

fifth annual design awards program 1958

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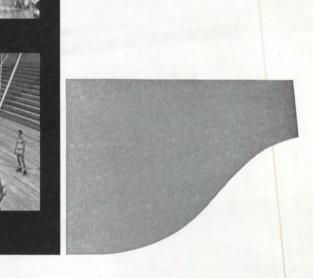
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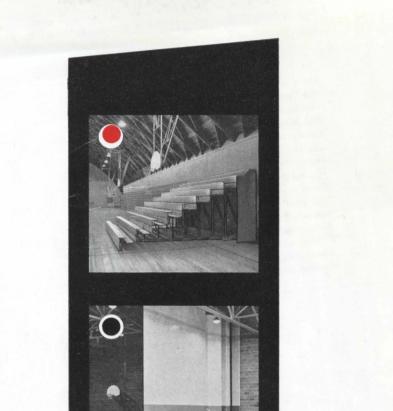
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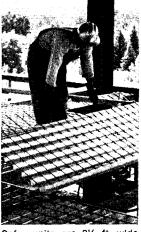
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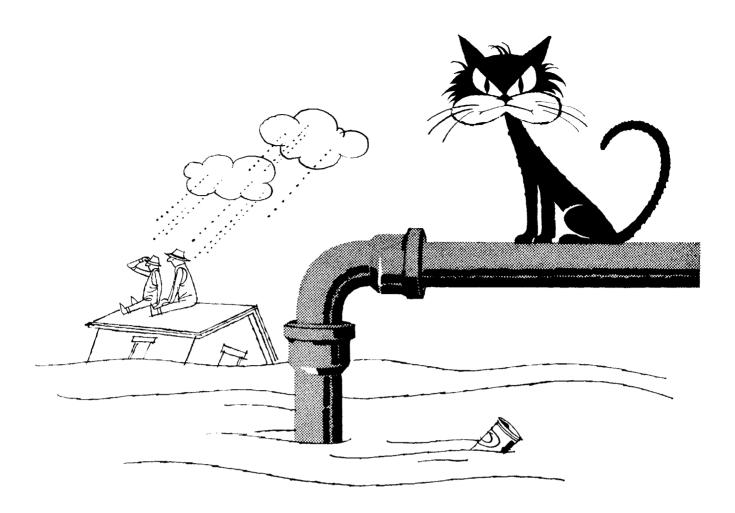


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PROGRESSIVE ARCHITECTURE

January 1958

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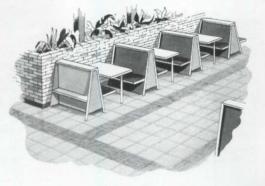
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## It's the Law by Bernard Tomson

#### P/A Office Practice examination of zoning "esthetic intent" ordinances, which may be construed as affecting public welfare and health.

Esthetic factors have become increasingly significant as a basis for the adoption of municipal zoning ordinances and statutes. Many of these zoning regulations, although involving esthetic considerations, are termed or construed as dealing with the health, morals, or safety of the community. Such terminology affords a broader legal basis to justify the validity of the ordinances. However, a recent New York case (Levitt v. The Incorporated Village of Sands Point) invalidated a village zoning ordinance, requiring homes to be constructed upon a two-acre-minimum plot, and refused to consider such a restriction valid either because of its esthetic value or as bearing on the public health or safety.

In DECEMBER 1950 P/A, this column discussed examples of zoning ordinances which were held valid even though they were motivated by esthetic considerations. These examples included an ordinance which provided that no building should be erected to accommodate more than one family for each 20,000 square feet in a particular residence district, or 40,000 square feet in another. The Court, in that instance, sustained the ordinance on the grounds that the village could, under its police power. protect itself from noise, traffic, and the danger from fire, and was entitled to furnish a better opportunity for rest. relaxation, and safety to its children.

In NOVEMBER 1950 P/A and JULY 1952 P/A, this column considered "look alike" zoning. The ordinances discussed in these columns concerned attempts by municipalities to promote esthetic and artistic development of new residential construction by prohibiting "look alike" homes. These laws involved questions not only as to their legality, but also as to their effectiveness in the application of esthetic considerations to community planning.

In JUNE 1952 P/A, this column discussed the attempt by New York City to permit the erection of certain types of industrial plants in residential areas provided the prospective construction satisfied esthetic requirements as determined by a commission established for that purpose. As was pointed out, the development of this plan increased tax revenues, furnished increased employment for residents of the community, and also provided new areas for parks and other recreational facilities.

The laws and legal decisions considered in the foregoing columns were illustrative of the increased and continuing importance of esthetic considerations in matters of zoning. However, the development of esthetic zoning often meets with resistance. In the recent New York case (referred to above) the Court was considering the validity of an amendment to the building-zone ordinance of the village which was adopted in 1954, and which required a minimum of two acres for a single family residence in a residence "A" district. The Village was divided into two districts, entitled "A" and "B". The residence "A" district was four times the size of the residence "B" district, and the minimum plot area requirements for the "B" district was one acre. The plaintiffs had purchased property in the residence "A" area prior to 1954, for the purpose of development into one-acre plots. At the time of such purchase, the entire village was zoned for a minimum of oneacre plots. The village introduced expert proof to establish that there was a demand for more spacious living generally, and that the two-acre restriction was necessary to preserve to the greatest possible extent, the existing character of the village. The Court concluded, however, that the substance of the village position was that the two-acre zoning was adopted for purely esthetic purposes, and on that ground it could not be upheld. The Court said:

"The facts in this case considered in the light of the legislative purposes clearly demonstrate that this Amendment does not meet that this Amendment does not meet the tests. There was no showing that two acres are required to provide adequate light and air, and they contribute nothing to the public health, safety, morals, or general welfare that is not accomplished by the one-acre zoning. In fact, a substantial area of the Village is improved with homes constructed on one acre. The testimony and exhibits clearly indicate that there was no need for a two-acre restriction to prevent the overcrowding of land in the Village, for practically three-quarters of the Village was placed in the newly created district which was sparsely populated on plots of various sizes, a number of which within the newly created district were one-acre plots. There was no showing that there was an undue concentration of population. . .

"What was said by the Court in Simon v. Town of Needham, 311 Mass. 560, might well be said here. It follows:

"'A zoning by-law cannot be adopted for the purpose of setting up a barrier against the influx of thrifty and respectable citizens who desire to live there and who are able and willing to erect homes upon lots upon which fair and reasonable restrictions have been imposed nor for purpose of protecting the large estates that are already located in the district. The strictly local interests of the town must yield if it appears that they are plainly in conflict with the general interests of the public at large, and in such instances the interest of "the municipality would not be allowed to stand in the way."

way."' "I conclude that the action of the defendants in adopting the amendment was unreasonable, arbitrary, and capricious, that it deprived plaintiffs of their property without due process of law, and was in excess of their authority in that it bore no relation to public health, safety, morals, and general welfare, and that consequently it was unconstitutional and void, insofar as it affects plaintiffs' property."

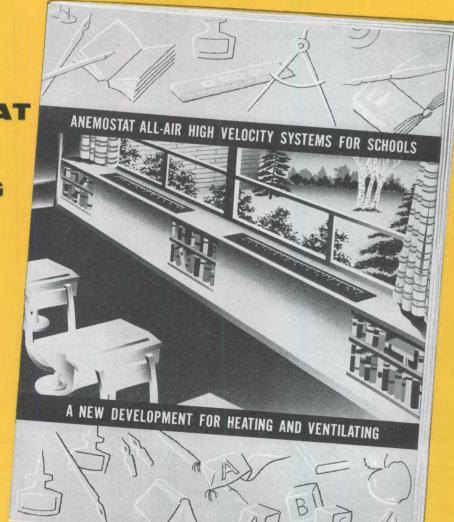
The New York court attempted to distinguish an earlier New York case, which upheld a two-acre restriction contained in the zoning ordinance of another village. This earlier case was discussed in the IT'S THE LAW (MAY 1950 P/A). The village, in that case, argued that a regulation which permitted persons to live in a country environment free from congestion and noise, benefited the health of the community and was therefore valid. The Court in upholding the zoning ordinance, stated:

"In the light of the location and character of the village, it was within defendant's legislative province to determine, in the absence of proof of superior public need, that the two-acre restriction is justifiable as an elastic application of police power."

The two New York decisions are apparently in conflict, since the Court in the later case substituted its judgment for that of the village and refused to support the esthetic considerations involved (at least in the terms of public health or welfare).

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## Mechanical Engineering Critique by William J. McGuinness

P/A Office Practice column on mechanical and electrical design and equipment, devoted this month to the subjects of ballast for fluorescent lamps and grounding of small, portable tools.

#### ballast

Those who remember the carbon arc light will recall that its performance was often erratic. It would sputter, draw high current, and sometimes go quite dim. Its successor, the fluorescent lamp, also an arc light, would be equally unstable unless corrected by a ballast. When so corrected, it is steady, dependable, efficient and long lived. This guardian of the lamp's behavior is tucked away in the fixture. When properly designed, it performs a surprising number of important functions.

- 1. A high power factor is assured. Less copper is needed for conductors, operating costs are lower, and the penalties sometimes imposed by utility companies for low power factors are avoided.
- 2. Lamps start promptly, even when voltage varies as much as 10 percent from its rated value.
- 3. It develops the full light intensity of the lamps. Poorly designed or imperfectly made ballasts can cut light output as much as 50 percent.
- 4. Steady illumination minimizes eye strain. With widely varying voltage, a good ballast will maintain a steady intensity within narrow limits.
- 5. Lamps have a specific life, rated in hours of illumination. A good ballast assures it; a poor ballast can reduce it by 50 percent.
- 6. A good ballast is not noisy. Ballasts that are not designed well, mechanically and electrically, can be very noisy, however.
- 7. A ballast, properly equipped with capacitors or other noise-suppressing devices, will not interfere with radio reception.
- 8. Safety against fire hazard or shock is assured.

Obviously, the pocketbook of the consumer is seriously affected by his choice of a ballast. Some users of fluorescent lamps may be at a loss to know whether the ballasts are good or poor. There is a tendency to depend on the seal of the Underwriters' Laboratories as a mark of an efficient unit. This is an error. Underwriters' Laboratories is an association of insurance companies and its interest is solely in approving equipment that is safe against fire or accident. It has no responsibility for efficiency of performance. Of the items listed above, its inspection applies only to item 8.

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Fortunately, there is an organization upon which the consumer may depend for an inspection and for a guarantee of quality and efficiency.

This is Certified Ballast Manufacturers, an association formed to standardize and help achieve the good qualities that are essential to a ballast. In order to guarantee independent testing and inspection, it has retained the Electrical Testing Laboratories, Inc., of New York, to conduct separate investigations and to give the final decision about use of the CBM label which identifies an approved and tested ballast. Superseding the individual testing work of the many member companies, ETL makes periodic and unannounced checks on random selections of ballasts. If they prove to be substandard the privilege of using the CBM label is promptly withdrawn.

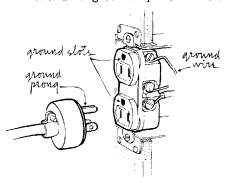
The purchaser can be confident that a certified ballast will provide the correct energy rate to preheat the lamp electrodes, supply a surge of high voltage to start the arc, and that, during operation, it will stabilize the voltage at which the lamp will perform efficiently.

#### grounding

The 1953 National Electric Code, revised January 1, 1955, contains new mandatory requirements concerning the methods to be used for grounding small electrical tools of 150 volts or less. Common practice, prior to the adoption of these regulations, was to have a third (ground) wire, green in color, originating at the frame of the tool and extending from the end fitting of the tool-lead that plugged into the receptacle. It was intended that this wire be attached, usually by a stud lug or alligator clip, to the plate screw or water pipe. It is obvious that this separate operation would frequently be neglected, resulting in an ungrounded frame. The use of this pigtail wire is now forbidden. Low-voltage hand tools other portable equipment, if and grounded, must now use a three-wire grounding plug cap. In addition to the two power blades, it has a third prong, round or U-shaped. This third prong forms an immediate and continuing connection between the frame of the device and ground. Inside the receptacle, the grounding is effected by a green wire attached by a green, hexagonal nut. In case of any defect in the motor, causing a bare conductor to contact the motor casing, the faulty current will find its way through the low-resistance path to ground. The grounding prong is a little longer than the two parallel power blades. Thus it makes contact with the ground connection first and leaves it last.

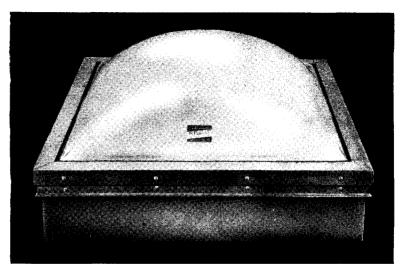
The new regulations are a distinct safety advantage to the users of lowvoltage equipment. High-voltage devices are most frequently in the hands of trained personnel who are prepared to take proper grounding precautions. Unskilled people often operate lowvoltage equipment, the misuse of which can sometimes be fatal.

New receptacles and plugs are needed for this system. A compromise can be chosen by installing a surface adapter to the old type of receptacle. This consists of a cylinder plugged into the two-point receptacle and changing to a three-point receptacle at its outer, circular face. The third prong is continued by a green pigtail of the old type, but in this case, fixed between the new prong and the plate screw of the original receptacle. With the new three-point plug it is impossible to connect to an ungrounded power source.



Since 150-v is not a working voltage, the application is usually to 125-v sources. A hazard to equipment would be the possibility of connecting this new plug to a mating receptacle which provides 250-v. The Arrow-Hart & Hegeman Electric Company, manufacturers of the new grounding devices, have developed equipment which is not interchangeable. The ground prong is the same in each case, but the power blades and slots are different. For 125-v. the blades are parallel and so are the slots in the receptacle. For 250-v, the blades and the slots are "tandem" or in the same plane. This is in accordance with the revised Code.

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## Lessons in Public Relations by Asher B. Etkes\*

# P/A Office Practice article citing the value of planned public relations for architects—and the profession.

Five years ago, the Editors of PROGRES-SIVE ARCHITECTURE asked me to write a series of articles on public relations and the architect. At that time the concept of architectural public relations was in its embryonic stage and consequently few of the ideas suggested in that sixarticle series were based on experience gained myself or by other public relations practitioners. Since then, much of the pure theory and many of the untried ideas expressed in those articles have proved accurate and practical and of great benefit to those architects who have applied them in the business phase of their professional practice.

Now, the Editors of PROGRESSIVE ARCHITECTURE have requested me to look back over the past five years and review my own experience, as well as that of other public relations counselors in architectural public relations, and try to suggest new public relations and publicity techniques that can help the architect improve both his professional practice and his community standing.

At the outset, I can say today that the concept of pubic relations for architects has not been an easy one to sell. Gaining acceptance for the idea has been a difficult task. Five years ago, most architectural firms had no or, at best, very little, experience with public relations. A few remembered unpleasant experiences as a result of poor quality work done by public relations firms unequipped to handle architectural accounts. An architectural firm, because of its professional nature, its traditions and ethics, cannot of course be treated in the same manner as a food, tobacco, or automobile account.

Many outstanding, as well as poor, examples of public relations for architects have come to my attention during the past few years. I shall try to describe the more interesting ones, and show both the advantages and pitfalls in architectural public relations. I shall also try to point out the lesson to be learned from each case history.

One interesting example of architectural public relations involves a firm with a worldwide reputation for excellence in commercial work. A few years ago it retained public relations counsel to publicize its work in the *institutional* field. After four years of well conceived and executed public relations and pub-

\*Asher B. Etkes Associates, Public Relations.

licity based on creative design solutions to specific institutional problems, this particular firm has established a national reputation in this field.

The technique used in achieving this prominent position for the firm was first to establish its reputation as a leading architectural organization in the institutional field among its colleagues, the architects. The second step was to bring to the attention of the institutional public the firm's outstanding low-cost structures specifically designed for that field. The final step was to tell the general public about the creative innovations in design and the outstanding advantages of new institutional buildings designed by this firm. Once the firm had been established as a leader in the institutional field, the publicity emphasis was changed. Instead of highlighting the low cost of the buildings, the architectural advantages of the firm's institutional structures were stressed in all publicity stories.

By these means, this particular architectural firm achieved prominence in the institutional field within a relatively short period, and today is definitely considered one of the leading firms in that area of practice. Lesson to be learned from this case history is the need for planned continuity of publicity effort and editorial exposure if public relations is to be successful. It points out that effective public relations is definitely not a one-time thing; that it has to be consistently, persistently, and intelligently pursued since it is primarily a long-range low-pressure selling technique which takes time to achieve its objectives.

The experience of another architectural organization is in sharp contrast to the preceding example. A few years ago, this firm retained a well known public relations counselor to develop a long-range public relations and publicity program. The fee involved was a considerable one and the step was not taken without due deliberation because, only a short time before, the senior partner of this particular architectural firm was heard to say that the only publicity he was interested in was that generated by the buildings designed by the firm. However, the architects decided to retain counsel, then observe what benefits might be derived from public relations.

It must be reported that the arrangement did not work out, and, within a short time, the contract was terminated. Results were of negative value not only to the architectural firm but, in this particular instance, to the generally sound concept of public relations for architects. The partners of the architectural firm involved expressed a dissatisfaction with public relations services to quite a few other architects. It will probaby take some time before they will be willing to consider again the use of public relations and publicity as a means of advancing their business.

The danger, of course, is that this particular firm could become an outspoken antagonist of public relations for architects and, because of its professional eminence, influence other architectural firms to feel the same. All this might have been avoided if, when counsel was initially retained, the firm had secured a public relations organization familiar with and equipped to handle architectural work. Lesson to be learned: architectural firms, particularly, must be very careful in the selection of a public relations counsel. They must make sure that counsel selected is equipped by training and experience to understand, evaluate, and properly communicate architectural material to editors.

An amusing instance of the way a long-range public relations program pays off, sometimes with unforeseen benefits, involves another architectural firm. The story goes that early one morning, the organization's public relations counselor received a call from the senior partner (a staid and dignified person), who opened the conversation by asking: "Did you set fire to the school?" The counselor was left momentarily speechless but, after asking what was meant, he learned the reason for this abrupt opening. It seems that the night before an old high school in a neighboring community was set afire and the next morning the local newspaper had a front page story concerning the fire. Right beside the story of the school fire was another front page story extolling the virtues of this architectural firm as school designers.

No public relations firm, of course, could work that rapidly and successfully in placing a story between the time of the fire and the time the paper was printed. What had happened was that about six months prior to the "mat" was sent to all daily and weekly newspapers within a 50-mile radius of the city where the architectural firm practiced, telling about the new schools that this organization had designed. One of the firm's schools, not too far from where the fire had taken place,



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was specifically described in the story. When the high school was destroyed the editor of the local paper simply remembered that he had a school story available and figured it would make an interesting companion piece to the fire story. Lesson to be learned from this case history is that public relations carried out on a continuing basis usually has many sideline advantages to the client never planned in the begin-

ning. But public relations is not always so amusing for the counselor. A small architectural firm retained counsel to publicize a successful project of which it was justifiably proud. This firm had converted a warehouse, which was a real estate blight near the main part of a large city, into a very profitable office building. A plan for publicizing this project was prepared by the public relations counselors, presented to the architectural firm and approved.

Trouble developed almost as soon as the program was put into effect. The architects insisted that the techniques being followed were wrong. They had their own ideas as to how the job should be done and constantly looked over the shoulders of their public relations counselors. They were especially vocal when the matter of pictures was the topic of discussion. The architects claimed they knew what pictures should be taken, while the public relations people maintained it was their business to know what editors would print. Since these disagreements carried on to the point where the end results were unsatisfactory to both the architects and the public relations firm, the relationship was concluded.

This architectural firm failed to realize that a public relations organization must have the same understanding and co-operation from its clients as an architect expects from his clients. When an architect is retained by a client he expects to be allowed to design a project and carry it through to its completion once the design is approved. Similarly, a public relations counselor expects, once a program is approved, to be allowed to carry it through to a successful completion unhampered by his client. Lesson to be learned: after you have chosen professional counsel to handle your public relations, it pays to extend to him the same kind of confidence in his professional ability that you, as professionals in architecture, have a right to expect from your clients.

The initial step an architect and a public relations firm must take, if they are to have a mutually satisfactory relationship, is to agree on their objectives at the outset. Then the architect must put his faith in his counselor and allow him to strive to achieve the objectives without unnecessary hindrance.

The results that can be obtained from this type of co-operation and understanding can be of great value to the architect and his firm. A good example of the concrete value of public relations is seen in the case of an architectural firm that for a half century specialized in the unique field of designing houses of detention. The demand for prisons is limited. Furthermore, prisons are not popular with the general public, and as a result receive small appropriations from legislatures. This architectural firm, therefore, retained a public relations counsel to tell the story to the various publics concerned. The first problem of the public relations counsel was to come up with an interesting theme for the promotion of this particular field. He decided the best way to approach the problem was to make prisons and their requirements better understood by the lay public.

This, of course, was a gigantic undertaking, and one that should have been assumed by an entire industry or industry association, instead of a single architectural firm and their public relations counsel. However, it was felt the project was worthwhile, and it was decided to tackle it. Working closely with the architects, counsel analyzed the situation very carefully and conceived a long-range public relations program. The program had two objectives: One, to promote a modern concept of prisons-to refer to them as "correctional institutions" rather than as "prisons," with a dungeon connotation. Two, to establish one of the partners in the firm, the specialist in prison design, as a leading authority on the design of modern correctional institutions

A major method of achieving these objectives was through speeches prepared for the architect to deliver before penal and sociology groups. These speeches were publicized widely and, as a result, both goals were achieved rapidly. The penal authorities became better acquainted with the architect's modern concepts for prison design, and the general public-reached through the newspapers, radio, television, and magazines-learned more about the serious need for better prisons. Also, every prison the firm designed was fully publicized on a regional, as well as national basis. Articles were placed for the firm in national magazines, Sunday supplements, and newspapers throughout the country. Since this was a long-range public relations program, no one can say as yet that it was completely successful. But the firm's prominence and position as the leading designer of correctional institutions has become even more firmly entrenched than it was before.

In addition, this can be pointed out: since the designing of correctional institutions is, as noted previously, a limited field at best, and since this architectural firm practices in other areas as well, the publicity received in the field of correctional institutions reflected advantageously in those other fields and aided substantially the overall solicitation efforts of the firm. Lesson to be learned: because each architectural firm has its own problems and objectives, each must be treated individually. Therefore, the public relations and publicity techniques must be different in each case, and must be carefully planned.

There are still other pitfalls to be avoided in architectural public relations. Unfortunately, architects sometimes find themselves clients of publicity agents rather than public relations counselors. This is primarily the architect's own fault. Before retaining a public relations organization he should make a thorough investigation to determine which firm can best serve his needs.

A reliable public relations firm will prepare a tentative program for its clients, describing exactly what it expects to accomplish and how it intends to go about it. Furthermore, it will submit samples of published work. From this, the architect should be able to determine which firm can best serve him.

In effect, all successful cases of architectural public relations have a number of points in common. They are handled by public relations firms familiar with the special requirements of the architectural profession. They seek to achieve specific objectives. They are based on long-range programs. And they feature creative thinking and careful analysis of the client's goals-and the means by which to achieve them. In addition, and this cannot be minimized, successful public relations benefits not only the architectural firm directly involved, but the profession as a whole. Every article telling of an architect's work brings the public closer to a full realization of the architect's importance to the community, the building industry, our economy, and our culture.

# New office building of Union Federal Savings & makes extensive use of PITTSBURGH GLASS



THIS DISTINCTIVELY DESIGNED building in Baton Rouge, Louisiana, is occupied by the Union Federal Savings & Loan Association. One of the most impressive structures in the South, it utilized Pittsburgh's rough SOLEX<sup>®</sup> in the spandrel areas, and for greater interior comfort, SOLEX Heat-Absorbing Glare-Reducing Plate Glass was used in the vision areas.

This is the first multi-story glass-clad building in Baton

Rouge. The exterior is constructed with Pittsburgh's PITTCO<sup>®</sup> 82-X system of metal curtain-wall framing. This is a completely integrated system consisting of metal supporting members and glass for the spandrel and vision areas. In addition, the entrances are equipped with HERCULITE<sup>®</sup> Tempered Plate Glass Doors, and the spandrel areas are insulated with PC FOAMGLAS.<sup>®</sup> Architect: A. Hays Town, Baton Rouge, La.



Loan Association in Baton Rouge, Louisiana, to enhance its advanced architectural design





**THIS VIEW** shows the first-floor loan section. Here a wall of Pittsburgh Polished Plate Glass brings in the outside with its interesting patio.

**ENTRANCES**, such as this one to the Union Federal Savings & Loan Association building, are equipped with HERCULITE DOORS, set in TUBELITE<sup>®</sup> Frames. HERCULITE is Polished Plate Glass which undergoes a special tempering process, making it four times stronger than ordinary glass of the same thickness.

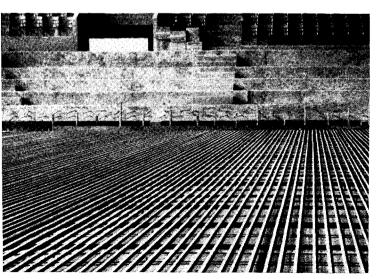
Your Sweet's Architectural File contains information on all Pittsburgh Plate Glass Company products ... Sections 7a, 13e, 16d, 21.





This corrosion resistant 1-inch wrought iron pipe was cold bent to 4½-inch centers.

## Wrought Iron assures piping permanence at Long Island Sports Arena



Fifty tons of wrought iron pipe assure a long life installation in this indoor rink. Usable floor area totals 17,000 sq. ft.

The ice rink at Long Island Sports Arena in Commack, New York, has a built-in defense against corrosion— 60,000 feet of wrought iron pipe. Extra-heavy black wrought iron pipe was used for all bends in coil installation. For straight runs, one-inch standard weight black wrought iron pipe was used.

Major rinks throughout the country rely on wrought iron's unique defense against corrosive attack. Thousands of glasslike iron silicate fibers per cross sectional square inch account for the material's exceptional corrosion resistance and assure low cost per-year-of-service.

A special report prepared by our Engineering Service Department, *Ice Skating Rinks—Their Construction and Maintenance*, tells how to maintain effective corrosion control in this field. Write for your copy. A. M. Byers Company, Clark Building, Pittsburgh 22, Pennsylvania.

Long Island Arena, Thomas Lockhart, Manager Architect: J. H. Van Alst, Centerport, L. I., New York Contractor: Frick Company, Waynesboro, Pennsylvania

## **BYERS Wrought Iron Tubular and Hot Rolled Products**

ALSO ELECTRIC FURNACE QUALITY STEEL PRODUCTS Corrosion costs you more than Wrought Iron

#### reverse effect?

Dear Editor: As the developer and producer of a line of highly specialized industrial flooring materials, we have been gratified by the increasing attention given, in the past six or so months, to the question of strengthening or limiting the "or equal" clause in architectural specifications.

PROGRESSIVE ARCHITECTURE thus receives our thanks and compliments for the inclusion of the article, "Let's Omit 'or equal'," by Harold J. Rosen (OCTOBER 1957 P/A).

It might be said by some that producers, generally speaking, would welcome the elimination of the "or equal" clause for the most selfish reason, that being the avoidance of competition, provided he were fortunate enough (or a good enough salesman) to sell his product, "by name," at the specifications level. There is a grain of truth to that argument, but a very small one. While it is admitted that material producers are in business to sell their products, and make profits thereby, the day has passed (if it ever existed) where anyone in the building material industry can hope to stay pre-eminent in his field without offering the utmost in quality, service, and at a fair price.

The "or equal" clause, in its attempt to foster competition and effect economies, in many cases will have the opposite effect, in the long run.

For example, the pioneer or originator of a new product or method must price his wares, when marketable, to cover his investment in the development stages. Secondly, continually soaring advertising and sales costs have likewise contributed to increased prices. Thus, if Producer A develops a product, and then sells it to an owner or architect, the inclusion of the "or equal" clause in the specifications is an open invitation to Producer B, and others, to offer a so-called "equal" at a lower price possible by his lack of development and sales work, and the attendant expenses. In short, Producer B cashes in on the experimental and

missionary work of the originator, and at no cost.

As we proceed, the problems become further complicated and more costly. I have estimated that our own salesmen will spend as much as 50% to 70% of their working week in efforts to "fight off" or "fight down" the attempts of our competitors and so-called competitors to secure an order to meet specifications, which our representatives secured at the specifications writing level.

The savings, which could be passed along to the end user, if the "or equal" clause were eliminated or tightened, would be impressive if sales time, per order, could be halved.

Rosen stated very explicitly, but I would like to second his statement, that the "or equal" clause makes it mandatory for bidding contractors to base their bids on the lowest priced (and often lowest quality) materials if they hope to secure the award. In a surprising number of cases, little or no attempt is made to analyze the quality of so-called competitive alternates or "equals," or to survey the service which the producer will render during installation.

The architect is a busy and overworked individual. He has our sympathy and suggestion that his work load would be, in reality, lightened by the omission of the "or equal" clause. Of more importance than that, perhaps, is the fact that he would be rendering his client better service and giving him, dollar for dollar, the best materials which the budget will support.

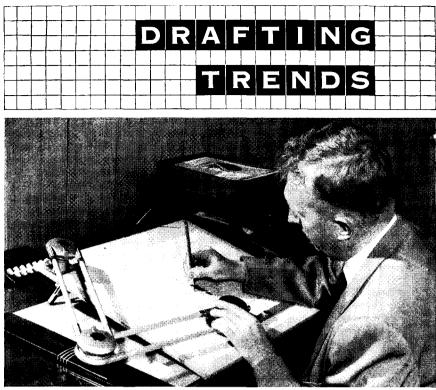
We recently had referred to us specifications listing 19 alternates for an industrial-flooring finish. Further than that, the "or equal" clause applied to each of the 19 products, which ranged in material cost from less than \$.01 to over \$.40 per sq. ft. Specifications such as this can indicate nothing other than that the architect and the owner had not analyzed present and future flooring requirements and problems. In such an "anything goes" atmosphere, sufficient time and money will probably (Confinued on page 18)

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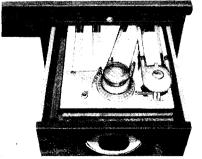


Chief Draftsman W. P. Nickels of Tennessee Gas Transmission Company (Houston, Texas) at work with his portable "Desk Topper"

## Portable drafting unit sets up in two minutes

A handy drafting unit with the precision of a full-size drafting machine is now available to engineers who need portable facilities. Called "Desk Topper," the package-size unit can travel along with you or slip away in an office drawer. All essentials are included: drafting machine, set of scales, folding board, storage container for tools, and paper dispenser.

The "Desk Topper" sets up quickly (2 minutes) on any desk or table—at home, in the office, hotel room or studio.



The complete "Desk Topper" hides away quickly in any standard desk drawer or in the sturdy carrying carton. (Handsome luggage case is available at extra cost.)

The unit comes packed in a lightweight carrying carton for easy portability. For engineers who use the board only occasionally, the entire unit fits into any standard desk drawer.

Manufactured by Universal Drafting Machine Corp., "Desk Topper" has the professional features of their large "Boardmaster" machine—360° protractor, automatic 15° indexing, full line base selector, double 10' vernier and clamp, elbow height adjustment, screw anchor, enclosed band and pulley arms, built-in brakes for 10° board slope.  $\checkmark$ 

The smooth linoleum surface board measures  $21'' \ge 23\frac{1}{2}''$  when open,  $21'' \ge 11\frac{3}{4}''$  when closed. Normal drawing capacity is  $17'' \ge 22''$ , or  $24'' \ge 36''$  when mounted to a larger board. The legs with rubber feet fold up automatically, provide a  $10^\circ$  slope in use.

The "Desk Topper" scales are another excellent feature. Self-locking and selfaligning, they eliminate two common causes of drafting machine inaccuracy —loose chucking, and errors in right angle alignment.

Further information on "Desk Topper" is available from the Reader Service Division of the Frederick Post Company, 1319 N. Avondale Avenue, Chicago 18.



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## p/a views

(Continued from page 17)

be wasted in sorting out the claims and counterclaims, the relative merits of competing products, and evaluating contractors' bids to have given the owner a far better floor than he will receive.

No producer, worth his salt, fears competition; in fact he welcomes it. At the same time, any businessman hates waste, and from that viewpoint the construction industry, as a whole, would benefit from discarding of the "or equal" clause and the adoption of the "variations from materials specified" proposed by the Building Research Institute.

> G. H. HENNEGAR Assistant to the President Walter Maguire Company, Inc. New York, N. Y.

#### the plastic theories

Dear Editor: I read, with great interest, William J. McGuinness' article, "Plastic Design in Steel," in OCTOBER 1957 P/A.

In 1954, as a partial fulfillment for the degree of B Arch. at Rensselaer Polytechnic Institute, a thesis was submitted entitled, "Modern Design for Structural Materials... an investigation into the theory and application of limit design." This study, with the co-operation of T. R. Higgins (Director of Engineering of the AISC) and the British Constructional Steelwork Organization, not only covered the design theory advanced by McGuinness, but went much further and developed a more practicable method of design.

The paper submitted at RPI takes into consideration several items not apparently considered by McGuinness:

- 1. Use of materials other than hotrolled steel.
- 2. Development of theory from the basic principles of stress and strain.
- 3. Fireproofing problems.
- 4. Plastic moment of resistance tables to avoid arbitrary use of "average-shape factors."
- 5. Application to columns and other (Continued on page 20)



The open-beam ceiling of Armstrong Cushiontone Roof Deck soaks up noise and gives this modern motel room a more spacious appearance.

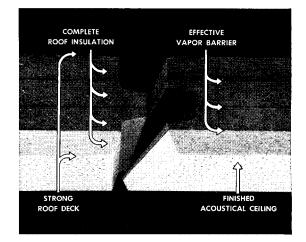
## New four-in-one Armstrong Cushiontone Roof Deck sound-conditions open-beam interiors

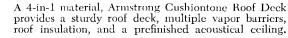
HERE'S a low-cost way to soundcondition light commercial structures and at the same time add the beauty of open-beam interiors.

New Armstrong Cushiontone Roof Deck is a 4-in-1 material that provides roof deck, insulation, multiple vapor barriers, and finished acoustical ceiling in one fast application. It needs only beams to support it and built-up roofing to weatherproof it.

New Armstrong Cushiontone Roof Deck is made up of <sup>1</sup>/<sub>2</sub>" layers of asphalt-impregnated fiberboard. The interior surface is prefinished with two coats of washable white paint. The perforations in the attractive Full Random design absorb more than half the noise that strikes the ceiling. Cushiontone Roof Deck is available in easy-to-handle  $2' \ge 8'$  panels, 2'' or 3'' thick, with strong T & G joints on all four sides.

Send for free twenty-four-page booklet, "How to build with Armstrong Roof Deck." Write to Armstrong Cork Company, 3901 Watson Street, Lancaster, Pennsylvania.





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## p/a views

(Continued from page 18)

combined-stress members.

- 6. Problems involving connections.
- 7. Consideration of factor of safety and radium of gyration.
- Relatively simple formulas for deflection
- 9. Detailed comparisons with present practices and information regarding savings.

10. Stress reversal.

This study resulted in a series of charts similar to the present AISC manual's Moment Charts favored by so many architects. Each common loading situation for simple and continuous members is diagrammed and a plastic section modulus (required) given in terms of factor of safety, load, length, and yield stress. For those who seek further simplification, each loading situation is given a formula which results in the calculation of the (conventional) section modulus required in terms of a constant x WL.

It would seem that implementation of McGuinness' program calls for an engineer or architect with "heavy" engineering background . . . the "RPI Study," on the other hand, can be used by architects with less structural training.

> DONALD J. D'AVANZO Brooklyn, N. Y.

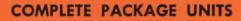
#### Concentrate Responsibility... SEDGWICK **Dumb Waiters** SEDGWICK **Dumb Waiter** Doors When you select a Sedgwick Dumb Waiter, you get a completely integrated installation including dumb waiter doors - designed, engineered, manufactured and installed by Sedgwick. This places the responsibility for the entire installation in the hands of one supplier - cutting in half the red tape, contracts and ap-★ provals, and eliminating your coordination of door and dumb waiter design and erection. Furthermore, all equipment is shipped at the same time, saving shipping and handling costs. The same mechanics install both doors and dumb waiters. Sedgwick Dumb Waiters and Doors are available in a complete range of modern, improved types and standard sizes that can be adapted to fit requirements exactly. (See standard specifications and layouts in SWEETS 33a/Se) Doors are manufactured in bi-parting, slideup, slide-down or hinged arrangement. Also access and clean-out doors. (Underwriters' Labelled where required.) Send today for complete literature and specifications. Sectonuick Machine Works 164 West 15th Street, New York 11, N.Y. Please send general information Other Sedgwick Products Please send specific recommendation **★** SIDEWALK ELEVATORS on: . \* FREIGHT WAITERS ★ RESIDENCE ELEVATORS NAME. ★ "STAIR-TRAVELORS" ADDRESS CITY STATE NATIONWIDE SERVICE

It is interesting to learn from D'Avanzo's letter that work is being done in architectural schools to advance the cause of plastic design in structural steel. The thesis described sounds quite complete and appears to contribute much to this new theory.

There is a great difference in the fundamental purpose of a college thesis and that of a magazine article. The thesis is primarily creative. It purports to create something new or to contribute materially to the advancement of an existing theory. Articles in professional magazines can have various purposes. The purpose of mine on "Plastic Design in Steel" was to present in extremely brief form, the results of a great volume of work-by many peopleon this subject. It was intended to be of general interest to the average reader as well as to provide guideposts and a bibliography for the serious specialist.

The thesis is stated to have carried the work much further, developed a more practicable method of design, included materials other than hotrolled steel, and started from the very basic principles of stress and strain. For brevity, the article had to assume that the reader was already familiar with the basic stress and strain relationships. For the same reason of brevity, the demonstration could not have been carried further than a single basic example. Tables of plastic moment values in the thesis, similar to those that will appear in the new AISC Handbook, are unquestionably needed for design practice but would only be confusing in an article. An average shape factor is simpler to use The inclusion (Continued on page 22)

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MODEL	CAPACITY	SPEED	PLATFORM SIZE
1200C	1200 lbs.	100 ft./minute	5' x 4'
2000C	2000 lbs.	100 ft./minute	6'4" x 4'5"



#### (Continued from page 20)

of columns and other combined-stress members in the thesis is logical, but development of this subject beyond the brief mention that was made in the article would have been much too lengthy.

The comment of D'Avanzo to which I must make the strongest objection is his claim that I suggest the need for an engineer or an architect with heavy engineering background to perform this work. In the foreward and at several points in the article, the simplicity of the design process is stressed.

