

# p/a

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• • • • •  
Bell Telephone Company Office, Conshohocken, Pa.  
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General Contractor: James J. Clearkin, Philadelphia  
Curtain Wall Contractor: Richard Luz, Philadelphia  
Porcelain Enamel Panels: Caloric Appliance Corp.,  
Architectural Porcelain Division, Tipton, Pa.

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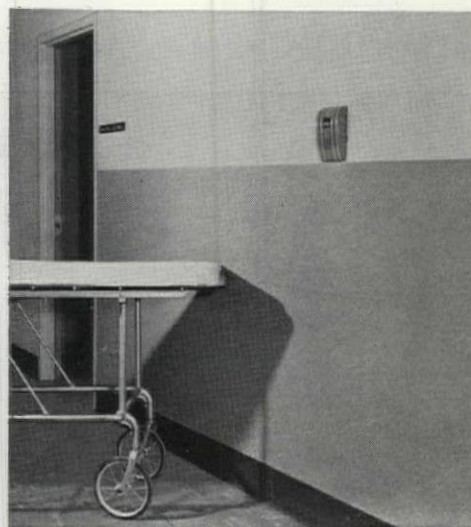


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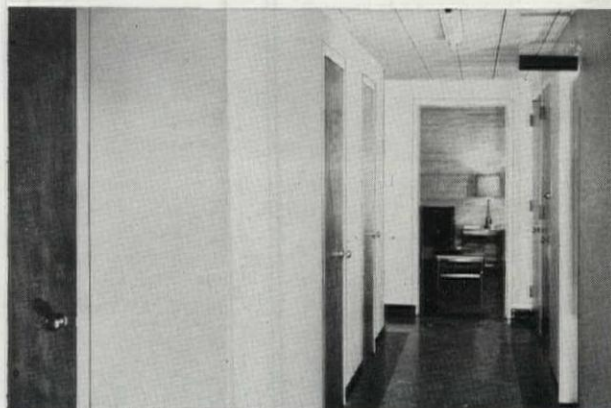
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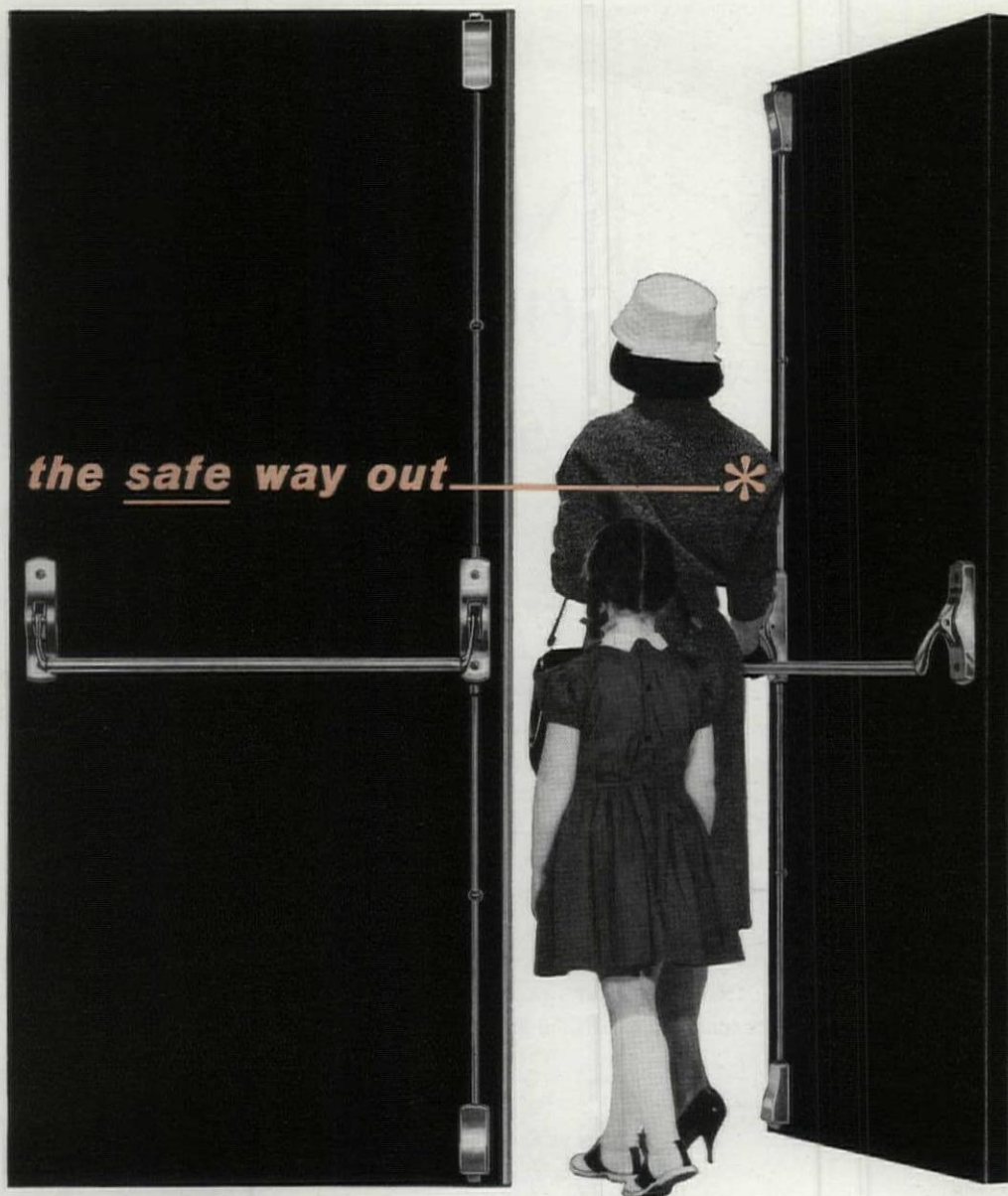
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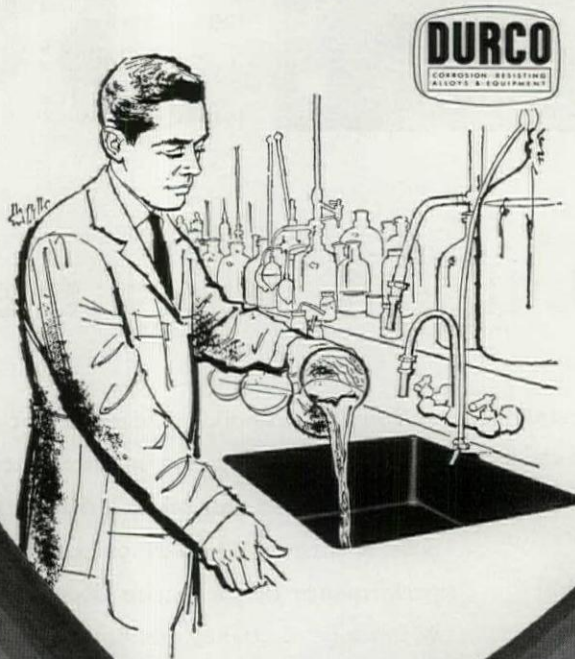
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data, see page 51.)

Volume XL, No. 7

practice of architecture

P/A NEWS REPORT

the emerging urban pattern  
by Victor Gruen

interior design data

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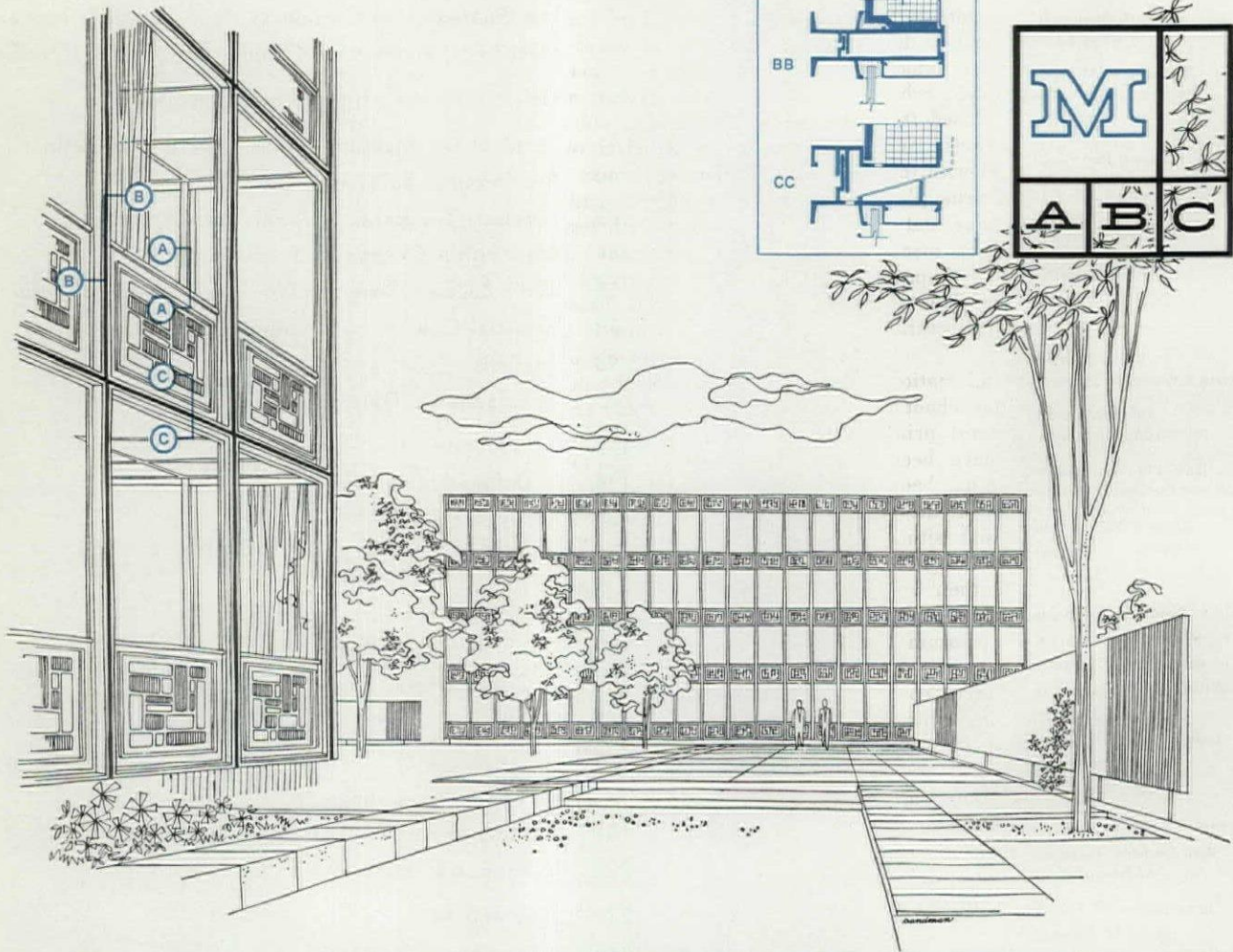
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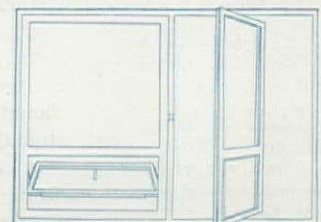
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# Fair Comment on Architecture I

*It's The Law Column by Bernard Tomson*

**P/A Practice of Architecture article which begins a two-part discussion of the libel laws as they affect the increasing criticism of current architecture.**

Until recently, the classic approach of publications dealing with architecture was to praise the good and indict the bad by ignoring it. This concept is rapidly giving way to more aggressive architectural criticism. Thereby is raised the bugaboo of possible libel actions. Not only publications are concerned with the problems. The same or similar principles would control alleged slanderous statements made at forums, seminars, meetings, and the like. All this makes important the consideration of the law of defamation as it relates to architectural criticism.

Historically, the law of defamation has developed in a somewhat chaotic fashion. Although certain general principles in this field of law have been enunciated by the courts, there has been no unanimity in the application of these principles to particular, factual situations; and there is an area of disagreement among legal scholars in their approach to this field of law. There have been relatively few judicial determinations involving alleged defamation of architectural work or performance; consequently, legal precedent offers little guide to the proper application of these general principles to architectural criticism. To evaluate the appropriate rule that should be applied to criticism of architectural work, it is necessary to consider the development of the law of defamation as it relates to other fields of professional and artistic endeavor.

A statement which challenges the honesty, character, reputation, virtue, or integrity of an individual or subjects him to contempt, ridicule, or obloquy, or injures him in his business or occupation, is defamatory. Every defamatory statement, however, is not actionable. Under a doctrine known as "fair comment," defamatory statements within certain limits are privileged if they pertain to subjects which are inherently of interest to the public, or pertain to per-

sons who have voluntarily offered themselves or their work for public consideration, review, and criticism. The public has a direct interest in government officials, candidates for elective office, administrators of public institutions, etc., as their activity directly affects the community health, safety, and welfare. Consequently, the "fair comment" doctrine applies to activities of these public men. The novelist, poet, playwright, and actress offer their services or product to the public and thus, in substance, invite criticism. Such criticism of a work of art or a performance may inferentially impeach the ability or capacity of the artist, but it is, nevertheless, privileged under the "fair comment" doctrine.

The rationale underlying the doctrine of "fair comment" is based upon the premise that a democratic society must be free to speak adversely of persons or matters involved with the public interest in order to safeguard and promote social, political, and cultural advancement. There are, however, limitations within which the privilege of "fair comment" must be exercised. In general, it has been held that critical comment must not attack the private reputation or character of an individual, unless the comment can be fairly drawn from true facts. It is also the general rule that the over-all competency of an artist may not be challenged but the privileged criticism limited rather to his incompetency in respect to a particular work or performance which is the direct subject matter of the criticism. The comment, to be privileged, must be based upon facts truly stated, and some courts have held that the comment inferred from the facts must be fair. It is also the prevailing rule that the comment must not be maliciously made, but offered for an honest purpose.

Many courts and writers have termed the doctrine of "fair comment" as a right rather than a privilege, and some legal scholars have contended that comment on a matter or person involved with the public interest should be privileged whether it is fair, and whether it is maliciously made. For example, in the well known treatise, *Seelman on Libel and Slander*, it is stated that "criticism

and comment should be defined as the right to publish libel, where that libel arises as an inference from the truly stated facts concerning matters clothed with a public interest." Undoubtedly, due to the importance in a free society of the expression of unfettered opinion where matters of public concern are involved, the tendency in the more recent judicial decisions has been to liberalize the area of "fair comment" and to limit the area of actionable libel.

In determining, then, the area of "fair comment" in respect to architectural work or performance, it is necessary to consider to what degree the public interest is involved. Architectural services are performed, as a rule, for a particular client, and in that respect, the architect can be compared to other professionals, such as attorneys or physicians. On the other hand, his work involves artistic expression, which is presented to the public upon the execution of his plans. The architectural work is thrust into public view and consciousness and becomes part of the environment in which the public lives and works. In this sense, architectural performance is comparable to that of an artist. It is generally recognized that criticism of a public building is privileged under the "fair comment" doctrine (e.g., *Bearce vs. Bass*, 88 Me. 521; *Dowling vs. Livingstone* 108 Mich. 321). A public building in this sense refers to a building owned by a governmental division. It is clear that the public has an interest in such buildings, the cost of which is borne by the taxpayer. There is very little consideration given in legal texts to the application of the "fair comment" doctrine to architectural work other than public buildings. There would, however, appear to be no logical distinction, in this respect, between a public building, a building which the public utilizes, or a private residence. The public has an interest in all buildings and if there is a distinction, it is only one of degree.

Thus there would seem to be no justification for permitting a wider area of comment and criticism in respect to public buildings than to any other type. We will discuss this aspect further next month.



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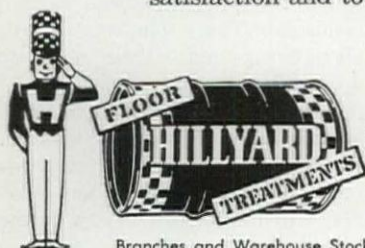
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## Proper Specs Guarantee Soundproof Doors

*Specifications Clinic by Harold J. Rosen*

**P/A Practice of Architecture article reviews sound phenomena and cites specification requirements that insure doors of desired decibel ratings for particular installations.**

Are architects getting a soundproof door in their installations measuring up to the door which will provide the necessary sound-transmission loss for the required use? In many instances a manufacturer's door is chosen or a door is specified without describing a test method for assuring that the door supplied meets the sound-isolation needs.

In institutional use, soundproof doors are required in school band rooms, music rooms, sound-recording studios, pistol ranges, etc. The architect must design his enclosing partitions, floors, and ceilings to reduce the sound transmission and must specify doors which will similarly reduce sound transmission. Means of testing soundproof doors were originally not very accurate and some manufacturers have made claims for their doors based on old test methods. A tentative standard, first announced in 1950, was made a "recommended practice" in 1955 by the American Society for Testing Materials. (ASTM E90-55). Under this method the sound-transmission loss of the soundproof door can now be measured. The National Bureau of Standards in Washington and the Riverbank Acoustical Laboratories in Geneva, Illinois, have been carrying out such measurements with a high degree of accuracy.

Sound isolation and sound absorption are terms used in acoustics which are often confused. Sound isolation refers to the reduction of sound intensity when transmitted from room to room by way of intervening walls, floors, and/or ceilings. Sound absorption refers to that portion of sound which is absorbed by a barrier and is not transmitted through the barrier nor reflected from it. Sound transmission occurs when sound passes through a dividing wall, floor, or ceiling construction as a result of diaphragmatic vibration. The surface vibrates either by direct mechanical impact or by the alternating pressure of sound waves in-

cident on the surface. Transmission of sound by mechanical means is known as impact transmission, and by alternating air pressure as airborne transmission. In either case the vibrating surface generates sound waves of reduced intensity in the space on the other side.

To insure sound isolation or to reduce sound transmission, it is necessary to reduce the diaphragmatic vibration of the surface under the alternating pressure of the sound incident upon its face.

The sound-isolating efficiency of walls, floors, ceilings, doors, or other structural units for airborne sound is called its *transmission loss* and is expressed in decibels. The transmission loss is simply the number of decibels which a sound loses in being transmitted through a barrier. It is determined by measuring the difference in intensity levels between two rooms, in one of which the sound originates and from which it is transmitted to the other room by way of the wall or other structural component forming the barrier between them. For example, if a sound of 70 decibel intensity level passes through a partition having a transmission loss of 30 decibels, it will have an intensity level of 40 decibels on the other side.

The transmission loss of a door used in soundproofing is a physical property of the door, and depends only on the materials and method of construction used in manufacturing the door, and not on the loudness of the sound striking it nor on the size or acoustical properties of the rooms on either side of it.

Transmission losses vary with the frequency of the sound. Soundproof doors are therefore tested at a number of frequencies covering a range of from 125 to 4000 cycles per second. The decibel rating assigned to the door is the average value obtained from the test.

The loudness of a sound heard through a door or partition depends of course on the loudness of the sound striking it on the other side. If a door or a partition has a sound transmission loss of 35 decibels and the original sound in the room in which it originates has an intensity of 35 decibels, the wall or partition will reduce it to an intensity level

of 0 decibels, and would be inaudible. If however, the original sound is 60 decibels, the 35 decibel door or partition will reduce it to 25 decibels on the other side, where it can be heard. Thus the door or partition would be soundproof provided the sound striking it was not over 35 decibels, but it would not be soundproof against sounds having an intensity of more than 35 decibels and a door or partition having a higher transmission loss would be required to give satisfactory results.

Laboratory studies have established that sound-isolating properties of walls are largely dependent upon their weight per unit area. The heavier the wall the better the sound isolation. As an approximate rule, starting with a solid masonry wall weighing 10 psf and having a sound transmission loss of 26 decibels, each successive doubling of the weight adds nine decibels to the transmission loss.

High efficiency, however, can be obtained in walls without excessive weight, by the use of double-wall constructions in which there is a high degree of structural isolation between the component members.

What is true in the construction of double walls to reduce sound transmission is also true in the construction of soundproof doors. Doors are being constructed by incorporating in them acoustical design which can reduce sound transmission even more than doors designed on the basis of mass.

In specifying soundproof doors, the specifications writer should incorporate the following requirement in his specification to insure that he obtains a soundproof door having the sound-transmission decibel rating which is required for the particular installation:

**GUARANTEE:** The contractor shall submit a certification by the National Bureau of Standards, Washington, D. C. or the Riverbank Acoustical Laboratories, Geneva, Illinois, that sound transmission loss of the door is not less than — decibels average, based on tests at nine frequencies over a range of 125 to 4000 cycles per second, in accordance with ASTM Standard E90-55.





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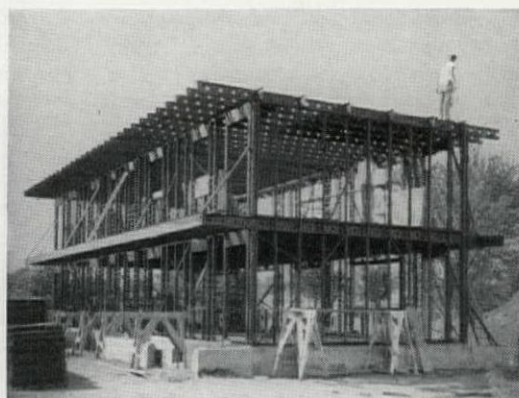
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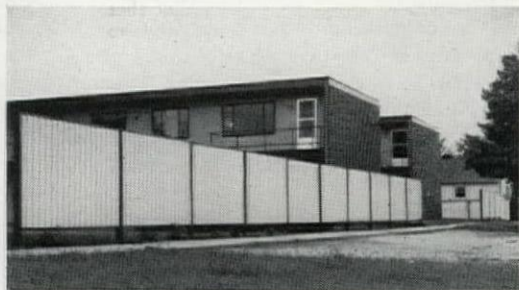
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# Successful Workshop on Architectural Practice

## MEMORANDUM:

TO: Tom Creighton

The enclosed program of the first annual workshop of the Kansas Chapter, AIA, was so well planned and successful that I thought it important to call it to your attention. In three days the participants were involved in some 22 hours of "workshop." Some idea of how engrossing this was may be judged from the fact that not a single participant was either "late or absent." The program was attended by 26 architects (the rate for the sessions was \$80). Everyone (including the panelists) came away from the meeting with a feeling that he had benefited considerably and that he had participated in a uniquely successful experiment in post-professional architectural education. The complete program follows:

December 4, 5, and 6, 1958

Kansas State College

Program

First Annual Workshop on Office Practice  
Kansas Chapter, AIA.

The practice of architecture has become a very complex profession requiring a high degree of skill in the art of building, and a broad knowledge of office management, accounting, law, taxes, etc. Knowledge of these subjects has been gained largely through trial and error at the expense of the architect or his client. It is the purpose of this workshop to discuss these subjects as they relate to the practice of architecture in this area. The members of the panel will present their thinking on these topics. Those attending will be encouraged to participate in the discussion so that there will be free exchange of ideas and experiences.

Thursday, December 4, 9:30 A.M.

Discussion Leader: Bernard Tomson, Attorney

Topic: *Types of Offices*

- A Individual
- B Partnerships
- C Corporations
- D Joint Ventures
- E Principal and Associates

Discussion to include following points:

- 1 Advantages and disadvantages of each type.
- 2 Limited and unlimited partnerships, silent partners, partners who are not architects, partnership agreements.
- 3 Can an architect incorporate in Kansas? AIA policy concerning corporations.
- 4 Joint Ventures.
- 5 Relations of architect and associates.
- 6 Legal implications.
- 7 Written agreements with associates.

Thursday, December 4, 2:00 P.M.

Discussion Leader: Harold Spitznagle, AIA.

Topic: *Organization of Office*

A Division of Work of Principals

B Organization of Staff

Discussion to include following points:

- 1 Duties of principal or principals in both small- and medium-size offices.
- 2 If there is more than one principal, how is promotional, design, and office management work best handled?
- 3 Organization of drafting room.
- 4 To what extent should staff deal with client?

Thursday, December 4, 7:30 P.M.

Panel: Tomson, Spitznagle, Baer, Batz, and Two Architects

Topic: *Client Relations*

Types of clients

- 1 Public Boards and Commissions
- 2 Corporations
- 3 An Individual
- 4 Partnerships

Points to be discussed:

- 1 Contract requirements.
- 2 Payment of fee.
- 3 Laws regulating client.
- 4 Work contingent upon bond issue.
- 5 Dealing with Federal Agencies.
- 6 Architects' right to file liens.

Friday, December 5, 8:00 A.M. to 12:00 noon

Discussion Leaders: David C. Baer, AIA, and George Batz, CPA.

Topic: *Accounting*

A Accounting for the Small Office (1 to 6 men).

B Accounting for the Medium-Size Office (7 to 15 men).

C Job Cost.

Points to be Discussed:

- 1 Explain AIA accounting system.
- 2 Exhibit AIA forms.
- 3 Single entry systems.
- 4 Double-entry system.
- 5 Cash or accrual accounting.
- 6 Overhead.
- 7 What costs should be applied directly to job.
- 8 Job-cost information.
- 9 Budget time for each job.
- 10 Can architect prepare a valid annual budget.
- 11 Reserve Fund, Retirement and pension funds. How to establish.
- 12 How to figure employees' hourly rate.

Friday, December 5, 2:00 P.M.

Discussion Leader: David C. Baer, AIA.

Topic: *Office Management*

A Office Procedures

B Filing Systems

C Office Forms

D Letter Writing

E Business Machines

F Telephone Manners

Points to be Discussed:

- 1 How are shop drawings processed.
- 2 How to keep track of plans and specifications issued.
- 3 Filing systems.
- 4 Job log.
- 5 Day book.
- 6 Show and discuss forms.
- 7 How to write a good business letter.
- 8 Use of tape recorders, calculators, reproduction machines.
- 9 How to answer phone. What information is secretary to secure? Record of

telephone conversation. Record of long distance calls.

- 10 All those in attendance should bring forms in use in their office.

Friday, December 5, 7:30 P.M.

Discussion Leader: Charles L. Clinkenbeard

Topic: *Taxes*

A Federal

B State

C Local

D F.O.A.B.

E Unemployment Compensation

F Workmen's Compensation

Points to be Discussed:

- 1 Is the architect involved in Interstate Commerce?
- 2 Deductible expenses.
- 3 Travel and entertainment expense.
- 4 Deductible reserve funds or pension funds.
- 5 Spreading large income in one year over several years.
- 6 Cash or accrual method of reporting taxes.
- 7 Business and occupation tax.

Friday, December 5, 8:30 P.M.

Discussion Leader: Bernard Tomson, Attorney

Topic: *Professional Liability*

Points to be Discussed:

- 1 Public Liability
- 2 Liability to Employees
- 3 Liability to Client
- 4 Errors and Omissions
- 5 Liability of Consultants
- 6 Arbitration of Disputes

Saturday, December 6, 8:00 A.M.

Discussion Leader: Harold Spitznagle, AIA.

Topic: *Employer-Employee Relations*

A Salaries

B Bonus

C Responsibility of Employer to Employee

D Responsibility of Employee to Employer

E Methods of Hiring

F Vacations

G In-Service Training

H Students

I Secretary

Points to be Discussed:

- 1 How to determine salaries.
- 2 To pay weekly, semimonthly, or monthly.
- 3 How to determine bonus.
- 4 Retirement plans.
- 5 Pension plans.
- 6 Should associates and employees who receive a bonus, see books or be given a profit and loss statement.
- 7 Discharging an employee.
- 8 Vacations.
- 9 Interviews with prospective employees.
- 10 Probation period.
- 11 Privilege of employee to do work outside of office hours.
- 12 Sick leave.
- 13 Overtime.
- 14 Minimum wage—40 hour week.
- 15 Moral obligations of architect.
- 16 Moral obligations of employee.
- 17 Draftsmen's union.
- 18 Loaning of draftsmen.
- 19 Employment of students.
- 20 Training program in office.
- 21 Importance of secretary.

Saturday, December 6, 2:00 P.M.

Leader: Harold Spitznagle, AIA.

Summary and Closing Speech





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## The Guarantee of Curtain Walls *by Ralph L. McKenzie\**

**P/A Practice of Architecture article dealing with the proper specification of metal curtain walls, and in particular the problems of calling for guarantees of such wall installations.**

The advancement of metal-and-glass curtain walls in the last ten years (in effect, the refinement of ideas advanced in the past) has been a breathtaking venture, to say the least. By now, many projects have been completed—some highly successful, some unsuccessful, some borderline. On the whole, however, substantial strides have been made, not only in the field of architectural design but in the field of research and development as well.

Although a process of evolution is thus bringing maturity to the metal curtain-wall field, there are still areas requiring attention. One of these is the specifications. Without attempting to delve into the question of specifications as such (see "Panel Curtain-Wall Construction," by Harold Sleeper, June 1957 P/A), allow us to mention that presently there are still some shortcomings.

Regardless of your philosophy concerning the advisability of streamlining specifications, there are six basic headings which should always be included in any trade, and certainly in metal curtain-wall specifications, namely: Scope of the work; Contractor's Responsibility; Performance Requirements; Materials; Workmanship; and Guarantee. Let us consider the first five briefly, and then consider the sixth at more length.

The *Scope of the Work* should, of course, explicitly state both the work included and the work not included.

*Contractor's Responsibility* is a tentative term, and perhaps a poor choice for a heading, but it has to do with the necessity of having a proper structure to which to attach the metal wall.

*Performance Requirements* of the wall should be clearly stated, as an essential guide to the fabricator in his choice of details. Local building-code requirements in respect to wind load, allowable deflections, and fire resistance should be stated. In specifying tests as proof of performance, keep in mind that the cost of such tests is borne by the fabricator and is included by him in his bid.

The *Materials* section of the specifications will probably be the longest. In this section you must be specific, and with the guidance of reliable fabricators and suppliers, you can be. Finishes and materials can make a big difference in the cost of a metal curtain-wall job, and if

you want a good job you must take the pains to spell out exactly what you want.

•

The final and very important section of a metal curtain-wall specification, the *Guarantee*, is the most controversial at present. The minimum requirement is a guarantee for one year from the date of the owner's acceptance, conforming with the guarantee required of the General Contractor under the terms of the AIA Standard Contract Form. At least one of the larger fabricators, however, in the printed guide specifications issued for the suggested use of architects, states that "the manufacturer and erector of the curtain-wall shall guarantee the [wall] to be weathertight and free of leaks for a period of two years. The weatherstripping shall be guaranteed for a period of five years."

In considering this question, it should be remembered that the best guarantee an owner can have is the integrity of the fabricator who does the work. If the fabricator is one of those who developed the wall details with the architect, there will be a minimum chance of failure. It is usually the company which submits a bid and details the wall without knowing all of the background conditions who is likely to get into trouble.

There are more than 70 companies listed in *Architectural Catalog File* as curtain-wall manufacturers. It stands to reason that the financial and technical capabilities of these firms will vary. Assuming that they all want to do a good job, it is still a fact that lack of knowledge and experience can result in mistakes by some of them, and lack of capital can, in some cases, prevent adequate repair or replacement of defective material.

Of these 70-odd companies, though, there are many who have both the necessary competence and the financial stature to stand solidly back of their work. These firms have substantial investments in the success of the curtain-wall industry, and they are more vulnerable than anyone else to the stigma of poor performance. This self-interest, plus the ability to support it with dollars, is the best possible guarantee you can have.

Another important point is that the guarantee you require must be consistent with the latitude you allow the manufacturer. Some architects take the attitude, "I insist that you build the wall exactly as I tell you, but you must guarantee that it will work perfectly." Now obvi-

ously, this is not only unfair, but absurd. If you expect a bona fide guarantee, you must permit the fabricator some leeway to use his own judgment, within the limits of required performance and acceptable appearance.

The final point concerns the bidding procedure. With a clear-cut and definite specification the architect can be reasonably certain that the owner will receive what he is paying for, but he can protect his interests still more effectively by asking for "base-bid" proposals. This means that instead of the all-too-common "bidders' choice" approach, all materials, performance and workmanship are explicitly defined and base bids are requested on the basis of a single manufacturer's product. Changes and substitutions may still be proposed by the contractor in making his bid, but the proposed alternate must also be specifically defined, and the price for it quoted as an addition or reduction to the base bid.

In recent months, many groups interested in the construction business have become increasingly concerned with the weaknesses and hazards of bid-peddling, and several of these organizations, such as The Producers' Council, AIA, and Construction Specifications Institute, are spearheading an intensive study of the problem and promoting a campaign for improvement. The most important and effective means yet advocated by these groups for protecting the architect and his client is this "base-bid" system.

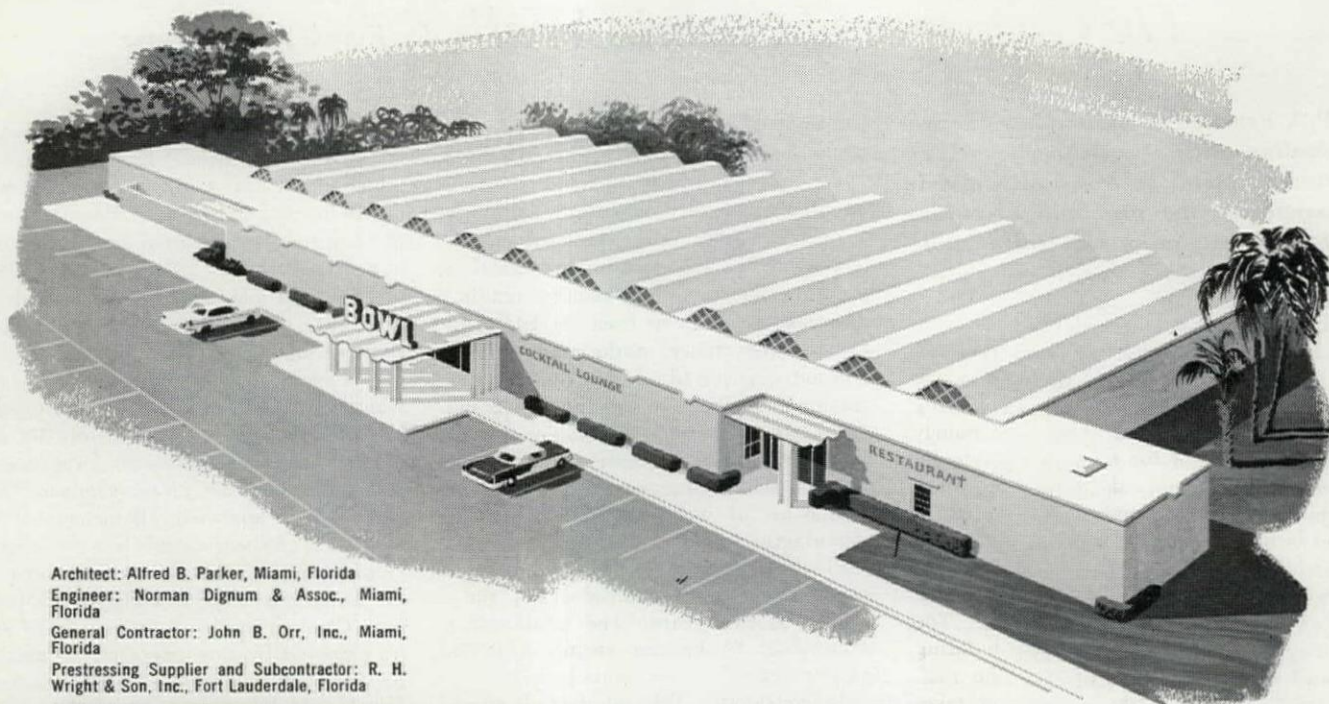
The specification is, in some respects, like any law; it is, for instance, only as good as its enforcement. Just as with laws, rigid and honest enforcement is usually rewarded with greater respect. In the case of the architect's specifications, this respect will result in better workmanship, both in the factory and at the site.

Well written specifications, based on stipulated performance rather than on generalities, can be more easily enforced, because they affect all fabricators alike. It rests with the architect to see that the standards asked for are observed. It is he who establishes the quality level for his project and if he is lax in enforcing his specifications or in supervising the job, the building that results may be disappointing. A clear and complete set of specifications, on the other hand, developed with the co-operation of competent fabricators, followed by fair bidding, and implemented by careful supervision, can result in a building that faithfully reproduces the design concept and enhances the reputation of the architect. This is the result we are all seeking.

\* President, Metal Curtain Wall Division, National Association of Architectural Metal Manufacturers.



## ANOTHER PRESTRESSED CONCRETE STRUCTURE



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Engineer: Norman Dignum & Assoc., Miami, Florida  
General Contractor: John B. Orr, Inc., Miami, Florida  
Prestressing Supplier and Subcontractor: R. H. Wright & Son, Inc., Fort Lauderdale, Florida



*Alfred B. Parker, Architect*

### Why Architect Alfred B. Parker Utilized Prestressed Concrete for Biggest Bowling Alleys in Southeastern U.S.

Recently opened Cloverleaf Lanes in Miami, Florida, represents a number of distinctions, not the least of them being that it is the largest bowling alley installation in the Southeastern United States. In addition to 50 lanes, there are several dining rooms, a kitchen, coffee shop, cocktail lounge, locker rooms, children's nursery, billiard room and game room.

In describing the structure and the reasons for choosing pre- and post-tensioned concrete for it, Architect Alfred B. Parker writes: "The main structure is 290 ft in length with a clear span of approximately 120 ft. This was roofed by a post-stressed hip plate concrete construction. The lower roof structure joining this main room was built of pre-cast, prestressed concrete sections.

"To my knowledge this particular type of structure has never been utilized in bowling lanes before. I believe a similar type of roof was used in an aircraft hangar and also in a retail department store. It seemed a natural for the purpose of our building because of the clear spans required and the desire

to create an interesting roof form so that the exceptional width of the building would not become oppressive or require excessive height.

"Obviously maintenance, durability and fireproofing were among our reasons for choosing an all-masonry structure."

Prestressed concrete, as a building method, is rapidly rising to that point where the reasons for its choice are *obvious*. Aside from its proved adaptability in meeting aesthetic requirements, its overall economy, from quick delivery of members to the site to minimum maintenance costs, prestressed concrete has many more qualities to recommend it.

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# Pratt Study Recommends Economy Wall

Mechanical Engineering Critique by William J. McGuinness

**P/A Practice of Architecture column on mechanical and electrical design and equipment devoted this month to proposals for the reduction of housing costs.**

There is one sure index to the installation cost of any heating system and to the continuing cost of heating a building during its useful life. This is the hourly heat loss in Btu for the appropriate indoor temperature and under the conditions of winter climate encountered in the location.

Each kind of building has a dominant item of heat loss that the designer must reduce. Consider several types. The sprawling, one-story industrial building loses most of its heat through the roof. Several inches of rigid insulation takes care of this problem. The large expanse of glass in the modern residence can be turned to good account by locating it so that it picks up daytime solar heat. The net thermal effect is little different than in a small-windowed house. The tall (12-story) residential housing unit loses almost all of its heat through its exterior walls—glass or masonry. Because of standard practices in masonry construction and the high initial cost of double glazing, little has been done, until recently, to reduce the heat loss through these walls.

The New York State Division of Housing recently retained the School of Architecture of Pratt Institute, under a grant, to pursue intensive studies toward economy in housing. Dean Olindo Grossi appointed Prof. John Hancock Callender as Director of this research program. Working in close collaboration with Joshua D. Lowenfish, Director of Architectural Research of the New York State Division of Housing, Callender, with the aid of six graduate assistants and a number of special technical consultants, recently completed this assignment. Its

several phases included planning, structure, equipment, exteriors, and interiors. The report of this work, making specific recommendations in many subjects, will be published soon. The section dealing with exterior walls was under the direction of Giles Aureli of Callender's staff. One of the recommendations of Callender and Aureli as part of this study was the use of wall **B** (below) and double glazing. After some discussion with the Division of Housing, slight changes resulted in wall **C**. It is thought that the cavity provides greater protection from leakage. The U-factor suffers only slightly. It is expected that this wall and double glazing will be strongly considered in any new construction under the auspices of the Division. Wall **A** represents present construction.

Encouraged greatly by Charles F. Neergaard, retired hospital consultant who has advocated these changes for many years in hospitals, and by Callender's broad experience in curtain-wall research, Aureli's group examined current practice and came up with recommendations now satisfactory to all concerned and suitable for use in new construction.

Studies were based upon a wing of an actual building of New York State Division of Housing. Costs of construction of walls and windows were furnished by Seelye, Stevenson, Value & Knecht. The cost of the heating installation was obtained from published contract prices. The heating engineer who designed the system aided in certain allocations of heating plant cost.

The windows represented 25 percent of the total window-plus-wall area. Of the wall part of this area, about 40 percent was backed by concrete spandrels and columns of the framing. The illustration **A** shows the very unfavorable U-factor of .377 Btu per hour per square foot through the concrete frame. It was evident that the insulation or air space should extend

in front of the concrete frame. Maintaining the inside plaster line in wall **A** and in the favored wall **C**, it is apparent that 2 in. of foundation and roof are saved. Also  $4\frac{1}{4}$  in. of floor slab are saved by the use of wall **C**. These savings are credited to the proposed construction.

A comparison of the average cost of wall (masonry plus windows, single-glass thickness, plus allocated original cost of heat plant) but no credit for space saved, results in the following figures.

Wall <b>A</b>	\$3.42 per sq ft
<b>B</b>	\$2.69 " " "
<b>C</b>	\$2.72 " " "

The savings of walls **B** and **C** over **A**, including the cost of the space saved by the use of a thinner wall and expressed as percentage of the total cost of wall **A**, are as follows. (No double glazing included.)

Wall	Wall Cost	Savings, percent Space Saved	Total
<b>B</b>	5.8	4.1	9.9
<b>C</b>	5.1	4.0	9.1

The cost of the wall **C** (masonry, glass, and heating plant), when insulating glass was included in present frames, showed an increase of 8.2 percent over the cost of the original wall **A**.

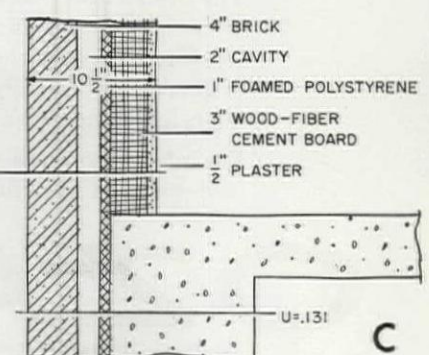
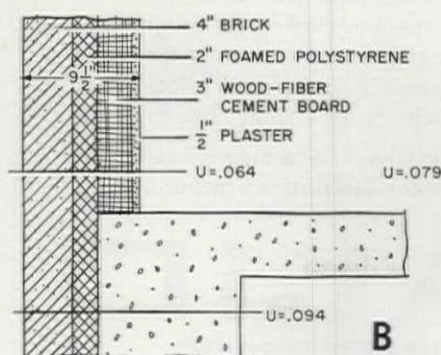
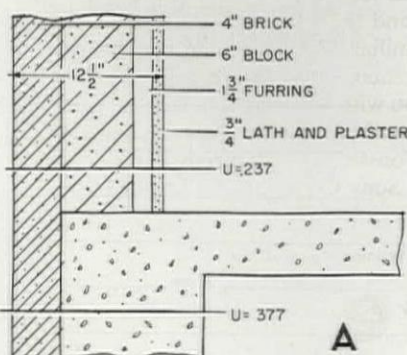
Fuel savings would be as follows for wall **C**:

Insulated wall only	15.2 percent
Insulated windows only	14.4 percent
Both	29.6 percent

## conclusions

1 Recommended wall **C** will save 9 percent in first cost of walls, windows, heating plant, and building-structure, plus a saving of 15 percent of total fuel cost annually for the life of the project (50 years).

2 Recommended wall **C** with insulating glass in windows will increase the first cost of wall and windows by 8 percent, but will save 30 percent of fuel cost for the life of the project.







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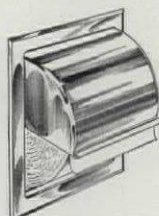


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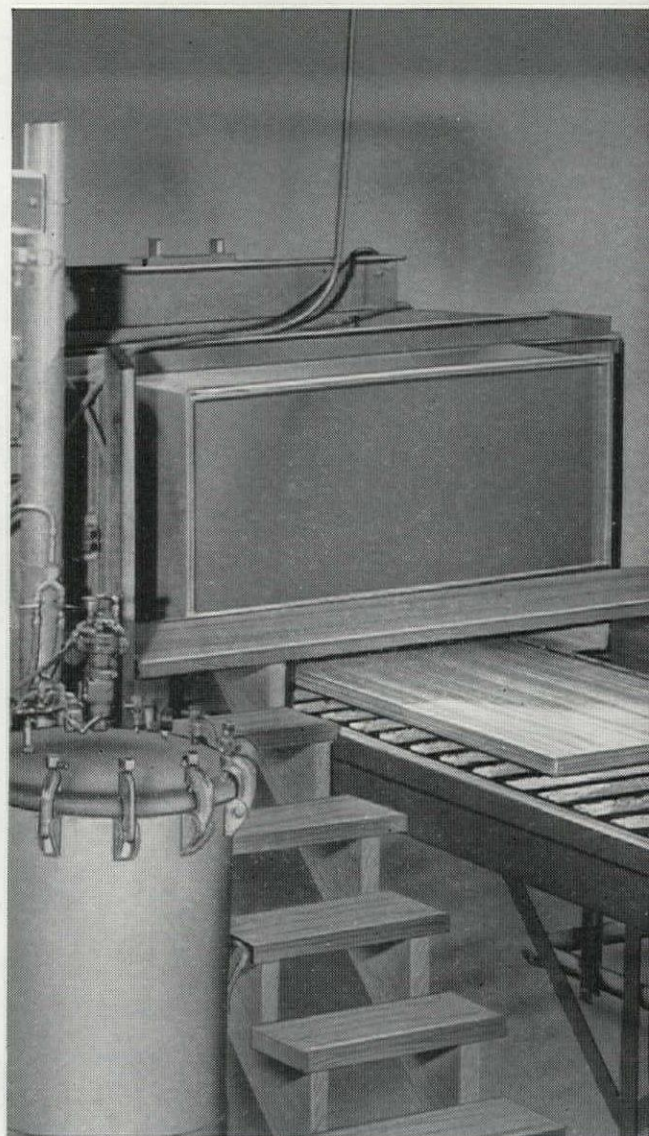
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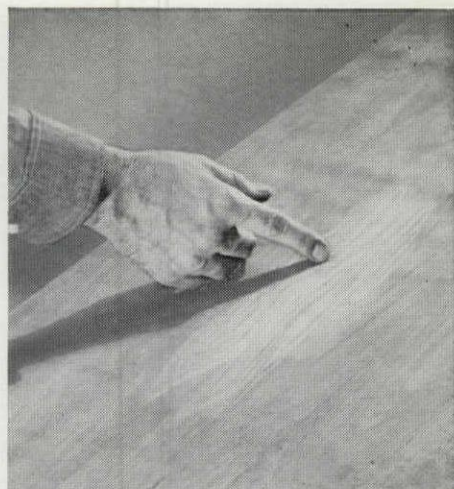
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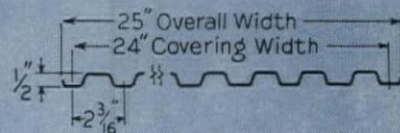


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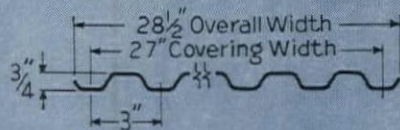
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## CONCRETE PERFORMANCE REPORT

### Pozzolith concrete employed in new Air Force Academy to meet full range of engineering requirements for all types of concrete specified

Largest single construction project in U. S. Air Force history, the Air Force Academy Complex at Colorado Springs marks a milestone in modern concrete design and construction. Nearly 95% of the \$114 million allocated for "pure construction" has gone into nearly 70 major building contracts—including over 4 million square feet of enclosed floor area. Construction at the 17,900 acre Academy site included the placing of some 800,000 cubic yards of concrete for buildings, retaining walls and bridges.

**On-site concrete control lab—**The Air Force Academy Construction Agency and the architects—Skidmore, Owings, and Merrill—jointly supervised all construction and established an on-site concrete materials control laboratory early in 1956. During July and August, 1956—with only a few thousand yards of concrete placed—they observed erratic and low compressive concrete strengths. The wide range and rapid changes in temperature were suspected as the cause.

free fall of the concrete to 5 feet—maximum permitted by specifications. The mix was easily vibrated into place with no segregation or honeycomb. Retaining walls required approximately 24,000 cubic yards of concrete—supplied by a job site batch plant and delivered in ready-mix trucks. This mix met strength specifications and provided necessary workability for proper placement in the heavily reinforced, narrow forms.

**Prestressed bridge girders—**Construction work also included the

# AIR FORCE

**Evaluation tests of concrete materials—**In August, they engaged Commercial Testing Laboratories, Denver, to make comprehensive tests. Their tests clearly established that POZZOLITH would provide uniform, high strength throughout the wide range of temperature changes experienced between early morning concreting at about 50°F and mid-day concreting at 75° to 80°F. In September 1956, POZZOLITH was first employed in concrete at the Academy. Its successful performance here led the engineers to investigate the use of POZZOLITH for control of other classes of concrete—including lightweight aggregate concrete, prestressed concrete and structural concrete. *As a result of this investigation, POZZOLITH and only POZZOLITH was used as the water-reducing, set-controlling admixture for the project.*

**2-mile retaining wall—**Concurrent with concreting of foundation caissons, work began on 10,000 feet of concrete retaining wall that reached a height of 36 feet over much of its length.

Design strength of the concrete required here was 3,000 psi at 28 days. With 1½" top size aggregate, 5 bags of cement, 36 gallons of water and POZZOLITH—a placeable mix of 2" to 4" slump was obtained that readily exceeded the 3,000 psi specification. Tremie trunks were used to limit the

erection of six prestressed bridges varying in length from 144 to 600 feet. There were two railway spans and four highway bridges—their girders standardized at 120 feet long in a modified T design, 71" deep. In all, 128 girders were manufactured. Sixteen shorter girders were erected for the two railroad bridges each of which consists of two simple supported spans of 72 feet each.

Concrete for these girders contained 7½ sacks of Type I cement, 1760 lbs. coarse aggregate (¾" top size), 1300 lbs. sand, 30.5 gallons of water and POZZOLITH Retarder.

This produced a cohesive, workable mix of about 2" slump and 4% entrained air. The POZZOLITH Retarder provided an initial retardation which permitted proper consolidation of the mix, yet accelerated early strength. Specifications called for a compressive strength of 4,500 psi before application of stress. This strength was achieved in three to five days, air cured. Stress was applied at that time. Concrete attained a compressive strength of approximately 6,500 psi in 7 days and well over 7,000 psi in 28 days.

**Concreting bridge decks—**Initial retardation was required in the concrete bridge decks to provide an initial delay in hardening so that the complete deck for each span could be completely



**CONCRETE RETAINING WALLS** reach 36 feet high over much of the 10,000 foot wall length. Tallest pours were made by giant overhead crane. Walls required approximately 24,000 cubic yards of Pozzolite concrete—a placeable mix of 2" to 4" slump with design strength of 3,000 psi. Contractor: T. F. Scholes, Inc., Reading, Pennsylvania. Concrete Contractor: Long Construction Co., Denver.





**AERIAL VIEW** of nearly completed Air Force Academy. Construction under supervision of the Air Force Academy Construction Agency. Architects: Skidmore, Owings & Merrill, Chicago • Contractors include: Jack Adams & Haake Construction Co., Santa Fe, New Mexico • B. H. Baker Co., Inc., Colorado Springs • J. W. Bateson Co., Inc., Dallas • T. C. Bateson Construction Co., Dallas • A. H. Beck Foundation Co., San Antonio • Colorado Constructors, Inc., Denver • Dondlinger & Sons Construction Co., Inc., Wichita • E. & M. Construction Co., Denver • Elgas Construction Co., Colorado Springs • Farnsworth & Chambers Co., Inc., Houston • A. S. Horner Construction Co., Denver • Peter Kiewit & Sons' Co., Denver • Wade Lahar Construction Co., Tulsa & Denver • Long Construction Co., Denver • Matelich & Hanson, Inc., Englewood, Colorado • Robert E. McKee, Inc., Santa Fe, New Mexico • Mountain States Construction Co., Denver • Nowers Construction Co., Pueblo, Colorado • Frederick Raff Co., Colorado Springs • Ramsey-Leftwich, Lubbock • Saxet Foundation Co., San Antonio • T. F. Scholes, Inc., Reading, Pa. • Del E. Webb & Rubenstein Construction Companies, Phoenix • J. F. White Engineering Co., Englewood, Colorado • POZZOLITH Ready-Mixed Concrete: Concrete Materials, Inc., Kansas City • General Concrete Co., Colorado Springs • Transit Mix Concrete Co., Colorado Springs.

economically, for the broad range of job requirements and varied climatic conditions encountered at the site.

The Master Builders field men and the Company engineering staff worked closely with project engineers, the field control laboratory, contractors, and concrete suppliers to achieve the common goal of uniform, superior quality concrete at lowest cost-in-place.

For *your* job . . . with *your* materials POZZOLITH concrete is best. Neither plain concrete nor concrete with any other admixture can match the results you obtain with today's POZZOLITH.

On any current or future concrete projects, the local Master Builders field man will welcome discussing your requirements. Call him in. He's at your service—and expertly assisted by the Master Builders research and engineering staff—unexcelled in the field of concrete technology. Write us for complete information.

# ACADEMY

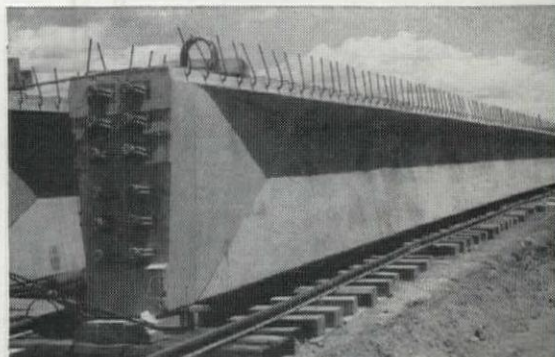
poured before initial set occurred. This permitted full dead load deflection and achieved true composite action between girders and the concrete deck. Because the contractor wanted to use the completed decks as work areas in placing girders for the remaining spans, it was important that these slabs be placed into service at an early date. POZZOLITH Retarder provided the required, controlled initial delay in hardening and produced early strengths equal or better to what could be expected with a comparable plain concrete mix. At placing temperatures below 50°F, no extended delay in hardening occurred.

**Lightweight concrete**—Design of many of the buildings included lightweight aggregate concrete floors for the second, third and fourth stories—and concrete roofs. Preliminary mix designs indicated that with local light-

weight coarse aggregates, natural sand for most of the fine aggregate and POZZOLITH—the 3,000 psi compressive strength specification could be met with 5 sacks of cement and air content maintained at  $9\% \pm 1\frac{1}{2}\%$ . This lightweight concrete had excellent workability and weighed approximately 105 lbs. per cubic foot, well below the 110 lb. maximum specified.

POZZOLITH and Master Builders field service—POZZOLITH was an important aid in meeting and exceeding specification requirements in over 750,000 of the 800,000 cubic yards of concrete at the Air Force Academy. For each of the many classes and types of concrete specified—it provided the required batch-to-batch uniformity, most

*The Master Builders Company, Cleveland 3, Ohio • Division of American-Marietta Company  
The Master Builders Company, Ltd., Toronto 9, Ontario • International Sales Department,  
New York 17, New York • Branch Offices in all principal cities.*



**PRESTRESSED CONCRETE BRIDGE GIRDERS** attained 28-day compressive strength of over 7,000 psi. Construction of all 144 POZZOLITH girders was by A. S. Horner Construction Co., Contractors, Denver. Consulting Engineer: L. Boduroff, Denver. Prestressing: Prescon Corp., Corpus Christi, Texas.

# MASTER BUILDERS POZZOLITH\*

\*POZZOLITH is a registered trademark of The Master Builders Co. for its concrete admixture to reduce water and control entrainment of air and rate of hardening.







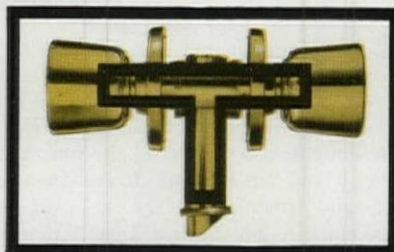
for really  
new  
construction

# MAGNALOCK

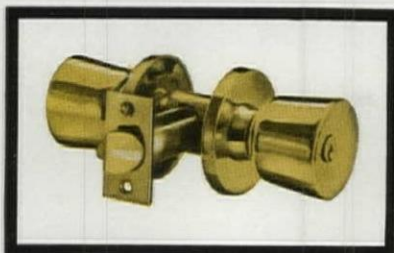
Not just another heavy-duty bored lock... but an entirely new concept from Sargent. Exclusive "T" Zone construction for greater strength and security. Self-supporting for standard hollow metal door cutouts. Reverses completely without disassembly. Styled in the same high fashion designs of the IntegraLock line in a variety of knobs, escutcheons, finishes. Planning something really new? Call your Sargent supplier or write: **Sargent & Company, New Haven 9, Connecticut.**



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# NEW ROOF-TOP COMMERCIAL WEATHERMAKER

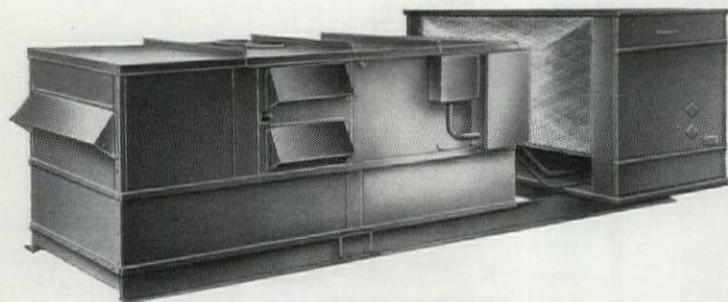
**Puts both heating and cooling outdoors. Occupies no valuable floor space. Uses only a minimum of ductwork. Permits uncluttered ceilings. Saves hours of design time.**

Here's the latest advance in heating and cooling for one-story buildings—the new Carrier 48B Air-Cooled Weathermaker\*. Designed for roof-top installation, it provides your clients with the benefits of year-round air conditioning without the cost of extensive ductwork, without cluttering up ceilings and without tying up one inch of floor space. What's more, its simplified construction saves you hours of design time!

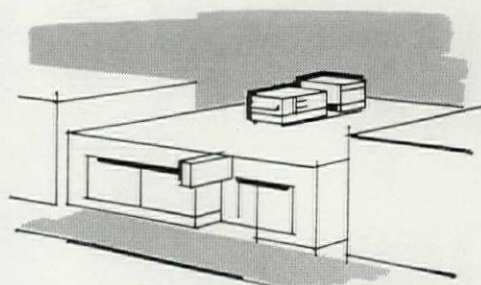
This versatile unit consists of a gas-fired heating section, a fan section and an air-cooled refrigeration section for cooling—all enclosed in a weatherproof casing and mounted on rails. Two capacities fit most heating and cooling requirements—7.5 and 10 tons for cooling; 200,000 and 250,000 Btus for heating.

The unit is factory charged, and refrigerant piping is installed. The compressor is protected by a five-year warranty. For more information call your Carrier dealer, listed in the Yellow Pages. Or write Carrier Corporation, Syracuse 1, New York.

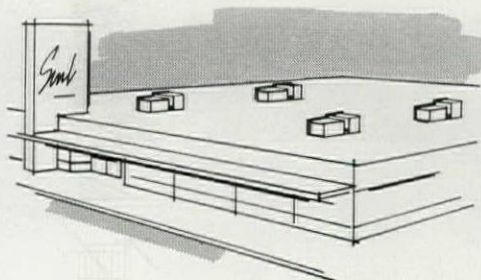
\*Reg. U.S. Pat. Off.



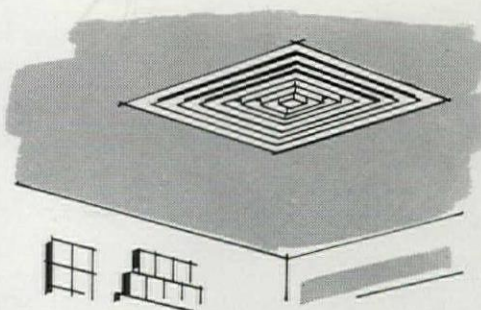
Basically the 48B is a one-piece unit, but rigging and handling are simplified by shipping the unit in two sections (base unit and fan section). It also installs with a single supply and return air duct, so only one duct passage must be cut through the roof. Installation is further simplified with only a single electrical power connection.



*A single unit will both heat and cool a small store or plant*



*Larger buildings require two or more units to heat and cool*



*One supply and return air grille fits flush to ceiling*

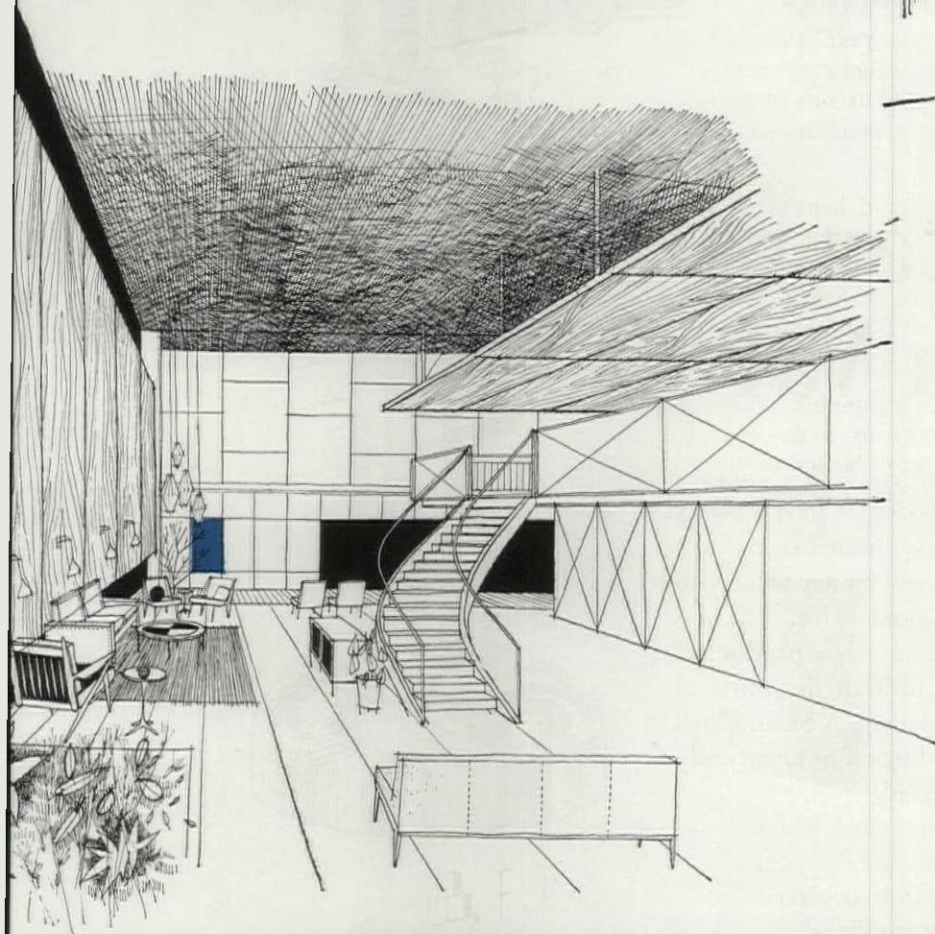
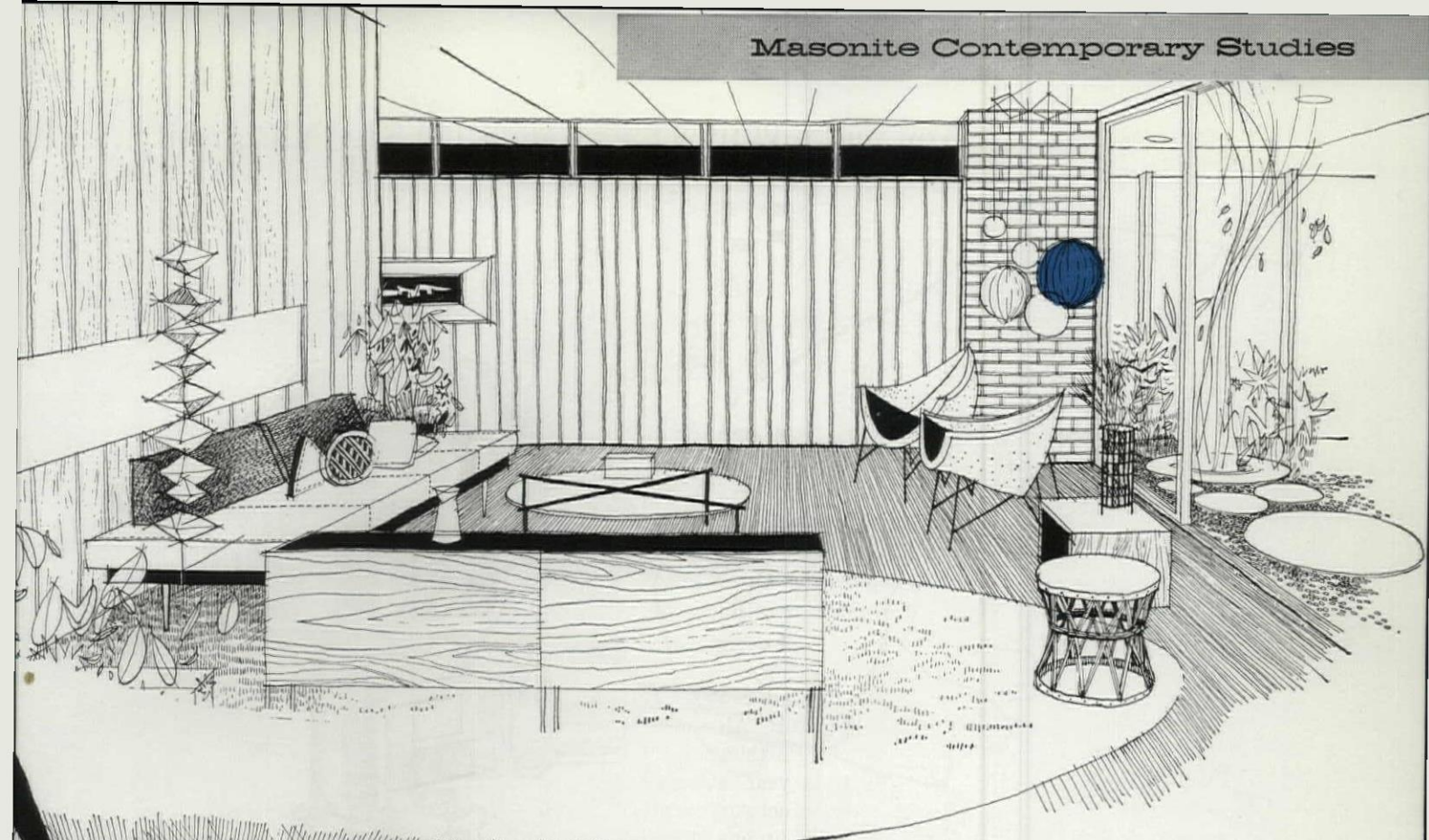
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We have specific information for you on the colors, sizes and patterns of Royalcote factory-grain panels. A request on your letterhead will rate a prompt answer.

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- Non-hold-open is a standard Sloan feature—another bonus of quality you expect from Sloan. And since Sloan quality costs no more—why not make sure you get it.

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by **GENERAL BRONZE**

The Southern New England Telephone Co. General Office Building in New Haven, Conn., is another distinctive curtain wall building, engineered and fabricated by General Bronze.

To create a building that is both outstanding and attractive in appearance, the architect, Douglas Orr, has used a stainless steel grid with fixed light windows, green porcelain enamel spandrel panels and dark green mullions. The over-all effect is one of distinctive beauty.

As the country's foremost producer of curtain walls, windows and architectural metalwork in aluminum, bronze and stainless steel, General Bronze is also anxious and ready to serve you. Why not call us in on your next building job? Our catalogs are filed in Sweet's.

Southern New England Telephone Co.  
General Office Bldg., New Haven, Conn.  
Architect: Douglas Orr  
Contractor: Edwin Moss & Son, Inc.



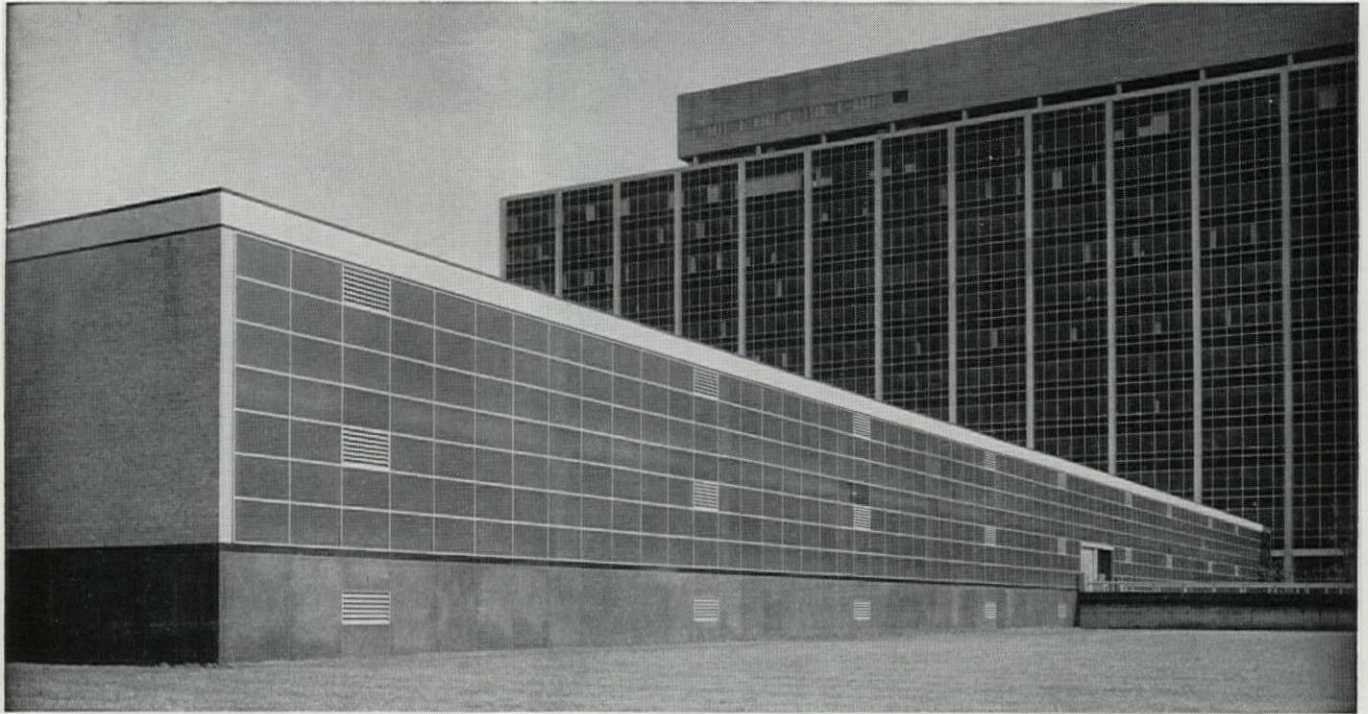
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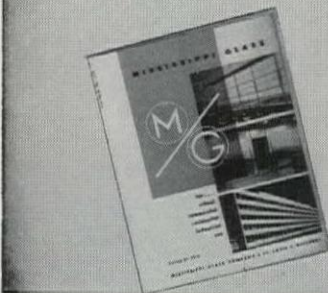


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Glazier: Pittsburgh Plate Glass Co., Detroit

Coolite, Heat Absorbing Glass, glare reduced on the pattern side, provides ideal daylighting for Johnson Motors, Waukegan, Illinois. Architect: Shaw, Metz & Dolio. Contractor: Campbell, Laurie & Lautermilch. Glazier: Waukegan Glass Co.



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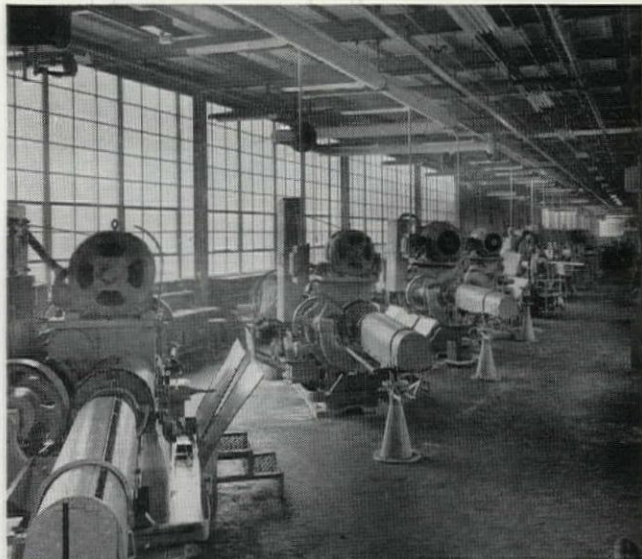
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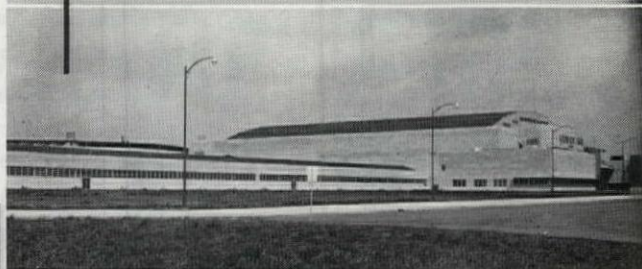
Today's leading architects are taking fullest advantage of translucent glass to achieve interesting, highly functional structures that provide high levels of low cost, natural illumination.

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35,000 sq. ft. of Smooth Rough glass in the Kentucky Fair and Exposition Center, Louisville, Ky., brightens entire interior. Architect: Fred Elswick and Associates of Louisville. Photo by: Royal Photo Co.



