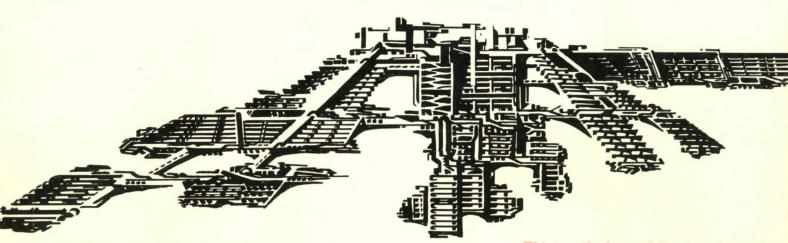
January 1966 PROGRESSIVE ARCHITECTURE



Thirteenth Annual Design Awards

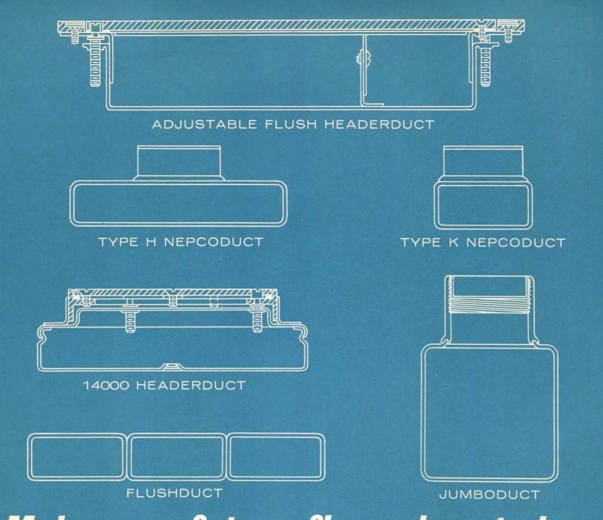


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JANUARY 1966 P/A

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Progressive Architecture ® January 1966

COVER

Partial elevation of Sunset Mountain Park, Santa Monica, California, chosen as the First Design Award (p. 120).

6 VIEWS

Our readers' comments on the architectural scene.

45 NEWS REPORT

Our news staff reports on the latest developments in significant new projects and personalities in the architectural world; plus round-ups of what is new in the area of Products and Manufacturers' Data.

115 TITLE PAGE

The designs are special. The results are dramatic. But the budget said "standard" doors only.

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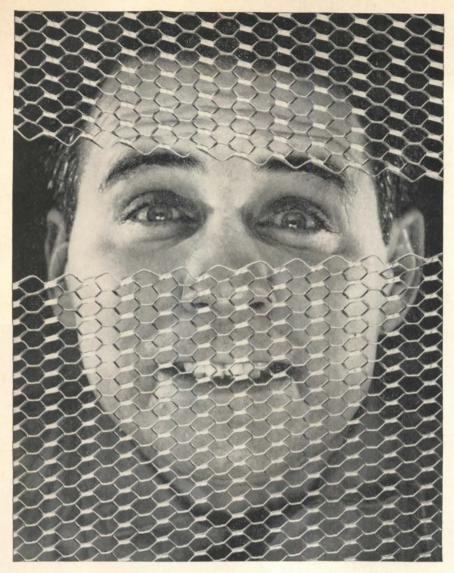




Classroom



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VIEWS

Toronto City Hall: Round 2

Dear Editor: I was very disappointed to see you print a criticism like the one by Balthazar Korab on the Toronto City Hall [OCTOBER 1965 P/A].

The petulant disappointment that echoes throughout his words I can happily ignore; everyone is entitled to his own opinion. But the photographs!

The photographs are hazy, slightly out of focus, lacking in any contrast, and, in several cases, taken from poor and secondary view points. This is completely at variance with the excellent photography I have come to expect in your magazine.

Since I can only assume that Korab is not a poor photographer (in spite of a midstream switch in professions), I am forced to the conclusion that this is deliberate distortion.

Too much is at stake for you to lower yourself to this level, even for the sake of the publicity which, I suppose, a controversial article will generate.

I enjoy criticism and feel that, in architecture, we are sadly in need of much more of it. But for goodness' sake, let it be honest criticism. And what is more important to you, honest journalism. A. H. LESTER Victoria, B. C., Canada

Dear Editor: As you know, I was genuinely regretful about the deadline for my article, since my pictures were substandard due to a laboratory accident. I wanted them used in the sense that the photography was not really an essential part of the criticism, and blame for it would fall only on us, not on the City Hall.

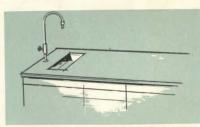
I therefore dismiss, on the grounds of poor logic, the imputations of malice.

My true concern is that the photography, having become a sitting duck for criticism, may have diverted serious dissent and communication regarding the essentials of my critique.

> BALTHAZAR KORAB Birmingham, Michigan

The Theater Architect: The Ultimate Decision

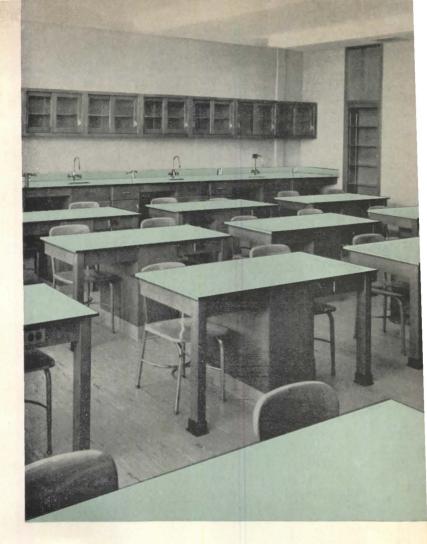
Dear Editor: By way of commenting on your Theater Issue [OCTOBER 1965 P/A]: Our experience would indicate that the architect should be the coordinator and the hub of the wheel, with the owner, the artistic director, and each of the individual consultants as the spokes. No one person can be so knowledgeable as to put a theater together in its entirety. *Continued on page 16*



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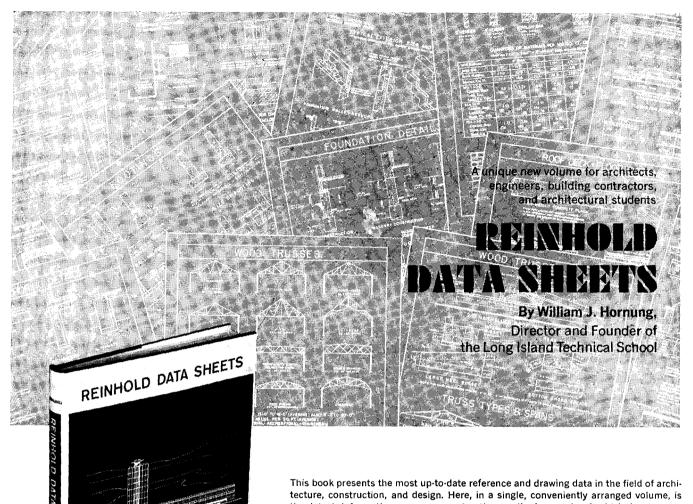


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The practical applications of this book within the building construction, cement, building materials, and equipment manufacturing industries are exceptionally broad. Architects, engineers, and builders will find it especially useful as an up-to-date source of ready reference, and for the contractor it can prove a most efficient aid to becoming better acquainted with new methods of construction. In addition, it is highly adaptable for reference use by students of architectural design and mechanical drawing in technical schools and colleges.

September 1965	256 pages	8¼" x 10¼"	\$15.00

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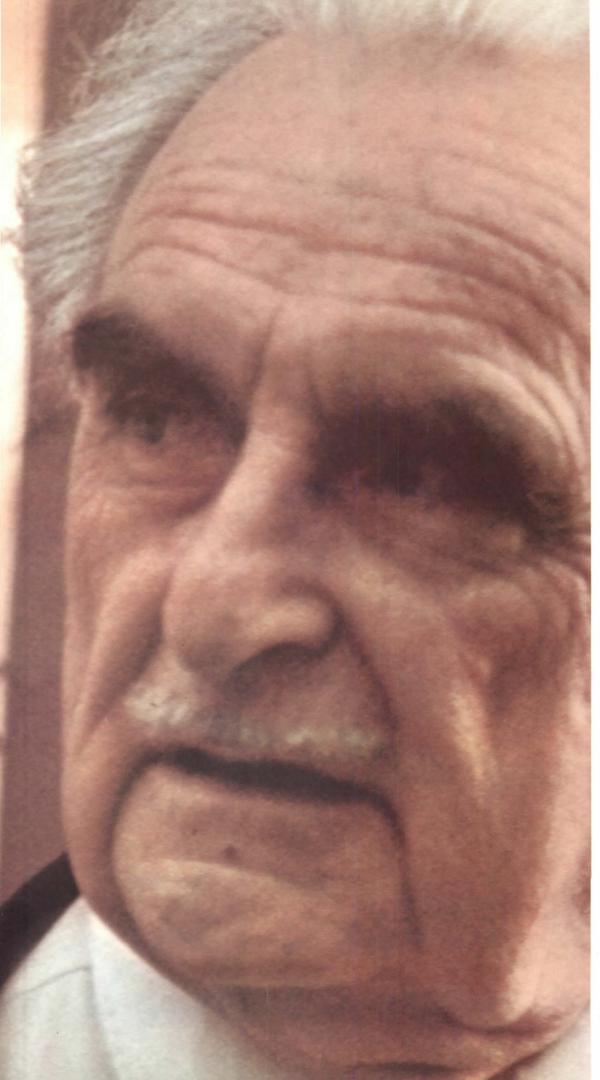
reference diagrams

WILLIAM J. HORNUNG

OF A SERIES



"Cities are not 'practical' if they are full of irritation and fatigue." RICHARD NEUTARA



We have been talking to Richard J. Neutra about carpets, because we think carpets should be a concern of architects. Here we ask Mr. Neutra about carpeting in public places.

Richard J. Neutra calls public buildings, buildings for "humans in groups," which is a revealing definition. He always thinks of architecture as serving the individual. And for Neutra the individual is best served when architecture is biologically based-when the architect knows and respects man's responses to environmental stimuli. Neutra's goal in the long run is inner organic balance, which, if we simplify, we might call serenity. Serenity is harder to achieve in a building for "humans in groups" than in a one-family house, but it is still the goal. "Cities are not 'practical' when full of irritation," Neutra says.

"...we perish not only by crashes but also by millions of minute collisions of our normal human biology with what new technology lets loose against it...that some eighteen million suffering Americans cool their too-hot heels in psychiatric waiting rooms is no accident, but looks like an indictment of our glorified manmade metropolitan world."

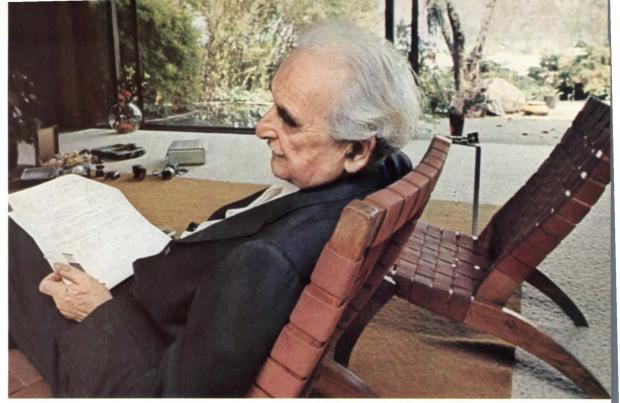
Neutra holds the architectural profession high. He sees architects as healers, healing the assaults our bustling civilization lets loose on us.

His work over a long lifetime has included clinics, schools, libraries, hotels, medical centers, planetariums, office buildings, embassies, churches, theaters, country clubs, housing projects, hospitals.

"I love to see architects as healershealing the assaults our bustling civilization lets loose on us."

Because we know Neutra's great love is schools (he was designing ring-plan schools in the '20s), we asked him how he felt about carpeting in the classroom. He said tension is created for the young child when he is taken to school and forced to sit properly at a desk. In his own home the preschool child does most of his learning on the floor. The child is more at home at school if he can learn while sitting on a homelike floor in homelike surroundings. From a more relaxed beginning he may be more at home with learning all his life. (It is not surprising to find Neutra has had a public school named after him as an educator.)

Neutra then turned to the subject of carpets in hospitals. "I have myself been a good deal sick in hospitals and have given a great deal of thought to how patients can be helped out of the hospital faster so that their rooms may be used by others waiting to get in. Certainly quiet hallways and rooms aid recuperation. Why



"Architects can make decisions friendly to life."

should we poison a patient with the toxic effects of loud noises? Carpets absorb the noise. Now, if you say surfaces in a hospital have to be daily washable to be clean, you may be dead wrong, if we listen to some scientific experts in Europe. Many strains of microbes are often smeared into joints and any indentations where their cultures

Gigantic movable louvres compensate for the rotation of the earth, so that office workers live through the day with less fatigue." Los Angeles Hall of Records. Hall of Records Architects.





multiply and flourish. You may be better off with bone-dry carpeting, suction cleaned. What's wrong with a vacuum cleaner?" Neutra exclaimed. "We keep pretending a mop and pail are the easiest and most efficient way to clean a public floor. They aren't."

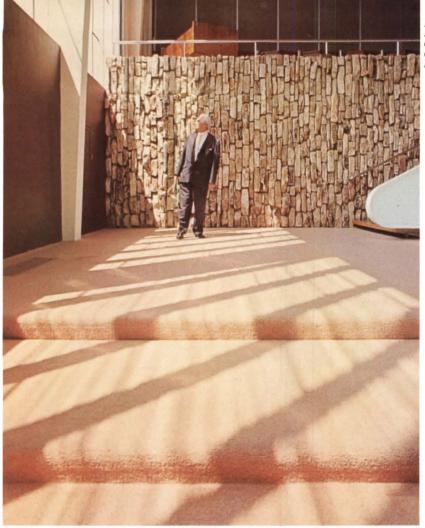
We nodded, remembering our trip to Garden Grove, California, to the Garden Grove Community Church which Neutra recently built—a community church wide open to nature. People may sit in their cars and hear the services or come within the church which seats 900. The maintenance man told us that the carpeting there had given him less trouble than any floor he had ever taken care of. He was taking into account the spot-cleaning he had to do when an occasional pious bird flew in through the huge, opened, sliding glass panels next to the pulpit platform. (The superintendent also mentioned how nice it was not to hear the tap-tap-tap of heels when ladies come late to services.)

We also thought of the Mariners Medical Building at Newport Beach, California, to which Neutra had given loving care. Here there is carpeting even in the dentists' rooms. It is a calculated part of an overall plan to take the patient's mind off the drill. The place is a peaceful haven, and



"Environment moulds our minds more than a textbook." The Richard J. Neutra School, Lemoore, California. Neutra, Alexander and Haines, architects.

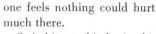
"A clinic can be homelike." Mariners Medical Center, Newport Beach, California. Neutra & Associates, architects.



Rock wall and carpeted floor absorb sound while glass lets in the outside. Garden Grove Community Church, Garden Grove, California. Neutra and Associates, architects.

"Even a dentist's chair can seem like an oasis.' Mariners Medical Center, Newport Beach, California. Neutra & Associates, architects.





Switching to his basic philosophy, Neutra said he felt architecture boils down to an issue of vitality versus fatigue. He pointed out that office workers can accomplish as much in the afternoon as in



The Garden Grove

from the ceiling

are amplifiers.

Community Church seats

900. Round projections

the morning hours when offices are planned to keep out irritating agents. Carpets are an aid in quieting, calming. And they are less tiring to walk on. They help get eight hours of efficiency-"a lot more than coffee breaks do."

"We know that carpeting muffles airborne sounds as well as footsteps," Neutra continued. "It is needed in housing projects. I'm all for loving your neighbors and having your neighbors love you. The privacy carpets provide makes neighborly love a little more possible."

"You can use carpets to keep people not only less bothered by noise, but calm in their interior, having less of the kind of endocrine discharges which make them what you call harried citizens."

Neutra threw up his arms in a gesture of summation. "Carpets are a healthy, harmless sedative-serenity bought in no drugstore."



Exterior of Garden Grove Community Church showing sliding glass panels next to pulpit platform, just above Mr. Neutra's head.

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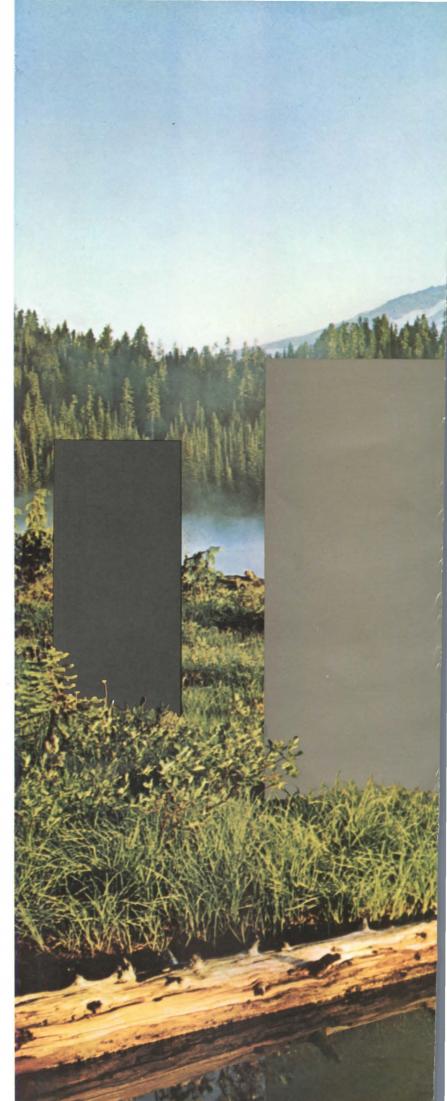
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Continued from page 6

The architect must be able to interpret the expressed idea of theater and then weave from this the over-all architectural fabric. This does not mean that the architect should be the judge, but that he must have the judgment to allow each facet of the theater's requirements to be expressed in the most logical and workable way.

While this may imply a great deal more responsibility for the architect than he may wish to assume, it is important for the profession that this be so. Lately, the architect has too often blamed the consultant, the contractor, or the client for a building project that turns out unsuccessfully. In theaters, where many clients and consultants must be considered, it is necessary for the architect to be willing to accept the responsibility of making the ultimate decision.

In today's technology, the need for flexibility is vitally important. Who can really tell where the next ideas for theater, for opera, or for other styles of presentation will originate? Due to economics and practical matters, most new theaters need to be adaptable to many different types of presentations. Study and research in these areas has led us to some solutions that we hope have proved successful in combining the facilities of different theater requirements. (Future projects of this kind will no doubt lead to further improvements in these fields.)

The main point is for the architect to be able to look at all of the facets concerned but then be able to make decisions based upon the many requirements of the various ingredients within his project. Even if one is occasionally wrong, it is necessary to make these decisions. Otherwise, there is no direction to the project. WELTON BECKET Los Angeles. Calif.

A Question of Simple Economics

Dear Editor: I should like to comment on your publication of my vacation house in the November 1965 P/A.

First, the published cost of the house was unauthorized and misleading. Our cost-plus construction contract included year-round heating and insulation, the moving and remodeling of an existing house, a gasoline generator for *all* power, a telephone line running for a mile under the lake, a long entrance road, the demolition and rebuilding of a boat house and dock, and other odds and ends of building.

Second, in speaking of simple "volumetric architecture," I was putting into words ideas that are obviously better *Continued on page 22* more and more great American architects are using Marmet

new apartment tower in Sandburg Village

CARL SANDBURG SOUTH CHICAGO

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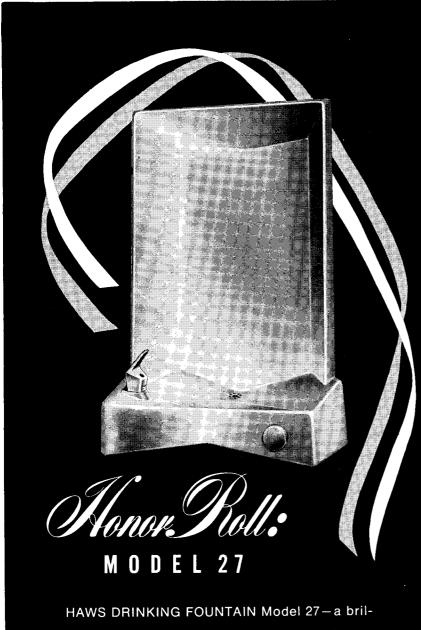


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22 Views

Continued from page 16

stated in wood and stone. Even so, I was taken aback by your tongue-in-cheek treatment of my comments. It seemed out of balance with your generally uncritical attitude toward the other vacation houses.

By the way, did anyone from your magazine actually visit the house? EDWARD L. BARNES

New York, N. Y.

P/A on Corbu: Near the Point, But with a Weakened Flesh?

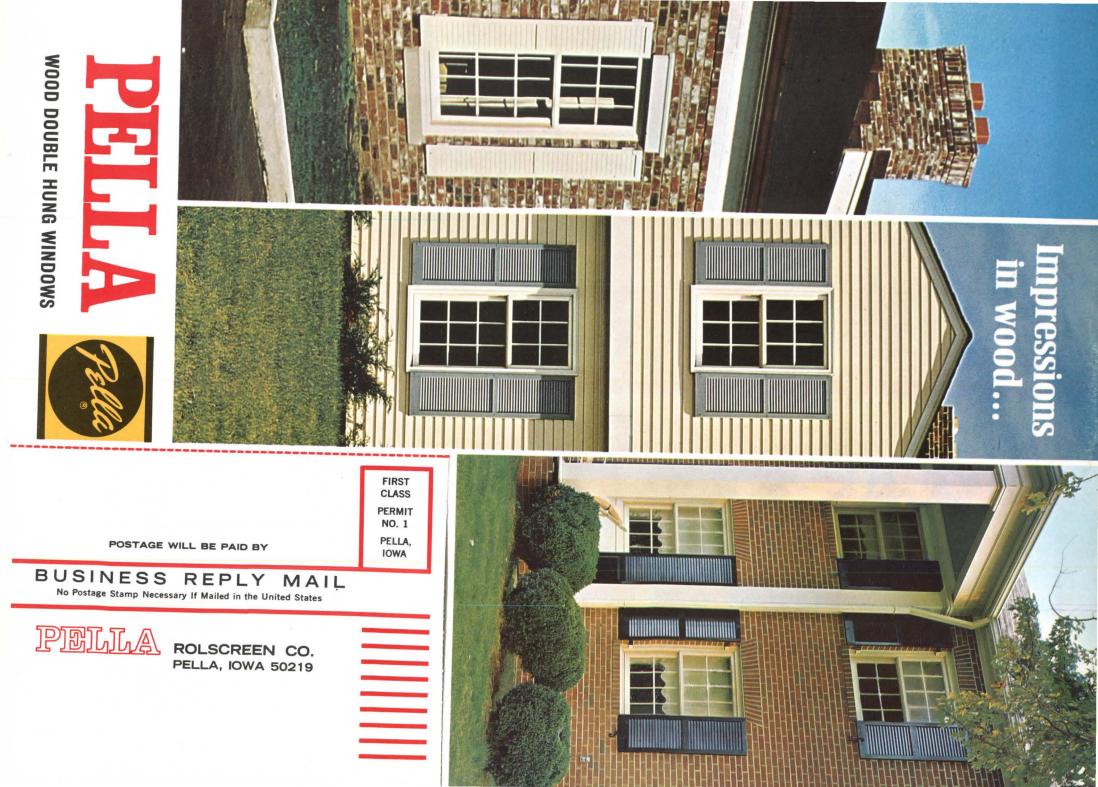
Dear Editor: I was waiting for this number [OCTOBER 1965 P/A] with some apprehension, and it came, as I expected, expelling all ardour. What I mean is, that when the architect of this millenium dies, one could halt the jamboree to mark the calamity by devoting one issue to the glittering display of his thoughts and creations. Some of your correspondents complained of Le Corbusier's bitterness; this omission perfectly illustrates why the man was bitter. No one better than he knew what potency and value was inherent in each of his devoted and passionate works. He and Pierre Jeanneret knew it already in 1917, and in this knowledge he pressed his energies to the utmost, almost to the point of exhaustion, before Dr. Winter took him in hand. (This was the period of the Palais des Soviets.)

At the root of his strife was that he wanted to change the whole attitude toward architecture, which brought him into deep conflict not only with authority, but with the whole profession. Each work, even one such as the Villa Guiette at Antwerp, was an adamant protest against the superfluous present.

The sad thing is that the world and our attitudes are very much the same as before Le Corbusier. We architects have a new alphabet, a source of inspiration. Some are touched more deeply by the fidelity of his thinking. But what we need is a recognition of the terms that he established, the plane, the expanse of our opportunities as architects; these must be accepted so that we can move on from there in solidarity. "Urbanism reflects the whole attitude of a society." But does it in our case, or is it some kind of balancing act?

Your advertisers ask, "Does P/A help you in your work?" Sometimes you're near the point, but then the flesh weakens. R. C. ESDAILE Bekkestua, Finland

CORRECTION: In the article on the Terrace East, Terrace West Apartments in Berkeley, California [NOVEMBER 1965 P/A], we neglected to credit the photographer: Joshua Freiwald.



Paint, wash or remove sash from the inside just by pivoting the sash on this all-new PELLA Wood Double Hung Window. That's why this wood window is equally at home in high-rise buildings and residences. Exclusive spring-loaded, vinyl sash slides that are tough, resilient, insulate against heat or cold and never need painting are the secret of these PELLA windows. Slides are held snugly against the sash stiles by concealed continuous spring weather stripping which compresses to allow sash to pivot. There's a choice of a lower half screen or a full-length screen that swings out during washing. Both are removable from inside. Snap-in, snap-out wood muntin bars provide the traditional "look." And, a combination of stainless steel and woven pile weather stripping adds to year 'round comfort conditioning. Dual Glazing Panels or insulating glass make outside storms unnecessary.

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JANUARY 1966 P/A



crazy mixed up

You're looking at Steelwood. And then again, you are not. Steelwood is Robert John's line of office furniture that's neither steel nor wood. And then again, it is. It combines the best features of both. So far so simple.

The framework on all cabinet pieces is sturdy, welded and smooth steel. And that's where predictability ends. After that it's chrome plated, with a satin or polished finish. Or it isn't. It might be bronze plated instead. Or it might be given a baked enamel finish in white. Or maybe black. Follow?

Panels and drawers and doors of teak are added. Correction: walnut. Correction: blue, yellow, green, brown, black, white, beige, red, grey or orange lacquer. Are you confused?

Take heart. The chairs we designed to complement Steelwood are a snap to

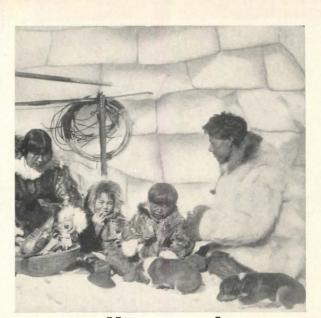
spot. There are only seven of them. And they come in only 150 or so distinguished Robert John fabrics, leathers and plastics. For the variations in metal finish and wood trim, just re-read the last two paragraphs. Add rosewood. Get it?

If all this sounds like a furniture line with a personality split seven thousand ways to Sunday, it's because it is. And is not. Steelwood is all beautifully simple. The immense flexibility and the endless variations exist for the convenience and the individual discretion of the decorator. Not to mention the challenge. But, once you catch on, Steelwood makes things easier than automatic.

When people realize the trouble we took to design and develop Steelwood they say we're crazy. And we admit it. Like a fox!

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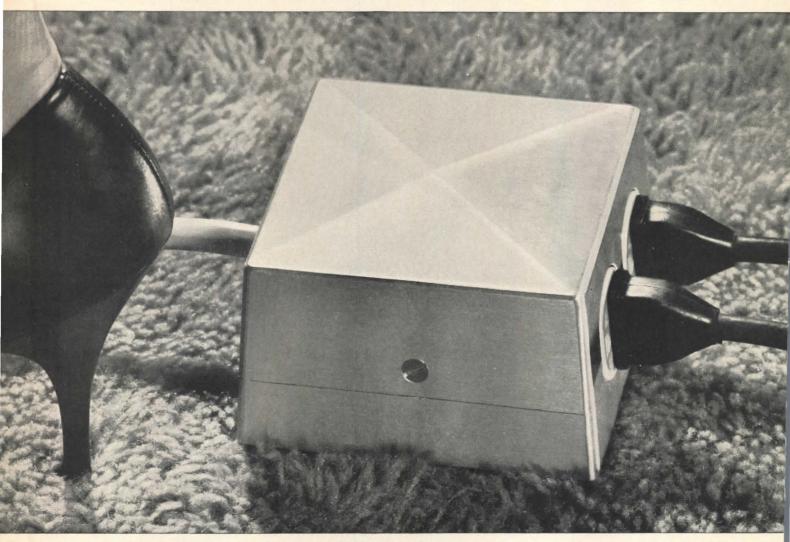
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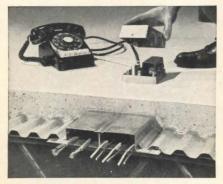
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Telephone and power outlets in <u>one</u> fixture!



NEW ECONOMY FOR THIN FLOOR SLABS! Cel-Way System provides full in-floor electrification . . . and saves concrete in steel joist floor construction.

Why one fixture is better than two. Granco's new Cel-Way In-Floor Electrification System puts electrical and telephone outlets in one compact floor fitting. Result: you've just eliminated 50% of the floor fixtures. Imagine a finished floor like the one above, with these new, single, lowprofile, satin-finish fittings. All the double-fixture, dust-traps are gone. Floors are *now* attractive, uncluttered, easy to wax and clean.

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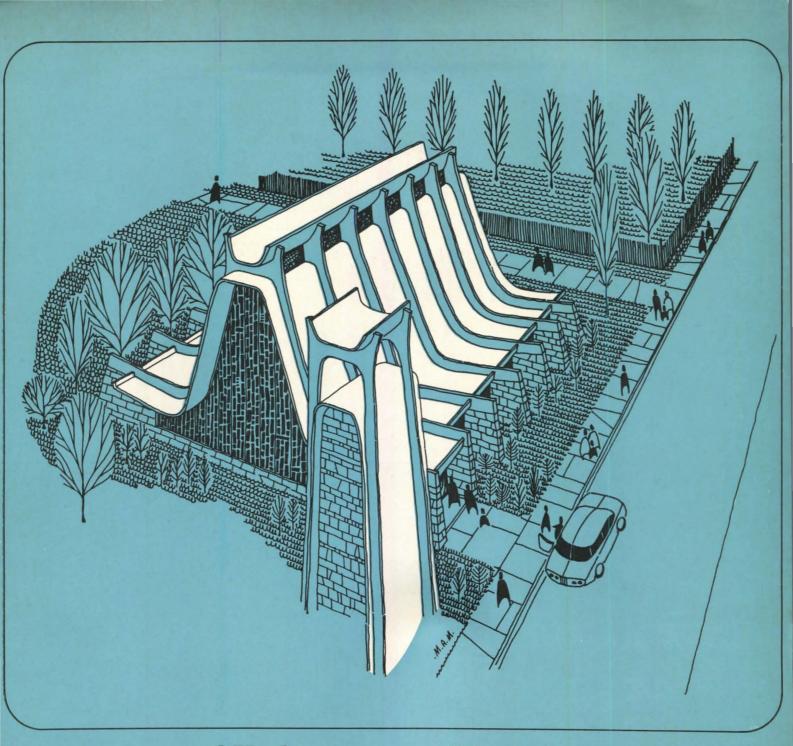
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CLASS I MATERIAL

ABSOLUTE COLOR STABILITY—an egg-crate louver injection molded of 100% pure virgin acrylic. $45^{\circ}x45^{\circ}$ shielding is provided by $\frac{1}{2}x\frac{1}{2}x\frac{1}{2}$ inch cells which allow maximum illumination and excellent brightness control over 45° . **HIGH EFFICIENCY** as over 70% of the panel is open and the 100% virgin acrylic has over 50% transmission factor, the efficiency approximates an exposed lamp.

HIGH MAINTAINED EFFICIENCY as there is a minimum area for dust collection, dirt falls through, eliminating a dust film on the top side, high foot-candle, shadowless illumination is maintained. Louvers are destaticized to repel dust. **REDUCED GLARE** the height of the panel, and the open cubes of the louver construction allow most light to come through instead of "brighting up" the panel. Reducing irritating and fatiguing glare without sacrificing light.

AIR CIRCULATION the open cubes allow free air circulation, enabling lamps and ballasts to operate cooler, increasing their efficiency and life.

DIMENSIONALLY STABLE the rigid, one piece construction provides a durable, impact resistant panel, impervious to scratching, tearing, washing or marring, American louvers' edges stay straight and unaffected by temperature and humidity fluctuations. However, they can be cut to any specifications, offering unlimited design and installation flexibility.

SIMPLE LOW COST MAINTENANCE as dirt and dust falls through, maintenance is minimized. Just lift out for relamping; a quick detergent dip for cleaning. Economical because of their durability and maintenance ease. Destaticized panel requires minimum of cleaning.



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Another First from Barber-Colman

Place Victoria

for more than a million square feet, which is best: electronic or pneumatic controls?

UNTIL recently, almost all "big job" comfort control systems have been one-type installations—all electronic or all pneumatic. But when the first tenants began moving into Montreal's new Place Victoria in May, 1965, a new era opened in the design of environmental control systems.

The environmental control system for this new Canadian Stock Exchange Tower is the first ever installed which selectively combines the most desirable features of four different types of controls along with new concepts in air distribution equipment and building automation—all designed, manufactured, and installed by a single manufacturer.

Because compatibly designed Electronic, Pneumatic, Electric, and Hydraulic controls are standard Barber-Colman lines, our application engineers were able to select the exact controls best suited to Place Victoria's various requirements. And with nineteen different fan systems, the requirements are bound to be varied. For instance, five systems furnish air for perimeter system induction units. Nine supply Barber-Colman Jetronic Single Inlet Mixing Units for interior zone comfort. Three condition the five below-ground garage and utility levels. Two serve the lobby.

Pneumatic Controls are installed on the 4700 induction units and Barber-Colman Jetronic Single Inlet Mixing Units. These controls are most economical where there is no local source of electricity, and they are ideally suited to simple multiunit sequencing control.

Electronic and Electric Controllers and Actuators control all central fan systems. They are best for this application because of the ease and simplicity with which they provide desirable features such as these: Resetting of hot and chilled water temperatures to match outdoor weather conditions; remote selection of space temperatures; recording and retrieval of building automation data at the Selectronic Control Center.

Hydraulic Controls are used selectively in shopping and store areas to control radiators and wall-type convectors. These compact controls combine the advantages of Electronic, Pneumatic, and Electric Control in a unit-mounted system that offers excellent accuracy for smaller air conditioning and heating units.

All systems are tied together at a Barber-Colman Selectronic Control Center located on the fifth floor. From here, all fan systems can be monitored and controlled by a single building operator. Because electronic and electric controls are used on the various fan systems, temperature can be read out and analyzed "Selectronically" without intermediate conversion of signals.

From the time that this project began, a Barber-Colman engineering and installation "Task Force" worked closely with Place Victoria's owners, architects, engineers, and contractors. Result: A *complete* environmental control system that fulfills exactly the descriptions of operation required in the final specifications.

Today, Barber-Colman is the only company with the experience and staff to design, manufacture, install, guarantee and service *all types* of comfort control systems and air distribution products. This unique capability enables Barber-Colman to offer important installation and service benefits on your next building.

For more details on the ultimate in fully integrated automatic controls and engineered air distribution systems, contact the Barber-Colman field office nearest you. Or write for our five new booklets outlining the features and advantages of Barber-Colman Electronic, Electric, Hydraulic, and Pneumatic Controls, and Selectronic Control Centers.



This Barber-Colman Selectronic panel controls the climate on all 52 floors of Place Victoria. It provides 42 points of remote indication control and reset on fan and secondary water systems. With it, the operator can read temperatures at each of these points and change the thermostat set point without even leaving the 14' x 20' Selectronic room. A television-like screen at left enables the operator to see equipment layouts for the various systems he is monitoring, simply by pressing a button: (In addition to the Selectronic panel, there are also 14 Barber-Colman graphic control subpanels located throughout the building. These show local system temperature readings and indicate when air filters in the system need changing.)



BARBER-COLMAN COMPANY

Rockford, Illinois 61101 In Canada: BARBER-COLMAN OF CANADA, LTD. Weston, Ontario

... where originality works for you

Place Victoria — Architect: L. Moretti, Rome. Associate Architects: Greenspoon, Freedlander & Dunne, Montreal. Consulting Structural Engineers: P. L. Nervi, Rome; D'Allemagne & Barbacki, Montreal. Associate Consulting Engineers: Letendre & Monti. General Contractor: E. G. M. Cape & Co. (1956) Ltd. Reinforced Concrete Frame Contractor: Janin Construction Ltée.

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tural decks in the longer span

ranges, to 125 feet. Normally

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unit provides large coverage.

Popular for exposed ceilings in

gymnasiums, garages, bowling

alleys, etc. Ends can be custom

shaped to provide architectural

treatment when cantilevered.



I GIRDER

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BOX GIRDER

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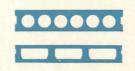
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INVERTED T BEAM

This basic component beam reduces total structural depth since deck members can be supported on haunches. Mainly used with double tee, single tee and hollow core slabs for structural framing including the deck sections.



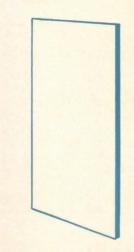
HOLLOW CORE SLABS

Major use is in office, commercial and apartment structures where flat ceilings are desired. Provides high insulation and low sound transmission. Voids may be used for mechanical and electrical systems. Shorter spans, to 40 feet.



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Concourse Village—Architect: Harry Prince, General Contractor: Cauldwell-Wingate.



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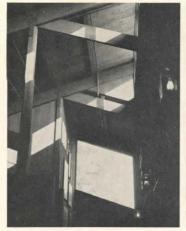
5200 HOMES DEPEND ON TURNBULL

> In New York's newest apartment community



"WOOD IS HONEST. IT DOESN'T TRY TO BE SOMETHING ELSE AND NO OTHER MATERIAL WOULD HAVE CREATED THIS RESULT." JOHN STORRS, ARCHITECT / SALISHAN LODGE / GLENEDEN BEACH, OREGON

Salishan Lodge, a new resort and convention center, is located on Oregon's Pacific Coast, just 90 miles from Portland. Architect John Storrs, noted for his works in Western Woods, gives us a tour of Salishan.



Lights and shadows play on the rustic interior of the Attic Lounge, with 3" x 16" Douglas Fir beams and 2 inch tongue and groove Hemlock decking. "I used to sleep in an attic

as a kid, up under the beams and the roof. I tried to capture that feeling here."



"Oldtime notching and bolting is really not finished work. Far from it. It's simple and allows for error. But, you don't notice it and it doesn't bother you if you do anyway."

Under a covered walkway (below) Storrs talks about his architecture. "People use the phrase, 'Japanese-style' when they see Salishan. But there's a big difference between Japan and the Oregon Coast. Everything here is machine cut and you have to take the consequences."

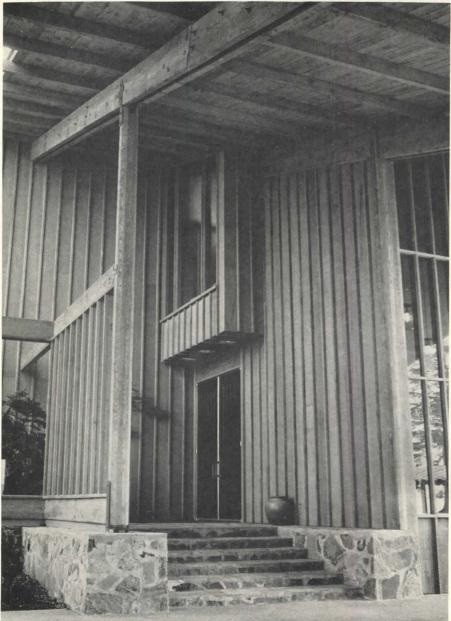


The exterior of the main lodge buildings are sided with resawn Western Cedar. "Board and batten lets you introduce any window pattern you want. We've softened the old-fashioned bat a bit. This rough wood is more permissive and takes rain with ease. The grain is

magnificent, especially when you stain it. You get a layering quality."

Every building in the Salishan complex (below) is connected by covered walkways of 2 x 12 Western Cedar set board on board. "This structure had to occur. The tree was there; the roof had to be high enough for the trucks to go under. Since my overall statement on Salishan was basically simple, so, too, was the solution. Just nail the boards, boys. I couldn't have





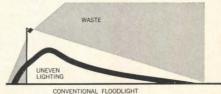
The lodge entrance shows how well Western Wood works with other materials, such as the native rock found

on the Oregon coast. "Western Wood is so many things. It's soft, it's hard, it's rough, it's shapely, it's warm, it's romantic. And it has structure. This is why I use it. I've been told that Salishan looks like it has been here for years. Once, I might have resented that. But as I grow older, I realize this is a great commodity of architecture. How do you create a timeless building? It must be honest and honesty is a faculty Western Wood enjoys more than any other material. Wood will always be in date." The fact that Salishan Lodge with its 100 units was completed in less time than many homes attests to Western Woods' availability. "There is very little here that is special. Everything has been on the market a long, long time." Storrs on the general use of wood: "People put too many artificial restrictions on it. I use wood as a native material in its natural way. Old-timers went further in extending wood than many modern codes permit. Their structures are still standing and being used every day. And, wood is not wallpaper. It's going to get peanut butter on it." Just eleven months after the developer approached Storrs with the idea, Salishan rests completed, over-looking the rugged Oregon coast. "The scale turned out wonderfully. There was a continuism of the land to work into. All the buildings fit; they belong here. Salishan is one material, one color, one type of cutting, everything in repose. I don't know whether to call it an architecture of restraint ... of boldness ... or a combination of both." Discover the many sides of western Wood and how it can work for you. Clip the coupon and we'll send you the Western Lumber Technical Manual, free, of course.

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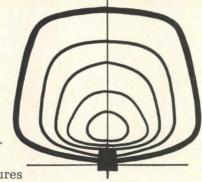
This rectangular revolution in good light and good looks is called Profile Light.[°] Profile Light is different because Crouse-Hinds designed it from the ground up.

The reason lighting has often been so uneven until now is that it operates something like this.



We forgot the past and designed a light working backwards through isolux patterns and isocandle data from the surfaces being lit back to the reflector. The

result was an asymmetrical or off-center reflector which casts a rectangle of even, uniform light on the surface. Where round parabolic fixtures



throw away 25% of their beam lumens and conventional rectangular fixtures up to 40%, the new Profile design only loses 12%.



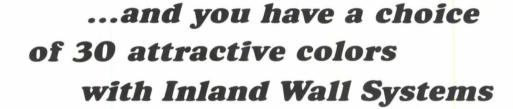
You work with far fewer lights with far less expense in most areas. Get the rest of the story on this revolution in outdoor lighting design. Write for Bulletin 2775. Crouse-Hinds Company, Syracuse, N. Y. 13201.

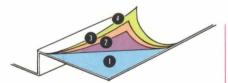


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Foote & Davies Division of McCall Corporation Plant and Office Atlanta, Georgia Architect: Toombs-Amisano & Wells Atlanta, Georgia Contractor: Ira H. Hardin Co. Atlanta, Georgia

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EP-54



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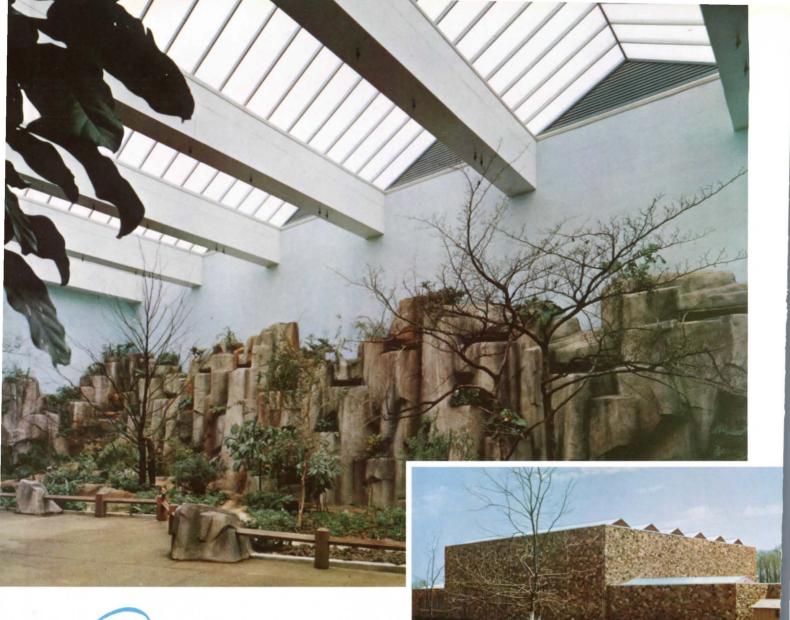
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Translucent SMOOTH ROUGH is but one of many rolled glass patterns created by Mississippi to help control raw daylight. "Visioneered" to meet virtually any daylighting requirement they are available wired and unwired through leading distributors of quality glass.



Architects and Engineers: Quinton Engineers, Ltd., Los Angeles, Calif. General Contractor: S. Patti Construction Co., Inglewood, Calif. and Kansas City, Mo. Glass: Ful-Trim Division of Texas Aluminum Co. Glazing: Imperial Glass Company, Los Angeles, Calif.

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> NEW CATALOG Contains pattern descriptions, light distribution charts, transmission data. Send for your free copy today. See our catalog in Sweet's S





Architecture's Monthly News Digest of Buildings and Projects, Personalities, New Products

Johnson Fashions Kennedy Memorial



DALLAS, TEX. A stark, silent sepulchral monument, described by its designer, architect Philip Johnson, as an "open, floating room," will commemorate the spot of the late President Kennedy's assassination. Construction will begin March 1 on the roofless, raised structure, which will measure 50'x50'x30'. It will be fashioned with hollow, 30''x30'' precast, post-tensioned concrete planks at a cost of about \$100,-000. The monument of course will have some sort of identification. Just what, Johnson is not sure; he is working on it.

Yamasaki Designs Boston Air Terminal



BOSTON, MASS. By late 1967, passengers flying Eastern Airlines into or out of Logan International Airport here will pass through this terminal designed by Minoru Yamasaki. In an era when most airline edifices are called jet-age terminals, this one was designed more with passengers in mind than jets—a passenger-age terminal. Yamasaki's design brings the planes as close to the passengers as possible. The longest boarding stroll will be 350' from the sidewalk or passenger elevators. Arriving patrons will drive their cars right into the terminal, parking them on any of three floors of garage space above the terminal area, or on the roof. Baggage will be checked in near the curb and delivered to the plane-boarding areas by conveyor.

At either side of the terminal will be satellite lounges, each with six gate positions, and, if future traffic demands it, a third lounge can be added at the rear, increasing the gate positions to 18. In all, Eastern expects its new facility to be capable of handling more than 6,000,000 passengers per year, three times as many as its present facilities at Logan handle. Yamasaki calls his design:

"American contemporary technological design." He adds that "the big problem was to make it look like a terminal, not just a garage terminal facilities superimposed." Beneath the roof overhang, the three parking floors, which will accommodate 1000 cars, will be hidden behind a slotted curtain wall of sparkling almuinum decorative strips and glass or plastic.

volume, as it has been in recent years, is almost half the total

dollar value of new housing

NAHB Economics Department

study that shows houses are

again getting bigger if not bet-

ter. In 1965, according to the

study, houses will have 12 per

cent greater total square foot

area than did those put up in

1955. Says Housing Trends,

"In practical terms, this in-

crease could reflect the Amer-

ican family's desires for an

extra bathroom, a family-size

kitchen or a retreat for adults-

or just more room."

Housing Trends cites a

Housing Starts Going up in 1966

construction.

NEW YORK, N.Y. Despite much talk about a continuing decline of housing starts, the November issue of *Housing Trends* predicts that 1966 will be a good year for homebuilding. Based on an analysis of household formation, mobility, and the need for replacement of existing units, *Housing Trends* forecasts 1,600,000 housing starts this year. This total is up slightly from 1965, a volume almost the same as 1964's.

Also foreseen is a 5 per cent increase in the dollar cost of residential additions, alterations, maintenance, and repairs to a total of \$13,750,000. This

Cents and Sensibility

NEW YORK, N.Y. U.S. Gypsum is spending \$1,250,000 in East Harlem. Last July, the 63-year old, \$315,000,000 company went into the rehabilitation business: it bought and privately financed the renovation of six tenements on East 102nd





Street. One by one, Gypsum, Blitman Construction Company, and architects Mazza and Seccia are rehabilitating the buildings, some of which provided no heat, no closets, minimal toilet facilities, and had been charged with as many as 149 building code violations. The company met with tenants,



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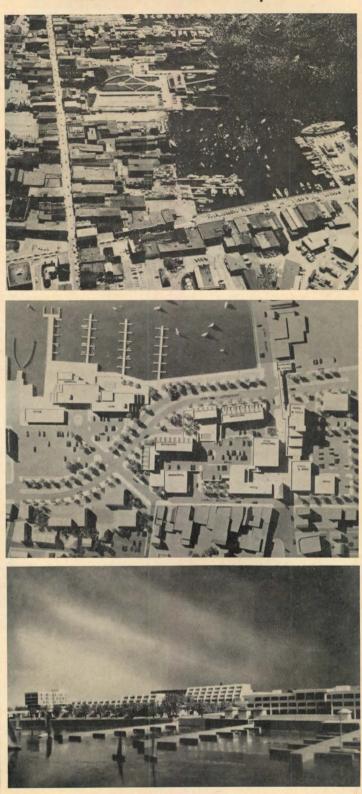
agreed to pay their moving expenses, as well as any difference in rent they might incur in the meantime. As the tenements are finished, the old tenants will move back into them. Things will be a bit different though. Where before the average rent was \$28 a month, the rent now will be \$78. But this is a hike that all agreed on. Where necessary, rent subsidies from the city's Rent and Rehabilitation Administration will be available.

Last December, the first building, 307-9 E. 102nd St., was completed just in time for Christmas, New kitchens, toilets, floors, walls, ceilings, doors, windows, steps, roof, heat insulation, sound control, light fixtures, garbage chutes, mail boxes and buzzers were in evidence. And on the exterior, a bright new coat of paint graced the old but sturdy and now corniceless tenement -all this in a neighborhood that tended toward dilapidation, for a price less than half that of new construction.

The cost of purchasing the houses and renovating them will amount approximately to \$230,000-an investment that should pay Gypsum large dividends. As probably the first private corporation to go into renovation work, the company is hoping to spur others to share in what is projected to be a \$4,000,000-a-year market for the construction and building materials industry. The 102nd Street project will also be a testing ground for Gypsum products such as a new fireproof insulation material that is liquid when applied, and radiant heat conductors in the ceiling. When the project has been completed, in 1967, Gypsum hopes to sell the buildings to a nonprofit community corporation. It will also publish its findings so that others may know the ins and outs of renovation.

The renovation work begun by U.S. Gypsum has had a heartening effect on the neighborhood. Already owners of two other buildings on the block have painted their housefronts and the city is planning a six-story low-rise development to stretch to 101st Street. There is also a change in the atmosphere. The "social club" at the pool hall is still there. But so now are thoughts of trees, girl scouts, and vest pocket parks.

Waterfront Renewal in Newport



NEWPORT, R. I. During the America Cup races, the Newport waterfront is crowded with yachting buffs, yachts, banners and other nautical trappings. During the Newport Folk Festival, it is loaded with cops and bearded youths. The rest of the time, it is more like a typical urban waterfront area, with piers jutting haphazardly into the bay, slightly dingy shops, and bars filled with sailors. Now at least part of



that will change.

On waterfront property off Thames Street, just beneath the Newport village green (Washington Square), the Newport Redevelopment Agency has marked land for renewal. Recently approved was a redevelopment plan drawn up by New York architects Hoberman & Wasserman and presented by the Thames Street Company of which they are a part. Their designs are based on a master plan composed about two-anda-half years ago by Hoberman & Wasserman working with Candeub, Fleisig, Adler & Associates, planning consultants to the Redevelopment Agency of Newport. The Thames Street Company (whose other principals are Corinthian Conservation Co., Inc., and William L. Crow Construction Co.) is trying to raise the \$6,000,000 necessary to see their designs through construction.

