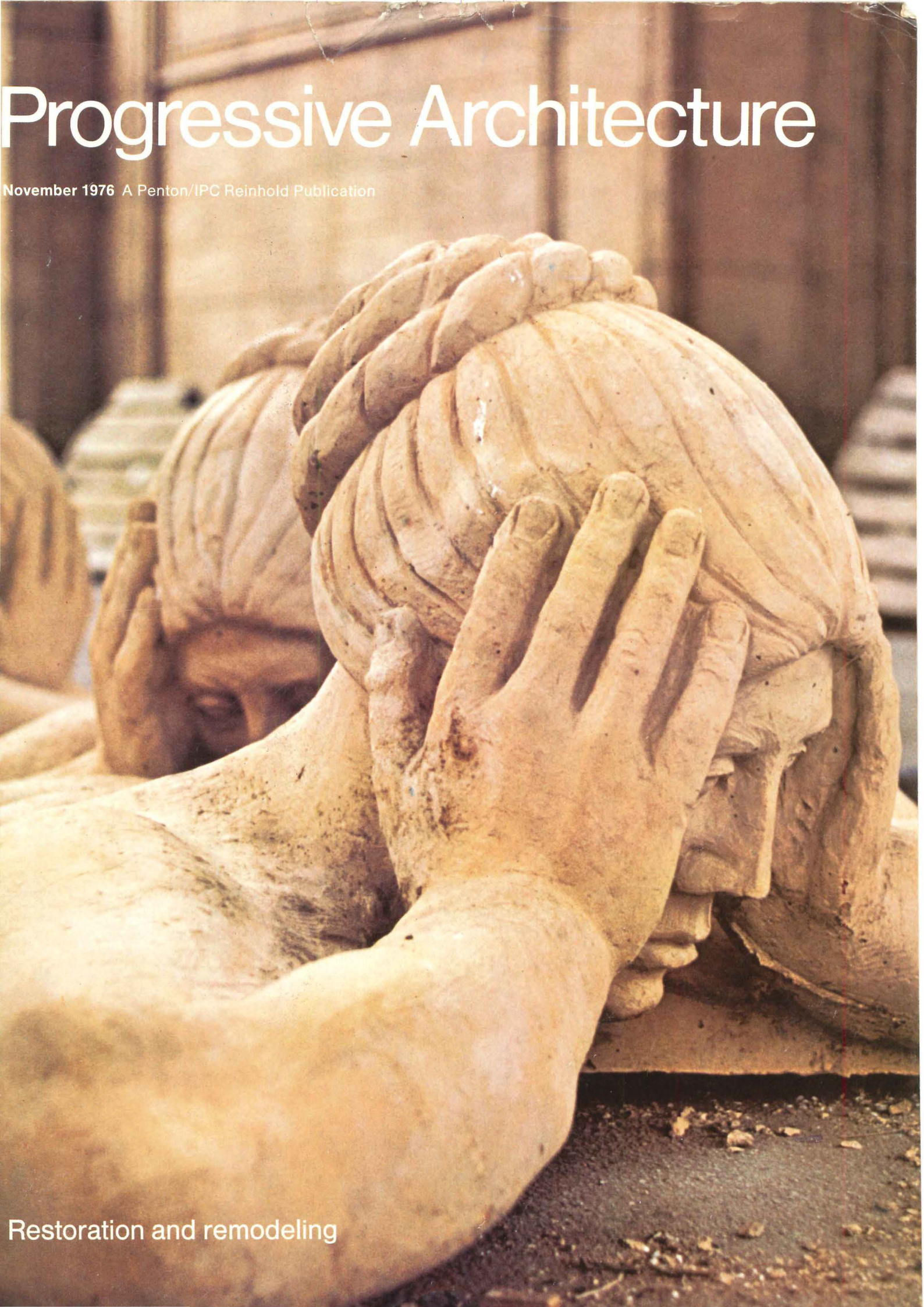
Progressive Architecture

November 1976 A Penton/IPC Reinhold Publication



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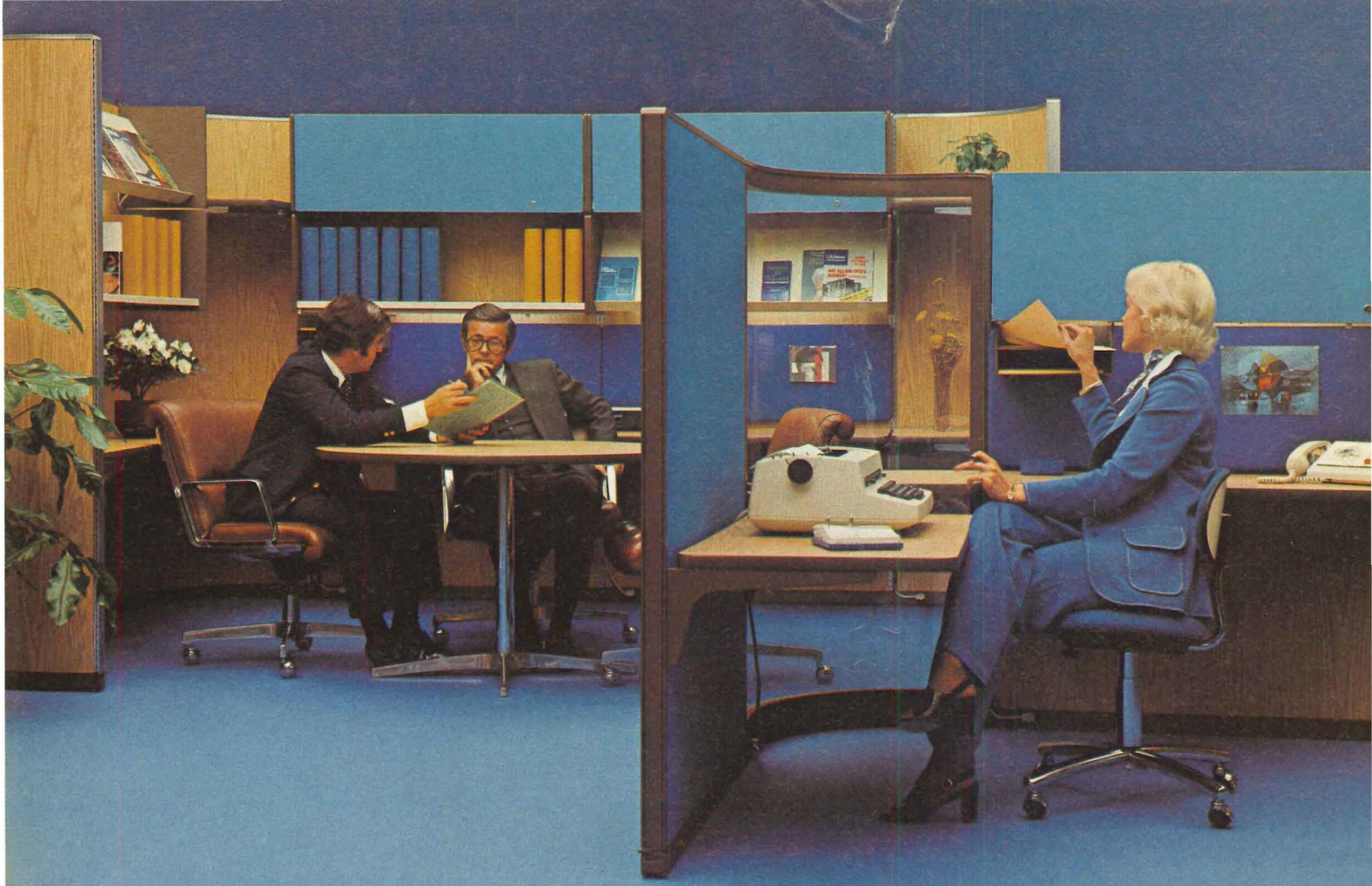

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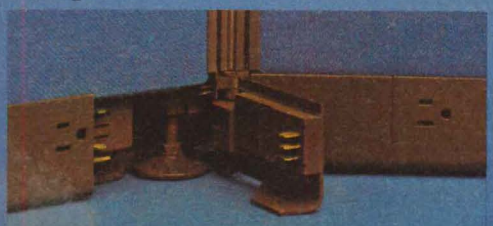

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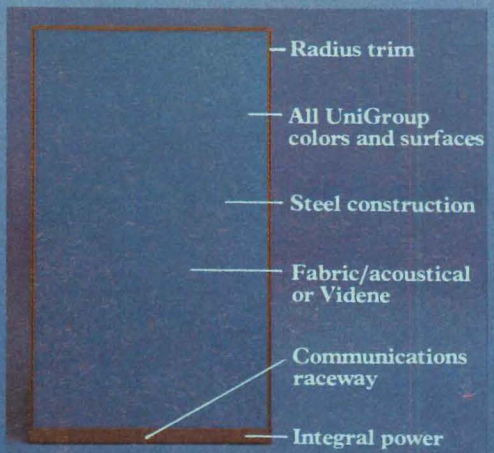

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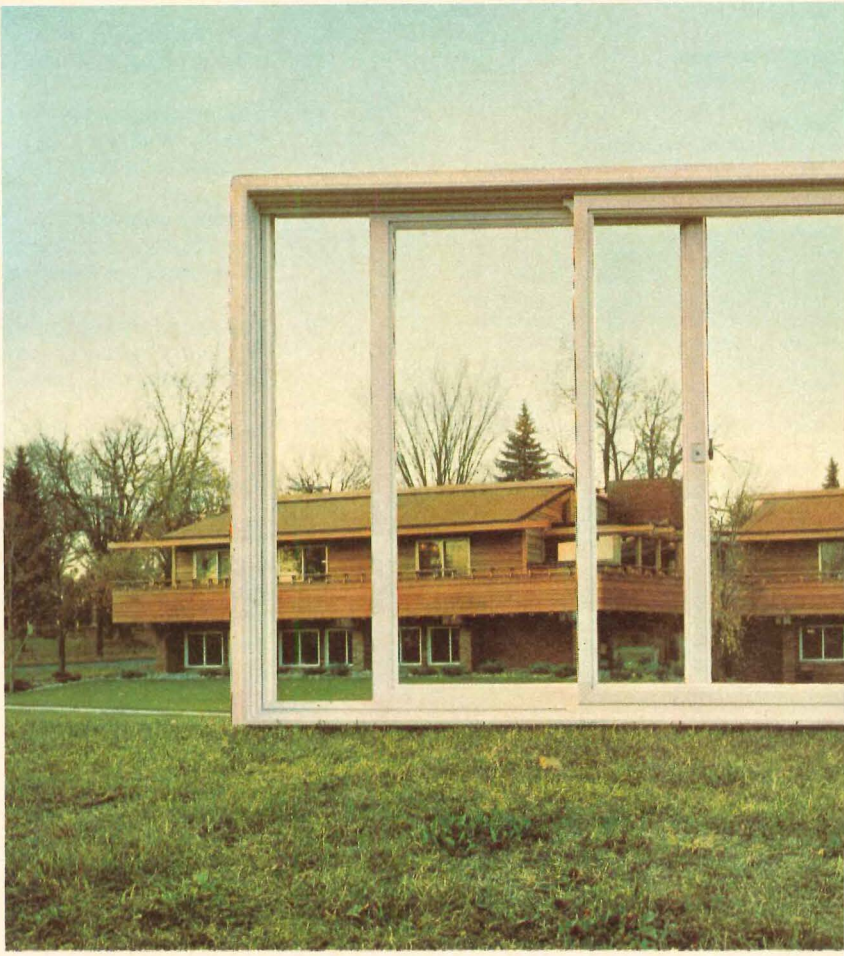
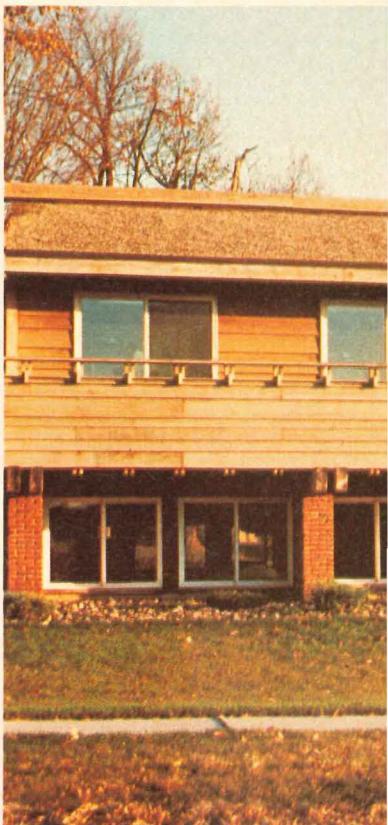
November 1976

Progressive Architecture

Cover: Freshly cast busts will complete the huge entablature figures atop San Francisco's Palace of Fine Arts (p. 66). Photo: D. Morton.





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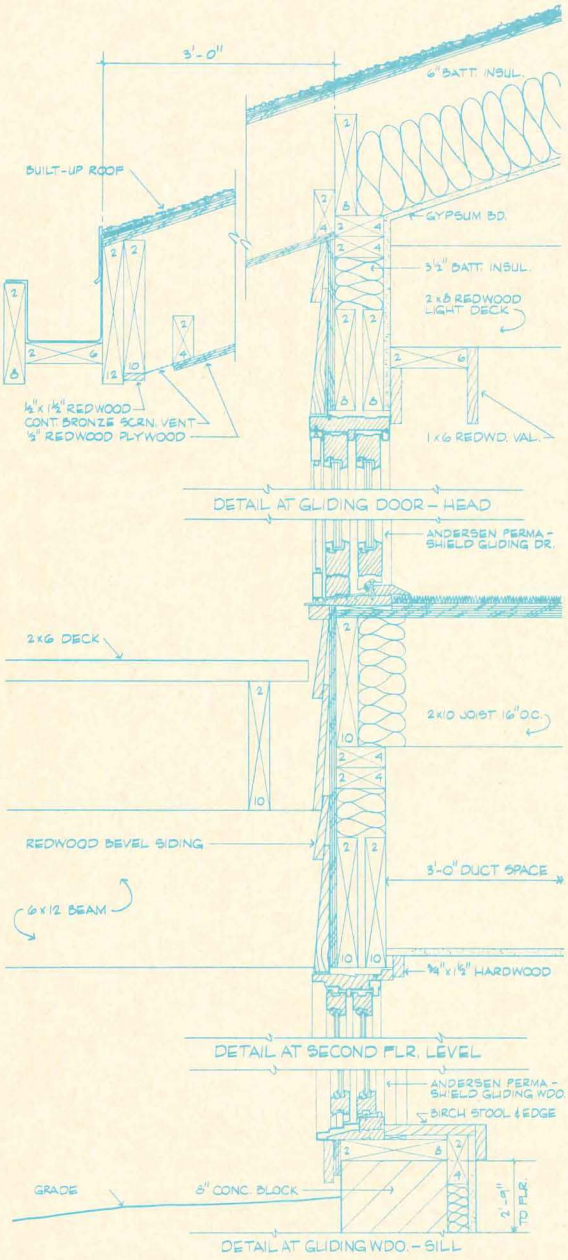

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Progressive Architecture: Editorial

Ring in the old

November 1976

Photo: The Daily Register, Don Lordi.

Red Bank, N.J., railroad station, before and after

If there is one area of architectural activity to cheer about—if there is one cultural effort really worth celebrating in this Bicentennial-laden year—it is the resurrection of old buildings. Our recent string of accomplishments—some of the choicest appearing in this issue—represents a remarkable turnabout in attitude among all factions that affect building: the public, the business community, the politicians, the banks, and among the architects as well (some of whom led the movement, others following only reluctantly). We could hardly have expected such a reversal of values back in the early 1960s, when some of us picketed in vain to save McKim's incomparable Pennsylvania Station in New York.

I thought again of Penn Station on a recent visit to my home town, Red Bank, N.J. The railroad station there (from which commuter trains still run to Penn Station's pitiful replacement) was undergoing a startling restoration to its original (1878) appearance. I remember vividly what a local embarrassment this station used to be—a gloomy pile, stripped of its gingerbread, painted olive drab all over, and crusted with steam engine grime. The local firemen were said to have standing orders in case it caught fire: let it burn. And now, with Federal financial aid, with research by Princeton University instructor Jerome Lutin (funded by the National Endowment for the Arts), with volunteer labor by local students, this object of scorn has become a source of pride; it may also help revive its gray area of town and give a boost to the only rational mode of commuter travel.

The restoration of a building such as this—charming at best, representative of an era—is all the more remarkable when you consider that a national treasure like Richardson's New London station (P/A, Sept. 1976, p. 21) was so recently rescued and that the fate of Cincinnati's fantastic Union Station—the part not already demolished—remains uncertain.

The nationwide passion for preservation can be measured. In the past year alone, 1969 properties have been added to the National Register of Historic Places (bringing the total to about 12,000); 21,000 new members have joined the National Trust for Historic Preservation, expanding its rolls to 108,000.

Beyond the restoration of landmarks—the definition of which has expanded so radically—there seems to be encouraging activity everywhere in adaptive reuse. On a weekend trip this summer we found ourselves—with no forethought about it—staying at a hotel made out of a defunct cannery and eating at a restaurant occupying—respectfully—another railroad station.

As Rodolfo Machado reminds us (p. 46) this reuse and reworking of architecture is historically *normal;* failing to do so was aberrant. We have long known that the bodies of once private houses lie behind many Main Street storefronts, or that the public library had had a previous life, but we've tried not to notice.

These are all favorable signs that I myself have perceived over the past few months. At the same time, some momentous things have been coming to a head at the national policy level. As we go to press, two pieces of legislation with major impact on preservation and reuse have just become law and a third is only a few steps away from probable approval. One new law will draw on off-shore oil drilling revenues to increase National Historic Preservation funding from its current $24 million per year to $150 million in the next few years (P/A News Report, p. 29); another measure, an amendment to recent Tax Reform Act, will reverse the existing bias of the Internal Revenue code—at least insofar as it applies to registered historic structures or districts—by eliminating all deductions for costs of demolishing them, limiting annual depreciation allowances for structures that replace them, and permitting accelerated depreciation methods for restored buildings. A third crucial bill, nearing approval, is the Public Buildings Cooperative Act, based on recommendations of the National Endowment, which permit mixed use (such as retail on lower floors) in federal structures and require federal agencies to consider adaptable existing buildings before deciding to build.

Our Washington correspondent, Carleton Knight III, reminds us that these bills have all enjoyed bipartisan support, with sponsorship from both sides of the aisle. And that is something to celebrate—on this anniversary of the National Historic Preservation Act of 1966, which first put the Feds on the side of preservation.

But more action is needed, at all government levels, to attack the underlying malady: the functional obsolescence of sound buildings. For decades, private and public policy has been shifting the functions of our communities like pieces on a chessboard, making sacrifices to "progress." Our next policy objective must be to *maintain* the uses, *improving* the usefulness, of buildings and neighborhoods. That would really be progress.

John Morris Dixon

Views

Baja condominiums
Thanx for showing us the Legorreta Camino Real in Baja (P/A, Sept. 1976, p. 68). Do keep us up on this architect's work and show us now his Camino Real in Can Cun. Si? Gracias!
David Hale
San Francisco, Calif.

More on the house
In your article, "The house as a relevant object" (P/A, Aug. 1976) are two important errors. 1) The belief in efficiency, economy, and functionalism is not post-industrial as you say. These values lie at the heart of industrialism and characterize American thought from 1890 or earlier to 1940. Post-industrialism refers to the shift in focus from production and the values which support it to consumption. The mythic image of machine in the garden (were you drawing from Leo Marx here?) is an image of how industrialism can be tamed, managed, contained within the prior value system of an agrarian and individualistic society.

2) It is not obvious that the house is a sign system. The term is new enough to the architectural public that it should not be used without minimal definition. You are being presumptuous at best and propagandistic at worst to use this terminology without alerting the reader to what you mean by it. Furthermore, communication theorists and semiologists themselves refine, contradict, and quibble with one another's categories of analysis so that even technically one can object to the use of the term "sign system." One branch would call architecture a channel, the modality used for expression, while specific elements (window, wall, etc.) are its signs, the rules regarding their relation to one another a sign system. Another would say signifier and signified is an adequate distinction, while other would differentiate 3, 4 and 5 concepts. Still another would prefer to see architecture as, in different contexts, both an object and a meta-object, both signifier, signified and referent, etc.

Lest these remarks seem pedantic, I will indicate their larger significance. Communication theory, especially in its latest form, semiotics, is one of the more trendy vocabularies in architectural studies, but it has offended many because it seems mystifying—more confusing than clarifying. Your ambiguous use of terms is one of the reasons that the perspective has roused righteous annoyance among so many.

The sloppy use of "sign system" and "post-industrial" exemplifies the way vocabulary gets picked up fadishly without attention to meaning. The effects are destructive in several ways. When industrial and post-industrial are used interchangeably, the meaning of "industrial" loses specificity, hence information. This, in turn, means that the consequences of hearing a statement are not clear. One function of language is to direct action, and when its distinctions are blurred, action (in this case design decisions) is no longer implied. As culture shallows out in this way, every act is of equal indifference. Alertness diminishes, choice disappears.

Language does evolve; words change their meanings. This is not an argument for purist grammar and vocabulary in a conservative or static sense. I am arguing for articulateness.

Insisting on conceptual distinctions has bearing on design particularly as well as culture generally. To design for post-industrial life is to design for sensory and psychological experience rather than production-oriented behavior, consumer control rather than worker movements, interpersonal relations rather than authoritarian hierarchies, corporate interdependence rather than economic self-sufficiency, management rather than entrepreneurship, and so forth. Why should designers have third-rate social and cultural analysis seeped to them in their professional journals? They deserve to have the clearest, most articulate possible understanding of the culture they manifest.
Galen Cranz
Assistant Professor in Sociology in Architecture
College of Environmental Design
University of California, Berkeley
Berkeley, Calif.

[We agree with Ms. Cranz's objection to our use of the "post-industrial." We were in fact alluding to just *that* period she cites of 1890 to 1940, which came right *after* the industrial revolution, and somehow the word "post" slipped in there.

"Sign system" is another thing. We could not afford the space to devote to all the subtle distinctions between the uses of terms that even semiologists disagree upon. In fact P/A has used these terms often enough before for a comprehensive piece on semiotic definitions (see "On reading architecture," Mar. 1972 P/A).

In order to refer to the expressive sociological

[continued on page 15]

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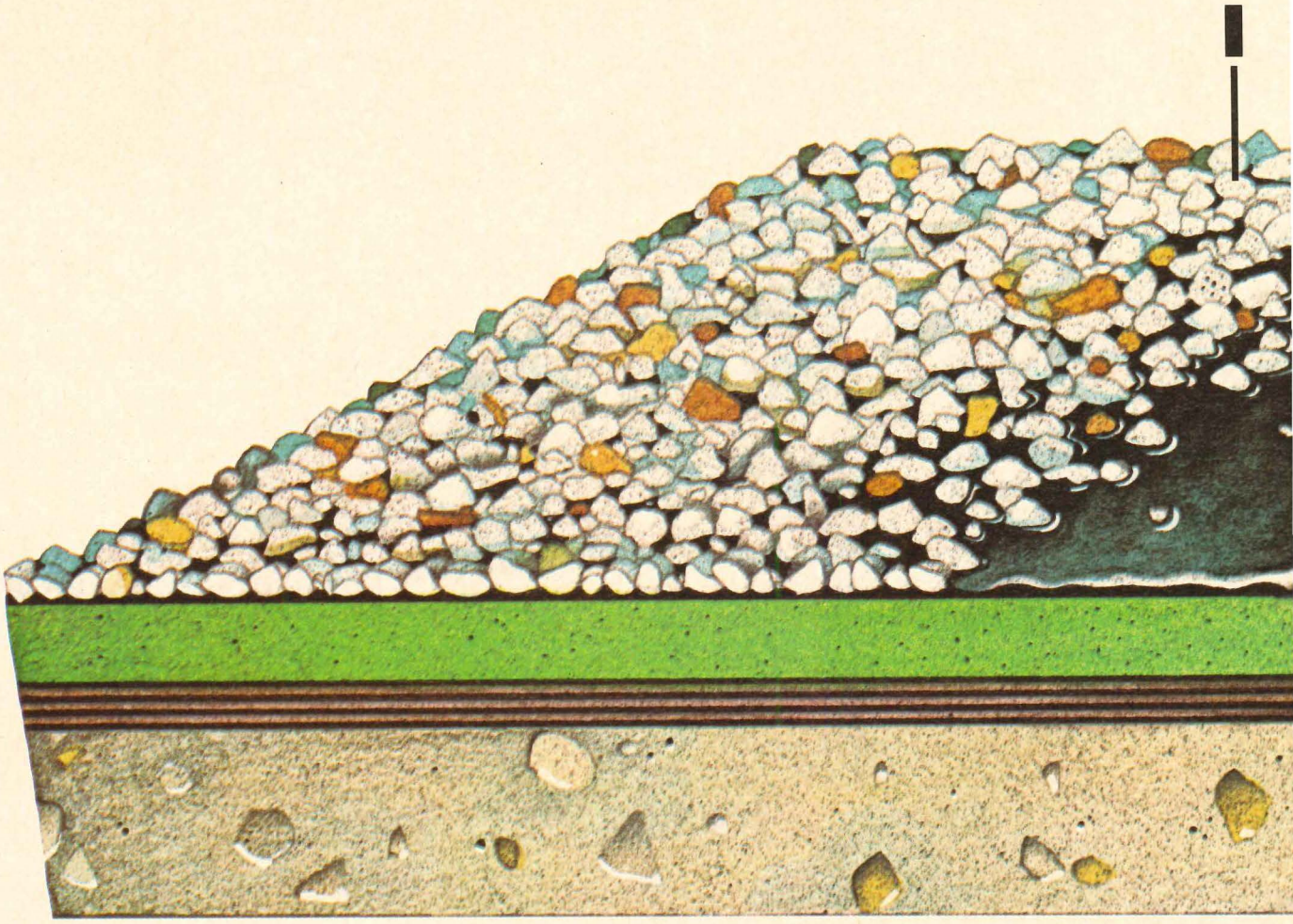

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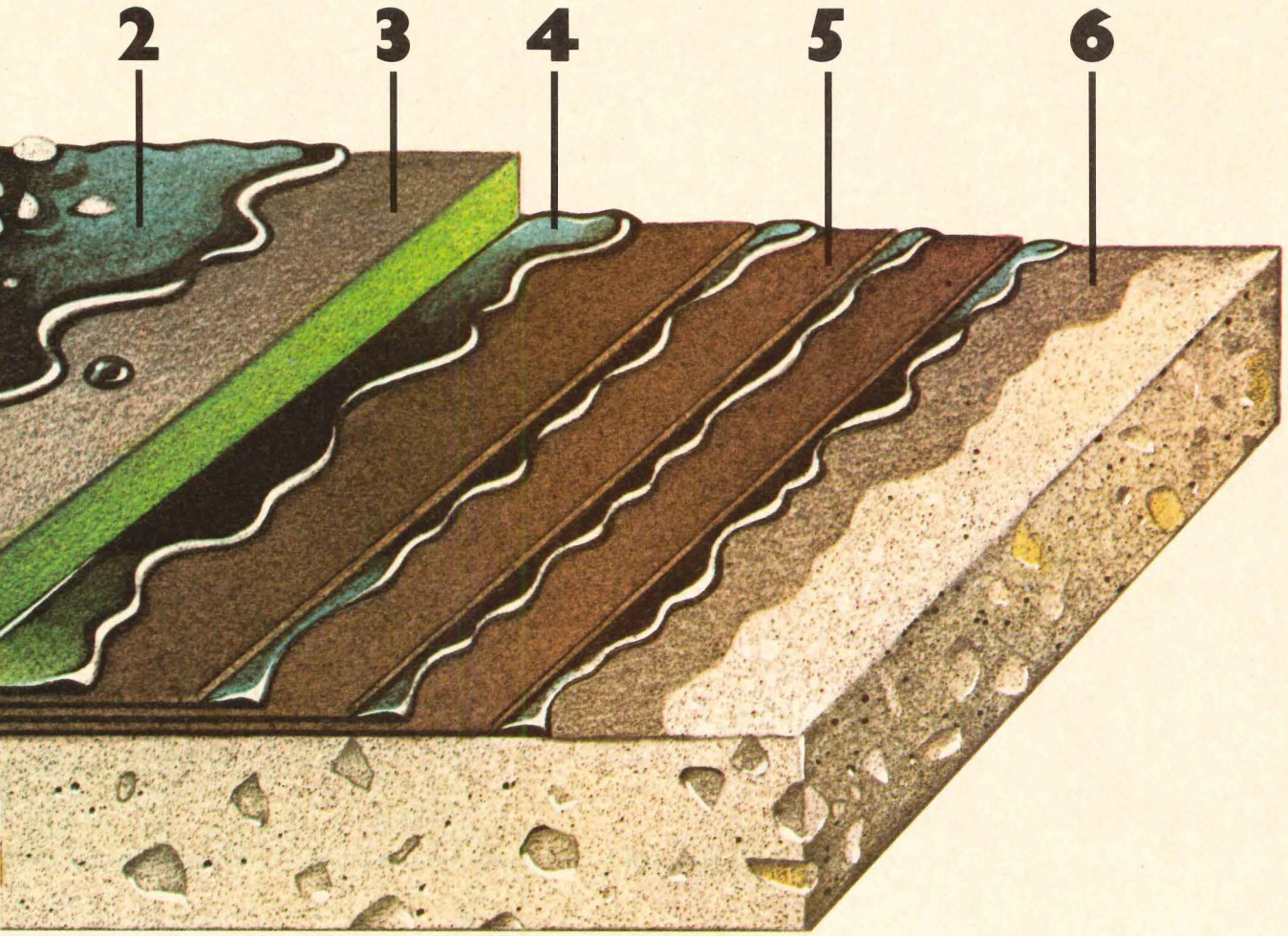

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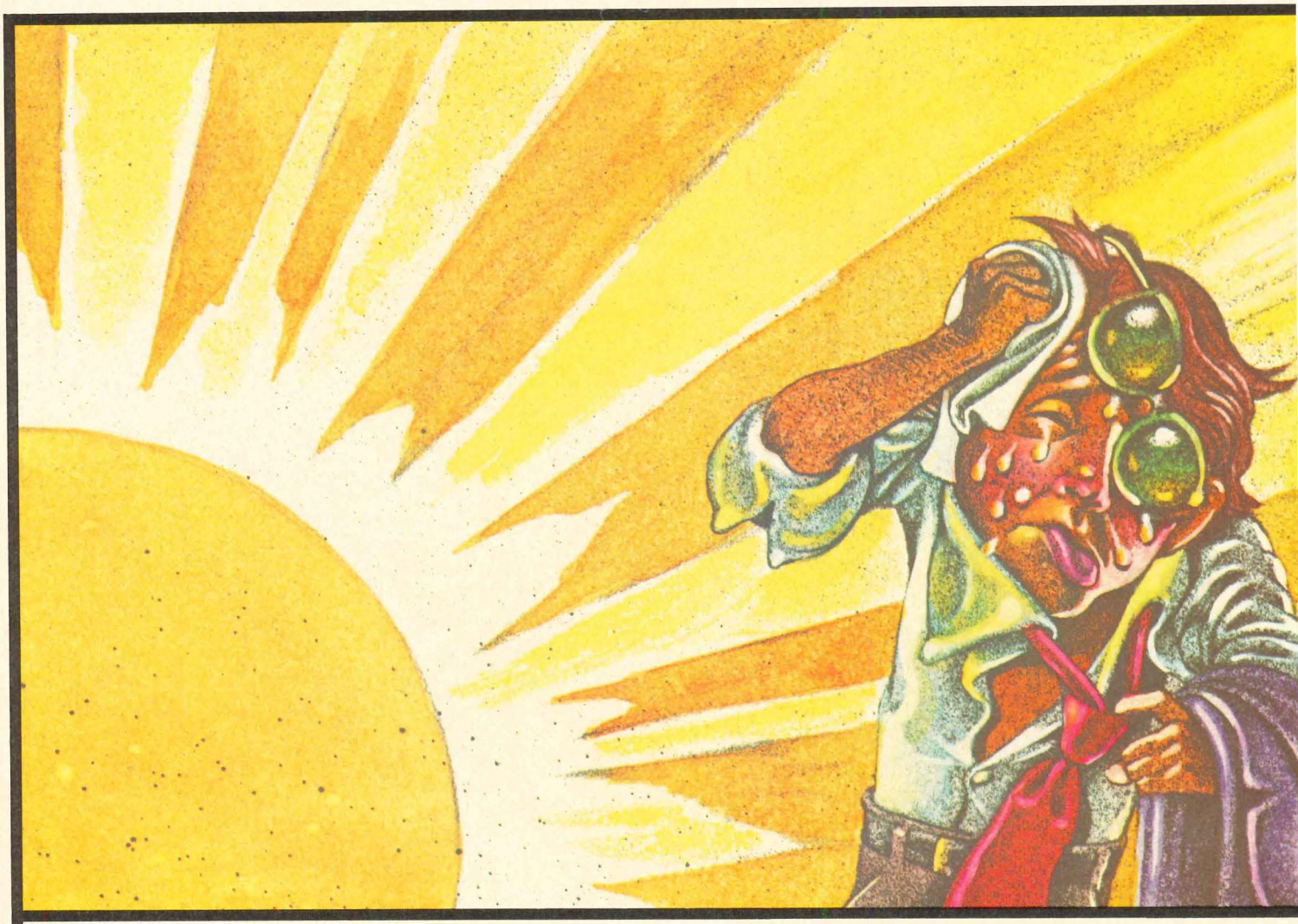

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Views continued from page 8

and psychological function of the house in this article, we appropriated the term "sign system" from Roland Barthes' usage in writing about various cultural phenomena and applied it to fit our needs. We assumed our intended meaning to be apparent from the context.

Nevertheless Mrs. Cranz does bring up a crucial issue: the faddish use of jargon. We agree that expanding certain words to make them accommodate various meanings results in blurred distinctions, etc. However, when concepts are initially being formulated or applied to a new situation, certain words ease their familiarization to the public. These "labels" may be used with varying degrees of imprecision—a problem that should be corrected as these terms become more accessible on a public level. However if an audience is faced from the beginning with having to know what a "channel" is versus a "referent" versus a "sign" there's a chance it will not stick around to learn the main point: that architecture communicates many different kinds of messages on many levels, an understanding of which will help explain why a certain type of architecture is or is not appealing (meaningful) to its users. The idea that architecture communicates something, of course, is very old; a coherent method for analyzing that phenomenon is only now being developed.—Editors]

Foam R&D

I want to compliment Lee Ryder on the "A Tome on foam" article in the Aug. 1976 issue. Her overall concept of the molding of urethane foam in the furniture industry is very good and her choice of examples was excellent. However, there is considerable concern at our company over one of her conclusions on the direction chemical companies are taking on research and development. Her statement, "Perfecting molding techniques is another area for more research, but since the chemical companies don't actually make foam, they have little interest in pursuing this aspect." is just not true, at least at Mobay.

An integral part of our R&D effort for urethanes in the furniture area is not only perfecting good chemical systems for molding purposes, but also improving the methodology in dispensing them. For example, we have developed a method in molding where the compression modulus varies in a one-piece molded chair. This offers the availability of a firmer seat than back or vice versa if desired. As she pointed out, this was formerly only available through the use of laminating conventional slabstock foams by manual construction. Now it can be done quickly and automatically, piece after piece.

There are other innovations developed by Mobay Chemical towards molding techniques that are being used by our customers. Although this letter may sound self-serving to us, it is meant only as a rebuttal to Ms. Ryder's statement on chemical companies in general.

R.L. Coffey
Technical Product Representative
Polyurethane Division
Mobay Chemical Corporation
Pittsburgh, Pa.

[The statement was a paraphrase of an attitude expressed by many of the furniture manufacturers who felt that the fragmentation in the process of producing foam was frustrating their own efforts in developing new technologies or processes. Although most chemical companies do engage in R&D into new formulas, most do not make foam, and, as a consequence, do not experiment with fabrication techniques. Those interviewed made a point of this. We attempted to make the complexity of the industry clear to the reader and to reveal some of the difficulties encountered as a result. Happily, there are always some exceptions.—Editors]

On monumentality

The recent article on the United States Tax Court in Washington, D.C. (P/A, July 1976) did justice to a very fine building. Lundy/LBCW succeeded in breaking a losing streak in Washington architecture that stretches into the past almost beyond memory, and created one of the great sculptural monuments of our time.

However, one comment by author Stanley Abercrombie deserves a challenge. Mr. Abercrombie states that, "The housing of an important public agency suggests monumentality; the tenets of recent style have suggested traits at heart antimonumental: asymmetry, simplicity, plainness, planarity, thrift."