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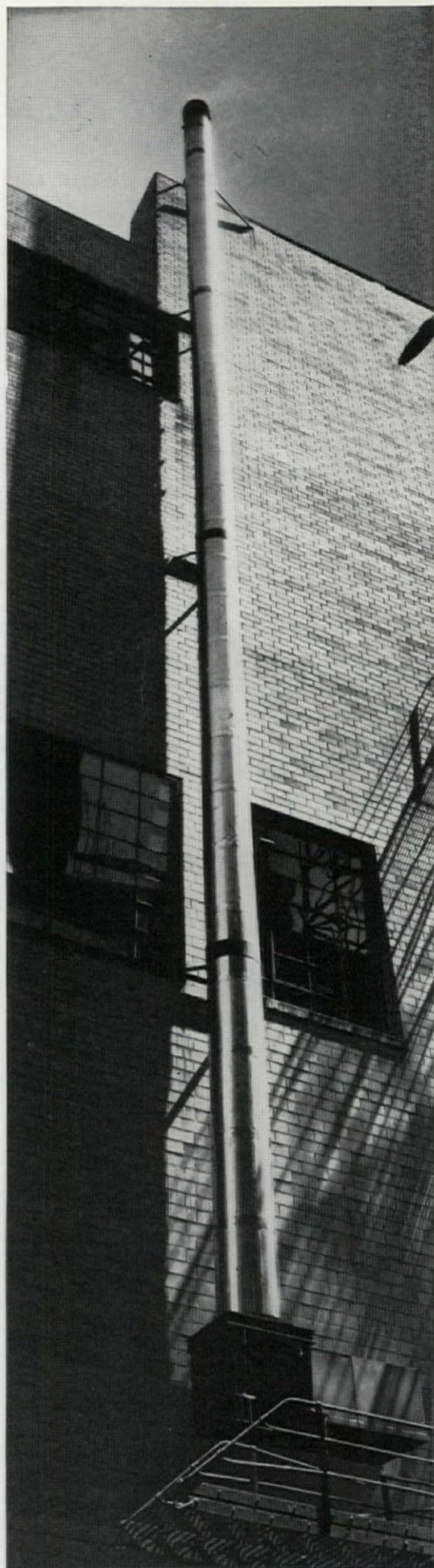


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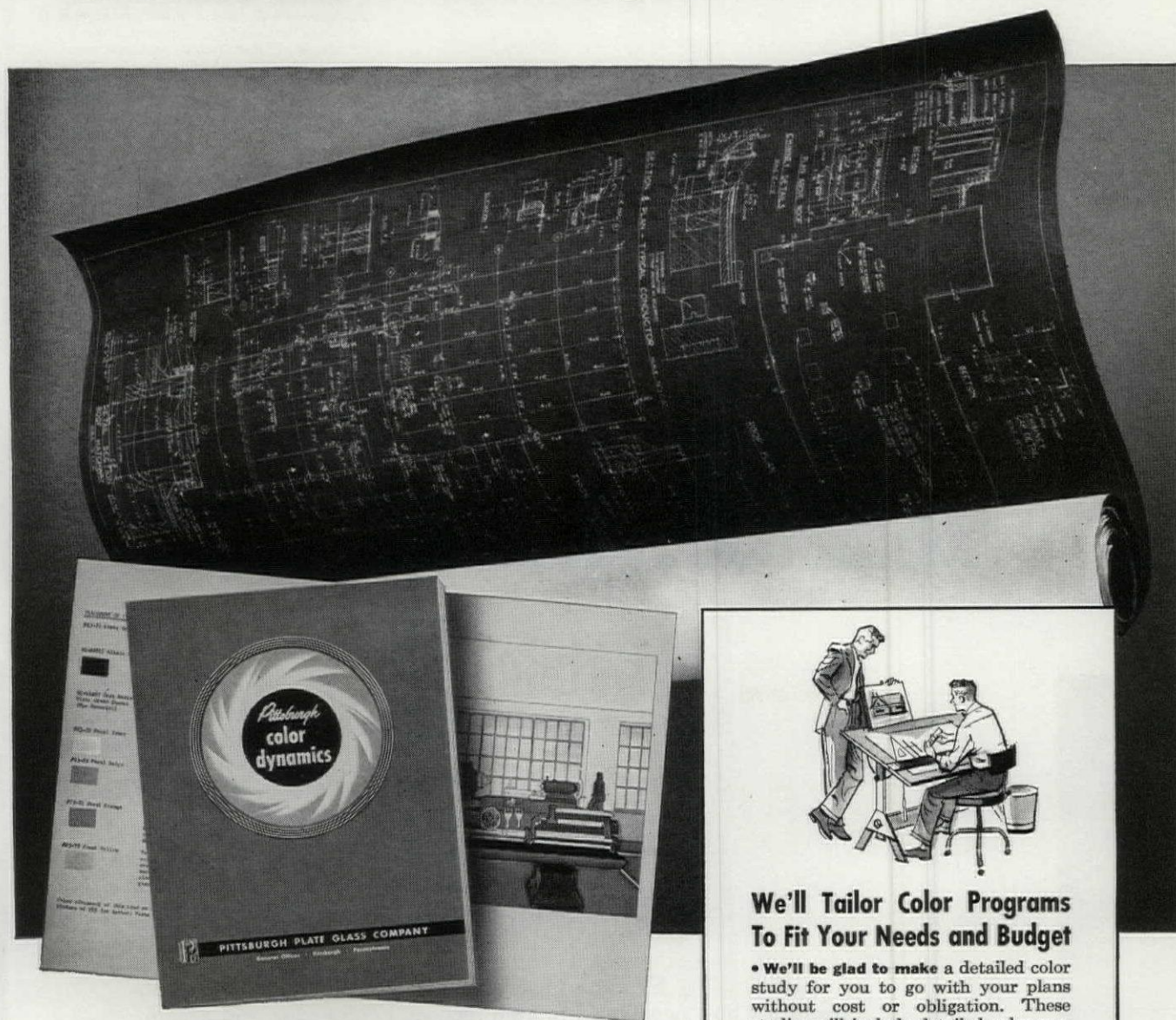
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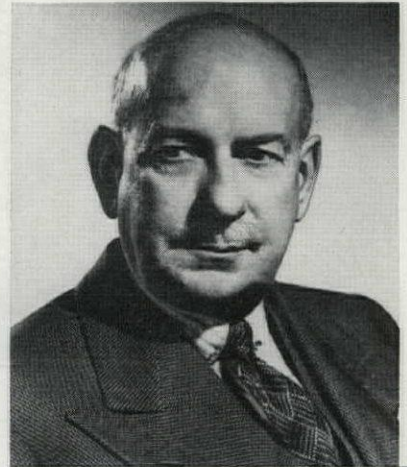
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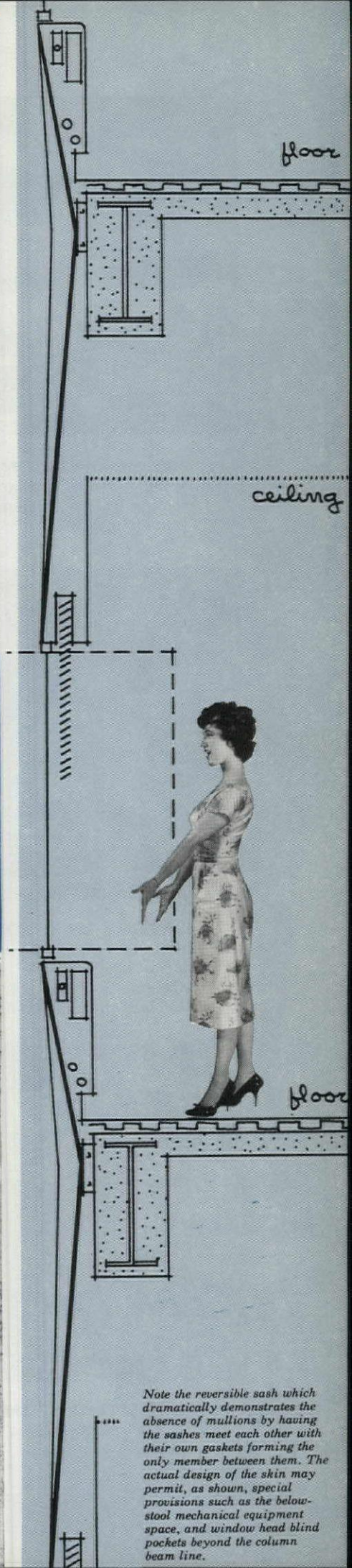
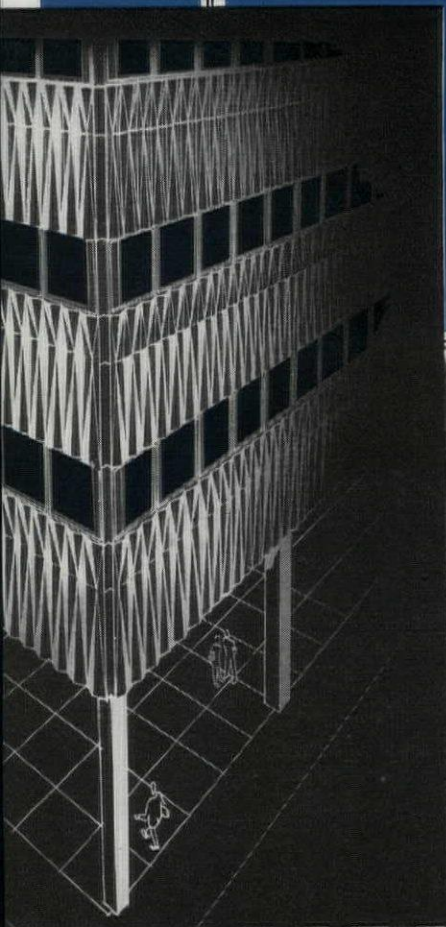
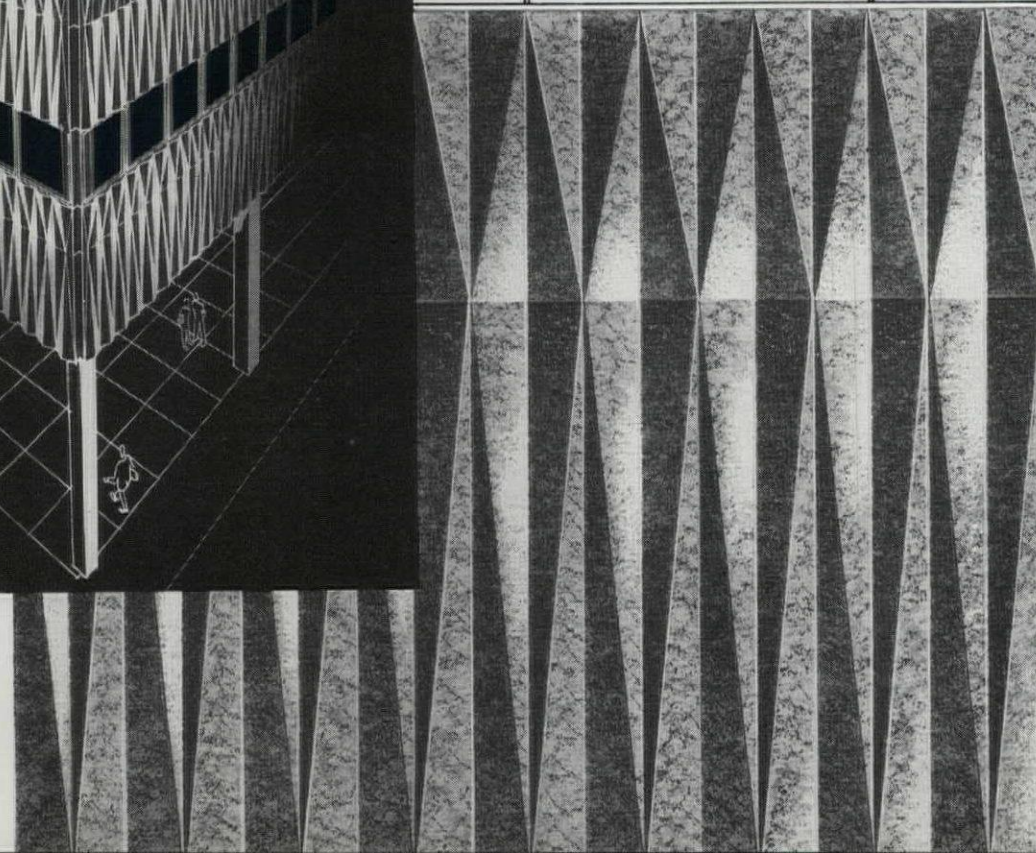
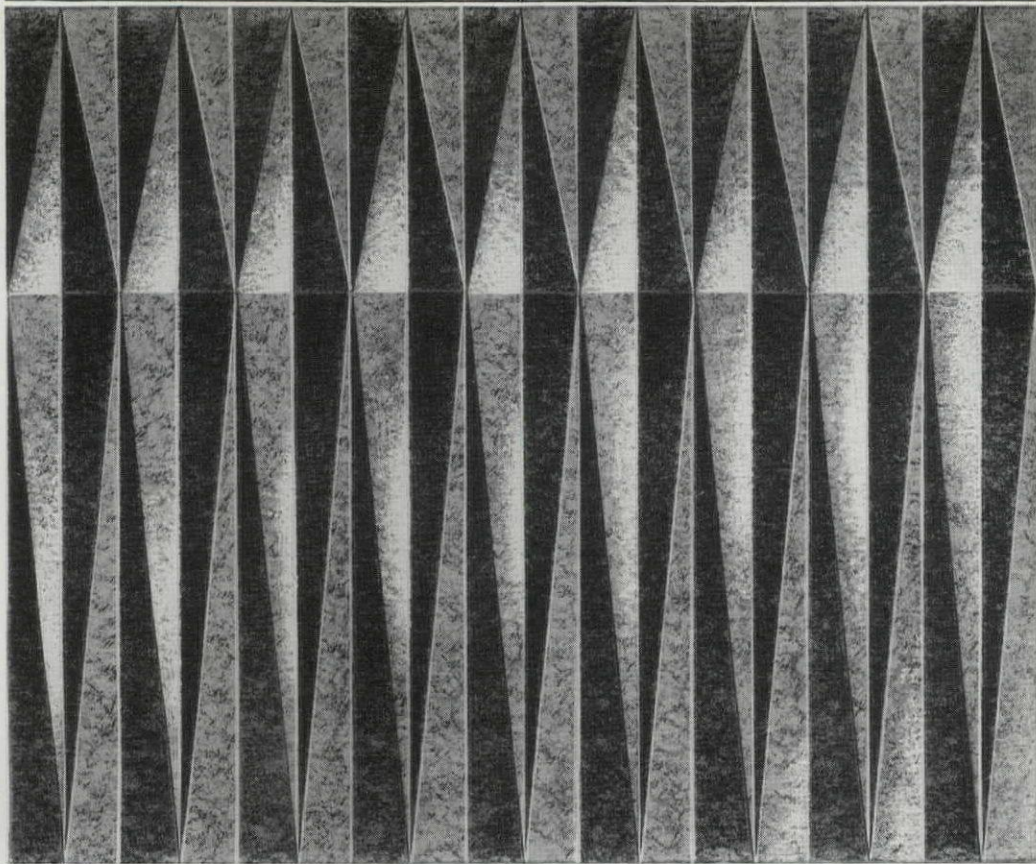
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*Note the reversible sash which dramatically demonstrates the absence of mullions by having the sashes meet each other with their own gaskets forming the only member between them. The actual design of the skin may permit, as shown, special provisions such as the below-stool mechanical equipment space, and window head blind pockets beyond the column beam line.*

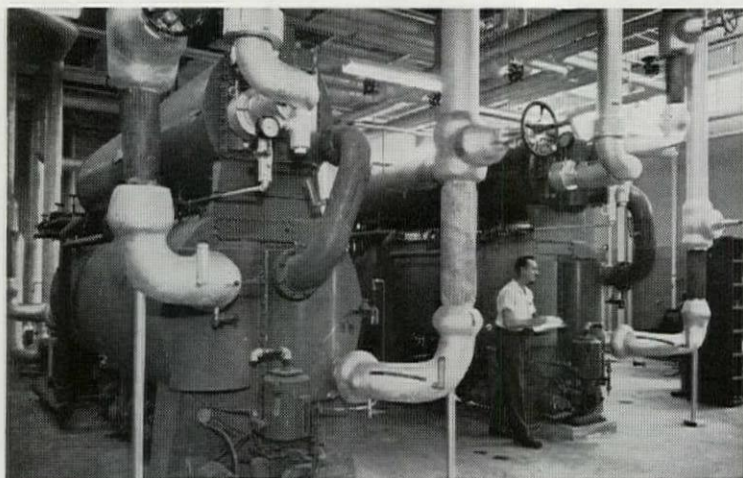




**NO SUMMERTIME SLUMP** With gas as the boiler fuel and York machines, the switch to summer cooling was no problem. Operating costs are low, too, thanks to Gas.



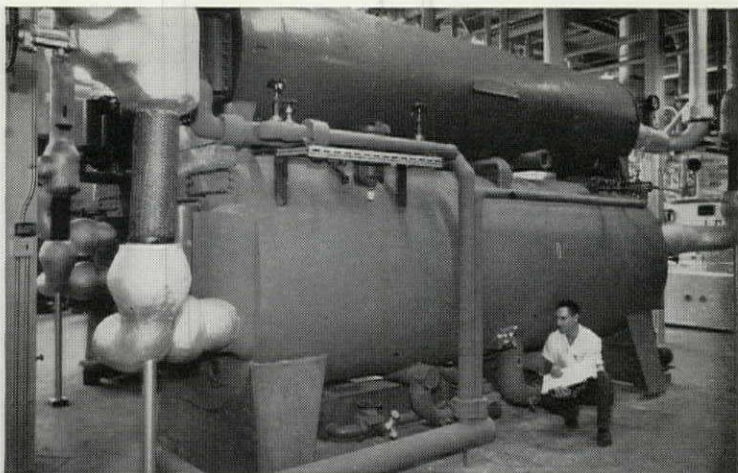
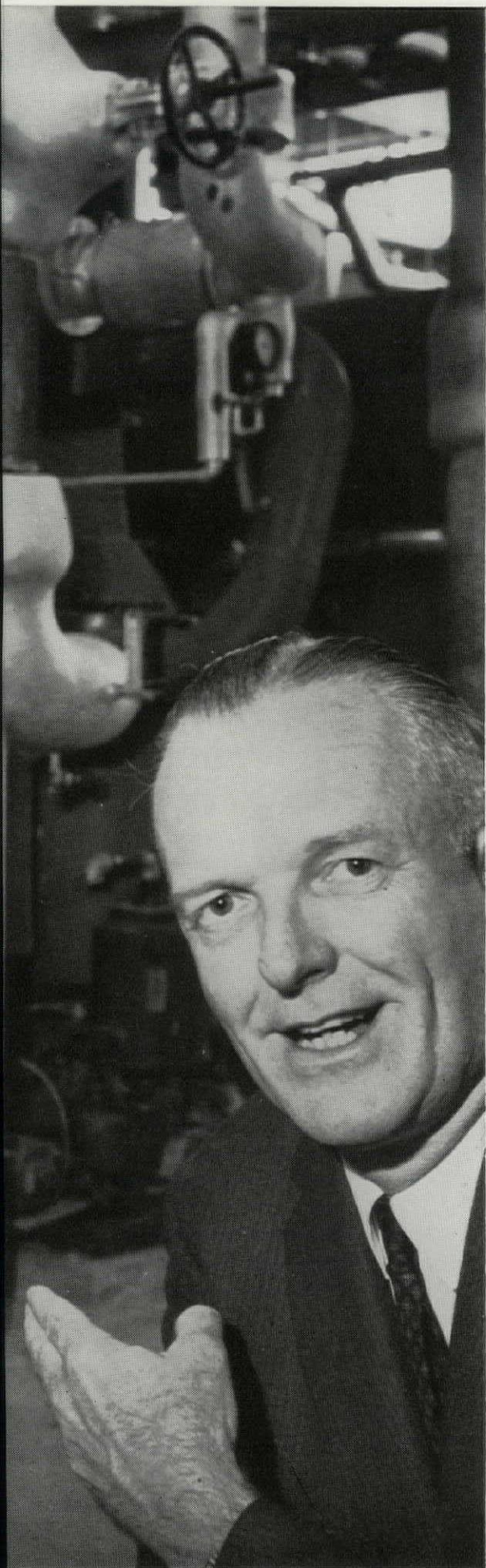
**LATEST IN COOLING** Gas operated York machines feature the use of tap water as refrigerant and lithium bromide as absorbent, one of the most efficient, practical refrigeration cycles developed so far. Machines start and stop automatically.



**THE UTMOST IN FLEXIBILITY** The units are cross-connected so that each operates independently if necessary.







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our boilers keep us cool  
all summer”*

“With our boilers sized for a winter load, we were naturally oversized for the summer months. But York’s gas-operated Lithium Bromide absorption water chillers permit us to make efficient use of part of this steam capacity to cool,” says Mr. M. J. Mather, President of the Allen Manufacturing Company, makers of hex-socket screws.

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# When it comes to doors

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This attractive entrance to the *Harris' Super Market*, Waycross, Georgia, features the clean simplicity of TUBELITE Doors and Frames, and convenient functioning of mat-operated PITTCOMATIC automatic door openers. TUBELITE marks a notable advance in hollow metal entrance design. The frames have an exclusive interlocking feature which gives them utmost rigidity. Heavy extruded dovetailed tubular door frame offers several combinations without visible fastenings. *General Contractor: Business, Inc., Waycross, Ga.*



## **WEST TENSION DOORS**

The slender frames of WEST TENSION DOORS contribute a touch of lightness, but rugged strength is imparted to the doors by  $\frac{1}{2}$ " thick glass held under compression by the thin metal frame. In this installation, WEST Doors are combined with TUBELITE Frames and provided with PITTCOMATIC Hinges for smooth and easy operation. *Middletown Federal Savings & Loan Association, Middletown, Ohio; Architect: Harold W. Goetz, Sr., Middletown, Ohio; General Contractor: Charles Bendel, Middletown, Ohio.*





# —come to PITTSBURGH



**P**ITTSBURGH DOORS fit all of today's architectural styles and the wide variety of current service requirements.

There are three Pittsburgh Doors—HERCULITE, WEST and TUBELITE—each with its distinctive features, handsome appearance and architectural appeal. All embody *Pittsburgh* quality and assure long, trouble-free operation.

Complete information on Pittsburgh Doors may be found in Sweet's Architectural File, sections 16a and 16d. Information may also be obtained by writing to Pittsburgh Plate Glass Company, Room 9173, 632 Fort Duquesne Boulevard, Pittsburgh 22, Pennsylvania.

PITTCOMATIC® is the nation's finest automatic door opener. It may be installed, with either *handle* or *mat* control, with any of Pittsburgh's three door styles. The simple, hydraulic, motor-driven unit is easily installed and maintained.

## **HERCULITE® DOORS**

The entrance to this *Thorofare Market* in Ross Township, Pennsylvania, is clean and simple . . . and the essence of convenience, due to mat-operated PITTCOMATIC Door Openers. The HERCULITE Doors are large and inviting; their clarity and absence of distortion add attractiveness and permit excellent vision into the store. Their strength and ruggedness permit their use in all types of open vision applications and a variety of sizes makes them adaptable to any structural requirement. *Architect: Charles Roberts, A.I.A., Pittsburgh, Pa.; General Contractor: McKnight Land Co., Pittsburgh, Pa.*

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**And new Acoustical Fire-Guard allows you to cut down on  
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New Armstrong Acoustical Fire-Guard offers the advantages of an acoustical tile ceiling *and* rated fire protection at a lower cost than that of comparable competitive methods. You can now specify Acoustical Fire-Guard for a wide range of time-design requirements in incombustible construction. In areas where building codes are most rigid—and three- or four-hour floor-ceiling assemblies are required—specify the Armstrong Acoustical Fire-Guard ceiling system with a *four-hour* time-design rating. Where building codes require only a one- or two-hour rating, it will be more economical to specify the *two-hour*-rated Acoustical Fire-Guard system.

## **Here's why Armstrong Acoustical Fire-Guard ceilings are more economical**

They eliminate the need for costly intermediate fire protection. Previously, it was necessary to (1) utilize reinforced concrete construction, or (2) spray steel structural members with an insulating material, or (3) suspend a lath and plaster fire stop to which the acoustical ceiling could be applied.

## **Saves construction time**

Armstrong Acoustical Fire-Guard is installed

by a completely dry method. There are no costly delays of the kind that can occur because of "wet" operations. No extra moisture is introduced into the building to delay finishing operations.

## **Here's what Underwriters' Laboratories, Inc., reported**

Underwriters' Laboratories, Inc., in its Retardant Report #4177-2, stated that the floor-ceiling assembly utilizing  $\frac{3}{4}$ " Acoustical Fire-Guard had been tested and given a *four-hour* rating. Report #4177-3 stated that the floor-ceiling assembly utilizing  $\frac{5}{8}$ " Acoustical Fire-Guard had been tested and given a *two-hour* rating.

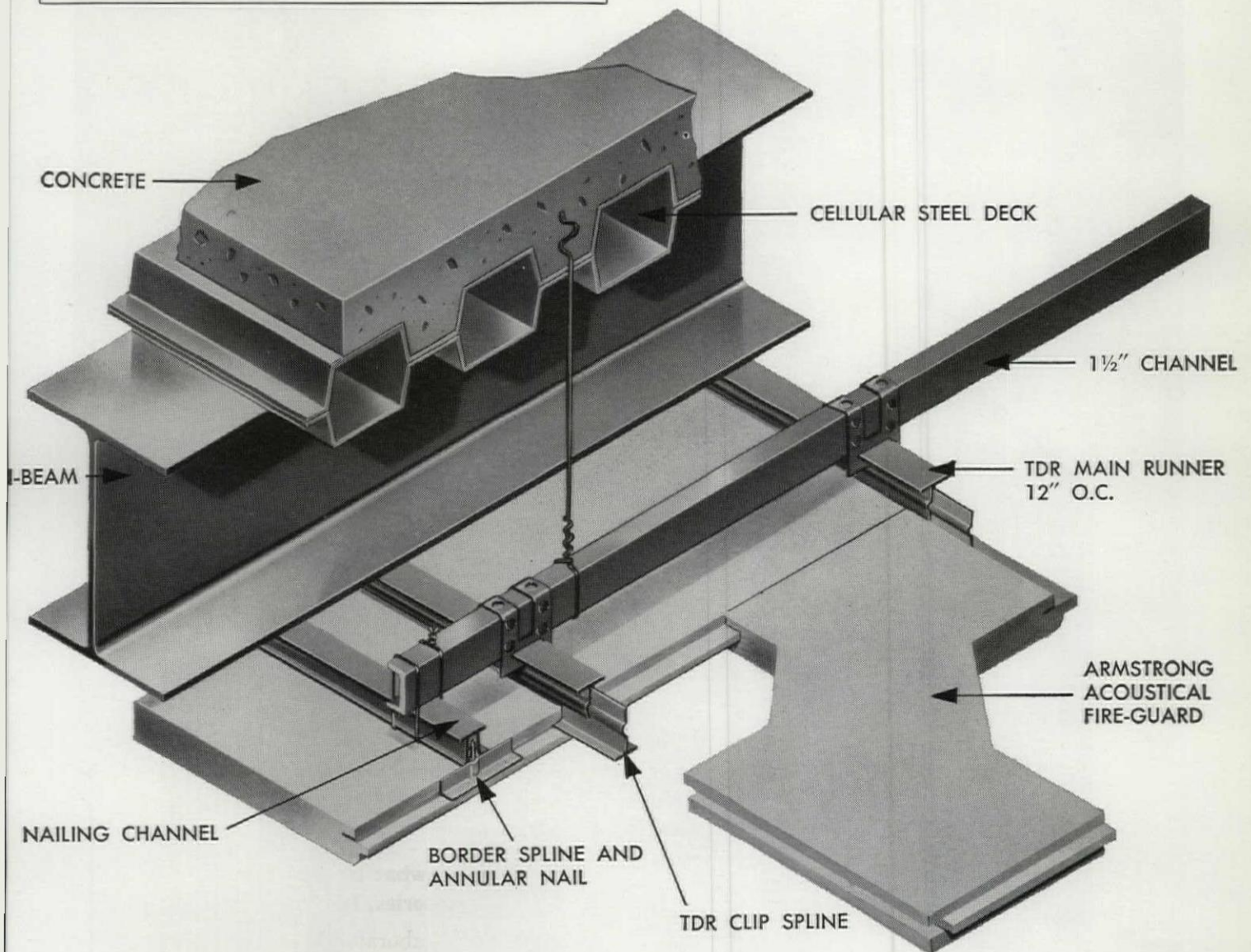
## **Acoustically efficient**

The noise-reduction coefficient for both the  $\frac{3}{4}$ " and  $\frac{5}{8}$ " Acoustical Fire-Guard ceilings is .70 (A.M.A. rating). This acoustical efficiency is built in at the factory.

For more information and specific cost data, consult your Armstrong Acoustical Contractor. Or, call your Armstrong representative or write to Armstrong Cork Company, 4207 Watson Street, Lancaster, Pennsylvania.



## THE FOUR-HOUR-RATED ASSEMBLY



### A partial list of buildings for which Armstrong Acoustical Fire-Guard has been chosen

**Robin-Mickle Junior High School**  
Lincoln, Nebraska  
Unthank & Unthank, Architects

**Roxborough High School**  
Philadelphia, Pennsylvania  
Heacock & Platt, Architects

**Aged Women's and  
Aged Men's Home**  
Towson, Maryland  
The Office of James R.  
Edmunds, Jr., Architect

**Westbrook Junior High School**  
Omaha, Nebraska  
Leo A. Daly Co., Architects

**St. Marks Methodist Church**  
Raleigh, North Carolina  
William Moore Weber, Architect

**St. Joseph's Seminary Dormitory**  
Adrian, Michigan  
Barry & Kay (Chicago), Architects

**Cherry Hill Inn**  
Delaware Township, New Jersey  
George M. Ewing Co., Architects

**St. Louis Hills Medical Building**  
St. Louis, Missouri  
Robert Graham, Architect

**Immaculate Conception Parish School**  
Corsicana, Texas  
Harper & Kemp (Dallas), Architects

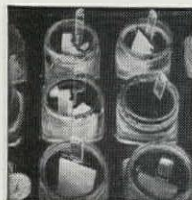
**Most Holy Rosary School**  
Syracuse, New York  
Pederson, Hueber & Hares, Architect

# Armstrong ACOUSTICAL CEILINGS





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**SOAK TEST** simulates field condition of windows standing in water before installation.



**SALT SPRAY TEST** parallels coastal area atmospheric conditions of saline exposure.



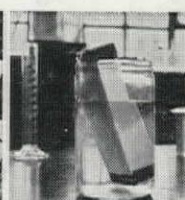
**WEATHEROMETER TEST** duplicates the field condition of exposure to strong sunlight.



**ABRASION TEST** simulates abrasive materials rubbing against frames and windblown abrasives.



**HUMIDITY TEST** parallels field conditions of humidity inside and outside of windows.



**ALKALI TEST** duplicates field conditions of rain dripping off mortar, plaster, etc.



**MAR PROOFNESS TEST** simulates field condition of sliding frames across one another in handling.



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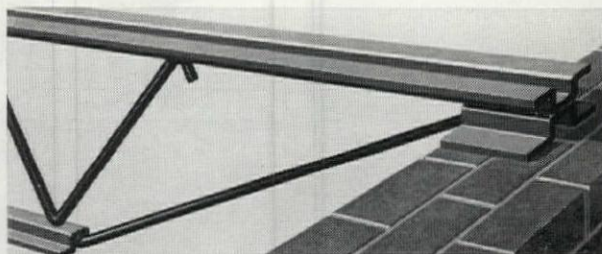
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*Truscon's SUPERCOAT finish can be specified in the design and construction of steel windows for beautiful apartment buildings such as the Prairie Shores Apartment #1, Chicago, Illinois, illustrated at the left.*

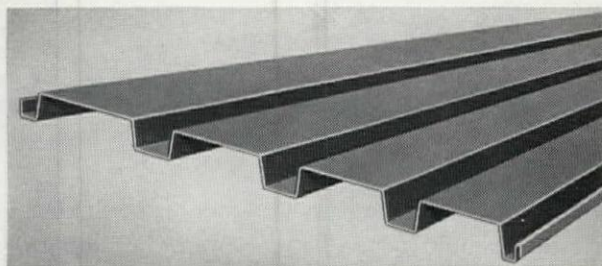
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Contractor: Sumner Sollitt Construction Company

Product: Truscon Series 138 Double-Hung Steel Windows with SUPERCOAT



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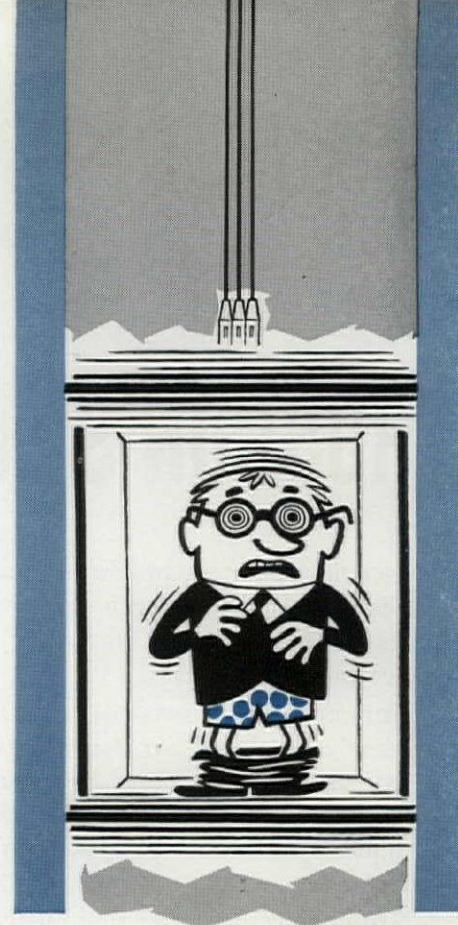
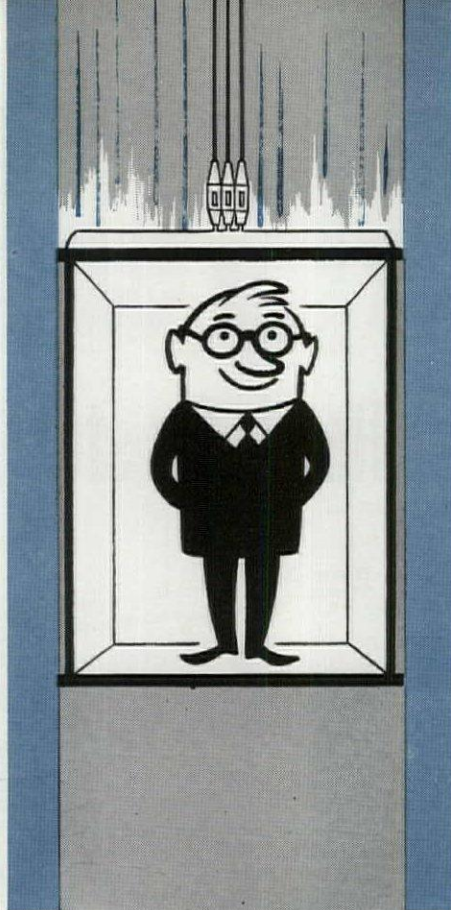
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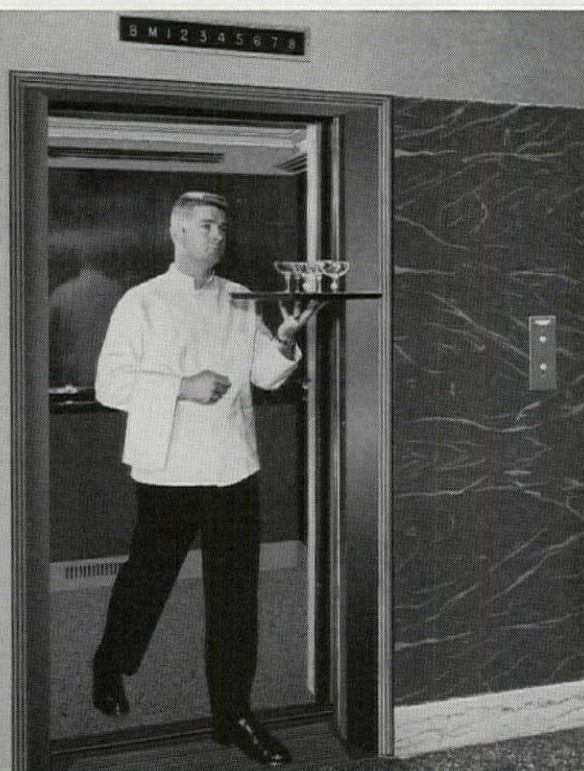
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## critique of Wright's Contribution draws comment

*Reaction of our readers to the article, "F.L.W. and the Ageing of Modern Architecture," by Sibyl Moholy-Nagy (May P/A) has ranged from thoughtful, professional approval to notes of rather vague alarm. Opposition to any slight criticism of Wright and his work also was voiced, along with a few sophomoric "dirty words," in one or two letters mailed unsigned—a mode of non-communication that is shockingly dumb when attempted as a defense of the fearless, outspoken Master of the Taliesins.*

*Dear Editor:* The article on Frank Lloyd Wright by Sibyl Moholy-Nagy is thought-provoking and its honesty shines through. It is in the direction of architectural criticism which should be encouraged. We should have much more critical analysis than we do. Congratulations to Mrs. Moholy-Nagy and to you!

I know Mr. Wright would have liked to argue with you on all this.

WILLIAM W. WURSTER, Dean  
College of Architecture  
University of California  
Berkeley, Calif.

*Dear Editor:* Of course the best estimate of Wright was the obituary in the editorial column of *The New Yorker*. We must not forget the "twinkle in FLW's eye." He was having fun—fun confusing his serious-minded colleagues and mankind in general. He was *always* having fun. This was especially true in his later years, and of the mile-high building. I happen to know the people who asked him to design a tower a little higher than any other. (They have since asked me for sketches.) Frank picked up the ball and, not satisfied with a tower a little higher, went way up—only Frank would. It also made a good and challenging problem for the Fellowship. But this project must not be taken seriously. Frank knew what he would get from its publicity—which he got, including misinterpretation.

It is within the right of genius to be inconsistent. Lincoln was; all great men

are. We must read between the lines.

We have lost as great an artist as the world has given us.

As a matter of fact, if you inspect closely much of the latest work of many of our contemporary colleagues, you will easily detect a logic more illogical than FLW, and of the same piece.

GEORGE FRED KECK  
Chicago, Ill.

*Dear Editor:* I have read Sibyl Moholy-Nagy's article with the greatest interest and complete agreement with its conclusions. For a long time before his death, the continued adulation in the architectural press had done less than justice to a very great man.

Genius requires no apologists, for it thrives indeed on proper recognition. The premature obituaries which have become the hallmarks of a certain school of uncritics has done much harm to serious students of Architecture.

A tragically topical lecture on Frank Lloyd Wright's work was given at Harvard by Fred Langhorst within a few days of his death, and the Architecture spoke eloquently for itself.

As Sibyl Moholy-Nagy correctly observed, the decorative and wilful quality of the latest work was sad to see, all the more so as it unwittingly reflects exactly the same trend among the younger men whom FLW professed to despise. The similarity remains ironically visible, though the others lack the master's touch.

FLW's portrait we know is not only of a great 19th Century hero type, a Wagner perhaps as much as a Whitman, but is the portrait of a whole epoch, a period born of the 19th Century which only now is running out its course, in the middle of the 20th. FLW continued to behave all his life as a hero and adopted heroic attitudes and took a hero's license with lesser men. In the process he pulled the 19th Century along with him, refusing to acknowledge growing abrogation of such rugged individualism and, as Paul Rudolph has remarked,

(Continued on page 56)

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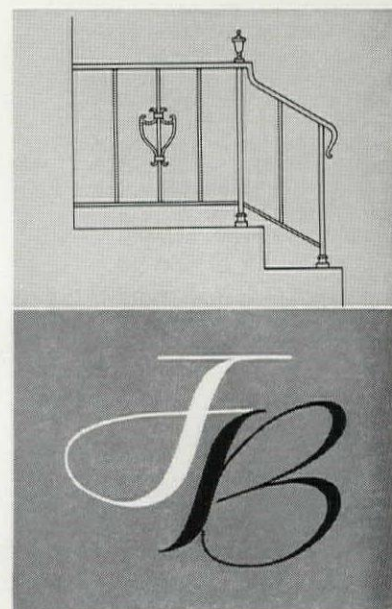
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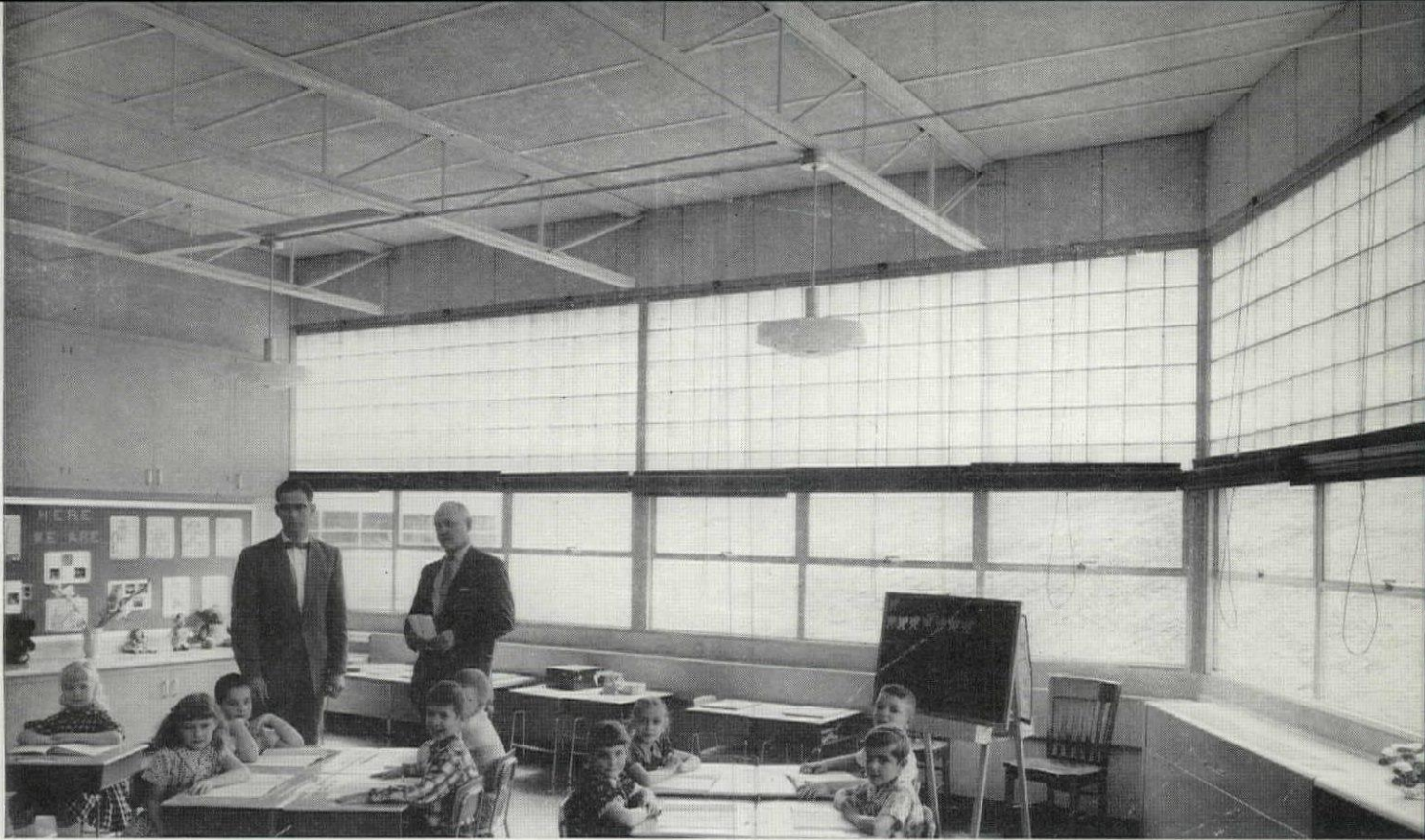
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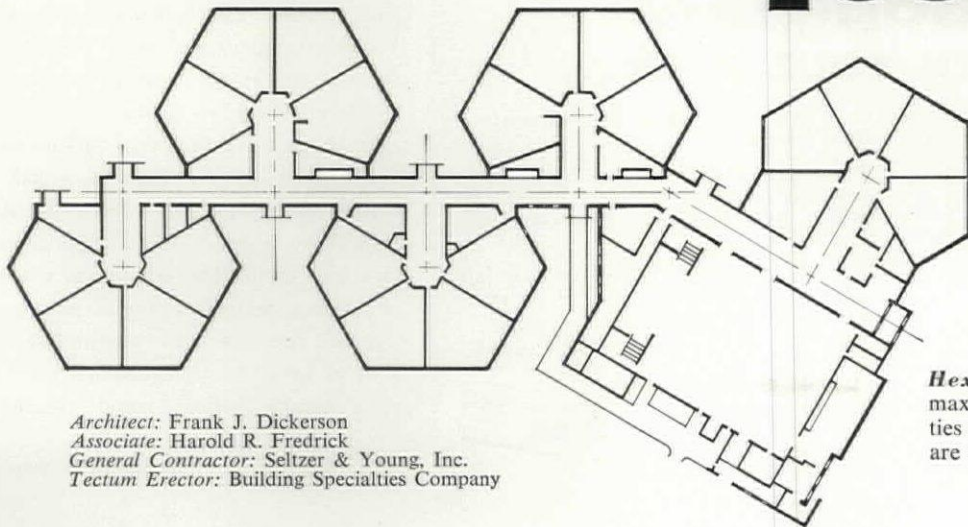
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(Continued from page 51)

refusing to face up to the 20th Century urbanization.

The last and characteristic gesture of defiance is made manifest in the Guggenheim Museum. He defied New York, Fifth Avenue, and the very purpose of the monument—namely, the art collection—and made a one-man show of the whole business.

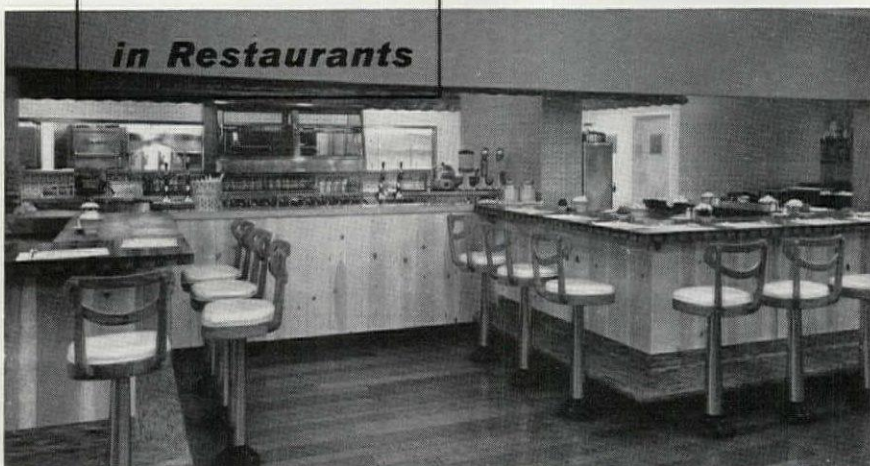
In addition to the everlasting effect of his masterpieces, the full impact of this tremendous personality may now be perhaps reasonably computed. FLW's portrait is a larger-than-life-size portrait of many American architects now in full practice who may emulate the manner 30 years too late; but have not yet matched the achievements.

It behooves us to be critical about even our best and to recognize the true shape

of quality irrespective of authorship or rationalizations, however seductively worded.

SERGE CHERMAYEFF  
Professor of Architecture  
Graduate School of Design  
Harvard University  
Cambridge, Mass.

P.S. I wonder what ironic comment the Wizard is not making, as he looks down on all the strutting here below, while he adjusts the new wings to a snug fit with the old cloak?  
s. c.



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Dear Editor: I am fond of Sibyl and talk to her when I can. When the budget permits, I ask her to come to talk to our students, and I read a good bit of what she writes. In our talks, listening to her lectures, reading what she writes, I find her always thoughtful and provocative and I find myself almost invariably disagreeing with what she says or writes.

This time, reading this article on Wright, I found that I agreed almost paragraph for paragraph, sentence for sentence. Disagreement with Sibyl has never been anything but pleasant, but the surprise of agreement was an additional pleasure!

None of this answers your question, but I think that I agree with too, that non-critical estimates of Wright no longer have much meaning.

PAUL SCHWEIKHER  
Pittsburgh, Pa.

Dear Editor: I agree that non-critical estimates of Wright are rather meaningless now—I would go further and say that critical estimates of Wright are also meaningless now.

Sometime FLW will be re-evaluated—but now is not the time.

EERO SAARINEN  
Birmingham, Mich.

Dear Editor: The valuable appraisal of Wright, I agree, will be a critical one. In this article, the author was wise to deal with Wright as a complete person, also in pointing out the circumstances and attitude of the times in which he thrived as distinguished in some ways from those in which the younger generation finds itself. The article was valuable in showing, regardless of time, what qualities are necessary to an architect to achieve greatness, yet dealing with natural human failure, found usually, it

(Continued on page 62)





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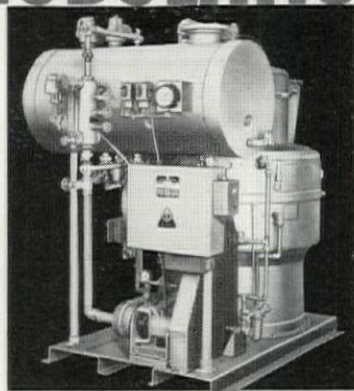
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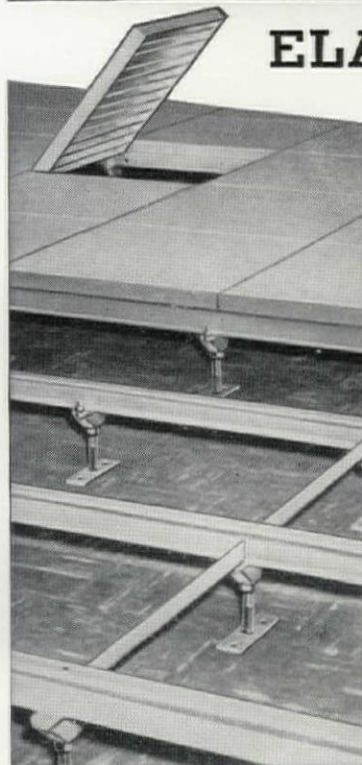
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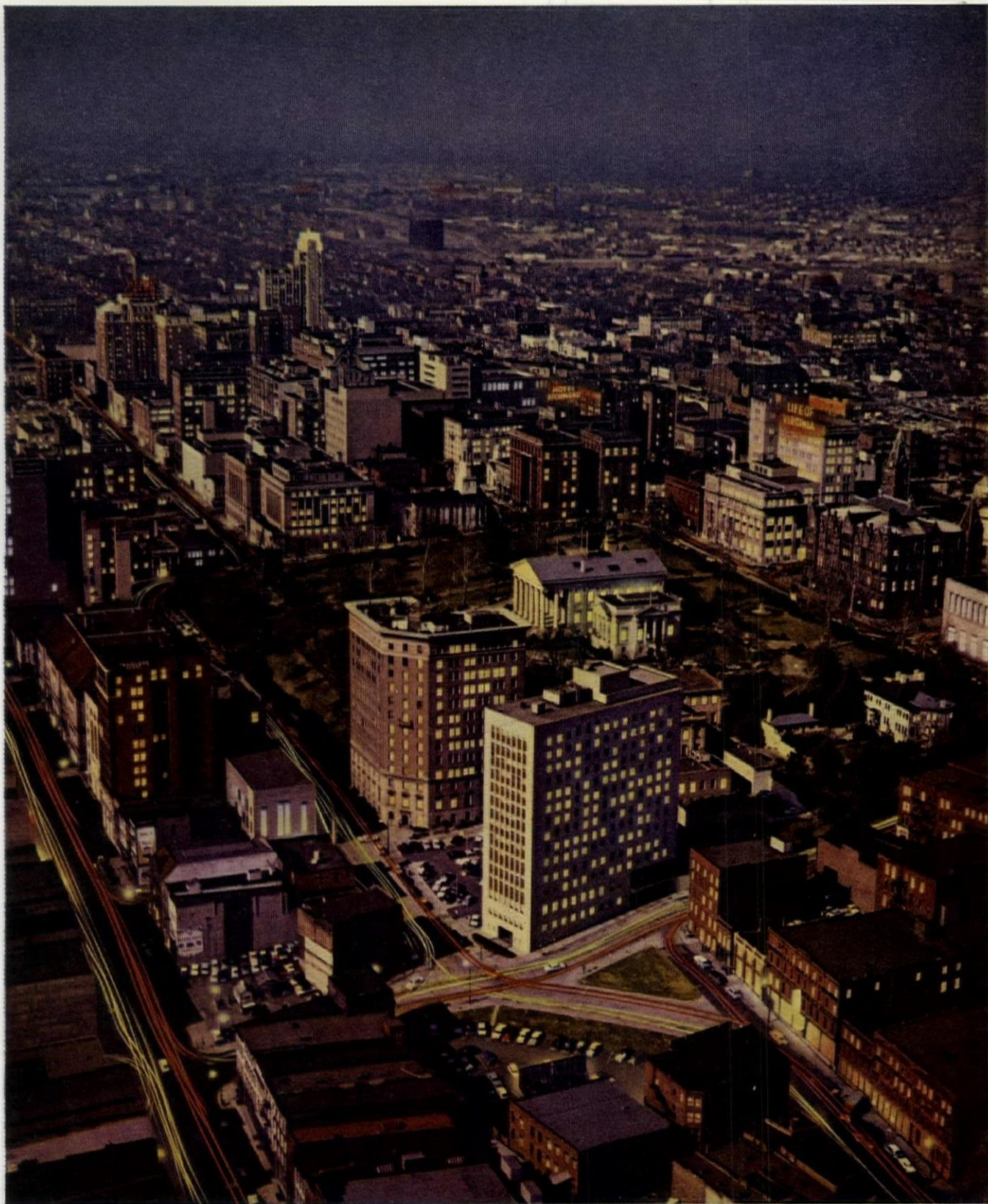
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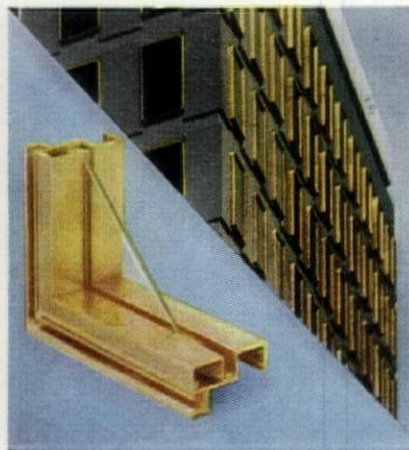
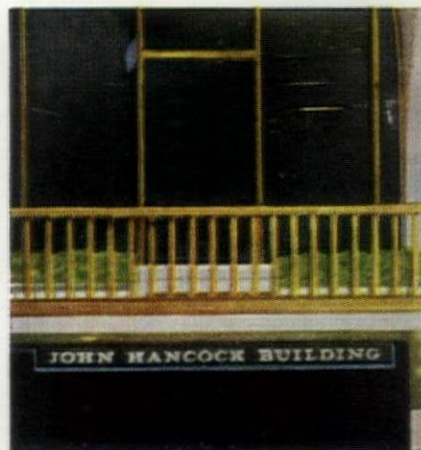
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(Continued from page 56)

seems to me, where Wright fails to follow his own teachings.

Though not pertinent to this article, it would be of further value to write further about what the author terms the "new epoch"; describing conditions today under which the younger generation will practice including strong influence of communica-

tions; headlong advance in building technique over which the architect is losing command; preoccupation with extreme statement and extreme situation; collectivism versus the individual.

JOHN MACL. JOHANSEN  
New Canaan, Conn.

Dear Editor: To me, I think that at a time like this words are needed—but are quite inadequate.

If you confront quite openly Frank

Lloyd Wright's extraordinary contribution, I do not feel that it matters all that much whether it is critical or not. Should it be critical, then I think it should be basically sympathetic. Sibyl Moholy-Nagy's article is provocative and searching; but it seems to cloud, fail to recognize, and even at times to reject—in its most simple meaning—the complete essence of his work . . . beauty.

The *potential* of architecture, or "architectural revolution" could, with *complete understanding*, be overwhelming in its influence on our existence. To state that it has now, or recently, *exceeded* that which a Hitler has done to our existence is something that I do not understand.

Frank Lloyd Wright has given, for us to accept or reject. We are uniquely fortunate to have his "gift" and I do not believe we shall have, or have now, his peer. Should this come again, he in turn shall have no peers, shall stand alone; but shall, as Wright did, and as Sullivan described: Give . . . "a new thing of beauty born of untoward surroundings into a needy world . . . And may not a man perhaps burst his bonds asunder? May not his spirit, hidden though it may be, break forth, and show such form and color of manliness that we shall say: Here is a new flower; a man flower, come to us from the father of flowers."

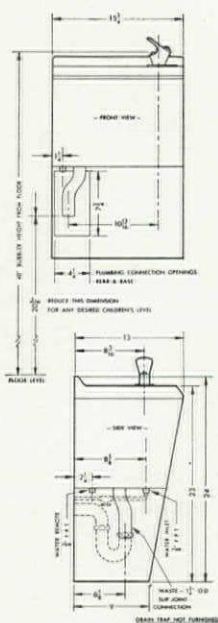
HENRY HILL  
San Francisco, Calif.

Dear Editor: I am sorry not to praise Sibyl Moholy-Nagy's estimate of Mr. Wright. I consider Fitch's estimate a much more discerning one.

HARWELL HAMILTON HARRIS  
Dallas, Texas

Dear Editor: Sybil Moholy-Nagy's article is packed full of stunning and revealing glimpses into possible books that could be written. Thank you very much! As to Frank Lloyd Wright, whom I have known for more than a third of a century as generous, lenient—believe it or not, even up to the last weeks, when he wrote us or sent messages—warm hearted, friendly—I am too sad now to venture any guess how he will be appraised on his hundredth or two-hundredth birthday.

His loving mother, his stray-away father, and all his older relatives of whom he often has told stories to Dione and me—they would not have a shred of a

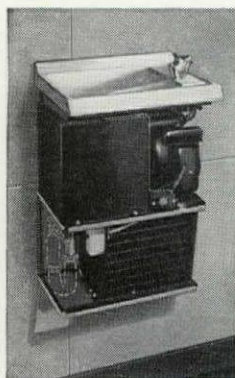


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(Continued on page 66)





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(Continued from page 62)

guess either. How lonely is an individual from womb to grave—it's an endless thing to ponder, when a great person passes and leaves his still undefined estate.

The grand quote in the article is: "Excess of contrast in genius brings about a mighty equilibrium." This equilibrium changes during life, and when that life

is only remembered by others "who were not there" in so many nascent, urgent moments. I shall think and keep on thinking, what I get out of seeing this brilliant Nova appear suddenly in 1910, seeing it from so close by and still distant for 50 years. Right now, I feel sad.

RICHARD J. NEUTRA  
Los Angeles, Calif.

Dear Editor: I have read the article on Frank Lloyd Wright in your May issue

which was written by Sibyl Moholy-Nagy. She says, "Technological architecture must eschew ornamentation and decoration because its one essential esthetic factor is the interaction of structural elements." Then she goes on to say that we can hail this new epoch.\*

What does she mean by technological architecture? Do you remember the deadening monotony of the electric piano in the movie houses years ago? That was technological music.

How can she say that ornamentation and decoration is not for architecture? No matter what man touches, he eventually tries to enrich it. It may be the breath of Vermouth in his martini, herbs in his food, or the placement and selection of furniture in his living room. Man does all of this to enrich his experience, and who can say that he must reduce the form of his buildings to mathematical formulas with no room to experiment for further enrichments? When we become slaves of such formulas, sterility is the result.

How are technological ideas going to advance if we shun experiments in enrichments? I, for one, do not believe we, as architects, are going to let the painters and sculptors die. Their weakness today is our weakness. We have not inspired them to become an organic part of the whole. It is not technology or economics that is preventing their art from growing; it is our inability to clearly see the exciting and beautiful potentialities of their art. We must experiment, for how else can we grow? Certainly not in this so-called technological school which can see architecture only through a mechanistic formula.

The barrenness of so much of our architecture today is reflected in the barrenness of all our arts. They are starving for the spark of enrichment which will be born of our architecture. In the past architecture has been the mother of all the arts and so it will become again.

I believe that all men have undreamed-of potentialities and it is up to architecture to stir these into being. The author's formula, however, tends to make all solutions preconceived and has no

(Continued on page 68)

\*What Mrs. Moholy-Nagy said was: "We can deplore or hail this new epoch, but it is here and now."  
T.H.C.

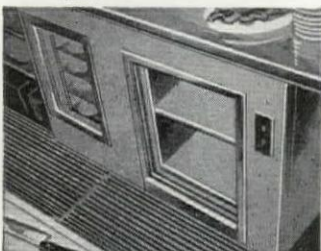
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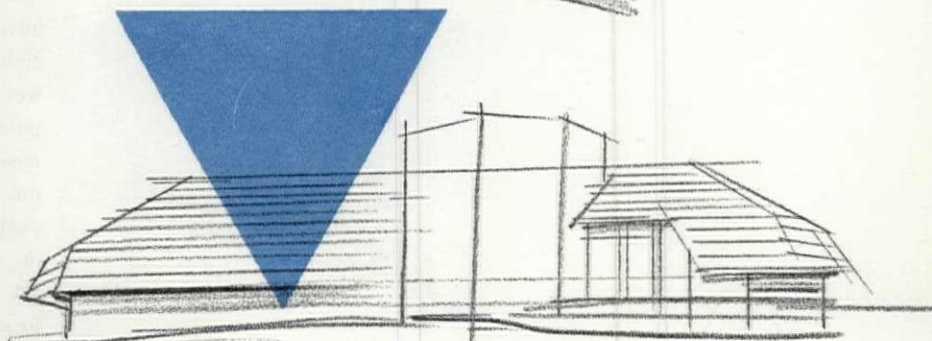
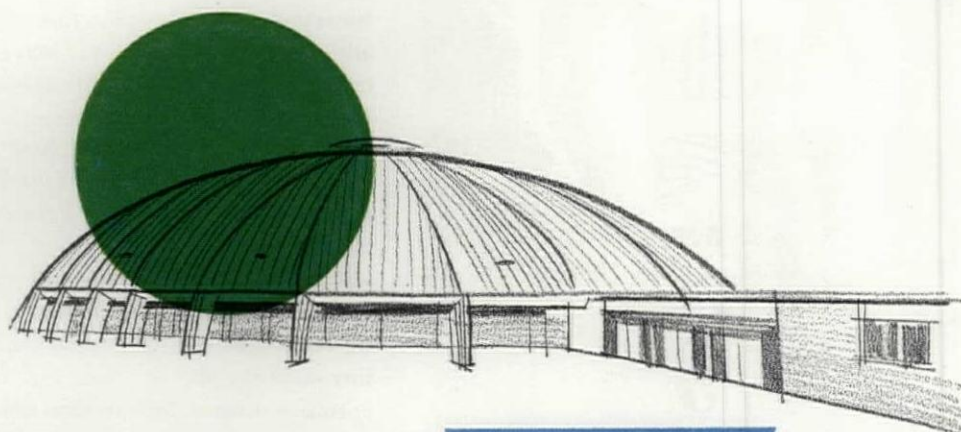
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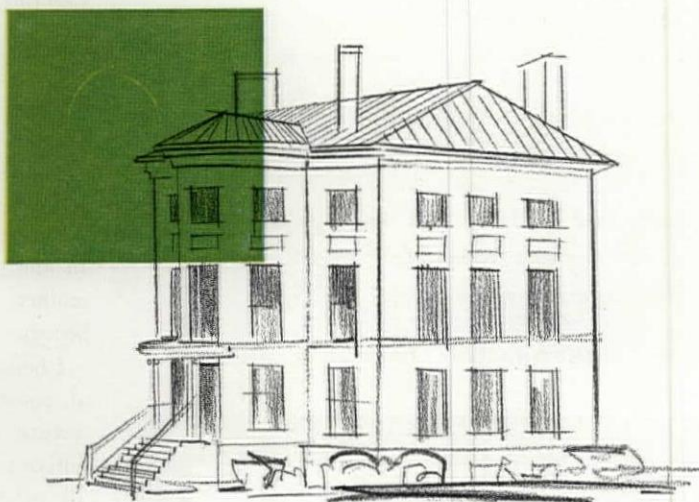


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## p/a views

(Continued from page 66)

respect for the intuitive sense of the architect, which is the widest door to new things.

This technological writer refers to Mr. Wright's houses as "shelters." Have you ever known a man who wanted to call his home a shelter? Carports and garages might come under this name but when it is a home for a man, it must be something much more than this. It must be a place that inspires living. No real architect would tell his client this is just shelter. A shelter means a protected place of the barest kind with absolutely no thought of inspired living. Shelter is for machines and animals, not for growing human beings.

We have heard enough of this technological philosophy, so barren of consideration for the individual and his potentialities. It is time for us to recognize organic architecture and thus develop all the values that are human. No other architect in the history of the world contributed so much to these values as Frank Lloyd Wright.

ALDEN B. DOW  
Midland, Mich.

### art to enrich lives

*Dear Editor:* Thank you for your objective review, "Tokens of Art in City Schools" in April. Tokens they are, not always successful, but searching whenever possible for new types of collaboration between architect and artists. We tried various ways to accomplish this, hoping that some day not only the architecture will be enriched, but also through it the lives of those who inhabit our schools, and of those who see our schools from the outside only.

One more observation, to say that our relationship with the Art Commission is excellent. While it is true that some of the submissions by contemporary artists were disapproved, the Art Commission has constantly given us its full support and encouragement.

Last November, it went on record officially as "approving wholeheartedly" our efforts. In the same letter they also wrote of "having often disagreed among

(Continued on page 70)



# Cinderella and the glass curtain wall



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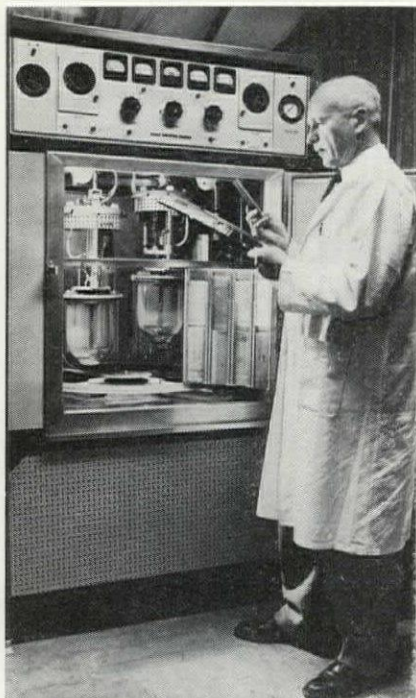
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## p/a views

(Continued from page 68)

themselves as to what is beautiful, and what will or will not cause delight." I for one, am extremely grateful to the Art Commission for their support and encouragement.

MICHAEL L. RADOSLOVICH  
Director of Architecture  
Bureau of Construction  
Board of Education  
City of New York

### key to city progress

*Dear Editor:* I always read with interest your P.S. and I particularly read your April '59 "The Sawdust Trail" with twitching eyebrows.

Having read "Downtown Is For People" at least four times, it never occurred to me that Jane was saying that the public should take over the planning job. My reaction was simply that she was needling the architects in a tender spot, saying that they must do better, and also saying that the architect must learn how to find the client and in turn, the client must learn how to find the architect. And finding the client is not a simple matter. As a matter of fact, I believe this may possibly be the taproot of the problem.

In studying Spokane's problems recently, it has occurred to me that this city, and perhaps every city, might be said to be made up of three echelons—top echelon (those people who have lots of influence and lots of money); the middle echelon (those people who have

lots of influence but not much money); and the third echelon (those who have no money and no influence). On this day, I have the belief that good, healthy, inspired progress in a downtown district can be made best if all three echelons are represented, yet it seems as though the top echelon won't let anything happen unless it's their idea, and once they move forward they want nothing to do with the second echelon or the third echelon. The second echelon, in turn, if not consulted will in the end rise up to stalemate the work of the first echelon, if they're not taken into honest and enthusiastic partnership. The third echelon, the echelon which is most affected by the work of the top group does only on very, very rare occasion rise up and demand that they be heard and listened to and their needs respected. If this is a true appraisal, then it may perhaps be the reason why accomplishing anything citywise is such a burdensome problem which, more times than not, falls unsuccessful, short of its goal by its own weight. If this is a true appraisal, then some one city somewhere, sometime, should try the approach which from the outset respects all three echelons—invites them to be represented, listens to their needs, their problems, their desires—and finally, like the good father of a large family, makes a decision which will do the majority the most good.

Just had to get these thoughts off the end of my pencil.

KENNETH W. BROOKS  
Spokane, Wash.

## notices

### appointments

JOHN T. STOFKO, appointed Vice-President and director of Administration, and PETER MUNSELLE, new Chief Designer, of CHARLES LUCKMAN ASSOCIATES, planning-architectural-engineering firm of New York and Los Angeles.

JACK RUSSELL RUMMEL, appointed Project Director of Industrial and Military Division, DANIEL, MANN, JOHNSON & MENDENHALL, Architects-Engineers, Los Angeles, Calif.

SOL MEREL, Chief Structural Engineer, and RICHARD E. SPENCER, Project Engineer, A. EPSTEIN & SONS, INC., Engineers, Chicago, Ill.

JUSTIN FABRICIUS, Vice-President of Retail Development, Planning and Architecture, RAYMOND LOEWY CORPORATION, New York, N.Y.

ROBERT V. GOBLE, director of newly formed Public Relations Department of WILLIAMSON, LOEBSACK & ASSOCIATES, Architects, Topeka, Kans.



A man in a dark suit, white shirt, and glasses is leaning over a white spiral staircase. He is holding a large roll of blueprints in his left arm and a large fan of various carpet samples in his right hand. The carpet samples feature a variety of patterns including plaid, geometric, abstract, and floral. The background is a dark blue wall with white radial lines. The overall scene suggests a professional setting where the man is presenting or selecting carpet options for a project.

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# PROGRESSIVE ARCHITECTURE

## news report

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- Guggenheim Museum Spirals Toward Completion (above)
- Yamasaki Translates "Delight" into Architecture
- Pre-Fabricated Wall System Integrates Three Elements





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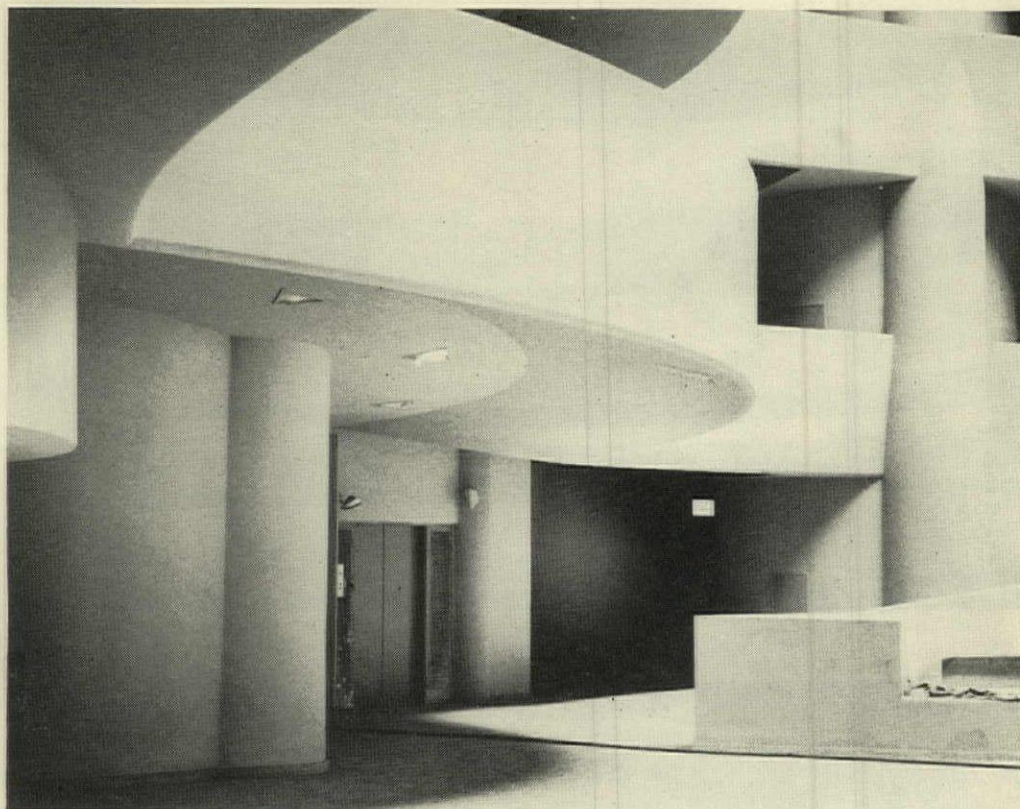
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## GUGGENHEIM MUSEUM SPIRALS TOWARD COMPLETION

### Photographs Reveal Interiors at Last

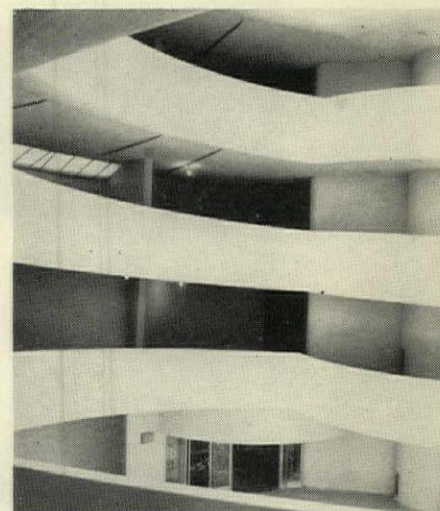
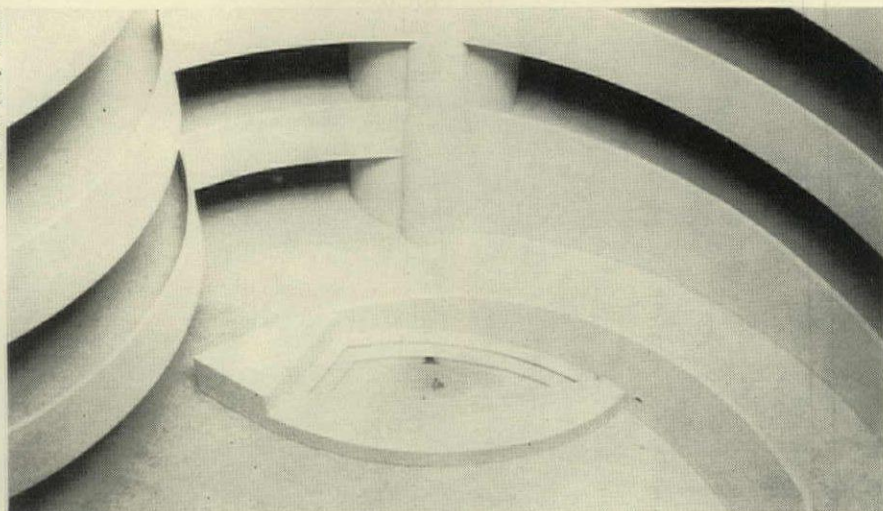
NEW YORK, N. Y.—The hitherto virtually inaccessible interior of Frank Lloyd Wright's Solomon R. Guggenheim Museum has been entered and photographed. The intrepid photographer responsible for the pictures on these pages reports that, after finally having gained admittance to the museum, he had to take shots with a camera concealed beneath his coat, while an omnipresent watchman's back was turned.

The photographs reveal an interior at once exciting and dismaying. Exciting, as most of Wright's structures are, for a daring unconventionality of form and function. Some of the detailing of the museum (such as the French doors in

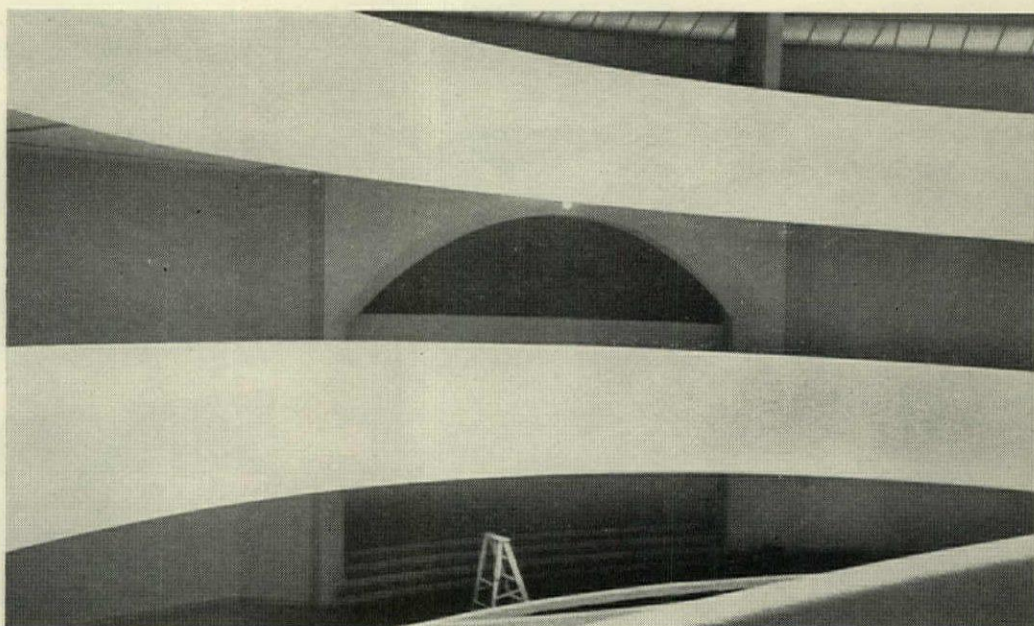
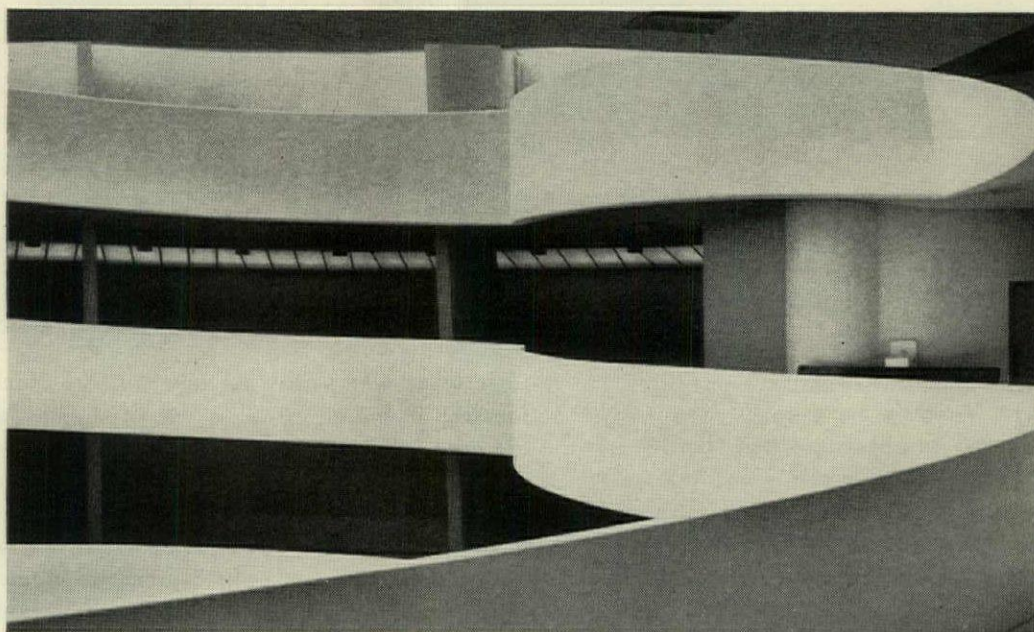
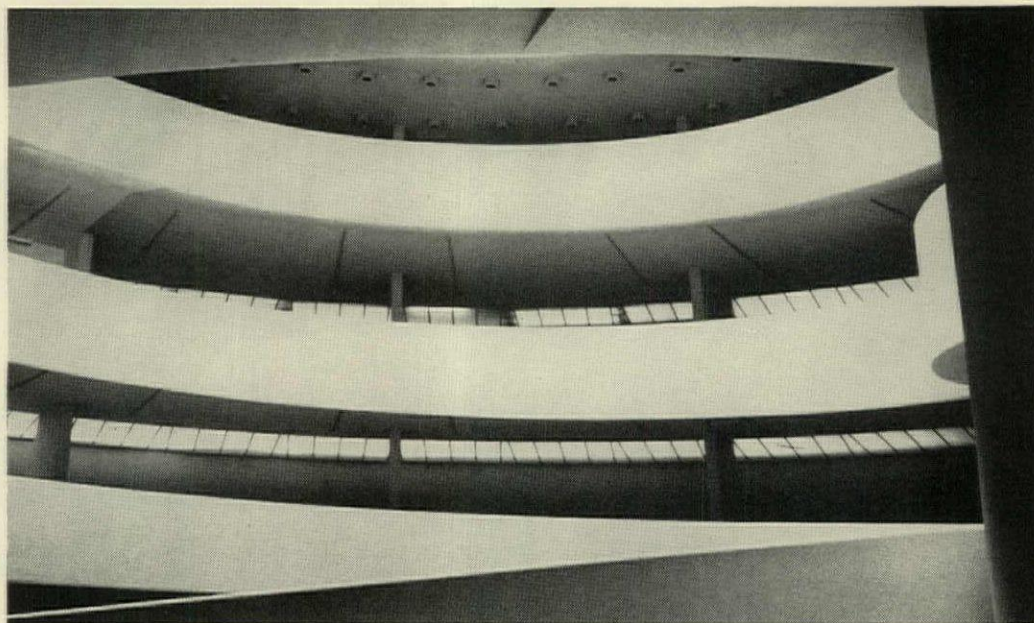
the office wing) may be labelled Art Nouveau, but the feeling of major spaces is one of drama and sweep. The interior is dismaying when one thinks of the probability of the museum—and not the paintings—becoming forever the cynosure. An indication that the museum authorities are concerned with such an eventuality is that they are rumored to have scheduled a secret hanging to see how the building will perform its basic function. James Johnson Sweeney, director of the Guggenheim, was approached by P/A for his opinion of the new structure. He declined to state his views until the building is totally completed.

From the ground floor of the museum, one is conscious

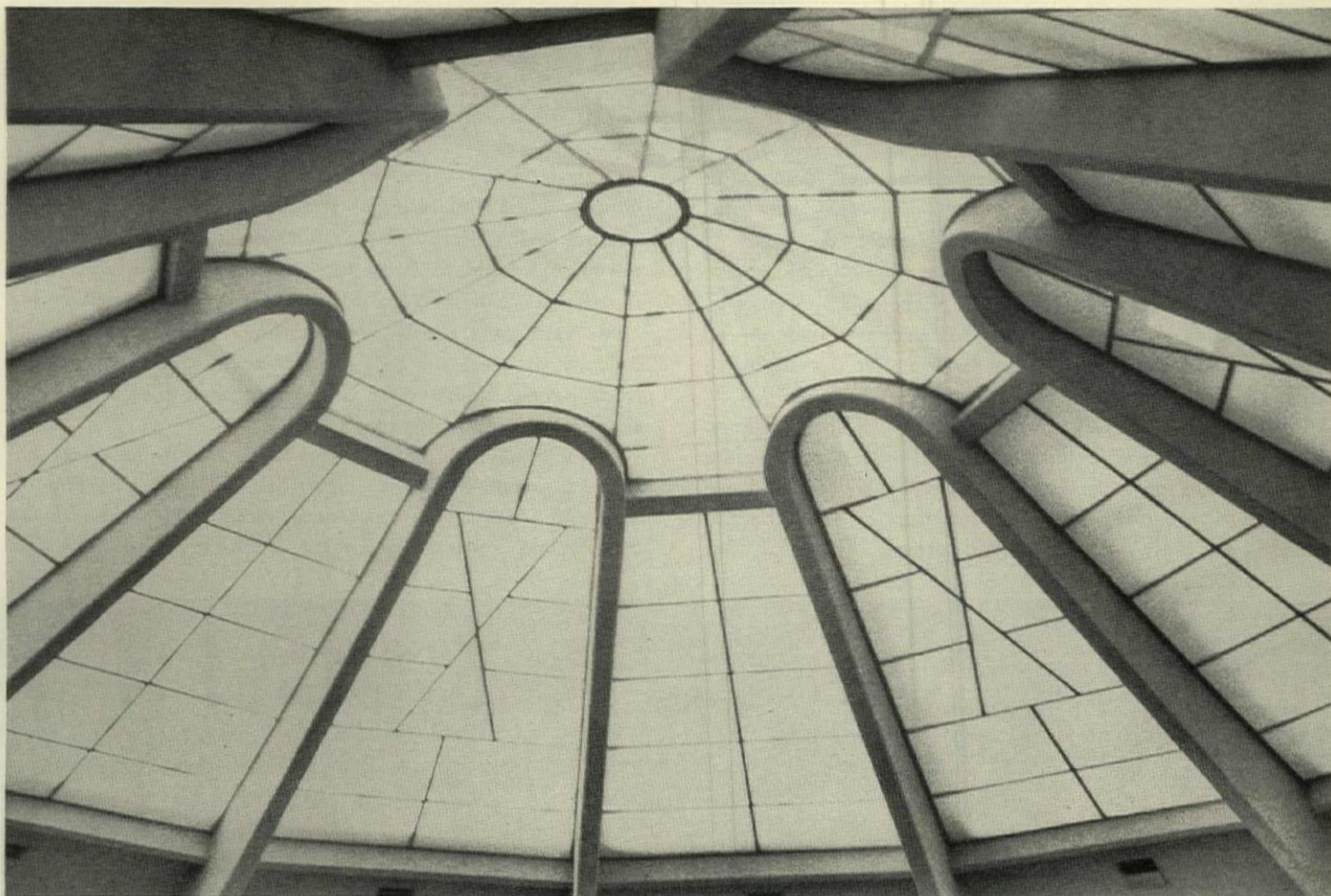
Photos: Jerry Durkin









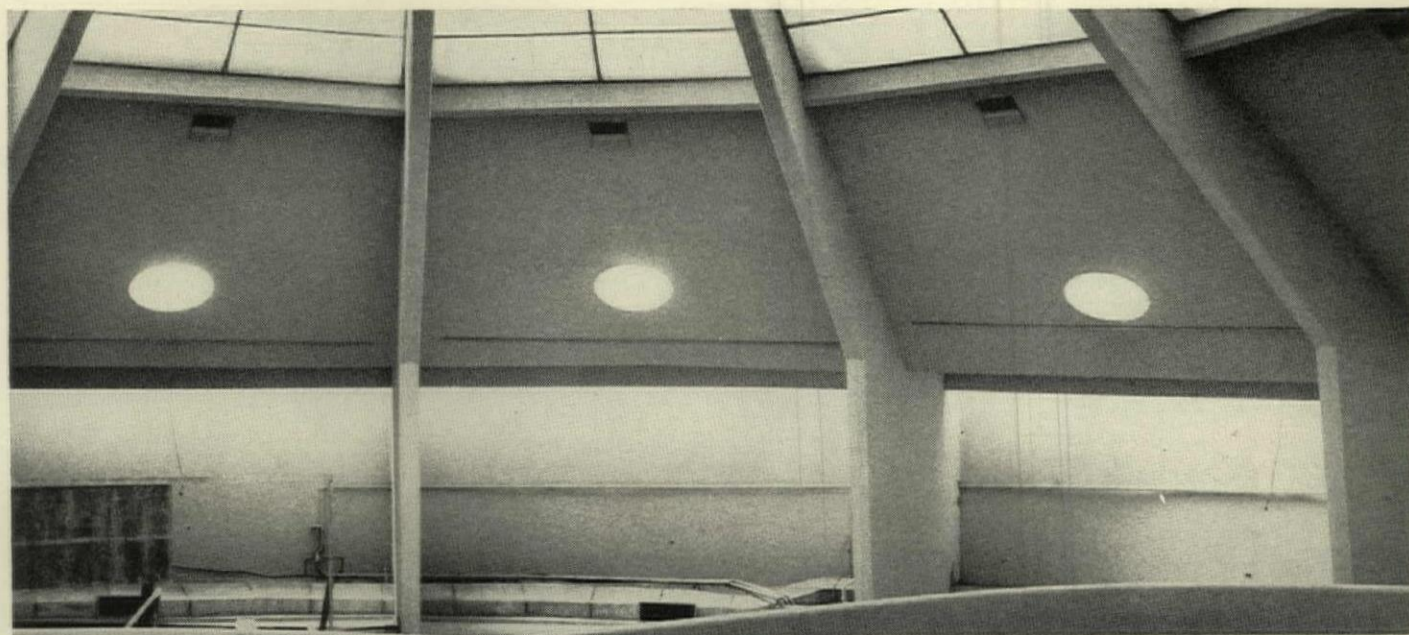


of being in a great well of light. On all sides, the white ramps spiral upward to the spider-web dome at the pinnacle of the structure. (Wright, incidentally, had specified light tan as the color of the interior walls—similar to the exterior color. This was changed to white, reportedly at the behest of the museum authorities.)

Those who have been in the museum report no discomfort in climbing or descending the ramps. The outer walls of the building furnish the main exhibit space (acrosspage). An elevator is located in the center core for those who wish

to ride up and walk down. The ramps are lighted both naturally—by peripheral window bands—and artificially. A separate exhibit area for changing shows is approached through a large entrance, just as one starts up the ramp.

The concrete ribs which begin to ring the ramps as the ascent is made, finally pair off at the top of the museum to form loops penetrating almost to the center of the great dome (above). Here, one re-emerges into full view of the super-skylight which had so dominated the eye when viewed up the circling ramps from below.