Planned is a carefully integrated area of shops, offices, residences, and, at one end of the area where the harbor ferry now docks, a marina, a motel, a restaurant seating 400, and more stores. Parking will be made available for 839 cars, 523 in a central garage. What is now the straight, unrelieved stretch of Thames Street will be broken as it runs into the graceful curve of a boulevard that dips from the main thoroughfare past the water's edge. Lining this boulevard, looking out over the water, will be 60 apartments and town houses, which will rent for about \$50 per room.

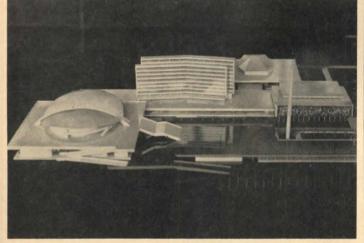
Incorporated into the design is a Newport landmark, the Brick Market. It will provide an architectural link with the rest of the town beyond it and front, on the renewal side, on an enclosed urban pedestrian plaza more reminiscent of an Italian square than a New England village green. But Hoberman & Wasserman have wisely left the vista past the Brick Market open so that someone standing by the town hall at the head of Washington Square can see through the development past the Chamber of Commerce building (to be tied to the development by a footbridge over the waterfront boulevard) all the way to the waterfront. Despite the seemingly vast open spaces of parking lots, the plan is in keeping and in scale with the rest of Newport across Thames Street.

Stone Designs Cultural Amphitheater



HOLMDEL, N.J. The Garden State Parkway has a firm grasp on culture. And plans are underway to use it the way organ-grinders use monkeys: as a lure. Responding to the come-on premumably will be dollar-clutching motorists who use the Parkway, instead of penny-clutching kids. On a 250-acre track on Telegraph Hill Park just off the Parkway, will be located the Garden State Arts Center, of which the amphitheater shown here will be the focus. Designed by Edward Durell Stone, the theater will seat 10,000, with room for 4800 under the circular, saucer-shaped overhang, the rest sitting on the sloping lawn. Free parking, nature trails, and an art exhibition mall will complete the center. Construction is scheduled to start early this year, with a formal opening of the amphitheater due on Easter, March 26, 1967.

UNITED NATIONS EAST?



JAKARTA, INDONESIA A painting displayed prominently in Jakarta's new exhibition hall shows Indonesian President Sukarno carrying a globe, marked "Conefos" (for Conference of New Emerging Forces), as he helps Red China's Chou En-lai and the United Arab Republic's Nasser push a fat American capitalist into a bonfire fueled by the skyscrapers of New York. Sukarno's particular brand of nationalism, like that practiced by most megalomaniacs, gives the populace an imagined outside foe to take their minds off more pressing deficiencies. In this case, the foes are the Olefos—the Old Established Forces—and what makes his crusade particularly interesting to architects is that Sukarno is giving it a peculiar architectural twist.

Under construction since last April, the tenth anniversary of the Bandung conference of the Afro-Asian nations, is a complex of buildings that will house the Conference of Emerging Nations next August. Sukarno intends to have the Conference found a "Unit-

ed Nations" that will rival the organization based in New York. Only Nefos, of course, would be eligible for membership. Even if the new organization is formed and successful politically, its architectural expression is obviously foredoomed. The entire complex looks a little like an Hawijan village conceived by the Hilton Hotel chain. Its geometrical forms, if that is what they are, have no cohesion, and, worse than that, no apparent reason for standing next to each other. They look self-conscious, and, in model form, slick, like the jokes of a third-rate comic. Ironically, they look capitalistic, a little like the skyscrapers that are burning with the American capitalist in the

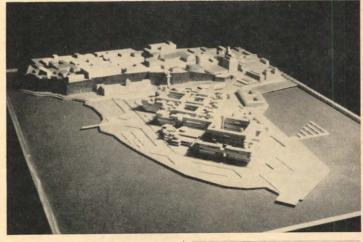
painting. Besides the domed assembly hall and the 11-story secretariat building, the complex will have, in its almost 200,000-sq-ft, housing for visiting dignitaries (including bungalows for six chiefs of state) a shopping center, restaurants, a chapel, and a night club. Sukarno, who is personally supervising construction, has thought of everything including how to pay for it. Earmarked for construction costs are 15,000,000 American dollars (the last of our Indonesian foreign aid?); and a recently completed banknote printing plant is busy turning out currency to use in this and other projects that the economy cannot quite support without artificial stimulation.

Leaving the Pearl Behind Them





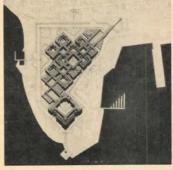
SAN JUAN, PUERTO RICO Romantic Old San Juan is pitted with pockets of poverty. One of these, La Perla, an area just outside the city walls to the north, between the wall and the water, contains about 3000 persons living in shacks put together from cardboard and wooden crates. According to Jan Wampler, a young Harvard-trained architect-planner who spent two years working for Boston's Redevelopment Authority and who this month became the head of a newly formed Department of Renewal and Planning in the Commonwealth of Puerto Rico, La Perla is not all bad: "Its location on the water provides an excellent playground for its children. The site, a steep slope above the ocean, is spectacular enough to allow it to be called a romantic slum. The shacks, falling down the hillside in many levels and directions, and that juts out into the bay, is an area called La Puntilla. Here his department plans a development of low-income and middle-income housing. (The design work was done last year when Wampler was resident architect-designer for the Department of Urban Design and Housing.) Grouped in inter-



the steep winding paths connecting one house to another are indeed picturesque. But this cannot excuse the fact that the housing of La Perla is worse than housing in general was 2000 years ago." Even though he may be exaggerating the plight of the housing, it is indeed bad. And filth seems to spawn more filth. Garbage is thrown into the footpaths, which are used as toilets, and, when it rains, turn into a morass of stinking mud. Pigs and chickens run freely among the houses. To get water, La Perlites must carry buckets to spigots located at the top of the hill beneath the wall.

Urban renewal has been tried before in Puerto Rico and elsewhere in Latin America with little success. Almost always, the new housing provided for slum dwellers is an extension of what has worked well in a more advanced country such as the United States. And Latin slum dwellers fit no better into this "improved" housing than a Chicago slum dweller would fit into La Perla. Plaster walls are soon defaced. Garbage is thrown into the corridors, which replace the alleys. And plumbing fixtures, a strange luxury, difficult to understand, are ignored while residents use corridors or stairwells or the corners of their rooms.

Wampler's group hopes to avoid some of these pitfalls. Across town, outside the walls to the south of Old San Juan on a peninsula of filled land



connected squares and rectangles around central courtyards, the low-income group will be public housing, 445 dwelling units in all, arranged on a little more than 10 acres. Ground floors will be open land so that tenants can raise pigs or chickens or even keep vegetable gardens. Most of La Perla's residents who will eventually settle here come from rural areas. Wampler is purposely keeping his structure simple. Essentially, what will be provided is a skeletal structure-rough concrete floor slabs, an overhanging roof, rough concrete partitions between apartments, and basic utilities. Outside walls and interior apartment partitions will be left up to the individual tenants. The typical Puerto Rican home has only one central room: the bedroom; to provide other room arrangements-dining rooms and powder rooms for instance-seemed superfluous. Instead, tenants will be encouraged to build their own walls and partitions, using the wood, paper, nails, and glass from their shacks in La Perla. Wampler hopes to give them a more recognizable, and hence, for them, more comfortable surroundings by letting tenants keep something of their former surroundings. He also hopes to help them maintain a sense of dignity and accomplishment by having them do some of the work themselves.

At right angles to the lowincome dwellings, which will rent for \$15 to \$20 per month, is a middle-income structure. These apartments will be condominiums, 400 dwelling units on 3.2 acres. Between low- and middle-income projects will be schools, churches, and community halls shared by both groups.

Between the development and the ocean, which surrounds it on three sides, is public land (the Commonwealth owns all shore land in Puerto Rico) to be developed for recreation.

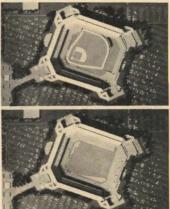
But despite its seeming isolation on a peninsula, La Puntilla when developed will be an integral part of San Juan. The site is always in view from the old city, and Wampler hopes the design will heighten this visual integration. He explains it this way: "The design of La Puntilla has been thought of as one large structure divided within itself to form the individual apartments. Within the larger structure will be a great variety of shapes and forms. This basic concept is not very different from that of the Old San Juan area, where a regular system of streets was established. Yet even though most lot sizes are the same, individual houses are different and the result is a strong order with a great amount of variety.'

Wampler believes he can build the housing at a cost of \$9 per sq ft, including the communal spaces such as corridors and courtyards.

Although the plan has been approved on the local level by the Commonwealth agencies involved, it must still find approval with the HHFA in Washington. Just when it will be presented and how it will be received is still not certain.

A Modern-Day Colosseum for Philadelphia





PHILADELPHIA, PA. The Colosseum in Rome was a truly multipurpose amphitheater. It was used for gladitorial combat as well as for bouts between lions

and Christians. The Romans even recreated a naval battle there once, anticipating by almost 2000 years Darryl F. Zanuck, who, when he filmed the story of the D-Day invasion in *The Longest Day*, was dubbed by *Time* magazine the world's third-largest military power. Today's stadia are rarely called on to be so versatile, but they must accommodate more spectators.

Planned for Philadelpha is this baseball-football stadium, which will seat 60,000 for baseball and slightly more than 70,000 for football (the Colosseum held an estimated 50,000). A bond issue in 1964 raised \$25,000,000 for its construction. And last month, a scale model of the Stonorov & Haws design was displayed in City Hall. Foundation work will begin early this year.

In an era when the stadia harvest across the U.S. is larger than ever, the Philadelphia stadium represents a different variety: It is rectangular (octagonal, actually, with one end missing) instead of round or oval. The architects claim that its rectangularity allows more seats to be closer (by 50' to 60') to the playing field. For baseball, 4000 sideline, first-tier seats will slide back under the stands, much the way a blueprint drawer slides into a filing cabinet. Outside the stadium, flanking the main entrance, are two ramp towers, with two more stationed at the stadium's leftand right-field corners. Vast parking lots, which can hold 10,000 cars, 300 buses, and 150 taxicabs, surround the stadium on three sides; when filled, they will probably give the stadium the look of a great, boxlike ship floating on a sea of cars. Eventually, the Philadelphia Transit Company will have a subway stop 400' from the entrance.

The stadium will in addition house offices and players' facilities for both the Philadelphia Phillies and the Philadelphia football team, the Eagles.

Going Up at Princeton



PRINCETON, N.J. Colleges in small college towns naturally have an overwhelming effect on the community. Princeton, New Jersey (with a population of 11,890 in 1960), is in many ways typical. When plans were announced for the new mathematics building, part of which New York architects Warner, Burns, Toan & Lundy designed as a 13-story tower, some Princeton residents raised objections. No buildings in the township, off campus, are more than eight stories high, they pointed out, and the township's planning board proposed that height limit of 100' be placed on buildings in this educational zone. It then revised the limit to 170', the height of the mathematics tower, and held a meeting to discuss it. Right now, things are calm; but the furor could erupt again. And if the question is not raised in Princeton, it is bound to come up in any number of college towns



across the country, where building space is becoming a problem.

WBT & L had some compelling reasons for designing a tower. For one thing, Princeton is a campus with several vertical accents. Nassau Hall, the University Chapel, Mc-Carter Theater, Holder Tower, Firestone Library, Palmer Laboratories, and Cleveland Tower are all more than 100' high. And in the area near Palmer Stadium where the new tower will go up, a vertical building is needed both to make the building stand out and to tie it visually to the rest of the campus. For another thing, the faculty offices and conference rooms, which the tower houses, become more private if they are arranged on separate floors.

The WBT & L plan shows eight offices and a conference room on each of nine floors. Finally, although the tower is relatively small, only 60' x 60', with a total interior area of 42,000 sq ft, it would take up a good deal more ground if spread out on only two or three levels, and Princeton is determined to guard jealously what relatively few open areas are left on the campus. In an open letter to the Princeton community last October, President Robert F. Goheen put it this way: "The dilemma for the University is clear: pressures to grow, pressures to retain a parklike campus, including playing fields readily accessible to the community and much used by many of the local residents and their children. It is impractical to resolve the dilemma by burrowing underground-or, at least, by trying to burrow very far. (The University will be going under-ground for several floors of the Math-Physics complex, just as it did for the Firestone Library.) The answer is that we have to go up."

Arranged in a three story Lshaped wing beneath the math tower are classrooms, a cafeteria, and, at the foot of the L, a 250-seat lecture hall that will be shared by students and faculty of the new physics building across the courtyard. Beneath this connecting courtyard is a library, also shared by both groups. Hugh Stubbins & Associates have designed the physics building, and WBT & L have worked with them trying to keep the buildings harmonious. They relate better to each other, as they should, than to their nearest neighbor, Peyton Hall, the building now under construction for the Astrophysical Sciences, designed by Minoru Yamasaki.

Elsewhere on the campus, just south of the golf course, 600 units of married graduate student housing are planned, designed by Fischer, Nes, Campbell & Associates. This group will also have a 13-story building. Both the mathematics building tower and the married student housing tower are on low ground, so that, when seen from below, they will appear lower than several structures on the main area of the campus.

Novum Edificium



CHICAGO, ILL. For more than 50 years, the upper school of The Latin School of Chicago (grades 7 through 12) has occupied the site at North Stone Street between East Scott and East Division. Now plans are afoot to raze the complex of buildings there and replace them with a single more commodious structure. Designed by Harry Weese, the new building, which will get underway in the spring, will have 22 classrooms, 9 more than are presently available. On the first floor will be a manual arts shop, school store, and the

Physical Education Department. If sufficient funds can be raised, there may be a swimming pool. There will be a botanical laboratory on the roof. Also on the roof will be a 10,000-sq-ft area, enclosed by a translucent plastic dome. According to William H. Fetridge, president of the Latin School's Board of Trustees, "This innovation can be the answer for schools in the inner city which have insufficient land for outdoor playing fields." In addition to the usual classrooms and laboratories, the building will have a faculty

research center, a student publications center and darkroom, an audio-visual unit, and art studios. Completion is expected in time for the fall term in 1968. Just what will be done for classrooms in the meantime is still under discussion.

P/A's Parent Company Consolidates

NEW YORK, N.Y. The Reinhold Publishing Corporation, which publishes PROGRESSIVE ARCHI-TECTURE, will consolidate with Medical Economics, Inc., of Oradell, New Jersey, publisher of medical magazines and books, subject to the approval of the stockholders. Both companies will operate as wholly owned subsidiaries of a new parent corporation: Chapman-Reinhold, Inc. It is expected that the new corporation will have an annual sales volume of more than \$20,000,000 and that the consolidation will broaden and deepen the editorial, marketing, and infor-mation services available to readers of and advertisers in the companies' publications. As part of the reorganization, P/A's publisher, Philip H. Hubbard, Jr., has been made a vice-president of Reinhold; he will also sit on the board of directors of Chapman-Reinhold, Inc.



How Does Your

Garden Grow?

VIENNA, AUSTRIA. Mary may have been contrary, but she never let her garden grow in a 130'-high cylindrical greenhouse. If she had, Othmar Ruthner, who has built 11 of these tower-greenhouses in West Germany and Austria, might point out that she could have raised a lot more than just silver bells and cockel shells. One gardener can handle the work in each greenhouse. Arranged on vertical conveyer belts, plants are raised and lowered to receive water, fertilizer, insect spray, and weeding. The tower's facade of translucent polyester is said to concentrate available light, even when the sun is low in the sky. And at night, the structure gives off a neon glow.

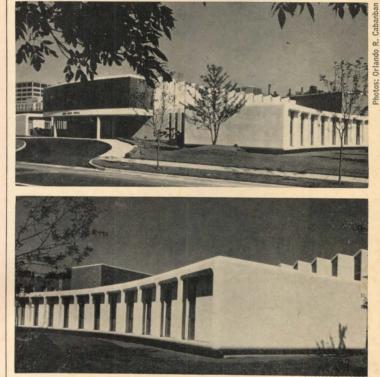
Ruthner, head of a firm that puts up acid-pickling towers for steel mills, branched out into greenhouse towers two years ago. He now has orders for similar towers in Norway, Switzerland, and Canada. Although they are expensive to put up, more expensive than a conventional greenhouse, 50 per cent of the available space can be used for plants, five times as much as in a conventional structure.

He sees his towers, in modified form, being used aboard nuclear submarines, in outer space, or in rigorous climates here on earth. With its controlled climate, a tower greenhouse, or a bevy of them, could produce an almost continuous vegetable harvest.

Penn's Institute for Environmental Studies

PHILADELPHIA, PA. The University of Pennsylvania's newly opened Institute for Environmental Studies is concerned with the nature and control of man's environment. Formed as an amalgam of the school's Institute for Urban Studies and its Institute for Architectural Research, the emphasis of its research is architectural, but it is also more than that. Within the Institute, researchers are now, or soon will be, at work on such problems as urban social policy planning, natural sciences in regional planning, civic design, and urban studies. Dr. Gerald A. P. Carrothers, professor and former chairman of city planning at Penn, who heads the new Institute, says that its work will not compete with that of architects, landscape architects, planners, or with private industry. At the same time, he hopes that it will provide a working center for integration of various disciplines. "I see the creation of the Institute for Environmental Studies as another step forward in breaking down traditional boundaries between various scholarly and professional concerns with environment," Dr. Carrothers said recently. "Research on man's environment and its control can no longer be carried on effectively along traditional academic departmental lines. The necessity for integration and coordination of activity was a primary purpose underlying the Institute's establishment." Working at the Institute this fall are Dr. Haim Darin-Drabkin, research director for Israel's Ministry of Housing, and Piero Maria Lugli, professor of architecture at the University of Rome.

Multifaceted Medical Center





CHICAGO, ILL. A medical center project in which the architects were told "to discard the sterility of appearance commonly associated with hospitals and to provide a spacious, comfortable pleasant environment for both patients and staff," has not been entirely successful. Although the Olivia "Peg" Baustch Memorial Medical

Center's two interior sunken garden courts give the first floor interior momentary relief from the sterile functionalism a hospital must have, the exterior does not really escape an institutional look. Nor is the look particularly warm or inviting. Architects Burgess, Stevens & Associates have avoided a crisp angularity, and have achieved a pleasing juxtaposition of curving wings with a sawtooth pattern of secondfloor fenestration. But the effect is defeated in front, where the entrance is made uninviting by a lowering overhang supported by two spindly round pillars. And though the sawtooth fenestration may be a pleasing shape, it only accents the interior cell-like arrangement. The dark blue pearl granite of the overhang's facade reiterates the blue gray brick of the rectangular windowless façade of the secondfloor area in the rear, yet it merely darkens the overhang's beatling brow.

Perhaps the use of white quartz aggregate precast concrete on the first-floor wings and around the second-story fenestration also heightens the institutional look.

No Matter How You Play, It's Still Trivia

Trivia, a game any number can play, is perhaps more symbolic of a desire to escape into the past than it is of the new leisure. As a player, you have 10 seconds to provide answers to such esoteric questions as, "What was the name of Dale Evans' horse?" (Buttermilk). Or, "What was Betty Boop's real name?" (Helen Kane).

In the editorial offices of P/A, Trivia has taken a predictably architectural turn. When asked to name five movies whose main characters were architects, and supply the names of the actors who played them, P/A's editors came up with seven. Here they are: Strangers When We Meet, Kirk Douglas: The Agony and the Ecstasy, Charlton Heston as Michelangelo; The Moon Is Blue, Barry Nelson; The Fountainhead, Gary Cooper; Claud-ia and David, Robert Young; L'Avventura, Marcello Mastroianni; The Girl in the Red Velvet Swing, Ray Milland as Stanford White. Can you think of others?

Obituaries

The Office of RINO LEVI in São Paulo, Brazil, has informed us of the architect's recent death.

PERSONALITIES

Ada Louise Huxtable, architectural critic of The New York Times, won the Newspaper Women's Club Front Page Award for her feature article, "Staten Island's Beauty Losing to Builders". . . . Alan Burnham will succeed James Grote Van Derpool as executive director of New York City's Landmarks Preservation Society. Van Derpool, formerly associate dean at Columbia's School of Architecture, has been executive director since the establishment of the commission in 1962. Burnham was formerly with the New York

joined the commission last September. . . . The American Institute of Steel Construction has announced its new officers: J. Philip Murphy, president of Murphy Pacific Corporation, president, and Eugene J. Pidgeon, vice-president of Pidgeon-Thomas Iron Company, as vice-president. . . . Dr. Ira Miles Robinson, past project director for the San Francisco Community Renewal Program, will head the University of Southern California's Graduate Program in City and Regional Planning. . . . Ruth McAneny Loud has become the first lady to fill the chair of president at the New York Municipal Society. She is the director of the Development Office of the Museum of the City of New York and the author of "New York! New York!" August Heckscher, director of the Twentieth Century Fund and a member of the society's board, will succeed Loud as vice-president. . . . Joseph A. Gascoigne has been named executive director of the Construction Specifications Institute. He is presently the executive director of the Air Traffic Control Association in Washington, D.C. . . . Por-celain Enamel Institute has named Robert F. Hastings, president of the Detroit architectural and engineering firm of Smith, Hinchman & Grylls, and Frank Montana, partner in the South Bend (Indiana) firm of Montana & Schultz and head of Notre Dame's Department of Architecture, to the Institute's Architects Advisory Council. The new members will replace Morris Ketchum, Jr., and Philip Will, Jr., and will serve along with remaining members Harris Armstrong and Ralph E. Myers. . Past AIA president John Noble Richards has been elected — by a 2-to-1 margin mayor of Ottawa Hills, a residential community west of Toledo, Ohio.

firm of Shanley & Sturgis, and

The Eucalyptus by the Highway

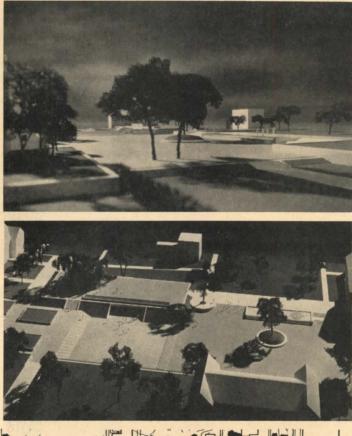
SACRAMENTO, CALIF. The State of California has contracted to spend \$429,796.45 to beautify a little under 6 miles of the San Diego Freeway. This comes out to \$70,000 per mile of road beautified, and means that, with the \$6,000,000 California planned to spend last year on road beautification, it could improve only some 80 miles of highway. Still, it is a praiseworthy start. Just what is beautification? For the San Diego Freeway, it means the planting of 18,000 shrubs, 4000 trees, and nearly 1,500,-000 ivy and ice plants.

California limits funds that can be made available for

landscaping by law. And in the last session of the iegislature, the amount was raised by about 50 per cent. In 1966, the highway beautification budget for the state is expected to be \$10,000,000.

Recently announced was the appointment of a three-man committee to coordinate the highway division's beautification efforts.

Out of Sight But Not Out of Mind





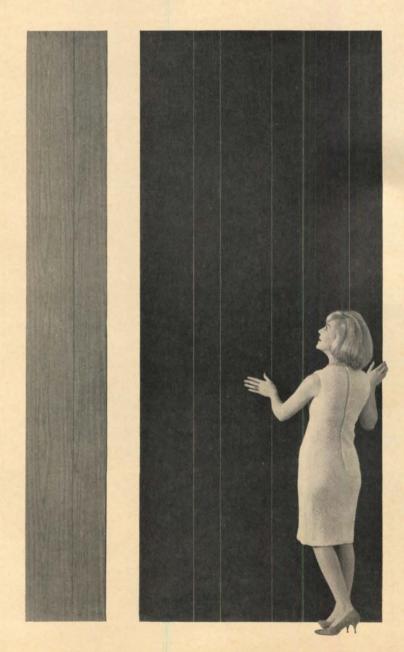
CONWAY, ARK. With about 600 students, Hendrix College has little to distinguish it in an era when education has distinctly gone Big Time. But it will soon have at least one distinguishing feature: an underground library. Although several universities have buried or are planning to bury parts of libraries —the University of Illinois, Yale, and Princeton are examples—Hendrix is believed the first college to plan on putting its entire library below ground. A \$20,000 grant from the Educational Facilities Laboratories will help with the project, which must solve problems of access and ventilation. It is hoped the experience at Hendrix can produce guidelines for other institutions with similar needs.

In drawing up plans for the library, architect Philip John-

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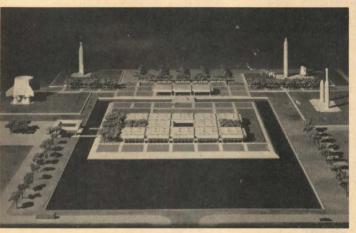
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son quickly saw that an aboveground building would eat up what little open space remained in the center of the campus. It would also block the view from one end of the campus to the other. Instead, he decided to place it underground and arrange around it, above ground, a series of interconnecting, carefully defined exterior spaces. These spaces, on several grades, are marked by earth berms, defined by concrete edges, and extend to the entrance of the campus, which they form. The library itself is expressed by an earth berm, fronted by a brick-paved plaza with raised planting areas. Working drawings and construction supervision will be provided by Wittenberg, Delony & Davidson, Inc.

Checkerboard Square



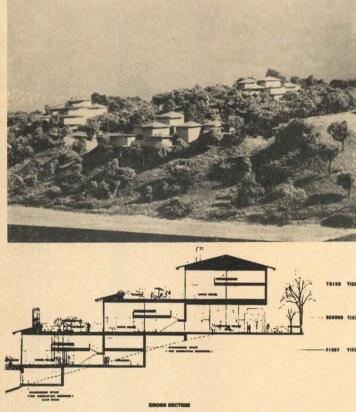
MERRITT ISLAND, FLA. A Welton Becket & Associates design has been chosen by the National Aeronautics and Space Administration for its Visitor Information Center at the John F. Kennedy Space Center. The single-story building will sit on a 400'x400' podium set on an island and fronted by a 250'x500' reflectpool. The Information ing

Center will have reinforced, textured concrete columns and beams with an exposed waffle slab concrete ceiling. Becket finds his design ample for the millions of visitors expected annually. He goes on to say, "The off-white, completely modular, strong-yet-inviting concrete structures will contrast with the warm, solar bronze glass."

The Many Sides of Merrywood



WASHINGTON, D.C. On the south bank of the Potomac River, only 10 minutes from the White House, stands an estate with parklike grounds: Merrywood. Its present owner, mortgage banker C. Wyatt Dickerson, plans to develop the estate, creating 46 manor houses arranged in clusters of 6 to 9 to take advantage of the site. Keeping the existing manor house, architects Victor Gruen Associates plan one cluster on each of six promontories overlooking the parklike surroundings and the river. Gruen designed the houses with two basic floor plans. "One is a hexagonal manor house," he says. "The other is an octagonal house. Each manor house will be two stories high and some will have two-story living rooms. The individual manor houses follow the topography as closely as possible. They will be placed in archlike groupings the turn of the century. When completed, Merrywood will be a condominium arrangement in which each resident owns his



next to each other and in three tiers, one above the other." Although the manor houses are grouped in three tiers, with the roof of one serving as a garden of the one above, these roofs have wide overhangs so that the house and garden beneath are not visible from above.

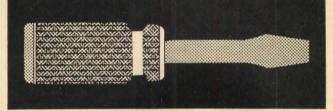
Inspiration for the project stemmed from the realization that even the very rich today cannot afford to live in and maintain the gracious estates of own home and shares ownership of the grounds. Swimming pool, tennis courts, a footpath system and bridle paths will be all jointly maintained. Each house will sell for \$125,000 or more. It remains to be seen whether persons who can afford to pay that much for a house would not prefer to spend the same money for a privacy that the cluster arrangement can only approximate.



PROVIDENCE, R.I. This 13-story, 192-unit, concrete and aluminum apartment building designed by Curtis & Davis is the first planned for the 20,000,000 Weybosset Hill residential and commercial development in downtown Providence. Spon-

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sored by The Reynolds Metals Development Corporation and Gilbane Building Company, the total project will include this large apartment structure (to be finished in early 1967), several smaller apartment buildings, 80 town houses, two office buildings, a service station, and a 250-unit motel. When finished, it will be possible for a man to work, live, gas up, and bed down in-laws on the same 13-acre plot of land.

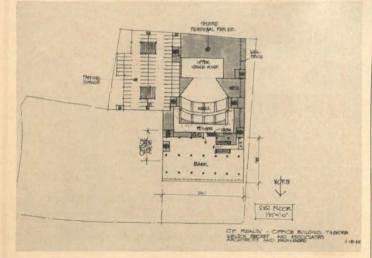
Just One of Those Things

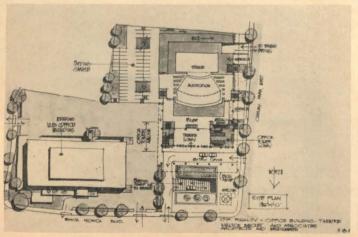
LOS ANGELES, CALIF. What would you say would be a fitting testimonial to the late Cole Porter: a sophisticated musical theater in his adopted home town of New York; a chic restaurant on the Place Vendome; a sleek block of flats in Mayfair; a posh marina at the Lido in Venice; an

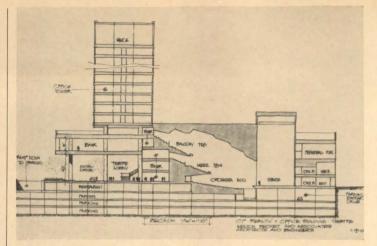


exclusive hostelry at Juan les Pine; or an auditorium behind a high-rise rental office building in West Los Angeles, California? The whirring sound you hear from the direction of the great man's place of interment announces that it is the last-named edifice.

A group called-believe it or not-Coleporter Corporation, which will put on plays in the auditorium, is pushing the Welton Becket design shown here. In front, on Santa Monica Boulevard, next door to the existing Welton Becket home office building, will be a ground-floor bank beneath the office rental floors, and, in place of a porte cochere, a vomitory to underground parking. The Cole Porter Theater (or is it Coleportertheater?) will be at the rear on Century Park East (this is all in Cen-

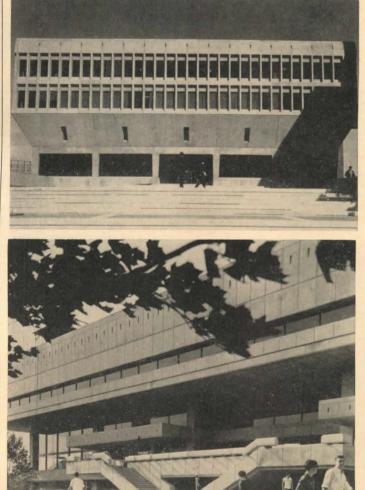




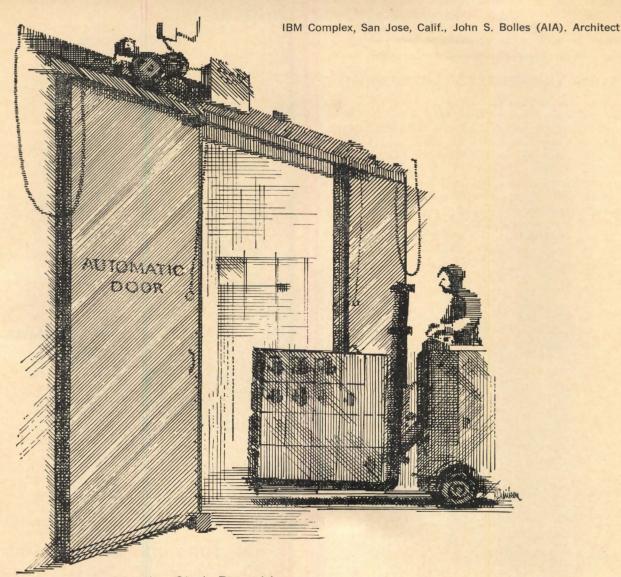


tury City). It's all a very neat and glossy concept, bringing to mind Hollywood's translations of Porter's musical comedies—they always got the surface slickness and missed the point completely. One can imagine the sardonic comments with which Porter would have greeted this tribute.

Monuments for MIT



CAMBRIDGE, MASS. Professor of Architecture Eduardo Catalano has been a presence on the MIT campus for the past three years—teaching and building. The first two of three buildings he designed in association with Robert C. Brannen and Paul Shimamoto for the \$50,000,000 construction program at MIT are now up. The Julius Adams Stratton Building and the Grover M. Hermann Building both use a top-heavy concrete-over-glass technique. This massiveness Catalano believes is symbolic of the time we live in—a time of man's de-



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fiance of gravity. Construction on the third building, the Eastgate Apartment Tower, a 30story apartment building for

faculty and students, will begin soon. If it follows in the vein of these two MIT designs, the university will be fortunate.

New York Landmarks Threatened

age | interiors.

NEW YORK, N.Y. The passage in New York last winter of a landmarks preservation bill sparked a host of rapid realestate transactions. Many owners of valuable historic or architecturally significant buildings, realizing these structures might be designated as landmarks under the bill's provisions and thus protected (at least on their exteriors) from change, tried to sell to commercial developers.

Another seriously threatened landmark is the Morgan house, at 37th Street and Madison Avenue in the heart of Manhattan's Murray Hill district. Built in 1853 for Issac Newton Phelph, a then-prominent New Yorker, it was sold to J.P. Morgan, Sr., in 1906, and finally purchased from the Morgan family by the Lutheran Church in 1944 for \$250,000. Although the architect is un-



In late September, the Landmarks Commission held public hearings on 28 buildings it immediately most thought threatened. Among these is the Metropolitan Opera House, recently sold to a developer who hopes to put up in its place a multistory office building. The Met's fate is especially precarious. For one thing, Anthony A. Bliss, president of the Metropolitan Opera Company, has argued compellingly that the Met be allowed to sell its old structure to help pay off the debt of the new one in Lincoln Center for the Performing Arts. For another thing, the old Met, designed in 1883 by J. C. Cady, has little exterior dis-tinction. Ground-floor spaces have become small, leased variety shops, complete with anonymous 20th-Century storefronts. Its grandeur, much like that of a pleasant but homely girl, lies on the inside. Unfortunately, the landmarks law does not officially recognize the significance of architectural known, the house was built in a Anglo-Italiante style and has since undergone Edwardian alterations. It is the last remaining mansion of its type standing on its own land in Manhattan.

Perhaps its greatest architectural significance is the homogeneity it brings to the neighborhood. Located between the Morgan Library to the southdesigned by McKim, Mead & White between 1900 and 1906 to hold Morgan's library collection, which filled the basement of his house until, in the words of Morgan's nephew, "it became so crowded that it was difficult to get into it"-and the National Democratic Club, across 37th Street to the north (designed by C.P.H. Gilbert in the French Renaissance Eclectic style in 1905), the Morgan mansion is an integral part of the blockfront. To put up an 11-story office buliding in its place, as the Lutheran Church proposes, would destroy the collective harmony of the block





and detract from the individual distinction of the other two buildings.

On December 2, the Landmarks Commission designated the Morgan house a landmark. According to the law, any change in its exterior will have to be approved by the Landmarks Commission. And it is hoped that the Lutheran Church will accept the offer of Edward R. Bernard, secretary of the Murray Hill Community, Inc., who guaranteed to find the church rental office space.

Also, on December 2, some 50 blocks of Brooklyn Heights were named the city's first "historic district." The area contains about 1000 residential structures, many dating back to the 19th Century.

St. John and the Dragons

NEW YORK, N. Y. When John V. Lindsay was elected mayor of New York City, many people responded as if they had been found by a Moses who would lead them out of the wilderness. Now that he has taken office (on January 1), he has 4 years, not the 40 Moses took, to find some answers to his people's pressing problems. Not the least of these problems is architectural.

In December, Lindsay and his recently appointed Parks Commissioner, Thomas P. F. Hoving, 34, met with A & P heir Huntington Hartford to discuss Hartford's gift of \$862,000 to the city. It is earmarked for construction of the highly controversial, highly questionable Hartford Pavilion in Central Park (see p. 51-52, JUNE 1965 P/A), a building both Hoving (who was formerly curator of the Cloisters, the medieval branch of the Metropolitan Museum of Art) and Lindsay have said flatly they oppose. Still, in December, they met with Hartford to discuss the use of his funds, on deposit with the city since 1960. Hoving and Lindsay want the money used for pocket parks throughout the city and said so. Hartford, who still relishes the idea of a sidewalk café, offered to modify the design, making it a onestory structure that would not jut above the park at its southwest corner location opposite the Plaza Hotel. The roof could be a restaurant area, suggested Hartford, who evidently does not see that the objection is to having a structure like that in the park at all, no matter what its size. Lindsay and Hoving were not excited by the proposal but offered to think it over. It was an inauspicious start.

During the election campaign, Lindsay spent an evening before the New York Chapter of the AIA answering architectural questions. Parts of his general statement are repeated here both as a reminder of what was said in the heat of battle and for whatever



NORTH CAROLINA MUTUAL LIFE INSURANCE BUILDING, Durham, N.C. Architects: WELTON BECKET AND ASSOCIATES, New York, N.Y. Associate Architects: M.A. HAM ASSOCIATES, INC., Durham, N.C. Consulting Engineers: SEELYE, STEVENSON, VALUE & KNECHT, New York, N.Y. General Contractor: REA CONSTRUCTION COM-PANY, Charlotte, N.C. Precast, Prestressed Concrete: CONCRETE MATERIALS, INC. Charlotte, N.C.

Below left: Precast top and bottom chords, alternating with vertical members, are threaded into place on the stressing rods. Below right: A temporary monorail conveyor receives the precast units from a crane at a corner of the building, then moves them into position in the truss. Using two monorail systems, the contractor erected two complete floors of four trusses every three weeks.

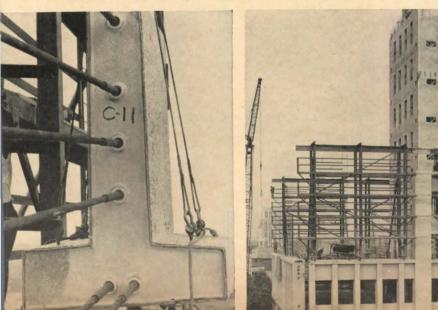
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In declaring the North Carolina Mutual Life Building first place winner in the 1965 Awards Program of the Prestressed Concrete Institute, the judging committee described it as an "ingenious and imaginative design." Its crisp lines present a new achievement in multi-story office design and construction—and the precise repetition of rectangular shapes produces dramatic effects of light and shadow. The structure is another inspiring example of the growing potential of prestressed concrete.

Each of the four identical facades of the 14-story office structure is formed of massive two-story prestressed concrete trusses, assembled in place from precast components and cantilevered from two intermediate columns. There are no interior columns to interfere with office planning. Floors consist of precast, prestressed double-T beams with cast-in-place topping. The beams alternate span direction at every floor, so that each two-story truss actually supports only one floor load. All 1486 precision components were precast at an off-site plant, using Lone

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meaning it might have to other U. S. urban centers:

"My words here tonight are a pledge to make government go beyond mere quantitative considerations and place meaningful emphasis on quality. The City Administration has greatly underestimated the concern of our citizens for the appearance of the City. It is all too evident that the Administration cares too little about the quality of life, that it does not seek the best talent, that it prefers to act first and submit to the public second, that it cannot even evolve a consistent and coherent policy about the shape of the environment,, that in many areas there is no policy at all. This has been the City's most serious shortcoming. Reasonable men might differ about given policies, but no man can ignore and excuse the shocking absence of leadership which characterized the planning and construction processes in this City. The indictment is long.

"In the housing field the City has settled for stereotyped design of the most depressing sort. This need not be the case. One need only consider programs in London,, Stockholm, Philadelphia, San Francisco, and countless other cities to realize that New York has been callous in its concern for the quality of shelter. It is not the cost per square foot; it is the underlying attitudes and assumptions about the way people live that is at fault. Public housing should not be a reminder of how grim life is, but rather how rich, how varied, how ever changing it can be. Our public housing will never respond to the richness and variety of life until we rid ourselves of obsolete notions about how people should live and replace them with realizations of how they do live. If we are to make our public housing projects into neighborhoods, we must allow for spontaneity; we must include within their borders, shops, markets, and recreational facilities geared to the specific needs and desires of the residents. We must have no more 'dormitory stockades' segregated from the rest of the City and separated from all the nonresidential activity so necessary for active neighborhood life. We must stop considering housing as separate from the over-all city planning process. We must think no more in terms of housing projects, and begin to think once again about neighborhoods."

Looks Good, Works Well

NEW YORK, N.Y. The Wall Street Journal has spotted a verityarchitects have long one preached-that attractively designed factories are increasingly in demand by corporate clients. A December 1 front-page article, "A Thing of Beauty ... Handsome Factories Yield Unexpected Joys," declaimed that "more and more companies now are considering aesthetics along with utility when they build plants. The results are surprising." One of the indica-tions of this trend, says the Journal, is Factory magazine's annual contest to pick the nation's 10 top plants on the basis of beauty and efficiency, which this year had 1500 entries, up from 940 in 1960.

Interviews with factory managers and employees disclosed to the *Journal* that, in pleasant surroundings, "labor productivity is above average, absenteeism is down, and workers with hard-to-find skills are more easily recruited." While it is regrettable that the news is reaching the *Journal* and its readers so late, it is encouraging that it *has* reached them.

The concern with aesthetics is not, of course, due to increasing affluence; it is the result of clients discovering that good architecture costs no more than bad.

Live and Learn



Photo: George Cserna NEW YORK, N.Y. Looking even more handsome than they did in model form (see p. 93, OCTOBER 1964 P/A), the three 30-story apartment towers designed by I.M. Pei & Associates for New York University were topped out in early December. Occupancy is expected by the fall of 1966. Although the buildings form a carefully related unit, two of them are being developed by the Dormitory Authority of the State of New York for NYU faculty, staff members, and students, and the third is a cooperative apartment for the public, developed under the New York City Housing and Redevelopment Board, with NYU as sponsor.

The façade of each building is of exposed reinforced concrete, cast in place. Cost of the project, which will provide 535 apartments, is estimated at \$12,000,000.

"Bruce Cleanboard, Boy Architect"

TV series, like buildings, are often produced to formula. One of the most successful series has been the kind where a young, fiercely idealistic professional man upholds ideals, revives jaded spirits, and breaks an occasional heart. He is ably and wisely assisted by an older, well seasoned mentor. It has worked well for Drs. Casey and Kildare and for schoolteacher Mr. Novak. Why couldn't it work for an architect? In hopes someone wants to try, here are some suggested problem plots, coupled with a list of the chief characters and the actors who should play them. Plots: Architect contracts to design a suburban home. Housewife decides to be co-designer. . . . Or, architect is hired to design a suburban home. It turns out he is to work closely with an interior designer. . . . Architect gets a commission for a major office building from a prestigious corporation. The chairman of the board is a woman . . . Architect is selected to serve on city planning commission with a corrupt politician, who wants to know "How much can we make out of a change in the building code?" . . . In an attempt to express mechanical equipment as a design element, architect inadvertently integrates the plumbing stack and the air distribution system.

. . . Architect designs a trendsetting, high-rise building for a corporate client, who accepts his plan, but wants to have the corporate logo "up here at the top in two-story high neon letters." Cast of characters: architect, Ricky Nelson; his older mentor, Frederic March; lady house client, Margaret Rutherford; interior decorator, Bea Lilly; titan of industry, Ed Begley; union chief, Peter Falk; kindly old head draftsman, Walter Brenan; lady business tycoon, Joan Crawford; boss's secretary (love interest), Sandra Dee; inspiring design prof back at architectural school, Paul Muni; corrupt politician, Broderick Crawford; head of school board, Paul Ford; lady saleswoman from Consolidated Materials Limited who tries to get him to substitute specified items, Elizabeth Taylor; building department aide asking for payoff, George Raft.

Awards

Houston architectural firms Golemon & Rolfe and Pierce & Pierce, have received the Texas Society of Architects annual award for "excellence of design" for their FAA Control Center at Houston's Intercontinental Airport. . . . Temple Shalom, Norwalk, Connecticut, designed by Oppenheimer, Brady & Lehrecke, New York architects, has received the ABCD (Association for Better Community Design) award for being the best designed building constructed in Norwalk in 1965. . . . The American Association of Nurserymen has awarded prizes to the winners of the nationwide Industrial and Institutional Landscape and Beautification competition. National "Plant America" awards went to Ampex Corporation, Redwood City, Calif., by John Carl Warnecke & Associates; Carrousel Towers, Inc., Cincinnati, Ohio, by Thornton Landscaping; Land-mark Motor Lodge, Winter Haven, Fla., by Holmes Nurseries; Michigan Bell Telephone Co., Southfield, Mich., by Eichstedt-Johnson Associates; The Procter & Gamble Co., Winton Hill Technical Center, Cincinnati, Ohio, by Richard E. Grant; Bayfront Center, St. Petersburg, Fla., by Harlow C. Landphair; Civil Service Commission Building of Washington, D. C., by Sa-



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saki, Dawson, DeMay; Hillel School, Cedarhurst, N.Y., by M. Paul Friedberg & Associates; National Geographic Society of Washington, D. C., by Boris V. Timchenko; the World's Fair Spanish Pavilion, by M. Paul Friedberg & Associates; Rocky Reach Dam, Wenatchee, Wash., by John B. Strander. Nineteen additional awards were made. . . . David Rockefeller has received the 1965 Award of Merit from the New York Chapter, AIA, for his leadership in revitalizing downtown Manhattan. The award, made only three times previously, commends Rocke-feller for "demonstrating what a private citizen can do to give beauty, life, and new hope to their cities." Past recipients were James Felt, O.H. Ammann, and Lewis Mumford. The National AIA lauded the citizens of Hartford (Connecticut) and Urbana (Illinois) for their Constitution Plaza and Lincoln Square, respectively. The award, "Citation for Excellence in Community Architecture," was begun early this year. No single building can qualify for a citation. The purpose of this AIA award is to recognize a city's effort and success in creating liveability.

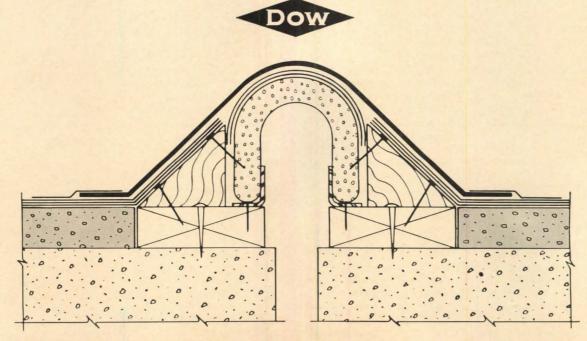
Competitions

The Department of Defense has authorized a national competition for the design of a community center incorporating a fallout shelter. The contest, conducted for the government by the AIA, will offer a \$15,000 first prize. Copies of the program and registration forms can be obtained by writing A. Stanley McGaughan, Professional Advisor, National Fallout Shelter Design Competition, 1341 New Hampshire Ave., NW, Washington, D. C. 20036. . . . The NIAE has announced the Owens Corning Fiberglas Decorative and Home Furnishings Division contest for the design of an experimental elementary school. Entries must be executed in any consecutive five weeks prior to May 1, 1966, and mailed to meet the deadline of May 20. The contest is open to all fourth- or fifth-year design students and to others who are under 30 years of age. For further details and information, write NIAE, 115 East 40th Street, N.Y. 16, N.Y.

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WASHINGTON/FINANCIAL NEWS

BY E. E. HALMOS, JR.

Most significant item for architects and others who must do business with the new Department of Housing and Urban development is not what it can do right now, but what it may do in the future.

As of this moment, according to terms of the law creating it (PL 89–174), the new HUD can't do much of anything. Like "Brand X," it just lies there.

The law, and the record in Congress during debate and committee hearings, makes that very clear: HUD's new Secretary will have clearance to do only one specific thing-coordinate and consolidate the programs formerly adminis-tered by the Housing and Home Finance Agency. (These include the Housing and Home Finance Agency, the Federal Housing Administration, the Public Housing Administration, and the Federal National Mortgage Association.) Even in that, the department's authority is limited. For instance, the head of the Federal Housing Administration must be an Assistant Secretary.

Otherwise, the new Secretary is directed to "advise" the President on Federal programs; "develop and recommend" policies "fostering the orderly growth" of urban areas; provide technical assistance (including an information clearing house) to aid state and local governments; "encourage" comprehensive planning by local governments; conduct studies of housing and urban problems.

Specifically, Congress was assured that the new HUD hasn't any new authority and may not usurp functions of other Federal agencies already in the field.

But it isn't hard to read what is likely to happen now:

As a matter of fact, the HUD will have control of less than a third of the Federal Government's activities in housing alone (the Veterans Administration and the Federal Home Loan Bank Board are not affected by the legislation, and they account for almost two-thirds of all U.S. housing financing activities). More than 40 other separate programs, administered by nearly as many other Government agencies, already exist and will continue. These include road-building, pollution control, new beautification and recreational programs, disbursement and control of vocational educational funds, disposal of surplus Federal properties, experimentation in urban transportation. All would seem to impinge on the apparent functions of the new Department.

But history would indicate that this situation won't remain as is for long. For one thing, the "declaration of purpose" that precedes the law contains the very broad statement that HUD should "provide, at the national level, for full and appropriate consideration . . . of the needs and interests of the nation's communities and the people who live and work in them."

That, say opponents, is license for the eventual conversion of HUD into a true "Department for Urban Affairs," in which insuring home mortgages would become incidental to a broad take-over of functions from many other agencies, as well as from state and local governments. This could be done, observers believe, by means of later Presidential reorganization plans to widen the powers of the New Department.

Among other things, many fear the almost axiomatic growth in personnel of any new department. Latest example is Health-Education-Welfare, which had 36,613 employees when it came into being in 1953, had grown to 83,928 as of March 1965.

For the moment, then, creation of HUD makes little difference to anyone doing business with agencies of the former Housing and Home Finance Agency. How fast the Administration and Congress move to beef up the powers of the new Department—and what direction such moves may take—will tell the real story.

Congressional Outlook

Unless all the signs are misleading, the reconvened Congress will have a much different outlook from the one in session last year.

The reasons are political: Since this is an election year, with President Johnson himself not a candidate, Congressmen up for re-election will have no coattails to ride on. This is bound to produce a cautionary attitude in the 45 or more House members facing their first reelection battles, many of them in districts that normally don't send men of their political beliefs to Washington..

By the same token, many Congressmen are a little frightened by the implications of the spending they authorized last session — in many cases without bothering to find any new sources of revenue.

As you know, the President's budget has topped \$100,-000.000.000 for the first time; but that's not nearly the true total. According to the Library of Congress' research staff, Federal spending in the coming fiscal year cannot be less than a staggering \$120,000,000,000 (when spending from trust and revolving funds, interest, and the like has been added in). There is little question that Congress will have to find new revenue sources - something never popular with an election coming up.

AIA Headquarters Reconsidered

Heavily battered by the same sort of outcry that seems to arise any time any old building is to be refurbished, removed, or built around in Washington, the AIA is having some painful second thoughts about its Washington headquarters.

Dominating the present location is the historic Octagon House, once used as a temporary residence for a President (Madison) and scene of some historic doings in the early 1800's. The AIA rescued the building many years ago (it had become a run-down rooming house), restored it, and maintained it as a museum, surrounded by low buildings housing AIA offices.

As most architects know, the office space proved inadequate. The AIA held a competition and selected a winning design (by Mitchell/Giurgola Associates; see p. 39, JANUARY 1965 P/A), which is dominated by a semicircular glass wall focussing on the old Octagon.

That brought a storm of protest from various local "preservation" groups, as well as Interior Secretary Stewart Udall (who thought the design "unfortunate") and others.

