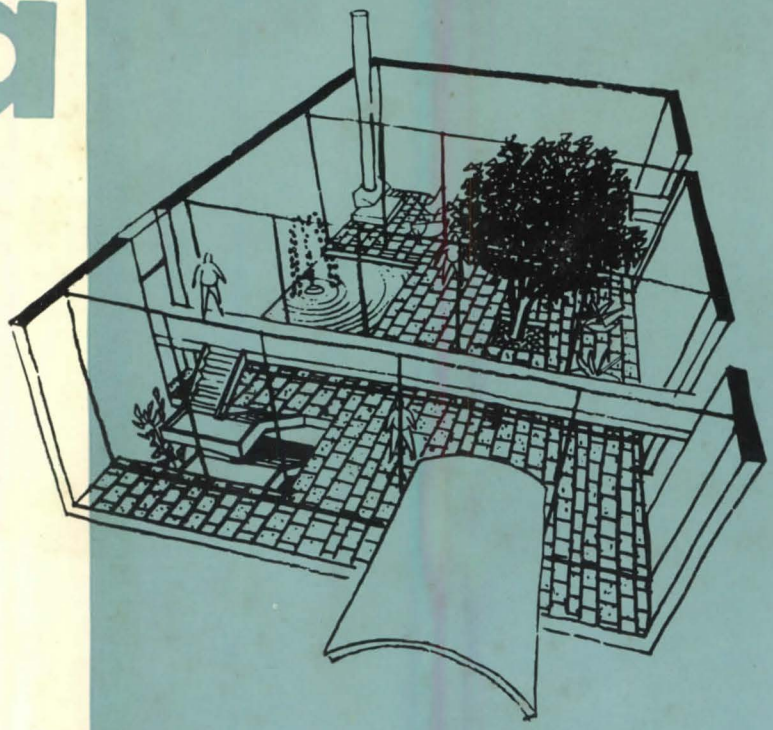
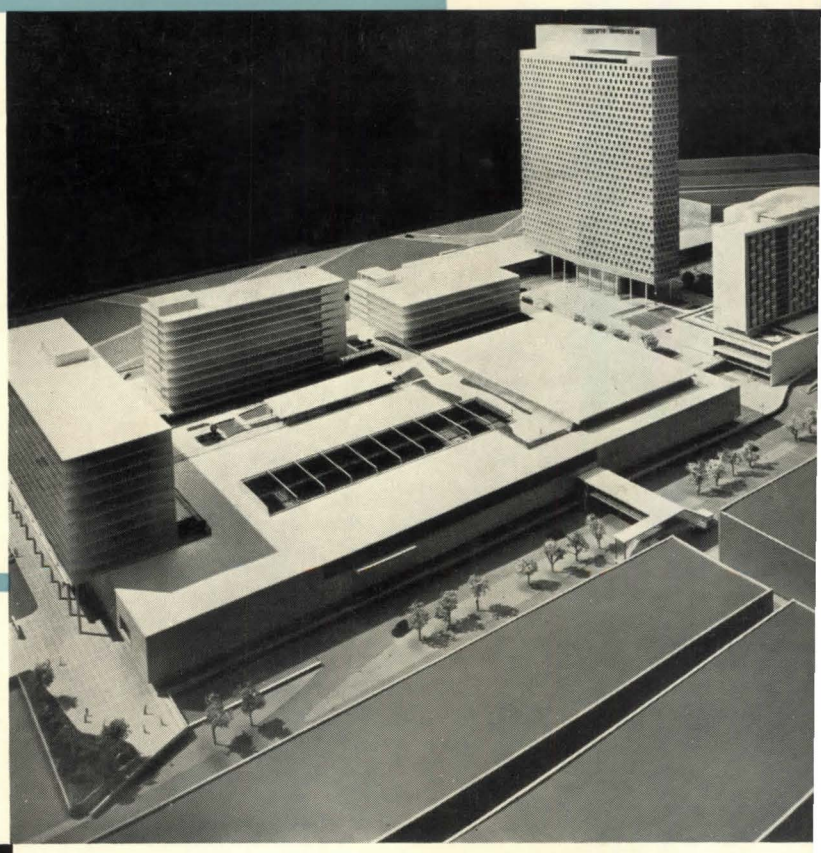
pa Progressive Architecture



design awards program



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january 1954

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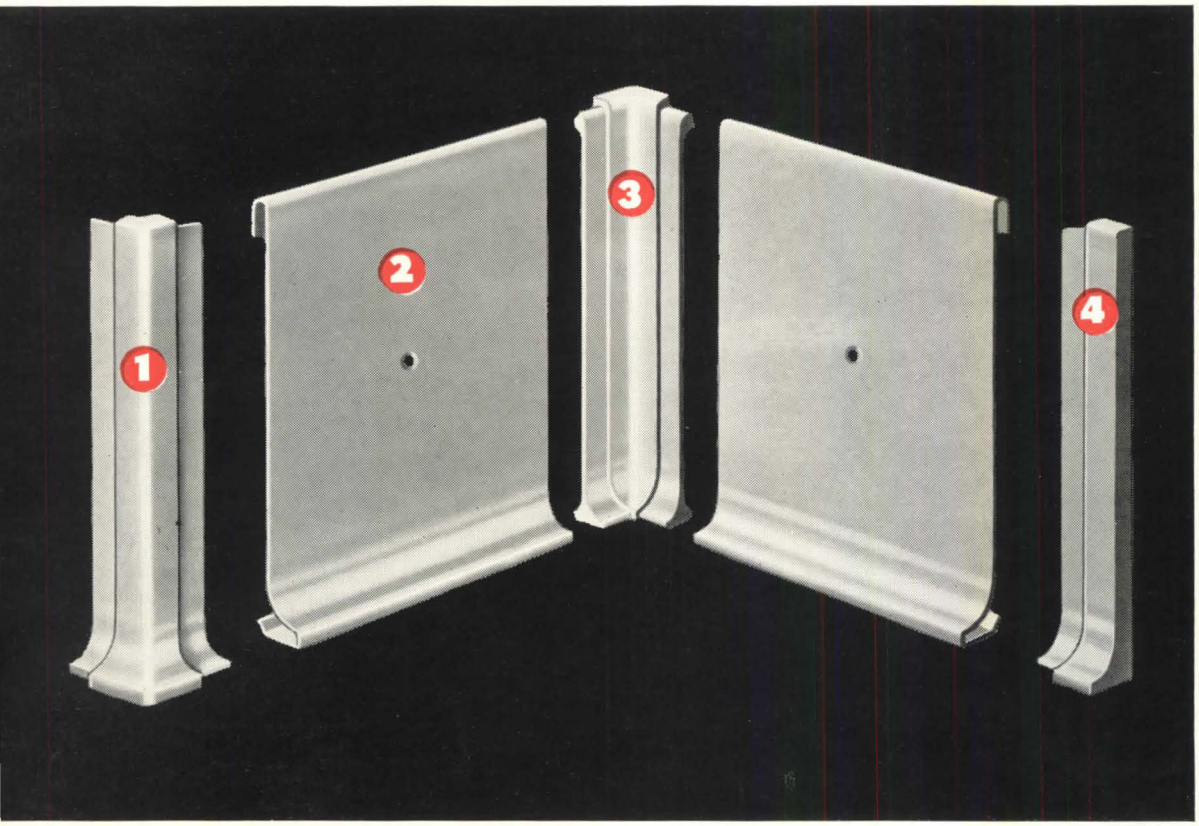

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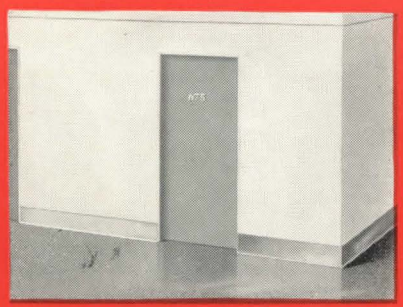

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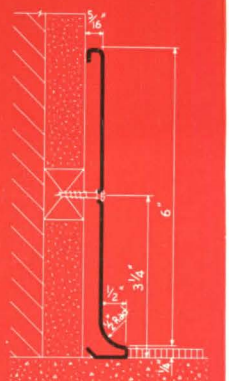

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*Reg. U. S. Pat. Off.

M-129

p/a newsletter

January 1954

Total dollar volume of construction expenditures has soared steadily from $12 billions in 1946 up to approximately $34.8 billions for year just ended. But if outlook estimates by Commerce and Labor Department economists prove correct, and P/A's Business Forecast, reported in this issue, is as accurate as it has been in the past, construction work will fall somewhat in '54 for first time in eight years. Government agencies predict year-end total of $34 billions, breaking this figure down into $22.8 billions for private expenditures, $11.2 billions for public outlays.

Predictors assumed there will be no significant change in international situation; continuing high levels of employment and personal income (but slight easing in general economy and some rise in unemployment) will prevail. In addition, economists are anticipating approximately one million nonfarm housing starts, adequate mortgage funds, very little variation in present building costs.

Miles L. Colean, Washington, D.C., economic consultant, writer, and authority on housing, has been appointed to President's Advisory Committee on Housing Policies and Programs (NEWSLETTER, November, 1953 P/A). Colean will serve as a coordinating member between four special subcommittees and Executive Committee.

"Sixty Years of Living Architecture," Frank Lloyd Wright's six-week exhibition shown in pavilion on site of New York's Guggenheim Museum, included models, photographs, floor plans, drawings, and full-scale Usonian House.

AIA Department of Public and Professional Relations has prepared third edition of directory of federal agencies contracting for building designs. Current policies and names of personnel concerned with programs are compiled. Directory is available upon request to AIA headquarters at 1735 New York Avenue, N.W., Washington 6, D.C.

University of Utah has announced the accrediting of its Department of Architecture. Roger Bailey, Department Head, points out in announcement that this establishes first accredited school of architecture between Midwest and Pacific Coast and lists Prof. Donald Panushka, Alfred M. Moffett, and Prof. Stephen L. Macdonald as recent additions to staff.

Minneapolis group interested in halting haphazard hospital building in that city is considering plans for proposed Hennepin Hospital center. If plans go through, participating hospitals would not merge but erect several new buildings on site where three are now located; share many medical and other services. Preliminary study of center has been made by Minneapolis Architects Magney, Tusler & Setter.

For mental-hospital design-research project, American Psychiatric Association would like to obtain data from architects on mental hospitals in their areas worth investigation—information on how well they are functioning, criticisms of their planning by those in charge. Communications should be addressed to Dr. J. L. Smalldon, Director, Hospital Architectural Study, American Psychiatric Association, 1785 Massachusetts Avenue, N.W., Washington 6, D.C.

PROGRESSIVE ARCHITECTURE published monthly by REINHOLD PUBLISHING CORPORATION, 330 West 42nd Street, New York 36, N. Y. Ralph W. Reinhold, Chairman of the Board; Philip H. Hubbard, President and Treasurer; Fred P. Peters, Vice President and Secretary, Gilbert E. Cochran, H. Burton Lowe, Merald F. Lue, William P. Winsor, Vice Presidents; Kathleen Starke, Assistant Treasurer. Executive and Editorial offices: 330 W. 42nd St., New York 36, N. Y. Subscriptions payable in advance. Subscription prices to those who, by title, are *architects, engineers, specification writers, designers or draftsmen, or employes of architectural and engineering firms,* and to government departments, trade associations, members of the armed forces, college libraries, college students, publishers, advertisers, prospective advertisers and their employes—$5.00 for one year, $8.00 for two years, $10.00 for three years. Above prices are applicable in U. S., U. S. Possessions and Canada. Latin America and Philippine Republic—$10.00 for one year, $16.00 for two years, $20.00 for three years. All other foreign subscriptions — $15.00 for one year, $25.00 for two years, $30.00 for three years. Single copy — $1.00, *special issues* — $2.00 per copy. Printed by Publishers Printing Co., New York, N. Y. Re-entered as Second Class Matter September 21, 1951, at the Post Office at New York, N. Y., under the Act of March 3, 1879. Volume XXXV, No. 1, January, 1954. In Art Index.

Turn page for WASHINGTON PERSPECTIVE

newsletter

Washington Perspective

Frederick Gutheim

Architecture should share in 1954 the continued high economic level unanimously predicted by all government agencies. Never in 25 years observation have I seen such unanimity from all voicing such forecasts.

The outlook for government activity and legislation as Congress convenes is less certain. The even balance between the two parties in the House and Senate, and the fact that President Eisenhower and the members of his Cabinet tend to regard their duties as purely executive in nature, make it unlikely that there will be important new proposals for basic legislation—much less any attempts to push them through a reluctant Congress. Except for that headed by Former President Hoover, the various Executive Commissions appear unlikely to make any decisive legislative recommendations.

The 1954 outlook is for maneuver, personalities, politics, but hardly much in the way of the serious business of government. The other day, Lewis L. Strauss, urbane Chairman of the Atomic Energy Commission, told a Civil War story—which he promptly denied had any present application. The way he told it, a party of Virginians called on Lincoln on the eve of hostilities in a last-minute effort to avert the Civil War. They arranged a telegraphic code to communicate the results of their efforts to their associates back home. If successful, they proposed to wire, "Blessings." If unsuccessful, "Calamity." But if they encountered a situation in which they could get no decision, they proposed the code word, "Washington."

Within what is customarily termed "the official family" genuine policy differences have erupted. More will be heard from them, for unresolved contradictions are just so many time bombs ready to explode at the slightest partisan pressure. One of them, of some importance to architects and construction interests, exists in the person of Robert B. Murray Jr., Undersecretary of Commerce for Transportation, and an outspoken foe of Federal aid for highways, airports, and other transportation facilities. Murray wants to give the Federal gas tax back to the states and let them do the road jobs. This is hardly the view of Francis Dupont, the Federal Roads Commissioner, or of F. B. Lee, Civil Aeronautics Administrator, but they have refrained from public debates on the issue. Congress, however, cannot remain aloof.

If anything is being done about the public works program which Dr. Arthur F. Burns, Chairman of the President's Council of Economic Advisers, said would be invoked as a depression remedy, it is moving with glacial speed. Word of it has yet to reach any operating agency of the government. A new crop of ex-professors is having to learn that about eight months lead time is needed, from the date the order to draw plans is given until some tangible effect in terms of employment is noted: plus the time it takes to bring into being an organization to direct such activity. We are grossly unprepared to use public works for contracyclical purposes, especially to deal with the fundamental problems of timing and management. And it would be helpful if more architects said so.

As dimly seen through the haze of military security, our program to build an American "Gibraltar" in southern Spain is falling considerably short of what might have been offered Europe and our NATO allies: a demonstration of American co-operation and technical prowess on a scale comparable to TVA. Five large submarine and air bases are being planned in Andalusia—a region notably deficient in water, electric power, railroads, and necessary supporting civilian population and facilities required to serve them. All these deficiencies will have to be made good, whether by planning or scrambling. A narrowly conceived construction program will sacrifice these larger values, and lead to waste, delays, and other difficulties at a later stage of development. Port facilities and air bases are not enough in a program of this magnitude, but it would take an outstandingly strong and able designer to point this out to the agencies involved. Somehow I can't imagine Charles Luckman, the architect chosen to co-ordinate the program, being the one to say it.

While little change is in prospect, a muffled explosion in housing affairs would surprise no one here. Statements by HHFA Administrator Albert M. Cole and his aids leave no doubt that they are not going to hand over the program to the special interests who have been demanding special treatment. The mortgage men have received some benefits thus far; but more recently they have been warned that their continuance depends upon a high level of housing output. The homebuilders are receiving from FHA Commissioner Guy T. O. Hollyday treatment nearly as stern as that given the cattlemen. Cole has now embraced the basic philosophy of the Housing Act of 1949—that the housing program is one of public concern, a national responsibility, and a unified problem to be dealt with by a single agency with an integrated program. Since nothing is less compatible with the self-centered demands of special interests, it is hard to see how he can now avoid a head-on row with his housing advisory committee. Indeed, the very creation of this group now appears to have been a political blunder.

Deep cuts in government personnel continue, accompanied by some wry jokes. The one I liked best came from a secretary whose roommate had been Reduced in Force. She was explaining the situation to their mutual laundress in the current Washington jargon, "Miss Henderson got riffed yesterday." And received the reply, "My goodness! Did they get the man's name?"

PROGRESSIVE ARCHITECTURE

pa

January 1954

3 Newsletter

4 Washington Perspective by Frederick Gutheim

9 Progress Preview

15 Views

67 P/A Annual Design Survey

69 P/A Annual Business Forecast

71 P/A Engineering Survey

design awards program

73 First Design Award
Proposed Back Bay Center Development
Boston, Massachusetts

84 Commerce

92 Education

100 Health

106 Industry

110 Public Use

115 Recreation

118 Religion

122 Residential Design

137 Spec Small Talk by Ben John Small

interior design data

139 Residential Interiors by Page Beauchamp

140 House: Orinda, California

142 Apartment: North Kansas City, Missouri

144 Apartment: Memphis, Tennessee

146 Interior Design Products

155 Manufacturers' Literature

160 Products

167 Out of School by Carl Feiss

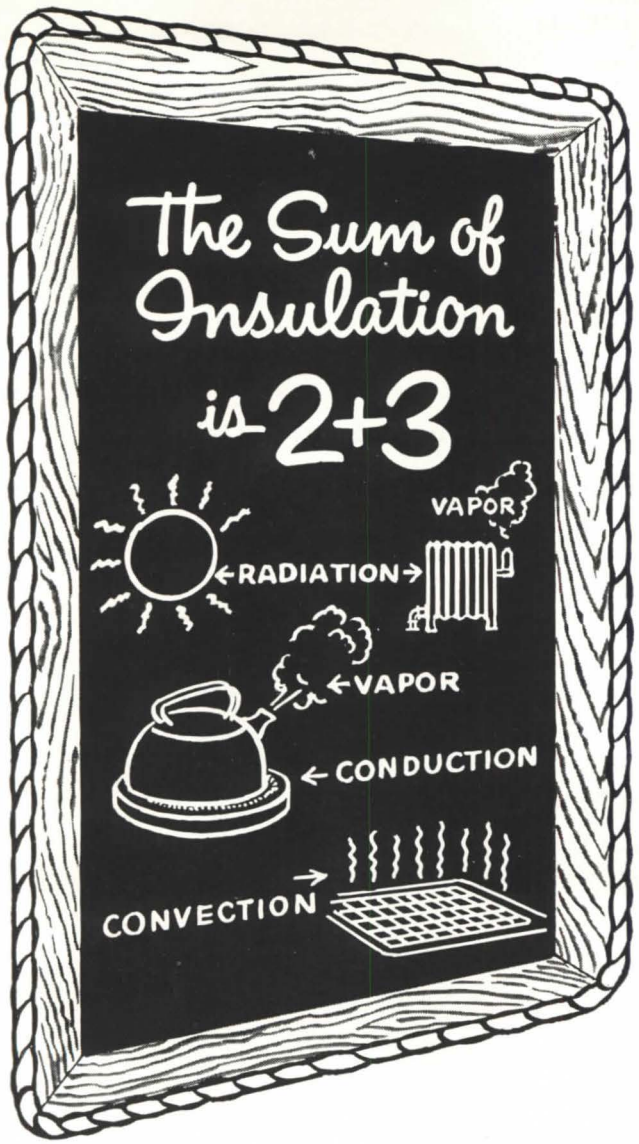
190 Illustration Credits

196 Reviews

204 Jobs & Men

230 Advertisers' Directory

232 P. S.



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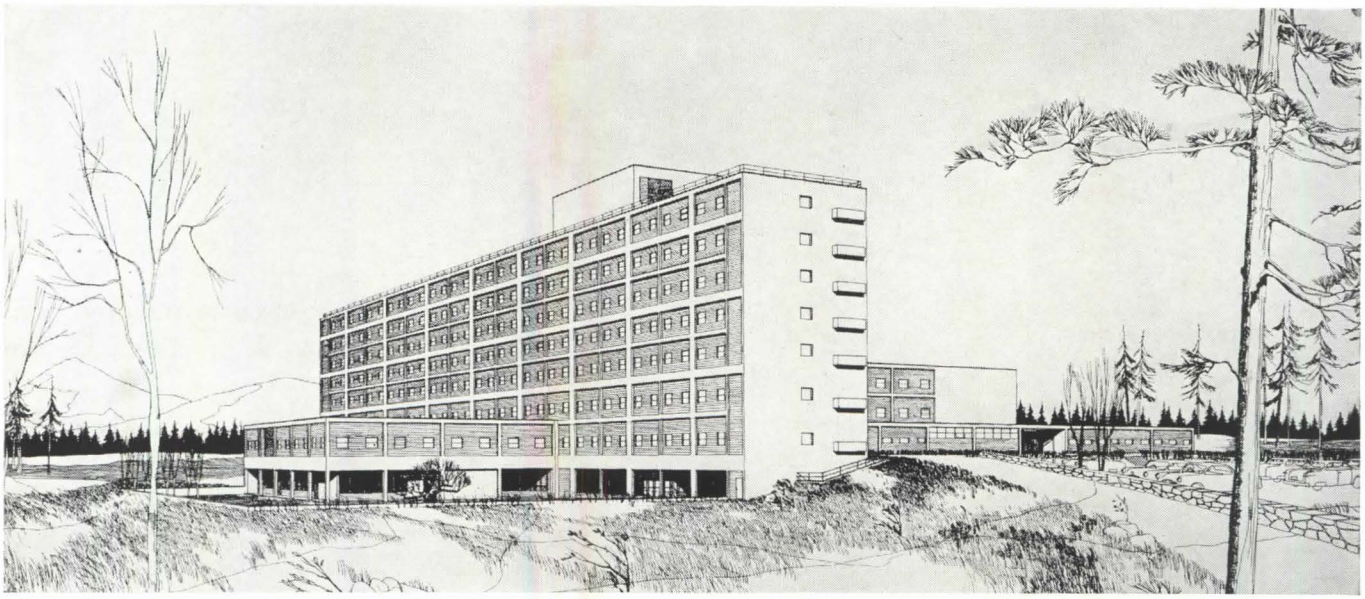
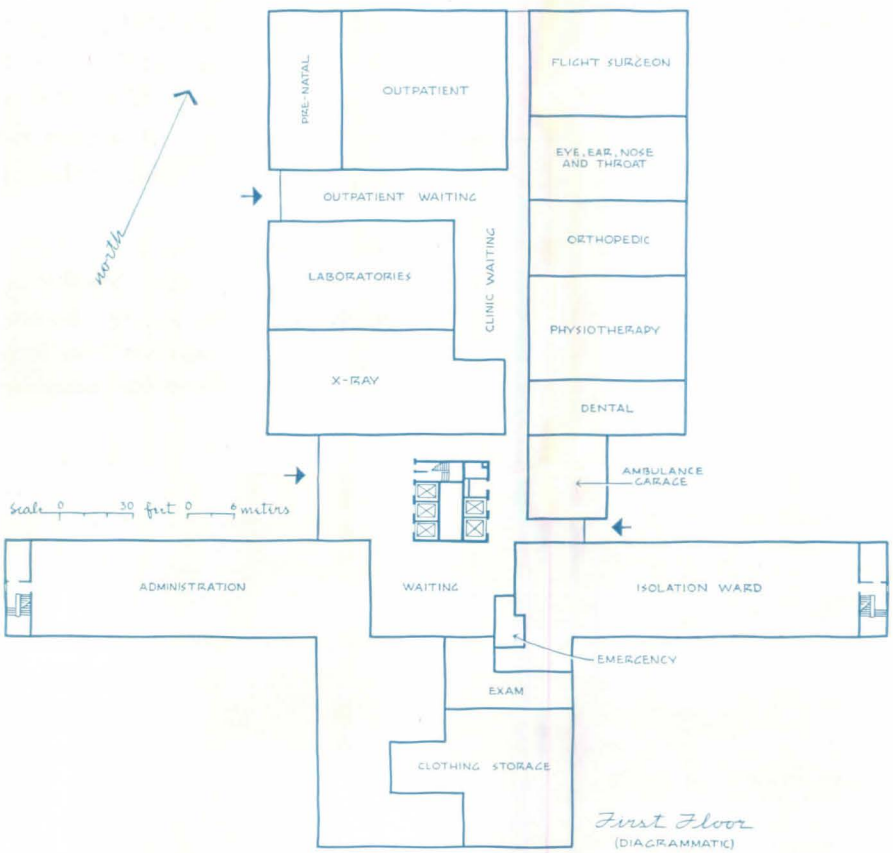
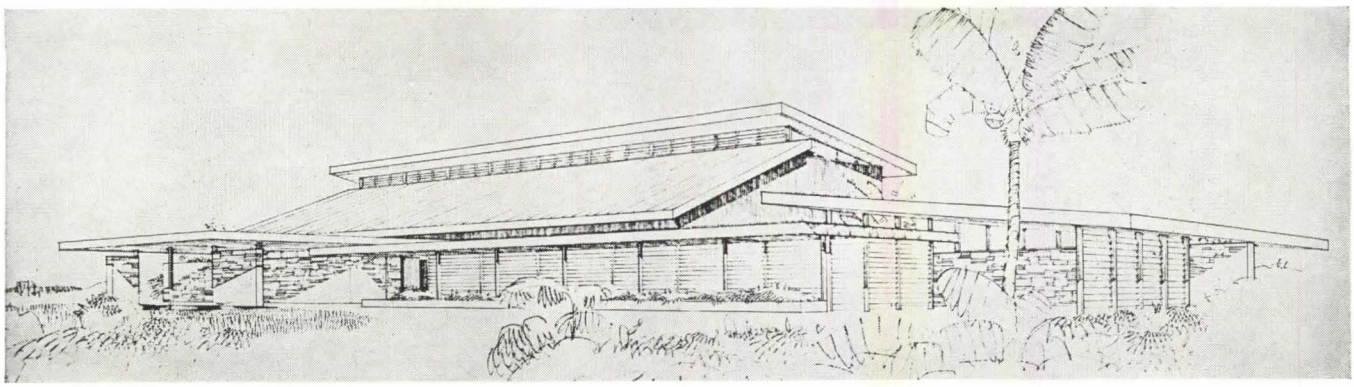
*Patent applied for



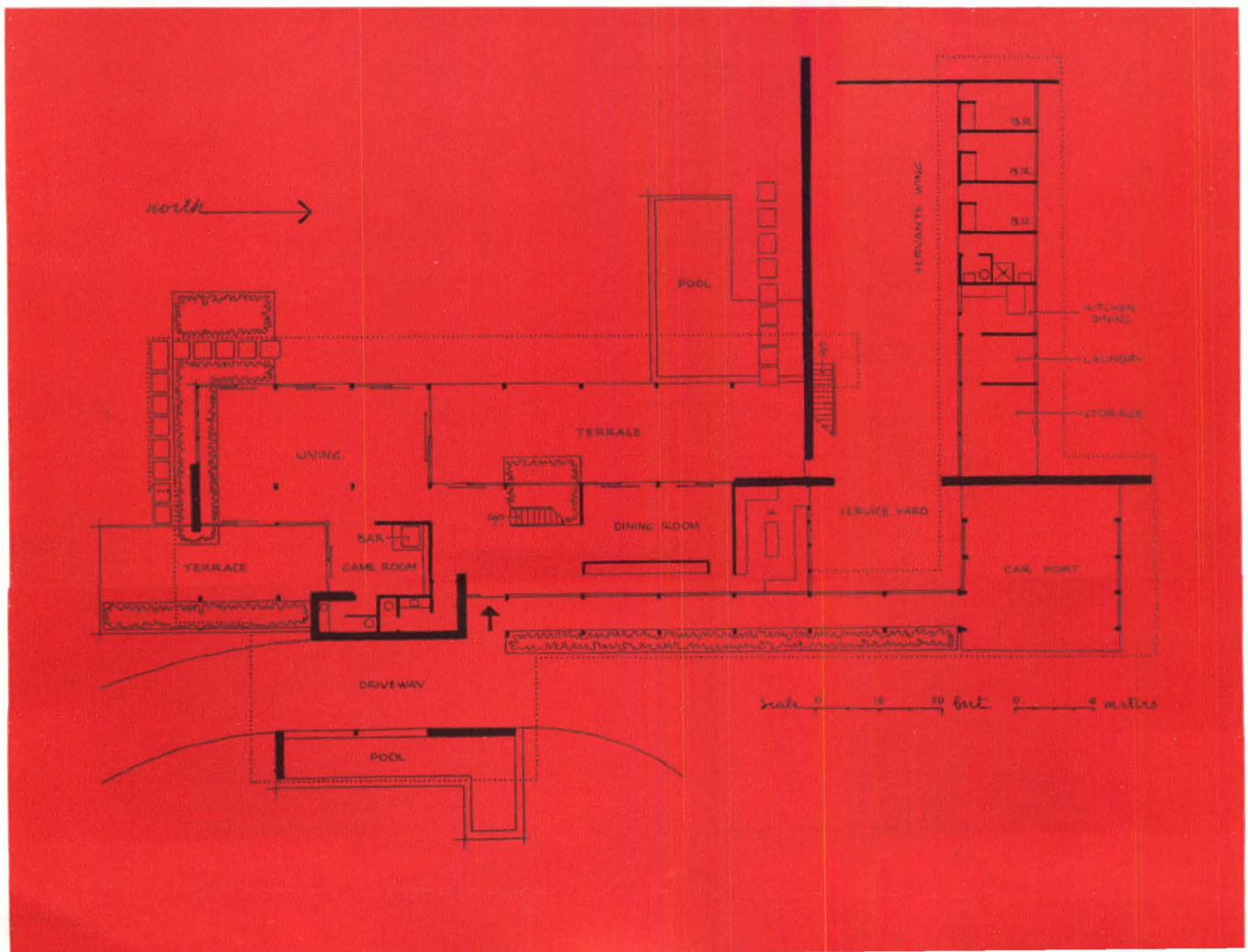
Elmendorf Air Force Base Hospital, Anchorage, Alaska: Skidmore, Owings & Merrill, Architects. Alaska's climate was a special factor in the design of this hospital. The structure is reinforced-concrete frame and floor slabs, which are insulated with cork four feet from the exterior walls. Exterior wall panels are composed largely of cork, presenting little glass to the weather.



The projects in this month's PROGRESS PREVIEW were submitted as entries in 1954 P/A Design Awards Program, but since the rules of the Program stated that entries must be "planned for construction in the United States," the Editors had to declare these projects ineligible. In the opinion of the Editors, however, these are all worthy of attention and, hence, are also included in this Design Survey issue.

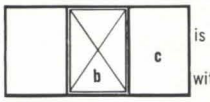


House, Manila, Philippine Islands: Roger Lee, Architect; Juan F. Nakpil & Sons, Associates. The problem was to design a house to be used often for entertaining dozens of people at a time; a house that "works" in Manila's tropical climate; and a house that capitalizes on the view to the west (where the sun is hottest). The solution is to provide deep roof overhangs and louvered walls, which allow ample air circulation while keeping out the torrential rains —and an open plan. Delineator: Paffard Clay



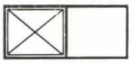
LET'S UNDERSTAND EACH OTHER

Confusion, or worse, often results when communication between people is impeded by a lack of mutual understanding of the terms used. In the building industries people speak a precise language. There is an exception, however. No standard terminology exists within the sliding glass doorwall industry. There isn't even a common description of the basic product. Steelbilt calls it **steel frames for sliding glass doorwalls and windows,** abbreviated to **doorwall** or **window.** Other companies say: steel sliding doors, sliding glass doors, horizontal sliding units, side sliding doors, etc. Although it is the pioneer designer and producer in its industry, Steelbilt does not presume to write a manual of terms for the industry. However, to facilitate precise communication between ouselves and our customers we present on this page some definitions of our basic terminology. ● **A doorwall unit**

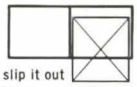


is a complete operating assembly without glass consisting of (a) **surrounding frame,** (b) **sliding panel,** (c) **fixed frame.** It installs as a single complete factory assembled unit into a rough opening.

● **A window unit**



push up sliding panel



slip it out for easy cleaning

is the same as a doorwall except that its perimeter dimensions are usually smaller and its construction correspondingly lighter. ● **A fixed frame**

is used separately from a doorwall or window unit to hold glass in a fixed position. The framing material matches that used in doorwall or window units.

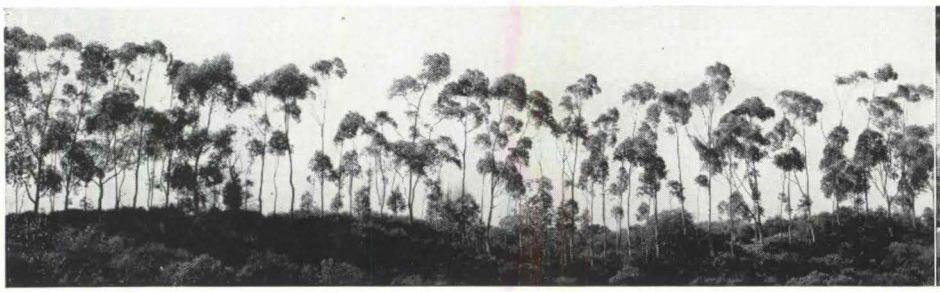
● **Transoms**

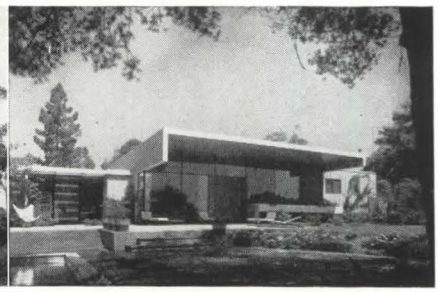
fixed transom

sliding

are available as either fixed frames or sliding units. They are available separately or as an integral part of doorwall or window units. ● **A screen**

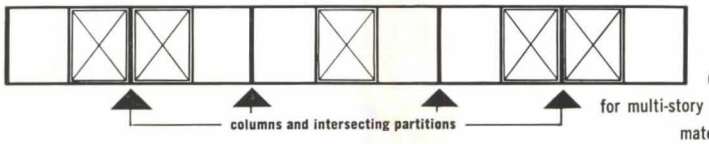
consists of any of various standard screening materials mounted in a tubular steel frame. Doorwall screens slide on rollers. Window screens do not have rollers and are held by channels at head and sill.





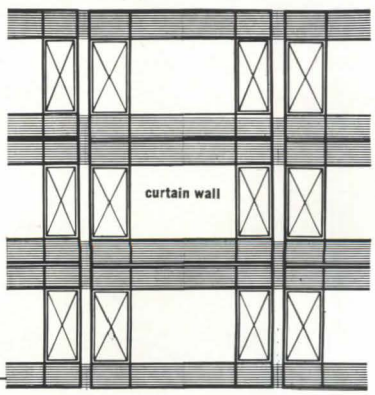
integrated window series

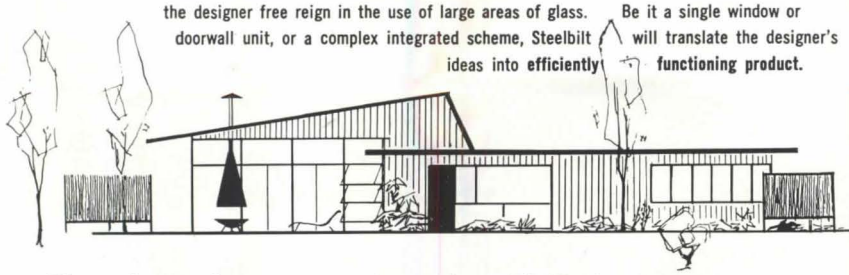
Units may be designed in series for integration with structural support or intersecting partitions, to develop a harmonious idea.



Or they may be combined at our factory as curtain wall units for multi-story structures, where design requires glass and opaque materials to be worked into a wall pattern.

The above basic elements are available in: many different models; in TOP ROLLER-HUNG and BOTTOM ROLLER **types;** either **custom made** or in **stock** sizes and models. The combination possibilities offered by this assortment of elements is limited only by the imagination of the designer. Elements are designed and engineered to make possible a complete integration—structurally and visually—within any type of project. Steelbilt offers the designer free reign in the use of large areas of glass. Be it a single window or doorwall unit, or a complex integrated scheme, Steelbilt will translate the designer's ideas into **efficiently functioning product.**





• The above is a page from Steelbilt's 1954 catalog-brochure. You will find much of interest in it. Please write for your copy.

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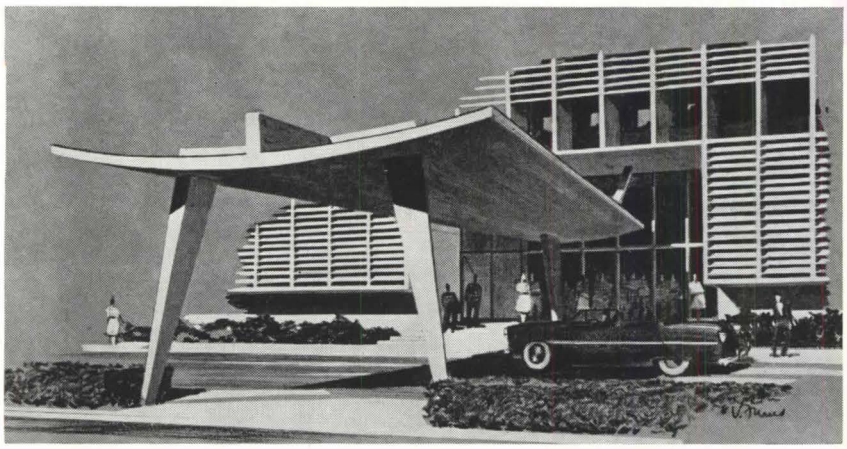
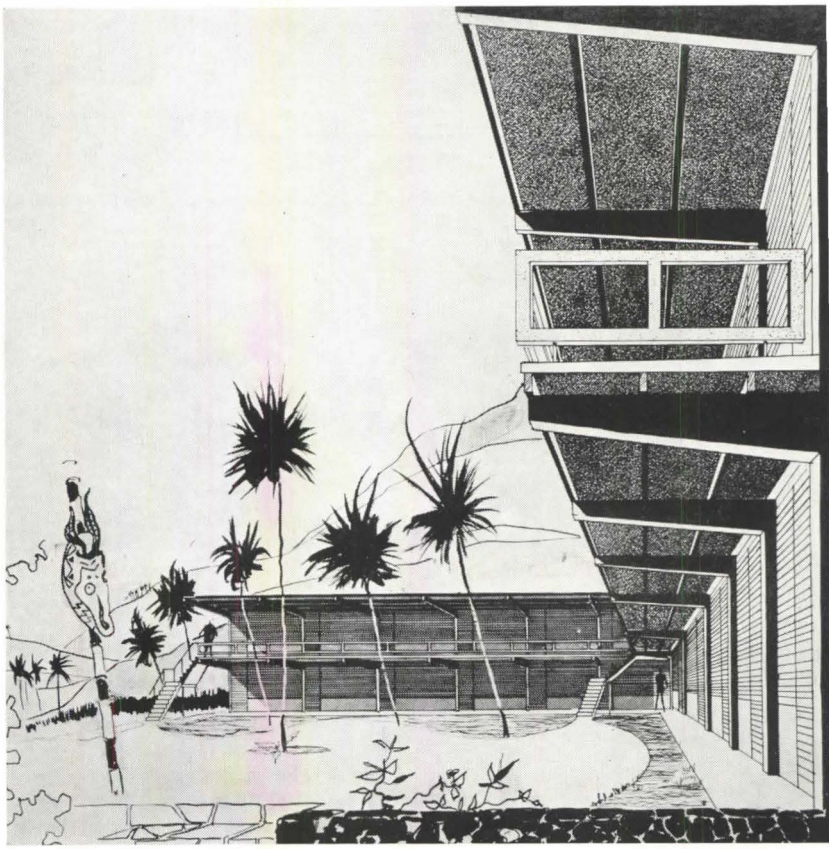


Office Building for Standard-Vacuum Oil Company, Saigon, Indo-China: Chauncey W. Riley, Architect. This dramatic reinforced-concrete structure is both air-conditioned and sun-shaded by louvers, to counteract intense heat. The upper floor is planned for executive apartments, which may be used as offices when housing conditions in that area have improved.

Delineator: Vincent Furno

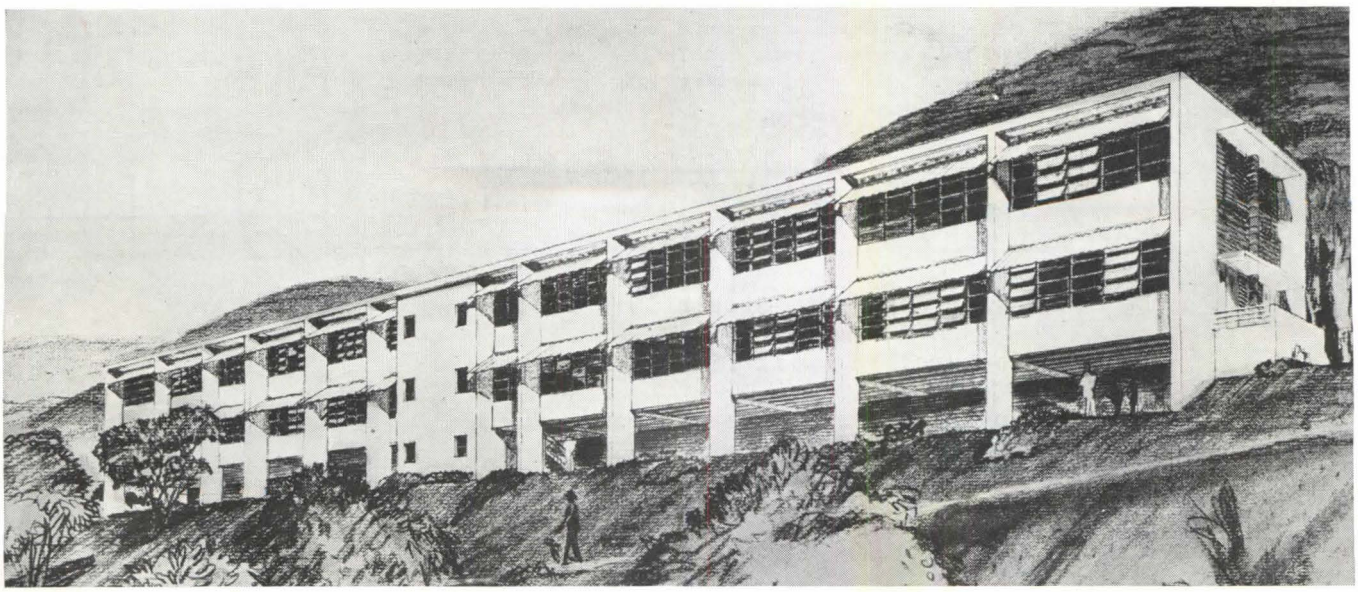
Annex for the Riviera Hotel, Port-au-Prince, Haiti: John Evans, Architect; Frederic B. Stresau, Landscape Architect; Homer Shrewsbury, Interiors. Designed to provide small rooms for the growing tourist trade, this building shows an interesting use of materials. The frame is reinforced concrete, consisting of a series of identical bays. Glued, laminated, wood beams span the framing elements, and mineralized, wood-fiber, soffit slabs 3" x 2'8" x 8' cut down tremendously on vibration and noise.

Delineator: John Evans



U.S. Army Headquarters Building, Canal Zone, Panama: Edwin T. Reeder Associates, Architects-Engineers. The program behind the design of this building is somewhat "Confidential"; all we know about it is that the structure is reinforced-concrete frame with floors poured over pan forms. The main entrance (not shown) *is surrounded by a large clay-tile screen, which allows free circulation of air through the building.*

Delineator: Will J. Green



P/A Annual Design Survey for 1954

and first Design Awards Program

This issue of PROGRESSIVE ARCHITECTURE is an architectural and engineering preview of 1954—a year that begins on a note of calculated optimism for sustained activity and with a growing desire in the hearts and minds of many to build for the future. The major part of the issue is a report on P/A's first Design Awards Program, for buildings submitted for professional judgment in the design stage. Eight Design Award winners (including the First Design Award) and 49 Award Citations selected by the distinguished Jury are shown.

What are the business prospects for architects in 1954? The first two of the green pages that follow analyze the returns from P/A's survey—our annual forecast which has proved sharply accurate for previous years. What are the technical developments that will affect 1954 architecture and engineering? Following the business survey, there is an analysis of P/A's survey of the engineering field. And finally, we show what the buildings to be constructed in 1954 will look like, and how they will be planned.

A word about the Design Awards Program. P/A's Editors—and the Jury members—were more than gratified at the results. Over 600 entries were submitted; the general level of quality was high; and the judgment was difficult. "There are too many good designs here," Eero Saarinen remarked at one point. "We're knocking out a lot of good things." Those who won Award Citations should be most proud: the competition was keen; the list of contestants reads as a roster of the best-known firms in the country, as well as a list of the best *potential* firms, many of whom are "unknowns" as far as previous publication is concerned. This is the way we had hoped it would be. The First Design Award, without doubt, deserves that place, combining as it does the talents of an unusual group of architects, utmost importance and promise as a redevelopment project, an interesting aggregation of building types, and careful thought in planning and the techniques of construction. Along with such a tremendous architectural concept it is good to see a little Boy Scout chapel, for instance, win a Design Award; it is encouraging to find buildings of every type from every part of the country represented in the winning group.

Awards have by now been presented to the winners. National and local publicity has been launched on the individual projects—the main purpose of the Program is to give an assist to the designers through their placing in the contest. This month, in

Boston, P/A is giving an Award Dinner, with as many as possible of the Award and Citation winners present. The Jury did not write a formal report, but its findings on the day of the judgment might be summarized as follows:

A wide general level of competence is apparent from the entries. Particularly in the educational field a large number of extremely well-designed projects were submitted, and in the residential category a great variety of interesting, well-planned houses was judged. Because of this, it was possible to be strict in selection: winners had to be outstanding in every respect to reach the top. What seemed to be missing was imagination and along with it gaiety, excitement, fancy. Pure trickery and *forced*, meaningless exuberance were turned down by all the Jury members, but rational design which broke out beyond dignified, tasteful competence was seized on enthusiastically. The Jury felt that, by now, enough good hospitals, good schools, good stores have been designed so that there is no longer any excuse to produce anything that is not basically good. What the Jury was looking for was the *advance* to be made in 1954, over what has been accomplished in the last years. In some categories, therefore, no Award was given, but rather a number of Citations; an indication that the Jury felt there was a high general level of excellence, but no markedly advanced concept. Some of the Jury comments on individual projects appear in the pages that follow.

This issue, thanks to all the good architects who submitted work, launches P/A's program for the year. Progressive Architecture for 1954, as this Preview indicates, is based on changing standards in society, technology, commerce, industry. They can be summarized as:

changing family living habits
more leisure hours
more general education
new structural concepts
better health care
higher cultural values
greater mobility
improved materials
expanding commerce and industry
better control of the environment

Each issue of P/A during the rest of the year will be based on one of these themes. In the meantime, here is the Preview—the buildings not yet built, which will be added to the scene during the year by the Architects of America.

VICTOR GRUEN EERO SAARINEN GEORGE HOWE FRED N. SEVERUD

*Members of the Jury (*left*) give careful study to a four-panel, 10-foot-long California entry that eventually won a Design Award in the residential category. These critics debated far into the night before agreeing upon final selections.*

P/A Annual Business Forecast for 1954

Business prospects for architects in 1954 are good—down somewhat from last year's boom activities, but with no sharp drop in sight, and with a spreading of the work very evident from the reports made to P/A in its fourth annual business survey. The figures that follow are based on detailed summaries of prospects from approximately 5% of the active firms in the country, well distributed by region, by type of activity, and by size of firm—a sampling that has proven remarkably accurate in previous years.

The average firm reporting anticipates $3,665,000 of work to reach working-drawing stage in the present year, and $3,435,000 of work to reach the construction stage. In each case, this represents about a 9% drop from last year's estimates. This is just about the percentage drop in general business activity prognosticated by economic analysts, so the architects seem to be holding their own in the general economic picture, despite the adjustment some firms are having to make as a result of the drop in defense spending, public housing outlays, and other government-sponsored construction activities.

In fact, despite the drop in average dollar-volume expected, approximately 50% of the reporting firms anticipate an *increase* in work next year; 26% expect commissions to drop; 24% look for just about the same volume of business as in 1953. The reason for this apparent paradox in the face of a general business decline is that there is a very obvious leveling-off of work, with the larger firms dropping in dollar volume, and the smaller firms picking up. Of those reporting to P/A, firms doing an annual volume of work under $1 million in value (39% of the total) expect an average increase; those doing between $1 million and $10 millions (57%) expect no change; those with a volume over $10 millions (4%) anticipate an average decrease. In other words, the concentration of work in the larger offices, evident last year during the peak of defense activity, is ending in favor of a more general distribution of work in other categories—principally schools and commercial structures.

For purposes of the survey, P/A each year breaks its figures down by the following regions; and it will be seen that the average volume of work *in each region* varies greatly.

Region		average $ volume (firms reporting)
1	Northwest	$1,104,000
2	North Central	$2,675,000
3	Great Lakes	$9,050,000
4	Northeast	$4,200,000
5	Southeast	$2,180,000
6	Gulf States	$2,800,000
7	Central States	$2,626,000
8	Texas	$2,126,000
9	Western Mountain	$1,460,000
10	California-Nevada	$2,815,000

Thus, it will be seen that the Great Lakes area, with industrial work keeping many large firms busy, has the greatest average of work, with the Northeast following. The Northwest has the lowest average, nosing out the Mountain area for that dubious honor. All the remaining regions are fairly close in their averages—between $2 millions and $3 millions in each case.

Educational work leads the field in dollar volume by building types, nationally, and in each region with three exceptions. (The Great Lakes region still has more Defense work and Industrial work than any other category; Health commissions lead in the Gulf States area; Texas reports Commercial in first place.) Commercial work has moved

to second place nationally; Defense activity, which took the greatest dollar volume last year, has moved down to fifth place.

On a national basis, here is how the building types stack up, in comparison to last year:

Building type	Dollar volume (Average firm)	% of total	% 1953
Education	$849,000	25	20
Commerce	530,000	15	14
Housing	494,000	14.5	14
Industry	460,000	13.5	12
Defense	398,000	11.5	22
Public Use	248,000	7	5
Health	210,000	6	6
Religion	190,000	6	4
Miscellaneous	56,000	1.5	3
Total	$3,435,000	100%	100%

The survey this year made one further breakdown, which had not been studied in the past; "housing" was divided into two categories—private residential, and multifamily housing (public and private). The responding architects estimate that $174,000 of work in the average office will go to the private house (5% of total average volume) and $350,000 to multihousing projects (9.5%). The total, 14.5% of the average architect's business, is very close to the figure estimated last year for this activity. The largest volume in house design projects was reported from Texas (12.5% of the volume) and from the Northwest (10%); the lowest activity in this field is in the Great Lakes area and the Northeast (3 to 4% of the volume). But in these regions other types of housing (apartments, public housing) bring up the total "housing" volume. In the Northeastern states, in fact, it is 20% of the total dollar volume reported.

Employment opportunities in the architectural offices seem about as good as last year. The average firm reports that it now has 10 employes, and despite some sharp expected drops, there is a balance from anticipated increases, and the average expectation for 1954 is the same—10 employes.

In this sense the "average" firm is rather meaningless, since sizes of offices range from 1100 employed personnel to one. Here is the picture from which a median, rather than an average, can be inferred:

Firms with 1 to 2 employes	27% of total firms
3 to 16	35
7 to 10	21
11 to 20	8
21 to 50	7
over 50	2

In other words, it appears that the median is somewhere around five employes; only 9% of the active firms, in this survey, employ more than 20 people.

A further analysis of architectural office size—by volume of business—shows the following results in this year's P/A survey:

$ volume of business in office	% of firms reporting	% of total construction
under $1 million	39%	9%
$1 to $5 millions	43	29
$5 to $10 millions	14	25
over $10 millions	4	37

It appears from this tabulation of the returns that the typical firm, as well as the average firm, does about $3,500,000 of work annually, and, further, that the major part of the construction volume in the country is designed by the 57% of the firms handling more than $1 million but less than $10 millions of commissions—54% of the dollar volume reported is in those offices.

One final report from this survey: the turnover in architectural firms is still large. No useful statistics can be given on this, because obviously many new firms had nothing to report and many disappearing organizations did not reply. However, while a large number of returns explained, "Sorry, we're no longer in business," these were more than balanced by respondents who stated, "It's too early to predict; we're just hanging up the shingle."

Thus, with new faces appearing and familiar ones leaving the scene, the profession of architecture moves into a new year with prospects—comparable to those of other businesses and professions—of a decline in business which is noticeable but not, at this point, alarming.

P/A Engineering Survey for 1954

All reports indicate another boom year for concrete construction, with precast modular units being specified for a vast variety of construction. In many instances, these precast modular units will be improved and reduced in cost by means of prestressing —especially for beams with spans up to 100 ft and modular roof panels with spans up to 35 ft. Newly formed Prestressing, Inc., San Antonio, reports the opinion that general contractors will be willing to set up job-site casting yards where precast members can be turned out under job conditions just as cheaply as yard-cast members—with the added advantage that freight charges become unimportant.

Prestressing of concrete members for all types of structures will continue to gain acceptance across the nation and various improved methods will be tried. From New York comes news of the Preload-Crom beam-winding system which offers the American construction industry, for the first time, a practical and simple mechanical method for the application of prestressed-wire reinforcement under tension to concrete beams, girders, and other linear members. Virtually eliminated are the laborious, complex, time-consuming procedures involved in assembling, placing, stressing, anchoring, and grouting of prestressed elements—as well as the costly bearing plates and anchorage assemblies required of most present methods. Briefly stated, for beams under 50 ft in length this new method operates as follows: After a concrete beam is cast and cured, it is secured to a turntable. As the turntable is rotated by a power unit, high-tensile wire, pulled through a die, is placed around the beam at the required design tension. When the correct number of wraps have been made, they are anchored and given a protective coating of pneumatic mortar.

John J. Driskell, Pasadena structural engineer, reports a complete concrete-roof system for an East Los Angeles bakery, that will cost but $1.20 per sq ft in place. His thin-shell roof will be of 4 in. thick, 3000 psi lightweight prestressed-concrete slabs. Transversely there are three equal spans, each 17′ 4″—the two outer slabs with a 4½ to 12 slope, the center slab horizontal. Thus each shell is 52 ft wide. Longitudinally the shells span 60 ft and are stiffened and restrained from spreading by an inverted diaphragm along the column lines. Total horizontal area covered by this thin-shell construction will be 170′ x 364′. (Architects: Bennett & Bennett.)

Tube-slab construction designed by A. J. Macchi, Hartford structural engineer, will be used in the King Philip Drive School in West Hartford. Steadily gaining popularity, the principal advantage of this floor system is derived from the cylindrical holes formed by the tubes as they displace concrete that is of little value in supporting loads. Not only is dead load reduced but both concrete and steel are allowed to work at maximum efficiency, as well as being reduced in amount. Paper tubes will be 8 in. in diameter and spaced 10 in. on center. (Architects: Ebbets, Frid & Prentice.)

Lift-slab concrete construction has won Navy acceptance and the largest structure yet built by this method is now under way at the U. S. Naval Amphibious Base, Norfolk, Virginia. This three-story barracks building is shaped like two E's back-to-back and has a frontage of 477 ft; each wing is approximately 50 ft wide. (Architects: Woodward, Oliver & Smith; Engineers: Knappen-Tippetts-Abbett-McCarthy.)

•

To be erected at Raleigh, North Carolina, is a grandstand cover of great span and entirely without obstructing supports. This cover has been designed of structural steel by Severud-Elstad-Krueger, New

York consulting engineers. (Architect: Wm. Henley Deitrick, Inc.) Corpus Christi's new Civic Center will boast an auditorium with a lamella steel-roof structural system spanning 224 ft. Structural Engineers Blucher & Naismith have designed the roof system to support a precast-concrete roof deck with composition roofing over insulation. The entire auditorium will cover an area of 71,600 sq ft. (Architect: Richard S. Colley.)

Many applications of architectural stainless steel are being contemplated for both commercial and industrial buildings—in several finishes and formations for the former type and panels for side walls and roofs (both in nickel and non-nickel bearing stainless steels) for the latter type of building. Gutters, downspouts, gravel stops, skylights, and other exposed architectural features will prove more popular for stainless steel, according to the United States Steel Corporation.

●

Although no exacting surveys have been made to determine the number of commercial façades that will use aluminum, it is evident that there has been an astonishing increase in the number of jobs now in the planning stage that will use aluminum curtain-wall construction. It looks like a particularly big year for aluminum spandrels. According to Reynolds Metals Company, it now appears that aluminum will make the biggest dent in the window field and that prefab building will also consume a large portion of the nation's aluminum production.

●

At Montana State University, laminated-wood arches with spans of 201′ 6″, pin to pin, are now rising 70 ft above the arena floor of the new Field House. This span makes the laminated-wood arches among the largest ever erected and, according to Brinkman & Lenon, architects-engineers, each arch weighs 6½ tons.

●

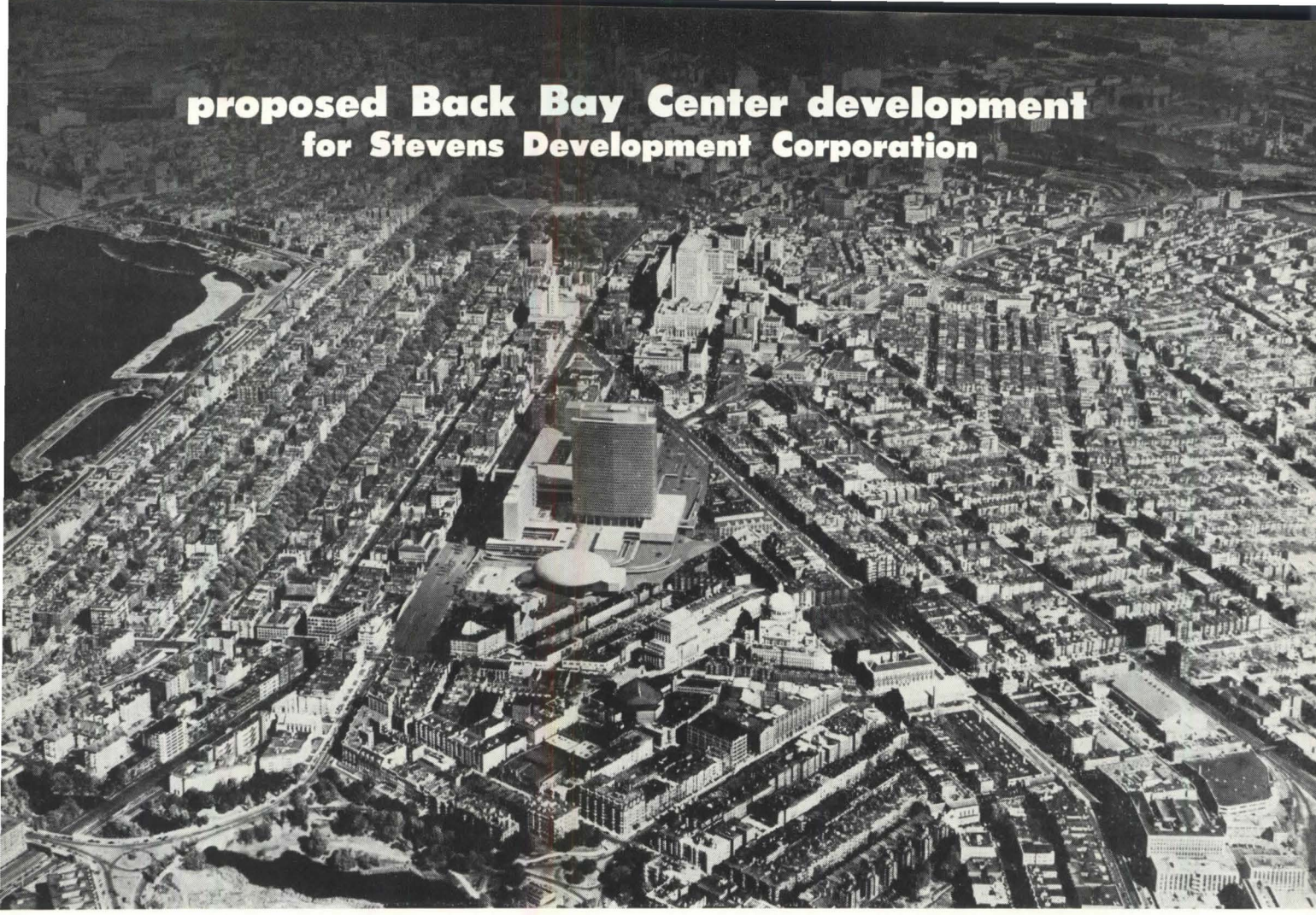
Seelye, Stevenson, Value & Knecht, New York consulting engineers, have proposed a high-temperature hot-water central heating and distribution system (350 to 400 F) for the Plattsburgh Air Force Base, Plattsburgh, New York. Their system will provide for the heating and process requirements of all new buildings and heating for the modernized existing structures. A major advantage of this method is that much more economical pipe sizes are possible —often smaller than those required for a comparable steam system. (Architects: Shreve, Lamb & Harmon Associates.)

