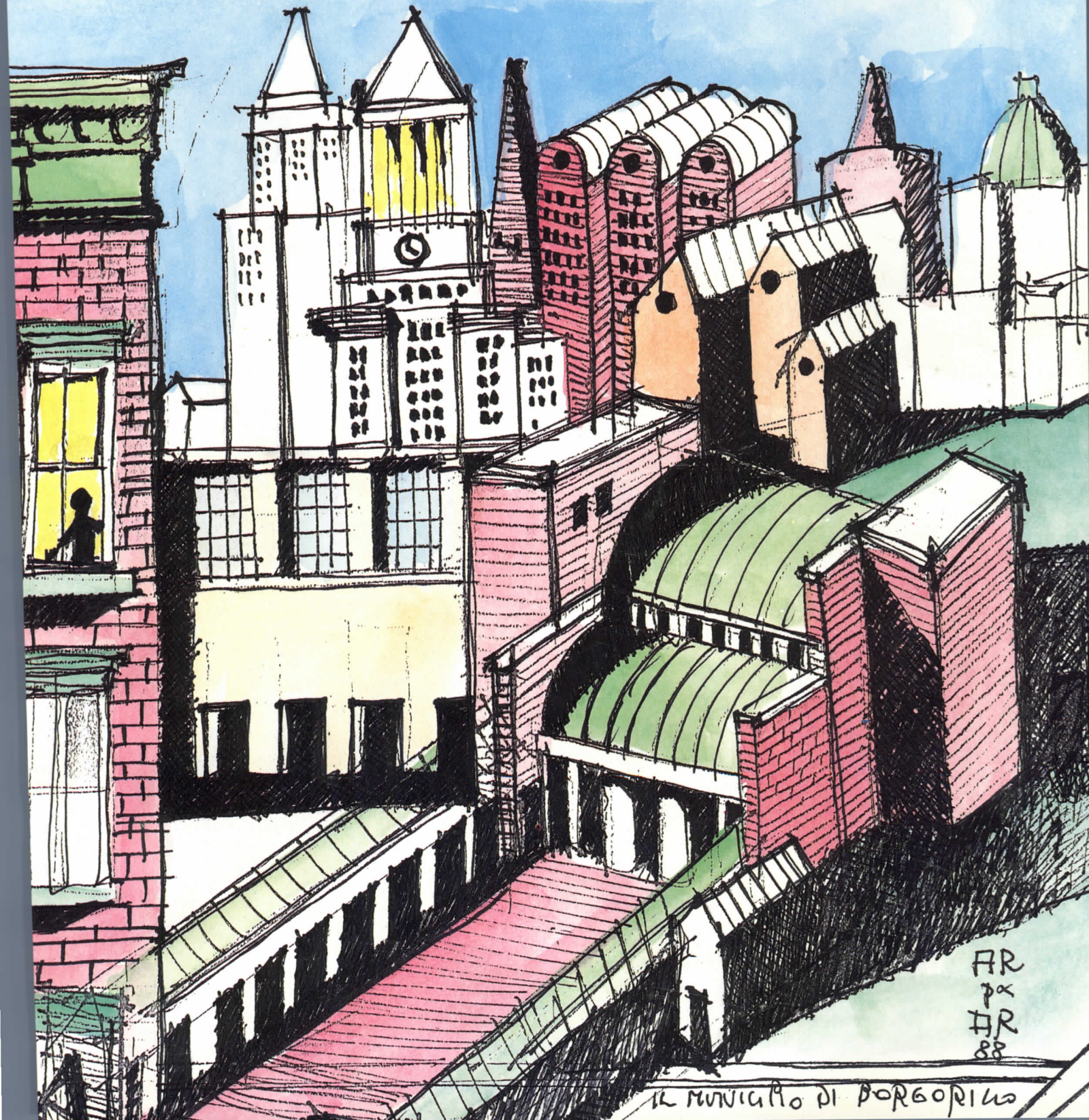
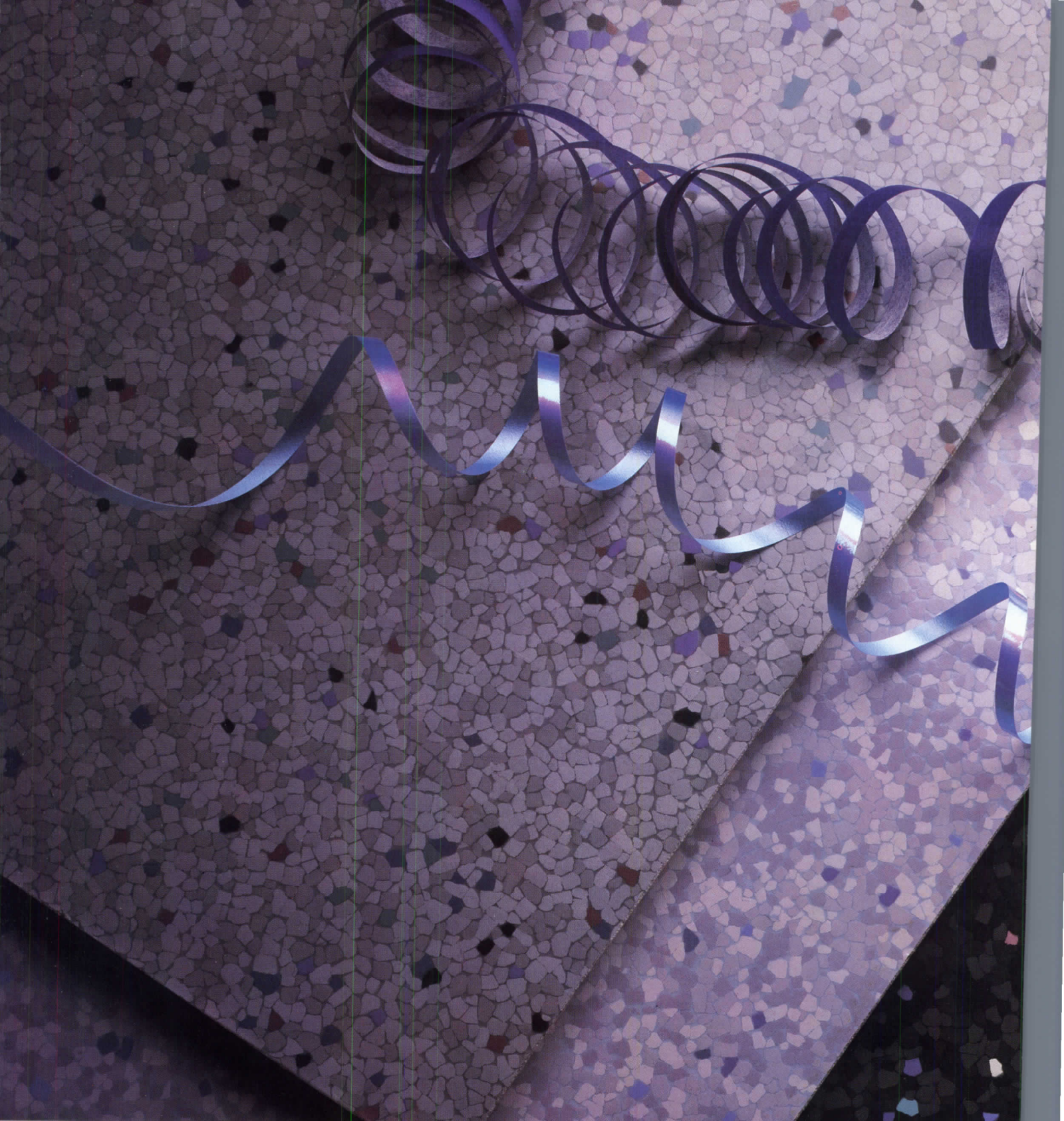


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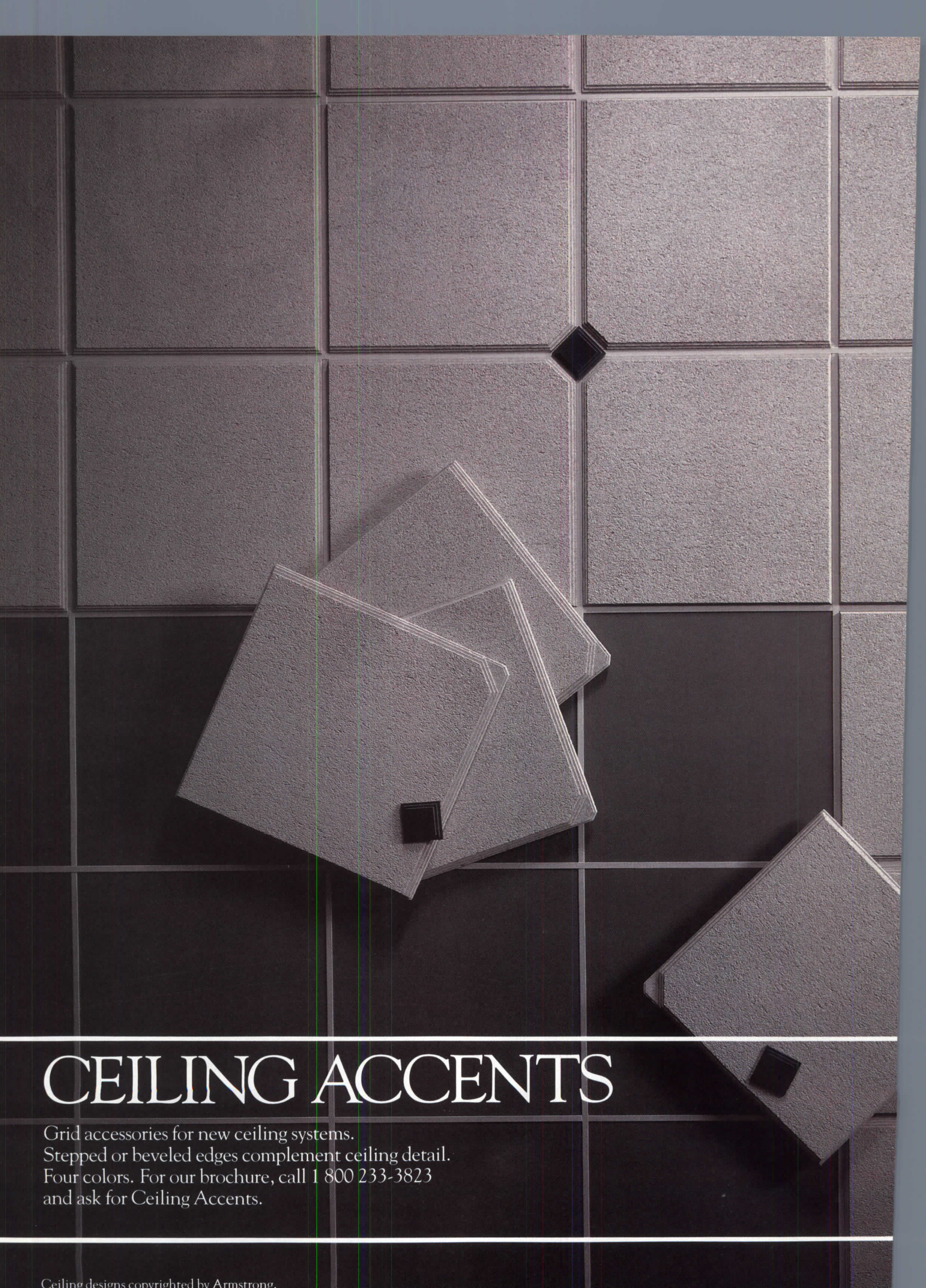


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 **Armstrong**

Regarding the pair of articles titled "Should interior designers be licensed?" [ARCHITECTURAL RECORD, June 1988, page 37 et seq. by attorney Carl M. Sapers, who represents, among others, the NCARB, and page 45 et seq. by attorney Jerrold M. Sonet, general counsel to the ASID], we must first put the term *interior designer* in proper perspective. A name change from interior decorator to interior designer does not make one an architect with all the inherent responsibilities of that profession. It would seem that a decorator is a decorator and an architect is an architect, and any other terminology is being applied to confuse an unwary public.

As a practicing architect, I am very tired of listening to interior decorators *crying* to practice architecture and attempting to legislate their way into the profession. In Mr. Sonet's discourse, he did not present even one valid reason for this licensing to take place. Instead, he proceeded to attack both architects and the AIA at every opportunity. Lest we all forget, it is the decorators who are trying to circumvent established laws in order to practice architecture, not the other way around. If the decorators wish to practice architecture, with all of its assets as well as its liabilities, then they should be more than willing to go through the same rigorous course of study and licensing procedures that architects do, and then they will become licensed architects. The profession would welcome them. *Richard E. Vincek, AIA Vincek & Petrocci, Architects Fairlawn, New Jersey*

With reference to your article "Two for the Road" on buildings in Albuquerque [ARCHITECTURAL RECORD, April 1988, pages 82-89], I am always glad to see our provincial capital get some notice, and I find your choice of

two projects to recognize in one article interesting and useful.

I object, however, to one of your sentences: "Rather than celebrate Central Avenue's idiosyncracies, many architects working in Albuquerque have turned their backs on the strip, preferring to design everything from single-family houses to spec office towers as grim, brown-stucco boxes." The sentence would seem to attribute a mental attitude to Albuquerque architects in general and to disparage their work. I can see that as a rhetorical device the statement makes a foil for the concept of your article, but I suggest that you could accomplish the same effect without making a butt of local architects.

Grim is probably an appropriate word to describe the feelings of Albuquerque architects when we try unsuccessfully to encourage a client to select a surface other than a cementitious coating, or a color other than brown even for carpets, draperies, or ceramic tile . . . I believe that the color brown is the most important element in what most people here perceive to be "regional," and they do like architecture to express regionalism.

Edna E. Heatherington, CSI Heatherington & Schaller Information Management Albuquerque

Correction

In the story on the Harn Museum of Art (RECORD, June 1988, page 67), architectural credits should have included Kha Le-Huu & Partners (design) and Jackson-Reeger, Inc. (technical).

Through August

Sheet Metal Craftsmanship:

Progress in Building, an exhibition of tools and structures, designed by architect Frank Gehry; National Building Museum, Washington, D. C.

Through September 25

Creating the Federal City:

Potomac Fever, an exhibition of paintings, drawings, and sketches of the development of Washington, D. C.; at the Octagon, Washington, D. C.

September 2 to November 6

Frank Lloyd Wright and Madison: Eight Decades of Artistic and Social Interaction; an exhibit of drawings, models, and artifacts from 22 of Wright's buildings in Madison, Wis., at the Elvehjem Museum of Art, University of Wisconsin-Madison.

September 10

"Frank Lloyd Wright's Vision for Madison," a seminar sponsored by the Frank Lloyd Wright Foundation; at Taliesin, Spring Green, Wis. For information: Susan Lockhart, the Frank Lloyd Wright Foundation, Taliesin, Spring Green, Wis. 53588 (608/588-2511).

September 22-24

Sixth annual National Urban Waterfront Conference, *Urban Waterfronts '88: Accent on Access*, organized by the Waterfront Center; at the Omni Shoreham Hotel, Washington, D. C. For information: The Waterfront Center, 1536 44th St., N. W., Washington, D. C. 20007 (202/337-0356).

September 23-25

The First Winterthur Design Conference, "Influences of the Past: Perspectives on Interior Design Today," considering the influences of traditional style on contemporary architecture and interior design; at Winterthur Museum & Gardens, Winterthur, Del. For information: Winterthur Information and Ticket Office, Winterthur, Del. 19735 (302/654-1548).

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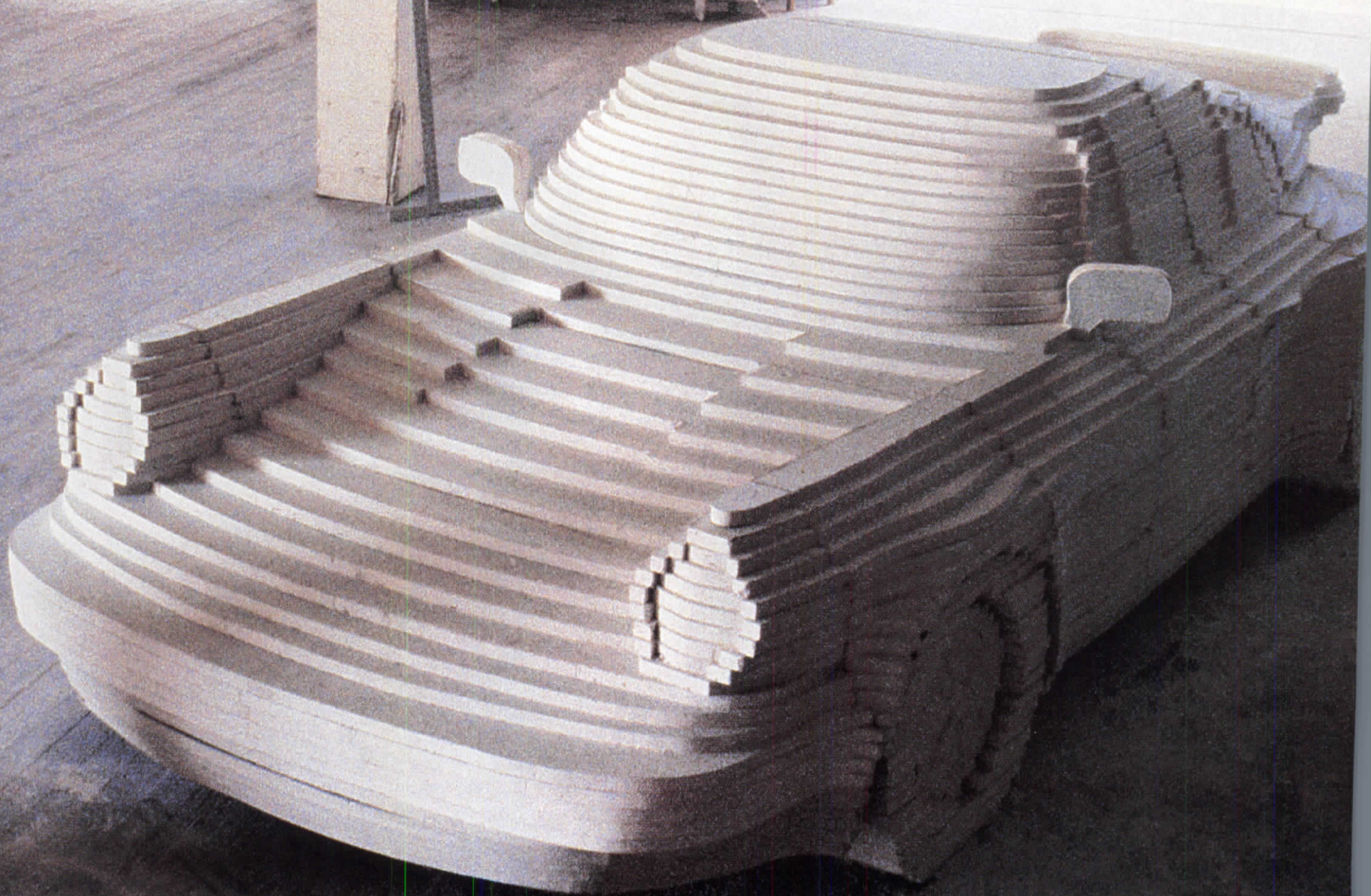
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Saving the national reciprocity system

Good news for practicing architects and exam candidates is the imminent settlement of the disputes between the National Council of Architectural Registration Boards and the California Board of Architectural Examiners. This past June the NCARB Board of Directors and members of the CBAE signed an agreement that in 1990 the California Board will return to use the NCARB-prepared Architect Registration Examination, thereby removing the foremost impediment toward maintaining a consistent and uniform licensing process and reciprocity system throughout the United States.

The procedures by which architects are licensed in their own states, and qualified to practice in states other than their own, form the very basis of the practice of architecture as a profession. Thanks to NCARB, a single standard exam, designed to be objectively graded, had until recently controlled licensing in every state of the Union. All who passed this exam were thereby qualified to practice in any state. For this reason, architects have been watching, with some concern, current disagreements between the NCARB and the CBAE as both groups considered ways to improve the content and grading methods of the licensing exam. These disputes were so profound that in July 1987, to everyone's surprise, California began to administer its own exam. To California's surprise, those who took and passed it were not accepted by the other states. Oregon, for example, reciprocated by banning California. Bans, of course, inevitably lead to counter bans, and there was even worse to come.

Last September, a change in the California law required an out-of-state applicant for reciprocity to be registered in a state that has declared the California exam to be equivalent to the NCARB national exam. Since no state has obliged California with such a declaration, this law effectively denies out-of-state architects the right to work in California. The once-unified U. S. profession appeared to be headed toward Balkanization, surely a serious threat to the system. For a time, however, the Californians had seemed unconcerned. Since relatively few of them practice interstate, interest in maintaining reciprocity was less keen than would have been that of architects in Massachusetts, for example. What led to repairing the breach?

Strenuous peacemaking efforts of the NCARB were aided by California's dawning sense of impasse. Three groups in the state became aware that they were soon to be badly hurt. Young new registrants, as well as established practitioners, found themselves locked in place. Both private and public clients discovered that the privilege of choosing an architect had become limited and circumscribed. It finally became obvious, even to the Californians, that the national reciprocity system had to be saved.

At present the terms of the settlement are still very fragile. Not yet resolved, for example, is what is to become of the candidates who took the new California Architect Licensing Examination and passed it. What is to happen to candidates who have passed parts of it? How are the current candidates and new registrants to be reprocessed back into NCARB's Architect Registration Examination system? Both the NCARB and the CBAE will appoint three members each to a mediating team to work out a technique for solving these problems. If they fail, they will seek outside mediators to help. Resolving these and other vexing details will require a new infusion of the patience and good faith that both sides have already demonstrated. Two would-be sovereign powers have devised a major treaty filled with promise for the architectural profession. The dedicated framers of this document, and its accommodating signers, deserve the thanks of every architect. *Mildred F. Schmertz*

Over at the Chair Plant in Grand Rapids they're still talking about Wayne Meuser, the night-shift foreman, and his assistant, Terry VandenAkker. Still shaking their heads and smiling.

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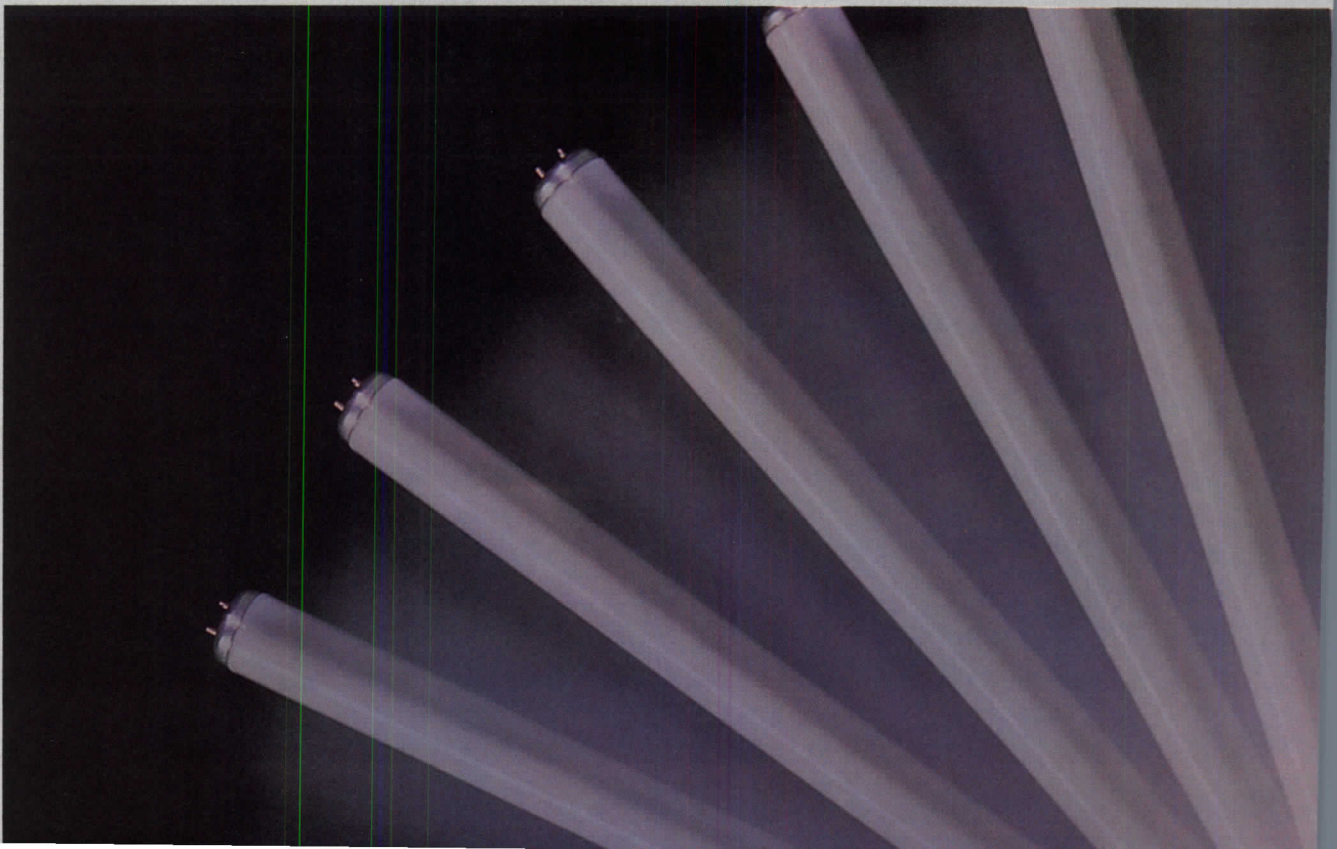
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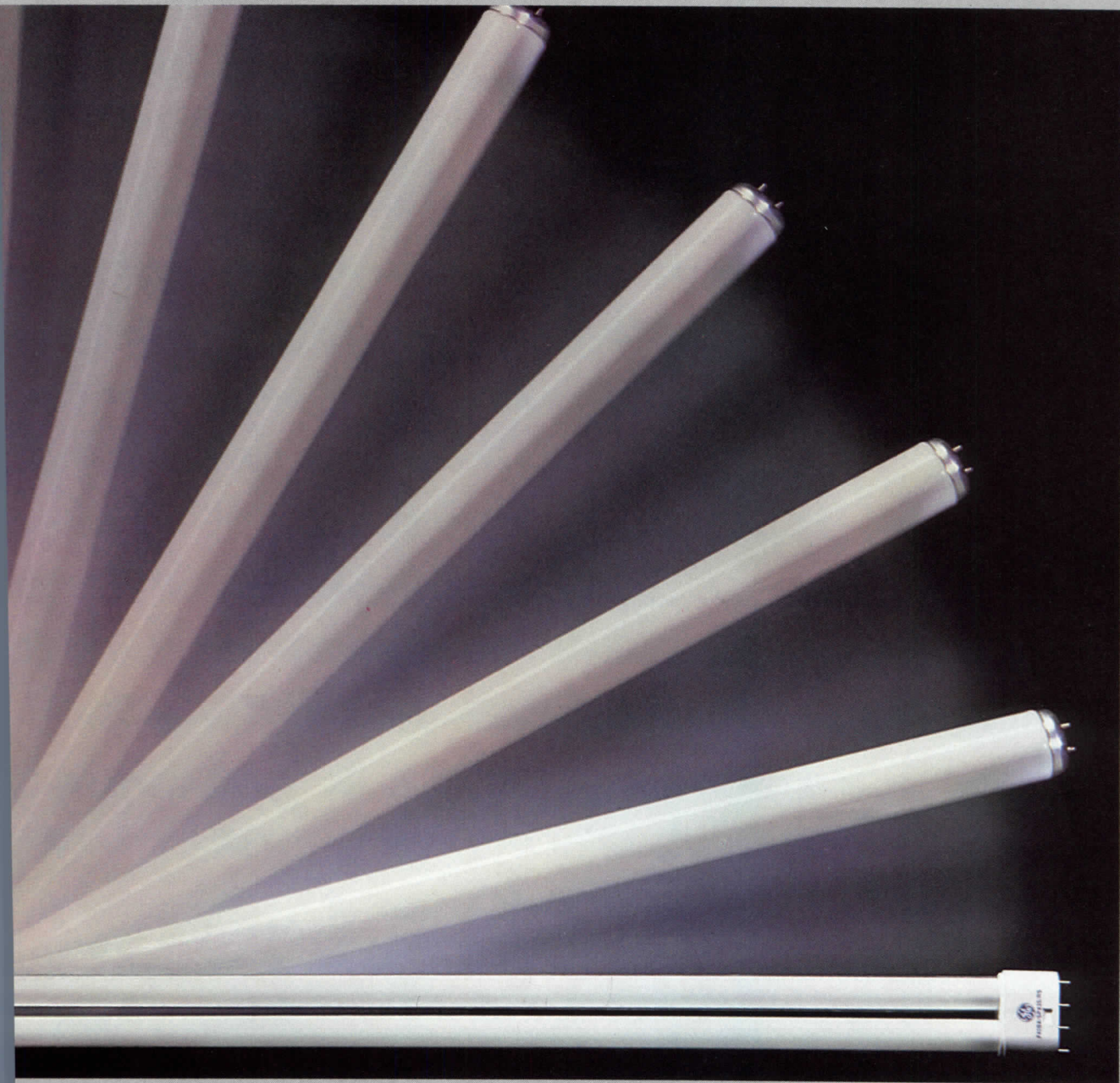
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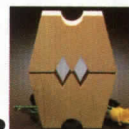
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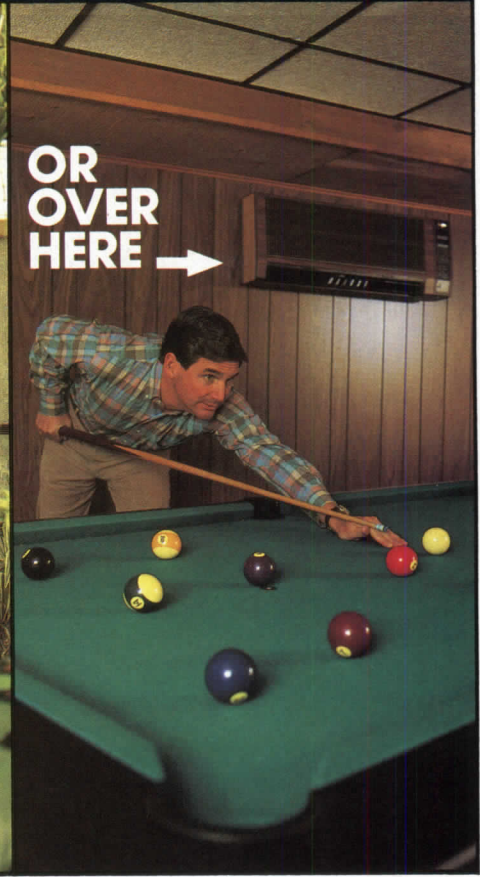
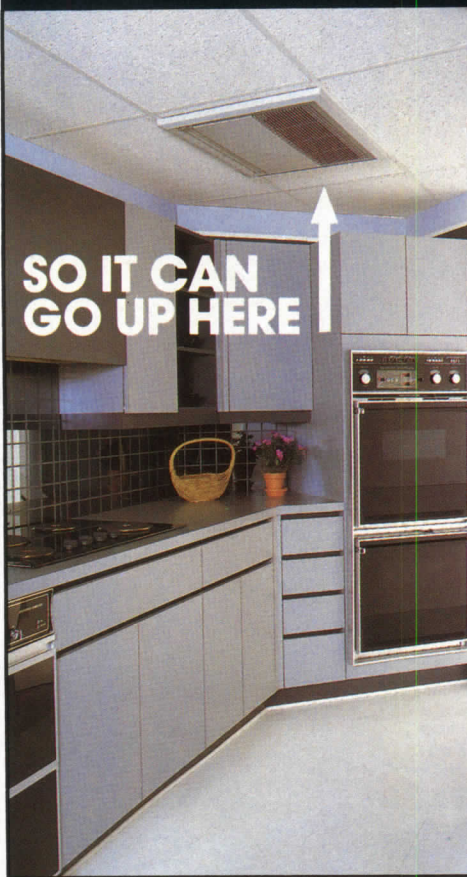
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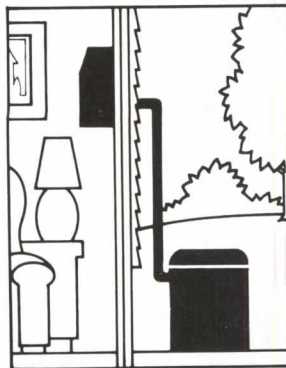
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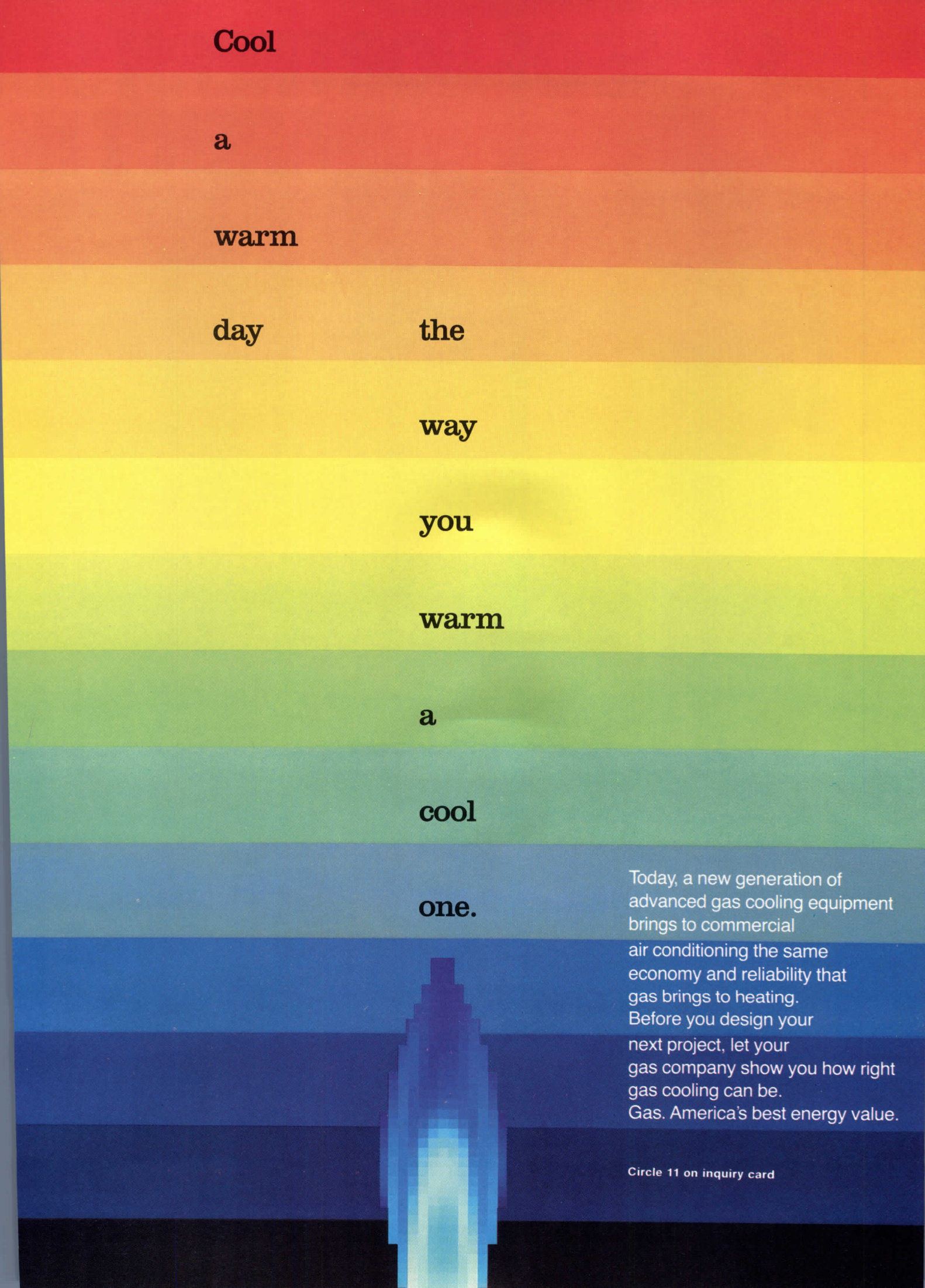
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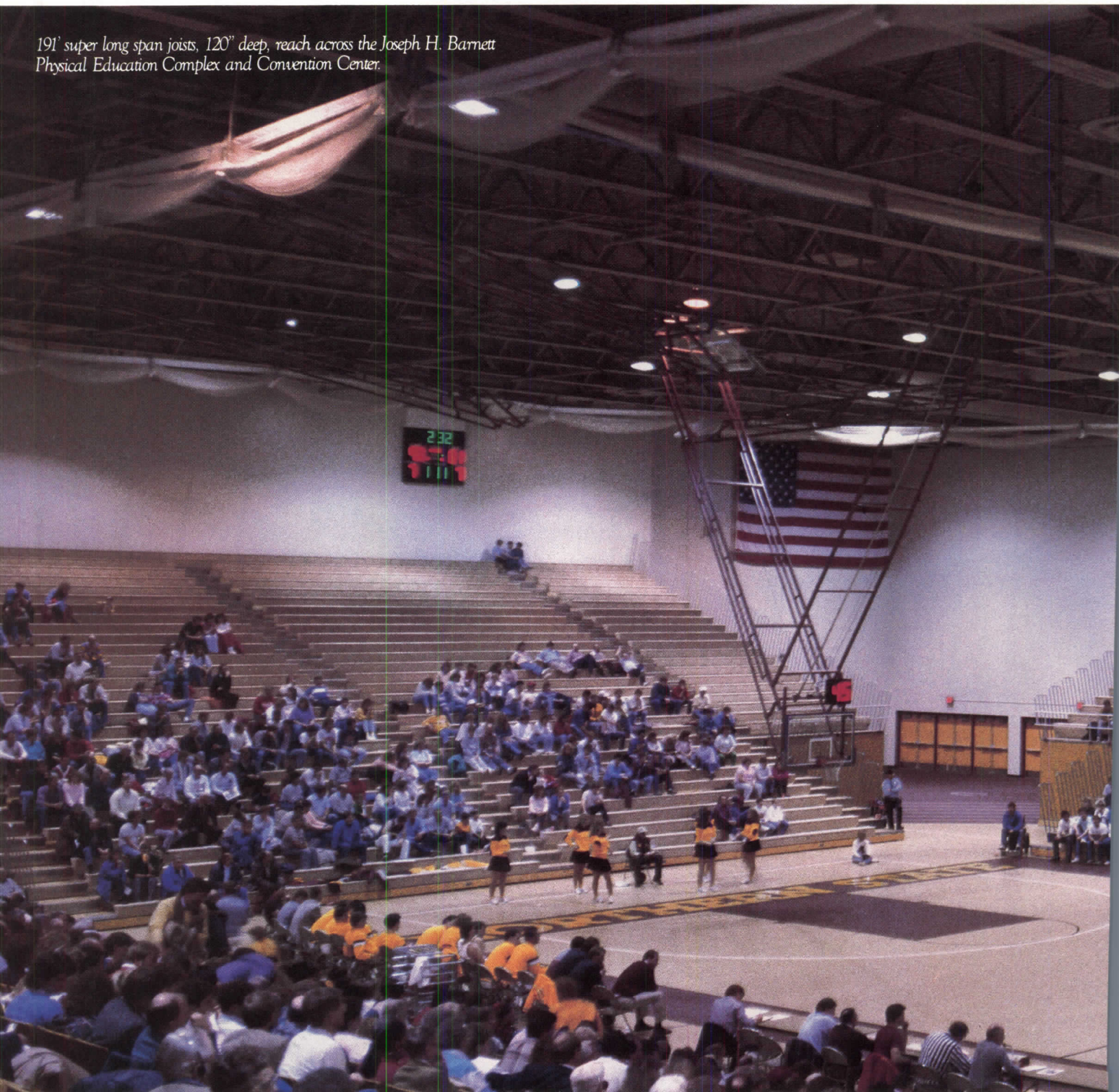


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Zeroing UDAG

What the Republican Senate couldn't achieve, the Democratic Congress did. The HUD-Independent Agencies Appropriations Bill was approved by the House in June and, with recent Senate approval, eliminates the Urban Development Action Grant program—a program designed to put pep in ailing neighborhoods but recently plagued by accusations of funding such things as luxury motels. Earlier, Representative Edward P. Boland, chairman of a House appropriations subcommittee, threatened to eliminate space-program funding unless the bill

included new housing funds. The Office of Management and Budget promptly called that threat “unacceptable” and said it would invite a veto.

As it turned out, neither the Administration nor the House requested any new UDAG funding. UDAG received \$216 million in the current fiscal year.

A contrite-sounding Boland, in introducing the bill on the House floor, said: “Obviously we did not want to zero the UDAG program or make housing cuts, but we had to make some priority judgments.” *Peter Hoffmann, World News, Washington, D. C.*

NCARB and California agree to bury the hatchet

The National Council of Architectural Registration Boards has announced that California will return to the fold and, in 1990, administer the council's professional-qualification examination accepted by all the other states. (During what will have been a three-year hiatus, California administered its own exam.) Architects have reason to celebrate, because this agreement assures continuation of reciprocity with the other states (Editorial, page 9).

The problems between California and the council date back to 1977 when the California

Board of Architectural Examiners started grading design examinations itself, citing California statutes that made this mandatory. After repeated attempts to resolve the situation, which placed the state in violation of NCARB rules, California took the dramatic step of seceding. Still, the NCARB only got around to a vote to eject California this year—a vote unanimously rejected because of the already pending new agreement. In addition, the agreement will call for “every effort to provide adequate participation by California in exam preparation and grading.”

From more nuts and bolts to more vision: Walter Wagner Educational Forum participants argue for change

Representing the various approaches to education, speakers at this year's joint RECORD/AIA convention forum challenged the establishment: “Wake up!” cried Fernando Rojas, a student at Hampton University. “Architecture is in a state of drowsiness, full of glorious uncertainties that don't contribute in any meaningful way to our education nor our society. It's naive to say that the complex nature of the discipline is the cause of a lack of direction.” He urged that students be exposed to all parts of that complexity—the practical and mundane as well as the theoretical—and that they be directed toward those pursuits to which each is best suited. “Our big dilemma is that we are trained as generalists among specialists and humanists among technicians.” The profession needs vision based on today's realities, he said. “You must pursue architecture as a

business to stay in business.” Taking a seemingly opposite tack to arrive at not dissimilar conclusions, Professor Walter Wendler of Texas A&M, argued that perhaps too many immediate professional concerns are seeping into education—at least the wrong ones. “The need is for inward reflection, an assessment of our skills and capabilities. . . .” He pointed out that many architects treat each new commission as reinventing the wheel and concluded that—until architects develop a body of knowledge to be continually built upon—“what we are practitioners of is a craft that must be organized into a discipline. There is little clearly defined to direct our profession.” Architect Frances Halsband wants all architectural theories taught, not just the few limited by transitory fashion. “When I went to school, everything was white and stark, so they never told us about color or history.



Moderator Karl Greimel speaks as Stanley Tigerman, Frances Halsband, Fernando Rojas, Walter Wendler, and Dennis Domer prepare their salvoes.

Now I spend a lot of time worrying about just those things.” Furthermore, she believes that there is too little emphasis on process and hence creative motivation in practical courses. “Why can't they teach students the design of mechanical systems with the same inspiration as building design?” Professor Dennis Domer of the University of Kansas believes that all architectural schools should require a liberal arts degree as a basic admission requirement, similar to that of law and medicine. “Do architects receive less formal education because they are less important to our society than scientists or M. B. A. graduates?” He decried in particular the inability of

many architectural graduates to write and speak. “If you can't write well, you don't think well.” Architect Stanley Tigerman sees schools as sources of challenge to established and ingrained ways of doing things. “In sum, we are locked inside a dialectical container, though we now realize that the container has an ‘other’ side outside it.” The profession, he claims, is at a juncture where its resistance to change has been reversed and, for better or worse, the old inherent optimism challenged. He talked of the influences of current social issues: “To continue to build—or teach others to build—as if there were no problem is an indescribably unethical dissimulation.” *Charles K. Hoyt*

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Pinecote Pavilion, Picayune, Miss. • Fay Jones and Maurice Jennings Architects

When Crosby Arboretum in Picayune, Mississippi began to plan buildings on its 64 acre pine savanna, they went to Fay Jones, a nationally recognized architect.

And Fay Jones went to Red Cedar shakes.

Mr. Jones, who has designed many structures for natural settings says, "I like the way Red Cedar shakes weather and harmonize with the natural environment."

So Pinecote Pavilion at the Arboretum, a step-edge geometric shed of native pine, is a showcase, not only for Mr. Jones' sensitivity, but for the natural beauty of Red Cedar shakes.

Resting on a base of earth-toned brick, the Pavilion is an imbricated assembly of many small pieces fastened together with nails,

dowels and metal connectors and reveals complete visibility of every construction element.

"The roof," says Mr. Jones, "will weather into a range of harmonic grays that will add even more intricacy to the texture."

Next at the Arboretum will be a visiting center, staff office center and maintenance building. And Fay Jones will use Red Cedar shakes on all three.

For information useful in specifying Red Cedar shakes and shingles, including permanently treated fire-retardant Red Cedar where codes apply, write on your letterhead for your free copy of "Roofing Manual," 515 116th Avenue NE, Suite 275, Bellevue, WA 98004.



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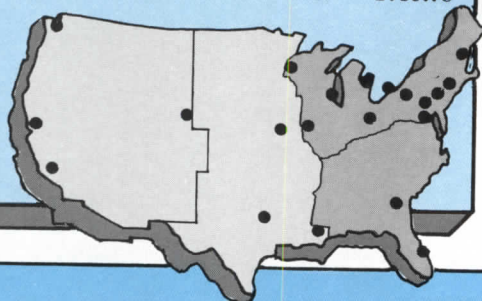
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Construction costs: What comes down must go up

Summary of Building Construction Costs

	Number of metro areas	1/88 to 4/88	4/87 to 4/88	1977* to 4/88
Eastern U. S.				
Metro NY-NJ	18	1.59	4.69	1894.15
New England States	33	1.25	4.95	1813.93
Northeastern and				
North Central States	120	0.96	1.30	1709.09
Southeastern States	106	0.78	0.78	1746.72
Average Eastern U. S.	277	0.97	1.76	1748.01
Western U. S.				
Mississippi River and				
West Central States	122	0.70	1.21	1701.36
Pacific Coast and Rocky				
Mountain States	106	0.91	0.99	1762.50
Average Western U. S.	228	0.80	1.11	1729.79
United States Average	505	0.89	1.47	1739.78

*Using only cities
with base year of 1977



This may not be a law of physics, but it can be a law of costs even in the most unexpected of times. While the latest F. W. Dodge figures for new-construction contracts in the U. S. showed a 6-percent decline in April to an annualized rate of \$227 billion (led by office buildings, which sank to the lowest rate since the 1980s began), the costs of labor and materials in the first quarter seemingly defied the law of supply and demand and soared by 0.89 percent—a higher rate than that at the peak of the current construction cycle in the third quarter of 1986 and, in fact, a higher rate than at any time since the end of 1984.

