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Cover: Portrait of Philip Johnson, detail, by Andy Warhol, 1972. Acrylic and silk screen enamel on canvas, 96" by 96". Courtesy of the artist.
Conference tables, tables, and table desks
LOW COST MODULAR HOUSING
Isn't it about time we quit kidding ourselves about architect designed low cost modular housing? In the 50 or so years this sort of thing has been going on we should at least have learned that if the prototype isn't successful there is little chance that what follows will be any more successful.

Allow me to suggest that to call Richard Dattner's house a prototype for a low cost housing system makes as much sense as to call the Taj Mahal a prototype for a low cost monument system. "Now if we can just get more of those mosaics factory produced..."

MICHAEL GABSMAN
Architect

EVERYDAY BUILDINGS
FORUM: I have just read your "Everyday Buildings" article (October '72 issue). Since my practice is quite heavy in educational work with public bodies, I read with more than usual concern. Although the article has a much broader target than just educational work, two major points stand out: (1) Bringing in the architect as a central decision-maker early enough in the planning process to help determine overall objectives and methods of achieving them; (2) the two-part contract, covering two distinct phases of services, recognizes the design architect as a true problem solving professional.

This article is well written and has a major message for public bodies. Unfortunately, that message has not been received by those "decision-makers" here in the midwest. I contacted a sampling of agencies and found one of nine had seen the article. This reinforces the need to get your magazine and your ideas out a great volume of work unencumbered by understandable "bureaucratic" or "legal" restrictions.

ROBERT O. LITTLE
Executive Vice-President
Ben. R. Ittner, Inc.
St. Louis

FAR FROM THE MADDING CROWD
FORUM: "We never live in a modern setting if we can avoid it. That's for our clients"... quote from N. Owings, (FORUM, Sept. 72).

Will SOM ever be able to speak with conviction and principle again? Their clientele must now see "the crack in the picture window." One hopes the other partners of this great firm can keep Nat on his travels, collecting building materials and nick-nacks—anywhere—but as far away from the office as possible.

We also note on the plan accompanying this Sunday supplement that a high adobe wall not only separates the couple from the outside world, but from each other as well. Perhaps nostalgia is not the answer either.

Let's hope it doesn't rain.

NEBBITT A. GARMENDIA, AIA
New York

WOMEN IN ARCHITECTURE
FORUM: I wish to correct some impressions regarding our book, "So You Want To Be An Architect" and our publisher, Harper and Row, which might have been gained by reading Ellen Perry Berkeley's article, "Women in Architecture" in the September issue of your magazine.

In our book we describe some of the working situations architects find for themselves after leaving school. A husband and wife who also happen to be architects are used in two separate vignettes. The husband works in an office which turns out a great volume of work under extreme pressure but which produces large monetary rewards for its employees. The wife has a great many problems in finding a good position. She is not taken seriously by her fellow students, teachers or the administration at her school. After leaving school, she finds herself working for less salary than men of similar experience or assigned to interior work or renderings exclusively. Eventually she finds an enlightened office where people move along on their merits as individuals. The employees share in the work decisions and the resulting profits. She works up to and after the birth of her children. She teaches at the City University. Of course, in such an office the atmosphere is a balance of good design, humane working conditions and adequate responsibility with monetary reward.

The two architects above are separate personalities. They require different things. If their salaries reflect the difference in the offices they worked in, let me point out that the woman architect had a salary ($50,000) based on a profits-shared idea.

Some years it would be less, some years more. She also taught at a local university, a position which could be very lucrative. Her husband made more money as salary ($50,000) but spent a great deal on ulcer cures. It never occurred to me that the woman in our vignette had anything but a very positive kind of work-situation. But if one takes salary amounts completely out of context and then puts values of great weight on these lonely amounts, one can easily make it appear that the woman is being short-changed.

Our book goes on to criticize some architectural monuments, physical and otherwise. We were cautioned by our co-author, Alan Nourse, a long-time professional writer for Harper and Row, to be discreet in our criticisms as the book was one meant for junior high school libraries; a book from the trade book department to be bought by school librarians rather than the public in general. But our editor, Hal Grove, never inhibited us in any way. Ms. Berkeley might have mistook our being given this quaint warning about shaking up the junior high schools of America for meaning something else. The single vignette describing a person in solo practice is a man because (1) Most of the single-architect type offices are headed by men and (2) Single-architect type offices are becoming obsolete and (3) I couldn't advise, even remotely, a woman architect to get into anything that is obsolete.

CAROLYN R. MEINHARDT
New York

Ms. Berkeley replies: When I mentioned the salary differential between husband and wife, I did not mean to imply that the woman had anything less than a "very positive kind of work-situation." The work-situation was not under discussion. I was simply reporting the fact that the book shows a man earning one amount, and a woman earning a lesser amount. It is a product of the times that in the real world—and in this book—a woman often earns less than a man. I did not feel that the details of the two jobs, in this case, were important to this point; since Carolyn Meinhardt disagrees, I am glad to have her critical details.

As to whether a woman should (continued on page 9)
Another special place for Marlite Planks: where walls have to look expensive.

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I be depicted as heading a single-architect office, the book again reflects quite accurately the present situations: most such offices are indeed headed by men. However, I see no reason why a larger proportion of these offices shouldn't be headed by women, as women come to have broader opportunities in this and every profession. The authors describe quite vividly the difficulties and rewards of each kind of practice, and—to their credit—do not directly advise men or women to choose any particular aspect of the profession. The vignettes, however, can be read as “indirect” advice to women that they should put limits on their ambitions. (One other point: if the authors believed, in 1969, that the single-architect office was “becoming obsolete,” why didn’t they say so—for the benefit of anyone reading the book, boy or girl?)

I wondered, after reading this letter from Carolynn Meinhardt, whether the book was advising a man, even remotely, to get into anything that would give him ulcers. But it turns out that our man in the Huge Anonymous Firm doesn’t actually have ulcers: “Occasionally he exhausted himself completely on a job and had to be shipped off to the Bahamas to get his nerves unknotted.” I can think of more than a few women who would enjoy this “ulcer-cure” as well as the pressures and responsibilities of a $50,000 job. In a future time, and perhaps in a future revision of this book, let us hope there are more women in the profession, and in a more complete range of jobs.

KAHNTEXT

Forum: Two letters in your October issue require an answer, both on Lou Kahn. Mr. Conrad’s letter: The buildings at Dacca are built under labor conditions far less mechanized than in this country. A brick arch uses local labor and material, while a steel beam may have to be imported. The Dacca complex reminds Mr. Con-
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In 1836, three men who had been appointed by the State of Illinois to supervise construction of the Illinois and Michigan Canal provided Chicagoans with a heritage which, only today, can be fully appreciated. These men agreed that the lakefront should be free of construction and declared it to be: "Public Ground—A Common to Remain Forever Open, Clear and Free of any buildings, or other Construction Whatever." On the basis of this declaration, Lois Wille has written a book which declares the importance of preserving Chicago's lakefront as open space. "Forever Open, Clear and Free" is a thoroughly fascinating and well-documented narrative which draws the reader into the sights, smells and sounds of Chicago's story. The reader will find himself nodding in agreement, frowning as the disagreeable odor from the city cemetery (which is now Lincoln Park) assaults his imagination, gasping: "Oh, so that's what happened!" and experiencing a spectrum of human emotions as his reading progresses. It's the kind of book you hurry to finish and then realize before—and wanting to know more about.

Rich historical interest transports the reader from the time Indians and Jean Baptiste Point DuSable settled in the area, through the boom-town development and the resultant Chicago Fire, up to the redevelopment of a burned down city and the battles which were waged to keep the lakefront a public ground. Personally, I found the information on the notorious "Cap" Streeter and his wife, "Ma," fascinating. How many people know of the bond existing between those two colorful, somewhat unconventional rioters and the stately Hancock Building? Aaron Montgomery Ward is known to all Chicagoans as a merchant, but few are informed of his monumental court battles to preserve Grant Park for future inhabitants of Chicago. This man's personal conviction, foresight and courage cost him grief, slander and a great deal of money. It provided those of us who came later with a priceless open area, acclaimed throughout the world for its beauty and grace. If it hadn't been for Ward, no amount of money could reacquire the precious open spaces of Grant Park.

The great builders and artists who planned, dreamed and fought for the designs which enhance Chicago's lakefront and parks—Frederick Law Olmsted, Daniel Burnham, moderns such as Walter Netsch and Gene Summers—are enumerated and their contributions explained to laymen who do not normally comprehend architectural beauty as an essential for landmark preservation.

When the city rose from the ashes, Chicagoans believed they could do anything. This attitude prompted the nickname: "That Windy City," and inspired Chicago's fight for designation as the location of the World's Columbian Exposition. The opening of that grand event revealed a city planned with attention to the relationship between buildings, water and open spaces, a concept developed by Olmsted and Burnham. This exposition's architecture complemented the natural configurations of the lakefront and left what is now Jackson Park as its legacy. It was to become the basis for the Chicago Plan. Contrasting this exposition was the Depression Era's "Century of Progress," which was gaudy, gala, boisterous and left Chicago only crumbling plaster edifices to blot the lakefront. The most memorable "construction" of that exposition, it appears, was that of Sally Rand.

The careful development of Chicago as a city of parks with its beautiful plan, struggle, and history of success-in-spit-e-of-itself, gave the city a park heritage famous throughout the world. Past presidents of the Chicago Park District were named, their triumphs recorded, their mistakes criticized—albeit with the benefit of hindsight. Political influence is inferred as being present in the Agency since the time of the depression. While it makes interesting, gossipy reading, the positive contributions of many dedicated men are overshadowed by the "spicy" behavior of men such as Alderman Hinky Dink Kenna, Bathhouse John Coughlin, and friends and relatives of men in public office. Chicago's Mayors, from William B. Ogden to Richard J. Daley, are also criticized and acclaimed. I noted a prevailing undercurrent which implies that politicians are the main cause of the lakefront problem; that everything was "O.K." before they got involved. The author's failure to note the real crux of the matter, which is that the public is apathetic unless they feel personally threatened, enhances this implication. We all know that it's easier to get mad at a public servant in any situation that needs someone to blame than at the thousands of anonymous voters who elect the public officials.

As one of the subjects within the book, your reviewer took a few quick jabs to the chin, and one good right to the stomach; however, I found myself in some pretty important company.

A left to the chin hurts less if one of the referees in the ring is Aaron Montgomery Ward or Daniel Burnham. While Miss Wille makes some valid criticisms of the Chicago Park District, in other instances the blame directed toward that Agency alone should have been shared. In judging the actions of a public agency, the people of Chicago, their attitudes at the particular time, the pressures of the economy, and countless other factors must also be weighed in the judgment. For example, Soldier Field may well be a "Hippodrome," but it does provide a much needed home field for the Chicago Bears and a municipal stadium which is available for high school championship competitions and other non-professional games. The cost to participants is not prohibitive, since rental fees are based upon the individual team's ability to pay. The Chicago Park District is aware of the problems, but has yet to reach a solution which is agreeable to the public, city government, economy, landscape and the many other factions that must agree to proposed solutions which involve the entire city.

The gradual development of final plans through various private citizen clubs, not so private citizen clubs, altruistic committees and councils, not so (continued on page 16)
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trusive committees and councils, architects, modern city planners and politicians, usually results in development acceptable to everyone involved. What your reviewer noticed as inherent in this book is that the failure of the above groups to agree with plans made by those who the author has designated as "authorities," means it is the groups who are wrong; not the plans. No room is left for compromise, a necessary factor if anything, be it a road, a building or a park, is to be realized.

In conclusion, Miss Wille enumerates serious questions which threaten the future of the lakefront. Chicago has grown in all conceivable directions: North, South, West, Up and Down. The only undeveloped land which remains—the lakefront—has been preserved as open space by Chicagoans who cherished its aesthetic value more than its monetary value. Now, people who advocate monetary profit as the true measure of "growth" are viewing this land as a possible location for business, housing and private enterprise. Opposing these people are the conservationists, those who support the cultural need for open space and believe this land should be used for recreational facilities, park land, public boating facilities, a year-round fair ground, or anything which will allow Chicagoans to preserve their precious open space heritage.

(Personally, your reviewer strongly endorses preservation of open space.) To offset the argument of the advocates of monetary profit, Chicagoans and people everywhere who are the keepers of this nation's open spaces—must be made to realize that the recreational benefits of open space profit the entire society, while monetary profits accrue to only a few.

Everyone who cares about the development of land and its conservation will benefit from reading Miss Wille's book. Apart from the enjoyment the readers will derive from this story, they should also remember, heed and learn from the contents. Hard work, research, love and conviction have gone into the development and conservation of the lakefront, and Miss Wille has employed these same qualities in bringing the story to the public. What remains is for these qualities to be passed on to and accepted by the readers for their use in continuing and understanding the fight to keep Chicago's lakefront, "Forever Open, Clear and Free."
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FACETSI

PRESERVATION

TERMINAL CASE

Cincinnati's Union Terminal is everything its new Amtrak station isn't. First of all it's grand. Both the rotunda—spanning 180 feet and soaring 106—and the concourse are magnificent spaces. It manifests the touch of the human hand. It is richly garnished with murals, mosaics, bas reliefs, carved linoleum, Art Deco metal lettering, exotic woods, Vermont and Verona marble, patterned terrazzo, which, along with seating and other fixtures, reiterates the curve of the rotunda, and much more. Thirdly, in the marquetry representing the station's facade above the entrance to the president's office (below, right), it shows an astonishing and very bygone respect for architecture.

One can easily imagine the time when people did more than just "pass through." They paused. Think of it. They could stop by the newsreel theater, or send a telegram. They could buy toys or banana splits. They could have a good meal, or do some banking, read quietly in the plush lounges, or buy just about anything they may have forgotten to pack back in New York City or Buffalo.

The building, designed by Fellheimer and Wagner, is now in jeopardy because the Southern Railway System, a component of the owning Cincinnati Terminal Co., wants to destroy or alter its part of the concourse to make way for piggy-back freight operations. Preservationists fear that once the concourse is tampered with the rotunda won't be far behind.

With many good examples of railroad station rescue and reuse at hand—Washington, D.C.'s visitor and tourist center, Baltimore's college of art, to name a couple of the big ones—surely there must be a way of survival for this one too. The National Endowment for the Arts has surveyed the nation and found 49 stations in 26 states restored to useful life.

Some of the large scale ideas for the Terminal are that it become a branch of the Smithsonian, a STOL port, a high school facility, an art and music center, a transportation museum and an international trade center. But one hopes users will be found who can enjoy its more intimate spaces—the elegant shops, restaurants, offices, conference rooms and theater. Many feel that a collaboration among several users will have to be worked out.

One buoying factor is that there is such interest in the station reuse problem nationwide, that Hardy, Holzman, Pfeiffer Associates of New York City are conducting a $37,000 study of the problem with a joint grant from the National Endowment and the Educational Facilities Laboratories of the Ford Foundation. Hopefully their documentation of existing and impending reuse programs—which include conversions to doctors' offices, architects' studios, art galleries and a hunting lodge—will add weight to a proposed bill which, though languishing at present, could put many terminals back on the track of productivity and pertinence.

Besides admiring the mentioned delicacies of the Terminal, we've developed an almost unmentionable hankering for an Art Deco banana split which we are sure they served in the good old days. Anyone else with a sweet tooth for this building is urged to send ideas, encourage and anything else helpful to the Cincinnati who are working hard for the second life of this building.