Why is it that the housing of a public agency in a democracy should suggest monumentality? Why, indeed, should it not suggest, instead, antimonumentality, simplicity, plainness and thrift? Public agencies should view themselves and be viewed as the servants of the people that support them, not their masters or overlords.

Donald Grant, Architect
Heidelberg, West Germany

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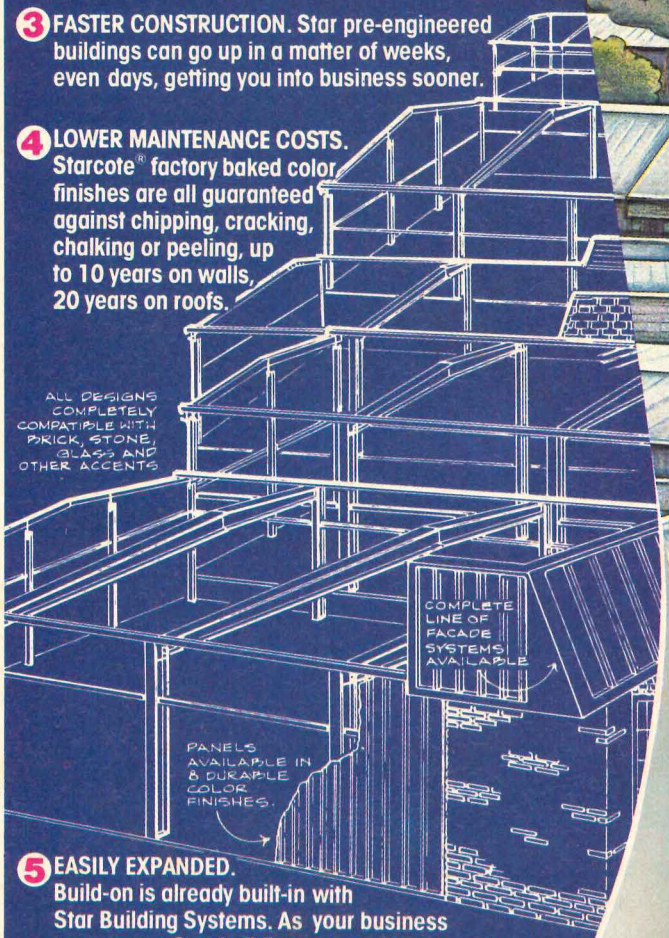

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News report

Hedrich-Blessing

Chicago's Navy Pier juts a half-mile into Lake Michigan; Michigan Ave. high-rises form skyline.

Chicago's Navy Pier captures high 'seas'

Unique among restoration projects now coming to the fore is Chicago's Navy Pier which juts a half mile into Lake Michigan. From the end of the pier one can look back to the magnificent Chicago skyline. "It's like being on a ship!" exclaimed an enthusiastic visitor to the recreational pier shortly after the pier's grand reopening in July.

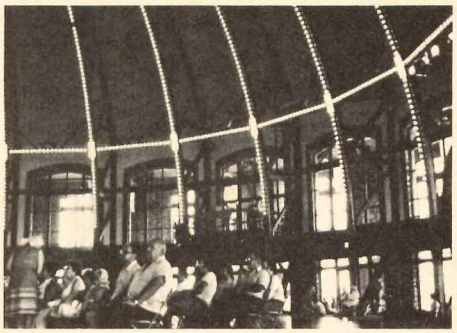
The restoration work was done by the office of City Architect Jerome Butler on a budget of $8.5 million. From start to finish restoration took only one year. The scope of the project included renewal of buildings on the end of the pier and the creation of a "park" landscaped with flowers in planters, ornamental light fixtures, and benches.

The pier was built in 1916 as a passenger and freight terminal for shipping on the Great Lakes. It was named Navy Pier after World War I in honor of those who died in military service. During World War II the U.S. Navy took over the facilities for training, and for 20 years thereafter until 1966 the pier and its buildings served as the Chicago "campus" for the University of Illinois. Since then they had no regular use and deteriorated.

The restoration challenges were determining which portions of the buildings were to be preserved; making compatible changes for present-day use; and blending new materials with the old for color, texture, and ornament.

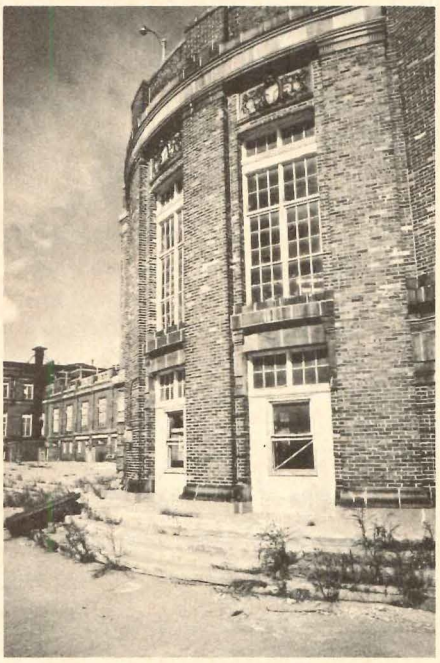
In these matters, the design and execution have been excellently carried out. The pier already has won three awards for design, and its popularity is attested by the numbers of people who walk the half-mile to enjoy the amenities that include a hall in which free concerts from rock and jazz to classical music are presented. The hall—topped by a 33,000-sq-ft domed ceiling ribbed with rows of 3600 incandescent light bulbs—has a red carpet around its perimeter so that people may quietly enter and leave at will as they stroll through the park; the remainder of the floor is the original terrazzo, an excellent surface for dancing. The hall has an outdoors feeling since it opens to the plazalike park through 10 pairs of double doors.

Pier's park-plaza with view of Loop.

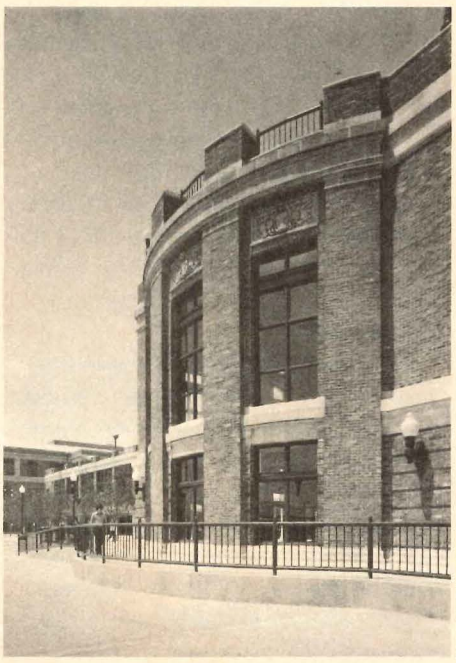


Ann Carter

Concert in progress in domed hall.

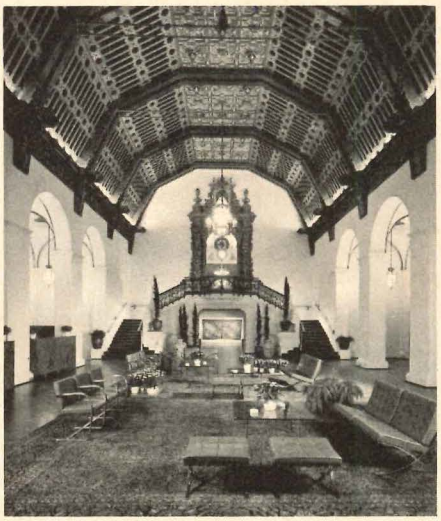


Buildings before restoration . . .



Hedrich-Blessing

. . . and after.



Hedrich-Blessing

L.A. Biltmore by Schultze & Weaver, restored.

L.A. Biltmore Hotel more than a memory

The 1923 Spanish-Italian Renaissance Biltmore Hotel on Pershing Square in downtown Los Angeles went up for sale just as architects Gene Summers and Phyllis Lambert completed the plans for a hotel a mile away on Bunker Hill. Lambert, who wrote a book on old buildings in Montreal, has an emotional bias for preservation, and so the new hotel project was abandoned, and the architects plunged into the business of restoration.

Ridgeway, Ltd., owned by the architects, bought the Biltmore for $5.4 million, and there was $11 million financing for top-to-bottom modernization and restoration.

The previous owners' pride in the hotel's elegant public spaces has kept intact its generous dimensions and the eclectic furnishings as well. It all clutches the memory of the annual Bachelor Ball, coming-out parties, the early Motion Picture Academy Awards, and that special event—the regular Sunday afternoon fashion show and tea in the Music Room.

The high narrow lobby with its double stair to the galleria sets the tone of expectancy, fully rewarded in the broad picture gallery running the entire width of the building. This is the lobby de luxe, the Peacock Alley. Still replete with high-backed Italian Renaissance chairs, brocades, fringes, silk-shaded wall lamps, it recreates the 1920s. The Gold Room, the Crystal Room, the Ball Room, and lesser social rooms have been kept and restored. Only the dust build-up on the many chandeliers, the tarnish on the gold leaf, and the accumulation of smoke on the scenes painted on the ceilings are disappearing—while business goes on as usual in the hotel.

Above the second level the 1072 guest rooms in the 11-story hotel have been gutted and entirely refitted in the elegances of the present day. One of the advantages in reusing the old shell is that it came out of an era of individualized hotel design which permitted a variety of sizes and configurations of guest rooms.

There'll be a real option between the Biltmore and the new (half finished) Bonaventura Hotel designed by John Portman for downtown L.A. These two, along with the Hyatt Regency in Broadway Plaza, shore up the downtown Convention Center.

Graphic designers John Follis & Associates have redesigned all interior and exterior signage, companies, awnings, restaurant fittings, and linens. [Esther McCoy]

Historians to meet at L.A. Biltmore

The Society of Architectural Historians, an international organization, will hold its annual meeting Feb. 2-6 at the newly refurbished Biltmore Hotel in Los Angeles. The planned activities include tours in the metropolitan area, including architecture of the 1920s and 1930s, and all-day trips to San Diego/LaJolla, Santa Barbara, and Ojai. General chairman is Adolf Placzek of Columbia University; local chairman is David Gebhard, University of California at Santa Barbara.

National Trust seeks the people

The fifth of six planned regional offices of the National Trust for Historic Preservation has opened at 740 Jackson Pl. N.W., Washington, D.C., serving six Mid-Atlantic States, the District of Columbia, Puerto Rico, and the Virgin Islands. Other cities having field offices, established to bring the Trust closer to groups working in the preservation movement, are San Francisco, Chicago, Boston, and Oklahoma City. The sixth office will be in the southern region. The Trust's headquarters also is in Washington at the same address.

Miami Biltmore: waiting in the wings

The Miami firm of Ferendino/Grafton/Spillis/Candela has been retained by the city of Coral Gables to study rehabilitation possibilities for the former Miami Biltmore Hotel. The structure was designed by Schultze & Weaver of New York and opened in 1926. The Miami Metropolitan Museum and Art Center is renovating a former club building on the 20-acre site as its new home. The architects propose turning the lower floors of the hotel into a civic center including dining and dancing facilities. There is no immediate plan for the upper floors. The existing golf course will be made available to the public, and the swimming pool will be re-opened. The architects also propose a one-level underground garage to park 274,000 cars; the garage roof will be used for 12 tennis courts. After the hotel closed in the late 1930s, the building was used for a military hospital until 1968.

Miami Biltmore Hotel by Schultze & Weaver, 1926.

Frank Lloyd Wright home and studio, Oak Park.

Damora

Walter Gropius home, Lincoln, Mass.

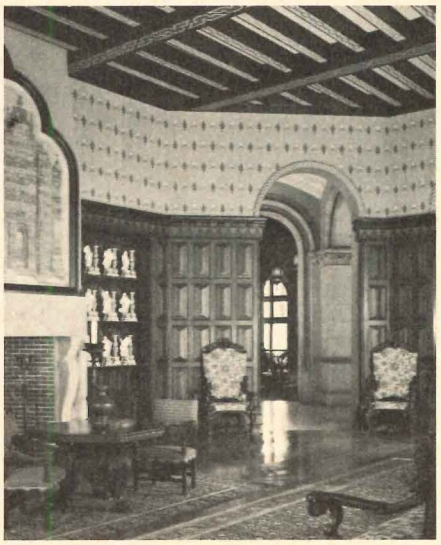
Wright/Gropius homes certain/uncertain

Preservation activity for the homes of Frank Lloyd Wright and Walter Gropius is going forward with persistence, if not with rapid success. In the Chicago suburb of Oak Park, title to Wright's home and studio (which Wright started building at the age of 22 as he began his practice) came into the possession of the National Trust in 1975, after the Frank Lloyd Wright Home and Studio Foundation raised funds to pay half the acquisition costs. Research is underway to determine what the home and studio looked like in 1909 and years prior, when Wright lived there with his family. In 1911, after Wright moved away, he remodeled the house into rental units to provide an income for his family, still living there. Restoration will remove these alterations.

A booklet of photographs and drawings prepared by Donald Kalec and Thomas Heinz is being sold to help raise funds; copies are available by writing to the Foundation at the Wright home, Forest Avenue at Chicago Avenue, Oak Park, Ill. 60302.

The Gropius home was offered to the Society for the Preservation of New England Antiquities by Gropius' widow, Ise, provided the society raise an endowment of $500,000 to maintain the property. Since the kickoff of the fund drive over a year ago, the sum raised has fallen far short—figures are not available—of the Society's expectations; members of the Society are contemplating their next move toward raising the necessary amount.

Gropius built the home in Lincoln, Mass., shortly after his arrival in 1937 from Germany. The home, constructed with standard components, is an adaptation of Bauhaus principles to New England: a screened patio for cross ventilation; openings which permit winter sunlight to penetrate into the entire living area; a roof, which appears flat, actually slanting to the middle, where an interior drain carrys off rainwater and melting snow.



Music Room addition to Vanderbilt mansion.

Vanderbilt mansion nears completion

Richard Morris Hunt was architect of Biltmore House, the Asheville, N.C. mansion of George W. Vanderbilt, but the home was not completed when it officially opened in 1895. In honor of the Bicentennial one of two unfinished rooms—the music room—has been completed with the help of a lifelong scholar of Hunt, Alan Burnham, director of research at the New York City Landmarks Commission. The opening of the new room was celebrated with a gala banquet in May, when the equally famous Olmsted-designed grounds were in bloom with azaleas.

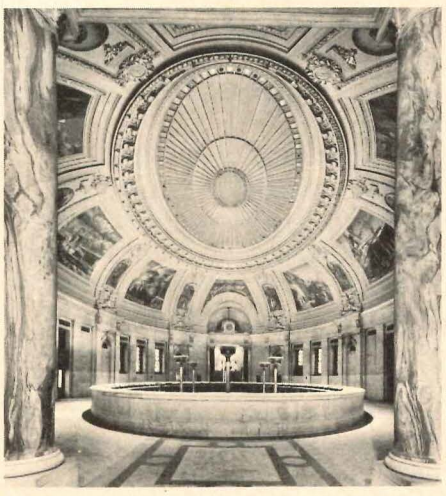
Olmsted estate to be studied

Congress recently authorized a study estimated to cost $25,000 which would determine whether or not Fairsted, the home and office of Frederick Law Olmsted, should be on the National Register of Historic Places. Apparently, governmental bodies have been slow in recognizing the need for preservation of the estate, located in Brookline, Mass., a Boston suburb. The recently passed bill was the second one introduced—and it doesn't mean the Fairsted will be given Register status.

The home was built in 1810 and additions were made in subsequent years. Olmsted Associates still has offices there today, and more than 200,000 documents are housed in a 3-story vault, some of them drawings by famous architects with whom the firm collaborated. Olmsted, best known as architect of Central Park in New York, planned more than 80 parks across the United States.

Cass Gilbert masterpiece

The U.S. Custom House in New York, closed since custom activities moved in 1973-74 to the World Trade Center, reopened this year for two months under the auspices of the Custom House Institute, a group of business leaders dedicated to the re-use of older buildings. The future of the Custom House, designed by Cass Gilbert and opened in 1907, is not certain due to economic conditions, though negotiations with prospective tenants are under way. The elliptical marble rotunda has eight Reginald Marsh murals valued at more than $750,000. Four heroic sculptures by Daniel Chester French overlook the entrance; the hall itself has elegant twin spiral staircases of rose, green, and cream marbles, and the dome supports a 140-ton skylight without beams and trusses.



Nathaniel Lieberman

U.S. Custom House, New York.

Wagner's home rededicated

In Bayreuth, home of his innovative festival theater, German composer Richard Wagner also built a family villa, "Haus Wahnfried," where the great and famous of the 19th-Century were frequent visitors. Here the Master worked, and Wahnfried became a shrine for Wagner devotees. But near the end of World War II, English bombers destroyed all of it save the front and right side. Preservation or restoration long was forbidden by American authorities, since Hitler also had used the home. Despite the further damage by weather this prolonged neglect caused, Bayreuth Festival producer and Wagner grandson Wieland Wagner finally succeeded in refurbishing the home.

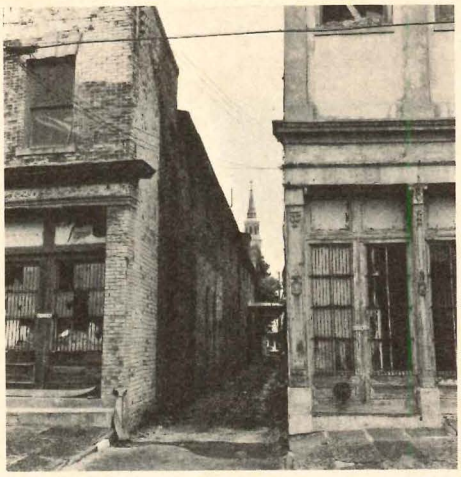
In 1973, as part of a preservation masterplan of the Wagner theater and associated structures, restoration of Wahnfried was undertaken. This year, on the 100th anniversary of the first Wagner performances at Bayreuth, the house was ceremoniously reopened in the presence of West German President Walter Scheel.

Architect Helmut Jahn—who worked on preservation of the historic opera theater—notes some limitations he had to consider. First, since the original exterior sandstone quarry was exhausted, darker stone had to be used; it's hoped that time and pollution will make it match the Wagner masonry. A "breathing space" was left at the two points where the new walls join the old. The right outside wall had bowed outward during the period of severe exposure and it has been left that way. Rotted roof timbers were replaced in wood to avoid excessive weight on the foundations.

Although 3 million DM (equal to about $1.2 million) were spent, the money only paid for historical restoration of the exterior and the major interior rooms: the double-story *Halle* and the spacious *Saal,* or library-concert room. Learning what these rooms originally looked like proved to be a problem. Paintings don't show the wall colors clearly, and family members searched their memories to recall them. In the *Saal,* owing to the light,

Photos: Glenn Loney

'Haus Wahnfried' rear portion gutted and restored; home was bombed during WW II.



Carleton Knight III

Charleston's Lodge Alley, St. Phillips Church.

photos and sketches of the room always were made from one angle only. Thus the destroyed cornice of city coats-of-arms is not completely and accurately recorded. (Any American who may have snitched one of these trophies from the ruins is asked to please return it.)

Wagner's ornate bookcases have been copied and his old library—saved during the war—replaced. Most of his furniture was destroyed or stolen. It will not be duplicated. In fact, historic furnishings and decor will be kept to a minimum to decrease fire hazards and discourage theft since Wahnfried is now a public museum. Only smoke-sensitive fire alarms and CO_2 extinguishers are used since sprinklers are considered more harmful than good.

Wagner's *Lila Salon* and the dining room are not being restored because there are no sketches or photos which show any detail clearly. These and other rooms have been converted into modern exhibit spaces for memorabilia. The grounds also have been redesigned to give public access to the family gardens and to the Wagner Tomb behind Wahnfried. [Glenn Loney]

Loney, professor of theater at Brooklyn College, is contributing editor of Theatre Crafts *and writes frequently for* Theatre Design and Technology.

Warehouses saved in Charleston, S.C.

The Lodge Alley waterfront warehouses in Charleston, S.C., saved two and a half years ago when a preservation-minded group bought them from a developer, are being converted into commercial space.

A developer/architect partnership is undertaking the project in two phases. The first, a commercial and restaurant complex, opened this summer, and the second is due for completion the middle of next year. It will include additional shops, some townhouses, and perhaps a small hotel.

The Save Charleston partnership consists of New York City lawyer William Murray, who is a former Charleston resident, and Harold Adler, an architect from Alexandria, Va., who has been a partner in DKA Associates of Reston, Va.

Murray and Adler bought the 14 early 19th-Century warehouses for $1.25 million from the Save Charleston Foundation, which was organized in 1973 by a group of concerned citizens when they learned a developer planned to tear down the buildings and erect a high-rise condominium. The foundation raised $1.25 million to buy the property from the developer and arranged for another developer and architect to convert the buildings. This plan failed, however, when the devel-

[continued on page 29]

An open-air opera house

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News report continued from page 26

oper suffered economic reverses.

The foundation especially wanted to preserve the warehouses because they were situated next to Charleston's historic district. [Carleton Knight III]

Showroom on Designer's Saturday tour.

Designer's Saturday and Friday, too

The two-day furniture manufacturers open house in New York known as Designer's Saturday happened without a hitch in early October except that rain both days made the usually foot-weary participants wish all the more for a shuttle from one cluster of showrooms to another. The rain also made Herman Miller's umbrella souvenier the hit of the ninth annual event, which attracted approximately 4000 architects and designers from around the country and abroad.

Thirty showrooms were open, each paying an undisclosed amount over $1000 to participate. At the end of the second day a reception was held at the Museum of Modern Art's sculpture garden which, under misty but not rainy skies, was delightful.

Preservation funds get major increase

President Ford has signed legislation that authorizes substantial increases in federal historic preservation funding. The new law (S. 327) was introduced by Sen. Henry M. Jackson (D-Wash.) and increases the funding level from $24 million for fiscal year 1977 to $100 million for the next two fiscal years and $150 million for 1980 and 1981. The money is in the form of matching grants from the National Park Service to the states and to the National Trust for Historic Preservation. The legislation also amends the National Historic Preservation Act of 1966 to make the Advisory Council on Historic Preservation a fully independent agency. The next step is appropriation of funds.

Jurors pick 22 P/A winners

Jurors selected 22 winners in the areas of design, research, and planning from 619 entries submitted this year in the *Progressive Architecture* 24th annual Awards Program. The winners will be announced and their projects published in the January issue of P/A.

The eight jurors narrowed the field of entries to 91 before selecting the final winners. In the category of design there was one First Award, an Award, and five Citations. Applied research had three Awards and five Citations. Planning and urban design had four Awards and three Citations.

Jurors this year were (design) John Dinkeloo of Kevin Roche, John Dinkeloo & Associates; Charles Gwathmey of Gwathmey Siegel Architects; Sarah Harkness of The Architects Collaborative; and Craig Hodgetts of the University of California's School of Architecture and Urban Planning, Los Angeles; (applied research) Alan Green of Educational Facilities Laboratories and Edward Ostrander of Cornell University's Department of Design and Environmental Analysis; and (planning) Raymond Affleck of Arcop Associates and Ernest Bonner, director of the Portland city planning bureau.

Personalities

Jean Ferriss Leich of Ruston, La. has been awarded the 1976 Arnold W. Brunner Scholarship of the New York Chapter, the American Institute of Architects.

John T. Plaxco of Auburn, Ala. has received the 1976 Le Brun Traveling Fellowship awarded by the New York Chapter, the American Institute of Architects.

Richard Bender, housing and building technology specialist, has been named dean of the College of Environmental Design, Univ. of California, Berkeley.

Der Scutt, AIA of Poor, Swanke,

[continued on page 32]

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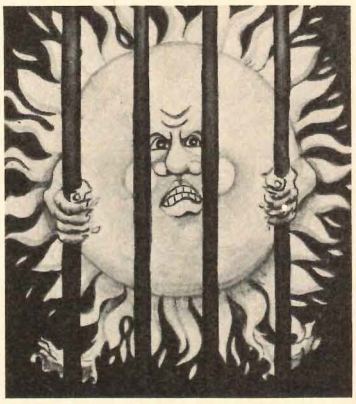

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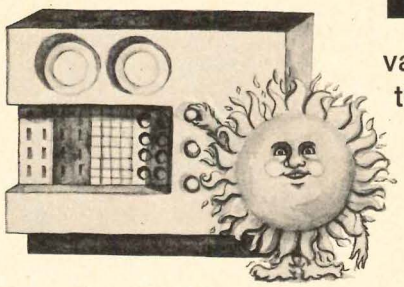

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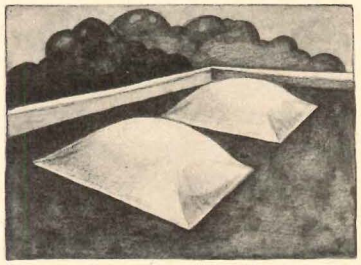

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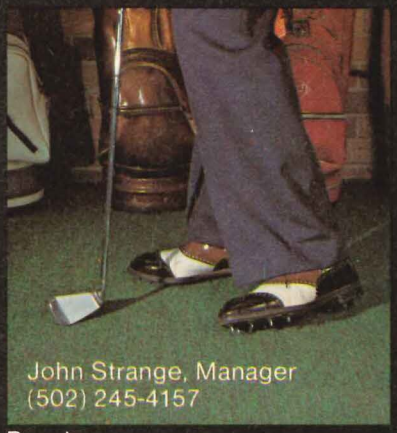
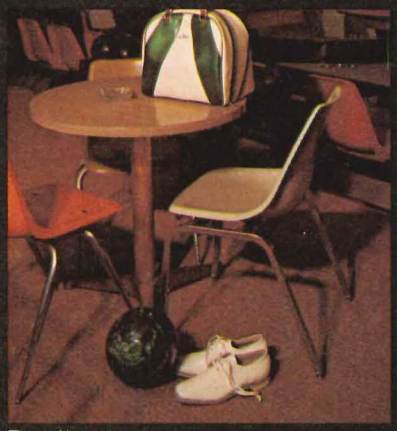


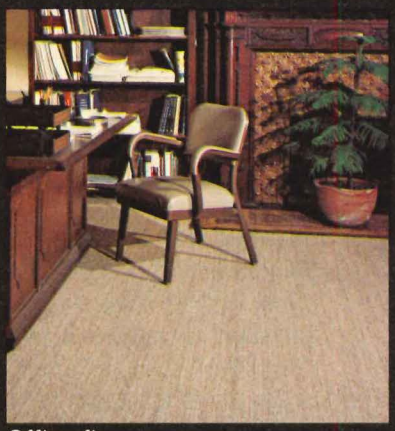
Pro shop

Motel walls & floor

Conference room floor



Bowling lanes



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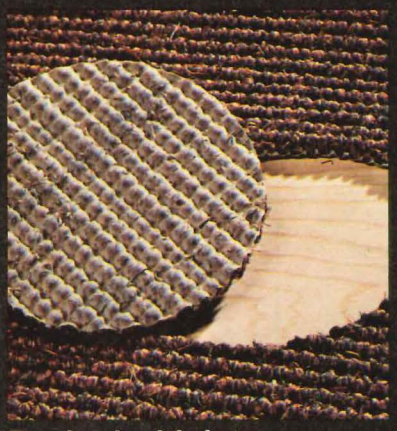

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News report continued from page 29

Hayden & Connell, New York City, is the first architect to receive the Illuminating Engineering Society's distinguished service award.

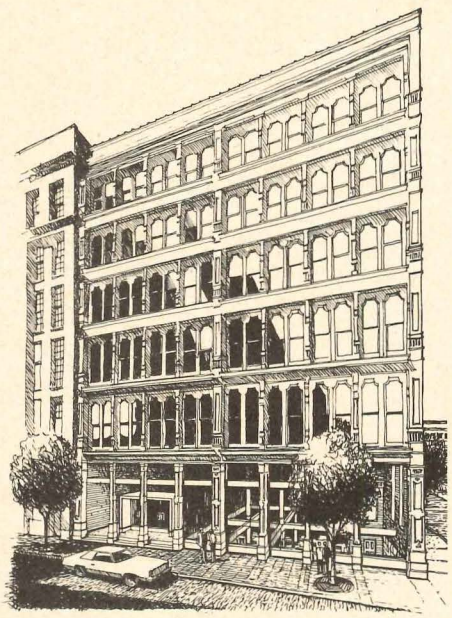
Alexander Kira has been elected associate dean for a two-year term at the College of Architecture, Art, and Planning, Cornell University, Ithaca, N.Y.

John C. Parkin of Toronto has been named to the Canada Council for a three-year term.

Calendar

Through Jan. 9. "The River: Images of the Mississippi," Walker Art Center, Minneapolis, Minn. Exhibit includes three architectural proposals of Nicollet Island in downtown Minneapolis.
Through Feb. 6. "Calder's Universe," a definitive retrospective, Whitney Museum of American Art, New York City.
Nov. 11–12. Seminar on effective design development in architecture, University of Wisconsin-Madison.
Nov. 17–19. Building & Construction Exposition & Conference sponsored by The Producers' Council, Inc., McCormick Place, Chicago, Ill.
Nov. 18–20. Society of American Registered Architects annual convention, Sheraton Biltmore Hotel, Atlanta, Ga.
Dec. 1. Deadline for entries to the Plywood Design Awards Program co-sponsored by the American Plywood Association and *Professional Builder.*
Dec. 1–2. Construction Research Council annual meeting, Holiday Inn O'Hare Kennedy, Chicago, Ill.
Dec. 6–10. National plastics exposition sponsored by The Society of the Plastics Industry, Inc., McCormick Place, Chicago, Ill.
Dec. 10. Opening of architectural exhibit, Richard Gray Gallery, 620 N. Michigan Ave., Chicago, Ill. of works by Beeby, Booth, Cohen, Freed, Nagle, Tigerman, Weese.
Dec. 31. Deadline for entries in the Metals Conservation Awards Program sponsored by the Expanded Metal Manufacturers Association, Chicago.
Jan. 5–8. World of Concrete exposition co-sponsored by The American Concrete Institute, New Orleans Rivergate Exposition Center.
[continued on page 34]

In progress



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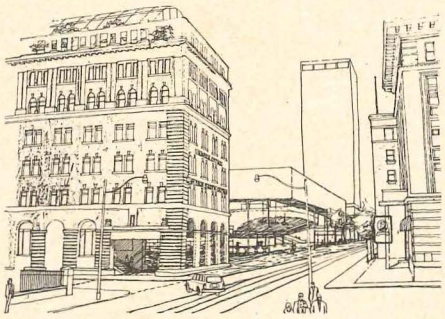

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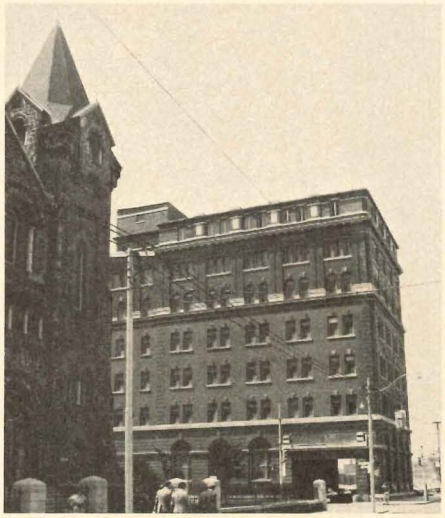


Robert Hill

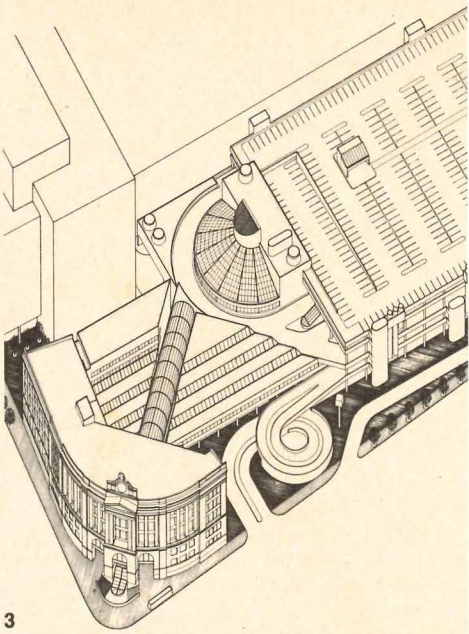
1 Raeder Place—A $1.8-million building renovation designed and directed by Cohn/Thomson Associates of St. Louis, Mo., will be the focal point of Laclede's Landing, a proposed revitalization of the St. Louis riverfront. The six-story building, dating from 1874, was renamed after its architect, Frederick Raeder, and is the largest cast iron structure in St. Louis. The renovation will transform the former factory space into offices and retail shops. The building also is the meeting place for the annual Interdisciplinary Design Exposition (INDEX).

2 CP Express building—A fierce, and perhaps futile, battle has been waged in Toronto, Canada, to save a relatively undistinguished, but typical early 20th-Century structure, the Canadian Pacific Express building. Developers want the former railroad site for an $80 million multi-purpose project for which a major element will be the city's concert hall. Arthur Erickson of Toronto is the architect for the project. At the request of the Toronto Historical Board, Barton Myers Associates of Toronto designed an alternate scheme which would save the old CP Express by incorporating it into the new development. When introduced at City Council the plan generated heated debate but no action. The last hope for preservation is massive lobby action on the building's behalf.

3 Boston's South Station—An Intermodal Transportation Center is in design development as an addition to Boston's South Station, which underwent a major renewal effort this summer by the Boston Redevelopment Authority. Improvements included restoration of the waiting room and remodeling of offices to accommodate Amtrak. The proposed Transportation Center will unite commuter bus and rail lines with intercity bus and rail service, and the city will build a parking garage for 2000 cars. A new park will be built between the station and the adjacent Stone & Webster Office Building.

4 Station Square—In Pittsburgh, Pa., on the far bank of the Monongahela River opposite the Golden Triangle, a re-use project initially costing $30 million is underway converting the Pittsburgh & Lake Erie Railroad Station into a multi-use center. A $5 million grant from the Allegheny Foundation is providing equity funding for the first phase of Station Square. The architect is Williams/Trebilcock/Whitehead of Pittsburgh. The Grand Concourse of the terminal will be available for parties and festivals; its vaulted ceiling adorned with stained glass panels will be backlighted. The station also will continue to be used for railroad operations.

5 Arcade Square—A square block of buildings from the turn of the century in Dayton, Ohio, is destined to be an entertainment center. Originally the structures served as a farmers' market and government buildings; there was an arcade, and one building was topped by an impressive dome. Architects Lorenz Williams Lively Likens & Partners of Dayton plan to treat the buildings as originally built: as elements of a megastructure. Above the proposed restaurants, clubs, and theaters the existing apartment units will be maintained.