This was after a 1987 fourth-quarter decline of 0.54 percent—seen as realistic anticipation of inevitable sinking demand. Then, every city save three (Boston, Cincinnati, and New York), covered by the Historical Building Costs Indexes below, showed a decline. What a surprise, therefore, to find every city save three (Birmingham, Detroit, and St. Louis) showing a rise this quarter. Metropolitan New York-New Jersey and New

England continued their leapfrogging roles of cost leaders with whopping 1.59 and 1.25 percent rises, respectively.

What is happening? One possible contributing factor is that the unexpectedly strong 10-percent rise of construction volume in February led to unrealistic demands by those labor trades that were due to renegotiate their contracts in the early part of the year. Similarly, the unexpected demand for materials could have been responsible for upward price pressures. But it is also just possible that, when it comes to prices, "what comes down must go up" applies in good times and bad. Or, looked at another way, last year's fourth quarter was just more of a good thing than the market could long bear.

(Dodge Cost Systems studies are conducted quarterly by contact with union and nonunion sources, direct-mail suppliers, construction-labor consultants, and both general and specialty contractors in each city.)

*Dodge Cost Systems
Marshall + Swift*

Historical Building Costs Indexes

Metropolitan area	Average of all Nonresidential Building Types, 21 Cities											1977 average for each city = 1000.0		
	1977	1978	1979	1980	1981	1982	1983	1984	1985	1986	1987	1988		
												1st	2nd	3rd
Atlanta	1171.5	1712.6	1925.6	2098.6	2078.0	2360.6	2456.7	2448.7	2518.3	2561.9	2580.9	2606.8		
Baltimore	1018.4	1107.7	1304.5	1446.5	1544.9	1639.5	1689.7	1703.7	1743.8	1765.2	1780.2	1823.8		
Birmingham	1029.7	1142.4	1329.9	1407.2	1469.9	1468.1	1535.7	1594.7	1565.7	1587.4	1542.6	1555.5		
Boston	1023.4	0998.6	1236.0	1283.7	1432.5	1502.0	1569.9	1646.0	1721.0	1773.6	1883.0	1945.5		
Chicago	1007.7	1032.8	1199.7	1323.6	1344.7	1425.8	1439.5	1476.7	1528.0	1599.9	1591.4	1616.6		
Cincinnati	0848.9	0991.0	1323.9	1385.2	1350.4	1362.6	1430.8	1484.5	1486.6	1499.4	1510.9	1523.1		
Cleveland	1034.4	1040.8	1287.5	1388.2	1459.5	1511.4	1475.9	1464.0	1474.1	1525.7	1541.8	1537.8		
Dallas	1042.4	1130.6	1431.9	1481.9	1750.6	1834.3	1925.9	1958.0	1963.3	1973.9	1947.2	1983.4		
Denver	1038.8	1100.4	1495.6	1487.4	1632.2	1679.1	1800.1	1824.3	1821.8	1795.8	1732.7	1741.1		
Detroit	1018.1	1087.3	1275.3	1447.4	1580.3	1638.0	1672.1	1697.9	1692.6	1696.6	1689.3	1688.2		
Kansas City	1023.5	0951.5	1125.8	1233.2	1323.4	1381.8	1407.5	1447.1	1472.5	1484.7	1493.7	1504.2		
Los Angeles	1022.5	1111.0	1255.3	1387.5	1474.3	1503.3	1523.9	1555.1	1571.0	1609.7	1675.1	1713.9		
Miami	1004.5	1080.9	1330.1	1380.6	1369.1	1392.1	1467.6	1522.2	1540.6	1566.2	1589.2	1602.0		
Minneapolis	1060.2	1196.8	1286.9	1327.7	1442.6	1576.8	1624.6	1640.4	1661.0	1674.0	1677.0	1698.4		
New Orleans	1001.3	1138.8	1291.9	1505.7	1572.7	1616.9	1650.5	1691.4	1762.5	1760.2	1699.8	1706.3		
New York	1005.4	1043.0	1247.1	1319.4	1419.2	1491.8	1672.5	1747.2	1806.7	1899.9	1980.9	2027.2		
Philadelphia	1013.8	1074.2	1487.5	1539.5	1660.7	1769.4	1819.5	1922.1	1967.9	1992.7	2023.5	2085.0		
Pittsburgh	1016.1	1015.0	1227.0	1341.7	1493.2	1479.5	1497.2	1576.1	1611.0	1665.8	1647.3	1662.7		
St. Louis	1039.1	1198.8	1275.9	1320.0	1397.3	1451.2	1524.9	1625.5	1641.8	1647.4	1653.5	1661.7		
San Francisco	1083.2	1326.8	1473.4	1644.8	1776.4	1810.1	1854.8	1935.3	1961.8	1995.5	1992.0	2007.6		
Seattle	1142.5	1137.9	1373.4	1616.8	1814.9	1962.7	1979.0	1948.9	1937.9	1925.3	1874.7	1898.8		

Costs in a given city for a certain period may be compared with costs in another period by dividing one index into the other; if the index for a city for one period (200.) divided by the index for a second period (150.0) equals 133%, the costs in the second period are 33% higher than the costs in the other. Also, second period costs are 75% of those in the first period (150.0 divided by 200.0 = 75%) or they are 25% lower in the second period.



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Marketing strategies may compromise professional goals

Do architects give a hoped-for customer too much of what he wants?

By David Greusel

Limited-service contracts, unpaid competitions, free design work, and endless owner-initiated design changes are often the result of using marketing concepts as a management philosophy—and not just a method of getting work. Marketing, once distasteful to many architects, has, for most, grown into a way of doing business. So much so that the profession is suffering, perhaps without even realizing it.

Market-sensitive management has proven sound. Architects, long aware of the constant change in demand for various types of buildings, have been remarkably adept at keeping up with this demand—adding to or reducing staffs and gaining appropriate technical skills.

Marketing, on the other hand, is a relatively new word in our vocabulary. Simply put, it means a systematic and active selling of a product or service. It should be the process by which buyer and seller are united in a mutually beneficial relationship. If marketing were nothing more than active selling, there would be no problem, but the word has come to mean a lot more.

Problems begin when marketing is overemphasized

Marketing has been referred to as the fuel that powers the engine of an architectural firm, and this is undoubtedly true. But, recently, it has been mistaken for the engine itself.

How did this transformation occur? The design professions have always suffered from an oversupply of qualified people, resulting in an intensely competitive environment where any advantage is desirable. Lately, the advantage of choice has been marketing, which has—

as competition increases—presented itself as more than just another tool for survival.

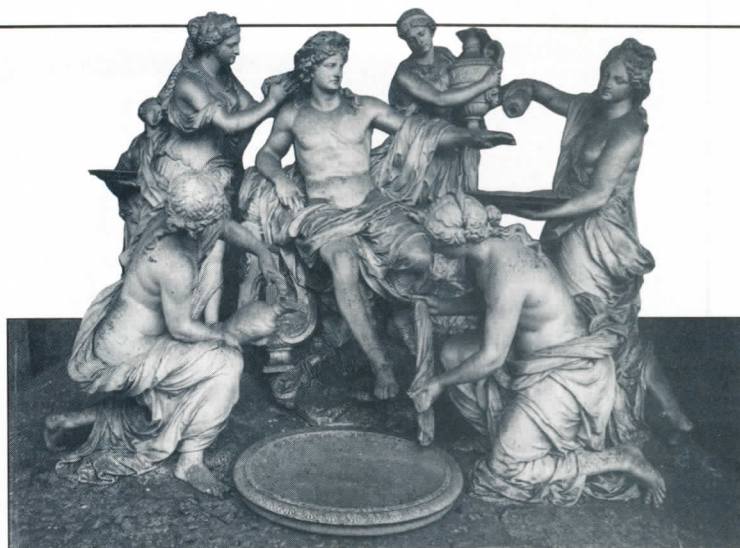
The essence of marketing as a management philosophy can best be expressed by the popular creed of consumerism: Give the customer what he wants. This creed is highly desirable for a company that wants to make a fair profit on the sale of a product. The question that architects must ask, however, is to what extent is what's good for General Motors also good for a professional design practice?

The philosophy assumes the customer is always right

His desires are to be met without question and his quirks enshrined as noble virtues. The objective then becomes not to attempt to persuade or educate him, but only to accommodate his wishes, desires, goals, and ambitions. This is accomplished by careful questioning, even more careful listening, and then studious implementation of his program. The marketing-driven architect does not make value judgments about the appropriateness of the project, the desirability of the program, or the client's stylistic preferences. The professional's values become, in fact, nothing more or less than those of the owner.

The design firm's short-term rewards are most likely to show up on its balance sheet, as clients will be favorably disposed to hiring a firm with a credo of "your wish is our command."

The long-term effects are somewhat more difficult to gauge. For a firm whose clients are environmentally enlightened and socially responsible, these effects will be favorable. But for the majority of firms, with client rosters that include tasteless developers, putting the customer's wishes ahead of all other considerations will affect the firm negatively in the long run.



Apollo attended by nymphs, Bettmann Archive

The architect is not absolved, even though he may think so, of responsibility for the esthetic, moral, social, or professional consequences of his work.

The potential adverse business results take the form of fee-based selection procedures and owner-prepared contracts that minimize both the client's risk and the architect's reward. Most architects have no trouble recalling an instance in which their professional judgment was questioned, redirected, or ignored by clients claiming the privilege of customer infallibility. Too many architects, propelled by what they think to be marketing savvy, fail to object. In fact, if such marketing strategies become more prevalent, it is likely that objections will cease altogether.

In a consumer economy, the supplier always suffers the consequences of refusal to obey the market. Professional services, however, are not a consumer product. The practice of architecture is, or should be, more akin to the practice of medicine.

What lies ahead?

Whether the current emphasis on marketing as a basis for running an architectural firm is a temporary fad or a lasting trend remains to be seen. The only certainty is the inevitability of change in the way architecture is currently practiced.

If marketing-based management prevails, the profession will evolve into an industry with design services as its product. The selection of

architects will be based on consumers' perception of value—quality vs. price—which, in turn, will depend as much on advertising budgets as on reality. This will invariably force smaller offices out of business as industry giants become the known quantities. These large firms, of course, will produce buildings conceived, programmed, and largely designed by the customer, as the role of the architect recedes to that of a technical advisor.

But there is hope that the pendulum will eventually swing back toward a more balanced view of how design is best delivered. There are, without question, important lessons for us to learn from marketing. Chief among these is the need, in interviews, to listen to what the client is saying.

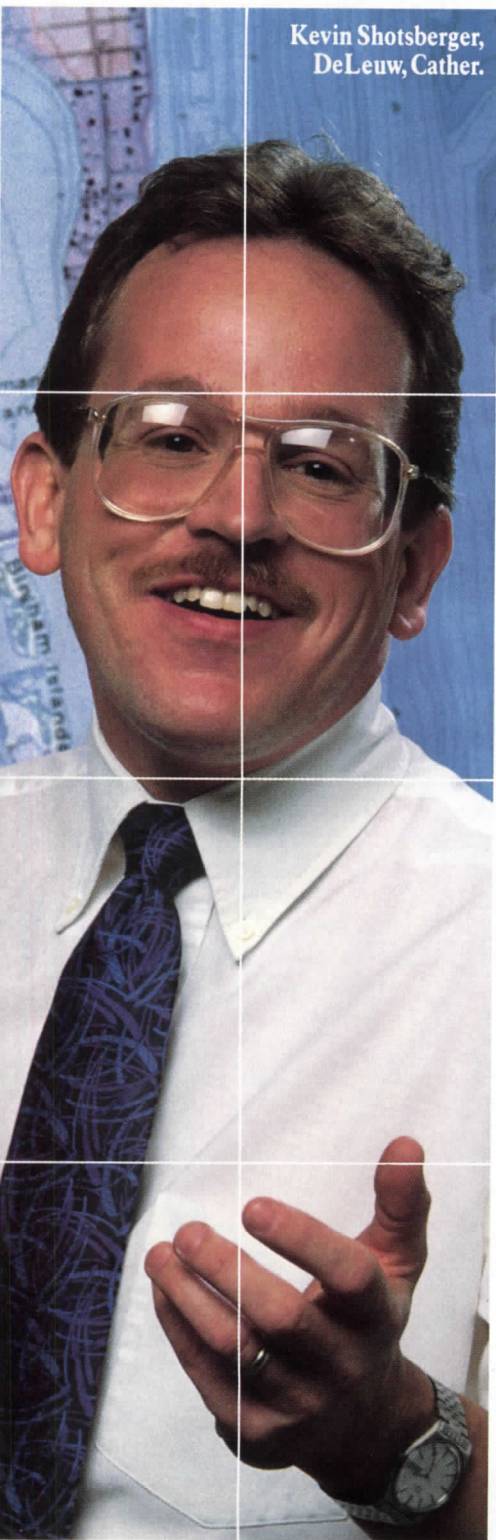
Still, the delivery of good design does not end with good listening; it begins there. It is only after the client has expressed his wishes that the responsible professional can begin to steer him, carefully and sincerely, toward a responsible design solution, rather than an ill-considered regurgitation of his input.

If the architect is to remain a professional in any sense of the word, he must ultimately depend on his training, his experience, and his professional judgment to diagnose the client's real needs, and prescribe a solution that is in the client's, the public's, and, in the final analysis, the architect's own best interest.

Mr. Greusel is vice president for design with Hastings+Chivetta Architects; he is also a visiting lecturer at a number of architectural schools.

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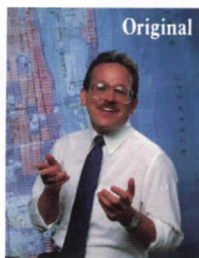
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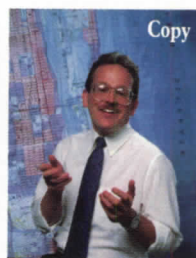
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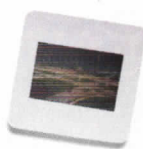


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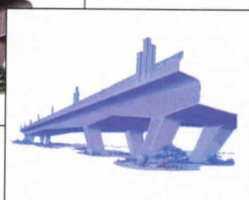


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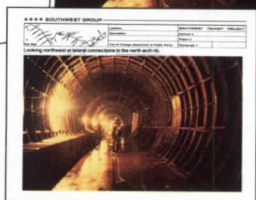
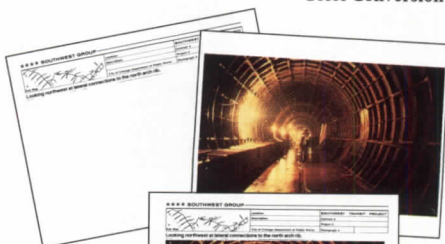


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Construction finance: Consumers hold the key to continued real growth

By Phillip E. Kidd

At the start of the year, economic activity was clearly in the midst of a substantial transition. The impetus for maintaining real growth was shifting away from consumer spending toward higher manufacturing and agricultural production and rising exports. Then the primary concern was that these new sectors would not increase fast enough to sustain the economy as consumer expenditures weakened. Now the major worry is that manufacturing is bumping against its capacity to produce

and agriculture is burning up in the fields, both of which situations could stymie exports and real growth, and ignite inflation to boot.

In essence, the drought is kicking a significant prop out from under the expansion. Farm income and investment, which was recovering from the 1982-86 farm debacle, will shrivel with the crops. Agricultural exports, without these new supplies, will eventually fall off as government-owned surpluses are drawn down. Domestically, food prices will steadily advance,

cutting into the consumer's ability to purchase other goods and services.

Although the drought is serious, the economy can weather it, provided consumers make available even more of their financial resources to manufacturing. In the process, however, real growth will decline from its first-half pace of nearly 3.6 percent to a second-half rate of 2.0 to 2.5 percent.

Domestic and foreign demands for industrial products are large and rising. Already, most manufacturing sectors are running at 82 to 85 percent of their capacity. In the short run, some extra production can be squeezed out of existing capacity. However, the effort will lower productivity and increase operating expenses, pushing up goods' prices.

Unlike agriculture, for which only heavenly intervention can alleviate the drought, stronger investment in plants and equipment can add to capacity. Such outlays have been vigorously expanding for more than a year. Most of them, until recently, were for equipment, which, when integrated into present facilities, improved output. Now businesses must spend more to enlarge plants, rehabilitate unused or outmoded structures, and build new space.

Even with larger internal sources of money in the form of profits and depreciation, manufacturers will have to borrow more to finance their construction programs. That will require abundant funds at reasonable costs. At this point, the actions of consumers become critical.

For some time, households have been moderating expenditures, restraining debt usage, and rebuilding savings. More is needed. Increases in consumer spending must slow even further. Significantly, the remaining purchases must emphasize American rather than

foreign goods to provide U. S. producers with acceptable domestic demand.

And more of those purchases must be made out of current income rather than borrowings, even while savings growth accelerates. All of these actions are necessary to make more funds available for investment in manufacturing and to allow the Federal Reserve some leeway with monetary policy.

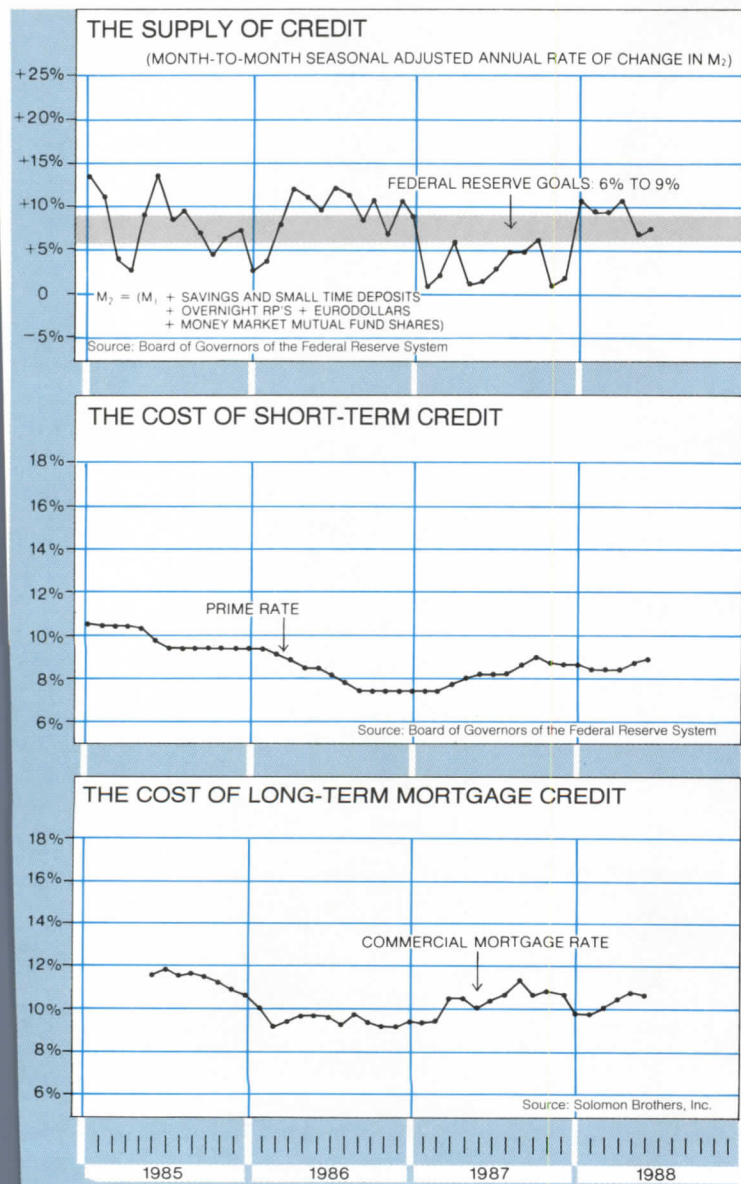
The prevalence of inflationary signs, such as tightening capacity, rising food and commodity prices, and greater dependence on foreign oil, are too conspicuous for the Federal Reserve to ignore. Since early spring, it has been snuggling monetary policy. In turn, interest rates have been moving higher.

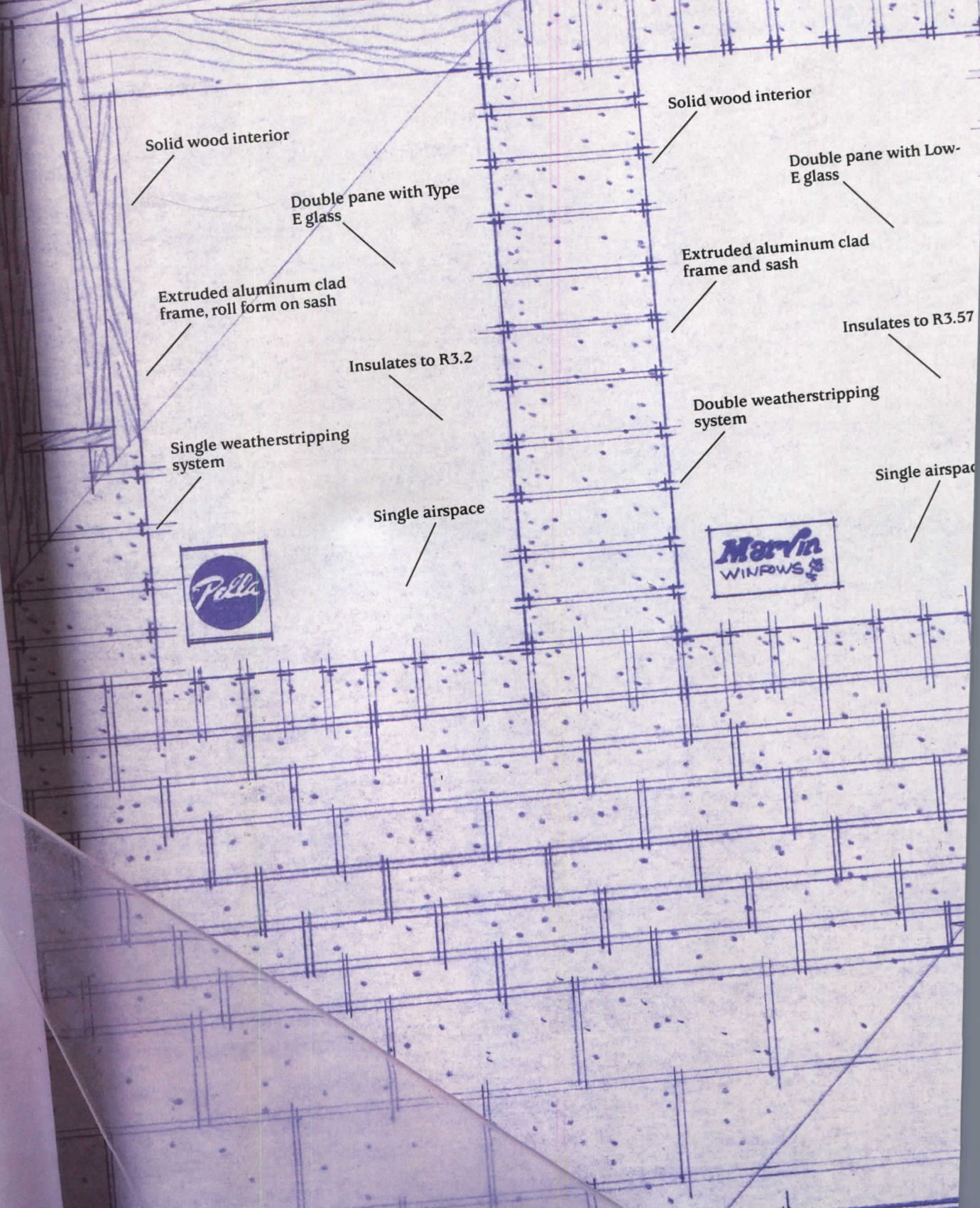
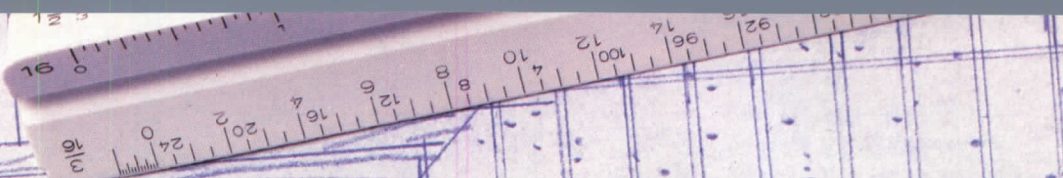
With inflationary pressures unlikely to abate, monetary policy will continue to firm. However, the Federal Reserve's task can be eased somewhat if consumers reduce purchases and become better savers. Even with those steps, interest rates throughout the remainder of the year will climb. Rates on top-quality assets will range from 6.75 to 7.75 percent for short-term instruments; from 9.25 to 10.25 percent for seven- to 10-year governments; and from 11.25 to 13.00 percent for mortgages.

Confronted with ascending interest rates, industrial construction will still advance. However, housing for sale and retail building (because of moderating retail sales as well as rising rates) will slip below their first-half pace. Meanwhile, the struggle of office and multifamily construction to break the grip of large vacancies will become more difficult as interest rates increase.

Dr. Kidd is a prominent economic consultant and former director of economic research for the McGraw-Hill Information Systems Company.

To ease inflationary pressures and keep construction financing affordable, consumers need to save more and buy less on credit.





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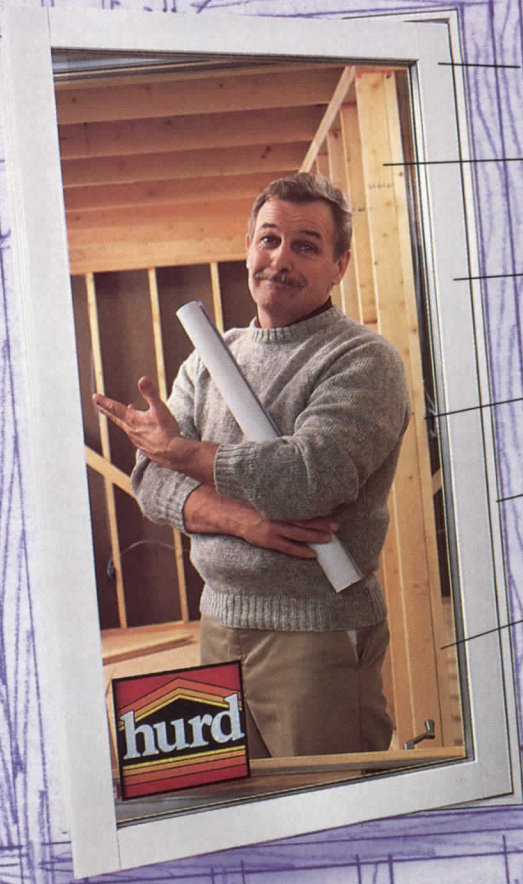
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Vinyl clad frame and sash

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Double weatherstripping system

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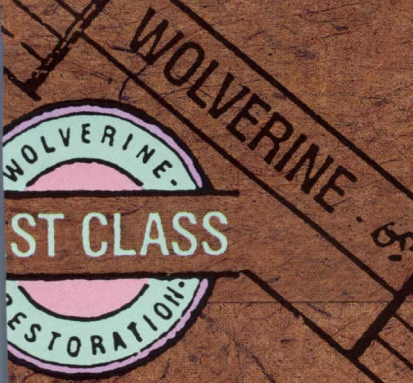
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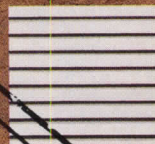
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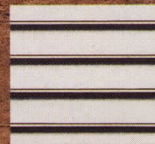
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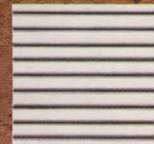
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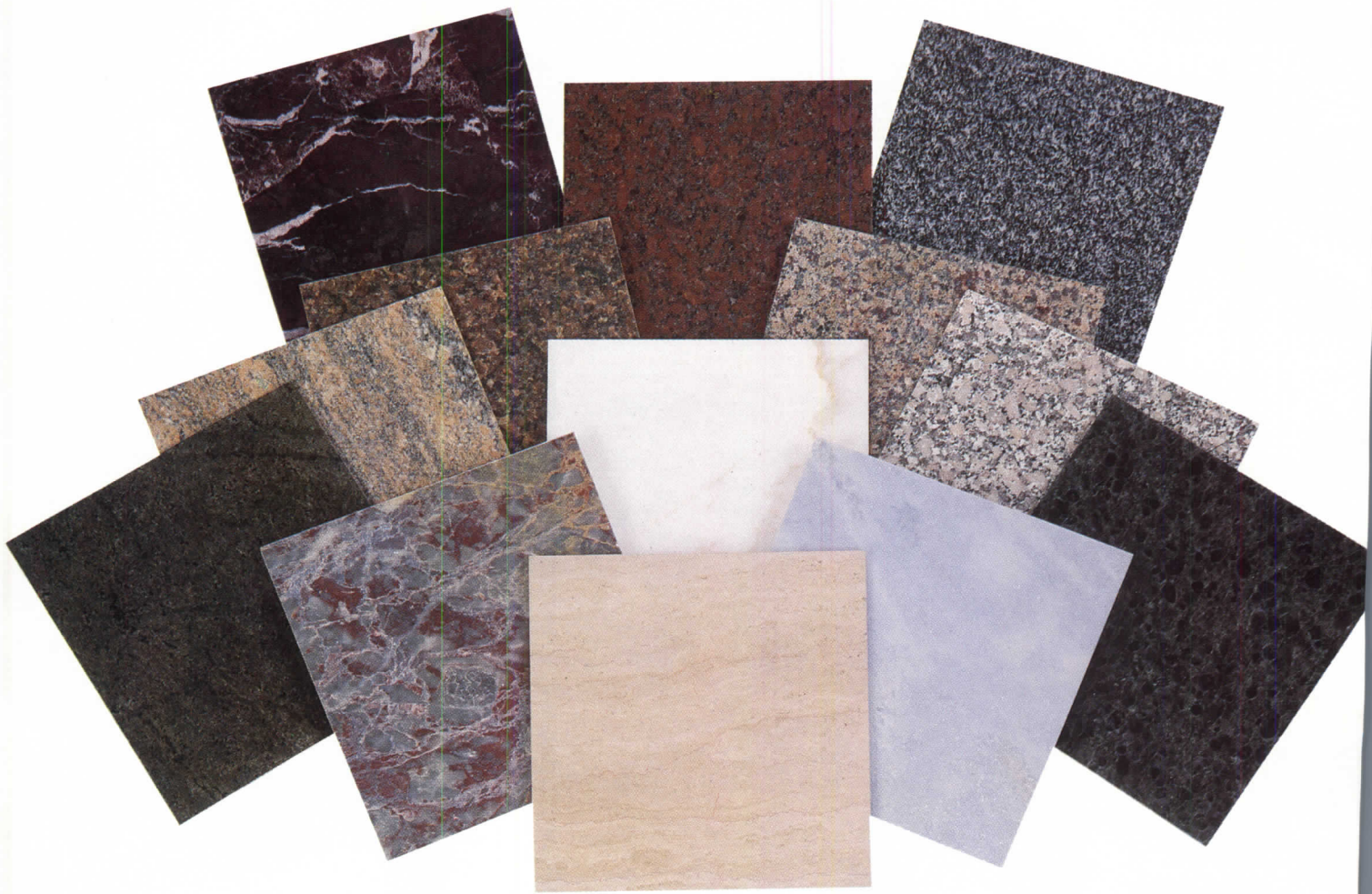


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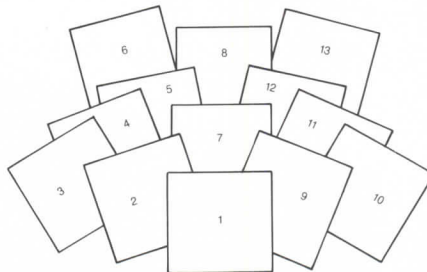
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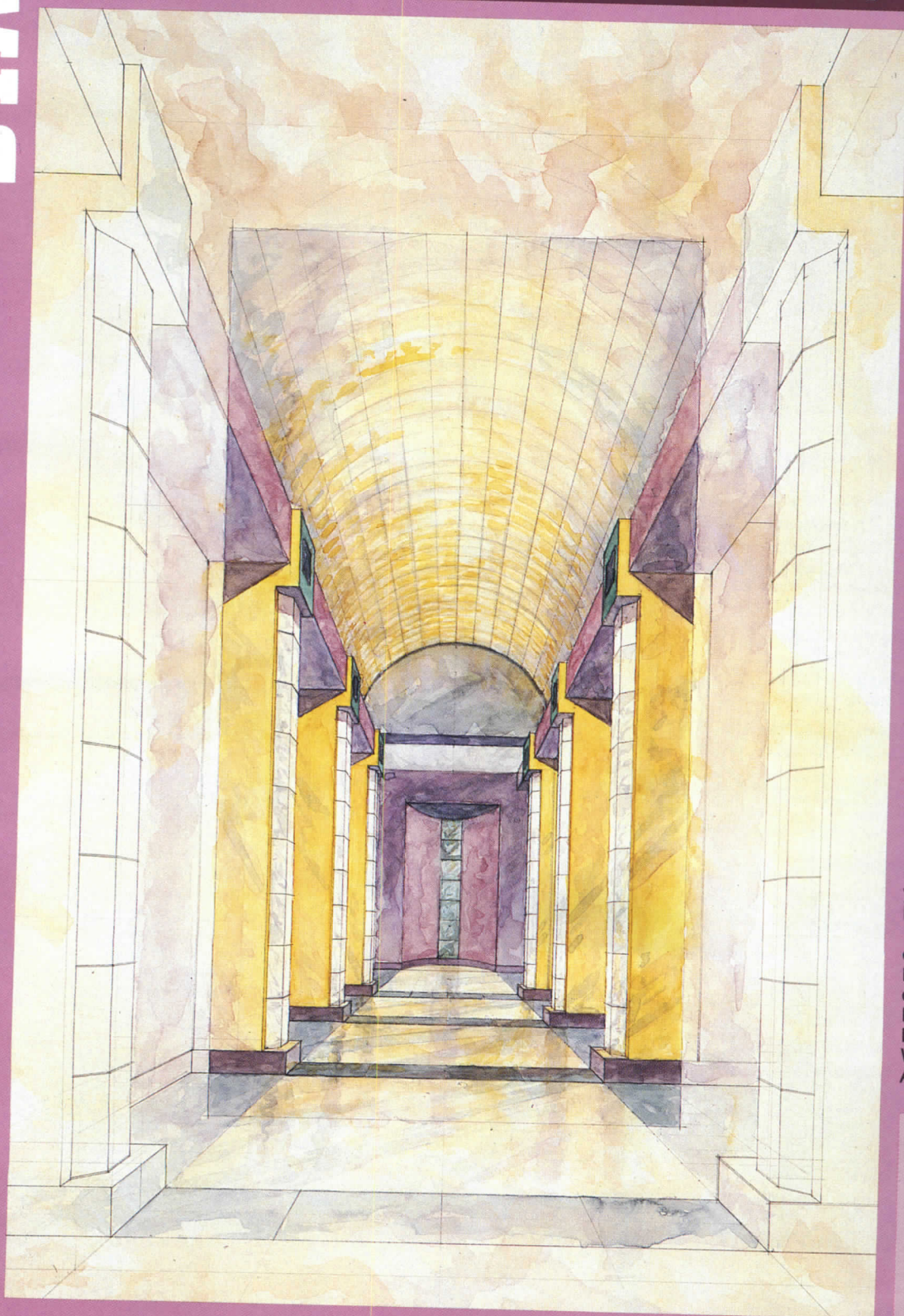
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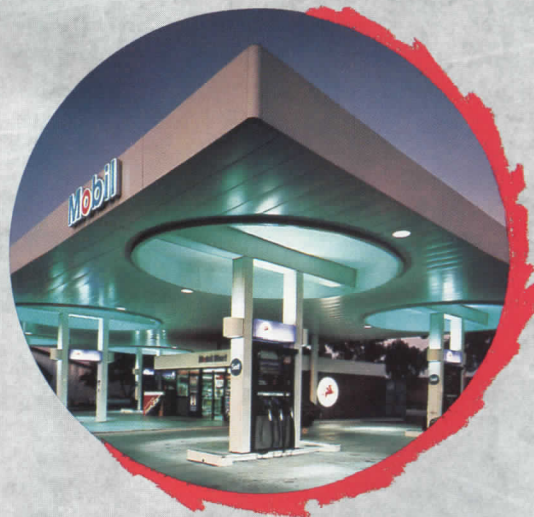
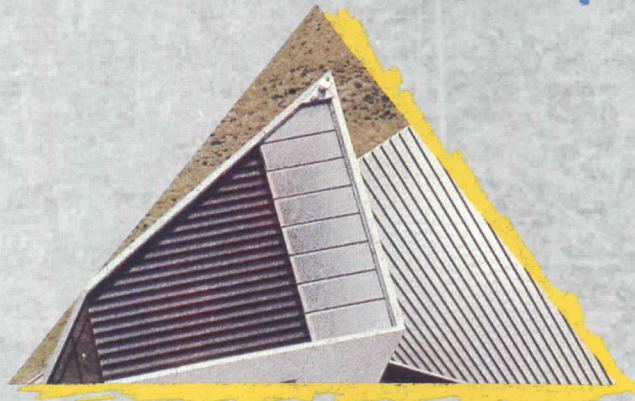
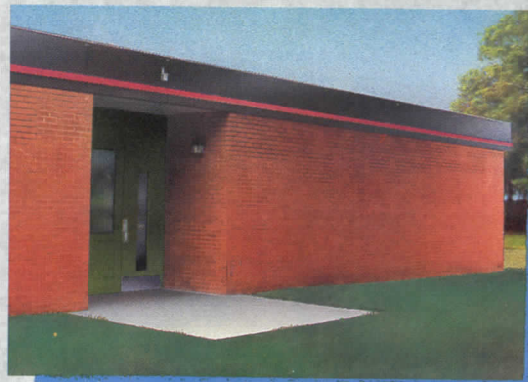
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Second time around for Columbus Center



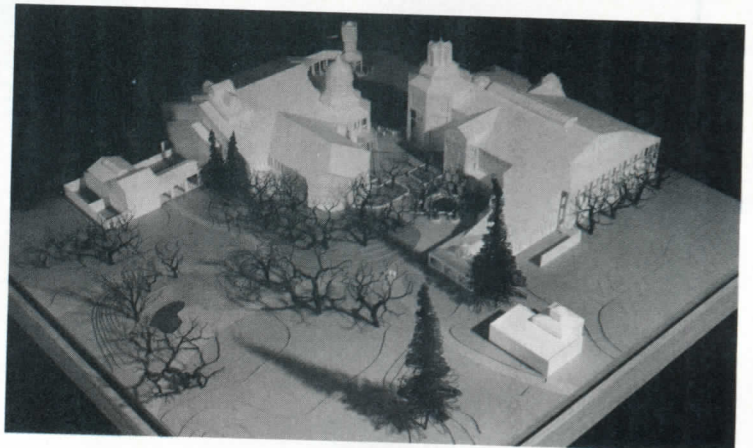
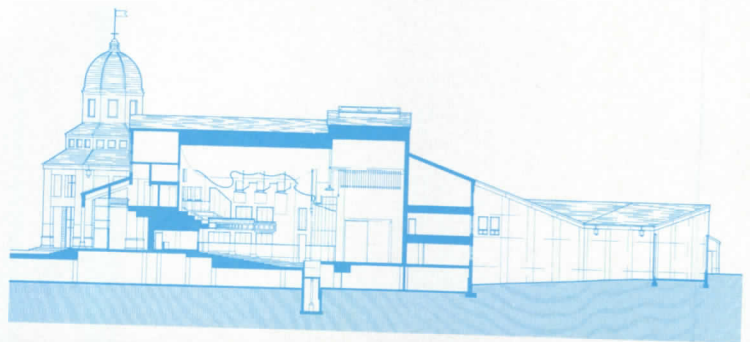
After an earlier scheme by Moshe Safdie was rejected by the courts, developer Boston Properties asked Skidmore, Owings & Merrill to propose a lower, less-dense project for Columbus Center, a mixed-use complex at a prominent corner of New York's Central Park.

Design partner David Childs's scheme strives to fit in: the grand apartment houses that line the park are echoed in the SOM design, and it is 75 ft lower and comprises 500,000 fewer sq ft than the earlier project. The courts had held that New York City could not sell zoning rights

to the highest bidder without meeting environmental and zoning criteria. Is the project still too big? Yes, say the plaintiffs in the original lawsuit, but they are waiting to see if viable options are analyzed in a lengthy environmental review now underway.

Urban civic center for suburban city

Two rotundas mark a city hall and a community theater in Mountain View, Calif. Designed by MLTW/Turnbull Associates, the two stucco-faced, poured-in-place concrete buildings embrace a street-corner plaza that leads between the towers to smaller tree-shaded courtyards and a historic park. The \$27-million complex will house city offices, underground parking, and both a conventional thrust stage and a theater-in-the-round. Council chambers and the mayor's office are to be approached by a monumental stair. Both structures will be completed in May of 1990.





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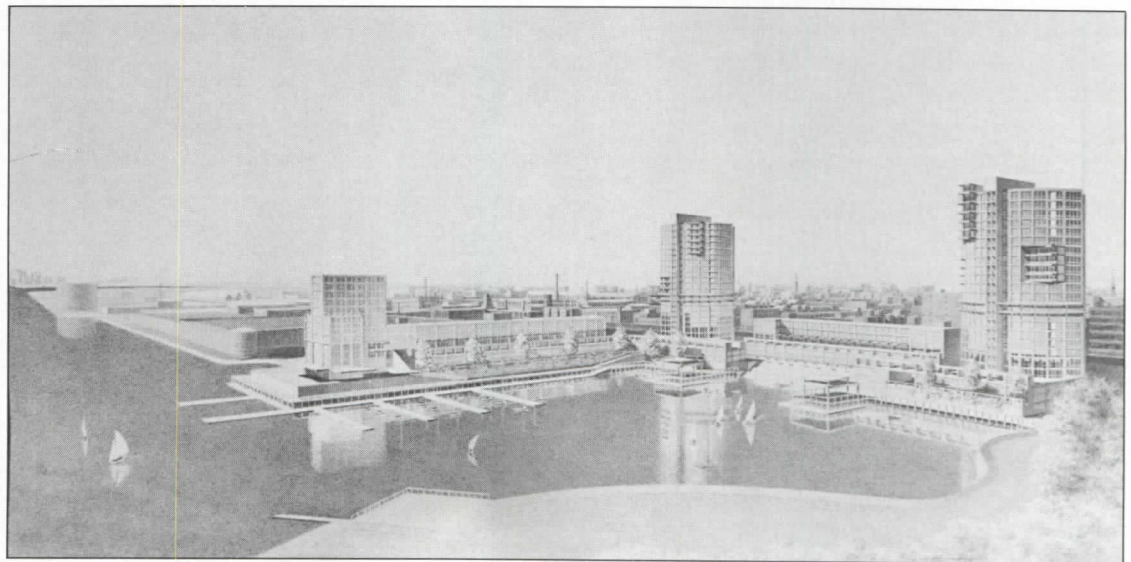
Massachusetts city reclaims its waterfront

An addition to the Vietnam Veterans Memorial in Washington, D. C., to honor the contribution of women would violate the integrity of the Maya Ying Lin design, testified Brooklyn architect Laurie Maurer, who spoke for the AIA against pending House legislation authorizing the monument. Noting that the design as built in 1982 was complete in itself, Maurer decried the "parade of proposed additions" that began with Frederick Hart's statue of three fighting men, installed to one side of the monument after a protracted controversy. The bill is under consideration in the House Administration Subcommittee on Libraries and Memorials.

Jaquelin T. Robertson, formerly of Eisenman Robertson Architects, has joined the firm of Alexander Cooper + Partners to form Cooper, Robertson + Partners. Dean of the Architecture School at the University of Virginia, Robertson was formerly director of the Office of Midtown Planning and Development in New York. Alexander Cooper's practice is best known for large-scale urban design schemes such as Battery Park City.

Ellerbe Associates and Welton Becket Associates have merged to form a new 900-person firm, Ellerbe Becket. The joining of Ellerbe, known for projects at the Mayo Clinic and the University of Notre Dame, with Becket, prominent in the corporate-facility and hotel field, among the largest attempted by an A/E firm.

Marshall Strabala of Harvard University was awarded first place in a competition sponsored by GE Superabrasives. Student entrants were asked to add a "fourth perspective" to the Des Moines Art Center, which already incorporates work by Alvaro Siza, Eero Saarinen, I. M. Pei, and Richard Meier.



A long-neglected port area will be largely devoted to public use as part of Harborside Landing, a \$60-million condominium development along the Massachusetts Bay in Lynn. Two towers, of 17 and 24 stories, will anchor a one-half-mile public esplanade, which is linked to an

adjacent state park by a pedestrian bridge. Garages, overtopped by terraces, stretch between the towers in the development, designed by Schwartz/Silver Architects, and frame a public corridor from waterfront to town. Development of a small-boat

moorage and launching dock and other aquatic facilities are contemplated at the water's edge in the future. Construction of the initial phase of the two-phase project will begin in early fall and will include 248 residential units; the summer of 1990 will see the first buyers move in.

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Under court order to improve its judicial system, Harris County, Tex., has selected a development team that includes Morris Architects with Golemon & Rolfe Associates and W. Gene Williams & Associates to design and construct the fast-track conversion of a 62-year-old cold-



storage warehouse in Houston to a 4,200-bed, 600,000-sq-ft detention center. A 1.5-acre park is to replace an existing parking structure along the banks of the Buffalo Bayou and will provide a backdrop for a garden that honors Houston's founders on the other side of the river.

