P/A NEWS REPORT

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

September 1966

SAARINEN FIRM CHANGES NAME

HAMDEN, CONN. On September 1, the architectural firm formed in 1950 by Eero Saarinen, which had evolved from the partnership Eliel and Eero Saarinen started in 1937, became Kevin Roche, John Dinkeloo & Associates. Since Saarinen's tragic death in 1961, at age 51, the firm has continued as a partnership of Roche, Dinkeloo, and Joseph N. Lacy. Lacy, 61, is retiring from active practice but will continue as a consultant.

Both Roche and Dinkeloo joined the Saarinen office in the early 50's. The first major project both worked on was the \$100-million General Motors Technical Center in Bloomfield Hills, Mich. ---Dinkeloo as project manager and Roche as a designer. In 1955, Roche became Saarinen's principal design associate. Dinkeloo was by then principal in charge of technical development, working drawings, specifications, and construction supervision. The



Dinkeloo (left); Roche (right).

firm has a staff of 102 persons, and, since Saarinen's death in 1961, has added \$158 million in work to the \$177 million in construction the firm had undertaken up till then.

The change in name represents Saarinen's wish, expressed in his partnership agreement, that the firm's name be changed within five years after his death.

EXPRESSWAY THREATENS HISTORIC PHILADELPHIA

PHILADELPHIA, PA. The unplanned sprawl of many cities has separated them from the rivers on whose banks they grew. And often this separation is formalized by the construction of a railroad or superhighway along the river, between it and the town. Philadelphia is the latest in the growing list of U.S. cities that the roadbuilders would so blight.

Plans by the U.S. Bureau of Public Roads call for a 10lane expressway to knife through Philadelphia, cutting along the western side of the Delaware River for more than 19 miles. Part of that route passes through the historic heart of Philadelphia: Independence Hall, Betsy Ross's house, the first U.S. bank, Carpenters Hall, and one of the nation's most famous old restaurants, Bookbinders, are all within a few blocks of the riverfront. So is Society Hill, the much touted urban renewal project, highlighted by three apartment towers designed by I.M. Pei. Ironically, another urban renewal area along the river, Penn's Landing, would be totally isolated from the rest of the city by the expressway.

Once the pendulum of bureaucracy has begun to swing, it is amazingly difficult to stop. Last summer, two groups - The Committee to Preserve Philadelphia's Historic Gateway and the Philadelphia Architects Committee - got together with the Pennsylvania Department of Highways to work out a feasible alternate proposal, calling for a cover for six key blocks of the expressway. It is a modest proposal in size; it would add \$11 million to the \$56 million the expressway would cost without the cover. But it would also restore 15 acres of open landscaped space, allow existing streets to cut through to the river, and

probably save money by increasing the land values in the area and circumventing the expense of covering the expressway later on.

Pennsylvania accepted the proposal early this year and committed the 10 per cent state share of the funds. But despite efforts in Washington by Pennsylvania legislatures and officials, the Bureau of Public Roads refused to put up the 90 per cent share of Federal funds. In June, Pennsylvania Senators Clark and Scott introduced a Senate Bill, No. 3450, authorizing construction of the cover as part of Independence National Historical Park. The park, which includes the expressway site, is being developed by the Government at a cost of more than \$25 million. Also that month, a committee committed to securing the Governmental funds needed to construct the cover was formed. The Committee to Preserve the Nation's Birthplace includes architects Martin Meyerson, Philip Johnson, Louis I. Kahn, Morris Ketchum, Jr., Peter Blake, as well as Vincent J. Scully, Jr., Wolf von Eckardt, and

Grady Clay, and several leading executives.

Another aim of the committee is to promote better highway planning by Federal and state governments, to prevent problems like this from arising again. Senator Clark has urged formation of a top-level Federal committee that would have power over such designs.

Such concern and action is long overdue. President Johnson recognizes the need for it. In a message to Congress on February 8, 1965, he stated: "I hope that, at all levels of Government, our planners and builders will remember that highway beautification is more than a matter of planting trees or setting aside scenic areas. The roads themselves must reflect, in location and design, increased respect for natural and social integrity and unity of the landscape and communities through which they pass." It is strange that, in the light of these avowed aims of the Administration, funds are not forthcoming to solve Philadelphia's plight. And it is appalling that the need for such remedies remains.

WHITNEY MUSEUM OPENS



NEW YORK, N. Y. On September 27, the Whitney Museum will formally open its doors to the public. Long awaited, the Whitney's new home, de-

signed by Marcel Breuer, with Hamilton Smith coarchitect and Michael Irving consulting architect, has been underway here, on Madison



Mo-Sai Complements Capitol Complex



Conservation Building, part of the State Capitol complex in Oklahoma City, used Mo-Sai extensively for mullions, facing, and planters.

A new Department of Wildlife

Mo-Sai rusticated joints emphasize the panel pattern.

In keeping with the character of the Capitol complex, the architects wanted a material with dignity and permanence. It had to complement the rest of the complex, yet have a character of its own befitting this building and natural to Oklahoma. They found the answer in a Mo-Sai with earth-toned aggregate ranging from beige through deep red-brown in a brown matrix.

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The structure itself was completed early last month, and the staff has been occupying its top floor offices since early summer. In execution, the structure is almost exactly as the architects originally envisioned it. Its heavy floor overhangs have engendered a rash of jokes (sample: "The architects read the plans upside down"). But it seems more subdued in reality than it did in renderings, proving only that, in this case at least, gestation has lent maturity to vision.

It is a bold, strong building, which seems exactly right in scale and proportion for its site. And its remarkably flexible gallery spaces should prove just as right for the Whitney's collection of American paintings.

HARVARD OKAYS FUND DRIVE FOR ENVIRONMENTAL STUDIES

CAMBRIDGE, MASS. In May, Harvard University gave the go-ahead for the Graduate School of Design to raise \$11,-600,000 (\$6 million for a physical plant, \$5 million for academic programs). Before this official sanction could be given, fund drives for Harvard College, the Divinity School. the Medical School, and the School of Education had to be completed. It is, of course, unfortunate that architectural education had to run fifth, but now that drive is underway. the School of Design can soon implement long-awaited programs and improvements. It has waited for eight years.

In a way, the wait was fruitful, for Harvard finds itself implementing an architectural curriculum at a time when the profession lacks clarity of direction.

Whatever the Harvard Graduate School of Design does will be watched carefully by the nation's 62 other architectural schools. There is a point to this watchfulness. Harvard had the first professional curriculum in landscape architecture, the first systematic course in city planning, and the first major postprofessional curriculum in urban design.

What the Graduate School of Design needs and wants now is increased working

space, which they hope to gain in the form of new workshops and laboratories for experimental research and practical case studies, and a new building. Some of these laboratories would facilitate programs in computers and computer graphics, which Harvard will set up. Site for the new building will be some 77,000 sq ft of land between Burr and William James Hall, behind Memorial Hall. Two of the buildings now used by the Graduate School of Design -will be taken over by the faculty of Arts and Sciences.

Perhaps most important for Harvard and the profession will be the establishment of a program in Advanced Environmental Studies. As plans now stand, an endowment of \$2,500,000 would back four interdepartmental professorships in Advanced Environmental Studies. Men from each of four disciplines natural science, programming, design, and social science will fill these chairs.

According to Dean Sert of the Graduate School of Design, the environmental studies will include four basic segments: education on the nature of man and his environment, visual education, technology studies, and social sciences. Sert sees studies of the nature of man as an exploration of man as a natural and a social animal, and of his natural habitat. Visual education would help students learn how to look and to see. It would include an analysis of forms, textures, light, and color. A study of technology would implement goals established by studies in the first two categories. But it would go beyond mere building technology - a mere study of structural and mechanical systems, etc. - to a study of the technology of neighborhoods, cities, and metropolitan regions. The professorship in the fourth area - the operational social sciences - will be held by a scholar from economics, public administration, or law. This concentration on the practical considerations of environmental change has brought some criticism. Connection, the quarterly journal of the Graduate School of Design, expressed dismay that this chair, reserved for the social sciences,

"may have nothing at all to do with social problems."

As envisioned, the Program for Advanced Environmental Studies will emphasize refresher training courses for practicing professionals, who will attend for a semester or so. This type of training has been undertaken successfully by Harvard's Journalism and Business Schools.

Under this interdepartmental scheme, architecture can hopefully bring to an end its isolation from other departments at the University. The four new professorships will be full-time positions, and although they will perhaps be rotating, whoever holds them will devote his full attention to teaching. These interdisciplinary appointments will be made by the school, not by any specific department, and in this way will resemble Harvard's "university professors," who can teach any subject they want in any department.

Émphasis is also being placed on establishing links with industry and Government agencies, so that students can stay in touch with the latest technological advances. Thought is also being given to the establishment of urban field stations, to give students a more immediate and practical kind of experience.

In addition to other changes, the Graduate School of Design plans to lengthen existing graduate studies. City Planning has already adopted a three-year program. Urban Design is considering moving from one to two years, and the Masters program in architecture may be extended to two years also.

CAMBRIDGE SEVEN REVEAL U.S. EXHIBIT PLANS FOR MONTREAL FAIR



MONTREAL, CANADA. The Buckminster Fuller's dome that will enclose the U.S. exhibit at Expo '67 is large enough (207' high and 250' across its equator) to just about cover Lever House. The design of its interior - structure, mechanical arrangement and exhibits - plans for which were approved last month by the United States Information Agency, are the work of Cambridge Seven Associates, Cambridge, Mass. Although the interior has received much less publicity, it is as sophisticated and as eyecatching as the dome itself. The entire inner structure consists of a series of seven levels, or platforms, connected by moving stairs and supported by columns that house heating- and air-conditioning ducts. In addition, partial support will be pro-



vided by two large vertical slabs that hold staircases, and (in one) an elevator. The interior structure will rise less than half the distance to the roof of the dome, where temperatures, even with air conditioning working at capacity, will hover near 180 F. Much of the actual exhibit will be suspended from the roof on wires, and the total effect will be one of color and motion, of constantly changing vistas and spaces. Part of this effect will be created by the fairgrounds' monorail, which Cambridge Seven talked Fair officials into running through the exhibit. Trains will pass through the building every three minutes or so, at a height of about 12'.

Briefly, a visitor touring the U.S. exhibit will see the following: As he enters, he faces a giant American Eagle, whose 60' wingspan covers the front wall of the rounded 300-seat theater, where a three-screen, 12-minute movie of children's games will be shown. Instead of going into the theater, he can ride an escalator to his right to the first level, and successively wander through exhibits of Indian beads and ornaments, quilts from a contest in Kutztown, Pa., decoys suspended on wires, cowboy hardware, and cartoon drawings by Tomi Ungerer and Saul Steinberg mounted on day-glow-colored panels. Overhead will be a theme pattern of American flag segments, painted on suspended sections of laminated styrofoam. Beyond the quilt and cartoons will be an area devoted to 300 Raggedy Ann, Andy, and other dolls of assorted shapes and materials, mostly hand-made, from private collections. From here, the visitor passes into a section of memorabilia drawn from political campaigns, mostly of the last century. And, beyond that, he will pass a forest-like grouping of 268 milliners' head forms on steel posts, each wearing a different hat from a typically American group, fireman hats, ranger hats, Amish hats, Indian headdresses, cowboy hats, etc. Beyond these are cases holding typically American - if off-beat - inventions: a whole raft of mousetraps, both benign and fiendish, apple corers, corn huskers, etc.



tor crossing the open space between the first and second levels. To reach the second level, which is some eight stories above ground, requires a four-minute escalator trip, which passes the hanging styrofoam flags, above the monorail, and deposits the visitor at the highest level, where, appropriately enough, the National Aeronautics and Space Administration exhibit is displayed. Hanging from the roof, just to the side of this level, will be models of

the Gemini capsule, the Surveyor space-craft, and Mariner IV. Beyond these, down a short flight of steps, above level three, will dangle a model of the Apollo capsule, hung from three brightly colored, giant parachutes, which billow just beneath the dome's roof.

Inside a circular hanging screen on the second level, eight projectors will show slides of the space program, blast-offs, countdowns, and the workings of NASA at Cape Kennedy and in Houston. The third level will hold a huge model of the lunar surface, with a lunar excursion model perched on it. From this level, the visitor moves down a long, suspended escalator that slopes at a 30° angle over open space, to the fourth level and an exhibit of huge, specially commissioned paintings (the largest is 27' x 14') by contemporary American painters, mounted on giant canvas banners, the largest of which is 87' high.

From here, he moves down to ground level behind the theater, where an exhibit of U.S. movies will be arranged. Three rear-projection theaters will show film clips of great moments from American movies, and, spaced around this level, will be props from old films: old cars, planes once flown by stuntmen, a giant replica of The Beast from 20,000 fathoms, and perhaps King Kong's foot, if Cambridge Seven can locate it.

