

P/A NEWS REPORT

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

June 1968

ARCHITECTS LEARN ABOUT COMPUTER GRAPHICS

CHICAGO, ILL. Jumping between those good old years 1968 and 2001, speakers at two recent computer graphics conferences alternately stretched their listeners' imaginations and sharpened their instincts for better business management. One conference, in New Haven, was sponsored by Yale University's Department of Architecture; the other, in Chicago, by Harvard's Laboratory for Computer Graphics.

Conferees at both meetings were treated to a glimpse of the future in a film showing a designer working with a light pen on a cathode ray tube (see p. 156, JULY 1966 P/A). As he sketched a building, filling in spaces, exits, and fenestration, the tube fed him an immediate wealth of data on such things as room areas, shadows, and distances between points.

The film, *URBAN5*, made by Nicholas Negroponte, a research associate at MIT, may have expanded the audiences' minds, but Professor Steven Coons, also of MIT, strained their credulity with an abbreviated account of a mechanism that will simulate a walk through any environment. Being developed by a Government agency, the mechanism (which Coons was not allowed to describe) evidently feeds electrical impulses either to a viewing screen or directly into the brain. Commenting on a simulated walk he took, Coons said, "It was just as if I were walking down a street."

But much of the conference was aimed at the everyday needs of the practicing architect. The attending architects wanted to know how computer graphics can aid their practices. They learned that computers and ink plotting machines are getting less expensive to operate as they grow more sophisticated; most can be rented on a time-sharing basis.

Moreover, ink perspective drawings produced from plans and elevations fed into a computer are available from service firms, and after the first drawing, subsequent drawings made from different viewpoints become economically feasible. With a series of computerized perspectives, a walk around a building or through a project can be

shown rapidly. Researchers hope to advance to a stage where they can simulate not only building forms, but also textures, odors, and an environment's other, less tangible qualities.

In a future issue, P/A will discuss in detail the present state of computer graphics, and what future developments may bring.

ARCHITECTURAL STUDENTS JOIN COLUMBIA STRIKES: OUT OF CHAOS, MATURITY



Gym site in park.

"A system is made by individuals, and if you say that now you have established a system then it is dead. But if you have established a sensibility from which a system can come, then it is not dead."

LOUIS I. KAHN

NEW YORK, N.Y. When the student strike erupted at Columbia University early last month, students and faculty members in the architectural school were caught hard at work on their final project. Within five days, all work had stopped, classes had been suspended, five major univer-

sity buildings were held by some 200 revolutionary students, and the office of University President Grayson Kirk had been ransacked.

One of the issues that ostensibly triggered the strike was an architectural one: the proposed construction of a gymnasium in Morningside Park. The particular part of Morningside Avenue from the University, is steep, rocky, and little used by anyone who is concerned with personal safety. But the entire concept of the gym and the ill-conceived use of parkland became a ready-made issue for

rebellion once excavation work got under way on the foundation.

Not only would the gym take parkland, better kept for its originally intended use, but the design of the gym merely accentuated the long-festering break between town and gown. When the university first got permission to take parkland for its own use, it provided in the gym's design a separate entrance as a concession to the community — on the lower end of the sloping site. The separate entrance led to separate facilities.

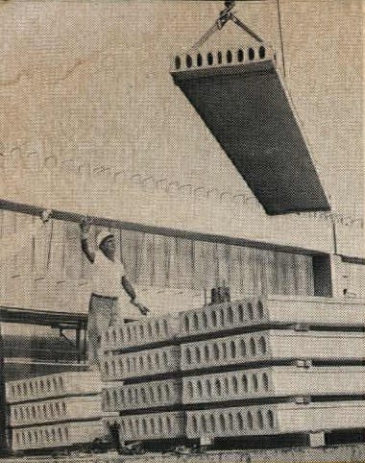
Columbia has not made itself popular with its neighbors. Its policy of buying up groups of houses in run-down areas near the university and renting them out to faculty members at rates considerably below those paid by the rest of the community has been one of the actions that has opened and maintained a gulf of misunderstanding. The gym became the focus of an outlet for these, and other, long suppressed grievances.

Ironically, two weeks before the strike the faculty of the architectural school had sent the administration a formal resolution condemning the use of parkland for building.

Now, with the university in a state of siege, architectural students and faculty alike joined the demonstrations, then sat down to write out their specific objections to the gym.

The students, 175 of them, worked out a position paper entitled "Towards Future Community University Cooperation." (Total Architectural School enrollment is 380, but 125 of these are night students and had trouble getting to Columbia during the day.) The paper called for a halt to the impersonal construction of "blockbusters, huge buildings that push the community out." They affirmed their "trust in the professional ability and integrity of our professors," and called on the university to use this ready pool of professional expertise in matters of campus building and planning. The architect-

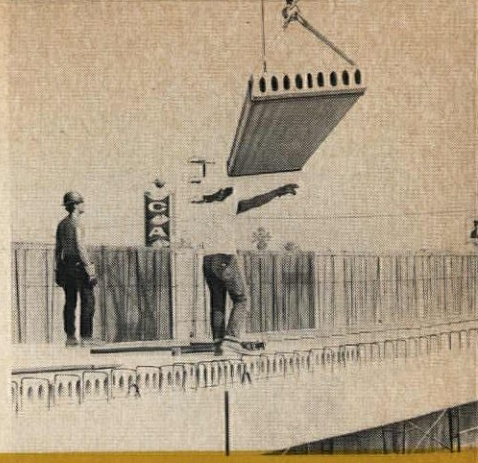
Photo: Pictorial Parade



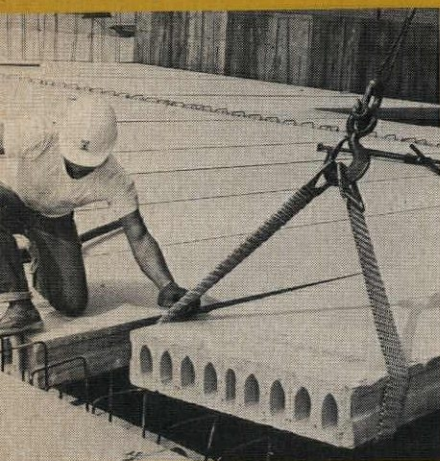
Tuesday A.M.



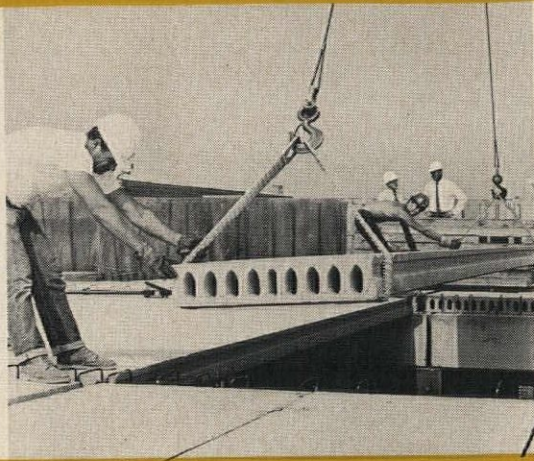
Tuesday P.M.



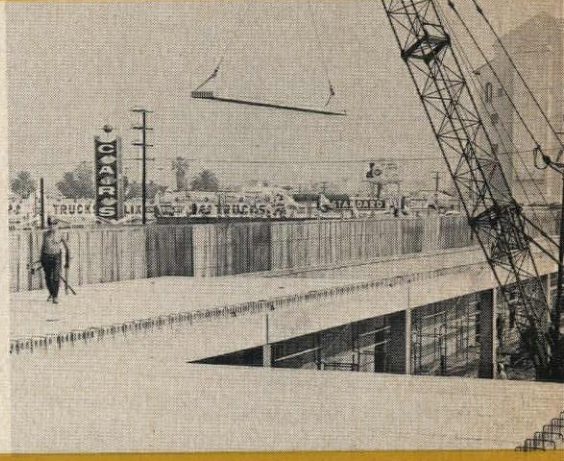
Wednesday A.M.



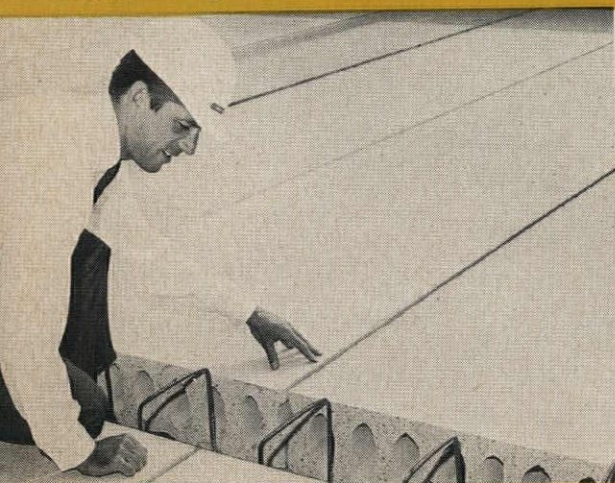
Wednesday P.M.



Thursday Noon



Thursday P.M.



Friday P.M.



Finished Job

4-day Spancrete erection provides 40,000 sq. ft. parking deck for auto agency

Fast erection: Moving at the rate of 10,000 feet per day, Spancrete erection crews provided combination roof and parking deck for the Central Ford Auto Agency in Los Angeles in just four days! Bearing for 8"-thick Spancrete was on 26' prestressed concrete beams.

Fire safety: Spancrete was designed for a 2-hour fire rating

under Los Angeles City building codes.

Spancrete shortens construction time . . . eliminates forming . . . permits fast all-weather erection . . . provides an immediate working deck . . . gives sound insulation between floors . . . reduces heat loss . . . can be easily cut for job-site special fitting. You can depend on Spancrete's top quality and dimensional accuracy.

Architect: Robert Clements & Associates
General Contractor: De Weese Construction Company
Photos by Delmar Wilson

SPANCRETE

PRECAST, PRESTRESSED CONCRETE HOLLOW CORE PLANK FOR ROOFS AND FLOORS



SPANCRETE

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tural faculty was quick to endorse this statement. It then set down its own "Position and Proposal of the School of Architecture," which it has forwarded to the administration. It suggests an "equitable distribution of university power among administration, faculty, students, and, where affected, community." Members of the community on such a governing council would have power of veto in matters concerning them. It called for continuing the strike until the gym project is permanently dropped. Further, it demanded that charges against all students strikers be dropped.

