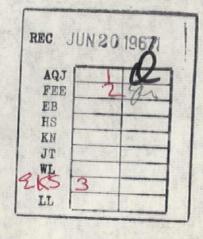


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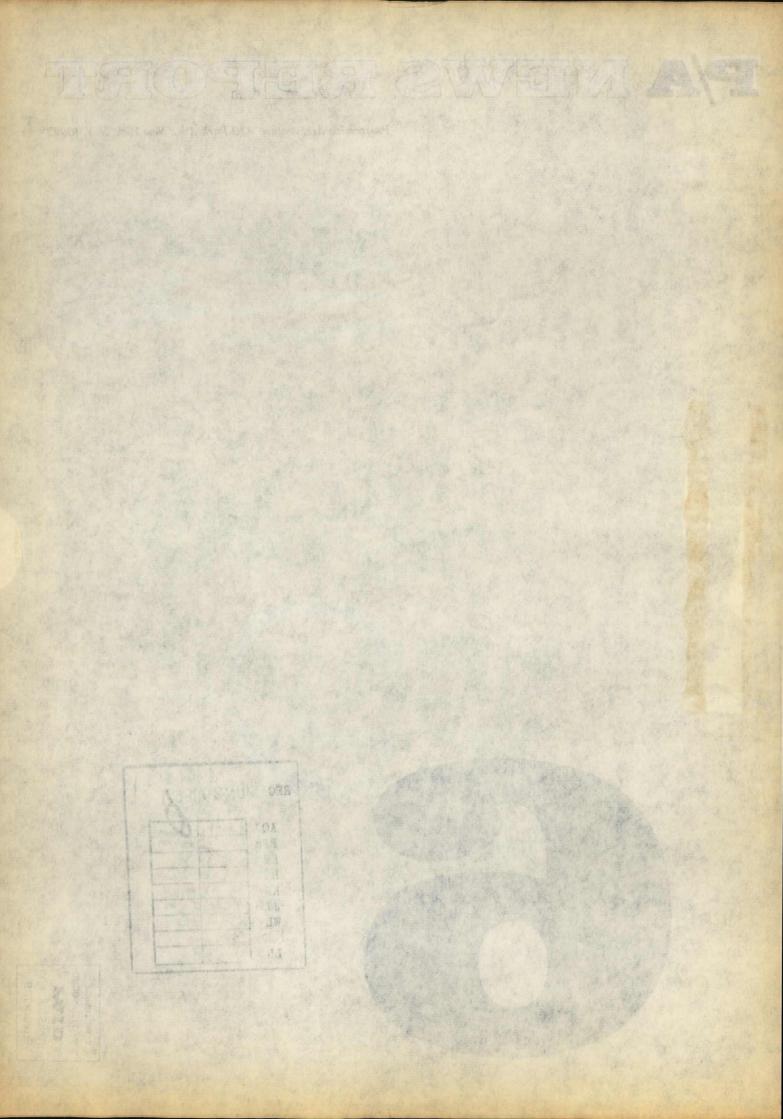
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P/A NEWS REFORT

Progressive Architecture's Monthly Digest of Buildings, Projects, People and Products

June 1967

NEW HEAD FOR MOMA

NEW YORK, N.Y. Starting July 1, 1968, Bates Lowry will become Director of the Museum of Modern Art. Lowry, 43, will move to his new post from Brown University, where he is currently chairman of the art department.

Rene d'Harnoncourt, present director of the museum, reached mandatory retirement age, 65, last year, but stayed on at the request of the museum's trustees until a successor could be found; he will now remain until July 1968.

Lowry, who went to Brown as a professor in 1963, has been editor of *The Art Bulletin* and the College Art Association Monograph Series since December 1965. He was the founder of the Committee to Rescue Italian Art.

Also retiring from the Museum of Modern Art is Alfred H. Barr, Jr., who, since 1947, has been Director of Museum Collections, and who was the museum's first director, from 1929 to 1943. No one will succeed Barr. Instead, the individual curators will assume his former responsibilities in their particular fields.

IF YOU CAN'T BEAT IT, JOIN IT

DETROIT, MICH. From the motor capital comes word that Ford and Mobil Oil are pooling resources to develop a fume-free internal combustion engine. The two corporations, which are leaving the door open for other participants, plan to sink \$7 million into the project over a three-year period. Accord-ing to a Ford spokesman, "It is expected the study will lead to development of a fuel engine system that will virtually eliminate automobile emissions, with minimum cost to the consumer and minimal effect on car performance."

The announcement came only months after Ford announced it was starting research on an electric car. (This research will continue.)

June 1967

It also comes at a time when many experts are expressing dissatisfaction with antipollutant devices attached to automobile exhausts.

Optimism over the project runs high. It is this kind of research that may make it possible for city dwellers to take occasional deep breaths once again. Now how about someone pooling resources with the Bureau of Public Roads to see what can be done about traffic congestion and freeway blight.

MORE HABITATS PLANNED

MONTREAL, CANADA. According to most architectural critics, Habitat is the outstanding architectural feature of Expo 67 (see p. 152). Shortly after the opening of the fair, P/A learned unofficially that negotiations were under way for at least four Habitat-like structures in three countries — two in New York State, one in England, and one in India. Moshe Safdie, architect of Habitat. will be involved in the projects. If these are built, the architectural promise of the fair will have begun to spread almost immediately.

KAHN PLANNING FOR NEW HAVEN

NEW HAVEN, CONN. Louis I. Kahn is the planning and architectural consultant for New Haven's largest urban renewal project, Hill Central, which covers 714 acres. According to Mayor Richard C. Lee of New Haven, Kahn will design a community school and housing for public, elderly, low-income, moderate-income, and middle-income residents. He will also prepare the Hill Central Plan.

A temporary loan from the Department of Housing and Urban Development will make possible preliminary work, which includes clearing the area of substandard housing and junkyards. AMSTERDAM, THE NETHER-LANDS. The first thing the Dutch tell a visitor to their glistening, spotless new Schipol airport, 6 miles out of Amsterdam, is that it lies 13' below sea level. So does about half of Holland, on land reclaimed by dikes and pumps from the North Sea, making the news hardly startling. But Schipol's connection with the sea is a close one. The name Schipol means a ship's hole and refers to an area of what was once the Lake of Haarlem, where strident winds



wrecked and sank dozens of ships. Holland's ships, of course, once were masters of the seas, and with the opening of the new airport at Schipol, capable of handling 4 million passengers a year, Holland is taking steps toward participating just as extensively in the age of air transport.

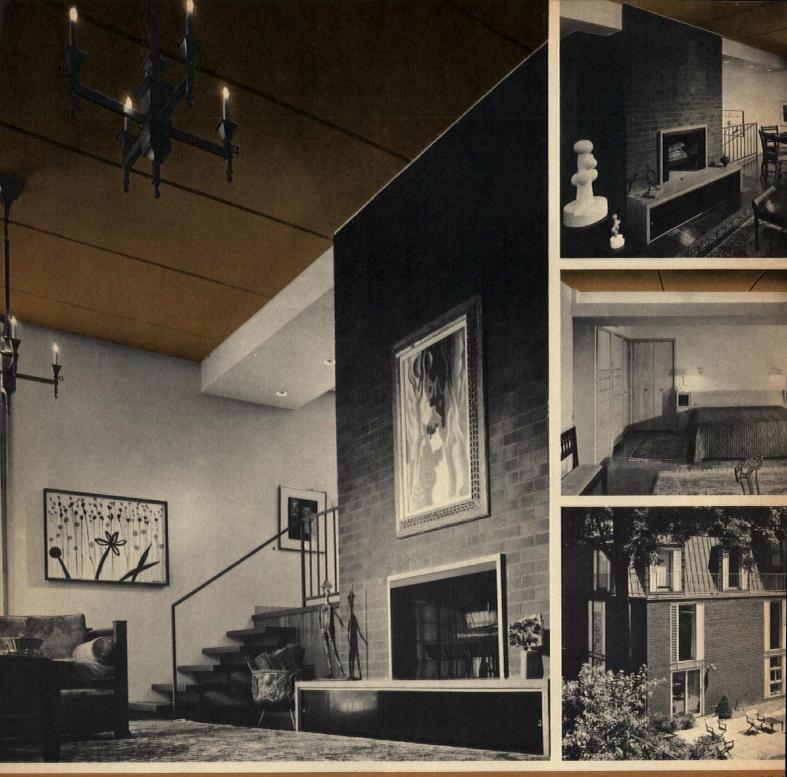
The second thing the Dutch will tell you about Schipol is that it is the most modern air facility in Europe. And it probably is. Opened officially last month by Queen Juliana, who, the day before, had become a grandmother for the Photo: Netherlands National Tourist Office

first time, the airport is certainly the newest.

Architecturally, it has no innovations. The passenger terminal, with its two sets of long, angular wings connected by a central concourse and with its movable loading ramps sticking out from the wings at regular intervals, looks from the air like a giant crustacean. In the U.S., of course, the trend in air terminals is away from this linear arrangement to a more compact oval or circular configuration. But Schipol, with a set of moving walkways to carry passengers briskly from the check-in gate to the loading area, loses nothing to inefficiency. Its loading ramps, which extend from the terminal to a fixed pivot, then extend from that to a movable support that can move the extension vertically and horizontally, allow two lanes of vehicular traffic to run beneath the ramp between the terminal and the first support. In that way, the entire ground-level perimeter of the terminal is accessible by vehicle. Moreover, the length of the ramps keeps the loading and unloading planes far enough from the terminal so that they can be serviced at their loading positions. At present, 22 aircraft can be serviced at the same time.

Included in the passenger terminal are a nine-story Airport Authority building and a 160'-high traffic control tower. There will also be what authorities claim is the largest tax-free shopping area of any air terminal on the Continent. And the National Aeronautical Museum, now in the old Schipol air terminal, will

AIR GATEWAY TO EUROPE



Town House at 5800 Blackstone Avenue, Chicago, Illinois. Architects: Keck and Keck

... and all through the house ... SPANCRETE!

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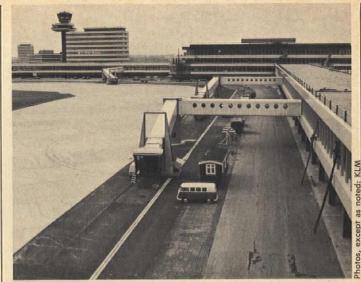
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shortly be moved to the new one.

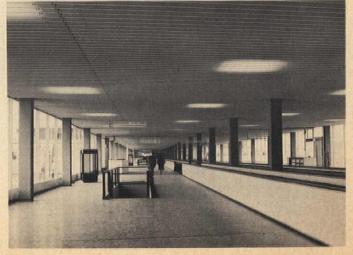
Perhaps the most striking thing about Schipol, as is true of most new structures in Holland, is the obvious care that has gone into its detailing. Second-rate materials are never used; ceiling fixtures fit neatly into the ceiling; doors and windows fit exactly; and all interior appurtenances from lounge chairs to counters, from shops to works of art, have been carefully designed and handsomely arranged. Interior signs on a bright orange background are easily readable from almost anywhere and give information on the location of loading gates, restaurants, restrooms, etc. Designer Kho Liang Ie, who prepared the signs and most of the interior furnishings, said he visited 27 major airports in the U.S., Canada, and Europe before preparing designs.

Already Schipol is thought capable of handling 5 million passengers a year, and, in a freight terminal adjacent to the passenger terminal, more than 250,000 tons of freight. But work is not stopping there. Construction is underway on two more 11,000' runways (in addition to the two in operation) capable of handling the yet-to-come super-jets. According to expansion plans, Schipol will eventually have a capability of receiving 30 million passengers a year and processing 400,000 tons of freight.

In all, the new Schipol facility combined with the old one adjacent to it has 4000 acres of land — a vast expanse in a country the size of Holland. Yet there will be little waste. The government is arranging for farmers to work the unused land and to keep cows in walled courtyards now being constructed. Farmers will live in specially soundproofed houses not far away.

As might be expected, even Hilton Hotels is in on the act. Ground will soon be broken for the Hilton Schipol.

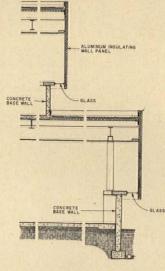
Architects for the airport were the Nederlands Ontwerpbureau voor Luchtavens, working with F. C. de Weger, M. Duintjer, L. Jonkers, and G. Oostveen.