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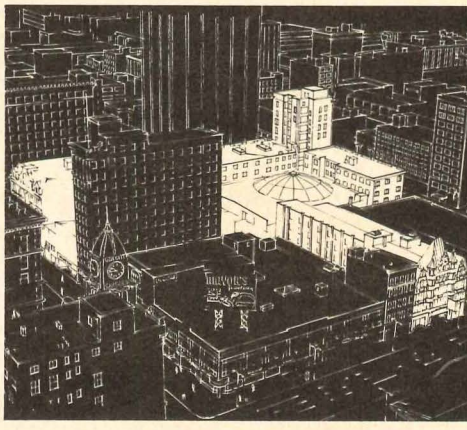

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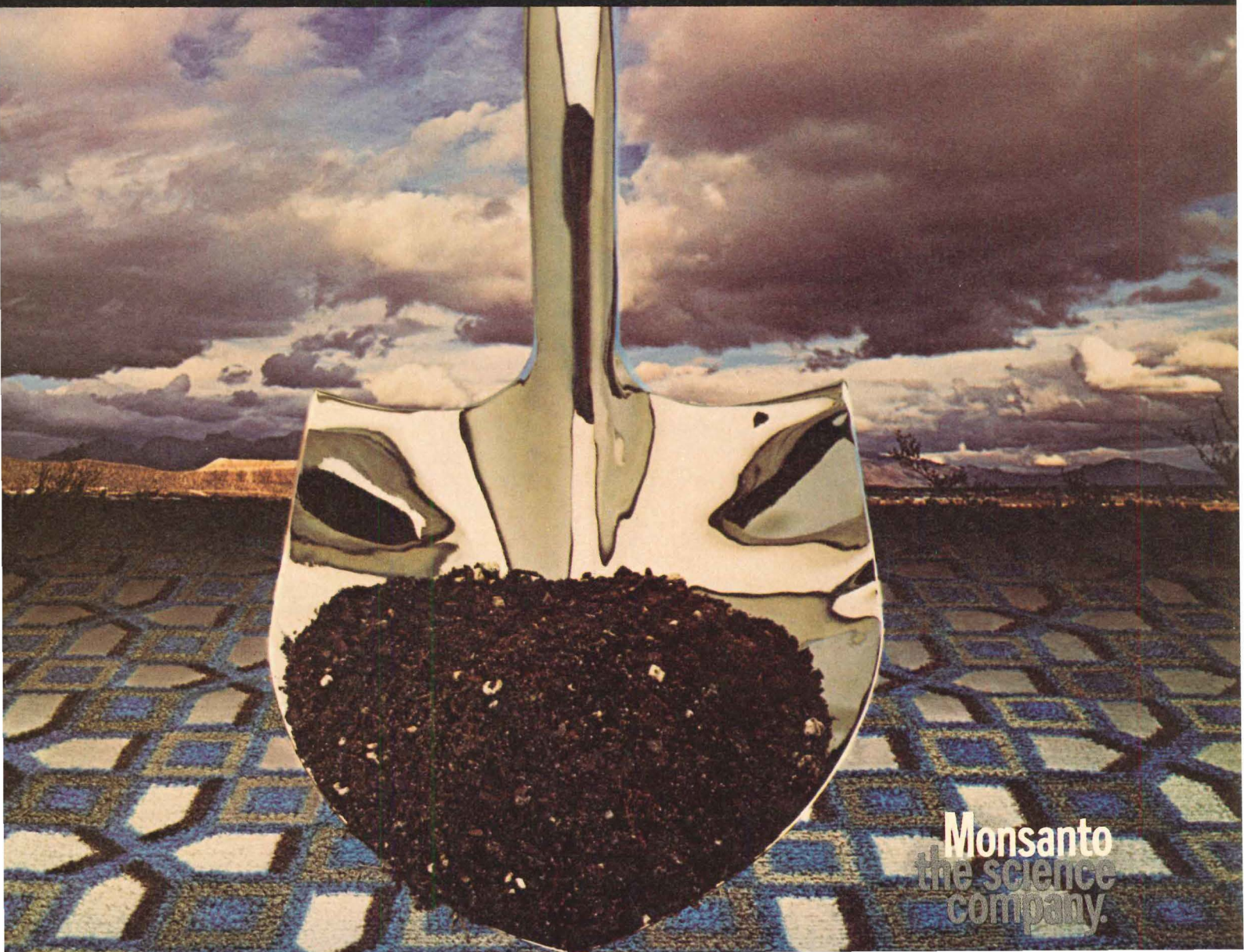

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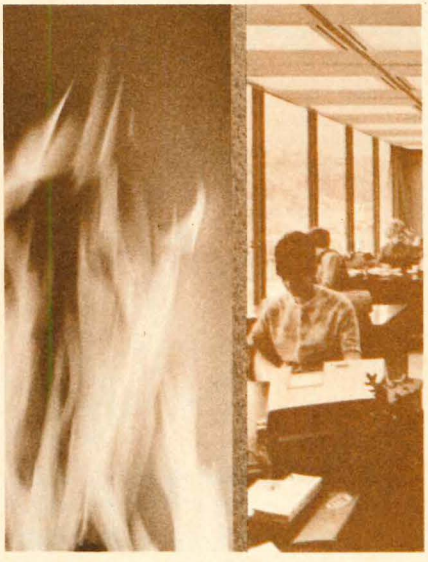

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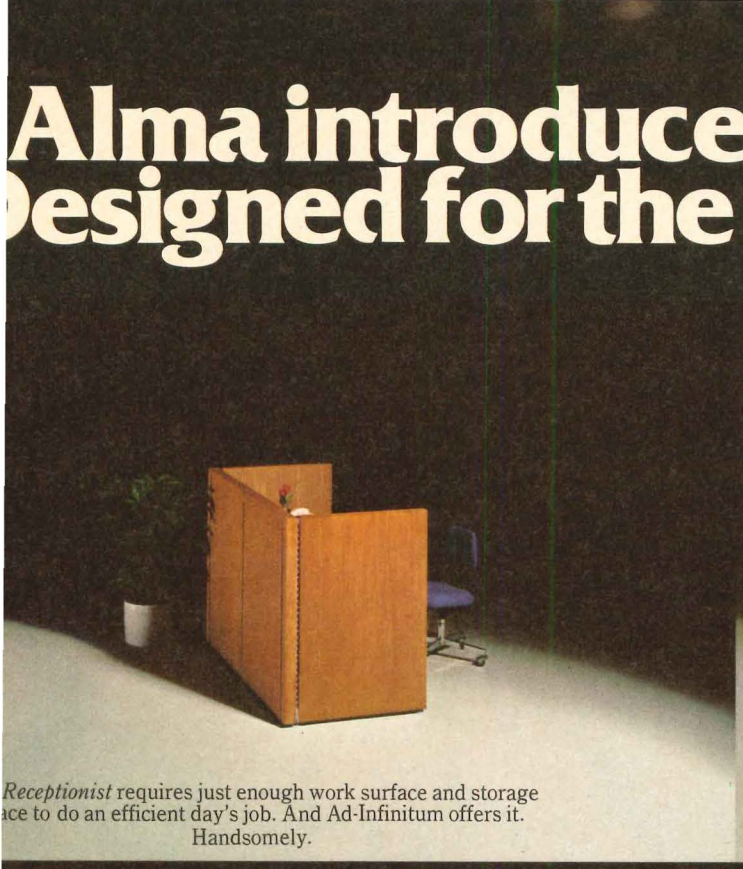

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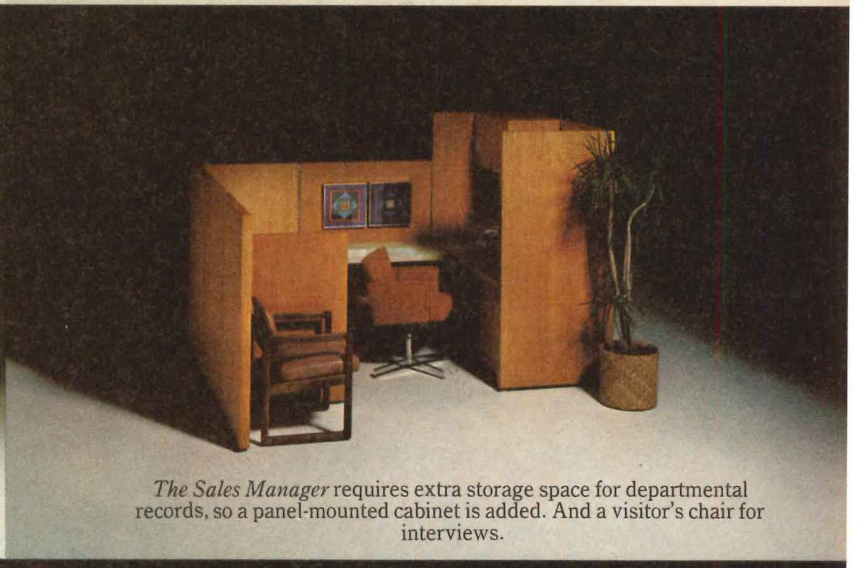

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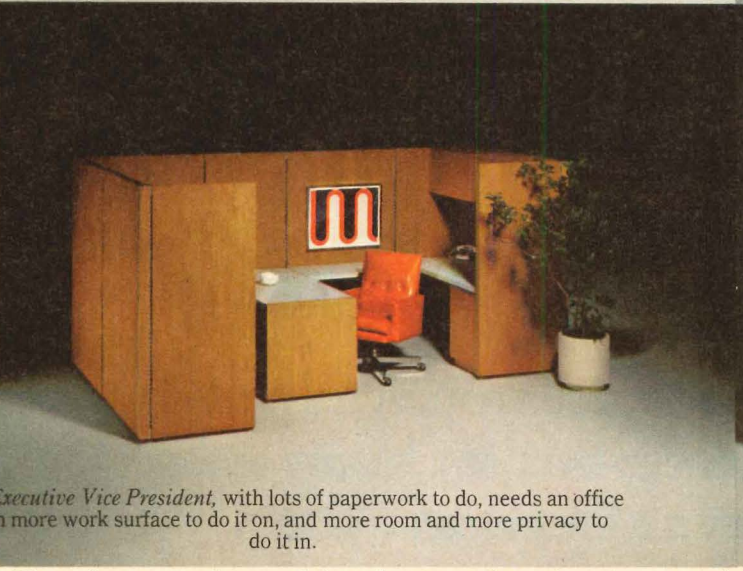
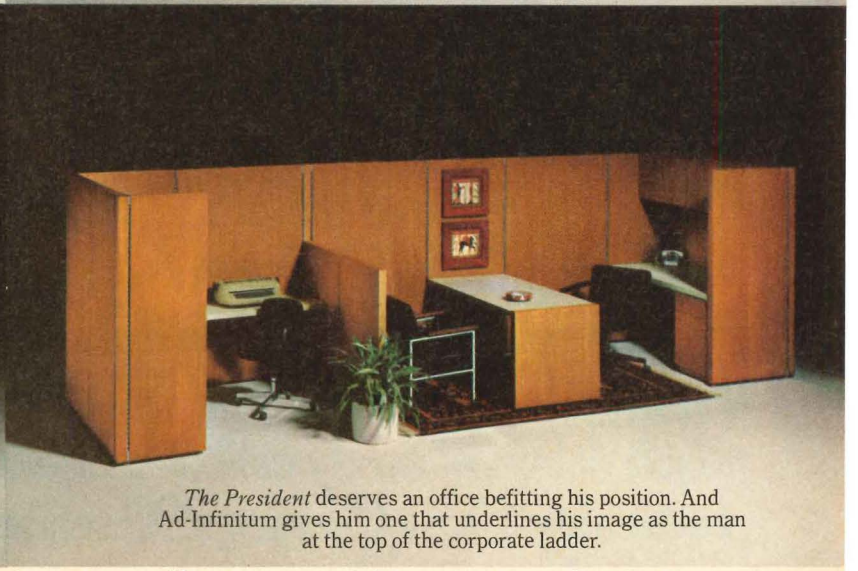


Executive Vice President, with lots of paperwork to do, needs an office n more work surface to do it on, and more room and more privacy to do it in.



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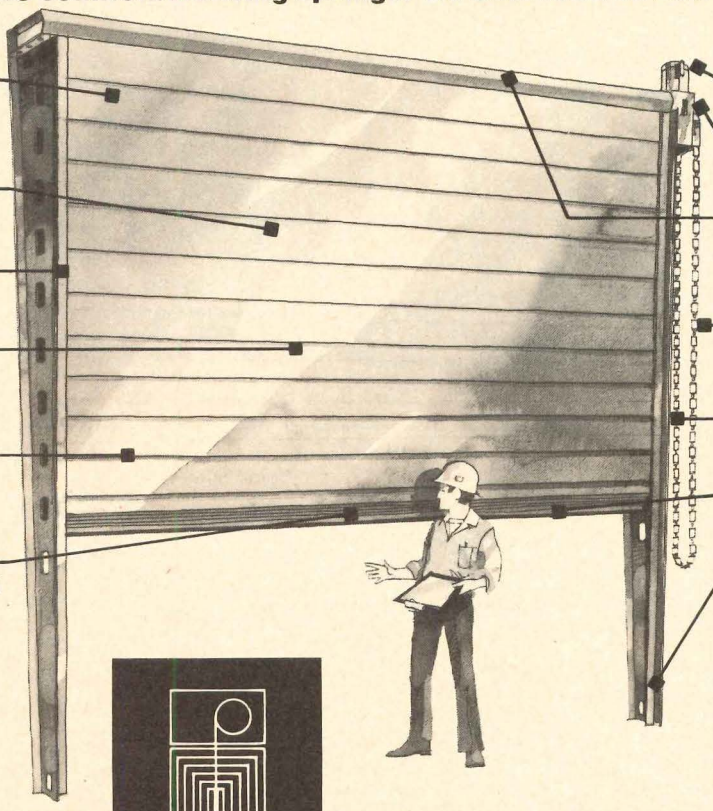

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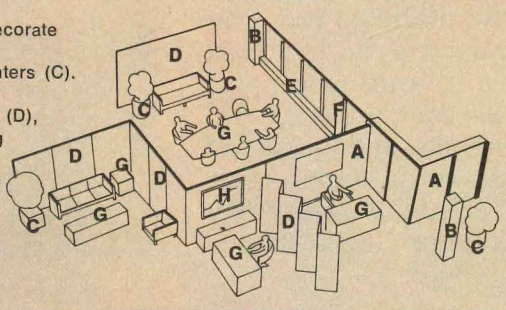

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Looking forward to the past

Concern for restoring and remodeling old buildings is greater than it has ever been, and it reflects changes that have come about in a very short period.

Historic preservation of old buildings is no longer seen, as it once was, as indulgence of nostalgia for the past. Architects need no longer feel hesitant about admitting to commissions involving the remodeling of existing structures. In fact, few offices today are not involved, in one way or another, with work related to the restoration or remodeling of older buildings. If anyone had suggested, even as little as ten years ago, that such a situation would characterize the profession today, that person would have been seriously questioned. But the reality of the mid-1970s is a reality that looks to the past. Work with older buildings is not only keeping some offices open during a period of severe building recession, but it is also perhaps the most rapidly expanding area of activity within the profession today.

How could such a major change come about in the short period of only ten years? Certainly not by chance. Behind it has been a dramatic revision in the public attitude toward both the built and the natural environment. One of the most important events leading to this change can be traced to the environmental crisis of the late 1960s. What happened then, as is well known now, is that public outcry against environmental degradation coalesced and was vocalized on a massive scale for the first time. This concern did not limit itself to the air, the oceans, and the forests, but was extended to embrace the idea of conservation of the whole environment. The concept of reusing old buildings, of rejuvenating old neighborhoods, and of revitalizing older cities was to take on a new significance. Then, in the early 1970s, an energy crisis was to make the abundance of "unlimited" resources scarce for the first time; fuel and materials became so costly that new construction was prohibitive in many instances.

About the same time, many of the grandiose urban renewal schemes of the 1950s were beginning to emerge as conspicuous failures, causing us to take a second look at what we already had. A national recession put demands for new construction back to levels not seen in decades. And recently, the advent of the Bicentennial has generated new and genuine concern for the past.

What finally emerged after this decade of change is the generally accepted belief in the idea of conservation of the built environment. The lending organizations whose participation is so crucial to most building programs recognize the benefits of reusing older buildings—that they usually require less capital in the beginning and take less time to complete than new buildings, with the result that money is tied up for shorter periods before rents begin to repay loans. In periods of high unemployment in the construction fields, such as the present, labor appreciates that preservation and remodeling efforts require more workers and craftsmen than do new buildings. And the public increasingly recognizes that the revitalization of sound structures and viable neighborhoods is both less expensive and less socially disorganizing than the wasteful and costly new construction typical of the recent past.

The idea of conservation of the built environment is now a mature idea, and it is in a sense the maturity of that idea which this issue of P/A is about. The opening article deals, for the first time as far as we know, with the idea of forming a theory of remodeling. The interiors section considers the new, uncharted area of interior landmarks designation. To give a broad view of the scope of current work, five of the nine building projects shown illustrate cases where older structures have been remodeled for new or altered uses. Three others illustrate important examples, in the strictest sense, of historic preservation. One project—the San Francisco Palace of Fine Arts—represents that rare instance when reconstruction might be justified. In looking to a scale larger than the single building, in an area that is becoming more common every day, the efforts toward revitalizing six older main streets is discussed.

If the idea of conservation of the built environment is a relatively new concept, there are many indications that it is already quite fully matured. If this issue illustrates something of the vast range of remodeling and restoration activity that is beginning to play such an important role in the building professions, it can do so only because of the growing acceptance of that idea. It may be that the future of the past is just beginning. [David Morton]

Old buildings as palimpsest

Rodolfo Machado

These 'thoughts on remodeling' present some pre-theoretical, 'suggestive material' that could be developed as concepts to consider what is specific to remodeling, how it differs from architecture in general, how it can be dealt with on a theoretical level, and what its most important potential critical, cultural, and educational values might be.

There is a superabundance of freshly-coined and almost synonymous terms referring to the type of architectural work traditionally called "remodeling." Terms such as "architectural recycling," "environmental retrieval," "adaptive reuse," and lately, "retrofitting," should be rejected because they are superficial, empty labels that do not represent any conceptual change with respect to previous stages of remodeling activity (reuse and improved technical performance, for instance, have always figured among the remodeler's goals).

This extravagant use of euphemisms denies the specific nature of remodeling, which is characterized by formal intervention upon existing form, and it also denies the tradition and history of remodeling practice, which is as old as the practice of architecture itself. (If one were to think of the churches of Santa Maria Novella in Florence and San Francesco in Rimini, both of which were "remodeled" by Alberti, and then add to this Le Corbusier's remodeling of the Beistegui apartment in Paris, one can see how intrinsically related the origins and great moments of architecture and remodeling are.)

Other terms used by architects who are fully aware of recent developments concerning the formal and systematic nature of remodeling are almost interchangeable word-clusters, such as "subtraction/addition/transformation," "reproduction/derivation/invention," or "deletion/addition/insertion." Even though these words belong to technical vocabularies that are properly used for referring to matters of form generally, they represent early attempts to form architectural concepts of a structuralist type—which are goals that have not yet been fully achieved.

Instead of any of these terms, it might be more appropriate simply to use the word "remodeling" since, as already noted, its meaning clearly includes the concept of formal intervention on existing form.

Author: *Rodolfo Machado, a practicing architect, teaches architecture at Rhode Island School of Design, Providence.*

The building as palimpsest

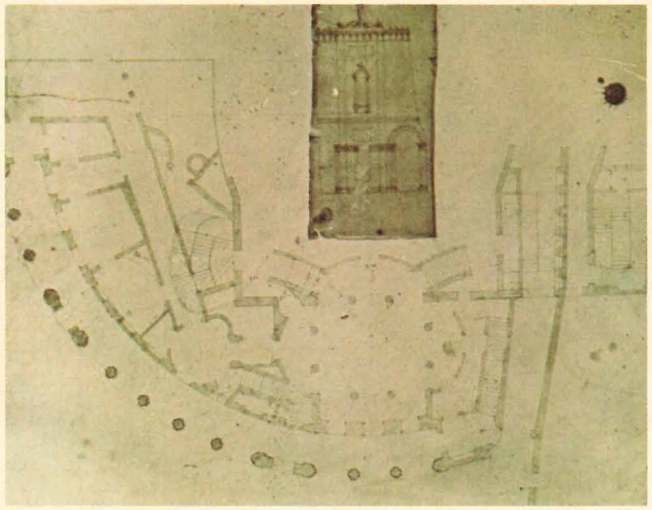
In order to build a theory of remodeling it would be useful to consider a series of metaphors, including the one used in the title to this article, which may suggest ways of thinking about remodeling once they are clarified and interrelated. These metaphors are borrowed from literary criticism, which is a discipline with a well-developed tradition for discussing matters of sense, such as architecture, at a general level.

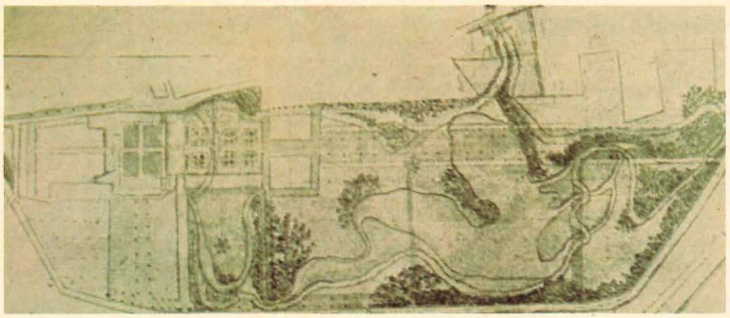
The Encyclopedia Britannica defines palimpsest as "scraped again; a term referring to any inscribed surface from which one text has been removed so that the space could be used again for another. In antiquity the word was applied loosely to any writing material that had been cleared and reused. . . . In late classical and medieval times the scarcity and costliness of vellum were so great that it was quite frequently salvaged after the text, which had been inscribed thereon, fell into neglect. . . . Rarely a book might be doubly palimpsest, i.e., exhibit two erased texts with a third one overlying them."

Some architectural drawings could be regarded as the equivalent of a palimpsest. In Jappelli's remodeling of a garden at Castelqomberto, for instance, the original drawings were drawn over; some elements of the composition that were due to remain were redrawn, some to be torn down were erased. In pursuing this metaphor, it is not only the architectural drawings that can be regarded as palimpsest, but also the remodeled architectural work itself, since it can be seen as a text of a special kind that is characterized by the juxtaposition and co-presence of other texts. If an original building is considered as a first discourse that conditions future formal discourses to be inscribed upon it, then remodeling can be conceived of as rewriting.

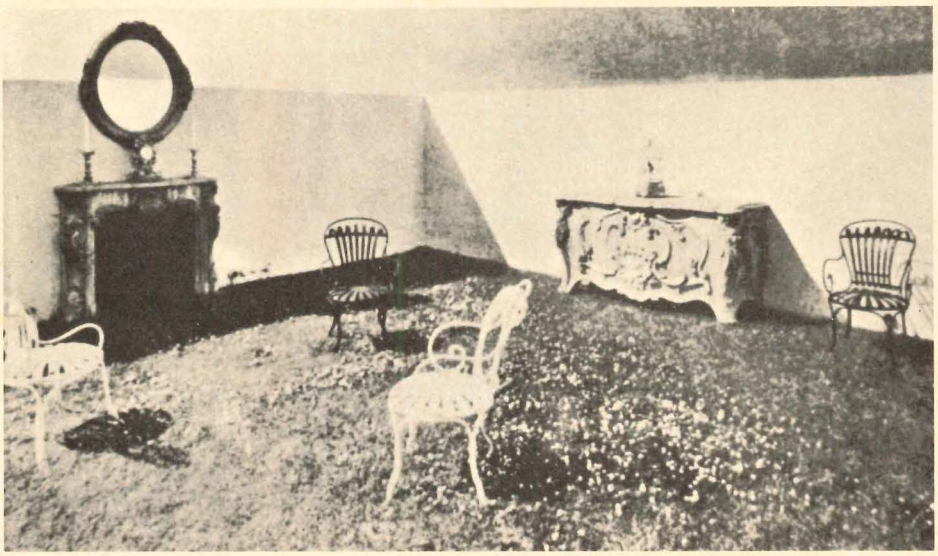
Remodeling as rewriting

From a formal point of view, it is possible to discuss remodeling as rewriting, that is, as work altering the formal fea-

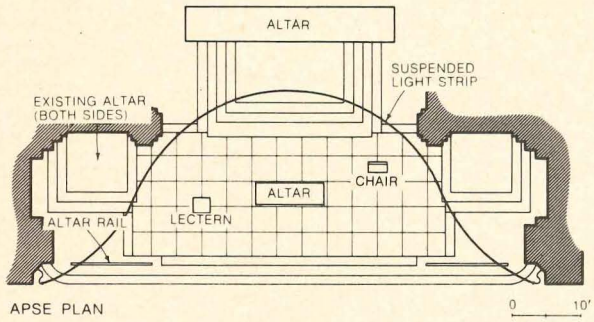




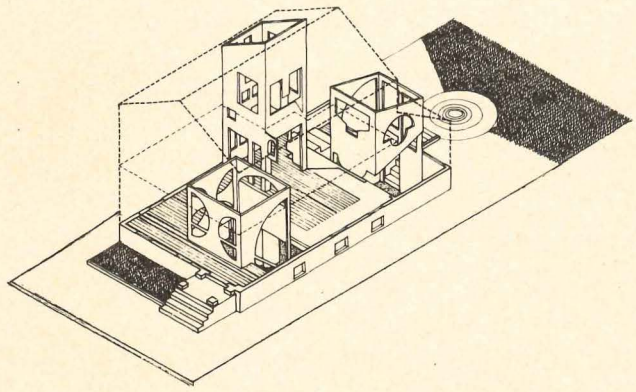
A palimpsest is any inscribed text that has been written over. As these illustrations show, remodeling of architectural projects could be interpreted as "writing over" previously existing subject matter. In remodeling the Piovene garden at Castlegomberto, Italy (above), Giuseppe Jappelli (1783-1852) simply drew over the original drawings. In the Piazza di San Martino, Lucca, Italy (below), a pair of Romanesque buildings has been often revised, or "written over," throughout their history.



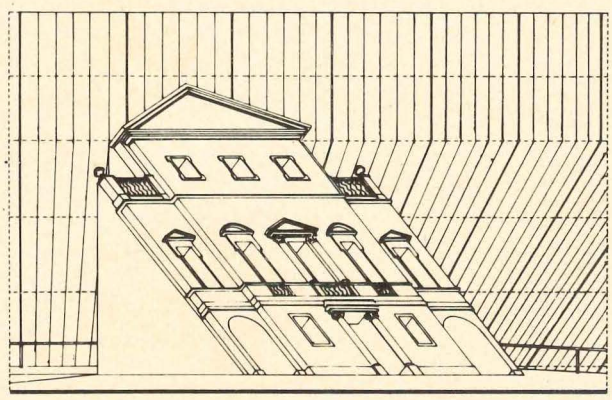
One of the "great moments" of remodeling is Le Corbusier's Beistegui Apartment in Paris of 1931 (above). Remodeling can range from the most minimal (a cold cathode tube "deletes" existing altar, below) to the radical transformation seen in the Moore House (below middle).
In urban remodeling old pieces of the physical texture might be used in new and inventive ways, as in the reforming of a civic arena (bottom).



Venturi and Rauch, St. Francis de Sales, Philadelphia, Pa., 1970.



Charles Moore, Moore House, New Haven, Conn., 1967.
James Stirling, Leon Krier, Civic Center, Derby, England, 1970.



tures of a building without attempting to alter its basic content (function). In this fashion, and in expanding on the previously established metaphors, remodeling can be seen as writing over, as underlining, as partially erasing, as interstitial writing (writing between the lines), as a way of qualifying, accentuating, quoting, commenting upon, as digression, interlude, or interval, as a way of writing parenthetically, of setting off by punctuation, as a new form for an old story. (The uses of metaphor are thick and richly layered because they expand the awareness of possibilities; let them explode, and with them liberating images of exhausted vocabularies and uncommon rhetorical manners will appear, and perhaps some invention.)

On another level, it is possible to discuss remodeling as rewriting when the alterations in the building's content (the re-semanticization) are of such a type that the building's original or latest function is changed; then the building is refunctionalized, a different story is born, a new plot is composed out of the old words, a new interpretation has taken place.

Remodeling as interpretation

It is also possible to consider the already-built, the building to be remodeled, as a script or written indication upon which each designer will draw his or her own interpretation of the given "piece." But just as in theater, for instance, where the interpretive markings are clearly detailed, a wide range of interpretations is still possible. Remodeling thus becomes a technique of formal interpretation, a special design technique for which very little prescriptive information has been established. And that which is interpreted is always a product of the past.

The past in remodeling

In remodeling, the past takes on a value far different from that in the usual design process, where form is generated "from scratch." In the traditional design process, the influence of the past is felt through its effect both as a repository and as a moral force. As a repository, the past is seen as a complex package of interrelated repertories, of things already built, drawn, and written. This repository is there to

learn from, to copy, to transform. Being almost impossible to forget, its "presence" or "weight," its importance, has different values at different moments in the development of architecture. As a moral force the past behaves as a repressive mechanism. The already-built (the "real world"), by means of its own existence and as a result of the mythical value the old takes in our culture, becomes institutionalized as "true" and "normal," as "common sense." As an "example to be followed," the old acquires a moral power that in turn limits, in a rather complex way, the process of production of form.

In the process of remodeling, however, the past takes on a greater significance because it, itself, is the material to be altered and reshaped. The past provides the already-written, the marked "canvas" on which each successive remodeling will find its own place. Thus, the past becomes a "package of sense," of built-up meaning to be accepted (maintained), transformed, or suppressed (refused).

If one quickly reviews what is being remodeled today, some common characteristics show up. The object that survives, the cherished one that is kept, belongs generally to two classes: the monuments and buildings of the rich, and those buildings which, as objects of a process of mythification, have acquired new meanings, such as the Connecticut barn or the New York loft. The ordinary buildings that are neither monumental nor mythically loaded are rarely objects of much concern. But, since monuments grow rather easily and mythical species change fast, things which are today inconceivable as objects of remodeling might be seen in a wholly different light in the future. In this respect, the remodeler might soon face some interesting problems. For instance, with buildings that are not conceived as "Architecture," such as most roadside-strip buildings, which are produced through a different set of criteria from that for architecture, a future question could be whether and how to "architecturalize" them, or to keep them within the original "genre." The remodeler will go beyond the question of the juxtaposition of vocabularies, which commonly characterizes a remodeled building, and into an area where the different modes of *conceiving* a building could be manifested and be juxtaposed. Then we will reach a level of deeply eclectic buildings.

The context in remodeling

In remodeling, then, the past is represented by the old object itself. But this object is also the most immediate context of the work of remodeling; the past pervades the building and the building itself becomes the primary level of the context of intervention. This temporal/spatial coexistence of past, content, and building accounts for the remarkable characteristic that the notion of cultural context takes in remodeling. The ways in which an existing building has or has not acknowledged the requirements of its cultural context over time becomes the most important feature of the context for the remodeler.

Theoretical interest and critical power

From a theoretical point of view, remodeling has always been a kind of minor, neglected area, conceptually close to the "negative pole" of decoration. But, for several reasons, it is necessary to consider a theory of remodeling, as a branch of architectural theory, having as its object of study the description of the interrelations and design operations that exist between old and new form.

Since the form/form relationship is the primary consideration of remodeling activity, it is naturally there where the critical potential of the activity lies. Because remodeling is implemented through a series of design operations, including those affected by the designer's view of the world, the effect of the remodeled object can be either of a critical or non-critical nature. In architecture, certain critical effects are characterized by the presence of what has been defined as a quality of "formal opacity" or "estrangement," of a formal condition of an uncommon or "unnatural" type, which leads the beholder to reflect upon the nature of formal vocabularies, their rules, and the arbitrary quality of their conventions. The juxtaposition of different formal vocabularies in a remodeled building produces a natural "estrangement" that can enormously facilitate the criticism, the exposure, of architectural languages as cultural conventions. It can also facilitate the manifestation of a designer's own critical intentions.

This coexistence of vocabularies provides very rich grounds for the design of complex buildings that allow a multiplicity of levels of reading, as opposed to buildings where the only sense can easily be "consumed" at first sight. Another element that can increase the potential for criticism is the notion of "type" in architecture. Through it, one can easily conceive of a remodeling activity (when dealing with clearly defined building types) that deals with the notion of type transformation. This could be the most critical function remodeling could offer, considering the antithesis toward the notion of type in the premises of the Modern movement.

Educational and cultural value of remodeling

The value of remodeling exercises in architectural education is high. In dealing with such problems, the student must concentrate on form/form problems rather than on form/function aspects. This in itself is useful because it seriously questions the arbitrary nature of the form/function relationship. In addition, the student is encouraged to think of generating form from considerations of the complex tridimensionality of the building itself, or at least from its façades and vertical planes in general, instead of from plan considerations. The educational value of this displacement lies in the fact that issues of meaning and character are immediately addressed at the beginning of the design process, which is not common in the usual design process.

Contact with the already-built expands the students' awareness of the multiplicity and availability of formal languages in architecture; and, in turn, a lively, intelligent use of history can be taught in the context of remodeling exercises. Other important aspects can also be dealt with if desired, such as the notion of formal, serial transformations which encourage a practical understanding of the semantic changes a small, formal modification might bring about. Such ideas can form a good introduction to the uses of rhetorical devices that can increase future architects' knowledge of their techniques.

The valuable service remodeling can provide in helping to preserve cultural heritage is well known, but more important is that it can take on more active roles to prevent undesirable environments in the first place.

Pennsylvania Academy Restoration:

Furness unfettered

Designed to open for our Centennial, Frank Furness's magnificant Academy has been restored for the Bicentennial.

In 1876 Frank Furness's new building for the Pennsylvania Academy of Fine Arts opened in Philadelphia, timed to coincide with the celebrations of the Centennial Expositon. The bold Victorian Gothic structure on the corner of Broad and Cherry streets replaced a neo-classical building which was the Academy's second museum and art school. After decades of desecration the Furness building remains, now impeccably restored under the direction of Hyman Myers of Day & Zimmerman Associates of Philadelphia.

The building has not always enjoyed the esteem in which it is held today. From a period of early admiration, it (and Furness's work in general) suffered an almost steady critical decline. When the architect died in 1912, "his passing went almost unnoticed in the architectural press," according to James F. O'Gorman in *The Architecture of Frank Furness* (Philadelphia Museum of Art, 1973). But in 1876, Furness was at the height of his powers. O'Gorman quotes the *American Architect* of that year which, even with some clearly stated reservations, could see Furness' work as "by far the most important element in the recent building of Philadelphia," and as "altogether the most interesting thing, to a student of architecture, to be seen" there. O'Gorman then traces Furness's critical decline, which reaches its nadir with Huger Elliot in the *Architectural Record* of April 1908. Elliot wrote of the Academy that "It is only surpassed by the Library of the University of Pennsylvania . . . than which nothing more grotesque could be imagined," and sums up Furness's work as "the low watermark in American architecture."

By the 1920s, Victorian architecture was condemned in general, O'Gorman continues. However, he notes that by 1943 Philadelphia architect John Harbeson could write in the *Pennsylvania Magazine of History* that Furness was "the one who was responsible for the best architecture of the [Victorian] period . . . and some of the worst also," and that in 1951 another Philadelphia architect, William Campbell, fathered "the Furness revival among historians . . . [and] put together the first attempt to understand Furness historically (in the Nov. 1951 *Architectural Review*)." O'Gorman writes that two years later, Professor Robert C. Smith of the University of Pennsylvania said (in an article entitled "Two Centuries of Philadelphia Architecture" published by the American Philosophical Society) that Furness was "Philadelphia's greatest architect of the late 19th Century and one of the pioneers of the modern movement in America." By 1966, O'Gorman notes that Robert Venturi, in *Complexity and Contradiction in Architect,* could *"like* the very conflicts that [other critics] had condemned," and that his own work of the time could be indebted to examples of Furness.

The circle had come full—or perhaps more than full—turn; for it may not be an exaggeration to suggest that Furness's work is more admired today than it was in his own time. However, the fact that he completed over 400 commissions (including more of Philadelphia's civic buildings than any other architect, and many of its citizens' city and country houses) may belie that. Today, however, only about 140 works clearly attributed to Furness remain intact, and 34 of these are not complete buildings, but alterations or additions to other buildings.

If his career suffered the vagaries of time, it did so no more than the buildings themselves, particularly the Pennsylvania Academy. Shortly after it was completed, according to Hyman Myers, a proposal was made by an Academy faculty member and notable Philadelphia architect to reface it in a "correct" style. Later, gas lights were removed and electric ones were installed, which was harmless in itself except that conduits were affixed carelessly to walls and ceilings, often causing physical, and certainly aesthetic damage to the interiors. Later, fluorescent fixtures were put in, iron roof crestings and ventilators were removed, and the original encaustic ("inlaid" with multiple colors) tiles in the main stair hall were replaced with vinyl asbestos tile. A concrete "Greek" frieze was applied over a band of decorative brickwork and exposed structural iron on the north façade, and the main entrance was altered to accommodate a swinging glass and stainless-steel-frame door that replaced the original golden oak sliding doors and cast-iron gates.

The lobby was mutilated and reduced in size for an elevator; other rooms were blocked up and hidden. Sliding oak doors 18 ft high were pushed into their pockets, sealed up, and replaced with smaller swinging doors; ornate polychrome, brass, and gold-plated columns (some of which ingeniously housed part of the building's original heating and ventilation system) were boxed in and plastered over to give a "modern" appearance. Blue and white porcelain tile wall friezes were painted brown, and throughout much of the interior the original, dramatic reds, blues, and gold of the walls were changed to neutral colors (sometimes Institutional green). If all of this weren't enough, in 1926 when the Broad Street subway was being constructed, the front quarter of the building leaned, and acquired a quarter-inch crack through the entire north-south section that remains today. It is seen most clearly now in the supports under the great stairway, which Furness had designed to "fly" to the mezzanine unencumbered.

It is surprising, though, that when restoration began two years ago the building was not really in as desecrated a condition as one might have imagined. Fortunately, after peeling, scraping, uncovering, and opening up, much of what was original was still there. The most serious missing parts were the front doors and grilles, and a carved oak cloak enclosure in the vestibule, which have now been reconstructed as authentically as possible. The chopped-up area of staff offices on the first floor turned out to be a small, exquisitely proportioned auditorium where the beautifully detailed columns, exposed iron beams, and stenciled friezes had been covered.