The architectural school students endorse this faculty statement in essence, but they are busy working out exact proposals of their own that would emphasize the role students should have in any new administrative set-up. Discussions in recent meetings have ranged far beyond administrative matters, encompassing a basic question of what architectural education should be.

Working out these proposals is a difficult thing, because recent meetings have merely pointed up the differences among architecture students, planning students, and night students.

But the students have time to think things out. The school of architecture has suspended all classes for the rest of the academic year, assuring everyone that no one will receive a failing grade for the semester.

Perhaps some solidarity can be achieved from the whole process. Already, both faculty and students in the architectural school have shown remarkable accord with respect to each other's ideals. "The issues are moral," notes one student, "not political," which may account for some of the accord. But at the same time, political rivalries and jealousies exacerbated by the general unrest are eating away at faculty as well as students. If each group can reach accord within its own ranks, the disruption of work may not have been a waste.

As P/A goes to press, not much has been resolved. Work has been suspended on the gymnasium at the request

of New York Mayor Lindsay. But there is no indication that the stoppage will be permanent, or, if it is not, that the gym will be redesigned.

URBAN BRAIN TRUST SETS UP SHOP

WASHINGTON, D.C. In late April, with much fanfare, the White House announced the formal establishment of a nonprofit corporation to research urban problems.

The new organization is the Urban Institute (see p. 23, JANUARY 1968 P/A), chartered by Congress, and funded initially with a \$10 million Government appropriation, and with promise of further financial support from such organizations as the Ford Foundation.

Purpose: To "assemble and make available knowledge about city problems and programs, to conduct studies on education, transportation, pollution control and other problems of urban life." A "prospectus" issued at a White House announcement ceremony stated that the new UI will study problems of individual cities, provide independent evaluation of Federal, state and local (and private) programs for the cities. It will pay, according to announcements, "above the usual government rates" to attract "outstanding scholars" to do its work. Among other things, it will accept contracts to conduct studies for Government agencies — much as is done by the outstanding military "think factory": the RAND Corporation.

President of the new organization, which will set up headquarters in Washington, is William Gorham, who quit his job as Assistant Secretary of Health-Education-Welfare to take the post. Board chairman is Arjay Miller, vice-chairman of the Ford Motor Co. No architects are named among the 15 members of the Board of Trustees, which includes former defense Secretary Robert McNamara, and engineer-industrialist Edgar F. Kaiser.

Idea for the Urban Institute dates back to a Presidential Message on Urban and Rural Poverty, issued on March 14, 1967. In that message, President Johnson called for estab-

lishment of a research group to help find answers for city problems. Last December, the President named seven men (including McNamara and others elected to the Board of Directors) to draft a charter for such an Institute, and incorporate it as a non-profit corporation.

There is little doubt that heavy emphasis will be placed on "the more desperate problems of the urban poor." "Much of the central city population," pointed out the report, "is poorly educated, miserably housed, inadequately served by health and recreation facilities. . . . We must mobilize our best intellectual resources to attack the problems."

Among other plans, the Institute plans to establish numerous task forces and commissions, to "help mobilize existing knowledge about existing problems."

FOREST IN THE GUGGENHIEM



Photo: The Solomon R. Guggenheim Museum

NEW YORK, N.Y. Environmental sculpture created a red, white, and blue forest in the limited, circular spaces of the Guggenheim Museum here during April and May, when the work of American artist Paul Feely (1910-1966) was on view in a retrospective exhibition. Nine pieces of brightly painted wood sculpture, each an elongated, three-dimensional version of a quatrefoil shape, covered 45 sq ft on the museum's ground floor and soared 21' toward the skylighted dome of the building. From the ground, the placement of the skylight seemed a happy circum-

stance, for the sculpture appeared to be growing right through the domed ceiling. Wandering in and out among the individual pieces, an observer experienced contrasting feelings of exuberance and calm, surrounded by power, yet isolated from the world; the over-all effect was much like that of being in a pine forest. But this was a modern forest, where gray-green gave way to more invigorating colors.

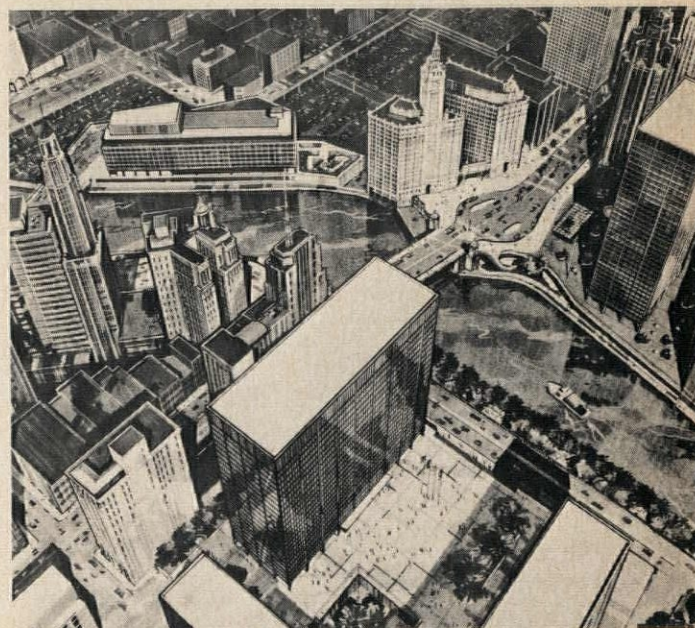
Children visiting the exhibit stretched out their arms expansively and stared open-mouthed or grinned slyly as they played a surreptitious game of hide-and-seek with the inverted corners of the "trees." Their expansive gestures seemed the most appropriate response to the environment, for, despite the hard-edgedness of the sculpture's composition and painting, the curved forms gave the impression of being on the point of sprouting like branches to fill the space they occupied. The curved edges were also responsible for optical illusions; some columns appeared to tilt, others to diverge from the pattern of shapes.

Seen from the ramps, the tree sculptures crossed lines with painted and sculpted variations on the quatrefoil shape, and with the curved lines of the ramps themselves. Since the entire museum was given over to the exhibit, the viewer who began at the top of the ramp could progress from the less interesting earlier work (characterized by the same basic shape as the more recent pieces, but without the hard edges and bright colors that provide such excitement in the latter) to a series of altering vistas provided by the building's ramps and galleries. Smaller sculptures and paintings appeared and reappeared behind the "trees" as a viewer stopped at one or another level to look across the central space.

Altogether, the installations appeared to be a great success, and to suit particularly well the kinds of spaces the Guggenheim affords. These are truly "environmental" sculptures, for they do succeed in creating a sense of their own place and space. And they're lots of fun.

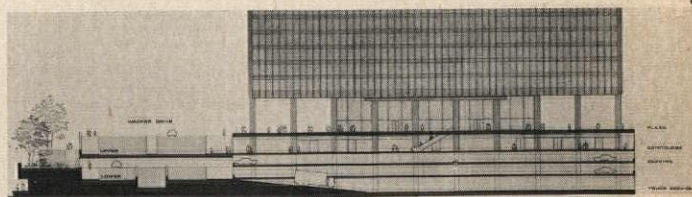
CHICAGO TO HAVE ANOTHER MIES OFFICE BUILDING BY 1969

CHICAGO, ILL. Mies van der Rohe's latest proposed addition to the Windy City's skyline is this 32-story office structure (1). It will rise on a site along the south bank of the Chicago River, opposite the Sun-Times-Daily News building and kitty-corner from the Wrigley Building (2). Directly in front of the building will be a 2-acre plaza. Below grade will be a shopping concourse that will be linked eventually with the Civic Center, the Illinois Central Station, the Prudential Building, the Public Library, and Marshall Field & Company. Also beneath the plaza



will be a service entrance and loading dock and three levels of parking space (3). Cost of the 1 million sq ft building is expected to be \$40

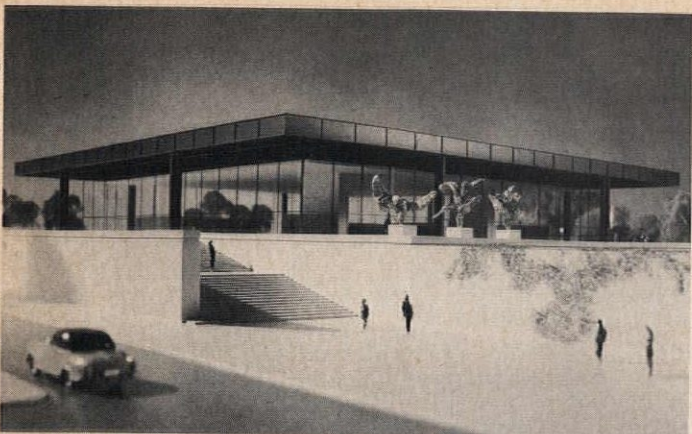
million. Owner of the site, purchased from the Illinois Central, is Metropolitan Structures, Inc., developers of Nun's Island, Montreal.



50 YEARS OF MIES

CHICAGO, ILL. Drawings, sketches, plans, models, and perspectives of 36 projects of Mies van der Rohe are on display through June 30 at the Art Institute of Chicago. Since 1938, when he emigrated from Germany, Mies has made Chicago his home, and, in do-

ing so, has made Chicago. "Architecturally, this is no longer the Second City," wrote architectural critic Ada Louise Huxtable recently. And, of course, it isn't — if, indeed, it ever was. Teaching at the Illinois Institute of Technology, Mies has turned

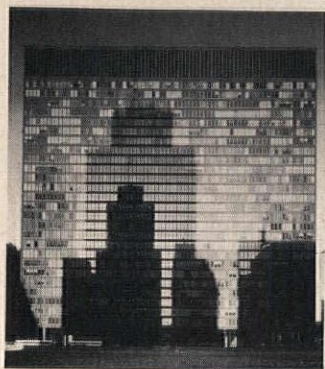


New National Gallery, Berlin.

out an entire generation of students, who, although encouraged to find their own idiom, have followed the master's. Mies found it entirely natural that individuals who followed the same principles and the same material disciplines should find similar results. And Chicago is rife with these results.

Projects in the retrospective exhibit span 50 years and are arranged in four categories: high buildings, low buildings, groups of buildings, and furniture.

It is 20 years since the last Mies retrospective appeared at the Museum of Modern Art in New York. Since then, architectural emphasis has shifted slowly from the monumental building to the building that solves a complexity of urban problems. Mies' buildings offer lasting solutions on both levels, and it is perhaps one of the limitations of the exhibit that its photos and models show only in part how well his buildings fit in-



Chicago Federal Center.

to and shape their surroundings. The Miesian aesthetic has been rejected in large part by the current generation of architects, and, in light of this, the exhibit is a reminder that despite this rejection, Mies, with his carefully refined detailing and proportions, is still what is happening.

