

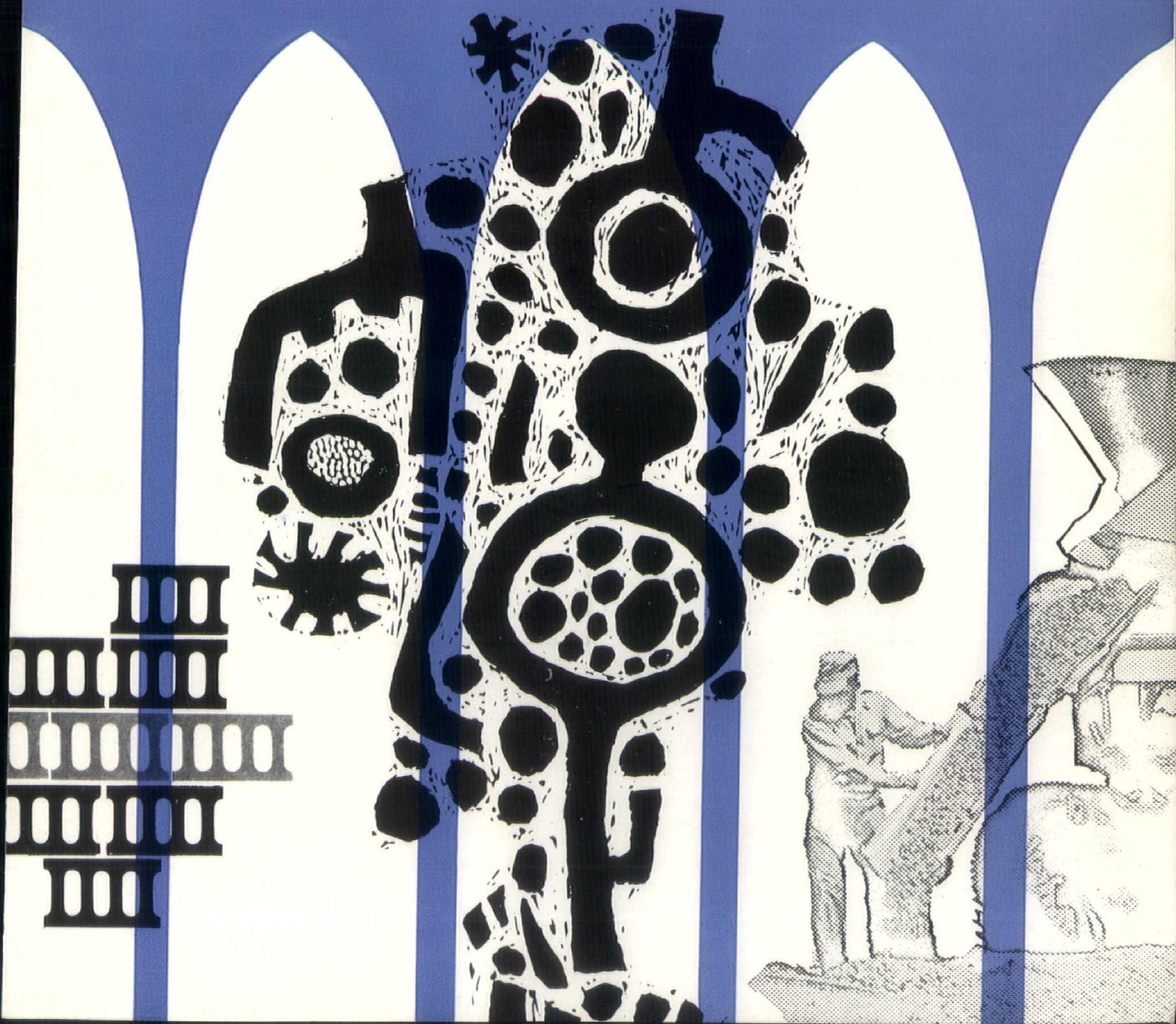
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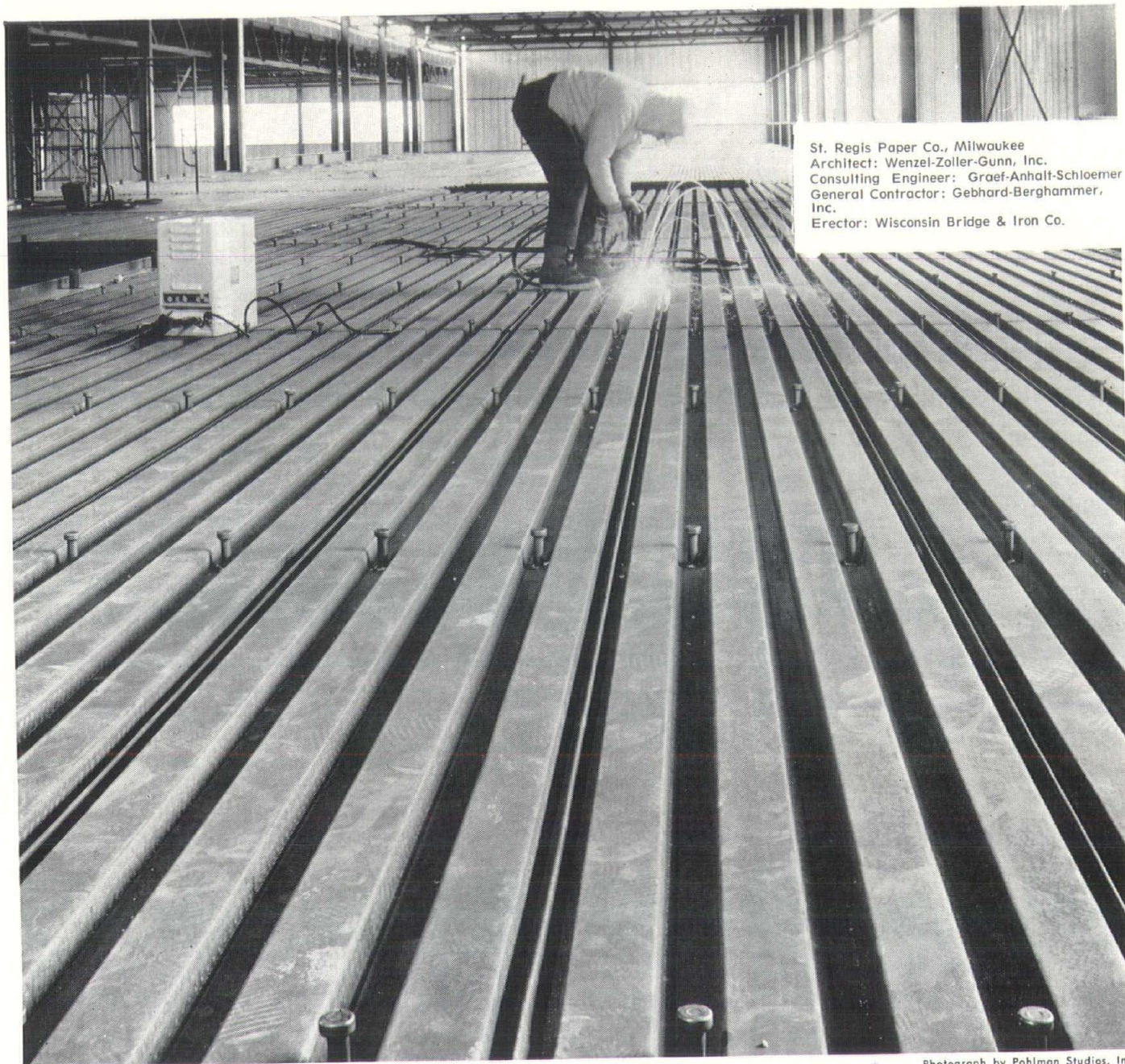
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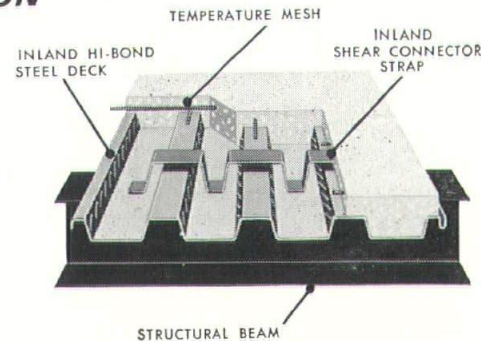
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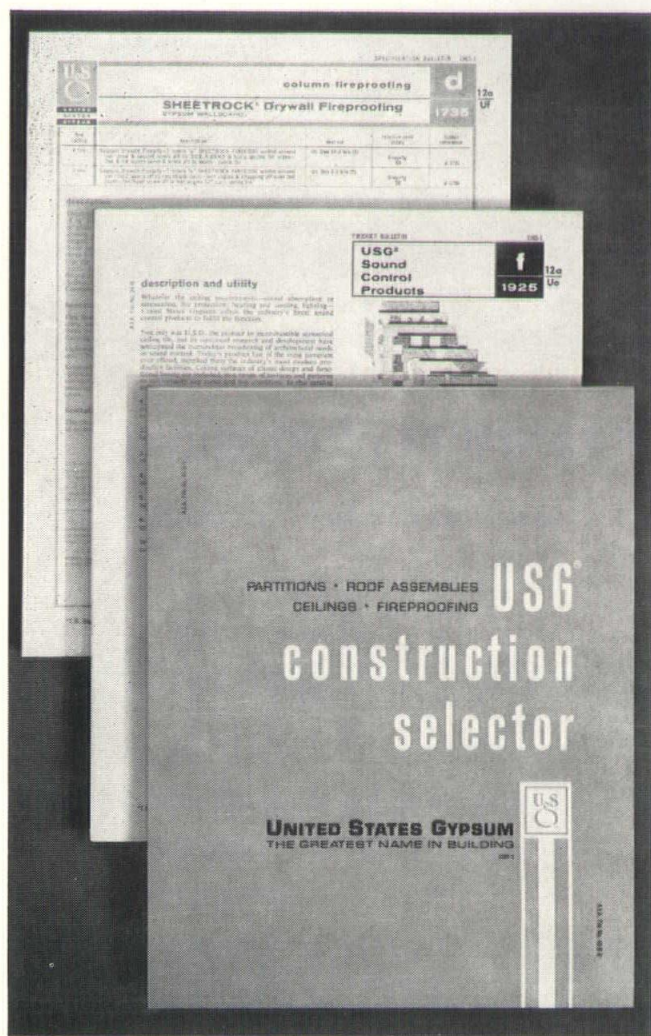
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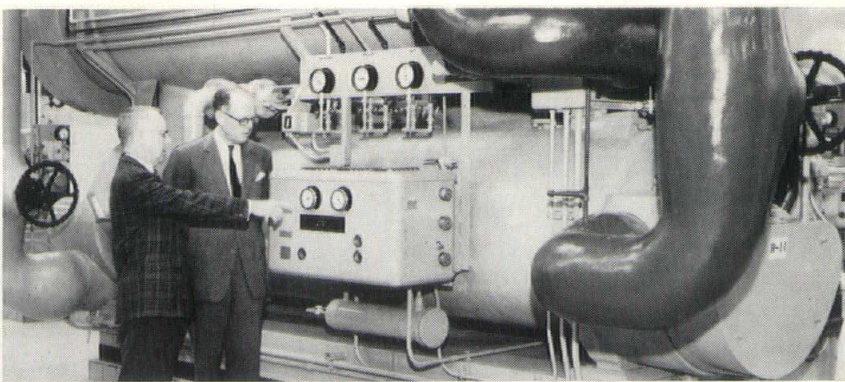
Left: Partial view of the impressive, handsomely appointed lobby of the Allen-Bradley building.

Lower left: Mr. Lohf and Architect Scott, visiting beneath a portrait of Lynde Bradley, Allen-Bradley founder.

Below: One of the three huge heat exchangers, powered by 700 horsepower motors.