> WILLIAM J. McGUINNESS Merrick, N. Y



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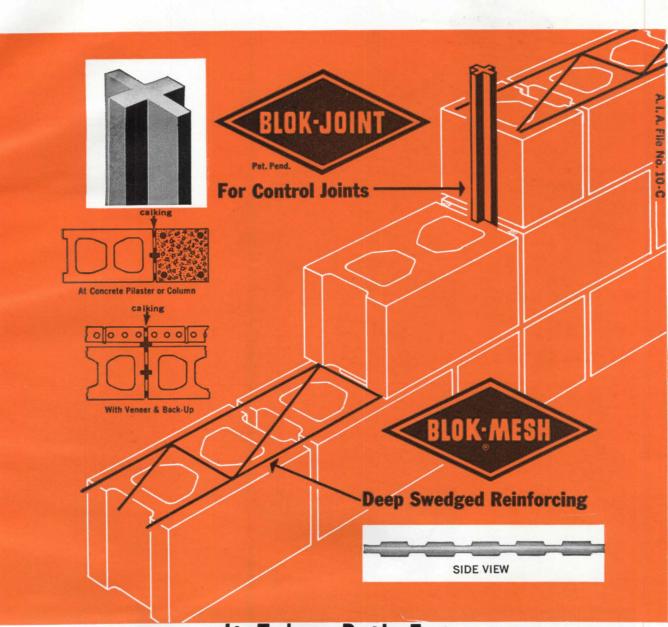
#### "setting the pace"

Dear Editor: Congratulations to you on the interest that Rosen's article on Specification Divisions has generated in your magazine. You are to be commended for setting the pace for magazines that cater to the practicing professional architect. We too have felt, as have most of the replies to Rosen's article, that the way to arrange specification divisions was in the sequence in which the various trades appeared on the job. We went one step further and made the divisions correspond to the list of various subcontractors licensed by the State of California. Thus from the copy of this list (below) such a variation appears as having Cabinets and Millwork a separate item and not a sub-head under Finished Carpentry.

I throw this out for whatever it is worth and, meanwhile, I'll try to digest the lists that your other interested readers have offered.

> H. DOUGLAS BYLES Pasadena, Calif.

General Engineering Contractor .	Α
General Building Contractor	B- 1
General Building Contractor Boilers, Hot Water Heating and	
Steam Fitting	C- 4
Cabinet and Mill Work	C- 6
Cement and Concrete	C- 8
Electrical (general)	C-10
Electrical Signs	C-45
Elevator Installation	C-11
Excavating, Grading, Trenching,	
Paving, Surfacing	C-12
Fire Protection Engineering	C-16
Flooring (wood)	C-15
Glazing	C-17
House and Building Moving,	
Wrecking	C-21
Insulation	C- 2
Landscaping	C-27
Lathing	C-26
Masonry	C-29
Ornamental Metals	C-23
Painting and Decorating	C-33
Plastering	C-35
Plumbing	C-36
Refrigeration	C-38
Roofing	C-39
Sewer, Sewage Disposal, Drain,	
Cement Pipe Laying	C-42
Sheet Metal	C-43
Steel, Reinforcing	C-50
Steel, Structural Swimming Pool	C-51
Swimming Pool	C-53
Tile (ceramic and mosaic)	<b>C</b> -54
Warm-Air Heating, Ventilating	
and Air Conditioning	C-20
Welding	C-60
Well Drilling (water)	C-57
Classified Specialists	C-61



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**Blok-Joint** is a cross-shaped rubber extrusion used to make control joints in masonry walls. No special blocks are required—no building paper and mortar fill is necessary. No cutting or sawing to be done. Blok-Joint is used with any standard metal window sash block.

**The secure interlock** provided by Blok-Joint adds to the lateral stability of the wall. It allows for contraction *and* expansion while maintaining a firm joint.

**Blok-Joint** is effective in single block walls, with brick and block backup and at pilasters and columns.

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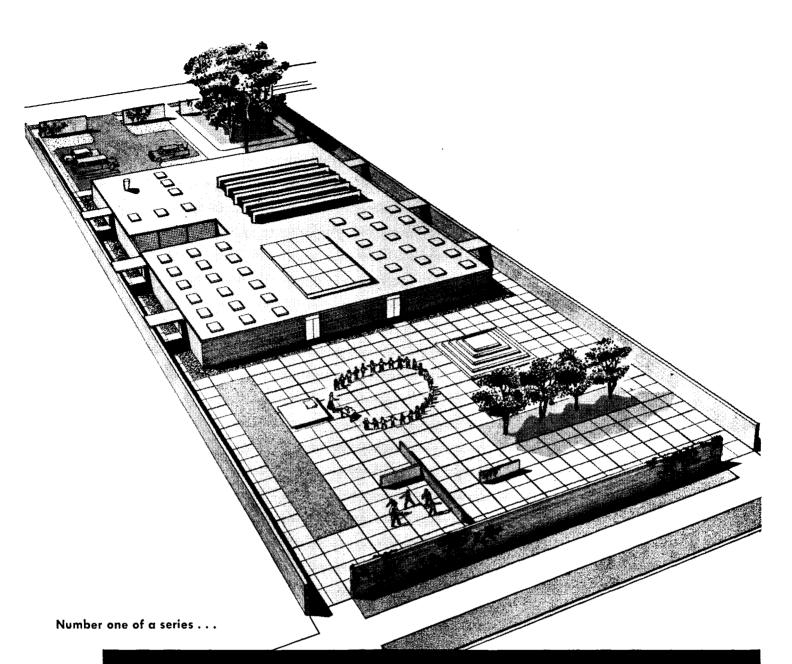
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or Industrial Construction File

Architectural



2440 Pennway, Dept. PA, Kansas City, Mo.



## The herman nelson file of

CLASSROOM AIR CONDITIONING, more and more, is becoming a basic factor in school design. Architects everywhere are recognizing the trend in their structural considerations for school buildings.

Educators, too, are thinking – talking – stressing air conditioning. They have found that classroom temperature, air movement and humidity have a direct bearing on learning and development. They realize that it is just as important that a child be comfortable in hot weather as it is in wintertime.

For these reasons, many schools are already air conditioned, or are planning for it in the future. Throughout the country, the need for air conditioning is being reflected again and again in basic school design. The building plan shown on these pages is an outstanding example.

Does the school you are planning include eventual air conditioning? Think it over. Chances are—it should.



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HerNel-Cool II units are as attractive as they are efficient they harmonize with any classroom color scheme. Choice of seven standard colors, Five durable, decorative laminated plastic top patterns. Matching utility cabinets and other accessories.

INSTALL NOW—AIR CONDITION LATER! It's completely practical in any school with HerNel-Cool II unit ventilators. Here's how the system works:

HerNel-Cool II units provide individual temperature control for each classroom, automatically. Most of the year they provide heat, ventilation, or natural cooling (with outside air) as the room requires. Whenever a chiller is installed in the boiler room, HerNel-Cool II units also function as air conditioning units.

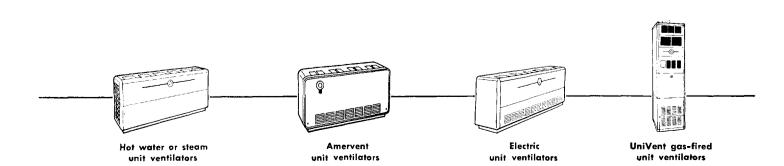
In hot weather, HerNel-Cool II units switch automatically to mechanical cooling, with chilled water circulating in the same piping that carries hot water during cold weather. Complete window downdraft protection is provided under all conditions—because Herman Nelson DRAFT|STOP does not depend on heat for draft protection.

Some schools which have already specified Herman Nelson unit ventilators for heating, ventilating, natural cooling and immediate or eventual air conditioning, include:

Pleasant Hill School, Austin, Texas • Wilmot School, Wilmot, Wisconsin • Niles Township High School, Skokie, Illinois • South High School, Bakersfield, California • Morrillton Elementary School, Morrillton, Arkansas • Sierra Joint Union High School, Auberry, California • Immaculate Heart of Marv Parish, Chicago, Illinois • New Science Building, Northcastern State College, Tahlequah, Oklahoma • South Union Junior High School, Fresno, California • Davy Crockett School, Phoenix, Arizona • Mockingbird Road Elementary School, Vero Beach, Florida • Administration & Educational Building, Buena Vista College, Storm Lake, Iowa • Purdue University, West Lafayette, Indiana • William S. Speed Building, University of Louisville, Louisville, Kentucky • Lodi High School, Lodi, California • McKinley School, Bakersfield, California • St. John the Baptist School, Chico, California • St. Monica's Church and School, Dallas, Texas • Southeastern College, Hammond, Louisiana.

Cost studies—for schools employing immediate air conditioning as well as for those which are planning for its installation later—are available upon request.

Get all the facts now. Classroom air conditioningimmediate or eventual-is being included in more and more school planning. You'll want to consider it in yours. Write today to Herman Nelson Unit Ventilator Products, American Air Filter Company, Inc., 215 Central Avenue, Louisville 8, Kentucky.



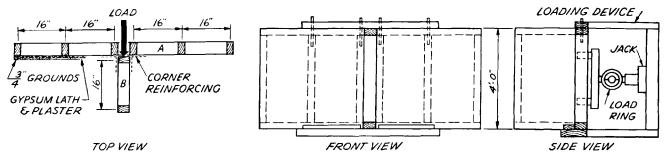
New Versatile-Wall offers weather-

A section 10' wide by 14' high with operating sash was tested in a 140mile wind and 30 gallons of water spray per minute (equivalent to 8" of rainfall per hour) with no leakage.

With Robertson Versatile Wall, architects and engineers can enjoy full freedom of expression in the use of modular units and colors and still be sure of the precision of fit necessary to resist the ravages of weather. Developed after years of experience, research and testing, this curtain-wall system combines the advantages of standard units with the artistic latitude of tailor-made walls.

with

The results of extremely severe tests proved beyond a doubt that the rugged, weathertight construction of Robertson Versatile Wall can more than withstand the devastating forces of hurricanes and tornadoes. Units are designed to expand and contract to take care of building movement and steel framing tolerances without loss of tight seal. Yet infinite design variety is available. Verticals can be made with a variety of sizes and shapes in stainless steel, aluminum, bronze or porcelain enameled metal. Spandrels also can be designed in a great variety of colors and textures.



Wall section A and wall section B held together only by plaster and the embedded reinforcing fastened to the gypsum lath by a few light staples.

Test panels were built so that a measurable force could be applied to the test panel so as to produce direct stresses on the reinforced corners of the specimens.

These specimens consisted of two parts: one, a section of wall 48 inches high and approximately 70 inches long; the other, a similar section, but only 16 inches long.

The construction of the frames and studding, as well as application of gypsum lath, complied with F.H.A. recommended practices.

These two sections were aligned in the shape of a "T" and were

## here's what tests reveal

Based upon these tests it is concluded that KEYCORNER lath when embedded in gypsum lath and plaster angles provides better than  $1\frac{2}{3}$  to almost two times as much resistance to cracking than any of the other materials tested :

1 The results make it obvious that Keycorner imparts a strength when embedded not present in any of the other products tested.

**2** The open mesh design of Keycorner does not impair the bond of the plaster to the lath.

**3** The design of the welded wire product imparts only enough strength when embedded to resist cracking up to about one half the loads of the Keycorner design.

**4** Reinforcing angles made from 21 ga. wire lath greatly reduce the bond strength between the plaster and the lath under the reinforcing and when embedded resist cracking up to about one half as much load as Keycorner.

**5** Even though heavier and with wider flanges, the design of the 3" x 3"-2.5 pounds expanded metal lath cornerite imparts only enough strength to a gypsum lath and plaster angle to carry 59% as great loads, without cracking, as Keycorner lath.

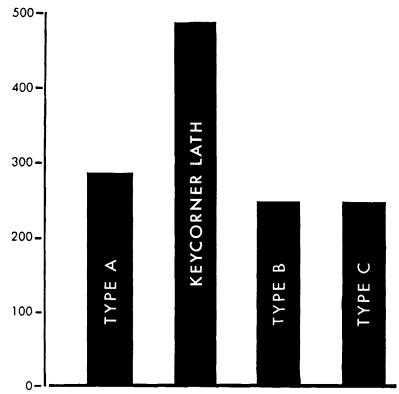
held together only by the plaster and the embedded corner reinforcing. The corner reinforcement was fastened to the lath by a few light staples before application of the brown coat.

At the juncture of the two sections, openings were provided so as to permit the application of loads which forced one section away from the other, thus bringing about a severe cracking tendency at the two interior corners.

Load was applied through a precision screw jack having a capacity of 10,000 pounds, and was

measured by a 6,000 pound capacity proving ring having a sensitivity of 5 pounds.

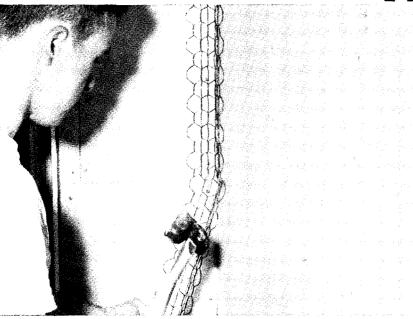
The magnitude of the load required to produce the first crack was the criterion for evaluating reinforcing. However, all tests were carried beyond this point in an effort to gain some measure of the ultimate capacity of each material. As it turned out, it was not possible to ascertain maximum strength because the specimens failed in some way first, namely pulling the gypsum lath loose from the studding.



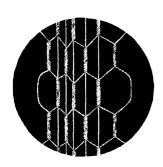
This chart records the results of KEYCORNER, plus those of the other commonly used types of reinforcement tested by Saxer. They included 3" x 3"-2.5 lb. metal lath cornerite; 2" x 2"-18 ga. welded wire cornerite;  $2\frac{1}{2}$  x  $2\frac{1}{2}$  meshes-21 ga. galvanized wire.

	Lo	ad Test	Data		
		(Load Lb.) First Crack			(Load Lb.) First Crack
Туре А	1st 2nd	300 275	Type B	1st 2nd	250 250
Α	verage	288		Average	250
2″x2″—19 ga. Keycorner	1st 2nd	475 500	Туре С	1st 2nd	250 250
A	verage	488	l	Average	250

# see how easy it is to get extra crack resistance with **KEYCORNER**



Keycorner comes in preshaped form. It is made in easy-to-handle 4-ft. lengths, or in rolls. When lengths are cut from rolls, the pieces spring into shape to fit corners.



Keycorner is galvanized to prevent rusting before use, as well as to prevent rust streaks in the finished wall.

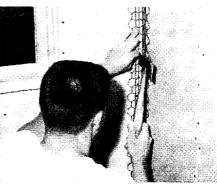


Use either nails or staples with Keycorner. For use over doors or windows, or as strip lath, it can be pressed flat to provide a smooth surface for plastering.

Keystone Steel & Wire Company Department PA-18 Peoria 7, Illinois
Please send me test report on Keycorner.
Name
Firm.
Business
Street.
CityState



Four-foot lengths are packed in strong cartons, 1000 ft. per carton. This assures delivery to the job in good condition. Rolls are tight and compact to stand up under normal job abuse.



Keycorner is precision shaped to assure proper embedment in the plaster for maximum reinforcing value. It is easy to lap without interfering with plastering.

	SPECIFICATIONS	
	2"x2"—4' lengths	
Wire gauge	Lineal feet per package	Shipping wt per package
19	1000	65.5 lbs.
	4" wide x 500' rolls	
19	1000	65 lbs.
3 KEYS TO STRONGER PLASTER	AEVAESH ARIVEORAER AR	L
		0

#### Keystone Steel & Wire Company Peoria 7, Illinois

Keymesh • Keycorner • Keybead • Keyweld Keystone Nails • Keystone Tie Wire Keystone Furring Nails • Concrete Nails

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CITY



Mr. Scholz (left) at the site of one of his nationally distributed "Mark 58" prefabricated homes with Ken Sprengel of the Telephone Company

## "Concealed telephone wiring adds sales appeal to our homes"

-says Mr. Don Scholz, of Scholz Homes Incorporated, Toledo, Ohio

"I compare selling new homes with selling new cars," says Mr. Scholz. "New homes have to be more attractive and more modern than what the public has had before, or they won't sell.

"Concealed telephone wiring is a feature that helps give prefabricated homes such as we manufacture the added sales appeal that attracts buyers. We merchandise it with the many other modern conveniences we offer. It's a valuable sales aid, and we take full advantage of it as such."

Mr. Scholz began manufacturing prefabricated homes in 1953, and last year sold 1500 units at an average completed sales price of \$30,000 each. This year Mr. Scholz's "Mark 58" home will be nationally advertised and distributed. In today's competitive market, Mr. Scholz, like many other trend-minded builders across the country, recognizes concealed telephone wiring as an indispensable modern sales feature.

\* \* \*

Your nearest Bell Telephone business office will help you with concealed wiring plans. For details on home telephone wiring, see Sweet's Light Construction File, 8i/Be. For commercial installations, Sweet's Architectural File, 32a/Be.

Working together to bring people together ... BELL TELEPHONE SYSTI



#### THIS MODERN OFFICE BUILDING FEATURES

## ALUMINUM CURTAIN WALL

DESIGNED BY ARCHITECTS

CUSTOM-BUILT BY ...



WARREN PETROLEUM CORPORATION, GENERAL OFFICE BUILDING Tulsa, Oklahoma Skidmore, Owings & Merrill, Architects, Chicago W. R. Grimshaw Company, Contractor, Tulsa

Here's an excellent example of how closely Cupples works with architects and builders. The curtain wall system for this handsome twelve-story structure was designed completely by the architects. Cupples followed the specifications with no variations.

Extruded aluminum facia over spandrel beams with heavy aluminum I Beams forms the exterior line. Specially designed fixed windows are set back five feet from facia. Two top-hinged, in-swinging windows on each floor permit egress for window cleaners. Top floor is screened by dark gray alumilited extrusions, running behind vertical aluminum I Beams. Balance of aluminum work is plain alumilite finish.

Whether the design is yours or ours, Cupples has the experience and facilities to build aluminum curtain walls that meet your needs exactly. Cupples, also, is a leading manufacturer of aluminum windows, doors, Alumi-Coustic grid systems and special ornamental products. Our catalogs are filed in Sweet's.



PRODUCTS CORPORATION 2660 South Hanley Road • St. Louis 17, Missouri

An Actual Case History

"Where did the water come from?" asked the harassed owner. All winter water had been actually dripping from the rafters and roof-boards in the insulated attic of the new wing of her fine New England home. Things stored in the attic, even inside trunks, became wet and mildewed. Windows downstairs were often wet.

The wetness had persisted even during long spells of dry weather, which ruled out a leaky roof and rain as a cause.

We hunted for vapor. The floor in the crawl space underneath the wing seemed dry. The bulky insulating material, with an asphaltimpregnated paper facing the ground, which had been installed between the floor joists in the crawl space, also seemed dry. There were no leaky pipes.

The two occupants were professional people, away most of the day. Use of the laundry, kitchen, etc. was minimal. All combustion, vapor-forming appliances were properly vented.

"What should we do?" the owner asked.

#### THE SOLUTION

It was proposed that scientific multiple aluminum insulation (which is long and continuous and has almost zero vapor permeability,) be installed beneath the floor joists along the entire crawl space, and that ventilation be provided to the crawl space.

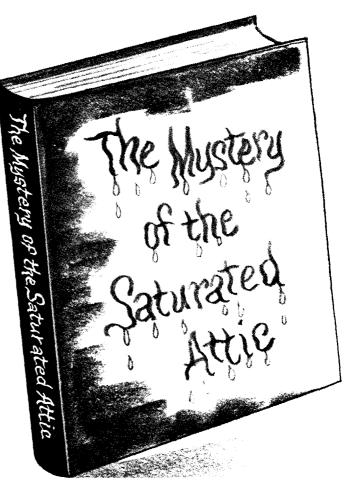
The results were magical. In a short time the attic was dry, the downstairs windows clear.

#### "WHO DUNNIT"

This indicated that the source of the trouble had been a flow of water *vapor*, (which is a gas) from the seemingly dry ground, through the asphalt paper and other materials between the joists to the room above, where some of it condensed on the cold window panes. Also a flow thru wall stud spaces, past the ceiling, and finally into the cold attic where it also condensed.

The ground under some buildings gives off as much as 96 lbs. of vapor a day per 1,000 sq. ft. It is invisible and harmless, until it condenses.

Two excellent publications are almost indispensable for those interested in problems of condensation and heat and vapor flow. One is an official study of the control of condensation in crawl spaces, with special reference to the effect of aluminum insulation, based on National Bureau of Standards tests. It is the National Housing Agency's "Technical Bul-

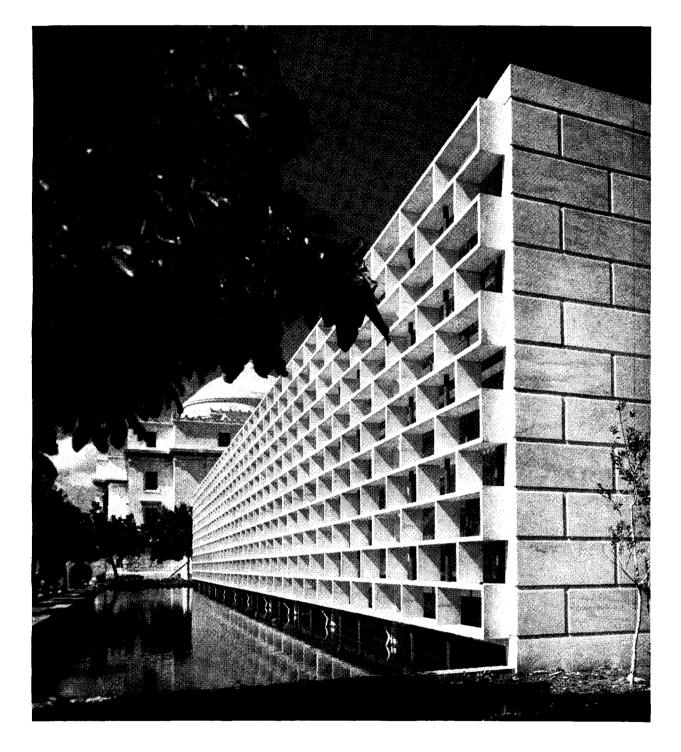


letin No 38." The other is "Heat Flow by Radiation in Buildings, Simplified Physics," by Alexander Schwartz. He discusses theoretical, practical, and commercial phases of the subject in highly readable style, in a profusely illustrated pamphlet. *Both* may be obtained by checking the coupon.

THERMAL	VALUES*,	INFRA	PARALLEL	INSULATIONS
N	on-metallic	Insulati	ion Equiva	lents '

			UP-HEAT	DOWN-HEAT	Cost,Installed*
T	YPE	2	C.195=13/3"	C.061=5 <sup>1</sup> / <sub>5</sub> "	5¢ sq. ft.
T	YPE	3	C.142=2¼3″	C.049= <b>6</b> ¾″′′	6¢ sq. ft.
T	YPE	4	C.105= <b>3½</b> ″	C.042= <b>8</b> ″	8¢ sq. ft.
T	YPE	5	C.081=4"	C.034=9⅔″	10¢ sq. ft.
Т	YPE	6	C.068=4%″	C.034=93''	11¢ sq. ft.
T	YPE	9	C.043= <b>7¾</b> ″	C.029= <b>11¼</b> ″	16¢ sq. ft.
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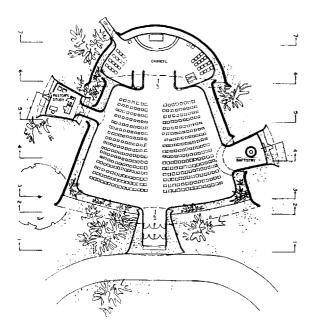
## p/a news survey

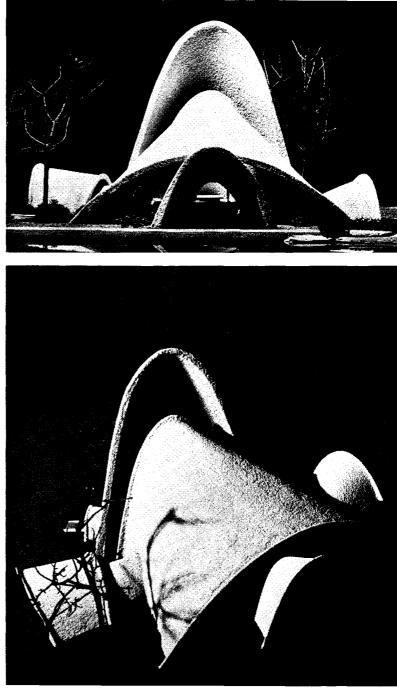


## PUERTO RICO'S CAPITOL SPROUTS WINGS

When the affairs of Government in San Juan demanded a considerable increase in office space, Architects Toro-Ferrer were called in to solve the problem. The existing Capitol is high-style Federal Renaissance, complete with dome, columned porticos, and applied pilasters; but the Architects had neither the wish nor the budget to continue this costly and dated stylism. The solution as worked out consists of identical two-story wings formally disposed at either side of the old structure. In color and texture of the marble used for the end walls and sun screens of the new wings, the extensions echo the Capitol building; otherwise, the design is a bold departure from the prototype, but consciously designed and scaled as a pleasing foil to the time-honored building. Each of the wings is bordered for its full length by a reflecting basin and is planned around an interior, landscaped courtyard.

## p/a news survey

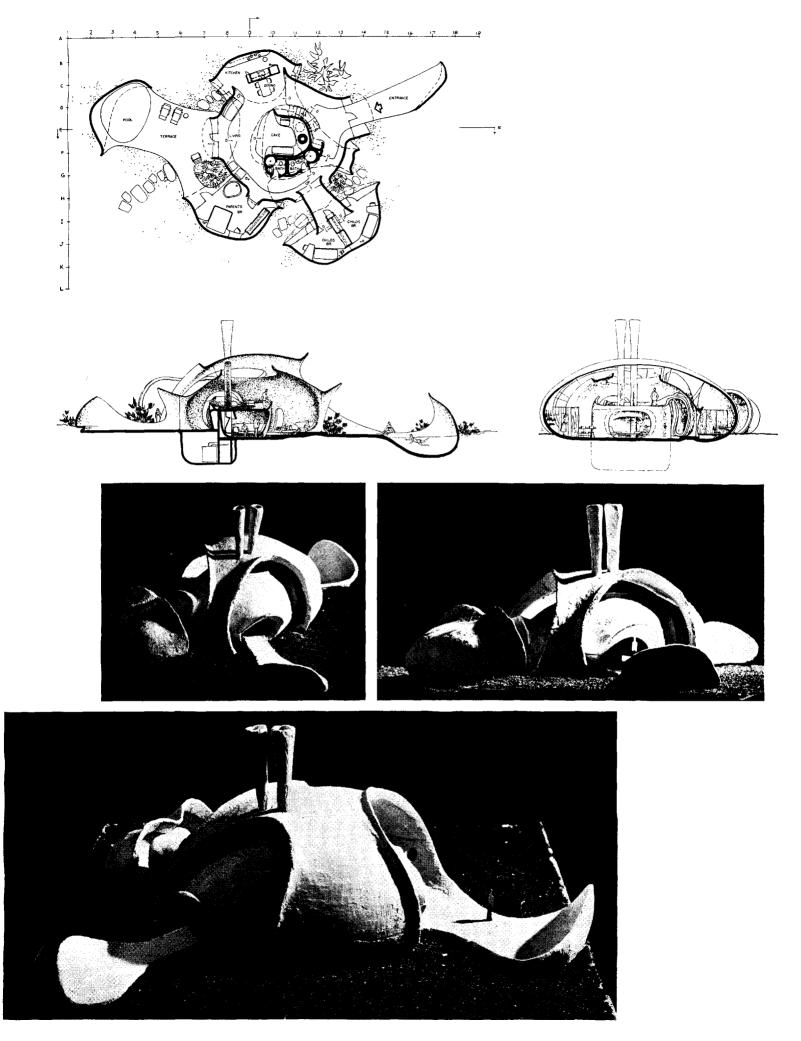




## PLASTIC PROPOSALS BY JOHN JOHANSEN

While recognizing the significance of the plastic forms that Architect John MacL. Johansen has developed for the church and house shown on these pages, the Jury for this year's P/A Design Awards Program withheld Citations, frankly expressing concern as to where this sculptural approach to design might lead in less talented hands. Nonetheless, they felt the proposals to be of such exceptional news interest that they requested the Editors to report on them in this issue. The church design is for St. Mark's Lutheran Church, Norwich, Connecticut; and the house is to be the home of the architect and his family in Weston, Connecticut. In both cases, construction consists of spraying gunite on an armature of steel members—pipe, reinforcing rods, and wire mesh. In the church, the design is developed in a series of simple parabolic concrete shells, with the edges rolled for greater rigidity. For the house, all shells are compound curves, and the earth is modeled according to the undulations of the floor slab.

Commenting on the theory behind the house design, the Architect says: "A new freedom of form is made possible by a more complete use of the technique of air-placed concrete. . . . Simple and compound curves are stronger and become characteristic forms. . . Although this design might be called 'sculpture big enough to live in,' functional requirements should and do determine form. . . . Design may be direct (as in sculpture) with the Architect designing on the site. Form and structure are continuous. . . . This design brings a revival of primitive experiences, such as the cave, nest, natural topography, tunnel, etc., and the mystery of form and light."

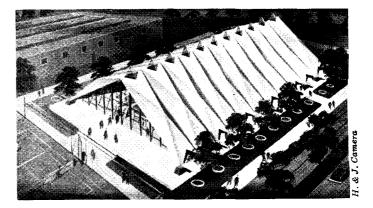


# p/a news bulletins

• Building to house indoor training pool for U. S. Coast Guard Base at Alameda, Calif., has been designed by Office of Ernest J. Kump, Architect. Structure (right) will be of precast reinforced concrete prismatic panels, 3" thick, with welded connections, metal sash glazing. Site will be over 14 ft hydraulic fill on stable mud base, necessitating special foundation design to insure stability. Box girder construction will float in fluid earth base. Pool will be 7-lane, 25-meters—locker and dressing room facilities, offices will be accommodated.

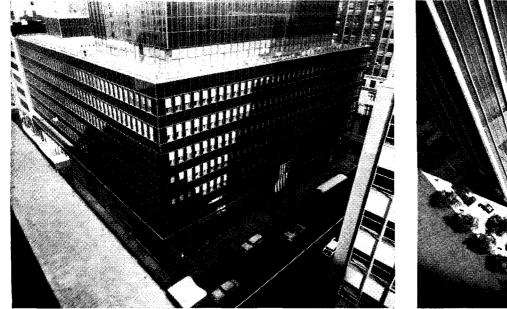
• 1758 National Gold Medal Exhibition, to be held Mar. 21-Apr. 11, has been announced by The Architectural League of New York. Works must be in architecture or allied arts, must be submitted by U.S. citizens. Preliminary submission of not more than 10 unmounted photographs should be sent to The Architectural League of New York, 115 E. 40 St., New York 16, N. Y., not later than Jan. 15, 1958.

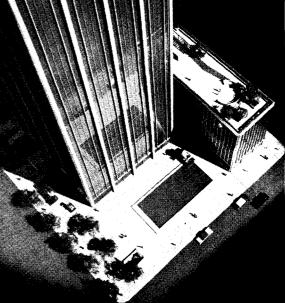
• Recently completed 8-story office building (below), New York, for C.I.T. Financial Corp., features use of polished black granite facing set in grid of stainless steel. Second story is indented for planting of shrubs outside glassed-in floor space; roof terrace garden is also planted. Included features of structure are 228-seat auditorium, dining rooms, meeting rooms. Construction elements of note are heatabsorbent, glare-reducing glass, year-round air conditioning, flush lighting, portable office partitions. Architects Harrison & Abramovitz designed the structure; Interior Designer: Eleanor Le Maire; Structural Engineers: Edwards & Hjorth; Mechanical Engineers: Jaros, Baum & Bolles; Electrical Engineer: Edward E. Ashley.



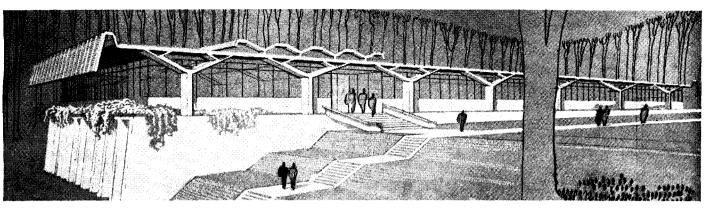
• Michael Rapuano, Landscape Architect, partner in firm of Clarke & Rapuano, has been elected president of American Academy in Rome, succeeding James Kellum Smith, who was named honorary president... New Director of Design Workshop of Harvard College is Miroko Basaldella, Italian sculptor. Workshop, conducted by Department of Architectural Sciences, gives undergraduate courses in drawing, design fundamentals... William A. Doebele, Jr., zoning analyst and lawyer, will assume duties Feb. I as Assistant Research Professor of Urban Studies at Center for Urban Studies, Harvard Graduate School of Design.

• Design for 47-story Time & Life Building, newest structure for Rockefeller Center, New York, has been announced. Architects Harrison & Abramovitz & Harris have planned two main elements: central tower rising directly from a plaza, and seven-story L-shaped base structure on tower's north, west sides. Tower façade will have exterior structural columns to give verticality; columns will be faced with limestone. Features of building are exterior fins for air-conditioning system, smooth surface of windows, glass spandrels set in light aluminum grid, elimination of interior piers. Base will have vertical aluminum ribbing. Landscaped plaza (below), 170 ft long, 83 ft wide, fronts the building; promenade extends on south side—roof of base is also landscaped. Engineers for project are Syska & Hennessy, Inc., Edwards & Hjorth.









• Construction on new School of Forestry laboratory at Yale University will begin in January. Designed by Paul Rudolph, Chairman, Yale Department of Architecture, building (above) will be known as William B. Greeley Memorial Laboratory. Structure will be 100'x164', will contain laboratories for study of wood technology, forest ecology and genetics, tree physiology. Greenhouse will adjoin building. Special features such as humidity rooms, constant temperature and light rooms, will be included. Building, to cost \$575,000, will be completed fall, 1958.

• Applications for 1958 Arnold W. Brunner Scholarship are now being received by The Architectural League of New York. Any citizen of U.S. is eligible to apply for maximum award of \$2500. Applicants must submit clear outline of project, study, they are qualified to undertake in field of Architecture or related fields such as City Planning, Crafts, Decoration, Design, Engineering, Landscape Planning, Photography, etc. Application blanks available from The Committee on Scholarships and Special Awards, The Architectural League, 115 E. 40 St., New York 16, N. Y. Outlines must be postmarked by Feb. 15---winner will be announced about Mar. 15, 1958.

• House & Garden's 1957 Architectural Awards competition winners have been announced. Two classifications of competition were: houses with areas under 1800 sq ft, those with unlimited areas. Four of five cash prizes were won by Paul Hayden Kirk, Seattle, Wash., for entries in both categories; fifth prize, for house under 1800 sq ft, was awarded to Whitney Smith and Wayne Williams, Los Angeles, Calif. Jury members included Pietro Belluschi, Dean, School of Architecture and Planning, MIT; William W. Wurster, Dean, School of Architecture, University of California; Minoru Yamasaki, Detroit, Mich.; Arthur H. Keyes, Jr., Washington, D. C.; Carl Koch, Cambridge, Mass.

• New United Engineering Center will appear on United Nations Plaza, New York, late in 1960. Building, to cost \$10 millions, will replace old Engineering Societies Building as headquarters for sixteen National Engineering Societies, will house Engineering Societies Library, and will provide space for exhibitions of scientific advancements. Twentystory tower (right) will have lower structures, landscaped grounds. Architects for the project are Shreve, Lamb & Harmon Associates. Mechanical Engineers are Jaros, Baum & Bolles; Structural Engineers will be Seelye, Stevenson, Value & Knecht. • Church Architectural Guild of America and Department of Church Building of National Council of the Churches of Christ in America will sponsor conference and exhibition of church architecture in Detroit, Mich., Feb. 18-20. Exhibits, invited from registered architects, must show buildings of any faith in U. S., territories, or possessions, completed or planned since 1953. Entry blanks from: Donald L. Bostwick, Vice-Chairman, Architectural Exhibit Committee, 312 N. Main St., Niles, Ohio.

• College of Architecture and Design, University of Michigan, announces establishment of Perkins & Will Graduate Fellowship in Architecture—\$1500 for academic year of 1958-1959. Recipient will be named on basis of ability, promise, in architectural design. Information from Dean, College of Architecture and Design, University of Michigan, Ann Arbor, Mich.

• Despite seasonal lulls in construction industry, general expenditures have risen, with over-all 1957 output estimated at \$47 billions. November totals for public, private construction reached new highs for that month.

• Among January conventions, meetings of interest to architects, engineers are: National Association of Home Builders, Jan. 19-23, Chicago, III.; National Ornamental Iron Manufacturers, Jan. 23-25, Memphis, Tenn.



# Washington report

#### by Frederick Gutheim



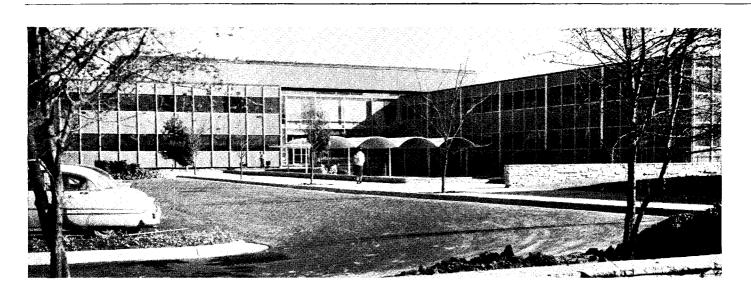
The Washington classified telephone directory lists sixteen solid columns of names under the heading "Associations." They start with American Automobile Association and end with Zionist Organization. In between you find Associated General Contractors of

America, Democratic National Committee, Fleet Reserve Association, National Right to Work Committee, Rubber Manufacturers Association—nearly a thousand all together. The headquarters of a national association of some sort is a familiar structure in a Washington street, as characteristic as a government building, or an embassy. Like its cousin, the labor union headquarters, it is of recent growth. Now it is booming. The Washington Board of Trade expects to attract still more association headquarters here. Big and little, they arrive every month.

Like the most recent arrival, the American Institute of Planners, they generally move into rented office space. Then the move may be to the greater individuality of some existing building, rented or bought, frequently one of Washington's former mansions. If expansion continues and an ambitious direction takes hold of the association, a new building is the result, one that gives the association an appropriate stature and dignity as part of the national capital.

What an association seems to want, if we can judge by recent examples, is not a building close to the seat of power and decision, like Dave Beck's Teamsters Union or the new headquarters building of American Federation of Labor, across the park from the White House. Rather it is an institutional atmosphere that is created by other institutions rather than by the government. Such a position was pegged down in the Scott Circle area by the location of Carnegie Institution and National Geographic Society. Today that is probably the institutional center of the city, although associations can be found in nearly every part of the city. A recent suggestion was for the establishment of a special zone for association headquarters and institutions in this section, immediately north of the central business district.