The exhibit is sophisticated in the best sense of the word. And it is catholic in its scope, showing everything from items of apple-pie homeyness to the vast technological expertise of the space program.

It is, in short, what an exhibit should be. And it should give everyone a colorful, funfilled feeling of what it is like to live in the U.S.

CORRECTION

Due to a mechanical error, the past and present views of Corbusier's Villa Savoye (p. 73, August 1966 P/A) were mislabeled. The pristine view was, of course, "Before," and the run-down house of today was "After."

BOLD BUENOS AIRES BANK BUILDING



BUENOS AIRES, ARGENTINA Since the last part of the 19th Century, the local headquarters of the Bank of London & South America has stood at the intersection of Bartolome Mitre and Reconquista in the heart of this city's financial district. It is still there, but now it is housed in a building, opened in mid-July, that may have architectural repercussions throughout South America for many years.

Designed by Argentine architects Sanchez Elia, Peralta Ramos, Agostini in association with painter-sculptor Clorindo Testa, the building is the result of a local architectural competition involving four Buenos Aires firms.

Competition rules called for a building that would reflect the bank's reputation: "No stylized or 'forced' elevational treatment should be employed; neither should there be an application of any currently fashionable clichés which may become outmoded in due course." The bank also wanted local materials used "as far as practicable" and a maximum of interior flexibility with a

September 1966



DIXIE SQUARE SHOPPING CENTER HARVEY, ILLINOIS BUILDING: MONTGOMERY WARD & CO., INC. CHICAGO, ILL. ARCHITECT: HORNBACH-STEENWYK & THRALL, INC. GRAND RAPIDS, MICHIGAN CONTRACTOR: INLAND CONSTRUCTION INC. MORTON GROVE, ILLINOIS DISTRIBUTOR: SCHUHAM HARDWARE CO. CHICAGO, ILLINOIS



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minimum of interior columns.

The result is a building that has a soaring interior space, from first floor to the roof seven stories above it. The roof, which is of castin-place concrete, is supported by the outside wall columns and by the twin internal elevator shafts. Pouring the roof took patience: first, a steel network of temporary supports, reaching from the lowest basement level to the roof, was put up; then the wooden formwork was laid atop it; and, finally, the roof was poured in sections. Above the main roof level, two huge concrete beams, 15' high and 2' thick, were poured, spanning the space between the main elevator shafts. These beams help carry the load of the top five balcony-type floors, which overlook the main interior space and consist of precast panels hung from the roof by steel frames. The first two floors are cantilevered out from supporting columns.

The facade is a curving, spreading concrete sunscreen, woven between the exterior supporting columns. It has a sculptural effect, and, because of the inward curve near the base the building, looks as if it had grown there, reaching outward, as it swept toward the top, to reach the sun. Behind this façade is a curtain wall of aluminum and glass.

THE CHARETTE: MOCK HEROISM

Sleep, a recently published book by science writer Gay Gaer Luce and psychologist Julius Segal, may have implications for architects and one of their time-honored customs: the charette. Luce and Segal have done little more than set down facts about human abilities and reactions long known to biologists, but unknown to most other people, even doctors. They point out that the body responds to a daily rhythm-or circadian rhythm, as it is called-which affects perception, ability to solve problems correctly, and alertness. The circadian rhythm is composed of several biological factors: Body temperature, pulse rate,

blood pressure, metabolism, blood-cell count, the number of cells dividing in tissue, the volume and chemistry of the urine, kidney function, and others all follow an approximate 24-hour cycle of peaks and lows. Most of these body functions are at their peak at the same time each day-for most persons, in the morning, around 10 A.M., reaching their lowest point at about 2 A.M. The body clings tenaciously to its circadian rhythm: If a man is not asleep when the rhythm dips through its low cycle, he feels terrible, his responses are slowed, his perception dimmed. Tests show that persons in occupations that demand long hours of wakefulness are at their worst during these nadir hours: News broadcasters will slur words; airline pilots are most subject to accidents, and doctors have most difficulty making correct decisions. "Nowhere, perhaps," write Luce and Segal, "is the sharing of night duty scheduled in a more stressful and absurd manner than in medical schools. Instead of shouldering night duty for a month and then resuming normal social life, the young interns and residents follow a routine that savagely disrupts their diurnal rhythm: their duties some-

times last 36 hours. "During a month of his internship when he was working on an accident ward, Elliot D. Weitzman, a neurologist at Albert Einstein College of Medicine, recalls that he had been on duty 24 hours, and was given a few hours to sleep in the morning before afternoon rounds with patients. 'The intern is inexperienced to begin with. When he is on duty he is busy, sometimes with life and death situations often during hours when there may be nobody around to call for help. I know my decision-making abilities were diminished and by 3 A.M. I hoped nobody would come into the emergency room.'

"When older doctors are told that this routine is as unfair to patients as it is hard on interns, they take the attitude that everyone in medicine must go through this endurance test."

The authors then go on to say, "Architecture schools also create three- and fourday drafting marathons,

known as charettes, in a similar tradition of mock heroism." Perhaps the charette is the reason behind so much trancelike architecture.

Perhaps, too, even a colorful custom needs a fresh look. There seems little point in forcing oneself to work through periods of painful inefficiency. What would happen if jobs were worked out on more reasonable schedules, if practitioners slept at night to work refreshed in the morning? Coffee sales might sag. But so might fewer buildings.

CHANDIGARH THREATENED



CHANDIGARH, INDIA. Political events have been the driving forces behind many great architectural projects. Unfortunately, politics can also be their undoing. Here, on the heat-shrouded plains of the Punjab, Le Corbusier's meticulously planned "organic" city, Chandigarh, is threatened by the political division of the state of which it is the capital.

This fall, the Punjab will be divided along roughly linguistic lines into two states: Punjabi Suba and Hariana, one Punjabi-speaking, the other Hindi-speaking. Although Hindi is now the official language of India, English is still widely spoken, and the Indian constitution recognizes 14 official languages. In all, some 215 dialects are spoken throughout India.

Since neither of the two new states wanted to give up Chandigarh, the city will become the capital of both and will itself be administered by the national government as a "union territory." The problems this raises for the city are legion. For one thing, it is still not certain

Photo: Courtesy of Information Service of India ical who will use the three main government buildings that Corbu called the "head" of his city. These are the Assembly, the Secretariat, and the High Court.

As in any situation where certainty becomes doubt, many alternatives are proposed. One proposal calls for a geographical division of the city, a scheme that would destroy Le Corbusier's plan as surely as division would kill any other organism. Some effort is being made to work a second head — a second group of government buildings - into Corbu's original plan without damaging it permanently or irreparably.

When the original plans for Chandigarh were drawn up, nothing stood on that vast plain except a handful of mud-hut villages. Today, there is a thriving city of 140,000. But, with the announcement of the division of states, building here has slowed appreciably. Some observers fear that ultimately both new states will withdraw their capitals from Chandigarh, and will locate them centrally.

PCI AWARDS

CHICAGO, ILL. Commenting on the high quality of submissions to the 1966 Prestressed Concrete Institute Awards Program, jury chairman Morris Ketchum, Jr., an nounced 15 awards last month to structures showing excellence of design using precast and prestressed concrete. Shown here are the Lytton Savings & Loan Oakland Regional Office (1), and the Lytton Savings & Loan Canoga Park Regional Office (2), both designed by Kurt Meyer & Associates of Los Angeles. The surprising incidence of a single architectsingle client bringing in a



double award is a tribute both to the clean design of the architects and the progressive thinking of the client, Bart Lytton, president of Lytton Savings & Loan. Lytton, who heads the bank's design committee, has the final design say on all new bank installations, and Kurt Meyer, who has been chief Lytton architect for some time, has nothing but praise for his client. Lytton sees his banks as more than banks and sets aside over 10% of construction funds for art, much of which may be found on the exterior of the bank branches (as in the giant mobile of the Oakland Branch shown here). Each bank is sited in a plaza or public space. In these two instances, landscaping was done by Eckbo, Dean, Austin & Williams of South Pasadena, Calif.

Other award winners in the PCI Program were: Greenbriar Shopping Center, by Edwards & Portman of Atlanta; Syracuse University's School of Journalism (the S. I. Newhouse Communications Center), by I.M. Pei & Associates, with King

& King Associated; Cascade Orchards Bridge near Leavenworth, Wash., with Arvid Grant & Associates as engineers; Estancia High School in Newport Beach, Calif., by William E. Blurock & Associates; the First National Bank Building of San Diego, Calif., by Tucker, Sadler & Bennett; Children's Hospital Medical Center Parking Garage in Boston, by The Architects Collaborative; Bank of Park Forest, Ill., by Fridstein & Fitch; Central Mall and Transportation Centre, Simon Fraser University, Burnaby Mt., B.C., Canada, by Erickson/ Massey, Architects; Laboratory for Research Council of Alberta in Edmonton, Alberta, Canada, by Bell, McCulloch, Spotowski Associates; Century Building in Seattle, by Bystrom & Greco; LaGuardia Airport Runway Extensions, New York Authority Engineering Department; Los Penasquitos Creek Bridge, San Diego County, Calif., by the Calif. Division of Highways; the Laurentian Autoroute Bridges near Ste-Adele, Quebec, by the Quebec Autoroute Authorities.

WORLD TRADE CENTER NYET?

NEW YORK, N.Y. As excavation work was begun last month for the foundation of the Emery Roth & Sons, volleys of controversy over the building were still echoing in the canyons of New York. None struck a more amusing note than an advertisement in the June 30 issue of the Real Estate Weekly. It was paid for by the Committee for Better Understanding of the Port of New York Authority and was couched in the form of an apocryphal letter from Russian Premier Kosygin to the Board of the Port of New York Authority, which is building the Center. It read:

"The Soviet Ekonomicheskoy Vzaimopomoschi of the Soyuz Sovyetskikh Sotsialisticheskikh Respublik takes warm recognition of your in-

spired efforts as an agent of the State to strengthen the economic collaboration of the socialistic system by your planned construction of The World Trade Center. The vesting in the state of ownership of the largest office buildings in the world negates years of decadence of the capitalistic system of private ownership and should be the basis of continuing relationship between the Port of New York Authority and Gosplan (the State Planning Commission) for the exchange of economic and technical experience and rendering mutual aid."

> (Signed) Alexi Nikolayevich Kosygin

CLIP-ON FACADE



ATLANTA, GA. Underway in Atlanta is this 25-story building for the Life Insurance Company of Georgia. Rising from a built-up, open landscaped podium, it will be a gigantic monument, towering above its neighbors. Its facade is marble-faced precast concrete. Stainless-steel anchor clips fit into pre-drilled holes in the marble facing, holding it to the concrete, which is cast around these anchors (see drawing). Architects are Bodin & Lamberson of At-



lanta in association with Eggers & Higgins of New York.

INACCURATE BIDS BOOM AS INFLATION TAKES OFF

Inflation bothers almost everyone, not just bankers; prices are now spiraling upward in a heady dash to catch up with wages and costs. But it is almost as if the race were being run on a treadmill, for wages and costs are running just as fast as prices.

All this has been showing up in the construction industry throughout the country, and architects asking for bids on building projects are finding, with unsettling frequency, that bids are coming in far over their estimates. Bids on the Pittsburgh Stadium, for instance, were 46% higher than the designers anticipated (see p. 61, AUGUST 1966 P/A). Bids for a $1\frac{1}{2}$ -mile section of subway in Oakland, part of San Francisco's Bay Area Rapid Transit District, were 28% over estimates.

And trustees at the University of Maine found that bids on three dormitories they hope to build were 18% over the state estimate.

Too frequently, when the projects involved are public ones, the bids are rejected, for officials are often bound by law to reject over-the-budget bids. They must then, of course, either do a cost-cutting redesign or persuade voters to authorize more money. Private owners can negotiate to get a better price; but, either way, there is delay, while costs continue to spiral upward.

The Wall Street Journal reports that the average hourly rate increase in the construction trades this year has been 6.2%, topping last year's 5% increase, and the 4% of the year before last.

In addition to labor costs, the prices of materials have been steadily rising. Steel, copper, plywood, lumber, and concrete have all shown price increases, and the *Journal* quotes one contractor in the Northeast who estimates an over-all materials cost increase of 5% so far this year.

But the picture is far from bleak. Firms that have gone to the trouble of keeping close tabs on construction costs are finding their bids are as accurate as ever. And the money is available for construction: It is just a matter of keeping the client calm with an accurate construction cost estimate.