The exhibit was put together by A. James Speyer, the Art Institute's Curator of 20th-Century Art with the aid of a grant from the Graham Foundation for Advanced Studies in the Fine Arts.

DMJM TEAMS WITH MASTER OF CHAMPAGNE MUSIC

SANTA MONICA, CALIF. At 21 stories, the office building planned for the General Telephone Company of California will have sweeping views of the coastline and of the city. When completed in 1971, the building, designed by Daniel, Mann, Johnson & Mendenhall (DMJM), will house some 1200 General Telephone employees in 140,000 sq ft of floor space on its seventh through twenty-first floors. DMJM will be part-owner of the building. Co-owner will be band leader Lawrence Welk, whose firm Teleklew

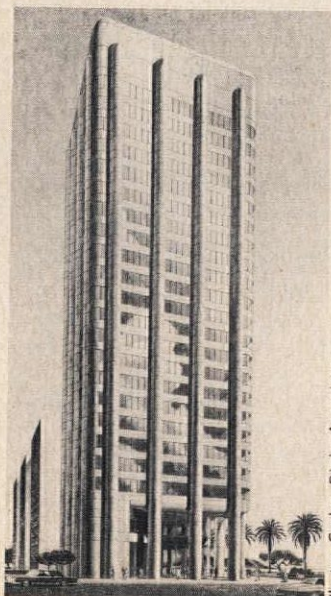


Photo: Carlos Diniz Associates

Productions, Inc., is providing some of the capital.

Shown in preliminary design, the building is reminiscent of Yale University's Kline Science Center designed by Philip Johnson (see pp. 90-97, FEBRUARY 1967 P/A). Like the Kline building, it will have hollow, load-bearing columns that house vertical air-conditioning ducts. The columns are free-standing and cylindrical at the base, semicircular above, and terminate in a bullnose detail at the top. The columns, like the spandrels, will be faced with precast concrete sections. Corner windows are of curved glass.

THE DEVELOPMENT OF THE NEW ARCHITECT: THE GEDDES-SPRING REPORT POINTS THE WAY

PRINCETON, N.J. The long-awaited study of education for environmental design has been completed. Conducted under the sponsorship of the AIA by Robert L. Geddes and Bernard P. Spring at Princeton University, the 59-page document is now being circulated to architectural schools throughout the U.S.

Ostensibly, it is a report that presents a framework for the study of architecture as it will be studied and practiced in years to come. But in making their inquiry attend to fundamentals, Geddes and Spring have produced a document that would be as applicable to the teaching of almost any subject as it would be to architecture. "We operated on a high level," says Spring. "There is a lot of what seemed obvious that we have left out."

What they have left in are guidelines individual schools of architecture may use in setting up interdisciplinary programs. These should be as broad as the needs of the students enrolled and as deep as the capabilities of the teachers. "We want schools to set up programs that are in accord with their own stated goals and that use the talent they have available," Spring elaborates. The report deplores the practice most schools have of setting up curriculums that ape those established at other schools. Everyone has a Design I and Design II and a

Strength of Materials. Under the newly proposed system, this type of meaningless, if easy, standard setting would be avoided.

The study sets up three goals, or priorities, and these are considered standards of performance, or behavior, not of status:

(1) A student (or graduate) should be able to work effectively within the real-world constraints of present-day practice.

(2) A student (or graduate) should be able to comprehend the continuing changes in the social, economic, scientific and technological setting of our society. He should be able to constantly renew and adapt his abilities in response to these changes.

(3) A student (or graduate) should be able to formulate a concept of a better environment beyond present-day constraints to give direction to his adaptability.

Implicit in these objectives is the development of an individual who knows as much as possible about as many subjects as possible. To be able to consider a problem from all possible angles is the first step in the optimal solution of that problem. This approach can lead to the upsetting of established ways of categorizing a problem. "I don't like to be told, in the midst of considering the cost of a school, that what I should be looking at is the way children are taught and whether they should be taught that way, and that maybe I shouldn't be building a conventional school at all," said one woman at an interdisciplinary seminar at Princeton recently. But architects should be able to reduce problems to fundamentals. They should at least know enough to be able to consult the proper experts.

The Geddes-Spring report suggests a continuous curriculum divided into segments of perhaps two years each. At the end of each segment, a student would be able to stop, receive some sort of a certificate, if he passes the exams, and perform a useful professional function. If he completed the entire curriculum, he would be an environmental specialist. According to the report, such an

interdisciplinary approach does not mean "that traditional disciplines give up their identity or their professional standards. But it does demand that professional organizations, registration boards, and accrediting boards work together to create a better related institutional setting for task-oriented team work in the process of environmental design."

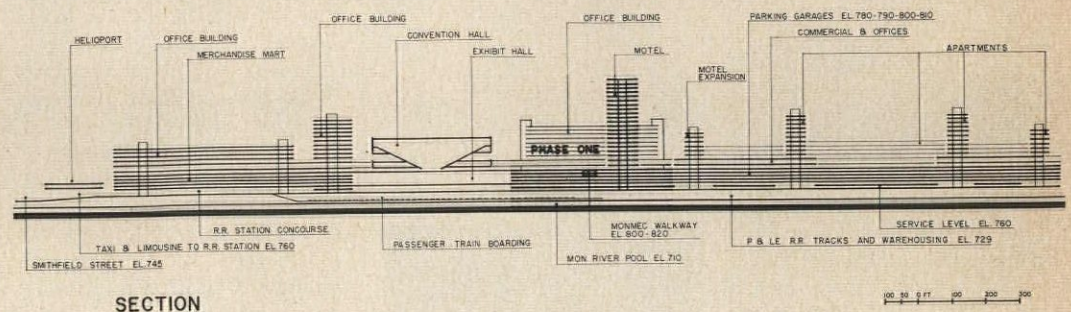
Just what might go into a study of environmental design is detailed on a three-dimensional diagram, which indicates 216 categories of ability. Although not all schools would teach all 216, each could relate its particular segment to the entire concept.

In conclusion, the report calls for national centers that would pool physical resources and teachers to develop and test environmental design curricula. And further, it suggests the establishment of several Institutes for Advanced Studies around the country where gifted teachers could go to recharge their knowledge and enthusiasm.

"A Study of Education for Environmental Design" will be the basis of continuing studies in regional and national meetings in the next few years.

COMPETITION

The 1968 HUD Awards Program for Design Excellence will be the third in a biennial series. Architects, planners, builders, developers, and local public agencies are invited to submit HUD-assisted local design programs and projects in two categories: project design and urban design concepts. The category of project design will include building and open space design in such HUD programs as neighborhood facilities, urban beautification, historic preservation, and medical facilities. Urban design concepts include plans for large areas of urban space; entries in this category must be submitted by sponsoring local public agencies. For further information, write to: 1968 Design Awards Program, Department of Housing and Urban Development, Washington, D.C. 20410.



SECTION

PITTSBURGH WIDENS ITS PORTALS

PITTSBURGH, PA. A good deal of attention has been focused in recent years on the development of Pittsburgh's Golden Triangle, the point of land at the confluence of the Allegheny and Monongahela Rivers. The area has become the heart of the city's downtown district, with the office towers of Gateway Center forming a focal point almost at the apex of the triangle. Now, however, developers of commercial, residential, and public facilities are casting about for sites appropriate for further intensive operations. With some entrepreneurs looking to the city's perimeter for opportunities in what is known as the "Strip," a group of investors that includes a major insurance company and a national religious group has set its sights on a tract much nearer the urban core. They propose to develop a 50-acre tract directly opposite Gateway Center across the Monongahela. The land, owned by the Pennsylvania and Lake Erie Railroad, is shot through with railroad tracks and accommodates a small amount of warehousing, but these potential drawbacks have been turned to advantage by the architects' plan for intensive, multiuse development.

The arrangement of facilities on the site is, according to preliminary designs by architects Deeter-Ritchey-Sippel, determined by both horizontal and vertical division of space. Extending horizontally over the site on line with the P&LE tracks would

be, first, a massing of transportation facilities; second, major commercial and office structures, and, at the end of the site nearest the Ohio River, recreational space and residential buildings. Although the complex, in plan, coheres by virtue of its overlapping structures and multi-level connections, it is its vertical structuring that binds elements and reveals the concept behind the design.

At track level, passenger platforms, railroad and truck freight loading, and 139,000 sq ft of warehousing are located, as well as a proposed marina on the river. Above the tracks, ramps permit vehicular access to a new railroad station, parking garages, and service areas, and entrance for pedestrians to a 173,000-sq-ft exhibition hall. At a third level, a heliport tops the railroad station, and a 453,000-sq-ft merchandise mart is situated above the exhibition hall. Architects have planned a broad plaza at the fourth level, from which rises a multistory motel with convention facilities. A mechanical walk, resting on piers once used to support the Wabash Railroad bridge, extends across the river to make the connection from Monongahela Plaza to Gateway Center and the downtown district. Behind the motel, forming with the motel phase one of the complex, is a high-rise office building. Additional, low-rise office and commercial structures are planned for the same elevation adjacent to the motel, and a 310,000-sq-

ft convention hall completes the market complex. Beginning at an even higher elevation, multistory apartments containing 706,000 sq ft will stand out against the background of lower commercial buildings. A 350,000-sq-ft tract of land adjacent to the site has been reserved for future construction of one of Pittsburgh's "Great High Schools" (see p. 152, APRIL 1968 P/A).

At this time, the proposal for Monongahela Plaza has not been officially approved. Developers are currently negotiating with owners of the P&LE Railroad, whose cooperation must be assured, not only for the acquisition of land, but in order to arrange a satisfactory agreement on the use of air rights above tracks and trains. Railroad officials are studying the proposal in relation to the planned development of Penn Central Park, to insure that the two projects would fill complementary needs.