Fitzhugh Scott, Architect



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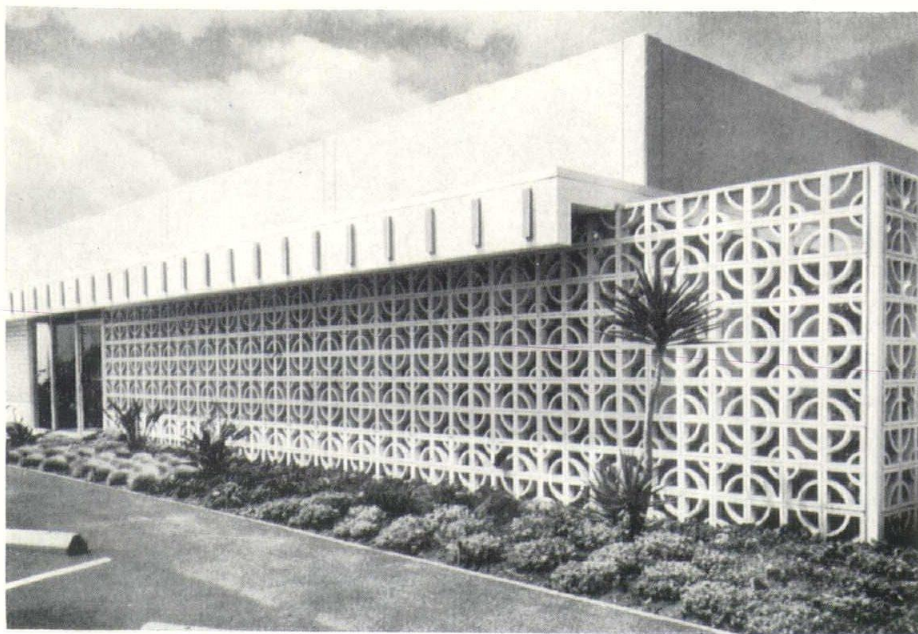
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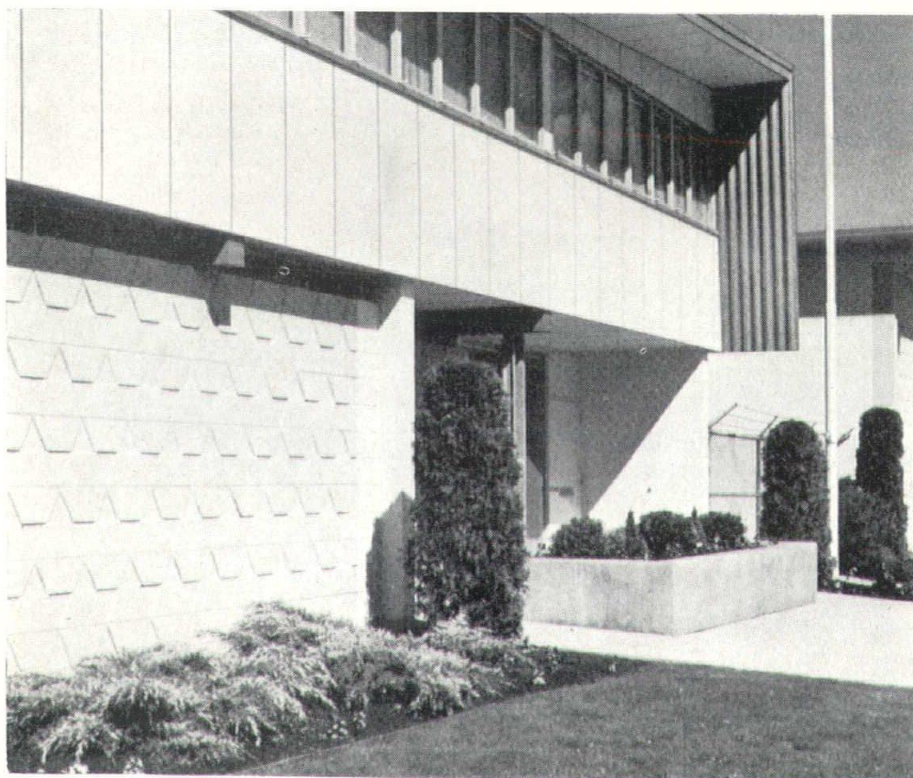
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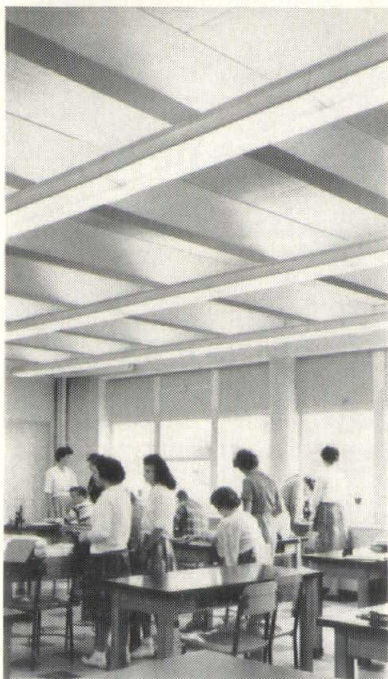
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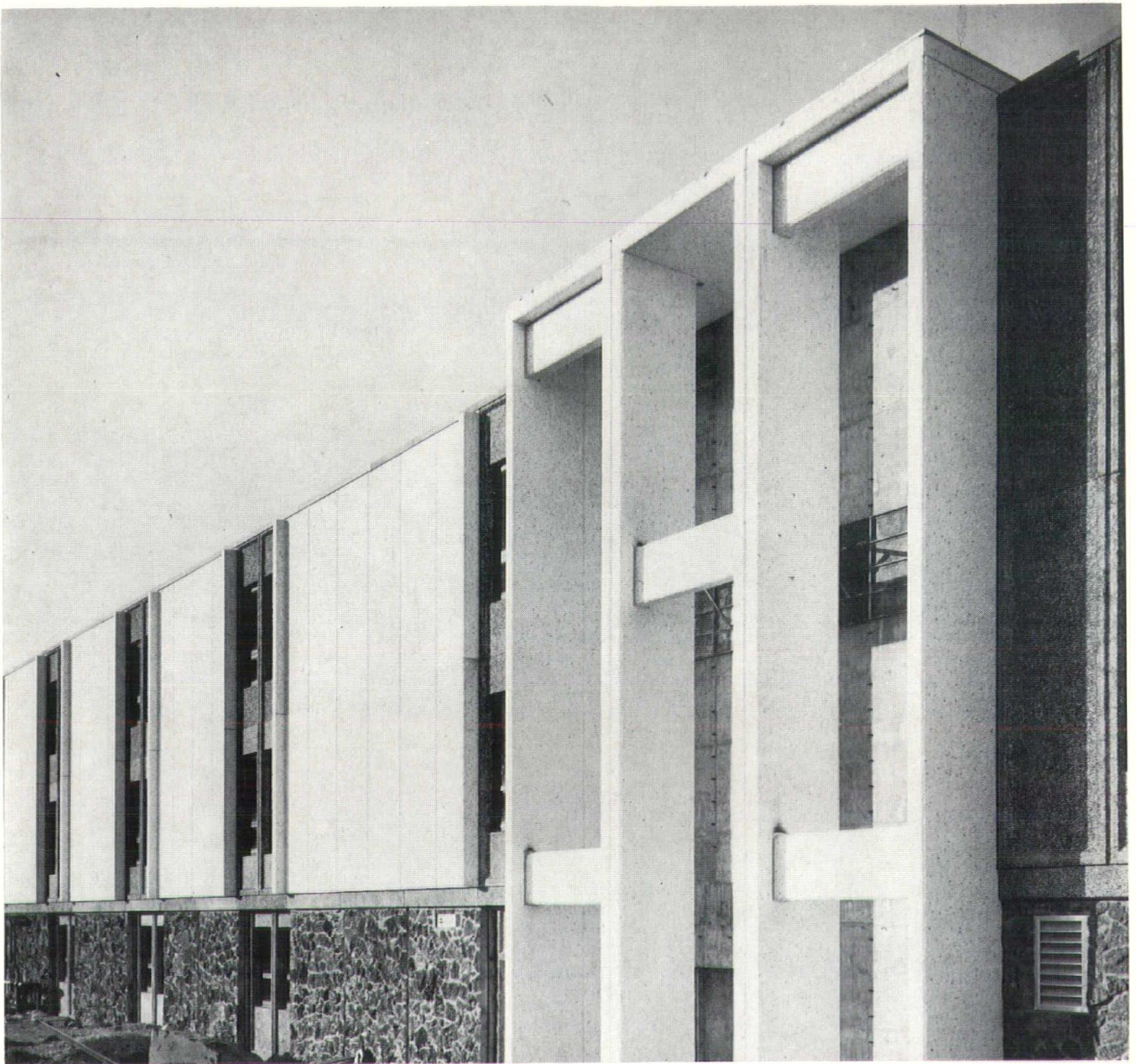


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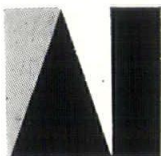


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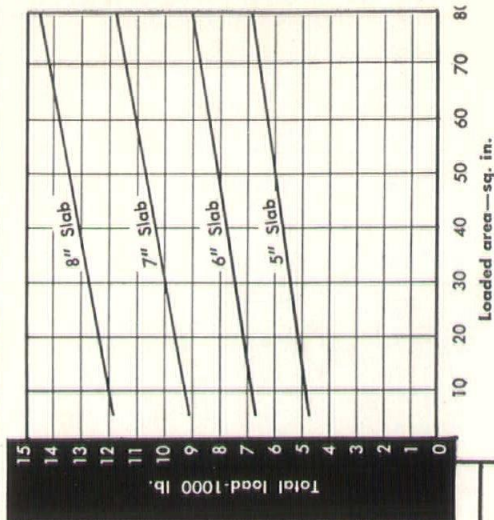
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Concrete slab design for long-service floors. Example: assume that a slab is to be designed of 5,000 psi concrete for an industrial plant floor. There will be considerable traffic with trucks having loads of 10,000 lb. per wheel. Each wheel has a contact area of about 30 sq. in. Assume that operating conditions are such that impact will be equivalent to about 25 per cent of the load. The equivalent static load will then be 12,500 lb. An approximate formula for the allowable flexural tensile

stress of concrete is $4.6\sqrt{f'_c}$ (in which f'_c = 28-day cylinder strength). For 5,000 psi concrete, the allowable strength is then:

$$4.6\sqrt{5,000} = 325 \text{ psi.}$$

The allowable loads in chart at right are based on a stress of 300 psi, so the design load must be corrected by $300 \div 325$ which gives 11,500 lb. From chart a load of 11,500 lb. on an area of 30 sq. in. requires a slab about $7\frac{1}{2}$ in. thick.



		MIX DESIGN DATA FOR ORDERING CONCRETE						CONCRETE FINISH	
		W/C in gal. per bag	28 day cylinder strength (psi)	Slump (in.)	Air content (%)*	Min. cement content in bags per cu. yd.			
BUILDING TYPE	TRAFFIC								
SINGLE COURSE		Offices, schools, churches, hospitals, commercial bldgs.: where floor will be covered with tile, linoleum, etc.	Predominantly foot traffic.	5½-6½	3500-4500	2-4	5 ± 1 or 6 ± 1	5½	Steel trowel
		Same as above except concrete is wearing surface. Also for service in light industrial buildings.	Foot traffic and pneumatic tired vehicles.	4-5½	4500-7000	1-3	5 ± 1 or 6 ± 1	6	Hard steel trowel by power and hand equipment.
		Industrial or commercial buildings subject to heavy or abrasive use.	Foot traffic and pneumatic tired vehicles.	4-5½	4500-7000	1-3	5 ± 1 or 6 ± 1	6	Dry shake of extra hard aggregate added to surface immediately before power floating begins.
		Heavy industry such as foundries, steel mills, heavy manufacturing, also any industrial or commercial building with highly abrasive conditions.	Steel wheeled vehicles. Heavy abrasive use.	5½-6½	3500-4500	2-3	5 ± 1 or 6 ± 1	5½	Surface leveled by floating, but textured to insure bond to topping.
TWO COURSE HEAVY DUTY			BASE COURSE	3½-4	8000-12000	Zero	Not required	7½	Special power floats, repeated hand troweling for smooth, dense abrasive resistant surface. Special extra hard aggregates are used.
			TOPPING**						
requirements for floors on ground									

*For concrete with 1½ in. max. aggregate use 5 ± 1% air content; for ¾ in. max. aggregate use 6 ± 1%.

**Topping mix must be mixed in paddle type mixer—generally not available from ready-mix plants.

Requirements for floors on ground

Maximum Wheel Loads for Industrial Floors

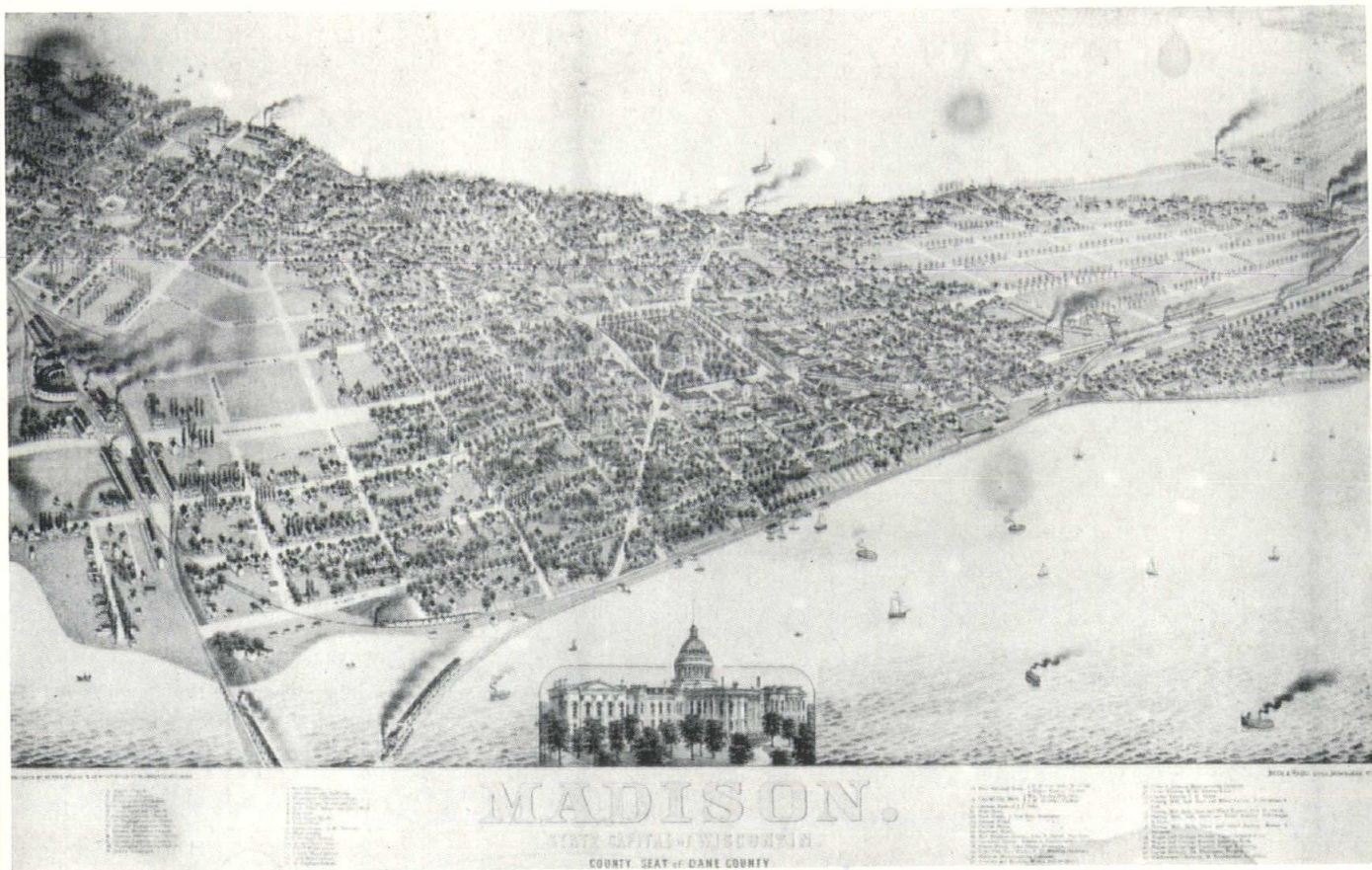
The chart above is based on flexural tensile stress of 300 psi. For other stresses multiply loads by ratio of 300 to stress used. For an allowable tensile stress of 300 psi, compressive strength of about 4,300 psi is generally required.

For additional literature on design of concrete slab floors, or other concrete construction, just send a request on your letterhead. (U.S. and Canada only.)