As a result, the AIA dusted

off the original feasibility study done by Mitchell/Giurgola Associates, and decided they would try to enlarge the site of the new building. If approved by the AIA membership at the June convention in Denver, the AIA will purchase the Lemon Building next door to the Octagon. The additional 12,000-sq-ft site will be added to the 28,000 sq ft they already have; and Mitchell/Giurgola will be asked to redesign their award-winning entry, providing a 130,000-sq-ft building, almost doubling the size of their origginal plans. The AIA figures that, with its expanding membership (almost 500 new members are picked up each year), they will need the space.

Financial

Biggest financial fact for the construction industry was the continuing optimistic prediction for a booming dollar-volume of business for the current year. Latest came from the huge Associated General Contractors, Inc., which surveyed its members, came up with a prediction for a \$72,000,000,000 year. With another \$24,000,-000,000 estimated for maintenance and repair work, AGC thought total business would thus approach the \$100,000,-000.000 mark-a full sixth of the annual Gross National Product.

(As noted in these columns in December, however, the boom is in dollars rather than jobs. Costs are going up; actual brick and mortar put in place isn't increasing much.)

Construction Still Rising

Construction put in place during October 1965 continued to run a little ahead of that a year ago. Total value, according to the Commerce Department, was \$6,400,000,000 this year, up about 5 per cent over a year ago. Housing, however, continued its steady downward trend. In October, annual rate was 1,402,000 units—down 8 per cent from a year ago.

Construction costs stayed high during October. The Bureau of Public Roads' quarterly index of costs showed a very slight drop—of 0.2 per cent—from the all-time high registered in the second quarter (106.9), but still well above the previous all-time high. The Public Health Service's sewage plant and sewer cost index climbed again, by fractions of a point, to a high of 112.82.



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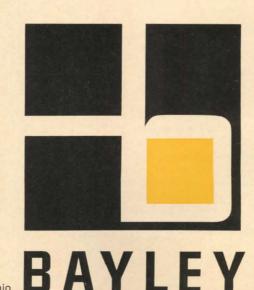
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NEW PRODUCTS

Air/Temperature **Heating Panel Circuitry Combo**

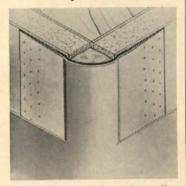


Radiant heating panels with a printed circuit element bonded in plastic and backed by 3/4" layer of insulation can be installed flush with standard acoustic ceiling panels. Manufacturer claims heating panels reduce maintenance, operating, and installation costs. The units, which use tin-coated steel foil for the printed elements, are said to operate especially well in areas of great heat loss. Litecontrol Corp., Watertown, Mass.

On Readers' Service Card, Circle 100

No Squares Here

Construction



Corner beads with a 3/4" radius can be used to round interior or exterior corners of either 1/2" or 5/8" drywall construction. Galvanized steel beadselectroplated and bonded to treated paper for adhesioncan be either concealed or exposed. Available in 7', 7'-8", 8', and 10' lengths. Beadex Co., Manufacturing 4615 NW, Seattle, Eighth Ave. Wash. 98107. On Readers' Service Card, Circle 101

A Particleboard of **Difference**

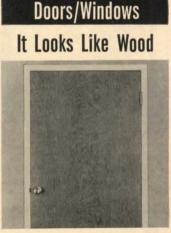
Fire - retardant particleboard meets requirements for "fireproofed wood" in several major cities and carries Underwriters Flame Spread rating of 25. "Novoply" is recommended for use as a core panel surfaced with wood, plastic, or other veneers. Company claims the product is dimensionally stable and free from warp. United States Plywood Corp., 777 Third Ave., New York, N. Y. 10017.

On Readers' Service Card, Circle 102

Laminates on the Beam



Laminated redwood beams that are up to 60' long are available "architectural appearance in grade." Beams contain typical rustic characteristics such as sound knots. Manufacturer says this grade costs 30% less than premium-grade laminated beams. Available 3" to 8" wide by 4" to 25" deep. Union Lumber Co., 620 Market St., San Francisco, Calif. 94104. On Readers' Service Card, Circle 103



Steel doors borrow advantages of timber's appearance by way of gravure-printed wood grains on the door face. Walnut, driftwood, or blonde birch printed over a matching base

coat of lacquer can be applied to 16-, 18-, or 20-gage steel doors. The Steelcraft Manufacturing Co., 1607 Blue Ash Rd., Cincinnati, Ohio 45242. On Readers' Service Card, Circle 104

Electrical Equipment Undercover Outlet

Plastic cap for outdoor electrical outlets is self-hinged and sealed with a rubber gasket. It protects against dust, rain, snow, and salt air. General Electric Co., Wiring Device Dept., 95 Hathaway St., Providence, R. I. 02907. On Readers' Service Card, Circle 105

Gallery Lights



For lighting up the art world (paintings, statues, etc.), small bullet lamps plug into an electrified ceiling track. The white lamps, each equipped with an on-off switch, can be positioned anywhere along 4'- or 8'-long aluminum tracks. Halo Lighting, Inc., 9301 W. Bryn Mawr Ave., Des Plaines, Ill. 60018.

On Readers' Service Card, Circle 106

Plastic Outlet Box

Glass - fiber - reinforced - plastic box for electrical toggle switches insulates electrical connections and will not burn, claims the manufacturer. Standard wall plates fit the switch box. Allied Molded Products, Bryan, Ohio. On Readers' Service Card, Circle 107

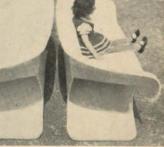
Faucet-Light

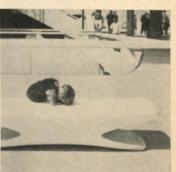
This combination fitting provides light directly over a kitchen sink and can be installed on a standard sink with three 11/2" holes on 4" centers. The light has a frosted lens and is completely assembled and wired; the faucet features a built-in spray-spout. Elkay Manufacturing Co., 2700 S. 17 Ave., Broadview, Ill. 60155. On Readers' Service Card, Circle 108

Finishes/Protectors Stains of Many Colors

A total of 1400 "rustic stains" in solid and semitransparent colors should provide just about any hue desired for interior or exterior wood surfaces. Drying to a matte finish, the stains are claimed to be quality controlled for color consistency. Available in the Western states. Pabco Paint Div., Fibreboard Paper Products Corp., 475 Brannan St., San Francisco, Calif. On Readers' Service Card, Circle 109

> Furnishings **Groovy Benches**





The quest for the all-of-a-piece seating unit continues in three excellent, sinuous benchesone with a backrest integrally moulded in the one-piece construction-designed by Douglas Deeds. Bench lengths are 6', 6' 6", and 6' 10"; two weigh 60 lb each, the one with backrest 115 lb. Sculptural "concavities" provide for rain run-off when benches are used outdoors. Finishes (17 available) have been tested to show "little or no change" due to weathering or fading. Designs are engineered to preclude tipping even when only one person is seated at the end of the bench. Not for every plaza, but fine for many. Architectural Fiberglass, 2020 S. Robertson Blvd., Los Angeles, Calif. 90034

On Readers' Service Card, Circle 110

Drafting Table/Desk

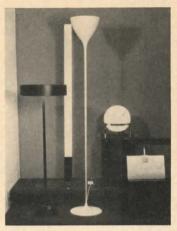


An L-shaped unit combines drafting table and desk in a contemporary piece of furniture that departs from the conventional pedestal board. A "Rota-Positioner" allows draftsman to reach all areas of board while seated in standard-height chair, according to manufacturer. Desk top is 30" x 60". Available in colors and variety of top materials. The General Fireproofing Co., East Dennick Ave., Youngstown, Ohio. On Readers' Service Card, Circle 111



Knoll's engineering research has led to long-awaited advances in wood-working processes that now yield a pleasant all-purpose chair named for its designer, Don Petitt. The frame is constructed of thin flat strips of walnut laminated together (bonded with high frequency) and molded in sinuous curves. The new process permits tighter, stronger whiplash curves than any previous, comparable molding, and where the back meets the legs, the Petitt Chair is at its most daring. The lamination process also produces rich gradations of wood color and grain. Upholstered elements are on molded foam rubber bonded to formed metal pans. Width 22¹/₂", depth 24", height 32". Knoll Associates, Inc., 320 Park Ave., New York 10022. On Readers' Service Card, Circle 112

Lamps for Architects



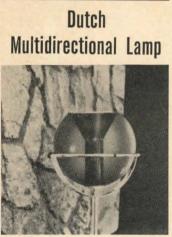
Included in one of the most discriminating collections of light fixtures are the recently imported items, illustrated, left to right: (a) A low, Austrian standard lamp, all black with slim shade, only 47" high; (b) Swiss, plexiglass column, 59" high, holds fluorescent tube onend atop short, black-enamel stem and polished-chrome cruciform base. (c) All-white torch, Swiss, is 65" high and uses 200-w bulb. (d) Swiss spherical table lamp has polished chrome ring on three slender legs. (e) Neat Austrian piano-rack lamp has adjustable chrome base and black-enamel swivel shade. Designer of Austrian lamps is Ernst Chalice; Swiss lamps by Ernst Luthiger. All exclusive in U.S. from George Kovacs, Inc., 831 Madison Ave., N. Y. On Readers' Service Card, Circle 113

Simple Style for Dorms



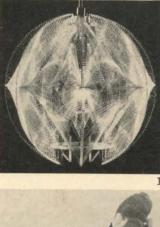
Among several straight-forward seating designs primarily for institutional use is a sofa-bed that would give character to a girl's dormitory. Of rugged ash, it comes in two lengths—80"

or 76"—both 33" deep and 27" high. Wood may be finished in natural oil, or smoke or walnut stains; flat-spring construction supports polyfoam bolsters and mattress. C. I. Designs, 230 Clarendon St., Boston 16, Mass. On Readers' Service Card, Circle 114



Multidirectional lamp designed by V.A. Lockhorn of Amsterdam has grayish-violet, seethrough glass sphere containing metal reflector for bulb (100 w maximum); sphere revolves 360° and twists in all directions to produce direct or indirect lighting. White cord feeds from top of chromeplated, adjustable standard (4' 144'' to 5' $431_{32}''$). Made by Raak in Holland; distributed by Koch & Lowy Inc., 201 E. 34th St., New York, N. Y. On Readers' Service Card, Circle 115

Unusual Imports





2

"Plexima Lights" from Germany are shaded by notched, clear acrylic panels, which are strung, cocoon-like, with colorless nylon cord (1); approximately one dozen shapes. Effect is of a shimmering sculpture. Chair by Finnish designer Yrio Kukkapuro (2) does not really have plastic sides: picture was taken that way to show luxurious floppiness. Sides and back panels come in teak, oak, rosewood, or lacquer (black, white, or red). Knockdown tubular metal frames can be joined side-byside; cushions are composed of separate, crushed - foam - filled packets sewn together and covered in leather, wool, or patterned fabric; foldover arm cushions snap onto outside. This chair has been recently added to the Museum of Modern Art's "Good Design" collection. Both imports exclusive in U.S. from Paul Secon (a retail outlet, except in quantities), 7 E. 53 St., New York, N. Y.

On Readers' Service Card, Circle 116



"Acu-Arc," a flexible plastic French curve, can be shaped to fit any curve needed. Segmented construction allows smooth arcing. Rolatape Corp., P. O. Box 1190, Santa Monica, Calif. On Readers' Service Card, Circle 117

Space-Saving

Refrigerators Wall-mounted refrigerators for hospital or institutional use are available in two stainless-steel models — capacities ranging from 1.5 to 11.5 cu ft. They feature automatic defrosting and explosion-proof interiors. The Jewett Refrigerator Co., Inc., Buffalo, N.Y. 14213. On Readers' Service Card, Circle 118



Line Material CONTEMPORARY LAWN-GLO's, Style A, installed in the mall at Mayfair Shopping Center, Milwaukee, Wisc.

Engineered and Installed: MAYFAIR PROJECT ELECTRICAL DEPT., Milwaukee, Wisc.

FOR A RHAPSODY IN STYLING AND COLOR

LINE MATERIAL SOFT ILLUMINATION OUTDOOR LIGHTING

TO 175 WATTS MERCURY • 189 WATTS INCANDESCENT 8000 LUMENS • 0.8 MAINTAINED FOOTCANDLE

STYLED FOR THE MOOD

Choose just the right tone to set the mood with the styling of Line Material outdoor lighting. An array of contemporary and traditional fixtures allows you to underscore your job in the key you choose. All L-M fixtures have been styled by the noted industrial designer, Jean Reinecke. Styling ranges from a crisp, sharp modern design to an authentic reproduction of a whale oil lamp. And when you add a variety of 9 dramatic decorator colors, you have a design freedom available in no other outdoor lighting line.

EFFICIENCY, ECONOMY

You enjoy engineered, optimum useable lighting when

you choose Line Material luminaires. Aluminum construction assures long, corrosion-free life. Low-cost maintenance is realized with the accessible interior that is easy to clean or relamp.

COMPLETE SYSTEMS

Minimize the efforts in coordinating your lighting job by obtaining all the equipment from Line Material. In addition to luminaires—poles, ballasts, lamps, brackets, wiring and power supplies, including transformers, are available from your L-M Authorized Distributor, backedup by an L-M Lighting Engineer and an L-M Field Engineer. They'll be happy to work with you.

The smart, modern styling complements any contemporary architectural motif. Provides a flair to soft, functional lighting; 9 decorator colors, and 3 styles.

SPECIFICATION

Utilizes incandescent lamps through 150-watts; has plastic, non-glare globe; standard 2-inch or 3-inch OD yard light post mounting; supplied with or without photocontrol.

LINE MATERIAL'S COMPLETE OUTDOOR LIGHTING LINE ALSO INCLUDES HIGH, MEDIUM AND MEDIUM-SOFT ILLUMINATION

TURN PAGE

STYLING AND COLOR FOR YOUR JOB FROM L-M's SOFT ILLUMINATION LINE ...

FOR ENTRANCES • WALKS • DRIVEWAYS • LAWNS • GARDENS • PATIOS • CHURCHES • SCHOOLS • MOTELS OFFICES • INDUSTRIAL AND COMMERCIAL BUILDINGS

To 175 watts mercury • 189 watts incandescent • 8000 lumens • 0.8 maintained footcandle

(Scale: 1"=3')

Diversified, graceful styling plus a choice of 9 dynamic colors. Cover interchangeability gives added versatility. Will match any architectural decor. Pole top mounting for installation economy in new and conversion installations.



SPECIFICATION

For lamps rated to 175 watts mercury or 189 watts incandescent; constant-wattage, high-reactance or reactor ballasts; IES Types I, I-1 way, II, II-4 way, III, IV and V distributions; 3-inch and 7-inch mounting fitters; photocontrol accommodation for Styles A, B, C, and F units.

STYLETTE (Scale : 1"=3')

TE Complete choice with 7 designs and 9 colors, to match every architectural design and mood. In addition, the distinctive covers are interchangeable. Pole top mounting for 3-inch diameter poles adds installation economy.



LAWNAIRE (Scale: 1"=2')



Contemporary styling combined with application flexibility. Available in a choice of 9 decorative colors. For mounting on 3" OD pipe.

SPECIFICATION

Available for use with 75-, 100- and 175-watt mercury lamps; internally mounted high-reactance ballast; IES Types II, IV and V distributions; built-in photocontrol.

TRADITIONAL LAWN-GLO

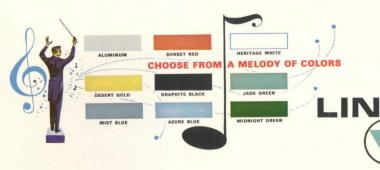
(Scale: 1"=2')



Efficient, controlled illumination combined with charm and styling of Early American whale oil lantern. Long lasting beauty and minimum maintenance achieved with cast aluminum base and cover plus shatterproof, acrylic plastic refractor. Available in black or white with gold finial, roof, and refractor clips.

SPECIFICATION

Available for incandescent lamps through 150-watts as well as a 100-watt mercury lamp with high-reactance ballast; mounts on standard 3-inch OD yard light post; supplied with or without photocontrol.



STYLED SUBURBANAIRE

(Scale: 1"=2')



Economical, quality lighting plus fresh, modern appearance. Open refractor reduces dirt and moisture accumulation. Mounts on 1¼-inch pipe support. Choice of 9 decorator colors.

SPECIFICATION

Wall Mounted

Available for use with 189-watt incandescent, 100- and 175-watt mercury lamps; high-reactance or reactor ballasts; IES Types I, I-1 way, II, II-4 way, III, IV and V distributions; built-in photocontrol receptacle.

DUSK-TO-DAWNER

(Scale: 1"=2')

Fresh, modern lines and styling plus excellent lighting. Aluminum finish blends with all types of

architecture. Mounts easily on poles or flat surfaces; also available for mounting on 1 ¼-inch pipe supports.

SPECIFICATION

Available for use with 100- and 175-watt mercury lamps; internally mounted constant-wattage, high-reactance, reactor or constant-current ballasts; IES Types II, III, IV and V distributions; built-in photocontrol receptacle; completely pre-wired, including power supply leads.

FOR COMPLETE INFORMATION on Line Material's line of outdoor lighting contact your L-M Distributor or write Line Material Industries, Milwaukee, Wisc. 53201.





690



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ALASKA Anchorage (Spenard) Tel: 277-3531

ARIZONA Phoenix Tel: 258-4551 ARKANSAS

Pine Bluff Tel: 535-6390

CALIFORNIA Los Angeles (Pico-Rivera) Tel: 723-6251, 695-2260 Sacramento Tel: 442-6264 San Diego (La Jolla) Tel: 284-3881 So. San Francisco Tel: 415-589-9435 Visalia Tel: 732-3911

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On Readers' Service Card, circle No. 380

Convert an **Accounting Machine**

2772 AM

Accounting machines can perform multiplication and division with the help of a calculating device added to IBM's 402, 403, and 407 machines. Six registers with 11 digits enable converted machine to make arithmetical analyses for cost studies, billings, and rates and percentages. The device does not convert an accounting machine into an electronic computer. It is programed mechanically with wired board panels. International Business Machines Corp., Data Processing Div., White Plains, N. Y. On Readers' Service Card, Circle 119

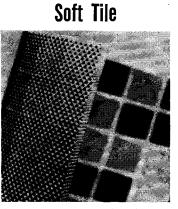




Hardboard imitates wormy chestnut in tongue-and-grooved panels available in 16" x 8' sheets. The textured surface is finished in washable plastic that is "highly resistant to heat and moisture." Marsh Wall Products, Dover, Ohio 44622. On Readers' Service Card, Circle 120



Manufacturer supplies wall tiles jointed together with small pieces of adhesive tape. Small adhesive tabs join set of four "Romany-Spartan" glazed wall tiles to make handling easier at the site. The tabs are small enough to expose 95 per cent of the backs of the tiles, thus ensuring a good bond for the mortar between tile and wall. Three sizes of Romany-Spartan tiles are available with this back mounting: 41/4" x 41/4", 41/4", 41/4" x 6", and 41/4" x 81/2". Bond can be used with adhesive, dry-set mortar, or conventional mortar installations. U. S. Ceramic Tile Co., Canton, Ohio. 44702 On Readers' Service Card, Circle 121



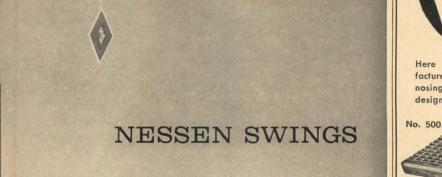
A 1"-square ceramic tile embedded in a vinyl matrix backed with a vinyl waffle pad absorbs sound of footsteps on floors. Manufacturer also recommends "Ceramolok" for counter tops and walls where it can be cut and bent without cracking. Available in 1'square sheets in many colors. Installation with special adhesive is quick and simple, says manufacturer, and flooring resists stains and discoloration. Amsterdam Corp., 41 E. 42 St., New York, N. Y. 10017.

On Readers' Service Card, Circle 122

Anyone for Tennis?



"Rub Kor" topping for tennis courts, running tracks, and playgrounds is a rubber, cork, and mineral aggregate composition said to be nonabrasive, skidproof, self-sealing, and unaffected by freezing and moisture. Application is the same as for asphalt. Available in colors. Rub Kor America, 71 Massasoit St., Waltham, Mass. On Readers' Service Card, Circle 123



The famous swing arm lamp—originated by Walter von Nessen more than 37 years ago—has gained a special reputation among architects, designers, even museums. This versatile lamp is available in nine different standard models for residential and commercial applications.

These lamps are also available with modifications to meet specific budget or job requirements. Quality of craftsmanship remains the same. Nessen lamps are made of solid brass, with standard finishes available in brushed or polished brass or satin chrome over brass. Write for our latest catalog and reference file.

NESSEN LAMPS INC. 317 East 34th St., New York, N.Y.10016





5755 Landregan St., Emeryville, Calif.

On Readers' Service Card, circle No. 381

← On Readers' Service Card, circle No. 451

COMMUNITY EFFORT RESULTS IN MODEL JUNIOR HIGH

The new junior high school in Eaton, Colorado, a town of only 1,200, is proof of what can be accomplished when the citizens, school board, the superintendent and his staff, and the architect all work together. The result—a unique, well-planned school facility.

Visitors marvel at how both community and school needs have been accomplished in planning the entire facility. Movable walls and folding partitions not only provide for present flexibility, but for future expansions, also.

Planned, preventive maintenance was carefully considered for this building, too. Experience gained from the use of Hillyard products in the grade school, completed in 1955, led to the selection of Hillyard products for the new junior high school building.

There's a Hillyard architectural consultant near you and he'll gladly consult with your specification writers on proper, approved procedures and materials for the original treatment of any floor you specify. Follow-up "job captain" service protects your specification. Write, wire or call collect.

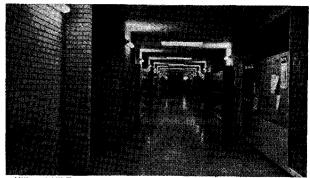
HILLYARD FLOOR TREATMENTS



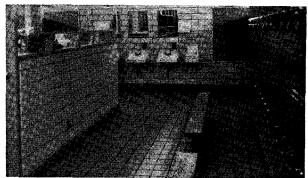
Truly a floor of champions . . . Hillyard Trophy Seal and Trophy Finish used to finish gym floor.



Ceramic tile pool with quarry tile aprons mopped daily with Clean-O-Lite as a disinfectant for maximum sanitation and for prevention of athlete's foot.



Hillyard Hil-Tex undercoater-sealer used on all corridor and classroom floors (resilient). Super Hil-Brite carnauba wax used for floor protection and easy daily maintenance.



Boys and girls locker-shower rooms maintained daily with Clean-O-Lite, a synthetic cleaner, deodorizer, sanitizer and disinfectant.

Architect: Contractor:

Claude A. Nash Hensel Phelps Construction Co.

Since 1907

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The Most Widely Recommended and

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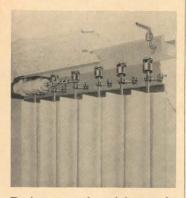
Approved Treatments For Every Surface

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MANUFACTURERS' DATA

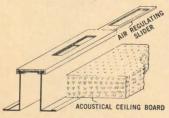
Air/Temperature

Nonrefrigerated **Cooling System**



Design manual explains workings of an integrated cooling system, using nonrefrigerated water to reduce heat generated by artificial lighting and sunlight entering through windows. The system can also transfer heat from lighting fixtures to the windows during the winter. System is said to reduce airconditioning and heating re-quirements for a building. Booklet compares energy requirements for "Lite-Therm" system with conventional methods; shows, with diagrams, direct and indirect transfer systems; and illustrates distribution and equipment layouts. Three pages of specifications and brief installation details. 24 pages. Environmental Systems Corp., Conyers, Ga. On Readers' Service Card, Circle 200

Trim Ceiling System



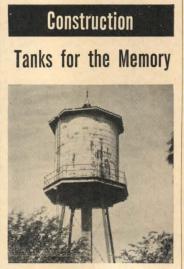
A ventilating grid system for dropped ceilings solves the scattered air-grille problem. Designed to hold both lighting and acoustic units, the steel grid incorporates a snap-on plastic "Vent-Spline", which is slotted for air flow supplied by open ducts above the ceiling. Air flow is controlled by a regulating slide that covers the slots. Acoustical tiles and translucent panels for lighting are available in various designs and materials (some fire-retardant).

Specialized products for noise control are also shown. The 48-page catalog includes tables, descriptions, details, and photos for complete ceiling systems. Elof Hansson, Inc., Acoustical Division, 711 Third Ave., New York, N.Y. 10017. On Readers' Service Card, Circle 201

Perforated Ceiling

Data file for distributing air through perforated acoustic ceiling includes design information for sizing complete systems, specifications for the ceiling tiles, and sketches illustrating construction details. The Celotex Corp., 120 N. Florida Ave., Tampa, Fla. 33602

On Readers' Service Card, Circle 202





The era of the old oaken water tower is rapidly passing out of style, as is illustrated by this portfolio of new design ideas for water storage in steel by Peter Muller-Munk, an industrial designer from Pittsburgh. Included are such unexpected projects as an elevated tank with an observation roof, and a ground-storage tank ringed at the base by shops and topped by a skating rink. The three basic types shown-ground storage, standpipe, and elevated

-are meant to contribute to the townscape. 50-page booklet with full-color renderings. American Iron and Steel Institute, 150 E. 42 St., New York, N.Y. 10017.

On Readers' Service Card, Circle 203

Stone Face



Photographs and panel details illustrate the use of marblefaced precast concrete panels on 11 building façades. Also given are details for caulking joints, anchoring marble to concrete, and an anchor schedule. 12 pages. The Georgia Marble Co., 11 Pryor St., S.W., Atlanta, Ga. 30303. On Readers' Service Card, Circle 204

Glass-Fiber Panels

Brochure provides data on translucent, glass-fiber-reinforced panels suitable for commercial, institutional, and industrial buildings. Tables give sizes, light and heat transmission coefficients, and available panel sizes. Diagrams illustrate available profiles. Folder Number AE-866. 4 pages. Reichhold Chemicals, Inc., Alsynite Div., P.O. Box 9335, San Diego, Calif. 92109. On Readers' Service Card, Circle 205

Modified Mortar

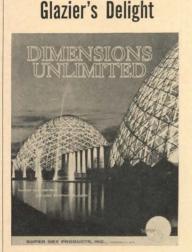
Two formulations, Dow Latexes 460 and 464, add tensile and flexural strength to mortar and improve its compressive strength and bond, according to the manufacturer. Latexmodified mortar is suitable for grouting tiles, repairing concrete pipe or floor slabs, waterproof coatings and tuck pointing. The booklet extensively reports on test results of the latex formulations and their effects on portland cement mortar. Illustrations suggest applications, and brief instructions tell how to use modified mortar. 48 pages. The Dow Chemical Co., 433 Building, Midland, Mich.

On Readers' Service Card, Circle 206

Chimneys Not for Burning

Lightweight "Metalbestos" chimneys, for enclosed installations or free-standing fireplaces, come in two standard sizes-7" ID and 10" ID which can be erected to any chimney height required. Insulation between stainless-steel inner pipe and galvanized steel outer pipe is said to have 17 times the insulation value of a brick chimney. 12-page pamphlet with photos and details. William Wallace Co., Belmont, Calif.

On Readers' Service Card, Circle 207



Extruded aluminum skylight domes-for topping off school, church, atrium, or greenhouse -are available in standard 12' to 30' diameters with a variety of glazing materials. Custom fabrication is also available. Ridge, multiple pyramid, and specialized skylights are shown in 16-page booklet with photographs, specifica-tions, and details. Super Sky Products, Inc., Box 47, Thiensville, Wis. 53092. On Readers' Service Card, Circle 208

Parting of the Ways

Office partitions faced with steel, hardboard, or vinylcoated-walnut panels are framed into aluminum posts grooved on four sides for flexibility of layout planning. Panels are available in several

What does Ceco do to help you deliver a pristine project?

Ships your doors in bags.



The reason for this is that somehow or other door handlers respect polyethylene. A bag made of it looks as if it might tear. So people seem to want to treat such a bag with kid gloves. Whatever's inside benefits. That's why we put your "Colorstyle" Décor Doors there.

We want these doors flawless in your building. So we encourage your contractor to erect them with the bags still on. That gives you beautiful doors in mint condition and, once the bags are off, adds to your stature with the client.

This is especially true when your doors are Colorstyle doors, prefinished with baked-on vinyl-type enamels. These doors come with a fine embossed finish that looks and even feels like leather. They come smooth, too.

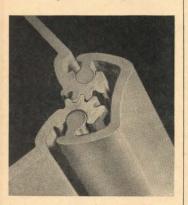
Colorstyle Doors cost no more than primed steel doors painted on the job. That's about what wood doors cost installed. So they're competitive and entirely practical to specify.

Better look into these doors now. Ask for catalogs. Or ask us to bring you a sample in a bag. The Ceco Corporation, general offices: 5601 West 26th Street, Chicago, Illinois 60650. Sales offices and plants in principal cities from coast-to-coast.



sizes and colors, either flush or glazed, and are also made with flush-mounted electrical outlets. 8-page booklet includes panel, post and gate size charts, and construction details. Weber Showcase & Fixture Co., 1340 Monroe Ave. N.W., Grand Rapids, Mich. 49502. On Readers' Service Card, Circle 209

> Doors/Windows They're Swingers



Gear-type continuous hinge, riding on nylon bearings, makes a trim, top-to-bottom strip along the side of the door. Manufacturer claims the hinges are pinch-free, burglar-proof, and self-weatherstripping. "Roton" aluminum hinges available in gold or silver finish. Mc-Kinney Sales Co., Scranton, Pa. 18505.

On Readers' Service Card, Circle 210

Aluminum Doors and Frames

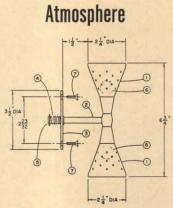
Catalog describes three types of aluminum doors: wide stile, narrow stiles, and optimum. Details and descriptions illustrate the difference between door types. Photos show hardware and construction details. 8 pages. The Adams & Westlake Co., Elkhart, Ind. On Readers' Service Card, Circle 211

Doubling Pays Off

Sealed, double panes of glass ready for site installation reduce heat and sound transmission. Pamphlet gives physical properties, dimensional tolerances, available sizes, and a case history justifying economy of the product. 8 pages. Thermoproof Glass Co., 4815 Cabot Ave., Detroit, Mich. 48210. On Readers' Service Card, Circle 212

Electrical Equipment Safety Lights

Catalog lists lighting fixtures that meet the requirements for lighting in hazardous areas. It gives dimensioned details, photometric data, and recommended uses. 34 pages. Appleton Electric Co., 1701 Wellington Ave., Chicago, Ill. 60657. On Readers' Service Card, Circle 213



Small, low-voltage (12v) light fixtures for restaurant, cocktail lounge, garden, pool, or fountain (underwater lights). Detailed drawings and full-color photos illustrate wall- and ceiling-mounted lamps, as well as hanging and standing lamps. Wide-Lite Corp., 1414 Gulf Freeway, Houston, Tex. On Readers' Service Card, Circle 214

Furnishings

More Office Chairs

Curved and straight-back office chairs make up "1200 Series," illustrated in 6-page color brochure; swivel armchairs, secretarial chairs, and side chairs are pictured. Five optional upholstery fabrics are illustrated in color; fold-out specifications chart tells types of cushioning used, chair dimensions, posture adjustments, yardage requirements, etc. Steelcase Inc., 1120 36th St., S. E. Grand Rapids, Mich. On Readers' Service Card, Circle 215

Inverted Clapboards for Shelf System

Upside-down clapboard siding construction, used as side panels of storage unit, provides adjustable (and tidy) bracket system without hard-*Continued on page 82*

MO-SAI INSTITUTE, INC.

110 Social Hall Ave. Salt Lake City, Utah 84111

For more information, write or call any of the licensed Mo-Sai manufacturers listed below:

Mo-Sai welcomes these three new members of the Mo-Sai Institute

HAMILTON CONCRETE PRODUCTS CO. 1401 East 39th Street Chattanooga, Tennessee

JACKSON STONE COMPANY, INC. 330 West Mayes Street Jackson, Mississippi

OOLITE INDUSTRIES, INC. P.O. Box 877 Ojus Br. Miami, Florida

Other members:

BADGER CONCRETE CO. P.O. Box 1068, Oshkosh, Wisconsin

BEER PRECAST CONCRETE, LTD. 110 Manville Road, Scarborough, Ontario, Canada

BUEHNER & CO., INC. P.O. Box 936, Mesa Arizona

CAMBRIDGE CEMENT STONE CO. P.O. Box 41, Allston, Mass.

ECONOMY CAST STONE CO. P.O. Box 3-P, Richmond, Virginia

FORMIGLI SALES CO. 6 Penn Center Plaza, Philadelphia, Pa.

GEORGE RACKLE & SONS CO. Newburg Station, Cleveland, Ohio

GOODSTONE MFG. CO., INC. 470 Hollenbeck Street, Rochester, N.Y.

GRASSI AMERICAN CORP. 111 South Maple Avenue, South San Francisco, California

HARTER CONCRETE PRODUCTS, INC. 1628 West Main Street Oklahoma City, Oklahoma

OLYMPIAN STONE CO., INC. 1415 N.W. Ballard Way, Seattle, Wash.

PLASTICRETE CORPORATION 1883 Dixwell Avenue Hamden, Connecticut

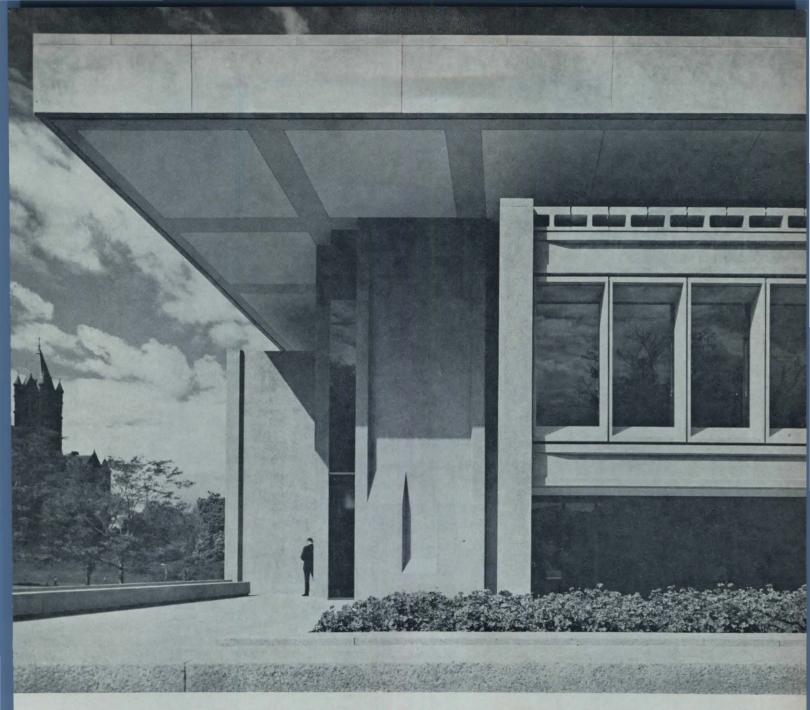
SOUTHERN CAST STONE, INC. P.O. Box 1669, Knoxville, Tenn.

SUPERCRETE, LTD. P.O. Box 80, St Boniface, Manitoba, Canada

TEXAS INDUSTRIES, INC. P.O. Box 400, Arlington, Texas

WAILES PRECAST CONCRETE CORP. 2901 Los Feliz Boulevard Los Angeles, California

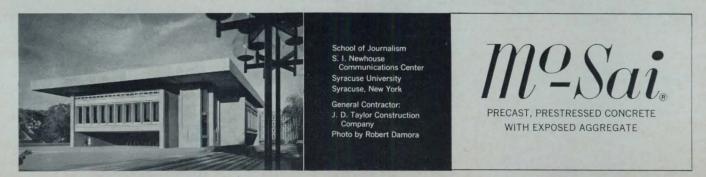
WILSON CONCRETE CO. P.O. Box 56, Red Oak, Iowa P.O. Box 208, South Omaha, Neb.



First Honor Award Winner* • by I. M. Pei & Associates and King & King

Whether the competition is local, regional, or national, an impressive number of award-winning buildings are Mo-Sai. Other than Mo-Sai's intrinsic high quality, the resemblance ends there. Let's look at some of the distinctive Mo-Sai features on this award winner. Above and below Mo-Sai windowall units are exposed Mo-Sai structural beams. On either side of the windowalls,monolithic Mo-Sai panels with double returns form the structural fin walls. On each corner of the building two 10-foot 6-inch by 32-foot-high Mo-Sai wall units with an incised design enclose stairways. Mo-Sai cast in the shape of 'l' beam cross sections forms the balcony railing, while Mo-Sai facia panels encircle the roof slab.

Could this building have been so beautifully expressed in anything other than Mo-Sai? *1965 A.I.A. Competition



Radius topsdesign flexibility with Therm-O-Proof insulating glass.

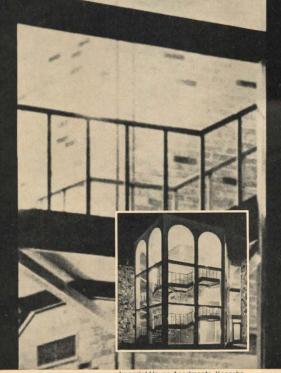
Therm-O-Proof insulating glass is avail-able in over 200 different design combina-tions: Trapezoids, triangles and circles; with clear, tinted, heat absorbing or rolled glass; in sizes from 60" x 190" down to 8" x 8" and everything in between. If we haven't got the design you have in mind, we'll do every-thing nossible to make it for you. thing possible to make it for you.

Quality too, is paramount in every unit we produce. Continuous attention to detail and quality control are two reasons Thermoproof will be around for a long time to serve you. And there's a 10 year warranty on every unit to back up this quality.

Your building schedule is important to us also. Popular standard sizes are shipped in three days, and most non-standard sizes in three weeks or less.

That's Thermoproof . . . DESIGN FLEXIBILITY-QUALITY-SERVICE-and a real desire to work with you. Try us.

(C)



Imperial House Apartments, Kenosha, Wisconsin, Architect: Sheldon Segel, A.I.A., Milwaukee, Wisconsin.

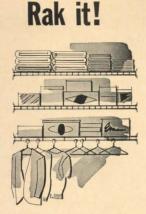
Therm ·O·Proof INSULATING GLASS Made more ways-to fit more ideas. See Sweets Th

Thermoproof Glass Company 4815 Cabot Avenue Detroit, Michigan 48210 subsidiary of Shatterproof Glass Corporation 44 years of glass experience

On Readers' Service Card, circle No. 440

Don't Stack it...





... with Pemco custom-made steel Rod Raks®

Versatile Rod-Raks[®] are used in:

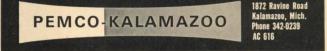
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Institutions Industries

Rod-Raks are the modern answer to general and wardrobe storage. Factory finished and cut to size, Rod-Raks are shipped ready to install complete with necessary hardware.

Specify Rod-Raks[®] - get what you specify.

Rod-Raks are distributed nation wide. Write for free "Complete line" literature.



On Readers' Service Card, circle No. 356



ON DOCKS AND DOCKBOARDS

Modern Methods of Dock Design - 16 page brochure developed in cooperation with ATA, TTMA and SAE, contains valuable information on dock design, driveway approach, dock aprons, etc.

Adjustable Dockboard "Analysis" Brochure - 8 pages describe operating sequences and needed safety and operating features.

Send for your copies today! Tear out and attach this ad to your letterhead, or circle information card

KELLEÝ



On Readers' Service Card, circle No. 447

6740 N. Teutonia Ave., Milwaukee, Wisconsin 53209



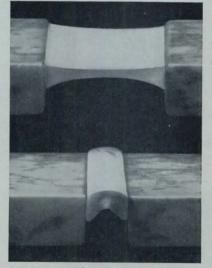
General Contractors; General Bronze Corp., Curtain Wall Fabricator; Abbott Glass Company, Glazing Contractor,

9 tons of G-E Silicone Construction Sealant seal new UN Plaza

G-E Silicone Construction Sealant is an amazing synthetic rubber that cures in air. It's waterproof. It won't crumble, harden or peel. So it's the first really permanent sealing compound.

At the new United Nations Plaza apartment and office building, just across from the famous United Nations Building in New York City, nine tons of Silicone Construction Sealant were used for various sealing applications. Seven tons of Silicone Construction Sealant were used to glaze the windows. Another two tons seal the aluminum curtain walls. G-E Silicone Sealant is also used to caulk air ducts as well as miscellaneous caulking throughout the thirty-eight story twin-tower skyscraper.

G-E Silicone Construction Sealant applies quickly and smoothly from a



Joints expand and contract 10,950 times in 30 years . . . and so will **G-E Silicone Construction Sealant.**

standard caulking gun, forming a tight bond to glass, metal, masonry and other common building materials. No mixing either. And it can be applied easily in any weather . . . never stiffens in cold or runs because of heat. Cleanup is a cinch. So you save time while you get a good looking, permanent seal that minimizes callbacks.

Available in a wide range of colors, as well as a translucent form, G-E Silicone Construction Sealant blends in well with almost any material. It's stocked by local distributors and in many building supply stores. For complete information, including a new bulletin on guide specifications for Silicone Construction Sealant, check the distributor nearest you, or write to Section Q1160R, Silicone Products Dept., General Electric Company, Waterford, New York.



Continued from page 78

ware. Assembled into a wood unit called "The Caravan," system can be set up as a divider, with four ceiling-high sections of storage and display space, or it can rest against a wall and be moved (on casters) to any position. Front surfaces can be laminate-finished. Illustrated in 6-page, 4-color brochure. Western Wood Products Assn., Yeon Bldg., Portland, Ore.

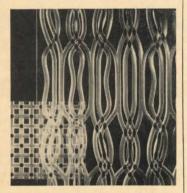
On Readers' Service Card, Circle 216

For Banquet Room

"Guide to Function-Room Furniture," pocket-sized booklet, gives information on the durable, flexible equipment needed in rooms where public functions are held: folding tables; stacking and folding chairs; folding platforms; portable dance floors, bars, and lecterns; and trucks and dollies. Institutional Products, Inc., "I" and Venango Sts., Philadelphia, Pa.

On Readers' Service Card, Circle 217

Plastic Grilles



See-through acrylic panels have been carved in squiggly and geometrically repetitive patterns (illustrated) for use as indoor or outdoor grilles. Wood grilles in irregular cellular patterns are also illustrated in brochure from Customwood Manufacturing Co., 3620 High St., N.E., Albuquerque, N.M. On Readers' Service Card, Circle 218

Bright Spaces for Bookworms

Library stacks need not be drab, now that a choice of 28 colors—including fawn, champagne, rust, olive, ochre, offwhite, and Chinese red—is available on this manufacturer's library equipment. Color brochure available from Estey

82 Manufacturers' Data

Corp., 1 Catherine St., Red Bank, N.J. On Readers' Service Card, Circle 219

"Surface Art Forms"

Above is the title of a fourpage brochure of square and round metal cylinders to be used as pendant, flush, and bracket lighting fixtures. Finishes, sizes, and performancedata chart are included. Art Metal Lighting Div., 1814 E. 40th St., Cleveland 3, Ohio. On Readers' Service Card, Circle 220

Columbia Office Furniture

"Linear/7000" line is set forth in 16-page, four-color brochure. A "Linear" reveal accents the joints between elements of the furniture. Collection includes desks, modular units, credenzas, tables, and accessories. Columbia-Hallowell Div., Standard Pressed Steel Co., Box C- 3-22, Jenkintown, Pa.

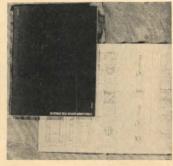
On Readers' Service Card, Circle 221

Innovations in Home Décor

An eight-page, consumer-oriented, color folder illustrates 14 Royalcote hardboard woodgrain panels (recent additions: Paneled Walnut, Pecky Teak, Mount Vernon Cherry, and New Honeytone Cherry), plus vinyl-clad wood mouldings in seven shapes. Masonite Corp., 29 N. Wacker Dr., Chicago, Ill.

On Readers' Service Card, Circle 222

Demountable Partition Systems



Brochure of 36 pages, entitled "Hauserman Total Interior Concept/Walls," details "Co-Continued on page 86

STANLEY

Automatic Sliding Entrances

Call your nearest Stanley Magic Door Distributor.

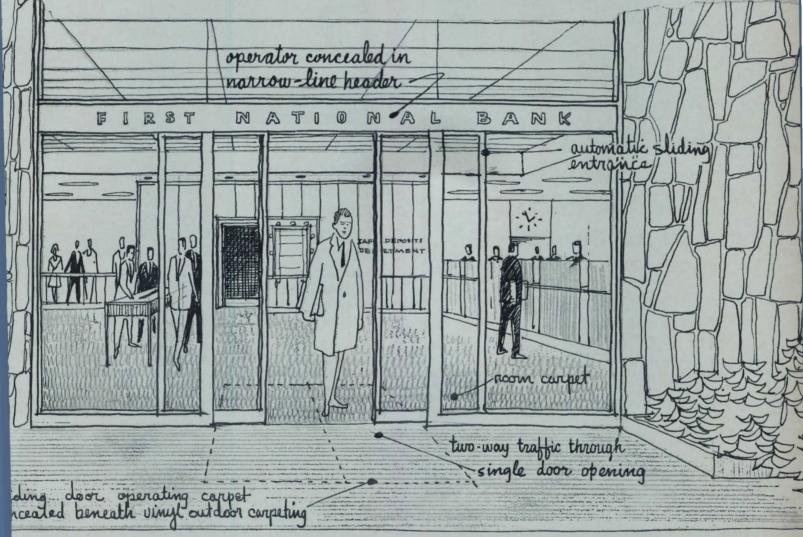
ARIZONA Phoenix Stanley Building Products, Inc. 4836 North 16th Street 602, 279-0324 CALIFORNIA Los Angeles Hay Agency Algorithm and a second a Jed Products Comp. 239 King St. 312, 439-8080 Rock Island Ind Products Company Rock Island Jed Products Company 312 20th Street INDIANA Indianapolis Jed Products Company 3529 N. Hovey 317, WA 4-2646 IOWA Des Moines The Reland Company 2920 S.W. 9th St. 515, AT 3-0409 KANSAS Hutchinson Supply Service, Inc. 1326 E. Avenue A 316, 663-911 1326 E. Avenue A 316, 663-9111 Kansas City, Mo. Edelman-Lyon Company 325 W. 80th Street 816, EM 3-2460 LOUISANA New Orleans A. Wylie McDougoll Company, Inc. 909 So. White St. 504, 822-4100 MARYLAND MARYLAND Baltimore G. W. Blancherd Co., Inc. 837 PSA 7-0511 MASSACHUSETTS Needham Heights The Stanley Soles Company 95 Hompton Avenue 017, 444-7768 MICHIGAN Grand Rapids Jed Products Company 3015 Modison, S.E. 616, 243-9163 Royal Oak Jed Products Company 31270 Stebenson Hwy. 313, JO 6-7922 MINNESOTA Minneapolis Peila Products 292 Woshington, South 612, FE 54134 MISSOURS Hots, J.Finan Co., Inc. 12409 St. Chas. Rock Rd. 314, 739-0130 MONTANA 314, 739-0130 MONTANA Great Falls The House of Glass 811 First Ave., N. 406, 445-1371 NEBRASKA Omaha The Roland Co. 19111/2 Military St. 402, 556-8820 NEW MEXICO NEW MEXICO Albuquerque Welch-Erwin Corp. 4019-C Edith Blvd., N.E. 505, 344-3547

NEW YORK Buffalo A. O. Stilwell Ca. 65 Great Artow Ave. 716, 877-4300 Rensselaer Crawford Door Sales Albany Company, Inc. Sherwood Park 518, 477-9374 Rochester The Maurer Ca. 31 Richmond St. 716, 454-4990 Syracuse B. R. Johnson & Son, Inc. 5900 South Salino St. 315, HC 9-3244 Viceoph Shaw Joseph Shaw 61-10 34th Ave. 212, 651-6363 OHIO OHIO Cincinnati Jed Products Company 4452 Sycamore Road 513, SY 1-3273 Cleveland Cleveland Jed Products Compony 8616 Gardiol Bivd. 216, DI 1-1146 Columbus Compony Jed W. King Ave. 614, 201-4267 OKLAHOMA Oklahoma City Murroy R. Womble Co. 121 N.E. 26th St. 405, JA 5-7417 Tulsa 405, JA 5-7417 **Tulsa** Murroy R. Womble Co. 216 East 16th St. 918, LU 4-2414 **OREGON** Portland Bohm Automotic Door, Inc. 4075 N. Interstote 503, 282-4547 PENNSYLVANIA Blawnox Blawnox Pittsburgh Jed Products Company 313 Freeport Road 412, ST 1-3666 Blay 412, ST 1-3666 Harrisburg Hershock's, Inc. 1513 N. Cameron St. 717, CE 8-7331 King of Prussia The Sellers Company The Sellers Company 396 E. Church Road 215, CH 8-1806 TENNESSEE TENNESSEE Memphis Maury and Company 357 Comberland Ave. 901, GL 2-7301 Nashville John W. McDougall Co. 41st & Indiana Avenues 615, 297-3955 TEXAS Dallas 615, tyr-as-TEXAS Dallas Automatic Door Control Co. 1175 109th St. Grand Proirie 214, AN 2-1474 Houston Shelton Greer Co., Inc. 3025 Maxroy Street 713, 864-4487 Lubbock Door Automation Sales & Service 308 East 34th St. 806, StH 4-7584 San Antonio Company 308 East 34th 51. 806, 514 4.7584 San Antonio Samuels (Bias Compony 21) Newell Ave. 512, 227-2481 UTAH Building Specialties Co., Inc. 1340 South First West 801, 484-7882 VIRGINIA Richmond Tronco Soles Corp. 2515 Grenoble Rood 703, 282-6936 WASHINGTON Seattle WASHINGTON Seattle Automatic Doorways 4401 Wallingford Ave. N. 206, ME 2-5686 Spokane The Carswell Co. South 123 Wall Street 509, RI 7-1575 WISCONSIN Wilwaukke Milwaukee Jed Products Company 11605 W. Bluemond 414. SP 4-1350 DIST. OF COLUMBIA Washington G. W. Blanchard Co., Inc. 6210 Chillum Place, N.W. 202, TU 2-6210 6210 Chillum Place, N.Y 202, TU 2-6210 CANADA Toronto, Ontario Pilkington Bros. Ltd. 55 Eglinton Str., E. 416, HU 7-2471 No. Vancouver, B. C. Nor-Wes Contract Hard. 1075 Marine Drive 604, 988-5221

Who is doing something to open doorways to design freedom?

Stanley is.

With automatic entrances like this.



Help us strike a blow for freedom of design! Get information on Stanley automatic sliding entrances. Write us for Folder No. M67-COM. Look us up in Sweet's. Or check under "Door Operating Devices" in the Yellow Pages for the name of the Stanley distributor nearest you. Stanley offers a complete line of famous MAGIC-DOOR^{TM®} operators (pneumatic, hydraulic, electric), controls and accessories for doors that swing, slide or fold. Stanley Door Operating Equipment, Division of

CONSULT YOUR NEAREST MAGIC DOOR DISTRIBUTOR LISTED AT LEFT

The Stanley Works, New Britain, Connecticut.

On Readers' Service Card, circle No. 392

20 AMP. HEAVY DUTY 3-WIRE GROUNDING OUTLET NO. 6300-1

The "6300"

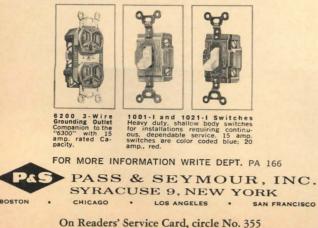
of the P&S super devices

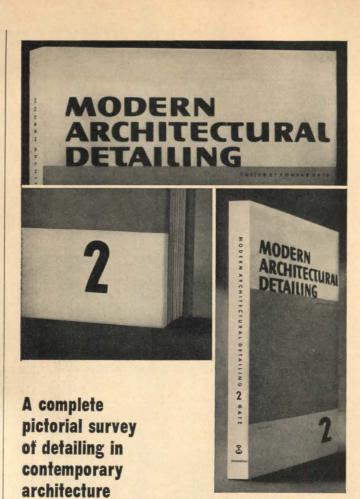
This is the new super "6300" by Pass & Seymour. Made without compromise . . . for the job where only the best will do.