Photo: Marvin Rand

INTERPLANETARY-STYLE LIBRARY



SAN DIEGO, CALIF. The U.S. Air Force might call it swamp gas, but for students at the University of California's San Diego campus, it will be a library. Designed by William L. Pereira & Associates, the five-story spheroid library will hover like a spaceship over a 30' podium, or "forum." Beneath this raised forum (see section) will be the main library floor with optimum use areas. The two story, 200-sq-ft forum will be enclosed by a colonnade of concrete columns, but otherwise open to the elements in the good old Greek fashioned way. Pereira sees this space as "a vital meeting place for the entire campus, a place perhaps for exhibits, for certain functions and events, and — most importantly — for the exchange of ideas and opinions." The five upper stories will house 650,000 volumes and study and reading space for 1250 students. The unusual ovoid plan is thought to give greater stack accessibility. Construction on the \$3,800,000, concrete aggregate and graysolar-glass-wrapped building is scheduled to begin in the fall of 1967.



NEW YORK, N.Y. Central Park is turning its back on the Turkish "kiusck" (a pavilion of ornate variety) and going modern the kiosk way. Winner of the first architectural competition to be held by this city's Parks Department since 1907 is 29-year-old William Maurer. In the words of Parks Commissioner Thomas Hoving, his "imaginative, pleasantly temporary, prefabricated, knock-down modular design" was thought the most sympathetic to the over-all Olmsted and Vaux park plan. This kiosk would serve, rather than offend, nature. Not one blade of grass would be displaced. The Horn & Hardart food company, which contributed the \$2000 prize money, will build and operate the \$12,000 prototype somewhere in Central Park. Other such kiosks will be built throughout the city's park system as needs dictate and finances allow. This model has seven parts (see plan), which can be used singly or in any combination depending on how the crowd goes or comes. As such, it signals, as Hoving put it, "the end of the stereotyped, tired, rinky-dink type of building" that has plagued many a city agency. One hopes that other government departments will likewise benefit from the gentle breeze of architectural freedom. For more on Central Park, Hoving, and what's happening in parks now, see this month's P/A OBSERVER.

ROANOKE ON THE RISE



ROANOKE, VA. This young (founded in 1834), mediumsized (pop.: 69,287), sprawling Southern valley town, once known as Big Lick, does not share the heritage of architecture and charm that other older dominion towns do, but this is not stopping her from building one of the first civic centers in the state. In an age of galloping civic-center-psychosis, Roanoke comes by hers after a long, hard fight. After three defeats, a bond referendum finally went through last June authorizing funds for the \$7 million center. And although its 24-acre site, bounded on three sides by major highways, does not sound like much of a setting for the arts from this side of the street, the center hopes the growing tourist trade will pack its 11,000-seat coliseum and 2460-seat auditorium-theater. With ice skating, tennis, basketball, circuses, rodeos, conventions, trade shows, as well as the ballet, opera, screen, theater, and concert, attendance should not be any problem. Beneath the connecting landscaped plaza will be a

multipurpose exhibit and meeting hall. There will be parking space for 1900 cars. Exterior wall panels are to be of precast concrete, with exposed aggregate with native stone bases. Construction on this simply expressed center will begin next spring, with completion scheduled for early 1969. The project is being designed by associated architects: Smithey & Boynton, Thompson & Payne, Randolph Frantz & John Chappelear, with Somers, Rodes & Whitescarver as engineers.

PLEASANT PORTLAND INSTITUTION



Photos: Art Commercial Studios



PORTLAND, ORE. Nearing completion on a tree-lined boulevard near downtown Portland is the new building for the Oregon Historical Society. It is really two buildings in one: The front - and main - part of the structure looks out on the institutional section of the city; while the rear - a one-story administrative wing, opening off a bricked courtyard, which, in turn, opens off pedestrian walk that cuts through the block next to the building looks out on the downtown area.

Architects Wolff, Zimmer,

September 1966



Gunsul, Frasca have made good use of a sloping site for this handsome concrete building. For example, the roof of the administrative wing will be an outside courtyard,

opening off the main building's first floor rotating gallery space. Second floor will be an open, unobstructed permanent gallery, and the third

floor with its skylighted roof will be a library. In all, the building will take in about 55,000 sq ft, at an estimated cost of \$1,250,000.

THE BULK OF SCIENCE



Photo: Louis Checkman

FLUSHING MEADOW, N.Y. The New York World's Fair may now be little more than an eyesore by the side of the road, but its Hall of Science lingers on. Last month, plans were announced to turn the science pavilion there into a full-fledged science museum. The first construction phase will include a 120,000-sq-ft, \$7,500,000 complex of five one-level interconnecting blocks forming a sculptural base around the original 35,000-sq-ft Hall of Science. New York City will pay for the Nuclear Science Center (see photo), which will house a \$3 million Atomic Energy Commission exhibit, including a working reactor, which is believed to be the first available for exhibit and demonstration to the American public. Construction on this building will begin next May. The financing of the Education and Exhibit Building is still uncertain, although there is some talk about a Hall of Science of the City of New York, Inc., financing the project. Construction in this eventuality will start next August, with completion due by October 1968.

This bulk of science will be expressed by sloping cutstone walls rising 25' with a "floating" roof over the sculptured stone base. And a space-frame supporting system will provide interior flexibility and flow.

Architect of the 23-acre complex is Max O. Urbahn of New York, who has also provided a master plan for future expansion.

FRANK LLOYD WRIGHT AND THE 17 PLAQUES



STANFORD, CALIF. Shown here is the Frank Lloyd Wrightdesigned Hanna House, which, last month, along with

16 other esteemed Wrightian buildings throughout the country, donned an AIA commemorative plaque. Use of these plaques was originally suggested by Aline Saarinen, in an article she wrote in 1959 for The New York Times, in which she indicated that the AIA might well remember, in some way, one of the nation's greatest creators. The following year, a Frank Lloyd Wright Memorial Committee was formed, which included Karl Kamrath (as chairman), Edward Durell Stone, and Alden B. Dow; L. Morgan Yost joined soon after. Working with Mrs. Wright and Wright's son-in-law, Wesley Peters, at Taliesin, a list of Wright works was drawn up and 17 finally singled out. Photo-static copies of the original working drawings of each of these projects (with the exception of the two Taliesins) have subsequently been stored in the archives at the Octagon House and are available there to students and architects. Honored are: The Frank Lloyd Wright House in Oak Park, Ill. (1892); Winslow House in River Forest, Ill. (1893); Ward Willet's House in Highland Park, Ill. (1902); Unity Temple in Oak Park, Ill. (1906); Robie House, Chicago, Ill. (1901); Taliesin, Spring Green, Wisc. (1911); Barnsdall House, Los An-geles, Calif. (1917); Kauf-mann House (Fallingwater) in Bear Run, Pa. (1936); Taliesin West in Scottsdale, Ariz. (1936); Hanna House, Stanford, Calif. (1937); S. C. Johnson Administration Building (1937) and Research Tower (1947) in Racine, Wisc.; V.C. Morris Shop, San Francisco, Calif. (1949); Unitarian Church in Madison, Wisc. (1949); Price Tower, Bartlesville, Okla. (1953); Beth Sholom Synagogue in Elkins Park, Pa. (1956); and the Guggenheim Museum in New York City (1957).

MEYERSON LEAVES BERKELEY

BERKELEY, CALIF. On September 1, Martin Meyerson officially resigned his deanship at the College of Environmental Design, University of California in Berkeley, to take over duties as president of the University of Buffalo, Buffalo, N.Y. Replacing Meyerson at Berkeley will be John Burchard, who will serve as acting dean for six months, until a permanent dean is appointed.

PRECAST ASSOCIATION FORMED

TAMPA, FLA. The recently formed Architectural Precast Association has, as members, firms and individuals who work with precast concrete. It hopes to prepare a standard reference specification for quality control in the manufacturing, testing, and erecting of precast concrete work. It also plans to prepare a guide specification for use in project specifications. Current president is Jack Plunkett. Address: Architectural Precast Association, P.O. Box 5685, Tampa, Fla. 33605.

THE GREAT APE HOUSE



KANSAS CITY, MO. Six gibbons, five chimpanzees, three gorillas, two orangutans, and a partridge in a pear tree — it may sound like a Darwinian Christmas, but in Kansas City it's an everyday thing. All live happily side by side in the new \$340,000 glassand-concrete Great Ape House in the Swope Park Zoo here - the birds in a foliated 40' glass tower in the center and the apes in their cages around the periphery. Linscott Kiene & Haylett of Kansas City are the architects.

COMPETITIONS

The Birmingham-Jefferson Civic Center Authority has announced its AIA-approved competition for the design of a \$25-million Civic Center. The center, which will be built on 23 acres of downtown Birmingham property, will consist of a 14,000-seat coliseum, a 3000-seat concert hall, a 1000-seat theater, a 100,000sq-ft exhibition hall, meeting rooms, restaurant, cafeteria, and parking facilities. Jurors will be Max Abramovitz, of New York's Harrison & Abramovitz; Gyo Obata of St. Louis' Hellmuth, Obata & Kassabaum; John Carl Warnecke, head of John Carl Warnecke & Associates of San Francisco, Honolulu, Washington and New York; Harold Burris-Meyer, direc-tor of the University Theater at Florida Atlantic University; and John Fernald, London theater director. William A. Briggs, of Richmond, Va., will be the Professional Advisor. The winner, to be selected from eight finalists, will receive a \$25,000 prize toward the commission (6% of the \$22-million construction cost). The second prize will bring \$15,000 and the third \$5000. Registration for the competition closes September 24 and all entries must be in by November 1. 1966. The program is available from William A. Briggs, AIA Professional Advisor, Box 16038, Richmond, Va. 23222.

ANOTHER CLOUD PUSHER



Photo: Chicago Architectural Photographing Co.

CHICAGO, ILL. Shown here is the model for the 80-story Weinper & Balaban and Guenter W. Malitz-designed apartment building, to rise two years hence on Lake Shore Drive. The 141,000sq-ft building, which, reputedly, will be the tallest reinforced concrete building ever built, will house 1200 apartments. Its three wing pin-wheel shape will offer maximum exposure to the lakefront and maximum structural stability against wind loads, while permitting relatively short (75') corridors, terminating in central elevator lobbies on each floor. A garage for 1000 cars flanking the tower will have three tennis courts, pools, and landscaped areas on its roof. Construction will start this fall.

OBITUARIES

FREDERICK FROST, president of the New York Chapter, AIA, from 1939–1941, and founder of the New York architectural firm of Frederick G. Frost, Jr. & Associates, died July 30 at the age of 89 in Stamford, Conn.

DOUGLAS W. ORR, 1947–49 president of the AIA, designer of the controversial Taft Memorial Tower in Washington, D.C., and partner in the firm of Douglas Orr, deCossy, Winder & Associates of New Haven, died on July 29 at the age of 74.

GERALD A. BARRY, president of Barry & Kay, Chicago architects, died at the age of 71, June 9, 1966.

AWARDS

Winning structures in the annual competition for steelframed buildings, sponsored by the American Institute of Steel Construction, are: the Chicago Civic Center, designed by C. F. Murphy Associates, with Skidmore, Owings & Merrill, and Loebl, Schlossman, Bennett & Dart associated; the Equitable Building in Chicago, by Skidmore, Owings & Merrill; the Inland Steel Products Co., in Milwaukee, Wisc., by William P. Wenzler, in association with The Engineers Collaborative, Ltd.; the Birmingham Bloomfield Bank in Wixom, Mich., by Ziegelman & Ziegelman of Birmingham. Awards of Merit went to the Atlanta Stadium, by Heery & Heery, and Finch, Alexander, Barnes, Rothschild & Paschall, associated architects; the State Street Bank Building in Continued on page 67



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Dormitory—Women's College , University of North Carolina Greensboro, North Carolina. SIX Associates, Inc., Architects.



Boston by Pearl Street Associates (a joint venture of R. A. Stahl & Assoc., Inc., Hugh Stubbins & Assoc., Inc., and William J. Le-Messurier Assoc.); and the First Federal Building in Detroit, designed by Smith, Hinchman & Grylls Assoc., Inc., of that city.