U. S. FIRMS PLAN FOR SAO PAULO

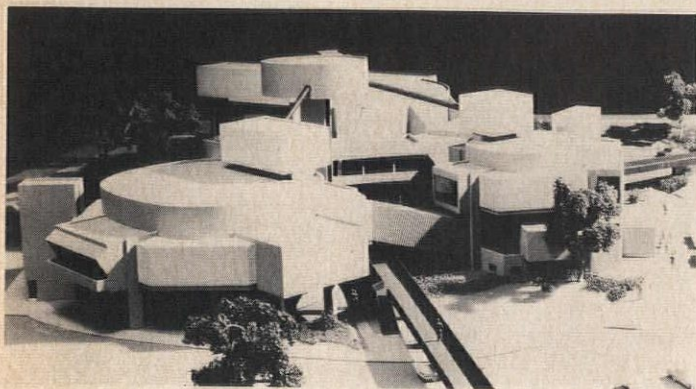
SAO PAULO, BRAZIL. Sao Paulo is growing, as they say, by leaps and bounds. In the last quarter century, its population has grown fourfold, until, with 5,500,000, it is today second in size only to New York City in the Western Hemisphere and is growing faster than any other city in the world.

Now a study is underway

to plan Sao Palo's growth to the year 2000. Financed jointly by the Brazilian government and the City of Sao Paulo, the study will be conducted by a team of six firms, four of them from the U.S.

Leo A. Daly Company of Omaha is the team's planning, architecture, and engineering component. Production of a master plan for the city is expected to take slightly more than a year.

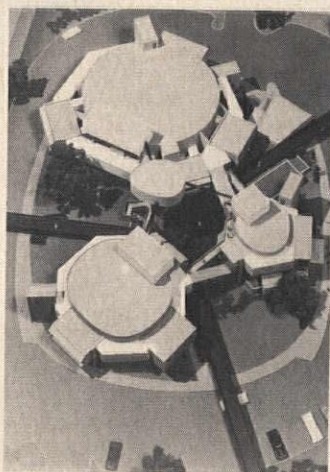
CURTAIN GOING UP IN OKLAHOMA CITY



OKLAHOMA CITY, OKLA. John M. Johansen's recently unveiled design for new Mummers Theatre in Oklahoma City is a sculptural arrangement of geometrical shapes—circles and cubes mostly—that will be the focus of visual attention for a park site in the middle of the city's urban renewal district.

Ever since plans for the \$47,700,000 Project 1-A, a plan for the renewal of the entire business center (see p. 57, MARCH 1967 P/A) were drawn up, the theatre had top priority on selection and acquisition of a site for a new building. In fact, land purchase was begun even before Federal approval of the renewal program was announced. Proud of their amateur acting company, private citizens contributed \$750,000 to a public fund for the new theater, to add to the \$1,250,000 received by the company from the Ford Foundation in 1962. Later, when construction was delayed and costs rose, the foundation increased its contribution.

Now that enough money is available, construction has been scheduled to begin this summer. The major design elements have been given a loosely structured, open form in a refreshing departure from the solid, high-walled massiveness that is often designed to impress the public with "culture." Johansen has chosen to articulate three separate building elements rather than housing all functions in a sin-



gle structure; these allow independent operations, with effective services for each from the basement level, connections at upper lobby level for convenience of management, and a free-flowing path system that carries over from the park through the building complex. The separation of elements seems wise, especially since one of them will be a theater school, with classes for children as well as adults. Largest structure in the complex will be the 600-seat theater in three-quarter round; a highly flexible arena theater will seat 250. Rehearsal hall, lobby, and office space will be housed in the same structure as the theater school. Connecting "arms" that tie the three buildings together form a truncated triangular space at the center of the complexes, a space that will, with its splashing fountains, make a pleasant setting for summer performances of plays and

musicals by the troupe.

Architect Johansen chose concrete for the main buildings. Painted, fluted metal is used for the lightweight stair systems and walkways.

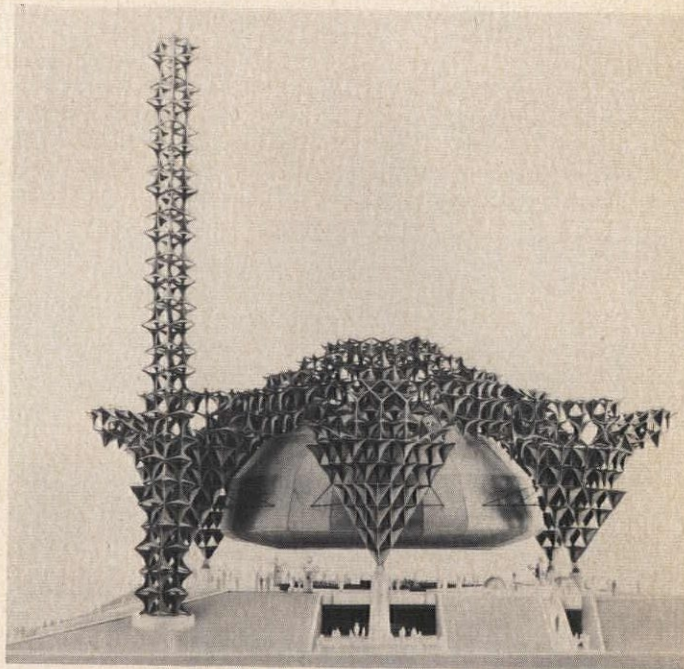
Having prevailed for 20 years, and most recently having performed in a remodeled warehouse, the Mummers Theatre deserves a new home. Now that it is assured modern

facilities, it has become the first American amateur company to turn professional (again, with help from the Ford Foundation). Its director and staff have already made the performing arts a major force in the cultural life of Oklahoma City; now, perhaps, its architect has made the theater a contribution to the visual arts as well.

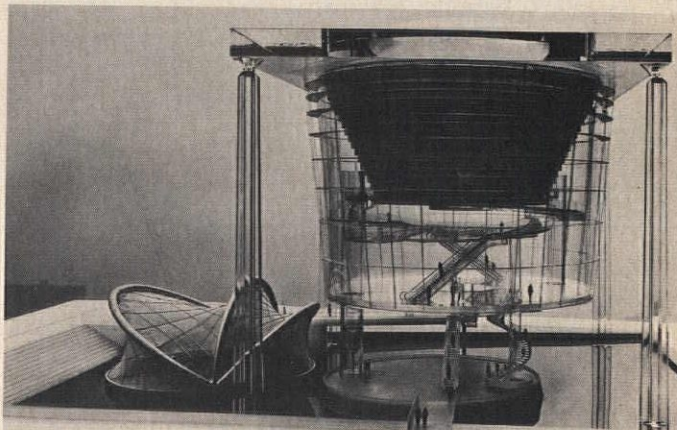
FANTASY PREVAILS IN OSAKA

OSAKA, JAPAN. The World's Fair that will open here in 1970 shows promise of becoming the reincarnation of the dreams of an opium-nipping Samurai. All Japanese exhibitors were given an April deadline for submitting

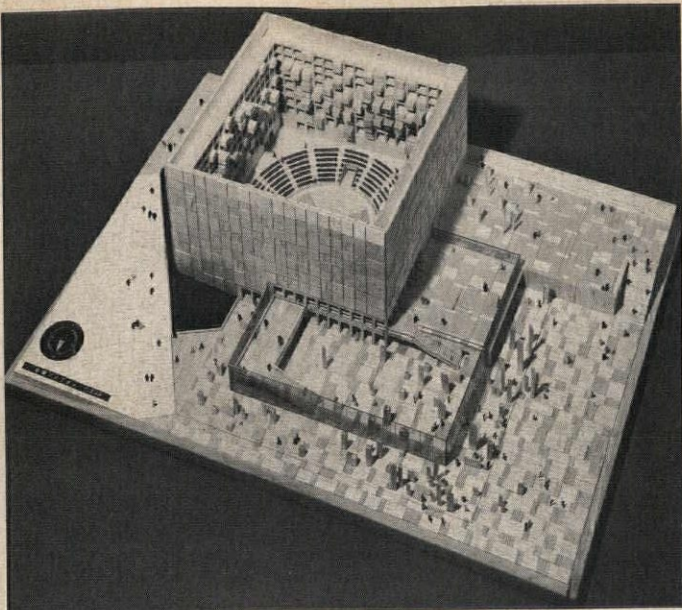
plans, and work is expected to get under way on these pavilions this month. Twenty-three foreign exhibitors were given no deadlines, and most of their proposals, including the Davis, Brody design for the U.S. pavilion, have yet to be



Global Theater for Toshiba IHI. Audience of 500 will assemble in saucer-shaped seating area on second level, be hoisted 18' into a 131' globe, and revolve slowly as nine synchronized projectors show a 15-minute film, "Light Hope for Man." Six-legged steel frame supports globe. Tower at left will rise 197'.



Electric Power Pavilion will be flanked by the U.S. and Soviet Union pavilions. It will have a semitransparent circular cone supported by four, 125' precast concrete pillars in a square pond. Also in the pond will be a floating theater.

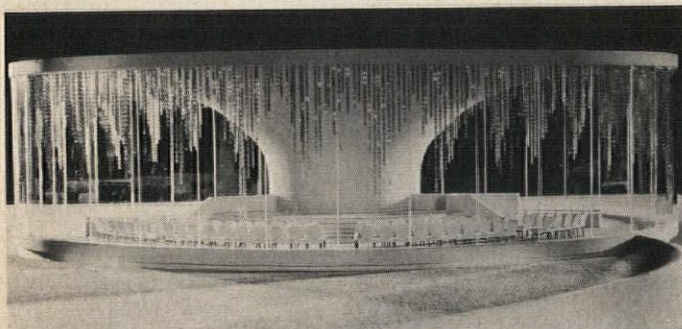


Iron and Steel Pavilion will have plaza with iron sculpture. The pavilion is a large music box in which people will sit and watch it play. Design by Kunio Maekawa & Associates.

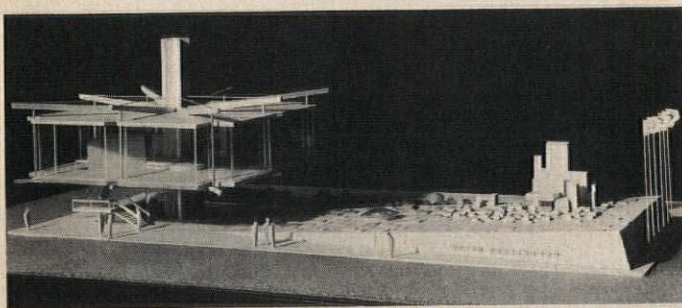
announced. Design of the U.S. pavilion cannot be completed until funds are appropriated.

Seen here are five of the Japanese pavilions, which will be grouped in one section of

the Kenzo Tange-planned fairgrounds. Not shown is a scheme for a steel framed, free-form giant dragon, which will represent 33 Mitsui Group companies.



