raise money created another pattern, one of divided loyalties, with architecture, engineering, and his family loosing out in turn.

Latrobe valued his family as highly as his reputation. He said that any place away from his family would be a "desert" to him, and on at least four occasions he turned down major commissions rather than be separated from them. Talbot Hamlin, in his Pulitzer Prize-winning biography, wrote that Latrobe had a "violently emotional need of a devoted family," and the need was fulfilled. Latrobe won twice at what he called the "lottery of marriage," and his second wife in particular provided emotional support that he desperately needed. He once wrote to her, "I have also bought you some more stockings. Your old one lies all day by my side, and receives involuntary caresses, which may be foolish, but are delightful." For some years Latrobe resided in Philadelphia, partly so his wife could be near her relations, and he was widely criticized for neglecting to superintend construction of the Capitol. In a parody at-

tributed to Latrobe, William Thornton has him stating, "I would rather remove the seat of government to my family, than move my family to the seat of government."

Latrobe's connection with the Capitol occupied more of his ability than any other project, and some of its rooms were his most successful spaces. He was proudest of the House chamber, but it burned during the War of 1812; afterwards, he designed memorable spaces for the Senate and for the Supreme Court. The courtroom is one of his most original designs, and its dome was constructed using a masonry technique that he developed for bridges, with barrel vaults between ribs (adapting medieval construction techniques). His finest design may well have been his proposal to unify the Capitol by the additions of a propylaea and of a drum to raise the dome.

The most important building entirely of Latrobe's design was the Baltimore Cathedral. He began work on it in 1804, but it was not fully completed until decades after he died in 1820. Latrobe also designed about a dozen distinguished houses in Philadelphia, Baltimore, Washington, and elsewhere, but nearly all have been destroyed, along with major public buildings such as his Bank of Pennsylvania and the Baltimore Exchange (designed with Maximilian Godefroy). Many of his designs were never built, including one for the City Hall of New York that he considered his best design at the time he made it. Even though most of his buildings have been destroyed and many of his designs were not built, he is unquestionably an architect of the first rank. Had he continued to practice in England, he would probably be ranked with his contemporaries George Dance II and John Soane and well ahead of William Wilkins and Robert Smirke. In the United States, only Jefferson shared the first rank during Latrobe's quarter century of practice here.

Latrobe might have accomplished more as an architect if he had not

divided his time among so many interests, but he obviously derived great satisfaction from attempting to be a Renaissance man. He once considered using "da Vinci" as a pseudonym, inviting comparison. Both Latrobe and Leonardo had a similar range of interests, including engineering, art, architecture, natural history, and invention. Both men left a mass of acute, but largely unsystematic observations; both failed to realize their potential, completing few masterpieces. Although highly inventive, neither produced inventions of lasting importance. The greatness of both was in their aesthetic accomplishments, with Leonardo's drawings far in advance. Latrobe produced impeccable mechanical drawings with superb washes, but was very poor at freehand drawing. The one magnificent drawing formerly attributed to him, a pencil sketch of Jefferson, is now considered as anonymous (but may well be by David, whose drawing Jefferson preferred).

Latrobe's reputation has also undoubtedly suffered because so many of his papers have been lost, including about half of his journals, most of his outgoing letters before 1803, and nearly all of his incoming letters. Over seven thousand documents do survive, and only about one-fifth of them are being printed. Most of these manuscripts were preserved by Latrobe's descendants and are now in the Maryland Historical Society, and the greater part of the remainder is in the Library of Congress or in the National Archives. The editors of the papers have discovered relatively few documents not already known to scholars, but they deserve high commendation for making all information available as quickly as possible in a microfiche edition in 1976, following the example of the Adams Papers. Published together with the microfiche is an excellent printed index to personal names and projects. The approximately three hundred documents located since 1976 will be issued in an appendix. The editors also deserve

praise for maintaining high standards of accuracy in transcription and for providing informative abstracts and quotations of documents that are not printed.

The editors arbitrarily adopted four separate publication series and formats—for journals; drawings; sketchbooks and miscellaneous drawings; and correspondence and miscellaneous papers. Two formats would have sufficed. The arrangement adopted necessitates five separate chronological sequences, and as a result, information is scattered, difficult to consult, and repetitious. Further space is wasted by publishing all of the fragmentary journals just for the sake of completeness. What could have been one excellent volume of journals was turned into three mediocre ones.

All of the architectural information on major projects should have been published and should have been brought together. The letters on architecture published so far are often difficult to follow, even with consistently good (though not always relevant) architectural and engineering notes.

Far more documents by Latrobe could have been published if the enormous number of unneeded footnotes had been eliminated. The notes in general are meticulously researched, but many contain information of only local interest, information that is available in other sources and that is not very useful for interpreting the documents themselves or for understanding Latrobe. For example, when Latrobe's uncle died in a tavern, a note states who the owner "most likely" was, the most probable location, the probable owner's two brothers' names and their professions, and other extraneous information. More typically, the trustees of someone's father-in-law's will are mentioned in a letter, and notes give the full names of all five trustees, their spouses, and, when available, birth and death dates. A committee of the House of Representatives is mentioned in connection with consid-

eration of a stove, and in the notes we are given the name and home state of each member. This goes on for page after page, and the result is not definitive but merely exhaustive.

Most of the approximately 80 engineering drawings, 360 watercolors and sketches, and 200 architectural drawings are reproduced; room could have been found for more, if so many had not been reproduced twice. Some sketches which could have been enhanced photographically were considered too faint to use. Some maps were considered too large to reproduce, yet the largest one of all is reproduced (in sections). An elaborate discussion of this map by a separate author is seriously out of place in the otherwise well-informed, well-written, and well-balanced volume on engineering.

Unquestionably, a papers project on Latrobe has long been needed, and the editors were aware of the subjects that deserved to be represented:

Latrobe's intellectual, cultural, and scientific background and development, his architectural theory and the attempt to establish architectural professionalism; his creation of a tradition of monumental masonry architecture; his role in the transfer of European technology and its diffusion in America and in the development of steam engineering; his role in American economic development; . . . his contributions in the realms of American science, art, and culture; his relationships with Congress and the presidents, particularly Jefferson; his observations on contemporary American life and politics; and of course his personal affairs and family life.

These subjects are represented almost equally well in the seven volumes published to date. When all nine volumes have been published, perhaps as much as one-third of what they contain will relate to architecture—too small a proportion for someone who was important primarily as an architect.

AFTER ARCHITECTURE: THE KIMBELL ART MUSEUM

For this first edition of "After Architecture" we have invited four specialists to criticize the Kimbell Art Museum, a much-loved but lesser-known work by Louis Kahn. This multi-faceted retrospective brings a clearer focus on a building that stands prominently at the intersection of historical allusion and hybrid functionalism.

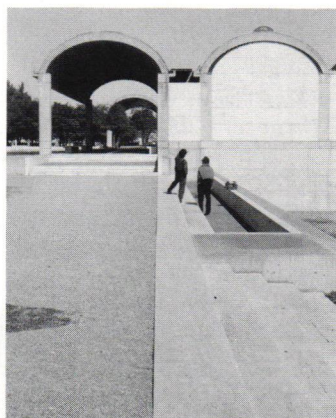
First, architect Doug Suisman analyzes the siting and the design strategy, demonstrating Kahn's subtle subversion of our formal expectations in the planning of the vaulted spaces. Suisman also points to the inconsistencies in the program, a question pursued further by sociologist Dana Cuff. The origin of Kahn's insensitivity to certain programmatic demands, it appears, was latent in the intentions of the program statements.

Structures expert Peter McCleary investigates Kahn's contradictory method of dealing with structural design, pointing out that form and structural logic are not always reconciled. Finally, architectural historian Pat Loud discusses the work's position in history and in Kahn's oeuvre.

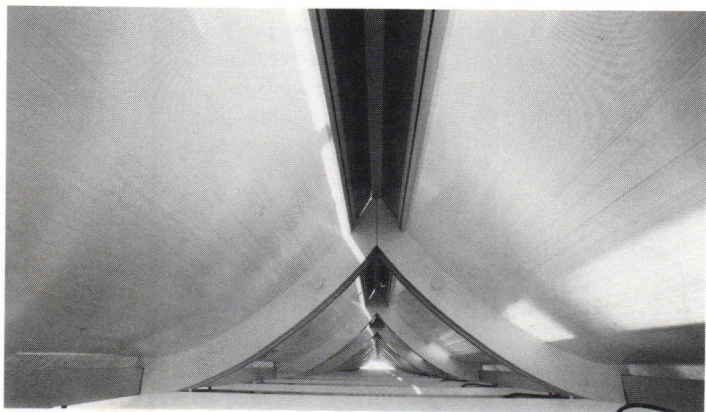


We have also had the special participation of Jeff Howard, who, besides contributing the fresh photographs, has used photography critically, in a mosaic that conveys the ritualistic front entry.

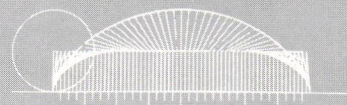
Thanks are extended to museum director Edmund Pillsbury,



public relations Wendy Gottlieb, and curator Michael Mezzatesta. Also, we thank Barnaby and Cinzia Fitzgerald, Stephen Ives, Ken Wilson, and Sallie Roakes for their hospitality on location, and Julia Converse at the Kahn Archive in Philadelphia for her assistance.



PHOTOS COURTESY OF JEFF HOWARD



Doug Suisman:

THE DESIGN OF THE KIMBELL: VARIATIONS ON A SUBLIME ARCHETYPE

Repetition is an inescapable fact of modern life. Expanding cities, consumer culture, and mass production combine to fill our objective world with duplications and reproductions, knock-offs and rip-offs, counterfeits and clones. Photographs of endless suburban tract homes or shopping mall parking lots awash in a sea of automobiles have become almost emblematic of our era. At first glance, the highly repetitive modular composition of the Kimbell appears to mirror this aspect of our objective world. In fact, the Kimbell reflects a poignant battle against repetitive ordinariness by confronting it on its own terms. Through the inspired variation of an original formal archetype, Kahn is making a case both against dulling mechanical repetition and the thoughtless reproduction of historical forms.

With the characteristic heroism of the modernist sensibility, Kahn's convictions are both scientific and spiritual. His Beaux-Arts training established a compositional instinct based on the judicious combination of "elements." Originating with Durand's pragmatic methodol-

ogy at the Ecole Polytechnique and Gaudet's reinterpretation of it at the Ecole des Beaux-Arts, this systematic approach was an early response to the new scale of architectural production brought about by the Industrial Revolution, and to the unprecedented structural possibilities of new construction materials. Kahn's life-long concern with structure and repetition as generating principles of architectural form is apparent in his close association with structural engineer August Komendant.

But Kahn's spiritual instincts led him to seek meaning in modular composition rather than mere responsiveness to industrial production. These instincts are strongly reflected in his frequently quoted maxims: Ornament is the "adoration of the joint," structure is the "giver of light," light is the "great maker of presences." We have only to capitalize Adoration, Giver, and Maker to hear the reverential tone of such comments, and their implicit linkage of the structural to the sacred. This spirituality is overlaid with veils of anthropomorphism ("the building gives you answers

as it grows and becomes itself") and pantheism ("the sun never knew how great it was until it struck the side of a building"). Kahn's interchangeable use of natural, human, and constructional terms suggests a conception of architecture as the intersection of the physical and metaphysical.

The locus of this intersection is not, however, the building, but the room. Kahn's definition of a building as a "family of rooms" suggests that the building represents the collective, the room the individual. The room therefore becomes the fundamental spiritual element in architecture, where divine and natural forces reveal themselves to human consciousness. With so important a role assigned to the room, its delineation becomes one of architecture's most fundamental tasks. Every architectural commission can thus be interpreted as a kind of excavation in which the encrusted layers of tradition and habit are scraped away to reveal some vital metaphysical essence, a sublime archetype for the room. Integrating light, structure, material, and space, this highly purified form must be able to carry the building's entire functional and symbolic weight.

Intuition, according to Kahn, plays a vital role in the uncovering of the archetype:

I think that's the nature of a place where you see paintings; and research would never have given it to me ... it must be derived out of your own sense ... of the nature of the rooms of a museum.

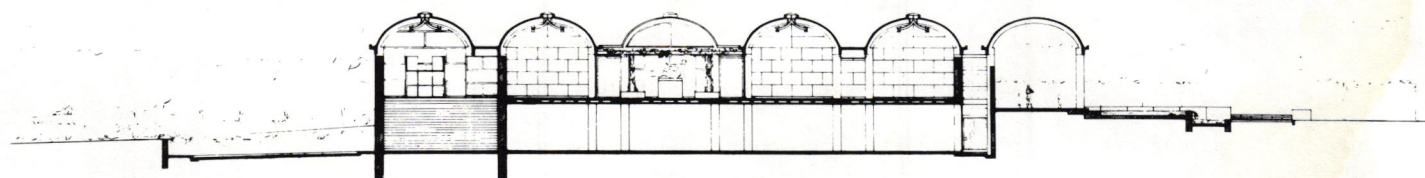
For the Kimbell, this derivation may be best represented in one of Kahn's perspective sketches of the vaulted gallery module. An individual stands calmly planted

in the center of space, while the walls, floors, and ceiling vibrate with the frenzied calligraphy of light and shadow. This almost disturbing image—which seems to embody a phrase contained in one of Kahn's cryptic pictograms, "the luminous groups ignite a wild dance of flaming prevalence"—underscores the emotional content of this apparently scientific prototype.

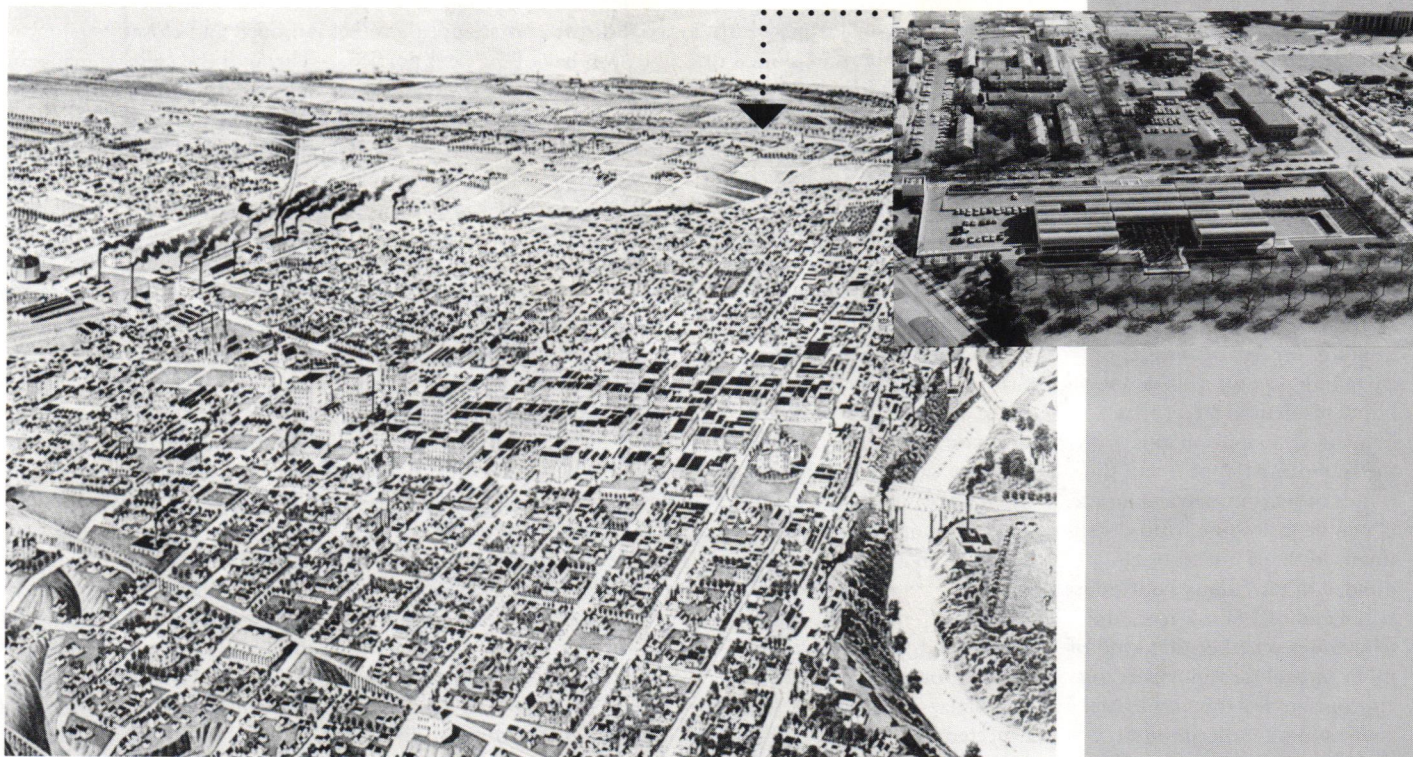
The form of the room thus established, it remains to create the building. It is here, at last, that the issue of repetition and variation must be confronted. Can the room's conception as a place in which to see paintings tolerate other uses as well? Can this sublime archetype create a sublime family of rooms? And can this family develop a collective identity in order to take its place among the "assembled institutions" of the Kahnian city? Just as these questions are generated by the Kimbell's conception from the inside out, they can only be answered by the experience of the building ... from the outside in.

FROM THE CABIN WINDOW TO THE BACK DOOR

The pilgrimage to the Kimbell really begins at 30,000 feet. Through the window, millions of pin-dot lights are gliding very slowly across the Texas plains below, like stars in an upside-down sky. Small solar systems of ranches (or are they oil fields?) give way to constellations of towns, which are soon followed by a brilliant earth-bound aurora: the vast illuminated geometries of the regional airport. The grand axial pattern of its runways, bedecked with festive blue and white lights, extends into the landscape on a megalopolitan scale. Rising above the nighttime horizon



SECTION THROUGH CENTER OF THE NORTH END



above: PERSPECTIVE MAP OF FORT WORTH, 1891, HENRY WELLGE. FROM JOHN REPS, *CITIES ON STONE*. ARROW SHOWS PRESENT SITE OF THE KIMBELL. right: AERIAL VIEW OF THE KIMBELL. PHOTO © BOB SHAW.

are the clustered towers of the twin downtowns of Dallas and Fort Worth, their expansive Siamese suburbs joined at the belt of the airport. Where within this dazzling firmament, you begin to wonder, is the faint light of the Kimbell?

This celestial imagery gives way, on the ground and in the sunlight of the following day, to the surreal world of the interstate highway. Downtown Dallas floats by, a misty Oz without the poppies. On the open plains toward Fort Worth, the syncopation of endless rows of silent warehouses and blaring billboards brings to mind a parade of deaf-mutes harassed by evangelists. Approaching Fort Worth, the parade turns high-tech honky-tonk, as a string of shiny roller coasters, streamlined water chutes, and extravagant miniature golf courses creates a jarring gateway to the city.

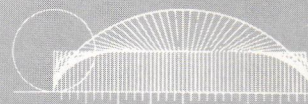
An exit ramp takes you quickly into downtown Fort Worth. Even a brief automobile tour reveals that the fabric of the 19th century town center has remained remarkably intact . . . a glance at an 1891 lithograph of the city clearly shows how

the modern city has fleshed out the skeleton of the original grid. The central spine of this orthogonal pattern is Main Street, whose north end terminates on a bluff above the Trinity River, a strategic site, commanding both the river and the town, that has always been occupied by a major public institution. The original military headquarters stood here, and was followed, upon Fort Worth's designation as a county seat, by the county courthouse. The original courthouse was replaced in 1895 by an impressive Beaux-Arts granite-clad structure, whose clock tower still terminates the Main Street axis. The courthouse's isolation in a public square (occupying roughly the same site as the original military parade ground) reinforces its status as the town's preeminent public building; in fact the primacy of courthouse, as opposed to city hall, is characteristic of Texas urbanism.

Close inspection of the same 1891 lithograph reveals a distant hill on the far side of a bend in the Trinity River, well beyond the farthest fingers of the town grid. The lower part of this hillside, subject to frequent

flooding and therefore unsuitable for development, was eventually set aside by municipal authorities as a recreational area, now called Trinity Park. The higher ground above the park was designated as the site of the 1936 Texas Centennial Exhibition. Just as the original military encampment had formed the nucleus of downtown, these exhibition grounds established a new suburban nucleus that would eventually become Fort Worth's primary recreational and cultural complex. The exhibition's coliseum and auditorium, whose landmark tower remains the dominant architectural feature of the area, would subsequently be joined by most of Fort Worth's major cultural institutions: The Fort Worth Art Museum, the Amon Carter Museum of Western Art, the Fort Worth Museum of Science and History, the Casa Mañana Theater, the Scott Theater, and, in 1972, the Kimbell Museum. The Kimbell's location must therefore be understood as part of an overall historical pattern of suburbanization.

The approach to the Kimbell thus takes you across the Trinity River, briefly through Trinity



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Park, and into the parklike area of the old Exhibition grounds. This two-mile route from downtown is not served by mass transit (at least according to museum and municipal brochures), so that arriving at the Kimbell is necessarily an automotive affair. You can reach the parking lot by following the signs and sidling up along the building on Adams Street, or by taking—as we did—a one-block residential street that delivers you right on axis with the museum's flagpole and the center of its symmetrical façade. If you've just come from downtown, it's hard not to be reminded of the county courthouse at the end of Main Street, and to wonder whether that kind of monumental terminus is really appropriate for this residential street and its rather modest dwellings.

The first impression of the Kimbell's parking lot façade is its blankness—no recognizable windows, unbroken panels of concrete and travertine, a dark horizontal gash for an entryway. The parking lot is similarly "tough," with very little shade or planting to break the harsh glare of the Texas sun. Passing into the recess of the entry, your eyes have no time to adjust before entering the lobby, so that your initial impression of the interior is a gloomy one indeed. The little available natural light from the administrative lightwell to the left has been largely screened off, and the few token works of art which have been brought down to this level to greet the parking public are illuminated by the very incandescent light about which Kahn spoke so disparagingly. Straight ahead is the landing of a staircase that splits symmetrically into two branches, with little clue as to which leads where. You begin to wonder if this can really be the entrance to what has been called one of the finest buildings in the country.

You go back out to the parking lot, thinking you've come in the wrong way; but there are no indications of an alternate route. Resignedly, you reenter and ascend the staircase. While climbing, your eye naturally

risks to the top, an instinct which elsewhere has been exploited to great effect—at the Louvre Museum, for example, the placement of the Winged Victory on the main staircase landing creates an unforgettable first impression. On the Kimbell's landing, art is briefly supplanted by security and finance in the form of a video camera and a donation box pointed your way. It is true that once you reach the landing, make an awkward turn, and find yourself in the *real* lobby upstairs with its famous silver light, the sight of the main entry leading in from the grove puts you in a forgiving state of mind . . . it's only later that you learn that a mere 15 percent of all museum visitors actually enter through this so-called pedestrian entrance where Kahn expected them; the other 85 percent arrive by car, park in the lot, and enter through the basement. Could Kahn's reported failure to obtain a driver's license possibly explain this flagrant miscalculation of suburban habits?

FLUIDITY WITHIN A RIGID CONTAINER

If we overlook the unbalanced role of the parking lot entrance and consider the entry sequence from the park side, we get a better understanding of how Kahn wanted us to experience arriving at the museum. The site is flanked on the north and south by two boulevards, and, regardless of which one you start at, a perpendicular path takes you from the sidewalk and carries your eye directly to the portico. Even from a considerable distance, it is clear that the portico is simply an open-ended version of the closed gallery modules which abut it. Kahn's seemingly effortless transformation of the archetypal gallery into a ceremonial gateway is a demonstration of the vault's functional versatility, and a kind of overture to the variations on a cycloid theme. As if to begin the excursus slowly, Kahn leads the visitor through the vault in the easiest and most compelling direction, along its axis. The destination of this

axial thrust at first appears to be the open bay of the next portico, but this clear spatial expectation is blurred as one approaches the grove of trees.

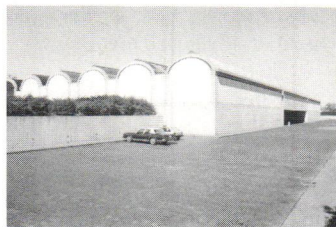
Moving toward the steps, you become aware of a third, and previously invisible, portico covering the entrance area; only now the portico is disposed laterally between us and the front door. From this perspective, we realize that the vault is also a beam, and that it is possible to move across its axis as well as along it. In this didactic entry sequence, Kahn demonstrates the difference between the one-directional character of the traditional barrel vault—a form long associated with museum galleries—and the two-directional possibilities of the vaulted beam. Even before we have gotten through the front door, we have been introduced to both the functional and spatial versatility of the gallery archetype.

At the top of the steps, the cross-axial movement is reinforced on the exterior by the pairing of the porticoes and the fountains, and then vaguely denied by the pairing of the front doors, because we have to move off center in order to enter; the actual center point is rather incongruously marked by a litter basket. Once inside the front door, the cross-axis is reconfirmed by the paired staircase landings, but denied again by the undifferentiated rear wall of paneled oak. The eye is picked up by the perpendicular axis of what will turn out to be the museum's longest continuous vaulted space and its main spine. In effect, the museum interior is really a traditional double-courtyard scheme, except that the center is rather unconventionally deemphasized, and the southern courtyard is split into

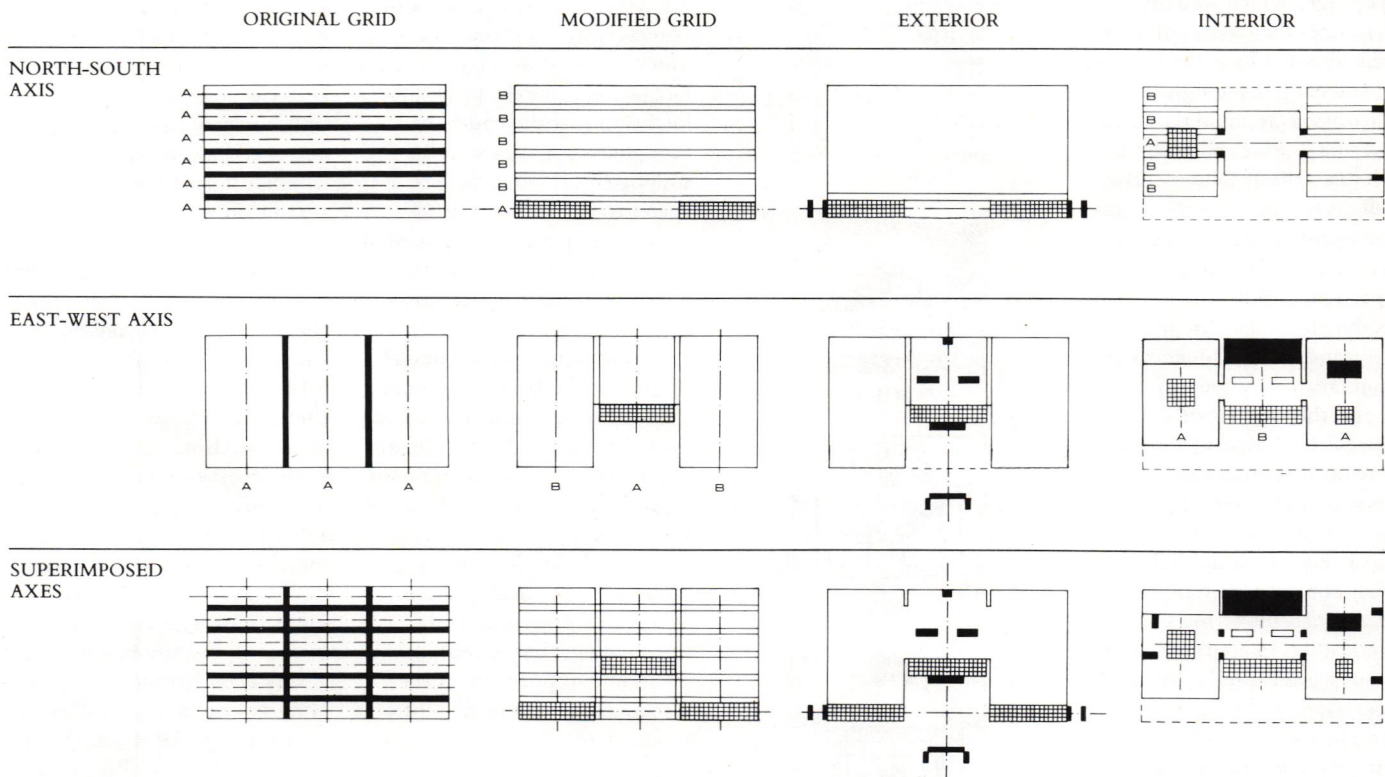
an open and closed version. Through the split we see paintings on the south wall, and to the north we see sculpture in the courtyard, so that the first glimpse of the museum's collection occurs only after we have reoriented ourselves along the spine.

A final reorientation has yet to occur. Proceeding into the north wing, we discover that the courtyard, which is square, sets up a new subsidiary cross-axis within the double bay. In the south wing, the second courtyard, previously hidden from view, creates another cross-axis through its alignment with its closed twin (which carries light down to the offices), and through the closure of its north and south walls. Only by reorienting ourselves on the cross-axis can we see into or enter the courtyard. By this point, we are so used to making ninety-degree turns that the directional force of the vaults has been considerably mitigated. This is abetted by the flat aluminum soffits of the low service bays, which are wide enough to create a ceiling plane throughout the museum; from certain positions, it is this horizontal plane which actually seems to dominate the interior, with the vaults acting merely as vertical interruptions.

All these alignments, subversions, and realignments represent an effort to bind the multiple galleries into a "family of rooms." The static conception of the vaulted module required the superimposition of a kinetic system; for this Kahn resorted to a rather quirky amalgam of compositional techniques, none of them as innovative as the gallery module itself. One of these is the counterpoint of the movable partitions, typical of the "flexibility" fashion of the sixties. Another is the Beaux-Arts system of wide and narrow bay rhythms, here rendered in Kahnian fashion as immaterial "poché." A third is another conventional Beaux-Arts system of axes, termini, and cross-axes, unconventionally superimposed at right angles to each other to create an almost Mondrianesque energy in the plan. Frank Lloyd Wright also used this method,



REAR FAÇADE. PHOTO BY JEFF HOWARD.



WITHIN THE RIGID FRAME OF AN UNDIFFERENTIATED GRID, KAHN ESTABLISHES HIERARCHY AND SPATIAL FLUIDITY THROUGH THE RHYTHMIC MODULATION OF THE BAYS AND THE SUPERIMPOSITION OF AXIAL SYSTEMS. THESE OCCUR INDEPENDENTLY IN BOTH THE EAST-WEST AND NORTH-SOUTH DIRECTIONS AND ON THE EXTERIOR AND INTERIOR. VIEWED SEPARATELY THEY ARE STATIC. COMBINED, THEY PRODUCE UNEXPECTED DYNAMISM IN THE PLAN. (DRAWINGS HERE AND ON FOLLOWING PAGE BY DOUG SUISMAN.)

but with greater conviction, since the dynamism of his interior spaces found expression in the exterior massing of the building. At the Kimbell, the kinetic tension of the interior is kept as if under high pressure by the building's rigidly symmetrical container.

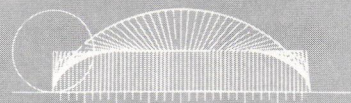
Without question, Kahn has brilliantly extracted unexpected spatial and functional fluidity from the archetypal vaulted room. But this virtuoso display, carried to extremes, ultimately reveals its own limitations. The confusions and ambiguities of the entry sequences, the often mentioned ill-fitting auditorium and library, and the far more serious deprivations in the office area (see essay by Dana Cuff), can all be understood as a direct consequence of this adamantly restricted spatial repertory. The determination to squeeze all possessions into a single type of suitcase may well indicate a higher regard for the luggage than the possessions.

THE PROCESSING OF NATURE

For all the problems which may have been encountered in the disposition of the vaults, it is in their illumination that Kahn came closest to the sublime. The quality of the light is akin to water, as if the light were liquid and contained by the room; the usual sense of enclosure here verges on an exhilarating hint of submergence. As with water in a pool, the light is "processed" before it enters. The small amount of intense southern sunlight which is allowed to pour through the exterior slot in the vault splashes onto the polished concave surface of the aluminum baffle. It instantly absorbs some of the metal's silver hue, then springs as if off a ski jump onto the slightly reflective inner surface of the concrete vault. Only then has the light been sufficiently controlled to allow it to fall into the volume of the

room, like so much celestial vapor. And like vapor, it "wets" the surfaces it falls upon: The highly polished floor surfaces of oak and travertine reflect the light, throwing it back up into our eyes, and even back up to the aluminum soffit of the narrow bays. Requiring the light to come in contact sequentially with glass, aluminum, and concrete before it reaches the room imbues these materials with extraordinary presence, in that they receive the light before our eyes do.

Commenting on the Kimbell, Kahn asserted that "the choice of a structure is synonymous with the light which gives image to the space." But there is no single "synonymous" light for a vault. Barrel vaults have frequently been used in galleries with top lighting, with widely differing results. What is unusual is the *concealment* of the slit, and the critical mediation of the light not by a structural element, but by a nonstructural



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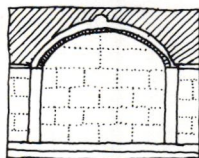
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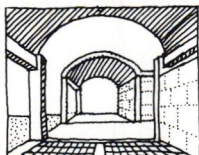
appendage, which actually illuminates the structural source of the illumination. The bending and coloring of the light by the baffles brings to mind the stained glass of a Gothic cathedral; in both cases the structure allows the light to pass, but the mediating nonstructural element is what imbues the interior with its particular glow.

Kahn also talked about the importance of the "nuances of mood created by the time of day and the wonder of the seasons." Of course in a museum the requisite conditions for viewing and conserving paintings severely restrict the amount and variety of natural light which may be admitted. Nonetheless, it seems to me that Kahn's solution actually *obscures* the nuances of time of day, solar orientation, and season. For example, the orientation of the solar slits along the north-south axis insures that the morning and afternoon light are essentially mirror images of each other. And the coloring of the light by the silver reflectors reduces differences in the hue of light at different times of day and especially in different weather. It is even more surprising that the light in the south wing is essentially the same as in the north wing, since light is admitted in the same way to both. Painters have often sought out north light precisely because of its relatively unchanging intensity, direction, and hue over the course of a day. The light of the Kimbell's galleries is similar in this way to a north-lit atelier, except that the light is admitted from above rather than from the north. Finally, the works of art themselves are little affected by whatever changes occur in the natural light, because they are directly illuminated by incandescent fixtures mounted on the baffles. This is at considerable variance with Kahn's objection to the static quality of artificial light, and his claim that you might have to get a little closer to the paintings on a dark day in order to see them.

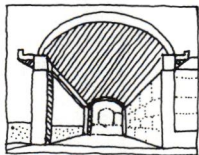
Kahn demonstrates in the courtyards that, by cutting holes in the roof of the gallery module, he can produce an entirely



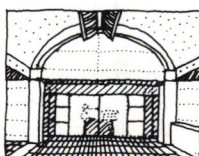
CONTAINER



PORTICO



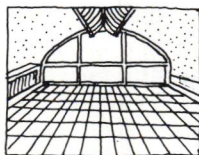
GATE



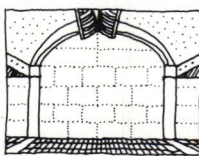
VISTA



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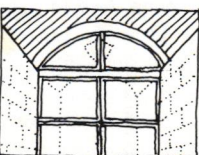
TUNNEL



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THEATER



GLASS CURTAIN

different light, which he calls "green light." But there isn't much green in the courtyards (at least not in February); the intention that the courts be canopied with a leafy trellis supported on wires has not been carried out with much conviction, perhaps for botanical reasons. The limited planting which does exist acts less as a shading device than as a representation of nature, a "touch" of green—the lawns and mature trees of the surrounding park are virtually excluded from the interior experience of the museum. The museum in effect processes vegetation in the same way it processes light. The archetypal module is not employed as a means of connecting to the surroundings, but of reproducing the light and greenery of the surroundings in a more abstract and controlled version.

THE NATURE OF THE MUSEUM

Kahn's generating vision for the Kimbell, as we have seen, derived from the artful repetition of a highly purified module; its final unifying image would therefore have to express this repetition in some way. Director Richard Brown, on the other hand, brought to the project a conception of the museum that was less cerebral and more organic. Brown had for years directed the Frick Museum in New York, which is housed in the Frick Mansion adjacent to Central Park, and it is easy to understand how this model of the museum as a dignified residence should suggest itself for the Kimbell. The institution of the museum has its origins in aristocratic private residences, whose equally private collections gradually opened up to wider audiences—only in the 18th and 19th centuries did the museum emerge as an independently conceived and constructed public institution. The connection of house and museum thus implicitly refers to the elite origins of art patronage and collection. In the United States, this linkage has been very neatly converted into an enlightened capitalist/

democratic virtue, by which a wealthy individual's residence and art collection reverts to the public domain through the establishment of a museum. Brown may well have thought that the Kimbell should take its place in a tradition which includes not only the Frick, but other art museums (or library museums) such as the Morgan (New York), Huntington (Los Angeles), and Freer (Washington).

However, Mr. and Mrs. Kimbell had bequeathed only their collection, not their house. So the question must have arisen as to the appropriate physiognomy for a new public museum containing a private collection. Could it evoke—as Brown seems to have wanted—the house of a wealthy family, a kind of surrogate Kimbell Mansion? The frequent and unchallenged assertion that the Kimbell is a kind of "villa" (see Pat Loud's essay) indicates at least the wish to see the Kimbell as a building of a residential character. A villa, after all, would be the appropriate typological transformation of an urban mansion, given the Kimbell's suburban setting and park surroundings. An almost perfect precedent could be found in the museum, say, at the Villa Borghese in Rome. But does the building really evoke a Villa Kimbell? Kahn's preoccupation with the room as the generative element of the museum makes the development of a coherent visual identity for the "family" of rooms problematic. Only by examining the building's scale and image—both interior and exterior—can we peel back the layers of the Kimbell's true identity.