CALENDAR

The Prestressed Concrete Institute's convention will be held at the Rice Hotel in Houston, Tex., September 25-30 . . . From September 27-30, the Producers' Council, a national organization of manufacturers of building products, will hold its annual meeting at the Waldorf-Astoria in New York City The Jack Tar Hotel in San Francisco will play host to the Industrial Designers Society of America from September 28-October 2. San Francisco landscape architect Lawrence Halprin will be a featured speaker at the meeting, whose theme is "The Thinking Season." The IDSA is now the single industrial design organization in this country, formed in 1965 through the merger of the Industrial Designers Institute, the American Society of Industrial Designers, and the Industrial Design Education Association Downtown modernization

and beautification will be the subject of a two-day workshop sponsored by the National Retail Merchants Association, in cooperation with Laurence A. Alexander & Co. To be held October 4-5 at the Waldorf-Astoria. Advance registration fee is \$75. For further information, write David Breedon, secretary to the Downtown Development Committee, National Retail Merchants Association, 100 W. 31st St., New York 1, N. Y. . . The California Council, AIA, will meet from October 7-9 in Monterey . . . The International Hall of Building Industrialization will be held October 8-16 on the new Fair Grounds in Bologna, Italy. This year's featured attraction will be a comprehensive exhibit of prefabricated units and methods of building . . . A short course on Sound Transmission Loss

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and Acoustical Correction will be held October 17-19 at O'Hare Airport, Chicago, Ill. Information may be obtained from Robert Lindahl, 2261 Winthrop Rd., Trenton. Mich. 48183 . . . The Architectural Woodwork Institute will hold its annual convention in Williamsburg, Va., October 19–21 . . . "Architecture's Challenge — America's Future" will be the theme explored by members of the AIA South Atlantic Regional Conference, to be held at the Queen Charlotte Hotel, Charlotte, N. C., October 26-29 . . . The Pennsylvania Chapter, ASLA (American Society of Landscape Architects) will hold a regional symposium at the Hotel Hershey in Hershey, Pa., October 27-29. The topic will be "Toward a More Livable City." Infor-mation is available from Charles A. DeDeuwaerder, Program Chairman, 1101 Greenfield Ave., Pittsburgh, Pa. 15217 . . . A critical exploration of what's good and bad about building products literature will be the featured topic of a two-day conference, November 9-10, at the Statler Hilton Hotel in New York City. Registration is being handled by the Producers Council, 1717 Massachusetts Ave., Wash-

ST. LOUIS GOTHIC

ington, D.C. 20036.



ST. LOUIS, MO. When architect Charles Klauder designed the Concordia Seminary of the Lutheran Church 40 years ago, he saw a Gothic tower as the center of his design. "In a group of buildings," he wrote, "surrounding enclosed courts, which in themselves give a sense of protection and coziness, the charm of these is enhanced by the possibility of seeing from each the beautiful topping of a structure which reaches in-

to the skies. Of course, if the architect could follow his own inclination, he would erect the tower first and build down from this ideal. The public seems firm in the belief that the only phase of architecture to be stressed is that part which has to answer to the technical requirements, forgetting that, if we are to have any culture, it is necessary also to provide for the idealistic." Bending to technical and financial requirements, Klauder's tower got only 30' off the ground.

In May, Luther Tower was finally topped out, following a Gothic design prepared by Froese, Maack & Becker of St. Louis. Construction of the 120' high, 20' square tower took two years and the efforts of four full-time stonemasons from Stone Center, the firm that did the seminary's original stonework.

In New York, where plans are underway to complete the Cathedral of St. John the Divine (see "St. John, the Unfinished," below), the beauty of contemporary Gothic stonework should be looked at with care. Writing of Luther Tower to P/A, architect Rex L. Becker said: "It is good to know that such high quality craftsmanship is available in St. Louis, and that everything today need not be slick and sleek and machinemade."

"ST. JOHN, THE UNFINISHED"



NEW YORK, N.Y. The Cathedral of St. John the Divine has been under construction, off and on, since 1891. By fall, Frederick J. Woodbridge of the New York architectural firm of Adams & Woodbridge, hopes to have plans available for the cathedral's completion.

There seems to have been little hurry about completing the project. Work has gone on slowly throughout most of this century, although the last piece of actual construction was done in 1941. Conservative in its building program, the cathedral has never begun any work until funds were available to pay for it. And part of Woodbridge's project is to present completion plans upon which the cathedral officers can base cost estimates. Since last October, \$2 million of the estimated \$20 million cost has been raised.

There may be no air of

Photo: Courtesy "The New York Times" urgency. (Spokesmen keep pointing out that Westminster Abbey took 837 years to build.) However, the church has chosen now to act and behind its decision may be a hunk of mortar that fell from the dome to the church floor not too long ago. The dome itself was put up in 1895 as a temporary structure, and there is some worry that other pieces of mortar or plaster or masonry may work loose from it and fall.

Woodbridge's plans include completion of the crossing, the west front, and the towers. Scaffolding to be used in placing the towers' stonework has been in place since the 1920's although Woodbridge's towers will not be as tall as the 267' called for in 1911 by Ralph Adams Cram. Cram's additions to St. John's were Gothic, and before that the work of Heins & LaFarge was "Transitional Byzantine" with Romanesque overtones. Woodbridge plans to use contemporary metal and glass and concrete. "I don't know what style you would call it," he says of his as yet unveiled plans. Traditional stonework is almost impossible to produce nowadays. Most of the stonemasons in the U.S. have permanent employment on the Washington Cathedral. "New York City," Woodbridge says, "has only eight competent stonemasons."

Two considerations are foremost in Woodbridge's plans. He will keep the vast space beneath the dome free from girder or pillars. And he will use two elevators to replace the winding, 16-story staircase leading to the roof beneath the towers.

Perhaps some contemporary cathedral designer will find a way to keep the traditional grandeur and eloquence while providing heating and cooling, and in doing so eliminate the need for metal-and-glass entrance doors. (For another proposal for St. John's, see p. 181.)



The largest of the three buildings will be a square, four-story Men's Jail, housing, on its third and fourth floors, up to 1200 inmates. The Women's Jail (left, in photo) will have administration, public visitation, and other functions on its first floor, and space for 156 female prisoners on its second. For exercise, the prisoners will use the "suitably fenced and screenedin" roofs of their respective buildings-a rather cruel solution, considering that the public will be allowed to amble through the plaza below. The final building, the Sheriff's Headquarters, will have two stories, and, reportedly, one of the most modern crime laboratories in the country.

The architects, aware of the incongruity of a jail in the midst of a civic center, have prettied up the complex with textured and patterned concrete walls. Perhaps we are going back to the Old Westthe jail on Main Street approach practiced by such strong arms as Dillon, Garrett, and Masterson. But even if Santa Ana is once more putting the jail in the midst of things, she is doing so with a difference. The iron bars have changed to artistic concrete work. And the Bad Guys don't wear black anymore.

ENERGY AT EXPO



"DON'T DISCONNECT -- CONNECT"

ATLANTA, GA. Such was the rallying cry of Atlanta architects Toombs, Amisano & Wells when construction was begun recently on the Atlanta Memorial Cultural Center. The \$13 million, cast-inplace concrete center (model shown above) will house under one roof the High Museum of Art, the Atlanta Art School, the Atlanta Symphony Orchestra and facilities for all the performing arts. Plans call for a museum

(with a 450-seat autororitin), a 1925-seat symphony hall, a 891-seat theater, and an art school to ring around a 52' x 232' multipurpose (open space, exhibit space, or meeting space for 1000 persons) galleria. Atlanta hopes to have ready by 1968 its memorial to the 126 members of the Atlanta Art Association killed in a plane crash four years ago. But only time will tell whether this is a plum on Peachtree Street.

HELP! I'M A PRISONER IN A CIVIC CENTER



SANTA ANA, CALIF. Last May, construction was begun on a \$10 million, three-building 8acre complex in the southwest corner of the Santa Ana Civic Center. When the three buildings, designed by the Los Angeles firm of Albert C. Martin & Associates, are finished in mid-1968, few of the



der's contribution, an immense (46 tons, 67' x 94') "Man." The stabile—Calder's largest work—which was commissioned by the International

Nickel Company of Canada, will be built in France of stainless steel and bolted together on the fair grounds next March. Its rearing pinnacles and vaulting arches are not much different from his "Ticket Window" at Lincoln Center (p. 43, DECEMBER 1965 P/A), or "Big Sail" at MIT (p. 53, JUNE 1966 P/A).

September 1966

Architect : TANNENBAUM, KOEHNEN & DEMETER, Milwaukee, Wisc. Developer : TOWNE REALTY INC., Milwaukee, Wisc. Contractor : LEMBERG ELECTRIC, Milwaukee, Wisc.

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But presumably because the stabile had to conform to the Expo theme of "Man and His World," Calder worked man — lollypop style — into his otherwise forceful sculpture.

New in the pavilion line is the Venezuelan addition to Expo. Designed by Carlos Raul Villanueva, his country's leading architect, the pavilion is composed of three cubes 45' on a side. The cubes will be red, black, green, blue, and yellow, — their stone walls polished to mirror finish.

SCHOOLS

The American Iron and Steel Institute has recently presented five \$8000 grants to architectural schools at Columbia University, Clemson University, IIT, the University of British Columbia, and the University of California at Berkeley. The grants are to encourage more creative studies leading to advances in steel construction . . .

Starting September 20, at the Center for New York City Affairs of the New School for Social Research, eight courses of architectural interest will be offered. Peter Blake, editor of Architectural Forum, will teach a course on "Architecture and Design in New York City." Louis Schlivek, consultant with the Regional Plan Association, will discuss "The New York Metropolitan Region: Its People and Prospects." Francis Bloustein, vice-chairman of the New York City Planning Commission, will conduct a seminar, "Case Studies in City Planning." Elinor Guggenheimer, member of the City Planning Commission, will give a course on "A Recreation Program for New York City." Roger Starr, director of the Citizens Housing and Planning Council, will conduct a course on "Housing Rehabilitation: Decent Homes in Shabby Structures." Michael E. Eskstein, sociologist, will discuss "Dreamers, Engineers and Citizens: The Idea and Reality of the City." Charles Abrams, chairman of the department of urban planning at Columbia's school of architecture, and Percival Goodman, professor of architecture at Columbia, will

present a special lecture course on "The Future of the Metropolis." Further information may be obtained from the Office of Registrar, The New School, 66 W. 12th St., New York, N. Y.

MORE STEEL AND GLASS FOR SAN FRANCISCO



SAN FRANCISCO, CALIF. Designed in the Miesian tradition, The First Savings Building will be completed here by 1968. It will be the home office of the First Savings and Loan Association and northern headquarters of the Great Western Financial Corporation. As conceived by the office of John Carl Warnecke, the 26-story building will have a gray glass curtainwall, but this expanse of metal trim and glass will be broken on each façade by six strips of bay windows running up to the mechanical floors. It will be located at the corner of California and Sansome Streets. Groundbreaking should be underway this fall.

EAVESDROPPINGS

"Today, we [architects] are an affluent profession in an affluent society. If we allow ourselves to be submerged in the day-to-day demands of our own prosperous workloads, ours will be a petty triumph soon forgotten. Failure to give a full measure of devotion to the demands of function, craftsmanship, art, and science which architecture must satisfy means that others will fill a gap we ourselves have created." Morris Ketchum, Jr., in an address to the Second Boston Architectural Conference, May 14. 1966.

"It is not easy to devise the means by which to inculcate the appreciation of beauty. To some it comes naturally, to others it is intellectually received. . . . If I were a teacher, I do not know what techniques I would use, beyond attempting to stimulate a mere interest in the question. Perhaps I would try showing the children slides of various buildings, and asking. 'Is this ugly? Is this beautiful?' and bringing down a cane upon the knuckles of the blockhead who grunted the wrong answer. I would do so with due recognition of the hazard of my undertaking, because my own knuckles are constantly rapped, as for instance when I go and see some of the work of our most prestigious artists and architects. . . . Still, I would take the risk, in behalf of the idea that a regard for beauty, an inquisitiveness about it, can be communicated." William F. Buckley, Jr., "The Politics of Beauty," Esquire magazine, July 1966.

"What use, my friends, is beauty? Why did the Athenians bother to take 30 years and the talent of every Athenian to build the Parthenon? Now, I do not propose that we appropriate tomorrow the 20 to 50 billion it would take in today's money to build the equivalent of the Parthenon. . . . But should we not appropriate some of our billions to make our houses, our cities, beautiful, if not for posterity and immortality like the Greeks, then for ourselves? . . . I am convinced Americans can do what they want. And I have it on the authority of Pericles, the leader of the Athenians, who built the Parthenon, that Athens (and we) could have guns and butter - and great buildings." Commencement address by Philip Johnson at Mt. Holyoke College.