HOPE FOR A VERMONT LANDMARK

REYNOLDS AWARDS 1967

MONTPELIER, VT. The Vermont legislature took a typically cautious step last month toward preserving Montpelier's venerable Pavilion Hotel. In authorizing \$20,000 for a study of what to do with the building, the legislature at least partially acknowledged the severe protests over the building's suggested destruction put forth by a group of concerned Montpelier residents (see p. 60, APRIL 1967 P/A). Hurt by competition from motels, the Pavilion closed its doors last September, and, although it was purchased by the state for possible use as an office building, funds for either its destruction or conversion have not been forthcoming. Vermont legislators do not spend money lightly and one can only hope they will decide to maintain an important reminder of the state's heritage. pended in a soft glow. During the day, of course, they serve to admit light. "The effect achieved," said



the jury report, "is to make this building composed of different cubic forms look rather light and lively, and we believe this to be a new and intelligent use of aluminum." The jury, composed of Dean Jose Luis Sert, chairman, Dean John E. Burchard, Hans Hollein, William Morgan, and William Kessler, went on to note that "the volumes are appropriate and correspond to the different elements of the plan which make those volumes meaningful." At the same time, they cautioned against "the more or less fashionable multiple cube arrangement, when unrelated to plan or contrived at the expense of proper proportions and relationships of interior space."



WASHINGTON, D.C. The first R.S. Reynolds Memorial Award for Community Architecture earned \$25,000 and an original sculpture for Cumbernauld New Town in Scotland. The \$25,000 will be used to create a scholarship in community architecture. Since 1962, Dudley R. Leaker has been chief architect and planning officer for Cumbernauld, and, before that, the post was held by L. Hugh Wilson, who started with the program at its conception in 1956. Cumbernauld, which will eventually house 70,000 persons, is a satellite town for Glasgow, 14 miles away. Already the population is 23,000; 5500 homes are occupied and 50 industrial firms and 31 shops employ 4800 persons. The AIA jury called it "the most comprehensive project of community architecture to date." Jury members Morris Ketchum, Jr., Archibald C. Rogers, and John Fisher-Smith singled out five key features of the town: (1) its separation of pedestrian and

NEW YORK, N.Y. When Victor F. Christ-Janer of New Canaan, Conn., won this year's \$25,000 R.S. Reynolds Memorial Award, he was only the third American to receive it in the Award's 11-year history. Presented yearly for "distinguished architecture using aluminum," the Reynolds Award for 1967 singled out Christ-Janer's design of the James F. Lincoln Library at Lake Erie College, Painesville, Ohio.

The building is a study in rectangles and squares, whose surfaces are color-enameled (off-white) aluminum. Hanging from steel framing, the 3"thick aluminum panels (with a formed polyurethane core) extend beyond the wainscothigh concrete perimeter walls.

Between the walls and the wainscotting at the bottom of the overhang are strips of glass that, at night, let through a certain amount of light, making the walls seem susvehicular traffic; (2) its multilevel town center, which will be half-a-mile in length when completed; (3) its design as a single community, without subdivision into neighborhoods; (4) its architectural design and land planning, which provide a high level of amenities for daily living; and (5) the exceptional economy attained in its development. "As a work of urban design," the jury stated, "Cumbernauld holds great significance for the architectural profession and for the future development of community architecture in the Western world." Formal presentation of the award will be made in Cumbernauld New Town on June 19.



LIVERPOOL, ENGLAND. The space capsule design of Liverpool's Roman Catholic Cathedral has excited comment and imitation ever since it was announced more than five years ago. Although the linking of outer space and God — if that is what architect Frederick Gibbard intended — is an old concept, he couched the thought in terms that have left many irrate, others fairly well pleased.

Completed after a century of false starts, the cathedral

cost \$11,200,000 to build. Most of the money came from the people of Liverpool, though donations came from as far away as Australia and Trinidad. Monsigner Turner, 78, has been the chief fund raiser since 1936. One of his recent drives produced 1600 rings, each 22 carats; he refused 9-carat rings because he believes only the best is good enough for God. Despite these inhibitions, he raised more than \$5,600,000 for the cathedral that will be his memorial.

AIA HONOR AWARDS TO 14 FIRMS, 20 PROJECTS



June 1967

NEW YORK, N.Y. AIA president Charles M. Nes, Jr., last month conferred the nation's highest recognition for excellence in architectural design on 20 out of a total 317 submissions in the AIA's annual Honor Awards program. The awards were presented at a luncheon May 15 during the AIA's 99th Annual Convention here. Heading the list of winners was The Architects Collaborative, with two winning designs, and Skidmore, Owings & Merrill, five of whose entries were premiated.

Members of the jury who made the selections were: James M. Hunter of Boulder, Colo., Chairman; R. Max Brooks of Austin, Tex.; Vladimir Ossipoff of Honolulu, Hawaii; Joseph N. Smith of Atlanta, Ga.; and Philip Will, Jr., of Chicago, Ill. One of this year's most difficult problems, according to their report, was the recurrent one of balancing small, low-budget buildings against efforts backed by less limited resources - the large, prestige structures. Recognizing the variety of motivating architectural philosophies among the entrants, the judges attempted to evaluate each building on the criterion of appropriateness to its objective, both functionally and aesthetically. Following is a list of the winning designs and firms:

Ridgeway Men's Dormitories/Phase III, Western Wash-



ington State College, Bellingham, Wash., by Fred Bassetti & Co.; Jesse Jones Hall for the Performing Arts, Houston, Tex., by Caudill Rowlett Scott; St. Bede's Priory (1),

Eau Claire, Wis., by Hammel Green & Abrahamson, Inc.; Municipal Services Building, Philadelphia, Pa., by Vincent G. Kling & Associates; Boreal Ridge (Recreational Development), Truckee, Calif., by Ian MacKinlay & Associates: Sea Ranch Condominium I, The Sea Ranch, Calif., by Moore, Lyndon, Turnbull, Whitaker; University Plaza, New York University, New York, N.Y., by I.M. Pei & Partners; Amphitheater and Plaza, Jacob Riis Houses, New York, N.Y., by Pomerance & Breines; National Headquarters Building, American Republic Building, Des Moines, Iowa, by Skid-more, Owings & Merrill; Banque Lambert, office building and residence, Brussels, Belgium, also by SOM; Beinecke Rare Book and Manuscript Library, Yale University, New Haven, Conn., by SOM; Mauna Kea Beach Hotel, Kamuele, Hawaii, by SOM; Vannevar Bush Center for Materials Science and Engineering, Massachusetts Institute of Technology, Cambridge, Mass., again by SOM.

Also, First Federal Office Building (2), Detroit, Mich.. by Smith, Hinchman & Grylls Associates, Inc.; Redwood National Bank, Napa, Calif., by Neill Smith & Associates; Los Gatos Civic Center, Los Gatos, Calif., by Stickney & Hull; Museo de Arte de Ponce, Ponce, Puerto Rico, by Edward Durell Stone; Dormitory and Commons Building Quadrangle, Clark University, Worcester, Mass., by The Architects Collaborative; C. Thurston Chase Learning Center, Eaglebrook School, Deerfield, Mass., also by TAC; and the John Knox Presbyterian Church, Marietta, Ga., by Toombs, Amisano & Wells.

IT HAPPENED IN CENTRAL PARK

NEW YORK, N.Y. On May 11, 12, and 13 a group of politicians and designers assembled in an air-inflated structure in Central Park to discuss the problems of urban living and how to solve them. As might be expected, most of the talk centered on the fact that there *are* problems and very little on what to do about them. Although it may not be true that the hot air generated by the speakers was used to keep the shelter inflated, it is true that most of the talk was very general. And anyway, the structure's acoustics operated in such a way that most of what was said failed to reach the second row of listeners. It may have been just as well.

Opening-day festivities set the note. It was raining. The small bevy of participants who had gathered at the entrance of the park to march in to the conference site, seemed even smaller as they huddled inside their raincoats and under umbrellas. The procession was led by several electric, nonpolluting cars, followed by a nonpolluting city bus, which had been pulled off its experimental city run for the day. Bringing up the rear were two newly designed Sanitation Department trucks. Also representing the Sanitation Department and the city, the band, drowned out by the rain, played unidentifiable music. It was like most conferences: No one could hear anyone else.

Perhaps one of the most striking things to come out of the conference was a 20¢ chair. Designed from a cardboard beer case by Ronald Beckman and Howard Yarme of the Research and Design Institute in Providence, R.I., it provided seating for the conferees. According to its designers, it does have a certain basic utility: "Like, you can always use one to carry two cases of beer."

One evening, participants were to play a social game called "Sympolis." It was to involve a re-enactment of city politics during an election year. We don't know how it went; we didn't wait around to find out.

The Design-In, as the conference was called, was sponsored by New York University's School of the Arts, the New York Chapter of the Industial Designers Society of America and by the city's Parks Department.

UNIVERSITY OF TEXAS NAMES NEW DIRECTOR



AUSTIN, TEX. Alan Y. Taniguchi will become Director of the School of Architecture at the University of Texas on September 1, succeeding

Philip D. Creer. Creer will return to full-time teaching.

A member of the Texas faculty since 1961, Taniguchi received his B.A. degree in architecture from the University of California at Berkeley in 1949 and was associated with architectural firms in San Francisco until 1951, when he established a practice in Harlingen, Tex. At the university in Austin, he was appointed chairman of design in 1962 and became a full professor three years later.

He has for several years combined a teaching career with private practice. Last year, on leave of absence from the university, he represented the firm of Brooks, Barr, Graeber & White on a feasibility study for the U.S. Department of Labor Building and worked on master plans for the university's campuses.

CORRECTION

Artist-Architect J. Gordon Carr's name was incorrectly given on p. 64 of the APRIL 1967 P/A as J. Walter Carr.

NEW YORK ART SOCIETY PRESENTS AWARDS

NEW YORK, N.Y. The Municipal Art Society, an organization devoted to the recognition and furthering of the visual and performing arts in New York City, last month presented its highest award, the Bronze Plaque, to Riis Houses Plaza, by architects Pomerance & Breines and landscape architect M. Paul Friedberg. At the society's 75th annual meeting, president Ruth McAneny Loud conferred the Plaque and five additional awards on the creators of projects in architecture and the visual arts.

An awards committee headed by P/A Senior Editor James T. Burns, Jr., nominated the following projects and groups to receive scrolls: The Downtown Lower Manhattan Plan, executed for the City Planning Commission by Wallace, McHarg, Roberts & Todd and Whittelsey, Conklin & Rossant with Alan M. Voorhees & Associates, Inc.; Thomas P.F. Hoving and the design and planning staff of the New York Department of Parks; and Meeting House Foundation, formed by Benjamin Sonnenberg, Jerome Straka, and Armand Erpf for the preservation of Friends Meeting House, a notable city landmark. Architects Kelly & Gruzen and landscape architect M. Paul Friedberg accepted Certificates of Merit for their design of Chatham Towers, a middle-income housing project. The Anonymous Art Recovery Society and the Brooklyn Museum also received a Certificate of Merit, the one for its efforts in collecting and restoring decorative artifacts of architectural interest, and the other for providing a home for these objects.

Members of the selection committee for the Society were Congressman James H. Scheuer, Emory Lewis, editor of *Cue* magazine, Wilder Green of the Museum of Modern Art, Samuel Brody, partner in the architectural firm of Davis, Brody & Associates, and Brendan Gill of *The New Yorker* magazine.

REYNOLDS' ALUMINUM FAÇADE



RICHMOND, VA. The Reynolds Metals Company is not only aware of good architectural design, but is also trying to spread that awareness. Through the yearly Reynolds Award for design in aluminum, the company has succeeded in calling widespread attention to the use of aluminum in architecture. And now that it is constructing a new office building for its own use, we can assume that it wishes to use the offices as an example. To paraphrase Marshall McLuhan: The building is the message. Shown above is the design solution. Although it is not likely to win a Reynolds Award, it seems a sound, workmanlike building.

Designed by three firms associated for this project -Marcellus Wright & Partners and Baskerville & Son, both of Richmond, and Skidmore, Owings & Merrill of New York - it will have a reinforced concrete frame sheathed in aluminum and glass. In its six stories, it will provide 247,000 sq ft of space for 1000 employees now located in several offices throughout Richmond, An adjacent parking lot will handle 700 cars. Its 16-acre site is located just to the north of Reynolds' general office building; the two structures will be connected by a 600' tunnel. Completion is expected in the fall of 1968.

COMPETITIONS

The 1967 Cintas Fellowships are available to architects who will be selected from applicants of Cuban citizenship or lineage. Program is sponsored by the Institute of International Education and offers a total of six grants. Applications will be accepted until July 1. Forms are available from IIE, 809 United Nations Plaza, New York, N.Y. 10017 . . . Also under the aegis of the IIE is a competition for **1968-69 U.S. Government Graduate Grants**, awarded for academic study or research abroad. Applications must be submitted before October 16 to IIE. **HONOLULU ARCHITECT WINS PPG-NIAC AWARD**



Rendering of design by Thomas E. Fanning.