The scale of the museum was a critical issue for both Kahn and Brown. The latter is reported to have wanted "something between a residence and a palace"—neither too domestic nor too monumental. Once Kahn established that the building form would be generated by the repetition of the archetypal module, the scale of the module itself became the critical issue. Brown reportedly insisted that Kahn reduce the height of an early version of the vault, fearing

the galleries would lack intimacy. Kahn complied. He commented that his mind was "so full of Roman greatness" that the vault etched itself on his imagination; nonetheless, in apparent capitulation to Brown, he continued, "The vault, rising not high, not august, [is] somehow appropriate to the size of the individual. . . its feeling of being home and safe came to mind." Clearly his use of the more emotional term "home" rather than the more visual "house" refers to a sense of spiritual well-being rather than a residential image. Nothing about the gallery module, either its height, structure, material, openings, or configuration, can be said to have any recognizable residential traits.

The struggle continued in the finishes and furnishings of the interior. During construction, Brown independently commissioned the design of chairs, sofas, and tables, all of unabashedly "domestic" character. Kahn reportedly did not like them. The photographs from the early seventies, when Brown might be said to have "furnished the villa," show groups of furniture arranged as if in a den: in one area a sofa and coffee table covered with books, all floating on an Oriental rug; in another, a cozy pair of chairs surrounded by books and pots of flowers. The domestic conception extended beyond mere seating to the display of the art itself. Small objects and sculptures were placed directly on tables like consoles or buffets, while paintings hung on partitions covered with a wood parquet veneer specified by Brown. These partitions—which provide a significant amount of the museum's wall surface and therefore go a long way in determining the character of the interiors—were evidently intended to evoke the feeling of a paneled study.

Nearly all of this is gone. The rugs and furniture have been removed to the administrative offices; the plants and flowers on the tables have been replaced with some rather self-conscious planters; the sculpture has been removed from the tables and

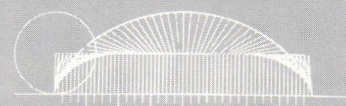
mounted on abstract pedestals. Most strikingly, the wood-paneled partitions have been covered in fabric to match the travertine walls, so that stone replaces wood as the dominant chromatic temperature of the rooms (even in a hot climate such as Texas, "warmth" must still be considered one of the fundamental attributes of the domestic environment). Comparison with the early photographs leaves no question as to which version is more residential in character. The transformation has resulted in rooms of more monumental scale, greater spatial ambiguity, colder chromatics, and more abstract imagery—rooms more in keeping with Kahn's vision. It is hard to imagine the kind of domestic environment from which a Fort Worth resident would have to emerge in order to feel "at home" in these interiors. Brown's original hope that visitors be charmed has been superseded by Kahn's more intense wish that they be exalted.

As for the building's exterior, it must be remembered that its height was severely limited by city regulation. In order to accommodate the 120,000 square feet in a low structure, Kahn generated the most extremely horizontal proportions of any building he ever produced—on the main park elevation, the building is sixteen times as wide as it is high. Given the symmetrical composition of the building, this park elevation must at one level be understood as the front of the building, and therefore the place where we could expect the strongest representational message. But it is essentially silent. The open flanks of the porticoes reveal the blank walls of the galleries, while the central entrance bay is completely obscured by the holly grove.

As we have seen, visitors were expected to approach from the sides, thus making those elevations appear to be the front and contradictorily making the front appear to be the side. To reinforce this ambiguity Kahn has revealed the form of the vaults on the side elevations. The six repetitive modules are the closest

thing to a "façade," and notably they project not a unified image of the museum but a repetitive display of its constituent element. Without recognizable scale-giving elements such as doors or windows, the abstract composition of these side/front elevations intrigues the mind but hardly engages our emotions. Any similarity in conception or character to a villa is purely in the imagination of the beholder.

Kahn's other two museums, both at Yale, face a densely built urban street, and yet manifest the same lack of "face." The internalization of all three museums—through expressionless façades, problematic entry, and limited visual connections from the inside back out—all contribute to a hermetic interpretation of the museum's institutional role, an interpretation which prevails whether the museum is in the city or in a park, in New Haven or in Fort Worth. The institution is therefore defined by its own universal nature, with local conditions exerting only minimal influence. The true character of the museum thus emerges as a kind of fortified observatory, from which life itself may be viewed in a highly controlled environment—the museum looks inward in order to look out beyond. The control, as we have seen, extends to light, to vegetation, to movement and view. With the universe thus captured and mastered, the individual is free to observe it. Through the metaphorical window of the picture frame, we gaze at captured worlds of distant time and place. Through the picture windows of the courtyards, we study the *tableaux vivants* of sculpture, water, and plants. And through the slots in the vaults, we contemplate a slice of the sky. It is only the occasional glimpse of a passing airplane on its way to the regional airport that discloses how far we have traveled from the irritating and intrusive banalities—the shopping malls, amusement parks, airports—of ordinary life, and how close we have come to Kahn's dream of architecture as the locus of each man's confrontation with the infinite.



After Architecture

Suisman

Dana Cuff:

LIGHT, ROOMS, AND RITUAL

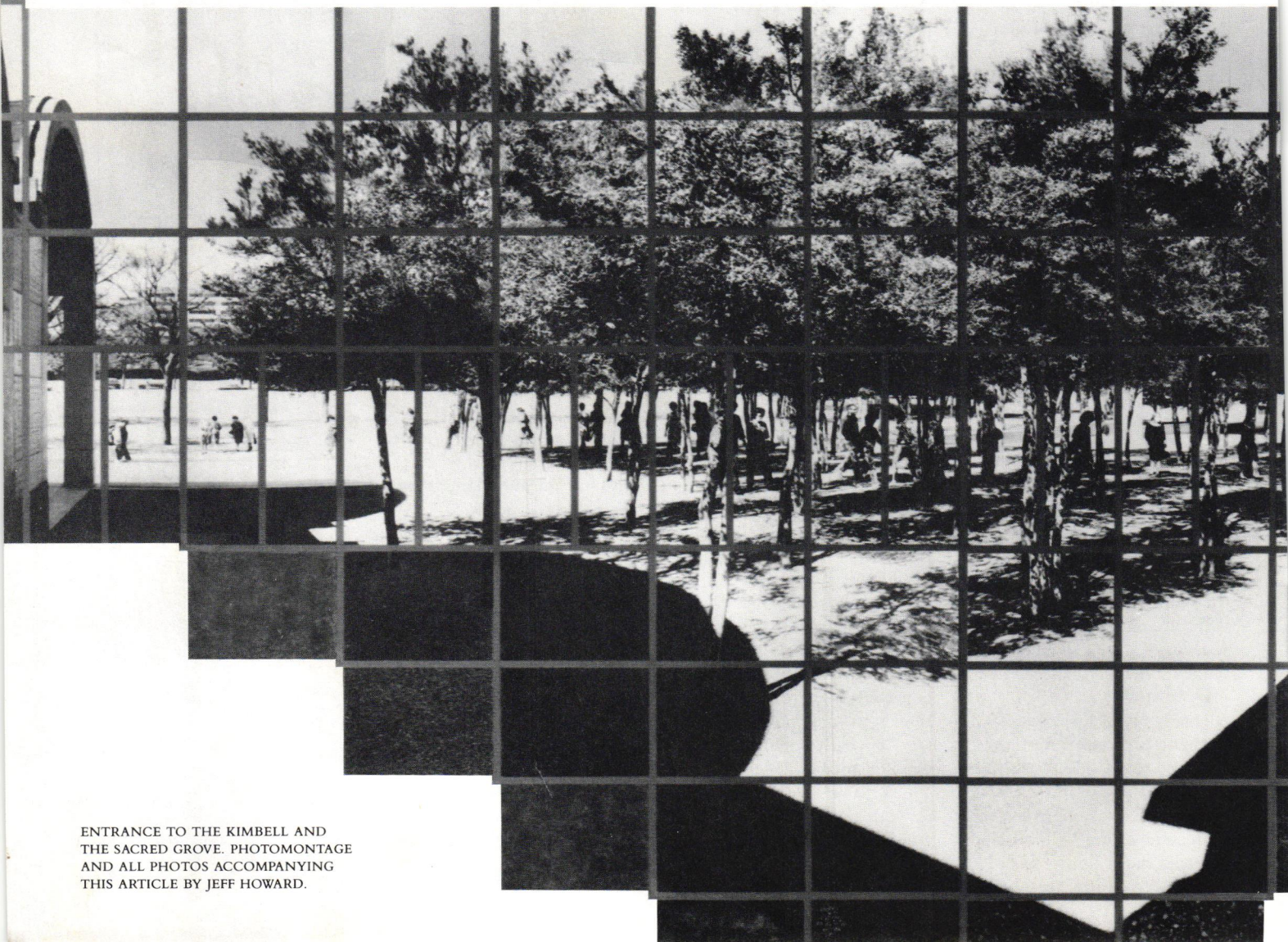
Accepting the challenge to write a social critique of Kahn's Kimbell Art Museum, I began studying drawings and photographs, reading articles, setting up interviews, and formulating ideas about the building as a shelter of human activity. Since

this would be my first visit to the Kimbell, I recorded these copious ideas in a notebook, planning for on-site confirmation or refutation. I arrived in Fort Worth loaded for bear, as they say, only to find myself disarmed by the power of the building itself. The Kimbell's tranquility, refinement, and beauty—unparalleled, in my experience—overwhelmed my cerebral notions. Within my first half

hour at the museum, I lost that notebook. It was a fortunate and telling accident, not of absentmindedness but of rapt attention to an experience beyond my expectations. I had to remind myself that these new impressions, however uncritical, would be the basis for a stronger essay than the preconceptions I had inscribed, and disowned, in the notebook.

For a building of the Kimbell's stature, an evaluation of how well it functions in the utilitarian sense would be trivial (except as part of a much larger analysis). Instead, I have chosen to stay close to the intentions of architect and client, while observing the current scene. The social implications of the Kimbell Art Museum range from the simple adequacy of individual rooms, to the rich and complex relationship of this institution to society.

Museum director Richard Brown and Louis Kahn planned the Kimbell with this range of concerns in mind, but I believe they held a limited view of the prospective inhabitants, which in turn limited the building's success. Both client and architect planned the building for an idealized visitor, without taking into account patterns of daily life. This unresolved conflict between the ideal and the commonplace is manifest in the architecture. Kahn did not foresee the consequences of his own philosophy: "I don't believe in need as a force. Need is a current everyday affair. But desire—that is something else again."¹ If the visitor is emphasized, the building's workers are slighted; if a world apart is the aim, the context and exigencies of everyday life will not contribute to the institution.



ENTRANCE TO THE KIMBELL AND
THE SACRED GROVE. PHOTOMONTAGE
AND ALL PHOTOS ACCOMPANYING
THIS ARTICLE BY JEFF HOWARD.

THE PHENOMENAL MUSEUM

With luck or foresight, we arrive at the Kimbell's west side—the intended entrance—where a suburban park sprawls before what Kahn called the “entrance of the trees.” Whether we walk in from the side streets or across the lawn, passing under a double row of oaks, we come upon the museum's gravel and travertine precinct. This material threshold, where formal and informal domains meet,

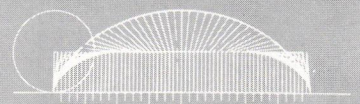
marks the beginning of our rite of passage—a form of purification. We leave behind the informal and familiar park, the strip shopping centers, and the traffic to enter the museum cleansed and solitary.

The gravel path is bounded by raised pools spilling water into a trough at our feet. The sounds of the water and of our own steps focus our attention, and nudge the world we just left into perceptual recesses. Beyond the pools loom the silent, vaulted porches, immense and yet scaleless. We walk to the end of the path, where a few travertine stairs carry us gently up into the sacred grove that protects the Kimbell's entry.² Here, in this gridded grove of diminutive hollies—with the trees' canopy overhead and the gravel crunching underfoot—I seem to lose my companions. There are solid concrete walls

left and right, a tangible but shifting floor, and a roof of shadows and cool, filtered light. Perhaps I would never leave this place if there were some isolated place to sit, but instead, I ascend the final steps to enter the vaulted porch. At this point, where the boundary between inside and outside blurs, I meet my own reflection and step through the glass wall.

My first thought in this room is not of the bookstore before me, but of the smooth silver light filling the space and the galleries on both sides. It is interrupted by the stronger light of courtyards, while brilliant rays slice through rooms' uppermost edges. The light is ethereal; the sun itself is blocked from view. Some vague unwillingness—an existential reluctance—makes me look back, but only the sacred grove is visible. This new world is a lawful, consistent one of vaulted rooms, materials, and light. As my eyes adjust to the grammar, refinements of the system become apparent. I expect no surprises amid this order.

I stand near each painting to study it, moving quietly from one to the next. Sometimes I



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Cuff

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am with the work under a channel. Elsewhere, the work and I are within the vault, less intimate but not diminished. Within the vault-room, the movable exhibition panels are arranged to create regions that vary in size and relation to one another, but do not inhibit movement through the gallery space. The building itself exhibits a model of control: every detail has been carefully considered and executed. An abstract beauty dominates, denying the building's relation to my size, my touch, and my interpretation. Nothing I might do would upset the order or leave a mark upon the place. Others must also feel this, since I saw only two bits of graffiti at the Kimbell.

These were my thoughts as I viewed paintings, sculpture, and drawings one Sunday afternoon with hundreds of other visitors. We were participating in a powerful ritual, purified by the rite of entry. While ritual always frames certain experiences, some frames are more restrictive than others. The Kimbell's range of possible patterns of activity, relations, and demeanor is narrow. We are quiet; we don't hurry; we stand one by one before the individual works of art. The implicit social control is understood before we are even aware of the guard's glance.

THE CLIENT'S PROGRAM

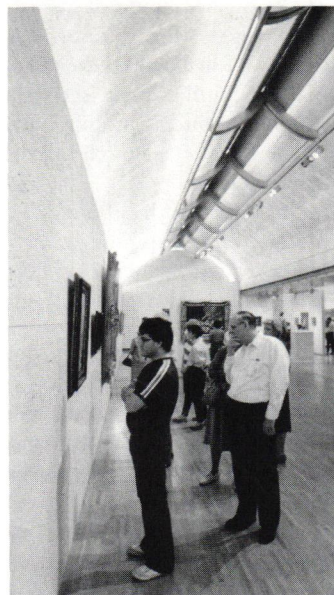
Three themes compose the experience of the Kimbell: the relationship between the individual and the work of art, the nature of a purification ritual, and the use of natural light; both Kahn and Brown address these themes.

As director of the museum, Richard Brown played a significant role in the Kimbell's development. To establish guidelines for design, he prepared a 16-page programmatic statement that begins with the building's purposes: "to preserve and exhibit objects called works of art," "to enable as many people as possible to experience those objects as effectively and as pleasantly as possible: 'the

confrontation of object and observer.'" Brown wanted to encourage a building that was "not only strong in design, it has the desirable effect of strength upon the *average visitor*" (my italics). In this prearchitectural program (dated 1 June 1966), Brown set an agenda for the Kimbell both as a building and as an institution. He also sketched the visitor's character, his own beliefs about art, and the ideal relation between people and art and architecture. Brown apparently could not resolve whether he was catering to a sophisticated viewer or to an "average" visitor, nor whether the public should be educated or charmed. Ultimately, his clear emphasis was on the individual engaged with a single work of art.³ On the other hand, Brown held only the vaguest ideas about who these individuals might be.

The preeminence of the individual is not surprising given that both architect and client were strong individualists. Kahn's independence is legendary, and Brown was a good match. He accepted the job as director of the Kimbell with the stipulation that he have full authority to select and work with the architect. Together these two planned for visitors who were to be like-minded individualists encountering works of art. The Kimbell collection, made up of small works that require close scrutiny, reinforces this relation between the individual and the work.

In the program, Brown contrasted the average visitor and the sophisticate. Average visitors were shadowy in his mind, initially portrayed in terms of what they are not: "not . . . art



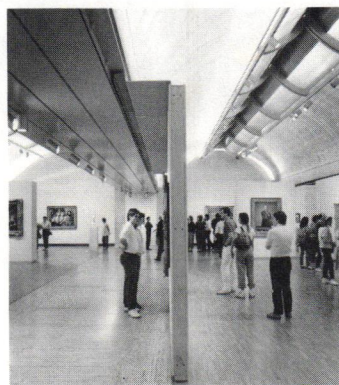
historians, other architects or progressive artists with a sophisticated background in architectural form." The average visitor, he believed, wanted a museum that is warm, mellow, elegant, harmoniously simple, and human-scaled; "a visitor to an art museum ought to be *charmed*; otherwise, why should we expect him to come?" (Brown's italics). The average visitor must be enticed into a relationship with art. Brown later quelled the suspicion of populism: "That the above may be accused of 'catering' to 'popular' taste (or lack of it) is nothing to the point." Just as Brown assumed a democratic posture, he exposed his own prejudices against this average visitor. Indeed, Brown's desire that the building exhibit sophisticated domesticity was obvious in the Oriental rugs and leather furnishings, which his successor called "pretentious and romantic."⁴

Brown did not want to create a building that repeated the "ultimate alienation between art object and human being" perpetrated by other museums. His solution to the alienation, however, lay not in an understanding of the subject or visitor, but in a conception of the object: "Each individual art object is *now* a whole world unto itself, and architectural conditions should be so disposed as to encourage the visitor's complete absorption in contemplation of that world."

Rather than deal with human characteristics and desires, Brown consistently turned his focus on the object world, either the building or the works of art. He held somewhat incongruous ideas about these visitors who should be charmed yet completely absorbed in contemplation; given a sense of warmth and mellowness while engaged in a confrontation with the objects. To my mind this average visitor was not only a mystery to Brown, but also slightly distasteful. The program's veiled sentiment is that the average visitor is inferior to the sophisticate. On the other hand, Brown had clear beliefs about art. It is a world unto itself, with a "latent message" and "expressive content" that can be "imparted more effectively." The works of art have a life of their own more vivid in Brown's mind than the "public" and the "average visitor." These categories are inherently vague, but Brown had the means to elaborate them. Elsewhere in the program he lists such specifics as the number and type of nearby public schools, colleges, and their art programs, and numbers of visitors to other museums in the art complex.

What Brown envisioned was an ideal *relationship* between the individual and the work of art. Since his average visitor is not quite ready for this "confrontation," he made suggestions about how that visitor might be "charmed" into it. But rather than being charmed, the visitor is cleansed and elevated by Kahn's sequence of entry spaces, so she or he can partake of the museum as a world apart.

It should be noted that the emphasis on the visitor is entirely Brown's and not my own. In the first part of his program, only one small paragraph deals with functions other than the galleries. From the inception, the administrative and support staff areas were subservient. Later in the document, Brown estimated the required square footages for different program areas and organized them on different floors of a hypothetical building: a service level, an operations level, and a public



level. While Kahn combined operations and service functions somewhat differently in the actual building, he retained this basic vertical division of program areas. Brown's hierarchical conception of levels and activities can be seen as the source of the problems evident on the lower level, where staff offices, the security center, the exhibition preparation area, and shipping and receiving are dismally located. The idealized relationship between visitor and art object clearly took precedence over the work spaces.

Brown made his preference for natural light clear; without it, visitors would feel "vacuum packed in a can":

The visitor must be able to relate to nature ... to actually see at least a small slice of foliage, sky, sun, and water. And the effects of changes in weather, position of the sun, seasons, must penetrate the building and participate in illuminating both the art and the observer. ... We are after a psychological effect through which the museum visitor feels that both he and the art he came to see are still a part of the real, rotating, changeable world.

Brown rejected both skylights and clerestory windows because they offer no view, do not capture the natural dynamics effectively, and usually leak. Kahn gave him both skylights and clerestories. With light, it appears that Brown did not envision as complete a separation between inside and out as Kahn designed. Brown specified that nature, not the cultural context, should be incorporated into the building, and thus did not suggest that the museum should relate to the adjacent park and its activities. Kahn's solution maintains a separation from the cultural context, and offers a much less direct connection to nature than Brown described. There are no views out, only views into small courtyards. While changes in the quality of light are visible, the source is not.

THE ARCHITECT AND THE BUILDING

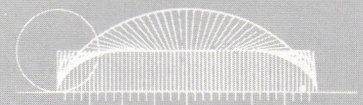
Kahn may have influenced the development of Brown's program, since the two men were meeting before the program was officially issued.⁵ While the building's problems are prefigured in Brown's goals, Kahn exacerbated the conflict between the ideal and the everyday in the building's design. The three themes raised in the experiential description and in the client's program were also central to Kahn, and light was the key issue. Kahn's architectural interpretation of the second theme, the relationship between an individual and a work of art, resulted in the concept of the room that joins with others to form a "society of rooms." Lastly, the theme least verbalized by either Kahn or Brown concerns the ritual procession designed to bring visitors into that ideal one-to-one relationship with the art objects.

Kahn's scheme integrates these themes so that light assists both ritual procession and the relation between the individual and the work of art. The Kimbell's spiritual quality is most powerful

when an individual with a single work of art, light, and ritual mingle. But the building also founders upon these concepts—light, ritual, and the confrontation of an individual with a single work of art—because they are not inflected by the pragmatic and everyday world in which the museum exists.

Kahn is quoted in *Light Is the Theme* as saying: "When a man says that he believes that natural light is something we are born out of, he cannot accept a school which has no natural light."⁶ Light is a life-giving force. We are likely to agree that the spaces deserving most careful lighting attention are the galleries, where in fact Kahn has masterfully directed a combination of light qualities and sources. However, the museum's support spaces are neglected both in Brown's program and Kahn's execution. The lower level of offices and service facilities is dark. Where there are windows, travertine-lined shafts near the glass reflect light into the adjacent spaces. In other areas, Kahn created his anathema: internal offices with no natural light. These spaces, where workers spend forty hours a week, year-round, are inexcusable. One pitiful scene stands out in my mind. Across from a bank of video screens monitoring life above ground in the galleries, an employee warmed his soup in the staff lounge, a dark cavern with only the cold, piercing light of a few fluorescent fixtures. If light gives life, the support staff's days are numbered.

Those workers with rank have windows that capture natural light from slender cracks and crevices where concrete walls a few feet from the windows reflect light into the spaces. Here, if the light is adequate, the view is not. Even Kahn's most devoted followers would not be content to study the concrete details daily. Desks are pressed against walls of glass to steal tiny glimpses of the outside world. Severing the gallery spaces from views of the outside makes thematic sense; there is no reason to apply the same idea to the support areas. This floor, labeled "lower level" in



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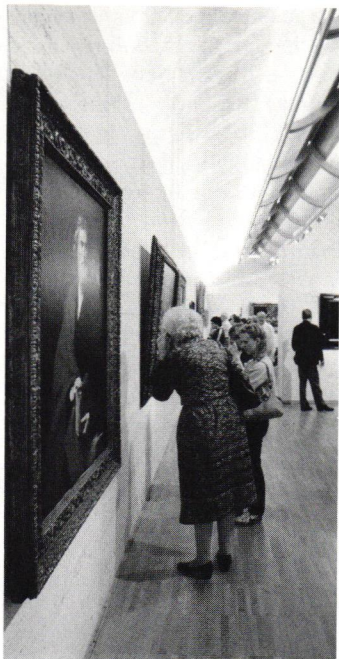
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the plans is called "the basement" by workers. While staff members fervently defend the building, they reluctantly offer that its main problem is this basement—where they work.

Budget cutbacks and height limitations may explain the basement's problems, but they are not sufficient reason. The library on the main floor suffers the same problems of light and view. Nor does Kahn's concept of servant and served spaces require such an extreme imbalance in priorities. The only explanation is a fundamental lack of concern about the working areas of the museum, literally the everyday spaces. The only staff area with well-orchestrated light is the conservator's studio, where once again the individual's relationship to a single work of art is primary. The nearby reception and clerical area gets some of the courtyard's light only by association.

Kahn's interpretation of the second theme, the relationship between the individual and the work of art, is complex. The form idea that governs the building is the room, joined with others into a society of rooms. Kahn considered the room to be an architectural module appropriate for the individual and for an increment of function.⁷ While his architecture may make us feel "safe" because our experiences are so bounded, the feeling of "being home" seems unlikely. Brown must have agreed (as Suisman explains), for he tried to warm the Kimbell with domestic furnishings. Even these, however, were objects that typically belong in homes of the wealthy elite. If we feel at home in the Kimbell, it is not our own home, but one to which we have been elevated and for which we must learn the appropriate manners.

The sections that Kahn rendered for the Kimbell portray this essential relation between room, individual, and work of art. The section was a particularly appropriate design tool since, more so than a plan, it captures a slice of experience and of the activity in the room. In Kahn's section sketches, we



see individuals gazing at works of art, each in their own slice of a room. This we can suppose is the experience Kahn was trying to create. The section corresponded to Brown's belief that the work of art has a message for the individual, who is provided a contemplative moment. Observing people in the museum, we find someone standing at each painting, so close that it must make the guards uneasy. However, again because this ideal relationship did not take into account the regular patterns of museum activity, certain problems have arisen.

Visitors distribute themselves evenly, one to a work. Kahn's section, a spatial slice showing an individual with a single work of art, multiplies with remarkable regularity on a crowded day. Where partitions stand between two rooms, we find people nearly nose to nose, unaware of their double on the other side. However, in Kahn's sections the individuals are shown isolated from one another. Seeing the section in perspective in the museum itself, each person with each art object is also in a crowd, or at least in a public space. Isolation then must be imposed by excluding all behavior that might be distracting—talking, moving quickly, or moving into the territory defined by the individual and the work of art.

In other museums the great halls, the rotundas, and the atrium spaces give visitors' activities a sense of the collective; in the Kimbell, we are expected to remain isolated. Even in the repertoire of Kahn's own work, the Kimbell represents an extreme solution. At Kahn's Exeter Library, the individual is also primary, but the multistory central space unites those individuals. There are museums that go to the other extreme, such as the National Air and Space Museum or even the Guggenheim, where a moment's solitude would be cherished. Neither their commotion nor the isolation of the Kimbell is ideal.

Ritual procession is the final theme. Our movement from outside to inside, either across the lawn or through the porches, is composed in a rhythm of light, shadow, form, and sound. Our attention is focused on these same qualities within the museum, their significance heightened by our expectations. This sequence of experiences brings visitors from their everyday worlds to the quasi-religious state of mind Brown and Kahn felt appropriate for confronting works of art.

When we reach the galleries we are supposed to be cleansed (of amusement parks and shopping centers) and solitary. According to the late Mircea Eliade, purification rituals return the individual to a primal state, annulling faults, expelling sins.

Ritual, however, reformulates as well as renews. In *Purity and Danger*, Mary Douglas asserts that ritual achieves its objectives by controlling situations and thereby modifying experience. She states that "ritual focuses attention by framing; it enlivens the memory and links the present with the relevant past. In all this it aids perception."⁸ Brown and Kahn held a similar goal: to effect a profound relationship between visitors and the works of art. Their somewhat deprecating conception of the average visitor may explain why we sense that our transformation is more desired here than our renewal or reformulation. Ritual, simply conceived as setting an

activity apart from the rest of life, is inadequate. Rather than reformulate past experience and everyday life, we are expected to shut them out. Again, in trying to achieve an ideal situation, Kahn and Brown overlooked the important role that the social context might have played.

Perhaps the clearest denial of social context and the biggest affront to ordinary life is the reality of entering the museum, from the parking lot rather than the west entry I described, the one emphasized in Kahn's sketches and letters. The vast majority of visitors come by car and enter from the east, at the lower level. Here no garden softens the transition between strip shopping centers and art sanctuary. We enter into a dark, narrow space where two shafts of light from above help us find the stairs. Should we take them? Like uninvited guests we slink upwards, surfacing in the bookstore (not the auditorium stage, thank God).

CONCLUSION

By asking visitors to sever ties to life outside the museum, the museum subtly excludes certain people and activities. The veteran museum goer will open himself to the contemplative experience more readily than the novice. I would have to agree with Berger, however, that "the issue is not between innocence and knowledge (or between the natural and the cultural) but between a total approach to art which attempts to relate it to every aspect of experience and the esoteric approach of a few specialized experts."⁹

While the Kimbell's social control is elitist, it is suited to the serious study of art—an elite pursuit (and, I might add, one to which most critics uncritically ally themselves). For those who match Brown's model of an ideal individual visitor, the museum may also be ideal. The trouble is, the building does not accommodate those who do not fit the model: workers, children (and thus families), the artistically naive, those who rarely visit art museums. The

fact that art museums have historically been the ken of the elite and repositories for artifacts of the dominant culture was probably irrelevant to Kahn, who naively believed he could create institutions from scratch. If Kahn's social vacuum were possible, the Kimbell would be perfect. In the real world, it reinforces the exclusion that many people already feel in art museums. Berger cites statistics showing the correlation between privileged education and visits to art museums. The lower the level of education, the fewer annual visits to art museums, and the more likely a person is to consider museums similar to religious institutions.¹⁰ If Brown really wanted to create a democratic museum, as he says in the program, he and Kahn should have dealt with social reality. On the other end of the continuum, art museums like the Centre Pompidou, the new wing of the National Gallery, The Oakland Museum, or even the Dallas Art Museum take a more democratic stance, but there is a trade-off. The populist approach reduces contemplative, solitary appreciation of art. I am frustrated with the Kimbell not because I oppose the serious contemplation of art, but because its makers could have opened that experience to so many more if they had accommodated the everyday world, and if they had carried their primary concepts down to the lower level.

Brown and Kahn are both guilty here. Brown says, "I once talked to him [Kahn] about parking space, which one would think is a minor problem in relation to the whole project, and he literally spent eight months trying to accommodate my idea of where to put automobiles, which are among the paraphernalia of our society that he has no feeling for anyhow."¹¹ Eight months wasn't long enough. These eastside heathens represent all the people and all the activities that were neglected because they are just part of the social paraphernalia.

Among the refusés, children are the best example. In the Kimbell they are likely to behave "inappropriately," and we find

their parents exerting explicit control (e.g., a tight grip on the shoulder) to keep them in line. As a local painter and his wife put it, "There's no place like the Kimbell for serious art. But when we bring the kids, we have to take turns: one of us stays with them out on the lawn while the other goes through the show."

It is on the lawn before the west entry that everyday life survives: bicyclists stop for a rest, families picnic, kids play in the grass, lovers neck, dogs chase frisbees, and teenagers wait for something to happen. Looking at this scene gives us a better understanding of the Kimbell's exclusion and social control. It would be hard to pass through the glass doors at the end of the sacred grove with a frisbee in hand, a picnic basket, a sweaty shirt, or grass-stained pants.

P. S.

When the museum closed that Sunday, I left reluctantly, inundated by all I had observed. As I lagged behind other visitors to take one last look, a guard approached and presented me with my lost notebook. It had been found by the pools, and he and the guard at the basement videos deduced it must be mine. They had been keeping an eye on me since the beginning of the day, when I had been apprehended for unauthorized photographing. Somehow, this guard was waiting for me, out of the hundreds of visitors, with my unidentified notebook. The level of control may be subtle, but it is actual as well as intuited, levied by the institution and inscribed in its architecture.

1. Louis I. Kahn, *Light Is the Theme* (Fort Worth, Texas: Kimbell Art Foundation, 1975).

2. "Sacred Grove" is my own name for the area.

3. I am indebted to the insights of Friedner Wittman and Robert Gutman who have written chapters on Kahn's Salk Institute and the Richards Research Laboratories, respectively, to be published in the forthcoming *Architects' People* (W. Russell Ellis and Dana Cuff, eds.).

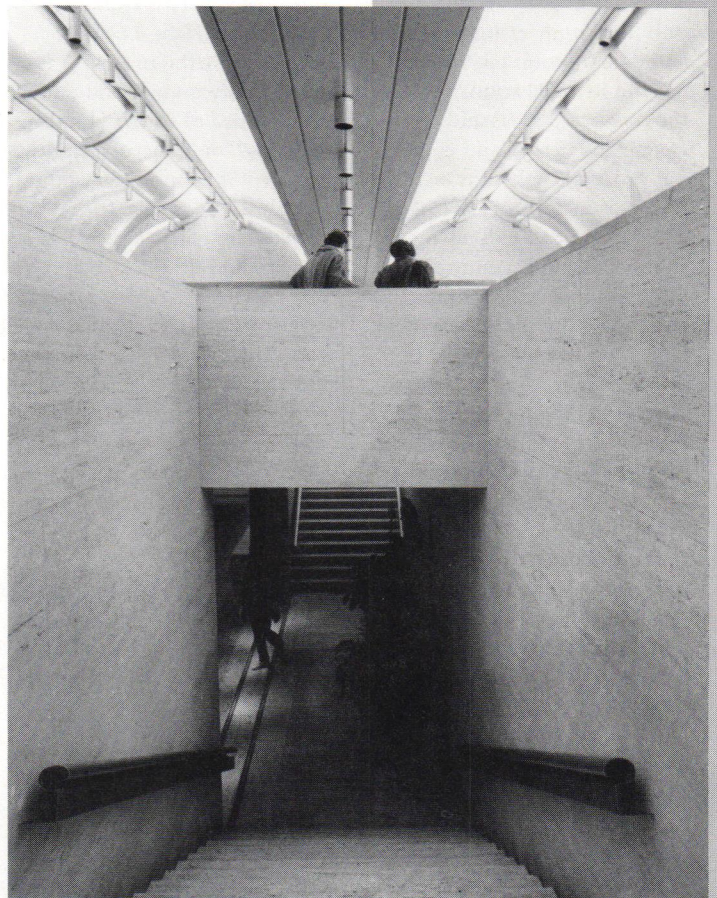
4. David Dillon, "The Kimbell Art Museum," *Southern Living Classics* 1, no. 2 (November-December 1985): 118.

5. Thomas Hoving, "A Gem of a Museum," *Connoisseur* 210, no. 843 (May 1982). From Hoving's information, it appears that Kahn met with Brown at least five months before the Prearchitectural Program was issued.

6. *Light Is the Theme*, p. 39.

7. This point is made by Friedner Wittman in "People in the Architecture of Louis Kahn" (forthcoming, see above), and by William H. Jordy in "The Span of Kahn" *Architectural Review* no. 928, June 1974.

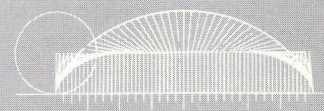
8. Mary Douglas, *Purity and Danger* (London: Routledge and Kegan Paul, 1966), 64.



9. John Berger, *Ways of Seeing* (London: British Broadcasting Corporation and Penguin, 1972), 32. See also Burt Nathaniel, *Palaces for the People* (Boston: Little, Brown, 1977).

10. Berger, p. 24.

11. "Kahn's Museum: An Interview with Richard F. Brown," *Art in America* 60, no. 5 (September-October 1972): 45.



After Architecture

Cuff

Peter McCleary:

THE KIMBELL ART MUSEUM: BETWEEN BUILDING & ARCHITECTURE

A technological critique of any building must consider not only the engineering principles and construction techniques used in its realization, but also the architect's ideas and intentions. The design and engineering processes which transform the ideas into reality are of equal significance. This mediation between idea and reality, intention and realization, architecture and building, is *techné*. This reflection-in-action, or *techné*, inspired Louis Kahn's statement that an idea isn't an idea until you know how to make it.¹ Kahn's own standard provides the best point of departure for a technological critique of the Kimbell Art Museum, whose least understood but most discussed technological aspect is the architectural and engineering logic of the cycloid roof element. Kahn himself described the scheme for enclosing the museum as "a succession of cycloid vaults each of a single span, 100 feet long and 23 feet wide, each forming the rooms with a narrow slit to the sky."² It is the narrow slit to the sky that has caused the most confusion, and which will be the focus of this critique.

Several other often overlooked points are worth mentioning, and are germane to a properly conceived technological critique. An account of lighting, for example, must include Marshall Meyer's comparison of the natural light reflector to a "beam splitter" which divides "a beam

of light and sends it off in two directions."³ This explanation by Meyers, Kahn's project architect for the museum, is more easily understood than Kahn's idea of "a new kind of window" or a "natural lighting fixture" or "a modifier of light."

Kahn's preference for homogeneity and silence over heterogeneity and drama also appears in a visual logic which minimizes differentiation. He explains that concrete does the work of structure while travertine is a fill-in material. "Travertine and concrete belong beautifully together. . . . They look like the same material. That makes the

whole building again monolithic and it doesn't separate things."

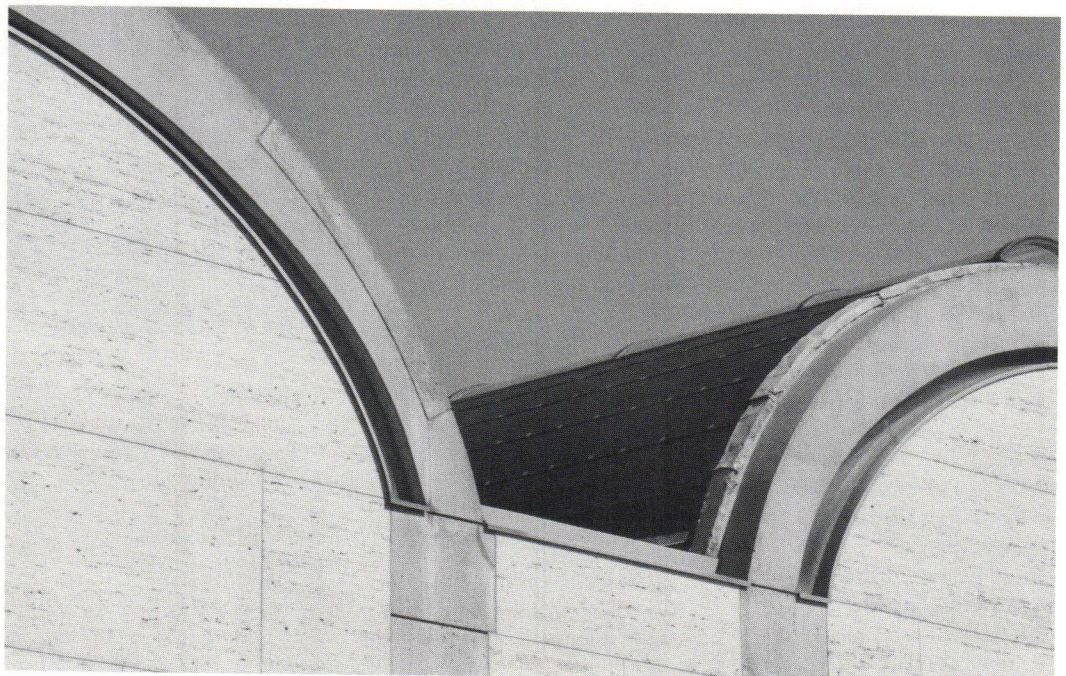
Kahn also tells us that "the joint is the beginning of ornament," and must be distinguished from decoration, which is applied. Ornament he calls "the adoration of the joint," and focuses our attention on the covering of the anchorage of the prestressing cables, the incisive edge between concrete pours and between concrete and travertine, the beam that separates and joins the cycloid shells to the columns, and the profile formed at the meeting of roof and sky.