PERSONALITIES

Appointments to the various and sundry AIA commissions, committees, and juries have been made by Charles M. Nes, Jr., new AIA president. George E. Kassabaum becomes chairman of the Council of Commissioners; Dan C. Cowling, Jr. chairman of the Commission on

the Professional Society; Walter Scholer, chairman of the Commission on Education and Research; Victor C. Gilbertson, head of the Commission on Professional Practice; Willis N. Mills, chairman of the Commission on Architectural Design; David N. Yerkes, head of the Commission of Public Affairs; James Hunter, chairman of the Honor Awards jury; and Paul R. Hunter, chairman of the Jury of Fellows ... Minoru Yamasaki has been elected to the board of directors of Troy (N.Y.) National Bank ... Juan A. Casasco, Development Planner at Stanford Research Institute for the past two years, has been appointed Associate Professor of City and Regional Planning at Washington D. C.'s Catholic University . . . G. William Miller, president of Textron. Inc., was elected chairman of the Research and Design Institute, succeeding Dr. Albert Bush-Brown, president of Rhode Island School of Design . . . John P. Eberhard has been named director of the National Bureau of Standards Institute for Applied Technology . . . Charles Luckman was recently elected to the National Board of Governors of the Library of Presidential Papers in New York City ... The San Francisco Redevelopment Agency has appointed five members to the Advisory Panel for the development of the design for the Gateway World Trade Center: They are Boston architect and dean emeritus of MIT's School of Architecture and Planning, Pietro Belluschi; Berkeley architect and chairman of the University of California at Berkeley's Department of Architecture, Gerald M. McCue; San Francisco landscape architect, Thomas D. Church; Washington city planner, William L. Slayton; and professor of design at the Berkeley campus of the University of California, Jesse Reichek . . . Dr. Melville C. Branch, president of the Los Angeles City Planning Commission, will join the University of Southern California faculty as professor of planning . . . Ben H. Evans, director of research programs for the AIA, has been elected a member of the board of directors of the Building Re-

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search Institute . . . Elected to positions with the National Council of Acoustical Consultants this past June were: Harold Mull, president; Michael J. Kodaras, vice-president; and Robert Lindahl, secretary-treasurer ... Dr. Waclaw Zalewski, a visiting professor at MIT for the past two years, was recently appointed to a professorship there . . . Edward Durell Stone has been named master architect for the six government buildings at Islamabad, Pakistan's new capital . . . California Governor Edmund G. Brown announced in early July a seven-man Governor's Jury on Good Design and Beauty, to be headed by Nathaniel Owings. Members include Mrs. Helen Reynolds, president of the California Roadside Council; Allan Temko, member of the Center for Planning and Development Research of the University of California at Berkeley; Sam T. Hurst, dean of the School of Architecture and Fine Arts of the University of Southern California in Los Angeles; Cesar Pelli, director of design for Daniel, Mann, Johnson & Mendenhall, winners of the Top Award of the Thirteenth Annual P/A Design Awards; T. Y. Lin, professor of Civil Engineering at the University of California at Berkeley; and Harry Ashmore of the Center for the Study of Democratic Institutions at Santa Barbara. The panel will select and honor outstanding contributions to architecture, planning, and conservation in California.

STRANGER THAN FACT

LONDON, ENGLAND. On the London stage last spring was a play about a man, who, as a youth, has ideals, and who, as he grows older, compromises them. He is an architect. He comes to the big city from the north, a young draftsman, who stands on his head when he's excited and happy. With him he brings his dream to tear down the mills in his native north and put up six model, co-operatively owned socialist towns. Bitterness begins to set in when the Labor government refuses to help him. Determined to finance the scheme himself, he rereturns to his office and begins to take on commissions he normally would have turned down. (He had previously refused to build anything he did not approve of.)

Evidently, his commissions don't earn him much because, four decades later, he is forced to accept Tory aid to build one mixed-economy city. And although he is awarded a knighthood, he has to hear the Tory Minister of Works tell him: "The trouble with the Left, dear Cobham, is that it's dreary."

The reviewer for the Observer Weekend Review did not find Arnold Wesker's play, Their Very Own and Golden City, dreary. Nor did a group in Italy where a year ago the unpublished text won the Marzotto prize.

MC GUINNESS TO TAKE ON CITY JOB

BROOKLYN, N. Y. William J. McGuinness. Chairman of the Department of Structural Design at Pratt Institute, set aside his academic gown for a bureaucrat's cigar beginning July 1. Pratt has given McGuinness (whom P/A readers will recognize as our Contributing Editor in charge of Mechanical Engineering Critique) a leave of absence to become Chief Engineer in New York City's Department of Investigation. During off-duty hours, Chief Engineer McGuinness will continute to edit his P/A column.

FILM ON GAUDI

NEW YORK. N. Y. The Center for Mass Communication at Columbia University has announced that a new 16mm, 27-minute, color film, Antonio Gaudi, is available for purchase. Filmed on location in and around Barcelona by Ira Latour, the picture won a Blue Ribbon Award in the 1965 American Film Festival. For information about this or other films write: Center for Mass Communication, 1125 Amsterdam Ave., New York, N. Y. 10025.

L. A./P. O.

LOS ANGELES, CALIF. Neither snow, nor rain, nor heat, nor gloom of night stays the U.S. Post Office Department from the swift addition of 1000 new Post Office buildings each year. Recently out for bids is the Worldway Postal Center building in this city, designed by Los Angeles architects Daniel, Mann, Johnson & Mendenhall-the first postal center to be located at a major airport. The \$8 million 390,000-sq-ft reinforcedconcrete and brick building will stand on 7.3 acres of land in the Cargo City Development at the airport. The post office will also be the first civic building to heed the Los Angeles Art Commission's suggestions for aesthetic improvement. The commission suggested coloring the roof deck material and adding landscaping to the roof sprucing up the building for passengers arriving by air. Postal officials and DMJM were quick to endorse the plan.

A NEW KIND OF JOINT



MANHATTAN, KA. Most architects have colleagues or coworkers. Bucky Fuller has disciples. One of them, Bennett Shapiro (left, in photo), currently teaching at California State Polytechnic College, led his Kansas State University students in the construction of this 30' geodesic dome. The students built the dome themselves. They used pipes found locally, finished it in the school's industrial shop, and then erected the dome in one afternoon in the city park across from the nursery school laboratory.

The "lacy" and "invisible" structure of the dome uses a new kind of joint developed by the Butler Steel Company, which partly finances Shapiro's courses (so far given at Kansas State, Oklahoma State, and Cal Poly). The dome will have heat lamps, windshields, possibly a roof canopy, and a heated asphalt floor. The design problem was to provide an "interior" that includes the "exterior" world, because, as Shapiro feels, most people prefer the outdoors, and prefer it even more if the weather can be controlled. Dean Henry Wright of the KU School of Architecture hopes this dome will be used as a children's playground. But potentialities are limitless in this put-uptake-down-in-a-day dome.



Savior of the World Seminary Chapel, Kansas City, Kansas. Architects: Shaughnessy, Bower and Grimaldi, Kansas City, Missouri. Cem-Seal was applied for protection during construction and installation of pews. (In progress above). After pews were installed, two thin coats of Super Hil-Brite carnauba wax provides the wearing surface.

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SPECIFICATION AND HOW TO APPLY: Onto a perfectly clean, stain-free floor, apply Cem-Seal in an even coat with lamb's wool applicator. Avoid puddling. After drying thoroughly, apply two thin coats of Super Hil-Brite carnauba wax with a new lamb's wool applicator, again being careful not to puddle. On large, open exterior areas, Cem-Seal may be sprayed.

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COVERAGE: 500-700 square feet per gallon depending upon the porosity of the floor.

TECHNICAL DATA: N.V.M.-20%. Viscosity-Gardner A-2-A-5. Color-Gardner max. 6. A clear liquid with no sediment or suspended mat-



ter. The product shall comply with ASTM C156-55T, water retention efficiency of liquid membrane forming compounds for concrete curing.

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MAINTAIN WITH THESE HILLYARD PRODUCTS: Sweep daily with a Super Hil-Tone treated dust mop. Buff periodically. When floor is soiled, clean with Super Shine-All or with Clean-O-Lite (if a cleaner-sanitizer is desired). Traffic lanes may be patched in with Super Hil-Brite carnauba wax and buffed to blend with entire floor.

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EXCEPTIONS: Do not use Cem-Seal on lightcolored masonry type flooring. Contact Hillyard for specification.

REFERENCES: Sweet's Architectural File, A.I.A. Building Products Register, Hillyard A.I.A. File No. 25G.

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The most widely recommended and approved treatments for every surface



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WASHINGTON/FINANCIAL NEWS

BY E. E. HALMOS, JR. The current furor over Capitol Architect J. George Stewart and plans for extension/ rehabilitation of the crumbling West Front of the U.S. Capitol have obscured the fact that estimable nonarchitect Stewart is a long way from being the Government's biggest builder.

With little fanfare, the General Services Administration — builder and housekeeper for all government departments except the legislative—is right now carrying forward a construction program, in the Washington area, that easily tops \$150 million.

By comparison, Stewart's current total of \$23 million worth of construction now under way or ready to start (a \$10 million remodeling of the two older House office buildings, and a \$13 million underground garage for House members) is piddling indeed, by Washington standards. Even if the not yet approved proposals for a \$73 million third Library of Congress building (the James Madison memorial), and the \$34 million West Front work were approved, Stewart still wouldn't come up to GSA's normal yearly operations.

And GSA's program includes some huge affairs in its own right: The sprawling, \$33 million Forrestal Building (the so-called "little Pentagon") in Washington's New Southwest; the \$23,300,000 Housing and Urban Development Department building near the city's mainline railroad tracks; the \$20,500,000 red brick structures on Lafayette Square, to house new Executive offices and courts. In addition, the agency is spending sums like \$5 million to remodel the old Patent Office in downtown Washington (for the Smithsonian), building new structures and refurbishing old ones at Howard University and St. Elizabeth's hospital, installing air conditioning, painting and repairing other Government structures.

And outside the city, GSA supervises work on the nearly completed vast complex of the Bureau of Standards at Gaithersburg, Md.; the National Institute of Health's constant construction at its Bethesda, Md., headquarters, and much else.

This is not to downgrade Stewart's efforts within his own 133-acre Capitol Hill domain, but rather to put it in some perspective.

GSA has had its share of troubles and criticisms (notably for the "IBM Punchcard" style of several of its new buildings) but in general has never stirred up quite the excitement engendered by Stewart.

Main reason: GSA has to meet the desires of such organizations as the Fine Arts Commission and others; Stewart does not. Second reason: GSA isn't working right in the same building with the 535 very vocal "associated architects and engineers" who make up the Congress.

Contractors May Feel War Shortage Pinch — Architects should be aware of upcoming shortages in items vital to the construction industry, a development closely tied to meeting military demands in Viet Nam.

As of early August, Government orders had tied up the entire production capacity of the seven major U.S. manufacturers of cranes and shovels; the nation's biggest maker of tractors and bulldozers was accepting no orders until at least next February; steel allocations for the military had jumped by 30 per cent (to nearly 1,500,000 tons) for the last quarter of the coming year. In the first six months of 1966, more than \$200 million worth of construction machinery had been commandeered for shipment to Viet Nam and other Asian areas alone.

Momentarily, this hasn't affected contractors too much: Most have been replacing equipment at a steady rate over the past several years.

But few contractors can afford to carry expensive, special-purpose machines in inventory; normal practice is to order such equipment after a successful bid.

Thus, if machinery is not available, lists of prospective bidders must shrink; if steel and other metals (copper is already in extremely short supply) become harder to obtain, then prices must go up. Add to upcoming shortages

Add to upcoming shortages the rambunctiousness of construction labor so far this year: There were more than 50 strikes in construction in the first six months of the year, ranging in duration up to 65 days, which drove wages up another 7 per cent this year alone.

• Financial — All other matters considered, there was little doubt, as of early August, that finance was the single most important consideration for anyone in the construction industry.

Speaking broadly, the official statistics hadn't caught up with the situation yet: Census Bureau totals for June showed a continuing uptrend through the first six months of the year that seemed to confirm predictions of another all-time record (in terms of dollar volume) for the industry.

In the first six months of the current year, a total of \$34,500,000,000 worth of new construction was put in place — up 2 per cent over the same period in 1965.

But there were extremely disturbing signs, notably in housing, which continued its two-year long decline. (It is interesting that, although the total *number* of individual dwelling units goes down steadily, value holds its own or goes up: In the first six months of the year, *value* was set at \$12,500,000,000 — up 1 per cent over a year ago.)

Homebuilders were gloomily predicting that total housing starts for the year would top out at 1,100,000 - adrop of almost a third under last year.

The homebuilders have found a lot of things to blame for their troubles (including slowdown in the pace of family formation), but their real bugaboo is the sharp curtailment of credit. Recent surveys indicate that the national average interest on conventional home mortgages has hit more than 6 per cent. The fact is that available investment money is going into short-term, higher-interest areas (notably bank "Certificates of Deposit"), rather than long-term mortgages.

So far, the credit shortage is only beginning to appear in loans for business purposes, but it is creeping in where businessmen want the money for construction.

For the moment, the saving factor for construction people has been the continuing high rate of spending at all levels of Government, and promises that it will continue. In the first six months of 1966, \$10,100,000,000 was spent by Governmental units for construction; huge planned Federal programs such as the recent Senateapproved pollution-control bills envisage a \$6 billion, six-year construction grant program alone. Voters seem ready to continue this type of spending: In May, they approved nearly \$349 million of new bonds (77 per cent of the total presented to them by state and local governments) for public works construction.

But, with continuing military commitments in the Far East, the Federal Government may begin to trim its construction spending sails.

Coupled with tightening finances is the already alarming evidence of sharp rises in costs of construction.