## UNIVERSITY HOUSING WILL BE PEDESTRIAN COMMUNITY

### First Units of Staff Apartments Begun

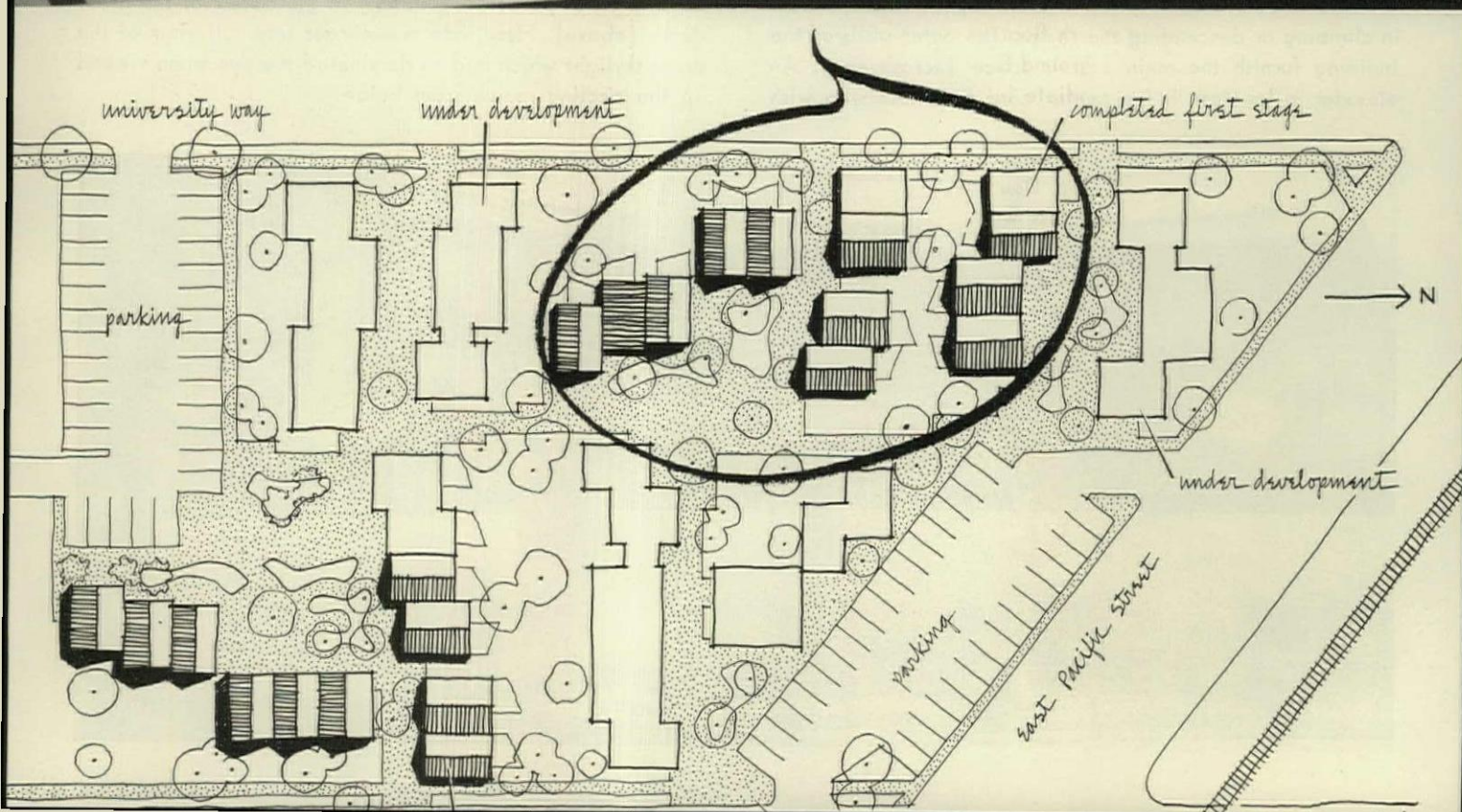
SEATTLE, WASH.—A delightful, noninstitutional community has been designed for the staff of the University of Washington Hospital here by Architects Bassetti & Morse. If completed as plans indicate, this project will be in microcosm a successful example of what Victor Gruen, in this issue of P/A, states is the desirable aim of urban planning—the orientation of plan and design toward the human being rather than the machine.

The first stage of staff housing contains 16 one-bedroom, 15 two-bedroom, and 8 three-bedroom units. The two- and three-bedroom units are for families with children, and are consequently entered on the ground floor so that children can play in private green areas and terraces. The third floor

contains one-bedroom apartments for single people or couples without children. A system of access balconies and bridges which interconnects apartment units at this level will permit residents to form their own sort of "studio community." Each unit in the project will be painted a different color for "gaiety and identification." The steel bridge-balcony structure will be rustproof orange with white balustrade panels. Construction is wood frame with exterior wood siding and composition roofs.

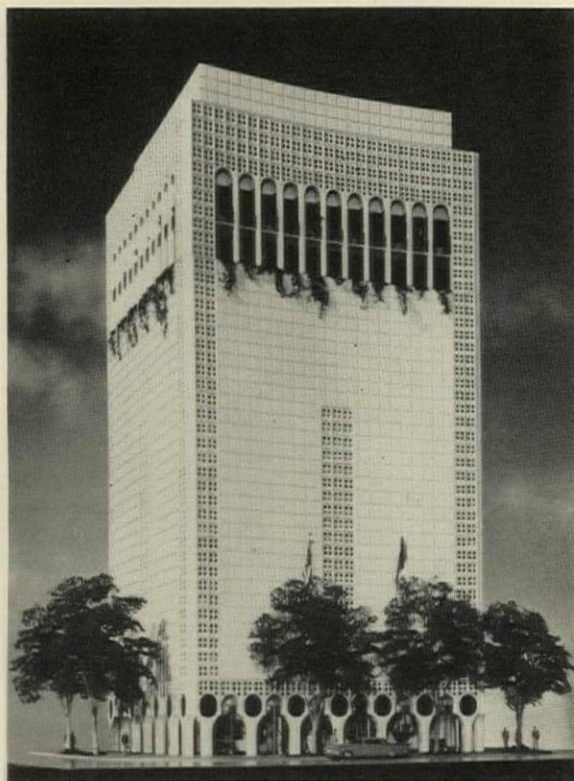
Associated with Bassetti & Morse are: Mechanical Engineers, Stern & Towne; Electrical Engineers, Beverly A. Travis & Associates; Landscape Architects, Eckbo, Dean & Williams; General Contractor, Century Construction Co.

Photo: Art Hupy





## ARCHITECTURAL BULLETINS



● New York's newest Stone will be marble. Gallery of Modern Art, designed for A&P heir, Huntington Hartford, will be erected on Columbus Circle near site of Lincoln Center. Architect Edward Durell Stone has conceived a white, Vermont-marble sheathed tower with window perforations only at edges and top of the building. A loggia will circle free-standing structure at ground level, and tall arches will pierce marble expanse on the upper floors. Elevator will take visitors to fourth floor, top floor of gallery, whence they will descend to ground floor while viewing art. Lounges will occur at intermediate levels for relaxation.

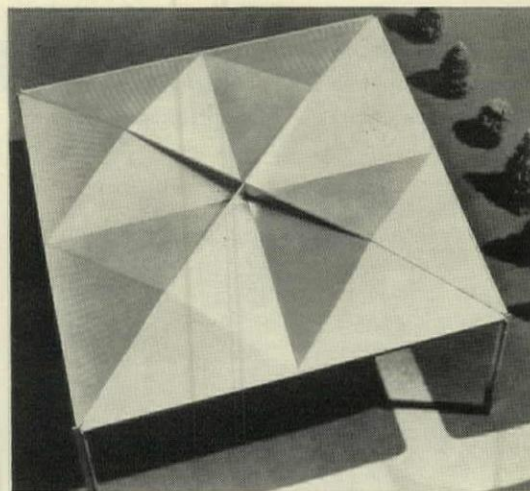
● Headquarters office building for ESSO in Antwerp, Belgium, was designed by Lathrop Douglass, New York. Façade will be aluminum and glass with deep vertical fins and shallow horizontals and sash. Spandrels will be gray, end walls pink-orange brick, and columns at street level will be veneered with white stone. Building will contain a

cafeteria and employe parking facilities.

● Friends of the late George A. Sanderson will be interested to know that the fund established for Nantucket Boys Club in his memory has grown to more than \$500 since his death, April 12. Those wishing to add to this sum should write: Director, Nantucket Boys Club, Nantucket, Mass.

● Bills aimed at preservation of historic sites and structures have been introduced by Sen. Hubert H. Humphrey and Reps. Harris B. McDowell, Jr., Henry S. Reuss, and Frank Thompson, Jr. Humphrey-Thompson bill would halt Federal funds to Federal projects or state projects aided by Federal money if Secretary of Interior determines that historic structures are being threatened.

● Gazebo by Eliot Noyes is 15th addition to Alcoa's "Forecast" collection. Structure, of aluminum columns supporting roof of foamed-plastic-aluminum structural sandwich, is appropriate for summer house, carport, boathouse, poolside or dance pavilion, commuter station platform shelter. Under-side elements of 20'x20' shelter can be colored in various hues, or given over-all color to reflect in many facets. Noyes thinks gazebo should not be attached to another



building, but may be used in multiples of itself. Werner-Jensen & Korst were engineering consultants.

● Architect Edward Larrabee Barnes, in accepting the Arnold Brunner Award at the National Institute of Arts & Letters, stated that this is a time of consolidation in architecture. "Today we tend to elaborate or decorate or refine. Sometimes we lose ourselves in a specialty such as structural expression or pure esthetics. . . . Our profession by definition is constructive. The architect cannot satirize his era or escape from it. We are obliged to seek out the meaning of our day and deal with it. . . . The age of space is upon us. The architect cannot retreat to a special world of design. Our work must grow and move ahead, and we must express in space the best potential of our time."



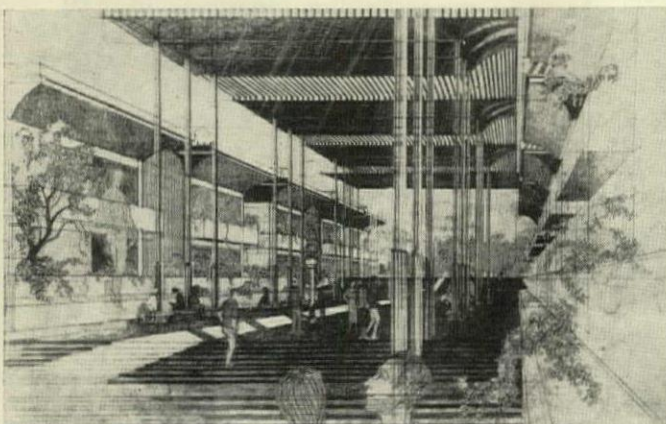




● Home Insurance Company of Hawaii building in Honolulu will have aluminum sunscreen designed by Architects Wimberly & Cook. Screen will be several feet from walls of building, allowing light and vision, while giving protection from sun. Catwalks will occur between sunscreen and walls. George V. Whisenand is Associate Architect.

● Winners in product design competition conducted by Materials in Design Engineering included remote-reading water meter by Research & Development Dir., Badger Meter Manufacturing Co., and new toilet ball cock by Fluidmaster, Inc.

● Richard J. Neutra headed jury composed of Ernesto Rogers (Italy), C. Van Eesteren (Holland), L. Stynen (Belgium), M. Titz (Belgian Congo), that chose winners from 126 entries in competition for cultural center in Leopoldville, Belgian Congo. No first prize was awarded; three second prizes were given, four third prizes, four special mentions. Only winner from U.S. (below) was by Gunnar Birkerts and A. and D. Haner; it won a third prize. Second-prize winner by F. Humblet of Belgian Congo (bottom) proposed tropical park with auditorium situated on reflecting lagoon.



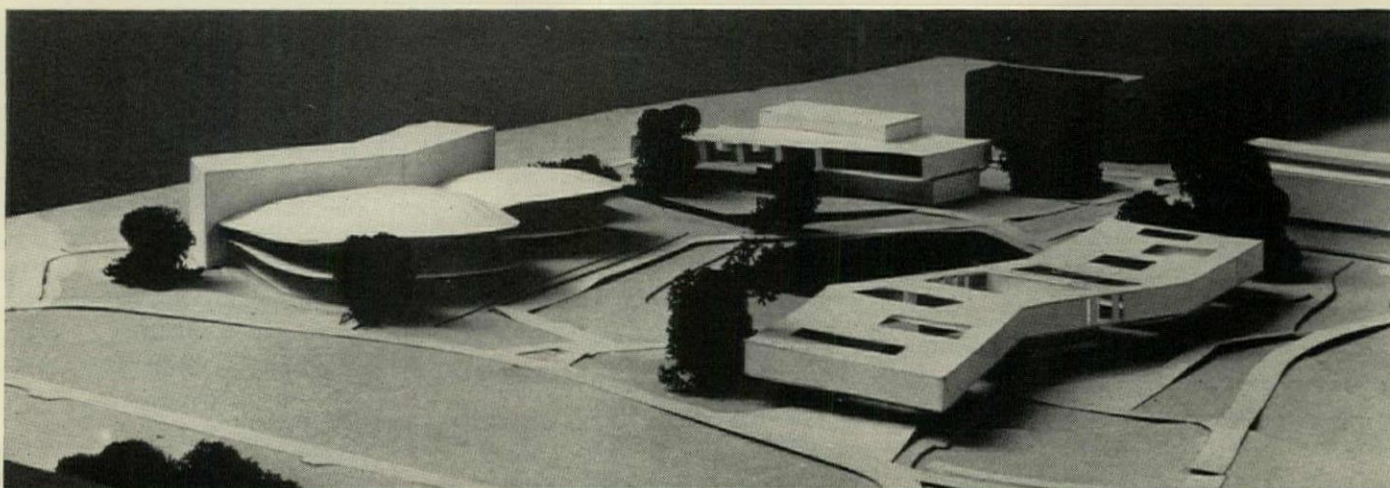
● American Standards Assn. is canvassing architects and engineers to learn views concerning possible U.S. participation in setting up international standards on methods of static calculation of building construction. Report goes to International Organization for Standardization, July 31.

● Twenty-four-story apartments on Chicago's Lake Shore Drive by Architects Hausner & Macsai is of reinforced concrete with diaphragm walls to compensate for wind loads. Circular form was developed to provide more lake frontage; 76 ft more than square building. Exterior exposed concrete is painted white and spandrels are blue, glazed



brick. Structural Engineers, Paul Rogers & Associates; Mechanical Engineer, William Goodman.

● R. Buckminster Fuller received honorary Master of Arts degree from Southern Illinois University, where he has been visiting professor. . . . Professors A. Henry Detweiler and Thomas H. Canfield of Cornell University's College of Architecture, plus two Cornell architecture students, are members of an archeological expedition to Sardis, Turkey, to dig at the capital of King Croesus. . . . Architect Richard A. Kimball, of Gugler, Kimball & Husted, New York, has been appointed director of American Academy in Rome.







● Candlestick Park, new home of San Francisco Giants, will be world's first heated, open-air stadium. Designed by Architect John S. Bolles, stadium will accommodate 40,000 fans, can be enlarged to handle crowd of 80,000. No seat will be behind a column. There will be only 26 supporting posts, each 20 ft from back of stadium. Radiant-heating system will be immediately below precast-concrete seats of reserved section. Eagleson Engineers of San Francisco worked with Bolles on design of heating system.

● Newly founded American Museum at Claverton near Bath, England, will be directed by Ian McCallum; will open in summer of 1961. . . . Nathaniel A. Owings, of Skidmore, Owings & Merrill, is one of the 32 new directors of Committee for Economic Development. . . . Marve Narramore is new Managing Director of Perlite Inst.

● AIA gave honorary membership to Gen. J. S. Bragdon, Special Asst. to President in charge of co-ordinating public works. . . . James M. Kennedy, Chairman of Board of Revere Copper & Brass, Inc., was re-elected president of Copper & Brass Research Assn. . . . Gold Medal of Acoustical Society of America was awarded to Edward C. Wentz of Bell Telephone Laboratories.

● International Summer Seminar of Architecture will be held in Venice, Italy, Sept. 1-27. Write: Seminario Internazionale Estivo di Architettura, Istituto Universitario di Architettura, Fondamenta Nani 1012, Dorsò Duro, Venezia. . . . Annual meeting of Porcelain Enamel Inst. occurs at White Sulphur Springs, W. Va., Sept. 24-26. . . . Cincinnati will be scene of National Assn. of Housing and Redevelopment Officials 1959 Annual Conference, Oct. 18-21.

● M. Jean Tinguely of Paris has invented machines to make abstract paintings, according to Art Buchwald. Machines have arms holding colored crayons which can be changed as "painting" proceeds. Speed of machines can be varied during creation of picture. M. Tinguely says machine must be credited by person who uses it; paintings are stamped "Painting Executed in Collaboration with Metamatic Machine No. \_\_\_\_\_." He claims process will revolutionize art world.

● Los Angeles Architect Robert E. Alexander has been retained by Office of Civil and Defense Mobilization to make study of fallout shelter resources of Contra Costa County, Calif. He will be aided by City Planner Harold F. Wise.

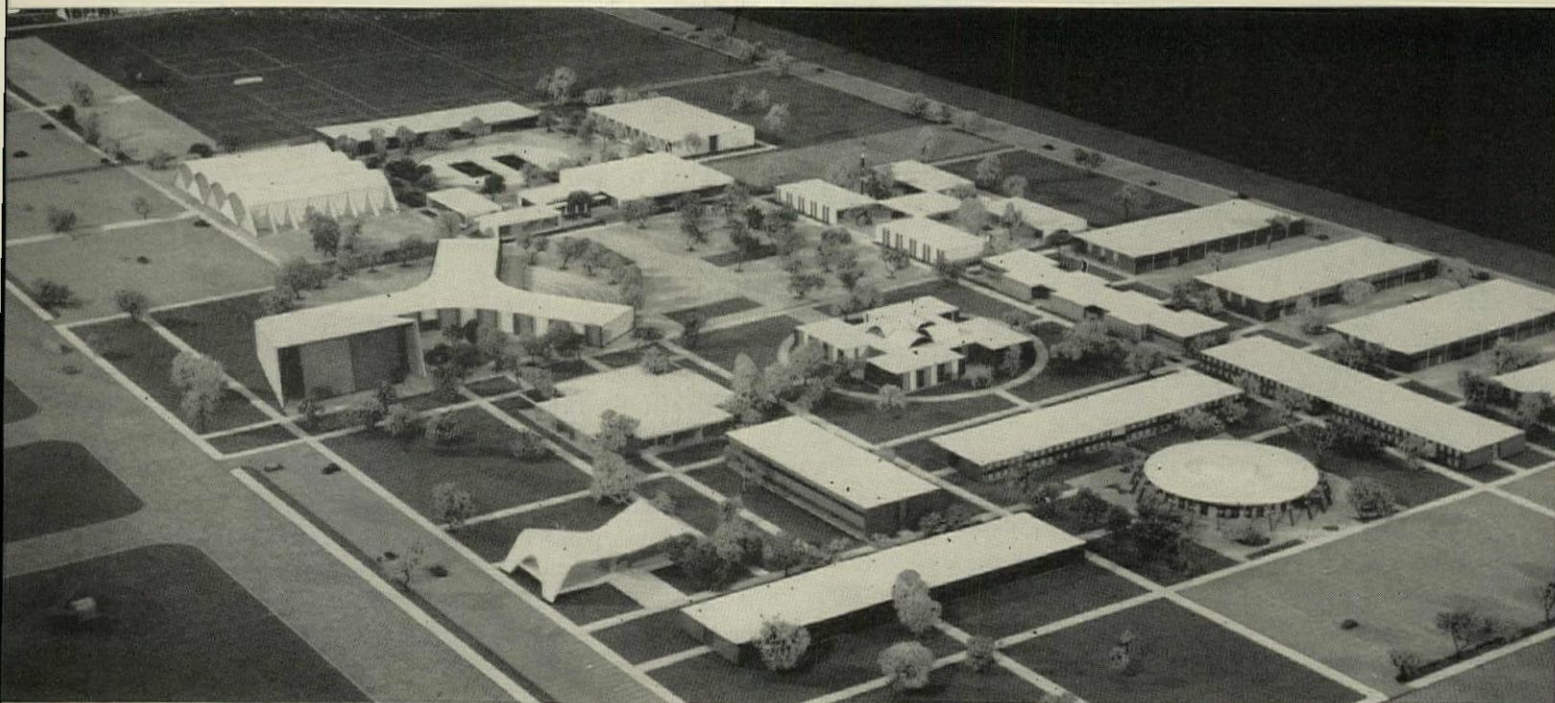
● Architect Martin Guttman, Camden, N.J., has designed 17-story luxury hotel for the banks of the Rhine near Andernach, Germany. Guttman says German government offices have approved the project, relaxing certain laws prohibiting erection of tall buildings on Rhine near ancient castles.



● Exhibition of recent paintings of Bernard Buffet in New York revealed great interest of French artist in city's architectural scenes during 1958 visit. Paintings included views of Brooklyn Bridge (below), United Nations, Park Avenue, and financial district. Show is now on tour in other U.S. cities.





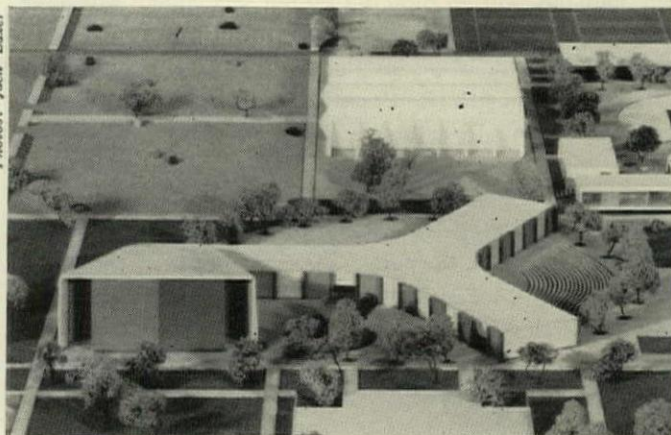


## CALIFORNIA COLLEGE HAS COLORFUL, MANY-SHAPED BUILDINGS

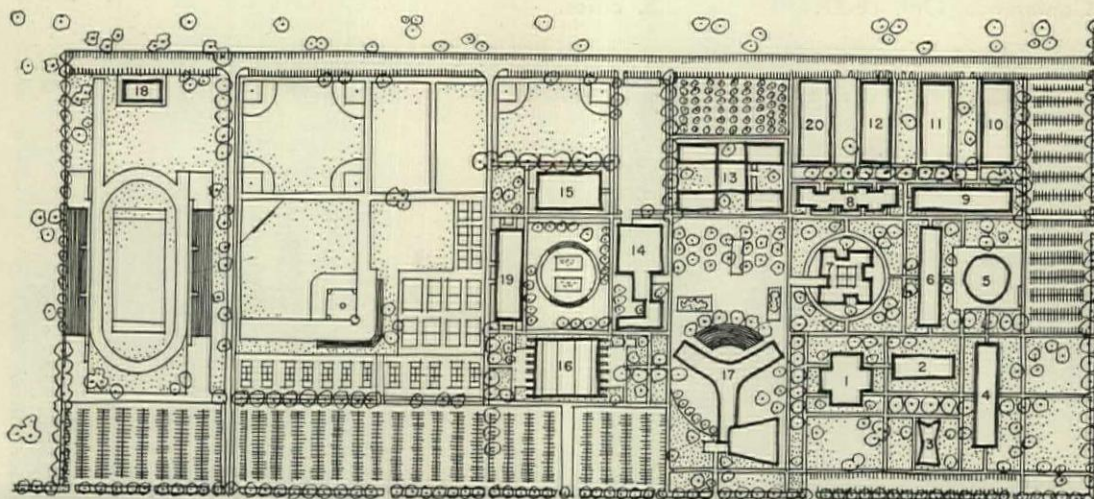
NORWALK, CALIF.—Cerritos College is under construction here as an all-new junior college for 3000 students including adult education. It will be a "commuting campus" with no dormitories, but parking facilities for about 2500 cars.

The Architects-Engineers, Kistner, Wright & Wright of Los Angeles, state that they have "tried to express each function as an individual statement yet keep continuity in the site by simplicity of design." Particular attention was given to color, texture, and form to create a "gay, colorful, and harmonious" environment. The designs of these buildings would seem to indicate a use of Yamasaki's "delight" (acrosspage) by other architects. Communal facilities such as gymnasiums, swimming pools, shower and locker rooms, the Student Union Building, and the theater were grouped together to provide a distinct area for both student use and community recreation. Units now under construction are social studies, business education, one lecture hall, industry and technology, science, electronic shops, student center, shower and locker building, and the gymnasium. Four more buildings will follow in the next stage.

Photos: Jack Laxer

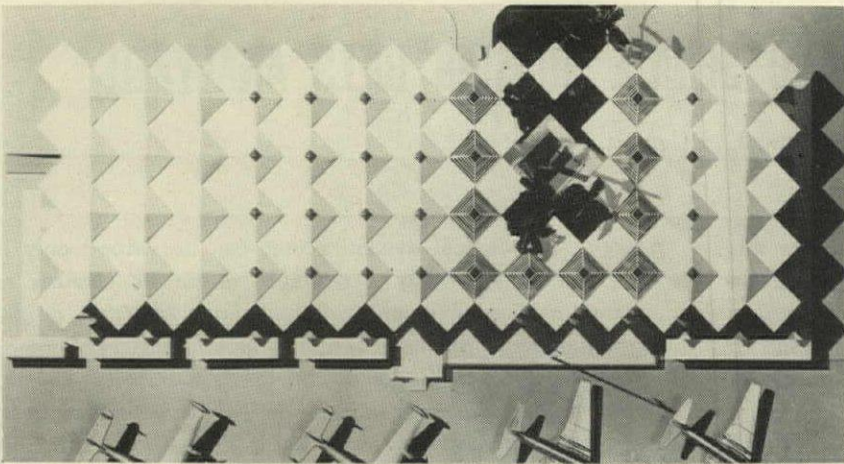


Of particular interest, in connection with the urban design theme of this issue of P/A, is the campus plan of Cerritos College. The architects have provided large-element circumferential parking, thereby laudably releasing the walks and byways of the campus for the safe enjoyment of the strolling students.



- 1 ADMINISTRATION
- 2 SOCIAL STUDIES
- 3 LECTURE HALL
- 4 BUSINESS EDUCATION
- 5 LECTURE HALL
- 6 SCIENCE
- 7 LIBRARY
- 8 TECHNOLOGY & INDUSTRY
- 9 SCIENCE
- 10 SHOP
- 11 SHOP
- 12 SHOP
- 13 ARTS & CRAFTS
- 14 STUDENT CENTER
- 15 SMALL GYM
- 16 MAIN GYM
- 17 MUSIC, DRAMA & T.V.
- 18 FIELD HOUSE
- 19 SHOWER & LOCKER
- 20 SHOP





Photos: Baltasar Korab

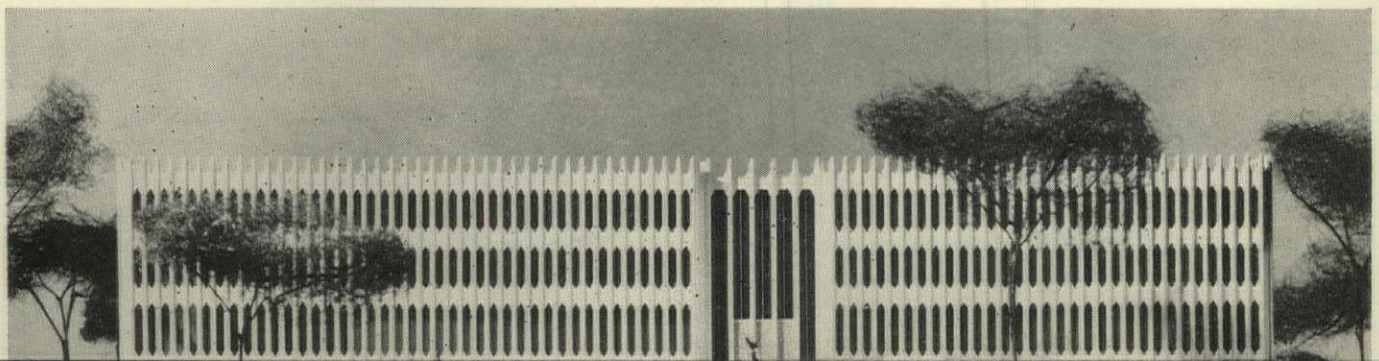
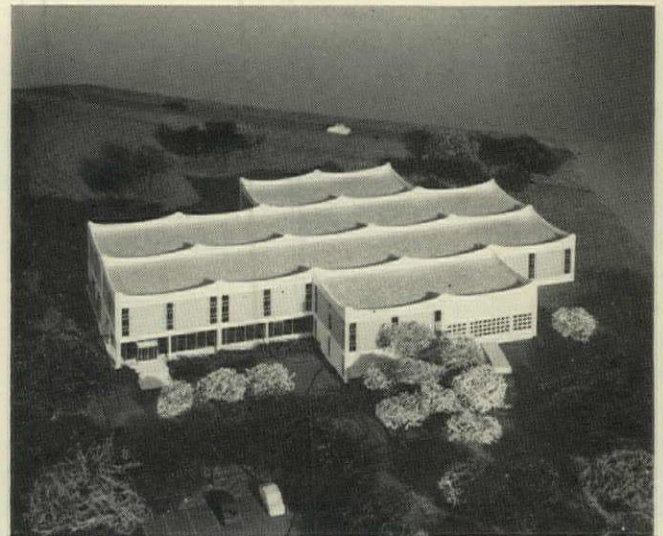
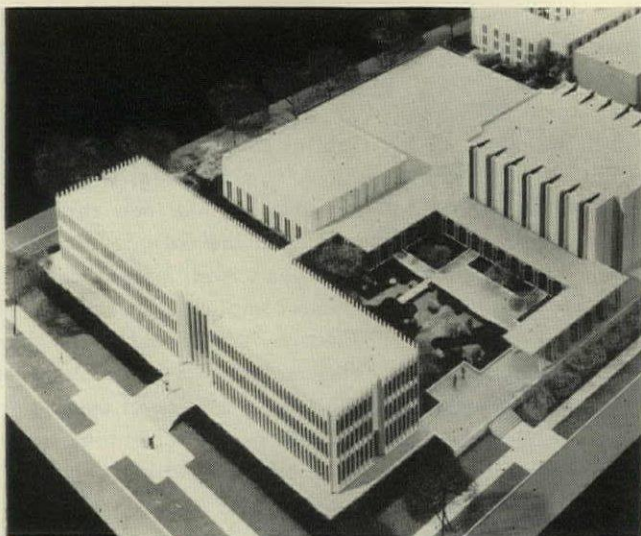
## YAMASAKI TRANSLATES "DELIGHT" INTO ARCHITECTURE

NEW YORK, N.Y.—Following a banquet at New York's Architectural League which climaxed a two-week showing of his work, Michigan Architect Minoru Yamasaki reiterated his plea for "delight" in architecture (NEWS REPORT, MARCH 1959 P/A, pp. 154-155). He held his audience enthralled with a sensitive account of a recent visit to a Japanese teahouse where the elements of serenity and delight combined to produce a soul-nourishing atmosphere. These are the elusive factors, he said, for which we must continually search in our architecture in order to provide great buildings.

Speaking on the same program, P/A Editor Thomas H. Creighton offered a critique of Yamasaki's work. Creighton stated that he succeeds to an unusual degree in achieving

the ideals of serenity and delight in his architecture. Noting that a couple of projects shown exhibited these qualities in a way that might be considered less three-dimensional, more of a surface treatment, he asked Yamasaki if this indicated a departure in his philosophy. No, Yamasaki stated, this was mainly the nature of the buildings—both large commercial structures—which he considers less amenable to "sensual" treatment of interior space.

Among Yamasaki's current projects shown here are: the air terminal for Dhahran, Saudi Arabia (above); the Conservatory of Music for Oberlin College (below left), with its administration/classroom building (bottom); and a branch office and warehouse for Parke, Davis & Company (below right).





## PROVISIONS OF HOUSE AND SENATE HOUSING BILLS ANALYZED

by Frederick Gutheim

The housing bill, undergoing its final compromises as this is written, will be the most important housing legislation since 1949. Whether the President vetoes the measure or not, and you can now make book either way, he is going to have to sign some housing bill or the FHA program will grind to a halt, the stalled VA-housing program will never get moving again, and the urban redevelopment and renewal programs will stop. We ought to know by August what the score is, but the period before is going to be filled with politicking of a like that has marked the entire history of S.57, the General Housing Bill, as it has no other in this correspondent's memory.

The principal issues in the bill are those now being considered in the conference between the Senate and the House. Something between the two extremes will result. Here are the main differences. Grants for slum clearance and urban renewal in the Senate version total of \$2.1 billions (\$350 millions a year for six years) and in the House \$1.5 billions (\$500 millions a year for three years). The House bill proposes changes in FHA operations that will mean lower down payments and longer amortization periods, and a more liberal FNMA; but many of these are lacking in the Senate bill. Veterans housing is packaged up in the Senate bill, and this bill yields \$150 millions additional for direct loans in rural areas and a hike in interest rates from 4¾% to 5¼%; while the House version lacks any provisions for Veterans housing, the question being disposed of by that body in the Teague Bill, passed earlier in the session, providing \$300 millions in direct loans.

The public-housing program offered by the Senate authorizes 35,000 new units annually for two years; and the House provides for the same annual rate within a limit of some 150,000 units, depending on the cost per dwelling. This is one place where it should be pretty easy to predict the outcome of the conference. The college-housing program, one of the bright accomplishments in housing design, comes out at \$300 millions in the Senate and \$400 millions authorized in the House; but the Senate bill contains a new wrinkle in authorizing \$150-millions additional for classrooms and scientific laboratories.

The one really new provision in the program will be direct loans for housing for the elderly. In the House version this is a straight-out \$100-millions loan program of 50-years loans at 3½% interest. The Senate is more complicated, proposing a liberalization of the existing program (under Sec. 207 of the present housing act) to allow non-profit corporations to receive a 100% loan, and non-profit sponsors to receive loans of 100% less their profit. The Senate proposes an interest rate of 5½% to the borrower.

From the political point of view, the notable character of this bill is the packaging of public- and private-housing provisions, of the interest of veterans and loan interests, of a number of special interests related to college housing, the housing the aged, co-ops and other groups. This is a

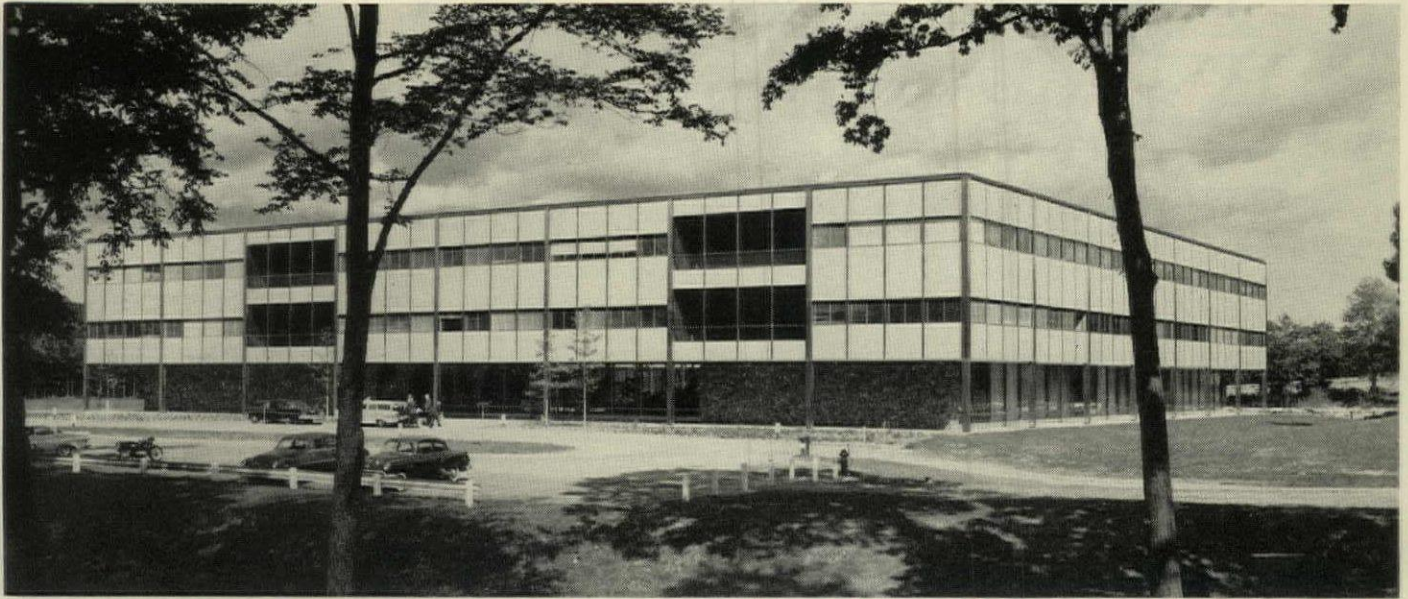
package of political dynamite that can be vetoed only if the President is willing to risk such desperate chances as a virtual halting of the entire FHA housing effort. By delaying a final vote on the measure, and allowing FHA funds to diminish further, Congress can turn the political thumb-screws tighter. But in that event it will have to take upon itself the responsibility for delay. All in all, it looks like an exciting summer!

● A new public-buildings act, of which I wrote here not long ago, moved up a notch when it was reported out of the House Public Works Committee in June. The measure would require House and Senate Committee approval of all Federal buildings costing more than \$100,000. This does not mean the enormous increase in congressional jurisdiction which it superficially implies, because the committees have in practice always maintained a substantial degree of reviewing and decision-making power. It is indeed possible, as Representative Jones argues, that the requirement for such approvals will speed up rather than delay construction. For Washington the measure is especially important, although the part of it which would have authorized a Federal office-building center fronting a new Mall east of the Capitol was knocked out. (It will probably be offered in a separate bill.) It never has been clear whether the East Mall would be used for legislative buildings proposed by the Architect of the Capitol, or buildings for the executive departments as contemplated by Harland Bartholomew, the retiring Chairman of the National Capital Planning Commission.

● The Architect of the Capitol continues to be having a hard time of it. The bugs in a new building, which every architect knows are as inevitable as in a new ship, have never been so well publicized as in the New Senate Office Building, occupied earlier this year. And, in each case, the reporters have carried the same complaints back to the Architect of the Capitol, George W. Stewart, and have printed his alibis. The building, actually designed by Eggers & Higgins, has endured the following catalog of complaints: high cost, "extras," slippery floors, slow elevators, noises, and the distance from the Capitol building and the Senate floor. Complaints have also been heard about the expensive chairs in Committee rooms, the height of rostrums, the low-slung wooden desks, the electric clocks, and cigarette burns on cork-tile floors.

The total cost of the building is difficult to ascertain, but the base contract was \$20.4 millions, another million for furniture, and \$3 millions for a connecting subway to the Capitol, now under construction. Another million for additional costs has been requested. The building contains offices for 42 Senators and their staffs, hearing rooms and staff offices for 12 standing committees, two cafeterias, a private dining room, and an auditorium for 500.





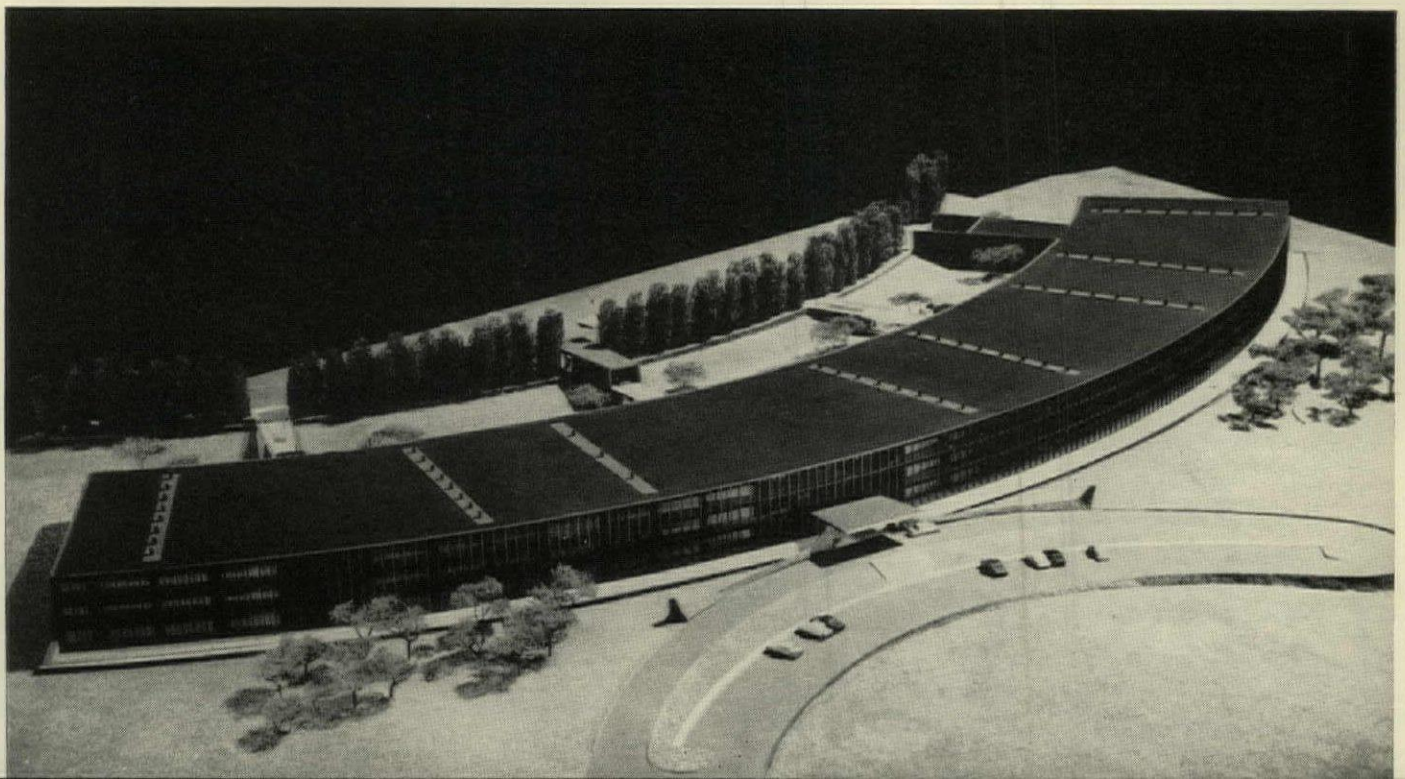
## IBM'S BUILDING PROGRAM PRODUCES NOTABLE STRUCTURES

Currently, one of the most widespread building ventures by a single company is that of International Business Machines Corporation. In its program, IBM, through use of capable architects, designers, and artists, is helping improve our architectural environment. From the interior remodeling of its New York office to the all-new IBM office building in Los Angeles (to be presented in SEPTEMBER P/A), the company has set an example which may well be followed by all private industry.

Two of the latest IBM facilities are shown here, one completed and one under construction. The education center in Poughkeepsie, New York (above), is one of 26 such centers

in this country. Designed by Eliot Noyes & Associates, the three-story center is built around a large, landscaped center court on a five-acre, wooded tract. It has its own closed-circuit TV network for transmission of lectures and demonstrations. There is a 400-capacity auditorium and a 228-capacity cafeteria.

The arc-shaped IBM research center in Yorktown, New York (below), is scheduled for occupation in June, 1960. The building will contain 450,000 sq ft of floor space, making it one of the world's largest laboratories conducting research related to information handling systems. It was designed by Eero Saarinen & Associates.



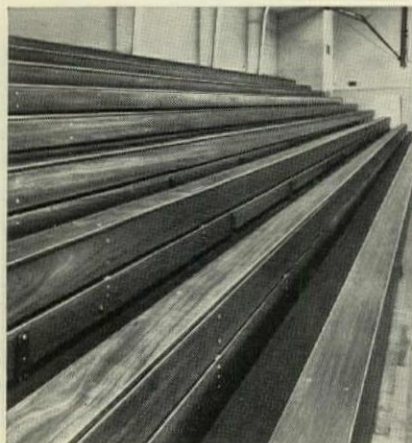


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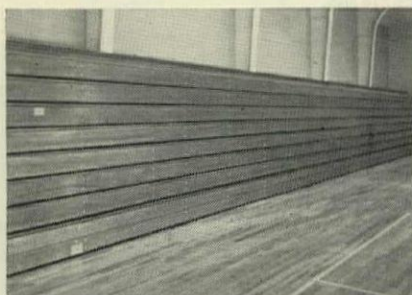
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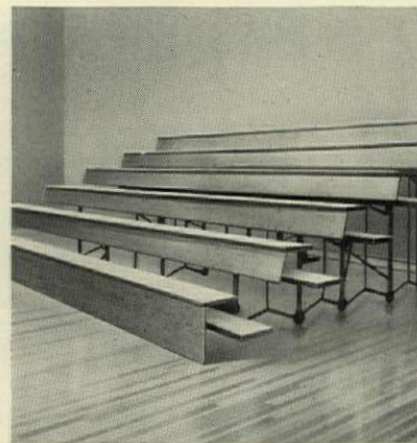
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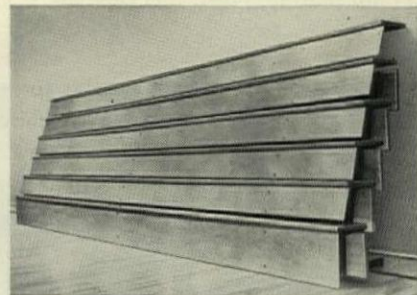
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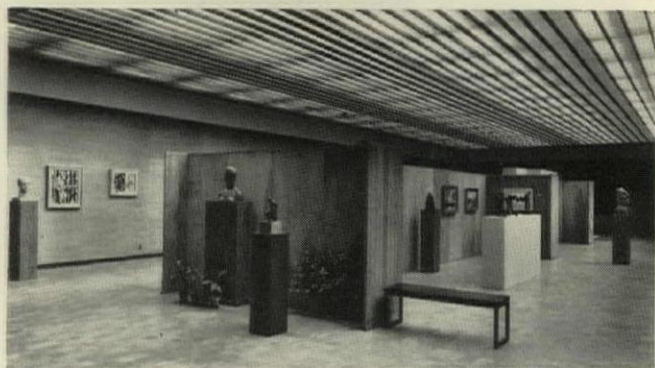
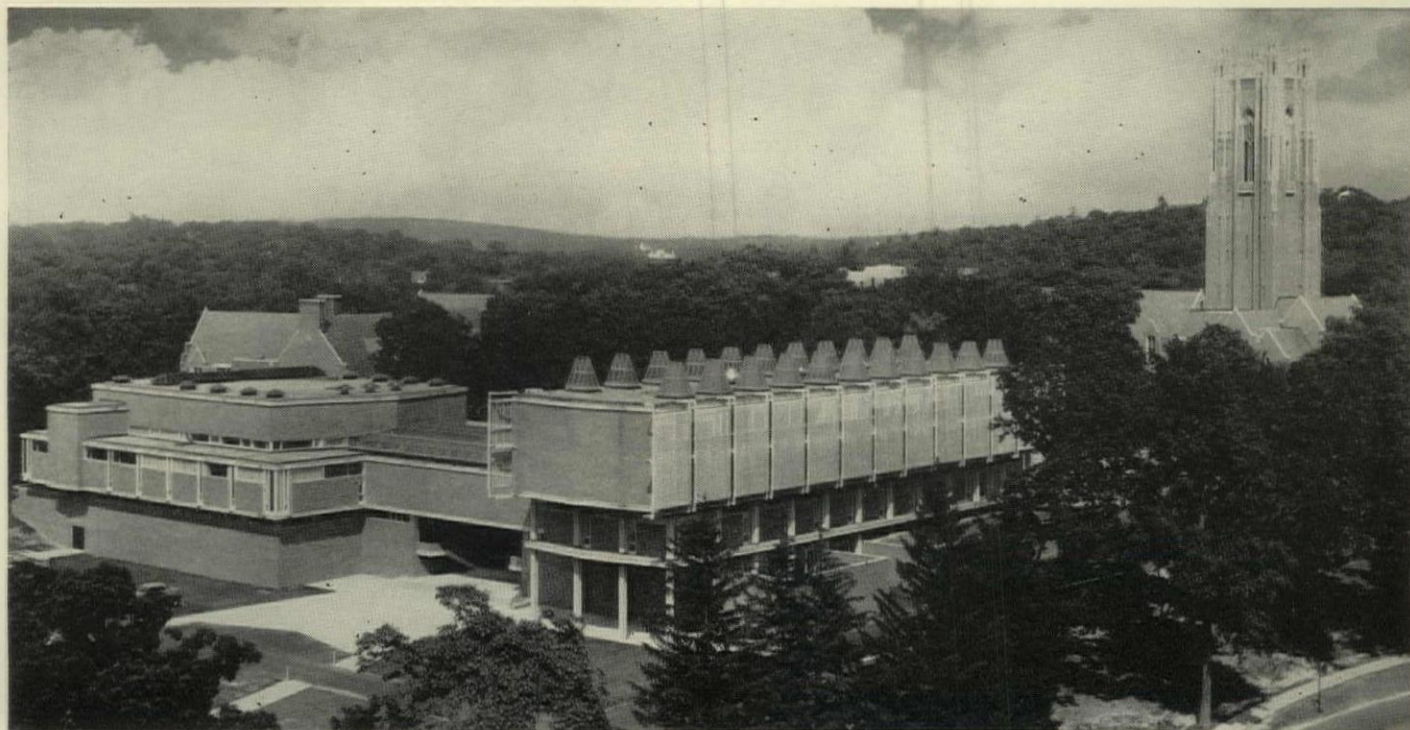
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## RUDOLPH BUILDINGS AT YALE AND WELLESLEY OPEN

Two buildings by Paul Rudolph which have already stirred considerable interest, opened this spring. The present Chairman of the Yale Department of Architecture, in moving part of his practice from Florida to New Haven, has received a number of commissions in the Northeast. Mary Cooper Jewett Arts Center at Wellesley College, Wellesley, Massachusetts (above), and the Greeley Memorial Laboratory for Yale University School of Forestry (below) are two of the first to be completed since Rudolph came to Yale.

In Jewett Arts Center, Rudolph aimed at relating the design visually with the predominately Gothic character of

other campus buildings, notably through the use of pointed skylights on the roof of the art building, and a woven-textured porcelain-enamel screen on the two long sides of this building. Interiors shown above are the sculpture gallery (left) and the main gallery (right).

The Yale forestry building, according to Rudolph, was "conceived as a pavilion with a single hovering roof supported on precast columns." The Y-shaped columns are placed before a glass and marble-chip spandrel wall "to gain . . . play of light and shadow and to give a measured rhythm to the façade."





# LIFETIME TILE-LIKE WALL FINISH FOR CONCRETE BLOCK AND OTHER SURFACES

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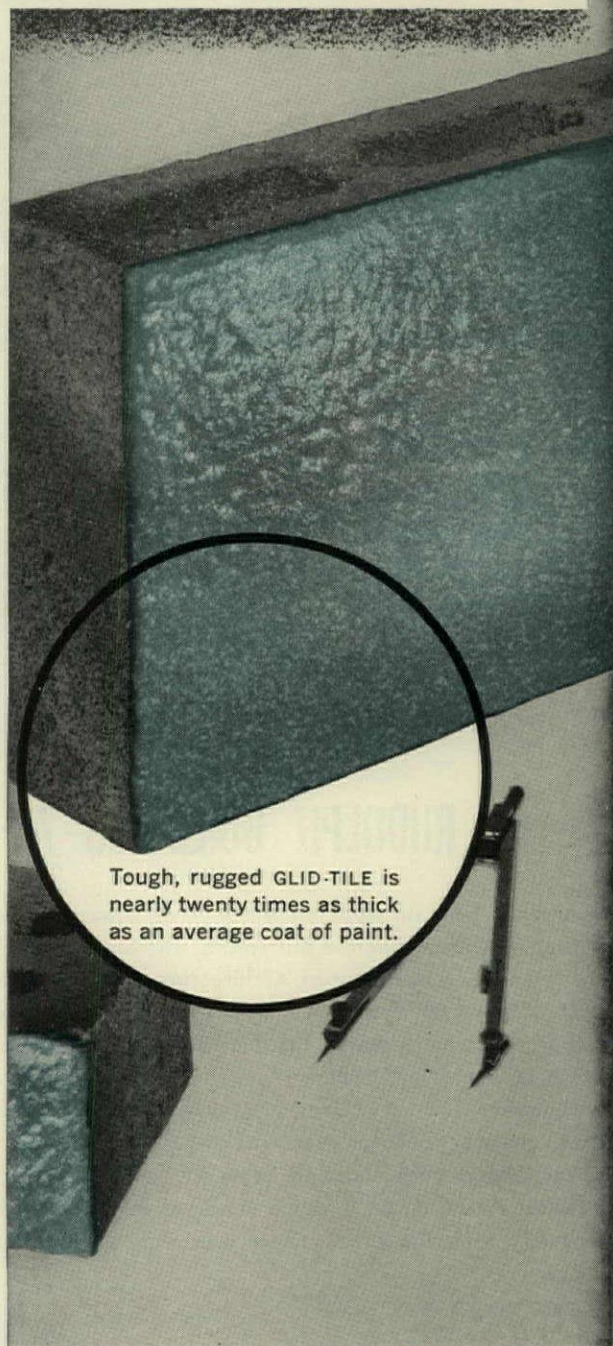
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# COUNTRY'S INFLATION ATTITUDE LIKENED TO CONFUSED FARMER

by William Hurd Hillier

When automobiles were rare and road signs scarce, a farmer hitched his mule to a rickety wagon and set out on his first visit to the big city, some 20 miles away. After four hours of travel, he asked a man in the fields how far it was to the city and learned it was 20 miles. Two hours later, he posed the same question to a passer-by and got the same answer. Sadly he addressed his mule: "Ephraim, you and I are just about holding our own!" Has this country, like our hero, been subject to a miscalculation regarding our goal—stabilization—or have we erred as to the pace of creeping inflation?

Opinions vary all the way from New York's First National City Bank's declaration that "recovery is an accomplished fact" to Roswell Magill's gloomy forecast that a possible ten-cent dollar may await us in 25 years. Magill is president of the Tax Foundation and former Under Secretary of the Treasury. The Biddle Survey feels it is unfortunate that too many have been content to accept higher prices; "many labor under the fallacy that by raising prices they can more than offset higher costs" and that they will make larger profits as long as prices continue to mount. . . . If the wage-cost push resumes, you may well see an unhealthy increase in speculative activity, with little real effective control possible; keep your fingers crossed on the wage negotiations . . . in the steel industry." The American Iron and Steel Institute states: "Inflation is caused by a lot of things. But one of the most important is rising labor costs without a corresponding increase in the nation's productive efficiency," as "75% or more of the cost of what you buy is for labor." *The American Banker* notes that the consensus of opinion expressed by important corporate executives at the National Industrial Conference Board was that "a record performance generally of United States business and industry is to be expected, with few exceptions, during the second half of 1959," yet "long-range concern over inflation is real." At this meeting George Champion, president of New York's Chase Manhattan Bank, emphasized the need for "effective checks on inflation." On the other hand, the National Bureau of Economic Research, Inc., finds our "economy strong and getting stronger." Economic prospects "point to a fairly steady uptrend through mid-1960," was the view expressed by top industrials at the meeting of the Commerce Department's Business Advisory Council. "Economic conditions promise to remain generally favorable for the remainder of 1959," was the considered verdict of the National Industrial Conference Board. *Business and Economic Review* was also optimistic because production, income and spending, as well as "the total value of the nation's output of goods and services . . . [are moving] to new all-time highs."

● A recent survey of real estate dealers, builders, and mortgage lenders in thirteen major cities seems to indicate a

slowing down, now that private housing starts have reached the highest level in history for the year's first quarter, although most builders look for full-year's sales to top 1958's. Mortgage money problems are major reasons for some builders to expect a slowdown in the near future. The St. Louis Federal Reserve Bank says that fears of future decline in the purchasing power of the dollar may act to stimulate demand for funds and raise interest rates. "The increase in borrowing characteristically occurs during a period of optimism and economic expansion." The funds available to accommodate increased demand of business, government, and consumers stem primarily from current saving, credit creation by the banking system, and activation of cash balances, the report continued. "Since a large portion of saving is in the form of deposits or other liquid debt instruments, and since inflation reduces the purchasing power of funds invested in these instruments, it may be that some savers feel it is better to consume more of their income currently. . . . However, to the extent that saving has been reduced, this reduction has been a factor in pushing interest rates up. But whether the rate of savings is affected or not, it appears likely that its form is altered by inflation, encouraging the purchase of property and other equities and discouraging the purchase of fixed debt instruments." The mortgage market seems busy, according to our sources. Monthly totals of both FHA and VA guaranteed mortgages have been running much higher than a year ago. New mortgage loans of savings and loan associations exceed \$1 billion for the nine months up to February. Fanny May (FNMA) reported it had purchased more mortgages in 1959's first quarter than in any other in its history. The fact that so many banks and other lending institutions are unloading home loans at this time may suggest that local demand for loans on dwellings must be rising, and the supply of funds declining. The present mortgage debt outstanding on one-to-four family homes is about \$120-billions—some 37.5% of personal disposable income, or income after taxes; five years ago the mortgage debt was 29.8% and in 1950 less than 22%. This may well indicate that home loans as investments have grown more attractive as interest rates rise. Chase Manhattan says that so far this year FHA, VA, and conventional mortgages held by savings institutions and commercial banks have been generally available. "If competing demands for funds by business should increase in the months ahead, mortgage credit would tighten," but by way of encouragement the bank states "the sort of squeeze which developed in the 1955-57 period would be moderated if interest on FHA and VA mortgages is kept realistic." A Boston expert reports mortgage rates as rising with the basic rate of 5% being "already topped in more and more areas"; as the rate of interest on savings rises, he states, the rate for mortgages also goes up. Banks report mortgage rates are rising, but "more in non-competitive areas."



look  
like  
this

*Photos courtesy of The Universal Valve & Fittings Company*

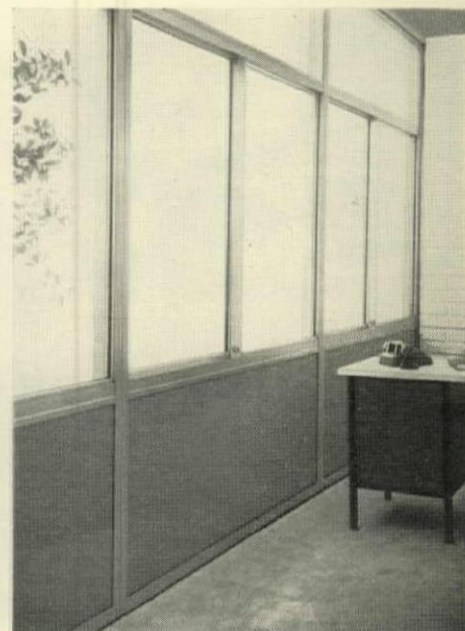
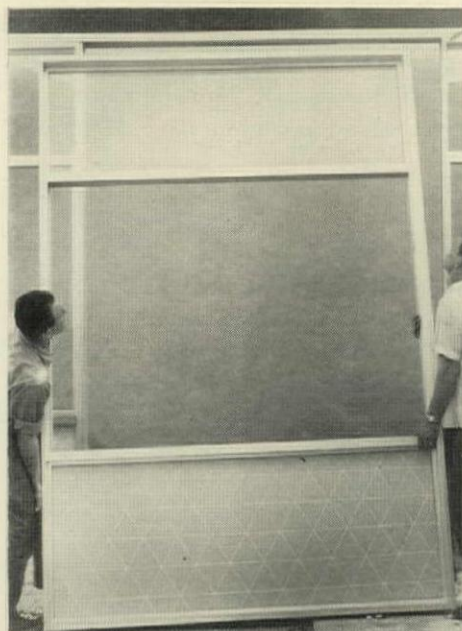
...so  
**your**  
**inventories**  
*can look like this!*

Youngstown, Ohio

90 Progressive Architecture

For more information, turn to Reader Service card, circle No. 303





## PRE-FABRICATED WALL SYSTEM INTEGRATES THREE ELEMENTS

### Window Wall Has Wide Variety of Applications

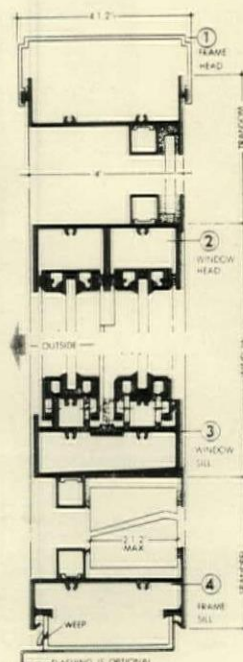
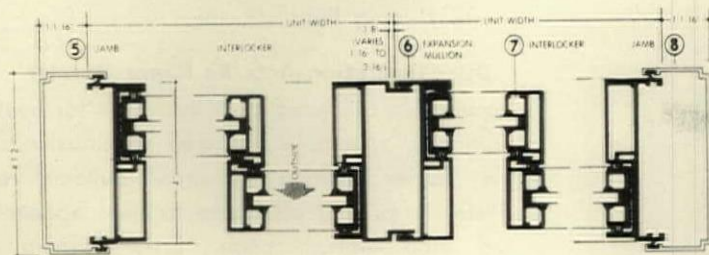
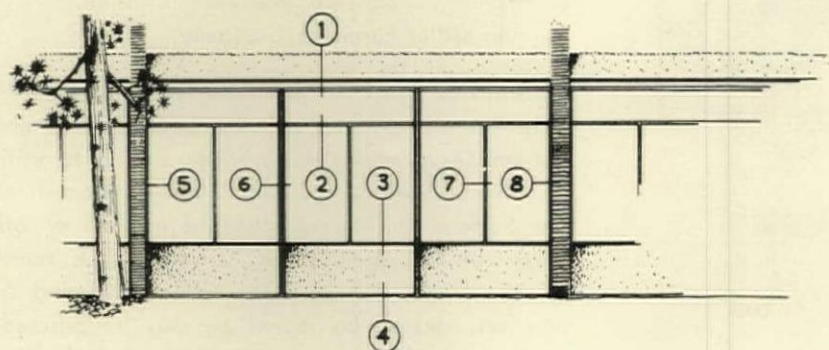
The increasing use of curtain walls and window walls in many varieties of structures has inspired a number of manufacturers to produce innovations in this field. (The architect's continuing interest in this subject, incidentally, will be served by an up-to-date look at wall assemblies in SEPTEMBER P/A.) One of the latest window-wall systems to appear consists of spandrel, fixed or sliding glass area, and transom, framed in aluminum. This factory-fabricated, floor-to-ceiling window wall is delivered to the job as a unit, and moves rapidly from unwrapping to installation.

Spandrel panels and transom panels (custom specified)

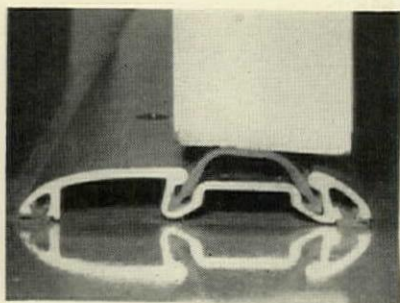
can be received up to 2 1/2" thick. Panels which may be used include laminated and assembled panels (such as porcelain enameled steel or aluminum, core panels, etc.), glass, ceramic veneer, light-weight concrete, etc. The fixed and sliding vents will receive glass from 1/8" to 1/2" thick. Special latch and locking device permits controlled operation of sliding vents. Circular knob on interlocker of interior sliding vent has two-stage operating device, permitting free operation of window, or operation only by authorized personnel. Specifications, detail sheets available.

Arcadia Metal Products

100







101

### Door-Sealing System Stops Sound

"Duraflex" door sealing system has main element of vinyl plastic, is used to completely weather seal doors and also to aid in zone temperature control. System is effective in greatly reducing noise transmission through door, and has been used for light proofing in photographic dark room installations.

The Duraflex Company

101

### Panel Line Features Six Woods

Line of wood finishes in three panel types is available in six wood surfacings: Swiss Walnut, American Walnut, English Oak, Danish Birch, Swedish Cherry, and Italian Cherry. Panel types are 16'x8' Marlite Random Planks, random grooved with tongue and grooved edges; 4'x8' grooved Random Woodpanel, with tong-and-groove on the 8' side; and 4'x8' ungrooved Woodpanel, with square edges. All panels are 1/4" thick, with base of smooth-back tempered hardboard.

Marsh Wall Products, Inc.

102

102

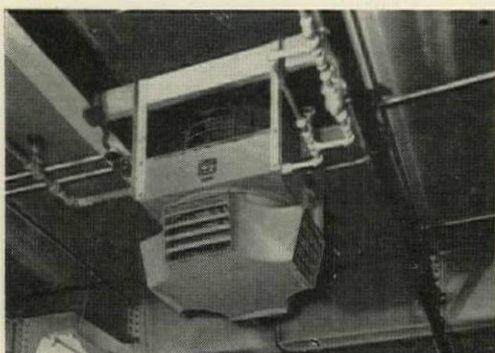


### Overhead Heaters Save Floor Space

Replacement of floor-mounted steam heating pipes with overhead revolving heaters reportedly improved heat distribution in Republic Rubber Division factory of Lee Tire and Rubber Company. Machinery on floor blocked flow of heated air from floor-mounted pipes, causing excessive heat in some areas, and lack of heat in others. Heat from ceiling is now uniform and overhead heaters release floor space for machinery; are not subject to damage from floor operations and plant vehicles. Heaters take steam at 145 psig; delivery temperature of air in discharge outlet is 124°F. By time air streams mix with room air and reach floor level, temperature is comfortable for occupants.

L. J. Wing Manufacturing Company

103



103

### Wood Desks Add Office Richness

Desks of oiled teak with ebonized hardwood frames are latest addition to Executive Office Group. Three pedestal variations are included: four-drawer, three-drawer, and dictation-equipment. In addition to desks, company has a storage shell to be used with single- or double-pedestal desks in parallel or "L" arrangements. Various combinations of interior storage are available for shell.

Herman Miller Furniture Company

104

104



### Ceiling Pan Provides Ease of Access

A fast-installing metal pan has been devised which gives fast and easy access through the ceiling to utilities. The pan may be used on standard "Accesso Acoustical Suspension System" in lieu of standard mineral or other fiber acoustical tile. Pans in any area may be removed and acoustical tiles put in place without altering suspension members. Heated or cooled air may be diffused through metal pans using low velocity inverted pan unit provided with a flexible 4" hose which plugs into a duct.

Accesso Ceiling Products, Inc.

105



105

### Duct Insulation Acts As Vapor Barrier

Incombustible foil-faced duct insulation for heating and air conditioning systems is designed specifically to provide a vapor barrier meeting "fireproof building requirements, and also to present attractive finished appearance on exposed ducts without special, extra finishing steps—spun



mineral wool insulation is faced on one side with embossed aluminum foil .0025" thick, acting as a vapor barrier. Insulation is lightweight, and cuts with a knife to conform to irregular surface contours. Thermal conductivity is .24 Btu in. per hr sq ft, deg F at a mean temperature of 75 F, and will withstand temperatures to 250 F. Comes in 24"x48" semi-rigid sheets, 1", 1½", 2" thick.

Industrial Insulation Division, Baldwin-Hill Company 106

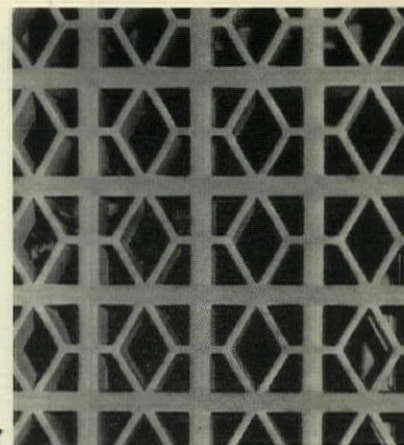
#### Screen Cuts Air-Conditioning Costs

Ceramic "Solar Screen" is both functional and decorative. Screen used on exterior breaks heat of the sun falling directly on a building, providing savings in cost of air conditioning building. Can also be used in courtyards, and as privacy screens or windbreaks around swimming pools or private gardens. Screen is available in natural red and a number of other colors. Several designs have been put on the market.

Gladding, McBean & Company

107

107

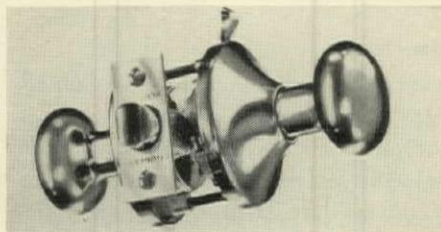


#### Lockset Offers Entrance-Door Security

Combination lock of new lockset operates by turning door-knob left and right, according to combination number. Lock clicks as knob turns and operator "counts the clicks" for the number. No separate dials to turn or numbers to read. Lock is of cylinder type, enabling quick installation by drilling hole through door to insert mechanism and smaller hole in door edge for latch bolt. Standard exterior finish is polished brass. Retail price \$12.50.

The Gougler Keyless Lock Company

108



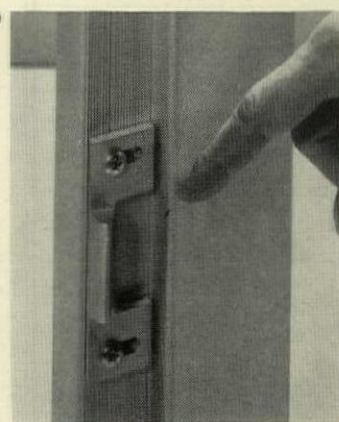
108

#### Aluminum Mullion Is Removable

Mullion is designed for installation in pairs of doors to allow single door operation. Made of extruded aluminum, the mullion can be quickly removed to open doors to full width for passage of large objects. To install, bottom and top plates are anchored to floor and jamb. Mullion then fits snugly over bottom plate and is swung into overhead bracket where it is held with two screws. Two sizes available are 7'6" and 10'; these may be cut to desired length. Russwin Division of Russell & Erwin

109

109

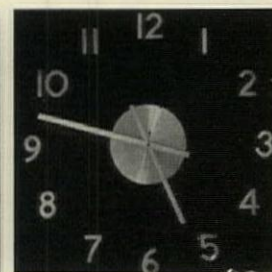
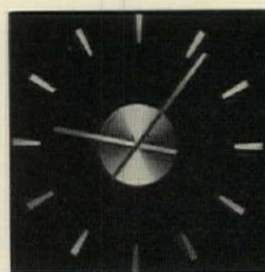


#### Wall Clocks Appropriate for Many Uses

Extra-large built-in wall clocks are available in diameters from 15" to 24". Feature contemporary styling, with either satin aluminum or satin brass hands, center disc, and indicators. Clocks have 2" tapered bar indicators, 1"-diameter dot indicators, or 2"-high Arabic numbers. Built-in movement covered by 5½" center disc, which can be painted to match wall.

Howard Miller Clock Company

110



110

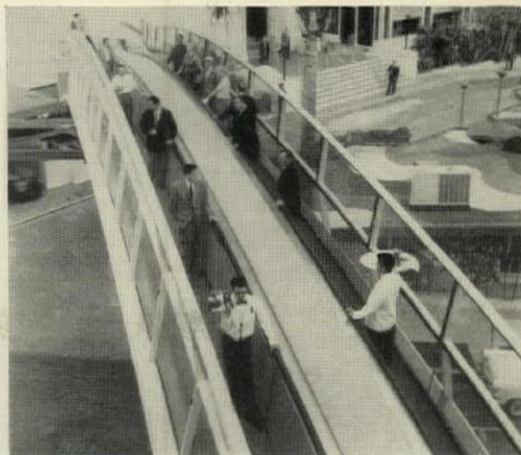
#### Moving Sidewalk Connects Hotel and Motel

"Travolator" moving sidewalks arch over San Diego street to connect El Cortez Hotel with motel and garage across the way. Guests and employees are carried on series of safety-cleated platforms incorporating same safety features as escalators. Facility is capable of carrying 7500 people per hour in each direction. Next installation is expected to be in the London Underground, in a sloping, 300-ft tunnel connecting two rail lines.

Otis Elevator Company

111

111







#### Refrigerator Is Doorless

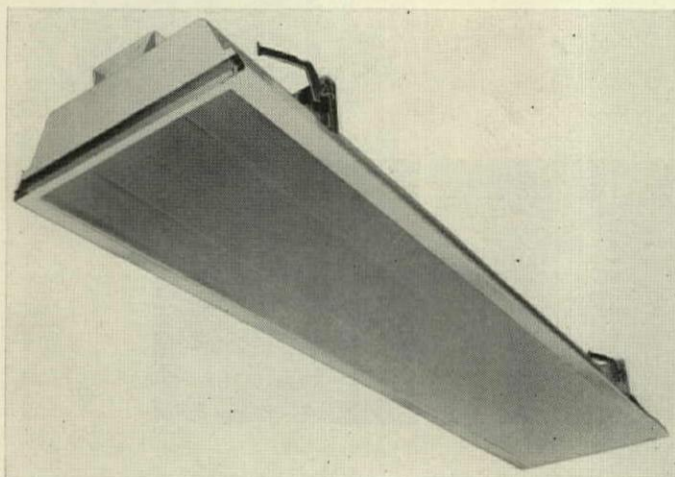
Open-front refrigerator can be used in cafeterias, supermarkets, and restaurants. Self-service in cafeterias and supermarkets is facilitated, and unit may be blended in with decor of restaurant to serve as dining room refrigerator for holding desserts, pastries, etc. Use of "air curtain" principle seals off front of cabinet, blankets contents in cold air, and keeps them at standard commercial refrigerator temperatures.

Koch Refrigerators, Inc.

112

#### Troffers Have Shallow Recess

"Speedomatic" lighting troffers recess only 4 15/16", come in four basic types to fit most ceiling applications. Major feature of troffers is telescopic door frame, which automatically adjusts to assure perfect fitting, even in irregular ceiling openings. When installed, shielding is framed in



ceiling by single width of metal, offering wide illuminated area and clean appearance. No mechanical catches; door opens by lifting up, sliding over, and lowering.

Smithcraft Lighting

113

#### Light-Producing Panels Suit Unusual Uses

Electroluminescent lighting panels suitable for difficult or unorthodox applications are rectangular and square plates in standard sizes ranging from 2"x2" to 24"x24" available in green, blue, or yellow—Rayescent lamps consist of glass sheet coated with phosphor layer and electrically conductive coating; use no filaments, contain no gas or metallic vapor, produce practically no heat, require negligible electric cur-

rent, produce completely diffused light without special fixtures or baffles. Life expectancy is conservatively rated at 5000 hours; tests in progress indicate longer life. Power supplies for 400-cycle operation will be in several ratings. Westinghouse Electric Corporation

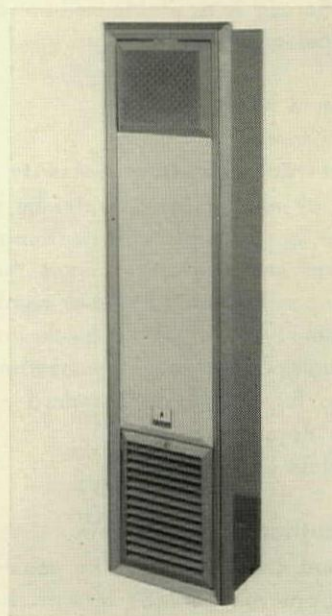
114

#### Heater Hangs on Wall Like Picture

Direct-vent gas wall heater may be installed in any one of three positions: fully recessed, partially recessed, or hung on wall like picture. "Custom Counterflow" vents flush with outside wall in all three positions. Heat is delivered at floor using outside air for combustion. Products of combustion are exhausted to outside through sealed porcelain combustion chamber.

Heil-Quaker Corporation

115



#### Wire-Fabric Mats Reinforce Floor Slabs

First use of heavy-welded wire-fabric mats for reinforcement of flat-plate structural-concrete floor slabs is said to have made notable savings in construction time and costs. Top and bottom mats were placed rapidly on each floor of New York apartment house. Extra layers of fabric were put over tops of columns to resist negative moment. Openings for plumbing ducts, wiring, etc., were cut in fabric after laying. Concrete was then poured. System reported to have resulted in reduction of steel poundage from 5.2 lb for conventional methods, to 3.8 lb for use of welded wire fabric mat reinforcement. Patent applied for by Engineer.

Wire Reinforcement Institute, Inc.

116







#### Dutch-Designed Furniture Newly Available

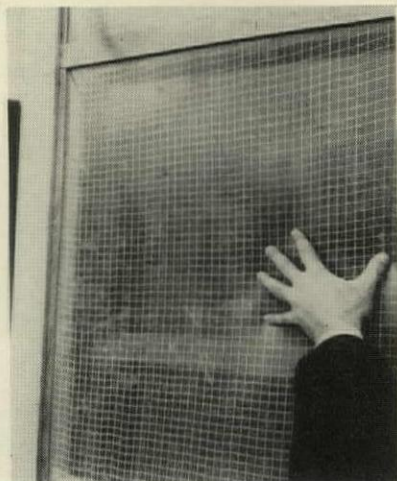
Furniture designed and manufactured in the Netherlands is now available through recently-formed U. S. distribution agency. Lines include tables (shown—designed by Kho Liang le); chests, desks, and record cabinets; wall units and wall-divider units; occasional and upholstered chairs; sofas. Among woods featured are teak, walnut, mahogany, macore, and palisander.

Netherlands Furniture Factories

117

#### Polyethylene Film Is Glass Fiber Reinforced

"Ger-Pak," polyethylene film reinforced with glass fiber, is reported to have considerable strength and long life. Film is lightweight, low-cost, and easy to handle. Resists rips and



tears, and will not stretch or bag. Suited for use as temporary window and door covering during building construction. Supplied with 2"x2" and 4"x4" meshes, in four and eight mil thicknesses, lengths are 100' and 150' long rolls. All sizes offered in clear or black.

Gering Products, Inc.

118

#### Acoustical Plastic Sprays on Exposed Structure

Economical roof system combining acoustical control with fireproofing, insulation, and permanence, utilizes 1/2" of vermiculite acoustical plastic sprayed by machine directly to under side of galvanized corrugated-steel sections and to exposed precast-concrete joists. Material may be sprayed by following corrugations of steel for whole thickness of plastic, or by filling in corrugations with first coat, striking

off vermiculite flush with bottom of corrugations, and applying second coat flat over area. Vermiculite plastic so installed has noise-reduction coefficient of 0.65 for 1/2" thickness, and a four-hour fire rating. Variety of textures can be obtained by adjusting spraying machine. "Decorator white" color often makes painting unnecessary.

Vermiculite Institute

119

#### Terminals Have Installation Versatility

Three individually designed high-velocity Weathermaster hot and cold air blending boxes for all-air systems in exterior and interior spaces of multistory buildings (especially suitable for schools and laboratories) offer quiet performance, odor dilution, maintenance of relative humidity under varying conditions. Versatility of arrangement of controls aids installation whether in ceiling, below window, or in sidewall locations. Features cited are minimum traveling distance (3/4") of sliding damper blade and effective sound elimination from high-pressure air. Models are designed for double duct, single duct with reheat and all-air Dual Conduit; handle from 50 to 1700 cu ft air per min., permitting wide range of application.

Carrier Corporation

120

#### Agent Bonds Acoustical Plaster to Surfaces

Bonding agent, "Plaster-Weld," is sprayed on monolithic-concrete slabs to receive direct application of sound-proofing material. Acoustical plaster may be applied by spray or trowel. In renovation work, agent can be applied over oil-painted plaster finishes. Plaster can be put on less than an hour after application, or, if need be, months later. "Plaster-Weld" can also be applied to metal surfaces prior to plaster.

Larsen Products Corporation

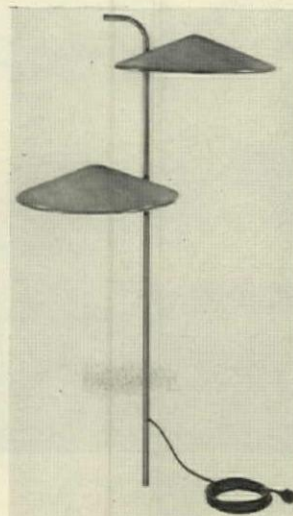
121

#### Outdoor Lighting Can Be Stationary or Movable

Double version of "Lytescape" mushroom light is finished in quiet Garden Green to blend with foliage by day. Lights area of about 40' in diameter at night. May be either permanently mounted or temporarily staked into ground. Individual or tandem installation to single waterproof outlet is made possible by "add-a-unit" cord set. Dimensions: 48" high, 24" wide; two lights, 60 watts. Approximate retail price: \$26.

Lightolier, Inc.

122







## FROM CHEMISTRY: *entire new spectrum of building materials*

Years ago, architects had to restrict their selection of building materials to what was available locally in the way of wood, masonry and glass. Today's architect can choose discriminately from thousands of types of traditional materials plus a whole new store-

house of man-made building products. These are creations of modern chemistry—specialized, uniformly high-quality materials that suggest a host of new design ideas. A few of the newest and most newsworthy are discussed briefly on these two pages.

# ROOFMATE\* . . . NEW ROOF INSULATION RESISTS MOISTURE, REDUCES LEAKS

***Introduced early this year,  
Roofmate promises many  
valuable advantages.  
It's a new insulation  
developed by Dow  
for built-up roofs.***

The building industry recently greeted a new roof insulation that forms its own moisture barrier, has permanent low thermal conductivity, takes hot bitumens and won't flake, crumble or deteriorate with age. This new Dow insulation for built-up roofs has the same unyielding resistance to water and water vapor as its older cousin, Styrofoam®. Thus, Roofmate helps prevent vapor build-up and resulting "blistering" and leaks—built-up roofs last years longer.

Lightweight Roofmate arrives on the job site ready for business. It's pre-fabricated in standard roofing sizes, unpackaged but bundled in easy-to-handle 38 lb. lots. Roofmate is easy to cut and fit around vent pipes and other obstructions. It can accommodate the weight of workmen and normal roofing equipment with plenty of compressive strength to spare.

It all adds up to a high-quality, durable roof insulation that saves time, effort and money in any installation.