RENEWED AGAIN

The nation's first urban renewal area, the Faneuil Hall Market area in Boston, was five acres of congested waterfront property when, in 1824-1826, it was acquired, cleared and redeveloped into a market complex by the city. Now 43 buildings on North and South Market Streets in that area are to be restored in a $2.2 million project which got under way with the installation of a block of granite by Mayor White on November 10th.

The restored buildings will be used for retail and specialty shops, restaurants and other commercial activity.

The project is being carried out by the Boston Redevelopment Authority as part of its Waterfront Urban Renewal Plan. It is a major link in the Walk-to-the-Sea that is part of this plan, as it provides the pedestrian connection between the new Government Center and the waterfront. This area will be the focal point of Boston's celebration of the Bicentennial.

Faneuil Hall served the city as a market and assembly hall since its construction in 1742, and, in the words of Mayor White, "It was here, in 1775, that brave men met to decide what course of action they would take in removing oppression and injustice from this tiny colonial outpost." He added, "What we are doing here is something more than a preservation of the past as a museum piece for the future. There is a need and purpose for these buildings. We think the Government Center, the revitalized business district and the growing residential community on the waterfront will combine to make the Market area once again the crossroads of trade and activity it was when Boston was a town."

Ada Louise Huxtable has said "Every mayor and renewal director, in every American city, large or small, should be exposed to what is being done in Boston." Forum will give you detailed coverage of the Faneuil Hall Market area developments late in 1973 after the completion of the first phase scheduled for August 1973. Architects for
this phase, which involves exterior restoration of the North and South Market buildings, are Stahl Associates, a division of Stahl-Bennett, Inc. Alexander Parris was the original architect for these buildings which will be restored to his specifications. The work includes restoring the original roofline, slating the roofs and reconstructing the granite exteriors.

JUNGLE WARFARE

Angkor Wat is the 12th century masterwork of the 60-square-mile city and temple complex of Angkor, where construction began ten centuries ago. Angkor was abandoned in the mid-15th century and almost forgotten until the French colonies arrived 400 years later.

A year ago, French archaeologist Bernard Groslier (who, like his father, dedicated his life to Angkor) was engaged, along with 1,150 workers, to excavate the site and restore 100 massive temples dug out of the jungle. Their archaeological work had been allowed to continue, although the city was occupied by North Vietnamese in June 1970 and used as a logistics base. Last January, Cambodian Communists occupied the temple, and late that month they turned on Dr. Groslier, killing some of his workers, arresting others and forcing the rest to flee.

The government launched a limited attack to recapture the national monument. To minimize damage, orders were issued against the use of artillery or small arms in the vicinity of the temples. The plan was to weaken the Communists with napalm, then to surround the complex and starve them out. This operation occupying 7,000 Cambodian troops, continued into late September, with no ground gained. The damage has not been catalogued but pictures smuggled out showed the collapse of supporting scaffolds.

When their work stopped the archaeologists warned that their efforts would be overtaken by decay in two years. Now almost a year has passed and there seems to be no possibility of resuming the 50-year old reconstruction work as long as the war lasts. Meantime, Dr. Groslier is working on other Khmer temples in Thailand.

The Parthenon barely withstood use as an arsenal, but it didn’t have to fight off a jungle. Its growth poignantly outpaces human wisdom.

TOWERING TROUBLE

The Italians are bending over backwards to save the Leaning Tower of Pisa which is not only leaning more than ever (a fifth of an inch in the last 34 months, a rate previously recorded for a four-year period) but is rotating on its base of water soaked sand and clay. Maybe it’s about time for the thing to pick itself up by its cracking arches and walk quietly into the sea one dark night soon.

But that would put the Committee for Vigilance for the Stability of the Bell Tower of Pisa out of business. It has offered a $10,000 reward for the most practical idea for the return of stability to the Tower or the arrest of the sinking water table. It has received, considered and filed over 3,000 suggestions.

Soon the Tower is going to be trussed into a harness of steel cables which will hold it up until and during an international competition (to be announced soon) for a plan to consolidate the soil underneath. The rules of the competition will forbid any external buttressing or changes in the area surrounding the cathedral or adjacent baptismery. And contractors will be asked to suggest something other than injecting cement into the base which has been done on and off with continuing controversy. Entrants will have a year to work out their ideas.

All we know about gravity—which almost began here as one story has it with Galileo dropping two unequal weights over the side of the Tower to refute the Aristotelians—tells us that the more the Tower leans the harder it leans. Maybe the authorities should reconsider their strictures and submit to an almost irresistible urge to give the Tower an elbow to lean on, maybe an air structure, an inflated slingshot forming a nice soft cradle.

That would seem less cumbersome than some of the proposals for reworking the foundations. An aerospace engineer from MIT, Yao Tzu Li, suggests placing a ring of concrete pads around the base of the tower underground and linking them to the original foundations by tensile steel and cable trusses to redistribute the pressures and drastically cut the rate of tilting.

Another American idea comes from Architect Arthur Everett Smith of Architectural Engineering Services in Pittsburgh. He wants to stabilize the subsidence by strategically placing refrigeration coils around the tower and freezing the earth’s moisture content. You might call this radiant cool and certainly summer tourists would be much obliged.

There must be many an engineer who would relish one part of this job: the Tower must continue to lean. It’s now more than 14-feet off from the vertical. And no one will be allowed to straighten it up more than an inch of a degree, because it, and maybe Italy too, would lose its identity.

And a bone is being thrown to the insurance industry. The winner of the competition, or whoever is authorized to take on the long range treatment, will be ordered to take out insurance against the Tower’s collapse during the reconstitution.

It looks like something for Lloyds of London. Never underestimate the power of a landmark, at least in Italy, which, increasingly, is living off its history as its industry slows down. In 1973 the current national budget for tourism will be tripled. Thus it’s not just for sentimental reasons that neither bells nor planes are pealing through Pisan skies. The Tower’s carillon has been silenced and Pisans have been grounded for the duration of this problem.

TRANSPORT

BOOST FOR THE MTA

Massachusetts Governor Francis W. Sargent, who has a degree in architecture and is a former State Commissioner of Public Works, has thus quite familiar with road building, has decided after a 33-month, $3.5 million study, to stop any further intrusion of expressways within Boston’s Circumferential Route 128. He has committed $2 billion on a mass transit program which may be trend-setting. This appears to be the first time a governor has put his full power behind public transportation rather than highways.

It may take eight to ten years for realization of his plans, which include provision for cars in large parking lots at the suburban end of an expanded rapid transit system, highway lanes exclusively for buses and airport limousines, and people movers. Many neighborhoods which would have gone down if the planned expressways had been built will now not only survive but also stand to be served by convenient transportation.

ENVIRONMENT

NAIROBI NEW U.N. HQ.

The new UN environment secretariat will be in Nairobi, according to a 93 to 0 vote with 31 abstentions in the Second Committee of the General Assembly. The full Assembly is expected to confirm this decision. It will be the first major global UN body located outside the industrialized Western world, and there are some, as the abstentions indicate, who aren’t too happy about it. All the major (continued on page 76)
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SCHUMACHER
You may know the story about Gertrude Stein's last words. If not, it goes something like this. Supposedly, Alice B. Toklas, her longtime companion, leaned over the bed, asking, "Gertrude, Gertrude, what is the answer?"—to which the great writer rallied, replying, "But Alice, Alice, what is the question?"

This came to mind recently when an architect friend invited me over to discuss, among other things, what kind of forum FORUM should be. He sat me down (rather up) in this antique barber chair in his living room, and proceeded to clip away at my preconceptions (some of which I didn't know I had).

One of these turned out to be what he called my high regard for the word "architect." This was quite a surprise. Although I like the word immensely, I try not to let my high regard show too much. After all, it might go to everyone's head.

My friend reminded me that many "architects" (especially younger ones) don't take the word "architect" seriously anymore, and he read off a list of things which "architects" are doing. The list included, as you might expect, urban designers and landscape designers, city planners and environmental planners, architect-developers and architect-builders. It even included "arcologists," "proxemicists" and (get this) "ecotacticians."

This was, of course, very heady stuff. Isn't it great, I told myself, that "architect" has become so resonant a word that practically anybody, anywhere, can grab the long-sought Grail and, having done so, flaunt it.

To be truthful (come closer), I have not seen the Grail, although I keep running into people who swear they have. The most deceptive are those who swear that no Grail exists. Their chief message seems to be that no message is possible, and they fall over themselves trying to get it across. Thing is, these missionaries of non-meaning are in terrific demand. They tote great social climbing gear, make fine faculty ornaments and, should fashion suggest it, they are always ahead of everyone else in turning the other chic.

I hate creating a tempest in your highball glass, but wouldn't it be a good idea (let me hear) if we all yelled out at least two cheers for "architect" and tried stretching the definition of that? Semantic hangups can be, among other things, entertaining. But they do little more than clutter up the evidence of architecture's reason for being. As Lewis Mumford is fond of saying, "You have to know less before you can know more." In that sense, "architect" is not a bad word to go back to. Who knows? It might be one way to get over our so-called crisis of identity.

This is serious business. Stresses are building in the society which the "architect" serves, and we must know what those stresses are before we can help resolve them.

Major institutions are changing, and we must know why before we can help inform that change. John Entenza put it this way, "Someone has bred a strain of termites which consumes concrete, steel and glass."

It may be tempting to think that "throwaway" architecture is the answer; or, as several people have suggested, that the "architect" must be as unheroic and hedonistic as everyone else. I don't think we can float for long on that kind of intellectual backwater, and the most unheroic among us will, before long, be those who so obviously enjoy wading in it.

It's going to take more than knee-high boots (and knee-high names) to get "architects" back on solid ground. That is where real-life people are—those who pay for buildings, live in buildings, work in buildings, walk by buildings, and look at buildings. That is where they shop, go to the movies, drop off the laundry, or grab a meal. That solid ground is where "architects" dare not fear to tread, and where they dare not fear to hang out their shingle saying "architect." It doesn't matter whether the office inside the door is a one-man office or a 100-man office. What we must start thinking about are the criteria of architecture, not only the tools of architecture. It is the only way that the architect, however collective that noun may be, will be able to ask for and get society's time of day.—WILLIAM MARLIN
It might be said that Philip Johnson backed into architecture. He started out as a critic and historian, leaving Harvard College in 1927 with an A. B. Only 21, and in no real hurry to work, he gallivanted about Europe, learning as much about John Soane and Karl Friedrich Schinkel as, say, about Walter Gropius and Ludwig Mies van der Rohe.

This experience in tow, and having really lived, Johnson settled down (sort of) at New York’s Museum of Modern Art in 1930, helping shape its Department of Architecture. In 1932, with Henry-Russell Hitchcock, he published The International Style: Architecture Since 1922, thus anointing what Alfred Barr had named. This little book, unlike many of the Bauhaus pamphlets, was not a polemic. Far from consecrating the International Style as some sort of monolith, the book acknowledged, if tactfully, that the triumphs of the 1920’s had reached something of an impasse. This impasse was not, as some have suggested, just politically imposed. It was, in many respects, self-imposed. And the Style’s key figures—Le Corbusier, Gropius and Mies—went on to think out and refine their own variations on the international theme, which is perhaps an even better word than style, looking back.

It was not until the late 1930’s that Johnson did something about being an architect. Repeated travels in Europe, especially Germany, had whet his appetite and, ever a lover of haute cuisine, he couldn’t stand staying out of the kitchen. So, he entered Harvard’s Graduate School of Design, leaving with a B. Arch. in 1943. This second stint in Cambridge was important for Johnson. Walter Gropius and Marcel Breuer were there, of course, but so were many of Johnson’s present day colleagues. GSD was a potpourri of talent. And Breuer, as much an alchemist as an architect, had a way of bringing the talent out. Johnson was part of the chemistry, and contributed richly to the mix. His own house on Ash Street, in Cambridge, the first one he did (1942), turned in on itself—taking off on Mies’ courthouse schemes of the late 1930’s. While the Ash Street house provided a quiet backdrop for the frenzied formulations of Johnson’s fellow-students, it also verified, before his graduation, how fully his “apprenticeship” in architecture had developed.

This so-called apprenticeship cannot, one feels, be called or, as has happened, be dismissed as just a Miesian one. True enough, Johnson “did Mies” from the 1940’s through the mid-1950’s when they
worked together on the Seagram Building. He had returned to the Museum of Modern Art in 1946 as director of its expanded Department of Architecture and Design, a position he held until 1954. He had done an exhibit about Mies and published a book about him in 1947. His own Glass House in New Canaan, Connecticut (1949)—the first of that marvelous cluster shown on these pages—was, for many, all too apparently, or transparently, Miesian. But it is not that easy.

Johnson, a discerning student of history, knew full-well that architecture, as of 1950, not unlike the early 1930's, was taking account of its precedents and of its future direction. Johnson chose not to thrash about. He chose self-assessment, not self-assertion. And he chose a congenial, if exacting conscience to talk to. Mies often insisted that there is no such thing as a Miesian style. Whether you buy that or not, Johnson took Mies seriously—enough so, in fact, that Johnson deliberately, if hesitantly, edged the Miesian boundaries outward. Whereas Mies innovated sparingly to simplify, Johnson innovated just as sparingly, but to enrich.

By the late 1950's, Johnson's spaces had acquired a tensile character; you could sink your sensory teeth into them. His materials were more tactile than detached; unlike Mies', they invited participation, not just observation. Structurally, the work remained spare. But overall, it took on a sentient, experiential quality. Something very important began to evolve in Johnson's thought, as indebted to precedence as he was. And that thought evolved around the notion of architecture as experience—as the structure of human interaction.

Although this was not really a new notion (it has appeared in the design of buildings, streets and cities throughout history), it was new when considered in scale with contemporary needs. Whereas Johnson's work up until ten years ago has been described by historian John Jacobus as "creative criticism," Johnson's work in recent years could be described as "social criticism." Jacobus has pointed out, quite aptly, that the earlier works were "infinitely more than the sum of several influences," resolving these in an intensely personal, even aristocratic manner. Johnson's presentday work, illustrated in this issue of Forum, is no less personal, but has taken on a distinct pro bono publico character. This is especially so in the large-scale urban schemes illustrated in the following section.

These works embody Johnson's idea of procession—*itself a pretty aristocratic word*. Connotations aside, procession has to do with a sequence of experiences, not just of space. It has to do with the feelings people have as they move from one element to another, whether those elements are within a building or between several of them. Procession is a quality of on-going connection; that is, a quality of experience. And it is, so to speak, the loom upon which Johnson is weaving today.

Glass House (upper left); Pavilion, 1962 (middle right).
Hence, an office tower is tied into the fabric of an existing streetscape by means of an expansive court where downtown activities converge—that's the Investors Diversified Services Center in Minneapolis.

Or a museum becomes a sequence of experiences, not just exhibits, lining a broad walkway, running through it, and covered by a crystalline canopy—that's his museum at Muhlenberg College.

Or a library addition defers to a Charles McKim precedent and to the sensitive scale of a street and square—that's the Boston Public Library job, just completed, a genteel gesture in granite.

In this spirit, Johnson's recent works may be thought of as points in space which contain all other points. Mathematicians call this point the aleph-zero. Jorge Luis Borges wrote about a house in Buenos Aires that had an aleph in the basement. According to Borges, the aleph, a little more than an inch in diameter, was a kind of periscope.

If you were clever enough to find it, and daring enough to look through it, you could find out or see almost anything.