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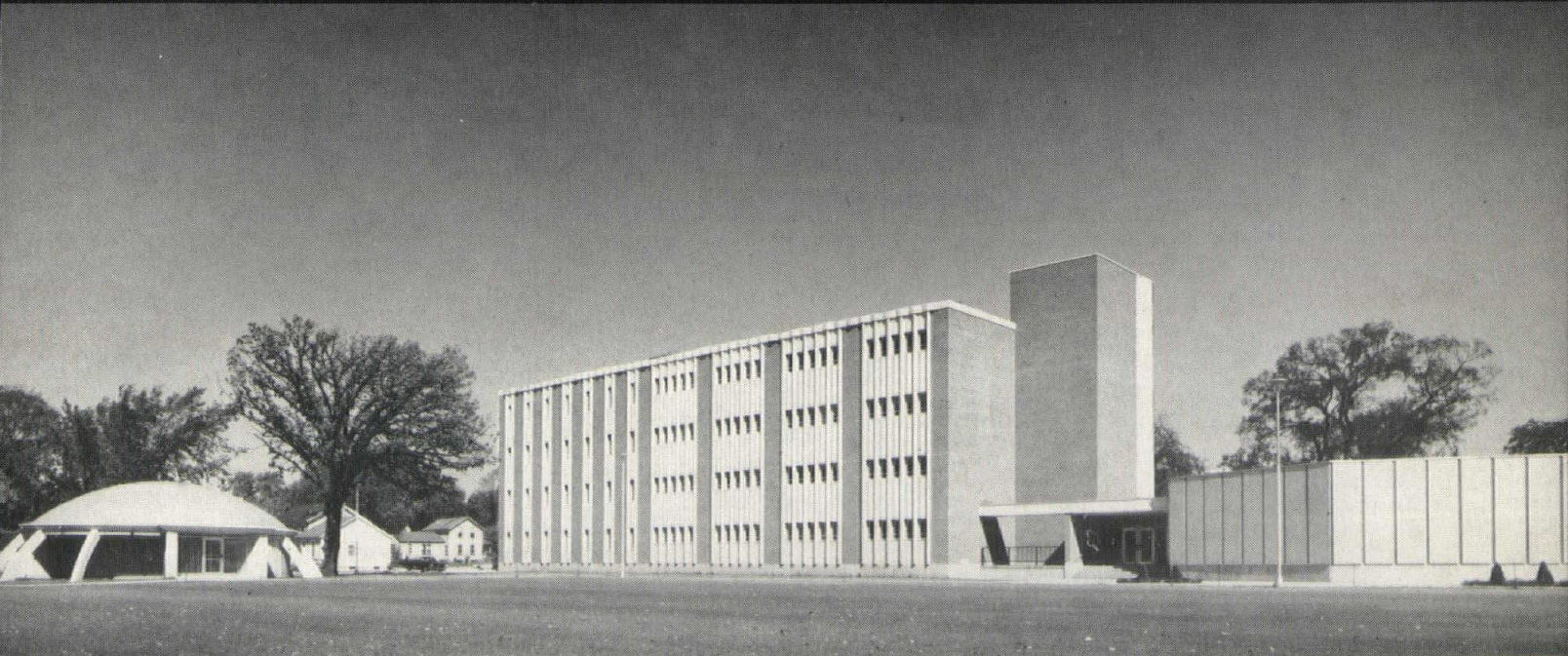
Wherever you go in our city, you will find our work — outstanding buildings on the University Campus, industrial structures, public schools, churches, offices, retail stores, apartments, homes both modest and palatial. Truly, Findorff is a builder of Madison.

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 Architects: Sandstedt-Knoop & Yarbrough / Photos by Big Cedar Studio



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Volume 33, No. 2

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notes of the month

Look for the CONCRETE RESEARCH "New Dimensions in Design" Lucky Number Page in this issue. Be sure you keep it. You may win the grand prize—an RCA color TV set and \$500 donation in your name to the Wisconsin Architects' Foundation.

The schedule for the calendar year of the WISCONSIN ARCHITECT magazine has been set by the Publications Committee. In order to truly represent the entire State in this magazine, it was decided that two issues per year shall be devoted to each of the four sections of the Wisconsin Chapter, A.I.A. Four issues are intended to be "open" issues, one of which will cover the A.I.A. State Convention.

The schedule reads:

March — Northeast Section, Special section on Equipment, Furniture and Furnishings.
April — Open issue, Special section on Wood.
May — Northern Section, Metals.
June — Post convention issue and Roster.
July — Southeast Section, Plaster.
August — Western Section, Synthetics.
September — Northeast Section, Lighting.
October — Open issue — Roofing and Brick.
November — Northern Section, Plumbing.
December — Southeast Section, Glass and Paint.

Jurors of the 1965 Honor Awards Program



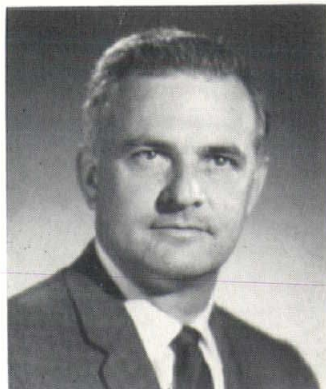
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Mark A. Pfaller, AIA

president's message

I have found the two and one-half years as a member of the Executive Committee of the Wisconsin Chapter, commonly referred to as the "Board," to be both interesting and pleasant.

They have been interesting because it was through the "Board" that I saw how the A.I.A. strives to serve the membership. I saw how the men elected to this office dedicate their time and efforts in the honest attempt to further the maxims of the Institute for the betterment of the individual professional.

They have been pleasant because of the strong bonds formed with other members, experiencing friendships grow in our common interests.

The years have been fruitful too, in the "getting things done" under the two previous administrations. These accomplishments now stand to challenge us. We will continue in the direction set before, but we will place particular emphasis on three general areas.

Certain committees have performed so well in the past several months, it immediately becomes apparent that in the area of committee work more good can be done. The efforts of the School Committee produced in two years working jointly with the State's most important people in public education a brochure soon to be published that will serve as a guide — "A Design for Working Relationships" — for school superintendents, administrators and school boards and their architects.

The Practice Committee has worked long and hard to bring important recommendations to the Registration Board, which has been guided by its lucid reports. Other work has influenced the legislature and private practice.

Newly formed in October when the Chapter elected to publish the WISCONSIN ARCHITECT, the Publications Committee has made its influence felt. Fruits of its intense and exacting work is evident. Although the magazine could not be possible without the Editor and Business Manager employed for its physical well-being, the committee — and now the newly formed Board of Directors of Wisconsin Architect, Incorporated — will continue to guide it along the way to what we envision as national recognition. Watch it and see!

Committee work will continue during this year at an increasing pace. We feel an urgency to coordinate the work of the state and sectional committees. The state committees will be activated under the Vice-President as the Chairman of the Committee on Committees. Section committees will be asked to submit quarterly reports of their activity to the "Board" and state chairmen will coordinate these reports with reports of their own to be reviewed at the March, June, September and December Executive Committee meetings. We hope this method will eliminate duplication, but more important, avoid opposite direction.

Another area of action will be in the drive for membership. This will coordinate and cooperate with the National Membership Growth Program. Work has already begun with the census of non-A.I.A. architects. This census will be reviewed and likely candidates for membership will be solicited to join our ranks.

A third area will be a cooperative campaign with the National organization — the "War Against Ugliness." The various Chapters have been alerted that this will be the big National Campaign in 1965. Further word on the *modus operandi* is expected momentarily. Just as soon as it arrives and is digested it will be put forth in the WISCONSIN ARCHITECT.

editorial



The four sections of the Wisconsin Chapter of the American Institute of Architects have been brought into a new role as a result of the recent assumption of publication of the *WISCONSIN ARCHITECT*. In the past, the Chapter spoke with the frothy voice of Milwaukee. Yes, there really are architects in Eau Claire, Madison, La Crosse, even Boscobel, Monroe and Monticello.

The Western Section has been given the first chance to produce the editorial content of the Chapter magazine with this issue. Having found our voice, we shall speak out not only on the rich architectural history of our Section, but also of the many intermingling factors which have helped make our State one of great contrast.

It is the hope of the Chapter membership that a growing number of our readers will be among the laymen who really are the users of the services which we, as architects, provide. First of all, it might be of interest to define for them the Western Section of our Chapter, which is that portion bounded roughly on the East and North by a line through Beloit, Janesville, Madison and La Crosse. In this area, we find such unique and picturesque regions as the robust farm lands of Rock and Green counties, the rolling hills of New Glarus with its Swiss antecedents, the Cornish mining community of Mineral Point now being restored with great fidelity to its former character, and on through the hills and valleys of the Kickapoo River, the great apple producing region of the State. Finally, we reach the Mississippi where not only is there incomparable scenic beauty, but also a rich heritage of Wisconsin architecture, such as the Villa Louis.

Located near Spring Green are two of the most intriguing architectural anomalies, the citadel of disciplined organic architecture, Taliesin, and a somewhat more primitive organic expression "The House on the Rock" about which we shall have more to say in a later issue.

Wisconsin is deeply involved in building activity at all levels of government, in all its religious denomina-

tions, in industry, and education. Are the laymen, who are commissioning this work getting what they are paying for? Are they able to best judge the performance of their architects? The architects are faced with the responsibility to produce the best architecture of which they are capable within the parameters set forth by their clients. Yet they realize full well that the members of building committees, boards of education, and officers of governmental agencies in most instances are not in a position to appreciate, understand or evaluate fully the broad scope of services the architect is capable of rendering. Are these people able to challenge the architect to the degree which will bring forth projects of high architectural merit? Do they really care about, or understand fully, what manner of man they are dealing with? Do they truly appreciate the breadth and depth of education upon which his knowledge is based? Or is the architect simply a long haired pencil pusher who must be hired to produce plans and specifications for buildings in excess of 50,000 cubic feet?

The point of this discourse can be summed up by saying that at the hub of the Western Section and of the State, Madison, one of the greatest building programs ever undertaken by Wisconsin is in full bloom. The main beneficiary, the University, is just beginning to formulate the plan for a curriculum in environmental design which will include a major in the field of architecture. The impact and importance of this development will be felt not only among the architectural profession but also among the majority of the people of the State. The increasing opportunity to reach thousands of students on the University campus cannot but improve the ability of the people of the State to see the architectural wealth of which we have spoken, and to prepare them to better assume the roles of building committees, school boards and building commissions in the years to come.

FREDERIC T. NUGENT, AIA



why 'registered' architect?

Mark T. Purcell, AIA

Almost any literate adult could give you an answer if you asked him, "What is an architect?" Even those who prefer to say "arch-i-tect" know he has something to do with buildings. Some might know vaguely what he does about buildings. A few might be even better informed. But if you were to follow your question with, "What is a *registered* architect?" all might be confused. Is there a difference? If so, how does an "architect" differ from a "registered architect?"

If there is confusion here it is because one term has a definition broad in scope; the other a definition restricted to a legal concept. "Architect" means one who is trained and skillful in the work of architecture. "Registered Architect" means an Architect (by the preceding definition) who has satisfied the State of his competence and is licensed by the State to engage in architectural work.

From the above definitions then, a Registered Architect must be an Architect. But all architects are not "Registered Architects." Does this seem needlessly confusing to the public's understanding of the function and value of the architect to the public good? Let us see.

The various states of our Union withhold from some persons the right to do certain things while they grant that right to others. The right to operate an automobile is withheld from some and granted only to those persons who have obtained a license. One is not given such a license merely because he wants it, but only if he can show that he meets certain minimum standards: he must know the provisions of the Motor Vehicle Code; he must have certain driving skills; he must pass certain tests relating to his physical well-being. That some citizens of the state may have the privilege of driving an automobile withheld from them might seem to be the abridgement of their rights as free Americans. But the State justifies such seeming inequities because it possesses Police Power which it is given by its charter. This Police Power gives it the right to limit complete freedom of activity by a citizen in the broader interest of the common good. The gen-

eral test is that any act of the State to be justifiable under the Police Power must be in the interest of public health, safety and welfare.

Most of the states (and Wisconsin, among the earliest) have long believed that the health, safety and welfare of the public are directly affected by the nature of public buildings and in order to safeguard and promote such public welfare certain standards of design, construction and equipment of public buildings have been widely adopted. These are commonly known in Wisconsin as the State Building Code. To enforce this code it is required of one wishing to construct a public building that he satisfy the State before he begins that the building will meet the standards of design, construction and planning required of it by the State. This is done by requiring him to submit plans and specifications to the State for approval. He may not begin construction until he does this; and the building must be built according to those approved designs. Thus minimum standards are assured to promote the public welfare. But obviously, if the State were to accept plans and specifications for buildings prepared by any person without training in their design it would receive many incompetent designs which did not meet the State's standards and an enormous staff would be required to examine such documents, find them unacceptable, return them, recheck them when resubmitted, etc. And much delay would be caused the person who wanted to build. To avoid such confusion, then, the State has denied to some persons the right to submit designs for public buildings and reserved that right to those persons only who have demonstrated to the State that they are competent in such design. These persons are the Registered Architects and the Registered Professional Engineers. Although the Professional Engineers are permitted to submit designs for public buildings, comparatively few of them do so for the reason that they prefer to work at their engineering specialties — civil engineering, mechanical or electrical engineering, etc., many of them devoting their highly specialized technical skills in these engineering fields to the design of building

equipment. For this reason then let us consider only the Registered Architect and his relations with the State in acting as one to whom the State has given the privilege of designing public buildings while denying it to most others.

Why do we say "Registered" Architect? A person who has chosen to be trained, formally or otherwise, to do an architect's work is surely an architect, isn't he? The definition of "architect" is commonly understood to be, "one who uses his knowledge of the art and science of designing and overseeing the construction of buildings and the environment of spaces for human activities." Anyone who has acquired such knowledge and applies it would, by such a definition, be an architect. Why, then, "Registered?" Well, the State in conferring a special privilege on architects while denying it to most others wants to be careful to confer it on those architects only who are capable of assisting the State in safeguarding and promoting the public welfare. The State cannot possibly know the qualifications of all those who might call themselves architects and so it must help in compiling a list of those who have at least minimum standards of competence in architectural design. Such a list is thought of as a Register and the people whose names are on that list are Registered Architects.

To become a Registered Architect one must possess certain qualifications which distinguish him from others. Most important, he must, in addition to basic educational requirements, have been working at architecture for at least seven years. This may be satisfied by his working for seven years in the office of architects or by graduation from an accredited school of architecture and completing at least three years of such work. In addition to such education and experience, he must pass a written and oral examination given by the State. When these requirements are satisfactorily met the State will give him a certificate of Registration. He is now possessed of the privilege of making and submitting designs for public buildings to the State for approval by the State. He is a Regis-

tered Architect. He may call himself Architect. No others who are not so registered may do this.

As we have seen before, the State needs specialized help in qualifying candidates for registration. It therefore creates a panel of registered architects, a Registration Board, to conduct the examinations and determine which candidates have the required minimum qualifications. Again, the State asks for help in finding those persons best qualified to serve on the Board. The Professional Societies of Architects, existing as they do to promote high standards of architectural practice, are asked to nominate from their membership persons for appointment to the Registration Board. These persons devote incredible amounts of time without pay, all in the interest of participating in a constant replenishment of the ranks of Registered Architects — that is, basically in the public interest.

TO SUMMARIZE:

The State requires plans for public buildings to be submitted for its approval before they are built to insure that health, safety and welfare of the public are protected.

Such plans must be made by persons with special knowledge and training because otherwise the State would be swamped with unapprovable plans.