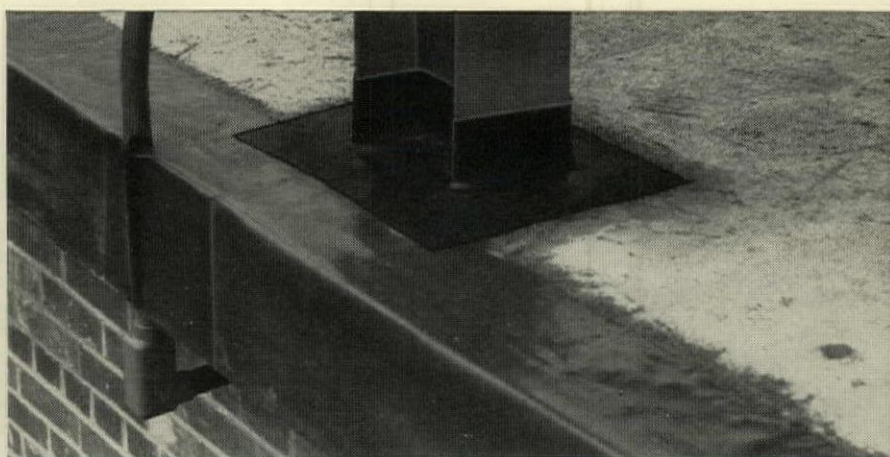
\*TRADEMARK OF THE DOW CHEMICAL COMPANY





**New weather resistant flashing—  
SARALOY® 400**

Here's a new flexible flashing material that "gives" in all the right places and lasts a lifetime. It's Saraloy 400, a tough, elastic thermoplastic with built-in resistance to water and weather. Saraloy 400 can be fabricated right on the job . . . shaped to conform to every contour. It can be bonded to most building materials, painted with ordinary exterior oil-based paints. And it's durable—won't corrode, check, crack or peel—stays tight and effective long after expansion and contraction would have destroyed ordinary flashings!

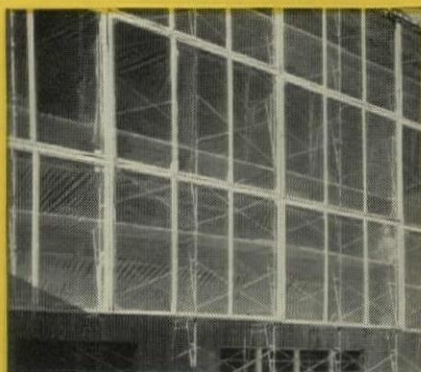


**SCORBORD®**

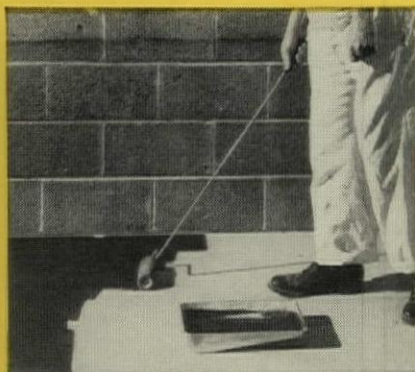
**installs in an instant—lasts a lifetime**

Insulating foundations and perimeter heating ducts is a job that's only done once, so it should be done well. That's why more and more architects choose Scorbord, the insulation with permanent efficiency. Scorbord† keeps moisture out, heat in—resists mold and decay. These big 2' x 8' pre-scored boards save up to 80% on installation time, too. Scorbord is easy to cut and fit around pipes and other irregular shapes—has plenty of compressive strength to take a concrete slab. An F.H.A. materials release has been issued.

†PATENT APPLIED FOR



**POLYFILM.** A top quality Dow building product with 1,000 construction uses. Ideal for temporary enclosure or moisture barrier. Supplied in convenient new dispenser box.



**LATEX.** New latex paints for concrete floors wash easily and are long-wearing. Seals, eliminates concrete dust, makes an attractive surface. Can be tiled over!



**STYROFOAM** makes ideal panel core. Permanent low "K" factor means long-term insulating efficiency. Panels cored with rigid Styrofoam need no special reinforcement.

**VERSATILE NEW MATERIALS** like these are typical of the extensive Dow Building Products line. Most of these products are new but all are tested and proved. Write today for more information on any of them. THE DOW CHEMICAL COMPANY, Midland, Michigan, Plastics Sales Department 1602EB7.

**Specify DOW BUILDING PRODUCTS for your designs**

ROOFMATE\* • STYROFOAM\* • SCORBORD\* (Pat. applied for)

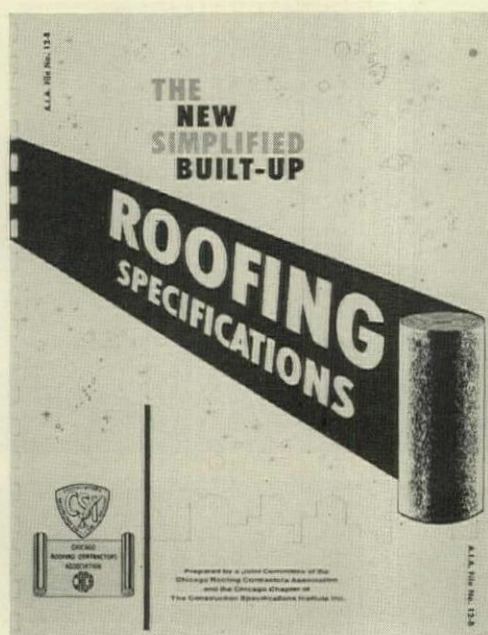
SARALOY\* 400 • POLYFILM\* • LATEX

\*TRADEMARK

**THE DOW CHEMICAL COMPANY, Midland, Michigan**







Chicago Chapter, Construction Specifications Institute, and Chicago Roofing Contractors Association have collaborated on thorough-going examination of new, simplified specifications for application of built-up roofing. Reference seeks to indicate best type of felts, minimum of plies, and type of bitumen which have proven to be most adaptable and practical for jobs in many years of practice represented by members of co-operating committees; and to urge new approach to selection of roofing from standpoint of selecting right roof for particular job and following through with systematic maintenance to insure satisfactory performance of roof with trouble-free use. Specifications are given for wood decks, steel decks, poured-concrete decks, precast decks, and gypsum, perlite, vermiculite, etc., decks. There is a section on flashings and details.

Chicago Roofing Contractors Association (AIA 12-B, 60-p. plus 200 divider sheets)

## AIR AND TEMPERATURE

### Instant Temperature and Humidity Control

Folder describes Three Pipe Hi-I air conditioning and heating system for hotels, which allows individual room adjustment and complete weather-conditioning control to the guest—humidifies, dehumidifies, warms or cools as needed. Assembly of most parts is done in hotel basement; guest-room equipment is said to install quickly with minimum loss of guest-room revenue. System consists of hot water, cold water, return pipes, connecting to high-pressure induction room units.

York Division, Borg-Warner Corp. (AIA 30-F-2, 4-p.) 201

### Balancing of Heating, Air Conditioning

Brochure describes easy-to-balance, rigid welded-construction heavy-gage metal registers, diffusers, and grills which allow complete flexibility of vane adjustment for any desired air distribution pattern. Electrostatic-paint process provides durable, scratch-resistant, baked-in finish. Comprehensive data, dimensions, installation details for sidewall, baseboard, ceiling and floor types, are provided. Data is also included for single and fixed deflection units.

Lima Register Company (AIA 30-J, 40-p.) 202

## CONSTRUCTION

### Acoustical Metal-Pan Ceilings in Larger Module

Folder describes perforated, acoustical, aluminum- and steel-pan ceilings, in larger sizes and larger module to give greater flexibility to recessed-lighting installations. Snap-together "Kemp System" of attachment and suspension offers speed and ease of installation, a more substantial ceiling through use of galvanized rods rather than wire

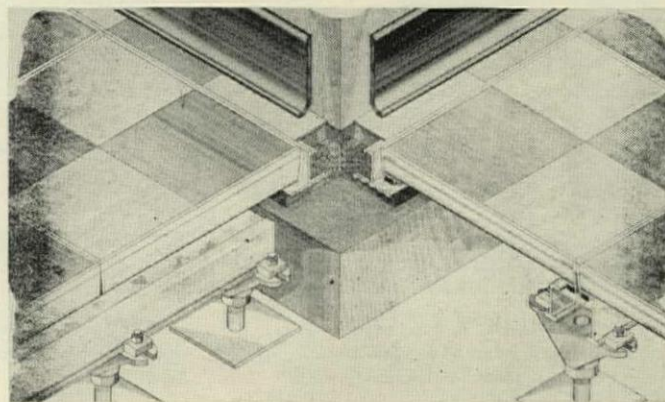
*Editor's note: Items starred (\*) are particularly noteworthy, due to immediate and widespread interest in their contents, to the conciseness and clarity with which information is presented, to announcement of a new, important product, or to some other factor which makes them especially valuable.*

or strap hangers—eliminates need for 1½" channels. Literature and illustrations cover properties, patterns, gages, finishes, sound-absorption efficiency, light reflectivity, fire resistance, applications, installation details. Special-order metal pans to meet specific modules can be supplied.

Acoustics Manufacturing Corp. (7-p.) 203

### Elevated Flooring

Bulletin describes Elaflor elevated, aluminum flooring for computer rooms and other business machine areas—contains drawings, illustrations, specifications, typical installa-



tions and elevations, and support-assembly details. Also included are illustrations and descriptions of caster pads to keep business machines in position and prevent casters from gouging floor covering.

Liskey Aluminum, Inc. (10-p.) 204

### Laminated Wood in Commercial Construction

Catalog features use of glued laminated-wood arches, beams, and trusses—in store, supermarket, motel, restaurant, office building, and warehouse construction. Contains full-color illustrations, shows basic laminated forms available, as well as schematic floor plans for several of the buildings featured.

Rilco Laminated Products, Inc. (6-p.) 205



### Builders' Hardware Handbook

Condensed catalog of architectural hardware presents information on four major lock lines, rectangular and standard liquid type door closers, exit devices, and miscellaneous builders hardware. Designed for easy selection of material, book features selector charts of functions and designs for Integralock, Mortise Lock, Sentrylock, and new Magnalock. Specifications, application data, product features are also included for each of the lines.

Sargent & Company (2-p.)

206

### Open-Web Steel Joists Speed Construction

Booklet contains descriptions and diagrams of open-web steel joists for construction of lightweight, safe roof and floor systems. Series "E/C" electro-channel joists have their top chord replaced by a hollow duct serving both as structural member and underfloor electrical distribution duct that allows wiring of outlets at any point along joist. Also



covered are steel roof decks and Cecor centering used as permanent form material for concrete slabs over steel joists or beams. Complete with tables of available dimensions, allowable loading, specifications, recommended handling and erection procedures.

Ceco Steel Products Corporation (Booklet 3001-0, AIA 13-G, 28-p.)

207

### Structural-Steel Tubing Has Many Uses

Folder lists some of many uses for Espro structural-steel tubing (square and rectangular rigid-box structures)—range of applications includes area lighting, beams, structural columns, ductwork, stair stringers, guard rail, window mullions. Available in girths of 12" to 48", wall thicknesses of 1/8" to 1/2". Current sizes and limitations, mechanical properties, provided. All sizes can be furnished hot-dip galvanized.

Equipment Steel Products, Division of Union Asbestos & Rubber Company (2-p.)

208

### Molding-Pattern Identification

Wall-hanger type pattern chart displays 200 standard molding profiles silhouetted in white against blue background. Some 500 molding numbers are covered altogether. Each of molding-use categories is classified, with "use description" given for each type. Standard dimensions are included with many profiles, shown in about two-thirds actual size. Useful wherever molding identification is important. West Coast Lumbermens Association (24"x37" folder)

209

### Facing Tile in Modular Design Application

Handbook highlights features of faster building time and design flexibility through use of structural facing tile in 4"-modular-grid construction. Contents include discussion of physical properties, illustrations of typical wall sections, design data, specifications, quantity estimating table, other listings. Tiles are available glazed and unglazed in variety of shapes and sizes, in plain, mottled, speckled, manganese spot color finishes. Glazed tile is designed to be laid up in 1/4" joints; unglazed, in 1/4" or 3/8" joints.

Facing Tile Institute (AIA 10-B, 40-p.)

210

### Cement Colors, Colored-Concrete Products

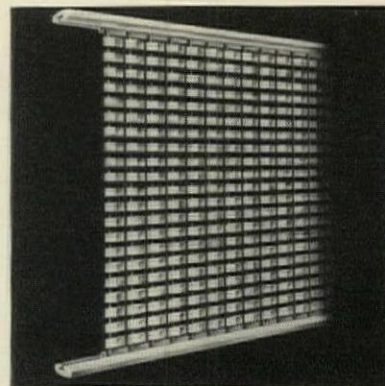
Booklet tells what should be known about color in the manufacture of concrete building materials, presents wide range of color specimens with formulas for mixing for obtaining full-strength color, intermediate, and pastel shades. Some advantages listed in use of colored concrete are light fastness, chemical inactivity, freedom from efflorescence—suitable to products such as split-rock, building block, solid-brick shapes, patio or stepping stones, wall-capping stone, veneer stone, roof tile, swimming-pool forms, ready-mixed concrete. Attached file sheet supplies technical report on properties and manufacturing technique, special problems in concrete products.

C. K. Williams & Company (10-p.)

211

### ★ Aluminum Grills Have Sculptured Look

Catalog features recently-developed "Grill-O-Metrics"—aluminum grills of sculptured extrusions appropriate for railing panels, sun screens, room dividers, or exterior façade



shading. Patterns are dish, circular medallions or rectangular diamond units (shown). Catalog also shows, in detail drawings and photographs, railings, posts, balusters, room dividers, and stair panels.

Blumcraft of Pittsburgh (Catalog M-59, AIA 14-D-4, 64-p.)

212

### Laminated Panels Offer Design Latitude

Booklet illustrates uses for laminated structural panels, described as providing practically limitless design and styling latitude—panels (insulated or noninsulated) feature wide choice of colors, facing, core materials, for selection on basis of functional and appearance requirements; are durable, corrosionproof, combine materials of various densities. Available in sizes 1" to 8" thick, widths to 4', lengths to 12'—varying shapes—can be supplied custom designed. Photographs of latest applications.

Haskelite Manufacturing Corp. (8-p.)

213



## How and Where to Use Waterstop

Bulletin lists characteristics of five types of Nervastral waterstop and joint spanner for use between adjacent sections of concrete. Fabricated of extruded, continuous, flexible, plastic strip of high-polymer resins; waterstop is said to be completely durable, impregnable, will not bleed, embrittle, or crack under varying temperatures; assures effective anchorage and tight bonding. Suggested specification table shows types and weights to meet requirements based on estimated concrete waterhead and compression stresses. Illustrations of applications, installation directions included. Rubber & Plastics Compound Co., Inc. (Bulletin 128, AIA 7A1, 4-p.) **214**

## Partitions Have Attachable Equipment

Bulletin shows components and ease of installation of movable wall-partition system providing extra flexibility of arrangement. Locking-device system includes post channels which will support all types of attachments: table and desk tops, cabinets, shelving, letter files, book racks, lighting fixtures, other utility attachments. Complete specifications, construction details, sectional drawings, and list of available accessories such as items mentioned above, included. Available in variety of finishes.

Workwall Movable Partitions and Paneling, Division of L. A. Darling Company (Catalog 405, 12-p.) **215**

## DOORS AND WINDOWS

### Commercial Windows and Window-Walls

Slip-sheet file folders supply drawings and specifications for Series 500 commercial projected aluminum windows, and Economy Wall System 101. Drawings are printed on tracing paper for convenient use. Windows are designed especially for commercial, institutional, industrial and apartment use; are said to combine superior structural strength with new ease of operation. Economy wall system for one- and two-story buildings provides windows and panel sections as single units.

Reynolds Metals Company (AIA 16E, 17A) **216**

### Metal Rolling Doors and Partitions

Catalog describes complete line of rolling doors and partitions. Line includes steel rolling service doors, "Servire" fire doors, steel and aluminum rolling grills, extruded aluminum counter doors, and wood side-coiling partitions. Closures are illustrated with photos of typical installations and information regarding standard and special situations. Detail sketches and complete architectural specifications are given. Of special note are a series of charts which simplify selection of gage and type of slats, guide type, power units, other components. Blueprints of 13 basic door types show all necessary dimensions.

The Cookson Company (AIA 16-D, 16-p.) **217**

### Entrances and Storefronts

Entrance catalog includes illustrations and sectional views of complete line of aluminum flush-panel, narrow-stile, wide-stile, center-panel doors and entrance frames, special framing sections, sliding doors, and specialty custom products—design features include positive set sash construction, vinyl

weathering integrated with glazing bead on door, to allow faster glazing. Storefront catalog includes sections on sash and sill, division bars, mullions and muntins, fascia, awning flaps, curtain-wall sections, and framing members.

The Alumiline Corporation (AIA 26-D & 16-E, 26-p.) **218**

## ELECTRICAL EQUIPMENT, LIGHTING

### Fluorescent Fixture Supports, Raceways

Folder shows installation methods for metal flame fluorescent fixture support and raceway system serving many needs. Features claimed include perfect fixture alignment, flexible hanger placement without bridging, fewer hanger stems and canopies, easy installation, great strength permitting long span use with single continuous member and fewer fittings. Plug-in receptacles and additional circuits can be provided. Described are aerial assembly, pre-assembly, standard, surface raceway, combination, systems. Channel, and recommended hanger rod spacing data provided. Unistrut Corporation (AIA 31-F-2, 6-p.) **219**

### Rayescent Indicator Panels

Pamphlet discusses phenomenon of electroluminescence and its application in lamps for display of continually changing numerical or alphabetical information (computers, status boards, indicator panels)—describes construction of Readout lamps, indicates capabilities and advantages of various lamp types, and summarizes their principal mechanical, electrical, and visual characteristics. Westinghouse Lamp Division, Westinghouse Electric Corporation (4-p.) **220**

### Line of Commercial Lighting Fixtures

Folder illustrates two-piece construction Para-Flector lighting fixture design which permits easy removal of dome, accessibility for inspection and servicing of splice box. Deep-drawn, one-piece parabolic reflector is said to deliver greater lumen output—uniform lens brightness—extra wide angle distribution. Available in recessed rectangular, incandescent and fluorescent, flat and drop diffuser, shallow perforated rounds and squares, open and louvered type, vertical perforated spot-lites, pendant, and adjustable eyeball units. Finishes: chrome, brass, copper, paint.

Halo Lighting Products, Inc. (AIA 31-F, 8-p.) **221**

## FINISHERS AND PROTECTORS

### Pre-stained with Long Color Life

File sheet describes nine types of stains and finishes made from pure pigments ground in linseed oil, combined with phenyl-mercury-oleate wood preservative to assure long color life, plus wood preservation. Nine types are: a heavy-bodied stain, designed to hide grain but produce soft-stain effect; a penetrating stain to allow texture of wood to show; a redwood stain to protect new wood, bring weathered redwood back to original brightness, and for giving other woods soft tone of redwood. Others: Olympic wood-blend stains; sash and trim finish; polar white; Toxal, a clear, penetrating wood preservative; Bleachtox that changes color of wood to silver grey; Cleartox, a clear stain, tough and long-wearing. Actual color samples on wood available.

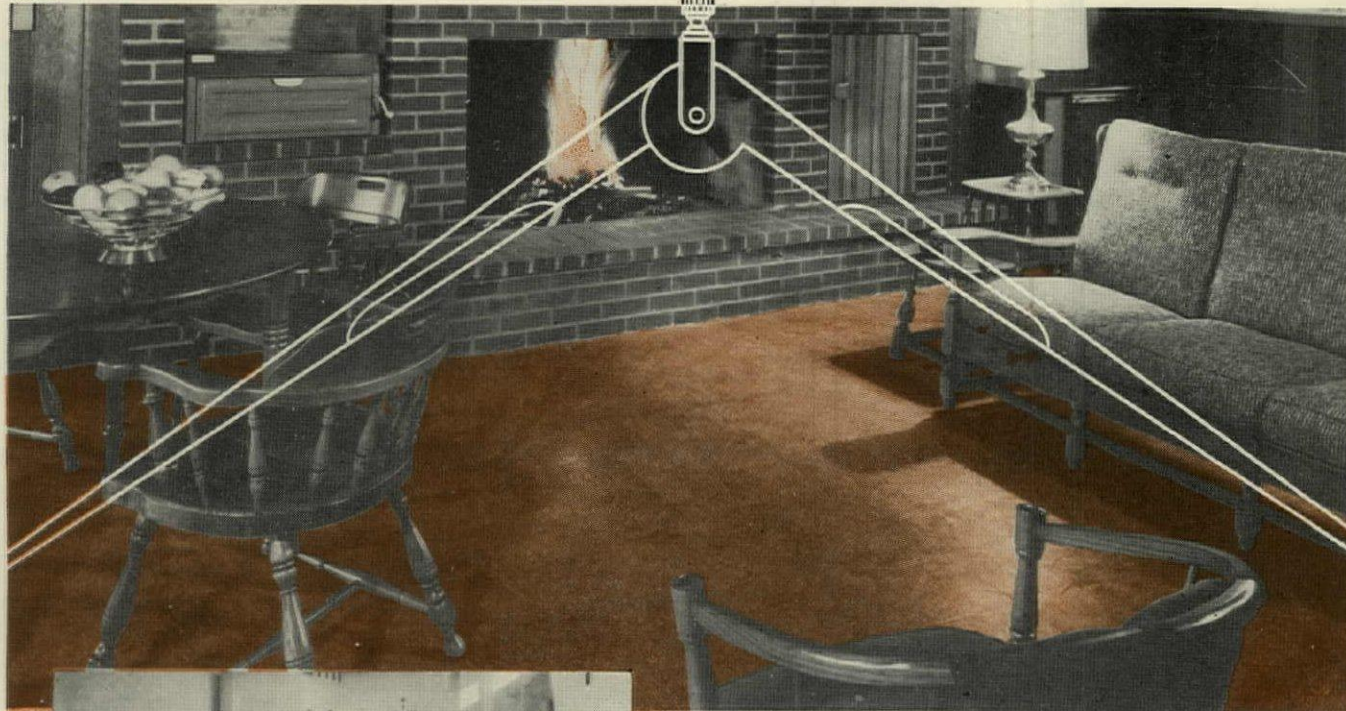
Olympic Stained Product Company (AIA 25-B-12, 4-p.) **222**

(Continued on page 104)



National first place award winning H. I. C. Home in Eugene, Oregon, is pictured below. Par-TILE was specified.

# Wall to Wall...



Above: St. Paul school and church.  
Below: Typical Par-TILE office installation



... The most beautiful practical floor of all



## NATURAL WOOD BLOCK FLOORING

Architects, builders, engineers and designers are now specifying beautiful new Par-TILE natural wood block flooring in all type constructions. Par-TILE's density of 55 lbs. makes it extremely durable and highly resistant to wear, yet is resilient and easy to walk on. Will not dent under heavy furniture . . . Truly the finest floor in the world.

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Par-TILE now used in homes, schools, office and industrial buildings, hospitals, hotels, apartments, motels, restaurants, gymnasiums and dance floors.

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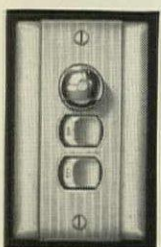
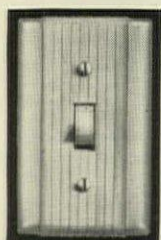
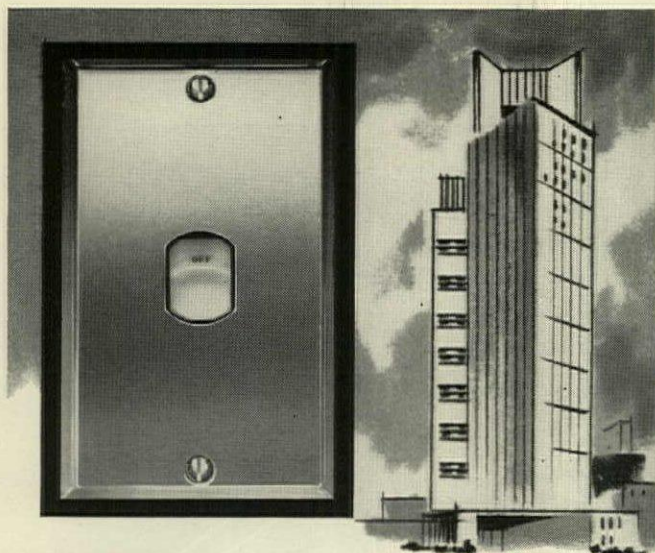
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Switch of the  
Future  
ready for your use  
**NOW!**



**ROCKER-GLO  
SWITCH**

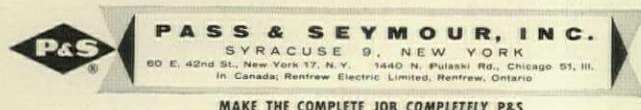
Many of today's switches are specialties primarily for decoration; some others are sturdily constructed for heavy duty performance. Now in one switch these two features are combined — P&S Rocker-Glo. Rocker-Glo's design and action are such that it can be pressed, pushed, rocked or rolled. It has the basic rugged mechanism that insures long, trouble-free performance. Eventually all light switches may have a rocker action — like Rocker-Glo.

Rocker-Glo switches are AC switches designed to be used at full current rating on tungsten filament and fluorescent loads (one switch takes the place of two ordinary AC-DC switches on fluorescent loads). It can be used anywhere old style toggle switches are used.

Rocker-Glo's clean functional lines and soft beauty blend with any decor and add a touch of gracious charm to any type of building.

Available in Despard interchangeable type, Despard type mounted on a strap and narrow rocker for tumbler switch plates. A specification grade switch, 15 and 20 amps. 120/277 volts AC.

Write for free Rocker-Glo bulletin, Dept. PA-759



MAKE THE COMPLETE JOB COMPLETELY P&S

For more information, turn to Reader Service card, circle No. 306

## p/a manufacturers' data

### INSULATION

#### ★ Insulation Installation Techniques

Reports on insulation applications of Styrofoam and Scorbord cover the following: pipe and vessel covering, including specifications for refrigerated piping, refrigerated valves and fittings, refrigerated vessels—low temperature space insulation with engineering data and discussions of sandwich roof construction, floors, walls and ceilings, and cutaway views of installation techniques—insulation-plaster base, with specifications and application illustrations—Scorbord, foamed plastic insulation board designed for perimeter, and foundation, and cavity wall insulation. Scorbord is pre-scored and marked to facilitate in-place measurement. Plastics Sales, The Dow Chemical Company (AIA 37-D-1, 37-B-4, 37-B-3). **223**

### SANITATION, WATER SUPPLY, PLUMBING

#### Septic Tank Submersible Aeration Pumps

File sheet covers line of submersible aeration pumps for septic tank service—discusses installation and theory of aeration. Illustrations include pictures of pump and timing device plus clear, easy-to-read drawings and diagrams of pump and how it should be installed. Specifications on the pump as a whole, the air injector, the power supply cord and the timer are all presented.

The Deming Company (Bulletin 4664-J, section 46, 2-p.)

**224**

#### Packaged Automatic Boiler

Bulletin describes line of mechanical pressure atomizing oil-fired and partial pre-mixing gas-fired Powermaster packaged automatic boilers; contains data on sizes from 20 through 100 hp. Outstanding features include UL label covering entire unit—"B" label, guaranteed 80 percent efficiency, high-pressure designs to 250 psi, a special hot-water design, electronic Fireye combustion control with prepurge and postpurge cycles, and low fire start with optional high-low firing on 40 hp and larger. Illustration points out location and features of design and construction.

Orr & Sembower, Inc. (Bulletin 1250, AIA 34-B-1—30-C-1, 8-p.)

**225**

#### Vapor Drum Boilers

Brochure shows current industrial installations featuring drum-modulatic water-tube boilers. Series of photographs and captions tell how heating problems in each industry can be solved by single and multiple boilers, both low and high pressure systems. 150 bhp drum modulatics can be placed in production areas, along-side stairways, other areas, should it be desirable to decentralize power plant.

Vapor Heating Corporation (Bulletin 491, 16-p.)

**226**

### SPECIALIZED EQUIPMENT

#### Professional Furniture Layout

Catalog aids in planning the layout of laboratory, operative, and professional office furniture—individual pieces and assemblies designed and sized to offer maximum time-saving working convenience to doctor, dentist, nurse, technician. Single units may be developed into modular or con-

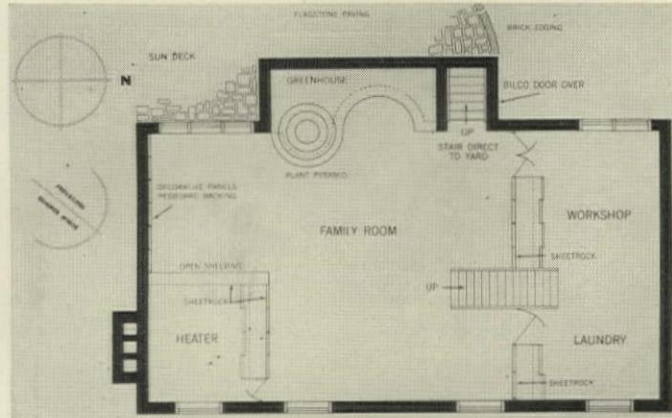


tinuous assemblies; over 100 combinations are available. Cabinets are constructed of tough (mar, heat- and stain-resistant) Fibersin in Doe-Grain finish, with tops available in either Doe-Grain Fibersin, or black or gray Formica. Drawings measuring specifications for wall-hanging, base, corner cabinets, are provided.

W. D. Allison Company (Catalog APO-58, 8-p.) **227**

#### Basement Pre-Planning

Presentation discusses and illustrates basic principles of basement pre-planning. Three common unfinished basement



plans are shown. Factors of stair location, light and ventilation, access, layout and decoration, are illustrated and examined.

The Bilco Company (11-p.) **228**

#### Metal Stairs

Manual describes and illustrates all types of metal stairs including circular, monumental, conventional stairs; contains design data covering all component stair parts, arranged according to type of stair. Several pages are devoted to additional railing designs. Load tables are also given a special section.

National Association of Architectural Metal Manufacturers (72-p.) **229**

#### Kitchen-Planning Guide

Planning guide shows typical arrangements of kitchen appliances and facilities for pleasing atmosphere, as well as convenience. Full-color photos show kitchens with built-in Revco Gourmet and Custom refrigeration and freezer units in various finishes, contrasting or blending with colors or wood finishes—units, of various capacities, are available in stainless steel, copper-glo, matching wood and colors—install in side-by-side, over or under arrangements, or alone.

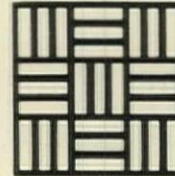
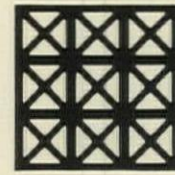
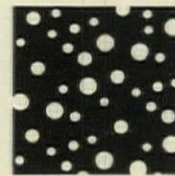
Revco, Inc. (16-p.) **230**

#### Commercial Building Telephone Planning

Booklet spells out benefits of advance planning for telephone service, contains step-by-step review of what is needed in preliminary stage of construction to provide flexible communication setup. Among points covered is the telephone-terminal room where incoming and building-service cables terminate, features such as improved dial systems, speakerphones, telephone-answering sets, and concealed wiring. Also included are sections on underground

(Continued on page 106)

For more information, turn to Reader Service card, circle No. 307



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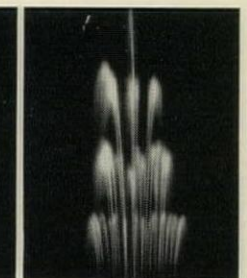
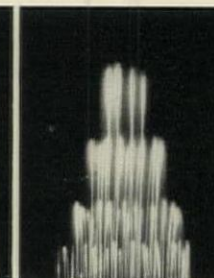
See Sweet's File—30f/Ha



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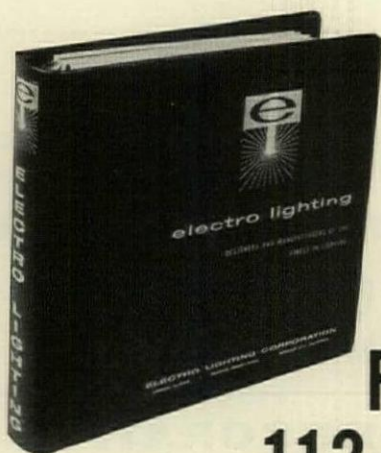
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Just  
Published

### PARKING

By Geoffrey Baker  
and Bruno Funaro

Here are photos and plans of parking lots, ramp garages, parking decks, underground garages and elevator garages. Examples are drawn from large cities and small towns. There are suggested zoning requirements for parking and freight dock space. To simplify the layout of parking space there is a special ten page section of easy-to-use diagrams and tables. These show parking patterns and stall sizes for most advantageous use of a given site under various parking conditions. 200 pages, 8½x10½, 225 illustrations. \$9.50



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## p/a manufacturers' data

and aerial cable, the use of conduit, telephone-cable riser system, and underfloor-distribution systems.

American Telephone and Telegraph Company (22-p.) **231**

### INTERIOR FURNISHINGS

#### Handsome School Furniture Is Flexible

Brochure shows line of tubular steel and aluminum school furniture characterized by lightweight construction, simplicity of design. Pictured and described are stacking tables and chairs, available in junior and senior sizes—tables in trapezoid, round, hexagonal, and rectangular shapes. Desks



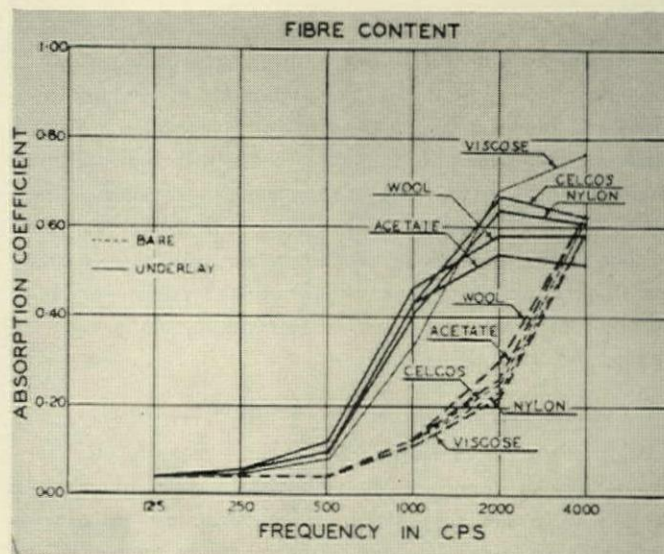
include single- and double-pedestal teacher types, and student fixed and lift types. Also shown are shelf storage units offering opportunities for pleasing, functional arrangement, singly or in multiples, and heavy-duty and saran stacking cots.

School Interiors, Inc. (22-p.)

**232**

#### ★ Sound Conditioning with Carpet

Brochure points out functional and decorative advantages of carpeting as floor covering—presents results of scientific study made on its acoustical value. Tests reveal that carpets and rugs have equal airborne and impact-noise sound-absorption with most standard sound-conditioning ma-

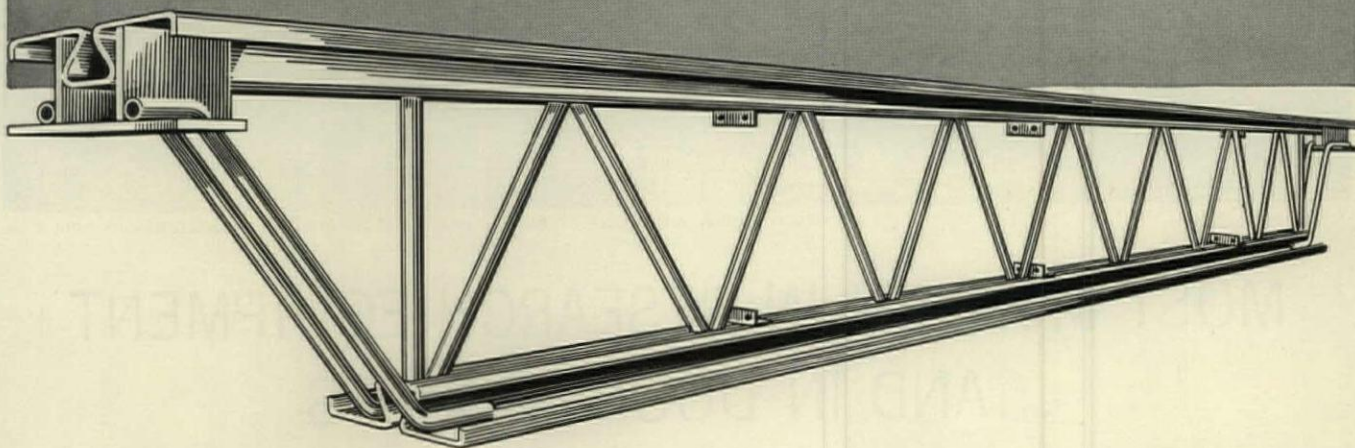


terials, reduce airborne noises slightly over 50 percent. Methods of testing, findings on impact noise reduction considering pile structure, density and depth, fiber content, with and without underlay, are fully discussed, with graphs. Carpet Institute, Inc. (10-p.)

**233**



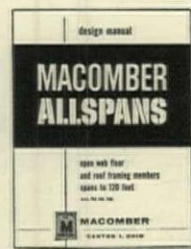
# MACOMBER ALLSPANS



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Macomber ALLSPANS, the economical high-strength open web floor and roof framing member, cover the entire range of sizes through 120 feet. Utilizing high-strength, cold roll-formed V-Section chords to provide maximum lateral rigidity and reserve strength, ALLSPANS now bring new standards of quality, performance and design efficiency to America's architects and engineers.

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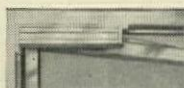
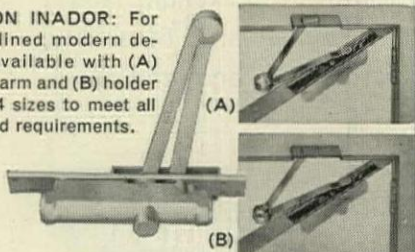
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## MOST MODERN IN RESEARCH EQUIPMENT ...AND IN DOOR CLOSERS

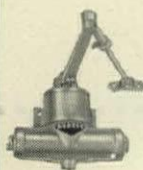
New Graphic Products Building for Minnesota Mining and Manufacturing Company  
has NORTON Door Closers specified throughout

### Complete Norton Line Meets Every Door Closer Need

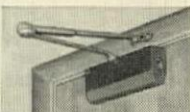
**NORTON INADOR:** For streamlined modern design; available with (A) regular arm and (B) holder arm... 4 sizes to meet all standard requirements.



**NORTON 750:** New corner design with concealed arms, for all types of doors, particularly narrow-rail doors.



**NORTON SURFACE-TYPE:** For all installations where concealment is not essential.



**NORTON 703-N** Compact surface-mounted type... 1 1/2 inch projection.

Norton Door Closers were specified for this distinguished structure because of their outstanding record of proved dependability. Where concealment was desired, Norton INADOR Closers were chosen for complete harmony with the clean-lined contemporary design of doors.

Inador's rugged mechanism fits snugly inside a mortise in the top rail of any 1 3/4" door, or can be used on 1 3/8" doors by taking a full cut out of top rail and applying special side plates. Despite this extreme compactness, however, Inador is a true liquid-type closer with all the reliability, low maintenance and precision workmanship characteristic of all Norton products. For complete data on these and all other Norton models, consult the current Norton Catalog #57. Write for it today.

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## Looking Forward to August

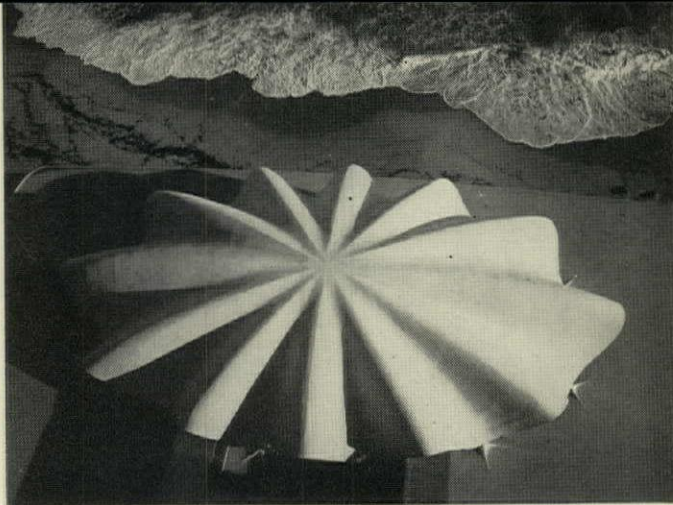
### PROGRESSIVE ARCHITECTURE

*Puerto Rican Portfolio.* AUGUST P/A reports on some of the recent work in Puerto Rico. Two fabulous resort hotels—La Concha in San Juan and Dorado Beach in Dorado—will be lavishly illustrated, and the dramatic new extension of the Capitol will be presented. An examination of the interesting practice of an architect living in Puerto Rico—Henry Klumb—will round out the portfolio.

*Progress Report: Dean L. Gustavson Associates.* The popular P/A series on the work of young firms which do notable work will continue in August with the work of Dean L. Gustavson of Salt Lake City. Among the buildings to be shown are a music studio, a restaurant; residences, schools, a technical center for General Motors, and a telephone office and exchange building.

Interior Design Data in August will take up the interesting problem of Design of Exhibition Structures. Recent work of George Nelson, Susanne Wasson-Tucker, and Jaap Penraat will be shown.

Technical articles in AUGUST P/A will include "Automatic Control for Buildings," "Epoxy Plastics in Architecture," and "Heat-Pump Redistribution Systems."



Photos: Alexandre Georges





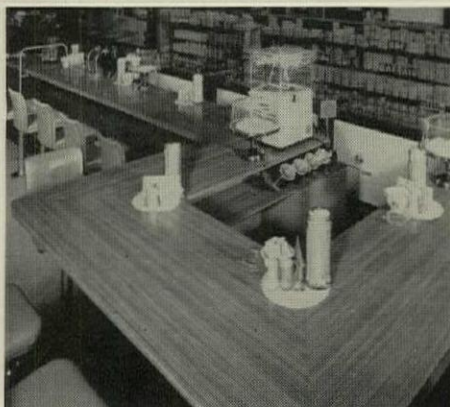
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# THE EMERGING URBAN PATTERN

This special issue of **PROGRESSIVE ARCHITECTURE** is devoted to a discussion of the possibilities open to us in the planning and the replanning of our cities. These are possibilities, we believe, that can be fulfilled and developed only if the architectural-planning professions point the way for their fellow citizens. Our Guest Editor for the issue, the author of most of the text that follows, is Victor Gruen, Architect.

Gruen was our choice for this task for two reasons. First, he and his firm have a distinguished record of accomplishment in those areas of architecture and planning which we call here *the emerging urban pattern*—shopping centers, redevelopment projects, schemes to revitalize urban centers. Second, he is an enthusiastic spokesman for the city as a vital part of our culture.

The city has many false friends today. There are those who see opportunities for quick profits in the appreciation of urban real estate in some city centers, as the sprawl and the concentration grow unchecked. There are those who have a nostalgia for dirt and squalor on the one hand, or neons and strip-barkers on the other—phases in urban growth in the United States well documented from time to time by a Farrell, a Steinbeck, or a Kerouac, but surely not to be preserved.

The true lover of the city, Gruen believes, sees it as the center of an urban culture, the mainspring of human thought and of human achievement. Man can find an environment which permits him to develop fully as an individual only in the city. When it is well planned the city can give each of its inhabitants a choice between privacy and sociability. It can have its open spaces where man can draw a deep breath, as well as its busy streets where man scurries to his particular urban task. The city can be full of variety and it can be a center of excitement and contrast; it can provide the greatest *fun* in the world. And at the same time it can give to its people inspiration, stimulation, and uplift. These are the positive qualities of urbanism.

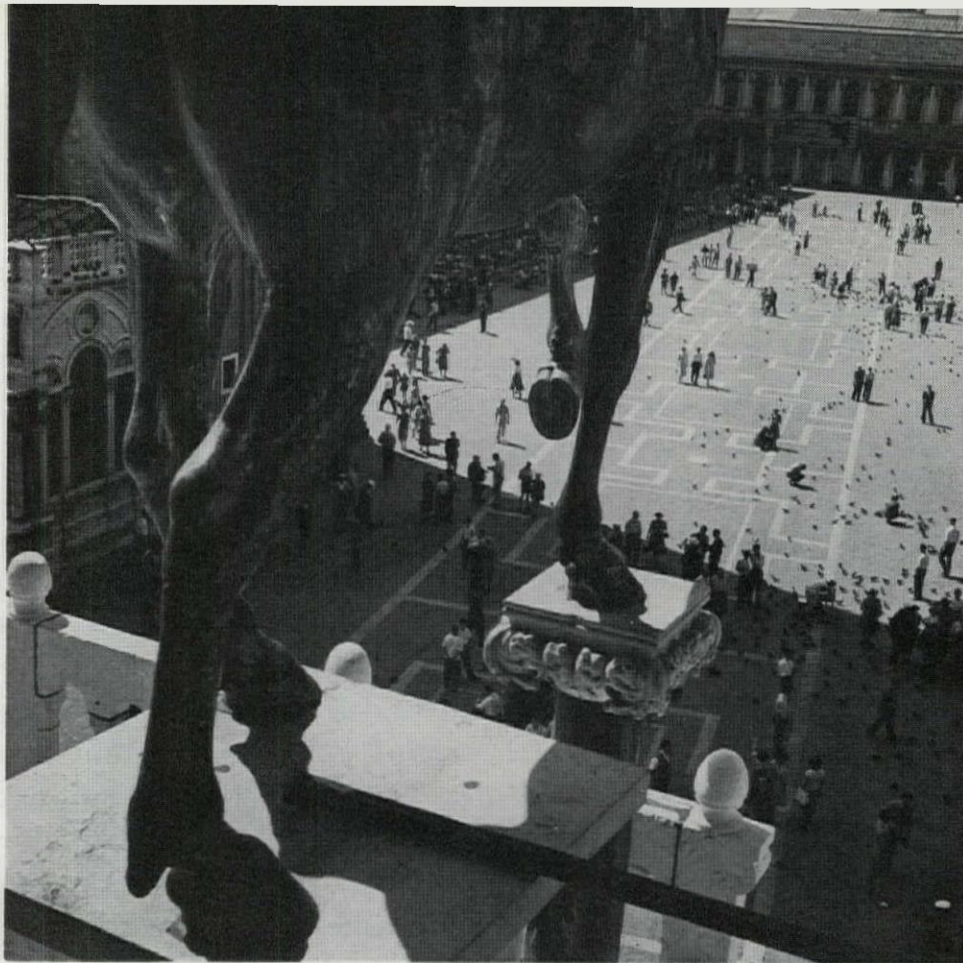
The fact that today's cities do not do for us all these things that they could do is indisputable. What are the alternatives that city-dwellers face? Should we look forward to a thinning-out of the urban quality—a continuing explosion that gives us neither urban nor rural character? Should we accept unplanned, auto-choked concentration leading to chaos and decay? Or can we plan for some means of curing the present ills and developing future potentials?

P/A Editors and their Guest Editor are optimistic. The good things that have already been done, Gruen points out in this issue, are important experiments in the larger field of sensible renewal. The prophets of doom can easily point to increasing decay, chaos, entropy. Things will obviously get worse if they don't get better. But the point is that it is also possible for things to get better—given some effort on someone's part.

Can the present urban pattern be improved? We believe that the answer is yes. In what way should the pattern be changed? We feel that the pages that follow indicate directions.



1



## IN DEFENSE OF THE CITY

*The Emerging Urban Pattern*, title of this special issue of *PROGRESSIVE ARCHITECTURE*, implies a belief in the emergence of a new form for our urban areas. To illustrate the extent of my hopefulness, I would like to invite the reader to go with me for a few minutes on a trip out of the city, to travel with me through the endless spread of suburbia and to go on until we pass the last gas station and last hot-dog stand, until we arrive at something which is hard to reach and difficult to find—unspoiled nature. I ask him to walk with me until we reach a virgin forest. We will assume that it is late winter with spring just around the corner, the forest free of snow, dark and somber, the ground disorderly, full of branches and twigs which winter storms have broken and covered with the leaves of the last fall season. The leaves and twigs and branches are grayish brown, moldy and rotten, and the atmosphere is one of sadness and deterioration. Yet as our eyes become used to the half darkness, we discover here and there something alive, something fresh—the first spring flowers which carefully, as if reconnoitering, poke their heads through the ground cover. They are the first

emerging witnesses of new growth. They are proof of the fact that there is new development underneath, that there is life and hope below the surface and that spring with its ecstasy will soon arrive.

Like this late winter forest, our urban scene today is full of anarchy, sadness, rot, deterioration. But there are emerging signs of a new urban pattern to come. They are as rare and hard to find as the first violets, but they are witness to the fact that underneath the disorder there are new spirit, new thought, new ideas which, with the stimulus of a springlike climate, will break through to the surface.

In this special issue we want to discuss both the projects which have broken through to the surface as promising examples of what could be done, and the plans which are still waiting, to germinate, for the light and warmth of aroused public opinion, private initiative, and the necessary legislation.

We have been dissatisfied with the functioning and the environmental qualities of our cities for a long time. Traffic congestion, slums, and blight did not manifest themselves yesterday or today. They have been with us for many years,

but until recently we believed that we could escape to new frontiers and start there a better urban life. First the Midwest, then the West, and then the open countryside surrounding each of our crowded cities were the targets of urban refugees. Only now are we beginning to realize that not only are we running short of open spaces but also that the hopes which we had that things would be better in new areas have proved vain. The new cities of the Midwest and West are beset by traffic congestion, by slums, by ugliness, by inefficiency, and by economic deterioration to the same degree as the older ones along the Eastern seaboard. In some cases, we have even managed to add to the old list new evils, like the smog in Los Angeles.

Moving out to the suburbs did not bring us the advantages of contact with nature, as we had once hoped. We have carried with us all the disadvantages of the city, at the same time losing most of the advantages of urban life.

Now we are starting to realize that there are no places left to escape to, no new urban frontiers to be opened, no easy way out. We now feel the necessity for analyzing what is wrong with our



cities and what can be done to make the urban pattern more workable and more livable.

It is high time that we do so. A new generation is growing up, a generation which has never known what the pleasures and advantages of true urban life can be. Our demands, our expectations with regard to city life are on the downgrade. The only inkling which our younger generation has of the fact that a city can be more than a place to work in is derived from their journeys to European cities and older settlements, most of them in other parts of the world, such as the ones here pictured. Thus if we do not act decisively in our generation, the danger exists that the awareness of the advantages of urban culture and urban life might disappear, and with it the expressions of urban culture which have been the basis of most human progress from antiquity to the present.

The urgency of the problem is high-

lighted by the fact that our country is becoming increasingly urbanized. This condition is caused by the rapid population growth and by increasing industrialization, with less space used for agricultural activities. In 1850 the population of urban areas was 3.5 millions and represented 15.3 percent of the total population. In 1950 we had an urban population of 97.6 millions, representing 64 percent of the total. In 1960 the urban population is expected to reach 130 millions.

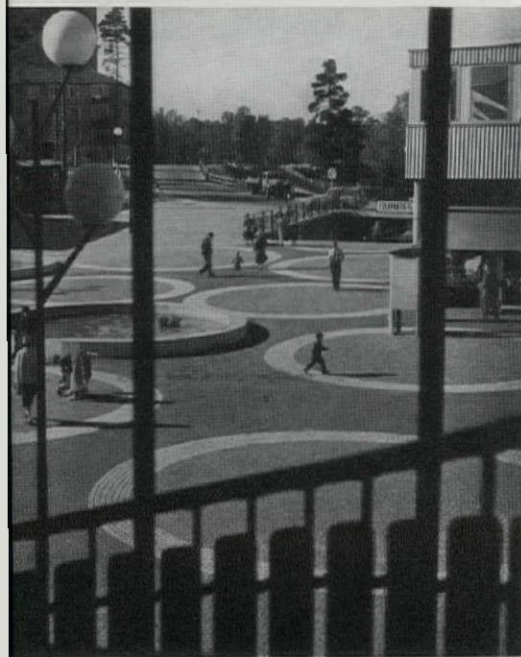
Thus in many areas of the United States the previous condition of overabundance of the commodity of space has given way to a condition of severe shortage. Unchecked urban sprawl is a luxury which we can no longer afford.

This space shortage is aggravated by the fact that not only has the human population of the United States grown from 20 millions to 170 millions in one hundred years, but also an additional

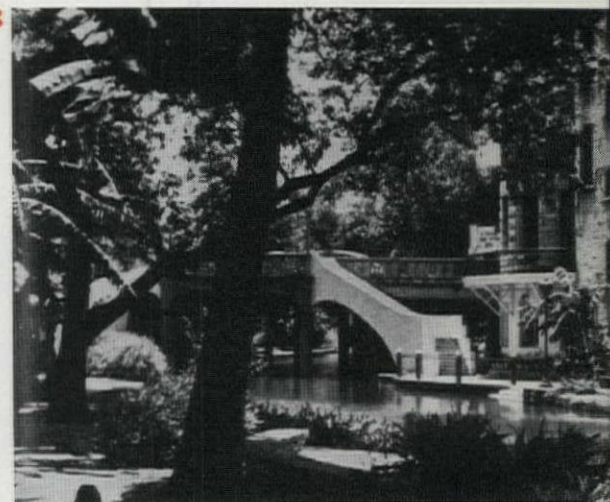
population group with an insatiable hunger for space has invaded our nation. This new group is the automobile population, which has grown from zero in 1850 to about 60 million "hoods" at the present time. In addition, we are now engaged in activities which are characteristic of conspicuous space consumption in urban areas, activities which were unknown a hundred years ago: airfields for jet planes, horizontally spreading industrial plants, and a network of highways, expressways, freeways, and toll roads which with their ramps and cloverleaves take a heavy bite out of space inventory.

The great majority of our cities were laid out and built when the supply of space seemed inexhaustible, at times when the automobile, the airplane, and the conditions of mass production and mass consumption were unknown.

Most of the problems of our urban areas stem from the fact that we have failed to take cognizance of the revolu-



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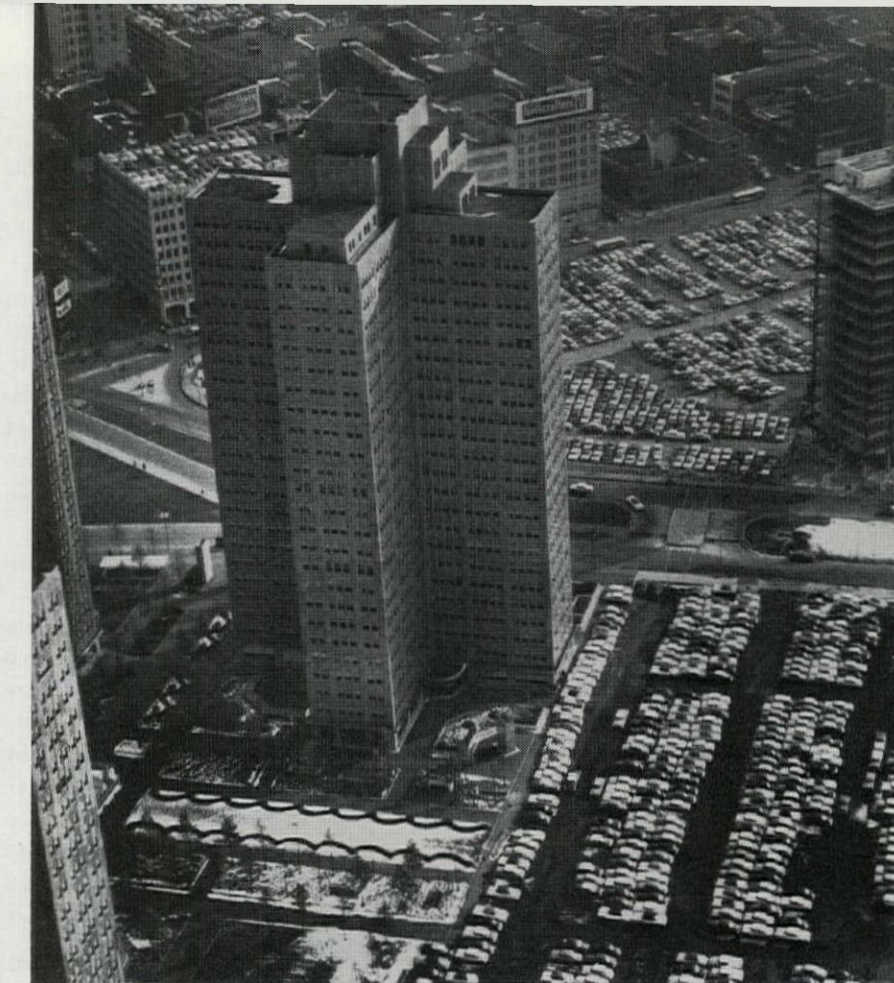
1 St. Mark's Square, Venice, Italy. 2 Val-  
lingby, west Stockholm, Sweden. 3 San An-  
tonio River, San Antonio, Tex.; landscaped  
as a pedestrian way under WPA. 4 Town  
square, Capri, Italy.



tionary changes which have taken place in the last fifty years. We have continued to squander space and land aimlessly and wastefully, scattering urban development over the countryside until the metropolitan areas of one city flow into those of others. By this failure, we have created disorderly and anarchistic conditions. We have made our cities unlivable and unworkable, until they have become economically impractical and have ceased to give human enjoyment. To a significant degree, we have lost the advantages of urbanism and those qualities of a mode of life which are termed "urbane." If we want to regain the positive qualities of urbanism, it will be good to start refreshing our memories concerning its values and characteristics. A city, by Webster's definition is "any important town." The Latin root meant originally *refined* or *sophisticated*. In later context we have come to mean by a city a *center of culture* (exhaustively documented by Lewis Mumford in his *Culture of Cities*).

In 1956, at a conference on Urban Design at Harvard University, Pennsylvania's Governor David L. Lawrence (then Pittsburgh's Mayor) said, "We think that civilization cannot be a string of country villas or a sprawl across the landscape of incomplete facilities revolving around nothing. We think there must be a center where the highest skills may congregate and exchange ideas and services; where the rare and beautiful might be exalted; where the art of administration may be practiced; where the human need for mingling with one's fellows may be met."

A city is obviously a comparatively large human settlement, but size alone is not decisive. We have in this country townships with a large population (for example, the township of Hempstead, Long Island, has 750,000 inhabitants) which could not be termed cities. On the other hand, in our own past and in other countries there have been communities of a few thousand souls with truly urban characteristics, such as the city of Athens in Greek antiquity. There are cities of 50,000 in Europe which successfully support an opera, legitimate theaters, libraries, and museums, and which have distinctive flavors in their characteristic architecture, art, public life, and cooking. The city of Venice, Italy, with a small permanent population, is visited by hun-



1

1 Point Park, Pittsburgh, Pa.; Ralph E. Griswold Associates, Landscape Architects; Clark & Rapuano, Landscape Architects-Engineers. 2 Aerial view of downtown Rochester, N.Y. 3 Freeway interchange, Los Angeles, Calif.

dreds of thousands yearly who want to enjoy its urban culture. On the other hand, there are cities with populations of a million or more which signify to their inhabitants only places in which one can eat, work, or sleep—and be annoyed with the necessity of bucking traffic on the way to work and on the way home. In contrast to cities with true urban character, these concentrations do not receive or expect expressions of loyalty or attachment from their citizens. They are not in a position to offer enjoyment or pleasure, and they therefore have a hard time collecting taxes even for the most necessary expenditures.

The citizenry is suddenly concerned about urban problems; people have become painfully aware of them in their daily lives. Traffic congestion and poor

functioning of public transportation cause inconvenience and even dangers, and rob us of much of the leisure time which we were hoping to gain because of shorter working hours. Efforts to enjoy the countryside on a weekend or during vacations become frustrated. Smog, disorder and filth destroy the enjoyment of community life. The businessman, the retailer, the real-estate owner are deeply concerned about the unpredictable shifting of real-estate values and the deterioration of the economic climate in old established downtown areas. Municipal governments are fighting a losing battle, caught between the downward spiral of income from taxes and the upward spiral of expense. For all these reasons, urban deterioration has become, within the last five years, a topic of conversation and dis-





cussion topped in the headlines only by rockets shooting to the moon and the latest murder case.

There is scarcely a city in the United States where measures have not been taken—or are not planned—to alleviate the situation. But in the great majority of cases, these steps have a stop-gap character **3**. They take the form of traffic regulations, signaling devices, one-way street systems, “scramble” crossings, and other general measures which have the aim of facilitating automobile traffic in the most congested city areas. The construction of municipal and private parking garages, highways, parkways, new tunnels and bridges, all undertaken in the hope that new life blood could be pumped into downtown areas by providing better facilities for automobile traf-

fic, have only resulted in increased congestion and in a loosening of the urban fabric until many of our city centers resemble tremendous parking lots rendered inefficient by the remaining islands of structures **2**. Even ambitious new developments like the Golden Triangle in Pittsburgh, though they substitute new and large modern office buildings for the former slums, often result in an anti-urban pattern in which buildings are placed far apart from each other, hindering human communication, and in which the wide spaces between the buildings are filled with moving and stored vehicles **1**.

What is needed to cure the deep-seated disease of our urban areas is much more than stop-gap measures. We need a basic planning philosophy which can

serve as a foundation for long-range planning efforts. To arrive at such a philosophy, it is imperative that we analyze the patterns of those cities which are more successful in their urban atmosphere than others.

There are two cities in the United States which have retained a large quantity of urban spirit and character though they also have been severely damaged by the general development. They are New York and San Francisco. It is significant that they have one important characteristic in common: both of these cities are confined, in their downtown areas, by natural boundaries. Both are peninsulas surrounded by bodies of water. On the other hand, those cities where physical barriers such as bodies of water or mountains do not exist, are the ones which have spread in all directions and which have lost the advantages of urban life to the greatest degree.

Many older cities have kept their urban cores intact through the fact that they were originally surrounded by walls and fortifications. Paris and Vienna derived their urban character, which still remains, from the fact that their centers were originally forced into a compact pattern by city walls which were razed only in the late 19th or early 20th Century. It is perhaps significant that a settlement which grew outside city fortifications is called in German *Vorstadt*, which means “before city,” or a settlement which one reaches and experiences in anticipation of the city. This is in contrast to our English word *suburb* which signifies a lower category of *urbs*, with the connotation of *substandard*.

The advantages of a compact and cohesive city pattern, though it might have been originally enforced by the desire to protect oneself from animals or humans or by the existence of a physical boundary, are obvious. Some fortified cities remain fortified even today against urban sprawl. (It is significant in this connection that the city of Manila in the Philippine Islands refers to its downtown area as *entro muros*, or “inside the city walls.”)

Our appreciation of the values of tightly knit, compact urban centers will be heightened by inspecting some of them more closely. The discussion that follows describes an earlier urban pattern, illustrated by pedestrian planning in the 17th Century in Holland.

v. c.



# A HISTORIC PATTERN

## Pedestrian Planning in 17th Century Holland

by Leonard K. Eaton\*

Ever since medieval times the cities of Holland have attracted students of urbanism. Over two hundred years ago, Sir William Temple, English ambassador at The Hague (1668-1671), commented perceptively on the quality of the Dutch townscape and the devotion of the people to the improvement of their land. This quality, he wrote, "makes the Beauty and Strength of their Towns, the Commodiousness of traveling in their Country by their Canals, Bridges, and Causeways; the Pleasantness of their Walks in and near all their Cities, and in short, the Beauty, Convenience, and sometimes Magnificence of their Public Works, to which every Man pays as willingly, and takes as much Pleasure and Vanity in them as those of other Countries do in the same Circumstances, among the Possessions of their Families, or private Inheritance." Contemporary travelers are likely to be just as impressed as Temple with the high regard in which the Dutch hold their cities and countryside. Last year after a visit to the Netherlands, William Wurster, dean of architecture at the University of California, remarked, "Holland is probably the great example of man's ability to control his entire environment with efficiency, humane purpose, and esthetic imagination. Everything has orderly beauty; old and new architecture, landscape and cityscape, monument and vernacular. The man-made countryside is like a great park, and the towns have a cameo quality with no frowzy edges." Particularly significant to travelers in every period is the manner in which Dutch urban cores are treated as havens for the pedestrian. Both large cities and small towns display enormous solicitude for the man on foot. At a time when the problem of the core is increasingly important in the United States, these older communities will repay consideration.

In many cases the centers of Dutch cities are the products of building campaigns of the 16th and 17th Centuries.

Quite often these areas display a basic form derived from an earlier day and then modified in varying degrees in the period 1575-1675. During these years the Dutch won their independence from Spain in a protracted and bitter struggle, and the entire nation was filled with a sense of pride which demanded expression in building. Moreover, it was a prosperous era. In a curious way the economics of the war with Spain worked to Dutch advantage. Once both banks of the Scheldt had been seized, the enormously profitable trade of Antwerp was diverted to Amsterdam, and that city became the financial capital of northern Europe. The Dutch merchant marine captured a disproportionate share of the continent's seaborne commerce; its ships were protected by a series of intrepid admirals such as De Ruyter and Van Tromp, who disputed with the English for control of the seas. Today historians quite correctly term the first century of the republic's existence a golden age. Perhaps its most characteristic product was the painting of Rembrandt, Hals, and Vermeer. While all the world knows their work, it is not so widely recognized that the period was also great in architecture and planning. Because of the remarkable economic growth of the country, many cities were confronted with the problem of rebuilding their ancient centers or of adding new residential quarters. In most instances the renovations were carried out with astonishing taste and skill. In the three cities shown here, the urban cores remain as monuments to the wisdom and foresight of the 17th Century Dutchman.

### Goes

The small city of Goes is located in Zeeland, a province consisting largely of land reclaimed from the turbulent waters of the North Sea. With a population of about 17,000, Goes is the heart of a rich agricultural area, and the Tuesday market has been a fixture ever since late medieval times. An inspection of a city map drawn about 1572 **1** reveals that

the large square at the center of the town was even then a strategically placed urban core. Except for one additional street leading into the square on the eastern side, the pattern of circulation is today substantially the same as it was in the late 16th Century. As in many Dutch cities, the church is turned away from the square and the dominating structure is the town hall; in a certain sense this subordination of ecclesiastical structures is symbolic of a national determination to keep religion in its appointed place. The town hall, an extremely dignified 17th Century building (partly visible in illustration **5**) occupies the entire southern side of the square. The attractive chamber where the City Council still meets is on the second floor overlooking the square. When the town fathers deliberate, they are forcefully reminded of their heavy responsibilities.

A view of the square from the southeastern corner **2** gives some idea of its great expanse. Since all of the streets leading into it are narrow, its dimensions come as a pleasant surprise, and the visitor has the feeling that Goes has indulged in a really luxuriant bit of communal open space. The area could easily accommodate two or three hundred cars, although it is seldom called upon to do so since the town lies a few miles off the main highway connecting Walcheren Island with the mainland. Despite the amplitude of the space, it is so beautifully scaled that the pedestrian or cyclist never feels lost. A further indication of the original designer's attention to pedestrian aspects is in the handling of the entrances; these are generally composed as right angles so that the effect of surprise will be reinforced.

The commercial buildings and residences which compose the other three sides of the square are a mixed lot. While they are of several styles and exhibit varying degrees of distinction, they have certain important qualities in common. Almost all possess good proportions and an unusual amount of fenestration. A charming 16th Century house, which

\*Asst. Professor, College of Architecture & Design, University of Michigan, Ann Arbor, Mich.



has been remodeled into a dentist's office, is a good example **3**. With its beautifully carved trim and excellent brickwork, this structure provides striking proof of the high level of Dutch craftsmanship at this period. The large windows are apparently a national characteristic. The building also shows a tendency to provide a good deal of visual action on the second and third stories. Architects and planners in that age evidently assumed that the pedestrian is likely to raise his eyes and examine the walls of his open-air room. This notion probably accounts for the consistently elaborate treatment of gables and cornices in Dutch architecture.

The real importance of the square to the city becomes clear if one visits it on market day or on Saturday night. On market day it is closed to automobile traffic and filled with stalls at which the townspeople and neighboring farmers shop **4**. Here one can buy dry goods, housewares, and produce of all kinds; much use is made of gaily patterned parasols to add color to the scene. The costumes of the local farm women add a distinctive note to the market and the observant tourist will note that the sparkling golden clasps of their heavy coral necklaces represent a genuine folk art. Zeeland is one of the few remaining parts of Europe where people wear costumes not to please tourists but because this kind of dress is an integral part of their lives. As the visitor moves from stall to stall, he will feel the immemorial fascination of the bazaar and will come to understand the truth of Lewis Mumford's remark that a market such as this has some of the excitement of its medieval prototypes.

On Saturday night the square becomes even more of a civic theater. It is taken over by various organizations interested in staging public events. Sometimes a band concert will take place, sometimes a gymnastic exhibition, and sometimes a folk dance, with a music caller and with lighting supplied by the local church **5**. On these occasions the numerous side-



**1**



**2**



**3**



**4**



**5**



walk cafes are crowded with spectators, and the old buildings act as a superb backdrop for the dancers. All of this activity is, of course, evidence of an extremely healthy community life and of the central position which the square holds in the minds of the townspeople. It is easy to see that the designers of this open space and the people of Goes have displayed both social and architectural imagination in the highest degree.

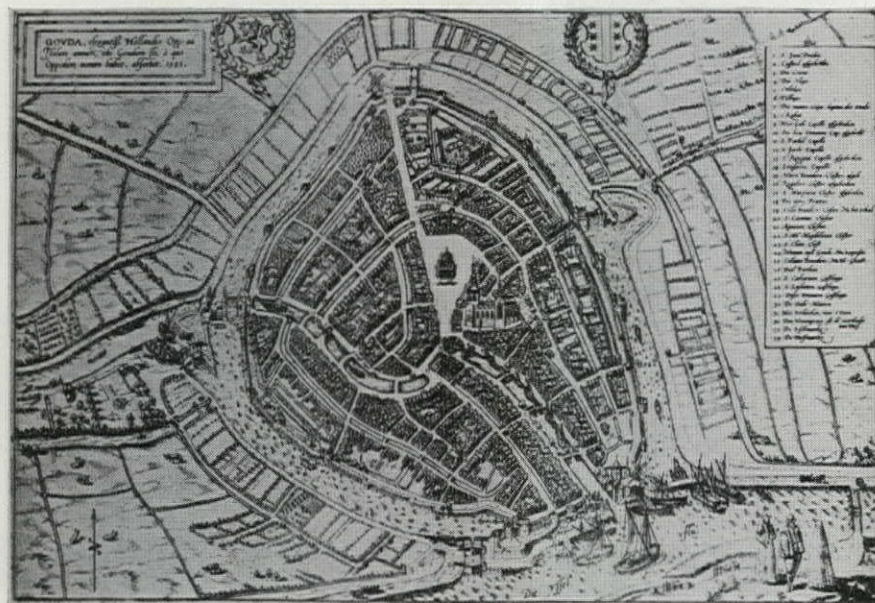
## Gouda

The city of Gouda is a river town which, since late medieval times, has been important as a market for local dairy produce. Its cheeses are still world famous, and for centuries they have been weighed and their quality evaluated at the magnificent market place in the center of the town. This large triangular area, which can easily be distinguished on a map of 1585 **1**, was a gift to the city from a

feudal nobleman, the Lord of Gouwe. As at Goes, the leading church was not permitted to intrude into the space reserved for economic and political affairs. A row of shops intervenes between the western façade of the old St. Jan Kerk and the square, and as further evidence of the importance of trade, the main north-south roadway is brought into the space as a thoroughfare on the western flank. A recent aerial photograph **2** reveals that the arrangement is today very much as it was in the 16th Century. The only major addition to the square is the Weigh House (1660), a neat little building in renaissance style by Piet Post. It is located on the northern side on axis with the town hall. While there have been many replacements among the structures along the edges of the square, they all preserve the excellent proportions and fine detailing of the originals. The market place at Gouda is still a pleasant shopping area. It has, of course, been adapted to automobile traffic. Rows of trees have been planted on the flanks and there is also a series of stout bollards. Thus parking is concentrated along the rim of the space, and the center is left open for pedestrian use.

Perhaps the most unusual aspect of the square at Gouda is the position of the town hall. Located in the center of the market place, it completely dominates its surrounding. While one façade boasts a series of picturesque late Gothic spires and has a pronounced verticality, the other has the traditional Dutch stepped gable and is much more sedate in character. On market day the building is a backdrop for an urban scene as colorful as that at Goes **3**, and one is forced to conclude that few buildings have ever been set off more advantageously. In contrast to the Italians, the Dutch seem to have a habit of using *buildings* as the focal points of their squares. This is not to say that they do not employ sculpture effectively, but it would be hard to imagine a Dutch designer treating an important statue as Michelangelo treated the famous equestrian figure of Marcus Aurelius on the Campidoglio.

The square is, of course, best seen on market days during the cheese-making season. At these times it is crowded with farmers from the nearby villages bringing their products to be weighed and sold. The wagons from each com-



**1**



**2**



**3**



**4**



munity cluster under the standard which bears its medieval coat of arms **4**. These standards are brightly painted, and with the banners and pennants fluttering from the town hall, produce an effect which fairly sings with color and light. The cheese judges stand about in white frock coats, displaying a gravity appropriate to their situation and introducing a note of modern technology into what is basically a medieval spectacle. The invitation to stroll about and take in the market is almost irresistible, and when one grows tired, there is always the ubiquitous sidewalk cafe.

Viewing the squares at Goes and Gouda, one is conscious that the provision of a successful urban open space involves more than the creation of fine buildings. The relationship of the structures to the spaces which lie between them is equally significant, and the provision of visual incidents which will attract the passer-by is likewise an important part of the problem. Into this latter category fall flags, kiosks, landscaping, sculpture, and an enormous variety of other devices. One of the reasons for the success of Victor Gruen's shopping centers is their integration of all these factors. These are the objects which pull the crowds and as these pictures demonstrate, the people make the show.

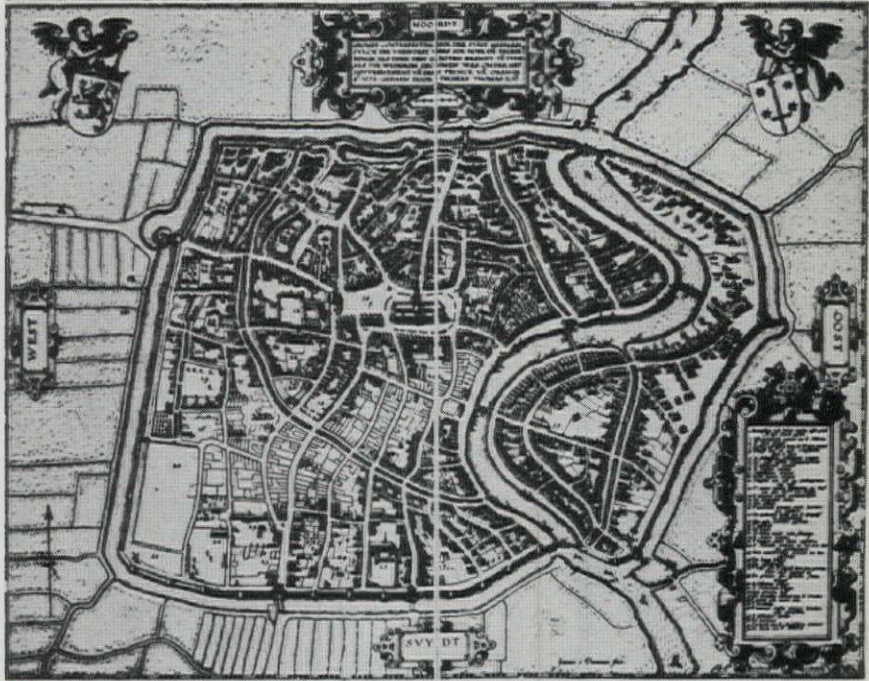
**Haarlem**

Of all the civic open spaces in the Netherlands, the great square at Haarlem is perhaps the most complex and fascinating. Originally a tournament ground for knightly exercises, it developed into a market place and urban core during the late Middle Ages. Its present form, however, is the result of an extensive remodelling carried out largely by one man, the architect-planner Lieven de Key (1560-1627).

Born in Ghent of Protestant parents, Lieven de Key fled to England with his family in 1569 as a religious refugee. Remaining abroad for more than 20 years, he returned to the Netherlands in 1591 and, evidently thinking well of his prospects in the thriving city of Haarlem, settled there and quickly went to work for the municipal building office or Stad-fabrik. His arrival was well timed, since the town was in the middle of an enormous rebuilding effort. Haarlem had been heavily damaged during the terrible

Spanish siege of 1572-73, and in 1576 a disastrous fire had burned out large areas in the southwestern part of the city. These misfortunes might have daunted a lesser people, but the sturdy burghers of Haarlem, with characteristic Dutch tenacity, determined to rebuild their city in a manner more splendid than it had known before. The accompanying map **5** was made in connection with a survey for reconstruction in 1578.

For the first few years after the fire the rebuilding program concentrated primarily on defensive considerations. The walls, which had suffered grievously from Spanish gunnery, were greatly strengthened, and much attention was also devoted to street improvement and the widening and deepening of canals. Comparison with a map drawn by Pieter Saenraedam in 1628, **6**, gives some idea of the magnitude of the job accomplished



**5**



**6**





street 2.

The two paintings are particularly valuable for the student of urbanism since they show the square as it was being used only a few years after its completion. Quite obviously the area was much more than a market place, although it preserved that function, too, especially in the area around the old church of St. Bavo. Essentially it was a show place for the upper middle class, which had so recently taken over power in Haarlem. Newly affluent and exceedingly proud of their heroic defense of the city against the Spaniards, they demanded, and received, a city center of exceptional quality and strength of form. Here the wealthy burgher, clad in the elegant garments in which Frans Hals might paint him, could stroll, take his ease, and enjoy the good life which wealth and independence had brought to him. Pedestrian planning was of the essence in this place.

Nowhere is the robust spirit of the age more visible than in the Butchers Guild Hall (Vleeshal), Lieven de Key's greatest contribution to the square and unquestionably his finest work 3. The Butchers Guild had for some time been troubled with inadequate quarters when, in 1602, de Key began to design their new building for a site on the Lepel Straat, directly opposite the great church. It is significant that he prepared two elevations, one much more expensive than the other, and that the city fathers chose the more elaborate of the two. No expense was spared to glorify Haarlem, and the cost was fully justified when, after the building's completion, it was such a success that the Council had to pass an ordinance limiting the number of sight-seers!

Today the Vleeshal is universally acclaimed as a masterpiece of the Dutch Renaissance, but its real quality is little understood. As a matter of fact, the word "Renaissance" should be used with extreme caution in referring to the work of Lieven de Key. In very few ways does he suit the customary picture of the Renaissance architect. In all his life he was never associated with any royal or aristocratic court, but was quite content to be a civil servant in the employ of the city of Haarlem. His entire approach to architecture was that of the master mason rather than the theoretician, and his sense of planning was thoroughly medieval. It was impossible for him to con-

by the city building office; so large was its task that for several years one-third of the municipal revenues had to be assigned to its various projects. The crucial work on the town center was done within a few years after Lieven de Key's arrival in the city.

To evaluate de Key's achievement, it must be remembered that, though nominally the "city stone mason," he was actually the chief architect, planner, and construction boss for the Stadfabrik, and hence a leading figure in the community. In the course of his more than 30 years

service to the city, he stamped his personality on Haarlem as strongly as Brunelleschi in Florence or Bernini in Rome. His distinctive manner is revealed in his first contribution to the square, a northern wing for the town hall. The effect of this structure is well seen in a painting by Gerrit Berckheyde 1. It completed the western flank of the square, thus increasing the sense of enclosure. Moreover, the free-standing porch narrowed the entrance of the Zijlstraat and at the same time provided a perfect frame for the square as one approaches along that



ceive a building in isolation; his structures were always related to their surroundings in a truly organic manner. Thus the mass of the Vleeshal is handled so as to be a transition between the great bulk of the cathedral and the smaller row of buildings which complete the side of the square. In the last analysis the Renaissance was for de Key a grab bag of decorative details. While retaining the customary form for such a building, he uses semicircular pediments and some exceedingly bold quoining to give visual impact to the façade. It would be hard to find a stronger contrast between brick and stone, and yet the Vleeshal is never a vulgar building, but always extremely delicate and refined. Seen from one of the sidewalk cafes which line the edges of the square, it is a real delight to the eye and a remarkable focal point.

The Vleeshal was not, in fact, de Key's last contribution to the square. His plan also encouraged the building of a series of structures on its northern side **4**. These are in his characteristic style, with elaborate gables and much intricate stone detail picked out against a brick background. The square thus achieved a greater sense of cohesiveness, although the basic outlines remained as they had been in 1578. It is clear that the city-planning process was for de Key a problem of integrating his own design concepts with those of an earlier age in such a way as actually to create the pedestrian scale which is so much admired today. His attitude was at the opposite extreme from that of Baron Haussman, who ruthlessly drove his "cannon shot boulevards" through the medieval quarters of Paris. De Key would no more have conceived of disturbing the fabric of St. Bavo's church than he would have thought of flying to the moon. At the same time he did not hesitate to place next to it a building which differed radically in character from the older structure; he was as "modern" as he knew how to be.