Architecture is aleph-like in that it can supply points of reference, and meaning, at the same time that it fulfills various functions. For example, the IDS Center brings into focus so much which people have seen before, or taken for granted, sinking its roots into downtown Minneapolis while its reflective tower symbolizes that city's emergence.

IDS, as well as most of the projects shown in this issue, have been done in concert with John Burgee, Johnson's partner since 1967. After taking his B. Arch. at Notre Dame, Burgee worked in Chicago for Holabird & Root, and for C. F. Murphy Associates, with emphasis (too much, he recalls) on project management.

The story goes that Johnson was invited to submit a proposal for the design of Philadelphia's new airport; in turn, he invited the Murphy firm, which designed Chicago's O'Hare Airport, to collaborate.

Johnson did not get the Philadelphia job, but he did get John Burgee, and promised to let him "design." The tandem has worked out marvelously and, so reports have it, Johnson and Burgee are often seen working late into the night at the Seagram Building office—grabbing pencils out of each other's hand, flinging onion skin paper across the room, rarely talking, but communicating in what Burgee calls "mental sign language."

It may not be stretching it to say that the uptight character of the firm's most recent works is due, in good degree, to this give-and-take. For his part, Johnson remains the affable martinet—in contrast to Burgee's more relaxed manner.
Despite the diversity of the work, it is clear that a course is being steered, although Johnson resists the temptation to explain what that course is. He hates "profound statements"—in contrast, we presume, to "profound concepts," like procession.

Johnson will be 67 next July. Although, in a moment of irreverence, he once compared himself to an old goat pretending to swing, there's no pretending to be found. He may be a master of put-on, and has been called put-offish. But he is way ahead of most in refusing to put down the innately heroic aspect of his art.

In a period of nihilism, architectural and otherwise, he has insisted that architecture exists, and that it exists as an art. In a period of technological overkill, he has insisted that human values be respected. And, in a period of social disorientation, he has insisted that beauty, at every level of life, is an investment that society must make in the interest of both common sense and common purpose.

Johnson's frequent use of the word "monumental" should not be taken too literally. For him, "monumental" is not overwhelming. It refers, instead, to the size of mankind's spirit which, for all our emphasis on practicality, cannot be played down, or punched onto a computer card, or audited into oblivion. Don't get the idea that Johnson spends his time talking about mankind's spirit; he is, in fact, suspicious of overly moral appeals unless, of course, they are built ones.

Philip Johnson once suggested that there might be "a principle of lack of principles," and has always refused to be locked into, or content with, prevailing views—even if they happened, now and again, to be his own. Perhaps this is because he did back into architecture from history and realizes how fragile prevailing views are.

If such sentiments are out of sorts with the present day, it is because he holds fast to the belief that architecture's sole concern cannot be the present day, and never has been. Only when architecture evokes a sense of mankind's origins and destiny may our daily needs be fully satisfied, and in any sense "practical."

Philip Johnson has tried to draw that connection, and he has drawn it, as we have noted, in the perspective of past events. If he did, in fact, back into architecture, more architects might do well to back into history. That experience might be the ultimate form of procession.—WILLIAM MARLIN

FORM AND PROCESSION

BY PAUL GOLDBERGER

If Philip Johnson's work during the late 1950's and early 1960's can be characterized as a somewhat stiff, even decorative attempt to break away from the Miesian mold of his first years, his work since that time is notable for a freshness of form that confirms his movement away from Mies and his position as one of the most original as well as eminent architects in America today.

Johnson's most recent projects, designed with John Burgee, his partner since 1967, cannot be described in terms of any one philosophic approach as his earlier work was said to be so exclusively Miesian, despite the fact that his Miesian buildings (like the Glass House) were often strikingly different from Mies' own.

Such a mistake could hardly be made now. Taken as a group, Johnson's recent projects resemble neither Mies nor the work of any other architect alive today. He has broadened the range of his forms considerably, combining the historical allusions for which he has been so long known with a willingness to experiment with formal approaches as different as the irregular white mass of the Art Museum of South Texas at Corpus Christi, the monumental granite arches of the very ordered new wing for the Boston Public Library, and the "nonbuilding" of windowless Burden Hall—a small, largely underground auditorium for Harvard.

Yet these projects have a great deal in common, both with each other and with Johnson's earlier work. The sense of elegance, of refinement, that contributed so much to the making of Johnson's reputation is clearly evident in his current work; window placements at Corpus Christi are handled with the care that marked the detailing in the Glass House; the proportions of the central court of the IDS Center in Minneapolis are as carefully worked out as those of the foyer at the New York State Theater. But more importantly, what ties Johnson's current work to his entire oeuvre is its continuing concern, beyond form, for the organization of space—or what the architect himself has referred to as the element of procession. His early work was always noted for its attention to the control of movement, and that attention remains, reinterpreted now in new formal directions, but still strong.

This preoccupation with the sequential element in architecture could perhaps be seen as having played a major role in Johnson's assertion of a personal approach as he eased away from Mies. Henry-Russell Hitchcock has suggested that it relates as well to the shift in emphasis from individual houses to major projects, often on a multi-building scale, in Johnson's practice. In any event, Johnson set down this credo in Perspecta 9/10 in 1965, and his essay—which he entitled "Whence and Whither: the Processional Element in Architecture"—is as relevant in terms of his current work as it was then: "Architecture is surely not the design of space, certainly not the massing or organizing of volumes. These are ancillary to the main point which..."
The third-floor balcony overlooking the Crystal Court of the IDS Center (above) serves as a restaurant for the Marquette Inn, the Center's hotel. The octagonal shape of the IDS Tower rises across the court from the restaurant. The dining balcony can be seen in the center of the picture below, with another balcony containing a bar beneath it.
is the organization of procession. Architecture exists only in time ... The beauty consists in how you move into the space. Whence and whither are positive, not negative, architectural virtues which are basic to the entire discipline of the art.”

Johnson’s major completed work to date—and a project which admirably combines his and John Burgee’s current formal interests with his continuing preoccupation with the processional element—is the IDS Center in Minneapolis. A $100-million, four-building complex, IDS functions as successfully from an urbanistic standpoint as any grouping of its size (the office tower is 51 stories) could conceivably be expected to in a city where the average downtown building is less than half its size. But IDS relates intimately to its surroundings both at street level and one level above, where four new additions to Minneapolis’s second-floor “skyway” aerial crosswalk system literally tie the new complex to its neighbors on all sides. It is difficult not to contrast this project with Charles Luckman’s Prudential Center in Boston, where a similar program—office tower, hotel and shopping center—was handled in such a way as to isolate the project entirely from the surrounding streets, providing little in the way of successful spaces inside to make that isolation worthwhile.

At IDS, however, the space inside the site is, in effect, the central idea. The four buildings—the tower, a 19-story hotel, an eight-story office building and a two-story store—are grouped around a central covered court. Each building is accessible from the street as well as the court, and there are four entrances to the court right from the street itself.

Johnson has described the spatial arrangement here as “turning the Seagram Building inside out,” which, however flippant, is as fair an analysis as any, for the central space at IDS functions much like the plaza in front of Seagram: it is a public place which serves the dual function of providing civic space and enhancing the private spaces of the structures for which it provides a processional entrance. But at IDS, Johnson has moved a long way from Mies’ Seagram prototype: the IDS space rejects Seagram’s symmetry for a playful, active irregularity. There are no straight lines here, only diagonals, and the IDS court has none of the overpowering directional force of the Seagram Plaza, which pulls the visitor toward the front entrance. The forces in the IDS court are more subtle: they result from the tension between the entrances to the various buildings around the court and to the street, which balance well around the irregular space. An escalator to the second floor shopping level rises just off the center of the court, providing another focal element. The street entrances are irregular, too: the outside walls form funnels, or V-shapes, pulling the pedestrian off the street into the space.

The Crystal Court (as IDS has named the central space) is perhaps most successful in plan. But the space itself is an exciting, dramatic room, full of vertical as well as horizontal movement—the roof, made up of a pile of glass and steel pyramids, mounts toward the southeast corner of the court, reaching 121 feet at its highest point. The slabs of the tower and the hotel are visible through the glass roof, creating an inside-outside tension within the enclosed plaza. The court is ultimately like a great glass circus tent pitched in the center of the complex—and while it has the welcome excitement of that kind of space it also has the feeling of lightness of a circus tent, perhaps excessively so for a space that intends to be very much a permanent civic crossroads. Nonetheless it functions admirably, and on a recent visit before most of the center’s facilities were open, the space was full of pedestrians eager just to walk through.
Mirrored facade of the 51-story IDS Tower rises above the Nicollet Mall, Minneapolis' famous pedestrian shopping street (above). Second floor enclosed walkways, part of Minneapolis "skyway" system, connect the IDS Center with its neighbors on all four sides (right).
The Crystal Court acts not only as a symbolic civic space, shopping mall and pedestrian entrance to the complex but also, to a lesser extent, as an extended lobby for the 51-story tower and the hotel. The hotel—which Johnson calls "just the opposite of John Portman’s big-lobby hotels"—lets the Crystal Court function as its major space. Two of its three restaurants are set on second and third floor balconies suspended over the court, and hotel guests tend to linger in the court as they would in a lobby. There is, in fact, no separate lobby as such for the hotel—guests arriving on foot or by car are whisked up the elevator to a small reception area off the third floor, which leads to the restaurants.

The hotel itself, like the Crystal Court, is most interesting in terms of plan. The rooms on each floor are set back sequentially, so that the corridor assumes a zig-zag shape. The device is striking: the hallways here are perhaps the first enclosed hotel corridors anywhere which manage to be interesting spaces in their own right, and their success is achieved entirely through plan. There are no new functions added (such as in hotels where the lobby is open to the roof and the corridors double as balconies) and the decor is low-key and obsessively repetitive, as if in deliberate contrast to the variety in plan.

The rooms themselves are generously large for a contemporary hotel, and the zig-zag plan gives most of them a corner window with a view down Seventh Street. The interiors are sleek, and the piece de resistance is a copy of an Andy Warhol print in every room—a gesture as successful as it is unexpected. (It is difficult not to feel that putting Warhol prints in Minneapolis hotel rooms was an act of more daring than putting a 51-story tower on a Minneapolis city block.)

The office tower echoes the zig-zag theme of the hotel plan. Its shape is basically octagonal, with eight small setbacks along each of the four diagonal sides to provide 32 corner offices per floor. The shape is effective in terms of reducing the large mass of the tower as seen from afar, and it also functions well in relation to the plan of the complex at ground level: the diagonals play a major role in shaping both the interior space of the Crystal Court and in forming the "funnels" which induce passersby to enter the Court from the street.

Despite the new shape, the building is, in many ways, descendant of Seagram. The elevators in the tower (as well as those in the hotel) echo the steel and copper wire pattern of the Seagram elevators, which by now has become a virtual Johnson trademark. And as at Seagram, the lobby is two stories high, with travertine walls washed by quartz downlights. The elevators are in line with both the tower’s street entrance and the Crystal Court entrance beyond, avoiding the useless 90-degree turn so common in office towers, another borrowing from Seagram. The overall effect of the tower is one of consummate elegance and taste—recalling, in this sense, early Philip Johnson as much as his current work.

Johnson used mirrored glass for both the tower and the hotel here. The mirror effect is made more complex through the use of a 2’6” module on the office floors, a successful device which creates a cage effect in the facade. Johnson has been experimenting with alternatives to the standard five-foot office module—“which I am so sick of,” he says—since Asia House, of 1960, and hit upon the present size as an ideal way to break away from the standard and provide an active enough facade to offset the mirror effect.

The program is somewhat more limited in scope at what will be Johnson and Burgee’s second major skyscraper project, the twin-towered Pennzoil Place now under construction in Houston. Here, the clients wanted only a major office structure and, uncharacteristically for Texas businessmen, were not in-
Pennzoil Place will clearly be a major visual element in Houston, as this photo superimposing a model of the project over a view of its neighborhood shows (above). The seven slanted-roof floors at the top of each tower—perhaps the only high-rise office space ever designed to look like a garret—have rented quickly. Steel and glass truss frames create a greenhouse-like effect in the lobbies (opposite).

Johnson based the Pennzoil plan on the same principle that is behind the IDS design: he filled the site with the building and created a monumental interior lobby-plaza. "Our point here is that in a city, what's left over in front outside has no meaning," Johnson has said. "And when we fill the site, we can get away without as much height."

The plan here is based on simpler geometries than at IDS. The two towers are each trapezoidal in shape, placed so as to leave two triangular areas open on the site. These are covered with steel-and-glass truss frames which create two vast, greenhouse-like spaces. These interior plazas connect through the narrow slit between the two towers, which are not themselves joined at any other level. Elevator lobbies for both towers open off the plaza court which, as at IDS, also serves as an urban passageway connecting opposite streets.

It is the overall form of the buildings, though, that is most worthy of note here. Both towers have slanted roofs which begin at the 29th floor and continue up sharply to peak at the 36th floor. Johnson has planned a 40-ft. high conference room for Pennzoil to occupy the top floors of one of the towers, and much of the rest of the slanted-roof space—perhaps the only high-rise office space that has been designed to look like a garret—has already been rented to tenants.

The formal basis here is clearly Johnson's sculpture gallery at New Canaan of 1970 (page 27), which marked his first experiments both with sharp, projecting diagonal forms and with a greenhouse-type roof. Yet at Houston, Johnson has taken these forms and applied them to an altogether different problem—that of breaking out of the Miesian box of the skyscraper vernacular. The size here is so enormous as to make the slanted roofs appear, at first glance, almost a bit grotesque; all of the
sculpture gallery itself, which is such an important antecedent, could fit into the massive “garret” with ease. Yet these angled towers will breathe more than a little life into Houston’s dull boxy skyline, and the spaces inside the garret floors may well be more interesting, if not more versatile, than any high-rise rental space yet constructed. Pennzoil is surely a more effective means, from an urbanistic standpoint, of breaking out of the box than Skidmore, Owings and Merrill’s sloping-facade towers of the past few years. Its sheer walls respect the street, its scale at street level is modest and attuned to the surrounding street life (what little of it there is in Houston), and the dramatic, monumental spaces of its glass-enclosed plazas do not overwhelm neighboring structures but huddle, almost hidden from some angles, between the two towers.

Johnson’s attempt to break away from the glass slab for both formal variety and better urbanism is evident in two other major projects, neither of which, unfortunately, appears likely now to be built. The skyscraper for Lehman Brothers (page 40), which was designed in 1970, was to be set on a tightly constricted site off Broad Street in New York’s financial district (it is now a parking lot). At IDS, Johnson avoided the box by creating a zig-zagged octagon; at Pennzoil, he sliced off the top at a sharp angle; at Lehman, he doubled the corners, placing a V-shaped indentation in each of the four corners of the 41-story tower. Here, as at Minneapolis and Houston, the skin is stretched taut, with narrow mullions providing an intricate, almost delicate, pattern over the vast expanse of glass. Although the Lehman Brothers project does not fill its site as completely as do IDS and Pennzoil, it, too, rejects the Seagram-type plaza which still sees such frequent (and inept) imitation, in favor of an inward focus. Here, Stone Street, a narrow byway running between the tower and a small adjacent eight-story wing, became a galleria-type passage, slid under a projection of the main tower and lighted from above; the cantilevered floors of the projecting wing on the galleria side do not begin until the 19th floor to allow sufficient light to pass beneath.