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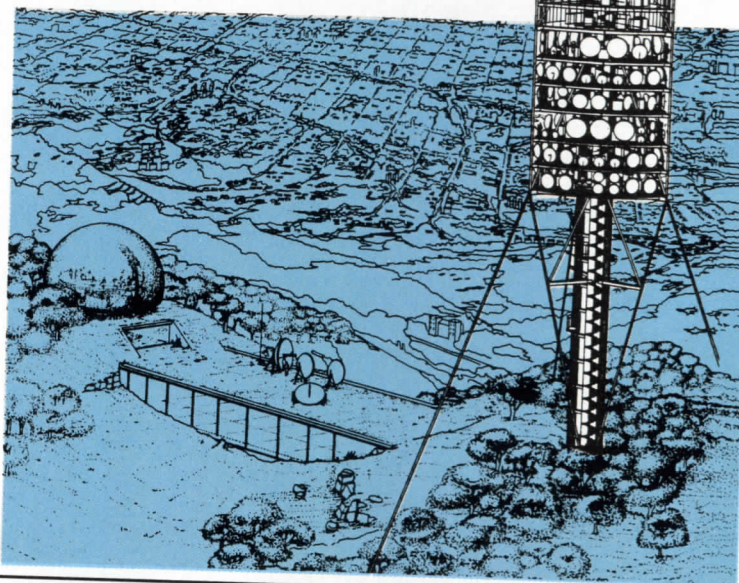


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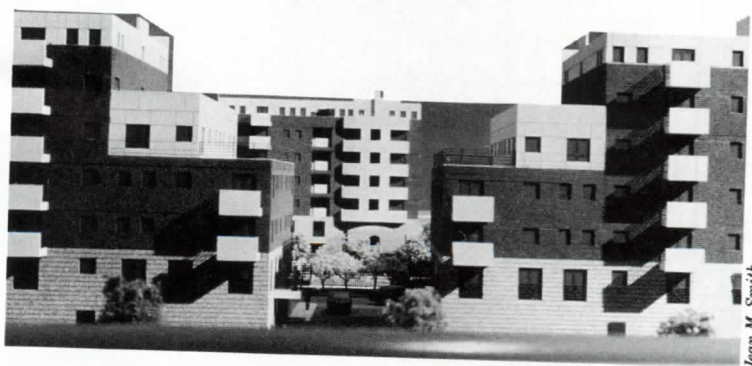
News briefs

High-tech centerpiece to Spain's Olympics

An antennae-studded tower, the symbolic focus of the 1992 Barcelona Olympics, rises out of a telecommunications complex designed by Foster Associates with Ove Arup and Partners. Included are a glass-clad technical support building and a geodesic-dome restaurant.



High-density urban pioneer



An abandoned industrial parcel in Chelsea, Mass., was rezoned for the 255-unit low-rise Mill Creek Condominiums to both stimulate growth in an underutilized area and supply affordable units in a tight housing market. The first building (of three) is nearing

completion; the project will ultimately include a community center. A stepped opening in the red-brick-clad south-facing structures, designed by Gauchat Architects, allows winter sun to penetrate to a courtyard that is both ceremonial entrance and on-grade parking access.

Perez Associates has designed two four-story wings to flank a 1916 courthouse annex in Jacksonville, Fla. (1). The granite-faced structure will house the tax collector's and property appraiser's offices when it reopens in July 1989.

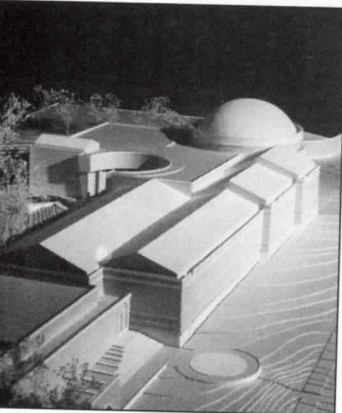
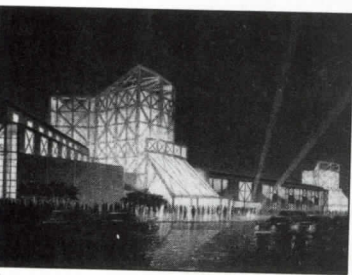
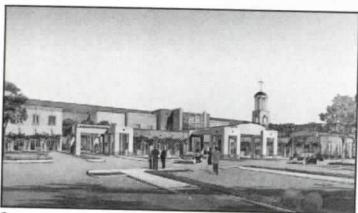
The Saint Louise Health Center (2), under construction in Morgan Hill, Calif., unites hospital rooms and an ambulatory-care center in a Mission Style envelope, offering a landscaped courtyard and a bell tower to orient patients. Architect of the project is Heery Architects and Engineers.

The Los Angeles Convention Center Expansion (3) will add 2.5 million sq ft on a site between two freeways. A new upper level concourse containing meeting rooms will span a city street to link a new lobby for the 1.5-million-sq-ft existing structure to the addition. Slated for completion in 1992, the project was designed by Gruen Associates/I. M. Pei and Partners.

The Schiele Museum in Gastonia, N. C., (4) will nearly double in size with the addition of the 28,000-sq-ft Earth/Space/Science Center, designed by Calloway Johnson Moore. The facility will provide exhibit galleries, an auditorium, classrooms, and a planetarium under a 50-ft-diameter dome. A new courtyard foyer ties together old and new.

Frank Israel, Morphosis, Tod Williams/Billie Tsien, Stanley Saitowitz, Liz Diller/Ricardo Scofidio, and Steven Holl are to be spotlighted in a three-year exhibition program recognizing visionary young architects.

"Architecture Tomorrow" will feature one firm each in the fall and spring, beginning with a show on Los Angeles-based Israel. Curated by Mildred Friedman, the program will originate at the Walker Art Center in Minneapolis and travel throughout the country.



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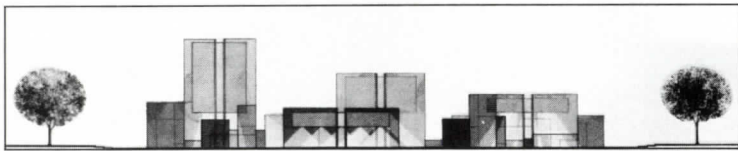
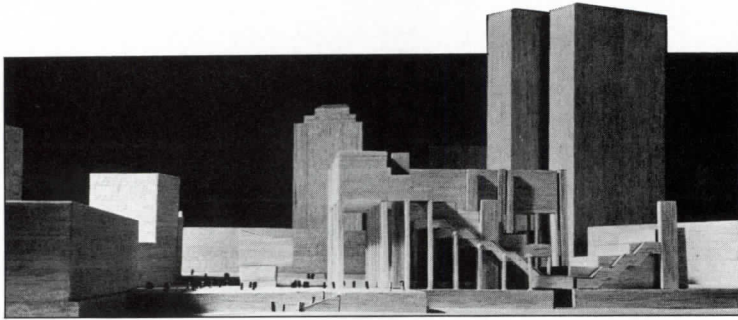
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RECORD HOUSES 1989

The editors of ARCHITECTURAL RECORD announce the 34th annual RECORD HOUSES awards program. This program is open to any registered architect; work previously published in other national design magazines is disqualified. There are no entry forms or fees, although submissions must include plan(s), photographs, and a brief project description—bound firmly in an 8 1/2- by 11-inch folder—and be postmarked no later than October 31, 1988. Winning entries will be featured in the 1989 RECORD HOUSES. Other submissions will either be returned or scheduled for a future issue.

Submissions should be mailed to:
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A new look at watershed competitions



While building competitions seem commoner today than ever before, they remain a risky procedure. Or so one might infer from "The Experimental Tradition: 25 Years of American Architecture Competitions, 1960-1985," an exhibition recently on view at the National Academy of Design in New York City and scheduled to tour other cities this fall. (Problematic design/build competitions are examined on pages 46-49.)

Out of the nine contests represented in the exhibits—which include both winning and losing boards and models, letters to and from contestants, and newspaper clippings—only five winning designs were constructed as planned. The rest either were drastically altered before construction or remain unbuilt, trapped in financial difficulties or esthetic controversy. (Of the two "idea" competitions also on display, one was initially intended to be for a built project until funding fell through.)

Such problems arise in part because winning projects spring full-blown from drawing boards, without benefit of client collaboration, explains Helene Lipstadt, who curated the exhibit under the auspices of the Architectural League of New York. Winners were not Lipstadt's main focus, however: "We concentrated on *process*. We don't think competitions

necessarily make better buildings, but they do make better architects, [acting as] giant architecture classrooms."

In fact, the losers in the exhibit are much more interesting than the winners. Describing the 1962 design of Boston's City Hall by Kallman, McKinnell & Knowles, Lipstadt remarked, "In the early '60s, many observers thought it would be the antidote to the glass box, but it turned out to be a dead end." Meanwhile, the rejected entries by Mitchell/Giurgola Architects and by the team of Peter Eisenman, Anthony Eardley, and Mark Wells (model above) show prophetic respect for the street and the historic context.

Among the losers are several works that have not been shown since their original presentation: an entry in the 1960 Franklin Delano Roosevelt Memorial Competition by a very young, very Miesian Michael Graves (with George Nelson and Richard Meier; drawing above), and a long-lost 1962 Louis Kahn scheme for the Lawrence Hall of Science at the University of California at Berkeley.

The path the exhibit will take on its national tour has not yet been determined. *Eve Kahn*

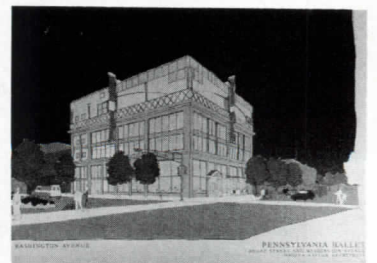
60 seconds

A new-age electronic-media orientation pervaded the 38th annual International Design Conference in Aspen this past June, allowing participants to absorb new developments in art and design in digestible bites. Some snippets: graphic designer Tibor Kallman, pointing out that virtually indistinguishable logos represent characterless modern corporations, proposed broadly applicable "anti-identities": e. g., a generic pictogram representing a restaurant (a cup of coffee) and its location in New York City (a handgun). Designer Eiko Ishioka dramatized a Japanese fashion company's ambivalence about the westernization of the East by a commercial in which Faye Dunaway, in traditional No-drama costume, sensuously peels, then eats, a hard-boiled egg. Responding to the client is more difficult than ever, asserted architect Frank Israel, who showed work ranging from an ephemeral stage-set architecture for the temporary headquarters of a budding film company, to the timelessness sought by film director Robert Altman in a remodeled residence—ironically confined by environmental codes to the interior of a crumbling '60s condominium. Fumihiko Maki's presentation countered the chaotic, seemingly jerry-built modern Japanese city with a coherent, tectonic permanence. Stanley Saitowitz described the powerful effect geography and land form have had on his architecture. Not simply a regional approach, his method seeks a "habitable landscape." Richard Sennet argued for an architectural way to *see* a place and its tragic history simultaneously, much as Jacob Riis's photographs allowed Americans to perceive the sordid tragedy of slums. On the conference theme, "The Cutting Edge," one speaker commented, "If you can touch it, it must be pretty dull." *J. S. R.*

Competition calendar

- Imaginative use of one company's vinyl siding products is honored in the Wolverine Technologies "Finish First" competition. Entries are due September 3, and further information can be obtained by calling 313/337-7100.
- The Rudy Bruner Award for Excellence in the Urban Environment celebrates outstanding urban places and offers a prize of \$25,000. The deadline is December 1. Applications are available from the Program Coordinator, Rudy Bruner Award, Bruner Foundation, 244 Fifth Ave., New York, N. Y. 10001.
- \$125,000 in prizes will be awarded in the International City Design Competition. Registration for this conceptual program closes November 30. Information can be obtained from ICDC, School of Architecture and Urban Planning, University of Wisconsin-Milwaukee, P. O. Box 413, Milwaukee, Wis. 53201

New home for ballet on Philadelphia's Avenue of the Arts



Conversion of a former auto showroom for use by the Pennsylvania Ballet will require removal of the roof slab and existing structural support of the top floor to permit new column-free dance studios and an additional level. Architect for the project is Dagit-Saylor.



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Design awards/competitions: Design/build competitions in Hartford and Chicago

Seeking exemplary architecture with faster construction and greater cost control, public agencies are turning increasingly to competitions in which the architect is teamed with a contractor. Historically, competitions have sought only to premiate the best design—already a complicated process, as the checkered history of such winners shows. In design/build contests, the owner must now also weigh each team's budget and schedule track record, its financial health, and its management skill. Proponents see the process as an improvement on the typically hidebound governmental procurement process; critics claim the competitions are misused.

Last year, the city of Hartford, Conn., prequalified six developer-architect-contractor teams to compete for a new municipal office building. A charter-mandated panel, made up of heads of city departments, city council members, and "the most recently hired architect for a city project," recommended three finalists (Figures 1-4) to the city manager. The city manager recommended the team of Bronson & Hutensky (developer), Tai Soo Kim & Associates (architect), and Morganti Incorporated (contractor) to the council, which approved the selection this past January. Both the losing teams have been vocally critical of the process. Peter Pran, of Ellerbe/Becket, has derogated the advisory panel as lacking respected architects from outside Hartford (who therefore would not have an ax to grind), and not containing a significant number of persons experienced in selecting designs. "Except for the single architect, the panel was political," says Don Cosham, of Herbert S. Newman Associates. The selection did become tangled in local politics. Indeed, the city council initially

rejected the Bronson-Kim-Morganti scheme. Then, approval was delayed until the developer agreed to construct 200 units of low- to moderate-income housing (a sweetener offered by the Herbert S. Newman team) linked to the office-building development. Job-training requirements for the disadvantaged—not part of the competition brief—were also added, though the city has as yet offered no increase in the budget to cover these items. At press time, the winning team was still negotiating with the city over final terms, which may ultimately include as many as 375 dwelling units. "If the city wanted affordable housing— unquestionably a problem in Hartford—it should have asked for it in the RFP," notes Pran.

The city of Chicago originally anticipated hundreds of entries in its competition to build the \$144.6-million Harold Washington Library Center, a futuristic centerpiece for the city system. In the end, however, only six teams responded to the city's request for qualifications. One team later dropped out, and the remaining five were given 15 weeks to develop a design from a detailed program prepared by a consultant. Their projects are shown on pages 48-49. The scheme of the Sebus Group has been selected; the mayor has endorsed the choice and the library board recently approved it.

"We fundamentally believe that a design/build competition is wrong in this instance," says Chicago Chapter/AIA spokesman John Syvertsen, who added that use of the process has "no precedent for a building of this magnitude and complexity." The Chicago library board was advised by Edward C. Wundram, an architect specializing in the field of competitions, who also consulted on the Portland Building competition (won by Michael Graves); Hartford did not have a

Design/build competitions are being hailed by public agencies as a cost-effective way to nurture great architecture. The process is not without risk for the architect or the competing design, however: witness recent competitions for a municipal office building in Hartford and a public library in Chicago.

professional advisor. Wundram defends the design/build competition process as attracting teams that would not otherwise bid on government work. (Entrants were prequalified by a technical advisory committee to eliminate poorly managed "low-ball" bidders; the advisors also evaluated the competing schemes for technical and management compliance.) When the Request for Qualifications was released, the AIA chapter criticized several stipulations as severely limiting the number of teams that could enter. A contending combination had to include both architects and interior designers; a contractor experienced in complex, municipally administered, large-scale work; a job-training program; and substantial participation by minority- and women-owned businesses. The city further required teams to submit an executed contract and a bond for the entire value of the project. Consequently, competitors found that it was virtually impossible to qualify without being well connected to Chicago-based contractors. Though such partnerships were not mandatory, all the teams brought in developers to keep the project on schedule, and to be able to guarantee a price that included fees. The local AIA also took exception to the meager \$50,000 honorarium offered losing finalists (this has since been raised to \$100,000), and to a shortage of practicing architects on the jury (of the jurors, only Henry Cobb practices; the balance of the panel comprised professors Vincent J. Scully, Jr., and David T. Van Zanten, three business executives, two developers, a university administrator, the director of the District of Columbia Public Library, and a member of the Chicago library's board of directors). Although periodic meetings took place with representatives of the users, a

close working relationship between architect and client was precluded by the need to meet with all competitors present. "You couldn't roll up your sleeves and and say, 'what about this idea?'" says Syvertsen.

The winning team will have only five months to, first, negotiate a contract, and then resolve and document any major outstanding design issues with the client before breaking ground. With construction scheduled for 26 months, there will be little time to work through issues with the client; both design and construction must be fast-track, with the inevitable pressures this process exerts on budget, material availability, and consideration of design.

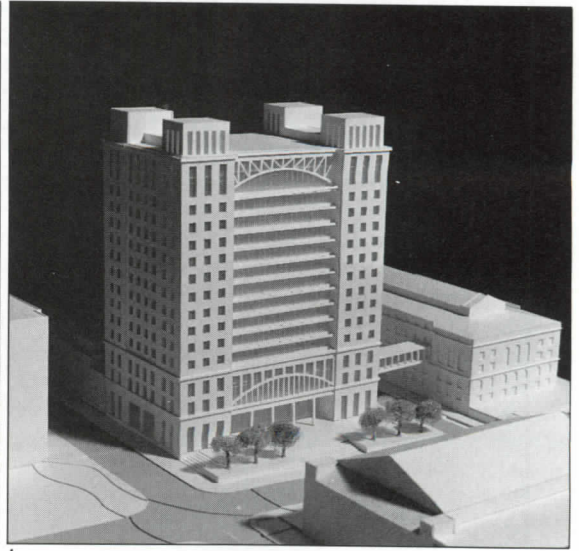
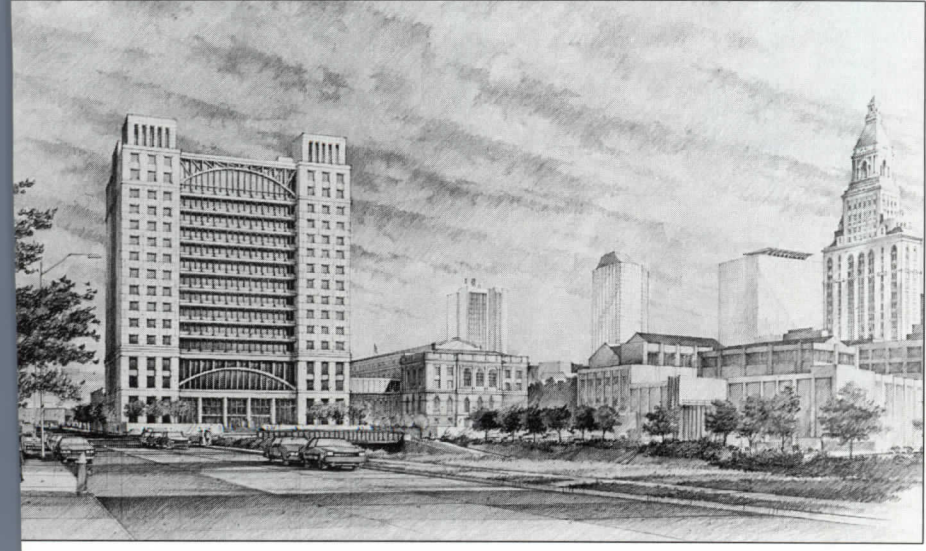
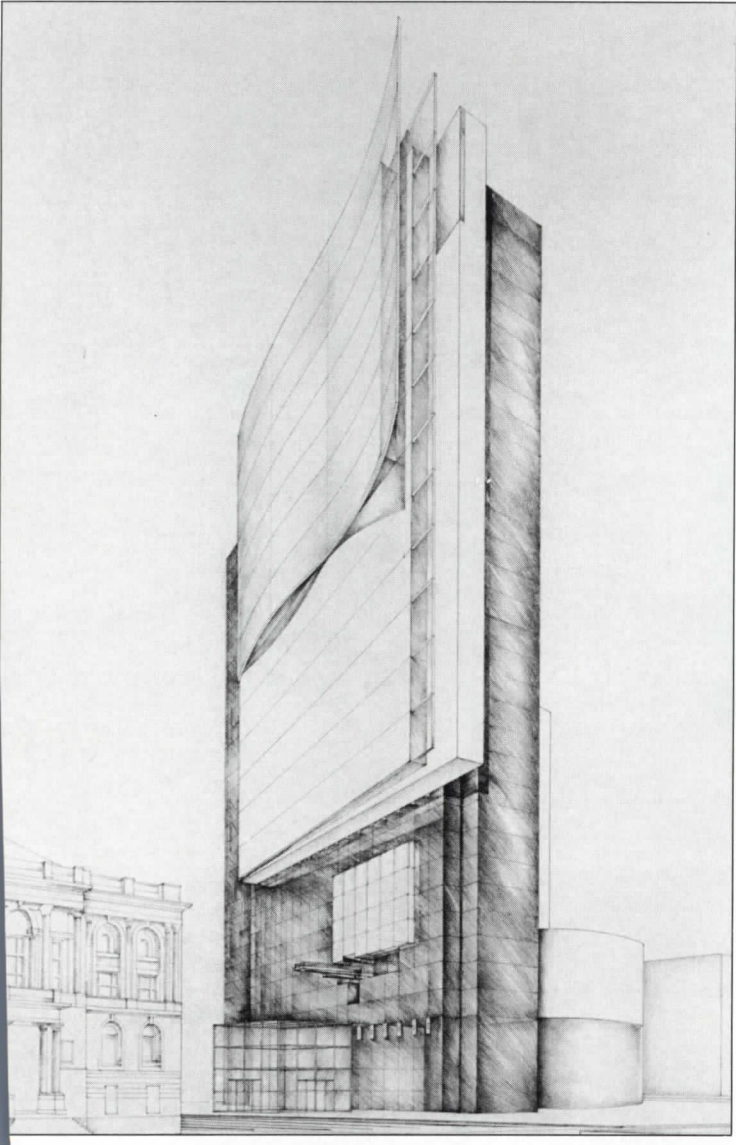
Is design/build therefore the wrong way to select the building team? "The city of Chicago and the state have had trouble managing projects," says Syvertsen, citing well-known problems with mechanical systems at the State of Illinois Center and "massive" cost overruns at the recently completed addition to the McCormick Place convention center. "Rather than dealing with the problems, they are shifting them to [design/build entities]." Chicago officials see their effort as an experiment, but one that could be a model for other cities. "We're trying to get some of the advantages of private-sector building into the public sector," asserts Charles Thurow, deputy commissioner of Chicago's Department of Planning.

The National Association of Housing and Redevelopment Officials (NAHRO) has prepared guidelines for architect/developer competitions that are useful yardstick. Hartford's competition appears to violate NAHRO's call for a panel "able to bring a degree of insight and objectivity to the selection task, owing to a lack of jurors able to

Competition for a City Office Building, Hartford, Conn.

- 1. Team of Ellerbe/Becket with Arthur Lubitz and Carlin, Pozzi, Chin, Architects; O & G Industries, Contractor
- 2. Team of Herbert S. Newman

- Associates, Architect; Century Development Corp., Developer; W. E. O'Neill Construction Co., Contractor
- 3., 4. Team of Tai Soo Kim Associates, Architect; Bronson & Hulensky, Developer; Morganti Incorporated, Contractor



According to an AIA survey, a majority of the firms that had entered competitions similar to those shown found them to be a significant financial risk; this group would be less likely to enter them in the future.

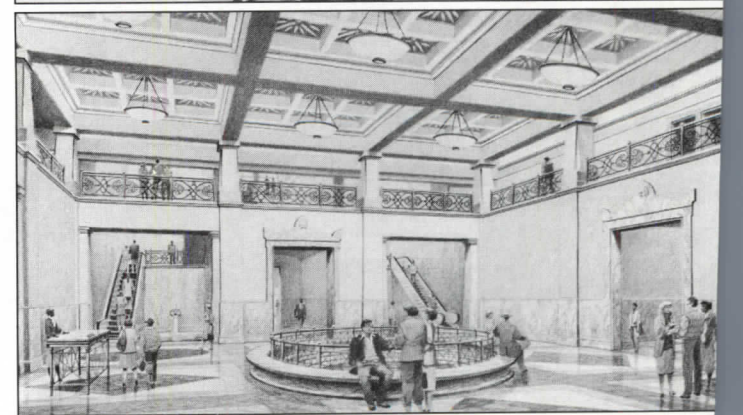
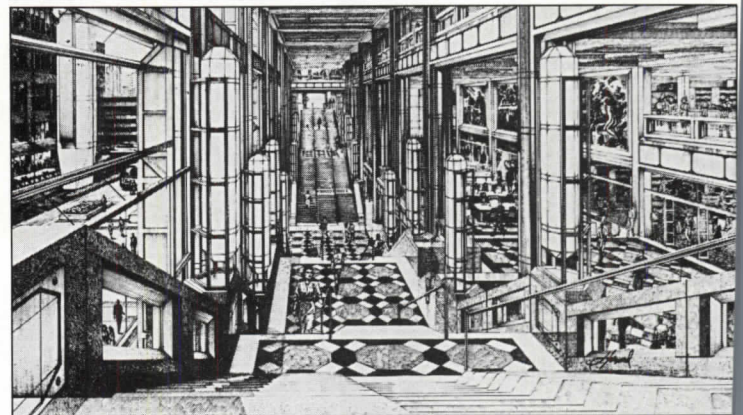
"represent all the areas of expertise needed to evaluate the design/development team." To avoid the kind of unfairness to competitors that occurred in Hartford, NAHRO advises public agencies to "clearly articulate public goals and objectives regarding the project prior to the competition." While NAHRO rejects quantitative weighting of design versus management, it does endorse "an indication of the relative importance of each criterion." In Chicago, the budgetary and management aspects of each proposal were evaluated separately and sent to the jury, which used the data at its discretion. NAHRO recommends that sponsors limit submissions to the minimum sustainable data "to keep costs for competitors within reason." Participants in Chicago had an extremely short time in which to digest a very complex program and develop a scheme to a degree of specificity approaching what is usually expected in the design-development phase (required, in this case, simply to establish costs).

Entering competitions is expensive. Design/build competitions are even more costly than most, because enough engineering and cost estimating must be done to ensure that the guaranteed price can be met. In a survey made this year by the AIA, most of the firms that had entered similar contests found them to be a significant financial risk, and said they were less likely to enter them in the future.

Critics have also questioned some of the *premises* of design/build. There is no certainty for the sponsor that one team will be clearly superior on both the design side and the management/construction side; the owner has then lost an opportunity to put together the strongest players in each discipline. Clearly, the lack of potential contractor-developer

partners deprived Chicago of the opportunity to select from dozens of architects who might otherwise be qualified to design the building. On the other hand, it is tempting for the sponsor to add unspecified requirements (or program changes) during the negotiating period, as at Hartford, knowing that by this point the winning team has a lot at stake. The partnership that doesn't "play ball" may find the public agency unsympathetic to potential future work or zoning variances the firms may someday need. Design/build is also advertised as shortening the project schedule, but in Chicago it has taken eight months to select an architect, in Hartford—to date—18 months. In both cases, early selection of the contractor allows design and construction to overlap, yet early selection of contractors could just as well be separated from choosing the architect. Many of the AIA's respondents indicated that submission requirements are often too complex, while selection criteria and RFPs are too equivocal.

No "fix" of the process is likely to solve building-procurement problems unless one underlying issue is better understood. "The city is abrogating its responsibilities as a client to manage program, budget, and schedule," says Syvertsen. This shifting of obligations—in the guise of "public-private partnerships" and for a fee—is unabashedly described as a goal of the public agencies; they can then blame the design/build team if the product is not what the owner needs. The AIA survey revealed that the incidence of such competitions is increasing nationwide—and it may formulate its own guidelines. But for now, potential competition entrants might well heed the "private-sector" adage: Let the buyer beware.
James S. Russell



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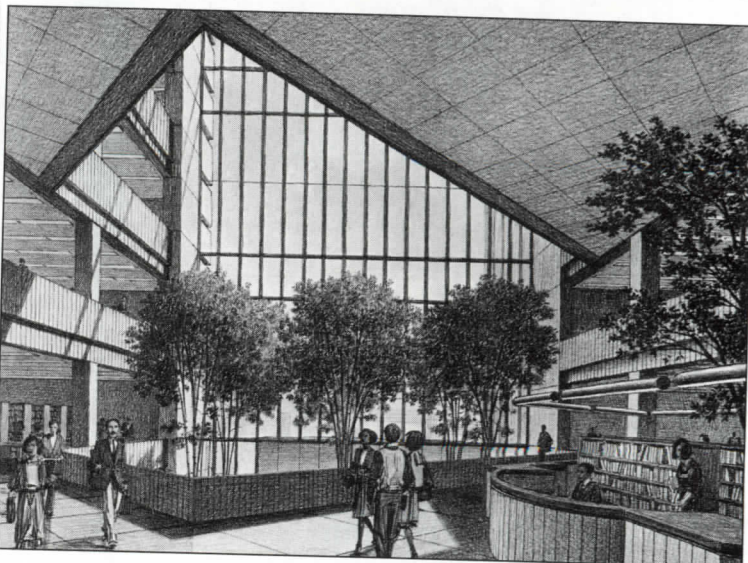
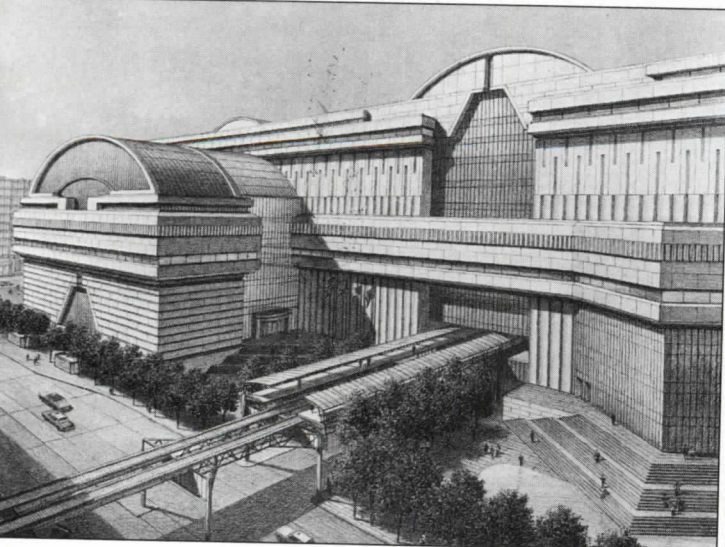
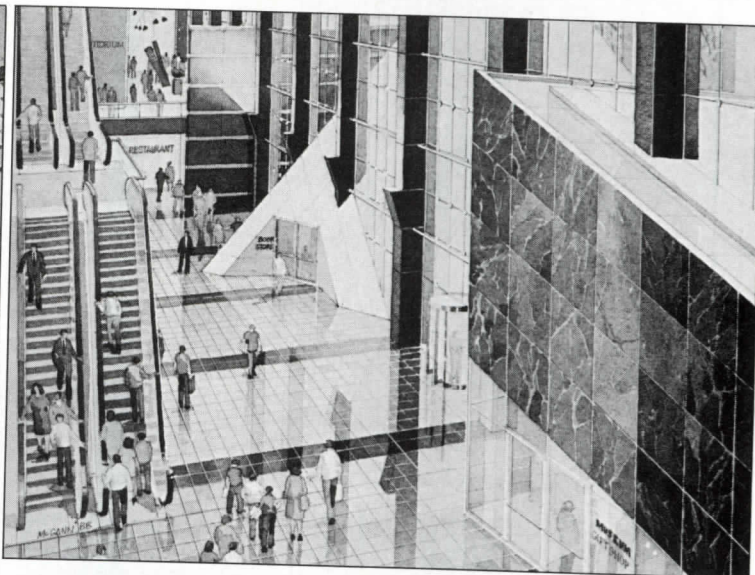
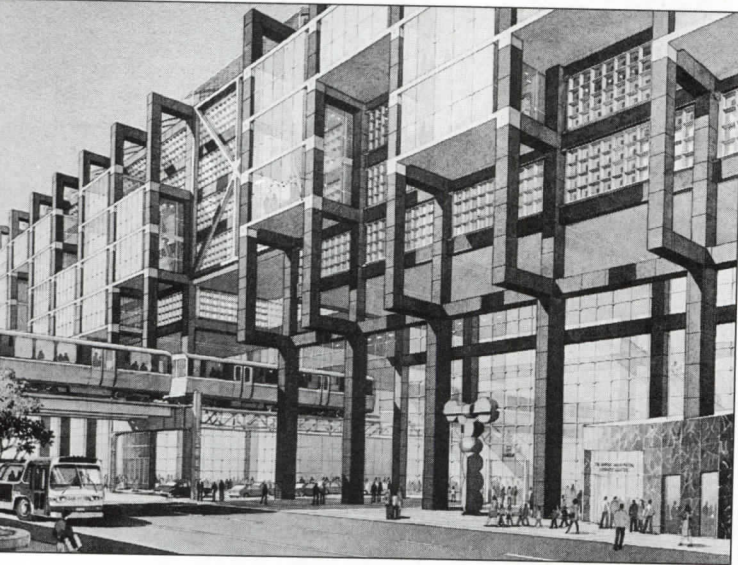
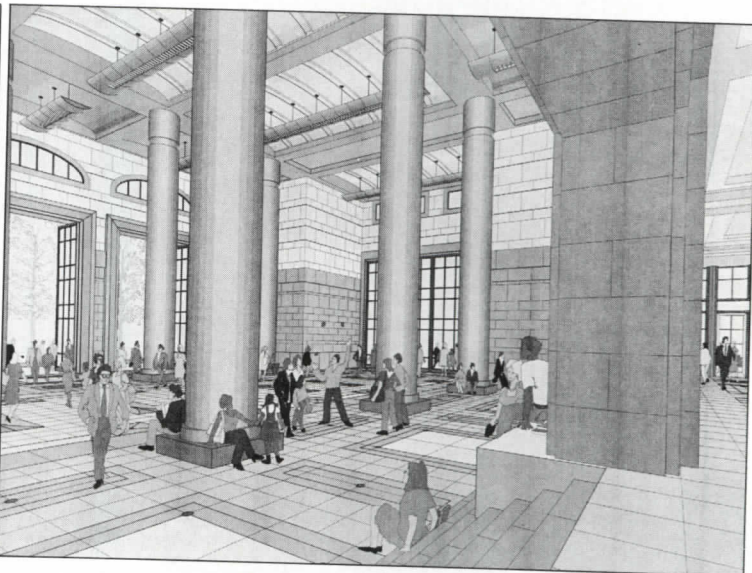
2

The Harold Washington Library Center Competition, Chicago.

- 1. *Metropolitan-Lohan—Lohan Associates with Johnson, Reid, Lee, Architects*
- 2. *The Sebus Group—*

- Hammond Beeby and Babka with John Wilson & Partners and A. Epstein & Sons, Architects*
- 3. *Library '88 Partnership—Skidmore, Owings & Merrill with Ricardo Legorreta, Architects*

- 4. *Paschen-Tishman-Jahn—Murphy/Jahn with Castro-Buchel and Roula Associates, Architects*
- 5. *The John Buck Company—Arthur Erickson with Vickrey/Ovresat/Awsumb Associates, Architects*





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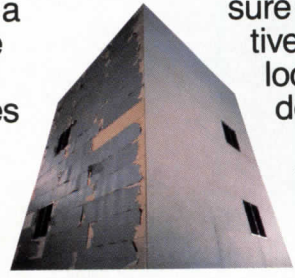
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Architect: Dillard Architects, Inc., Dallas, Texas
Project: Fire Station #2, Coppel, Texas

Philip Johnson's revenge

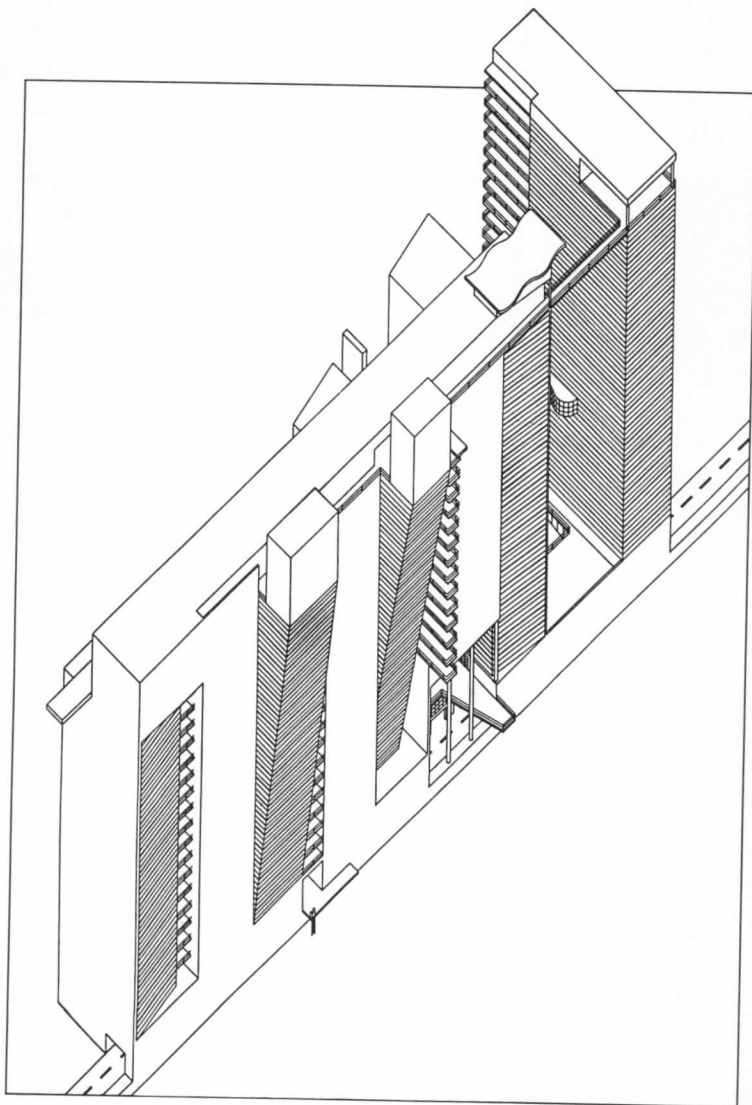
Is Deconstructivism an "interrogation" of the smug underpinnings of architecture or the anointing of a movement based on work that merely shares a formal impulse? Roger Kimball reviews the exhibition "Deconstructivist Architecture," currently on view at the Museum of Modern Art in New York.

By Roger Kimball

It had to happen sooner or later. "Deconstruction," that fashionable species of philosophical skepticism that was transplanted from France in the late 1960s, has spread from its home in departments of English and comparative literature and has installed itself into the theory and practice of architecture. Not that this development is really all that new. The skepticism, arcane rhetoric, and obsession with language that are hallmarks of deconstruction in philosophy and literary criticism have been staples of "advanced" architectural theory for the better part of a decade. And we have all seen its products scattered about here and there—mostly, it must be said (and said gratefully), on drawing boards or in the pages of architectural journals rather than in our towns or cities. But a full-scale exhibition of "Deconstructivist Architecture" at the Museum of Modern Art? An exhibition organized, at least nominally, by no less a personage than Philip Johnson, the founding director of that venerable institution's department of architecture and the curator of its fabled "International Style" exhibition in 1932? Clearly, deconstruction has arrived on the architectural scene.

Let us leave to one side the rumors and rivalries, the slashing egos, the reputation mongering, the unbecoming display of art-world jealousies and betrayals that attended the exhibition's organization, its contents, even the selection of its title. Readers interested in this aspect of the subject may wish to consult Michael Sorkin's incisive exposé, which appeared in the December 1, 1987 issue of

Roger Kimball writes for The New Criterion, The London Times Literary Supplement, Commentary, and other publications.



Axonometric of apartment building, Rotterdam, (project), 1982. The Office of Metropolitan Architecture—Rem Koolhaas, design partner.

The Village Voice. Now that the exhibition is upon us, we may turn to the work and the theory supporting it. The third in a series of five exhibitions sponsored by the Gerald D. Hines Interests at the museum, "Deconstructivist Architecture" is on view through August 30. It is a surprisingly meager exhibition, featuring a handful of models and plans of 10 recent projects by seven architects. A few of the projects have been built; a few are currently under construction; a few are . . . well, let's call them unbuilt speculative exercises. Two of the architects included in the

exhibition—Peter Eisenman and Frank Gehry—are senior practitioners with international reputations; the other five—the firm of Coop Himmelblau from Vienna, Rem Koolhaas from Holland, Zaha M. Hadid from London, Daniel Libeskind from Milan, and Bernard Tschumi, based in the U. S.—are younger and less well known.

What brings these very different architects together is not any shared "style" or beliefs about the tasks of architecture. One would be hard pressed, for example, to find instances of contemporary architecture more disparate in "look," character,

and intention than Frank Gehry's renovation of a suburban house in Santa Monica (completed in three stages, from 1978 to 1988) and the high-rise apartment-cum-community center and observation tower designed by Rem Koolhaas in Rotterdam in 1982 (drawing left). No, "deconstructivism" is not in this sense a "school" or movement so much as an *attitude*. As Johnson acknowledges in the brief preface he contributed to the catalog, deconstructivist architecture, lacking the encompassing vision and "messianic fervor" of Modernism, "is not a new style." And far from suggesting the rise of a new school of architecture, he writes, the present exhibition simply brings together the recent work of a few important architects that shows "a similar approach with very similar forms as an outcome."

The forms in question are said to derive mostly from the art and architecture of Russian Constructivism and Suprematism that flourished in the late 1910s and early '20s, notably, the abstract paintings of Kasimir Malevich and the sculpture and architecture of Vladimir Tatlin, Aleksandr Rodchenko, and others. As it happens, the connection between Constructivism and the works on view in the exhibition is sometimes quite tenuous, depending on nothing more than fortuitous formal similarities—where, indeed, there is even *that* connection. Nevertheless, a great deal is made of the influence of the Russian avant-garde on the distinctive forms and esthetic goals of deconstructivism, both in the exhibition itself (which attempts to reinforce the connection by beginning with a smorgasbord of Constructivist paintings and sculpture drawn from the museum's collections) and in the catalog essay. Yet even more revealing than this alleged precursor is

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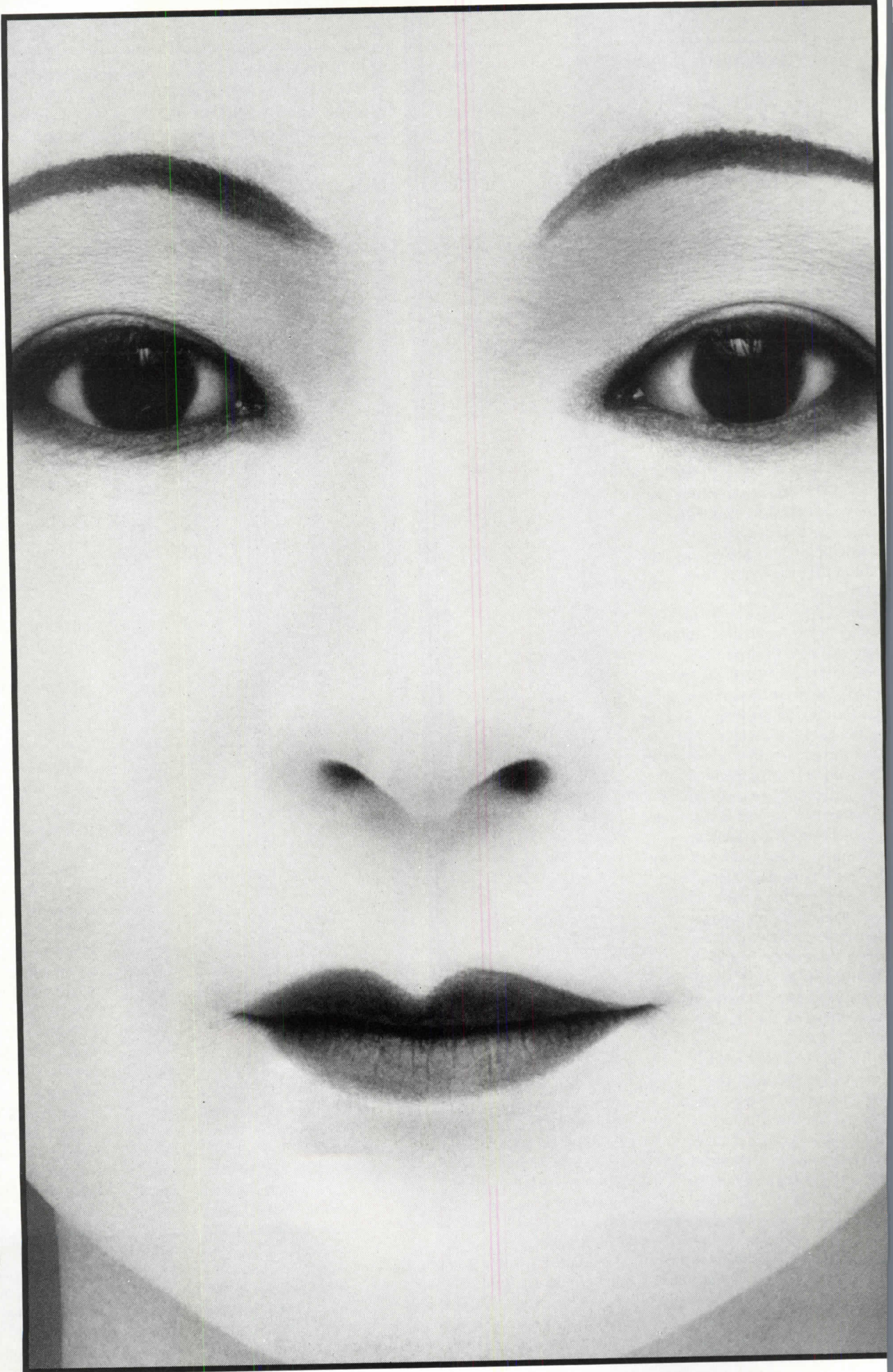
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"The dream has become a kind of nightmare."—Mark Wigley, from the exhibition catalog

Johnson's observation about the difference between the spirit of Modernism and the spirit of deconstructivism. "The contrast is," he writes, appropriating a striking phrase from a younger colleague, "between perfection and violated perfection." Please note the choice of words: the "perfection" he has in mind is not "missed" or "unattained" or "half-realized" but *violated*. The lurid overtones of violence and corruption are intentional; they are, in fact, central to the *ethos* of deconstructive architecture.

This becomes painfully clear when we turn to the catalog essay and commentaries on individual projects, both of which were written by Mark Wigley, a lecturer at Princeton University and associate curator of the exhibition. "Disturb," "torture," "interrogate," "contaminate," "infect": these are the words he favors to explain and to *praise* deconstructivist architecture. In the projects on view in this exhibition, he tells us proudly, the "dream of pure form has been disturbed. Form has become contaminated. The dream has become a kind of nightmare."

What makes these projects deconstructivist, according to Wigley, is their ability "to disturb our thinking about form," in particular, their ability to "disturb" or undermine our taken-for-granted suppositions about the values of traditional architectural order and unity. "Architecture is a conservative discipline," he notes sadly near the beginning of his essay: stability, regularity, order, intelligibility, commodiousness—these are prime virtues for traditional architecture. "Deconstructivism" changes all that by the simple expedient of disparaging traditional architectural values and championing their opposites.