Commenting on the future of home air conditioning, Prof. William J. McGuinness, Pratt Institute, states: "Sales now indicate that the larger air-conditioning units may soon pass room units in popularity leaving the latter to serve only in existing homes and apartment houses. By now, engineering design has been simplified to put it within the purchasable reach of the average home owner, as well as understandable by the builder and heating contractor."

●

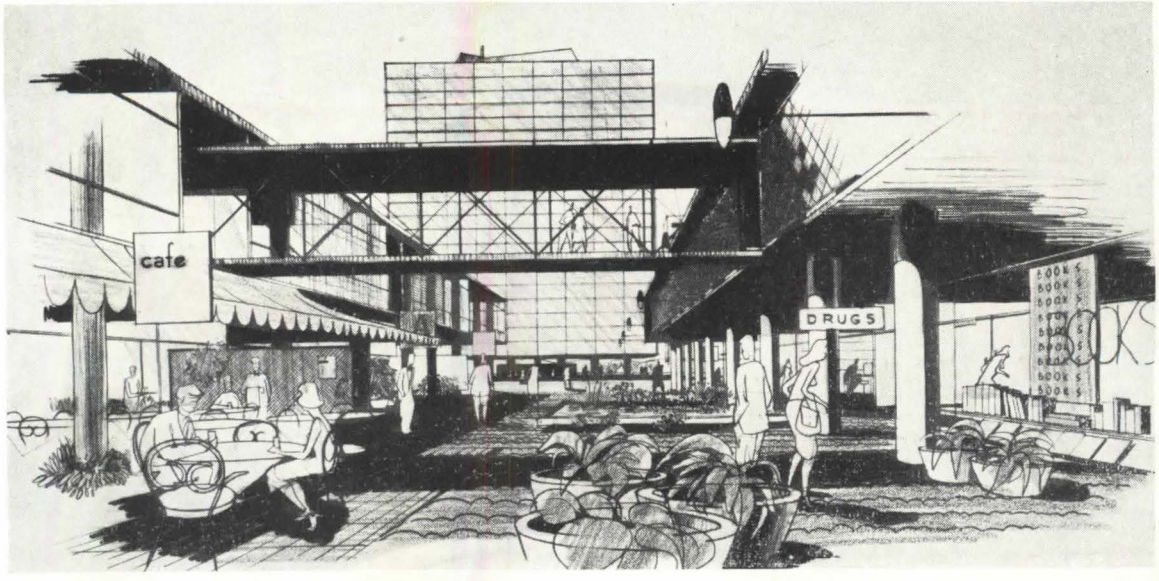
Lighting engineers at Nela Park, Cleveland, have developed a new approach on fundamentals that presages a new era of precision in calculating lighting results for new installations. Fluorescent street lighting is likely to have a big influence on new and old shopping centers in the coming year. The degree of safety and distinction they provide will probably attract new applications as rapidly as merchants and municipalities can arrange financing. A new light meter (still being tested) offers much more accuracy in registering quantity of illumination. The new meter collects light from a wide angle and registers more fully the effect of energy throughout the visible spectrum. Dr. Domina Eberle Spencer, associate professor and lighting consultant, University of Connecticut, predicts that the most important lighting development will be the use of luminous ceilings across the board—from industry to the hospital operating room, from school room to the kitchen, in stores, offices, drafting rooms, laboratories, and television studios.

proposed Back Bay Center development
for Stevens Development Corporation



first design award

location	Boston, Massachusetts	
architects	Boston Center Architects	Pietro Belluschi Walter F. Bogner Carl Koch & Associates Hugh A. Stubbins, Jr. The Architects Collaborative
consulting engineers-construction managers	Stone and Webster Engineering Corporation	
economic consultant	Kenneth C. Welch	
traffic-parking consultants	Wilbur Smith & Associates	



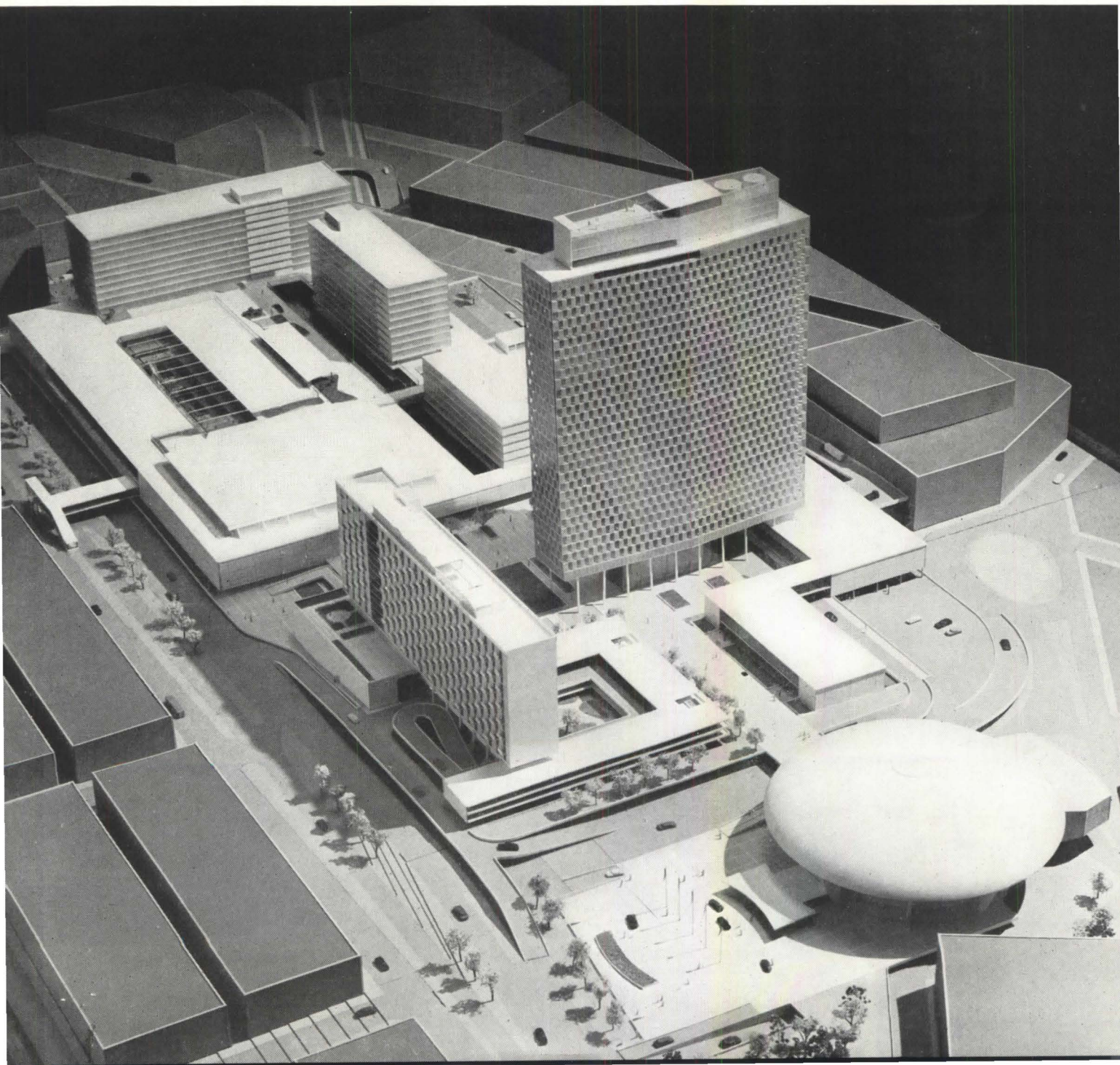
Boston Center

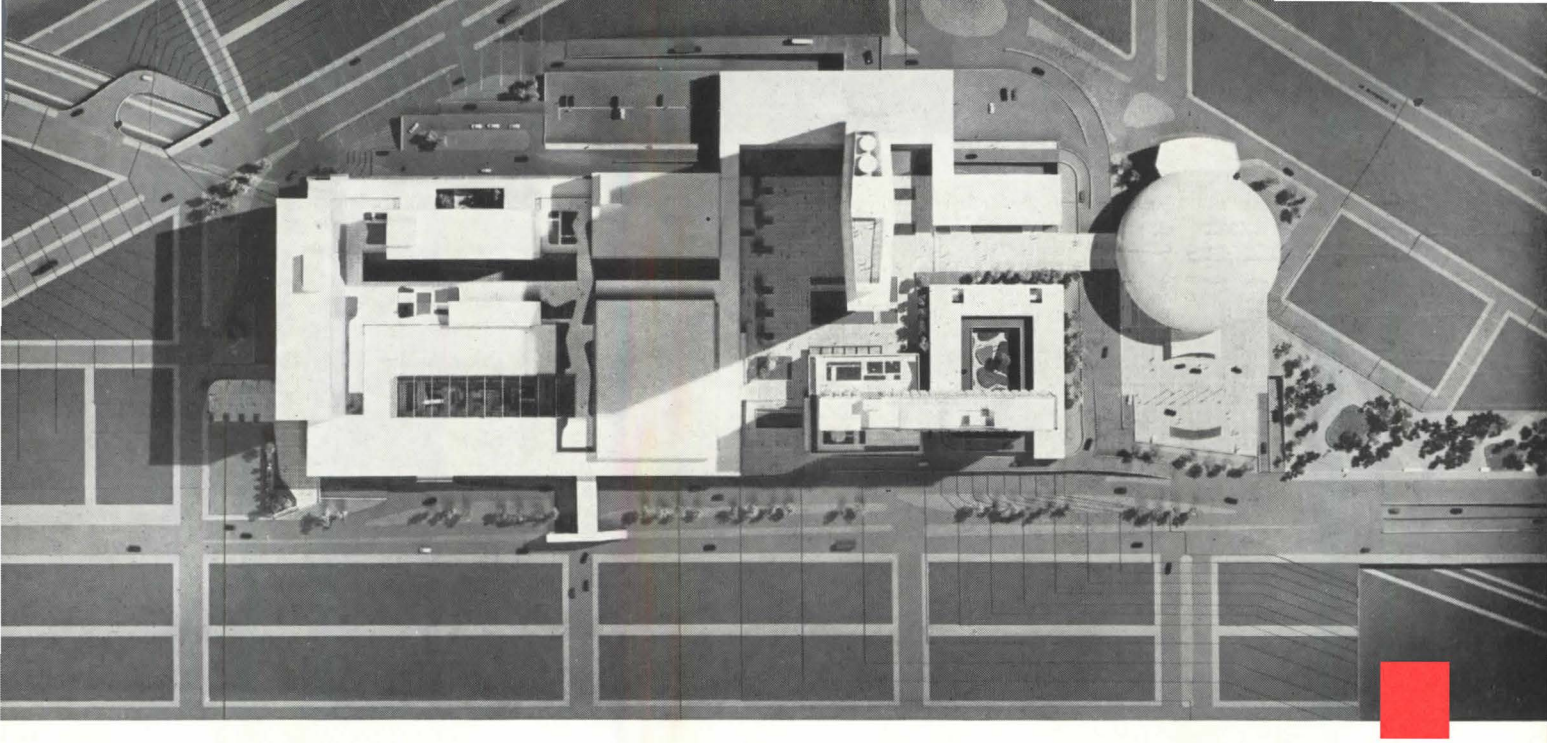
This stunning complex rose above every other entry in the Design Awards Program to receive from the Jury the over-all First Design Award. It also was given the top Design Award in the Commercial category. And the circular Convention Hall adjoining the Center at its western end was given an Award Citation.

The proposed Back Bay Center is an extraordinarily impressive scheme—particularly so to anyone who knows that area of Boston. For, though that proper city has a distinguished architectural past and there are numerous excellent, smaller contemporary structures and residences in the environs, it has by no means been notable for its commercial structures built in the 20th Century. Now, all of a sudden, the proposal is to construct as lively a group of buildings as any city anywhere can boast—a shining new core for the old metropolis. And this, right in the heart of the present city, within two blocks of H. H. Richardson's Trinity Church, McKim, Mead & White's Boston Public Library, and the huge dome of the extension to the Mother Church of The First Church of Christ, Scientist (Charles Brigham, Chief Architect). Most fortuitously, the design is in the hands of a group of some of the most progressive architects in this country.

The 30-acre site has served for years as the unsightly railroad yards of the Boston & Albany Railroad. Now, with the removal of all save an 82-foot-wide area that will carry the main line diagonally across the property (underground), this whole acreage will be free for development.

Main units that are readily identifiable in the model photographs are the splayed-sided, 40-story office building; a rectangular structure at right angles to the office building, which, with its low, U-shaped





wing enclosing a courtyard, constitutes a unique city hotel facility—a 750-room combined hotel-motel. Rooms in the latter will be reached via a switchback auto ramp from bordering Boylston Street. Other major units, better understood from study of the detailed plans, are a huge department store; an all-weather air-conditioned, multilevel shopping promenade with a roof of glass; a street of shops; three smaller office buildings; a supermarket; and exhibit buildings, all grouped around a lightsome pedestrian plaza, with landscaping, pools, and similar, park-like amenities. Not part of the commercial development proper, but closely related to it, is the circular Convention Hall for which the client is the Convention Bureau of the City of Boston.

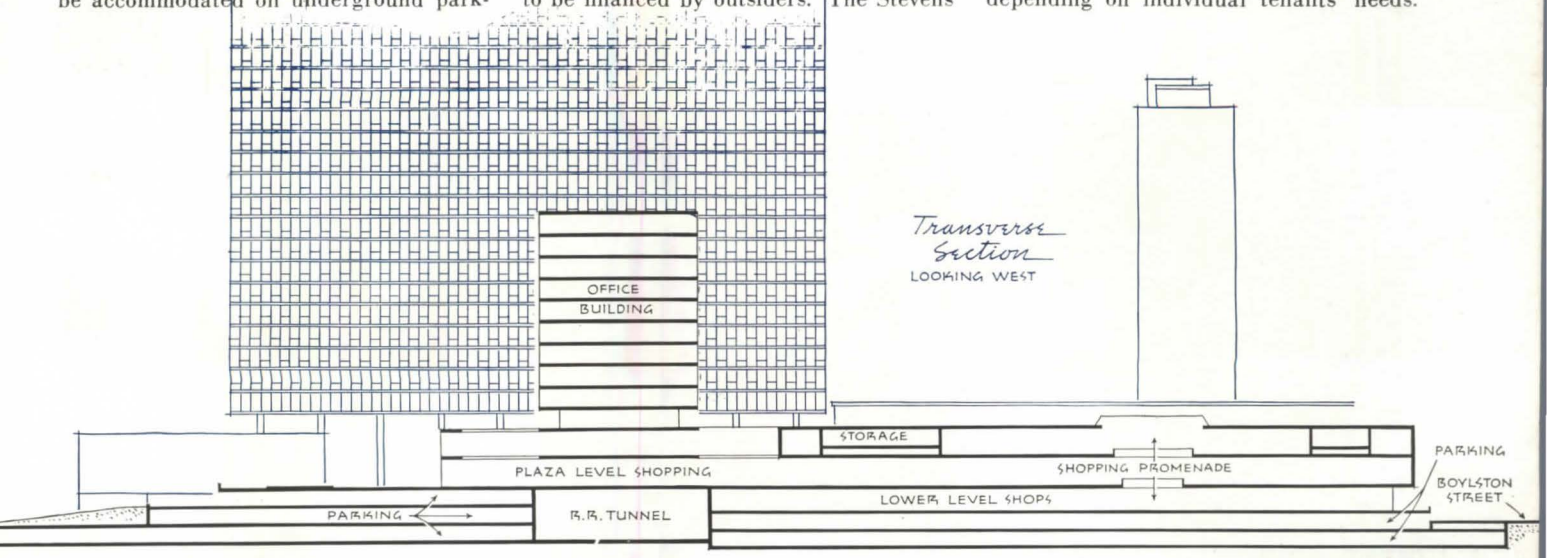
In fact, one of the most agreeable things about the entire development is that, throughout, the pedestrian once again comes into his own. Yet his automobile—6000 of them, to be exact—can be accommodated on underground parking levels. A one-way ring-road system within the Center takes all traffic destined for any portion of the group off of the existing neighboring streets.

Accessibility is further enhanced by existing and planned public-transportation routes. A subway now exists under Boylston Street *(the straight street at bottom of the straight-down model photo)*; another subway occurs under Huntington Avenue *(diagonal street at top left of model)*, and, since the railroad tracks cut across the site *(from upper left to bottom right)*, a new railroad station under the Center would make the entire group accessible to rail travelers.

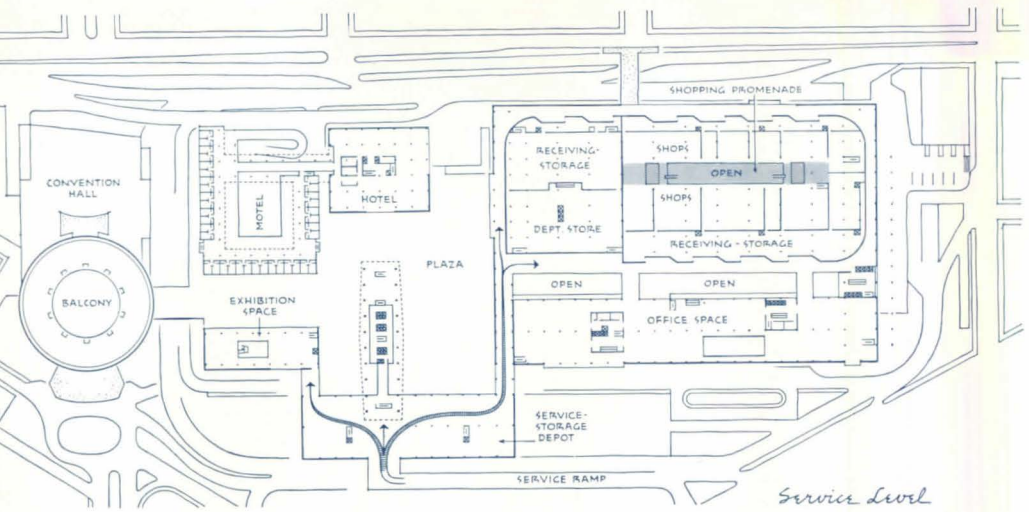
The Jury spent much time in studying the Back Bay Center scheme and the details of its planning. Final recorded words of approval were "a great concept" and "terrific."

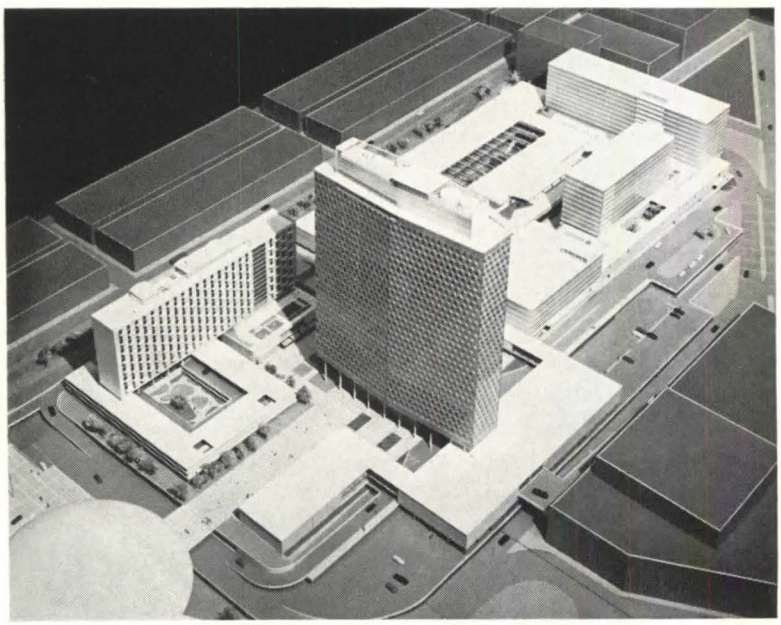
While Boston businessmen and Mayor John B. Hynes are enthusiastic, curiously enough the project was prompted and is to be financed by outsiders. The Stevens Development Corporation, which will build the project, is headed by Roger L. Stevens, of Ann Arbor, Michigan. Stevens also heads the group that owns the Empire State Building in New York; another current Stevens project is a large commercial development for Seattle.

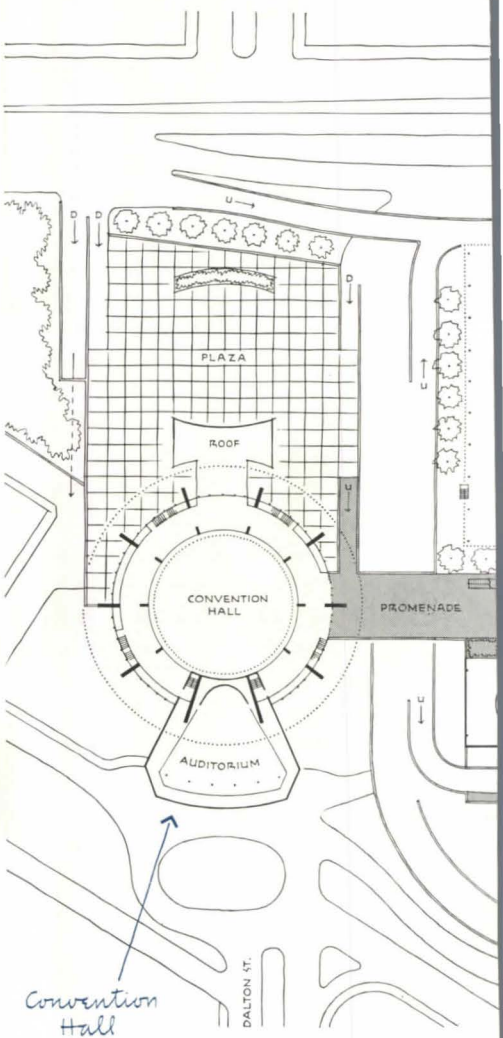
The section at bottom of page clearly shows the three-level parking garage south of the railroad tunnel (bordering Huntington Avenue); the two levels of parking bordering Boylston Street; the roofed, all-weather shopping promenade organized in a stepped-back balcony arrangement; a section through one of the smaller office buildings, and the façade of the great 40-story unit. Exact elements, such as materials to be used in the curtain walls, etc., are all yet to be determined. For the surfacing of the tall office building, for example, the architects are currently working toward some sort of flexible, combined window-and-wall units that may be used in various combinations, depending on individual tenants' needs.

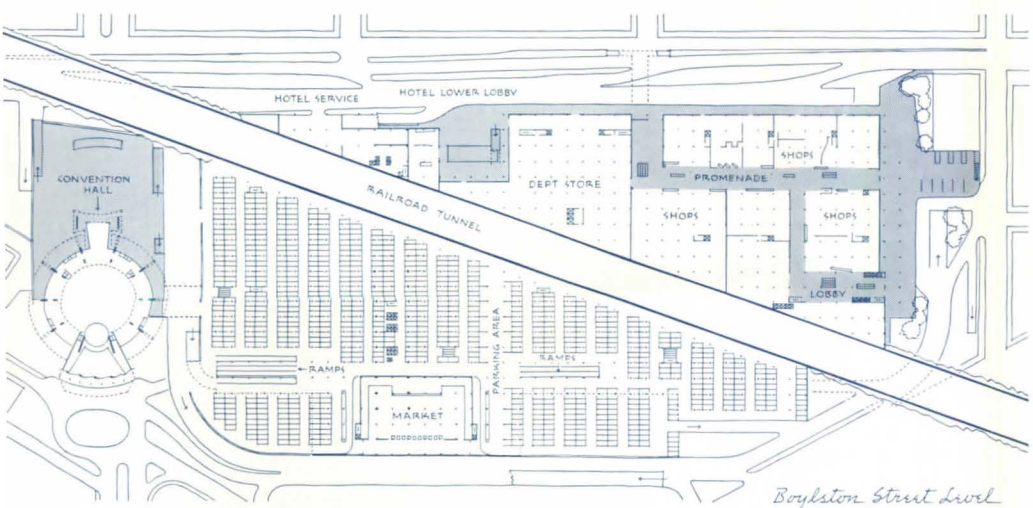


Scientific traffic studies estimate that 70,000 persons—25,000 motorists; 5,000 pedestrians; 40,000 mass-transportation riders—will visit the Center on an average day, with a peak day producing about 1.3 times as many. The one-way ring-road system provides ingress and egress at numerous points, so that all existing streets share in absorbing traffic; yet the ring road is completely isolated from traffic on circumferential streets. Below any floor level shown here is the original railroad-yard level (with huge triangular parking areas on either side of the 82-foot-wide rail tunnel with parking for approximately 1700 cars.

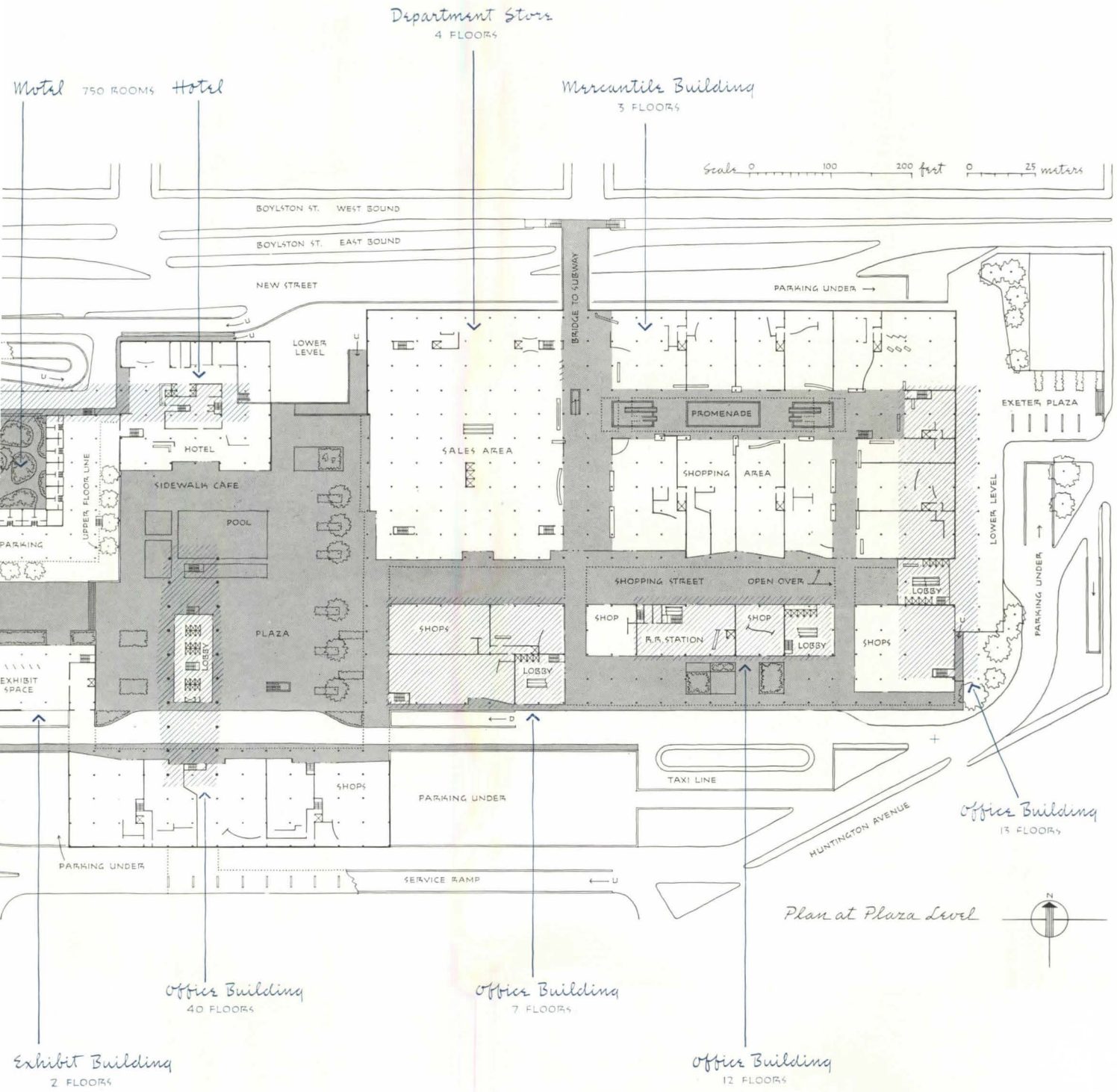








At the Boylston Street level *(left)*, the triangle at the south side of the site has parking for another 810 cars. Also at this level, in addition to the department-store street floor, is the start of the group of shops surrounding the all-weather shopping promenade. At the important plaza level *(above)* the rail tunnel is finally cleared, joining the whole area into a single great platform, with shopping promenade, street of shops, exhibit spaces, office-building lobbies, etc. A most exceptional proposal *(plan, top of page)* is a storage-service level raised one story above the plaza level.

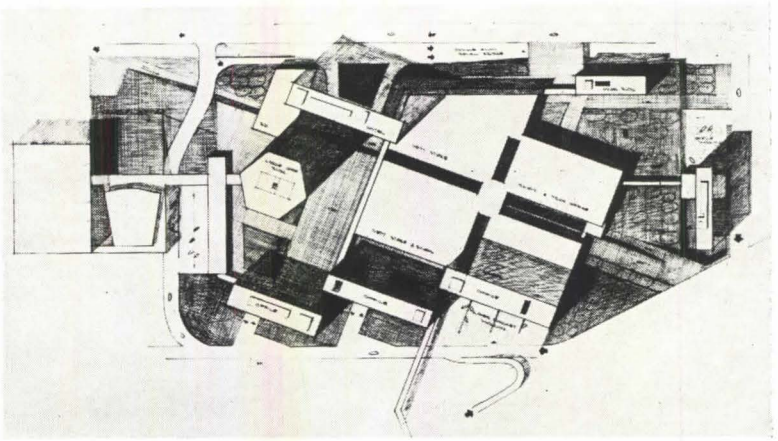

Department Store
4 FLOORS
Motel 750 ROOMS
Hotel
Mercantile Building
3 FLOORS
Scale 0 100 200 feet 0 25 meters
BOYLSTON ST. WEST BOUND
BOYLSTON ST. EAST BOUND
NEW STREET
BRIDGE TO SUBWAY
PARKING UNDER
LOWER LEVEL
HOTEL
SIDEWALK CAFE
POOL
UPPER FLOOR LINE
PARKING
SALES AREA
PROMENADE
SHOPPING AREA
EXETER PLAZA
LOWER LEVEL
PARKING UNDER
EXETER STREET
SHOPPING STREET
OPEN OVER
LOBBY
SHOP
R.R. STATION
SHOPS
PLAZA
EXHIBIT SPACE
TAXI LINE
HUNTINGTON AVENUE
Office Building
13 FLOORS
SERVICE RAMP
Plan at Plaza Level
N
Office Building
40 FLOORS
Office Building
7 FLOORS
Exhibit Building
2 FLOORS
Office Building
12 FLOORS

Boston Center

preliminary design stages

An early design attempt *(below)* recognized the diagonal line of the railroad tracks and made right-angle framing possible across the tracks. It was abandoned—"because pedestrian access was in wrong locations and the group of buildings had no relation to existing city conditions."

1



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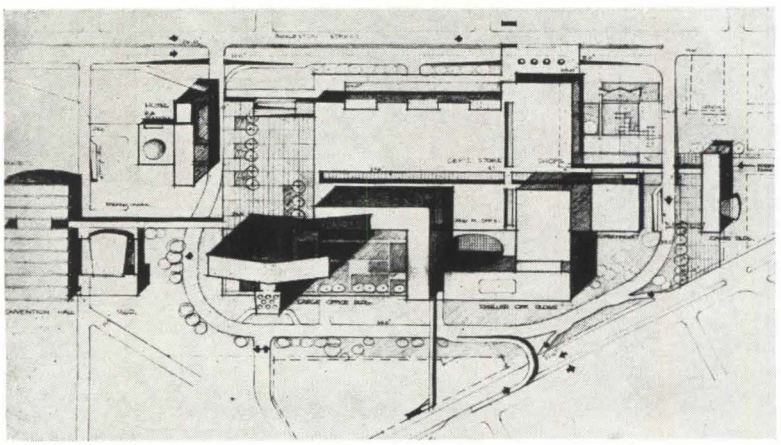
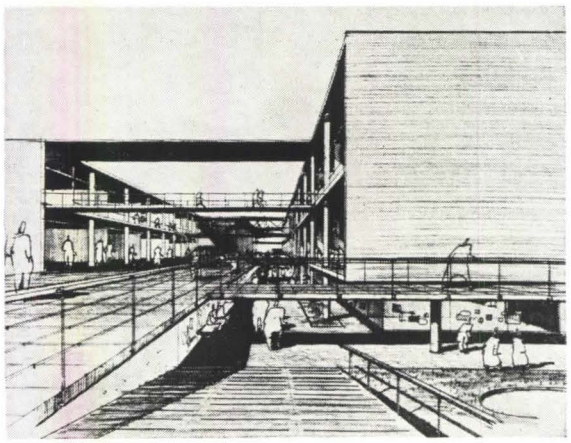
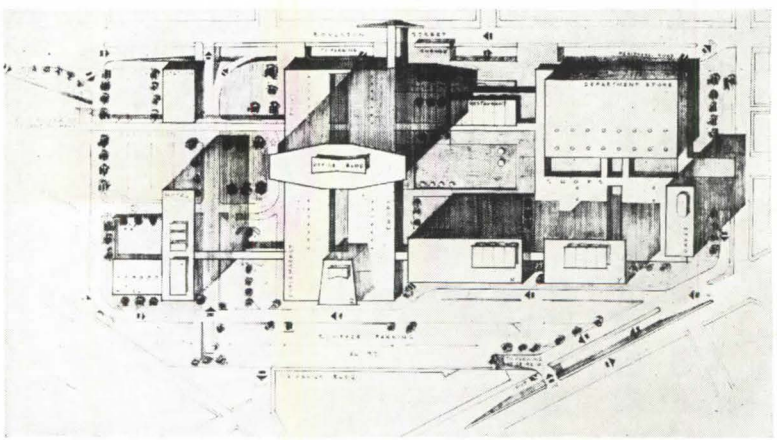


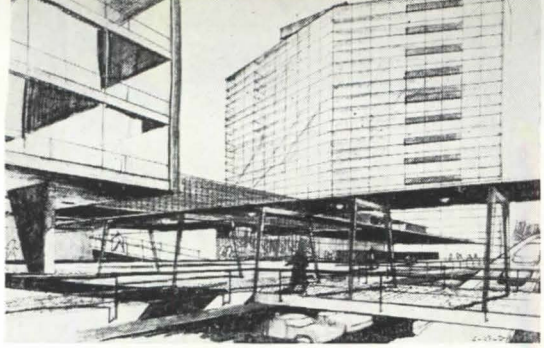


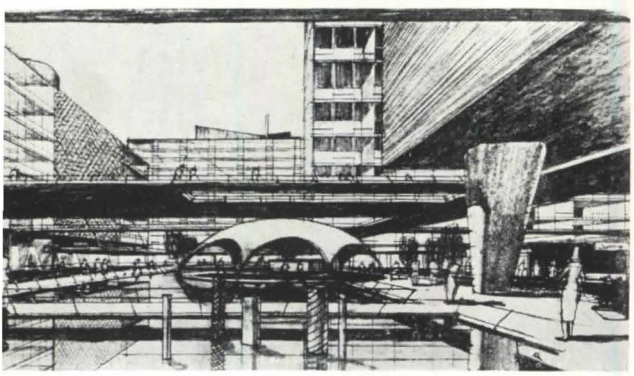
A further development *(plan and perspective above)* places the hotel and department store along Boylston Street and organizes the big office building on an east-west axis. "Shopping too small . . . department store too long . . . only one pedestrian shopping street . . . plaza too big."

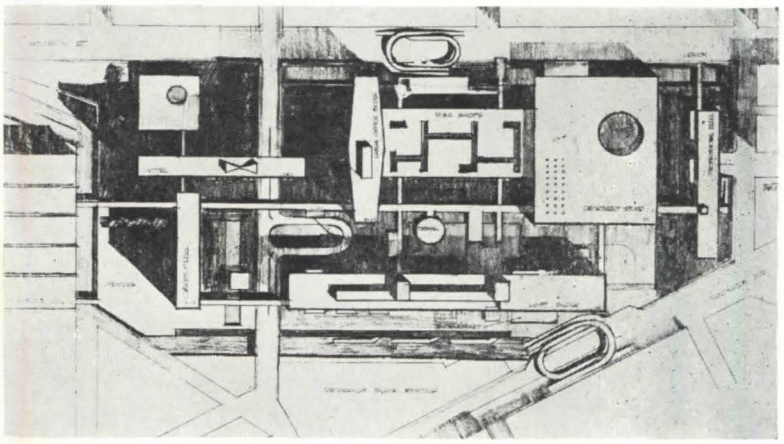
3



Here the office building and shopping center are grouped and separated from the department store by a large plaza and smaller shops and concessions. Hotel, isolated; three separate office buildings of different shapes and sizes.

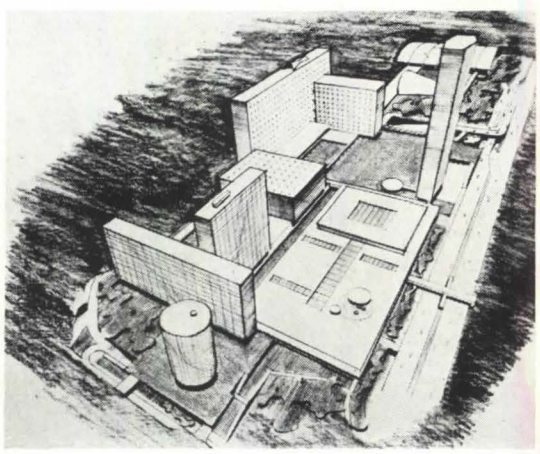


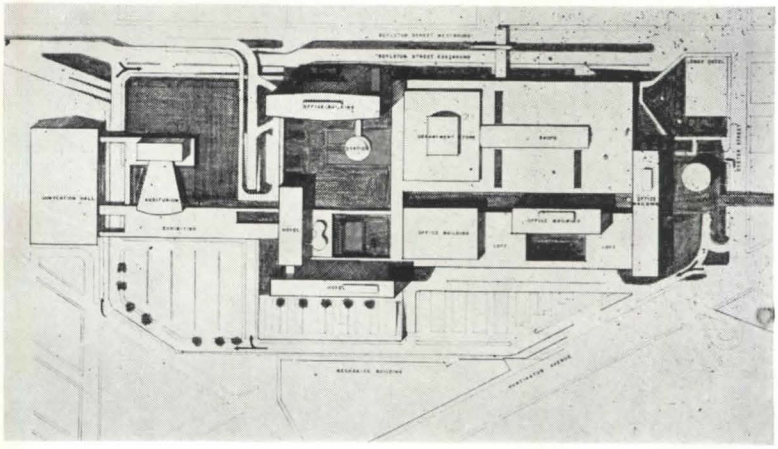




4

One of the more fully developed schemes *(plan and sketches above)* placed department store at corner of Boylston and Exeter Streets, with added shops along Boylston leading to tall office building (now on north-south axis); office buildings grouped in one large flexible unit; cross street introduced to serve hotel, office buildings, and plaza.

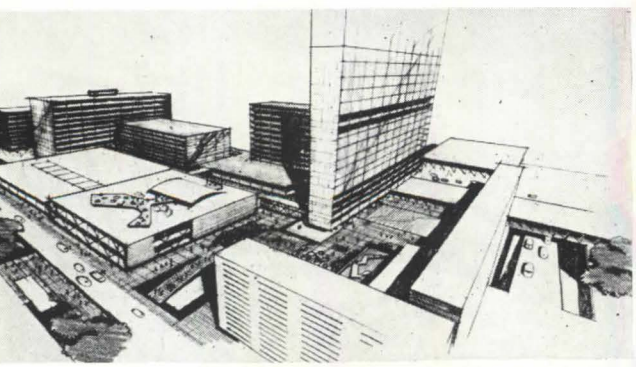


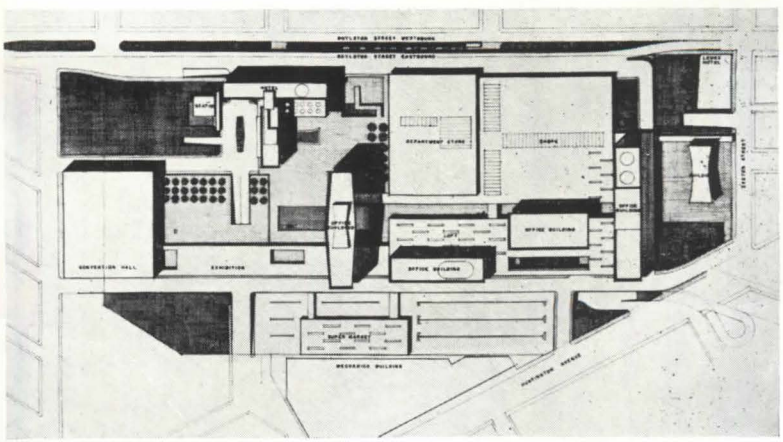


5

Plan and sketch above show a grouping very close to that of final solution, though office building and hotel placement are reversed.

Drawings below constitute the sub-sub finals. The motel was added later; plaza was redesigned; and additional parking was provided.





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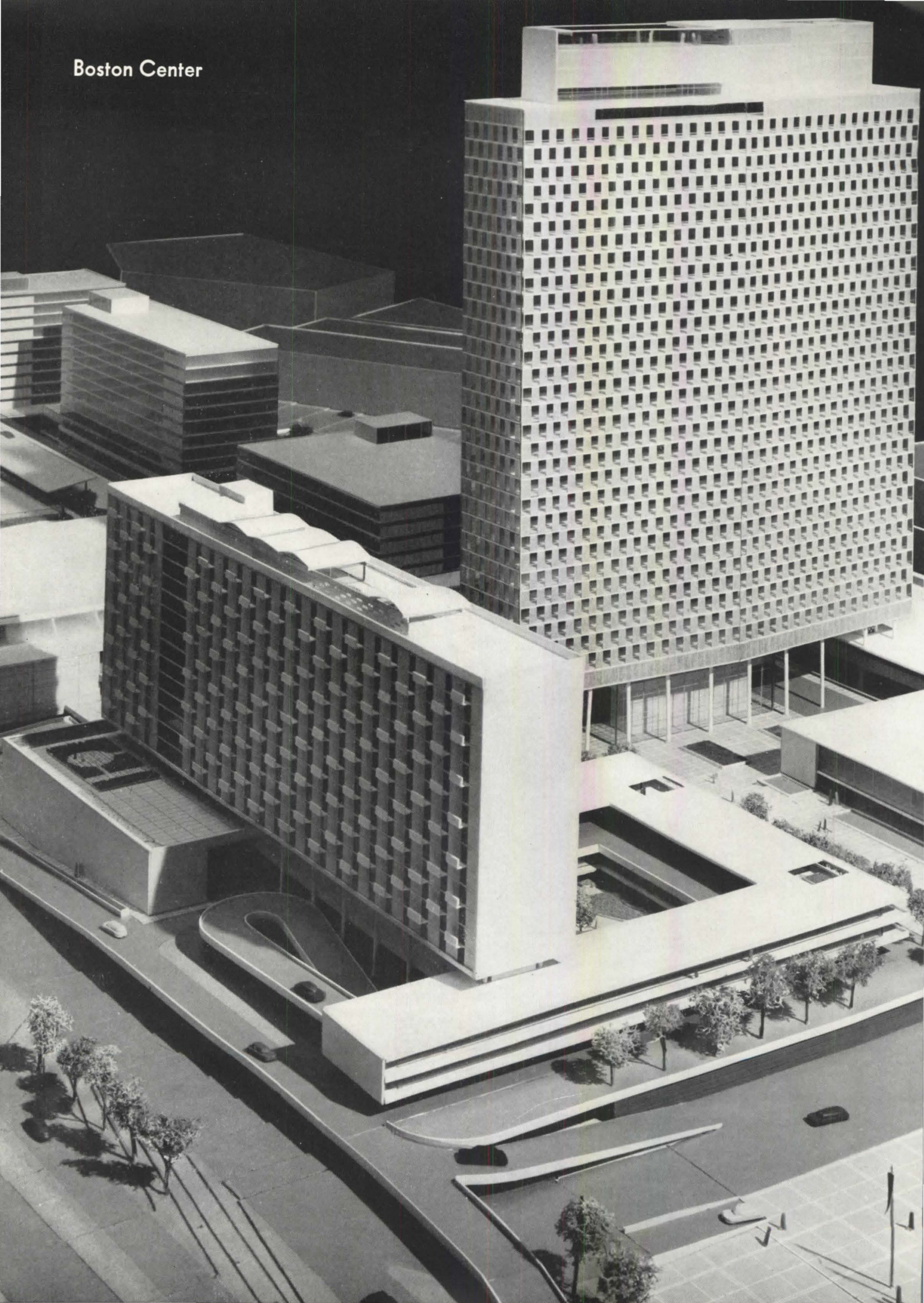
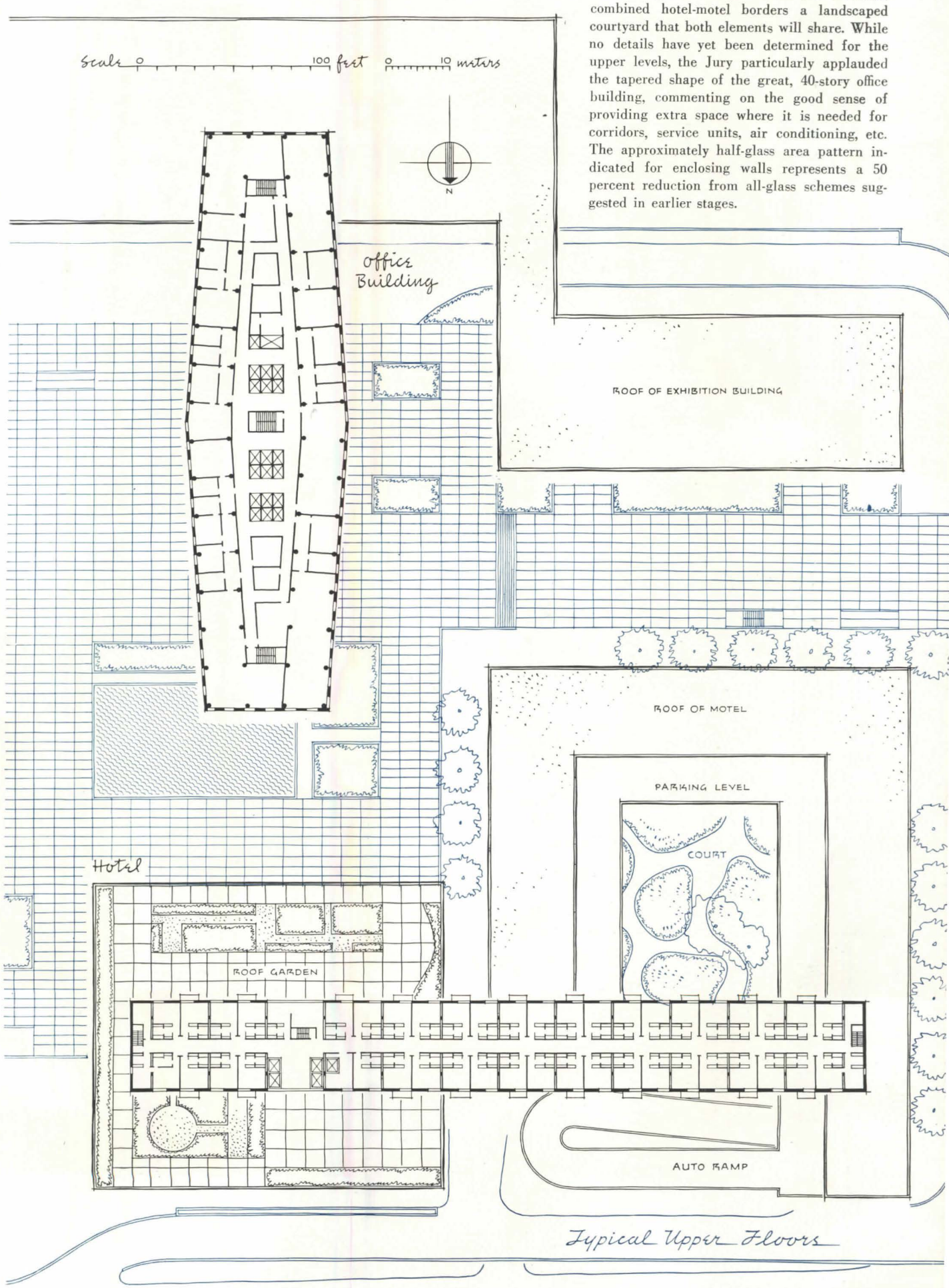
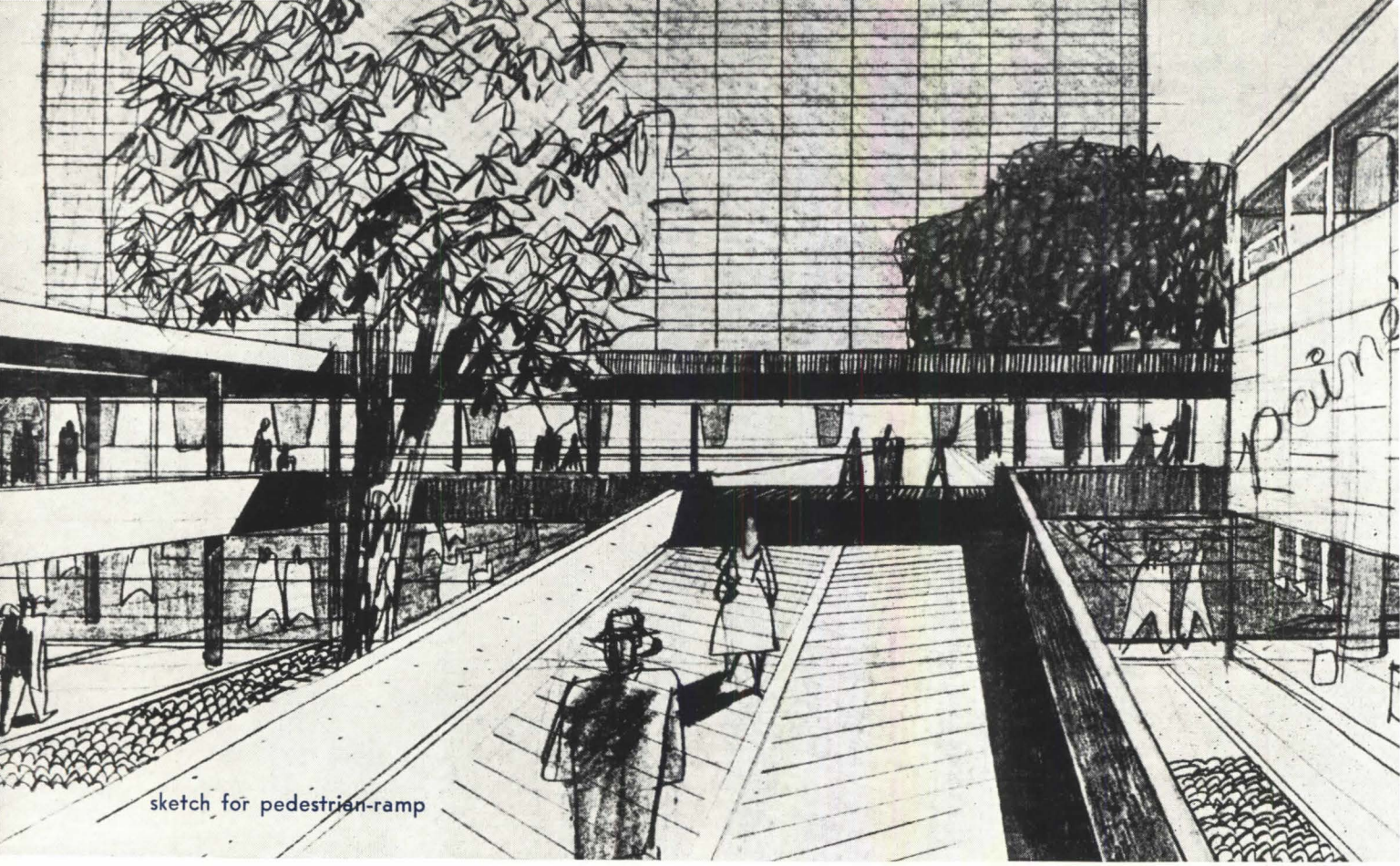

Boston Center

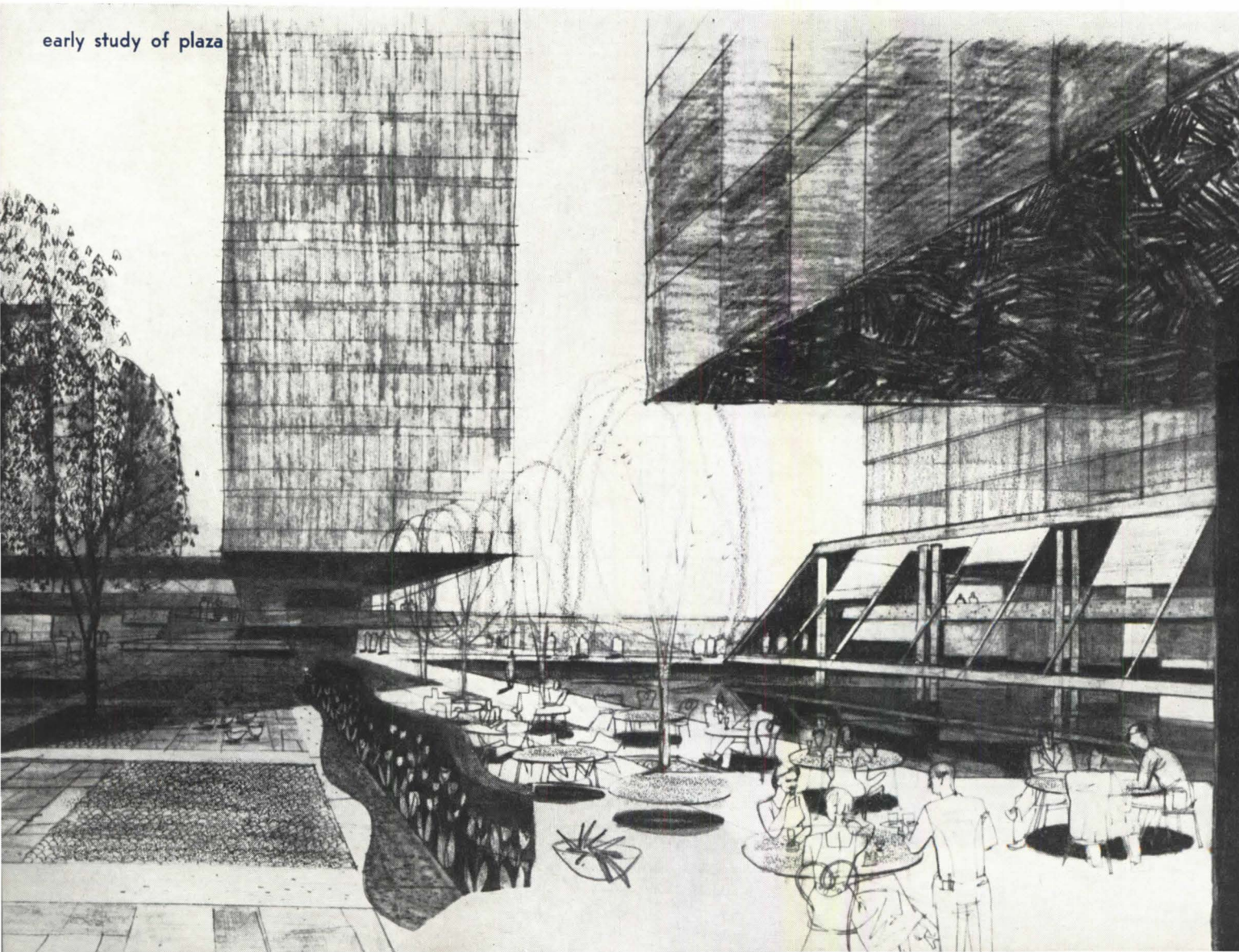
The U-shaped motel portion of the 750-room, combined hotel-motel borders a landscaped courtyard that both elements will share. While no details have yet been determined for the upper levels, the Jury particularly applauded the tapered shape of the great, 40-story office building, commenting on the good sense of providing extra space where it is needed for corridors, service units, air conditioning, etc. The approximately half-glass area pattern indicated for enclosing walls represents a 50 percent reduction from all-glass schemes suggested in earlier stages.