In this area one finds the most interesting new buildings of this type. The American Association for the Advancement of Science, designed by Faulkner, Kingsbury & Stenhouse, achieves an appropriately technological character by the use of exterior vertical louvres, but does not seem to me a wholly successful effort. It is difficult to forget the earlier and far larger building which Walter Gropius and The Architects Collaborative had proposed for this site, in comparison with which the present structure looks rather dumpy and inconsequential. Perhaps it will grow! Around the



#### Monsanto at Home on New Campus

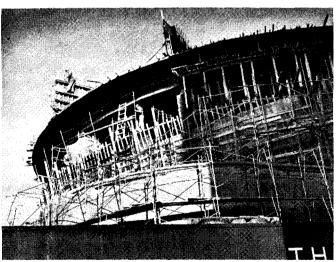
This new office center, designed to consolidate the executive administration, staff departments, and St. Louis-based divisions of the Monsanto Chemical Corporation, was recently opened in St. Louis County, Missouri. The buildings —three identical office buildings, one executive building, and a utility building—are distributed on the 252-acre site in the manner of a campus. The total complex will accommodate 1500 persons. Parking facilities have been provided directly adjacent to all of the buildings. A ring road as well as an underground tunnel interconnect the structures. The three principal buildings, which will provide the greater part of the office space, consist of two office wings joined by a service core. Their walls are of porcelainized steel sandwich panels filled with foamglass insulation. Window panels have interlayers of tinted plastic. These buildings, which already in their early design stages found recognition by the P/A Awards Jury in January 1956, are to be shown fully and in their completed state in a forthcoming issue of P/A. Vincent G. Kling was Architect. The Shaw-Walker Company participated in the planning of office spaces. corner, the same architects are rebuilding the headquarters of American Chemical Society, this time using horizontal exterior louvres, and this building is both larger and more promising.

Immediately north of the chemists the National Education Association is well along in the completion of its new building, designed by Joseph Saunders & Associates. A mildly spectacular curtain wall structure, this job was characterized by one of those difficult phasing operations where the client's organization occupied a smaller building on the site, then moved to a portion of the new building, and finally expanded into the finished new structure. This shifting about provided an immediate demonstration of the value of the building's high-flexibility layout, one feature of which is a new type of low-brightness lighting system. The building's facilities include a basement auditorium for 700, and an additional meeting room for 200 persons, plus a cafeteria. NEA's initial problem was whether to keep the existing 7-story building and flank it with two new 8story structures, or to scrap the substantial older building. The latter course was followed. So rapid had expansion been since this initial decision five years ago that an additional 8-story service building is now in prospect. One major need to be satisfied in the proposed building is parking.

A block away is the headquarters of B'nai B'rith, completed last month, and designed by Corning & Moore. In addition to the usual features of an association building, the projection of Jewish culture through paintings, sculpture, historical exhibits, and a library, is an organizational objective that became a design characteristic in the building. The result is a building in which a relatively rich and busy public area, largely on the ground floor, contrasts sharply with the efficiency proclaimed by its curtain wall and modular design.

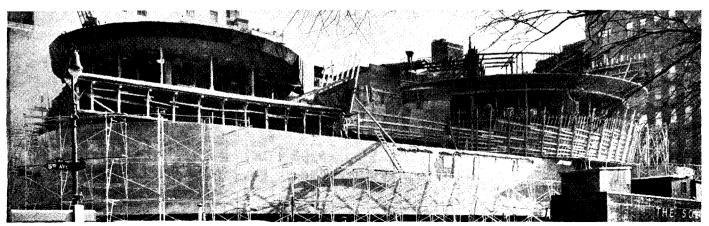
The same architects have been commissioned to design a new national headquarters for American Association of University Women. The location selected is the rapidly changing Virginia Avenue district immediately north of the Lincoln Memorial and adjoining the city's major new traffic facility, the Inner Loop. The promoters of this area aspire to a development in which apartment houses will be augmented by medical offices, a luxury hotel, and more national organizations of the calibre of AAUW.

The characteristics of an association building are office space plus such services as meeting rooms, parking space, institutional eating arrangements, offices services, and sometimes laboratories. Membership facilities along club lines are frequently provided. Less often a public education opportunity is exploited. The architecture of national associations, like their organization, is in a developmental period. It responds to growth, change, and the increasing recognition of the importance of relations—government relations, membership and local organization relations, public relations. The headquarters building is an unmistakable evidence of organizational identification and maturity.



#### "The Guggenheim" Progresses

Frank Lloyd Wright's first building in New York City, the Solomon R. Guggenheim Museum, is presently taking shape. Works of art will be displayed along a ramp spiraling upward with gradually increasing radius from the main gallery at ground level. The interior will be lighted by a huge glass dome at the top of the sixth turn. Sloping exterior walls of the ramp will receive additional natural as well as artificial light from a skylight and continuous lighting fixture directly overhead. A large lecture room in the basement of this wing will be daylighted through inverted arch openings in the concrete walls. The other circular structure, smaller in diameter and only four stories high, is to house administrative offices.



# p/a financial news

#### by William Hurd Hillyer



A New Year's token was handed to the building industry and allied professions by Richard J. Gray, president of AFL-CIO Building and Construction Trades Division. As an anti-inflationary effort, he proposed that a committee be appointed to formulate a voluntary mora-

torium on wage increases in all building and related industries. Meanwhile, he announced, his group would not press their demands for higher wages. Though frowned upon by Federation President George Meany and given a cool reception in certain Wall Street quarters, the proposal is a heartening indication of fact-facing on the part of the workers. They are beginning to realize that the wage spiral and spiraling inflation may have a close kinship. Among Government officials, Labor Secretary Mitchell is quoted as saying that the Gray plan merits "deliberation and consideration." He urges both labor and management "to produce more good houses at reasonable cost."

• The thirteen thousand cities represented by the American Municipal Association went on record at their San Francisco convention last month as seeking additional Federal aid for construction financing, with schools and housing well up on the agenda. Urban redevelopment, largely of industrial and business areas, was put forward as another wide-open outlet for Government funds.

To those who reasonably inquire, "Where is all this money coming from?" bond experts offer consolation. Long-term Treasury bonds staged a steady advance for three weeks and the profit-taking that halted their rise was in light volume. Coincidently the local authorities gave a good account of themselves despite their plea for Federal help. Municipal bond markets are labeled "steady to firm" by veteran viewers. Demand on "a huge scale" was stimulated by the Federal Reserve's action in lowering the rediscount rate, "Bond Buyer" averages reflecting a lowered yield improvement of 6 basic points.

• A record high construction outlay of \$47 billions for 1957, \$2 billions up from '56, is foreseen by the Commerce and Labor Department, following November's all-time top of \$4.1 billions. Both public and private construction are active —particularly that of public educational and private business buildings. Even work put in place on new dwelling units gathered increasing strength during a contra-seasonal rise. Well placed observers say that housing starts have touched bottom and predict a substantial recovery for 1958.

• Metals used in building continue their serial story of slackening demand and lessening production. Steel output is decreasing week by week, having slipped to 72% of capacity as we go to press; copper and aluminum show similarly feeble price patterns. Machine-tool orders—those traditional pointers of industrial activity—are scraping a 71/2year low. Such tendencies are bound to bring down building costs, if only to a limited degree.

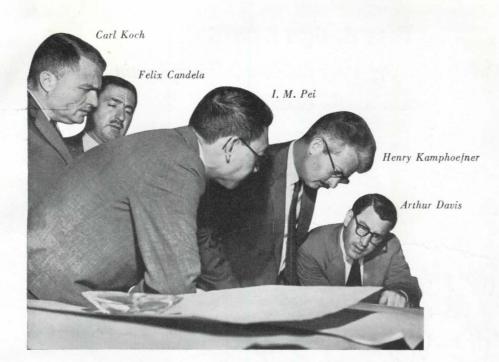
In the general economic scene, other negative factors are less reassuring. Among these, Guaranty Trust Company of New York lists unemployment, sensitive commodity prices together with declining freight-car loadings, bank loans, and department store sales. That financial institution believes these unfavorable factors had much to do with the Federal Reserve Board's easier money edict. However, the opinion is voiced—in which we join—that mere ease of borrowing cannot and will not in itself ward off or dissipate a depression; witness the Great Trough of 1930-35, a period of abnormally low interest rates. Another view shared by this page is expressed editorially in The American Banker, which holds that no way has yet been devised to avoid or neutralize business cycles.

• The multimillion-dollar office building boom seems to be "flattening out" say real estate pundits. Among these are George W. Warnecke, who recently visited the country's important centers. He reports a consensus of opinion to the effect that enough office space has been built "in uptown areas" for the time being. He cites an instance of a 20% cut in the price of a recently acquired office structure, because the seller took a look at potential buyer's depleted cash boxes. On the other hand, Warnecke is impressed by the fact that "apartment houses are doing comparatively well" nationwide. "Rising real estate taxes in newly developed areas have taught" that apartment living is becoming "cheaper than home ownership."

• Home improvements are on the upgrade, following P/A's prediction. That sector is expanding as fast as the relevant money markets permit. Its prospects are bright, likewise those for private building operations, particularly residential. As for financing, a partnership is in the making between the Federal Housing Administration and private lenders, whereby the Government will shoulder 20% of the lenders' risk. Interest rate increase on FHA mortgages is opposed by Senator Fulbright of the Senate Banking Committee.

Savings are meanwhile replenishing mortgage funds at the source. The advance in bank savings deposits for the first nine months of '57 was \$5.7 billions, of which \$600 millions was in September, reports Chairman Lundborg of the American Bankers Association's Committee on Savings and Mortgage Developments.

• The Federal Reserve Board in its recent Bulletin prints a table that floodlights the truth about "gross national product"—a statistic sometimes pridefully cited as expressing national prosperity, sometimes decried as a mere exponent of inflation. The Federal Reserve's diagram discloses a median view. Taking 1951 as a \$320 billions common springboard, the "current dollars" of G. N. P. have soared to \$440 billions, while the rise is to \$390 billions in the dollars of seven years ago. The actual adjusted annual total has risen \$70 billions during that period.



# p/a fifth annual design awards program

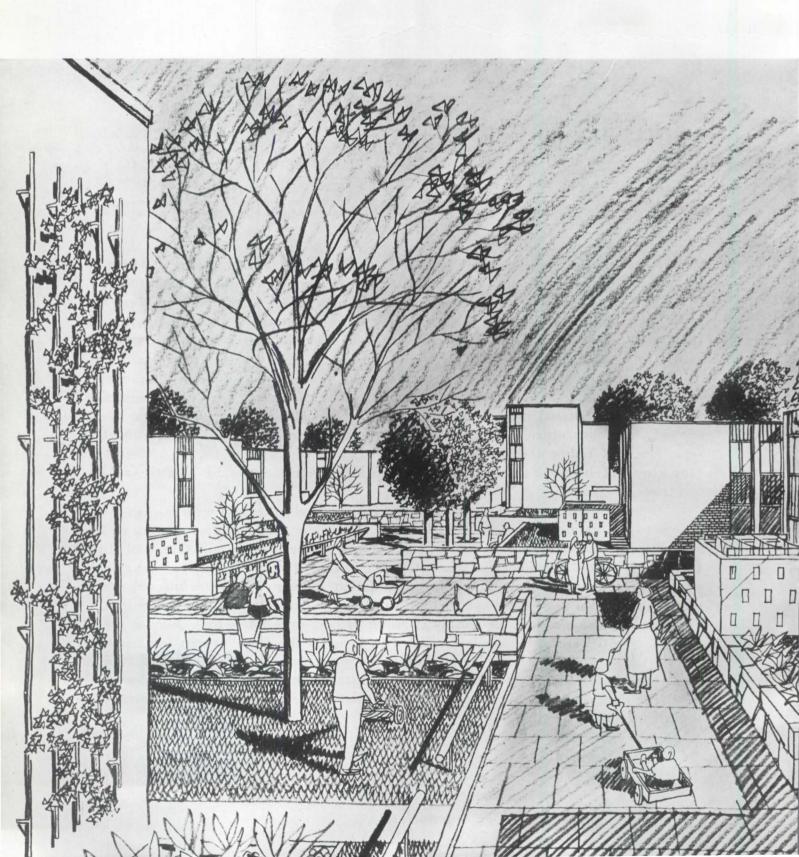
The projects chosen for honors in the 1958 PROGRESSIVE ARCHITECTURE Design Awards Program are illustrated in this issue. P/A's Awards Program is unique in several ways. Since it is for work in the design stage, it differs from the national and local Awards given for completed buildings. And it is very different from the usual competition for which theoretical designs are specially devised, since these are all actual commissions, for specific clients, on real sites. It is a cross-section of work in progress.

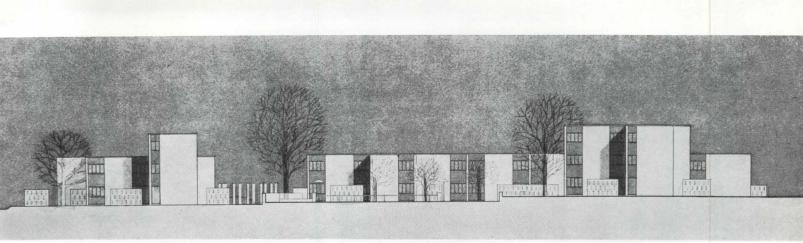
Through the history of the Program, we have been most fortunate in the caliber of Jurors who have agreed to make the selections, and this year was no exception. Henry Kamphoefner, Dean of School of Design, North Carolina State College, was elected Chairman; other members (*pictured above*), were Felix Candela, Architect, from Mexico; Arthur Davis, of the New Orleans firm of Curtis & Davis, Architects (top winners last year); Carl Koch, Cambridge, Mass., Architect; and I. M. Pei, Architect from New York.

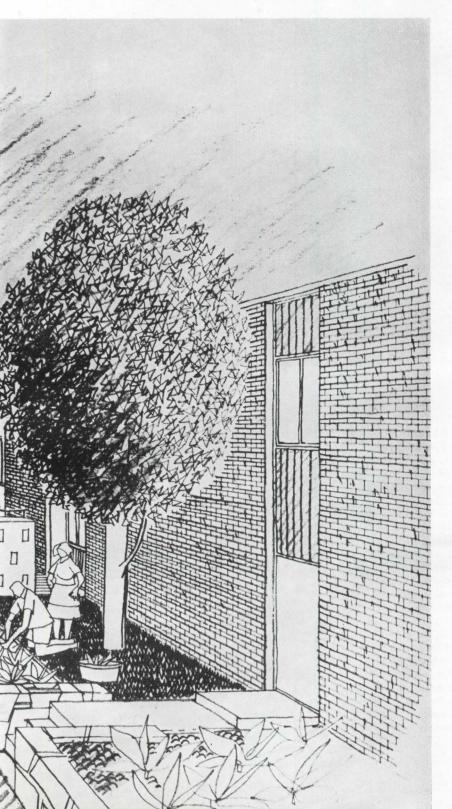
As in the past several years, interesting forms caught the Jury's fancy, but not always to the extent of winning top honors; the reader will see that simple, well articulated statements vie with more plastic solutions for Awards and Citations. In fact, one criterion remains clear year after year as these thoughtful Juries work: the simple, direct plan, the clear and forceful design statement, the uncluttered and uncomplicated solution will come forward through the examinations and discussions. The involved, picturesque, or simply startling project may cause long Jury discussions, but in the end it is usually discarded in favor of the direct search for beauty and the directly effective handling of space, with something like a sigh of relief. Certainly the First Design Award, which follows, illustrates this fact; in site arrangement as well as design of units, it is beautifully articulated design rather than any sort of *tour de force*.

# first design award

Public Housing Project, Chester, Pennsylvania Geddes-Brecher-Qualls, Architects





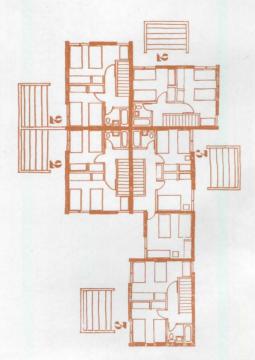


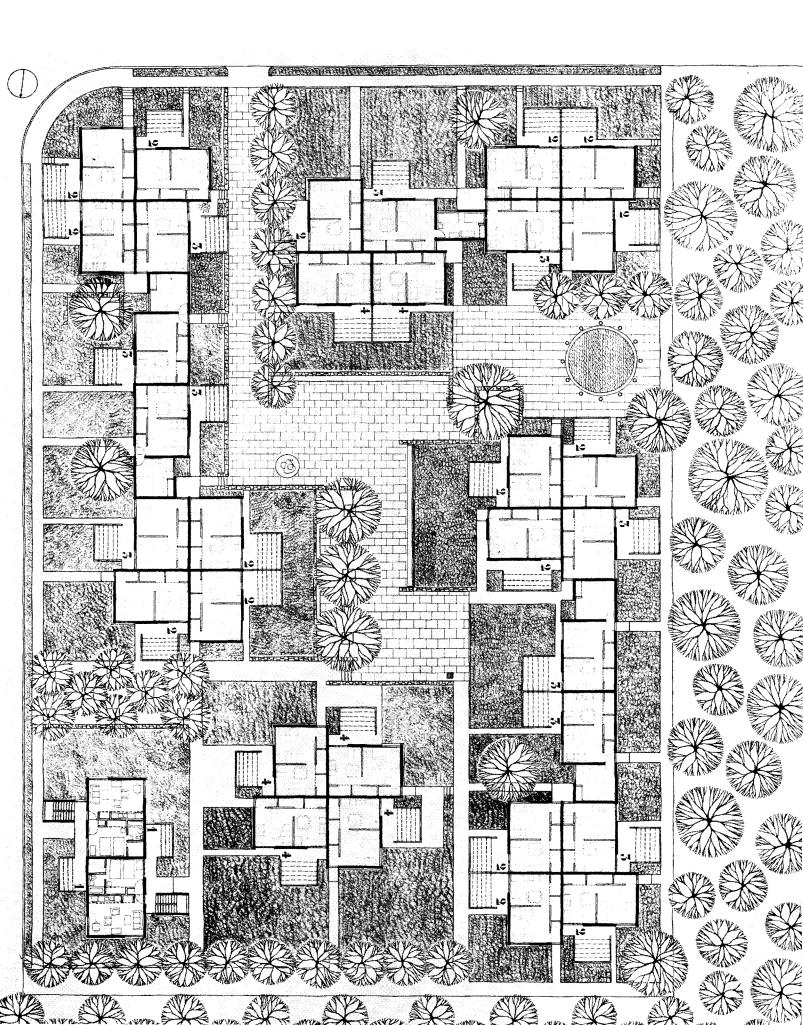
Speaking as Chairman of the Awards Jury in 1955, Walter Gropius said: "The true medium of architecture-beyond all technicalities-is space. The imaginative handling of space signifies the artistic qualities of a designer." Dr. Gropius' words have not gone unnoticed, judging by 1958 entries. This was especially true of the field of multi-residential work. According to the current year's distinguished Jury, submissions in this category stood far above the others in design quality. They are typified by this housing project, awarded top honors. "The main design effort," write the winning architects, "has been concentrated upon the spaces enclosed by the buildings rather than upon the structures themselves." Dwellings are principally duplex units designed to conform to the standards of the Public Housing Authority and to encourage a policy of individual tenant maintenance of adjacent plots. "The desire to create a feeling of individuality within the project," continue Geddes-Brecher-Qualls, "led to the choice of a quadrifoliate plan for the typical dwelling unit. There is no 'front' or 'back,' although each dwelling has a separate service entrance and front door." A lively and notable example of planning has been achieved with the simplest devices. These include low garden retaining walls, variety in paved and green areas, and undulating building pattern defining outdoor spaces for different uses, variety in building height and texture, enclosure walls for service courts (often forgotten in the design and left as an unsightly prospect). The architects attribute much of the credit of the plan's success to the encouragement of the members of the Authority who, dissatisfied with standard housing design, gave the firm a mandate to search for new solutions. The result has significance, we feel, in a human, as well as an architectural sense.

#### residential: First Design Award



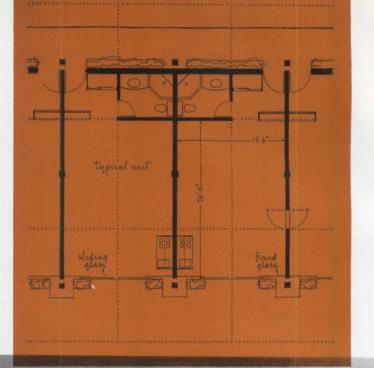
Public Housing Project for Delaware County Housing Authority (Irving B. Jackson, Executive Director; Dewey Hancock, Chairman; Blanche Browning, Howard Kinder, Gilbert Bunner, Rocco Odorisio), Darby Township, Delaware County, Pennsylvania: Robert L. Geddes, Melvin Brecher, George W. Qualls, Architects; Edward Maurer, Landscape Consultant; Jack P. Hartmann, Mechanical Consultant; Dorfman & Bloom, Structural Consultants. The 11/2-acre site adjoining a Township park to the west and an existing housing project to the east will receive a total of 36 dwelling units at a ground coverage of 25%. Of the 36 units, 4 are to be one-bedroom flats; 16 will be two-bedroom duplex units; 10 will each have three bedrooms in two-story buildings, in which the third bedroom forms the link with the adjoining building. Six are to be four-bedroom units on three floors (third floor, not shown in plan, will have two bedrooms plus storage space). Brick, wood siding, wood trim, and horizontal sliding sash are to be the major building materials. Wood joists and studs will provide the framing for interior partitions, with asphalt tile and plaster as interior finishes. Parking requirements will be met by bays which open off the public streets to south and east of the project. The plan includes two service drives for trash collection and project maintenance. Varying activity courts are provided for different age groups living within the community.

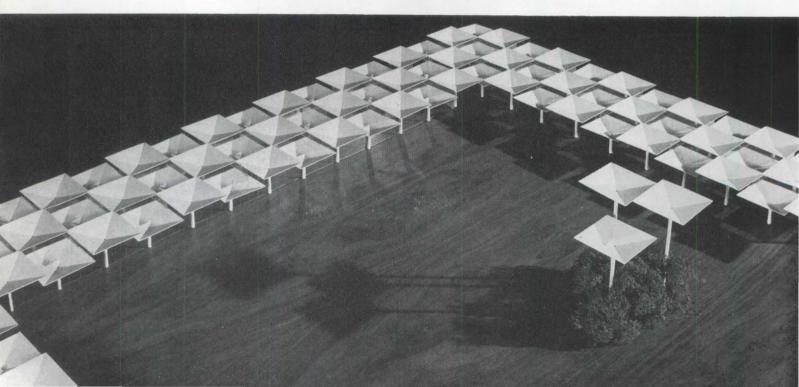


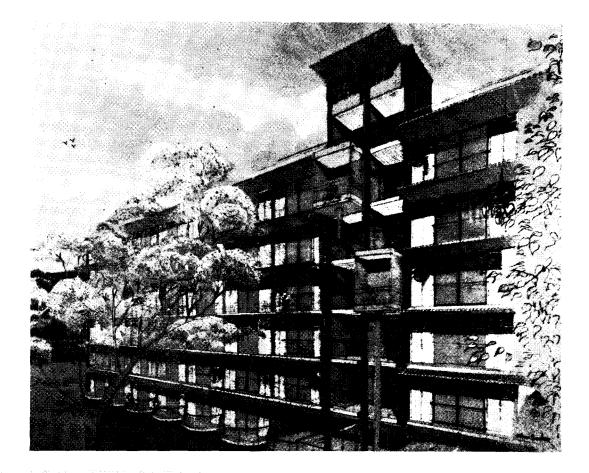


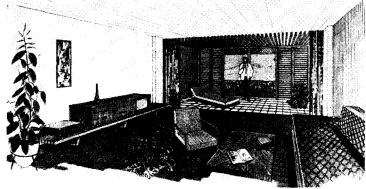
### residential: Award Citations

Warm Mineral Springs Inn for Warm Mineral Springs, Inc., Venice, Florida: Victor A. Lundy, Architect. To be built on heavily traveled Tamiami Trail, at the main turn-off to the healthgiving springs, this motel was designed to "stop traffic," invite tourists in, and-with the adoption of a structural system consisting of a series of precast 14'-5"-square, concrete, hyperbolic paraboloids in two heights-to symbolize the "Fountain of Youth." Since the supporting precast, prestressed columns occur in the soundproof partitions between units, different ceiling levels result, defining use areas, with lower surfaces over sleeping and dining areas, higher planes above the living space. Plastic clerestory panels occur between rims of the higher and lower shells. Exterior walls are of glass or charcoal-toned precast-concrete units. One Juror questioned whether use of the paraboloids at small scale would be economical; Candela felt they would be satisfactory if precast-as they will be.

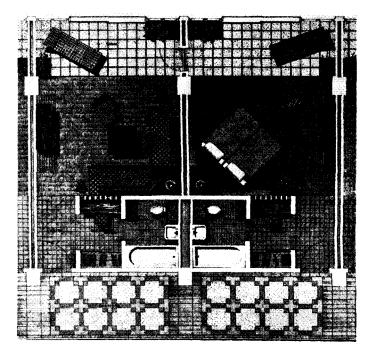




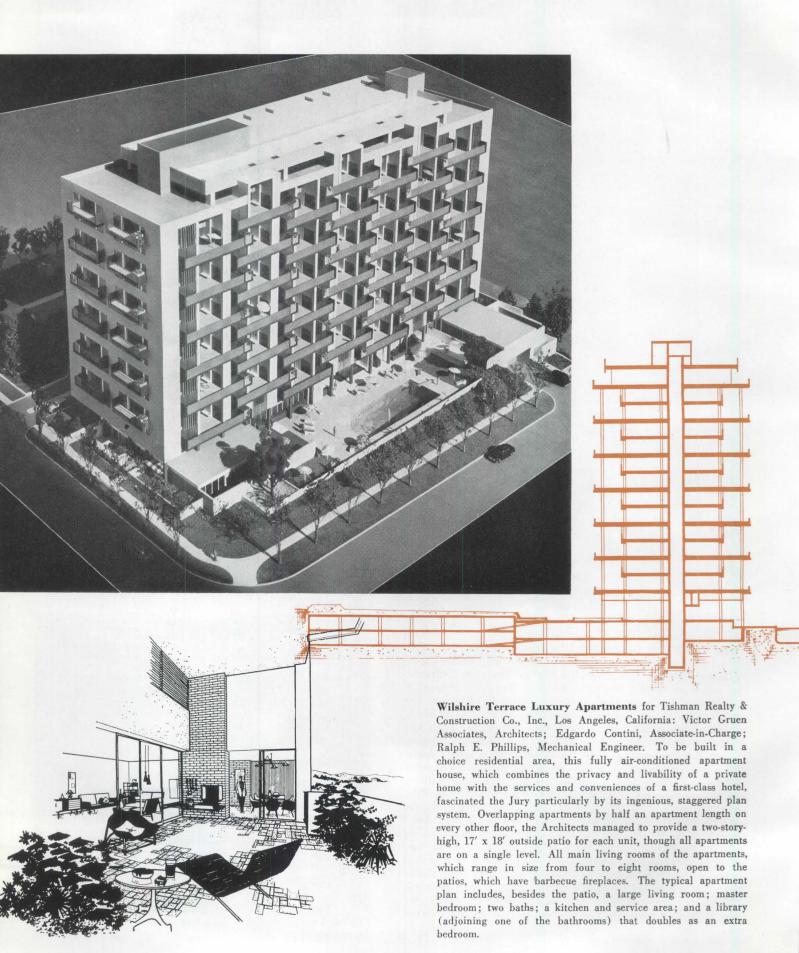


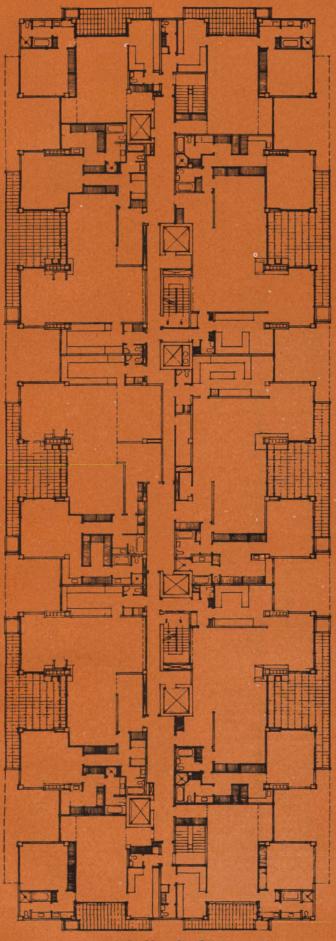


Rickey's Multistory Garden Hotel for John Rickey, Palo Alto, California: The Office of Ernest J. Kump, Architects; Douglas Baylis, Landscape Architect; Hall, Pregnoff & Matheu, Structural Engineers; Clarence Rinne, Project Engineer; Smith & Garthorne, Mechanical and Electrical Engineers; Kosta Belotelkin, Mechanical Engineer. The need here was for an addition of about 60 rental units to the highly successful Rickey's Studio Inn (SEPTEMBER 1954 P/A), which had grown from an original 52 units, in 1954, to 143, in 1957-all organized in semi-rustic, redwood, one-story buildings disposed around lawns, garden courts, and pools. To provide the desired number of new suites on limited remaining land, a multistory, reinforced-concrete building with 11 rooms on each of the upper 5 floors, and 9 on the first floor, proved the solution. Trellis-screened, single-loaded corridors on the northeast serve the southwest-facing suites. Glazing and redwood brisesoleils occur on the building line, bordering lounging balconies; an inner curtain may be drawn between balcony and bedroom. To cope with a local height-limit regulation, the hotel is sited in a sunken garden and pool; entrance is by means of footbridges. To maintain some of the texture and color of the existing group, corridor walls will be lined with redwood boards and battens; exposed concrete end walls, to be cast with batten-lined forms, will be painted redwood color. Outdoor hydraulic elevators, with metal-and-glass-enclosed cabs, will offer guests a diverting method of traveling vertically.

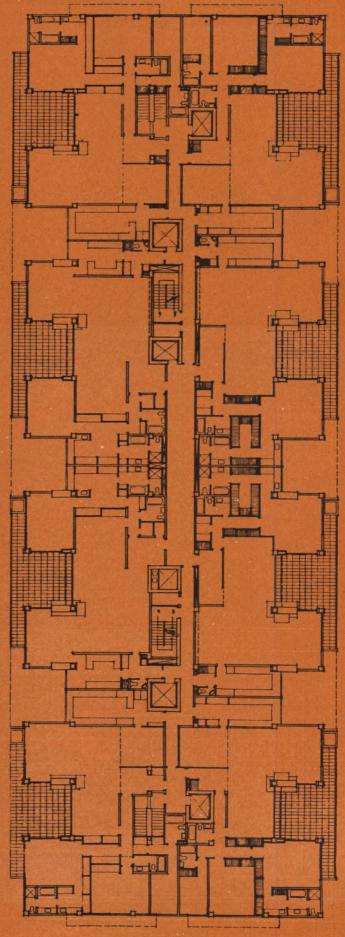


## residential: Award Citation





typical odd-number floor

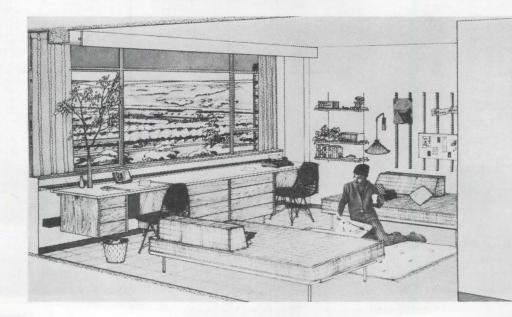


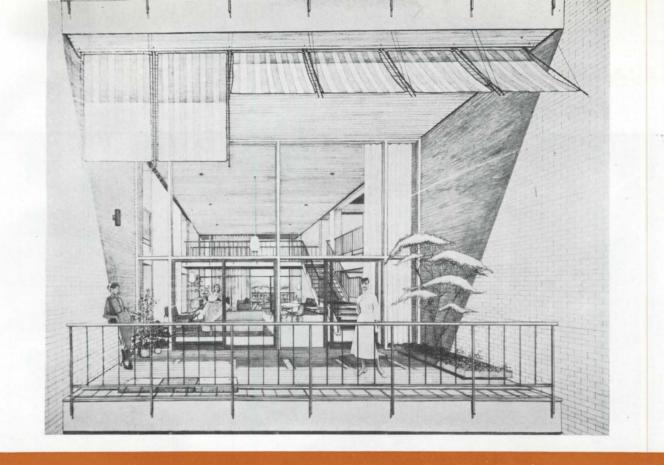
typical even-number floor

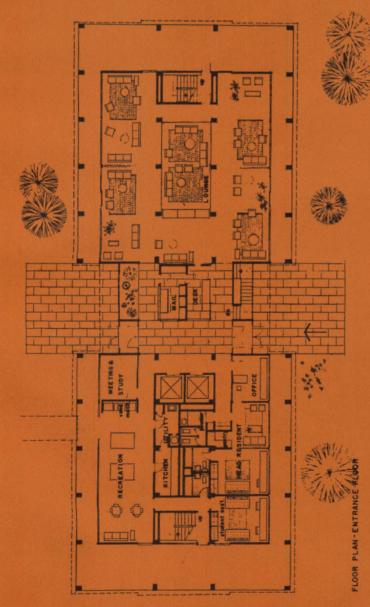
#### residential: Award Citation

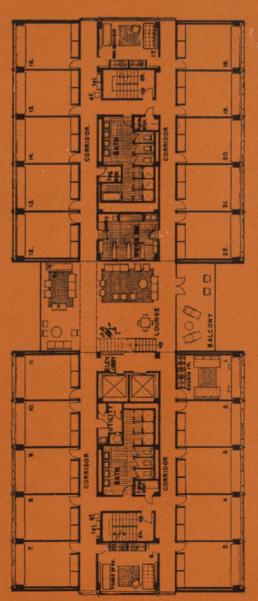


Women's Dormitories for the University of Missouri, Columbia, Missouri: Hellmuth, Obata & Kassabaum, Inc., Architects; Hideo Sasaki & Associates, Landscape Architects; John P. Nix, Structural Engineer; John D. Falvey, Mechanical Engineer. Two apparently conflicting factors are here neatly resolved. The University preferred small "houses" of about 80 students, each with its own name, officers, social program, etc. But it was necessary to house a large number of students in a fairly small space, on a limited budget. The solution consists of three 9-story buildings (plus central cafeteria) with the tall buildings composed of four, two-story "houses," each with its own two-storyhigh, balconied lounge, stacked one on the other, plus-on the ground floor-such common-use facilities as social hall, meeting room, snack bar, mail desk, etc. Thus, the two-story units, with 44 double bedrooms to the unit, maintain their identity, while certain building services are shared. The individual room is arranged so that each girl has one side of the room to herself.

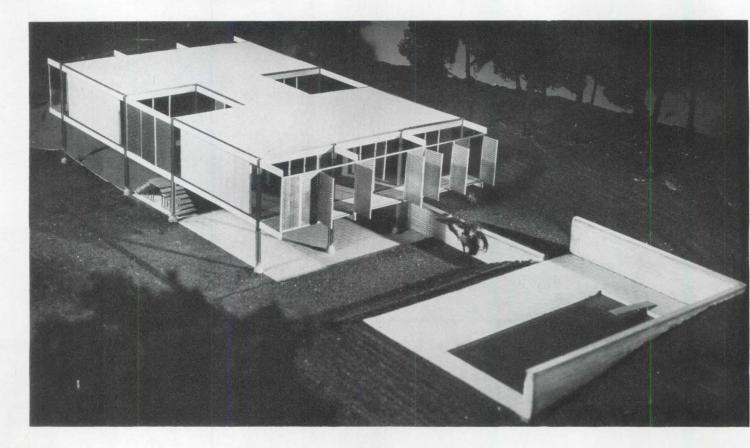




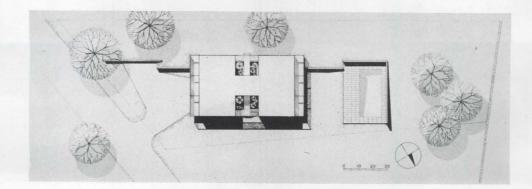


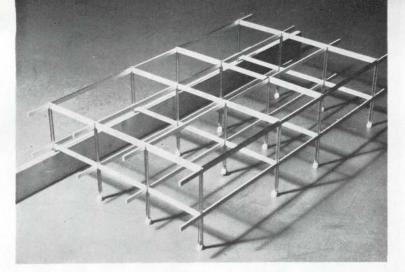


#### residential: Award Citation



House, West Orange, New Jersey: Davis, Brody & Wisniewski, Architects; Wiesenfeld, Hayward & Leon, Structural Engineers. Conditioning factors in the design of this suburban house were that the lot is narrow and deep; there is a view of New York to the east (street side) of the house; the lot slopes down abruptly from south to north. Solution was to divide the house into upper and lower levels, with a brick retaining wall extending the entire length of the bank on the uphill side. The entrance, reached from the carport and upstairs, is between open, planted wells. The living space consists of two distinct areas, either side of this entry-one (facing the view) with family, living, dining, and kitchen space; the other, comprised of bedrooms and baths. To provide as much enclosure or openness as desired, pivoted, gold-anodized aluminum grills occur at the edge of decks outside the window walls at either end of the house.

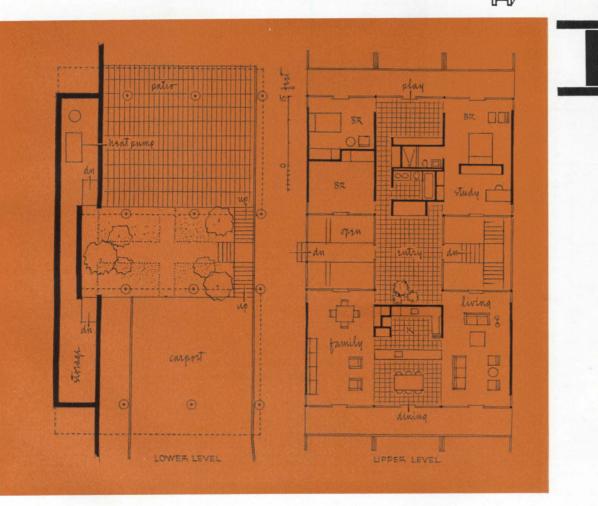




1/4" Plate Glass

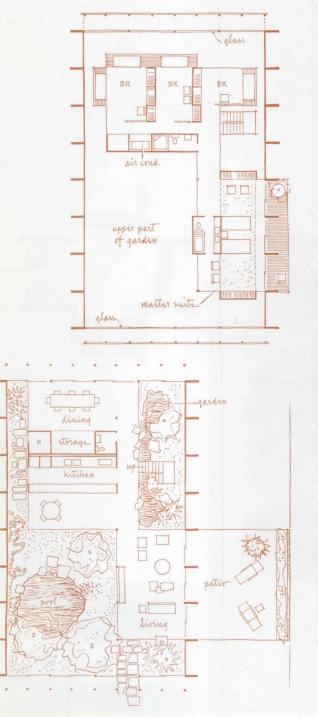
2" x 12" tube

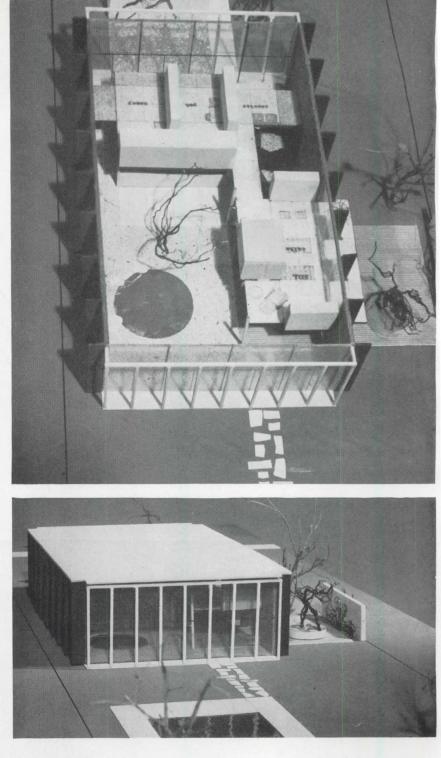
Structurally, the house will consist of a space frame and prefabricated special deck for floors and ceilings. Cross columns are to be made of four 2" x 2" x  $\frac{1}{4}$ " steel angles, with the angles spaced 2" apart. Beams to be placed between the angle columns will be built-up tubes of two  $\frac{1}{2}$ " steel plates with continuous 1" x  $\frac{11}{2}$ " bar separators. Pedestals above grade for columns are to be polished-terrazzo ellipsoids. Wood deck is to consist of alternating 2" x 6"'s and 2" x 4"'s glued, with holes drilled through for assembly on the job. Above this, there will be 2" x 3" sleepers, 12" o. c., and plywood sheathing—providing a plenum for the warm-air floor. A heat pump will be the source of heat and cooling.