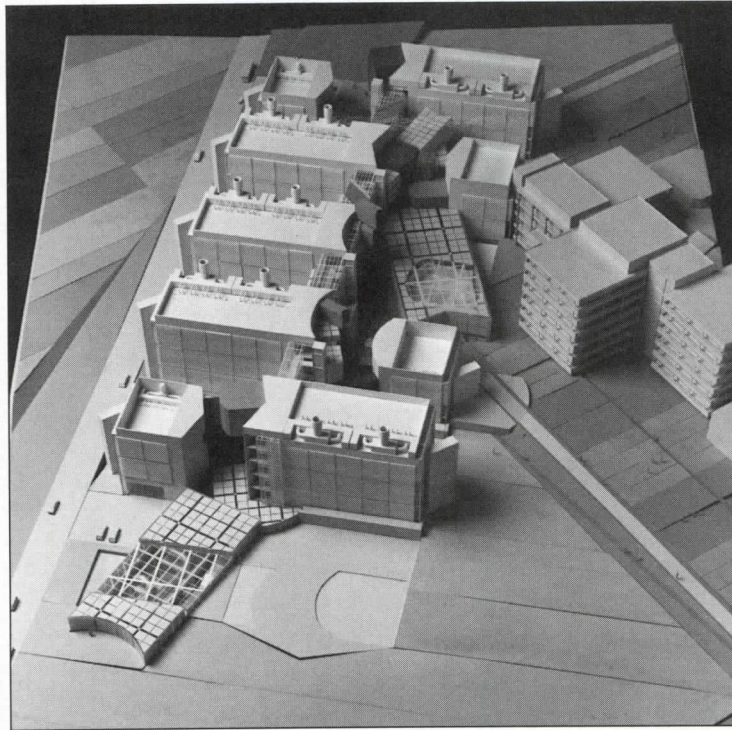
Wigley denies that deconstructivist architecture derives from "the mode of

contemporary philosophy known as 'deconstruction,'" but this is disingenuous. His own presentation is nothing but a tapestry of deconstructivist clichés, beginning with the contentions (endlessly repeated in the academy these days) that (1) everything is a kind of text to

within, the seemingly perfect form confesses its crime, its imperfection." In one particularly bizarre passage, Wigley combines this outlandish talk with psychoanalysis to produce an image that borders on the surreal: "The deconstructivist puts the pure

architectural theory and practice, and does so not by offering an alternative but by exaggerating and making overt certain tensions that are said to lurk unrecognized in the tradition of Modernism. It is in this sense that it can be said to "violate" perfection, subverting it by exposing its inherent (albeit heretofore unacknowledged) "corruption" and "contamination," and locating "the inherent dilemmas within buildings." Writing about The Peak, Zaha Hadid's 1982 Hong Kong resort, for example, Wigley observes that "the club is stretched between the emptiness of the void and the density of the underground solids, domains normally excluded from modern architecture but found within it by pushing Modernism to its limits, forcing it apart. In this way, the pleasure palace, the hedonist resort, is located in the twisted center of modern purity."

Of course, what deconstructivist architecture offers is not so much a critique as a caricature of Modernism. For one thing, while it is certainly true that a good deal of Modernist architecture strove for an abstract formal perfection, its emphasis on form was anchored by its concern with function. Moreover, as Wigley notes, what is really at issue is not Modernism's pretensions to formal perfection but its support of established culture. "What is being disturbed [by deconstructivist architecture]," he writes, "is a set of deeply entrenched cultural assumptions which underlie a certain view of architecture, assumptions about order, harmony, stability, and unity." That is to say, what is being "disturbed" is a commitment to the established conventions of Western society and culture, including an allegiance to values like order, harmony, stability, and unity. And this brings us to the deeper



Dick Frank

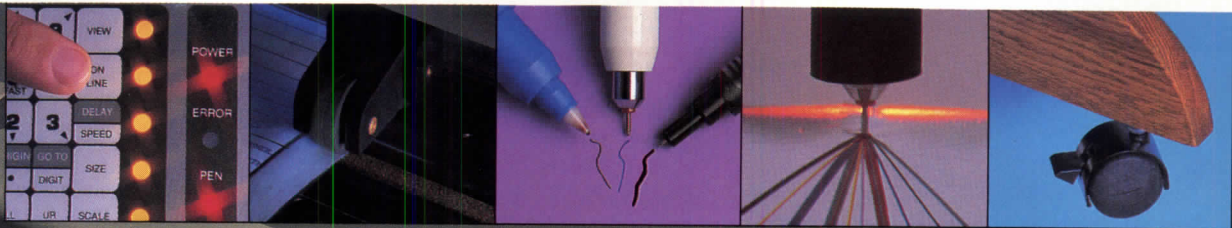
Model of Biocenter for the University of Frankfurt, Frankfurt am Main, Federal Republic of Germany (project), 1987. Eisenman Robertson Architects—Peter Eisenman, partner-in-charge.

be deciphered and that (2) the ostensible meaning of every text contains the seeds of its own unraveling.

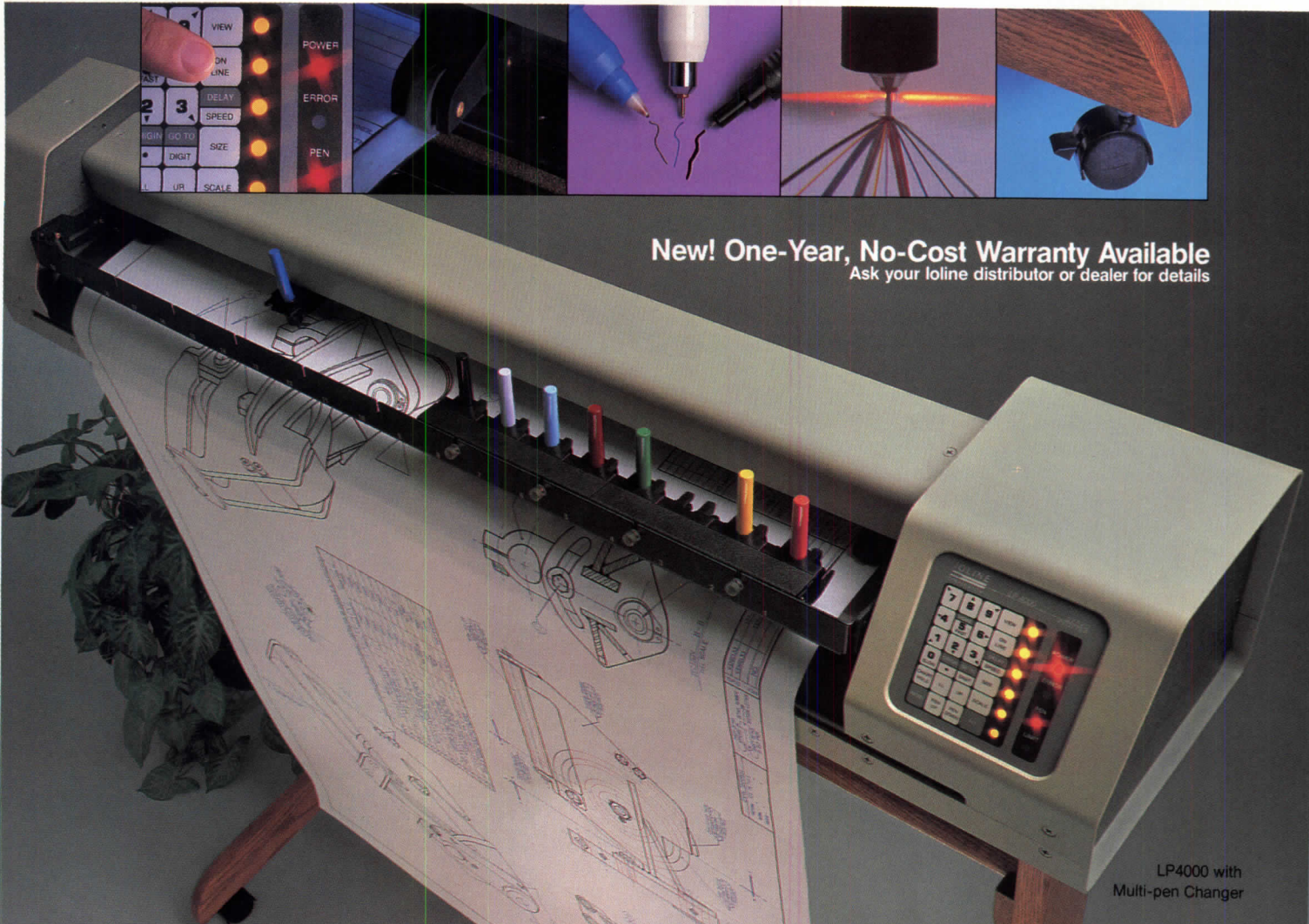
Then, too, the rhetorical *style* of Wigley's presentation closely mimics the provocative antics of literary deconstruction. "It is," he muses, "as if some kind of parasite has infected the form and distorted it from inside." Hence, the projects on view are said to "reopen the wound" that Russian Constructivism had inflicted on the tradition but that had healed during the reign of Modernism. We also learn that "perfection is secretly monstrous. Tortured from

forms of the architectural tradition on the couch and identifies the symptoms of a repressed impurity. The impurity is drawn to the surface by a combination of gentle coaxing and violent torture: the form is interrogated." And on and on. To read Wigley, one would think that architecture was primarily a form of pathology, though for some reason the most plausible diagnosis—some form of infantile rage—is never mentioned.

The basic idea behind this overcharged verbiage is that deconstructivist architecture undermines Modernist



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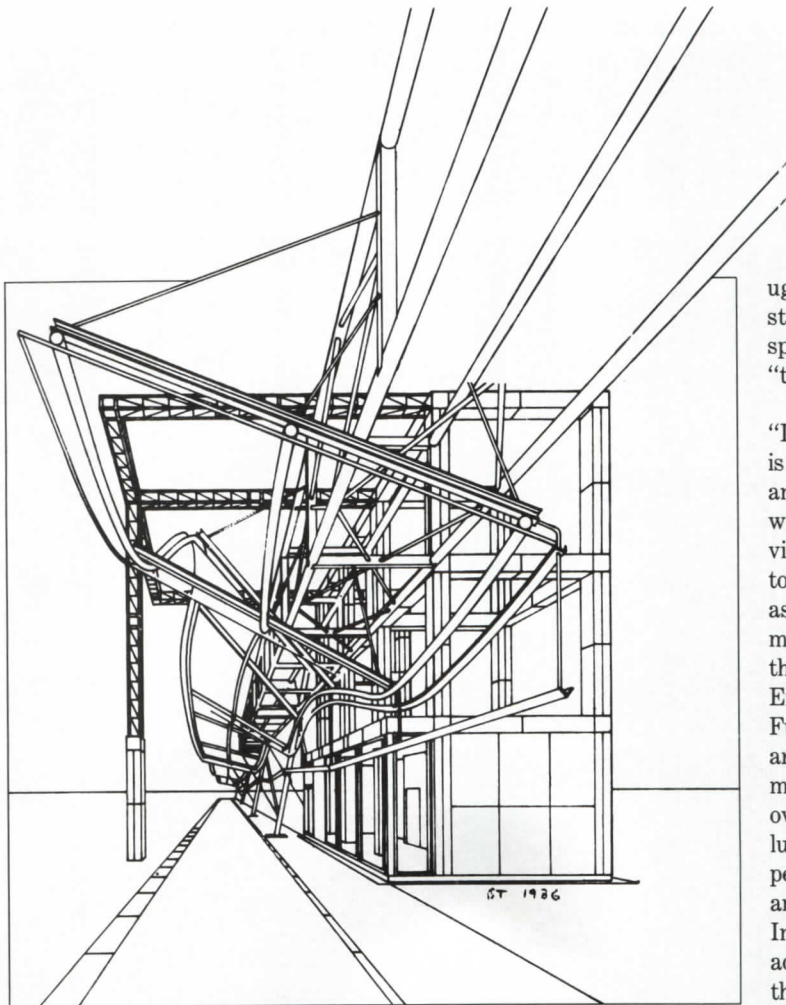
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(perhaps we should say, the “repressed”?) reason that so much is made of the Russian avant-garde by Johnson, Wigley, and company. For in the Russian avant-garde we see one of the most dramatic instances of the conflation of art and radical politics in recent times, one that serves well as a model for the revolutionary, subversive rhetoric of deconstructive architecture.

But is it anything more than rhetoric? Discussing Daniel Libeskind’s 1987 City Edge project in Berlin, Wigley asserts that the structure—a mammoth elevated bar—by being angled up off the ground “subverts the logic of the wall.” “By dismembering the wall,” he continues, “traditional thinking about structure is also broken down.” It is worth pausing to consider these statements for a moment. They are wholly typical of Wigley’s “analysis.” But in what sense is traditional thinking about structure “broken down” by the eccentricities of this project? How is the logic of the wall “subverted”? (What indeed is the “logic” of a wall?) Is such talk anything more than sophistic blather? The answer, alas, is no. Wigley, like so many of his deconstructivist confreres, pretends that simply *asserting* something makes it so: as if a couple of quirky, asymmetrical buildings and a dose of obscure theorizing really undermined anything except the credibility of their proponents. In the *Critique of Judgment* Kant rightly observed that “the chief point” of architecture is “a certain *use* of the artistic object.” For deconstructivism, on the other hand, the chief point of architecture is to provide an occasion for rhetorical excess.

We thus come to one of the great ironies of deconstructivist theory: though it makes a tremendous show of exposing the obsession with purity and perfection that were ingredients



Folly L7 and north-south gallery, partial deviation; Parc de La Villette, Paris (in construction). Bernard Tschumi, Architect, with Jean François Erhel.

in some forms of Modernism, it is itself an architecture that happens mostly in the head, not on the ground; it presupposes an exceedingly intellectualized—not to say intellectual—view of architecture, and it is precisely this airy theorizing that licenses its more outlandish claims. Untethered by anything so pedestrian as everyday experience, the champions of deconstructive architecture can pretend that architecture is really about “interrogating form,” subverting “the logic of the wall,” etc., not about building appropriate, serviceable buildings.

This inveterate intellectualism also helps explain deconstructivism’s blindness to its own banality. Wigley writes that deconstructivist architecture “produces a feeling of unease, of disquiet, because it challenges that sense of stable, coherent identity that we associate with pure form.” He presents this as

if it were some stunningly novel discovery. But the only thing new about it is the idea that producing the feeling of unease and disquiet should be the aim of architecture. In Geoffrey Scott’s classic 1914 monograph *The Architecture of Humanism*, for example, the possibility that there might be buildings that “suggest the idea of instability, the idea of collapse, the idea of restriction, and so forth” is readily admitted. And Scott cheerfully proceeds to note that, confronted with such buildings, “every spectator will judge [them] ugly, and experience a certain discomfort from their presence.” But he assumed, simple soul that he was, that the experience of ugliness and discomfort were compelling arguments *against* a building, that no one would willingly choose to design or inhabit a building that inspired such feelings. The deconstructivists teach otherwise. Discomfort and

ugliness are their acknowledged stock in trade—except that they speak not of ugliness but of “torturing form” and so on.

The hard truth is, “Deconstructivist Architecture” is approximately 99 parts hype and 1 part achievement. I doubt whether any of the projects on view can be said to measure up to the subversive ideal identified as the goal of deconstructivism, much as some of them—one thinks especially of Peter Eisenman’s contribution—try. Furthermore, whatever architectural interest the projects may claim is completely overshadowed by the tortuous lucubrations of Mark Wigley—pedantry set in motion, abetted and applauded by Philip Johnson. Indeed, a desire for truth in advertising makes one wish that this exhibition had been titled “Philip Johnson’s revenge,” for that is what “Deconstructivist Architecture” is finally all about. Revenge for what? Above all, perhaps, for being taken seriously. One has long had the sense that Johnson, the *doyen* of Postmodernist camp, has delighted in foisting off on a credulous public ever more outrageous architectural pranks. The movement from a skyscraper adorned with a Chippendale top to a building resembling a monstrously overgrown lipstick canister to the pretentious, deliberately convoluted projects and theories displayed in this exhibition constitutes a perfectly logical devolution. And when put in the context of Johnson’s origins as a disciple of Mies van der Rohe and champion of classical Modernism, the chronicle assumes the proportions of a farce. No doubt there is a ghastly humor to it all—especially if one dispenses with anything so cumbersome as esthetic principles. “The dream,” as this latest installment of Philip Johnson’s architectural parody demonstrates, has indeed become a kind of nightmare.

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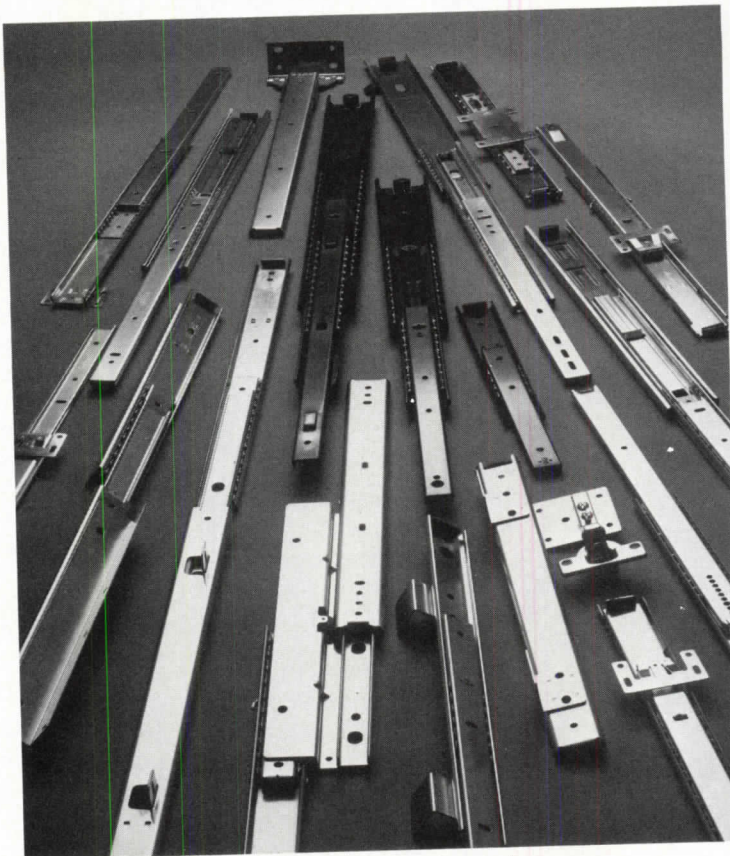
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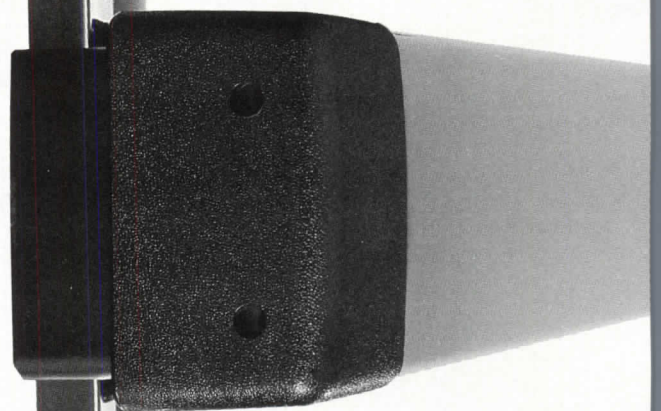
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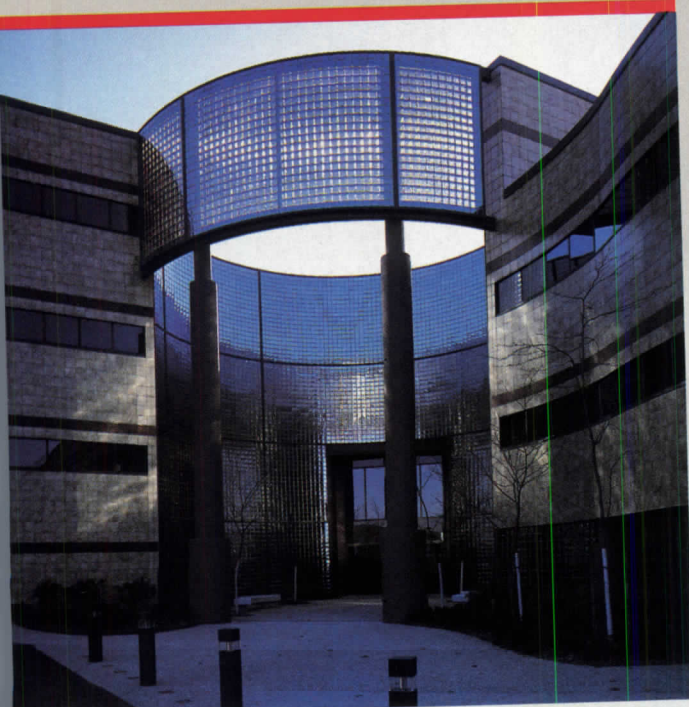
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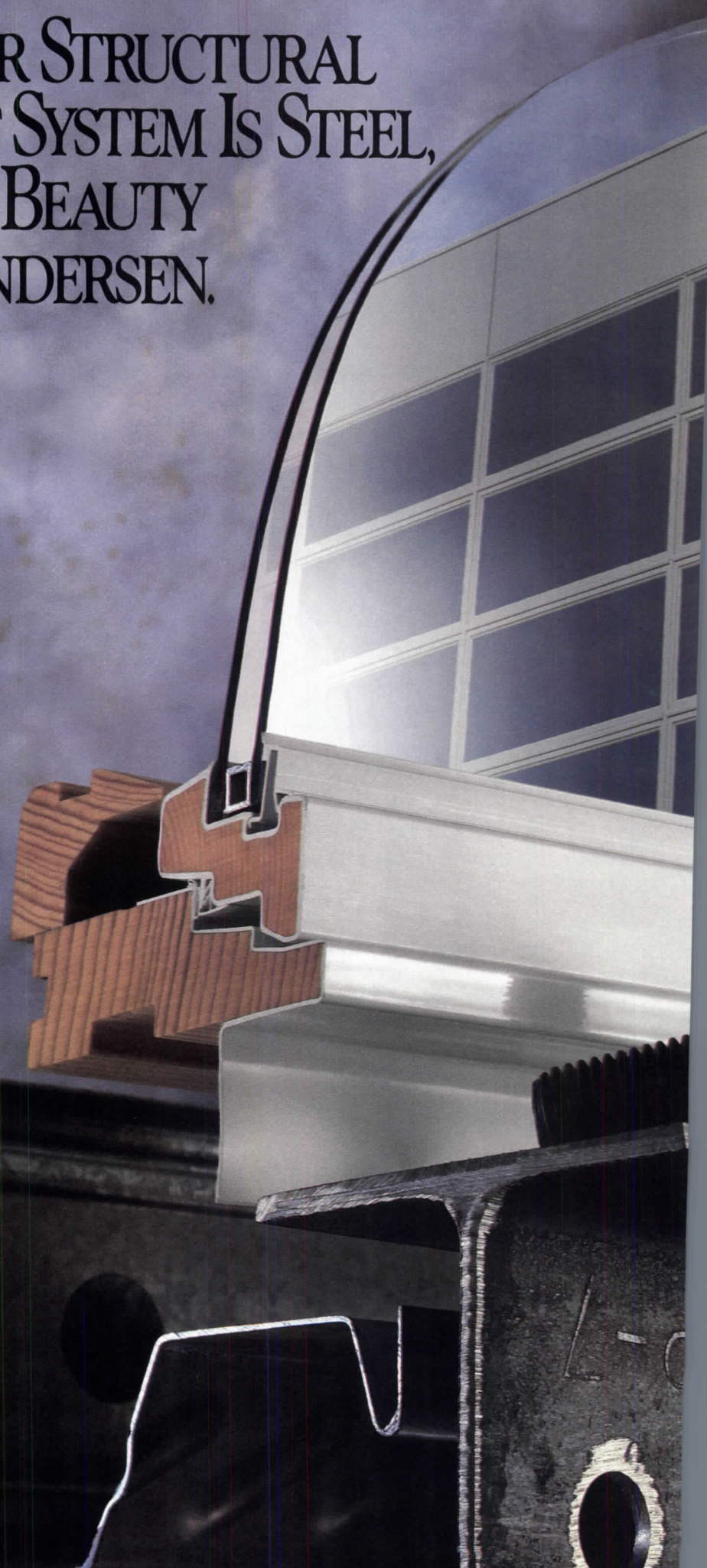
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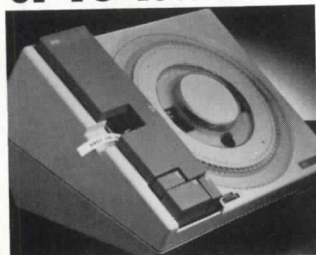


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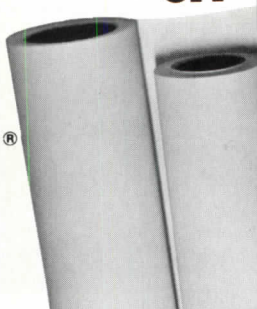
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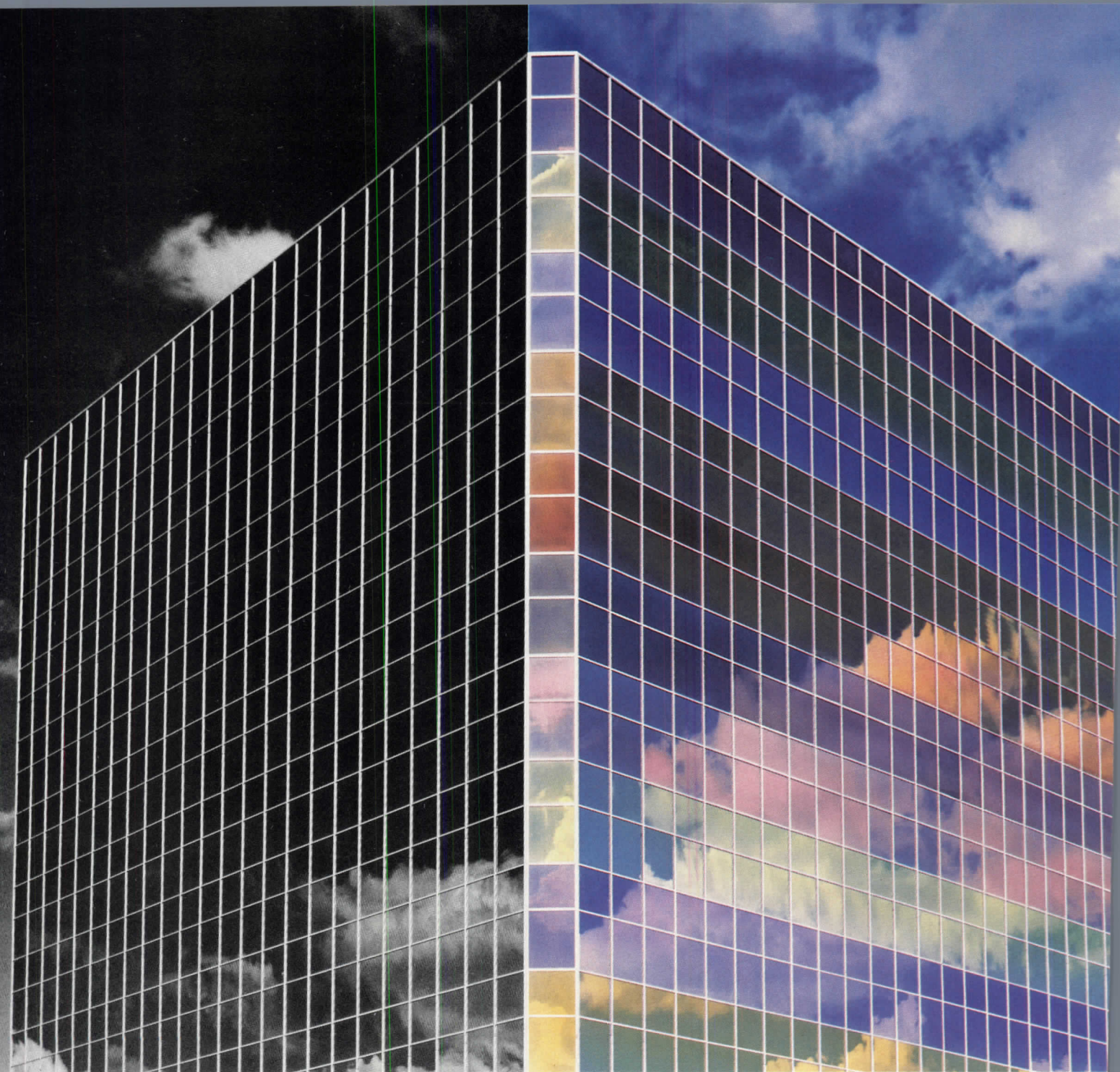
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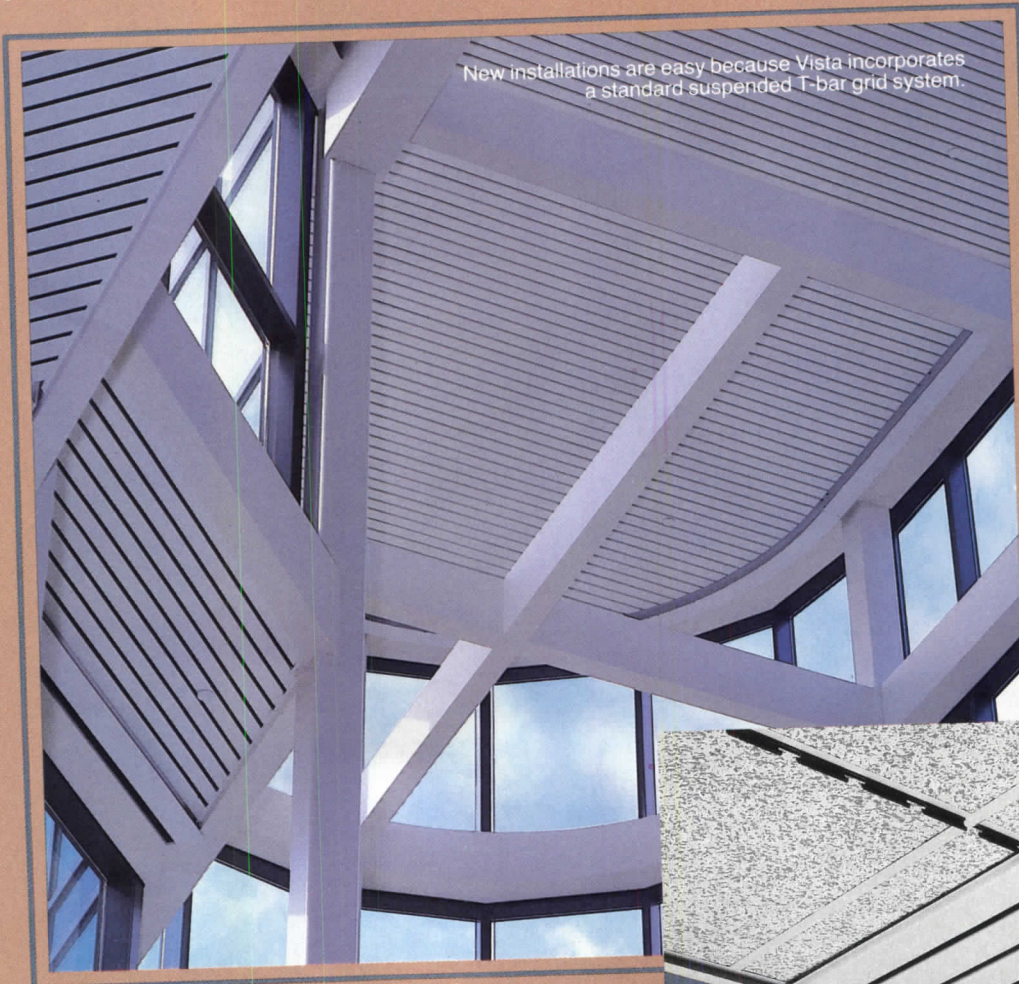
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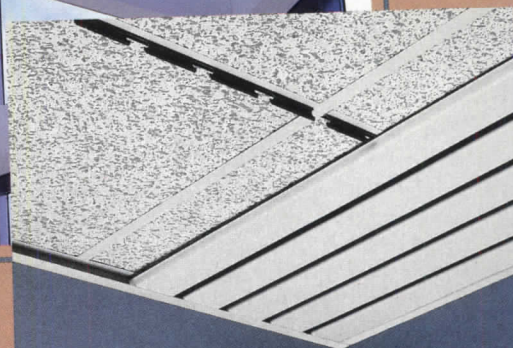


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In this issue

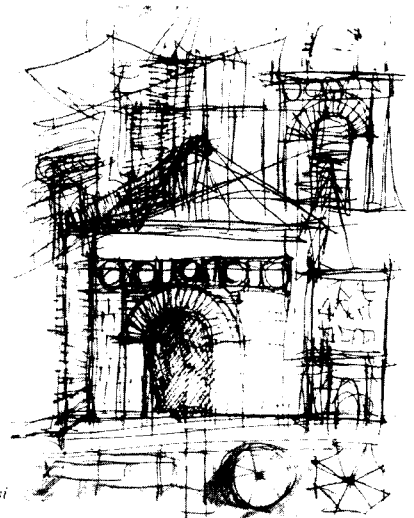
Though complexity and contradiction remain touchstones of value in the eyes of many contemporary architects, the virtues of simplicity and affirmation are never out of sight. No designer of international stature has applied himself to the study of basic form more assiduously than Aldo Rossi—and the work of no contemporary architect offers more compelling evidence that the pursuit of simple archetypes is anything but simplistic or unambitious. “While I may talk about a school, a cemetery, a theater,” he wrote in his autobiography, “it is more correct to say that I talk about life, death, imagination.” For nearly two decades, Rossi’s embodiment of these lofty ideas has rarely taken the shape of a built building, though he has expressed himself eloquently through other media, such as the fanciful cityscape sketched for our cover and the historical vignette below. Now, however, a surge of architectural commissions has enabled Rossi to translate concept into construction. Turn the page for a substantial portfolio of the latest results.

A different brand of simplicity prevails in the opera house Hardy Holzman Pfeiffer Associates designed for an idyllic setting in upstate New York (see pages 90-93). With a light touch and modest means appropriate to site and budget, the architect created a midsummer night’s dream of an open-air theater.

Anybody who’s helped a toy-box master builder stack blocks on the nursery floor knows that “childlike” simplicity can be a good deal more complicated than it appears. Too often, though, grownup attempts to evoke youthful imaginings fall flat. A refreshing exception is the expansion of a school in Atlanta (pages 94-99). Lord & Sargent’s “Kindergothic” design makes architecture seem like child’s play.

Architect Daniel Solomon has applied his mature perspective to the rediscovery of basics in a series of projects for multifamily housing, the topic of this month’s Building Types Study (pages 100-107).

The three examples presented here bring back the urban grid amid suburban sprawl. What could be more elementary?



Study of an Etruscan arch in Perugia, by Aldo Rossi

Tempus Rossi

Twenty-two years after the first edition of his now canonical book *The Architecture of the City*, and with some 20 built projects to his credit, Aldo Rossi remains elusive. Claimed by Postmodernists and Modernists alike as one of their own, the architect-artist escapes any simplistic definitions of style—despite obvious debts to the formal rigor of French visionary Etienne-Louis Boullée (whose essay on the sublime aspect of architecture Rossi translated into Italian) and the Surrealist landscapes of painter Giorgio De Chirico. Rossi the man, like his work, is hard to pin down. His Milan office, though only a few blocks from the cathedral at the heart of the old city, is located in a byway tucked between two busy arteries. Only a discreet “A. Rossi,” printed alongside one of many buzzers set into a stone facade, indicates the architect’s presence in the palazzo, and one might easily overlook the modest label in a dimly lit fourth-floor corridor that signals arrival at Rossi’s “Studio di Architettura.” Inside, framed drawings and oil paintings—mostly from the architect’s own hand—fill the walls and rest in stacks on the floor alongside heavy-laden bookshelves and a clutter of curios; the effect suggests an outgrown apartment rather than what is, in fact, a professional workplace whose staff currently manages major commissions on three continents. The domestic atmosphere pervades even the drafting room, whose three regular occupants stretch from their drawing boards to answer the telephone with a laconic “Pronto” or “Si,” as if reluctant to betray the office’s existence to any accidental caller.

Rossi’s disregard for standard office protocol in no way diminishes the seriousness with which he pursues his practice. Rather, his preference for maintaining a low public profile and his habit of integrating former students into his extended professional family are part of a deliberate attempt to recreate a turn-of-the-century atelier, where all work is subject to the master’s close scrutiny. But now that Rossi has overcome the hindrances of being dismissed by potential clients as an ivory-tower academic, and is receiving an unprecedented influx of commissions, he must struggle with his mode of practice in much the same way that he has struggled with his formal principles in the 29 years since he graduated from the Milan Politecnico.

“I want to find the right way to realize good architecture,” is how Rossi recently summarized his intentions, a goal that came to him relatively late in his formal training. When Rossi entered the Politecnico in 1949, he had no particular architectural aspirations. Instead, he envisioned himself working in the cinema, following the lead of many Italian directors of the period who also happened to be architects. Although Rossi admired the filmmaker’s ability to document his vision in a fleeting succession of scenes, this vocation failed to match the allure of the architect’s capacity for recording impressions in a single, frozen frame. As it turned out, Rossi never really abandoned his cinematographic approach but transformed it into a concern with a larger

Long known for the vision depicted in his drawings and writings, Aldo Rossi has recently assembled an equally impressive portfolio of built work. Eight years in the making, the projects shown on these pages transform the classic landscape of his native Italy.

everchanging picture of architecture, the city. As both a general inspiration and a proving ground for specific close-up imagery, this interest initially drew Rossi toward urban theory. In the early 1960s, he assisted his mentor Carlo Aymonino at the University of Architecture in Venice, where Rossi also continued the personal research that culminated *The Architecture of the City*, published in 1966.

The substance of Rossi’s ideas was gradually disseminated in studios around the world by the author himself during teaching stints in Milan, Zurich, New York City, and Buenos Aires. In 1981, the year before Rossi’s book was translated into English, excerpts from notebooks he kept over a 10-year period were published in the U. S. as *A Scientific Autobiography*. Atypical of its genre, the book is disappointingly lacking in personal revelations. It reads like a diary of the architect’s visual impressions, which, absent any chronological order, circuitously

outline Rossi’s innermost thoughts about his profession. One rare biographical episode does stand out—Rossi’s account of a serious car accident he survived in April 1971. After the crash, he recalled, lying immobilized in a hospital bed, and painfully aware of his bones and their displacement, “I saw the structure of the body as a series of fractures to be reassembled.” Through a process of association, the experience confirmed his theory of architecture as a sum of discrete elements that must be assembled into a rational framework—theory which, the following summer, became the metaphorical basis for Rossi’s and Gianni Braghieri’s joint entry in a design competition for the San Cataldo Cemetery in Modena. Their winning scheme consisted of an enclosed columbarium surrounding a pyramidal group of ossuaries, which led to a mass-grave pit with a chimneylike



Rossi’s Momento pocketwatch, made by Alessi

cap, a startlingly frank assessment of the program as a city for the dead. (With appropriate irony, the project re-used several formal elements—such as long arcades of flat concrete “columns”—that had figured prominently in Rossi’s earlier design of the Gallarate 2 housing complex, built in Milan.) Modena was a watershed not only because it seemed to embody symbolic resolution to an incident that caused Rossi’s “youth to reach its end,” but also because it set forth the esthetic building blocks of his subsequent oeuvre.

Rossi has remained remarkably faithful to the vocabulary of forms he established at Modena and in other early designs—cubes, pyramids, and cones interconnected by loggias or galleries and topped by barrel vaults, cupolas, or gables—as if in their recombination he will discover something that has previously eluded him. Rossi explained his urge to remake his own project in the *Autobiography*: “In my projects repetition, collage, the displacement of an element from one design to another, always places me before another potential project which I would like to do, but which is also a memory of some other thing.” As a continuously expanding set, Rossi’s projects are incarnations of

his montagelike sketches, which in their own way rework familiar themes by layering them onto other imagined motifs and the actual historic fabric of the city. It is subtle permutations from project to project that become the focus of this endeavor, for even the slightest changes supply a means to measure the passage of time. Rossi's lifelong obsession with time—whether protracted in a film or condensed into the architectural equivalent of a movie still—is evidenced by the clocks that are the sole adornment to many of his buildings (below) and, at a different scale, by his recent design of a watch for the Alessi company (opposite). But Rossi does not try to stop the clock in a futile search for "perfect buildings for perfect people," as one critic claimed. The architect tempers his predilection for self-reference with a willing submission to the unforeseeable—the builder's skill, modifications made by the user, and, of course, changes that accrue over time.

The passage of time has also given observers a chance to accustom their eyes to Rossi's esthetic, and for the initial shocks of the starkly evocative Gallarate housing and Modena cemetery to fade. Rossi credits the ascendancy of Postmodernism, in part, for raising polemical consciousness "because of its unorthodox vision of Modern architecture," and for redirecting the political spotlight that previously cast a harsh glare on his own work. As an Italian, Rossi is no stranger to politics in the architectural arena (the dependency of his Renaissance predecessors on aristocratic patrons was merely one phase of an extended interrelationship that has persisted—through shifts in political climate—to the present). Unsurprisingly, the perceived absolutism of Rossi's highly controlled architecture, and his avowed sympathy for Stalinist architecture ("I loved everything about Russia," he wrote in one of his notebooks after a trip to the Soviet Union as an exchange student), have caused some critics to brand him a fascist. Despite Rossi's insistence that his admiration for the compositions of Soviet buildings did not extend to their propagandistic messages, the politically motivated criticism of his work continued. Rossi's advocates countered by pointing to the substance of writings and drawings where he explored the eccentricities of the built environment as much as its singularities: such complex observations, it was argued, did not reflect the mentality of a true totalitarian. No matter; Rossi's allegiance was unclear and his position difficult to categorize. His design practice suffered the consequences.

Happily, as Rossi remarks, that is all behind him now: "In any case, there is a change in the effect politics has on architecture. Ten years ago, if you were not linked to a political party you could not build. You could be a very good architect, but the parties always gave work to their own people. Now that is different." To some extent, shifting political tides do account for the unprecedented demand in Italy for Rossi's skills, though his growing stature abroad certainly helped to secure his position at home, where a slew of commissions he received in the early 1980s

is finally reaching completion. As a group, the five projects shown on these pages form a portfolio of built work that finally measures up to Rossi's writings and drawings. Compared individually, these buildings demonstrate how the 57-year-old architect continues to be inspired by his own work. Rossi's new civic center in Perugia (pages 78-79), a town hall in Borgoricco (pages 80-83), and a shopping center in Parma (pages 84-85) are all particularly potent projects in Rossi's eyes because of their sympathetic links with their respective cities. In Perugia, the progressive construction of the three-part complex documents the development of the city itself—only this time Rossi's is the invisible hand behind the real-life enactment of *The Architecture of the City*. Rossi's response to a request from the Turin-based clothing manufacturer GFT for corporate headquarters adapting traditional motifs to modern demands is already, as a compilation of urban elements, one of the Piedmontese capital's major

monuments (pages 86-89). Fittingly, perhaps, it is the smallest and most private of the five projects, a family funerary chapel and tomb (pages 76-77), that reveals the most about Rossi. The chapel's brick exterior is bare, save for pieces of carved stone that band its rectangular head, like remnants of some Classical cornice. The fragments "represent the impossibility of repeating Classical standards, and the impossibility of living in a harmony that we can never perceive," the architect explains. Ultimately, the broken cornice hints at Rossi's misgivings about his own formalism—even if his esthetic is not nearly so radical as that of Boullée, who rejected any concept of functionalism. Boullée maintained that architecture is in the conception not the construction; Rossi now seems unwilling to sacrifice the latter for the former.

At last building on a scale

commensurate with his vision, Rossi has adhered to the same subject matter he pursued in his writings. As he stated in his *Autobiography*: "While I may talk about a school, a cemetery, a theater, it is more correct to say that I talk about life, death, imagination." Such themes are notoriously difficult to capture in built form, but Rossi is not easily deterred. One can only hope that the reason for the flurry of activity in his Milan office and a recently opened outpost in New York (currently working on the University of Miami's School of Architecture, the first Rossi project in the U. S.) is a respect for the principles that underlie his design, rather than a search for some trendy shapes to dress up next year's lineup of skyscrapers.

In June of this year, Rossi won out over two hundred German architects and a handful of other Europeans in an invited competition for the design of the Berlin Museum of National History. No one is more surprised and pleased by the outcome than Rossi himself, who assumed his entry would be judged "politically incorrect." On the contrary, it would seem that Rossi's elusiveness may at last have become an advantage, and greater successes are likely to follow. The time is right. *Karen D. Stein*



Palazzo Regionale, Perugia

© Paul Warchol photos

Funerary chapel Giussano, Italy

The funerary chapel and tomb that Aldo Rossi designed for the Molteni family sits like a serene rowhouse amid a northern Italian village cemetery. Composed of a rectangular prism of brick set atop a *pietra serena* plinth, the chapel is entered through a signature Rossi opening braced with a steel lintel. Inside, an approximately 20-foot-high screen of Roman aedicular motifs stands against an aqua-painted wall (opposite). Natural light admitted through louvers in the glass roof's steel trusses (which are hidden from view on the exterior by a parapet—see section right) envelop the wooden altarpiece in a blue haze. A cutout in the chapel floor, enclosed by railings, reveals the subterranean tomb, accessible via a narrow staircase descending alongside the chapel (at left in photo, bottom right). Encased in midnight-blue Brazilian marble, the dark chamber is used by family members for silent meditation and prayer.

Rossi's earlier design of an addition to the San Cataldo Cemetery in Modena and the recurrence of animal skeletons in his sketches are often cited as evidence of an apocalyptic bent. According to the architect, these morbid musings are an attempt to give tangible expression to the intangible. The elaborate wood gate is, for Rossi, a symbol of "the door between life and death." The broken Classical cornice projecting from the simple masonry exterior (bottom photos) is intended to remind visitors "that life itself is a fragment." *K. D. S.*

Owner:

Molteni family

Architect:

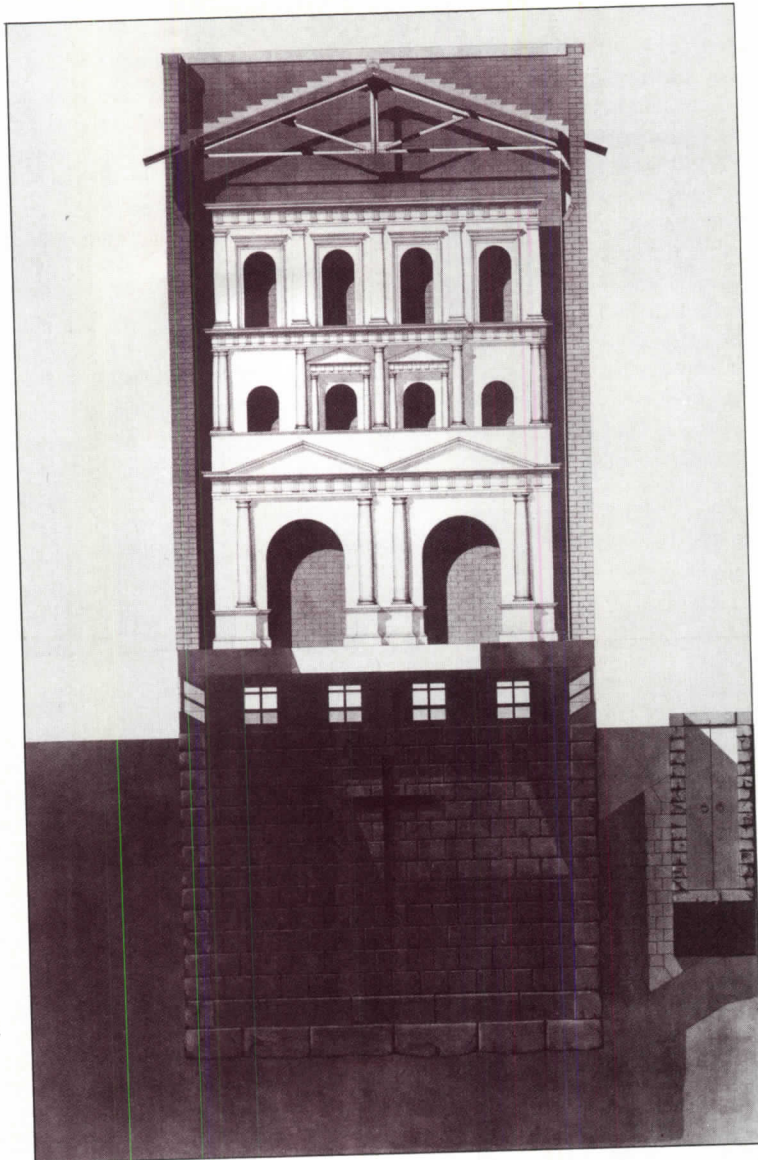
Aldo Rossi/Studio di Architettura with Chris Stead

Associate architect:

Giorgio Pogliani

General contractor:

Molteni & Co.