Also never built was Logan Towers, a double-towered complex slated for Logan Circle in Philadelphia. The project (page 41), which was to contain a hotel and a condominium, with apartments priced up to $135,000, shares with Johnson’s other recent high-rise structures the thin, carefully detailed mirror-glass skin as well as a central plaza, although here the plaza space was to be left uncovered. The massing of the Logan complex is a curious cross between 1930’s setback design and Johnson’s current use of diagonal forms; the buildings set back in steps and, with each consecutive setback, turn slightly around a corner. The end result is a grouping that turns its best face toward an existing, and venerable, open space—Logan Circle—by stepping down toward it, as it inflects in its overall massing toward the Benjamin Franklin Parkway beyond.

The processional element is, clearly, a unifying theme in all four of these projects. In each case the entrance becomes a major part of the architectural statement, and sequential movement is carefully controlled; one might almost say that Johnson is as concerned with the order in which things are experienced as he is with the things themselves. He feels strongly enough about this processional theme to say it “outlives the forms” and indeed, considering the new forms to which he has recently begun to apply his familiar processional principles, this can hardly be denied, at least in terms of his own work. The processional notion is relevant as well in a number of projects much smaller than the aforementioned skyscrapers—particularly, his recent small museums.
Johnson and Burgee's 1970 design for Lehman Brothers headquarters in New York's financial district was an early attempt to break out of the glass box. The project's central space was a galleria-type arcade, linking ends of narrow Stone Street (see plan above). Cantilevered floors extended out over the galleria (left and above).
Philip Johnson has been noted as a museum architect for some time. But with the exception of the new wings and sculpture gardens for the Museum of Modern Art—and his own museums at New Canaan (pages 30 and 31)—Johnson's museum work has dated largely from his middle period, of which the classicizing forms and perhaps overly delicate detailing of the Sheldon Art Gallery at the University of Nebraska are typical. Two new museums and two college art centers bring his museum oeuvre up to the present. At least three of these—the Art Museum of South Texas at Corpus Christi, the Roy N. Neuberger Museum of the Visual Arts at the State University of New York campus at Purchase, and the Muhlenberg College Fine Arts Center—are worthy of an extended look.

The museum at Corpus Christi opened last October, just after Louis Kahn's Kimbell Art Museum opened at Fort Worth; the double event led to some unnecessary comparisons. Johnson's museum (page 42) is as much a community art center as anything else. Unlike the Kimbell, with its collection of old masters and extensive research facilities, the Museum of South Texas has no permanent collection at all. It is a small building, built at a total cost of $1.3 million.

Despite its size, the museum may well be Johnson's most significant recent work, and it is surely the most interesting in terms of the formal directions in which it suggests he may move. The museum is a sharp, crisp, all-white building, beautifully sited just at the edge of the water. Its geometric forms slide together in perhaps the most sophisticated use of the diagonal in all of Johnson's current experiments with form. The museum owes a certain debt, as with much of Johnson's recent work, to the sculpture gallery at New Canaan. Here it was not the greenhouse roof that was picked up but the sense of sharp, angular forms in tension...
The crisp, all-white form of the Art Museum of South Texas, sited just at the edge of the water in Corpus Christi, owes some formal debt to Johnson’s sculpture gallery at New Canaan, but is clearly a major work in itself. The opening exhibition last fall featured, among other works, Andy Warhol’s series of flowers (right). With one another. The gallery is an all-white building too, suggesting comparison with the “pure esthetic objects set down in the landscape” (to use Reyner Banham’s term) of early Le Corbusier, or perhaps with much of Richard Meier’s current work. But at least as relevant a comparison is to Charles Moore’s Sea Ranch, of 1965, a casual, almost slapdash structure of wood without the elegance of early Corbu or Meier, but with sharply sloping roofs whose diagonals surely prefigure the overall forms of the sculpture gallery and the museum at Corpus Christi.

In terms of the plan and interior space, however, the buildings at New Canaan and Corpus diverge sharply. The sculpture gallery is a spiral plan, with irregular, sharply angular display areas pivoted downward around a central space, like a small, crystallized Guggenheim. At Corpus Christi, the sense is much more of separate rooms: there is a main hall, which doubles as an exhibition area and central space, an auditorium, a small side gallery off the main hall and another separate exhibit gallery upstairs. The upstairs gallery—lighted by skylights and reachable by a 60-foot bridge (page 44) which doubles back over the main hall—is probably the most versatile, and conventionally successful, exhibit space.

The interiors, like the exterior, are all painted white here. Daylight is handled flamboyantly—dangerous in any building under the bright Texas sun, let alone a museum. But it is all to the good; as in baroque churches, light washes down from several clerestories, and an enormous square picture window, facing directly onto the bay, is a main feature of the central space. The effect of the window—which is of smoked glass, to darken it in contrast to the brighter light streaming down from above—is to frame the scene on the bay, freezing the movement of the passing boats, and rendering the ordinary bay activity which local visitors never glance at outdoors. It is a picture in itself.

Johnson restricts his adventures with light to the main hall; the two exhibit galleries are left with more conventional lighting. The main hall, which is probably the least versatile exhibition area, may well be as good a medium-sized space as Johnson has done. The room has no strict axes; it is a central gathering place, more or less, for the forces beckoning the visitor toward the window on the bay at the far end, to the low exhibition gallery, to an alcove area, or to the stairway beside the entrance. The stairway curves upward past a Ronchamp-like landing awash with light to the long bridge leading to the second floor exhibit space. The experience of walking along the bridge’s promenade adds a sense of excitement and anticipation as the second floor gallery (which could have been reached more easily, but happily is not) is approached. And it adds considerably to the experience of the main hall’s space itself.

The museum at Purchase, N.Y. (page 46) is clearly a product of the same concerns which motivated the Corpus Christi design—providing an interesting series of gallery spaces which come together to create a successful processional experience for the visitor, yet without using overwhelming forms or scale. Purchase is, however, a slightly earlier solution to the problem. It is, like Corpus, a clean, almost abstract geometric form,
The upper gallery room at Corpus Christi is reached by a long bridge which crosses the main room, creating one of Johnson's and Burgee's best interior processional sequences. But the form here is a simpler one—just boxes carefully slid together. The overall effect is one of a much more matter-of-fact building than at Corpus—for which reason, it might almost be argued, this building should be placed farther from and not nearer to Johnson's early work than the museum at Corpus Christi. In any event, it is the plan that is most interesting here: a 300-ft. central corridor runs the length of the building, and small galleries open from it, alternately to the left and right, like a crankshaft. The dimensions of the galleries vary considerably, even to height, but the corridor, which functions as a sort of interior street, unifies them all.

The interior street idea is behind the plan for the Arts Center at Muhlenberg College, not as yet under construction (page 47). Here, though, the street is a major space unto itself—it is a glass-covered galleria unifying a number of different-sized boxy wings set along its length at 45-degree angles to their axis. Here the corridor also slopes downward, following the contour of the site.

In view of his current formal preoccupation, one might almost go so far as to suggest that there is some sort of "new" Philip Johnson. However refined and studied the current projects are—the sculpture gallery at New Canaan, the museum at Corpus Christi—they seem unlikely descendants of the Glass House, the New York State Theater, or the Sheldon Art Gallery. One is hard-pressed to attribute many of the newer projects to the same worldview that motivated Johnson's earlier work, the notion, as a cynic might describe it, of the world as some sort of esthetic playpen. Surely if even forms thought to resemble those of Roche, Stirling and Moore, could enter Johnson's work, they must, after all, signify something.

If anything, though, it signifies plus ca change . . . more than anything else. For Johnson's mind—which Vincent Scully once called "admirably lucid, unsentimental, and abstract"—has always been an extraordinarily open one, eager to receive, to sift, to assimilate. His forms have always been highly sensitive to what has been going on around him in the current architectural scene. It is natural that over the past few years, when American architecture in general has undergone so many changes, Johnson's litmus-paper drafting board should take notice of them. Nonetheless, Johnson's main preoccupation has not really shifted at all. He remains concerned with architecture as an art, and if today he would not quite prefer "to sleep in Chartres Cathedral with the nearest toilet two blocks away than in a Harvard dormitory with back-to-back bathrooms" (as he told Harvard students in a 1954 speech), it is only because he has, over the years, grown at least a little more practical. (He admits to an
extreme fondness for the plan of a Robert Venturi house in which the front vestibule is used as a laundry room, for example, and he has given up all pretense of pretending that the Mies chairs in his house are even remotely comfortable.) But it is still monumental architecture which fascinates Johnson, and to which he aspires; it is ironic that he has, on occasion, begun to turn to the forms of consciously anti-monumental architects to achieve this. But he has taken these forms and refined them into something really quite different—inside the casual exterior of the sculpture gallery, a grand, powerful space; inside the almost slapdash Texas museum, an intricate spatial sequence. These buildings are, in the end, pure Johnson, as much as the Glass House itself. It is typical of Johnson's mind that he sees monumentality where none is expected or intended; his own definition is inclusive enough so that his pleas for a more monumental architecture are never prescriptions for a more traditional architecture.

Johnson's current work is not without its more traditionally monumental examples, however. Two major projects nearing completion—both libraries, and worth comparing—are built around massive interior courts, one twelve stories high and the other six. More than anything else discussed, these buildings fit what seems to be the current public image of Johnson's buildings as monumental sculptured masses. The Elmer Holmes Bobst Library for New York University, which was designed in association with Richard Foster, is a huge, 12-story mass of red sandstone (page 49) which sits at the southwest corner of Washington Square. The library is planned around a central 100-ft. square court, which rises to the full 150-ft height. It is elegantly detailed, though perhaps much too lightly in contrast to the weightiness of the exterior. The main decoration is the array of stairways which form a diagonal pattern up one side of the vast space. Johnson has intended the court to become "a symbolic space that will say NYU the way McKim's Low Library space says Columbia." He admits that Low Library has never been noted for its functional success, but this problem seems to trouble him less here than in so many of his more recently designed projects. Indeed, Johnson's defense of the Bobst Library design is more typical of his writings and talks on architecture in his early years of practice than it is of his more recent statements: "I think we've gone too far the other way in reaction to McKim, to Low Library. You need something more than utility in the design—something to make you think more of the library. The utilitarian aspects of the library will adapt themselves."

The library is part of Johnson and Foster's master plan for NYU which, in view of the university's financial crisis, will probably never be completed. But while the red sandstone facing, which may be the most positive aspect of the library's exterior, will in all likelihood never come to cover the entire campus, it has been used in a number of other new Johnson buildings for NYU. Perhaps the most successful is the Hagop Kevorkian Center for Near Eastern Studies (page 49), a crisp, clean building that achieves urbanistic success through its streetside scale. Ironically, the strong, abstract composition of Kevorkian's asymmetrical granite facade gives that much smaller building a monumentality that is at least as powerful, and surely less strained, than that of the library.

Also virtually complete now is the addition to the Boston Public Library (page 52), the first designs for which date, like those for the NYU library, from 1964. The challenge here was at least as difficult as at Washington Square: to provide a major structure that would complement, but not overpower, Mc-
Kim's Public Library (1888-95), a building which Johnson himself has called "the finest public building in the United States."

The solution is a complex building which looks like a simple one. The facade of bold, simple shapes in complex combination echoes the classicism of McKim's Renaissance palace and symbolizes, through its glass expanses and the long spans of its arches, the technology of today. The continuation of McKim's cornice line, the duplication of his pitched roof and the use of the same material in the new building as the old all counteract the natural tendency of the new library's large scale to overpower McKim's facade, and the result is that the two buildings coexist with considerable success. Their compatibility is not based upon the easy solution of imitation, but on a much more subtle attempt to reproduce McKim's spirit in a kind of modern geometry. The forms of the facade bear only minimal relationship to the functions within, although they do express interior use somewhat; their main intent is clearly to relate to the McKim facade.

The simple geometries of the facade are echoed in the plan, which, recalling Johnson's Munson-Williams-Proctor Institute at Utica in 1960, consists of nine squares. At Boston, however, the squares are of equal size, and the central square is left open to the roof, where the skylight repeats the nine squares theme; the small glass panels, set within it, echo the triangular windowpanes in the original library. The central court is bigger than any circulation space in McKim's building, but Johnson's ability to control scale is clearly apparent, and the room is never overpowering. Here once again as at Utica, Corpus Christi, Minneapolis and NYU, Johnson has made the primary thing the act of transversing—rather than simply perceiving—the great central space. A splendid double staircase, taut, sharp, almost industrial-looking, makes its way up both sides
At the Fine Arts Center for Muhlenberg College, Johnson and Burgee made an interior street out of the central corridor (above). Wings housing different functions—theatre, recital hall, museum, studios, classrooms—open off the central space at 45-degree angles (above right).
The Albert and Vera List Art Building for Brown University, built on what Johnson has called an "impossible site," is a sort of propylaeon to Brown's hilltop campus. The tall building is only one room deep; exhibit areas are in the lower floors, with painting studios at the top.

From the court, virtually all of the public areas of the building can be seen; there are no secret spaces in this plan. The court also makes a number of the building's formal themes more comprehensible: its walls slope inward above the third floor, repeating the angle of the slope of one story of the facade; and the pattern of the stairs rising against the far wall of the court echoes the silhouette of the pitched roof.

Johnson began his career by opting strongly for the role of artist-architect. And despite his reputation as a major figure in the architectural establishment of today, he has more or less kept to that artist's role. If he is not the most daring of experimenters, he is surely even less the development-oriented corporate architect. His concerns, as discussed above, remain those of winnowing and refining ideas.

The last several years have not been without their major, multi-building commissions, however, and it is interesting to observe that Johnson's concerns on an urban scale are notably similar to those in his single-building projects.

His most significant effort at urban design, the 1968 Urban Development Corporation's plan for New York's Welfare Island (page 60), is a complex but comprehensible sequence of urban spaces, containing a covered galleria, a twisting Main Street, and two important outdoor civic squares. The island town, unlike the rest of New York City, emphasizes its waterside location; the housing—of which 5000 units for low, middle and upper income groups were planned—faces the water, as do the two major outdoor spaces, the "Town Square" and the "Harbor," which are connected by the galleria arcade to form the town center. The town was intended to function with minimal use of automobiles, and the plan provided a remarkably varied array of processional experiences for
Hagop Kevorkian Center for Near Eastern Studies (above), an academic building for New York University, sits at the edge of Washington Square, as does the Elmer Holmes Bobst Library (left). Both N.Y.U. structures were designed in association with Richard Foster, with whom Johnson prepared a master plan for the University. The library is planned around a central court which rises to the building's full height of 150 feet.
Burden Hall at the Harvard Business School (above) was designed as a simple "nonbuilding" largely because, as Johnson has said, "there were too many 'building-buildings' around." The auditorium is divisible into sections (see plan), and it is mostly underground (bottom). With 1,000 seats, it is the largest auditorium at Harvard University.

The pedestrian. Its ultimate success would, of course, have depended upon the architecture of the specific buildings, which was not Johnson's responsibility; nonetheless, the plan provided a groundwork that would have made it difficult for the community to really fail architecturally.