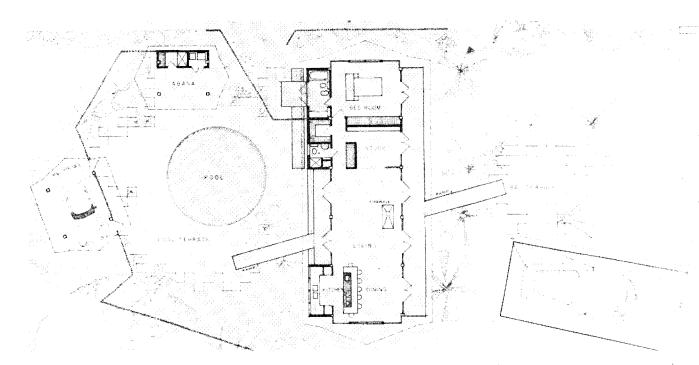
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### residential: Award Citations

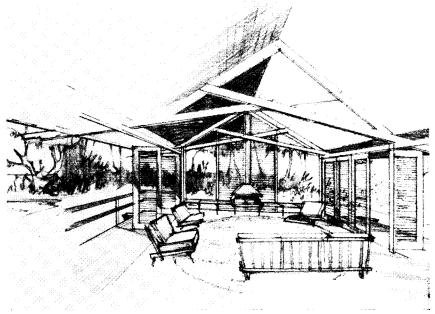




House, New Orleans, Louisiana: Lawrence & Saunders, Architects; George A. Saunders, Partner-in-Charge. In this wholly unconventional scheme, the living spaces and landscaping are intermingled within a high, fully air-conditioned enclosing structure. The ground floor, except for the kitchen, toilet, and storage space, is a single open area, with water, grass, shrubs, and trees used throughout. The upper level is subdivided by a system of movable storage units that define spaces and create privacy. Walls as such, other than those around baths and storage elements, are nonexistent. Thus, the plan may be rearranged readily to meet changing needs.

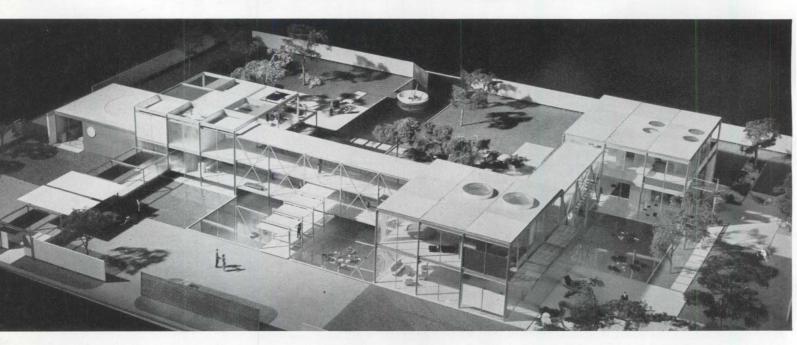


House, Palm Island, Miami Beach, Florida: Rufus Nims and Robert B. Browne, Architects; Edward M. Fearney; Jens Koch, Landscape Architect. This cluster of shelters, which the Architects refer to as a "tropical pavilion," is the home of a bachelor. The carport, cabana, and pavilion proper, joined by fencing, define the pool terrace, used for entertaining; Biscayne Bay adjoins the property on the opposite side of the house. Designed so that it might be moved at a later date, if the owner builds a larger house, the structural system consists of five truss frames spaced 12 ft apart and spanned between with 3-in and 4-in decking for roof and floor respectively. Lateral rigidity is obtained by moment transfer in the connections as well as by stiffening partitions on the pool side of the building.



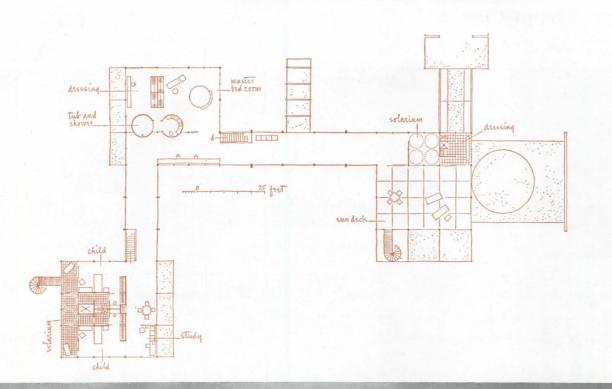


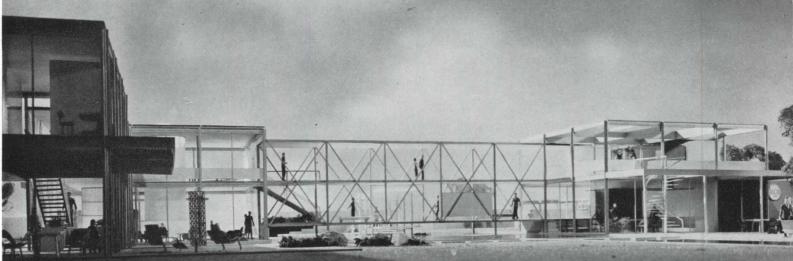
#### commerce: Design Award

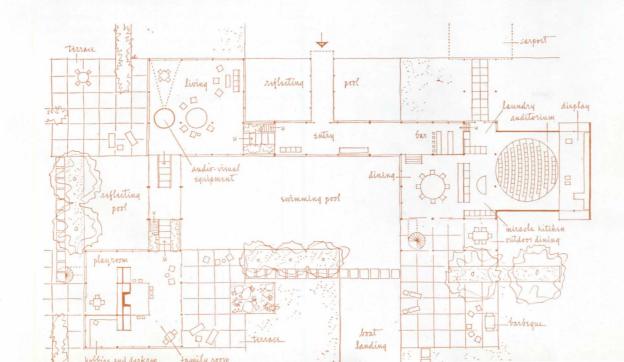


Exhibition House for Theme House, Inc., New York area, New York: Antonin Raymond & L. L. Rado, Architects; Paul Weidlinger, Structural Engineer. Designed as a display building for a limited number of manufacturers of products for the home, the scheme is developed in three identical structural components, joined by bridges and galleries and surrounded by pools and landscaped areas. Each of the three units focuses on a distinct area of a house-one, with family living and playroom downstairs and children's rooms above; the central unit, with formal living room on the ground floor and master bedroom suite upstairs; and the third, with dining, kitchen, and service rooms on the first floor and recreation area on the second. Purpose of separating the group into these components was to facilitate the flow of a large number of visitors. Attached to the diningkitchen pavilion is a small auditorium for demonstrations.

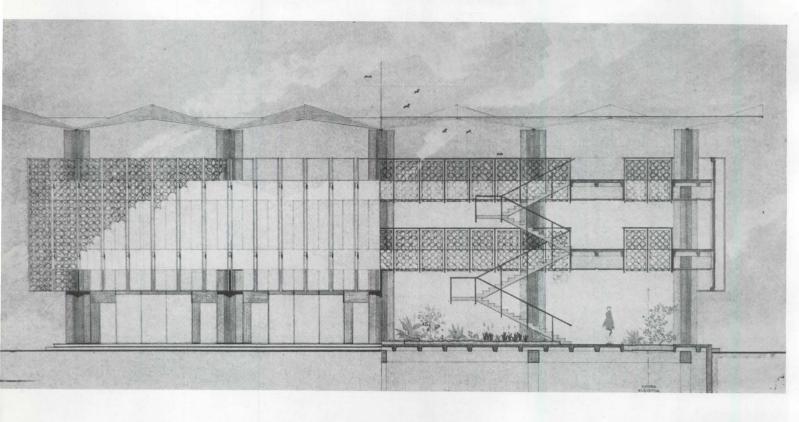


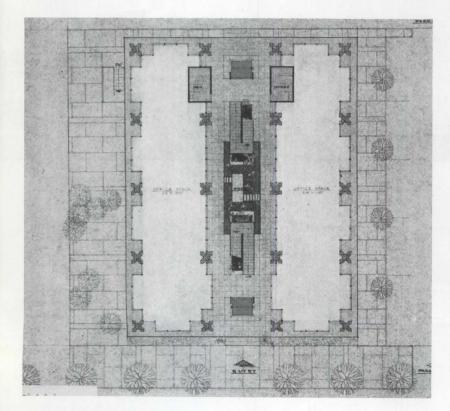




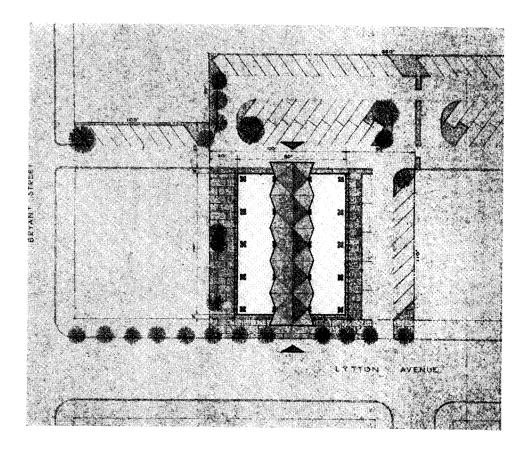


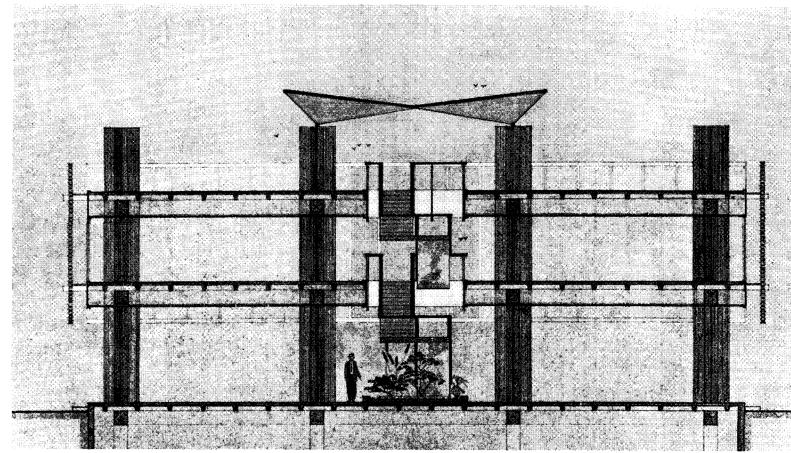
### commerce: Award Citation



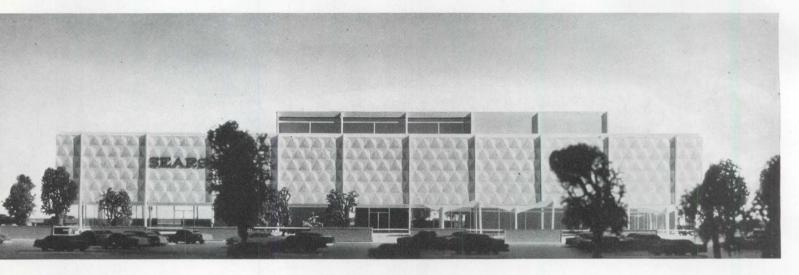


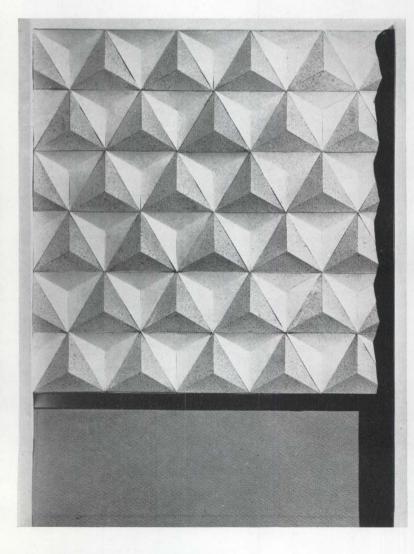
Lytton Square Office Building for Josephine M. Kump, Palo Alto, California: The Office of Ernest J. Kump, Architects; Walter L. Dickey and Perry E. West, Structural Engineers. In the design of this two-story office building (planned for addition of other floors at a later date) 24-ft-deep office areas are arranged at either side of a central, open, building-height elevator and stair lobby. which, among other amenities, includes planting bays and a pool. A rooftop canopy of lightweight steel members and translucent plastic provides bilateral lighting for the offices. The cruciform housings around structural columns carry utility lines to each bay on both floors. Exterior walls are of transparent glass, protected by a decorative pierced concrete screen hung 4 ft from the glass on cantilevered supports. Generous parking space adjoins. The Jury admired the building's humane quality, rare in today's office structures, which they felt would benefit all concerned. The combined drawing (top) is one-half side elevation; one-half, longitudinal section.



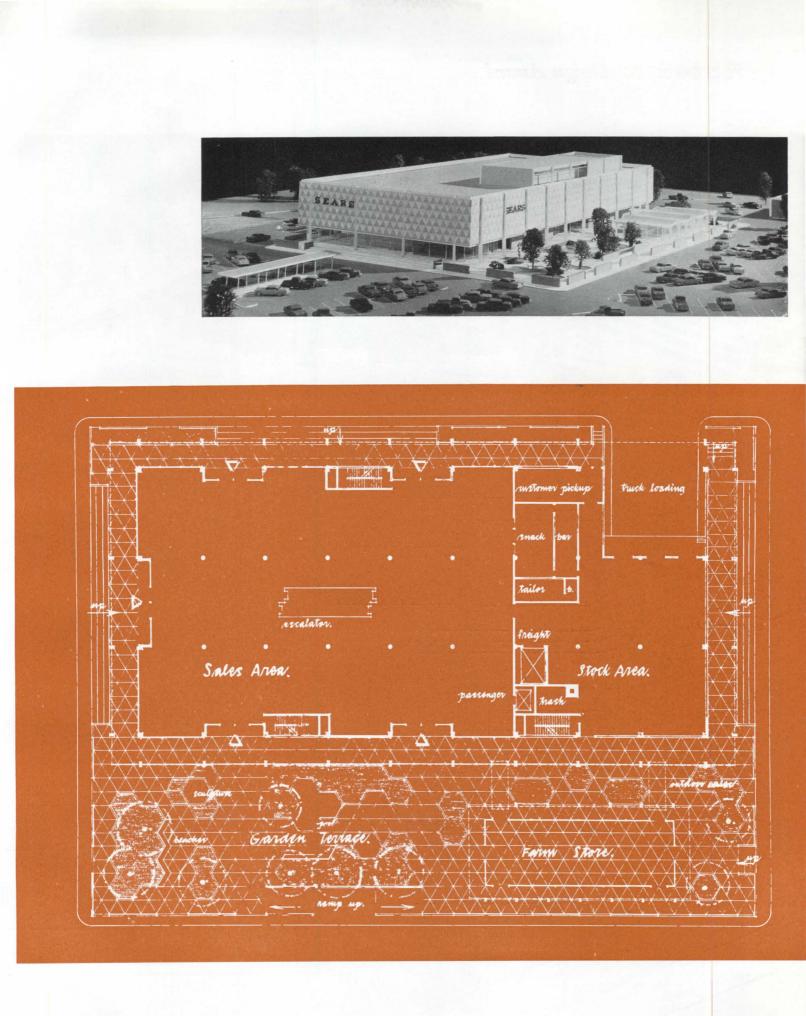


#### commerce: Award Citation

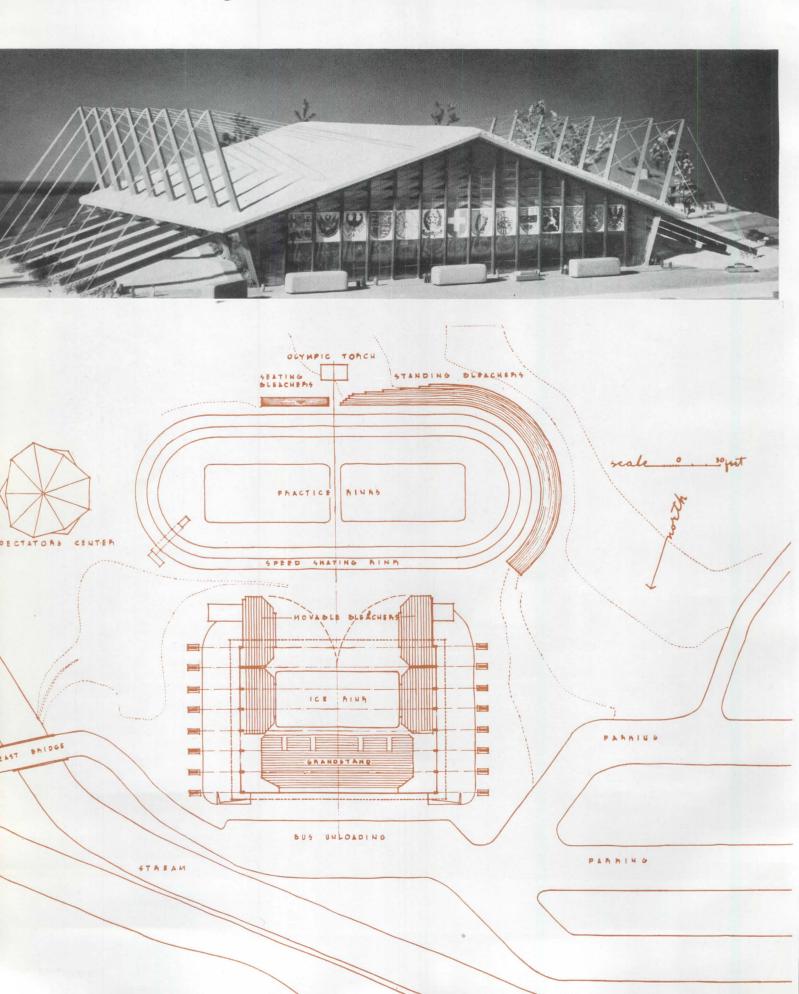




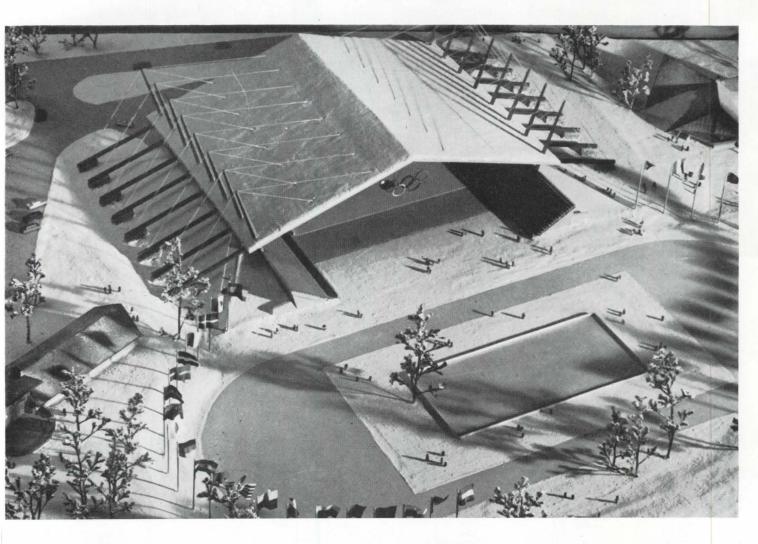
Department Store and Service Station for Sears, Roebuck & Company, Augusta, Georgia: A. L. Aydelott & Associates, Architects; Francis P. Gassner, Associate. In designing this store within the framework of Sears' criteria, the architects have done a number of things to avoid an unrelieved, closed-box look. In the first place, the entire store is raised above grade on a podium or platform, and the entrance level is reached by means of steps or ramps. Furthermore, the store is placed well back on this platform, and the forward portion is developed as a landscaped terrace, with pool, sculptures, and benches. The separate farm store is treated as a garden pavilion. Color is introduced in the wall surface which is patterned with positive and negative triangles of different colors of mosaic tile. Structure is reinforced concrete—slab band and pan joists.

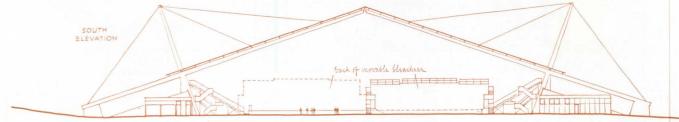


# recreation: Design Award

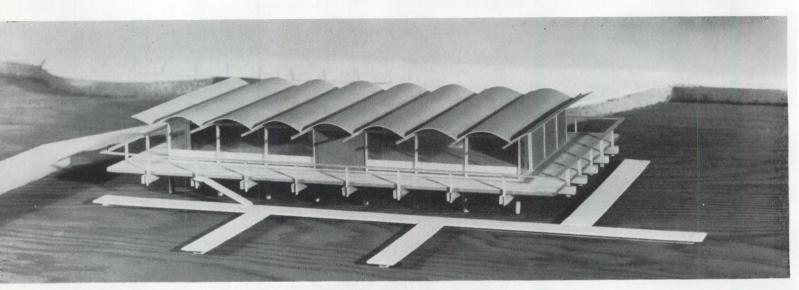


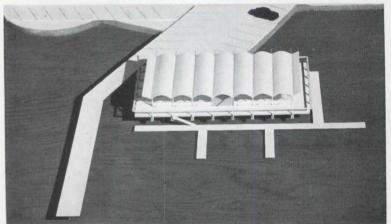
Olympic Arena for 1960 Olympic Winter Games, Squaw Valley, California: Corlett & Spackman and Kitchen & Hunt, Architects; Eckbo, Royston & Williams, Landscape Architects; H. J. Brunnier and John M. Sardis, Structural Engineers; Vandament & Darmsted, Mechanical Engineers; Punnett-Parez & Hutchison, Consulting Engineers; Office of Clyde C. Kennedy, Sanitary Engineers; Arthur C. Jenkins, Transportation and Traffic Engineer. Largest building in the complete winter-sports center that is under construction near Lake Tahoe, this 8000-seat arena will house a hockey and figureskating rink and serve as the setting for the opening and closing ceremonies of the Olympic Winter Games. Enclosed on three sides, it has a completely open fourth side facing south. On this fourth side, seating is movable—to be arranged parallel to the rink for skating events, perpendicular and in line with the permanent seating at the ends of the rink for major ceremonies. The 300-ft clear span roof rises at a 4 in 12 pitch to a height at the ridge of 90 ft. Roof structure consists of a cellular-steel deck spanning about 12 feet, rolled-steel-beam purlins spanning 33 feet, and main supporting frames at 33-ft centers. The latter are tapered columns built up from steel plates, tapered steel box girders, and inclinedcable tension members. Each half of main frame acts independently, something like a guy derrick, with the roof girder functioning as the boom, the column as the mast, and the inclined cables as guys. Cable anchorages are provided by dead men of concrete and masonry, with the extended roof girders resisting the horizontal thrust.



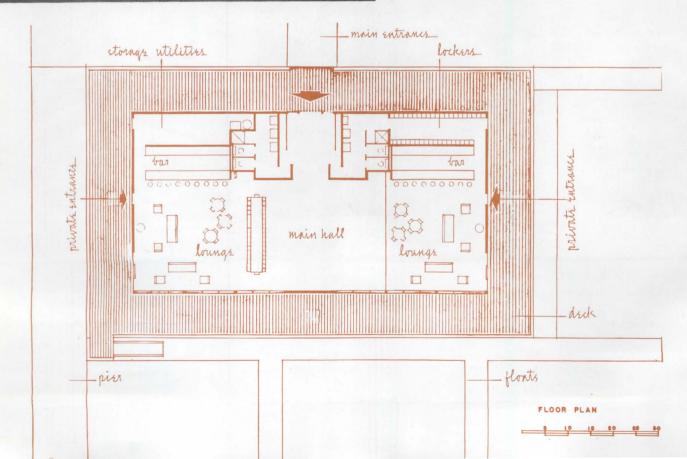


#### recreation: Award Citation

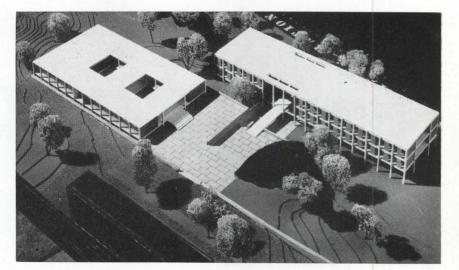




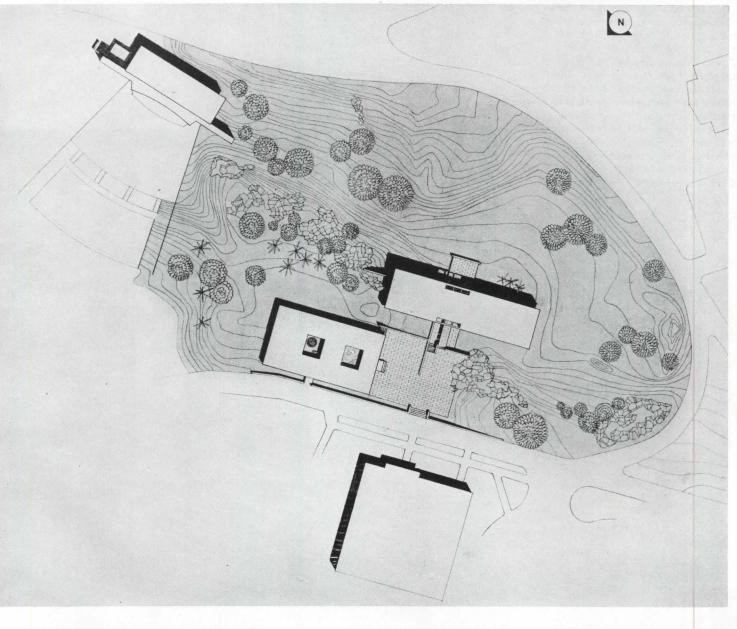
Sausalito Yacht Club for Sausalito Yacht Club and Sausalito Cruising Club, Sausalito, California: Theodore T. Boutmy, Architect; George Kosmak, Consultant; John E. Brown, Consulting Engineer. Two clubs—owners of power boats and sailboats—will share the new building. Of design importance were these points: (1) flexibility—to accommodate both occupants; (2) economy and simplicity of structural system—most work to be performed by club members; (3) attractive appearance of roof—town lies on hillside above. The main hall is to be used for large dinners and dances. Either lounge may be partitioned off. The rectangular building platform is to be roofed by seven barrel vaults of laminated plywood.

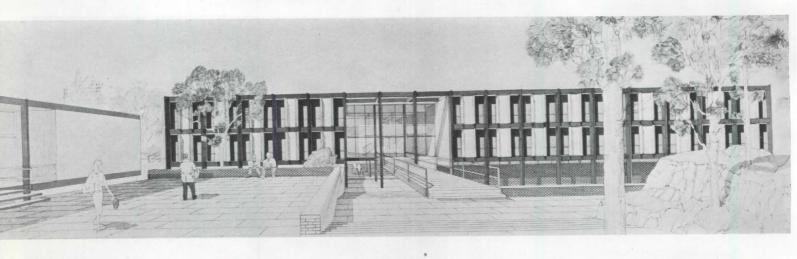


# education: Award Citation

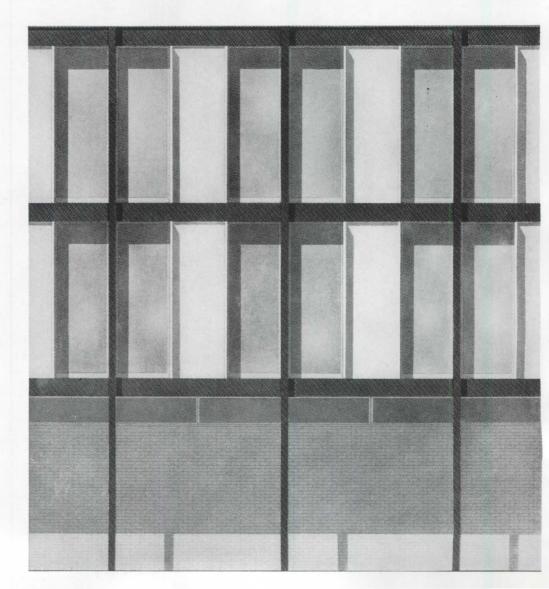


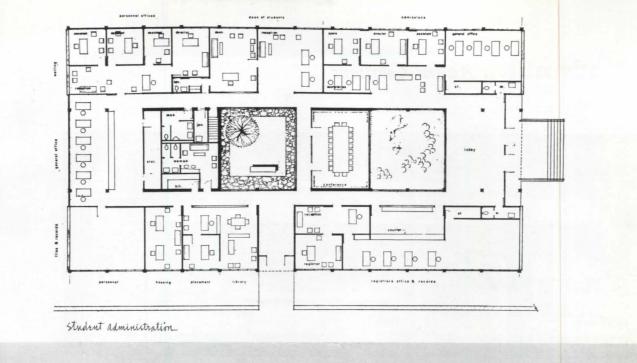
**Business/Student Administration Buildings** for Brandeis University, Waltham, Massachusetts: Hugh Stubbins & Associates, Architects; John Myer and Fletcher Ashley, Associates; Goldberg & LeMessurier, Structural Engineers; Fred Dubin & Associates, Mechanical Engineers. The site for this building complex is steep and irregular with numerous large rock ledges. Requirements were the following: (1) facilities for general business administration; (2) executive offices for the president and two deans, and a boardroom; (3)

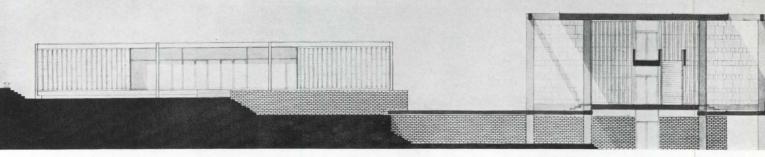


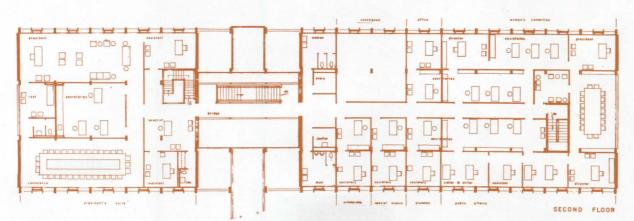


offices for the dean of students, admissions, registration, and related facilities. Two buildings will house the three building functions. The structures are to be grouped around an entrance plaza—"the front door to the University," write the architects, "and a visual stopping place from the approach drive." Plan, structure, and utilities, including air conditioning, have been co-ordinated toward maximum flexibility in the partitioning of offices. The structures will be steel-framed, will have concrete floors, aluminum window walls with inserts of heat-absorbing glass as well as structural sandwich panels, and end walls of brick.

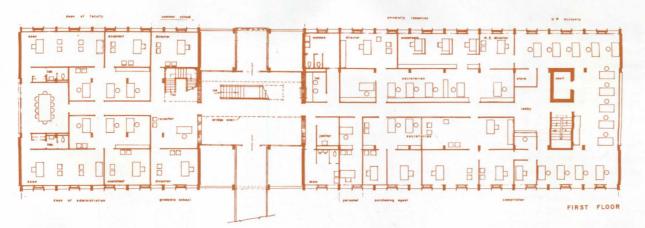




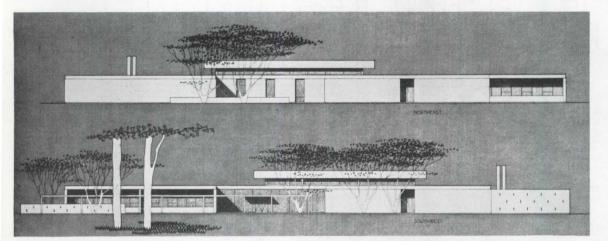


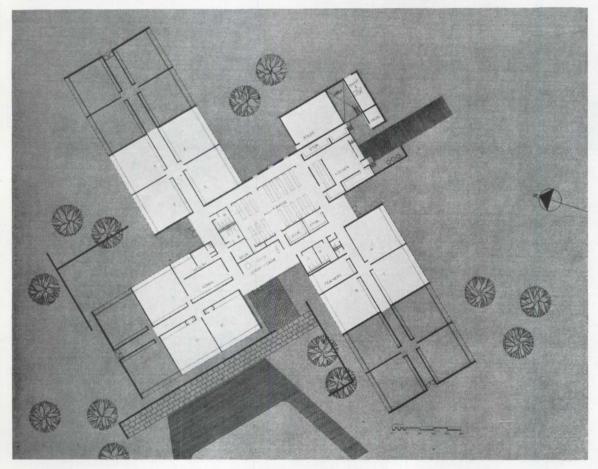


Business administration\_

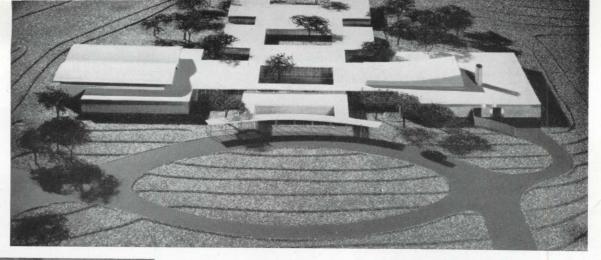


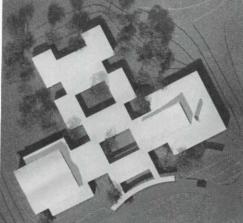
## education: Award Citations



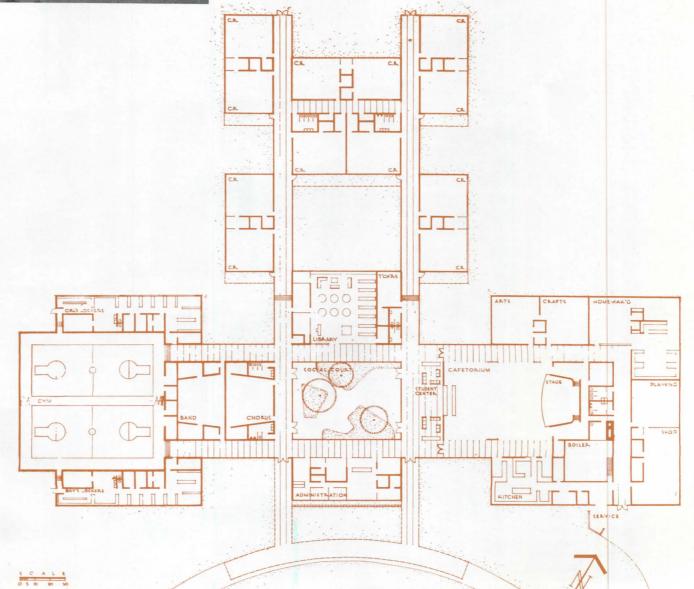


Riverview Park Elementary School for Muhlenberg Township School District Authority, Laureldale, Pennsylvania; Vincent G. Kling, Architect; McCormick-Taylor Associates, Structural Engineers; Pennell & Wiltberger, Electrical Engineers. "With an opening enrolment of 300 pupils expected to increase to 600 in the succeeding five years," writes the Architect, "this school district requires a K-8 school that will lend itself easily to expansion." The proposed solution is a one-story "pin-wheel" plan in which the central portion—designed for maximum enrolment—will accommodate all common activities and services, such as entrance lobby, toilets, storage, and all-purpose room. Three easily enlarged classroom wings and a service wing will radiate from this central core.

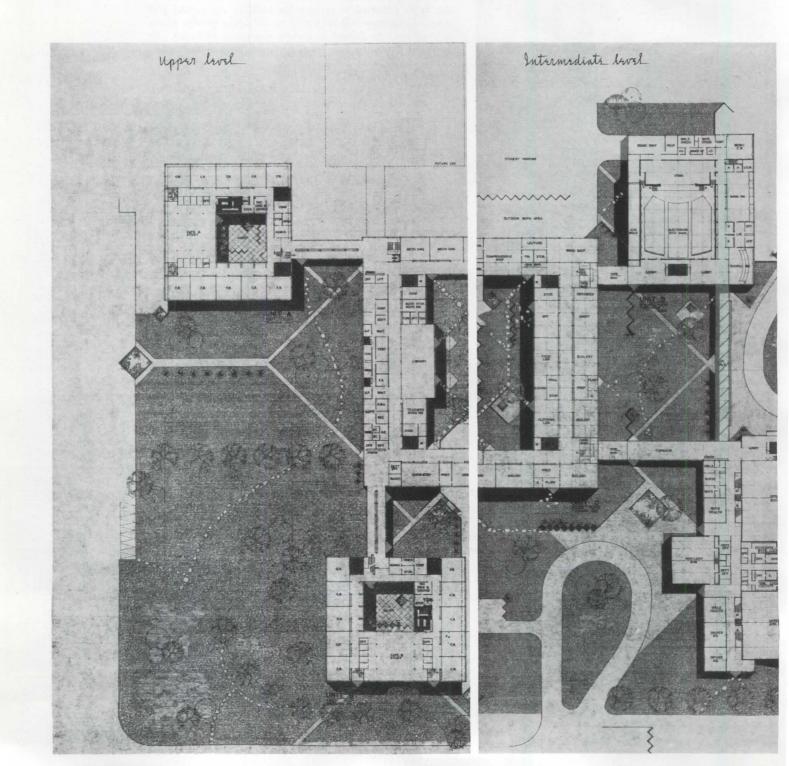




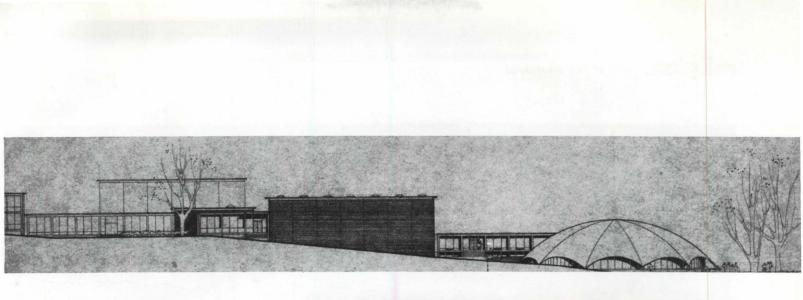
Junior High School for Bloomfield Hills School District No. 2, Bloomfield Hills, Michigan: Smith, Tarapata, Mac-Mahon, Inc., Architects. Parts of the original orchard site are to be preserved to encircle the building and several play areas. Classrooms will be placed on the upper portion of the sloping site, specialized rooms on the lower elevation. By means of graduated floor levels the appropriate ceiling height could be given to the specialized areas while maintaining a uniform roof level. A central court will be the focal point for library, student center, and administration. Cafeteria-auditorium, easily partitioned by folding doors, serves as center for the allied arts unit. The structure will be a lightweight steel frame. Walls are to be of masonry and panel construction. Two lamella vaults, springing from a central V-shaped space frame, will roof the gymansium.