PITTSBURGH, PA. Thomas E. Fanning of Honolulu, Hawaii, has won the \$1200 first prize in a national cometition sponsored by Pittsburgh Plate Glass Industries and the National Institute for Architectural Education. His design for a circular nursing home, to be situated on a man-made peninsula at the southern edge of the island of Oahu, was on display at the AIA convention.

Subject of the competition, which was open to students and architects under 30 years of age, was "a nursing home, 10 minutes from a general hospital." A panel of jurors, headed by Sidney L. Katz, professor of architecture at Pratt Institute and Caleb Hornbustel, New York architect, evaluated submissions of architectural renderings on the basis of good building design incorporating the use of glass and evidence of and understanding of the needs of patients.

Second- and third-prize winners were, respectively, Gary F. Rogowski, a student at California State Polytechnic College, and Robert H. Morin, a student at the University of Notre Dame.

THE SKYSCRAPER COMES OF AGE IN TOKYO



TOKYO, JAPAN. A proposed 30-story office building (for the Tokyo Fire and Marine Insurance Co., Ltd.) in Tokyo's Marunouchi section, overlooking the Imperial Palace, is the focus of a controversy that in a way points up the growing pains common to so many cities — even a city of 10 million persons. Although the city rejected the building proposal in mid-April, an appeal of the ruling is pending, and, despite the delay, unless special legislation is forthcoming, Tokyo will eventually go high-rise.

Traditionally and histori-

cally, architectural expansion in Japan has been horizontal, not vertical. Like most Americans, most Japanese have long yearned for a detached single-family house to call home. One result is that average height of Tokyo buildings is a lowly 1.4 stories.

Some High-Rise Since 1964 —

Multistory office buildings are by no means new to Japan, but from 1920 to 1964 the maximum height of a building was set at 102'. Although fear of earthquakes was one reason for imposing that ceiling, another reason, perhaps equally important, was that that was the limit for Victorian London and as such was considered an ideal by early Tokyo planners.

For years during the postwar period, architects and planners expressed dissatisfaction with that limit, no longer practical from the viewpoints of urban economics and enginering techniques. When the restriction was rescinded, Japan's



Skyscraper Age, even if a small-scale one by Occidental standards. The height limit for buildings in the Marunouchi CBD, near Tokyo Station, is now determined by a volumetric rule similar to the one that helped make possible New York's Seagram Building. There is a limit of 10 above-ground stories (two, three, or more below-ground stories are common in Japan today) if the entire site is used for building; if only one-third is used, however, a 30-story building is permissible.

Even if the Japanese no longer believe earthquakes are

caused by fitful gyrations of a giant underground catfish, earthquakes do remain a major factor in the design of high-rise buildings. Thus, for the Mitsui Kasumigaseki Building (a 36-story structure now under construction), Mitsui Real Estate architects consulted with Tokyo University's Earthquake Research Institute to design an aseismatic structure. Computers simplified calculations of strength requirements; the specification of new, highstrength steels for columns and beams, and light materials, such as aluminum for walls, lowered the weight of the proposed building. A "soft" structure will enable the building to sway a bit and ride out an earthquake twice as severe as the El Centro (California) quake of 1940, which was three times as strong as the quake that devastated Tokyo and Yokohama in 1923.

Should We, or Shouldn't We?

But Tokyo is unable to avoid growing pains as the city expands upward. The trouble started last October, when Tokyo Fire and Marine Insurance applied to the city for permission to build their 30-story building (with 5 more stories below ground) on the site of the firm's outdated building in Marunouchi. One hitch is that the proposed building would face the Imperial Palace, and from upper stories or the roof, it would be possible, some say, to peer into the Imperial Palace grounds. The Emperor today is no longer divine, but is still the object of great respect - more, it would seem, than that accorded the Queen of England. Invasion of Imperial privacy is a serious matter to many, especially of prewar generations. The second aspect of what has developed into a major controversy is that Marunouchi had been designated as a "scenic area," and some people feel that construction of a high-rise building there would destroy the area's beauty. This is the viewpoint of the Tokyo metropolitan government, which attempted to take up legislation giving a city-appointed commission control over the design and surface finish of buildings in the "scenic area" in general and the controversial, proposed Tokyo Fire and Marine building in particular. Architects and planners, plus Ministry of Construction officials, the Japan Architects Society, Building Industry Association, several major industrial firms and others have loudly and consistently fought such attempts at legislation.

The "scenic area" includes the Palace, moat, and 300year-old stone wall, plus the Japanese-manicured pine trees visible above the wall. Across the street from this, and the Imperial Palace plaza, which is criss-crossed by pedestrian walks and unscreened traffic, all buildings facing the Palace for six or more blocks are of uniform height: 102'. To those who call this beautiful, Kunio Mae-kawa, designer of the proposed building, Kenzo Tange, and others reply that it is a 19th-Century beauty, and that a dynamic skyline of high-rise buildings is desirable from the viewpoints of urban aesthetics and economics, as well as providing ventilation and sunlight to the offices and open space at street level for pedestrians and traffic.

Don't Step on My Turf -

Yet another factor in the dispute is the opposition to construction of the building by Mitsubishi Real Estate, a giant (1965 income, about \$40 million) in the Mitsubishi family of concerns. The firm owns most of the land in the Marunouchi area, and many of the buildings, which are all less than the old limit in height. Some observers say that Mitsubishi opposes construction because it would be a relative economic setback to the company.

When the city of Tokyo rejected the building proposal, grounds were that the site consists of two lots that may not be combined to calculate the maximum volume of the building. Adjacent to the now-demolished old Tokyo Fire and Marine building (ironically, a pacesetter in its time), the insurance firm had built another office building, which it is retaining. The area of its site, about 5000 sq m, had been combined with the 5000 occupied by the old building, for purposes of planning the building. In the case of Marunouchi, building

codes permit a total floor area of 100% of the total site, providing open space is preserved at street level. Maekawa's proposed building has an area of 91.95% of the "combined" site. Preparation of an appeal of this ruling was started at once, and the controversy continues. - MARTIN COHEN of the "Japan Times"

LEVINE LEAVENS THE LEAGUE



NEW YORK, N.Y. Throwing off more than a decade of ingrown somnambulism, the Architectural League is swinging hard to prove that it it not only in step with the times, but even, perhaps, slightly ahead. Attracting a good bit of attention last month was one in a series of environmental exhibits the League is sponsoring. Called "Slipcover," it consisted of three rooms whose walls, ceilings, and floors were covered with a mirror-finished metalized polyester film. Shimmering off the mirror-like surface were colored lights and images thrown from six slide projectors, showing New York architecture, the lights of Broadway, and portraits of the artist, who is a young man.

Both the images and the dimensions of the room are constantly changing. Each



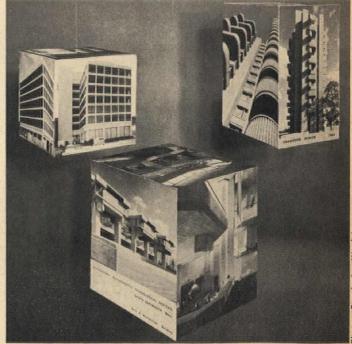
wall covering is loosely mounted on a wooden frame; fans behind them billow out, like giant air-filled Baggies, hover momentarily, then. when the fan turns off, deflate slowly. The artist, Les Levine, who was born in Dublin and who looks a little like an Irish pixie, means his rooms to achieve the ultimate in changeability. He intends them to be disposable. "When you tire of it," he says, speaking of the polyester lining, "you rip it off and throw

it away."

Levine first created Slipcover for the Art Museum in Toronto.

Also on display last month, on the garden terrace of New York's Museum of Modern Art, were four Levine bubble rooms. Seven ft. high, they create a dreamlike environment for viewers who, standing in the room, can look out through the clear plastic to the museum's garden and to the high-rise buildings beyond it.

THE PHOTOS ARE MOBILE



GUILDFORD, CONN. It's such an obvious idea, why hasn't someone done it before? Now that architectural photographer Bruce Cunningham-Werdnigg has done it, the

answer - and indeed the question - is academic. His Photo-Mobiles are merely six photographs of a building. taken from different angles, glued to expanded polystyrene



DARTM -

High-rise apartment designs can have greater floor planning freedom and reduced structural costs when the Prescon System of post-tensioning prestressed concrete becomes part of the engineering. Examples are rising everywhere, as any Prescon representative will proudly show you.



A Total Saving of \$177,000.00 - by use of post-tensioned 5" flat plate construction instead of mild steel reinforced 6" flat plate, was accomplished in the construction of Arlington, Virginia's 360-unit Dolly Madison Apartments. Preliminary investigations leading to the decision to use post-tensioning indicated a 10-cent per square foot savings over a mild steel flat plate. During design, other savings became apparent, such as in columns and caissons due to reduction of dead load; in elimination of beams at openings; in elimination of 790' of expansion joint and its double column; reduction of steel and concrete costs; in associated labor; and in the masonry.

One of the most interesting aspects of the project was the ease with which is was built -13 floors in 13 weeks and one day on a scheduled 37,724 square feet of concrete floor area every 5 working days.

A detailed analysis of the structure and economics of this magnificent apartment has been prepared by Robert L. Meyer of the structural engineering firm Horatio Allison Associates. Write for your copy.

Architect — Sheridan, Behm & Associates Owner/Builder — Dittmar Company Structural Engineer — Horatio Allison Associates

The Eichler Summit 30-story apartment building (San Fran-

cisco) has completely column-free living areas. It is thought to be the tallest concrete building west of Chicago. The 10" floor slabs are post-tensioned in the 35' direction by Prescon tendons, with reinforcing steel in the other direction. Bays are 35' x 104'. The first six floors are for parking and the lobby. An unusual design feature includes the tapering-in of the upper part of the nine columns while the cantilevered post-tensioned floor slabs project out farther, so that the structure flares outward and is wider at each succeeding level. Owner — Eichler Homes, Inc. Architects — Neill Smith & Assoc.; Claude Oakland, Associate Architect Structural Engineer — Stefan J. Medwadowski Contractor — Eichler Homes, Inc.

POST-TENSIONING ALLOWS FLOOR PLAN FLEXIBILITY — LOWERS STRUCTURAL COSTS

Post- Tensioned Flat Slab Con-struction – used in this San Mateo, California senior citizens apartment project, (The Park Towers) substantially reduced the final cost per square foot. Greater column spacing achieved by the post-tensioning technique provided the architect with greater interior design freedom – the resultant lighter weight structure enabled him to achieve an unusually clean-cut exterior. Cost per square foot for structural framing system was \$4.038.

Extended economics will be enjoyed by the owners in re-duced maintenance costs, made possible by control of damaging slab deflection.



Architect — DeLong, Zahm, Associates Engineer — Cecil H. Wells, Jr.

Contractor — Carl W. Olson & Sons, Inc. Owner — The Leslie Foundation

Park Towers Apartments – utilized a number of innovations in the construction of their 8-story building overlooking Corpus Christi Bay. This was the first structure in the United States



to combine load bearing masonry walls supporting a one-way post-tensioned slab. The floor system consists of 7" thick one-way continuous slabs, post-tensioned over 26' spans, with an overall dimension of 58' x 180'. Tendons are eight $\frac{1}{4}$ " wires maintained in flat parallel by special clips. Post-tensioning was applied by a new technique which enabled the tendons to be stressed at anney indepind to the indepindent of their learth. stressed at approximately the midpoint of their length – elimi-nating the usual anchorage projections and the need for stress-ing platforms and scaffolding. Total savings from the use of flat, centrally stressed post-tensioning were computed to be over \$5,000.00 per floor.

Architect — Walter Wisznia Engineer — W. Clark Craig

Contractor — Braselton Construction Co. Owner — Buffalo Apartments, Inc.

Modern apartment design requires up-to-date engineering to combat risings costs and to provide the free spans and column spacing necessary for efficient space utilization. Post-tensioning provides these and many other advantages.

Some of the more recent apartment structures are shown here to give some indication of the flexibility and economy already enjoyed by some of the country's leading builders. For more complete examples and technical information, write for literature – or contact a Prescon representative.

THE PRESCON CORPORATION

General Offices: 502 Corpus Christi State National Building Telephone: 512-882-6571, Corpus Christi, Texas 78401 © 1967 THE PRESCON CORPORATION

D67

On Readers' Service Card, Circle No. 394

backing and arranged in a polyhedron, which is almost a cube. A slight overlap in the edges of the structure, which is hung on a thread, help it catch air movements and rotate with them. As the polyhedron turns, a different view of the building comes into view. Cunningham-Werdnigg currently makes some of his Photo-Mobiles with an acrylic top and bottom and one side. This arrangement provides light inside the cube, where he displays three interior shots of the building. The effects are virtually endless.