The future of Johnson's various urban design schemes ranges from the almost-certain-to-be-built all the way to projects that will probably never get beyond the model stage. Welfare Island is now underway, although that project has not been kept precisely to Johnson and Burgee's plan. Franklin Town—a major development for Philadelphia, the spine of which is to be a thousand-foot diagonal avenue culminating in a park (page 62)—remains uncertain, as does the New York State Office Building complex in Harlem (page 63), where the spaces between a group of buildings of varying success individually come together to form a superb block-long processional experience of changing heights, directions and scales. Definitely dead, unfortunately, is the Broadway Junction project for Bedford-Stuyvesant, Brooklyn, a multi-level complex of transportation nodes and retail space with a thousand-foot long promenade (page 66) that was to be covered with a series of glass tent-like roofs which prefigured the use of glass at Houston and Minneapolis.

History generally judges architects by their completed works, not by their projects and dreamschemes, and it is ironic that much of Johnson's urban design work will probably not pass beyond the design stage. For despite its formal origin in Johnson's processional studies, it indicates, especially at Welfare Island, a clear understanding of larger urbanistic concerns.

These concerns have been delineated powerfully, even lovingly, by Philip Johnson—an intensely urbane man who began studying history, and who has ended up making it.
The addition to the Boston Public Library is, like the Bobst Library at NYU, built around a central court (see preceding page). The facade (opposite page, above) echoes the classicism of the original McKim, Mead and White building. The plan is more frankly classical (below), consisting of nine squares, including the court. A typical square is the reading room with open stacks (opposite page below).
It is a milestone of sorts to be invited from the provinces to speak in America's first city of architecture. For fifty years I have been coming here from the second city (or shall we call it the third or fourth city today?) to admire your three generations of architecture. In no other city of the world in the eighty years from 1885 to 1965 could one see buildings comparable to those here of H. H. Richardson, John Wellborn Root, Louis Sullivan, Frank Lloyd Wright, and Mies van der Rohe.

I keep asking myself: What have you got that we do not have? Why did Richardson do his best work here? Why was Mies so "at home" with you? It can't be Mayor Daley, even he is not old enough. Is it your wind? your cattle yards? Fortunately, for the art of architecture, we do not need to know why—only to be thankful.

My simple theses are three: One, that in spite of non-architectural and anti-architectural movements that extend even to our schools of architecture, we nevertheless have an art of architecture.

Second, that the anti-art movements so popular now are really crutches to keep us from facing the real problems of creative art; the easy solutions instead of the hard realities; third, we have an architecture today comparable to other times—architecture of the kind defined by Le Corbusier: "Architecture, c'est le jeu—savant, correct et magnifique—des formes sous la lumière." Architecture is the play of forms under the light—a play of forms—wise, correct, magnificent. We still have a monumental architecture. To me the drive for monumentality is as inbred as the desire for food and sex, regardless of how we denigrate it.

All cultures that can be called cultures have built, and all that have built have built monuments—that is, buildings of unusual size and expenditure of effort that have roused pride and enjoyment as well as utility. I think of the chiefs' huts of straw in Central Africa. I think of the Great Wall of China—buildings all the way from Chartres Cathedral to the buildings in my hometown of New London, Ohio, with its trinity—Post Office, High School, and Carnegie Library. From Versailles to the Farnsworth House, you could even live in monuments.

Certainly civilizations have been remembered for their monuments and, in some cases, only for their monuments. Who, for example, were the people of Teotihuacan? No writing, no name even. Who knows even who they were? Only that they must have been a great people, otherwise how could they have built such a very beautiful city? We revere them for their monuments. Who, for example, were the people of Tehuacán? No writing, no name even. Who knows even who they were? Only that they must have been a great people, otherwise how could they have built such a very beautiful city? We revere them for their monuments. With the honorable exception of Chicago, no one is going to remember us for our buildings. Perhaps for our broken concrete roads or our twisted rusting steel skeletons; but, unlike Cambodian Khmers for their temples or the Moguls for their palaces or the Romans for their forums, we will not be remembered for our buildings.

I have chosen the "bad" word "monument" intentionally to stress the attitude behind architecture as an art with its own reason to exist as against the attitude that architecture is a servant technique for aims outside itself.

The semantics of the word "monumentality" is funny. It is never used in common parlance except in a pejorative sense. Monumentality in architecture spells wasted space, wasted money, pompous facades, empty central courts, forced axial symmetry, false stone veneer—which ever crime against the modern canon one chooses to ascribe to it.

Look at it another way. I use the museum as an example. The uses of monumentality are legion. Ironically, but aptly, functionalism actually demands monumentality in an art gallery. 1) Pictures hardly ever need a ceiling over 10 feet high, yet most paintings look crushed in such a low ceiling room. 2) It is hard to hang pictures in a central court, but orientation of the visitor is a requisite for enjoyment of a museum. 3) Pictures do not need grand rooms, but the general public won't often visit an art museum in a loft building—the case of the Museum of Modern Art notwithstanding. A museum can function on the lower floors of an office building, but most of us agree it should have more gracious, ample, identifiable—in other words, more monumental—quarters.

Another example of the usefulness of monumentality: there is no plaza in modern business architecture more monumental than the granite plateau in front of Mies' Seagram Building in New York. It is a contrast indeed with informal plazas we see more and more of, with kiosks and benches and seats and sitting groups. It is stark, uncompromising, and Mies actually felt that the pools of water should touch the marble ledges so that people would not try to sit on them. The exact opposite happened, and the New York Times ran an article by our most ecologically-minded writer on architecture, William H. Whyte, that demonstrates that Mies' plaza is the most useful one in New York for sitting, shmoozing, eating, and other pleasant urban habits. He says it "is one of the great urban places of the world, as significant as the Piazza San Marco in Venice." Ah, the uses of monumentality.

But often architects know not what they do. They make artistic monuments and think they are being severely technological. Witness Le Corbusier: he spent no creative time on the machine-to-live-in he preached and a great deal of time on painting pictures and utilizing the formal results for his formal architecture.

The best example of this schizoid attitude toward art was
the architecture of the twenties, that decade of the International Style development.

In those days about a half century ago, the battle lines were roughly similar to our own. I remember the grouping. There was CIAM, with the critic Giedion and the prophet Le Corbusier as intellectual guides. There were the Communists, Marxists, extreme leftists with political axes to grind. There were "pure" (shall we say) architects like Mies van der Rohe and J. J. P. Oud in Holland with the traditional view of architecture as an art. In all groups there were excellent designers. Even Erich Mendelsohn, who belonged to no group, trying to be a modern businessman architect, was a good designer. The battles were glorious. Hannes Meyer as director of the Bauhaus was dismissed for having too many Communists around. Mies was criticized for using wall to wall silk curtains in his interiors and for using book-matched marble slabs in the Barcelona Pavilion. Gropius worked hard at the aim of the day—designing minimum dwellings—Wohnungen fuer das Existenzminimum. Mies thought
meaning. His designs for mass housing were elegant. When asked what his solution was for housing, since obviously his were expensive, he replied: Why don’t they give the workers more money?

But for all the differences in ideologies throughout the 20’s, there were great architects. One of the great was Hannes Meyer, who believed in political not artistic inspirations for his work, yet in his design of 1927 for the League of Nations competition, he made further strides in the art of architecture than even Le Corbusier. His isometrics, his arbitrarily broken-up massing of glass-clad elements has more to do with English modern, let us say, than with the International Style cliches of Le Corbusier’s entry. Hannes Meyer could design monumentally though he was ideologically against monuments.

Similarly today the architects of the Pompidoglio, as the French call the arts center M. Pompidou ordered built at Plateau Beaubourg in Paris, Messrs. Piano and Rogers, claim they wish to build no monument, just a place for the French people to visit. Fortunately, they are
also building an architectural monument. The design, which won the prize in an international competition (I was on the jury) is at first glance very ordinary—just as if Piano and Rogers were correct—namely, that it is non-architecture. It looks much like non-design, a factory—a hulk of steel and glass without distinguishing features, just the opposite of what we have come to expect as modern design—expressive cantilevers, sloping walls, 45-degree angles in plan, etc.

It is reported that President Pompidou, who is devoted to modern art, was disturbed at the crudeness, the lack of obvious design features. We in the jury, on the other hand, were charmed. It is a new kind of loft building built, instead of in the great American idiom of cast iron, in steel framing with huge exposed trusses and exposed water-filled pipe columns, five feet in diameter. The system is further decorated with exposed escalators, enormous mechanical ducts. Great 150-foot spans on the empty ground floor create rooms without glass. The Pla­teau Beaubourg is a sophisticated updating of the Crystal Palace of 1851. Paxton may have been a greenhouse designer, but he almost made architecture. Piano and Rogers think they are factory designers, but they have designed a work of architecture in the great iron Eiffel Tower tradition of the French nineteenth century.

We still have good architecture. In nostalgic architecture circles, it is fashionable to talk of the past as the good old days. No one likes it more than I. After all, I was there—in the great times of Mies, of Le Cor­busier, of Wright. It is fashionable now to claim there are no successors to them as artistic revolutionaries, as form givers, as founders of a new style of architecture. So fashionable indeed are the 20's, that many of our younger designers make direct allusions to Le Corbusier and Gropius in their work. Rich­ard Meier's elegant houses come to mind.

I believe (and again, I was there) that it was not better in those old days: it was different, yes. The fact is that the old masters lived in revolutionary times and that we do not. That alone does not make all of us mere epigones, mere shadows of the masters.

It would be interesting to try to pick out of the last decade post-International Style buildings as exciting as the early works, let us say, of the 20's.

Admittedly it was easier then. The International Style covered very few years, and was very easy to recognize because it had such a restricted palette. It was not a rich style, it was not decorated, it had no sloping roofs or shaggy surfaces. It was not a lot of things. And it had easily recognizable leaders. Le Corbusier with his Cubist background and Mies with his Dutch De Stijl background were already, by 1922-50 years ago—clearly in the vanguard.

When Russell Hitchcock and I were forced to choose eight outstanding modern architects for the exhibition at the Museum of Modern Art 40 years ago, part of the job was quite simple. We were to pick four non-Americans. And, out of misbegotten nationalism or, rather, a desire to encourage lagging American design, we arbitrarily decided to include four Americans.

The Europeans picked themselves: Gropius, Mies, Le Cor­busier, and J. J. P. Oud. Each we knew through a great building: the Bauhaus, the Barce­lona Pavilion, the Savoye House, and the Hook of Holland housing group. We visited all of them, except of course, the Barcelona Pavilion, the only building that we can judge by pictures and plans.

We had more trouble with the Americans. The Interna­tional Style here was an import. And by trying to play Procrustes, I got into trouble. Frank Lloyd Wright, I blush to admit, I thought was the greatest architect of the nineteenth century, an historic figure but out of touch with modernity. He was included nonetheless. Next I put Richard Neutra, an Austrian, the only International Style practi­tioner amongst us. A question­able choice. Schindler, I feel now that I have seen more, was at least as great an architect. Next I put Raymond Hood; not a design innovator but an astute planner. His personal solution of Rockefeller Center, buried as it was under committee decisions (Rockefeller Center was equalled in smothering ability only by Lincoln Center), was a brilliant diagonal cross­roads plan worthy of any new city center design of the 70's. Last, I chose the Bowman Brothers of Chicago, a very young International Style-minded team who made seductive sketches. I had no executed designs to choose from. They did not turn out exactly world famous. They worked then, and worked even today, so far as I know, in Chicago, but few have followed their careers. It proves (besides my own innocence) only how very few International Style designers there were to pick from in 1931.

Parenthetically, hindsight can easily point out that, in 1932, it was not the International Style which was of interest in the design world—it was the Paris 1925 style (absurdly la­beled today as Art Deco) that fascinated contemporaries and fascinates collectors today, from Andy Warhol to Barbra Streis­and. At the Chicago Fair of 1933, for example, we at the Museum of Modern Art were more inter­ested, rightly or wrongly, in George Fred Keck than in the big Art Deco buildings. Le Cor­busier had become a blinding influence. And in the world of Industrial Design, the ac­cepted style was the “moderne” of the teardrop shape, applied even to toasters and refrigerators—not the Bauhaus machine art we at the Museum favored.

Today, 40 years later, what would an aspiring young mu­sium curator pick out? Person­ally, I cannot see the forest for the trees. Besides, I am no longer a critic. I am too pre­judiced by my own work to be fair. Yet, even though I am a “senior citizen,” I still look around. There are a great num­ber of buildings I see from time to time, and there are more than enough to make an
architecture. They don't add up to a style, or a movement even. Their common denominators are unclear. So what. The creation of a new corpus of stylistic similarities occurs rarely in our field of art and, besides, when we are in the midst of work, who among us tries to pin labels or to guess what labels historians are going to pin on us. Everyone hated the label "International Style" when Russell Hitchcock invented the rubric. The architects of the 20's worked and let Hitchcock and Johnson worry about names.

Here is my young curator's choice. The list includes only what I have visited. The accident of having seen or not having seen modern buildings, therefore, adds to the haphazard nature of the choice. There is no objectivity of judgment whatsoever. Any architect and all critics would make a different one. In addition, I refuse to consider Chicago architects in this summary because I refuse to pick and choose among my hosts, some of whom may be here. There is even a possibility that, since Mies' death, good architecture is no
Johnson and Burgee's master plan for the Welfare Island Development Corporation was based on a central pedestrian axis (above, right of photo) which connects two public areas overlooking the river. Automobile streets are at right angles to the pedestrian axis, which would contain schools, restaurants, shops and apartments (plan, opposite page).

longer peculiar to Chicago. Other centers, or perhaps no specific centers, have appeared. Perhaps as more magazines come out faster and faster, more clients can be on the long distance phone in fewer seconds; the world may be our new city.

I pick the first six that come to mind—buildings that gave me a thrill when I visited them. Like music, architecture, which is, after all, "frozen music," should give me a stab in the gut.

Item: Lou Kahn's Richards Laboratories in Philadelphia. This is the new sculptural architecture—light chimney-like shafts, beautifully overscaled diagonal entranceways, stepped window slots—design elements that surprised us all. It was the first building that shook my faith in strict glass box architecture. Kahn showed us the route to freedom from the International Style.

Item: Paul Rudolph's Hirsch House in New York. The house has a living room intricate enough in conception to defy description—intimate and lofty at the same time, cozy and formal at the same time, comfortable and rigidly designed at the same time. Space is played with, pushed and pulled, overhung with balconies, accented by varying floor levels, marked with flights of steps.

Item: Charles Gwathmey's house and studio for his father on Long Island—a fine double-scale antiphony of half cylinders and cubes. The International Style is warped and extended into new geometrics.

Item: Kevin Roche and John Dinkeloo's College Life Insurance group in Indianapolis. Repeated, isolated tapering towers float in the landscape and seem to have more to do with Druid stonescapes than with modern architecture, but actually create a new romanticism welcome in the drear International Style.

Item: James Stirling's Engineering Lab at Leicester University, England (no romanticism here)—an extreme and free melange of glass, and masonry and cantilevers and circular stairs and sloping soffits and 45 degree points. My first view was of chaos; the new underlying order appeared only gradually.
Item: John Andrews' Gund Hall at Harvard. The great hall is a new kind of huge space. The sloping trusses are just a bare 10 feet above the edges of the balconies, each of which creates an overlapping terrace. The effect is intimate, yet the room is vast enough to include all the operations of the school. This is the first time, I believe, that such square footage—without partitions, without columns—has been designed with a resulting space so easily divided, so low-scaled, so private.

There are many buildings and rooms I have left out, many more I have not seen. For example, I love the floor plans and sections of Venturi's projects. I love the suspension purity of Frei Otto, the tough concrete of Morandi's bridges, the delicate tracery of a Bucky dome, the hilltown concepts of GianCarlo de Carlo and, as you know, the new Paris design of Piano and Rogers.