Love will be the theme of the pavilion of the Wacoal Lingerie Company and the Ricca Sewing Machine Company. The structure's core will be a flared column of white fiber glass. At its base will be a raised stage faced by a semicircle of spectator seats. Glittering link chains will be suspended for the outer rim of the ceiling and these will be agitated by air jets. Design by Takenaka Komuten.



The Takara Chair Sales Company and its affiliates will have a "Beautilion." Underground will be a 200-seat theater, whose concrete roof slabs will be exposed at grade level. Computers will give visitors personalized advice for staying healthy and attractive.

CALENDAR

Planners who want to learn about the urban church as it relates to community planning are welcome at a confer-

ence entitled **The Church in Metropolis**, to be held at the Catholic University in Washington, D.C., June 17-28. Purpose of the conference is to encourage dialogue be-

tween churchman and planner in metropolitan areas and to show how the church can participate in the planning process. Write for application forms to: Rev. Robert P. Mohan, Director of Workshops, The Catholic University of America, Washington, D.C. 20017 . . . **The American Society of Landscape Architects' 68th Annual Meeting** will be held at the Sheraton-Brock Hotel, Niagara Falls, Ontario, Canada, June 23-26. Information on program and registration may be obtained from: ASLA, 2000 K St., N.W., Washington, D.C. . . . Planners of the **86th Annual Convention and Exposition of the National Association of Plumbing Heating-Cooling Contractors** have set aside one day of the Convention as "All-Industry Day." Architects, engineers, and other members of the construction industry will be invited to participate in activities on the second day of meetings, which will run June 23-26 in Detroit's Cobo Hall. For program information, write to: PHCC, 1016 20 St., N.W., Washington, D.C. 20036 . . . A symposium on "Stainless Steel for Architecture" will be one feature of the **American Society for Testing and Materials 71st Annual Meeting**, planned for June 23-28 at the San Francisco Hilton and Sheraton Place Hotels. Details are available from: ASTM, 1916 Race St., Philadelphia, Pa. 19102 . . . **"Experiments in Environment,"** a second joint summer workshop for dancers and environmental designers (see pp. 130-137, JULY 1967 P/A), will be conducted by landscape architect Lawrence Halprin and his dancer wife Ann, July 1-24. The workshop will be held in the San Francisco Bay area, and will focus this year on "community," or group interaction with environment. Dancers who wish to participate should apply to: Halprin Summer Workshop, 15 Ravine Way, Kentfield, Calif. Students (none below senior status) and professionals in the planning and design fields should write to: Halprin Summer Workshop, 1620 Montgomery St., San Francisco, Calif. . . . **The 1968 Athens Ekistics Monthly**, will be held in Greece July 1-26.

Theme of the month is "Man and His Settlements: Analysis and Definition of Problems." Application forms and additional information may be obtained from: The Director, International Programs, Athens Center of Ekistics, P.O. Box 471, Athens, Greece . . . **The Annual Meeting of the National Society of Professional Engineers** will take place July 3-6 in the Schroeder Hotel, Milwaukee, Wis. The Society's address is: 2029 K St., N.W., Washington, D.C. 20006 . . . The San Francisco Hilton will house the **Annual National Convention of the National Builders' Hardware Association and the American Society of Architectural Hardware Consultants**, August 4-7. Write for information to: NBHA, 1290 Avenue of the Americas, New York, N.Y. 10019 . . . **The 1968 Symposium at Stockholm** is a five-day session of lectures, discussions, and tours devoted to the exploration and understanding of the Swedish accomplishment of "the creation of a slum-free society." Those engaged as professionals or students in planning, architecture, engineering, government, sociology, and economics are welcome to participate. Address inquiries to: Symposium at Stockholm, P.O. Box 9137, Stockholm 9, Sweden . . . Scene of the **10th Congress of the Australian Planning Institute** will be "the most remote capital city in the world"—Perth, in the state of Western Australia. Theme of the congress is "Perth City and Region: A Case Study." Dates are August 18-24. Request information from: Australian Planning Institute, G.P.O. Box 1470, Perth, Western Australia 6001 . . . Organized by a group of students at the Columbia University School of Architecture, **Urbino Planning '68** will be a three-week seminar on aspects of growth and change in and around the Italian city of Urbino. Giancarlo de Carlo, the architect who prepared the master plan for the city, will head a staff of teachers, professionals, and visiting critics. The seminar will be held August 21-September 15 in Urbino. For further information, write to: G. Philip Smith, Student Secretary, Urbino



This is a ceiling at work.
It does more than look right. Because its heart, C-60 Luminaire, delivers light without glare, comfortable sound levels, conditioned air. It's a ceiling system you design with. Here, for example, vaulted C-60 modules are used with Sanserra Travertone™: a tile with a seam-hiding texture. The total system offers unusual design flexibility while meeting functional requirements. C-60 Luminaire and other ceiling innovations are described in our folio. Please write for a copy.

**Armstrong, 4206 Watson St.,
Lancaster, Pa. 17604.**

On Readers' Service Card, Circle No. 300

Armstrong
Ceiling Systems That Work

Planning '68, School of Architecture, Columbia University, New York, N.Y. 10027 . . . The National Association of Swedish Architects invites architects, students, and journalists to register for an international symposium on "**Swedish Architecture and Town Planning**," sponsored by the Swedish Institute, the National Association of Swedish Architects, and the Museum of Swedish Architecture. The seminar will take place in Goteborg-Orebro-Stockholm, September 8-15. For application forms, write to: Swedish National Travel Office, 505 Fifth Ave., New York, N.Y. 10017.

WASHINGTON/ FINANCIAL NEWS

By E. E. HALMOS, JR.

Financing Construction in an Election Year—There was no doubt, as Washington moved into summer, that the key question for the Government—and for architects and private industry—was one of finances.

The future of the construction industry in particular, as well as that of most other industries, rides on decisions concerning taxes, cutbacks in spending, and the like that Congress and the President must make before the current Congressional session ends.

These decisions are complicated by a number of factors: politics, for example (the race for the Presidency, and one-third of the Senate up for reelection); President Johnson's announcement of noncandidacy, which means that every major Governmental department head is already a "lame duck," and thus will do no more than what's absolutely necessary to keep his organization functioning; the rising crescendo of racially-oriented demands for "aid" to the "poor"—and rising resentment among taxpayers.

The almost unbelievable bitterness with which "poor people's" organizations have seized upon urban work—particularly highways—was brought to light in House hearings on Washington's freeway program: The charge

was seriously repeated that the entire U.S. highway program is some sort of plot to uproot and destroy Negro communities.

This would indicate that many—if not most—new programs in urban areas will have to be decided primarily on a sociological basis, rather than on the basis of costs, proper route alignments or locations, since politicians must consider where the mass vote resides.

As June began, the situation was as follows:

An accommodation was being worked out between the tax-writing Ways and Means Committee of the House and the Johnson Administration, combining Johnson's cherished Federal tax increase, and some substantial hold-down of Federal spending that will affect the budget until 1972 or later.

This is no simple matter. The controls will have to be placed not on year-to-year appropriations, but on "obligational authority" under which Federal departments can continue to obligate spending for years after the appropriation has been made. Otherwise, simple cutbacks of appropriations for the next fiscal year, which starts next month, are meaningless. If, for instance, Congress does not appropriate a penny, Federal agencies would still have authority under their "obligational authority" to spend well over \$130 billion.

Getting Executive agreement to a hold down on future spending has been the real stumbling block.

If a new program can be passed in time to be effective June 1, the probable effect on the construction industry is obvious: Government spending on construction work will certainly be cut or stretched out, as will planning for future work. More importantly, private industry is already beginning to hedge on its own plans, because of uncertainty about what new tax hikes may do to its capital picture.

With current prospects of a final budget deficit of some \$24 billion, the over-all picture of the stability of the dollar was a cause for worry.

For the moment, available statistics on the construction industry weren't showing more than that the industry

was holding its own in the first couple of months of the year: Total new work put in place in February, at a seasonally adjusted annual rate of \$81,300,000,000, was up slightly over January, and equally slightly (2%) over February a year ago; housing starts in March were at an annual rate of 1,476,000 units—unchanged from February, and up over the total a year ago.

Housing statistics hadn't caught up with the sudden rise in April of mortgage interest rates, and thus continued to show slight gains over 1967 in terms of sales and rental-vacancy rates.

Construction costs, however, continued to climb. After a spectacular drop in February, the monthly index of water and sewer construction costs made an equally spectacular gain in March to reach an all-time high of 121.20.

Taken together, these details spell out the following: Most construction (except possibly highways) will be cut back dramatically. If anything gets a boost, it will be housing in the low- and middle-income category, in an effort to relieve pressures on urban areas and curry favor with newly formed organizations of "the poor"—all of whom vote.

Highways: Who Pays?—There's little doubt that the whole direction of the U.S. Federal aid highway program will change, and it will change even before the current 41,000-mile "interstate" system is completed (not now anticipated before 1975).

Both state officials and Federal agencies are now calling for a shift away from the 90% Federal, 10% state formula for the interstate system to something between a 75%-25% and 66.66%-33.33% basis. The reason: With 90% Federal money available, too much stress has been placed on interstate-type roads, a vast backlog of needs on primary, urban, and rural roads—the "ABC" system—has been piling up.

One revolutionary proposal will affect architects as emphasis shifts: State highway officials this month have suggested that highway money be used to buy additional right-of-way in urban areas, and that new or replacement hous-

ing be built on this extra right-of-way to handle families displaced by urban road construction.

These officials argue that new or rehabilitated housing can be built on such land (vacant lots or abandoned buildings) cheaper by half than costs of relocating and rebuilding, certainly far cheaper than costs entailed in narrower right of way (more retaining walls, less chance for expanding capacity, and so on), and losses due to delays caused by long battles over route locations. Highway men aren't too sanguine about any real dent in housing for families displaced by building in "air space" over new roads.

Tidbits—Other Washington developments of interest to architects included:

■ Housing and Urban Development Department issued new "minimum property standards, designed to simplify and stimulate rehabilitation of housing (example: a requirement that there be 'adequate closet and general storage space,' without specifying exact footages)."

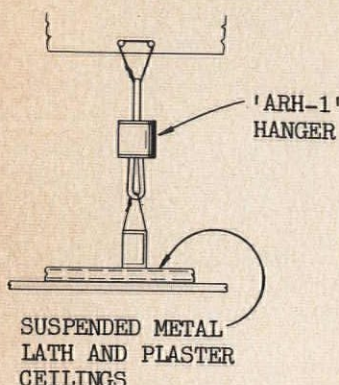
■ The first of a series of interdisciplinary conferences, entitled "Man and His Shelter," is scheduled at the National Bureau of Standards' campus in suburban Maryland for September 23-24, with builders, architects, spec writers, and others discussing performance. Meanwhile, Building Research Advisory Board held an all-day meeting in Washington to discuss all-weather construction; and NBS held a meeting on building codes.