The body and top are molded of high impact Melamine. All contacts are reinforced by plated spring steel clips...and each contact is individually recessed. May be side or back wired—with up to No. 10 wire. Assembly screws are threaded into the metal strap, not the plastic body.

The "6300" is for installations facing years of rough usage. It looks different because it is a truly different heavy duty outlet.

MORE SUPER DEVICES FOR HEAVY DUTY SERVICE

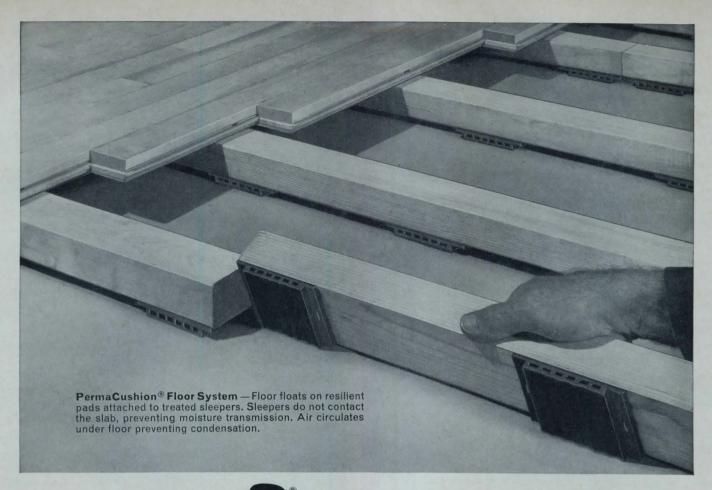




MODERN ARCHITECTURAL DETAILING: Vol. II Edited by Konrad Gatz 1965 284 pages 500 illustrations (40 in color) \$17,50

This book illustrates how some of today's leading architects have solved the detailing problems which have faced them. It is divided into three main sections: (1) <u>Structural Details</u> which covers everything from details found in steel-framed and reinforced concrete buildings to garden pools and fountains; (2) <u>Details Of Interiors and Fittings;</u> (3) <u>Unity Of Detail</u> which deals exhaustively with five complete building projects notable for their excellent design. The detail work of more than 250 American and European architects is examined with a view toward aesthetic quality, technical soundness and originality. The value and uses of both new and traditional materials are discussed in relation to structure, exteriors, interiors and landscaping, providing a wealth of ideas and information for the architect, draftsman, designer, building contractor, and interior decorator.

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Robbins perma Cushion Northern Maple Floor guarantees satisfaction in activity rooms



West Memphis Senior High School, West Memphis, Ark. Architects: Stuck, Frier, Lane, Scott, Inc. Installer: Austin Flooring Co., Kansas City, Kan.



This ideal floor system for gymnasiums, auditoriums and multi-purpose rooms gives uniform resiliency, dimensional stability and long wear. The installed cost is most reasonable—approximately \$1.35* per square foot.

Precision-milled, tough-fibered MFMA Northern Hard Maple Flooring, installed according to Robbins Perma-Cushion specifications, has proven successful in thousands of floors. Installation is guaranteed by a fully qualified floor contractor to assure trouble-free service. For specifications and name of the nearest franchised installer, write: Robbins Flooring Company, Dept. PA-166, White Lake, Wisconsin 54491. See our catalog in Sweet's Files.

*National average, installed cost for 33/32" 2nd and Better Grade.

7	ROBBINS FLOORING COMPANY Dept. PA-166, White Lake, Wisconsin 54491 () Send complete information
	() Advise name of authorized installer in this area
Na	me
Fir	m
	dress

On Readers' Service Card, circle No. 362

Continued from page 82

ordinator Double-Wall," the first practical metal movable wall at low initial cost (according to the manufacturer), as well as the firm's Signature and Delineator partition systems. Booklet includes specifications, technical data, and illustrations. E.F. Hauserman Co., 5411 Grant Ave., Cleveland Ohio.

On Readers' Service Card, Circle 223

Sanitation/Plumbing **Soapy Sales**

Washroom accessories in stainless steel are shown in a 24page catalog giving brief specifications, drawings, and details. Watrous Inc., 216 S. Evergreen, Bensenville, Ill. On Readers' Service Card, Circle 224

Special Equipment

Cold Interiors

A comprehensive guide to manufacturer's prefabricated walk-in refrigerators and refrigerated warehouses gives component sizes and details for installing them on several types of floors. Also, catalog recommends refrigeration equipment sizes and architectural specifications. 32 pages. Bally Case & Cooler, Inc., Bally, Pa. On Readers' Service Card, Circle 225

Specs for Movable **Steel Partitions**

VIRGINIA

VIRGINIA

cies of partition details at

scale of 3" to 1', and pricing

estimator. Virginia Metal Prod-

ucts, Div. of Gray Mfg. Co.,

On Readers' Service Card, Circle 226

Orange, Va.

workalog

Street Furniture

Detailed drawings and photographs illustrate glass-fiber-re-inforced-plastic street furniture such as benches, trash receptacles, and planters. Furniture available in 11 colors and several textures. 18 pages. Architectural Fiberglass, 2020 S. Robertson Blvd., Los Angeles, Calif. 90034

On Readers' Service Card, Circle 227

Plan Files



Catalog illustrates systems for filing large sheet materials such as prints, drawings, or maps. Systems include vertical hanging files and square, pigeonhole files for rolled-up sheets. 16 pages. Plan Hold Corp., P.O. Box 3458, Torrance, Calif. 90510 On Readers' Service Card, Circle 228

Dumbwaiters

Brochure describes construction, sizes and operating mechanism of manual, automatic, and automated dumbwaiters. 8 pages. Energy Elevator Co., 47th and Chestnut Streets, Philadelphia, Pa.

On Readers' Service Card, Circle 229

Drawing Printer

Brochure gives brief specifications and descriptions of office machines for developing and printing whiteprints. Models take prints up to 42" wide. Reproduction Engineering Corp., Essex, Conn.

On Readers' Service Card, Circle 230

Concrete Suggestions

Eighteen data sheets illustrate structural concrete details for large and small projects. Subjects covered include concrete floor joints, flat-plate slabs,





WHY PHOENIX MUTUAL'S NEW SHIP SAILS IN A LEAD-LINED SEA

Seeing the streamlined grace of its shape (technically a lenticular hyperboloid), it is easy to understand why residents of Hartford call the Phoenix Mutual Life Insurance Company's new 14-story office there "the ship." Its designers created beauty from the same poetic fancy. They launched the building's "bow" into a miniature sea... a reflecting pool 140 feet long and 50 feet wide. With garages and file rooms directly below the pool, it took the lasting leakproof qualities of lead to make the architect's inspiration practical. Over 22 tons of lead lining keep the water permanently in place.

This pool is a striking example of the way the virtues of lead have sparked a trend in modern architecture. More and more, designers lend graciousness and interest to buildings by providing pools, fountains, and planters. Water and greenery add a pleasing, human counterpoint to the bare beauty of concrete, glass, and metal.

You can place pools almost anywhere. On a roof or terrace. In a lobby or apartment. Your imagination can roam freely because lead conforms easily to any shape. It lasts forever, and maintenance is nil.

Write now for detailed specifications for pools and planters. We'll gladly give you full technical information on these and other modern architectural applications of lead. Contact: Lead Industries Association, Inc., Dept. N-1, 292 Madison Avenue, New York, New York 10017.



R

Look Ahead with Lead

On Readers' Service Card, circle No. 424

LEAD INDUSTRIES ASSOCIATION, INC.

NEXT Month IN P/A

■ Potpourri is the key word to the February issue of PROGRESSIVE ARCHITECTURE. From a witty comparison of medieval surgeons and contemporary architects to an account of the usage of modern churchbell systems, the range is wide, the tempo exciting.

■ Highlighting the February issue is an exploration of the validity of "bareness" in modern architectural design—Why does today's trend of "barely nothing" outprice its more ornate functional predecessors? Next is a thought-provoking psychological approach to the use of ceiling patterns to create an aura of orderliness in a boys school plus a report on a new luxury low-cost housing redevelopment project in Lower Manhattan.

■ You won't want to miss this February issue of PROGRESSIVE ARCHITECTURE. It's yours, plus eleven more exciting issues when you fill in the "SUBSCRIPTIONS" section on the Reader's Service Card bound in this issue. (See Table of Contents for page number of Reader's Service Card.) exposed aggregates, shells and curtain wall joints. Portland Cement Association, 33 W. Grand Ave., Chicago, Ill. 60610. On Readers' Service Card, Circle 231

Surfacing

Strong-Grained Wood

"Spiced" Maple, a Canadian hardwood, is explained; its suggested uses (mainly furniture, paneling, and flooring) are illustrated; and its characteristics and processing techniques specified in 10-page brochure. Canadian Hardwood Bureau, Canadian Lumberman's Assn., 27 Goulbourn Ave., Ottawa 2, Ontario, Canada.

On Readers' Service Card, Circle 232

Welsh Quarry Tile

"Heatherbrown" Welsh quarry tile manufactured by Dennis Ruabon Ltd. of North Wales and produced in natural earth colors is resistant to acids, stains, fire, and frost. Tile is available in rectangular, square and hexagonal shapes. It is nonslip and nonabsorbing for heavy traffic areas. Brochure shows typical installations in color, design patterns, and stock sizes available. 4 pages. Architectural Specialties Inc., 850 South Van Ness, San Francisco, Calif. 94110. On Readers' Service Card, Circle 233

Against the Grain

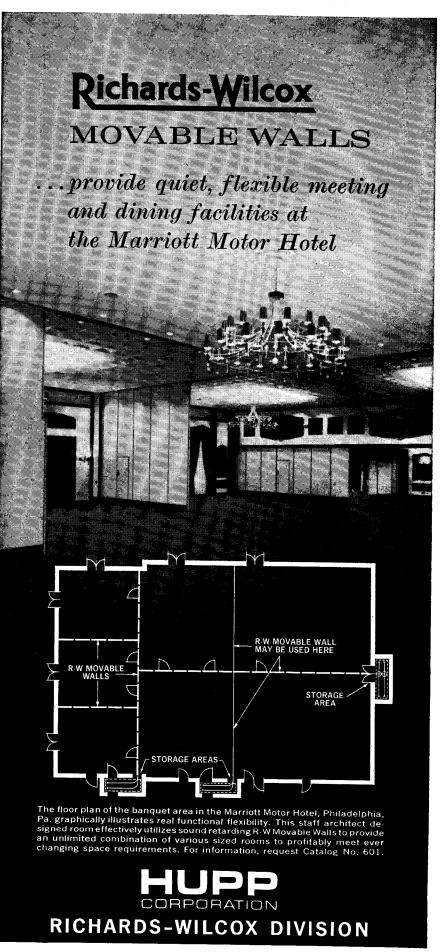
Cross-grain fir blocks for flooring are available in tongueand-groove sections varying in length from 2' to 8'. Claimed by manufacturer to be highly durable, resilient and resistant to heat and cold, the blocks are suitable for large industrial installations. 4-page leaflet with brief specifications and photos. Tree Products Co., P.O. Box 496, Lake Oswego, Ore.

On Readers' Service Card, Circle 234

PROGRESSIVE ARCHITECTURE NEWS REPORT

REINHOLD PUBLISHING CORPORATION 430 Park Avenue, New York, N.Y. 10022

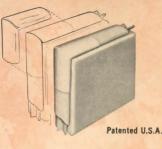
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For more information, write for our booklet, "COR-TEN Steel for Architectural Applications." United States Steel, Room 6963, 525 William Penn Place, Pittsburgh, Pennsylvania 15230. USS and COR-TEN are registered trademarks.



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Square. But beautiful.

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Everything about our 500 line desk is made the way office furniture ought to be. Furniture that looks beautiful and works beautifully—a solid investment for the management who pays for it.





The custom look . . . without the usual customdesign expense. Two bright new additions to the Lightolier Portfolio Group. On the right, our unique spreader system—a design innovation that clusters pendants in chandelier forms with no cords showing. Choose any combination from 8 to 16-lights in a choice of 6 different spreaders and 60 truly unique pendant forms for close-to-ceiling or suspension application. Design freedom is yours. On the left, a dynamic interplay of light and shadow in sculptured metal forms ideally suited for imaginative, dramatic groupings. The "custom look." The unmistakably-Lightolier look. So right for so many of your assignments. By Lightolier—for over 60 years the most logical source for all your lighting needs, both fixed and portable. Do you have our latest catalog? Write us on your professional letterhead. And visit your nearest Lightolier distributor or Lightolier showroom soon.



1718 HI-LINE DRIVE, DALLAS 2515 SOUTH BROADWAY, LOS ANGELES On Readers' Service Card, circle No. 345

LEFT: Woven ribbons of metal in your choice of white or satin brass finish. Available in 16" and 22" diameter.

RIGHT: Three-tier, 12-light spreader finished in satin brass and black. Shown here with tinted glass pendants to form a colorful, custom chandelier. Also available in four-tier, 16-light.

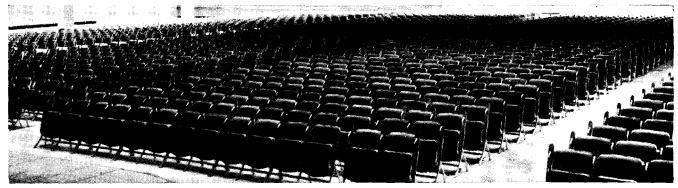


Comfort-Engineered Seating by HEYWOOD-WAKEFIELD

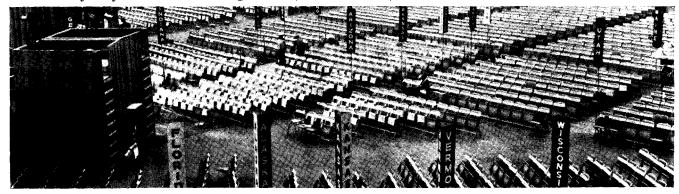
Cleveland Civic Auditorium installation of 5100 Heywood-Wakefield Model T-298 portable chairs with padded seats and backs and chrome metal protective edges.



Boston War Memorial Auditorium installs 4000 Model TC-290 FA Heywood-Wakefield portable chairs in the main floor arena. These are deluxe chairs with deep cushioned, 16-coil spring seats and backs.



Atlantic City Convention Hall, with a section of the 7000 Model T-298 Heywood-Wakefield portable chairs. Both T-298 and TC-290 chairs are available with or without tablet arms. They may be obtained as single chairs, or in sets of 2, 3 and 4 chairs.



Heywood-Wakefield brings to multiple-purpose areas...classrooms, gymnasiums, sports arenas, convention halls...the same luxurious, comfortable seating that has made Heywood-Wakefield permanent auditorium chairs outstanding for over a century.

Portable chairs by Heywood-Wakefield have all the scientifically designed comfort features...the same high quality materials...and are products of the same manufacturing skill. They are the ideal answer for supplementary seating in any location. Write for complete folio—or see Sweet's Catalog, Section 36d/He.



Menominee, Michigan

<text>

Molecular Electronics Division Westinghouse Electric Corporation









First phase of the project (108,000 sq ft) is composed of four ministration. A modules, three for research and production, the fourth for ad-

ministration. Additional modules will be placed to form a number of partially and fully enclosed landscaped courtyards.

Space modules permit easy enlargement in relatively small increments



Westinghouse's Molecular Electronics Division facility is situated on a rolling, wooded, 7-acre tract in Anne Arundel County, Md. Roads, parking areas, and buildings are located so that a minimum of the site is disturbed.



Archilect: Vincent G. Kling FAIA, Philadelphia Structural Engineers: Allabach & Rennis, Inc., Philadelphia General Contractor: Kirby & McGuire, Inc., Baltimore Steel Fabricator: Derby Steel Co., Baltimore

Primary design motivation was to create a low-dust, noise-free, wide-span unit of space in which a controlled environment could be easily maintained . . . which could serve small research and production teams efficiently... and which could be expanded easily and economically when additional research or manufacturing space became necessary.

Solution is a simply organized square "space module" which structurally and architecturally can stand as an independent unit or in combination with other space modules.

Each unit is a square composed of a 90 x 90 ft, column-free central space 14-ft high, designed for laboratory or production use. Each is surrounded by a band of lower-ceiling space designed for office and service support areas.

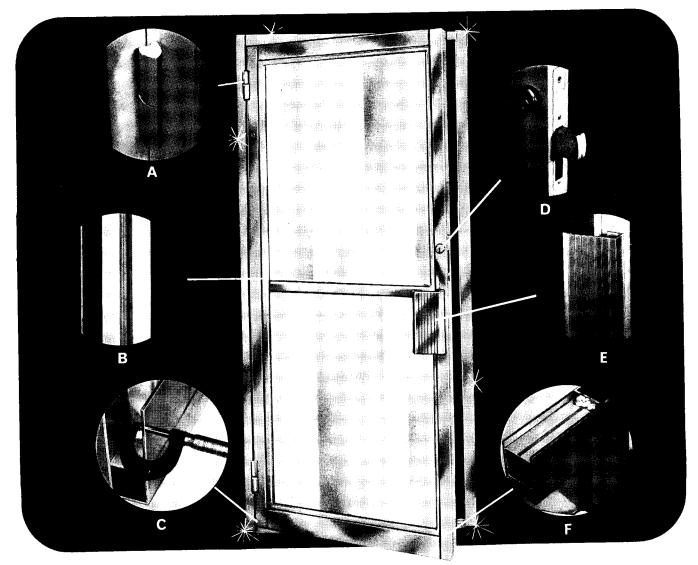
The high ceiling portion of the structure is roofed with a steel-truss space frame resting on four Bethlehem wide-flange columns at the corners. The roof for the lower-ceiling perimeter area is formed by cantilevering the lower chord of the trusses beyond the columns to the outer walls.







Courtyards provide interior spaces with an abundance of natural light and pleasant vistas, and create a stimulating human environment.



Forget about Natcor (after the installation)

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- (C) Quality Extrusions Door stiles and rails of fully extruded aluminum ¹/₈" wall thickness throughout as specified by architects.
- (D) Maximum Security Lock Burglar-Proof, with 1 ³/₈" throw, case hardened steel bolt and weatherstripped face plate for pairs of doors.
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All-purpose grading permits use of standard grades for trussed rafters, cantilevered and continuous beams without special grading.

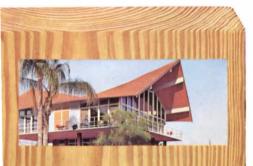
Greater ability to hold nails and other fastenings.

Straightness for easier wall framing ... assured by improvements in lumber manufacture.

Unlimited forest supply-well managed, increasingly abundant, vastly improved in guality.

Volume of Southern Pine Dimension moving to major Northern markets has increased by 64 percent during the last four years . . impressive evidence of its growing acceptance by satisfied customers.

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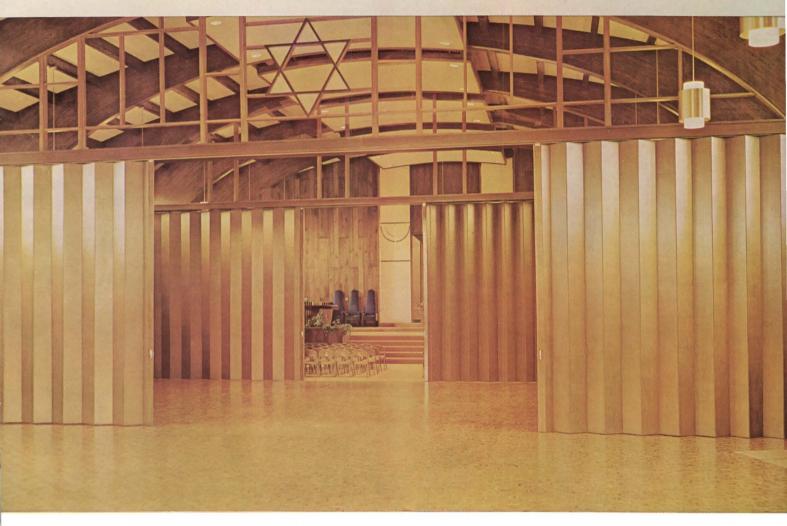
"No-Shock" is an exclusive Monarch process that has proven to virtually eliminate static electricity," even on the deepest pile. It is a conductive coating applied in the backing of all our nylon carpet, where it cannot affect the sparkling color beauty or soil-resistant durability of the pile. And it lasts the lifetime of the carpet, even through cleaning.

"No-Shock" is now being applied to all Monarch nylon carpet, including Colorset and Veltron. "No-Shock," plus Monarch's wide variety of styles, colors and patterns, makes rugged Monarch nylon carpet a better, more satisfying investment than ever.

For further information, write our Contract Division.

*Tests in hotel corridor installations have proven that "No-Shock" reduces static level 90%. Tests in progress indicate it significantly reduces soiling.

MODERNFOLD the long division line



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> For complete specifications, see Sweet's File 22d/Ne or consult your nearby Modernfold distributor.



New Castle Products, Inc., New Castle, Indiana



Westinghouse Special Effects Lighting helps you create any mood, dramatize any structure

When lighting must do more than merely illuminate check Westinghouse Special Effects Lighting. We offer the greatest capability in the industry to help you create exactly the effects, the moods, the drama you want.

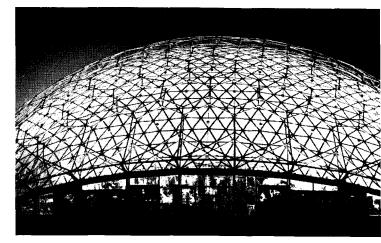
Desired effect for the Trans World Flight Center at Kennedy International Airport: capture the excitement of air travel. Architect: Eero Saarinen. Lighting: Stanley McCandless. Special effects lighting fixtures: Westinghouse-Frink.

Specially designed troughs of floods illuminate the soaring ceiling. Built into recessed areas, the fixtures are not seen, but are easily accessible for service. Shields diffuse the light to make it softer, more uniform, an integral element of the building. Dramatic highlights come from two types of downlights. Stationary fixtures brighten busy areas; swivel fixtures focus attention on signs and temporary displays. These downlights are completely assembled for easy installation, gasketed to prevent light leaks, designed for lamp replacement without tools. The structure's exterior—even more impressive by night than by day—is floodlighted by Westinghouse.

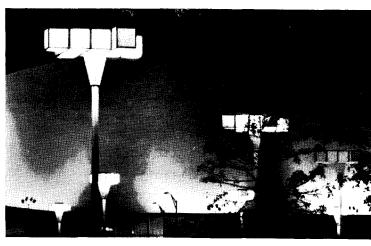
What are your objectives? Excitement? Serenity? Concentration? Your Westinghouse Sales Engineer offers experienced counsel plus the largest selection in the industry. Call him, or write to Westinghouse Electric Corp., Lighting Division, Dept. PA-55, Edgewater Park, Cleveland, Ohio 44101.

◄ Trans World Flight Center, Kennedy International Airport, features specially designed Westinghouse lighting built into ceiling (lower left) for overall light reflection. Ceiling downlights are also by Westinghouse. Electrical contractor: Eastern States Electrical Contractors, Inc.

More lighting news from Westinghouse



Unusual use of interior floodlighting produces this dramatic effect in the 70-foot dome of Missouri Botanical Garden, St. Louis. Color floods combine with straight floods to make the translucent dome a focal point. Exterior floods light the surrounding mall.



The greatest concentration of custom-designed streetlighting in the world. Modular walk-way lights at the World's Fair are by Westinghouse-Frink; color-coded lights identify different areas of the Fair and provide music from built-in speakers. Westinghouse provides three types of walk-way lights at the Fair.



You can be sure if it's Westinghouse

Bucket seats for business

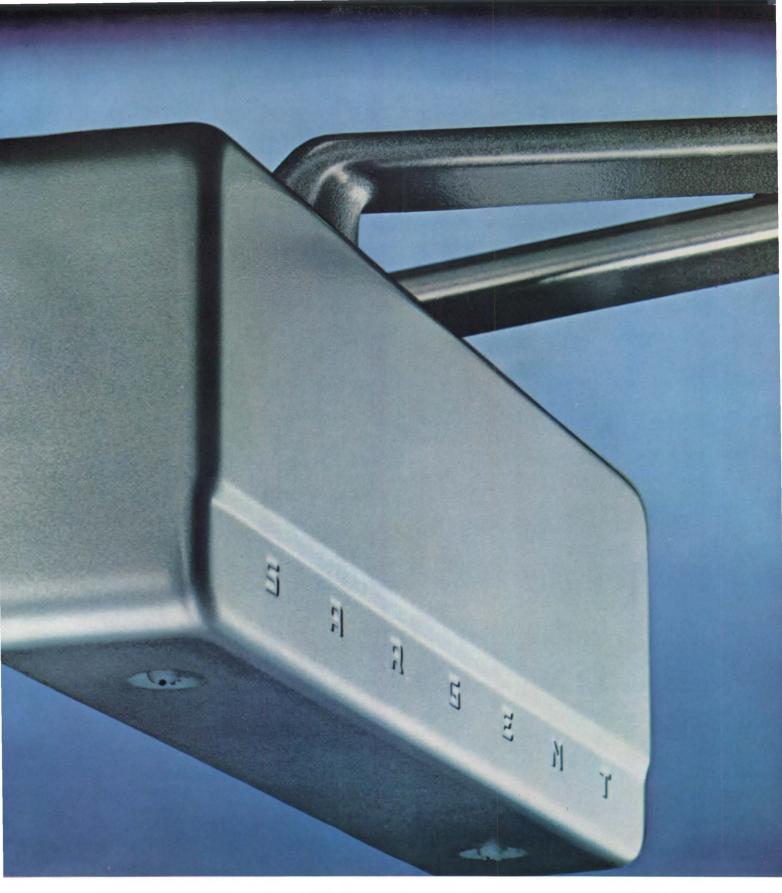


No matter how hard they drive, executives feel better when they go about their business in the comfort of GF Accent chairs.

New in high-style design, GF Accent chairs lend greater flexibility to contemporary interior design. They're in the fast lane in private and general offices, conference rooms and reception rooms. Available in eight models on three different wheelbases.

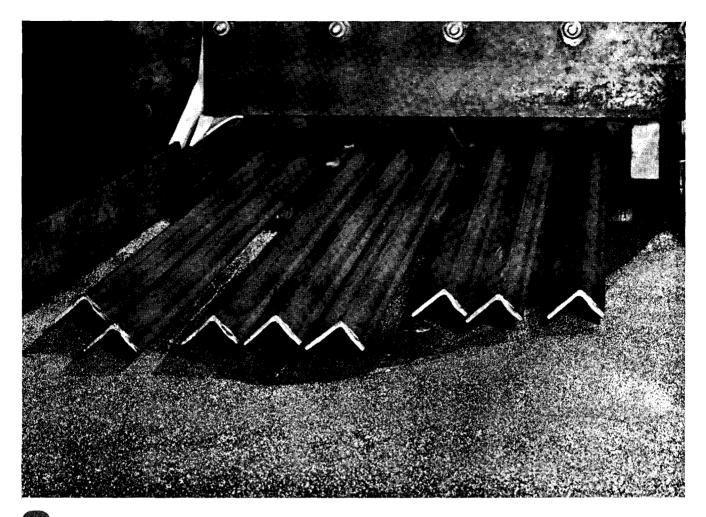
For complete information, visit or call your local OF dealer or branch showroom. Or write for descriptive literature to Dept. PA-31, The General Fireproofing Company, Youngstown, Ohio 44501.

GF ACCENT CHAIR



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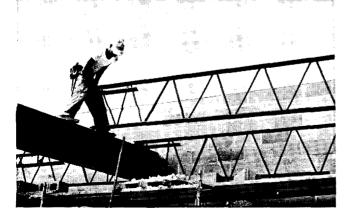


Q. Why does Laclede clean joist chord angles? **A.** To build a BETTER open web steel joist!

Take a tour through Laclede's joist plant, and you'll find a lot of quality control operations going on, right on through the production line.

For instance: all the angles which will be fabricated into top and bottom chords for joists are carefully cleaned by shot blasting. Mill scale developed from hot rolling is thus completely removed, leaving surfaces clean for better welding and tighter paint adhesion.

And so it goes. A cleaning operation here. An additional weld test there. Constant on-line dimensional checks. Anything and everything that will make the final product better is standard procedure at Laclede. Laclede makes the special effort for quality that a customer should demand of any competitive product. And it's worth all the trouble! This quality in steel joists will be yours on every job if you specify Laclede.





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JANUARY 1966 P/A

New design freedom in the Open World of L-O-F glass

SERVICE COURTS

SITE PLAN

CAFETERIA DINING PATIO

AMPHITHEATER MUSIC-LECTURE THEATER 11 GYMNASIUM 12 CLASSROOM COMPLEX 3 BUSINESS EDUCATION

ADMINISTRATIVE MALL ADMINISTRATIVE MALL RESEARCH CENTER MAIN CONCOURSE VOCATIONAL TRADES VOCATIONAL MACHINES VOCATIONAL AGRICULTURE

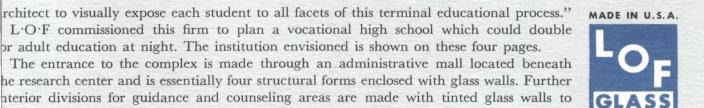
A"new era" high school for vocational education

Today's vocational school is specifically designed and intended to prepare individuals for meeting the increasing demands of a technological society. It must offer a comprehensive educational program, but with emphasis on vocational training. In so doing, it will enable those individuals to play an immediate role in that society, and what is equally important, it will prepare them to meet the changes that are inevitable.

"Building materials, as such, cannot impart knowledge. But architecture can create form and a space environment that is conducive to learning experiences," declared Architect James Foley of Kellam & Foley, Columbus, Ohio, and Indianapolis, Indiana. "Intelligent use of glass permits the

pr adult education at night. The institution envisioned is shown on these four pages. The entrance to the complex is made through an administrative mall located beneath he research center and is essentially four structural forms enclosed with glass walls. Further nterior divisions for guidance and counseling areas are made with tinted glass walls to einforce the special concept of openness.

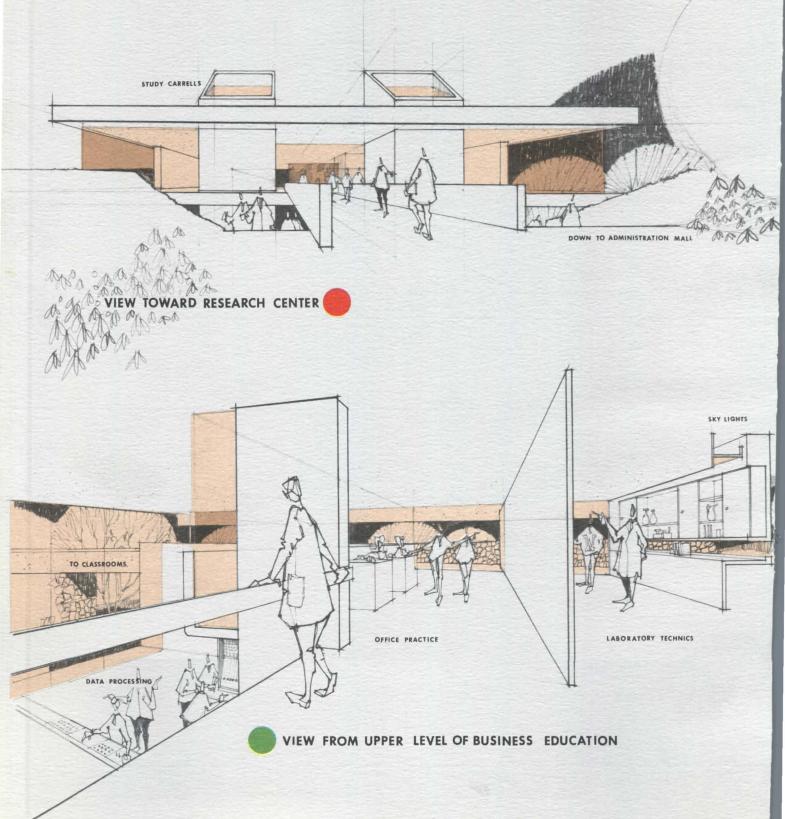
VIEW THROUGH ADMINISTRATIVE MALL

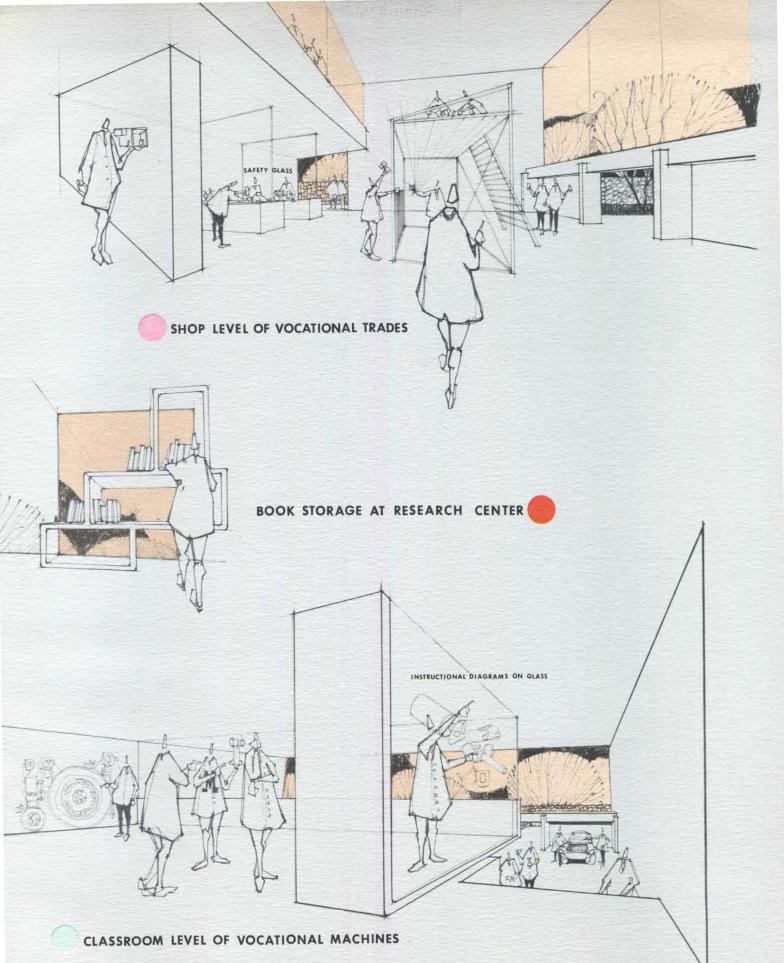


BUSES- PARKING

The Research or Resource Center would be walled on all sides with glass and the sense of confinement within the building is dispelled with the butted glass corners. Solar control is achieved within the building by the use of the book storage wall as seen in the accompanying sketch. Four closed study carrells allow for privacy necessary for concentrated study. Light is introduced into these areas from light monitors above.

DATA PROCESSING, OFFICE PRACTICE AND LAB TECHNICIAN training areas in this imaginary school would have outside walls of *Parallel-O-Bronze*[®] plate glass to blend with the stone and to control sun heat and glare. A *Parallel-O-Plate*[®] wall would separate the Office Practice area from Data Processing. A skylight of wired glass is introduced to daylight the lab storage wall, and a glass vision strip to illuminate the work surfaces.

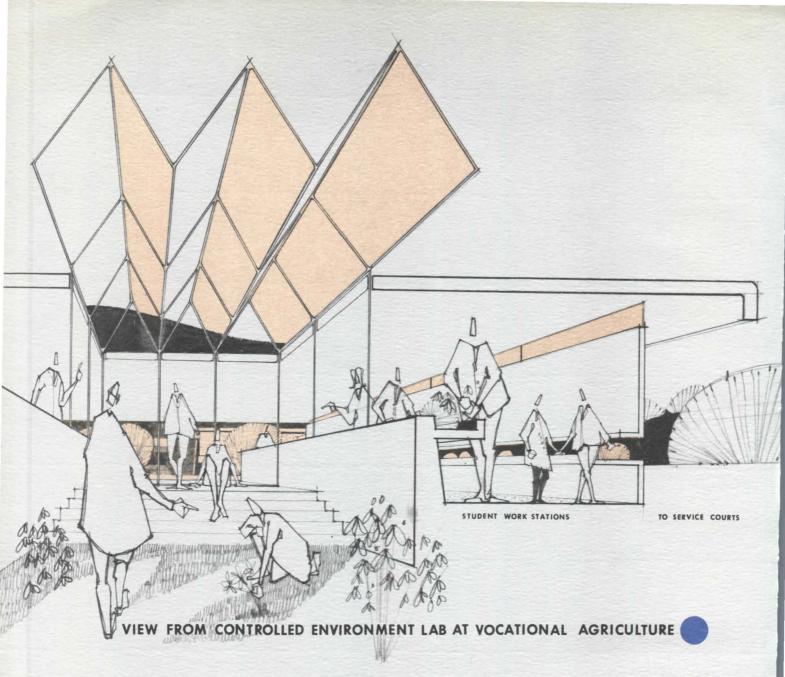




The TRADE AND INDUSTRY area is planned with a workshop well and related classrooms on the balcony. One-half-inch laminated safety glass partitions would separate machinery alcoves to isolate the noise and for visual student surveillance.

The side glass wall is equipped with a series of transparent overlays. Instructors can illustrate complicated systems and diagrams graphically upon this wall. There is a glass wall separating this room from the shop level for reasons of acoustics, yet it allows visual access to the shop and a full view to the hills.





MADE IN U.S.A.



The VOCATIONAL AGRICULTURE department would have a controlled-environment garden completely enclosed with *Parallel-O-Plate* glass wall and clear wired-glass folded plate mechanical roof to admit as much sunlight as possible. Work areas around the "greenhouse" have vision strips at work-counter level.

L·O·F GLASS FOR SCHOOLS

POLISHED PLATE GLASS ¼" to 1" Parallel-O-Plate® Twin ground for windows and mirrors 1¾4", ¼", %" & ½" Parallel-O-Grey® Twin-ground tinted plate glass 1¾4", ¼", %" & ½" Parallel-O-Bronze® Twin-ground tinted plate glass ¼" & %" Heat Absorbing Plate Blue-green tint Rough Plate—eight versatile types INSULATING GLASS—Thermopane® SPANDREL GLASS—Vitrolux® Vitreous colors fused to back of heat-strengthened glass HEAT-TEMPERED GLASS—Tuf-flex® Doors and sidelights WINDOW GLASS—uniform quality PATTERNED & WIRED GLASS L·O·F makes a particular type of glass for every purpose in Open World design. Refer to Sweet's Architectural File, or call your L·O·F glass distributor or dealer, listed under "Glass" in the Yellow Pages. Or write to Libbey Owens Ford Glass Company, 811 Madison Avenue, Toledo, Ohio 43624.

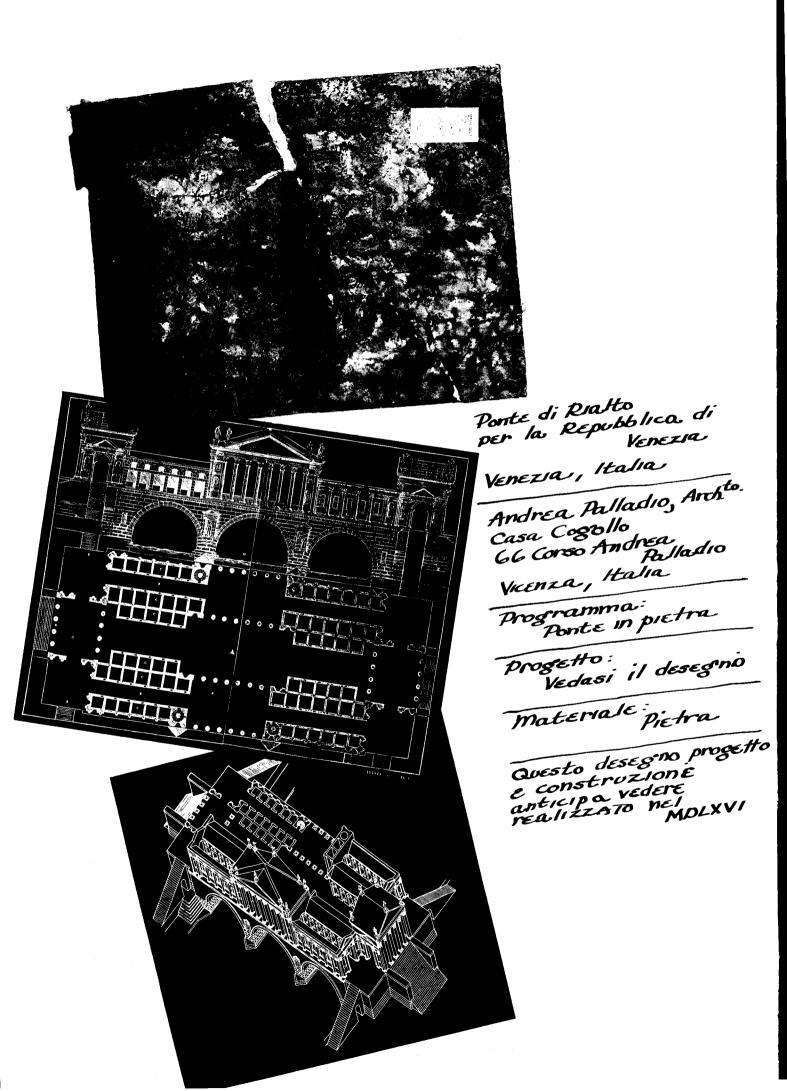
Libbey · Owens · Ford Toledo, Ohio

January 1966 PROGRESSIVE ARCHITECTURE

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"Almost every project is based on an exercise considerably beyond the needs of the problem. It seems to me that the real significance is in what we have discarded, because that's the bulk of what is happening across the country."

> JUROR COMMENT, THIRTEENTH ANNUAL P/A DESIGN AWARDS PROGRAM



EDITORIAL

Dissatisfaction with much of the work currently being done is increasing each year as the jurors study entries to the P/A Design Awards Program. The composition of the juries varies from year to year, and yet different jurors, with different backgrounds, experiences, attitudes, and aims make remarks that are becoming repetitively similar; the only change is the increasing intensity of dissatisfaction.

Respectful of the feelings of those who have submitted their projects this year, we have left out much of the derogatory commentary that prevailed during jury discussions, yet we have included enough examples to indicate the strength of the verbal combat permiating the sessions.

Why this deep dissatisfaction, especially at a period when the quality of architectural design is actually improving? Now that the profession as a whole has finally matured from a doctrinal anemia into adventurous new design paths, it would seem time for optimism rather than pessimism.

The answer, I believe, lies in the frustration experienced by so many practitioners at not being able to exercise their talents to the fullest extent. Although most architects today possess considerably greater technical skills, a more varied design vocabulary, and a much broader outlook on environmental problems than they did several years ago, they are hemmed in as tightly as ever by forces outside their control: by antiquated regulations and practices, by bureaucratic obstacles, and, above all, by lack of vision and direction on the part of those whom they serve—individual clients, corporate clients, institutional clients, and society at large.

Results of this frustration are manifold, but most clearly visible in "overdesign," a subject that preoccupied this jury as well as previous ones.

The only too common inappropriateness of a design to the problem at hand, evident from the juror comment we have used as the lead quote to this Design Awards Issue, must be interpreted as a general confusion between means and ends, resulting often in a sort of architectural over-kill. Unfortunately, such professional *force de frappe* is bound to grow in strength as long as those for whom the architect works prefer, indeed demand, eyewash spectaculars rather than a meaningful commentary about the nature of our lives. One can safely say that disarmament can come only with the return of sanity: insane attitudes inevitably breed insane results, in politics as well as in architecture.

This deep professional frustration showed even in the jury itself. The jurors, after all, are exposed to the same pressures and influences as those whose work they judge. Much of what they said about the efforts of others sounds to me as being merely self-criticism in disguise.

And the anonymous joker from Washington, D.C., who sent, in a parchmentlike wrapping, the Ponte de Rialto by Palladio as his Design Award submission —what motivated him? Was it simply a healthy sense of humor, or another frustration symptom?

Jan C Rowan





























P/A THIRTEENTH ANNUAL DESIGN AWARDS PROGRAM

Jurors shown in film strip, facing page: (4A) William J. Conklin; (6A) Vincent Scully, Jr.; (12A) Dr. August E. Komendant; (15A) Kevin Roche; (17A) Edward Charles Bassett. The scene was a conference room at Reinhold Publishing Corporation, a few doors down the hall from the editorial offices of P/A. The time—the hottest day last September. The hour morning until night, two days running. The 20-ft-long conference table was heaped with 778 folders of photos and photostats, wads of folded blueprints, items of varying proportions and varying legibility (and varying excellence). For ease in judging, entries were divided into horizontal layers according to building types.

The jury represented the far frontiers of America-land, east to west, and the far corners of Architecture-country--practice, writing, teaching, and consulting:

-Edward Charles Bassett, Partner of Skidmore, Owings & Merrill, and partner in charge of design in the San Francisco office. Chosen by his fellow jurors as chairman of the group.

--William J. Conklin, Partner in the New York City firm of Whittlesey & Conklin, Architects and City Planners, designers of the new town of Reston, Virginia.

-Dr. August E. Komendant, Consulting Engineer with offices in Montclair, N. J., one of the foremost proponents of precast and prestressed concrete; consultant to Louis Kahn on the University of Pennsylvania medical laboratories, and presently working on Habitat '67 for the upcoming World's Fair in Montreal.

-Kevin Roche, Partner of Eero Saarinen Associates, whose work in progress includes the Ford Foundation building in New York City, the University of Massachusetts Fine Arts Center, and the Air Force Museum in Dayton.

-Vincent Scully, Jr., Professor of History of Art at Yale, whose most recent book is *The Earth*, *the Temple*, *and the Gods*, and whose travels recently took him to the Soviet Union.

After the jury had sifted, leafed, agonized, plodded, tittered, spluttered, studied, and argued its way through the 778 entries, a sparse nine projects remained on the table—evidence of the jury's extremely high standards. In reviewing its decisions, however, the jury felt that its high standards may have denied awards to those who might have won in other years. Jurors in the Design Awards Program know that a P/A Design Award can encourage a young designer, can recognize and publicize new talent, can perhaps prod a reluctant client. (One of this year's jurors, however, joked that most young designers do not need any more encouragement: They already have egos the size of a house.)

But an award has another possible consequence: It seems to say, to readers of P/A and to the world at large, that a building or a "style" is officially "in." This shows up in entries to the following year's Design Awards Program, and then in buildings around the country. Undoubtedly, the P/A Design Awards Program has accelerated the pace at which some designs are assimilated into the American architectural scene.

About this particular group of winners, therefore, the jury struck a cautionary note: "We're talking about ideas, here, and many ideas come in tattered clothes; they don't always come perfectly worked out." Thus, this year, the jury found itself in the dilemma of all sensitive juries—it was sorry not to have honored more projects, and it was cautious about certain aspects of the winning projects. But whatever its reservations about the winning projects, the jury felt that the nine winners all possess to some degree the rare quality of excellence.

For a detailed view of these nine winners, and the jury's reasons for choosing them, see pages 120-159.

For their comments about non-winners—what was sent in that they wished had stayed at home, and what they wished had been sent in, but is either not being done or not being submitted see pages 160-162.

For next year's Design Awards, see our announcement in the July issue.

And for reaction to this year's awards, read the VIEWS columns of the next few issues. You may find your own letter there.

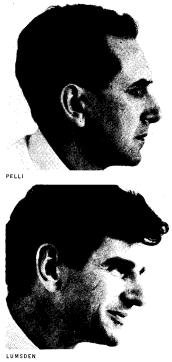




A project that proposes an imaginative new relationship between an urban complex and natural surroundings; it envisions the city as an organic structure incorporating sophisticated urban activities while preserving the texture of the topography; it suggests a solution to housing population concentrations and an expanding urban mass without destroying the natural setting.

PROJECT: Urban Nucleus, Sunset Mountain Park. CLIENT: Sunset International Petroleum Corporation. LOCATION: Santa Monica Mountains, Los Angeles, California.

SITE: 3550 acres of undeveloped mountainous terrain rising from a valley to a large bowl with a central promontory jutting out toward a view (through the Santa Inez canyon) of the Pacific Ocean. PROGRAM: Development of an urban nucleus-a new town--according to the Open Space Ordinance of the City of Los Angeles. This law permits 7200 dwelling units to be built on the site, with an over-all density of approximately two dwelling units per acre. The clients were thinking of building 40 to 50 per cent of the units as town houses, to achieve a greater density.



The architects, and particularly Cesar Pelli, Director of Design for the project, suggested a still greater density. Their overriding consideration was to preserve as much natural parkland as possible and to design a low contour-rise type of structure that would reinforce the character of the land rather than destroy it. They also felt that a greater urban concentration would lead to a richer life than that of suburbia: People would be able to walk from one area to another. personal contacts could be established on every level of the structure, and the long automotive rides and long distances separating various functions could be eliminated. Furthermore, it might be possible to provide a great many community facilities at close hand, which would give the housewife a freedom that all her appliances in suburbia had promised but never actually provided.

The clients were responsive to the idea of a more concentrated nucleus: If the land were developed along conventional lines, the whole area would be covered with houses like a carpet, leaving space for nothing but roads, parking lots, and shops. Terraced pads would require excessive grading and leave unnatural earth banks and scars. Because of the high cost of development, it was not economically feasible to substantially reduce the number of units. An analysis of comparative cost factors for site preparation, utilities and construction showed that contour-rise structures were cheaper to build

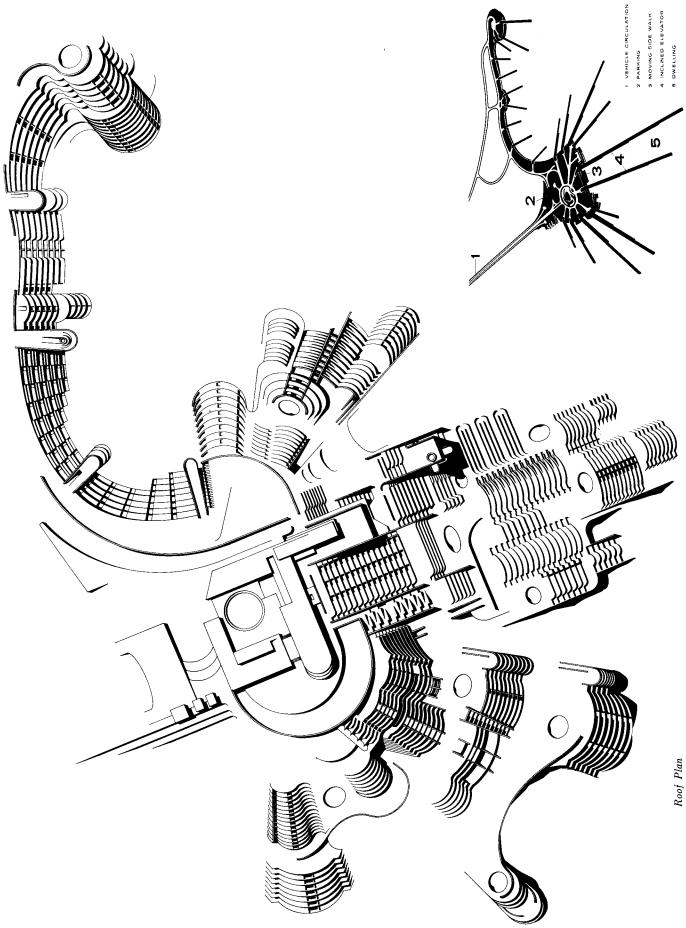
than the average single-family house, town house, or high rise.