So I am much encouraged about the future of our art. But right now, in 1972, there are terrible stumbling blocks. The one that bothers me most, and there is no remedy, is the low position we architects have in society. I used to say that we seem to have a place halfway between the family lawyer and the Fuller Brush man in society's pecking order. But now we have descended the scale. The word "architect," the practitioner of the mother art, used to be proudly displayed after our names on our glass entrance doors. Nowadays the glass door has ENVIRONETICS in headline type, then below, after Engineer, Industrial Designer—"Architect" is perhaps modestly placed between Planner and Interior Designer.

You can only be successful as an architect, it seems, by being a speculative developer first, then a city planner, then a landscape architect, and after that, architect.

Parenthetically, the profession of landscaper has risen far above its lowly origins. The profession used to have to do with
The Johnson and Burgee plan for Franklin Town in Philadelphia is based on a wide diagonal spine which culminates in a small, almost intimate enclosed park. The project is planned to include a variety of residential and commercial facilities.
plants and trees and parks; now
the world is their oyster. The
public interest in ecology helps,
but mainly they seem to be
brighter than we. They now de­
sign roads, buildings, and cities.
Larry Halprin is now “architect.”
The landscape students at Lou­
isiana State University visiting
me said, only half jokingly: “We
are also going to build buildings,
just to show you.” More power
to them. I am not AIAish enough
to think you must have a license
to practice (I myself did some
of my best houses before I
could manage to pass the State
exam on “design.”) After all,
Mies never went to school; Le
Corbusier never went to school.
All power to the landscapers
then—but what of us? We lose
credibility year by year: only
John Portman among us is gain­
ing. The gurus are almost gone:
Lou Kahn keeps the mantle of
“maestro,” but is there a suc­
cessor? Or is it our own fault
for just not being good enough?
None of us would or could ad­
mit it. Is it the lack of the
J.P. Morgans who gave the Stan­
ford Whites such great support?
Is it lack of patrons?
Actually our noble profession
has many traits in common with
the world’s oldest. Like good
prostitutes, we do our stuff when
we are paid; we try to do it
well for whoever will pay. There
may be a difference in that we
enjoy our work hugely, but then
so do the great courtesans.
More than most professions,
we depend on the clients who
employ us. Architectes du roi,
fine. But who is king? Good
king, good architecture. In the
Middle Ages, good bishop, good
architecture. In plutocratic times,
good Medicis, good architecture.
In business times, good real
estate developers, good archi­
tecture. In return we may be
able to help our patrons. Michel­
angelo’s ceiling did nothing to
dampen the fame of Pope Julius.
Mies’ great architecture makes
famous the name of Seagram.
Sometimes it is true the boughten
architect is remembered more
than the man who hired him.
I must confess I do not know
the name of the developer who
commissioned my favorite Chi­
icago School building, the Monad­
nock Block; the name John Well­
born Root I revere.
Once in a millennium, an archi­
tect comes along, rising above
the usual. Michelangelo was
called “the divine” in his life­
time. Imhotep was both the
king and architect of Third Dy­
nasty Egypt when he built Sakk­
ara. We cannot even imitate
the comparatively modest career
of Thomas Jefferson, who at­
ttempted to be his own architect.
Yet we cannot blame every­
thing on our patrons or merely
envy the luck of Imhotep or
Michelangelo, or blame an in­
artistic business age for not
taking us more seriously. We
ourselves are not serious enough,
perhaps, about our calling. We
ourselves use extra-artistic ra­
tionalizations for our work. We
even seem to seek out extra­
architectural aims and excuses.
I call these crutches, ideas to
keep us from the agony of art,
crutches to keep us going in
the world of affairs.
Four of these directions seem
the most dangerously attractive
today. 

Item: The worship of design
science. I use Bucky’s phrase.
As you know he is naming his
new institute in Washington the
Institute of Design Science. The
implications of this phrase are
fascinating. Can it really mean
anything except that science is
the way to the world of design,
that design can be a science
and results be reached by the
methodology of science, that de­
sign is subject to the rigors of
objective checking like science?
If that is what Bucky means, I
respectfully submit that there is
no such beast. But technology
has long been a haven of refuge
for architects. The beauty of
the machine has been a cliche
for the arts at least as far back
as the pre-World War I Futur­
ists in Italy. To believe that if
it’s technologically attractive it
must be architecture is all too
easy. Technology is useful for
architecture but only an archi­
tect can “transcend” it into real

Johnson and Burgee’s project for
New York State offices in Harlem in­
cluded a block-long procession of
changing heights and scales (above). A different tower de­
sign by Ifill and Johnson is now
nearing completion. Although this
finished work reflects something of
the initial, processional plan, the
intent of the Johnson and Burgee de­
sign, as a whole, will not be built.
Chelsea Walk (opposite page) is a high-rise apartment development for midtown New York designed when, as Johnson says, "balconies were a plus item in room counts." This pragmatic approach was a major factor in creating the form of the project, which will not be built. It resembles Johnson's other work more closely in plan (above). The buildings, designed with Samuel Paul and Seymour Jarmul, were to be sited along a two-block private pedestrian street.

Item: A second crutch, which should be perhaps listed as a subhead under design science, is the religion of computer design. Ah, if this were only a true religion, how happy we architects would be; turn on the machines and pray. It is tempting to believe. I have just finished my first computer design. It was great. It, the machine, told me that what I wanted was an Archimedean screw, not a logarithmic spiral. I was delighted. The computer was so much more accomplished than my slide rule. Unfortunately, my joy in the machine was tempered by the fact that the talented mathematician behind the machine had to tell the machine what to do. And even though it drew very pretty pictures for me also, it could not tell me what happened "design-wise" at the bottom of the spiral or the top. The computer, alas, is not our salvation.

Item: A more seductive way of life than science, however, a more attractive sinful siren for architects is the counter-culture —our anti-technological culture. We are to return to the land and build labor-intensive buildings, Thoreau-like, in the wilderness. I am glad we are an affluent enough society so that some of us can escape for this kind of contemplation, but it is hard to see what kind of future for our art there is in the countryside. Perhaps this is the wave of the far future, but we are not post-industrial enough to go
Broadway Junction (above), a project begun under the aegis of Senator Robert Kennedy's Bedford-Stuyvesant Restoration Corporation, was to have contained a shopping center connecting four transportation systems (including city subways and commuter trains) set in "nodes" along the processional space of the shopping gallery.

"primitive," except as an escape—a copout. We have too much to solve at home. Further, can we really have a primitive architecture? The great villages of the troglodytes or the Africans were not built self-consciously by the wishful sons of the rich capitalists of the USA. It is intellectually hard to will oneself primitive. Architecture has to come from the existing culture, however disappointing that culture may seem to many of us.

Item: The fourth temptation is the opposite of the dropout approach. The socio-political architect, what the French call the engage, who serves social programs in his work, is the one for whom true architecture consists of revolutionary, or at least progressive, social action. In the presence of the advocacy planners, to give them their correct name, I feel not only effete, but positively establishment. They glower at me from the audience in universities; or worse, they laugh at me for my old-fashioned views. They seem to have preempted the whole province of future building for themselves. To them, building monuments when the poor are ill-housed is nearly a crime. A very good argument. To build what the people want is imperative. Another sound argument. To find out what the people want, to find better ways of fulfilling that purpose, is the main task. They spend evenings and weekends with endless community meetings. The New Left would go further and say architecture should serve the purpose of revolution, should directly help social progress.

The Italian activists in the recent show at the Museum of Modern Art refused to submit actual designs but wrote pamphlets (very difficult to read) about their place as the "first line of the fight against..." I have, I regret, forgotten against what. The Italians, at the same time as they protest, design great objects. I just happen to have here the greatest fountain pen of our time de-
signed by Marc Zanuso, who many believe to be one of the geniuses of Italy and who, nevertheless, is devoted to advocacy planning. In the 20's, the Marxists Mart Stam and Ernst May were aesthetic leaders of the modern movement as well as revolutionary Marxists. Plus ça change.

The question of whether architecture can really ever help social progress or whether social changes occur and the commissions for the art of architecture result is moot. Many believe with Herbert Gans: "If you designers want social change, get involved in politics"; "[Design] has nothing much to do with social change at all. All the designer is doing is designing..." And some of us may agree with the brilliant radical MIT designer Michael Sorkin: "This is nonsense" [that architects are going to bring about social change through their design]. "Architecture doesn't change society," Sorkin contends, "Society changes architecture."

I find myself on the side of the radical. Politics is beside the point. As a private, voting American I will vote for reform or not and better housing or not, let us say. As an artist, I can be commissioned, indeed am commissioned, by conservatives and liberals.

I have in 1972 a feeling of deja vu, having lived through similar battles fifty years ago. I see MIT and its computer doing design projects and the Harvard School of Design with a Business School professor as dean. Yet I see Andrews' building for the same School. The art of architecture lived through the 20's. It is still with us today.

Forty years ago Russell Hitchcock and I ended our polemical book against functionalist theories of the time with the claim: "We have an architecture still." I can only paraphrase. In spite of the decline of the profession in the public eye; in spite of theories that make para-architectural occupations superior to ours—social planning, landscap-
ing, ecology studies, regional planning — theories strong enough indeed to make venerable schools like Harvard and Berkeley remove the very word architecture from their names; in spite of anti-establishment disgust with us architects along with their disgust with technology, finance, and even science; in spite of anti-architectural stances among many of our greatest philosopher-thinkers, like Bucky Fuller, we have an art of architecture still.

And now where? What are the tasks? We have the architecture. What can we do with it? What will our masters—the public—do with us?

What — to paraphrase Lou Kahn—do our buildings want to be? It strikes me we have only one great field for our art—dwellings for people, the coming millions of people. It is said we Americans must build more in the next ten years than in the whole history of the country. That means surely not office buildings but housing. OK. Now what kind?

Instead of making our housing cheaper and cheaper and uglier and uglier, why not give beautiful, i.e. monumental, housing to the people? We give roads to automobile owners, we give education, more or less, to all. Is housing less important? And a question of interest to architects: Is beautiful housing unimportant? Maybe we have had enough ugly. A sad example: There was an exhibit last year of the new work going up in the State of New York under the aegis of our resident genius Ed Logue. The housing was designed by a distinguished group of younger New York State architects. The overall effort was depressing. No money. It would be hard to give an architectural prize to an apartment complex in our era, even such an outstanding job as Mies’ in Newark.

Housing gets cheaper and cheaper. As inflation goes up the search for cheaper materials grows. As an architect develops a brilliant use of bricks, concrete blocks take over. Now that many have shown good use of blocks, we look for cheaper units. The Russians so far have the ultimate ugly concrete panels. It is a sort of Gresham’s law of architecture.

In reverse of Augustus of Rome, who found Rome of brick and left it of marble, we could say today our generation started with stone and brick and ended with cinder block, corrugated asbestos, and prefab panels. Our ceilings are too low to stand up in, our partitions too flimsy for privacy, our bedrooms too small to sit down in. Minimums become standards, architecture becomes a luxury we can’t afford. What is the answer? Simple—let us build monuments for the masses, beautiful buildings for the people.

Monuments differ in different periods. Each age has its own, depending on the culture. Kings build palaces; religions, churches; American business, skyscrapers. Since the great skyscraper age, we have turned to culture. In the 50’s and 60’s we built schools and universities and museums. In the 70’s maybe, just maybe, we shall at last come to care for the most important, most challenging, and surely the most satisfying of all architectural creations: building cities for our people to live in. Our cultural ambitions may turn from banks and business, from automobiles and highways, to cities of beautiful dwellings, where a new Augustan age could find an America of concrete paving and leave it as Eden of green and pleasant places for people. This is no Utopia—the techniques are here, the labor force at hand. Our values of life have changed before. Witness the current ecology kick, new in the last decade. Let us now have a building-for-the-people kick. People enjoy beautiful automobiles, beautiful and expensive clothes. I am sure they could develop a taste for beautiful—yes, monumental—houses. As Mies said: Why not—in one form or another—give the workers more money?
PROJECT CREDITS


(based on page 72)
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PROJECT CREDITS
(continued from page 72)


Western powers abstained, as did Russia and all European socialist countries except Romania and Yugoslavia. China voted in favor of Nairobi.

The opponents of the Nairobi location felt for reasons of economy and efficiency that the secretariat as a coordinating body should be in Geneva or New York, or in any of several cities on more traveled routes including: London, Madrid, Vienna, Malta, Kampala, New Delhi and Mexico City. It is true that the day's traveling time both to and from Nairobi, plus jet lag, will tax some busy Western environmentalists but, since the world is round and, hopefully, there will be an increasing number of third world environmentalists, Nairobi seems potentially convenient enough.

It was the concerted effort of the third world countries—known as the Group of 77 although there are far more than 77 members now—which gave the plum to Nairobi. One of the sillier arguments which this fact apparently provoked was that sheerly by being located in Nairobi the secretariat's policies would be more prone to favoring development—i.e., rampant industrialization—than environmental balance.

Also aired in this controversy was another childish, if not so magical, view which may not be unwarranted. Many underdeveloped nations feel the industrialized powers, now that they have their progress, want to curtail the progress of others to prevent them from becoming competitive, and are using environmental arguments as tools towards this end. It is a sorry thing to read of the generous and cooperative intents and efforts of something like the UN Conference On The Human Environment, which established the secretariat and other machinery for the coordination of UN environmental activities, realizing that much of what it will all come down to is so much hair pulling.

Maybe there will be something new in the Nairobi air that will sustain humane consideration of environmental problems. If only there could be a consensus that to be human is more profitable than making money. Perhaps the respect the environment is demanding of us because of the blatantly evil consequences of our disrespect for it, is apt, more than anything else, to bring us to value mutually supportive rather than exclusive life.

PLANNING

OVERRULED

Rules were either made to be broken or broken before they were made. In Des Moines the rule is that gravestones in municipal cemeteries are to be made of granite or bronze. But Mrs. Cindy Frederick, whose two children died shortly after birth from a lung disease, did not have the money for commercial monuments. So she and her father made gravestones of poured concrete, polished to stone smoothness, with hand-carved lettering, and eight coats of sealer. Cemetery employees removed the gravestones because they did not comply with the city ordinance; and the Park Board's cemetery committee decided that Mrs. Frederick should not be allowed to replace them. However, the full Park Board then voted 8 to 1 with one abstention to allow the markers to be reset.

The cartoon (below, left) was prompted by the remark of a funeral home president and cemetery committee member: "I have as much compassion for this lady as anyone, but we must have orderly development in our cemeteries. We have got to hold the line."

RECOVERY FROM AGNES

"We're suffering more from urban renewal than we did from the flood," says a Corn ing, New York resident. A sympathizer in nearby Elmira calls urban planners "clowns."

State and federal agencies have moved into the area with the Feds huddling like a circus in Elmira's armory. HUD, EPA, OERO, HEW, and DOT are there along with ARC (the Appalachia Regional Commission) and SBA (Small Business Administration). The state agencies include UDC, which is acting as the renewal agent for four towns to apply for HUD funds; and STCRPDB (Southern Tier Central Regional Planning and Development Board) may also funnel federal funds. A HUD staffer recently wrote to a disgruntled urban renewal director, "Among the Grand Confederation, this office (and no doubt your agency) is having difficulties in coordinating the conflicts in and among the possibly, reorganized governmental bodies."

"...we must have orderly development in our cemeteries."