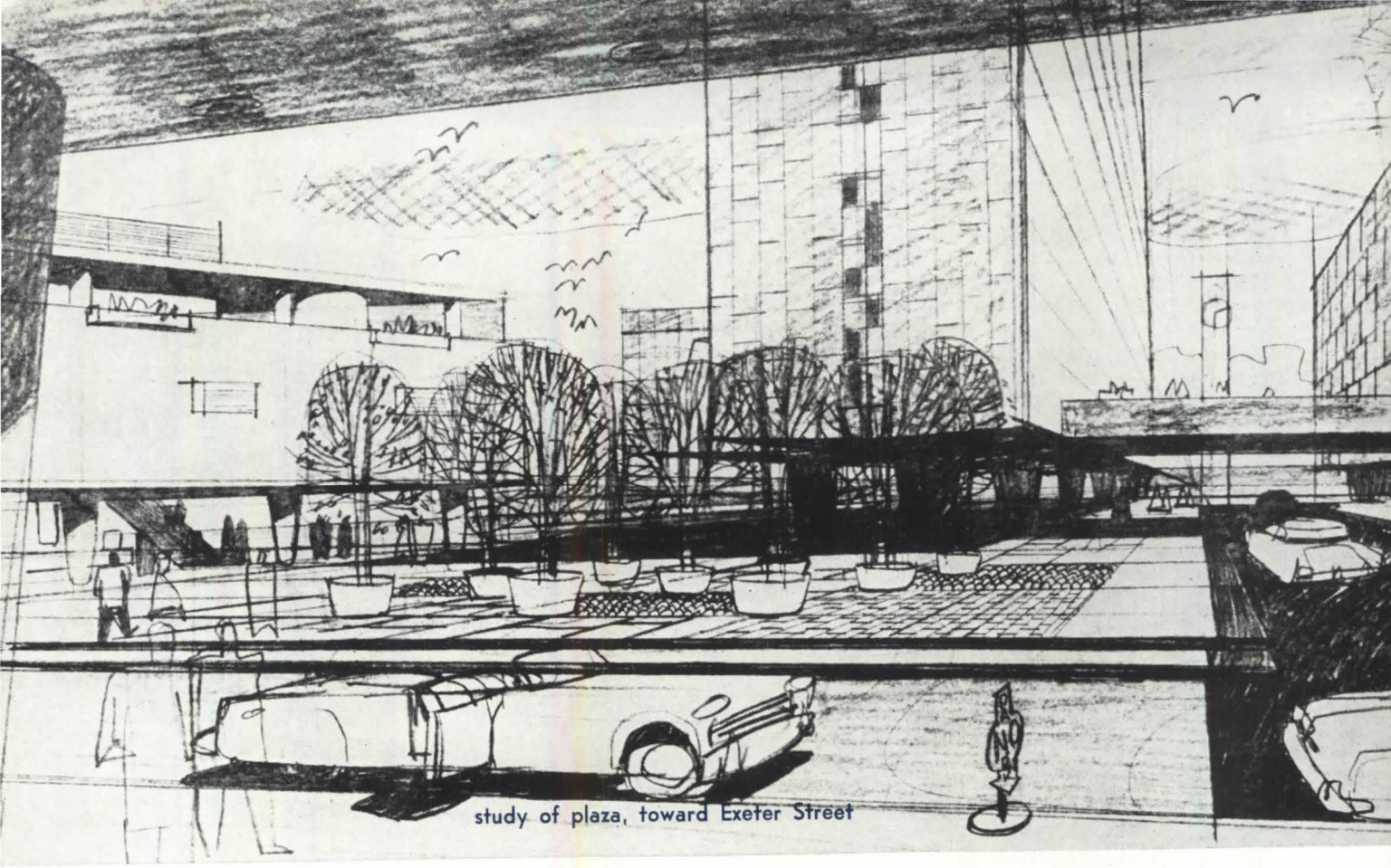
Typical Upper Floors



sketch for pedestrian-ramp

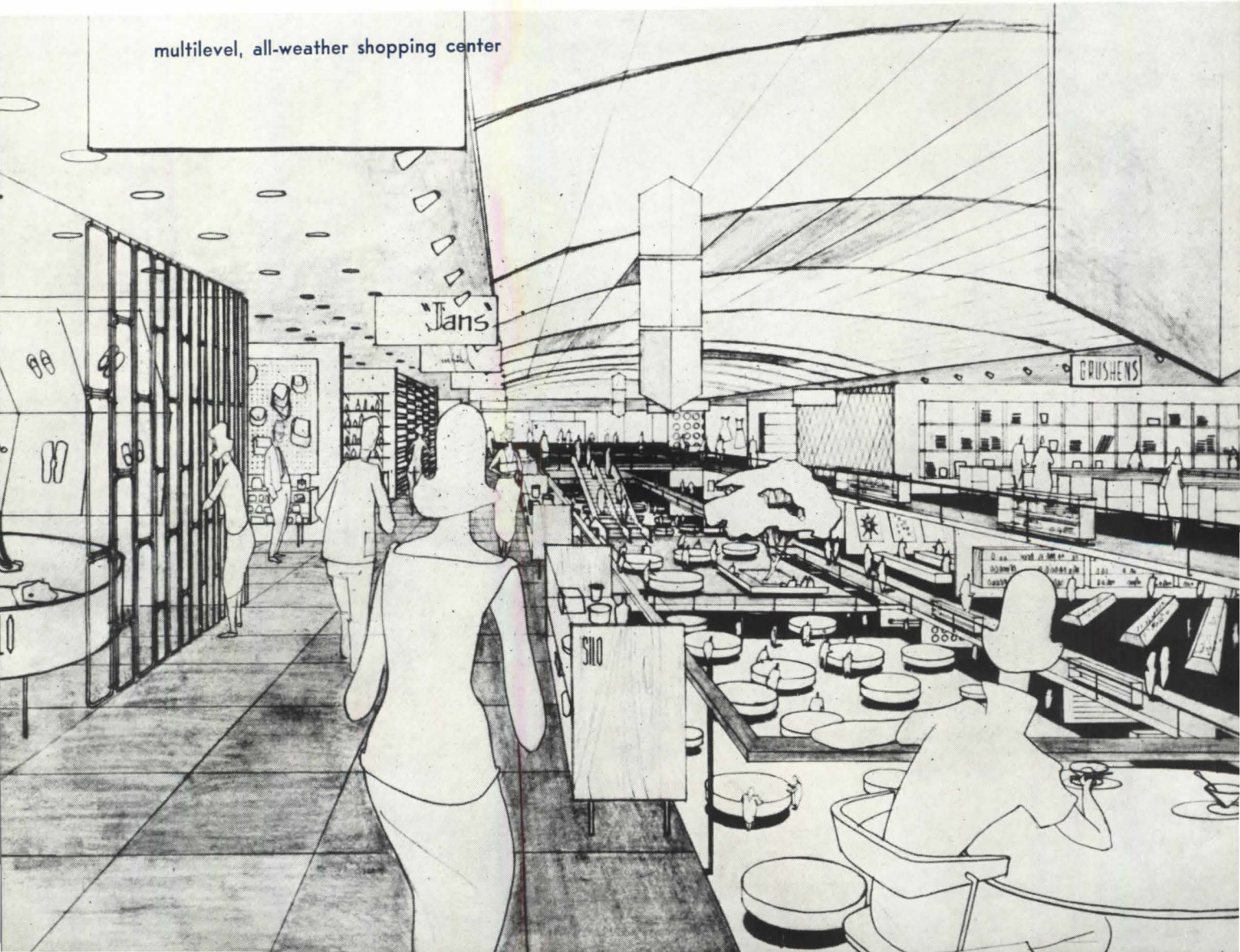


early study of plaza



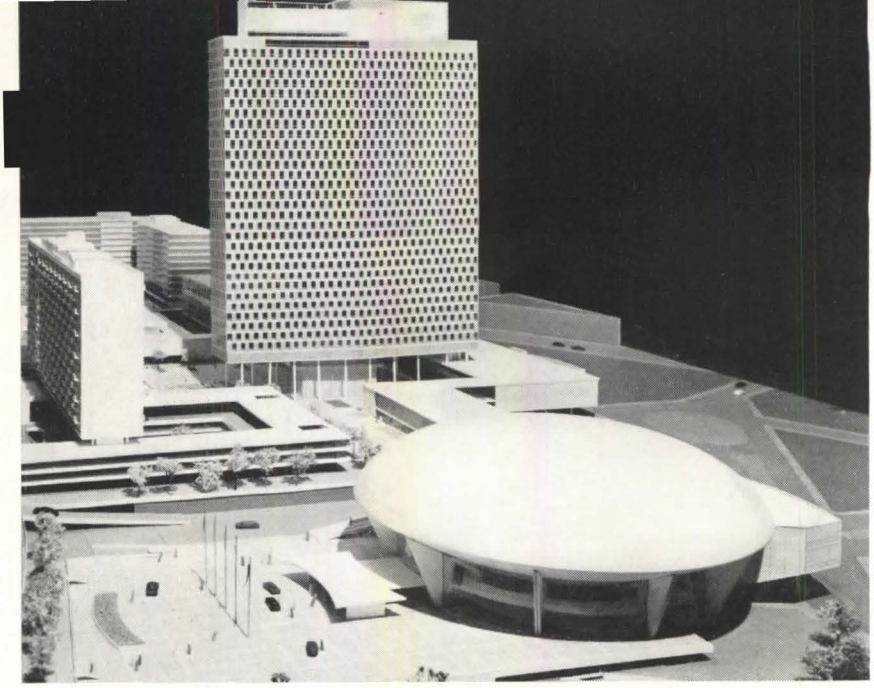
study of plaza, toward Exeter Street

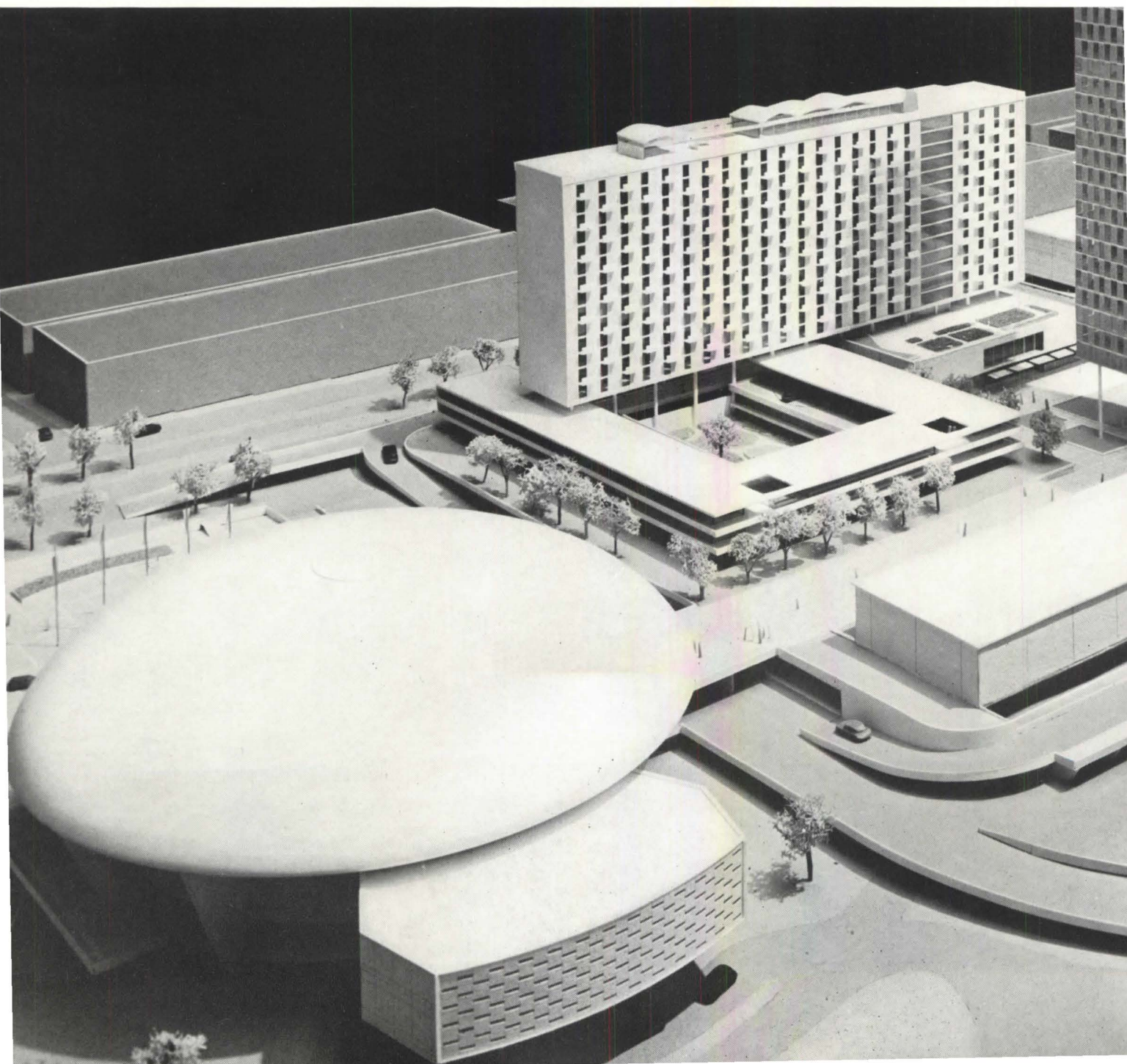
multilevel, all-weather shopping center



commerce

award citation. Convention Hall for Boston, adjoining the Back Bay Center. Samuel Glaser Associates, Architects-Engineers. The circular structure was designed, along with its deep plaza fronting on Boylston Street, "to integrate the over-all facilities with the interests of New England industries and of the visiting public." Permanent exhibits of local industrial accomplishment would be on view at all times. The building includes a Convention Hall and Auditorium with maximum flexibility to meet small convention exhibit needs for a single convention or for a group of two or three small conventions held concurrently, or for one very large gathering. Available floor area in Convention Hall—33,000 sq ft; outdoor exhibit area in plaza—38,400 sq ft.





commerce

The Jury awarded the Boston Center project *(already shown)* the Design Award in the Commercial category, before giving it, finally, the top honor of all—First Design Award.

Design of buildings for commercial use will again become an extremely active part of the architects' practice in 1954 (it is the second most active building category in P/A's Business Forecast) and it provided some of the most stimulating designs in the Awards Program. Among the office buildings submitted, the Jury felt that the influence of the United Nations group, and of Lever House, was often apparent; and that, perhaps for this reason, few contributions in a further direction had been made either in structure or design. The Jury was satisfied, however, that the best of the group submitted were done with admirable sensitivity and taste, and that the continuing search for a wall system that is structurally satisfying and at the same time works well for functions within the office building had produced some interesting design results.

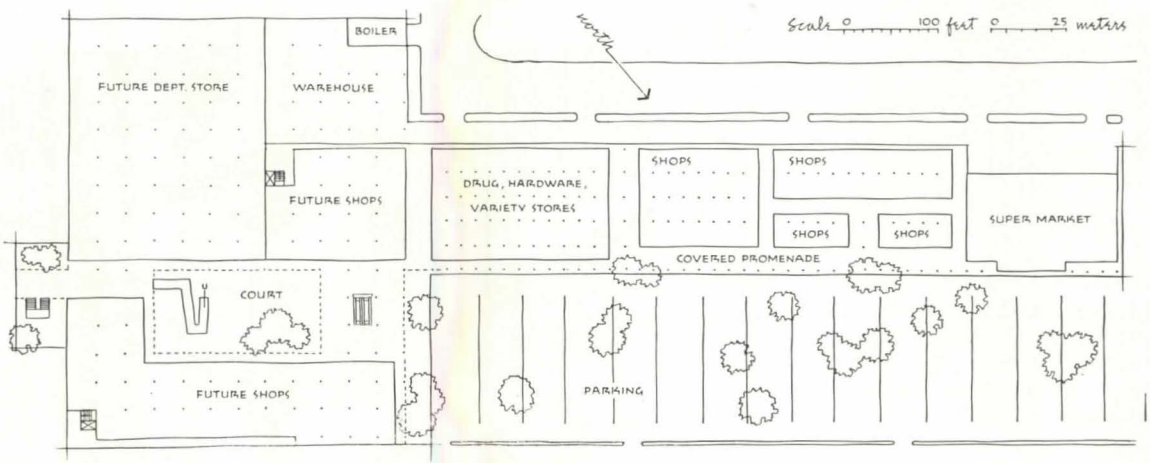
Members of the Jury reserved most of their favorable comments for the more utilitarian, publicly used type of commercial structure—parking facilities, banks, shopping centers, and so on. The type of building that needs to attract customers, and must incorporate display advertising in its design, seemed to be designed less well.

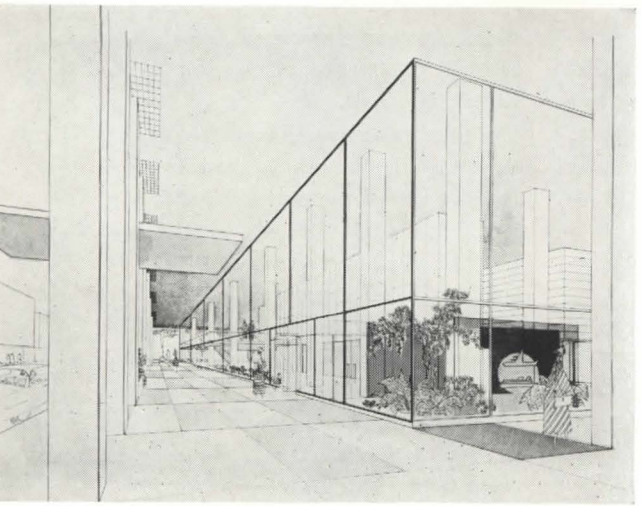
An interesting development, pointed up sharply by the entries, is the ever-growing influence of the automobile on commercial structures. Seven of the nine buildings cited in this category are designed with off-street parking facilities which constitute major elements of the over-all designs; four of them have parking space within the structure itself.

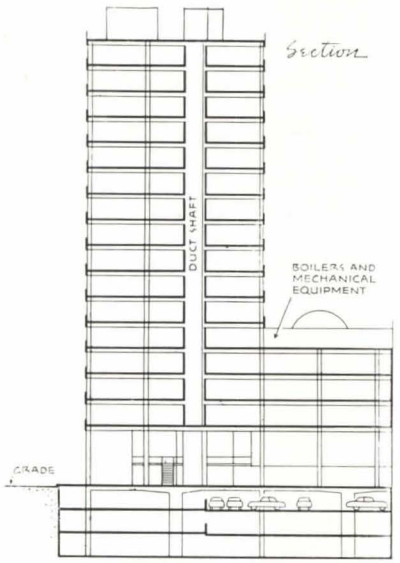
Freedom in planning and a thorough analysis of the functional problems involved were also noted.

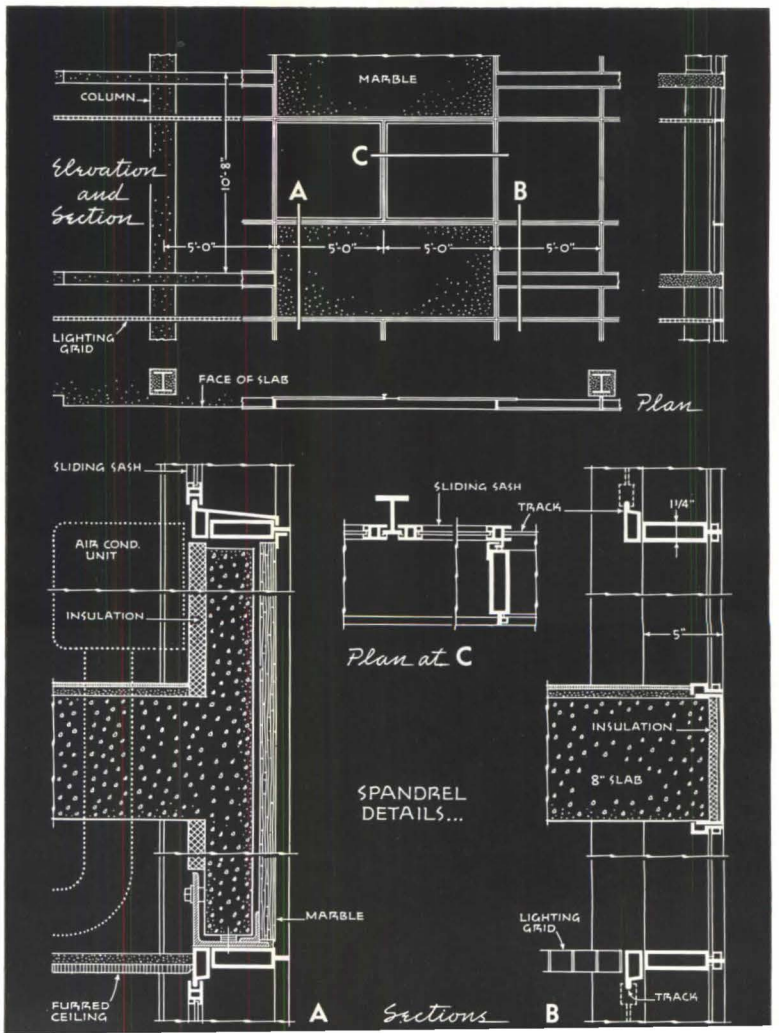
citations

award citation. Cedar Hills Shopping Center, Cedar Hills, Oregon: Belluschi and Skidmore, Owings & Merrill, Architects; Cooper & Rose, Structural Engineers; George Pettingell, Grant Kelley & Company, Electrical Engineers; J. Donald Kroeker & Associates, Mechanical Engineers. The problem was to provide this Portland suburb with a shopping center of approximately 400,000 sq ft of sales area, on an extremely difficult site bisected by a road.



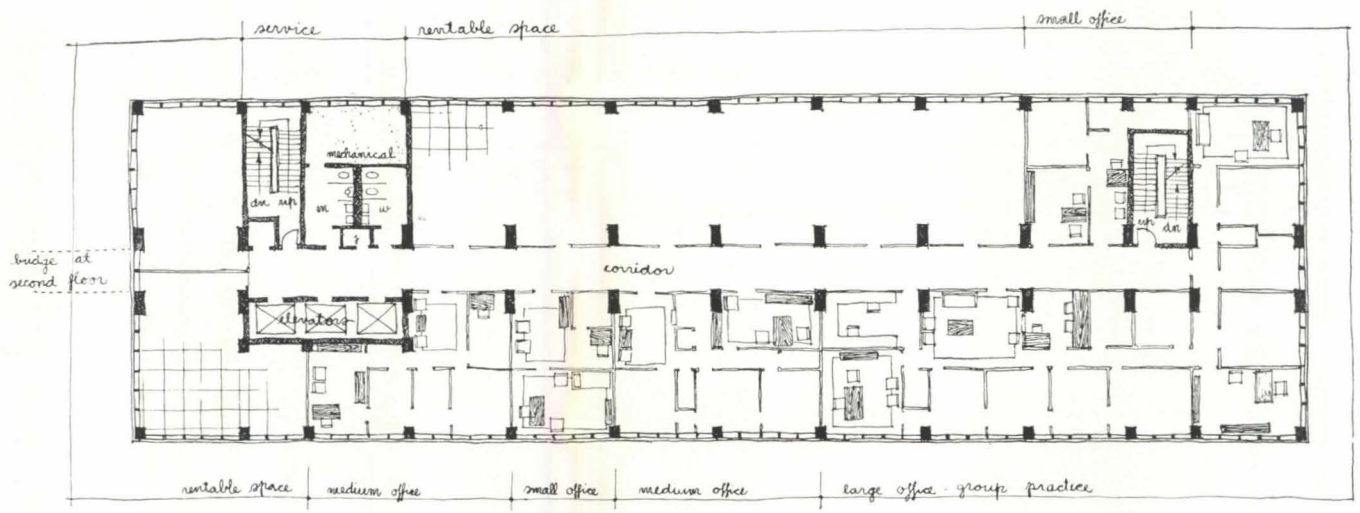


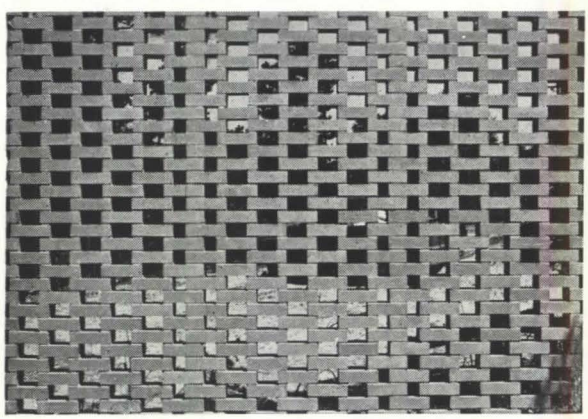


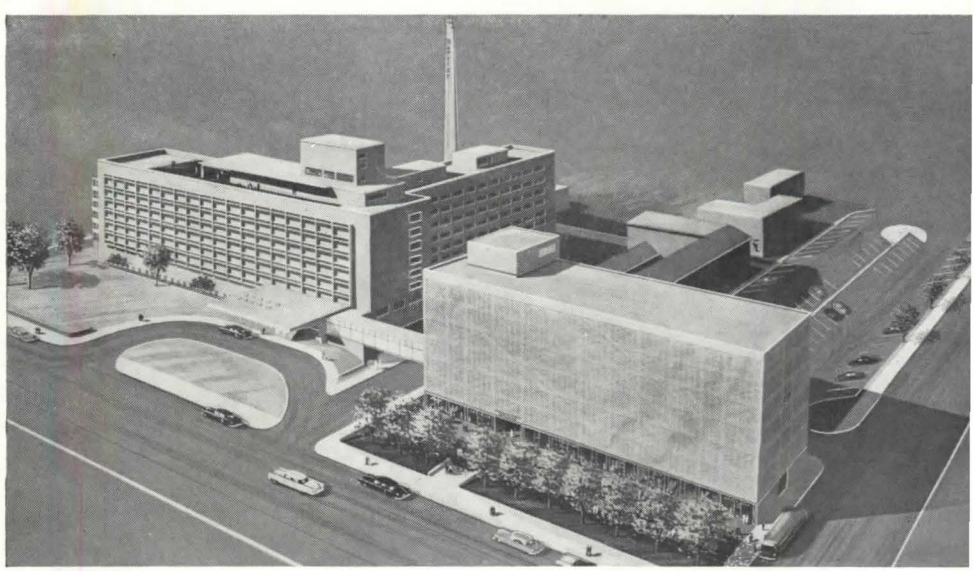


award citation. Office Building, McCormick Estate, Chicago, Illinois: The Architects Collaborative—Jean B. Fletcher, Norman Fletcher, Walter Gropius, John C. Harkness, Sarah Harkness, Robert McMillan, Louis A. McMillen, Benjamin Thompson and Arthur Myhrum, Associate—Architects; General Engineering Associates, Engineers; Walter Gropius, Job Captain. The relatively open ground floor provides a lobby, lunch counter, elevators and automobile ramps which lead to underground parking. The mezzanine consists entirely of a restaurant and a large kitchen. Marble slabs on the exterior walls indicate the location of individual air-conditioning units; windows around them will not be fixed, so may be opened when natural ventilation is desired.

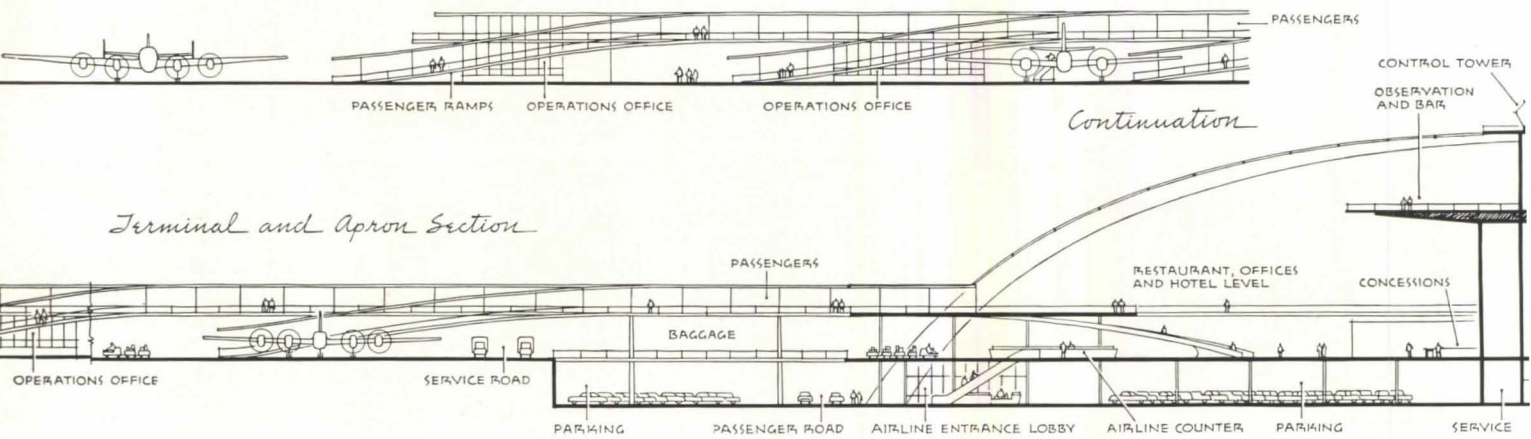
award citation. Professional Building, Georgia Baptist Hospital, Atlanta, Georgia: Stevens & Wilkinson, Architects-Engineers. Part of an expansion program underway at Georgia Baptist Hospital (*July 1951 P/A*), this office building is connected to the hospital at the second-floor level by an enclosed bridge. The jury noted particularly the light brick screen on the front.

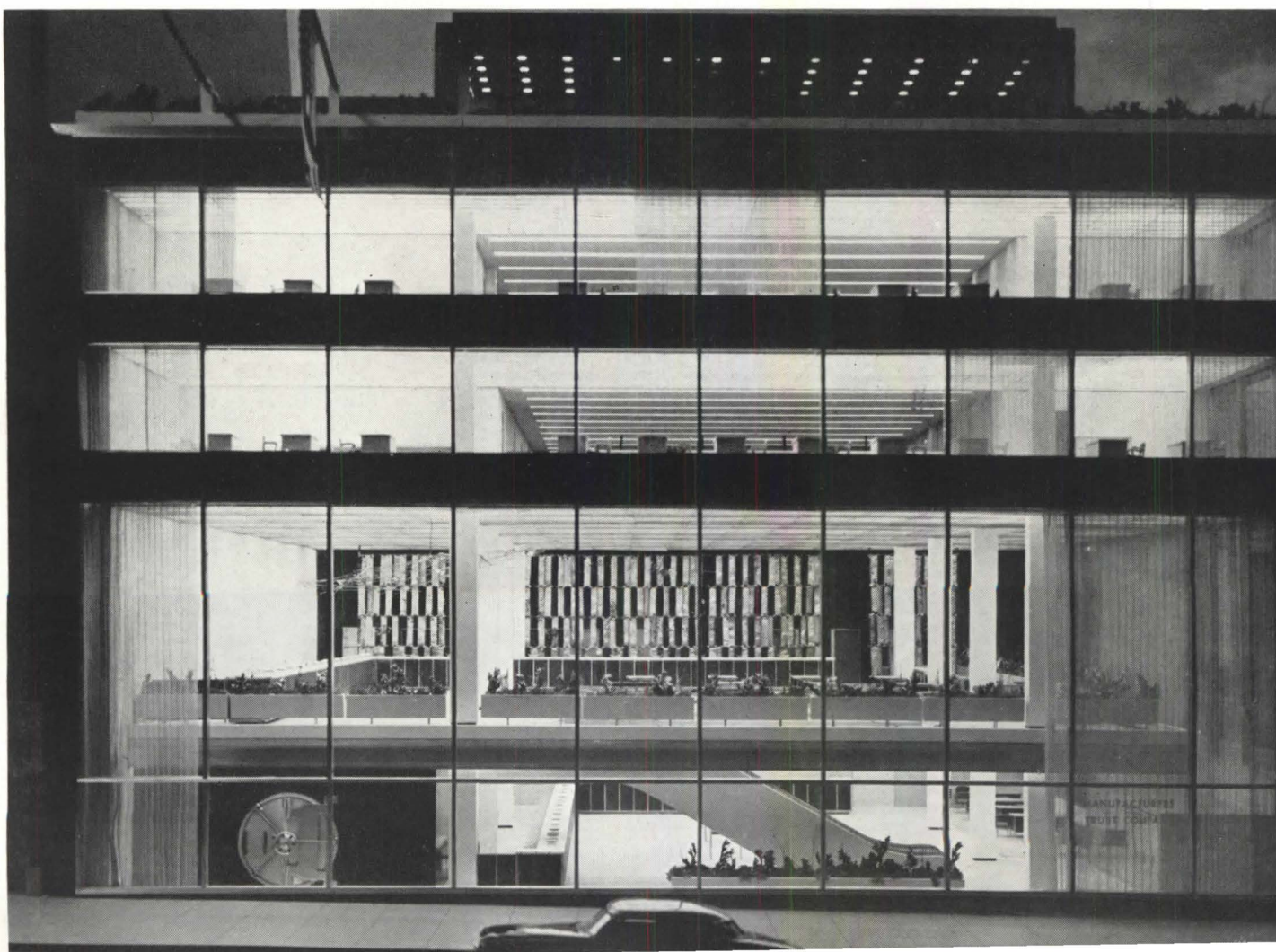


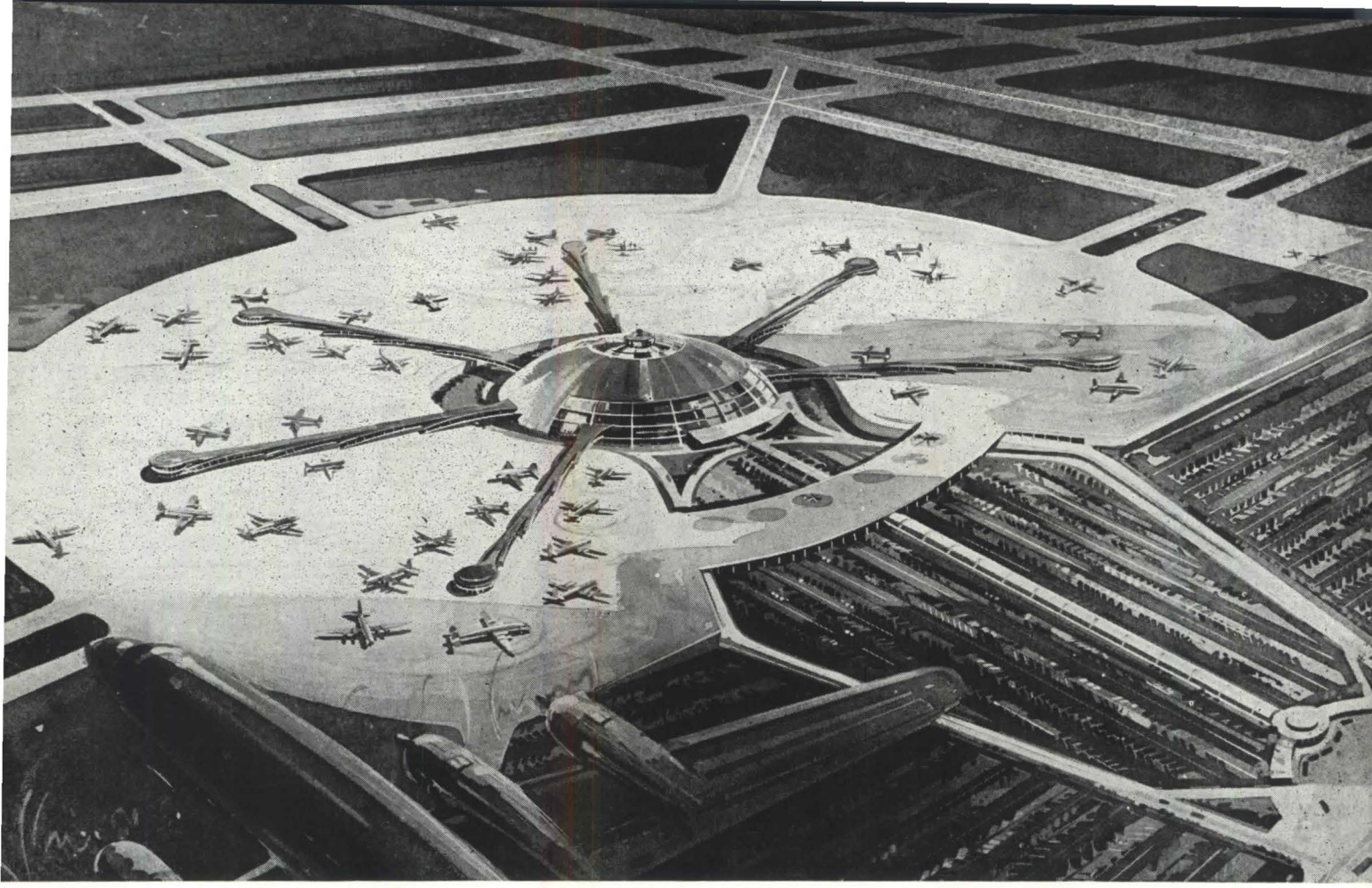


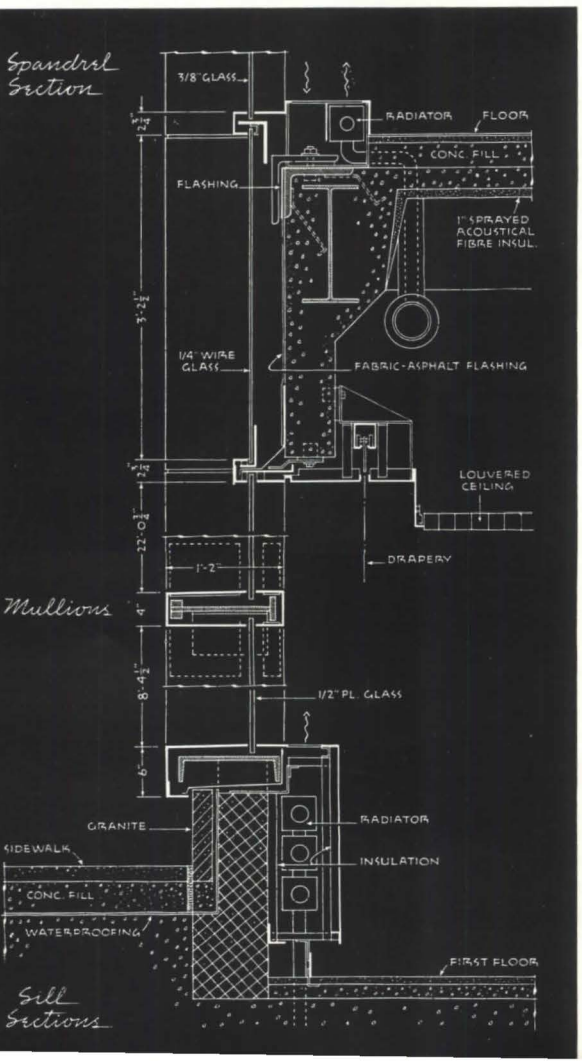


award citation. Master Plan and Terminal Building, Los Angeles International Airport, Los Angeles, California: Pereira & Luckman, Architects-Engineers. The problem here was first to plan an adequate airport and then to design the terminal building, occupying a new location central to old and new runways. Radiating decentralized loading-station plan and segregated passenger- and baggage-circulation patterns were particularly noted.

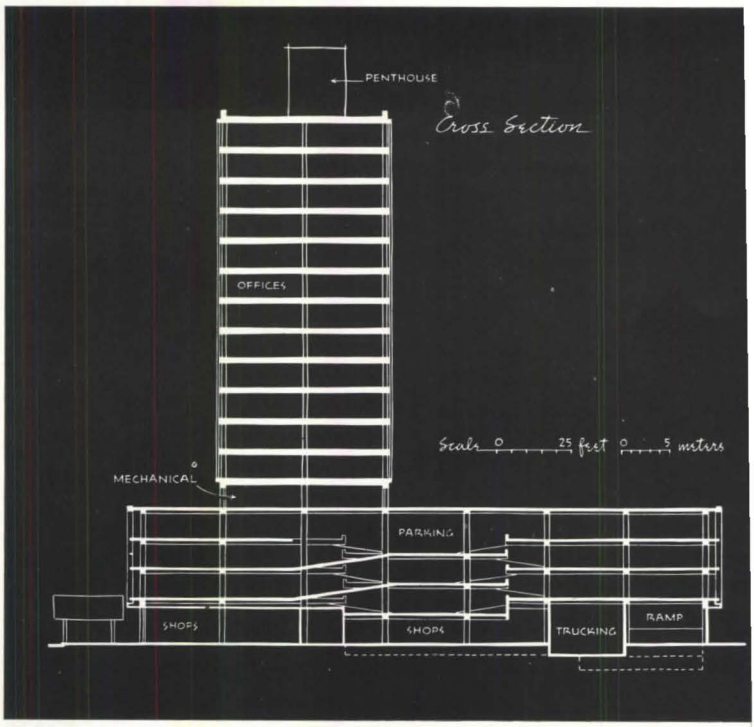




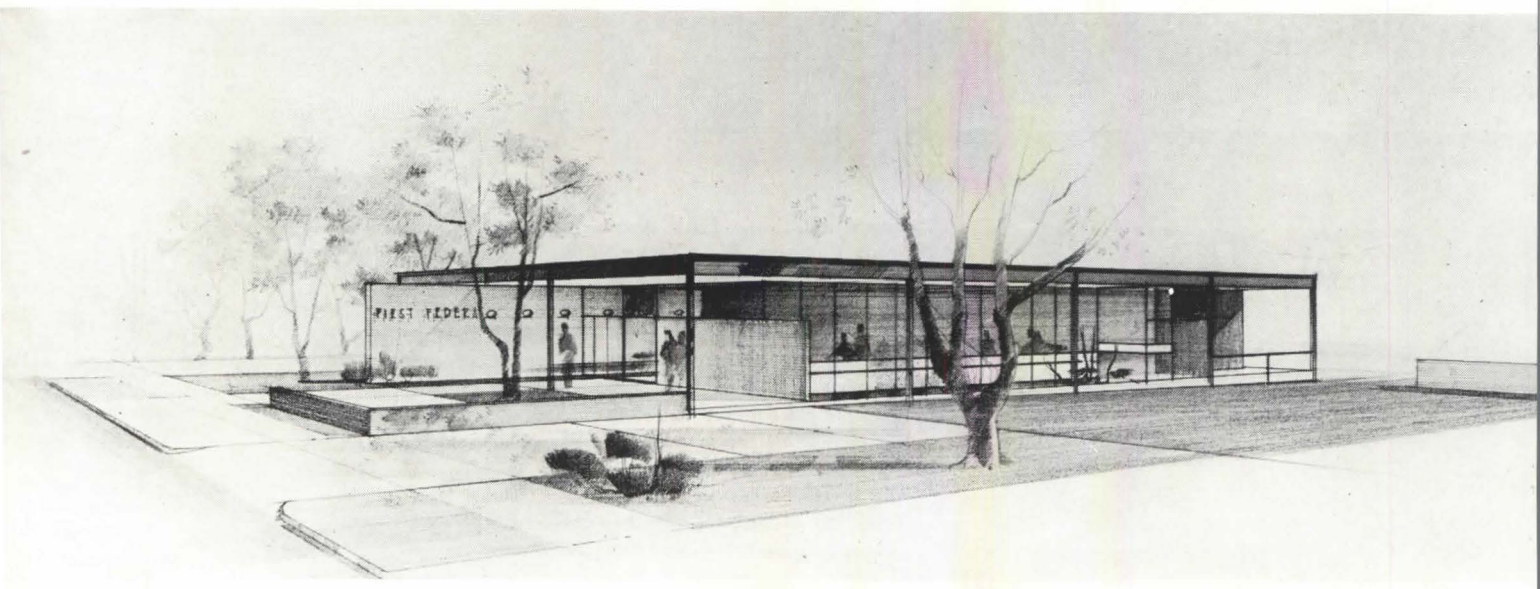




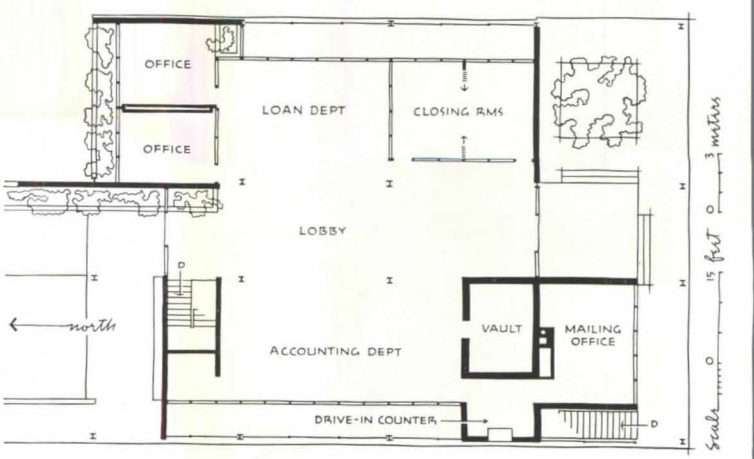
award citation. Fifth Avenue Office of Manufacturers Trust Company, New York: Skidmore, Owings & Merrill, Architects; Weiskopf & Pickworth, Structural Engineers; Syska & Hennessy, Inc., Mechanical Engineers; Eleanor LeMaire, Interior Design Consultant; vault door by Henry Dreyfuss; bronze screen by Harry Bertoia. Volume transactions such as payroll, special checking, and check cashing will take place on the ground floor. The main banking space, for commercial accounts and senior officers, is to be one floor above street level and reached by escalator. The third and fourth floors will contain banking offices and the personal-loan department. In the penthouse will be reception lounges, dining rooms, and executive offices.



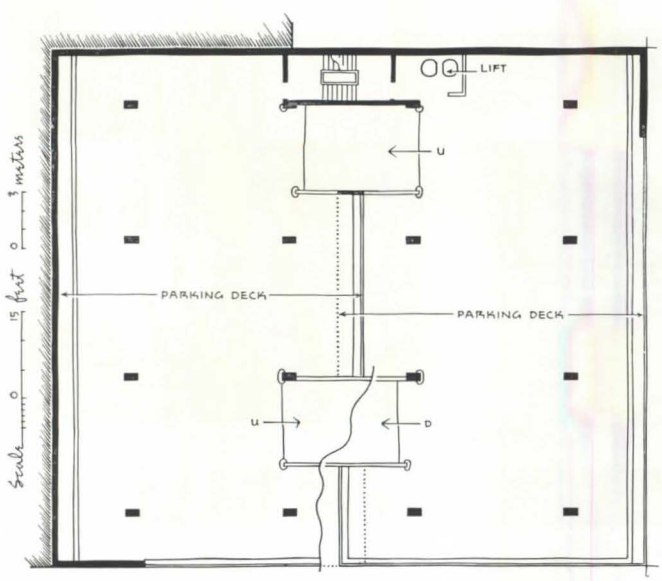
award citation. Center Medical Building, Houston, Texas: Golemon & Rolfe, Architects; Skidmore, Owings & Merrill, Consulting Architects. Primarily an office building, its first floor is given to shops and to the car entrance. The next three floors are open parking decks connected by ramps (*section right*). From the fifth floor the office tower rises twelve more stories. The structure of the lower mass is of reinforced concrete; fireproofed steel is used in the office tower.

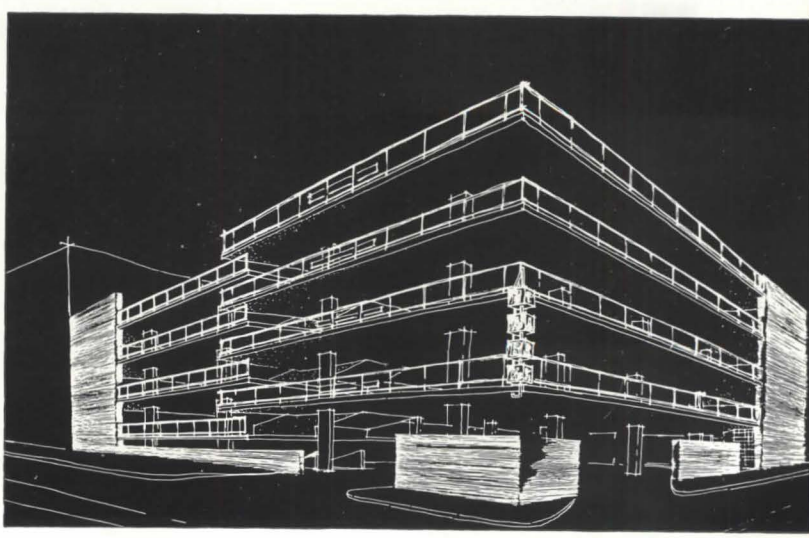


award citation. Bank Building for First Federal Savings & Loan Association, Denver, Colorado: William C. Muchow, Architect; Milo S. Ketchum, Structural Engineer; Swanson-Rink & Associates, Electrical Engineers; M. S. Wilson, Mechanical Engineer. The Jury felt that the dignity of its understatement makes this building unusually interesting for its type. With a straight-through driveway, drive-in patrons can be served with a minimum of confusion.



award citation. Williams Parking Deck, Atlanta, Georgia: Aeck Associates, Architects; Richard L. Aeck and David J. Murphy, Designers; I. E. Morris & Associates, Structural Engineers; Donald Lindstrom & Associates, Mechanical Engineers; Charles F. Howe, Electrical Engineer; Wesley & Co., Inc., Contractor. One half of the existing basement is filled four feet and the other half excavated one foot. Thus, the upper half of the basement will overlap the lower half as the decks above ground do, with a design result that the Jury felt was well handled.



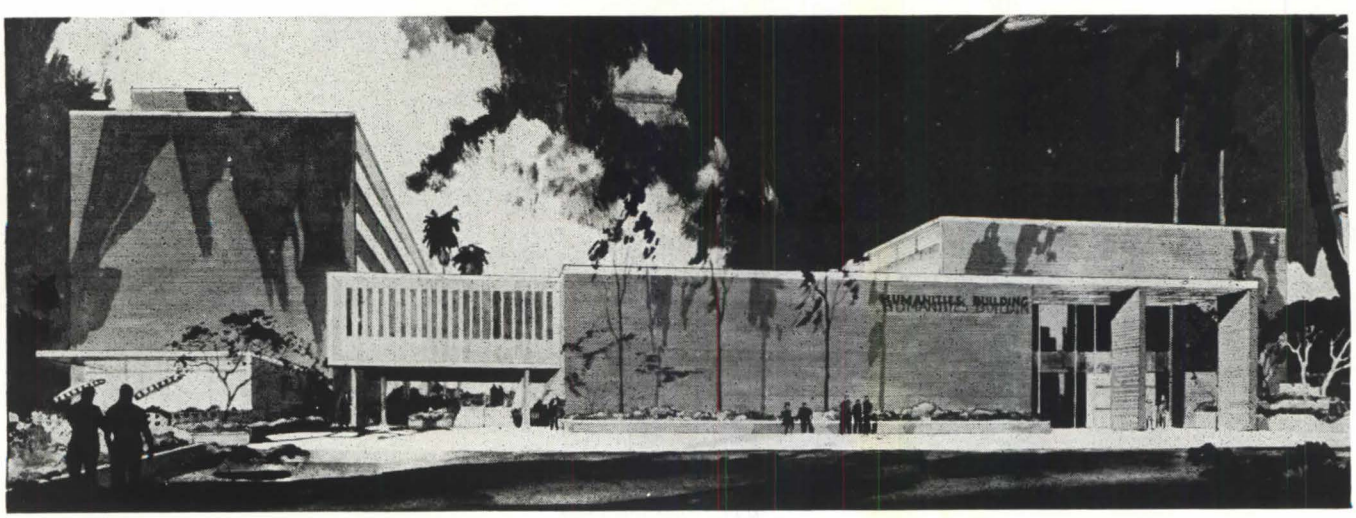


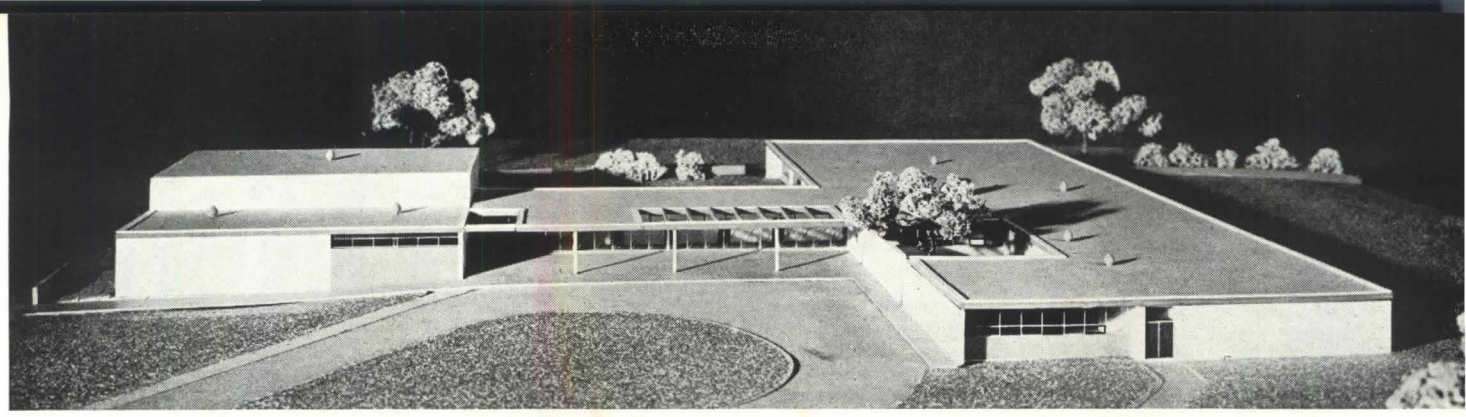
education

The Jury's opinion of buildings in the Education category was aptly stated by Victor Gruen: "We find ourselves in a sad situation—because school building is generally pretty good, we must throw out many good things." As a result of the generally high level of work here, the Jury did have a particularly difficult time deciding what to cite and what to leave out. It was impossible for them to choose one for a Design Award above all others —hence the number of Award Citations. Design for Education was far and away the most active building type reported in our Business Survey for 1954. In every region it is either at, or near, the top. Even more interesting, we believe, is the fact that this work is being spread to a large number of firms—64 percent of the reporting architects had some educational work on the boards. School needs have become so pressing that they can no longer be ignored. And a gratifying result seems to be that design standards in this field have reached a very high level. The conclusion to be drawn from work submitted this year does not serve to support any special theories about classroom arrangement, lighting, or orientation, since nearly every possibility was encountered, and of those cited none was conspicuously better than another. The Jury saw classrooms oriented in every direction; in a single bank with one exterior or interior corridor; in double banks with one central corridor; constructed with concrete, steel, aluminum, and wood. All of them seemed to have made good use of these materials, and all of them were well lighted and ventilated. Parking and circulation for the visiting public (many of the schools also will serve as community meeting places) were well worked out. Thus, as a group, these buildings represent a consolidation of experience and technical knowledge in this field, which has enjoyed the benefits of specialized research.

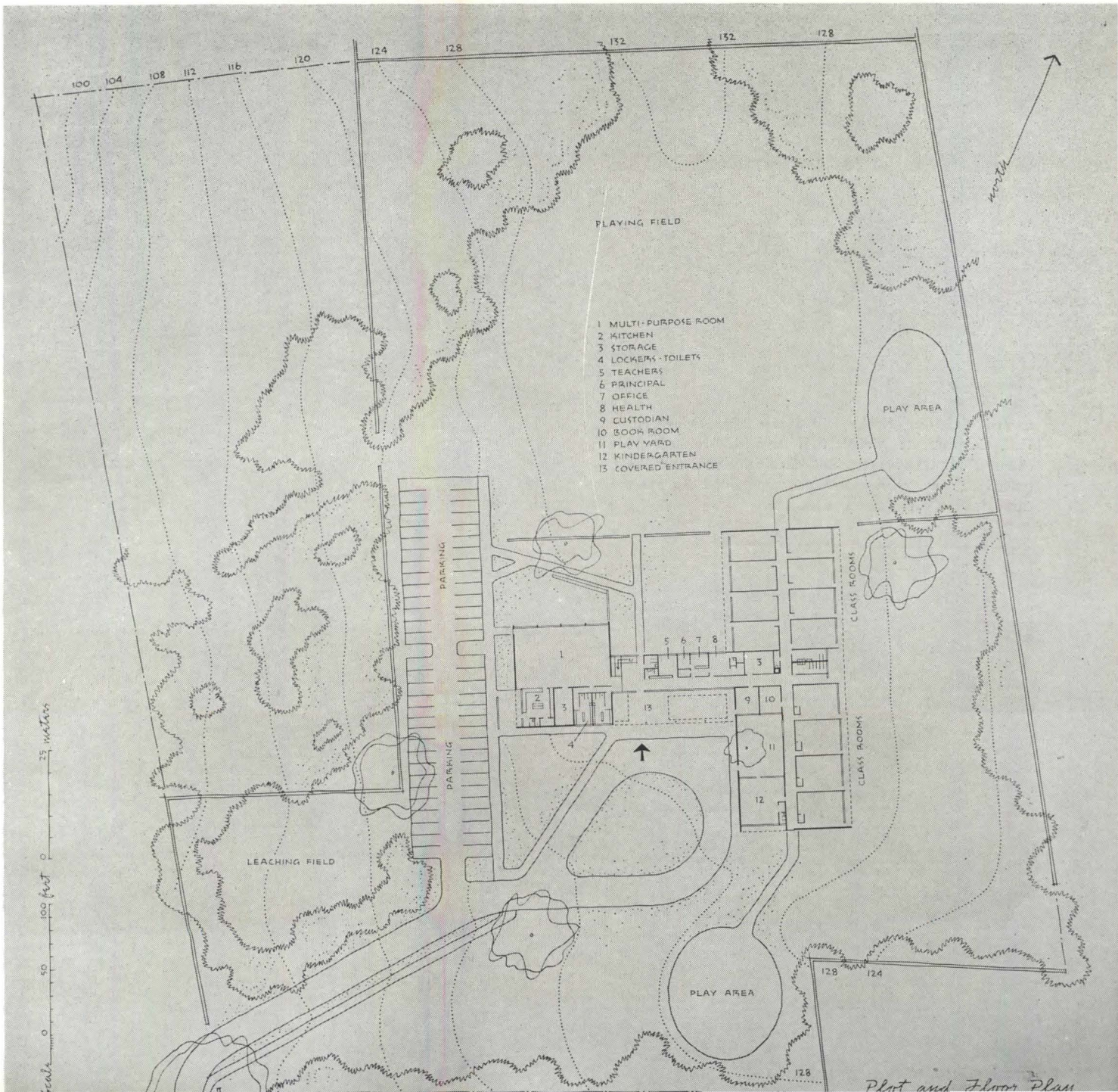
citations

award citation. Humanities Building, University of California at Los Angeles, California: Austin, Field & Fry, Architects; Welton Becket & Associates, Supervising Architects. The floor construction is lift-slab. Problem of conforming to the existing campus is solved by use of a colored brick similar to that of present buildings.