Kahn's recurring effort to relate the plan to the technical aspects of structure and mechanical and electrical equipment is also revealed in the servant channels between galleries which service the vaulted gallery spaces.

Beyond the characteristics of the final product, A. T. Seymour's description of the building of the museum helps focus on the construction process as well.⁴ He writes that the construction of the museum required accurate setting, a high degree of workmanship and precision, and fabricated, custom ornamental metal work. The installation of these units required close contractor coordination for construction accuracy in relation to

the construction of the roof shell. Precision installation was necessary to meet the exact tolerances required. These technical details bring an underlying paradox to our attention. One might contrast the need for accuracy and precision workmanship with the less crafted and machined pouring of the cycloid roof elements in one-foot lifts. Given Kahn's preference for a hierarchical integration of the geometry of the parts, the use of precast and post-tensioned cycloid elements might seem more fitting than the labor-intensive mode of production he actually employed. A prefabricated banded barrel vault would certainly appear more Romanesque than the continuous Roman surface derived from pouring-in-place. Perhaps Kahn had no wish to express the joints of discontinuous elements. On the other hand, several of the joints used with the pouring-in-place system appear almost as an expression of precasting. Was the decision against precasting, then, merely a matter of cost?

From the point of view of construction, architect Fumihiko Maki argues that the slit area of the roof "is the most critical for support, and architects normally would refrain from opening up the structure here."⁵ Architect



DETAIL OF ROOF PHOTO BY JEFF HOWARD.

Lawrence Speck has proposed that a stockyard roof structure adjacent to the Kimbell is the precedent for Kahn's "atectonic notion of interrupting the vault's continuity to create a light source at the top."⁶ Structural consultant August Komendant has been particularly critical on Kahn's understanding of the structural behaviour of the roof. Of an earlier design which proposed semicircular cylindrical shells, Komendant had written:

As conceived, the preliminary layout of the shells was structurally unsound. First, Kahn had misunderstood the carrying action of a shell. The arch shape confused him and so he considered a shell primarily an arch and not a beam, which it actually is. Due to this, the shell roof design was structurally completely wrong. . . . From a structural as well as an architectural point of view, the roof design was dishonest.⁷

Did Kahn's misunderstanding of the structural behaviour of a shell compromise the final solution? Komendant's differentiation between a structural and an architectural point of view could not have satisfied Kahn. "Engineering is not one thing and design another," Kahn wrote. "They must be one and the same thing." For Kahn, design and engineering were the media whereby intention became reality.

Kahn often stated that the room was the essential element of architecture, and that was "a society of rooms."⁸ Meyers has remarked about the Kimbell that "Lou had a preferred module or geometric system that he wanted to fit the plan into,"⁹ while Richard F. Brown, the client, observed that the "basic structural and space-creating idea did not emerge from our discussions at all. That was already in Lou Kahn's mind and had been for a long time."¹⁰ The "room" in the Kimbell Museum was intended to demonstrate Kahn's belief in "the inseparability of light and building and the fact that we could construct light,"¹¹ that "the light that enters the room should be the

light of that room itself,"¹² and that the "structure is the giver of light."

Although Meyers has described Kahn's plan or "society of rooms" as "a repetitive series of shed-like structures with roof-top light apertures interrupted by open courts,"¹³ Kahn himself perceived the room or module not as "the repetition of a motif but the expression of an architectural principle."

To structure this room, Kahn thought,

My mind is full of Roman greatness and the vault so etched itself in my mind that, though I cannot employ it, it's there always ready. And the vault seems to be the best. And I realize that the light must come from a high point where the light is best in its zenith.

From his Beaux-Arts training, he believed that, although we know little about structure, we know that the *poché* is its generating part. The vault's form and design, its architecture and its engineering, were all the same. This union of architectural form and engineering shape is valid for configurations in which there is a predominance of self-weight, compression, and verticality, and is invalid where applied loading, bending or membrane stresses, and horizontality are the ruling conditions.

For a cylindrical vault the visual logic of the mass correlates with the structural behavior, and hence the shape of the structure is related to the *poché*. For the cylindrical shell, however, the structural logic is understood through the distribution of force, and not mass, and the *poché* does not infer the shape of the structure.

A simplified structural explanation says that a vault spans between side walls (fig. 1a) and a shell spans between end walls (fig. 1b). Whereas vault stresses are pure compression, the shell surface has a network of tension and compression stresses called membrane stresses. When the curved shape spans between end walls (like a shell) and the span is several times the width

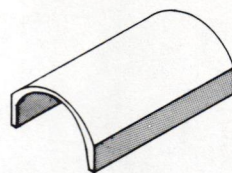


figure 1a

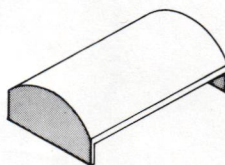


figure 1b

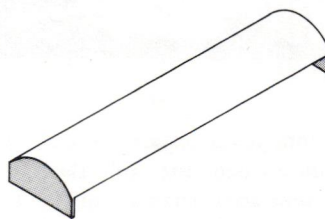


figure 1c

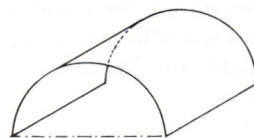


figure 1d



figure 1e

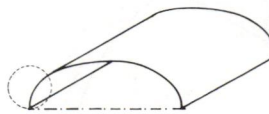


figure 1f

DRAWINGS ACCOMPANYING THIS ARTICLE BY PETER McCLEARY

(100 feet by 23 feet in this case), the structure behaves like a beam (fig. 1c).

Kahn's wish for the "Roman greatness of the vault" was further compromised by the need to reduce the roof volume generated by the height of the semicylindrical shape (fig. 1d) and by the need to remove the side walls. Two curves, the ellipse (fig. 1e) and the cycloid (fig. 1f), solve the volume problem and diminish the thrust on



After Architecture

McCleary

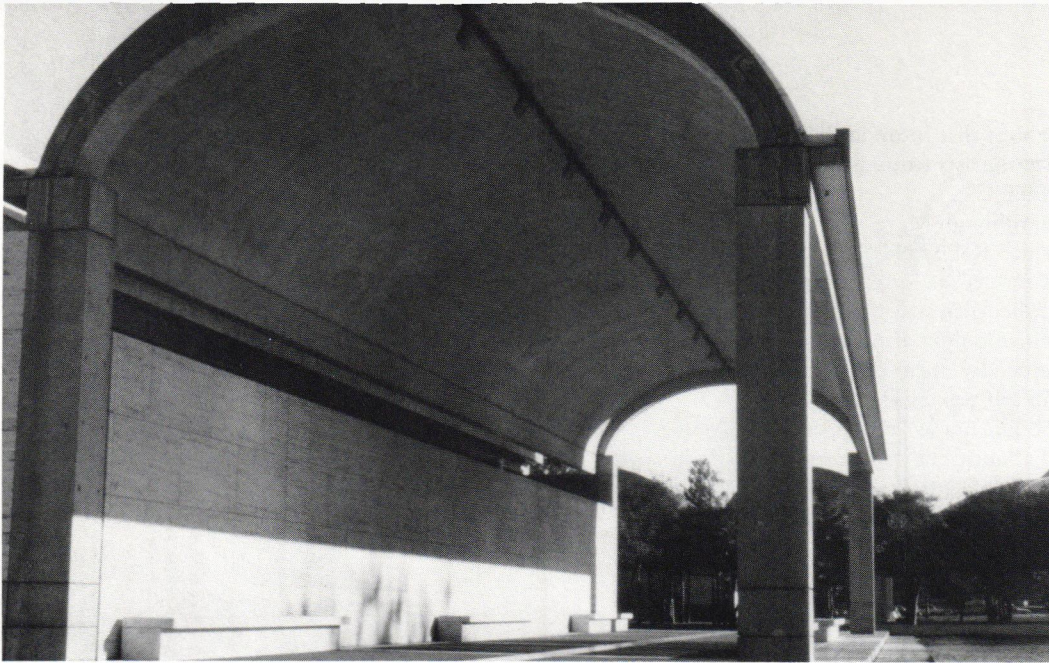


figure 2

the side supports. Meyers proposed the cycloid and Kahn adopted it.

Supporting the cycloid "vault" on columns rather than side walls allows the continuity of space from room to room, but it changes the structural behavior of the roof from vault to shell action, and it introduces the problem of the deformation of the long edge of the span. To control such deformations, Americans typically employ a stiff edge beam (see the Kimbell porch, fig. 2) whereas the European practitioner tends to place prestressing cables within the shell thickness. Structurally, Americans resist deformation with mass, and Europeans resist with force. In the Kimbell, a combination of means of resistance was used resulting in a hybrid roof structure whose structural action is neither pure vault nor pure shell. To further complicate matters, the elongation of the "vault-shell" caused it to behave as a beam curved in section. While it is possible to visualize the structural logic of a vault and its supports and experience "being home and safe," the level of abstraction needed to understand a shell in general and this vault-shell-beam in particular obviates the possibility of any body-centered visual logic.

The lack of clarity is exacerbated by the introduction of "the slit to the sky." Kahn was confronted by the structural paradox that whereas the key-

stone is a necessary voussoir in the arch and the vault, the dome accommodates the void of the oculus, and by the knowledge that the history of the architecture of the vault has been a search for the appropriate location of its "wind-eye." It

seems more willful than sound to remove material where the compressive stresses are maximum (either in a shell or a beam), but Kahn's opening or "new kind of window" fit his idea of a linear oculus for the cycloid roof.

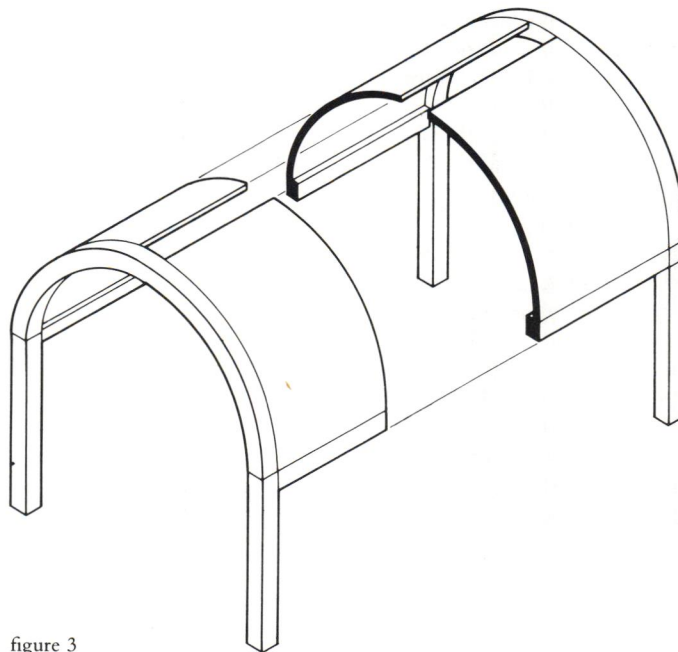


figure 3

This slit, together with the addition of stiffening beams along all four edges (fig. 3) complicates the structural behavior of the roof beyond the intellectual and visual comprehension of most architects and engineers. Kahn's aspiration for "an order which is completely clear"¹⁴ is almost impossible in this case. Attempts by Komendant,¹⁵ Seymour, Jordy and others to explain either the structural behavior or the visual order have not been useful and, in most cases, have been conceptually in error.



figure 4

Kahn believed that the clarity of the order was present in the open porches of the museum (fig. 2) where "how the building is made is completely clear before you go into it . . . made as the interior is made." Unlike the interior, however, the porch has no "slit to the sky," and therefore has a different structural behavior and also a different relationship between light and space.

His intention that the room and structure be coincident is realized in the porch, and is even more clearly expressed in the elevations (fig. 4) where the six modules appear to be cylindrical vaults supported by vertical (not horizontal) columns or walls. Both the porch and the module of the elevation answer

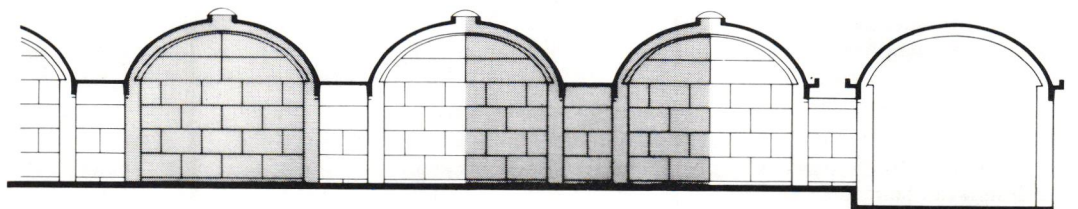


figure 5a

figure 5b

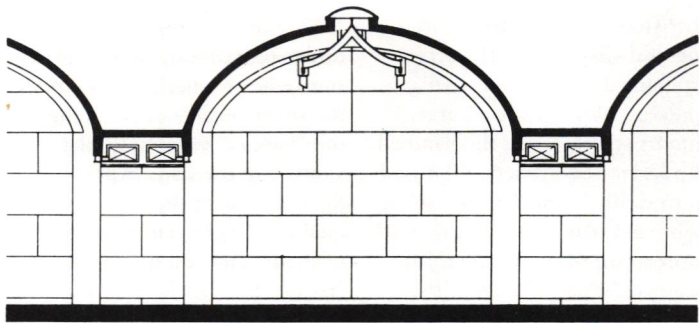


figure 6

to his expression of architectural principle. If only the structure had been "the giver of light," then the module, structure, light, space, place, room, and principle would have been in union (fig. 5a). But the interior spaces required a "new kind of window," which as a slit "inspired" a new kind of vault-shell-beam whose structural character is visually apparent in the section (fig. 6). Of this section, Meyers said "the section . . . was done without a plan. . . . [Kahn] thought of it as the section through a gallery and as the element of the building, in a way complete in itself, in that it housed the light, air and power and correct dimension for viewing the art. It could be repeated as necessary and it could be longer or shorter."¹⁶

Thus, Kahn's intention had not been realized. The unity of structure, light, and room had shifted by half of a module (fig. 5b). Of his intended room, Kahn said "how the room is made is manifest; the dimension of its light from above is manifest without partitions because the vaults defy division." However, the linear oculus enforces a division and a shift in the structural-spatial relationship and forces us to question whether Kahn achieved his wish "that the nature of a room is that it always has the character of completeness."

Kahn seems to have had two intentions: one, of the complete room—manifest in the section; the other, of the architectural principle of the Roman vault—manifest in the elevation and the porch. The intention of the form is visually expressed in the elevation, and the reality of the design can be read from the section. The engineering failed

to bring about the union between idea and reality.

On one of the two occasions when Kahn and I discussed the relationship between structure, light, and place in the Kimbell Museum and the concomitant half bay shift, he remarked that the quality of light and place in the then partially completed museum was sufficiently beautiful that, for the moment, he was willing to sacrifice the truth of the structural principle.

Kahn's words during our other discussion are paraphrased in a statement published elsewhere:

Form has no shape or dimension; form merely has a nature, a characteristic. . . . Design is a translation of this into being. Form has existence, but it doesn't have presence and design is towards presence.¹⁷

Form, like architecture, exists in the mind; form is brought into reality through design and engineering. Of this museum, Kahn said "when you have all the answers about a building before you start building it, your answers are not true. The building gives you answers as it grows and becomes itself."

While Kahn actively sought a fit between form and reality through design, he was also attempting to "make something appear"; he was engaged in *techné*. Of *techné*, or the transformation from absence (architecture) to presence (building) Kahn said,

A man who does a work of architecture does it as an offering to the spirit of architecture . . . a spirit [that] just waits for that which presents itself.¹⁸

Kahn's Kimbell Museum reveals that *techné* is mediation between the building and architecture.

1. Marshall Meyers, "Masters of Light: Louis I. Kahn," *AIA Journal* (September 1979): 61.

2. Louis I. Kahn, *Light Is the Theme* (Fort Worth Texas: Kimbell Art Foundation, 1974): 15. (Unless otherwise noted, Kahn notes are from *Light Is the Theme*.)

3. Meyers, "Masters of Light": 61.

4. A. T. Seymour III, "The Immeasurable Made Measurable: Building the Kimbell Art Museum," *VIA 7* (University of Pennsylvania and MIT, 1984): 77–85.

5. Fumihiko Maki, "Contemporary Classic: Kimbell Art Museum," *A + U* (September 1975): 315.

6. L. W. Speck, "Evaluation: The Kimbell Art Museum," *AIA Journal* (August 1982): 39.

7. August Komendant, *18 Years with Architect Louis I. Kahn* (New York: Aloray Publishing): 116–117.

8. Louis I. Kahn, talk at the University of Pennsylvania (Fall 1968).

9. Marshall Meyers, interview with Kahn, *Rassegna 21* (March 1985): 68.

10. R. F. Brown, interview, *Art in America* (September October 1972): 48.

11. Louis I. Kahn, "Kahn on Beaux-Arts Training," *Architectural Review* (June 1974): 332.

12. Louis I. Kahn, quoted by William Jordy, *Architectural Review*, (June 1974): 331.

13. Meyers, "Masters of Light": 61.

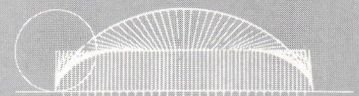
14. Louis I. Kahn, *Architecture at Rice 26* (Houston, Texas: Rice University, 1969): 51.

15. A. T. Seymour III, "Post-Tensioned Shells Form Museum Roof," *Engineering News Review* (November 1971): 24.

16. Meyers, interview, *Rassegna 21*: 68.

17. Kahn, *Architecture at Rice 26*: 32–33.

18. Kahn, *Architecture at Rice 26*: 19.



After Architecture

McCleary

50/51

Patricia Loud:

THE CRITICAL FORTUNE

The Kimbell Art Museum, the last building by Louis I. Kahn completed during his lifetime, displays some of his later preoccupations with architectural continuity, tradition, and what he termed "commonness," as well as his characteristic approach to form and design: simplicity, consistency, repetition, and elegance both of exterior and interior mark the building in its details and its totality as Kahn's most classical work. This classicism is enhanced by the landscaping and the controlled palette of materials of his later vocabulary: concrete, travertine, lead roofing, glass, milled stainless steel, brushed aluminum, and white oak. Conceived as a Mediterranean villa with classical allusions, the Kimbell is set amid geometrically regular groves of small trees and symmetrical pools with waterfalls, raised on a concrete base, and approached obliquely on broad, seemingly ritual, paths.

The Kimbell is based on a simple vaulted unit, resting on four columnar supports, repeated sixteen times. On the west front, the unit is measured by the spectator as he walks beside or under the side porticoes and turns inward under the canopy of yaupon hollies, passing the end walls of vaulted bays and short, linking intervals (the service spaces in Kahn's familiar concept) on either side, to approach the recessed center entrance porch. Inside, the lobby replicates the porticoes, here evoking the vaulted gallery of a villa, its undoubted inspiration, with the module repeated all around the observer. The exterior is a preparation for the interior, where one finds clear expression of the Beaux-Arts axes and organization of the plan, and thus

feels a sense of orientation and understanding of the building.

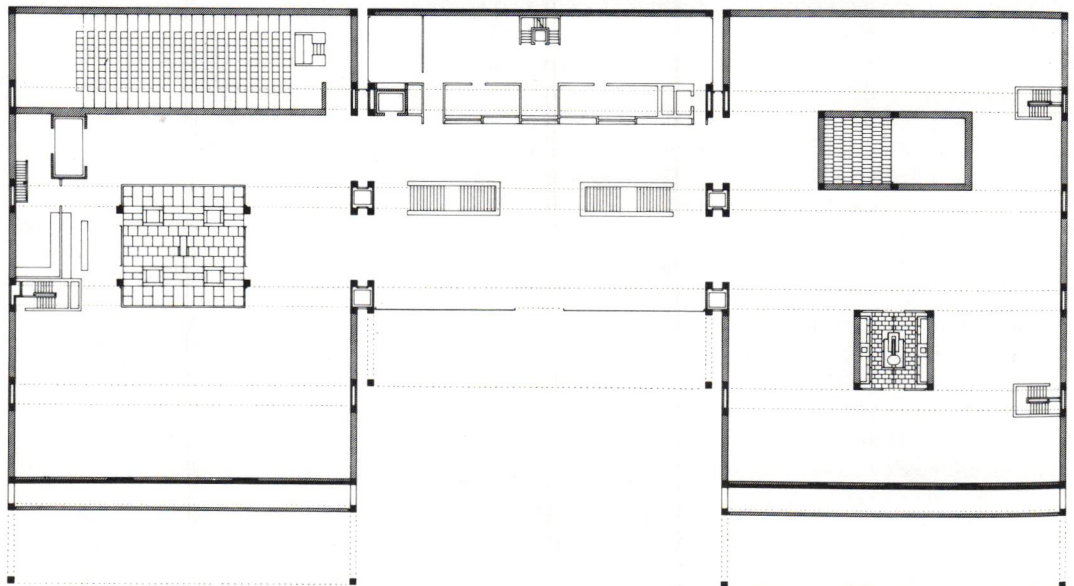
The low curve of the vaults, also traditionally Mediterranean and found in vernacular and classical examples, is calculated from a cycloid curve, and the post-tensioned, reinforced concrete shells allow for maximum span with minimum support. The interior possesses virtually uninterrupted flowing space and a possibility of flexible interior partitions. Unlike the International Style loft-space of Kahn's Yale Art Gallery of 1951-1953, there is a high degree of spatial definition in the Kimbell because of the bays created by the alternation of vaults with low, connecting soffits and the natural lighting of each bay through narrow skylights. Light is filtered onto vaults and walls by hanging, wing-shaped reflectors of thin, perforated aluminum. At the Yale Art Gallery the tetrahedron-inspired ceiling acts visually to organize

the gallery space through its forceful shapes, and the service equipment (ducts, pipes, wiring, lights) is cleverly incorporated into its structure. At the Kimbell the service equipment is housed in the soffits, and interior space, light, and structure are integrated more completely. In the third Kahn-designed museum, the Yale Center for British Art (1969-1977), the integration of these architectural features is diversified, reflecting its more varied, complex institutional program: the functions of gallery spaces and study areas are inter-related but handled separately.

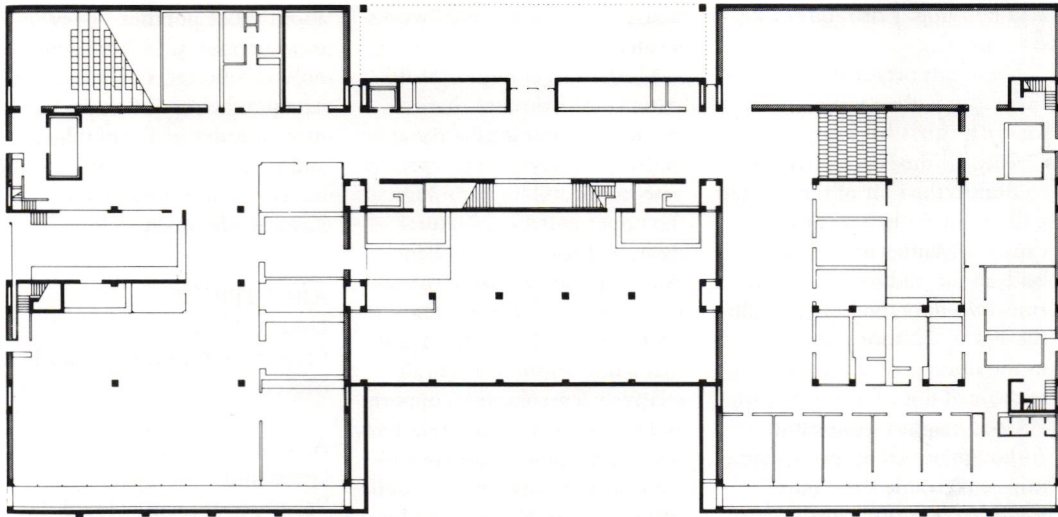
William H. Jordy, in his 1974 *Architectural Review* article, established the critical canon for the Kimbell Art Museum, commending Kahn's distillation of functional use, structural syntax, and ceremonial extrapolation. He also noted the importance of vaults in the 1960s for Le Corbusier, whom Kahn admired and called, along with Paul Philippe Cret, his teacher. Earlier publications on the museum—Peter Plagens in *Artforum*, the 1969 issue of *L'Architecture d'aujourd'hui* devoted to Kahn's works, and the Museum of Modern Art's 1968 exhibition on *The Architecture of Museums*—used models and drawings to record the preliminary design. Included in *L'Architecture d'aujourd'hui* is a lecture given by Kahn in Boston in November

1967, while the building was under active study. In this prime source he prophetically described the silver quality of the light in the "rooms" formed by the vaults and the counterpoint of the courts with their own special quality of light. He also spoke of the inspiration of Boullée. (Earlier that fall he wrote a catalogue statement for and lectured on the exhibition *Visionary Architects*.) Boullée's well-known project for a barrel-vaulted addition to the Bibliothèque Nationale was singled out by Kahn as a wonderful concept, but with little relation to its actual use. His own vaulted spaces with their skylights relate more directly to their functional use as galleries.

Although the Kimbell is impressive in photographs, it is not photogenic. The most complete visual coverage has been the museum's own publication *Light Is the Theme*, which includes photographs, plans, presentation drawings, and brief selections from Kahn's lectures, interviews, and conversations. The first-time visitor, no matter how familiar with the published images, is invariably surprised by the building's impact. Its reputation has grown steadily since completion. The 1978 AIA national conference in Dallas gave many architects an opportunity to see it, resulting in several articles. Robert



GALLERY LEVEL FLOOR PLAN. FROM *LIGHT IS THE THEME*.



LOWER LEVEL FLOOR PLAN. FROM *LIGHT IS THE THEME*.

Campbell in the *Boston Globe* (9 July 1978) wrote that it was "one of the best buildings in the world," but one "few people get to see." Thomas Hoving in *Connoisseur* called it "the finest museum of its size in the United States, not only in tangibles, such as the grace of its architecture, the clarity of its interior and the superior quality of its collection, but also in the intangibles." For the *AIA Journal*, architect Lawrence W. Speck of the University of Texas in Austin prepared a ten-year evaluation, finding that while the Kimbell defied ordinary classification or labeling, it was "one of the great buildings of our time."

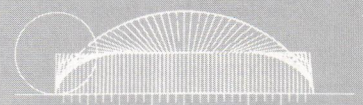
Douglas Davis, architecture critic for *Newsweek*, writing in a special issue of *Museum News* devoted to architecture, cites the Kimbell as "that lonely example" which pleases both the public and the specialists working in it, and still satisfies its historical role as a museum. In the same issue, a survey of eight architects on their favorite museums found the Kimbell the only one to be listed as many as five times. Although Helen Searing in her catalogue essay for Whitney's exhibition on museums for the 1980s neglects the Kimbell while discussing Kahn's other two museums, it is later identified as an exemplar by Henry N. Cobb of I. M. Pei & Partners

for the new Payson Building, 1978–1982, of the museum of Art in Portland, Maine. Pei's addition to the Boston Museum of Fine Arts (1977–1981), with its vaulted entrance gallery, suggests the influence of Kahn's vaults as well. Edward L. Barnes does not mention the Kimbell in the Whitney catalogue, but his description of his recently completed Dallas Museum of Art could be interchangeable: "This is essentially a low-rise structure with garden courts and patios and top-lighted galleries." The large vaulted gallery in the heart of the Dallas Museum acknowledges this classic museum space in which Kahn revived interest. The upper level of Robert Venturi's new Laguna Gloria Museum in Austin, Texas, is expected to show the inspiration of the Kimbell.

The November 1983 extra issue of the Japanese *Architecture and Urbanism* on Kahn includes ten interviews with architects and former colleagues. Notable among these is the memoir by Marshall Meyers, Kahn's articulate right-hand man for the Kimbell, concerning the work and personalities involved with the project. Meyers comments on the strong emotional response the building elicits. His own interview with Kahn, which occurred near the time of the museum's completion and was

only recently published, contains Kahn's further thoughts on the Kimbell. Other informants on the making of the museum are August E. Komendant, structural engineer for this and several important Kahn buildings, and A. T. Seymour III, the contractor.

In contrast to this good press, the Kimbell has received relatively little attention in newer histories of modern architecture. It is a building which should be physically experienced, and its location, neither East nor West Coast, may partially explain the neglect. Kahn's other late works on the coasts—the Salk Institute in La Jolla (1959–1965), the Library at Phillips Exeter Academy in New Hampshire (1967–1972), and the Yale Center for British Art (1969–1977)—are more frequently discussed. William J. R. Curtis in his *Modern Architecture Since 1900* has provided the most lengthy discussion of the Kimbell. Comparing it to the Pompidou Center, the "image of a flexible machine à cultiver," he notes Kahn's modern transformation of classicism, which created a more classical building, he believes, than the Getty Museum in Malibu which adhered to a Herculanean prototype. Charles Jencks in *Architecture Today* also treats the Kimbell at some length. Concerned with "Late-Modern" versus "Post-Modern" distinctions, he considers it a



After Architecture

Loud

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combination of Beaux-Arts emphasis on constructional logic and modern composition, and questions the Kimbell's relation of "construction and order to place and particular meaning," no matter how "spiritually convincing" it might be.

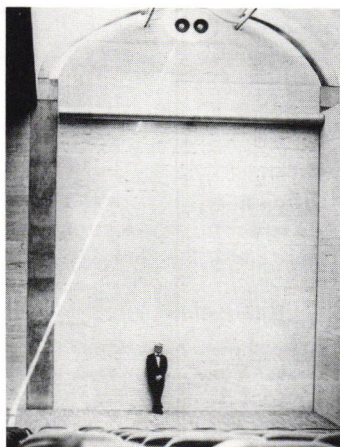
Much of the criticism of Kahn's work has centered around the issue of architectural monumentality, first emphasized by Reyner Banham in his consideration of the Richards Medical Research Building at the University of Pennsylvania (1957-1964), which ran counter to the favorable critical reception that building generally received. William Jordy wondered also at the appropriateness of the Salk's large, open plaza and weighty concrete in a semi-tropical climate, yet found himself hesitant to criticize such a movingly successful monumental building. The Kimbell has monumental associations, particularly in its layout and siting. The symmetrical western entrance is typical of tripartite Beaux-Arts organization. Yet the building is low, unobtrusive, and even difficult to see from a distance. Screened by trees, it is lacking altogether in vertical monumentality, and establishes its bulk and substance in views from the side or rear.

Richard F. Brown, as the museum's first director and acting, as the client, for the Kimbell Art Foundation, emphasized the intimacy he wished the museum to possess in his initial architectural program. Throughout the design stage he favored scaling down the building, and not merely out of concern for cost. The house metaphor, first mentioned in Jordy's critique, was Brown's contribution, not Kahn's; Kahn had an entirely different sense both of institutions and of monumentality. To convey his concept, Brown described a "little old lady from Abilene" contemplating the fourteen-inch Giovanni di Paolo. During a stopover at Dulles Airport, after conferring about plans with Kahn in Philadelphia, Brown scribbled a note to him: the scale of Saarinen's airport had rekindled his fears that the

Kimbell might turn out to be monumental.

More important than monumentality is the matter, again identified first by Jordy, of forcing all the functional parts to fit into the unit of the vaulted gallery. Jordy believes this causes a Mannerist perspective both in the auditorium, which runs two floors in depth within the 104 × 22-foot module, and in the library, which houses an additional floor level within the 20-foot height of the vault. Although not all observers agree, it is conceivable that Kahn might concur with Jordy, since in earlier schemes he used two, or even three, bays for the auditorium and planned the library on both first and second floors with only a partial mezzanine.

The library upper level has been a delight for those taking tours of the museum. Here they find themselves directly under the vault, where its surface, skylight, and reflector can be intimately studied. Kahn was once found seated in the loft of the library by a Kimbell librarian to whom he confided it was his favorite spot. The library plan was a compromise solution for a reduced and rearranged scheme, but it was one of Kahn's special strengths to make the most of limitation. His treatment of the library anticipates the human pleasure of interaction with the structure and deeper realization of how it was made. It is the same sensibility that led Kahn to specify that the face of the large computer in the security office be



LOUIS KAHN IN THE AUDITORIUM. FROM *LIGHT IS THE THEME*.

transparent to show the "works" inside.

Most compelling in Jordy's criticism is his sense that the service and administrative areas in the lower level do not participate in the architectural logic of the upper galleries. Natural light, as Dana Cuff explains, does not play the same role as in the "rooms" above. The post-tensioned, hollowed and foam-filled floor slab requires relatively few columnar supports, and the work areas are relatively open. The gallery dimensions are reserved only for the public entrance from the parking lot. The visitor must climb the travertine stairs opposite the doors before reaching the privileged light of the upper galleries.

Originally Kahn had planned more light wells and courts for the nonpublic sections of the museum, but they were sacrificed to budgetary considerations during the several reductions of the building's size. For Kahn, the "service" relationship to the galleries, the hierarchy clearly established by Brown, would have justified the final subjection of these areas. He nonetheless devoted great care to their architectural character, achieving reminders of the quality of materials and detailing in the upper level, with telling, if too brief, reminiscence of the light in the galleries. It is notable that certain special places in the museum, especially the upper floor of the library and the conservation studio with its two-story space and north wall of glass, are not public at all, but meant for those who work in the museum.

Kahn insisted that the ceiling of the lower floor be exposed concrete, showing reinforcement pattern discolorations and all. He must have believed that its very obviousness as the bottom of the upper floor was a further logical expression of the building as a whole. This kind of logic was also present in the design of the porticoes on the west front. "When you look at the building and the porch, it is as an offering: it is something that emerged," he said. Or, as he explained to Brown: "You know what's so wonderful

about those porches? They're so unnecessary." That is true only in a literal, structural way. The porches establish the ceremonial order of the building and prepare the observer for the interior. An intuitive artist, Kahn made much of logic.

ARCHITECT

Louis I. Kahn
Project Architect: Marshall D. Meyers

Associate architect: Preston M. Geren and Associates
Project coordinator: Frank H. Sherwood

CONSULTANTS

Structure: August E. Komendant
Lighting: Richard Kelly; Edison Price
Acoustics: C. P. Boner and Associates
Landscape: George Patton
Graphics and exhibition design: Laurence Channing
Electronics: Thomas Electronics

CONSTRUCTION

Thos. S. Byrne, Inc., general contractor
Project manager: A. T. Seymour III
Job supervisor: Virgil Earp
Landscape: Vernon S. Swanson

CLIENT

Kimbell Art Foundation
Museum director: Richard F. Brown
On-site representative: E. B. Brown

CHRONOLOGY

Oct. 6, 1966: Architectural contract let
May 5, 1969: General construction contract let
June 29, 1969: Groundbreaking
Oct. 4, 1972: Opening

DIMENSIONS

Gross area is 120,000 square feet and the public gallery area approximately 30,000 square feet. Overall length (north-south) is 318'. Width at the widest roofed area is 174' and at the narrow center section, 114'. Height to the apex of a vault from the floor is 20', and overall height from the lowest (east) ground level is 40'.

COST

Construction: \$6,500,000.00

Equipment and furniture:
\$1,000,000.00

AWARDS

1972: Best Building Award,
National General Contractors
Assn.