To determine what architects have the competence to make such plans the State examines architects wishing to have this privilege.

This examination is conducted by a Board of Registration appointed by the State and composed of practicing architects of the State.

Those who are successful in the examination are "registered" by the State and from a body of trained professionals privileged to submit plans for public buildings. Those people are "Registered Architects" upon whom the State depends for technical help in safeguarding the public welfare.

Part one of this paper has described the basic law and theory of registrations in Wisconsin. Part two will see how this system is working in Wisconsin at present.

james SPITZER



The illustrations and photographs shown here are but a few examples of the many designs Madison Artist James Spitzer executes in wood, fibre glass, concrete, metal and ceramic materials. These panels can be small or large and can be applied to interior or exterior surfaces. The design can be infinitely complex and the materials combined for whatever effect Spitzer envisions.

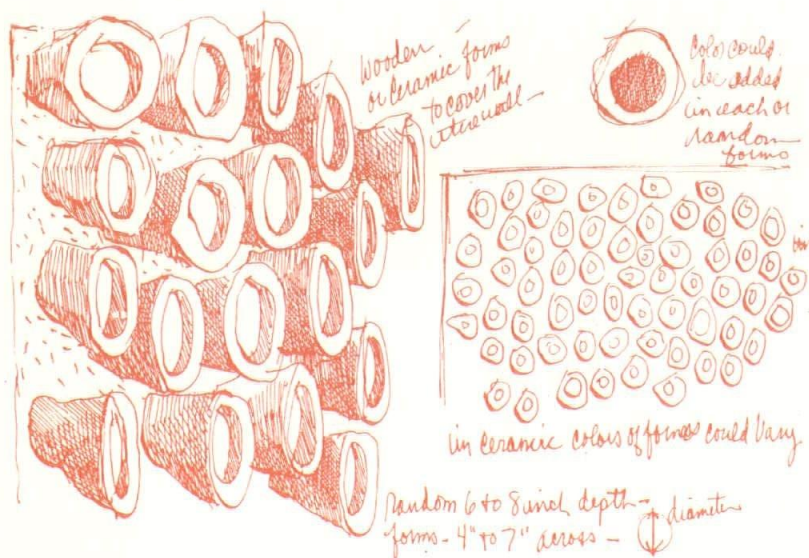
James Spitzer paints, draws and works in printing techniques but would like to eventually work exclusively with architects. He feels that his designs lend themselves well for incorporation into structures. In a recent interview Spitzer explained that the word "hand-made" still applies to his work. The three woodblocks with a figurative theme were executed for the Science Building on the Whitewater College campus for Weiler-Strang-McMullin and Associates, Architects of Madison.

The three woodblocks are of $\frac{7}{8}$ " cherry wood mounted on plywood to prevent warping. Spitzer uses cherry and maple wood for their ability to age well. He explains that he draws his design onto the panel, then cuts it out with woodcutter tools and rolls it over with ink. Actually these panels could be described as just woodblocks from which no prints are taken.

Spitzer explained that regardless of technique or material, his main consideration is given to the application of his reliefs to the structure. He emphasized the need to cooperate with the architect from the inception of a building. The problems of reflection, scale, lighting and material are more easily solved at this point.

James Spitzer feels that today the "exaltation of the imperfection, the cult of the handmade, the art of the craftsman, effects William Morris strove to achieve, have returned in some areas." He finds the concepts on a grander scale, the tools and materials available more complex and the uses and variations of products endless.

The graphic sketches in these pages were prepared by Spitzer for Maynard W. Meyer, Architect, as a proposed relief to be hung in the stairwell of the Union Building of the University of Wisconsin, Milwaukee. These panels would have forms roughly shaped by machines and further formed by hand. Spitzer explained the need to use machine tools to cut down on cost of execution. Spitzer also stressed the fact that these panels can be very inexpensive depending on design, repetition of pattern, etc.

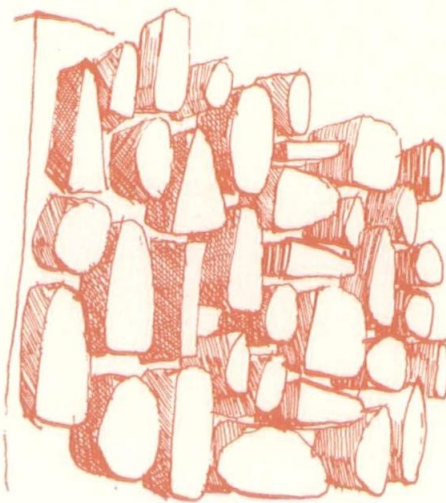
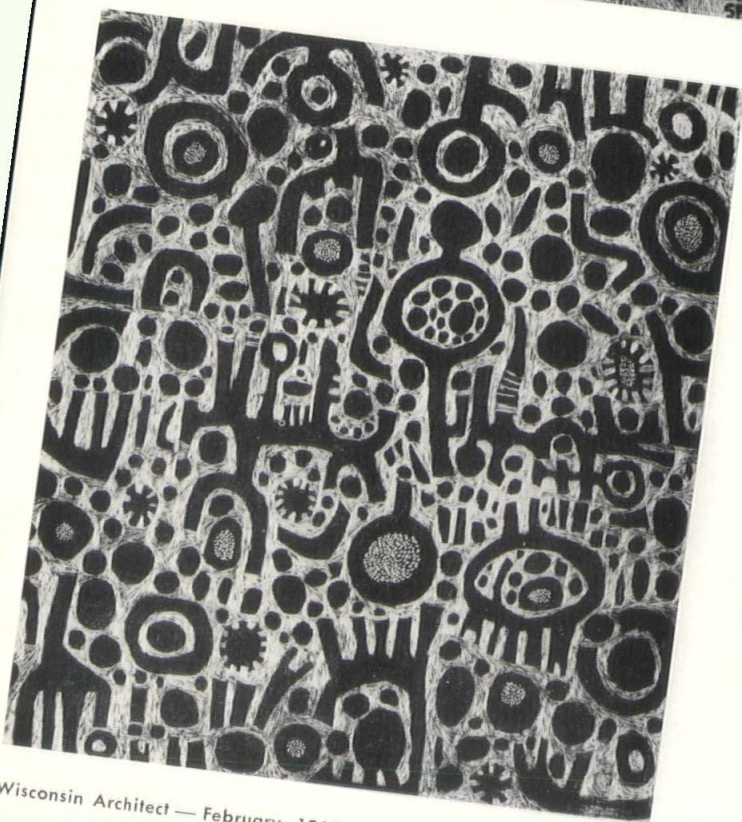


in wood the stain would be dark, and ceramic greens, gray and blue would be inserted in each or random forms, or copper - or other metal insert - or enamel

could be glued
pieces - bowed
and then shaped
with a chisel -
forms will be set
on different angles -



Science building
University of
Wisconsin-Whitewater
3 panels 8' x 2 1/3'
Cherry planks mounted
on plywood



All forms
hand hewn
but not quite
as elaborate -
No complex forms
stained and waxed

Cancer Research Building

University of Wisconsin, Madison, Wis.

Schutte-Phillips-Mochon — Architects, Planners, Engineers

The program of requirements for the structure called for the design of one of the largest cancer research laboratories in the United States. The site was extremely limited, requiring a vertical architectural concept, eleven stories high. Other buildings in the immediate medical center area are of various architectural styles and shapes, and some were the result of remodeling and additions constructed after the original buildings were completed. For this reason the architectural design concept called for a strong, bold vertical independent statement in contrast to the various two and three story adjacent structures within the medical center.

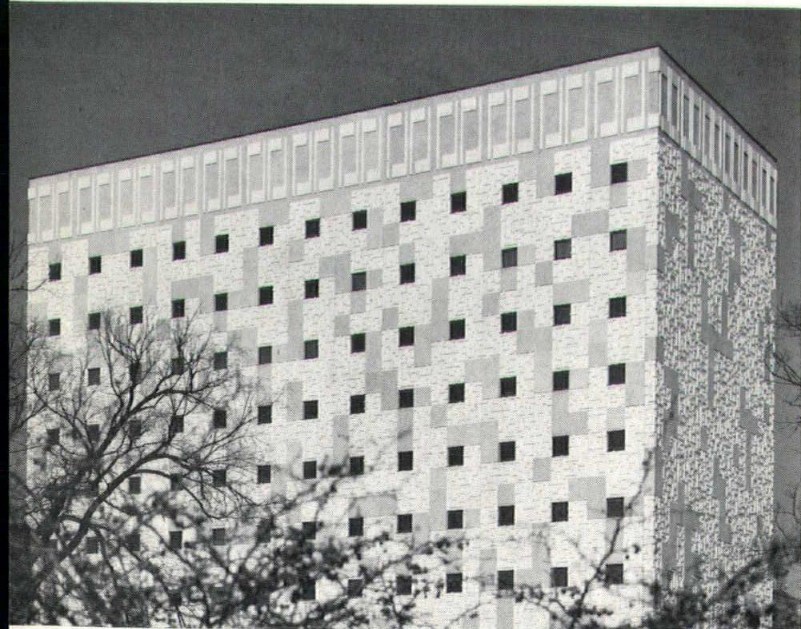
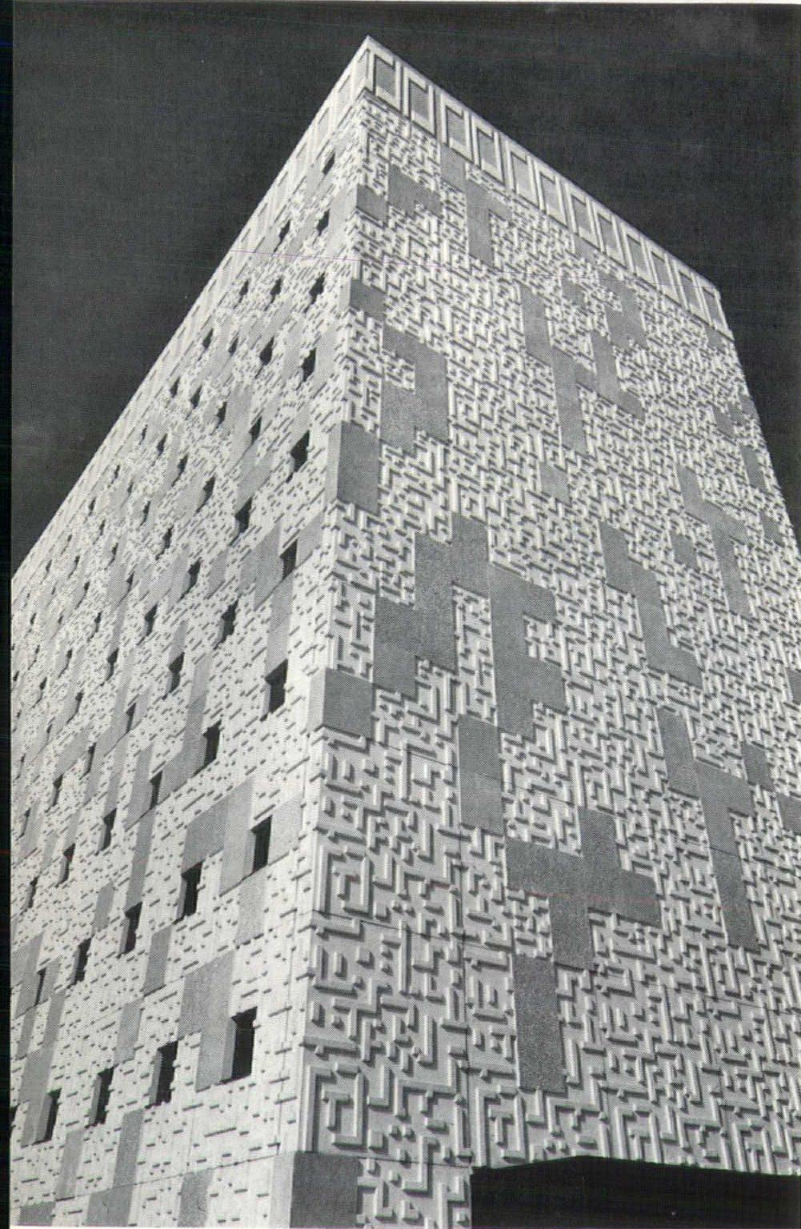
The functional requirements of the building necessitated a maximum amount of flexibility for laboratory arrangements on each floor, to provide for the continually changing research facilities which must be accommodated in the structure over the life span of the building. After considerable research, a basic modular laboratory of 10' x 22' was arrived at and, within this lab, various types of gases, voltages, water supply, etc., had to be able to then be extended and easily changed at any time in the future. A single lab can be combined with another lab to form a double lab to meet all the requirements for this type of facility. A typical floor plan is carried out through the entire structure which allows complete flexibility of space for laboratory use, and the utility cores are located in the exterior wall and the corridor wall utilizing a vertical run rather than a horizontal run for all utilities.

All laboratories are identical in dimensions and have complete access to the interior utility spaces.

Because the functional requirements of the building necessitated a modular concept in the laboratory design, the building clearly and honestly expresses this unit. A window area in a typical lab is approximately three foot square to minimize the amount of natural light entering the laboratory and to provide a psychological opening requested by the Owner for those people who will occupy the building.

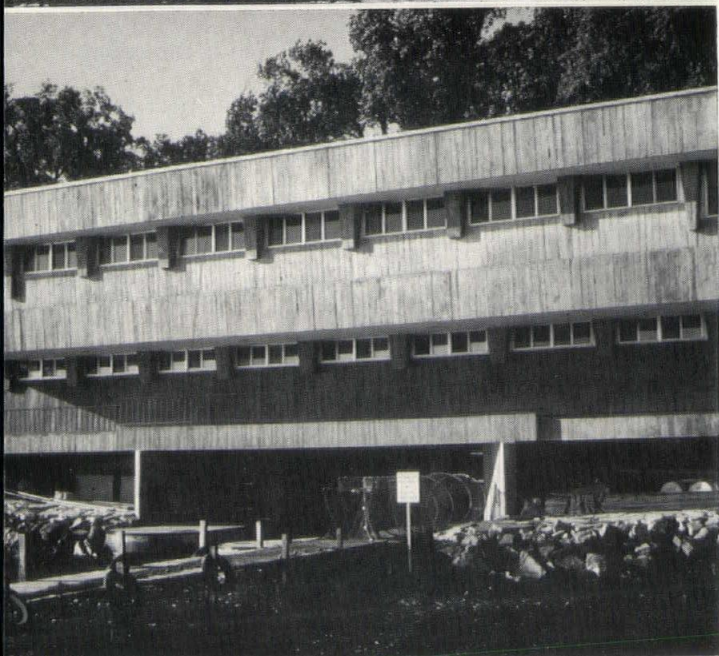
The exterior design concept is directly related to the internal requirements and the exterior 5" reinforced precast concrete modular units are used to enclose the structure and also incorporate the aluminum window unit.