When Hyman Myers explains what needed to be done, it sounds more like an archeological excavation than an architectural restoration. An entire sealed-off gallery was discovered, in addition to some sealed doors which, closed, interrupted the natural flow of spaces Furness had originally intended. "We found," Myers said, "Furness's genius for the unfolding of spaces. You don't get museum fatigue here because of the sequence of progression. Although the galleries are similar, they are varied, and you are always aware of the central core" as a reference point that tells you where you are; "There are no circulation flaws."

Myers also talks about Furness's extraordinary sense of color, about both his boldness and his delicacy with it. After removing layers of paint and fabric wall-covering, one gallery turned out to be green and red, which did little to convince anyone of Furness's genius with color . . . until the original palate was matched and reapplied. Furness would use, on the columns for instance, both brass and gold plate, which are fairly undistinguishable to the casual observer. But, Myers says, "I am convinced it is just this kind of sensitivity that adds the unique 'flash' to these interiors." The same was true with the stars on the dark blue ceiling of the great hall. "What traces of them remained suggested silver leaf," Myers recounts. But they were in the great hall, where the foliate pattern of the carved stone walls was intricately embellished with gold leaf. It was not unreasonable to suspect that the stars might have been gold leaf too. Both were tried on the repainted ceiling, Myers

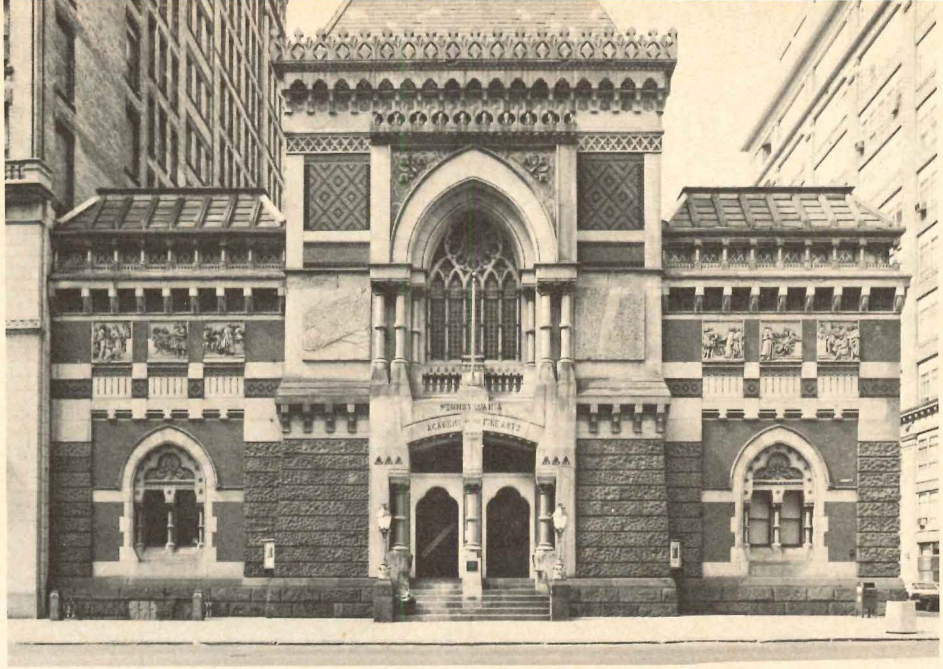
Great Hall (right) shows Furness's brilliance with the use of contrasting, "flashing" colors.

said, and "the gold was dead, but the silver flashed."

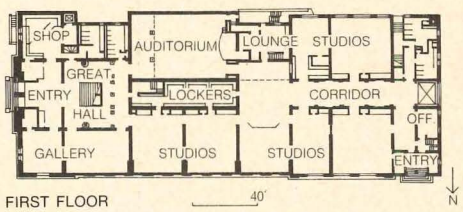
The Academy art school, which occupies about three-quarters of the first floor, had not been extensively altered over the years except, as already noted, for its auditorium. The new work in the school consisted essentially of cleaning, painting, adding new bathrooms, and firestairs. A new painting-gallery mezzanine was added in a studio so students could sketch from above the huge plaster casts (all a gift to the school from Napoleon) of such renown pieces as Winged Victory, The Laocoön, and The Elgin Marbles. And an up-to-date conservation laboratory was added on the second floor.

Showing an unusual awareness of modern standards of conservation, anything newly added throughout the building has been made explicitly new, so there will never again be a future doubt about what is or is not original. The two separate in-house caretaker's quarters (one for the museum and one for the school) have been delicately converted to offices, and a new gift shop has been put in an old front office. The new elevator was unobtrusively installed in an old air shaft. Vinyl tile has been removed, and the galleries are once again carpeted as they were originally. Skylights have been re-glazed; all new heating, air-conditioning, ventilating, and electrical and security systems have been installed, with all controls, duct work, and conduits ingeniously hidden. Future stages of the restoration will include exterior cleaning and refurbishing of the basement vault and storage areas.

Just as the critical attitude towards Frank Furness had sunk and risen again, so has concern for one of his great works. The Academy is not the same building it was in 1876, but in many ways it is better because of the hundred years of technological advancements now secreted within its old walls. But technological advances do not make a building great. Furness did that; and whatever credit is due to the living should go to the Academy staff and members, who recognized what they had, and to Day & Zimmerman and Hyman Myers, and some extremely caring craftsmen, who obviously loved what the Academy had. [David Morton]



Glass doors have been removed from main entrance, and door frames reformed closely to originals.



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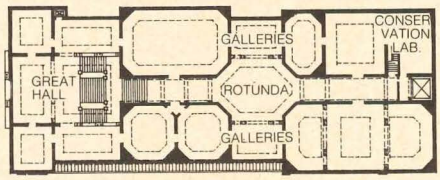

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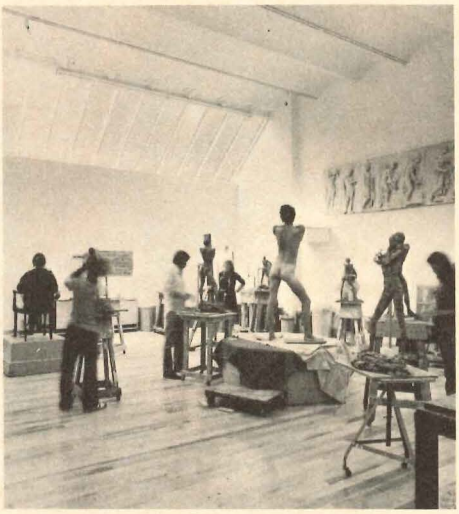


Studios (above) in 1876 and today show changes have not been limited only to physical structure. Gallery rotunda (below) in 1876 (left), before remodeling (right), and today (facing page).

Data

Project: Pennsylvania Academy of the Fine Arts, Philadelphia, Pa.
Architects: original building, Furness and Hewitt; restoration, Day & Zimmerman Assocs., Francis G. Vitetta, partner-in-charge, Hyman Myers, associate-in-charge.
Client: Pennsylvania Academy of the fine Arts.
Consultants: Day & Zimmerman Assocs., mechanical and electrical engineers; Loneg A. North, P.E., structural engineer; Raymond Grenald, architectural lighting consultant.
Major materials: see Building materials p. 104.
Contractor: Haverstick/Borthwick Co, Inc.
Costs: (of restoration) $4 million.
Photography: Harris-Davis; historical photos courtesy Pennsylvania Academy.

stairway (above) was designed to rise unsupported to mezzaniine, but now needs support. Galleries are repainted and carpeted as originally.

Constabulary reconsecrated

Peter Blake

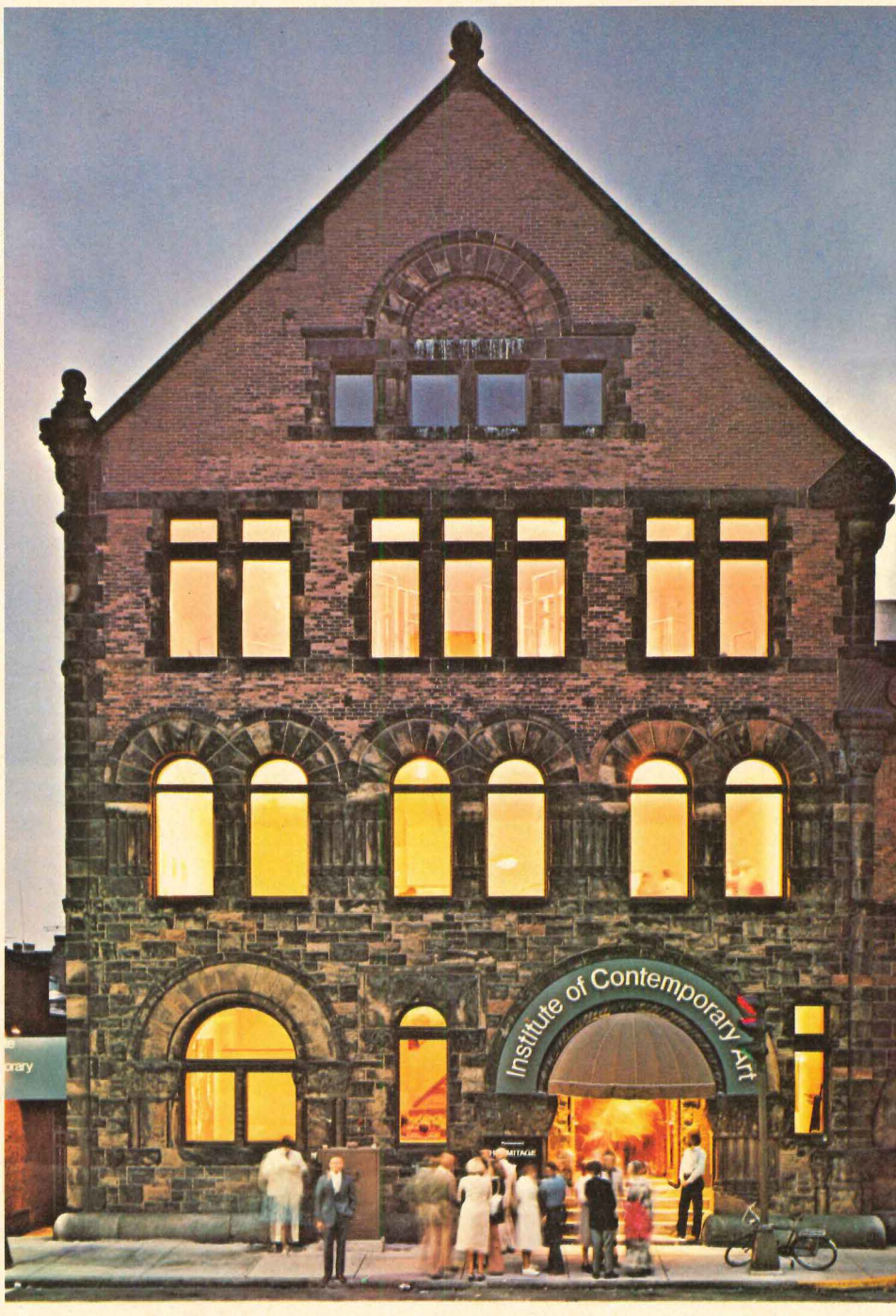
A Richardsonian bastion of the law takes on a new assignment as a sanctuary for the fine arts and the rites of dining.

Over the past 30 years or so, many of the finest ex-palazzi in Italy and Spain have been recycled into museums of the art of our time, often with spectacular effect: large spaces of the sort we can no longer afford to build can easily accommodate today's superart; and the contrast between minimal abstraction and maximal decor often enhances the former as much as the latter.

The U.S. doesn't have very many palazzi, but it does own some impressive symbols of 19th-Century commerce, industry, and other forms of power—to wit, armories, railroad stations, fire stations, and police stations galore, many of them now threatened, others virtually abandoned. All over the U.S. there are efforts to salvage these palaces of our recent past by recycling them into almost anything—just so long as it justifies a new lease on life. In some cities those efforts have been successful; in most, not.

The latest success story can be found in Boston, where the architect Graham Gund has been busy recycling a charming little Richardsonian police station into a new and spacious gallery, the Institute of Contemporary Art. Station House No. 16 was never a palazzo; it was and continues to be a little neo-Romanesque castle, actually the larger of two adjoining and similar little castles, the other one still functioning as headquarters of Ladder Co. 15 of the Boston Fire Department. The two stand cheek by jowl on Boylston St. in Back Bay, facing the vast, tinny Prudential Center, and actually dominating it by their rugged presence. The Romanesque twins were built in 1886 in the wake of H.H. Richardson's Trinity Church, a few blocks down the street.

The ICA's new/old quarters look like a simple and fairly obvious solution: the outside was cleaned up, but left largely as it was; the inside was gutted, and the 40 "drunk tanks" and other law-enforcement facilities that once graced the station house were replaced with white-walled gallery spaces. In fact, however, Gund's conversion of the old building was anything but obvious: the program was of a complexity that might have unhinged a lesser architect—phased demolition and construction, moves from an adjacent police substation and former police stables into the recycled building (also in stages), incorporation of an autonomous restaurant, to be accessible and operable while the galleries were closed to the public but, in fact, openly visible to diners; and so on.

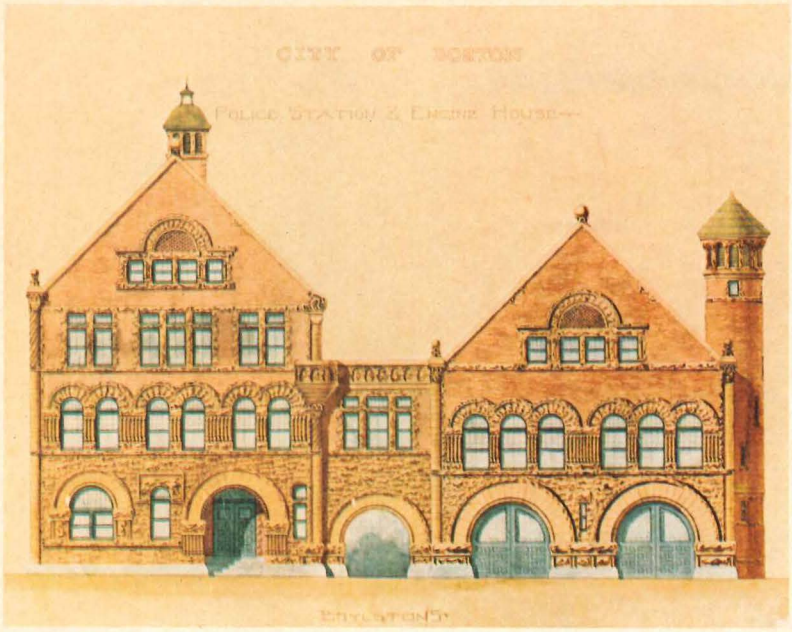


Author: Peter Blake is a practicing architect, a noted architectural critic and author, and Chairman of the Boston Architectural Center, which stands adjacent to the new Institute of Contemporary Art.

All of this, plus a loading dock, storage, elevator, workshops, auditorium, and office space on the top floor (currently being completed) was to be accomplished in a building measuring about 40 ft. wide and 90 ft. long. And to make things just a little more complicated, the old station house had a main floor that slanted (and still slants) 12 in. back-to-front, and 4 in. side-to-side—the result of some alarming shifts when a subway tunnel was built under its Boylston Street façade—and surely an even more alarming experience for the inhabitants of those 40 aforementioned "tanks."

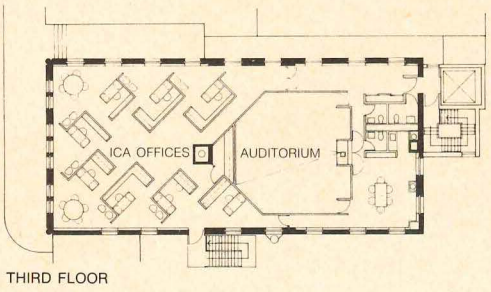
All these complex requirements and problems were solved with disarming ease and considerable elegance: Gund simply inserted an open, three-story, split-level stairwell into the middle of his entrance space, and made the galleries and restaurant levels accessible from it. The stair is angled at 45 degrees, and it zigzags in and out of view, a device somewhat reminiscent of the Guggenheim's ramp, but centrally located rather than peripheral, and without the latter's horrendous installation problems: here each "landing" off the stairwell becomes a gallery (or a dining space), and works of art are visible from many angles and distances—an approach to the installation of paintings, especially, that bothers a few conventional curators.

What this stairwell does, among other things, is to give the small interior an unexpected sense of spaciousness. It is a simple trick, but rarely played so neatly: in almost any space, a straight diagonal line or plane is, of course, the longest you can draw, and a diagonal vista is the longest you can see; so by angling his stairwell



Rendered elevation by original architects (top) shows former station house, now ICA, at left, fire station at right. ICA exterior was left unaltered, except for signage and canopy.

Reuse: Institute of Contemporary Art



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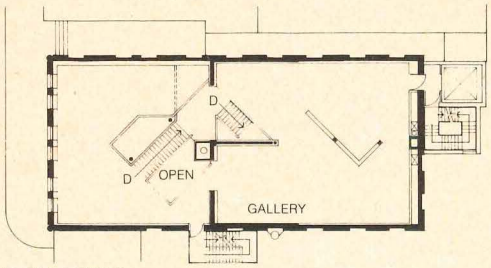

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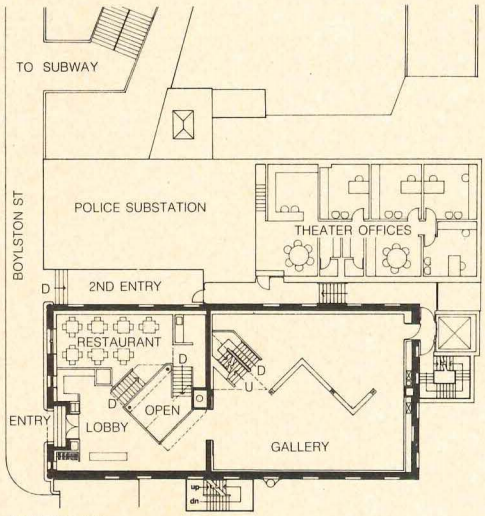

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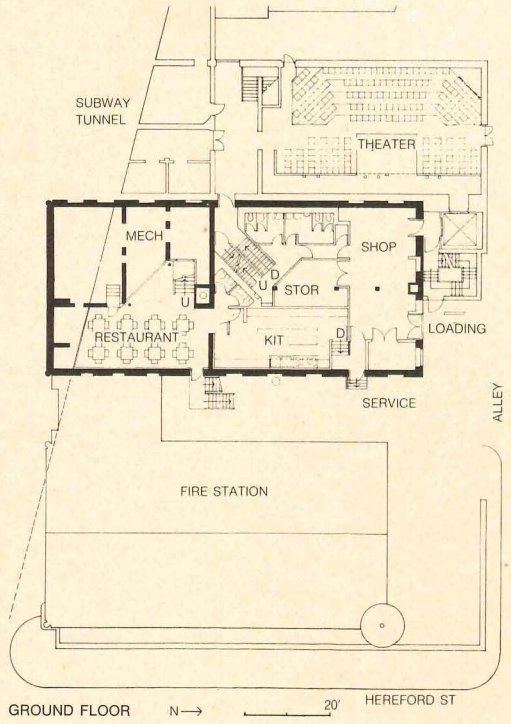
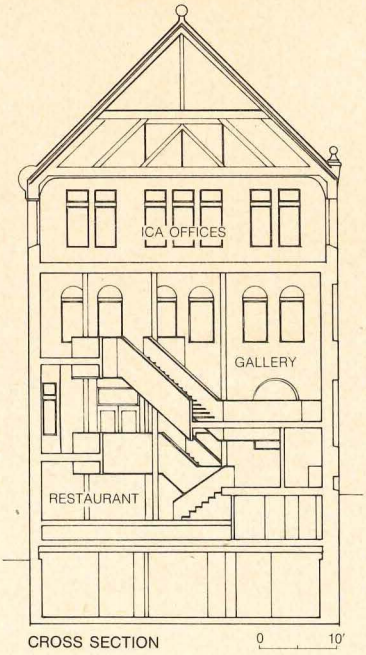




(and some other elements in the galleries) and by opening up diagonal views up and down and through the three main floors of the building, Gund made this little station house seem spacious far beyond its actual size. It is a very successful example of architecture *trompe-l'oeil.*

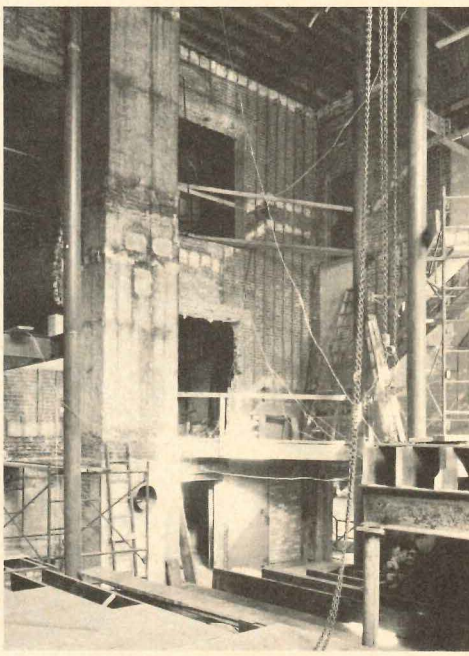
In recycling a building of this sort—in fact, any building—one constantly runs into unexpected existing conditions. Instead of trying to fight these problems, Gund simply left things as they were—an odd column here, a chimney there. As in off-Broadway theaters, whose stage designers often enjoy the challenge of having to work in off-beat spaces, the installations at the ICA seem more interesting because the gallery spaces are not bland and immaculate.

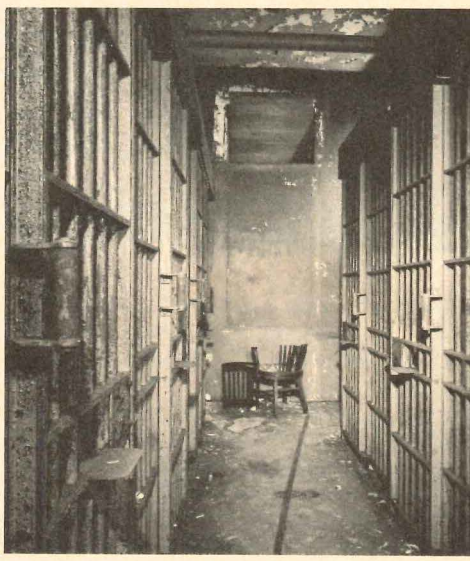
Implied in the success of the ICA and in the success of other recycling efforts in Boston and elsewhere is an ironic challenge to modern dogma: if form should, indeed, follow function, why do recycled "drunk tanks" seem to work so much better as art galleries than most of the boring modern museums we have built from scratch? And if form does not follow function, then what exactly does it follow? Caprice? □

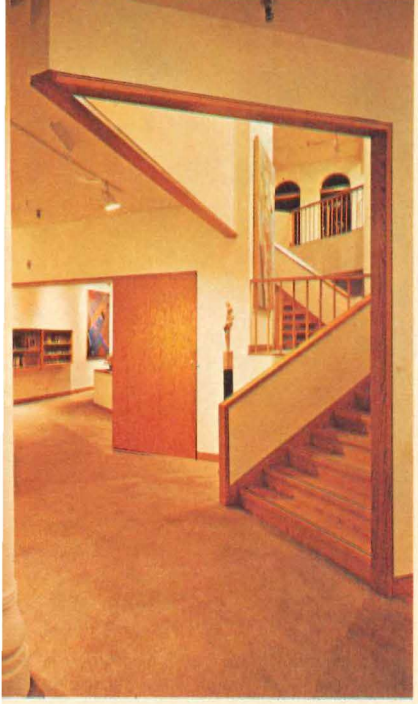
Data

Project: Institute of Contemporary Art, Boston, Mass. (formerly a police station house).
Architects: original station house, Arthur H. Vinal; remodeling, Graham Gund Associates, Cambridge, Mass.; Graham Gund, principal in charge; Dennis C. Rieske, job captain.
Consultants: LeMessurier Associates, structural engineers; Fitzmeyer & Tocci, mechanical; Courville Associates, electrical.
Major materials: see Building materials p. 104.
General contractor: Faletra & Kumins, Inc.
Areas: station house remodeling: 22,225 sq ft (including galleries, 8290 sq ft, restaurant and kitchens, 2400 sq ft); adjoining stable (now under conversion to theater, by others, according to phased program), 5000 sq ft.
Cost: $796,000, including remodeling of station house and initial phase in adjoining stable.
Photography: Steve Rosenthal, except as noted.

Top floor (above) is now being converted into offices and meeting room. Lobby/restaurant area (below) was gutted, some loads transferred to two new steel columns. Original "drunk tanks" (bottom) gave way to institute service spaces.

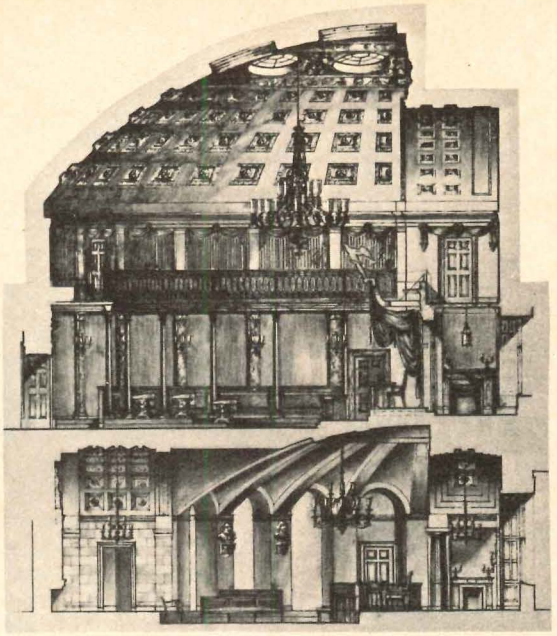






Central stairwell is vortex of galleries on first floor (left) and second (above and below), lobby and split-level restaurant (right). Massive wood trim is oak, walls—including fixed gallery partitions—are off-white. Works seen prominently here include paintings by Kelly (above), Katz (right), and Laurent (below).

Reconstitution



Sections of the restored Senate (above) and the Supreme Court (below) opened to the public in the last year. Drawings are contemporary but in the Beaux-Arts style of the period.

The following projects show the wide view of remodeling and preservation efforts recently completed; they range from ordinary to extraordinary, from the 18th to the 20th Centuries, from conversions to reconstructions.

U. S. Capitol

Politics aren't all that change yet stay the same on The Hill. Making a comeback, after languishing more than 40 years as storerooms and committee rooms, are the original Senate and Supreme Court chambers—superbly restored by the Capitol Architect, assisted by several outside firms. The painstaking execution of the restoration was done by skilled day workmen.

The two chambers are located one above the other just north of the present portico. The Senate first occupied the lower room in 1800. In 1810 it moved directly upstairs, and the Supreme Court took over the lower level, but the burning of the Capitol by the British in 1814 left both without a permanent home until 1819, when they were reinstated in their former spaces. This arrangement remained until 1859 when the Senate moved to larger quarters in the new north wing where it resides today, and the Supreme Court moved into the Senate's vacated upper chamber.

In 1835 the Supreme Court moved into a building of its own just east of the Capitol. Since then the abandoned rooms were outfitted for various uses: the Supreme Court chamber served at times as a law library, meeting rooms for the Joint Committee on Atomic Energy, and storage; the Senate suffered through such disrespectful uses as a lunch room and storeroom.

When the Senate occupied the lower level, John Adams in 1800 addressed the first joint session of Congress, and there, a year later, Thomas Jefferson took the oath of President of the United States. In that chamber the Supreme Court delivered its decision of *Dartmouth College* v. *Woodward,* a case which established the legal reputation of Daniel Webster. Chief Justice Marshall presided over the Court during its first years in this chamber.

During the time around 1808–1809, when the lower chamber was being readied for the Court, familiar problems plagued the endeavor: cost overruns and a Congress slow to appropriate funds. The Justices, inconvenienced by the cold in their temporary quarters, often held Court in a tavern opposite the Capitol.

Restoration places both rooms as they were when last used in 1859: the Supreme Court on the lower level and the Senate above. Both are of moderate size—at the time, the Senate seated 64. The Supreme Court has a vaulted ceiling, rebuilt after the 1814 fire, which Benjamin Latrobe told Jefferson was "the most extraordinary ever attempted as to span and altitude."

While some of the original furniture has been returned, most of it has been reproduced from patterns of the originals. The antique Senate desks were unavailable, for example, because they are being used in the present Senate chamber.

Benjamin Latrobe was the first professionally trained architect to work on The Hill. He was forced to resign in 1817, however, following a feud over the manner and speed by which he carried out the original Capitol design by Dr. William Thornton, a nonarchitect. Latrobe left in anger and took along his plans and drawings; the loss of these documents has frustrated restoration efforts. The only guides have been some paintings, detailed purchase vouchers of the furnishings, the diary of a man first appointed a Senate page, who remained a bachelor and served the Capitol for 60 years, and *Bohn's Handbook of Washington,* 1854. Charles Bulfinch, successor of Latrobe, also left few documents.

As with numerous restorations, complete plans couldn't be produced at the outset because nobody knew exactly what would be discovered beneath layers of alterations. In the Supreme Court, three fireplaces were uncovered; the mantles had been removed and the openings covered when the Capitol was air conditioned in 1937. A 2-in.-wide crack was found in the floor of the Senate; the crack, restoration architects deduced, appeared after the 1898 gas explosion which also caused the East Front of the Capitol to lean by an almost equivalent measurement of an inch and a half. To prevent further widening, metal bands long ago were bolted to the floor on either side spanning the crack and holding the floor together. This remedy remains with only sand filling the opening.

Foreseeing uncertainty as the reconstruction progressed, the architects decided not to let builders bid on the work but instead advocated hiring day laborers to be supervised by the Capitol Architect's office. This way the skills of craftsmen not commonly found on a contractor's payroll could be obtained. Work began on the Supreme Court in late 1973 and was completed in 1975; the work on the Senate was completed in June. It took 20 years to arrive at this point.

In 1956 the need to return these two historic federal rooms to the public was recognized, and the Commission for the Extension of the U.S. Capitol, voted to do so. However, it wasn't until 1972 that the Commission on Art and Antiquities, headed by James R. Ketchum, succeeded in obtaining an appropriation of money.

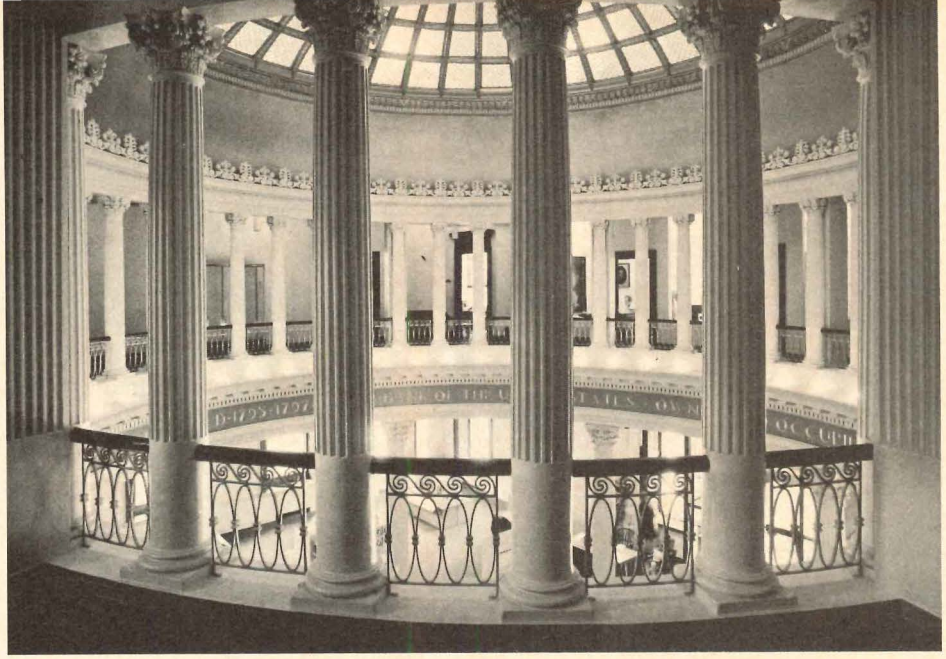
The work was not an official Bicentennial effort, but no other project could better symbolize the renewed appreciation of America's heritage than these two chambers. [Ann Carter]

Data

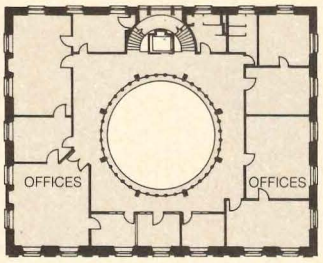
Project: U.S. Capitol, former Senate and Supreme Court chambers, Washington, D.C.
Architects: Senate, Charles Bulfinch; Supreme Court, Benjamin Henry Latrobe; restoration, Capitol Architect J. George Stewart (1956–1970), George M. White (from 1971); Roscoe P. DeWitt, A.J. Tatum, Alfred Easton Poor, Albert Homer Swanke, Jesse M. Shelton, A.P. Almond, associated architects; assistant capitol architect Mario E. Campioli; Lillian R. Kessel, Florian H. Thayn, research.
Consultants: Robert J. Colborn, Paul F. Norton, Loris S. Russell, historians.
Cost: $1.5 million.
Photography: Alexandre Georges.

views of the old Senate (above) and one of the old Supreme Court (below) from behind the bench. Rooms restored to the period of 1859.

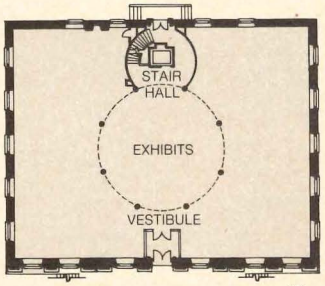
First Bank of U.S.



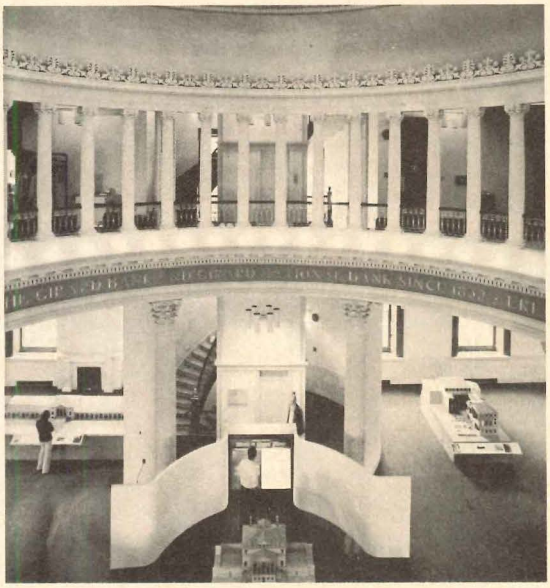
The interior, remodeled in 1902, has now been refurbished for use by the National Park Service.



SECOND FLOOR



FIRST FLOOR N→ 20'



Calvin Coolidge's famous statement of 1925 that "the business of America is business" can, by stretching the point very little, be supported in fact. Shortly after the young republic was formed, and during the period its capitol was seated in Philadelphia (1790–1800), the first structure of any real consequence that the new federal government undertook was a bank. Gentleman architect Samuel Blodget, a medical doctor by profession, designed the First Bank of the United States, which was completed in 1797. It continued to serve its original function (even after the capitol was moved to Washington) until 1811, when its charter was allowed to expire during a mood of laissez-faire in Washington that saw no need for the federal government to control funds to the extent the charter had mandated.

The building soon was sold to Stephen Girard, a local merchant who went into the banking business, and it was subsequently to become the first bank of today's large Girard Bank of Philadelphia. Girard used the building until 1929, and in 1956 it was purchased by the National Park Service for use as a design office and visitor center.

As originally designed, the exterior of the building was to be all marble, but a budget cut downgraded the material on the two sides and back to brick. These facades were later altered as the result of an interior renovation, but they have been accurately restored to their 18th-Century appearance in the current restoration. The only part of the building that escaped alteration was the front, where the marble façade, columned portico, and wood-carved typanium (with characteristic Federal period American eagle and coat-of-arms) remain intact today.

The inside, however, is a different story. In 1902 the Girard Bank hired James H. Windrim to gut the interior completely and reform it in order to accommodate a new skylight dome. The problem with the interior was that it was dark and cut up. On the first floor, a barrel-vaulted main banking room ran from east to west, flanked by offices on both sides. Windrim removed everything and installed a two-level floor-through rotunda of columns in the middle of the building, topped by the glazed dome. It, in turn, was protected by a "greenhouse" that extended, unattractively, well above the roofline. Windrim removed all but one of the fireplaces, changed window openings, and fitted an elevator into a rounded stairwell, while retaining the spiraling stairs, at the back of the building.