■ The question of unionization of professional staffs got more attention as an inter-professional "action committee" (AIA, ASCE, CEC, NSPE, and others) was recommended after a meeting in Chicago. Problem also came up for discussion at national meeting on labor matters sponsored in late May by Associated General Contractors.

■ The AIA published findings and recommendations of its educational task force for architectural technician training, the result of a two-year attempt to lay groundwork for filling profession's need for well-trained subprofessionals.

PRODUCTS

ACOUSTICS



Vibration absorption. "ARH-1" rubber and wire hangers are intended to absorb vibrations from mechanical equipment. Hung ceilings, ductwork, and conduits may be suspended from the hangers, which use rubber to prevent metal-to-metal contact; the rubber purportedly will not lose its elasticity. Target Enterprises, Inc., Box 136, Westbury, N.Y. 11590.

Circle 100, Readers' Service Card

AIR/TEMPERATURE

Coloring ventilators. "Perma-Vent FG" is a commercial-institutional ventilator that comes in 14 colors structured into a polyester base of 25% glass content. One of the models (4806) of this series is 37½" high, has a 5-hp motor, and is rated at 28,000 cfm. The inlet shape and specially tapered wheel blades are claimed to aid the quiet working of the high velocity products. Exitair Co., Box 276, Pacoima, Calif. 91331.

Circle 101, Readers' Service Card

CONSTRUCTION

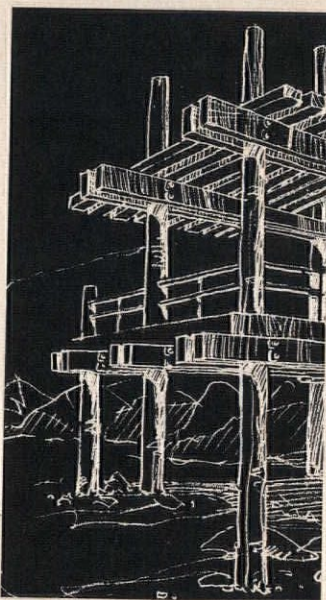
Clad steel. A copper-clad stainless steel, "TiGuard," costs less than solid copper sheets, has a lower thermal conductivity (reducing heating costs), and is claimed to produce stronger soldered joints. Among its applications: roofing, flashing, and reglets. Nailing and welding are said to be possible. Texas Instruments Inc., 34 Forest St., Attleboro, Mass. 02730.

Circle 102, Readers' Service Card

Stainless coat. Intended to be used for roofing, fascia, and

other applications, "Terne-Coated Stainless Steel" sandwiches nickel-chrome stainless steel between layers of "Terne alloy," which is 20% tin and 80% lead. The product reportedly has excellent durability, never requires maintenance, and is soldered without special preparation. The malleable material weathers to a dark gray, is produced in 20" and 36" widths; length: 144". Follansbee Steel Corp., Follansbee, W.Va.

Circle 103, Readers' Service Card



Construction poles. Resembling utility poles, "Greenpole," which is suitable for building construction, is a chemically treated Douglas fir pole guaranteed for 35 years against failure from termites and weathering. The guarantee is also applicable where a pole is in direct contact with the ground, a feature said to eliminate foundation costs. J.H. Baxter & Co., 1700 S. El Camino Real, San Mateo, Calif.

Circle 104, Readers' Service Card

DOORS/WINDOWS

Curtain wall. Specially cut neoprene gaskets combined with this company's aluminum window frames reportedly provide a 25% reduction in costs from conventional curtain wall installations. The aluminum mullions and panels accept glazing from ¼" to 1" thick. An "H"-shaped

gasket, which may be used with another strip to emphasize lines, accepts the glazing and snaps into the frames. Kawneer, Niles, Mich. 49120.

Circle 105, Readers' Service Card

FURNISHINGS



Colombo chair. A single-piece, injection-molded plastic chair designed by Joe Colombo may be used in ganged position (shown) or stacked. Produced in 15" and 18" seat heights, the chair is suitable for adults and kids. Colors: black, white. Hank Loewenstein, Inc., Box 12383, Dallas, Tex.

Circle 106, Readers' Service Card

Auditorium seats. A movable tablet arm and a single column steel support are features of "TC 477 FTA" auditorium chairs. Supports are adaptable to level and sloping floors. Seats may be ordered with full rubber cushion or coil springs. Heywood-Wakefield Co., 206 Central St., Gardner, Mass. 01440.

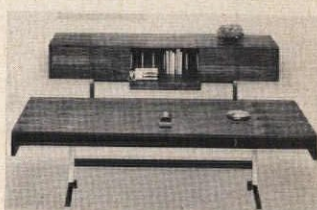
Circle 107, Readers' Service Card



Musical chairs. Designed by Grant Featherston, the "Expo II Sound Chair" is a futuristic wing chair with audio loudspeakers in its chambered, high-rise sides. A 20' cable connects the chair's twin 4" speakers with amplifiers; volume control is located in the

right side. The single-piece molded chair shell has foam latex over webbing. Dimensions: width, 29"; over-all height, 45½"; over-all depth, 33"; seat height, 16"; base diameter, 19". Weight: 40 lb. Eklektrix, Inc., 8900 Melrose Ave., Los Angeles, Calif. 90069.

Circle 108, Readers' Service Card



Office designs. Designed by William Sullivan, "Vertical Space Planning III" is intended for executive offices and makes extensive use of American black walnut. The desk has two shallow drawers at apron height; drawers are locked by a concealed mechanism. Credenzas have a 110-v outlet, 2 file cabinets, 4 drawers, and middle section with a drop-down panel that doubles as a table for office machines. Marble/Imperial Furniture Co., Bedford, Ohio 44146.

Circle 109, Readers' Service Card



Tilting students. The "Constellation" seat for classrooms tilts back 20°. The laminated plywood arms, however, remain horizontal for note-taking, although they may be dropped manually for easy exit. Black enameled steel columns support partially upholstered glass fiber shells. "The scientifically sculptured seat," says the firm, "supports the body in comfort." Clarin Manufacturing Co., 4640 W. Harrison St., Chicago, Ill. 60644.

Circle 110, Readers' Service Card

LIGHTING



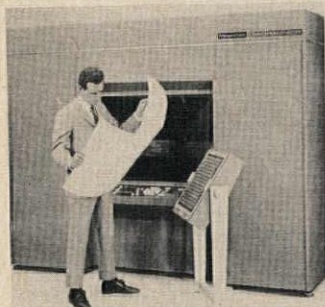
Graphics lamp. Outdoor street lights may be specified with acrylic ellipsoids having two to four flat sides for graphics. "Visual Design Unification" system provides 2000 combinations of luminaries, poles, and colors (which are baked acrylic enamel). Kim Lighting Inc., 1467 N. Lidcombe Ave., El Monte, Calif. 91733.

Circle 111, Readers' Service Card

OFFICE EQUIPMENT

Compact data. "DataDeck" uses a microfilm reader and a 7" x 26" file that holds more than 40,000 microfilmed pages or images. Products, product data, reports of various building types or categories, analyses of specific product groups (e.g., acoustics), and a master index with cross-references are intended to serve as a replacement for cumbersome catalogs. Sample swatches of interior products are contained in a separate binder and permit a better understanding of the textures projected (11" x 11" images) in color on microfilm. Idac, 415 East 53 Street, New York, New York 10022.

Circle 112, Readers' Service Card



Automated drafting. "Diagrammer" uses a photo-composing system for a drafting method reportedly four times

faster than manual drafting. Although capable of accepting punched tape instructions fed from a computer, the machine relies on an operator using a keyboard with 256 symbols; the noncomputerized mechanism results in reduced purchase costs. Architectural, electrical, plumbing, and other symbols are "typed" onto the film, which is then photographically processed. Correction may be made, and the keyboard operator always has a projected screen image (28" x 40") of previous progress, a feature that also provides a precise positioning of symbols. Mergenthaler Linotype Co., 300 E. 42 St., New York, N.Y. 10017.

Circle 113, Readers' Service Card

SPECIAL EQUIPMENT

Automated delivery. A self-propelled supply delivery cart, operated electronically, performs some of a hospital's chores. A dial control permits "Amscar" to deliver nearly half a ton of supplies throughout the areas where electronic guidewires are placed inside floors. After the supplies or food are distributed, the delivery cart can also be guided through an automatic wash. Amsco Systems Co., 2710 W. 21 St., Erie, Pa. 16512.

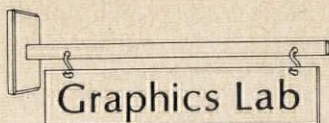
Circle 114, Readers' Service Card



School cabinets. "Systems 20" cabinets and working counters for schools include models for science laboratories, art rooms, cafeterias, books, and general classroom storage. Drawers and other interior components may be interchanged because of uniform dimensions in the cabinets. Plastic-colored fronts (blue, gold, red, moss, gray, teal) and wood-grain may be specified. Educators Manu-

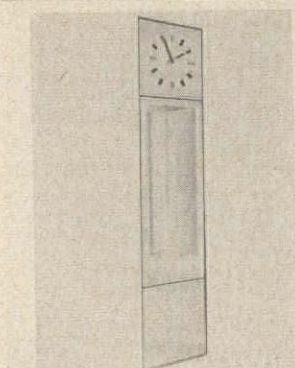
facturing Co., Box 1261, Tacoma, Wash. 98401.

Circle 115, Readers' Service Card



Architectural plates. "Graphics 1000" is a series of architectural plates or signs featuring routed, colored letters. Nine typefaces in five sizes per face may be specified with the countertop laminates of all such manufacturers. Knight Manufacturing Co., 5975 Armour Drive, Box 15282, Houston, Tex. 77020.

Circle 116, Readers' Service Card



What's in a service module?

With this stainless-steel module system, one can group together in one area such disparate, wall-mounted building service items as recessed drinking fountains, storage cabinets, waste receptacles, fire extinguisher cabinets, and clocks. The system, designed by a Canadian firm and now available in the U.S., won the Canada Design 67 Award of Excellence in New Product Design (steel category). Lighting fixtures are available with the system. Stainless steel or stainless and painted steel. CEB Corp., 4566 Baker St., Philadelphia, Pa.