The structural frame is of concrete and the columns are located modularly within the utility cores of the building. The architectural concept utilizes designed precast concrete panels to make maximum use of shade and shadow and, as the sun rotates around the structure this in turn changes the surface of the building throughout the day. The projected shadows vary from the early morning to the late afternoon which in turn gives a richness and movement to the building and creates a symphony in shade and shadow.



University of Wisconsin Laboratory of Limnology

Kaeser & McLeod Architect-Engineer Associates Madison, Wis.



The laboratory was constructed throughout of mass and poured-in-place concrete, precast concrete plank and precast concrete panels. It became apparent very early in the discussion of the program that with the type of use of the building and the very limited budget that concrete would be the most suitable and economical material as will be seen from the following discussion.

The laboratory houses graduate research activities in the study of lakes, and particularly of Lake Mendota. These studies include the continuous recording of seismic, temperature, water level and many other types of records. Boats and gear must be brought in and out of the laboratory in all weather, and boats of various sizes including a "submarine" must be brought into the laboratory for repairs and conditioning.

The program required that the laboratory be built on the lake with an interior boat slip and an exterior protective breakwater. The breakwater had the dual purpose of protecting the boats from wind when entering and leaving the slip and protecting the building from ice in the spring break-up.

The general level of the site was roughly one story above the lake. The site was narrow and there were ground water streams from a high hill directly adjacent. All these considerations dictated the use of mass concrete for the breakwater, the boat slip and for the whole basement (which was just above the lake level housing live and dead boat storage, gear storage, shops and fish holding tanks).

Since the activities throughout the laboratory required a considerable use of water it was logical to carry concrete up into the superstructure and for the finished exterior.

In detail, the use of concrete above the basement is as follows:

1. The structural frame is reinforced concrete.
2. The floors are precast plank with concrete topping.
3. The roof deck is precast plank.
4. The first floor walls were poured in place, battered, and textured by the use of rough lumber forms.
5. The second floor walls and the roof fascia are precast panels, textured the same as the first floor walls.

No coloring or other surface treatment was used for the exterior except the use of rough sawn form lumber. The concrete was all one brand, selected for its light color. It is expected that the surface will weather to a light pearl gray.

FAIRHAVEN:

***A community of apartments
for senior citizens.***

Waterman, Fuge & Associates, Inc.

Architects, Professional Engineers, Fort Atkinson, Wis.

FAIRHAVEN is located on a seven acre plot close to the center of Whitewater, which presents to the people who make it their home an excellent opportunity to continue living within the normal stream of life. Churches, the University, and downtown shopping areas are all within easy walking distance.

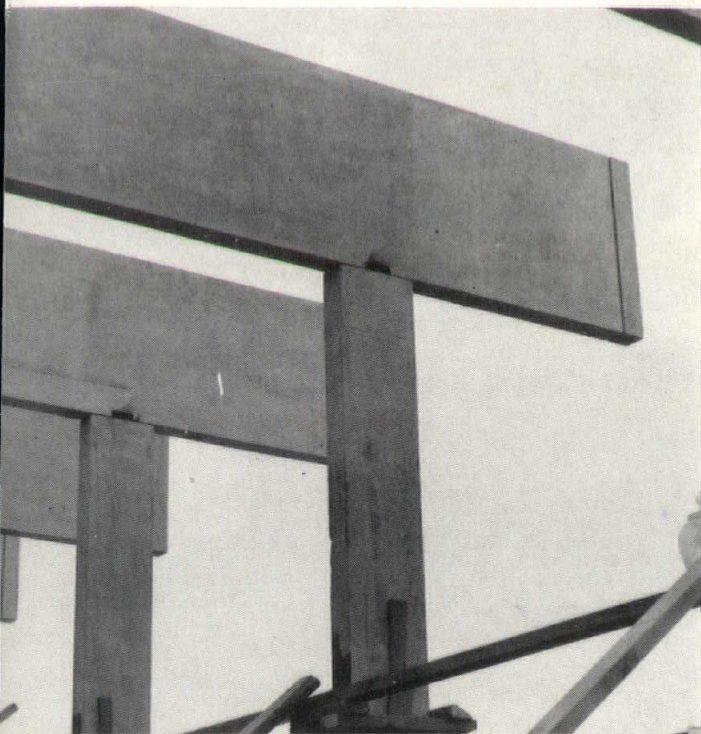
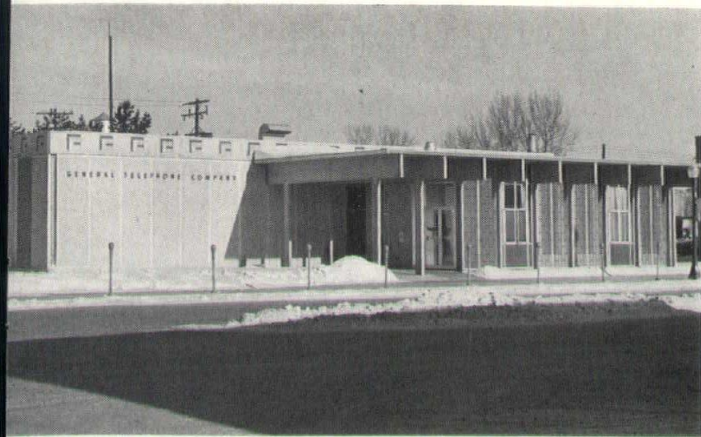
In the design of this facility, everything possible was done to provide an environment conducive to the well being and happiness of elderly people.

Building of Fairhaven was completed in the Fall of 1963. Included are 115 apartments and a 20 bed infirmary. All apartments have private bathrooms and kitchenettes. Also included are, a main lounge and chapel, dining room, kitchen, six secondary lounge areas, administrative office, library, recreation room, arts and crafts rooms, beauty salon, a garage, laundry and storage areas. The total floor area is 95,000 sq. ft.

Excepting for the basement floor slab, all structural elements including all columns, beams, floor systems and roof systems are of precast reinforced concrete. The exterior facing panels are precast white tooled concrete and precast exposed aggregate concrete.

Windows are aluminum double glazed sliding type.

The lounge, dining, chapel and office areas are winter and summer air conditioned served by a central system. Apartments are heated with hot water and served by individual coolers where desired.



Tomahawk Central Office Building and Garage

General Telephone Company of Wisconsin

Ames, Torkelson and Nugent, Architects and Engineers

This project includes central office equipment, commercial office space and vehicle storage garage. The program and requirements set forth by the Owner were quite stringent. First of all, a deadline for conversion to dial telephone service had to be met as set forth by the Public Service Commission. This necessitated winter construction. In addition, it was contemplated that several expansions of facilities would be required in the years to come, namely vehicle storage and central office equipment space.

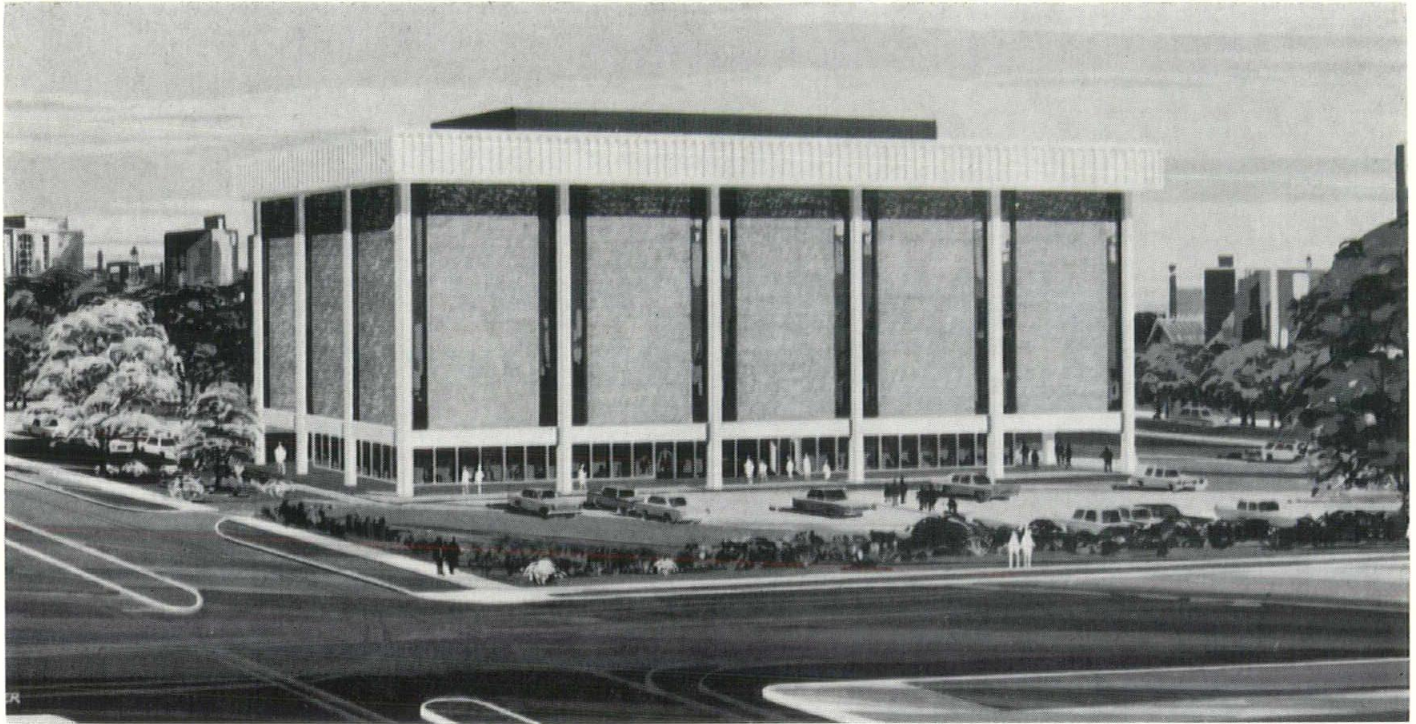
The program, while quite simple from a functional standpoint, did have the aforementioned demands which seemed to indicate as much prefabrication as possible to avoid field work in severe conditions, as well as the necessity to get as much mileage out of the materials going to the building at this time with respect to their salvagability in future use. A system of precast concrete columns, beams and deck serves as the structure to which were attached exposed aggregate panels with the integral insulation. The north wall of the equipment room was that which would probably be moved first which meant that something light, easy to handle and as nearly 100% salvagable as possible should be selected. Kalwall panels of translucent fiberglass on an aluminum frame were chosen to fulfill the foregoing requirements, and adding the advantage of considerable natural light being allowed to enter this window space.

The versatility of concrete, which by nature of its plasticity, allows an infinite variety in surface texture and design, relatively inexpensive, allowed the use of large precast beams which served not only to support the precast deck units in the upper portion of the roof, but also as an aesthetic feature through the stylized G symbol and as the element differentiating the low and high portions of the building. Erection time for the frame deck and panels was approximately two weeks after completion of foundation work. So far as the mechanical systems were concerned, the heating and ventilating system was of split arrangement with a hot water boiler, air handling units, perimeter baseboard radiation and unit heaters. Both plumbing and electrical systems were quite conventional with the exception of the electrical work, provision had to be made for the specialized requirements of the telephone equipment.

The building was 7,088 square feet in area with a volume of 93,300 cubic feet. Its total cost was \$86,209.50 or \$12.16 per square foot and \$0.92 per cubic foot.

Madison Medical Center, Madison, Wis.

John J. Flad & Associates, Madison, Wis.



In the Madison Triangle Redevelopment Urban Renewal Area, the Madison Medical Center is the largest proposed single building thus far presented. The site embraces two (2) previous square block areas and is adjacent to Madison General Hospital property. Strategically placed at the intersection of two (2) busy Madison streets, the site will be easily reached by patients and physicians.

The Medical Center's gross area is 67,380 sq. ft. Its six (6) stories include a glass enclosed first floor surrounded by covered parking, the second through the fifth floors will be physician office space and the sixth floor will be the mechanical penthouse. The fully air conditioned building has an open module plan and is flexible to the needs of the individual tenant.

The structure is of a reinforced concrete frame which is emphasized in the exterior design. The exposed concrete will be white. To contrast with the concrete and add warmth to the exterior, a brown brick blend will be used with anodized bronze window frames and bronze tint glass. The vertical feeling of the exterior is terminated by a strong horizontal cantilevered concrete fascia placed above the final office floor.

The site planning and building placement were major considerations in the overall project. The large site enabled the Architects to set the building back properly from the main intersection and take advantage of this space for parking. The large parking area for over 280 automobiles has been broken into smaller areas by use of planters and existing large trees. Regrading of the front of the site will allow the sight line to the building to be over the parking area. Access to the Center will be on covered walks at all entries. Both parking areas will be served by the central elevator lobby in the center of the building. A plaza will be developed on the east, across from a proposed shopping center for the use of pedestrians.

Architects for the project are John J. Flad & Associates, Madison, Wisconsin, with Mr. Jack Reif, Associate-in-Charge and Mr. John Blassick, Project Architect. The Madison Medical Center is designed for the use of more than 50 physicians with some allied service areas and is scheduled to be in service in 1966.

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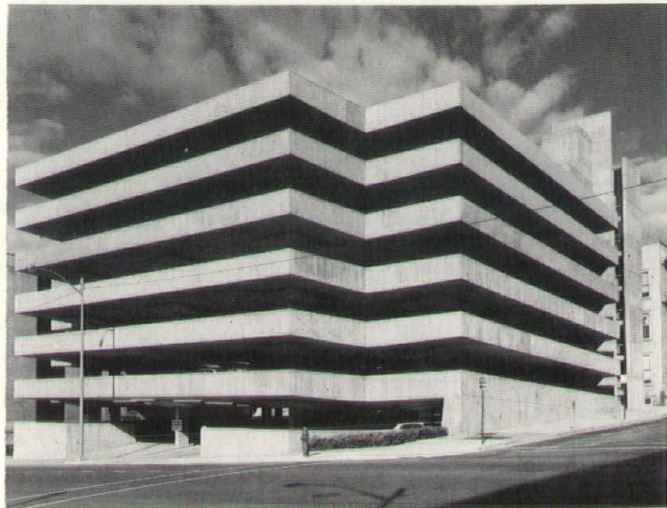
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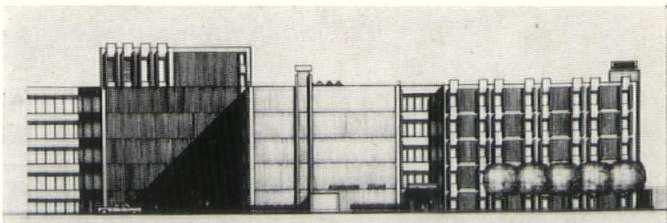
New Buildings in Wisconsin



Anchor Savings and Loan Parking Ramp, Madison. John J. Flad & Associates, Architects of Madison.