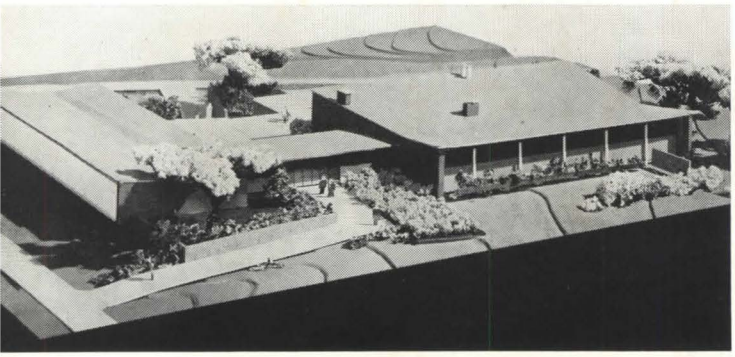


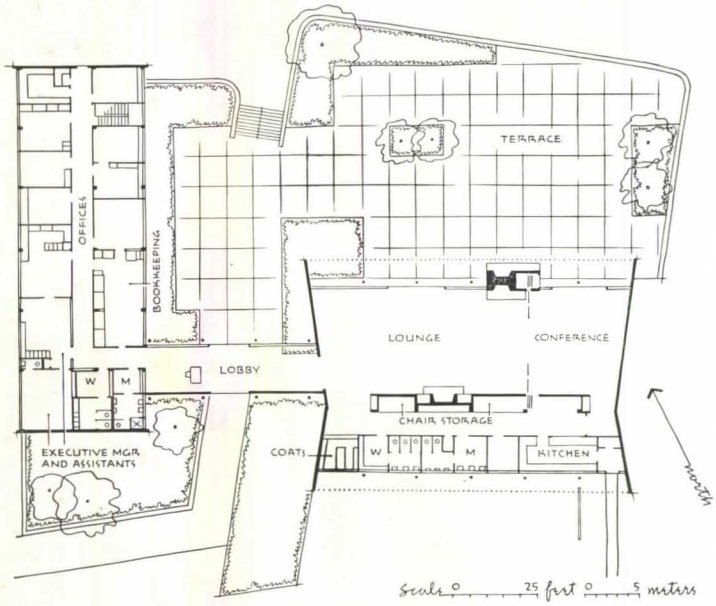
award citation. Bantam Elementary School, Litchfield, Connecticut: Marcel Breuer and O'Connor & Kilham, Architects Associated for Litchfield Schools. The multipurpose room is connected to the classrooms by a row of administrative offices. All classrooms open both to the outside and to the inside corridor. There are separate play areas for the kindergarten and two other age groups.



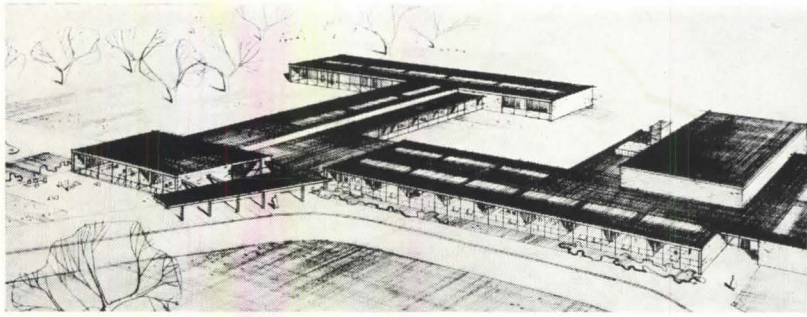
Plot and Floor Plan

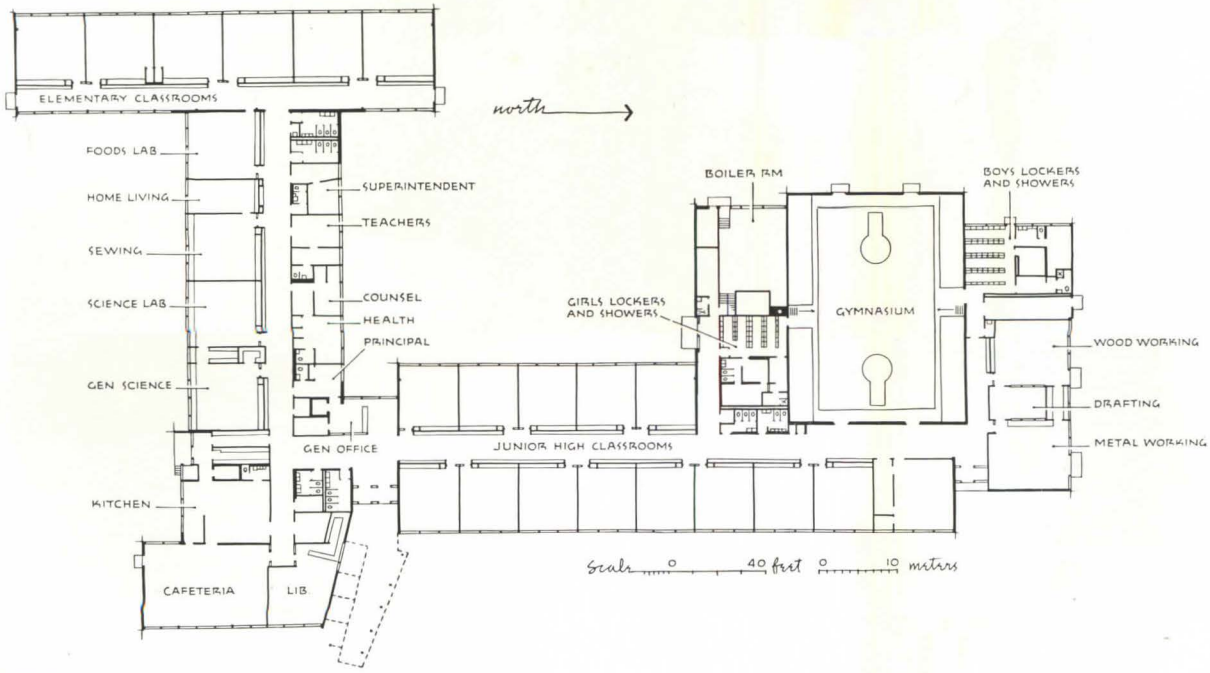
award citation. Alumni House, University of California, Berkeley, California: Clarence Mayhew, Architect; August E. Waegemann, Structural Engineer; Stelmec Engineers, Electrical-Plumbing-Heating Engineers. The lounge wing and the office wing are separated by a glass corridor which serves as a lobby. The butterfly roof of the lounge wing opens up vistas toward the San Francisco Bay, to the west, and the mountains, to the east.

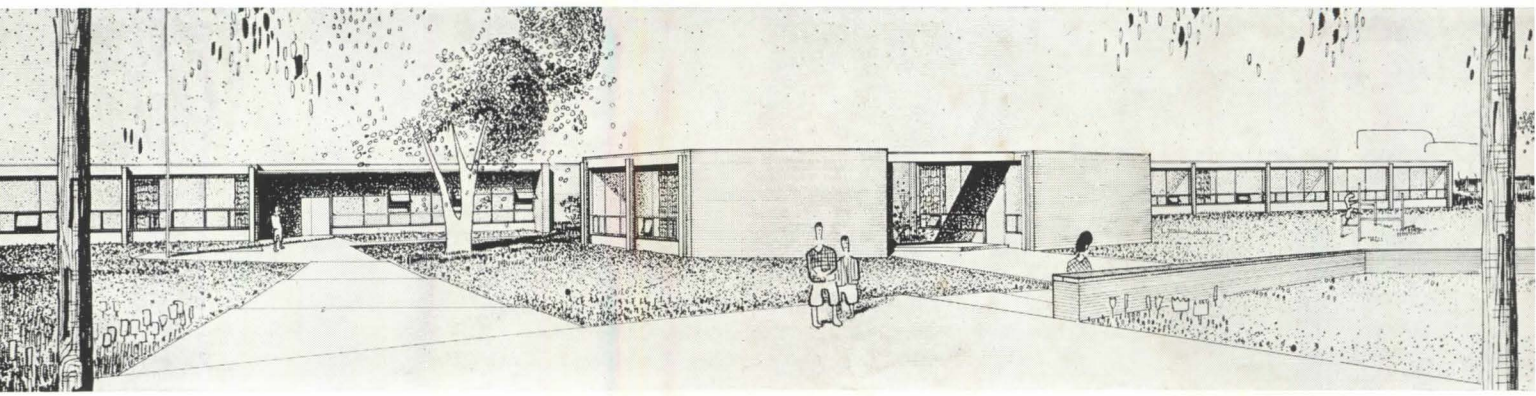


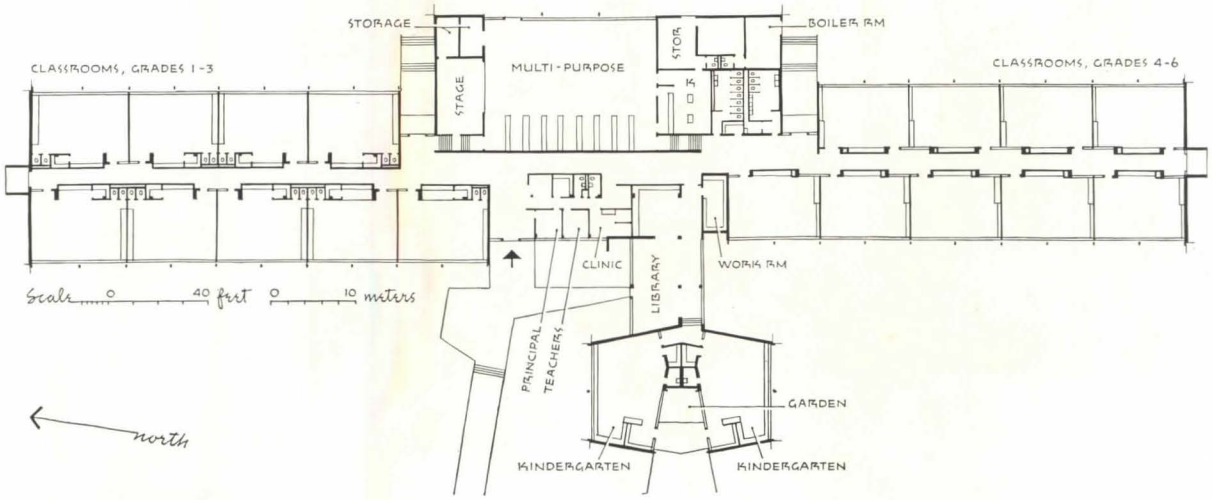


award citation. Rocky Hill Junior High School, Rocky Hill, Connecticut: Nichols & Butterfield, Architects; Marchant & Minges, Structural-Mechanical Engineers. An extended scheme, with classrooms top-lighted by apertures through what is planned as a lift-slab.

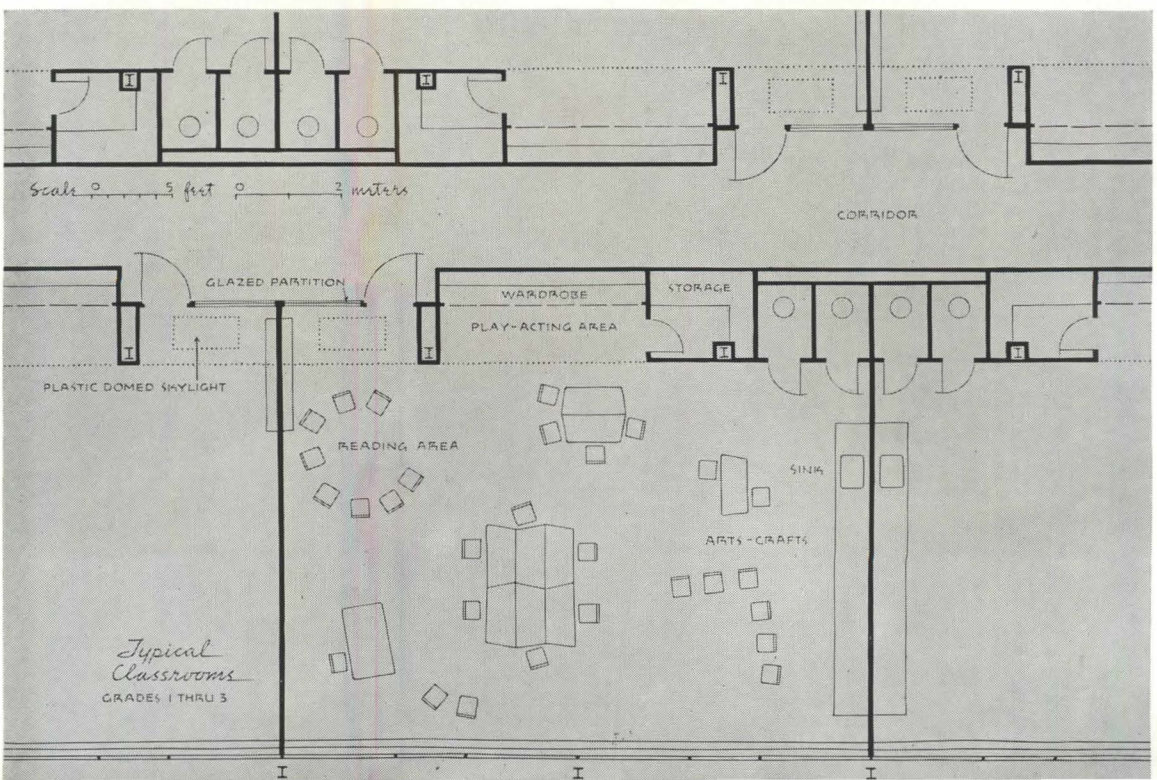




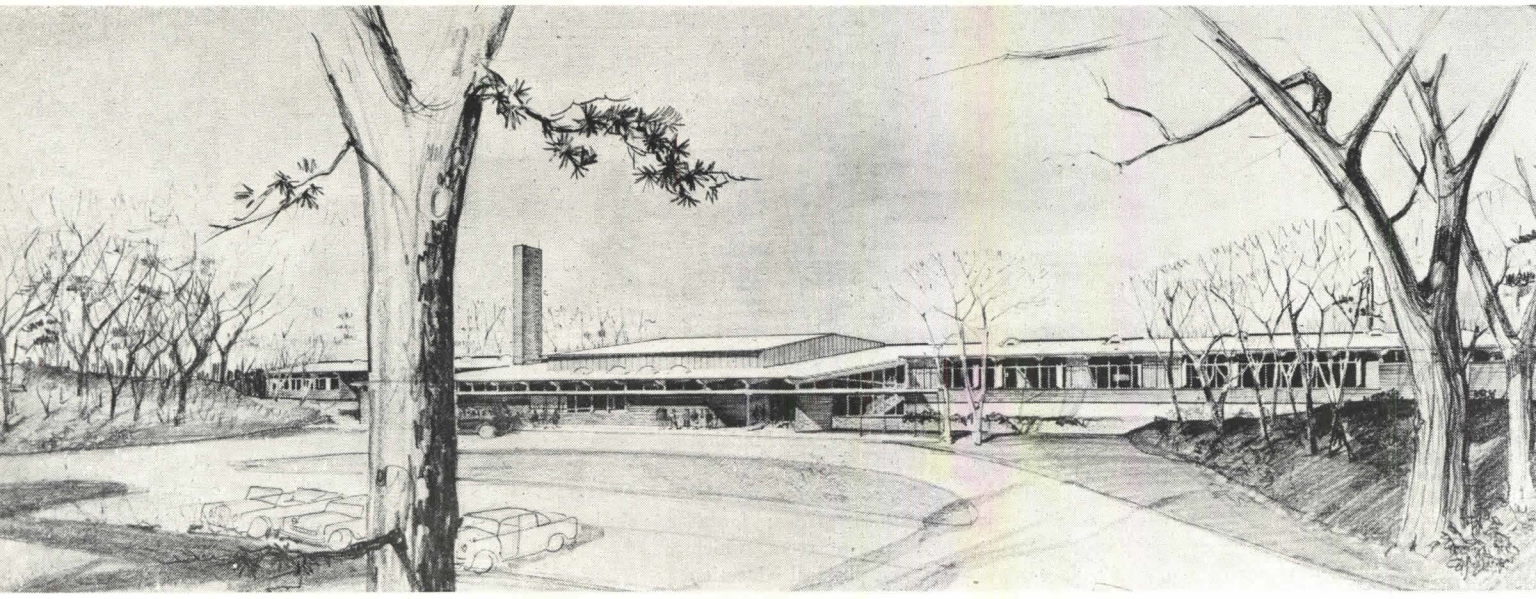


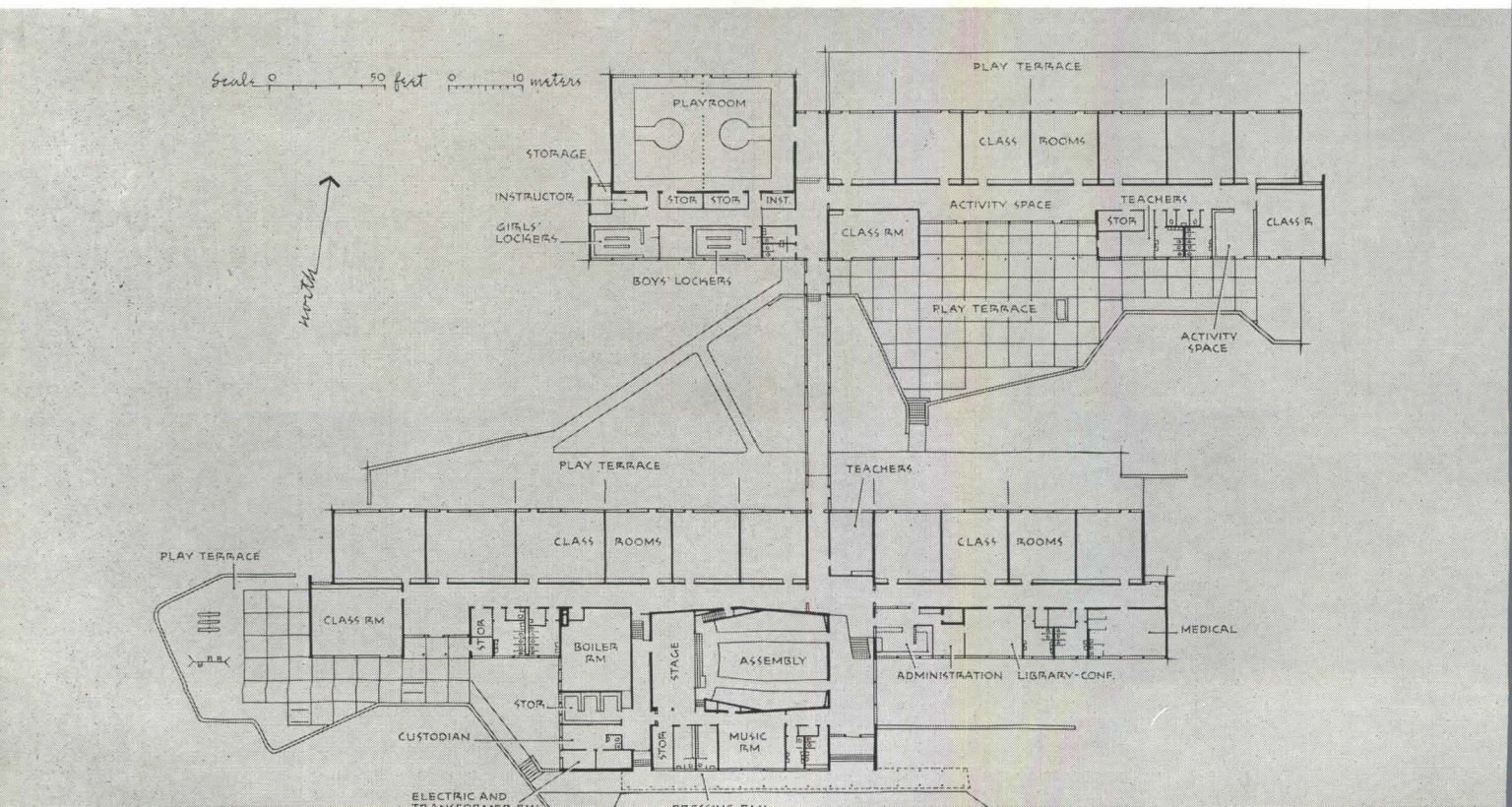


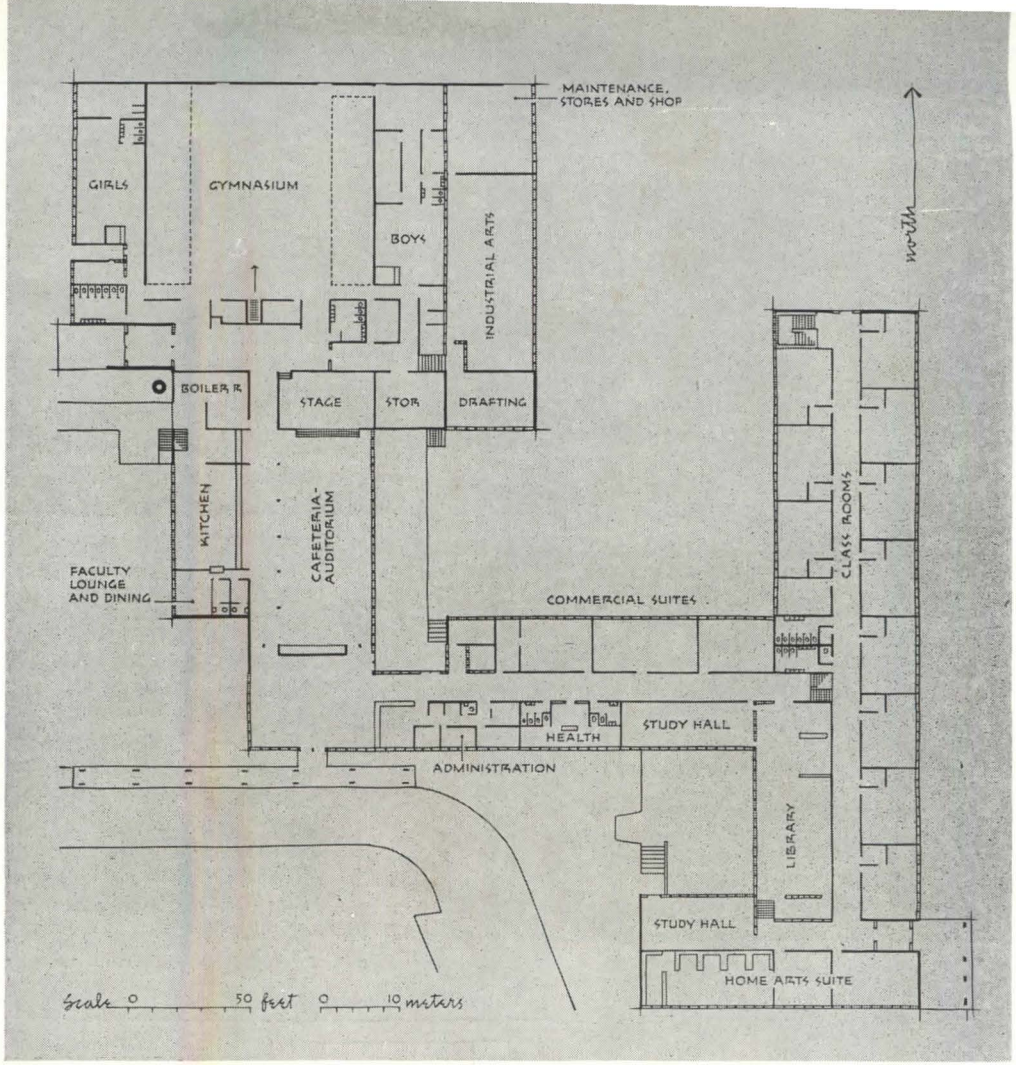
award citation. Elementary School Building, Madeira, Ohio: A. M. Kinney, Inc.; Charles Burchard, Director of Architecture. The building is well organized in four elements—kindergarten; first through third grades; fourth through sixth grades; and the all-purpose room, which serves as meeting place, play house, and physical education space. Each group of students has its separate playground, the largest being used in the evenings as a parking lot.



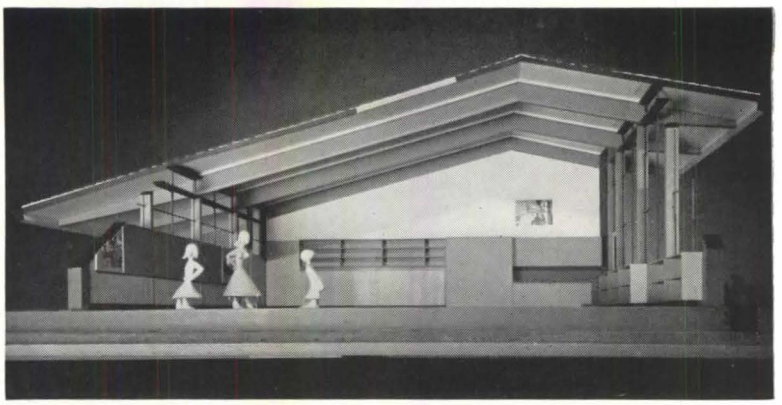
award citation. The Country School (elementary), Weston, Massachusetts: Hugh Stubbins Associates, Architects; LeRoy M. Hersum, Consulting Engineer; R. G. Vanderweil, Mechanical-Electrical Engineer; Chambers & Morrice, Landscape Architects. Adapted to an irregular site, this school is made up of two classroom buildings connected by a covered walk, following the contours in such a way as to capitalize upon the beauty of the site, as well as save costly excavation. Classrooms are oriented to the north, skylighted to gain added light.

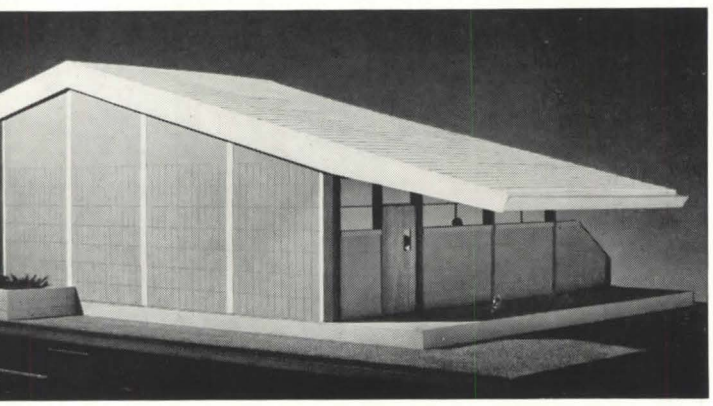




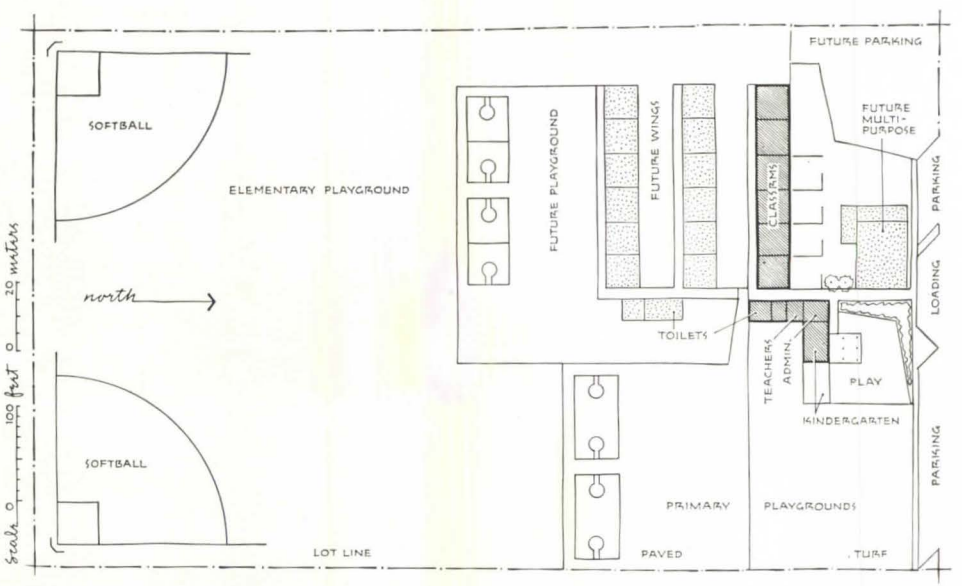


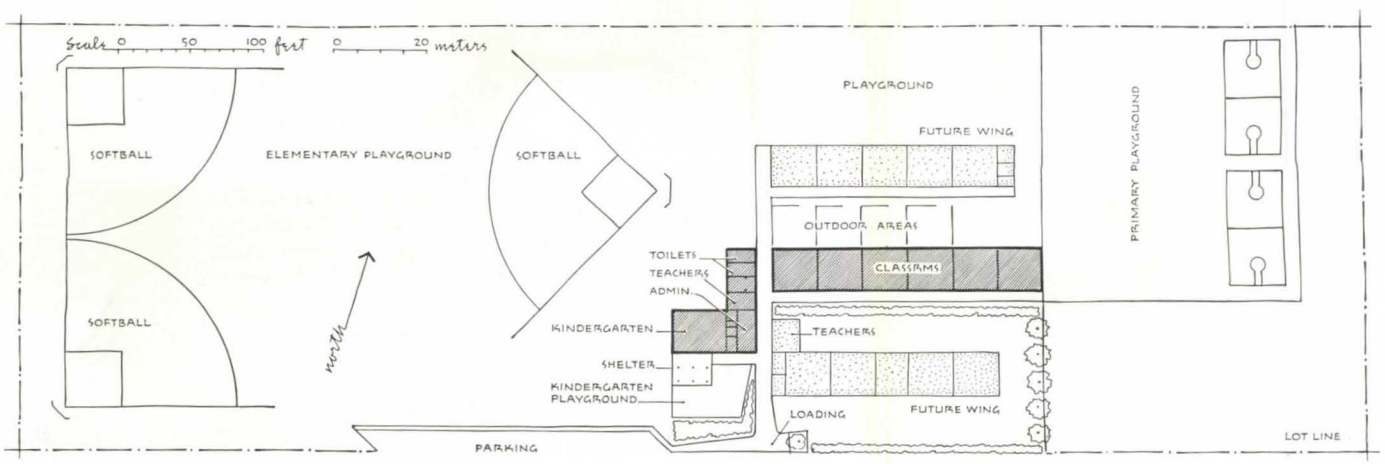
award citation. Brookfield Union Free High School, District #1, Towns of Brookfield and New Berlin, Wisconsin: Grassold-Johnson & Associates and Perkins & Will, Architects-Engineers. Since the site slopes down to the north the northeast classroom wing has two stories, and the gymnasium becomes well related in scale to the rest of the building. The library, at the junction of the two main classroom wings, is on a split level, equally accessible to both. Classroom orientation is mainly east and west.



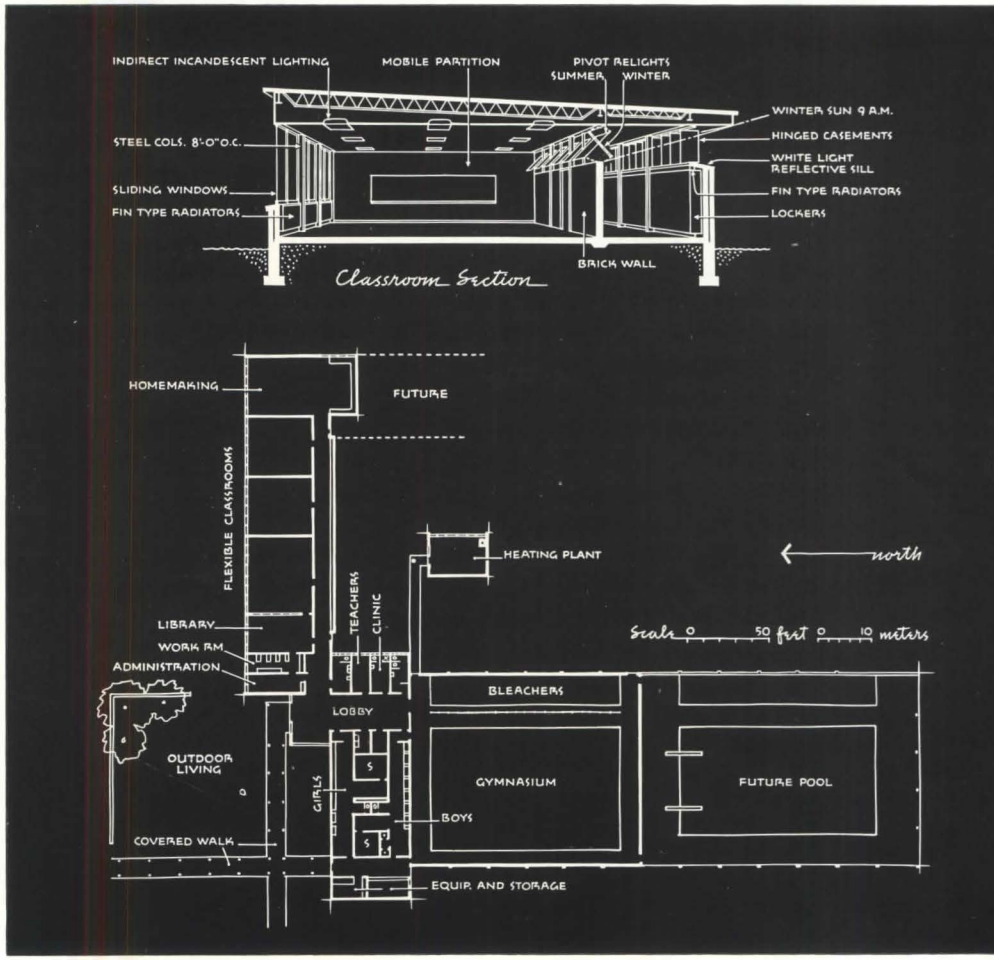


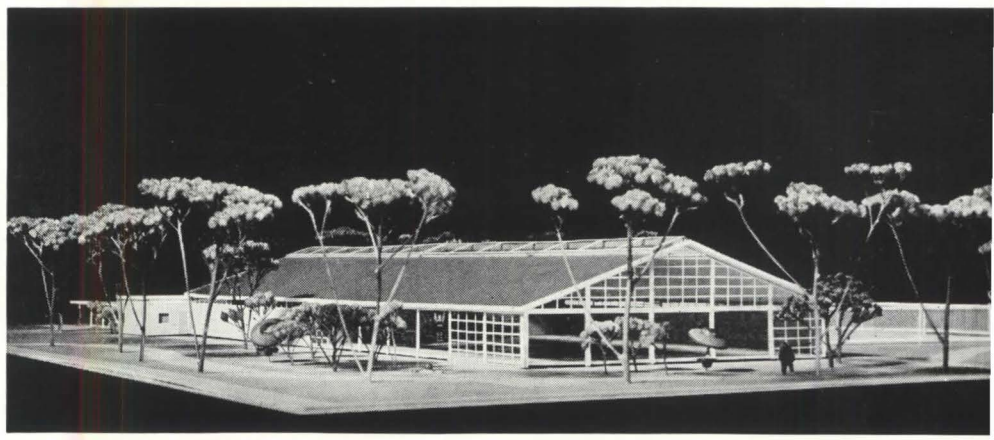
award citation. Elementary School, Napa Elementary School District, Napa, California: William Corlett, Architect; Peter H. Skaer, Associate Architect; John M. Sardis, Structural Engineer; James Gayner, Mechanical Engineer. The program was to design two schools identical in program but opposite in orientation. The solution hinges on the development of the typical classroom section and its adaptability to north or south orientation. In both schools the low, wide overhang faces south.

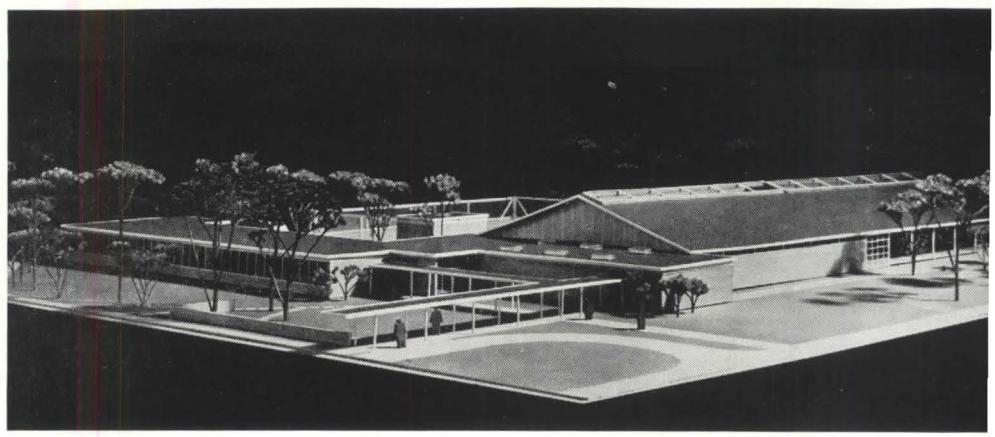




award citation. New High School, Coulee City School District 150-204, Coulee City, Washington: Kenneth W. Brooks, Architect; Kenneth P. Norrie & Associates, Structural Engineers; Kendall M. Wood, Mechanical Engineer; Joseph M. Doyle, Electrical Engineer; Lucy McCormack, Homemaking Department Consultant. The classroom wing presents an interesting study in fenestration. Although the corridor is enclosed on the southeast side, the exterior casement windows and the continuous transom in the interior wall are designed to bring reflected light and deflected breeze into the classrooms (*section top right*). Well-shaded high windows and heat-reducing, light-diffusing glass in the skylight of the gymnasium will keep it well lighted and fresh. No cars will be parked in front of the school because it will be the "vista point of Main Street."







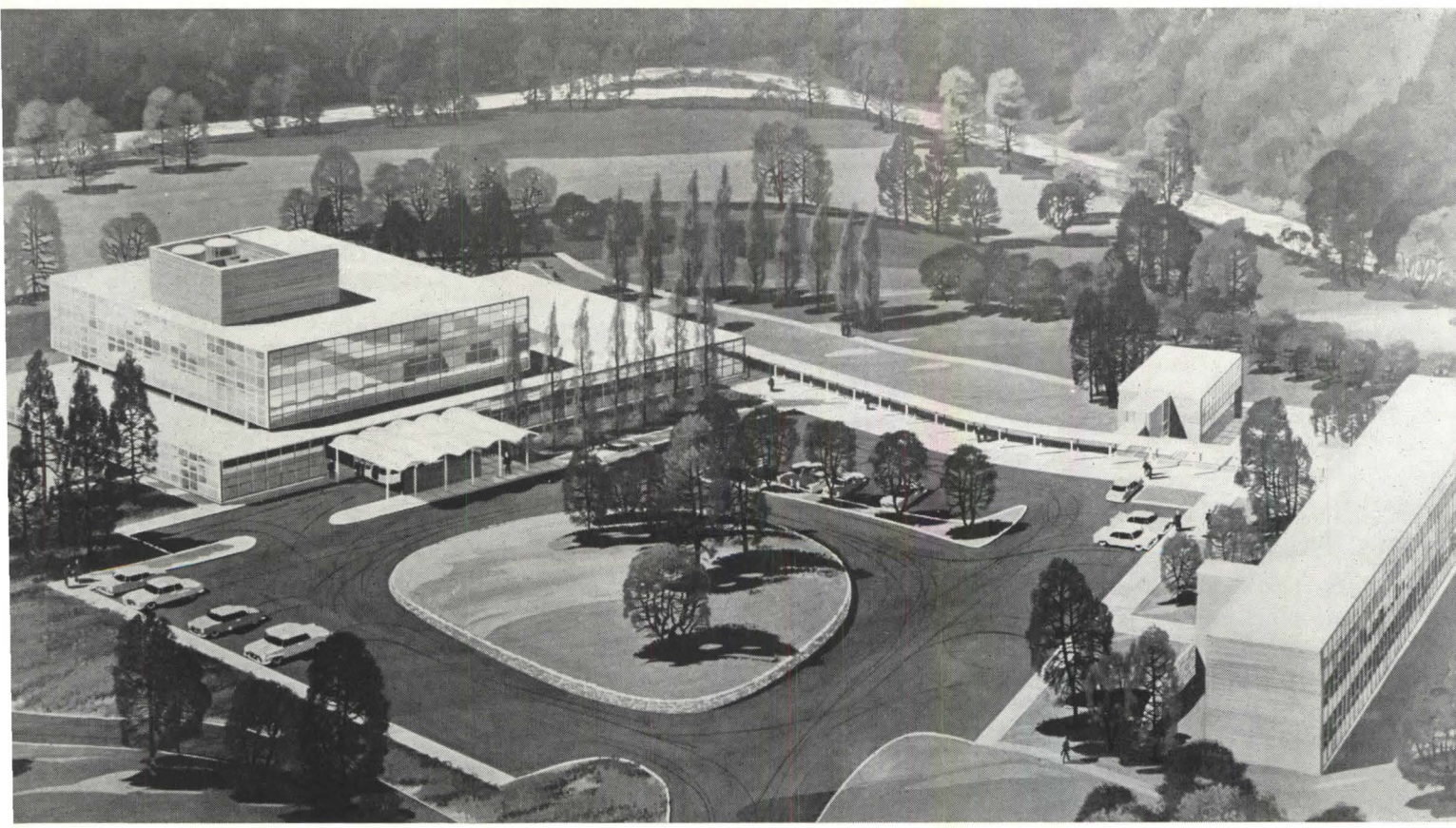
health

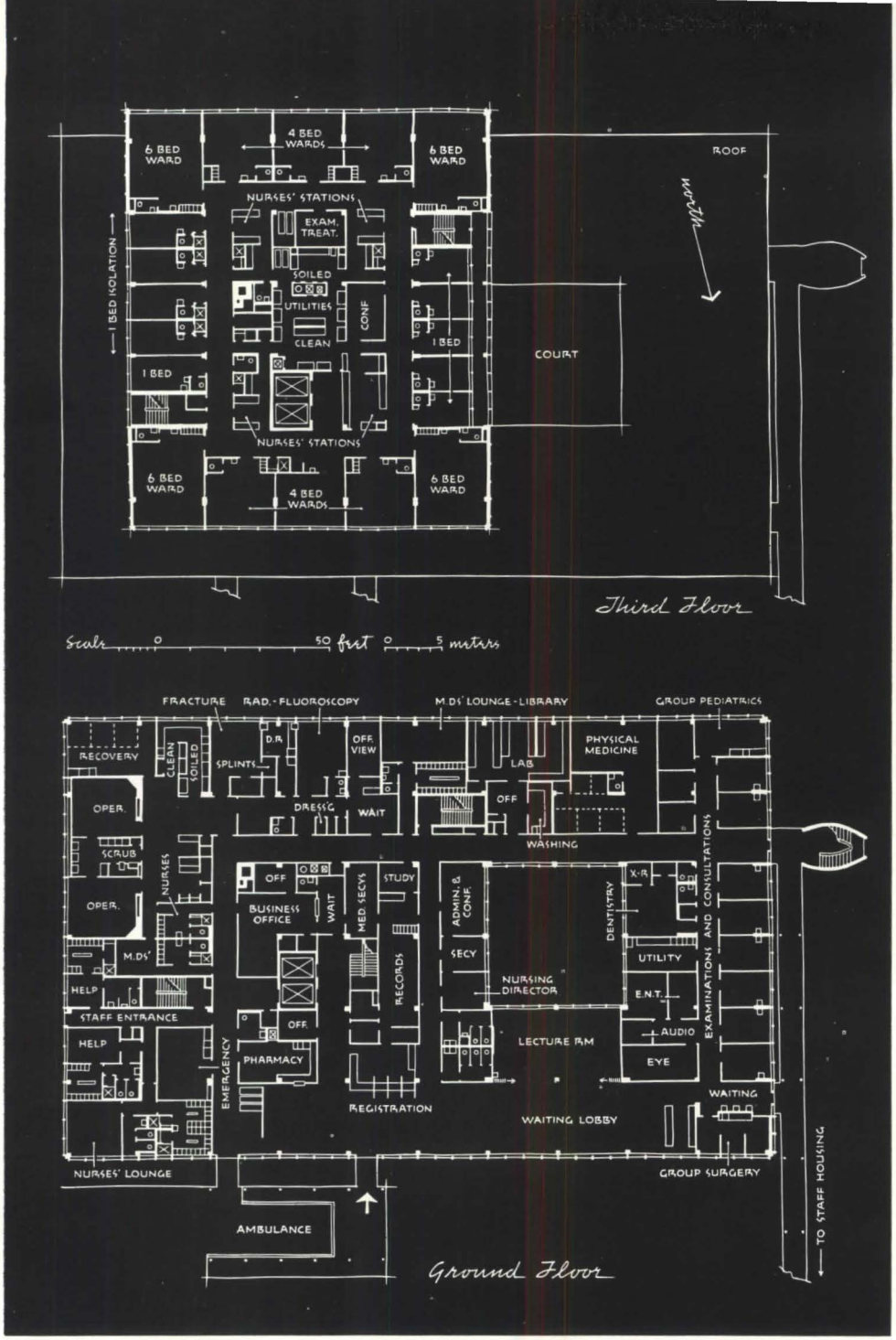
This magazine has commented several times recently on the evident falling-off in hospital planning and construction. Results of the Business Survey substantiate this drop; Health structures have dropped to 6 percent of the dollar-volume average on the architects' boards. (When P/A began its Business Surveys, in January, 1951, this category was 17 percent of the reported volume.) It was to be expected, then, that not many hospitals would be submitted in this Awards Judgment. Of those that were considered, the Whitesburg Memorial Hospital *(below)* designed by Sherlock, Smith & Adams as one of five which they are doing in a program for the United Mine Workers, struck the fancy of the Jury most. Its plan, around a central service core, its use of carefully studied materials and construction methods, and its good siting all brought it to the top.

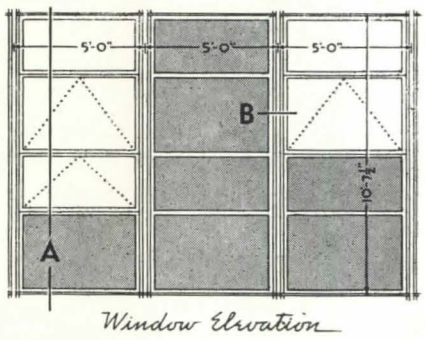
This evidence of regional planning on the part of a private group (the hospitals in the U.M.W. program, by a number of architects, will be strung across the hills of Kentucky and West Virginia) seemed indicative of a trend that is important. Skidmore, Owings & Merrill's North Country Hospitals for the St. Lawrence Region of New York (November 1953 P/A), the Permanente group in California, and others, indicate that the lessons taught so effectively a few years ago in the Hill-Burton program—that hospital planning must be co-ordinated, in a local, a state, a regional and a national sense—has been understood and is being applied by nongovernment agencies.

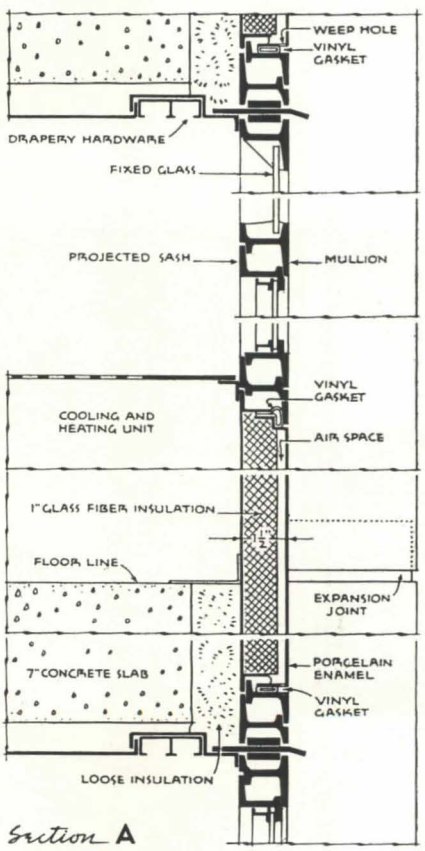
The other trend in planning for Health that was evidenced by the entries is the still-growing tendency for doctors to gather in "clinics" and pool some of the expensive plant and equipment costs, as well as their services to the community. Several such clinics received Award Citations and are illustrated in the pages that follow. The salient feature of this type of building is the use of terraces and patios, with offices, wards, and waiting rooms grouped around them.

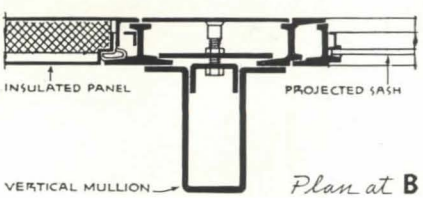
award







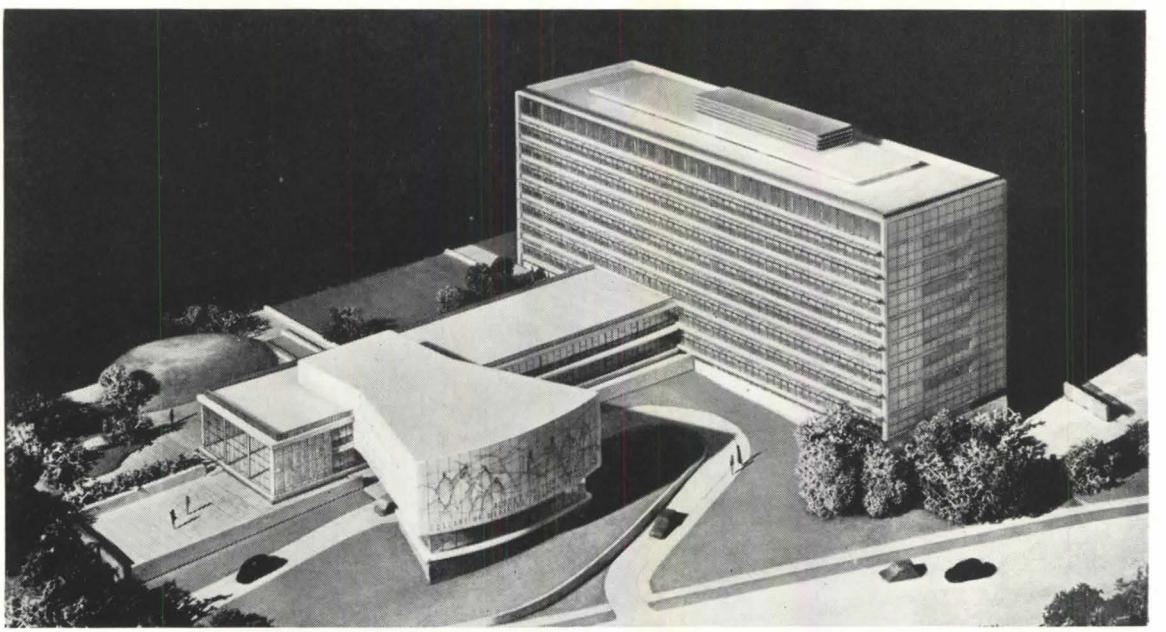


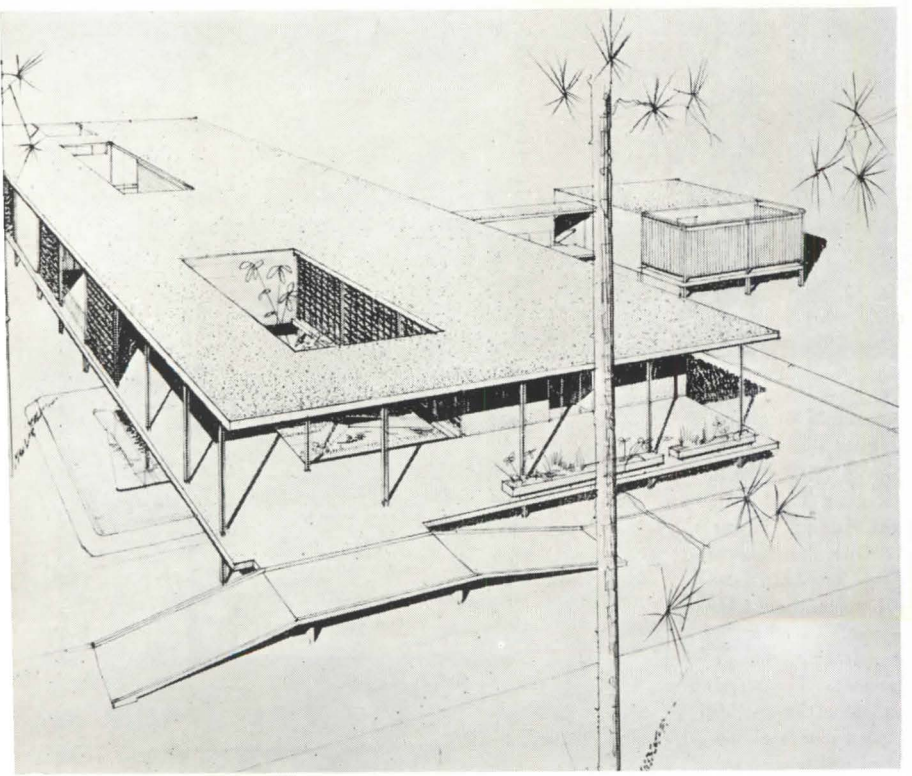


design award. Whitesburg Memorial Hospital, Whitesburg, Kentucky: Sherlock, Smith & Adams, Architects-Engineers; Richard J. Adams, Edward H. Noakes, Sidney N. Wellborn, Joseph L. Donofro, Charles M. Kelley, Eugene T. Millsap, John P. Shaffer, Jr., William H. Metcalf, Design Team; Lawrence *Halprin*, Landscape Architect. One structure in a program for the United Mine Workers, this hospital is also a supply terminal for the others. The basement contains supply rooms, the staff cafeteria, and rooms for staff members. On the ground floor are rooms for operating, consulting and examining, and emergency treatment. The wards are on the second and third floors and all face the outside through glass-curtain walls. The square plan places all patient rooms in easy contact with the central utility and service core. Structure is flat-slab concrete frame; wall panels are sandwich-insulated porcelain-enamel units.

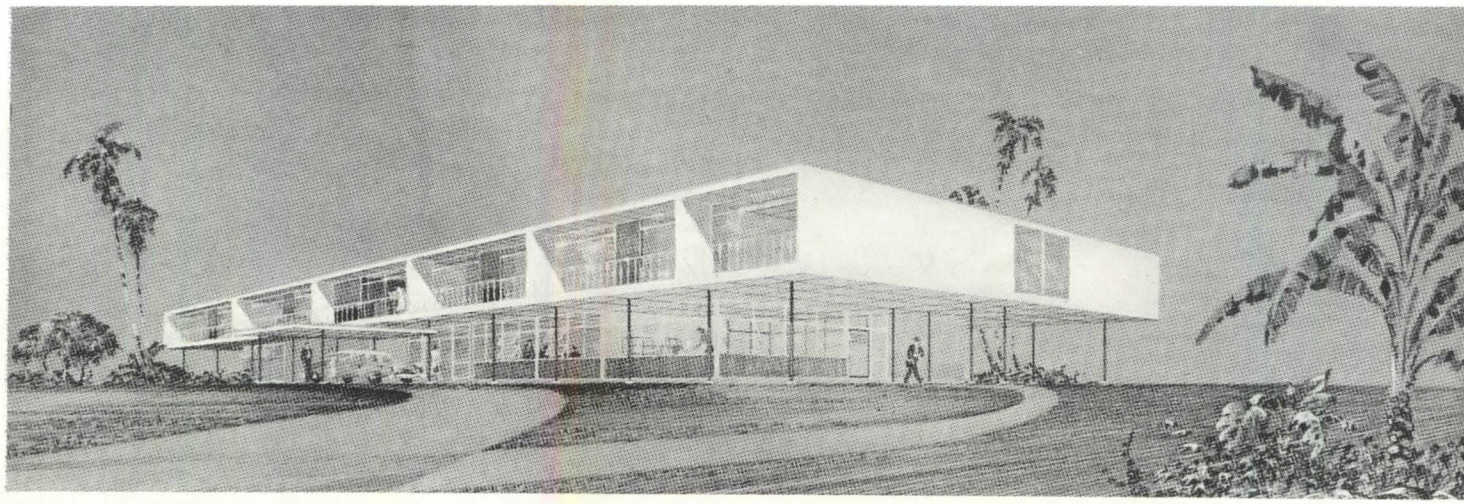
citations

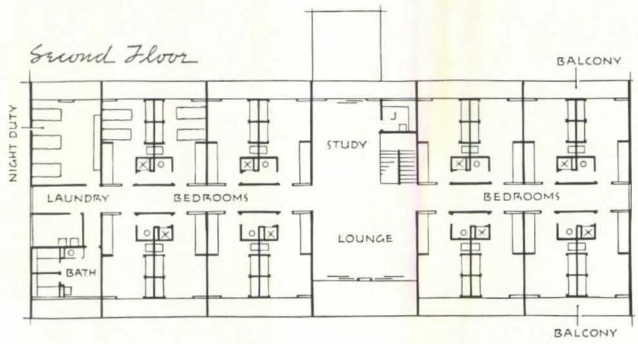
award citation. Albert Einstein College of Medicine, Yeshiva University, Bronx, New York: Kelly & Gruzen, Architects; Joseph A. Cashdan, Associate in Charge; Jaros, Baum & Bolles, Mechanical Engineers; Strobel & Salzman, Structural Engineers. This is the initial unit of a comprehensive $25-millions medical teaching center to be constructed in New York. (*See also November 1953 P/A.*)

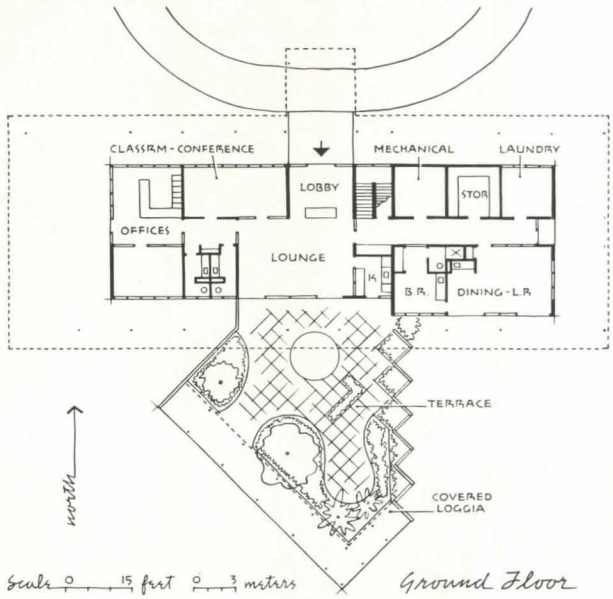




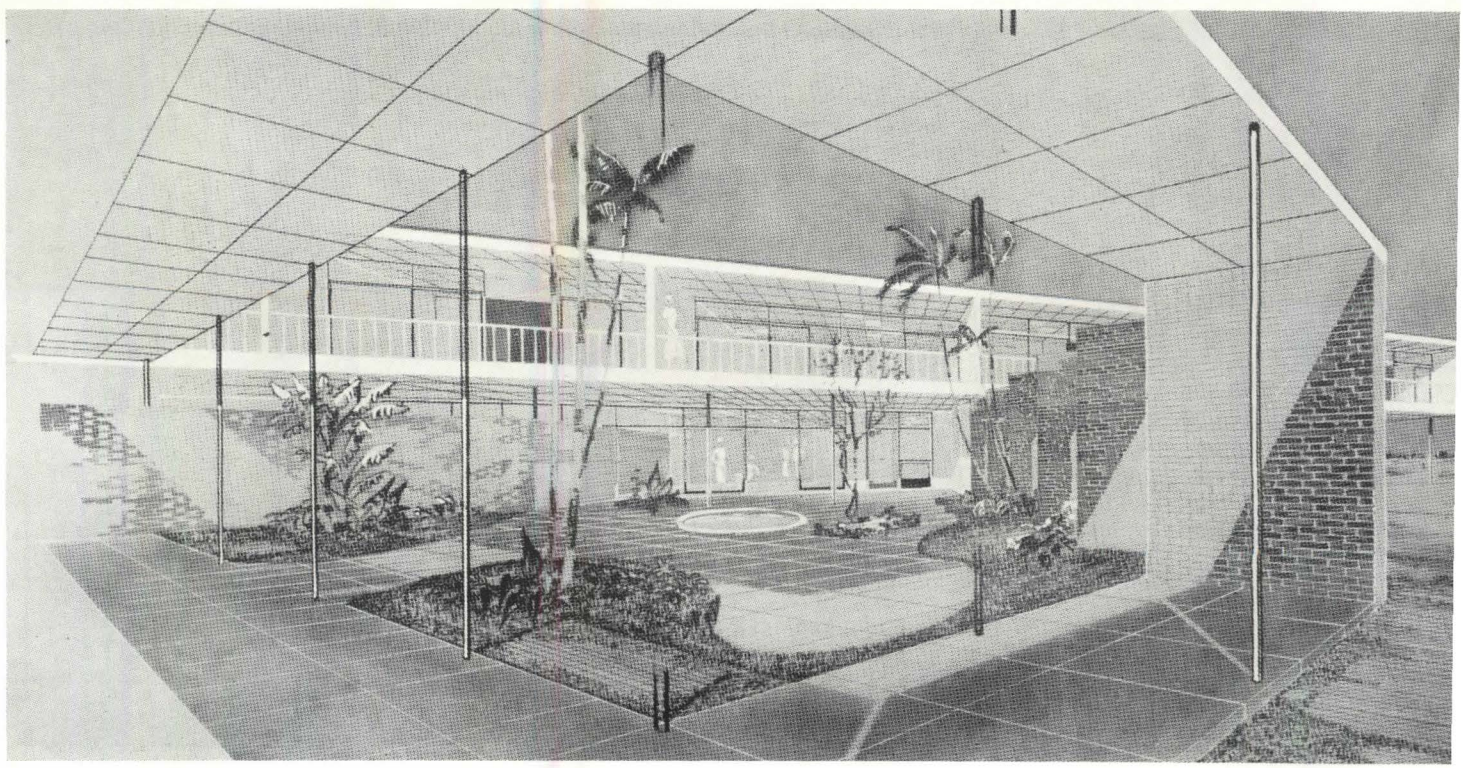
award citation. Sako Clinic for Children, Raceland, Louisiana: Curtis & Davis, Architects-Engineers; Cary B. Gamble & Associates, Consulting Engineers (Mechanical and Air Conditioning); Edward Lee Moroney, Consulting Electrical Engineer. Located in Louisiana lowlands, in a region subject to hurricanes and floods, this building was designed with climatic conditions much in mind. The structure is steel frame with precast prestressed-concrete units forming the floor and roof.