In Corning, Penn Central is the villain. Its tracks bisect the northern half of the community and have two particularly objectionable grade crossings. When the wash-out of a bridge provided a chance to remedy the situation, Penn Central hastily rebuilt the bridge and convinced local authorities that relocating the tracks would be too costly. So it just keeps rolling along right through town.

It seems that even when a flood cleans many problems off the planners' slate ye olde mud
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FACETS

(continued from page 76)

settles rather thickly and fast. Elmira is another story. It is seeking $78 million of the $138.4 million in HUD funds being sought by six neighboring towns. Its rebuilding efforts cover an area which is believed to be greater than any urban renewal undertaking ever proposed in this country. More than half of Elmira, approximately 2000 acres, was affected by hurricane Agnes floodwaters.

The redevelopment plan has been expedited and financed by the New York State Urban Development Corporation with the assistance of two consulting firms. Welton Becket and Associates was responsible for the conceptual planning with particular emphasis on the central business district. And Raymond, Parish and Pine, Inc. was responsible for overall land use planning, surveys, acquisitions, and the required applications for federal assistance. In 60 days UDC and the consultants completed research and proposals that would normally have taken two years.

Planners estimate that the $70-million-plus project will involve later investment of an additional $300-$400 million in private and public money over the next five to ten years. The $70-million will cover land acquisition, demolition, new streets and utilities, administration and technical services, interest and contingencies.

In addition, the plan proposes 100 percent payment by the federal government of over $950 million to relocate families displaced by the project; and $875,000 to home owners who want to rehabilitate their properties. If the city's renewal application is approved, the federal government will pay three-fourths of preparatory expenditures, and the rest (over $17 million) would be paid by the state and the city, sharing 50-50.

The main features of the plan include early action on the construction of 600-700 new housing units, extensive redevelopment of the central business district, the creation of four industrial park areas, transportation and social service centers, and new and enlarged parks.

One of the major aspects of the plan is "for the downtown area to literally turn and face the river and signal the start of the city's economic turnaround," as David Beer of the Becket office put it. Several waterfront buildings—which had their back to the river—will be demolished and replaced by a restaurant, plaza, promenade and parking facilities. The planners feel that the renewal efforts can enable the town to reverse its decline in population and business. Highway construction and parking facilities in the central business district will make it competitive with outlying shopping centers.

CONFABS

- On April 15-18 the fourth international conference of the Environmental Design Research Association will take place at Virginia Polytechnic Institute and State University in Blacksburg, 35 miles from Roanoke.

The conference will be composed of three types of presentations. The symposia with invited papers will deal with the following topics: Environmental Design Research in the Social and Political Context; Theory of Man-Environment Relations; Environmental Cognition; Selected Instruments and Measures in Environmental Analysis; a Methodological Critique; Design Languages and Methods; and For the Environment—Major Thrusts in Computing Activity. Workshops will be conducted under the following heads: Action Research in Man-Environment Relations; Environmental Management; The Service Institution-Clinic Concept of the School of Architecture; and Gaming Techniques. There will also be Paper Sessions wherein some 40 selected, solicited papers will be summarized and discussed.

The registration fee will range from $20 to about $60 including the two-volume proceedings. Rooms from $11 up will be available as will more inexpensive student accommodations. For detailed information and reservation forms write to Wolfgang F. E. Preiser, EDRA Conference Chairman, College of Architecture, Virginia Polytechnic Institute and State University, Blacksburg, Virginia 24061. Phone 703 951-5506.

- The National Association of Regional Councils will hold its annual conference in Minneapolis, Sunday-Tuesday, February 25-27, and in Washington, February 28-March 1. At the business meeting on Monday the membership will adopt action proposals to pursue with their governors, state legislatures and the federal government, based on the results of six regional fall workshops. In Washington, regional council representatives will meet with top officials of the administration and Congress to encourage their support of policies adopted in Minneapolis.

For registration forms contact: Annual Conference, National Association of Regional Councils, 1700 K Street, N.W., Suite 1306, Washington, D.C. 20006. They must be postmarked before January 19th to be eligible for the early-bird registration rate and the Washington leg of the trip. Otherwise later registration is possible. But to assure accommodation the hotel reservation form should be returned to the Radisson Hotel Reservation Department, 45 South 7th Street, Minneapolis, Minnesota 55402, by February 2.

COMPETITION

The National Sculpture Society is seeking nominations for the Henry Hering Medal, presented only as the occasion warrants, for outstanding collaboration between architect, owner and sculptor, in the distinguished use of sculpture in an architectural project. Nominations are due in the Society's offices, 250 East 51 Street, New York City 10022, by March 2, 1973. They are to include a portfolio describing the nature of the project, photographs clearly showing the site of the sculpture, the names of the architect, sculptor and owner. The medal is given in triplicate to all three.

PEOPLE

Architect Hans Scharoun, who had worked in Berlin since 1932, died in November. He had an aversion to the box which can be seen in his best known building, the Philharmonic Concert Hall in Berlin. Frei Otto called it "the room of a thousand angles."

APPPOINTMENTS

The Building Research Advisory Board of The National Research Council of The National Academy of Science has ten new appointments of investigators. L. Berry Williams is Chairman of the Urban Studies Training Programs in the Department of Geography at the University of Chicago; Patrick J. Cusick, Jr., President of the Greater Hartford Community Development Corporation; Charles P. Graves, professor of architecture at the University of Kentucky; Matt M. Jetton, President of Sunstate Builders Inc.; Rudard A. Jones, AIA, professor of architecture at the University of Illinois, Champaign; Kenneth G. McKay, Vice President, Engineering, American Telephone and Telegraph Company; Charles E. Schaffner, Vice President, Syska and Hennessy, Inc.; John F. C. Turner, Department of Urban Studies and Planning, MIT; Beverly Willis, AIA, San Francisco architect and environmental planner; and Joseph H. Zettel, Vice President, Johns-Manville Products Corporation.

Many of the 36, are highly qualified individuals from segments of industry, government, and the academic and research communities interested in building. They are appointed on a rotating, overlapping basis for terms of up to three years by the Chairman of the Division of the National Academy of Sciences. BRAB provides advice on research and technical problems, stimulates and monitors research, organizes conferences, correlates information, and explores subjects related to building.

ADDENDUM

Photographs in the article "Landscapes for Urban Play," which appeared in the October issue of FORUM, were taken by the author, Nanine Clay. Mrs. Clay is former executive secretary of the Citizens Metropolitan Planning Council and was a member of the Kentucky Governor's Action Committee on Leisure and Youth, 1969-70.

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This month's Product Review concentrates on modular lighting, ceiling and wall systems.

WITHIN EAR REACH

The so-called "open office" is here to stay. The question is, how long can office workers put up with open noise before they go stark raving mad?

Naturally, this brings up the element of acoustics. And when you bring up acoustics, you almost have to bring up Owens-Corning Fiberglas Corporation—an amiable outfit which likes letting people know what they are thinking in addition to, of course, what they are manufacturing.

Now, a new Fiberglas ceiling panel may not exactly send you up a wall. But it should, at least, make you pause if, in fact, acoustical qualities are on your mind, or open offices on your drawing board.

Owens-Corning has come out with a new panel. They call it "Nubby II." It is two inches thick, and it comes in several sizes—24 x 24-inches; 24 x 48-inches; and 48 x 48-inches. It has a rich, rough texture, and its white facing of glass cloth resists damage and heat. Furthermore, "Nubby II" can take the humidity levels normally found during construction; which, of course, makes it possible for owners to move in sooner.

But the really important thing about this new panel is its acoustical qualities. For one thing, it is absorbent; sounds striking its surface tend to stay put; or, stated professionally, "Nubby II" has "low specular reflection."

For another thing, this panel lets people carry on a normal office conversation without driving everyone else to distraction. An open office can have all the equipment, plants, and art work imaginable and still fail if people can't hear each other comfortably when they need to—or can hear each other when they don't want to.

Owens-Corning decided to look into these nuances, and hired Geiger & Hamme, an independent acoustical testing laboratory in Ann Arbor, Michigan, to find out how to make open offices where people can be seen and not heard—except, of course, when needed.

The result, so the Geiger & Hamme report indicates, was that "Nubby II" outmatched several other ceiling products—all of which were tested under the same conditions—in terms of what is called "attenuation," which is (for people who don't know about things like this) a measure of noise nine to 12 feet from its source. In other words, if a space has "high attenuation," office workers will tend not to be disturbed by a conversation outside their immediate area; nor would they be able to understand the sense of that conversation.

While open offices lighten up the work day, encourage a more spontaneous exchange of ideas and information and are economical to build and, later, to adapt, the fact is that acoustical privacy has too often been sacrificed. When "specular reflection" is high, or "attenuation" is low, people start getting distracted; or they feel put upon; or they clam up as they might, say, in a crowded elevator. All such reactions, in turn, tend to undermine attention to the job at hand and, as a result, overall productivity.

LIGHTS-OUT

Offered by J.H. Spaulding Company, "Designer Group" is a multi-component system featuring 13 lighting groups and 5 street furniture concepts. The idea is to interchange the parts to create packages for communities, plazas, parks, campuses, and residential developments. Aluminum, wood and steel pole/bracket assemblies are available in a variety of colors and finishes. Street furniture systems feature signage, artificial planters, poles and wood benches in several arrangements and can be coordinated with almost any luminaire in the "Designer Group."

THE 1000

An integrated modular ceiling system which is pre-engineered and factory built from a single source manufacturer has been introduced by National Ceiling Systems. Called the "1000 Ceiling System," it is a modular grid made from roll formed steel with baked white enamel finish or extruded aluminum with anodized or baked white enamel finish. All runners have revealed slots to receive a demountable wall or a linear air diffuser, enabling the pattern to be continuous throughout the building. Sliding black filler strip conceals the slots not in use. Sprinkler systems and acoustical panels can be plugged into the grid line.

Owens-Corning hopes that "Nubby II" will be part of the answer to this problem. And the trouble which they have gone to in testing this panel is part of the increasing trend among product suppliers to discuss a product in the context of wider issues—including, not least of all, the human ones.

So, if you are interested in "tuning" your spaces, and in tailoring noise to an acceptable level, one place to get further information is Fiberglas Tower, out in Toledo, Ohio.

As someone once said, or at least we think they did, "Send not to know for whom the decibels toll." Send, instead, for someone who knows about acoustics.

On Reader Service Card, circle 101.

(continued on page 82)
For today's interiors, nothing equals the incomparable richness, the warmth and texture of tapestries...by such modern masters as Pablo Picasso, Fernand Leger, Ernest Trova, Joan Miró, Saul Steinberg, Frank Stella and 40 others...including the wall hangings of Sheila Hicks. Each tapestry is hand-woven in a limited edition. From $1,200 to $5,000. Catalogs, $2.00. Contract Representative: Al (Atelier International Ltd.)

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The Un-Cloistered Tapestries
Reynolds Metals Company has announced a farm roofing and siding called SSTR—which means Super Strength ‘Thrifty Rib.’ Sheets are long, wide, lightweight and diamond embossed, providing net coverage of 48 inches and lengths up to 30 feet. They can be put on purlins up to 24 inches on center. The presence of high strength alloys increases the tensile yield strength found in regular ‘Thrifty Rib.’ Sheets are corrosion resistant and highly resistant to hail damage. There is a weather-tight side lap which protects building interiors from the elements.

Overkryll
A one piece low-brightness light source ceiling called Dimension-Plus is offered by United Lighting and Ceiling Corp. Available in modules from 2’ x 2’ to 5’ x 5’, it features opaque collars of grey-white acrylic, antique gold, metallic gold and aluminum. Collars provide a shield to white matte acrylic diffusers which are above the ceiling plane. The plexiglas acrylic panels shouldn’t discolor, fade, or distort. Aluminum or steel tee bars, as well as air-tees or linear air diffusers, are available.

Lighting-Up
The Mod-U-Line lamp is General Electric’s newest “U”-shaped 40-watt fluorescent lamp designed for symmetrical fixtures which blend with modular ceiling systems. It is the companion of an earlier version which has a 3½” leg-center spacing. This model has a 6” spacing to permit design flexibility. Both lamps have an average initial light output of 2800 lumens and have extra glass thickness to insure bulb strength. Metal braces across the open end of the “U” are for further fortification.

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"The headquarters of the New York State Bar Association," as a most distinguished critic recently wrote, "is an object lesson in how to build intelligently, sensitively and well ... In a happy alliance, the lawyers and the architects, James Stewart Polshek and Associates, have preserved a row of handsome 19th-century town houses and incorporated them, not as a false front, but as a working part of a completely and strikingly handsome contemporary complex built behind them. The words that come to mind are skill, imagination and taste, qualities not encountered too often on the urban scene."

We at Follansbee Steel are particularly gratified that Mr. Polshek specified TCS (Terne-Coated Stainless Steel) for all pitched-roof areas on this outstanding building in which originality of design and integrity of site are so felicitously coupled.

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MOD-U·LIGHT

GTE Sylvania has developed the Modular Surface Vanguard fixture for commercial spaces. It’s a 2’ x 2’ unit only 13” high, with offsets at top and bottom to reduce the overall apparent height. The integral ballast assembly is separate from the fixture housing and is of heavy aluminum extrusion. A 12” x 12” tempered glass thermal barrier is installed between the lamp and acrylic shieldings when glass is not used. Extra quiet ballasts are available for noise control, and tungsten-halogen systems are offered to provide safety lighting when energy becomes available after momentary power failures. The fixture will accept 175-, 250-, and 400-watt mercury lamps and 400-watt Metal-arc units.

PYRA-MIRROR

Introduced by Integrated Ceilings Inc., Pyra-Mirror is a lighted ceiling system designed specifically to add decorative visual excitement to public areas. The system doesn’t pretend to solve heavy lighting problems, it just hopes to make arcade corridors, restaurants, reception lobbies and store interiors more playful places. It features inverted mirror-bright stainless steel pyramids in 18” or 24” modules. The exposed incandescent lamp filaments against the reflective surfaces of the pyramids give off sparkling vibrations.

PANEL WALL

Varispan Panel System is a metal wall system available from the Elwin G. Smith Division of Cyclops Corporation. The system is available in linear panels with depths of 3”, 4¾” and 6”, and can cover a single span in excess of 30’. The linear panels can be used vertically or horizontally in an insulated wall system, or in the vertical position as a non-insulated exterior panel. Varispan is furnished in galvanized or aluminized steel linear panels with exterior panels in aluminum, or galvanized, aluminized, or stainless steel. All metals can be plain or embossed.

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DESIGNED BY PENTAGRAM: This handsome book is a representation of the architectural, graphic, and industrial designs of five top-notch professionals: Theo Crosby, architect; Alan Fletcher, Colin Forbes, and Mervyn Kurlansky, graphic designers; and Kenneth Grange, industrial designer. These talented men have pooled their abilities in these areas to create a dynamic, creative organization, Pentagram. This book includes stunning examples of their designs, along with the strategy and methods they use in keeping up with the latest innovations in the field. Included in the section on architectural design are examples of their work for: Reuters, London; Cunard Steamship Company; Central Office of Information, British Pavilion, Expo '67 in Montreal. Graphic design examples include: British Petroleum; Olivetti; Rank Xerox; Roche; ICI Plastics Division. In the area of industrial design are their designs for: Kodak; Ronson Products; Standard Telephone and Cables; Wilkinson Sword.