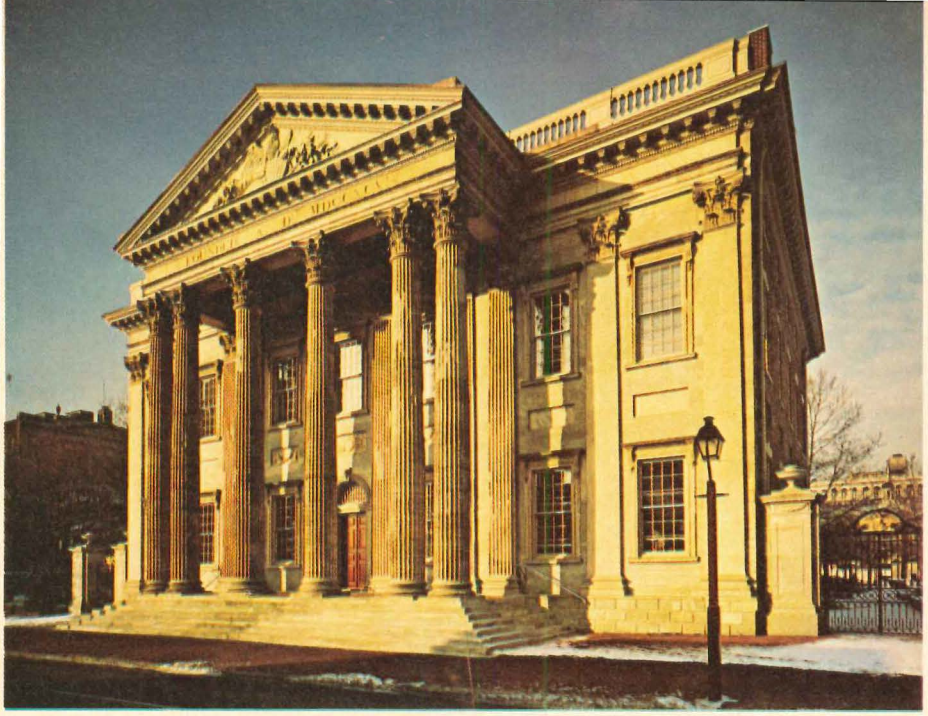
In the current restoration, there was never a question of attempting to return the interiors to their original state. In the first place, little first-period documentation exists concerning the inside, and in addition, Windrim's renovation fits the present need for exhibition space and offices very nicely; better, in fact, than the original would have.

The most difficult part of the restoration, said George William, associate partner-in-charge for Day & Zimmerman Associates, was the problem of the skylight dome. In order to achieve the 18th-Century exterior appearance the greenhouse over the dome had to be removed, and the dome then had to be sunk into the attic space to accommodate a new low hipped roof, similar to the original, which would not be visible from below. In the attic a lightweight gypsum base and veneer plaster enclosure was formed over the dome to reflect artificial "day-type" light indirectly down into the interior.

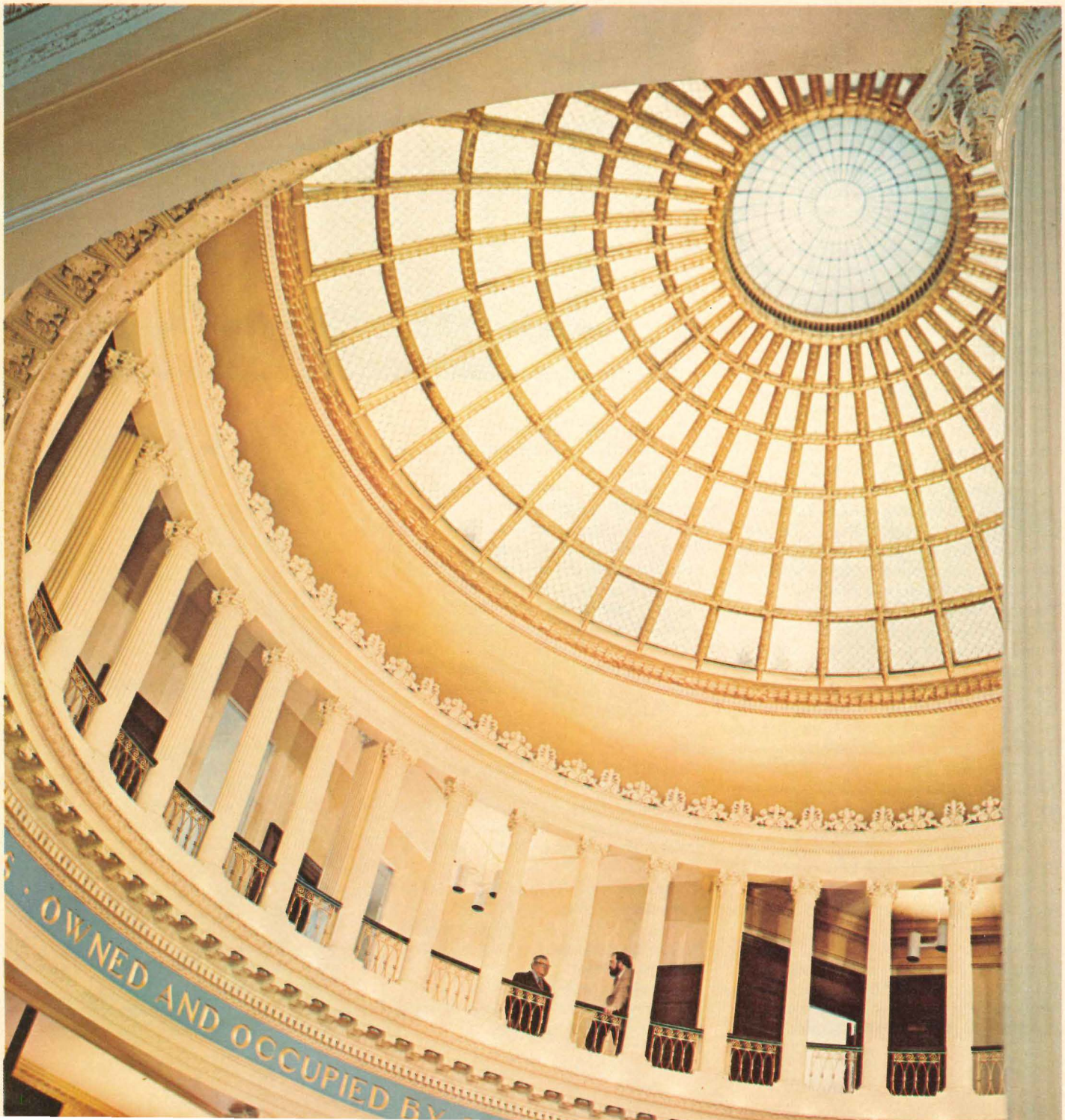
When the National Park Service bought the First Bank they knew they had a fine 18th-Century building with an equally fine renovated interior. That they chose to respect both, without attempting to "re-create" something close to what the original interior might have been, is confirmation of a growing attitude in building conservation which acknowledges that buildings naturally change over time, that these changes are not always necessarily for the worse, that they can be much-preferred over some re-creations, and that they can even be admired in their own right. Not very long ago, a purist surely would have been horrified by such ideas. [David Morton]

Data

Project: First Bank of United States, Philadelphia, Pa.
Architects: original building, Samuel Blodget with later renovation by James H. Windrim; restoration, Day & Zimmerman Associates, Frank G. Vitetta, partner-in-charge, George P. William, associate partner-in-charge.
Client: National Park Service, Independence National Historical Park.
Consultants: Raymond Grenald, lighting.
Other credits: historical research: National Park Service historians, Penelope Hortshone Bachelor, N.P.S. Historical architectural consultant: Charles Peterson. Bicentennial coordinator: Lawrence Coryell, N.P.S.
Contractor: P. Agnes Builders.
Costs: $1.8 million.
Photography: Harris-Davis, p. 60; Hedrich-Blessing, p. 61.



The first important building of the U.S. was sold soon after occupancy. It served as a private bank for years, but is returned to public use today.



Rotunda, University of Virginia

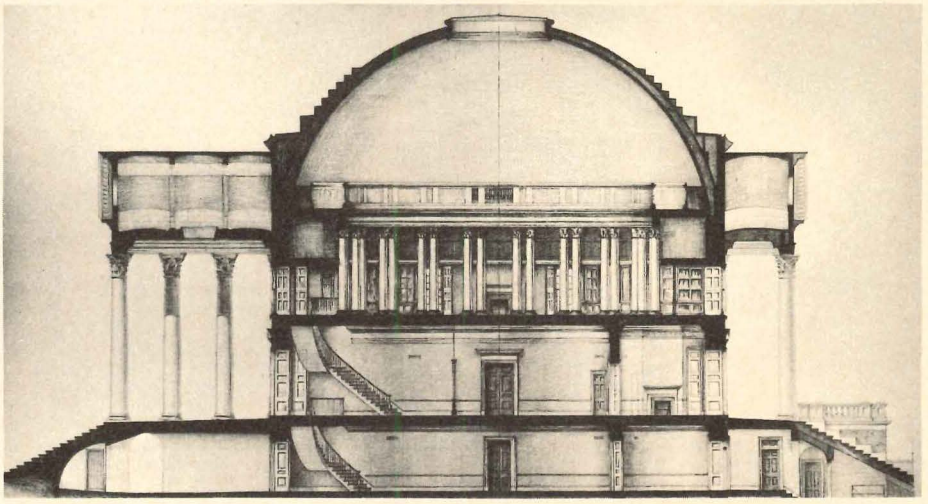
The recently completed restoration of Thomas Jefferson's Rotunda at the University of Virginia in Charlottesville is a project that seems to have divided the university community as well as others who have seen it. Few are pleased with the results. Subjects of complaints range from stylistic compromises to inattention to details to lack of a viable plan for use.

But there is more. In preservation, there is a valid general question as to just what should be restored. What do you do with a Federal house that has, as a later addition, a Victorian porch? In the case of the Rotunda, the main building was completed to the designs of Thomas Jefferson in 1826. Robert Mills made major changes in 1853 and Stanford White was commissioned to redo the building after a severe fire in 1895. Thus, here is a building worked on by three major American architects. This most recent work was a restoration and adaptation that leaves the building an amalgam of all three of their designs satisfying no one.

The project was started by a committee at the university which commissioned the Richmond, Va., firm of Ballou & Justice; Louis W. Ballou is a university alumnus. The architectural consultant was Frederick D. Nichols, a professor of architecture there and an expert on Jefferson. No one questions the motives of those involved; rather, it appears, compromises were made that have resulted in a half-baked restoration job.

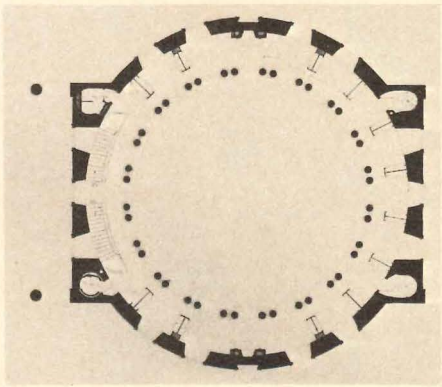
Take the dome room, for example. Jefferson's skylight was wood with spokes radiating from a wooden center. Panes of glass were laid shingle fashion. The new one is made of aluminum—and it looks like aluminum. The room is surrounded by 20 paired columns behind which is a small balcony. The fire marshal insisted on some kind of protection to keep people from falling off (there was no railing originally), so a simple metal railing was installed. It looks out of place and one would like to think that a creative architect could have done something more attractive. The room itself is accessible by a curved stair and a small round elevator only large enough to hold a wheelchair, which makes it difficult to use the space since furniture must be brought in and there is no storage area.

The list goes on! Two lights over paintings where one would do (and not result in a shadow); air-conditioning vents in the walls of the oval rooms; entrance through the basement rather than up the magnificent steps from the lawn; carpets that look cheap and, in the case of one room, are the wrong shape. In short, for a building about which so much is so well known (it reportedly is the most documented building in the country except for the Capitol), there seems to have been a great deal of conjecture.



SECTION 0 20

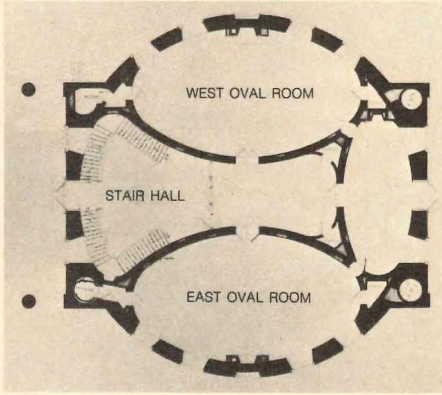
For this restoration and adaptation, the entire building was gutted; all that was left standing were the dome and circular walls. Structural steel, steel joists, and concrete subfloors were installed on the first and second floors and covered with wood flooring. Interior walls are masonry covered with plaster. The inside of the dome is covered with a vinyl-faced aluminum acoustical liner. The building is completely air conditioned and sprinklered. [Carlton Knight III]



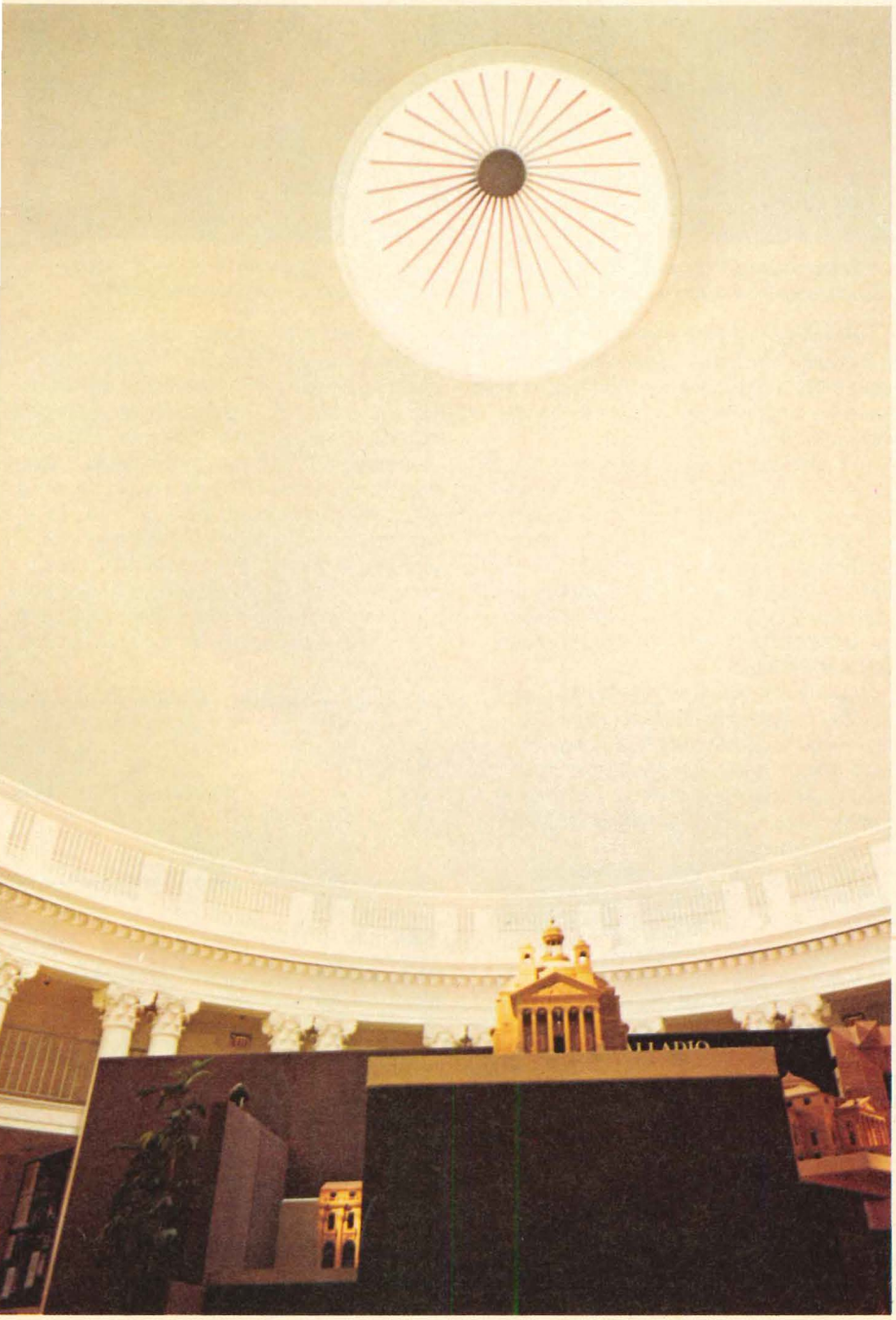
DOME ROOM FLOOR PLAN

Data

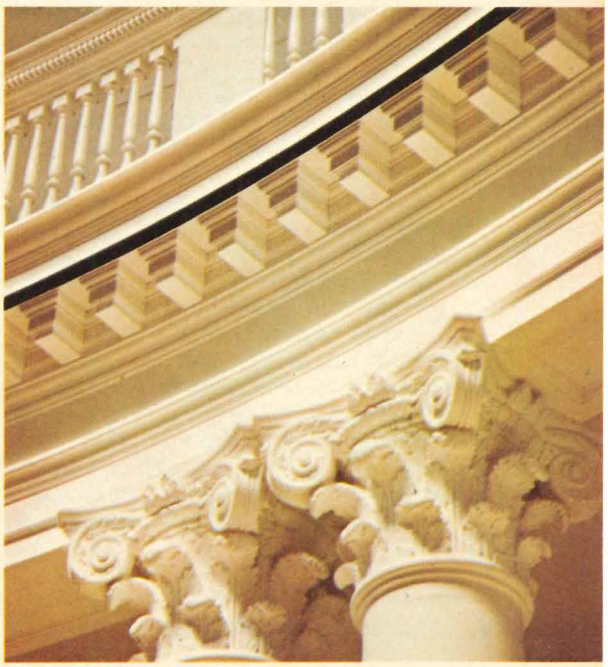
Project: The Rotunda, University of Virginia, Charlottesville.
Architects: original architect: Thomas Jefferson (1826); Robert Mills (1853); Stanford White (1895); restoration (1976) Ballou & Justice, Richmond, Va.
Contractor: Robert E. Lee & Son.
Consultants: Frederick D. Nichols, architectural; Torrence, Dreelin, Farthing & Buford, structural engineers; Leo P. Griffin, electrical engineer.
Cost: approximately $2 million.
Photography: Robert Lautman, p. 62 and p. 63 top left; Fred Kenderson p. 63.



FIRST FLOOR PLAN N → 0 20



Oval room and hallway, main floor, (top); dome room during Palladio exhibit (left, above and below).



Scottie's on Seventh

Bruce N. Wright

A new Minneapolis night spot actually began over 60 years ago as a Beaux-Arts movie theater. It was remodeled into an Art-Deco cafe in the 1930s, and retains much of that design today.

In 1931 they used to serve food at the Forum Cafeteria, a modest little cafe in the heart of downtown Minneapolis, and before that they used to serve silent movies (where the cost to see Douglas Fairbanks, Sr. was less than a bag of popcorn today), but now they serve early jazz music and the fastest trip to the past this side of the future. Time travel? No, just a little bit of nostalgia. On its third time around for reuse, the old Forum Cafe, renamed Scottie's on Seventh, is the most recent example of appreciation for its heritage this Midwestern city has successfully pulled off. Previous efforts in this city have resulted in the award winning Butler Square project, a recycled warehouse in the city's garment district that is now *the* prestigious business address in town (P/A, Oct. 73, p. 74).

The Forum (the name most people still stubbornly call it) is a beautiful illustration of Art Deco style put to contemporary use. Keeping the original interior more or less intact, the new owners have converted what used to be a rather dreary (due to low lighting levels) noon-time cafeteria into a classy nightclub and discotheque (using those same light levels!) straight out of the 1920s and 30s.

It is one of the few remaining examples of Art Deco in the Twin Cities, and one of the finest of its type in the country at that. Experts say that the interior is a masterpiece of early Art Deco, comparable to the lobbies of the Irving Trust and Chrysler Buildings in New York.

What makes the building even more significant is its distinctive Minnesotan character. The designs reflect the northern climate, with stylized pine cone and evergreen motifs incorporated into the mirrors and border tiles. On opposite walls of the main floor are large mirrored panels depicting scenes from the region; a stylized Minnehaha Falls, Lake of the Isles, and even a large Viking ship.

It is 50′ x 157′ on the main level, rising two stories in front; from the ground floor, the second level is reached, in the manner of a Hollywood musical set, by two long staircases on either side of the room. The visitor can walk through this main seating area and ascend the chrome railed steps, moving past a wall of turquoise and black onyx tiles, to the balcony seating area over the back half of the nightclub. At the back of this mezzanine is located a 23-ft-long antique bar where drinks are served by white-tuxedoed bartenders and waitresses in 1929 *Vogue* style dresses. In the center of the main floor, the owners have replaced the old double serving lines from its cafeteria days with a painted oak dance floor and bar.

The space is a "cavern of light," the columns and the walls covered with geometrically patterned and streamlined designs on mirrors. Each of these mirrored walls, in addition to recalling the platinum and black of early films, serves to create an optical illusion, reflecting endlessly the zigzag patterns and light colored woodwork of the balconies.

Glass walls, iciclelike chandeliers, and aluminum-leafed plaster friezes might seem a bit sophisticated in this age of frank design and natural finished materials. Nevertheless, the Forum retains its pristine beauty, after more than 45 years of continuous use.

The Forum Cafe hasn't always been a cafeteria. Originally built as a theater in 1913–14 by the Saxe Moving Picture Company, the structure changed owners in 1915 and became known as the Strand Theater. Then in 1929, Forum Cafeterias of America, Inc., a Kansas City-based restaurant chain (sort of an early McDonald's) took control and remodeled the interior extensively into basically what it is today. Finally in May 1930 the Forum Cafeteria opened its doors and ushered in the highest style dining the area had ever seen.

Many new restaurants have been built in this area since World War II (the Great Depression squelching most Art Deco efforts; the Second World War killing it completely) and many of them have played to one passing fancy or another—English Tudor, Spanish Adobe, Hawaiian Strawhut, Elizabethan Fake Half-timber, Early Western Cowboy, Ancient Greek Temple, and many others. This restaurant, however, claims a re-creation of an entire mood of the 1920s era, and has proved to be a great success. For a style often referred to as "the stage scenery of architecture," the Forum can take its plaudits in this theatrical town for being one of the last remaining examples of a craftsmanship and spirit unequaled for many years, and probably for many years to come. □

FIRST FLOOR

Author: Bruce N. Wright is an architect practicing in Minneapolis and a free-lance journalist.

Data

Project: Scottie's on Seventh, Minneapolis, Minn., formerly the Forum Cafeteria.
Client: SST, Inc., Minneapolis, Minn.
Architects: original building, George B. Franklin. Designers of renovation: Bret Smith, Terry Knudsen, Scott Smith, Ron Tengwall, Jim Murphy. Artist (for new art) and special project consultant: Martin Weinberger.
Consultants: Metropolitan Mechanical Contractors, Inc., mechanical; Lee Electric Co., electrical.
Contractor: sub-contracting by clients.
Costs: withheld at request of clients.
Photography: Phillip MacMillan James.

Palace of Fine Arts

The whole idea of preserving San Francisco's Palace of Fine Arts could be considered absurd. The original structure—built for the Panama-Pacific International Exposition of 1915—was never intended to last; it was a temporary pavilion of lath and plaster. But even before the exposition closed, less than a year after it opened, it had been decided that Maybeck's romantic fantasy would be the only structure to remain. The problem, though, was that it could not be maintained for long without extensive, frequent, and costly repairs.

By the end of World War II, the structure was fairly well beyond repair. Maybeck, who was then in his 80s, liked the decayed ruin. He felt it heightened the feeling of melancholy, of sadness, and of vanished grandeur he had always wanted. He tried to devise ways to encase the structure in plastic, but the ruination had gone too far. The Palace had to go.

In 1957 the State passed a bill making the Palace, its main building (now the Exploratorium and theater), and the 15-acre site a Historical State Park. For reconstruction, $2 million was appropriated, to be matched by city funds. But the city bond issue of the following year failed. San Francisco businessman Walter Johnson gave the matching amount, and in 1959 a second bond proposal for additional funds was passed by 70 percent of the voters.

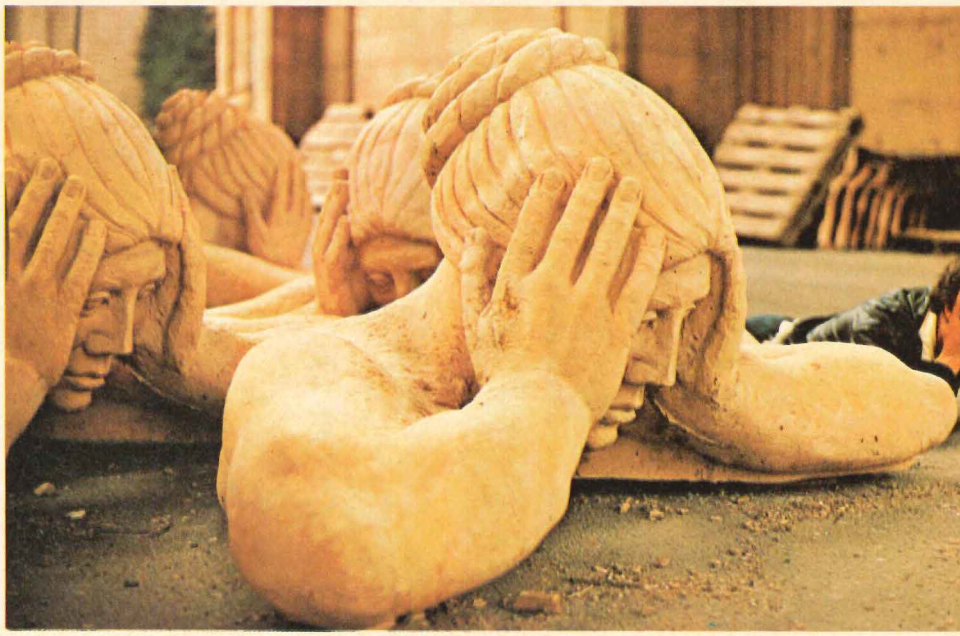
Today, the Palace has been reconstructed, but this time with poured-in-place concrete. Certain special decorative parts are precast to match the poured concrete exactly. In the phase just completed, the north and south end pylons have been reconstructed.

In the beginning there was serious opposition to reconstructing the Palace, and many people still consider its mere presence an absurdity. But is it? Perhaps the $8.5 million could have been used in a better way. But San Francisco has retained an important urban landmark, one with rich associations and meanings to many of its citizens. It may be the attitude expressed by this act that makes San Francisco the undeniably humane city it is. [David Morton]

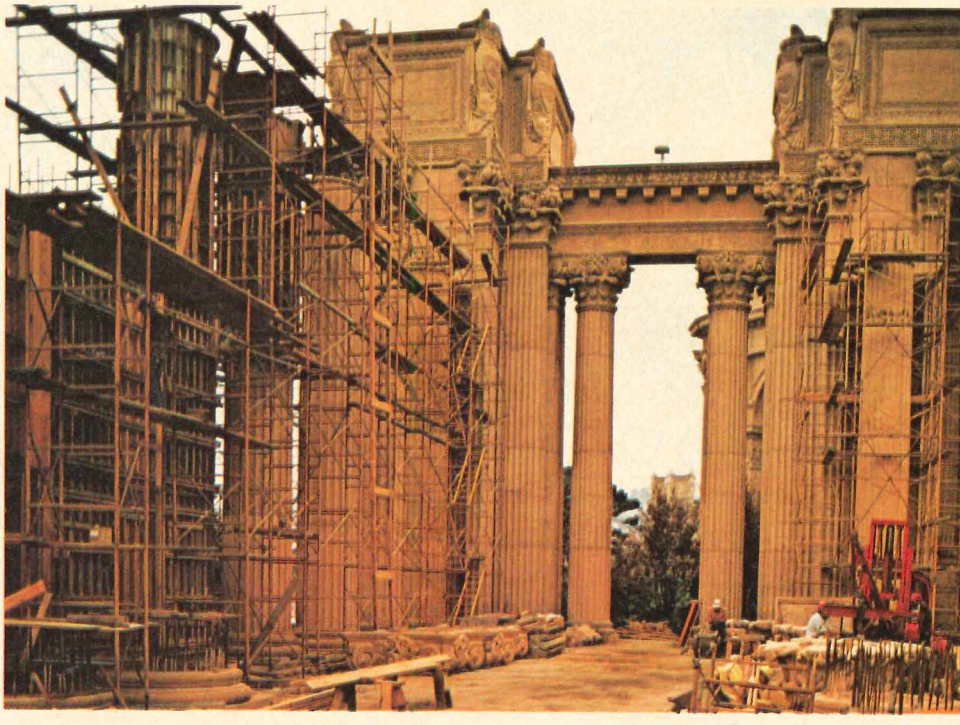
Data

Project: additions to colonnades, Palace of Fine Arts, San Francisco, Calif.
Architects: original structure, Bernard Maybeck; original reconstruction, Hans Gerson with Welton Becket & Associates; addition, Gerson/Overstreet.
Client: originally, City of San Francisco; for addition, Palace of Fine Arts League.
Consultants: San Francisco City Park Dept., landscape; G. A. Sedgwick, structural.
Contractor: F. Modglin, M & K Construction; addition, L. Arntz, Northwest Construction.
Costs: $8.5 million, including addition.
Photography: Morley Baer; color, D. Morton.

With completion of the pylons at the north and south ends of the colonnades flanking the rotunda (above), reconstruction of the Palace of Fine Arts has entered its final phase. Rebuilding has brought new uses to the Palace and its main building (not shown), making them self-supporting.



The "sadness" so important to Maybeck, seen in the huge entablature figures during construction.



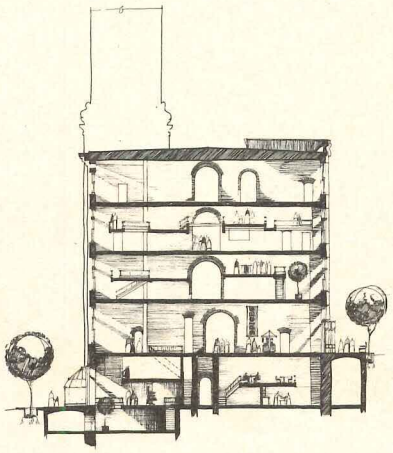
Tacoma city hall

Until recently, old warehouses and factories have seemed to be prime property for recycling as housing or retail commercial use, and most have been quite successful financially. But what does one do with an old city hall? After nearly 15 years of debate—to demolish it or save it, and, if saved, for what and how—the residents of Tacoma, Washington, have a new shopping complex without ersatz music and plastic plants, in an old brick building that was once their city hall.

The decision to reuse or demolish the building finally became academic, when the building was granted National Historic Landmark status by the federal government in 1974. But by that time a purchase agreement had been negotiated with the city, architects Barnett Schorr Co. had done an analysis of possible uses, and work had commenced on removal of most of the interior partitions.

The existing four-story building contained almost 50,000 sq ft and a tower that rose another four stories, to a height of 18-ft above the main entrance. Apparently, even from the time of its completion in 1891, there was general confusion as to the precise architectural style, and it has been referred to as Italian Renaissance, Spanish Renaissance, and occasionally as Florentine Hill Castle style. The eclecticism is typical of masonry structures of that era, when architects concocted façades by borrowing details of earlier periods.

Unlike Butler Square in Minneapolis (P/A, Oct. 1975, p. 74) which had such ample floor space that some was removed for a center atrium, this building offered inadequate area (50,000 sq ft) to make the venture commercially viable. But, fortunately, the 18-ft ceiling heights allowed the architects to construct mezzanine levels, thereby increasing the floor area to 65,000 sq ft. The new interior structure was designed using glue-laminated beams, supporting 4″x6″ tongue and groove flooring, spanning the existing masonry load bearwalls. This type of structural system allowed the space to remain unobstructed visually, important in that one of the major spatial concepts was to provide a continuous flow of space within the building, much like a market.



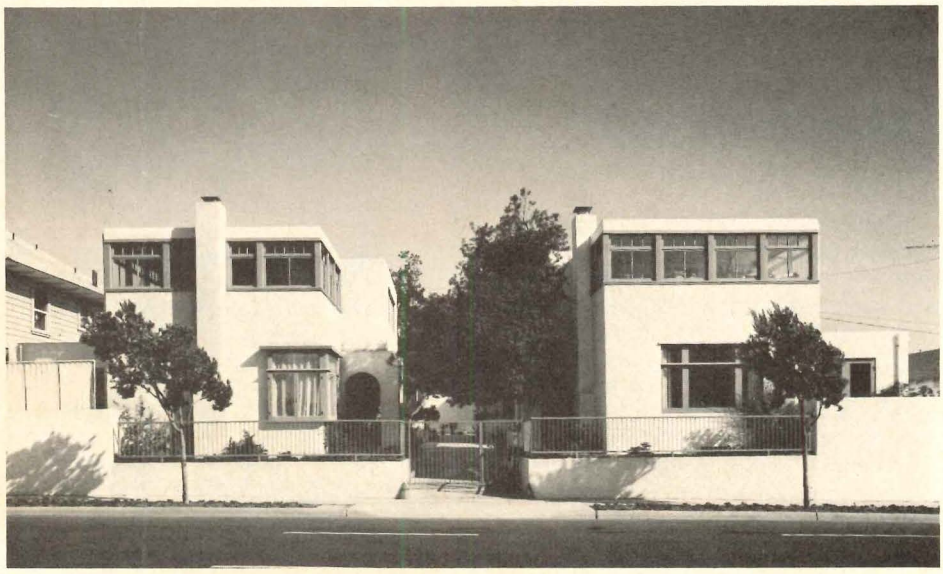
BUILDING SECTION

The finished interiors are simple and direct. Mechanical systems are exposed, as are the brick walls; wood beams and flooring, low gypsum board walls, and pipe rails complete the list of materials. The merchandise of the various shops lends texture and bright color to the space. [Sharon Lee Ryder]

Data

Project: Old City Hall, Tacoma, Washington.
Architects: Original building, Hatherton & McIntosh; renovation, Barnett Schorr Co, Inc.; Barnett Schorr, principal; Patrick A. Gordon, project architect.
Consultants: Chalker Engineers, structural; Sparling & Associates, electrical.
Contractor: Burke-Davis.
Costs: $1,350,000; $19/sq ft.
Photography: Jim Ball.

Horatio West Court



"Foul and degenerate conditions," went the Santa Monica police report after one of its 350 raids on Horatio West Court, Irving Gill's 1919 low-income housing. But in the 1970s, three different groups tried to buy it, one headed by Peter de Bretteville, the last by architect Glen Small. Joining Small and designer Milica Mihich were architect Stephen Schmidl, Dr. Hamlin Emory, and film team Don and Margaret Bach. In April 1973 they bought it for $125,000; included in the sale were two garages with apartments above (added later) and a rundown two-story house on an adjacent lot.

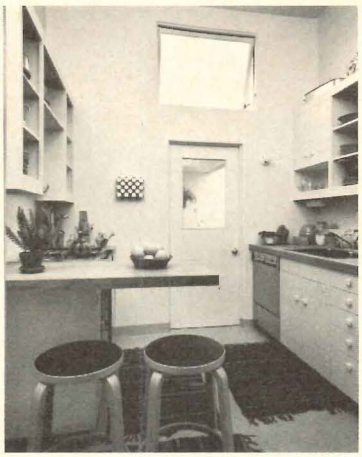
Advantages: The reinforced concrete shell was intact. The six-room units are on two levels and have two full baths; each has two private outdoor spaces. The soundproof material and Gill's skillful design assure privacy. The second floor rooms have views of bay and mountains. The location is 100 yards from the beach. The court was nominated for the National Register of Historic Buildings in 1968.

Disadvantages: As a haven for some years for the drug set, the place was a wreck. The area was "redlined" (i.e., lending agencies weren't interested). Partitions, as well as exterior walls, are a 6-in. concrete sandwich, which thwarts efforts to combine the living and dining areas, small by today's standards; some plumbing pipes imbedded in concrete walls had to be replaced. Last was the problem of bringing it up to code.