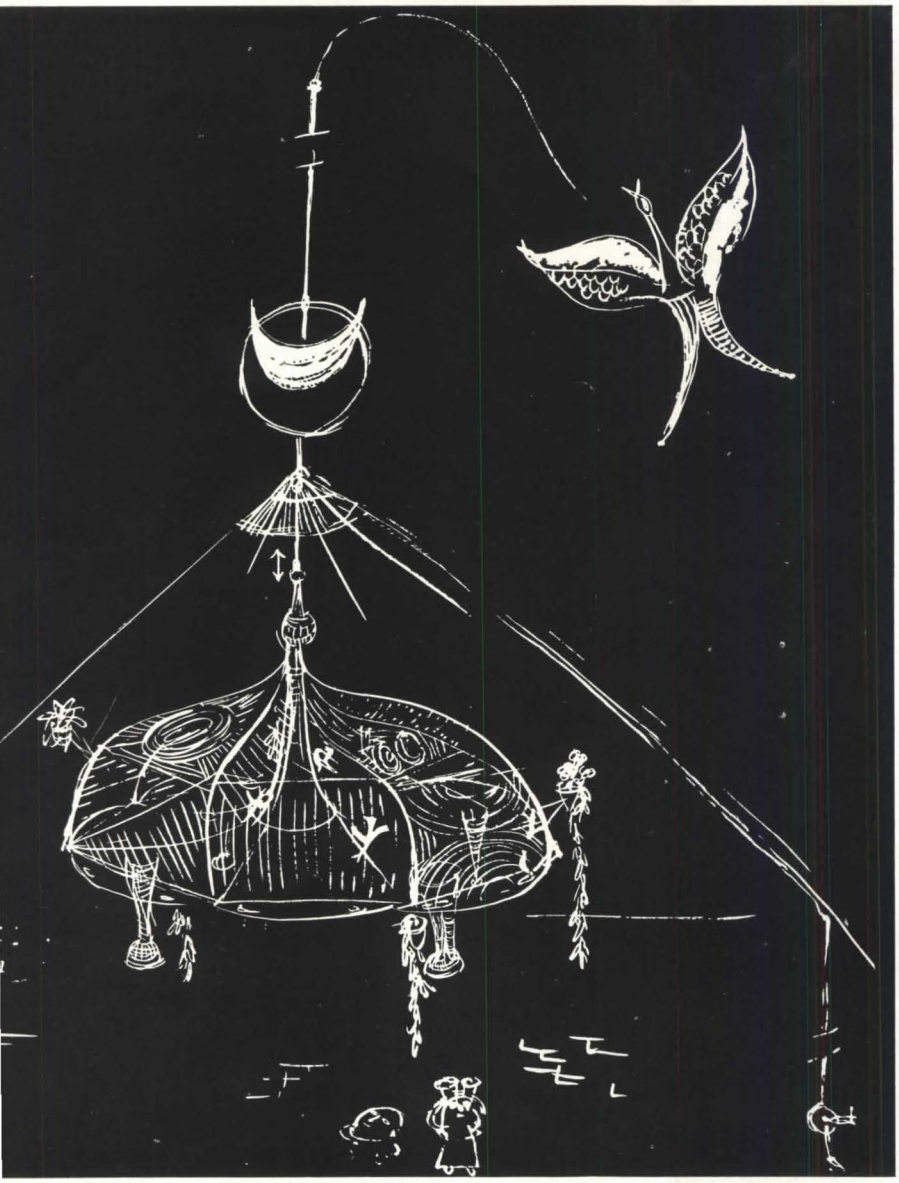


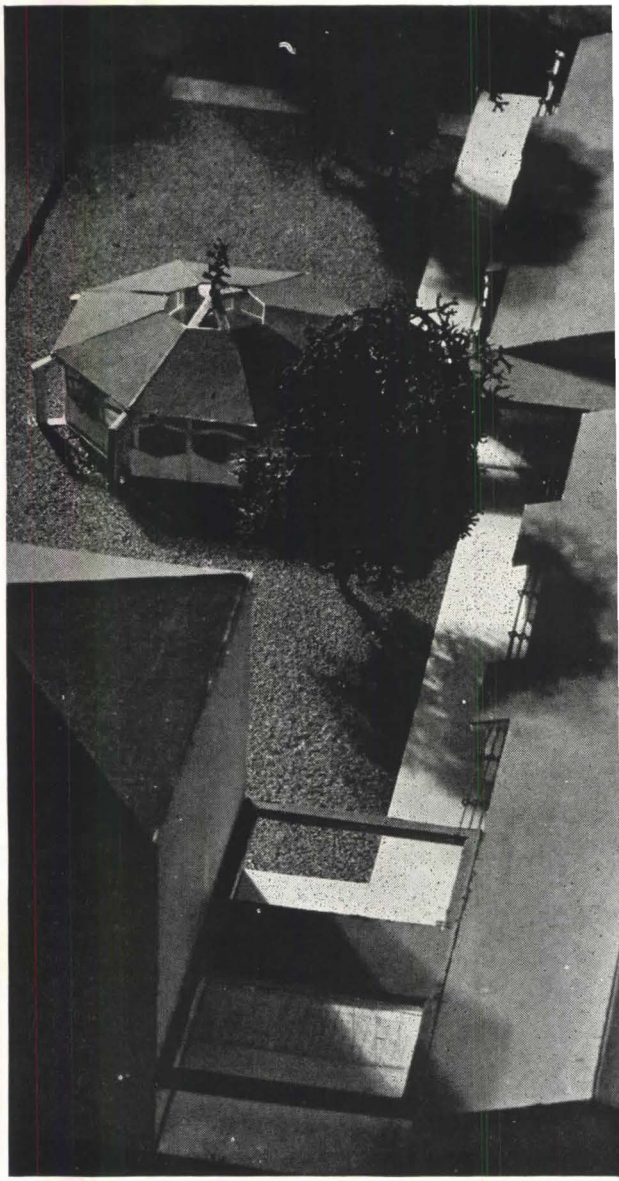


award citation. Brooking Memorial Nurses' Home, Gulf Coast Medical Foundation, Wharton, Texas: Fehr & Granger, Architects; Blum & Guerrero, Mechanical Engineers; Wilson & Cottingham, Structural Engineers. This is the first of several buildings to be built by the Gulf Coast Medical Foundation as a supplement to neighboring health facilities. The living quarters in this dormitory are located on the second floor to catch the prevailing Gulf breeze; the housemother's apartment and a large social room occupy the lower floor.

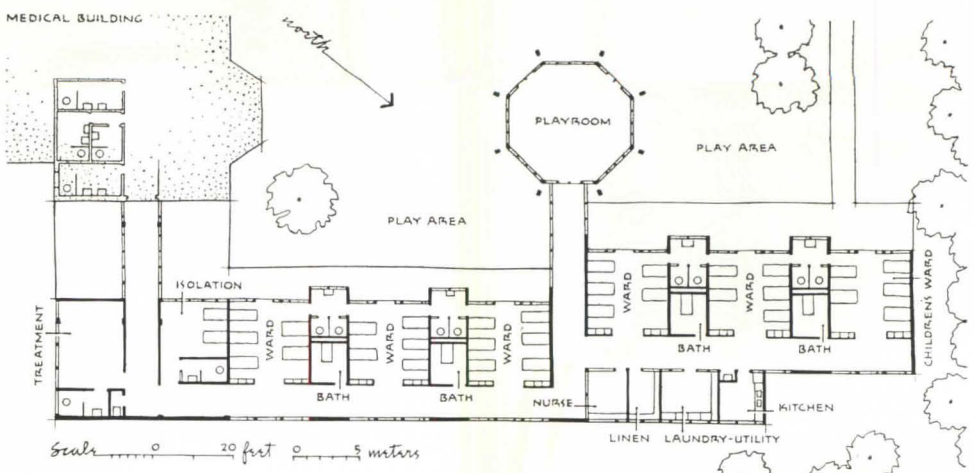


award citation. Children's Ward, Georgia Warm Springs Foundation, Warm Springs, Georgia: Toombs & Company, Architects; Elbert Weinberg, Sculptor; I. E. Morris & Associates, Structural Engineers; Newcomb & Boyd, Mechanical Engineers.

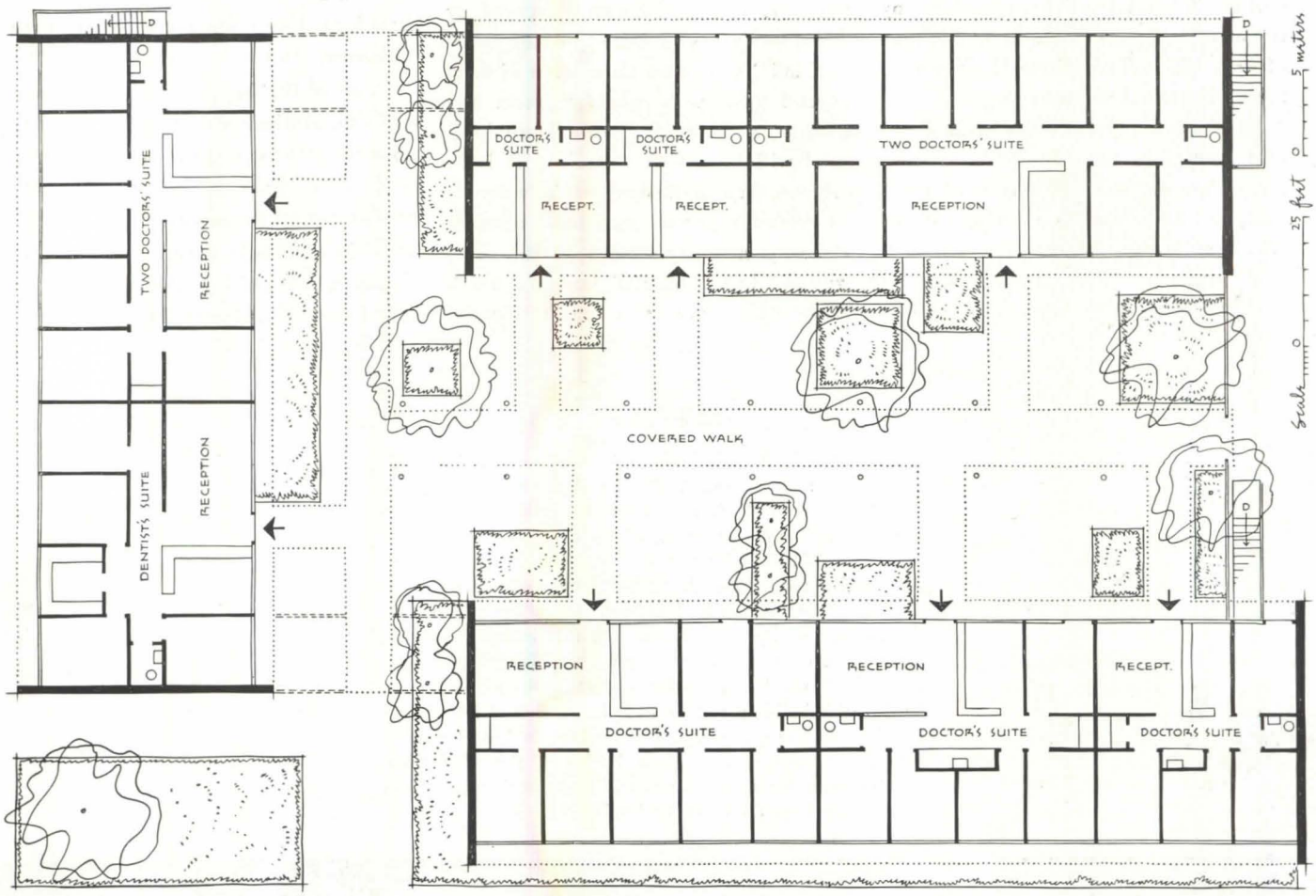


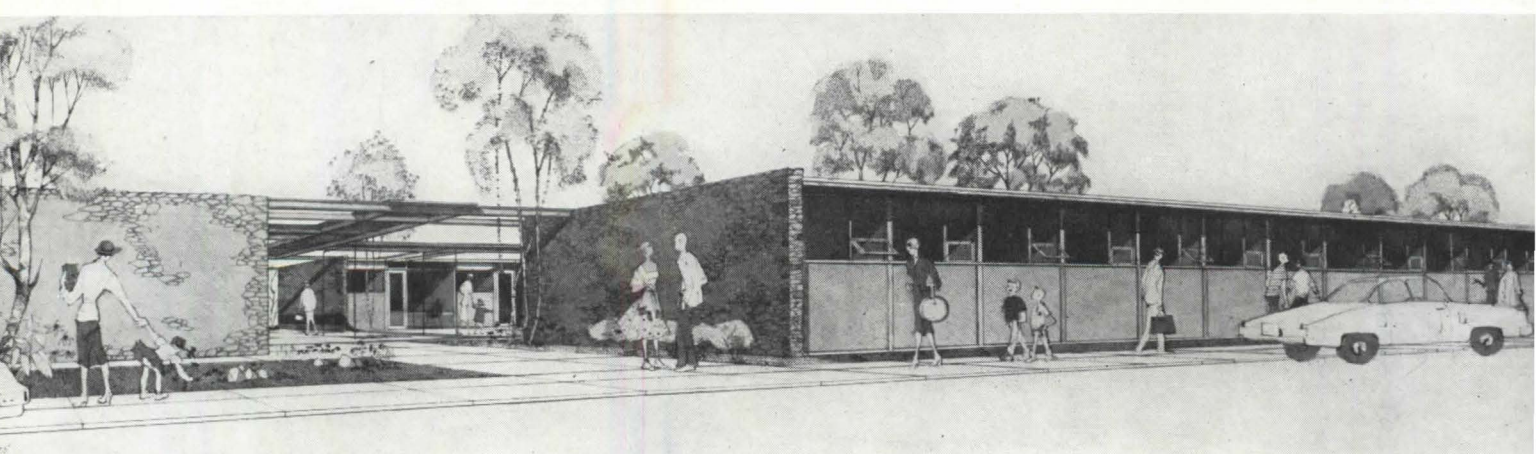


From the wards the children may roll their wheelchairs out onto the terrace in good weather. At other times they may gather in the octagonal playroom, which was designed for cheer and gaiety. The sculpture beneath the adjustable bird cage was meant to be handled by the children.



award citation. Doctor's Medical Center, Bellevue, Washington: Paul Hayden Kirk, Architect. Three small buildings are grouped around a central plaza and connected by covered walks. With frame construction and wood joists, the offices are laid out on an eight-ft module, making the use of cement-asbestos siding panels simple and economical.





industry

Fewer entries were submitted in the Industrial category than in others, but of the entrants the Jury found three worthy of Citation—an indication, perhaps, of the level of design excellence in industrial work today. Although the flush of defense industrial activity, stimulated by tax benefits, has begun to fade, this type of work will still constitute 15 percent of the architectural volume this year.

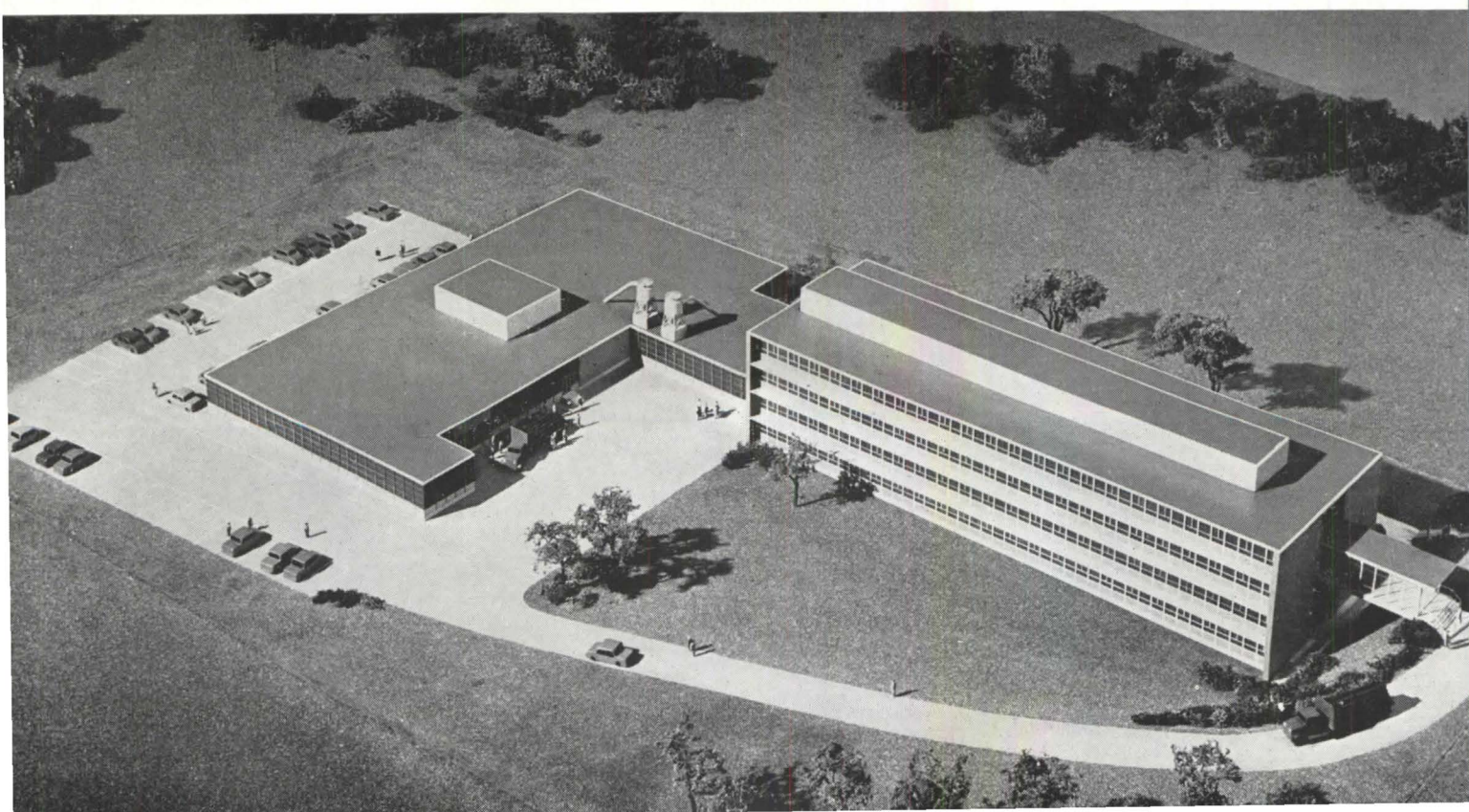
As a building type, the industrial structure seemed to the Jury to be moving away from the solid enclosures of years past, and to be finding a design expression that is not only more human but more attractive. Even the buildings of the Tennessee Valley Authority—for over 20 years a salutary if somewhat formal influence on the design of industrial structures—are now pointing the way in more freedom of plastic expression and more open of planning.

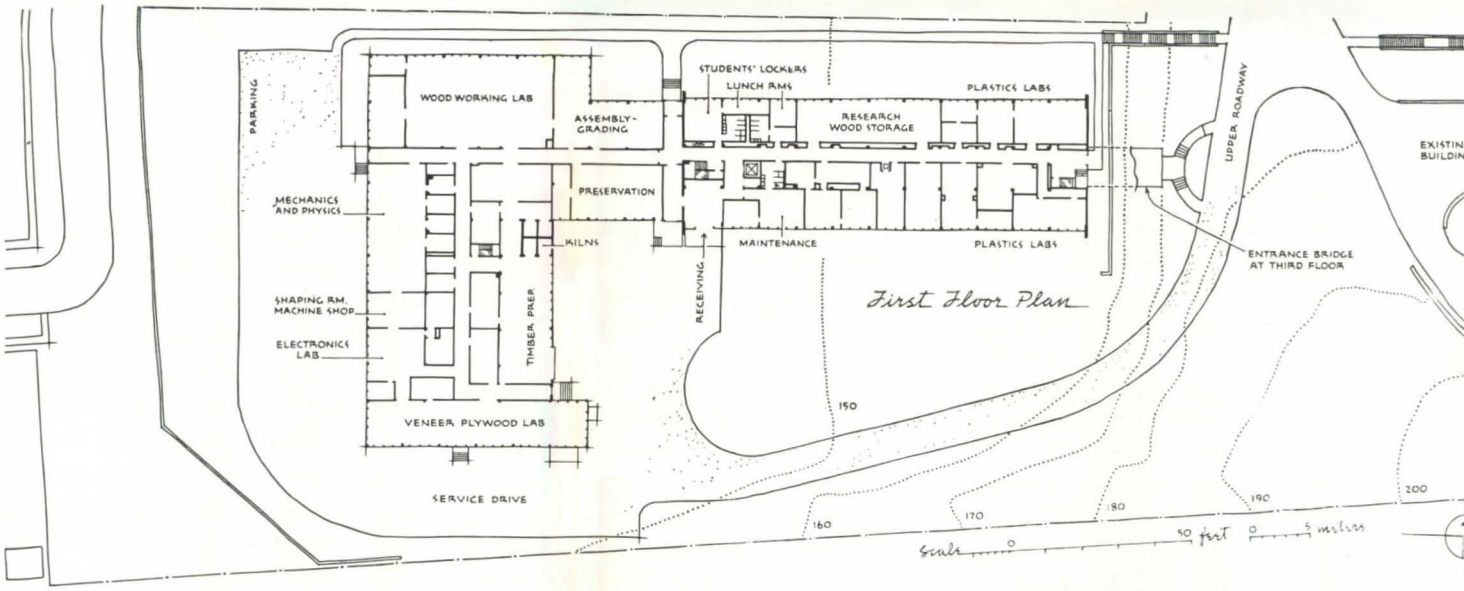
There still remains the temptation, apparently, to use billboard façades or monstrous signs on some types of industrial buildings—even though few of them depend upon passers-by for trade, and most of them might create more local good will by design restraint. It is in the category of design for industry in its research phases that most advance and most maturity seem apparent. This type of "light industrial" building, which many cities are rezoning residential neighborhoods to accommodate, can be a structure of which any community might be proud. Such buildings are the Awardwinning Forest Products Research Laboratory of Reisner & Urbahn and the Office and Laboratory Building for American Home Products designed by Skidmore, Owings & Merrill.

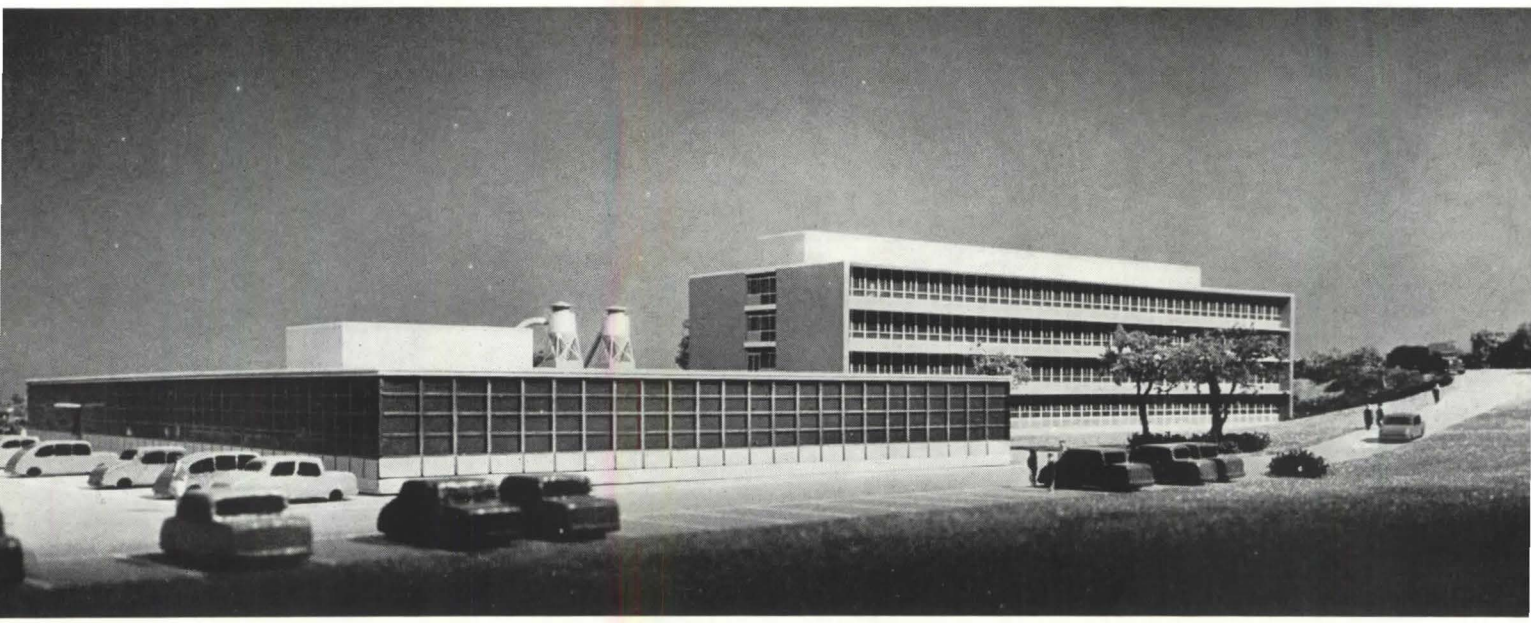
In all of the buildings cited, one general characteristic was noted by the Jury: no attempt was made in any industrial project to house all functions within one enormous, impressive building. The trend is manifestly toward dispersion of elements, recognizing the different requirements of different functions.

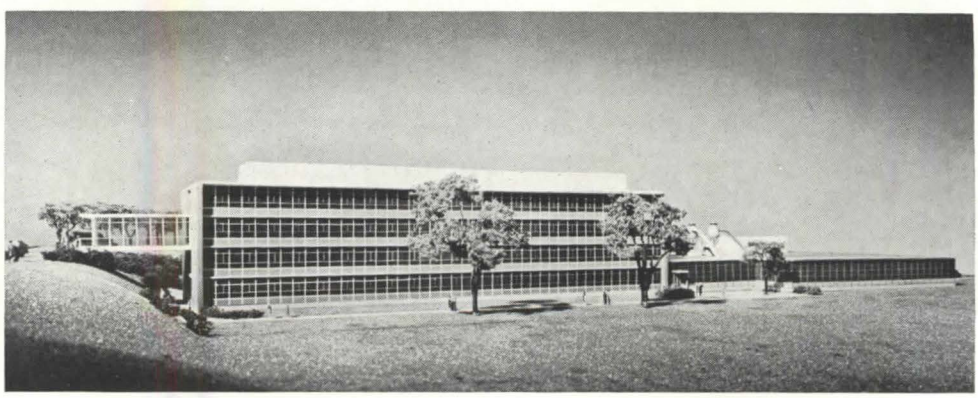
award

design award. Wood Products Laboratory Building #12, State University of New York, New York State College of Forestry, Syracuse University, Syracuse, New York: Reisner & Urbahn, Architects; approved by Department of Public Works, Division of Construction—Bertram D. Tallamy, Superintendent; Cornelius J. White, State Architect; Otto J. Teegen, State University Architect. On a site adjacent to the campus of Syracuse University, this building was designed as a classroom laboratory for studying all phases of the use of wood and its by-products. Since the ground level of this building will be 24 ft below that of the nearest building on the campus, it was decided to bring students into the laboratory through a bridge at the third floor, which means that no classroom will be more than two floors up or down from the entrance level.

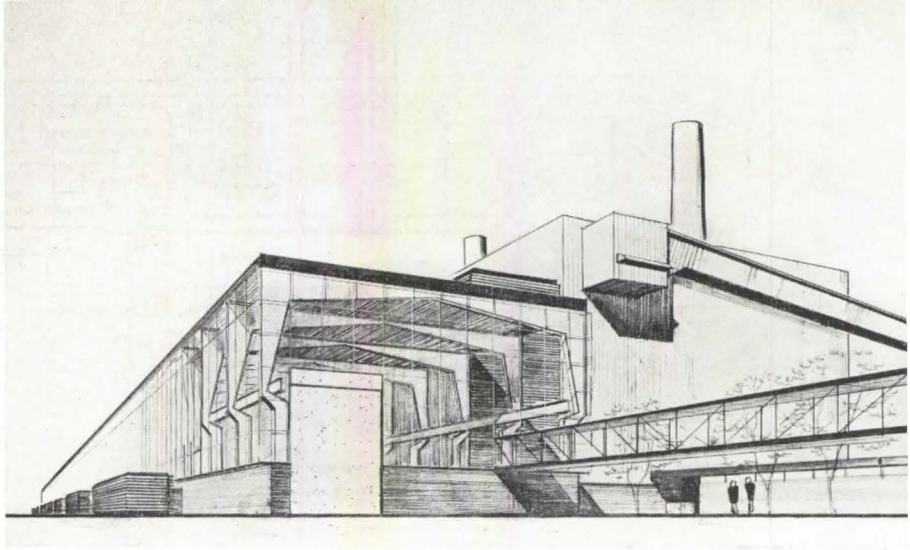


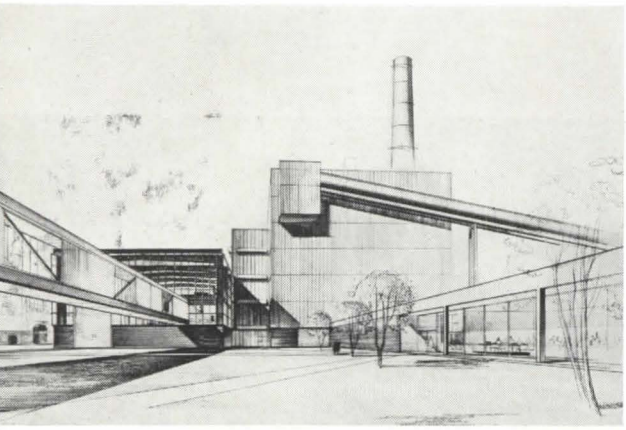






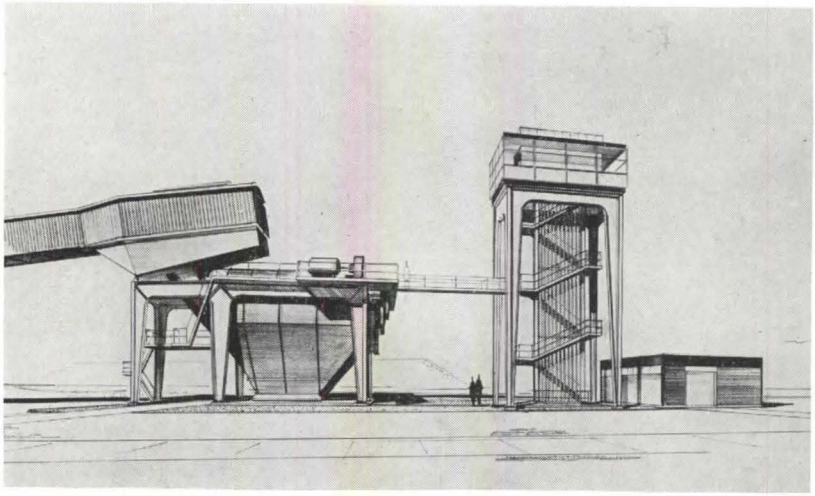
The one-story wing was designed to contain the heavy machinery, which requires special footings for vibration, and to handle the large material deliveries.

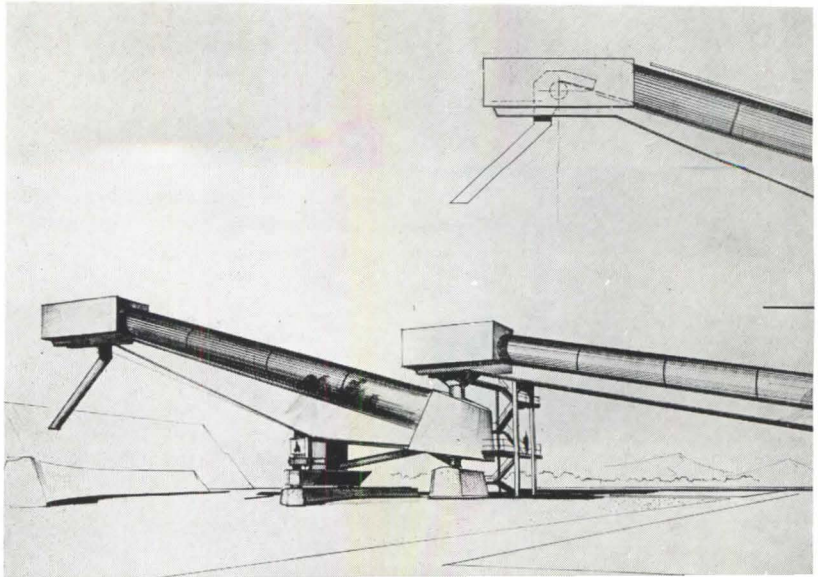


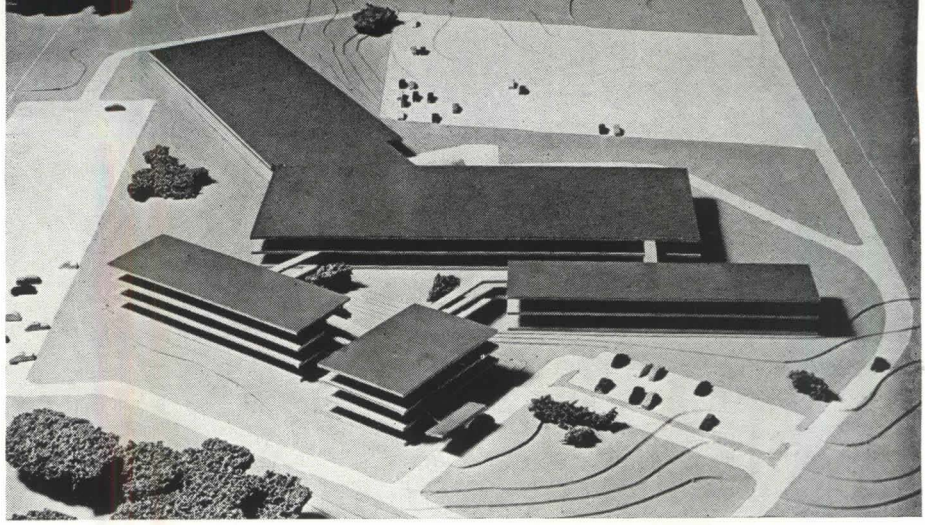


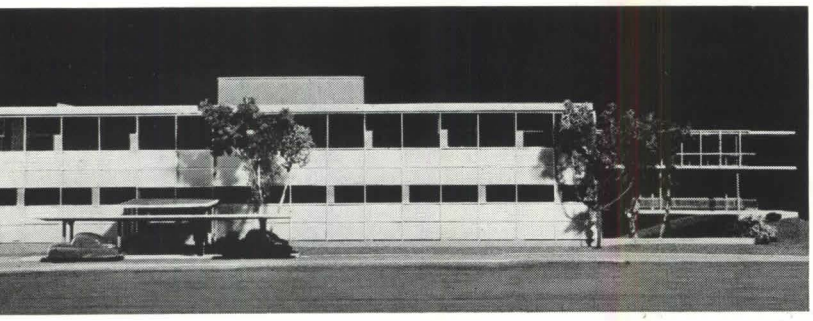
award citation. Gallatin Steam Plant, Cumberland River, 30 miles east of Nashville, Tennessee: Harry B. Tour, Head Architect, Tennessee Valley Authority, Division of Design. "Much cleaner than most industrial buildings," according to the Jury, this steam plant carries on the tradition of unusually excellent design by the Tennessee Valley Authority Architects.

citations



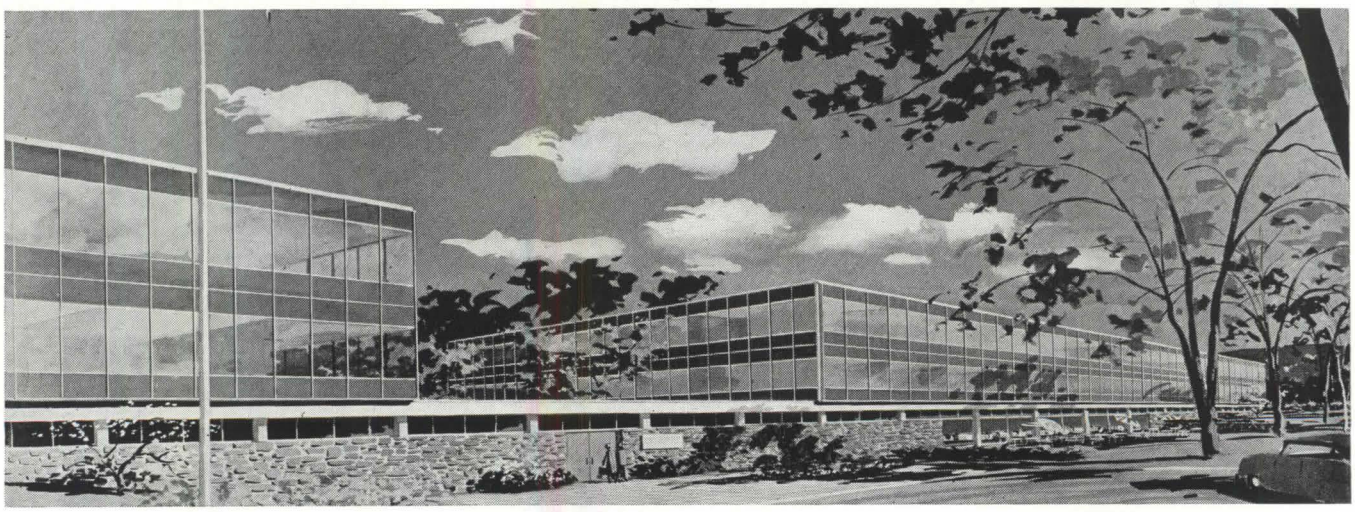


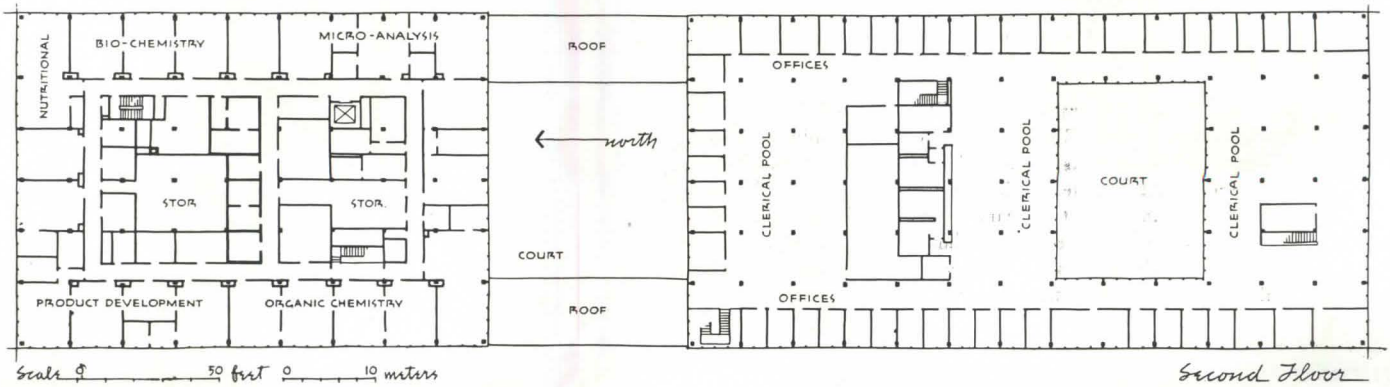




award citation. Cherry Hill Project, Radio Corporation of America, RCA Victor Division, Camden, New Jersey: Vincent G. Kling, Architect; I. M. Pei, Architect, Design Consultant; Louis T. Klauder & Associates, Robert J. Sigel, Mechanical Engineers; Joseph C. Tighe, Project Manager; Severud, Elstad & Krueger, Structural Engineers. The five buildings comprise approximately 300,000 sq ft and are interconnected by covered and enclosed passages. The porcelain-panel and glass walls are set in stainless-steel frames, hung from the lift-slabs.

award citation. Office & Laboratory Building, American Home Products Corporation, Wyeth Laboratories Division, Radnor, Pennsylvania: Skidmore, Owings & Merrill, Architects; Seelye, Stevenson, Value & Knecht, Engineers. Above the ground floor, this project consists of two separate buildings of two stories each. One of the major factors in determining this design was the desire to give every office and employe the maximum amount of light, an objective gained by the use of a wall "skin" consisting of glare-reducing glass and enameled-metal panels.





public use

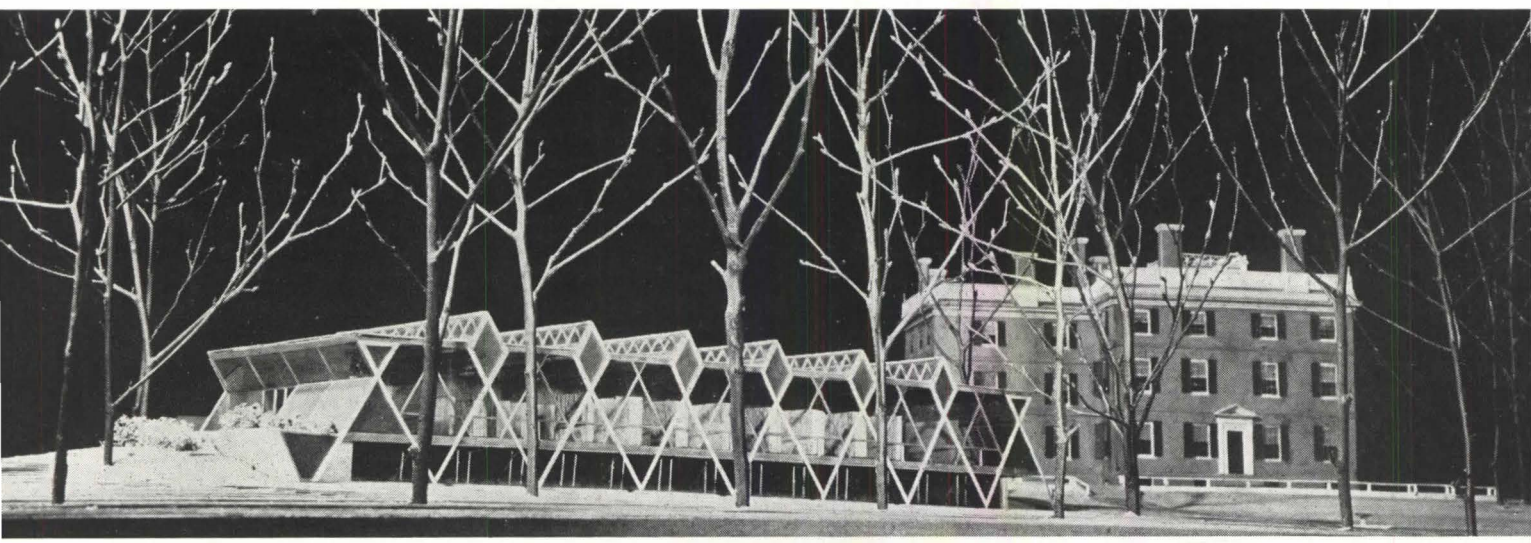
In the design of buildings for Public Use, the architect is usually dealing with a conservative, often a bureaucratic, client; and advance in this field—save for some outstanding examples in recent years—has been slow. In libraries the progress has been most marked, and in this Award Judgment we saw many good ones. This year, however, the local (county, district, or city) administration building has become a frequent design problem (Public Use structures will attract 7 percent of the dollar-volume activity of architects across the nation during the year); and several buildings of this type, from among the many submitted, rose to the point of receiving Award Citations.

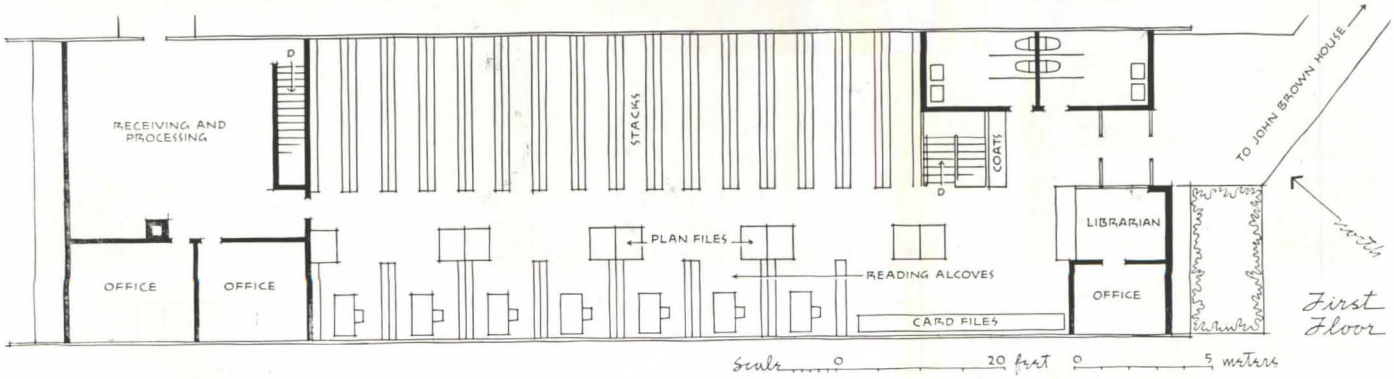
The most exciting structural scheme in this category is the use of an enormous cantilever to support the convertible roof of the Civic Auditorium for the Lower Hill Cultural Center at Pittsburgh, designed by Mitchell & Ritchey. Its purpose is to provide shelter from the weather when needed; otherwise the amphitheater remains open to the sun and stars. Never before has this been done on such a grand scale.

The unusual structure of the Rhode Island Historical Society Library, designed by Cull & Robinson and Conrad Green, gives rise to some interesting speculation. Here is a thoroughly modern structure which is to house an organization of historians. The paradox vanishes, however. when you think that perhaps this building will make Rhode Island history just as the existing building has done.

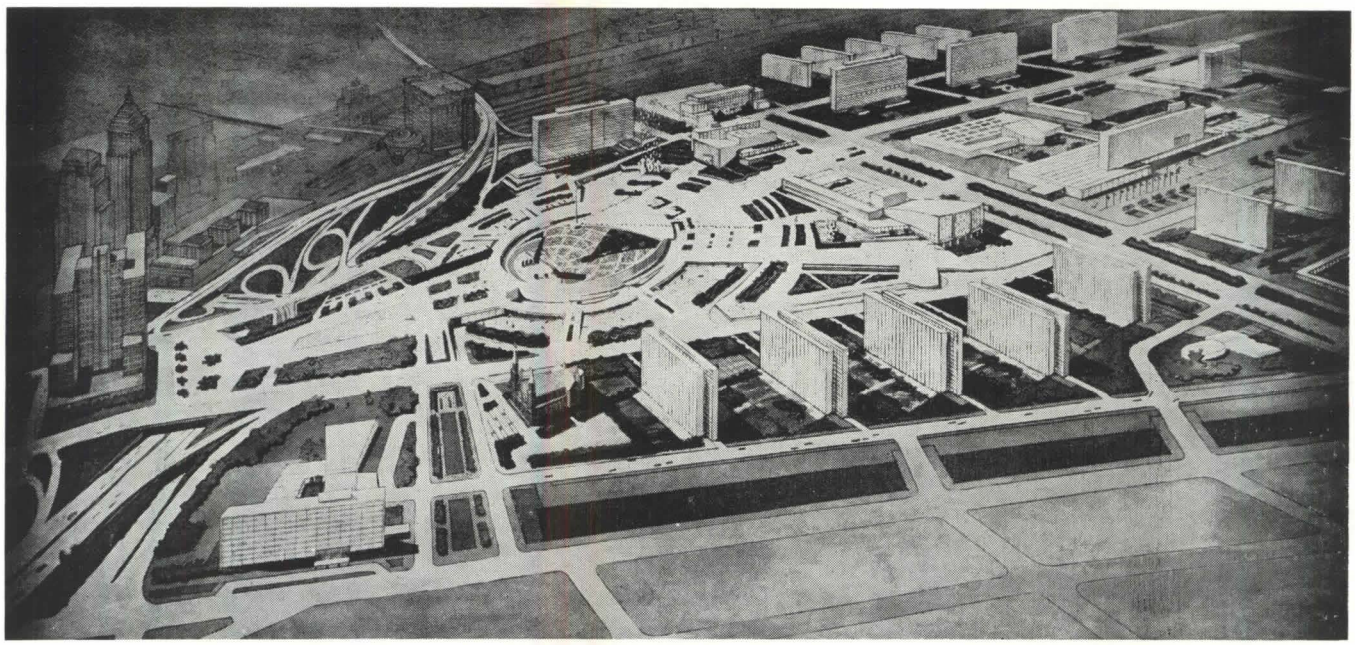
As in the case of other building types, no "style" seemed apparent in these designs. Rather there was a concentration on the business of solving the problem, with a high degree of planning skill and structural imagination. The problem of monumentality seemed to take care of itself, when the program was well translated.

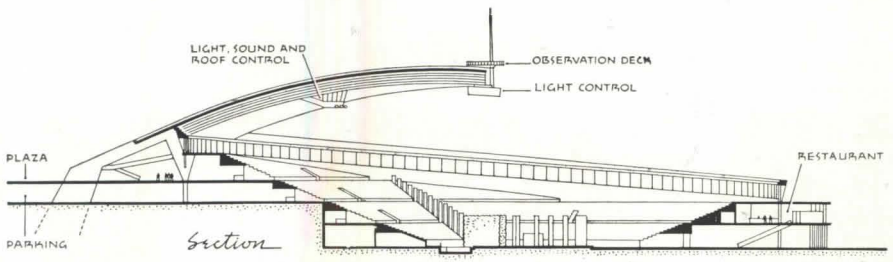
citations





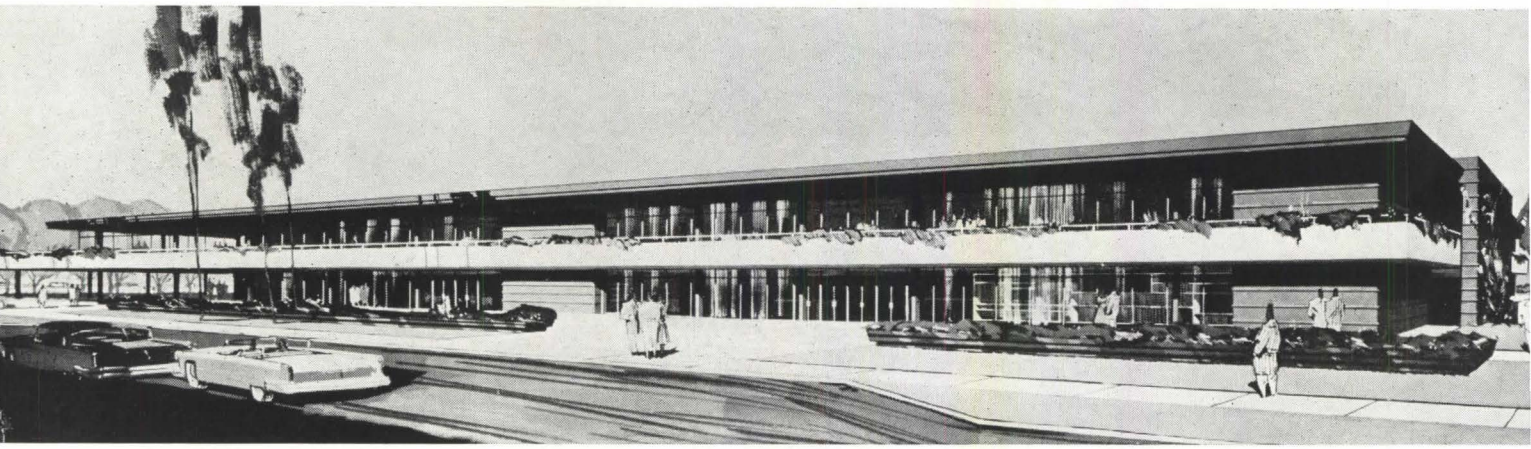
award citation. Library for the Rhode Island Historical Society, Providence, Rhode Island: Cull & Robinson and Conrad E. Green, Associated Architects-Engineers. The Jury took particular delight in the unusual structure of this design, especially as it appears against the background of the old brick residence which houses the Society. Tri*angular skylight trusses*, carried by diagonally-sloping steel columns, support a metal roof deck.

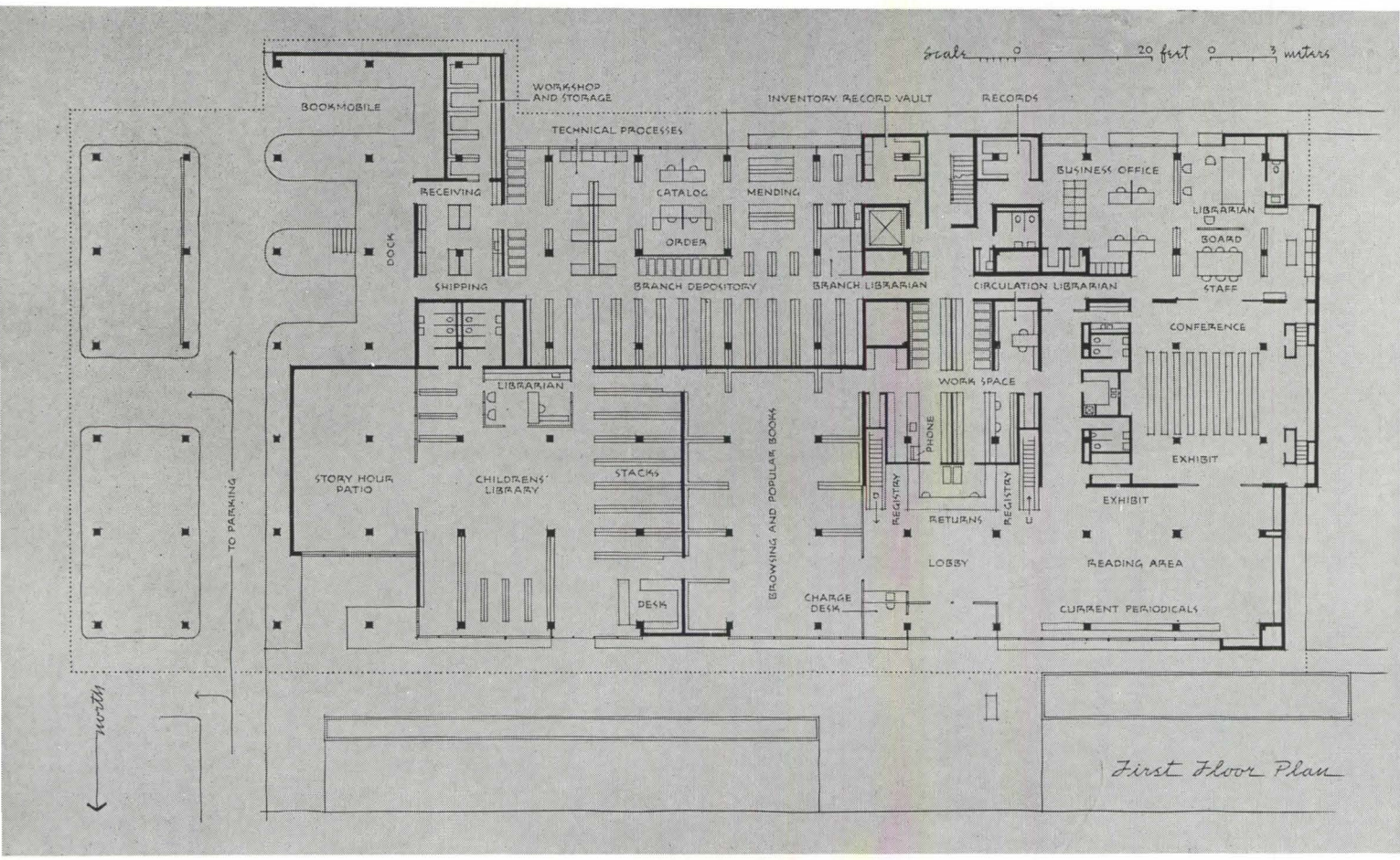




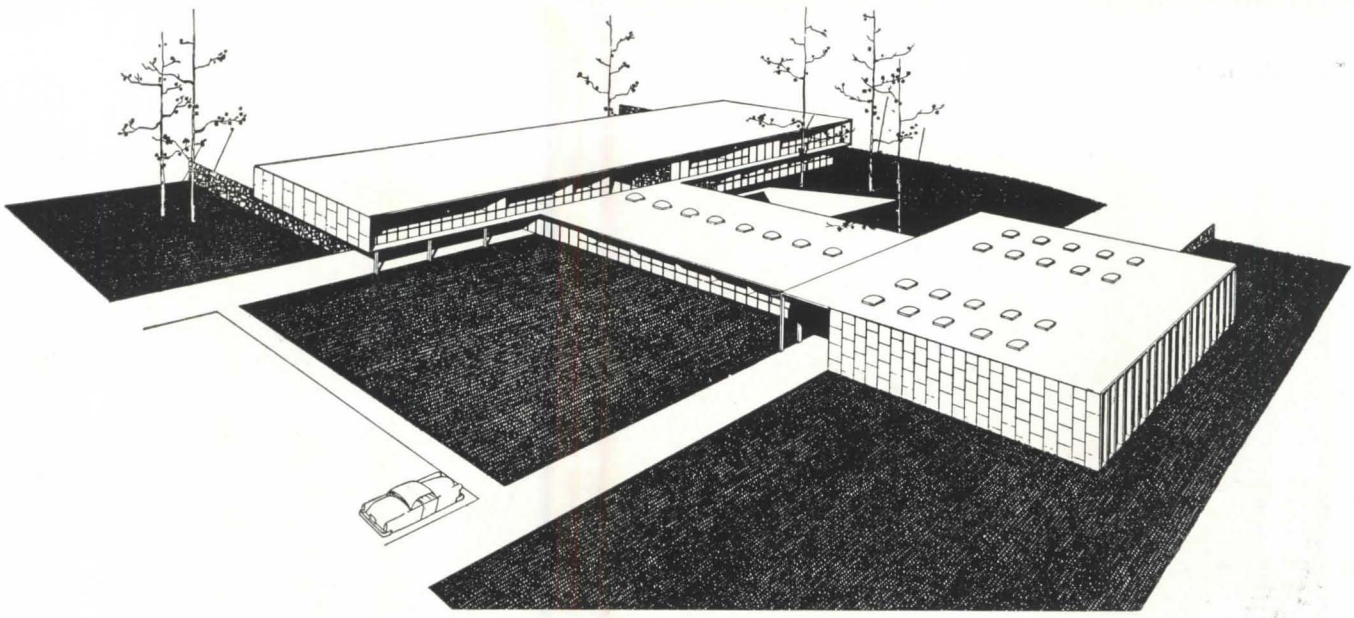
award citation. Civic Auditorium, Lower Hill Cultural Center, Urban Redevelopment Area #3, Pittsburgh, Pennsylvania: Mitchell & Ritchey, Executive Architects; Ammann & Whitney, Consulting Engineers. The Jury liked the concept of the single cantilevered arm, designed to support the convertible umbrella covering the auditorium—though some Jurors felt that a series of ribs might have been lighter looking, if less impressive. Relation of the auditorium to the entire redevelopment area was commended.