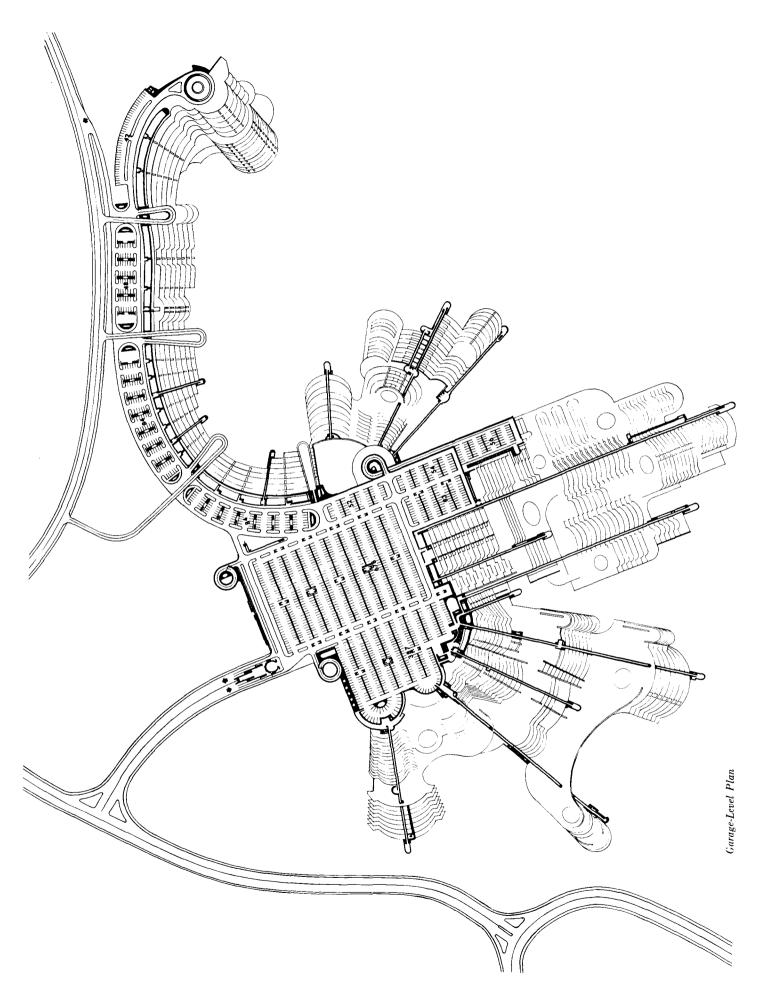
The idea of the concentrated nucleus also won favor with the members of the planning advisory committee set up for the project: Pietro Belluschi, George Dudley, Carl Feiss, Elisabeth Kendall Thompson, Paul Hayden Kirk, A. Quincey Jones, Robert M. O'Donnell, and Peter Walker. Finally, the City of Los Angeles was sympathetic to the liberal interpretation of the zoning code, provided the number of units remained the same for the entire area. DESIGN SOLUTION: The town the architects envision starts at the top of the promontory-at the edge of the bowl-and steps down the hillside in a series of concrete terraces. At the crest is the commercial center-an urban core with parking facilities, shops, supermarkets, nursery school, banks, restaurants, professional offices, a hotel, medical center, bath house, auditorium, police station, heliport, etc. Automotive traffic is confined to this area. On the slopes surrounding the nucleus are residential areas, stepping down from the commercial center toward the open park below. The houses are grouped into neighborhoods and located to get the best view of nature and the least view of each other. The promontory that affords the most spectacular vista of the ocean (down Santa Inez Canyon) has a concentration of 1500 units; and an offshoot-a tail that follows the edge of the bowl to the northeast-forms another palisade of houses. Life on the slopes is to be made as easy-if not easier -than life in the best apartment house, where a number of services are readily available. There will be closed-circuit TV shopping, food catering, maid and valet services, nurseries, baby-sitting centers, a central answering service, pneumatic tube deliveries, and a programmed car service. The transportation system is also similar to a conventional (although upside down) high-rise construction. The resident will park his car in a multilevel garage at the top of the structure and walk, or use an escalator or moving sidewalk, to a funicular type of car-an inclined elevator-which will take him down to his house level. The cars are selfpropelled on a continuous loop of track, and, instead of a cable and counterweight system for speed control, they will operate on a rack and pinion system. Further control on the downgrade will be achieved by having the motor act as a

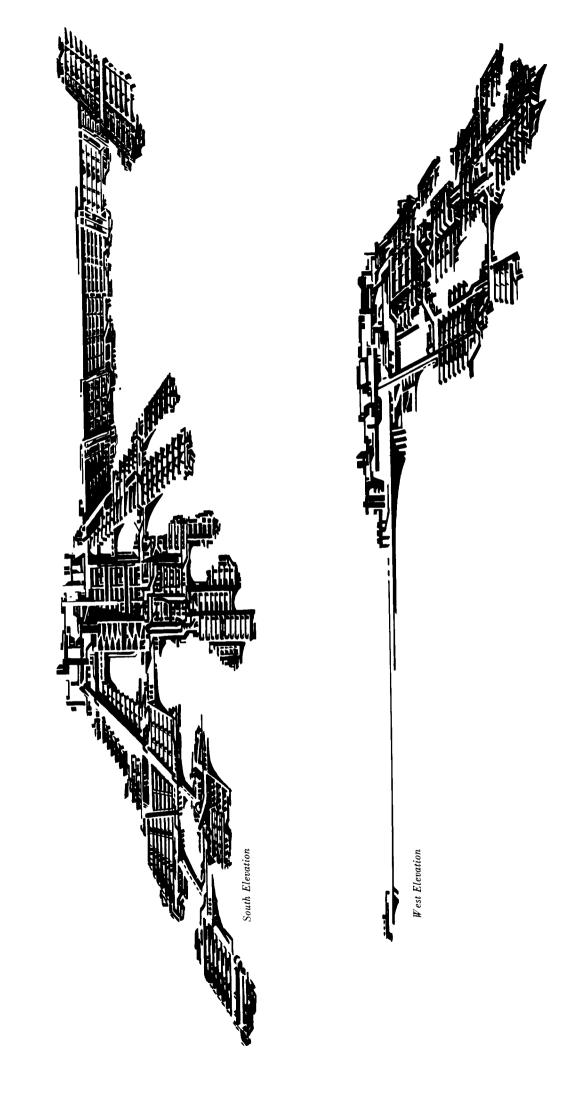
generator and contribute to the braking action. Minimum headways of 30 to 45 seconds between cars are feasible and the number of units in operation can be constant or vary (within prescribed limits) according to the demand. Runs in excess of 800 or 1000 ft will go "express" on a second loop. Furniture or freight will be carried in special car with run-offs or spurs at each landing. Freight cars are designed so that the wheels can let the channel move horizontally along each level. The entire structure is designed so that the pace of living changes from top to bottom: It is possible to go up for urban activity, fast rhythm, sophistication, and go down through housing to nature, rocks, lake, winding paths, and solitude.

STRUCTURAL SYSTEM: The structure will sit low on the ground, following the lines of the land: The architects call it "contour-rise, as opposed to high-rise." The buildings will never cast a shadow over-or block the view of-other parts of the development. The city will consist of a series of concrete platforms staggered down the hillside. To overcome the problem of over-all slope stability (the whole mass and some portion of the earth has a tendency to slide down hill), major sections of the structure will be held in place by reinforced concrete anchor ties placed against the grade and hung from a diaphragm system at the top of the hill at the garage level. The horizontal, reinforced-concrete floors and decks will be supported from these anchor ties, minimizing the number of piles required to be sunk below the shear plane. Localized static loads will be supported on reinforced concrete spread footings. The diaphragm at garage level will distribute and balance the forces from the anchor ties on opposite sides of the hill, reducing buttressing. The low-rise structure minimizes seismic problems and allows the building to be built more economically in reinforced concrete. It is an open-ended structure, complete at any one stage, yet evolutionary in that it allows for expansion and natural growth. (For Jury Comments, see p. 127)









JURY COMMENTS:

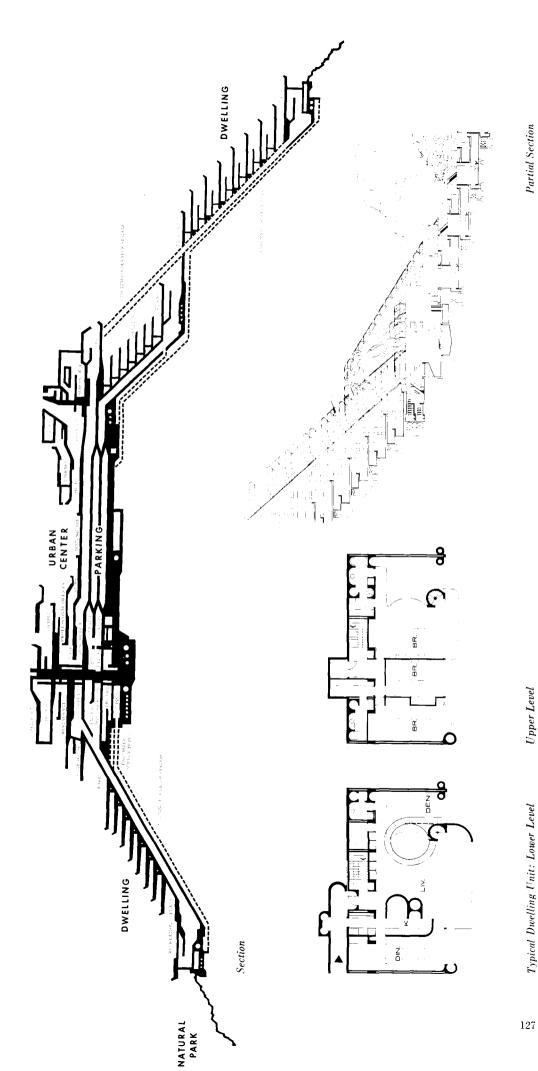
--Here is a very clear solution to the complete living unit: clear in terms of the structural concept. It's an absolutely brilliant concept: bold, involved. If you're going to build on a mountaintop, this is the way to build.

-It's the first time I've seen a city which is a building, where the whole community is a building. It has great significance because, in the long haul, this is how we'll solve the problem of density without destroying the ground on which we're building.

-There's a wonderful sensitivity here. Normally, in a scheme like this, which organizes and controls everything, there's a kind of brutality to it, a kind of heavy-handedness. But that's totally lacking here. There's a wonderful sense of void that you need; it really seems to flow down the side of the mountain so that it caps it with a kind of gentleness and really seems to go down the mountain like water does—respecting the mountain. It's very beautiful.

-There are precedents for this kind of concept in the projects of 1918, 1919, ideas which have never been tapped, never developed. There are precursors in the German Romantic architects; Mendelsohn's sketches can be seen behind the beautiful quality of the drawings. It also recalls Wright's Mayan projects, where he would go around the tops of mountains, spilling up valleys, or Corbusier's road-viaduct architecture, or his terracing in Algiers. Only the design is much more logical, because it is going down a preexisting slope. It really pulls together many, many streams that have been present, and makes something of them.

--There are more current precedents in this country, where there is an impetus toward this type of design: and it is very significant that it should appear in Los Angeles, where there is a tremendous need and urgency for a solution: If man is eventually going to have to live in a demanding environment, one that is mechanized and efficient, then what happens in the community must become more closely allied with nature.





urban design

A citizen-sponsored urban renewal scheme which the jury praised as creating a bold and imaginative image of the city, in the tradition of futurist urban architecture.



TROY E. WEST, ARCHITECT JOSEPH J. STEPHENSON, PROJECT ASSISTANT RICHARD M. GENSERT, STRUCTURAL ENGINEER RAYMOND M. MEUCCI, INC., MECHANICAL ENGINEERS

PROJECT: Lower Hill Development for The Citizens Commitee for District Renewal, a volunteer organization concerned with the rehabilitation and renewal of the area in which its members live. This plan is an alternate scheme for the redevelopment of this area. LOCATION: Pittsburgh, Pennsylvania.

SITE: A slightly sloping plot, now vacant, adjacent to the Pittsburgh Civic Auditorium, just behind the cantilevered support of its retractable dome. Northeast of the site is a densely built, residential neighborhood.

PROGRAM: Exhibition space, convention facilities, and parking for the existing Civic Auditorium. Urban housing to become a part of the adjacent neighborhood. Pedestrian links through the site between the older housing and the City Center. DESIGN SOLUTION: Covered, flexible exhibition space (177,000 sq ft), meeting rooms, and an auditorium are arranged to frame a pedestrian plaza at the northeastern side of the Civic Auditorium. The exhibition hall is designed as a linear element capable of housing one large exhibit or a number of smaller. simultaneously shown exhibits; it is fed from the rear (northeast) by a two-level service road, which also feeds the housing area above. To the north of the Civic Auditorium is a 300-unit motel tower and a large restaurant building, which contains ballrooms and smaller, private dining chambers; underground parking for 1600 cars (with terraced, outdoor exhibition space above it) is provided south of the Civic Auditorium. Between the Civic Auditorium and the indoor exhibition hall, an 800-ft-long fountain display and reflecting pool is located to complete the convention complex.

The housing area consists of more than 1500 units (152 per acre), varying in size and spatial organization, apportioned between two highrise slabs and a low-rise complex to the north. The high-rise units step down from a point over the linear exhibition area so as to make a transition to a scale compatible with the existing neighborhood at the rear of the site (northeast). Shops and offices are at grade with nursery, laundry, and other special uses at penthouse levels. The three housing structures flank a pair of playing fields that serve both the new construction and the established community. Beneath the fields are parking compounds that provide space for about one-and-ahalf cars per unit. The roofs of the exhibition structure are connected across the service road to the playing fields and housing area and therefore can be used as a continuous promenade overlooking the city. CONSTRUCTION AND MATERIALS: Poured-in-place concrete construction is to be employed throughout for its strength and its ability to unify the diverse elements of the project.

JURY COMMENT:

-A brilliant example of one terrific act of the formal imagination, but it does not go any further than this. It has the passion of one man's image.

—The ultimate truth involves what it would be like to be there when the project is built; what really makes it work in the photographs would just smash you. A very strong scheme and therefore gratifying in the abstract sense to the architect. I'm reacting to it as a great building and huge, empty spaces. All I think of in this connection is of walking across acres of concrete, and this building mounting up and tapering off at one end, which is a rather simple device.

-But this inspirational grasping of simple possibilities of shapes is very rare—much rarer than you think. Look how many people have been dependent on Corbusier's few great ideas.

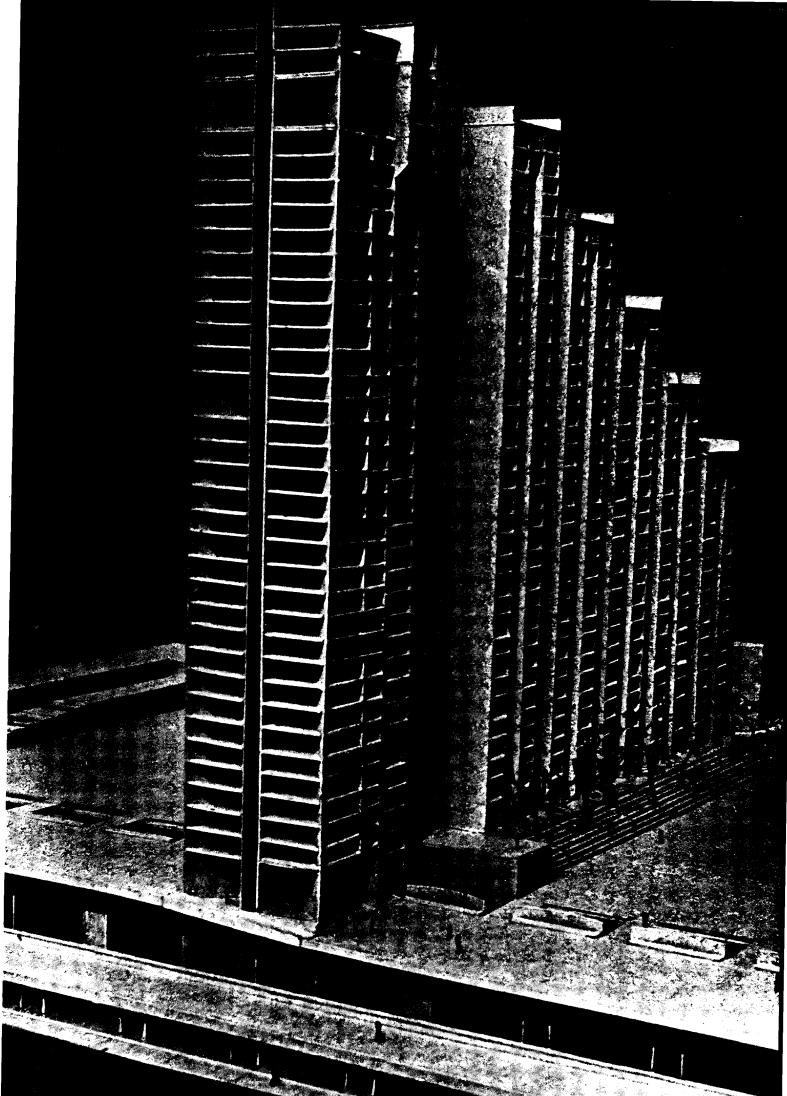
-A vital problem is, what is the basic idea, formally? It has its roots in German expressionism; it has been done before, but, somehow, here it comes again, and it's done by a very talented person. -It has a kind of irony to it. The steps go up, but the building they're going toward goes down, which is really a sensational thing. It's such a great ruin. There's something in here which is very intelligent: it has wit, intelligence, irony, recognition of the unlikely. -But you've got to fill in all those wonderful voids with something that keeps the winter out, and you've got to do this and that, and when you're through it's just another damned building. This form is only attainable by having two of them.

-It's obvious that it's not finished. We can't say whether it's finishable in this form. But it presents to us what few other projects did: a great and generous urban image, in the tradition of futurism.

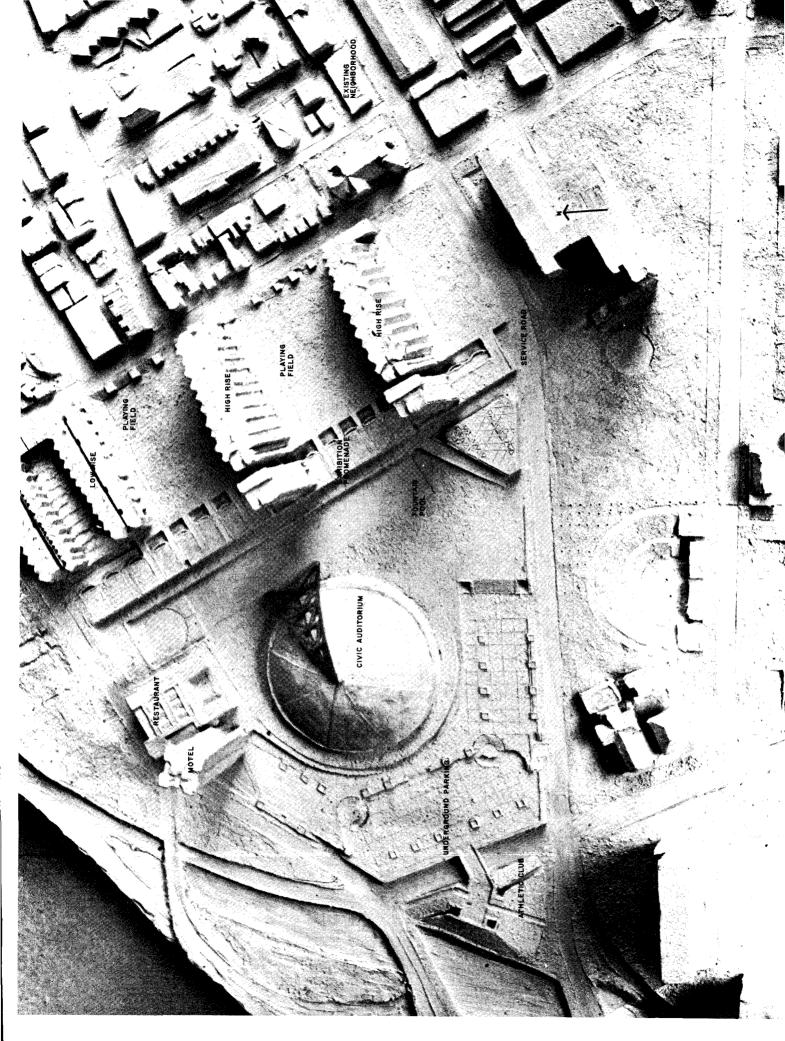
-I fully admit the emotional impact of the form, but the whole seems to be poor urban design and poor housing. These long corridors go through the whole section; it would be really beastly to be inside.

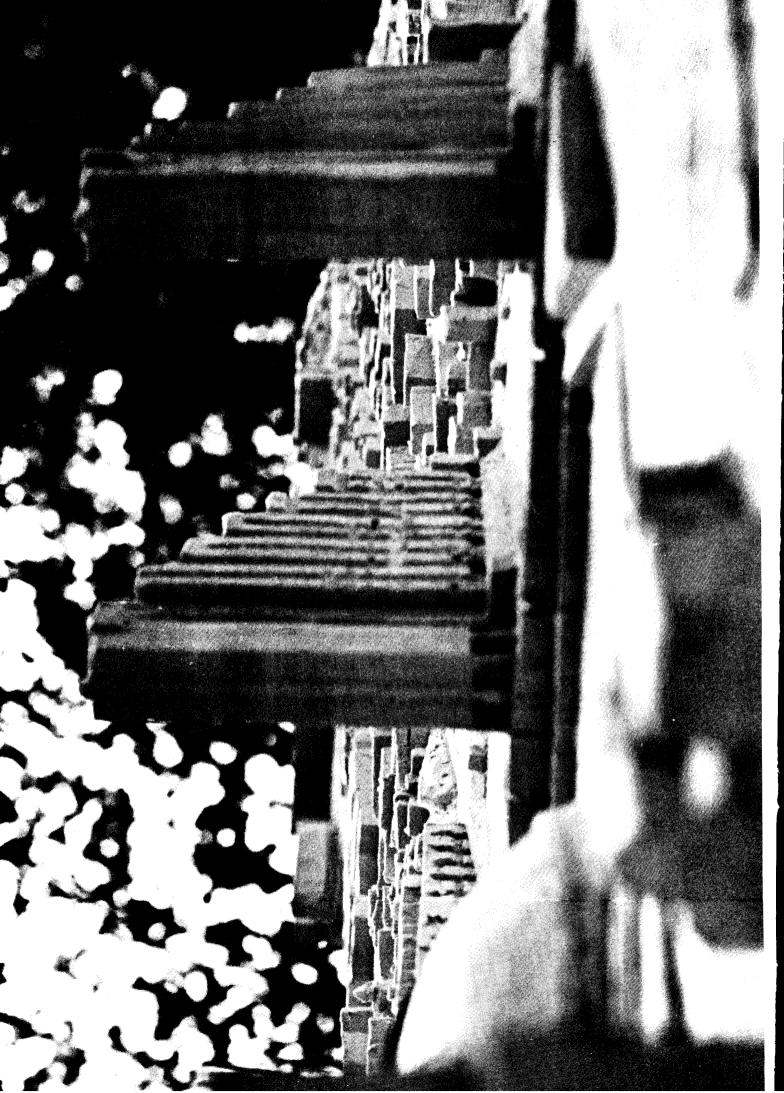
—The resultant form has really nothing to do with what's going on: It's preconceived form. This is really what we've been hitting against all the time.

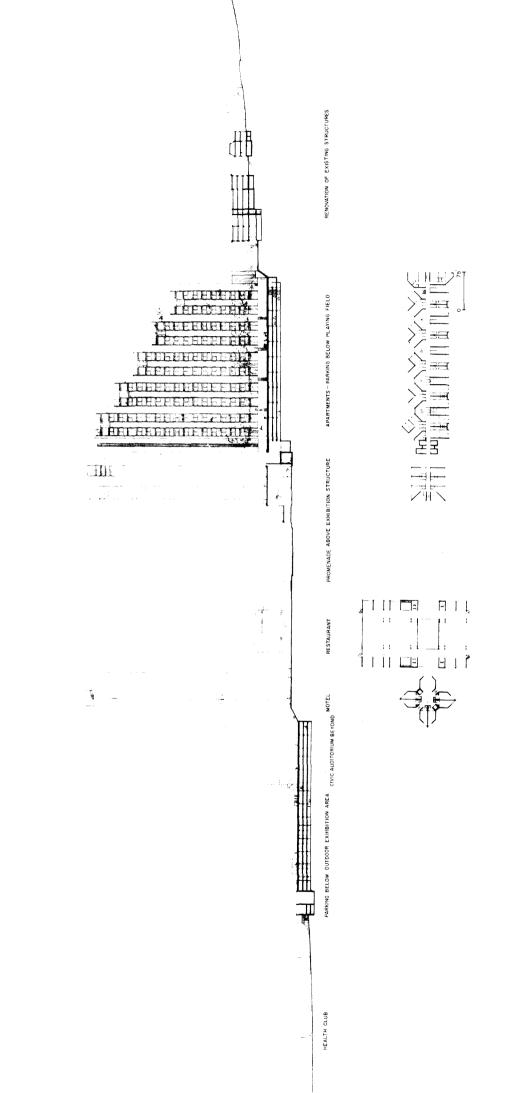
-Architects use the word form in funny ways. Form is really everything. All art is form, and form is the meaning of any work of art. In architecture, all conceptions, all attitudes, all studies in the end are form, or, in a basic sense, they don't exist. Form tends to be used by architects in a rather pejorative way, a rather deprecating way, and I'd rather not have that here. You have the embodiment here of a tremendous force, of a terrific and kind of tragic vision of the character of life. It's not a good solution or a bad one: It's a tremendous and moving and stupendous sense of what it's like to be here in the vast city.













Rivers, waterways, and creeks are the most neglected assets of American cities. This rehabilitation project, however, converts the banks of a river from the typical dingy "backstage" area of the city into what will be one of its major attractions.



SCHLESINGER

FRANK SCHLESINGER, Architect ATTILIO BERGAMASCO, DIRECTOR OF PLANNING

DIRECTOR OF PLANNING DEPARTMENT OF PLANNING AND DEVELOPMENT TRENTON, NEW JERSEY BERTRAM ELLENTUCK, REHABILITATION CONSULTANT RICHARD CRIPPS, LANDSCAPE ARCHITECT REAL ESTATE RESEARCH, MARKET ANALYSIS CONSULTANT

PROJECT: The Mercer-Jackson Redevelopment Area.

LOCATION: Trenton, New Jersey. CLIENT: Department of Planning and Development, Trenton, New Jersey.

stre: Twenty-two acres (eight blocks) on the banks of the Assunpink River near downtown Trenton. The area includes housing, parking lots, warehouses, and service areas. Although it is run-down, it is in a vital part of the city, near the downtown business district, and a few blocks away from the New York-Philadelphia expressway, the railroad, and major employment centers such as the State Office Building complex and Trenton City Hall.

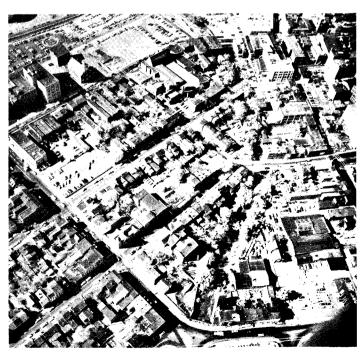
PROGRAM: The primary purpose of the project was to develop the potentials of this residential site at the center of the city; to preserve and rehabilitate the majority of residences in the area, and construct new housing on open land: to rehabilitate commercial facilities and add new services: to provide an elementary school and playground; to eliminate automobile traffic from the area, and to develop the Assunpink Creek as a focal point for the neighborhood, as well as provide an historical park commemorating the Battle of Trenton. **DESIGN SOLUTION:** To make the Assunpink Creek the springboard for the rehabilitation project, the city will construct quays, walks, and sitting areas along the banks. All the bridges within the area are banned to automotive traffic. The

northern side of the creck will be park area, with a playground at the castern end opposite the school, and an historical center to the west, highlighted by an amphitheater for pageants and lectures and the Douglas House (Washington's Headquarters during the New Jersey campaign), which will be occupied by the Trenton Historical Society and a Visitor's Center.

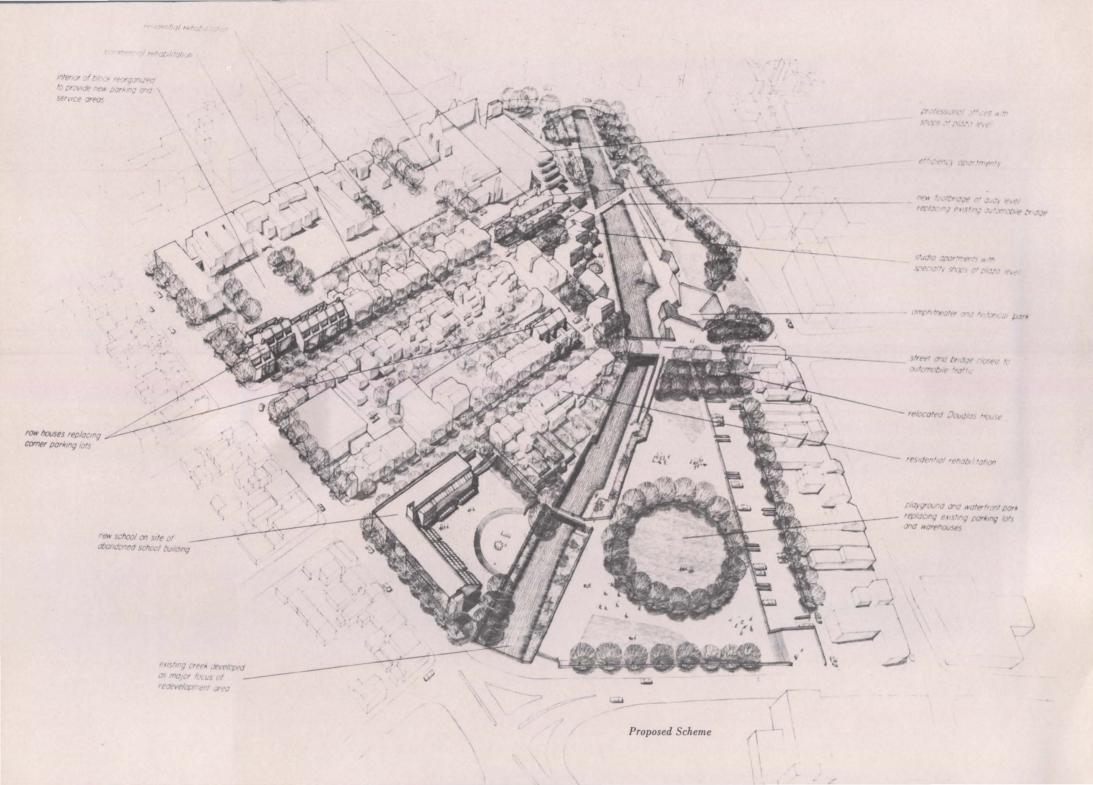
The other side of the creek is flanked by buildings grouped along the water to form a series of open spaces of varied shapes and sizes. At the western end, a large commercial-professional building will extend the shopping area of nearby downtown Trenton. The building has two shopping levels, is terraced to take advantage of the river view, and forms a protected pedestrian triangle adjacent to the creek. Automobiles can service the facilities from the rear of the building. Further eastward along the creek, a square terrace connects a small footbridge with a series of efficiency apartments at the end of Jackson Street. The embankment then opens out again into a triangle formed by a group of small shops with studios and efficiency apartments above. The housing along the creek between the Montgomery Street bridge and the school will be renovated. The school at the eastern end of the project borders Mercer and Market streets forming an interior court facing the water. The residences in the two blocks south of the river area will be rehabilitated, but two row housing developments will be built on parking lots at the corners of Market and Jackson, and Mercer and Livingston. These will reestablish the façade of the streets, and those on Jackson will screen a parking lot that has been opened up on the interior of the block.

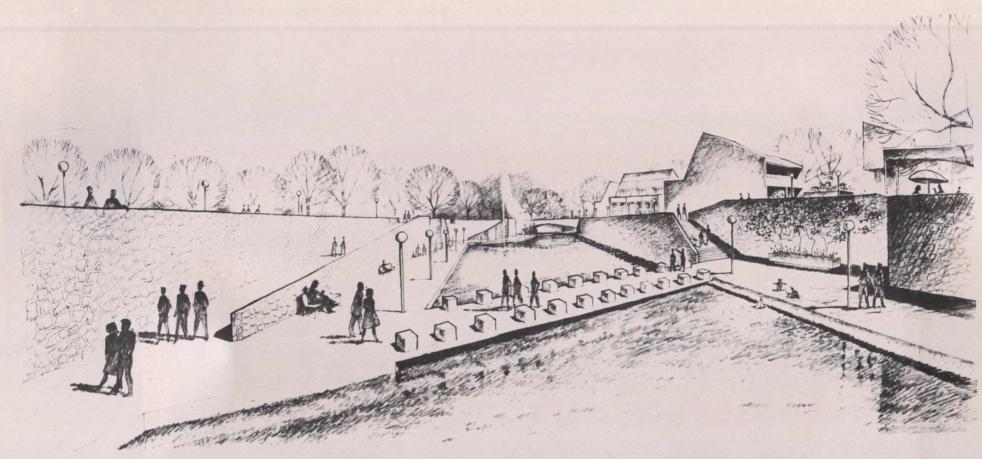
JURY COMMENTS:

-A modest and humane attempt to organize what is really the whole of architecture-the whole physical environment in relation to the natural setting in terms of houses, and schools, and stores, and the river, and, therefore, in a very small compass and without pretension, it attempts to deal with a large part of the problem of architecture. -He is being overly ambitious in those little buildings, because they should be nice and modest buildings, as the plan is nice and modest. But the buildings themselves are contrived and incredibly naive in relation to the sophistication of the way the plan is drawn. -This could be done as badly as it looks and it would still be great because the planning is right.... -He's not trying to knock anybody's eye out with striking architectural forms. He is trying to accommodate a variety of uses to the river and to each other. -Not many people are building something to the water's edge and utilizing the water condition, which, of all the assets of any given community in this country, has been the most disregarded.

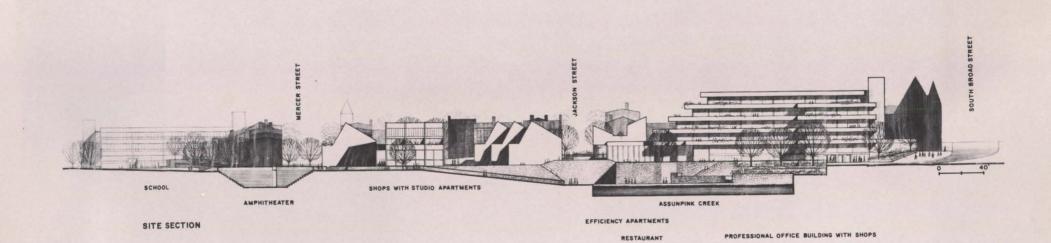


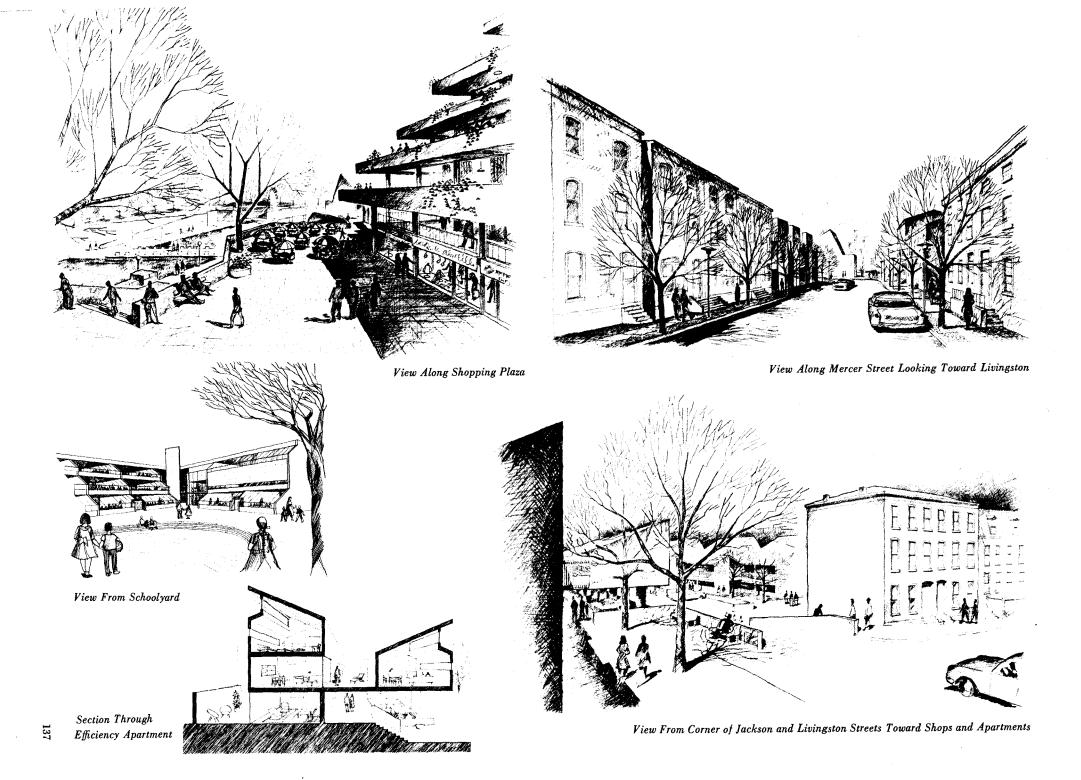
Existing Site





View Along Assunpink Creek Looking Toward Amphitheater







An urban renewal project that combines new construction with historic buildings. Harmoniously scaled single-family townhouses utilize interior courtyards to accommodate the automobile as a positive element.





BOWER & FRADLEY, ARCHITECTS SEYMOUR W. BREENBERT, STRUCTURAL ENGINEER ADLEMAN, COLLINS & DUTOT, LANDSCAPE ARCHITECTS

PROJECT: Addison Court and Lawrence Court in Washington Square East Unit #2 Urban Renewal Area, Philadelphia. LOCATION: Philadelphia, Pennsylvania.

SITE: Fairly regular sites comprising 12 parcels.

PROGRAM: Competitive design proposals for single-family residential development. On-site parking was required for each residence and all residences had to be designed to sell for under \$30,000. The project is a continuing one: Addison Court will be completed in 1966; construction of Lawrence Court is expected to begin in the near future. DESIGN SOLUTION: Both sites are fairly regular in form and each relates to a secondary street servicing the interior of the block. Both are developed as strong organizations of carefully controlled building forms defining a major space within the center of a city block. The automobile was considered a positive element of design and the spaces generated by the automobile had to contribute a positive characteristic to the plan. The masonry bearing construction, expressed band corners and general alignment of cornices, have been used to relate this project to the area. All units locate their private spaces

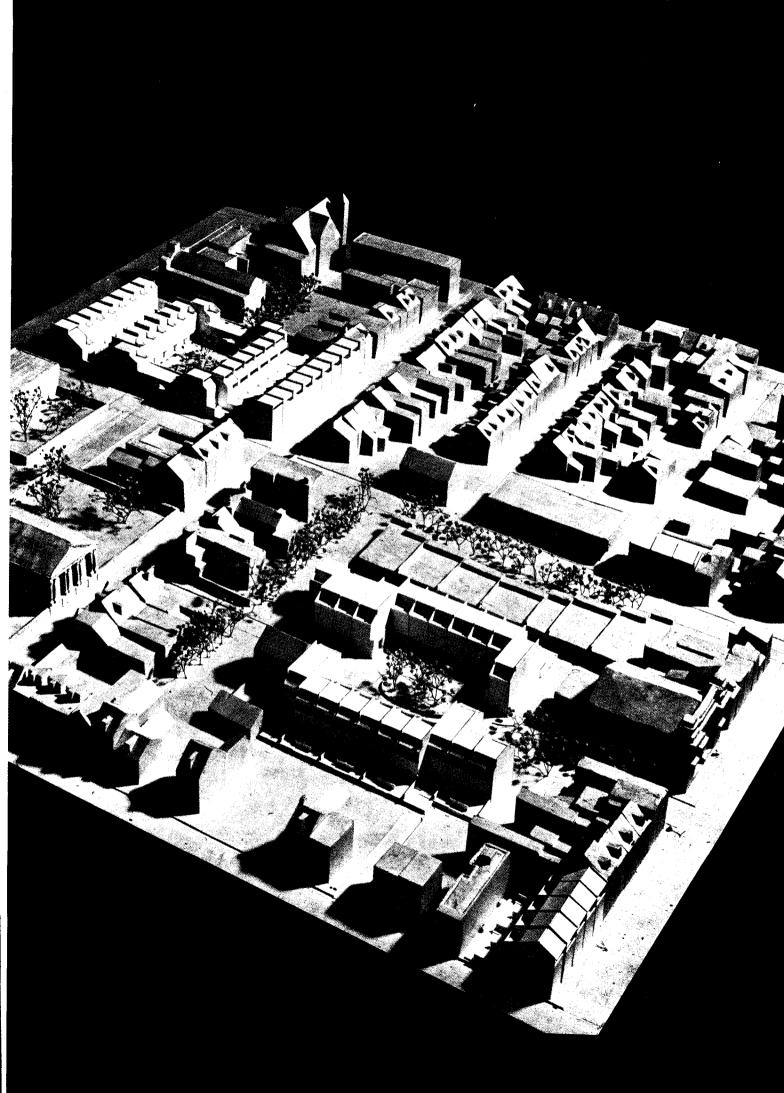
away from the street.

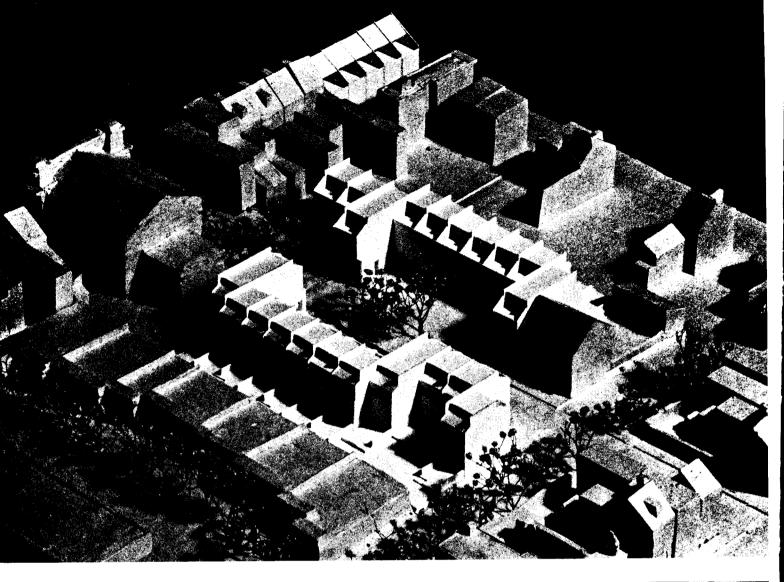
STRUCTURAL SYSTEM: Brick bearing masonry with cast stone lintels; wood windows predominantly of casement type; exposed partmansard roofs between second and third floors of standing seam terne metal; motor courts have granite pavers. Archway entrances to courts of reinforced masonry. JURY COMMENT:

—A rather modest problem which the architect has pulled off with dignity. He reinforced the urban pattern and made it a better thing. It will be a handsome addition to the city scene—one that will last and improve.

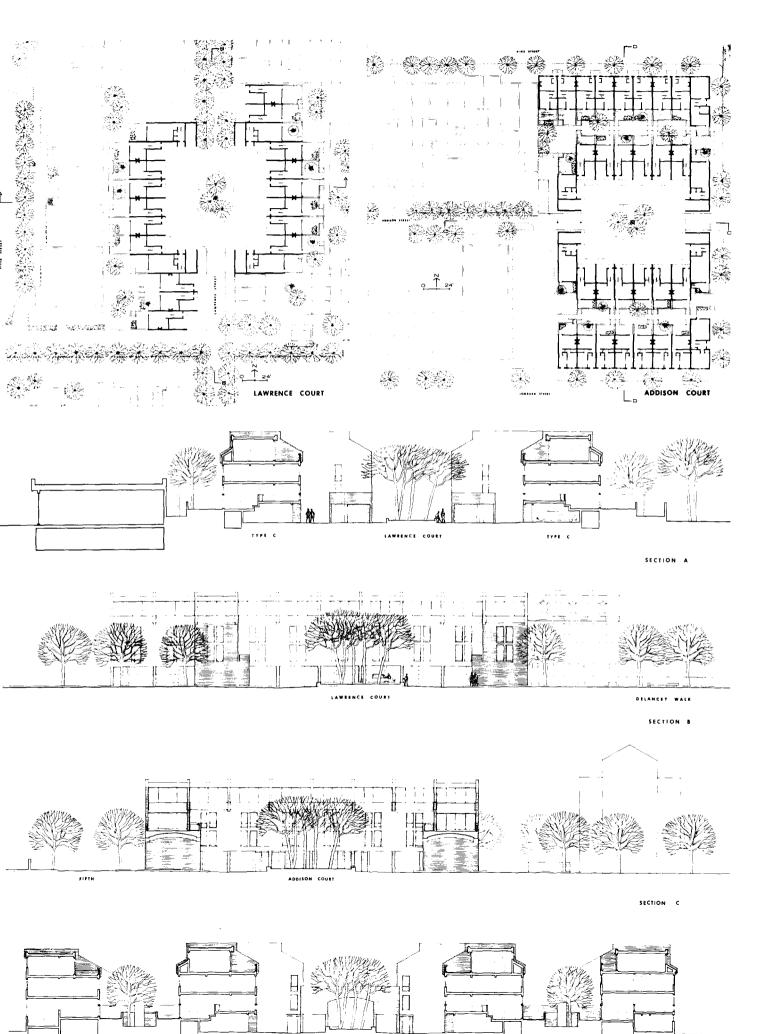
-The scale is particularly true: The street came through as an event that made it very special without getting out of context. -He didn't just create a new court, but it's on a street, so that suddenly the street becomes an advantageit traps the car.

-My only doubts about it are that when you drive into the entrance court, you are surrounded by garage doors. The whole lower section is all garage doors, and the nature of the entrance gate probably means that the pedestrian would go through there also. This may be a somewhat depressing environment, but that is the nature of the surface parking solution. -I feel that there will remain an ambiguity for the visitor. The monumentality here is strictly for the automobile.









ADDISON COURT

TYPE C

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TYPE C

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A laboratory building set within a university complex raises the provocative question of whether its complex sculptural form is suited to its functional requirements.



DAVIS, BRODY & ASSOCIATES, architects WIESENFELD & LEON, structural engineers WALD & ZIGAS, mechanical engineers BERNARD SPRING, environmental consultant

PROJECT: Science Building No. 2 for State University of New York. LOCATION: New Paltz, New York. SITE: Building completes a projected quadrangle of three low-scale buildings dominated by an eightstory tower--all to be grouped around a sculpture court and located northeast of a proposed main concourse. The campus (approximately 200 acres) is dotted with low, brick-box buildings surrounded by rolling farmland and rural communities.

PROCRAM: To design a building for the study of physics and carth sciences with highly flexible interior spaces; house faculty research facilities and office space; provide basic laboratories for a maximum of 24 men in each, with a total of 50 sq ft per student; include a direct access from the cast (heavily trafficked quadrangle and mall); blend exterior materials with existing and proposed buildings.

DESIGN SOLUTION: The building is arranged in three levels: facilities for student use are on the ground floor (reading room, lobby, lounges, etc.); laboratories are on the second and third levels: all faculty offices and a lounge are on the third level. The building can be entered from the first or second level. Student and faculty circulation is separated by corridors on the two upper levels: student corridors run along the north of the building and open directly onto laboratories: faculty corridors at the south open onto faculty preparation laboratories and faculty offices. Exterior stairs at the four corners of the building service corridors. Storage rooms and faculty preparatory laboratories are divided from student laboratories by sliding panel walls of chalkboard or tackboard. Laboratories are designed for maximum flexibility with convertible furniture components: fixed furniture elements are confined to perimeter walls. Windows are set at a height of 7'6", allowing north light entry and a maximum use of wall space. All piping and wiring is exposed. Gross area is 64,000 sq ft. MECHANICAL SYSTEM: All ventilation and utility lines are consolidated in a second-level mezzanine section so that pipes have short runs to the two laboratory levels. Where possible, laboratory supply and drain lines are laid above the floor slabs. Air, gas, cold and hot water lines, and waste pipes are run around the perimeter of laboratories. Separate air-conditioning units service each functional zone. STRUCTURAL SYSTEM: Reinforced concrete frame with brick infill. Ceilings flat slab, and pan and joist. Interior walls of exposed concrete block.

MAJOR MATERIALS: Exposed concrete, concrete block, and brick. JURY COMMENTS:

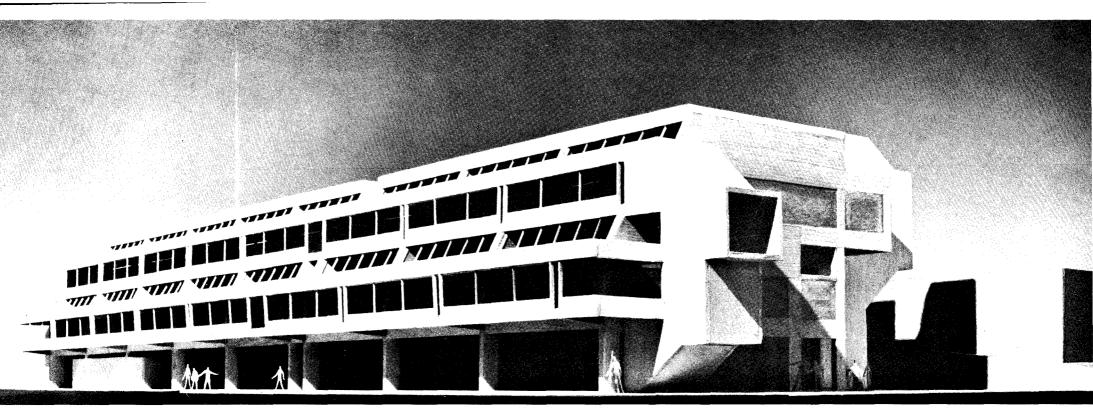
-I think this building has tried to work out the problem of form in relation to function. It has been worked into a shape that has a force, a quality.

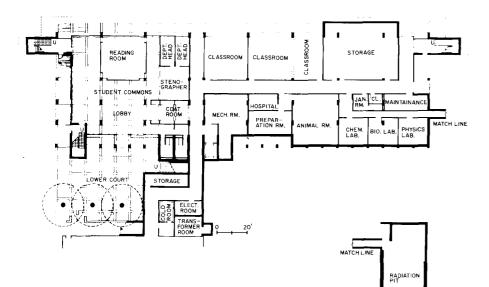
-It would be good if one could see it as a piece of romantic expressionism applied to a laboratory, rather than as a piece of actual functionalism.

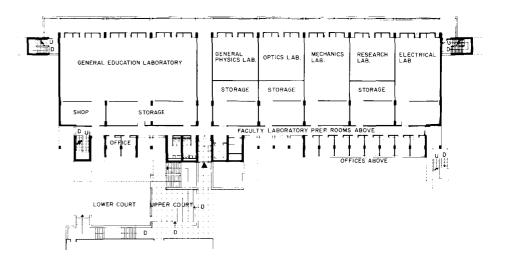
—This is obviously not the cheapest way to build a laboratory. You've got to get all that sculpture in and it's not possible to conduct certain functions.

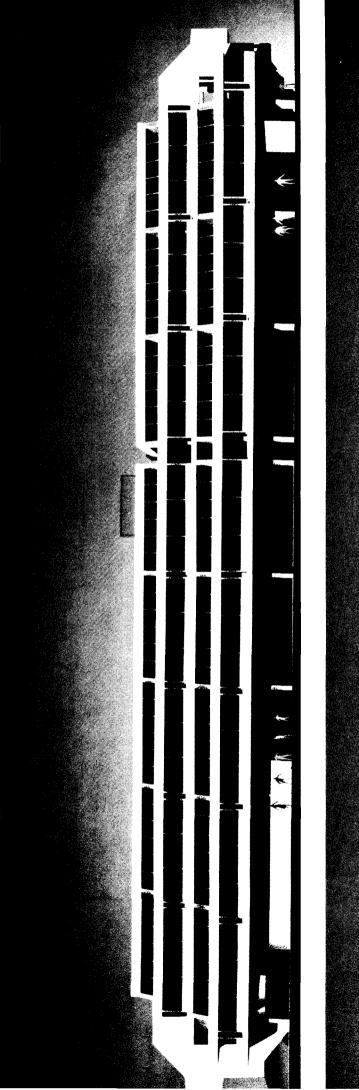
--It's sculpture and I happen to like it—a successful form but one that has nothing to do with the function that goes on there because it would have been easy to resolve the functional problem in a much simpler, less expensive, more straightforward, better-working building.