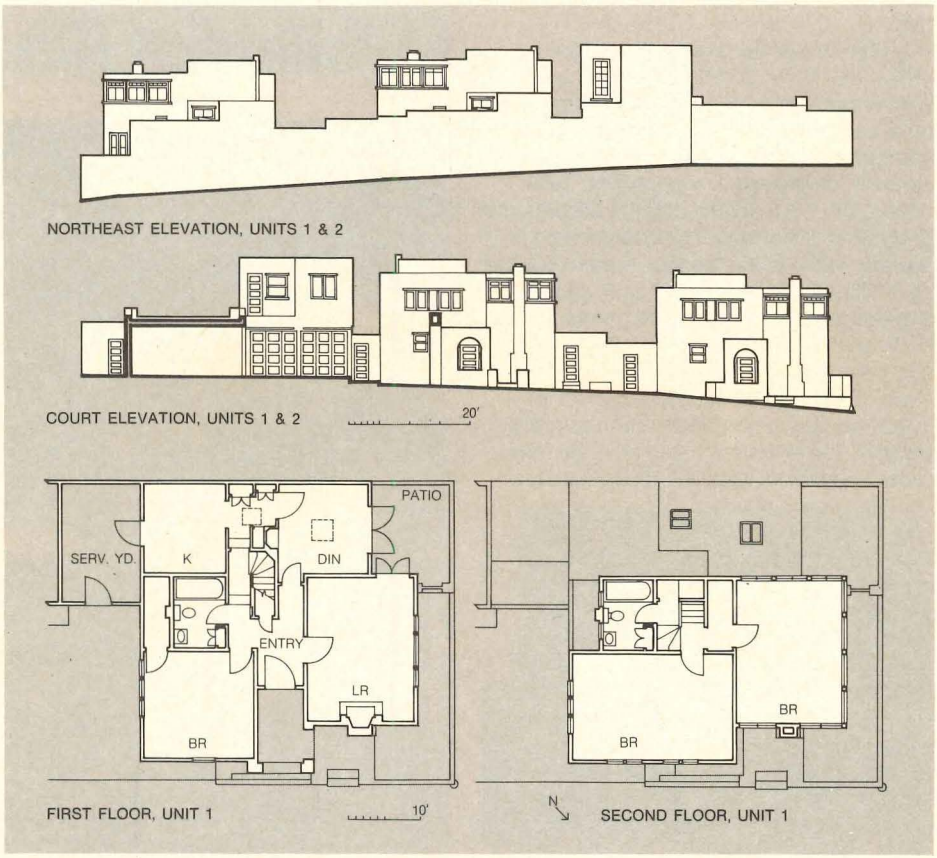
A condominium arrangement was considered but in a redlined area the only way to get a loan was as a partnership. The partners made a down payment of $28,000 and borrowed the balance at 8½ percent. A second trust deed of $10,000 took care of repairs on the rentals—two apartments and the house; from these the partnership receives $9000 a year, which is kept in a fund to pay the $3000 yearly taxes and other joint expenses. A third short-term loan of $3000 at 15 percent paid for work on the exterior walls.

The work on the interiors was paid for by the individual owners. The routes varied. Architects Small and Schmidl were less tied to history than laymen Emory and Bach. The cost varied from $10,000 to $20,000. The total expenditure for each partner, including down payment and loans, averages $50,000.

"Ours was closer to $60,000," Margaret Bach said, "but for our investment we have an incredible house by the ocean. We naively underestimated the cost, but what carried us through was a sense of being pioneers. Next to the capitol building and dome in Sacramento, this is the most complicated restoration job in the state. We survived to see the whole character of the street change. Young professionals are buying up the houses and renovating."



Built as low-income housing in 1919, Irving Gill's Court later became a haven for drug users. Now it has been privately restored, as shown in one client's living room and kitchen (above).



The others agree. Dr. Emory says, "The house is designed so you can live days at a time without seeing your neighbors. Even with the windows open the sounds are muted."

Small adds, "The carved-out intricate spaces have great privacy, which we enjoyed, but our work requires more space so we've put our unit up for sale." ($122,000; the partnership has the right to approve the buyer because, as one owner remarked, "it takes a special kind of person to live in a historic building.")

Small and Mihich, the first to move into their unit, were there when a news story appeared in P/A about the sale (May 1973). This was read by the Building Dept. of Santa Monica and an inspector was dispatched. It appeared at first that he would require the concrete stair set between concrete walls to be widened—which would have played havoc with the interiors. The inspector relented. (This was two years before architect Raymond Girvigian wrote the new California code which gives leniency for restoring historic buildings.)

Because Small did part of the labor himself, he noted the change of detailing in the roofing of the second floor room called the "sun room," which indicated that it had originally been an open porch with a parapet. So the units were clearly not designed as cube forms in International Style strip windows as supposed but as stepped cubes. The author did some of the early documentation on the buildings, for which plans had been destroyed, and worked from memories of two Gill draftsmen (Louis Gill and Lloyd Wright) who recalled the living room on the top level; bolstering this was Richard Neutra's photograph of the court in the late 1920s showing the porch enclosed. Small has removed the windows and filled in with glass panels butted at the corners; Dr. Emory modified the approach to include operable sash. I approve—but I must say my eye is reluctant. [Esther McCoy]

Data

Project: Horatio West Court, Santa Monica, Calif.
Architects: original building, Irving Gill; restoration, individual client/owners.
Clients: Glen Small, Milica Mihich, Stephen Schmidl, Dr. Hamlin Emory, Don and Margaret Bach.
Consultants: client/owners.
Contractor: subcontracted by client/owners.
Costs: $200,000.
Photography: Marvin Rand.

Nostalgie de la rue

Main street, Medina, Ohio, as it was at the turn of the century.

The return of interest in the old commercial core of small towns and villages represent several interesting trends in the mentality of the American public as well as problems regarding approach.

And now it has hit downtown. The preservation movement has gone from monuments and mansions to Main Street. Many small towns are beginning to spruce up their once vital centers to retrieve the architectural and economic status of former years.

"Main Street" with its complement of 19th- and 20th-Century vernacular buildings forms the core that capsulizes the essence of small town Americana. From Newburyport, Mass. to Yreka, Calif., Jacksonville, Ore. to Galveston, Tex., towns are looking to that core to retrieve the essence that once gave their environments a special character, a particular meaning.

The mania for main streets could result from numerous converging factors. It is quite logical that preservationists would realize saving an isolated landmark here or there would not give the physical milieu its hoped-for coherence. Then the increasing emphasis put on urban design by planners over the last two decades has further engendered an appreciation of sense of place that various buildings and open spaces can create. At the same time the "discovery" and dissemination of the values inherent in vernacular architecture by a growing group of design professionals have fostered an atmosphere of acceptance of the "architecture" of commercial districts in small towns and cities.

But these factors perhaps affect only preservationists, planners, and architects: the broader American public, it would seem, would need more compelling reasons. This is where myth and its psychic sway come in. Think of the generations of Americans who grew up in (or were acquainted with) Norman Rockwell renditions of small towns and old suburbs, or who were nurtured in folksy American fiction of Booth Tarkington—or the generations who followed the adventures of Andy Hardy and Corliss Archer in books, radio, movies, and TV (not to mention Archie Andrews in the comic books). Growing up was laden with a fundamental American fantasy of innocence and wholesomeness. Life between 1890 and 1950—despite economic and political hardships—had a certain charm, serenity, rootedness. An image associated with that fantasy had been embedded in the mind of rambling clapboard houses and large shade trees, all leading to the low-scale homey corner drug store, barber shop, and grocery store. The stage set was right out of Vincent Minelli's 1950 musicals.

The entertainment and communications industry had fostered the mythification of small town America at the beginning of the intensive destruction of a real landscape that supported it. For meanwhile the conflicting myth of modernity had been effecting physical change. Despite Main Street's desperate attempts to keep up—with neon, formica, fluorescent lighting, aluminum siding, it couldn't be *really* new. The shopping center—more modern, concentrated, and accessible to new subdivisions—had it beat. The action was siphoned away from the downtown core.

At some point the realization dawned that one self image simply couldn't be sustained in collision with the other. Both were equally American but one carried with it physical manifestations (highways, suburban sprawl, buildings whose forms were generated by the most commonplace functional and economic determinants) that became less appealing as the manifestations of the other landscape started to disappear. Disenchantment with the ever-dominating reality and the gradual destruction of the myth of modernity reinforced the longing for the lost American past. Before too long the public would be responding to a *nostalgie de la rue.*

The Main Street revival has its darker side of course. The tendency lingers for too many towns to go for the reproduction—not just remembrance—of things past. The salvaging of Main Street often has deeper roots in a desire for

escapism. Just as shopping centers represented the intensive accumulation of objects that promised to inject make-believe into everyday life, similarly visits to touristic attractions have fulfilled that need for an experience other than everyday life. But the experience becomes a consumption of the signs of history, of signs of artifacts (including architecture) no longer produced.

Towns that capitalize on the touristic tendency to dress up old buildings (and worse, new ones) with newly fabricated simulations of gingerbread trim, gas lamps, and colonial bric-a-brac, rob their heritage of its capacity to be absorbed and integrated into everyday life. Equally, if an integration into the economic functioning of the town doesn't take place, Main Street becomes a sham—overrun with candle stores and other commercial enterprises that are now a part of the commodity fetishism of instant-history tourism.

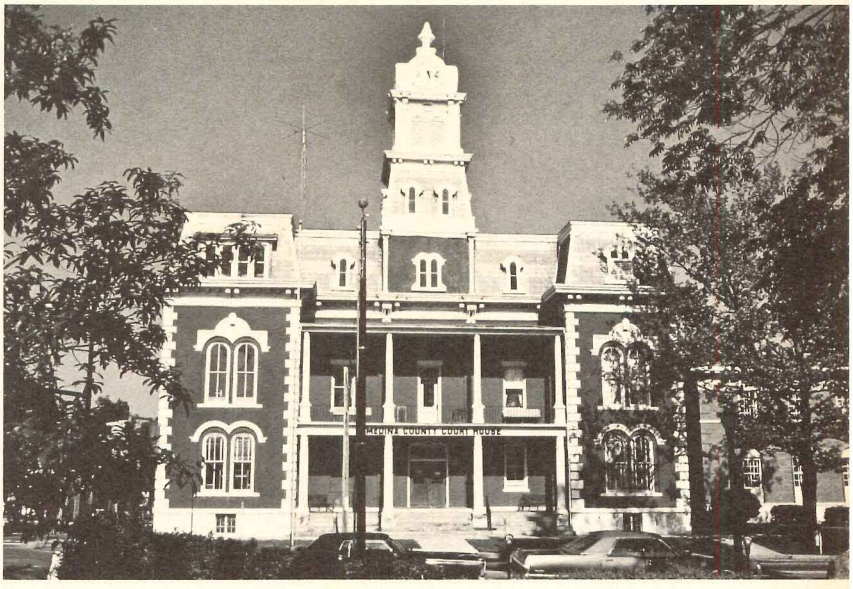
The following case studies and selected examples illustrate some of the more straightforward efforts currently to be seen in the main street revival. The better projects illustrate the careful avoidance of an authentic restoration that congeals into a museum piece, or a loosely adapted paint job that smacks of Disney World. They also derive from an attitude that physical and economic regeneration go hand-in-hand.

Still, even these applications raise further questions. If the origins of the small-town yearnings can be traced to the value of a particular myth, will that desire be dissipated by these recuperations of the past? Will other myths reappear? Will nostalgia turn elsewhere? To the 1950s and 1960s commercial strip, for example. Will route 66 make it on the National Register of Historic Places? [Suzanne Stephens]

Medina, Ohio

Main street Medina, today.

County courthouse, 1873, after restoration (below).



Medina, Ohio

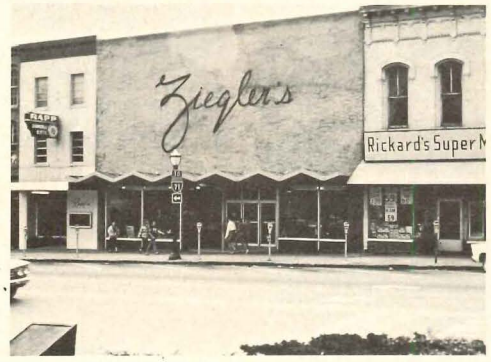
The unified "Eastlake Victorian" architecture of this town of 12,000 resulted in large part from a fire in 1870 that spurred a major rebuilding effort. Over the years, however, the existing architecture was gradually covered with elements of tacked-on modern. But Medina has almost completed an intensive restoration effort in its four-block downtown core—all without federal funding. The effort was carried out by the Community Design Committee, an independent citizens' group that banded together to survey the city, draw up a historic district, have it accepted by the City Council, then work with merchants and other building owners to return the commercial center to its original character.

In its strategy, the CDC resorted to persuasion and incremental restoration to enlist support. For example, the group convinced the city to restore its fire station by presenting the city with renderings showing how the building could look. This technique was then applied to the downtown merchants, the promotional effort spearheaded by graphic designer Kim Zarney with consulting architect Robert Gaedes. Little by little it began to happen, and one department store, Ziegler's, saw sales triple after restoring its façade in 1974. The effort inspired the restoration of public buildings such as the Medina County Courthouse: it has been restored by the county, according to a study commissioned by the Community Design Council, with some funding from a National Trust Consultant Service grant.

Meanwhile Zarney has gone into the business of downtown revitalization and formed a company called "Townscape," with Robert Gaedes often acting as its architectural consultant. Townscape's services include everything from research into a particular building to decisions on the phasing of its renovation, to recommendations on traffic flow. As shown by their current studies for Sandusky and Worcester, Ohio, and Shelbyville, Tenn., this firm is quickly seizing upon the design opportunities inherent in this main street movement.

Before (this side)

After (this side)



Jacksonville, Oregon

A town of 1900 people, Jacksonville, Ore., dates most of its red brick vernacular structures with arched windows and bracketed cornices to the late 19th Century. A booming mining town in the 1850s, Jacksonville lost a lot of its vitality and population to nearby Medford in the 1880s due to an impropitious placement of railroad tracks. In the 1960s, after the population had dipped under 1000 and a state highway threatened to slice through the town, the county's historical society received support from businessman Robertson Collins for preserving the central district. The society, galvanized into action, prevented construction. Gaining enthusiasm, the preservation effort proceeded step by step. Financing for the purchase (or lease) and restoration of buildings came through private funds from local citizens' groups, companies, the historical society, or even the county commissioners. By the late 1960s a "museum" of scattered buildings was created, form-

Brick vernacular construction, Jacksonville.

ing an ensemble that was designated a National Landmark in 1967. The city followed with its own local historic district. Since then, however, the boundaries of the national landmark have been expanded beyond local ones. Jacksonville is currently enlisting consultants to survey the structures and formulate a preservation plan to implement.

Besides the backing of private "big" business in this revitalization of the core, Jacksonville benefited by a tax structure in Oregon that supports the historical society. By county-wide vote in 1946 the county historical society can collect up to 1/80 of 1 percent of the county's assessed valuation each year. As Collins points out, this kind of financial backing, plus the strong will of the members of the historical society, proved critical to the revitalization of this town, not to mention its continued existence.

Jack Boucher

Main street of Jacksonville

Corning, New York

One of the most touted restoration efforts for a main street appears in Corning, N.Y. There Corning Glass Works Foundation has sponsored a program to inject economic vitality into the old commercial center of town. Less than ten years ago Market Street was typical of decaying downtowns: old buildings were slathered with vaguely modernistic neon signs and aluminium siding. Four blocks of two- and three-story buildings with terracotta trim, patterned brickwork, arched windows, quoins, and other blends of late 19th-Century Victorian architecture could scarcely be detected.

Meanwhile an urban renewal program begun at the east end of the downtown core was to generate new construction in the form of a city hall, library, hotel, and housing. With the city taking on the improvement of this part, Corning Glass Works decided to address the problems of the private sector development. Architects Geddes Brecher Qualls & Cunningham and restoration architect John Milner were called in to survey and draw up a preliminary plan for Market Street's restoration and revitalization. When Corning Glass founded and funded the Market Street Restoration Agency, action began to take place. (Corning Glass rightly saw the advantages of revitalizing the downtown core, not only to give Corning more of an upbeat image, but to grasp economic opportunities offered by the 750,000 tourists who visit the glass museum each year.)

The restoration agency, headed by Norman Mintz, an industrial designer, has identified about 125 storefronts (40 percent of which are owned by absentee landlords) and convinced over half of the owners to follow restoration guidelines. They've installed new signs and awnings more in character with the original architecture, cleaned and painted building façades. Other changes include new brick sidewalks, painted utility poles, landscaping, lighting.

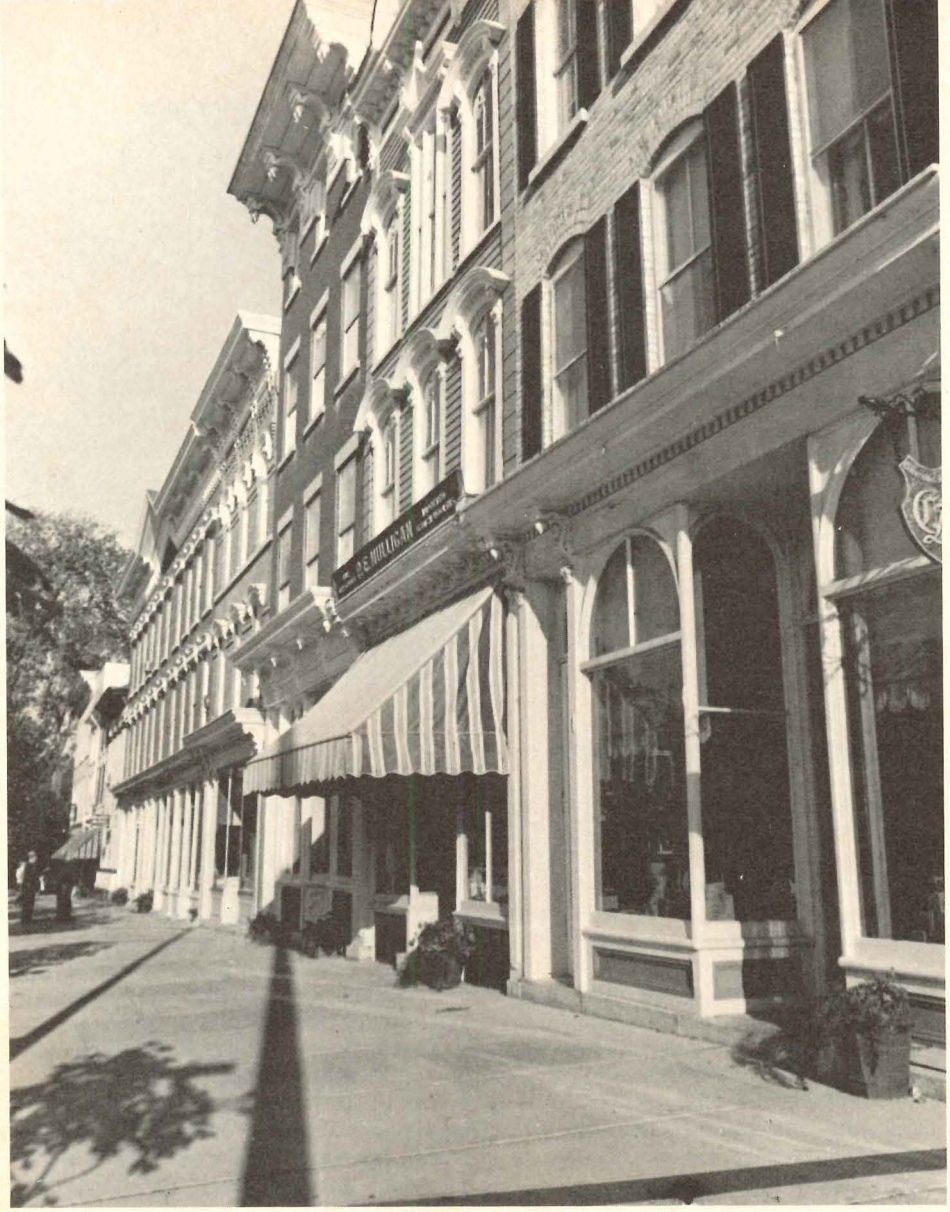
In 1972 Hurricane Agnes set the restoration and urban renewal projects back because of severe flooding. But federal money for flood relief became available for sidewalks and planting. (Other chunks of cash have come from the Chamber of Commerce and study grants from the New York State Council on the Arts. The biggest contributor is still Corning Glass.)

The designation of the commercial center in the National Register of Historical Places in 1974 makes it eligible for further grants and loans. More and more store owners are cooperating with the program (although the only legislation in force is a sign code.) Mintz is trying to get the banks to provide low-interest loans to shopkeepers to speed Market Street restoration. Restoration of the First Bank and Trust Company has already generated new enthusiasm; more notice should be given the entire project when conversion of the Baron Steuben Hotel into offices and shops is completed this winter. With these steps the rest of Market Street might soon be able to abolish all traces of its half-hearted attempt to be modern. Like other towns, however, Corning has to be careful about whole-hearted attempts at being historic, which can end up being "cute."

Before (this side)

After (this side)

Agents and actors . . .



Rita Hammond

Cazenovia, New York's main street

The success of these Main Street projects physically and economically depends on a number of key factors, anyone in the business will tell you. Mary Means, regional director of the Midwest Office of the National Trust for Historic Preservation, stresses the need for a local citizens' group to take the initiative and sustain it. The town should also have a strong economy, she points out, with municipal encouragement in the form of sensible codes, taxes, and financing of public improvements. And it helps to have a downtown core with a unified physical fabric worth saving.

Design professionals getting involved with a Main Street revitalization project will find themselves faced with more decisions than sprucing up a few stores with coats of paint and new signs. Besides the actual "design" decisions regarding signage, planters, paving, lighting of the streetscape, or the restoration of building façades, there are other planning decisions. Marketing strategies and goals, financing through public and private sector, traffic (including parking and pedestrian accommodation) all need to be considered, along with new uses for old buildings, and sometimes, empty lots.

Vision, Inc. a nonprofit architectural and planning firm from Cambridge, Mass., has been specializing in these "townscape" problems for four years. Since most towns tend to deteriorate because the townfolk don't want to pay for their upkeep, Ron Flemming of Vision advises first creating intensive public awareness of the town's heritage with the aid of the local citizens' sponsoring group. Vision Inc. will build a model of the proposed townscape to exhibit publicly, conduct clinics with merchants and townsfolk to discuss guidelines for building restoration and the procedures of implementation. Critical to this process is the method of implementation, he contends, whether it be design review legislation, zoning ordinances, or whatever.

Mary Means seems to agree. "Turning colored pencil renderings into reality is difficult" she points out. "Snappy graphics won't make a good downtown." She also urges that towns use design professionals instead of amateurs, and that design professionals should be required to do more than just deliver the plan. They must be available for consultation all the way through the process. Norman Mintz of Corning's Market Street Restoration Agency concurs, and attributes the success of a main street revitalization project to the full-time presence of a professional overseeing the job.

The National Trust for Historic Preservation has found itself becoming a clearinghouse for main street revitalization, with the Mary Means' Midwest Office functioning as the central advisory office. Towns are increasingly turning to the National Trust for advice, and applying to be listed on the National Register for Historic Places. In this way they become eligible for grants and federal aid and are insured against the possibility of being bulldozed for federal projects. Many towns will also create a local historic preservation district to further protect their architecture from encroachment from other sectors.

Because so many towns are getting involved in this movement, there is a resulting danger of an aggressively commercial retrieval of the past, the Midwest Office of the National Trust has just announced a program to encourage responsible efforts. The program calls for the selection of three midwestern towns as "demonstration" projects. The towns will receive help over an 18-month period from the National Trust personnel in arranging the organization and financing of the main street projects, obtaining federal assistance, and making use of architectural and economic consultants.

To combat more effectively what Means calls the "rising tide of phony Colonial or Victorian Village theme treatments," the National Trust is also putting together a handbook. Architectural guidelines, financing plans, and implementation (legal) procedures will be outlined. The third part of the National Trust project will be in the form of a conference to address these various questions of the physical and economic considerations in such revitalization procedures.

With this program, the National Trust is recognizing the need for an organization not only to act in an advisory capacity to small towns, but to establish standards for their revitalization schemes. Otherwise Main Street will be lost again—this time to fake mansard roofs and gaslights instead to pseudo-Modern.

. . . and more activity

Auburn, California, (pop. 6600) has almost completed a restoration of a commercial downtown of Gold Rush days. Crucial was the enactment of a strict design review ordinance controlling alterations and new building in the historic area. In **Yreka, California** (pop. 5500), the western office of the National Trust has presented a report on the efforts it and the Yreka Preservation Corporation have undertaken to restore Yreka's historic Miner Street. Community groups like the Yreka Boosters are raising funds for the restoration of the street that represents a continuum of vernacular from gold rush days through the 1930s. **Provo, Utah,** (pop. 53,000) has, with the help of architects Historic Utah Inc., begun to rehabilitate and restore its downtown to keep business from going completely to a regional shopping center nearby. In **Mt. Pleasant, Utah,** (pop. 1600) Historic Utah Inc. is also at work helping merchants with restoration and rehabilitation, on what is considered one of the finest turn-of-the-century districts in the state. **Marshall, Michigan,** (pop. 17,000) a hotbed of late 19th-Century styles, especially Greek Revival, has been undergoing a main street renaissance for eight years. The Marshall Historical Society and planners Johnson, Johnson & Roy were responsible for preventing the removal of the buildings to a nearby "historic park"—as urban renewal planners had intended. Meanwhile, however, the main street was painted too quaintly according to "color styling" advice. So now the town is talking to Preservation Urban Design Inc. about redoing its earlier restoration. In **Chillicothe, Ohio,** (pop. 25,000) The Chillicothe Area Environment Committee is working closely with each building owner or tenant. CAEC also provides its own contracting service to cut costs for owners. Robert Gaede is consulting architect. **Cazenovia, New York,** (pop. 3000) owes the restoration of its three block downtown to the efforts of the Historic Cazenovia Foundation which paid for alterations and renovation of the town's late 19th-Century architecture. Harley McKee was the architectural consultant. **Kingston, New York,** (pop. 25,600) similarly has restored part of its Main Street in its historic Stockade area. There examples of 17th-, 18th-, and 19th-Century architecture can be found. In **Warren, Rhode Island,** (pop. 10,600) Vision Inc. is working with the National Register district to get federal money such as an Economic Development Administration grant for townscape improvements. In **Bellows Falls, Vermont,** Vision Inc. and Harvard students have been using EDA money and community development block grants to implement the townscape project. **In Randolph, Vermont,** (pop. 2100) preservationist Courtney Fisher and architect John Hauser of The Preservation Collaborative have teamed up to revitalize this New England town on the National Register while keeping costs within affordable limits for merchants. In most cases, only uniform signage and color schemes were needed, since large-scale improvements were paid for by the town. **Gloucester, Massachusetts** (pop. 27,000) is seeking to retain its working class fishing village quality through a revitalization project. The main street, parallel to the harbor, will restore the very plain brick low-rise 19th-Century buildings that line its seven-block stretch. Spearheading the movement is the Gloucester Downtown Development Corporation, a nonprofit group headed by architect Kirk Noyes. Also involved are Arrowstreet, architects, and Phil Herr & Associates, planners.

Chillicothe, Ohio

Bellow's Falls, Vermont

Cazenovia, New York

Rita Hammond

Interior preservation: issues and (some) answers

Elizabeth G. Miller

The author questions the purpose of our country's only interior landmarks preservation law and discusses some successful and some not so successful answers to the problems it presents.

Traditionally, the concept of architectural preservation has meant safeguarding and restoring the exteriors of buildings, with, perhaps, some attention to their neighborhood environments. However, in December of 1973, the New York City Landmarks Commission extended the scope of its law to include a provision to protect interior spaces. While the public designation of interior spaces was a radically new idea for cities and public agencies to consider, the idea itself was not new to museum curators who, for decades, had been "collecting" period rooms and furnishings. The great majority of spaces so preserved were private domestic rooms, the shells of which were dismantled and adapted to fit the museums' available exhibition spaces with the ambience completed by the addition of period furniture. Similarly, the idea was not new to the National Trust whose 1953 charter approved the designation of both interior and exterior spaces in those buildings listed on the National Register.

Nonetheless, for a government agency—local or federal—to designate an interior public space and hence place restrictions on the division and allocation of that space was a radical and unprecedented action. Of the cities nationally known for their preservation efforts (Chicago, Philadelphia, San Francisco, etc.), none had legislation concerning the protection of interiors in 1973. Today, three years later, most still have none. Only Philadelphia and New York have taken up the issue, with New York having defined and adopted specific regulations:

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An interior feature is defined as . . . "the architectural style, design, general arrangement, and components of an interior, including but not limited to, the kind, color, and texture of the building material and the type and style of all windows, doors, lights, signs, and other features appurtenant to such interior." (Chap. 8A, Sec. 207–1.01, New York City Charter) and an interior landmark is . . . "an interior, or part thereof, any part of which is thirty years old or older, and which is customarily open or accessible to the public, or to which the public is customarily invited and which has a special historical or aesthetic interest or value . . ." (Sec. 207–1.0m). The whole notion of interior preservation is particularly important today in light of recent trends towards the adaptive reuse of older buildings, as often the refurbishing of the old buildings directly conflicts with the protecting of historic interior spaces.

Under the New York code, 11 interiors have been designated, ranging in use from museums and public libraries, to private houses. Only one, Gage and Tollner's restaurant (in Brooklyn) is a commercial structure. The paucity of commercial structures among the designations is not because there are none of historic value and interest, but because of the unproven fear that designation depresses real estate value in commercial areas and restricts the ability of the owner to earn a reasonable return from the property. The recent lawsuit over the development of the air space over Grand Central Station is a case in point. While the case has not yet been settled, the most recent ruling in favor of the Landmarks Commission addressed the question of alternative uses and did not rule on the question of constitutionality regarding the right to earn a fair and reasonable return. Nonetheless, in the long run, the real test of preservation efforts will be to prove to the business community that it is as feasible and economically viable to reuse and/or adapt buildings as it is to build anew.

The issues, then, involved with interior preservation revolve around three poles: a) a definition of just what is interior preservation; b) the actual process of developing and constructing property with delicate and valuable existing structures that must be protected; and c) the question of the financial viability of such projects.

What is interior preservation?

A serious question can reasonably be asked about the definition of interior preservation, its relationship to the exterior of a building, and what its actual purpose is. Museum curators have one answer, commercial developers another, and the general public still another. The New York code labels all structural parts of the wall fabric, the light fixtures, doors, and color of the wall as "interior architectural features." Yet it says nothing about the relationship of the interior with the surrounding exterior, the level of interior light, the furniture, the decorative objects, or the uses that also define an interior space and make that space an aesthetic experience rather than a backdrop. Certainly, the Commission exercises considerable influence when issuing certificates of appropriateness to projects under consideration.

Yet more basic questions exist than those able to be legally arbitrated. When a historic interior is clearly obsolete and its function lost, to what extent does adapting it for another purpose destroy or enhance its historic importance? Several examples come to mind: the myriad small church buildings being converted to residential uses; the railroad stations put to new uses by non-profit groups or retail concerns; the cast-iron commercial buildings being adapted for use as housing. The issue is raised, not to question that the saving of the fabric of a building enhances our society, but to question if that approach constitutes "preservation."

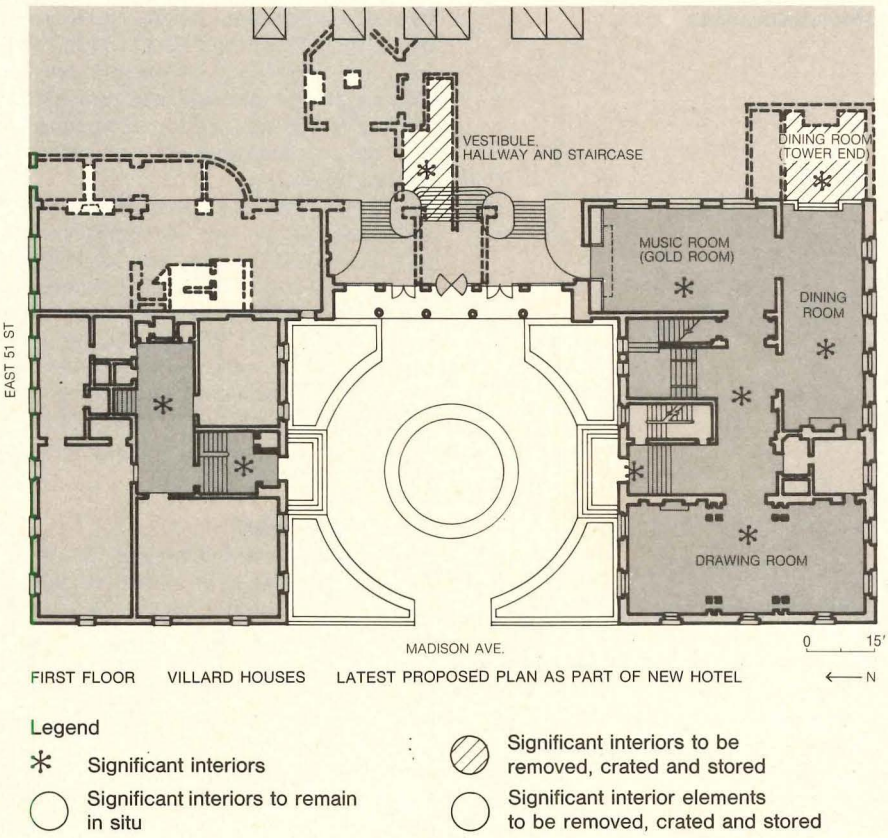
Two buildings in particular serve as examples: The U.S. Customs House in New York, built in 1907 and designed by Cass Gilbert, and the Villard Houses, also in New York, built in 1882 and designed by the offices of McKim, Mead & White. At the Customs House, the problems are many but can be divided into two distinct categories: internal and external, the latter not

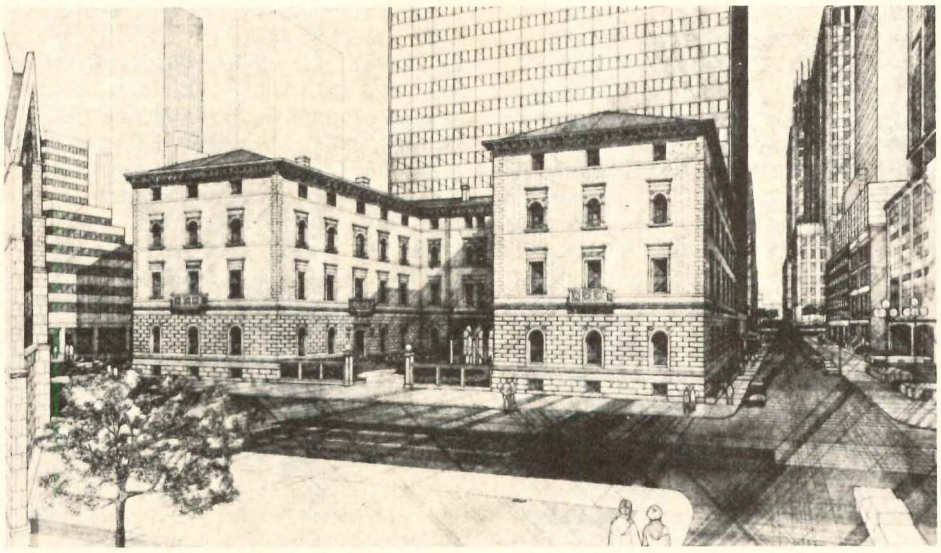
being within the scope of this article. The interior of the Customs House has its moments of greatness, the main hall, the spiral stairs, the rotunda with its Reginald Marsh murals and expansive skylight, as well as the Secretary of State's room and the Collector's office. Beyond those areas, there is little else of unique or historic value. Thus, the question becomes, to what extent can those particular areas be retained as they are and still have the rest of the building converted to commercially viable retail, office, residential, or hotel space. The problems of security, public accessibility, and sheer economics are all staggering and inhibiting.

For example, in the 1974 proposal commissioned by the Customs House Institute and prepared through the offices of I.M. Pei, the renovation scheme called for had a minimum projected cost of $52.34 per sq ft. That price was noticeably above the cost of similar space in the building's immediate neighborhood. Even though the plan is now out-of-date, it is hard to imagine that the costs of developing the space will in any way be reduced. The problem is to find ways that will allow the building to earn its own living, yet to be used in such a way that the historic rooms are not brutally raped of their stateliness and grandeur. While it is obvious that new uses must be found, the whole question of the purpose of preservation would be challenged if new uses, although functionally similar were not appropriate in image or consistent with the implied quality of historic space.

Similarly, a quick glance at the 25 suggested uses of the Customs House shows that only 4 were ideas that had any revenue-producing ability or ones that showed any awareness of the surrounding existing community. These other suggestions were all cultural activities and information areas that could be located in any space, had little need to exist in "historic" space and had no capacity to produce revenue of the order required to maintain the space. It is legitimate, then, to question a preservation plan that attempts to "sell" noontime puppet shows to the financial community of Manhattan.