A view of the square taken from a spot close to that used by Berckheyde reveals that the square has preserved most of its original character, although it is today well adapted to vehicular traffic **5**. Like the strollers in the painting, the figures in the photograph are at home in the space which they occupy. While part of the area has been taken over for a well placed traffic circle, one does not



**3**



**5**



**4**

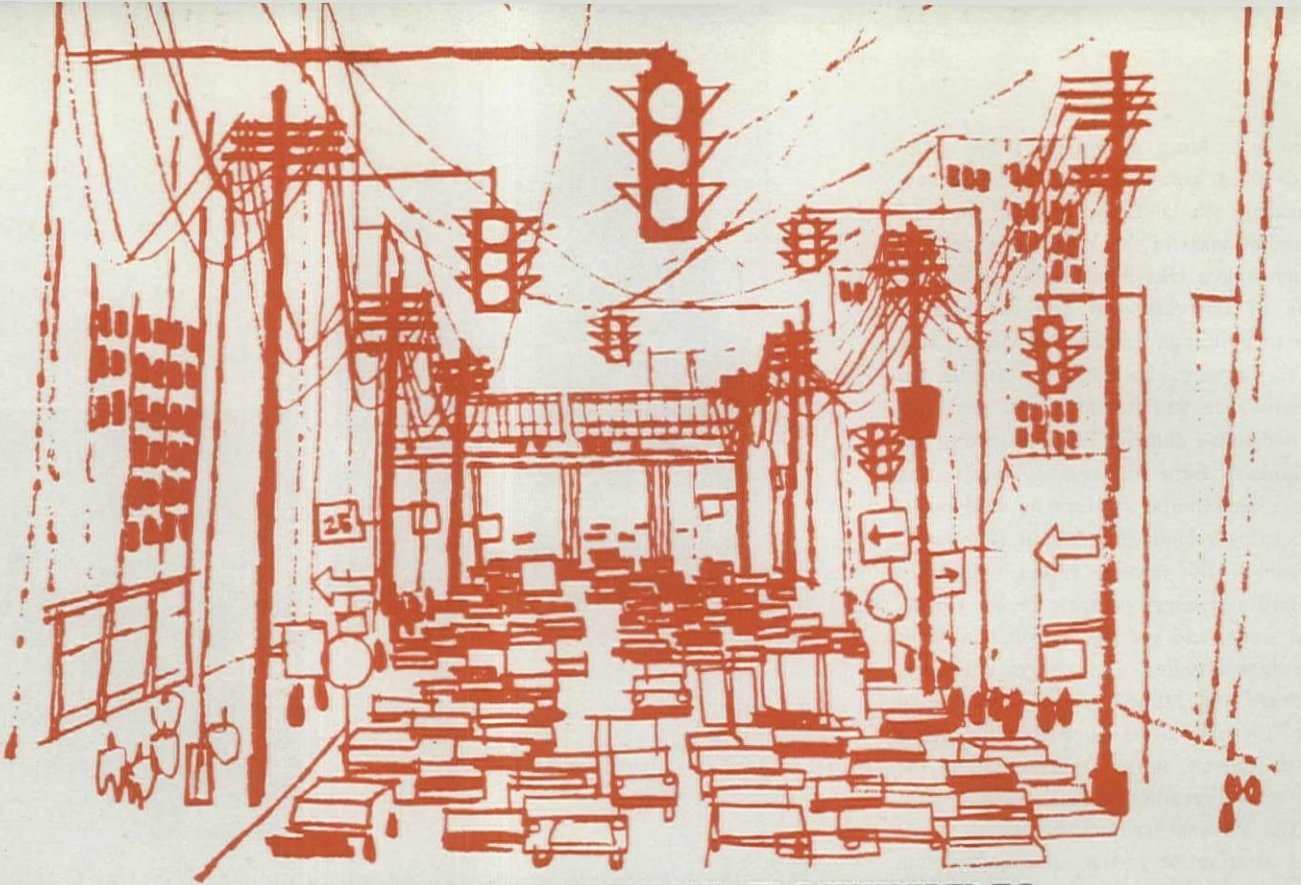
have the feeling that automobile circulation has been served at the expense of the pedestrian. Lamp posts and directional signs have been carefully scaled in accordance with this objective, and the statue of Laurens Janszoon Koster, a Haarlem native who contributed largely to the invention of the printing press, provides a pleasant break in the walk between the church and the sidewalk cafes on the northern edge of the square. It is no wonder that the "Centrum" is still the heart of Haarlem, though it is probable that few of its citizens realize

that they owe its quality to an immigrant named Lieven de Key.

#### Note

*In the belief that footnotes interfere with readability in an article of this type the writer has omitted them entirely; he will be glad to supply exact references to any interested reader. For help in compiling pictorial material the author wishes to thank Prof. Herbert W. Johe of the College of Architecture and Design at University of Michigan, and Jack Hilberry of Yamasaki Associates.*





## THE PRESENT PATTERN

Guest Editor Victor Gruen continues his discussion of today's urban patterns.

We have documented the urgent need for an over-all urban planning philosophy, and we have mentioned compactness, cohesiveness, and the prevention of urban sprawl as guiding aims.

The greatest enemy to the achievement of those ends is one single expression of our advanced technology—the automobile. And on closer inspection we realize that it is not the automobile as such, but the private car—in its improper role as a means of mass transportation within the centers of human activities—which causes the trouble.

In the fall of 1957 a symposium concerning the problems of cities in the motor age was held in Hartford, Connecticut, under the sponsorship of Connecticut General Life Insurance Company. Reporting the meetings, Wilfred Owen, the well known traffic expert of the Brookings Institution, describes the present situation thus:

"Our attempt to be urbanized and motorized at the same time has been less than a complete success.

"Cities and their surroundings, de-

signed to bring people together for a better life, are rapidly succumbing to blight and decay. The automobile has fared no better. Designed to get people around quickly and easily, and at reasonable cost, the family car is bogging down in the tangle of an obsolete urban environment. . . .

"By 1975 more than 100 million vehicles will be jockeying for position on the highways. If these trends are superimposed on today's metropolitan hodgepodge, America will be faced with an absurd paradox. In spite of the world's highest income, the majority of our people may have to endure not only poorer standards of transportation but lower standards of living."

The private automobile is inefficient as a means of mass transportation through centers of human activity. This fact is recognized, for example, in the newly proposed zoning law for the city of New York, which states in its preface: "Off-street parking facilities shall be provided in all Residential Districts and in all Commercial and Manufacturing Districts except for the most congested downtown areas where mandatory off-street parking would be uneconomic and

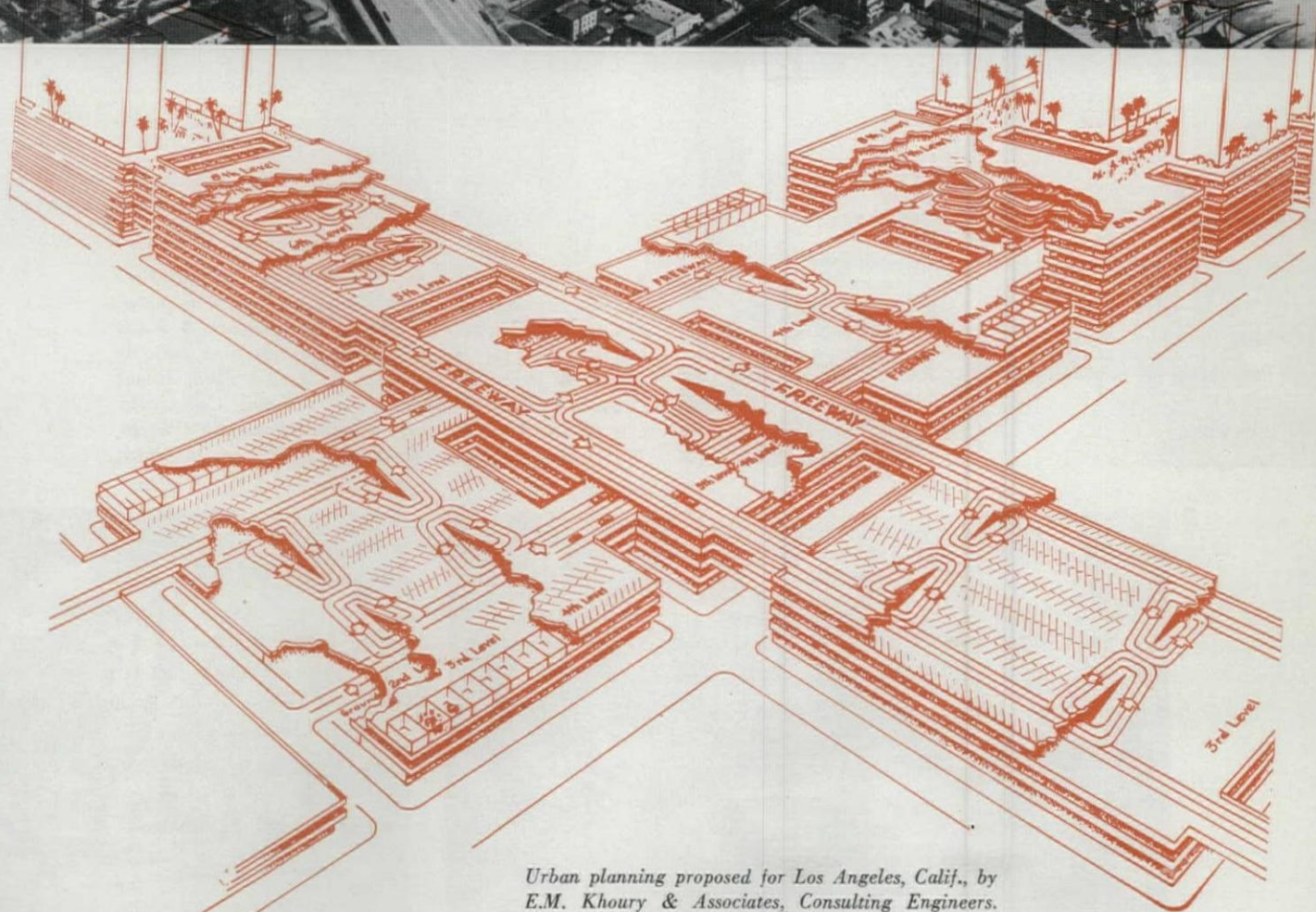
impractical.

"Commercial and Manufacturing Districts in the Central Business Districts of both Manhattan and Brooklyn are exempted from parking requirements to avoid attracting more automobiles and compounding the present intolerable traffic congestion."

Although the thoughts expressed here are completely correct, one wonders whether the law goes far enough in merely not insisting on the construction of parking areas in downtown sections. If it is true that such parking facilities "will attract more automobiles and compound the intolerable traffic congestion," then would not a positive stand which would *prevent* the construction of any such facilities, instead of just not requiring them, be more logical?

The situation which can arise when a downtown area is almost exclusively dependent on private automobile transportation is excellently illustrated in a plan developed by E. M. Khoury & Associates, Engineers, of Canoga Park, California, for Los Angeles (*illustrated acrosspage*). Recognizing the needs of the downtown area and acknowledging the desire of the driver to get as close





*Urban planning proposed for Los Angeles, Calif., by E.M. Khoury & Associates, Consulting Engineers. Basis of the proposal is to bring freeways into the heart of the city in addition to present street pattern, building superblocks above five traffic levels. Plan makes use of space above present streets and lower floors of buildings for parking and freeway traffic.*



as possible to his destination, the proposal suggests eight parking and traffic levels as a base structure, above which buildings are to be erected.

I recently calculated what would have to happen on Manhattan Island if the advocates of increased private automobile traffic should succeed in completely bankrupting the financially shaky public transportation system. If everybody working in or visiting the main business centers of Manhattan (the Wall Street area and the midtown commercial area) had to get there by private automobile, it would be necessary to demolish every building in these areas, to build nine levels of transportation space, and then to construct new office buildings and other structures above them. The parking problem, however, would still not

be solved. If one considers that an automobile needs about 600 square feet in order to move at reasonable speed and 400 square feet for storage, including the necessary ramps and circulatory drives; and if one further considers that the construction of a covered parking deck, depending on local conditions, costs somewhere between \$2500 and \$4500 per car space, the utter madness of any attempt to serve downtown areas exclusively by the private automobile becomes apparent.

In most of our cities we have allowed the public transportation facilities to deteriorate. During the last fifty years, a time span in which fantastic progress has been made in all technological fields, not a single important improvement has been applied to public trans-

portation. If we asked them to, our inventors and technicians as well as our manufacturers could certainly furnish us with revolutionary public transportation solutions at a cost which would be only a fraction of what we are spending now and will have to spend in the future for new highways, freeways, and street-widenings—facilities which have been constructed and are planned in our urban areas with tremendous financial and human sacrifices.

In Caracas, Venezuela, a multi-lane freeway, the Avenida Bolivar, cuts like a knife through the downtown area, with the effect that 125 acres of land in the very core of the city have been empty for many years because they have been rendered inaccessible **1**.

In New York, the facilitators of traffic



**1**

**1** Traffic goes under Centro Simon Bolivar, Caracas, Venezuela; Architect, Cipriano Dominguez. **2** Washington Square, New York, N.Y., used as bus terminal. **3** Washington Square in the days when it was used only by people. **4** Proposal (overruled) to extend Fifth Avenue through Washington Square; City Planning Commission, City of New York. **5** Congress Street Expressway, Chicago, Ill., looking east, with new West Side Subway in center.

**2**



**3**





recently proposed cutting a road straight through Washington Square in order to improve traffic conditions on the now existing curved road which already cuts the park in two. It may be a hopeful symptom that an aroused citizenry has not only been able to prevent this plan but has succeeded in closing the park to *all* traffic. Traffic experts predicted traffic congestion in adjoining streets, but because of the circuitous route which automobiles now have to take, private car traffic has actually decreased in all surrounding areas. The park has become easily accessible and residential areas around it more desirable **2, 3, 4**.

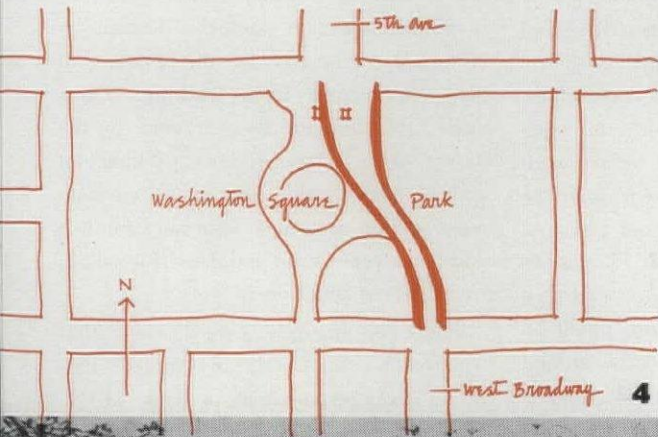
The private automobile can serve effectively only the less densely populated urban areas; any approach to a new urban planning philosophy must realize

that transportation to and from core areas will have to rely to a large degree on public transportation. Large cities will have to modify their investment programs, and emphasize major investments for the construction of new public transportation facilities, and the improvement of the existing ones.

An encouraging step in this direction has been made by the Chicago Planning Commission, which requires that every new freeway constructed must provide in its center rights-of-way for rapid transit. The first of the new rapid-transit lines has been opened in the center of the Congress Expressway, and public transportation traffic has increased healthily since **5**. Cleveland, Ohio, has installed good rapid transit on old existing rights-of-way and has constructed

parking areas for private automobiles around suburban stations. Here, too, public transportation has increased its patronage.

In the planning for the revitalization of the downtown area of St. Paul, Minnesota, our office tried to convince the highway department, without success, that a freeway cutting through the downtown area should be moved to its boundaries, where it would fulfill the double function of serving traffic bound toward the city center or toward other areas, and of defining effectively the core area of the city. In freeway planning through urban areas, the test of maximum benefit to the community rather than the criterion of minimum cost must prevail in the selection of routes.





# THE EMERGING PATTERN

A new urban-planning philosophy (the emergence of a new urban pattern) will be salutary only if it fulfills the following conditions:

1. It must be based on the tenets of a free, democratic society.
2. It must march in step with our scientific, technological, and sociological progress.
3. It must be applicable not only to the present but to the foreseeable future. (Plans should be projected for the next fifteen to twenty years.)
4. Its aims must be realizable without the necessity of sacrificing or destroying a large portion of the structures of our cities.

What must be changed and modified are not the individual structures but the basic pattern in which they are placed.

The main threads of today's urban pattern are streets, roads, highways. In the fabric of the spreading urban scene, they usually appear in gridiron formation. Their function is a two-fold one. They serve, first, as lineations along which all structures designed for human activities are arranged—from maternity hospital to mortuary, from cathedral to hot-dog stand, from mansions to Skid Row saloons. The second function they are expected to fulfill is to serve as tracks for a bewildering number of rubber-wheeled vehicles.

The tragedy is that these two uses are utterly incompatible; one use defeats the other. Buildings serving human activities located on the banks of rushing traffic streams are undesirable and unlivable. Traffic carriers bordered by structures which constantly receive and emit people and vehicles must necessarily be overcongested. We seem to understand that ranch houses located on both sides of an airport landing strip are not idyllic. Some time ago we concluded that railroad trains do not belong on Main Street. But we stick stubbornly to the notion that we must have automobile traffic rushing by our front porch, though it is denser and less disciplined than scheduled airplane or railroad traffic.

In the freeway system we have found the natural habitat for the mechanical

being. The entrance ramps are marked with signs: "FORBIDDEN TO PEDESTRIANS." The human being on foot can rightly demand *his* own natural habitat—an area of restfulness and quiet, unmolested by mechanical noises and technological smells, with an opportunity to walk and a chance to look around, observe, and think without being pushed, maimed or killed by any of the machines which we have invented. It would only be fulfilling the laws of elementary justice to mark entrances to such reserves with signs: "FORBIDDEN TO AUTOMOBILES."

Basically, the aim of a new planning philosophy must be to sort out and make order—to separate flesh from machines, vehicles from people, and various types of vehicles from each other. To attain this aim, we must abandon the gridlike arrangement characteristic of today's urban pattern. It will have to be replaced by a *cellular or cluster arrangement*, similar in structure to the organisms which nature has created and within which it has arranged everything from molecules and cells to the planetary system. Urban cells will be of different sizes; in some cases they may serve a single purpose (residential, perhaps) and in others a multiplicity of purposes. Cells will be separated from each other; the larger they are, the wider the separation. The urban cells will be arranged in clusters. A number of them might be arranged around a working and business, cultural and social nucleus **1**. A number of such community clusters, separated from each other by open land, might be grouped in a larger constellation around a more potent activity cell **2**; and a large number of such constellations might ring a powerful solar body, the downtown core of a metropolitan area **3**. The open land between cells, clusters of cells, and constellations of cells within the galaxy of a metropolitan area will serve agricultural purposes, and could become orchards, recreational areas, sports facilities, lakes and ponds. Within them will also move all means of transportation, radially as well as in concentric fashion **4**. The concrete ribbons of freeways and highways, the rails of rapid transit transportation and railroads, sep-

arate lanes for express bus service, all will touch in an encircling fashion the various elements of the urban organism—but they will never cut through it. In some cases, they might move underground or overhead, but the human activity areas themselves will remain reserved for the use of human beings on their two feet. They will be pedestrian islands, and walking will be the main activity. Only in the busiest and most concentrated areas will the walkers be aided by small, slow-moving electric buses of the exhibition type, or, where connection between two areas is involved, by moving sidewalks or similar devices.

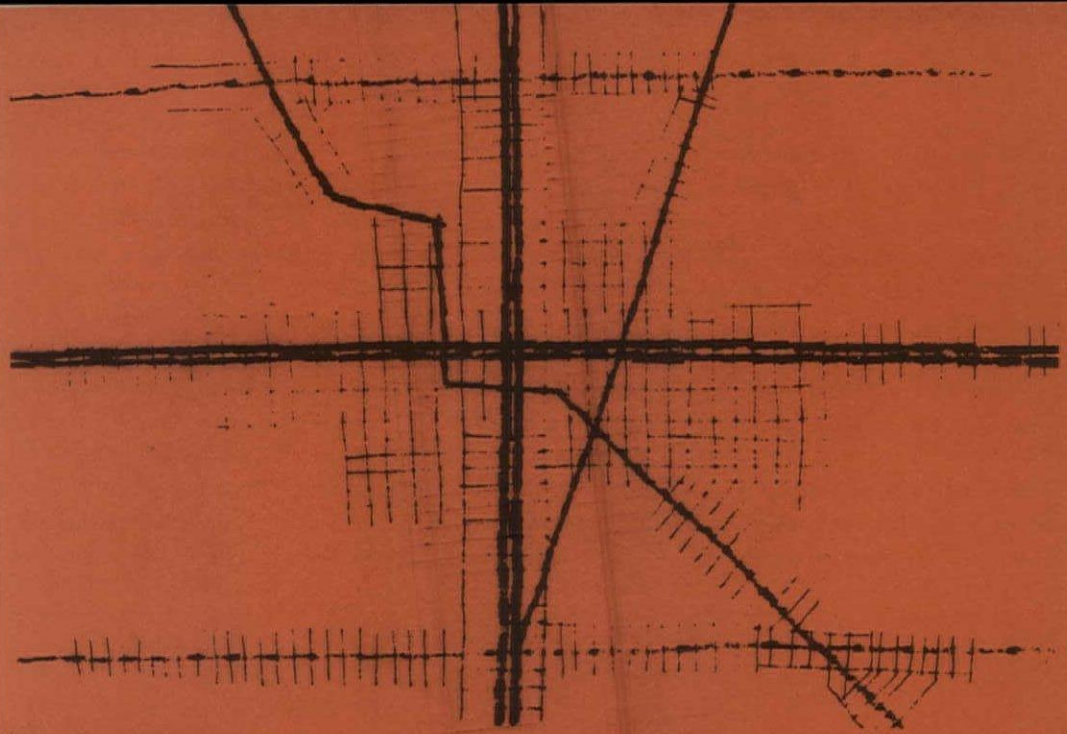
Traffic areas within human activity centers, which now often occupy up to 50 percent of the total ground area, will have to remain open only for emergency vehicles. Thus additional space for new structures and for the creation of a more compact, more interesting and more exciting environment will be created.

The size of each nucleus or cell would be governed by "limits of walkability." These limits are dependent on time, distance, and desirability. Time and distance are constant factors; desirability is measured largely by the amount of pleasure derived from walking. Obviously, this amount is near zero in the desert or in a tremendous parking lot and of considerable size in an environment which provides superior comfort and ever-renewing impulses for sight, sound, scent and touch.

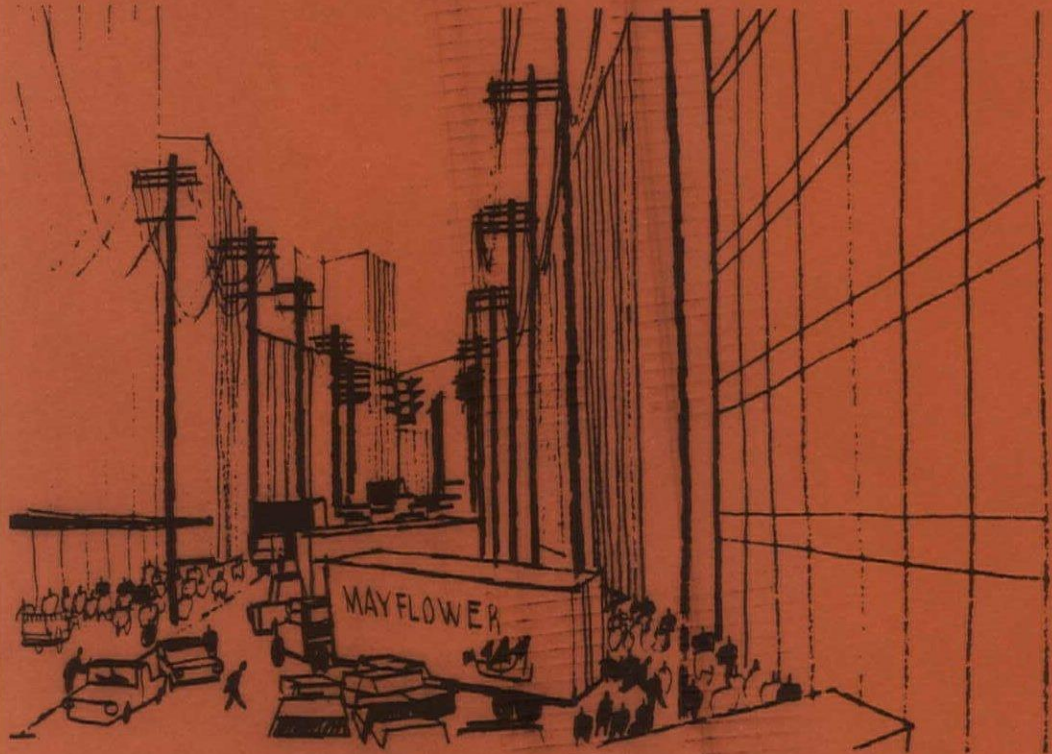
There is an ugly rumor afoot that Americans cannot walk any longer. This is an exaggeration, as a look at St. Mark's Square in Venice during the tourist season will prove. Most of its visitors are Americans who have traveled at great cost across the ocean—in order to walk where walking is pleasant.

The planning philosophy outlined has nowhere yet been translated into reality, but elements of this emerging urban pattern have become apparent during the last decade. In some cases we have to go to the suburbs to find them. In others, they are still only on paper. But in some instances they are close to true implementation.

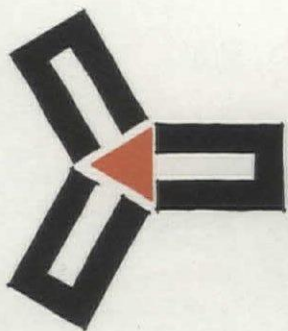




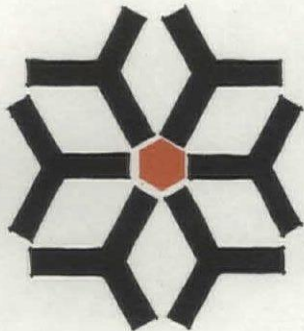
*"... the main threads of today's urban pattern ..."*



*"... structures which constantly receive and emit people ..."*



1



2



3



4



Examples of cluster-type formations within suburban areas are to be found in the field of regional shopping centers. Though located mostly in outlying suburban areas, they are of utmost importance to our considerations.

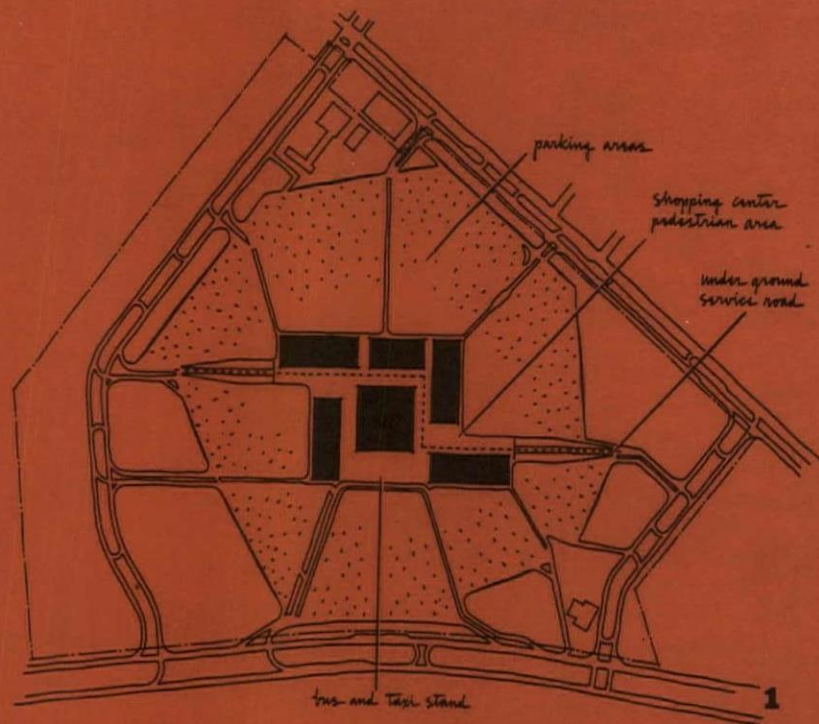
**The best of the shopping centers represent successful planning experiments, proving that the cell-like organization works.**

In their fullest interpretation they include the principles established earlier: a cluster-type arrangement of structures

serving retail, cultural, and recreational purposes around attractive, landscaped pedestrian areas; car-storage areas and terminals for public transportation directly adjoining the building cluster; multiple-lane ring roads surrounding the car-storage area. They separate service traffic effectively from private automobile traffic and bus traffic by routing service roads underground and installing all loading facilities in the basements of the buildings. The largest examples of the regional shopping center are equal in size

to the downtown areas of good-sized towns. Northland, in Detroit, for example, with 1,100,000 square feet of rentable space, with its theater, auditorium, community center, exhibit areas, and many restaurants, has become the crystallization point of a large area. It is visited by 70,000 persons a day, some utilizing transportation by a number of bus lines and others using its nearly 10,000 parking spaces **1**.

In the Southdale area in Edina, near Minneapolis, a number of cluster arrangements are planned and partly executed.





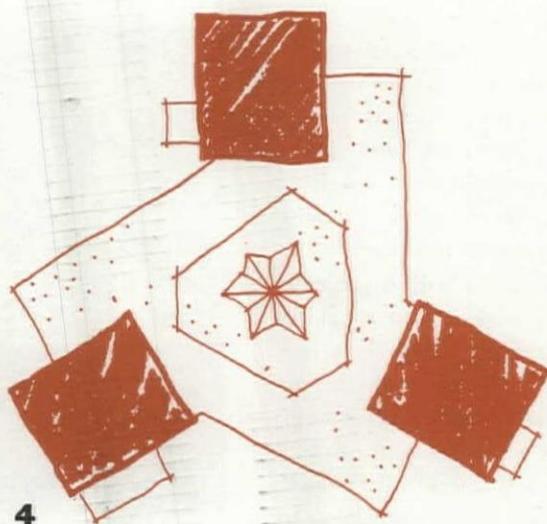
One is the Southdale Shopping Center, with its covered and air-conditioned pedestrian area. Another is a regional health center, with a medical building already constructed, which will ultimately include hospitals, nurses' quarters, and pharmaceutical laboratories all grouped around a large parklike pedestrian area. Other cell-type developments in the Southdale area are a large residential development and an office-building and amusement-center core **2**.

Bullock's Fashion Square in Anaheim,

California, constitutes an example of an attractively landscaped pedestrian area surrounded by retail store buildings **3**. Broad malls leading through the square are shaded by deep loggias that overhang all buildings and invite walking.

The Mount Prospect Shopping Center northwest of Chicago **4** is a similar cluster-type development containing three large department stores which, together with many retail stores, surround a large hexagonal plaza covered with a tentlike dome.

**1** Northland Shopping Center, Detroit; Victor Gruen Associates, Architects. **2** Southdale Shopping Center and adjacent developments, Minneapolis, Minn.; Victor Gruen Associates, Architects. **3** Bullock's Fashion Square, Anaheim, Calif.; Charles Luckman Associates, Architects. **4** Mt. Prospect Shopping Center, near Chicago, Ill.; Victor Gruen Associates, Architects.



**3**





"Industrial park" is a term widely used, rarely with justification. Its great popularity signifies the secret desire of industry to be located within a carefully planned environment which, at least partly, would have parklike characteristics. The industrial area of Don Mills, new town near Toronto **1**, the Skokie, Illinois, Research Center **2**, and the Palos Verdes, California Research Park **3**, exemplify good planning for industrial clusters which not only form a highly efficient and pleasant working environment but also avoid disturbance of surrounding residential areas. The proposed Westchester County garden offices **4** illustrate how the cellular planning principle can be applied to working nuclei containing predominantly offices.

**Commercial, industrial, and office facilities can be planned in such a manner that they enhance rather than disturb surrounding residential areas.**

This means that we will be able to move places for working and shopping much closer to the places where we live than has been thought possible up to now. The intimate adjacency of places of work, social life, recreation and cultural enjoyment with residences will in itself tend to minimize traffic problems. In order to make possible such an intimate relationship between areas for various uses, our zoning laws will have to be modified. Zoning legislation was the first expression of a conscientious planning approach in the United States, and in its principles it is still valid. However, it should be remembered that most of the present zoning districts were established at a time when our industrial development was in its infancy, and were drawn with the aim of protecting residential areas from smoke-belching factories. As our technology has developed and electricity became the main power source (especially for smaller industrial enterprises) the necessity for wide separations between many industrial activities and residential areas became increasingly less important. Also, when our zoning was established, there was no inkling of the present tremendous use of our streets by automobiles. Commercial strip zoning, with 00- to 200-foot depths along practically every major urban road, was at that time abundantly established. (Commercial strip zoning in New York, for example, is so plentiful that it provides space for stores which could serve ten times the metropolitan

population.) This method of zoning for commercial purposes is one of the causes for the scattering of our commercial enterprises and for the congestion of our road pattern. Today's conditions call for a modification of our zoning laws. In today's zoning the separation of traffic areas from activity areas should play a dominant role, and the idea of zoning in accordance with the character and performance of structures will have to supplant the rather meaningless classification types.

Zoning by classification has brought

about a compartmentalization of urban areas into use categories, with the result that livability and vitality of individual usage areas is very low. By misunderstanding the function of zoning we have created economic ghettos in residential areas, of which some contain the very poor, some the very rich, and others people in the middle-income groups, carefully graded. It would seem to be true that segregation of any kind produces inequities today, whether the separation is by kind, by age, or by purpose!

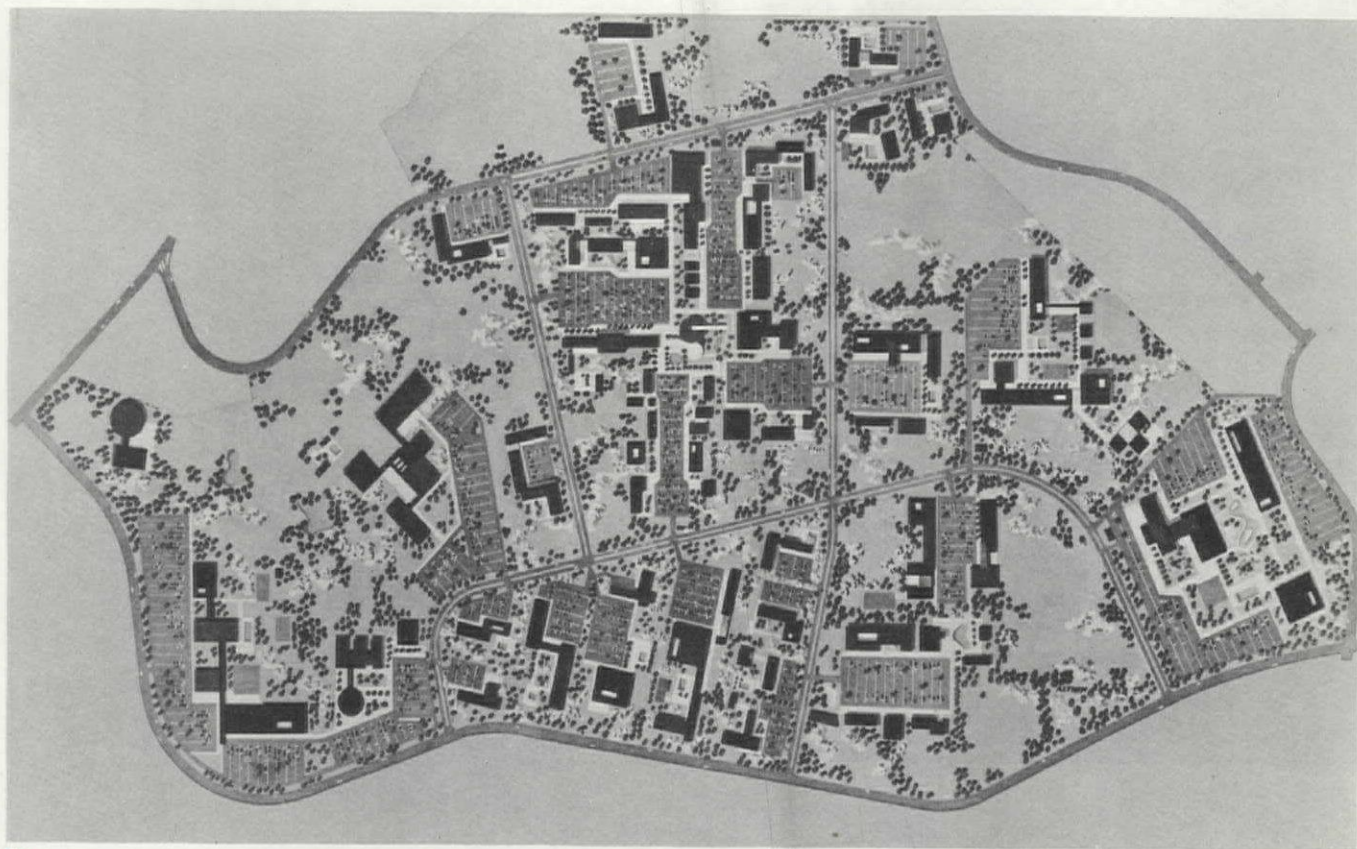


- 1** Office building in Don Mills, new town near Toronto, Ontario; John B. Parkin Associates, Architects. The town has planned industrial, residential, and commercial areas. **2** Research and Administration Center for International Minerals and Chemical Corporation, Skokie, Ill.; Perkins & Will, Architects-Engineers. **3** Palos Verdes Research Park, Palos Verdes, Calif.; Victor Gruen Associates, Architects. **4** Garden Office Building Project, Westchester County, N. Y. A. W. Geller, Architect.



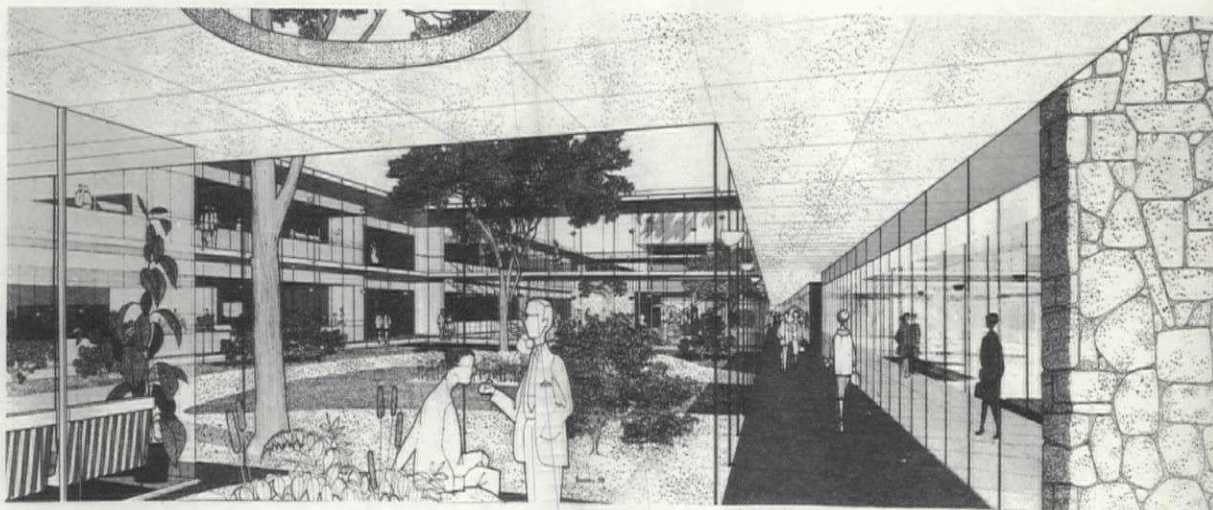


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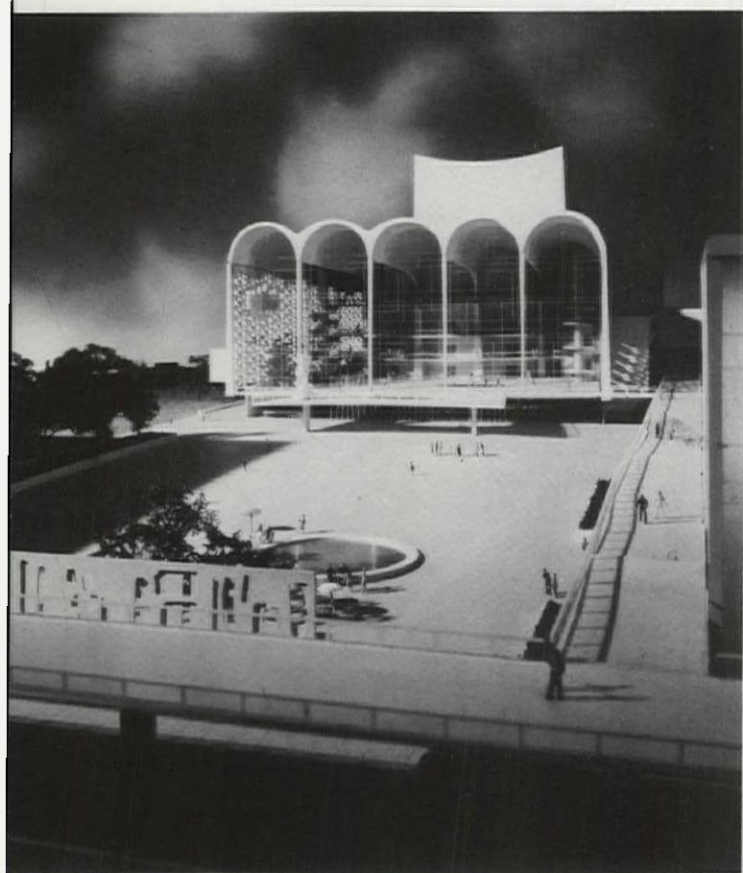
In our city centers, without good reason we systematically separate retail areas, office-building areas, administrative areas (civic centers), and cultural areas from each other. Lincoln Center, now beginning construction in New York **1**, is an example of a carefully shielded cultural center containing an opera house, concert hall, and theaters. By such an arrangement, we tend to impoverish the cultural area itself by robbing it of contact with many types of eating places, bars, hotels, and other

facilities which may then move to adjacent locations in unplanned fashion.

**We hurt the character of the downtown area by removing from it cultural activities which can enrich the total environment.**

In large European cities such as Paris or London, we find theaters and concert halls happily intermingling with stores, office buildings, apartment buildings, public buildings, churches—and thus creating a dynamic and interesting living city. Per-

haps the feeling that business and culture cannot possibly be mixed is an expression of an inferiority complex in the soul of our business society. As part of our new planning philosophy we will have to strive, in planning our new civic and cultural centers such as the ones shown below **2, 3, 4, 5**, toward an urban pattern where people working in offices, people shopping in stores, people visiting public buildings can easily get together with each other and all participate in the cultural



**1**

**1** Lincoln Center for the Performing Arts, New York, N. Y.; various architectural firms for individual buildings; Harrison & Abramovitz, Co-ordinating Architects. **2** Civic Center, New Orleans, La.; various architectural firms for individual buildings. **3** Oregon State Capitol Group, Salem, Ore.; Wilmsen & Endicott, Architects; Herman Brookman, Associate Architect; Francis Keally, Consulting Architect. **4** Civic Center, Dearborn, Mich.; Harley, Ellington & Day, Architects. **5** Civic Center, Fargo, N. D.; Ralph Rapson, Thorshov & Cerny, Seifert & Staszko, Associated Architects.

**2**

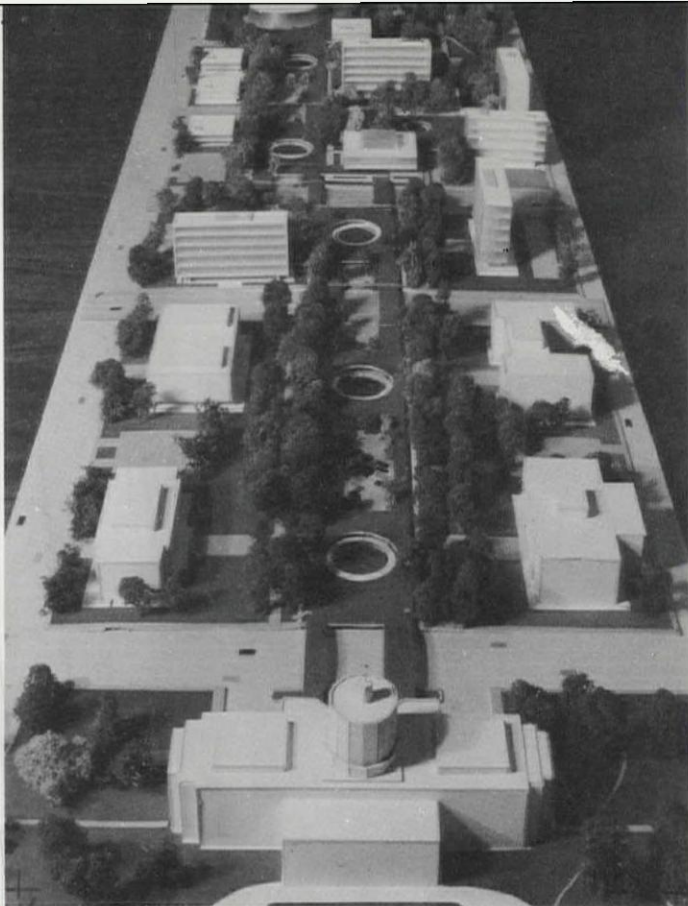




potentialities of their city.

Some excellent examples of the cellular planning approach can be found in educational facilities.

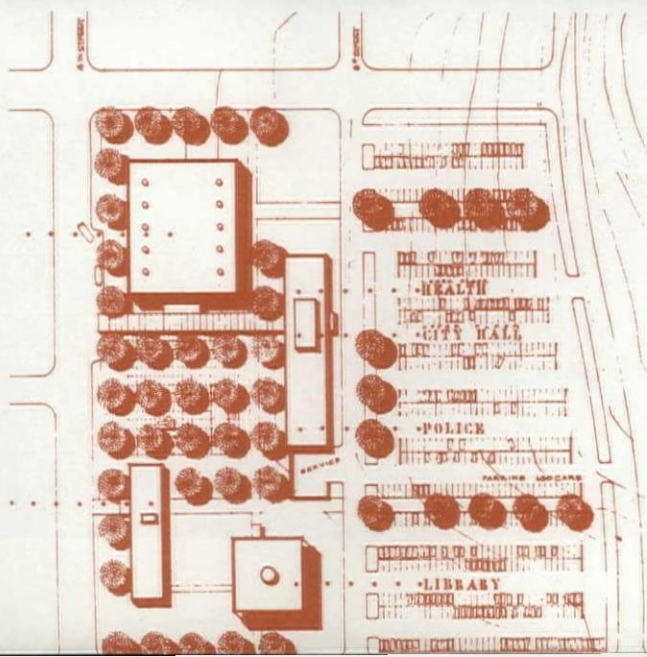
Here, too, the cluster-type arrangement of buildings around pedestrian areas, the separation of traffic and parking areas, and direct access to these traffic areas from surrounding highways has often been well expressed. On the next two pages several examples of this pattern are shown.



3

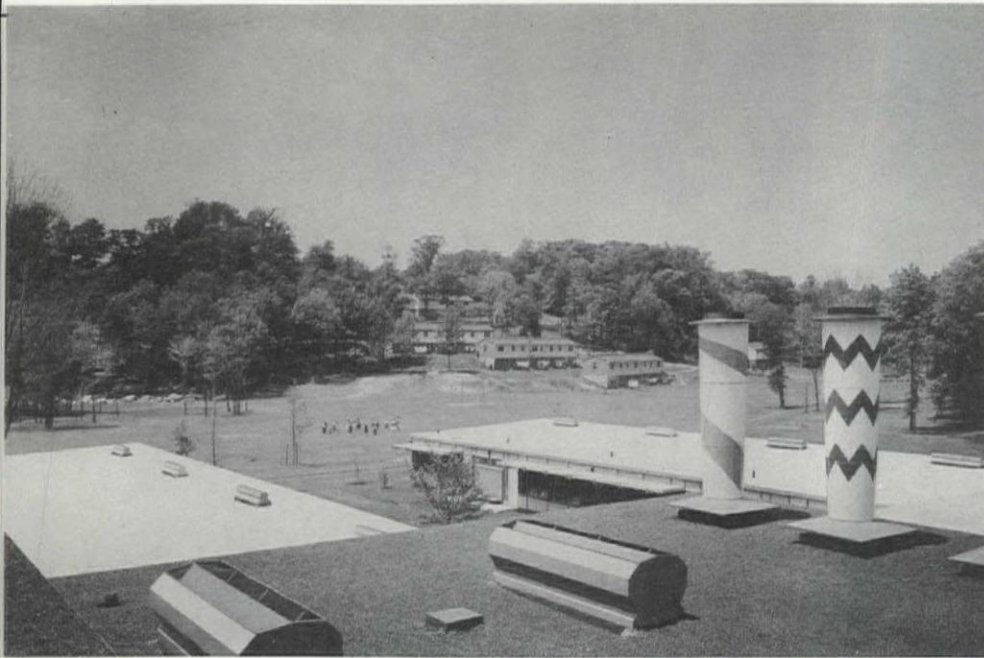


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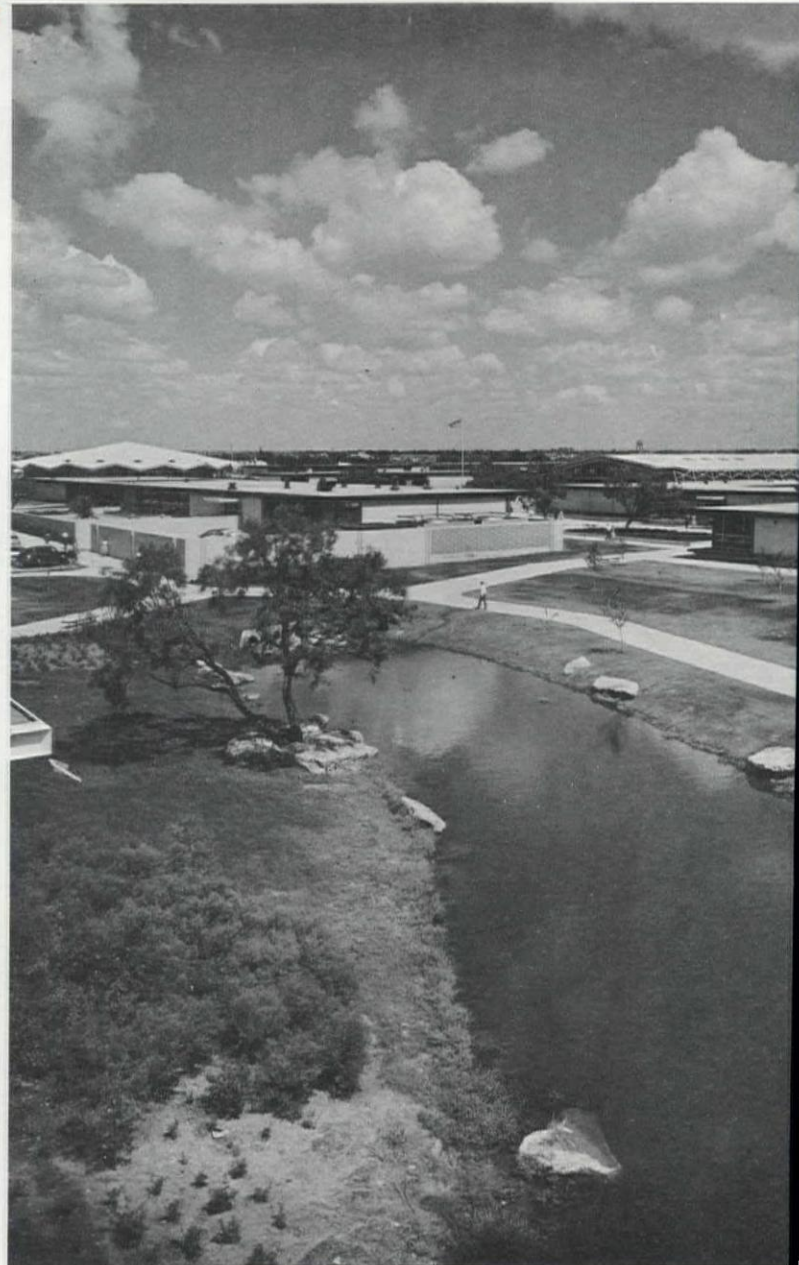




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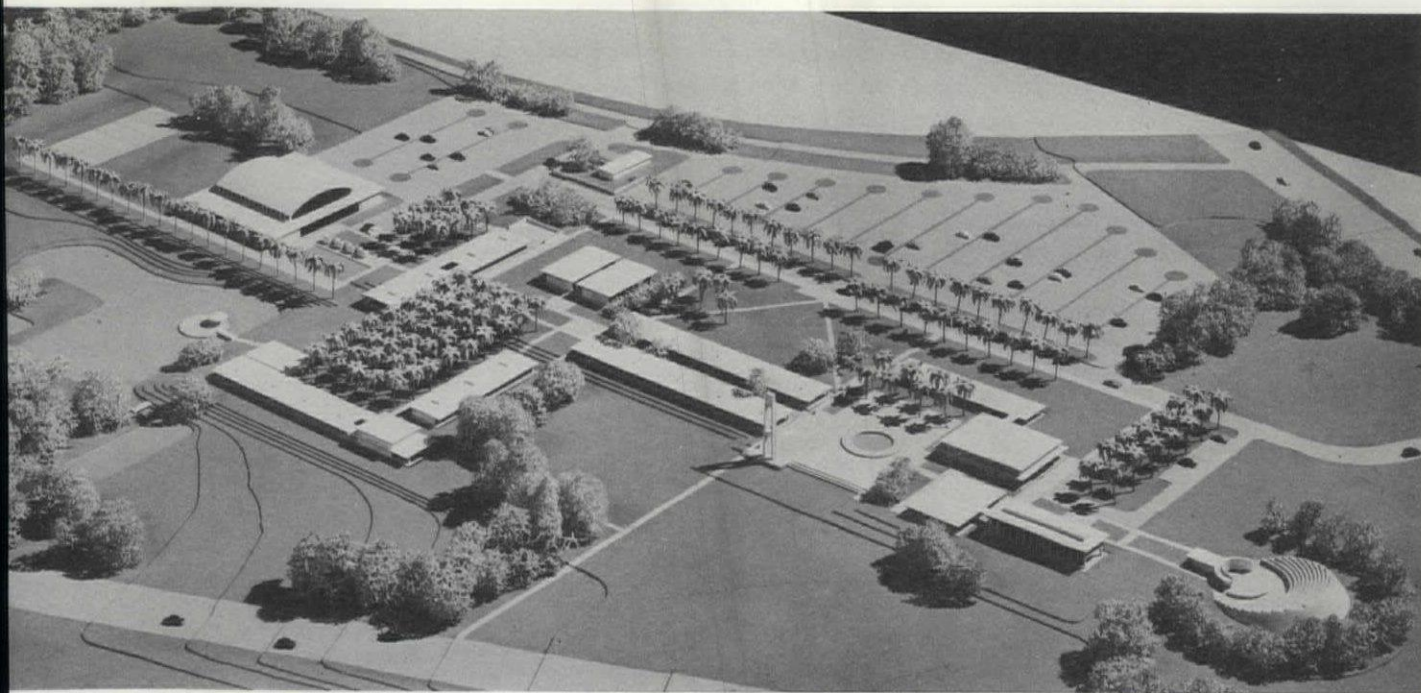
Educational complexes often become traffic-free spaces. Here is an elementary school and housing combination free of autos; a wide, new high-school campus safe for walking; a junior college with an autoless campus; a university branch with car parking kept to the perimeters; and an urban university whose plan for growth closes present bisecting streets.

2

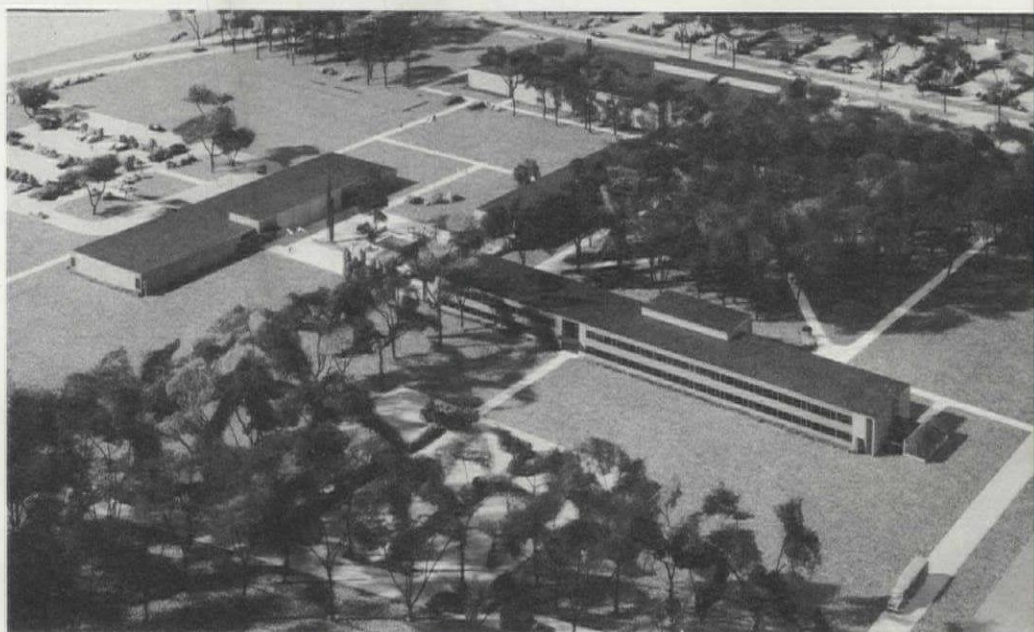


**1** Westover Elementary School (looking toward William C. Ward Houses), Stamford, Conn.; Architect for both projects, William F. R. Ballard. **2** Central High School, San Angelo, Tex.; Caudill, Rowlett & Scott, Architects; Max D. Lovett, Associate Architect. **3** Gulf Coast Community Junior College, Panama City, Fla.; Hugh Stubbins & Associates, Architects. **4** Dearborn Center, University of Michigan; Giffels & Vallet, Inc., L. Rossetti, Architects; Eichstedt & Johnson Associates, Landscape Planner. **5** Wayne University, Detroit, Campus Plan, Minoru Yamasaki & Associates, Architects.

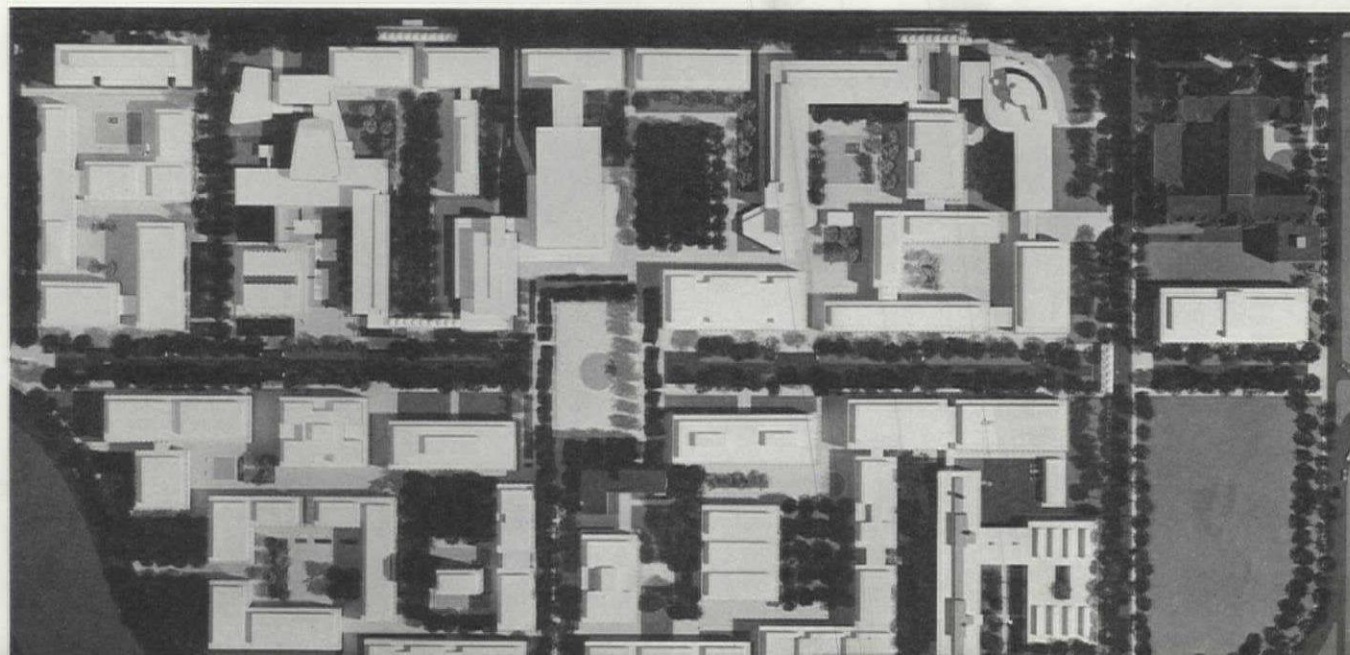




3



4



5



Another isolated example of the emergence of the new pattern is, often, an "island" within the sea of traffic—a park, a plaza, a garden—where only pedestrians are welcome.

**Pedestrian islands within our downtown areas are a rarity, and they all are comparatively small, but where they exist they are important.**

A highly enjoyable environment is the garden of the Museum of Modern Art in New York **1**. Mellon Park in Pittsburgh

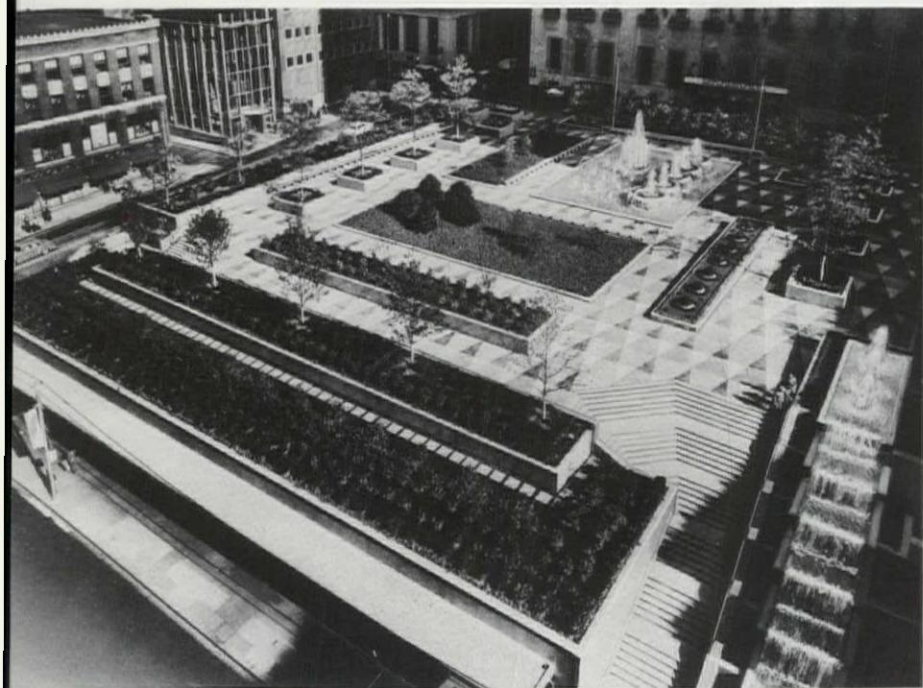
illustrates how a new pedestrian plaza can be created in the process of constructing an underground garage **2**. Rockefeller Plaza in New York, with its ice skating rink, attractive landscaping, and its gay seasonal decorations, is one of the most popular promenading areas in Manhattan **3**.

A much more ambitious sort of downtown pedestrian area is exemplified by the Midtown Plaza project in Rochester, New York **4**. It is also an excellent ex-

ample of how, through the co-operation of private enterprise and city government, the rehabilitation of at least a part of the downtown area can be accomplished. The project area of about ten acres immediately adjoins the main shopping street of Rochester and is bordered on the opposite side by the extension of an important street (Broad Street) which the city has agreed to construct. One major street (Cortland Street) and parts of other streets are being closed to traffic



**1**



**2**

**1** Abby Aldrich Rockefeller Sculpture Garden, Museum of Modern Art, New York, N. Y.; Philip Johnson, Architect. **2** Mellon Square Park, Pittsburgh, Pa.; Mitchell & Ritchey, Architects. **3** Channel Gardens, Rockefeller Center, New York, N. Y.; Reinhard & Hofmeister, Architects; Corbett, Harrison & McMurray, Hood & Foulhoux, Associated Architects. **4** Midtown Plaza, Rochester, N. Y.; Victor Gruen Associates, Architects. Section (top) through parking levels, delivery ramp, and covered plaza; perspective (center) covered shopping plaza; model (bottom) of present and new buildings in the project.

**3**



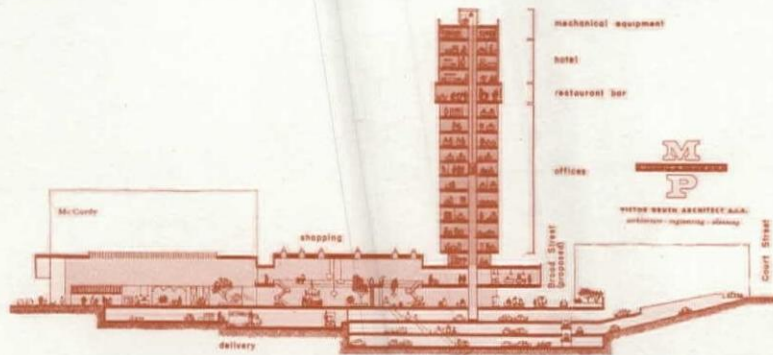


and will be reserved for pedestrians only. This newly gained pedestrian area is widened in one place to a plaza, will be covered with skylights and roofs above the second level, and will be totally climate controlled. The covered pedestrian mall thus created will be surrounded by buildings serving various uses, some in existence (the McCurdy Department Store, the Forman Department Store, and the large Manger Hotel), others newly constructed. The new ones will contain

stores on two levels and there will be a new 18-story office and hotel building. Underneath the entire complex, the city of Rochester is constructing a three-level garage to hold 2000 cars. The new Broad Street extension will carry some of the bus traffic which now congests Main Street, and one of the buildings of the Midtown Plaza will contain a bus terminal for local as well as regional bus traffic. The entrances to the underground garage are located in such a way that they can

be approached from the newly constructed belt highway surrounding the entire downtown area, which is partly completed and partly in construction.

This project is of special interest because it is probably the first downtown redevelopment project based on the urban planning principles which we have been discussing, which is actually moving into construction. Excavation and grading for the first portion of the underground garage have been started.



4





It is also significant that the start of the project described on the preceding page has caused the planning of similar projects within the Rochester downtown area **1**.

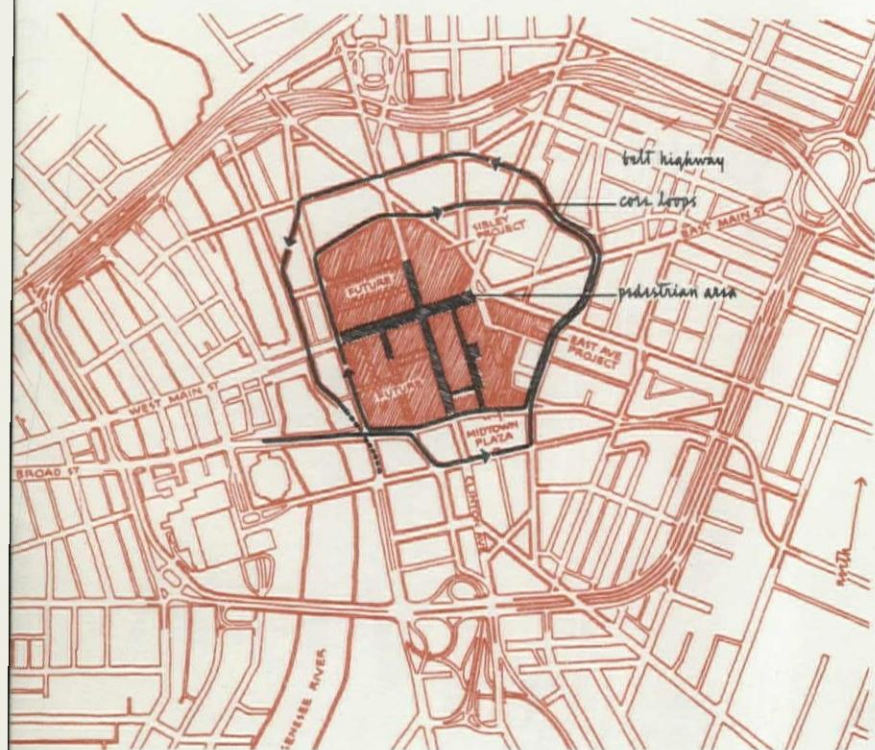
**It is often true that one step toward reurbanization causes others to follow.**

Exploratory work is now under way for a nearby section and studies are being made for the area along East Avenue by Robert Hall, Architect, of Rochester. A third quadrant of the downtown area is occupied by one single building and its

adjoining garage structure (Sibley's Department Store), and there is hope that the fourth quadrant will be replanned in connection with a projected Federal building. These four quadrants are surrounded by roads which the city Planning Department has projected as an inner loop road to surround the core area. Thus the likelihood exists that through the construction of the inner loop and the replanning of the four quadrants, it should be possible to close Main Street and Clinton Avenue

to mechanized traffic within this inner loop. In that case, the city of Rochester would be able to convert its downtown core area into a single pedestrian district.

Similar in character is the Charles Center project in Baltimore **2**. Here, too, an effective co-operation of private enterprise with municipal authorities makes it likely that a sizable portion of the downtown area will be recreated in the spirit of the emerging urban pattern. The site is large; coverage is low but intense.



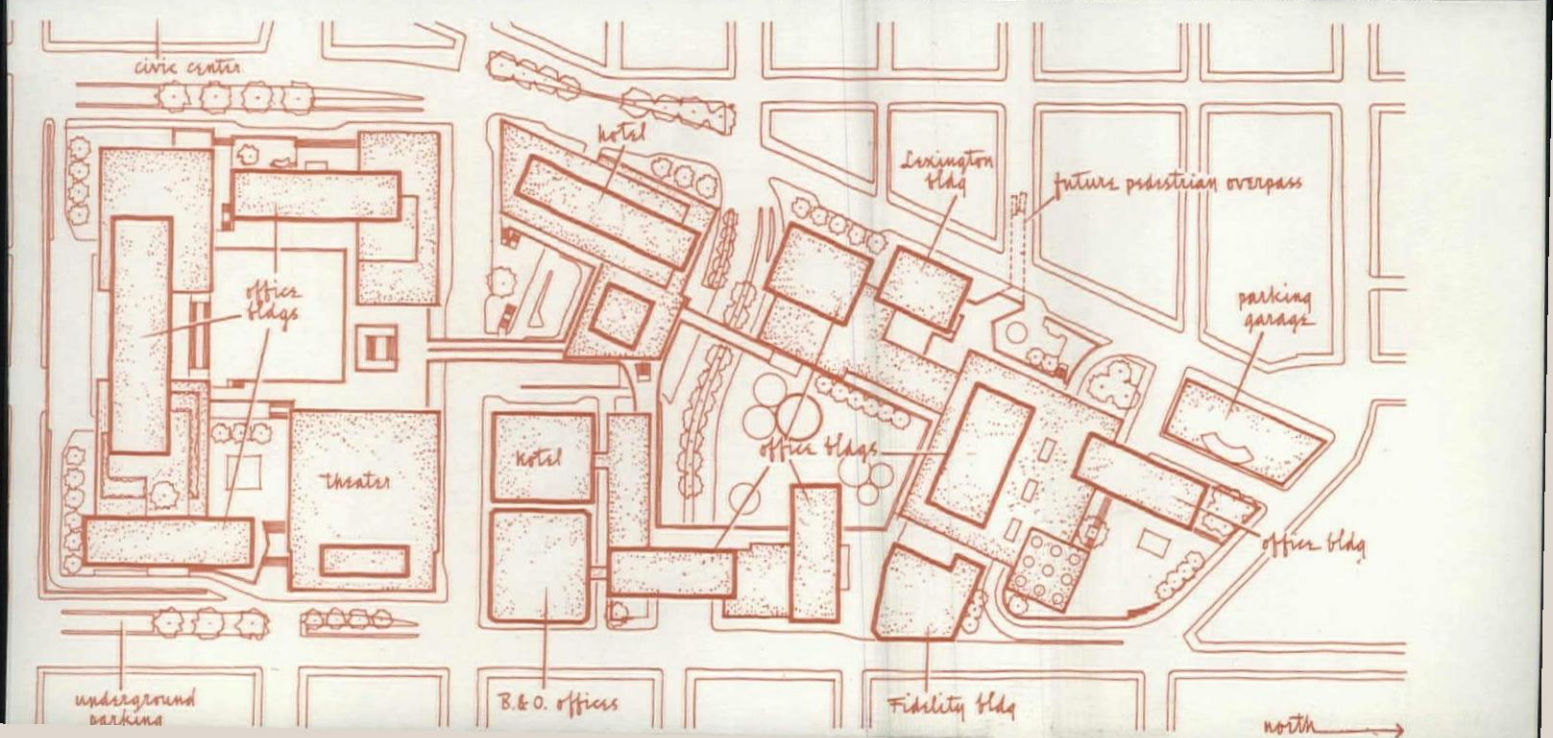
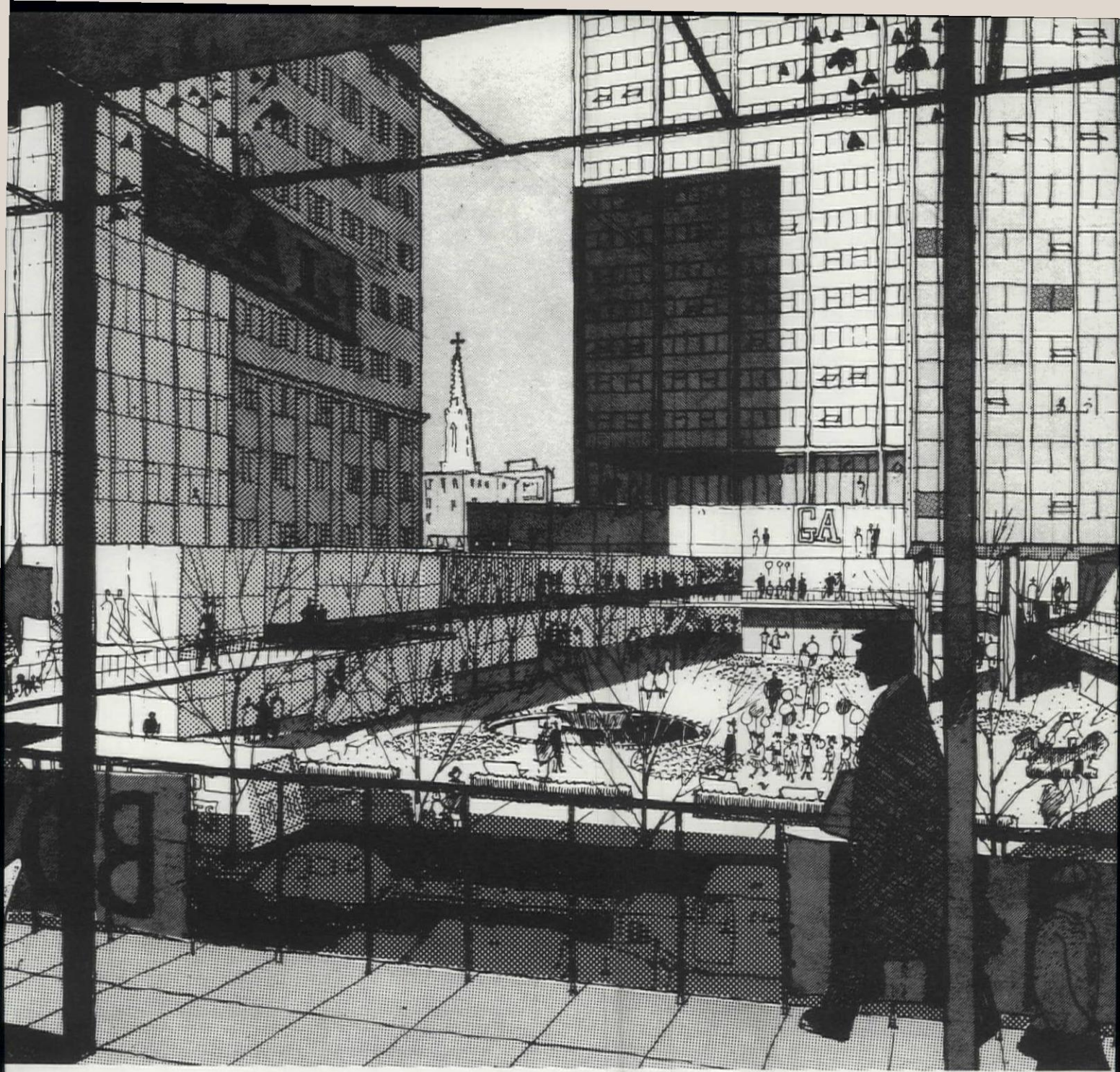
**1**

**1** Center of Rochester, New York, showing how Midtown Plaza project is stimulating adjacent activity of similar nature. **2** Charles Center, Baltimore, Md.; Rogers, Taliaferro & Lamb, Architectural Consultants. Photo-montage (below) showing location; looking north toward public park (acrosspage, top); site plan (acrosspage, bottom) of total project.

**2**









Vast possibilities for the replanning of urban areas have been opened up through the Federal redevelopment and renewal program.

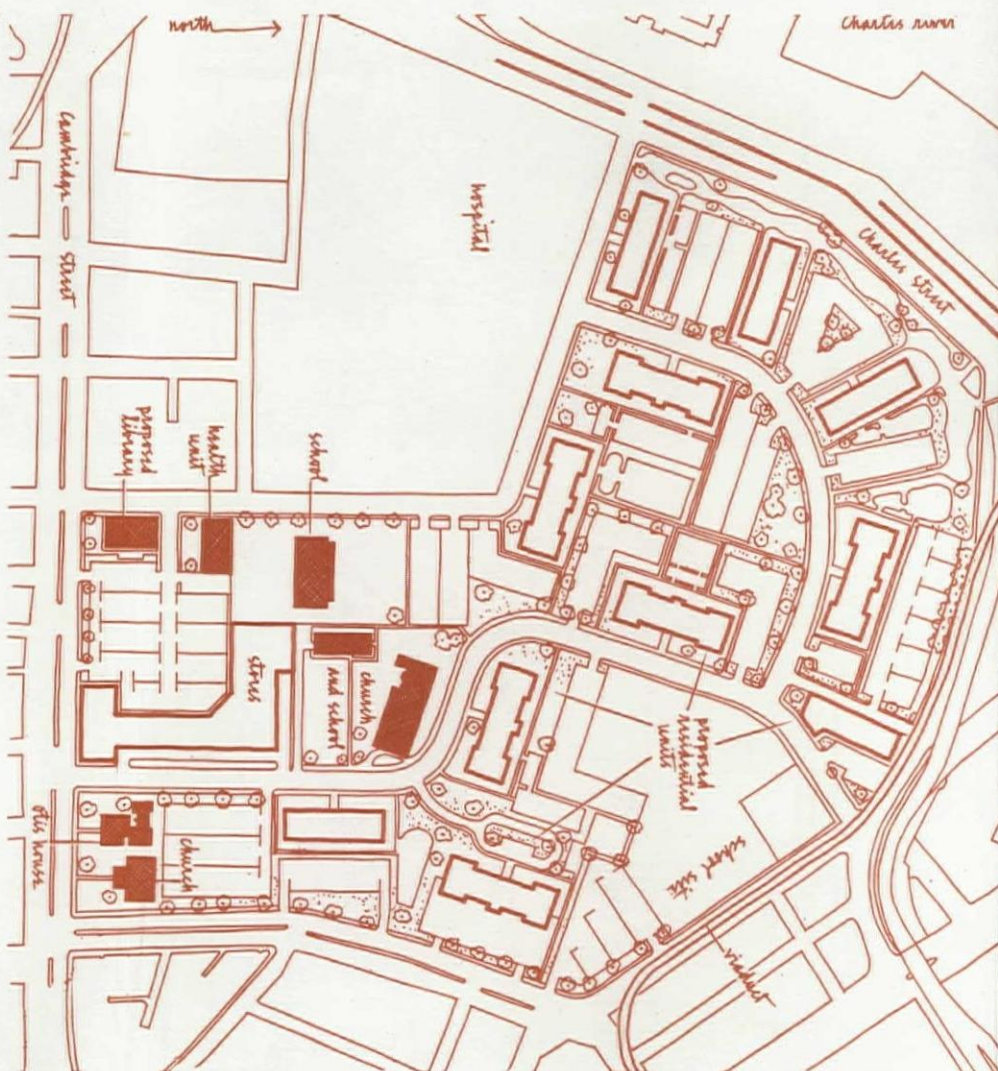
These projects are overwhelmingly concerned with residential areas and are closely tied in with slum clearance. Certain parts of the redevelopment regulations often work against the achievement of a true urban character within these developments. The regulations usually demand too much parking area and too

much open space between buildings; many of the projects have achieved an institutional character in which tremendous blocks of apartment buildings of identical design stand forlorn in a sea of tin roofs of automobiles. The green areas are scattered; there is a dearth of urban amenities such as small shops, restaurants, and meeting places. And there is generally a climate of uniformity created by identical structures and the identical income pattern of the inhabitants.