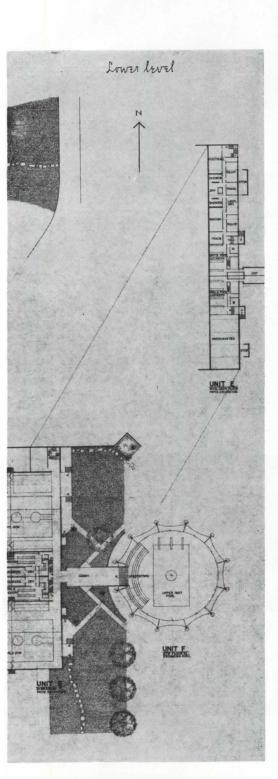


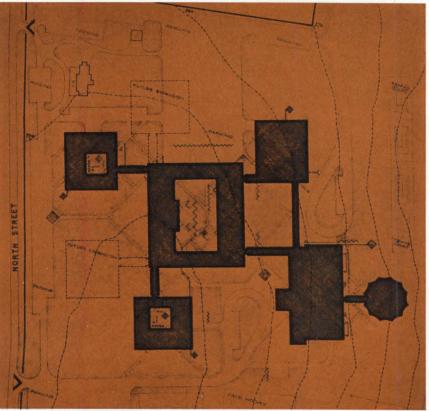
# education: Award Citation



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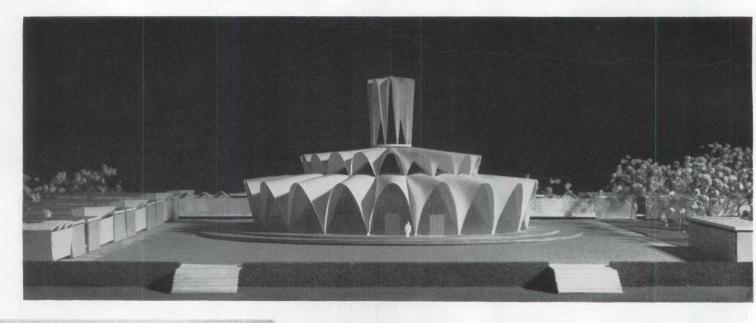


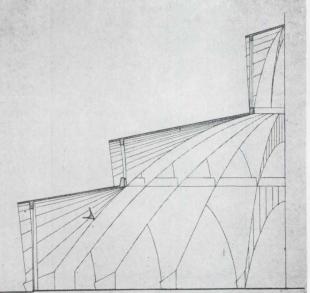




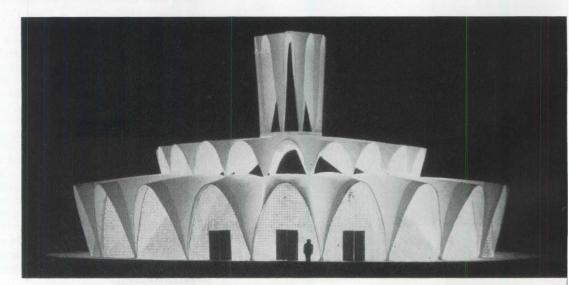
Senior High School for Board of Education (Dr. Carroll F. Johnson, Superintendent), City of White Plains, New York: Perkins & Will, Architects; Damon R. Finelli, Landscape Architect; Seelye, Stevenson, Value & Knecht, Structural Engineers; Jaros, Baum & Bolles, Mechanical Engineers; Engelhardt, Engelhardt, Leggett & Cornell, Educational Consultants; Bolt, Beranek & Newman, Inc., Acoustical Consultants. This school will have an initial enrolment of 2250 pupils. Basic facilities, such as auditorium, central administration, health, and physical education areas, will be provided for 4500 pupils-the eventual enrolment. In the planning, the architects strove to retain the advantages of diversification in curriculum inherent in a large school, and at the same time, to capture the quiet and intimate climate typical of a small organization. Thus, in the proposed plan, the student body has been grouped into four schools of "divisional units" of 450-500 pupils each, to be housed in two buildings. Each "divisional unit" contains 10 classrooms, an all-purpose room, and the administrative areas, occupying one floor of a building. The "divisional units" will be placed on the periphery of the central unit, which is to contain specialized instructional areas and the central co-ordinating administrative area. Physical education and auditorium-music units have been designed to be easily accessible for community use. The 60-acre site allows ample room for two additional "divisional unit" buildings and expansion of the other services.

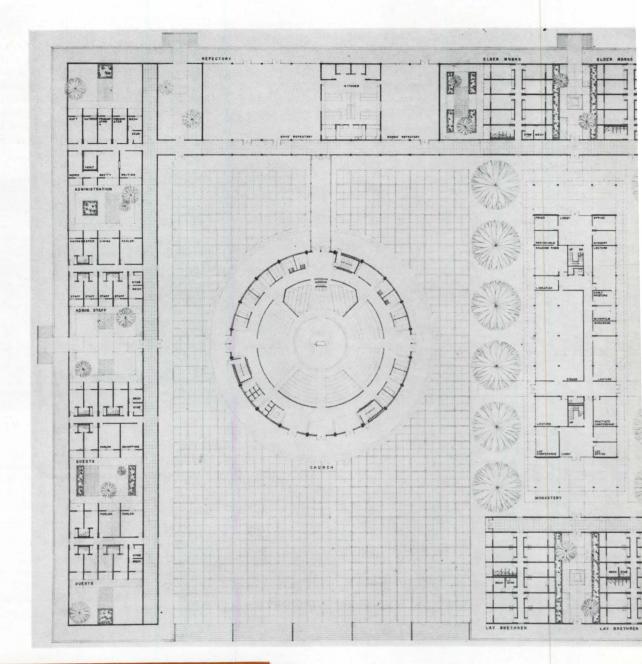
## religion: Design Award

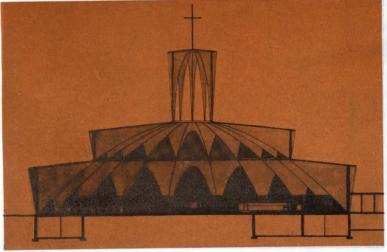




Priory of St. Louis and St. Mary for Benedictine Monastery and Boys School (Dom Columba Cary-Elwes, O.S.B., Prior), St. Louis, Missouri; Hellmuth, Obata & Kassabaum, Inc., Architects; Hideo Sasaki & Associates, Landscape Architects; Paul Weidlinger, Structural Engineer; Pier Luigi Nervi, Consulting Engineer; John P. Nix, Supervising Engineer. The church is part of a long-range assignment-monastery for 100 monks, school for 600 boys, and church for 1,000 persons. The church-which was the specific winner of the award-will be the dominant visual symbol. Since a large percentage of the worshippers will participate in the religious service, a circular plan with a central altar seemed logical. Structurally, the church will be composed of three concentric rings of parabolic arches. The outer ring, 21 ft high, will provide niches for 20 small chapels and will introduce light above the circulation area. The second ring, set on top of the lower ring, will bring light into the nave. The third ring will form a center lantern above the high altar. Tension rings are to tie each of the tiers of thin-shell concrete toegther. In reviewing the plan, the Jury expressed concern over the presence of high screen walls and side chapels, which might conflict with the great sweep of the interior space and obscure the springing of the arches.

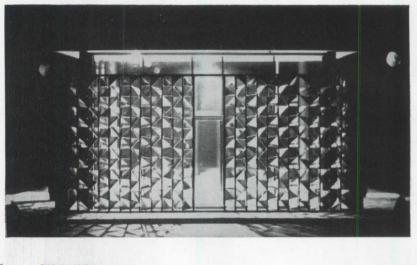


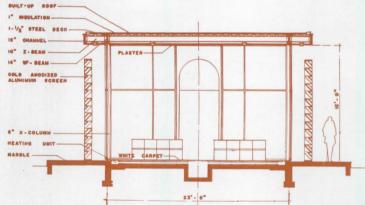


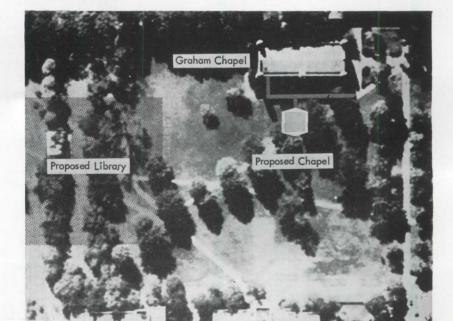


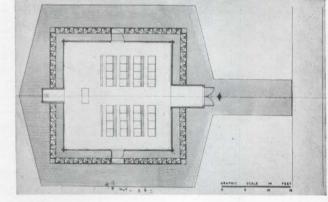
## religion: Award Citations

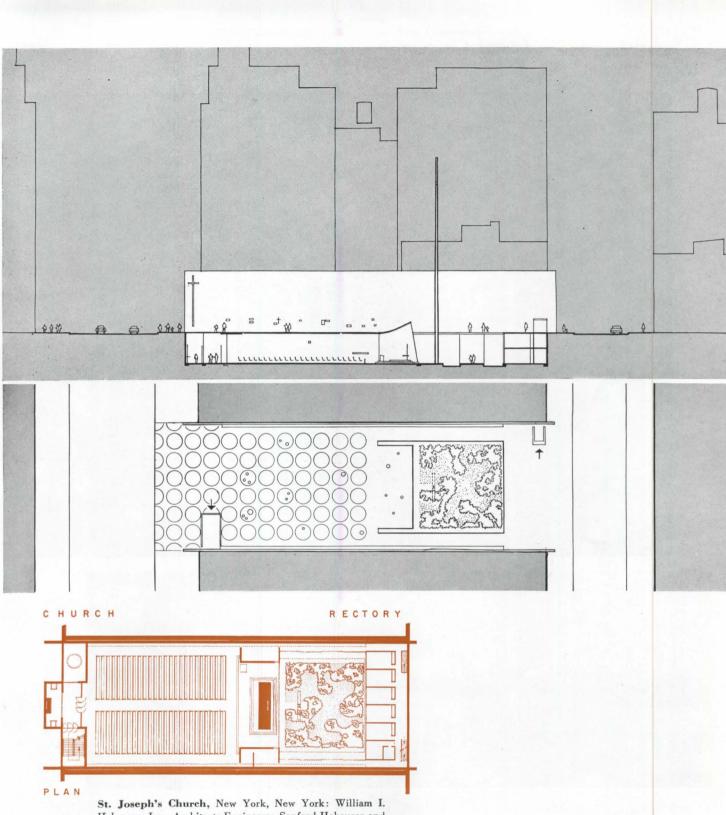
Meditation Chapel for Washington University, St. Louis, Missouri: Fumihiko Maki, Designer; B. L. Pickens, Co-ordinator of Campus Planning. Students representing many diverse religious backgrounds will use this little chapel. It is intended for individual prayer and small services for which Graham Chapel (a stylistic derivation of King's College Chapel, Cambridge) seating 900 or other University facilities are inappropriate. "Every effort has been made," writes B. L. Pickens, "to give the chapel a gemlike quality, designed to stimulate contemplation." Structure and materials have been carefully scaled as a foil to the large buildings around it and as an arresting focal point for those approaching it.





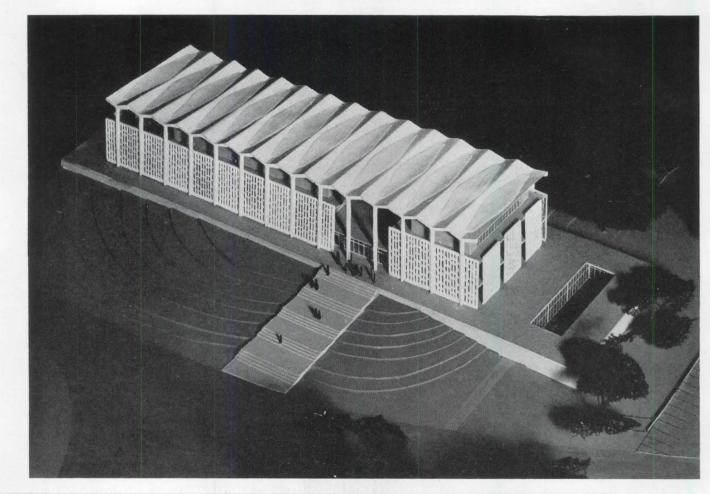


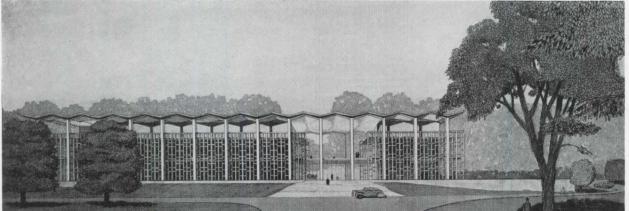


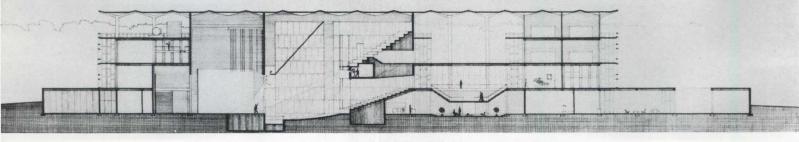


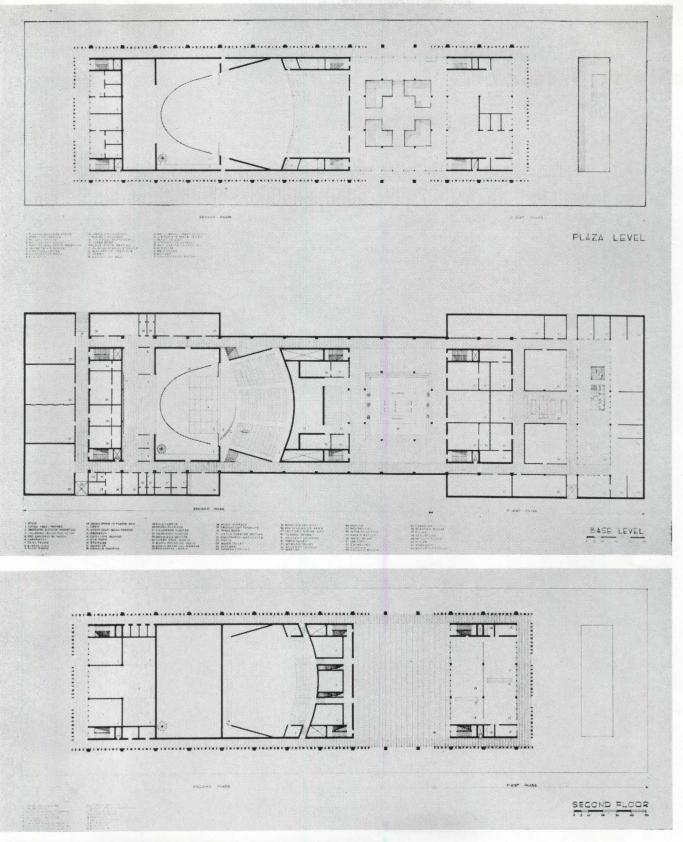
Hohauser, Inc., Architects-Engineers; Sanford Hohauser and Joseph D'Amelio, Project Designers; Leo A. Novick, Landscape Architect. Site for this church is an interior city lot, 70 ft wide. The first stage of construction, illustrated here, will be an underground chapel for 700. The main church is to be erected above at a later date. A large stained-glass window will separate the chapel from a court on which the rectory also borders. The chapel's roof-at sidewalk level-will be a concrete slab with limestone aggregate, pierced with openings which will bring light into the sanctuary during the day and, in reverse, will exude light onto the plaza at night. Cheek walls on either side of the plaza are to be faced with marble. The Jury considered this an imaginative proposal; questioned however the success of the design on completion of the building program when the void-considered the power of this solution-has been filled by the main church.

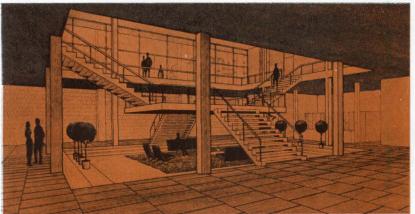
## public use: Award Citation





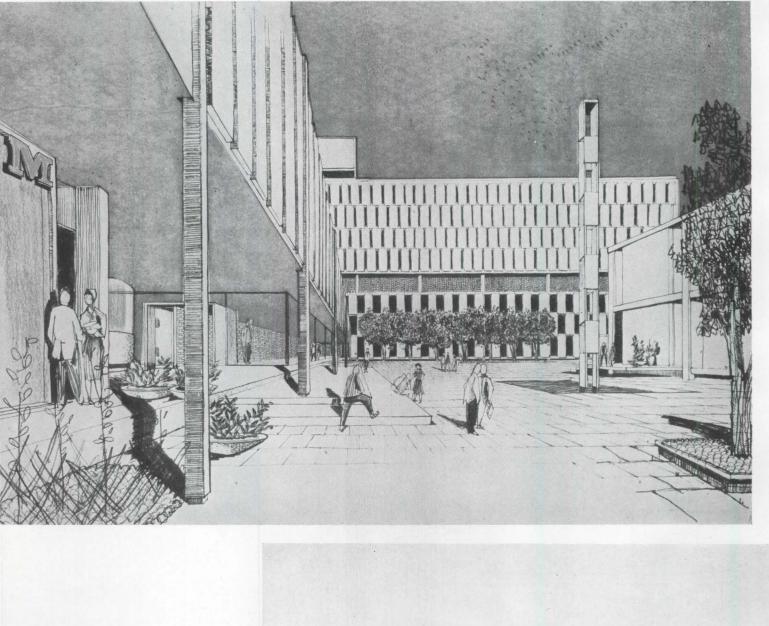


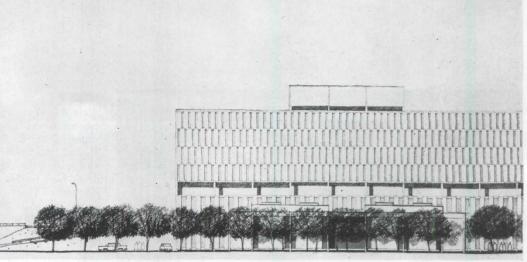


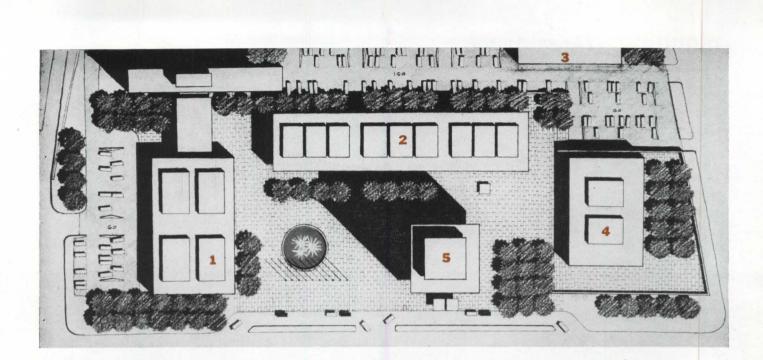


Memphis Fine Arts Center for the City of Memphis, Tennessee: Mann & Harrover, Architects; Leigh Williams, Associates; John C. Brough, Structural Engineer; Allen & Hoshall, Mechanical Engineers. Winning design in a local competition, the building consists of an Art Academy (right-hand portion of both the plans and model photo) and a combined Theater and Concert Hall, with the two elements linked by public areas, and the whole unified and covered by an undulating roof. Corridors on upper levels are external. In the Art Academy, crafts rooms, shops, and a sculpture garden occur at base level; administration, exhibits, and library, at plaza level; studios, on top floor. The auditorium is so designed that, by sliding partitions, it may be arranged as a 400-seat little theater; an 800to 1200-seat theater; or a 400-, 800-, or 1200-seat concert hall.

## public use: Award Citation







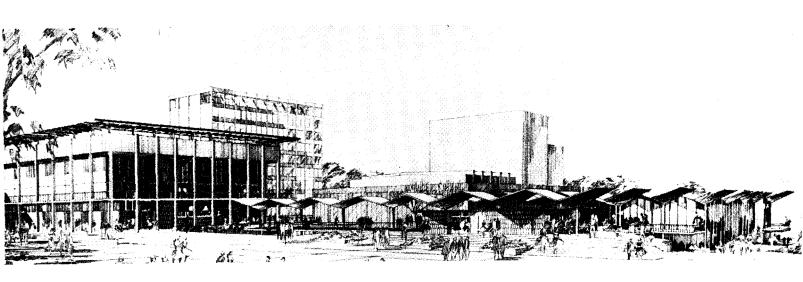
Civic Center for the City of Norfolk, Virginia (Fred Duckworth, Mayor; Thomas F. Maxwell, City Manager): Vincent G. Kling and Woodward, Oliver & Smith, Associated Architects; Fraioli, Blum & Yesselman, Structural Engineers; Watson & Hart, Mechanical-Electrical Engineers. This master plan organizes its related elements around a broad, paved, pedestrian plaza, with parking kept to the periphery adjacent to major buildings. The scheme has five distinct units: 1 Public Safety Building, with two-story wing at front for Police Courts; an entrance link behind this; and a long, 8-story mass at the rear for Police Division Offices and Jail. 2 Corporations Courts Building-a long, twostory structure, with offices, library, etc., on the ground floor; nine courtrooms above. 3 Maintenance Building. 4 School Administration Building. 5 City Office Building, the dominant, 13-story structure that houses the Mayor's Office; City Council Chambers; and all City departments. The Jury paid special tribute to the site plan, relationship of open spaces, and groupings of buildings of different heights.

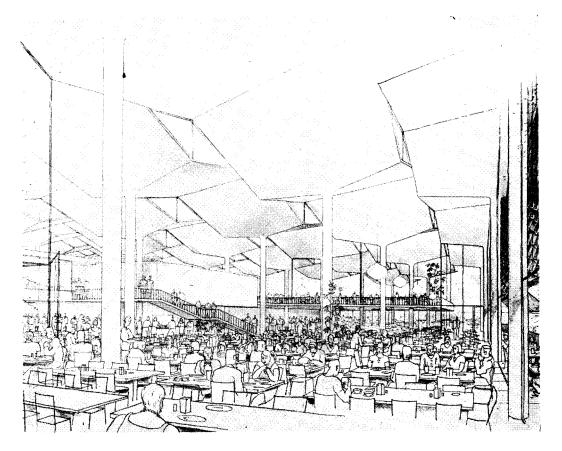
## planning: Design Award

Student Center, University of California, Berkeley, California: Donald Hardison and Vernon DeMars, Associated Architects; Donald Reay, S. Richard Komatsu, Harry B. Clausen, Associates; Lawrence Halprin, Landscape Architect. Winning design in an invited competition programmed by the University, the Center is comprised of four main structures grouped around a central landscaped

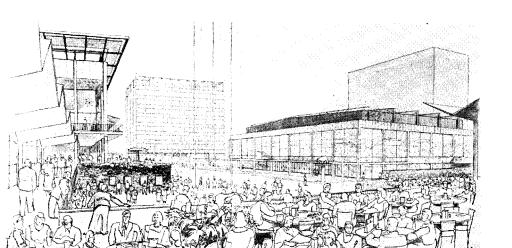


plaza. The four units (reading clockwise in site rendering *above*, starting at upper left) are Student Union; Student Office Building; Theater Auditorium; and Cafeteria, with its umbrella roof. Within the structures, facilities are provided for all manner of student activities, including informal or formal dining; lounging; meetings; the theater; radio and TV studio; and offices for student functions. The Jury particularly commended site planning and grouping of the buildings.

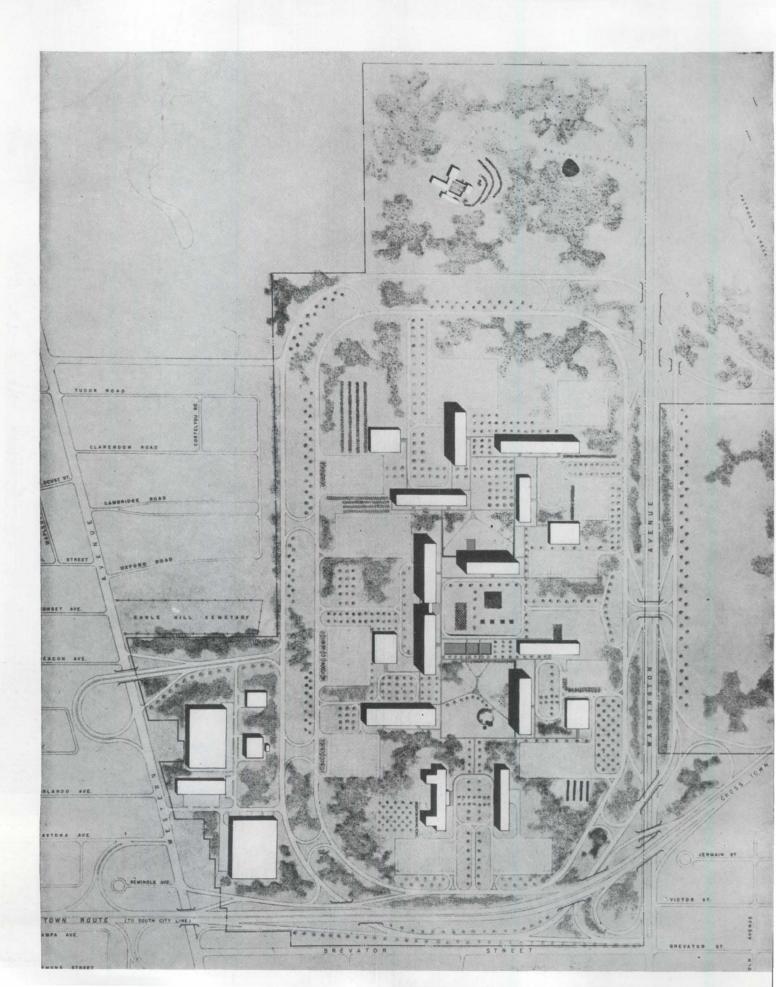




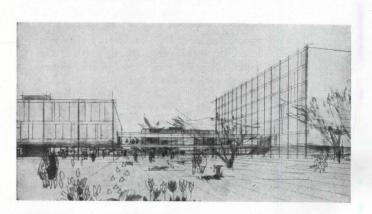
The cafeteria seats 800 and can accommodate 800 others on sheltered terraces. The paved plaza around which the buildings are grouped covers a parking garage and service facilities. The plaza and surrounding terraces that overlook it will be the meeting place for thousands who attend rallies, university festivals, and the like.

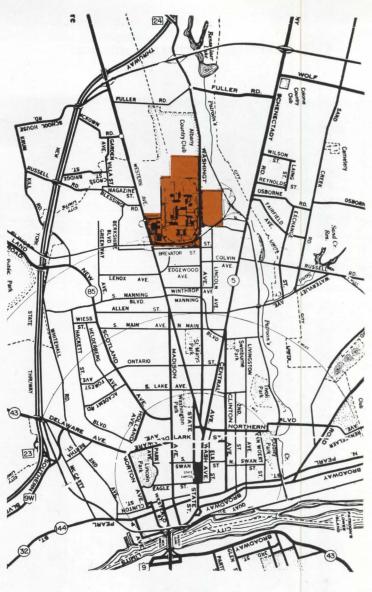


## planning: Award Citation



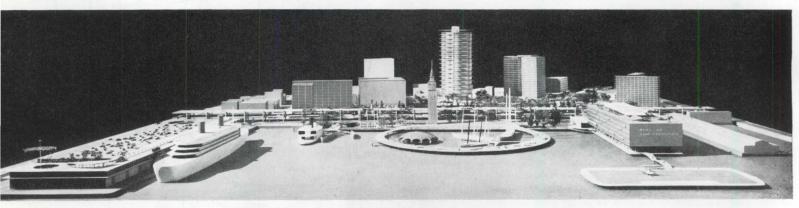
Masterplan for the Development of the Campus Site for State Office Buildings for State of New York (Averell Harriman, Governor; Arthur Levitt, State Comptroller; Paul H. Appleby, Director of Budget; Charles H. Kriger, Commissioner of Standards and Purchase; John W. Johnson, Superintendent of Public Works; Carl W. Larson, State Architect), Albany, New York: Ketchum, Giná & Sharp and Unger & Unger, Associated Architects; Fred Treffeisen and Leo S. Wou, Project Architects; Wilbur Smith Associates, Traffic Consultants; Tom Walbert, Associate-in-Charge. The spacious sitea 353-acre area three miles northeast of the State Capitol-permitted the use of the campus plan. The dispersed plan offered a number of important advantages: (1) use of low-rise buildings employing escalators rather than elevators, to insure quick and even egress of workers at peak hours; (2) placement of adequate parking areas directly adjoining the office and service buildings, keeping walking distances to a minimum; (3) possibility of developing buildings, roads, and landscaping in stages without disturbing the completed portions; (4) introduction of light and air into the buildings, toward formation of a pleasant and healthful working environment; (5) shaping of an informal, parklike landscape to serve the purpose of recreation. A perimeter road system will encircle the buildings, which will be erected in five stages. Two buildings, part of the first stage of construction, are presently under way.

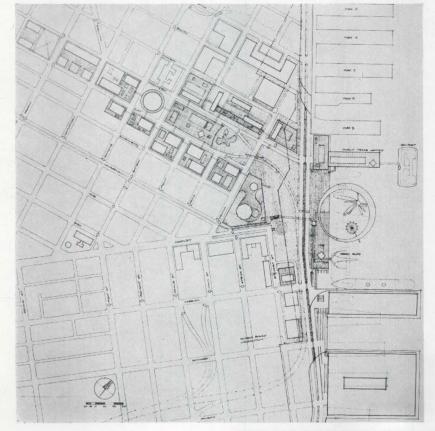




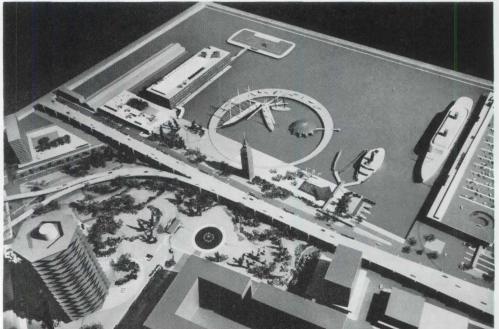


## planning: Award Citation





Ferry Park Project for San Francisco City Planning Commission (Paul Opperman, Director), San Francisco, California: Mario J. Ciampi, Architect; Allyn C. Martin, Associated Architect; Lawrence Halprin, Landscape Architect. With the passing of extensive ferry traffic on San Francisco Bay, there has been no further need for a vast Ferry Building, though its dominant historical tower monumentally placed at the foot of the major thoroughfare, Market Street, has long been a cherished civic symbol. Furthermore, a sizable area of the city west of this familiar focal point had degenerated into a marginal, almost slumlike environment. In design of the Ferry Park Project (which, incidentally, has been approved by City Planning Commission), the historical monument-the tower-is preserved. Replacing the series of ferry slips on the bay side, a landscaped park leads (reading left to right, photo above) to a "super" steamship terminal; small ferry-slip area; circular promenade around a boat-exhibition pool; and a world trade center and heliport. On the land side, beyond the elevated freeway now under construction, are apartments, office buildings, elevated plazas above parking garages, and a shopping center; all disposed around landscaped open space, with broad areas reserved for pedestrians.



Because of the complexity of programs in the field of planning and redevelopment, the Jury found it particularly difficult to select Award material in that category. Projects were finally chosen by the Jury on the basis of the most pleasing and orderly distribution of structures and spaces. Since little or no redistribution of structures or spaces was required for the redevelopment of Springfield, Oregon, this plan was outside the scope of the Award Category! The Jurors felt, however, that the accomplishment of Architects-Planners Lutes & Amundson, their sponsors (Springfield Chamber of Commerce), and co-operating agencies (City of Springfield, Oregon State Highway Commission) should not go unrecognized. The problem was the not unusual one of the deterioration of a town's central business district. A one-year study was undertaken by Lutes & Amundson to discover causes. Their recommendation: a ten-day trial period, during which Main Street would be closed off to traffic. This "Shoppers' Paradise Experiment" took the form of a retailers' promotional program under the guidance of the Architects. During the ten days, more than 10,000 cars and trucks were re-routed daily to clear Main Street for the pedestrian shopper. The thoroughfare was turned into a mall across which pedestrians could move freely. "Main Street was landscaped . . . benches provided . . . exhibits of art and industry shown . . . displays from shops outside the mall area moved in . . . music and entertainment provided." Adjoining minor streets were converted into parking lots. "Evaluation of this program is still under way," continue the Architects, "but the manner in which it has caught the imagination of the merchant and shopper should prove encouraging to townplanners everywhere." The findings will form an important part of the final phase: the permanent recovery of the business district.

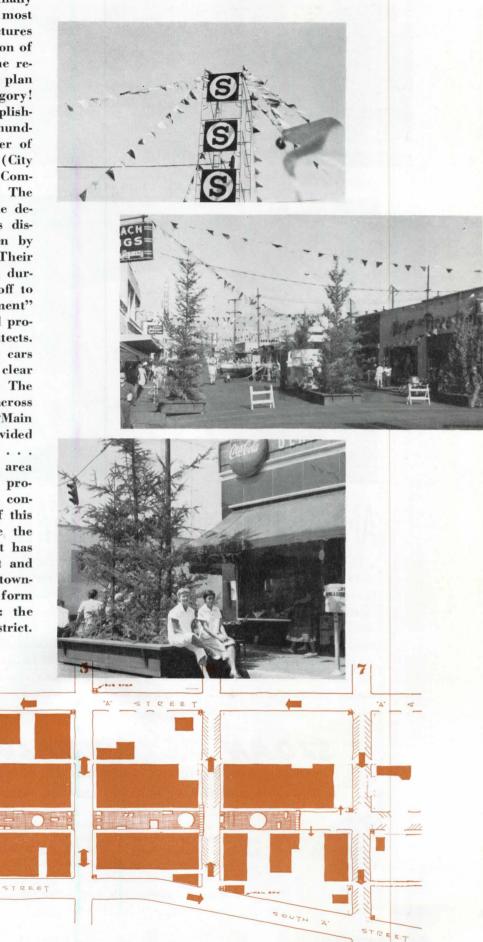
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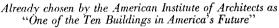
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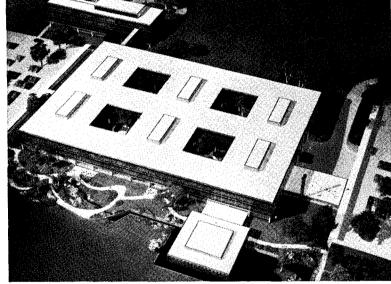






hotos 🕲 EZRA STOULER



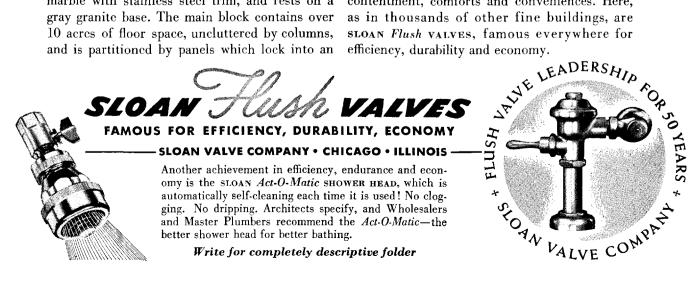


SKIDMORE, OWINGS & MERRILL architects SYSKA & HENNESSY, INC. mechanical engineer TURNER CONSTRUCTION CO. general contractor C. H. CRONIN, INC. plumbing contractor NEW YORK PLUMBERS SPECIALTIES CO. plumbing wholesaler AMERICAN RADIATOR & STANDARD SANITARY CORP. fixture manufacturer

## AN ARCHITECTURAL GEM MIDST RURAL BEAUTY

• The impressive new headquarters office building of CONNECTICUT GENERAL LIFE INSURANCE CO. is centered in 280 rolling, oak studded acres near Hartford, and is seen completely only from the air. It is cloaked in aluminum, glass, and white marble with stainless steel trim, and rests on a gray granite base. The main block contains over 10 acres of floor space, uncluttered by columns, and is partitioned by panels which lock into an

overhead multipurpose grid. Inside this spreading structure are four landscaped courts. From one end a cantilevered restaurant extends over a pool. At the other end is a separate executive wing. Over 2000 employees are surrounded by contentment, comforts and conveniences. Here, as in thousands of other fine buildings, are **SLOAN** Flush VALVES, famous everywhere for efficiency, durability and economy.



## Protection Against Decay and Termites by Harold J. Rosen

Decay and termite damage to lumber in residential construction can be very serious. Annual losses from the decay of all untreated wood in the United States are estimated to be about \$300 millions while about \$200 millions represents the annual loss caused by termites and other insects, according to the U. S. Forest Products Laboratory. The Federal Housing Administration enlisted the services of the Building Research Advisory Board to investigate these problems and to evaluate the technical and practical problems involved in building in protection against decay and termites in new construction.

In a report, Protection Against Decay and Termites in Residential Construction, dated May 10, 1956, the Building Research Advisory Board recommended certain alternative methods of protection. These methods are concerned with three basic types of construction, namely (1) slab-on-ground; (2) crawl-space houses; and (3) basement houses. The recommendations also take into consideration the various geographic areas as they affect the severity of decay and termite damage.

Decay is defined as the decomposition of wood substance by the enzymatic action of fungi. The four requirements for decay are moisture, air, favorable temperatures and food which is supplied by the wood itself. Dry wood will not decay. A moisture content of 20 percent or less in the wood will preclude the possibility of decay. Whenever there is danger of exposing wood to prolonged or continuous wetting either through direct moisture contact or condensation, such wood must be preservative treated or be of a durable species. Wood treated in accordance with Standards of the National Woodwork Manufacturers' Association gives protection against decay attack in sash, frames, and millwork in general. Naturally durable species are California Redwood, Tidewater Red Cypress, and Western Red Cedar. The heartwood grades of these species are especially recommended. Any decay-susceptible wood that is wet for appreciable periods of time will become infected. The most important source of decay infection occurs during the air seasoning process. Consequently kiln-dried wood insures killing of all possible infections. Therefore if bright, dry (19 percent or lower) lumber is used, there is little chance of introducing decay infections.

Termite hazard is almost nationwide, although definitely of greater magnitude in the southern latitudes. Subterranean termites prefer warm, humid areas with much wood in the moist soil and usually must maintain contact with the soil in order to survive. A constantly moist soil is conducive to maximum activity of termites. However, standing water on roofs, leaking pipes, or moisture from condensation enable termites to survive without contact with moist soil. To prevent subterranean termite attack, where there is a known hazard, appropriate physical or chemical barriers must be employed.