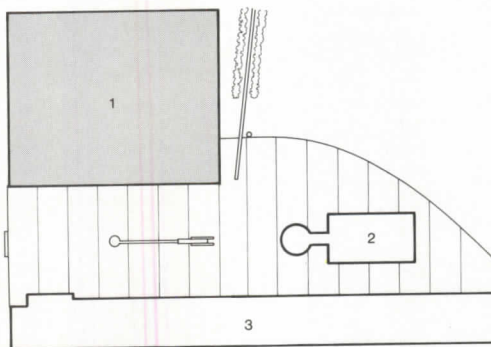
Rossi's interpretation of superimposed Tuscan Doric tabernacles, a giant retable, or altar panel, presides over the interior of the funerary chapel (opposite). Handmade by the Molteni furniture company's own craftsmen, the wooden portal is both a tribute to the company's founder and a symbolic gateway to the afterlife.



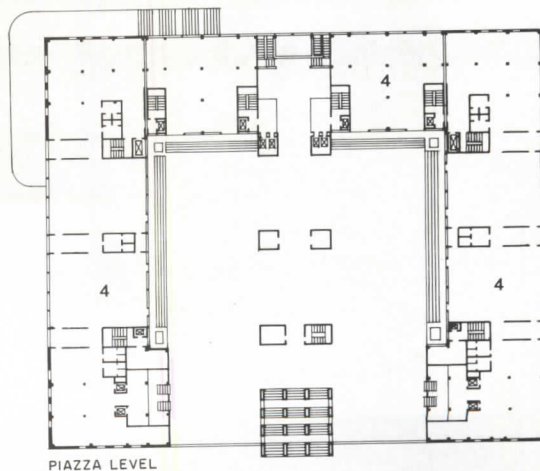


Civic Center Perugia

One of his largest projects to date, Aldo Rossi's scheme for Perugia's new civic center consists of the 300,000-square-foot Palazzo Regionale (below and opposite) facing a sloped piazza, and—as yet unfinished—a housing block and a theater with a conical entrance tower (site plan right). Located on the site of a former industrial complex in the Fontivegge



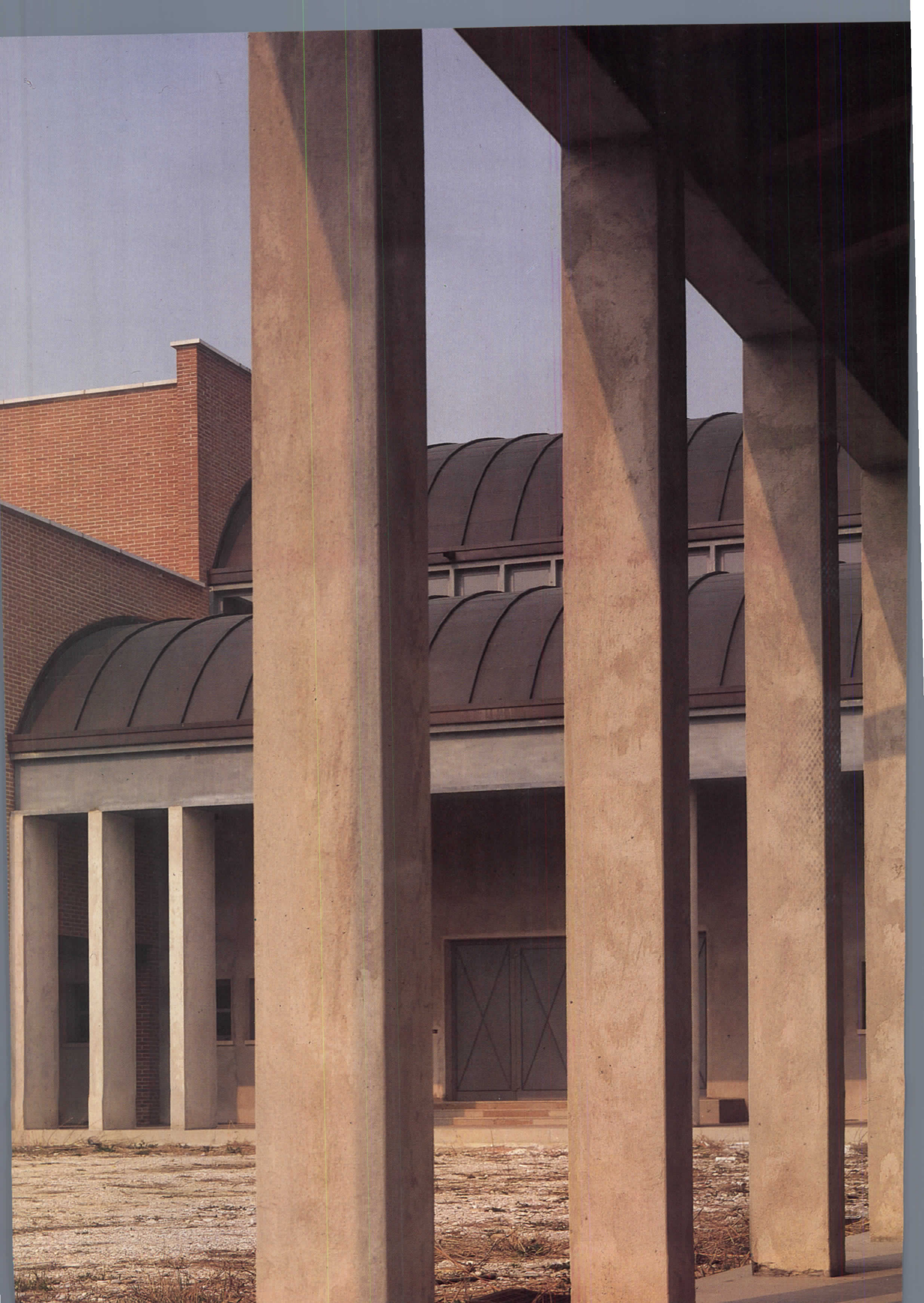
district, between the historic heart of the city and its postwar business center, Rossi's proposal for Umbria's capital integrates historic forms and building types with modern functions. A toplit galleria with a public arcade bisects the roughly square Palazzo Regionale, which contains shops at ground level and offices above. The rusticated housing block and the portal-like theater entrance will further link old and new, while the common base of all three segments will accommodate underground parking. *K. D. S.*



1. Palazzo Regionale
2. Theater (under construction)
3. Housing (under construction)
4. Offices/shops

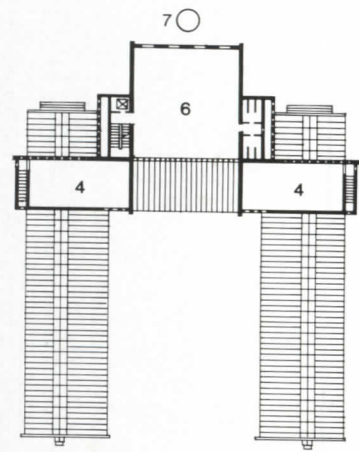
Owner:
City of Perugia
Architect:
Aldo Rossi/Studio di
Architettura with Gianni
Braghieri, Max Scheurer, and
Lele Geronzi



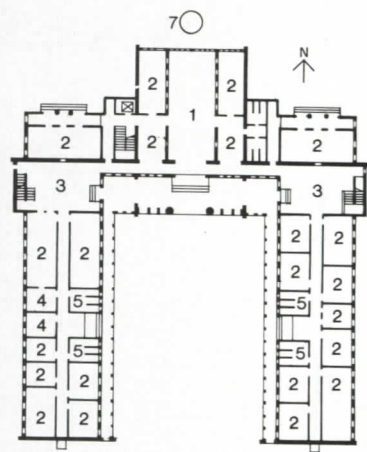


Town Hall Borgoricco

Borgoricco had no town hall until the local authorities commissioned Aldo Rossi to design them one—no *proper* town hall, that is, save for a modest suite of offices atop the village lending library. Situated on the outskirts of Mestre—the port that serves as gateway to the islands of Venice—Borgoricco is one of a string of Veneto hamlets neatly laid out according to axial Roman town planning principles; its north-south *cardo* and east-west *decumanus* seemingly extend to the horizon. Taking cues not only from ancient precepts but also from the typical regional villa plan, the 20,000-square-foot building has a south-facing courtyard set back along the *decumanus*. The building's copper-clad barrel-vaulted "head" (left) houses a library downstairs and a grand wood-spanned magistral meeting hall upstairs (bottom right). Adjoining wings, to be linked by a garden, house various other municipal functions. The welcoming form of the C-shaped front contrasts dramatically with the rear of the building, where the rigorous symmetry of the brick and concrete elements is ruled by an exhaust chimney (overleaf). Still incomplete, the town hall is being built in stages, owing to Borgoricco's limited coffers. After a hiatus, construction will resume next year, when *marmorino* (marble powder) will be applied to the front; the following year the town will have saved enough to finish and furnish the interior. At once under construction and abandoned, the building is, for now, a surreal symbol of Borgoricco's expansion. *K. D. S.*



SECOND FLOOR



FIRST FLOOR

- 1. Library
- 2. Office
- 3. Exhibition area
- 4. Archives
- 5. Lavatory/service
- 6. Meeting hall
- 7. Chimney

Owner:
Town of Borgoricco
Architect:
Aldo Rossi/Studio di Architettura
Associate architect:
Marino Zancanella





Centro Torri Shopping Center Parma

For his design of one of the largest shopping centers in northern Italy, Aldo Rossi conceived the idea of free-span interconnecting spaces with toplit galleries punctuated by 50-foot-high towers, which would act as markers amid Parma's flat terrain (axonometric below).

the ten brick towers announce the complex's name, "Centro Torri" (Italian for "Towers Center"), through hand-set yellow, blue, and white ceramic tiles. To further enhance the sculptural effect of his towers, Rossi hopes to spotlight them at night, "as at a



Although Rossi's client, the Cooperativa Emiliane, initially dismissed the towers as functionally superfluous, the consortium of agricultural producers was eventually swayed by the architect's innovative advertising strategy: the towers at the ends would be left unfinished on one side to serve as frames for enormous billboards and product mockups (above and opposite). The possibility for increased income was not lost on the consortium. Collectively,

cathedral." A new city monument, Centro Torri celebrates the rituals of commerce. *K. D. S.*

Owner:

Cooperativa Emiliane

Architect:

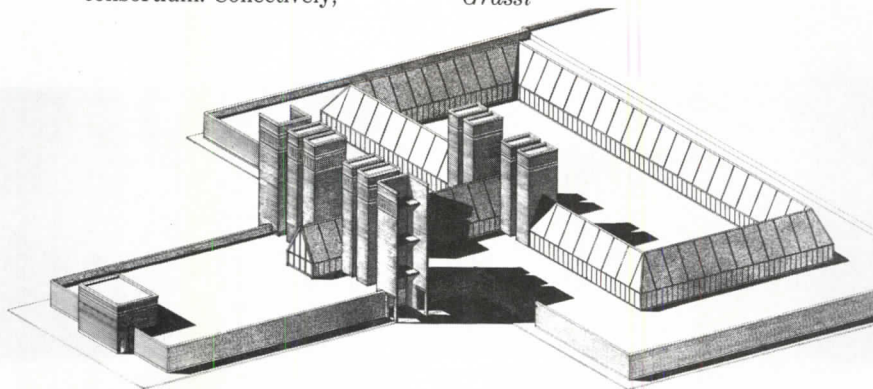
Aldo Rossi/Studio di Architettura with Gianni Braghieri

Associate architects:

Mauro Baracco, Paolo Digiuni

Engineers:

Italo Varacca, Ferdinando Grassi



CENTRO

NTRO TORRI TORRI

RI TORRI

TRO TORRI

Casa Aurora Turin

In 1984, the venerable apparel consortium Gruppo Finanziario Tessile (GFT), parent company to the designer labels of Giorgio Armani, Valentino, and Emanuel Ungaro, turned to Aldo Rossi to design its new headquarters adjacent to its manufacturing facility in Turin. Dedicated in June 1987, the 75,000-square-foot building, dubbed the Casa Aurora (loosely translated the House of Dawn), occupies a prominent city corner, which the architect marked (in a manner reminiscent of Le Corbusier's Villa Schwob) with a blank brick wall seemingly supported by two massive columns and a steel I-beam lintel. Behind the wall is the entrance to a bank, which leases ground-floor space. In keeping with the guarded nature of the fashion business, entrances to GFT offices are discreetly positioned behind smaller blank brick walls at both ends of the building (see plan on page 88).

Inspired by the arcaded avenues of downtown Turin, Rossi lined his building with narrow stone porticos framed in steel, giving them increased presence by extending the stone panels to the first-floor offices (right, opposite, and page 88). From afar, the tautly composed facades appear flat, but on closer inspection one appreciates the careful modulation of square windows inset into the stone arcade, the protruding sills of the fenestration above, and the flat-topped dormers—all of which enhance the play of light and shadow. The minimal material palette is reinforced by Rossi's sparing use of color, except for the bright green paint on the steel. "Every material has its own color," maintains Rossi. The architect's choice of green for the Casa Aurora was by no means arbitrary. He explains: "You see this color on many Italian factories, and since Turin is an industrial city it is an appropriate reference." *K. D. S.*

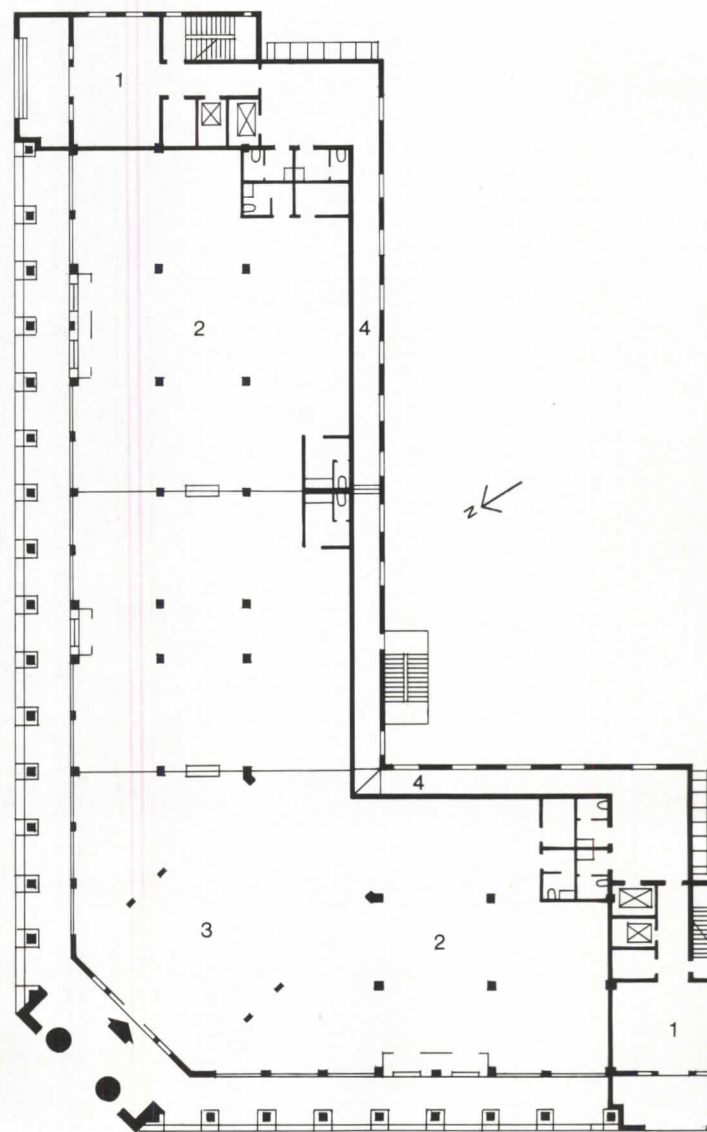


Turning the corner of Corso Emilia and Corso Giulio Cesare, GFT's new headquarters is connected by a pedestrian bridge to its manufacturing facility next door (at far left in photo top left). The stone and steel porticos along both streets are Rossi's version of the grander arcades that line the Piedmontese capital's piazzas.





Steel I-beams encase the Casa Aurora's stone colonnades like decorative brackets (left). Inside, in the double-height auditorium, a scaled-down version of the double-column motif echoes the exterior. The stage's brick "curtain/wall" can be used as a backdrop for



in-house fashion shows or, as shown here, a frame for Rossi's Teatro armchair, manufactured by the Molteni Company (pages 76-77).

1. Entrances to GFT offices
2. Showroom
3. Bank
4. Service corridor

Owner:

Gruppo Finanziario Tessile (GFT)

Architect:

Aldo Rossi/Studio di Architettura with Gianni Braghieri and Max Scheurer

Engineers:

Luigi Uva and Franco Marchesotti (structural)

General contractor:

Borini E Prono



For a summer opera house in the Catskill Mountains, an architect recognizes that his own art must defer to another, as well as to nature.

Christopher Little photos except as noted



One part of the outdoor lobby can be seen from the auditorium through screened side walls when rolling steel doors are opened (directly above). The sylvan milieu is not marred by unromantic adjuncts like automobiles, parked out of sight behind a berm across the road (aerial photo right). While most people saunter to the theater around

the pond, the handicapped have access to the building via a driveway on one side. The \$5-million construction budget covered a great deal of site work and updating of existing farm buildings, in addition to the theater itself.

Open-air opera

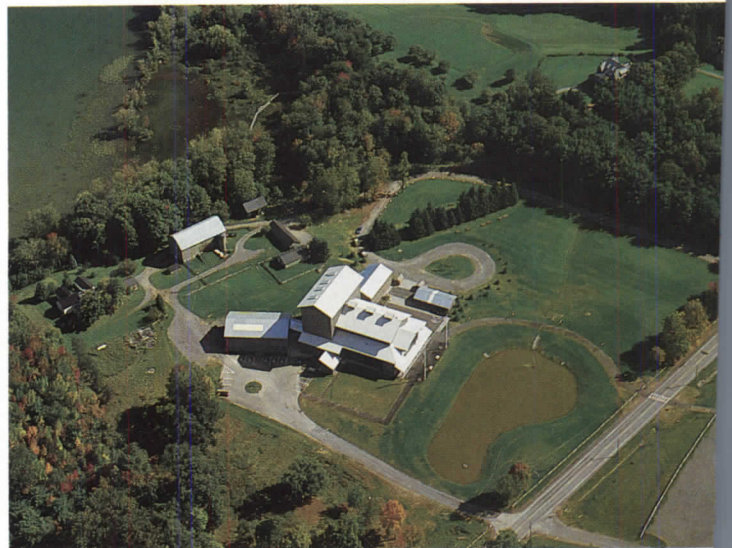
The functional program for summer theaters differs dramatically from that for the conventional city playhouse. Audiences have in mind a different cultural experience than they have in the winter—not artistically inferior, of course, but perhaps more relaxed and less self-conscious, more sensual and less intellectual.

While the Glimmerglass Opera Company, under the direction of Paul Kellogg, is not without ambition—its productions last year, its first, included Tchaikovsky's *Eugene Onegin* and Britten's *A Midsummer Night's Dream*—it seeks its model rather in the country beauties of England's Glyndebourne Opera than in the urban Covent Garden or Metropolitan operas. (Glimmerglass, by the way, was James Fenimore Cooper's name for Otsego Lake, which lies downhill from the new theater.)

For Glimmerglass's home in the Catskill Mountains, replacing its former quarters in a high-school auditorium, architect Hugh Hardy devised a modest steel-panel building that is exactly the size and shape it had to be and no more. The main body of the theater, with its tall, rather skinny fly space, contains only the needful theatrical components: a stage house and a 900-seat audience chamber with orchestra pit, plus some covered lobby space in case of rain. A wing angled off one corner accommodates scenery and deliveries, while a detached perpendicular wing on the other side accommodates dressing rooms (see aerial photograph below). A detached building, which already existed on the site, houses shops for making costumes and props.

In a sense, the theater is, in time-honored summer-music fashion, an open-air pavilion, its screened side walls giving the audience fresh air and views of the surrounding fields (lower left). But during performances, the hall is darkened by eight rolling 16- by 24-foot steel doors. In fact, the screened walls substitute for air-conditioning equipment: the building, intended only for three months of summer use, has neither heating nor cooling, but large fans in three cupolas draw fresh air through the screens and vent the auditorium when it is occupied.

On a sunny day, the outdoor lobby, with its expansive views, its magenta cosmos, and the shimmering pond in front, is the equal of more famous opera houses with their artificial manmade glories. And from time to time, horns and trumpets play fanfares on the loggia. *Grace Anderson*



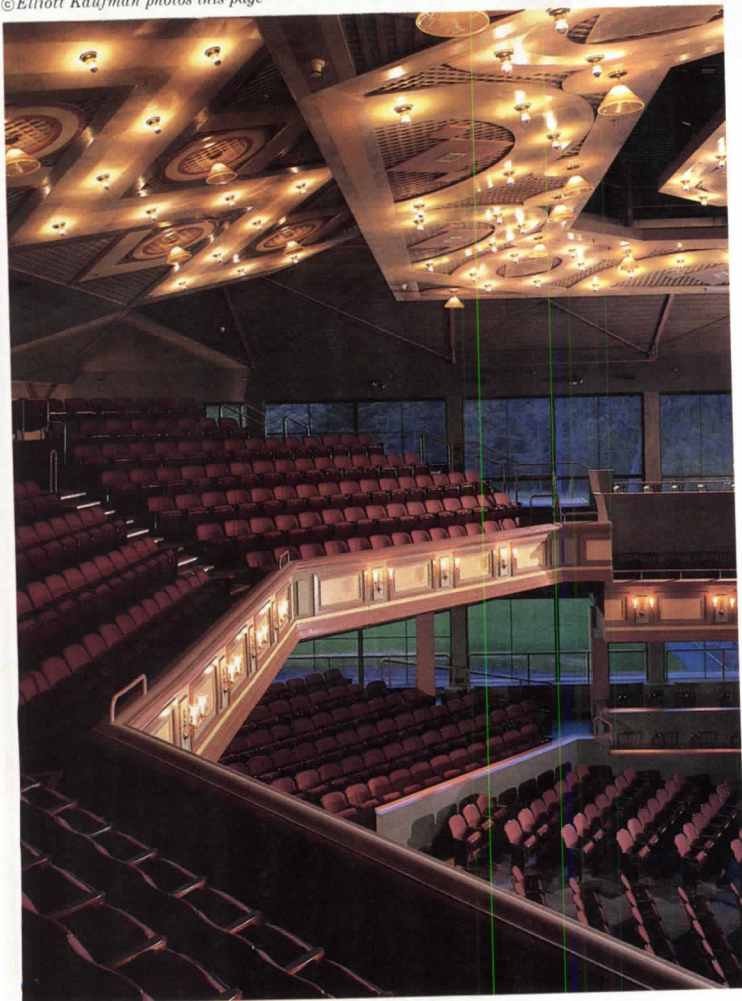
Alan Lincourt, courtesy Stetson-Harza

The Alice Busch
Opera Theater
Cooperstown, New York
Hardy Holzman Pfeiffer
Associates, Architects





©Elliott Kaufman photos this page



If gilded putti would seem out of place for a modest theater in the country, Hardy could not forget that this is, after all, an opera house. A sparkling pink and gray version of a more appropriate country quilt therefore ornaments the ceiling and balcony fascias. At the same time, seating in the parterre, the balconies, and the side "boxes" bends to meet the outside walls and suggest the traditional opera horseshoe. At the back corners of the house (opposite), steel-pipe stairs serving the balconies assume, in their modest way, the role of grand staircases for the audience at intermission.

However modest its size, though, no opera house can ignore acoustics. Acoustician Peter George points out that lateral reflected sound is relatively unimportant for opera acoustics, and thus the screen walls (bottom left) were acceptable, even though acoustically transparent (crickets and small animals outside can be heard inside). On the other hand, the ceiling does require sound-reflective surfaces. The "quilt" is not mounted as a flush ceiling, therefore, but rather its different parts, with hard-surfaced plywood backing the latticework, angle to reflect sound to the audience (at left bottom and opposite). Other reflective surfaces include the underside of the roof, whose pitches were dictated by acoustic needs, and angled plywood panels mounted beneath the balconies. The orchestra occupies a modified Bayreuth pit, which will hold 50 or 60 musicians (top left).

*The Alice Busch Opera Theater
Cooperstown, New York*

Owner:

Glimmerglass Opera Company

Architects:

Hardy Holzman Pfeiffer Associates—Hugh Hardy, principal-in-charge; Malcolm Holzman and Norman Pfeiffer, collaborative partners; Victor Gong, administrative partner; Don Lasker, Charles Gifford, project managers; Candace Renfro, Mark Tannin, project architects; James Akers, Stephen Pickard, Brian Wurst, design team; Edson Down,

specifications; Mark Tannin, construction administration; Albert J. Rotondi, site representative; Darlene Fridstein and Robin Lunz, interiors

Engineers:

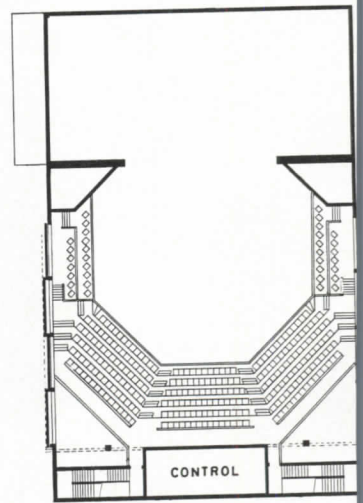
Purdy & Henderson (structural); Herbert Kunstadt, P. E. (mechanical); Stetson-Harza (civil)

Consultants:

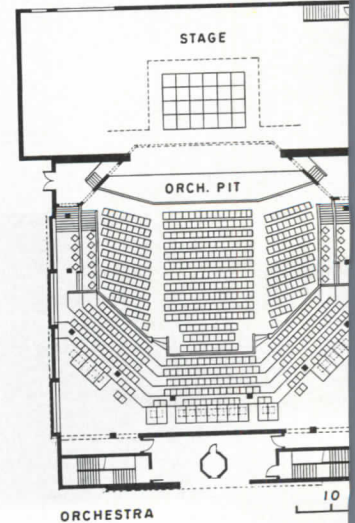
Peter George Associates (theater/acoustics); Shephard, Epstein and Hunter (landscape concept); Edwina von Gal (landscape realization)

General contractor:

B. S. McCarey Co., Inc.



BALCONY



ORCHESTRA



Building lessons

Life-size tectonic exhibits built into elementary-school additions might have been assembled with old favorites from a toybox—building blocks, Erector Sets, and Lego tiles.

To experience the "collection of playground pieces" Lord & Sargent have assembled in their additions to the Trinity School is to covet a child's sensibility fully open to its enchantments. But even a grownup can delight in the romance of a crystal-studded "stone" castle whose fairy-tale image merges effortlessly with steel and glass constructs as simple in line and vivid in color as a Saturday-morning cartoon. And only a grownup, perhaps, can appreciate the tact with which the designers have introduced architecture to the school curriculum. "We wanted to show how the building is put together," Terry Sargent explains, "and we wanted to make it fun." So load-bearing concrete masonry demonstrates at live-in scale the tried-and-true nursery technique of stacking blocks, while workaday steel sections with obvious joinings give curtain walls and such accessory components as stairs the clarity of Erector-Set models.

The pedagogic playfulness rests securely on the architectural inventiveness by which Lord & Sargent contrived to fit the school's ambitious space needs to an all but nonexistent site. When Trinity began operations some 30 years ago, it bought from the city of Atlanta a "surplus" two-story elementary school which it soon enlarged with two added classroom wings. The additions allowed the school to expand to a now-maintained enrollment of 500 preschool to sixth-grade students, but they also encroached on an already less-than-generous eight-acre campus, a sizable bite of which was swallowed up by a 40-foot-deep gorge that ripped through the property, isolating the school from the land opposite.

Understandably, when the administration decided that yet another—and much larger—addition was needed to provide space for enriched programs in music, art, and physical education, as well as an expanded library and media center, it not only jealously guarded its limited existing outdoor recreation space but proposed to increase it by arranging convenient access to the area cut off by the ravine.

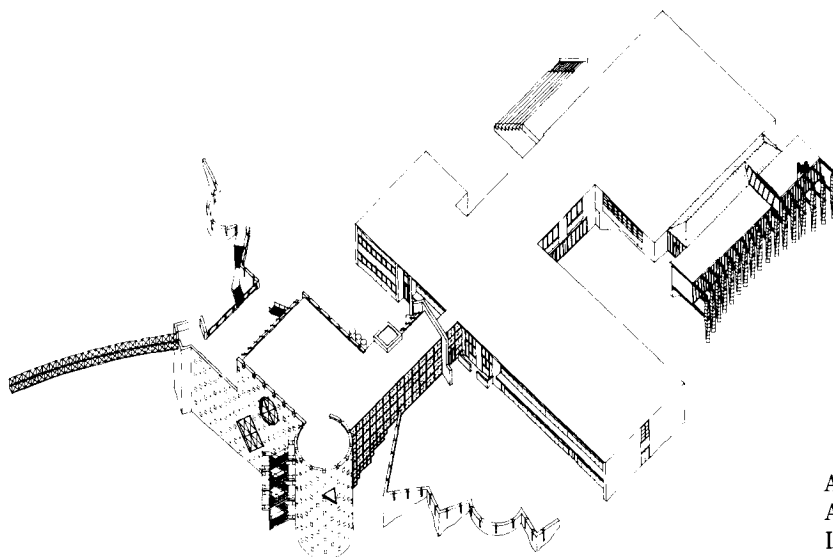
Nor was the school swayed by the architects' argument that the play yard harbored the only available sites capable of accommodating a "reasonable" building. Reasonable or no, it was the architects who were persuaded that the needed addition could after all occupy the lone plot remaining: the "unusable" gorge itself, into whose depths they have wedged a building that at some 20,500 square feet is well over half the size of the existing school.

(Moving administrative functions into a small front-porch addition eased the space budget by freeing former offices for other uses—and occasioned the stunning whimsy of an entry colonnade of skewed stacked cubes, shown on pages 98-99.)

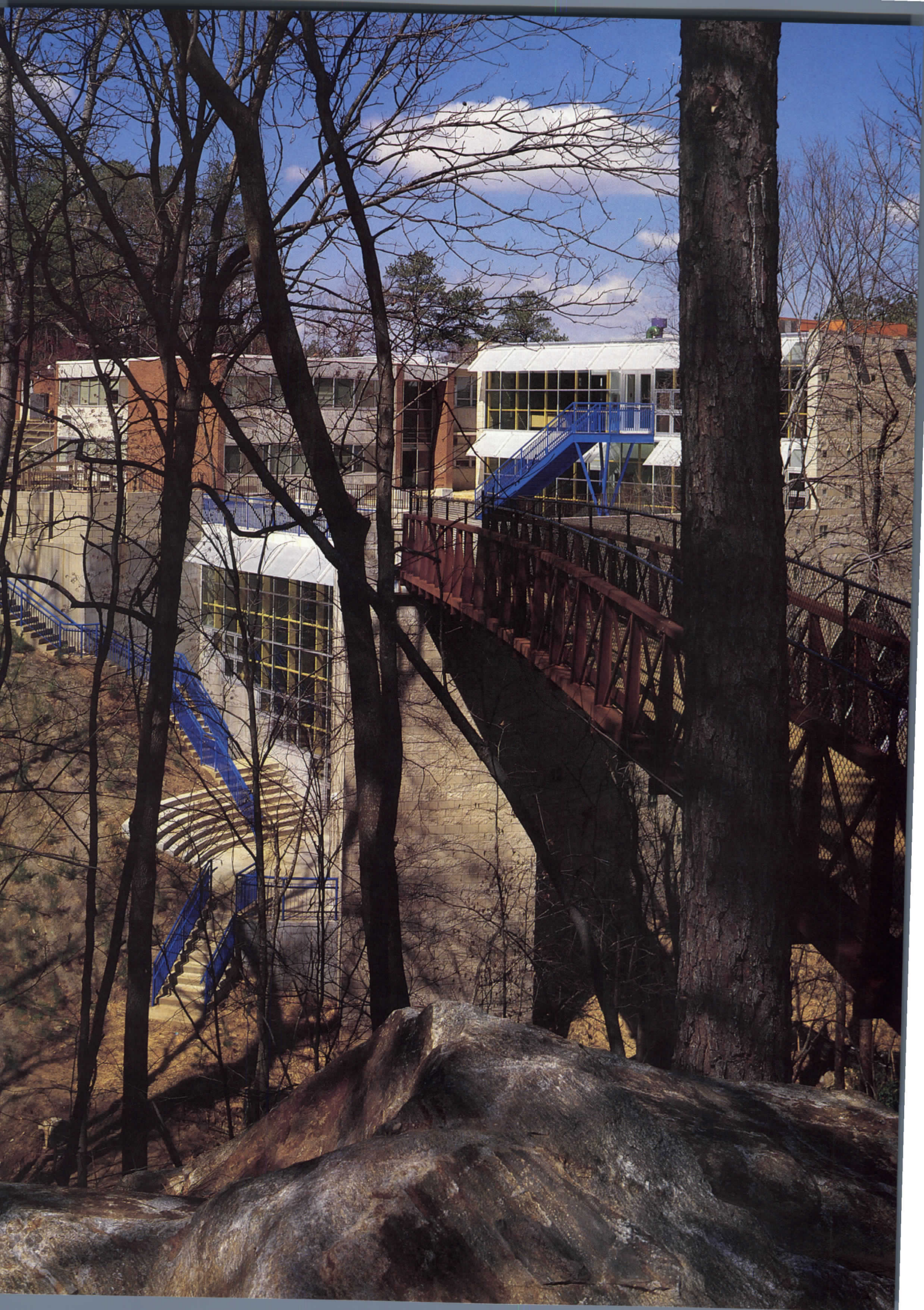
For all its wit and fancy, the building is eminently reasonable. Finessing the threatened dominance of the two-story, 9,960-square-foot gymnasium, much of its potentially obtrusive bulk is buried in the ravine wall, and the remainder is lightened at the building ends by bright glazed infill grids that trace the angle of its slice through the slope. From the school's internal vantages, the gym's most prominent element is its roof, which doubles as the foundation for a two-story multipurpose/library building wrapped by an L-shaped playdeck.

The sheer mass of the gymnasium's outer wall looming unbroken from the floor of the ravine (a moat?) irresistibly suggested the castle imagery spun out in the cylindrical corner tower, "rusticated" split-face concrete block alternating with smooth, and even the medieval builder's "putlog holes" in glass-block that livens the striped wall pattern with sparkling dots. In addition to sprinkling the interior with light, the square pierced openings give the wall an intriguing ambiguity of scale, compounded by the oversizing of windows that label each major space with a geometric figure: a tipsy triangle for the tower, an immense diamond for the gym, and a giant segmented circle straddling the floors of the upper building.

Because the castle wall and tower are the only elements of the school readily seen by passers-by (though veiled by slender trees) Trinity's Kindergothic aspect is also its public face. Within the school precinct, however, the addition's contrasting constructivist vocabulary comes into its own, presented by the interlocking squares of the curtain-wall grid, and, more actively, by a textbook assortment of cobalt-blue exterior stairs: angled scissor stairs scaling the tower, a slope-hugging flight sliding down the ravine wall, a freestanding wheeled debarkation platform. Its most exuberant expression, though, is the fire-engine-red bridge that spans the ravine from castle battlement to the reclaimed physical education space beyond. A venturesome crossing from known territory to new? To Trinity's students, the bridge might stand for the school's new additions as a whole. *Margaret Gaskie*



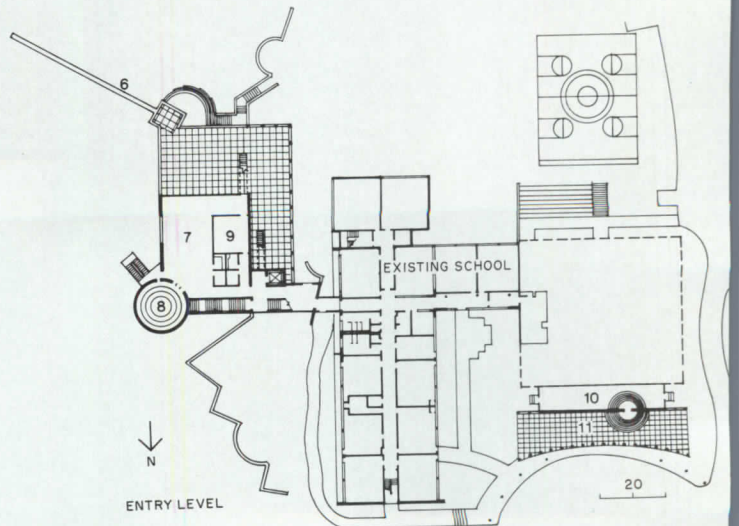
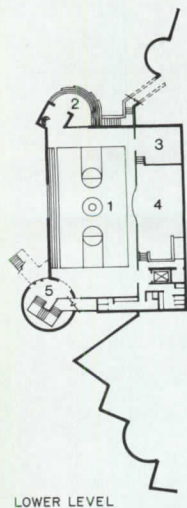
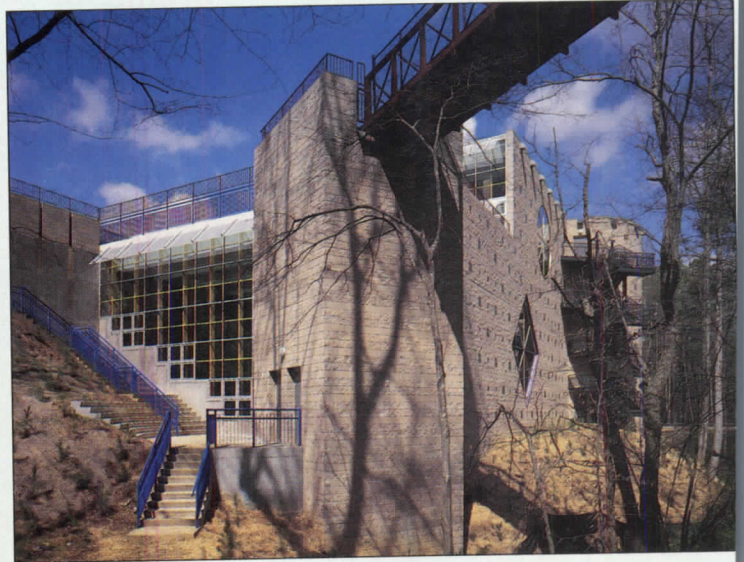
Additions to Trinity School
Atlanta, Georgia
Lord & Sargent, Inc., Architects



Upending the building against the ravine wall not only minimized its incursion on the school's limited outdoor play space but returned much of the area it borrowed, in the form of the gym's rooftop playdeck. While a bridge recovers the "lost" land across the gorge, a

stair leading to a small amphitheater at its floor (photos below right) opens the gorge itself for nature trails and other teaching resources. Used for a variety of activities other than sports, the 9,690-square-foot gym (opposite top right) is domesticated by

generous daylight from end windows, which also contribute identifiable scale, and by such homely artifacts as the stage's proscenium arch, which—unintentionally, architect Terry Sargent vows—gives the castle its hearth. Behind the gridded window at the front of

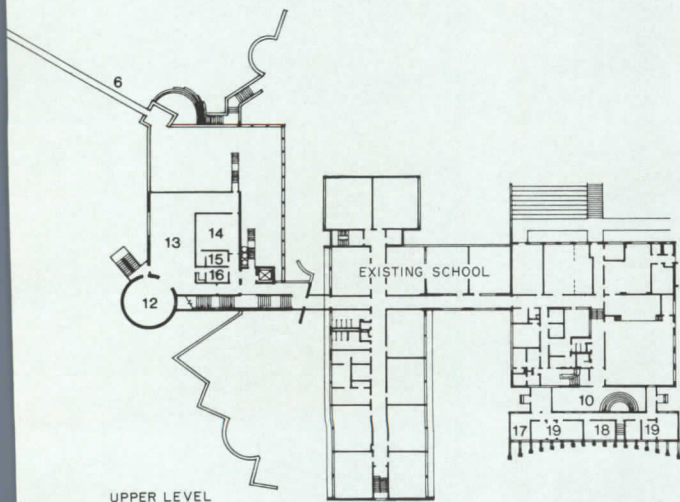
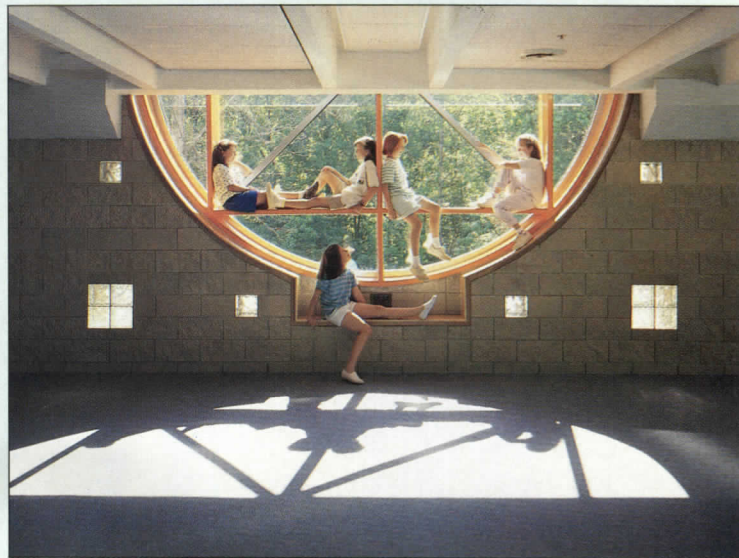
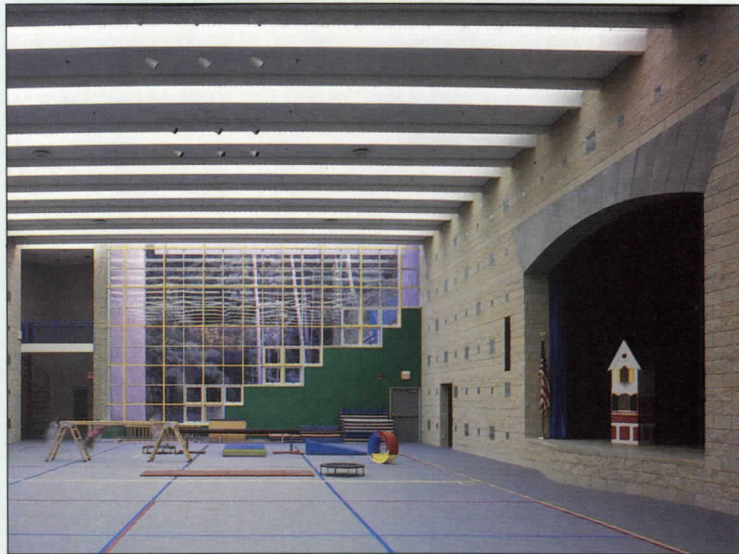


the gym, a stair from the upper deck traverses a glazed passage (below left) where intense, sun-brightened primary colors cheer the formidable descent to the floor below—a journey that, happily for toddlers and teachers, can also be made via an elevator linking the

building's three levels. (It was the final turn—made when the designers ran out of building before running out of stair—that inspired the elaboration of the extended stair enclosure to a tower.) The upper portion of the addition is visually tied to the gym below by reprises of

both the loadbearing "castle" wall and the infill grids, which become an enveloping curtain wall. Its first level houses a generous teacher-student conference room in addition to a multipurpose mini-gym, used primarily by the youngest classes, which is adjoined by a

cozy library/story pit tucked into the corner tower. An expanded library and media center, and a tower reading room, occupy the upper story.



1. Gymnasium
2. Amphitheater
3. Equipment storage
4. Stage
5. Rotunda
6. Pedestrian bridge
7. Preschool activities center
8. Preschool media center
9. Student-teacher conference
10. Entry lobby
11. Loggia
12. Reading room
13. Library stacks
14. Video/film room
15. Teacher workroom
16. Librarian
17. Headmaster
18. Parent conference
19. Office



The Trinity School's built-in architecture lessons are aptly introduced by the whimsical splendor the entry colonnade brings to a prosaic shelter for children awaiting carpool pickups. Not only are columns obviously made of concrete-masonry building blocks (detail below right), the blocks are so carelessly stacked that the cubes twist around their axis. The resulting sense of tension and movement is undiluted by minimalist structural connections apparently pinned to the columns with thumbtacks (photo above left). Inside the colonnade, an administrative suite on the loggia's upper level adjoins an attractive lobby (below left) in "free" space created by setting the new structure well forward of the original school facade and roofing the gap.

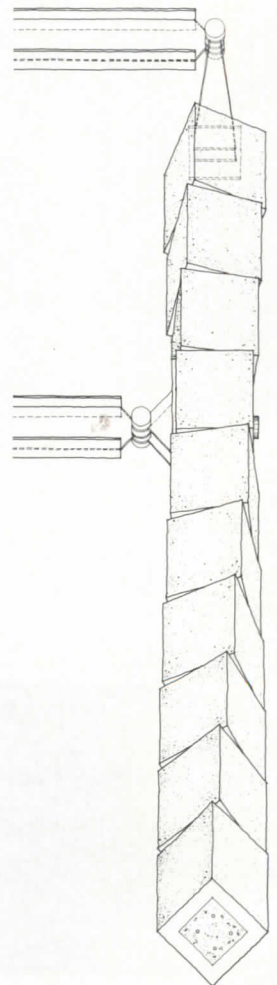
*Additions to Trinity School
Atlanta, Georgia*

Owner:
Trinity School

Architects:
Lord & Sargent, Inc. — Terry Sargent, principal-in-charge; Betsy Beaman, Allen Duncan, Michael Few, Jimmy Hawkins, Harriet Leavens, Larry Lord, Howard Wertheimer, project team

Engineers:
Weems Doar Engineers, Inc. (structural); Jones, Nall & Davis (mechanical/electrical); Harrington, George & Dunn (civil)

General contractor:
VWC, Inc.