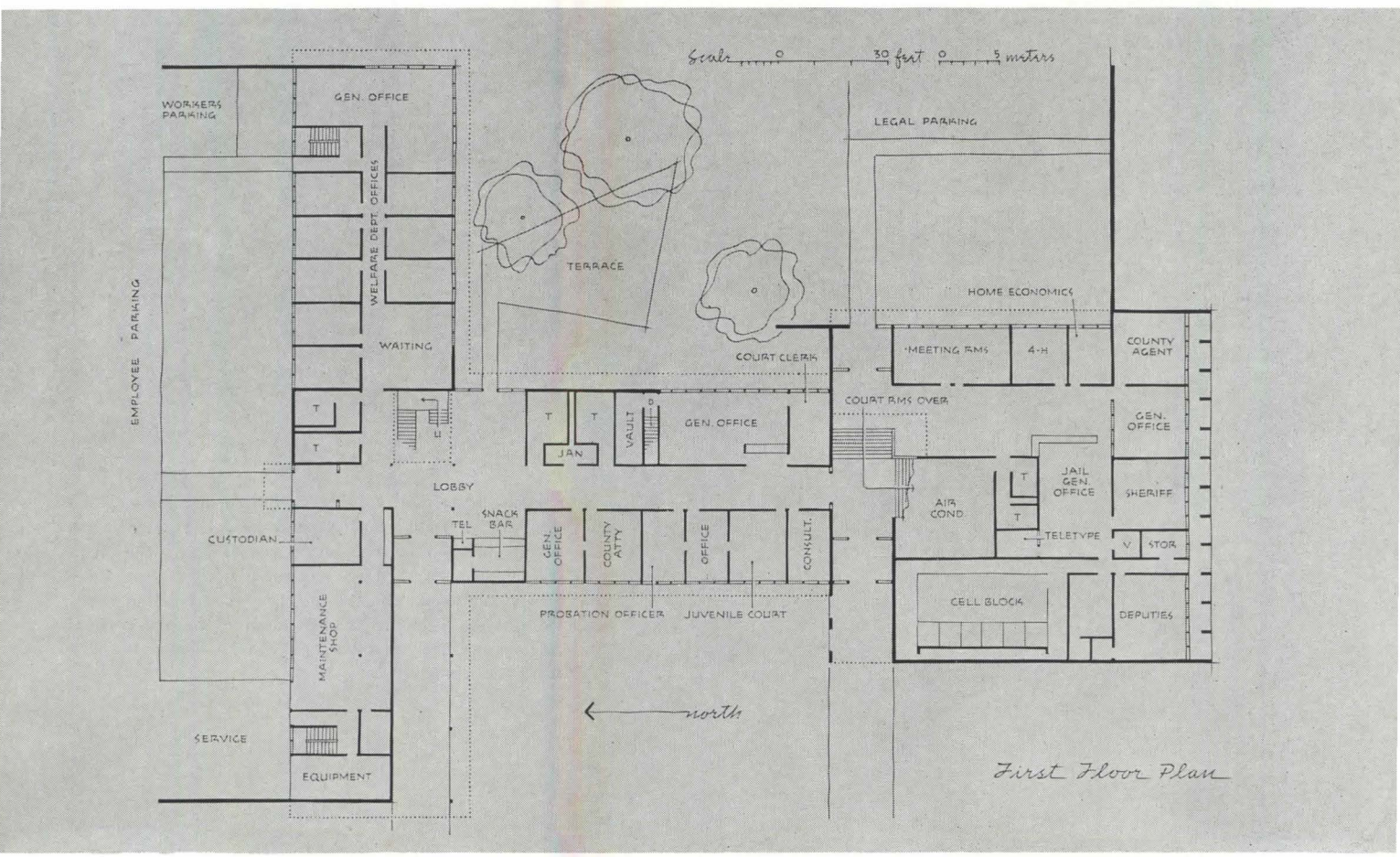
award citation. Civic Center, Hillside, New Jersey: Emil A. Schmidlin, Architect; James E. Bryan, Library Consultant. A straightforward structure of fireproofed steel, this unpretentious building is designed to house all of the community offices, including the police station and the library.



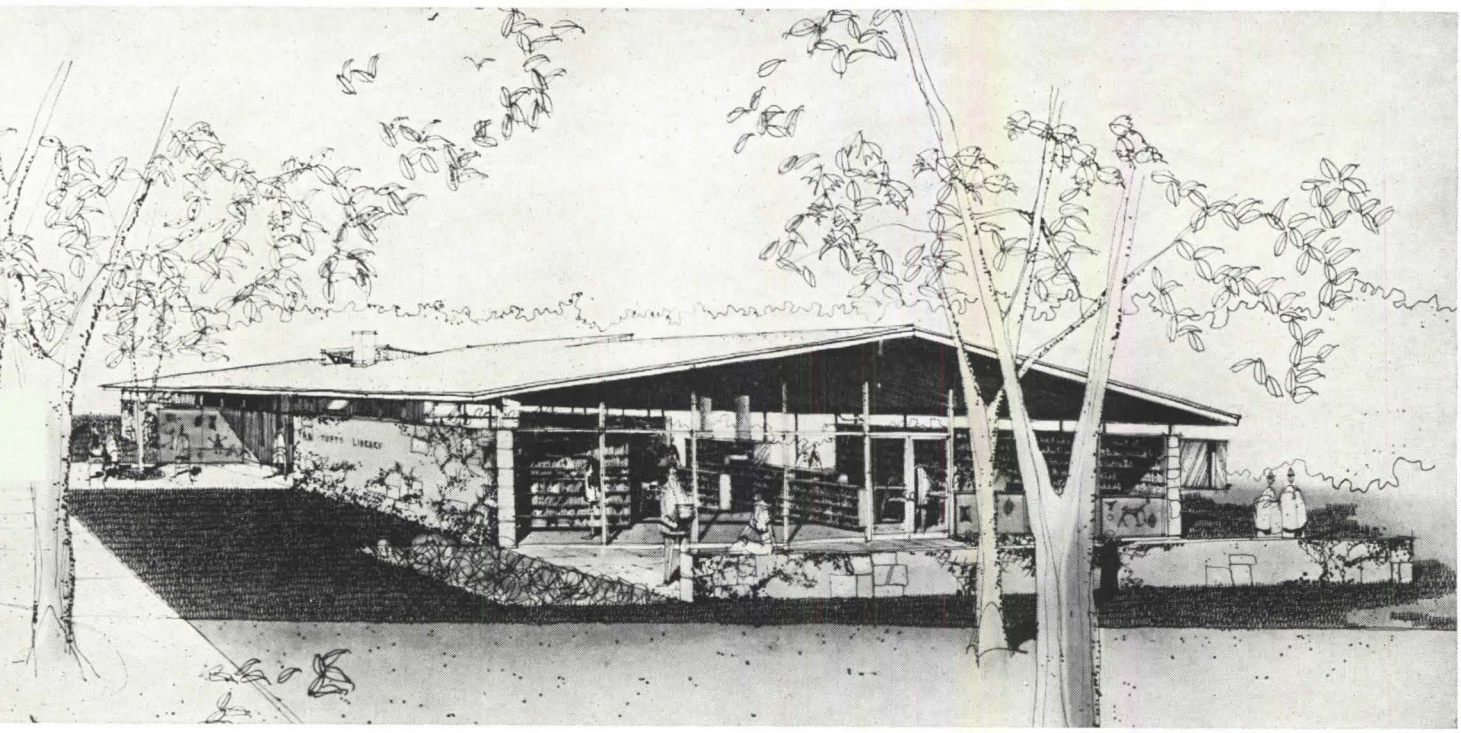


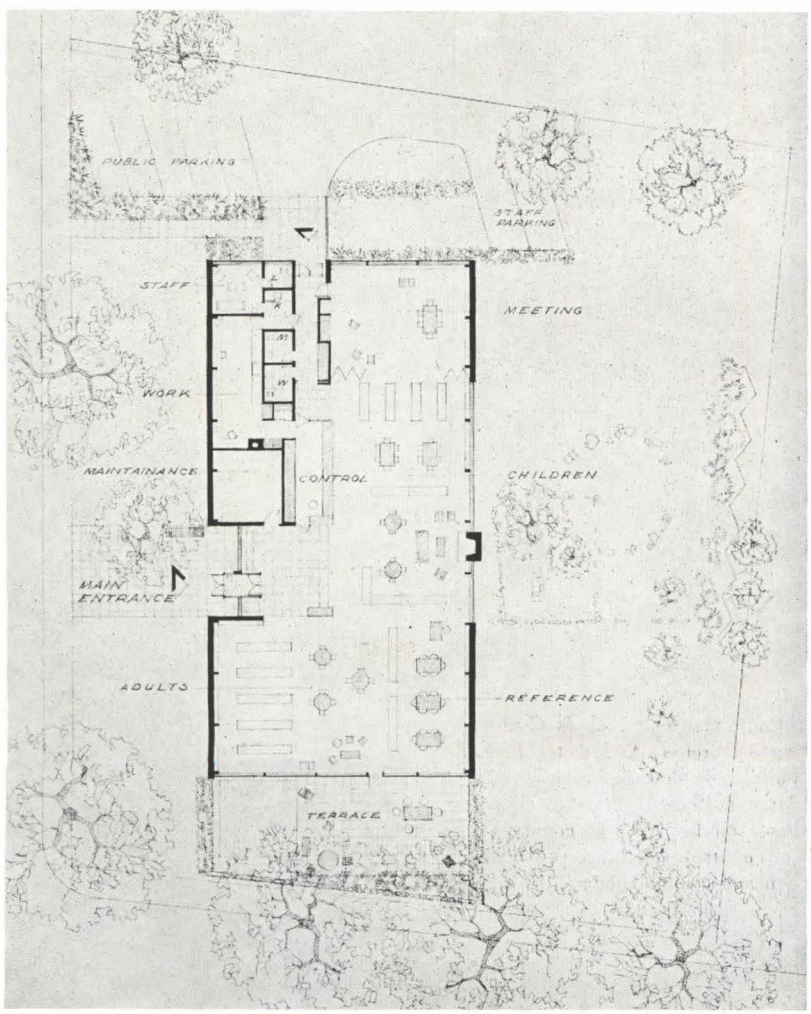
award citation. Central Library, San Bernardino, California: Clare Henry Day, Architect; Carl B. Johnson, Structural Engineer. The size of the building site would not allow all of the activities to be carried on at the same level, so the browsing stacks were elevated to the second floor, away from street noises. Popular and seven-day books can be checked out quickly and conveniently at the street level. The library is planned to accommodate the public comfortably, even after a 25 to 30 percent increase in population of the city.





award citation. District Court House, St. Louis County, Hibbing, Minnesota: Jyring & Jurenes, Architects; L. E. Stegner, Designer. This building is designed as a supplemental court house in a large northern Minnesota county and contains space for almost all functions of county administration. A central office strip separates two main blocks, housing public health and county jail facilities.



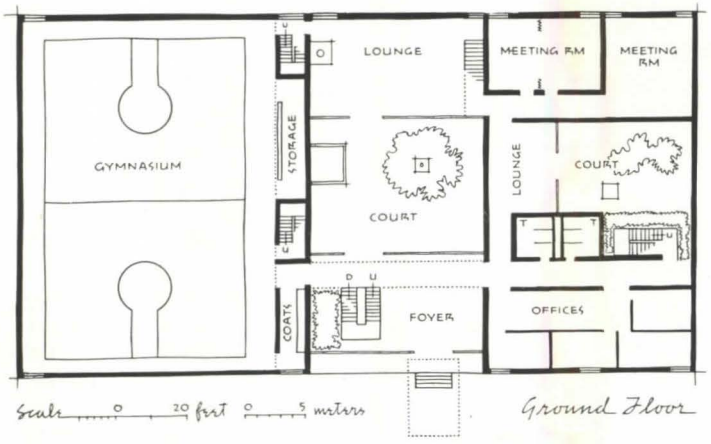


award citation. Tufts Library, Branch Building, Weymouth, Massachusetts: Carl Koch & Associates, Architects. A simple pitched roof is designed to blend with the architectural surroundings. A rectangular plan allows all functions to center about the control area. The meeting room, used mostly by children, contains facilities for audio-visual instruction and entertainment and can be closed off by a folding partition.

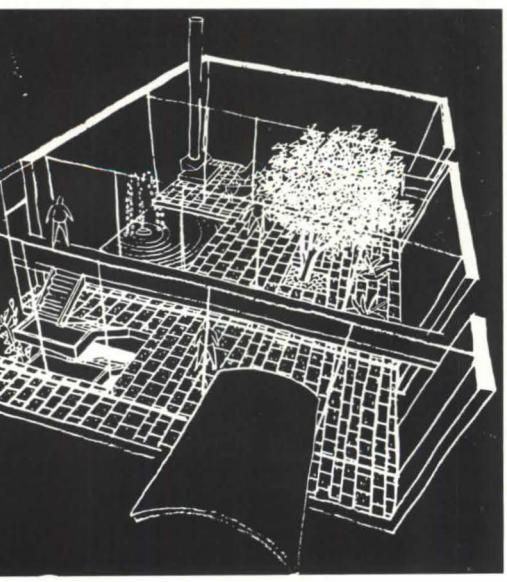
recreation

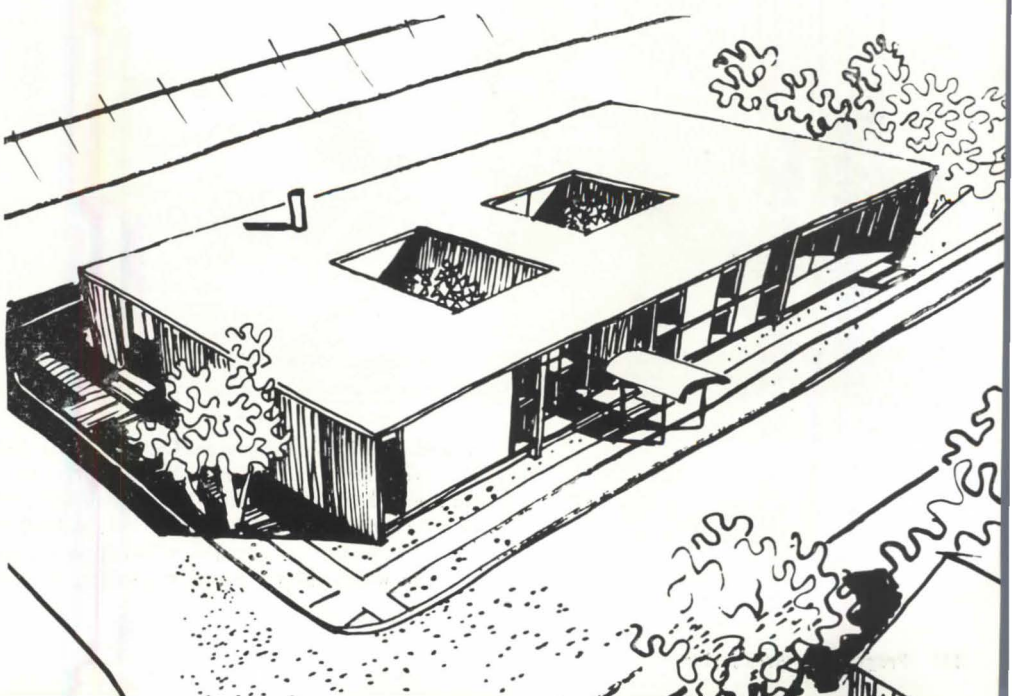
Entries in the Public Use category were so many and varied that the Editors of P/A created another category for Recreational buildings. The Jury's task was difficult enough, without asking them to judge courthouses alongside country clubs and roller rinks; separating public buildings designed for fun from those designed for serious matters seemed a logical breakdown, since the design characteristics of the two types are so different. In no other category of building is the architect's freedom as great as it is in Recreation. Unfortunately, his freedom to go wrong is as great as his freedom to do fine and exciting architecture (as is evidenced in the thousands of garish movie theaters that have been built in recent years). Yet the fact is that many architects, like Thalheimer & Weitz and Paul Rudolph, are really doing wonderful work in recreational projects (as well as in other types). In the Neighborhood Center (*below*) by Thalheimer & Weitz, which won the Design Award in Recreation, the Jury was pleased with the way the Architects caught a feeling of restrained and civilized gaiety without the extroversion that could have ruined a building of this kind. Ashbourne Country Club, designed by the same firm, is an example of clear thinking for its type—a kind of building which is usually the product of a confused program developed by clients who cannot decide whether they want enclosed formality or open relaxation. Here is a disciplined openness compatible with both formal evening relaxation and daytime fun. In Paul Rudolph's Floating Islands project we see one of the real rarities of architecture—a commercial enterprise dependent upon highway traffic for its business, which employs good architectural design to attract that business.

award



design award. Neighborhood Center, Philadelphia, Pennsylvania: Thalheimer & Weitz, Architects. The perspective (*below*) shows the building with a future addition, which is not shown in the plan *(left)*. The interplay of two levels with two completely open courtyards was considered by the Jury to be gay, lively, and in character with the nature of the building, which results from an interesting social planning program.





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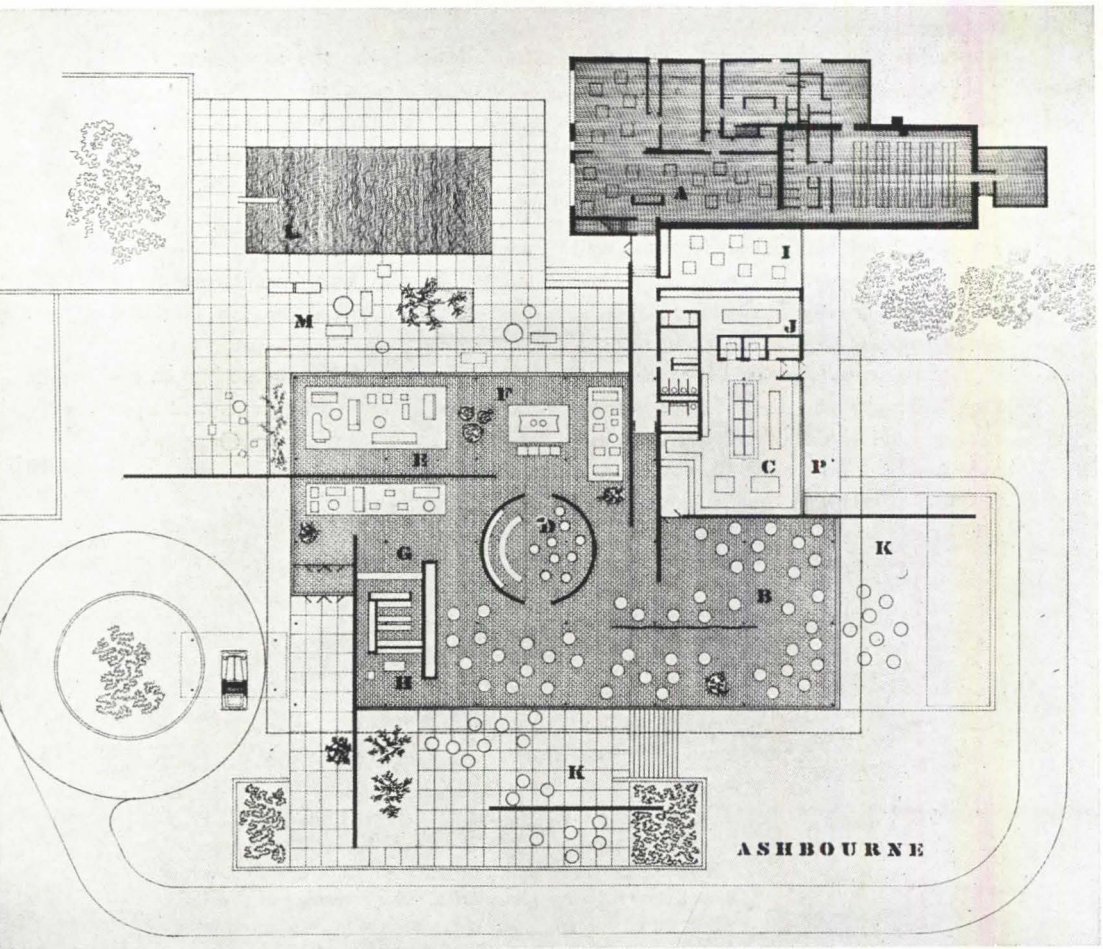
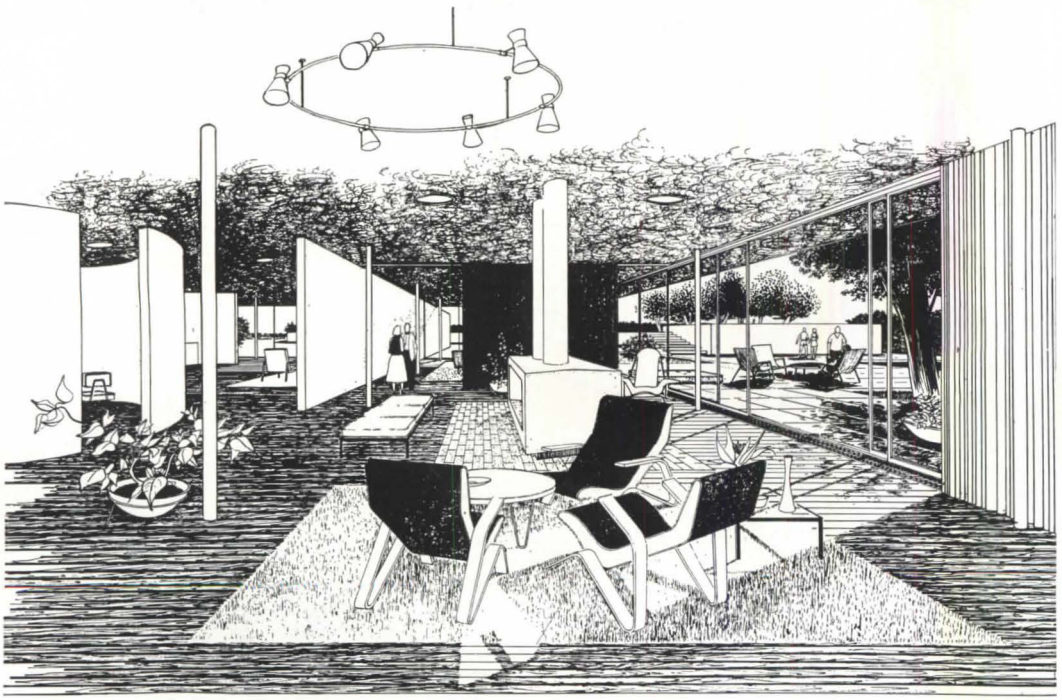
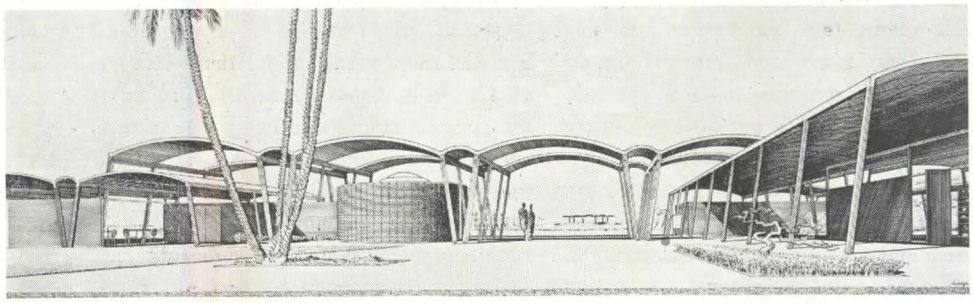
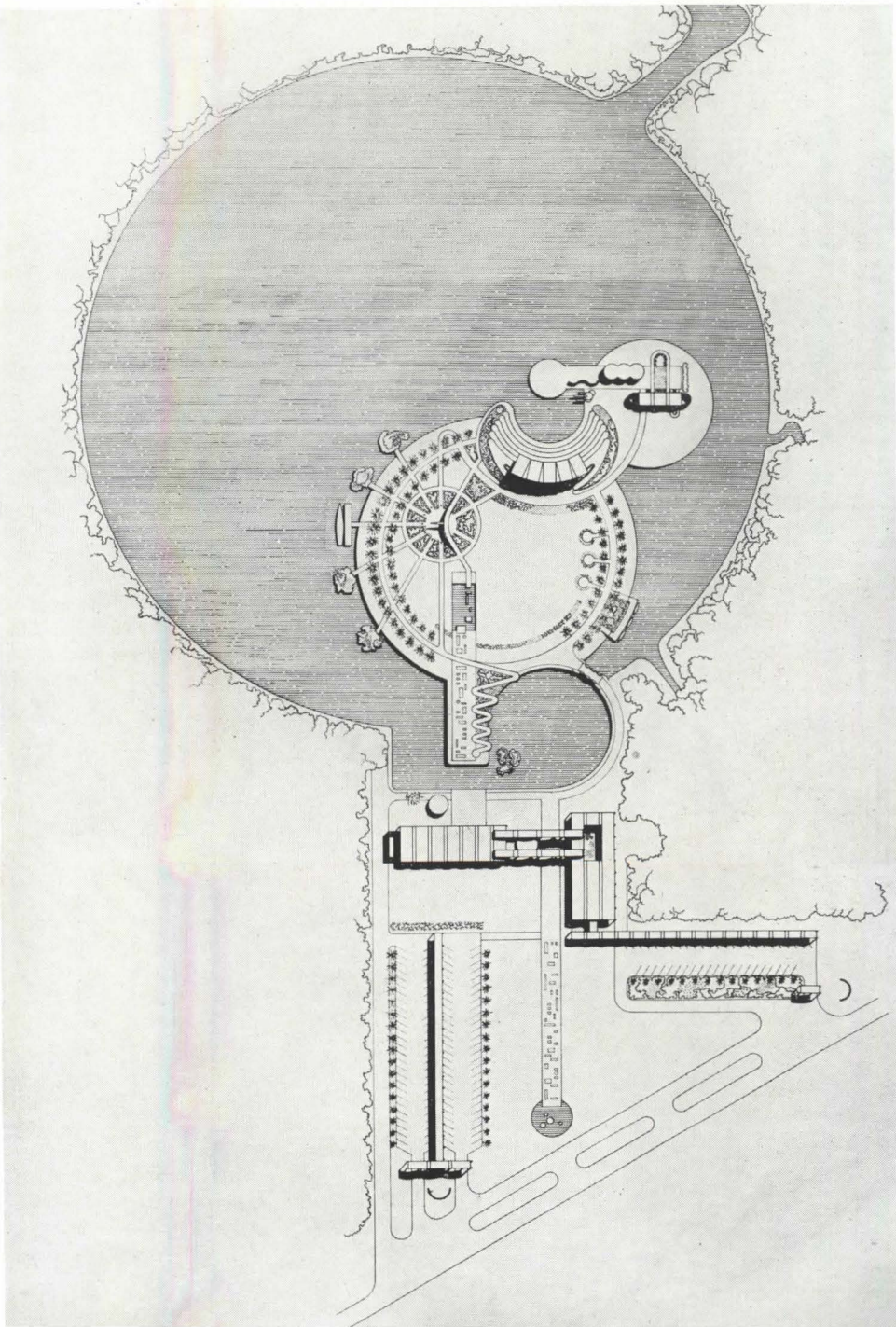




award citation. Ashbourne Country Club, Philadelphia, Pennsylvania: Thalheimer & Weitz, Architects. A structural grid supporting a steel-framed slab will roof a system of nonbearing walls. The cylindrical cocktail bar should act as a spatial foil for the adjacent extraverted spaces, many of which enjoy vistas of the rolling golf course.

award citation. Recreation Center for Floating Islands, Inc., Leesburg, Florida: Paul Rudolph, Architect: Ebaugh & Goethe, Engineers; M. B. Foster, Landscape Architect. Designed to attract the motor tourist, the Center will provide entertainment in the form of water ballet, exhibition diving, swimming feats, and occasional drama. Construction will feature bent-plywood barrel vaults supported by regularly spaced wood bents.

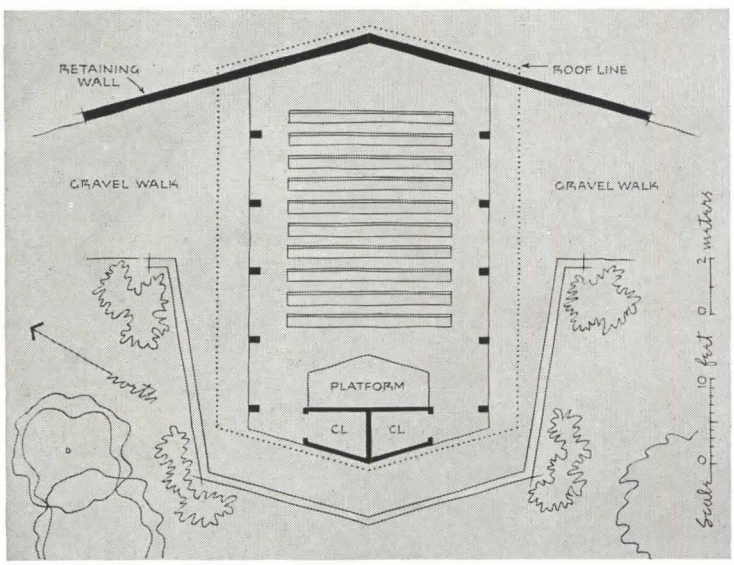




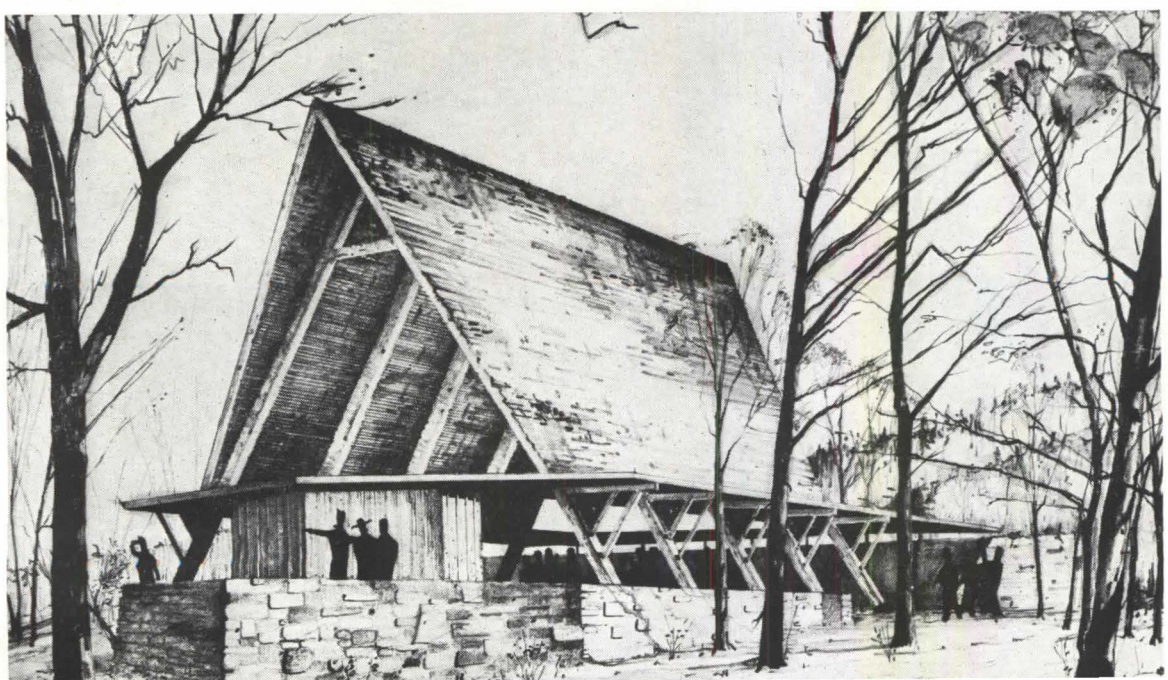
religion

The Jury felt that the religious structures premeated and shown here indicate that this building type—low in dollar-volume activity, but important as a measure of design maturity—is reaching a degree of gratifying honesty and quiet dignity, after a period of extravagant fumbling for contemporary expression. It was noted that more and more religious buildings are designed to serve not only as places of worship but also as centers for instruction and community social activity. Where this is the program, the design problem is the integration of two mass elements—the dominant church and the subordinate social and instruction elements. We see in the church a structure that functions primarily as symbol, within which prescribed ritualistic activities take place. Accommodating these activities is not often a difficult task for the architect, but handling the symbolism without producing banal clichés seems to be a rare achievement. Doing it in terms of structure—such as the integrated Cross in Anshen & Allen's Chapel of the Holy Cross—generally produces the most satisfying solution, but even this can and often does lead to ridiculous *tours de force*. Eric Smith's Boy Scout Chapel, being nondenominational, did not require special symbolism, but rather a feeling of reverence and rusticity (and resistance to the weather)—ends which were achieved by structural effects with virtually no added ornamentation. The Chapel of the Holy Cross was handled fundamentally the same way. However, these two churches are special cases, since their seasonal and regional uses make small demands upon them as shelters or as social centers. The building programs for the churches by Wong & Campbell, Mario Corbett, and Harold Spitznagel & Associates are more complex and, therefore, more typical. Here we see the nave in a dominant relationship with subordinate elements. The structure of the nave in each case is well expressed, and is also integrated with the subordinate structure.

award



design award. Nondenominational Chapel, Louis D. Beaumont Boy Scout Reservation, St. Louis Council, Boy Scouts of America, St. Louis, Missouri: Eric W. Smith, Jr., Architect. The structure of this chapel is immediately apparent. The Jury felt that the simple expression inspired a feeling of religious dignity, without becoming ornate or unnecessarily complex. Since it is a chapel for summer use only, it is not enclosed.



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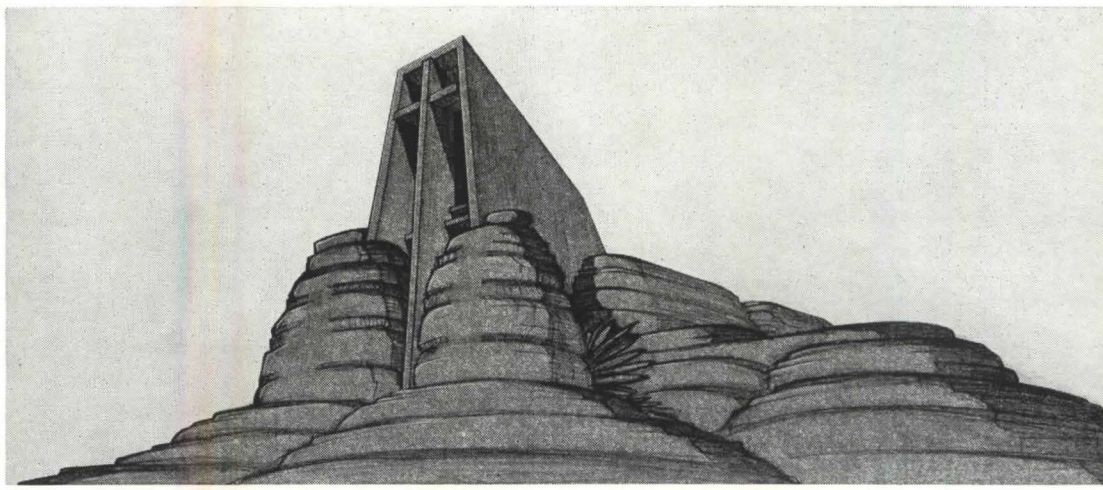
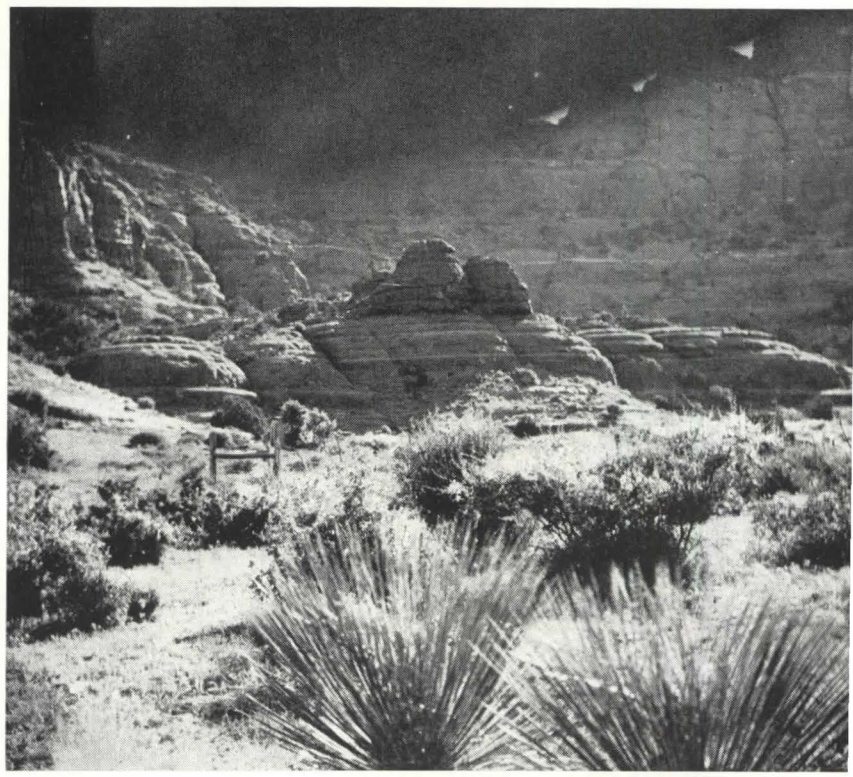
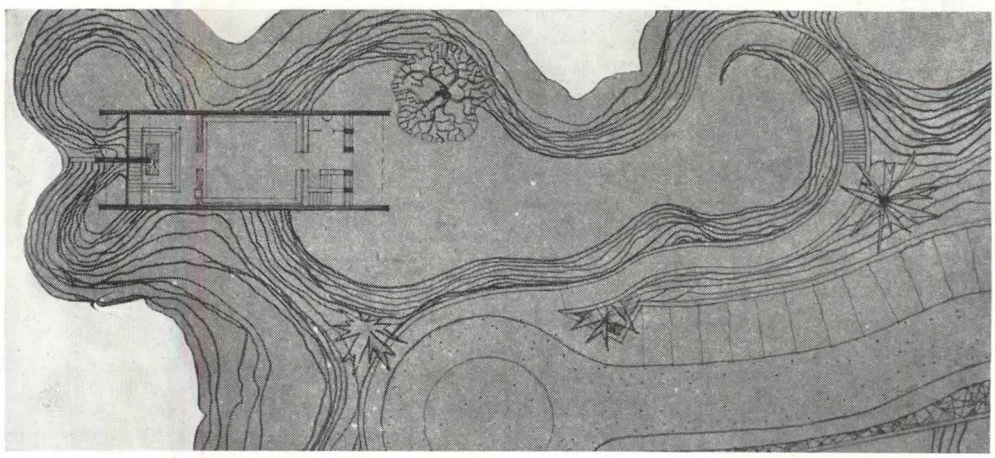
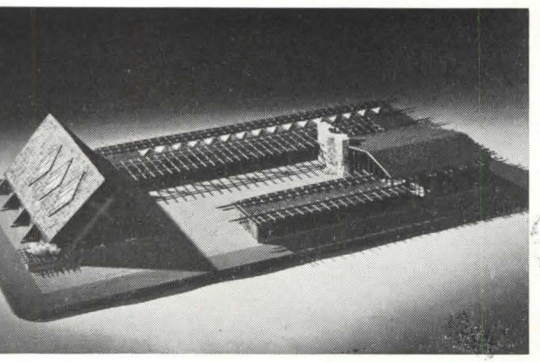


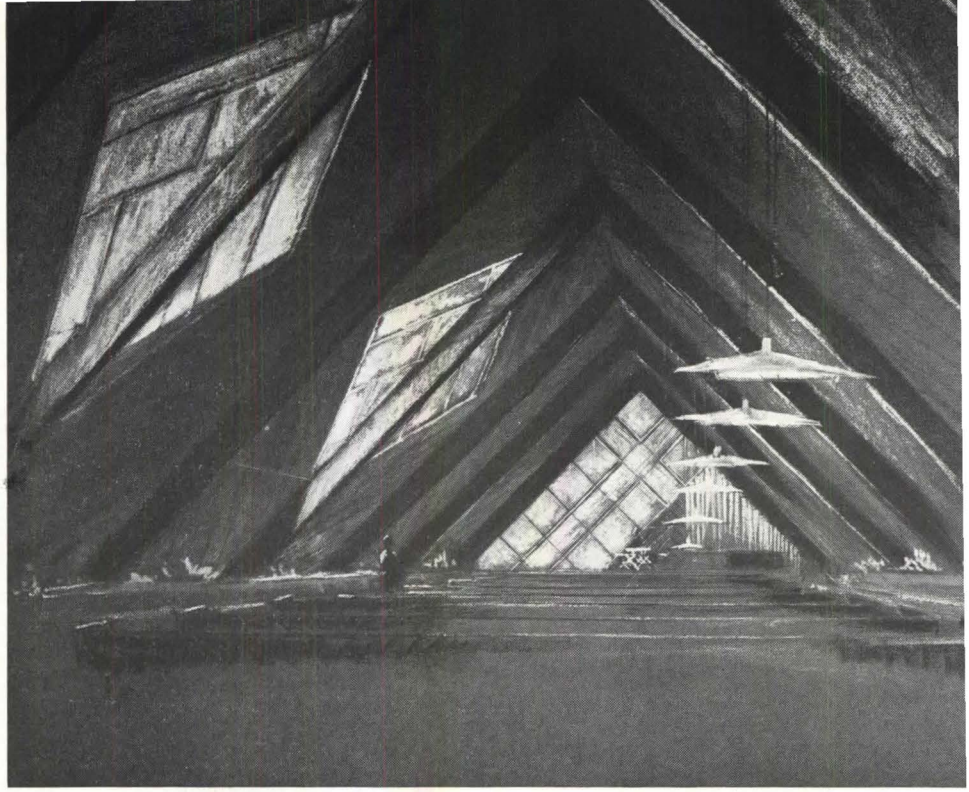
award citation. Chapel of the Holy Cross, Sedona, Arizona; Anshen & Allen, Architects; Robert D. Dewell, Consulting Engineer. Donated by Marguerite Staude in memory of her father and mother, this chapel is more "location" than "architecture," which is as it should be, according to the Jury. The problem here was one very similar to that at Burnam Hoyt's Red Rocks Amphitheater near Denver—using the minimum of construction to define and utilize a naturally beautiful rock outcropping. The bold, simple structure is left completely open. The symbolic cross, though conventional, is also an important structural element—handled in a visually exciting way.



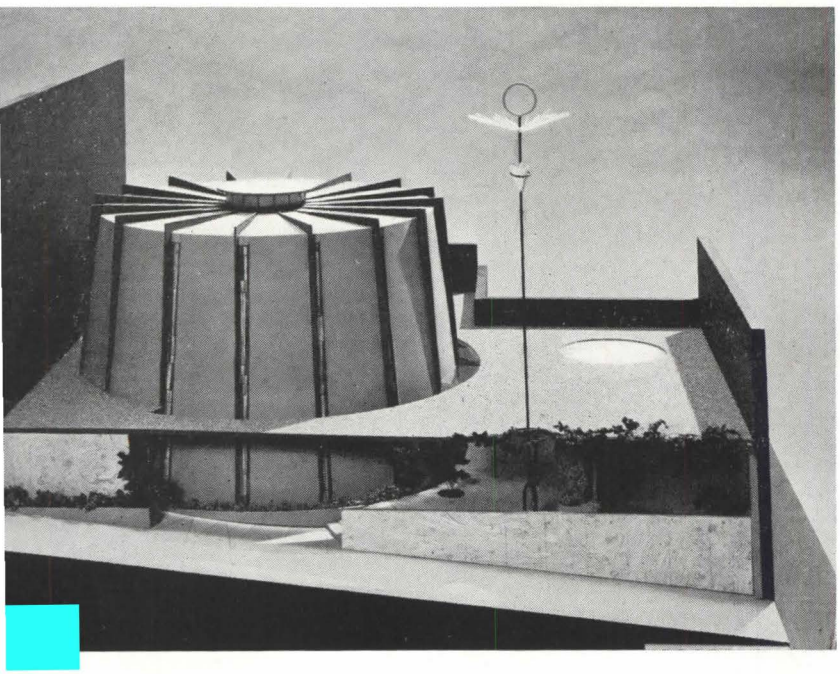


religion

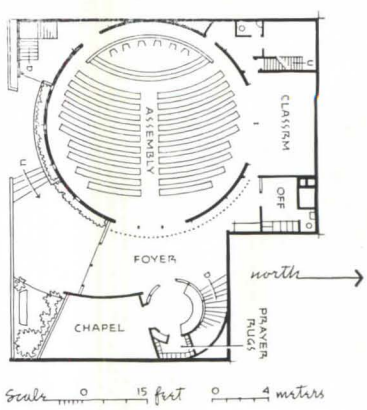


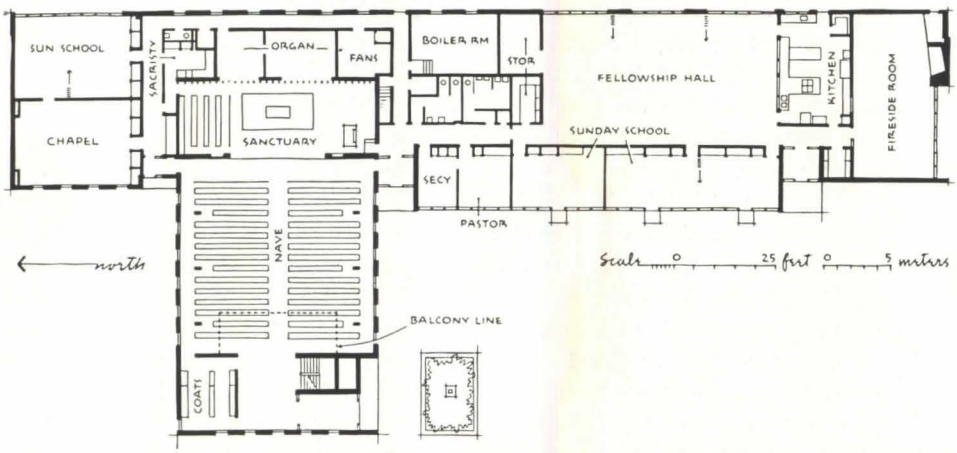


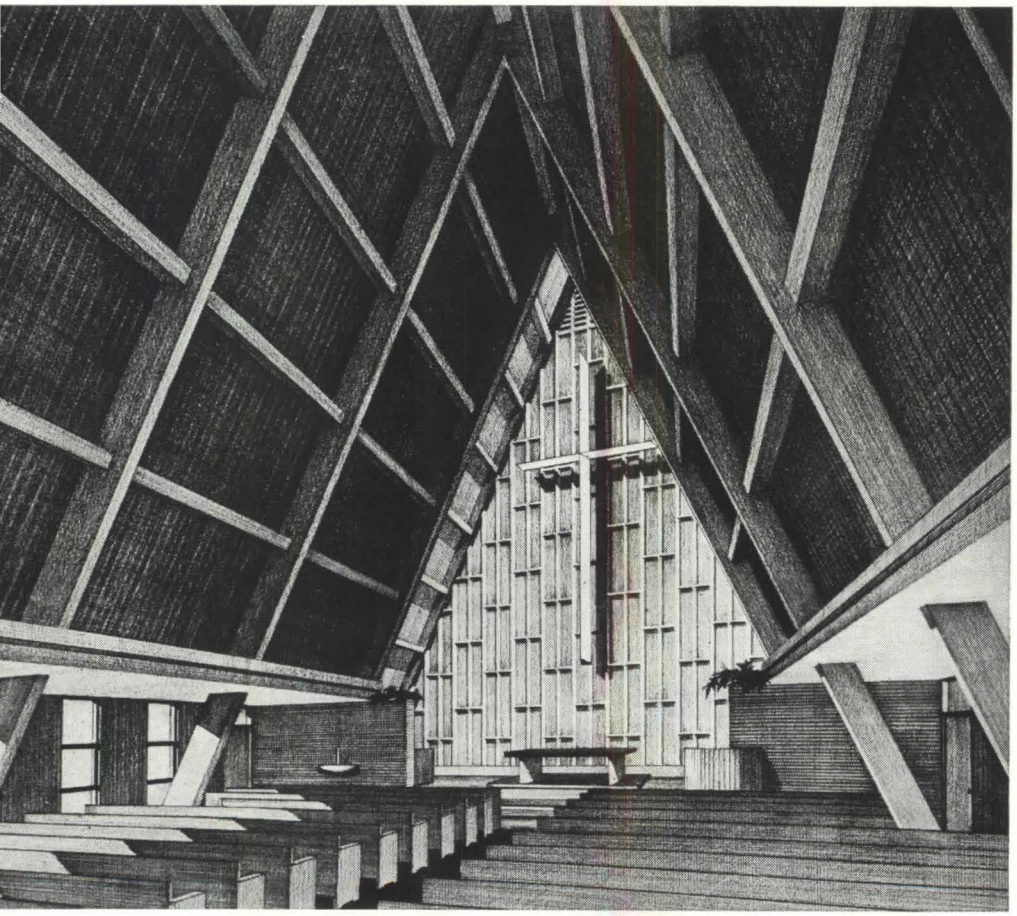
award citation. Hope Lutheran Church of San Francisco, California: Mario Corbett, Architect; Mac D. Perkins, Structural Engineer. The nave, at one end of the site, is connected to the social hall, at the other end, by a wing of classrooms. Planning around an open court permits social functions to be held both inside and out; the masonry fireplace serves both areas. The interior of the nave is lighted on one side by large glass areas and on the other by hanging artificial lights. The asymmetry of the leaning cross is reflected in the design of the altar.



award citation. Buddha's Universal Church, San Francisco, California: Worley K. Wong, Architect, and John Carden Campbell; Eckbo, Royston & Williams, Landscape Architects; Raymond Rice, Painter-Sculptor; Milford Greer, Glass Designer. Rigid-steel bents and brick walls make up the hull of the auditorium, which can be opened to accommodate overflow crowds. In addition, there is a classroom on the main floor and also classrooms, a library, a social lounge, and dining facilities on the lower floor.







award citation. First Congregational Church, Spencer, Iowa: Harold Spitznagel & Associates, Architects; W. S. Steele, Chief of Design; James H. Walsh, Associate Architect; Bolt, Beranek & Newman, Acoustics Consultants; Spencer Construction Company, General Contractor. A forceful structure and mass, combined with clean detailing, made this project pleasing to the Jury.

residential design

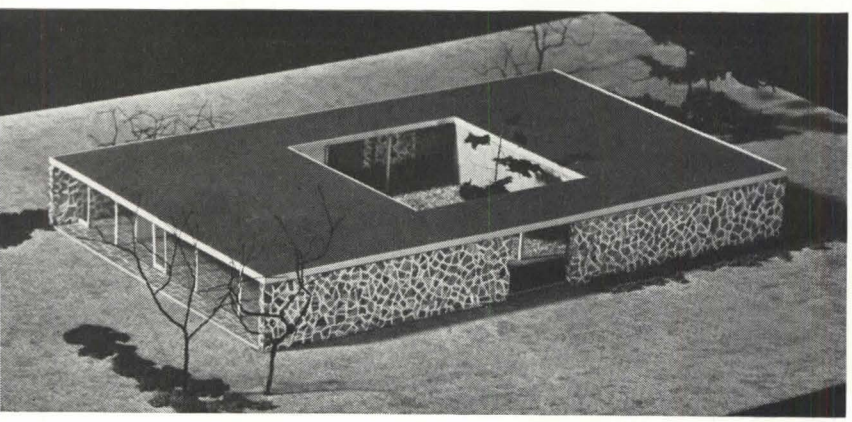
More entries were received in this category than in any other, so the Editors of P/A broke it into three divisions: Custom-Designed Houses; Builder Houses; and Apartments.

In the first of these divisions appeared some of the most stimulating structural designs of the entire competition, ranging from the extreme simplicity of Eliot Noyes' house to the imaginative structure by George Kosmak which capitalizes on the slope of the hill to get a dramatic form. The Jury showed no particular concern or sympathy for one "style" or school of architectural belief over another. In every case, Citations were given only if the designs seemed to be good solutions to the programs, whether simple or complex, whether severe, picturesque, or organic. The result was an even balance of contemporary idioms, indicating the Jury's belief that it isn't the school of thought that the architect supports that matters; but whether the architect is a good one.

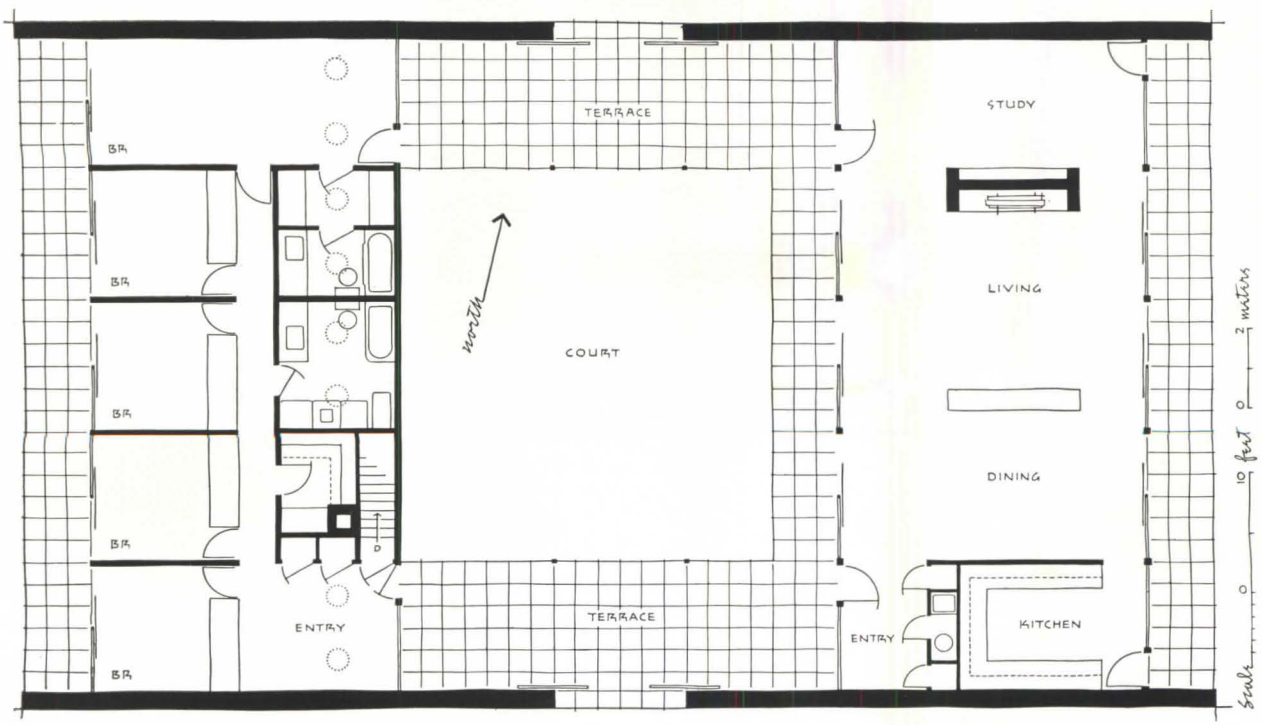
The nature of builder housing is such that strict limitations are unavoidable. Planning must be for the "average man" and his family; construction must be generally the same for all houses; and costs must be kept at a uniform minimum. Thus, although not impossible (as these designs prove), it is indeed difficult to make builder housing pay and yet make it first-rate architecture. Realizing these problems, the Jury was unanimous in giving Bassetti & Morse, Edward Fickett, and William Sayre the Award Citations.

Bertrand Goldberg's Northree-A Apartment House was applauded loudly by the Jury for its daringly open planning. The apartment house by Samuel Glaser & Associates and Hugh Stubbins was a welcome change from the corridor solution of apartment houses. A. L. Aydelott's apartment building was considered a refinement of the fireproofed-steel structure, and also interested the Jury in its relationship to the garage and office building.

award



design award. House, New Canaan, Connecticut: Eliot Noyes, Architect; Richard Kelly, Lighting Consultant. Its extreme simplicity and refinement both in plan and in structure, plus the adroit handling of the open court in the middle of the house, make this architect's home distinguished among the many fine houses submitted this year.