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motorists on L.A.'s Wilshire Boulevard will make of St. Basil's Church when it is completed here in early 1969 is uncertain, for its stalwart, unadorned façade will have little in common with the swooping neon parabolas and other eyecatching gimcrackery of current southern California building. Architect-engineers Albert C. Martin & Associates based their design on precepts of church design prevalent in the Third and Fourth Centuries: heavy masonry walls, a fortress-like composition of towers, and a lack of external

el shows a façade of 12 textured concrete towers, whose walls are sliced slabs, separated by dramatic window slices about 70' high and from 3' to 6' wide. Surrounding the sanctuary is a trio of 150'-high towers; the narthex window above the entrance will be 14' wide. With an interior length of 170', St. Basil's will seat more than 1000 parishioners. Directly behind the church will be a three-story rectory, with living quarters, offices, and conference rooms. The site is two acres in the midst of high-rise office buildings.

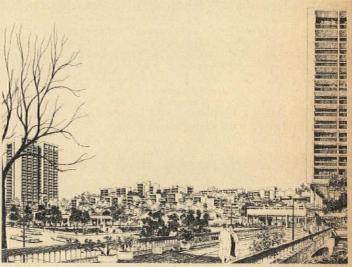
PERSONALITIES

Five architects from foreign countries have been elected to Fellowship in the AIA. They are: Alfred V. Alvares, vice-president of the Hong Kong Society of Architects; Viscount Esher, English architect and town planner; Charles Fowler, of Halifax, Nova Scotia, Canada; Junzo Sakakura, member of the committee for the planning of the 1970 World Exposition in Osaka, Japan; Karl Schwanzer, dean of the Faculty of Constructional and Architectural Engineering at the Technical University of Vienna, Austria . . . The University of California at Berkeley announces the appointment of William L.C. Wheaton as Dean of the College of Environmental Design . . . James W. Rouse, Baltimore, Md., developer and banker, has succeeded the late Stephen R. Currier as president of Urban America, Inc. Newly elected trustees of the or-

ganization are: Lawrence Halprin, San Francisco landscape architect; Thomas P.F. Hoving, director of New York's Metropolitan Museum of Art; George Russell, executive vice-president for finance of General Motors Corp.; Lelan F. Sillin, Jr., president of the Central Hudson Gas & Electric Corporation of Poughkeepsie, N.Y.; John G. Simon, president of the Taconic Foundation; and Whitney M. Young, Jr., executive director of the National Urban League . . . Robert R. Garvey, Jr., will take office July 1 as Executive Secretary of the newly created Advisory Council on Historic Preservation. The Council will function under the administrative auspices of the National Parks Service . . . Alan C. Green, associate professor at the School of Architecture of Rensselaer Polytechnic Institute, has been

elected secretary of Educational Facilities Laboratories . . . Auburn University has announced the appointment of William H. Guerin as architect and campus planner ... On July 1, L.M. Van Doren will assume the duties of president of the National Society of Professional Engi-neers. Van Doren is a partner in a Topeka, Kansas, firm of consulting engineers . . . California's Governor Reagan has named Charles Luckman to serve on the Educational Commission of the States . . . Melvin R. Lohmann, dean of the College of Engineering at Oklahoma State University, is the new president of the American Society for Engineering Education . . . The Construction Specifications Institute has named Larry Craig Dean of Atlanta, Ga., director of its fourth region, covering North and South Carolina, Florida, and Georgia.

GRUEN HELPS KANSAS CITY STAY UP-TO-DATE



KANSAS CITY, MO. Kansas City and Green Bay sent their professional football teams to Los Angeles to play in the Super Bowl in January. Victor Gruen Associates of Los Angeles sent a professional planning team to Green Bay and to Kansas City to plan downtown redevelopment projects. The Green Bay plan was completed in the early 60's. The plan for Kansas City's "urban sub-center," as Gruen calls it, was announced early this year. It covers 85 acres about a mile from the downtown core of the city, an area long owned and used as a corporate site by Hallmark Cards, Inc. In 1961,

Hallmark decided to put some of the area to a different use, and formed the Crown Center Redevelopment Corporation to carry out the \$100 million conversion program.

Gruen's plans provide for 2500 multistory and terracedgarden apartment units. Several high-rise office buildings provide more than 1,000,000 sq ft of space; one of these, a 40-story commercial tower, will become the city's tallest building. Also included will be a major hotel, two motor inns, and cultural and recreational facilities. The area will be laced with parks and open, landscaped plazas. Although Gruen will not ban Toward you. Low-cost, watersusceptible insulation might work at first. But, gradually there's a loss of insulation efficiency. Then cooling costs go up. And so do heating bills. Here's what happens. Vapor barriers are not 100% effective. They deteriorate. Movement of a building will split them, allowing moisture-laden air to penetrate the insulation. Moisture forms through condensation, reducing insulation efficiency. What to do? Specify STYROFOAM[®] brand extruded foam. It's the finest, most modern insulation you can buy. Never loses its effectiveness. Always stays dry. Requires no vapor barrier. Doesn't rot, mold or deteriorate. Flame retardant. Lightweight and easy to install.

As for application, you can use the

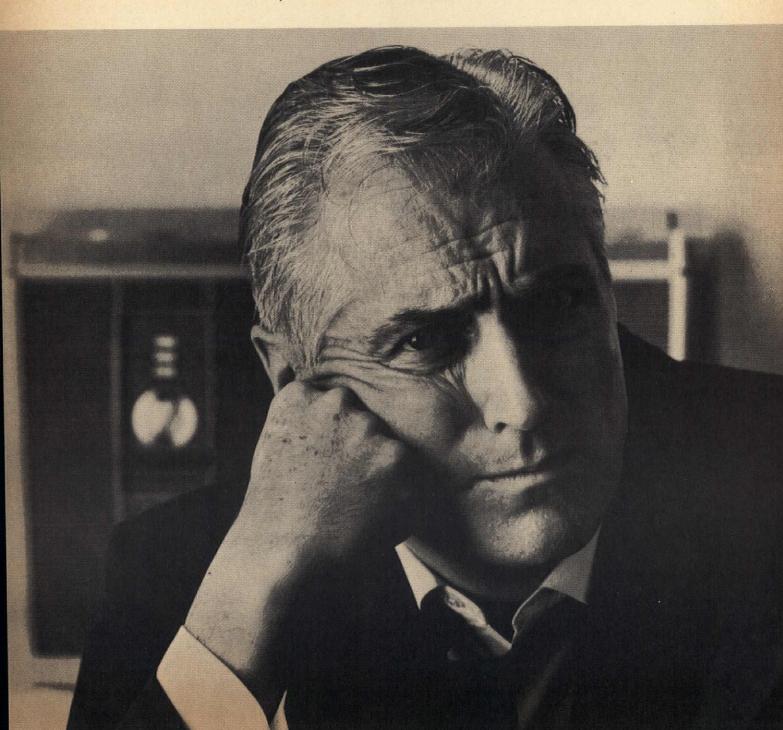


Miller System; apply paneling or decorative wallboard directly on it; use as a base for wet plaster, or as a perimeter insulation for foundations and slabs. The next time why not specify STYROFOAM brand insulation, one of a family of rigid foam insulations offered by Dow? For more information, write to The Dow Chemical Company, Construction Materials Sales, Dept. 71301. Midland, Michigan 48640.

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No one will know you installed bargain insulation.

(until the owner cools off)



automobiles from the site, vehicular traffic will be carried below grade, and parking facilities (for a total of 7000 cars) will be kept out of sight — placed underground or covered by decks. Gruen thinks of the development as a gateway to downtown, an area supplementing rather than competing with it.

The proposal was offered to the City Planning Commission. If approved, work would proceed in four stages, to be completed by 1983,

COMFORT FOR OCEAN VOYAGERS?



NEW YORK, N.Y. One of the first things John Lindsay did when he became mayor of New York was ask the Port Authority to make a study of improved passenger ship terminals in Manhattan's West Side. Late this April, the Port Authority presented its report, with recommendations for a three-pier complex capable of handling six passenger liners at one time.

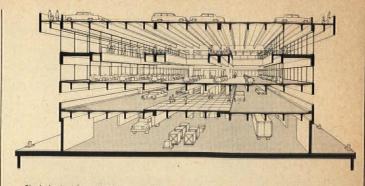
New York has lagged sadly behind most European ports in providing comfortable, convenient facilities for ocean voyagers. Piers are neither heated nor air conditioned. Baggage facilities are antiquated, and often restrooms and snack facilities are not available. Lack of provision on the piers for taxis and busses means snarled traffic conditions on the West Side Highway. A 102-page report, prepared by the Port of New York Authority staff, outlines plans for contemporary terminal. Basically, what it would provide is a three-pier facility, replacing piers 86, 88, and 90 in the Hudson River. Each new pier would have five stories (see section). One of the most salient features of the plan is that these levels would provide for a separation of activities. On the lowest or street level would be all service facilities for cargo and ship's stores. On the second level, linked to 12th Avenue by ramps, cars, busses, and taxis would circu-



late, picking up or depositing passengers. The third level would be for baggage handling and customs. The fourth level would have heated/airconditioned waiting rooms for passengers and visitors, and on the roof would be short-term parking for a total of 1850 cars. At the ends of these fifth levels overlooking the river would be public parks with refreshment and recreation areas.

Passengers would move vertically on the piers, instead of horizontally as they do now. Waiting in the lounge, a passenger could see down to the baggage level, where his baggage would be delivered to a predesignated, color-coded spot. He would then descend to the third level, take his baggage through customs, and move to the second level to catch a cab or bus.

In the head house, the horizontal building connecting the piers along the street would be a first-floor cafeteria and offices for the shipping lines. On the four upper levels would be long-term



Plan for five-level Consolidated Passenger Ship Terminal provides for roof parking area, lounge areas for passengers and visitors, Customs examination area, passenger car pick-up and discharge area, and service area.

parking space. Port Authority chief architect A. Gordon Lorimer let the circular pedestrian ramps at each end of the head building become the chief architectural statement. And on the front of the building, instead of carrying the thick horizontal open spandrels of the sides of the piers around to the street façade, he suggested slitlike vertical fins to hide the cars parked behind them.

Total cost of the facility, if it is approved, is expected to be about \$76 million. It would take an estimated \$10 million to keep it running with amortization costs. Whether or not the shipping lines, with so many of them switching from transatlantic to cruise schedules, could support this cost is a moot point. The New York Times figured that the new facility would boost operating costs in New York from \$9150 per ship turn-around to \$14,500.

Hearings are now being held on the facility, and, if approved, it will be completed in an estimated three-and-ahalf years.

CALENDAR

The International Seminar on Ekistics and the Future of Human Settlements will open the 1967 Athens Ekistics Month, to be held in Athens, Greece from July 10 to August 4. Heading the list of speakers scheduled for the events are Garret Eckbo, R. Buckminster Fuller, and Siegfried Giedion. Application forms and additional information may be obtained from: The Director, International Programs, Athens Center of Ekistics, P.O. Box 471, Athens, Greece . . . From August 7–18, the Massachusetts Institute of Technology will present a Special Program on Noise and Vibration Reduction under the direction of Dr. Leo L. Ber-

anek. For further information, write Director of the Summer Session, Room E19-356, MIT, Cambridge, Mass., 02139 . . . The 1967 Inter-national Congress on Re-ligion, Architecture, and the Visual Arts will be held at the New York Hilton, New York City, August 27-September 1. For program details and other information, write to: 1967 International Congress on Religion, Architecture, and the Visual Arts, 287 Park Ave., New York, N.Y. 10010 . . . The Society of the Plastics Industry plans its Twenty-third Annual New England

Section Fall Conference for September 20–22 in Wentworth-by-the-Sea, Portsmouth, N.H. . . .

WASHINGTON/FINANCIAL NEWS

by E.E. HALMOS, JR.

GAO Report Backs Architects — That long and anxiously awaited report of the General Accounting Office on Architect-Engineer fees

finally came out. And it's not nearly as bad as it might have been.

But it is still only a small breather in a battle that could

Eljer design matches the modernity of Grady Gammage Memorial Auditorium

When a modern structure, such as the Grady Gammage Memorial Auditorium, is built, it's only natural that modern-design plumbingware be chosen. In this case, 199 Eljer fixtures were installed.

Situated on the campus of Arizona State University in Tempe, Arizona, this auditorium stands 80 feet high — eight stories by normal building standards — and measures 300 by 250 feet. It's sometimes described as "the dream of two great men," Dr. Grady Gammage, the late president of the university, and the late Frank Lloyd Wright, world-famous architect.