1973: Lumen Award, Illuminating
Engineers Society

1975: Honor Award and Bartlett
Award, American Institute of
Architects

1975: Engineering Excellence
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PHOTO BY JEFF HOWARD

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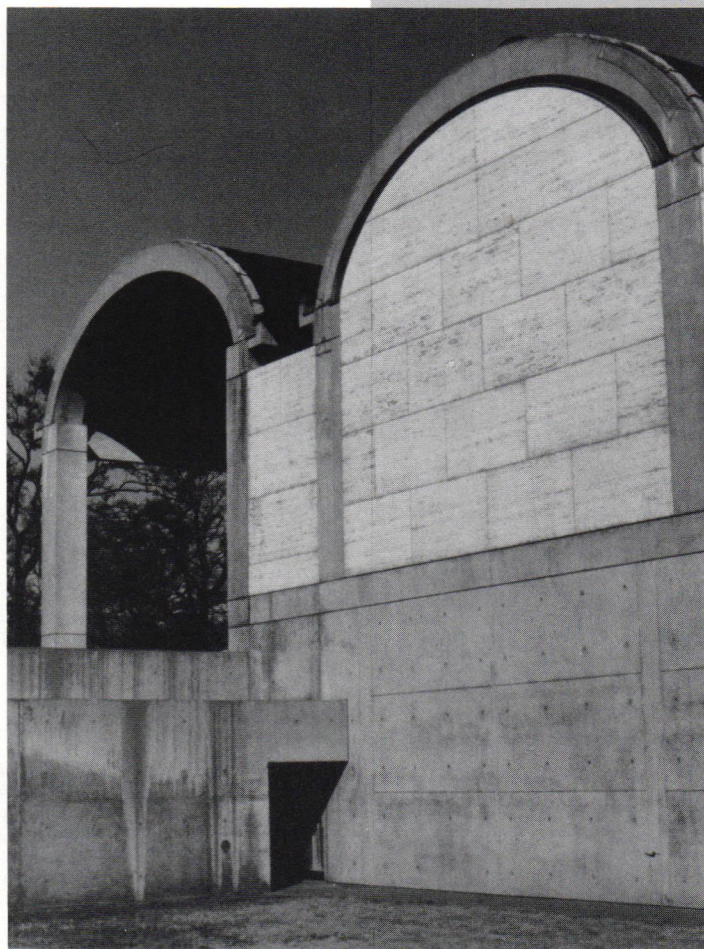
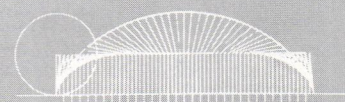


PHOTO BY JEFF HOWARD

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After Architecture

Loud

54/55

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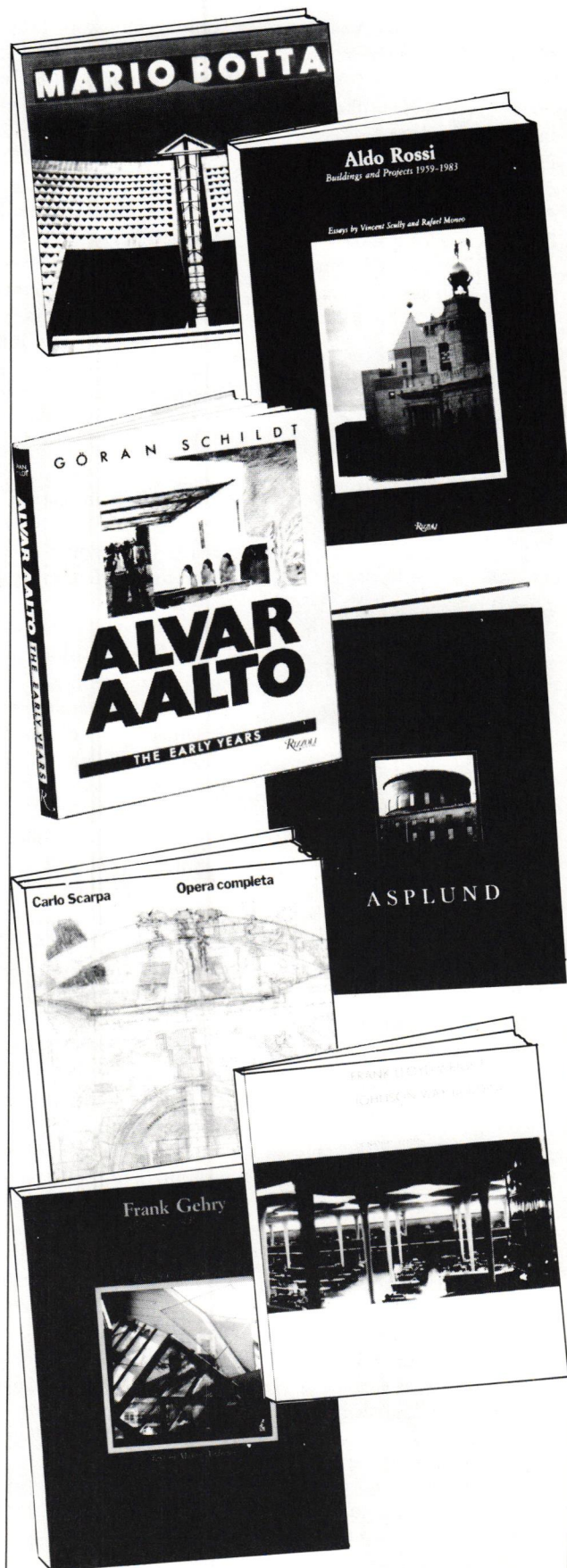
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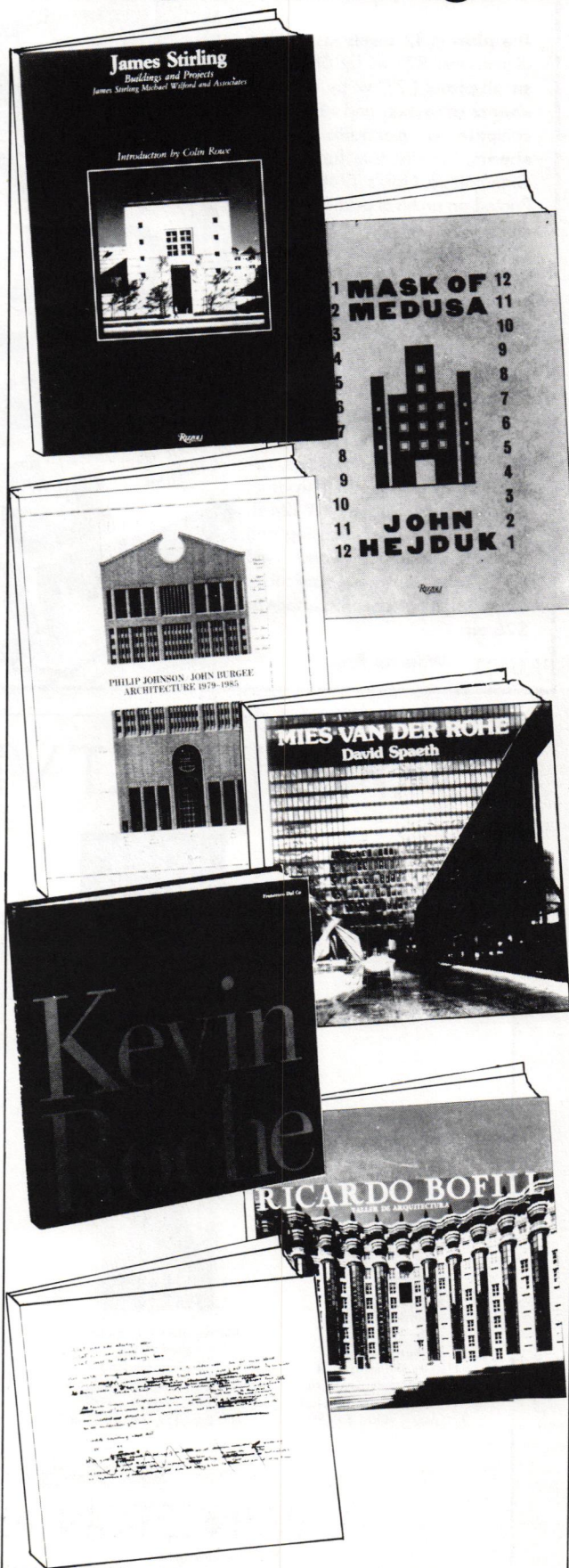
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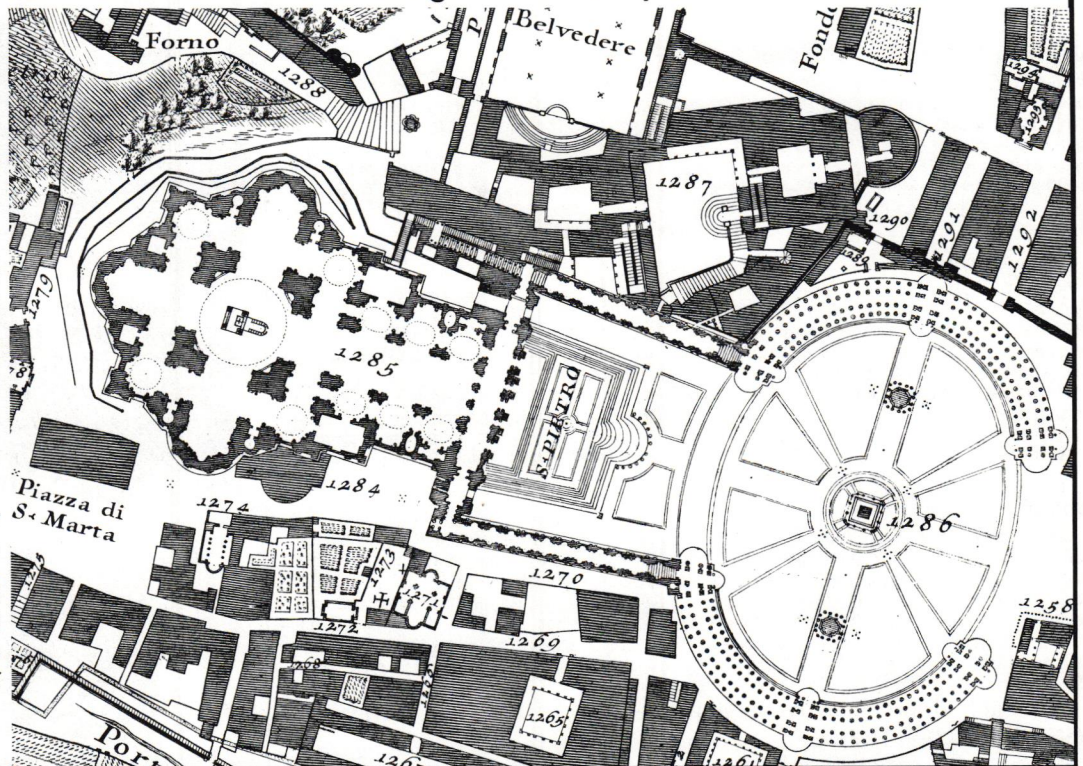
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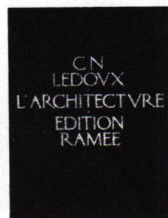
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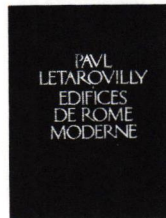
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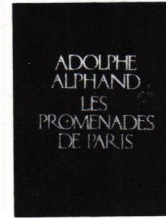
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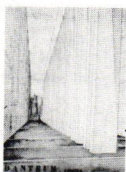
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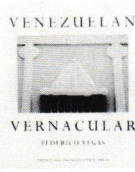
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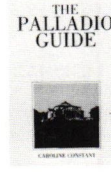
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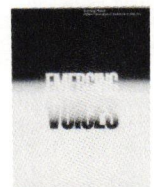
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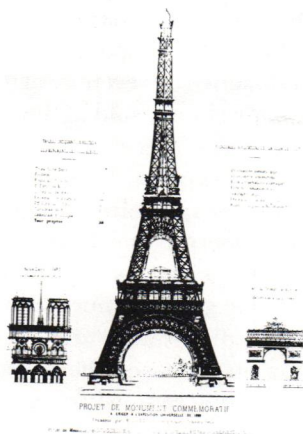
Barry Bergdoll:

FRENCH IRON ARCHITECTURE

Newly refurbished and nearing its one-hundredth birthday, the Eiffel Tower has become the focal point of a minor French publishing bonanza, rivaling that surrounding another Eiffel project, the Statue of Liberty. Anniversaries of such popular symbols are rarely the occasion for confronting received mythologies, let alone for scholarly reconsiderations. Happily the new books on Eiffel are not only the work of three of the most accomplished of the younger generation of French architectural historians, but each draws heavily on a previously untapped gold mine of primary material: the personal papers of Eiffel, recently donated by his descendants to the Musée d'Orsay in Paris. This remarkable source has yielded a portrait of a complex and contradictory personality—an elusive man, at once a self-made public figure, and a very private sort, troubled by his status and family position. Indeed, the Eiffel who emerges from his own accounts would probably be ill at ease with his modern image as heroic and pragmatic engineer, the brave creator of new forms which proved the source of 20th-century modernism. This progressivist scenario has prevailed in architectural history since Sigfried Giedion's polemical *Bauen in Frankreich* (1927) first isolated the Iron Age ancestors of modernism and canonized that obsession of modernist architectural history, the architect vs. engineer debate. Eiffel has, in fact, remained as much an object of historiographical and popular myth as the famous tower he built, owned, operated, and even inhabited (in a small office/apartment on the top level), but which in fact he neither conceived nor designed.

Although trained as an engineer, Eiffel excelled at the organization of

work sites and the administration of business. His skill in these areas was such that as soon as he acquired the capital to launch his own company in 1866, he began to leave design and research largely to associates and employees. As Henri Loyrette argues, Eiffel was far from the pioneer the public perceived. He knew how to exploit the discoveries of others, to implement them with great efficiency, to adapt them to the most diverse demands, and, most important, to nurture and maintain the public image of the Eiffel firm.



The Eiffel Tower was his personal monument. Even though Eiffel did not design it, it was no mean feat to convince the city fathers to authorize a 300-meter bridge pylon in the center of Paris and to allow the city's tallest structure to carry the name of its constructor rather than a rubric to remind the public of the fair's official agenda (to commemorate the centennial of the French Revolution). From his first major successes—the railroad bridge at Bordeaux done during his brief tutelage under Nepveu (1857)

and especially the daring bridge across the Douro in Portugal (1875)—Eiffel was more organizer than designer. Already at the time of the 1878 Exposition Universelle he sought to disguise a public relations gesture for his young firm as an exhibition building, proposing a huge iron pedestrian *passerelle* to be constructed above the Iéna bridge, a sort of rival to the Pont des Arts downstream, which had launched the public display of iron in the landscape of the Seine at the beginning of the century.

There is much more to Eiffel than the tower and the famous viaduct at Garabit (1880), much that reveals that the ambivalence about the role of iron in architecture was not confined to the architectural side of the debate. Loyrette includes a whole section in his monograph on the Art vs. Industry controversy sparked anew by the construction of the Eiffel Tower. But from the start the Tower was a unique incident, less representative of the firm's work than its best advertisement. It became instantly a much-defended monument to professional and personal prestige, and Eiffel was reluctant to see it suffer the fate of other ephemeral exhibition constructions. If the attack led by several architects with whom he had previously collaborated prompted Eiffel to make that statement so beloved by modernist historians—"The first principle of the aesthetic of architecture is that the essential lines of a monument should be determined by their perfect appropriateness to their end"—those ends were undeniably exceptional. As Eiffel himself admitted, the tower had little more to do than resist wind, distribute its weight of 7,300 tons with the greatest possible efficiency, and conduct passengers to its viewing platforms. If it placed the brave utilitarian frankness of a viaduct in the monumental heart of Paris, sparking a controversy which Loyrette summarizes admirably, Eiffel himself seemed reluctant to extrapolate those conclusions into everyday

architectural programs. Loyrette's and Lemoine's books share the virtue of treating Eiffel as a vivid reflection of his century, more the mirror than the victim of its internal contradictions. His own house in Paris, a typical Louis XVI revival stage set, as well as the various country houses he constructed once he had made his fortune, reveal a man as deeply committed to the projection of a bourgeois self-image as any of the "typical" architects and clients of the Third Republic. And despite the vociferous role Charles Garnier was to play in the campaign against preserving the Eiffel Tower, he himself had called on Eiffel several years earlier to collaborate on the Observatory at Nice (1885-1886). For Loyrette, the meeting of Garnier's robust base and Eiffel's great metallic dome, independently suspended by an ingenious system, is an uncharacteristic moment of co-operation between rival professions.

But Eiffel seems to have had few qualms about the notion of engineering at the service of more traditional architectural representation. Many of the most characteristic monuments of the closing decades of the century depend as much for their effect on the rich program of sculptural and mosaic decoration as they do on the light and spacious effects of Eiffel's metal frameworks. At the same time as he was building bridges ever farther afield in the French colonial empire Eiffel was called upon by the most fashionable architects to create the iron interiors of the Grands Magasins and even the headquarters of companies such as Bouwens van der Boyen's Crédit Lyonnais on the Boulevard Haussmann.

Of the three popular accounts of Eiffel's many works in iron, Loyrette's is the most lavish production, drawing most extensively on the Eiffel papers, which are part of the author's charge as architectural curator of the new Musée d'Orsay. Both he and Lemoine have relied heavily on the extraordinary photographs contained in the Eiffel collection to produce accounts

richly illustrated with 19th-century images, in many cases more telling than the accompanying text about the processes of construction. Loyrette includes a number of drawings and documents, many reproduced in color, but in fact he has added little to Lemoine's concise and cogent biographical account of Eiffel and his remarkable firm, which grew exponentially during the last decades of the 19th century. An art historian, Loyrette is as interested in the impact of Eiffel's daring creations on the architectural profession and popular imagination as he is in the detailed history of the firm and its prolific production. On technical questions his account is incomplete and often hard to follow. For this the reader is better served by either Lemoine or even Marrey—whose popular book, sold at the tower itself, is a masterpiece of the French genre of *vulgarisation*. Both Lemoine and Marrey are specialists in the history of engineering and have studied metal structures extensively. In addition Lemoine gives a much broader sampling of the Eiffel firm's work, discussing many lesser-known monuments, including railroad bridges and viaducts in the most distant and dramatic landscape settings, and such experiments in prefabrication as Eiffel's church in Arica, Chile, and designs for a system of factory-made houses. Although there is inevitably much repetition in these popular books, and much more of an interpretive nature to be derived from a close study of the rich Eiffel archives, the accounts by Loyrette and Lemoine are richly suggestive and complement one another admirably.

Eiffel's tower is also the culmination of the more general account of French experiments in iron structure offered in Frances Steiner's *French Iron Architecture*, published by UMI as part of a series that makes doctoral dissertations available in their original unedited form and at exorbitant prices. While this account is useful for its brief consideration of most of the

milestones of French trussed spanning systems and multistory framing in iron, the art historical framework of the discussion relies on a rather simplistic opposition between romanticism and rationalism, which does little to explain the attitudes or motives of those who exploited the technical developments Steiner outlines so well. In fairness, it should be pointed out that his dissertation was completed eight years ago and thus preceded much of the recent spate of literature on French 19th-century architecture, and most particularly that on Viollet-le-Duc, a major protagonist in any account of French thinking about new materials. Much of the chronicle of events, moreover, parallels that available in Giedion and other sources, but Steiner's account is decidedly less polemical in tone and intent. Although it will hardly become the standard account on French metallic architecture, it could have been a handy reference, were the text not marred by terseness on major technical questions and countless errors in the names of important architects and places. Despite its very general title, Steiner's account essays no new consideration of the professional and cultural dilemmas raised by the technologies of iron architecture, which arise so vividly even in the most straightforward biography of Gustave Eiffel.

Gustave Eiffel, Henri Loyrette, translated by Rachel and Susan Gomme, Rizzoli, 1985, 223 pp., illus., \$35.00.

Gustave Eiffel, Bertrand Lemoine, Fernand Hazan Publishers, Paris (in French only), 1984, 136 pp., FF 128.00.

The Extraordinary Life and Work of Monsieur Gustave Eiffel, the Engineer who built the Statue of Liberty, the Porto Bridge, the Nice Observatory, the Garabit Viaduct, the Panama Locks, the Eiffel Tower, Etc., Bernard Marrey, Graphite Press, Paris, 1984, 111 pp., illus., FF 64.00.

French Iron Architecture, Frances H. Steiner, edited by Steven Foster, UMI Press, 1984, 254 pp., illus., \$39.95.

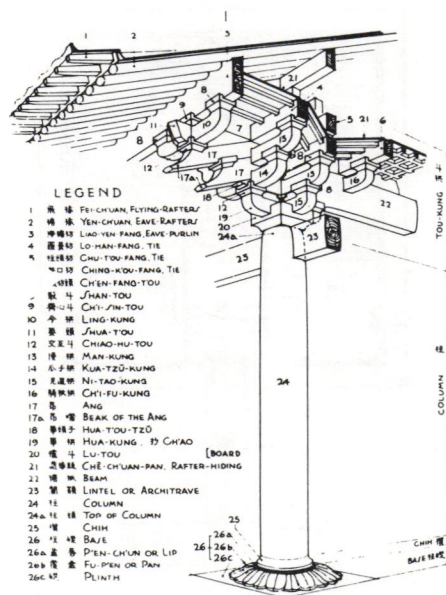
Nelson Wu:

PALACES OF THE FORBIDDEN CITY

YU ZHUOYUN, editor

Not too long ago it seemed that Chinese architecture was regularly discussed in terms of its ingenious wooden bracketing support system, known as *tou-kung*; in like manner Indian architecture was treated as sculpture. We had to take our eyes off the solids and concentrate on the space in between and around tangibles, to see the true extent of these architectural traditions, let alone understood them.

Meanwhile, waves of visitors to Peking (now Beijing) have been intrigued and overwhelmed by the richness of decoration, the great refinement of craftsmanship, and the sheer size and scale of the imperial palaces, as their guides point out one wonderful detail after another, while telling fascinating anecdotes of Imperial China. Frankly, I did not expect anything different from this big, official-sounding, and collectively written volume. With over 270 color plates, offering informative and even entertaining views of the Forbidden City, often of aspects that a visitor could not easily see on his own, one might at first suspect it of being a mere coffee-table book. It is soon apparent, however, that the book should be read with the same respect that the various authors and the two very sensitive and skillful photographers, Alfred Ko and Hu Chui, have shown for their subject. This book contains enough visual and verbal information to enlighten and amuse everyone, be they historians, collectors of orientalia, interior designers, city planners, theatrical producers, or, of course, architects and landscape architects. The many drawings and explanatory notes, in addition to the period and new photographs, allow serious students of Chinese architecture to assemble their own



THE TOU-KUNG SYSTEM. FROM WU, *CHINESE AND INDIAN ARCHITECTURE*.

impressions of this magnificent and spatially articulate complex. And, yes, there is even a chapter on *tou-kung* (under the heading "Bracketing"), with several models. The appendices contain very good construction drawings of, among other things, the complex corner towers.

Under the cloak of conservative presentation, this book approaches some age-old problems in a refreshing manner. It begs to differ with certain conventionally held and oft repeated, but not so sound, concepts and beliefs. For instance, the treatment of the "screen wall":

Standing across the pathway through the Gate of Mental Cultivation is a screen wall, or more properly, doorway, of the type which is found in traditional Chinese domestic courtyard construction. Malevolent spirits can travel only in straight lines and so one of its purposes was to deflect them and prevent them from entering the family home and disturbing its peace.

Having said what has been said so many times before, the text continues:

"Another, more practical reason for erecting screen walls was to prevent prying eyes from observing activities beyond it." The screen wall's purpose was clearly to create "visual privacy"; it could also be made of stone. In either case, if only we try to read the space created by the screen wall for directing traffic, its purpose becomes clear. On the other hand, if straight lines were indeed the way of evil beings, then the Emperor, who was carried ceremonially through the palace in a sedan chair along a straight central axis, would have to have been the greatest malefactor of them all! This book is a delight in its handling of such skittish issues.

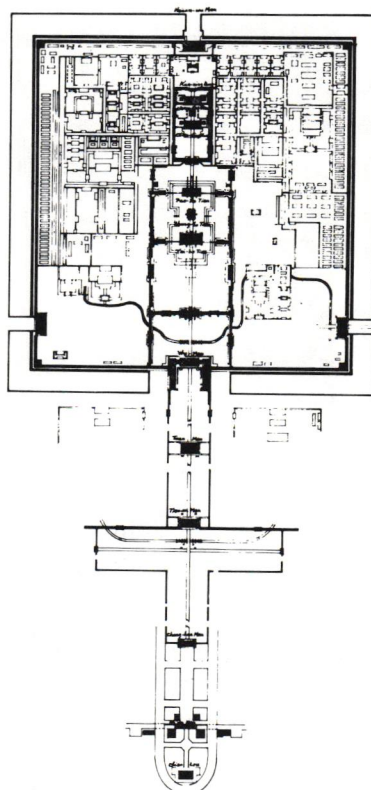
The Forbidden City is in fact a much enlarged, glorified, and ceremonial version of the old Chinese home in its courtyard system, with screen walls and all. It houses an extended family staffed with household servants and maids. For purposes of worship it houses ancestral shrines and temples for different faiths. The Chinese self-image is complemented by an assembly of libraries, family tutors' classrooms, and large and small gardens for the cultivation of mind and soul. The whole spatial system is regularly oriented to the south, and protected on the north with devices ranging in scale from high-back seats to elaborately carved screens to man-made hills such as Prospect Hill, seen from the northern wall of the complex.

The walls and gates were tangible architectural members that served to differentiate the "inside" from the "outside," and even more specifically the inside of the inside and the outside of the outside, carefully creating a "graduated sense of privacy." Other features, the stairs, the "imperial ways," and the terraces, additionally describe the ranking of the low and the high. The spaciousness of the Chinese home is measured by its height and depth (*kao-shen*), upward and inward. As it has the greatest number of gates and terraces, the

Forbidden City is thus the highest and deepest. Although its elevation is puny in comparison to the terraces of the Han dynasty palaces, the architecture symbolically reaches the sky. The Grand Audience hall (the Hall of Supreme Harmony) is conventionally depicted as if in the clouds, as seen in the illustrations "The Kang xi emperor's re-entering the Forbidden City" and the "Wedding of the Guang xu emperor."*

Under the heading, "The Principle of Yin and Yang and the Five Elements of Architectural Design," the authors provide a glimpse into Chinese geomancy (*feng-shui*, wind-water). It is good to see this age-old and deep-rooted system, widely practiced throughout the dynasties, at last discussed openly in a book on architecture. I hope more will follow. *Feng-shui* concerns itself with far more than just wind and water, and in its own way postures as a comprehensive management program of all environmental elements in a never-ending space-time correlation; geomancy is hardly a suitable translation. But this topic may gain credibility through growing interest and investigation, and the term may acquire new meaning in the English language. The geomancer's ruler for determining the auspicious options in construction is divided into eight sections, beginning with a single lucky section, followed by the alternation of two unlucky and two lucky sections, and ending with another single lucky section. Some geomancer's rulers, like carpenter's rulers, have ten sections, as ten *cun* (the Chinese inch) constitute a *chi* (Chinese foot). The text also illustrates and explains the *Tai-chi*, with eight trigrams positioned in conjunction with the Heavenly Stem Numbers.

Many forces played a role in shaping the Forbidden City during the Ming and Qing dynasties. What we have today is the evidence of several hundred years of cultural and religious cohabitation. There are temples and shrines for Buddhist, Taoist,



THE FORBIDDEN CITY AND THE BUILDINGS ON THE CENTRAL AXIS. MAP FROM WU, CHINESE AND INDIAN ARCHITECTURE.

Lamaist, as well as local gods within its walls. Craftsmen from all over and officials of Chinese, Manchurian, Korean, and Indochinese extraction participated in the construction and various rebuildings. Emperor Yong le of the Ming dynasty, who decided to move his capital from Nanking to Peking, is said to have had Mongolian or Korean blood. This presence of diverse components perhaps explains the periods of great dynamism both at the Forbidden City and in China as a whole. Under the loose-fitting mantle of Chinese Confucianism, different ideologies and aspirations managed to cope. Like a living cell, the Forbidden City contains its evolutionary debris within its walls, yet presents a paradigm of pure and harmonious perfection.

The Manchu element has made the most noticeable imprint. In 1656, the Palace of Earthly Tranquility was renovated to better suit the life-style and religion of the Manchu. A stove

for cooking meat was added to the western side room, where "Sacrificial animals were slaughtered and prepared on the spot and sacrifices performed in the presence of the emperor and empress to the accompaniment of music. The cooked dishes were then served and eaten." The eastern room was refashioned into a bridal chamber, used by the emperors Kang xi, Tong zhi, and Guang xu. Though these changes may seem shocking, the Manchu rulers nevertheless had the good sense not to alter the overall architectural composition. The form of the Manchu courtyard, like the one known from the Manchu palace at Shenyang, resembles a field camp translated into permanent structures, with the principal building at one end and smaller ones in two rows down the central area—a far cry from the central axial composition of the Forbidden City.

Meanwhile, the cavernous halls of the Chinese capital were uncomfortable, if not intimidating. More than one emperor chose cozier quarters for his home office. The tiny but well-lit studio known as the Room of the Three Rarities, where Emperor Qian long could be alone with his art treasures, or the yellow curtain from behind which the Empress Dowager ruled China while the infant emperor sat out front on his throne, are architectural features that help bring history to life.

Now Beijing has lost many of its old architectural accents—some gates, several *pai-lou* (open gateways across thoroughfares), and all of its great city walls. Beginning at the Southern Gate, the visitor must keep in mind the cadences that are no longer there and try to visualize the old walled-in space currently occupied by modern monuments and huge public squares. From this position you will be going up to the Forbidden City, as privileged ones did for centuries.

Over twenty years ago, I interpreted the journey of going in and up (or, for those coming from inside the complex,

going down and out) with a diagram, illustrated by my student Thomas Minoru Kubota. My effort was to try to decipher the plan of the Forbidden City. The double outlines are in the buildings on top because I put the three buildings of the Inner Court inside the three of the Outer Court. Their terraces, being of the same general shape, are also superimposed. The southern, sunny side of the pyramid is the yang side, and to it belong the yang buildings of both courts. The opposite yin slope is where the yin buildings are. The palace planners elegantly solved the problem of expressing the nature of duality by placing one court in front (yang) and one behind (yin). The Inner Court is of course not entirely on the back slope, nor is the Outer Court completely on the front slope. What we see is exactly what they are—the Yang of the yang and the Yang of the yin in front, the Yin of the yang and the Yin of the yin in the back. The Male and the Female, emperor and empress, are thus in place. The tips of the roofs over the two middle buildings are the matching points for this superimposition, pointing to a principal deity whose place is higher than that of mankind. The architects have thus made tangible a last step to Heaven. The I-shaped terraces, called Mount Sumeru Seats, provide the bases for the yang and yin man-made mountains, referring to an Indian heritage. On top of them the Chinese God-King dwells.

*In the "Wedding of the Guang xu Emperor," the building is identified as the Gate, rather than the Hall, of Supreme Harmony. To point out every error in a book of this complexity would be petty. However, it should also be noted: On page 223, to read the roofs correctly, you need to change 7 of the 9 numbers identifying the roof types. Count the drawings from one down, in two columns, ending at nine. The trip is much more rewarding with this guide.

Palaces of the Forbidden City, Yu Zhuoyun, Viking, 1984, 332 pp., illus., \$75.00.

Tod A. Marder:

THE ROME OF ALEXANDER VII

RICHARD KRAUTHEIMER

In a lecture some years ago, Richard Krautheimer, the great historian of medieval and Renaissance architecture, claimed that "old men need new toys"; thus he explained his interest in the Rome of Pope Alexander VII Chigi (1655–1667). For the audience familiar with Krautheimer's love of Rome and his long interest in baroque architecture, his new hobby was hardly a surprise. Class notes from his baroque architecture courses at the Institute of Fine Arts, NYU, had enjoyed an underground circulation for decades. From the 1950s until his retirement in 1972, Krautheimer's courses had consistently lured students into the field. In this part of the world, of course, Rudolf Wittkower played a fundamental role, as teacher and author, in setting out the boundaries of Italian baroque art and architecture as was known in the first half of our century. But it was Krautheimer who explored—and inspired his younger students to explore—the Roman terrain from particularly contemporary points of view, including the close analysis of the relations of architects, patrons, politics, and society. Above all, Krautheimer introduced us to his "new toy," urbanism.

Krautheimer's history of medieval Rome (1980) was magisterial in scope and substance. His new book on the Rome of Alexander VII is intended as a partial sequel, part of a projected volume on Rome between 1560 and 1700. It is thinner—no more than a two-night read—and more informal than the first. The new book is also, and more than anything else, a labor of love and a testament to Krautheimer's affection for the city and his fascination with the Chigi pope.

The book discusses town planning from many points of view. Artistic collaboration is viewed in light of

the relations between Alexander VII and his house architect Bernini. Architectural style is important throughout, and, while Borromini and Pietro da Cortona are never deeply considered, Krautheimer has hallowed Frommel's new term *cinquecentismo* to describe the conservative aspect of Bernini's architectural language. Planning schemes and the planning process are presented in a synthetic framework where each project may reappear in a new context throughout the book. The notes contain the various building histories—for Piazza San Pietro a complete rundown of known documents, and for the other enterprises generous bibliographies. We learn about the widening of squares and the creation of new streets for the purpose of accommodating coach traffic, the reorientation and systematization of squares to satisfy the outspoken but disenfranchised and disorganized lobbies of grocers, fishmongers, and cobblers. Relationships between stage design and planning are soberly and cautiously considered, for the dynamics of urban design are not art historical constructs but the result of mundane realities colliding with exalted aspirations. Political policies are thus seen to be reflected in architectural commitments, and the general importance of 17th-century city renewal is emphasized in light of the economic benefits of increased tourist trade.

The importance of this book lies in Krautheimer's interest in these wide-ranging connections between architecture and 17th-century life and in documenting the circumstances carefully. The thread that ties the book together from beginning to end is the series of engravings by Giovanni Battista Falda, published in Rome from 1665. *Il nuovo teatro delle fabbriche et edifici in prospettiva di Roma moderna sotto il felice pontificato di N. S. Papa Alessandro VII* (The New Show of Buildings and Edifices in Perspective of Modern Rome under the Felicitous Pontificate of Our Lord Pope Alex-

ander VII) and its numerous reprints and editions make clear that the papacy represented a new era in "remapping" Rome. The effort to enhance the appearance and grandeur of the city, however, was not only aesthetic. Krautheimer explains how the vast space of Piazza San Pietro was to be used for parking, according to the accounts of contemporaries close to the pope. The enormous expense of the enterprise was justified as a stimulus to the local artisan economy, "to keep such a large number of poor artisans at work," says an anonymous memo. By contrast, Pietro de Cortona's work on the church and piazza at Santa Maria della Pace was motivated in part by the desire to make it possible for carriages to drop their notable passengers at the portal. Alexander's early interest in Santa Maria della Pace, which had been dedicated to the Virgin of Peace in 1482, is explained not only by the presence of the Chigi family chapel there but also in the context of Alexander's efforts to achieve a peace between Spain and France. These efforts were largely in vain, but the Peace of the Pyrenees was nevertheless celebrated at the church by a "cappella pontificia," and the church was elaborately decorated for the event.

None of these interesting facts in themselves explain the creation of great architecture, but they do put the process of designing and constructing impressive monuments into a perspective remote from the usual discussions of baroque grandeur and power. The systematization of Piazza della Rotonda has as much to do with the flower vendor who plied his wares on the steps of the venerable portico of the Pantheon as with the Pantheon itself. Moreover, monuments were not the only way to glorify the city: There were also the avenues of elms planted in the Roman Forum to provide an elegant promenade in the midst of the glories of Rome's antiquity. Such avenues of shade trees had appeared earlier in the 17th and even in the

16th century; but Alexander VII was the first to make a consciously planned network of them, taking the visitor from one ancient or Christian monument to the next along the outskirts of the populated center.

More than anything else, the concern for solid documentation gives this book conviction, makes it a useful and, I think, an extremely interesting study. Krautheimer has presented a challenging orchestration of scholarly materials, but in a manner that accommodates the general reader. The text is sprightly and informal enough to appeal to anyone with an interest in the subject. To be sure, the book assumes some familiarity with Rome, and there are times when even a specialist will become disoriented or lost on the roads that the author describes. A second edition should have many more diagrammatic plans, for the historical maps are impossible to read when reproduced on the scale of a normal book. On the other hand, the photographs are ample in number and excellent in quality—no second- and third-generation prints to impede the eye and obscure the argument. Finally, I find the notes particularly valuable and artfully composed. They are clearly written, carefully tailored in length, untainted by useless pedantry, and laced with a generosity of spirit to both younger and older colleagues that is rare in any field. Furthermore, the orchestration of documents and secondary literature in the notes is by far the most detailed, extensive, and coherent gathering of references on any period of Roman urban planning. Most invigorating about this book is the frank admission in the tone of the writing that the subject is a rapidly developing area of scholarship. If the reader feels that the documents may still yield more secrets, that is due in large measure to Krautheimer's own remarkably progressive attitude about the nature of scholarship.

The Rome of Alexander VII, 1655-1667, Richard Krautheimer, Princeton University Press, 1986, 199 pp., illus., \$25.00.

Lionello Puppi:

PALLADIO GUIDE

CAROLINE CONSTANT

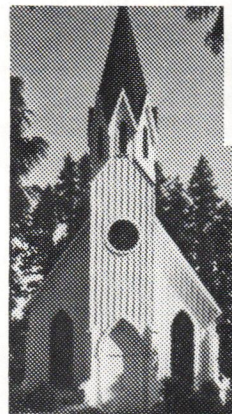
Of all Western architects, Andrea Palladio has undoubtedly exerted the most resounding influence, both in extent and incisiveness. His architecture has accumulated an immense patrimony, attracting the curiosity, interest, and admiration of a vast public that for a long time has included people other than architects. It is for this public, until now underendowed with means for a comprehensive approach, that Caroline Constant has produced the *Palladio Guide*, an agile, well-structured, and precise guidebook.

This versatile book is divided into two distinct but connected parts. In the first part, after tracing a brief biographical profile of Palladio, the author weaves a well-informed introduction that avoids abstract prejudices and leads to an authentic and contextual understanding of his work. From the start Constant confronts the theme of Palladio's graphic work, exploring his drawings of existing buildings and of ideal reconstructions of ancient monuments, and linking this research to his creative and programmatic efforts. She then touches on the question of the formal connotations of constructed Palladian spaces, verifying the undeniable originality of the dialectic between perspectival order and scenographic scale which presided over the birth both of his villas, scattered around the territory of the Venetian Republic, and his urban projects, civil and ecclesiastic. This she does without ignoring the way Palladio's forms fill the demands of their specific functions and respond to the scale of the historically determined environment.

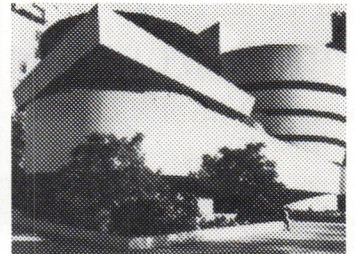
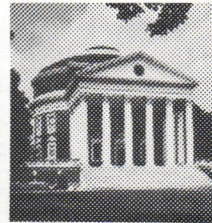
In the second part of the book, Constant provides a chronologically arranged catalogue of 58 works attributed to Palladio. While an essential and effective scaffold of illustrations accompanies the introduction, the cat-

ologue entries contain complete and accurate iconographic documentation, both visual and verbal. Besides the historical summaries she supplies practical information on transportation and visiting hours at each site, as well as where each appears in Palladio's treatise. To help the guidebook user plan possible itineraries, there are also maps of the Veneto, Vicenza, and Venice—the areas privileged with Palladio's output—on which the site of each building is marked with the building's number in the catalogue.