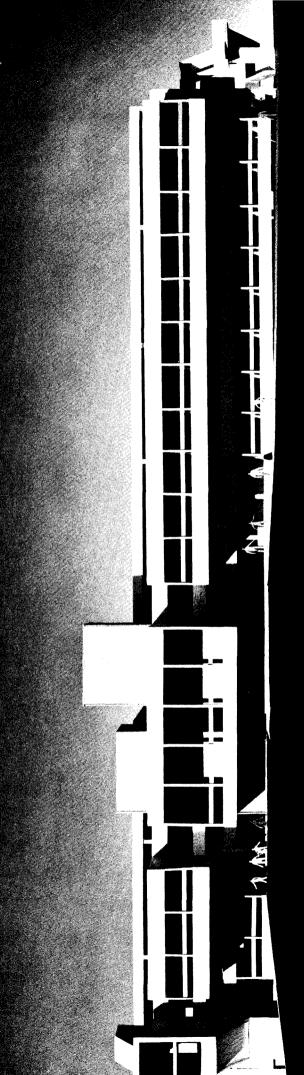
---The damn thing could be a Japanese cultural center. It could be in Kyoto. And the stairway, which in other times and days was a relatively simple thing, has become a major motif. It's like the tail fin on Cadillacs.

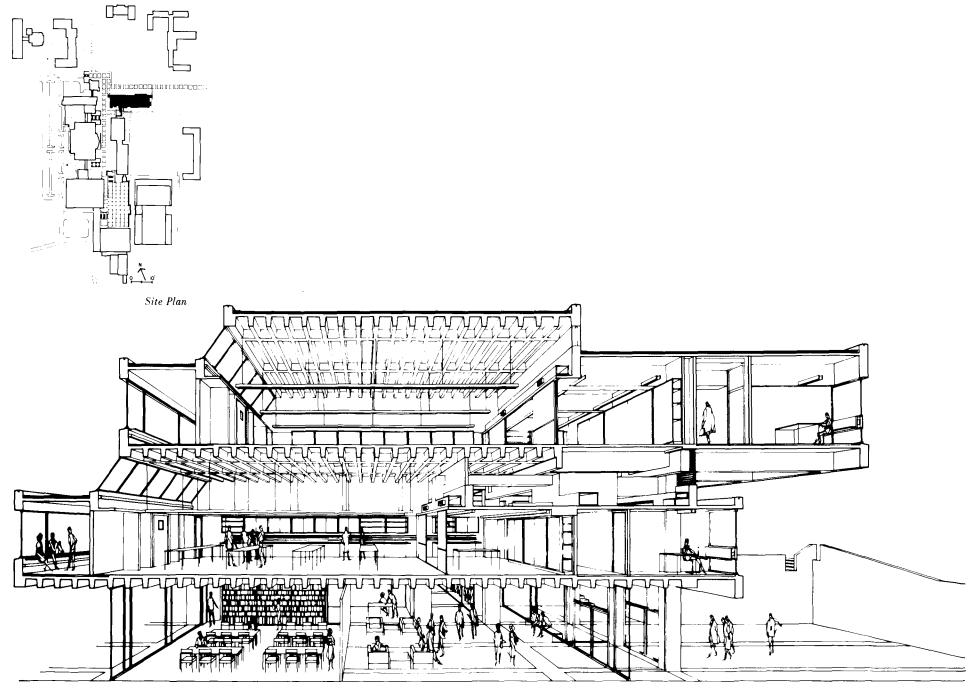






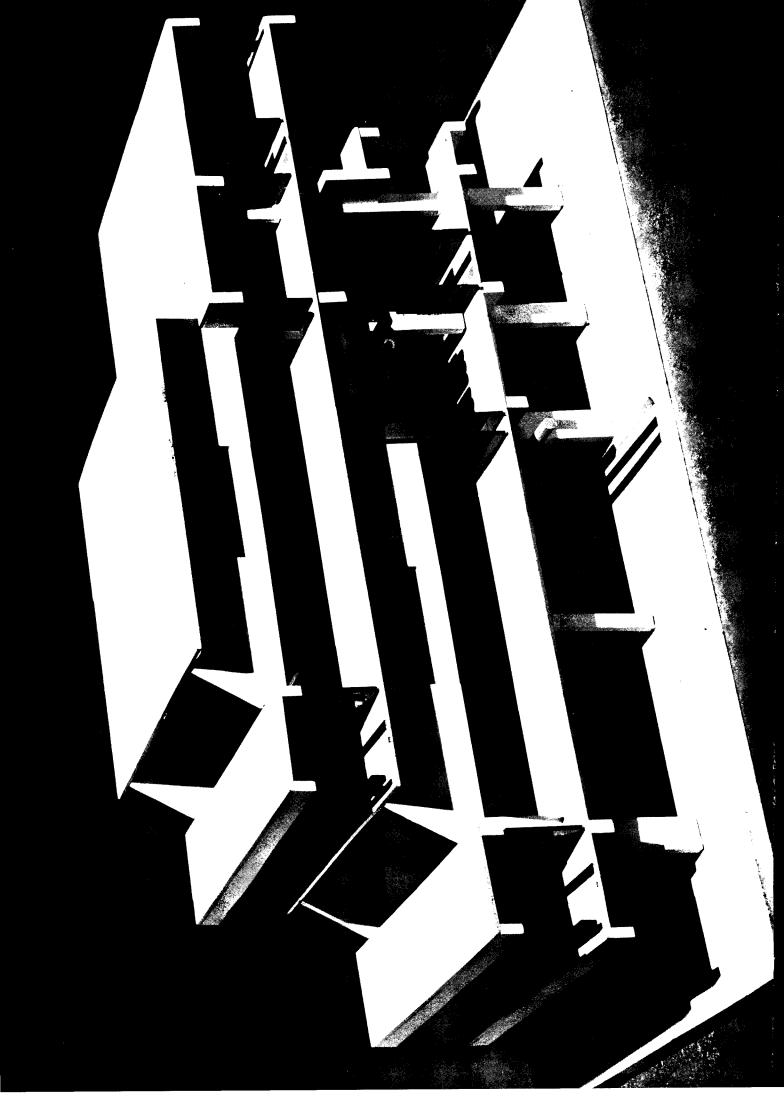


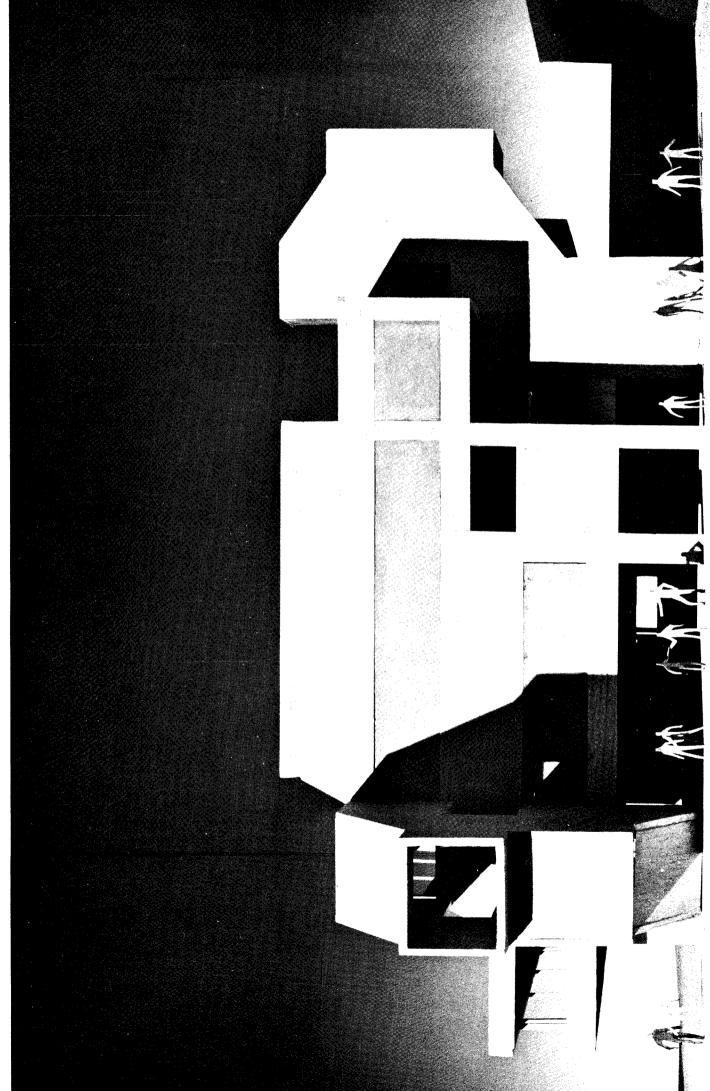




Perspective Section

° 10'





Vertical section showing ductwork (facing page); and south elevation (below).

CITATION

education

An unassuming project, executed with appropriate modesty, and designed with sensitive consideration for the existing building and site.

HUYGENS & TAPPÉ, architects SOUZA & TRUE, structural engineers BOLT, BERANEK & NEWMAN, acoustical consultants

PROJECT: Concert hall and music library addition to the Longy School of Music.

LOCATION: Cambridge, Massachusetts.

SITE: Existing school building is a large Richardsonesque house on the corner of Garden and Follen Streets near the Cambridge Common. The addition is to be built adjacent to the existing building in the northwest section of the garden. PROCRAM: Because the site was relatively small, the client wanted to house the concert hall (230 seats) and the library (20,000 folios) in one space, and create the ultimate effect of a "music room" rather than the large-scale formality of a concert hall.

DESIGN SOLUTION: The plan to combine both facilities in one room turned out to be feasible as far as acoustics were concerned. Books, according to the consultants, provided just the right kind of sound absorption, and the balcony that houses the library on two sides of the room provides the right reflective qualities. The consultants recommended a removable carpet below the seats of the auditorium to provide equal sound absorption whether the room was filled to capacity or not. The resulting space is a tall, paneled hall, lined with books: 140 seats are fixed, the remainder are movable. The design of the new building complements that of the old structure. The existing building has red-brown granite walls with dark beltcourses and a red tile roof. A 6-ft-high wall of rusty-yellow roman brick surrounds the site. The new building will use the same brick, while the beltcourses (which express the line of the interior balcony) and the roof parapet will be of precast concrete of a color to harmonize with the





beltcourses of the house and garden wall caps. Details such as the slightly rounded corners on the garden wall, the canting of the granite chimney caps, and heavy molded oak entrance door are also echoed in the new building. For acoustical reasons, little glass was used, due to the proximity of the busy street.

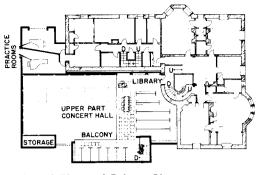
STRUCTURAL SYSTEM: Exterior walls will be bearing masonry cavity wall construction, the roof bar joists, floors concrete.

MECHANICAL SYSTEM: New furnace in the utility room of the old portion of the school will provide warm-air heating to the new wing. MAJOR MATERIALS: Exterior walls, roman brick; interior walls paneled, oak strip flooring.

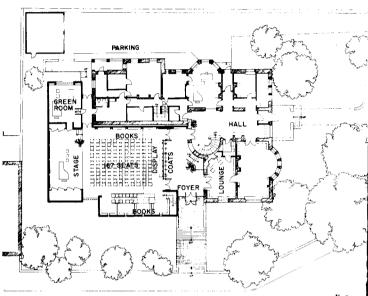
-The architect has done a small remodeling job in which he has had a responsibility to the old building, the street, and the general site--and he has made a sympathetic and sensitive addition.

-He did some nice things in a very simple way: the walls, the steps, and the details of the building harmonize with the older structure, although the scale of the building is not so carefully handled. -The interior would be a pleasant setting for a concert. Books have their own scale and color and are much more enjoyable companions than the usual acoustical paraphernalia.

-This kind of modest attitude toward architecture is sorely missing today, when everyone is trying to set the world on fire—even with the smallest kind of project.

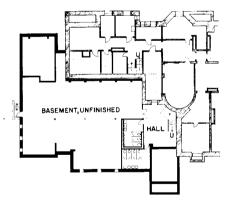


Second Floor and Balcony Plan

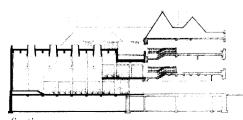




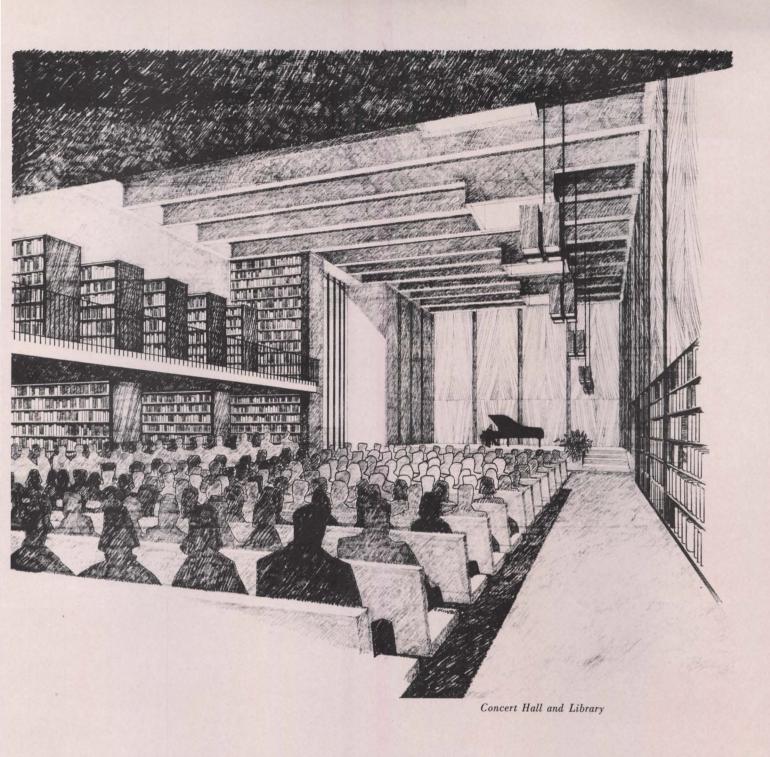


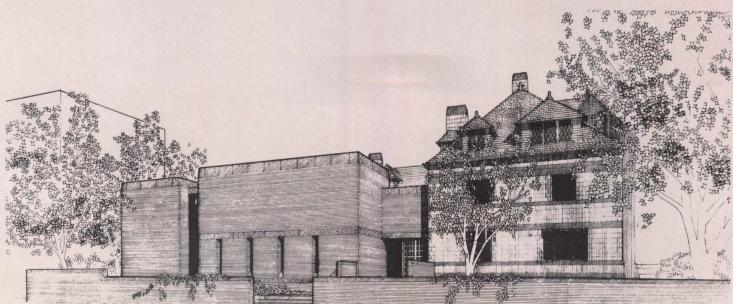


Basement Plan



Section





CITATION recreation

In premiating this coastal athletic club, the jury commended it for its general modesty of design, yet had some pointed reservations.







HALPRIN

MOORE, LYNDON, TURNBULL, WHITAKER, ARCHITECTS

IN JOINT VENTURE WITH LAWRENCE HALPRIN & ASSOCIATES, LANDSCAPE ARCHITECTS DAVIS & MORREAU and GILBERT, FORSBERG, DIEKMANN, SCHMIDT STRUCTURAL ENGINEERS RICHARD CHYLINSKI, WIND TUNNEL STUDIES

PROJECT: Sea Ranch Athletic Club. LOCATION: Sea Ranch, California. SITE: A magnificent stretch of wild and windy California coastline north of San Francisco. Cypress windrows punctuate the coastal meadow, and the houses for the first residents of this condominium development (see JANUARY 1964 P/A) will be sited close under them. The athletic club is located in the open common land between the windrows.

PROGRAM: The problem posed was a triple one: first, to design a small and inexpensive facility that would be part of the sweep of the landscape and not an interruption of it; second, to shield the tennis court and swimming pool from the intense north wind; and third, in a climate almost always chilly, to create the sensation of warmth necessary to make being outdoors alongside a swimming pool an attractive idea. DESIGN SOLUTION: The land around the tennis court and a swimming pool will be formed into wind-free pockets (models were tested in wind tunnel). A long, 8-ft-wide building that houses lockers, saunas, and plunges will serve as a "wind dam." Inside, the high, narrow building attempts to give some drama to movement in bright warm space (white-walled and translucent roofed): on the men's side, the interior goes up to a sauna, out to a projecting orangewalled shower, and down to a small round plunge; on the women's side, it goes up a stepped corridor through pools of light and dark. The swimming pool, already in a sheltered pocket, is further sheltered from the north and partly covered by a glass-roofed "antigrotto" that offers the chance to swim on (or under) water into a sunlit heated space, "where a keyhole-shaped extension of the pool invites relaxing."

MECHANICAL SYSTEM: Infrared bulbs in locker-rooms and electric exhaust fan.

CONSTRUCTION AND MATERIALS: The locker building is of woodframe construction, sheathed in redwood on the outside and painted plywood on the inside. Roofs are of corrugated plastic. The antigrotto is of gunite sprayed over mesh on a wood frame. Some of the slopes are of earth, and some, such as the north and west sides of the pool, are cut steep and covered with white gunite (sprayed over mesh with a plastic vapor barrier underneath), except for occasional areas to lean against, which are painted black to absorb the sun's warmth. JURY COMMENT:

-Many of the buildings in the field of recreation were exuberant and wild. This one has a degree of dignity about it.

-It's a building that relates to the total project. It's a solution to a modest problem, using the earth effectively to make the outdoors profitable. It reflects a kind of schizoid condition: It's modest in some areas and suddenly gets extremely cute. There's been a lot of dirt moved around for one tennis court.

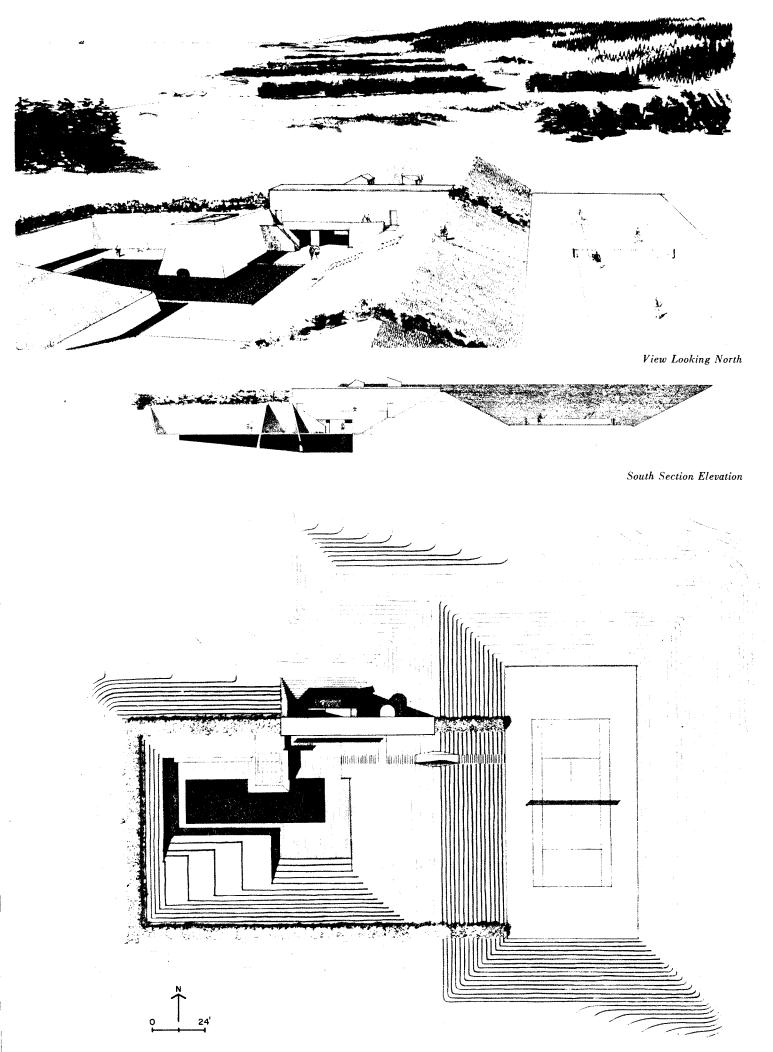
—Actually, I think it's a very monumental thing. We've been calling it modest and simple, but now I don't think it is. This moving a lot of dirt for the tennis court that's a very telling comment. He's making a very monumental structure with that dirt. On the other hand, there's a good reason for it: to be out of the wind. So it makes sense.

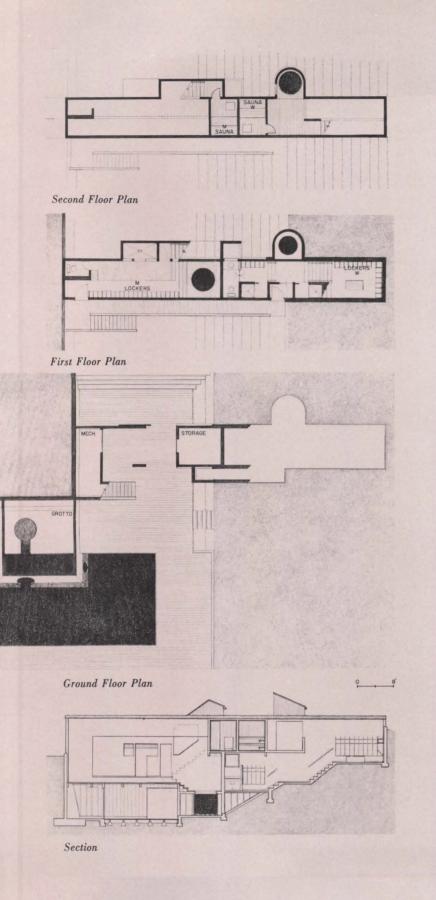
-This scheme makes a lot of sense. You don't have to crawl on your hands and knees, or back into it. You swim into it, and you need a protected place if you're going to sunbathe; otherwise, you're going to freeze, because of the wind. It invites you; it's a kiln—a kiln for Californians, to make them bronzed and Californian-looking.

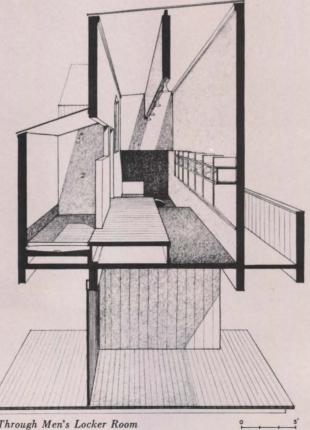
-None of us really feels that strongly about it, but one of the good things is its modesty. It's out in the middle of a field, and one of the worst and most tedious architectural crimes could have been committed here.

—The jury feels that this kind of design has perhaps been overhonored in the past, and therefore feels slightly absurd about going ahead and premiating it. But in terms of the general category of recreational design—and nothing could be more of a nod to the profession—this one seems so much simpler and clearer.

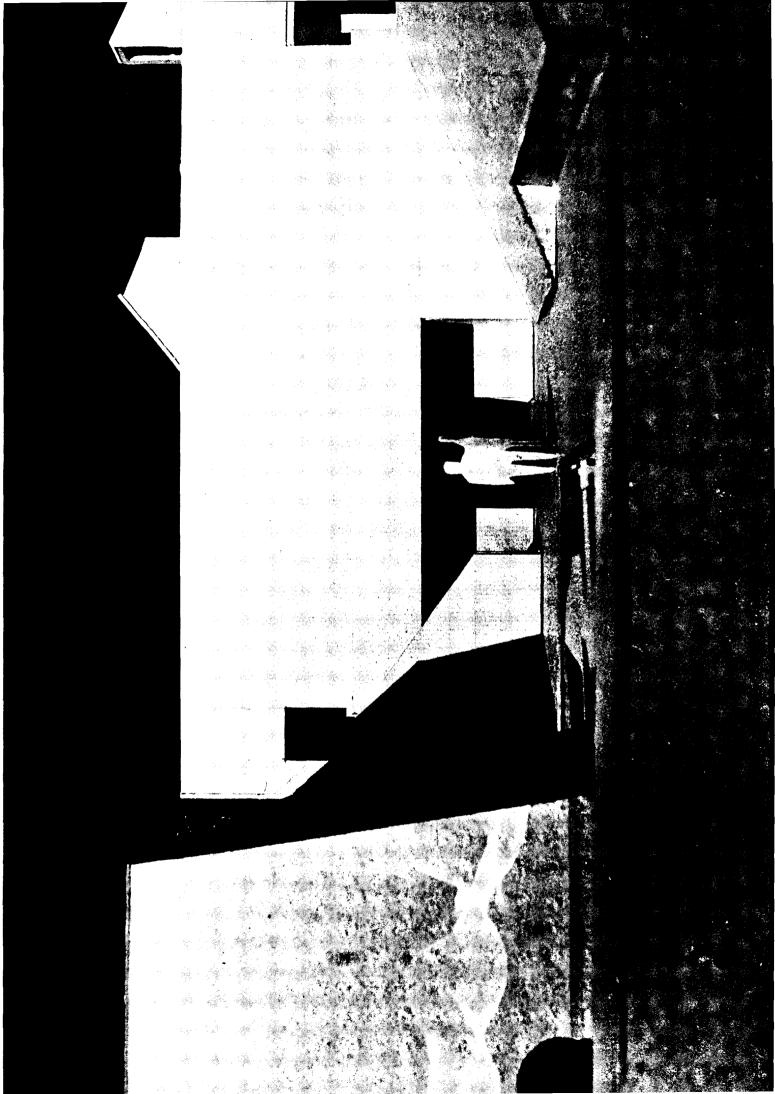
-Still, to me, it's the most superficial application of design: exactly the thing we've been talking about. -Of the recreation entries, this, in a way, is the most imaginative scheme. But he's a very derivative architect. If the real innovators aren't noticed and the followers get rewarded, then you're performing a crapulous function in terms of the profession. Because that's pastiche architecture: pretty good, but still pastiche.







Section Through Men's Locker Room





Geometric logic resolves complex departmental relationships within State **Health Department Building combined** with a handicapped children's clinic. Trussed window walls spanning from bearing exterior walls to bearing interior mechanical core walls express both the aesthetic and structural logic of concrete.







WITTENBERG, DELONEY & DAVIDSON, INC., ABCHITECTS

PROJECT: State Health Department Building for State of Arkansas. LOCATION: Little Rock, Arkansas. SITE: Part of the large rolling "campus," shared by the State University Medical Center and the State Mental Hospital, on the western fringe of the city's urban center. The allotted 31/2 acres are bordered on two sides by a major thoroughfare and a street. Parking space is provided by the parking facilities of an adjacent sports stadium.

PROGRAM: An office-and-laboratory building for the 30 bureaus and divisions of the State Health Department. Provision of approximately 120,000 sq ft of space (gross area). Careful attention to the orderly resolution of various complex relationships: between bureaus, between the public and service divisions, and between certain divisions and laboratories. DESIGN SOLUTION: Separation of offices and laboratories to indicate their unique activities; they are bridged by the administrative offices of each laboratory division. In the office towers, all agencies related to laboratories are contained in the south tower; all others are in the north tower. Between the two office towers are the spaces that bring together the public and all bureaus of the department: i.e., (from bottom to top) 125-seat lecture room, entrance lobby, conference rooms, and board room. Horizontally, the five large agencies that deal directly and frequently with the public are on the ground floor; each upper tower floor contains one or two of the remaining bureaus. Each succeeding level of the office towers steps back from the busy thoroughfare to the north and the labs to the south, to give a strong sense of enclosure in the forecourts, and a separate identity to each bureau. Office floors are made up of 5-ft office depths. Subunits of laboratories are separated by horizontal pipe galleries, which, while allowing each 10' x 20' module to tap utilities, permit expansion of lab facilities to the south. To the east, a separate building with its own entrance contains two clinics for examining and treating handicapped children. STRUCTURAL SYSTEM: Reinforced concrete. Primary support is supplied by cast-in-place shear walls at the ends of the office towers and by air-conditioning riser shafts on the interior. An 11-ft-high truss, acting as the window wall, spans between these supports. Floor construction consists of a two-way beam and girder system on a 5' x 5' module, with an air-supply floor system and concrete floor slab.

MECHANICAL SYSTEM: Four-ft-square air diffusing lights will be located in each module. Both supply and return ducts will be in the floor system.

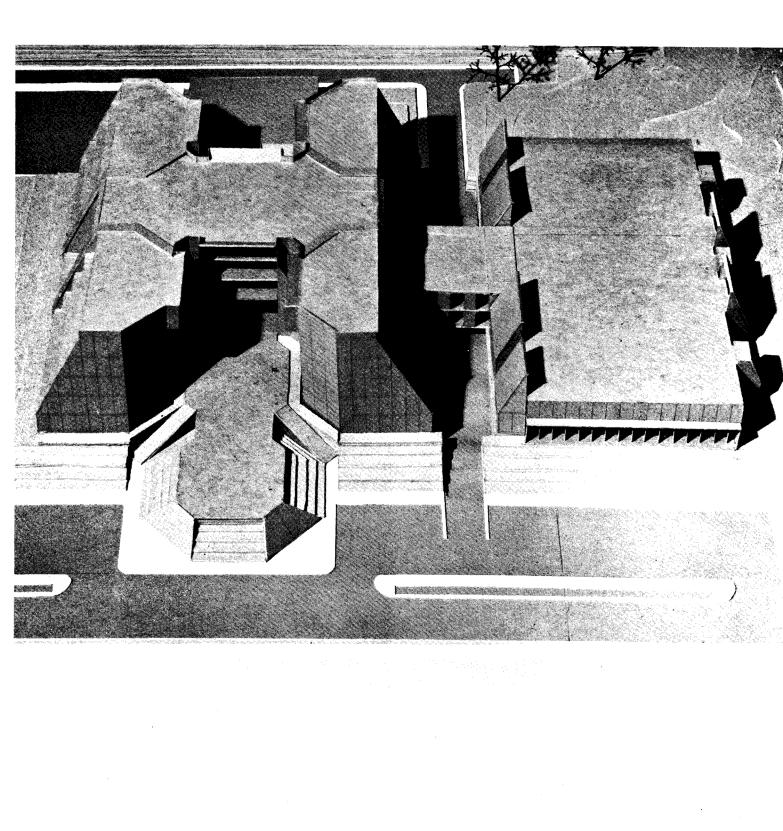
MAJOR MATERIALS: Concrete ceilings, exposed and sandblasted; precast-concrete panels for exterior walls: tinted glass for the south face of the south tower.

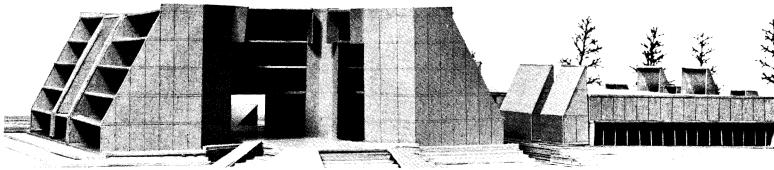
JURY COMMENT:

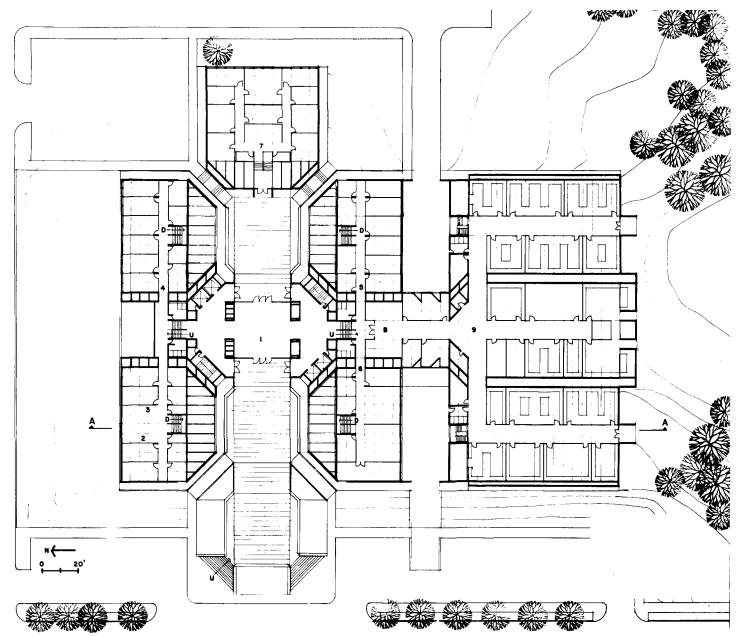
-Much more reasonable than many of the forms we've seen because it seems to derive from an analysis of the space and the architectural requirements. It's got an integral strength. I know it's muscular, it's activated-overly so, like a lot of architecture today. -The exterior massing gets a little too elaborate in the entrance, but in general it's a very simple, primitive concept; it has a kind of calm and dignity.

-The plans are well organized. The building sits solidly and handsomely on the site. It has dignity and strength without being visually aggressive.

-The structure shows an excellent use of materials. Concrete is a heavy material: Here it was used properly and it also reflects the architecture.



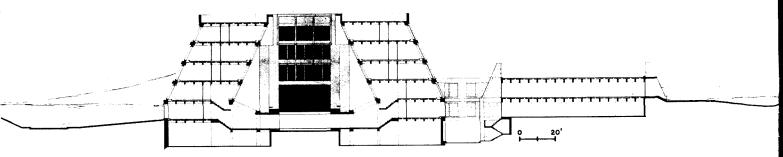


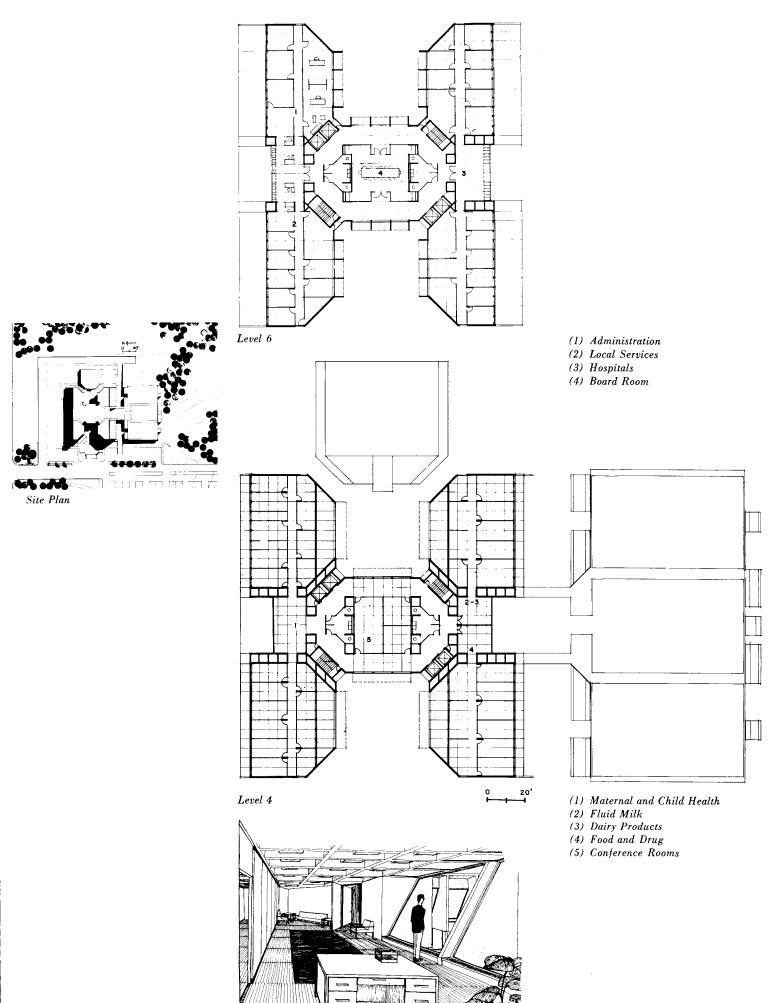


Entrance Level (Level 3)

- (1) Lobby
- (2) Veterinary
- (3) Chronic Disease(4) V.D. and Immunization
- (5) Dental Health

- (6) Communicable Disease
 (7) Speech and Hearing Clinics
 (8) Hygienic Labs—Administration
 (9) Hygienic Labs





CITATION *residential*

residential

The only house to be premiated out of a total of 167 submissions provoked in the jury a discerning discussion on the validity and direction of house design.

HOBART D. BETTS, Architect

PROJECT: Beach cottage for Mr. and Mrs. Hobart D. Betts. LOCATION: Quogue, Long Island, New York.

SITE: Low, flat property facing a canal that connects two major bays on the inland waterway. A heavily traveled elevated drawbridge is located to the east. Natural vegetation includes reed grass, bayberry, and beach plums.

PROGRAM: Economical summer vacation house for an active family of five. Privacy was required for sleeping areas, although these spaces were to be light and open and appropriate for informal summer living.

DESIGN SOLUTION: A two-story wood house elevated on piles to produce a positive visual relationship with



the adjacent bridge and to provide protection from high water. Two children's bunk rooms, two double bedrooms, two baths, a living room, a dining room, and a kitchen are provided within a total area of 1150 sq ft. Changes of ceiling height contribute to a visual separation between the living and dining areas. High clerestory windows permit a natural flow of air throughout the house. A skylight over the stairwell further dramatizes the variety of interior spaces. Decks leading off the living and dining areas are isolated from the noise and view of the bridge by a storage shed and the projecting east wall of the house.

CONSTRUCTION AND MATERIALS: The structure will be of platform wood framing. Cedar barn shingles on the exterior have been selected to harmonize with older surrounding houses. Interiors will have white plasterboard walls and natural fir ceilings.

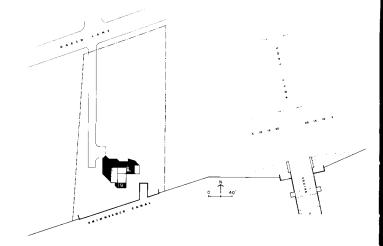
JURY COMMENTS:

--The simplest, clearest, and most controlled use of an idiom that now seems to be everywhere. In terms of space, however, it's just a box that happens to shed a couple of roofs for not much reason. --These houses are popular because they're like pop art. That's why they're replacing the box: The box had no irony to it at all. The flat boxes are really a kind of seriously considered architectural statement. This isn't. This is pure pastiche. It's absurd. Nobody really believes

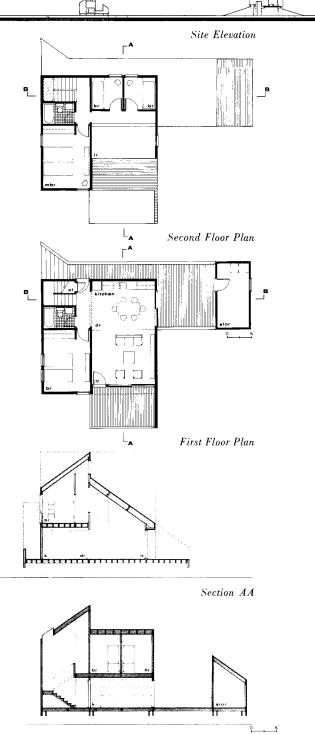
that. You're playing at farmhouse. —We've got it in here because we're not taking houses seriously.

-Right! Unless they're prototypes, unless there's some kind of breakthrough, some kind of urbanistic demonstration. Otherwise, they're embarrassing. The house is not an architectural problem *now* of any significance.

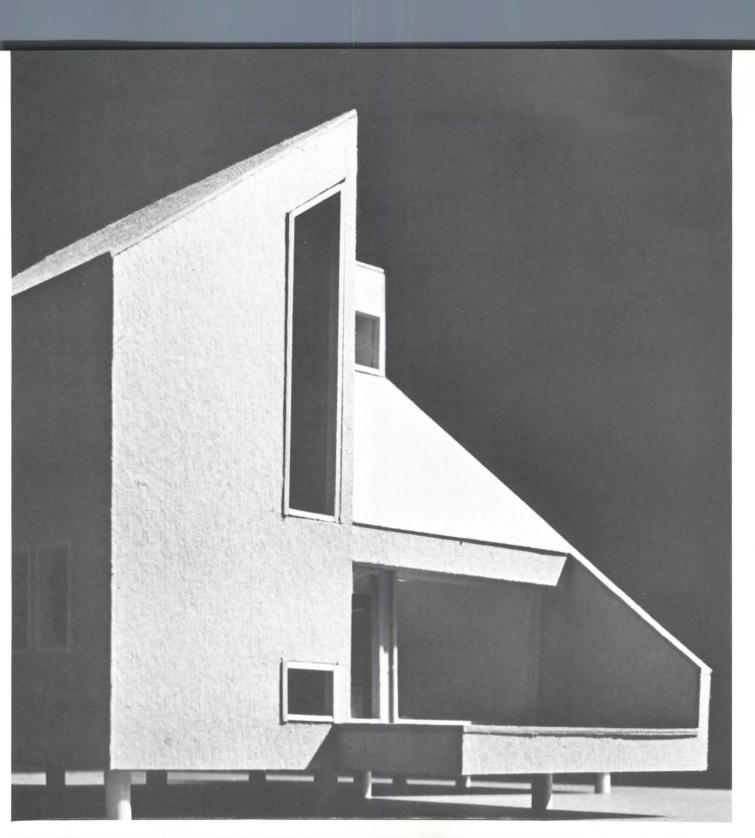
-We're really saying that we're not judging this as a house but as the ability of someone to manipulate a few forms and a few surfaces. It just happens to be a house.

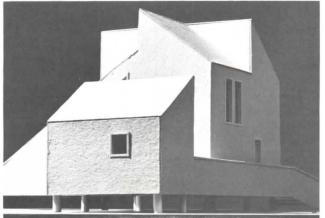


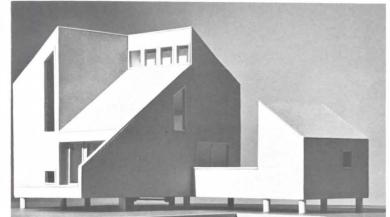
Site Plan



Section BB







JURY Discussion

In commenting on the general design trend evident in the submissions, the jury sensed a gentling out, a weakening of architectural form, representing perhaps an end development to the monumentality of the 50's.

Scully: What the contestants have tended to do in the big buildings is to break down the scale. A few years ago, they tended to put everything into a big package. We ourselves have been attuned toward the breaking up of scale into components; we rejected almost all projects that put everything in one big container. Bassett: That's what a lot of those houses did-carrying it to the extreme of trying to become a village. Scully: Yes, but you might do it in a house and not like it. You might do a totally different thing in a large building, since the house scale is, in fact, a very different scale from an office building scale. We . . . have talked a lot about how sculptural everything is these days, and yet when you look at this group, despite the geometric complexity, the general effect is not sculptural at all, but is a kind of weakening out, and indeed a kind of gentling out, of a lot of the forms that were around a few years ago. We consciously reacted against almost all the tall buildings-almost all of them looked grotesque. We eliminated most of the assertive buildings, which were at the same time obviously eclectic. I think we should make the statement that these winners probably represent, on the part of the jury, a tendency toward selecting the more modest project, toward urban renewal, toward the working out of a few simple problems. as a reaction to what seemed a kind of off-hand monumentality.

What we're really having here is a movement out of the 50's when monumentality developed.

We are representing a kind of disgust with its last and rather sick phases in most of the designs that were submitted. Because this group of winners is a very weaklooking group. I don't think that means necessarily that these are bad buildings; there's a kind of weakness, a faiblesse to these, a kind of détente running through them, historically speaking. **Roche:** Perhaps by our being more selective this year than in the past, the people with the better work and higher standards will submit next year. **Scully:** I also think that the focus on quality makes quality.

Reflecting its intense interest in the importance of urban design. the jury made several awards in that category. And in its struggle to define the standards by which the submissions should be judged, it importantly broached the problem of whether the arbitrary division of projects into building types did not violate the idea of the building as essentially only one element in its larger urban context.

Scully: You can never get the golden key to perfectly reasonable design. It doesn't happen that way. As long as people have freedom, they'll be free. They won't all do the same, even if it's good, until they're made to do it like the Russians. I don't want that to happen: I'd rather have the foolishness. Urbanistically speaking, it may even be fundamental. In Russia, when you first see it, it looks so great, but after a while it's wearing. And it's bad urbanistically. It grinds on the spirit precisely because there's no foolishness in it. And no accident, either. No nonsense. Without that, life is all closed in and previously arrived at, however intelligent, and rather dull. So I'm not too worried about the mess at the moment—about those shambles—except urbanistically. This may sound like a contradiction, but it isn't. Few people seem to have a design for the city, or know what to do in relation to other buildings. This seems to me the most important thing we can say on this jury. It seems to me that this is very much a product of the architectural magazines, going way back into the 19th Century, where you praise—and it's a very professional thing, kind of an in-group thing—where you praise building types. It comes from aspects of teaching, aspects of office practice. We think in terms of building types. But, urbanistically speaking, this is an extremely artificial and indeed dangerous set of categories, because it always takes the building out of context. A type is not in context with the same type normally; it's in context with many other different types—that's what makes a city. So there should be other categories: urban design on a moderate scale, urban design at large scale, factories in the country, factories in the city—whatever the categories are, they should be urbanistic.

Buildings should be judged in their relationship to the urbanistic whole, rather than, across thousands of miles, with other buildings with which they have no contact and no urbanistic relationship at all.

I don't mean

to criticize the Awards Program; it's how things have always been judged. The other way would be much harder, but everyone who submits a plan should have to show it in its over-all urbanistic setting. A building should be judged half on how well it fulfills its interior function and half on how it fulfills its exterior responsibility, which is to play a decent role in creation of the whole environment that is used by all the people, who are therefore the larger client for any building and much more important in many ways for most buildings than the individual client who only uses the inside but who may, by developing the inside perfectly for his uses, totally destroy the rest of the town for the people who use the building, visually, on the outside. Rowan: What do you do with a single building on a highway strip? You can't do anything urbanistically there. Scully: It's a problem. In a sense, you could design well for the street. Roche: I think any responsible architect will automatically tend to design urbanistically. If you have a site between two used-car lots, you recognize that it's in a transitional state, and it will improve. Scully: You design for the way the street ought to be. And you really do it in urbanistic terms-respecting the street, or defining it. These preconceived categories have gotten us into this over-all architectural mess, so that when we come to a point where we really are talking about architecture, which is the relationship of all the buildings to each other and in relation to the roads, the streets and everythingfor a little while, there, we were afraid to call it architecture.

We tried to call it planning, or urban design, when in fact it's all architecture.

And in a way, the *only* architecture. The whole environment is architecture. That's what architecture is— the whole environment in relation to the natural. And individual buildings, roads, and lighting fixtures are only part of the over-all architectural picture. So, by judging and publishing a building outside of an urbanistic—outside of an architectural—context, we have all done a disservice to architecture over the generations. Because people have then designed to be published, and to win commissions; they have not thought of the street where the building is going. What has utterly destroyed our streets is the thought being muttered by people all over the country: "Buildings must be a clear reflection of what happens inside—period." The sense that designing for the exterior is somehow Beaux Arts, or academic,

or fascist, or bad, has been destructive of architecture.

The jury was especially disappointed in its failure to find so few major statements about space, such as projects to redevelop our center cities.

Conklin: To me it is a big disappointment that among the submissions we have almost no great public spaces. We've seen a series of small cluster developments, each with an intimate residential environment. We've awarded a couple of these. But we've found no great urban spaces and very few tall buildings to award, except for the Pittsburgh redevelopment.

Proposals for the centers of our cities are strangely missing, and the lack is very disturbing.

Scully: Isn't it partly true

that most of the people who are getting the commissions—the Peis—don't enter the competitions? **Bassett:** And these are the buildings that should really be the best. Perhaps the best architects aren't really getting these jobs? **Conklin:** Government policies are such that they usually don't.

Among the building types that fared badly again this year, as last year, were churches, houses, and educational buildings. The jury's indictment was searing and provided a provocative display of verbal pyrotechnics, as witness its remarks on church design.

Scully: The committee would like to express its disapproval of the meretricious character of so much American design in general —and church architecture in particular.

Strangely enough, the two fundamentals of Christian civilization in the past — the church and the house — are both apparently in a state of absolute decay.

As a whole, the churches are so insincere—so sentimental and insincere. **Conklin:** All the church architecture submitted seemed arbitrary. By far the nicest one here is one with an elementary, barnlike quality. It's enormously refreshing after all the blatant emotionalism of so many of the churches. **Scully:** In a barn you have to worship cows—great, rich cows. It's the most religious feeling in the world. The jury should state that one of the churches would have made an excellent barn. And one church is a room that's been cut into with a hatchet by a maniac. Imagine Luther in that! Well, Luther had his lapses, too.

The houses, too, went up in a puff of smoke (all except one, and very nearly that one too). Last year's jury, you will recall, picked no houses, and even questioned whether the house design constituted a valid architectural problem.

Roche: I think they are terrible. And neurotic to boot. **Scully:** But how do you expect it to change? Why should it change? They're all designed without any relationship to anything. **Roche:** The experience of going through all of them, however, has been very educational. I wouldn't have missed the opportunity of seeing the bulk of them—the similarity, the clichés, the devices. It has a sobering effect. If everyone saw all this, they might sit down and do something that's more modest. **Scully:**

An individual house is embarrassing.

Actually, who cares if the bathrooms are in the

right place? Socially, it's difficult to care about them. I think there are only four cases where an individual house is not embarrassing: (1) if it is a specially useful prototype of a mass urbanistic development; (2) if it does something really important on a street or a square, to teach us something about urban design; (3) if it represents a breakthrough in plastic imagination, even if it might not be justifiable in terms of a house; or (4) if it's ironic, and thus expresses the human condition. It seems to me that none of these is present here. **Bassett:** When house designing is done by people for therapeutic reasons, they should keep the results in a closet.

Educational buildings were disappointing for other reasons.

Roche:

Solutions like these always seem more a product of a school of design than a product of an actual problem.

Scully: Of course, in a way, those two things are always involved. The human mind doesn't come clear and fresh to anything—especially to a problem in design, where you have to think in formal terms. **Roche:** I agree. I wish we had more assurances that the actual problems—the educational problems—had a greater balance in the architectural decisions that were made. **Bassett:** There is evidence in several that not everyone has fallen for the economic package pattern, which I'm afraid gained most of its momentum from California. This kind of simplification of structure and systems has a parallel condition in the administration; school programming is a highly formalized thing now.

In commenting on the general level of submissions, the jurors were repeatedly struck by the seeming inability of architects to design within the confines of a given architectural problem.

Scully: A great many are almost incompetent. Komendant: Structural potentialities aren't reflected at all in most of these designs. The general validity of the structural system isn't used. Each structural system and material has special qualities, but the architects don't use them. Architects usually deal with structure as a separate thing. Or when they use it, they over-design. Roche:

Almost every project here is based on an exercise considerably beyond the needs of the problem.

It seems to me that the real significance is in what we have discarded, because that's the bulk of what's happening across the country. Bassett: What bothers me is that there hasn't been anything so different, so outside our realm of experience, that we had to adjust ourselves and really fight about it. This happened several years ago with that fire station. And look what it has spawned-so much of what we've just thrown away! Bassett: Part of the problem is that a lot of this architecture is mole-hilling. You give a guy a box of sand and by noon he's got a mountain. So much is done as though it's the last thing he ever expected to do-the whole spectrum, the whole palette of architecture has got to get into that thing because tomorrow he might get run over. Scully: It seems to me there is a kind of schematic architecture which is false, just as there is a sculptural kind that is false. Roche: If these commendations are our way of saying in which direction future architecture should go, it's going to be just dull as hell, and it will be one of the least inspired periods in the history of architecture. **Komendant:** Architecture is an applied art.