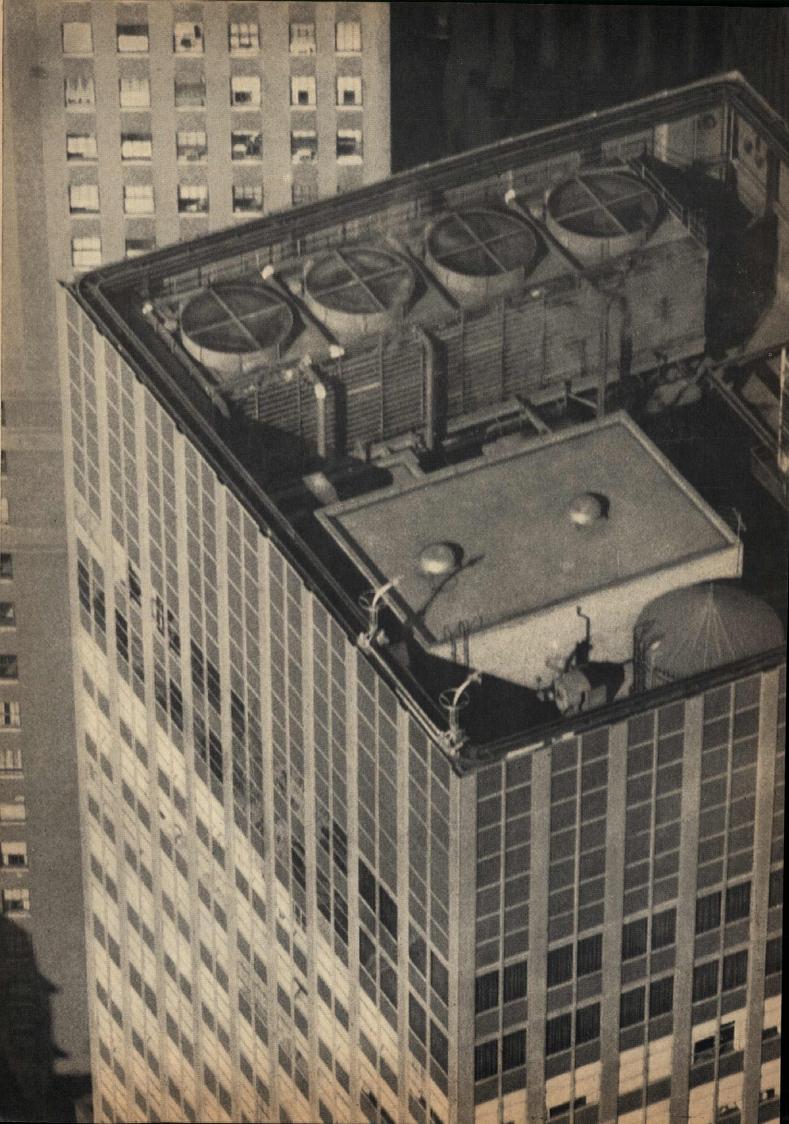
More and more, you'll find beautifully styled, high-quality Eljer plumbingware in important buildings. Don't you think that's reason enough for you to specify Eljer?

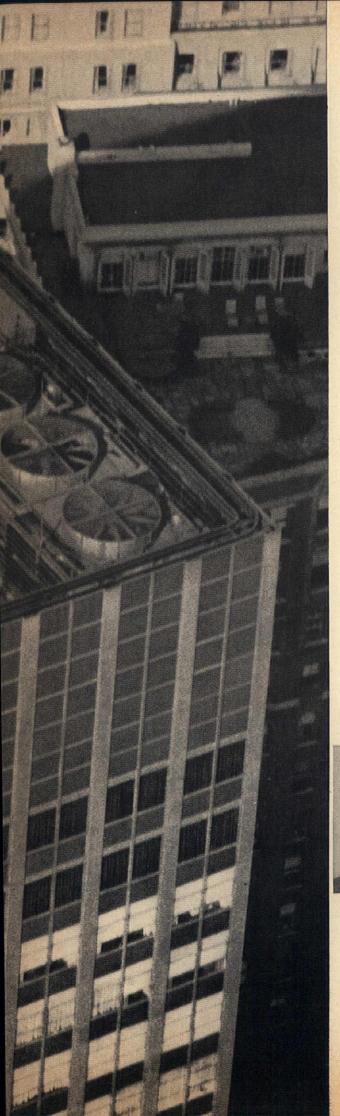
For further information concerning Eljer plumbingware for residential and commercial use, call your Eljer representative, or write Wallace-Murray Corporation, Eljer Plumbingware Division, Dept. **PA-7**, P.O. Box 836, Pittsburgh, Pa. 15230.





Designer: Frank Lloyd Wright / Architects: William Wesley Peters, member Taliesin Associated Architects, an affiliate of the Frank Lloyd Wright Foundation, Scottsdale, Arizona; Kemper Goodwin & Associates, Tempe, Arizona / Mechanical Engineer: Biddle & Young, Phoenix, Arizona / General Contractor: Robert E. McKee, Glendale, Arizona, with general offices in El Paso, Texas / Wholesaler: Smith Pipe & Steel Co., Phoenix, Arizona / Plumbing Contractor: Jack Dean Plumbing, Phoenix, Arizona





A four-pipe system isn't always the answer.

There could have been a profitable pool or penthouse on this roof.

And a garage instead of a boiler in the basement. If only someone had specified a General Electric

Zonal System. GE Zoneline units could heat and cool the outside

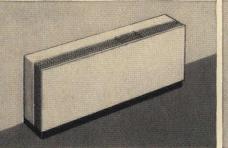
rooms. GE unitary units could heat and cool the inside,

public rooms.

No rooftop cooling towers. No basement boilers. A significant increase in usable, rentable space. Other advantages over four-pipe systems:

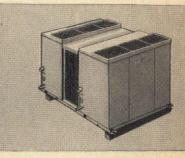
- Big first-cost savings.
- Lower maintenance costs.
- Lower heating/cooling costs in unoccupied rooms.
- A breakdown doesn't affect the entire system.

From motels to high-rise construction, a General Electric Zonal System can save you space and money. For full specs, call your General Electric representative. Or write AP6-208, General Electric Company, Louisville, Kentucky 40225.



GE Zoneline heating/cooling unit. Room-by-room control. Choice of grilles. Fits over doors or under window seats. Through-the-wall or floor-mounted consoles.

GENERAL



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Air Conditioning Department, Appliance Park, Louisville, Kentucky

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wind up in virtual bidding for A-E services.

In brief, after a lengthy study and much soul-searching, GAO reported to Congress that:

□ A-E fees, limited to 6% of construction costs since 1939, are too low, should either be raised or the limitation eliminated.

□ Provisions of at least five existing laws require negotiations with prospective A–E's on a basis of more than competence — price should be included. And if this requirement were enforced, then the fee situation would take care of itself.

□ But — and this is the big item for architects and engineers - Congress has never made its intent very clear. Thus, until the legislators clarify the matter, Federal agencies should be permitted to continue present practices (which, GAO found, usually result in A-E's fees in excess of 6%, since the agencies have interpreted the limitation to apply only to services concerned with producing plans and specifications, and, in general, have allowed other costs such as travel, supervi-sion and the like as "extras").

GAO's lengthy report was obviously the opening round in the upcoming debate, and the opinions, it should be noted, carry much weight with Congress, since the agency is a Congressional not an Executive — arm.

For this reason, GAO comments on fees and negotiation are worth reading in detail:

"The requirements [of Public Law 87-653] are that, in all negotiated procurements in excess of \$2500, proposals be solicited from the maximum number of qualified sources . . . and that discussions be conducted with all responsible offerors whose proposals are within a competitive range, price and other factors considered. . . . Most of the . . . agencies . . . generally solicit a proposal only from the A-E firm selected on the basis of technical ability. In our opinion, this . . . does not comply with the statutory requirement.

"Agencies have advised us that they are opposed to the concept of soliciting multiple competitive proposals.... Representatives of A-E professional societies have advised us of their belief that the legislative history . . . constitutes substantial ground for concluding that the competitive negotiation requirements . . . were not intended to apply to A-E services.

"We find no present statutory basis that would exempt A-E contracts from these requirements . . .

"Recognizing . . . that the problem . . . is a complex one, we have advised the agencies that present procedures may be followed until Congress has had an opportunity to consider the matter."

As to fees, the fiscal watchdog agency stated: "The present statutory fee limitation is impractical and unsound, and we are recommending that the Congress repeal [it]." Elsewhere in the report, GAO cited the argument presented by the AIA and other groups: that basing the fee on ultimate construction costs often has little relation to actual amount of A-E work involved; that the 6% limitation may have been equitable in 1939 but is certainly not so at this time.

"It is the position of this office," concluded GAO, "that consultant . . . fees should be based on the estimated value of the services to be rendered. . . . The requirement for submission of . . . cost and pricing data by A-E firms implicitly calls for negotiation of fees in terms of estimated value. . . . This same concept is the underlying principle of negotiated contracting and should be followed in the negotiation of all contracts for A-E services which are subject to the competitive negotiation requirements."

With the report in hand, professional societies consulted among themselves early in May to decide on a probably concerted course of action to take before Congress.

Sniping at the Capitol Architect — The ever current and currently hotter — debate over what to do about the U.S. Capitol has now produced a string of bills aimed at clipping the reconstruction wings of Capitol Architect J. George Stewart. It also produced one relatively spirited defense.

On the "clipping" side were a Senate measure (S. 1590) providing that no work involving altering the proportions, changes in the size, or modi-

fications to the Capitol without specific legislative authorization, and establishing a 17member "Capitol Building Commission" to study present and future needs of the whole Capitol Hill area; another (S. 1582) was the Federal Fine Arts and Architecture Act (a companion House bill is HR 8991), which is to "foster high standards of architectural excellence in the design of Federal buildings and post offices." "Sadly," said Maine's Senator Edmund Muskie, "Federal buildings outside the District of Columbia are unimaginative, mediocre structures which have been built to last - but not to add aesthetic beauty to their surroundings. . . . Many Federal buildings throughout the United States stand as monuments to bad taste."

A 12-member commission composed of "distinguished architects from private life" and others would advise the General Services Administration on art and architecture. Implied also was advice on the Capitol.

Leaping to the defense of the often-criticized Stewart was Rep. Arnold Olsen (D. Montana). He took the House floor to make a point-by-point refutation of criticisms in magazine articles and elsewhere of the architecture on "the hill." His main point: whether the Capitol ought to "be a museum — some kind of a library for people to browse in - or whether it is an active institution, a functioning place, and whether we should do something to make it a better functioning place."

Tidbits — Other Washington developments of concern to architects include these:

□ Congress was having some serious second-thoughts about the hastily-passed, \$350 million (it was thought) highway "beautification" legislation. Sober evaluation now placed costs of removing billboards alone at more than \$1 billion; many states were saying they'd rather take the penalty (loss of 10% of Federal-aid money) than get involved in such an expensive program. Chances were good that the legislation would be rewritten.

□ Internal Revenue Service dealt a severe — but long expected — blow to professional societies that publish advertising-carrying journals. Said IRS: Such journals must pay taxes on advertising revenues no matter how revenues may be siphoned off into other society activities.

□ The annual meeting of the National Academy of Sciences got a series of gentle rebukes because it wasn't backing enough urban rehabilitation work, wasn't bringing urban residents into planning.

□ Federal Aviation Agency issued a new five-year National Airport Plan, calling for 729 new facilities, to cost \$1,500,-000,000.

□ The Consulting Engineers Council-in testimony on the Intergovernmental Cooperation Act — called for estab-lishment of "talent banks" of experts from the professions, to be tapped for solutions of the problems of urban areas. Republican-sponsored National Home Ownership Foundation Act (HR 8820 and S.1592) was getting serious attention in Congress so serious that the Johnson Administration felt it necessary to open an attack on the proposal. Key idea: self-help, private corporations to help low-income families own their own homes.

Financial — Construction costs have started to inch upward again, after a brief, and apparently not significant, drop in the last quarter of 1966. For the first quarter of 1967, the Bureau of Public Roads cost index rose 0.4%, to reach 113.2 (1957–59 is base period). That was only 2.4% below the all-time high, in the third quarter of 1966.

□ Construction activity slowed in March, too, according to the Census Bureau. With ar estimated \$5,700,000,000 of construction put in place in the month, the figure was 8% below a year ago.

□ Big factor in the slowdown as usual, was housing, which showed an adjusted annua rate of 1,200,000 units in March — up from February' 1,150,000, but down from las year's 1,570,000.

Nevertheless, taxpayer were still supporting public construction work with en thusiasm. In March, said th Investment Bankers Assn voters approved a total o \$347 million of new bonds turned down only \$171 million worth.

The ceiling for conditions that usually wreck ceilings





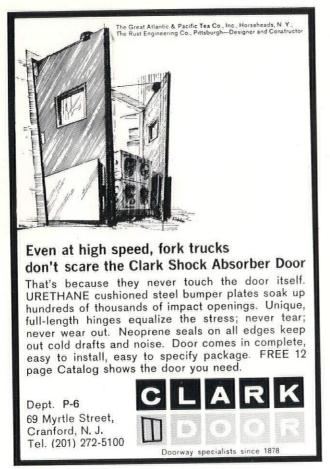
Armstrong Ceramaguard

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But the tough one offers a good deal more than durability. It provides excellent acoustical control and high light reflectance, plus rated fire retardancy.