Yet despite restrictive regulations, imaginative planning and design has in some cases created an improved environment. In the case of the Charles River Park Redevelopment in Boston (illustrated on these pages), the architects were confronted by a predetermined street layout and building placement which could have created the inhuman and institutional atmosphere described above. Thanks to the vision and understanding of the Boston Redevelopment



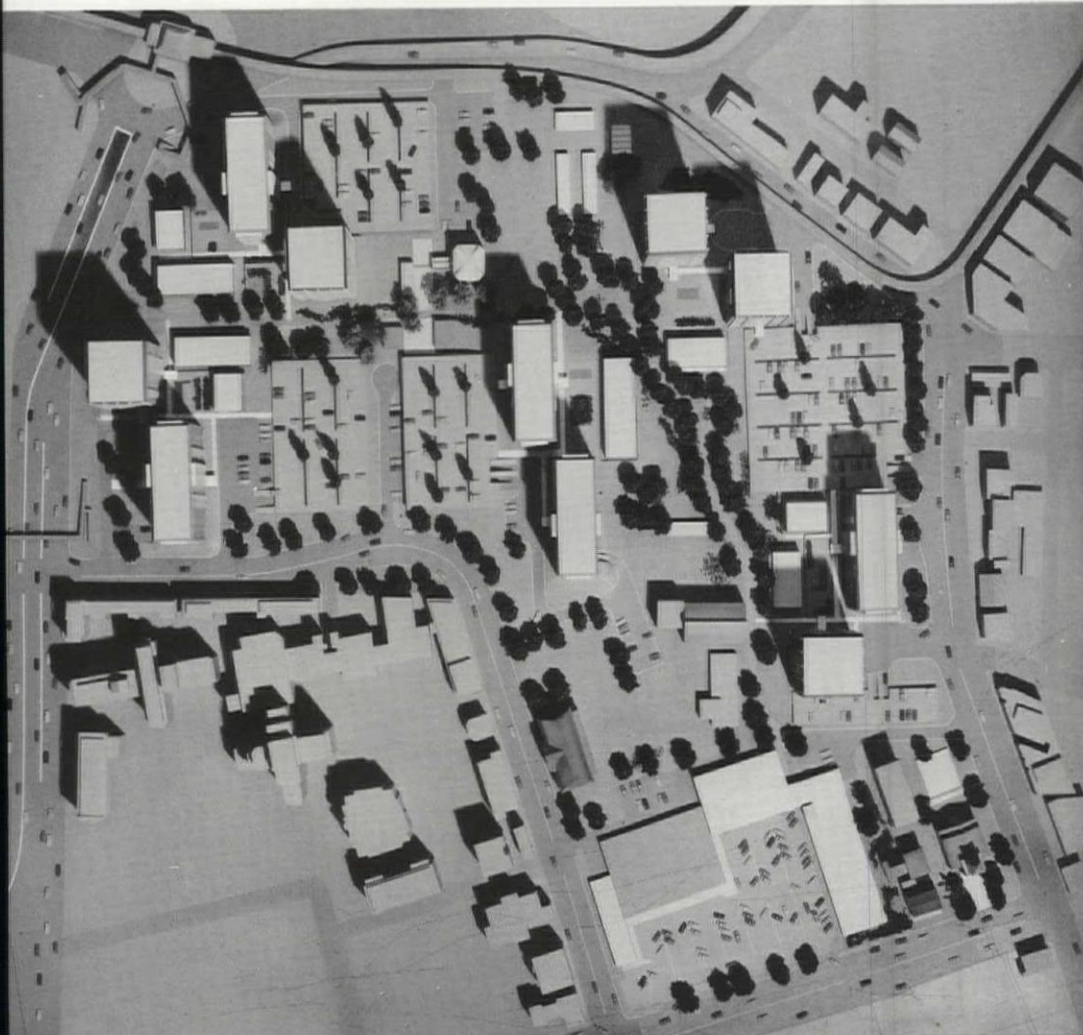
Charles River Park, Inc., Boston, Mass.; Victor Gruen Associates, Architects. Location of project (left) in relation to Charles River and City of Boston; earlier proposal for street layout and site plan (below); photos of model (across-page) showing five neighborhoods linked by continuous green "common."





Agency, they were able to change the general layout by a new plan which eliminates all interior streets from the 46 acre site and widens some of the surrounding streets. The buildings, instead of being scattered over the site, are organized into five community groups, each consisting of three or four buildings surrounding a pleasantly furnished paved plaza. The character and height of the structures in each of the five clusters are varied; some buildings are three stories

high, some 16, and others 22. Parking is planned on two levels in order to save space and in every case is accessible from the surrounding streets. The five building clusters are interconnected by a landscaped walk for pedestrians and bicyclists. Along this walkway are placed schools, nursery schools, churches, and shops, and one end opens to a larger shopping center and a cultural area which can also be approached, in another direction, from one of the main streets of Boston.





It is undoubtedly true that much of urban renewal has been cold, overscaled, inhuman. And yet, in this program, the new pattern is visible.

**There are redevelopment projects that make real contributions to urban life.**

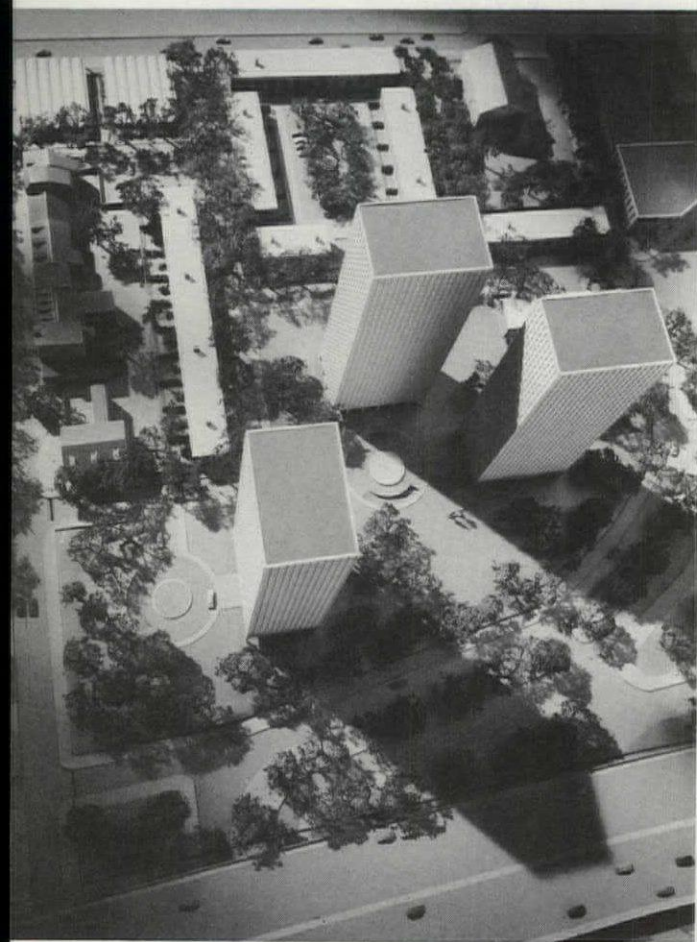
Among the superior solutions of urban redevelopment projects now under way are those shown here **1, 2, 3, 4** and a number of others which we do not have space to illustrate.

A large urban renewal project con-

taining office buildings and stores is Philadelphia's Penn Center **5, 6**. The original scheme developed by Edmund Bacon, Director of Philadelphia's City Planning Commission, projected a true cluster development with generous pedestrian areas. The scheme as actually executed does not live up to the original concept, yet it includes at least some of the rudiments of traffic separation.

A redevelopment project in Brookline, Massachusetts, to be known as The Farm,

is an outstanding example of what may be a new trend in renewal design. Ten development companies, each with its own architect, are competing for the redevelopment contract, not only on the usual basis of financing, but also on architectural-planning design as well. Design will be "judged" by a panel of architectural advisors to the Brookline Redevelopment authority. Nine of the projects which were submitted by architect-developer teams are illustrated on the following pages.



**1**



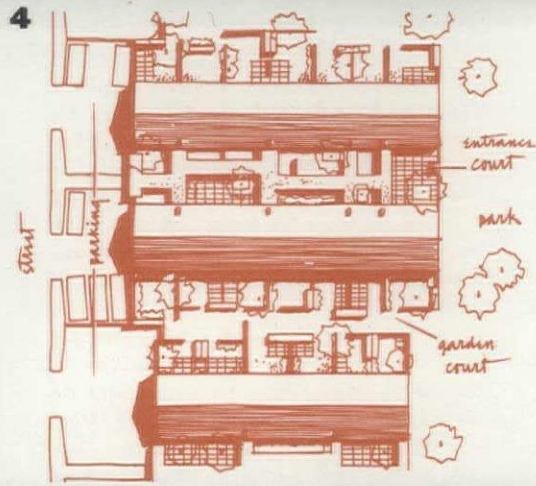
**2**

**1** Capitol Towers, Sacramento, Calif.; Wurster, Bernardi & Emmons, Edward Larrabee Barnes, DeMars & Reay, Architects. **2** Society Hill, Philadelphia, Pa.; I. M. Pei & Associates, Architects-Planners. **3** El Monte, San Juan, P. R.; Edward Larrabee Barnes and William V. Reed, Architects. **4** Proposed "Garden Court" houses placed perpendicular to street; Carl Koch & Associates, Architects. **5** Penn Center, Philadelphia, as originally proposed by Planning Commission in 1952, with sunken pedestrian plaza; Edmund Bacon, Director, Philadelphia City Planning Commission. **6** Penn Center as built in 1958; various architectural firms for individual buildings.

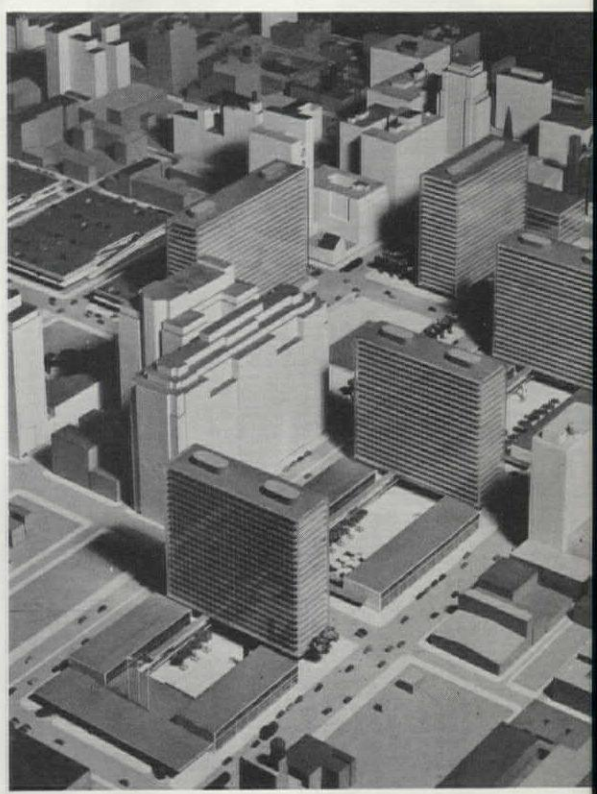




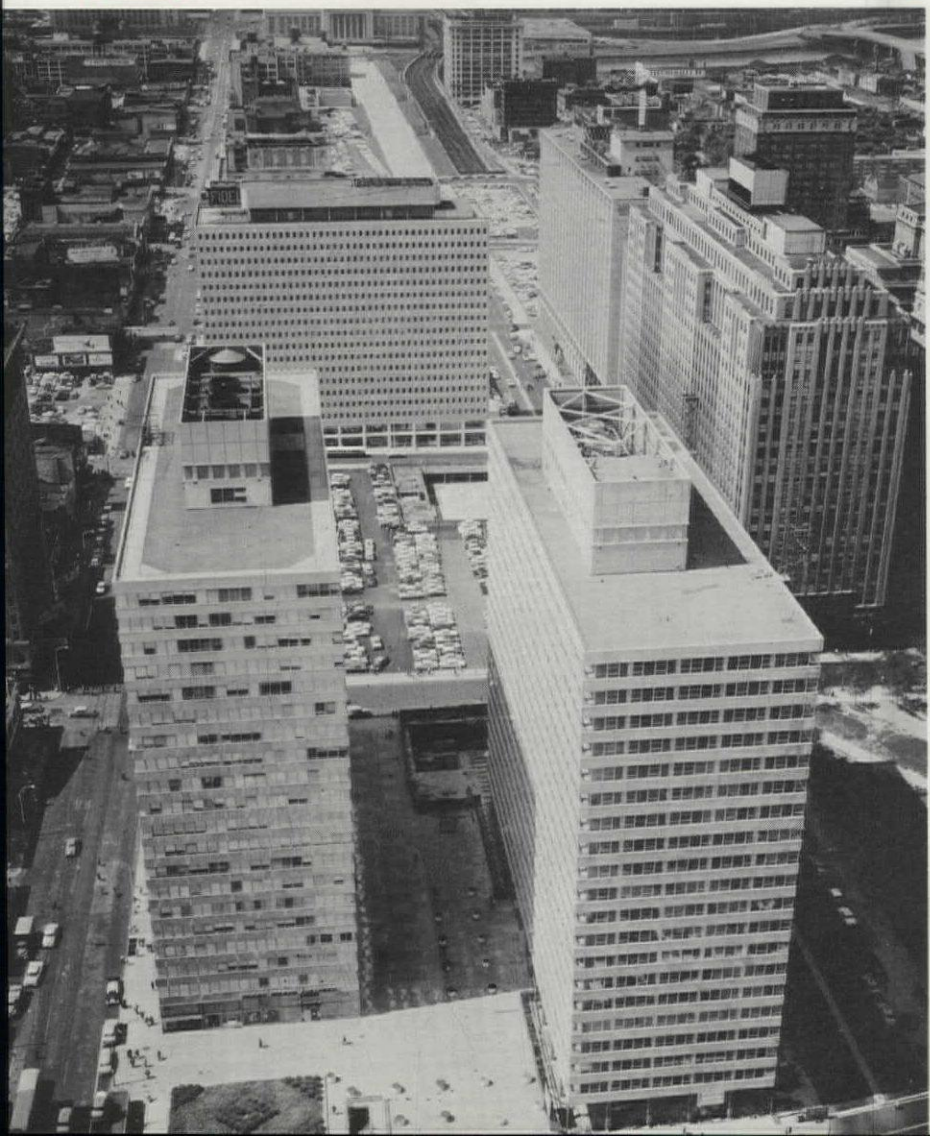
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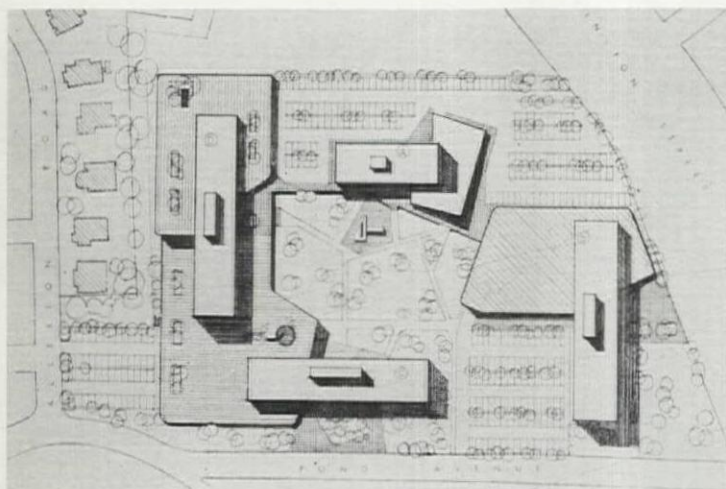




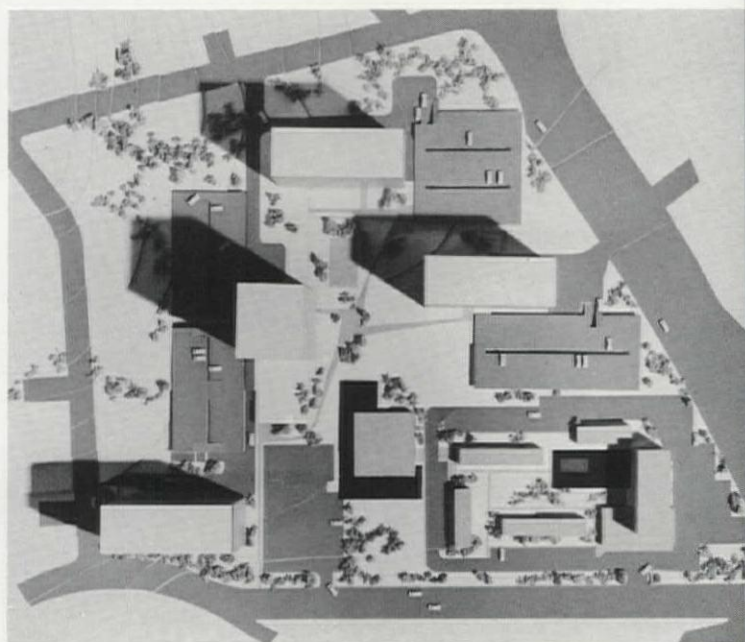
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2



3



4

*The Farm Redevelopment Project, Brookline, Mass., Brookline Redevelopment Authority. Design proposals by nine architectural firms:*

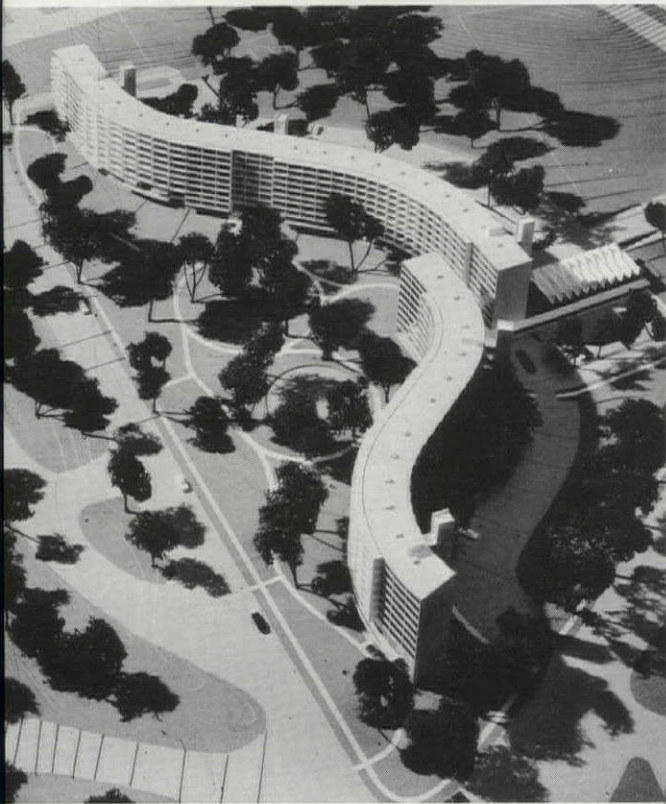
**1** Carl Koch & Associates for Perini Corporation, Boston; **2** Albert Mayer of Mayer, Whittlesey & Glass for James Scheuer, Brookline; **3** Philip J. di Corcia for Green Manor Construction Company, Manchester, Conn.; **4** Victor Gruen Associates for Jerome L. Rappaport & Associates, Boston; **5** Ludwig Mies van der Rohe for Metropolitan Corporation of America; **6** Max Ratner for Community Development, Inc., Cleveland, Ohio; **7** Hugh Stubbins & Associates for First Realty Company, Boston with Turner Construction Company, New York; **8** John Hans Graham for Dalmark Construction Company, Washington, D. C.; **9** The Architects Collaborative for Charles A. Newhall, Brookline.

*Planning objectives were: rebuilding of blighted 18-acre site; integration of families of wide income range; relocation of displaced families; attracting young persons back to town; providing additional tax income for the town; selection of a project of architectural distinction.*

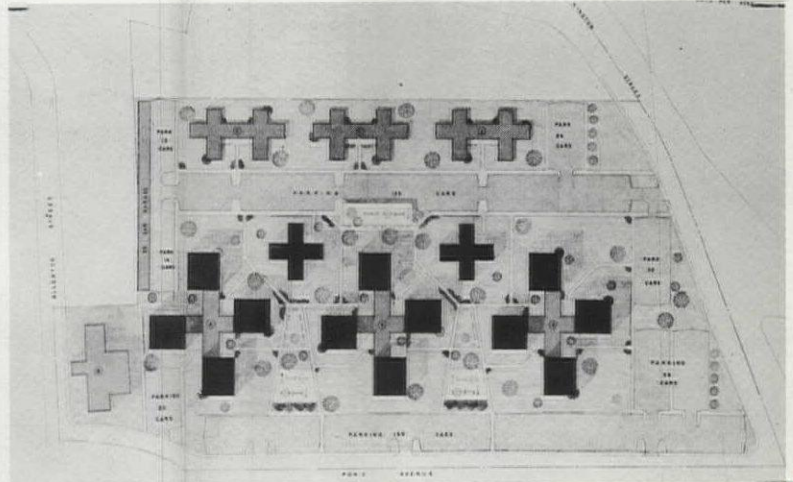




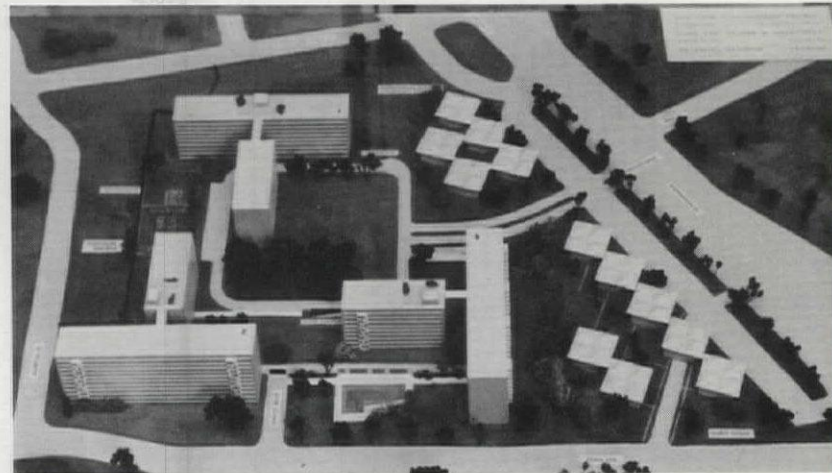
5



7



6



8



9



Another private urban redevelopment scheme is the Marine Plaza project for Milwaukee **1**. Here, two large blocks were connected by an overhead bridge, with the one nearest to the freeway containing a multilevel garage and a drive-in bank. The other block will contain a large multiple-use office building and a structure for the Marine Bank. A generous plaza with a fountain widens the space along the main boulevard.

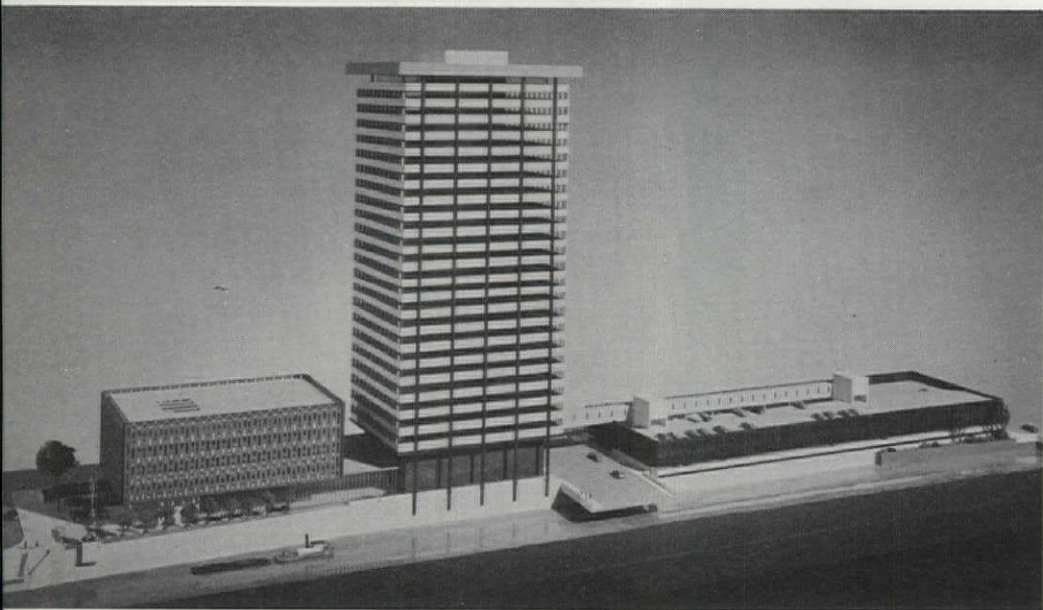
The Sun Times Plaza building in

Chicago **2** created a pleasant public park on the roof area of a low building which is level with the adjoining streets.

**The success of regional shopping centers has led to downtown "mall" schemes.**

Many merchants now believe that the pedestrian mall concept could be transferred to the center of the city by eliminating automobile traffic from at least sections of one street. The "Shopper's Paradise" in Springfield, Oregon **3**,

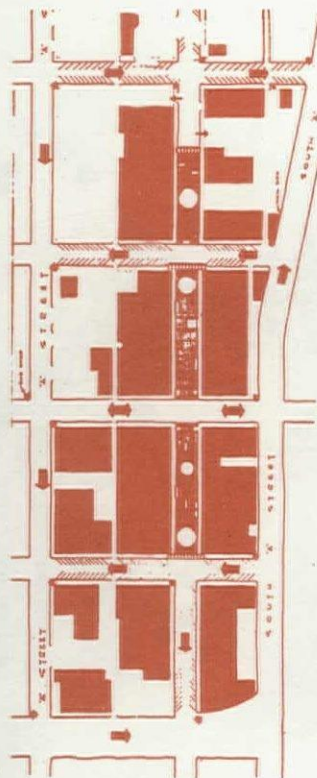
was an experiment to establish such a mall for a short time and thus to persuade citizens and authorities that it would be desirable. Albany, Oregon, is a similar case **4**. Both experiments found mixed reactions; the fact that they were not totally successful indicates that the creation of a new downtown environment cannot be effected only by a subtraction—the elimination of automobile traffic. It must be part of an integrated planning effort which will create improvement of



**1**



**2**

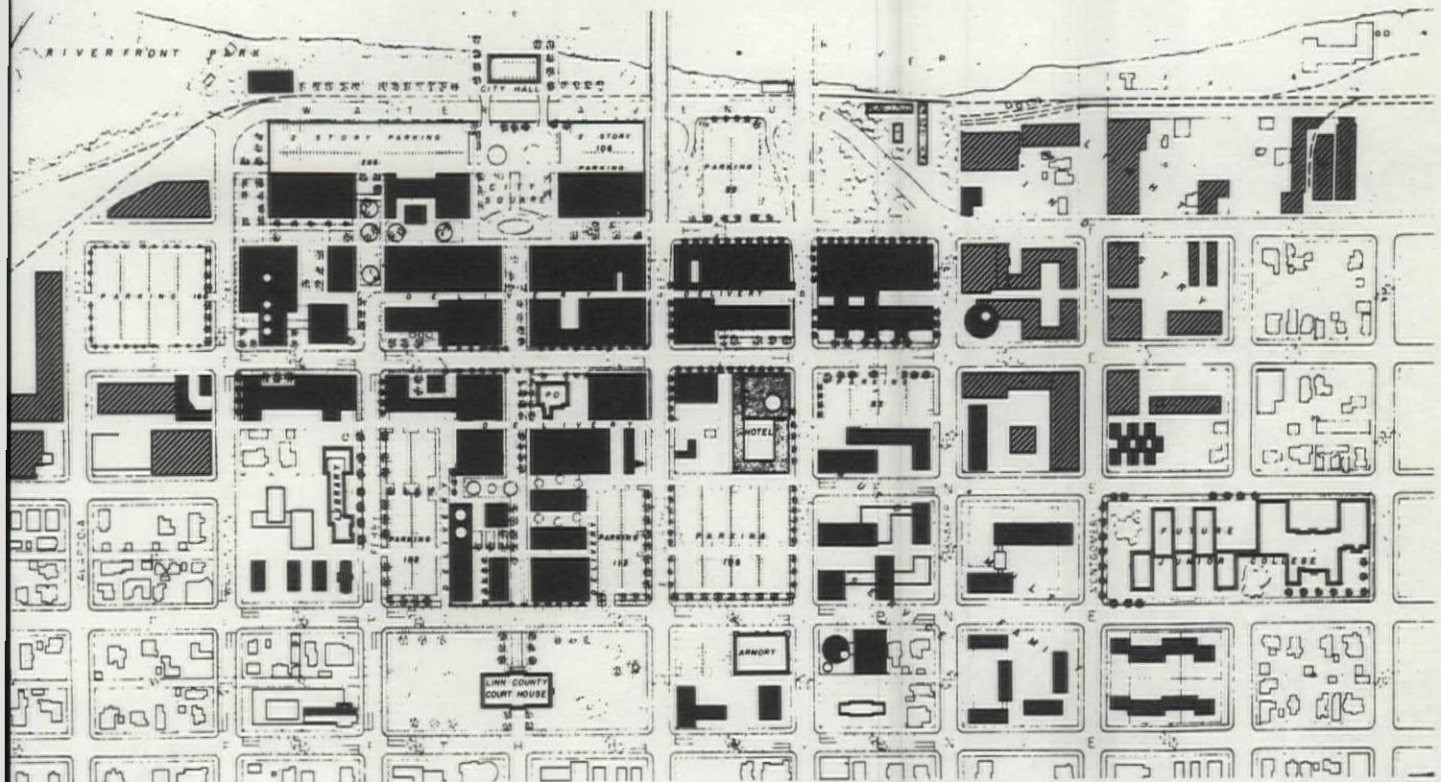


**3**

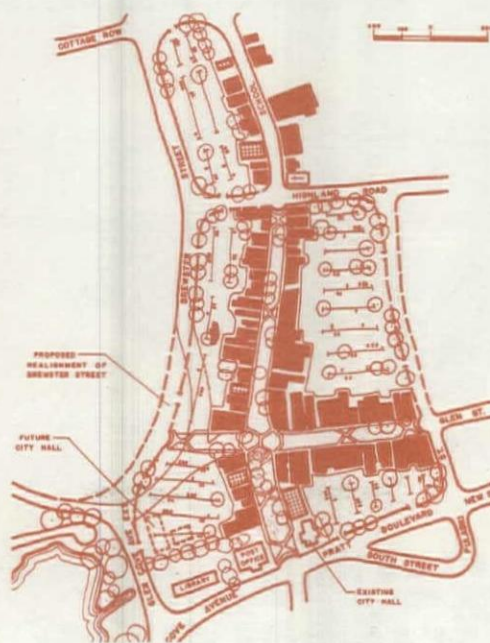
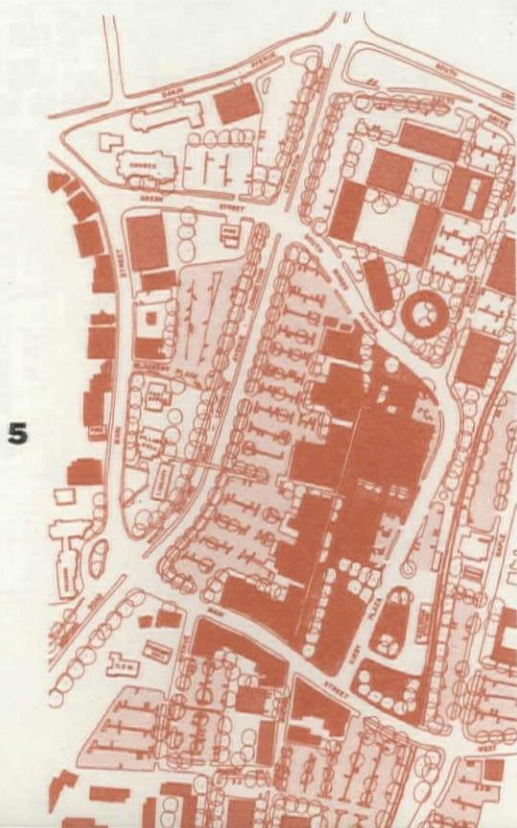


public transportation, better perimeter accessibility for private automobiles, the establishment of terminal facilities in appropriate locations, and the enlivening of roads formerly devoted to automobile traffic by new features and events. Plans developed by Raymond & May Associates for the village of Mount Kisco, New York **5**, and the city of Glen Cove **6** point the way in the right direction. These are activities indicating the emerging pattern short of total downtown replanning.

**1** Marine Plaza, Milwaukee, Wis.; Victor Gruen Associates, Architects; Robert Rasche, Associated Architect; two super-blocks in commercial development which includes pedestrian plaza along waterfront. **2** Sun Times Building, Chicago, Ill.; Naess & Murphy, Architects-Engineers; park-plaza is opened up alongside the river. **3** Shoppers' Paradise, Springfield, Ore.; Lutes & Amundson, Architects; temporary closing of main street was first step toward permanent redevelopment. **4** Downtown, Albany, Ore.; Lutes & Amundson, Architects; a study of downtown business and traffic conditions and proposal for gradual mall planning and redevelopment. **5** Central Business District Planning, Glen Cove, N. Y.; Raymond & May Associates, Consultants. **6** Proposed Shopping Mall, Mt. Kisco, N. Y.; Raymond & May, Associates, Planning-Urban Renewal Consultants.



4





Up to this point we have discussed examples of the emerging urban pattern as we find them in suburban areas and in isolated elements downtown. These show a direction for urban development.

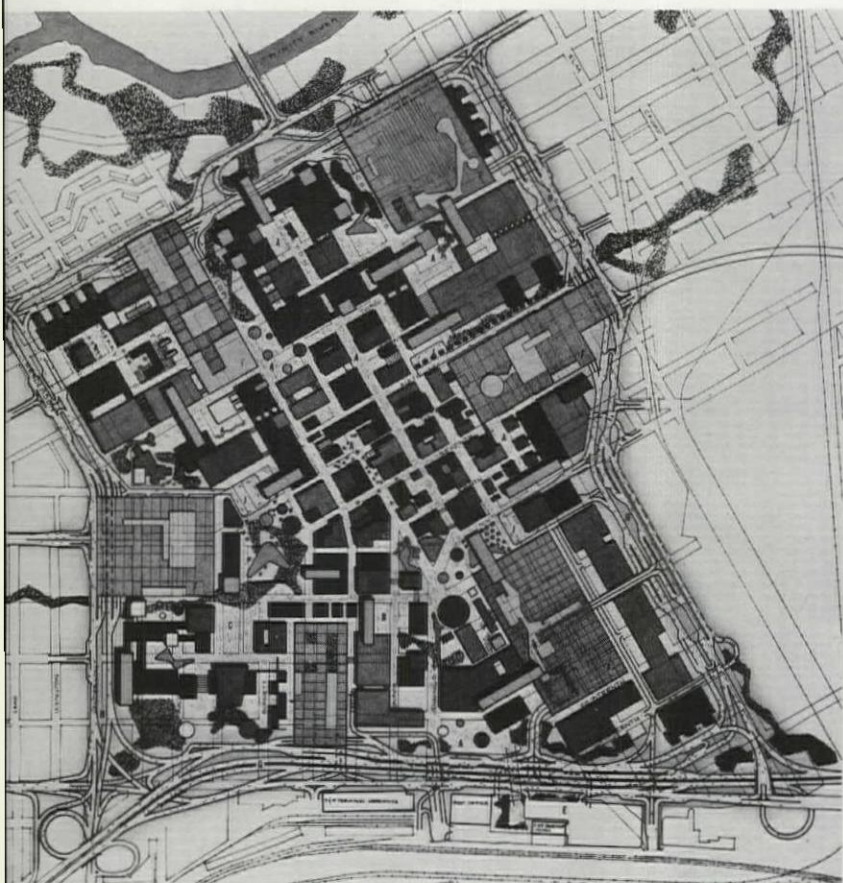
No city, to date, has fully implemented the ideas of the new planning philosophy.

However, a large number of cities (the number is rumored to be eighty) have progressed with planning for the revitalization of their downtown areas by the creation of pedestrian districts and

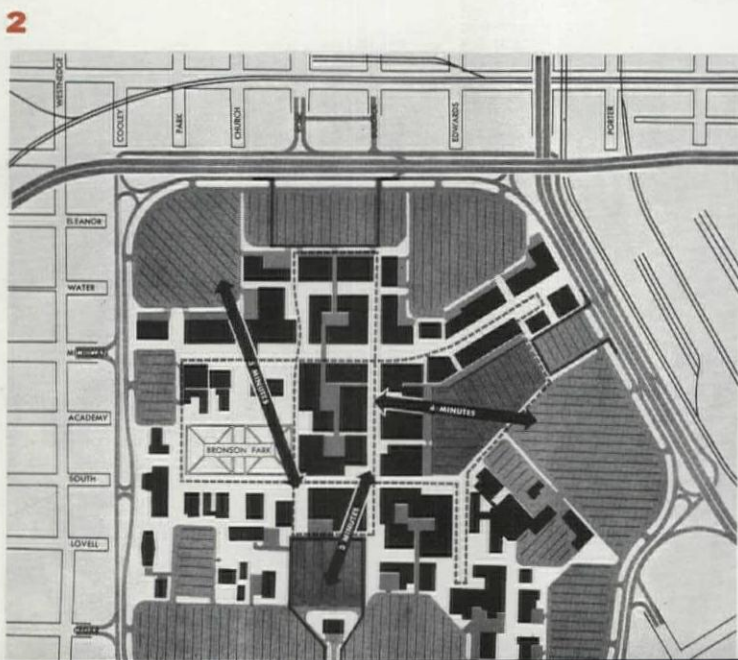
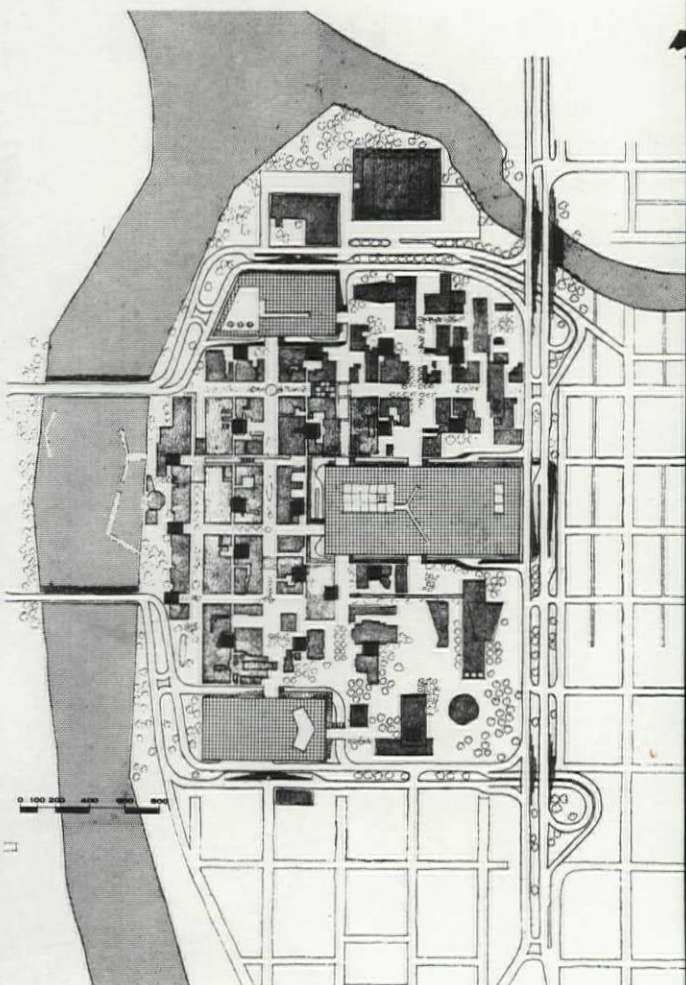
the necessary new traffic facilities.

The best known of these is probably the downtown plan for the city of Fort Worth, Texas **1**. This master plan started with a case analysis of the needs and requirements for the core of the Fort Worth metropolitan area as projected for the year 1975. It is now proposed that the downtown core area thus established be ringed with a belt road into which traffic arteries feed from all directions. Directly adjoining this belt road, six multilevel parking structures with a total of 60,000

parking spaces are projected. Alongside these parking structures are loops for buses, with their terminal facilities located near the center point of the city core. The parking structures are elongated and reach like fingers toward the city center; thus walking distances from the exits of the parking garages are reduced to two and a half minutes to the center point. In this way, the entire downtown core is converted into a pedestrian area, and the tiresome gridiron pattern is modified by a widening into plazas and squares



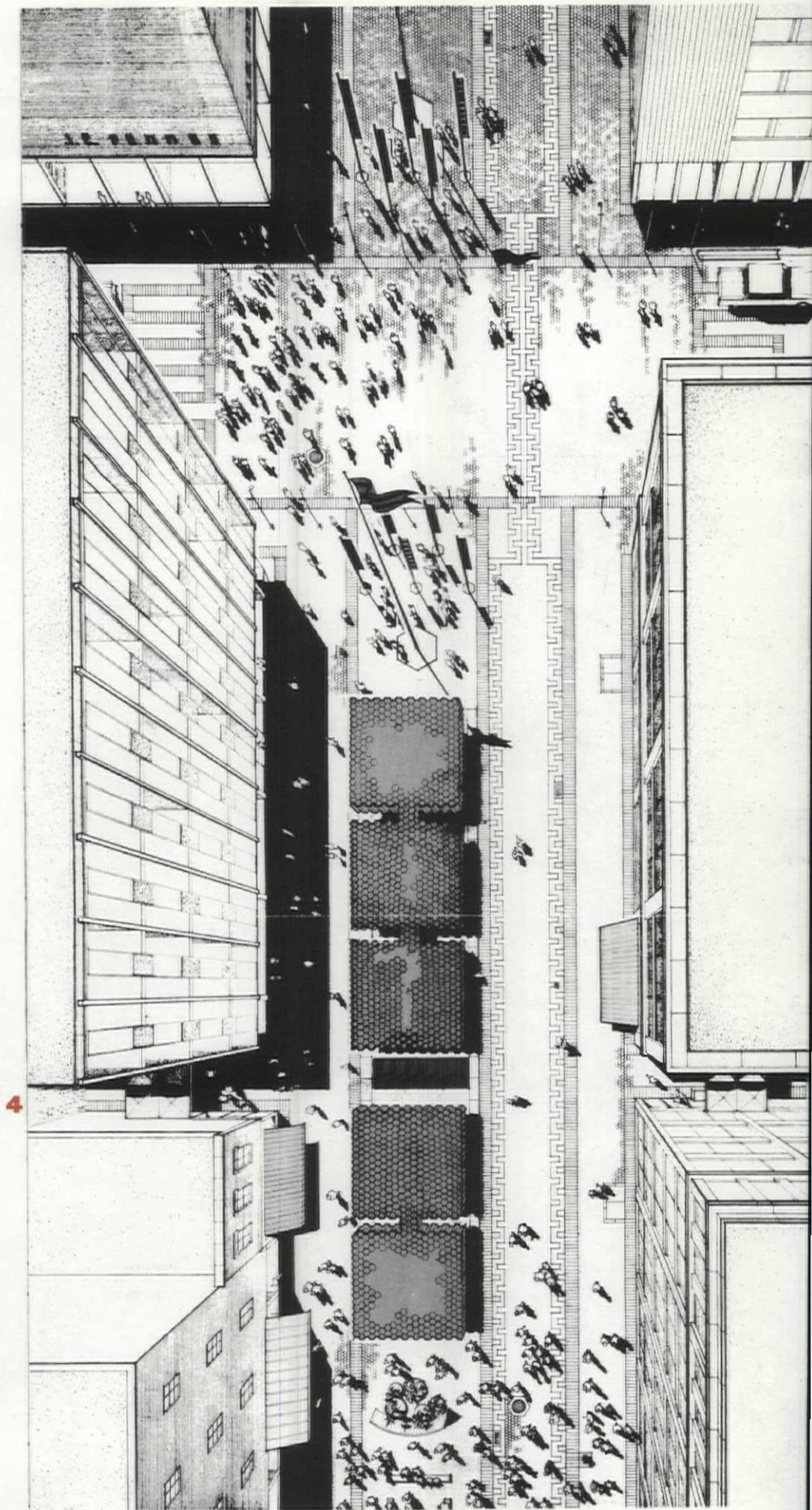
**1** Fort Worth Business District Plan, Fort Worth, Tex.; Victor Gruen Associates, Architects. **2** Downtown Planning, Kalamazoo, Mich.; Victor Gruen Associates, Architects. **3** Green Bay Development Plan, Green Bay, Wis.; Victor Gruen Associates, Architects. **4** Central Business District Plan, Cincinnati, Ohio; Garber, Tweddell & Wheeler, Architects.





where parking lots and garages now exist, by a narrowing at other points through the construction of new buildings, and by the placing of smaller structures, (for restaurants, lunch rooms, exhibit halls, etc.) in the middle of the existing streets.

Along similar lines, plans have been developed for Kalamazoo, Michigan **2**; Green Bay, Wisconsin **3**; and Cincinnati, Ohio **4**. Kansas City, Missouri, has made a good beginning with the construction of a belt road highway.





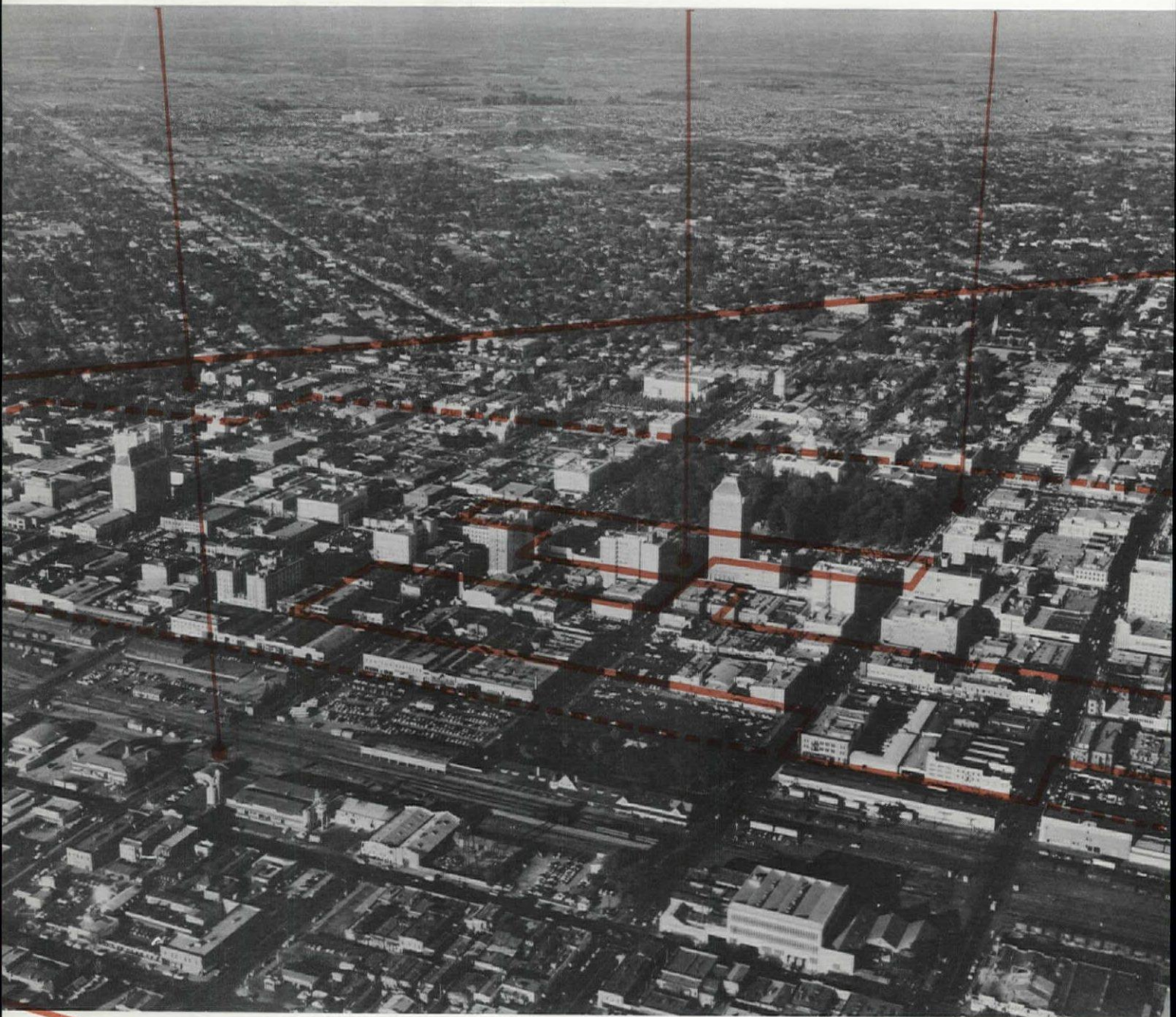
# **A CASE PATTERN**

## **Urban Renewal: Fresno, California**

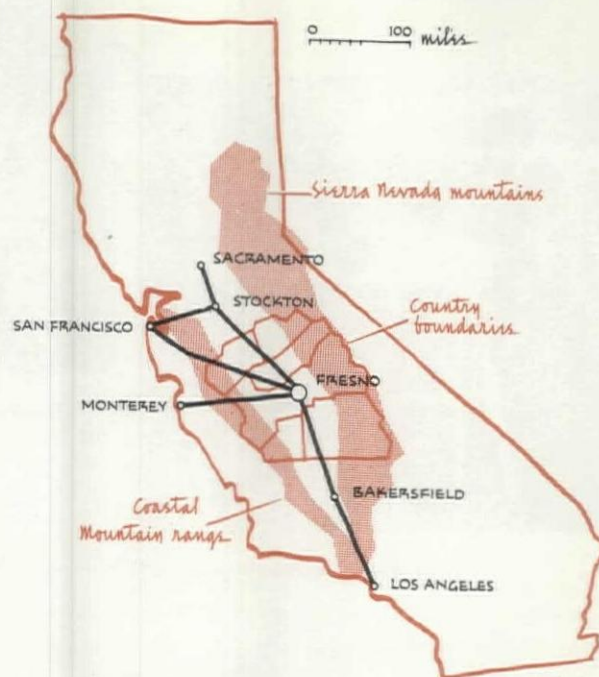
**A** hypothetical boundary of  
central area

**B** central business-district  
project #1

**C** central business-district as  
defined by census







In order to illustrate more fully the procedure of planning in the spirit of the new planning philosophy, we now discuss as a case study the City of Fresno, California. Thanks to enlightened leadership of authorities and private enterprise in this city, the planning effort for Fresno, which is now under way, is being sponsored simultaneously by three different agencies—City of Fresno, Fresno Redevelopment Agency, and an organization of downtown businessmen called “Hundred Percenters.” The fact that all three agencies appointed one planner (in this case, our office) for the master-planning task, made it possible to integrate the wishes and requirements of the three groups during the working process. This is in contrast with many cases where a plan is worked out by one authority or another, or by a private group, and dissatisfaction on the part of one of the groups then causes the project to be delayed, or, in some cases, abandoned. V.G.

Following are excerpts from Volume I, —a report on the Research and Basic Planning for the Central Area of Fresno, California—by Victor Gruen Associates:

#### required planning studies

- 1 General studies of the entire central area (*Area A acrosspage*)—for the City of Fresno.
- 2 Plans and documents for the Central Business-District Project #1, a redevelopment project of approximately 35 acres, contiguous with, and overlapping the main portion of the Fresno Central-Business

District (*Area B acrosspage*)—for the Redevelopment Agency of the City of Fresno.

3 Detailed studies of the actual Central Business-District lying within the central area (*Area C acrosspage*)—for Fresno’s “Hundred Percenters.”

Thus, at the very inception of our work the highly necessary pattern for co-operative endeavor was established. The three separate entities have made it possible to prepare complete and integrated plans for the central area. Just as it is not feasible to plan for an isolated portion of the central area, it is also extremely difficult and arbitrary to plan for the central area without consideration of the total city, the metropolitan area, and the regional trade area. Fortunately, the preliminary general plan for the Fresno-Clovis Metropolitan Area was just recently completed (*page 157*) and adopted by both the City and the County. This plan forms an excellent basic framework for relating plans in specific areas to the overall metropolitan pattern.

Among the many who greatly simplified the planning task and thus contributed to the success of this study are the City of Fresno: Mayor A. L. Selland; R. N. Klein, Chief Administrative Officer; John F. Behrens, Director of the City Department of Planning and Instruction; George Kirk, Assistant Planning Supervisor and Co-ordinator of the three projects; Bob Dyer, Sam Kalfayan, Dick Heika, Department of Planning and Instruction; M. J. Carozza, Director of Public Works; L. S. Van Voorhis, Assistant District Engineer, California Division of Highways. The Re-

development Agency of the City of Fresno: Arthur A. Eickholt, Chairman; Harris O. Hogenson, Executive Director. Fresno’s “Hundred Percenters”: A. R. Kuhn, Executive Director; Paul Gregg, Leonard Gross. Victor Gruen’s project staff for this study consisted of: Edgardo Contini, Partner-in-Charge of Project; Ben H. Southland, Partner-in-Charge of Planning; Frank E. Hotchkiss, Project Co-ordinator; David L. Rosen, Director of Urban Renewal Division; Beda Zwicker, Robert E. Lee, Haig Ashjian, Thomas C. Schweizer, Research and Planning; Marion Sampler, Ben Althen, June Morgan, Graphics.

We began concentrated work on the project in September, 1958. During the first field trips the extent of reports, maps, and other background material available was ascertained. Several meetings were held with City, County, Redevelopment Agency, State Highway Department Officials, and businessmen during December, January, and February. Based on these field trips and conferences, we have at this time a very complete file of past reports and analysis as well as memoranda concerning a multitude of problems and conditions existing within the city and within the central area.

#### general research

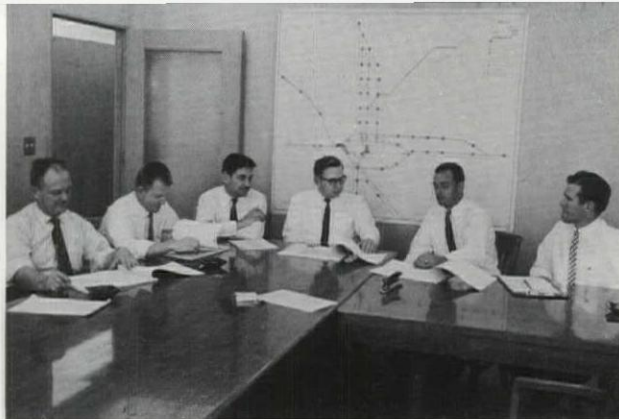
Research findings were summarized in graphic form and presented at a meeting in December, 1958. The following plates were included:

- 1—The trade area of Fresno and its relation to the rest of the State of California (*map above*).
- 2—Present proposals by the





Contini with "Hundred Percenters"



Hotchkiss with technical personnel of Planning Department

Klein and Contini with Fresno citizens



State for the routing of the east-west and north-south freeways. 3—Summary of existing proposals for the central area which must be considered in further planning work. Included are the plans for the Metropolitan area as formulated by the Fresno-Clovis Area Planning Commission (*top acrosspage*); a plan for an underground garage; and the plan for the development of the civic center (to be restudied by local chapter of AIA). 4—Central area of Fresno and break-down of quantities of land within this area presently allocated to the major land uses. 5—Existing zoning in the central area. (Recommendations for rezoning are to follow in a subsequent report.) 6, 7—Patterns of existing assessed land values and improvement values. 8—Actual density of development or height index analysis. 9, 10, 11—Location of specialized floor-area uses. 12—Amount of on-street and off-street parking by block, in an area of coverage similar to the area covered by the land assessment figures. 13—Schematic sketch of the existing land use pattern (*acrosspage*) in the central area.

#### basic objectives

Before proceeding to discuss in detail the research and analysis relative to population and sales potential, existing and future floor-area and land-area requirements, the research on traffic volumes and distribution of traffic, it is first necessary

to establish the basic objectives:

I The retention, strengthening, and widening of the range of activities within the central area and re-integration of these activities. This range includes not only a wide variety of commercial activities which form the economic base of the central area, but also social, cultural, civic, recreational, and residential activities.

II A plan of physical rehabilitation and expansion commensurate with the quality of space use. This implies the differentiation between high-productivity and low-productivity uses.

III The retention and increase of central-area value by the control of obsolescence and the stabilization of location.

IV A phasing program, so that the implementation of the planning elements can be undertaken by economically feasible stages.

V Adjustment to the requirements of automobile transportation, including: provisions to obtain maximum accessibility from all parts of the trade area and a free flow of traffic to the central area on secondary, primary, and freeway routes; provision of adequate vehicle storage in central area; separation of pedestrian traffic from vehicular and the separation of service, private, and transit vehicles in critical areas.

#### conceptual plan

Keeping in mind all of the research find-

ings and planning objectives, a conceptual plan (*acrosspage*) was developed to serve as a guide for more detailed plans. The main elements of this schematic plan were subsequently embodied in the basic land use plan (*pages 158 and 159*):

1 A freeway loop circling the entire central area.

2 Intensive improvement of the inner-core area with development of a pedestrian-mall system and high-density parking running along the entire southwest side.

3 Redefinition of the civic-cultural area and establishment of a location for a new convention hall. Instead of extending these facilities to the north and east, allow for further expansion to the southeast, thus anchoring the existing southeastern high-quality uses on Fulton Street and preventing spread of the low-quality uses in the southeast portion of the central area into the present core of the central area.

4 Expansion of the core uses around the southwest end of the park. The park is a major physical asset of the downtown. Expansion of core uses around the park will exploit this asset and will provide a compaction of core activities around the park and a connection between the high quality civic, cultural, hotel, retail, and office uses.

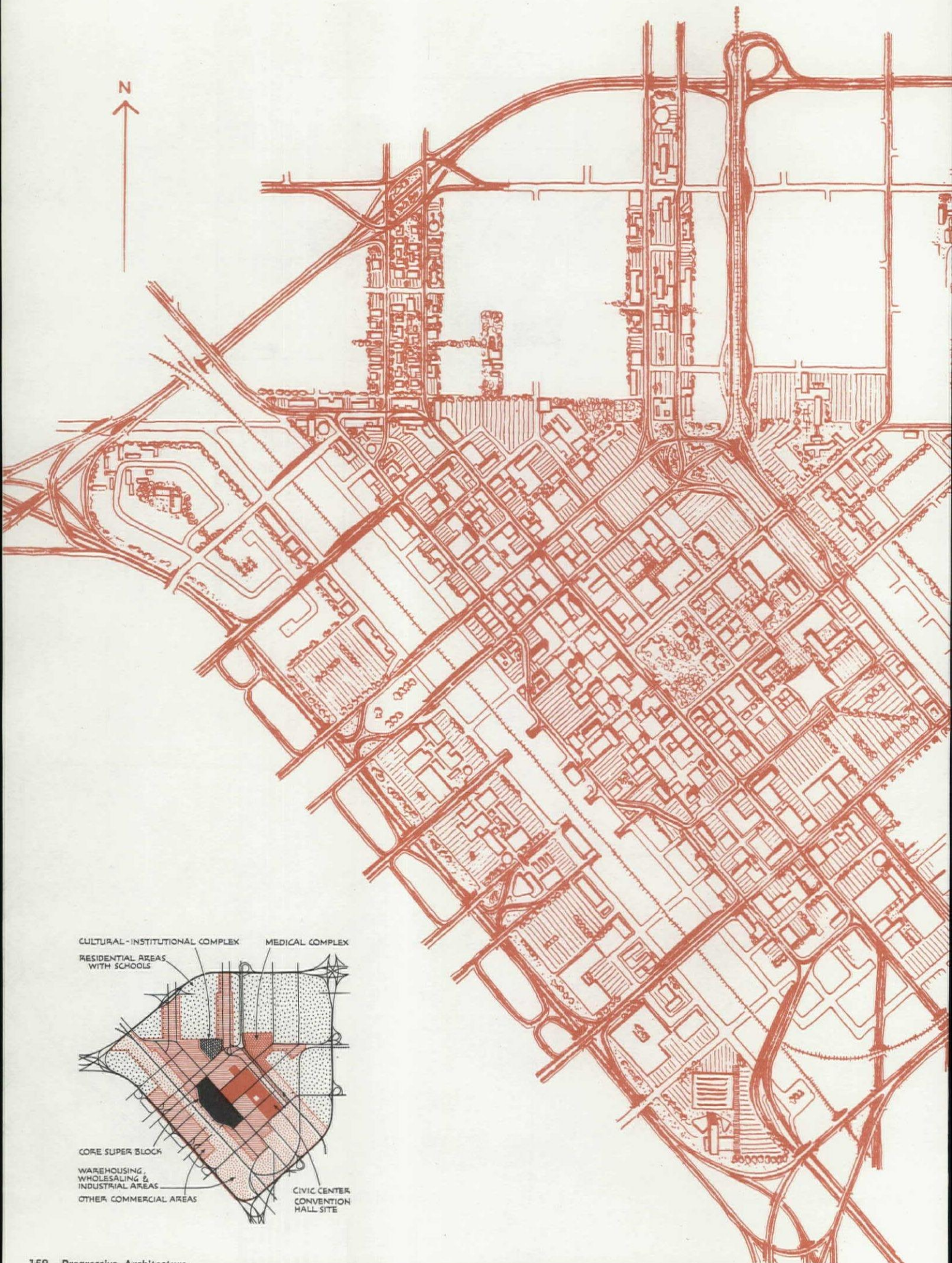
5 Provide for expansion of an integrated medical complex and institutional complex.

6 Provide for and encourage new and



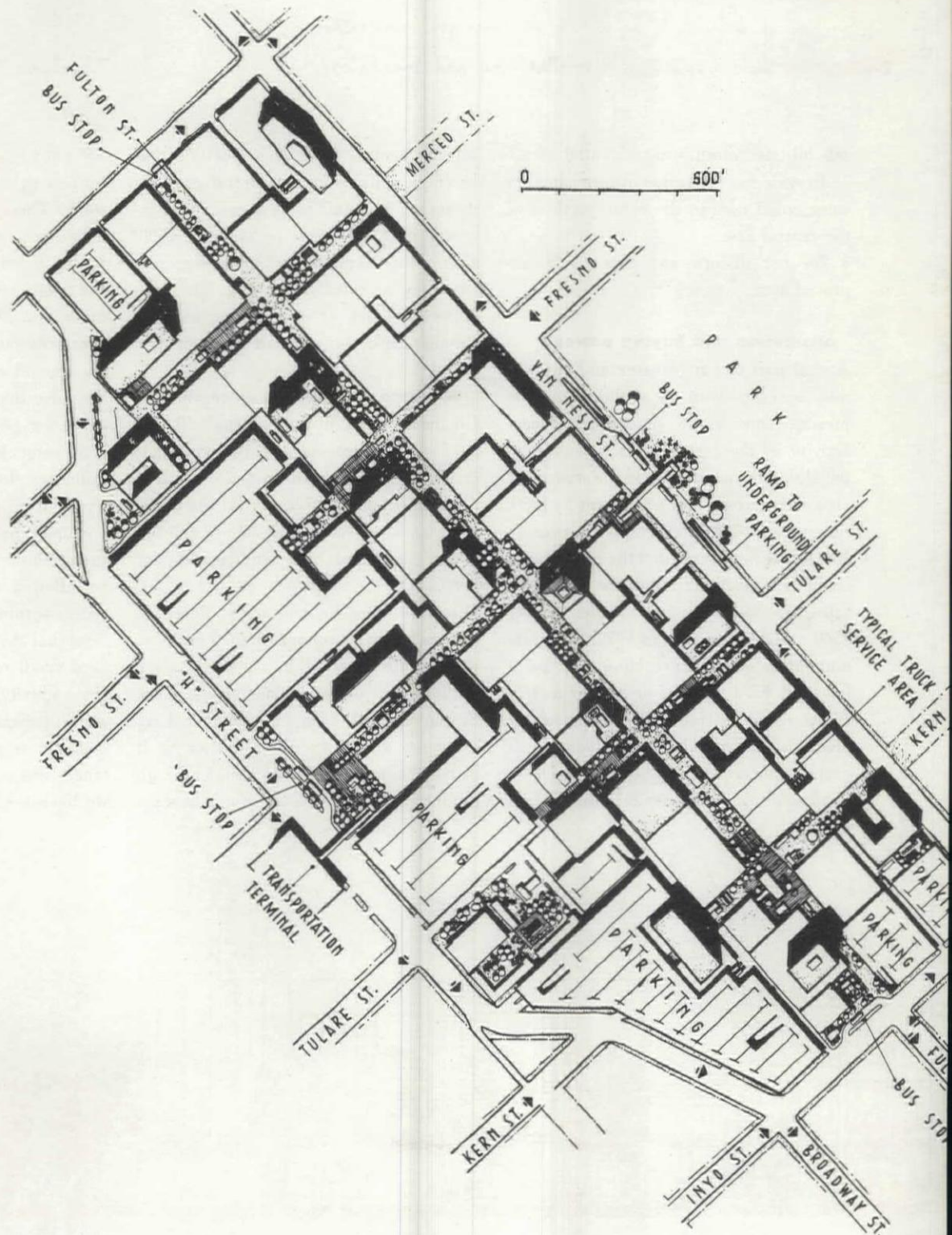




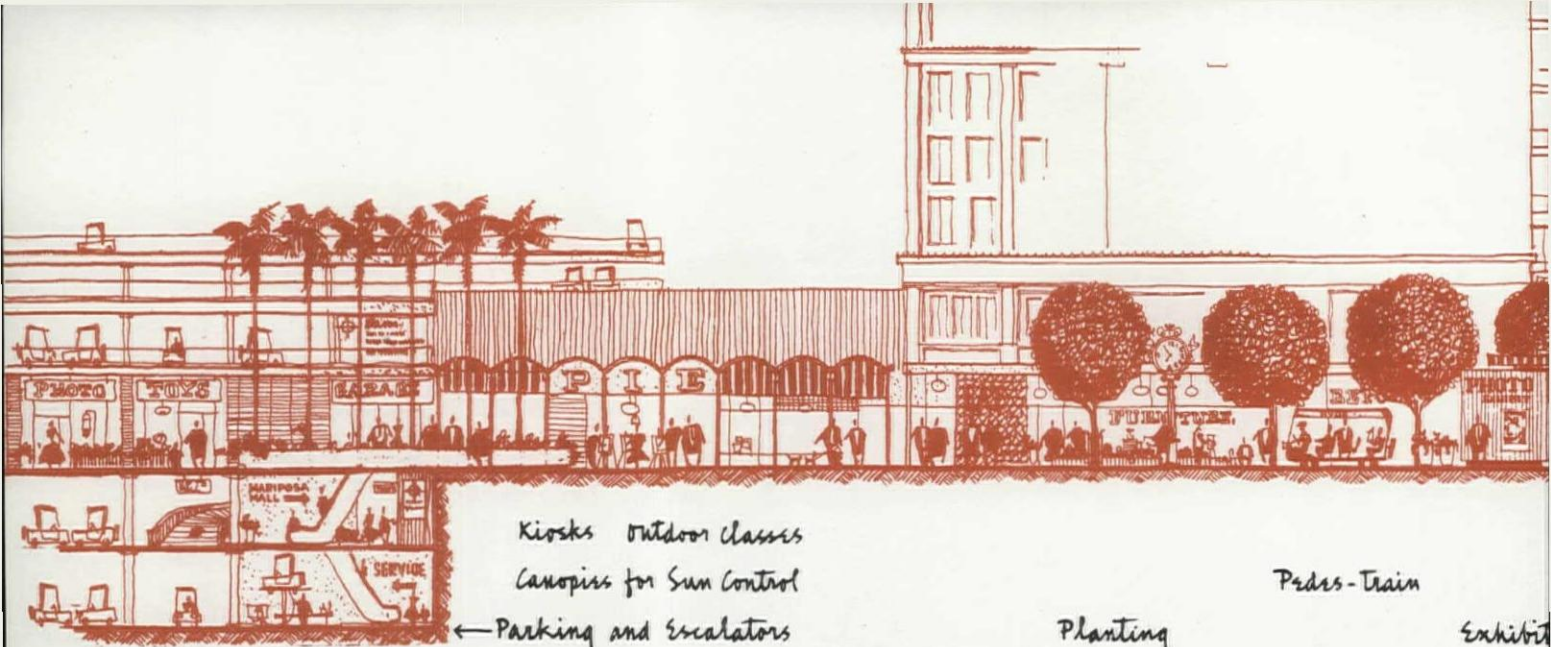




The basic land-use plan (acrosspage) summarizes all of the recommendations for the three projects. "All our primary planning objectives," the designers state, "have been attained in this plan." The close-up of the core area (below) illustrates particularly well the planners' chief objective of separating automobile and pedestrian traffic. This they have achieved by establishing clusters of pedestrian islands within parking and transportation areas.







rehabilitated downtown-residential uses.

7 Provide for expansion of lower quality commercial uses in the outer portions of the central area.

8 Do not disturb any extensively improved area.

#### population and buying power

A vital part of our research and analysis was concerned with the evaluation of the present and future potential business activity in the central area. It is anticipated that the population in the six-county area will increase over 68 percent by 1980, rising from 675,000 currently, to over 1,139,000. If we assume that the central area could capture 20 percent of the trade-area sales, this would amount to sales of over \$360 millions per year in 1980. For planning purposes we have chosen to use a figure of \$310 millions or approximately 17 percent of the trade-area sales as taking place in the central area in 1980. If all parties concerned take bold initiative in implementing sound revitalization plans

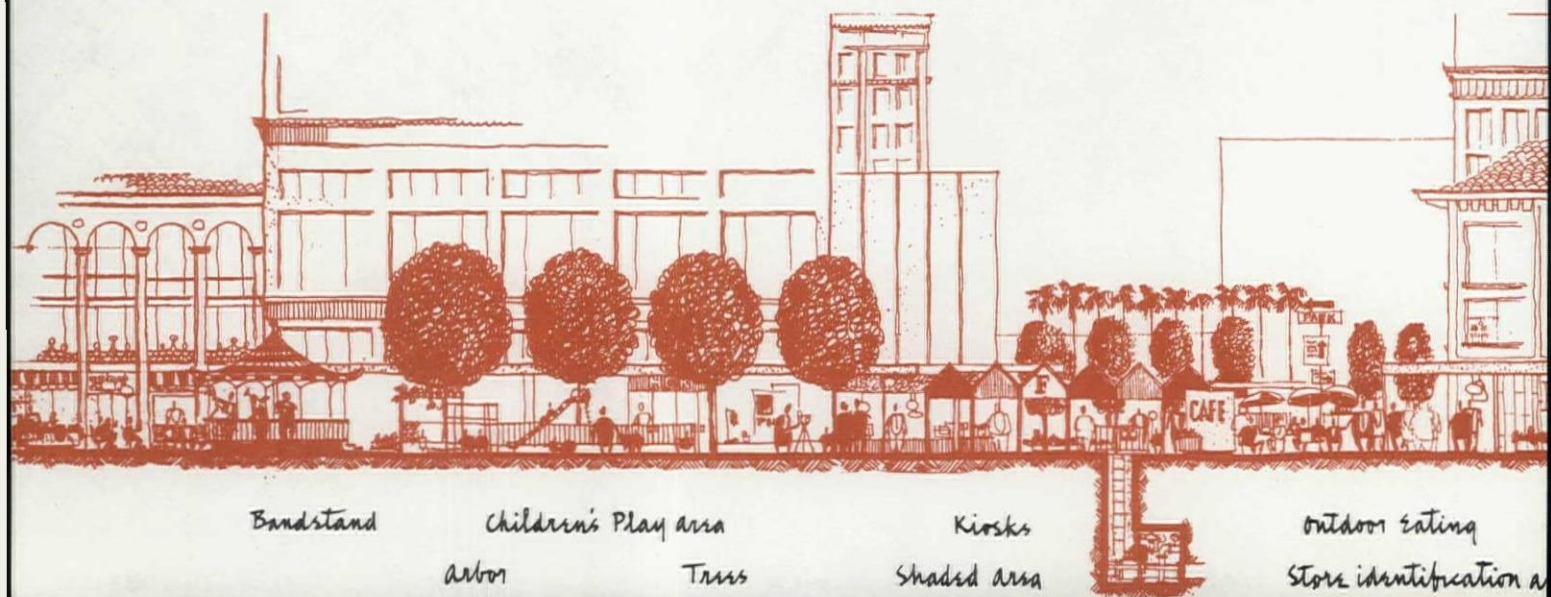
for the central area, it is possible that business activity in the central area, as measured in retail sales alone, could increase by 113 percent by the year 1980. Part of this increase will be due to greater efficiency of sales in existing buildings. However, much of it will have to come through the construction of new facilities.

#### area and parking requirements

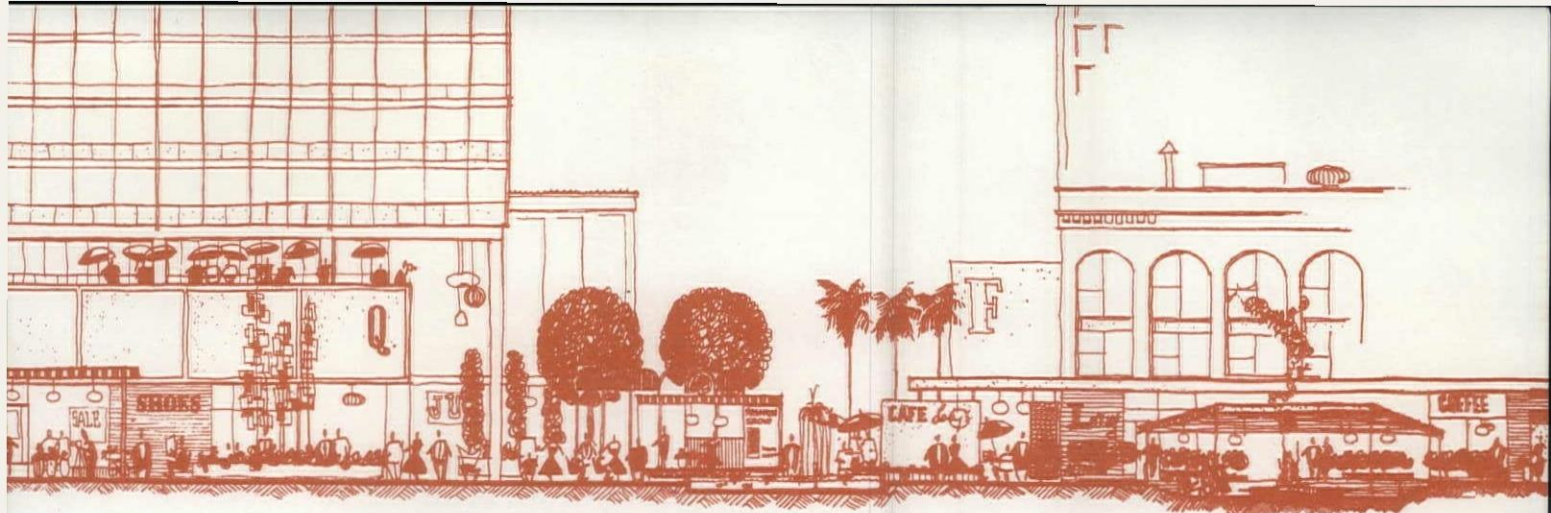
On the assumption that Fresno will proceed with the necessary effort to revitalize and expand its downtown to form a true nucleus of business activity for the entire trade area, we have programmed the following land and area requirements for 1980.

*Retail Building Requirements:* Based on anticipated sales volume of \$310 millions, we estimate there will be a need for seven million sq ft of retail floor space in the Fresno Central Area in 1980. We have estimated a need for three million sq ft in the "inner zone." This would be high productivity sales area and would average

\$50 per sq ft. We have then allocated four million sq ft of floor area to the "outer zone." These would be lower productivity businesses and would average \$40 per sq ft. We estimated the floor area ratio for the inner retail use at 2.5 and for the outer at 2. Dividing the floor area by the floor-area ratio we have obtained a figure for ground coverage by retail buildings. We have then added a percentage to account for pedestrian malls, open spaces, and vehicular circulation around the buildings. In the inner zone, we used a figure of 25 percent for pedestrian malls and open spaces. Our planning is based on the principle that vehicular traffic will not be allowed on the primary pedestrian routes within the inner zone. We also believe that the pedestrian spaces should be kept small to increase the feeling of intense activity, to conserve high-value land, and in general, to keep this inner zone as compact as possible so that walking distances are minimized. In the outer zone, we have used a figure of 40 percent for







Control      Sculpture      Fashion show      Restrooms  
Trees      Pool and Fountain      Outdoor eating      Sunken gardens  
overhangs for Sun Control

pedestrian open spaces and circulation.

**Retail Parking:** Considering parking for the inner-retail businesses, we have assumed that customer parking should be provided in a ratio of 5 cars per 1000 sq ft of gross floor area. Since we have estimated there will be three million sq ft of inner-retail floor area, this use would require 15,000 parking spaces. Because some shoppers may desire cheaper parking we have allocated 3000 of these spaces to the outer zone and 12,000 of the spaces to the inner zone. For the outer retail use we have used lower parking ratios; 3 cars per 1000 sq ft of floor area for customers, .5 cars per 1000 sq ft for employees. These ratios result in a total retail parking requirement of 12,000 car spaces in the inner parking zone and 20,000 in the outer zone. For the inner parking we have assumed a floor-area ratio of 4, since these cars should be parked in high-density structures. For the outer parking we have used a ratio of 1.5 since most outer zone parking will be on the surface. We have

added a percentage to the ground area required to provide for circulation to the parking lots and structures and have thus arrived at an estimate of total land area required for inner and outer parking related to the retail use.

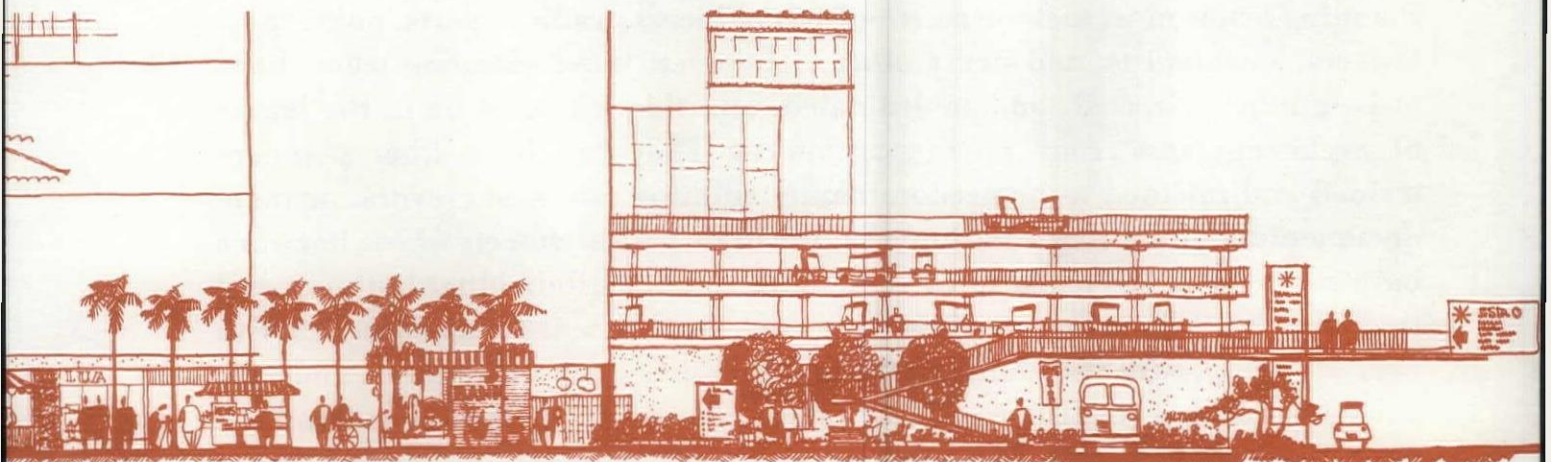
Similar studies concerning area and parking requirements were carried out for such categories as offices, hotels and motels, institutions, organizational headquarters, hospitals, churches, residential, recreational and civic facilities, wholesale, warehousing, manufacturing, and other miscellaneous uses. Charted and summarized, the total estimated land requirement is approximately 1070 acres and the total estimated parking requirement, 80,000 spaces.

#### traffic

By various methods it was estimated that the total number of cars entering the central area daily in 1980 would be 200,000. This would mean 400,000 daily trips.

#### basic planning

Having determined the research findings, the planning objectives, the area and parking requirements, and the general traffic-distribution pattern, the final portion of the report is devoted to the statement and resolution of the many individual planning problems. Included (in graphic form) are studies and recommendations on various freeway systems, central-core circulation, land use, traffic load, parking, proposed civic and cultural facilities. One of these studies, the mall section (*above and below*), is intended to illustrate the intense activity, the variety of uses, the emphasis on sun control, and the generous use of planting envisioned by the planners to give the central area renewed vitality and importance. On March 26, 1959, Fresno's City Planning Commission, as well as the three clients, endorsed the plan in principle and recommended that Part II of the report, completing the details of the plan, be carried forward by Victor Gruen Associates.



sk      Newsstand      Trees      Parking      Store and Mall identification  
factory      Flower Cart      Sign Control      Bus stop      Pedestrian bridges





In this issue we have discussed those signs which encourage us to believe that a new urban pattern is emerging. In addition to advances in planning, we are also encouraged by the fact that the general public attitude toward planning has undergone some dramatic changes in the last five years. There was a time when the belief was widely held that long-range planning violated our ideals of individual freedom of expression and that it would tend to regiment our society. Slowly, the public at large, and the planning and architectural professions as well, are coming to understand that the aim of planning is not to abridge individual liberty but, quite the reverse, to give it the greatest possible opportunities.

Planning accomplishes in the physical sense what legislation does in the moral realm. None of us could enjoy freedom and liberty if laws did not protect us from their abuses. Translating this into the planning vernacular, it is obvious that nobody can enjoy our urban areas, our countryside, and our landscape if we do not protect ourselves against their abuse. If highways are planned with intelligence and from a long-range point of view based on a sound planning philosophy of the kind expressed in these pages, they will cease being destroyers of community life and can become the shapers of urban organisms. Traffic, which has become a nuisance, can be made efficient. Driving the private automobile, now a burden, can again become enjoyable. The view from our windows, which is now directed toward disorder, ugliness, and smog, can become a delight. Our cities, which too often now are anonymous, dull, ugly, and dirty places, can stimulate civic pride and become an important part of our lives.

In order to do this we need creative planning and creative, imaginative planners. Planning is an activity not reserved for one or another profession. Planning teams must include economists, engineers, traffic experts, politicians, lawyers, sociologists, and many others. However, these planning teams have to be guided, directed, and co-ordinated, and this job must be in the hands of architect-planners or planner-architects. They can be neither planners trained and inclined to be predominantly administrators, surveyors, or map-documentors of existing conditions; nor can they be architects whose horizons have never been stretched to include more than one individual building and the possibly brilliant design of its shape and form. The task calls for men with over-all vision, with the ability to guide others and work with others, and with a deep conviction that the reshaping of our man-made environment is today's most urgent task.

V. G.



Barbara J. Melnick

**street furniture**

For this special issue devoted to the design of urban centers, the Interior Design Data section moves outdoors to present recent examples of street furniture. The furnishings and public facilities which equip outdoor spaces influence the quality of our environment. Open or comfortably enclosed spaces can be created using the excitement of imaginative lighting, patterned pavement, changes of level, fountains with the movement of water, trees and plant life, benches for moments of sunning and sitting, amenities which offer a variety of pleasurable experiences.