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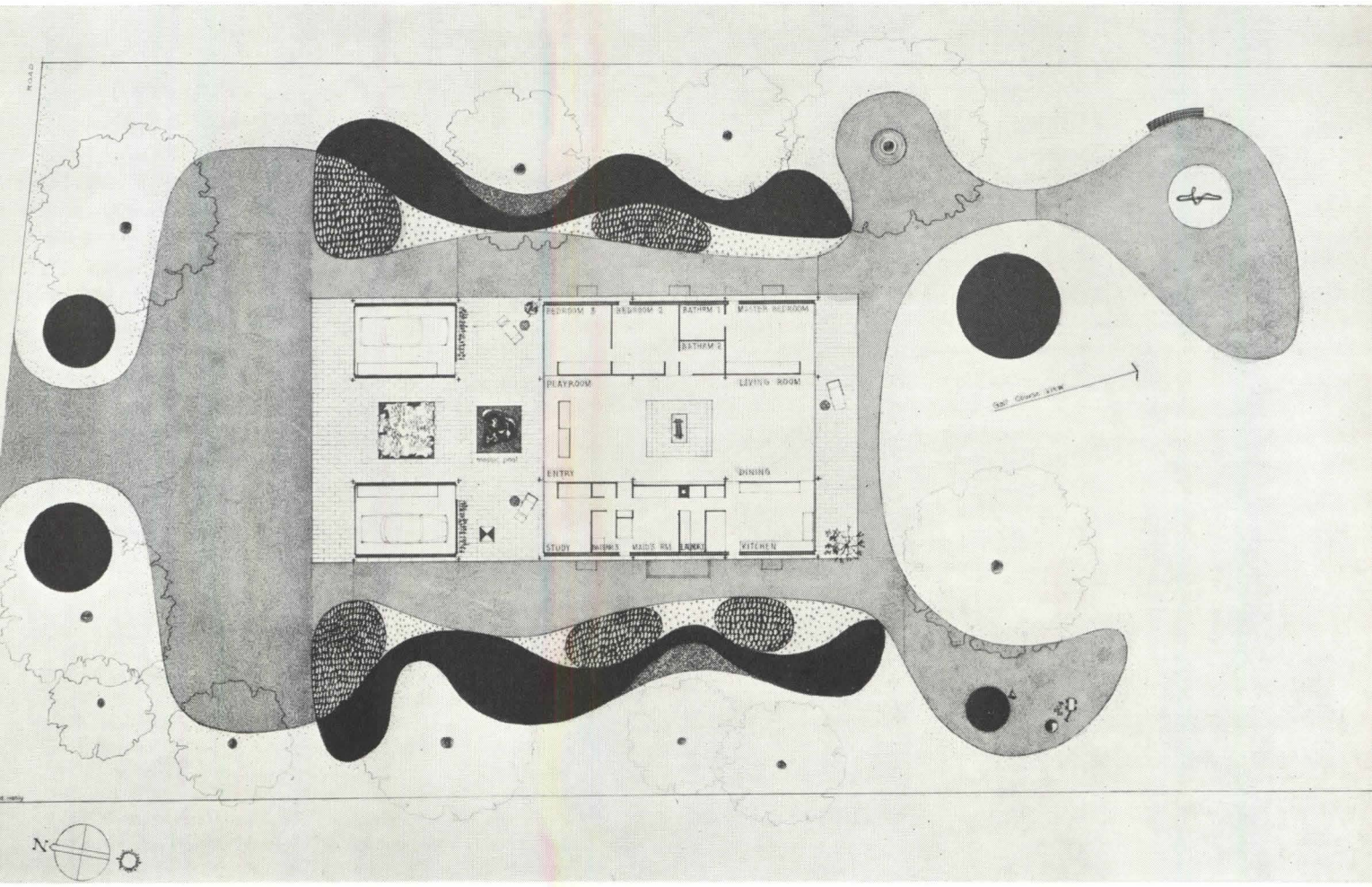
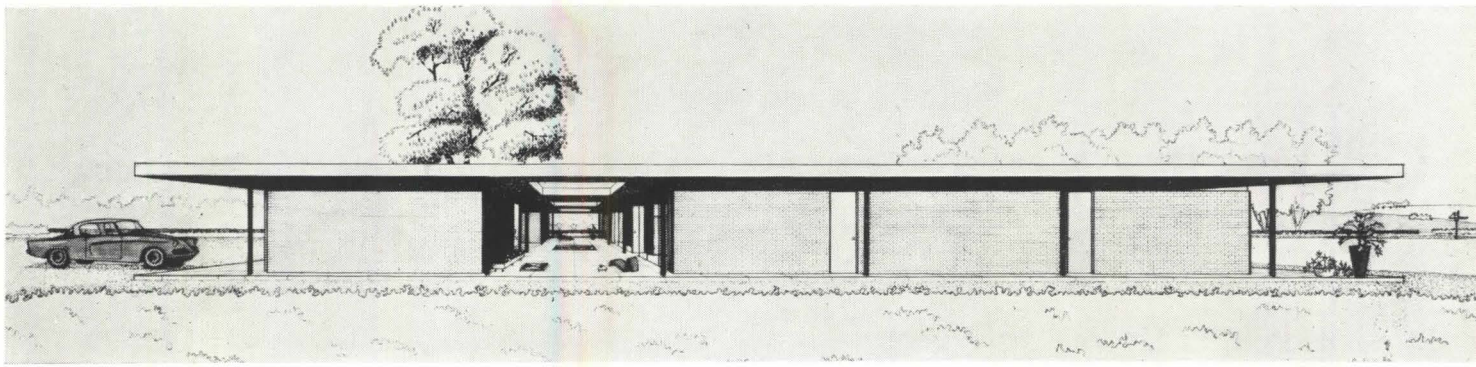
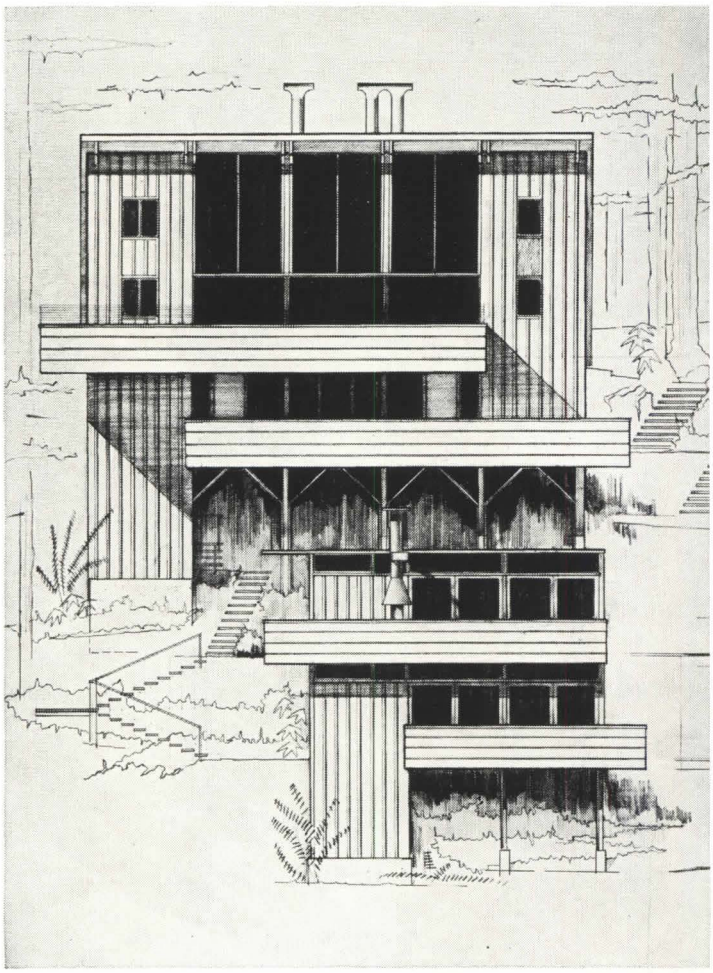


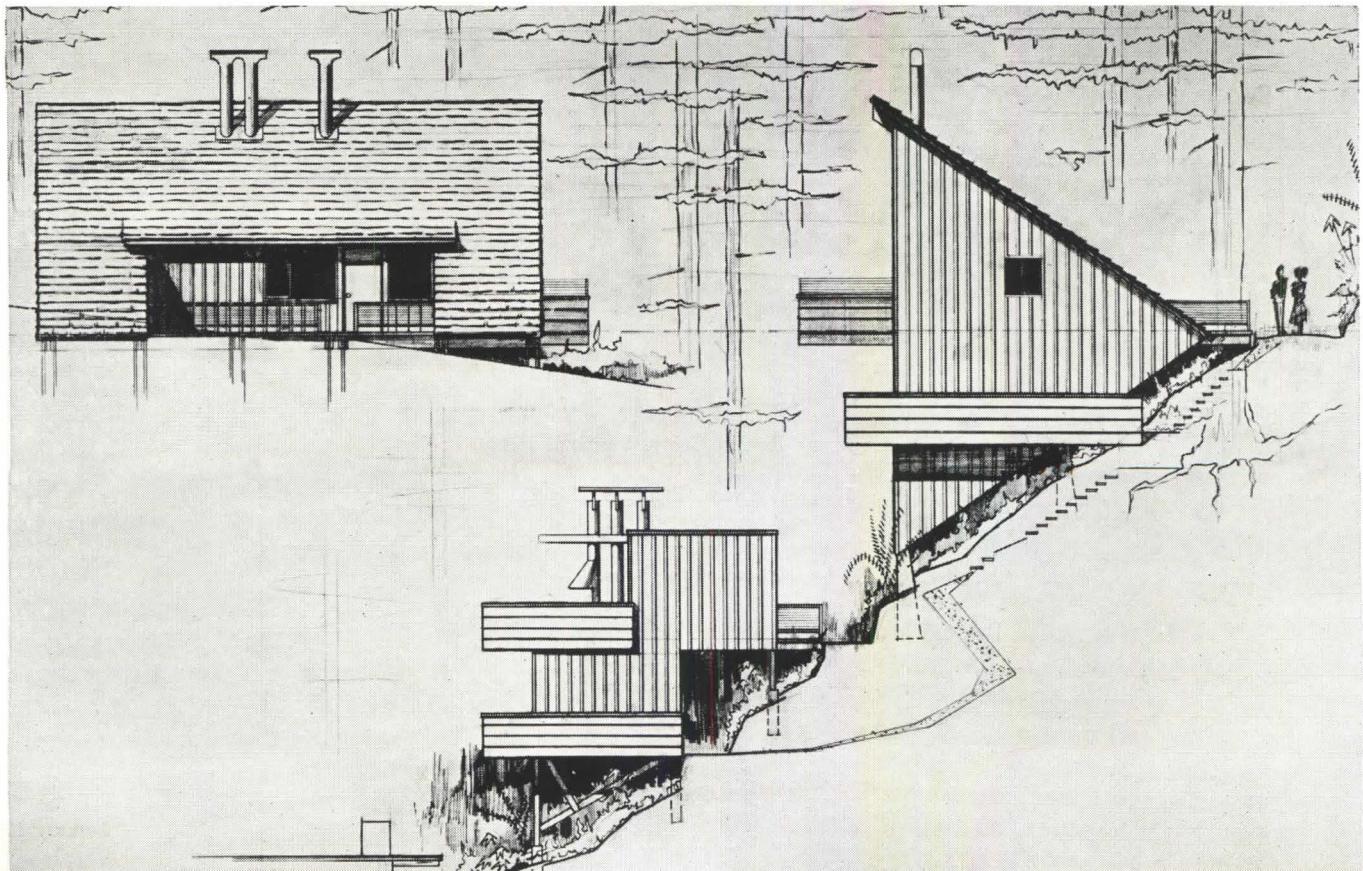


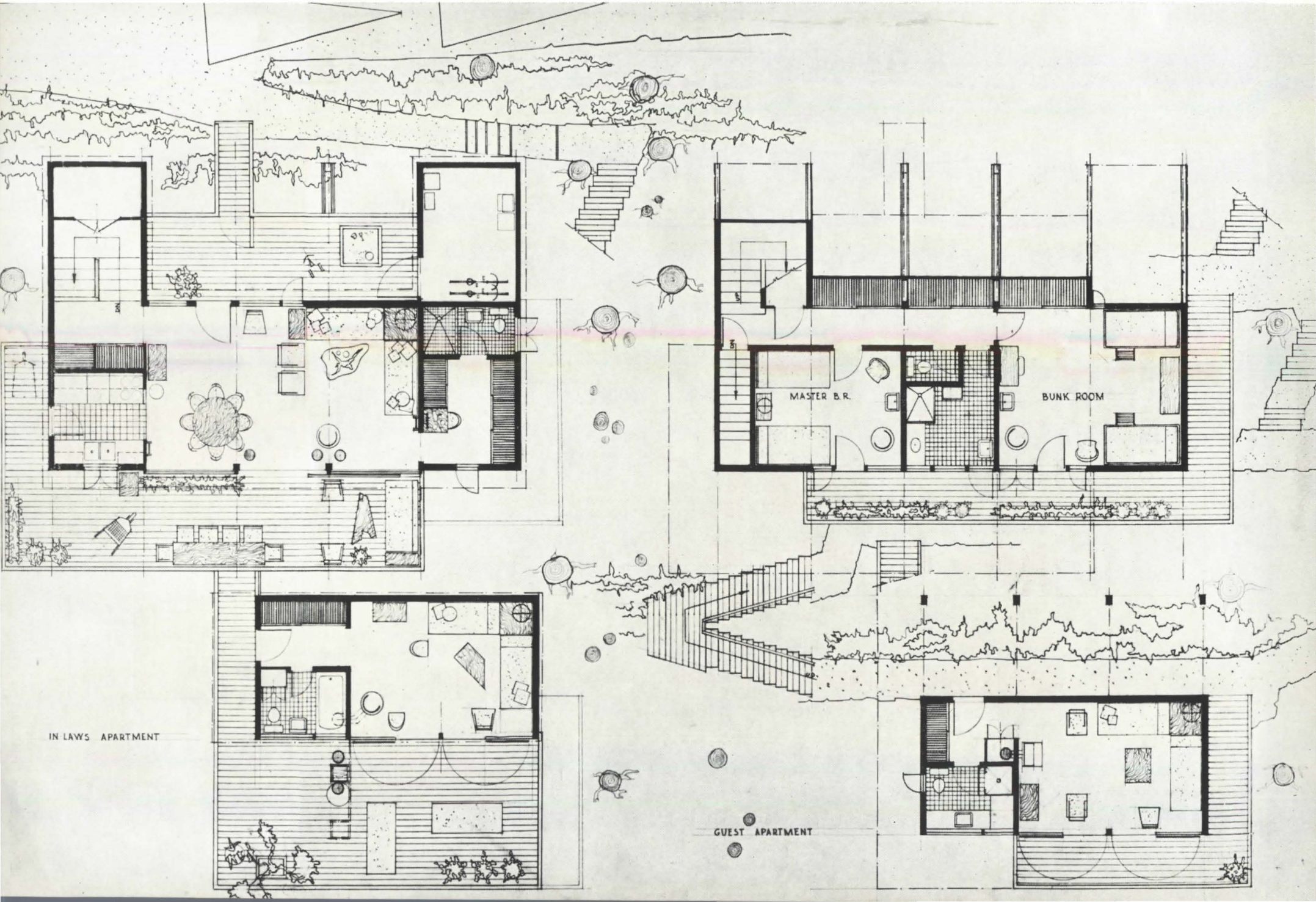
award citation. House, Scarsdale, New York: Abraham W. Geller, Architect; Ronald Geary, Desmond Henly, Project Staff; Peter Bruder, Consulting Engineer. Max Spivak, Mosaicist; José de Rivera, Sculptor. Similar in concept to the Noyes house *(acrosspage)*, this is essentially a slab supported by free steel columns. Nonbearing walls and partitions define the plan of the house. (*See also* INTERIOR DESIGN DATA.)



award

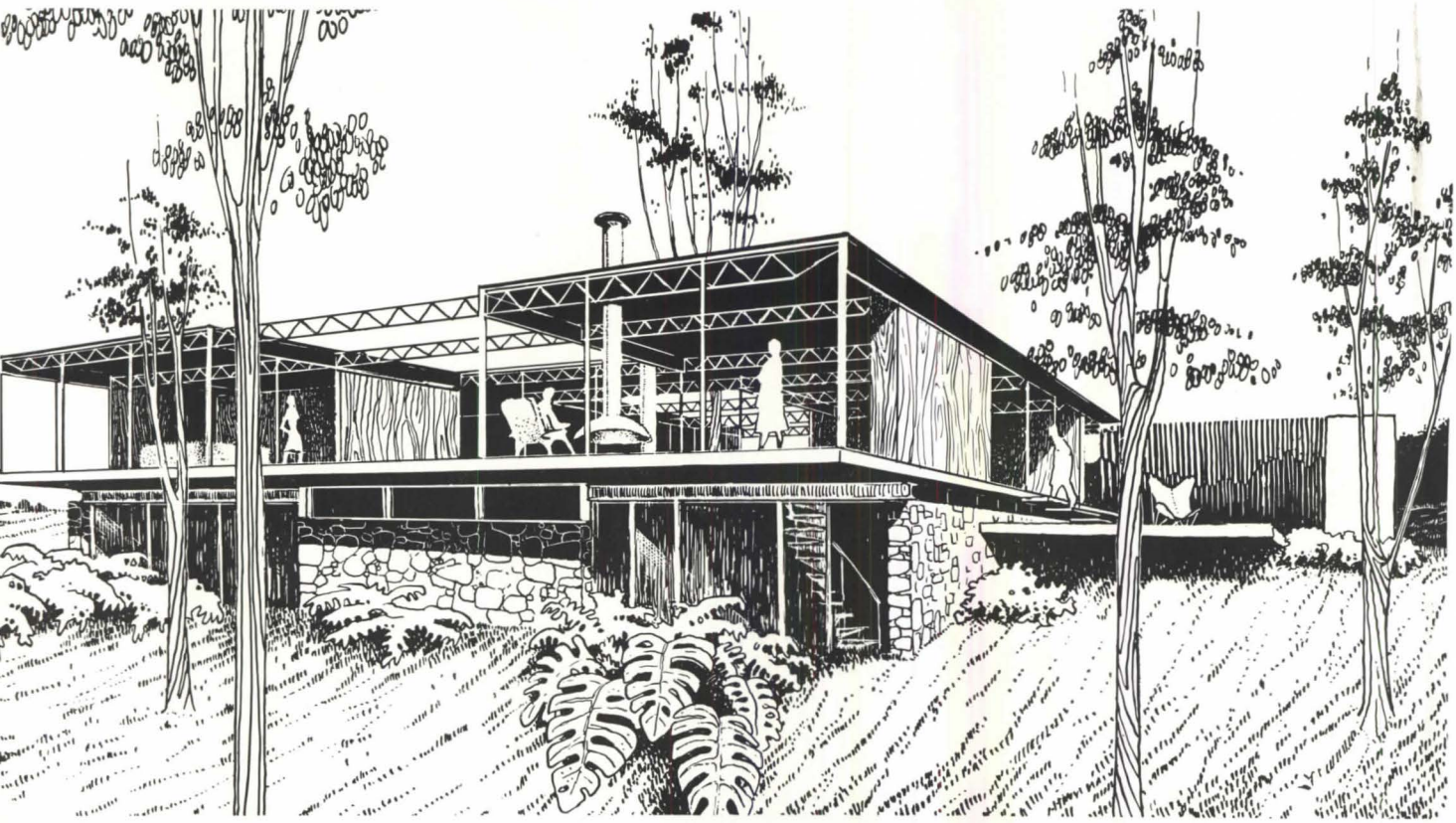
design award. Vacation House, Russian River, California: George Kosmak, Designer; Evelyn Gilcrest, Associate Architect; John E. Brown, Civil Engineer. While the Noyes house won its Design Award on the basis of well-handled simplicity and straightforwardness, the Jury wanted this house to get a special Design Award as a vacation place, because of its gaiety and exuberance. The way it staggers down the hill appealed, and the idea of separate in-laws' and guests' accommodations at lower levels seemed most sensible.

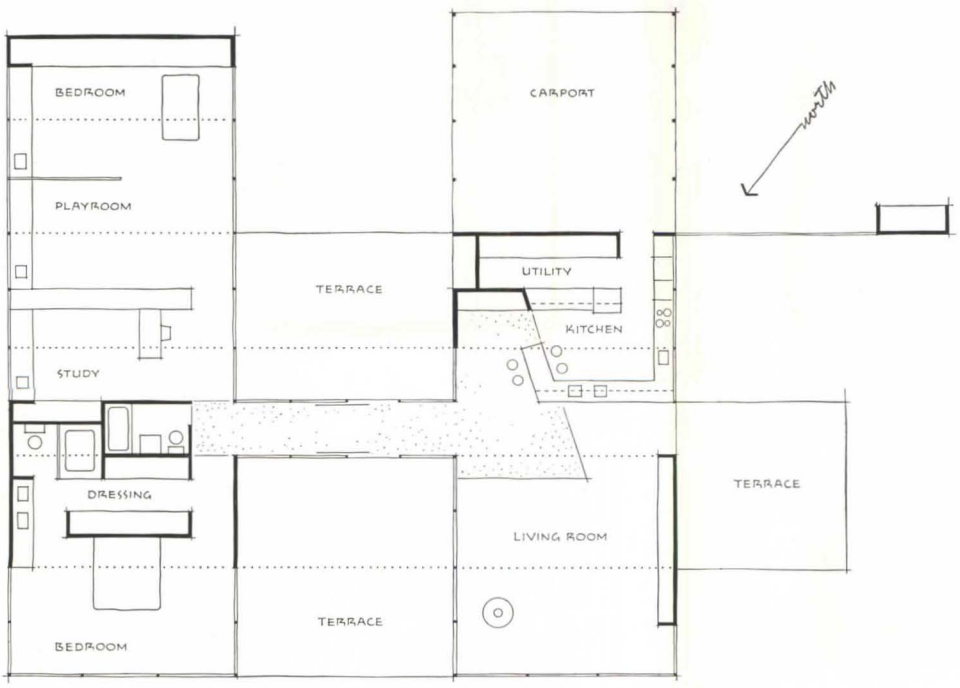


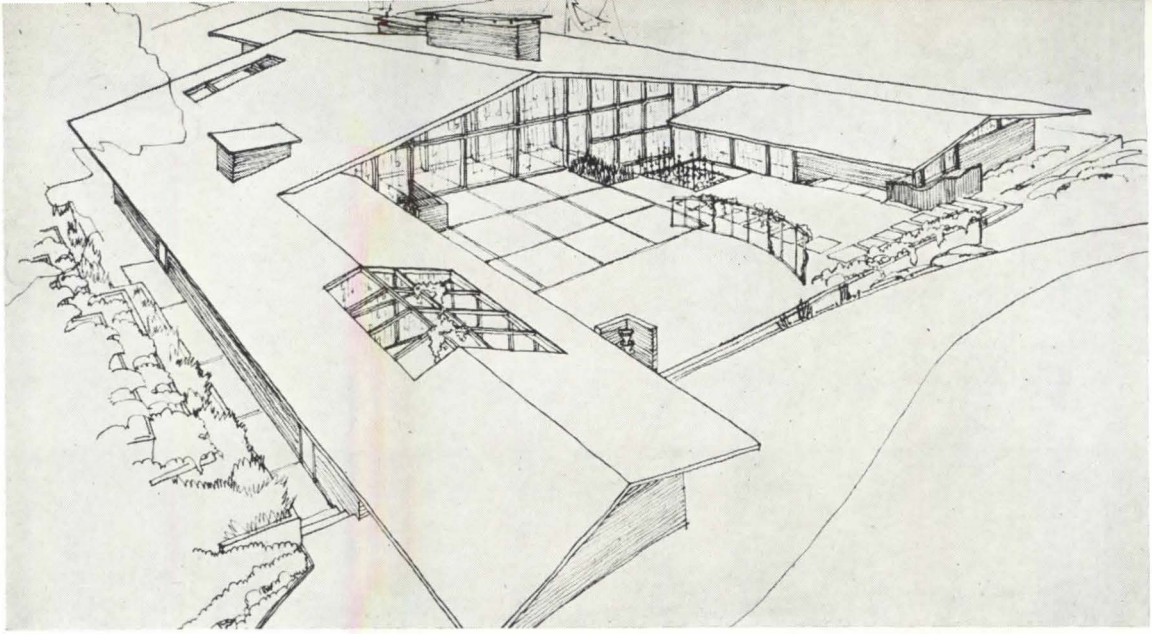

MASTER B.R.
BUNK ROOM
IN LAWS APARTMENT
GUEST APARTMENT

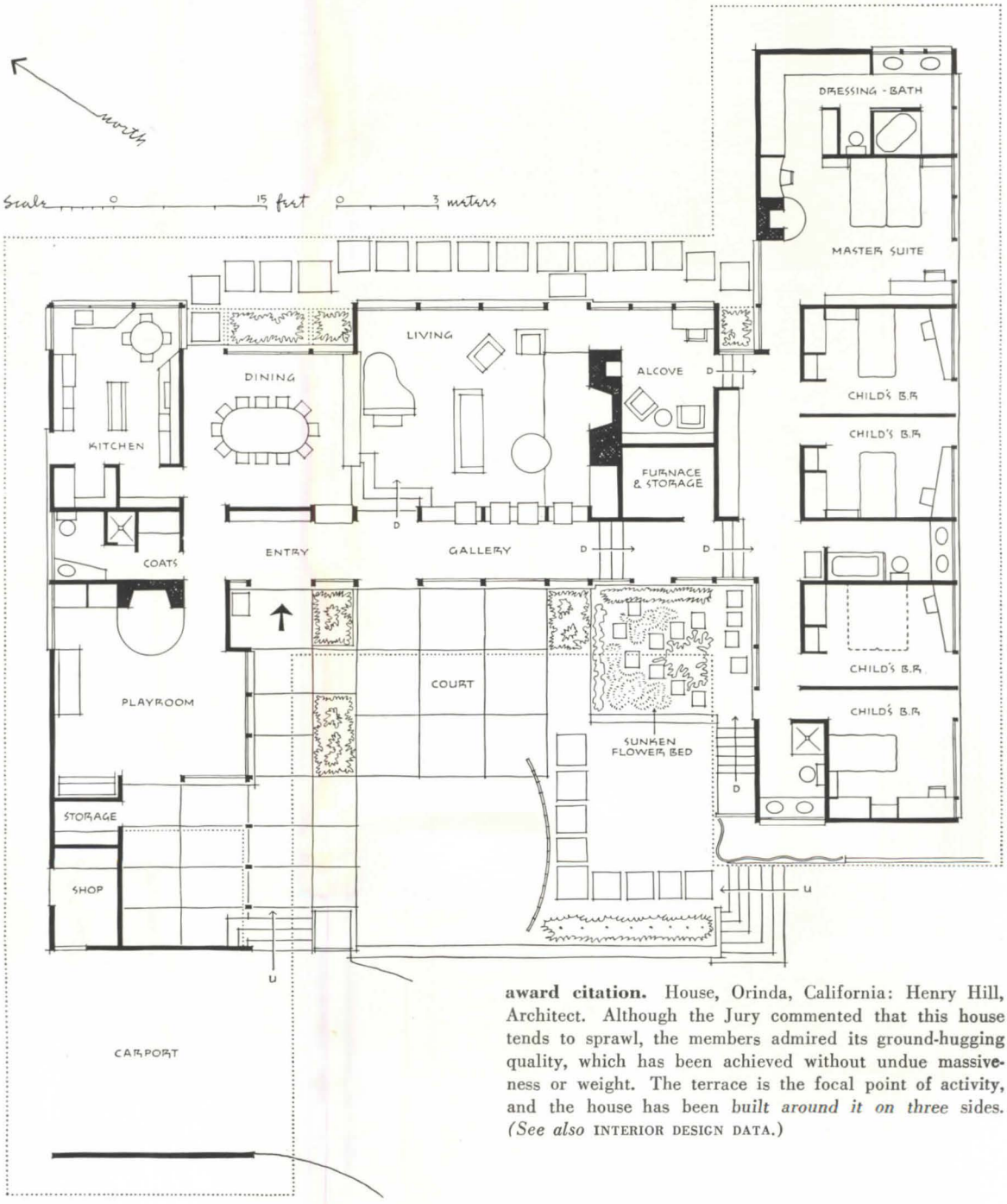
citations

award citation. House, Philadelphia, Pennsylvania: Lewis Davis & Associates, Architects. The daring use of steel-bar joists was both liked and suspected by the Jurors, who thought it an excellent idea but also had doubts about the economy of maintaining them in the humid Philadelphia climate.

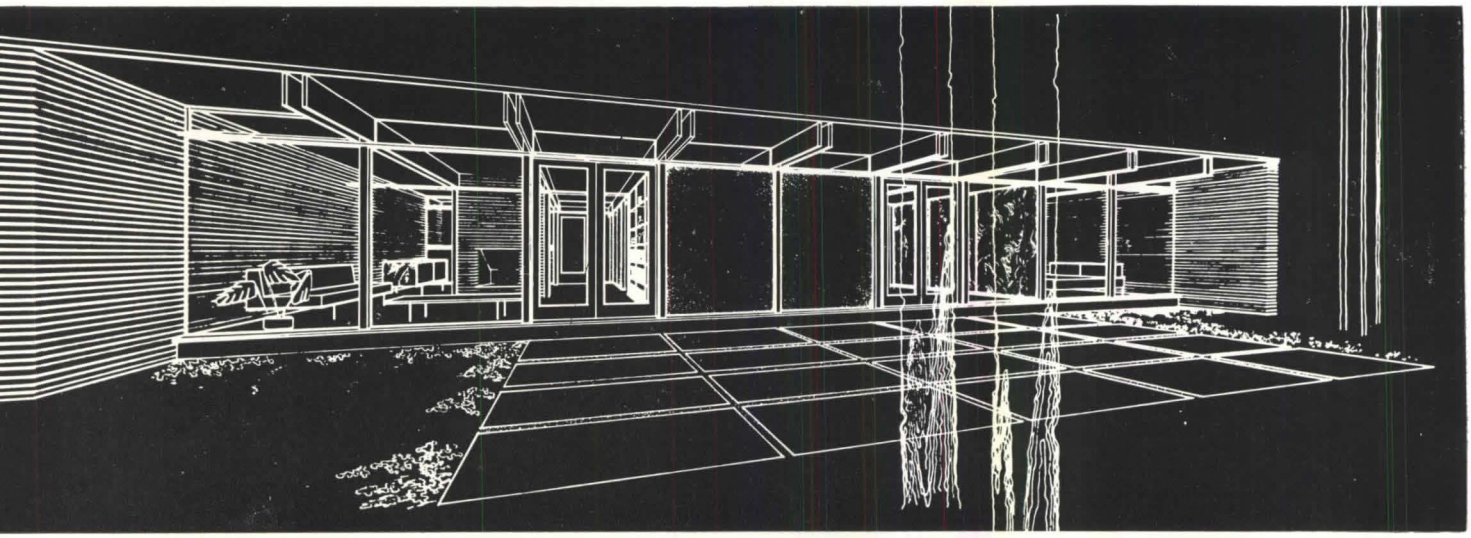


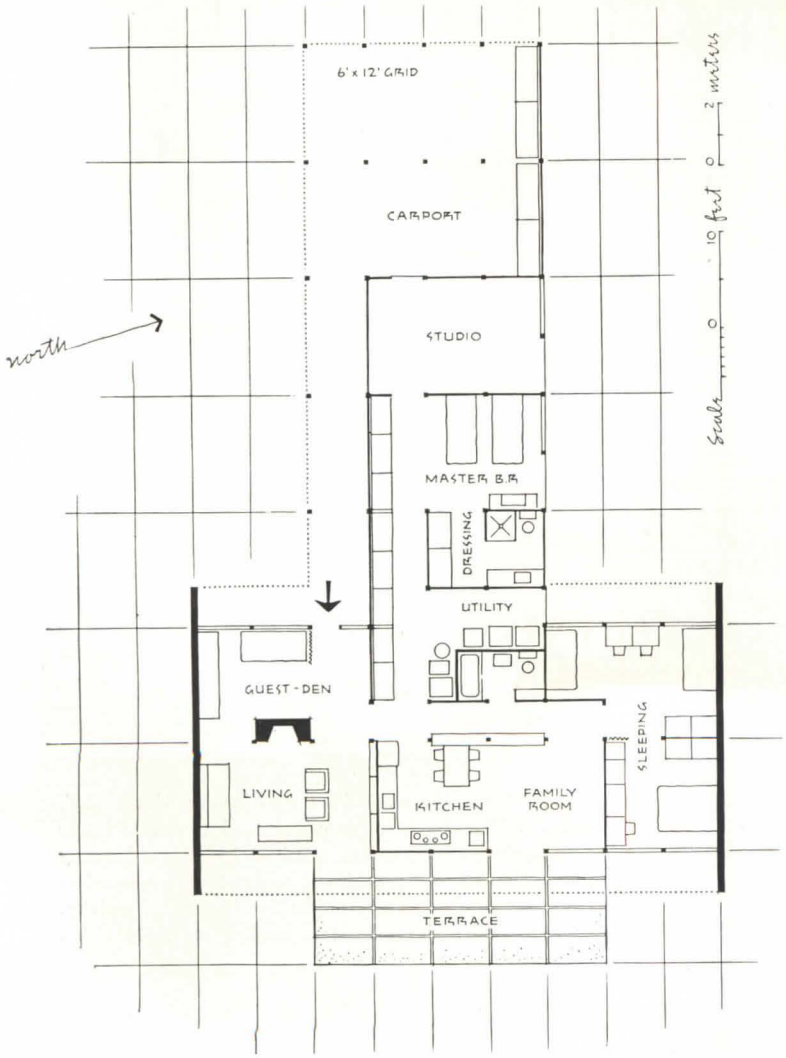




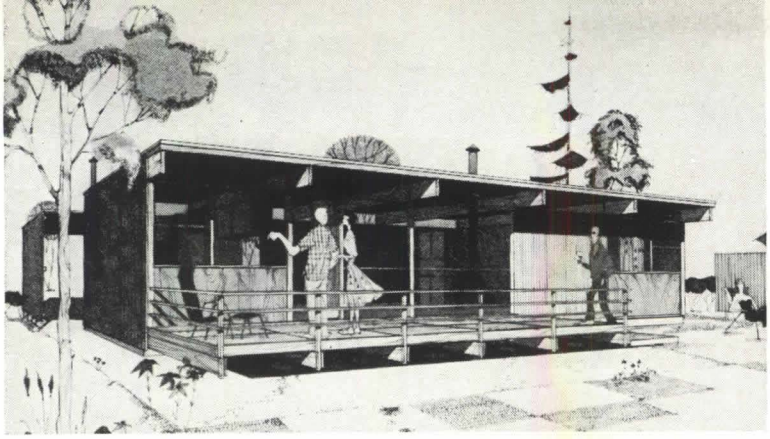


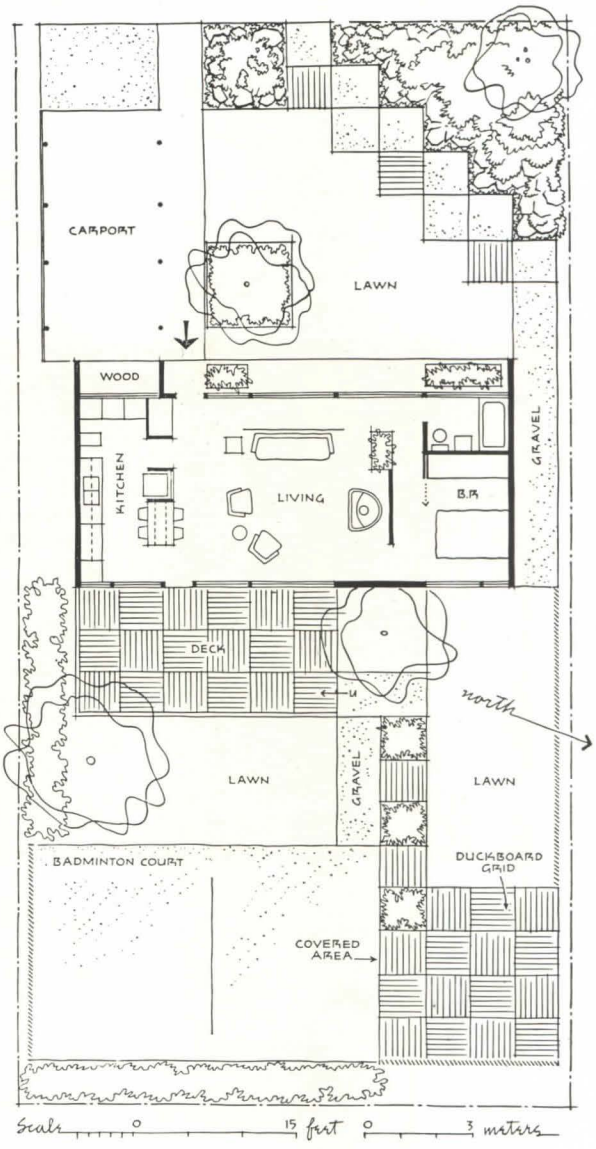
award citation. House, Orinda, California: Henry Hill, Architect. Although the Jury commented that this house tends to sprawl, the members admired its ground-hugging quality, which has been achieved without undue massiveness or weight. The terrace is the focal point of activity, and the house has been *built around it on three* sides. *(See also* INTERIOR DESIGN DATA.)



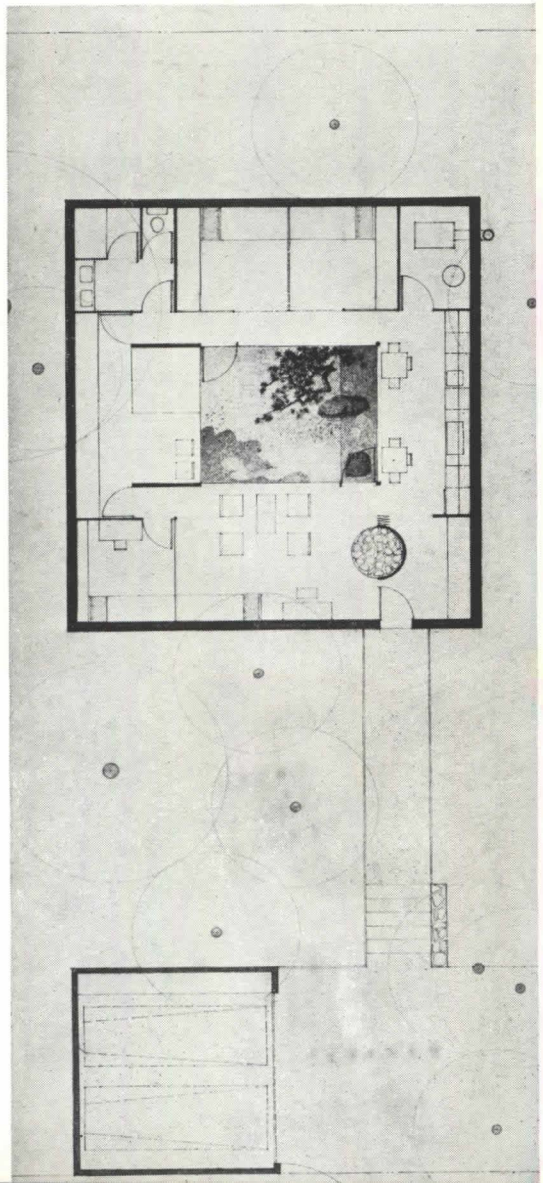


award citation. House, Willoughby, Ohio: F. S. Toguchi, Architect; William Behnke, Landscape Architect. The client wanted an informal house with a minimum of partitions and corridors and with simplicity of construction to permit him to do the major part of the work. The plan was laid out on a 6′ x 12′ grid which allows the use of systematic and continuous post-and-joist framing.

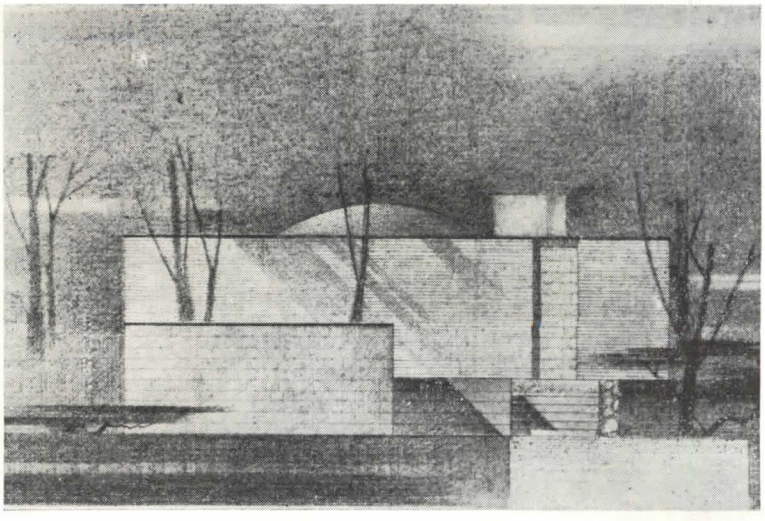




award citation. House, Weed, California: Arnold C. Gangnes, Architect; Robert C. Detrich, Mechanical Engineer. Designed for a couple, this project is a study in plot planning as well as in use of materials. Every inch of the small lot has been utilized to give a maximum of comfortable indoor and outdoor living. The house, despite its small size, presents an interesting structure and a quite open plan. Privacy has been provided for at the edges of the lot, leaving the interior of the house unusually free from enclosing walls and partitions.

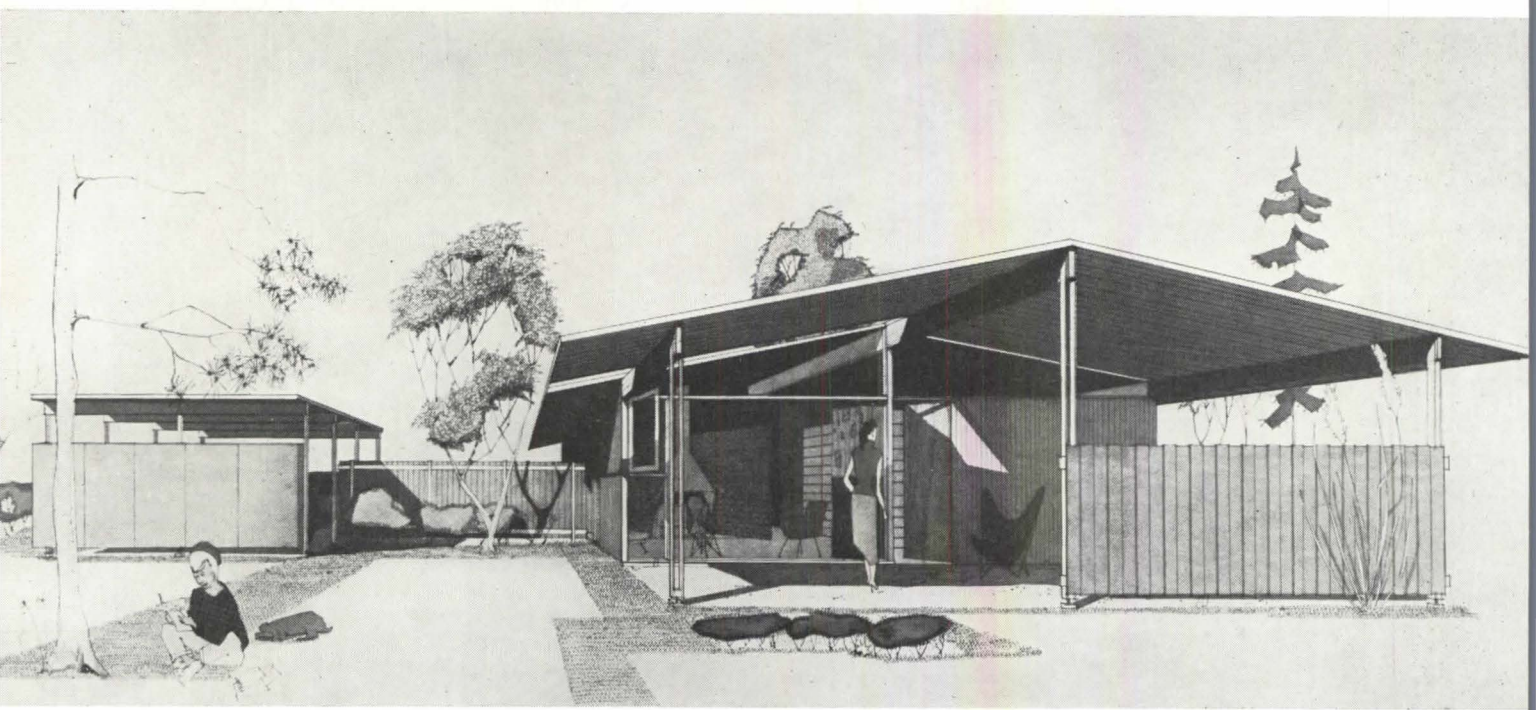


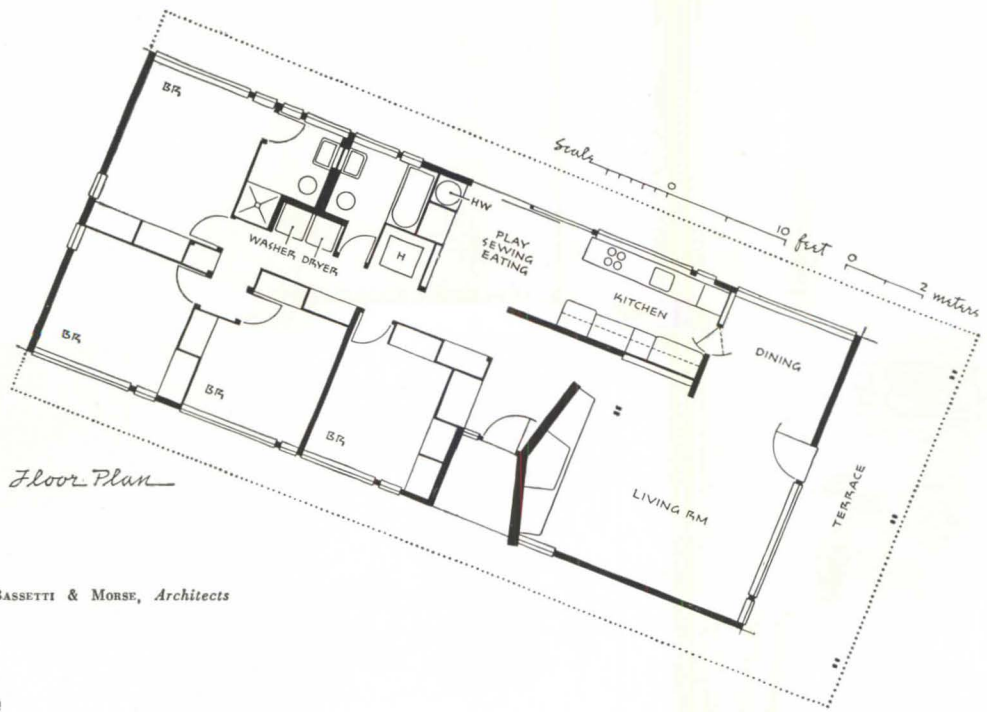
award citation. House, Glen Ellyn, Illinois: Schweikher & Elting, Architects. Designed to be built for approximately $25,000, this house will protect the client from having to view the environment, which is his wish. The dome over the garden is of copper screen supported by a dowel tetrahedron. Brick is used as a veneer.



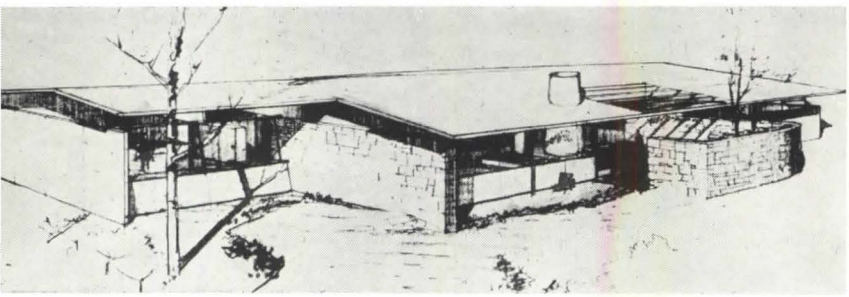
citations

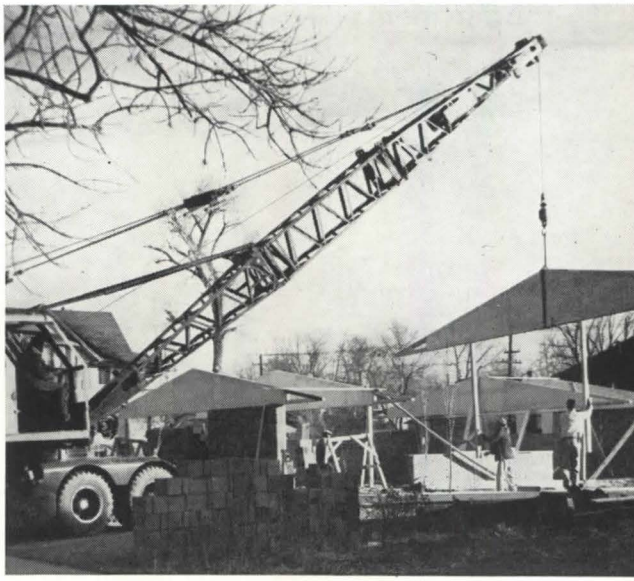
award citation. Builder House, Seattle, Washington; Bassetti & Morse, Architects; Radcliffe & Brightbill, Structural Engineers; Richard M. Stern, Mechanical Engineer. To find any kind of new house with 1500 sq ft selling for $12,950 would be newsworthy, but to find it designed like this one approaches the miraculous. The Jury felt that this house was far above the present standard of builder houses in design, planning, and use of materials; indeed, above most custom-built houses around the country.

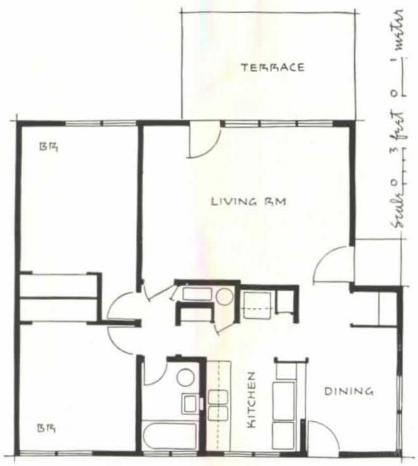




award citation. *Builder House* for Ib Falk Jorgensen, Denver, Colorado: William Berger Sayre, Architect; Ib Falk Jorgensen, Structural Engineer; Robrt L. Whittlesey, Heating Consultant; Julia Jane Silverstein, Landscape Architect. The Jury was pleased to see the problem of reducing building costs being met here in such a sensible manner. Prefabricated roof trusses will result in economy, add strength, and will not put any undue limitation on the design of the house.

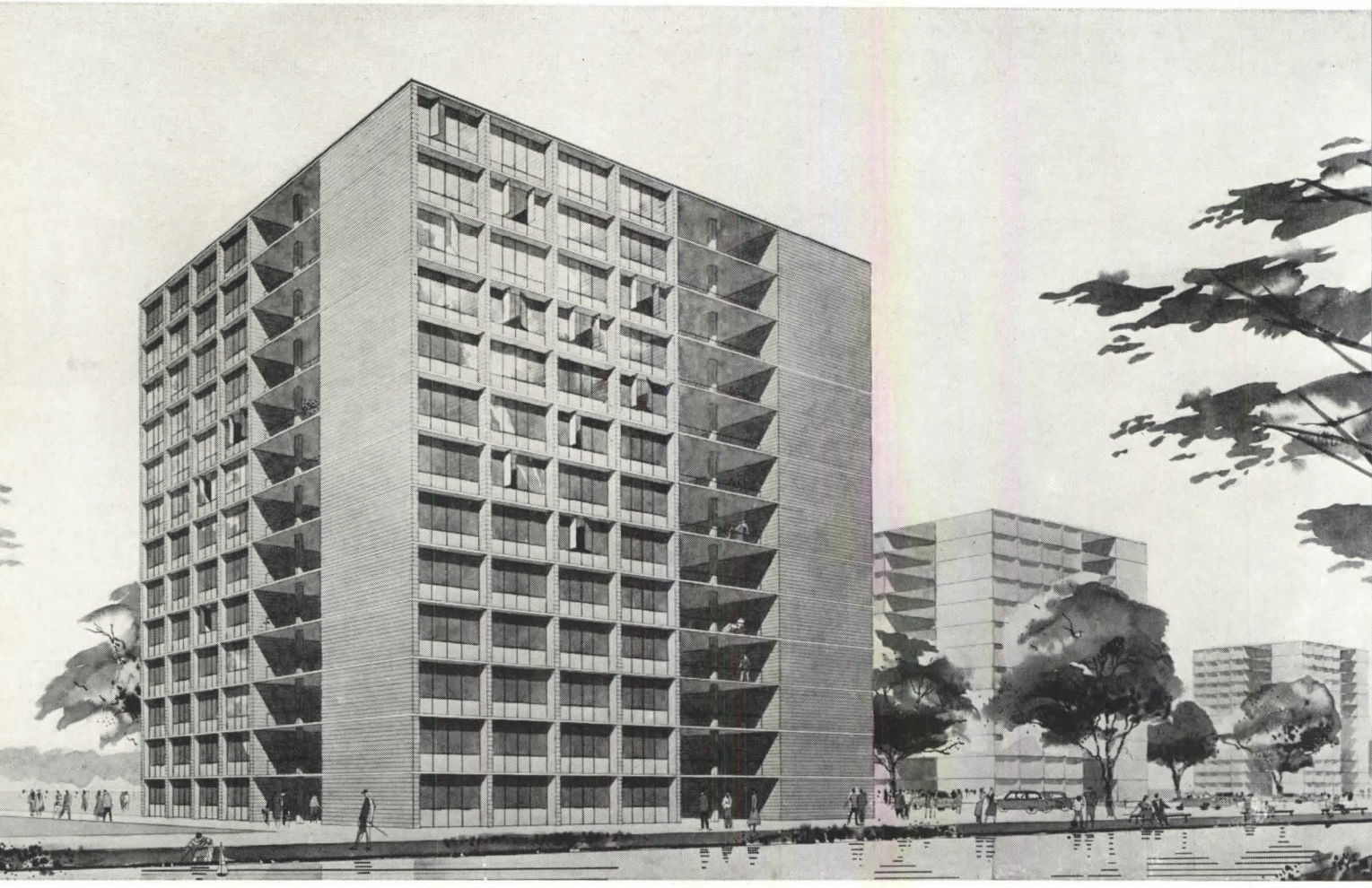


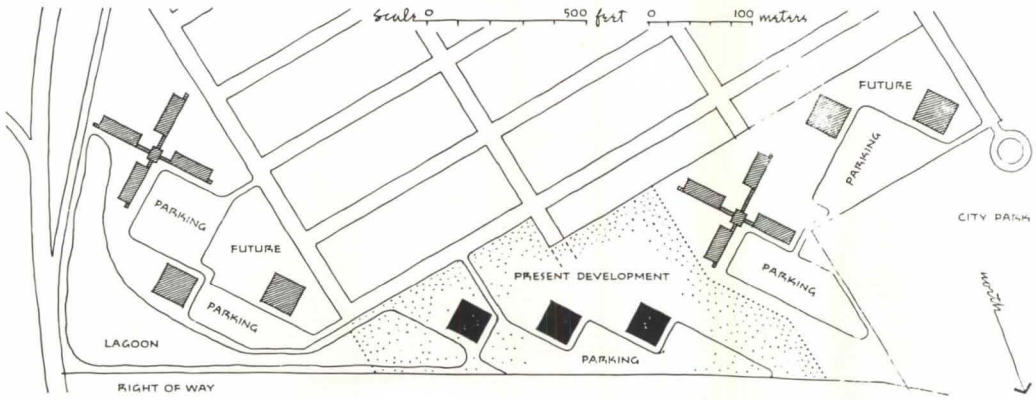




award citation. Builder Houses for Araco, Incorporated, Northridge, California: Edward H. Fickett, Architect. Even with the same general plan and the same construction methods, builder houses can be made interesting with good plot planning. Each one of these houses has its own character and feeling, which is achieved not by nailing on different façades but by careful manipulation of units and materials.