Circle 117, Readers' Service Card

Skylight dome. A one-piece, fiber-glass-reinforced plastic dome skylight, the "Robertson Rooflight" is produced in insulated and noninsulated units. Insulated units use rigid urethane insulation (U-value:

0.53) and a condensation gutter. Air space is 5/8" between inner and outer domes. Light transmission: single dome, 58%; double dome, 52%. H. H. Robertson Co., 2 Gateway Center, Pittsburgh, Pa. 15222.

Circle 118, Readers' Service Card

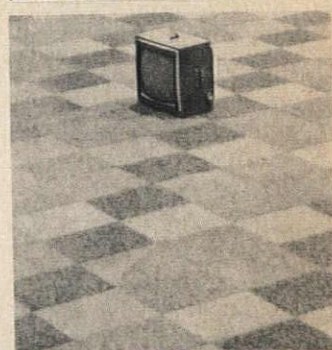
Chef's ventilators. Claimed to remove over 99% of grease from kitchen air, the "Vanguard" commercial kitchen ventilator uses a built-in waterwash device, damper, and fire extinguisher (optional) — equipment purportedly preventing flames from reaching ductwork. The water wash device is also said to nearly clean the stainless-steel ventilator. Cockle Ventilator, 1200 S. Willis Ave., Wheeling, Ill. 60090.

Circle 119, Readers' Service Card

SURFACING

Cleft palate. "Nevamar Slate" is a three-dimensional plastic laminate surface available in two grades, one for furniture and another deeper clefted pattern for vertical surfaces. The former (1/16") is on the market; the latter will shortly be available. Manufacturer claims that there is no repetition of the pattern anywhere on a sheet. Enjay Chemical Co., Odenton, Md. 21113.

Circle 120, Readers' Service Card



Tile carpet. Floor coverings in 20" square tiles can be laid without mastic. Both "Heugafloor" and "Heugafelt" gain their grip by interlocking their animal hair fiber. Heugafelt is 43% animal hair; Heugafloor, 14%. Both come in seven basic colors. The natural and synthetic fibers are needle-punched into hessian, mastic sealed, and jute backed. Van Heugten, Inc., 744 Broadstreet, Newark, N.J.

Circle 121, Readers' Service Card



Kentile Architectural Marbles Vinyl Asbestos Tile comes in two thicknesses: 3/32" and 1/8". Colors: 9. Greaseproof and easy to clean.

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Within each of the nine monochromatic colors in *Architectural Marbles* (a Kentile exclusive), there is a pleasing random variation. Result? When extensions, repartitionings, or alterations have to be made, there's never an ugly "patched floor" look. New tiles and old live handsomely together. And you get this advantage at no extra cost. Want samples? Call your Kentile® Representative.

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MFRS' DATA

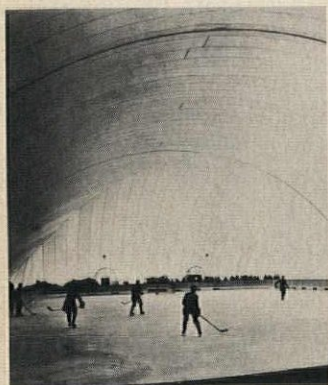
ACOUSTICS

Plenum barriers. Plenum installations of "Acoustilead," a sheet lead, are illustrated with details for joints, pan floors, ductwork, and fittings around mechanical conduits. A malleable material that can be pinch-sealed for joints, lead and its properties are described in the brochure. 4 pages. American Smelting and Refining Co., 150 St. Charles St., Newark, N.J. Circle 200, Readers' Service Card

AIR/TEMPERATURE

Hydronic package. A packaged floor or roof-mounted heating and air-conditioning system that also provides ventilation is said to be compact enough to eliminate an equipment room. Specs and boiler details are provided in a brochure. 4 pages. Edwards Engineering Corp., 101 Alexander Ave., Pompton Plains, N.J. 07444. Circle 201, Readers' Service Card

CONSTRUCTION



Industrial fabrics. Industrial glass fabrics for use in air structures, geodesic domes, insulation, sheathing, laminating, and reinforcement are charted and described in a pamphlet. Filament and yarn nomenclature, weave and finish descriptions — all are accompanied by dimensional and performance data. 20 pages. J.P. Stevens & Co., Inc., 1460 Broadway, New York, N.Y. 10006. Circle 202, Readers' Service Card

Wood, gypsum specs. A complete range of wood and gypsum products are presented with specs, full-color illustrations,

suggested installations, and some details (including several joints). Among the forest products in the product catalog: structural sheathing, decking, sidings, wallboard, interior paneling, laminating, special woodwork, and underlayment. 104 pages. Georgia-Pacific Corp., Box 311, Portland, Ore. 97207. Circle 203, Readers' Service Card



Redwood data. Details and specs for Redwood siding, walls (board and batten, tongue and groove), paneling, ceilings, grillwork, and saunas, include fastening methods, finishes, landscape design possibilities, and grading explanations. All are presented in file format. Also included: farm and industrial uses for Redwood. Suitable for loose-leaf binding. 24 pages. California Redwood Association, 617 Montgomery St., San Francisco, Calif. 94111. Circle 204, Readers' Service Card

Steel walls. "Steelox" steel wall systems are cited with finish ratings, specs, and details for fascia, partitions, walls, windows, and corners. The panels, which are available in 40' lengths, come with prepainted trim and fasten from within. They reportedly need no calking. 10 pages. Armco Steel, Middletown, Ohio, 45042. Circle 205, Readers' Service Card

DOORS/WINDOWS

Pivot sets. Nine door pivot sets that replace butt hinges are claimed to distribute the weight of the door onto the floor, not the side frame. Data on hanging methods are combined with a spec guide for

easy reference in the brochure. 6 pages. Rixon Closers, 9100 W. Belmont Ave., Franklin Park, Ill. 60131. Circle 206, Readers' Service Card

FURNISHINGS

Student furniture. The "300 Series," low-cost classroom furniture, is described in brochure illustrating a tablet armchair, stacking chair, desk (adjustable height), and chair-desk combinations. Durability is claimed because heavy-gage, 1 1/4" welded support tubes are used. Colors: clay enamel on frames; white plastic tops; and pale versions of green, red, and brown for the polypropylene seats and backs. 4 pages. Peabody Seating Co., Inc., North Manchester, Ind. Circle 207, Readers' Service Card

Fleshly vinyl. "Royal Naugahyde," a supple leathery-grained vinyl upholstery claimed to have been inspired by "the Mod influence," is available in that generation's splurge of colors — 32 in all (including "Nude"); 54" width. Samples, brochure. 4 pages. U.S. Rubber, Mishawaka, Ind. Circle 208, Readers' Service Card

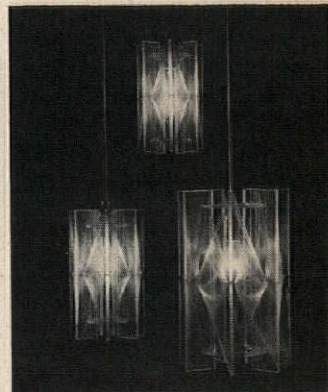
Mohair handbook. Handbook details the history, advantages, weights, densities, cleaning procedure, and availability of mohair when used as a fiber in interior furnishings. The current handbook is swatched with 16 samples of fabrics for drapery, upholstery, and wall covering. Designs of 12 different manufacturers are represented to give a cross-section of the kinds of weaves in which mohair can be produced. 8 pages. The Mohair Council, 501 Madison Ave., New York, N.Y. 10022. Circle 209, Readers' Service Card

INSULATION

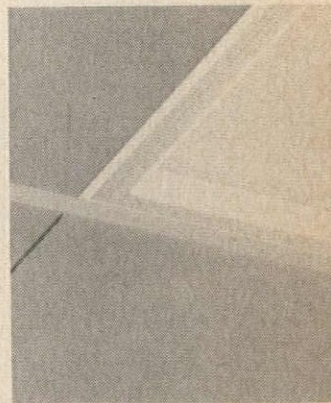
Insulation specs. Fire guide specs (commercial and institutional construction) for mechanical conduits and duct insulation materials are comprehensively presented. The manufacturer's insulation products are specifically mentioned. The specs use composite flame spread rat-

ings, not component ratings. Standards are claimed equivalent with ASTM, NRPA, and UL. Booklet. 40 pages. Johns-Manville, 22 E. 40 St., New York, N.Y. 10016. Circle 210, Readers' Service Card

LIGHTING



More lucite lights. Two brochures, "Dimensions and Shapes," show manufacturer's line of lighting fixtures in lucite, including lamps of clear filaments, translucent, smoky transparent, and lucite with wood. Clusters of hanging cylindrical units each formed of lucite planes radiating from a central, linear light source make up one of these lighting designs. Available as pendant from a metal canopy with choice of arrangement, and as individual units, either hanging or wall mounted. Another example is a 20-faced polyhedron, again in groups of individual units of polished translucent lucite, textured translucent lucite, or textured clear lucite. Aura-Lite, 326 Main St., Lodi, N.J. 07644. Circle 211, Readers' Service Card

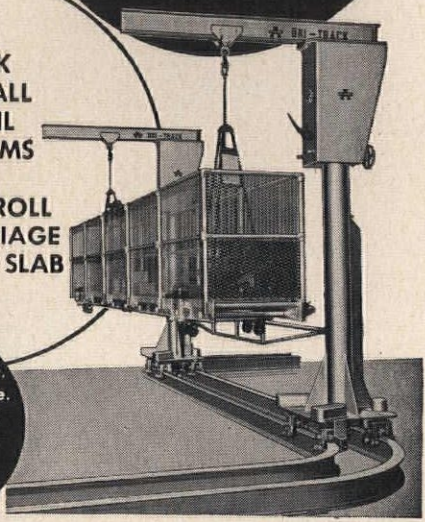


Lens discretion. Reportedly the first time that a dished, regressed lens for fluorescent fixtures has been molded in a single piece, "Controlens" is a plastic lens that eliminates



"UNI-TRACK"[®]
and
"CLIMBER"[®]
POWERED WINDOW
WASHING SYSTEMS

• Illustrated
**ROOF DECK
PARAPET WALL
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ARA W-54-CC
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Specifications
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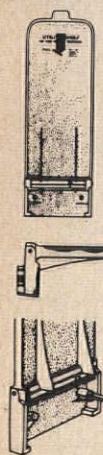
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On Readers' Service Card, Circle No. 321



**NEW... a handy
PULLDOWN SHELF**
for restroom booths

A safe place for purses, gloves, packages, hats, coats and briefcases. Sturdily built of Zamac. Attractive chrome and satin stipple finish. Self-clearing. Easily installed with just 2 bolts. A plus-factor in any building you design with public restroom facilities. Send for free specifications, price lists and installation instructions.