This is the first complete guide available to the general public, and furthermore has the admirable purpose of structuring a coherent experience of Palladian spaces. This the author accomplishes with an affable use of language and a lucid and mature critical awareness based on a broad and up-to-date knowledge of the enormous Palladian bibliography, plus a confident familiarity with the master's architecture. Among my few objections are the choice of the improbable portrait idealized by Sebastiano Ricci for Leoni's edition of Palladio's treatise rather than the *vera imago* painted by Magagnó around 1570, and the inclusion, in an otherwise satisfying and representative selection of works, of the banal relics of Villa Trissino a Sarego, which had nothing to do with Palladio. One also might have reservations about certain chronological data derived from adventurous and risky scholarship (e.g., 1549 indicated for the first project of Villa Barbaro at Maser, 1546 for the first proposals for Palazzo Iseppo da Porto, and 1560 for Villino Cerato a Montecchio). The selected bibliography also seems rather poor and should have included at least the monumental efforts of A. Magrini and G. G. Zorzi, the *Bolletino del Centro Internazionale di Studi di Architettura Andrea Palladio di Vicenza*, the existing volumes of the *Corpus Palladianum*, and the catalogues of the commemorative exhibits of 1973 and 1980. But these are marginal objections and should not detract from



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the merit of a work that we hope will have the greatest circulation and which deserves to be translated into other languages—at least into Italian.

Translated by Richard Ingersoll.

The Palladio Guide, Caroline Constant, Princeton Architectural Press, 1986, 160 pp., illus., \$17.00 pb.

François Bucher:

THE MONASTIC REALM

REGINALD GREGOIRE,
LEO MOULIN,
and RAYMOND OURSEL

THE RISE OF GOTHIC

WILLIAM ANDERSON

Once in a while a book seems too seductively produced to have much content. *The Monastic Realm* is splendidly illustrated and surprises us with a text sufficiently informative, and of an ethical depth to serve as a course in the formulation of efficient governance procedures. This elegantly readable account presents medieval monasticism as the most important foundation of Western democracies. The reader is convinced that the ninth-thousand word Benedictine rule—in which religion is just one component—should still be required reading for politicians, executives, university presidents, and architects. Raymond Oursel discusses the double route of monkhood, a life of action, and, to a lesser degree, of contemplation. He describes the discipline exemplified by orders such as the down-to-earth Benedictines and Cistercians, or the more specialized paramedic Knights of the Hospital of St. John, or the Templars, who became the virtual bankers of Europe and the Near East.

In the brutality of the 7th–10th centuries, most of the early communities were “hidden in rock crevices,” for example, St. Martin du Canigou, precariously compressed into the contours of a mountain ridge. Others, such as Lindisfarne and Mont-Saint-Michel, were built on inaccessible islands, and the stone huts of Clonmacnoise, Glendalough, or the astonishing German rock hermitage of Horn Externstein were planned to be invisible. Others became sacred fortresses whose dwellers preserved culture and fought for survival and their own redemption. From the Carolingian period

onward the abbeys strove to become allegories of the Heavenly Jerusalem (St. Riquier, St. Gall), and eventually model cities with large numbers of monks who colonized the wilderness and spread the Latin culture and architectural styles through daughter foundations. Cluny, a virtual monastic metropolis, with three successively larger churches, helped to secure Spain for Christianity through its many foundations along the route to Santiago di Compostela. By 1200, its library contained at least 570 volumes, often on loan, including one which was devoured by a bear. The much younger Clairvaux, original abbey of the Cistercians, had founded 525 houses from Scandinavia to Greece by 1200, and its library listed 340 manuscripts, including classical literature and a Latin Bible, revised with the help of rabbis. Even if culture as an abstraction is barely mentioned in monastic writings, and was looked upon as a dangerous affectation, Latin literacy was standard.

Above all, literacy was transmitted in monastic schools, where pupils, according to Anselm of Canterbury, were to be tenderly nourished “like plants.” The classical past was as avidly studied as more recent folklore, legends, Arabic medicine, and biographies, including a life of Mohammed by the monk Walter of Compiègne, in the mid-12th century.

France alone was dotted with 1,000 abbeys and 2,000 convents; by the end of the Middle Ages the Franciscans numbered 142,000. The many writers who state that European society from the 6th to the 12th centuries consisted of *bellatores*, *laboratores*, and *oratores*—warriors, workers, clerks—really talk about the dough, and forget the yeast, the *genus monasteriale*, a firmly entrenched and active fourth estate. For even if the monasteries were founded as “workshops of prayer,” for the “science of salvation” and the “dispensation of charity,” their initial isolation, usually in utterly inhospitable places, encouraged a highly

honed, self-reliant solidarity, high efficiency, and personal initiative. The volatile and contradictory combination was channeled in the Benedictine rule and the Cistercian *Consuetudines* (Customs) and *Liber Usuum* (Book of the Customary), which rarely consist of absolute commands and almost always seek a consensus. In their elegant essays Moulin and Grégoire discuss the intense interest of non-urban orders in nature and health. Horse breeding, pisciculture, crop rotation, food storage, medicinal botany, salt mining, technological advances, and the draining of marshes were primary concerns; the monks, it was said, turned wilderness into fertile fields. New hybrids (88 varieties of pear by the Paris Carthusians) and viticulture, which produced some of the best wines of Europe, including Chambertin and Beaujolais, were the result of timeless care and nurture in monastic communities.

The Monastic Realm is a major work with two legacies. First, without the slightest odor of religious schmaltz, it presents a remarkable movement. Monasticism, in its perseverance, realistic ideals, and mechanisms to deal with human foibles, achieved a nearly perfect society. The mixture of personal initiative tempered by self-control, of stubborn pride mitigated by humility and self-criticism, the clear recognition of inequality in talent and physical makeup transformed into equality in the eyes of God, the mutual respect accorded to each member in fraternal affection, the discipline, and finally the consensual, clearly established lines of administration taught lay society a practical system of efficient and creatively non-violent governance. From the smallest details, such as flowers on the table, the use of napkins to clean the rims of shared beakers, and the view of sin as primarily unreasonable and fundamentally impractical, monasticism attempted to establish a civilized society that worked.

The book's second legacy is its

spectacularly evocative photographs—images of hermitages and abbeys from Italy to Ireland; details from manuscripts, frescoes, sculptures, and kitchens, as well as such artifacts as a bell case, capture the essence of monasticism.

For the general reader and even for the specialist, the book is just as central as more “useful” volumes like Wolfgang Braunfels’s solid and stolid *Monasteries of Western Europe*, or Walter Horn and Ernest Born’s three-volume *Plan of St. Gall* (neither of which mentions that the word “ballot” is a monastic invention).

In contrast to *The Monastic Realm*, William Anderson’s *The Rise of Gothic* is a gushingly enthusiastic panegyric to the 13th and 14th centuries. Anderson stresses the matrilineal ancestry of Christ, which led to the Tree of Jesse, with Mary topping a long line of famous Old Testament personalities. But “Mariolatry” and the triumph of the “Eternal Feminine” is not correlated to the formidable independence of the burgess who contributed as much to the energy of the new cities as her merchant or artisan husband. It was the citizenry who supported the construction of eighty cathedrals and “five hundred” churches from 1100 to 1350.* The logistics, only practical in an urban environment, are exemplified in Nicholas of Ely’s Salisbury Cathedral, which required 50,000 tons of Chilmark stone, 1,500 tons of Purbeck marble, 3,500 tons of oak, and 4,000 tons of lead. The most interesting facet of Anderson’s book is his stress on “the Green Man,” the foliate head or “Jack o’the Green,” which he equates with Cerunnos, the Celtic god, and, by extension, Silvanus, and—perhaps—Merlin. This gives Anderson the opportunity to discuss the often neglected Gothic interest in foliage (capitals, garlands) and such symbolically potent plants as wormwood (bitterness of the Passion), and lovage (an antidote to poisonous bites). He correctly sees the presence of nature as an affirmation of renewal

and resurrection, even if he neglects the use of the *visage feuille* (leaf face) in Roman sculpture and Constantinopolitan mosaics, which would have supported his connection between pagan rites and orgiastic dances and plays in the cathedrals. Anderson neatly fits the Prentice pillar in Rosslyn chapel, built for Sinclair, Prince of Orkney (who died in 1146), into his schema. The pillar, one of the strangest, rotating Gothic architectural elements, could be Yggdrasil, the world tree, the roots of which were gnawed by a dragon. The specific survivals of pagan imagery in Christian iconography still require major study.

The text contains some factual mistakes, such as a novel spelling of Guillermo Boffi, architect of the 73-foot nave of Verona Cathedral, the statement that the “vast monuments” were built by free labor, and perhaps generally, an unawareness of the depth of interest in nature from the 13th century onward. Zoos, the extensive studies of plants, and the ornamental use of flowers attest to a society for which nature had lost its threatening aspect, and which eventually produced the Mille Fleurs tapestries, a botanist’s delight. Clive Hicks’s photographs are excellent. Even if the book offers a somewhat hazy counterweight to Thierry de Chartres’s statement that all rational explanations of the universe depend on mathematics, it is nevertheless useful in its almost unchecked enthusiasm for a splendidly energetic style, which Anderson correctly contrasts with the shabbiness of most present-day public architecture.

*Actually 1,214 churches in the Paris Basin alone, according to John James, *Art Bulletin* 66 (March 1984): 15.

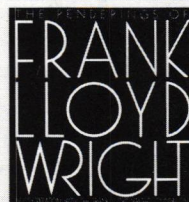
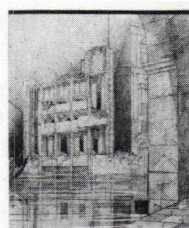
The Monastic Realm, Reginald Grégoire, Leo Moulin, Raymond Oursel, Rizzoli, 1985, 287 pp., illus., \$65.00.

The Rise of Gothic, William Anderson, photographs by Clive Hicks, Salem House, 1985, 208 pp., illus., \$29.95. (Available through Barnes and Noble for \$16.95.)

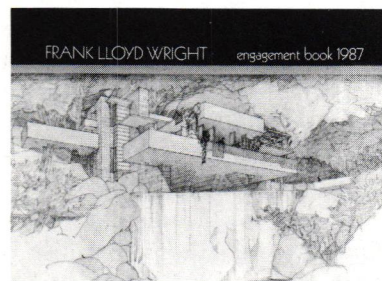
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Richard Schofield:

LEONARDO AS ARCHITECT

CARLO PEDRETTI

Leonardo spent much of his protean energy on architecture. Professor Pedretti, whose celebrity as a Leonardo scholar is founded on a remarkable gift for making important discoveries and an unparalleled knowledge of the manuscripts and bibliography, has undertaken to describe the results of his investigations in *Leonardo Architect*. This is a translation of the work published by Electa in 1978 in a series which was beautifully produced but specially designed to fall out of its binding after the first few openings. Pedretti has collected material from his own published and unpublished research, which makes it an essential item for all libraries, and indeed, of interest not only for what it reveals of Leonardo but also of its author, the foremost authority on Leonardo in the world.

The study of Leonardo's architectural interests is difficult from a number of points of view: demonstrating that he was a practicing architect in any commonly accepted sense of the word is not easy; showing whether a given drawing or set of drawings were designs for buildings or simply versions of things that Leonardo had seen is often impossible, and great numbers of Leonardo's scattered sketches are difficult to relate with certainty to things in which we can reasonably expect him to have been interested. Pedretti, the most congenial of authors, is erudite, a superb bibliographer, enthusiastic and never dull. His besetting sin is that, while his discoveries and the depth of his research are deeply impressive, he is an optimist, basing conclusions on his own discoveries that are often, to my mind, unlikely and occasionally downright irritating.

Pedretti's stated intention is to produce a new work and materials, never

spoken of before. This procedure makes the book more interesting to the specialist than to the layman, since it means that he omits or treats only slightly a number of topics that have been written about at length previously, but which the layman can hardly be expected to know. For example, the problems of the involvement of Leonardo in the construction of the Duomo at Pavia, Santa Maria alla Fontana, or the palace at Romorantin are touched upon very rapidly, while the cupola of Milan Cathedral and Santa Maria delle Grazie are discussed at length because the author has new things to say about them. The overall result is a book that lacks the sober balance of Firpo's or the thoroughness of Calvi's great work of 1925.

Pedretti opens with a discussion of Leonardo's pre-Milanese days, with a glance at his knowledge of Brunelleschi's machines, his involvement with Verrocchio's architectural activities (Pedretti supports the view that Leonardo had been an apprentice of Verrocchio), and the scheme to raise the Baptistery of Florence Cathedral onto steps. Pedretti moves on to an excursus (already published in essence) on some Leonardo drawings of the late 1480s, particularly those which may be connected with Pavia. Pedretti is keen to establish that Leonardo had been to Pavia in the late 1480s because many feel he had been involved in the planning of the Duomo there, begun in 1488. In fact it matters not a jot whether Leonardo had been to Pavia two or twenty times in the late 1480s since the great report of 22 August 1488 that describes the deliberations about beginning the project names all the architects involved, and Leonardo was not among them. Nor can Leonardo be the *peritus architector* mentioned as the author of the initial designs on 17 August 1487: Only two architects could be so described under the circumstances, because in a slightly later document of March 1488 Amadeo and Cristoforo

Rocchi are named as the *exquisitissimi ingeniarii* involved and of those two obviously Amadeo is the more likely candidate.

Chapter 2, the fullest and most interesting part of the book, discusses Leonardo's first Milanese period: the cupola of Milan Cathedral for which a number of Leonardo's proposals survive; Sforza town-planning (Pavia, Milan, Vigevano); Santa Maria delle Grazie and the Sforza sepulcher for the Grazie. Here Pedretti says many things which are new and true—unfortunately much of what is new is not true, and much of what is true is not new. The section on the cupola of Milan Cathedral probably correctly shows that Leonardo's ideas for its construction overlap in part with those expressed in the final report of June 1490, but whether that means that Leonardo and Francesco di Giorgio (only one of the signatories to that report) were in close agreement on the subject remains to be established, since the features that Pedretti chooses in Leonardo's drawings to illustrate that contact also occurred in the proposals of other architects. The passages on urban planning in Milan, particularly those on Leonardo's radial plan, canal schemes, piazzas, and so on (again already published) are most interesting and well illustrated, and I would not imagine them arousing much dissent.

Pedretti's discussion of Leonardo's involvement with Santa Maria delle Grazie is by turns fascinating and annoying, for here we see Pedretti at his best and worst, a mixture of marvelous discoveries and speculation ("We know of a visit by Bramante to Florence" in the 1490s: we do not). Pedretti wrestles with the problems caused by his sensational discovery of a plan for the church by Leonardo submerged under notes about water in manuscript I, folio 70 of about 1497; the chief difficulty is how to account for the form and function of the narrow passageway between the tribune and the nave (in connection

with which Bruschi has recently decided to sit on the fence, which seems the best position to adopt at the moment). But we still remain without any contemporary documentary evidence that Leonardo was involved in the planning of the church. One may doubt too that the celebrated Bramantesque drawing of a church or temple façade in the Louvre has anything at all to do with the projected façade of the Grazie, in view of the fact that the drawing was dedicated to Ludovico Fogliani and his wife, who had no known connection with the church, and that the façade delineated cannot possibly have fitted the façade intended for the Grazie, about which we can make a fairly accurate guess. In connection with Leonardo's architectural activities at the Grazie, Pedretti says that "there is one way of seeing the Last Supper as it has never been seen before: by turning it upside-down" so "the Last Supper acquires an unexpected verticality." This is not true; it merely gives the reader and, no doubt, Christ and his disciples, unexpected vertigo.

Pedretti then discusses, in the context of Leonardo's relationship to Bramante, the latter's fresco showing Democritus and Heraclitus. Pedretti was the first to show that the fresco cannot have formed part of the original decoration of the room containing Bramante's men-at-arms (which is a relief, since it demolishes a recent and tedious iconographical exposition of the supposed ensemble) and suggests that the two philosophers incorporate portraits of Leonardo and Bramante, an idea which has much to recommend it. Pedretti also notices that the writing in the books in the fresco is left-handed and that this may be an allusion to Leonardo's handwriting. While Pedretti's observation is unassailable, it should be noticed that according to the recent Brera report, the bottom-right segment of the fresco has been heavily restored, and is therefore "suspect." But we then have to explain why a restorer

produced the Leonardesque writing, or the fact that Democritus's thumb has been painted on backwards. It is not Pedretti's fault that he was unable to include mention of Sironi's recent demonstration that the frescoes were painted in a house originally owned by the poet Gaspare Visconti, not by the Panigarola family.

Pedretti's chapter on Milan closes with some interesting ideas on the original placement and appearance of the famous tomb for Ludovico il Moro and his wife, Beatrice, by Cristoforo Solari. Pedretti proposes that the tomb was to have been placed below the cupola of the tribune and that it may have looked like designs of uncertain purpose in the Codice Atlantico. Much of this part of the book is suggestive rather than conclusive, and one hopes that some of the author's ideas can be taken further. It may be observed in the meantime that the tomb must have been placed in the present choir, not beneath the cupola of the tribune; that there is no evidence that the statue of Ludovico was ever placed next to that of Beatrice in the Grazie; and that the evidence, such as it is, suggests that the tomb was initially a wall tomb rather than the type of baldacchino suggested by an examination of the drawings in the Codice Atlantico.

The rest of the book has no single high spot. This is Leonardo's fault, and not necessarily Pedretti's, for while Leonardo's drawings give us tantalizing glimpses of projects that he may have been interested in after the first Milanese period, no other period of his life was as rich in architectural drawings. Pedretti leads the reader through his recent thoughts about Leonardo's connections with Imola and Venice, his interest in Gradisca, the Villa Tovaglia, and the Villa Melzi, and his possible involvement in urban planning in Florence. Pedretti still maintains that the poem about the collections of antique statuary in Rome written by a friend of Leonardo's, who describes himself as

the *prospettivo Milanese dipintore*, and entitled the *Antiquarie prospetliche romane* is by Bramante. The initials "P M" on the title-page must refer to the *prospettivo Milanese* and not to *Pramante magister*, which is merely an author's or scribe's mistake in the text of the nearly contemporary history of Milan by B. Arluno. Bramante was not Milanese, nor would he have described himself as such; the poetry bears no relationship to that of Bramante's sonnets, even allowing for the difference of form. And it has recently become clear that the poem should not be dated to c. 1500, when Bramante went from Milan to Rome, but rather to c. 1493-1496, when Bramante did not go from Milan to Rome. The hunt for the author of this unpleasant poem is therefore still on.

Leonardo Architect, Carlo Pedretti, Rizzoli, 1985, 363 pp., illus., \$75.00.

P. A. Morton:

WHAT IS JAPANESE ARCHITECTURE?

KAZUO NISHI and KAZUO HOZUMI

JAPANESE FOLKHOUSES

NORMAN F. CARTER, JR.

*Nothing to sit on, nothing but a brazier to warm oneself by, and yet abundant danger of fire, no solidity, no privacy, the deafening clatter twice daily of the opening and shutting of the outer wooden slides, draughts insidiously pouring in through innumerable chinks and crannies, darkness whenever heavy rain makes it necessary to shut up one or more sides of the house—to these and various other enormities Japanese houses must plead guilty.**

This jaundiced view of the Japanese house stands in marked contrast to the dewy-eyed vision of most later

Western observers. Many of the most famous Western commentators have been architects, such as Bruno Taut and Frank Lloyd Wright, whose work was influenced or affirmed by what they found in Japan. Their views of Japanese architecture were tainted by their need to confirm the universality of their particular position, causing them to produce polemic rather than analysis. Mr. Carver's *Japanese Folk-houses* is a descendant of those works, written by a Western architect with a specific notion about Architecture in mind. *What is Japanese Architecture?* was written by two Japanese, one a historian and one an illustrator, but its translator, a Westerner, falls into some of the stereotypical thinking characteristic of many books in English on Japanese architecture.

What is Japanese Architecture? is a good general introduction and reference; Nishi and Hozumi present a concise outline of all aspects of Japanese building, using a variety of sources for the line drawings, the only illustrations. The elements of each building and style are placed in chronological order and in the context of other historical and cultural events. This alone makes this book unusual among English language books on Japanese architecture. While only a survey, it does much to refute some of the persistent misconceptions about Japanese buildings. For example, the discussion of geomancy, the Chinese system of mathematical divination adopted by the Japanese, describes its use in siting buildings and cities by complex calculations based on lucky and unlucky directions, the time of year, the prevalence of evil spirits, and a host of other variables. This system, which most Westerners would consider codified superstition, was carefully adhered to, in contradiction to the common belief that Japanese buildings were sited based on aesthetic considerations alone.

The text gives a minimum of information for any particular building or style, and the illustrations fill in many

gaps. The drawings are precise and vary in detail according to their subject, with great clarity shown in rendering the brackets on temples and other complex elements. These drawings are a good analytical tool for illustrating the roof systems and other unique elements of Japanese buildings, although the captions on the drawings are not always those used in the text.

Most noticeably absent, however, is an answer to the title's question, "What is Japanese architecture?" While it makes no gross errors of scholarship and gives a thorough chronological and cultural background to the buildings, it avoids interpretation or conclusions of any kind.

In his introduction, H. Mack Horton, the translator and adapter, parrots the worst clichés and trite drivel about "fluidity of design" and "sensitivity to nature" that Western writers have used since Bruno Taut's polemical misinterpretations of Japanese buildings. He does describe several important concepts in an original manner, such as the synthesis of the foreign and the native throughout Japanese history. The bibliography at the back of the book, compiled by Mr. Horton, is very good. His points about scale and ornament are well taken, but he is dealing less with intent and more with formal properties. He fails to absorb the lesson on geomancy and siting and talks about "concern for natural integration," as if there were no discipline or superstition connected with planning. His definition of "shared traits" between Japanese buildings and his analysis of what Japanese architecture is lack support from the following text because he does not define terms and dwells in the realm of preconception.

As is made clear by the examples used by Hozumi and Nishi, Japanese buildings respond to a complex set of precisely delineated requirements articulated in a limited vocabulary. Building types are distinguished by

the use of specific elements that signal their function and the status of their owner or users. Buddhist temples have a wide range of forms and elements that were introduced from China and retain Chinese and Indian characteristics. A merchant's house and shop could have an entry articulated by a *noren*, a half curtain with the insignia of his business printed on it. The use of a curved gable of the *karahafu* type at his entry was interdicted in the Tokugawa era because that element "belonged" to the samurai and aristocratic classes and could only be used on their houses.

The same hierarchical distinction according to status and use extends to the articulation of rooms within a house or other building. To return to the merchant's house, it is typically built on a narrow urban site with a small street frontage. The first room, closest to the street, usually serves as the shop and workroom for his business. The rooms progress from the most public function at the street to the most private room, the *zashiki*, either at the garden in the back or on the second floor. The progression from public to private is also that from informal to formal with accompanying changes in materials and decorative elements. Wood and dirt floors are used for informal work spaces; tatami mat floors are used in more formal living rooms. While the rooms open onto each other through sliding doors, a specific range of activities is performed in each of them. Materials and the use of elements such as the *toko-noma*, the decorative alcove, indicate the formality and the use to which the room is put. Such a Japanese plan is not strictly equivalent to a "multiuse" modern plan with its lack of specificity, as is implied by Horton.

Norman Carver's book *Japanese Folkhouses* is a good source of graphic material on the *minka* (Japanese folk-houses), but barely goes beyond the level of a travelogue. His intentions are outlined in the introduction, in

which he refers to the "insights into the fundamental connections between man, society, nature and architecture" provided by vernacular architecture. The organization of the photographs and text gives little clue as to these insights in terms of the actual historical reality of Japanese folkhouses. As is typical of most books on Japanese architecture by Westerners, this book is written on a synchronic model, as if *minka* were autonomous entities with no history or formal development. Because Carver ignores the development and changes the *minka* underwent over time, he trivializes the culture they embody and so denies his own stated intention.

Carver does start the book with a description of "ancient archetypes," the pit dwelling and the raised storehouse. But he has the genealogy of the *minka* so patently wrong as to propose Ise, Japan's oldest shrine form, as the antecedent of the *minka*. In prehistoric times, there were two house types: the raised storehouse and the pit dwelling. The pit dwelling is the ancestor of the Japanese folkhouse. Ise is related to the raised storehouse, which became the aristocratic house type, with entirely different characteristics and organization from the *minka*, the peasant's house.

Carver's book is essentially a pastiche borrowed from the sources in his bibliography. Ise as archetype comes from Tange and Kawazoe's *Ise: Prototype of Japanese Architecture* (MIT, 1965); the geographical and synchronic organization and lack of historical data follow Teiji Itoh's books on the *minka*. There is no systematic attempt to describe the elements of the *minka* or their characteristic planning. Instead, Carver ignores the very real evidence of functional differentiation of spaces in the *minka* and gushes about their "flexible" space akin to that of modernist ideals. While Heinrich Engel's book, *The Japanese House* (Tuttle, 1964), is similarly guilty of treating all Japanese houses as of the same time and place, he is

nothing if not systematic in his analysis of that imaginary, ideal Japanese House. Again, Carver has no glossary and the bibliography is very modest. Some Japanese terms are used in the text without being defined, which is very confusing, since there are no diagrams or analytical drawings in this book.

The most alluring aspect of *Japanese Folkhouses* is Carver's photographs, taken on two visits to Japan twenty and thirty years ago. At that time, many *minka* were extant and still inhabited. Many of the houses in this book have no doubt since been demolished or restored for inclusion in museums. This is a valuable record of *minka* and the way of life associated with them. It is not, however, unique, since it duplicates material contained in Itoh's collaborations with the photographer Yukio Futagawa: *The Roots of Japanese Architecture* and *Traditional Japanese Houses* (reviewed in *DBR* 5). Carver makes some attempt to describe the workings of the houses, for example, the kitchens, and to relate their regional differences to climatic and social causes. He is

most successful when describing the formal characteristics of a façade or the construction of a roof; his speculations about the origins of elements or styles are not always founded in historical fact. The usefulness of the photographs as research material is mitigated by the absence of plans integrated with the corresponding illustrations (also a problem with Itoh's books). The houses are trivialized into picturesque images; since there is no way to construct a whole from the necessarily fragmented photographs, Carver merely packages vernacular architecture into easily consumable pabulum for the "layperson," and denies the integrity of the Japanese folkhouses he so admires.

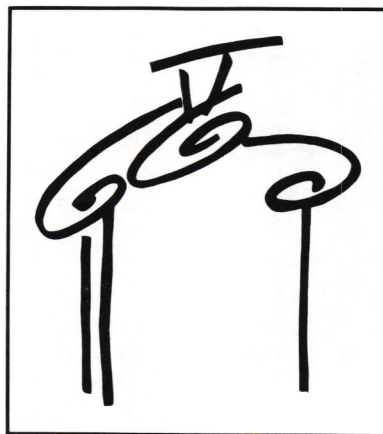
*B. H. Chamberlain, *Things Japanese* (London, 1905).

What is Japanese Architecture? A Survey of Traditional Japanese Architecture with a List of Sites and a Map, Kazuo Nishi and Kazuo Hozumi, translated by H. Mack Horton, Kodansha, 1985, 144 pp., illus., \$16.95.

Japanese Folkhouses, Norman F. Carver, Jr., Documan Press, 1984, 199 pp., illus., \$19.95.

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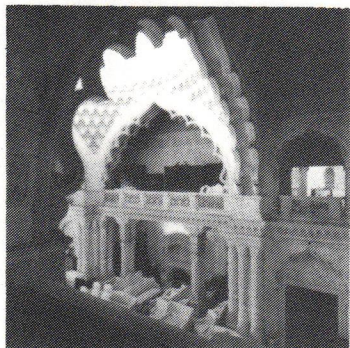
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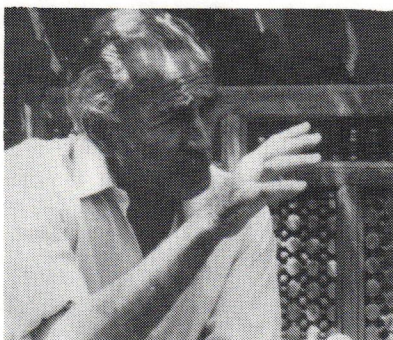
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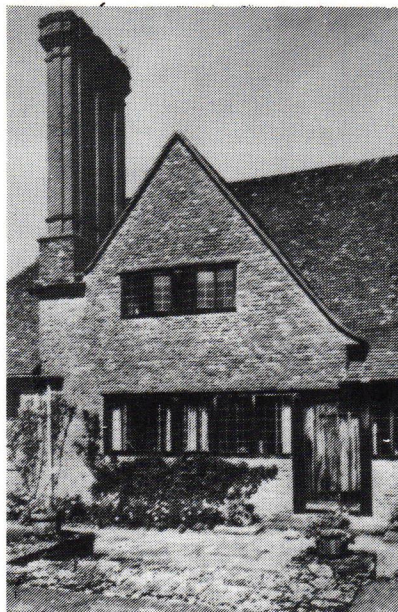
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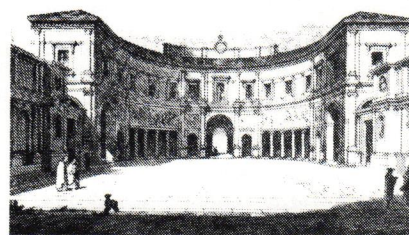
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VICTOR PAPANEK, ONE-MAN MESSIAH

When you try to tell people in the West that within a very short time millions may die of hunger, they simply do not hear. They give a little nervous laugh; embarrassed, they change the subject.

Especially, this reviewer is tempted to add, if they are in a restaurant. The trouble with Victor Papanek is that he is drowning in self-praise while the rest of the world gives a little nervous laugh. Wherever he writes and lectures he is introduced as a prodigy, a polymath who has worked—no, “lived and taught”—in fourteen countries; as the author of the most widely read design book of all time; as the inventor of “Biomorphic Design” (what about Richard Neutra?); as a consultant to almost every international body of any significance you have ever heard of; as a Nobel Prizewinner—no, I misread that, as an *alternative* Nobel Prize nominee—and as a distinguished professor of architecture. Is there more? Probably, but there is only so much room on a book jacket. Is he responsible for his publisher's blurbs? Well, yes. Because their tone is actually drawn from his dense and hortatory texts, rather than packaged around them, with the result that puff and exaggeration have become indistinguishable from the man himself.

When, for instance, in the revised edition of *Design for the Real World*, he reports having received an apparently sympathetic letter from Alastair Best, editor of *Designer* magazine in London (an admired but modest publication with an exceedingly small staff and a very small circulation), Best becomes “Editor-in-Chief” and *Designer* “the most influential magazine on design in the world.” What is the difference between this unnecessary piece of self-importance and the quote from a review by “Sir Anthony

Wedgwood Benn” (a man who does not exist) that adorns the back cover of *Design for the Real World*? Perhaps the answer lies in the curious information supplied on page 171 that, unlike many thinkers, Papanek works most successfully “with phones ringing, frequent interruptions, and a great deal of visual distraction.” Like Ralph Nader, he has made a career not so much out of ideas as out of dubiously authoritative information, but Papanek's career has lasted longer. And the longer it lasts, the more names he is able to drag into it. The bibliography in the first edition of *Design for the Real World* ran to 500 entries—few whose inclusion is adequately explained by their contribution to the flow of the master's thought. The second edition boasts a bibliography almost twice as large, but this time the reader is cautioned that the only two books published since the first edition that really match up to Papanek's exacting standards have not yet been translated into English—so the master is still alone. Does he mind this isolation? Well, no, one suspects. In the world of design education—if not design itself—he is famous as the man who can spot unecological gewgaws from five miles away and always spells the manufacturer's name right. Papanek is the design writer so proud of having said in 1971 that industrial designers “like killing people” that he repeated the charge verbatim in 1985. Papanek is the man who saw that the design of the Kodak Carousel slide projector was getting worse instead of better. And Papanek, as his own mythology has it, is the man who revolutionized car production at Volvo by getting away from the line . . . just before the line itself was taken over by robots.

The trouble with *Design for the Real World* and *Design for Human Scale*—which claims to deal with the same subject matter of the misfit between design and “human needs,” but in more detail—is that they are both 51 percent right. Each book

consists of a vast bundle of indictments larded with brand names and a slightly smaller number of brisk outlines of how things might be done differently and better. When Papanek says that all industrial design should be derived from total planetary energy economics, he is entirely correct: as he is when he draws attention, however ineffectively, to the specter of famine. But alas, the Sony Walkmen and Star Wars video games that he excoriates not only outnumber his own tin-can radios in the unrecognizable place he calls the third world, but are preferred by the very societies he maintains can teach us about ecologically responsible design. He sees their failure to do this as the result of a global conspiracy of the “Northern” nations to put all the wrong things their way, a thesis he advances with such vigor that one cannot help wondering about his own encounters with the Mercedes-driving politicians of Africa. Does he use one of his own pedal-driven trucks to get to those vital meetings at the ministry?

Quite apart from embodying in his own life of consultancy—as indeed did his predecessor Fritz Schumacher—many of the contradictions he so exasperatingly discerns in others, Papanek is just as often wrong in his problem analysis. His case for the return of the sailing ship is a good example. Made in the first edition of *Design for the Real World* and proclaimed in the second as vindicated by recent experiments, it has not only been put on the back burner once more by collapsing oil prices but was misconceived in the first place. Sailing ships did not become obsolete because of the large number of men necessary to operate their sails or through lack of speed, as he claims. As long ago as 1904 the 4,000-ton *Thomas W. Lawson* boasted steam winch-controlled running rigging and a crew of seven; its maximum speed in a good wind was far above that of any supertanker afloat. Any yachtsman could have told Papanek that the

real reason for the demise of the clipper was the passage-keeping unpredictability that resulted from its total dependence on and vulnerability to changing weather patterns. Satellite meteorology may improve this, but it will not entirely erase the disadvantage and, in any case, all modern sailing ships must carry engines as well. "Computer-controlled sails" may save fuel, but fuel cost is less important than programming where shipping movements are concerned, and the duplication of power sources and control systems involved could easily end up consuming more embodied energy than the direct energy that is saved. How then is the return of sail power a "solution" to anything except the problems of leisure Papanek affects to despise? You see, the big, simple argument is down to one percent.

Papanek may know this, just as he may be familiar with the same ultimately sound arguments that hinder the return of the dirigible, the third world triumph of the pedal-powered truck, the replacement of the "huge steel coffin" of the automobile by the "\$995 electrically powered aluminum scooter," the beneficial use of roller skates in warehouses and factories, and so on. But he also knows that all such superficially obvious ideas are particularly attractive to design students, and that all the madcap schemes that result go on enlarging the genetic pool of available gizmos from which academic social thinkers can endlessly construct their own good and bad technological worlds.

Design for the Real World: Human Ecology and Social Change, 2nd edition, Victor Papanek, Academy Chicago, 1985, 394 pp., illus., \$10.95 pb.

Herbert Muschamp: AN INVITATION TO THE VOID

When the natural philosophers of the 18th century threw their grand retirement party for God, it left a large void in the center of things. Though the big clock He had wound up still ticked, the office of central authority was vacant. The problem this presented for architects, as for other artists, was, who would authorize their actions? After all, in the past virtually nothing "architectural" had ever been attempted that had not been sanctioned by the authority of His deputies; but the void was unable to authorize either form or content or to make firm the correspondence between them. All the void could offer was a showroom for utopian proposals to replace our lost blue heaven.

In the 19th century, architects proposed to compensate for the void by reviving styles of ages past before the center had been voided. The authority of the past had worked once before when things were in a state of flux, so why not try it again? But unlike Renaissance architects, who kept up solid ties with the main office, 19th-century architects found their supplications to the deity were drowned out by the thunder of train wheels.

At the end of the 19th century, William Lethaby set out on an armchair voyage through the religious architecture of the world in search of a model modern architects could use to communicate contemporary values to contemporary viewers. He did not find one. "Old architecture lived because it had a purpose," Lethaby wrote in his 1891 book *Architecture, Mysticism and Myth*, but the purpose was not one modern architects could legitimately share. The purpose of the old temples, as Lethaby saw it, was to crush the imagination and enslave the mind to precisely those dogmatic systems of belief from which the 18th

century had liberated the modern mind. Lethaby praised ancient architects for coding intelligible messages in their symbolic forms, but he found the messages repugnant, hence the forms used to convey them unusable. Here lies Lethaby's significance as a pivotal figure between 19th-century revivalism and the Modern Movement. Lethaby surveyed ancient architectural symbols and, finding them of no use, called upon modern architects to devise new ones. Modern architects coded their message of cultural liberation in the symbolic stripping away of all historical associations. In doing so they devised an architectural equivalent to the voided center and discovered in its making a compelling sense of purpose for their own time.

To Charles Jencks, the modern erasure of the architectural past is an act to be regretted and if possible undone. He begins his book *Symbolic Architecture* with an allegorical fable about the land of Aesthesia, "a country in which a very strong dictator abolishes religion, science and politics." In this mythical stand-in for the modern utopia of functionalism and formalism, symbols of collective belief would vanish from the landscape because "nobody would believe anything of public importance and in all matters agnosticism would be the unofficial policy." Jencks has written this book, and illustrated it with work of his own design (three houses he has designed for himself in the past decade), in order to point the way toward an alternative vision that he calls the land of Significatus.

[a] world in which everything has both a public and a private meaning. The leaders and inhabitants of this world lead a charmed life because everything they do, no matter how insignificant, or even wicked, is part of some larger story. The great subconscious fear of mankind, both collectively and individually, that all action and belief are in vain, is dispelled.