One of the best indicators is the Bureau of Public Roads' quarterly construction cost index, which took a giant leap upward in the second quarter of the year — a total of 4.3 per cent — to reach a new all-time high of 113.7 (with 1957–59 prices taken as 100).

Significantly, the rise follows a 2.3 per cent jump (also to a new record) in the first quarter of the year, and reflects rising prices in every category that makes up the index: excavation, concrete and asphalt surfacing, reinforcing and structural steel (up 10 per cent), structural concrete (up 7.4 per cent).

BPR's index does not break down labor costs, but contractors say that these constitute a very large part of the overall price rise. So far, in 1966, wage raises, as noted, have jumped about 7 per cent; and Government-backed proposals, such as the "guaranteed annual wage" recently suggested for New Jersey operating engineers, can only raise that average.

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Steam heat baseboard system provides room-by-room damper control of temperature. The all-steel-pipe-and-fin unit, claims manufacturer, is compatible with conventional castiron radiation system, but weighs less, costs less, and produces more heat than a cast-iron baseboard system. The system has a rating of 980 Btu per lin ft. It is available in precut, preassembled lengths from 3' to 8'. Slant/ Fin, 100 Forest Dr. at East Hills, Greenvale, N. Y. 11548. Circle 100, Readers' Service Card



Steel fin spirals through electric baseboard heater, which directs air flow away from the wall and into a room. A wire raceway permits wiring of the heater at either end. Available in lengths between 10' and 2', and in wattages of 190 and 250 per ft. Amp-Therm, Inc., 146-61 South Road, Jamaica, N.Y. 11435. *Circle 101, Readers' Service Card*

CONSTRUCTION

"Sol-Seal" asphalt shingles are sealed down by the heat of the sun to make a weathertight roofing. Shingles are backed with a thermoplastic adhesive which is self-bonding. Available in colors. The Philip Carey Mfg. Co., 320 S. Wayne Ave., Cincinnati, Ohio 45215.

Circle 102, Readers' Service Card

Special nail for fastening redwood bevel siding is the result of a three-year research project at Virginia Polytechnic Institute, co-sponsored by the manufacturer and a lumber trade association. The nail is enameled stainless steel, annularly threaded. Virginia Polytechnic reports that the nail holds well, will not back out, will not split siding, and does not rust or discolor the wood. Independent Nail Corp., Bridgewater, Mass. *Circle 103, Readers' Service Card*



One-ply roofing system can be applied on any deck slope from horizontal to vertical without a base sheet. The "Chem-Ply System" sheet is a heavy-duty elastomer (chlorinated polyethylene) laminated to flexible urethane foam, and is said to be dimensionally stable from -50 F to 150 F. Application is by adhesive. Color: white. Allied Chemical Corp., Barrett Div., 40 Rector St., New York, N.Y. 10006. *Circle 104, Readers' Service Card*



Bronze cladding for an aluminum curtain-wall system will offer the rich appearance of bronze combined with the economy and structural performance of aluminum. The prototype system, developed by the Copper Development Assn. for buildings under

four stories, has been created to stimulate the use of lightgage bronze. The extruded aluminum components may be shop-assembled, and prefinished bronze covers will be fitted over vertical and horizontal wall members before or after the wall is glazed. Vinyl extrusions stripped into slots in the aluminum frame will prevent any direct metalto-metal contact. A cost analysis indicates that the prototype system could be installed for about 8% more than comparable all-aluminum systems with a bronze-anodized finish. Morris Ketchum, Jr. & Associates and Graham Engineering Co. were consultants on the project. Copper Development Assn. Inc., 405 Lexing-ton Ave., N. Y., N. Y. 10017. Circle 105, Readers' Service Card



"Fire Test Panel," plasticfinished hardboard, is suitable for areas where codes require noncombustible or flameretardant surfaces. Flamespread ratings are 0 to 25, or 26 to 75 (ASTM tunnel test) and smoke ratings are as low as 45. Sheets are 4' x 8' x $\frac{1}{4}$ ", available in three colors and two woodgrains. Marlite Paneling, P.O. Box 250, Dover, Ohio 44622.

Circle 106, Readers' Service Card

ELECTRICAL EQUIPMENT

A photoelectric cell is the heart of a skylight/lighting system suitable for factory and warehouse. When Acrylite "Skydomes" flood sufficient natural daylight into the building, the system keeps unnecessary electric lights turned off; and when darkness makes artificial lighting necessary, lights are electronically turned on. The "Lite-Genie" system helps save electricity costs. American Cyanamid Co., Building Products Div., 595 North Ave., Wakefield, Mass. 01881. Circle 107, Readers' Service Card



Multicolor paint can be applied in one coat over concrete floors. Stippled effect is achieved through development of a new formula paint resin base, "Marbon 1100," which allows individual paint particles to retain their separate colors. Significant features of the paint are durability and low cost. United Lacquer Corp., Linden, N.J., will market the floor paint under the trade name "Multakolor." Four color combinations. Borg-Warner Corp., Marbon Chemical Div., Washington, W. Va. 26181. Circle 108, Readers' Service Card

Vinyl tennis court coating for asphalt or concrete surfaces protects against weathering damage and promotes player comfort by reducing heat absorption. Green, brick red, or gray "Vynatex 23" can be applied on existing or new courts. Maintenance Inc., Wooster, Ohio 44691. *Circle 109, Readers' Service Card*



Mediterranean patterns are the basis for this vinyl tile design. Random shadings add to a fired ceramic appearance and the mortar-like grout is an integral part of the tile. "Moda Moresca" is available in tiles of five colors: red, beige, brown, gold and white. 12" x 12" squares. Kentile Floors Inc., 979 Third Ave., New York, N.Y. 10022. Circle 110, Readers' Service Card

"Thin Set" terrazzo (epoxy resins, curings agents, fine filler, and marble chips) is said to be easily maintained with cleaning agents on either side of the pH scale. Thicknesses from 1/8" to 1/4" are troweled on, and may be ground the day after troweling. It is "nonslippery," with a Static Coefficient of Friction of 0.64 to 0.68. Divider strips are not necessary except as a footing for base coves. Color for the mix is dispersed in the resin at the factory. Carrara, Inc., P.O. Box 12, Largo, Fla. 33541. Circle 111, Readers' Service Card

Tile for outdoor floors is designed to stand up under all kinds of weather conditions — rain, freezing and thawing, etc. The 12" embossed vinyl squares are laid with a neoprene primer and a heavyduty neoprene contact adhesive on concrete patios, sundecks, etc. "Weatheron" is available in four colors. Armstrong Cork Co., Lancaster, Pa. *Circle 112, Readers' Service Card*

INSULATION

Rigid roof insulation, a sandwich of urethane, bonded between two felt skins during the foaming operation, has thermal "C" values from .24 to .07 for thicknesses of $\frac{5}{8}$ " to 2". Panel size is 3' x 4', with a density of 2 lb per cu ft. Flexural yield strength is 220 psi, and age resistance is said to be excellent. Apache Foam Products, 1005 Mc-Kinley Ave., Belvidere, Ill. *Circle 113, Readers' Service Card*



Pale Oak storage wall, imported from Denmark by Royal System, is a wall-rail version of Paul Cadovius' peg-and-dowel system of attachment. Components include: cabinets with sliding doors, drop-fronts or glass fronts; three- and four-drawer chests; drop-front desks; and shelves of various sizes. Pieces are available in teak, walnut, and rosewood, as well as pale oak. Royal System, Inc., 1130 Third Avenue, New York, N. Y. *Circle 114, Readers' Service Card*



Pace Furniture Line, intended for hospital and dormitory use, includes comely cabinets of dieformed steel components. Solid enamel or vinyl (in wood-grain finishes or burnished leather) cover cabinet exteriors. Self-closing drawers with built-in runners have a laboratory-type finish which, the manufacturer claims, will not chip or stain. Drawer fronts and cases come in three styles of which "Elite" (shown) has the simplest aluminum drawer pulls. Simmons, Contract Division, Merchandise Mart, Chicago, III. 60654.

Circle 115, Readers' Service Card

Polycrest Olefin yarn from The United States Rubber Company has been introduced into carpet production by three firms. Piece and cross-dyeable filament allows the producer to pattern his carpet and color lines on customer requests. Mohawk Carpet Mills' "Festive," a geometric, angled texture, has 10 colorations. Magee Carpet Company's

"Color Flair," a multilevel loop pile with texture emphasized by slight random shearing, has a rippling appearance (15 colors). Callaway Mills' "Skyline" is worked in rhomboids and rectangles of eight different pile heights (15 colors). Textile Division, United States Rubber Company, Chicago, Ill. *Circle 116, Readers' Service Card*



Color plays a game in a table lamp of white handblown Venetian glass. Inside the upper portion of the sculptured form rests a half sphere of tinted bubbled glass; turn on the lamp, and the colored light tints the outer shell. Inner sphere comes in eight colors or white. Sculptured form stands 20" high. Koch and Lowy, Inc., 201 East 34th St., New York; N. Y. Circle 117, Readers' Service Card



Economical wall hangings of extravagant pattern, color, or texture can be obtained from the brilliant array of South American handcrafted rugs to enliven lounges, restaurants, dormitories, and dreary spaces. Available from the U.S. Government

Program "Products of the Alianza" (a function of the Alliance for Progress), the rugs - hand-woven wool or soft vicuna fur from Colombia, Ecuador, Peru, and Bolivia - are remarkably distinctive products for remarkably minimal costs. Also available are many other handcrafted objects that can be used as one-of-a-kind accessories where lively finish is essential to a scheme. (They may even replace plastic plants.) Architects are advised to consider minimum orders of \$200 FOB country of origin so as to amortize airfreight and customs costs: Products personnel will attempt to find an existing importer for smaller orders. Custom-design production is also possible. Literature available. Products of the Alianza, 7610 Empire State Building, New York, N. Y. Circle 118, Readers' Service Card



Inca sunscreens might have been like Jack Lenor Larsen's Andean Gauzes, if they could. Three casement cloths to make the world outside a window seem a hazy dream of history are included in Larsen's new Andean Collection. "Quimbaya Crepe," named for a pre-Columbian culture that was renowned for its craftsmanship, is a random mesh of natural colored, crepe-spun wool.

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On Readers' Service Card, Circle No. 411

Crepe-spun yarns are twisted to give resilience, and, when woven, achieve a fluffy cobweb effect. "Inca Gold" (shown behind chair) is a filmy leno weave of heavy spun gold wool, combined with metallic gold warp to produce an effect like early Peruvian gauzes. "Miraflores" (close up) is a heavy, luxurious casement cloth of wool shot with spun silk. Jack Lenor Larsen, Inc., 677 Fifth Avenue, New York, N. Y. Circle 119, Readers' Service Card



Entertainment Center, for home or office, consists of two teakwood and ebony cabinets. One, the "Entertainment Cabinet," compactly stores a tape recorder and turntable (installed at working height), records (at top), television set (bottom), and additional electronic equipment. The second, a "Bar Cabinet," has concealed lights, mirrored back, glass shelves, an electric warming tray, built-in refrigerator, and laminated wine racks. Each cabinet measures 39" wide, 171/8" deep, and 821/2" high. Harvey Probber, Inc., 155 E. 56th Street, New York, N. Y. 10022.

Circle 120, Readers' Service Card

Fuzzy Wuzzy was a wall and, manufacturer claims, a miracle wall at that: economical and durable, it soundproofs, waterproofs, flameproofs, insulates, dirtproofs, glareproofs . . . and, depending on the length of the fiber, feels like anything from flocking to fur. This Velvetex surfacing can be applied to any solid construction material; after the Fiberbond adhesive is applied, the nylon fibers "shot" are electrostatically straight in and are bonded permanently. Velvetex Indus-

trial Corp., 18515 James Couzens, Detroit, Mich. Circle 121, Readers' Service Card

OFFICE EQUIPMENT

Coated drafting paper erases clean, with no "phantom image." Resins give the paper a good translucent quality for sharp prints and offer a highstability paper that is said not to yellow or become brittle. Azon Corp., Azon Rd., Johnson City, N.Y. *Circle 122, Readers' Service Card*



Hospital tub for bathing emergency patients is equipped with a thermostatic mixer valve, wall-mounted dial thermometer, and rubber hose with spray. It is enameled cast iron, 75" long, 30" wide, 5" deep. Height from floor to rim is 31". Kohler Co., Kohler, Wis. *Circle 123, Readers' Service Card*

Brass gooseneck tubing on faucet-handle unit allows custom countertop installations. "Crystal Glo" faucets can be spaced between 8" to 15" apart, and can be mounted on marble tops up to 2¼" thick. Clear plastic handles are faceted inside and out. Also available in tub-shower combinations. Harcraft Brass, 19200 S. Western Ave., Torrance, Calif.