Architects are confused. They think architecture is art, but it isn't.

There must be guiding

principles behind it. So many of these designs are too rich, too soft, without principles. **Roche:** If we set as a criterion what we wish we had done ourselves, then there's only one project here. **Scully:**

What's wrong with almost all of these buildings is that they're all trying to be finished designs that'll knock your eye out, that'll stand all by themselves. But the character of the urban world is that it's never finished.

The character of the major archi-

tectural environment we must create is that it's constantly developing and changing over the generations as things are put into relation with other things.

Imitation, while the sincerest form of flattery, didn't cut any ice with the jury.

Komendant: How much Lou Kahn there is, but done so badly. Conklin: Maybe we should have a special category for memorials to Corbu. Scully: I've seen quite a few of Rudolph's Boston government center—about 50 of them. Roche: These houses are rubbish—each one a collection of devices and clichés. They're not modest or immodest or anything else—they're just a collection of devices.

In summing up the quality of the submissions in terms of the history of the P/A Design Awards Program, the jurors detected some hopeful signs in the trend toward the quieter architectural statement.

Conklin: In certain categories, in passing, we found many that show modest ability. We threw many out for minor aspects, even though we noted their competence. Bassett: There has been a general upgrading of work over the years, and this has appeared here. Part of our problem is that when we finally got down to just these few, subtleties stood between them and the rest. The architect who is doing the right thing, trying to fit a building into context, trying to recognize the texture and quality of the immediate context, is doing just the opposite of what is required to gain attention in this program. Roche: I don't agree. Last year's awards went to the quieter statement. And this year, on the jury's end of it, the position has been constant. This shows that there is real concern about the noisy quality. Scully: It's perfectly possible for a very noisy building to be excellent urbanistically. I happen to think that Rudolph's A&A building is great urbanistically, and you could hardly get a noisier, more aggressive building than that. I can think of a number of quiet, modest buildings that are terrible on the site. You mustn't throw out the good with the bad. Rowan: Still, over the last few years, juries have been looking for quieter things. Bassett: Yes, and the search continues.

PA OBSERVER

WURSTER HALL—THE CAMPUS REBEL

BY NEILL SMITH

Wurster Hall, home of the College of Environmental Design at the University of California, Berkeley, has been in operation long enough now to permit an expert evaluation of its aims and its successes and failures in attaining them. This assessment was written for P/A OBSERVER by Neill Smith, head of Neill Smith & Associates, Architects and Planners, San Francisco. Previously, as an im-

portant member of the design team at John Carl Warnecke Associates. he was concerned with several projects on the Berkeley campus. Smith served for a time as Editor of Western Architect and Engineer.

Few buildings in our time have given decisive expression to fundamental questions about architecture. Answers, blithe or troubled, we may find often, but questions are usually

carefully buried.

Wurster Hall, at Berkeley, named for the founding dean of the School of Architecture, William W. Wurster and his wife, the late Catherine Bauer Wurster, may be such a building. [For a view of John Galen Howard's old Architecture Building at Berkeley, see pp. 166-171, JULY 1964 P/A-ED.] It is the product, in some ways the culmination, of two of Wurster's key beliefs: ra-



tional functionalism and collaborative design process, and because the building is as significant for its failures as for its successes, it is both an end and a beginning.

In 1959, four Bay Area architects, all connected with the Department of Architecture—Vernon De Mars, Joseph Esherick, Donald Olsen, and Donald Hardison—were jointly commissioned by the university as architects for this proposed new building for Environmental Design. It was Dean Wurster's hope that the selection of four architects of widely differing views and interests would, through a slow process of resolution and integration, produce a building of significance.

As the months of expected wrangling over first principles dragged on, Hardison gracefully resigned. The remaining three agreed to agree on an approach to the design predominantly forwarded by Joseph Esherick. Said Esherick, in describing their attempt to realize truth through architectural process, "We wanted to examine and try to solve every problem we could conceive of as necessary for the complete functioning of the building in its setting on the campus, excluding all arbitrary, invented, nongermane problems. As a building for the design and planning professions, we believed that Wurster Hall should be nontendentious." In De Mars' words, "We felt the background for training young students of design should be anonymous and utilitarian." Further, Esherick continued, "We believed every problem should be solved in its own terms, not in terms of some arbitrary or exterior formalism. Issues were to be faced for what they were, and since we recognized that many previous attempts at functional solutions failed because of a too-narrow conception of functionalism, we took as one responsibility to see that the issues were as fully and completely stated as possible."

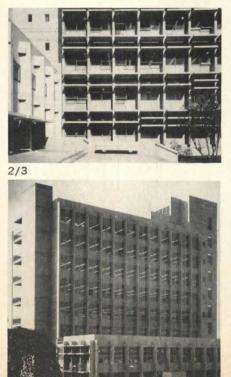
As was anticipated, reactions have been mixed, but violent. Many protests come from a source that has become all too accustomed to the eclectic romanticism that characterizes much new construction on the Berkeley campus. In this regard,

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Wurster Hall is startlingly heedless of the tile roofs, colonnaded galleries and other paraphernalia of the Renaissance that abound even on giant new buildings (1). It affronts the casual for it is clearly a building of purpose.

Whether its purposes are clear is another story. The large (215,800 sq ft) complex is in plan a roughshaped U, open to the east. It contains an amalgamation of the Department of Architecture, the Department of Landscape Architecture, together with City and Regional Planning and the Department of Design (formerly Decorative Arts) under the new heading of the College of Environmental Design. In addition to these departments and their 1000-odd students and faculty, the building contains the Institute for Urban and Regional Development, the Center for Planning and Development Research, the Laboratory for Design Research, the Environmental Design Library, and the casting and ceramics studios for the Department of Art's sculptors.

Curiously, the exterior form and details of the building give little hint of the multitude of varying functions and volumes within. Rather, it has the inscrutability and repetitiousness of a large research laboratory. Perhaps to maximize interior flexibility, the window areas are uniformly gridded with precast columns and sunshade devices (2). Though the sunshades are dropped



from the north façades (3), the module marches almost without interruption past office, studio, and drafting room alike. Only at the twostory shops and at the library is the sunshade pattern allowed to vary.

The external variety comes not through the expressed uses and volumes, but through variations in structural technique. The building is a combination of cast-in-place and precast concrete construction. The vertical elements, columns and fins, together with the smaller wall panels and parapets were precast, and the large end walls and stair towers, and all the floors, were cast in place. The differences are clearly visible (4). The treatment of the openings at the stair towers and end walls are designed to retain the integrity and continuity of the wall surfaces; whereas the precast areas are clearly erected from jointed pieces.

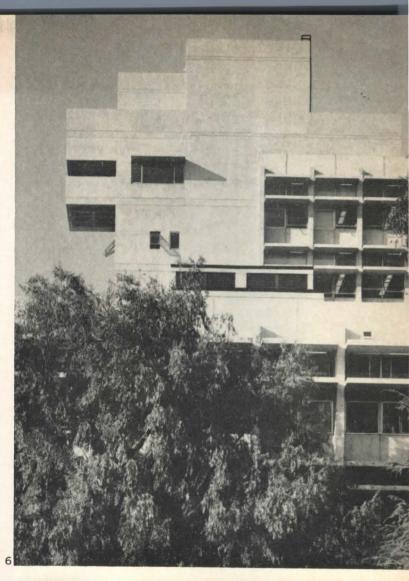
The exterior is dramatic in its starkness, often interesting in the play of light on an occasional opening or a small area of sun shades (5); but nothing-no expressed detail in the concrete, no color contrasts, no natural textures-provides the tactile immediacy and visual warmth that invites one to approach. The building is monochromatic, monolithic, and untouchable. As one does approach, one finds the groundscape barren and the entrance uninviting. The asphalt-paved main court has all the interest of a used-car lot before the appearance of the merchandise (7).

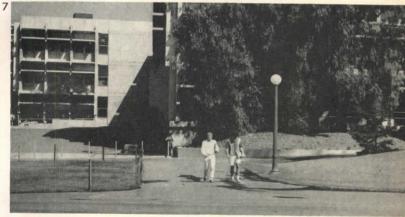
The tower, with its proboscoid balcony, is the only strong external feature that intrigues, with its suggestion of the world of fantasy, escape, and solitary dreams (6). Everywhere else, the building is hard at work straining to perform its functions, and suppressing the life within. Even the courts along the studio wings (8), intended as outdoor workrooms for sculpture, ceramic, and design students, with their high enclosing concrete walls, seem to give less freedom, rather than more, for they both obstruct the view from within and successfully hide from the passer-by student projects that are full of interest.

Yet the interior of the building



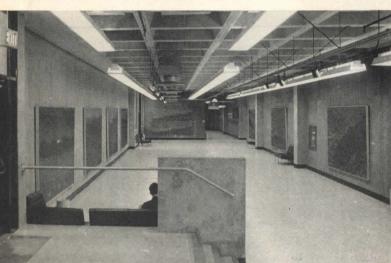








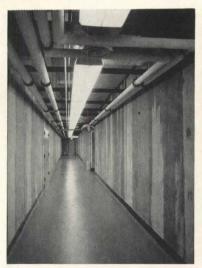
















and its execution is by far the most provocative aspect of the design. As soon as one enters the building, one is struck by its dedicated utilitarianism (9, 10). The ducts, piping, and lighting are exposed below the waffle slab of the floor above. Unwilling to espouse the use of controlled servant spaces for mechanical equipment, even if exposed to view, unwilling or unable to integrate it with the structure, the architects have allowed the mechanical system almost unfettered possession of a substantial portion of the inhabited volumes: in the corridors, indeed, it seems to be the chief occupant. At the same time, it often completely obscures the structures overhead, a view that seems needed to give the space coherence (11). The architects' statement that the nerves and circulatory system should be exposed as a lesson to the students in mechanical equipment is hardly a justification for a mechanical system that is plainly antediluvian.

The interiors in other respects have been planned and detailed with the same utilitarian rationale. The materials used are serviceable above all. Exposed concrete ceilings, unpainted ducts and pipes, dun-colored, fire-treated rough plywood and equally dun-colored linoleum floors greet one almost everywhere. In the large spaces (12, 13), the interiors take on an earthy vitality, but in others, especially in the hallways (14) and faculty offices, the building has an overpowering and relentless quality that assaults the senses and depresses the mind. One longs for the great spaces of Rudolph's Yale School as a relief from so many minor halls, and from the uniform and oppressive light of the fluorescent fixtures.

And yet, as one returns again and again to the building, subtle qualities become apparent. As the architects had intended, the functional arrangement of space and unassuming finishes give the building an unpretentiousness that is quickly adopted by visitors, faculty, and students alike. Honesty, which the building certainly has, calls forth honesty; strength calls forth strength.

The planning and arrangement of

spaces has shown considerable sensitivity to the problem of educational disassociation and isolation often found in large college buildings. The entrances at the bottom of the 'U' on two levels force virtually everyone entering and leaving the building into contact with the exhibit galleries and their shows of current student projects. The location of the departmental and faculty offices in the same wing on the upper floors make them accessible without being domineering.

The shop has an airy magnificence. On a vast parquet wood floor sit an assembly of large machines of every shape and purpose, while from above and against the inside walls hang, like the trailing roots of the Banyan tree, a multitude of exhaust ducts. The wood floor—the richest floor material in the building—was used for its resiliency to reduce tool breakage.

Even the architects' refusal to hide the clutter has its own message. The juxtaposition on a rough plywood wall of a red alarm box, a fire bell, a light switch, and a posted class notice (15), suddenly strikes one as high "pop art." The building, like many contemporary art forms, demands that one accept what is as it is. It avoids value judgments and aesthetic preferences based on tradition and on habit. "Pop" is an art of acceptance that jolts us into a fresh vision of the excitement and resonant significance of the most trivial banalities in our lives. Wurster Hall, like much of Le Corbusier's late work, prefers this inclusiveness to the ever-narrowing exclusiveness of predigested forms.

But if the building stubbornly refuses to cloak the demands of the program in false dignity or give them a spurious orderliness, so does it deny with its unflagging and humorless rationality many of the unconscious needs in man. Here it seems the definition of function in human terms has not been broad enough. Where is there room for humor, surprise, delight, and other forms of imaginative play? The architects sought an anonymous background upon which the students could project their own forms of

self-expression. But anonymity, as we know, is catching.

What could have been more logical in the framework of the building than a color code on the ducts and pipes? Why could not the drafting rooms (16) and other major spaces have had a closer visual relationship than was achieved by piling them one upon the other in the tower? Their present arrangement strongly isolates and disassociates the different class levels. In an attempt to remedy this problem and to assist the students in learning from each other. this year the college has scattered sections of classes throughout the drafting rooms. It is an arrangement that succeeds in melting down the barriers between class levels, but does not give the students a working relationship with members of their own class. Here functionalism degenerates into utilitarianism and economic determinism instead of expanding to embrace the broadest spectrum of human needs.

But there are also present here elements of a beginning and the presage of an architecture deeper than mere aesthetic predilection.

The conflicts and ambiguities in the design become in some strange way its most telling points. The total functionalism that was essayed in Wurster Hall failed, as it must fail, in the hampered and primitive processes that architects now use to design buildings and have them constructed. Techniques must be developed that will bring to bear on design vast areas of new knowledge both consciously and unconsciously held. Dead are the days when the architect can deal with environment in a mental vacuum.

Sociology, environmental psychology, human physiology, technological research, information retrieval systems and computer analysis, and all the other worlds of knowledge technical skill are making the architectural practices of today seem like children playing with toys. And even when the designer has mastered this, he must make intuitive and creative decisions, but they will be decisions growing out of a profound understanding of his power and responsibility.

NOR ANY DROP TO DRINK



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JANUARY 1965

"Honest water, which ne'er left man i' the mire."

SHAKESPEARE, "Timon of Athens"

This is an age of concern. We are concerned about environment, urban blight and betterment, air pollution and water shortage. Most of the concern over water comes during the summer, when inevitably there is not enough. But dirty cars, dying grass, and empty fountains do not last long, and soon people forget; water shortage is a problem usually solvable by wise use and the equinoxes. The water is there, but another problem is beginning to loom even more ominously: It is not fit to drink. Thousands of industries and millions of people have polluted it. This is a story about that pollution.

Facts and Figures

We live in a country that obtains three-quarters of its drinking water from its own natural resources-its streams, rivers, and lakes. We also live in a country that is gradually destroying its potable water with increasing industrial waste, expanding population, and insufficient treatment centers. Of the yearly 30 in. of rain and snow that supply the rest of the country's liquid assets, only 4 in. can be tapped (22 in. are lost through evaporation; another 4 flow into the sea). Today, we need only 2 of those 4 in. But in 15 years, we will need to use every drop of the tappable 4 in. left to us. Clearly, this water cannot and will not supply our human and industrial needs. And so water is used and re-used. Today, 40 per cent of the country is already using water that has been used at least once before; some areas, such as towns on the Ohio River between Pittsburgh, Pennsylvania, and Cairo, Illinois, are using water that has been used five times and more.

The crucial year is only 15 years away: 1980. Then, the total daily use of water in this country will double from its present 355 billion gallons to over 600 billion gallons. Our consumption naturally also increases with the rise in population,

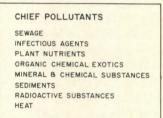
teenth the amount of water that today's citizen uses. But in 1900, they did not have the garbage disposals, the washers and dishwashers, the lawn sprinklers and squirt guns that we have now.

Each day, U.S. industry uses 160 billion gallons of water. It takes 1.57 to 7.5 gallons of water to make one pound of soap, 375 gallons for a pound of flour, 1400 gallons for a dollar's worth of steel, and 100,000 gallons for one automobile. But industry is responsible for contamination as well as for consumption of water; and in the next five years, waste from the textile, chemical, lumber, and other companies that line our streams, rivers, and lakes will empty into this water the equivalent of the raw sewage from 210 million people. Human waste is easily taken care of in sewage treatment plants (see chart). Industrial waste, however, has a more noxious effect on water and a more insidious effect on our lives.

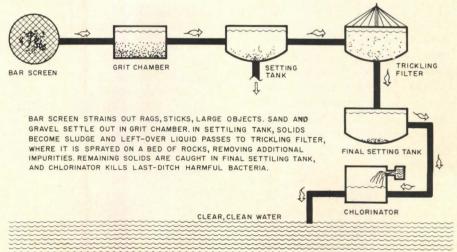
Last year, according to Public Health reports, 18.4 million fish died from pollution, caused chiefly by industrial wastes. This is a statistic that does not lie: it increases by a million or so each year. And in these dead or dying fish, we can see, if we wish, the handwriting on the water. In Los Angeles Bay, in water near the oil refineries, are fish with zine sulfonate, a petroleum deriva-

rainbow trout with cancer of the liver abound in areas with untreated water. In Ohio, mice painted with the gunk from the Ohio River near Cincinnati readily contract skin cancer. It is possible, of course, that the pollutants in the water do not cause cancer but merely increase susceptibility to it. No one knows yet. But we do know that polluted water transmits hepatitis, encephalitis, enteric and tuberculosis bacteria, polio, diphtheria, and typhoid. Whether in New Jersey (which had an outbreak of encephalitis in 1962), or in Zermatt, Switzerland (with its typhoid epidemic in 1963), the carrier is all around us. World Health Organization records show that one out of every four bed patients in hospitals throughout the world are there due to waterborne diseases.

Another chief pollutant is the mysterious-sounding but mundane ABS (in the organic chemical exotic category, see chart)-a hard deter-



gent otherwise known as aklyl bencancers of the mouth. In Holland, tive mostly found on housewives'



Nearly 20 per cent of the country's municipalities with sewers do not treat their wastes in any way. About 30 per cent of the municipalities use a primary expansion of industry, general eco-nomic and social progress. In 1900, cent of organic pollutants from the water. Some 50 per cent of the municipalities the average man consumed one-six- use the complete process, removing 90 per cent of organic pollutants.



Foam builds up even in sewage plants

hands. This substance cannot be broken down, and, when emptied as sewage into streams and lakes, foams up on the water's surface. Despite the spectacular obviousness of this pollutant, it took until June of last year to ban hard "foam" detergents from the market. The problem may be somewhat alleviated by prohibiting the sale of hard detergents, but we shall have to suffer for a long time from the years of ABS build-up in underground waters throughout the country. In Wisconsin, studies show that 64 out of the 71 counties in the state have ABS underground polluted waters. In New Mexico, it has seeped into irrigation ditches; in Arizona, into sand and gravel pits (making "lousy concrete" as one builder put it); in Illinois, it clogged up a dam, and in Louisiana, piled 20 ft high.

The whole pollution story can be seen in a theoretical city of 100,000 (a city the size of Duluth, Minnesota; Santa Ana, California; or Waterbury, Connecticut), using 70 million gallons of water a day. When the water passes through this city of 100,000, it is increased by 17 tons of organic suspended solids, 8 tons of inorganic dissolved solids, 17 tons of organic dissolved solids (including a ton of detergent), and 60 cubic feet of grit.

To clean up this backlog of pollution and to keep pace with the increasing population demands, state and Federal agencies must spend an annual \$830 million and in addition build \$50 billion worth of new sewers and treatment plants. This is the ideal. The money and the plants would make life a little more pleasant in 1980. But unless there is a

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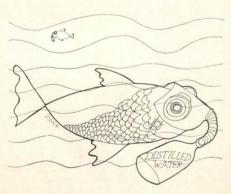
rapid change of pace, unless something is done *now* to guarantee clean water for all, this will not be the case. Tomorrow is too late.

Failures

One has only to look at past failures to read the seriousness of the situation that, through apathy and ignorance, we have allowed to exist. The Mississippi now bears more sludge than mud; the Milwaukee River, more bubbly slime than fish; the northern branch of the Potomac, more sulfuric acid (corroding boats, bridges, even dams) than bathers.

Lake Erie is the fourth largest of the Great Lakes (which constitute one-fifth of the earth's fresh water supply), and Lake Erie is the most polluted. Wisconsin's Senator Gaylord Nelson sees that lake transformed "from a body of water into a chemical tank." Into this chemical tank, Detroit daily pours 20 million pounds of contaminant materials; so do Toledo, Cleveland, Erie, and Buffalo, making up a total waste flow of 1.6 billion gallons. The end result: beaches without bathers, fishers without fish, water without life. In the middle of this shallow lake (oneeighth the depth of Lake Superior), there is a 2600-square-mile patch where the water, for up to 10 ft from the bottom, is lacking in sufficient oxygen. The nitrogen, phosophorus, and filth in the lake feed immense blooms of green and blue-green algae that burn up the oxygen at the lake's bottom and smother its life.

One fourth of the lake's useful water, life has been so smothered. Where whitefish and pike were once abundant, inferior species (needing less oxygen) such as carp have moved in. Where in 1936 20 million



pounds of blue pike were fished from the lake, today less than 1000 pounds are taken each year. It will require only 20 more years under present conditions for every bit of life in the lake to die.

But the pollution story is never a contained one; it flows with the water. From Lake Erie, the waters pour into the Niagara River, picking up a final spate of pollution from around Buffalo, a municipal sewer so polluted that it will not even support creatures that can live without oxygen. Slime pulled up from the bottom is lifeless. And the coliform intestinal bacteria count is 1500 times the safe level for human contact.

The Hudson River story is much the same. Every day Utica drops 15 million gallons of raw sewage into the river; the Albany region another 60 million; and the City of New York, 587 million gallons. For a 10mile stretch of river, going south from Albany, Governor Rockefeller found "no fish, but sludge worms, leeches, rattail maggots, the larvae of flies." Senator Robert Kennedy's remark, after his late summer tour of the river, sums it all up: "If you fell in there, you wouldn't drown, you'd decay." A young boy under the Tappan Zee Bridge, with bathing trunks on, says "We water-ski on it, but I wouldn't swim in it." It seems you cannot get the taste out of your mouth for weeks.

And this, believe it or not, is the same "good land to fall with, and a pleasant land to see" that the log of the Half Moon recorded in 1609 when Henry Hudson sailed up it.

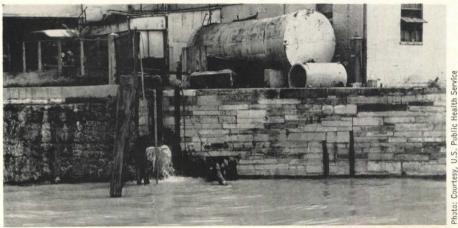
The Future

This has been the year of a newly strengthened Federal water act, the beginning of a 6-year, \$2 billion water clean-up and improvement program in New York State, and the formation of an unprecedented multistate commission (New York, Pennsylvania, Ohio, Indiana, and Michigan) to clean up Lake Erie.

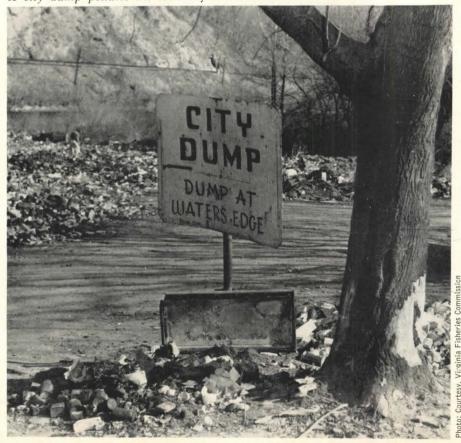
Until 1948, there was no specific Federal legislation dealing with water pollution. Then, in 1956, Representative John A. Blatnik of Minnesota, member of the House Public



Swimmers at Lake Erie are taking unnecessary risks.



Industrial wastes have long polluted our rivers and streams. A city dump pollutes the water of downstream towns.

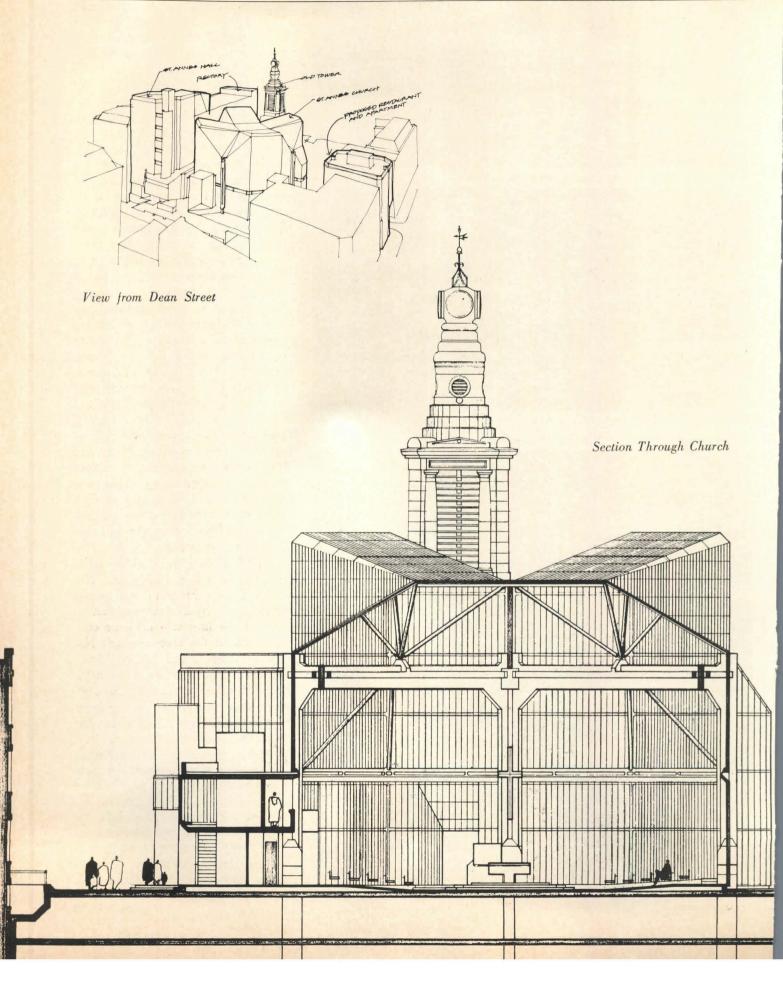


Works Committee, originated the first permanent legislation allowing the Public Health Service to enforce clean-water regulations. In 1961, an amendment was adopted that took control of the program out of PHS's hands and placed it directly under the Health, Education, and Welfare Department (reason: from 1956 to 1961, the Public Health Service had initiated action on only 7 out of the 125 reported polluters). Finally, in the 1965 Water Quality Act, the Federal Water Pollution Control Administration was set up to control and enforce the provisions. Yet the new bill, while a step forward, is not vigorous enough. It is a bill that should speak firmly to industry, and does not. The necessary tax incentives are missing. It has set up \$1.32 billion for a two-year program of research, building, and Government enforcement of water standards on interestate waters. While giving the go-ahead on enforcing clean-water regulations, the bill has at the same time limited and bound the Government to costly delays in courts and committees. Under the present bill, it is entirely possible for an offending state or industry to stall Federal action for a period of six years and stay completely within the confines of the bill (bringing us within perilous reach of 1980). Still, it is a start. Hopefully, the states will cooperate and profit from the available funds and research.

New York State is now leading the country in water legislation. The Clean Waters Program was passed unanimously by the state legislature. And, in the largest bond issue ever voted on in the state, enough November voters pulled the "yes" lever for Proposition 1 to set loose a \$1 billion bond issue to back it up. Federal, state, and local governments, along with industry, will share the expenses for the \$1.7 billion project.

And so the tide is turning. People are meeting and beginning to act intelligently and with foresight to preserve life and to better it. We do not ask to step back into the idyllic world the first settlers must have found. We have tamed the wilderness; let us not kill it, and ourselves along with it. —JCE

SHIMMERING BEACON IN SOHO

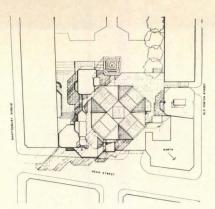


Soho, as all devoted readers of good British mysteries know, is a district in West London populated by artists, models, and other bohemian types, and the best French and Italian restaurants. The church of St. Anne's, Soho, stood here for more than a century until World War II's Blitz left only the tower (Cockrell, 1802) standing. Now, the young architectural firm of Ahrends, Burton & Koralek (winner of the Dublin University library competition, p. 67, SEPTEMBER 1961 P/A), has been assigned the delicate task of redeveloping the St. Anne's site.

The elements of the new plan are: a new, 250-seat church; "St. Anne's House," containing offices, communal rooms, and flats; the rectory; underground parking for 230 cars; and the existing old tower (to contain the "Chapel of the Blessed Sacrament"). In addition, the architects have proposed a restaurant-apartment building on a vacant plot at the west section of the area.

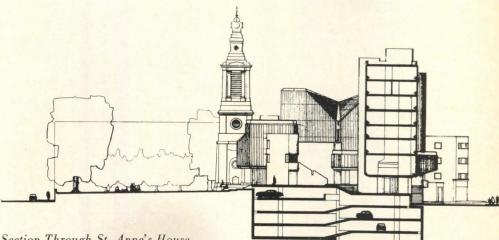
Treatment of the site by the architects is most sympathetic in the use of varying paved levels and access by steps or passageways from all sides of the church. The main entrance is under new St. Anne's House from Dean Street, with entry both into the narthex of St. Anne's and to the lower and upper terraces that lead to the public garden at the rear of the tower. A passageway from Shaftesbury Avenue, a major thoroughfare, will lead to the upper terrace, and another passageway has been proposed past the restaurantapartment building on Old Compton Street (see ground-floor plan). In addition to creating a delightfully urban, bounded pedestrian precinct, this plan recalls the charm of the narrow streets of the cosmopolitan quarter.

The church itself will be a large single volume, its structure supported on four reinforced concrete columns and four major concrete beams spanning diagonally across the corners between them. The cladding proposed is a "fabric of double glazing and metal mesh," which will admit subdued light and abolish direct sunlight and glare. This will read from within as a translucent

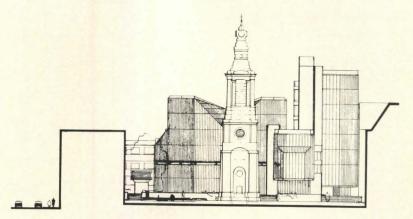


Site Plan

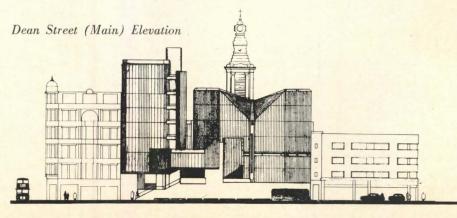
skin supported by the structural cage (see church section). From the exterior, the building will appear "dark in color and yet diaphanous" in daylight; at night, it will be illuminated from the inside, forming a glowing beacon for Soho. The more subdued glass and gray ceramic tile façades of the church house and the rectory will emphasize the importance of the church and the old tower in the setting. To underline its relations with other denominations, there will also be a nonde-

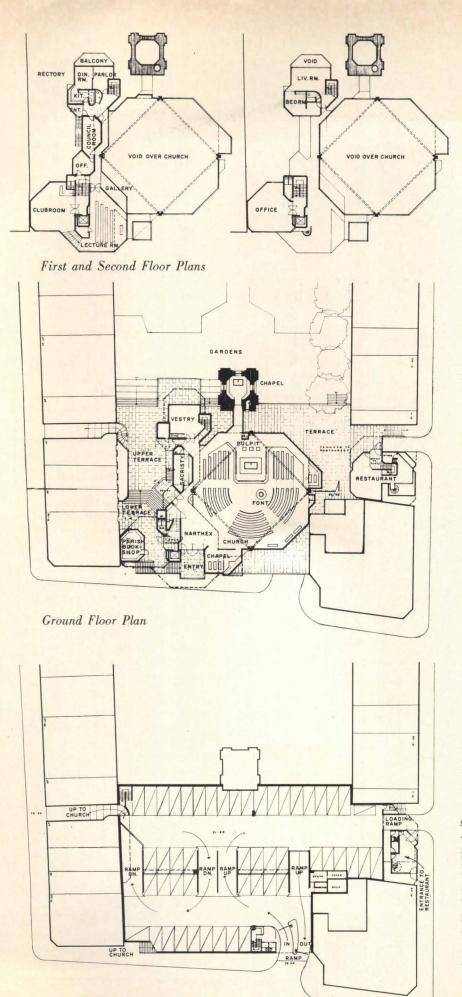


Section Through St. Anne's House



Elevation from Public Garden





Lower Ground Garage Plan

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nominational "Chapel of Abraham" directly off the narthex.

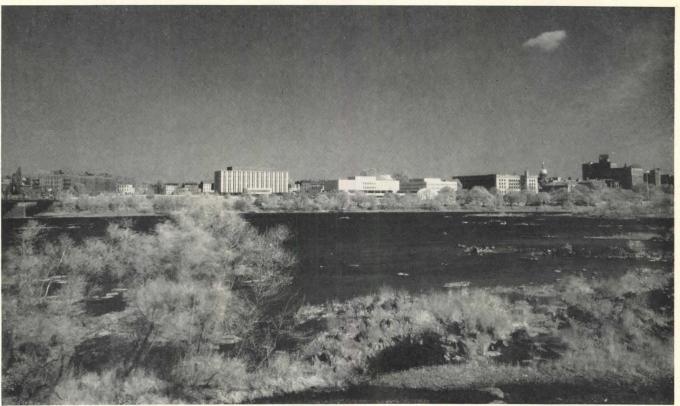
St. Anne's House will be an eightstory building at the east of the site, linked to the church by the low entrance element. There will be a small shop for the sale of items such as theological and art books for the benefit of the parish on the ground floor. Above will be the rector's office, a clubroom with kitchen, and a lecture room opening onto a gallery to the church; the next floor will contain the parish offices, and the one above that offices and social facilities for various organizations (such as the Actors' Church Union). The upper floors will contain residential quarters for renting to selected tenants from the fields of religion or social work.

The rectory will rise above the vestry on the ground floor, and will be directly connected to the church and St. Anne's House (see plans). A top floor not shown will contain three bedrooms and a bath.

The proposal for the Old Compton Street site is for a restaurant or coffee bar on ground-floor and lowerground-floor (street) levels, with three floors containing six two-bedroom rental flats above. The frontage of the underground garage would be left clear for ventilation purposes.

In this project, Ahrends, Burton & Koralek have managed to arrange on a compact urban site a number of interconnected religious, administrative, social, and residential spaces and at the same time leave a considerable amount of open area, all above a presumably very necessary parking facility. Their concern with the relations of existing and proposed buildings and external open spaces has paid off with a praiseworthy plan. The design of the buildings in the complex appears strong but not overweening, respecting St. Anne's tower and other older structures nearby. Time will tell if the most daring architectural statement -the alternately darkling and glowing glass, metal, and concrete main church structure-will be successful in these surroundings. Even if it fails in appropriateness, it will undoubtedly remain an exciting vision.

CALM ON THE BANKS OF THE DELAWARE



the presence of seas of cars on the

river side of the capital development

downgrades the entire complex of

Four buildings in a little park represent what is said to be the first all-at-once state cultural center in the United States. They stand behind three noble sycamores a few doors east of the New Jersey State Capitol on West State Street in Trenton (1). From the street, the scene is inviting: quiet buildings dappled with shade and streaked with marble stand modestly apart from one another. From the other side, motorized America takes over: the planetarium has its roots in a vast parking lot and traffic on a riverside expressway zips unheeding by the cloistered enclave (2).

Although the architect of the New Jersey Cultural Center, Frank Grad & Sons of Newark and New York, also prepared the State Capital Development Program of which it is a major part (see over-all site plan), partner Bernard J. Grad told P/A that they originally proposed peripheral parking garages to eliminate massive on-grade parking from the area. It is unfortunate that the State saw fit to disregard this good advice;

and governmental buildings. The capital development as a whole is best seen tool from across the Delaware River in). Pennsylvania, where the white builditings shine, the Capitol dome gleams, and the parking lots and freeway ble traffic are hidden by trees (*above*). The cultural center itself is a quadripartite group: museum, library, auditorium, and planetarium. (The state had proposed a single.

brary, auditorium, and planetarium. (The state had proposed a single, site-covering structure; the architect fortunately was able to sell the "campus" concept.) The first three are arranged at right angles to each other on grade; the planetarium rises from partially below grade on the river side-a fortunate touch, since its bladed, hemispheric form would have dominated the site had it been placed on the same level as the others (3). Individually, the buildings are not outstandingly distinguished; they are quite respectable, unpretentious, institutional architecture. As a complex, they come off much better, symbolizing what is obviously an oasis of something special in a rather run-of-the-mill capital city. It is fortunate that they face what is the best part—architecturally —of the city, a row of 19th-Century houses now mostly converted to commercial and institutional use that are not without quite a bit of charm. These create an effective foil to the formality of the cultural center, and their warm tones effectively contrast with the white and gray of the center.

Minor differences in structure, materials, heights, and fenestration between the four buildings—contrasting marbles for wall surfacing and vertical blades, base course and cornice lines; generally opaque walls in museum and windows in library; concrete for planetarium—make for just enough eye-relieving variety without recourse to nervous forms, abrupt changes in colors or textures, or other kinds of trickery. This has produced a certain calmness (some might even call it dullness), but it is restful and easy on the eye. The pure materials-white and gray striated Vermont marble, concrete, glass-go well in the park setting. Indeed, the setting takes an important role in creating the whole ambiance of the place, the green or red and yellow of the trees contrasting with the immaculate buildings, or more ethereal elements like rain, snow, or fog contriving to produce an entirely new atmosphere of mist and slightly blurred forms. The landscaping and trees do their part, of course, in softening the somewhat determinedly modular angularity of the three main buildings. Unfortunately, Grad's program for man-made landscapping was cut back by about \$150,000, and more economic measures had to be substituted. What exists now are interconnecting walks (in place of a plaza) bordered by graceless little lighting poles with Chinese hats atop. The fluted, white, 1930-ish planters in front of the auditorium and between it and the museum are quite ridiculous (4), and although the round pots between the library and museum are more in scale, they are so familiar as to be clichés. Perhaps this can all be redone in the future, adding a bit of water as the architect originally proposed. This observer would caution against taking away very much of the lawn, however.

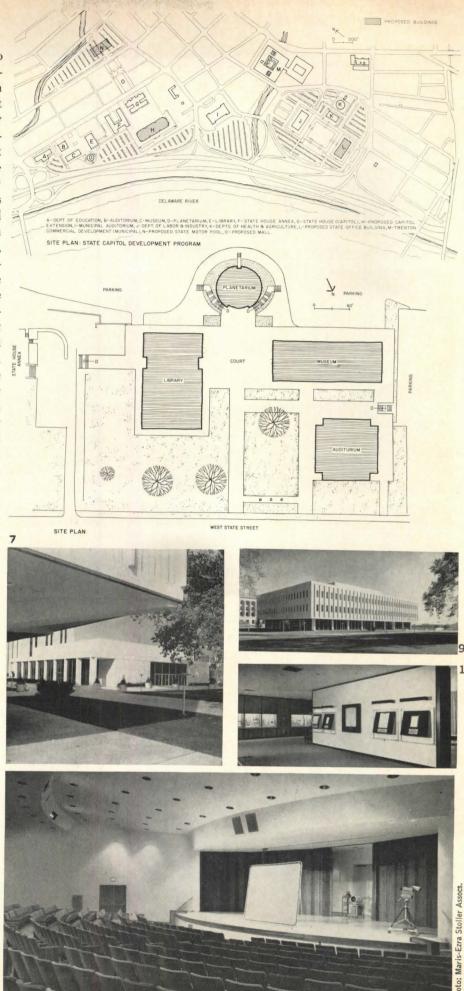
The museum is probably the most important all-public building of the group. On its plaza-level floor, inset behind glass walls, are two galleries for temporary exhibitions on either side of a central core. On the second floor are two great (80'x80'x20') halls for permanent exhibitions of the "History of Man" and the "Physical History of New Jersey." Offices are in a mezzanine area of the central core. The design for the

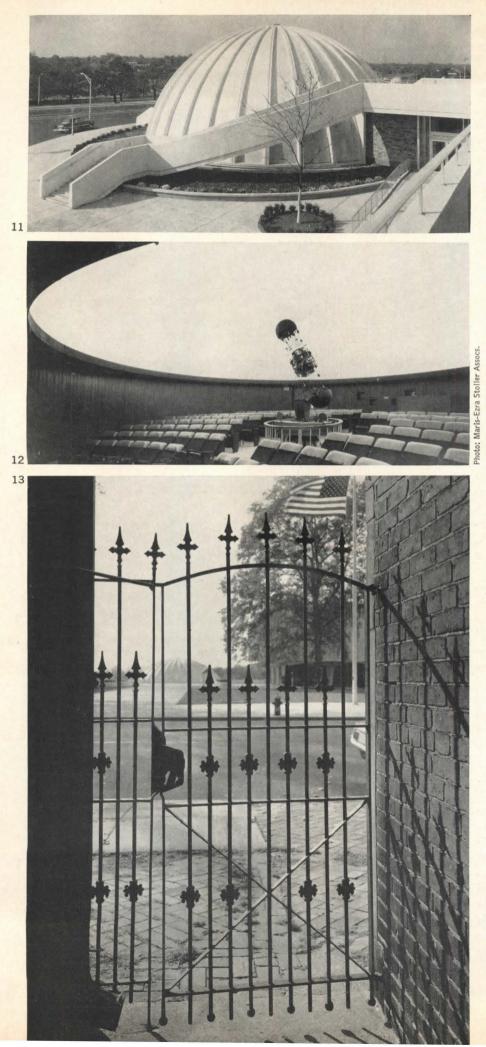


movable exhibitions is intended to encourage flexibility: channels running longitudinally are recessed in the ceiling at 6-ft intervals and light tracks occur midway between every two rows. Thus, floor-to-ceiling uprights can be attached at any point in the channels and appropriate lighting can be arranged at any point along the tracks. Three bands of channels occur horizontally around the inner walls of the two main spaces and around the columns also. increasing the flexibility. Unfortunately, the panels chosen by the museum staff (not the architect) are of a heavyish wood-grained appearance and belie the lightness inherent in the exhibition system. The most interesting use of structure is seen in the museum, in the cast-in-place concrete trees supporting its upper levels. These are expressed inside and out on the periphery of the lower floor, and give a liveliness to exhibit spaces (5). The museum is small enough to be seen fully without becoming exhausted, which is important because children's groups are the most important "clients" (there is a special children's area below on 7 the lower planetarium level). Stairways are expressed at the rear (6), leaving the two large halls clear for exhibits.

The auditorium is even more forthright than the museum. It is simply a hall bounded by galleries and a lobby within an "arcaded" marble and glass envelope. The Department of Education, which runs the center, had originally suggested an auditorium simply for briefing meetings and its own convocations in the museum. Grad persuaded them that a more valuable public facility could be created by making the auditorium a separate entity (7, 8).

The library is equally straightforward, being a marble and concrete rectangular container for books and readers. Its vertical marble strips and regular rows of windows —repeating the pattern of stacks and aisles within—echo the classical rhythms of the columns of the State House Annex next door (9). This building is the least "public" in the complex, the main public areas being at ground level, where there is an



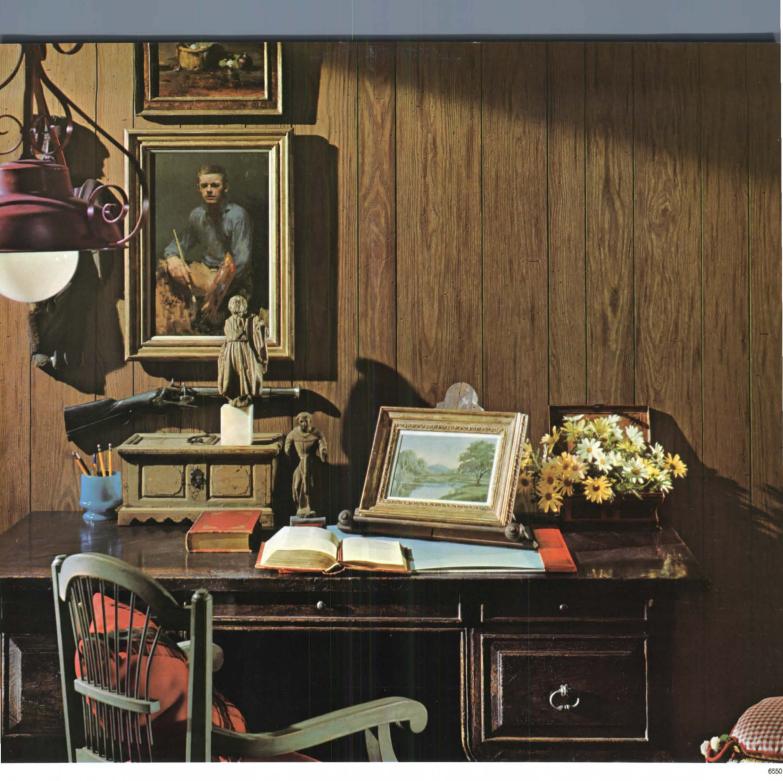


"Archives Room" (10) displaying historic documents across the hall from the main reading room. Above are the stack research levels and staff areas. Below grade are spaces for geneaological research and will tracing as well as storage and a tunnel to the museum.

The most exotic of the buildings, the planetarium, is really quite as simple a statement of what it is as the other three. It is a dome sheltering a dome, and not a gratuitous shape such as the parabolic St. Louis Planetarium. The stairways embracing it take the curse off what banality the form has, as does the system of precast concrete sections covered with a synthetic rubber waterproof coating (11). The major equipment is unique for this size installation: an Intermediate Space Transit Instrument that not only shows the usual Earth-to-Moon kind of view, but also the Earth from the other planets as well as effects of orbiting in space craft. The system is able to project movies and slides simultaneously (12).

The New Jersey Cultural Center represents no tour de force, no significant architectural departure. It is an honest and unassuming, bland and unforceful, performance by a firm rightly known and trusted for reliable and workable schools and commercial and public buildings. This observer would not mind living across the street from it; it would be a neutral, undemanding neighbor (13). In a period when excitement is sometimes confused (correctly or incorrectly as the case may be) with worth in all fields of design, this might not be such a bad thing to say about a place.-JTB

New Jersey State Cultural Center: Architect, Frank Grad & Sons. Consultants: Weiskopf & Pickworth, Structural Engineer; Fred L. Moesel Associates, Mechanical and Electrical Engineers.



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Electricity Heats a Cold-Climate Campus

BY WILLIAM J. MCGUINNESS

Initial cost and maintenance expenses for an electrical heating system appear to be lower than for fossil fuel systems, reports McGuinness, who is Chairman, Department of Structural Design, School of Architecture, Pratt Institute, Brooklyn, N.Y.

Although the new Hill Campus of the Clarkson College of Technology at Potsdam, N.Y., is only 20 miles below the Canadian border, its designers have shown that electrical heating will be both adequate for the climate and economical for the college. The 14 proposed buildings are located in an area with an annual degree-day experience in excess of 7000, and a heating design tempera ture of -20F.

The opportunity to install new heating methods on such a large scale can be attributed to the rapid expansion of the campus when Clarkson acquired 600 acres of land adjacent to the college. Some dormitories and athletic facilities had already been established at this site before the 14-building Hill Campus was proposed, but there was no central power station that could be expanded for the new complex. Thus the building committee could evaluate the merits of fossil fuels and electric heating without considering the existing plant.

A feasibility report made by Syska & Hennessy, New York City mechanical engineers, conclusively showed that an electrical system is cheaper than a fossil-fuel heating system both in initial cost and the continuing expense of owning and operating the plant. Three other groups collaborated in making this report: The Perkins & Will Partnership, architects, White Plains, N.Y.; Niagara Mohawk Power Co.; and Clarkson College engineers.

However, because the report was favorable for a particular project at a spe-

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cific site, does not mean that electrical power is necessarily the best heating system for other locations. A comprehensive study of every proposed project is essential, since, starting with the premise that electrical energy costs more than three times as much as other fuels for an equal output of BTU's, it is obvious that other factors, often quite variable, will influence the selection of a system. Also contributing to the choice will be the number of buildings involved, the type of occupancy, and comparative maintenance and operating costs.

For a private educational institution such as Clarkson, with funds that must be judiciously assigned to space for education, administration, and living, the projected saving of \$1,000,000 (by eliminating a central campus power station) must have seemed extremely attractive. Yet this was only the beginning of a cornucopia of savings. Estimates of the annual costs of owning and operating an electric heating system indicated a yearly saving of \$50,000. This figure was arrived at as follows:

Labor costs to operate central plant	\$70,000
Debt service on central plant Extra maintenance cost for cen-	60,000
tral system	6.000
	\$136.000
Extra cost of electric energy	86.000

Annual savings \$50,000

Good insulation is important in a cold climate. Several inches of polyurethane are planned for insulating roofs and masonry walls at Clarkson. The perimeters of slabs-on-grade will be insulated with the same material. And, of course, windows will be double-glazed. In the past, designers often increased the insulation for electrically heated buildings, but omitted to add the cost of extra insulation to the heating cost studies. This unfair advantage for electricity did not occur in the Clarkson study. Sital Daryanani, chief mechanical engineer for Syska & Hennessy, points out that, in arriving at cost summaries, the cost of insulation was properly charged against the electric heating.

Electric heating will not disfigure the campus with overhead lines, and lowvoltage conductors will be underground. Transformers at buildings or at groups of buildings will reduce the voltage. Plans call for residential buildings to be heated with baseboard heating elements. But in public areas, cables for radiant heating will be embedded in ceilings and floor slabs.

Convenience and economy are anticipated by installing a thermostat in each room. This will permit local control of spaces that can be maintained at economically lower temperatures during vacations or other periods when rooms are not in use.

Power for the electric heating system will be supplied by the utility company through a 115-kv line feeding a main substation at the edge of the new campus. The station will include two 7500kva, 115/13.2-kv transformers and associated switchgear. Space for a third transformer for future expansion is planned.

Underground, concrete-encased ducts will distribute the 13.2-kv feeders throughout the Hill Campus. Four threephase feeders will be installed, together with additional ducts for future use. In each building will be a vault containing a 13.2-kv to 477:208-v, three-phase transformer, protective equipment, and switchgear.

To supplement direct heating, highintensity lighting will be installed in many areas. Electric heat will also warm air blown through the ventilating system, and heat domestic water in each building.

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Zinc's Great Sacrifice

BY HAROLD J. ROSEN

How to pick the right type of zinc-rich coating to protect steelwork against corrosion is discussed by the Chief Specifications Writer of Skidmore, Owings & Merrill, New York.

For structural steel members too large to be immersed in a galvanizing tank, zincrich paints offer an excellent substitute for providing a corrosion- and chemicalresistant coating. Steelwork can be coated after erection, which means that the field connections receive the same protection as do beams, columns, or trusses,

These zinc-rich paints contain a zinc dust content exceeding 80 per cent by weight of the total nonvolatile content. The heavy pigmentation of metallic zinc in zinc-rich paints forms an electrically conductive coating that provides a longterm protection resulting from the sacrificial action of zinc in contact with a steel substrate.

This phenomenon is a chemical action in which a material such as zinc sacrifices itself, or goes into solution, when a film of the material coating a metal base is scratched or broken. Naturally, the zinc's sacrifice prevents the steel beneath it from oxidizing and eventually corroding. The galvanic protection at scratches and breaks is produced by zinc corrosion products forming and blocking further deterioration. For good measure, the zinc coating is less likely to be punctured than other coatings because it tends to "polish" when abraded instead of being rubbed off the steel surface.

Zinc-rich paints are effective where steel is subjected to high humidity and fresh water immersion. Under normal conditions, they last a long time and are useful where maintenance is difficult. With a suitable top coat, zinc-rich paints may be used where the steel is immersed in brackish and salt water, or where exposed to acid or alkali chemical fumes. One type of zinc-rich coating protects steel against solvents, oils, petroleum products, aliphatics, aromatics, ketones, and alcohols.

Manufacturers formulate two types of coating: inorganic zinc-rich paints, and organic zinc-rich paints. Each has its own protection characteristics, and each requires different surface preparation of the steel substrate.

Several vehicles can be used for inorganic zinc-rich paints: silicates, silicate esters, phosphates, silicones and modifications of these groups. These inorganic types can be further classified as selfcured and post-cured. The self-curing types are two-package materials, consisting of the zinc powder and a vehicle, which are mixed just prior to application. The post-cured types are three-package materials consisting of the zinc powder, the vehicle which is mixed with the powder before application, and a curing agent that is applied on top of the coating.