On the other hand, a look at the proposed adaptation of the Villard Houses suggests that reasonable compromises can indeed be accomplished. While not perfect, the plans are the best example to date of a project that develops a commercially desirable site in conjunction with the preservation and integrated use of historic structures. The plan for the Villard Houses is to build a 50-story, multi-purpose hotel tower on a site contiguous with the houses and to incorporate the rooms of historic importance into the fabric and functioning of the hotel itself. The question of defining "preservation" in this case is less difficult because less change is being made in the generic uses of the rooms. The rooms involved are the library, the dining room, and public transitional spaces like the grand staircase and arched promenades. All are rooms originally designed for public-oriented functions and spacious enough to hold small crowds. Presumably, the developer/operator will be able to retain the rooms on a commercial basis for the same basic functions: public meetings, gatherings, and conferences. In this way, the question of preservation and use are by no means contradictory and here are themselves mutually benefiting.





Rendering of the Villard Houses showing the proposed Palace Hotel development.

The process of development

The actual process in developing a site or project with historic structures is unique to each project. Yet, if solutions tried and tested by others are shared, then those that work become a body of experience from which others facing similar problems can draw. This is the case with the Villard Houses. There, the owner of the buildings, the developer, preservationists, architects, members of the City Planning Commission, and the Landmarks Commission have worked closely together on a project that would not only incorporate and protect the landmark buildings, but also would earn a fair and reasonable return on the investment required.

In the beginning, the owners of the buildings and site, the Catholic archdiocese of New York, approached developer Harry Helmsley to consider the landmark site and to review the possibilities for its commercial development. The firm of Emery Roth & Sons was brought in as the architect. After a rather bitter public debate over the plans, a preservationist, William Shopsin, AIA, was also hired to take responsibility for the old buildings and the planning of the necessary connections be-

Interior preservation

tween the old and the new. Emery Roth & Sons was to be responsible for all new construction; Shopsin was to have specific responsibility for the measuring survey to be undertaken for the Historic American Buildings Survey report. He also would serve as a liaison between the developer and the Landmarks Commission over the restoration of the space and the ultimate distribution and use of space in the old buildings.

At the same time, with the aid of the legal counsel of the Landmarks Commission, Dorothy Miner, a report was written precisely outlining the steps to be taken to protect any and every architectural ornament and fixture during the period of construction. The detailed report covered, for both interior and exterior work, the following points: 1) the question of precise insurance coverage needed to protect the old building against damage from accidents, vibrations, or exposure that might occur during construction (this was done in collaboration with Arthur Rosenblatt of the Metropolitan Museum who is experienced in the problem of protecting old exteriors during the construction of new, adjoining buildings); 2) the procedures for the protection and storage of architectural materials which would have to be removed during construction; 3) the actual, physical protective efforts needed during construction; 4) the restoration processes after construction; 5) procedures for disposal of elements not reassembled in the new building; and 6) the review process the Landmarks Commission will undertake at the end of the construction process.

The report is an extremely valuable document because of its detail, and the precedent this project sets is obvious. First, a preservationist was hired, not just to placate the public or to advise, but to work as a partner on the project from the first public hearings through the design phase and to the end of construction. Second, the Landmarks Commission has prepared a document, that, if allowed to circulate, will be of great use to anyone else attempting repairs or construction on historic structures. Third, the Commission has set a precedent by bringing its expertise to bear on a project over which it legally had only limited jurisdiction; only the exterior of the buildings were protected landmarks (designated in 1968 before the interiors provision was enacted), while the interiors were not.

The crucial point in all of this is that the developer is not in any way legally bound to preserve the interiors, but, since the costs involved proved to be commercially viable, the developer felt he could proceed with this approach. What is remarkable is that all interests were accommodated and a spirit of cooperation, though sometimes strained, has produced a rather notable blend of the new and the old, a project that just may earn its own living.

Financial viability

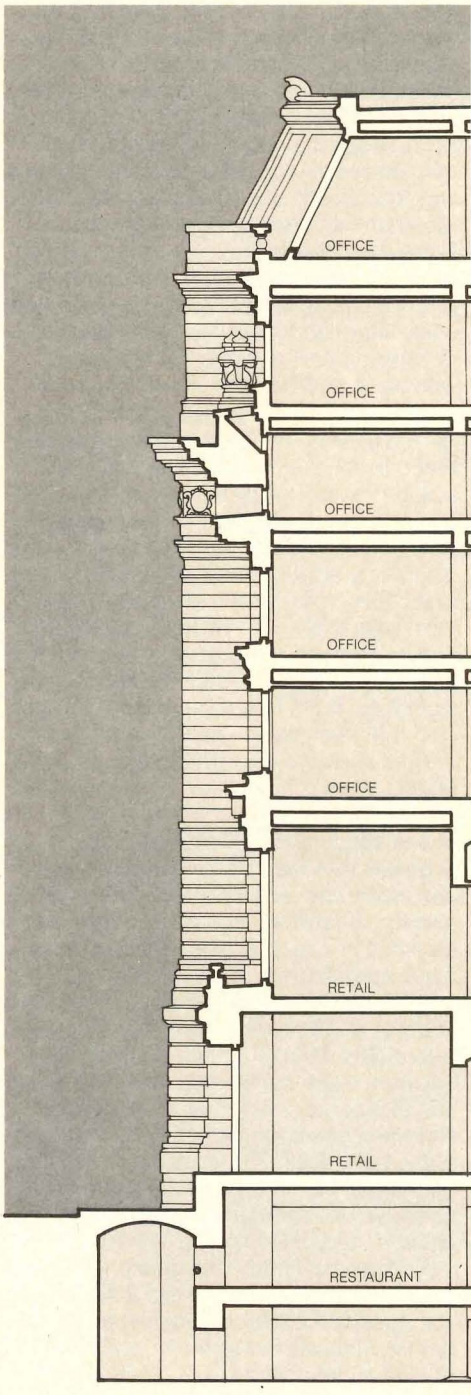
Even though a scheme may be devised that is acceptable to all interested parties, eventually it is the bottom line that determines whether or not the project is executed. In a simple comparison of the development costs per square foot, it is obvious why a fine, well-thought-out and socially responsible project like the 1974 plan for the Customs House is impractical.

The chart details the cost of developing the Villard site in two ways: 1) as a straight commercial venture, if the site were not restricted by historic structures, representing a cost of $35 million; and 2) the site and development costs given that the historic structures are incorporated into the design and engineering of the new building, at a cost of $41.7 million. Similarly, the first plan whose cost is calculated for the Customs House omits the proposed glazing of the center courtyard and refacing work on the interior courtyard façade. This first plan has an estimated development cost of $20.5 million. The cost of the second plan for the Customs House was estimated at $25.5 million and was considered to be the optimal restoration scheme as presented in 1974.

What is interesting to note is that the planners involved in the Customs House study were vigorous in calling for special tax-relief, non-profit incorporation as well as tax-exempt financing for the project, and used such relief measures as assumptions in estimating their costs. On the other hand, the Villard project has been devised as a purely commercial venture. The site, once tax-exempt because the Catholic diocese once had its offices there, has had taxes levied and paid on it for the past two years. Also, the financing, take-out and mortgage loans, is to be negotiated at competitive market rates. The purpose of the comparison is not to downgrade the Customs House scheme because the two buildings are structurally very different; they are located in different neighborhoods, and each has very different prospective tenants and uses. Nonetheless, it is an instructive comparison since it shows that while it is more expensive to work with historic structures, it is not prohibitive to do so. This is particularly true in the case of the Villard Houses where the cost of incorporating the historic structures runs 16 percent above the cost of developing an unrestricted lot. Even so, the cost is not beyond commercial viability.

Beyond these three issues raised by the preservation of interior space are a myriad of other issues: ability to be flexible in requiring compliance with current zoning ordinances where historic structures are involved, without taking on the pattern of spot zoning in every single instance; insurance coverage before, during, and after construction; the purpose of insuring features to be preserved which are so unique as to be irreplaceable; the role of the preservationist as a full working member of the development team; public accessibility to private commercial space and its right to participate in the planning process; and many others.

In the end, the whole question and fu-

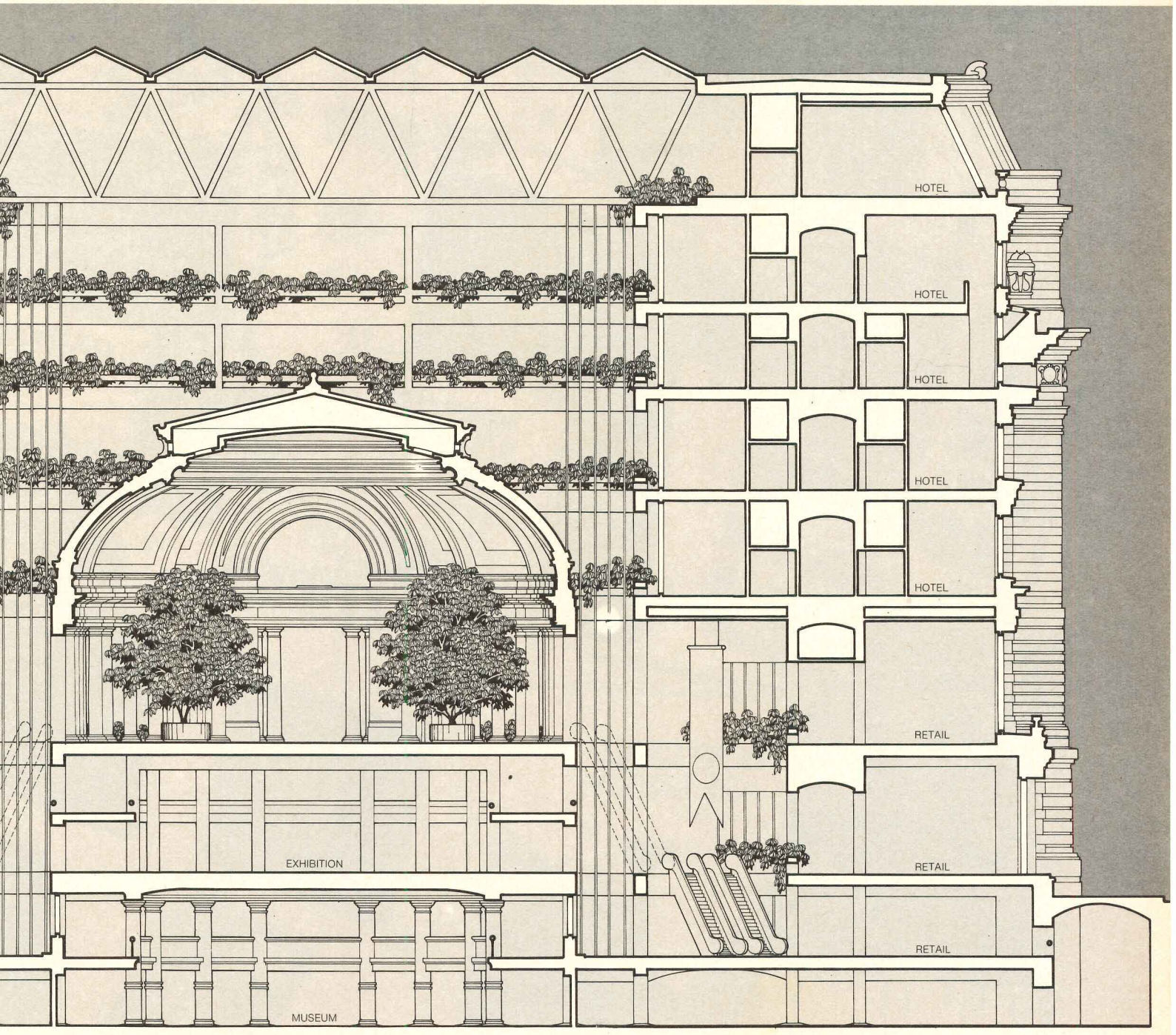


U.S. CUSTOM HOUSE

Project	Gross square footage	Estimated development costs — per sq ft	Percentage change from first project
1 Villard House Site (without historic structure — 1976 dollars)	924,500	$37.86	———
2 Villard House Site (with historic structure — 1976 dollars)	949,062	$43.94	+16.06%
3 Customs House Plan (without glazed skylight — 1974 dollars)	449,000	$45.66	+20.6%
4 Customs House Plan (optimum restoration plan — 1974 dollars)	449,000	$56.24	+48.6%

(All figures were calculated from published information and represent estimates of development costs exclusive of architectural and engineering fees and land costs.)

ture of preservation, and of interior preservation in particular, will demand sound financial terms. As hardhearted as that sounds, if a project cannot be afforded or be self-sustaining, it will not be built. Projects like the 1974 scheme for the Customs House which call for special treatment in the form of tax relief and government and foundation subsidies are remnants of the 1960s when excess monies were available. Today, in 1976, the realities and continued promise of a tight monetary situation have forced all involved to forego the well-intentioned plans of expensive proportions. Compromise and constructive cooperation is now required, if projects are to be attempted successfully. If the Villard project is any indication of the quality of that compromise, the future of these joint efforts appears to have an impressive beginning.



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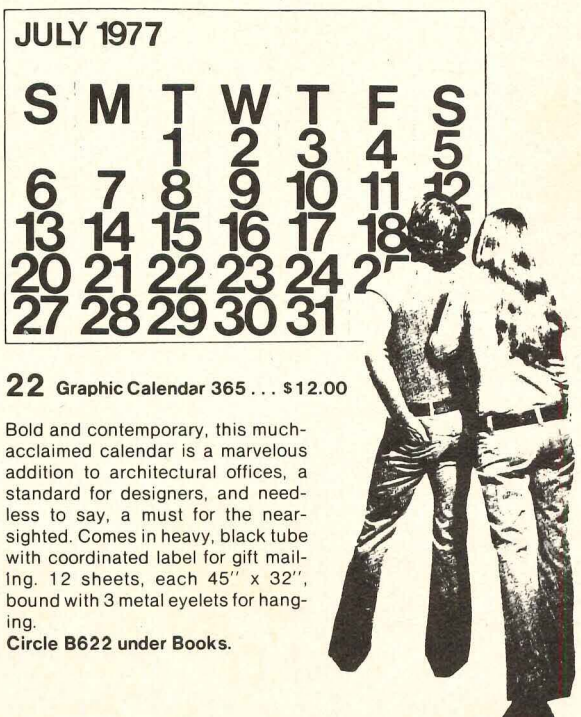

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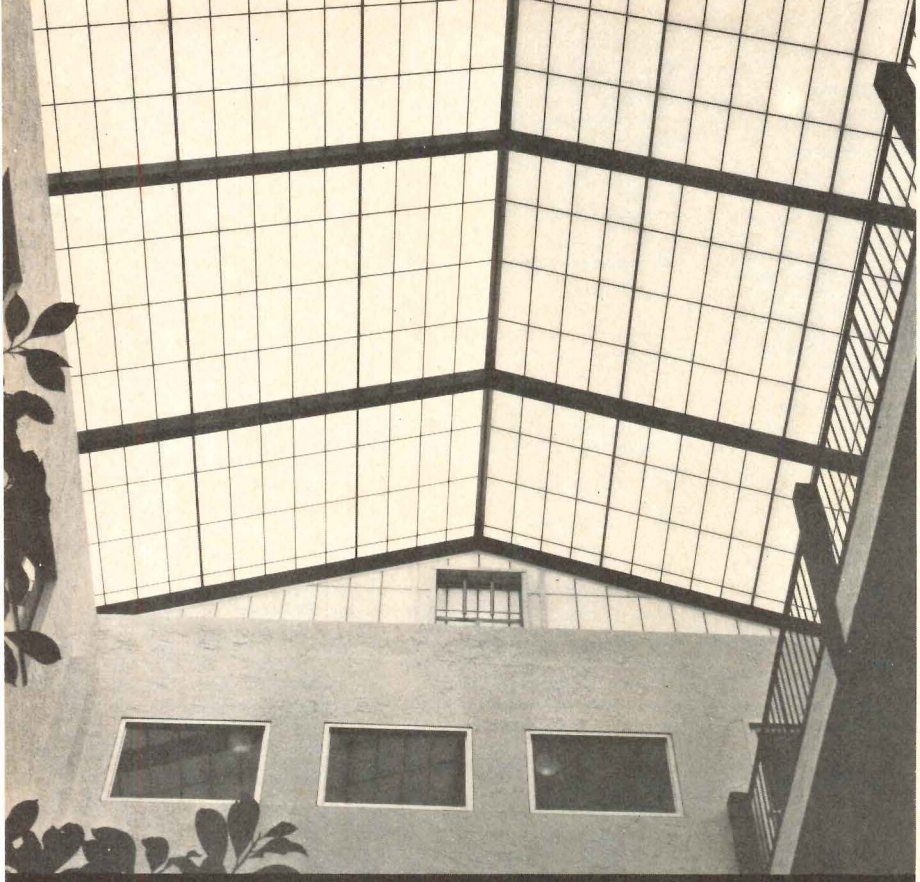

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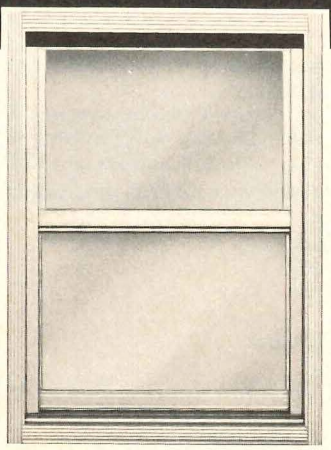

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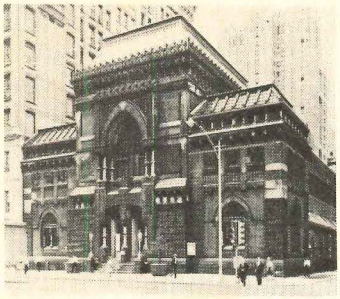

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The Philadelphia Inquirer Maga
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A primer on paint

Josephine H. Drummond

There is more to painting than choosing its color. The subject of paint and painting is highly complex, involving chemistry, physics, and engineering in addition to the familiar buckets of paint and brushes.

The architect is not usually a chemist, physicist, or engineer, and neither is the paint salesman who calls on him. Fortunately the major paint manufacturers have these people on their staffs, and among their duties is that of simplifying the process of matching paint materials to thinners to surfaces to exposure conditions. The result is still a bewildering array of choices, made even more complicated by job conditions and material substitutions.

Organisols—polyvinylidene chlorides—styrene butadiene copolymers—polyacrylic ester rubbers—are the generic names of pigments and vehicles of modern paints. It is up to the specifier whether he wants to know that paint containing anatase titanium dioxide pigment translates into brand names for self-cleaning exterior house paints.

If the project at hand involves more or less routine painting of metal, wood, plaster, concrete, and similar surfaces, the specification can be prepared without much concern for the chemistry. Selecting one or more manufacturers, the architect can find in their catalogs the recommended systems for each kind of surface, or he can ask the manufacturer's representative to select materials for him. He may set up comparisons of two or three manufacturers or he may equate them by a blanket clause. He may also use non-proprietary methods of naming materials by Federal Specifications, though this will not provide the same quality.

Most manufacturers produce three qualities of materials, bearing different trade names. These are, more or less loosely: the "architectural finishes," "painter's" line, and "do-it-yourself" material.

Chemically, the materials differ principally in the ratio of pigment and vehicle. They are increasingly easier to apply in the order listed above, and durability decreases in the same order. The cost also decreases, so if we specify the architectural finish line and approve do-it-yourself line, we are providing the painter with an unearned healthy profit, both on labor and material, at the owner's expense. Generally the architectural materials are factory mixed to color specifications, while the painter's and do-it-yourself materials are purchased in standard colors at local paint stores. In writing specifications and approving paint schedules, we should ascertain that we are getting the desired quality.

The paint industry is currently in the process of developing water-thinned materials for virtually all types of surfaces, with varying degrees of gloss. This is partly in response to ecological pressures and partly to simplify cleanup and handling. In some instances these materials require greater skill in application. Durability, washability, and compatibility with overcoating materials are less predictable because of limited use and time. It would not seem advisable to assume that water-thinned is automatically an equal to oil- or alkyd-based material without analyzing the conditions.

When we have special conditions to contend with, the problem becomes more complex. The major commercial paint manufacturers are not the principal formulators of the exotic materials, paint which can cost $30 to $50 a gallon and up. The producers are mostly specialty coating companies, some of whose products are excellent, some not. Selection involves consideration of the company's reputation, the assurance that it will remain in business beyond the guarantee period, and reviewing other projects which used the proposed material.

In addition to the assistance available from manufacturers' reps, there are at least two excellent, non-proprietary publications on paint, published by the government.

The first[1] is an excursion "behind the labels" of both the general paints and the exotics. Surface preparation, priming, and finish coating are described in detail. The book is difficult to read because no references are made to trade names and no differentiation is given between standard "off-the-shelf" materials and exotic coatings. No comparison of cost is given either, so the book is not a selection source. It is rather an excellent background study in the chemical and physical properties of paint, the principles of material selection, and the principles of paint thinning and curing or drying. It also summarizes Federal Specifications for paint materials.

The second publication[2] emphasizes practical considerations and is thoroughly illustrated. Subjects such as paint failure, application techniques, and safety are discussed in detail.

These volumes, though several years old, provide the architect with a basic understanding of paint. The next time he changes the color of his building soffit from white to beige the week before final acceptance, he knows there's more to it than meets the eye. □

[1]U.S. Department of Commerce, National Bureau of Standards, *Organic Coatings, Properties, Selection, and Use,* by A.G. Roberts, Building Science Series 7. February 1968 (Washington D.C. Government Printing Office $2.50)
[2]U.S. Departments of the Army, Navy and Air Force, *Paints and Protective Coatings.* January 1969 (Washington D.C. Government Printing Office $7.25)

Author: Josephine H. Drummond, CSI, is Specifications Writer/Construction Administrator, Gruen Associates, Los Angeles.

How not to play musical chairs

Architects put a lot of thought into seating they choose for auditoriums and arenas, but they must give equal thought to justifying their selection to the client inclined toward competitive bidding.

Gentlemen and ladies be seated! Now, is the seat comfortable? Too high? Too low? Enough leg room? Can you see the stage or arena? We'll ask you again after two hours, is the seat still comfortable?

If these were the only questions an architect had to answer in specifying spectator seating, it would still be a difficult decision to make, but there are other important factors that complicate the decision further. Is the design pleasing? Does it harmonize with its environment? Are the colors right? Is it rugged enough? Is it easy to maintain? Does it have appropriate acoustic characteristics? Can the basic seat dimensions be varied so that a row of seats exactly fits its allotted space? How much will the installation cost?

And finally, if the client or general contractor decides that seating is one of the areas where he can cut the project's cost by seeking competitive bids, how does the architect ensure that an "or equal" alternate is truly "equal"?

This seat is taken

It's sad but true that if the architect's reputation is powerful, it's likely that his original selection will stick. One doesn't hire a superstar only to ignore his advice. The lesser-known and smaller firms, on the other hand, should expect to have to back their selections with cogent arguments and documentation.

Naturally, most manufacturers are glad to provide a specification that fits their own line and no other; i.e., "a redhaired man exactly 71 inches tall, with one green eye and one brown eye, and one leg three-eighths of an inch shorter than the other." But the architect must make sure that the seating specification relates reasonably to the job requirements, with special attention to the features that make the particular seat line he wishes to use preferable to others. And he must be wary about following the manufacturer's suggested specifications too slavishly. Manufacturers often make what they consider minor changes in their line, but these may be changes that affect features the architect considers important. A thoughtfully written specification will help protect these features.

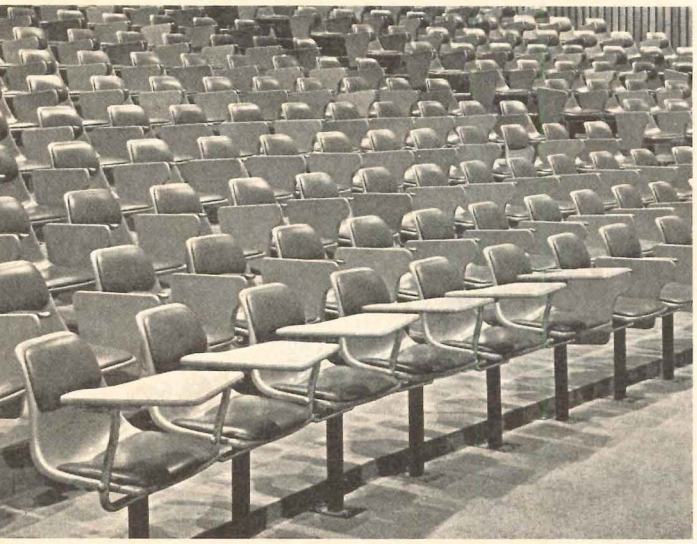
There is a tremendous variety of spectator seats available, from high-style units created by internationally known architects and designers for plush recital halls to utilitarian benches for college field houses. Within the same line there may be a choice among floor-mounted, riser-mounted, telescopic (seats fold and lock against a common mounting) or portable seats, for indoor or outdoor use. Units may be purchased with textile or plastic upholstery in a wide range of fabrics, plain molded wood or plastic backs and seats, with accessories such as ashtrays, folding tablet arms and built-in wiring for simultaneous translation systems, and in various colors.

Custom style off the shelf

One is tempted to think of these as "stock" units, but no manufacturer inventories enough seats for the usual spectator seating installation. What is in stock are the expensive production molding dies, jigs, and fixtures, along with some standard components. In effect, every large job is a custom job produced from standard components.

With the broad range of options available from the many supply sources, one would think the architect could find anything he needs in some showroom or catalog. Not necessarily so, says architect Richard Meier, principal of the New York firm bearing his name. Spectator seats are an integral part of the architect's design, he points out, especially—but not only—in concert halls, theaters, and auditoriums. A seat that is almost right is not the same as a seat that is exactly right. Even for arenas, he finds that often he cannot find a seat that combines, say, the wood, finish, dimensions, style, and special features he desires. No manufacturer is about to start producing a new style—when molding dies may cost as much as $70,000—unless he is convinced it has the potential for substantial ongoing sales or the initial sale is tremendous. And few clients, particularly public or quasi-public bodies, are about to subsidize the startup of a new line. Nevertheless, Meier concedes, most installations can be served more than adequately by what is available in the market.

Exceptions are showplaces like New York's Lincoln Center. American Seating Company worked with a Max Abram-

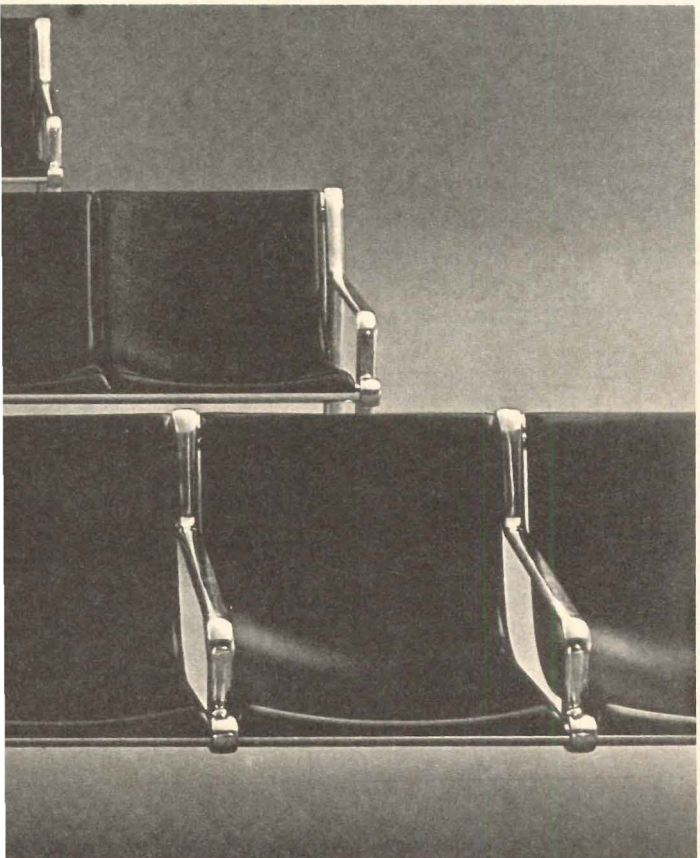


est Point lecture hall installation shows one of the options available to chitects: padded seat, back; pedestal mounting. Heywood-Wakefield.

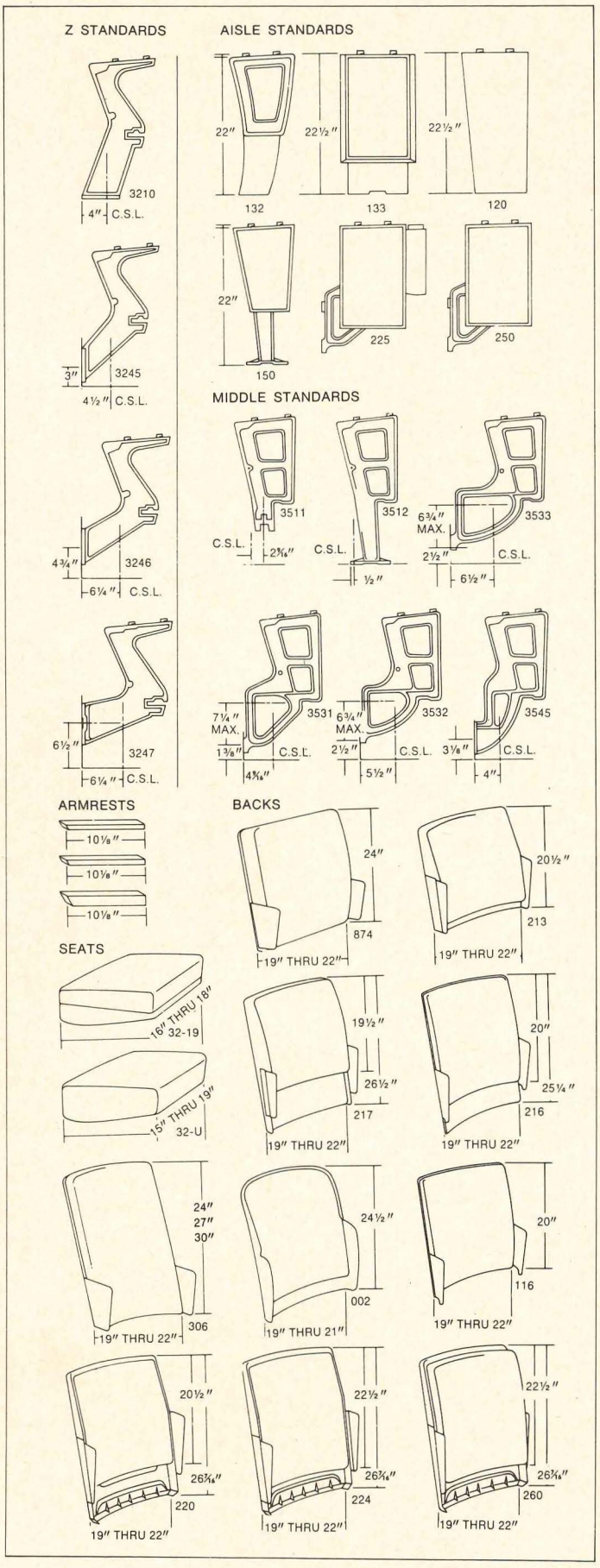
Chairs in this installation have cushion pad only on the seat and are mounted on a supporting beam. Foldaway tablet arm is optional. Krueger.

astic stackable chairs have interlocking ganging device. Steelcase (above). uminum extrusion and casting suspension keeps floor obstructions a minimum. Knoll International Morrison/Hanna Collection (below).

Students cover worn stadium benches with extruded aluminum cover planks. Kaiser Aluminum (above). Conference hall seating installation features roomy, richly upholstered chairs of contemporary design. Turner (below).



Technics: Spectator seating



Variations on a theme. Architect may design a "custom" installation from standard components (American Seating's 35 M theater-auditorium line is shown here) and by choice of upholstery, colors.

"Squirming Irma" is one of the testing devices that helps American Seating Co. determine the durability of chair designs. Irma's piston-rod spine (connected to beam above her head) gives the chair 100,000 thumps and 30,000 squirms in 50 hours, simulating years of actual use.

ovitz team to develop its Stellar line of chairs for the cultural center's several halls. This seat has been widely used elsewhere and has now been modified for Philip Johnson in the redesigned Avery Fisher Hall. Another exception is the 200-seat Athenaeum (visitors center) at New Harmony, Indiana, site of a 19th-Century experimental socialist community. Meier has designed new seating for the Athenaeum. "This is a special place," he says, "and it was aesthetically essential that the space, the architecture, the furnishings and the seating—which are after all extensions of the architecture—be fully integrated. We couldn't do this by going to the marketplace." Meier hopes that the manufacturer selected to build the seats will decide to add the design to his own product line.

The architect faces a formidable obstacle in selling his own seat design to a client, aside from the cost. Major seating manufacturers put their seats, components, and covering materials through expensive and rigorous life tests. They also have extensive files of acoustic and seating comfort data. It's not likely that new chairs destined for short runs will receive such thorough, certified pedigrees.

Many architects feel that the vast majority of spectator seating projects can be served well from among the wide range of chairs (and their modifications) on the market and that the problem posed by competitive bidding is greatly exaggerated. They state that the high cost of tooling and the threat of legal action by the manufacturer tend to prevent competitors from copying too closely the architect's preferred choice, when he has one.

But suppose the client insists on competitive bids for the seating and bids do come in? The architect is not powerless. Provided that he has done his specification homework thoroughly and that the proposed alternates fall short of being equal in significant features, he may exercise his prerogative of rejection. [Henry Lefer]

Acknowledgments

We thank the following individuals and companies for their assistance in preparing this article: Jane Yu, Marcel Breuer & Associates; Richard Meier, Richard Meier & Associates; John M. Crouse, Jr., Fred J. Van Slooten, American Seating Co.; Stephen Kiviat, Atelier International; Heywood-Wakefield Co.; Patricia Hoffman, International Contract Furnishings; Kaiser Aluminum & Chemical Corp.; Peter D. Copeland, Knoll International; Krueger; Steelcase Inc.; John Stuart International; Thonet Industries; Turner Ltd.

[For product information, see Products and literature, p. 97.]

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Erickson on Erickson

The Architecture of Arthur Erickson *by Arthur Erickson, Montreal, 1975; distributed in the U.S. by Charles Scribner's Sons. 228 pp., 135 illus., $40.*

Reviewed by Leonard K. Eaton, professor of architecture, University of Michigan, Ann Arbor.

"If I had to pick out the great Canadian architect, of this or any other time," says George Woodcock, a recent writer on *Canada and the Canadians* (London, 1970), I would unhesitatingly name Arthur Erickson." With this sumptuous volume—a large 12"x12" format with many of the pictures running across 24 in. in color and black and white—Erickson's claim to this status is laid before the world. So impressive is the book, in fact, that at first glance it looks like something designed for a coffee table. In fact, it is much more than a coffee table book. Its appearance is an important event in a continuing, and on the whole justified, campaign to make Americans aware of the cultural achievements of their northern neighbors.

The first part of the book is an explanation of Erickson's work in terms of those qualities which he particularly values. These he calls site, light, and cadence. This last seems to be roughly equivalent to procession, and in order to clarify the larger schemes, a number of illustrations of models are included. He then proceeds to a series of really magnificent illustrations of houses, mostly in the West. These are shown in a series of photographs, accompanied by plans, which, for some strange reason, give no indication of the functions accommodated in the various portions of the dwellings. One therefore tends to visualize the buildings as a series of interlocking pavilions. Sections are given at the end of the book, and this is fortunate, since several of the houses occupy unusual sites.

With Simon Fraser University we come to a major work of the 20th Century which has already been much published, though not so sumptuously as here. Erickson relates that in his submission he challenged the traditional concept of the North American university: "I believed that above all a university should express universality of knowledge; that the fragmentation into faculties and departments, each isolated in its own world, was artificial; and that indeed the usual campus, where forestry or commerce, chemistry or law had each a building to itself, created mistaken intellectual

[continued on page 95]

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Books continued from page 93

boundaries in the student's mind. Knowledge was freer than that and transgressed such arbitrary boundaries; higher education had to be more than the sum of its parts." In answer to this problem Erickson came up with what is essentially a megabuilding on top of a mountain outside Vancouver. The entire center of the university is under one roof, and there is maximum contact between students and professors. Thus, runs the Erickson theory, interchange of ideas will take place, and education will be facilitated. Now any one will admit that learning is to an extent a community process, but there is an equally strong argument to be made that the most intense educational experience of all is a private encounter between a man and a book. And in this exceptionally fine design, privacy is almost totally lacking.