Circle 124, Readers' Service Card

SERVICES

"Etching" process for aluminum uses electrochemical action to transfer designs onto the metal in shades of gold, bronze, black and gray, plus natural aluminum. Any design which can be silkscreened, roller-coated, or mask-sprayed (including pho-

tographs) can be hard-coatanodized in the above shades by the recently developed process that produces a hard, durable surface. Suggested applications are for curtain walls, murals, plaques, etc. Reynolds Metals Co., 19 E. 47 St., New York, N. Y. 10017.





Playground duck joins manufacturer's concrete animal family, which includes whales, seals, horses, and frogs. The duck is cast in a glass-fiber mold with an armature of 3/8" steel reinforcing rods. The concrete duck is polished to a smooth finish. Copper tubing and brass fittings for fountain installation are cast in the duck, with a spray nozzle recessed at the mouth. Three colors. Playcrete Co., 185 N. 15 St., Bloomfield, N.J. 07003.

Circle 126, Readers' Service Card



Modeling material, high density urethane foam (6 lb per cu ft), can be carved with a pocket knife or other common tools. It is said to be rigid and durable with the workability of balsa. If a mistake is made, another piece of urethane foam can be glued on for reshaping. Available in seven sizes from 3" x 3" x 6" to 8" x 24" x 24", and in two grades: Institutional and Professional. Model shown is by Lester Associates of Thorn-

wood, N. Y. Strux Corp., Artfoam Div., 100 E. Montauk Highway, Lindenhurst, N. Y. 11757.

Circle 127, Readers' Service Card

SURFACING

A granite wall finish can be troweled on over masonry, cement asbestos board, cement plaster, and other structural surfaces, but it is especially suitable for cast-inplace concrete construction, according to manufacturer. The material, reconstituted from quarried granite mixed with a resin binder, is applied in one coat, 1/8" thick. It may be used for both exteriors and interiors but is not recommended for floors. Available in eight standard colors that are said to simulate the muted shades of natural granite. Larsen Granite Finish Co., Bethesda, Md. 20014.

Circle 128, Readers' Service Card



Baseball-diamond greenery is man-made "AstroTurf" -- a synthetic grass carpet of clipped nylon strands embedded in polyester and bonded to a vinyl foam pad. Suitable for both indoors and out, it can be laid over earth, concrete, or asphalt. The first commercial installation is, appropriately enough, at the Houston Astrodome. An allpurpose "turf" is available, as well as custom-tailored systems for golf, football, tennis, track, and baseball. The material can also be used on playgrounds and around pools because it is rot- and mildewresistant. Test installations for the above athletics are said to have proved sportsworthy. For maintenance: vacuuming or hosing. Astro-Turf Recreational Surfaces, Chemstrand, 350 Fifth Ave., New York, N.Y. 10001. Circle 129, Readers' Service Card

SAW-TOOTH FLAT SLAB WITH 12' x 24' COLUMN SPACING FOR ORU DORMITORY

The saw-tooth 8" slabs show clearly; transverse tendons are normal to saw-tooth edge strip.

The floor framing for this Oral Roberts University Dormitory is an 8" thick prestressed flat slab, post-tensioned using the Prescon System. The saw-tooth floor plan has columns recessed 2' 10" in from the re-entrant corner with the teeth of the saw projecting 5' 3" from the re-entrant corner. Columns are spaced 24' transversely and 12' longitudinally with tendons running diagonally.

The Prescon tendons are spaced on a one to two slope with the transverse column line, with the column strip tendons extending to the tips of the saw teeth. This rotation of the Prescon tendons permitted principal cantilever reinforcement to become part of a column strip for maximum stiffness in the floor. The structural analysis was based upon load balancing applied to a flat plate. In effect, it is a pure membrane analysis. Tendons varied from 3 to 10 wires. In each 12' increment of floor, 8 tendons running the full width were used and 2 short tendons over the columns. All slabs were cast-in-place with an entire slab completed in a single concreting operation. The average prestress was 300 psi transversely and 150 psi longitudinal. The structure has performed in a most satisfactory manner.

The three wings radiate from a hexagonal 30' core which houses the elevator, lounge and stairs. Each wing is 40' wide by 120' long. Floor-to-floor height is 9' 4" except for the ground floor where height is approximately 11'.

This is first of three planned dormitories. Each will be seven levels including the ground floor. Grade level includes lounges, game rooms, etc.; each of the other floors include an apartment for the house mother, laundry and linen facilities, baths and living quarters for 100 students. Floors' are carpeted except for terrazzo in toilet areas. The underside of the slab serves as the ceiling and is a sprayed texture coating.

The architect for the project was Frank William Wallace, AIA; engineers were Netherton, Dolmeyer, Solnok; and the contractor was Manhattan Construction Company. © 1966 THE PRESCON CORPORATION G66 Among the advantages gained by using the Prescon System of post-tensioning prestressed concrete are: flexibility of column spacing, thin slabs with no deflection, and waterproofing of slabs when desired. For the complete story on the advantages to owners, architects, engineers and contractors using the Prescon System, write for brochures and the Prescon NEWS.



The tendons are placed diagonally on a one to two slope to the transverse column direction with the column strip tendons extending to the tips of the saw teeth. Structural analysis was based upon load balancing applied to a flat plate.



MEMBER OF PRESTRESSED CONCRETE INSTITUTE

On Readers' Service Card, Circle No. 398

P/A News Report 83

Living proof it's waterproof!



FOAMGLAS[°] **Roof Insulation** will still be waterproof when this sequoia is 200 feet tall.

Talk about long lasting ! The Sequoia in this FOAMGLAS planter belongs to the oldest living species around. Some of the giants in California are over 2,000 years old.

We're not claiming FOAMGLAS, the cellular glass roof insulation, will last that long (although the material's inorganic composition makes it possible). But we do know that the FOAMGLAS this planter is made of will still be waterproof-still have all its original insulating efficiency-years after the Sequoia has outgrown it.

FOAMGLAS is the only completely waterproof and vaporproof insulation. We won't give you a 2,000-year guarantee. But FOAMGLAS is guaranteed for 20 years. Once it's down on your client's roof, he's protected.

Get full details on new bevel-edged FOAMGLAS®-BOARD

-ideal way to get the full value PITTSBURGH of FOAMGLAS in a 2' x 4' x 11/2" thick unit. Write Pittsburgh Corning Corporation, Department PP-96, One Gateway Center, Pittsburgh, Pa. 15222.



In Western Europe, FOAMGLAS® In Western Europe, FOAMGLAS cellular glass insulation is manufactured and sold by Pittsburgh Corning de Belgique, S. A., Brussels.

BULLETIN: FOAMGLAS IS NOW AVAILABLE FOR IMMEDIATE DELIVERY. JUST GIVE US A CALL.

FRS' DAT 1

ACOUSTICS

"1966 Architectural Reference File" for "Acousti-Celotex" products updates manufacturer's data on acoustical tile and lay-in panels for UL time-rated assemblies, incombustible systems and "Celo-Flow" ventilation and air distribution systems. Charts give physical properties and fire ratings according to suspension system and floor-ceiling assembly. Guide specifications, photos, installation details, and technical data tables. 28 pages. The Celotex Corp., 120 N. Florida Ave., Tampa, Fla. 33602.

Circle 200, Readers' Service Card



Aluminum curtain wall framing members and windows are catalogued in a brochure illustrated with typical sections; mullion profiles, and drawings showing the various kinds, sizes, and combinations of glazed units. Factory fabricated floor-to-floor sash and panel units are available. Manufacturer's "Therm-Stanley-Artex" porcelain on steel insulated sandwich panel is recommended. Suitable for low- and high-rise buildings. Photos and specifications. 20 pages. Dept. PID, The Stanley Works, New Britain, Conn. 06050.

Circle 201, Readers' Service Card

The Aluminum Association's list of publications includes two booklets about construction: "Specifications for Structures of Aluminum Alloys" (96 pages) prepared by the American Society of Civil Engineers, and "Drafting Standards - Aluminum Extruded and Tubular Products"

(55 pages). The latter outlines basic drafting practices for shapes and extrusions, and contains 30 pages of formulas and data used in computing cross-sectional areas. The Aluminum Assn., 420 Lexington Ave., New York, N. Y. 10017. Circle 202, Readers' Service Card



Trussless buildings in three profiles - semi-circular, arced, and straight wall with arched roof - are supported by modular, double-corrugated steel arch panels bolted together to form a self-supporting structure. Descriptive text, photos, size charts. 4 pages. Wonder Trussless Building, Inc., 2901 S. Cicero Ave., Chicago, Ill. 60650. Circle 203, Readers' Service Card



Porcelain glazed steel or aluminum in light gages is used as a surfacing material for panels and chalkboards. Vitreous coating is heat bonded to metal, making a surface which is said to be heat, stain, fade proof, and scratch resistant. Three pamphlets cover: 1) insulated interior and exterior wall panels and moldings in manufacturer's 19 standard colors, 47 Porcelain Enamel

Institute colors, and 12 "Terra-Cal" colors — matte finish earth shades such as olive, ochre, etc.; 2) corrugated and ribbed siding and panels for industrial and commercial buildings; and 3) chalkboards in eight colors. Information included: specifications, installation instructions and details, size charts, and properties tables. Alliance Wall Corp., P.O. Box 247, Alliance, Ohio 44601. Circle 204, 'Readers' Service Card

"Bondmaster G458" adhesive bonds rigid styrene foams to themselves or to other materials without attacking foam surfaces. Leaflet describes application for interior panels and cold-room construction. Description of characteristics and photos. Pittsburgh Plate Glass Co., Adhesive Products Div., 225 Belleville Ave., Bloomfield, N. J. 07003. Circle 205, Readers' Service Card



Giant bricks with a 16" x 4" face are available 4", 8", or 12" thick. These high-fired, hollow-core bricks, finished on both faces, are available in shades of tan, brown, red, gray and charcoal, suitable for loadbearing or curtain walls. Vertical course and horizontal dimensions are charted; complete dimensioned drawings of standard and special shapes, construction details, photos of buildings. 16 pages. Harbison-Walker Refractories Co., 2 Gateway Center, Pittsburgh, Pa. 15222.

Circle 206, Readers' Service Card

Preformed gaskets for control joints relieve stresses in masonry walls. Manufacturer offers five profiles formed from neoprene, polyvinyl chloride, and rubber. Pamphlet illustrates gaskets and applications, and describes composition and properties of the seals. 6 pages. Accompanying 4-page "Spec-Data Sheet" conforms to the Construction Specifications Institute recommendations. Williams Products, Inc., 486 W. Eight Mile Rd., Hazel Park, Mich. 48030. Circle 207, Readers' Service Card



Seven types of sealants, including liquid polymers, butyl and bituminous, are recommended for their most appropriate service such as glazing, tile, and metal or wood sash seals, and setting art glass in limestone. Chart lists joint size limitations, characteristics, life expectancy and color. Suggested specs, sample details, test results; performance characteristics of "Mono-Lasto-Meric." claimed by the manufacturer to be the "most powerfully adhesive construction joint sealant known." 8 pages. The Tremco Mfg. Co., Cleveland, Ohio 44104.

Circle 208, Readers' Service Card



"Design Innovations In Wood" is a handsome booklet that presents seven architect-designed projects com-missioned by Weyerhaeuser for its advertising campaign during the past year. Designers were asked to explore new uses, forms, and struc-

Want the most from electric heat? Consider Styrofoam.

That's because an installation system using Styrofoam[®] brand insulation board doesn't make demands on floor space the way other insulations do. The combination of properties offered by Styrofoam makes it unusually effective. So much so that you get more permanent insulation value per square inch, and get a maximum of usable floor space, too.

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heat? Once in, Styrofoam is in for good because it doesn't rot, mold, or deteriorate. It needs no vapor barrier. It's flame retardant. And is lightweight and easy to install.

Where does Styrofoam insulation go? Just about anywhere. Over walls of unit masonry or poured concrete, as form liners for conventional concrete, in foundations and slabs. And it makes an excellent base for gypsum wallboard,



Styrofoam is Dow's registered trademark for expanded polystyrene produced by an exclusive manufacturing process. Accept no substitutes... look for this trademark on all Styrofoam brand insulation board.

(It's the least you can do.)

tural properties of wood; the results include an architect's office, a community art center, and a school. The "Grand Bazaar," designed by Charles Callister, is a large, round market building with an open plan ringed on two levels by food stalls; standard laminated decking, beams, girders, arches and columns were the building components. Another project, a seaside motel complex (by Ulrich Franzen; shown) uses laminated decking as the exterior circular walls of 40, four-story towers. Weyerhaeuser Co., Box B, Tacoma, Wash.

Circle 209, Readers' Service Card

DOORS/WINDOWS



Round-corner extruded aluminum ventilator windows are detailed in a series of data sheets showing installation in masonry, precast concrete, and window walls. Scale details, photos, size charts, brief specifications. 5 sheets. E. K. Geyser Co., 915 McArdle Roadway, Pittsburgh, Pa. 15203.