Briefly, when the job calls for something special, a Ceramaguard ceiling delivers. For more information, write Armstrong, 4206 Watson Street, Lancaster, Pennsylvania 17604. Or on Readers' Service Card circle No. 300.



On Readers' Service Card, Circle No. 339

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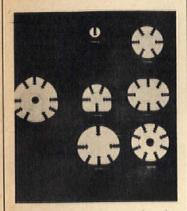
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OF

PRODUCTS

FRAMING SPACE



The key to advance in the industrialization of space framing lies in the development of a standard connector. Over the past 10 or 15 years, Canada's Triodetic Structures Ltd. has standardized a number of connectors that adapt their frames to a host of structural geometric shapes (see photo). This hub and tube system is now available to the U.S. designer through Butler Manufacturing Company, recently granted the franchise in this country.

The system, which will be manufactured in both steel and aluminum, comprises the hubs and structural tubes. The serrated ends of the tubular members are matched to grooved keyways running the full length of the hub. Tube diameters may vary but wall thicknesses should remain constant.

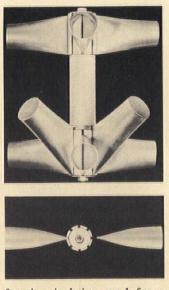


Structural members are quickly tapped into the connector with conventional tools (see photo), and may be inserted at varying angles to create a three-dimensional latticework.

Unused keyways, or those only partially filled by a smalldiameter structural tube, are closed by special inserts; hub ends are capped by washers and a single high-strength bolt. Welding is eliminated and bolting kept to a minimum.

Components, shipped to the job site in coded bundles, are marked for their place in the structure. Sections may be assembled on the ground and crane-lifted into place, or workmen may build onto the frame in place. Flexible ducting and wiring is run through and fastened to the structural web.

Space framers are getting a big boost at Expo 67 where three-dimensional



framing is being used for a number of structures — the most impressive being the U.S. Pavilion designed by this country's granddaddy of the space frame, Buckminster Fuller. Triodetic structures at Expo include the main entrance to the fair and the Netherlands Pavilion.

Butler is offering initially several packaged domes and three standard connectors, with plans for possible future expansion. However, the simplicity of the system will make it economically feasible to fabricate special hubs for large projects where necessary. The company's engineers will work with designers in preparing computer programs for structural analyses. Butler Manufacturing Co., 7400 E. 13 St., Kansas City, Mo. 64126.

Circle 100, Readers' Service Card

MOLDED BATHROOMS



Long the talk of architects, industrial designers, and the building industry in general, the molded plastic bathroom is now in the realm of massproduced reality. The fiberglass-reinforced unit, manufactured by the Canadian firm that supplied the molds for Habitat's bathrooms at Expo 67 (see p. 226, OCTOBER 1966 P/A), can be purchased for about \$475 f.o.b. the factory in Toronto.

It is a pleasant white room with molded bathtub, lavatory, medicine cabinet, toilet, floor, walls, and ceiling. The floor plan is 5'-6" square, inside dimensions, with a 7' ceiling. Surfaces are impactand mar-resistant, and colors will be available. The manufacturer is now at work developing several variations on the basic unit shown here. They include a toilet/washbasin combination equipped with a floor drain so that it can be used as a shower, and a shower/toilet/washbasin unit.



"Bathunit 300" is preplumbed, pre-wired, and prefabricated in four stackable sections. When stacked, it measures 6'-6" x 6' x 3', and weighs 350 lb. Sections are sealed with a silicone calking compound (or equal), and two men can install the unit in $1\frac{1}{2}$ hrs, reports manufacturer. Reff Plastics Ltd., 91 Milvan Dr., Weston (Toronto), Canada.

Circle 102, Readers' Service Card

AIR/TEMPERATURE

Clean air. Electrostatic air cleaner with activated charcoal odor removal unit is available in three sizes (handling from 400-2400 cfm) for ducted heating and cooling systems. Unit consists of mechanical pre-filter, transformer, electrostatically charged ionizing section, collecting section, and columns of activated charcoal. The 95% efficiency of two throw-away dust filters is said to drop only 5% when they are dirty. Control unit includes an indicator that shows when unit needs servicing: This 5-10 min operation consists of replacing the disposable filters and refilling charcoal columns. The Trane Co., La Crosse, Wis. 54601. Circle 103, Readers' Service Card

CONSTRUCTION

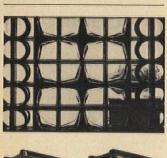


The big roof. "Zip-Rib" roofing panels are 12" wide and available in "any ridge-to-eave length." Lightweight aluminum panels are installed without end or side laps, and without making holes in the surface. High-standing seams are "zipped" together with an electric hand tool that seals anchor clips (fastening panels to purlins) in the seams and also locks adjacent panels together. There are no through or exposed fasteners, and the resultant one-piece roof is capable of providing long unsupported spans. Installation is fast, durable, watertight. System includes all necessary accessory hardware. Kaiser Aluminum & Chemical Sales, Inc., 300 Lakeside Dr., Oakland, Calif. 94604. Circle 104, Readers' Service Card

Electro-lamination makes wood stronger than steel. Over specific spans, electro-laminated beams of redwood,

Douglas fir, and Southern pine, are stronger, pound for pound, than similar beams of steel, claims manufacturer, who also states that the beams will neither oxidize nor buckle and twist when heat is applied. "Electro-Lam" beams are available in lengths up to 48' in various cross sections. Potlatch Forests, Inc., Wood Products Div., 320 Market St., San Francisco, California 94111.

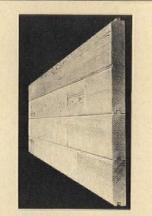
Circle 105, Readers' Service Card



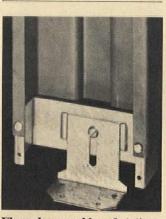
Patterns in glass. Raised surface patterns with a fired-on black ceramic create a new look in clear glass block breaking up the traditional square grid, especially when laid with black mortar, which blends with black ceramic parts of the block. Designed by Peter Muller-Munk Associates (Donald H. Behnk, chief designer on the project), the two basic blocks - one with a raised semi-circle, the other with a raised, sharply angled crescent - can be combined in many different ways for either interior partitions or exterior walls. The two "Cameo" designs are available in 8"x8"x 4" hollow blocks that offer good temperature and sound insulation. Top photo shows two possible combinations, and indicates light transmittance and slight distortions caused by the blocks; below are individual blocks. Pittsburgh Corning Corp., One Gateway Center, Pittsburgh, Pa. 15222. Circle 106, Readers' Service Card

Metal/paper flashing. A thin copper membrane (1, 2, or 3 oz), asphalt-bonded to creped kraft, makes a tough, highly flexible and economical flashing material. "Copper Armored Sisalkraft" is suitable for concealed flashing of spandrel beams, parapet walls, door and window heads. Samples available. Sisalkraft, 75 Starkey Ave., Attleboro, Mass. 02303.

Circle 107, Readers' Service Card



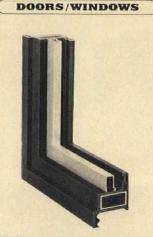
Tongue-and-groove. Decking of 2 x 6 lumber is assembled into 21"-wide panels that can be cut to specifications in increments of 1/6", up to 24' long. The joints between individual planks are accented by Vgrooves on the exposed face; panels are held together by heavy kraft paper glued to the reverse side. "Bond-Deck" is available in several grades of white fir, including Premium and Industrial; smooth or sawn face; suitable for roofing or subflooring; redwood and cedar also available. Tarter, Webster & Johnson Div., American Forest Products Corp., P.O. Box 3498, San Francisco, Calif. 94119. Circle 108, Readers' Service Card



Floor-door problems? Adjustable door-frame anchor compensates for uneven floors with a two-piece channel and angle unit that adjusts in 1/16" increments within a 2" range, thus eliminating the need for shims. Designed for the installation of steel door frames,

the anchor can be fastened to any type of subfloor or finished floor, says manufacturer. The Ceco Corp., 5601 W. 26 St., Chicago, Ill. 60650. Circle 109, Readers' Service Card

Cover moves with floor. Expansion joint cover provides adjustment for movement of the joint up to 1" horizontally and 3/8" vertically. Roller nut and spring clip secure the cover plate, but allow it to pivot with up and down movement. Gasketing filler strips are keylocked under compression so as not to pop out. Available in aluminum or bronze with several surface finishes. Construction Specialties, Inc., Center Street, Williamsport, Pa. 17701. Circle 110, Readers' Service Card



PVC and steel. Windows with a steel core for strength are completely encased by semirigid polyvinyl chloride extruded shapes for protection against weather, air pollutants, etc. "Compro PVC Windows" have been tested from -40F to 230F. Fire resistance is rated as "self-extinguishing." Available in 8 standard colors, including blue, red, and a bright yellow. Compro Corp., 10 Dunnell Lane, Pawtucket, R.I. Circle 111, Readers' Service Card



Tough glazing foils vandals. Clear sheets of "Lexan" plastic are said to be tough enough to resist the rock bombardment that makes glass replace-



ment such a costly problem in schools. The polycarbonate thermoplastic resin resists breakage where acrylics fail, claims manufacturer. Photos show "before and after" results of experiment with "Lexan" glazing. General Electric, Chemical Materials Dept., Pittsfield, Mass. Circle 112, Readers' Service Card



Plumb true. Sliding windows of tubular metal construction are designed for minimum deflection and plumb installation. Windows are weatherproofed; and metal roller bearings in nylon housing deaden sound. Amarlite Div., Anaconda Aluminum Co., P.O. Box 1719, Atlanta, Ga. 30301.

Circle 113, Readers' Service Card

FLOORING

Walking Happy. Woven glass fiber, covered by a layer of inlaid vinyl and backed with air-tight vinyl foam, comprises Walk-Ease flooring. The resiliency of the glass fiber causes the floor to spring back even after indentation by stiletto heels and heavy furniture. The thick foam (1/8") insulates the floor and makes for comfortable walking. Flooring requires no waxing unless higher gloss than its natural satin finish is desired. Two patterns are available: "Encanto," marbleized vinyl chips suspended in clear vinyl, and "Facile," small vinyl stones sealed in clear vinyl.



TRAFALGER EAST, Greenwich, R.I.; by Louis A. Regnier Associates.

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The Flintkote Co., 201 E. 42 St., New York, N.Y. 10017. Circle 114, Readers' Service Card



A first for Girard. Furniture custom-designed by Alexander Girard for Braniff International's splashy spruce-up campaign is now being manufactured on a production basis - Girard's first furniture available to the general public. Chairs and sofas are of double-shell construction two molded plywood shells with a separating vinyl welt. Inner and outer shells, as well as seat cubsions, can be covered with a variety of matching or contrasting fabrics or naugahydes. The vinyl welt is available in three colors. Furniture is deep-seated and low-backed, supported on cast chrome steel and polished aluminum legs. The group of some 25 chairs, sofas, ottomans, and tables offers a wide choice of fabrics. leg heights, tabletop materials, and sizes. Suitable for residential as well as public areas. Herman Miller Inc., Zeeland, Mich.

Circle 115, Readers' Service Card



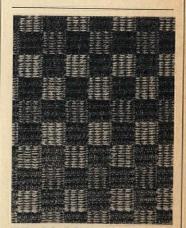
Tables for smokers. "Arbatove" wooden tables resist burns from dropped cigarettes or misplaced hot plates and are said to be impervious to spilled liquor. Secret is a special aluminum layer laminated beneath protective coated wood veneer. Threeleaf folder with black-andwhite photos show the six tops available: three squares (24", 26", 30"); two rectangles (30" x 20", $48" \times 20"$); and one circle (36" dia.). All tables come in heights of 14", 16", 20", or 22". Finishes are either oiled or lacquered handrubbed walnut or teak. Springer-Penguin, Inc., 5A Brookdale Place, Mt. Vernon, N.Y. 10550.

Circle 116, Readers' Service Card



Light op the scene. Around the hip pad, you might hang in with one of four white satin glass cylinders embellished by fired-on black, eyeboggling designs. Not shown: black sphere with white polka dots. Koch & Lowy, Inc., 940 Third Ave., New York, N.Y. 10022.