Most inorganic zinc-rich coatings require a white metal blast for the preparation of the steel surface, but some coatings may tolerate a less stringent preparation, such as a commercial blast. Careful surface preparation is needed to ensure a good bond between coating and steel, because the inorganic coatings have very little flexibility, and tend to break or crack on bending or impact. However, the advantages of this coating outweigh the difficulties of preparation, because the inorganic coatings are those that are unaffected by the solvents and oils described above. All inorganic coatings must be applied under conditions of low humidity.

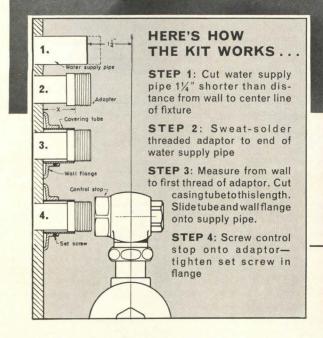
The second type of coating—the organic zinc-rich paints—are carried in vehicles such as chlorinated rubber, epoxies, polyesters, vinyls, and urethanes. Organic coatings do not require a white metal blast, but for heavy service should be applied over a commercial blast. For mild service, the organic zinc-rich coatings can be applied over a good, handcleaned surface even if it carries traces of rust. Organic coatings eliminate the problem of maintaining the proper humidity during surface preparation, application, and curing periods. Since this type of coating exhibits better flexibility than inorganic coatings, it does not require the exacting surface preparation for bonding to a substrate. Organic coatings are more compatible with top coats, but are somewhat less abrasion-resistant than the inorganic coatings.

Zinc-rich coatings vary in application characteristics, but can be applied by brush or spray. A single coat can vary from 2 mils to 7 mils thick, depending upon the specific formulation.

To provide better resistance against continuous exposure to salt water and to acid or alkali chemical fumes, zinc-rich coatings should be top coated with vinyl, epoxy, or urethane coatings. A top coating may also be applied to provide color or to prevent gradual erosion of the zinc coating.

From the many formulations on the market, the most suitable zinc-rich coating for a job should be determined by comparing the properties of all coatings with the requirements for use. The degree of corrosion resistance required will influence the decision; the requirements for abrasion resistance and flexibility will limit the choice. Finally, the problems arising from application and surface treatment will narrow the selection down to a few candidates.

Next month's column will discuss specifications for the four standard methods of preparing steel before coating it with zinc-rich paint. Designed for Sweat-Solder Installations...



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Claims of the Subcontractor: Part 2

BY BERNARD TOMSON AND NORMAN COPLAN

In the second of three articles, P/A's legal team discusses a recent New York court decision in which an owner was held liable for payment of a subcontractor in an amount in excess of the cost price set forth in the general construction contract.

In last month's column, we discussed some of the protections afforded subcontractors and materialmen to insure payment of their compensation for labor and materials furnished in the improvement of real property. It was pointed out that the statutory lien rights of subcontractors and materialmen will be of little avail where the owner has fully paid the general contractor. However, depending on the law of the state involved, it is possible that funds in the possession of the owner which were obtained for the purpose of improving his property may be treated as trust funds for the benefit of unpaid subcontractors or materialmen, even if the general contractor has been paid or is otherwise not entitled to any further payment.

For example, under the Lien Law of New York, a pyramid of trust relationships has been created for the benefit of those furnishing services or materials for the improvement of real property. The owner is charged with trust obligations in respect to funds received by him under: (a) a building loan contract; (b) a building loan mortgage; (c) a mortgage recorded subsequent to the commencement of the improvement and before the expiration of four months after completion of the improvement; (d) as proceeds of insurance payable because of the destruction of the improvement, and for certain other funds. The general contractor is designated trustee of the funds received by him under the general construction contract, and for certain proceeds of insurance. The subcontractor is charged with a trustee's obligation in respect to funds received

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under the subcontract and also in respect to certain insurance proceeds. The chief beneficiaries of the owner's trust are the prime contractors. The beneficiaries of the prime contractors' trust are their subcontractors, laborers, and materialmen, and the beneficiaries of the subcontractor are the laborers, materialmen, or other subcontractors who have furnished services or materials to the subcontractor.

The purpose of this statutory scheme, as stated by the highest court of New York, "is to protect those whose skill, labor, and materials made possible the performance of a construction contract and who, in fact, creating the improvement, actually gave rise to the owner's obligation to pay." The Law Revision Commission, which recommended the New York statute, stated that "the trust concept was intended precisely to forbid that an owner, contractor, or subcontractor act merely as entrepreneur and was intended to require that he act, instead, as fiduciary manager of the fixed amount provided for the operation. . . . 'In the case of an owner, these are the funds provided by financing based on the contemplated improvement.""

In a recent New York case, Onondaga Com. Dry Wall Corp. v. Sylvan Glen Co., 261 N.Y.S. 2d 336, an interesting and important question was raised concerning the interpretation of the trust provisions of the New York Lien Law. This action was instituted by a subcontractor against the owner of certain real property, seeking to declare the proceeds of a building mortgage as a trust fund to be used to pay the subcontractor, and others similarly situated, the balance of money owed to them by a defaulting general contractor. Under the facts as presented to the Court, the money borrowed under the owner's building mortgage for the construction of apartment buildings was greater than the contract price for the project as provided in the general construction contract. The owner's contract with the general contractor was approximately \$300,300, and the sum actually

borrowed by the owner was \$385,000.

At the time of the general contractor's default, he had been paid in full all monies which were due and owing to him, and the owner had no further obligation to the general contractor. Nevertheless, the subcontractor, as a representative of all subcontractors and materialmen who had not been fully paid by the general contractor, sought to obtain payment from those funds of the owner that had been obtained under the mortgage loan in excess of the face amount of the general construction contract. The Court ruled that, even though the general contractor had been fully paid, the funds of the mortgage loan were subject to being treated as trust funds for the benefit of unpaid subcontractors and materialmen. The Court stated .

"The building industry is plagued with instances where a general contractor does not complete a construction project. Many a small subcontractor, laborer and materialman has worked long and hard but finds himself not fully paid on default of general contractor. . . .

"We must construe a statute liberally in order to accomplish and give effect to the declared legislative intent. There appears to be little doubt that the funds upon which a trust is placed in the hands of the owner are the proceeds of the financing. This is a sum which is intended for improvements. The owner may spend more or he may spend less; the more his personal obligation, the less his profit when 'upon termination of the trust by payment or discharge of all the trust claims, the beneficial interest in any remaining asset shall vest in the owner."

It will undoubtedly come as a surprise to many owners of real property that they can be held liable for the payment of subcontractors and materialmen with whom they have no contractual relationship in an amount in excess of the cost price set forth in the general construction contract. The decision is to be appealed, and a further report will be made by this column upon the determination of such appeal. In next month's column, we will discuss the affect of a subcontractor's release to the owner.

JANUARY 1966 P/A



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The Urban Crisis: Some Recent Books

The Ordering Principle of Cities

BY NATHAN SILVER

THE HEART OF OUR CITIES—THE URBAN CRISIS: DIAGNOSIS AND CURE. By Victor Gruen. Simon and Schuster, 630 Fifth Ave., New York, N.Y., 1964. 368 pp., illus., \$8.50. The reviewer is a New York architect who is currently a visiting Design Critic at the School of Architecture, Cambridge University, England.

The first two-thirds of Victor Gruen's book is so important and so clearly presented that anyone who is not absolutely sure he knows what forces are undermining the city had better read it at once. It is written for a wide audience, and, the way things are going, even people who are not directly concerned with the design of the urban environment ought to be prepared to contribute at least their new understanding to the common weal.

The trouble is (as Gruen amply proves) that the city has many false friends. The traffickist, the bulldozerite, the segregator, the projectite, and the economizer are all busily dehumanizing the city in the very name of urban progress. Typically, up to a certain point, their procedures are legitimate. Then suddenly, because they live and die for a single principle only, they are "facilitating" the passage of cars through a town until they kill it, flattening landmarks and living neighborhoods, zoning for separation and sprawl instead of the elimination of disturbance, and, in general, trying to fit the man to the plan.

Maybe the best way to become knowledgeable and civilized ("urbane") about these matters is to start by reading Ebenezer Howard and Patrick Geddes, go on through Mumford and the Goodmans right up to Jane Jacobs; then read the British Buchanan report; and, last of all, visit Bamberg, Venice, Roehampton, and Cumbernauld. Would

Continued on page 192

186 Book Reviews



JANUARY 1966 P/A



The Denver Tech Center chooses Arkla and Gas for "the ultimate" in multi-zone air conditioning.

Control Data Corporation and Honeywell, Inc., already have built facilities at the new Denver Technological Center. Part of the planned creative environment: Arkla Chillers for cooling.

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No. 11

STRUCTURAL DESIGN NEWS

FROM BETHLEHEM STEEL

Adaptability is a key factor guiding the design of school buildings, according to a recent survey of school administrators conducted by TECHNICAL BULLETIN. For making changes in internal arrangement and for making

future additions, no other framing material is so adaptable as steel. The long spans possible with steel framing permit the wide-open areas needed for interior flexibility. And only with steel is it easy to tie in a new frame with an old--either vertically or laterally. Design flexibility? Steel is adaptable to any shape and to any site.

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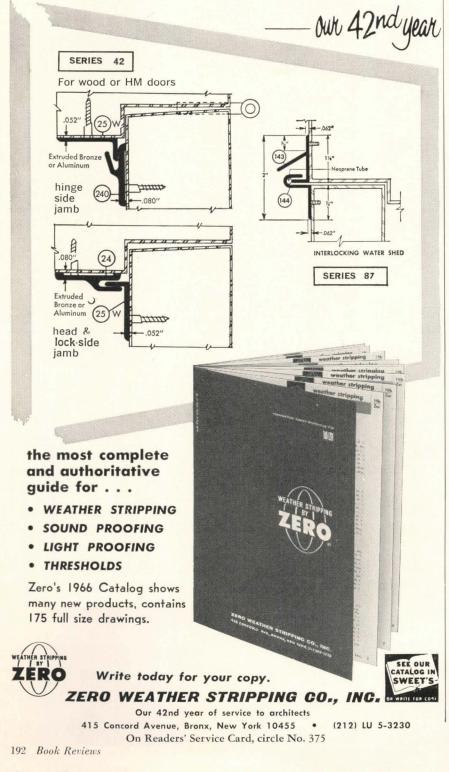


Continued from page 186

this result in the kind of understanding needed to solve urban problems in the U. S. in 1966? Not necessarily. Because everybody who is working as a planner today is supposed to have read and done these things too. And yet, because of the queer dissociation of municipal politicians from theory and research about how cities work, and the myopia or timidity of planners' responses to urban problems with halfway measures and theories at least a generation too late, the job is not getting done.

I mean to praise Gruen most highly

when I say that while his *perception* of the city's problems derives from all of the classic thinkers and examples, his *appraisal* (he calls it his "diagnosis") is conditioned by both current theory and practical design procedures. One example is Gruen's response in 1961 to the proposal by New York's Traffic Commissioner (a man who assumed that his job concerned the facilitation of only vehicular traffic) to build \$52,500,000 worth of garages in midtown Manhattan. By merely doing the arithmetic of manhours and pavement-feet suggested by this program, Gruen successfully demon-



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strated that the garages would be as useful to the city as a Trojan Horse. He went on to describe an alternative that would stop most traffic at the city edges. He has more recently opposed Robert Moses' Lower Manhattan Expressway proposal on similar grounds.

Now, there is a difference between the theory about why our cities have been going wrong (which Gruen understands so well) and the theory of the system of city organization in general. A favorite game of Urban Geographers is devising systems that are analogous to the way cities work. If there is a pattern in a successful city (Siena, or Kyoto, or any that have grown spontaneously), then perhaps the pattern can be discovered and applied to the new cities we design and plan. The kind of pattern the Geographers seek does not exist anywhere on the ground. It is, in fact, an ordering principle, the missing key to the secret of urban vitality. On a fold-out page in the final section of his book, Gruen shows his pattern for "The Metropolis of Tomorrow." It is a nuclear organization of subcenters surrounding a metropolitan core. He describes the excitement he felt when he first thought of it, believing he had stumbled on the underlying principle of living form - an excitement that redoubled when he later learned that Howard in Garden Cities of To-Morrow proposed a similar model.

But Gruen's "Metropolis of Tomorrow" is like pre-relativity physics after Einstein. In a recent article called A City Is Not a Tree, the brilliant mathematician and planning theorist Christopher Alexander discussed what the ordering principle of cities might be. He found that cities designed by planners are startlingly alike in one respect: They are all based on a system of branching relationships and subrelationships, like a river with tributaries. He called this dendritic pattern a tree. On the other hand, the pattern of successful cities that have grown spontaneously is very different. The branches of neighborhoods and districts are not isolated from other branches. At many points, they are plugged into each other. A certain amount of short-circuiting occurs, as people seek amusements or markets or whatever in adjacent districts, rather than in their own. These seemingly accidental "desire lines," Alexander feels, enrich the urban fabric. Overlap is what he calls the exciting accident of contact or situation that allows people to meet people or encounter new things. If our Continued on page 198

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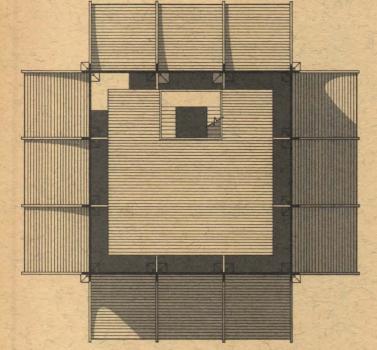
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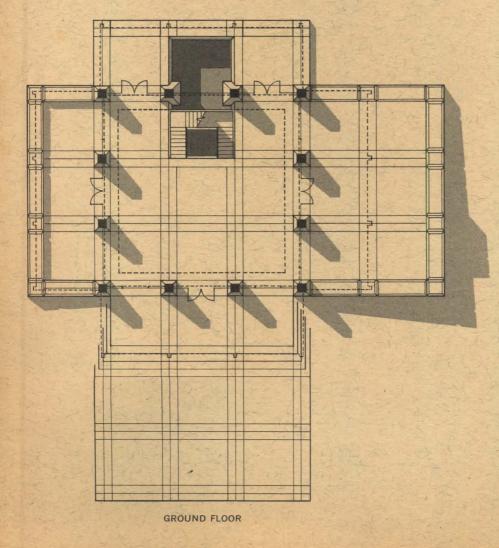
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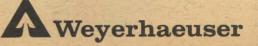
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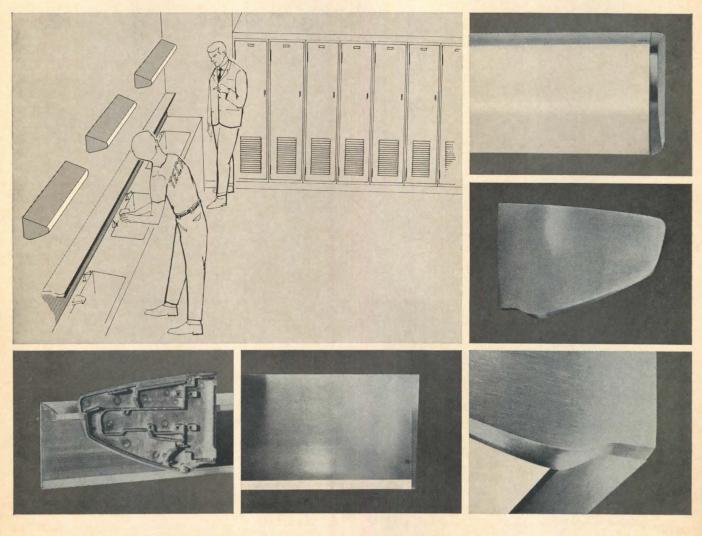
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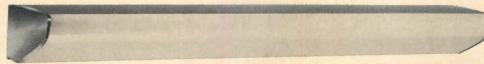
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Continued from page 192

planned cities' compartmentalization and dissociation result from the lack of overlap, then perhaps overlap (which never occurs in the branching *tree*) can be made part of our own plans. To do this, Alexander suggested a new structural paradigm for planned cities, called a *semi-lattice*, which looks like a tree with many of its branches cross-grafted at surprising points.

This is not the place to go into all the riches of Alexander's thinking. But if his analysis is what I believe it isa seminal statement of planning theory —then his concept of the *semi-lattice* may be the Rosetta Stone that lets us read the mysteries of urban vitality at last.

In the face of Einstein, it is not really fair to criticize someone for earlier adherence to Euclid. Gruen's "Metropolis of Tomorrow," with its nuclear formation, is a perfect *tree*, not a *semi-lattice*; for which we must forgive him, and Ebenezer Howard before him. But he next became absorbed in describing the city as yet another kind of tree—the hu-



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WOGEL-PETERSON CO. "The Coat Rack People" ELMHURST, ILL. See us at the AASA Show Booth 12-8 - 1214, February 12-17 in Atlantic City man circulatory system. The urban core is the "heart," tired and sick. He means to "cure" it. He puts forward his own urban design projects, which we are meant to see as fulfilling his conclusions, his "diagnoses." Like a surgeon skillful in one kind of operation, Gruen may favor his surgical specialty as the cure. This becomes clearest of all when he at last opens his little black bag. There is no difference in his presentation between proposed plans for existing towns (with their committed street patterns, land divisions, densities, neighborhoods, and building technology), and proposals for new towns. "Death of the City or its transfiguration," he says, "these are, in my opinion, the two alternatives before us." Its transfiguration? In what way? Answering with his resourceful foldout plan, Gruen writes, "It is a concept [his dendritic Metropolis of Tomorrow] applicable not only to new communities, cities, and metropolitan areas, but also, if we are given the proper legislative tools, to existing metropolitan areas." (My italics.) And is he to be the plastic surgeon who would graft in the artificial skin?

It seems to me that America's urban epidermis is a semi-grid, with its intersections and overlaps already too far apart to risk the replacements of planners rapping for that kind of Order. Existing cities and new towns present two totally different problems. Perhaps the answer for new towns is a really new model, patterned with a view toward Alexander's discovery. And the answer for existing ones is a perceptive extension of their own fabric, or, if we are incapable of this, the frozen preservationism of laissez-faire plus landmarks legislation. If we are not bright enough to see the system in the ant heap, we will never be able to plan one that works half as well.

A Critique and a Blueprint

BY CHESTER W. HARTMAN

THE CITY IS THE FRONTIER. By Charles Abrams. Harper & Row, 49 East 33 St., New York, N.Y., 1965. 394 pp., \$6.50. The reviewer was formerly Director of the Legislative Commission on Low-Income Housing for the Commonwealth of Massachusetts. He is presently a Research Fellow in Sociology at the Harvard Medical School and is affiliated with the MIT-Harvard Joint Center for Urban Studies.

A little over a year ago, Martin Anderson's *The Federal Bulldozer* appeared —the first full-scale evaluation of the

198 Book Reviews

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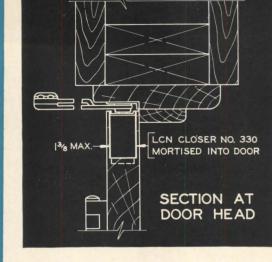
urban renewal program. Crammed with data, some real, some surreal, the book represented a wholesale condemnation of the program, capsulized by the final paragraph: "It is recommended that the federal urban renewal program be repealed now. . . Conceived in 1949 [it] had admirable goals. Unfortunately, it has not and cannot achieve them. Only free enterprise can." Now comes a comprehensive critique from the "left," in essence nearly as critical of the program's accomplishments to date, yet arriving at a wholly different set of conclusions. Its author, Charles Abrams, deserves to be taken far more seriously, however, for few people in the field can boast his experience and knowledge (academic as well as practical), combined with a clear understanding and a deep love of cities.

Abrams is most concerned about the program's failure to meet the nation's housing problem. He notes the establishment in the 1949 Housing Act of the goal of a decent home in a decent environment for every American family, yet "fifteen years later, the nation was almost as far from having obtained it as ever." On the issue of relocation, Abrams concludes that "dislocation and relocation practices have been the program's most shameful aspect." He seems to side with those who have expressed considerable skepticism about the accuracy of official relocation reports, noting that "renewal administrators have had to resort to misstatements of fact rare in the annals of official reporting." Many individual projects have been failures, financially as well as architecturally, and, of the successful ones, many would have been undertaken without the aids provided by the renewal program. Unlike Martin Anderson, however, Abrams is able to acknowledge the successes of the program, and he is also sympathetic to the problem of developing a program for renewing cities ("all in all, considering the program's novelty and obstacles, it is a miracle that so much was accomplished").

Slum clearance and the general welfare were paramount considerations in the minds of those who conceived and developed the renewal program in the postwar period. Abrams quotes Senator Paul Douglas during the 1954 Congressional hearings in a remark to HHFA Administrator Albert Cole, which seems quaintly pathetic in light of today's renewal program: "Certainly, when we got the original bill through Congress, it was the intent that a considerable proportion of those displaced were to be rehoused in the areas which were cleared, and the debate itself was very clear on that point." Although defenders of the current renewal program maintain that critics are attacking the program for things it was never intended to do, even a casual glance into the publicity and hearings surrounding the 1949 Housing Act indicates that present developments are indeed, as Abrams has chosen to phrase it, a perversion of the original intent of the act.

This perversion was, however, virtually inevitable, given the defects of the original renewal formula, the notion that "general welfare in housing was to be served by entrepreneurial welfare." As Abrams goes on to point out, "Since the welfare of the building industry had won equal place with the people's welfare in the 1949 act, it seemed inevitable that sooner or later the interests of the lower-income families would be forgotten. When the entrepreneurial and the general welfare are bracketed in the same legislation, it should not be suprising that the social purpose will be subordinated."

Continued on page 206



Application Details

for LCN concealed-in-door closer installation shown on opposite page

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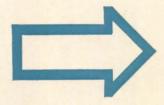
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Continued from page 200

With the public and private goals of renewal decision-making at cross purposes, mistakes in site selection, re-use plans, and relocation were inevitable. Areas that private entrepreneurs wished to and could successfully redevelop were not necessarily those most in need of assistance in the form of land writedowns and acquisition powers. New developments that would bring most profit and prestige to the private builder were not necessarily those that could claim first priority in the community's heirarchy of problems to be solved. Relocation of former site residents necessarily took second place to the dominant issue of land re-use. Abrams is absolutely correct in stressing this structural defect as the fatal flaw in the renewal program and in posing as the overriding decision for the future: "Whether we are aiming to feather the nest of entrepreneurs or to build homes for the forgotten families, 9,000,000 of whom have yearly incomes below \$3000." If urban renewal is to be successful, the Government must be prepared without hesitation to step in to accomplish tasks the private sector is unable or unwilling to carry out. лi.

My only real disagreement with

Abrams' analysis is his overly protective

stance toward the professional housers and renewers, whom he tends to regard

as helpless victims of a program that

never could have done what it was in-

tended to do. For the last 15 years, and even at present, these persons who are

closest to the program and know most

intimately its weaknesses have been

somewhat less than candid about its

limitations and mistakes. Had the active

members of the housing and planning

profession been more open over the

years, much of the irreversible damage

of the past might have been avoided and

we might be well along the way to the

kind of radical reshaping Abrams is call-

cremental ones. He wisely rejects the

thesis of Anderson and others that, be-

cause the program was faultily conceived

and has made mistakes, it should be

scrapped. "What the program needs,"

remarks Abrams, "is amplification, not

abolition, a complementary housing pro-

gram to make it workable. and an en-

largement of its basic concept to do what

its name implies." Abrams catalogues

many accomplishments that he attributes

to the renewal program-it has served

Abrams advocates big changes, not in-

ing for.

a na provi ta fa

as a spur to institutional expansion, civic and cultural : improvements and downtown rebuilding, increased tax revenues in some cities, etc.--although at times he tends to treat uncritically the claims of chambers of commerce and official agencies and does not deal with the issue of whether some of these accomplishments might have been realized in the absence of urban renewal. Yet there can be little doubt that the program both reflects and has created a healthy popular concern for the preservation and revitalization of big cities, and it would be senseless to advocate abandoning the program rather than revolutionizing it.

It is Abrams' contention that, as long as urban renewal deals with only one aspect of the city's predicament (housing and slums), while ignoring or paying only peripheral attention to poverty, social unrest, schools, racial frictions, and economic decline, little progress can be made. The failures of renewal are rooted in the basic sickness of cities. In order to cope with these problems adequately, a new level of financial commitment to the solution of urban problems is needed on the part of the federal government,

Continued on page 214



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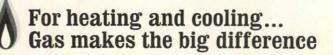
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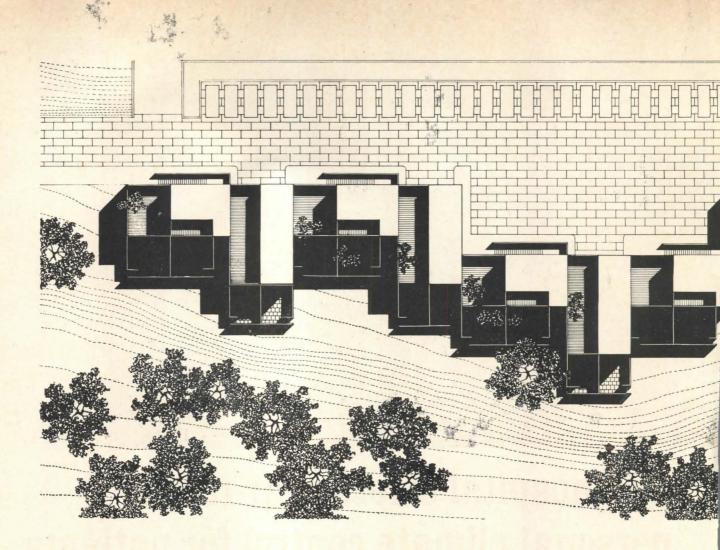
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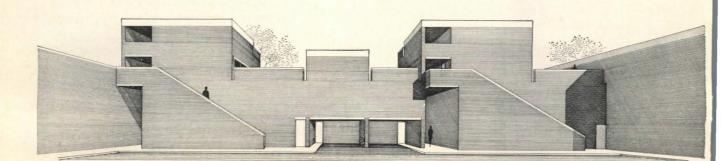
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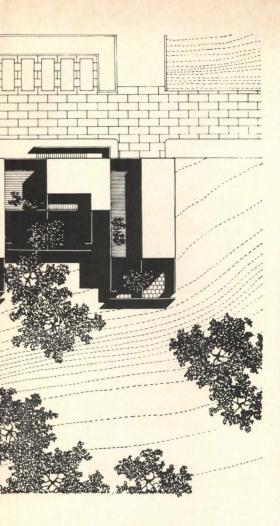


Marvin Hatami designs an apartment house

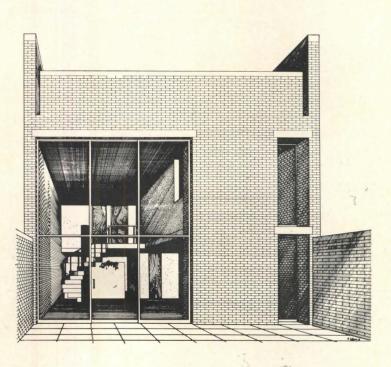
Utilizing Zonolite[®] Masonry Fill Insulation he cut operating costs \$600 annually and handed his client a 206% return on his investment



JANUARY 1966 P/A



Zonolite prototype building #11: a walk-up apartment complex.



Architect Marvin Hatami and consulting engineers Cator, Ruma & Associates, both of Denver, Colorado, were commissioned by Zonolite to design this spacious, 35 apartment complex.

One of the problems to be faced was engineering the structure to withstand Denver's severe winters, yet remain consistent with budget requirements.

To do this, Mr. Hatami specified Zonolite Masonry Fill Insulation. The addition of Masonry Fill increased net costs by \$3400. However when

this is figured against a 20 year mortgage life, at 6% interest, the annual cost becomes only \$292.

Compared to the annual \$600 reduction of operating costs, Zonolite provided a \$308 a year saving for the client. That's a whopping 206% return on his investment.

The reason for this high return is the low cost, combined with the effectiveness of Zonolite Masonry Fill Insulation.

Masonry Fill also reduces initial building costs because smaller, more efficient heating units can be

DESIGN CONDITIONS

Walls

Roof

Floor

Glass

Totals

Ventilation

Without Masonry Fill

Roofing, 4" Concrete 2" Insulation

4" Concrete on Grade

4" Face Brick 2½" Air Space 4" Face Brick

1/4" Plate Glass

4000 CFM

% Savings with Masonry Fill

utilized. And because of the insulation's sound absorption qualities, each apartment is quieter.

Additional facts worth investigating are contained in our Bulletin MF-113. Write Zonolite, 135 South La Salle St., Chicago, Illinois 60603.



ZONOLITE DIVISION W.R. GRACE & CO. 135 SO. LA SALLE ST., CHICAGO, ILL.

1. Operating costs are reduced by over \$600 per year.

2. 34,000 sq. ft. of walls (includes 6,000 sq. ft. of Interior Walls) @ 10¢/ft.=\$3,400 installed.

3. Raised indoor wall surface temperature from 50° F to 62° F provides added comfort.

Increased wall attenuation characteristics reduces sound transmission between apartments by a considerable amount.

Based on 5673 degree days \$.053 per therm gas boiler.

Winter Heat Loss in BTU/HR. Assuming 70° F Indoor -10° F Outdoor

 $\frac{2,306,000 - 1,793,000}{2,306,000} \times 100 = 22\%$

With Masonry Fill

313,000

155,000

41,000

780.000

504.000

1,793,000

Without Masonry Fill

826,000

155.000

41,000

780.000

504,000

2,306,000

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· MILLA VIIIA	-194	2

At 10° below zero, with the building heated at 70°, the interior surface of an outside wall without Zonolite would

register an uncomfortable 50°. By installing Zonolite Masonry Fill Insulation, the architect was able to increase inside wall temperature to a

1	AN	UA	RY	1966	P/A	

comfortable 62°.

With Masonry Fill

4" Face Brick 2½" Zonolite Fill 4" Face Brick

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THE HALSEY W. TAYLOR COMPANY 1562 THOMAS ROAD, WARREN, OHIO On Readers' Service Card, circle No. 406



Continued from page 206

as well as a new pattern of direct relationship between the Federal Government and cities (or metropolitan regions). On the financial question, it is enough to note that, in 1962, municipalities were collecting only 7 per cent of combined Federal, state, and local revenues, whereas, in 1932, their share was 52 per cent. Abrams' call for a holistic approach to urban decline-a truly comprehensive program to deal with all aspects of physical, social, and financial decadence - would be well heeded by the Administration in establishing its new Department of Housing and Urban Development.

For two decades, Charles Abrams has been advocating a truly comprehensive housing program for our cities. With the 1960 Census reporting at least 47,000,000 Americans living in substandard housing (using criteria that many housing experts, including Abrams, maintain understate the magnitude of the problem), it is evident that we have not progressed very far from the "one-third of the nation ill-housed" indictment of President Roosevelt's first inaugural address over three decades ago. We will clearly need a commitment far greater than the 35,000 low-rent public housing units the nation has averaged since 1949, far greater than the 60,000 units the 1965 Housing Act calls for. In a recent position paper prepared for the White House Conference on Civil Rights, CORE has called for a 10-year program for 600,000 low-rent units annually; and even this will still leave us with a major housing problem in 1975.

Abrams is concerned also with the quality of low-rent housing. He urges that home ownership for low-income families be built into Federal programs; that the austere, cost-conscious approach to low-rent housing be replaced with a policy that stresses amenities, dignity, and status; that we shun public ownership and management wherever feasible; that we avoid segregation and isolation of low-income families; that we do not require families to move when no longer eligible for subsidies, but rather devise a subsidization formula that can be discontinued when no longer necessary. Extending his vision of The Good City beyond the question of low-rent housing, Abrams sets forth a "blueprint" for American cities, which has as its values and objectives such things as using and reclaiming the city's natural features; strengthening neighborhood values and the sense of belonging; enhancing walk-Continued on page 222

Just add people. Haughton Escalators do the rest. Beautifully.





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The new Los Angeles Federal Office Building is also served by 16 Haughton Passenger Elevators and 2 Haughton freight elevators.



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The Austin Company takes the high cost out of low-rise construction

... with Republic ELECTRUNITE Structural Steel Tubing

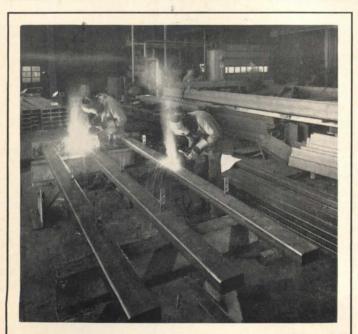
The use of Republic ELECTRUNITE[®] Structural Steel Tubing and prefabricating techniques of The Austin Company of Cleveland, Ohio, substantially cut costs of erecting service stations by The Standard Oil Company of Ohio (Sohio).

Pleasing appearance, high strength-to-weight ratios, low cost, ease of erection, and outstanding design efficiency made ELECTRUNITE Steel Tubing the natural choice for columns, beams, and spandrels.

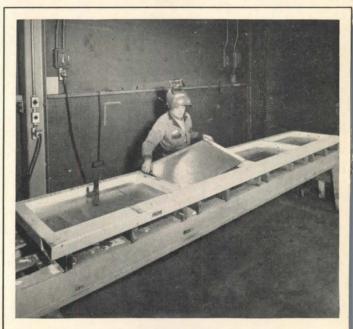
Republic Structural Tubing is delivered cut to specified length. Drilling, welding on brackets, and assembly are done by Austin. Erection is swift and economical because Austin prefabricates steel wall sections before delivery to the jobsite. Once up, the job's practically done because the tubing requires no finish treatment other than paint.

Since 1962, Republic ELECTRUNITE Structural Steel Tubing has met or exceeded the ASTM Specification A-500 of 1964. This higher strength can bring about substantial savings in overall costs. You *spend less money* to get needed bearing strength in posts, spandrels, and other structurals.

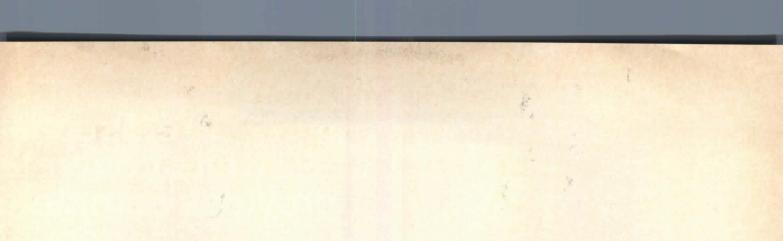
For a copy of Republic's informative, 52-page booklet —*ELECTRUNITE Steel Tubing for Structural Use* send the coupon. ELECTRUNITE Tubing is available in rounds to 6 inches OD, squares and rectangles in peripheries to 20 inches and wall thicknesses up to .250 inch.



1. Steel base plates are welded to 6" x 3" rectangular structural tubing. Predrilled brackets are also welded to face of tube, to which other structural tubing frame members will be bolted.



2. Sections are prefabricated at The Austin Company by welding galvanized steel sheets into open areas of structural tubing frame. Layout and fabrication before installation can be performed accurately, providing a savings in time and material when fitting up on the job.





3. Close tolerances maintained during manufacture give Republic ELECTRUNITE Structural Steel Tubing a greater ease of installation. Tubing can easily be joined by bolting, welding, internal sleeve, or other methods.



4. Square and rectangular tubing serves both as structural components and architectural members. For example, no additional window framing around glass is required. High strength-to-weight ratio makes Republic Structural Tubing an ideal structural material for low-rise construction.



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Award-winning concrete office building and laboratory center, New Jersey State Departments of Health and Agriculture, Trenton. Architect: Alfred Clauss, Trenton. Associate Architect: William C. Cranmer. Structural Engineers: Engineers Incorporated, Newark. Builder: McCloskey & Company, Philadelphia. Precast Concrete Panels: Marietta Concrete Company, Marietta, 0.



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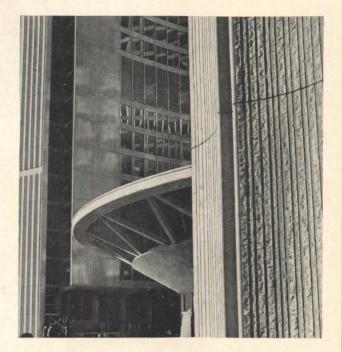
Contemporary designers are molding concrete into structures that are exciting, expressive and economical. Structures with sculptured shapes that frankly expose their concrete faces. Structures that soar to new levels of excellence.

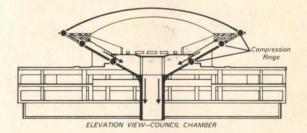
POZZOLITH, water-reducing set-controlling admixture for concrete, helps turn these creative designs into practical results. The new Toronto City Hall is an example. Conceived in concrete, it has been called "the most important new building in North America".

POZZOLITH was selected over all other admixtures because: 1. It produces more uniform concrete with lower coefficient of variation. 2. Provides higher strength. 3. Assures easier placing and finishing. 4. Promotes better finished appearance. 5. Assures greater durability.

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"A landmark design" executed in PozzoLITH concrete.

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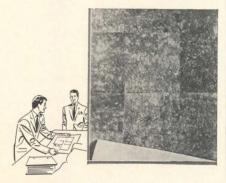
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On Readers' Service Card, circle No. 327 222 Book Reviews

Continued from page 214

ability in the city (for which he proposes that big city mayors appoint a Commissioner of Pedestrians); allowing for people to contribute to the design of their own environment ("the human being is himself an unproclaimed architect and if given the chance will demonstrate it"); and planning for "the social environment of love" (a somewhat whimsical, libidinous section that calls, among other things, for public trysting places, and which unfortunately some of the popular magazines such as *Newsweek* have pounced on as the principal contribution of Abrams' opus).

Charles Abrams is a sensitive and loving observer of and participant in the urban scene, an expert who feels strongly that the central city is "one of the vital options in American life"; his book is as much a philosophy of cities as it is a critique of the program aimed at saving them and a set of concrete proposals for a better program.

Planning and Politics

BY ROBERT LAMB HART

THE URBAN GENERAL PLAN. By T.J. Kent, Jr. Chandler Publishing Co., 124 Spear St., San Francisco, Calif., 1964. 213 pp., \$6.00. The reviewer is vice-president and partner in charge of planning at John Carl Warnecke & Associates, San Francisco architects.

During the past 60 years, architects, lawyers, and reform-minded citizens have struggled to gain effective control over the physical development of cities. Out of their efforts in the 1910's and 1920's our city planning profession evolved, based on the design work of Bettman and Bassett. In the past decade, however, new kinds of pioneering have pulled planners in new directions. Experiments with Federal housing aids, redevelopment, transportation planning, and the applications of operations research have fragmented the profession.

Through all of the recent changes, Professor T.J. Kent, Jr., has been the most articulate advocate of continuing and developing what has become the traditional city planning practice—the practice written into city charters and Federal law. *The Urban General Plan* is an attempt, and the most successful in print, to refocus that practice so that it reflects better the realities of modern city government.

Kent's principal thesis is that the planning of cities is a policy-making activity of a city's legislative body, the *Continued on page 226*

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On Readers' Service Card, circle No. 334 JANUARY 1966 P/A Thiokol makes the big moves to provide you a

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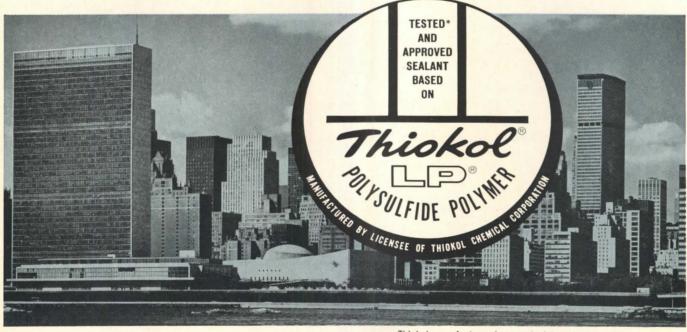
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CREATIVE COLOR A Dynamic Approach for Artist and Designer



128 pages, 8¹/₄ x 10¹/₄, 38 full-color, 28 two-color illustrations, 34 line engravings, 25 chapters, 23 descriptive experiments, 1961, \$13.50

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Creative Color is one of the most exciting and original works to appear in many a year. It is unique in that it both describes and illustrates a whole new series of effects which constitute one of the most original contributions to the art of color since the days of the French Impressionists.

Frees the artist to express himself in original ways

The book is dramatic in that it breaks with tradition, setting forth a new and fresh viewpoint which is based on recent studies into the mysteries of human perception. The author talks in terms of color *effects* rather than color *schemes*. By applying new laws and principles, he gets the eye (and the mind) to participate. As a result, and using the ordinary materials of the artist, he is

Leads the artist to a complete and practical understanding of color

The book reviews color traditions of the past and then advances to new principles and effects to carry the art of color into the future. Each chapter is followed by experiments for the reader so that he will

About the Author

FABER BIRREN has authored 18 books and several hundred articles for general, commercial, technical and art magazines. His reputation has become international; he has devoted a lifetime to his subject and brings to it a broad understanding able to convey a wealth of unusual color experiences that reveal lustre, iridescence, and luminosity as rarely seen before. His color *effects* take on a surprising beauty for the simple reason that the viewer adds to them the dynamic qualities of his own perception. The artist is free to express himself in original ways and to win independence over the limitations of his materials.

have a complete and practical basis for understanding the use of color. Thus the book offers a remarkably complete education in color.

of people, a rich background in practical as well as aesthetic applications, and many years of concentrated inquiry into new principles of color expression. Among his books is the famous "New Horizons in Color."

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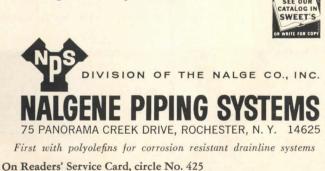
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Continued from page 222

city council. "City planning is as much political in nature as it is professional and technical," he says, and "in reality every city-planning decision of significance must sooner or later be made in the council chamber."

In other words, the plan that actually guides the growth of a city constitutes the policies implicit in the week-by-week votes of the council. City planning is the shaping of these policies. The argument must sound obvious to a political scientist, but a glance at city plans, planning commissions, and their accomplishments will show it is not widely accepted by professional planners.

As a former city planning director and a councilman himself for the past eight years, Kent makes a convincing case for recasting the General Plan as a legislative instrument, designed, like the unified annual budget, to be used in the normal operations of the city council. He describes clearly the legislative uses of a General Plan and spells out in detail the characteristics, contents, and organization of a usable document.

The plan he describes differs in two important ways from the typical "comprehensive, general, physical" plans now being turned out by city planning departments. First, he insists it remain general. It should concentrate on policy so that the city and its council can understand and debate the important issues without becoming confused with the controversial specifics of zoning, public construction programs, and capital budgets. These are, of course, the concrete actions of a legislative body that implement any general plan, and Kent does not intend to diminish their importance. However, the important point is that Kent would extend the "art of the possible" beyond the immediate political issues to longterm policy, to specifying "distant objectives so that the community can make sustained progress in one direction" in its day-to-day business. The General Plan should not try to show a "picture" of the community at some future date. It should not try to be a blueprint.

The second difference is an outgrowth of the first. Kent describes a new element of the General Plan, a "unified summary," simple enough to be prepared with, understood by, and adopted by the city council. Kent believes "that a plan for any urban community, regardless of size, is the expression of a relatively few really basic value judgments and design decisions." The unified summary articulates these and contains a statement of basic policies, which include the under-



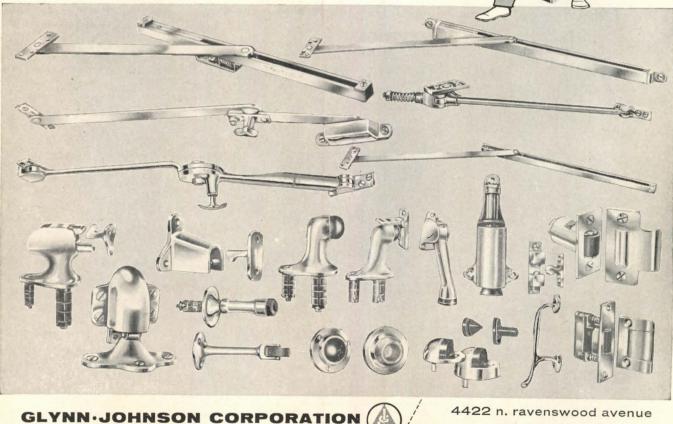
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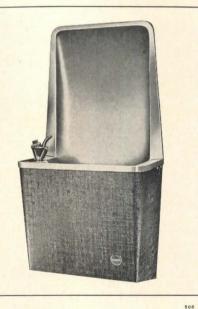


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lying objectives of the plan, the major physical design proposals, and a generalized drawing showing only the major proposals—the unifying concepts of the plan, the council's vision of the city. The "unified summary" is, in fact, a new kind of plan.

In arriving at his conclusions, Kent gives a succinct history of experience with the General Plan, and he shows and describes a number of city plans that illustrate his points. With reasoning from Jefferson and deToqueville, he makes a strong argument against the independent planning commission that has kept longrange planning outside the mainstream of government.

He also spends a good deal of time answering his critics. He has many, and for good reason. The traditional planning process he defends and builds upon has clearly failed to improve the social or physical environment of our cities. Based on naive economics, sociological ignorance, an concepts of urban form derived from architecture or biology, city plans have proven almost irrelevant to the process of city growth. Accordingly, most of the best minds in the profession are searching in the social sciences and in mathematics for a better scientific foundation for the profession.

Architects might take issue with Kent's treatment of "Civic Design." He adds it as a section of the General Plan parallel to similar traditional sections on "Circulation" and "Utilities." Many planners, like the engineers, see the need to "add the architecture" to their practical designs. However, until civic design, with its concern for an individual's experience of the physical environment, becomes an integral part of every technical, practical planning decision on land use or circulation, we will continue our drift toward inhumane and ugly cities.

The sum of this criticism of Kent and the General Plan tradition he represents still does not touch the core of his argument. The General Plan framework he outlines will accomodate new findings and concepts now (when we cannot wait for more science), as well as in the future. All of the findings and designs of planners, architects, mathematicians, and social scientists have been and will be academic unless planning is an integral part of city government, understood and adopted by elected political officials. In fact, as Kent points out, "The clear expression of the council's policies is more important to the General Plan than its technical merit." If your plan is their plan, it will have all of the power it can be given in a democracy.

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228 Book Reviews

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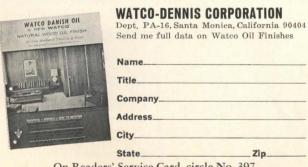
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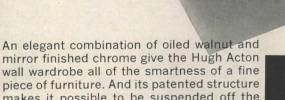


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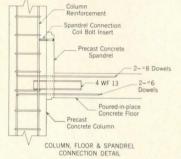


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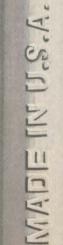
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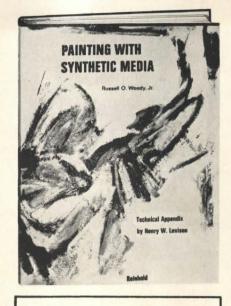
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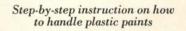


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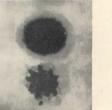
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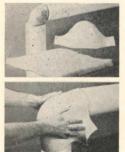
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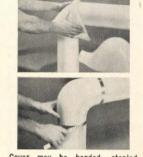
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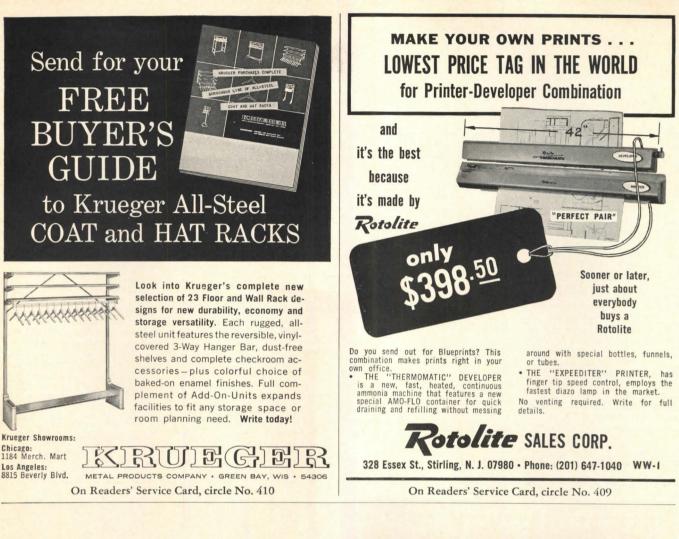


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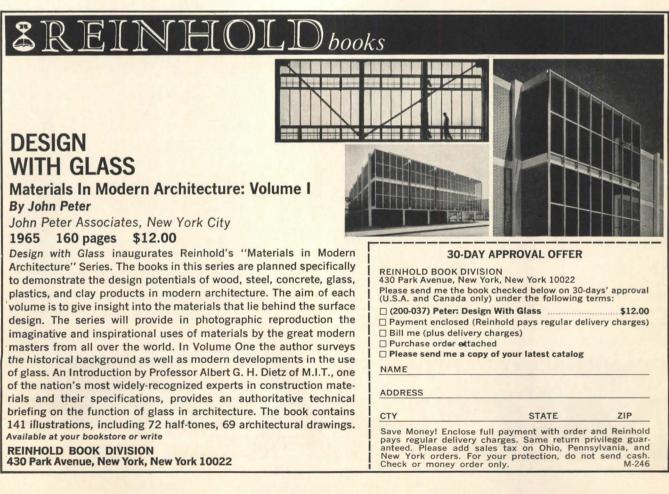
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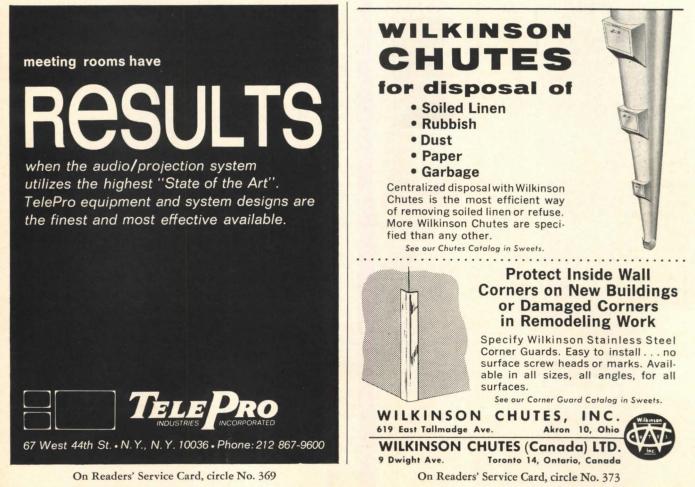
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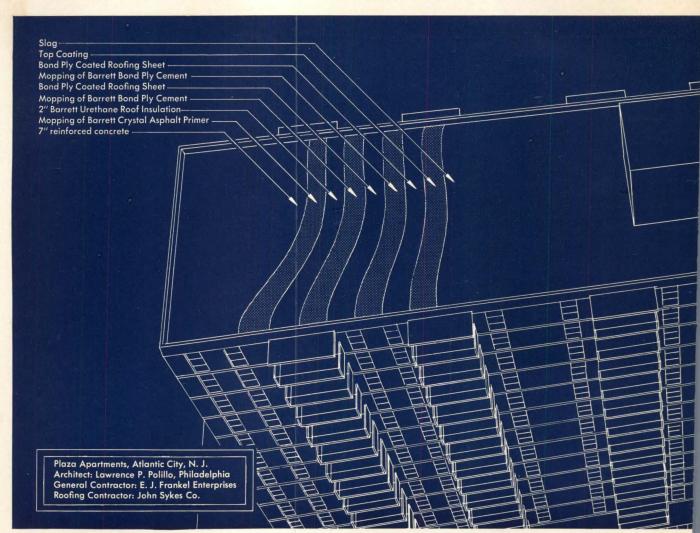
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