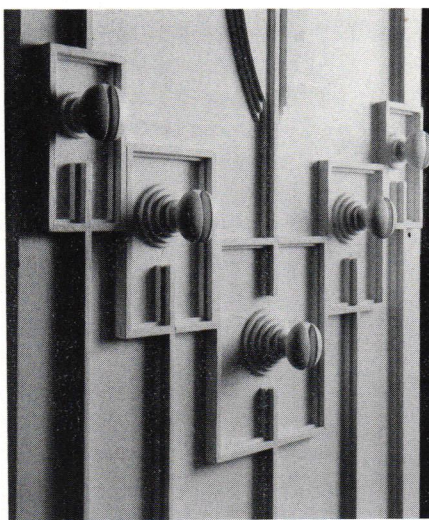
The key to this enchanted kingdom is

nearly identical to Lethaby's proposal that architects must use a symbolism "immediately comprehensible to the vast majority of spectators," but differs from Lethaby in admitting the use of historical forms. Thus, in Jencks's prototypical "Thematic House," a renovated London town house, solar discs and scallop shells are set beside a variety of personal insignia to elaborate on the theme of Time as set forth in Jencks's written "symbolic programmes" ("Late Spring, June, looks wiser, more pensive, naturally a time-worn version of April, but just as beautiful...").

Well, if this book presents an accurate preview of Signification life, we might as well spare ourselves an unnecessary trip because the promised land looks a lot like Aesthesia to me. Indeed, it's the Aesthetic Movement of the 1880s that is most obviously evoked by the forms Jencks has put together, though you'll find no acknowledgment of that in his text. As we've come to expect from the Jencks wing of postmodern polemic, historicism tries to pass itself off as history. Isn't it time to end this masquerade?

It has been obvious for some time that the postmodern repudiation of modernism on the basis of its alleged ahistoricism is itself ahistorical, since it fails to discern that the roots of the tabula rasa long predated the modern utopia and indeed are firmly planted in the soil of the "classical tradition" to which many postmodern historicists evidently aspire. It seems characteristically ahistorical that William Lethaby is barely mentioned in passing in Jencks's text; but then closer attention to Lethaby's pioneering work might have compelled Jencks to recognize that the modern vision arose organically from the "pre-modern" context he urges today's architects to reconstruct, and did not represent either the whim of some "very strong dictator" or an aberrant monster cooked up in the Weimar Republic.

Jencks is wise, however, to disregard Lethaby's warning against the use of



DOOR IN THE FOURSQUARE ROOM, JENCKS'S THEMATIC HOUSE

historical forms on account of their past associations. Pyramids, solar discs, roses, fish, and ostrich eggs are all handsome forms; why should dead tyrants be allowed to take these things with them to the grave? It is one thing to recognize that a symbol may have been used for oppressive purposes in the past, but it is scarcely less oppressive not to recognize that symbols can also take on radically different meanings; they're even fine as "meaningless" decor.

The problem with Jencks is that he uses these symbols to illustrate an argument as mentally oppressive as the ancient belief systems from which many of them initially arose. The value of symbols, Jencks believes, rests upon the ability of their designers and their observers to agree upon, and explicitly identify, their meaning. Semantic ambiguity has no place in his system. Symbolic programs must be written out in advance of execution and adhered to—"as part of the legal contract"—by client, architect, artist, and craftsman.

Well, it's true that our lives often do depend on the immutability of symbolic content; it would cause havoc in the streets if the meanings of red and green traffic lights were reversed at random, and the race would be

imperiled if children were instructed to read a skull and crossbones in a variety of ways, including "drink me." Yet it's ironic that a critic known for his opposition to modern functionalism would want to reduce architectural content to the Simple Simon level of functional signs. Jencks seems to be looking for something deeper; the hope is expressed frequently throughout his text that achieving a broad consensus on the meaning of symbols will result in a deeper, more creative, more artistically profound level of architectural meaning.

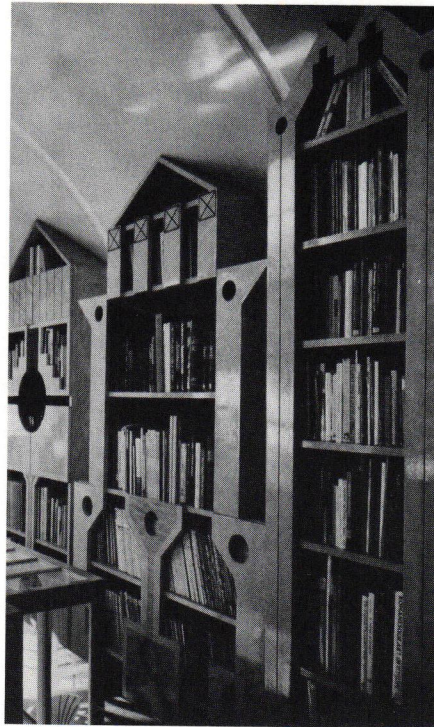
What Jencks seems unable to recognize, however, is that living without a prefabricated script is not a cultural misfortune but in fact an ideal as elevated as any that ever produced a pyramid or a cathedral, and that this ideal has provided the informing content for much of the most interesting architecture around today. Frank Gehry, John Hejduk, Bernard Tschumi, SITE, Peter Eisenman are just a few of the better-known architects who have undertaken not to erase the uncertainty of contemporary life, but to locate meaning and value in it, to deal architecturally with the historical fact that there is no legitimate authority enunciating the rules, fixing the meanings, and policing their interpretation.

The irony of Jencks's insistence upon the importance of explicit symbolic programs is that his own symbolic language tells a story so transparently different from those stated in the written programs printed in his book. Books, of course, are symbols too, symbols of authorship and authority, and for those with eyes that see and minds that think the symbolic language Jencks has devised has nothing of substance to say about time, the seasons, the cosmos, the world history of architecture, the healing of mankind's collective fears, or any of the other grotesquely inflated subjects represented in his Thematic House. What they tell of is the inflation of a public persona, the public assertion of Jencks's desire to be recognized as a guru of new directions. Program-

matically, Jencks's Thematic House is an exact equivalent of Philip Johnson's Glass House—a private dwelling designed to advance the architectural career of an individual known primarily for advocacy journalism—but at least Johnson had the integrity to give a formal treatment to the idea that the architect is himself the content of the form.

Self-promotion is certainly not without potential public significance in an age when the media have replaced the machine as the external authority, the keeper of the void. Like the Corbusian *machine à habiter*, a Thematic House on the theme of fame could command an imposing spot in the utopian showroom. Isn't it clear enough by now that fame is the postmodern utopia—the late 20th century version of *la ville radieuse*? In the modern utopia, the machine was meant to liberate us from the drudgery of manual labor and the fixed social and mental stations it assigned us. In the postmodern utopia, publicity promises to liberate us from the limbo of anonymity we're thrown into by the rootlessness of the mobile mechanized world. The reason Jencks's symbols ring so hollow is that they fail on his own terms to offer that dimension of public meaning which his familiarity with the media could provide; they're a bit like the patriotic bunting draped over the platform of politicians whose convictions would evaporate if someone pulled the plug on the teleprompter.

Jencks is often attacked for his use of media strategies—the constant coining of brand names, the weatherman charts and graphs, the identity shifts from polemicist to historian to journalist to [now] landed gent and *connoisseur des arts*. But to dismiss Jencks as a creature of the media is merely to perpetuate the climate of ignorance that makes it possible for such creatures to thrive; the dismissal is no less symptomatic of our general failure to come to grips with the authority of the media—a failure that recalls the failure of 19th-century architects to confront the impact of mechanization.



THE ARCHITECTURAL LIBRARY, JENCKS'S THEMATIC HOUSE

Jencks is hardly alone in using the media more for the formation of a career than the development of ideas; architecture as a whole has lagged far behind other fields of art in absorbing the critical discourse on this subject. And while it is very easy to view *Symbolic Architecture* as fresh evidence of a self-serving disposition, self-service really isn't the issue here. After all, if the Enlightenment's voiding of the center had a constructive human purpose, it was to clear away some space for the internal authority, to allow the self to operate with greater freedom. For an author or an architect to take advantage of this freedom is merely to assert his right as an heir to a vital modern tradition.

The problem is precisely that Jencks fails to take advantage of this freedom. What we get in this book about his architecture is not so much a self as a void filled up with photographs of bad interior decoration where the self ought to be. Of course it upsets our sense of fairness to witness Jencks presenting himself as a visionary uniquely con-

cerned with the issue of architectural content. But what's troubling about this view is not that it serves the self; it's that it serves the void. These efforts to recapture the memory of some vanished central authority—the cosmos, the seasons, and other symbolic sources outside the self—typify the nostalgic yearnings of the internal slave that so often aspires to be the "very strong dictator" in a country designed in its own image.

Compared to Significatus, the modern tabula rasa was a full slate; at least the modernists allowed history's ghosts to rest in peace beneath their own distinctive tombstones. A better name for Jencks's media dystopia might be Amnesia, given the degree of forgetfulness required to prop up the myths of originality and novelty on which the media depend. To admit Jencks as a leader in the project to progress beyond sterile formalism, we must forget about Frank Gehry, John Hejduk, James Wines, Rem Koolhaas. We must forget there was a William Lethaby who decoded the meanings of ancient symbols in order to liberate us from their repressive meanings. We must forget that modern forms were saturated with the narrative content of the technological utopia, an epic narrative in which each building recounted a single heroic episode. We must forget that formalism itself originated as another narrative of liberation, a Romantic tale about the autonomy of the artist, about refusing merely to illustrate stories told by others, about art as a symbol of our collective freedom. In the state of Amnesia, we must not only forget about history, we must forget about ourselves, forget that we have a stake in all this, that we deserve better than to live as voidoids, decentralized from our selves by the ancient fears of damnation if we dare to throw away the scripts.

Towards a Symbolic Architecture: The Thematic House, Charles Jencks, Rizzoli, 1986, 224 pp., illus., \$60.00.

Andrew Rabeneck:

ARCHITECTURE IN AN AGE OF SCEPTICISM

DENYS LASDUN

Frequently disparaged by younger British architects in recent years, Denys Lasdun has now prepared a *festschrift* to celebrate and perhaps revive a functionalist vision of architecture. The very title of the anthology reveals his disappointment with current developments in his art, or at least with the ideologies supporting the recent surge in representational architecture. At a time when many are excited by what they understand as a liberating eclecticism, this unrepentant functionalist sees only a cynical drifting away from the true path.

Lasdun's method is to ask eleven other architects (Christopher Alexander, Edward Cullinan, Giancarlo de Carlo, Ralph Erskine, Eldred Evans and David Shalev, Norman Foster, Leslie Martin, Alison and Peter Smithson, James Stirling, Jørn Utzon, Aldo Van Eyck) to describe their approach to their work. Most are better known than he, certainly outside England, and several (for example, Stirling and Van Eyck) command the respect of latter-day critics. Their contributions, we are told, should be read as affirmations of the verities of modernism, a review of the creative certainties that make architecture possible.

What are these truths? First there is the primacy of the program, which is the invitation to invention or the definition of a "problem." Then there follows the invention of a response to the program, a "solution" to the specific problem. This response is explained in terms of space, organizational or technical imperatives, by reference to a larger class of problems, or by analogy. Frequently, the relationship between problem and solution is not self-evident, so there must follow the justification. Much of this book is about justification, what Las-

dun calls the creative myth, a myth that must be sufficiently "objective and convincing" (without resort to historical allusion) to provide a basis for architectural design.

Thus Lasdun's myth does not set out to deceive, but to account for the unexplainable, to provide a road map to an aesthetic that might otherwise escape us. Unfortunately the creative myths offered by Lasdun and his contributors are, for the most part, anything but objective and convincing. The themes of the myths offered in this volume include:

- Straightforward whimsy with sculpture as a touchstone (Utzon)
- Complex whimsy, invented forms that express metaphysical notions (Van Eyck, Evans and Shalev)
- The moral critique of the prevailing means of production (Alexander)
- Continuity of land form and city form (de Carlo and Lasdun)
- Unadorned instrumentalism driven by an inviolable program (Leslie Martin)
- The personal perception of sociological imperatives (Smithsons, Cullinan)
- The oblique historical analogy (Stirling)
- The direct technological analogy (Foster)

Read each section separately and be perhaps convinced according to your prejudices. But then step back and see them as Lasdun does, a consonant outlook, and what do we have? This reader, for one, has a problem. The reason is that while each creative myth claims to furnish a basis by which we may agree that such and such a building is a true or correct manifestation of the rationale of the myth, many of the buildings shown are evidently ugly or uncomfortable, inconvenient, or simply technically inept. The prophecies of most of these architects seem as often denied as fulfilled in their results. What intrigues about the book is the contributors' candor in showing the results of these philosophies at work.

De Carlo, for instance, whose Ur-

bino University Center has graced countless architectural magazines since the late 1960s, which stress principally its hill-hugging forms, shows us here interiors of a stupefying nastiness that owe nothing to *genius loci*, everything to late brutalist rhetoric. Evans and Shalev ("in our work we are concerned with Place making") produced in 1972 a residential home for the younger physically handicapped which bows only to Richard Meier's Bronx Developmental Center in the way its architecture slaps the occupants in the psyche at every opportunity. Meanwhile the architects keep talking: "To us buildings are not only objects, but part of a continuum, real or imaginary, or both..."

Lasdun, who began with Tecton in the 1930s, chooses to represent himself by three of his most deadly and overbearing projects—East Anglia University, a machine for isolating students from life; University of London Extension, a death knell for Bloomsbury; and the National Theatre, perfection of every architectural and urban design error made along the South Bank of the Thames since the 1951 Festival of Britain.

These examples will suffice. If this book sets out to redress the balance, to recapture the lost esteem of functionalism, it fails. What it shows, lucidly, is that the theoretical weaknesses of traditional modernism are as weak today as they were sixty years ago. Beauty can never be the mere product of intellectual order, even when that order, or "creative myth" (in Lasdun's words), carries the authority of, say, the five classical orders, probably the most compelling creative myth we know. Many ugly yet correct buildings bear witness.

The myths in Lasdun's book are forged from humanist ideals like those of their modernist forebears, creating meaning for architecture from social purpose, from the struggle against an ignorant or unfeeling past. The would-be scientific view of design seized the high ground of theory at a time after

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World War I when the social importance of art hit an all-time low. Thus the various forms of functionalist creative myth became powerful alibis for artistic judgment. They aped the procedures of earlier systems of order; obey the rules and beauty will ensue. However, as a revisionist history has taught, rules that prop up mediocre talents can also censure fine but nonconforming talents.

The conceit that there should be a causal relationship between the assertions of the creative myth and the perceived reality of the design, that the building could be declared "correct" or "true," only highlights the skimpy and unconvincing nature of the creative myths. The test is met each time we see a building that is evidently offensive. For example, both Lasdun and the Smithsons have built worker housing projects that can be described objectively as squalid. Even Big Jim Stirling, the hero (rightly) of Stuttgart, is forgiven nothing by the hapless occupants of his Runcorn housing, his Cambridge History Library, or the Residence of St. John's College.

The problem is that debates on the relative merits of the competing creative myths have eclipsed ordinary aesthetic judgment. The map has become more real than the land, as D. H. Lawrence complained. Critical discourse revolves around the doctrines rather than their products. Denys Lasdun wants us to believe that

these stories lie at the heart of architecture. They are its true generator. But of course they merely stand in for a general failure to define style. As Geoffrey Scott pointed out over seventy years ago, "we cling in architecture to the pedantries of humanism, because we do not grasp the bearing upon architecture of the humanist ideal."

The mostly confused or trivial assertions of these practitioners bear only incidentally on their output, with the exception of Alexander and Erskine, and perhaps Ted Cullinan. A few are good artists and produce beautiful buildings. Utzon, Van Eyck, Stirling, or Erskine come to mind. Others, lacking art, rely for direction on their functionalist "way of working" and produce ugly buildings; Lasdun, Evans and Shalev, and the Smithsons, for example.

The problem for Lasdun's book is that today's reader will not be taken in by its earnest tone or concerned vision, but will judge the buildings first, the text second. And today's reader is not shy of calling bad buildings bad. The superior authentic system of intellectual order represented by functionalist ideology awes him no longer.

Architecture in an Age of Scepticism: A Practitioners' Anthology, compiled by Denys Lasdun, Oxford University Press, 1984, 256 pp., illus., \$39.95.

Aaron Betsky:

**GORDON
MATTA-CLARK**

MARY JANE JACOB

In August 1978, the sculptor Gordon Matta-Clark died of cancer. He left behind no body of work. All that remains of his nine-year career are a few fragments of documentation collected in *Gordon Matta-Clark: a Retrospective*, the catalogue of a show on his work initiated by the Chicago Art Institute. Yet the memory of his ovoid shapes of pure light, his conical sections through buildings, and his place in the inception of a new art world in New York are still consumed by the art and architectural world whose conceptions and consumption he fought against with such vigor.

As a sculptor Matta-Clark taught us one thing in his short career: deep structure, time, space, change, and mortality are not necessarily abstract conceptions. A latter-day shaman, he made lofty notions concrete by literally slicing through the masks of architecture to find in the anarchic act of destruction the archaeology of meanings long since lost to our society, and the slice of light revealing the possibilities of another world: an architecture. His methods were crude, violent, and beautiful: he split houses down the middle, allowing each half to settle back on its haunches and reveal the abandonment of the home in a heart chain-sawed for our doll's house inspection; he allowed chemicals to form gross films reflecting the alchemy of modern cities; he carved curved apparitions of negative sculpture of an unknowable scale straight through the walls and floors of an office building, creating diagonal spaces and revealing the now unnecessary human artifice which had made each section of the building. His sectional slices, documented in splayed-out cibachromes, revealed a new world: the world hidden when we cover up our walls, floors, and

objects in order to make them work, in order to make them part of our cycle of production and consumption.

Matta-Clark saw himself as a political and architectural radical. Trained in the politics of the sixties and the architecture school of Cornell, he became the focus of a group of young artists who descended on the lofts of New York's Soho to excavate a life and create an art that would bore through the oppressive structures of our society, the forms it created, and its captive cultural appendages. They did not work with traditional materials or for a conventional market: they worked against art as an object and society as a given structure. Matta-Clark, the semiabandoned son of surrealist artist Roberto Matta, worked with anything that was not an accepted, and therefore consumable, constituent of culture: food, corrosive chemicals, and garbage made up his early work. From there, he moved into what might ironically be called his classic phase of 1972–1974, selectively cutting spiraling sections, orthogonal or diagonal, through abandoned buildings. Both the open spaces left over and the new configuration of the structure could be called sculpture, or, more accurately, anarchitecture. The nongeometric appearance of open spaces based on geometric carvings, the deliberately disjunctive forms of the artifacts created out of the carving, and the new spaces created by burrowing to frame the outside within newly revealed grids, while simultaneously exteriorizing the innards of the work, were aggressively consistent in their composition. They recall the forms of Duchamp, Richard Serra, Carl Andre, Ellsworth Kelly or, in their objectification of light brought into closed and captured spaces, James Turrell. Matta-Clark was a pioneer well aware of the tradition of sculpture-as-act, as denial of finished and therefore mute forms, as a “state of mind.”

Yet the center of his work was the making, and in the making was his revolt, for his revolutionary work was

constructive in the best sense. In 1976, he created “Window Blow-Out” for one of the first exhibits of the Institute of Architecture and Urban Resources (later the Institute for Architecture and Urban Studies). His contribution consisted of shooting out the windows of the exhibit space. Whereas the forms thus created can be described in terms of the delicate play between literal and phenomenal transparency, and by the irony of the frame as jagged edge created by the implication of a nonexistent picture (the space shot away)—and thus falls neatly into Matta-Clark’s development—the work is important because it was the artist’s direct reaction to the making of alternative realities through architecture. “These were the guys I studied with at Cornell, these were my teachers,” he said about his coexhibitors, who included Graves, Gwathmey, and Meier; “I hate what they stand for.”

Director Peter Eisenman understood the revolt, said it reminded him of the Nazi’s *kristalnacht*, and ordered the work destroyed by fixing the windows.

Thus the two possibilities for knowing the structure of our world and restructuring through architecture faced each other violently. In fact, the L-shapes of Eisenman, the abstraction of Meier, or the collaged anti-meanings of Graves are the other side of the Janus-face of architecture since the sixties. Whereas architects continue to create orders based on the systematic denial of existing systems (the collage or the geometric inversion), anarchists create archaeological artifacts which reveal this denial. Whether one slashes a deliberately nongeometric or nonscalar cut through a plaza (Serra) or building (Matta-Clark), or adds another deliberately obfuscating structure to the accretions of culture, the effect is, at its best, revelatory. One approach is ontological, the other eschatological. Violent opposition between the two approaches reflects more the ideological struggle between revolutionary re-making and detached imposition of re-formed structures. Yet strangely the void at the heart of House X is much the same as the void created in Matta-Clark’s

Inside the White Cube

The Ideology of the Gallery Space

by Brian O'Doherty

The white cube is usually seen as an emblem of the estrangement of the artist from a society to which the gallery also provides access. It is a ghetto space, a survival compound, a proto-museum with a direct line to the timeless, a set of conditions, an attitude, a place deprived of location, a reflex to the bald curtain wall, a magic chamber, a concentration of mind, maybe a mistake.

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"Splitting" or "Day's End."

Matta-Clark's work remains both more involved with the often messy realities of our situation and more hopeful. His "Day's End" or "Conical Intersect," two building-interventions, both opened up unseen views to the sky and to society around us, framed by the familiar, usually hidden structures of studs and stucco. Since they are not new, they escape from the stigma of imposed culture so much architecture suffers from. As anti-

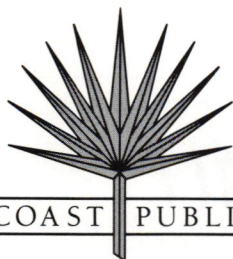
artifacts, they propose a smooth world of authentic forms sliding away from human culture because they have been disguised from it. Unlike Eisenman's houses, they do not have to fight with their nature as objects to be used and consumed, since they have deliberately stated their status as windows, as reversed frames of our lives. They are pure art.

Unfortunately, as such they are also impossible to catch, they do not remain pure, and they are quite

literally gone. Revelation in our society must be consumed, or destroyed. All of Matta-Clark's work has been destroyed. What remains are a few fragments, films, photographs, and memories. Anarchitecture must wear the mask of an event, or an act, in order to be made, just as architecture must wear the mask of use. If anarchitecture were to remain, it would itself become a fetishistic object, to be marketed and admired. Its technique can be controlled, like a nuclear reaction, to create architectural energy, as several architects have discovered. Luckily, there is always the knowledge that it is meant to explode, to destroy the safe society which is attempting to capture it.

Gordon Matta-Clark: A Retrospective is the seeping radiation of this explosion. The remnants are collected in photographs and the often eloquent reminiscences of fellow artists and observers of Matta-Clark's work. One can learn much about his personality, about his life and death, but more importantly, one can sense the act of anarchitectural archaeology in the shards of images and forms collected in a book. If it were not for the pretentious essay by Robert Pincus-Witten and the even more pretentious chronology at the end ("1962. The U.S. Blockades Cuban ports in response to the stationing of missiles in Cuba ... Matta-Clark enters the School of Architecture, Cornell University. ..."), one might even believe that Matta-Clark is still at work in the non-time and non-space of anarchitecture. At my back I always hear a chain saw cutting through from chaos to a blinding wedge of light.

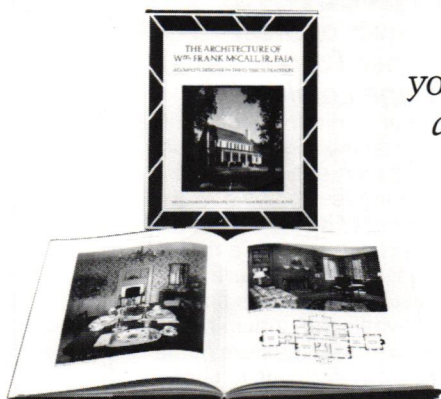
Gordon Matta-Clark: A Retrospective, Mary Jane Jacob with an introduction by Robert Pincus-Witten and interviews by Joan Simon, Museum of Contemporary Art, Chicago, 1985, 152 pp., illus., \$25.95.



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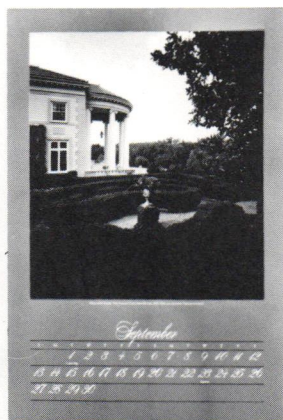
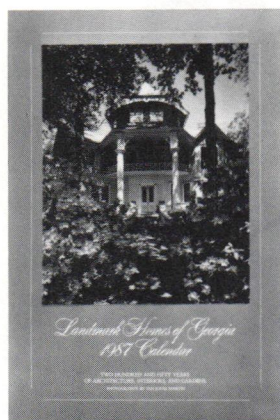
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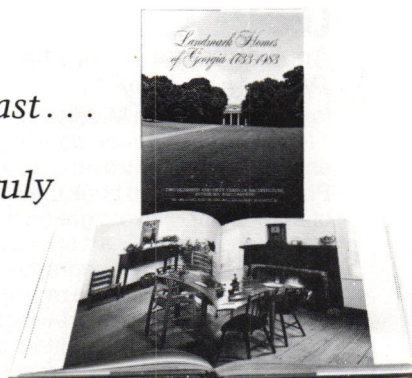
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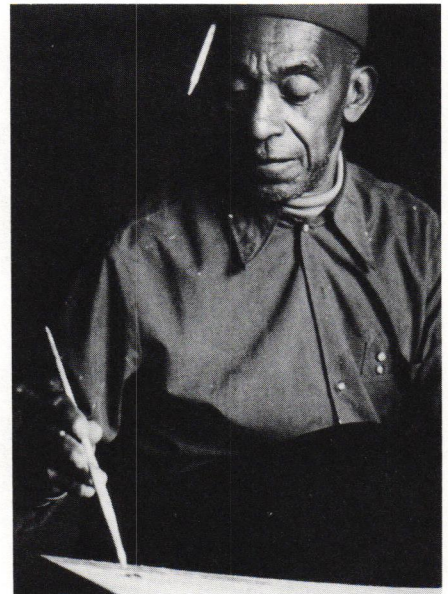
Paccard offers a short introduction situating Islamic ornamental art in its historical context and likening it to "a vast multiform song of praise which, as the echo of the Written Word, attests through its very multiplicity to the Permanence of God as against the plurality of the world." Four chapters are devoted to the concepts of dwelling, place of worship, basic patterns, and calligraphy. Six chapters introduce the technologies of clay, stone, gypsum, wood, metal, water and light—revealing aspects of the ancestral arts little known to this date. An appendix lists the table of dynasties; there are extensive chronological references, a bibliography, "Places to Visit," and a glossary.

The focus of the book is on technology, the craftsmanship involved in

working with local, natural resources and decorating the walls, ceilings, and floors of the Moroccan built environment. However, the book is neither a manual nor a treatise of the traditional techniques of the Maallems. Paccard knows better than to reduce his documents to accumulated "facts," and implicitly invites the reader to re-pose certain fundamental questions: How is one to present "an art that is in praise of the Unseen," that "despise[s] usefulness" in its superimposed abundance of decoration, and in which "God was defined by 'all that was not God' "? How indeed can one accurately convey the spirit of such statements as "A painting on wood is like honey on the lips, an adorable pouting mouth, a cheek with flowerlike dimples. A painting on wood is also my poor fingers that are growing stiff, my arms are growing heavy. . . . A painting is full of mystery, it speaks to the eye"?

The juxtaposition of different types of documents animates the text. An important body of photographs regrouped from diverse sources, accompanied by short informative captions, is interspersed with old drawings by artisans and interpretive diagrams of mosaic motifs. These are further supplemented by Paccard's explanations, punctuated by proverbs, quotes, and sayings, as well as by independent interviews with the Maallems. Such a variety of information invites a nonlinear reading of the materials; it interrupts the monotony inherent in a systematic organization and contributes to a more lively, less predictable rhythm. The authority of the author's voice is dispersed; like a mosaic, the book opens onto the inexhaustible richness of a creative and spiritual world. It conveys Paccard's conviction that "for the Moroccan, architecture is decoration," and also that "decoration becomes a window upon a limitless world":

The Maallem is a poet that does not write on demand. He uses nothing but the humblest materials, some col-



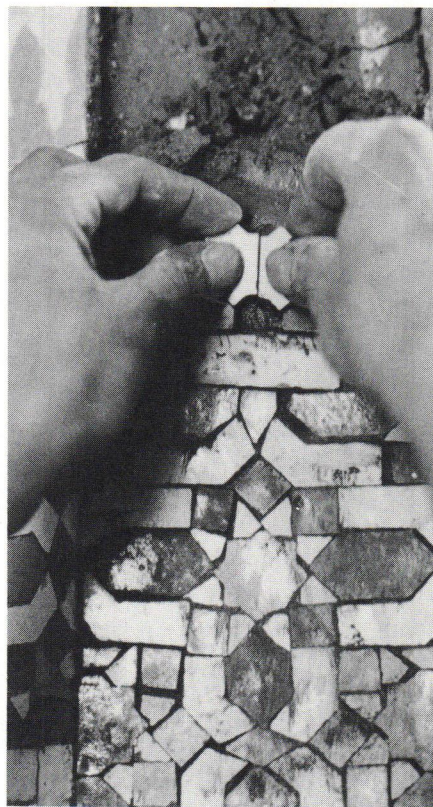
A ZAWWĀQA (PAINTER) AT WORK

our in tin cups, usually cast-off ones, a few rudimentary brushes, for what is required is imagination and imagination knows no enemy but time.

The profound poetry of the book lies mainly in the remarkable quality of the photographic documents and in the dispersion of proverbs and sayings that form their own space of fragments. Drifting from one quote to another, the reader encounters such basic principles of building and design as: "Never prevent your neighbour from setting a beam into the outer wall of your house"; "Do not build in such wise as to look into your neighbour's courtyard"; "Moslem art . . . emphasizes change," hence "the most wonderful patterns are those which leave the spectator in perpetual thought, for, in deciphering one figure, another one will appear enigmatically, so that he can never find the beginning or the end of the lines which weave in and out ceaselessly."

Over two thousand color photographs are assembled to communicate a vision centered not merely on the object of information. A kind of spirituality passes between the artisans and the materials in transformation. Visuals

of the most ordinary acts take the reader step by step into the process of creating with clay, stone, plaster, wood, metal, water, and light. No photograph is "ordinary," nor is any used for the pure sake of information. In view of the lifeless and loveless how-to shots that pervade books on cultural heritage, Paccard shows a sensitivity that goes well beyond both the search for the photogenic and the need for banal images to authenticate experience. The reader may recognize in these photographs a desire to capture the loving attention of the artisans and their profound pleasure in doing their work well, the extraordinary inventiveness, feeling, and sense of color in each piece. "The time is gone," says Maallem Barrahal, "when something worth doing was worth doing well. I can't work without love. I love my craft, my colours and light. I love my apprentices and the other Maallems." What distinguishes the photographic treatment in this book from, for example, Henri Stierlin's *Architecture de l'Islam*—also a remarkable book—is precisely its warmth, its immense variety (quasi-prohibitive for those without substantial financial backing) and its fascination with the making process. Stierlin's photographs show architecture in its ageless splendor and monumentality, devoid of human presence—not in its textures, its making, and its human imperfections. Stierlin invites the reader to stand back and look, rather than inciting him to touch the material and retrace the path of the artisan's hand. The warmth of the photographs in Paccard's documentation comes not only from the use of extreme close-ups, but also from the overall *punctum* effect (defined by Roland Barthes as the marks, the wounds that disturb the *studium* of the photograph, the accident that pricks the viewer). These photographs do not merely awake in us docile, culturally conditioned responses, but mark us by their details, heterogeneity, unevenness, and attentive love for the artisans, for the



THE PLACING OF PIECES OF ZALIJS ON A PILLAR
BY A MAALLEM FERRASH.

magnificence as well as the humbleness of their achievements.

Traditional Islamic Craft in Moroccan Architecture is an inspiring contribution to the vast body of works on Islamic architecture. There are no similar studies on architecture as a craft, nor any comparable in visual quality. Jose Corral's *Ciudades de las Caravanas* (1985), a study of the architectural decorations of a neighboring country, Mauritania, comes to mind as a striking complementary effort, emphasizing not so much the historical values in traditional architecture, as the ancientness of practices that bear witness to man's vulnerability.

Traditional Islamic Craft in Moroccan Architecture, André Paccard (translated by Mary Guggenheim), Editions Ateliers 74 (74410 Saint-Jorioz, France), 1980, 2 vol., 1,083 pp., illus., \$250.00.

Howard Mansfield:

HUDSON RIVER VILLAS

JOHN ZUKOWSKY and ROBBE
PIERCE STIMSON

As a regular Amtrak passenger between New York and Albany, I always had one question in mind while waiting in Grand Central Terminal: which side would be on the water? The tracks run close to the Hudson, tilting in places. Eating in the dining car (when they still had one) was an exercise in stopping the dishes' relentless march to the window, but even this distraction couldn't keep you from lingering to look out the window.

Some of the landmarks were dramatic—appearing around a bend, submitting to a long stare and then gone, like a promised story never delivered. One of these was an empty shell of a castle that begged for identification, standing on an island with trees growing from its windows.

Now at last, with *Hudson River Villas*, I have the answer: Bannerman's Castle, designed by a wealthy arms merchant, built from 1905 to 1918, partially destroyed by explosion in 1920, taken over by New York State, burned in 1969. It is but one of many castles along the Hudson, a remnant of a time when the river was seen as the American Rhine.

The Hudson River valley is one of the oldest settled areas in the country. Along its shores the landscape has been cultivated according to a succession of European models. The Dutch first established large feudal holdings. "Their houses, along with a similar class coming into its own in other areas such as Virginia, were the closest thing to royal residences this side of the Atlantic," John Zukowsky and Robbe Pierce Stimson write in the short introduction. The Revolution brought an end to two centuries of feudalism, and a change in architectural style: The Georgian was out (too British), and the federal style was in.

And shortly came the 19th-century parade of styles.

From the mansions just north of New York City, 150 miles up the river to Albany, the Hudson River valley was home to every style, including a goodly number of Hudson River Gothic mansions, like the preserved Lyndhurst, houses modeled on the Octagon fad, and large Beaux-Arts mansions by McKim, Mead and White for the Vanderbilt and Astor clans. *Hudson River Villas*, a coffee-table book, takes us from south to north, with a foldout map and 300 pictures, many in color. Unfortunately, some, particularly the old woodcuts and engravings, are overly enlarged and a little fuzzy, while some of the black-and-white photos are murky and poorly framed.

John Zukowsky spent a decade sorting through several hundred examples of Hudson River villas and selected 123 for this book. Of these, less than a third have remained private houses (many without their grounds), another third have been demolished, and the final third live on, some meticulously preserved as visitable sites by the National Trust or Sleepy Hollow Restorations, others as schools, rest homes, apartments, religious and corporate retreats. Some may find it ironic that the products of private wealth are now maintained by a charitable dole. But it is not the authors' intention to raise these questions, or to ask the place of such large estates in our society, or to ponder their often inglorious end. We are asked only to come forth and admire.

The best photos in the book show us what all the fuss was about: the view, and many of the names stress the point: Cliffside, Ferncliff, Overcliff, Stonecliff, Wyndcliffe. In the 1820s, the authors write, the Hudson River became world famous through the stories of Washington Irving and the landscape painters of the Hudson River School. These grand estates were landscape painting writ large, and A. J. Downing's popular books on

the architecture of country houses advised how to build for the best "picturesque" effect.

But for all the pictures, a remembrance by Frances Perkins of FDR's home in Hyde Park (Springwood) best captures the feeling of Hudson River life. The house has a south-facing terrace overlooking the Hudson:

One stepped out long French windows from the living room-library and out onto a green lawn. Many times in summer, when I would be told "the family is on the lawn," I approached through the library and saw through an open door an unforgettable picture: Mrs. Sara Roosevelt, in a soft,

light summery dress with ruffles . . . sitting on a wicker chair and reading; Mrs. Roosevelt, in a white dress and white tennis shoes . . . sitting with her long-legged, graceful posture in a low chair and knitting, always knitting; Roosevelt looking off down the river at the view he admired, with a book, often unopened, in one hand, and a walking stick in the other; dogs playing near by, and children romping a little farther down the lawn. The scene was like a Currier & Ives print of Life along the Hudson.

Hudson River Villas, John Zukowsky and Robbe Pierce Stimson, Rizzoli, 1986, 280 pp., illus., \$45.00.

Eric Sandweiss:

YESTERDAY'S TOMORROWS

JOSEPH J. CORN and
BRIAN HERRIGAN

IN ADVANCE OF THE LANDING

DOUGLAS CURRAN

Could books with titles like these hold any conceivable interest for someone who stopped reading science fiction in seventh grade, who doesn't know the names of the characters on "Star Trek," and whose interest in the future extends as far as the next World Series? Could you, too, be a member of that invisible minority that never dreamed about laser guns, time travel, or glowing saucers in the sky? If you are, your first inclination may be to skip this review and leaf to the nearest article on urban infrastructure. Perhaps you pride yourself on a lifelong practical bent. Perhaps you are a fallen idealist whose vision of things to come has turned from the promise of a new millenium to the threat of tomorrow's papers. Perhaps, finally, you have lost sight of the fact that our visions of the future offer some of the

clearest evidence available of our concerns of the present: therein lies the value of these two offbeat but undeniably appealing books.

"The future," as historians Joseph J. Corn and Brian Herrigan define it, "does not exist except as an act of belief or imagination." Their intent is not to test the validity of a hundred years of weird predictions and messianic plans, but to examine what those ideas tell us about the culture from which they emerged. Similarly, Douglas Curran explains that his research into flying saucer landings and extraterrestrial contact led him away from any effort to prove or disprove their existence, toward a view in which "the edges of fact, conjecture, wishful thinking, and supernatural events began to overlap and blur." In each case, the authors opt for the appearance of scrupulous objectivity in the face of some of the oddest outpourings that American popular culture has produced.