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188 pages. 8½ x 11. 292 illustrations. Index. ISBN 0-8230-7289-4. $10.00

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CARPETING
The Philadelphia Carpet Company has issued a contract carpet booklet, with full-color photographs of actual commercial and institutional installations. There are examples of Philadelphia’s six different product systems available for contract carpet service. Some of the product systems shown include tufted broadloom, custom tufted, custom Wilton weave, and a running line velvet weave. On Reader Service Card, circle 200.

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David Lewow, Inc. has issued a new catalog describing their Fitrite Snow Guards. The catalog has a complete description and specifications of Snow Guards that are suitable for slate roofs, corrugated roofs, tile roofs, or metal and composition roofs. On Reader Service Card, circle 202.

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ARCHITECTS, DESIGNERS, PLANNERS

Ailld, E., Housing development.

Arnott, Gordon R. and Associates, Midtown Plaza, Sasaki,

Barnett, J. R., Housing development.

Beate, Jan., Design.

Bercovice, 1. M., Development.

Berger, David, Housing development.

Berger, Paul, Housing development.

Berman, Peter Anthony, Housing development.

Berman, Saul, Housing development.

Berman, John, for Dept. of Arch.

Berman, Peter Anthony, Housing development.

Berman, George, Housing development.

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Berman, Saul, Housing development.

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SIMOYNET, Roland, City Univ. dormitory, Tamanarive, Madagascar, July/Aug. 8.

Siqueiros, Cultural Forum, Mexico City, Mex., Sept. 7.

Skidmore, Owings & Merrill (Chicago) with Wilson, Morris, Crain & Andaluy, One Sixty Six, Houston, Texas, Apr. 26.

Skidmore, Owings & Merrill (New York), Uris Hall, Cornell Univ., Apr. 7.

Skidmore, Owings & Merrill (S.F.), Weyerhaeuser Hqtrs., Tacoma, Wash., Jan./Feb. 20.

Skidmore, Owings & Merrill (Chicago), Winnipeg Children's Home, Neillsville, Wis., June 62.

Smith, Barker, Hansen, Corte Madera Library, Corte Madera, Cal., May 58.

Smith, Barker, Hansen, York School Library, Monterey, Cal., Apr. 7.

Sprague, Chester, of Pacheco & Graham, Navajo School, Rough Rock, Ariz., Sept. 54.


Tabler, Wm. B., Archs., Houston Airport Host Int'l Hotel, Houston, Tex., Jan./Feb. 20.


Thompson, Ventulett & Stainback, Inc., Arena, Atlanta, Ga., Jan. 7.

Up, Kim Chung, Chejoon Nat'l Univ., Korea, July/Aug. 8.


Vignelli, Lella and Massimo, Knoll Int'l exhibit, Musee des Arts Decoratifs, The Louvre, Paris, France, Mar. 5.


Perry, Charles, His sculpture and the uses of solid geometry, Apr. 56.

Siqueiros, Alfonso, Cultural Polyforum, Mexico City, Mex., Sept. 8.

Székely, Pierre, Resort on the sea, Brittany, France, May 5.

Székely, Pierre, Carmelita Chapel, Valenciennes, France, Jan./Feb. 6.

BOOKS

AMERICAN BUILDING: 2: The Environmental Forces that Shape It, by James M. Fitch, rev. by Ralph Knowles, July/Aug. 12.

ARCHITECTURAL INDEX FOR 1971, edited and published by Ervin J. Bell, Jan./Feb. 12.

ARCHITECTURA NAVALIS MERCATORIA, by Alvaro de Henriques, rev. by Carl Koch, Sept. 12.

AUTOKIND vs. MANKIND, by Kenneth R. Schneider, rev. by Robert C. Weimberg, June 8.


A GOD WITHIN, by Rene Dubos, rev. by Fran P. Hosken, Nov. 20.


PLANNING CITIES, by Frederic H. Bair, Jr., rev. by H.H. Waechter, Sept. 12.


A PROPOSAL TO CHANGE THE STRUCUTURE OF CITY PLANNING: CASE STUDY OF NEW YORK CITY, by Beverly Moss Spatt, rev. by David K. Shipper, Mar. 15.

SYNTHESI SOURCEBOOK: AN AUTHORITATIVE GUIDE TO INT'L GRAPHIC SYMBOLS, by Henry Dreyfuss, Apr. 10.

WALTER GROPius AND THE CREATION OF THE BAHUUS IN WEIMAR, by Marcel Francisco, rev. by Ise Gropius, Jan./Feb. 16.

ARCHITECTURAL DESIGN THEORY


"Theory in Practice," the dual values of practitioner and teacher (illus. of college bldgs. by author), by Robert L. Geddes and Wm. LaRiche, Sept. 5.

"Theory in Practice, Part 2" (concentration on Dining Hall, Commons and Academic Bldg. of Inst. for Advanced Study, Princeton, N.J.) by Robert Geddes, with intro by Carl Kaysen and critique by Kenneth Frampton, Oct. 52.

ARCHITECTURAL HISTORY


AWARDS

BRICK MASON'S ALUMNI AND PLASTERER'S INT'L UNION, Louis Sullivan Award for Arch., Hartman-Cox of Wash., D.C., for Mt. Vernon College in Wash., D.C., May 15.


NEIL ARMSTRONG AIR & SPACE MUSEUM, Wapakoneta, Ohio, Arthur A. Klipfel, Ill, Oct. 78.

CULTURAL POLYFORUM, Mexico City, Alfaro Siqueiros, Sept. 8.

INNER HARBOR PROJECT I, Balti­more, Md., Louis I. Kahn, July/Aug. 78.

KIMBELL ART MUSEUM, Fort Worth, Tex., Louis I. Kahn, July/Aug. 56.


1972 ROYAL INSTITUTE OF BRITISH ARCHITECTS AWARD, Francis Pym & Chief Archs. Branch of Works Div. of Min. of Finance for Gov't of N. ireland, for Ulster Museum Extension, Belfast, N. Ireland, Dec.


BUSINESS AND FINANCE

"How to Have Your Cake and Eat It Too," A new tax proposal that helps the cities yet costs the local taxpayers virtually nothing, by Peter Marcuse, Mar. 28.


COMMERCIAL BUILDINGS

Arthur Court Gallery Entrance Park, S.F., Cal., Oto­nor/Anton/Panka/Sinclair, Oct. 5.


THE GALLERIA, City Post Oak U.S. Bank St., Houston, Texas, Helmut, Obata & Kassabaum with Neuhaus and Taylor, Apr. 30.

CULTURAL POLYFORUM, Mexico City, Alfaro Siqueiros, Sept. 8.

INNER HARBOR PROJECT I, Balti­more, Md., Louis I. Kahn, July/Aug. 78.

KIMBELL ART MUSEUM, Ft. Worth, Tex., Louis I. Kahn, July/Aug. 56.


“Irrelevance of Univ. Arch.” a discussion of recent British universities, by Ian Brown, Apr.

Navajo School, Rough Rock, Ariz., Cheyenne, Wyo., of Facheco & Graham, Sept.

Orange Mound Day Nursery, Memphis, Tenn., Walk Jones/Smiley, Oct.


Sauk Valley College, Dixon, Ill., Capeau, Royston, Scott with Durrant, Deininger, Dommer, Kramer, Gordon, Apr.


Unis Hall, Cornell Univ., Ithaca, N. Y., Skidmore, Owings & Merrill, Dec.

West 80th St. Community Child Day Care Ctr., N. Y. (remodeling), Kaminsky & Shiffer, Jan./Feb.

Winnebago Children’s Home, Neillsville, Wisc., Skidmore, Owings & Merrill (Chi.), June.

York School Library, Monterey, Calif., Smith, Barker, Hansen, Apr.


Geddes, Brecher, Qualls, Cunningham; Marion Angell Boyer Hall of Science, Beaver Coll.; Classroom and commons, Rutgers Univ., Newark, N. J.; Southern Ill. State Univ. Faner Hall; Fine Arts Bldg, Goucher College; Advanced Studies Inst., Princeton Univ., il.: Geddes article, “Theory in Practice,” Sept.

GOVERNMENT AGENCIES


School: Benjamin Thompson; Kent Elem. School, Earl Flansburgh & Assoc.; Hart-Dean Elem. School, Chapman & Goyette; Hennigan Elem. School, PARD Team; Brigham Library, TAC; Charleston Branch of Boston Public Library, Eduardo Catalano; South End Library, Mitchell/Giurgola; Field Corner Police Sta., Cambridge Seven; Renovation of coal bin for fire/police sta., Anderson, Notter, Oct.

GOVERNMENT BUILDINGS

Dacca, Capital of Bangladesh, Louis I. Kahn, July/Aug.

FBI Bldg., Wash., D.C. C.F. Murphy Assoc., Apr.

Old City Hall, Boston, Mass., Anderson, Notter Assoc., Sept.

Palazzo dei Congressi, Venice, Italy, Louis I. Kahn, July/Aug. 70


GRAPHICS


HOTELS

Disney World Hotel, Orlando, Fla., Welton Becket & Assocs., Univ. of Nino., Jan./Feb.

Host Int’l Hotel, Houston, Tex., Airport, William B. Tabler, Jan./Feb.

Part of vacation community nr. Bayonne, France, Aquitaine Architectes Associes, Apr.


Regency Hyatt Hotel, Knoxville, Ky., David Liberman and Barber & McMurry, July/Aug.

Vendome Hotel, Boston, Mass., (renovation and restoration), Stahl Assoc., Sept.

Walt Disney World Hotel, Orlando, Fla., Welton Becket & Assocs., June

HOUSES

Blue and Green House, nr. Tokyo, Japan, M. Miyawaki & Assoc., Apr.

Hilgenburg Residence, Arlington, Va., Charles G. Hildebrandt Assoc., Mar.

Myers House, Toronto, Can., A.J. Diamond & Barton Myers, Apr.

Owings House, nr. Santa Fe, N.M., Nathaniel Owings, Sept.


House for Simon Spies, Sweden, Staffon Berglund, Mar.

“A Moduler House That’s Different” (reverse prefabrication), Amagansett, N.Y., Richard Dattner, Oct.


Vacation house, Monterey Bay, Cal., William Logan (of Neil Noll, Mike Lee Assoc.), May.

HOUSING


Prefab caps, Exeter Department Store, Japan, Kisho Kurokawa, May.

“Homing in on Housing,” Hoberman & Wasserstein, N.Y.S. projects, Nov.

Housing development, Grigny, France, E. Allard, Jan./Feb.

Housing at “La Pineta,” Urbino, Italy, Giancarlo De Carlo, May.

Dacca, Capital of Bangladesh, Louis I. Kahn, July/Aug.

Library, Yale School, Montreal,


INTERIORS/FURNISHINGS


INDUSTRIAL


Usine Menier (Chocolate Mill), Noisel-sur-Marne, France, Jules Saulnier, May.

LIBRARIES

Corte Madera Library, Corte Madera, Cal., Smith, Barker, Hansen, May.


Library, York School, Monterey, Cal., Smith, Barker, Hansen, Apr.

Library, Everyman Library, Seattle, Wash., TAC, Nov.


“Irrelevance of Univ. Arch.” a discussion of recent British universities, by Ian Brown, Apr.

Navajo School, Rough Rock, Ariz., Cheyenne, Wyo., of Facheco & Graham, Sept.

Orange Mound Day Nursery, Memphis, Tenn., Walk Jones/Smiley, Oct.


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Geddes, Brecher, Qualls, Cunningham; Marion Angell Boyer Hall of Science, Beaver Coll.; Classroom and commons, Rutgers Univ., Newark, N. J.; Southern Ill. State Univ. Faner Hall; Fine Arts Bldg, Goucher College; Advanced Studies Inst., Princeton Univ., il.: Geddes article, “Theory in Practice,” Sept.

GOVERNMENT AGENCIES

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<td>Communist Party Hqtrs., Paris, France, Oscar Niemeyer, Sept.</td>
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<td>Equitable Life Assurance Soc., St. Louis, Mo., Hellmut, Obata, Kassab, 34th</td>
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<td>Frigoscandia Hqtrs., Helsingborg, Sweden, St. Emmanuel, Sept.</td>
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<td>Kansas City Office Building, Kansas City, Mo., Louis I. Kahn, July/Aug.</td>
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<td>Middletown State Hosp., Admin. Bldg., Middletown, N.Y., Prentice &amp; Chan, Ohnhousen, Nov.</td>
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<td>N.Y. Tel. Co. Switching Ctr., N.Y.C., John Carl Warnecke, Apr.</td>
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<td>One Shell Plaza, Houston, Tex., Skidmore, Owings &amp; Merrill (Chi.), with Wilson, Morris, Crain, and Anderson, Apr.</td>
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<td>Seamen's Bank for Savings, N.Y.C., Carson, Lumeonne &amp; Shop, June</td>
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<td>Midtown Plaza, Saskatoon, Can., Gordon R. Arnot &amp; Associates, Apr.</td>
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<td>Planning projects, R. Buckminster Fuller, Japanese Tower (with Shoji Sadao, Geometrics, and Simpson, Gumbert &amp; Heger); Harlem Project for Esquire Magazine; E. St. Louis project (with Wash. Univ. and Howard Univ.); Toronto's Spanish plaza (Fuller &amp; Sadao); Tetrahedral City, Japan (Fuller &amp; Sadao); Triton City (Fuller; Geometrics; Sadao), Jan./Feb.</td>
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<td>Dallas Cowboys Stadium, Tex., A. Warren Morey &amp; Assoc., Apr.</td>
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<td>Disney World Hotel, Orlando, Fla., Welton Beckett &amp; Associates, Jan./Feb.</td>
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<td>Dusseldorf Fair, Germany, Heinz Wilke, Apr.</td>
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<td>&quot;Olympiastadion,&quot; Munich, Germany, Gunther Behnisch, Oct.</td>
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<td>&quot;Landscapes for Urban Play,&quot; by Nanine Clay, Oct.</td>
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<td>SCOPE, Norfolk, Va., Williams &amp; Tazewell Partnership, July/Aug.</td>
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<td>Tourist Ctr. for St. Petersburg, Fla., Harvard &amp; Jolly, Oct.</td>
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<td>Vacation Community Hotel nr. Bayonne, France, Aquitaine Architectes Associés, Apr.</td>
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<td>Walt Disney World, Orlando, Fla., June</td>
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<td>World of Birds, Bronx Zoo, N.Y., Morris Ketchum Jr. &amp; Associates, Sept.</td>
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<td>Carmelitel Chapel, Valenciennes, France, Claude Guislain, with Pierre Szekely, Jan./Feb.</td>
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<td>Catholic Chapel, Saskatchewan, Can., Clifford Winns, Sept.</td>
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<td>Church of the Benedictine Monastery, Las Condes, Chile, Brothers Gabriel and Martin, Nov.</td>
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<td>Church of the Covenant, Cleveland, O., Richard Fleischman &amp; Associates, Sept.</td>
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<td>Hurva Synagogue, Jerusalem, Israel, Louis I. Kahn, July/Aug.</td>
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<td>Kansas City International Airport, Kansas City, Mo., Kivett &amp; Morris, May</td>
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<td>&quot;People Movers,&quot; Dusseldorf Fair, Germany, Heinz Wilke, Apr.</td>
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<td>Seattle-Tacoma Int'l Airport Parking Garage, Seattle, Wash., The Richardson Assocs., Nov.</td>
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<td>Research tower for Philip Morris Inc., Richmond, Va., Ulrich Francis &amp; Assocs., Sept.</td>
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