Circle 117, Readers' Service Card



Colorful fabrics from England. Four fabrics from Arthur H. Lee & Sons are the beginning of a new line of contract fabrics woven in England for architectural use. The four include "Rib Cloth," which alternates narrow and wide horizontal ribs and is suitable for upholstery, bedspreads, or draperies. It is 100% mercerized cotton and comes in 15 colors. Also featured is "Basket Weave" of

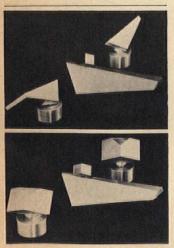


100% wool in 14 shades. Both the former are 54" wide. Two colorful patterned fabrics, both 51" west, complete the group. "Diamond Square" (pictured), a small diamond all-cotton check using three colors, comes in 12 imaginative color combinations. "Checkers Cloth" (pictured) is a five-color wool and nylon interwoven check that comes in 9 colorways. Arthur H. Lee & Sons, Inc., 227 E. 56 St., New York, N.Y. 10022.

Circle 118, Readers' Service Card

The natural look. Undyed yarns of virgin wool in seven shades from cream to charcoal can be mixed or matched in attractive, custom-fabricated contract carpeting. The looped cut-pile carpets are seamless and limited in size only by practical considerations of handling and installation. The largest to date is 50' x 110'. Prices range from \$15 to \$40 per sq yd. Rugcrofters Inc., 295 Fifth Ave., New York, N.Y. 10016.

Circle 119, Readers' Service Card



Free-form Faucets. Handcarved, multifaceted bathroom faucets are designed to fill a need in custom-built contemporary houses, where more

traditional hardware would be out of place. Sets include one faucet with a choice of two kinds of angular handles: a knob ("Tangents") or a lever ("Dimensions"). In brushed chrome, pewter finish or 24carat goldplate, sets are intended to resemble Brancusi sculptured forms. Sherle Wagner, Inc., 125 E. 57 St., New York, N.Y. 10022. *Circle 120, Readers' Service Card*



Chair by William Armbruster has a seat designed to fit a variety of bases - swivel or stationary. Foam rubber, with cotton edges for rounded effect, cushions the wood-frame seat. Any specified upholstery available. Legs are wood or of polished chrome-plated steel. Pedestal bases are available, stationary or swivel, with or without spring-back mechanisms and with or without tilting mechanisms. Seats are 18" high, but can be raised or lowered. Edgewood, 208 E. 52nd St., New York 22, N.Y.

Pick a plastic. Eight patterns recently introduced by the manufacturer to their wood grain series include oaks, walnuts, cherry, and a "Mediterranean Pecan" of blue-graygreen cast. Additions have also been made to the patterned and solid-color laminates. Plastics are suitable for counters, doors, walls and other



It's never too late, either!

Even if your school or college or library or field house project's well under way, it's by no means too late to pick our brains. For when it comes to selecting the right kind of furniture and equipment for the function—whether it's folding walls, vinyl-on-steel gym seating, a single conference room, or a complete, Library/Resource Center—no other single supplier can give you more or better planning help.

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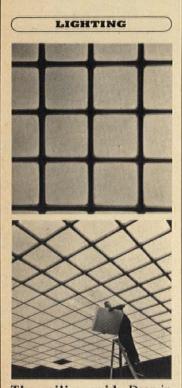
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The ceiling grid. Drop-in panels for luminous ceilings eliminate hot spots caused by show-through of fluorescent tubes, and lend a more substantial and less regimented look to the T-bar grid. A plastic frame or collar on each panel creates the three-dimensional appearance. Panels require no clips, since they are raised above the grid and lowered into position. Sonolux Co., 1250 17th St., San Francisco, Calif.

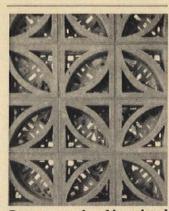
Circle 122, Readers' Service Card

SERVICES

Mosaic craftsmen. Artists and artisans design and construct Byzantine mosaics from special mosaic glasses fired in the company's workshop in Cuernavaca, Mexico. They also work with stone and marble, and report that their "work is guaranteed to meet the standards of any building code in the United States." The company (with offices in



Los Angeles and San Francisco) works with outside artists and designers, or assumes complete responsibility from design to completion. Shown above is mosaic on library in Stockton, Calif. Byzantine Mosaics, 1150 Sansome St., San Francisco, Calif. 94111. *Circle 123, Readers' Service Card*



Open spaces closed by colored glass. Conrad Pickel has adapted the faceted-glass-inepoxy technique (used mainly for church windows) to concrete screen block. Closing the open spaces in the decorative block with epoxy and bits of 1"-thick colored glass (chipped to enhance the sparkle) creates a unit that can be used for exterior walls. Sizes and prices run from 8" x 8" x 4" or 8" @ \$6.75 per block to 16" x 16" x 4" @ \$13. Studio also designs and executes stainedglass and faceted-glass windows, mosaics, and carvings, specializing in stained-glass windows based on traditional European techniques using hand-blown glass held in place with soft lead strips. Conrad Pickel Studio, 21415 W. Greenfield Ave., New Berlin, Wis.

Circle 124, Readers' Service Card

SPECIAL EQUIPMENT

Moving pedestrians. A spring steel belt bonded to a grooved rubber pad moves people either horizontally or on an incline. The heavy gage, onepiece endless steel belt provides a smooth ride, while the narrow-groove pad is designed with women's heels in mind. "Movator" installations include a 700'-long moving walkway from a shopping to a parking area, and a betweenfloor ramp allowing shoppers to take carts from floor to floor. Sandvik Steel, Inc., Movator Div., 1702 Nevins Rd., Fair Lawn, N.J. 07410. *Circle 125, Readers' Service Card*



One-Piece Bathrooms? "Archon," a mixture of fiber glass, plastic resins, and mineral fillers, permits designers of bathrooms to have all components (including floors and tub wall) of one material, and even two components in one (viz., floor and toilet base). Cast as units, Archon components eliminate joints and crevices; sinks with vanity tops are one-piece with no seams around the basin. Standard Archon colors range from five pastel shades to five marble grains, with three accent tones. Many fixture styles are available, including oval, round, or shell vanity basins, and oval and Roman bath tubs. Associated Design Group, P.O. Box 8106, 1460 Foothill Drive, Salt Lake City, Utah 84108.

Circle 126, Readers' Service Card

SURFACING

Carpet for Sun and Shade. An addition to the indooroutdoor carpeting family is Orcco's line of 100% Herculon polypropylene olefin carpet. Smooth or embossed "Sun & Shade" can be cleaned either by vacuum or hose, and is said to resist fading, stains, rot, mildew, fungi, and moth damage. Sun &



Shade requires no cementing or attaching, although doubleface tape is recommended for outdoor installations. Embossed patterns, in 12 colors, are "CarvTone," a random stone design (pictured), and "La Costa," an ornamental Spanish tile. Carpet comes in 9' and 12' widths in addition to rug sizes. Orcco Industries, Inc., Sun & Shade Div., 4903 Everett Ave., Los Angeles, Calif. 90058. Circle 127, Readers' Service Card



Single needle carpets. A tufting loom that utilizes a single electronically controlled needle makes random-textured loop carpeting that could previously be made only by hand. Loops are backed with sateen jute sealed with latex. Included in attractive booklet are details on carpeting fibers (Far Eastern wool exclusively), sizes (widths from 12' to 15'-6" in 6" gradations), colors (choice of thousands, all skeindyed to avoid inconsistencies of piece-dying), and styles (more than 850 different qualities varying in height of pile, compactness, and yarn weights). Delivery and maintenance information and 8" x 5" sample. Sallee Carpet Looms, Inc., 2515 Main St., Santa Monica, Calif. Circle 128, Readers' Service Card

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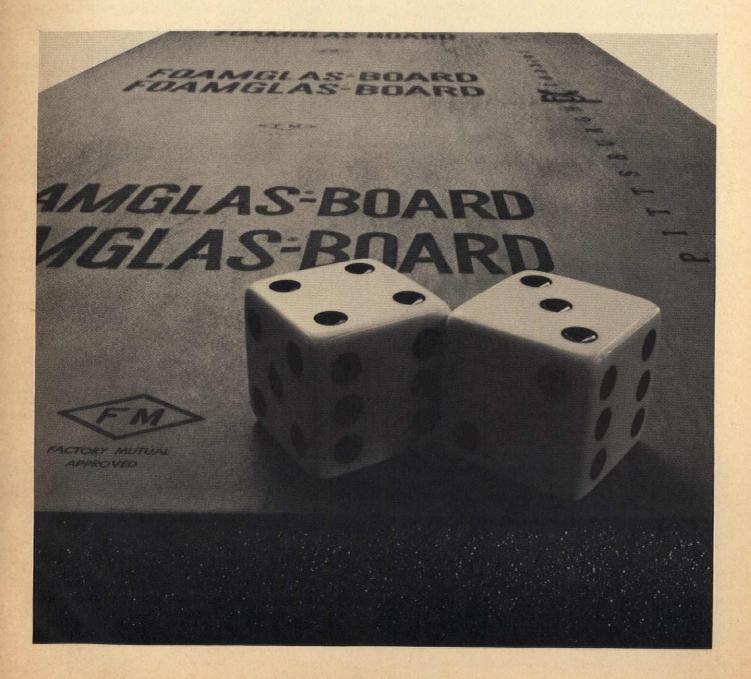
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BOARD. Write Pittsburgh Corning Corporation, Dept. PP-67, One Gateway Center, Pittsburgh, Pennsylvania 15222. In Western Europe,

FOAMGLAS® cel- PITTSBURGH lular glass insulation is manufactured and sold by Pittsburgh Corning de Belgique, S.A., Brussels.





MFRS' DATA

AIR/TEMPERATURE

On air. Brief descriptions of manufacturer's rooftop makeup air equipment, central station multizone units, heaters, and air-conditioning units for industrial applications are contained in bulletin with photos. 4 pages. Mammoth Industries, Inc., 13120-B County Rd. 6, Minneapolis, Minn. 55427. *Circle 200, Readers' Service Card*

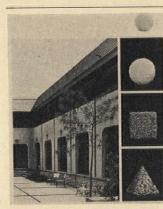
Heat from lights. Systems for extracting heat from lighting fixtures, to be used or exhausted depending on the weather, are covered in a general discussion of what the systems are, what they do, the economic advantages, and the combining of heating, lighting, air conditioning, and ventilating into one integrated system. Diagrams, text, and a description of manufacturer's two airhandling/heat removal troffers are included, plus a twopage bibliography of pertinent literature. 16 pages. Sylvania Electric Products Inc., 60 Boston St., Salem, Mass. 01970. Circle 201, Readers' Service Card

The fair draft. Products for controlling drafts in fireplaces, heaters, furnaces, rooftop units, flues, and chimneys for residential and industrial application are cataloged and rated in capacity and performance charts in a folder including diagrams and photos. 4 pages. Walker Mfg. and Sales Corp., St. Joseph, Mo. 64502. *Circle 202, Readers' Service Card*



"Circular Steel Framing for Highrise Buildings" provides both general and specific in-

formation on circular and polygonal buildings. Framing and bracing schemes are discussed, and design procedure outlined. A detailed wind analysis covers axial forces in columns, girder shears and moments, deflection, transition stories, and buildings with multiple rings of columns, among others. Part II is an 11-page design example setting forth the calculations and formulae used in designing a 25-story octagonal apartment building. Discussion of model tests, tables, bibliography, etc. 34 pages. United States Steel Corp., Rm. 4457, 525 William Penn Place, Pittsburgh, Pa. 15230.



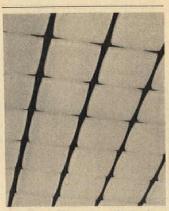
Aggregate "glue." Epoxybased matrix will bond lightweight exposed aggregate to concrete, concrete block, plywood, and wallboard. "Tuff-Lite" is troweled on and then seeded with aggregate. Description of properties, brief specs, construction details, photos of installations. 4 pages. H.B. Fuller Co., 1150 Eustis St., St. Paul, Minn. 55108.

Circle 203, Readers' Service Card

Glass block mortar. Tips and recommendations for mortar ingredients used in laying glass block are set out in data sheet. 2 pages. Glass Block Institute, One Gateway Center, Pittsburgh, Pa. 15222. *Circle 204, Readers' Service Card*

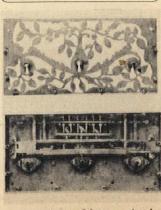
Stone. Limestone quarried in Wisconsin is available in various face textures and colors. Stone is sawed or hand hewn in bed, seam, split, and rock faces. Brochure describes different types of stone, physical properties, sizes. Color photos. 6 pages. Halquist Stone Co., Sussex, Wis. 53089.