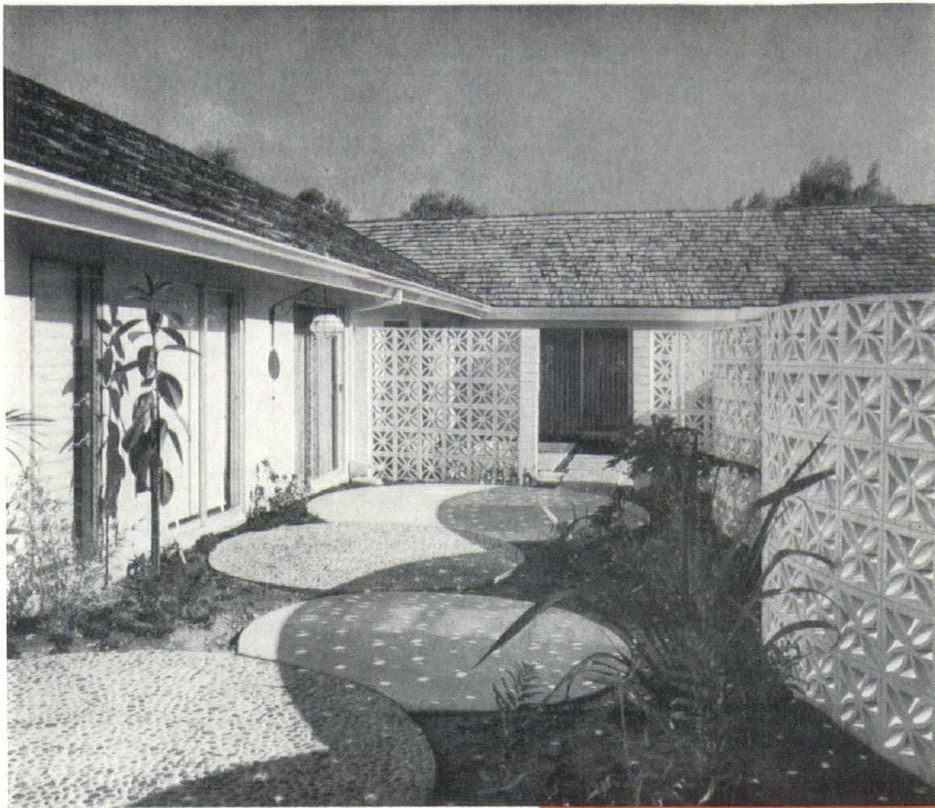
The Regent, one of the largest private student housing facilities in the State. Weiler-Strang-McMullin and Associates, Architects of Madison.



Gundersen Clinic Building, a major construction project in the La Crosse area for 1965. Hackner, Schroeder and Associates, Architects of La Crosse.



Central Animal Health Laboratory, Madison. Ames, Torkelson and Nugent, Architects and Engineers, Madison. State of Wisconsin, Department of Agriculture, owner. Structure will be ready for occupancy in June of 1965.



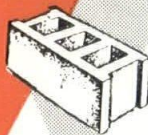
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Wisconsin Concrete Products Association

Oldest Concrete Masonry Association in the United States



Left to right: David Luety, John G. Garske, Richard Eid, Paul Bronson and Fred Yahr.

The oldest concrete masonry association, the Wisconsin Concrete Products Association, held its 45th Annual Convention in January at the Red Carpet Inn in Milwaukee.

At this convention officers were elected for their services and dedication to the industry as follows: John G. Garske of Wausau Concrete Co., President; David Luety of Beloit Stone Co., First Vice-President; Paul Bronson of Best Block, Butler, Second Vice-President; Richard Eid of Wisconsin Brick Corporation, Madison, Treasurer, and Fred Yahr of West Bend Concrete Products, Secretary.

Originally founded as a "social group," as one member pointed out, the Wisconsin Concrete Products Association with its 88 block producing member firms in the State of Wisconsin, gained impetus last year by joining the National Concrete Masonry Association and by installing Lowell Gerretson as its Executive Director with offices at 313 W. Main Street in Madison.

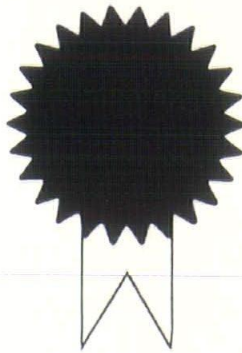
Asked about the aims of the Association, President Garske expressed the primary function of the Association as "policing the product of its industry and to up-grade that product to the best possible standards."

At the Convention two important issues were raised concerning sound absorption and fire resistance of

concrete block. Mr. Garske explained: "Architects and builders are devoting more attention to the reduction of noises in buildings to increase the efficiency and comfort of the occupants. Because of this trend, investigations have been made to determine the sound absorbing values of various materials. Results have indicated that concrete masonry units having open surface textures will absorb sound readily. Sound waves upon striking a surface are partly reflected, absorbed and transmitted in varying amounts depending upon the character of the surface. Exposed concrete masonry walls built with the ordinary commercial run of block will absorb between 18 and 68 per cent of the sound. Any material that will absorb 15 per cent or more is considered useful for sound control."

Regarding the question of fire resistance of concrete Masonry, Mr. Eid had this to say: "The fire resistance ratings specified by building codes for masonry walls will vary with the type of building, its occupancy and the fire zone in which the structure is located.

"The fire resistance ratings of walls constructed of hollow concrete masonry units have been based on numerous fire tests made at the Underwriters' Laboratories, Inc., National Bureau of Standards, and at the Portland Cement Association."



This building — design and structure was chosen

“Top finalist in Factory Design in US”

by *Factory Magazine*.



Graber Company, Middleton, Wis. / Office Section by John J. Flad & Associates, Architects, Madison. / Factory by Kenneth I. C. Knudson, Architect, Hartland.

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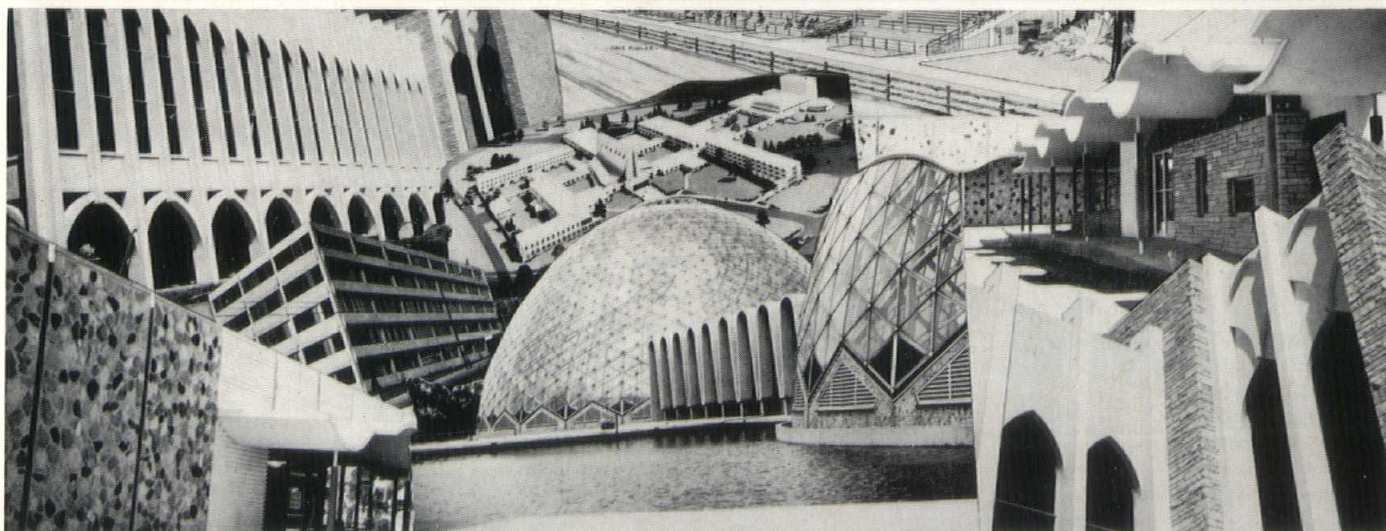
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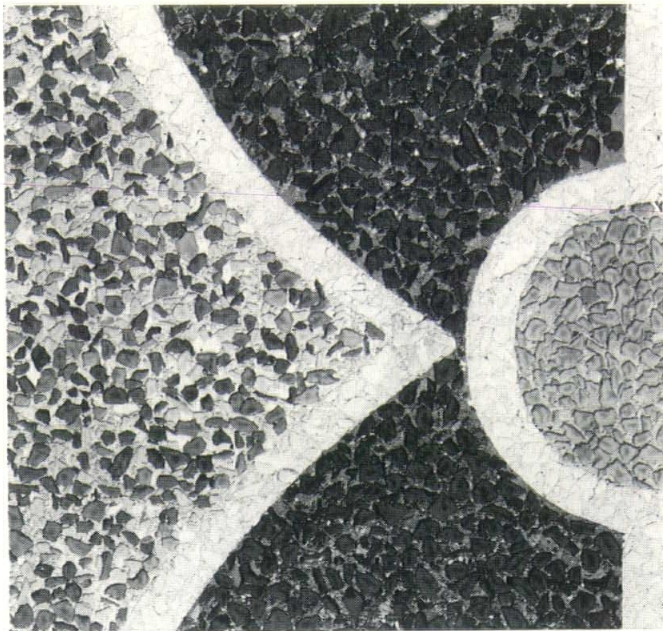


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Concrete Curtain Wall-Growing Versatility



Vitreous aggregates in several colors created this design.

Concrete is a "natural" as a facing material for buildings. It is a plastic material. Its range of color is limitless. It is strong enough to be cast in thin sections. It is durable.

More than fifty years ago Frank Lloyd Wright set concrete slabs on one of his earliest buildings. And now scores of concrete products plants from coast to coast have developed facilities for turning out thousands of square feet of decorative concrete curtain wall panels every day.

COLOR

Concrete curtain wall panels offer the widest choice of colors—both solid and variegated—of any of the forms of wall panelling. To get solid colors mineral oxide pigments are used in the facing layer of the matrix. Variegated concrete colors come from using colored aggregates on plain or colored matrices.

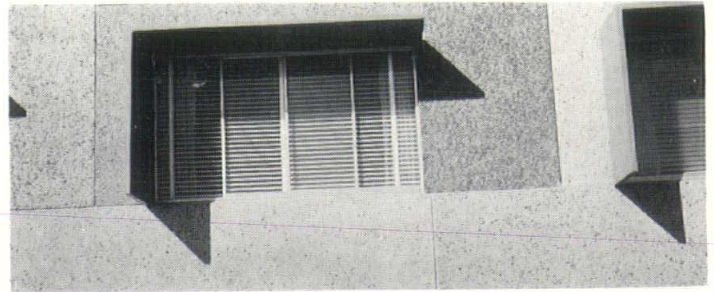
The natural aggregates most frequently used to decorate concrete curtain walls are marble, quartz, granite and gravel. Ceramic and vitreous materials, which are also employed as aggregates for decorative facings, are artificial.

Among the natural aggregates, marble gives the greatest selection of colors: green, yellow, red, pink, blue, grey, white and black. Quartz usually comes in three colors—white, rose and clear. Granite is available in shades of pink, grey, black and white. In some sections of the country a good-looking brown or reddish brown gravel can be found.

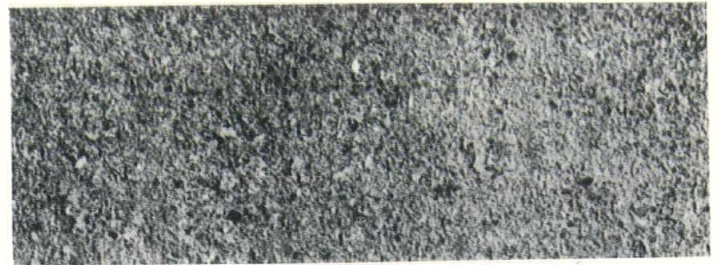
Artificial aggregates can be manufactured in any color. Vitreous aggregates and tiles give the most intense colors of all decorative facing materials. They are often used for murals and signs. Ceramic tiles also enjoy considerable use in concrete curtain walls.

TEXTURE

Texture goes hand-in-hand with color in determining the visual impact of a concrete curtain wall. For instance a moderately rough finish will have a "quieter" appearance than a glossy, ceramic-like finish.



L-shaped panels with two colors of exposed aggregates are used with L-shaped canopies to accent the pattern.



Concrete surface textured by bushhammering.

Panels may be ground, buffed, polished, bushhammered, tooled, sandblasted, or etched with acid to get the desired visual effect.

Interesting textures also result from using form liners. Plastic form liners can yield an ultrasmooth or a lightly textured panel. Carpet-like textures are possible with panels cast against rubber form liners. Concrete can also be cast against form boards of striated plywood, roughly sawn boards, sand-blasted plywood and the screen side of masonite.

PATTERNS

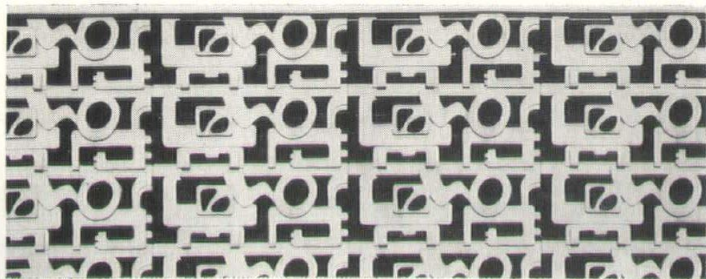
There are three basic approaches to patterning concrete curtain walls: (1) relief, (2) colored aggregates, and (3) contrasting textures.

Both straightline and freeform relief designs are possible for concrete curtain walls. Straightline figures are usually made by using negative patterns made of wooden strips or metal molds in the form. Another way is to use a concrete mix with white portland cement paste and decorative aggregates backed up by several inches of lightweight concrete. The same methods used for casting straightline patterns can be used for freeform designs. Virtually any design can be achieved.

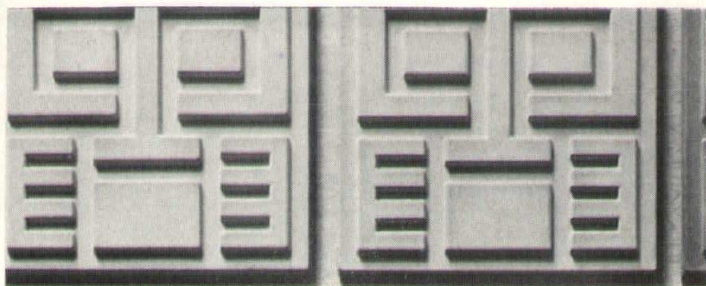
Colored aggregate designs are produced by several methods. One method is the aggregate transfer technique in which the colored materials are stuck to form liners, concrete is cast against the liners, and then the colored materials are "transferred" to the surface of the concrete when the liner is stripped.