Designed by or in consultation with architects, the street furniture we show has been selected, with one exception, from pedestrian areas—housing developments, shopping centers, plazas—environments controlled by architects and planned to foster a sense of restfulness and delight. In contrast to the typical city street cluttered with a variety of unco-ordinated objects (lights, signs, meters for public and private traffic; police, fire, post office department equipment; billboards and neon advertisements) which bombard the senses competing for attention, these are simple units, carefully designed and scaled, integrated with their settings.

Perhaps the most intriguing street furniture shown here, commissioned by James H. Scheuer for housing projects, is in the "Time and Communications Center" at Longwood Village, Cleveland, Ohio.

For the tired shoppers in Coventry, England, and in Eastland Shopping Center, Harper Woods, Michigan, seating and pleasurable relaxation are offered in open, yet protected spaces. Movable planters, gaily painted kiosks are some of the amenities introduced at Roosevelt Field Shopping Center on Long Island, New York.

Many kinds of equipment are housed in the traffic-control cabin designed by Architect Franco Carpanelli for Parma, Italy, where the working conditions for policemen are convenient. Lighting fixtures and other pieces designed by I. M. Pei & Associates for Plazas in Denver are extraordinarily well co-ordinated with the setting—an environment where surfacing materials, color, water, planting, and pattern are thoughtfully treated.

Larry Lustig



Helen Stenler

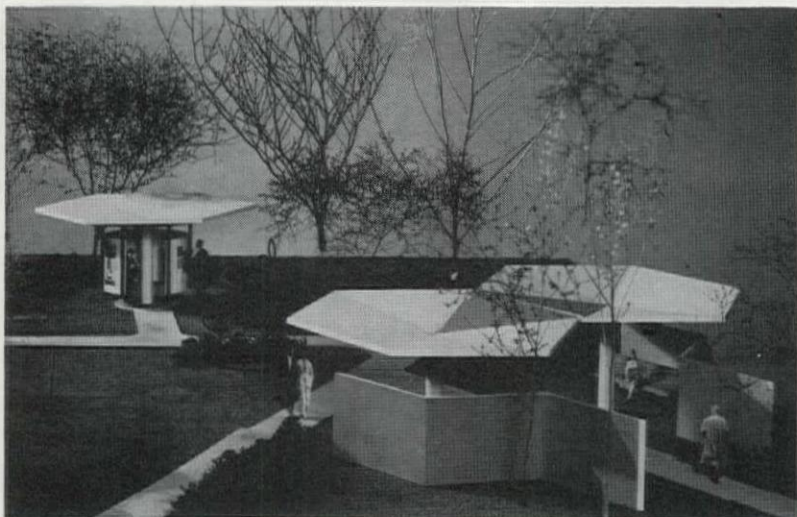




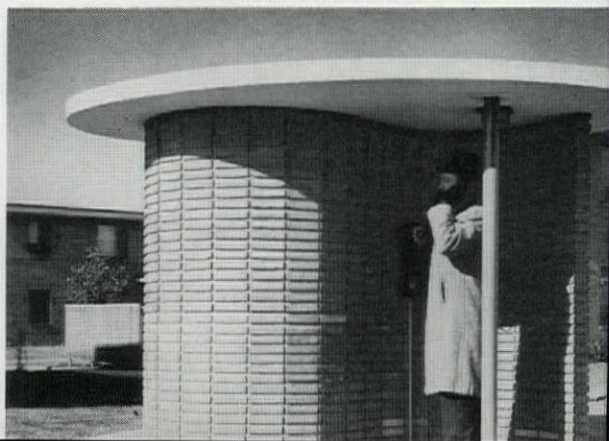
## street furniture



**Phone Booth, Sun Dial, Sitting Area, Drinking Fountains** designed by Architect Edward Larrabee Barnes for Capitol Towers, Sacramento, California. Pedestrian amenities are provided in these preliminary designs of street furniture for the urban renewal project, which won First Design Award in the P/A Design Awards Program (see JANUARY 1959 P/A).



**Sitting Areas, Phone Booths** designed by Saul Bass are prototypes for street furniture to be included in future housing projects sponsored by urban redeveloper James H. Scheuer. Hexagonal concrete canopies shelter benches and phone booths. Freestanding walls afford protection from wind.





**Clock Tower, Phone Booth, Drinking Fountain** designed by Leo Lionni for Longwood Village East, Cleveland, Ohio: Mayer, Whittlesey & Glass and Richard A. Keller, Associated Architects. Sculptural 14-ft clock tower has a loud-speaker for music and public announcements in top sphere. Middle-sized object contains a pay phone; the smallest—which might double



Photos: Baltasar Korab



as an urn—a fountain. White cast stone was selected for reflecting value, textured finish which resists marking by children.

Architects Mayer, Whittlesey & Glass designed the semi-circular **exedra**—wood-slat seating is gray; roof, pale gray; concrete posts, yellow—for this “Time and Communications Center” and the **phone booth** installation (left)—concrete roof, blue steel posts, S-shaped red-brick wall with a bench on opposite side. Three phone structures at the project give night light and are placed to prevent people from cutting across the grass.



## street furniture

**Benches** in Upper Precinct, Coventry, England: Arthur Ling, City Architect and Planning Officer. Situated in a pedestrian-shopping area, the benches have teak-slat seats and back rests, framework of welded,  $\frac{5}{8}$ " mild-steel rod.



**Benches** at Eastland Shopping Center, Harper Woods, Michigan: Victor Gruen Associates, Architects. Designed for the weary shopper's comfort, back rest and seat are curved. Wood slats are stained cedar, treated with a preservative; precast-concrete supports left unfinished were chosen for weight—they cannot be moved by children or shoppers.

Alexandre Georges







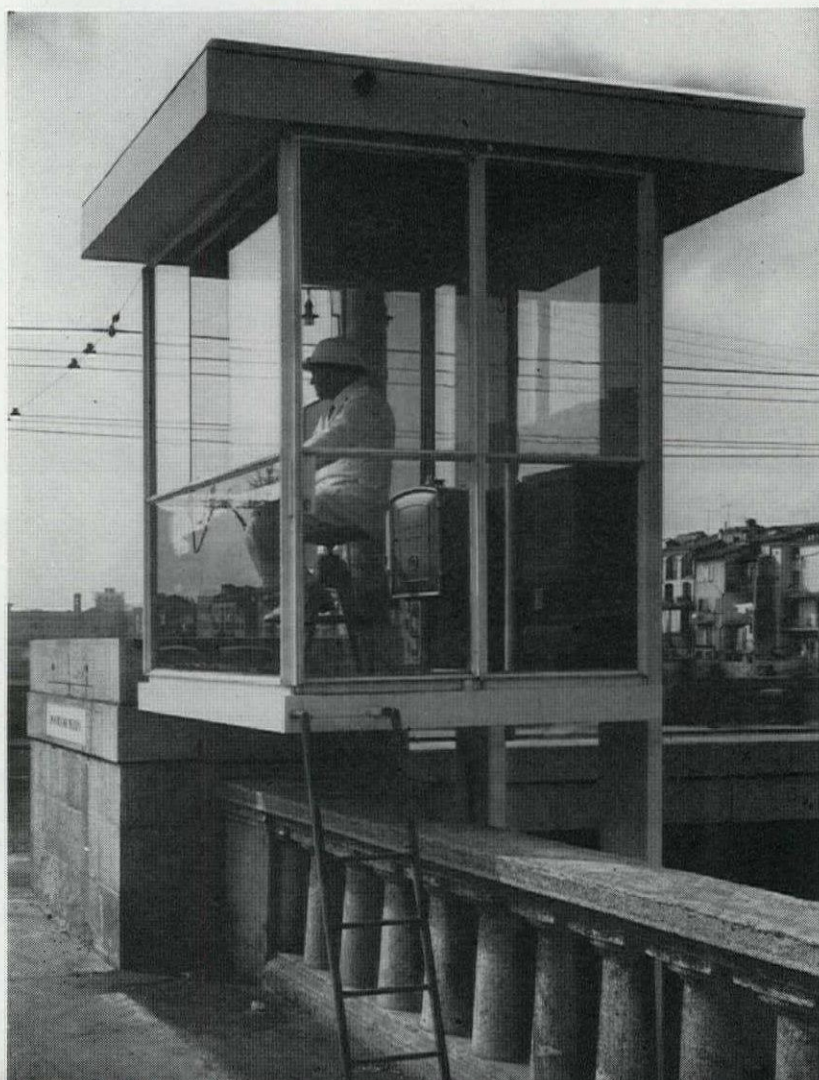
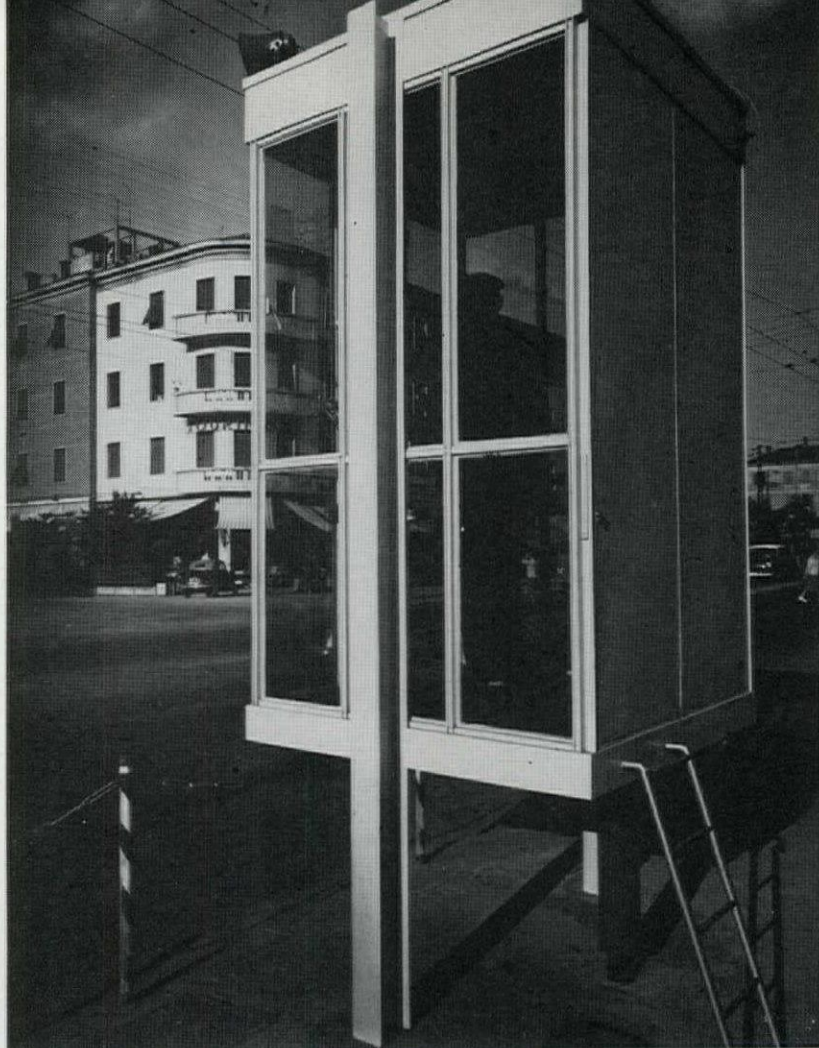
**Planters, Drinking Fountains, Phone Booths, Kiosk at Roosevelt Field Shopping Center, Nassau County, Long Island, New York: I. M. Pei & Associates, Architects.** White concrete planters and drinking fountains (top) are brilliant touches on flooring—dark gray, noise-reducing asphalt tile patterned with stone panel inserts. White, polished, cast-stone benches and special yellow-metal phone booths between painted brick walls (above) show care for total design integration. Gay, painted-plywood kiosk houses and advertises key-grinder's concession.



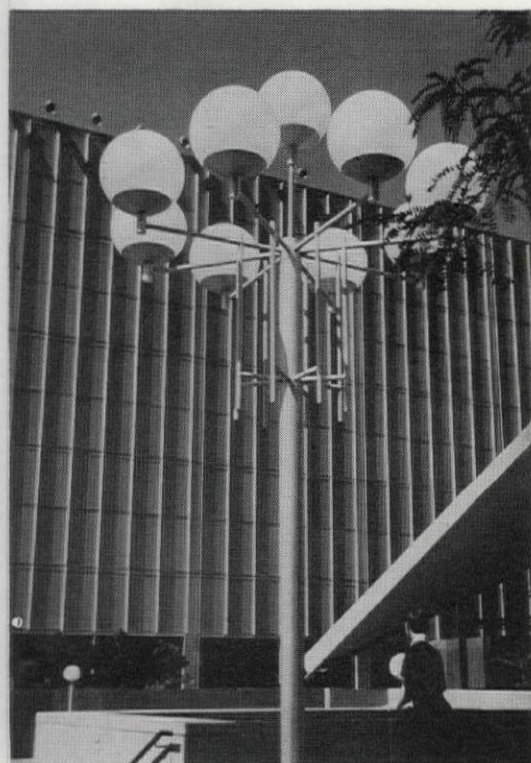
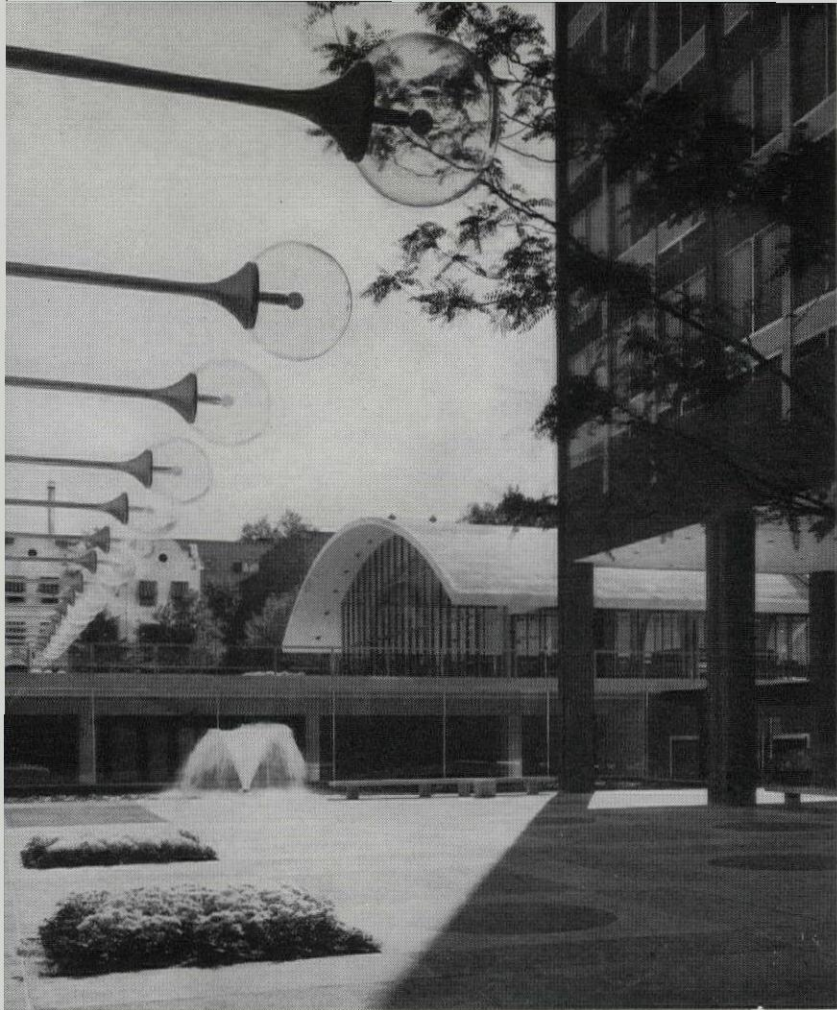


## street furniture

**Traffic-Control Shelters** designed by Architect Franco Carpanelli for Parma, Italy. Policeman directing traffic has better vision without glare from sunlight and is protected from hot sun or rain. Glazed with blue-green heat-absorbing glass, the shelter is constructed of steel channels and T sections and is supported by two H columns (top) or two T columns (bottom). Necessary equipment—loud-speaker, radio, and telephone—is neatly housed in the white-painted structure; black pipe has electrical services, rainwater drainage.







Willard D. Scolnik

**Lighting Fixtures, Benches, Ash Trays, Flooring** in Denver, Colorado: I. M. Pei & Associates, Architects. Handsome cluster of opal-glass lamp globes on an aluminum post (top right) is in Zeckendorf Plaza. At Mile High Center (above and right), other incandescent-lighting fixtures—transparent globes on aluminum supports—are suspended from bank building. Flooring, enlivened by pattern of deep-red circles and planting, is tan, coarse aggregate brushed for roughness to prevent slipping. Sleek benches and ash trays, like the wall surface, are easily cleaned, smooth travertine, pale creamy tan to harmonize with flooring.



Photos: Ezra Stoller



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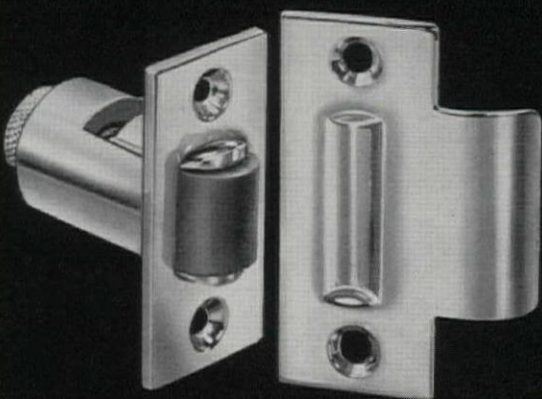
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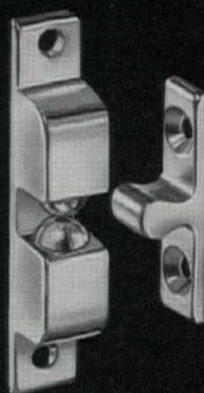


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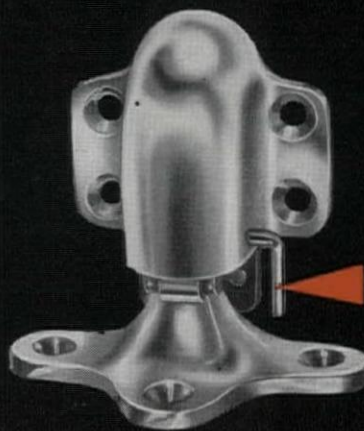
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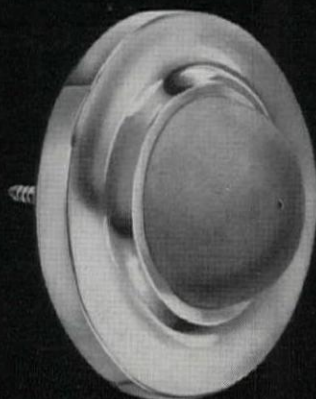
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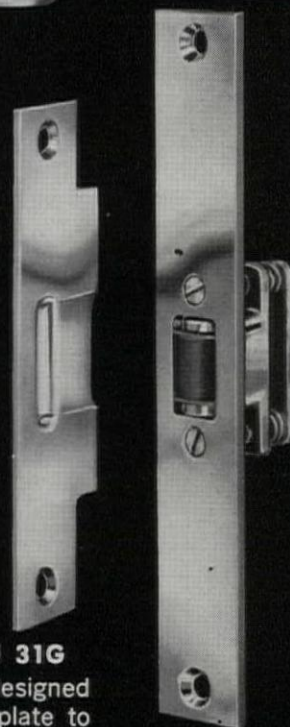
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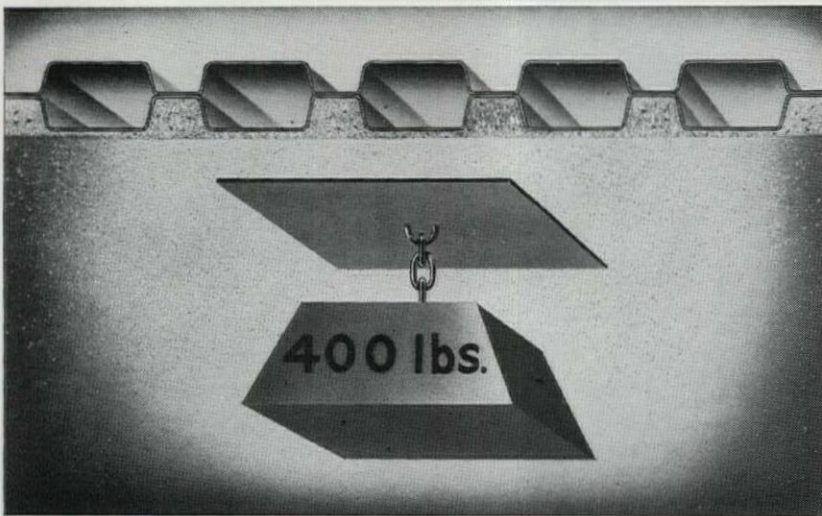
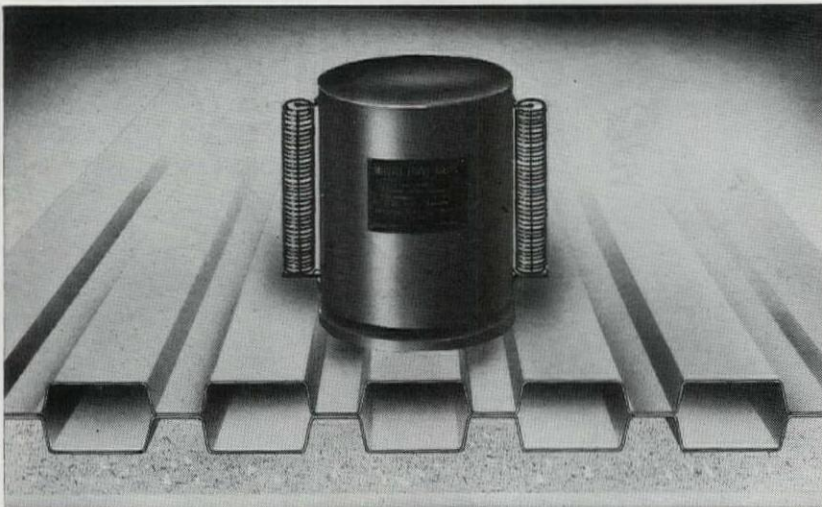
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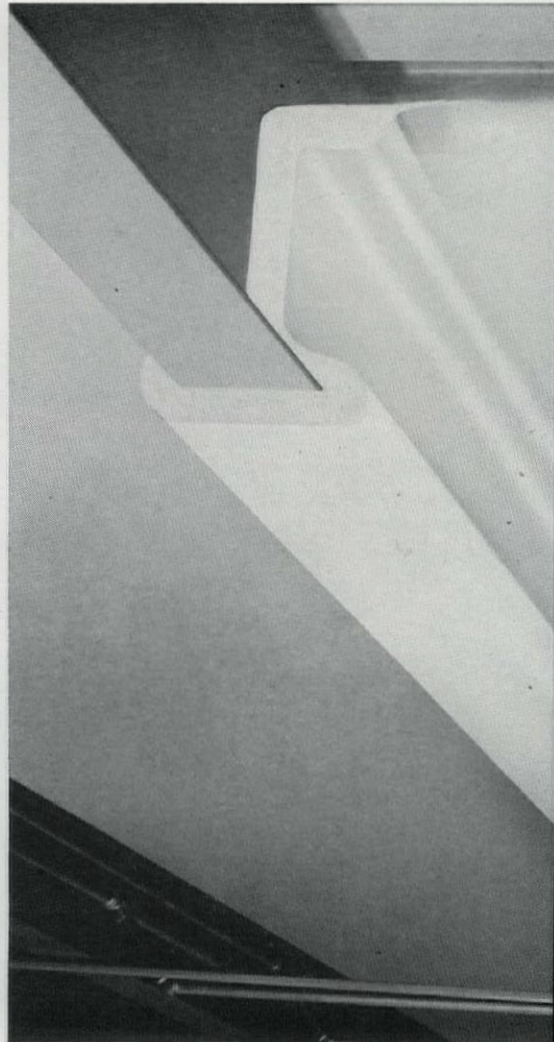


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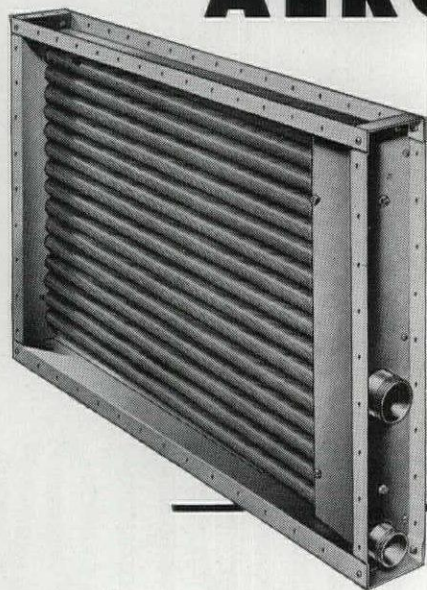
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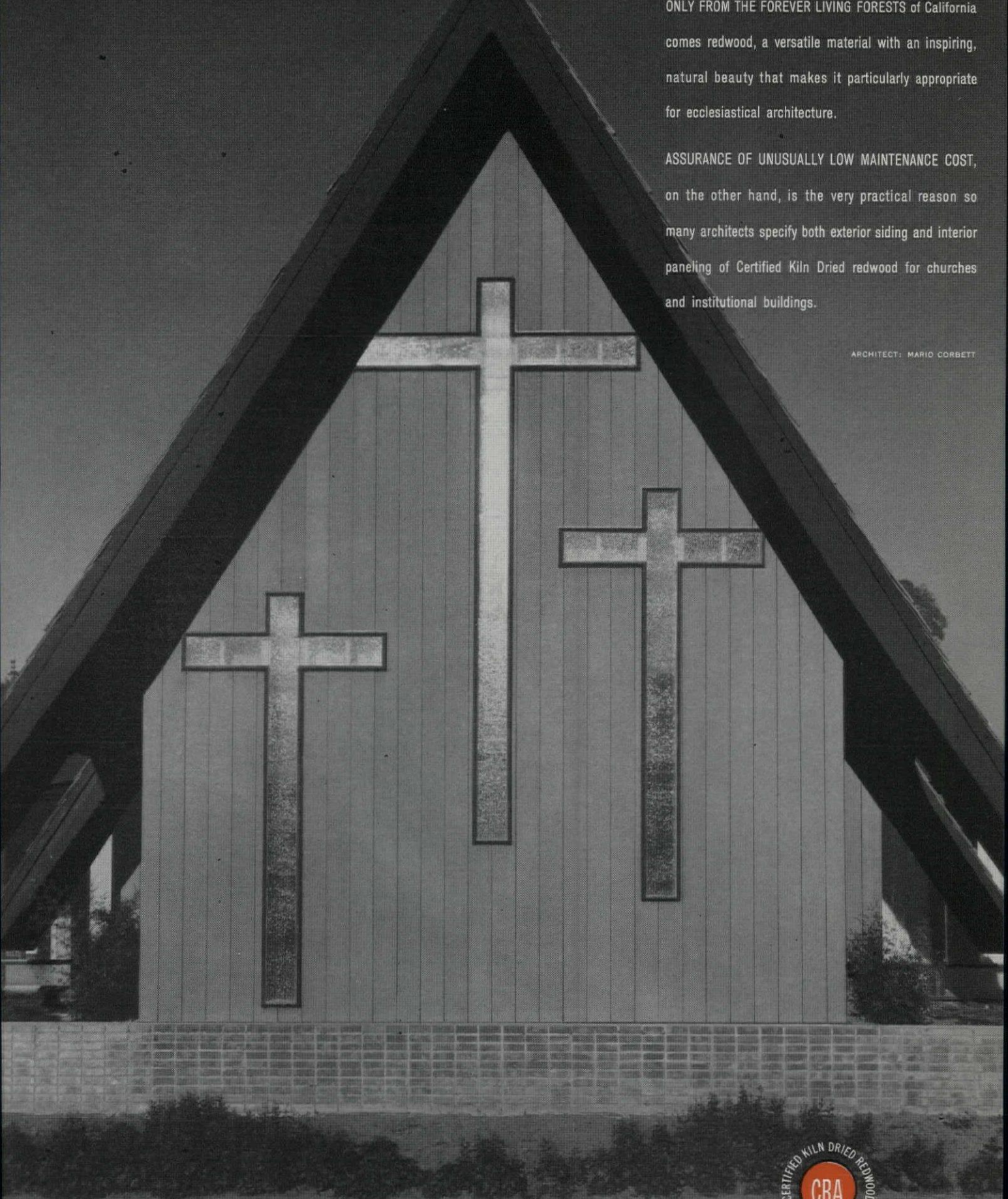
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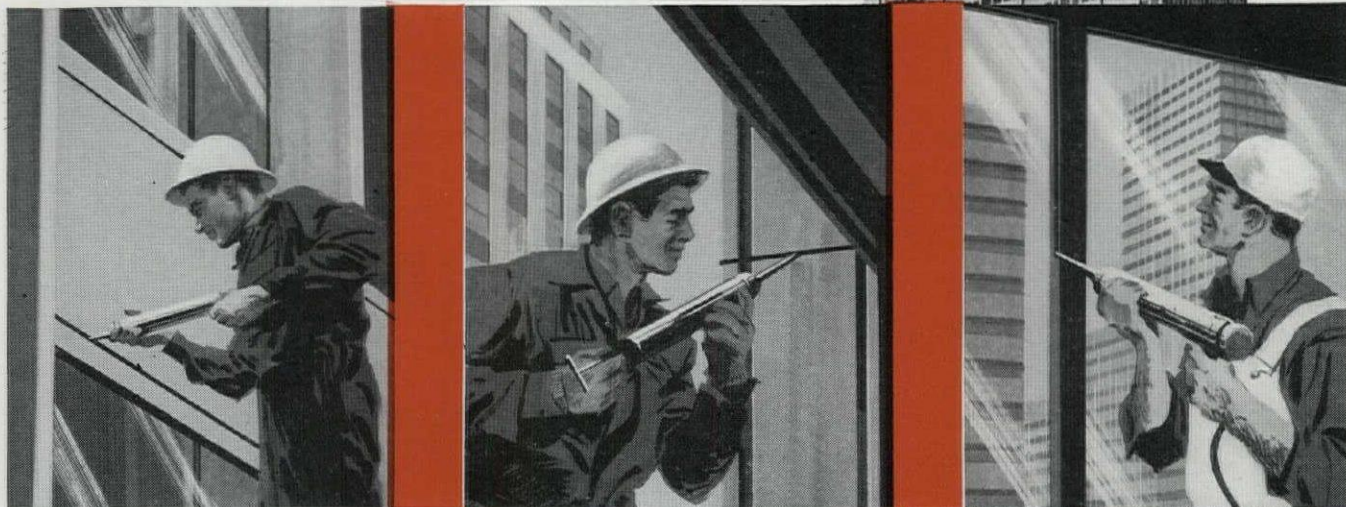
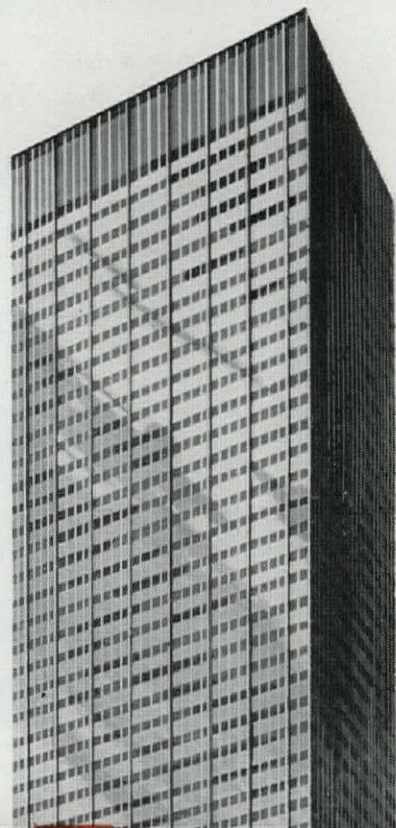
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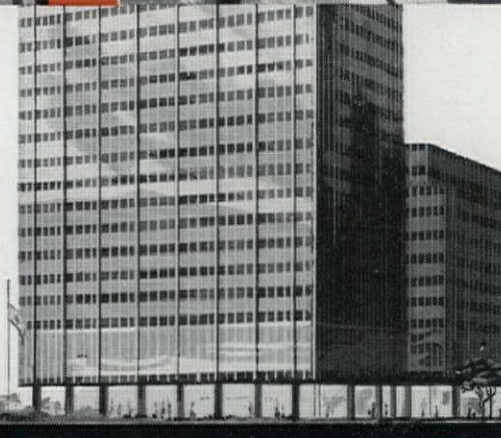
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## Broadacre City Revisited: FLW's Restatement, With Embellishments

by Carl Feiss\*

**The Living City.** Frank Lloyd Wright. Horizon Press, Inc., 220 W. 42 St., New York, N. Y., 1958. 224 pp., illus. \$7.50

Since there are few of us who have not been dazzled by Frank Lloyd Wright and his place in the sun and since few of us could look at his extraordinary vigor without envy, any appraisal of recent works, including his literary production, is colored by admiration for a vivid and wonderfully cantankerous personality. This he knew and liked. He swept his cloak and white mane across the American stage with all of the assurance of a long thespian career, in which great tragedy and picaresque drama have been included. But neither the strange accidents of history nor the vivid quirks of events self-induced by a surcharged creative ego, modified an unremitting persistence of social philosophy.

However, persistency of intent coupled with egocentricity, no matter how extraordinary the egocentric, becomes monotonous after repetition, for effect is no longer effective. Such is the case of this book. If Wright had never written anything else, *The Living City* probably would be interesting. But it is difficult to forget the verbiage, the polemics, and the sentiment, from book to book. So much is so much the same.

It is interesting to compare *The Living City* with its predecessor of 26 years. I bought my copy of *The Disappearing City*, September 20, 1932. This little book was a fairly simple and direct statement, short, and, for Wright, quite unpretentious. *When Democracy Builds* and *The Living City*, both end in the same pessimism—with a feeling that all is lost to the “big-production boys,” the “machine,” and the “bomb.”

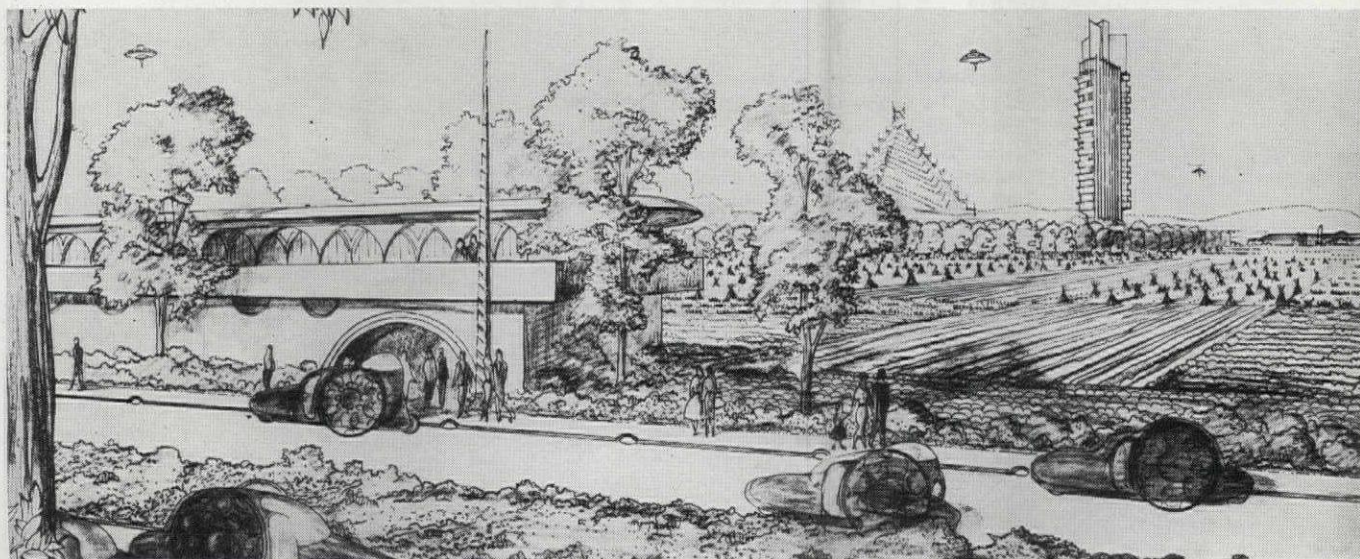
These three books are Wright's agrarian-decentralization philosophy. They stem in large measure from Ruskin and the back-to-the-soil movements of William Morris and Patrick Geddes. In a

sense they are a part of the series of attempts to put the Morris-Ebenezer Howard “Garden City” concepts into architectural form. Barry Parker and Raymond Unwin started building such places back in 1903. Broadacre City, in contrast to Howard's concentric and concise new-town idea, begins and ends as amorphously as any of today's and tomorrow's vast and dreadful suburbs. Still, reading about Broadacre City is like reading about utopias of late Victorian philosophy, from Bellamy on. There is charm and much wisdom in some of these. To the degree that Wright

(Continued on page 182)



\* Planning and urban renewal consultant, Washington, D. C.





## reviews

(Continued from page 181)

permitted his own maturity and romanticism to co-mingle, there are moments and ideas that are as good as those of his brother Victorian idealists. *News from Nowhere*, by William Morris, 1890, is an almost direct progenitor. But here a narrative method of expressing social objectives is much less self-conscious and, even without pictorial representation, interesting.

One of Wright's demons was that nagging imp requiring him to be different at all cost. FLW never learned that this is a nonessential. Also, he had difficulty in throwing away anything. Both of these characteristics understandably dated back to the long period of his life when popular recognition did not exist and seemed a long way off. These hang-overs haunted him badly in *The Living City*. The result combines space-age fantasies, garden-city reform, and neo-oriental house

boats. The missing element here is planning, architectural and literary. By this time it is reasonable to expect "organic" ideas, clearly expressed and delineated. Perhaps this inability to clarify a theme to enable the reader to grasp the meaning and a vision, if either exists, was due to an inverted order in the man's thinking. He stated, on page 138, "The concept of 'planning' is a matter of the right kind of building in the right way in the right place for the right people." Even though Wright tried to explain away the order of this sentence, he could not erase it from his mind or his book. Elsewhere, he insisted that no external design discipline would rule the expressions of a civilized "Usonian" society. But it is clear that this was really not what he wanted or hoped. Even the Usonian "small school" is a shape (see plan, page 130), not for children but for shape, despite the sentiment about "droves of happy healthy children" who are to enjoy it.

FLW was a great man: I would not be his Antony, even if I could. But dazzling as was his star, he was frequently dimmed by romantic and mystic dust from his own orbit. In none of his work was he so obscure as in the Broadacre City plan. In this he appeared to search for order between nature, science, design, democracy, and man. It was a worthy idealism. It is an essential search. That Wright had not made his objectives clear or found the answers to what he seemed to be seeking, is not to belittle the effort or the man.

No one could dislike the form of the modern American city more than Wright, except perhaps this reviewer. Years ago, at Taliesin, I asked FLW why he ran away from the American city. His only answer was that the city should be destroyed. We should start over again. Broadacre City was his attempt to visualize the substitute. He could not see rebuilding old cities, salvaging the urban essence that is so much a part of our culture, as natural to us as is the countryside. In his flight from the hideous reality of America's cities, he left not only the good behind but also failed to apply his unrivaled talent to the redesign of the vast urban architecture in which so many millions live and work and will continue to live and work for

(Continued on page 188)



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## reviews

(Continued from page 188)

the main objectives—that is, that survey material of this type should, we think, be made as easy to read and absorb as possible.

Let me say in closing that I keep the book on my desk and have found it a valuable reference on many occasions.

DANIEL H. BUSHNELL  
John Carl Warnecke & Associates  
San Francisco, Calif.

### when is a building a monument?

**The Monuments and the Environment of Ancient Buildings in Present Day City Planning.** *Center of Studies of the Milan Triennale. Görlich, Milan, 1958. Italian text. Copies can be ordered from Milan Triennale, Milan, Italy.*

The Milan Triennale is now publishing, in a handsome book, the reports presented at the International Convention of September, 1957, on the subject of actuality of ancient buildings and monuments in today's life of most European cities.

The writers of the papers are many of the best-known authorities on city planning and archeology in Europe. The photographs of drawings and urban landscapes are excellent and effective; more so because their snapshot quality avoids the dramatic and theatrical effects so frequent in our architectural publications.

The problem is obviously a psychological one and above all a European one: 3000 years of Western Civilization have left imprints in most European cities, of which not only every student of architecture is deeply aware but also by which every citizen is actually influenced. It is remarkable to notice that the different nations of Europe reported on their method of loving their monuments, of appreciating them, of keeping them alive, in a fashion which relates to their specific conditions and characteristics.

First of all, when is a building a monument whose preservation and maintenance is worthy of taxpayers' money? This could be debated at great length, and in our own front yard: the lesson of Grand Central Station, now being overloaded by the avidity of its land-

lord should certainly encourage our city fathers to consider the legal protection of monuments and "characteristic surroundings" as enacted in France from 1832 to 1913, and as reported in this book by Robert Brichet.

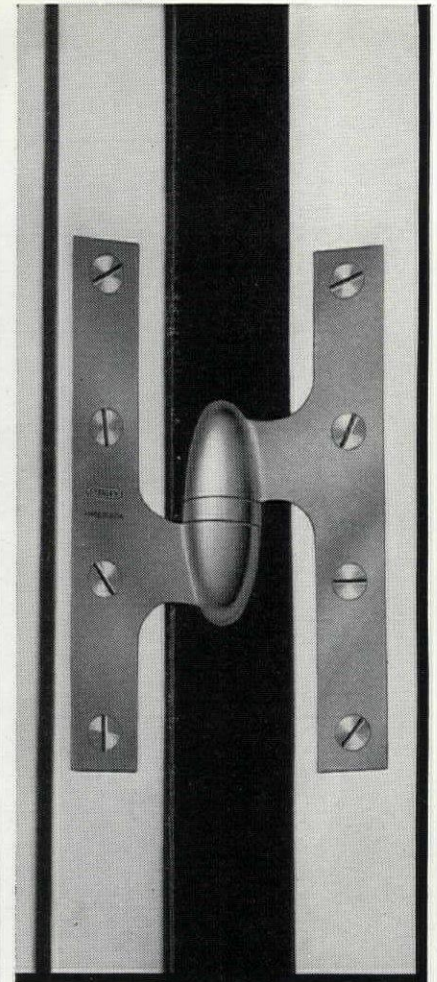
How important is it to society and to the national pride of a people to be able to look over the work of its predecessors? The educational value of the buildings of the past is emphasized in an impressive way by the very first report in this book which relates the reconstruction of Warsaw. In this chapter, the drawings show how meticulously the spirit of the different buildings has been maintained even when the lack of available detail drawings prevented exact reconstruction. Many buildings, even of mediocre design, acquire monumental character in their surroundings because of the proportion of their masses and their color and the relationship of the open spaces to them.

In Warsaw, particularly—the old city with narrow streets, with low buildings, with roofs of various heights and pitches—was considered an expression of the national character, a proof of the historical, century-old past, a demonstration of the validity of the Poles' decision to remain in the heart of Europe as a separate national and political entity.

The destruction of London, due to the Blitz as well as the wealth of century-old buildings throughout the metropolis, permitted the English to maintain and rebuild some of their monuments while also to create new, exciting relationships; visual sights toward known buildings were enlarged; tall curtain walls were erected as background for Victorian or Renaissance details. Most experts seem to emphasize that what makes buildings live is their scale; frequently the search for imitative solutions for new buildings is less successful than the controlled contrast. In a surprising example (Bologna, Italy), a modern glass building was erected over a medieval stone portico. Remaining respectful of the original volume, the mixture created a new, dramatic, and effective solution.

An interesting chapter is dedicated to the restoration of some palatial 18th Century farm houses in northern Italy. Here the change in social and economic life seems to condemn the purpose of

(Continued on page 196)



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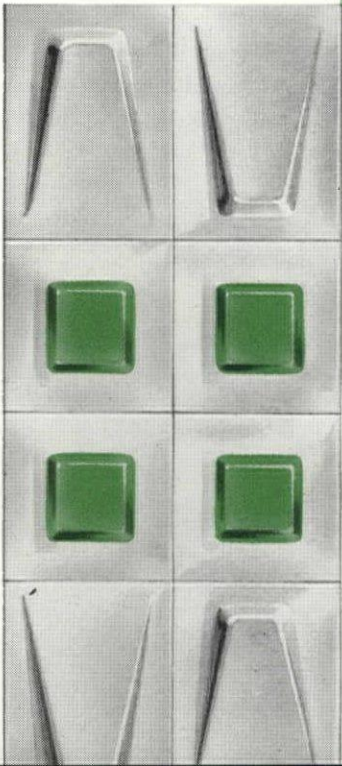


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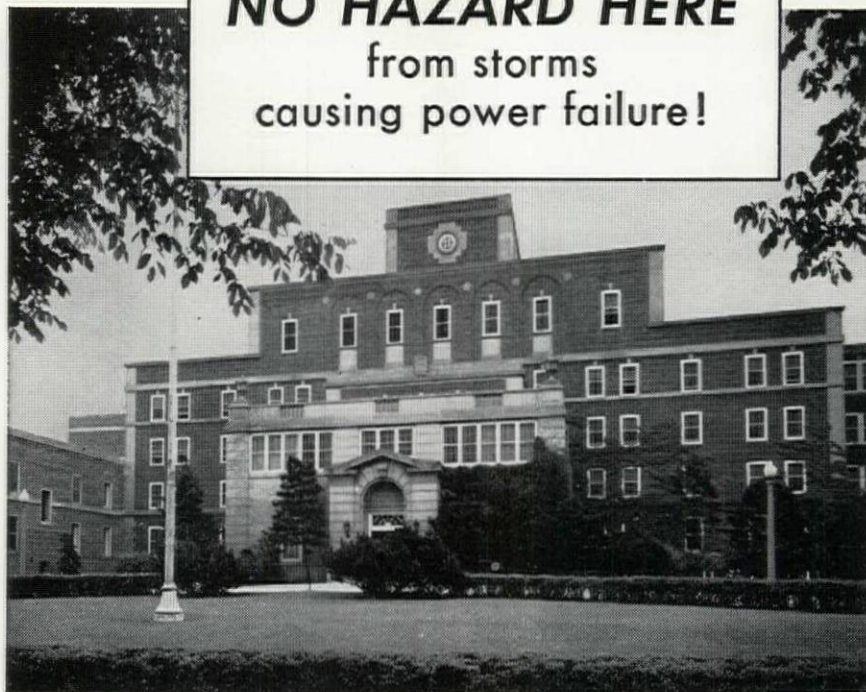
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## reviews

(Continued from page 192)

the building as it was originally conceived. Simple physical restoration would leave it a dead image of itself.

The insertion of modern buildings in old cities was studied with great care, and at times well achieved: in Yugoslavia (Zadar, Split) and in Germany (Frankfurt, Stuttgart, Worms). Photographs and models well illustrate these examples. The Czech reports, instead, emphasize restoration without insertion of modern forms.

Perhaps the youth of this country does not warrant any building to be declared a monument and, as such, preserved. Perhaps the studies of the Municipal Art Society of New York and the Society of Architectural Historians can be considered by the real-estate operators as a waste of time by some long-haired eggheads. But if this book will be read intelligently, even hard financiers may come to realize that the esthetic beauty of an urban community, good architecture, good relationship of buildings to each other, and respect of the artistic expressions of our predecessors, may in the long run make the job of the various convention committees much easier and financially more profitable.

GIORGIO CAVAGLIERI  
Architect  
New York, N. Y.

### revised art text praised

**Art Through the Ages.** Helen Gardner. Revised by Sumner McK. Crosby. Harcourt, Brace and Co., 750 Third Ave., New York, N. Y., 1959. 364 pp., illus. \$8.95


*Art Through the Ages* is a pioneer textbook in the field of art. Perhaps, too, it has been the most widely used. For teachers who utilize a text, the work as it now appears, revised under the editorship of Sumner McK. Crosby and the Department of Art, Yale University, still stands as a first-rate production. The whole problem, of course, is the professor, whose emphases, methods, and "slants" prejudice his opinions toward a text of any type.

(Continued on page 200)




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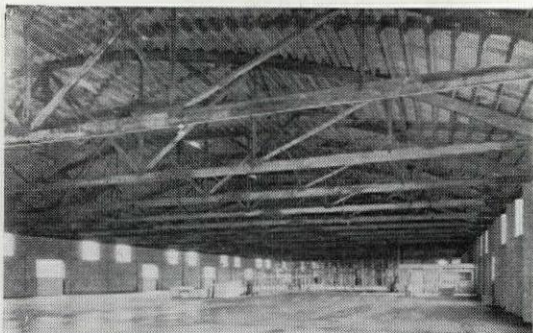
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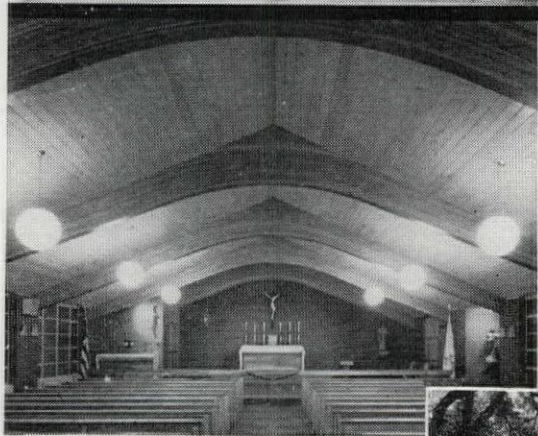
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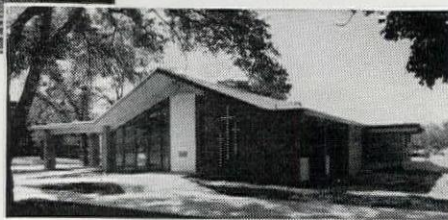
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## reviews

(Continued from page 200)

### historic monument to royalty

**Windsor Castle.** Sir Owen Morshead.  
Phaidon Press, 575 Madison Ave., New  
York, N. Y., 1957. 184 pp., illus. \$3.25

That vast storehouse of English art and history, the seat of English kings since Saxon times, is the subject of Sir Owen Morshead's book. Strangely, there are very few authoritative and readable books about the celebrated castle; St. John Hope's enormous study is much too bulky for most interested readers. It is therefore a pleasure to read this small volume which is both scholarly and crisply written. The author, the Queen's Librarian, is considered an expert in the history of the palace in which he lives.

Windsor Castle, like several royal residences which transcend the limitations of reigns and dynastic changes and difficulties, is a complex to which almost every English sovereign since William the Conqueror has contributed. As such, it is hard to see Windsor by itself, without calling to mind its royal associations. Every chapel, gate, drawing room, courtyard, etc., seems to bear proudly its royal escutcheon, its royal cipher, its royal beast, or its royal portrait. Unlike Versailles, which is the portrait of the Sun King, Louis XIV, and which for all its complexity is classic in the uniformity of its design and layout, Windsor boasts of no such uniformity. Where Versailles is open to the world that surrounds it, it is hard to see or understand Windsor at a single glance. For example, next to Gothic elements will appear King Charles II's *Long Walk*, in imitation of the infinity perspective of the Grand Canal of Versailles.

Since so many kings and artists worked on the improvement and aggrandizement of the castle, it is to be expected that there are architectural elements which Morshead refers to as unfortunate. And unfortunate they are! Wyattville, architect of George IV, added much to the castle, and the author refers to his Romantic Gothic as "medieval machicolation which would do credit to Hollywood." There are, however, many buildings of architectural interest. Par-

(Continued on page 219)





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*Bill Smartt discusses telephone outlets with Mountain States Telephone Company man Jim Edwards. One of the attractive Smartt homes is shown at left.*





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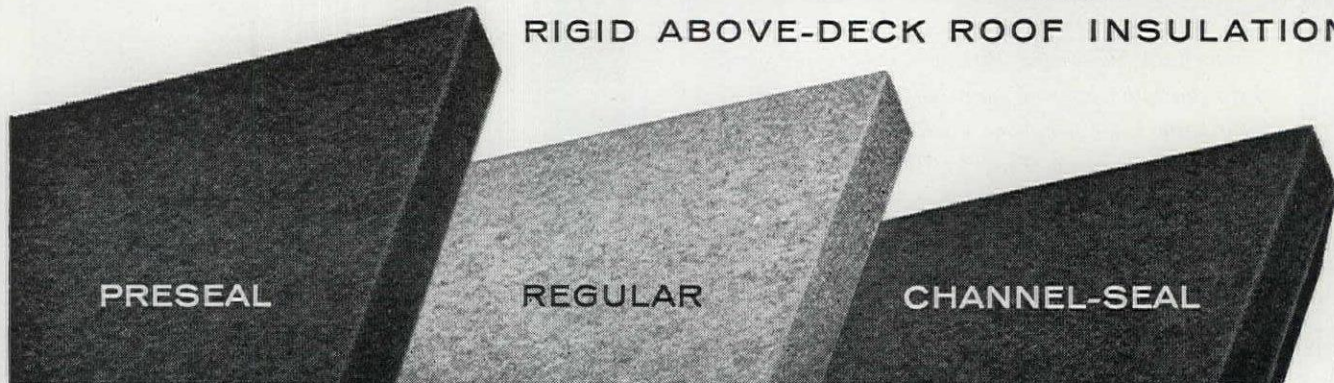
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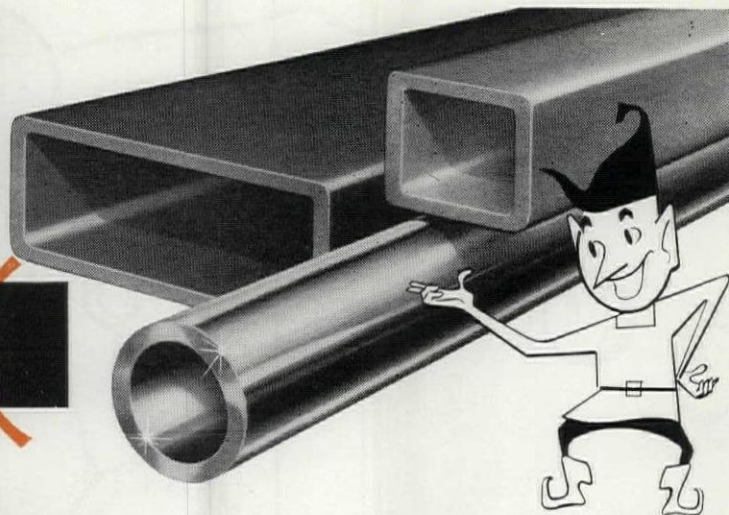


See 1959 Sweet's Architectural File, Catalog 10a Ce.—Write for Specifications, Samples, Information Manual—The Celotex Corporation, Chicago 3, Illinois.



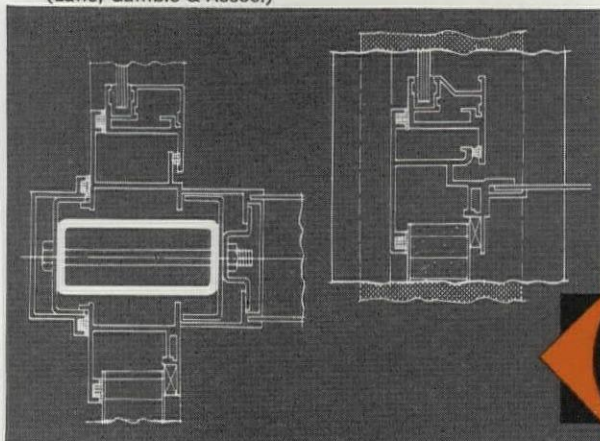


Exchange Bank and Office Building, Dallas, Tex., featuring all welded steel tube curtain wall framing. (Lane, Gamble & Assoc.)

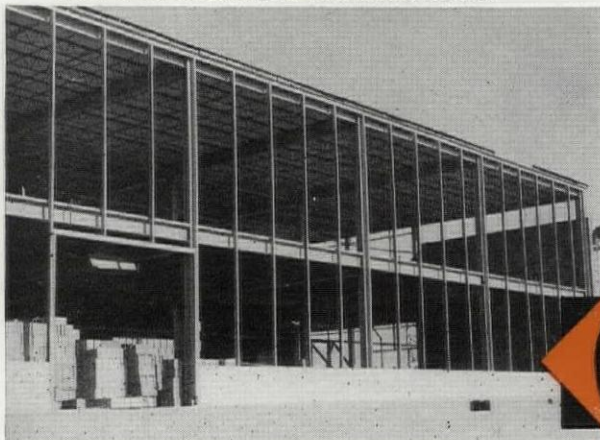


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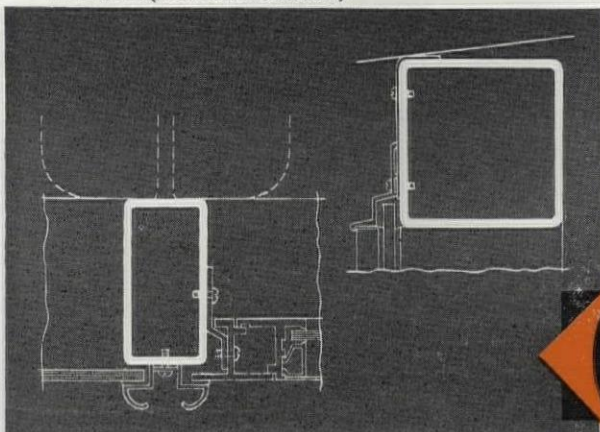
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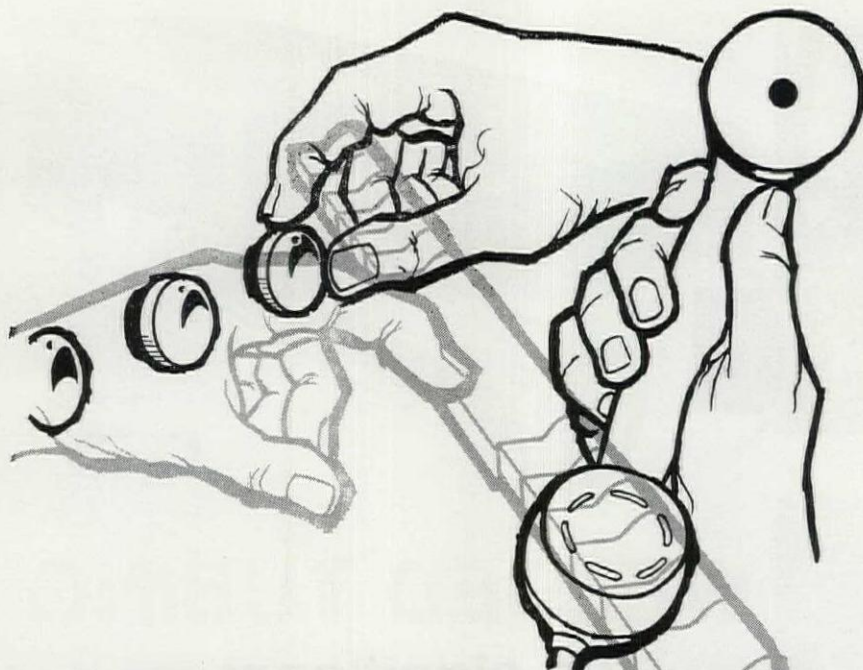
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## reviews

(Continued from page 206)

ticularly noteworthy is St. George's Chapel, with its eccentric vaulting, completed under Henry VIII.

Morshead's book is a welcome one. It is enhanced by over 80 photographs, especially taken for the book by Harold White. Though a folding plan accompanies the text, the book would have been more thorough if some floor plans had also been included.

FRANCIS J. S. HUGHES  
New York, N. Y.

### an ecological approach

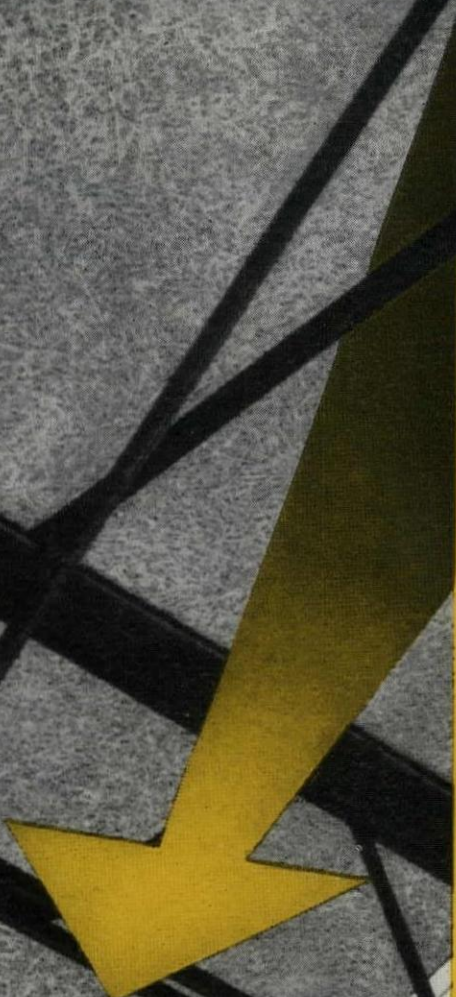
**Tomorrow's Landscape.** Sylvia Crowe. Architectural Press, 9 Queen Anne's Gate, London SW 1, England, 1956. 207 pp., illus. \$3

*Tomorrow's Landscape* is a title which appears misleading—misleading only at first glance. Upon closer examination, it is apparent that this is a book about *today's* landscape and its evolutionary effect upon future landscapes. A leader of the contemporary English landscape movement, Sylvia Crowe writes essentially about the English scene. Although most of the examples quoted and illustrated concern the British Isles, in scale, use, densities, climate, and geology, the principles of design approach expressed by the author remain constant. These principles are the essential elements which distinguish the profession of landscape architecture from the crafts which attempt to superficially solve surface problems, with no real capability for understanding the immense side effects which improper planning and physical design may have upon the over-all ecology of an area.

The author approaches the problem of landscape design and planning from two complementary directions. First, the existing ecology of an area to be developed should be surveyed, analyzed, assessed, and projected in order that natural assets may be retained, or developed in such a way as to aid, rather than hinder, the potential landscape development. In a situation where nature remains dominant, as a national park, man must not intrude beyond a point which would tend to destroy shrub or floor vegetation—resulting

(Continued on page 216)





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Architect: Thomas J. Mulig, Chicago, Ill.  
Acoustical Contractor: McNulty Bros. Company, Chicago, Ill.

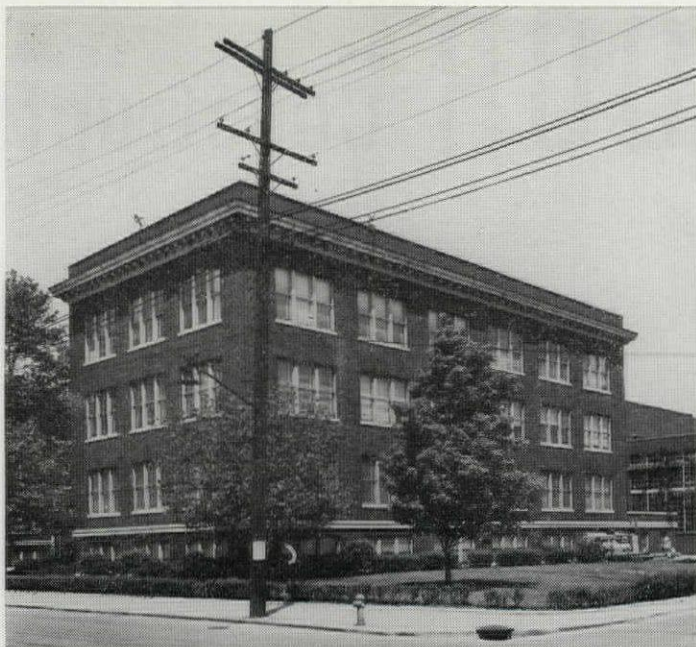
# Checkmate!

This ingenious use of Baldwin-Hill STYLTON Fissured Mineral Tile would captivate a King. It certainly proved a delight to the members of the Chicago Athletic Association. Now the ceiling in the main dining room provides a quiet elegance-made to be seen and not heard. For full information on Baldwin-Hill STYLTON and other B-H acoustical products, refer to our catalog in Sweet's Architectural File or write direct to

## **BALDWIN-HILL COMPANY**

Acoustical Products and Building Insulations  
2107 Breunig Avenue Trenton 2, New Jersey  
MEMBER ACOUSTICAL MATERIALS ASSOCIATION



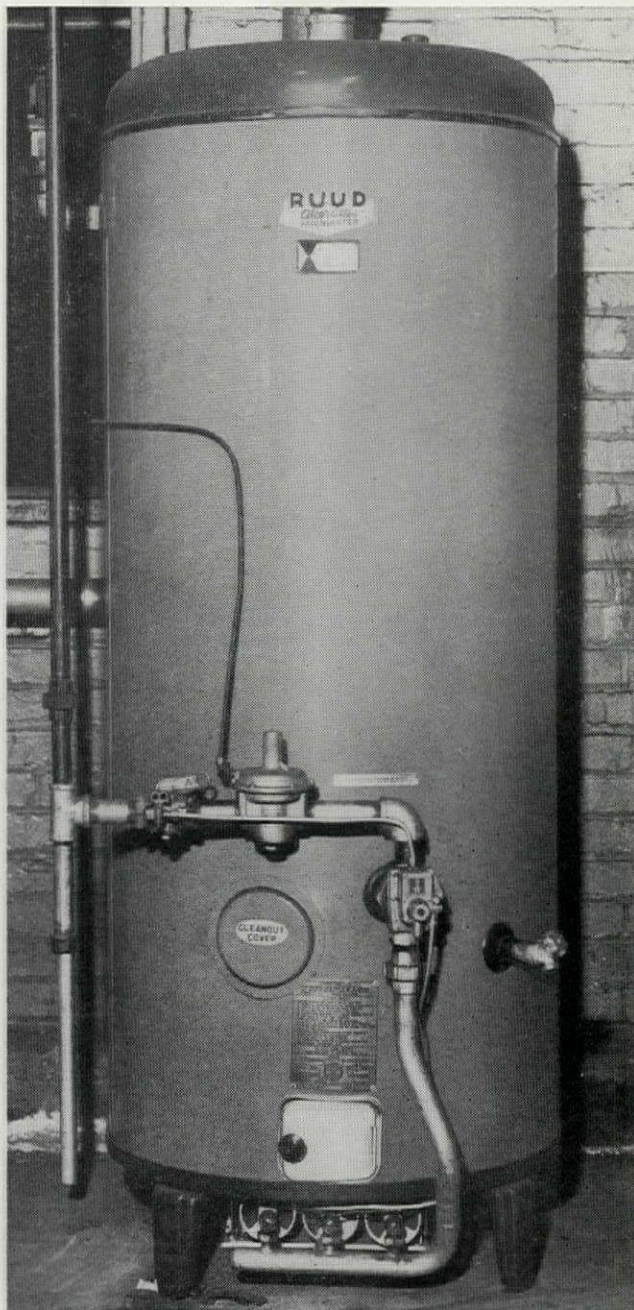


## WATER HEATERS WITH ALCOA ALUMINUM SOLVE HOT WATER PROBLEMS FOR JEFFREY MANUFACTURING CO.

It takes a lot of hot water to keep 3,000 employees happy. But at Jeffrey Manufacturing Company's Columbus, Ohio, plant, five Alcoa alloy gas water heaters provide a constant supply of hot water for the many employee washrooms and cafeteria needs.

This mining equipment and conveyor manufacturer had long been plagued with complaints about insufficient hot water. A year and a half ago they installed a water heater with an Alcoa alloy tank. The results proved so satisfactory that they replaced the entire hot water supply system with Ruud-Alcoa water heaters. Except for one minor adjustment, no maintenance or repairs have been necessary.

You can count on dependable service with Alcoa alloy water heaters. The aluminum alloy tank is strong, solid and corrosion resistant for longer life and complete freedom from water discoloration. High thermal conductivity assures rapid recovery rate and low-cost operation. Specially designed units meet American Gas Association Laboratories' requirements. For more information on any application—commercial, industrial or residential—send



in the coupon, or write Aluminum Company of America, 1900-G Alcoa Building, Pittsburgh 19, Pa.

*Your Guide to the Best  
in Aluminum Value*

For Exciting Drama Watch "Alcoa Theatre," Alternate Mondays, NBC-TV, and "Alcoa Presents," Every Tuesday, ABC-TV



Aluminum Company of America  
1900-G Alcoa Building  
Pittsburgh 19, Pa.

Please send me *Water Heater Applications of Alcoa Aluminum*, the 12-page FREE booklet that tells why Alcoa alloy water heaters outperform other water heaters, gives the easy way to figure hot water requirements, lists case histories.

Name \_\_\_\_\_ Title \_\_\_\_\_  
Company \_\_\_\_\_ Street \_\_\_\_\_  
City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_



# Mahon M-FLOOR Construction



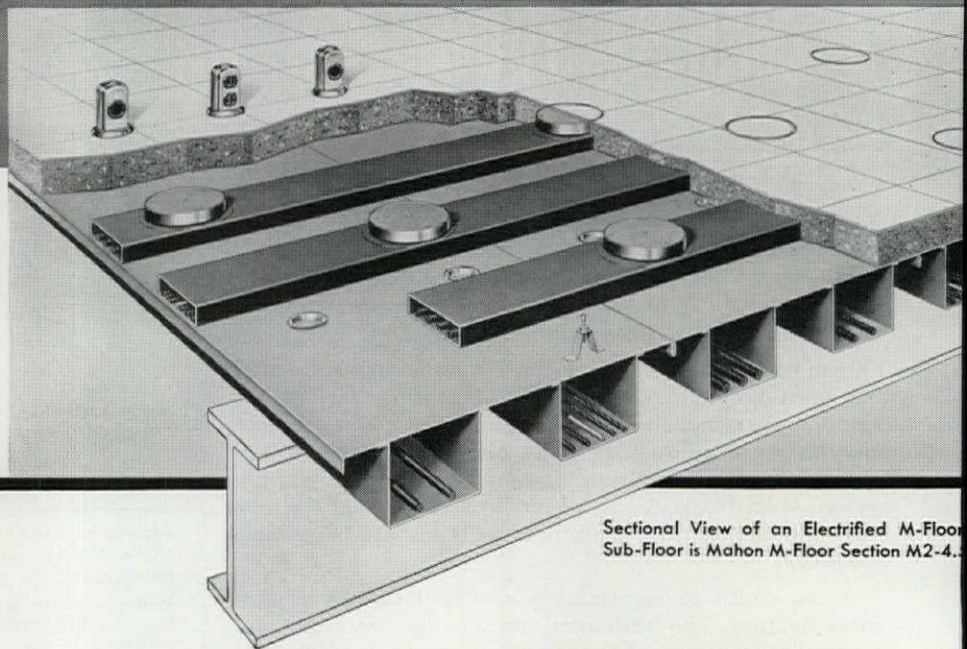
Six Story Second Phase of McGuire Hall Annex, Medical College of Virginia. 18,500 Sq. Ft. of Mahon M-Floors provide 6" wide Raceways under every square foot of floor surface for Electrical Distribution and Other Services in this modern medical laboratory.

**Architect:** Carl M. Lindner & Son

**Consulting Engineer:** J. Robert Carlton

**Structural Engineer:** Torrence Druline & Associates

**General Contractor:** Graham Brothers



Sectional View of an Electrified M-Floor  
Sub-Floor is Mahon M-Floor Section M2-4.

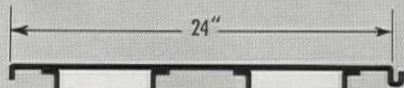
Serving the Construction Industry Through Fabrication of Structural Steel, Steel Plate Components, and Building Products



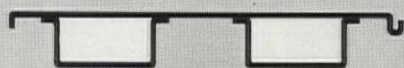
# is Selected for Laboratory Building at Medical College of Virginia!

**M-Floor Cel-Beam Sections Provide 6" x 4<sup>1</sup>/<sub>2</sub>" Raceways  
Under Every Square Foot of Floor Surface**

## **MAHON M-FLOOR SECTIONS**



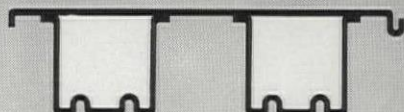
**SECTION M2-1.5**  
CEL-BEAM DEPTH 1<sup>1</sup>/<sub>2</sub>"



**SECTION M2-3**  
CEL-BEAM DEPTH 3"



**SECTION M2-4.5**  
CEL-BEAM DEPTH 4<sup>1</sup>/<sub>2</sub>"



**SECTION M2-6**  
CEL-BEAM DEPTH 6"



**SECTION M2-7.5**  
CEL-BEAM DEPTH 7<sup>1</sup>/<sub>2</sub>"

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- Steel Roof Deck
- Long Span M-Decks (Cellular or Open Beam)
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- Acoustical and Troffer Forms
- Acoustical Metal Walls and Partitions
- Acoustical Metal Ceilings
- Structural Steel—Fabrication and Erection
- Steel Plate Components—Riveted or Welded

☆ *For INFORMATION See SWEET'S FILES  
or Write for Catalogues*

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*Representatives in all Principal Cities*

of Steel and Aluminum

# MAHON



## reviews

(Continued from page 210)

in increased run-off and erosion, baring the roots of the tree layer and destroying trees and shelter areas for animal life, etc. Secondly, Miss Crowe does not discount the urban scene. Design is relative to density and the land use. Should the density of use be out of proportion with the natural evolution of the landscape—the self-renewing cycle from juvenile to mature to juvenile—man must assume the burden of balancing his humanized environment. By way of illustration, grass planted in areas void of grazing animals must be mowed. In the same vein, grass will support limited traffic (some grasses better than others), but, should the traffic density surpass the load-limit, the grass dies. By an ecological approach to landscape design, at this point perhaps the decision could be made with conviction that concrete should be the material for traffic. This decision becomes based upon fact and fancy.

In discerning a system for landscape design approach, the author does not ignore the visual aspects of design. Essentially, she advocates: first, a proper land use consistent with the ecology of the area; secondly, the visual expression of this land use in harmony with the surroundings, should the surroundings be dominant—if not, let the human element stand in contrast with the landscape. Elements such as hydro-electric plants, mineral workings, etc., which cannot be camouflaged, must be sited in a way compatible and in scale with the landscape features around them.

*Tomorrow's Landscape* is divided into seven divisions, of which four represent the scales of different landscapes: "Introduction," "Landscape Survey," "Open Country," "The Farmland," "The Townman's Country," "Landscape in the Town," and "Regeneration." Since plant nomenclature is listed by the English name, a glossary giving the botanical name is included. This book, simply written, uses Humphrey Repton's system of before and after pictures to convey the visual image of the words. Miss Crowe has successfully used this method in articles written for architectural journals, and many of these photographs are reprints.

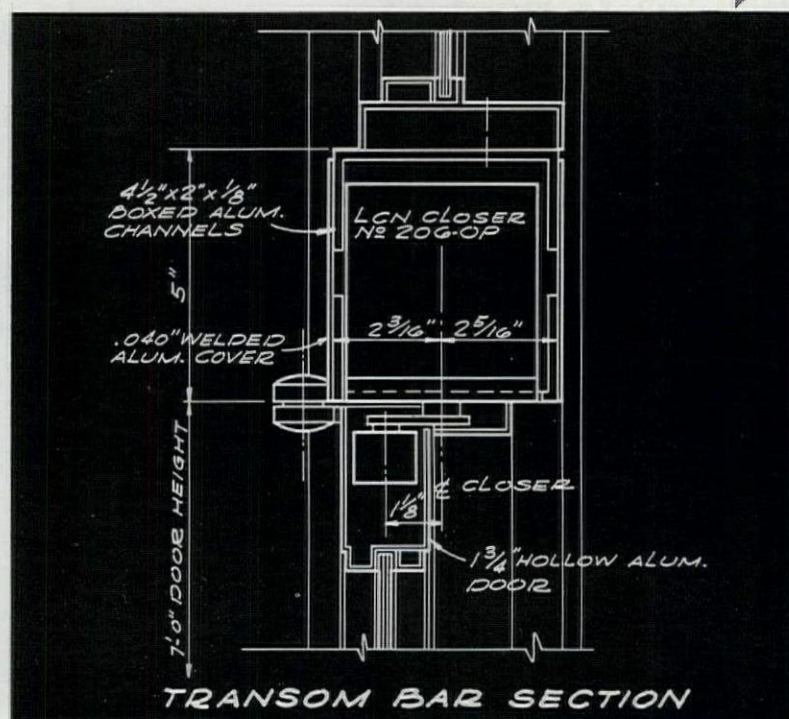
Although essentially concerned with problems incurred on an island of high

population, extreme land uses, and landscapes in contrast with the United States, much insight into English landscape problems and basic design principles can be attained from this book. The difficulty comes in trying to unravel the many details from the central thought. Parts of it, I am sure, will mean a great deal to landscape architects and students in this country. The remaining parts are interesting reading, but do not pertain to our problem. This reviewer believes that much

more could be added to expand some of the well taken points which fade out in one or two paragraphs. *Tomorrow's Landscape* is not required reading, in the sense of providing answers, but is stimulating in the sense of providing questions. As Miss Crowe qualifies, "... this book (is not) a blueprint ... but to suggest where we should look for an answer."

JOHN B. FRAZIER  
Michigan State University  
East Lansing, Mich.

(Continued on page 224)



### CONSTRUCTION DETAILS

for LCN Overhead Concealed Door Closer Shown on Opposite Page  
The LCN Series 200-OP Closer's Main Points:

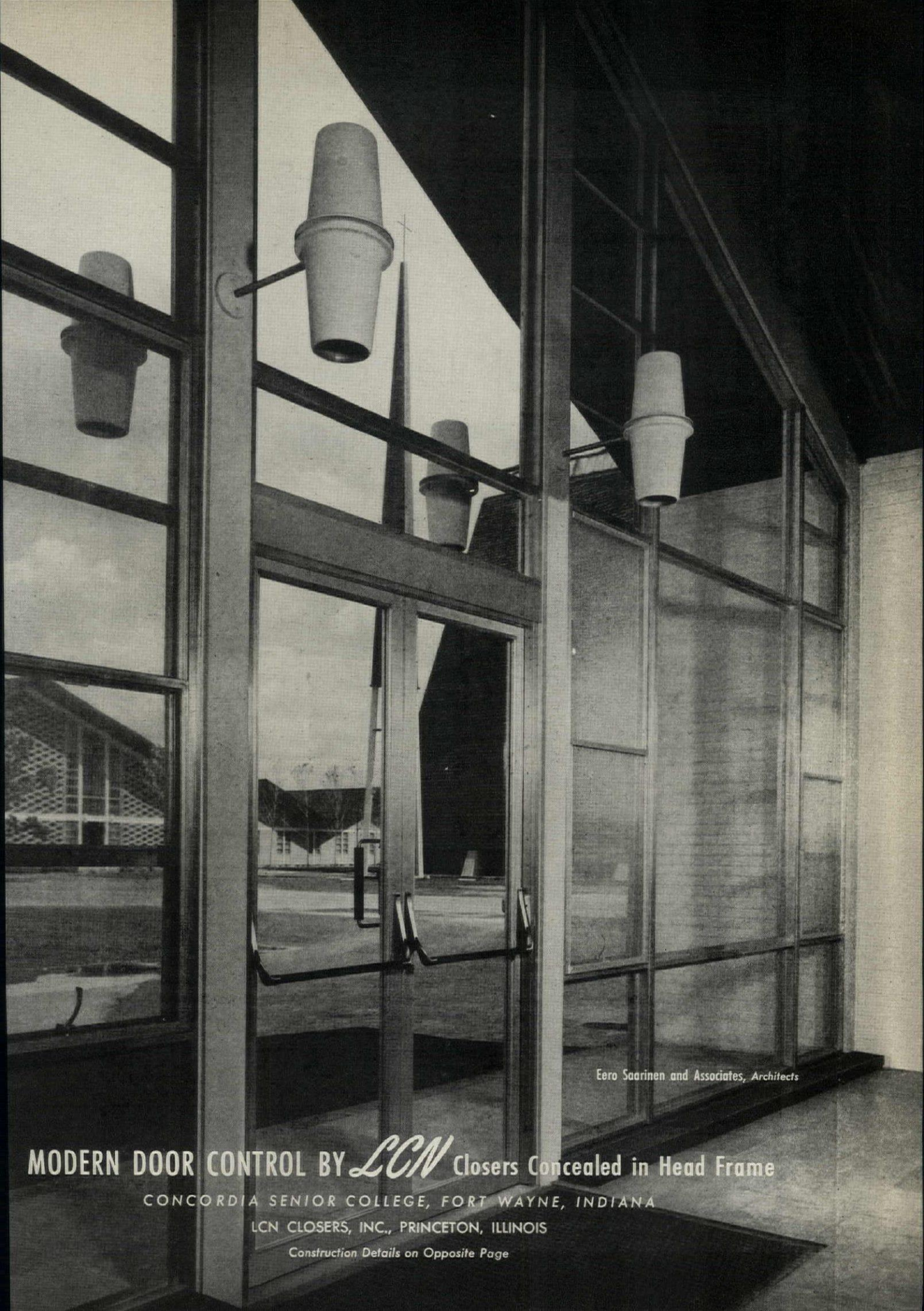
1. Efficient, full rack-and-pinion, two-speed control of the door
2. Mechanism entirely concealed; arm disappears into door stop on closing
3. Hydraulic back-check prevents door's being thrown open violently to damage walls, furniture, door, hinges, etc. Door may open 130°, jamb permitting
4. Hold-open (optional) set at any one of following points: 85°, 90°, 100° or 110°
5. Easy to regulate without removing any part
6. Used with either wood or metal doors and frames.