The NIK-O-LOK Company 422 E. New York Street
Indianapolis, Ind. 46202

On Readers' Service Card, Circle No. 365

**who said it
couldn't be done?**

Our engineers aren't interior decorators, but we have to admit they have combined modern design with functional convenience in the NEW 15A. *TRIPLEX outlets.

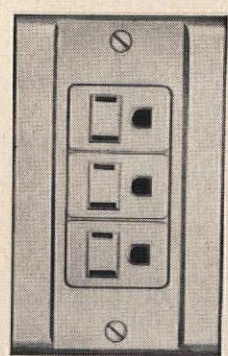
With grounding slots at the side rather than the bottom, the *TRIPLEX is designed to take two or three right-angle molded caps.

Heavy molded body features a "dead back" for added safety. Double-grip, copper alloy contacts are individually recessed for no flash-over. Terminals take up to No. 10 wire.

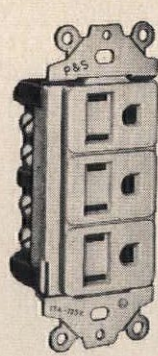
To complement any decor, rectangular opening wall plates in smooth and regular Uniline, "302" stainless steel and Chrome-X are available.

*U.S. Pat. 2,873,433. Other Patents Applied for.

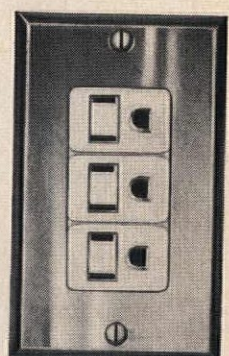
ANOTHER P&S FIRST 15 Amperes, 125 Volts



5233-I and
62061 Plate



5233-I



5233-I and
93061 Plate

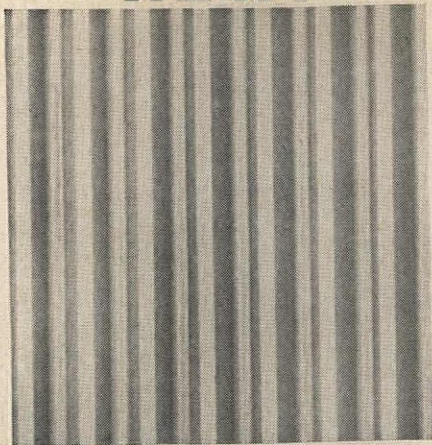
For more information, write Dept. PA 668



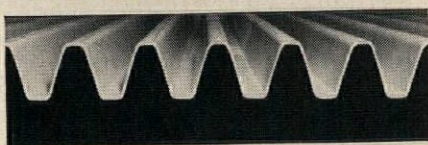
Pass & Seymour Inc., Syracuse, New York 13209
Boston • Chicago • Los Angeles • San Francisco
In Canada
Renfrew Electric Co. Ltd., Toronto, Ontario

On Readers' Service Card, Circle No. 366

NEW!



**SYMONS DEEP RIB
TRAPEZOIDAL FORM LINER**

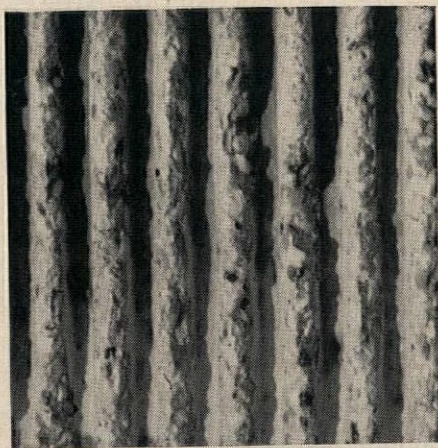


Now, deep and architecturally dramatic ribs can be easily cast into any concrete surface with this new Deep Rib Trapezoidal Liner. As the sun revolves throughout the day, distinctive shadows appear within the ribs, giving the concrete surface strong, clean lines.

The surface imparted to the concrete by the liner may be of a slightly textured finish, shown above, which is standard, or a smooth finish available on request. A rough finish, as illustrated below, may also be obtained by bush hammering or hammer blows.

Ribs are 1½" deep by 2" on center. The liner is made of special ½" plastic material which is highly durable and reusable. Either nails or a neoprene adhesive may be used to attach the liner to the form facing.

Complete information about Deep Rib Trapezoidal Form Liner available on request.



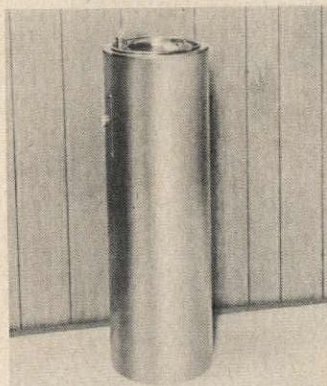
**CONCRETE FORMING EQUIPMENT
SYMONS MFG. COMPANY**
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MORE SAVINGS WITH SYMONS

On Readers' Service Card, Circle No. 385

metal splays and contains a luminous flange. Brochure is illuminated with performance data and sectional details. 4 pages. Holophane Co., Inc., 6 Ave., New York, N.Y. 10036. Circle 212, Readers' Service Card

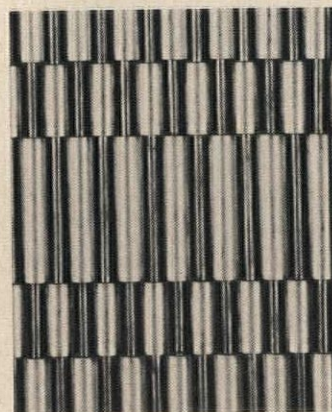
SANITATION PLUMBING



Fountain twist. Many versions of drinking fountains and electric water coolers in wall-mounted, pedestal, and table models are detailed and photographed. Manufactured in a variety of materials, types include precast stone (five colors, two aggregate finishes), anodized aluminum, fiberglass, vitreous china, and stainless steel. Also included are fountains and showers for areas where chemicals are used. Dimensional details. Catalog. 32 pages. Haws Drinking Faucet Co., 4 and Page Sts., Berkeley, Calif. 94710.

Circle 213, Readers' Service Card

SPECIAL EQUIPMENT



Decorative mesh. Woven wire meshes of brass, aluminum, and stainless steel are catalogued in 24 attractive illustrations. Applications include use as sun screens, louvers, panels, room dividers, and trim. Special orders may dic-

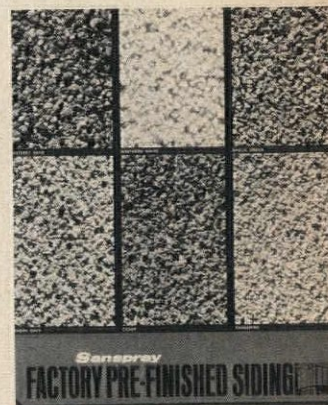
tate special designs. 48 pages. Newark Wire Cloth Co., 351 Verona Ave., Newark, N.J. 07104.

Circle 214, Readers' Service Card

Educational TV. A booklet citing basic considerations for planning educational TV facilities includes information on lighting, air conditioning, and equipment. Open circuit, closed circuit, and TV course requirements are presented with correlated tables of data. 35 pages. Hub Electric Co., Inc., 2255 W. Grand Ave., Chicago, Ill.

Circle 215, Readers' Service Card

SURFACING



Stone panels. Corner, stud, joint, and fascia details for "Sanspray," a pre-finished, exterior plywood with natural stone chip facing, are illustrated with specs in a brochure describing installation methods. The panels, which use protective epoxy resins over wood and stone chips embedded in the resin, may be ordered in lengths up to 20' and are presented in six colors. Sawing and nailing methods are virtually identical with those used on plywood panels. A decking version may be specified. 8 pages. Sanspray Siding Corp., 515 Madison Ave., New York, N.Y. 10022.

Circle 216, Readers' Service Card

PROGRESSIVE ARCHITECTURE NEWS REPORT

REINHOLD PUBLISHING CORPORATION
A subsidiary of Chapman-Reinhold, Inc.
430 Park Avenue, New York, N.Y. 10022

EditorJan C. Rowan
Associate EditorE. K. Carpenter
PublisherP. H. Hubbard, Jr.
Advertising Sales Mgr.W. H. Johnson
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NEXT MONTH IN P/A


OMNIBUILDING

"An omnibuilding really implies a different kind of society than the one which we now have," notes architect William J. Conklin "— a society in which we have both a higher order of agreement and a higher order of freedom. An omnibuilding as a goal statement leading to a physical reality becomes, then, also a method of restructuring society."

P/A, in an issue completely devoted to omnibuilding, defines the term as "those constructions of wide-ranging scale that contain a multiplicity of uses (residential, commercial, educational, recreational, public use, light industrial, religious, etc.) in a building system consisting usually of a common structural armature with substructures or additive units imposed thereon to provide spaces for the various uses." Describing the omnibuilding approach as "likely to be the major future influence on design and planning," the July P/A delves deeply into the what-how-why-when-where of these vast concepts, and illustrates five thoughtful articles with more than 40 examples of completed, proposed, and visionary omnibuildings.

Once again, P/A seizes on one of the most important issues in architecture and planning today, and, in a special, one-topic treatment of an issue, dramatically presents the profession with its many facets. The July Omnibuilding issue will become another P/A collector's item, one which you can own, along with 11 other informative issues, simply by filling out and sending in the subscription card at the end of this issue.

Bright idea



Wash fixtures that serve many and save money! Bradley Washfountains save an average of 25% on floor and wall space. You can choose from 54" and 36" diameter circular and semi-circular models, plus two-person Duos. So you can specify Washfountains that get maximum use out of every square inch of available space.

What's more, Washfountains serve up to 8 people with one set of plumbing connections, cutting installation costs as

much as 80%. They require practically no maintenance. And they reduce water consumption from 45% to a whopping 80%. Specify Washfountains for plants, commercial buildings, schools, institutions—wherever you want to handle large groups of people economically. The more Washfountains serve, the more they save. See your Bradley representative. And write for literature. Bradley Washfountain Co., 9109 Fountain Boulevard, Menomonee Falls, Wisconsin 53051. On Readers' Service Card, Circle No. 327

from Bradley!