Out of the ordinary

By Daniel Solomon

In 1919 Henry James said that "California is an Italy awaiting its history." As I drive around in California I sometimes wonder whether the place has more or less history in 1988 than it had in 1919. Without doubt much has happened, but the history of California is written in disappearing ink.

The projects on the following pages are ordinary commissions, the programs for which are generated by the death struggle between the California town and its suburban antitype. The rootless qualities of suburbia grow from planning and building conventions that eradicate local history and distinctions of place: these projects attempt to restore the sense of time and place.

The first, St. James Place Condominiums, is a small piece of a grand plan that reverses the mechanisms by which the explosion of suburbia was financed by inner-city taxes. The City of San Jose has spent the entire tax increment of its vast suburbs on a tiny area of the old downtown in an effort to make a center in one of the world's most centerless towns. St. James is new housing and office space on an urban square in the heart of the old gridiron town. With the encouragement of Tom Aidala, the Baron Haussmann of the San Jose Redevelopment Agency, we adopted the conventions of the grand old buildings around the square and attempted to navigate the narrow sea-lane that Kenneth Frampton charted between "the Scylla of historicist kitsch and the Charybdis of uninflected modernism." The building draws heavily from these neighbors, but acknowledges too that the 20th century did in fact occur. St. James is also a test of city values in a place where urbanity is a novelty. The idea of living in a high-density building on an urban square in a resurgent downtown seems to have struck some latent chord in sprawling, grid-locked San Jose. All the units sold in very short order.

What St. James is competing with is the placeless nontown that has spread outward from San Jose's one-time center for the last 30 years. The basic morphological unit of San Jose's periphery, and of California suburbia in general, is the Planned Development as it evolved in the 1960s.

A PD has a wall, a gate, and homogeneous architecture related to a marketing theme—Tudor, Polynesian, any flavor from the cup of the world that lenders, developers, and marketers think will sell. Inside the wall of the PD, the main common spaces are parking lots, or streets lined with garage doors. Automobiles are not only necessary for every journey into the world, they serve as a buffer to insulate the private world from the public—from the freeway through the electric garage door, with no intercession of town or human contact along the way.

The PD is as thematic socially as it is architecturally—middle with middle, upper with upper, white with white, brown with brown, yellow sprinkled around, and black left out. One of the strangest things about suburbia is its focus on the house for Ozzie and Harriet, David and Ricky, despite the demographic evidence that there are fewer and fewer families like them.

Five years ago, the nonprofit corporation Innovative Housing was organized on the premise that there is a vast unmet demand for suburban housing that does not fit the homogeneous and simplistic definition of market sectors upon which PDs are based. The corporation leased a beautiful Maybeck house in the Marin

County town of San Anselmo and for very nominal rent subleased it to a mixed group that included two elderly people, a young couple, and a disabled engineer.

In the last five years, Innovative Housing has served more than 2,000 people in this way, and receives over 100 inquiries a week. The corporation is successful because it puts compatible people together, nurtures households, and makes them work. Until now it has acquired existing properties and adapted them. The second project shown here, the Vest Pocket Community in Fairfax (pages 104-105), is the first set of houses designed and built specifically for the organization and the special balance between community and privacy its program demands.

Fairfax lies in the northern section of the Bay Area, where there is a curious and long-lived affinity to the Arts and Crafts movement. The town itself could pass for 21st-century London as described in William Morris's *News From Nowhere*, and Innovative Housing's program, in which old people help young ones, the lonely or the handicapped are integrated into a community, and belongings like tools, vans, and luggage are owned in common, could be a chapter from the same volume. Accordingly, the design draws upon Arts and Crafts roots, which for this program, in this setting, are more than stylistically apt.

The first two projects shown here clearly champion the town against the nontown, community against isolation, and history against its eradication. The third, Glen Cove Houses (pages 106-107), has a more ambiguous relationship to these problems. Also, for reasons related to soils engineering and financing, it will not be built, so the ideas it contains will not be given a real test.

From the Glen Cove site in Vallejo along the Carquinez Straits, one can see a synopsis of the urban history of California. Half a mile away, across the straits, is the 19th-century town of Crockett. Like many towns of its era, including San Francisco, it is an uninflected gridiron that ignores topography and ends abruptly at the water's edge. Houses in the town were built one at a time, lot by lot, to a common typology—street-facing, gabled porch-front houses. North-south blocks look to the water at one end, the hills at the other.

On the other three sides of the Glen Cove site, the new suburbia is being laid out by the mile. Huge graders are shaping the land into networks of curving roads and building pads, to standards established by traffic engineers. Once in this all-new and apparently endless landscape, one is consumed. The hills and water are somewhere, but one quickly forgets where.

The Glen Cove houses are a piece of this new suburbia and, like other pieces, comprise a PD with a wall, a gate, a target market, and a theme. It is a schizophrenic plan that works within the normal planning and development conventions of the new suburbia, although all of its author's allegiance is to towns like Crockett. The plan differs from a conventional PD in several ways we believe have virtue. We will never really know whether Glen Cove would have been a pleasant place to live or something artificial and awful. But attempting to give a PD the quality of a town made it clear that the real problems in suburbia are the conditions that produce PDs, not how to design within them.

Both San Jose's St. James Place and Fairfax's Vest Pocket Community point to alternatives to the planned development. In this sense, they, and not Glen Cove, are the more gratifying projects—and the ones that lay the foundation for reapplying the principals of the gridiron town at a large scale.

Daniel Solomon's San Francisco firm has recently completed residential design guidelines for San Jose and, with Christopher Alexander and Phoebe Wall, for Pasadena.

Practicing what he preaches, architect Daniel Solomon strives to recapture in his own work the values of the gridiron townscape supplanted by postwar suburban sprawl.

Christopher Irion photos



St. James Place Condominiums San Jose, California

Building Types Study

St. James Place Condominiums lay ready claim to kinship with venerable public and quasi-public neighbors, despite a later and humbler provenance. Daniel Solomon's infill structure joins several churches, the city courthouse, the San Jose Athletic Club, and the landmark St. Claire Men's Club in hedging the shabby-genteel urban square that is among the key targets of San Jose's redevelopment effort.

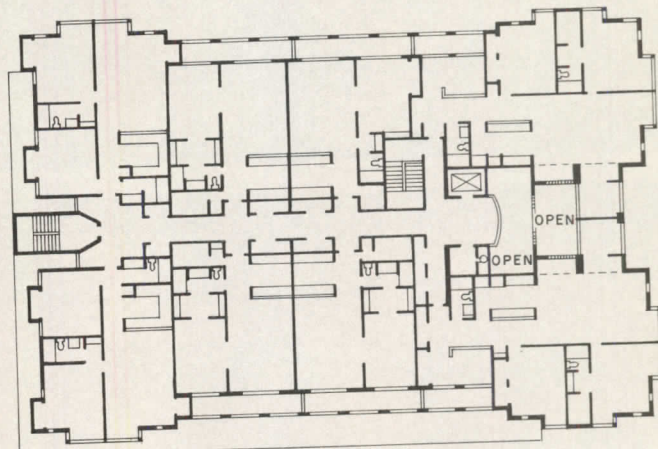
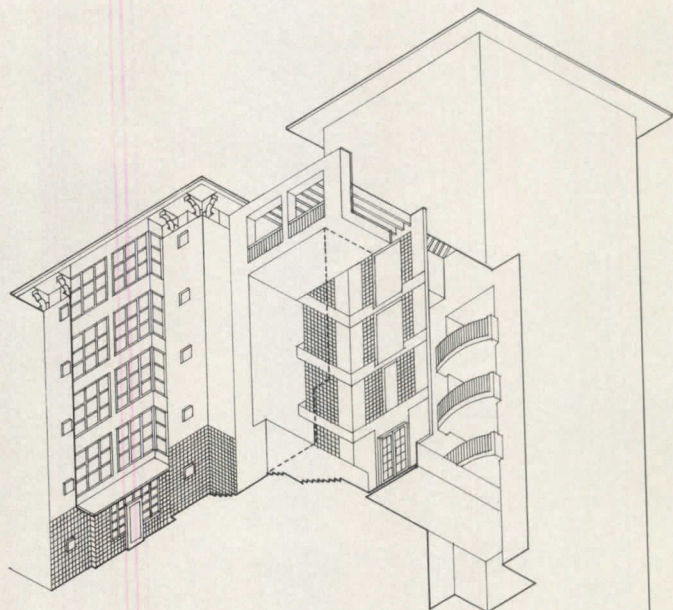
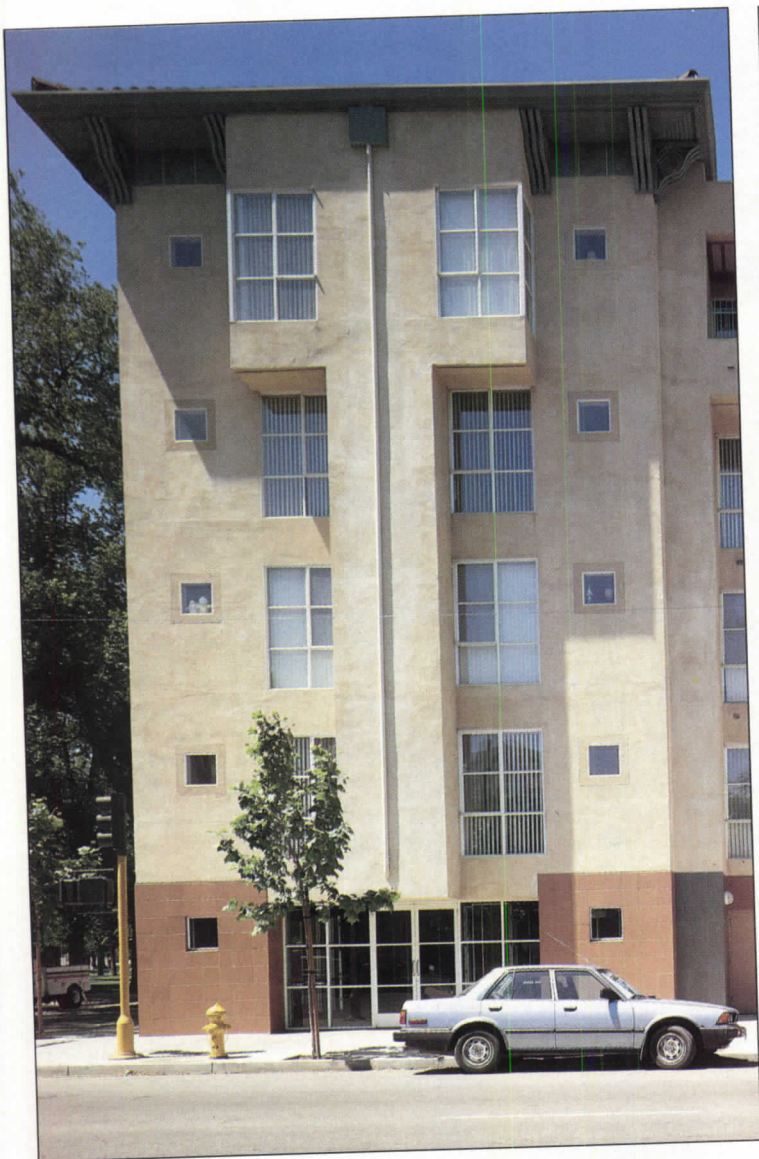
One of the city's first forays into downtown housing, St. James Place was of special concern to the Redevelopment Agency, which accordingly not only played matchmaker between the developer and Solomon's firm but dowered the pair with a subsidy for design costs. Both concern and subsidy were well-grounded.

Although all 32 condos were eventually sold at lower-end market rates, the original bare-bones budget was geared to an even split between moderate-income units and market-rate units to carry them. More, the building confronted that most daunting of barriers to affordable inner-city housing, the budget-swelling absorption of off-street parking costs. And, as important if less mandatory, the site obliged response not only to the five-story phalanx bordering the square but to the single-story neighborhoods beyond.

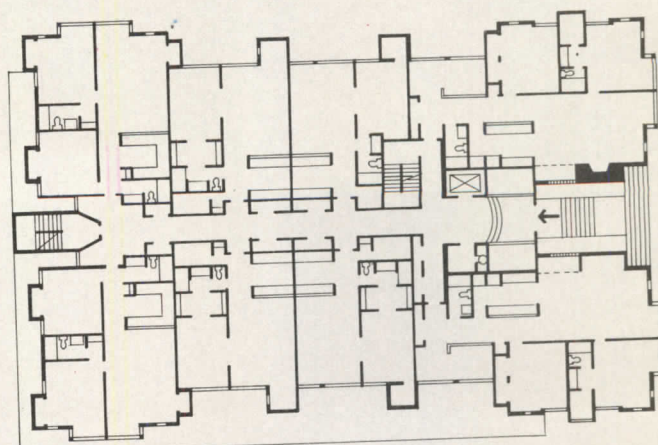
The solution, to Solomon a "straightforward, no-frills" structure, stacks flats on double-loaded corridors atop three layers of parking. (Storefront offices on the ground floor gesture tentatively at mixed use.) Yet his "superficial manipulations"—the understated but stately entry fronting the park, a top-floor loggia as entablature for scale-mediating monumental "orders," and such grace notes as ornamental brackets at the spreading eaves—make the newcomer a welcome recruit among its distinguished peers. *M. F. G.*

The St. James Place condo project holds its own among the solid five-story citizens around the square without dwarfing the low townscape at its rear. The stuccoed wood-frame structure of stacked one-, two-, and two-and-a-half-bedroom flats (plan below and photos

opposite right) addresses the urban park with a grand stair atrium leading to a full-height lobby atrium, which brings light and views to double-loaded interior corridors (photos opposite left). Corner pavilions with hipped tile roofs and wide bracketed eaves (below left) are linked by



TOP LEVEL



LOBBY LEVEL

loggias across the decks of upper-floor units to define a strongly horizontal roof line anchored to the well-defined base by outsized "orders" of stacked projecting closets. Generous expanses of gridded windows are countered by tiny, subtly framed glass squares.



*St. James Place Condominiums
San Jose, California*

Architect:
*Daniel Solomon and
Associates—Ann Fougeron,
Connie Giles, project architects*

Engineers:
*Paul Fratessa Associates, Inc.
(structural: concrete);
Lee Mason (structural:
superstructure); Ed Brady
(mechanical)*

Consultant:
Parker S. Dinwiddie (cost)

Developer:
Jerry Grudzen

Contractor:
Largo Construction

Vest Pocket Community Fairfax, California

Single parents; handicapped people; artists, computer hackers, musicians, and others who work at home; single professionals; the elderly. . . . Unacknowledged by developers accustomed to feathering nests for nuclear families, a large and varied clientele awaits such alternatives as the "extended-family" homes sponsored by Innovative Housing.

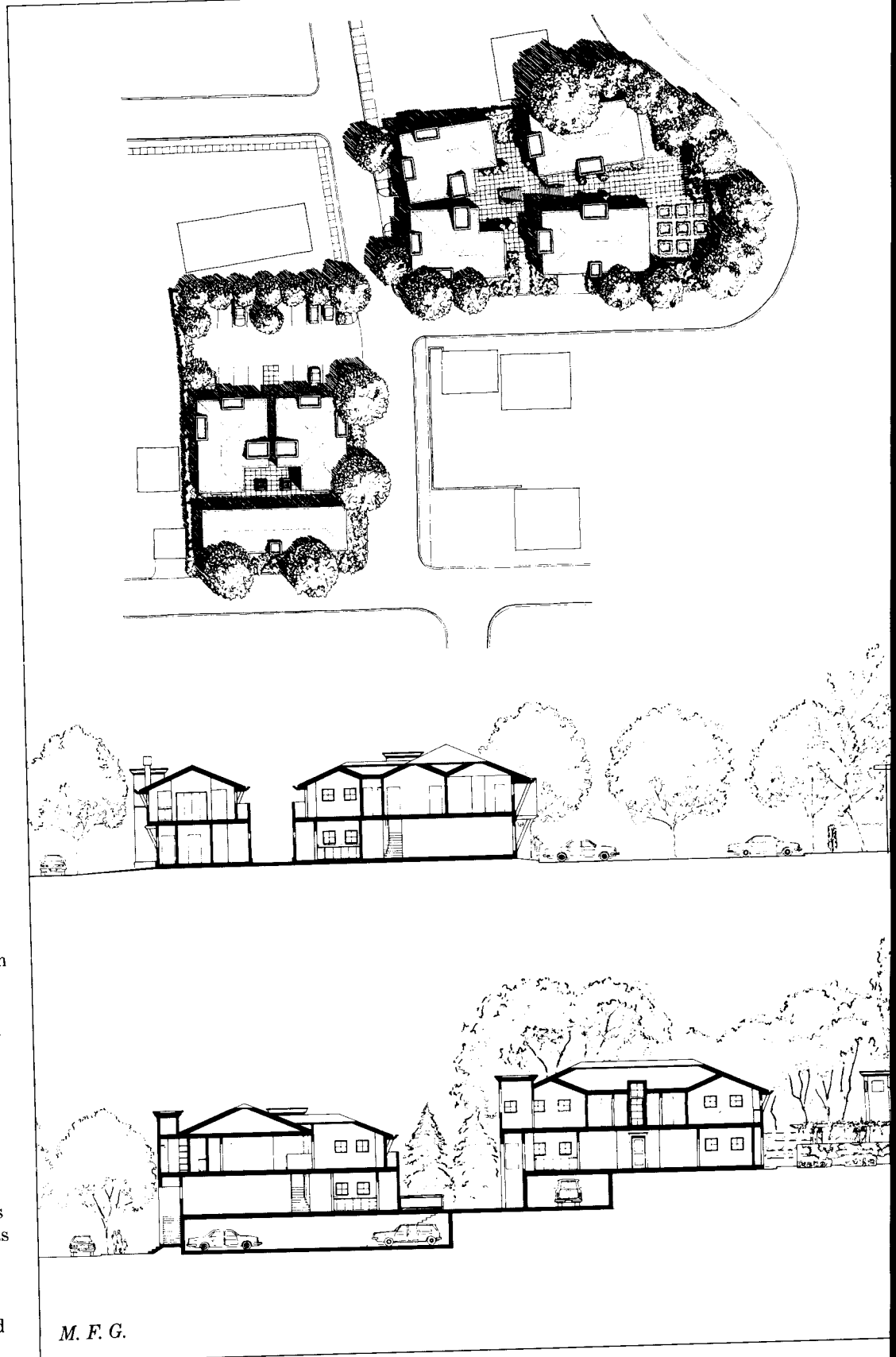
In custom-tailoring the Vest Pocket Community in Fairfax, Daniel Solomon drew on the organization's experience with establishing congregate households in existing residences to adapt the less congenial conventions of single-family housing to their special needs. Since freedom to choose when and whether they join in common activities is vital to members of these unrelated "families," Solomon addressed the sensitive balance between privacy and community at the scales of both house and site.

Although a street splits the site into facing but offset lots, each parcel and its cluster of houses offer specific attractions that foster community-wide interchange by giving residents occasion for moving casually between the two. On the lower site, for example, the parking lot doubles as a handy spot for grooming cars; on the sloping upper site, where parking is buried, the hillside is freed for an expansive axial courtyard that climbs to a common garden with vegetable plot, dining arbor, and barbecue. Mingling is also encouraged by adding to one house in each cluster a large community room shared by all, while at house scale, semipublic family living areas complement the privacy of individual rooms.

The clusters' cost differentials for parking and site amenities as well as room sizes are reflected in a range of rents intended to bring economic diversity to the community's already well-mixed social and occupational blend.

While sharing the single-family neighbors' homey amplitude as well as their embrace of the Bay Area's craftsman style, the broad-eaved, clapboard-clad timber structures of the Vest Pocket Community modify the typical family house plan to achieve a more comfortable

balance of privacy and community. In addition to the clusters' shared community rooms, each house (plans opposite) has its own living/dining/kitchen space, a sound-isolating music and television room, and a ground-floor bedroom with bath accessible to

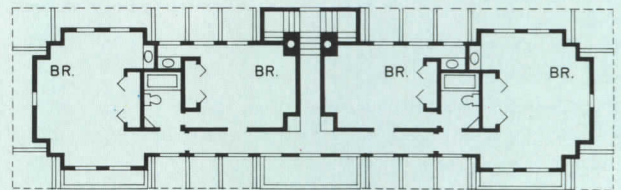
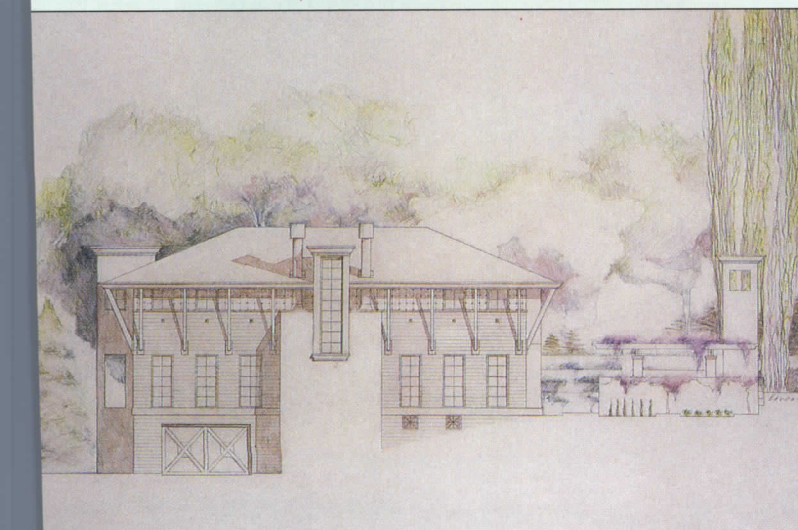
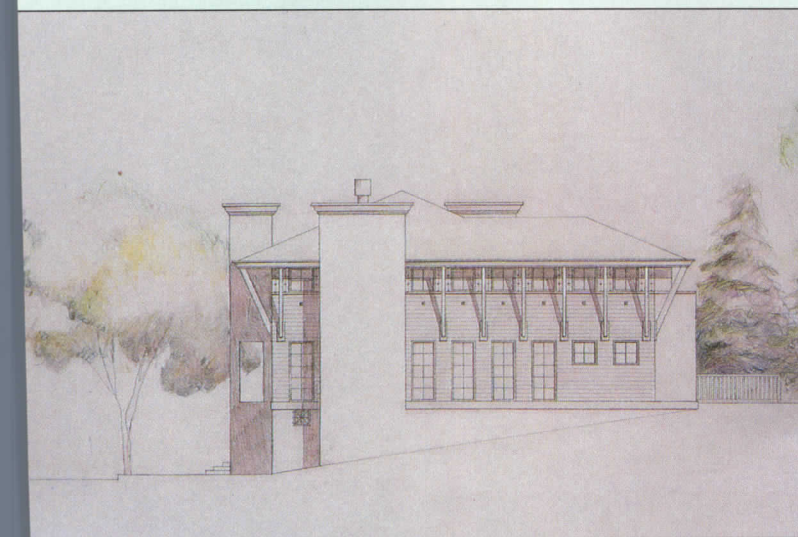
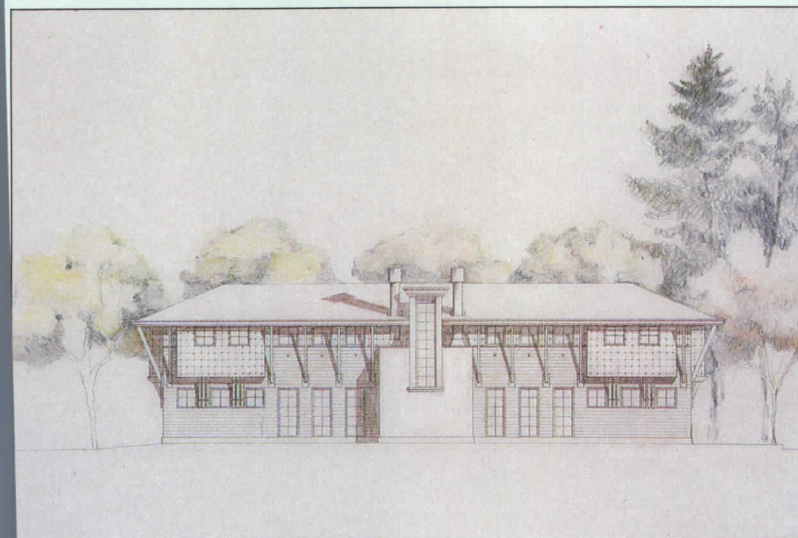


M. F. G.

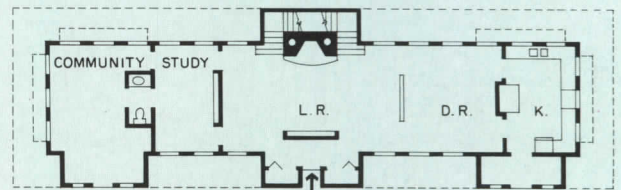
the handicapped. On the upper floors, reached by staircases that wrap around the fireplaces, bedrooms (and sleeping porches for children) differ slightly in size, arrangement, and amenity in order to accommodate a variety of people and purses.

Vest Pocket Community
 Fairfax, California
Architect:
 Daniel Solomon and Associates—Gregory Baird, Stuart Wright, project architects
Landscape design:
 Barbara Stauffacher Solomon

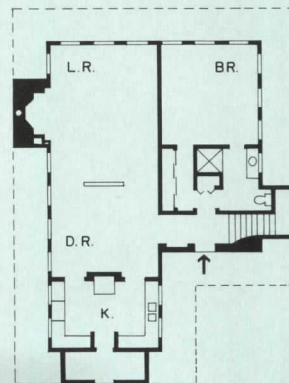
Consultants:
 Spear Street Advisors (economic); Parker S. Dinwiddie (cost)
Developer:
 Innovative Housing—Ann Howell, executive director; Daniel Gonzales, housing consultant



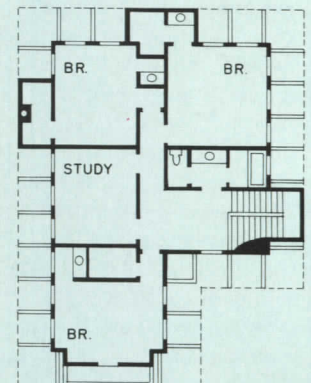
UPPER LEVEL



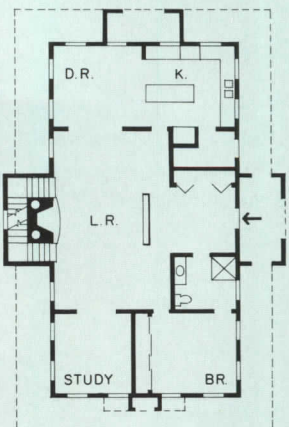
LOWER LEVEL



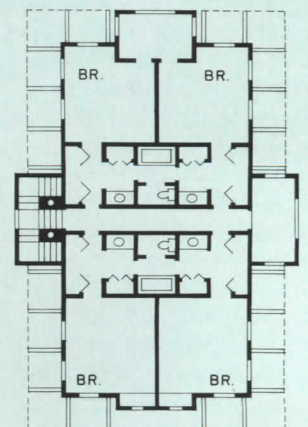
LOWER LEVEL



UPPER LEVEL



LOWER LEVEL



UPPER LEVEL

Glen Cove Houses Vallejo, California

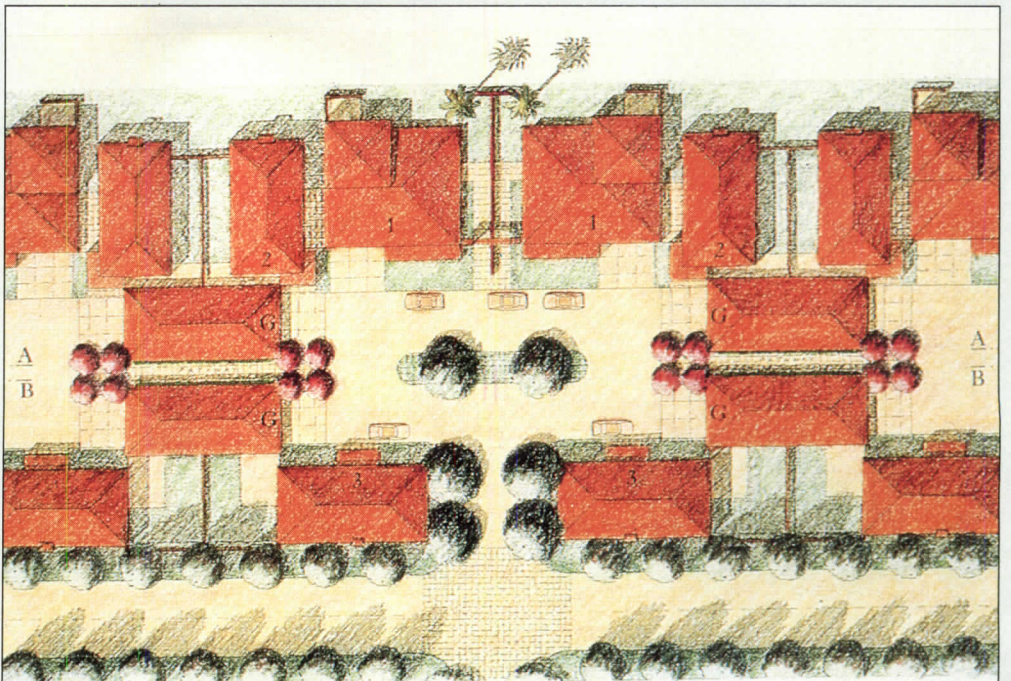
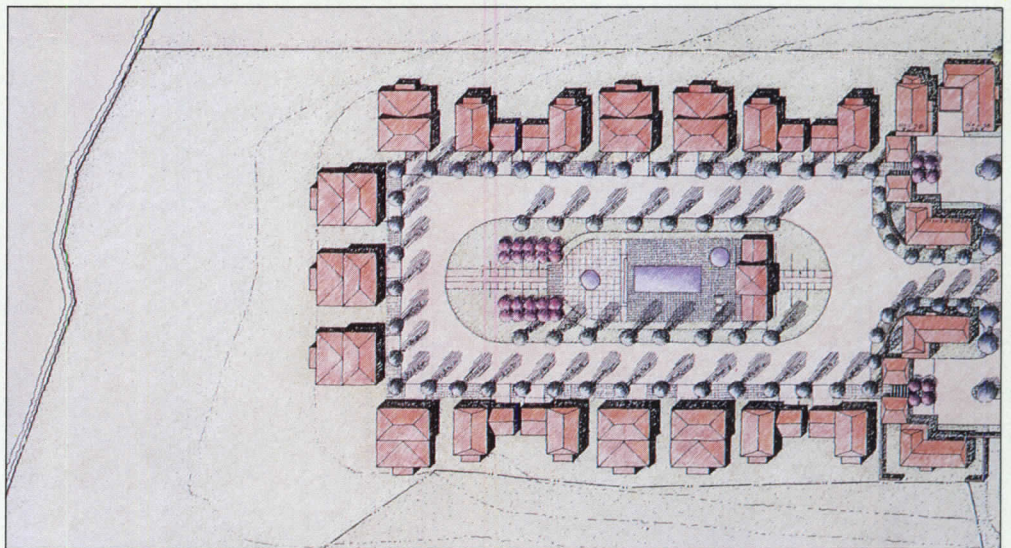
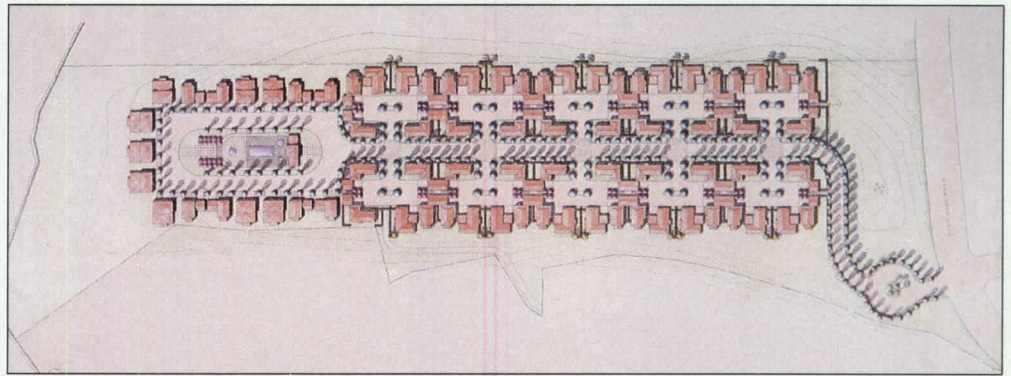
Though compromised in advance, in Daniel Solomon's eyes, both by the conventions of the planned development and by its encapsulation among other PDs, the unbuilt single-family housing scheme for Glen Cove explores promising ideas for insinuating some of the communal values of the gridiron town into the countervailing ethos of suburbia.

The 17-acre peninsular site thrusts into the Carquinez Straits as though grasping at the civilities of the old established town of Crockett across the water. Similarly, Glen Cove's central boulevard marches through an aisle of eucalyptus that recalls the shaggy windrows long prominent in California's agrarian landscape but now fast disappearing under the suburban onslaught. In an echo of the gridiron town, short tree-lined lanes branch off the boulevard to individual housing courts that offer such assets of the more usual *cul-de-sac* as a limited number of related residences and elimination of through traffic. Unlike them, however, the courts orient outward as well as inward, framing views of the hills and bay beyond portals marking pedestrian extensions of the grid of cross-streets.

Within the six-house courts, garages are not used to buffer or isolate individual houses, but are integrated with them—either recessed or offset to the sides—to minimize their visual impact on the courts as well as on more public areas of the site. In addition, arborescences between the parallel offset garages at the ends of each court provide pedestrian links through the full length of the site, culminating in a village green with pool and clubhouse atop a small knoll at the seaward end. The recreation facility provides no nearby parking on the optimistic (and as yet untested) premise that, given an alluring route and seductive destination, even Californians would walk. *M. F. G.*

The 78 single-family houses planned for the Glen Cove development (overall plan at top below) follow a hierarchy from individual houses and six-house clusters (bottom plan), through separate landscaped circulation routes for cars and people, to the village green with

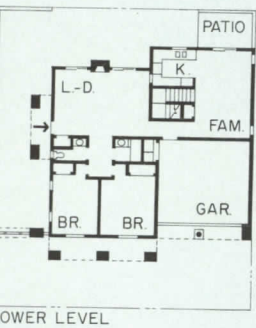
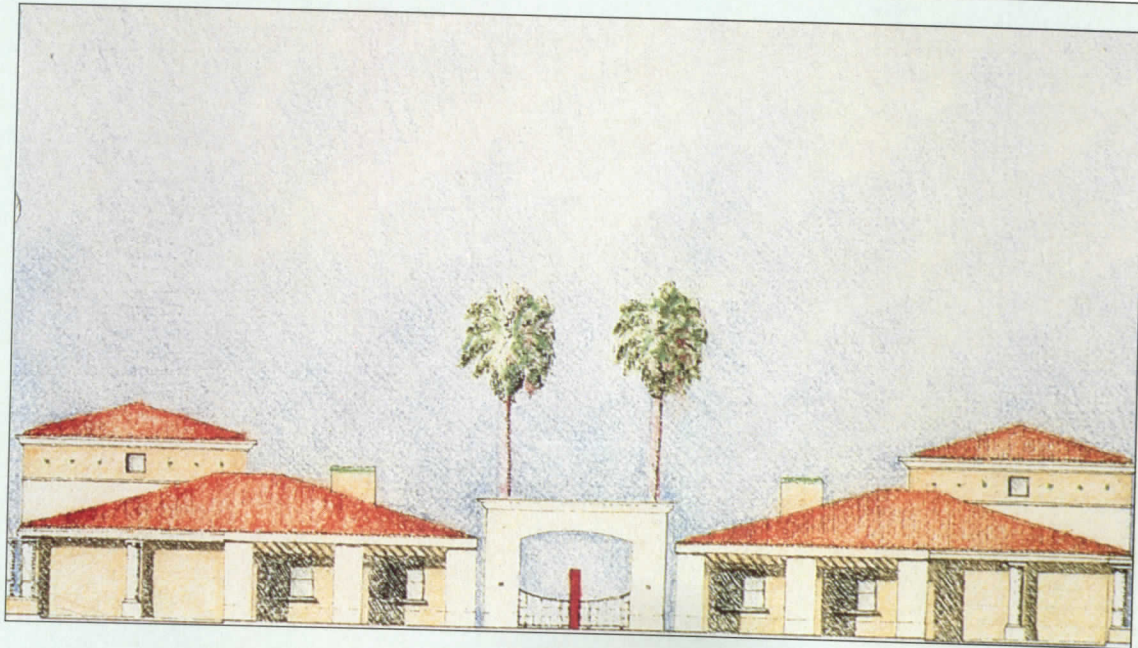
its shared parkland and recreational facilities (plan below center). The four basic house types, two of which are shown opposite, are each varied with two or more facade configurations. Both houses and landscaping reflect the Mediterranean strain of



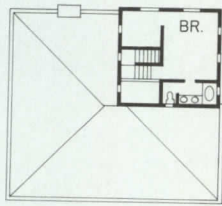
California tradition in tile roofs, thick stuccoed walls, trellises and arcades, and lush plantings of eucalyptus, palms, flowering fruit trees, and bougainvillea.

Glen Cove Houses
 Vallejo, California
Architect:
 Daniel Solomon and Associates—Kathryn Clarke,
 project architect
Engineer:
 Meridan Consulting Engineers
 (civil)

Developer:
 Matrix Land and Development,
 Inc.—Donna Slote,
 project manager

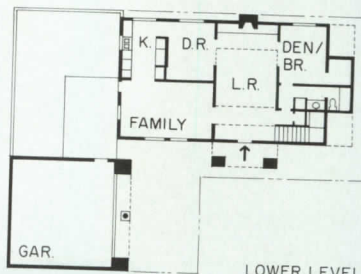


LOWER LEVEL

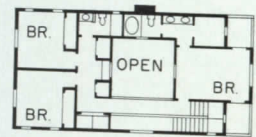


UPPER LEVEL

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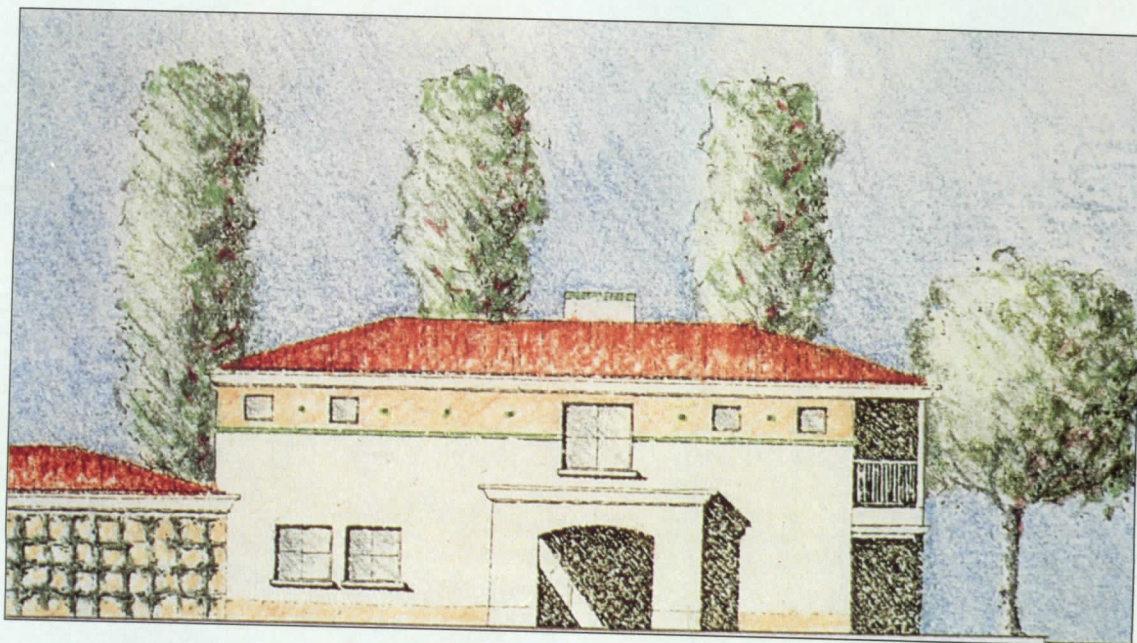


LOWER LEVEL



UPPER LEVEL

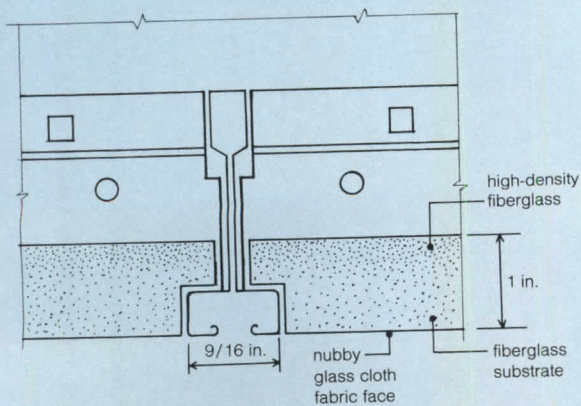
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Sound design

By intention or default, designers engender their buildings with acoustical environments. When the acoustic characteristics are appropriate for a given interior, they tend to go unnoticed. When room acoustics are unsatisfactory, however, owners and users suffer, and the architect is held responsible.

The acoustic design for the American Express Tower, a recently completed skyscraper sited in New York's Battery Park City, exhibits skill, care, and ingenuity. Robert A. Hansen, the acoustical engineer for the open offices, physical-fitness center, 300-seat auditorium, and other spaces in the building, attributes much of his firm's success with this project to having been given the opportunity to be influential at the outset. Even before interior architects, Swanke, Hayden, Connell Architects, had finished a schematic design for the tower, Hansen had been asked to complete an acoustical report based on the program. Close collaboration between engineer and interior architect continued throughout all phases of design and construction, culminating in these exacting, at times clever, and laudably cost-effective schemes. D. R.



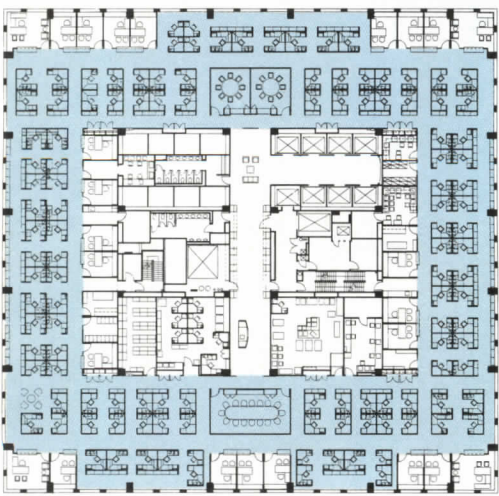
SECTION DETAIL AT ACOUSTICAL CEILING



© Wolfgang Hoyt/ESTO photos

Acoustic control for the open office

“Non-annoyance” is the term used by acoustical engineer Robert A. Hansen to describe the sound characteristic that was programmed for the open-office areas of the American Express Tower (see shaded areas of floor plan at right). Non-annoyance refers to sound levels greater than those required for privacy-of-speech but not so great that a worker will be distracted by other people’s activities (this translates into a sound level of approximately 55 dB 3 ft from a typing machine compared to 40 dB for privacy-of-speech). Typically, the primary interior elements used to control sound in open offices are workstation partitions and the ceiling. The partition height was set at 42 in., not high enough to contribute significantly to sound attenuation. The ceiling, therefore, became the major acoustical-control element. The architects and acousticians worked with a major ceiling manufacturer to develop a 30-in.-square panel that integrates with a standard attachment system (see section detail, opposite page). The panel was a high-density, fiberglass substrate and is covered with a bubbly, fiberglass fabric. As an acoustical element, it significantly reduces the sound energy propagated throughout the open space; i. e., it absorbs sound. A specially designed pendant light fixture (photo left) plays nicely into the acoustical strategy of the open offices in that it allows 100 percent of the ceiling to be acoustical (typical lighting fixtures integrated at the plane of the ceiling reduce the ceiling area available for sound absorption to 50 percent). Because of the ceiling system’s high absorption level, sound masking was not necessary. In addition, the carpet contributes to the open-office acoustics by reducing impact sounds—chairs moving on wheels, books accidentally dropped, the click of high heels.



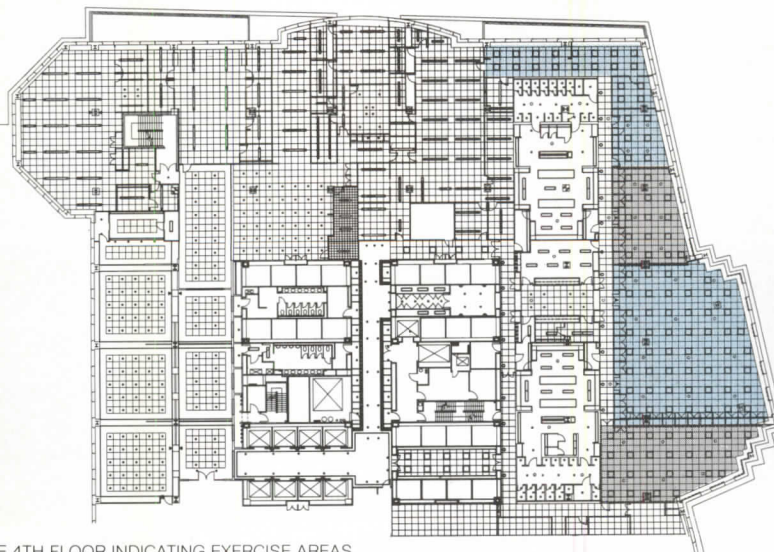
OPEN OFFICE PLAN FOR THE 37TH FLOOR

Eliminating impact sound

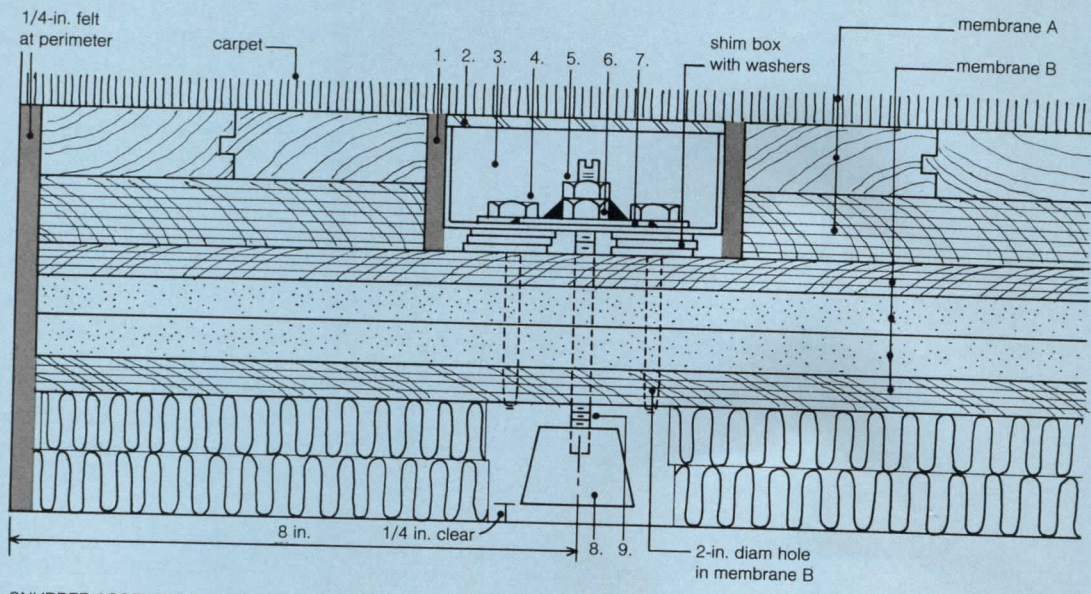


Consider that the combined force of a 25-person aerobic class, jumping or marching in unison, creates the equivalent of a 4,000-lb impact load each time contact is made with the floor. Should the workout room be above another space, thundering sound will rattle occupants below. The impact vibrations can also migrate through the building structure, creating acoustical problems in areas far removed from the source. The easiest method to solve the impact-sound problems associated with fitness centers is to confine the facilities to basements. A second option is put them on an extremely stiff floor deck designed with high-impact loads in mind. Since neither solution was feasible for the American Express Tower, the impact forces were addressed with a unique design intervention.