Complete Catalog on Request—No Obligation  
or See Sweet's 1959, Sec. 18e/La

**LCN CLOSERS, INC., PRINCETON, ILLINOIS**

Canada: Lift Lock Hardware Industries, Ltd., Peterborough, Ontario





Eero Saarinen and Associates, Architects

MODERN DOOR CONTROL BY *LCN* Closers Concealed in Head Frame

CONCORDIA SENIOR COLLEGE, FORT WAYNE, INDIANA

LCN CLOSERS, INC., PRINCETON, ILLINOIS

Construction Details on Opposite Page

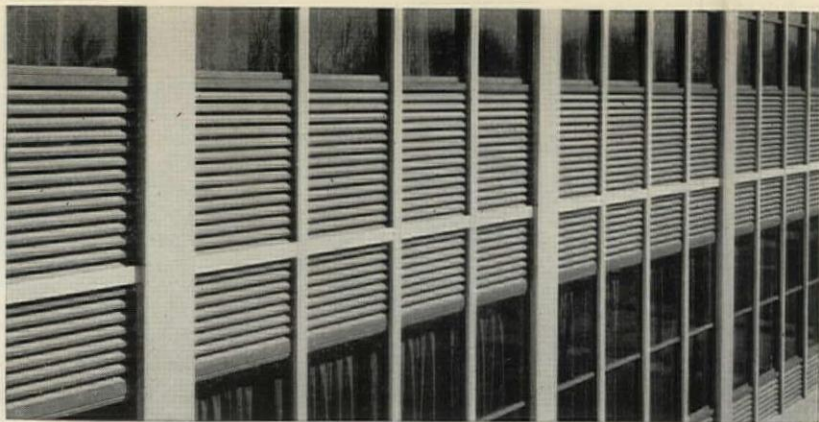


## ALUMINUM LOUVERS PAY PREMIUM IN



Smooth, clean lines of aluminum window wall, windows, louvers, column and beam covers all serve to emphasize the forward-looking appearance of the new Standard Life Insurance Building.





Aluminum louvers for intakes to unit air conditioners blend smoothly with modern architectural styling, will never corrode or need painting.

## COMFORT AT NEW STANDARD LIFE BUILDING



Window wall panel of Alcoa Aluminum in Architectural Gray 2030 accents functional beauty of the seventh-floor penthouse.

The installation of aluminum louvers as intakes for unit air conditioners points to yet another way aluminum can be adapted to modern architectural design.

At the new Standard Life Insurance Building in Indianapolis, aluminum louvers in Alcoa Architectural Gray 2030 are used along the entire window wall, providing more efficient cooling and permitting individual temperature control in every office. In spite of their delicate form, they were easy and economical to fabricate, and aluminum's lightness means no appreciable weight was added to the wall.

Aluminum also played other major roles. Window wall, windows, column and beam covers of Alcoa® Aluminum are out-

standing examples of functional beauty. Column and beam covers were finished in Architectural 215 R-1 Alumilite®. Lighter weight and easier handling resulted in lower construction costs. Corrosion resistance means continuous dividends in lower maintenance expense.

For counsel on any architectural application of aluminum—new or standard—call on Alcoa. As the pioneer and leader in this field, Alcoa is in a unique position to help you. For more information and complete technical data on aluminum's many forms and applications, contact your nearest Alcoa sales office. Or write: Aluminum Company of America, 1824-G Alcoa Building, Pittsburgh 19, Pa.

\*Trade Name of Aluminum Company of America

**BUILDING:** Standard Life Insurance Building, Indianapolis, Ind.  
**ARCHITECT:** Skidmore, Owings & Merrill, Chicago, Ill.  
**GENERAL CONTRACTOR:** William P. Jungclauss Co., Inc., Indianapolis, Ind.  
**ALUMINUM SUBCONTRACTORS:**

Louvers—Construction Specialties, Inc., Cranford, N. J.  
 Column and Beam Covers—Engineering Metal Products Corp., Indianapolis, Ind.  
 Penthouse Siding—Walcon Corp., Detroit, Mich.  
 Windows—Gall Reversible Windows Co., Bedford, Ohio  
 Storefront—Metalco Sales Corp., Emeryville, Calif.  
 Panels—Aluminum Finishing Corp., Indianapolis, Ind.

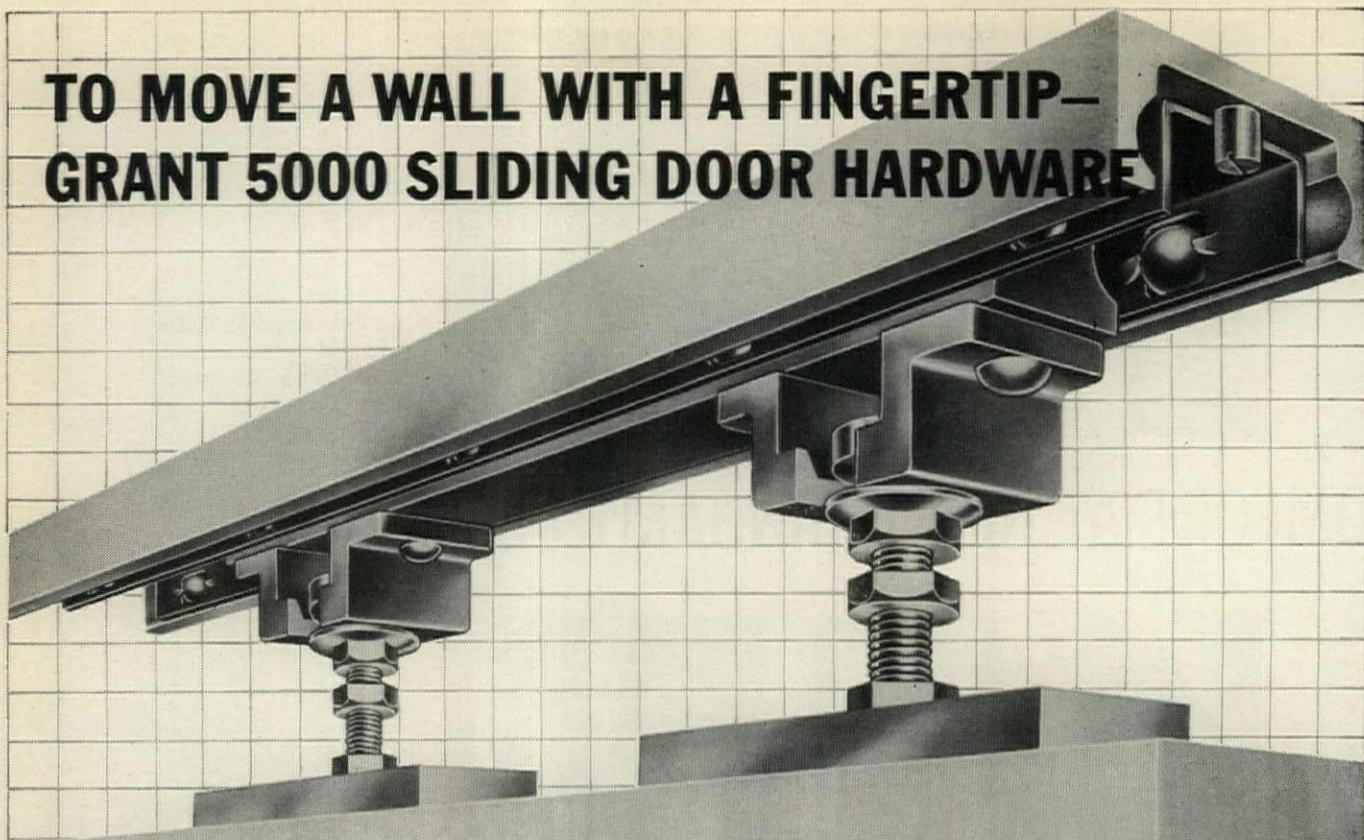
*Your Guide to the Best in Aluminum Value*



For exciting drama watch "Alcoa Presents" every Tuesday, ABC-TV, and the Emmy Award winning "Alcoa Theatre" alternate Mondays, NBC-TV



# TO MOVE A WALL WITH A FINGERTIP— GRANT 5000 SLIDING DOOR HARDWARE

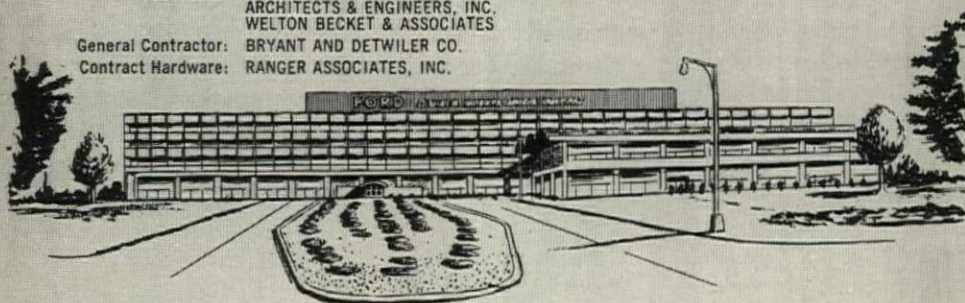


Precise to the point of perfection, Grant 5000 hardware is the most thoroughly engineered line available.

Hand workmanship insures both function and durability beyond the ability of ordinary hardware. Continuous ball bearing action "coasts" heavier-than-average doors. Every desirable operating feature is incorporated in the 5000 line, including: **wide range of sizes ... for unlimited loads...hand assembled and inspected ... corrosion resistant ... center-hung.**

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ARCHITECTS & ENGINEERS, INC.  
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General Contractor: BRYANT AND DETWILER CO.  
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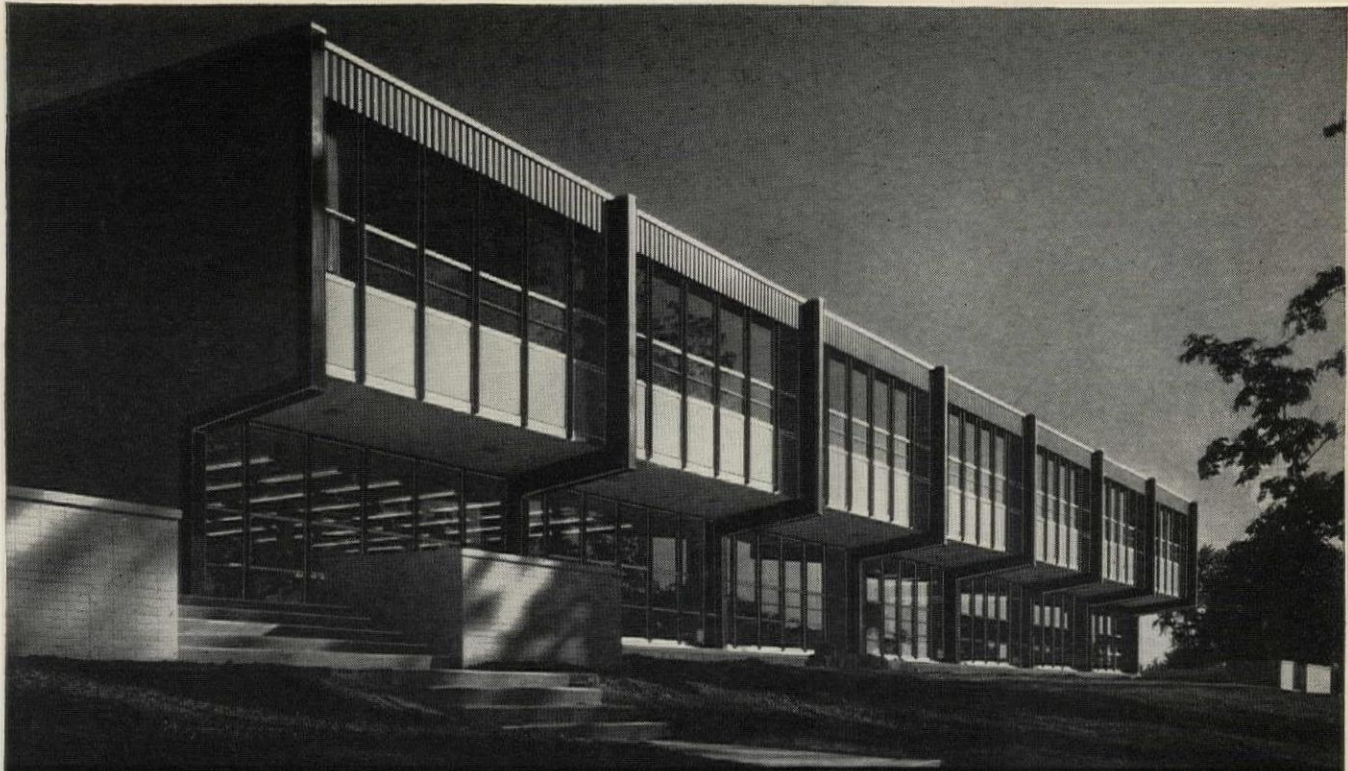


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sliding door hardware • drawer slides • drapery hardware • pocket frames • pulls • special sliding hardware





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*Perfection in Performance with CECO Curtainwalls*

When the standards for a product call for perfection in performance . . . when anything less would be considered a failure . . . there can be nothing on the market to top it. Such are the standards for Ceco Curtainwalls.

Against such requirements, the promises of "cheaper construction" can have little meaning to thoughtful architects. For they know, in the long run, quality construction is truly the most economical. Especially is that true of curtainwalls, where adequate engineering plays such an important part. And it's basic engineering that makes the difference in Ceco Curtainwalls . . . engineering that gives you these assurances: (1) mullions designed to meet wind loads . . . (2) proper allowance for expansion and contraction, permitting windows and caulking to move together to ensure a tight weather-seal . . . (3) no accumulative expansion of wall panels . . . (4) firm anchorage of the wall to the skeleton of the structure.

So, call on Ceco in the planning stage of your next project. Then you can be sure of curtainwall construction where the unusual is the usual, for Ceco Curtainwalls are engineered for perfection in performance. Ceco Steel Products Corporation. General offices: 5601 West 26th Street, Chicago 50, Illinois. Offices, warehouses and fabricating plants in principal cities.



Hickory Grove School, Pontiac, Michigan.  
Architect: Smith, Tarapata, MacMahon, Inc.;  
Contractor: Bundy Construction Company.

### IN CONSTRUCTION PRODUCTS CECO ENGINEERING MAKES THE BIG DIFFERENCE

. . . Curtainwalls, Windows, Screens  
Hollow-Metal Doors / Steelforms  
Concrete Reinforcing / Steel Joists  
Roofing Products / Cecoframe  
Buildings / Metal Lath

### CECO STEEL PRODUCTS CORPORATION

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PA

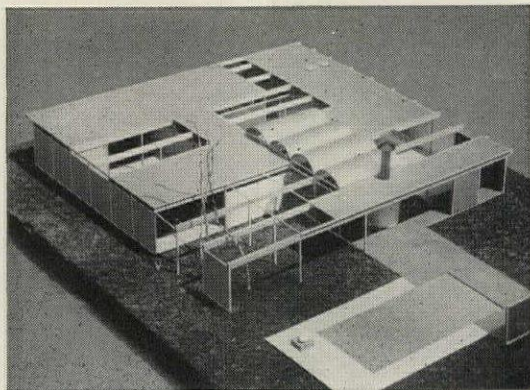
☐ Please have Ceco engineer bring me curtainwall data from your "library of experience."

☐ Please mail me Ceco's 1959 Curtainwall Manual No. 1069-C.

name \_\_\_\_\_  
firm \_\_\_\_\_  
street \_\_\_\_\_  
city \_\_\_\_\_ zone \_\_\_\_\_ state \_\_\_\_\_



# new approaches to structural design with fir plywood



Clean, light lines of this striking residence show how new plywood structural elements can be used to help wood construction meet the requirements of contemporary design.

## Case Study House demonstrates imaginative handling of

**ARTS & ARCHITECTURE Case House Study No. 20**

**OWNER:** Saul Bass, Whittier, California

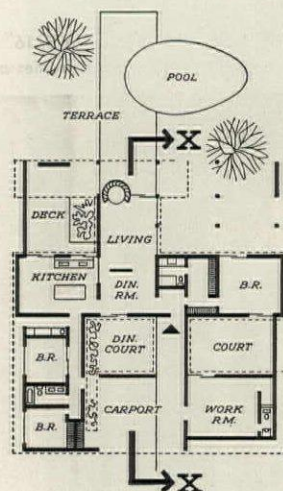
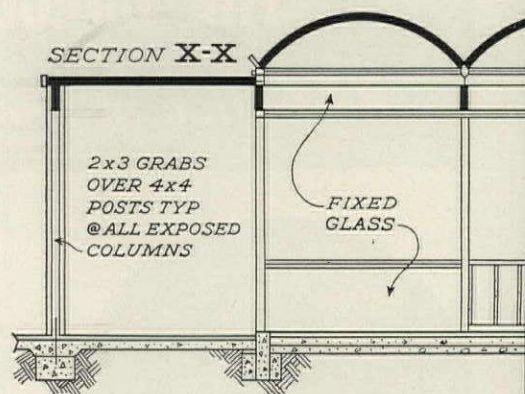
**ARCHITECTS:** Buff, Straub and Hensman  
Los Angeles, California

**COMPONENTS:** Fabricated and erected by  
Berkeley Plywood Company

THIS SOPHISTICATED ROOF SYSTEM employs lightweight, shop-fabricated plywood components that present traditionally acceptable wood construction in a fresh context.

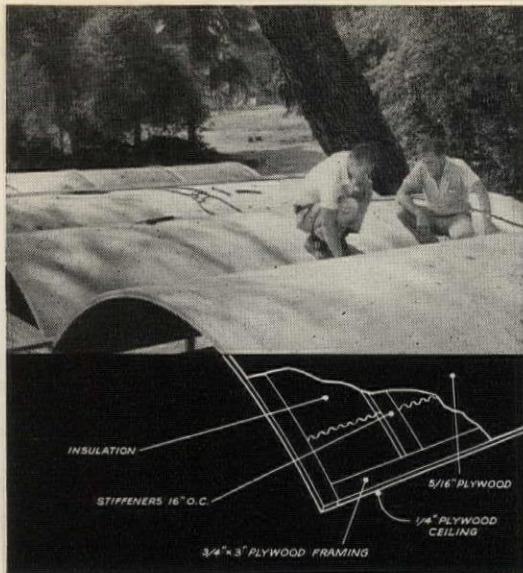
The architects report these new plywood structural elements—box beams, barrel vaults and flat stressed skin panels—make sense from a standpoint of cost as well as design. For the loads and spans involved, they say there is no cheaper—or better—way to do the job.

The basic structure is post and beam. Installed cost of the plywood box beams was \$2 a foot, using premium overlaid plywood for the finest painting surface. The flat roof panels cost 40c per square foot in place; the barrel vaults 75c. Both were made in 2' and 4' widths, 8' and 12' lengths, combining roof deck, finish ceiling and insulation in one easily handled component.



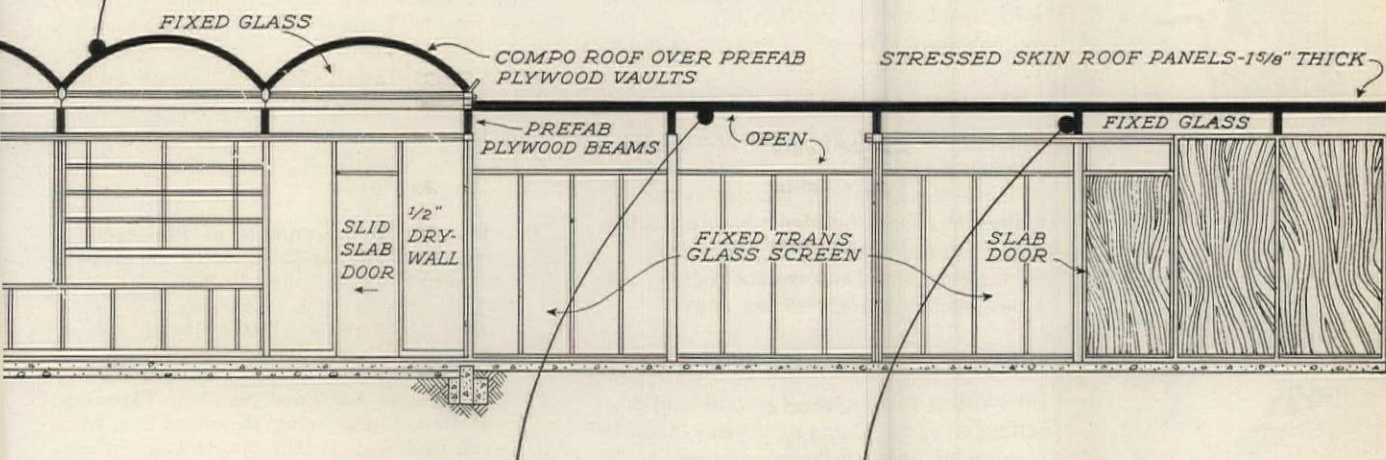
→ **FOR MORE INFORMATION** about fir plywood—or DFPA design and engineering consultation services—write (USA only) Douglas Fir Plywood Association, Tacoma 2, Washington.



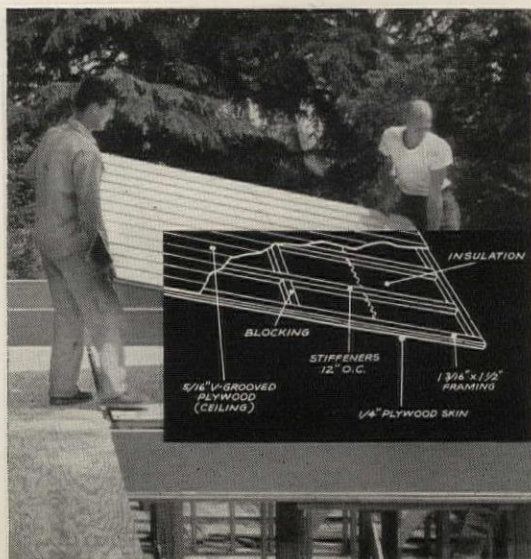


**CURVED PANELS** over living areas have same basic construction as flat panels. Underside serves as finish ceiling.

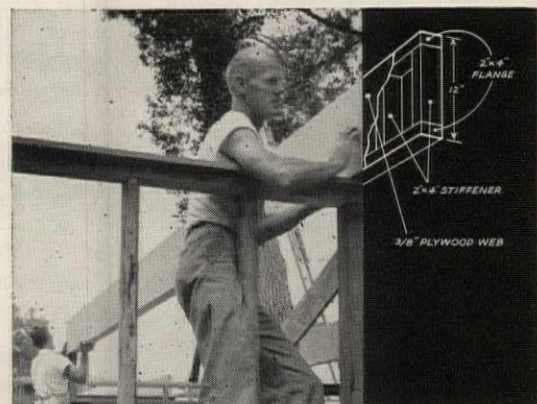
## fir plywood components



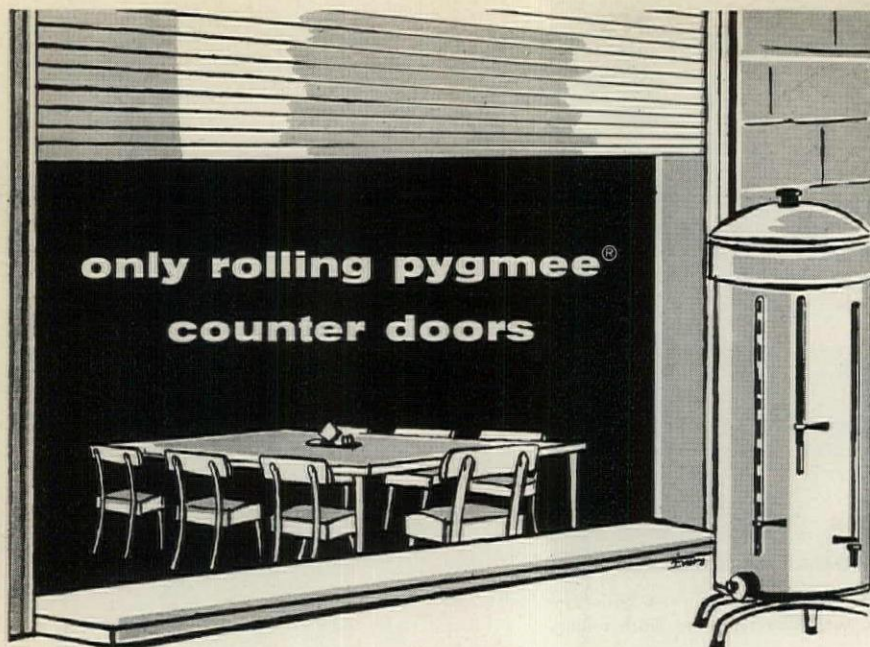
**FLAT STRESSED SKIN PANELS** have 5/16\" upper, 1/4\" lower plywood skins with lumber edge frames and stiffeners.



**PLYWOOD BOX BEAMS** are light, easily handled, span 16' on 8' centers. Fir plywood skins are nail-glued to 2 x 4s.







### blend with modern decor

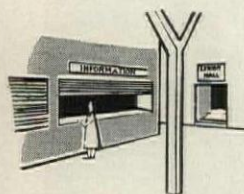
Balfour's Rolling Pygmee Counter Doors are custom manufactured to specific counter dimensions. Visible surfaces are extruded, aluminized aluminum. Hardware is concealed, enhancing the door's modern appearance. The Pygmee Door "belongs" in any contemporary setting . . . indoors or out.



pass windows



outdoor concessions



indoor concessions

### provide so much security

The Pygmee Door cannot be sprung open because exclusive security-locks on the curtain engage retaining grooves in the guides. Mortised slide bolts assure positive locking. These features, plus concealed fastenings and sturdy construction, are designed to prevent forced entry.

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In addition to all aluminum construction, Balfour's Pygmee Doors have many "built-in" extras to lengthen their operating life. The curtain glides on long wearing nylon bands without abrasive metal-to-metal contact. A rubber astragal, interlocked in the bottom bar, protects the counter surface. Careful balancing assures smooth, effortless operation.

Specify "Pygmee Door" at every counter opening in your next project and get the appearance, security, and operating ease that you want. For additional information see our catalog in Sweet's, contact your local Balfour representative, or write:

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rolling doors

steel service doors  
automatic fire doors  
pygmee counter doors  
steel grilles

## reviews

(Continued from page 216)

### BOOKS RECEIVED

**Psychiatric Architecture.** Edited by Charles E. Goshen. The American Psychiatric Association, 1700 18 St., N. W., Washington, D. C., 1959. 156 pp., illus. \$10

**British Shopping Centres: New Trends in Layout and Distribution.** Wilfred Burns. Leonard Hill Ltd., Leonard Hill House, Eden St., London, England, 1959. 130 pp., illus. \$6.35

**Guide to Church Building and Fund Raising.** Martin Anderson. Augsburg Publishing House, 426 S. Fifth St., Minneapolis, Minn., 1959. 126 pp., illus. \$5

**North Kenwood-Oakland Planning Program Report 5.** Kenwood-Ellis Community Center, 4608 S. Greenwood Ave., Chicago, Ill., 1959. 28 pp., illus. 75¢ (paperbound). Local community development project of interest as one approach to urban renewal.

**Heating, Ventilating and Air Conditioning Guide.** Volume 37. American Society of Heating and Air-Conditioning Engineers, Inc., 62 Worth St., New York, N. Y., 1959. 1268 pp. \$12

**Civil Engineering Handbook.** Fourth Edition. Editor-in-chief, Leonard Church Urquhart. McGraw-Hill Book Co., Inc., 330 W. 42 St., New York, N. Y., 1959. 1174 pp., illus. \$17.50

**Housing Requirements of the Aged, A Study of Design Criteria.** By the Housing Research Center, Cornell University. New York State Division of Housing, 270 Broadway, New York, N. Y., 1958. 124 pp. (paperbound)

**A Manual for Food Service: Planning, Design, Engineering.** Reprinted from *Institutions Magazine*, 1801 Prairie Ave., Chicago, Ill., 1958. 108 pp., illus. \$2 (paperbound)

**Cafeteria Planning & Design.** Reprinted from *Institutions Magazine*, 1801 Prairie Ave., Chicago, Ill., 1958. 20 pp., illus. \$.50 (paperbound)

**The Selection of Retail Locations.** Richard Lawrence Nelson. F. W. Dodge Corp., 119 W. 40th St., New York, N. Y., 1959. 422 pp. \$9

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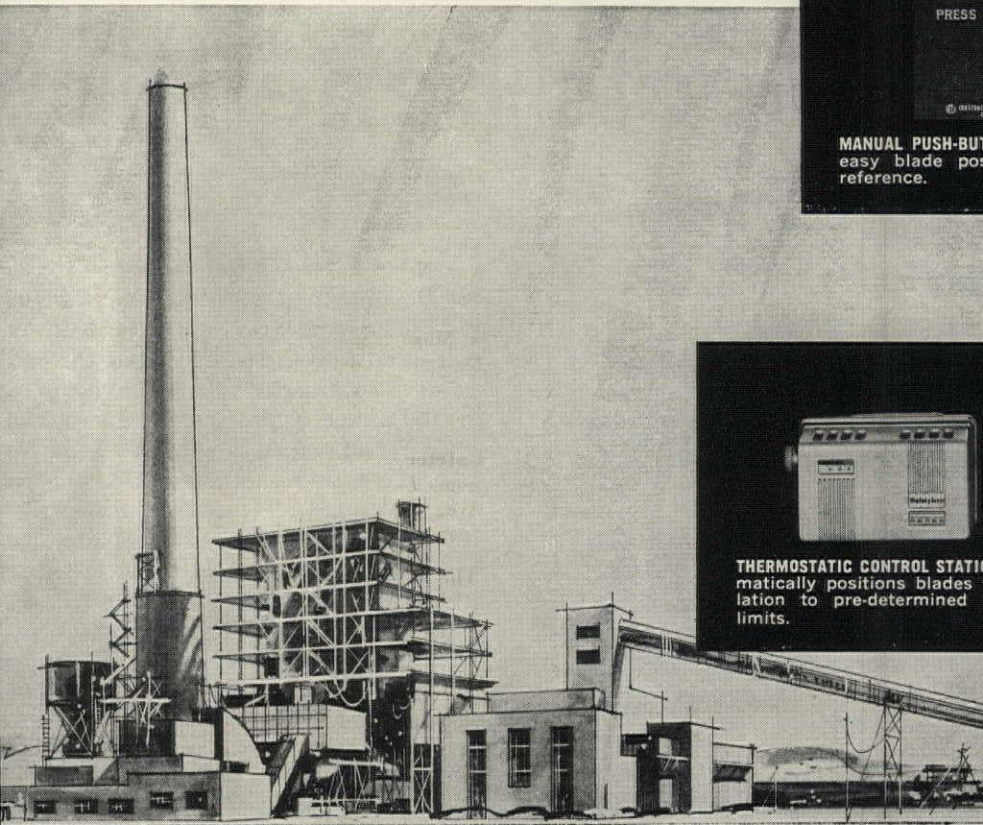
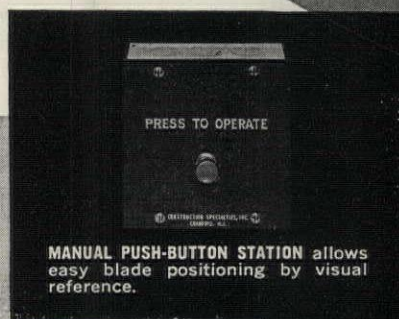
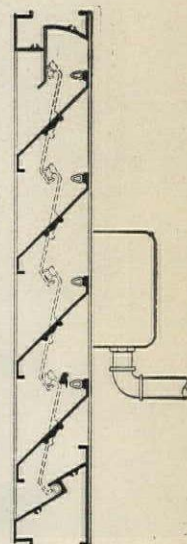
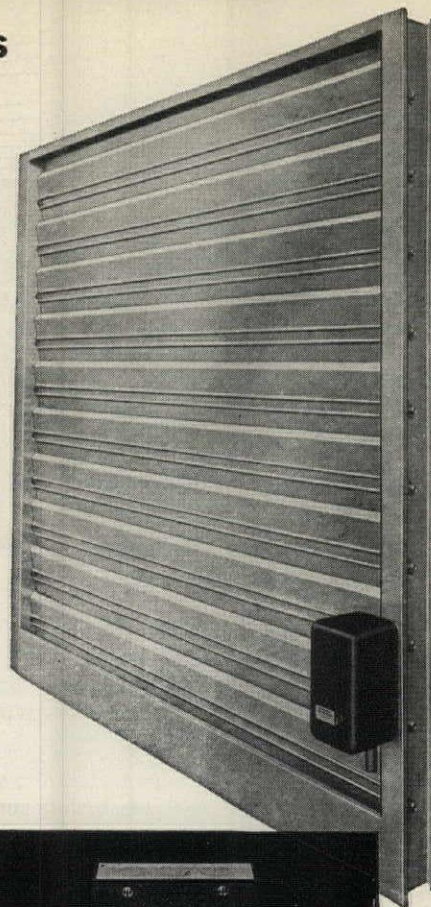
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## individual and multiple bay operators

This C-S Louver controls air flow for power plants, auditoriums, schools and hospitals. All electric, it allows instant operation of banks of louvers up to 450 square feet with one motor.

Four types of remote control are available, permitting operation either by manual push button or entirely automatic operation by thermostat or fan control. This versatility in controls is unique.

So also is the economy of this louver. Like other C-S Louvers in Extruded Aluminum, it is sturdy and attractive as well as efficient. In every way it is a reliable, precision-engineered product. Yet it competes in cost with manual gear operated units controlling banks of louvers—and actually costs less than other electric motor controlled systems. This is the C-S Model EX 110—simple to install, simple to operate. It is a product you can specify with complete confidence.



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*louvers • sun controls • ventilating bricks and blocks*

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Please send EX 110

- ☐ literature ☐ specifications ☐ price data  
☐ the name of your local representative so that we may inspect product sample.

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TITLE

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*Florida Power Corporation, Paul L. Bartow Plant, Weedon Island, St. Petersburg, Florida. Architect: Black & Veatch, Kansas City, Mo.*

# How new projects benefit by



## BALCONY SCENE

Youth and vitality burst out of classroom doors onto the balcony and into the courtyard at the end of each period . . . slam in again as the bell rings. Can the doors take it? Of course they can . . . they're Fenestra Hollow Metal Doors. Each door has a reinforcing grid of 18-gauge, roll-formed steel sections with over 100 weld points securing the grid to both steel door faces. Door, frame and hardware are completely machined at the factory to eliminate on-the-job cutting and fitting.

## STIMULATING EFFECT

Fenestra Aluminum windows and curtain wall at Homestead School heighten the architectural effect while lowering building and maintenance costs. Quality is assured by Fenestra standards of engineering and manufacturing. The Man from Fenestra has a complete range of window styles and sizes in aluminum or steel . . . Call him.

*Central High School, Phoenix, Arizona. Architect: John Sing Tang, Phoenix.*



## POWER TOWER

When sudden and violent rain and wind storm in from the Gulf of Mexico, the 80' x 80' Fenestra window section in this 120,000-kw steam electric generating plant can be closed in seconds—electrically and with an ease and speed impossible with any other system.

In spite of the avaricious salt-air atmosphere, these sturdy steel windows will need no maintenance painting, because FENLITE hot-dip galvanizing (an exclusive process) alloy-bonds a lifetime zinc surface to the steel of the windows.

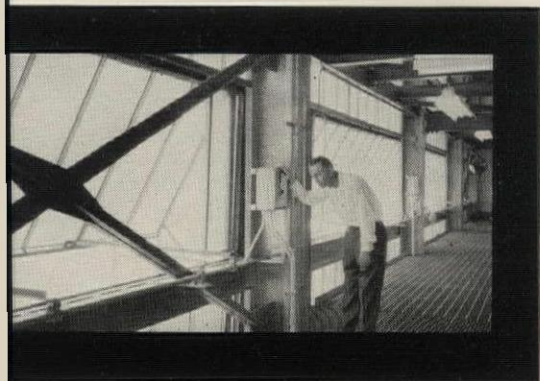


*Aqueduct Raceway, Queens, N. Y.  
Architect: Stone & Webster, Boston, Mass.*

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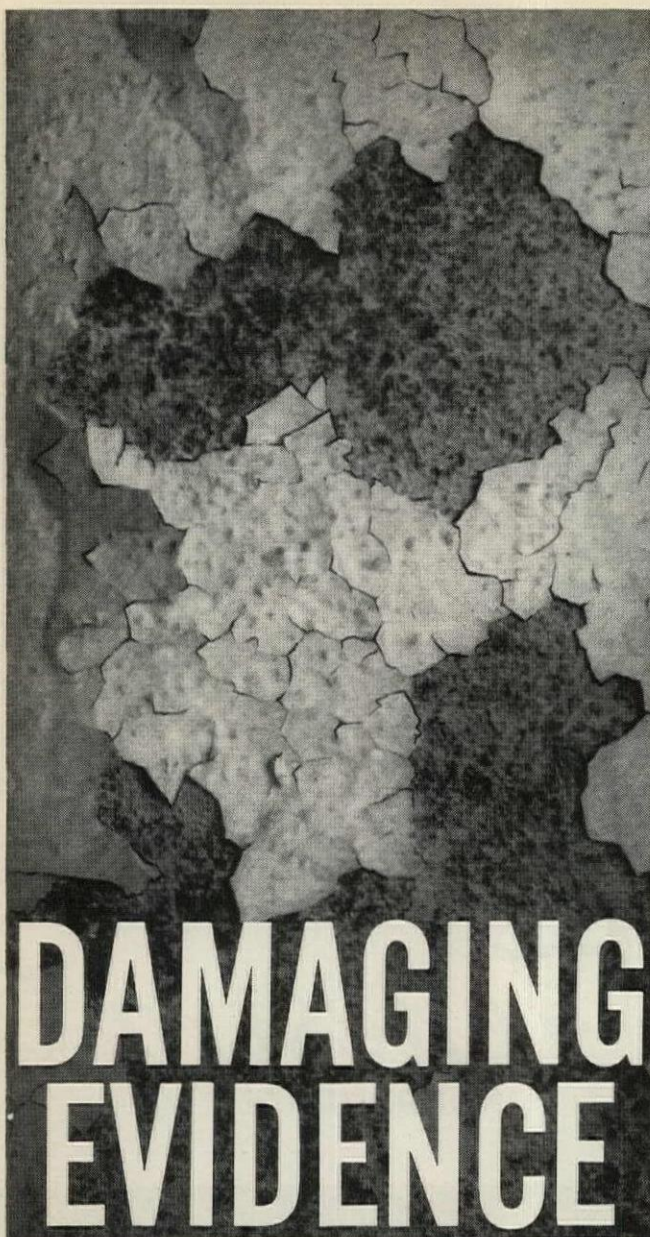
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1 Map of Goes, by Jacobus van Deventer (c. 1572). 2, 3, 4, 5 Photos: Leonard K. Eaton.

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1 Map of Gouda, by Braun & Hogenberg (1585). 2 aerial, from "Town Design" by Frederick Gibberd (Reinhold Publishing Corporation). 3, 4 Photos: Leonard Eaton. 5 Map of Haarlem, by Thomas Thomaszoon (1578). 6 Map of Haarlem, by Pieter Saenraedam (1628).

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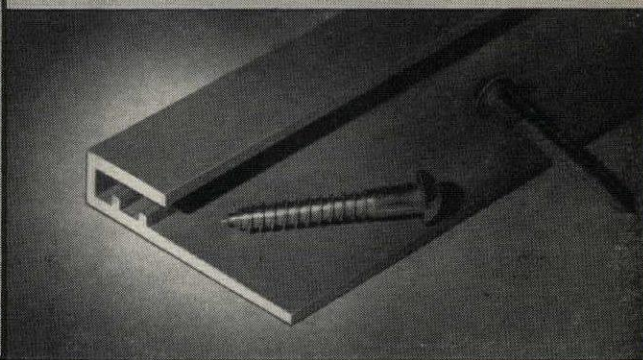
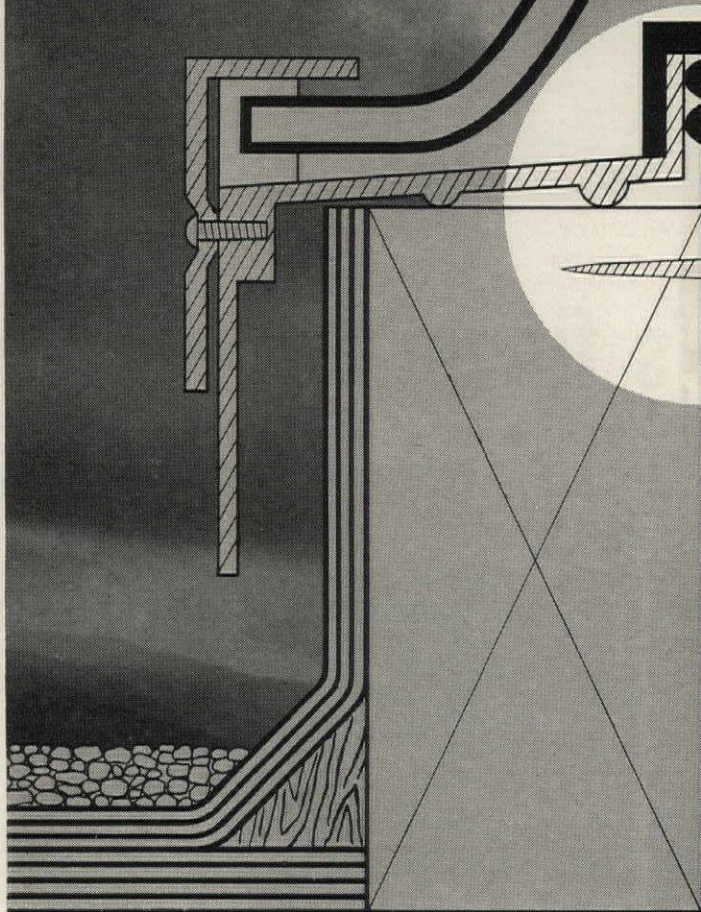
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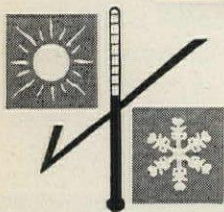
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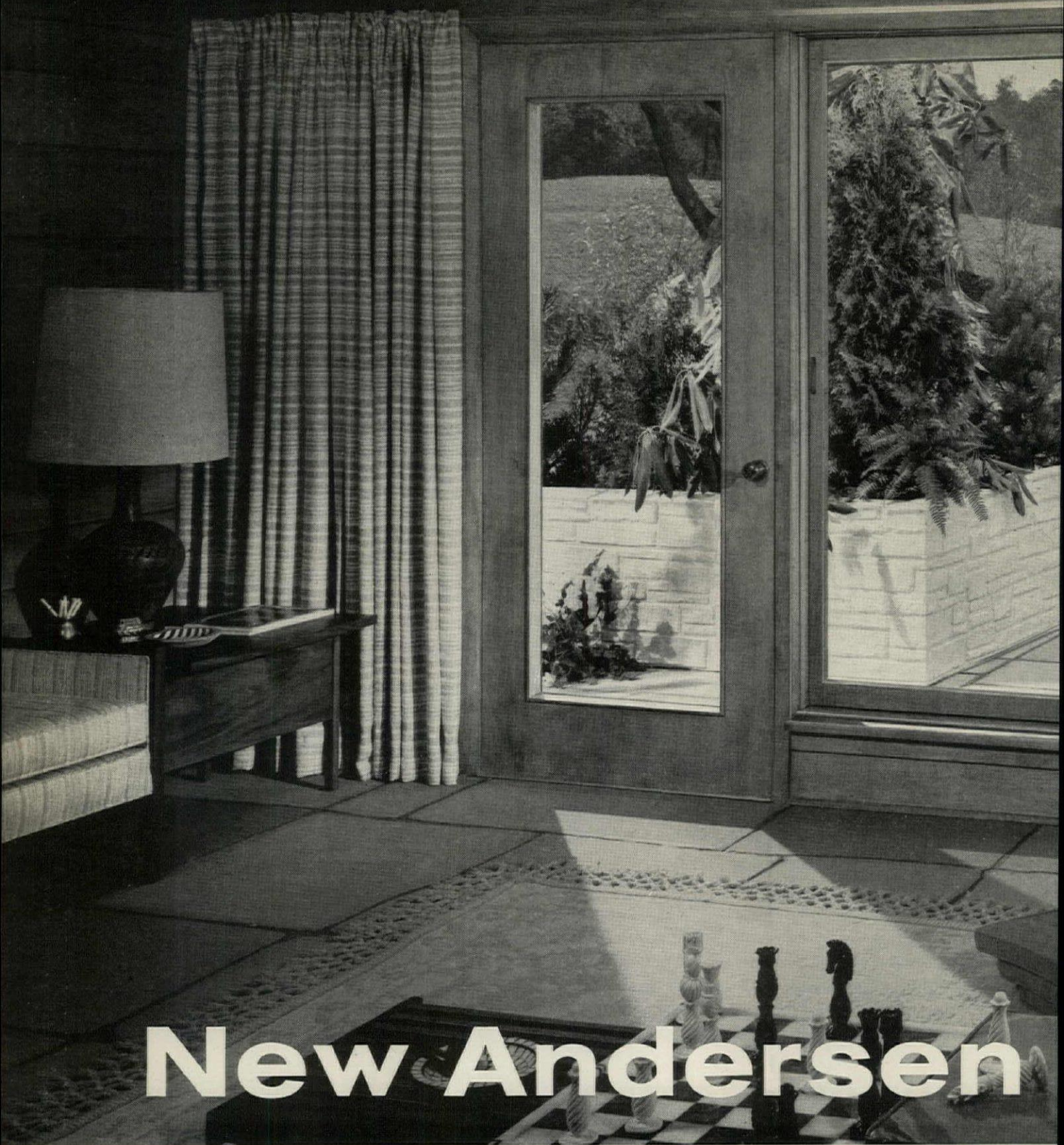
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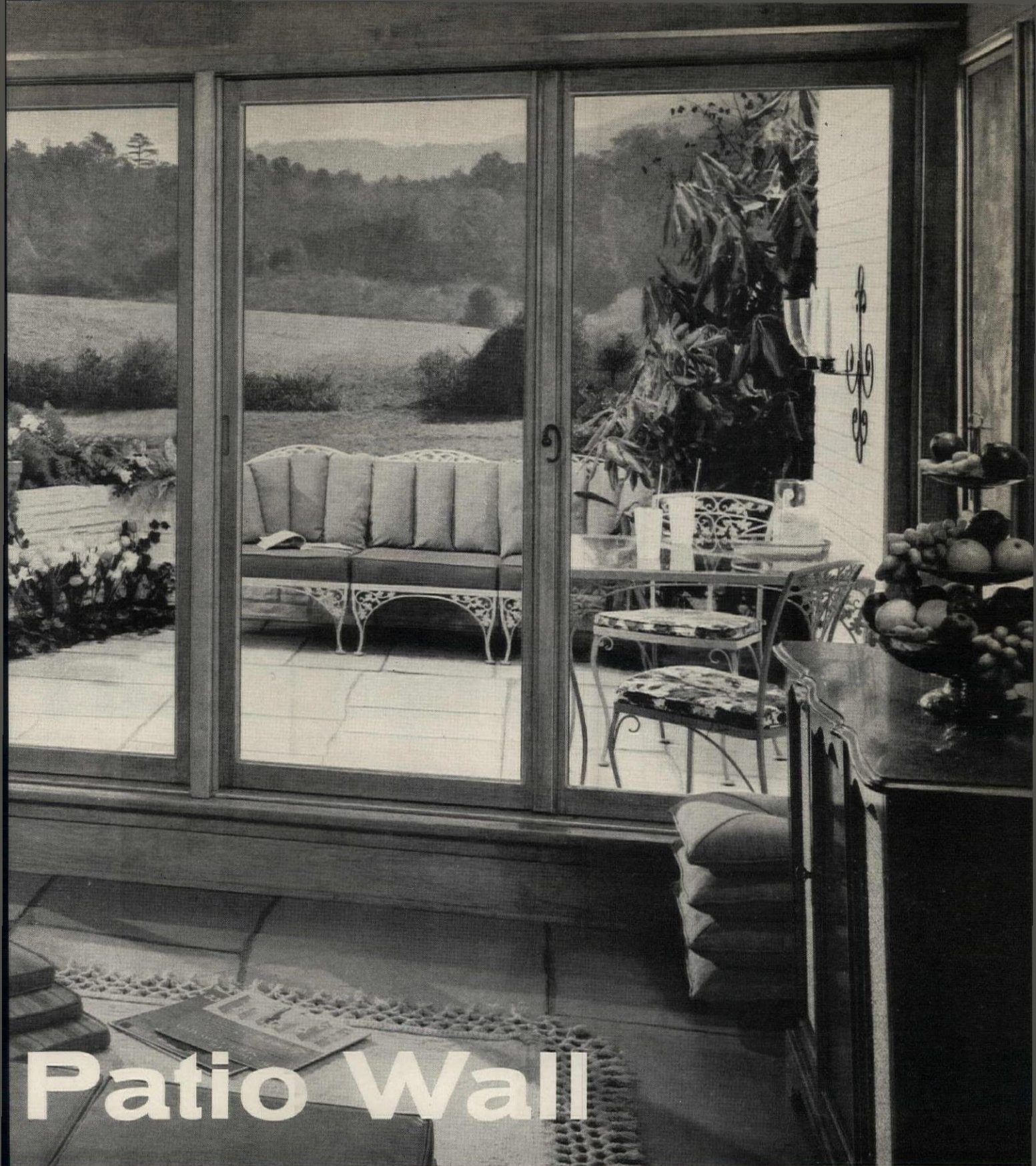
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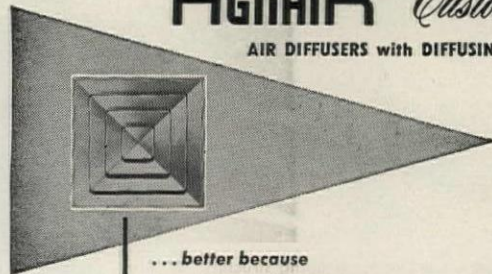
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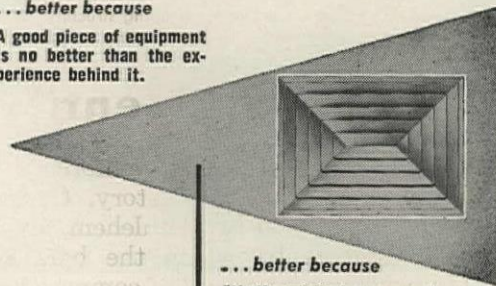
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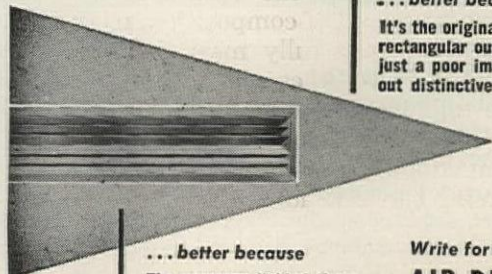
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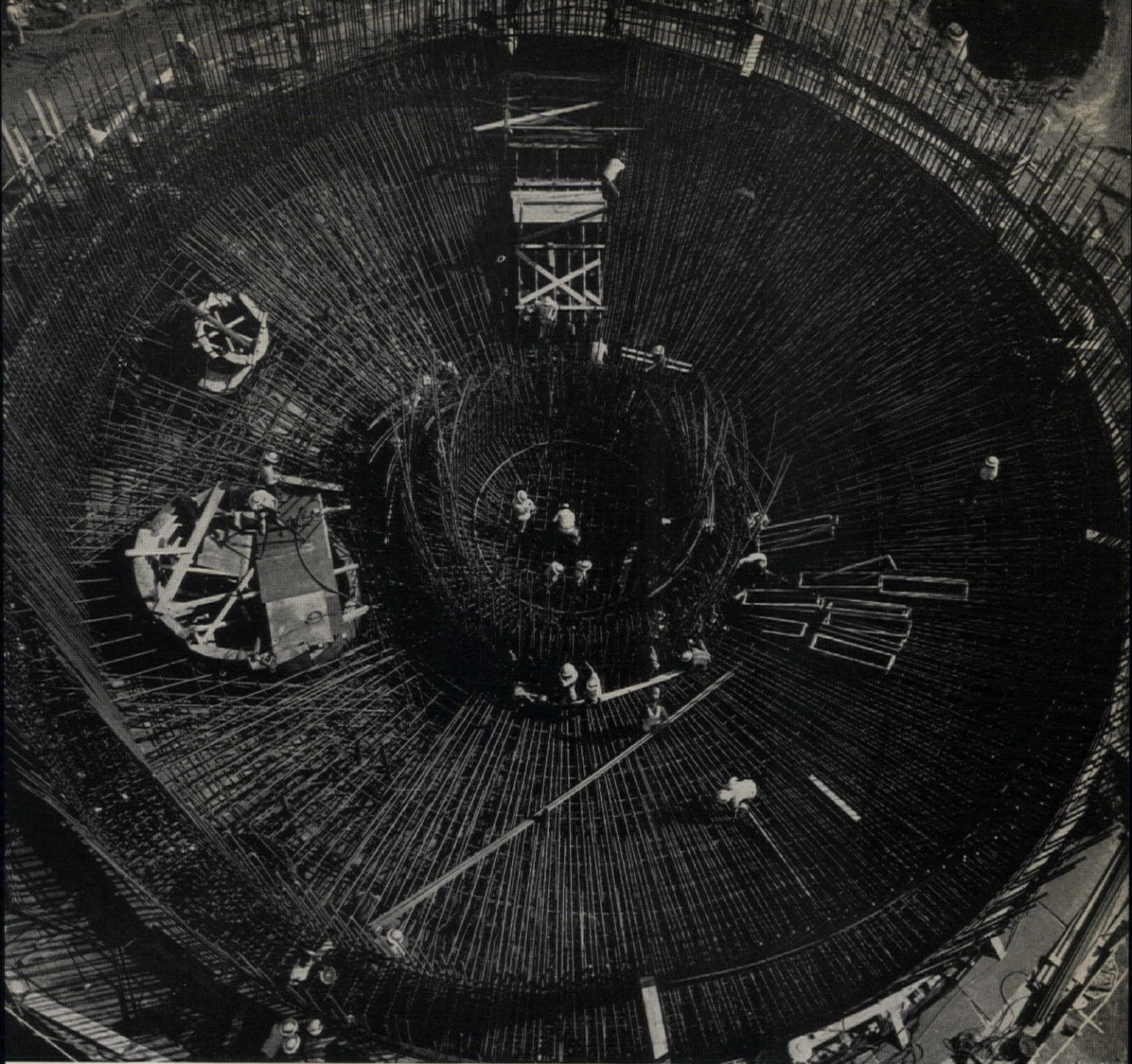
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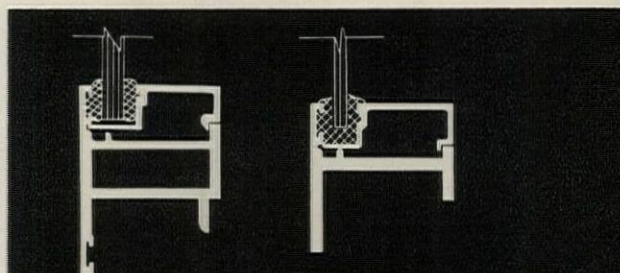
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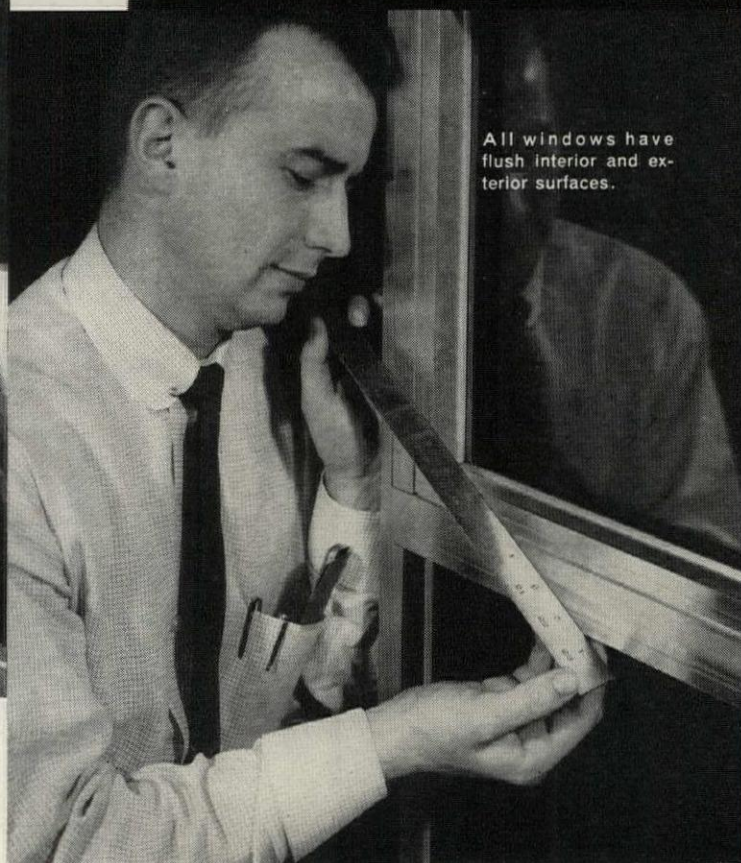
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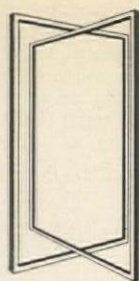


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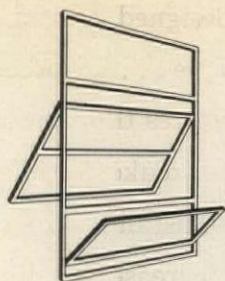


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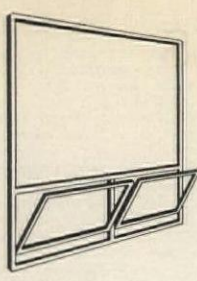




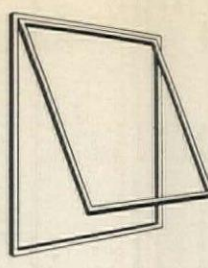
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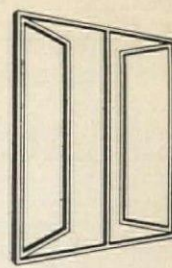
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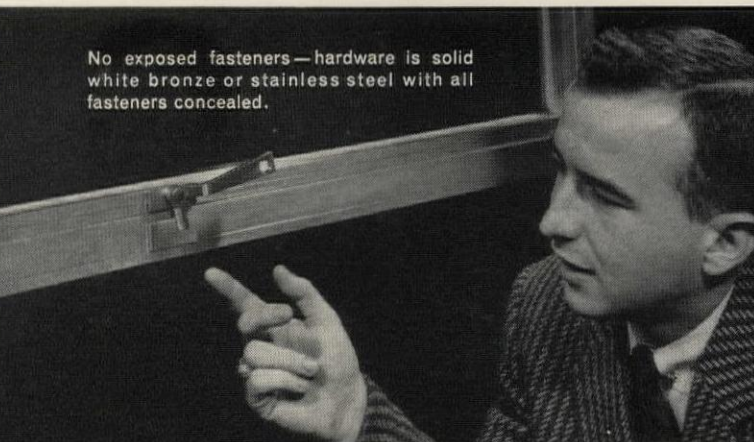
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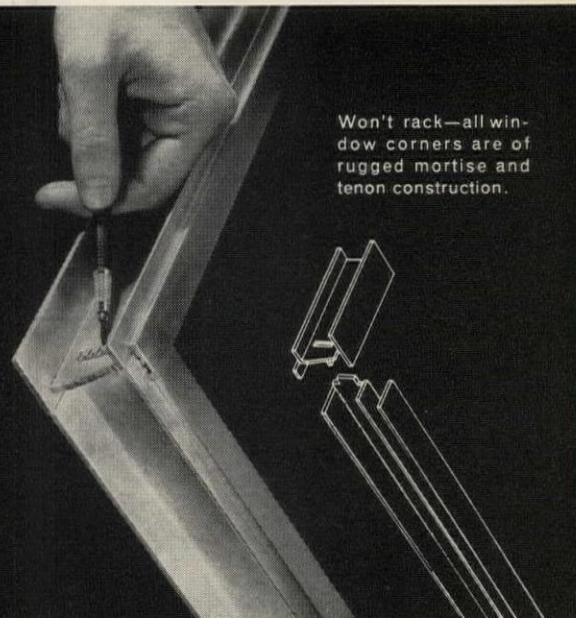
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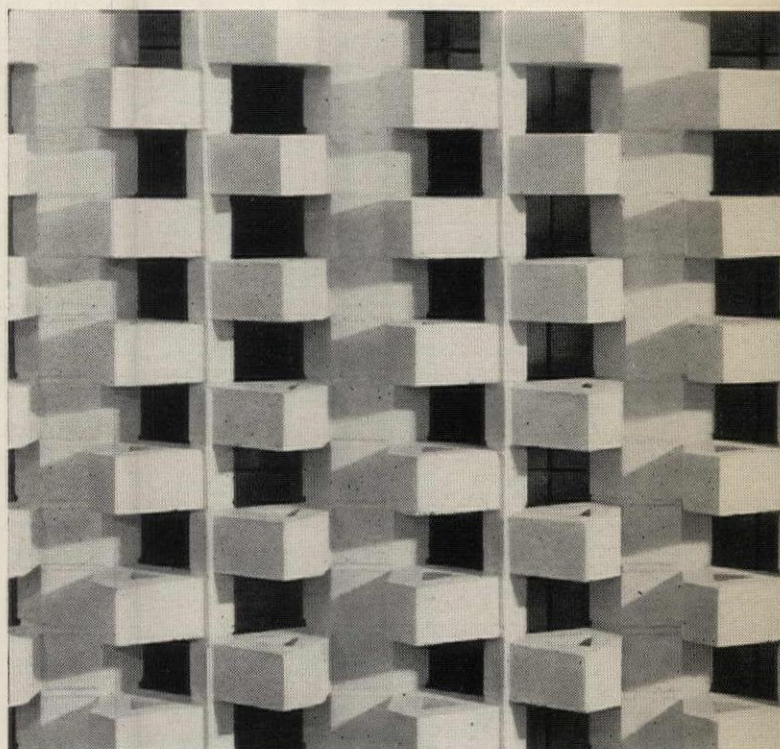
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**ABOVE:** Charles Walton of Jones & Emmons, Los Angeles, created this unusual screen of grille units. Useful either as a decorative sun screen or as a fence for patios. Each section of this eye-catching screen is devised from just two block units.

**UPPER RIGHT:** Hellmuth, Obata & Kassabaum, St. Louis, took 4" x 8" x 16" grille and hollowcore units, stacked them vertically and achieved this impressive wall. Smart as a room divider or an interesting decorative note for special emphasis.

**LOWER RIGHT:** Victor Lundy of Sarasota, took the same perforated concrete block units responsible for the screen pictured above, laid them on their sides and at angles. The result: this unusually beautiful and intricate screen design. Flexibility unlimited with concrete masonry!

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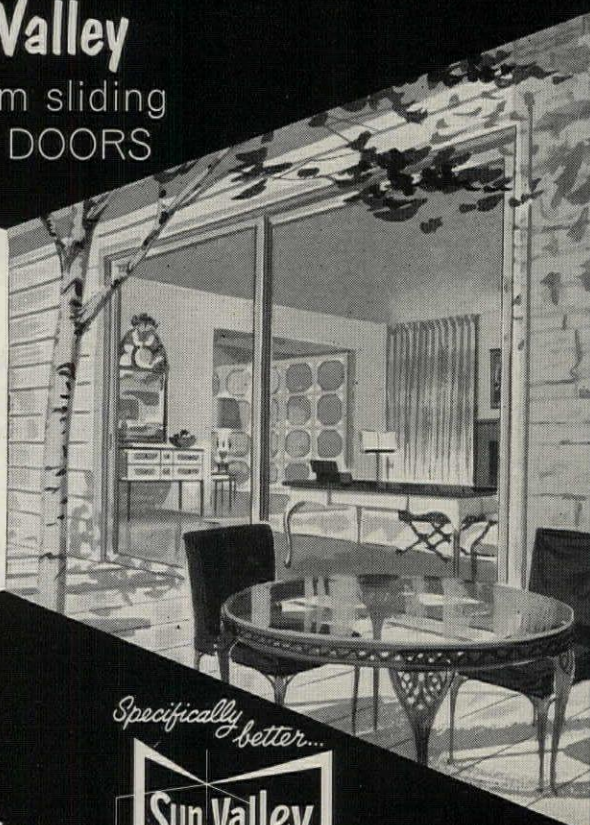
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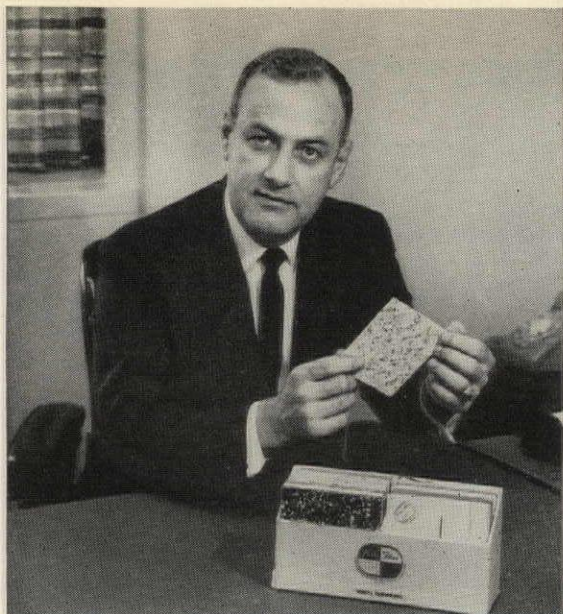
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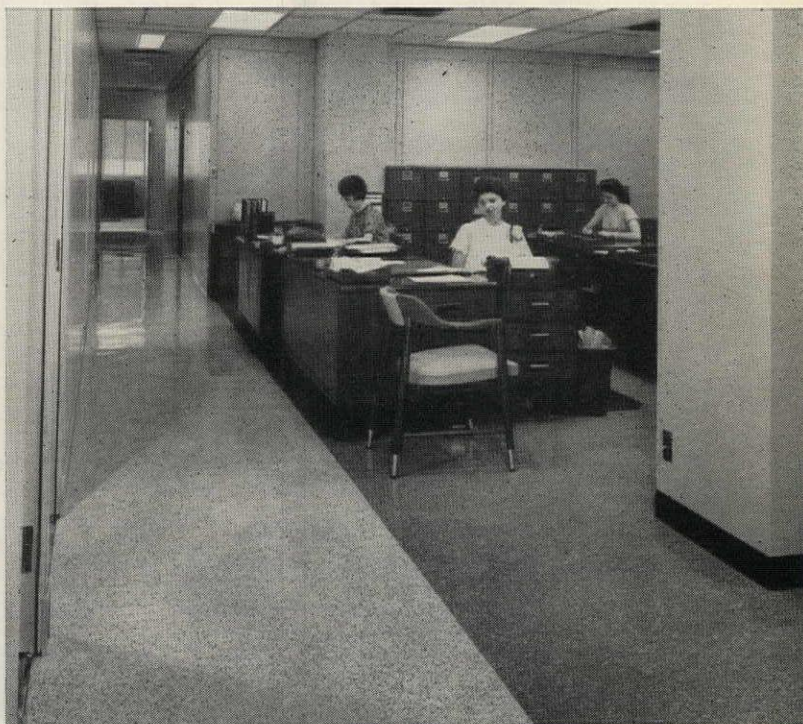
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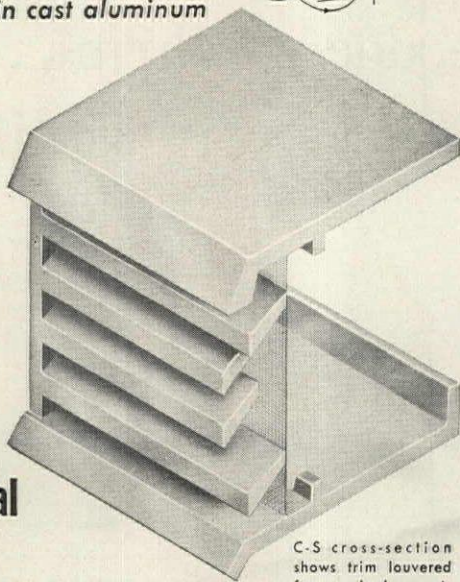




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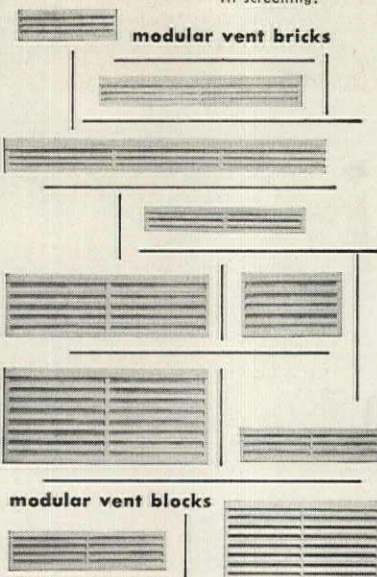
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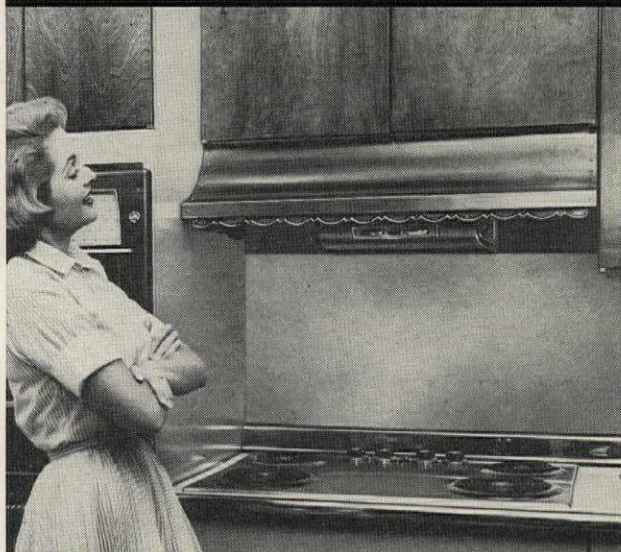
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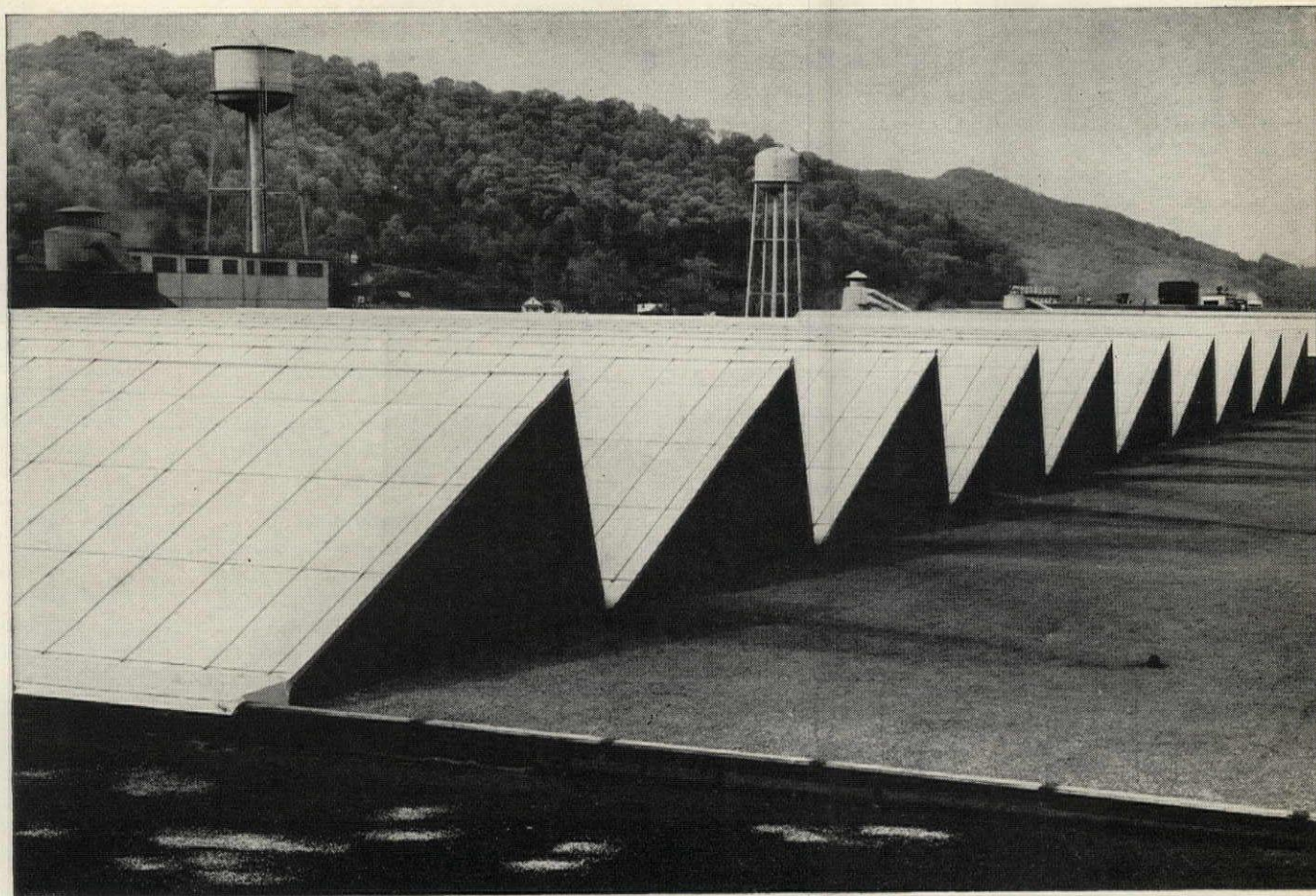
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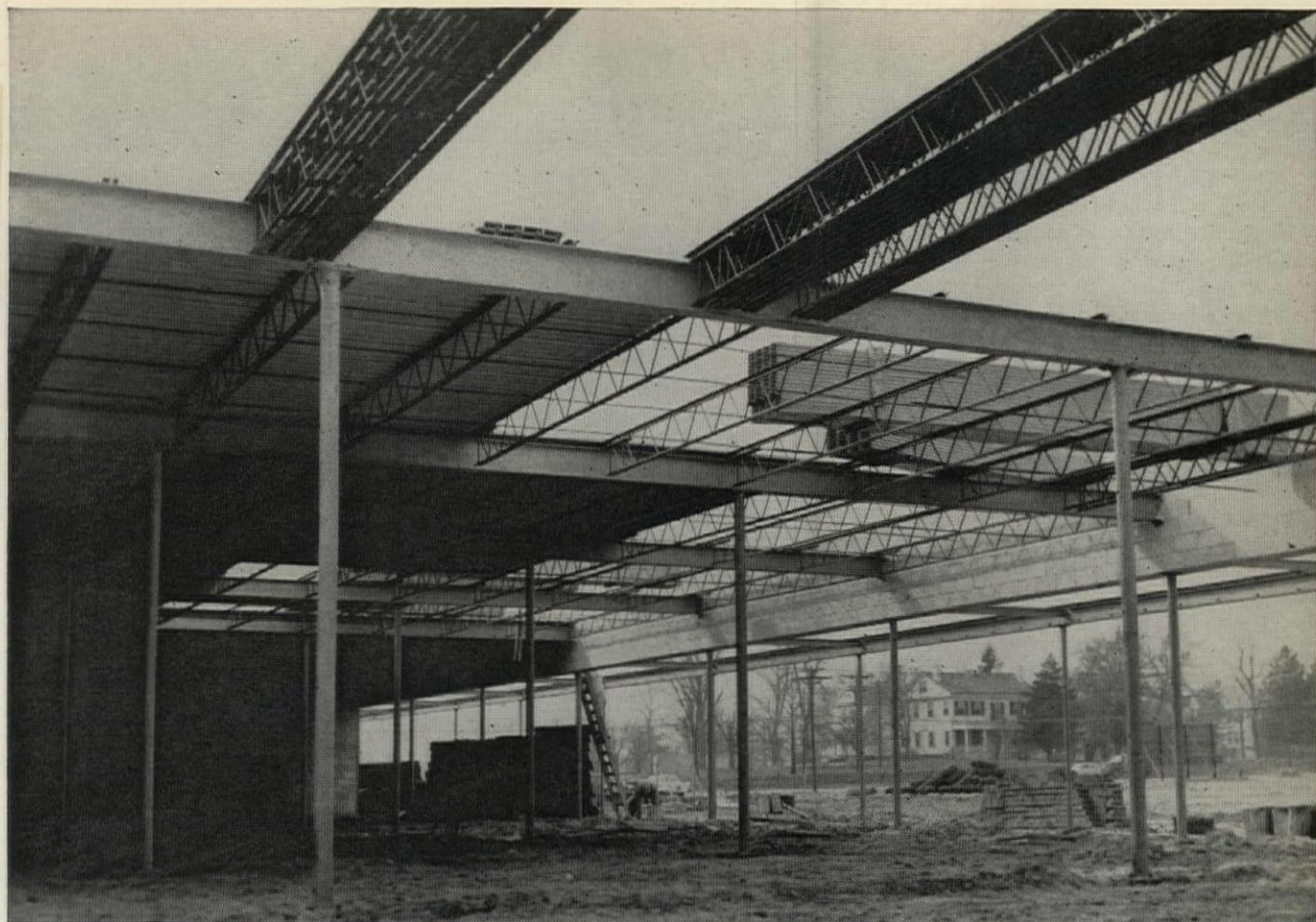
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If anyone thinks that architecture is a simple art, practiced by a group of like-minded people working toward a single goal (I am sure that no one does think that, but it seemed a ridiculous enough assumption to draw your attention), I could have disabused him, if he had been with me on my travels this last month.

*Item.* I attended and spoke at the convention of Construction Specifications Institute in Chicago, and was proud to receive a handsome medal as an Honorary Member. It was the first completely independent Convention of this group, and I found it successful in every way that it set out to be—well-attended, composed of serious, hard-working meetings and discussions, accompanied by an excellent exhibit of products which was, in turn, manned by a flatteringly high-level echelon of producers. These CSI people are the architects and engineers interested primarily in the materials and methods of architecture, and the correct ways to specify them. Our Man in *Materia Constructiva*—our first one, Ben John Small—was a past-president of CSI and a prime mover toward its recent growth; he was made, posthumously, a CSI Fellow.

*Item.* I attended the annual meeting of what is known as the Visiting Committee of the Graduate School of Design at Harvard (appointed by and reporting through its Chairman to the Board of Governors of the University). This was a most interesting day of discussions of education, educational methods, schools, relation of planning to architecture, relation of landscape design to both, the question of defining the eternal verities and the basic disciplines; the problem of stating the aims of education in these fields, and so on.

It seems to me that a very distressing thing is happening in and to the schools of planning in the United States: they are becoming opportunist, turning out their students as though from a low-level trade school, as quickly as possible so that they can grab the many jobs ready for them. Many schools are now reducing to two years the curriculum that Joseph Hudnut, in a fine paper, once contended could not possibly be taught in five. I have come to a radical feeling that the tendency of the schools of *Architecture*, in recent years, to ally themselves with schools of *Planning* should

now be quickly reversed. I would like to see Urban Design taught in a good school of Architecture, just as other, less complicated aspects of design are; and I would like to see the administrative end of planning taught in a separate school (as, say, hospital administration is) and co-ordinated when this seemed necessary, only in a programming sense and for mutual criticisms.

*Item.* I served on the Jury of the Hopper Fellowship program at Yale. This hospital-study Fellowship, financed through the efforts of Charles Neergaard (APRIL '58 P/A is a third-year problem, conducted this year by Paul Nelson, with the assistance of several experts in hospital administration, who assisted in programming and criticism. (You see, this is the opposite side of the coin tossed up in the paragraph above). The problem was based on an attempt to solve architecturally the concept known as Progressive Patient Care, which means the physical separation (and physical moving of patients as they progress from one to another) of areas of intensive care, intermediate care, self-care and home care (with "grey" areas of "flexibility" between each two groups). I found myself getting into a discussion—fascinating to me—with Mr. Thoms, the hospital administrator who gave birth to the idea (students of hospital planning will recognize germs of it in many earlier plans, such as Neufeld's Israel project, shown under construction in P/A's NEWS REPORT in MAY '59) about the basic question: whether this provides flexibility in planning or calls for an impossibly tight and inflexible program. I had thought that others were interested too, including the students who had worked on the problem for six weeks, but apparently I was wrong, for Chairman Paul Rudolph explained to the students that these comments on hospital administration were not *architectural criticisms* and that judgment of *architecture* and its plastic expression had taken place separately.

I feel, as I wrote above, that disciplines such as planning administration and hospital administration should be separately taught, but I also believe that their programs translated into the design of buildings become a part of architecture, and therefore become a necessary part of the criticism of architecture. So do educational methods, manufacturing processes, and sociological tendencies.

*Item.* I attended a meeting of the New York Society of Architects, an important group in the Metropolitan area, which finds that the local AIA Chapters do not "have their feet on the ground" regarding the *business* of architecture, the relation of architects to pertinent city administrative groups, and concern with such things as development of legislation, amendment and improvement of building codes, etc. I had been asked to speak to the Society, which I have recently joined, on the subject: "Are good business practices inconsistent with good architecture?" To no one's surprise I said that they were not inconsistent. I then also said that good architecture was not inconsistent with good business practices. And I raised several questions about the definitions of both *good business* and *good architecture*. We had a most interesting discussion.

*Item.* The Architectural League opened a handsome exhibition of the handsome work of Minoru Yamasaki, and Morris Ketchum, the President of the League Who Has Done More to Make This an Important Organization of Those Interested in Collaboration of the Arts Surrounding Architecture Than Anybody, asked me to give a bit of a commentary on Yama's work. After a good introduction by Ketchum, and a good talk by Yamasaki on Delight and Serenity in Architecture, I felt that it was not time for a Critique, but rather for an Analysis. This means that the speaker restricts himself to favorable comments. The Analysis is best for occasions when there is fear of a libel suit, and also for pleasant black-tie evenings. The Critique, on the other hand, is for bold journalism, seminar-type meetings, or comment by jealous competitors. I am not quite sure what I really did, however, for I have a letter from someone who was there that night, telling me that I said much critically *by implication*. This either means that some subconscious Critique crept into my Analysis, or that my correspondent was so anxious to hear a Critique that she read critical commentary into an Analysis, which is very unfair.

Design, criticism, education, collaboration, materials and methods, specification, business practice . . . this is architecture.

Thomas H. Creighton