Yesterday's Tomorrows, organized around a recent Smithsonian traveling exhibition, is a multimedia "history of the future"—a study of the ways that we have pictured the world of tomorrow. Corn and Herrigan, in their conception of "the future" as an ever-changing ideal, stress that it "does not exist apart from the expressive medium." It is fitting, then, that they



EVAN HAYWORTH
AND THE
INTERSTELLAR
TECHNICAL
RESEARCH
BILLENIUM FALCON,
VENICE,
CALIFORNIA. FROM
CURRAN, *IN
ADVANCE OF THE
LANDING*.

devote a chapter to the growth of popular communication forms from pulp magazines and hobby journals to movies and radio. In the appearance of *Astounding Stories of Super Science* and *Science Wonder Quarterly*, in ads for Revlon Futurama lipstick and the Oldsmobile Rocket ("glamor in the finest Futuramic manner!") lies the common assumption that tomorrow holds untold wonders and—just as important—that the public is ready to pay for a glimpse. Faith in the future grew together with the commercial means of presenting it.

Corn and Horrigan sift through the technicolor detritus of our recent past to pick out four areas on which popular speculation has dwelt: the city, the home, transportation, and warfare. It is easy to get lost in the lush, usually funny pictures that illustrate these topics, and get caught up in the endless quirky trivia (did you know that the Batmobile was a 1955 Lincoln Futura? That only 24 "Jetsons" episodes were ever made?).

But beneath the unearthed artifacts and the laughable schemes, a faithful projection of America's past awaits discovery. The history of the future "is a history of conservative actions in the guise of newness." Late nineteenth-century visionaries foretold a world of Victorian comfort and domesticity; ideal city plans of the 1930s reflected "a persistent strain of anti-urbanism in American culture"; the model kitchens offered to housewives of the 1950s "helped put behind memories of the war and Depression."

While there's nothing particularly

new about these insights, Corn and Horrigan are remarkable for their skill in balancing the Big Ideas with the Fun and Games. Their interest in popular culture puts icons like Wright, Le Corbusier, and Fuller back on earth, where they belong; but their awareness of cultural issues keeps *Yesterday's Tomorrows* from being a science fiction edition of Trivial Pursuit.

Douglas Curran's *In Advance of the Landing* is a much darker book. While it may be of less direct interest to the student of architecture or design, its personal focus raises more compelling and disturbing issues than Corn and Horrigan's survey format allows. This is a book about people: about Ruth Norman, the 82-year-old widow known as the Archangel Uriel to her followers in the Unarius Foundation; about George Adamski, the Polish immigrant who contacted aliens from his compound at the base of Mt. Palomar; and about dozens of other visionaries, opportunists, and just plain nuts who have followed similar paths.

Curran was trained as a photographer, and his 62 photographs alone make this a better-than-average coffee-table book. One way to read it is simply to browse through the pictures, with their nothing-more-and-nothing-less captions: "Evan Hayworth and the Interstellar Technical Research Billenium Falcon," "Display of radionics equipment built by Aetherians for Operation Bluewater," etc. Still, as Tom Wolfe writes in his laudatory foreword, "Curran is not only a photographer but also a reporter." He has traveled across North America in

search of those whose lives (and, at times, livelihoods) are devoted to making contact with beings from outer space. He has pursued these people, interviewed them, and, in some cases, been initiated into their sects.

The picture that emerges from Curran's travels is of a subculture of people who are perhaps more open than the rest of us in their search for meaning in life. Their pursuit of scientific goals is usually intermixed with Christian conviction: "DNA and RNA together," Curran overhears one UFO conference attendee tell another, "that's the '666' referred to in the Bible." Another believer tells the author of the impending descent of divine saucers:

When this thing starts happening, man! . . . Now these people got the idea Heaven is in outer space—well, it is now—but it's coming to Earth!

For others, like John Reeves—the "Brooksville, Florida, Spaceman," who has already carved his epitaph at the site where he confronted a spacecraft in 1965—interplanetary contact is the key to a more personal immortality:

In this tomb lies the body of John E. Reeves, one of the greatest men of our time, the greatest of them all. Outer space traveller to other planets of our universe.

We are all looking for greatness, just as we are all afraid it will elude us. In the unformed future, in the unfathomed beyond, lies the possibility of leaving a greater impression than that which we leave in life. You don't have to be a devotee of "The Twilight Zone" to be moved by these two documents of men and women who have channeled their energies toward that "other dimension" beyond the here and now.

Yesterday's Tomorrows: Past Visions of the American Future, Joseph J. Corn and Brian Horrigan, Summit Books, 1984, 158 pp., illus., \$17.95 pb.

In Advance of the Landing: Folk Concepts of Outer Space, Douglas Curran, Abbeville, 1985, 133 pp., illus., \$16.95 pb.

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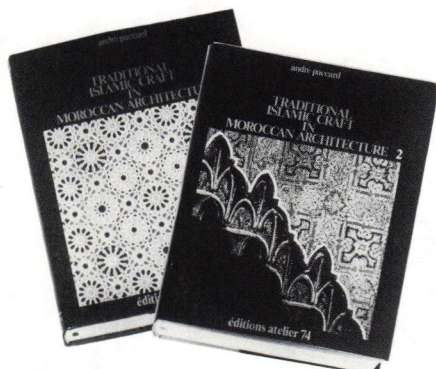
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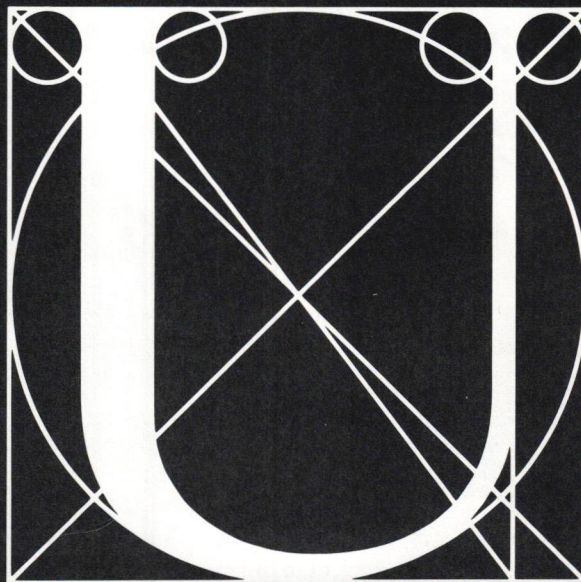
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Steve Reoult:

FACES

PAUL DAVIS

As a longtime admirer of Paul Davis's illustrations, I was eager to see this book. Perhaps too eager, for my first impression was disappointment. Instead of pictures which "will tell future generations something usually very hard to understand about ancestors: how alive we were" (from Vonnegut's introduction); instead of portraits in which "Davis coaxes their outer appearance to reflect their inner reality" (from the jacket copy), what I saw were skillfully, sometimes quite beautifully, painted copies of photographs accurately rendering physical features but hardly revealing psychological meanings. (Unfortunately, no information on Davis's working method is given, but in most cases it would seem that a photograph provided the original source.) This negative reaction was so completely unexpected that I put the book away, not to open it again until the review deadline approached.

This time, with expectations considerably lowered, my reaction was different. Paul Davis paints in a primitive, naive manner somewhat reminiscent of Henri Rousseau (his signature is written in the brushscript so typical of primitive painters). To my recollection Davis was the first prominent American illustrator to work in this manner. His first illustrations, done in the early 1960s (one of the shortcomings of this book is the lack of dates except where they accompany the signature), bear this primitive stamp most strongly. The recent work is much more realistic.

The earliest work is the strongest. Physical details—hands, shirt collar, bowtie, house, smoking cigarette—are emphasized, simplified, allowing them to function as formal elements. This, combined with a certain awkwardness of drawing as well as poetic use of color, gives these paintings a

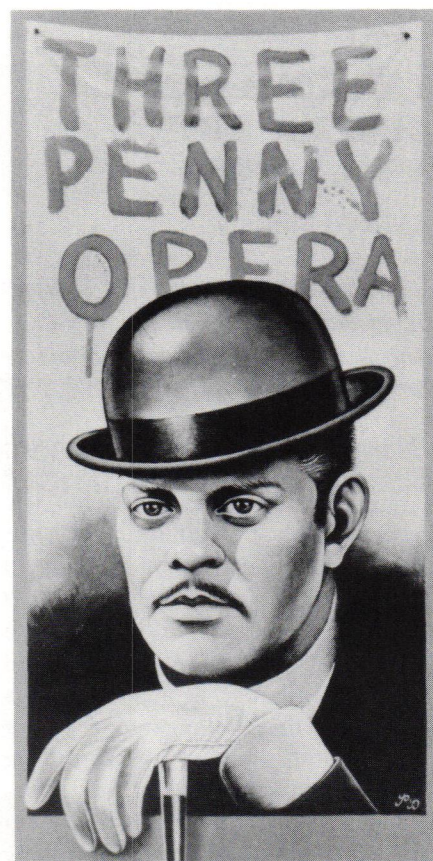
whimsical, romantic, haunting quality. The best of these portraits include a Mrs. Phipps against a delightful landscape; Shirley Temple Black; Elizabeth Taylor and Family with a knowing, pleased little girl half hidden by an older brother; Ian Fleming with a beautifully painted hand; Thelonius Monk; The Castelli Family; Rose Kennedy; Jackie Gleason; Leadbelly.

More recent work is weaker. Realism has been heightened at the expense of formal qualities without telling anything more about "inner realities." The work appears shallow, reduced to slick, mechanical formulas. The portrait of Kevin Kline as Richard III, in which Davis purports to show the "extraordinary intensity . . . of evil," seems more like a fraternity jock planning (are those bulging eyes capable of such complexities?) a panty raid.

Perhaps the worst is a 1985 portrait of fashion model Pat Kennedy as punker. This painting is so homogenized it reminds me of John Whitcomb, an illustrator popular in the forties and fifties, who specialized in glamorous, sparkly-eyed, dewy-lipped, completely unbelievable (Doris Day as middle-aged virgin) women. Pat Kennedy's punker is as convincing as Ralph Lauren's cowboy.

Also, some of the portraits, deprived of their letterforms, appear unfinished. A few which do include type are among the best in the book: Sam Waterston as Hamlet; Raul Julia as Mack the Knife; a young boy in a 1968 United Farm Workers poster. The boy and the words above his head are very beautifully painted. This boy together with a reclusive Greta Garbo mostly hidden behind a map of Manhattan and a laughing John Lindsay being doused by a shower of glittering, magical champagne bubbles are the finest portraits in the book.

Despite the short text (just a brief introduction by Vonnegut and an even briefer one by Davis) and complete absence of information about methods, materials, influences, hopes, and frustrations (topics which have been



done so well in similar books by Milton Glaser and James McMullan), this is a highly recommended book.

Paul Davis concludes his introduction by recalling a gift he received when he was a boy, a book called *Fifty Famous Americans* with drawings of Lindbergh, Ford, Ruth, etc. "It was a book I really loved. There was something thrilling about seeing all those people together. It occurs to me that this book is a kind of sequel, and I like to think it may come to mean as much to someone else as that book meant to me." I think it will.

Faces, Paul Davis, with an introduction by Kurt Vonnegut, Friendly Press, 1985, 150 pp., illus., \$24.95.

Evelyn Anselevicius:

THE WOVEN AND GRAPHIC ART OF ANNI ALBERS

ANNI ALBERS

*If she is a wall, we will build upon her a palace of silver.
And if she is a door, we will enclose her with boards of cedar.¹*

Anni Albers, in a 1983 watercolor and screenprint entitled "Wall VI," makes a rare and revealing statement. The print is the last of ninety black-and-white and forty color reproductions in *The Woven and Graphic Art of Anni Albers*. In contrast to her precise geometric and brilliant, triangulated works, "Wall VI" is a spontaneous watercolor that belongs to a looser drawing style evolved by her during the past two years. "Wall VI" offers a special opportunity for repose in which one may experience the building of the wall, stone upon stone. The approach is simple but the universal questions are there. It is an old wall, perhaps a ruin. Can it still be under construction? "Wall VI" seems to signal yet another beginning in the search and development of this gifted and remarkable woman.

Published by the Smithsonian Press on the occasion of an Anni Albers exhibition at the Renwick Gallery in Washington, D.C., *The Woven and Graphic Art of Anni Albers* is a handsome book, with essays by a number of distinguished critics as well as spirited biographical material with photographs of Anni and Josef Albers during the twenties and forties. This is the first comprehensive study of Anni Albers' artistic development, from her student days at the Bauhaus in Germany through the years at Black Mountain College where she taught weaving, the later years of exhibitions, lectures, and writings and finally her intense exploration of a new medium in a printer's workshop.

The historical and philosophical implications will interest architects, designers, art historians, and collectors as well as weavers and other artists. Of both architecture and weaving she wrote, "construct a whole from separate parts that retain their identity. . . . Both are ancient crafts. In earlier stages, they had the purpose of providing shelter, one for a life of wandering, a nomadic life."² Through decades of controversy between functionalism and the various relativist reactions, we see Anni Albers (as observed in the essay by Nicholas Fox Webber, a close friend and executive director of the Josef Albers Foundation) walking into a modern printing plant dressed in "deliberately 'unarty' and unbohemian" clothes. Statements made by Albers several decades ago sound up-to-date in light of what is being said today by the most creative designers on all sides. Mary Jane Jacobs, chief curator of Chicago's Museum of Contemporary Art, has included some of these statements in an essay that describes Anni Albers as a modern weaver and artist who believed that modern technology and new materials could lead to revolutionary solutions, who felt that specialization by industry could destroy the unity of the final form, and who made no distinction between the craftsman designer, the industrial designer, and the artist, because the fundamental, if not the specific, considerations are the same.

Richard S. Field, curator of prints, drawings and photographs at Yale University Art Gallery, writes candidly of her work in the printshop and poses such questions as: Why did Anni Albers not take advantage of the textural possibilities of the screenprint? Mary Jane Jacobs states that Albers felt that "only in weaving could texture be exploited aesthetically and play a role in Design as well as form because textural effects belong to the very structure of the material and are not superimposed decorative elements." Concerning the influence of Josef Albers on her work, Field

points out that both Anni and Josef favored self-effacing art and that Josef's involvement challenged the viewer as Anni's would later, to make far more subtle distinctions than did the "gaudy, retinal phenomena of OP ART . . . both favored an art that was totally lacking in gestural incident, self-effacing rather than egotistical." "What lay behind such idealism?" Field asks. Why were the Albers so chary of being a part of their times and yet why were they also so willing to submit to the machine? . . . One feels that their works withdraw from risk and sensuous indulgence." Anni Albers' own writings do contain the answers to some of these questions. In 1965 she wrote that "The conscientious designer seeks to forgo his own identity in order to be able more impartially to interpret the potential."³ Discussing the relationship of the Albers's work to Op Art, Field writes that their ideas "coincided marvelously with many that underlay the art of the 60s," and in connection with the print for the Josef Grippi Gallery, where the reversed fields meet, "the design seems to blend into the spaces of the image, one of the few instances in which Anni Albers seems to have borrowed from Op Art's bag of tricks."

Having myself been a student at Black Mountain College, I feel sure that neither Josef nor Anni Albers would claim credit for the birth of Op Art, since Op was at times a blatant expression of sixties psychedelic phenomena. However, some of Op's better characteristics might be traced to Josef Albers' visual exercises for his students at Black Mountain College. Color vibrations, when, according to Josef Albers, they "worked," were two colors perfectly balanced in the spectrum, of equal intensity and of the same value, the shapes of which, placed in a figure/ground relationship, contributed to the almost liquid appearance of mysteriously quiet though blinking optical illusions. Given the frequent insensitivity of would-be artists at the time of their immigration

to the United States before the second World War, these exercises, and others relating to figure/background, produced students of infinitely greater awareness than might otherwise have been the case. I remember Josef Albers discussing the principles contained in Goethe's "Metamorphosis of Plants," with its discussion of the single member system from root to flower. This writing by Goethe was one of the very early influences on the thinking of Anni in Germany. Field explains Anni Albers's use of positive and negative space as being influenced by the warp and weft of weaving. While this may have been the case, her husband also dealt with such concepts in his own way in his design classes at Black Mountain. It would seem reasonable

to assume that Josef and Anni Albers, having been married for a half-century, were mutually influenced by one another.

It is indeed remarkable that Anni Albers was content to spend two decades investigating the possibilities of the diagonally sliced square. She appears, in her exploration of the printer's craft, to have found endless possibilities within the limitations of simple principles and her work was more a recording of these discoveries than mere human invention. This would explain the reluctance Field observes in her to move directly forward to her next set of prints, her preference for reverting to the complex, triangle-based designs. Anni Albers also found geometric forms reassuring, calming,

and balancing. Throughout her career, there is a conflict between the need to control free and sensuous expression and the desire for anonymity in the universal. "It is this struggle, and this example," writes Field, "that make her art worthy of serious study." Through her teaching, writings, and woven art Anni Albers has played an essential role in transferring European concepts of abstract design to American industry. Moreover, she has accomplished a new definition of weaving that embraces the aesthetic as well as the inspired.

1. Song of Solomon, 8:9

The Woven and Graphic Art of Anni Albers, introduction by Lloyd E. Herman, foreword by Anni Albers, Smithsonian, 1985, 140 pp., illus., cloth \$39.95; paper \$17.50.

Steve Reoutt:

AMERICAN GRAPHIC DESIGNERS

RITASUE SIEGEL

In her acknowledgments, Ms. Siegel gives special thanks to Dugald Stermer for "criticising without mercy." Anyone familiar with Stermer's forthright, discerning book reviews in *Communication Arts* magazine can well believe that and, after examining the book, conclude that the criticism was not followed. This book is a mistake, a poor repackaging of material, most of which appeared in the 1978 Silver Anniversary issue of *IDEA* magazine titled *Important U.S. Graphic Designers of the Last Twenty-Five Years*. For some reason the quarter century grows into thirty in the title but with no equivalent expansion of content. In fact, most of the work shown dates from the years 1960 to 1978, with nothing from the 1980s.

In 1977-78 about eighty graphic designers were invited to "design and fill a double-page spread with your photograph, a short 175-250-word

biography and samples with a historical perspective." Sixty responded, and their work, arranged in apparently random fashion, makes up the bulk of the book.

On the contents page they are grouped into two columns, as either Established Leaders (Chermayeff, Dorfman, Glaser, Miho, Vignelli) or Emerging Designers (Geissbuhler, Bonnell, Hinrichs). Perhaps because of the dated nature of this material there are glaring omissions. Just among Californians the missing include Michael Manwaring, John Casado, April Greiman, John Coy, and Michael Vanderbyl.

The best feature of this book is the succinct piece by Wilburn Bonnell neatly summarizing American graphic design history and changes in design education. Although much of the work reproduced here is familiar—having appeared in other publications—it is curiously satisfying (almost like listening to gossip) to see how each designer dealt with the task of presenting "a biography and samples with a historical perspective." There are examples of brevity (Vance Johnson shows one piece of work) and excess (Tony Lane Cramming jams 161[!] pieces, in the process pushing his

own name completely off the page).

The biographical sketches are mostly businesslike: born; school; work; jobs; awards; publications; lectures. Some puff up a bit: "Robert Runyan combines prodigious creative energy with extraordinary versatility to produce the design projects that bear his unique signature." And then there are morsels which give life to the anonymous recitations:

Her reaction to abstract expressionism and experimental films was self-exile to Basel, Switzerland, where she studied disciplined Bauhaus design at the Kunstgewerbeschule. (Barbara Stauffacher Solomon)

Trying to fit one's life onto an eleven-and-a-half by eighteen-inch area is a depressing business, but succeeding is worse. (Dugald Stermer)

Design as we know it could not soak the land as a desert soaked up every drop of rain. (Midori Imatake)

Ms. Siegel hopes "our efforts will inspire a definitive study of American graphic design." Well, if not definitive, at least one that is organized, up-to-date, with a discernible viewpoint.

American Graphic Designers: Thirty Years of Design Imagery, Ritasue Siegel, McGraw-Hill, 1985, 141 pp., illus., \$19.95 pb.



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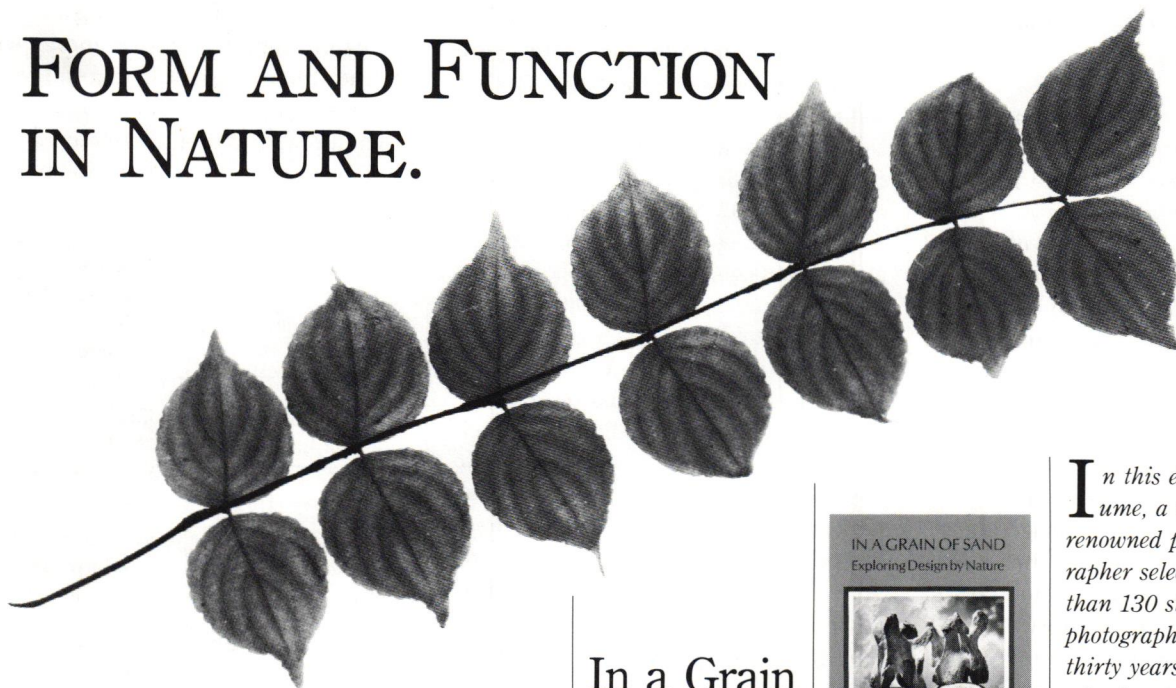
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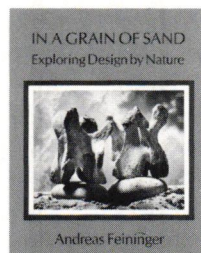
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William Lake Douglas:

GARDENS

LABYRINTHS PARADISE

ENRICO RAINERO

Gardens Labyrinths Paradise is a beautiful but confusing book. The large (roughly 10" × 13") format is attractive, the quality of the production is superb, and the images of Italian gardens are stunning. Yet something is lost in the change from Italian to English, not so much literally (the translation by Patricia Schultz is adequate) as conceptually—What is this book really about?

The introduction begins, rather abstrusely:

This book offers an itinerary of invention and fantasy within the ideal garden, created by joining together naturalistic and artistic phenomena, and the mythological and allegorical wonders of the centuries-old history of man and his garden.

It continues with a discussion of the book's tripartite organization. The first chapter, "Genesis," sees "the birth of 'vegetation' as the allegory of the birth of life." The second chapter, entitled "The Historical Garden," begins "with the interpretation and use of nature as pleasure." The final chapter, "The Garden of Desire," depicts "exceptional allegorical representations." Each section "is developed along two parallel journeys: the first by images, the second by a wealth of quotations that emphasize the photographs."

The images are, indeed, beautiful (Rainero is a well-known photographer in Europe). For this reviewer, the excellent images, simply augmented with basic information about the gardens, would have been enough. Instead we have quotations from Virgil, Milton, Shelley, Umberto Eco, sprinkled intermittently among garden images, not always elucidating them.

Sometimes the connection has to

do with context (Montaigne's writing about Pratolino accompanies images of that Medici park; Soderini's reference to Bomarzo is used with Bomarzo), but more often it is subjective and the reasoning opaque.

This encourages the reader to project into the visual and written images a personal interpretation—not a bad approach. Yet it assumes a certain level of knowledge about both garden history and literature, and those unfamiliar with these subjects are unlikely to comprehend the book's lofty objectives. Even those well-versed in these topics will find that repeated readings yield new meanings.

An appendix, of sorts, includes "Historical Notes" (discussions of the theater garden, labyrinths, grottoes, and the garden of the castle; brief histories of the eighteen sites, illustrated); a bibliography; and an index of locations. Sorely missed is a comprehensive list of sources for the quotes, with titles, dates, and other minutiae.

Despite the sometimes murky relationship between text and image, *Gardens Labyrinths Paradise* is a valuable visual record of the Italian landscape. Some readers may be surprised by notable gardens excluded: for instance, Villa Lante and Villa d'Este. Yet the bulk of the book is devoted to gardens that have not been published lately, such as Villa Marlia, Garzoni, and six Medici gardens (Boboli, Caraggi, Castello, Petraia, Poggio a Caiano, and Pratolino-Demidoff), and one appreciates seeing them in their present condition.

Still, the question arises, Is this book for the general public (who probably will not understand the book's objectives)? The garden historian (who will feel the lack of comprehensive visual and historical documentation)? The aficionado of photography (who will appreciate the composition, lighting, and color of the images, but want technical information)? Or the armchair tourist (as a Baedeker it is limited at best)? Any one group is a

valid and substantial audience, and each deserves a comprehensive effort. What we have instead is a book that will impress everyone with its production, but leave its readers—regardless of background—wanting more.

Gardens Labyrinths Paradise, Enrico Rainero, Princeton Architectural Press, 1985, 196 pp., illus., \$55.00.

Margaretta Darnall:

VITA'S OTHER WORLD

JANE BROWN

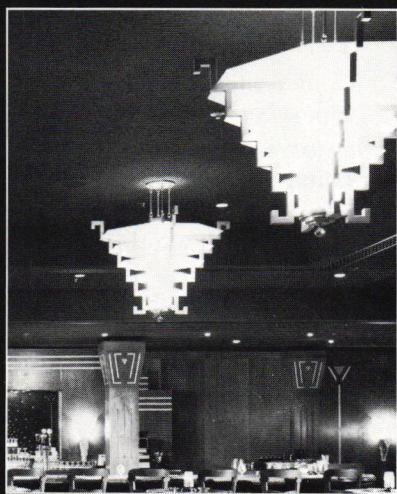
In one of her early poems Vita Sackville-West (1892–1962) posed the question, "Adam, were you, . . . / A poet and a gardener in one?" Poetry and gardening are the two threads Jane Brown intertwines in what she has called *Vita's Other World*. The biography explores Vita Sackville-West's considerable achievements as a gardener and the parallels in her poetry and writing.

This is a difficult task. Vita Sackville-West's unconventional life has been retold many times, most notably in Virginia Woolf's *Orlando* (1928), her son Nigel Nicolson's *Portrait of a Marriage* (1973), and in the recent *Vita* by Victoria Glendinning (1983). Her garden is the subject of the monograph, *Sissinghurst: The Making of a Garden*, by Anne Scott-James (1975). None of these books captured the spirit of Vita's life as a countrywoman as well as Brown's new biography.

Neither Vita nor her husband, Harold Nicolson, were professional gardeners or designers, yet together they created one of the most enchanting gardens in all of England. Their gardens at Sissinghurst Castle in Kent, southwest of London, combined Harold's classical design with Vita's love of flowers. By 1954 Vita realized that their garden had "blundered into fame."

The first half of *Vita's Other World* discusses her life and gardens before Sissinghurst. Her ancestral home, Knole, played an unusually important

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role in her life, and until she was 16 she was heir to England's largest castle and its four acres of buildings. The effect of this magnificent heritage on Vita's personality is the subject of Virginia Woolf's *Orlando*. Knole still retains its early 18th-century outlines of independent gardens, untouched by Capability Brown and the picturesque movement that swept England later in the 18th century. The theme of the individual gardens reappeared at Sissinghurst on a much more intimate scale.

Long Barn was Vita's first home after her marriage in 1913, and here she made her first garden. Their friend, the architect Edwin Lutyens, helped Harold informally with the design of the terrace gardens. Most of Vita's long, prizewinning poem, *The Land* (1926), was written from Long Barn. *The Land* is a celebration of agriculture and an unsentimental account of the cycle of the country's year. The garden is its soul. Vita's deep feeling for country life was perfectly reflected here.

In 1930 Harold and Vita purchased

the derelict Sissinghurst Castle, a property which had been associated with Vita's family as far back as the 16th century. They proceeded to transform it into a place which could accommodate their independent lives. Vita had her tower, Harold his cottage. Their sons had still another cottage. They all came together in the Big Room in a fourth building. The garden was composed of very traditional English elements: a rose garden, a yew walk, a nuttury, a lime walk, an herb garden, an orchard with an underplanting of spring bulbs, banks of azaleas, and herbaceous borders. The influence of William Robinson, Gertrude Jekyll, and Edwin Lutyens, all of whom they knew, is clear, but Sissinghurst as a whole is unlike the work of any of those luminaries.

From Sissinghurst Vita wrote her famous garden columns. The first were for *The New Statesman* and *Nation* between 1938 and 1941 and were later published as *Country Notes* (1939) and *Country Notes in Wartime* (1940). These are among her finest writings. The garden columns for the *London*

Observer, from 1946 until 1960, brought Vita and her garden to the attention of a wide public. Their style is chatty and casual and without the awkwardness that characterizes her fiction. A selection of the best is newly available in *The Illustrated Garden Book* (Atheneum, 1986). Vita first opened Sissinghurst to the public in 1948 and was available to discuss her flowers with all who came.

Vita's Other World is an elegantly written biography, well illustrated with photographs and drawings. It presents the visual world that her literary critics and personal biographers have been uncomfortable with. The research is thorough and draws on letters, documents in the Kent County Archives, and writings of Vita and her husband, their family, and innumerable secondary sources. The material has been well considered and is used to support the overall contention that the world of the garden was Vita's overriding and most private passion.

Occasionally, speculation about what Vita *might* have seen is distracting. Sometimes a longer quote or another photograph would help to clarify an important point. For example, the author tells us that Vita's most beautiful piece of poetry is that part of *The Land* describing an island garden; but the quotation is only one line, and there is no picture of Dorothy Wellesley's Sherfield Court, which inspired the passage.

All told, *Vita's Other World* is a fascinating account of the complex personalities and rich experiences that went into the making of a truly extraordinary place. Vita Sackville-West had hoped to be remembered as a poet, a novelist, and a biographer. Jane Brown convinces us that Vita's best writing resulted from her love of the land and her strong sense of place and that her gardens and poetry were the twin expressions of her innermost self.

Vita's Other World, Jane Brown, Viking, 1985, 240 pp., illus., \$20.00.

Alberto Pérez-Gómez:

THE CONCEPT OF DWELLING

CHRISTIAN NORBERG-SCHULZ

In his new book Norberg-Schulz attempts to integrate many of the concepts developed in his previous writings around an encompassing phenomenological description of dwelling. Having recognized the irrelevance of a purely structuralist approach to architectural theory (through the influence of such pioneers in the applications of phenomenology to architecture as Dalibor Vesely and Joseph Rykwert), Norberg-Schulz has revised his original position.¹ However, these revisions are always gathered and resynthesized according to the intellectualistic biases of the author's earlier work.

The Concept of Dwelling is clearly organized, and extremely didactic. Like his previous writings, it has broad ambitions, describing the concept of dwelling at the scale of "settlement," "urban space," "institution," and "house." The final chapter is on language, which Norberg-Schulz postulates as the common denominator of his four "modes."

The book is lavishly illustrated and capitalizes on the recent mood of postmodernism, presenting its arguments as a "way to figurative architecture." Taken as an introduction to a Heideggerian reading of architecture vis-à-vis the failings of the International Style, the book is certainly interesting. Students can learn much about the way traditional architecture organized the world of man and constituted a symbolic order, allowing for poetic inhabitation. Clearly, as the author points out, dwelling cannot be reduced to just a roof over our heads. It implies our identification and orientation in the world; it allows man to be truly human by transcending finite embodiment and becoming part of a larger order. This fundamental task of architecture is a constant through

history, and Norberg-Schulz's description of its implementation in traditional cultures is admirable and valuable. The argument, which cannot be over-emphasized, is particularly crucial in our materialistic and reactionary societies.

Beyond this level, however—and specifically in Norberg-Schulz's analyses of the present situation—I find the book extremely disappointing and the use of Heideggerian language inconsiderate and excessive. The fundamental fallacy, which is clear in the introductory chapter, derives from an unwillingness to accept the specific reality of the modern world; and paradoxically (for a phenomenological thinker), it is probably the result of an inveterate classical (Cartesian) model of perception: He fails to realize that the world itself is an intentional phenomenon, not independent from thought. Heidegger himself warned against a reactionary enslavement within prevailing traditions: "The flight into tradition, out of a combination of humility and prescription, can bring about nothing in itself other than self-deception and blindness in relation to the historical moment."²

The problems of the modern city, its alienation and anonymity, cannot be solved by assuming that the questions of dwelling, like orientation and identification, are purely the result of material configurations. History demonstrates that ritual, as the embodiment of myth, constituted the invisible referential order which made the material architectural orders meaningful at all scales, as they are admired by Norberg-Schulz. The problem is that such ritual, understood as actions which truly revealed the place of man in the cosmos, is no longer a common source of existential orientation in modern everyday life.

Norberg-Schulz fails to recognize that the world and the body image finally ceased to be "classical" in the early 19th century. To assume that either is constant is a rationalist prejudice. No one can argue with the

author's preference for an architecture of concrete, qualitative places, but the problem of grounding our *own* architecture cannot be resolved though a simple-minded extrapolation from history. The theory of functionalism obviously failed, a prey to its own reductionist obsessions. It is unfair, nevertheless, to blame the problems of the city on our inability to produce a meaningful architecture. Regardless of what architects have said or written about their work, true modern architecture has been produced and is not identical to technological building. There is modern architecture of immense figural power, from Gaudí's Casa Mila to Aalto's Paimio Sanatorium or Villa Mairea, from Mies's Barcelona Pavilion to Le Corbusier's La Tourette or Ronchamp.

The building of the modern city does not generally reflect architectural intentions, but rather the dominant view of technology, ideology, or reactionary politics. Norberg-Schulz emphasizes that man has to be at home. Today, however, his home is u-topia, regardless of the historical debris littering his city. Abstract architectural ideas are dangerous because they are easy to assimilate to the aims of technological domination. Nevertheless the power of the modern architect as an artist should not be denied. The great works of modern architecture, even though they are the world of its culture, like gestures or food, are comparatively free from the limitations of site. Only by accepting this fact can we transcend its dangers.

No creation is *ex nihilo*; as Norberg-Schulz points out, the world precedes us. But its reality is only apparent in the intentional realm; we make it. The structure of "ground, sky, and horizon" he alludes to is obviously present, but, without an invisible order, is insufficient to generate a meaningful architecture. Place can no longer be simply "disclosed," it has to be re-invented. Nature has been effectively superseded by simulations. A phenomenological exploration must ac-

knowledge this problem, not elude it. It is a delusion to suggest that we can recognize material (i.e., typological, topological, and morphological) qualities at each scale and proceed to build a similar figural architecture in supposedly an identifiable "place" with its particular *genius loci*. If the intention is dwelling in the late 20th century, the problem is rather to reinvent the ground of architecture by identifying first our renewed, non-Cartesian body image and its recollection of being. Through an introspective search, in the form of self-knowledge through making, the architect can generate order (by necessity geometrical) without giving up the quest for figuration. The work of John Hejduk is an excellent example of how this can be accomplished.

After rationalizing his four modes of dwelling in the introduction, Norberg-Schulz describes the two fundamental aspects of dwelling as "built form" and "organized space." Built form he relates to the Heideggerian notion of thing, allowing man existential "identification," and organized space he describes in terms of his older structural definition of center and path that allows "admittance."³ "Any environment thus *embodies* meanings at the same time as it *admits* certain actions to take place." These two "aspects" of dwelling work admirably for the purpose of revealing the meanings of a traditional architecture predicated on a classical concept of the human body. The architecture of the last two hundred years, however, beginning perhaps with the impenetrable *Carceri* of Piranesi, is often refractory to this kind of analysis.

Before engaging in the specific analysis of the four modes of dwelling, Norberg-Schulz carefully discusses his analytical tools to describe the language of architecture: morphology, typology, and topology. Once again, we find that the concepts are valid as tools to demonstrate the implementation of the orders of dwelling, but the implications of the analysis are flawed at a theoretical level. It is one thing

to discover that archetypes are present in all architecture, and that they reveal man's ground of being; it is something else to imply that these are accessible through types and through the author's own classification.

The archetypal ground of meaning is today not directly accessible from any set of prescriptions, no matter how enlightened. The age of architectural treatises modeled after Vitruvius or Alberti has long been over, because the *mythos* which sustained scientific architectural theory as *logos* has been excluded as "legitimate" knowledge from our culture. The search is a personal one and in this sense, intimately related to the search of the painter, the writer, or the musician. The embodiment of the archetypal is today closer to the universal (think of Rothko's Chapel in Houston) than to the specific and must be capable of sustaining its meaning "outside" of a site in a perspective world. The vehicle is personal making, the basis a profound understanding of our world of genetic engineering and potential apocalypse. No matter how hard we try, we will not design and build in the contemporary city an "archetypal tower," or cities that are "really" like Siena and possess culturally effective public spaces, or institutions that, through a bit of formal cosmetics, once again give us a "foothold" in the world. The solution is neither the postmodernism of Michel Graves's Portland Building, nor, as Norberg-Schulz writes, "the forms of the past . . . back again as possible choices, in particular the classical ones, because the classical language represents the most universal and coherent figurative system so far known." Two hundred years after Piranesi, Viel, Boullée, and Ledoux recognized the end of Vitruvianism—the myths having vanished and classical architecture having become meaningless due to its lack of semantic ground—it is sad to come back at the end of each chapter to Norberg-Schulz's "post-modernist" conclusions.