Chemical barriers consist of the treatment of soils with certain chemical poisons, treatment of wood with wood preservative materials, and the use of durable species of wood. Physical barriers properly designed, installed and inspected are effective in deterring subterranean termite attack.

The following chemicals and concentrations and rates and methods of application have been recommended in the BRAB report as acceptable from the standpoint of effectiveness to date. All the chemicals have met a five-year test and experience indicates an effective life of ten years:

Chemical	Concentration
Benzene	
Hexachloride	0.8% oil or water solution
Chlordan <del>e</del>	1.0% oil or water solution
Dieldrin	0.5% oil or water solution
DDT	8.0% oil solution
Lindane	0.8% oil or water solution
Sodium Arsenite	10.0% water solution
Trichlorobenzene	25.0% oil solution

Rate of Application for Slab on Ground:

a. Apply 1 gallon per 10 sq ft under the slab.

b. Apply 2 gallons per 5 linear feet along the inside of foundation walls, around utility entrance, interior partition foundation walls, and along the outside of the foundation.

Rate of Application for Crawl-Space Houses and Basement Houses:

- a. Apply 2 gallons per 5 linear feet along the inside of foundation walls, around piers and utility entrances.
- b. Apply 2 gallons per 5 linear feet along the outside of shallow foundation walls and 4 gallons per 5 linear feet for deep foundations.
- c. Apply 1 gallon per 10 sq ft of soil surface where attached porches, entrances, etc., have slabs on grade.

Critical-area applications along foundation walls and around piers and posts should be made to provide a barrier of treated soil immediately adjacent to the wall or pier from grade to footing. A shallow trench may be supplemented with rodding to restrict the treatment to the required area. In slab-on-ground construction an over-all treatment should be applied to the fill. Unless the treated soil or fill is to be promptly covered with a vapor barrier or by the slab, precautions must be taken to prevent disturbance of the treatment and human or animal contact with the treated soil. Treatments should not be made when the soil or fill is excessively wet to avoid dilution of the treatment.

Wood-preservative treatments should be in accordance with the following standards:

- a. Federal Specification TT-W-571
- b. Standards of the American Wood Preservers' Assn.
- c. Standards of the National Woodwork Manufacturers' Assn.

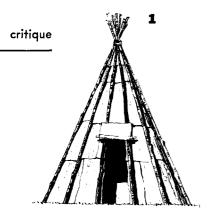
The BRAB findings with respect to woodpreservative treatments do not coincide with those of the American Wood Preservers Institute. In a pamphlet, How to Build Homes that Will Outlive the Mortgage, the AWPI report indicates that pressure treated lumber is a termite barrier. AWPI field inspections have indicated that wherever lumber from the subfloor down to the ground has been pressure treated, no evidence was found of termite bridging or tubing construction over the treated lumber to reach untreated wood. Wood members to be pressure treated are plates and sills on masonry walls, furring strips on masonry walls below grade, frames of basement windows and exposed steps, columns and porch lumber. Where crawl spaces are less than 18 inches, girders, joists, and subfloors should be pressure treated.

Termite shields of proper materials and design, properly installed and maintained, are an effective physical barrier to termite attack. Termite shields may be made of 26-gage copper bearing galvanized steel, 16-ounce cornice temper copper, terneplate, or other materials of proved performance. Termite shields should be set and bedded in a thin portland cement mortar, such bedding to be both under and over the shields.

Poured-concrete walls are an effective physical barrier against termite penetration vertically through the wall, if continuous cracks from grade to foundation top do not occur in excess of 1/64 in.

Unit-masonry foundation walls capped with a 4-in. deep reinforced concrete cap, are an effective physical barrier to termite penetration vertically through the wall to the extent that termites would be required to tube around the cap thus exposing their presence. Cracks greater than 1/64 in, should not be permitted.

Both the BRAB report and the AWPI pamphlet should be consulted for additional information and differing opinions relative to the subject of protection against decay and termites.



## Steel, Stocks, and Private Man

by Sibyl Moholy-Nagy

At a recent meeting in New York, Mies van der Rohe was asked from the floor whether he considered it accordant with his vehemently expressed ideal of architectural honesty that an office building and an apartment building should have identical structures. To this he replied, with something of wonderment, that he could see no difference in their function and consequently in their structure, since both serve the needs of man.

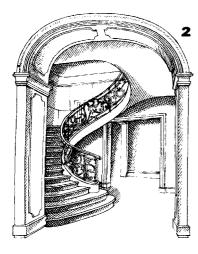
In spite of its deceptive simplicity, this statement seems to contain the key problem of modern architecture. Is there or is there not a difference between public and private personality; and, consequently, is there or is there is not an obligation or architecture to distinguish between public and private building needs?

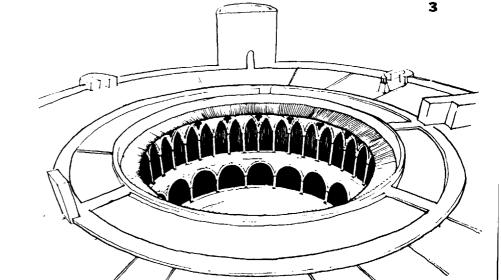
If we deny man's dual role as a public and a private citizen, and if we contend that a collective human existence is best served by an architecture based exclusively on contemporary achievements, then the answer is given. As Mies van der Rohe emphasized with an almost religious fervor: the achievement of our time is technology and the architect as the formulator of the epochal essence is therefore bound to an architecture of technology. This dedication to technology has inspired an emotionalism that tends to take on Messianic or at least moralistic overtones in the writings of Le Corbusier, The Bauhaus School, the Nervi disciples, and, most recently, in Mies van der Rohe's statements that "one must go through the clouds to create (technological) architecture" and that "God is in the details." The purely mathematical laws and limitations of the rectangle and the steel skeleton have become the new Pentateuch, branding the heretic as a blasphemer of revealed religion.

But when the Creed of the Grid, first formulated by Le Corbusier in his Modulor I, is disassociated from its emotional agitation and filtered through that almost forgotten medium of architectural intellect, then it becomes apparent that the answer to the identity of official and private architecture is not as simple as the technological affirmative. Technology makes its decisions outside the human mind. It is a calculated contest between mechanics and materials in which the solution is predetermined by the invariable properties of both. This does not preclude a scale of values within these material limitations. It is the degree of refinement in balance and proportion that invests mere construction with the dignity of integrated structure. But by its mechanistic predestination it excludes the arbitration of the human mind. Mind as

the orientator of the *human* position postulates a need that is not satisfied either with mere efficiency or with rhythm, balance, and harmony of the refined grid. This need—to express a complex human urge in its simplest terms—is man's want for *identification*. The abstract sign language by which the technological architect invites modern man to identify himself with his age is not enough. It ignores what G. K. Chesterton calls:

"joy in the right realisation of real things; a man's own instinct for design and symbol." Under this aspect, the initial question whether we agree with Mies van der Rohe's equation of office building and dwelling must meet with a resounding No. The need for identification as a basic and inextinguishable urge in man's evaluation of his surroundings, has created our official skyscraper architecture through which official man identifies himself with the marvels of technological progress and limitless business expansion. It is only fitting that we should recoin the merchant palace of the Renaissance and the battlemented castle of the 19th Century in our own technological terms. But no man can live by stocks and steel alone, without starving his personality to death. He must have a place to recharge his energies, to remain superior to the brute leveling force of steel and stocks.





And this he can do only in an architectural environment that separates, clearly and uncompromisingly, official existence from private existence. This is but a new phase in the ancient struggle to define man's human position, which is the first cause of architecture. The historical originality of technological structure cannot be denied. It owes nothing to the past because each age fashions its own form of factual perception. But the need for identification with a personal environment is based on a concept. It is neither new nor original. The drive toward self-recognition in his dwelling inspires the man of different ages to different forms, but it is the same transformation of basic ingredients that makes a child the sum total of its ancestors. Each new era filters through the mind those environmental concepts that are timelessly valid of which the foremost is the concept of privacy or the retreat from public view.

Mies van der Rohe declared, in his address already mentioned, that "the curtain is the finest wall" and all that is needed for the provision of privacy; and the six-foot patio wall is gaining in favor for the same purpose. But pretechnological architects were less simple-minded, more structural, and infinitely more intellectual in their concern with man's right to be alone. A few examples from history might stimulate the imagination of those designers who doubt the universal validity of the modular grid.

Among many possibilities, one could single out three design features which signify the private world:

Access

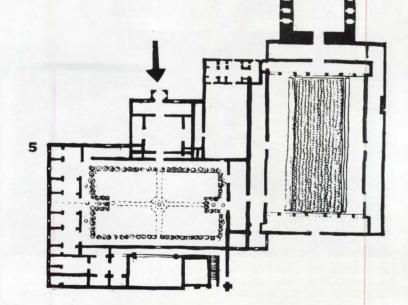
View, and

Division of Space. There actually is very little difference between an Indian pit-house (1) and the modern "open plan" except for the fact that even a buffalo-pelt curtain afforded more privacy than a plate-glass slab as the only demarcation between the public and the private realm. The finest domestic entrances were conceived by the architects of the Age of Enlightenment when man's public functions were manifold and exacting and his private existence was for the first time unsupervised by church or crown. The elevation of the Blacklock House in Charleston distinguished handsomely between a swift, expedient passage through the service entrance on street level and the gradual withdrawal from collective to individual living over the curved stair with its two platforms, toward a door that demands a respectful request for admission.

Once inside the house, the 18th Century accentuated the interior stair as no other age has (2). The construction is daringly unsupported, revealing a broad sweep, and the railing is finely wrought. This is no "split-level rise," signifying nothing. In this house, one of many which Frederick the Great built as prototypes to teach his raw Berliners what good taste should be, is indicated the equal importance of the private rooms upstairs and the reception rooms below.

The second expression of privacy, intellectually considered, concerns transparency. We have voiced immodest claims to the originality of excessive wall perforation in our transparent houses. The delight in looking out is as old as the Moucharaby windows from which the Gothic took its cue. It was a true step forward in civilization when man superseded the mere need for shelter and stronghold with the desire for an inter-

(Continued on page 192)





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KILNOISE "shapes" to your ideas, provides a beautiful unbroken expanse . . . fine definition of curve and line . . . a pleasing, distinctive texture. KILNOISE is the ideal solution in areas where coves, forced air outlets, lighting fixtures and the like often mean sacrificing appearance for the sake of good acoustics.

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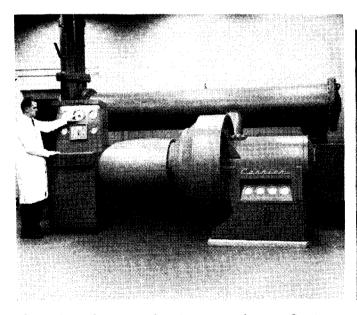
K	ILNOIS	
	ACOUSTIC PLASTE	Ξ

Name Address\_ City

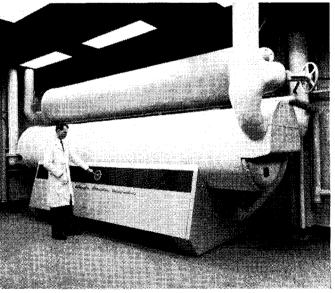


## Which way is best to air condition a building?

Every building poses different problems. Take the refrigerating machine, for example. Where should it be located? What kind of power is available? How much tonnage do you need? Carrier builds every type of refrigeration for air conditioning. Two of the many types are shown below. Each provides unique advantages under special conditions. Each has been proved practical and dependable in installation after installation. For complete information about them, call your nearest Carrier office. Or write Carrier Corporation, Syracuse, New York.



If you have low-cost electric power, the new Carrier Hermetic Centrifugal Refrigerating Machine offers unmatched advantages. It's the only hermetic with such advanced features as refrigerant-cooled motors through the entire capacity range. hydraulic powered capacity vanes, and electronic controls for completely automatic operation. Its compact design and light weight minimize space and structural requirements. In 28 sizes-90 to 1100 tons. Other Carrier Centrifugals up to 4000 tons. For smaller buildings, there are "packaged" Carrier Reciprocating Water Cooling Machines from 3 to 200 tons.



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If you have low-cost steam, the best way may be a new Carrier Absorption Refrigerating Machine. It cools with heat energy derived from low-pressure waste steam or hot liquids to cut costs. Operates automatically at the push of a button. Follows fluctuating loads electronically from full load to zero capacity. It's safe – with water the refrigerant, a simple salt the absorbent. And it's so compact and vibration-free you can locate it wherever there's room to spare – on the roof, in the basement or anywhere in between. In thirteen sizes with cooling capacities ranging from 60 to 700 tons.

### Louise Sloane office ... lobby ... motel

That a prophetic viewpoint is not the least of the demands made upon the practitioner of interior design is interestingly demonstrated in the three examples we show this month. Diverse though their functions, the office, the lobby, and the motel all incorporate in their interior planning the same sound premise—that they be smoothly adaptable to change.

In renovating a loft building to accommodate editorial and production offices of a publisher, Ralph Stoetzel kept future alterations uppermost in mind as he planned. The client's operations were departmentalized by floors, so a layout was devised that allowed work to progress through cycles within each department, and within the three floors, with a minimum of backtracking. Partial partitions were used often, to avoid interfering with utilities. To obtain natural lighting at minimum expense, the original windows were left intact and shoji screens were used as covers, a solution as decorative as it was functional. All ventilation is mechanical, all lighting fixtures were selected for uniform lighting and shadow elimination. For visual interest, colored panels were introduced as partitions and cabinet doors.

The first- and second-floor lobbies in the Styling Building of the dramatic General Motors Technical Center, serving, as they do, to accommodate both large and small groups of visitors, and to provide unlimited exhibition space on occasions, required a maximum of both design excitement and flexibility. In creating the interiors for Saarinen's bold and imaginative structure, the General Motors Styling Staff, under Department Head Carl Benkert, were concerned to provide a seating layout that met both demands. Carpeting was chosen to supply the unifying factor; on the first floor, a giant carpet in two sections, zipped together for easy rearranging, and on the second floor, separate area carpets. The first floor planter, which is at the same time a separating medium and the strongest element in holding the design together, is made of thirteen sections which can be quickly reassembled to form other continuous patterns or individual units.

Change takes on a somewhat different dimension as applied to a motel interior, since it is not the room itself that changes but the transient occupants who differ in their needs. Guest quarters in Rufus Nims' motel, for National Homes Corporation, have a neutral color scheme for quiet, adaptable background, and furnishings equally useful to the honeymooning couple or the working salesman on the road.

## office



#### date.

Color Plan: Very light or very dark colors set off by accent notes of vivid orange, olive, black, and white. Orange, used for one wall in reception area, is repeated in upholstery, cabinet doors, and other spots throughout all offices.

cabinetwork, doors, partitions All but Owner's Office: shoji screens/ Masonite "Peg-Board" partitions with Fiberglas insulation/ Hartmann-Sanders Co., 2187 N. Elston, Chicago, III. Owner's Office: cabinets, Shoji screens/ Ability Woodwork Co., Inc., 3033 N. Elston, Chicago, III.

#### equipment

Diffusers: Anemostat Corp. of America, 10 E. 39 St., New York, N.Y. Registers: Titus Mfg. Corp., Waterloo, Iowa.

Air Turns: Barber-Colman Co., 115 Loomis St., Rockford, 111.

#### furniture, fabrics

Office Furniture: Herman Miller Furniture Co., Zeeland, Mich.

Owner's Office: Saarinen "Persimmon" chair/ Knoll Associates, Inc., 575 Madison Ave., New York, N.Y.; Hans Wegner teak-cane pull-up chairs/ Baldwin-Kingery, 105 E. Ohio St., Chicago, Ill.; cantilevered chairs/ Wells Furniture Makers, Inc., 300 W. Hubbard St., Chicago, Ill.

Cantilevered Chair Upholstery: "Cafe" colored leather/ Lackawanna Leather Co., 209 W. Lake St., Chicago, III. Draperies: white, beige, black/ Angelo Testa & Co., 49 E. Ontario, Chicago, III.

#### lighting

Luminous Ceiling: Morris Kurtzon, Inc., 1430 S. Talman St., Chicago, III. Fixtures: Lightolier, Inc., 346 Claremont Ave., Jersey City, N.J.

#### walls, ceiling, flooring

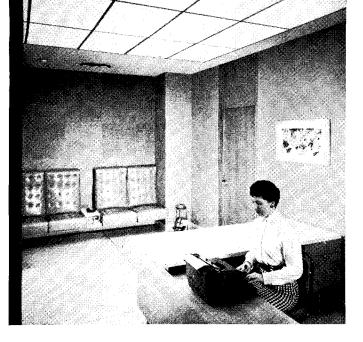
Paint: Pratt & Lambert, 320 W. 26 St., Chicago, III.

Cork: Armstrong Cork Co., Lancaster, Pa.

Vinyl Fabric: Natural-color grass-cloth/ "Vicrtex"/ L. E. Carpenter & Co., 350 Fifth Ave., New York I, N.Y. Ceilings: "Cushiontone"/ acoustical

tile/ Armstrong Cork Co. Rugs: black, white, gray/ Mohawk Carpet Mills Inc., Amsterdam, N.Y.

Asphalt Tile: "Terrazzo"/ black and white/ Johns-Manville Corp., 22 E. 40 St., New York 16, N.Y.



client	H. M. H. Publishing Company
location	Chicago, Illinois
architect	Ralph Stoetzel





p/a interior design data

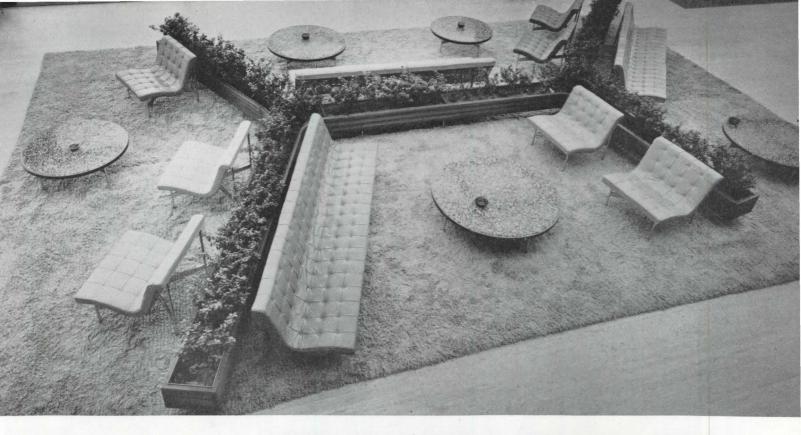
## lobby



client	General Motors Technical Center
location	Detroit, Michigan
architects	Eero Saarinen & Associates
interiors	General Motors Styling Staff Carl Benkert, Department Head Non-Automotive Interior Design

Photos: Alexandre Georges







#### data

#### first floor lobby

#### furniture, fabrics

Seating Pieces: bright-chromium frames/ leather upholstery in yellow, orange, red/ Laverne Inc., 160 E. 57 St., New York 22, N.Y.

Stone-top Tables: bright-chromium legs, teak edge, set with beige, orange, red polished semi-precious stones/ custom-made.

Planters: teak/ laminated chromium legs/ stainless-steel liners/ custommade.

**Reception Desk:** Saarinen-designed/ off-white Fiberglas/ constructed by GM Styling.

#### walls, flooring

Walls: ebony black glazed brick. Flooring: Travertine/ terrazzo stairs.

Carpet: beige and light brown/ handwoven/ Marianne Strengel, Cranbrook Academy of Art, Bloomfield Hills, Mich.

#### lighting

Over-all Illuminated Panels: The Wakefield Company, 731 S. Water, Vermilion, Ohio.

#### second floor lobby

#### furniture, fabrics

Chairs: natural leather/ black stretchers/ chromium legs/ Laverne Inc. Sofas: yellow and brown/ Thaibok Fabrics Ltd., 3 E. 52 St., New York 22, N.Y.

Accessory Tables: yellow and orange tops/ chromium frames/ The Heifetz

Co., 16 E. 53 St., New York 22, N.Y. Planters: glazed crocks/ chromium legs.

#### walls, flooring

Walls: natural walnut and black glazed brick. Flooring: vinyl tile/ warm yellowish tan. Carpet: off-white.





#### data

Color Plan: Off-white ceiling, naturatmahogany walls and ridge beam, brown carpeting, yellow headboards, white Formica desk and desk chair.

#### cabinetwork

All: Wilson Cabinets, Lafayette, Ind.

#### doors, windows

Bath-Dressing Areas: Jones Shutter, Miami, Fla.

Sliding Glass Door: Alwintite Div., General Bronze Corp., Garden City, N.Y.

Skylight: ''Wascolite''/ Wasco Products, Inc., 87 Fawcett St., Cambridge 38, Mass.

#### furniture, fabrics

Beds: The Englander Co., Inc., 1720 Merchandise Mart, Chicago 54, 111. Lounge Chairs: Artistic Metals, Bosron, Mass.

Desk Chair: Knoll Associates, Inc.

Table: Pine-wood Plastic, Cambridge, Mass.

Draperies: Tippecanoe Upholstery, Lafayette, Ind.

#### lighting

Fixtures, Lamps: Studio of Lighting, Miami, Florida/ Kurt Versen Lamps Inc., 4 Slocum Ave., Englewood, N.J./ Lightolier, Inc.

#### walls, flooring

Walls: Natural-finish walnut random grooved plywood/ United States Plywood Corp., 55 W. 44 St., New York, N.Y./ "Vicrtex"/ L. E. Carpenter & Co.

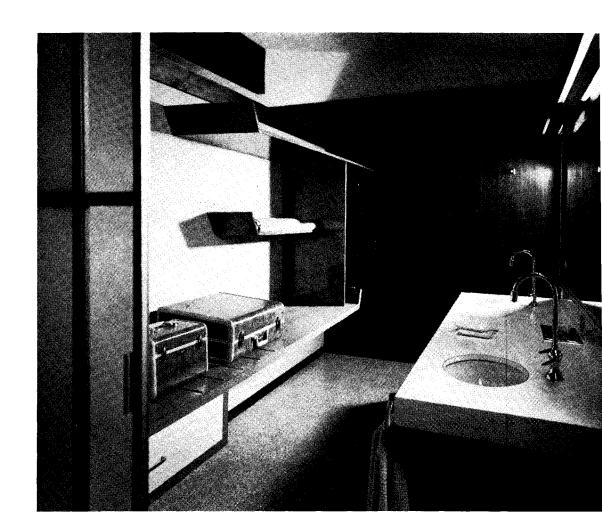
Bath: The Mosaic Tile Co., 1949 Pershing Ave., Zanesville, Ohio.

Flooring, Sleeping Area: "Twistpoint" carpet/ Forrest Mills Co., Calhoun, Ga.; Dressing Area: "Agatine" vinyl tile/ B. F. Goodrich Co., 36 Nichols Ave., Watertown 72, Mass.

#### equipment

Bathroom: Hall-Mack Company, 1380 Washington Blvd., Los Angeles 7, Calif.

client	National Homes Corporation
location	Lafayette, Indiana
architect	Rufus Nims
interiors	Contract Interiors, Inc.

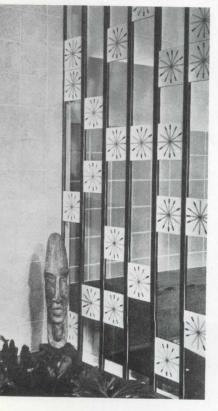




## p/a interior design products



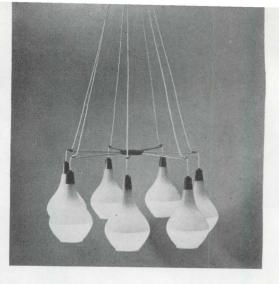
Chair: (right) Swiss import/ frame of steel, chromed or blue-oxidized/ tension-adjustable leather straps/ removable seat and back cushions/ designed by Robert Haussmann/ 25<sup>1</sup>/4" wide, 31<sup>1</sup>/2" deep, 28" high/ retail: \$660, in leather/ Charles W. Stendig, Inc., 600 Madison Ave., New York 22, N.Y.



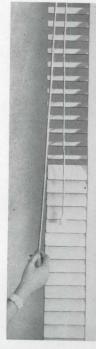
Ceramic Tile: (left) "Roulette" by Paul McCobb from the "Distinguished Designer Series" of tripleglazed, textured tiles/ used here as a room divider, inserted in black-painted aluminum channeling/ Pomona Tile Manufacturing Co., 629 LaBrea Ave., Los Angeles, Calif.

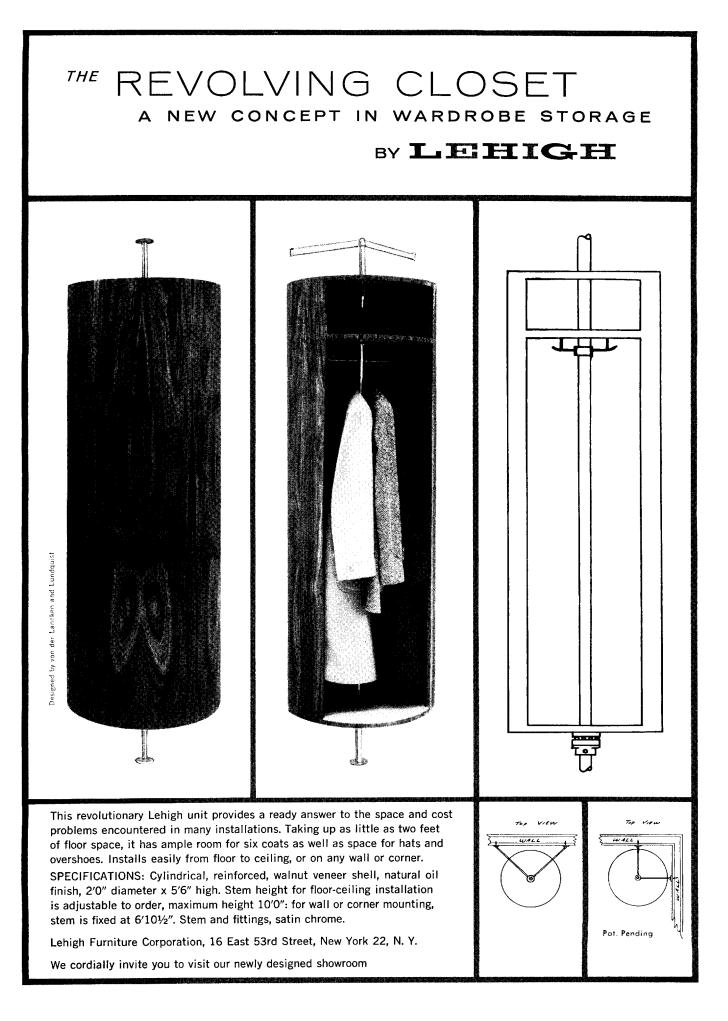
Blind Control: (below and right) "Versatilt" permits separate adjustment of bottom and top sections of venetian blind, through use of two different cords, one to control each section/ device provides custom control of light, ventilation, privacy, visibility/ C. B. White Company, Inc., 76 Rowe St., Auburndale 66, Mass.

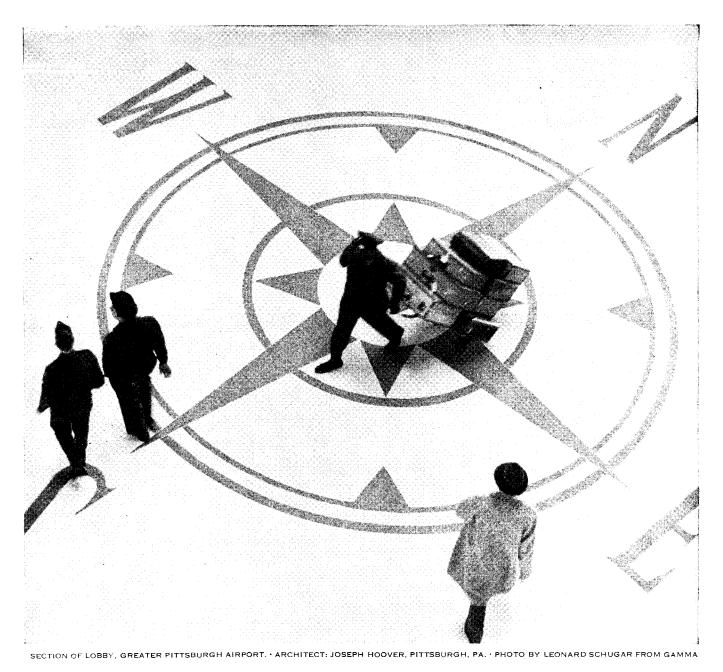




Clustered Spheres: (above) seven-light ceiling fixture/ globes are "Rotaflex" tubular plastic, light-controlled and insulated/ 6-ft cords permit installation at desired heights/ brass arms radiate 131/4" from central, walnut spacer/ light-diffusing bottoms of globes are white, upper portions available in Aqua, white, Cafe, Lemon, Dresden Blue, Seafoam/ retail: \$147/ The Heifetz Co., 16 E. 53 St., New York 22, N.Y.







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THE NATIONAL TERRAZZO AND MOSAIC ASSOCIATION Sheraton Building, 711 14th Street, N. W., Washington 5, D. C.



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These compartments are practically indestructible finished in vitreous porcelain enamel, fitted with rugged hardware. Supported from the ceiling, they also speed maintenance, lower costs. And, they are far easier to install than expensive marble or glass. Colors (22) are permanent . . . no staining, breakage or defacement problems either. Weis *Vitre-Steel* costs less when you install it; goes right on handsomely saving dollars for years and years.

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HENRY WEIS MANUFACTURING COMPANY, INC. Dept. H-2201, Elkhart, Indiana **SPECIFICATIONS:** Panels, stiles and doors shall be flush construction, and shall be made of two face plates of not less than 18-gauge enameling iron with formed edges, cemented under pressure to fiberboard core and joined by welding abutting edges at suitable intervals. Edges shall be bound with die-drawn stainless steel moldings interlocked under tension onto formed edges, mitered and welded at corners and welds ground smooth. Partitions and doors shall finish 1" thick; stiles shall finish 1½" thick.

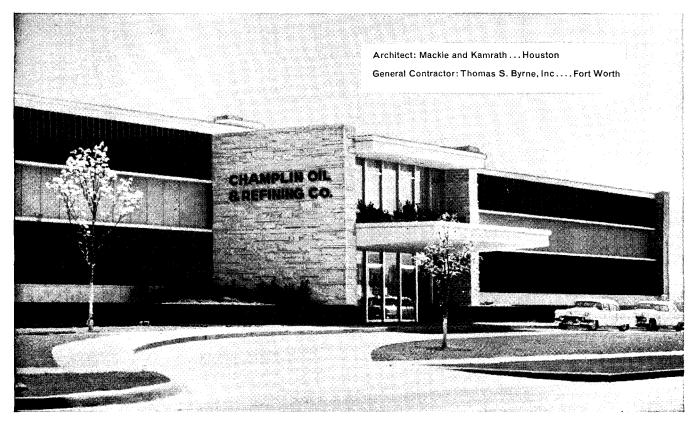
All surfaces, concealed and exposed, shall receive a vitreous porcelain enamel ground coat. All exposed surfaces shall then be given a cover coat, in a color selected from the Weis color chart of decorator colors.

Doors shall be hung on WEIS gravity hinges with upper hinge mounted in recess in edge of door. Doors shall be fitted with slide bar latch, combination keeper and bumper and coat hook with rubber-tipped bumper, all to be brass, chromium plated. Latches and coat hooks shall be attached with theft-resistant screws.



# AMERICAN MODERN at its best in architecture...in door closers

A continuing series of outstanding office buildings, churches, schools, hospitals and industrial structures using NORTON DOOR CLOSERS

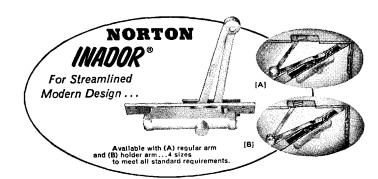


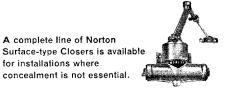
Offices of Champlin Oil & Refining Co....Fort Worth, Texas

Serving as headquarters for a chain of operations that extends from the Gulf of Mexico to the Canadian Border, the structure above is considered to be one of the most modern buildings in the Southwest. Genuinely modern it is, too, not only in appearance but in every detail right down to the door closers...a Norton Inador Closer on every interior door.

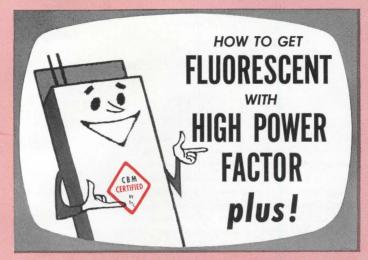
The compact, powerful INADOR mechanism is fully concealed in a mortise in the top rail of each door so there is no conflict with the architect's design. Their mechanism, moreover, is of the rack and pinion structure designed and built to provide the same rugged dependability that has kept so many Norton Door Closers in continuous, trouble-free service for periods up to 30 years and more.

For complete information about these and other Norton models, consult the current NORTON catalog. Write for a copy today if you don't already have one.

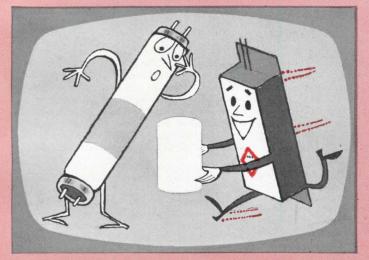




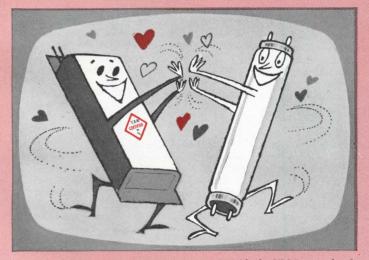




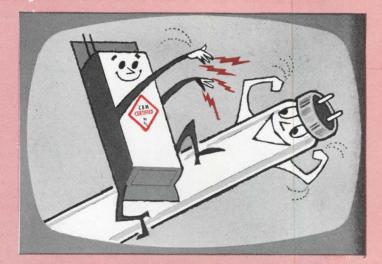
HERE'S THE SECRET: Use fixtures with CERTIFIED CBM BALLASTS! Then you not only get High Power Factor, efficient use of current and lower installation costs, but you save on lighting costs, too.



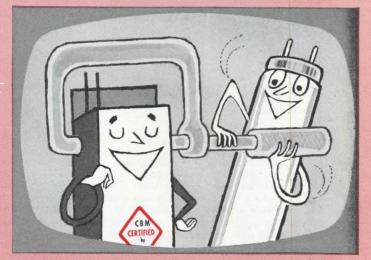
**CBM BALLASTS GUARD YOU FROM LOSSES IN LIGHT OUTPUT...** can save you up to 30%. For CBM means full, rated light output. And you get long ballast life, and up to 2500 hours more lamp life.



**MADE FOR EACH OTHER.** Certified CBM standards are "tailored to the tube". So to get more for your money, be sure the fixtures you use are equipped with CERTIFIED CBM BALLASTS.



**CBM GIVES JUST WHAT YOU NEED** for proper fluorescent lamp operation. These ballasts are designed to give just the right amps and volts for peak lighting performance.



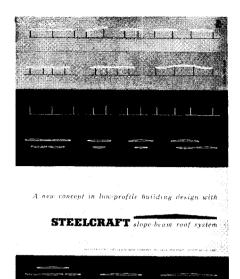
**BUILT TO EXACTING SPECIFICATIONS** for performance by 7 leading ballast manufacturers, CERTIFIED CBM BALLASTS are checked *and certified* by Electrical Testing Laboratories. They also carry the UL label.



WRITE FOR A COPY of the free booklet, "Why it pays to use CERTIFIED CBM BALLASTS in fluorescent lighting fixtures". You'll find it helpful in knowing your best buy in fixtures.

CEM-8-E





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

#### an and the many share construc-

142. Central-Plant Air Conditioners-Flexazone, AIA 30-F-2, 4-p. folder furnishes data for horizontal, vertical unit for multizone heating, cooling, ventilating. Can be floor mounted or ceiling suspended; large doors reduce maintenance time, are felt-sealed to prevent air leakage. Lubrication fittings, damper motors on outside. Nine models, 32 arrangements, offer various capacities. Zone can be changed in the field by varying damper sections. Features include corrosion-resistant, galvanized-steel housing, glass-fiber insulation; heavy-wall copper tubing, aluminum fins mechanically bonded into fin collars; motor and drive; high- or lowvelocity filter sections. Detail drawings, tables show available models. Drayer-Hanson, Div. of National-U.S. Radiator Corp., 3301 Medford St., Los Angeles 63, Calif.

143. Penn Ventilators, AIA 12K2, 8-p. booklet features new addition to Domex line—higher capacity V-belt drive centrifugal exhausters. Scroll inlet—deep onepiece spun throat—handles higher air volumes effectively. Direct-drive exhausters also available. Axial-flow roof exhauster, relief roof, high-velocity vertical discharge roof exhausters, self-contained exhaust fans described. Performance tables, dimensions, line drawings included. Penn Ventilator Co., Inc., 3252 Goodman St., Philadelphia 40, Pa.

144. Agitair High Velocity Type FM Air Filters, 8-p. catalog describes air filters for ventilating- and air-conditioning systems. Filter consists of layers of expanded metal arranged to divide air into small cyclones. Said to be permanent, cleanable, To serve the increased use of low-profile and flat roofs in building design, the Steelcraft Manufacturing Company has developed a complete framing system especially adaptable for this type of construction. Brochure discusses components, applications, advantages, and specifications necessary. Components are tapered beams, produced by a submerged automatic continuous arc welding machine, and steel purlins. System can be used with metal, gypsum, wood-fiber-cement board, concrete, other types of roof deck. Claimed advantages of system include flexibility, low maintenance, reduced cost, high strength, attractive appearance.

Specifications for the natural slope beams and purlins are given, with special attention to load capacities. Drawings and details give applications for the roof system, illustrate its adaptability.

274. Steelcraft Slope-Beam Roof System, 8-p. The Steelcraft Manufacturing Co., 9017 Blue Ash Rd., Cincinnati 42, Ohio. E.C.D.

all-metal panel gives low maintenance efficient operation. Technical data tables for initial resistances, capacities at various velocities, standard sizes—as well as performance graphs given. Suggests types for specific applications. Air Devices Inc., 185 Madison Ave., New York 16, N. Y.

145. Air Engineering Data File, AIA 30-D-1, 24-p. bulletin discusses engineering and testing facilities for propeller fans. Specifications, construction, maintenance, installation are covered. Charts and tables show how to estimate air-handling requirements, including duct resistance, elbow losses, weather cap losses. Special application equipment specifications included. Aerovent Fan Co., Inc., Piqua 64, Ohio.

#### construction

Horn Construction Data Hand Book, 108-p. book gives general information for architects, engineers. Subjects covered include calking and glazing compounds, defects in painting, floor materials, how to measure flat surfaces, moisture repellents, admixtures, paints and coatings for interior and exterior application, roofing products, products and purpose indexes. Featured material: construction details, measuring tables; description, use, covering capacity, color of various products. Write direct on letterhead: A. C. Horn Co., Inc., 252 Townsend St., San Francisco 7, Calif.