Erickson is evidently somewhat defensive about Simon Fraser, since he observes that in the late 1960s the architecture was blamed for student unrest. "What the critics forgot to add," he writes, "was that the architecture also helped solve the political friction and for the same reason: no one could escape the social responsibility of coming to terms with his adversaries in so compact an environment." He adds that no damage was ever done to the university architecture, and that the students become its guardians. George Woodcock, on the other hand, takes a contrary position, and since he, too, resides in British Columbia, he presumably knows the building well.

Lethbridge University in Southern Alberta is another megabuilding, daringly spanning a large coulee in the prairie. Here, too, Erickson broke with the traditional concept of the university. There would be, he writes ". . . no differentiation between the sciences and the humanities, or between study and relaxation, but only between differently defined spaces—laboratories, large classrooms, seminar rooms, offices, and residences. All space could be assignable across faculties." Because of the harder climate of Lethbridge, Erickson turned the building in upon itself rather than outward as at Simon Fraser. Clearly it must be an overwhelming architectural experience.

Perhaps his most spectacular building was the Canadian Government Pavilion at Expo '70 in Osaka. This, to my regret, I did not see, but it must have been a stunner—two gigantic mirror-sheathed mountains surmounted by rotating colored umbrellas. From all accounts it was the major architectural achievement at Osaka, and it drew rave reviews from all writers. Again the magnificent color photographs make one understand why.

So make no mistake about it: Arthur Erickson wants passionately to be a master builder in the grand tradition. At the very least he is an enormously gifted designer, and his country has given him ample opportunity to demonstrate his talents. For this writer his approach to architecture rather resembles that of Louis Kahn. Like Kahn, Erickson wants to reprogram his buildings instead of clinging to the client's ascertainable brief. Whether or not the building economy of Canada and the United States can any longer sustain this kind of architecture is an open question. I have tried to indicate some of the difficulties with the line of thought which Erickson represents. In any event, it is a thought-provoking book, beautifully produced, and we can be particularly grateful for distribution by Scribner's. □

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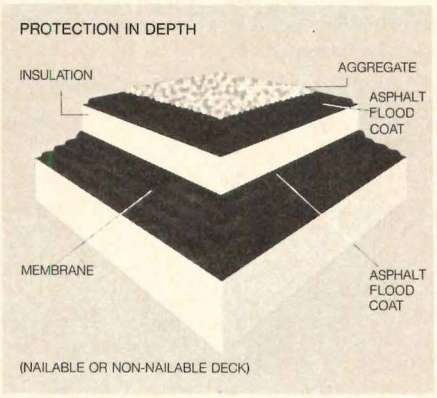

Inverted roofing assembly

Inverted roofing assembly. The system reverses the conventional application of systems by placing the insulation boards above instead of under the waterproofing membrane. Key to the new system is Tempchek, a glass reinforced urethane core roofing insulation board that meets the dimensional stability performance required for the system. In tests, Tempchek averaged less than one percent dimensional change after 28 days exposure at 158 degrees Fahrenheit and 95 to 100 percent relative humidity. According to the manufacturer, when the inverted roofing assembly is applied on steel decks with an underlayment of one-half in. thick fire-rated Type-X gypsum board, the system qualified for Factory Mutual Class I-90 fire rating with 90 lb wind uplift resistance as well as UL Construction No. 99. The Celotex Corporation.
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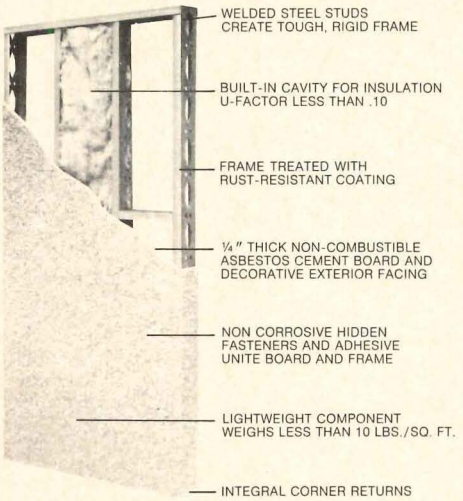

Exterior wall component system

Exterior wall component system. Non-combustible lightweight units are composed of rigid steel stud frame onto which are laminated asbestos cement panels. Various portland cement base surfacings may be chosen for finish. In addition to flat wall units, a wide range of shaped and contoured panels are possible. Besides weight and non-combustibility, manufacturer lists such advantages as rapid installation and excellent insulating values, with U-factors as low as .05. Granostruct. Cement Enamel Development, Inc.
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Lounge chair (above) open office seating (below).

Lounge furniture combines polished chrome and tailored upholstery. It is available with choice of two arms, one arm, and without any arms. Options include a single seat, two-seat, or three-seat model. Choice of upholstery is available in a wide range of colors and fabrics. Inter-Royal Corporation.
Circle 102 on reader service card

Seating for the open office. The 450 Series is a collection of tubular framed chairs available in a wide variety of fabrics. Frame and base are bright chrome finish; arm rests are black molded polypropylene. Chair is available as a side chair with or without arms and as a swivel chair with or without tilting mechanism and with or without arms. GF Business Equipment, Inc.
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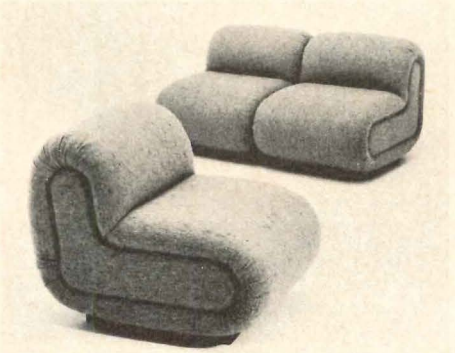

Reception or lobby seating features a recessed welt detail. Constructed of polyester-wrapped foam over rubber webbing on a hardwood frame, the seats are available in a choice of firm or soft foam. Each seat is covered by wide choice of fabrics or COM. Seating units come in 28-in.-wide modules which rest on separate or common plinth bases. Each module scales to 21 in. deep, and the seat height is 17 in. Mueller Furniture Corporation.
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Duraflake FR particleboard meets the demands of the Uniform Building Code as prescribed by the International Conference of Building Officials. UL gives it a Class 1 rating. The particleboard is designed for the application of a variety of laminates and veneers specified by architects and builders. It is available in ⅜ in. through ¾ in. thicknesses. Willamette Industries.
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Single component urethane foam. Pre-mixed and partially reacted, the foam, once dispensed, will stick to almost anything and expand to two to three times its original volume as it sets to a flexible or semi-rigid form. Then the foam can be trimmed and finished. Container sizes range from 1 lb (disposable) to 200 lbs (reuseable) capacity. The foam is said to adhere to most surfaces, including those which are damp, without any pretreatment. The product has been in use in Europe and the U.K. for over two years by the parent company. Uniroyal, Inc.
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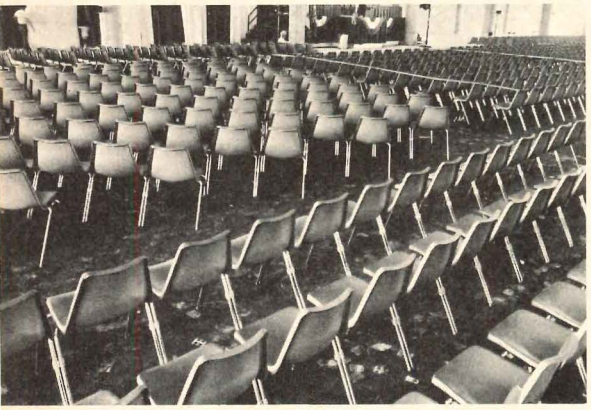
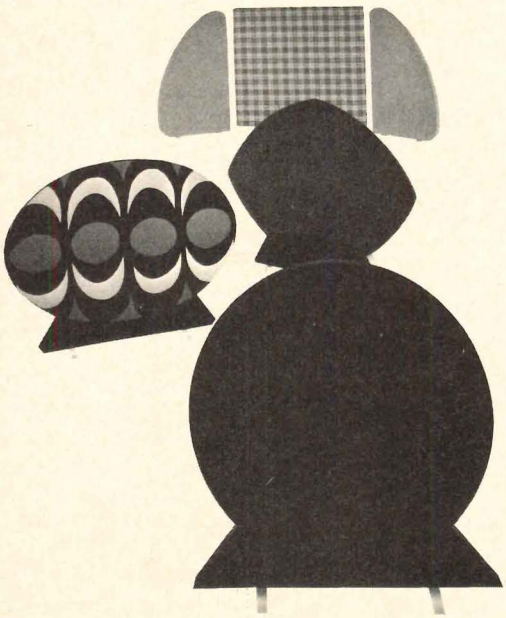
Products continued from page 97

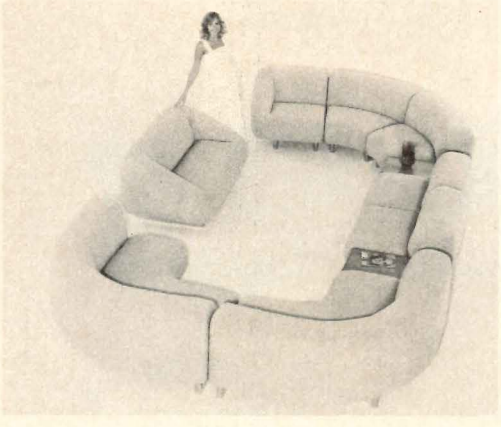
Lounge seating



Venus stack chair

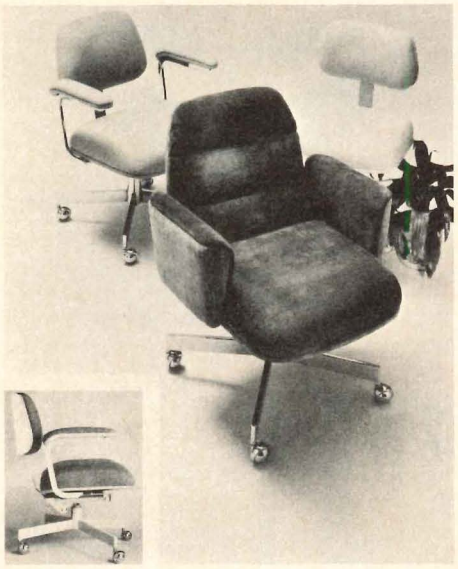


Acoustical screens



Lounge group

Lighting/ceiling systems



The UNIMAC adjustable posture chairs

Lounge seating. The units were designed specifically to accommodate full bull hides of 5 mm thick unsplit leather specially aniline dyed for a softer hand. The character of each hide is different. The series consists of a club chair, a two-seat, and a three-seat sofa. Units have hardwood frames and dacron and foam upholstery. Stendig, Inc.
Circle 107 on reader service card

Venus stack chair has tubular steel frame with a thermoplastic shell that is flexible to conform to the body's contour. It stacks 20 high on the floor and has optional ganging attachment for fixed row seating. Fixtures Manufacturing Corp.
Circle 108 on reader service card

Acoustical screens. The Accent-A-Screens are available in round, triangular, oval, and a unique shape called Quadricurve for use in entrances, secretarial, and reception areas. Screens can be covered in any of the company's wide choice of colors and patterns or COM. The 54-in. dia. round screen rests in an enclosed black base supported by chrome feet. The wing sits on chrome feet, is 54 in. wide at the base and its 56-in.-height can be adjusted to 61 in. A portfolio containing individual data sheets on each type of screen, technical data, and representative fabric samples is available to architects and interior designers. Hoover Systems.
Circle 109 on reader service card

Lounge group designed by Filmore Harty is constructed entirely of polyurethane foam on plywood base and supports. Two different densities of structural foam plus a topper of cushion grade foam form the contoured shape. The group incorporates seven upholstered pieces and two tables for public or guest seating areas. Cramer Industries, Inc.
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Lighting/ceiling systems have interchangeable modular suspension components. The VL60 (Vaulted Linear) is a directionally vaulted fixture providing high lighting and low brightness and comes in two or four lamp configurations. The VN60 (Vaulted Non-Directional) system offers a choice of dimensional surfaces with its varying vaulted depths. Splays are available solid or perforated with acoustical backing. The FL60 (Flat Linear) configuration is the base for a planar dimension in ceiling design. All share the same basic 5′x5′ ceiling planning module. Each module rotates 90 degrees and is designed to accommodate its own lighting, partitioning, acoustics, air distribution, sprinkler penetration, and utility access. Unlighted modular choices are available with lay-in panels. Conwed Corporation.
Circle 111 on reader service card

Adjustable posture chairs. The UNIMAC desk chairs with seven separate adjustments, have coil-spring seat construction, and patented backrest mechanism which keeps a constant level of pressure on the lumbar area. Arm supports adjust front to back and laterally, permitting the seating-area width to be altered. Line includes secretarial chairs. The Environ chair line features a special tilt mechanism. Seats and backrests are constructed with a combination of multidensity polyurethane foams. Chairs come fully upholstered or with protective edge and back treatment, and 2-in. ball-bearing casters. The epoxy finish on exposed metal parts is available in sand or charcoal, with optional bright or satin chrome. Matching swivel side and conference chairs complete the line. Domore Office Furniture, Inc.
Circle 112 on reader service card

Street furniture. A fiberglass seat component fastens into the modular and stackable 30″x30″ concrete base. Line includes planters, upholstered seating, tables, display cases, directories, and accessories. Ambiant Systems Limited.
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Laminates. Formica's line includes 24 original new designs among the total of 180 that are available in solid colors, a coordinated group of woodgrains, patterns, natural material reproductions and three-dimensional design effects. The line is geared for builders, designers, and furniture/fixture producers. Formica Corporation.
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Wall-mounted water coolers. Two simulated semi-recessed water coolers have removable front and side panels, a stainless 20-in.-high backsplash, and a patented bubbler valve. Chestnut tweed vinyl laminate applied over steel cabinet elements is the standard finish. Other vinyl finishes including charcoal tweed and walnut grain are available. Ebco Manufacturing.
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Nylon Carpet yarn called Enkaloft II is designed especially for contract installations requiring extra cover, bloom, and loft, states maker. The yarn has been tested and approved by the Nationwide Consumer Testing Institute and carries a five-year wear warranty. American Enka Co.
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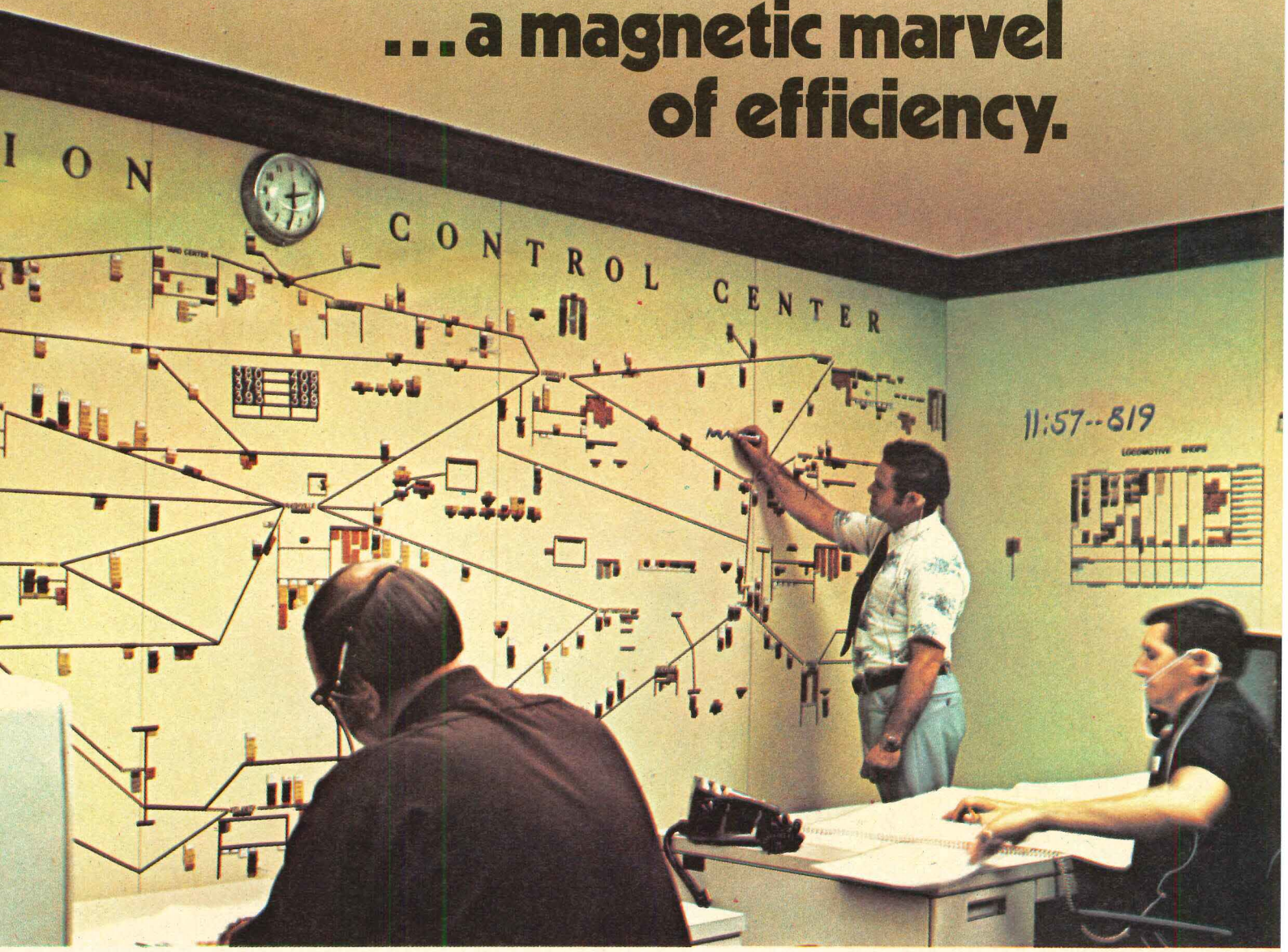

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Self-cleaning fireplace. By means of baffles in the hood and an adjustable air intake in the door, a whirling action is created which draws all smoke up through the chimney. Ashes are completely burned out and reduced to fine particles that leave no residue when expelled, states maker. This Imperial Carousel free-standing fireplace comes completely assembled, and is available in a variety of colors. Malm Fireplaces, Inc.
Circle 117 on reader service card

Literature

Fixed seating. Catalog describes line of lecture hall, auditorium and stadium seats made of molded fiber glass or polypropylene on steel bases, floor- or riser-mounted, with or without tablet arms, available with upholstered seats. Krueger.
Circle 200 on reader service card

The Morrison/Hannah Collection. Mass-production techniques inspired the two young American inventor-designers who created this high-style line of mass seating, shown in color brochure. Basic elements are aluminum extrusions, castings and upholstery modules that lend themselves to numerous variations. Knoll International.
Circle 201 on reader service card

Robin Day chair series shown in brochure has high-impact polypropylene shell with compound curvature that is claimed to give great strength without the need for structural reinforcement. Leather-like design is etched into the plastic. Leg bases are welded, chrome-plated steel tubing. Upholstered models have plastic or nylon fabric over urethane foam. John Stuart International.
Circle 202 on reader service card

Auditorium and arena seats of many types are described in catalog and packet of brochures. LP seat has high-pressure laminated plastic seat and back, with hardwood veneer core. Series 6000 Streamline seats, with backs and seats that are one-piece shells of molded polyethylene plastic, are available in floor- or riser-mount models and telescopic or portable seats with or without arms. Series TC 400 upholstered chairs are steel with molded foam cushion; they are cantilever-mounted on a single pedestal or riser. HC 6666 line of one-piece molded polypropylene on square nickel-chrome steel frame is stackable up to 20 chairs high. Heywood-Wakefield Co.
Circle 203 on reader service card

Stacking chairs. Three lines of stacking chairs, each available in a wide variety of colors and finishes, are described in color catalog. They are easy to gang and ungang, to stack and unstack. Series 472 Max Stacker has one-piece solid polypropylene backs and seats attached to a continuous wire rod frame, is available in 8 colors of plastic, 31 solid-color and 10 striped fabrics; a stack of 45 plastic or 22 upholstered chairs is a little over 5′ high. Series 1278 is available only in polypropylene, 8 colors; diecast aluminum bars beneath the seat are bolted to an aluminum alloy frame. Series 1279 seats are available with cushioned seats and backs, covered in a choice of 31 solid fabrics, 10 striped fabrics, 35 expanded vinyls, walnut veneer; legs and back uprights are one-piece square steel tubing. Steelcase.
Circle 204 on reader service card

Architect-designed contract seating systems with plastic shells are described in color brochures. The Modus line, created by a team under Osvaldo Borsani for Tecno/Milan, consists of about 65 different subassembly parts, permitting various seat configurations; shell is nylon, yokes and bases are aluminum. The Nova line, designed by Gerd Lange, is available with either polypropylene or nylon shell; frame is chrome-plated tubular steel. Seats may be ganged and are stackable. Atelier International.
Circle 205 on reader service card

Leather-covered conference-hall seats designed by Geoffrey D. Harcourt are included in 80-page color catalog of group seating chairs, mainly for waiting rooms, airport lounges, and other similar functions. Turner Ltd.
Circle 206 on reader service card
[continued on page 103]

Colorail is often specified simply because it is available in eleven colors and adds a lively accent to a variety of settings. But that's just part of the story.

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FIRST FEDERAL SAVINGS AND LOAN ASSOC., Niles, Michigan – Arch: Lambert J. Soucek, Jr., Bank Building Corporation; Fabr: Van Dam Iron Works, Inc.

SARAH COVENTRY BUILDING, Newark, New York – Arch: Sherman & Sherman, Fabr: Vance Metal Fabricators.

CARD EMPORIUM, New York, New York – Arch: Lee Kennedy; Fabr: Allied Bronze.

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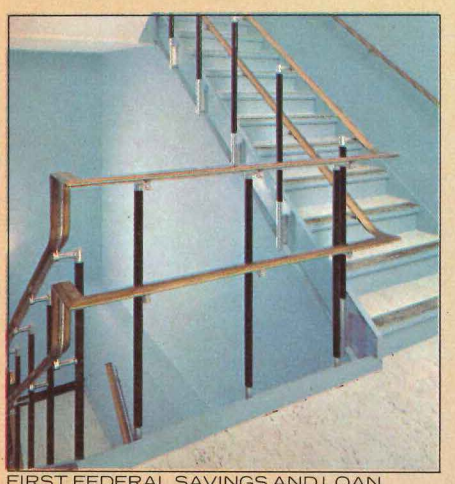

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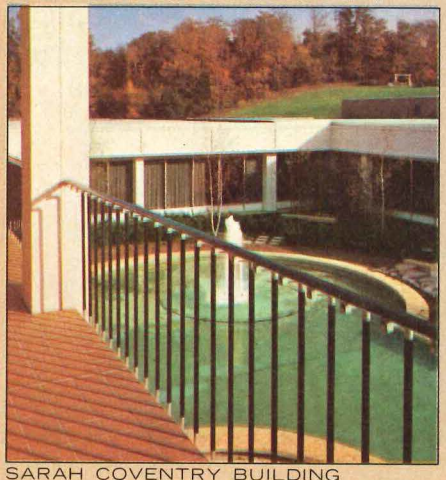

SARAH COVENTRY BUILDING

CARD EMPORIUM

Literature continued from page 101

Aluminum spectator seating. Brochure covers KAL-100 system for sports stadiums, consisting of extruded planks of 0.1" alloy, stamped sheet end caps and extruded mounting brackets, with optional backrests and footboards, available in lengths from 8' to 25'. Repair and replacement units are also available for covering worn 10 in. and 12 in. wood planks in existing installations. Kaiser Aluminum.
Circle 207 on reader service card

Broad spectrum of spectator seating for theaters, auditoriums, arenas, stadiums, and lecture halls is illustrated in catalog. The 35M series theater-auditorium line is assembled from a wide variety of interchangeable seats, backs, cast-iron standards, armrests, upholstery fabrics, colors, and accessories that permits almost custom design. Stadium-arena lines are available with high-density plastic seats or steel seats covered with polyurethane foam cushions on steel springs. Fold-A-Way platform seats are riser-mounted on platform, fold flat so platforms may be rolled back and nested out of the way. Acton stacking chairs have sled-base tubular steel frame for easy gliding. Audilec line has plastic backs and seats, with an integral edge groove for attachment of upholstered pad or cover at any time. American Seating Co.
Circle 208 on reader service card

Fire retardant wood. Literature includes a full-color brochure and technical data sheets that describe the characteristics, qualities, and interior applications of Flame Proof fire retardant wood. It is available from Osmose Wood Preserving Co. of America, Inc.
Circle 209 on reader service card

Court layouts. All the game court layouts an architect is likely to do are diagrammed in complete detail. All diagrams are according to the latest published rules from officially instituted sports associations. The booklet is available from the Maple Flooring Manufacturers Association, Inc.
Circle 210 on reader service card

Sound control ceilings. Full-color booklet illustrates the many products, gives technical and installation data, and guide specifications. Johns-Manville, Holophane Division.
Circle 211 on reader service card

'A Value Analysis of Plastic Materials For Signs,' is a 16-page brochure which presents a comparative evaluation of five thermoplastic sheet materials. The materials are evaluated on six properties which include weatherability, impact resistance, stiffness, thermoformability, thermal expansion and contraction, and paint decoration. The brochure also outlines the availability of standard colors, thicknesses, and sheet sizes. Rohm and Haas Company.
Circle 212 on reader service card

Movable walls and hang-on accessories are presented in 28-page full-color catalog. Plan views and exploded views of workstation arrangements are shown. Steelcase, Inc.
Circle 213 on reader service card

'Fundamentals of Moisture Protection.' Booklet is aimed at those concerned with controlling condensation in building construction, and discusses the methods and materials to control its movement. Wasco Products, Inc.
Circle 214 on reader service card

Fountains. Catalog illustrates the many types of fountains, waterfalls, and water displays available and tells how to select them. It also offers tips on pool construction. Roman Fountains, Inc.
Circle 215 on reader service card

Spectator seating of extruded aluminum is illustrated in brochure. Components, dimensions, and examples of products in use are included. Kaiser Aluminum.
Circle 216 on reader service card

Roof insulation. A sandwich in which the top and bottom layers are dimensionally stable, fire-resistant perlite and the core is urethane. The top perlite layer shields the urethane layer from excessive temperature changes and thermal shock from hot asphalt. The bottom perlite layer offers traditional fire protection of perlite. GREFCO, Inc. Building Products Div.
Circle 217 on reader service card

Notices

Appointments

Wallace J. Toscano has joined Karlsberger & Associates, Columbus, Ohio, as director of design.

James B. Duke, AIA has joined Clarence Krusinski & Associates Ltd., Chicago, as vice president of interior architecture and design.

Thomas Phillips, Jr. and **Roy Gee** have been elected associates of Rapp Fash Sundin/Inc., Houston and Galveston, Tex.

Harri Kivilo, MRAIC and **Robert D. Wheatley** have been named associates of Neish Owen Rowland & Roy, Architects Engineers Planners, Toronto, Canada.

Erland A. Tillman and **Harry B. Clausen** have been named associate vice presidents of Daniel, Mann, Johnson, Mendenhall, Baltimore, Md. and Hawthorne, Calif.

Gerald Peters has been named a senior associate of Ford & Earl Design Associates, Inc., Warren, Mich. **Lillian Pierce** has been appointed a general associate of the firm.

Frederick W. Lyman has been appointed manager of landscape architecture for Sverdrup & Parcel & Associates, Inc., St. Louis, Mo.

S.I. Morris Associates, Houston, Tex., has elected the following associates: **Charles Dunbar, Jayanne Engle, Dennis Hancock.**

James C. Mark has been promoted to manager of facilities planning and design for Walgreen Co., Deerfield, Ill.

Jack F. Van Zanten, George R. Crowe, and **Frank J. Kelly, Jr.** have been elected vice presidents and members of the board of directors of Stone, Marraccini & Patterson, San Francisco.

Ray L. Redburn has joined Pierce, Goodwin & Flanagan Interior Architecture, Houston, Tex., as group director of interior architecture.

Natalie de Blois, FAIA has joined 3D/Neuhaus + Taylor, Houston, Tex., as senior project designer. **Carden L. Jenkins, PE** has been named chairman of the board, chief executive officer of 3D/Chenault & Brady, Consulting Engineers. **Gilbert W. Thweatt, AIA** is a new vice president.

David Stovall and **Michael D. Wirtanen** have been named associates of Korsunsky Krank Architects, Inc., Minneapolis, Minn.

George D. Kohut has been named head of the new Fort Walton Beach, Fla. office of The Smith Korach Hayet Haynie Partnership.

Gensler & Associates/Architects has announced the following associates: **Bruce B. Bolzle, Michael Farley, Charles R. Kifer, Bud Luther,** and **Douglas R. Stauffer** in the Houston office; **Rolland P. Grote** in the Denver office; **W. Scott Woods, H. Lynn Harrison, Derek Claudius, Linda Groth, Daniel S. Hirano, Howard L. Jue,** and **Walter Hunt,** San Francisco.

Building materials

Major materials suppliers for buildings that are featured this month, as they were furnished to P/A by the architects.

Pennsylvania Academy of the Fine Arts, Philadelphia, Pa. (p. 50). *Architects: Day & Zimmerman Assocs., Philadelphia, Pa.* New materials: Fire escape gratings: Reliance Steel. Steel floor joists: Vulcraft. Plaster and cavity shaft wall: U.S. Gypsum Co. Fabrics: Scalamandre. Concrete topping: Master Builders. Carpet: Seamloc Loma Loom; Collins & Aikman. Ceramic tile: American Olean Tile Co. Wood strip flooring: Sherman Lumber Co. Metal pan ceilings: Steel Ceilings, Inc. Fiber ceilings: Conwed. Roofing felt: Celotex Corp. Sealants: Tremco. Roof skylights: Fisher Skylights, Inc. Glass: Globe Amerada Glass. Hollow metal doors: Pioneer Fireproof Door Co. Door locksets: General lock. Door closers: LCN. Panic exit: Von Duprin. Blinds: Levolor Lorentzen. Toilet room accessories: Bobrick Washroom Equip. Corfan counter tops: E. I. Dupont DeNemours, Inc. Automation and fire detection systems: Honeywell. Halon fire suppression: Chemetron Fire Systems. Stone cleaning: BASF Wyandotte Corp. Glazing, shelving: Rohm & Haas Co. Elevators: Otis Elevator Co. Interior lighting: Halo; Crouse Hinds; Lightolier; Sim Kar; Keystone/Crescent; Litecontrol; Rambusch. Water closets: American Standard. Flush valves: Sloan Royal. Plumbing insulation: Owens-Corning Fiberglas. Floor drains: Zurn Industries, Inc. Water chiller: Halsey Taylor. Heating, air conditioning system: Trane.

Institute of Contemporary Art, Boston, Mass. (p. 54). *Architects: Graham Gund Associates.* Carpet: Armstrong. Gypsum wall board: National Gypsum. Security and fire alarm system: ADT Security Systems. Elevator: Beckwith Elevator Co. Lighting: Lightolier. Water closets: Kohler. Sprinklers: Grinnell. Air conditioning system: Trane; Johnson Controls.

Lincoln Park School, Somerville, Mass.
Architect: The Architects Collaborative, Inc., Cambridge, Mass.
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[continued on page 108]

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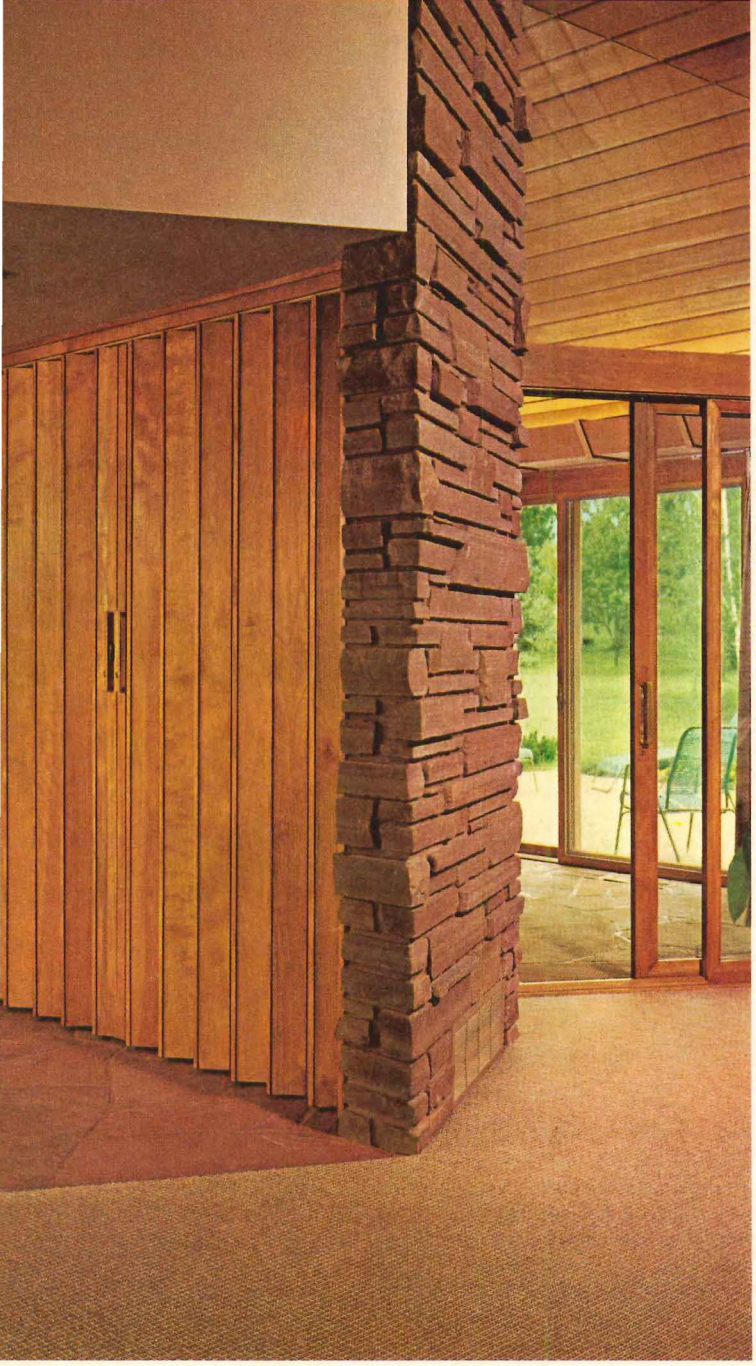

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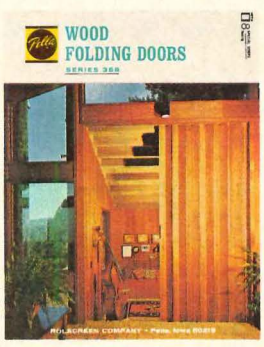

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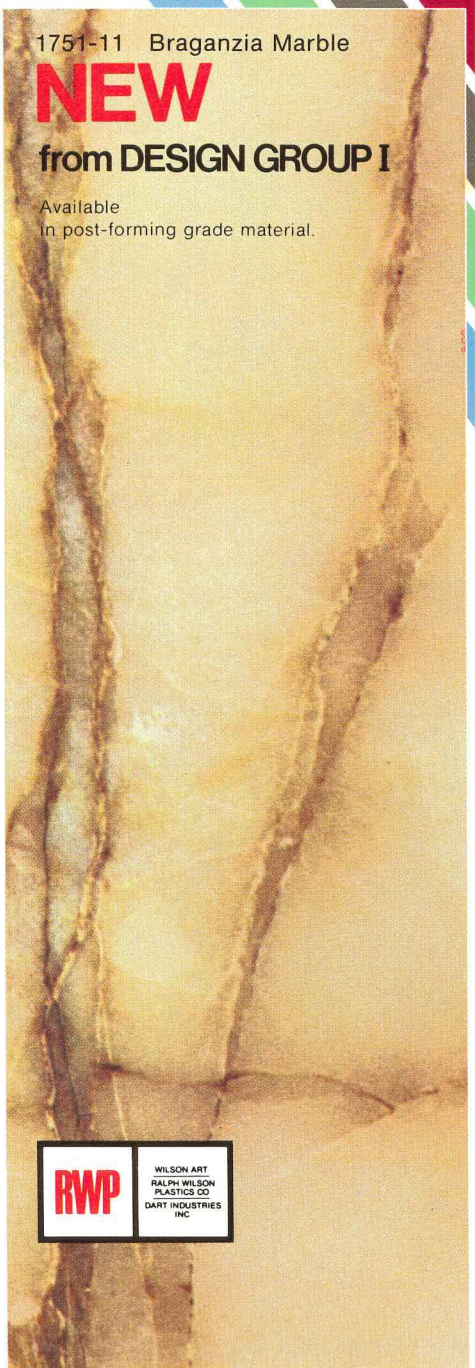

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