The high-impact exercise areas (darkest shading in the plan at left) have a specially detailed floor designed to absorb impacts (drawings at right). The engineering concept behind the exercise floor is—"impedance mismatch." When sound passes from one material to another, e.g., plywood to gypsum, some sound is reflected back into the original conveyer and a net loss of sound occurs. In this particular assembly, a membrane composed of carpeting, pine flooring, and plywood is tied together, but freely rests on a second composite membrane of gypsum board and plywood (see exploded axonometric), which in turn floats on two layers of fiberglass duct lining. A detail to snub sound vibrations that might otherwise be transferred at the edge of the floor is shown in the top drawing. This detail, 6 1/4- by 4-in. in plan, occurs 4-ft on center around the edge of the high-impact areas. The walls were detailed to prevent the transmission of vibrations to the floor above by resting directly on the floor slab and remaining unsecured to the ceiling slab (section at right).

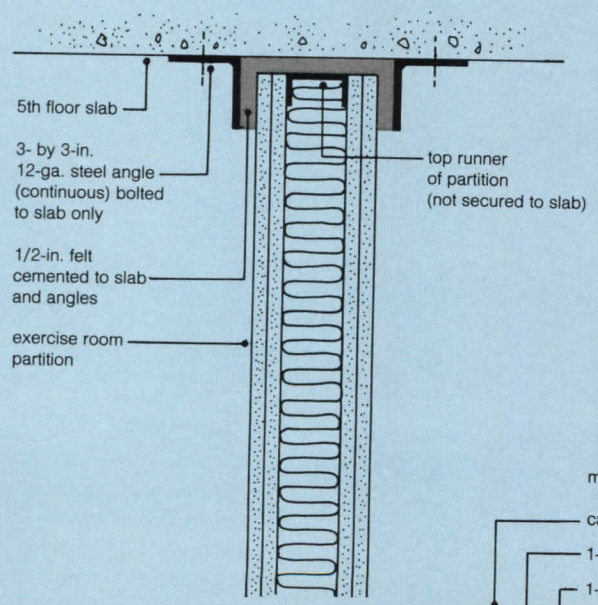


PLAN OF THE 4TH FLOOR INDICATING EXERCISE AREAS

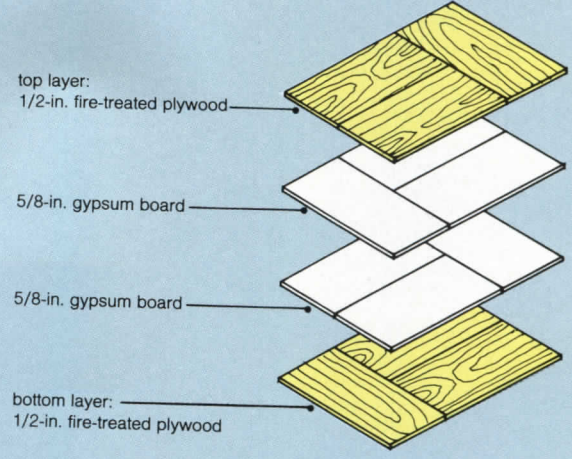


1. 1/4-in. felt glued to perimeter of metal box
2. 12-ga. steel cover plate flush with wood floor, countersunk screws
3. Metal box 6 3/4 by 4 by 1 5/8-in. deep, 14-ga. steel
4. Lag bolt with washer, (one required per box), 5/16 by 3-in., secures metal box to membrane B
5. Lock nut
6. Fixed nut welded to washer
7. Washer welded to metal box at center knockout
8. Neoprene mount
9. 5/16-in. threaded rod, 4 1/2-in. long, slotted at top

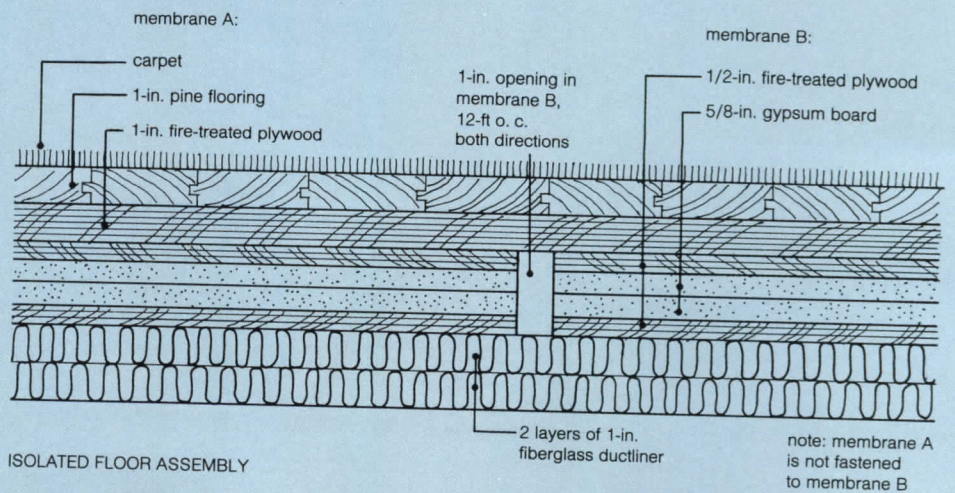
SNUBBER ASSEMBLY



"SOFT" TERMINATION OF PARTITION TO SLAB

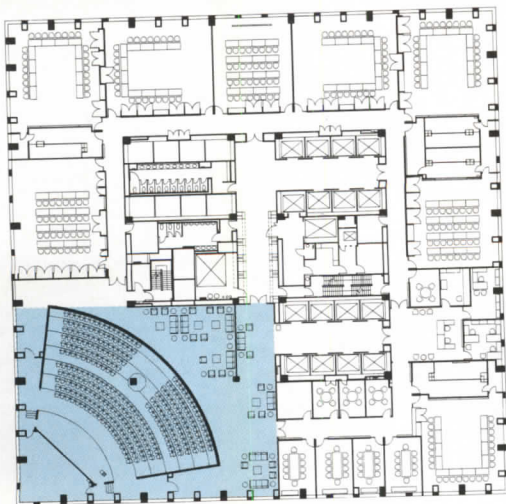
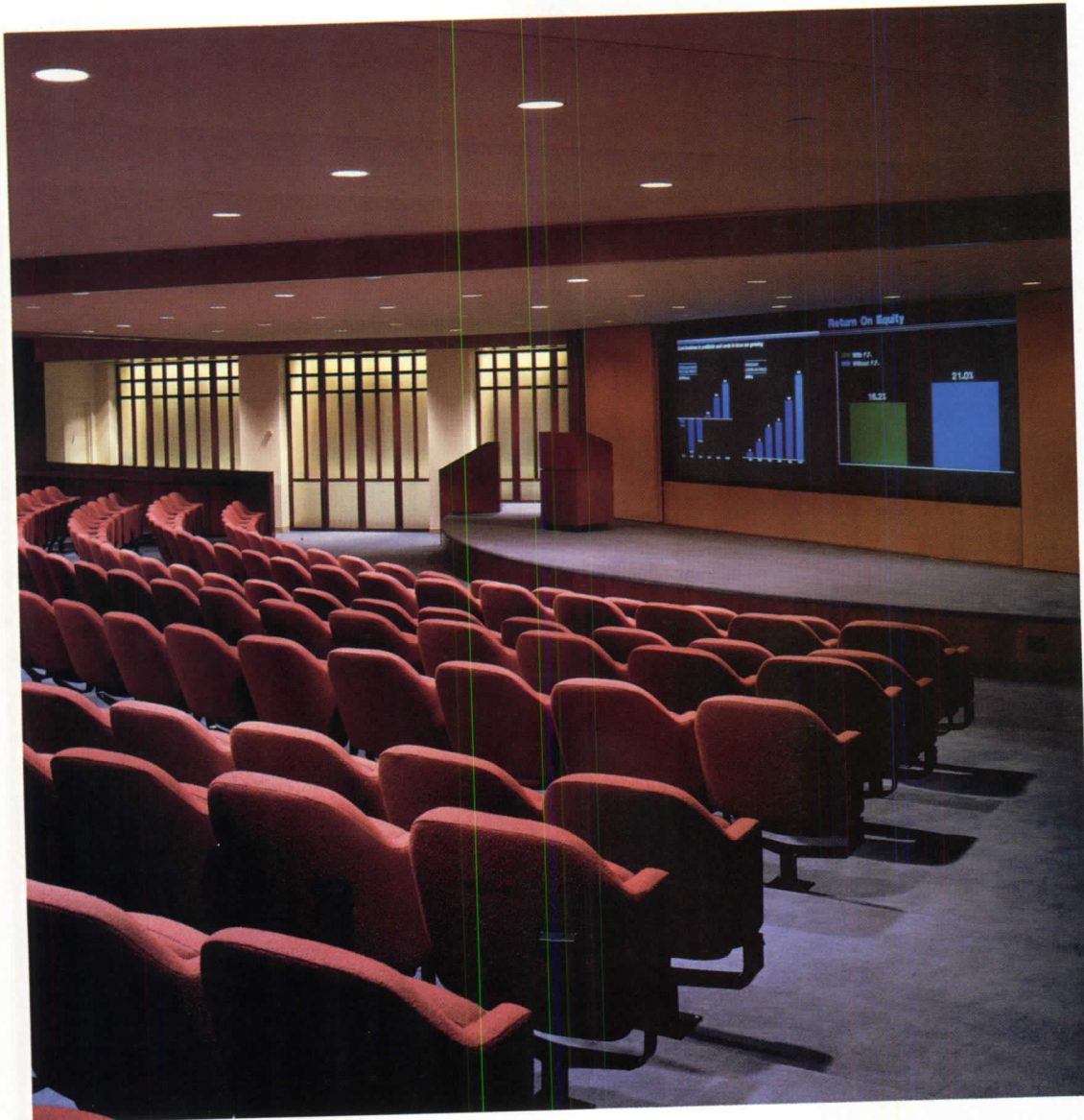


ASSEMBLY OF MEMBRANE B



ISOLATED FLOOR ASSEMBLY

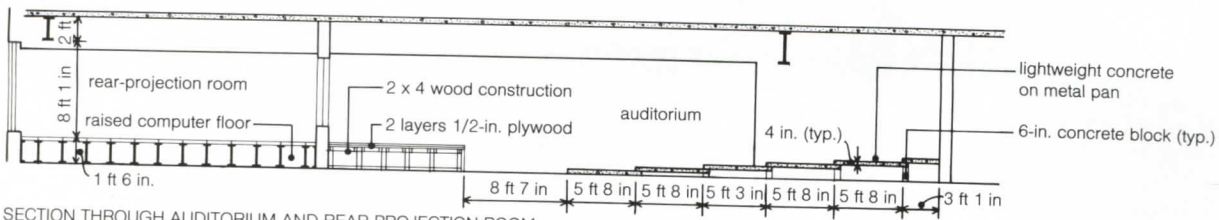
An auditorium for natural speech



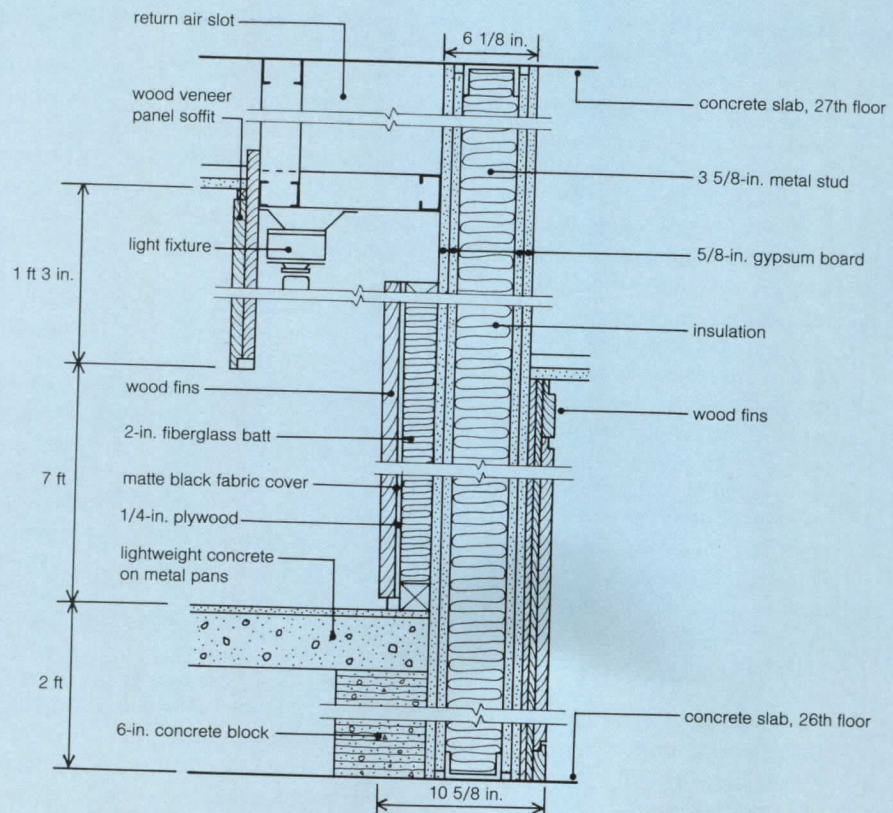
FLOOR PLAN AT 26TH FLOOR INDICATING AUDITORIUM



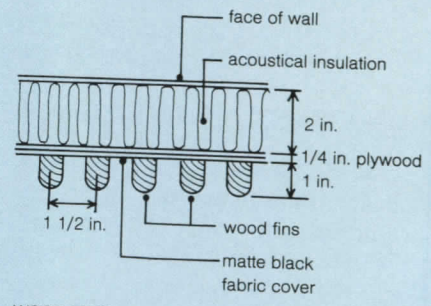
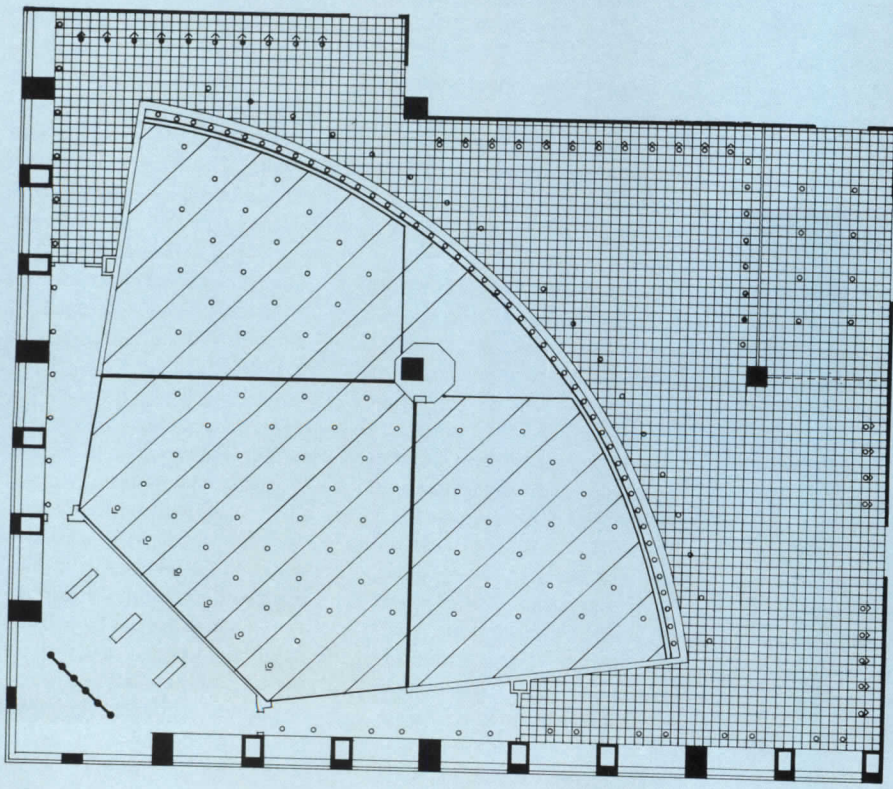
Facility planners for American Express's auditorium were concerned that there be good rapport between the on-stage speaker and the audience. For this reason, natural sound transmission was chosen. Not only would the quality of the speaker's voice be more intimate, he or she would be able to move back and forth along the stage without being tethered to a podium by microphone wires. To achieve good intelligibility of speech naturally, the ceiling design, back wall detail, stepped flooring, and choice of seating were all developed to interact acoustically. Gypsum board is used at the ceiling because it reflects and reinforces direct sound energy (this is the opposite of how acoustical ceiling tiles perform—see open-office acoustics, page 109). The stepped floor of the seating area (room section at right) prevents attenuation that would otherwise result if the sound frequencies had to bend around the head in front of a listener before reaching his ears. The seating tiers are made with lightweight concrete on concrete blocks (concrete will transmit less sound to the floor slab than steel). The seating itself was selected for its high absorptive properties—people are good sound absorbers, too—and is sufficiently absorptive that the room acoustics do not vary according to the number of people in attendance. The rear wall was also detailed for absorption (see wall section and construction detail at right). The wood battens on fiberglass reduce echoes. To prevent noise from the air-handling system, low-velocity air equipment was specified, and all ducts were internally lined. The lobby area (lower photo), by intention, has more active acoustical environment than the auditorium itself, achieved by a choice of acoustic tiles (see reflected ceiling plan at right).



SECTION THROUGH AUDITORIUM AND REAR-PROJECTION ROOM



SECTION THROUGH BACK WALL OF AUDITORIUM



WOOD FINNS

REFLECTED CEILING PLAN

A new energy standard for the building wall

By Joseph J. Deringer



In June, during ASHRAE's annual meeting, a general consensus was achieved for proposed Standard 90.1P. Publication approval is expected this fall. Once published, the standard is likely to be incorporated into building codes at the federal, state, and local levels. A general discussion of this highly innovative standard appeared in the June issue of RECORD, accompanied by individual critiques of the hvac, daylighting, and electrical lighting sections. The following synopsis addresses the envelope section. D. R.

Format

Among the innovations found in the envelope section of proposed Standard 90.1P, foremost is the use of an annual performance criterion for the entire wall system based on a cumulative combined heating and cooling energy flux. This new way of evaluating wall performance permits a designer great flexibility in addressing and trading off key envelope design factors in order to achieve compliance. Another important innovation is a dual compliance

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path. The intent of this format change has been to make the compliance process both more flexible and easier to use. To comply, the user first needs to meet a set of basic requirements and a required calculation procedure. Then the prescriptive path or the system-performance path can be followed to comply with the remaining envelope requirements (compliance diagram opposite page). The system-performance path includes a microcomputer-based tool that combines flexibility and ease. The easy-to-use prescriptive path provides a number of different compliance solutions via a series of alternate component packages.

Required calculation procedures
In general, the required calculation procedures have been made more specific. In addition, two changes have been made that address the importance of thermal breaks in insulation. For opaque surfaces, such thermal breaks can substantially reduce thermal resistance. For example, in a typical metal-stud-wall construction, the metal studs act as radiators, allowing substantial heat flow to occur through the small stud cross-section area. The new calculation procedures encourage designers to use design solutions that avoid the often substantial degradation in thermal integrity that can result from major thermal breaks that penetrate the insulation, such as studs, joists, slabs, beams, etc. For fenestration assemblies, the framing elements can constitute a substantial portion of the opening and be sources of degradation in thermal integrity. Thus, the proposed calculation procedures explicitly require the use of a "framing factor" in calculating the overall thermal transmission of the fenestration assembly.

Basic requirements

The requirements for prevention of air leakage and moisture migration have been upgraded.

The envelope section of ASHRAE and IES's jointly drafted energy standard (Standard 90.1P, "Energy Efficient Design of New Buildings Except Low-Rise Residential Buildings"), combined with other sections of the standard, is expected to result in energy savings of 15 to 30

Also, there are requirements or credits for several special cases and conditions, including:

- Shell buildings: specific procedures are defined for determining the envelope criteria for shell buildings, which are becoming common in some areas of the country. Such buildings are erected without lighting or hvac systems, later to be installed by tenants.
- Very cold climates: there is a table for climate locations with heating degree days greater than 15,000, base 65F. This table addresses primarily small communities and rural areas in Alaska.
- Skylight/daylighting credit: a thermal credit is provided for skylights, if automatic daylighting controls are used with the related skylights, or if automatic daylighting controls are used with the related electric lighting systems. Depending on several factors, skylights may constitute up to 12 percent of the roof area without addressing their impact on overall roof thermal transmittance.

Envelope-system-performance criteria

The system-performance criteria contain many significant changes both to the criteria and the compliance procedures.

Roofs

A major change in the format of the roof criteria permits the criteria to be more responsive to conditions in warmer climates. The previous roof criteria simply related requirements to changes in heating degree days (HDD). The proposed roof criteria also use heating degree days, base 65F (HDD65). But two additional variables are also used: cooling degree days, base 65F (CDD65); and cooling degree hour, base 80F (CDH80). The addition of CDD65 and CDH80 allows the roof criteria to be much more responsive to a wide variation in climate conditions in warmer climates. The earlier method in

energy standard 90A-1980 was not able to address these climate variations. Also, the proposed roof criteria are somewhat more stringent than the previous criteria. The new requirements have been developed based upon a review of insulation levels being installed in 1986.

Other envelope elements

For both floors and slabs-on-grade, the proposed requirements are generally more stringent than the previous requirements, but in some circumstances the proposed requirements are less stringent. For slabs on grade, the format has been revised to reflect the greater effectiveness of vertical slab insulation over horizontal insulation and the importance of insulation depth. Totally new requirements have been developed for walls below grade and for opaque interior walls separating conditioned and unconditioned spaces.

External walls

The proposed external-wall requirements reflect the most significant changes from the previous 90A-1980 envelope requirements. The previous wall criteria contain separate requirements for heating and cooling. The proposed new wall criteria combine compliance for heating and cooling. The external wall combined heating and cooling criteria are expressed as a unitless "figure of merit," depending upon climate location and internal load level. The criteria set limits on the cumulative annual heating and cooling energy flux attributable to transmission and solar gain. These limits accommodate variation in internal-load and wall-heat capacity. Thus the proposed envelope requirements are based not on power but on combined annual loads on the heating and cooling systems.

The criteria address only that portion of the building area within approximately 15 feet of the external walls (adjusted for

percent over previous versions. Though tougher with respect to energy conservation, the proposed standard offers architects greater flexibility both from the standpoint of design, and with regard to the selection of a procedure by which compliance is demonstrated.

room height). This allows the procedure to be essentially independent of building configuration. Both the criteria and the compliance calculations are based upon the same sets of heating and cooling regression equations derived from the analysis of several thousand annual energy audits conducted by the Department of Energy.

An important aspect of the proposed procedure is its flexibility. Many key envelope design factors can be considered and trade-offs can be made among them. This is a marked improvement over the previous format, which considered only a limited set of the key envelope design factors. The proposed 90.1P procedure considers each of the following factors by orientation for up to eight orientations:

opaque wall (wall area, overall U value for the wall, thermal mass of the opaque wall, including heat capacity, position of insulation relative to mass, internal load level, window-wall ratio);

thermal benefits from automatic daylighting controls or the luminaires in the perimeter zones;

fenestration (glazed area, overall U value for fenestration assembly, glass shading coefficients, visible

transmittance of the glass relative to daylighting benefits, the impact of internal, integral, and external shading devices such as Venetian blinds, drapes, solar screens, overhangs); internal load levels from equipment and lights.

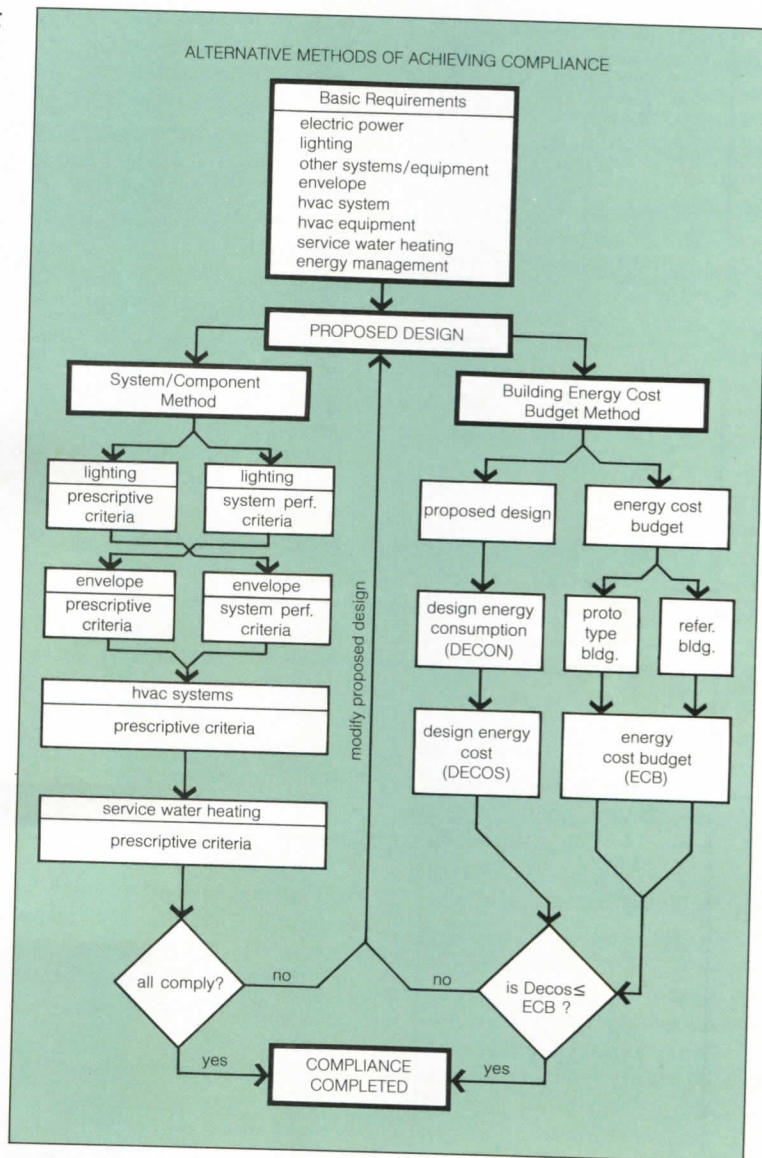
Considering all of the above design factors permits considerable compliance flexibility, for each of the design factors may be changed over very wide ranges. Also, a designer is free to make numerous trade-offs: insulation and mass, glass area, glass characteristics, internal and external shading devices, etc.

Compliance is achieved so long as the combined annual heating and cooling energy flux is not greater than the criteria determined for the building location, considering the internal load levels. This flexibility permits compliance over a wide range of design objectives and constraints. A few constraints on the ranges exist, an important one being an upper limit on the overall U value for opaque walls with low heat capacity.

Importance of fenestration

The new proposed wall format specifically addresses both the positive and negative aspects of fenestration. Fenestration is an extremely important design element, and contributes substantially to spatial esthetics, to the quality of building environments, to marketability, and to the intangible benefits of being in space and relating to the world outside. Improperly designed fenestration, however, can have severely negative impacts on energy use and on human comfort. The format permits substantial fenestration areas to be used, but also requires increasing consideration of energy design factors as the effective fenestration area increases. The proposed format allows many different fenestration design options to be used.

Recently, there has been rapid improvement in glazing technologies. These new glazing technologies permit more design freedom, improved comfort, more access to view, and reduced energy use. For warmer climates, there are glazings that block substantial radiation in the thermal spectrum while allowing larger amounts of visible light to pass through. For colder climates, glazing assemblies with low emissivities substantially reduce heat losses. The proposed new wall criteria format actively encourages the use of these new glazing systems through the process of allowing trade-offs within the context of overall



performance criteria for the entire wall system.

Prescriptive path

This path is intended to provide an especially easy-to-use means of compliance. While compliance is much simpler than the system-performance path, it allows less flexibility. Yet substantial flexibility is still available. The user is provided with tables of solutions. All of the solutions provided meet the criteria and have been "precalculated" using the methodology of the system-performance path. Thirty tables are provided for different climate ranges throughout the country.

Within a table for a given range of climate variations, the criteria for the envelope elements are specified. For opaque walls, trade-offs between insulation levels and thermal mass are provided. For fenestration, a number of options are provided that depend upon combinations of internal loads, fenestration areas, shading devices, glazing U-value, shading coefficients, visible transmittance, and the use of automatic daylighting controls for perimeter lighting systems. The user can select, from the options presented, a combination that best suits the needs of the building design.

New products: NEOCON 20

The battle of the contract design centers escalated with the opening at NEOCON 20 this June of a brand-new third floor in Chicago's Merchandise Mart, containing 200,000 sq ft of showroom space for 43 major contract-furnishings manufacturers. Booth/Hansen Associates' design broke the Mart's grid with a series of cove-lit, connected rotundas, and flowed over Helmut Jahn's new second-level skybridge to the Expo Center across Orleans Street. Several tenants remaining on contract floors 6 and 8-13 substantially expanded their showrooms into space made available by the relocation of former neighbors. A sampling of this year's NEOCON introductions:

1. Tihany chair

The *Bice* chair, named after the New York City restaurant for which it was originally designed by Adam D. Tihany, uses a sweeping curve of beechwood to provide both structural and seating support. Manufactured in Italy by Trocadero, *Bice* will be offered in a choice of wood finishes and seat upholsteries. Interna Designs U.S.A., Chicago. Circle 300 on reader service card

2. English cottons

Two wovens from Kirk-Brummel's contract fabric line, both *Chevrons* and *Chinchester* come 54 in. wide for panel applications, yet have the abrasion-resistance needed for upholstery. *Chevrons* is a diagonal flame stitch alternating with a star motif; it coordinates with smaller-scale *Chinchester*, shown in 2 of its 12 colorways. Kirk-Brummel Associates, Inc., New York City. Circle 301 on reader service card

3. Viennese for the office

German designer Bernd Münzebrock feels that his *Jugendstil* desks, case goods, tables, and pull-up and lounge

seating for the executive office capture the union of simple geometric forms into functional pieces that characterized the work of Wiener Werkstätte architects Josef Hoffmann and Koloman Moser. Made in both Canada and the United States, the furniture comes in three wood finishes, with a number of stone, leather, or wood top options. The *Column* table and *Wien* chairs are pictured. Geiger International, Atlanta. Circle 302 on reader service card

4. Wool jacquard

Carnegie introduced its *Symphony Collection*, five different contract upholstery fabrics produced on new jacquard looms that can use as many as 16 different weft colors. Carnegie, Rockville Centre, N. Y. Circle 303 on reader service card

5. Italian executive

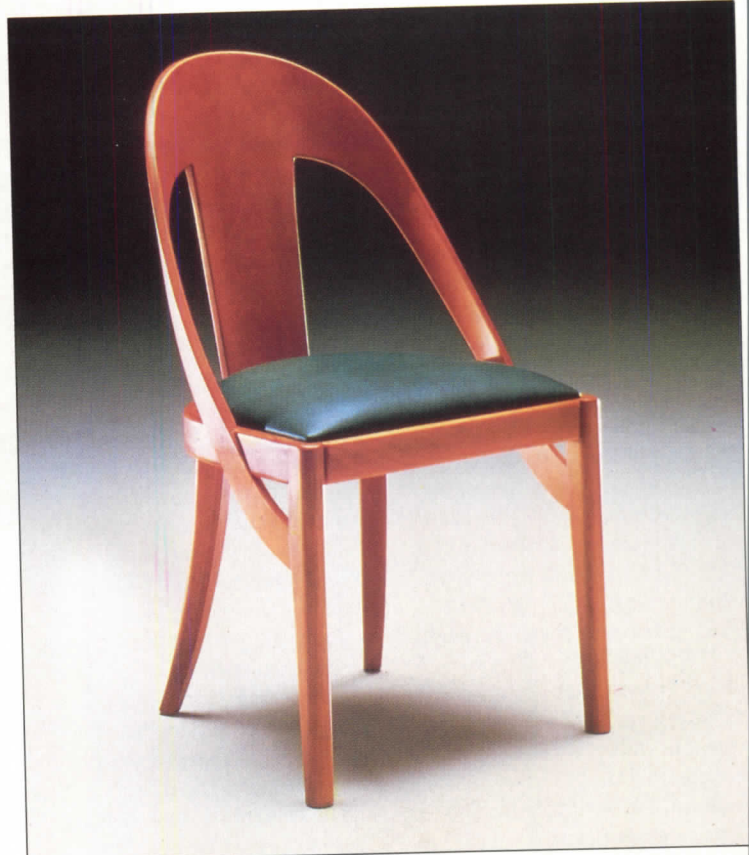
Architect Gianfranco Frattini's Executive Office for KnollStudio includes tightly designed desk, storage, and extension modules surfaced in Honduras mahogany veneer, or lacquered in black, gray, and dark "racing" green finishes. Knoll International, New York City. Circle 304 on reader service card

6. Multicolored sheet vinyl

A NEOCON introduction to the *Classic Corlon* inlaid vinyl flooring line, each of the 10 *Suffield* colorways has a confettilike scattering of contrasting colors. Armstrong World Industries, Inc., Lancaster, Pa. Circle 305 on reader service card

7. Space-saving office

TrendCentre circular clusters, for the "work-intensive office environment," are reportedly designed like a jet cockpit, with every tool within fingertip reach. Stations integrate with both private and open-plan panels. Trendway Corp., Holland, Mich. Circle 306 on reader service card



*For more information,
circle item numbers on
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New products: NEOCON 20 *continued*

8. Architectural refinement

System Seven is an extensive redesign by architect Robert Reuter of existing *SerieSeven* components. Changes include a snap-together, 3-circuit/6-wire raceway and a large data channel. Dual-walled desk support panels add rigidity to expanded one-piece work surfaces; deeper overhead cabinets increase storage and better shield task lighting. Domore Corp., Elkhart, Ind. Circle 307 on reader service card

9. Metal and glass lighting

The Pace Lighting Line includes this *Planar* bracket by Steven Holl, available in either black matte metal or patinaed brass, with a 17-in. frosted-glass diffuser. The Pace Collection, Inc., Long Island City, N. Y. Circle 308 on reader service card

10. Wallcovering fabric

A new yarn configuration of *Cordura* nylon was used to create *Perma Silk*, a material said to combine the soft hand of raw silk with superior abrasion resistance. The fabric comes in 6 patterns and 100 colors. Kinney Contract Wallcovering, Cleveland. Circle 309 on reader service card

11. Trading places

Architect Gerd Althofer used 10 years of experience in bank-trading-room design to create the *Axial* console. The prewired steel frame and modular components contain vertically adjustable VDT bridges sized for most electronic equipment. ICF, Inc., Orangeburg, N. Y. Circle 310 on reader service card

12. Wraparound lounge

The newest member of the Steelcase Design Partnership, Atelier International introduced *Bull Seating* by Gianfranco Frattini, with down-filled cushions set on a padded, steel-frame body. Atelier International, Ltd., Long Island City, N. Y. Circle 311 on reader service card

13. One-source system

From Kimball's Artec division, the *Cetra* system is described as offering style, structure, and power for every office level. Acoustical, sectional, and glazed panels are made in exact dimensions, colors, and finishes to meet most corporate standards. Kimball Artec, Jasper, Ind. Circle 312 on reader service card

14. Leaves of glass

Ring Series desks, designed by Facchina and Bandiera, offer several shapes of tempered glass work surfaces and returns, set on cylindrical legs that carry wiring and various accessories. Kinetics, Rexdale, Ont. Circle 313 on reader service card

15. Executive suite

Baker's new furniture combines traditional details, such as inlaid veneers and hand-finishes, with a contemporary appearance; designer Charles Pfister describes the line as "tomorrow's antiques." Baker Executive Office, Grand Rapids, Mich. Circle 314 on reader service card

16. Speedy delivery

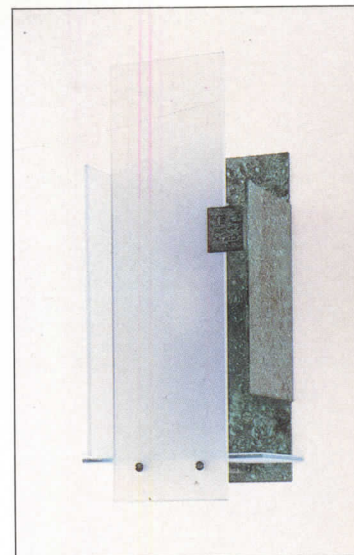
Some components of the all-wood *Arris System* are now available on a quick-ship basis: about four weeks from specification to delivery. The program includes non-handed work surfaces, panels, and overhead and freestanding casegoods. Alma Desk Co., High Point, N. C. Circle 315 on reader service card

17. Open office

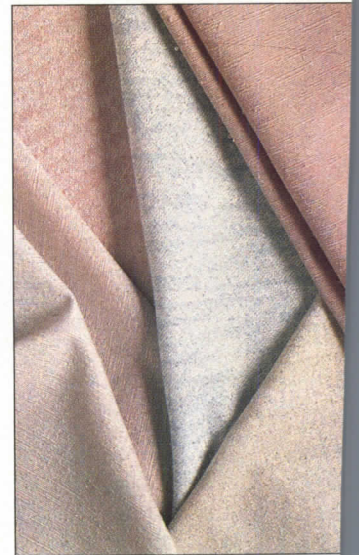
The *Woodwind* furniture system now provides mahogany, cherry, white oak, and walnut veneer finishes. The expanded line also includes both modular and freestanding tables and storage components. Shaw/Walker, Muskegon, Mich. Circle 316 on reader service card
More products on page 135



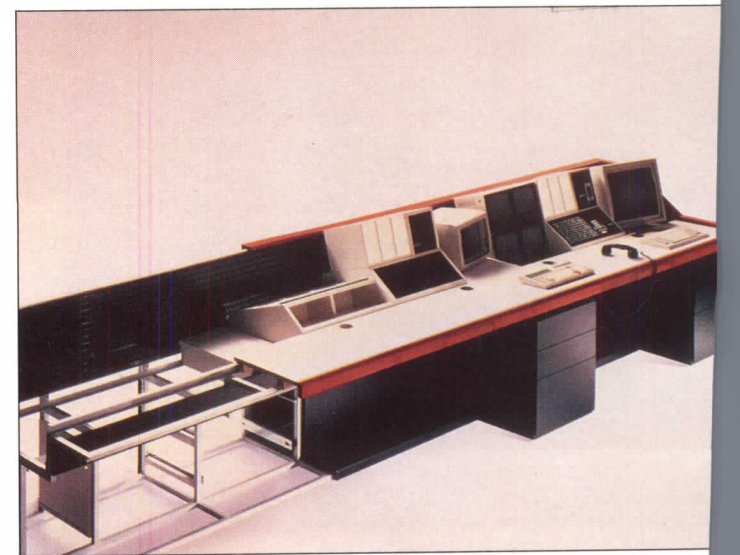
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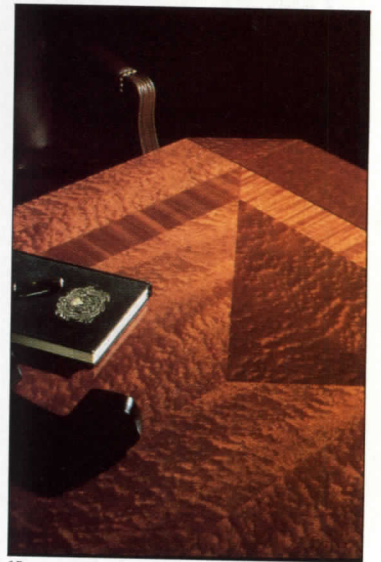
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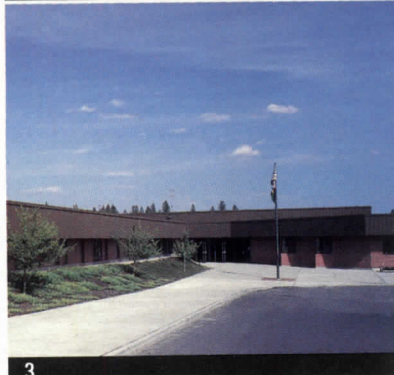
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17



At first glance, it's difficult to imagine how these six different buildings are related. But if you take a closer look at their histories, you'll find they all share a common theme: the washrooms in all six buildings have been refitted with Sloan flushometers.

True, these buildings don't look old enough to need major plumbing repairs. But the fact is, the original flushometers that were installed just didn't hold up. Even after repeated servicing, they continued to malfunction. They didn't shut off properly. They leaked at the stops. In some cases, they even flooded the washrooms. In short, they weren't Sloan flushometers.

Unlike substitutes, Sloan flushometers offer proven, reliable service. With built-in quality at an affordable price. That's why today more buildings are equipped with Sloan flushometers than with any other brand.

Only Sloan's rugged, tamper-proof design can assure the quiet, dependable operation so critical in buildings like these. Plus, Sloan flushometers are built to last for years with only minimal, routine maintenance—an important consideration for owners who value time and money.

The next time you consider specifying a substitute, think about these six buildings. Then specify and insist on Sloan. The first time.

More
Six major reasons to specify Sloan...

the first time.

1. Angelina County Exposition Center, Lufkin, TX 2. Linpro Company, Berwyn, PA
3. Northwood Jr. High School, Meade, WA 4. Barnett Plaza, Orlando, FL 5. Cow Town Colosseum, Fort Worth, TX 6. CNA Tower, Orlando, FL



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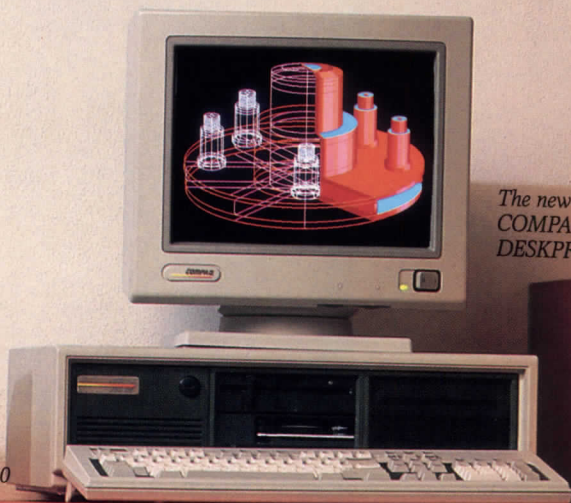
*The 16-MHz
COMPAQ
DESKPRO 386*



When Compaq
pioneered high
performance personal computing
and introduced the industry's
first 32-bit PC's based on the Intel® 386* chip,
we gave performance-hungry business users
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The new 25-MHz
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*Hereafter referred to as 80386SX, 80386 and respectively.

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Software reviews for architects

By Steven S. Ross

CodeCONTROL Release 2.0

With this program, personal computers can be used to search building and safety codes applicable to a given project. After code-related parameters are set, the program dials a central database and provides digests of relevant code sections. At this writing, information on 22 metropolitan areas in 10 southeastern and northeastern states is available. Jurisdictions covered by the database can be checked by calling 800/634-CODE.

Vendor: Codeworks Corp., 1225 19th St. N. W., Suite 750, Washington, D. C. 20036 (202/778-6300).

Price: Annual subscription, including software, manual, training, and toll-free support phone, is \$295. Types of reports (defined below) are priced as follows: administrative reports are \$25; local amendments, \$1 per page; global comprehensive reports, \$350; comparative reports, \$100. Prices do not include hard-copy delivery charges (for service faster than first-class mail) and a \$50 handling charge per printed report. Delivery and handling charges can be avoided by having reports downloaded by phone line to your computer.

Equipment required: IBM PC, XT, AT, PS/2 or compatible; 512K (the software requires 400K of memory itself); one hard disk with at least 2 megabytes of free space (4 megabytes recommended); MS-DOS or PC-DOS 2.1 or higher; printer (dot-matrix using Epson/IBM control codes). The manual says only a Hayes-compatible modem will do, but we successfully accessed the database using an IBM modem as well. (To use a modem other

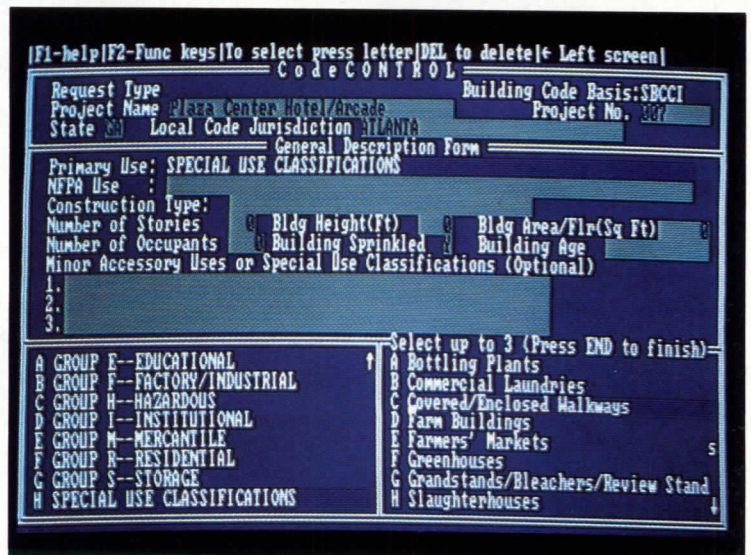
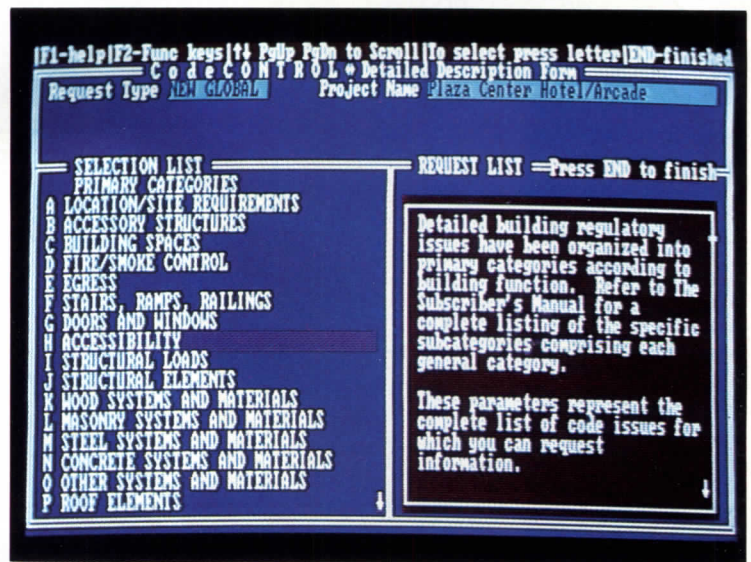
Mr. Ross is a prominent computer consultant and a regular contributor to RECORD.

than Hayes, change the dialing and initializing commands called for in the installation section so that they begin with appropriate letters, rather than the "AT" that all Hayes-compatible modems use.) There is no warning (as there should be) about the amount of hard disk space required for installation.