262. Versatile Concrete Has a New Look, 4-p. folder shows various concrete surfaces obtainable by using plastic- and rubber-form liners. Design freedom stressed for precast panels, concrete masonry, and cast-in-place work. Rubber liners give soft texture; plastic liners allow depth patterns. Liners are lightweight, easy to use—no special mix necessary. Illustrations suggest possible patterns. Portland Cement Association, 33 W. Grand Ave., Chicago 10, Ill.

263. Fenestrawall, AIA 17A, 12-p. booklet providing drawings and details for installation of single- and multistory window walls with porcelain-enamel panels. Photos show several completed installations. Gives specifications for panels, windows, auxiliary materials, and erection. Fenestra Inc., 2250 East Grand Blvd., Detroit 11, Mich.

264. Insulated Porcelain Enamel Panels, 20-p. manual discusses devel-

opment of curtain-wall construction, stresses advantages of improved methods and modern metal units. Featured type of box panel, mechanically assembled and tape sealed, is described as to uses, fabrication, lamination process. Interior and exterior types illustrated by drawing, description. Installation, moisture control properties given. Insulation is preformed glass fibers; porcelain-enamel finishes available in range of colors, degrees of reflectivity, textures. Modifications for special applications can be manufactured, notably type called U-16, for greater rigidity, improved fire resistance. Shapes and sizes, other modifications, gasketing materials discussed; specifications given. Erie Enameling Company, 1400 W. 20 St., Erie, Pa.

Creative Porcelain Enamel in 265.Architecture, AIA 15-H-2, 4-p. brochure shows three types of designs in curtainwall panels: metal forming variations, multicolor effects, texturing of over-all surface. Forming metal base before enameling gives decoration, adds rigidity-ribs can be recessed deck or half-round. Possible multicolor effects are two-color mottled, three-color stenciled designs. Silk screen used for large quantities of identical design. Surface textures include stippled finish to break highlights; embossing metal sheet before application of enamel gives contrast, strengthens panel, creates variety of textures. Decorative treatment can be applied to insulated panels-detail drawings show panels for

deep section, sash or shallow section subframes. Photos of installations. Barrows Porcelain Enamel Corp., Langdon Rd. & Penn R. R., Cincinnati 13, Ohio.

266. Architect's Guide, 8-p. booklet covers chemically preserved and fire-retardant pressure treated wood. Wood destroyers such as decay, insects, termites, fire discussed; remedial action outlined, complete with drawings for each source. Materials, preservative treatments — superficial and pressure—described. Specifications for preservatives, buildings, given. Recommendations for best results with wood construction suggested. Western Wood Preserving Operators' Association, 1410 S. W. Morrison St., Portland, Ore.

267. Lascolite Fiber Glass Building Panels, AIA 26-A-9, 4-p. booklet concerns glass-fiber panels reinforced with polyester resin for application in home, industry, farm buildings. Seven standard shapes available; special sizes on request. Advantages of translucent panels include diffusion of light, light weight, high strength, resistance to acids and alkalis, fire. Fireblock panels-self-extinguishing-obtainable. Structural details and types of installation given-factory windows, luminous ceiling, patio roof, partition, side lights, skylight, railings, corner assembly. Product data-panel shapes, sizes, colors-and sperifications included. Lynch Asbestos Co., 2939 S. Sunol Dr., Los Angeles 23, Calif.

268. New Horizons in Exterior De-**\*** sign—Romany Spartan Panels, AIA

17-A, 4-p. illustrated brochure describes four standard types ceramic-tile curtain-wall panel available in various thicknesses. Series 1500 has ceramic-tile exterior face, core of reinforced lightweight-concrete cast monolithic with styrofoam insulation. Series 1600: exterior face -ceramic tile; skin-aluminm; insulation -styrofoam. Series 1700: exterior faceceramic tile; skin-aluminum; insulation -glass foam. Series 1800: face-ceramic tile; skin-aluminum or galvanized steel; core—aluminum or paper honeycomb. Each type shown by drawing; data included for various thicknesses of insulation, panel, psf, "U" value. Panels furnished in all sizes to 5' x 12'; mounting constructed to fit standard or special frames. Sixty colors-variety of finishes, textures available. Standard dark gray, weatherproof grout. Small unit—1"x1", 1"x2", 2"x2" tile used. Ceramic Tile Panels, Inc., 217 Fourth St., N. E., Canton 2, Ohio.

269. Specifications for Glazed and Unglazed Structural Facing Tile, AIA 10-B, 20-p. guide, recently revised, gives specifications for several qualities of ceramic glazed, salt glazed, smooth unglazed structural tiles. Packing, physical requirements, fire resistance periods for clay masonry wall, partitions, testing methods. Tables for permissible variations in face dimensions, distortions given. Facing Tile Institute, 1520 Eighteenth St., N. W., Washington 6, D. C.

270. Ultracoustic Ceiling Board, AIA 17-A, 4-p. brochure describes new type incombustible glass-fiber acoustical ceiling board. Designed for suspended acoustical ceiling systems, material has off-white travertine textured-surface finish said to be sound absorbent, good light reflector. Fabrication is of long textile-type glass fibers bonded with thermo-setting resins to add rigidity. Characteristics include low thermal conductivity, resistant to fire, permanence, paintable surface. Application is easy-board can be bent, cut, to fit around obstructions. Available in 24"x48" or 24"x24" sizes-3/4" thick. Photos, cutaway drawing of installation. Gustin-Bacon Manufacturing Co., 210 W. Tenth St., Kansas City, Mo.

271. Calking — Pointing, Filling and Sealing. AIA 7-D, 4-p. booklet describing new synthetic-rubber calking and sealing compound. Called Sonolastic, compound consist of sulfurized, synthetic-rubber polymers, plus an activator which makes the liquid a rubberlike substance. Product is nonshrinkable and imperivous to weather. Recommendations state where and how to use compound; complete instructions for application; specification data. L. Sonnehorn Sons, Inc., 404 Fourth Ave., New York 16, N. Y.

272. Ideas for Industry. 33-p. brochure summarizing recent research and development with stone, metal, and wood—for construction and industry— with special attention to poured gypsum-concrete roof decks, precast-gypsum planks, preformedsheet-steel roof decks, acoustical systems, insulation, and meshes of expanded metal. Photographs indicate variety of products and processes. United States Gypsum Co., 300 W. Adams St., Chicago 6. Ill.

273. C-B-R-III, 12-p. illustrated bulletin published by S. A. Cimeteries & Briqueteries Reunies, Brussels, Belgium, presenting detailed information, test reports, strength diagrams, engineering data on a new Belgian high-early strength portland cement. Cement complies with ASTM C 150-1955 specifications, sets normally, hardens rapidly. Strength due to fine grind of special type of clinker. Cement is stable: meets Le Chatelier test and ASTM autoclave test; Iow alkali content. Indussa Corporation, 511 Fifth Ave., New York 17, N. Y.

#### doors and windows

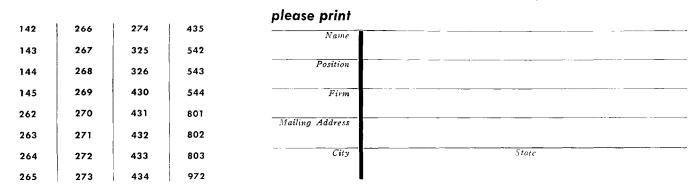
325. Auto-lok Awning Windows and Intermediate Projected Types, AIA 16-L, 28-p. catalog features awning windows with special attention to lock system said to give closing action 10 times tighter than accepted standards. Weatherstripping, air infiltration tests discussed, illustrated by details. Construction data, advantages of control bar operation, seals, given. Drawings of sections, mullions. Sizes, types, installations, accessories, listed. Intermediate projected aluminum window details and data included. Ludman Corp., 14100 Biscayne Blvd., N. Miami, Fla.

326. American Lustragray Sheet Glass, 8-p. brochure concerning neutral gray-tint sheet glass for large glass areas. Charts show reduction of light transmission for three thicknesses. Solar energy properties and transmission also stated. Specifications. American Window Glass Company, Farmers Bank Bldg., Pittsburgh 22, Pa.

electrical equipment eighting

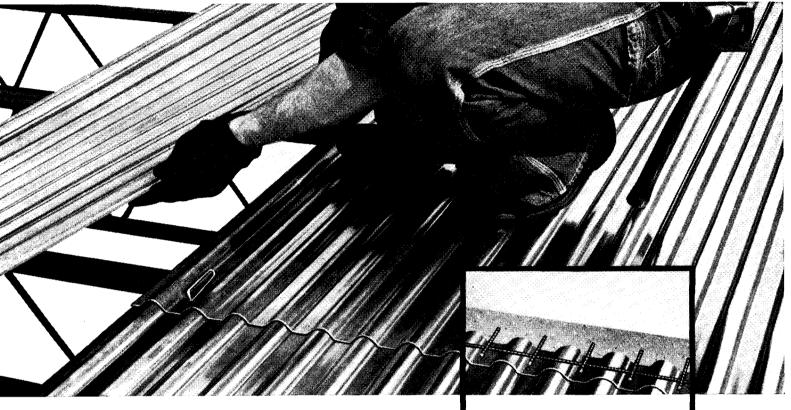
430. Fota-Lite, AIA 31-F-237, 6-p. folder gives features of crystal glass panels. Construction includes tiny opal louvers embedded by photographic process into glass, giving high level of illumination with low brightness. Features include permanence, adaptability, easy maintenance, light weight, efficient performance, even illumination. (Continued on page 152)

PROGRESSIVE ARCHITECTURE, 430 Park Avenue, New York 22, N. Y. I should like a copy of each piece of Manufacturers' Literature circled. Coupon must be used by 3/1/58



We request students to send their inquiries directly to the manufacturers.

### HERE'S WHY BETHLEHEM SLABFORM Saves You Time and Money



Bethlehem Slabform provides a safe working platform

Here are seven reasons why you can save both time and money by by using Bethlehem Slabform, the steel form for concrete floors and roofs over steel joists:

• 1. The solid Slabform permits concrete finishing to start much sooner than is possible with "flexible" centering. You can pour, level, screed, and finish without time lag, saving considerable time and labor.

• 2. Eliminating the sag that occurs with "flexible type" centering saves  $\frac{1}{2}$  in. or more of concrete. For a  $2\frac{1}{2}$ -in. slab this represents a concrete saving of approximately 20 per cent.

• 3. Slabform prevents concrete leakage and greatly reduces clean-up costs.

4. Slabform prevents rapid run-off of water, permitting proper "hydration" during curing period, resulting in stronger concrete.
5. Slabform prevents formation of "incipient cracking" which

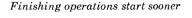
• 5. Slabform prevents formation of "incipient cracking" which often occurs with "flexible type" centering in poured areas adjacent to those being concreted.

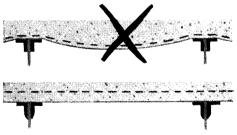
• 6. Just an ordinary pair of tin shears is all that's needed to cut and fit Slabform around special openings.

• 7. Slabform can easily be installed with clips (illustrated) or by welding through wing washers or by means of self-tapping screws.

Bethlehem Slabform makes the pouring of floors and roofs simple and rapid. Made from steel having a yield point of approximately 90,000 psi, Slabform provides a strong, stiff formwork. Slabform comes in laying widths of 24 in. and in lengths of 6 ft 3 in., 8 ft 3 in. and 10 ft 3 in., including 3 in. for end laps. Gage is 0.0156 in.

> BETHLEHEM STEEL COMPANY, BETHLEHEM, PA. On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation. Export Distributor: Bethlehem Steel Export Corporation





Eliminates sag, saves concrete



No leakage, reduces clean-up costs



### "Large, glare-free glass areas provided by **american LUSTRAGRAY** have increased the efficiency and added to the

### comfort of our draftsmen"

-says Charles C. Owens, president of Campbell Engineering Inc., Detroit, Mich.

**Below**—New 80' x 80' drafting room, glazed by West Detroit Glass Co. AMERICAN LUSTRAGRAY reduces sun glare approximately 50% and actually sharpens the view.

engineered by Campbell Engineering Inc.—Built by H. F. Campbell Construction Co.

President Owens speaks from first-hand experience with AMERICAN LUSTRAGRAY sheet glass. Even in critical work areas, its glare reduction minimizes eyestrain and fatigue. Viewed from the interior, this neutral gray tint glass gives "clear glass" vision. Seen from the exterior, LUSTRA-GRAY'S visual density provides a skin wall effect. This permits large glass areas without losing building design effect.

LUSTRAGRAY reduces both sun glare and heat transmission. It is the most economical gray

W\$W 6945

glass on the market. Thicknesses: 3/16'', 7/32'', 1/4''. Maximum size:  $6' \ge 10'$ . Available through more than 500 glass jobbers. Write our Architectural Promotion Department today for new 1958 General Catalog for your AIA file.



### p/a manufacturers' literature

(Continued from page 147)

Booklet devoted to product data, calculation information. Photometric data is present for 2-, 3-, or 4-lamp troffers-giving testing conditions, brightness, distribution, coefficients of utilization tables; also data given for offset lighting. Detail drawings complete information. Lighting Sales Dept., Corning Glass Works, Corning, N. Y.

431. Lightolier Style Book, 98-p. catalog showing hundreds of fixture styles for commercial or residential applications. Includes recessed, pendent, ceiling-mounted, floor, and wall-mounted models to complement traditional or contemporary room decor. Sketches show fixtures installed in exterior and interior settings where such factors as sloping ceilings, exposed beams, multipurpose rooms, and furniture create unusual lighting problems. Covers fluorescent, incandescent, and strip lighting. Cross-reference chart serves as convenient guide to choice of proper fixture for specific lighting situation. Lightolier, Inc., Jersey City 5, N. J.

Valance, Cornice and Cove Lighting, 8-p. booklet gives general rules for structural design and installation of valance, cornice, and cove faceboards. Materials for faceboards, construction detail sketches, dimensions for location of wiring channel and light source included. Lighting effects obtainable using each of these types are discussed. Dimming equipment reviewed. Photos of installations illustrate principles. Copies available at \$.10 per copy. Write direct to: Westinghouse Lamp Division, P. O. Box 388, Bloomfield, N. J.

432. Plugmold Multi-Outlet Systems, 6-p. brochure covers system of rigid-steel cover and base with outlets at frequent intervals. Can be installed in continuous strip along any surface; painted to match decor. Benefits listed include: easy installation with few fittings, ability to adapt to special applications, flexibility. Avail-able in several types: 20 amp in multioutlet or combination multi-outlet, baseboard, metal raceway for home, office, store use; 30-amp series accepts devices in raceway-suited to industrial, commercial applications; 50-amp system designed primarily for test benches, laboratories, assembly lines. Specifications, fittings, given. Photos of installations in home, industry. Special 15-amp series designed for light service. Accessories pictured. The Wiremold Co., Hartford, Conn.

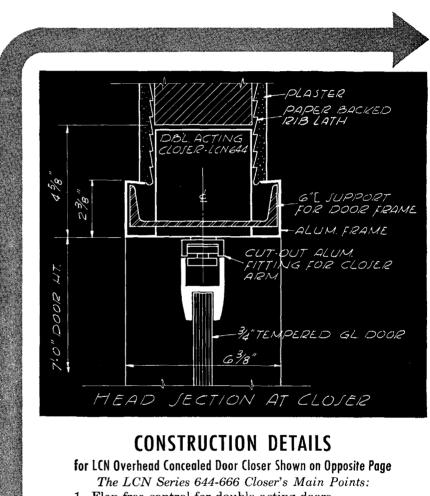
433. Luminous Ceilings, AIA 31F290, 31F21, 39B1, 8-p. discussion of various types of ceilings. Featured is Magnaluminus type using rigid, extruded aluminum track system on 46" centers to receive light diffuser panels. Detail drawings shown. Ceiling systems included-modular system, acoustical type, louver, acrylic, factory-wired systems. Various track patterns shown by detail drawings; coefficients of utilization tables, formulas, lighting elements, specifications included. Photos of installations. Luminous Ceiling Inc., 2500 W. North Ave., Chicago 47, Ill.

434. Standby Generating Sets, 4-p. catalog discusses value of emergency electricpower plants. Standard models for various applications, control, accessories described. Suggestions on how to select systems for commercial, institutional, residential buildings. Diesel driven, gasoline operated, other models available. Katolight Corp., First Ave. at Chestnut St., Mankato, Minn.

435. Wallites, AIA 31F2, 4-p. brochure gives specifications for three types localized lighting. Type 224 is cast aluminum, protective coated - has high reflection through prismatic diffusing plate; takes incandescent lamp to 100-w. Type 211 uses glass, metal, plastic; ends compression molded; light comes through molded, flashed opal glass. Type 2211 has preheat ballast. Some colors available. Construction drawings. Gotham Lighting Corp., 37-01 31st St., Long Island City, N. Y.

#### finishers and protectors

542. Color Symphony for School Interiors, 48-p. guide to selecting, specifying (Continued on page 156)



- 1. Flap-free control for double-acting doors
- 2. Handles exterior doors of normal height up to 3'6" wide; interior doors to 4'0''
- 3. Power applied by a lever arm; in-swing and outswing are adjustable separately
- Used for wood, metal or tempered glass doors hav-ing top members 1<sup>3</sup>/<sub>4</sub>" thick or more
- 5. Pivots included. Hydraulic back-check. No special threshold needed.

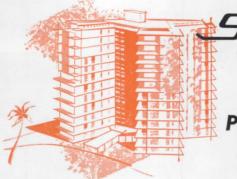
Complete Catalog on Request—No Obligation or See Sweet's 1957, Sec. 18e/La

LCN CLOSERS, INC., PRINCETON, ILLINOIS Canada: Lift Lock Hardware Industries, Ltd., Peterborough, Ontario

The Austin Company, Engineers and Builders

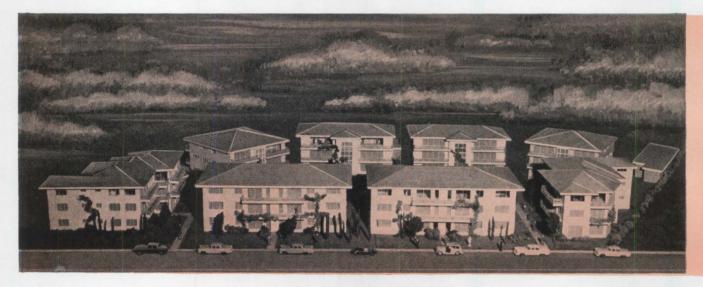
Construction Details on Opposite Page

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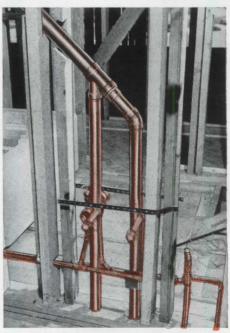
Streamline® QUALITY COPPER TUBE chosen for these magnificent apartments . . . the CAPRI AIRE and PHOENIX TOWERS . . . the ultimate in comfortable, carefree, modern living

These two fabulous co-operative apartments . . . one at Phoenix, Arizona, the other in La Jolla, California . . . are setting the pace for a new kind of casual American living. Architects have designed both these luxurious buildings for an absolute maximum of comfort and operating efficiency. It was only natural that copper, the modern piping material, was used for plumbing systems in both projects... a decision certain to pay handsome dividends in trouble-free service for the life of the building. Rustproof and practically clogproof, as well, copper's ease of installation is credited with keeping overall cost-ofinstallation below that of competitive material.



La Jolla Capri Aire, at La Jolla, California, combines outdoor and indoor living in a delightful grouping of lavishly-finished co-operative apartments in which quality materials and careful workmanship are combined to produce these attractive dwellings with distinctive California styling. Lionel V. Mayell, who has created a number of these beautiful co-operatives in other western cities is the developer of the Capri Aire project. The general contractor is the Del Anderson Construction Co., San Diego, and plumbing and heating installation is being handled by Ben Huntington and Sons, also of San Diego. These one-, two-, and three-bedroom apartment homes feature sound- and weather-conditioning, a swimming pool, ultra-modern radiant heat, and ... of course, miles of Mueller Brass Co. Streamline copper tube.

In the Capri Aire co-operative, space-saving copper tube in long standard lengths is easy to handle and quick to install.



And the second	
	A A A A A A A A A A A A A A A A A A A

The \$3 million, 14-story Phoenix Towers (above) ... a 60-apartment co-operative unit in Phoenix, Arizona, was designed by Ralph C. Harris. The Del C. Webb Construction Co. was the builder, and Ralph W. Applegate Realty & Investment Co. of Chicago is the agent for the building. John Armer, the plumbing and heating contractor, points with understandable pride to this carefully-installed system. Armer's general superintendent on the Phoenix Towers installation was Mr. Bud Lindquist. In reviewing the project, Lindquist was extremely enthusiastic about copper, both from a standpoint of overall economy of installation, ease of handling, and the saving of valuable space as well. Little wonder, then, that the use of copper for supply and drainage systems is constantly increasing!



Gleaning copper drain lines from lavatory and closet in the Phoenix Towers co-operative provide valuable evidence to buyers of these apartment-homes that the builders have lavished more than mere extraneous beauty on the construction of these "apartments of the future". Long-lasting Streamline quality copper, like the drainage lines shown here, will assure years of complaint-free service and reliability.

There is a complete range of Streamline tube and soldertype fittings for every installation need. Versatile, easy-to-install copper adds the finishing touch to the master plumber's finest work in *both* drainage and supply. Send today for kit No. 15 containing helpful information on copper for drainage, and Mueller Brass Co.'s catalog on Streamline copper tube and fittings, too. These two guides will help you plan better supply and drainage systems the modern way.

MUELLER BRASS CO. PORT HURON 9. MICHIGAN

### p/a manufacturers' literature

#### (Continued from page 152)

paint colors for school interiors. Two complete color schemes are presented: suggestions for each room shown in paint-chip form. Standard or easily mixed colors included; examples are either flat alkyd-type enamel with satin finish for trim use or latex-type satin finish with suitable trim. General description of color schemes for individual rooms such as lobby, office, classroom, auditorium, including ceiling, wall trim and doors, floor. Specifications for interior-exterior painting surfaces. The

O'Brien Corp., 101 N. Johnson St., South Bend. Ind.

543. "City of Tomorrow" Protected Today, 4-p. booklet discussing application of Presstite No. 1175.1 sealing compound in Dallas Exchange Park, Dallas, Texas. A Thiokol LP-base sealing compound, Presstite is recommended for setting glass and panels, sealing metal joints, metal windows to masonry walls, and sealing concrete, tile and masonry expansion joints. Brochure



gives detail photos and diagrams of particular applications in Dallas. Characteristics, application method and suggested specifications are included. Presstite-Keystone Engineering Products Co., 39 & Chouteau Aves., St. Louis 10, Mo.

544. Architectural Alodine Process, 4-p. brochure discusses new protective, \*

decorative finish for aluminum. Properties of finish include: resistance to corrosion and mortar staining, permanence, little maintenance; feature is claimed reduction of reflectivity of more than 30%. Available in several colors-samples of finish included in catalog. Suggested applications for doors and windows, curtain walls, roofing and siding, decorative panels and partitions, with corresponding finish for each shown. Process data chart gives time for process, coating weight, reflectivity, color variation for four finishes. American Chemical Paint Co., Ambler, Pa.

#### specialized equipment

801. 1957 Revco, information kit containing latest data on built-in refrigerators and freezers for contemporary and traditional kitchens. Includes: complete specifications, installation instructions, catalog brochure, and 16-page brochure of selected kitchen designs featuring four-color photos and perspective drawings of each. Revco, Inc., Deerfield, Mich.

802. Rolling Gymstands, AIA 35-F-11, 16-p. catalog illustrates operating features of four rolling gymstand types: standard, recessed, movable, and special balcony models. Shows typical installations. Section on optional accessories; end rails and panels, rear filler boards, scorer's table, ventilating grills. Tabulated space requirements, seating capacities; diagrams; sightline study; planning procedure; typical gym floor-plans showing location of stands. Specifications. Wayne Iron Works, 147 N. Pembroke Ave., Wayne, Pa.

803. ABC of Fire Protection, 36-p. twocolor bulletin describes nature of fire protection systems. Various types of fire protection systems and components available illustrated in detail. Methods of extinguishing fire used in these processes: water sprinklers, water fog, air foam, chemical foam, dry chemicals, carbon dioxide. Economic benefits of fire protec-tion discussed. "Automatic" Sprinkler Corp., of America, Youngstown 1, Ohio.

#### surfacing materials

972. Nevamar Decorative High-Pressure Laminates, AIA 35-C-12, 4-p. folder containing color and patterns in high-pressure laminate line. Material is impregnated fibrous material with thermo-setting resins, bonded under controled heat and high pressure. Nonporous, material is easily maintained, resistant to heat and stain. Sizes, thicknesses, application process given. Meets NEMA standards for decorative thermo-setting laminates. Useful for institutional, residential, commercial installations. The National Plastic Products Co., Odenton, Md.

Architects: Waasdorp and Northrup, Rochester, New York

their fields choose Robbins Ironbound, Continuous Strip, Northern Hard Maple Floors:

contractors only. Write Robbins, Reed City, for complete

# Rolling Metal Doors

### Provide Removable Dividing Wall in School Gymnasium!

The six aluminum rolling doors illustrated here, which form a dividing wall in a school gymnasium, are electrically controlled by push-buttons on a single panel. When the doors are fully opened, the mullions between doors on the main floor are moved out of the way by means of an overhead track and nested at either side, leaving the entire gymnasium floor clear. Roll-up Doors of Aluminum or Stainless Steel, with movable mullions, offer the best solution to the problem of providing a removable dividing wall in modern school gymnasiums. Three power operated rolling doors are usually employed to divide the main floor area . . . two more power operated rolling doors are employed to divide the balcony on either side of the gymnasium floor-thus dividing the entire gymnasium into two separate parts. The important advantage of this type of dividing wall is its roll-up, overhead storage when not in use . . . no storage pockets to consume floor space and obstruct vision-no track required in the floor. In the installation below, all visible parts of the rolling doors are aluminum. Similar installations can be made in stainless steel, or in prime coated galvanized steel which can be painted after erection to harmonize with the general decorative scheme. For high quality Rolling Metal Doors of all types, including Underwriters' Labeled Rolling Steel Fire Doors and Window Shutters, see Mahon's Insert in Sweet's Files, or write for Mahon Catalogue G-58. Inquiries relative to special purpose doors, and installations such as the one illustrated here, should be addressed to the Home Office in Detroit for prompt attention.

THE R. C. MAHON COMPANY • Detroit 34, Michigan Sales-Engineering Offices: Detroit, New York, Chicago • Representatives in Principal Cities Manufacturers of Rolling Metal Doors, Grilles, and Automatic Underwriters' Labeled Rolling Steel Fire Doors and Shutters; Insulated Metal Curtain Walls and Underwriters' Rated Fire Walls; Electrified M-Floors; Roof Decks and Long Span M-Decks.

Interior view of Gymnasium in the new Birmingham High School, Birmingham, Michigan. Swanson Associates, Bloomfield Hills, Michigan, Architects. Cunningham-Limp Company, Detroit, Michigan, General Contractors.

DOORS,

STEEL

ROLLING

AND

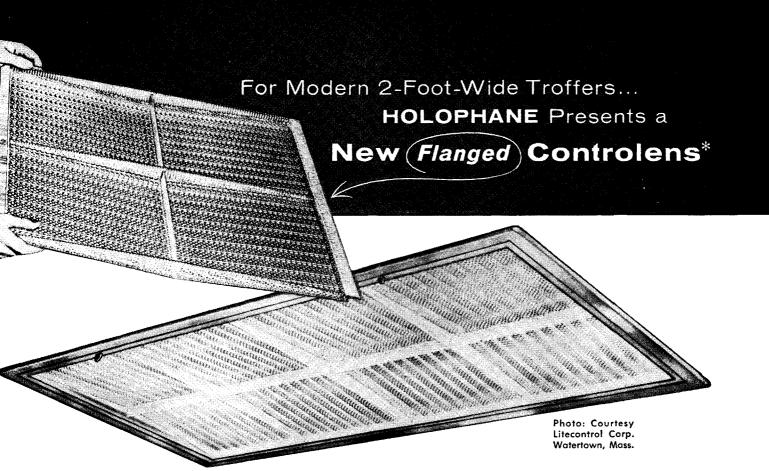
SHUTTERS

GRILLES

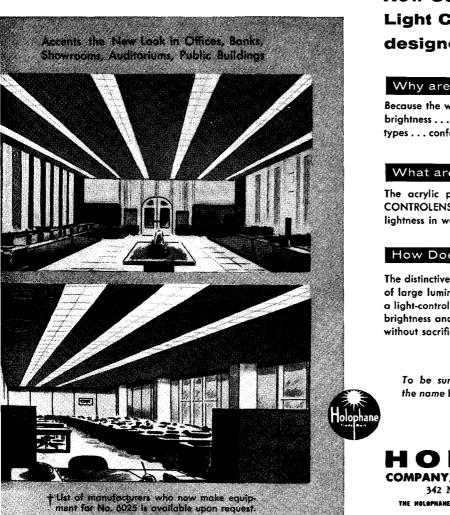
TO

REQUIREMENT

EVERY



### No. 6025 ... Prismalume\* Controlens



New Concept in Fluorescent Light Control Units...Now designed for available equipment<sup>†</sup>

### Why are 2-Foot-Wide Troffers Desirable?

Because the wider lens produces high lighting efficiency with low brightness... assures greater visual comfort than usual narrower types... conforms with latest architectural techniques.

### What are the Advantages of PRISMALUME?

The acrylic plastic, used in the construction of PRISMALUME CONTROLENS, provides crystal clarity, excellent color stability, lightness in weight, easy maintenance, greater safety.

### How Does No. 6025 Set a New Trend?

The distinctive contour of the CONTROLENS avoids the monotony of large luminous panels. It is not a mere diffusing element, but a light-controlling lens, directing more light to the work, reducing brightness and glare. It makes possible higher illumination levels without sacrifice of comfort.

To be sure of Quality, look for the name HOLOPHANE impressed on each piece ...

### HOLOPHANE COMPANY, INC. • Lighting Authorities Since 1898

342 Madison Ave., New York 17, N.Y. The holophane co., Ltd., 410 kipling ave. so., toronto 14, ontario

\*T.M.



Residence, Miami Beach, Florida Nims & Browne, Associated Architects

Ezra Stoller Photo

North, south, east, west...the natural beauty of California redwood enhances fine homes, while the ingrown durability of its heartwood assures resistance to decay. For architectural use, be sure to specify "CRA-Certified Kiln Dry."



### As General Electric sees it... LIGHTING PROGRESS

The fluorescent lighting industry has made tremendous progress in recent years. Advances in architectural styling, backed by new fixture designs and better application techniques, have brought to millions better light for modern living.

**But progress almost always awakens new problems.** So it is with lighting. For modern fluorescent installations, with all their style and efficiency, necessitate increasingly rigid control of ballast operating temperatures. Here's why:

New architectural designs incorporate lower ceilings, and sound-absorbing ceiling materials. Lighting fixtures are flushmounted or recessed. There is also a growing demand for



# **DEMANDS BALLAST PROGRESS**

higher working foot-candles. This means more lamps per fixture and higher lamp currents. To reduce possible glare caused by higher light output, fixtures now utilize louvers or lenses, which contribute to the retention of heat. And, because space is limited, smaller cross-section ballasts are used. Thus, modern fixtures generate more lamp and ballast heat, yet are less able to dissipate it.

Because ballast life may be shortened if ballast temperatures are excessive, modern lighting design and application techniques place huge demands upon the ballast industry. If fluorescent lighting progress is to continue, better ballasts which will operate below standard industry heat specifications in modern applications must be developed. Thus, lighting progress demands ballast progress.



In working toward ballast progress, General Electric engineers have recognized that high ballast operating temperature is perhaps the largest problem to be overcome. The most important single step in solving this problem has been the development of a realistic new approach and new facilities for accurately measuring ballast operating temperatures. In a specially-constructed, temperature controlled laboratory, ballasts are actually installed in modern, totally enclosed fixtures, without the aid of heat dissipating devices (except for normal ballast base contact with the fixture channel). These fixtures are flush-mounted or recessed against typical acoustical ceilings. Thermal measurements are taken only after the ballast has reached a stable operating temperature. Thus General Electric ballast heat measurements reflect actual, modern operating conditions.

As a result of such research, General Electric's entire ballast line is continually undergoing major improvements designed to provide superior performance. The most recent example of G.E.'s research and development is the redesign of its 89G545 line of 40-watt, rapid-start ballasts to operate efficiently well below the industry standard of 90°C. in modern applications. Such ballast progress allows maximum latitude in fixture design and styling.

Specify General Electric ballasts! They are engineered to back up your efforts toward modern, functional lighting and lighting progress. As we see it, General Electric ballast progress is answering the needs of lighting progress. General Electric Co., Section 401-52, Schenectady, N. Y.



**New G-E testing laboratory** simulates ballast operating conditions in modern fixtures, assuring realistic heat measurements.



### an ideal specification for efficient OFFICE DOOR CONTROL



This ideal GJ specification for office doors is used in such outstanding office

Socony Mobil Building, New York City Harrison and Abramovitz and John B. Peterkin — associated architects

State Mutual Life Assurance Company of America, Worcester, Massachusetts. Hoyle, Doran and Berry, Boston, Mass. — architects

A & E and Research Buildings, Whiting, Ind. Holabird & Root & Burgee, Chicago, Illinois architects

Also GJ shock absorbing overhead arm type door holders for entrance and other heavy duty doors.

### "shall have GLYNN·JOHNSON...

GJF 40 FLOOR TYPE (or GJ W 40 wall mounted) COMBINATION DOOR STOP AND HOLDER." (This simple, fool-proof device engages silently and automatically to hold the door open. Releases with a firm pull. Especially recommended for doors opening more than 110°, or to meet budget limitations. All working parts are enclosed in a streamlined case for maximum durability.)

"THREE GJ 64 for metal frame (or GJ 65 for wood frame) RUBBER

SILENCERS." (Form pneumatic air pockets to absorb shock or noise of closing and create constant latch tension...no door rattling.)



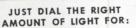


write for complete information and details

GLYNN · JOHNSON CORPORATION

4422 no. ravenswood ave. • chicago 40, illinois

buildings as:



Non-interlocking LUXTROL light control type D2000

with the twist of a wrise

UPERIO

10

CHALL OT

### any level of light

All-level lighting with its infinite gradations of light intensity provides a low cost but effective method of creating moods — moods that bring your clients pleasure or profit.

Turn the LUXTROL light control clockwise and the area brightens. People make decisions faster, hurry and make way for others. Turn counterclockwise and the lights dim. The mood changes. Customers linger longer and spend more than they planned.

You will find light control a multi-purpose tool to create the right effect at the right time in any area where people gather.

LUXTROL light control equipment can be used on incandescent, fluorescent and cold cathode lamps. In the complete line are units to meet all requirements from 360 to 30,000 watt loads. Send the coupon below for full information.





THE TYPE OF MEETING





January 1958 165

### ACP Architectural Alodine" PROCESS FOR ALUMINUM



- PROTECTIVE
- DECORATIVE
- . GLARE-REDUCING

Architectural Alodine is protective because it further improves the good weathering characteristics of aluminum. It provides unusually effective protection at the seaside and in industrial areas. Architectural Alodine is decorative because it chemically forms an attractive green color which enhances the appearance of the aluminum. The coating formed is integral with the metal and the color is sunfast. Architectural Alodine is glare-reducing because the chemically formed coating materially reduces the natural reflectivity of aluminum. And the process is inexpensive, compared to other commercial finishes. Write for samples of aluminum which has been Architectural Alodine treated—no obligation.

### AMERICAN CHEMICAL PAINT COMPANY

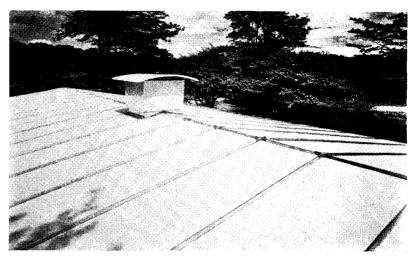
Ambler 46, Pa.

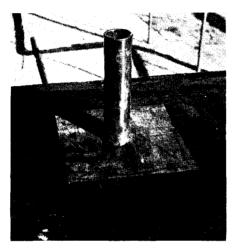
Detroit, Mich. • St. Joseph, Mo. Niles, Calif. • Windsor, Ont. New Chemical Horizons for Industry and Agriculture



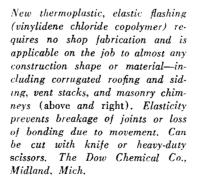


Roof of Alcoa "Care-free Home" (right) features pebble texture, batten-seam construction, and color. Color and texture break up direct light rays, yet roof reflects heat. Aluminum skin is applied over joist-plywood deck construction. Rain and hail noise said to be eliminated. Aluminum Company of America, Pittsburgh 19, Pa. Longest cast-acrylic sheets in world—144"—are being placed on exterior of new office building (left). Currently manufactured as standard item, 48"x144", these sheets are also available in widths up to 100" on special quotation. Applied modularly, units are suitable for many building types; also offer opportunity for outdoor signs. Wasco Products, Inc., Cambridge. Mass.

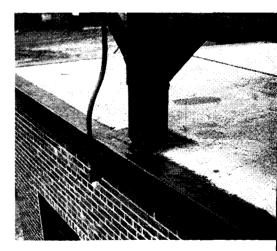








Alternate method of applying gypsum wallboard to framing (left). Continuous, proper-size bead of adhesive is applied to face of framing members by calking gun. Wallboard for sidewalls is nailed 16" o.c. and 12" o.c. for ceilings. Adhesive helps compensate for excessive lumber shrinkage, bridge minor framing irregularities, and minimize improper nailing problems. U. S. Gypsum Co., 300 W. Adams, Chicago 6, Ill.





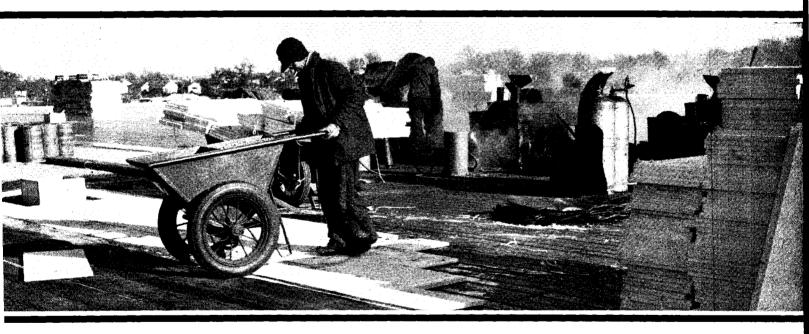
### For trouble-free roofs, insist upon rigidity in insulation

### Specify Insulite for the extra rigidity of hardy Northern wood

The photos at left and below show the typical heavy loading, and busy roof-top traffic, involved in today's roof application methods.

Obviously, the dangers of cracking, crushing and flexing of roof insulation are serious. More than ever, therefore, the first requisites in roof insulation material must be strength, toughness, and *rigidity*. This, most certainly, is a major reason why architects, roofing contractors and bonding companies all favor Insulite Roof Insulation. For Insulite is vastly different from any soft, or flexible, or brittle materials. Insulite is not only all wood, but all *Northern* wood. These slow-growing Northern wood fibers are your assurance of *extra* strength, *extra* stiffness, *extra* rigidity in Insulite Roof Insulation.