PANEL SHAPE

Because concrete is a plastic material, precast concrete curtain wall panels can take any shape: rectangular, square, curved, diamond-shaped, and L-shaped. Unusual shapes are much easier to manufacture in concrete than in other materials. And the architect does not have to contend with the design limitations of materials subject to the shortcomings of dies, brakes and rollers.



An ancient Mayan motif is the basis of design for this grille in white exposed quartz aggregate.



These panels were cast against rubber form liners.

Concrete curtain wall panels may also be punctured to form grillework. Pierced panels are most often used when the grillework does not cover an entire wall of a building. For larger areas concrete masonry units or grillework are usually employed.

COST

As pointed out earlier concrete's plasticity makes concrete wall panels comparatively easy to manufacture, thereby holding the cost to a reasonable figure.

In the United States, the labor needed to cast panels has a great bearing on cost. Plain concrete panels made with gravel and sand aggregates can compete successfully with the lower cost type of walling. With more ornamentation and more complex panel cross-section, the cost naturally rises.

In many cases concrete wall panels can constitute an entire wall. This cuts out the need for costly finishing of the interior wall surface. Once the concrete wall panel is up, the wall is completed.

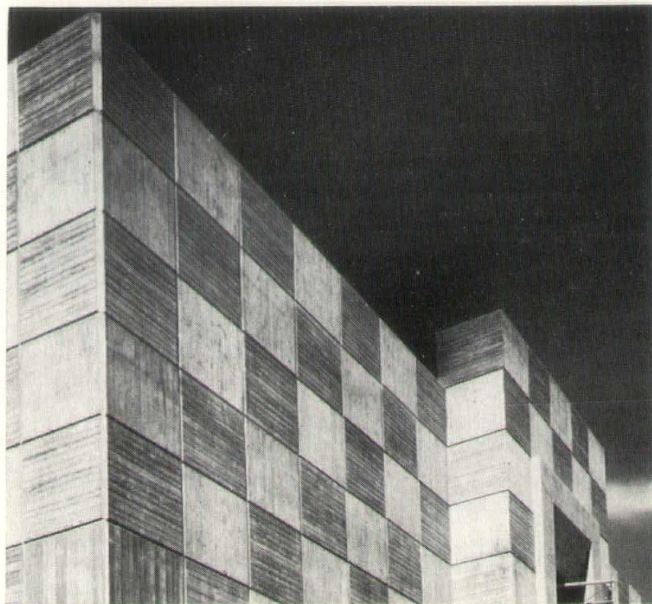
The cost of coloring the matrix is not a major consideration because the facing mix is only one inch deep. For the same reason, even the expensive aggregates are practical.

Another factor affecting cost is casting technique. The choice of casting procedure will be dictated largely by the physical and economic requirements of the project. Also, the matters of attachment and jointing details have an important bearing on cost.

Architects should consult a producer of precast concrete wall panels before plans are prepared. He can give specific information on local concrete curtain wall construction costs and practices.

AVAILABILITY

There is a concrete wall panel producer in almost every area, and in most well-populated sections there are several panel producers. Although job-casting has



Cast plain concrete against alternating panels of sand blasted form boards.

been used on some large projects, manufactured panels are usually recommended.

HANDLING AND ATTACHMENT

Concrete wall panels are usually shipped by truck. Normally they are lifted directly from the truck into final position on the building. Lifting can be done by strap slings or by inserts cast in the back or edges of the panels. These inserts can also double as fastening devices. Many types of fastening details are available to fit all the possible combinations of panels and building frames.

INSULATION

A structural backing of lightweight aggregate concrete for curtain wall panels can often give adequate insulation. Or sandwich panels of two thin layers of concrete enclosing a layer of insulating material can be used. Sandwich panels are finished on both sides and make up the entire wall.

Concrete curtain wall panels are secured to building frames so that there is no path of heat and cold transmission between the outside and the inside of the building. This is why buildings clad in concrete panels are cheaper to heat and to cool.

FIRE RESISTANCE

The excellent fire-resistive qualities of conventional concrete construction have long been recognized. These same qualities apply to concrete curtain walls.

Concrete wall panels are not only noncombustible, but they also act as effective fire barriers. Such panels can be provided in the thicknesses and varieties of concrete that will conform to any building code requirement — including the maximum fire rating of four hours.

It is easy to see why concrete curtain wall panels have such a brilliant future as a facing material — and such a proud past.

waf

Wisconsin Architects Foundation

END-OF-YEAR CONTRIBUTIONS

In addition to contributions from Organizations Associated with the Architectural Profession listed in the January issue, the following remembered the Foundation at the end of 1964:

Osborne, Inc.

*Milwaukee Area Bureau for Lathing & Plastering
Lofte & Fredericksen Inc.*

*International Hod Carriers, Building & Common
Laborers Union of America, Local No. 113*

Western Builder Publishing Co.

The first two mentioned are contributing annually, and, as previously done, Osborne, Inc., inserted in their greetings to State Architects a small card reading:

"After due thought regarding the giving of gifts or favors at Christmas time, we have decided it would be best to make a contribution each year to your Wisconsin Architects Foundation instead."

While the State Architects were not approached for contributions at Christmas time, the following very thoughtfully sent checks, obviously realizing the Foundation's continual need for funds:

Harry Bogner

Carl W. Schubert & Associates

A. J. Cuthbert

The Foundation is sincerely grateful for the support received from the Organizations and Architects listed above, as well as from those previously reported.

MEETING

The nine Directors of Wisconsin Architects Foundation, all State Architects, met in Milwaukee on January 29 to project plans for the coming year. As is customary, they reviewed progress reports received from architectural schools attended by the 11 Wisconsin students who are receiving tuition grants for the academic year 1964-65. In addition consideration was given to two new applicants, both excellent students in financial need.

MEMORIALS

During 1965 contributions were made to the Foundation in memory of —

Albert F. Gallistel, Naomi S. Peterson, Mrs. Walter E. Goering, William M. Chester, Mrs. Coleman Long, Elmer Leach, Mrs. Ralph Hartley, Ralph Hartley, Jr., Wendell Ihde, Edwin G. Rosenberg, Mrs. Charles A. Halbert, Willard F. Henoeh, Rollin D. Thomas, Fred J. Oeflein, Lester L. Lux, Mrs. John M. Lindsay, Sr., Ceil Rice, Lydia Schultz, Herbert L. Ebling, Mrs. Earle B. Downing.

GIFT

In appreciation of continued amicable association and cooperation, the Foundation presented a split-leaf plant to the State A.I.A. Office at Christmas. Mrs. Jane Richards advised that the gift arrived at a most hectic moment, encouraging a cheerier contemplation of the holiday season.

Wisconsin Architects Foundation
4685 North Wilshire Road
Milwaukee, Wisconsin 53211
962-5844

Chapter Report

The Executive Committee of the Wisconsin Chapter, A.I.A., met on January 8, 1965, at the Simon House, Madison, with the following present: Mark A. Pfaller, Joseph G. Durrant, Emil Korenic, Robert C. Cashin, Maynard W. Meyer, Robert Potter, Leonard Reinke, Norman Sommers, William Wenzler and Robert Yarbrow.

All final transactions for the incorporation of the WISCONSIN ARCHITECT magazine were enacted. The Wisconsin Chapter, A.I.A., is now sole shareholder of the WISCONSIN ARCHITECT, INC.

All four Sections reported on recent activities.

Suspensions and terminations for non-payment of dues were considered. No action was taken on terminations. All members delinquent in dues will be given another opportunity for payment before this final action.

A report on the Workshop, sponsored by the Governor's Commission on Aging, was given. Since information within this report should be of use to the membership, it was referred to the WISCONSIN ARCHITECT for dissemination.

Officers and the Chairman of the Chapter Public Relations Committee will be requested to attend the Institute Press Seminar for the North Central States Region. It will be held January 22 and 23 in Minneapolis. The University of Minnesota Schools of Journalism and Architecture will arrange the program.

The meeting was adjourned at 3:35 P.M.

P/C

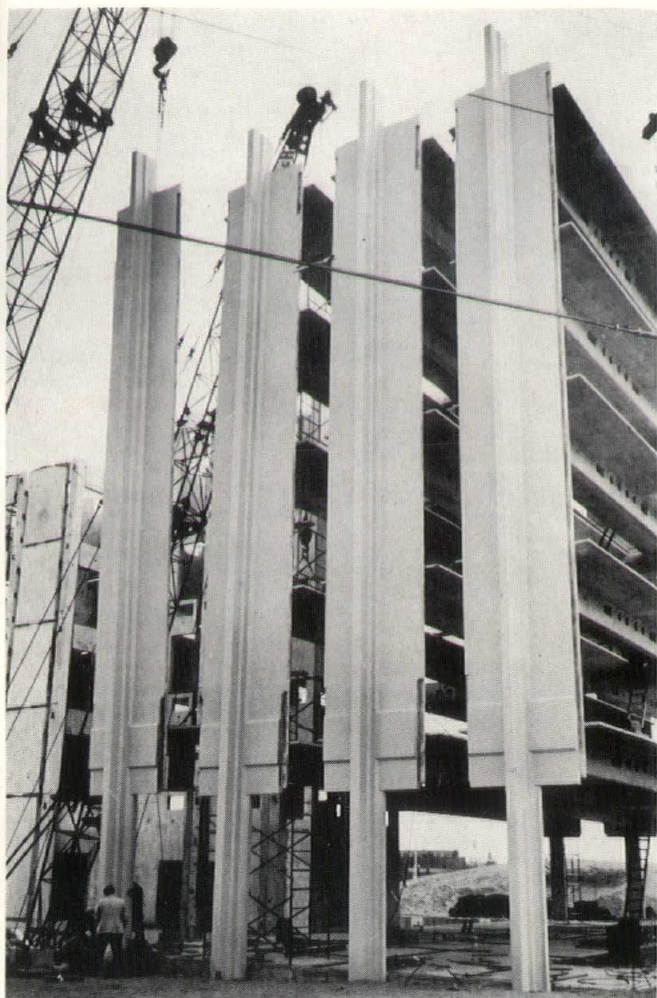
Producers Council

The date has been set for a new type of program for this Chapter. It is the first combined effort of the Producers Council and the C.S.I. to hold an information meeting for Architects, Engineers, and General Contractors in Wisconsin. The meeting will involve the I.B.M. Company demonstrating the Critical Path Method of Project Scheduling Techniques. It will be held at the Telephone Company Auditorium, 732 N. Broadway, Milwaukee, starting at 7:30 P.M., on Monday, February 22. Over 800 mailers have gone out and we hope this will be a great success.

Now I could say, "Hats off to the Ladies," or "The W.A.L. girls have done it again." I refer to their coming ball, "A Night Out of This World" on February 27 at the Coach House, Milwaukee. This should really be a blast, imagine, architects dressing as spacemen! But then, I understand the girls got them to dress as Romans a few years ago and it was a riot, so this one will be a lot of fun, and all for a good cause too. I have encouraged the Council members to attend and offer their full support.

I would like to take this opportunity to thank the many architects that attended the second session of the Producers Council Satellite programs. We hope they found them interesting and informative. We also are looking forward to their attendance of future meetings. Pete Alexander and Harry Wittwer are co-chairmen for the Satellite program, and have devoted a great deal of time and effort to make it a success. Watch your mail for the dates of future programs.

Design freedom with long span



Medical Building, New Haven, Conn.

Long-Span Prestressed Concrete, having outgrown its original limited application to highway bridges, has become an increasingly useful material in buildings. A large number of sections including double-tees, monowings, ledger beams, joists, Lin Tees, and Y sections are available anywhere in the state.

These sections offer fire resistive construction, rapid erection, all weather construction and design freedom through individual application. Some of these applications are pictured on this page and they represent only a few of the creative ideas that are being carried out in long-span prestressed concrete.

Prestressing allows architects to reduce weight—often by as much as 50 per cent and construction time by about 25 per cent. Most long-span prestressed concrete sections are now available with an Underwriters Laboratory fire rating, and the acceptance of these sections where fire resistive construction is necessary has been widespread.

One of the more recent entries in the long-span prestressed concrete field is the Giant Tee or Lin Tee. Although a relative newcomer, this section has already



*Oregon Bank Building, Eugene, Ore.
Balzhiser, Sedar and Rhodes, Architects*



*Kohl's Store, Milwaukee
Miller and Waltz, Architects*



*De Sales Academy Chapel, St. Francis, Wis.
Brust and Brust, Architects*

gained wide acceptance by architects throughout Wisconsin.

The Lin Tee was designed to give architects a long-span prestressed concrete member which is architecturally pleasing, economical, and able to offer unusual freedom of expression. Lin Tees are manufactured in varying widths up to eight feet and in depths varying from 12" to 48". The various combinations of span, depth and width are practically infinite. In addition to flexibility in size, any number of unusual effects can be created using cantilevers with sculptured ends.

Although Lin Tees are generally considered to be roof members, they have been commonly used in parking structures, as wall panels and as columns. With six producers located throughout the state, Lin Tees are available for any project.

In the words of Professor T. Y. Lin, one of the world's leading experts on prestressing, "Prestressed concrete is destined to revolutionize architecture, not so much because it is a new material, but because it embodies a new concept. The prestressing principle presents to the architectural and construction world possibilities never before dreamed of."