Circle 205, Readers' Service Card



On the ceiling. A wide variety of ceiling tiles, accessories, and lighting fixtures for acoustical, suspension, and ventilating ceilings are extensively cataloged in booklet that gives physical properties, sizes, colors, acoustic and fire ratings, light reflectance, and other technical data, photos, patterns, drawings, louvers, lenses, metal grids, plastic panels, etc. 56 pages. Wood Conversion Co., Conwed Products, 332 Minnesota St., St. Paul, Minn. 55101. Circle 206, Readers' Service Card

The light aggregate. Expanded perlite for use as an aggregate in insulating concrete and plaster, and as a water-resistant, insulating fill for masonry walls is described in pamphlet with charts and tables giving physical properties, insulation values, and specifications data. 8 pages. Grefco, Inc., 630 Shatto Place, Los Angeles, Calif. *Circle 207, Readers' Service Card*



DOORS/WINDOWS

Lock and key history. An interesting and well-designed booklet tells the story of the

key as a symbol of power and traces the development of mechanical locks from 2000 B.C. through the Chinese, Egyptians, and Romans to the invention of the pin-tumbler cylinder lock by Linus Yale, Jr. Examples from the past and present include designs by Fernand Léger and Isamu Noguchi. A catalog of the extensive Yale Lock Collection concludes the booklet. Illustration above is an 18th-Century chest lock; face plate at top, and lock mechanism below. 35 pages. Yale Lock and Hardware Div., Eaton Yale & Towne Inc., 401 Theodore Fremd Ave., Rye, N. Y. 10580. Circle 208, Readers' Service Card



Lifetime kitchens. Designed for efficiency apartments or institutional lounge areas, Dwyer kitchens use a strong porcelain enamel finish that is "burned into steel." The porcelain units range in size and completeness for different uses: One model is the "Hospitality Center" (shown), disguised as a soda fountain or bar on one side and concealing a sink, refrigerator with freezer, and oven or cabinet. Booklet shows sketches and photos of all models and details features and optional modifications. Specifications and dimensions. 19 pages. Dwyer Products Corp., Michigan City, Ind.

Circle 209, Readers' Service Card

Woodworkings. Doors of many kinds (panel, sash, dutch, flush, folding cafe) and other wood products (stairways, entrances, china cabinets, mantels, gable units, shutters) are only part of the Morgan line. In addition, they offer an unlimited variety of stairways based on combinations of component parts. Included are designs for both



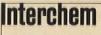


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Interchemical Corporation, Coated Fabrics Division, Toledo, Ohio 43601

Coated Fabrics

On Readers' Service Card, Circle No. 365

traditional and contemporary settings, specifications and renderings for every model. Items are not exclusively for residential use; 16-page catalogue includes flush units for accordion doors up to any size, and fire and acoustical doors. Morgan Co., P.O. Box 530, Oshkosh, Wis. 54901. *Circle 210, Readers' Service Card*

In suspension. A series of upholstered armchairs designed by Danish architect Kay Korbing have "floating" backs that are attached to the backs of the arms by two metal



bands. For use in offices, the chairs come in a number of widths, depths, and seat, arm, and back heights. Satin finished bases are aluminum for the swivel and/or tilt models and steel for stationary, fourlegged models. Folder shows variations in style and size. Black and white photos. Specifications. JG Furniture Co., 160 E. 56th St., New York, N.Y. 10022.

Colors on the floor, "Select-O-Scope" device assists designers in arriving at a desired color pattern for the threestep elastomeric liquid resilient flooring — Poraflor. The flooring consists of a solid base coat over which color





flakes are sprinkled. When this flecked base has dried, clear protective topcoats are applied. The kit consists of 17 base-coat colors and 21 clear sheets containing flake designs in addition to 12 standard color combinations. Condensed architectural specifications. Poraflor, Inc., 25– 29 50th St., Woodside, N.Y. 11377.

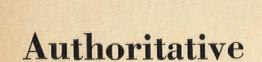
Circle 211, Readers' Service Card



A burning issue. Condon-King's catalogue shows three free-standing fireplaces. Pictured in room settings are both wood-burning and gasfired models in a choice of bright porcelain, matte, and ceramic colors. The new "Aztec," shaped like a squatting Mexican totem, contrasts its ceramic fire-chamber with black spun-steel base and vertical flue. Both the familiar conical "Firehood" and the rectangular "Manchester-Pierce" can be vented through a roof or attached into a masonry chimney. Full-color. 4 pages. Condon-King Co., Inc., Lynwood, Wash. 98036. Circle 212, Readers' Service Card

Furnishings directory. A portfolio prepared by the National Stationery and Office Equipment Association contains product information from 45 different office furnishings manufacturers and provides





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1964 384 pages \$22.00

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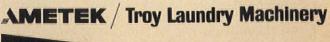
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FINK DOME

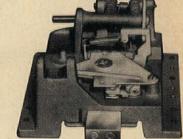
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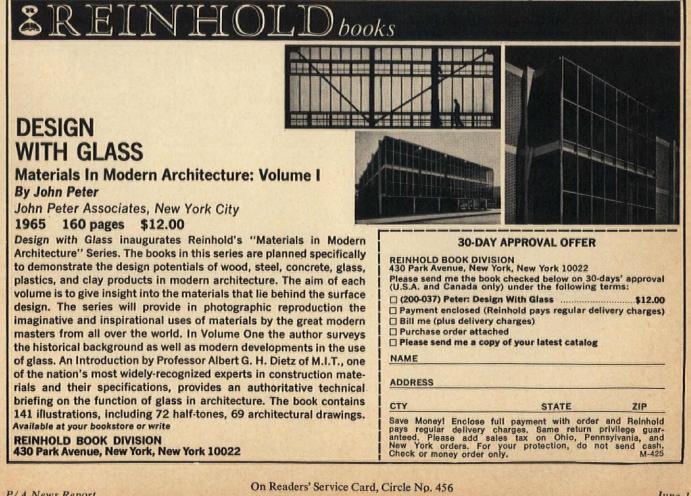
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On Readers' Service Card, Circle No. 345



six convenient checklist postcards that may be sent away to obtain more details. "Showcase '67" has three groupings of office interiors: Office Furniture, Office Seating, and Walls and Accessories. Each company includes photos and brief descriptions of a specific line or model. Some of the firms represented are General Fireproofing Co., Knoll Associates, Inc., Myrtle Desk Co., and Royalmetal Corp. Black and white photos. Cost: \$2.50. National Stationery and Office Equipment Association, 1143 Merchandise Mart, Chicago, Ill. 60654.

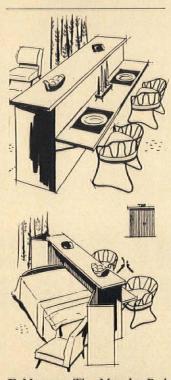


On the table. An attractive catalogue shows nine variations of CHF conference tables. Tops come in many shapes (rectangle, boat, round, oval, taper, hexagonal, octagonal); pedestal styles (single or twin) can be finished in solid cast bronze, cast aluminum, bright or satin aluminum, chrome, or porcelain. Top materials are plastic laminates, wood veneers, and a variety of table edges including a new extra-hard "Rock" edge. Specifications. Black-and-white photos. Chicago Hardware Foundry Co., North Chicago, Ill. Circle 213, Readers' Service Card

Exhibit cases on exhibit. A substantial if somewhat traditional line of exhibit cases is described by the Michaels Art Bronze Company in "Time-Tight Exhibit Cases." Dustsealed cases — table, aisle, wall, or recessed — virtually eliminate the need for cleaning the exhibit inside. Illustrated in various installations are both standard models and custom-designed cases. Catalogue includes exhibit lighting, protection features, typical room layouts, construction



details, and specifications. Black and white illustrations. 20 pages. The Michaels Art Bronze Co., P.O. Box 668, Covington, Ky. *Circle 214, Readers' Service Card*



Foldaways. The Murphy Bed Company offers the Murphy Sidebed, which can be folded out of sight by tipping it onto its side against or into the wall. Ideal for space-saving, sidebeds (single or threequarter size) can be camouflaged as room dividers, wall cabinets, and built-in bookcases. Brochure also illustrates ideas for concealing the standard Murphy Beds (both single and double) that fold heel over head into their compartments. 8 pages. Drawings. Specifications. Murphy Door Bed Co., Inc., 3 È. 44 St., New York, N.Y. 10017. Circle 215. Readers' Service Card

Supplementary furniture. Lehigh's supplement to their 1965 office furniture cataWHERE'S THE CONTROL KNOB?

a Mears M7-TP thermostat

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MEARS THERMOSTATS LAST AGES, TOO! Greek statue of Eros, dating from 300 A.D., courtesy Portland Art Museum

This new Mears M7-TP thermostat has almost everything the famous Mears M7 series has. *Almost*. But this model *doesn't* have a control knob. This model is tamper-proof!

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For more information about Mears M7-TP thermostats, write Department PA 67

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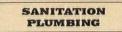


On Readers' Service Card, Circle No. 445

Manufacturers' Data 85



logue shows sofas, benches, tables, and chairs. A sofatable unit (above) of two onearmed seats separated by a low table is set on widespread bent aluminum legs (also available: bent laminated wood legs). Also shown is a leather-upholstered bench; sizes from 54" to 90" long. Supplement includes data on dimensions, materials, upholstery required. Black-andwhite photos. 14 pages. Lehigh Furniture Corp., 16 E. 53rd Street, New York, N.Y. Circle 216, Readers' Service Card



The most popular room in the house. A synopsis of Alexander Kira's research study "The Bathroom" (p. 63, JUNE 1966 P/A) is available from the manufacturer of adjustable hand-held shower sprays. Bathtub, shower, wash basin, and toilet are briefly discussed in terms of present inadequate designs and recommendations for improving them. 8 pages. Alsons Products Corp., 15280 E. Chicago Rd., Somerset, Mich. 49281.

Circle 217, Readers' Service Card

SPECIAL EQUIPMENT)

Isolating hospital laundry functions. Protecting patients against infection by staphylococcus bacteria depends to a large extent on the complete separation of clean and soiled laundry rooms. This

entails the use of special equipment with carefully designed ventilation. Catalog gives product specifications and sized drawings for manufacturer's special washer-extractors with front-and-rear access, safety-lock doors. A second booklet outlines design procedures for hospital laundries and lays out floor plans for laundries of various capacities. Pellerin Milnor Corp., P.O. Box 19264, New Orleans, La. 70119. Circle 218, Readers' Service Card

SURFACING

Tile catalog. Full-color booklet gives sizes and color samples for solid or speckled tiles with bright or matte glazes for wall, countertop, floor, special purpose, and trim tiles. Featured are "Master-Set" sheets of tiles prejoined with a special bonding material. Sheets can be applied using adhesives, dry-set mortars, or conventional portland cement and sand setting bed. Tile bathroom accessories also included. 32 pages. American Olean Tile Co., 1000 Cannon Ave., Lansdale, Pa.

Circle 219, Readers' Service Card

Walnut guide. Wood grain patterns depend on how a veneer flitch is cut and where it comes from on the tree. Pamphlet is a series of colorphoto close-ups showing different patterns created by flat sliced, half round, quartered, and rotary cut veneers from the trunk, the burl, the stump, and the crotch. 20 pages. American Walnut Manufacturers' Assn., 666 Lake Shore Dr., Chicago 11, Ill.

Circle 220, Readers' Service Card

PROGRESSIVE ARCHITECTURE

A subsidiary of Cha	ING CORPORATION pman-Reinhold, Inc. ew York, N.Y. 10022
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EXPERIMENTS IN ENVIRONMENT. Last summer, landscape architect Lawrence Halprin, his dancer wife Ann, and several others in the fields of ecology, architecture, cinematography, and lighting, took a dozen young designers and a group of dancers through a month-long series of intense experiences designed to explode all their senses and to cause deepened sensory perception for an increasingly aware approach to design and planning. The workshop, which might well be a guide for more traditional-minded schools and professionals, is recreated as closely as possible in text and photographs. One of the participants told P/A of his reaction a year later: "I will never again have any trouble finding approaches to a design, and I am sure that I'll never have a dull moment in my life because I am left so hungry to explore so many things." A significant report on a significant design happening.

A COLONIAL TOWN ADDS MODERN ARCHI-TECTURE. One of the most "New England" of New England towns is Litchfield, Connecticut. To this traditional community have come the contemporary contributions of architects such as Neutra, Breuer, Johansen, Barnes, and Noyes. The manner in which their designs fit sympathetically into the older fabrie of the town is examined, and a new library by Noyes is given special attention.

HOUSES BY A YOUNG ARCHITECT. Houses are traditionally the first design problem of the beginning architect. Peter Gluck, a 1965 Yale graduate, is no exception to this rule, but the four houses we will present in July show him to be a young designer of unusual perception and maturity.

ALSO ... a warm Bay-Area-Style apartment house by Jonathan Bulkeley; a correspondence with an Indian reader about some shaking minarets in his country that still has the editors wondering; and technical articles on kinetic structures, the tallest slip-formed building yet, and spinning expanded polystyrene into structural shapes.

AND . . . commentary in the P/A OBSERVER, all the latest in P/A NEWS REPORT, and a lot of clipand-file material from P/A's contributing columnists.

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