May we help you plan roofs that will stay sound, tight and trouble free? For new, helpful technical data, write us—Insulite, Minneapolis 2, Minnesota.



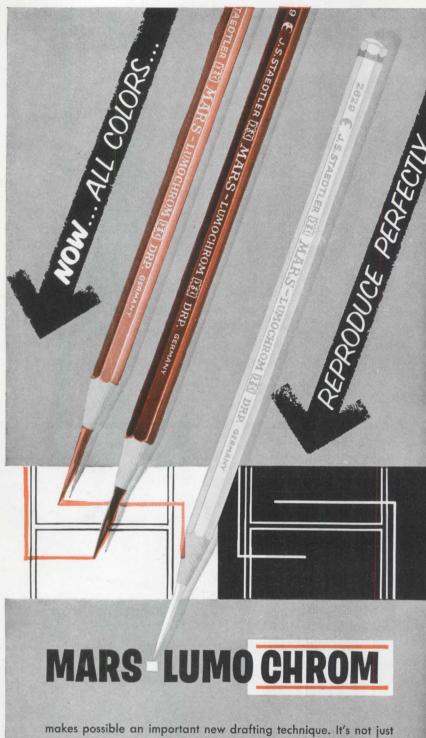
**Better, faster methods** make present-day roofs a better "buy" than ever before. But the picture above shows the need for an insulation material that can safely withstand heavy loading. Heavy LP gas cylinders, asphalt kettles, big

capacity gravel barrows, all contribute to the heavy weights now carried on roof surfaces. That's why nothing less than the strength and rigidity of Insulite Roof Insulation is good enough, or safe enough, for today's fine buildings.

### build better and save with





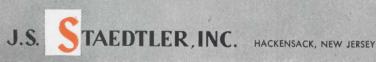


makes possible an important new drafting technique. It's not just a colored pencil; it's a color-drafting pencil. Twenty-four colors and every one reproduces perfectly. Lets you draft with as many colors as you need. Saves time, prevents mistakes.

won't fade • won't smear • really waterproof
 • erases perfectly • keeps finest point

#### Send for free sample

Other new Mars products include: the Mars-Pocket-Technico for field use, the Mars "Draftsman's" Pencil Sharpener with the adjustable point-length feature, and the efficient, clean Mars lead sharpener. All available – along with the established standards: Mars-Lumograph black graphite drafting pencils. Mars-Technico lead holder and leads, and Tradition-Aquarell painting pencils – at all leading engineering and drafting supply dealers.

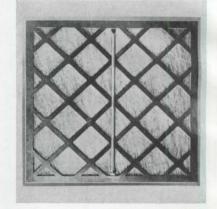


### p/a products

(Continued from page 167)

#### air and temperature control

Glasfloss Safety-Grille Filter: using diecut chipboard grill-work instead of metal stampings, new glass-fiber air filter is safe, easy to handle for industrial installations. Filter (*below*) has two sections—top and



bottom—with ends fastened to make unit. Available in standard sizes. Fiber Glass Div., Pittsburgh Plate Glass Co., 1 Gateway Center, Pittsburgh 22, Pa.

"Quiet-VENT" Silencer: recently developed silencer is designed to prevent noise transmission through return air vents without stopping air passage. One-piece unit fits in wall, is available in several sizes. Construction is of 22 and 24 gage steel; silencer has attenuation of 40 decibels. Air Conditioning Dept., Industrial Acoustics Co., Inc., 341 Jackson Ave., New York 54, N. Y.

#### construction

Pre-finished Hardboard Panels: two new types prefinished hardboard panels developed for wall and ceiling applications undergo special process which gives board hard, high-gloss finish, ivory color. Plankette is V-grooved panel adaptable particularly to wall installation; panel may be nailed to studs or applied to other surfaces—size is 4'x8' with beveled edges for continuous wall appearance. Score-tex type has V-grooves to form 16" squares, cut to 4'x4' sizes; beveled sides; suitable for ceilings. Painting, waxing, varnishing not necessary. Colored annular-threaded hardboard nails with new finish also available. Chapman Manufacturing Co., Corvallis, Ore.

Asbestolux: lightweight, incombustible building board made entirely of inorganic material has been made available to U. S. markets. Long-fiber asbestos is bonded chemically with special silica in high-pressure steam process. Material is also good thermal and electrical insulation—can be used as electrical component or protective material. North American Asbestos Corp., 141 W. Jackson St., Chicago 3, Ill.

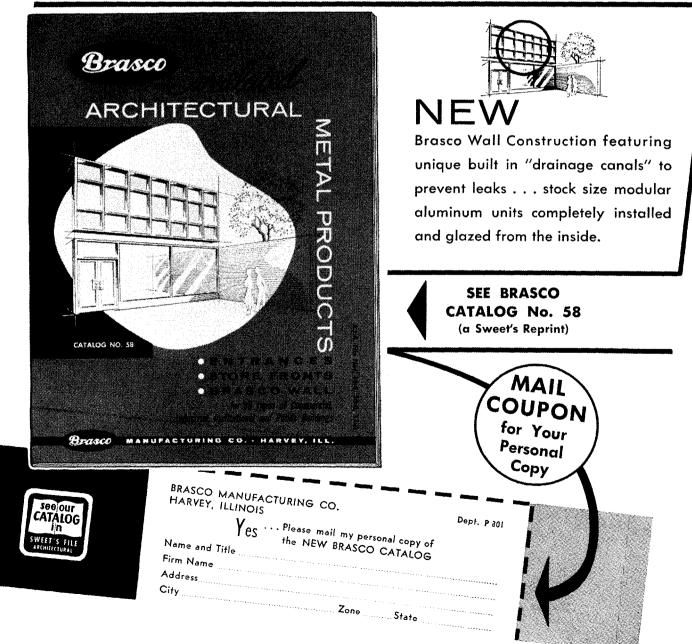
## **PWHAT'S NEW** in Entrances • Store Fronts • Window Wall



Thru-bolted, contour milled and welded door corners making Brasco Aluminum Doors the strongest obtainable . . . Door Hardware and Accessories . . . Burglar Proof Lock and Hinges.



Rolled and Extruded Snap-on Sash, Direct-on-Masonry Settings . . . 6" Bulkhead Sash . . . Extruded Aluminum Bar Reinforcements.





John Jay Junior-Sentor High School, Cross River, N.Y. Architects: Ketchum, Gina & Sharp, New York. Structural Engineers: Severud-Elstad-Krueger.

# A Lupton aluminum curtain-

### helps sustain a single design theme throughout eight

The new \$1,700,000 John Jay High School in New York's Katonah-Lewisboro district is a monument to the determination and pride of a community. And, with its completion, the project also becomes an indication of what architects can accomplish with a low-cost and versatile LUPTON curtain-wall system.

At the outset, it was obvious that each building would present particular planning problems of its own (see illustrations at right), yet it was esthetically desirable that the school—taken as a whole—retain a continuity of design. A most satisfactory combination of beauty and economy was found in aluminum curtain-wall construction.

Imaginative use of LUPTON aluminum projected window

components and insulated porcelain-enameled panels enabled the architects to incorporate the required combinations of vision, natural lighting, and ventilation in their designs without destroying the relation of each building to its neighbors. Moreover, this was accomplished within the Trustees' original budget.

The versatility and design flexibility of LUPTON aluminum curtain-wall systems make an investigation worth your while. They save money, go up fast (usually from *within* the building, without scaffolding), and permit creative freedom for far less than you'd think. By leaving the entire job to LUPTON—including erection by swift, skilled LUPTON crews—you can effect even greater savings.



Photographs by Continental Air Views and Joseph W. Molitor.

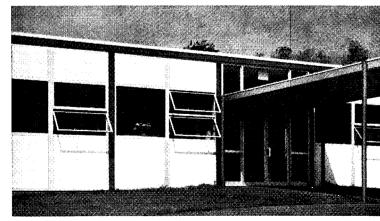
# wall system

### dissimilar buildings

See Sweet's Sections 3 and 17) for the Michael Flynn Curtain Wall and Metal Window Catalogs, and write to us for further information. For fast action, look up the LUPTON representative in your Yellow Pages, under "Windows-Metal."



ABUNDANT NATURAL LIGHT was wanted for this north wall of the John Jay library. LUPTON aluminum projected windows were selected and delivered ready for installation. Good-looking, rugged, and simple to put up, they provide light and maximum controlled ventilation to this outstanding building.



GLASS BALANCED WITH OPAQUE PANELING for classrooms. Here, natural lighting was neither practical nor desirable, and custom-engineered, insulated porcelain-enameled panels by LUPTON were specified for their beauty and thermal insulation value. The LUPTON windows open for air and for cleaning from the inside.

### p/a products

(Continued from page 170)

### doors and windows

Wide-Stile Door: fabricated from extruded-aluminum tubing, door is deep-welded for extra strength. Butt joints used in corner construction; kick plate eliminated. Feature of door is concealed panic device using nylon bearing, giving particular adaptability to commercial and institutional installation. Kawneer Co., 1105 N. Front St., Niles, Mich.

Sisal-Glaze: new outdoor plastic transmits high percentage of sunlight, both ultraviolet and infrared rays. A semi-rigid film, material can be used for covering sunhouses, cold frames, industrial struc-tures, porch enclosures. Available in 100 impact, hail, snow loads, American Sisal with regular scissors. Will withstand wind, impact, hail, snow loads. American Sisalkraft Corp., Attleboro, Mass.

Unilock Windows: stacked window series, milled to locking pattern, will adapt to any combination. Can be used as casement, awning, fixed, hopper windows.

Mahoning Valley Restaurant & Service Station

5 miles west of Pennsylvania - Ohio Line

**RESTAURANTS & SERVICE PLAZAS** on the OHIO TURNPIKE



Architect: Bellman, Gillette & Richards

160 Balanced Doors in the entrances to the **Restaurants & Service** Plazas on the Ohio Turnpike.

> more.. doors

> > the

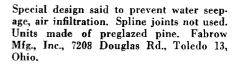


The Door that lets TRAFFIC through QUICKLY

BALANCED DOOR

ELLISON BRONZE CO. Jamestown, New York

ison representatives in 77 principal cities in the United States, Canada and Puerto Rico



### electrical equipment, lighting

Colortone Mercury Vapor Lamps: developed for all general lighting applications. Coating on outer bulb produces diffused, even light-available in 400, 700, 1000-watt sizes. New applications for line include schools, office, floodlighting, stores, luminous ceilings. Advantages include: more light per unit, small fixture cost, low initial installation cost. Lamp Div., Westinghouse Electric Corp., Bloomfield, N. J.

### finishers and protectors

Plastic Metal #100: new colored aluminum coating for protection of roofs, exterior, masonry surfaces. Material can be applied over asphalt, asbestos, slate, tile roofs; will not alter under heat or cold. Reflects up to 70% of sun's rays-has insulating properties. Available in white, several colors. Particularly useful in industrial, coastal areas. Plastic Metals Div., Yenkin-Majestic Paint Corp., E. Fifth Ave. at Leonard, Columbus 19, Ohio.

### sanitation, plumbing, water supply

Dur-X-Fittings: nylon fittings for plastic pipe will not corrode or rust. Fabrication includes process to increase resistance to impact blows. Characteristics include deep, standard IPS threads, hexagon hub to provide gripping surface for wrenches. Smooth inner bore gives good liquid flow; leaks eliminated by inside bite. Sizes from  $\frac{1}{2}$ to 2"-X male thread adapter, insert coupling, insert elbow, tee, included. Franklin Plastics, Inc., Cameo Blvd., Franklin, Pa.

### surfacing materials

Setfast: ceramic wall tile now available in 12-tile sheets to aid installation process. Consists of regular  $4^{1}/4^{"} \times 4^{1}/4^{"}$  tiles per-manently mounted on mesh; mesh acts like ribs in reinforced concrete-unifies tiles, gives bond, reduces vibration, structural shifts, temperature changes. Sheets



(above) can be installed with adhesive, self-curing mortar, or portland cement mortar with bonding coat. Available in 16 glazes of present Suntile line. Cambridge Tile Mfg. Co., P. O. Box 71, Lockland Sta., Cincinnati, Ohio.

### Giant Computers are made here where Employees **THINK**

INTERNATIONAL BUSINESS MACHINES CORP. MILITARY PRODUCTS PLANT, KINGSTON, N. Y.

### and work better in air conditioned spaces



### thermostatically controlled by



In this big modern IBM plant are produced the world's largest electronic digital computers, which mastermind the famous SAGE Air Defense System.

In minutes SAGE can detect a foe approaching by air, determine its course and even guide an interceptor to meet the attacker. SAGE is a masterpiece of automation.

Accurate Control of temperature and humidity by Powers in this completely air-conditioned plant helps employees THINK better and produce better quality products.

Powers Process Controls also are used at IBM for regulating temperature of dryers, metal plating and finishing, photo film developing, heat treating, and shower baths.

Are You Planning a New Building or modernizing an old one? Solving the many temperature, humidity and pressure control problems at IBM exemplifies the engineering skill available at Powers and the versatility of Powers Control to handle a wide range of requirements. Ask your architect or engineer to include a Powers Quality System of Temperature and Humidity control.

(C57a)



V. E. Vallet, Detroit, Mich. Contractors for heating and air conditioning: Rowland Tompkins & Sons, Hawthorne, N.Y. Subcontractor : Carrier Corp., New York City

Architect: L. Rossetti . Engineers: R. F. Giffels and

Production of high quality precision products made here is aided by Powers control in assembly-line areas, test and research laboratories, administration and engineering offices,

THE POWERS REGULATOR COMPANY

SKOKIE, ILLINOIS Offices in chief cities in U.S.A., Canada and Mexico

65 years of Automatic Temperature and Humidity Control

Focal point of the SAGE Air Defense System is the round scope portion of Display Console

shown in photo below at left. It can depict the over-all battle or focus on part of it. Some of the many spaces regulated by Powers Temperature and Humidity Control are shown here.



### ANOTHER PRESTRESSED CONCRETE STRUCTURE



Let the architects tell you why they used prestressed concrete for this hospital

CONSULT ROEBLING ... First in the U.S. with prestressing and tensioning elements



Architects—Sherwood, Mills and Smith Consulting Engineers—Marchant and Minges General Contractor and Fabricator of prestressed slabs—A. F. Peaslee, Hartford, Conn.

A typical staff meeting of junior and senior partners in the conference room at Sherwood, Mills and Smith. Standing are Thomas Norton, junior partner, and Willis N. Mills. Seated, reading from left to right are: Carrell S. McNulty, Jr., Gray Taylor, A. Raymond von Brock, Lester W. Smith and Thorne Sherwood.

We quote Sherwood, Mills and Smith, architects, of Stamford, Connecticut: "In designing the new Litchfield County Hospital in Winsted, Connecticut, we used prestressed concrete principally for economy. Our structural engineers, Marchant and Minges of West Hartford, Connecticut, designed a series of flat lift-slabs which were kept thin by the use of prestressing. This permitted lower floor-to-floor heights, thus saving on cubage. It also meant less weight of concrete and steel. Actual construction costs have borne out their original thinking." (Italics ours.)

We've emphasized the last line of this quote because it contains most of

the elements that are contributing to the rapid growth and acceptance of prestressed concrete as a building method. Economy may be what you require, construction speed may be your first requisite or maintenance the first consideration. In any case, you should consider prestressed concrete as the best means to meet your needs.

We shall be glad indeed to give you details on prestressed concrete and its existing successes in virtually every type of structure. Any means of communication to Construction Materials Division, John A. Roebling's Sons Corporation, Trenton 2, New Jersey, will bring a prompt and fully documented reply.



### PITTCO® SASH MEMBERS

■ Shown here are six of the many glass-holding members in the complete line of PITTCO Metal Products. Curved or flat, simple or ornamented, they combine beauty of form with effectiveness of function. The result is quality sash—handsome, durable, easy to install—for every design need. See or call your PITTCO Store Front Representative for complete details.

PAINTS · GLASS · CHEMICALS · BRUSHES · FLASTICS · FIBER GLASS PITTSBURGH PLATE GLASS COMPANY IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED

#### books received

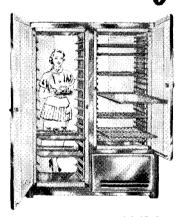
A Handbook of Hard Metals. W. Dawihl. Philosophical Library, 15 E. 40 St., New York, N. Y., 1956. 162 pp., illus, \$10

Handbook of Standard Structural Details for Building. Milo S. Ketchum. Prentice Hall, Inc., 70 Fifth Ave., New York, N. Y., 1956. 120 pp., illus. \$4.65

Planning for School Buildings. James D. MacConnell. Prentice Hall, Inc., Englewood Cliffs, N. J., 1957. 348 pp., illus. \$6.95 Ladengestaltung. Shop Design. Robert Gutmann and Alexander Koch. Verlagsanstalt Alexander Koch GmbH, Stuttgart, Germany, 1956. In German and English. Distributed in U.S.A. by George Wittenborn Inc., 1018 Madison Ave., New York, N. Y. 200 pp., illus. \$12

Masonry Simplified. Vol II: Practical Construction. J. Ralph Danzell and Gilbert Townsend. 2nd Ed. American Technical Society, 848 E. 58 St., Chicago 37, Ill., 1957. 438 pp., illus. \$4.95

### SPECIFY Puffer-Hubbard Refrigerators For"*Lifetime*"SERVICE



**UL** Approved

Model 40-4 Pass-Thru Self-Contained



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The Early Architecture of Georgia. Frederick Doveton Nichols. Photos by Frances Benjamin Johnston. University of North Carolina Press, Chapel Hill, N. C., 1957. 292 pp., illus. \$15

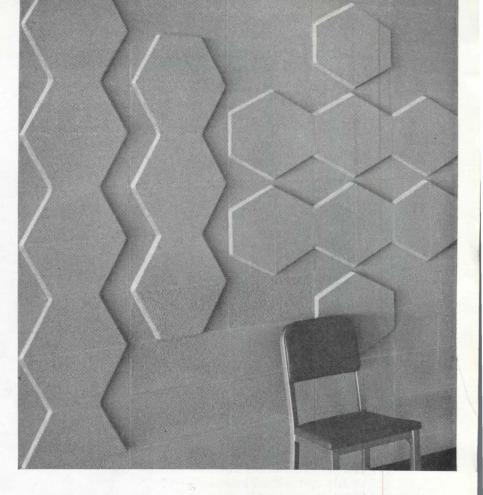
No doubt many an architect has, in his school days, been provoked to wonder about those enormous volumes lying on their specially constructed stacks in the library; but he has lacked the energy to lift them bodily from their shelves, to find a table large enough to sustain them, and to examine at length their contents. If he had, he would have found a wealth of painstaking, measured drawings of the antiquities of Greece and Rome, those of Assyria and Egypt, and the great religious architecture of the Middle Ages. Published before the development of photography, and accompanied by a large amount of descriptive information, those books were a memorial to the scholarly enthusiasm of their authors. The Early Architecture of Georgia is a modern example in this tradition, and a very good one, too. Printed on good coated paper, it contains over 300 photographs, skilfully taken and lavishly reproduced. The typography, both of text and titles, is elegant, and the twin columns of print are pleasingly related to the size of the page.

The author, after a brief chapter describing "the land and the people," has discussed his subject under four headings: "Cities and Towns," "Domestic Architecture of Coastal Georgia," "Domestic Architecture of the Piedmont," and "Civil Architecture." Each heading is accompanied by photographs germane to it and expositions on architects, plans, exterior and interior treatment, materials, and landscaping. The text is interspersed with drawings of plans of towns and of buildings related to the photographs, and the author's statements are thoroughly documented by a wealth of footnotes.

The period covered in this study is well defined, beginning with the founding of Georgia by General

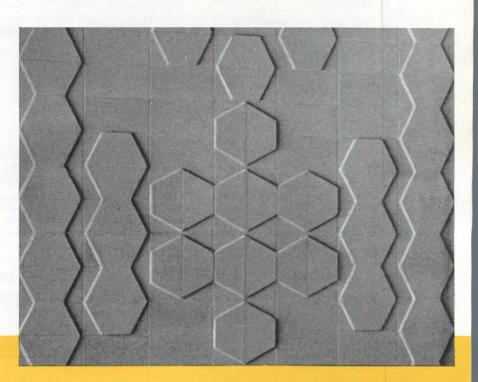


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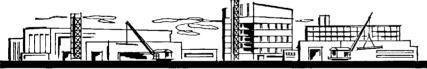
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### reviews

(Continued from page 178)

Oglethorpe, and proceeding, by way of the Georgian style, through the Early Republican, Greek Revival and Gothic Revival, to Fort Sumter. The dichotomy of coastal and piedmont architecture is interesting, in view of the varying national groups concerned with their growth. The coastal architecture, with Savannah as its focus, grew in the tradition of its English settlers who brought with them and perpetuated the style of the Georges not only in architecture, but also in the manner in which they laid out their towns. The architecture of the piedmont (or inland regions) was the result of the influx of settlers of Scotch-Irish descent from Virginia, the Carolinas, and even New England. The lives of these pioneers were affected both by dealings with the Indians and by the hilly and relatively unfertile terrain, so that their holdings were initially small. Appropriately enough, it was here that the log cabin saw its full development. It was not until the second quarter of the 19th Century that the benefits of the cotton gin, coupled with the rapid development of land, brought prosperity to the piedmont; and it was this period which produced the Greek Revival mansions in Macon, Athens, Milledgeville, and other towns of the region. Atlanta remained architecturally unimportant until the railroads expanded, after the Civil War.

An interesting sidelight is thrown on the role of the architect of that day. His status as a professional did not evolve until very shortly before the Civil War. Until then, Georgian builders for the most part had recourse to the architectural handbook. Among the best were those published by Asher Benjamin and Minard Lafever. The owner had much more influence on the esthetics and execution of the design than he does today, and when an architect was called in, it was more in a con-(Continued on page 182)



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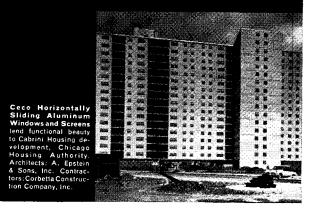
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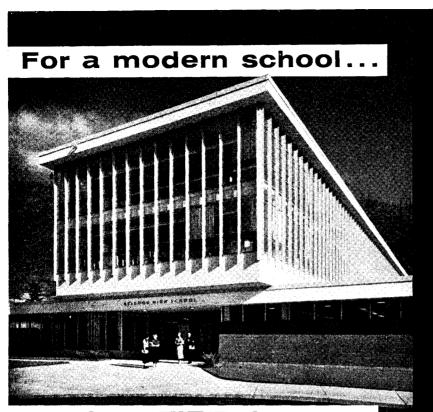




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### reviews

(Continued from page 180)

sultative capacity. Exceptions to this method are the extensive works of William Jay, a pupil of Sir John Soane, and Charles Cluskey on the coast; and those of Daniel Pratt in the piedmont. The architects and builders followed Vignola, Palladio, and the other architectural grammarians only where it suited them, and the liberties which they took were for the most part justified and esthetically successful. Some Gothic Revival houses are, however, more open to criticism.

The author's approach is thorough without being pedantic, and his style sober without being overly dry. An occasional anecdote—such as mention of the burning down of a large mansion on housewarming day—and frequent, direct quotes from old documents enliven the text which supplements the splendid photographs in this gratifying book.

STEPHEN A. KLIMENT Designer Skidmore, Owings & Merrill

### piquant essays

Form and Function. Horatio Greenough. University of California Press, Berkeley, Calif., 1957. 136 pp. \$1.25

The amusing if also piquant essays written by Horatio Greenough in the mid-19th Century, have been selected and reprinted with an introduction by Erle Loran of the University of California. The eight essays offered in this paper-back edition have the fashionable title of Form and Function.

Greenough, now obscure American sculptor, was perhaps one of the first in the U. S. to deplore 19th Century eclecticism and insist on that now current cliché that "form follows function." Some of his suggestions seem tiresome (even if valid) to us today, yet how important they are if one takes into consideration the time in which they were written. They precede both (Continued on page 184)

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### reviews

(Continued from page 182)

Ruskin and Whitman. "Let us consult nature . . . . ; " . . . the subordination of details to masses . . . . "; "The law of adoption is the fundamental law of nature in all structure"; "Most works are most beautiful without ornament"; "Beauty is the promise of function." What particularly delighted this reviewer was the final essay, *Fashion in Relation to Progress:* a series of bright comments in witty oratorical style about mode, that "flutterer in the sunshine of superfluity."

The ideas of the essays are sometimes outdated—but why not? This is a document that 100 years ago could only have been described as phophetic. F.J.S.H.

### good taste in mass production?

Shaping America's Products. Don Wallance. Reinhold Publishing Corp., 430 Park Ave., New York 22, N. Y., 1956. 193 pp., illus., \$10

Is the consumer of mass-produced articles ready to accept a well designed product — that is, a product evincing a fusion of form, functional excellence, and technical quality? Can such a product meet the competition, costwise, of badly designed items, or of those not designed at all?

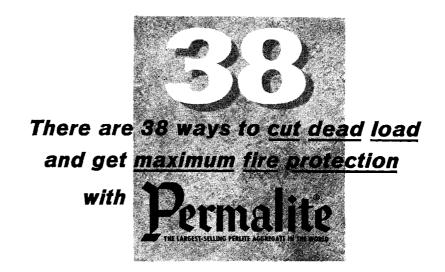
Can industry compensate for the loss of the craftsman? (By craftsman, is meant the creative craftsman who combines his technical skill and knowledge of the nature of his materials to turn out a well designed tool or utensil.) Is it possible for industry to integrate the services of specialists—industrial designer, toolmaker, workman, salesman, and businessman—well enough to produce an article as good as the designer-craftsman's?

These questions are indicative of the problems examined by Don Wallance in *Shaping America's Products*. They are problems which must be resolved by industry, if the vast potential of the machine is ever to be fully and honestly realized.

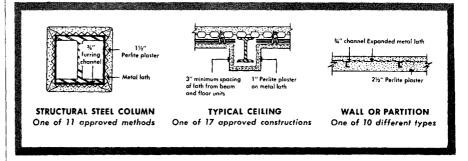
The industrial designer must recognize several questions of esthetic integrity, too, if he wishes to maintain a professional position in an industrial society. Can he overcome the dichotomy inherent in designing for industry: his desire to design for esthetic excellence as opposed to industry's demands that he design for sales? What role does a large industry have in design pioneering? What part does the very small manufacturer or the individual designercraftsman play in an era of mass production?

To the person with esthetic sensibility-or just good taste-it appears that industry and its designers are evading their responsibilities more often than not. For this reason, the series of case studies, which describe and illustrate how some of today's best products are being designed, is the most encouraging portion of the book. These close-ups of design in large industry, small plants, and the designer-craftsman's studio show, and prove, that the well designed product can succeed in a competitive market. And perhaps even more significant is the attitude being shown by some members of management and the design profession. Indeed, one wishes that more businessmen were as cognizant of their responsibility to society as Arthur Houghton, President of Steuben Glass Company, who said, "To discard [articles] before their usefulness is exhausted is a luxury our civilization can no longer afford."

Unfortunately, the 31 case studies represent only a small segment of industry rather than the majority; it remains to be seen whether industry as a whole will measure up to the standards set by its leaders. Then we can decide whether the impersonalization and standardization of mass production is a limitation-and whether the standardized product is often rejected because of our unfamiliarity with a machinemade environment, or because the potentials of the machine-precision, refinement, elegance-have not yet been fully exploited. LOIS GREULICH



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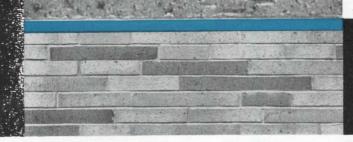
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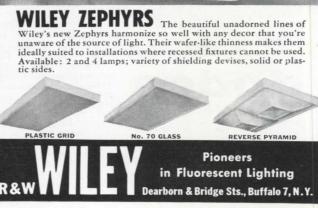


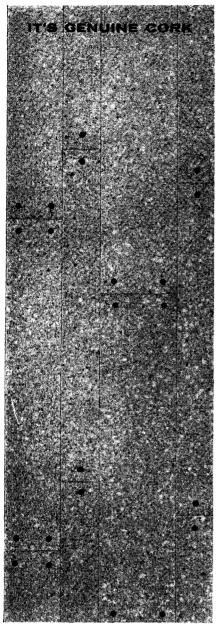
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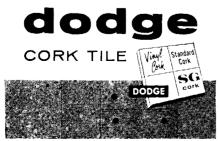
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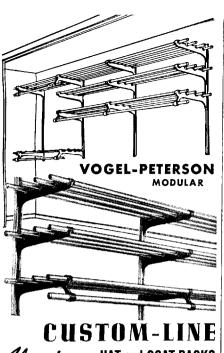
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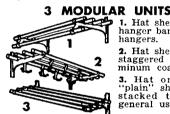
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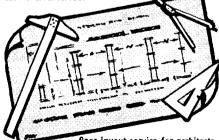
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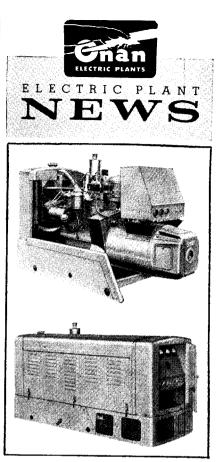
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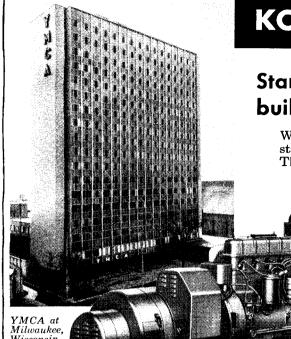
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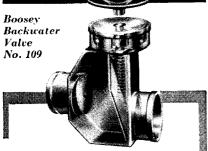
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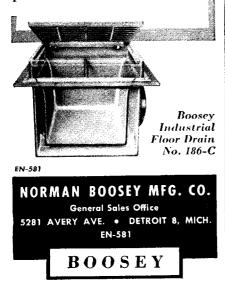
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### steel, stocks, & man

#### (Continued from page 129)

mundane vista that included nature in his visual delights, without the need to step outside. The Saracenic architects tailored their continuous perforations into a lacework of sky and structure and a point and counterpoint play of exterior light and interior shadow. It gives to the Castillo de Bellver in Mallorca (3) the excitement of tamed opposites. Richard Neutra's demand that "the inner and the outer world should be fully meshed" was alien to all pretechnological builders. The tree in the living room is a curious sign of confusion and so are indiscriminately placed glass walls and picture windows. When earlier wiser cultures hid the female body under heavy drapes, they enhanced its value by elements of discovery and surprise. Today the glass wall and the picture window have become the Bikini of architecture. Nature around the dwelling has become meaningless, because it is overexposed. The Moorish builders thrived on calculated contrasts. They handled outdoor spaces as if they were framed panoramas, revealed to "the body that moves and the head that turns" in a succession of varied vistas. The visitor to the Alhambra in Granada (5) enters through an excessively narrow gate and a darkly ceilinged hall (arrow). When he reaches the Court of the Alberca, it has the charm of a dream experience that was repeated with ever different withdrawals and openings throughout the vast complex of the palace.

In the Castilla La Nueva in Cuenca (4) building technology is made the servant of the concept of seclusion that allows mind and eye to shed their physical bonds without leaving the privacy of the house. Tiers of verandas are balanced on top of a cliff in a costly and intricate construction serving no other purpose than the delight of the mind.

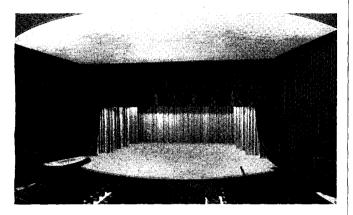
The most brutal and injurious violation of privacy in our technological dwellings is the abolished subdivision of space. The "open plan" and the three-inch partition weld families together into chain gangs. The absurd slogan of "togetherness" has deprived the family group of the creative stimulus that comes from independent personalities. Pretechnological builders thought of many devices to subdivide

spaces, and not all of them were dependent on sumptuous plans. Robert Adam, in his Kenwood Library, invented syncopated space, by which the entering person is retained for a moment of survey at an imaginary barrier between two columns. The room is a library dedicated to concentration, which is provided for more than one reader by a non-solid psychological subdivision at the far end. This device first turned up in Rome's Pantheon, where a worshipper could feel himself in private communication with the idol by no more than a columned architrave accentuating his entrance into one of the six chapels.

But there is more to an intellectually mastered subdivision of space than separation from the group. We no longer seem to admit that it is enclosing form that forms man. The supremely intellectual architecture of Baroque France expanded on the Renaissance discovery of the appartement. The second floor plan of the Hotel Crozat in Paris provides on one floor three separate living units, each of them distinctly different in shape and space succession. The two master suites are separated by a corridor and opposite window orientation. They share----if sharing is wanted---two terraces and a covered gallery designed toward different vistas of the garden. Wall forms in each successive room vary as if a different personality had molded the enclosing form like a cocoon. This formal variation gives to each enclosed space a specific character with which the occupant could identify himself. It is personalized space to which doors, windows, and furnishings give an unduplicable orchestration.

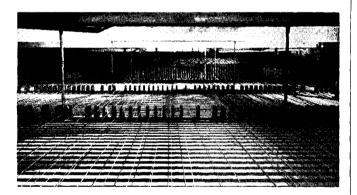
Private architecture, as differentiated from official architecture, is dead only if our technological Messiahs can prove that the Industrial Revolution has produced a new non-historical man. The crippling violations of man's right to be himself can only be justified by the elimination of the human need for design as symbol of non-material values. The precalculated grid will not be architecture as long as the discriminating mind resists collective acceptance of technological uniformity. To the day that this resistance ceases, it remains the obligation of the architect to see himself not only as the builder of technological monuments but as the keeper of the matrix in which each individual being is cast.

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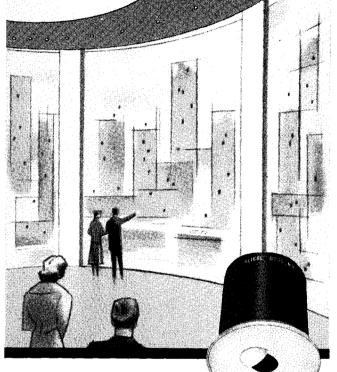
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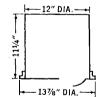
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### motivations-and techniques

I never know what subjects discussed on this page are going to bring responses and reach certain readers who may be thinking-perhaps in opposite terms, perhaps in the same way-of similar matters. A few months ago, I wrote of the problem of architectural motivations, particularly with regard to specification of materials and products; and then, a few issues later, of the problem of design, development, and research in materials and methods of building technology, and the help architects might give producers in this area. Those two columns have resulted in many interesting post-publication discussions with both architects and producers who obviously have been concerned about the same general subjectarchitect-producer relationship.

For instance, at a most interesting meeting called by the Lathing & Plastering Industry Committee recently, several men spoke to me of their interest in this matter, and its specific application to their own studies. The meeting itself was an excellent illustration of steps that can be made toward serious research in a building technique, for the purpose of intelligent motivation of the designer and specifier, guided by architectural consultants.

Let me digress for a moment, to describe what this Committee is, and how it came about. There was a time, not so long ago (anyone must admit) when lathing and plastering seemed to be a dying art, or craft, or technique. We needn't go into the reasons: every architect knows of the prejudices that had been built up against "wet" and in favor of "dry" construction. Quite remarkably, the on-the-job part of the industry pulled itself together, organized a National Bureau for Lathing and Plastering, improved union standards and contracting procedures, and looked for a closer liaison with the producers in their field. In 1957, the Industry Committee was formed, with the support of Gypsum Association, Metal Lath Manufacturers Association, Perlite Institute, Vermiculite Institute, and Finishing Line Association of Ohio. Purpose: promotion, of course, but also co-operation, and most important, research.

With that background, the recent meeting was called to tell some of us in the press that the firm of John R. Diehl, a Princeton, N. J., research-minded architect, had been retained to study literature, prior research data, history, and past practices, and then to come up with recommendations for improved practice, improved specification procedures, and development of new ideas for the industry which would be attractive and useful for the architects. This may not be news to some of you, because Diehl and his associate, Jay Ritchey, have recently traveled across the country and talked to a number of architects about their study.

So, some time soon, there will result a Technical Manual, which should be very helpful in the use of this ancient and still applicable technique—not only for the common interior and exterior wallconstruction applications, but in the design of plastic architectural forms—metal lathing adapts itself handsomely to this trend—and even, sponsors of the study hint, as a wall-bearing material.

I didn't mean to get off into a comfercial here (although I think it's well deserved) but rather to point to this Industry Committee's program as an excellent example of the let's-consult-architects approach to the let's-influence-archiitects end.

Speaking of metal lathing in the development of techniques for plastic forms in architecture reminds me, of course, of the two projects by John Johansen illustrated in our NEWS SURVEY this month. As our reporter states in that story, the Jury (and the Editors) were more than a mite concerned about the results, if this approach to architecture should spread to less disciplined hands. Believe it or not (and I know that some of you won't believe it\*) Johansen's designs are disciplined-free-form as they may seem. The articulation in the church design is more obvious than that in the residence, certainly, but even the house is a controlled sculptural expression, most handsomely composed.

This approach can get completely out of hand, of course, and result in pure gingerbreadcooky extravaganzas. I felt impelled to point out this danger to Diehl, at the meeting referred to above, and I am sure he appreciates the risks involved in teaching the technique of sprayed-on plastic materials with free-forming metal lath as armature. And unfortunately, one of the unhappy results of our lack of developed criticism in contemporary architecture is the fact that a very few among either the architects or the public are capable-or willing-to distinguish between fine design-finely scaled, detailed, composed-and crudely designed imitation. The few boldly conceived and delicately detailed curtain-wall examples of static contemporary classic, lost in the mass of ineptly designed limitations, are prime examples. Even the geometrically based plastic forms-the hyperbolic parabaloid roof, for example-have been badly used. So that when we come to the much greater freedom of sprayed-on finish, with a completely bendable or warpable base, one dreads to think of the "architecture" that may line the new highways we are going to build.

Numas H. Cerightan

\* It is perfectly reasonable, with P/A's largest architectural circulation, that every point of view should be represented among its readers. Following are excerpts from two letters recently received by the Editor.

"I am not particularly sold on P/A. I liked Pencil Points much more. I am not persuaded that contemporary architecture is here to stay. It has nothing that is reminiscent of stability and strength, both of which are sadly needed in this era of haste and change. The function of a building is to shelter the animals and goods placed in it, including bipeds. When I go into a glasswalled room and close the door behind me, I cannot feel that I am sheltered and safe from the elements howling at my heels."

"I have been taking your magazine since the early days of Pencil Points and probably will be reading a copy when Nick hands me a coal scuttle. There is much to praise in your magazine, much to think about, some things to disagree with, such as . . . The accent upon the departure from the tried and true types of design in favor of the new, which at times has only the advantage of novelty. For example, some of the new churches have no feeling of solidarity, repose, no expression of eternal dependability. A line should be drawn between structures of a limited life in which unusual appearance for the sake of attracting attention is desirable, and structures for permanent use . . .