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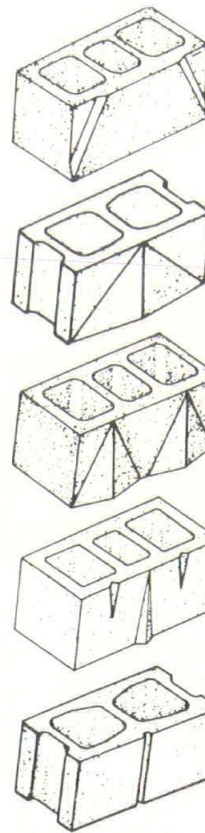
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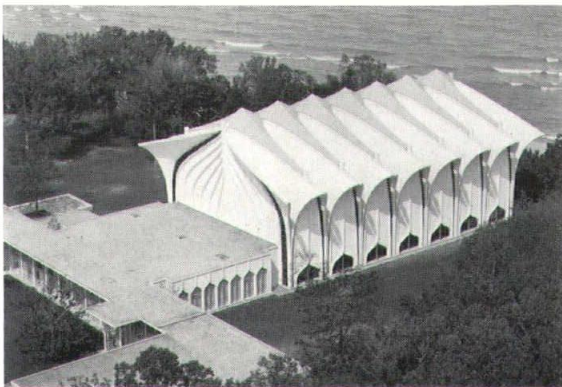
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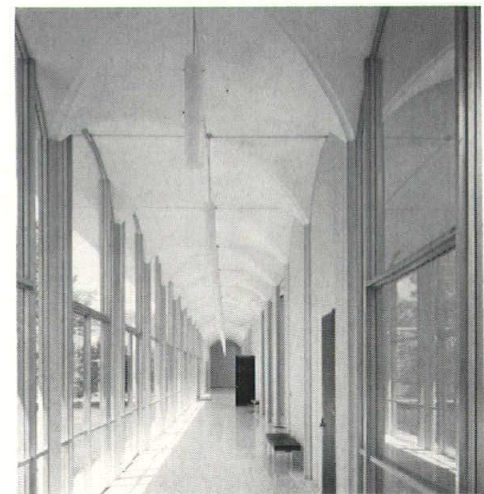
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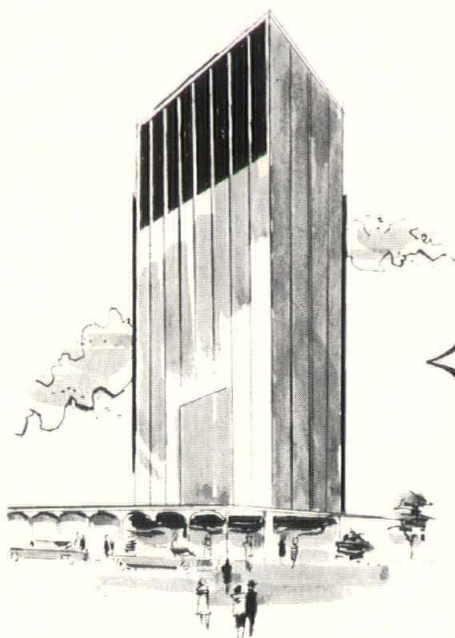
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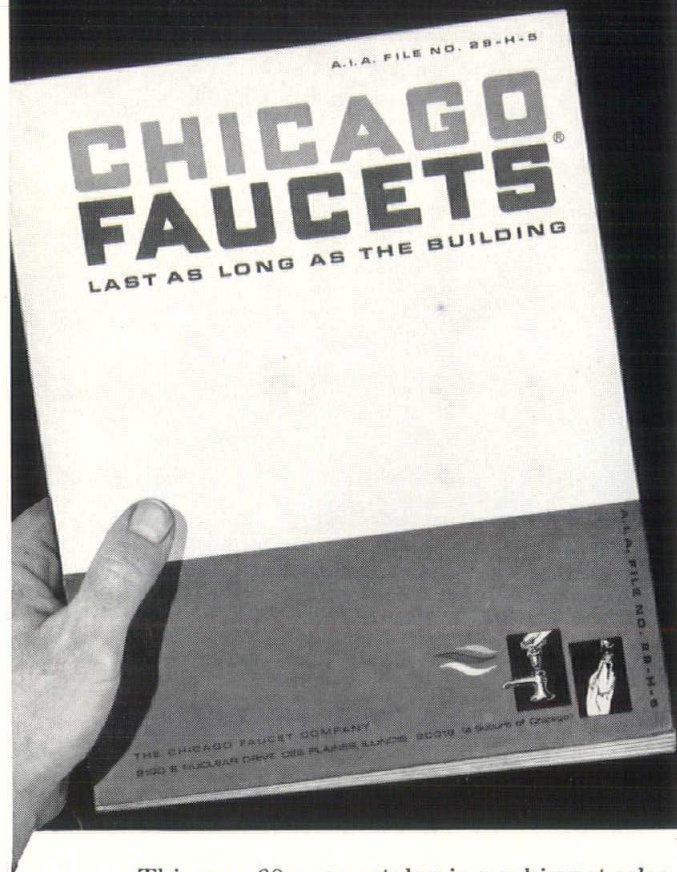
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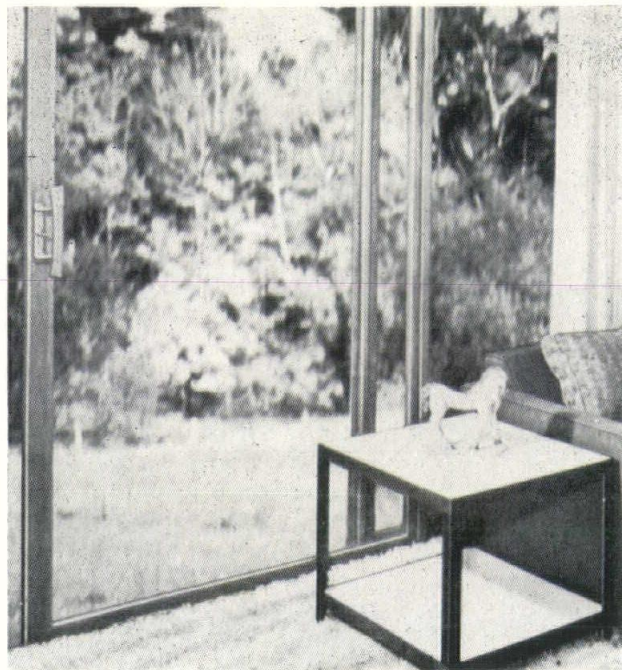
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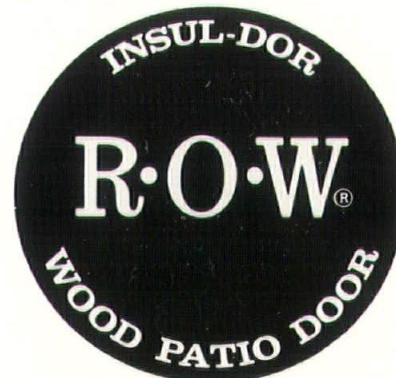


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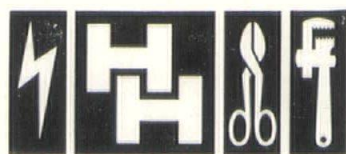


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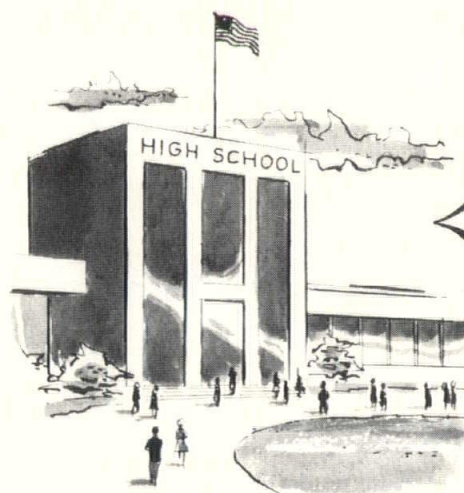
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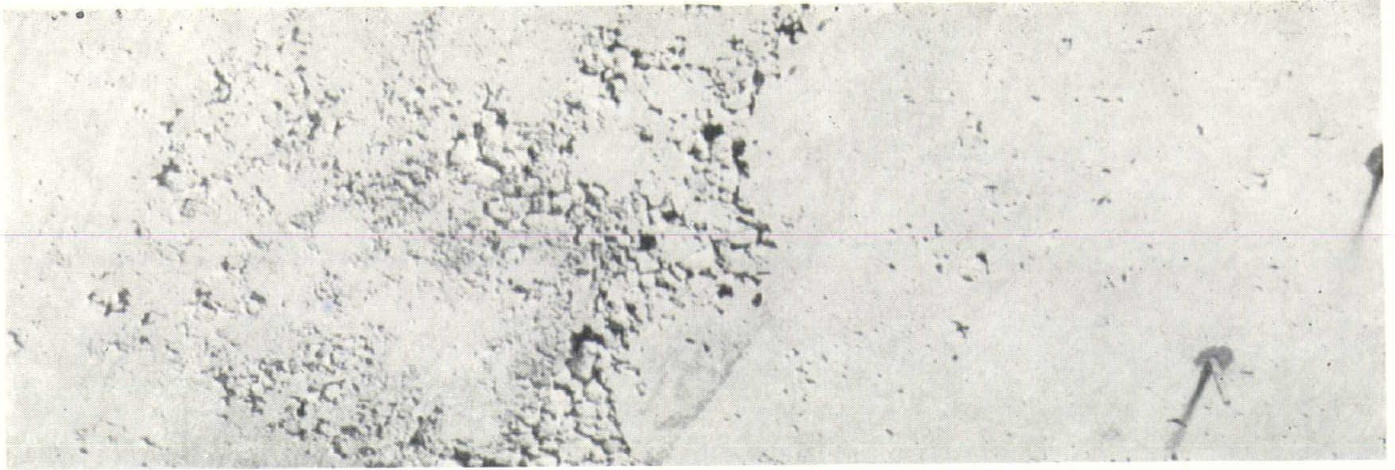
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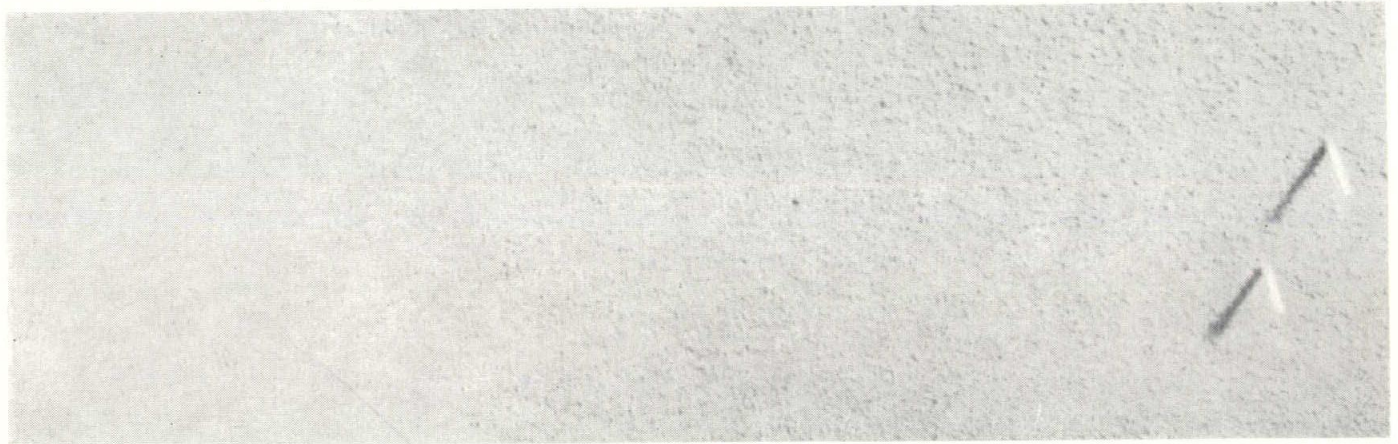
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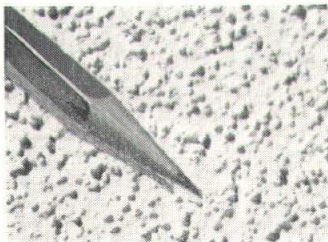


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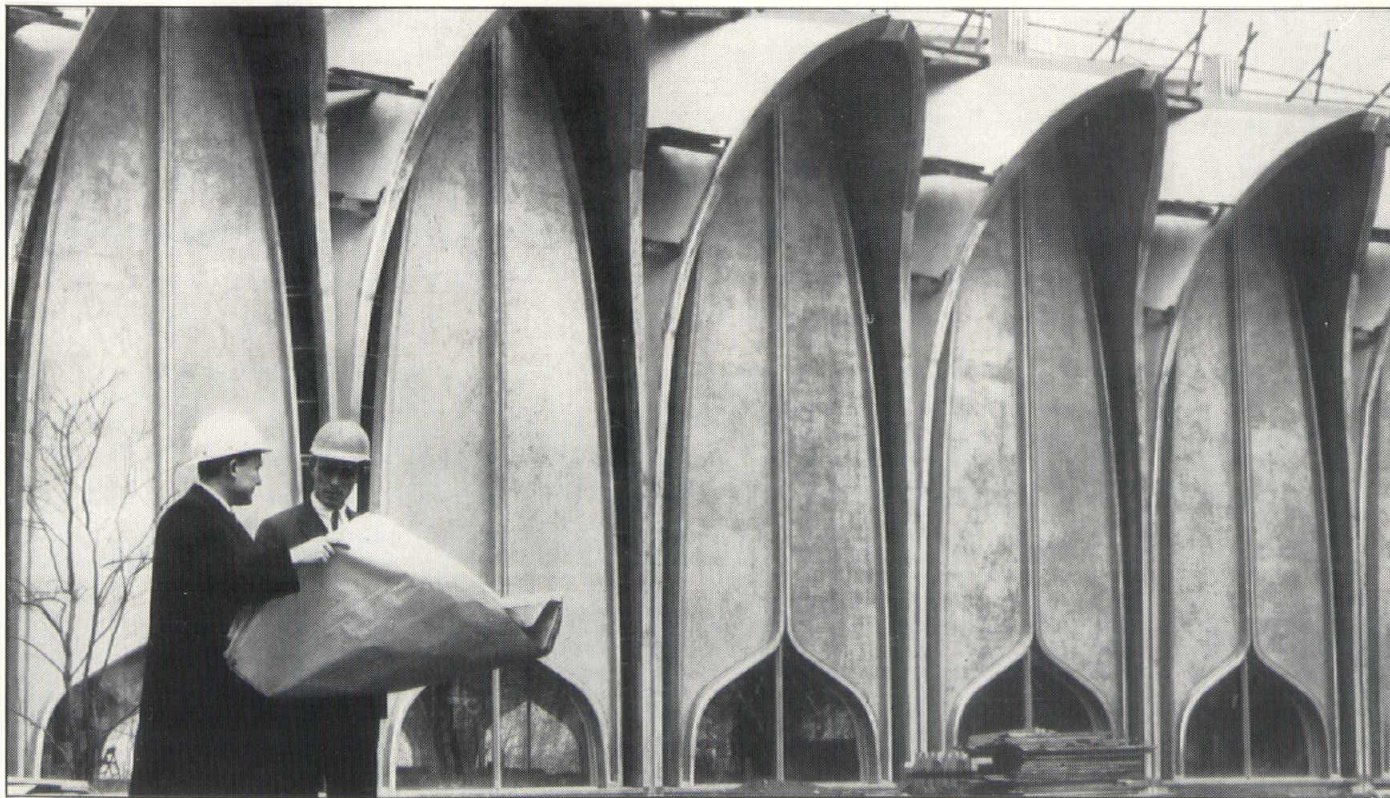
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