Summary

Manual: Concise and to the point. It is a looseleaf notebook that Codeworks updates occasionally by sending new pages, and by sending a monthly newsletter.

Ease of use: Good. The program makes extensive use of menus. Important commands are



Data that describe the project are entered in the first screen (top). Among CodeCONTROL's helpful features is one that flags the selection of an inappropriate construction classification. The second data-entry screen lists code subjects

that can be selected for further investigation (bottom). The subjects are nested for easy scanning; subcategories are revealed once a main subject is chosen.

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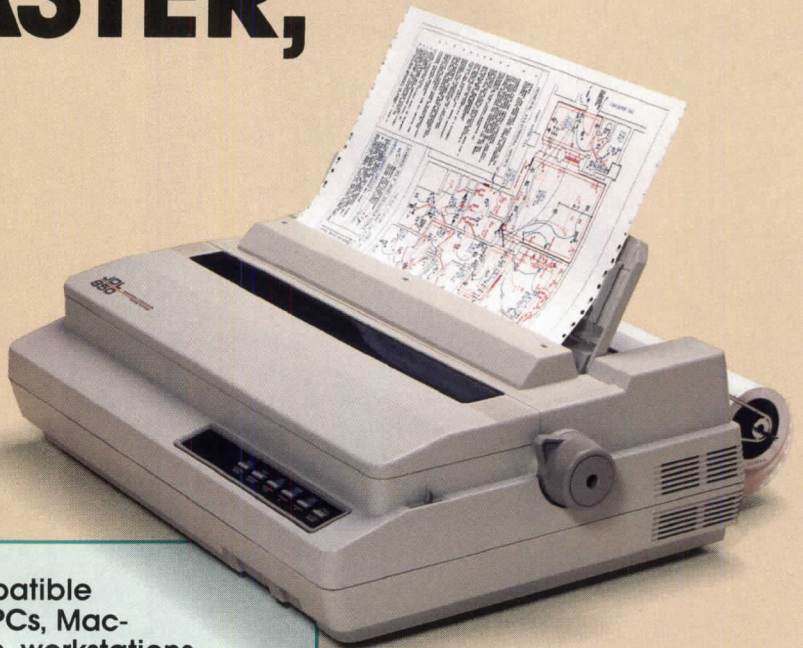
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simplified menu provides for quick set-up and flexible image control, including enlargement and reduction and a multiple copy selection. The 850's proven technology gives you color hardcopy in 14 colors with crisp consistent lines, without the bother of pens and special media, or the worry of running out of ink or



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CodeCONTROL can focus on only the regulations your project actually requires; it also places sections from various codes together for comparison.

summarized in the top line of the screen; a screen summarizing other commands can be summoned by hitting the F2 key. But the operator cannot point and shoot by highlighting a menu choice, then pressing RETURN or ENTER to execute the command. Instead, an appropriate letter code must be typed. This is typical of software that, like CodeCONTROL, is a template overlaid on generic database software. Help screens are summoned with the F1 key. They are short and not always to the point (often, they simply tell users to go to the manual, but they neglect to mention which page). Fortunately, the software is so intuitive that help screens are hardly necessary.

Error-trapping: Within the program itself, error-handling is excellent. CodeCONTROL caught us every time we tried to skip inputting important information. Entering a jurisdiction that Codeworks does not yet have in its database produces an error message—and the program then provides an alphabetical list of jurisdictions that *are* in the database (top). The software keeps track as jurisdictions are added; the Codeworks main computer automatically updates the software in the user's own PC whenever a report is requested via a modem. Installation is no other matter. There are 1.4 megabytes of files on four disks that must be loaded onto a hard disk, but almost two megabytes of hard disk space are needed because the automatic installation program requires enough space for duplicates of most all the data files to be stored briefly on the hard disk. The only warning that something is going wrong is the momentary flashing of the DOS message "insufficient disk space."

Architects must become familiar with building codes whenever a project is located.

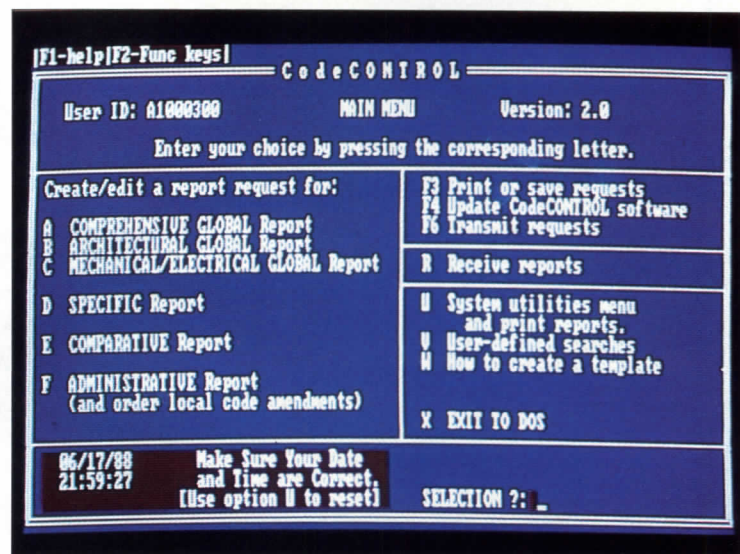
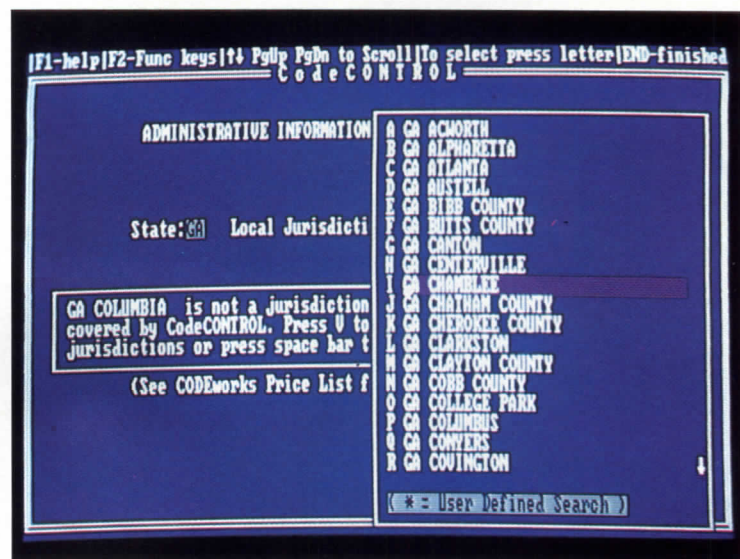
And, of course, the most foolproof way to get the latest codes is to call the code official or officials. Why, then, interpose a middleman, or middle RAM—the Codeworks database? First, CodeCONTROL can focus on only the codes your project actually requires; it also places sections from various codes relevant to a given aspect of a project together for comparison, so that, for instance, conflicts between a county and a local code are easier to spot. The reports are digests of the code language; they are concise and portable, and can be carried into the field. And it is obviously faster to verify compliance, especially in unfamiliar jurisdictions, by using CodeCONTROL than it is to send an assistant off to the county planning board, city hall, and the state planning office.

Here's how it works: After installing CodeCONTROL, you are presented with the Main Menu, which lists the types of reports you can request (bottom). The best place to start is by constructing a request for an "administrative report." To determine what codes are applicable, CodeCONTROL data-entry screens are first filled in. The program then prompts the operator to list occupancy or use groups (up to three), NFPA use-class, proposed construction type, number of stories, building height, and so forth (screen images, page 129). This report will identify any applicable code requirements for each of seven categories (building codes, life safety code, handicapped accessibility, fire, plumbing, mechanical, energy), along with titles, addresses, and phone numbers of code-enforcing officials. From the administrative report, a specific report on a given issue or set of issues—the interrelationship of code requirements concerning egress, handicapped access, and fireproofing, for example—can

be requested. Again, your PC and modem can query the database once you've constructed the request, or the query can be phoned in or requested by FAX.

Codeworks clearly recognizes the tradeoff between out-of-pocket costs and speed by keeping report prices reasonable.

A global report and some typical specific reports should permit an average project to be analyzed for around \$500 plus some shipping or phone charges. The cheapest, fastest way to get most reports (all except the voluminous global report) is by having CodeCONTROL automatically dial into the



If a jurisdiction is not yet on the Codeworks database, the program is prompted to present a list of jurisdictions that are on file so that possible errors can be checked. The screen shows Georgia cities (top). After starting the

program, the main menu appears, which allows selection of the type of report desired (bottom). Requests for updating of the software and report requests can be made through the modem simply by pressing F keys.

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HOTSHOT includes an excellent program for touching up, changing, or cropping converted images for use in presentations or desktop publishing documents.

Codeworks database and download the report for you once you have defined what you are looking for (it takes only a few minutes). There is no charge for connect time. Less expensive global reports can be accessed that cover only architectural matters (\$200), or mechanical and electrical systems (\$200). The \$350 report covers all subjects. The global reports are arranged by code subject, and, when printed by Codeworks, come with nice binders and divider tabs. Additional copies are \$50 each. Or global reports can be ordered on floppy disks (\$10 per disk; each disk holds about 250 pages).

If the use group, for example, changes after a global report has been received, a comparative report can be ordered that lists only the affected code requirements. The price is \$100. Codeworks will even sell divider tabs for those who want to print their own copies from disks (\$15 a set). The pricing policy seems to be set up to entice you to buy disks rather than to force Codeworks to bill you for expensive printing services. Local modifications of model codes or other amendments can be requested at \$1 per page with a \$20 minimum. Codeworks says its database is current to within 30 to 60 days; it guarantees that code changes are added to its database within 90 days of enactment.

At press time, Codeworks was preparing another product, CodeANALYST, for calculating code-allowable maximum building heights and areas, and analyzing construction type, fire separation construction, and other code-related criteria. The company is coordinating the product with McGraw-Hill to offer it as part of the forthcoming electronic version of Sweet's Catalog Files.

HOTSHOT Graphics 1.0

A set of interrelated programs for capturing screen images (both graphics and text), editing the images, and converting those images for insertion into other normally incompatible types of files or applications. A great tool for creating presentations and brochures.

Equipment required: IBM PC, XT, AT, PS/2 or compatible; 512K (640K recommended); hard disk; PC-DOS or MS-DOS 2.1 or higher. Supports MDA, MCGA, CGA, EGA, VGA, Wyse 700, Hercules, Vega Deluxe, and AT&T 6300 graphics. Supports all HP laser printers and HP ThinkJet (under Alternate Control Sequence), AST TurboLaser, Apple LaserWriter and other PostScript printers, Epson FX and later models (and Epson compatibles such as the IBM Proprinter), Okidata 90 series, Toshiba 3-in-1. A mouse or digitizing tablet (in mouse mode) is recommended.

Vendor: Symsoft Corp., P. O. Box 4477, Mountain View, Calif. 94040.

Price: \$249.

Summary:

Manual: Terrific. A minimal understanding of PC-DOS or MS-DOS is assumed, however. Terms specific to HOTSHOT are well defined. Some terms specific to DOS (RAM disk, for instance) are not.

Ease of use: Intuitive, for the most part. The installation program is handled on-screen with all of the choices displayed. Users, however, should understand that the different programs from which the images are generated use different file formats, even if they look the same on-screen. Handling of the various formats is described in the manual. Some image files—such as those in the PostScript language—can be huge, a

megabyte or more on disk.

Images and text can be drawn from or pasted into files created in Ventura, PageMaker, and other desktop publishing packages. A CAD-screen image can be converted for use by "paint" or "draw" programs allowing enhancement of a plan, for instance, for presentation purposes.

Error-trapping: If you choose to store images on a RAM disk (that is, in a section of memory that the computer treats as if it is a disk), you must set it up before running HOTSHOT. The program runs in the background unseen behind the application from which the images are to be moved and, like some other background programs, HOTSHOT can interfere with the foreground program. The error messages seen are usually those of the foreground program, and they can be unnerving. For example, when using HOTSHOT to capture screens from AutoCAD, an error message may indicate that there is no room for AutoLISP. While this will keep most AutoCAD add-on programs (like AutoSHADE) from working, HOTSHOT will still operate. Because of the limitations of DOS, a background program should never be removed from memory while running a foreground program: A "hole" could be left in memory that usually freezes the computer. GRAB is The HOTSHOT Graphics module that copies the screen images of the foreground program. Unfortunately, it can sometimes be unintentionally removed while a foreground program is running (by accidentally hitting the F10 key).

Some numerology: Symsoft is a small company that does little advertising and gets little publicity. An earlier version could only manipulate text screens. (That task, by the way, is not an easy one.) Other companies, such as Z-Soft, sell

programs that can work with graphics screens but not text. Symsoft then added modules for graphics screens as well, calling the product HOTSHOT 1.1, but it was hard to fit that version into memory along with memory-hungry architectural CAD software. HOTSHOT Graphics 1.0 (despite the version number) is a newer product than HOTSHOT 1.1. Its memory requirements are now lower, only about 25K. It includes more ways to convert graphics files from one format to another, and there is an excellent program for touching up, changing, or cropping the converted images for use elsewhere. An architect we know uses this feature to draw little arrows and pointing fingers onto images, calling attention to features he wants to highlight. A useful HOTSHOT module, WINGRAB, can capture graphics and text from programs that use Microsoft Windows. Once you load it, however, you cannot unload it without ending the Windows session.

Successive images can be quickly captured without giving each a separate name; HOTSHOT will increment the image number for you, once you specify a filename (IMAGE00, IMAGE01, and so forth).

One problem for digitizing tablet users is that HOTSHOT expects the digitizer to emulate a mouse (that is, the cursor on-screen moves when the mouse moves; only the mouse movement, not the start-and-end position, is sensed by the computer). If a session is started in mouse mode, you can generally switch back to digitizer mode, but you cannot return again to the mouse without exiting the program and restarting from DOS. If this is a problem, the cursor keys can be used to edit the image, or the new Kurta tablets allow the operator to go back and forth from mouse to digitizer.



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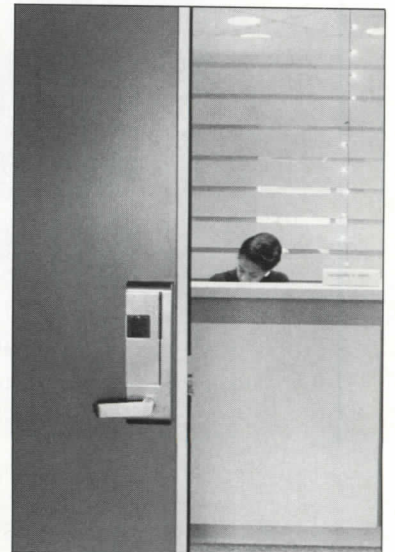
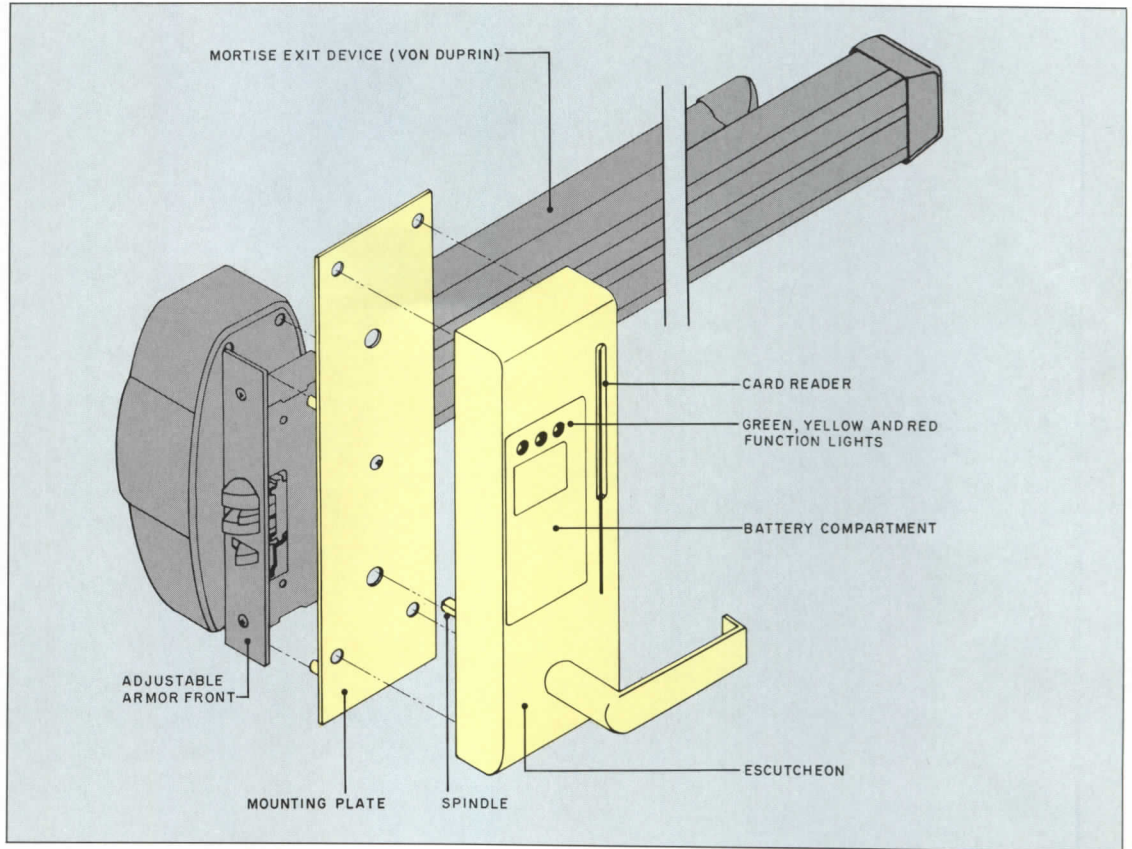
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The battery-powered lock itself is a standard mortise or cylinder type, operated by a magnetically encoded, bank-style keycard. When the card is inserted, a green LED light indicates that the door may be opened; a red light flashes when access is denied to that particular card. The yellow light flashes when the long-life battery needs replacement, perhaps every 5 years. The microprocessor lock is said to be easy to mount in regular door-prep cutouts, making it suitable for retrofit as well as new door installations.

Cardkeys are individually encoded using sophisticated Macintosh-based software originally developed for the logging industry. Cards can be programmed, for example, to open certain doors only at specific times, or for one-time use; an audit-trail feature records entrances to any room. Depending on the size and complexity of the office application, building owners may use an authorized dealer to encode keycards, or purchase all the computer hardware and programming programs required for about \$10,000. If a keycard is lost or stolen, a replacement can be issued in seconds with an unbreakable combination code, at much less than the cost and time required to remaster a mechanical system.

Intellis locks are available for interior and exterior doors, exit devices (shown in drawing), and elevator interface, in standard architectural finishes. Schlage Lock Co., San Francisco.

Circle 317 on reader service card
See products on page 141





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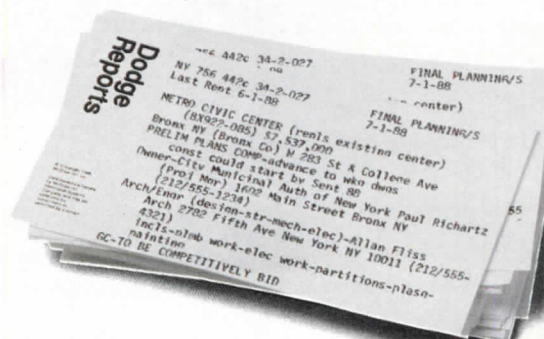
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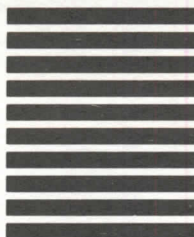
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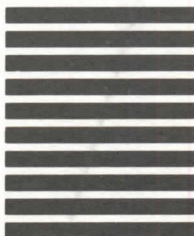
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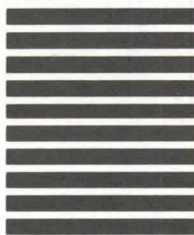
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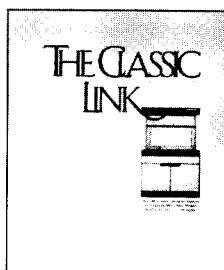
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Natural stone

A brochure explains how this source can assist the architect in the selection and installation of marble, granite, and French limestone, as well as fabricate custom stone facades, fountains, etc. Flexsol, Inc., Burbank, Calif.
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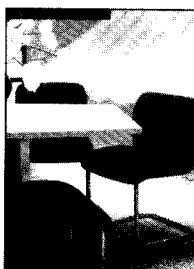
Laboratory design

Free seminars to help the designer plan the layout of laboratory furnishings and equipment are described in an illustrated brochure from *Classic Modular Systems* and *Labconco*. Labconco Corp., Kansas City, Mo.
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Architectural glass

Technical catalog has 40 pages of design, performance, and specification data on tempered, laminated, insulating, bent, and other glass. Overhead, sloped, and curtain-wall projects are shown. Viracon, Owatonna, Minn.
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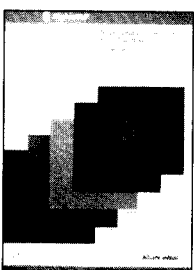
Office furniture

A full line of standard, folding, and stacking chairs, as well as tables, bookcases, machine stands, and screen systems, is included in a 30-page specification catalog. Samsonite Furniture Co., Murfreesboro, Tenn.
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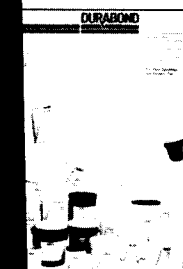
Casegoods

Merano desks, credenzas, bookcases, and conference tables, made of African mahogany accented with a metal reveal, are shown in a 32-page design portfolio. Brayton International Collection, High Point, N. C.
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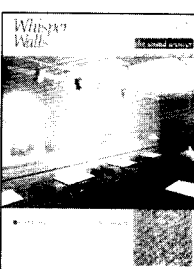
Metallic ceramic-on-steel

A binder insert presents all 5 new *Seritec* metallic colors offered on *AllianceWall* ceramic-on-steel surfaces, including onyx, pewter, gray, bronze, and copper. AllianceWall Corp., Norcross, Ga.
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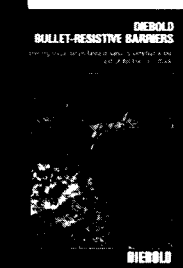
Floor covering/tile adhesives

A 16-page brochure presents *Durabond* adhesives, grouts, mortars, and accessories for installing carpet, vinyl sheet goods, parquet and plank wood flooring, and ceramic tile. DAP Inc., Dayton, Ohio.
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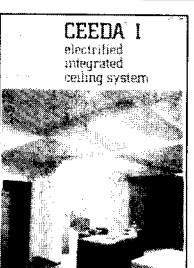
Acoustical fabric wall

A 12-page technical brochure explains the *Whisper Walls* site-fabricated system, which uses various core materials to reflect or dampen sound as required by the interior space. Innerspace Control Systems, Inc., Denver.
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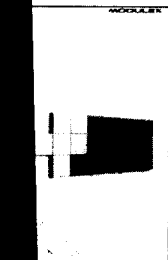
Bullet-resistant barriers

Said to ensure security without hindering operation, doors, frames, windows, and pass-trays that meet all UL-listed levels of firearm protection are shown in a 4-page brochure. Diebold, Inc., North Canton, Ohio.
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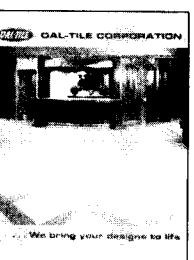
Integrated ceiling

Technical catalogs describe the design and functional benefits of *CEEDA* electrified suspended ceilings, including movable lighting, air diffusers, and sprinklers. CDA Industries, Inc., Scarborough, Ont.
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Interior signage

An 8-page booklet shows how the designer can work with a large number of modular panels and color selections to develop unique, vandal-resistant signage for specific commercial interiors. Modulex, Inc., Racine, Wis.
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Ceramic tile

A 1988 architectural catalog supplies product, performance, and installation data on ceramic and stone tiles, including a new mosaic size developed for joint alignment with wall tile. Dal-Tile Corp., Cincinnati.
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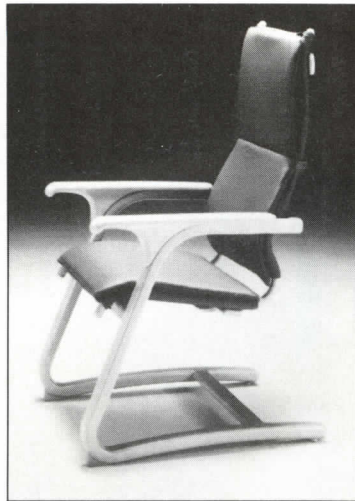
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Designed by John Caldwell for hospital and nursing homes, the healthcare chair has a sling seat set over a cantilevered frame that supplies a gentle, springing motion. Chair arms have grips to assist the user. Thonet Furniture, Statesville, N. C.

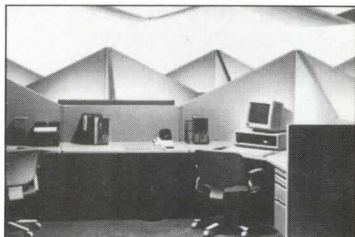
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Maple desks

The *Estro* desk has a contemporary feel, with a curved edge detail of pvc beading in black, red, or gray. Casework comes in maple, as shown, as well as cherry. The Gunlocke Co., Wayland, N. Y.

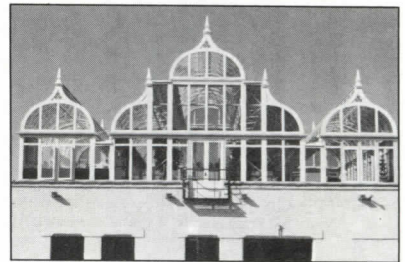
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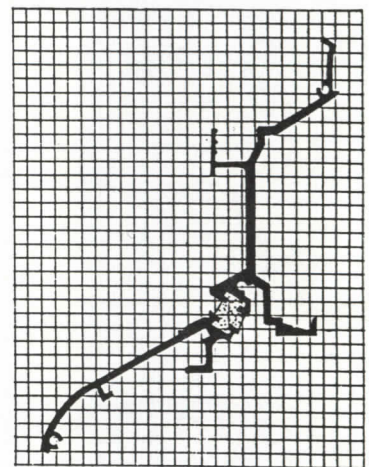
Office panel system

The *Places* office includes fabric-covered and glazed partitions in gabled and slanted shapes, 63 different sizes of straight panels, and fanlights, wainscots, and trim in new wood or metal finishes. Raceways are placed in the panel top, with direct access at work-surface height. Haworth, Inc., Holland, Mich.

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 The Alice Busch Opera Theater
 Hardy Holzman Pfeiffer Associates, Architects
 Metal walls and roof: E. G. Smith Co. Rolling doors: Fleming Steel Co., Inc. Pole fixtures: Hubbell Lighting. Benches: Smith-Hawkins. Paints: Benjamin Moore & Co.; M.A. Bruder; P. P. G. Stains: Eastern Paint Indus. Stage curtains: Valley Forge. Rigging: J.R. Clancy Co. Seating: Country Roads, Inc. Upholstery fabric: Rossville Mills, Inc. Ceiling fixtures: Lightolier. Glass-shaded pendants: Visa. Resilient flooring: Armstrong World Indus.

Pages 94-99
 Trinity School Additions
 Lord & Sargent, Inc., Architects
 Custom-color CMU: Metromont Materials. Storefronts and entrances: Tubelite Architectural Products. Operable windows: VinVent. Concrete: William Brothers Concrete, Inc. Precast slabs: Tindal Concrete Georgia, Inc. Footbridge: DeBourgh Mfg. Co. EPDM roofing: Gates Engineering. Preformed T-rib roof: Atlanta Metal Products. Skylights: Skytek, Inc. Glass block: Pittsburgh Corning Corp. (solar-reflective *Vue*; clear and glass-fiber reinforced *Decora*). Flag pole: Detra Flag Co. Fire doors: Overhead Door. Hardware: Sargent Mfg. Co. Acoustic ceiling: U.S. Gypsum Corp. Grid: National Rolling Mills, Inc. Paints: Duron Paint Products. Vinyl flooring: Azrock Indus. Carpeting: Armstrong World Indus. Sconces and pendants: Danville-Holophane. Elevators: Montgomery Elevator Co.

Pages 101-103
 James Park Condominiums
 Simon, Daniel & Associates, Architects
 Aluminum windows: Bonelli. Ladders and brackets: custom, by Mechanical. Railings: custom, Sun Valley Iron Works. Glass block: Pittsburgh Corning (*Argus*). Skylights: Halo. Sconces: Lightolier. Wall fixtures: Lightolier.

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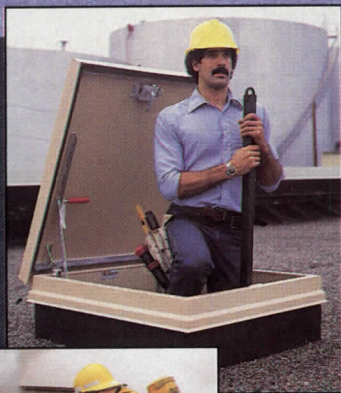
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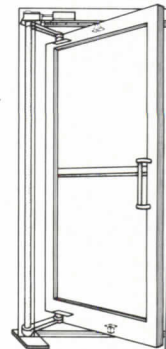
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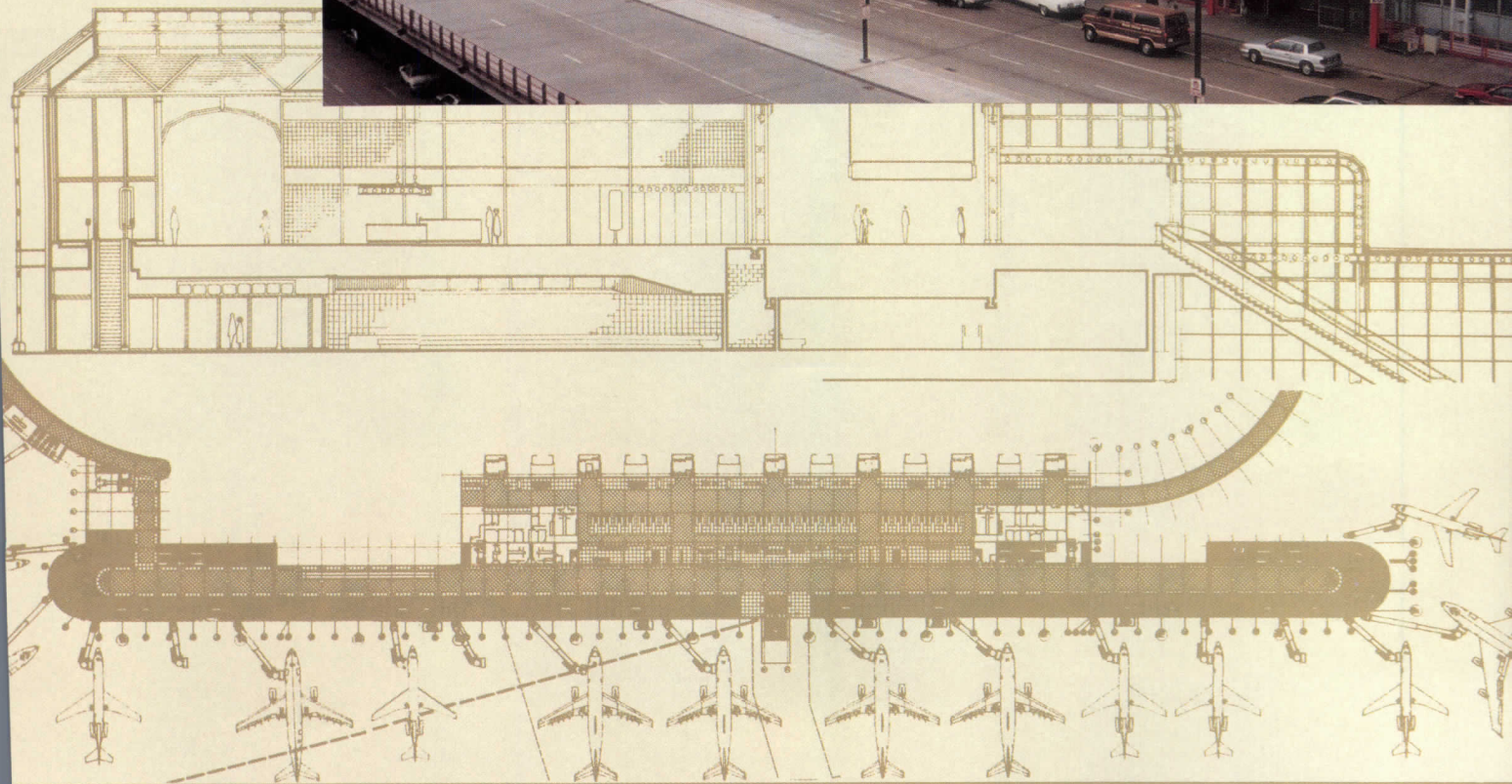
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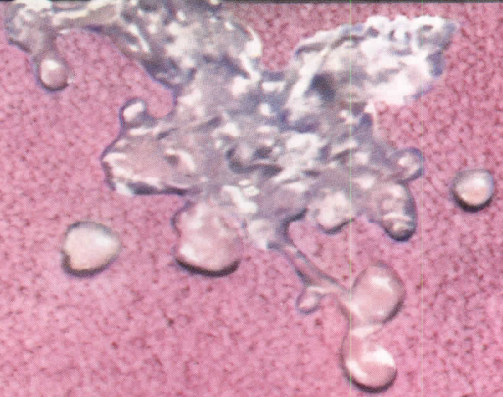
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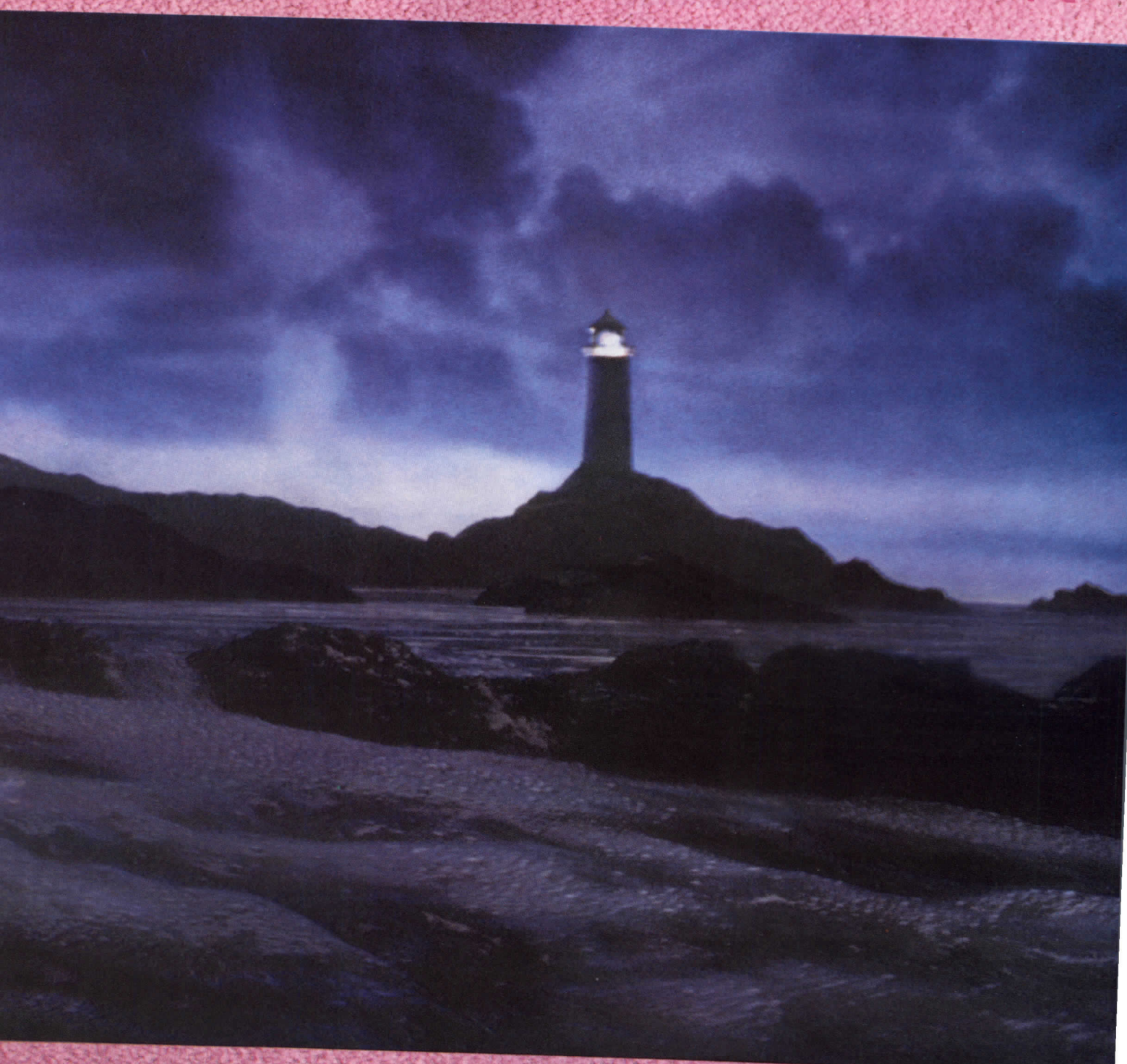
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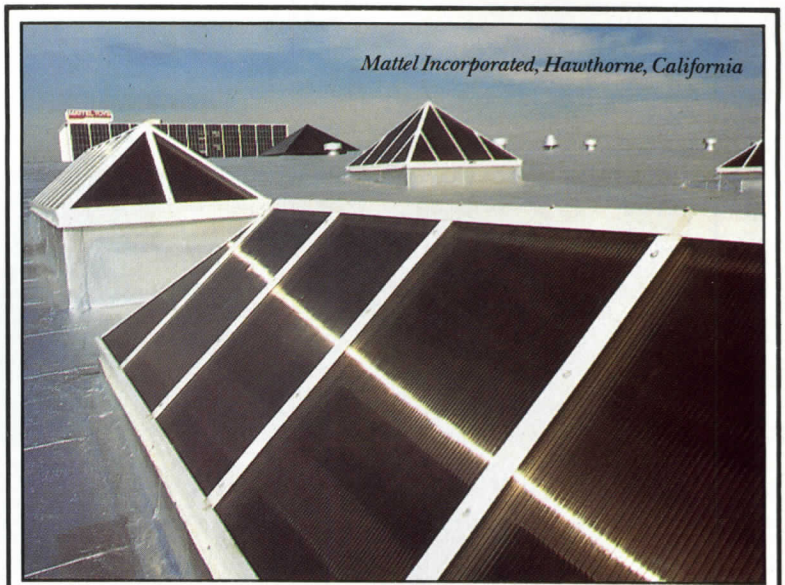
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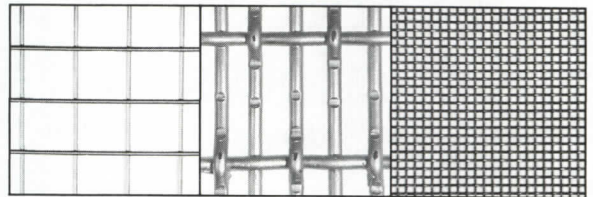
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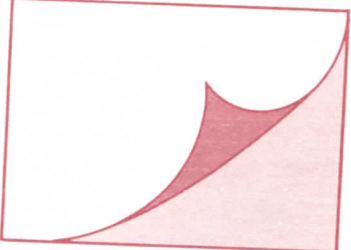
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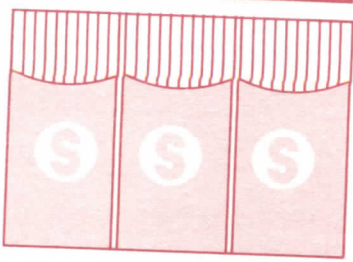
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1	13	25	37	49	61	73	85	97	109	121	133	145	157	169	181	193	205	217	229
2	14	26	38	50	62	74	86	98	110	122	134	146	158	170	182	194	206	218	230
3	15	27	39	51	63	75	87	99	111	123	135	147	159	171	183	195	207	219	231
4	16	28	40	52	64	76	88	100	112	124	136	148	160	172	184	196	208	220	232
5	17	29	41	53	65	77	89	101	113	125	137	149	161	173	185	197	209	221	233
6	18	30	42	54	66	78	90	102	114	126	138	150	162	174	186	198	210	222	234
7	19	31	43	55	67	79	91	103	115	127	139	151	163	175	187	199	211	223	235
8	20	32	44	56	68	80	92	104	116	128	140	152	164	176	188	200	212	224	236
9	21	33	45	57	69	81	93	105	117	129	141	153	165	177	189	201	213	225	237
10	22	34	46	58	70	82	94	106	118	130	142	154	166	178	190	202	214	226	238
11	23	35	47	59	71	83	95	107	119	131	143	155	167	179	191	203	215	227	239
12	24	36	48	60	72	84	96	108	120	132	144	156	168	180	192	204	216	228	240

NEW PRODUCTS/MANUFACTURERS LITERATURE ITEMS															
300	307	314	321	328	335	342	349	400	407	414	421	428	435	442	449
301	308	315	322	329	336	343	350	401	408	415	422	429	436	443	450
302	309	316	323	330	337	344	351	402	409	416	423	430	437	444	451
303	310	317	324	331	338	345	352	403	410	417	424	431	438	445	452
304	311	318	325	332	339	346	353	404	411	418	425	432	439	446	453
305	312	319	326	333	340	347	354	405	412	419	426	433	440	447	454
306	313	320	327	334	341	348	355	406	413	420	427	434	441	448	455

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I. Profession (check one)

Registered Architect A

Engineer B

Architectural Intern C

Interior Designer D

Designer E

Draftsman F

Other G

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II. Type of business (check one)

Architectural or Architectural/Engineering H

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III. Information needed for:

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3	15	27	39	51	63	75	89	103	117	131
4	16	28	40	52	64	76	90	104	118	132
5	17	29	41	53	65	77	91	105	119	133
6	18	30	42	54	66	78	92	106	120	134
7	19	31	43	55	67	79	93	107	121	135
8	20	32	44	56	68	80	94	108	122	136
9	21	33	45	57	69	81	95	109	123	137
0	22	34	46	58	70	82	96	110	124	138
1	23	35	47	59	71	83	97	111	125	139
2	24	36	48	60	72	84	98	112	126	140

NEW PRODUCTS/MANUFACTURERS LITERATURE ITEMS										
00	307	314	321	328	335	342	349	400	407	414
01	308	315	322	329	336	343	350	401	408	415
02	309	316	323	330	337	344	351	402	409	416
03	310	317	324	331	338	345	352	403	410	417
04	311	318	325	332	339	346	353	404	411	418
05	312	319	326	333	340	347	354	405	412	419
06	313	320	327	334	341	348	355	406	413	420

ONE MRS. MISS MS. FIRST INITIAL LAST NAME

NY

ESS ADDRESS

STATE ZIP

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Aug. 1988 Issue No. 25#88##

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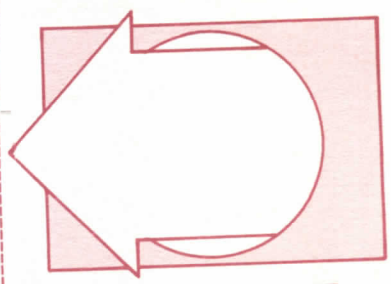
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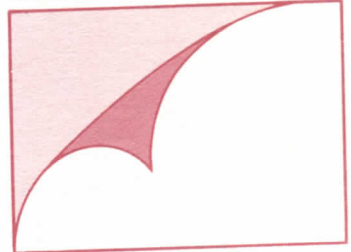
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6400 009876543-2 FEB90 S07
TERRY DOE, TD & ASSOCIATES
128 MAIN STREET
ANYTOWN IL 69699

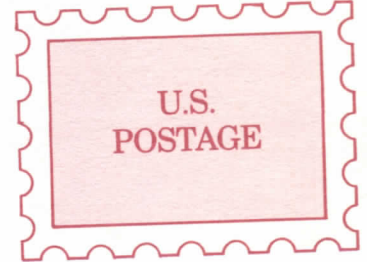
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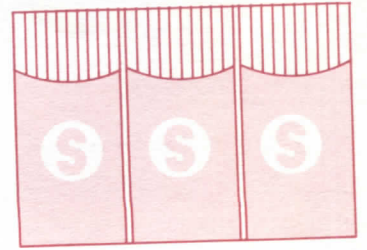
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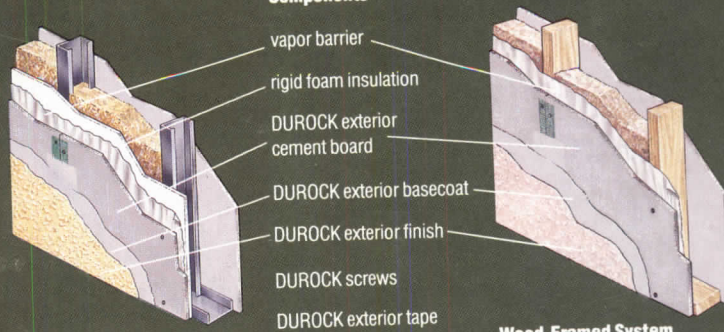
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