To briefly examine issues addressed

in the specific chapters: The chapter on settlement describes figural quality using historic examples, and the silhouette is identified as a crucial concept revealing the general meaning of settlement. "In the past," the author states, "places were understood as things." He then introduces the work of Piaget to discuss topology and freedom, pointing out that, if we find many geometrical layouts in architectural history, it is because "a certain agreement was imposed over the situation." This appreciation is superficial and does not seem to acknowledge the original discovery of Husserl: The invariable (the *mathemata*) is also, simultaneously, given *in perception*, together with the specific. This understanding of the origins of meaning is a crucial point of departure for any phenomenological critique.

When dealing with "natural dwelling," Norberg-Schulz exhorts the architect to "interpret what is already there." No matter how hard modern man tries, however, this appreciation of the qualities of the landscape is insufficient to generate an architecture that allows dwelling. Man inhabits universal space, even though this may have originally been a mental construct: consciousness also constitutes the world.

In the end, Norberg-Schulz criticizes the green city and also disavows "a formalistic approach which takes geometrical patterns as a point of departure in combination with borrowed conventional motifs." He shows a *veduta* by Krier, however, as a sign of the recent interest of architects in figuration, and espouses a vague "topological freedom" in the design of cities, stemming from a respect of a supposedly shared *genius loci*.

The chapter on urban space contains a good discussion of the meaning of cultural "belonging," also quite problematic. Individuals today seem to have a growing capacity to internalize culture. As a Mexican, for example, my most personal habits, gestures, and thoughts have a ground in my

culture, but I also inhabit u-topia. The *locus* in the traditional sense has been disrupted. Norberg-Schulz is unable to acknowledge this. The cultural values thus appear in architecture through the personal, introspective search which I have already mentioned. They are embodied, but only indirectly, through the body's deep recollection of Being. To expect that one can isolate cultural characteristics and "reflect" them in architecture through a conscious, externalized operation is naive. This kind of contextualism (or regionalism) has clearly failed to produce meaningful architecture, an architecture which can be differentiated from building with similar intentions in other parts of the world. This is hardly surprising when one acknowledges that even supposedly extreme ideological differences become meaningless when understood as superficial manifestations of a more fundamental technological world view.⁴ This worldview originated in the early 19th century and is still with us; it has become increasingly more international and transcultural, with modern communications systems blurring traditional boundaries and the qualities of specific places in their engagement with everyday modern life.

The author rationalizes the general properties of urban space and provides excellent descriptions of traditional elements in European cities. Once again, the main shortcoming is a disregard for the problem entailed by the very proposition of public space in the modern city. (Richard Sennet, in *The Fall of Public Man*, has produced an excellent analysis of this problem.) The street and the square are not merely material, phenomenic realities, but a part of culture. Regardless of how much we may admire the beautiful urban spaces of European cities, modern man does not participate in his culture through them. Whether Americans or Europeans, in Los Angeles or Rome, we are all voyeurs, mere tourists in these spaces. If we must accept that we are today

condemned to this mode of togetherness, we must recognize that media such as television are more authentically public. Urban "figures" may imply typicality, but if the typical figures are void of meaning, new forms of dwelling must be sought, even though we must not forget, as Norberg-Schulz points out, that figural quality depends on recognition.

The author recognizes that the loss of public interest is a crucial dilemma, but he is not prepared to face the consequences squarely. Addressing the problem of urban space today, he puts forward a good critique of empty formalism, but chooses, in my judgment, a poor example to make his point: the architecture of Aldo Rossi. Rossi's work is by far the most sensitive among architects who address the reality of the European city directly. The void in his architecture is a metaphysical enigma, totally intentional. Furthermore, only after he has drawn his poetic vision do we realize that what he has invented is a "type."

Similarly, the chapter on institutions provides a good analysis of the traditional public building as an *imago mundi*. Norberg-Schulz's choice of the church as a paradigmatic type for his analysis is fortunate. Religion had always represented true knowledge, and the church building was therefore architecture *par excellence*. Although he rightly complains about the reduction of the church to an assembly hall, his suggestion that the key to the problem lays in the archetypal domes, pediments, and loggias of the past is misleading. He disregards the crisis of religion as knowledge that followed Laplace and Nietzsche. After the early 19th century, modern sacred space could not continue to be simply the embodiment of dogma. In La Tourette, for example, Le Corbusier has demonstrated how a work of architecture can reveal the truth of an authentically modern religious experience, that is, the Heideggerian openness of being to mortality here and now, beyond dogma and specificity.

After a chapter devoted to the analysis of the private house under the same premises, Norberg-Schulz concludes with a discourse on language, whose Heideggerian basis is indisputable. Even to allude to this problem in a book on architecture is commendable. Language is, indeed, not a code or system of conventional signs, but the veritable house of being. Language is, therefore, a vehicle to ground architecture and populate it with imagery. What definitely does not follow from this discussion is the purported eternal value of classical architecture identified by Norberg-Schulz as *the* poetic (figural) language of architecture. Language may have an existential function, but it also changes historically. We may have access to Shakespeare's English, but his is not, nor should it be, *our* poetic language. Furthermore, the analogy with language can easily reinforce the misleading illusion of a necessary material continuity, translated by the author into types when the discussion is focused on architecture. I have already shown the fallacy involved in the conclusion that types must be the point of departure of a figurative architecture. Such attempts are condemned to failure. The alternative is to recognize that through poetic naming, the archetype may become a discovery.

In spite of its shortcomings, this book has much to teach the student about historical artifacts. The book provides a loving appreciation of architecture as a form of reconciliation between man and the world, rather than the product of technological domination.

1. See Norberg-Schulz, *Intentions in Architecture* (1965).

2. Heidegger, "The Age of the World-Picture," in *The Question Concerning Technology* (New York, 1977), 136.

3. Norberg-Schulz, *Existence, Space and Architecture*, (Books that Matter, 1971).

4. J. Ellul, *The Technological Society*. (Knopf, 1965).

The Concept of Dwelling, Christian Norberg-Schulz, Electa/Rizzoli, 1985, 140 pp., illus., \$17.50 pb.

Peter Bosselmann:

FUNDAMENTALS OF URBAN DESIGN

RICHARD HEDMAN

Since San Francisco's citywide urban design plan of 1968, Richard Hedman has been the city's Chief Urban Designer, who, according to his colleagues, frequently leaves his desk at the planning department to walk the streets of the city. The result of these walks is this book, not a narrative but a very basic how-to approach to urban design problem solving, a subject on which few books exist. If the principles were applied, cities would be more human in scale, have more continuity in time and space, be educating, joyful, surprising and maybe, where appropriate, sublime.

Hedman's is a necessary book because higher education has prepared few readers for the phenomenological approach to environmental problem solving. *Fundamentals of Urban Design* covers design principles based on the experiential qualities of cities and contains illustrations for buildings compatible with existing places. It is written to be understood beyond the small, specialized world of designers and planners. Everyone interested in cities, especially those who set policies that shape them, should read it. Design criteria based on measurable qualities form the basis of the book, making the chapters on special definition and urban form very useful. The discussion on lines of sight and dimensions of space is strong, and so is the presentation of design criteria that take sunlight and wind into consideration. They provide a clear rationale for building heights and form. Less successful are chapters with criteria based on professional values. Even if persuasively argued and illustrated, these will be applied with less consistency over time, because more work is needed in defining the gauge of successful solutions.

In the last chapter, Mr. Hedman argues in favor of the design review process as the best way to monitor the quality of design objectives. In a discussion very useful for decision makers, he spells out standards for alternative review processes and emphasizes the importance of understanding the future reality of a proposed design. Reviewers make decisions about future buildings based on the presentation methods of the architectural profession. The author discusses the shortcomings of each of the media available, as well as the temptation by those who promote design to paint the most positive picture imaginable. Proponents will always highlight the assets of their projects and downplay the liabilities, and the opponents will do just the opposite. As long as there are proponents as well as opponents, with access to the information, decision makers can evaluate the completeness of the presentation, but the problem remains that no accurate methods are available. All photographic methods and renderings are composites of different images collaged into a final product, and only the renderer or photographer has control over the consistency in scale, viewpoint, and angle of vision.

Mr. Hedman concludes with notes on the education of future architects and urban designers, pointing out the connections between the two fields and the schism created by the education process. In the world of design, architects argue that height restrictions maintaining street frontages and mixed uses are not necessarily the only rules of decent urbanism; planners call for architects who can take a reasonable urban design proposal and turn it into more than a built diagram. Hedman's book should have something for both.

Fundamentals of Urban Design, Richard Hedman, APA Planners Press (1313 E. 60th St., Chicago, IL 60637), 1985, 146 pp., \$28.95.

M. Christine Boyer:

LOOKING AT CITIES

ALLAN B. JACOBS

Allan Jacobs asks us, as his students have asked him before, to take a walk through various cities, from San Jose to Rome and Bologna. These walks become adventure stories: a series of questions and answers arise that push us forward along his directed pathways. We learn to search for clues, ferreting out cracked paint on a house front, or pockmarks on aluminium siding, the number of doorbells beside a front door, the directives on traffic signs, the style of a structure. But soon our gaze begins to categorize these clues: the most important and the most visible ones belong to buildings, then their materials and quality of workmanship, the degree of maintenance and overall condition. Uses of land and building are necessary clues, so are street names and street patterns, as well as people and the clothes they wear, their ages and ethnic origins.

But why are we gathering and categorizing these clues? Why have we embarked on these city travels? For a singular purpose: to train our eyes to observe the myriad changes a city or a district continually experiences, and then to shift these clues into meaningful patterns. As caring diagnosticians we want to find the spots of the city that are vulnerable to change before problems arise, areas in the path of unforeseen convulsions, and issues which require further testing and analysis. Clues are the motive force behind our hypotheses and questions. What kind of changes have we observed? How extensive are they? How do they contrast with older, more established patterns we have observed? Having raised these questions, our searching must become iterative, moving back and forth from clues to questions before we arrive at answers or solutions. What do we mean by a good neighborhood? How often have

we observed a specific clue? Has our scale of observation been askew? Have we correctly understood these clues against their proper cultural and historical context? We must test our observations against known evidence established by interviewing city authorities, for clues alone can often mislead us. And, of course, our searches can be reinforced by outside knowledge: architectural and urban history, conservation and building construction technology, regulatory codes and economic policy.

Looking at Cities belongs to a genre of city image books that includes Kevin Lynch, Donald Appleyard, and Grady Clay. All of these form the background for Jacobs's study, since he assumes that we know already how to look for the nodal points of a district which gives an area coherence, to understand that seams where two street patterns come together often merge two different and conflicting areas. But Jacobs wants us to be even more systematic and sensitive about our visual experiences. His work in this sense reminds me of Italo Calvino's writings. To see a city, they both tell us, we must forget everything that blocks our vision, all the foregone conclusions determined by our prejudices and preformed images arrived at through mis-observation. Then we must simplify, learn to discard confusion and complexity until we have reduced the city to a structural diagram that reveals how it is composed, how it operates, and how it moves. In this simplified city, our gaze quickly recombines clues into new patterns to explore and new stories to narrate.

By sharpening our city vision, "by pushing the eye-mind relationship to the hilt," this tantalizing and extremely important book opens up a set of questions—which, unfortunately, it leaves unanswered. Why, asks Jacobs do city planners turn their backs on information provided by looking at cities? Have they forgotten how to observe? Why do they rely on census statistics manipulated from afar when

micro-changes are happening at the street level before their very eyes? We lack, says Jacobs, accumulated knowledge about cities which only an improved method of field observation can provide. Nearly eighty years ago Patrick Geddes raised the same set of questions: how best can we set about to study cities, to analyse such a crowded phantasmagoria of life, to observe, compare, and communicate our findings? He turned a statistical gaze upon the city, carving it up into gridded areas so that its occupants and buildings could be documented, mapped, regulated, and controlled.

On top of an outlook tower on a summit of Castle Hill in Edinburgh, Patrick Geddes demonstrated the methodology for future city planners. Beginning with a camera obscura, the outdoors panorama was reflected in a series of images onto the interior of a darkened dome. Outside on a balcony, Geddes would explain with relevant specimens and technical instruments of measurement, the formation of the region under observation—geological, meteorological, zoological, and so forth. Next the humanists and engineers, and their methods and sample observations, were presented, followed by city maps and photographs, artistic renderings and artifacts from pre-Roman to present times. This panoramic synthesis, this macroscopic analysis drew the gaze toward the city's horizons, imposing a uniform order over the whole. Certainly this was not the heterogeneous phantasmagoria to be witnessed by walking along city streets. To administer the city at a safe or objective distance, a disinterested scientific look played over its surface; this became the established norm for later city planners.

It is the dominating power of this panoramic gaze, this anti-visual discourse of city planners, that Allan Jacobs wants to mollify by releasing the mysteries and stories that lie hidden in city clues and traces. But he cannot do so by suggesting a systematic and empirical method of

observation and diagnosis. The best moments of the book occur unexpectedly, when Jacobs allows his own stories to bubble up through the cracks in his method, when he travels along the way filled with curiosity and wonder, when he exposes his "light-bulb" hypotheses to challenge and revision. Isn't this interrogation of sight his real intention, and his real methodology the visual astonishments and marvels that subvert the dominating gaze and the homogenizations of the planner's vision? To gain a new perspective on the city, we must learn to walk through its streets, not to restore our faith in a flattened panoramic gaze but to reappropriate this space and construct our own narratives out of chance encounters. Jacobs has mapped out some of the route, and offered the traveler advice, now it is up to us to follow.

Looking at Cities, Allan B. Jacobs, Harvard University Press, 1985, 153 pp., illus., \$22.50.

Ned H. Abrams:

WORKING DRAWING PLANNING AND MANAGEMENT MANUAL

FRED STITT

For many years Fred Stitt has been advising architects on "how to," "where to," and "why to" and now we have a most significant "what to." His new *Working Drawing Planning and Management Manual* tells us to be sure that "what" we intend actually gets into the documentation, where it belongs.

The manual is comprehensive but, more important, delineates methods to save, as they say, "Time, Steps, and Money."

Since 1969, much has been written about systems by Fred and others (including this reviewer), and now the emphasis is directed to computerization. Intelligent use of system procedures, we know, is vital if the most effective use is to be made of advanced computer techniques. For those who have not progressed to that advanced stage of operations, or who have embarked on uncharted paths without the benefit of systems knowledge, the preliminary portion of each chapter of the manual alone is worth the price. And happily it gets better as it goes along.

The chapters are arranged in the usual sequence of architectural designing procedures, with reminders about the basic reviews necessary to proceed in a straightforward manner. Reminders are included about areas of responsibility, not always understood by the lower echelon, who may be removed from the motivators, and to whom not all of the criteria and parameters may have been disclosed. A current trend, fostered by computer use, is to incorporate data banks of referenced material directly on the contract drawings—items specified, or to be specified, and referenced CSI numbering designations. Stitt's manual

makes it easy for those working on the drawings to spell out (by CSI number) at the beginning of the work those items desired by the designer, who makes the selection, rather than the specification writer, who must generally examine the drawings exhaustively to find what has been shown on the plans, to discover what should have been specified, or, more important, what has been specified but not shown.

This manual will prevent the invention of private abbreviations and personal language for notes at variance with general usage or specific office policy. It will also eliminate repetition of information which may have been changed on some, but not all of the documents.

Fred also includes a great deal of worthwhile "what not to do." This certainly makes the purchase of the book profitable for the principal, even including the copier costs of providing everyone in the office with the appropriate pages, a practice of which Fred approves. It would be wise to take the purchased copy to a local printer and have the book "drilled" for a three-ring binder before any separation is made of the original copy. (The author may accommodate his readers by arranging for this "drill" prior to the second printing.) Without this precaution, reassembling the document will be most difficult, since the pages are not numbered consecutively but by chapter/page and the length of the preceding chapter must be ascertained by referring to the index.

The principal purpose of this manual, it should be remembered, is to make the architect's contract documents clear to the contractor—not to the owner, banker, or anyone not required to understand the intent of the designer. The most important time for those concerned with costs and economics is during the bidding, or sub-bidding. This period is usually very short compared with the time required for the creation of the documents, and clarity and precision is vital. Those who prepare the docu-

ments must realize that the successful bidder can build from any set of documents, given sufficient time to analyze them after his bid is accepted, and sufficient allowance for contingencies when confronted with a poor set of documents. The savings the contractor can achieve by his diligence in deciphering the *true* intent of the documents will be his to keep, and the difference between a normal contingency and that occasioned by a poor set of documents (or insufficient bidding documents) can be as much as five percent of the project cost.

In this connection, I take exception to two of the author's opinions, on graphic scale and the size of floor plan drawings. Since large project plans are usually prepared in two sizes, and the smaller (or half-size) is most economically reproduced by offset printing, the effort to "call out" the correct scale of the reduced document will result in better bidding. All that has to be done is to change the scale notation on each full-size drawing to the proper *reduced* scale notation before the "half-scale" drawing is reproduced. This will end the confusion as to whether the amounts bid are twice too much or half enough.

I also disagree with Fred's resistance to details being produced at larger scale than the overall plans. Although it does take more time to prepare such larger concepts, there are compensating advantages; it becomes possible to explore the complexities at a size sufficient to disclose problems and effect a solution. Many problems are not discovered until it is too late to make the necessary corrections, or, even worse, when corrections cannot be accomplished by separate disciplines—causing future change orders, additional costs, and the attendant trauma. From the architect's point of view, Fred's position (regarding size of floor-plan drawings and graphic scale) may be cheaper and quicker, but for the improvement of professional performance, the reverse, I believe, is true.

The need this manual fills has never before been addressed in such an informative, precise, and instructive manner: It is yet another of the guidelines we have come to expect from Fred Stitt's continuing search for ways to improve the practice of architecture.

Without reservation, I recommend this up-to-date book for your immediate use.

Working Drawing Planning and Management Manual, Fred Stitt, McGraw-Hill, 1985, 254 pp., \$29.95 pb.

William J. Mitchell:

GEOMETRY IN ARCHITECTURE

WILLIAM BLACKWELL

The first serious discussion of architectural theory to be published in English was Dr. John Dee's *Mathematicall Praeface* to a translation of Euclid's *Elements of Geometry*, which appeared in 1570. The *Praeface* justified the translation of Euclid into the vulgar tongue by enumerating and describing the "Sciences and Artes Mathematicall," for example, perspective, astronomy, astrology, pneumatics, navigation — and, eventually, architecture. "Architecture," wrote Dee, "to many may seem not worthy, or not mete, to be reckoned among the *Artes Mathematicall*." But, he went on to argue, the architect:

remaineth the demonstrative reason and cause of the mechanician's worke: in lyne, plaine and solid: by *Geometricall, Arithmetical, Optical, Musical, Astronomicall, Cosmographicall*, and (to be brief) by all the former derived *Artes Mathematicall*, and other Naturall Artes, able to be confirmed and established. If this be so: then, may you thinke, that *Architecture*, hath good and due allowance, in this honest company of *Artes Mathematicall Derivative*."

After summarizing some comments by Vitruvius and Alberti, Dee cut

short his discussion of architecture and geometry. "Life is shorte, and uncertaine," he complained. "Times are perillous: & c. And still the printer awayting, for my pen staying..." In the four centuries since, though, innumerable authors have summarized the aspects of Euclid's geometry that are most relevant to architecture, and illustrated with examples of their application. William Blackwell's *Geometry in Architecture* stands within this long tradition. It introduces a number of basic topics (regular polygons and polyhedra, the properties of rational triangles, circles, and spheres) at an informal and elementary level, discusses some design applications, and illustrates concepts with good photographs and clearly drawn diagrams. The author's evident enthusiasm for his subject is engaging.

Very little is added by this work to our knowledge of architectural geometry, however; much of the ground has been covered many times before. (In the 19th century, for example, Joseph Gwilt's *Encyclopaedia of Architecture* provided a thorough treatment of most of the topics, and is still available in an inexpensive reprint.) It also has a curiously old-fashioned air in comparison with March and Steadman's classic *Geometry of Environment* (MIT, 1974), and ignores the enormous recent development of geometric modeling that has taken place in the context of computer graphics. Its greatest virtue is that it makes readily accessible to students some basic, practical mathematical knowledge. Dee would surely have approved.

Geometry in Architecture, William Blackwell, John Wiley, 1984, 185 pp., illus., \$37.50.

Donn Logan:

SHOPPING MALLS

BARRY MAITLAND

Books about building do not usually generate great interest among the architectural public. They are soon relegated to the back shelves or the discount tables, where they find a small but steady clientele of working architects who need help with functional aspects of the type under consideration. Despite its title, this is not one of those books. Barry Maitland has produced a serious work of urban design that should interest students, teachers, and practitioners of the art of making cities.

It is not that he has ignored the history and form of shopping centers; he covers this topic very well. Even those knowledgeable about the subject will appreciate the clarity of the first part of the book, where Maitland recounts the development of the suburban regional mall. His first five chapters move systematically from the initial postwar developments, to the rise of the super "department store malls," to the more recent galleria or arcade types, and finally to the now ubiquitous specialty centers that were ushered in by Ghirardelli Square and Faneuil Hall Marketplace.

This first part of the book is aided greatly by the excellent plan and sectional drawings, all done at identical scales that permit detailed comparisons of the configurations of the various centers. The examples chosen cover virtually every important American example, plus a great number from England, France, Canada, and other, mostly English-speaking places. A unique aspect of the book is the treatment of the mechanical systems in the large malls. The rising cost of energy is given an important role in the return to the glazed arcaded mall in the mid-seventies.

Maitland's contribution to urban design is made in part 2. Beginning

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with the reintroduction of the shopping center into the urban core, he traces the difficulty of making a fit between the old city and its recent offspring. Accommodating the prodigal in the parent cities is discussed in terms of "inversion"—inversion of land value, inversion of pedestrian circulation, and inversion of figure and ground. The excellent diagrams help make these points about the reversal of pattern and value from the perimeter street frontages of blocks to the center of blocks. This analysis is complemented with a study of the nodal patterns of retail spaces and their analogy to pedestrian nodal patterns in medieval cities. A conclusion is drawn about the similarities in scale and distance (200 meters between nodes) between current retail patterns and early pedestrian cities.

With the advent of new retail proj-

ects in urban centers, both the retail prototypes and the cities are changing. Maitland points out the power of these projects to become generators of new city patterns, citing Place Ville Marie in Montreal and Water Tower Place in Chicago. San Francisco's Embarcadero Center and the Eaton Centre in Toronto are also among the innovative examples that point to changing patterns. The extension of these concepts to citywide application can be seen in the underground pedestrian network in Montreal and the skybridge systems in St. Paul and other cities. Maitland is quick to point out, however, that these developments are not universally good for cities and urbanism. The datum shift of pedestrian networks can harm the traditional street as an environment.

In his conclusion, Maitland compares the trends in retail development

to many of the important planning polemics of this century. The CIAM, Team 10, and Metabolist concepts are shown to have a focus on movement that is analogous to the development of retail nodal patterns, at the same time putting more emphasis on vehicular movement.

The importance of this book is its extrapolation of retail prototypes into issues of city design. Maitland has put forward a persuasive brief that could be the agenda for further research in urban design. With its heavy emphasis on diagrams and photographs and its clear writing style, the book is a pleasure to read.

Shopping Malls: Planning and Design,
Barry Maitland, Nichols, 1985, 183 pp.,
illus., \$49.95.

Myron A. Grant:

WAYFINDING IN ARCHITECTURE

ROMEDI PASSINI

Romedi Passini's *Wayfinding in Architecture* is an important addition to the limited body of work in this field. It offers a historical and psychological perspective on disorientation, as well as a systematic approach to the design and evaluation of wayfinding systems.

The purpose of the book, Passini states, is to sensitize designers by developing wayfinding as a concept, presenting research that reveals various pitfalls and successes of finding one's way, and proposing a method of designing to facilitate wayfinding. In general, Passini achieves his objectives, but in the process he has actually produced two books: one appropriate for academics, the other for practitioners. His historical presentation of labyrinths, mythology, and architecture is interesting but long-winded, and his penchant for academic description makes parts of the book less than accessible to the simple designer.

Passini's major contributions are his proposal of a systematic approach to the design and evaluation of wayfinding systems, and his enumeration of design questions regarding their elements. Wayfinding is a complex process requiring a thorough analytic approach; Passini's approach is indeed systematic and analytical, but it has major weaknesses.

First, the research on which he bases his system has flaws. Some of the conclusions could just as well be by-products of the research design as insights into the wayfinding process. Passini instructed twelve subjects, all first-year architecture and planning students, to find specified destinations. Each subject was accompanied by an interviewer, attached by a two-foot-long microphone cord, and asked to verbalize every wayfinding movement and thought. An analysis of the narra-

tion of their own wayfinding experiences became the basis for what Passini calls the "decision plan," a major component of his proposed design and evaluation method. Verbalizing every thought and movement, however, could quite possibly make the subjects think and behave differently than normal. Passini's hypothesis, that formalized and structured decision plans are fundamental to the wayfinding process, needs investigation with additional methodologies and larger, more representative population samples.

Second, Passini uses academic terms and concepts, and his presentation is unclear. Designers need methods that are readily understandable and applicable to specific problems; they shouldn't need a new vocabulary to grasp this important subject.

Two concepts need more thorough discussion. One is the great variation in wayfinding skill among the general public. People who are visually impaired may have trouble negotiating even the simplest environments, while a good wayfinder can tolerate a more complex setting with ease. Also, ability in the same person varies with stress and other personal circumstances.

The difference between wayfinding complexity and environmental complexity also demands attention. Passini argues that "simple environments pose simple problems for wayfinding... for normal wayfinding conditions... except emergencies, there is no justification for advocating simple environments." Passini suggests that efficient wayfinding can occur in complex environments, leaving the reader to wonder why wayfinding in a complex environment is not also complex. We need a thorough description of a complex environment, and the elements that make wayfinding in such a setting simple in spite of (or because of) its complexity. Detailed examples would be very helpful. This is not, however, to suggest that most complex environments can be made easy for wayfinding. The inherently difficult layouts and circulation patterns of many spaces

would yield only slightly to a wayfinding retrofit.

Passini's book is a valuable early step in understanding a complex process, but more research and creative thinking is needed to prepare designers to deal successfully with wayfinding.

Wayfinding in Architecture, Romedi Passini, Van Nostrand Reinhold, 1984, 230 pp., illus., \$29.50.

Jane Grosslight:

THE LIGHTING BOOK

DEYAN SUDJIC

Rocky I, II, III, IV. Crown publishers has produced yet another book on domestic interiors, applying the same formula, the same format, and, as usual, a British author. As in the film industry, the Academy and the box office operate on different criteria. The box office results on this book are hard to predict. Lighting is a tough subject and the general home-lighting reader is not tenacious. The last book on lighting with a British author did not do well.

This book sets out to capture the reader with many photographs, which, although visually pleasing, are primarily European in example. American styles are clearly different. A few photographs show poor lighting applications and violate widely-accepted caveats of lighting design, which the author mentions elsewhere in the text. Actually, it reads like two books. The information in the text is astonishingly broad, while the information stuffed into the captions for the photographs sometimes lacks the technical specifics the advanced reader is panting for. Either the text or the photographs could stand alone because, sadly, the photographs do not illustrate the special points on lighting design made in the text. One photograph falls into the crack of the binding, which disappointingly takes with it the fitting pointed out in the caption. A few photographs exhibit a bright highlight indicative of a photographer's fill-light, and do not really show how the

actual light looks in the spaces. Architectural photographers accept this method, but lighting photographers reject it.

The text is generous with stylistic suggestions, which are interesting, but perhaps not compelling—e.g., a shopping-bag light for a bedroom. The text contains only a few easy-to-follow guidelines. Likewise, some information does not go far enough and gives only half the facts. Readers will need to be sophisticated to bridge the gaps and apply the important basic principles cited from one application to another. For the principles are there, but not necessarily where the reader might need them. Quaint notions surprise one in the text, and the choice of words is sometimes obfuscating.

Some of the information might reinforce current poor lighting design that a book of this sort should discourage. For example, "fluorescent lights are the ones likely to cause color shock ... manufacturers or distributors can provide solutions." Elsewhere in the text, readers are given some help with fluorescent color selection but they might not find it, because home-lighting readers do not usually read from cover to cover.

The section on "practicalities" is illustrated clearly for those who install their own lighting. The section on "hardware" has a rich "visual index" or catalogue of fixtures—mostly European in origin and difficult for Americans to obtain. A list of "useful addresses" in the back of the book may help somewhat but the catalogue may be the book's downfall, since lighting fixtures go out of production.

Should a book give the fun stuff (lighting design) first and the hard stuff (lighting fundamentals) last to appeal to the general reader, or vice versa? This book chose to give the fundamentals first and gave them very well, but that is not the final word on the subject.

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Martin Pawley is the author of *Building for Tomorrow: Putting Waste to Work* (Sierra Club, 1982), *Architecture Versus Housing* (Praeger, 1971), and *The Private Future: Causes and Consequences of Community Collapse in the West* (Random House, 1974).

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Gene Waddell is Associate Archivist of the Archives of the History of Art, the Getty Center for the History of Art and the Humanities, Santa Monica, California. From 1976-1984 he was Director of the South Carolina Historical Society.

Nelson Wu is the author of *Chinese and Indian Architecture: The City of Man* (Braziller, 1963). He is Edward Mallinckrodt Distinguished University Professor, Emeritus, of the History of Art and Chinese Culture, Washington University, St. Louis.

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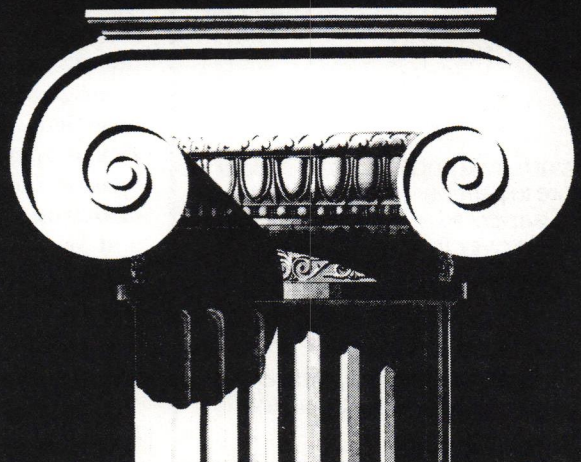
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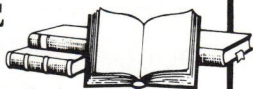
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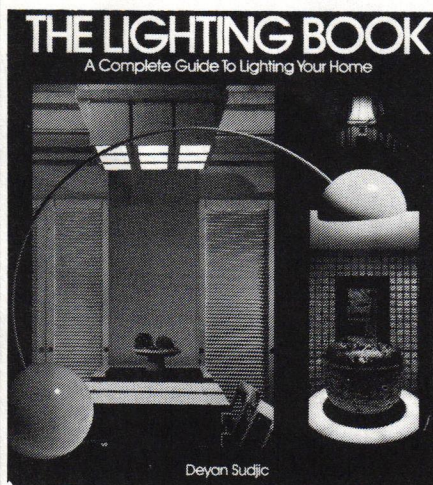
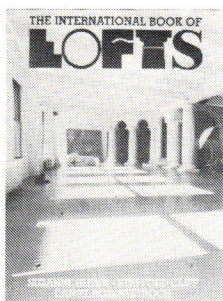
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LETTERS

TO THE EDITORS: I appreciated Richard Ingersoll's critique of Robert Stern's television series *Pride of Place*. I was equally annoyed by Stern's prejudice (among other things), and . . . I am frightened of the incomplete image that it leaves with the American public, further crippling its already erroneous perception of architecture. The series was not without merit . . . but overall it might very well have a negative effect on the understanding of what architecture is, isn't, and could be.

Sincerely

Martin Hammer
Oakland, California

TO THE EDITORS: Rarely have I read such a vituperative review of anything as that which appeared on page 75 of your Winter 1986 issue. Regrettably, it was a review of my book, *Mid-Century Modern: Furniture of the 1950s*. . .

Howard Junker chose to miss the point entirely. *Mid-Century Modern* was intended primarily as a visual entertainment . . . and it succeeds as one. . . That the book ended up containing a great deal of new research and a few original leaps of thought was something of a surprise for all involved, including the author. And for a reluctant critic, I haven't done badly. The Bass Museum of Art in Miami had enough faith in my acumen to have me write the essay for their postwar decorative arts exhibition catalogue . . . and *Architectural Record* . . . said, "*Mid-Century Modern* will endure because its author . . . is not only a fervent enthusiast, but also a sound critic. . ."

Imagine my bewilderment at [Junker's] assertion—after complaining about a lack of "quality distinctions"—that the "positive contributions of popular taste, of Detroit taste, of atomic and drive-in and Vegas taste" are "beyond Greenberg's competence to assimilate." These were not necessarily positive contributions, first of all; nevertheless, I did make an effort to integrate such factors—with appropriate brevity—into my portrait of the postwar era.

Well, I don't expect kudos from

everyone, and I don't need them. I'm proud of *Mid-Century Modern*, and many thoughtful reviewers and intelligent readers have given credence to my efforts.

Still, it's hurtful to be the helpless recipient of such unmitigated venom—and it is both unnecessary and unkind of *DBR* editors to bother to review a book if there isn't at least one redeeming thing to be said.

Very truly yours,

Cara Greenberg
Brooklyn, New York

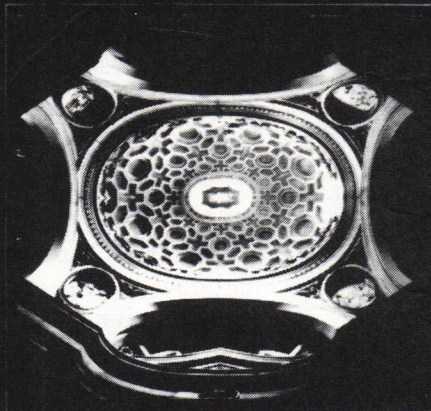
CORRECTIONS

The quotation attributed to George McMath and Pietro Belluschi on page 72 of *DBR 10* (in "The Oregon Trail") should have been attributed to the book's authors, Gideon Bosker and Lena Lencek.

The photographs on page 14 and 15 of *DBR 10*, accompanying "The Essential and Vernacular Landscapes" ("Star Axis, Looking North, 1/6/83" and "Pueblo Bonito, Chaco Canyon, 1982") should have been credited to Ed Ranney of Santa Fe, New Mexico. The editors apologize to Mr. Ranney for the oversight.

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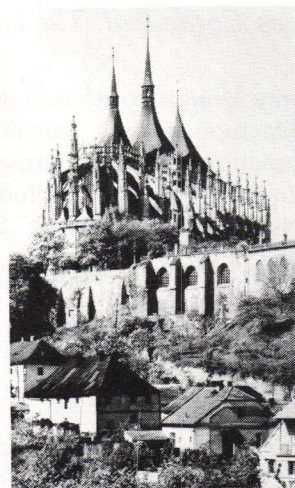
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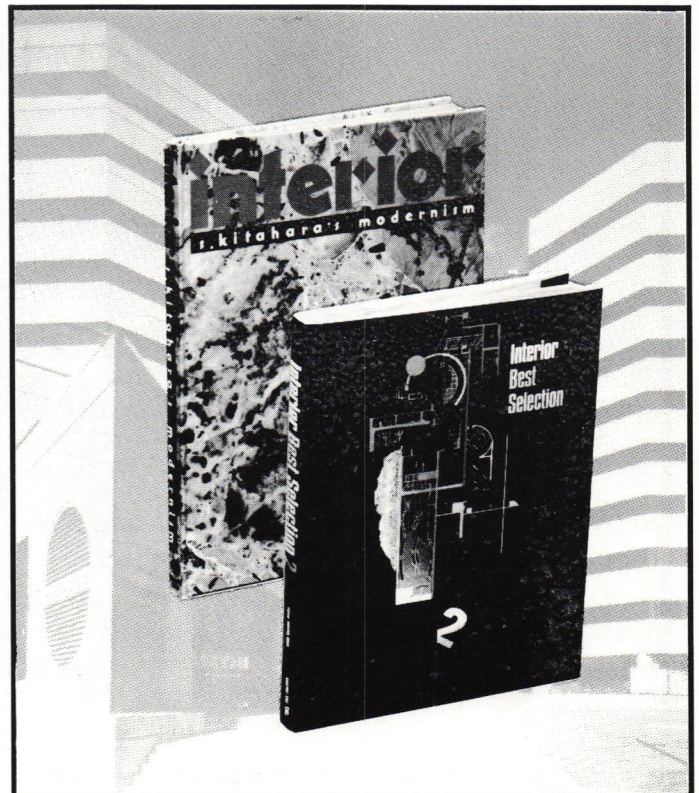
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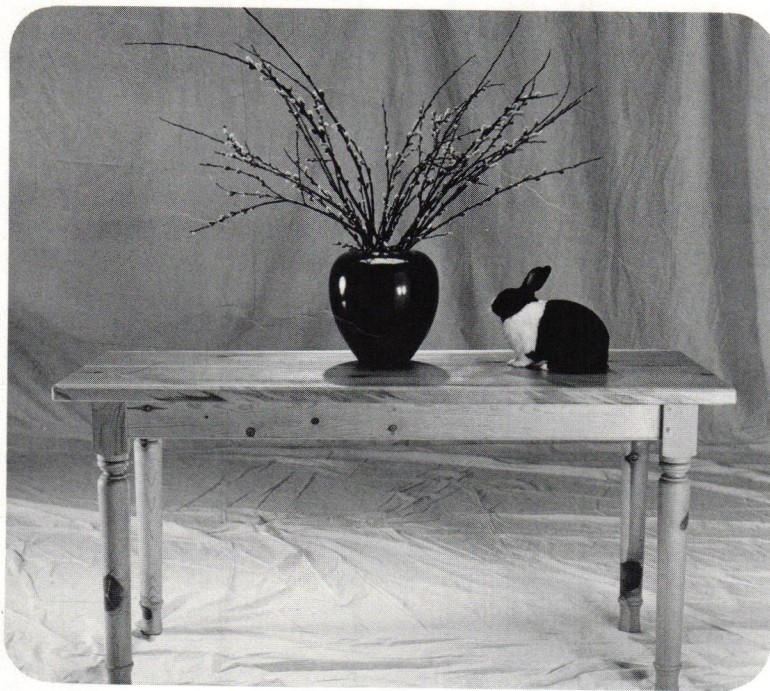
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