Circle 210, Readers' Service Card

Hager hinges open in and out (doors) or up and down (transoms). Selection charts list wood and metal doors of various sizes and weights keyed to an appropriate hinge. Installation details, descriptions and photos of hinges for steel, wood, and channel jambs. 8 pages. Hager Hinge Co., 139 Victor St., St. Louis, Mo. 63104.

Circle 211, Readers' Service Card

Casement, picture, bow, double-hung, sliding, hopper, and awning wood windows are catalogued and detailed in a booklet with size drawings, glazing chart, photos and specifications. Pine is treated

with a water-repellent preservative and exterior surfaces are factory primed or vinyl covered by "Perma-Shield." 40 pages. Andersen Corp., Bayport, Minn. 55003. *Circle 212, Readers' Service Card*



Suitable for framing in 50 of the most commonly specified wall systems, reports manufacturer, a series of metal door frames, feature a snap-on casing, an aligning header, and an adjustable strike. The booklet, generously illustrated with sized profile drawings and installation details, also includes guide specs. 14 pages. Roberts Consolidated Industries, Inc., Building Products Div., City of Industry, Calif. 91747.

Circle 213, Readers' Service Card



Lights shine down from both flat and sloped ceilings. Grooved "Micro-Baffle" reduces brightness of these aluminum fixtures. Suitable for theaters, lobbies, and other areas in commercial and public buildings. Recessed, semirecessed, surface, and suspended lights are finished in matte black. Wall-mounted and track-mounted projector designs are also included. Bulletin No. 127 is illustrated with drawings and tables giving dimensions, wattages, ceiling types, etc. 16 pages. Hub Electric Co., Inc., 2255 W. Grand Ave., Chicago, Ill. 60612.

Circle 214, Readers' Service Card

Aluminum roof ventilators, wall ventilators, and blowers are the subject of a catalog that gives capacity and dimension charts, shop drawings, and installation details. Shown are 24 ventilators and accessories, including sound attenuators. 54 pages. Loren Cook Co., 640 N. Rocky River Dr., Berea, Ohio 44017. Circle 215, Readers' Service Card



C/S Finishes, a 4-page brochure, assists in the specification of color coatings for the firm's line of architectural products (louvers, sun controls, screens, and refacing systems). Brochure includes descriptive detail, chip specimens for color match, and suggested specifications for the finishes. Among them is Kynar 500, a new flurocarbon polymeric coating of 12 standard colors; it is supplied with 12-year written guarantee. Construction Specialties, Inc., 55 Winans Avenue, Cranford, N. J. 07016. Circle 216, Readers' Service Card

FURNISHINGS

Whelan's Institutional Furniture line is introduced in a 4-page brochure. Specifications page discusses doors, finish, plastic laminate tops, hardware, and materials (exterior casework is natural birch; interior, Douglas Fir plywood). Brochure includes drawings of various pieces (simple carpentered wardrobes, cabinets, bookcases, and desks), graphs of sizes, and sketches of possible combinations. Whelan's, Inc., 715 E. 4th, Topeka, Kans. 66601. Circle 217, Readers' Service Card

Among the decorative fixtures — pendant and wall or ceiling mounted — that are illustrated in a 123-page, primarily "residential" catalog by Moe Light, are some serviceable standard recessed incandescent squares, outdoor garden lights, dimmers (including fluorescent dimmers), simple geometric globes, and illuminated ceilings. Thomas Industries, Inc., Residential Lighting Division, 207 East Broadway, Louisville, Ky. 40202.

Circle 218, Readers' Service Card



Trio of Travertines. Parkwood Laminates has added three "travertines," gold, beige, and slate, to its line. The material is said to be wear-, stain-, and heat-resistant. Gold and beige travertine are available in polished or matte finishes, while the slate's natural finish is said to be an innovation in the field. Parkwood Laminates, Inc., 134 Water St., Wakefield, Mass. 01880.

Circle 219, Readers' Service Card



A feast of office furniture by Hoosier Desk Company includes executive conference desks, "management" desks, single and double pedestal clerical desks, and a variety of secretarial returns. These standard wood pieces, which are fairly inexpensive-looking, come in walnut veneer with a variety of leg styles, including square and tapered wooden legs, square aluminum legs, and aluminum Hframes. Aluminum legs can be either brushed, mirrorpolished, or brass-finished, and have adjustable glides. Some of the desks have over-



Hetron[®] creates a dramatic ceiling at No. One Wall Street

New banking area of the Irving Trust Company, One Wall Street. Architects: Smith, Smith, Hayne, Londberg & Waehler. Hetron-based reflectors designed by Edison Price, Inc., and manufactured by Lunn Laminates, Inc. Scores of spherical-shaped plastic panels reflect the light from the dramatically hung ceiling of the Irving Trust Company's new banking area.

The five foot by five foot panels are molded of glass-reinforced Hetron polyester resin—a construction material that combines strength, light weight, and fire retardance.

They weigh only 30 pounds each and meet the fire-safety building code requirements for high ceilings.

Why not consider Hetron-based plastic reflector, skylight, or

siding panels for your next project? They are available as translucent or opaque and are qualified to carry the Factory Mutual Seal and the U/L label.

We don't make the panels—just the Hetron that makes them lightweight and fire retardant.

For a list of fabricators, please write us. Durez[®] Plastics Division, Hooker Chemical Corporation, **7709** Walck Road, North Tonawanda, N.Y. 14121.

Overseas: Hooker Chemical International, Ltd., 6 Place Madou, Brussels, Belgium, Telephone: 186336



DUREZ PLASTICS DIVISION



hanging tops. Keller-Crescent Co., P.O. Box 25, Evansville, Ind. Circle 220, Readers' Service Card

System 70 dormitory and library furniture, available in a wide choice of sizes, has welded steel frames and tops of Fiberesin. Baked enamel finishes in bright and subdued shades are obtainable for wardrobes, desks, and chests. Eight-page brochure contains drawings, specifications, and color illustrations of bedroom and library settings. The Troy Sunshade Company, Division of the Hobart Manufacturing Company, Troy, Ohio. Circle 221, Readers' Service Card

The pedestal auditorium seat, designed by England's Peter Dickinson for Race Ltd., rests on just one leg. Its frame is of welded steel, its tip-up seat and back of hardwood plywood. And the seat is covered with molded polyurethane foam. Illustrations in 4-page brochure show how the chair can be installed in straight or curved rows. Drawings describe the "disappearing" tablet arm, for left or right arm

> Whether you look at kitchen ventilating with the eyes of an architect, consultant, manager, or owner you'll find "Exhaust ventilation by Cockle" your best specification.

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use. Specifications and planning details. JG Furniture Co., Inc., 160 E. 56th St., New York, N. Y.

Circle 222, Readers' Service Card

Serviceable, interesting glassfiber tables with attached molded glass-fiber benches are featured in a loose-leaf catalog. Plastic elements have rounded edges and rustproof fasteners; legs are of steel tube. Specifications included. Decar Plastic Corporation, Dentin Mfg. Co., 2600 Washington Blvd., Bellwood, Ill. 60104.

Circle 223, Readers' Service Card



Dry wall insulation system has two components: a furring strip and a styrene foam insulation sheet (see illustration). Furring strips, 2" wide x 8' long, consist of 3/8" exterior grade plywood laminated to insulation board; the over-all thickness is 1", 11/2", or 2". Strips are fixed at 4' o.c. to masonry or concrete walls by adhesive and nails, and insulating sheets butt-fitted between the strips. Standard 4' x 8' gypsum wallboards can then be installed horizontally and fixed to the insulation and furring strips with adhesive and screws. Leaflet gives installation instructions and details, U factor chart, photos. 4 pages. Holland Plastics Co., Gilman, Iowa. Circle 224, Readers' Service Card

OFFICE EQUIPMENT



Magnetic board is a useful device for flexible visual charting. Grid patterns of 1", 1/2", or 1/4" are lithographed on a steel face; 80 magnetic accessories include symbols, card holders, and buttons which can be marked with a grease pencil. Suitable for scheduling hospital and hotel rooms, for inventory control, etc. It may also be used in planning plant layouts (illustration). Booklet describes uses for system. 28 pages. Methods Research Corp., 105 Willow Ave., Staten Island, N. Y. 10305. Circle 225, Readers' Service Card

On Readers' Service Card, Circle No. 428 90 Manufacturers' Data

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Joints expand...

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

Construction joints go through the expansion-contraction cycle at least once a day, and far more often in modern curtain wall buildings. This is the major cause of sealant failure. In the past, even the best elastomeric sealants have been subject to early failure under severe compressionextension conditions. Because these sealants take a "set" during compression, they put a severe strain on the bond during extension. G-E silicone sealant, with almost 100% recovery after severe compression, withstands repeated cycling while maintaining an effective seal.

General Electric Silicone Construction Sealant will take this punishment for years because silicone rubber doesn't lose its elastomeric properties through exposure to sunlight or ozone, the deadly enemies of organic rubber sealants.

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G-E Silicone Sealant comes in a variety of non-fading, non-staining, non-bleeding colors including almost invisible translucent. It needs no pre-mixing or catalyst – bonds securely to all common building material – can be applied easily, efficiently and quickly at any temperature.

For more information, write General Electric Company, Silicone Products Department, Section Q9118R-1, Waterford, New York 12188.



On Readers' Service Card, Circle No. 448



It's Mirropane®, the "see-thru" mirror. In the brighter room, it acts as a mirror. In the darker adjacent room, it acts as a window. Here, in a special panel room of an advertising agency, consumer reactions to various advertising approaches can be studied by observers without being a distraction. Teachers and therapists use Mirropane for observing children's reactions. Storekeepers use it for detecting shoplifters, and to watch stock. You can probably think of a dozen uses of Mirropane for the buildings you're planning right now. For more facts, phone your L·O·F distributor or dealer listed under "Glass" in the Yellow Pages, or write:



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On Readers' Service Card, Circle No. 373



"PVC piping for drain, waste, and vent systems" is principally a collection of case studies on installations in housing projects, high-rise, etc., using "Geon" rigid vinyl. Text, photos, brief cost comparison chart, and a short section on making connections. 16 pages. B. F. Goodrich Chemical Co., 3135 Euclid Ave., Cleveland, Ohio 44115.

Circle 226, Readers' Service Card

A listing of plastic materials approved by the National Sanitation Foundation covers pipe, fittings, and appurtenances for potable water and waste water. Items are listed by manufacturer; material, material classification, and trade name are given. The Foundation, an independent organization with headquarters at the University of Michigan, maintains its own testing laboratory where performance testing is carried out against applicable U.S. Department of Commerce Standards and ASTM Specifications. A control program provides for annual reinspection of plants and random sampling of products. 50¢. The National Sanitation Foundation, P.O. Box 1468, Ann Arbor, Mich. 48106.

SPECIAL EQUIPMENT

Wood cabinets for kitchen, pantry, and bath are finished in walnut or honeywood applied with a hot vinyl for hard, stain-resistant surfaces. Clean-lined design has no handles or knobs; drawers and doors are opened by beveled edges. Three folders, showing the three basic design lines, catalog base and wall cabinets, and accessories. Accessories include built-in bread boards and lazy susans for corners. Noblecraft Industries, Inc., P.O. Box 441, Hillsboro, Ore.

Circle 227, Readers' Service Card



In case of fire, just reach for the Cotton Candy pink (or any one of 47 other subtle shades) 21/2-gal, glass-fiber Ansul Ensign extinguisher. No additional cost for color if extinguishers are purchased in quantities of 20 or more; color charge for less than 20 is said to be nominal. Glassfiber shell is corrosion resistant. Folder contains manufacturer's specifications, description, and samples of all 48 colors. The Ansul Co., Marinette, Wis. Circle 228, Readers' Service Card

Master distribution systems for television can be more easily understood by building designers with the aid of a booklet "Engineer's Guide to Specifications for Multiple Television Distribution Systems." It describes the scope of a master antenna system in general terms, and then with technical language delves into specific applications and equipment. \$2.50. Jerrold Electronics Corp., P.O. Box 1467, Philadelphia, Pa. 19105.

Don't worry about the dishes. This manufacturer has a "Flight type" dishwasher which handles 12,170 plates per hour, 1500 persons per meal, Brochure lists types and capacities of dishwashers for restaurants, hospitals, and other establishments concerned with feeding large numbers of people. Also listed are mixers (12 to 30 qts), and tank-type potato peelers which can spit out 15 to 60 lb in one minute plus.

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Superb sound control is only one of the many attributes of the Incomparable 380. The easy, all-mechanical operation is another. It creates a new dimension in classroom space and flexibility. To discover the full facts on the R-W 380, write for Catalog F-266.

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On Readers' Service Card, Circle No. 439



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