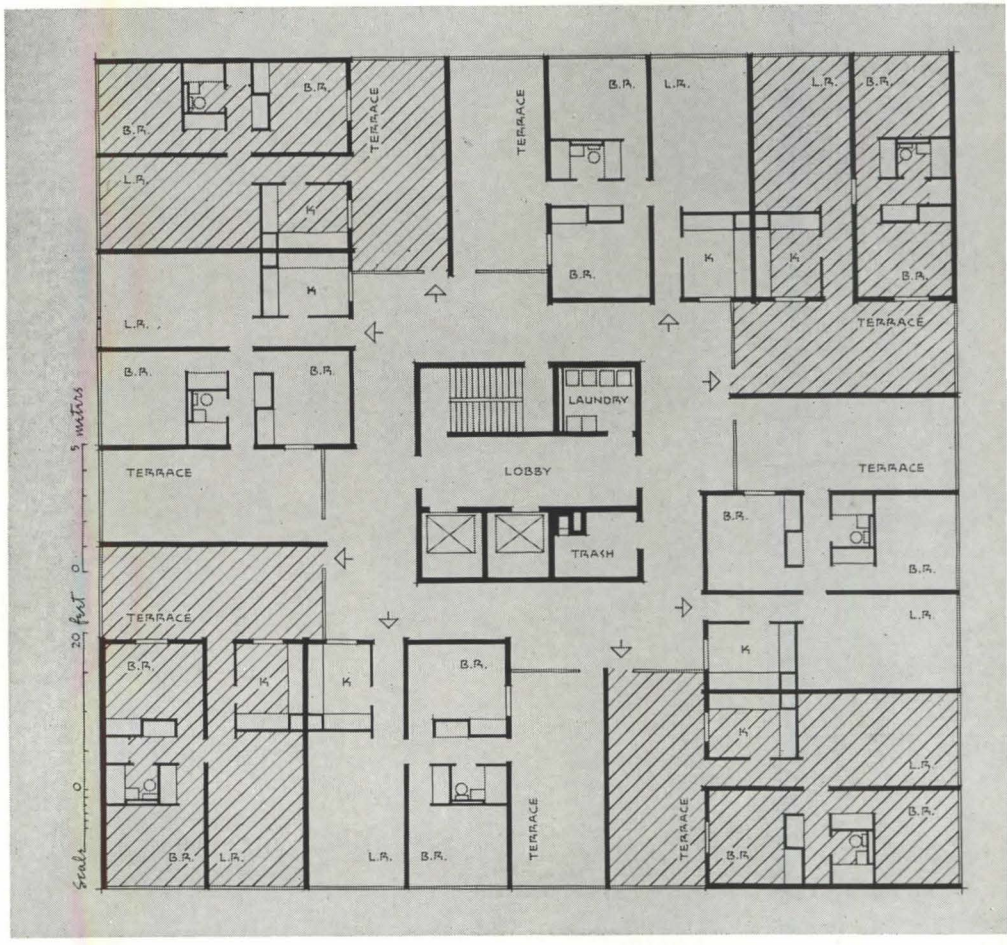
award

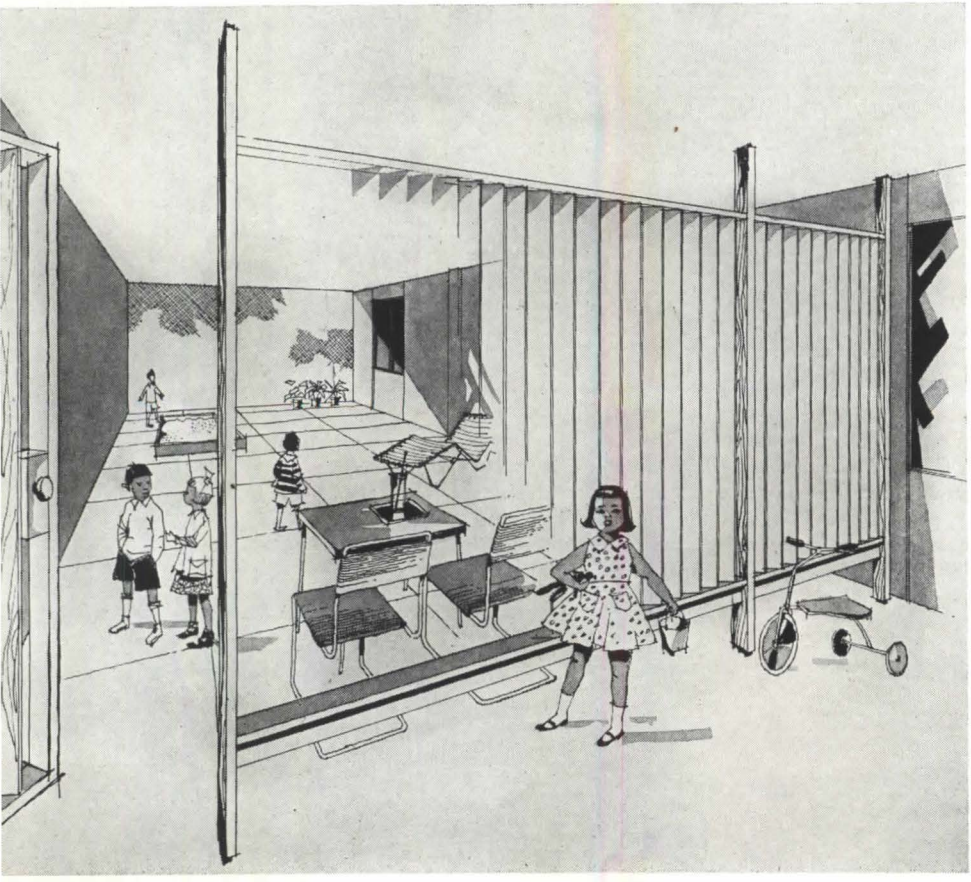




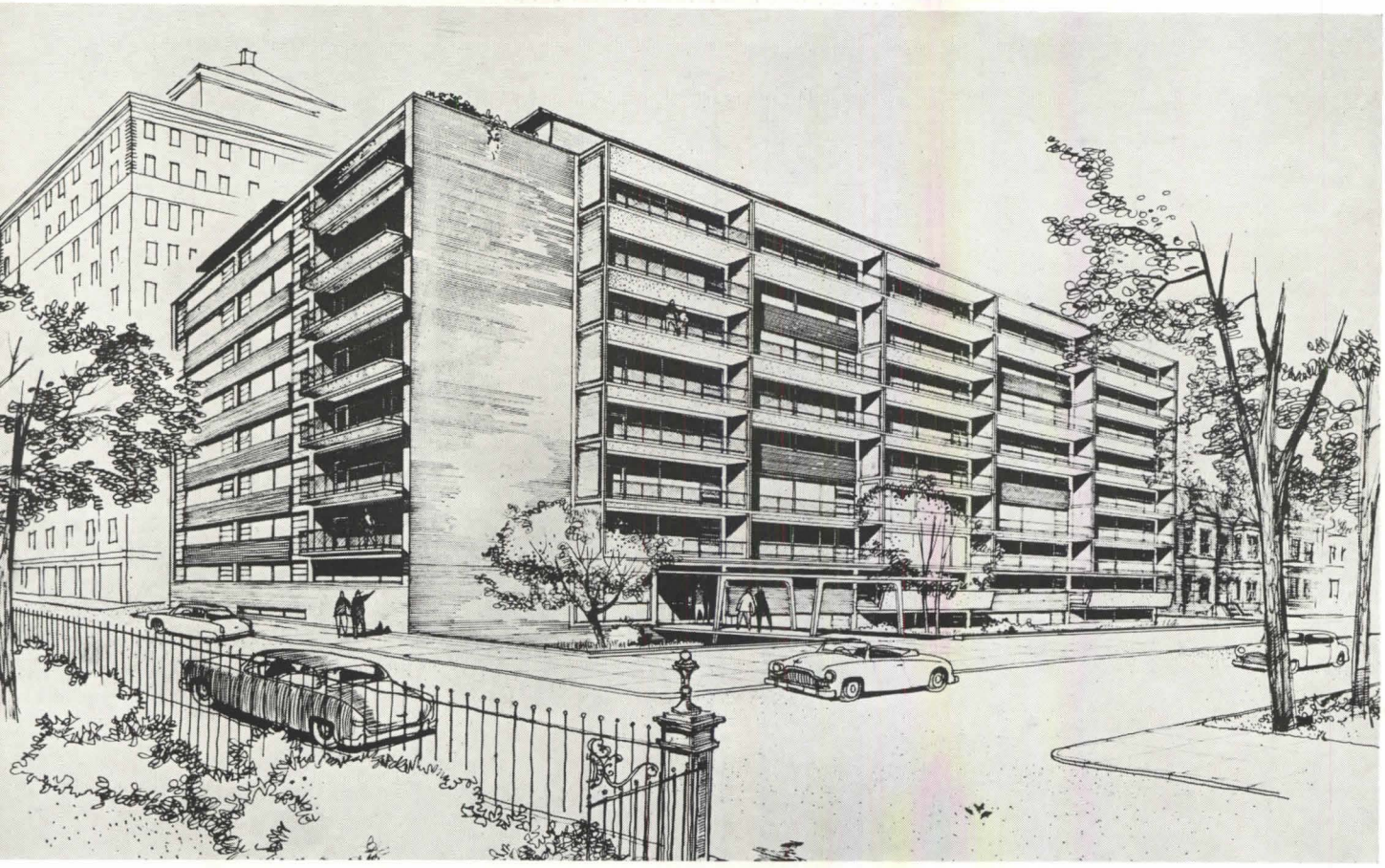
design award. Northree-A (FHA), North Kansas City, Missouri: Bertrand Goldberg Associates, Architects-Engineers. Of the two basic building types in this housing project, the Jury liked especially the one above. Every floor contains four two-apartment blocks, each apartment having its own private terrace *(acrosspage)*. Construction: the concrete-slab floors will be poured in place, after which prefabricated concrete wall slabs will be lifted into place to support the next floor. The Jury commended plan, structural system, and appearance.

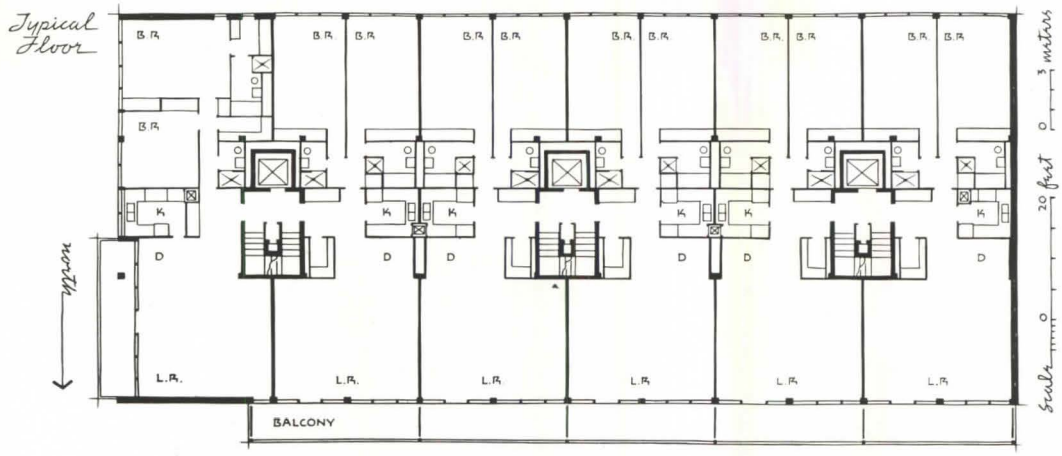
The central core of this apartment building contains two elevators, the fire escape, a communal laundry, and a trash chute, all of which are enclosed and isolated from the apartmented blocks. (*See also* INTERIOR DESIGN DATA.)



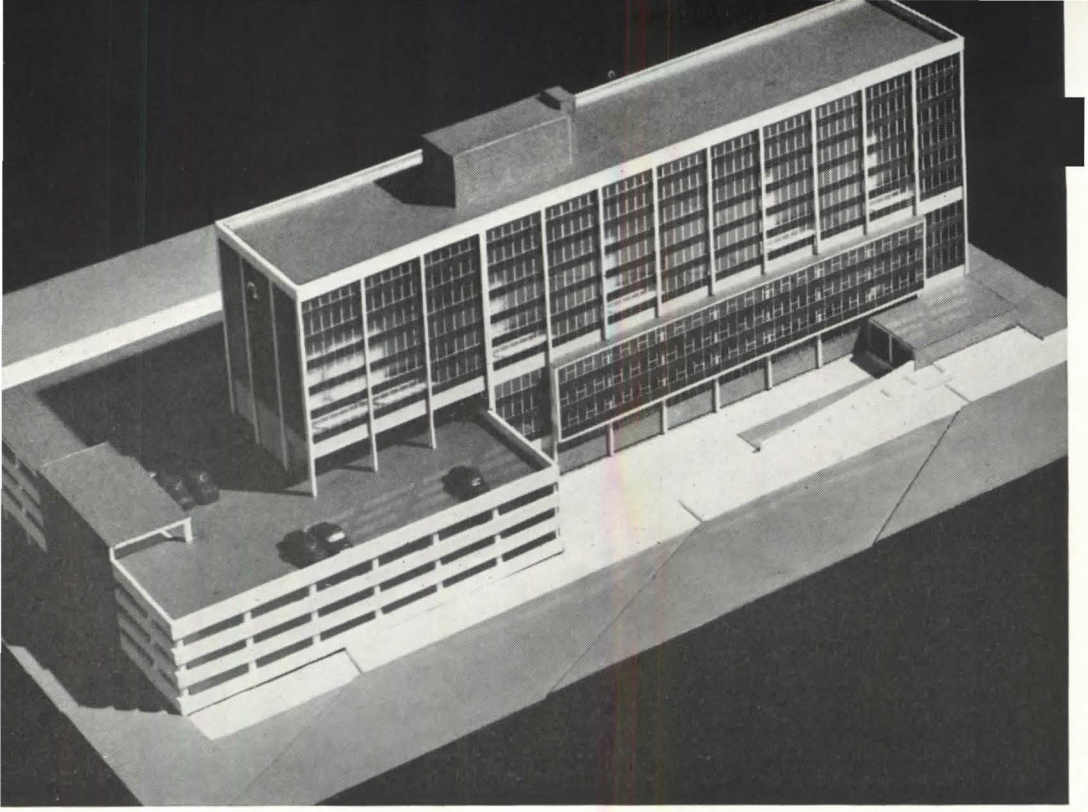


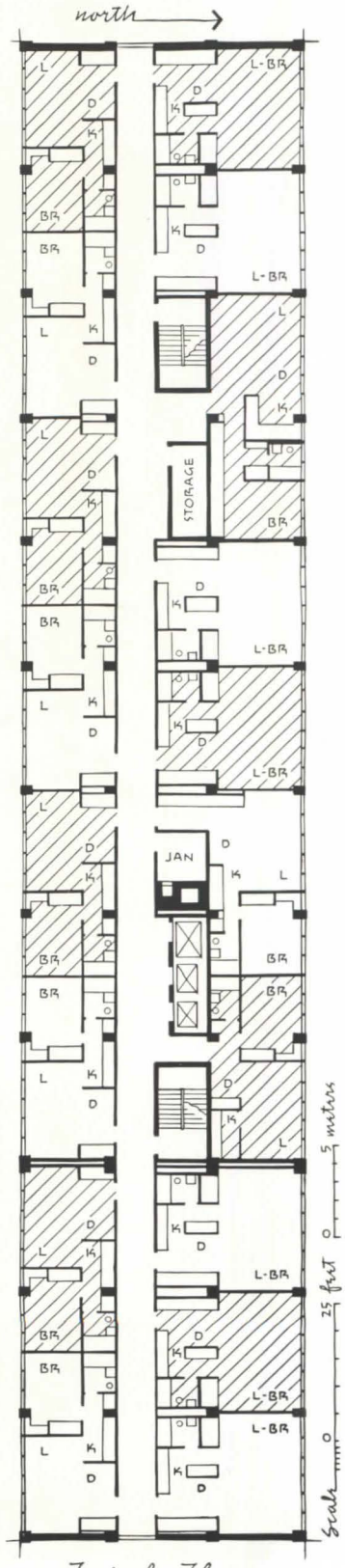
citations





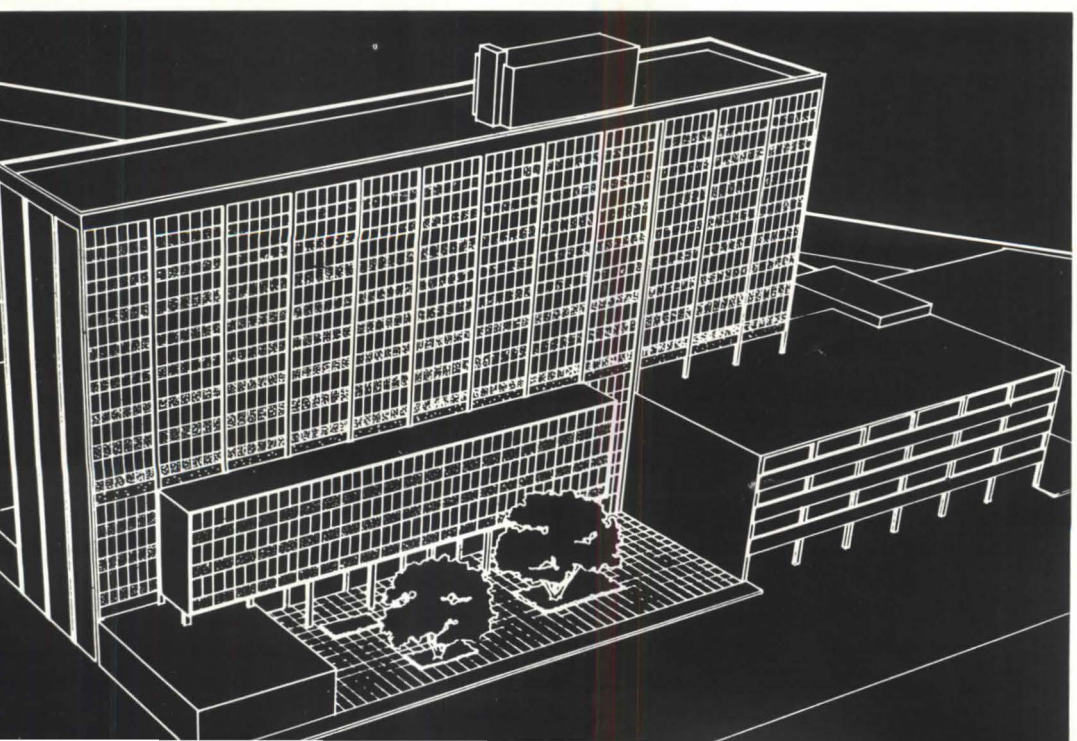
award citation. Apartment House, Boston, Massachusetts: Samuel Glaser Associates and Hugh Stubbins, Associated Architects. The feature in this apartment house which particularly pleased the Jury was the absence of corridors. By placing elevators between each pair of apartments, the Architects have provided typical apartments with through ventilation.

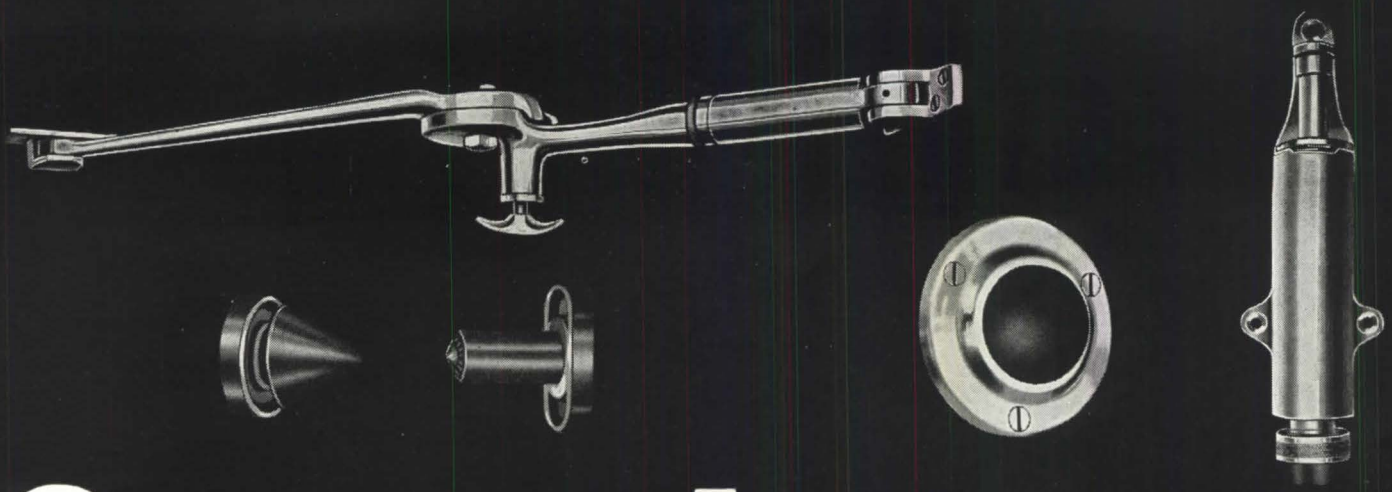




Typical Floor

award citation. Apartment, Office, and Parking Garage Building, Memphis, Tennessee: A. L. Aydelott & Associates, Architects-Engineers. Although interested in the whole building as a unique combination of functional types, the Jury gave this Citation to the apartment unit. They thought the glass and fireproofed-steel frame was handled with taste and sensitivity, giving a maximum of light and useable living space. *(See also* INTERIOR DESIGN DATA.*)*





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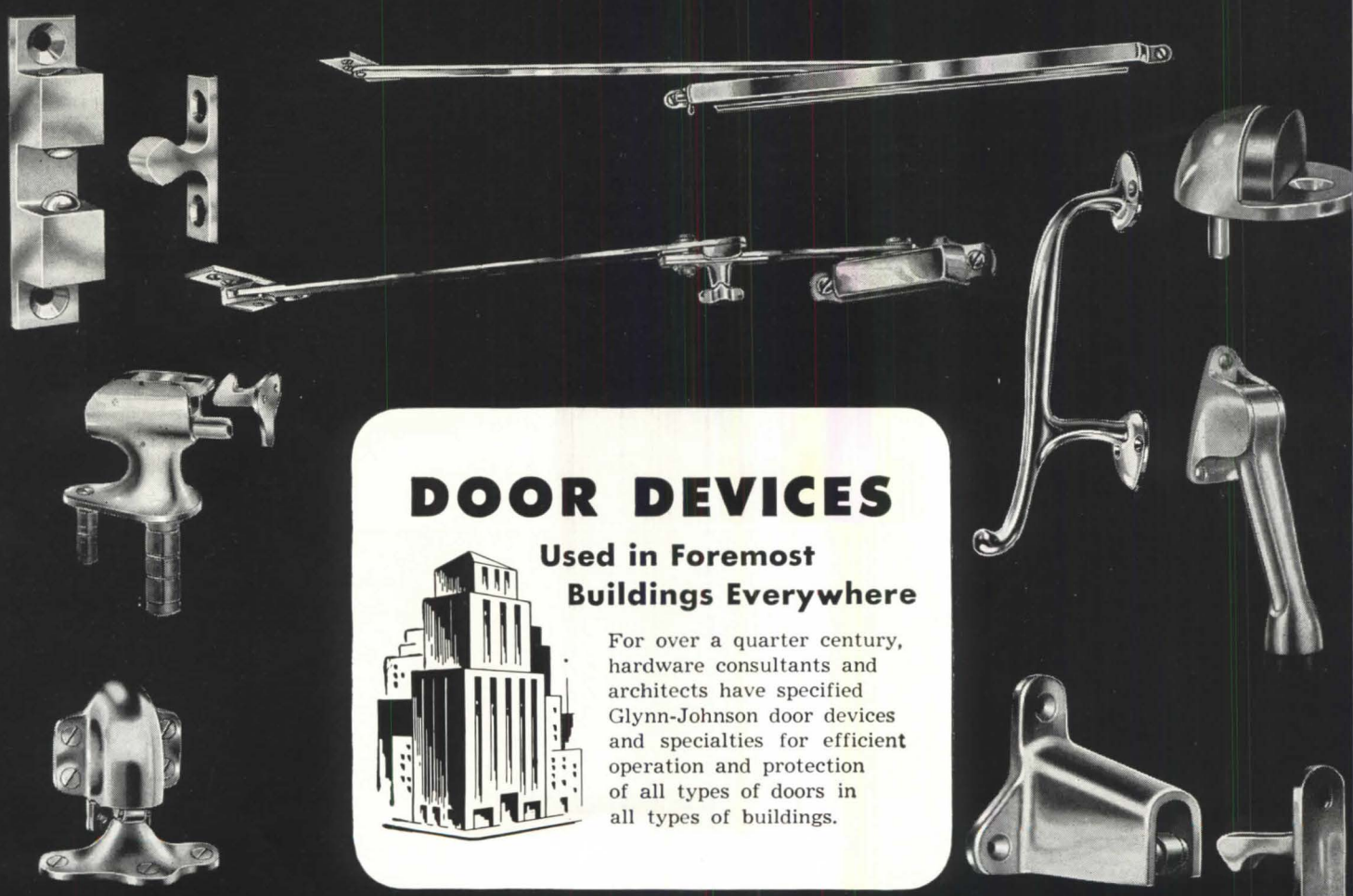

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roofing failures

I am quite impressed by a study made by C. E. Lund & R. M. Granum (*Bulletin No. 34,* University of Minnesota) concerning insulated built-up roofs. They say that the majority of built-up roofs, either insulated or noninsulated, have given continued and satisfactory performance. Field surveys have shown that failure of roofs due to blistering is less than 5 percent of the total number of roof installations. Although this appears to be minor, in comparison with the large number of roofs giving satisfactory performance, the industry is constantly striving toward improvement in performance and the avoidance of any possible failures, irrespective of their causes. Ultimate perfection is desired, but the introduction of new designs in roof construction requires the reevaluation of the new problems as they occur. The various types of roof failures described in *Bulletin No. 34* have been classified into mechanical, construction, and roof blistering. Mechanical failures cover traffic, mechanical equipment, ventilators, and the like. Construction failures include inferior materials, poor workmanship, and the lack of quality control in the field. Roof blisters have been classified as *weather* and *structural* blisters. Weather blisters are the result of natural weathering of the roof surfaces. Structural blisters occur in many types of deformation of the roofing plies and are caused mainly by the expansion of air and water vapor. The principal conclusions resulting from this investigation are as follows: importance of good workmanship and field control governing roof specifications and materials; construction of roofs according to the approved and accepted specifications; the use of vapor-seal courses over all roof decks in cold climates and in temperate climates wherever conditions of high inside humidity exist; solidly mopping the plies of roof felts; avoiding the use of roofing materials having a high moisture content; avoiding roof application during inclement weather or upon a deck which is not thoroughly dry; exercising rigid control over the temperature of the bitumen; thoroughly brooming down all felts as quickly as possible following the application of the bitumen; and utilizing special precautions when applying roofs to uncured concrete decks to prevent any moisture from entering into the roof structure.

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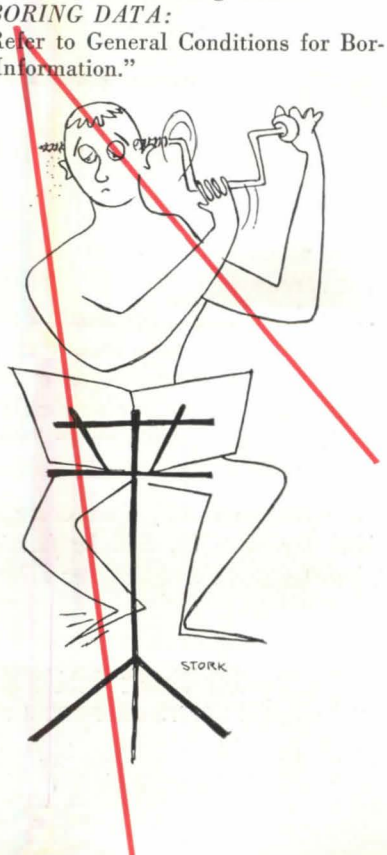

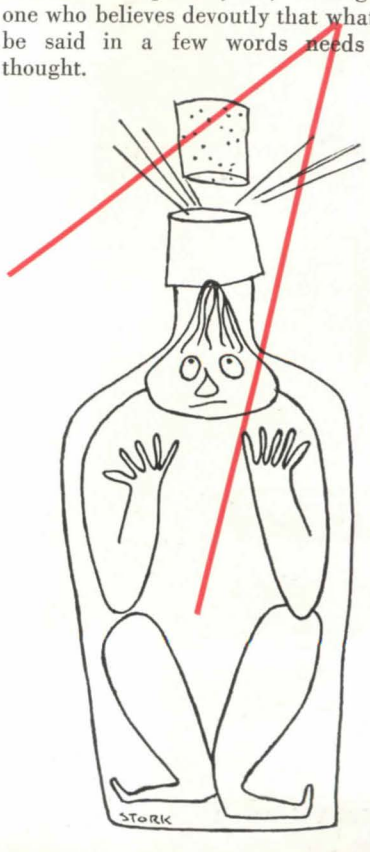

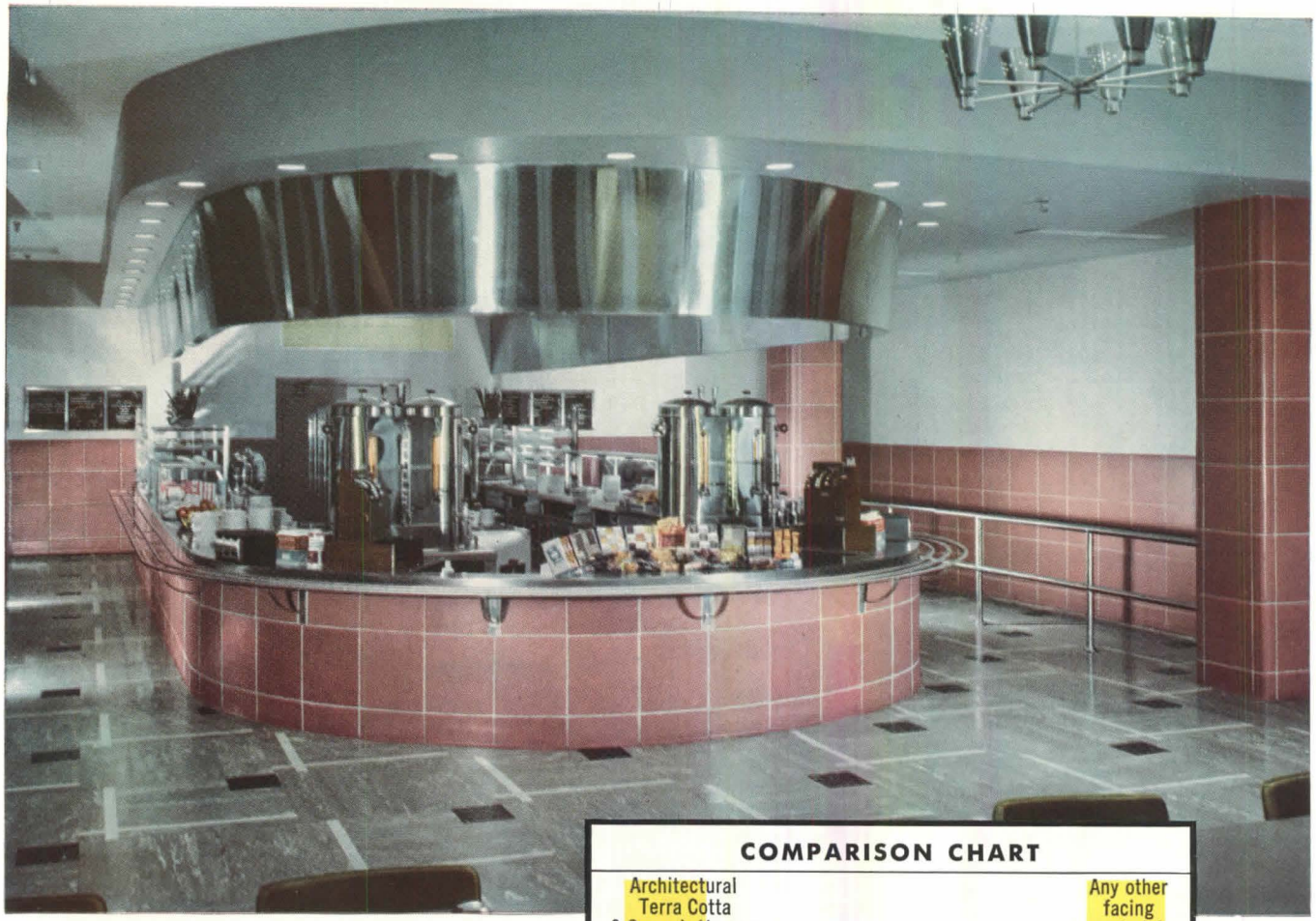

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In Cafeteria Building No. 86, Architectural Terra Cotta, 16″ x 16″, was specified as a colorful, sanitary facing for lobby, cafeteria, service dining room, service pantry, kitchen, dishwashing room, vegetable preparation room, and service counters A & B.

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Architectural Terra Cotta & Ceramic Veneer		Any other facing material
✓	COLOR	
✓	TEXTURE	
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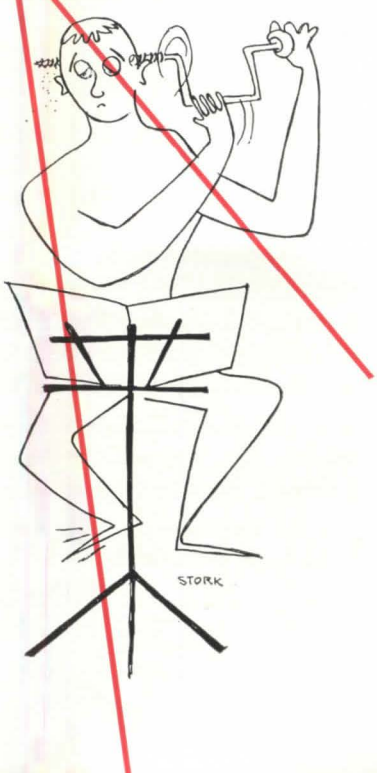

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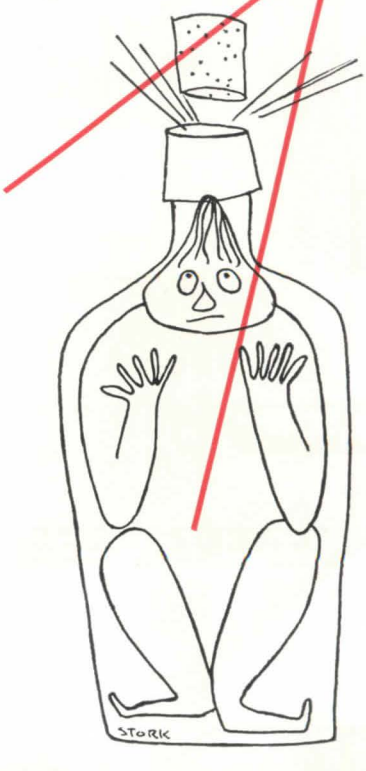

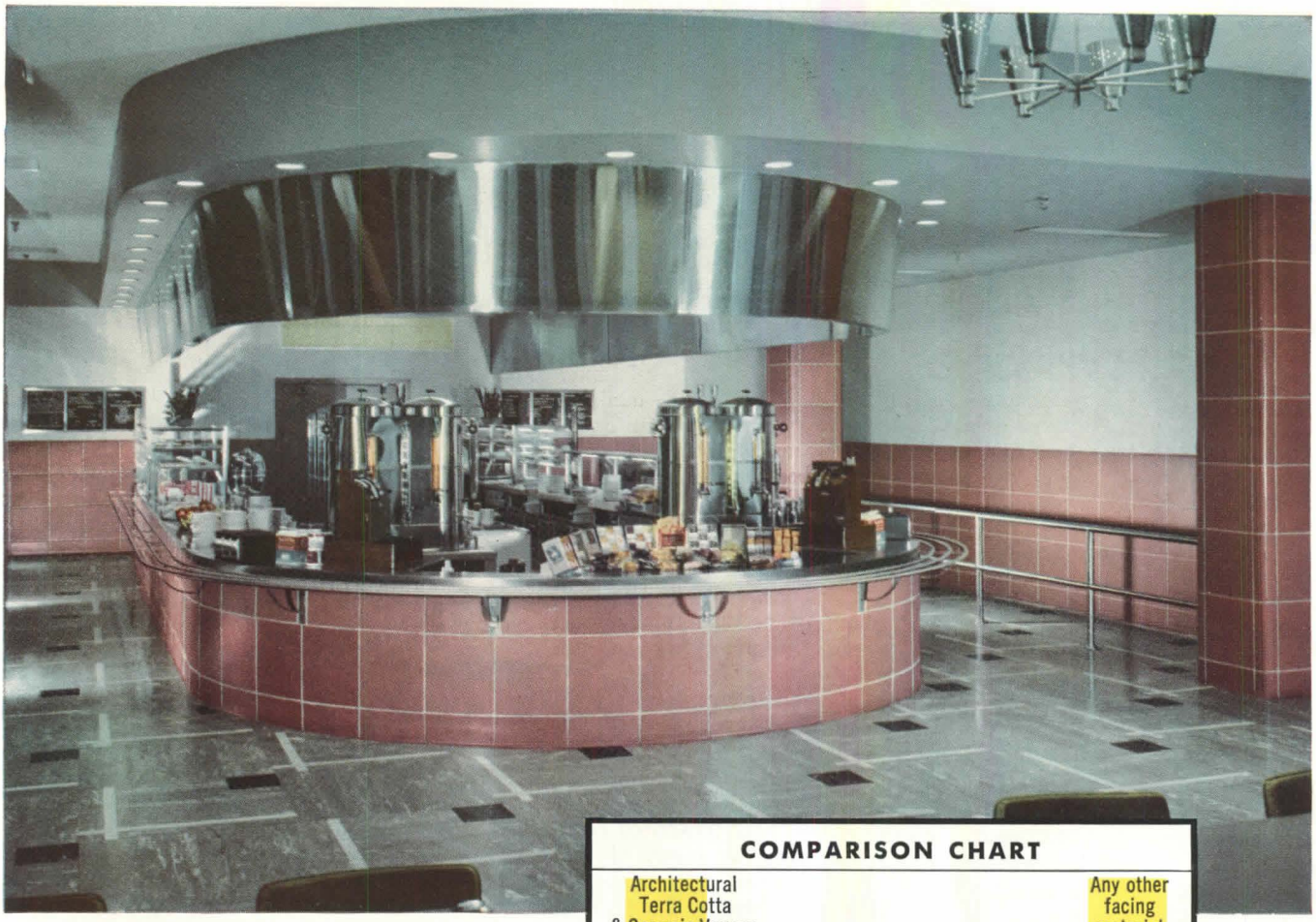

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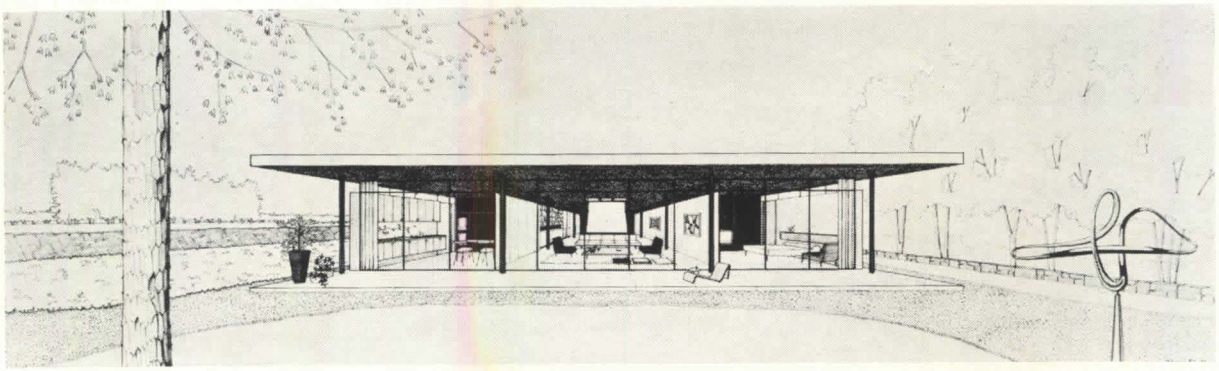
PLANTS AT PERTH AMBOY AND SOUTH AMBOY, N. J.

Indoors-outdoors design for a house: Abraham Geller, Architect; Ronald Geary and Desmond Henly, Project Staff; Max Spivak, Mosaicist; José de Rivera, Sculptor.
Perspective: Edward Knowles



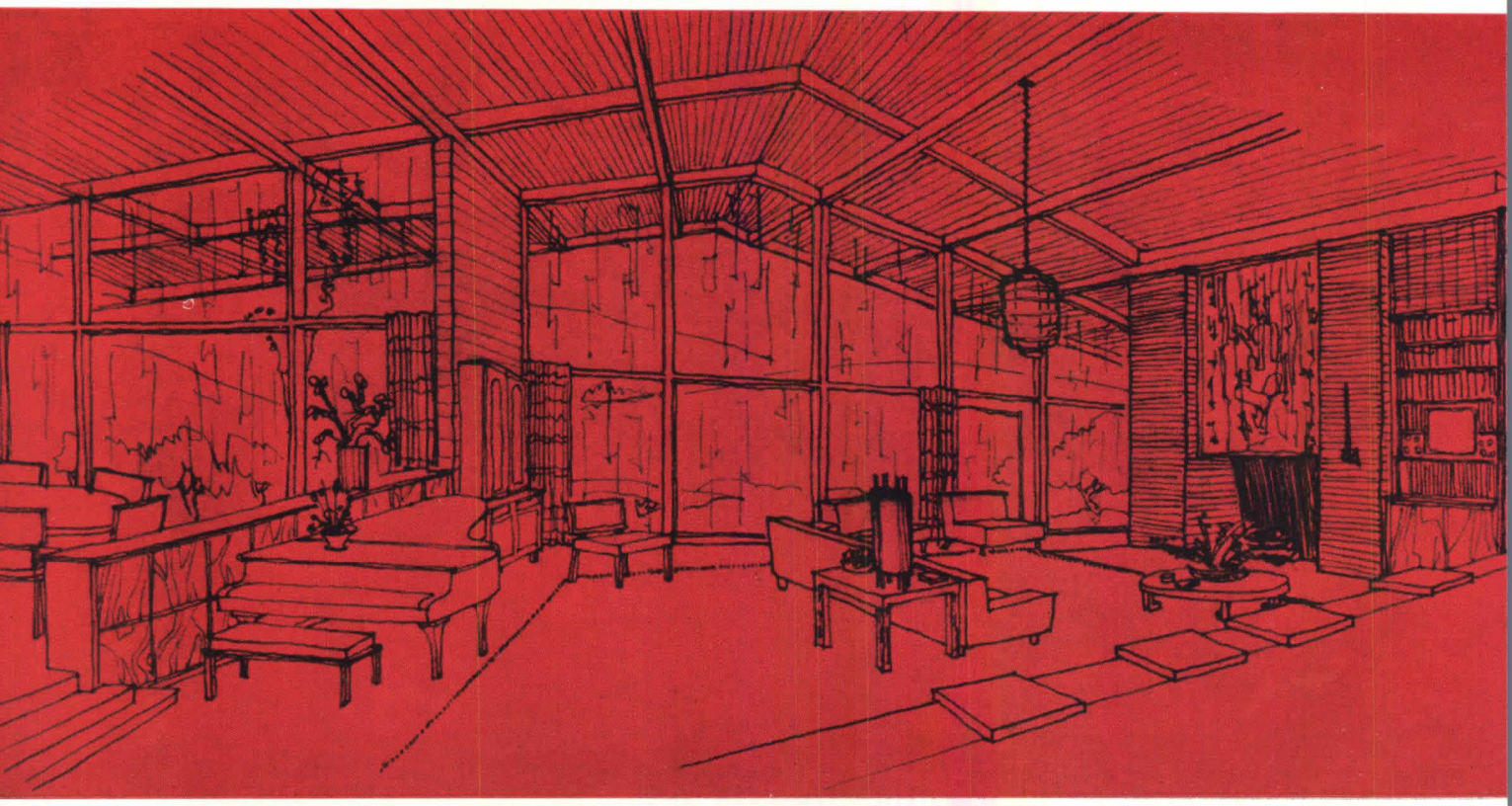
Page Beauchamp

residential interiors

Plans of the three residential projects in this section have been shown on earlier pages of the issue, but now we discuss the interior designs as far as possible, subject to their development in the final design stage. We cannot, of course, give a complete description of materials, but have described design choices as far as they have advanced. In the group are one private house and two apartment-house projects. The house is well worth consideration because of its relationship between indoors and outdoors, and its selection of color, materials, and finishes to enhance the over-all effect. Living has been planned around a central patio, yet the indoors still has the advantage of view. The apartment buildings are especially advanced in their thinking. The first has been designed to avoid the stock-look of apartment buildings and will result in a custom-look heretofore practically unknown to buildings of this type, in this price range. Every apartment will have a terrace, normally afforded only for the choice few on the front of the building. The second apartment illustrates a budget story—apartments above office space, within walking distance of the business center—convenience, compactness, space for comfortable living, all closely integrated.

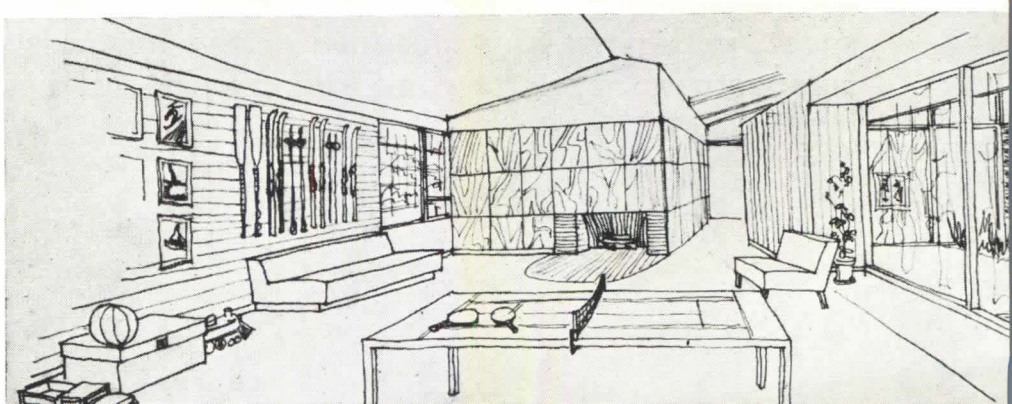
residential interiors

location | Orinda, California
architect | Henry Hill



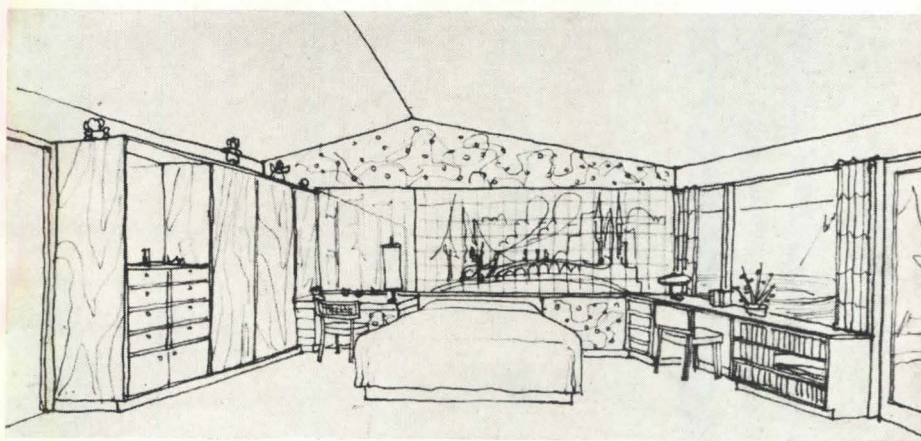
design theory: Change of levels is dictated by the site, with the entire house stepping down the slope into a valley. The main living area will have a glass wall with extensive overhang, which permits a view but eliminates glare. Overhang at dining area, however, will be perforated to admit light. The south living-room wall will be of glass, looking onto the private court around which the house centers. Warmth of color is to be emphasized in the interior, with a great reliance on the natural textures and beauty of materials in their natural state.

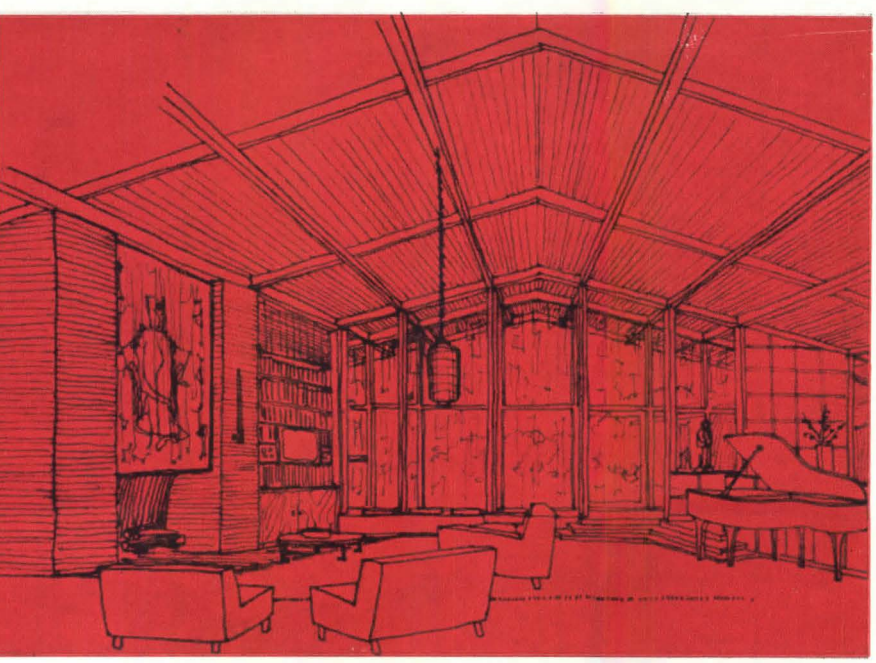
specified materials: Vertical and horizontal mullions, sash, and doors are to be painted a deep red, beams rust-red, and ceiling of re-

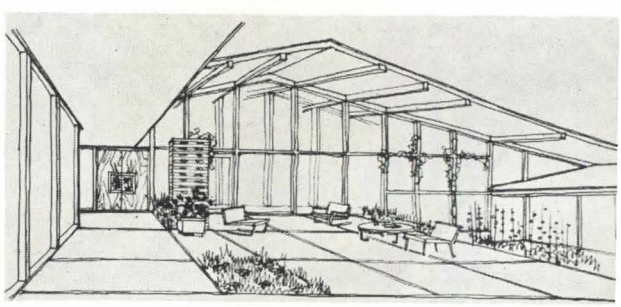


sawn pine to be stained gray-gold. Free-standing structural columns and end wall to the north will be natural redwood. Fireplace, entry, and gallery floors are planned in Roman brick, while living and dining room floors will be cork on concrete. Red birch is to be used on all casework.

Interior Studies: Henry Hill



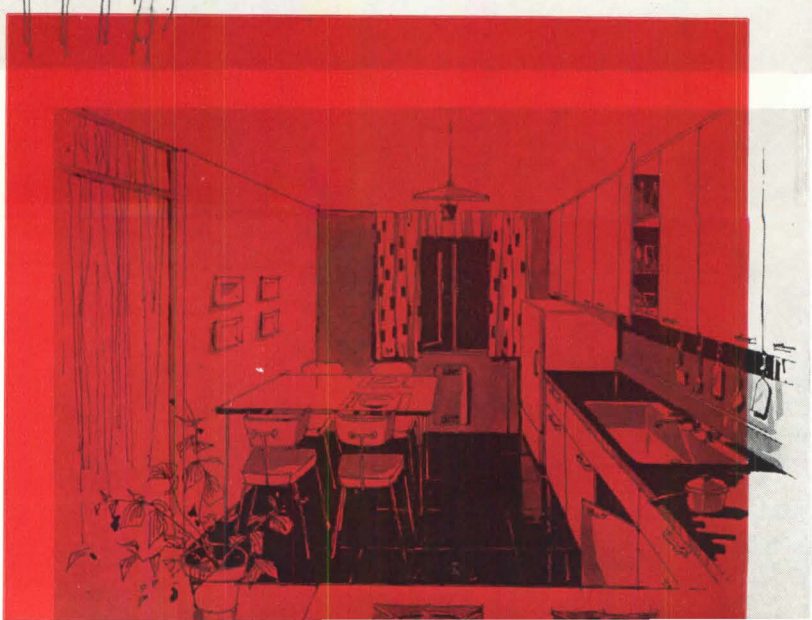


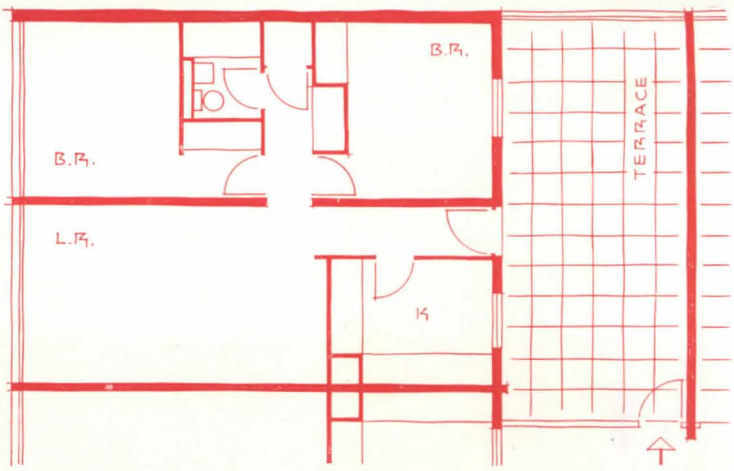


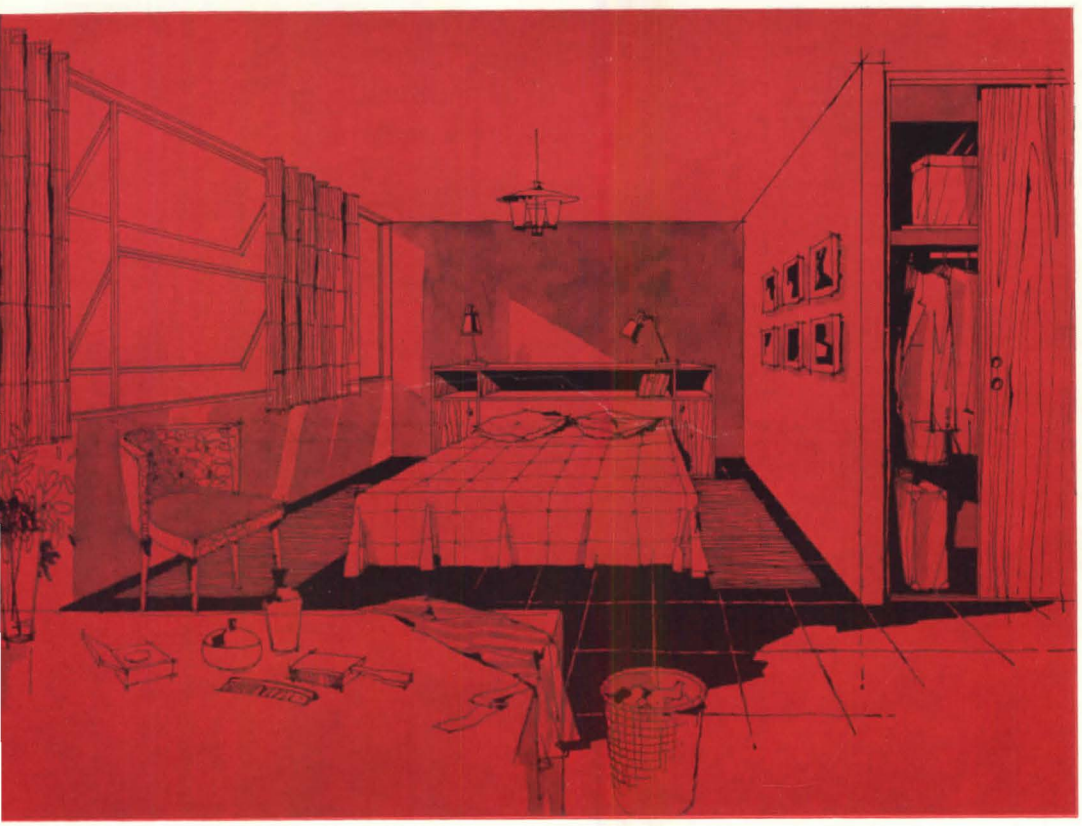
residential interiors

location | North Kansas City, Missouri

architects | Bertrand Goldberg Associates







design theory: Planned to express the freedom of planning and communication with outdoor living found in single-unit residential construction, each apartment of this housing project will have a terrace larger than the living room, exposed to the out-of-doors. Taking advantage of the volume of materials needed because of the size of the project, specially designed details were possible, without being prohibitive pricewise. Unbroken lines were accomplished for all wall areas by incorporating doors, windows, and cabinets in a complete floor-to-ceiling design, eliminating soffits and wall areas over doors and windows.

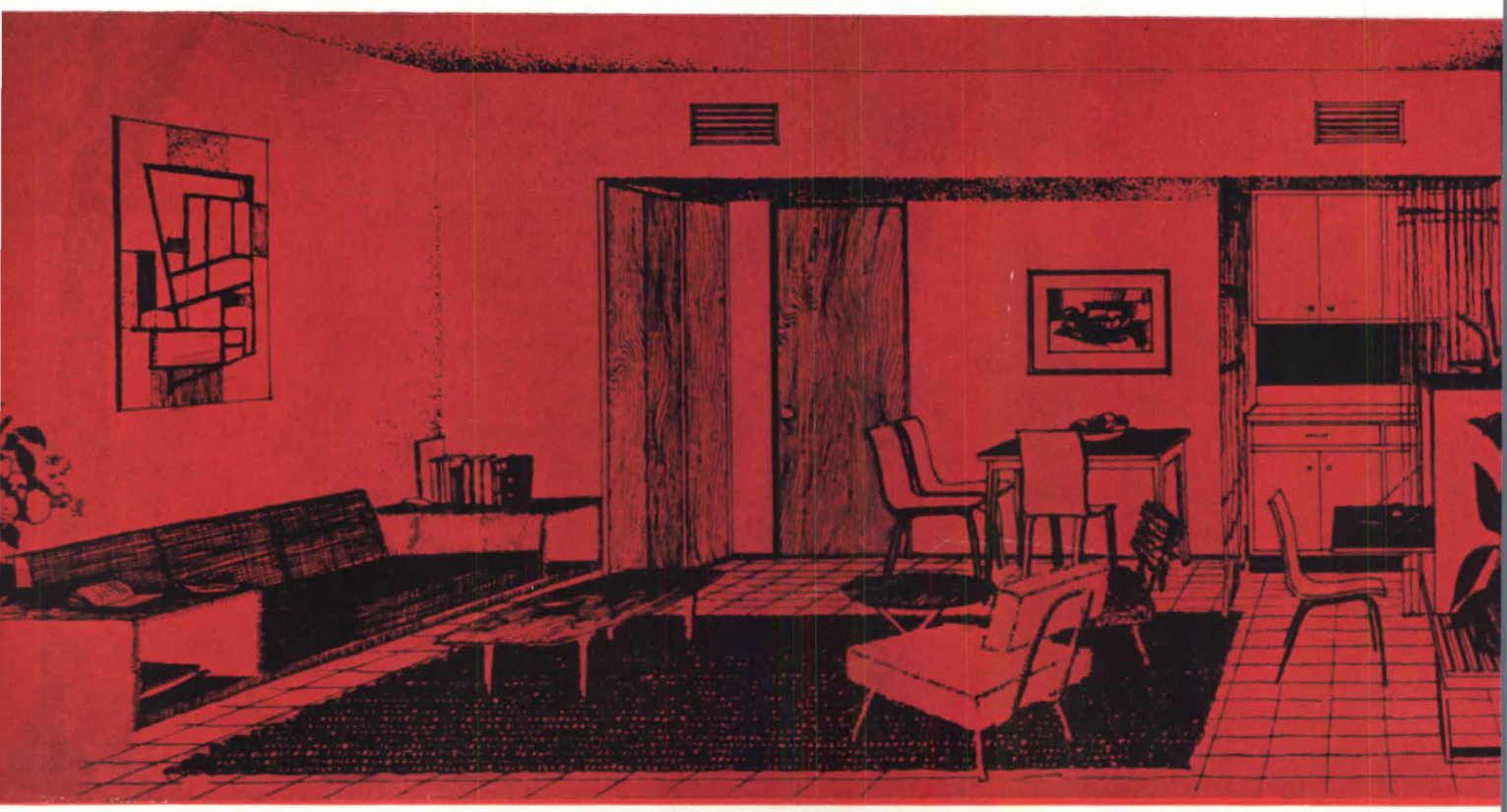
specified materials: Exterior walls will be precast-concrete panels, with aluminum sash on the window side. Sash will be left unpainted on both sides. Terraces will have concrete floors and redwood louvers. Floors are to be light-colored asphalt tile in the apartments, and wall colors will change with materials; *i.e.*, concrete panels may join a mahogany-plywood wall or a wallpapered area.

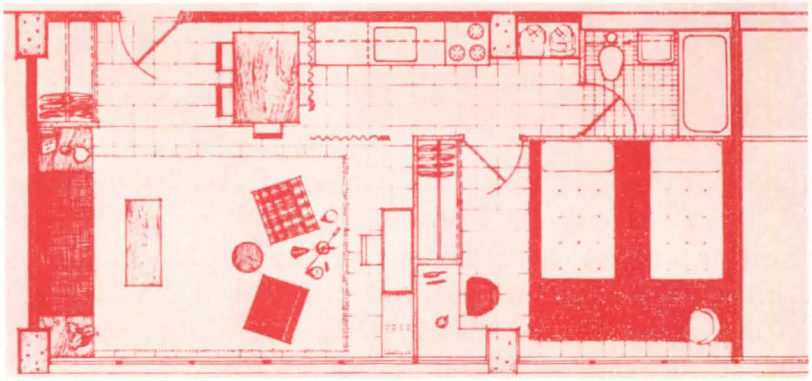
Interior Studies: John Macsai

residential interiors

location | Memphis, Tennessee

architects | A. L. Aydelott & Associates

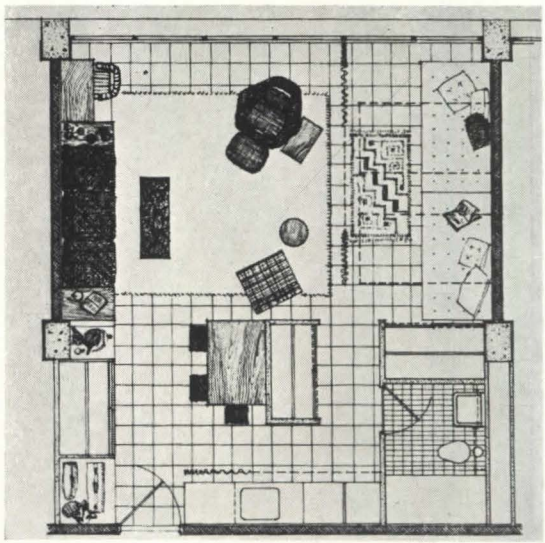


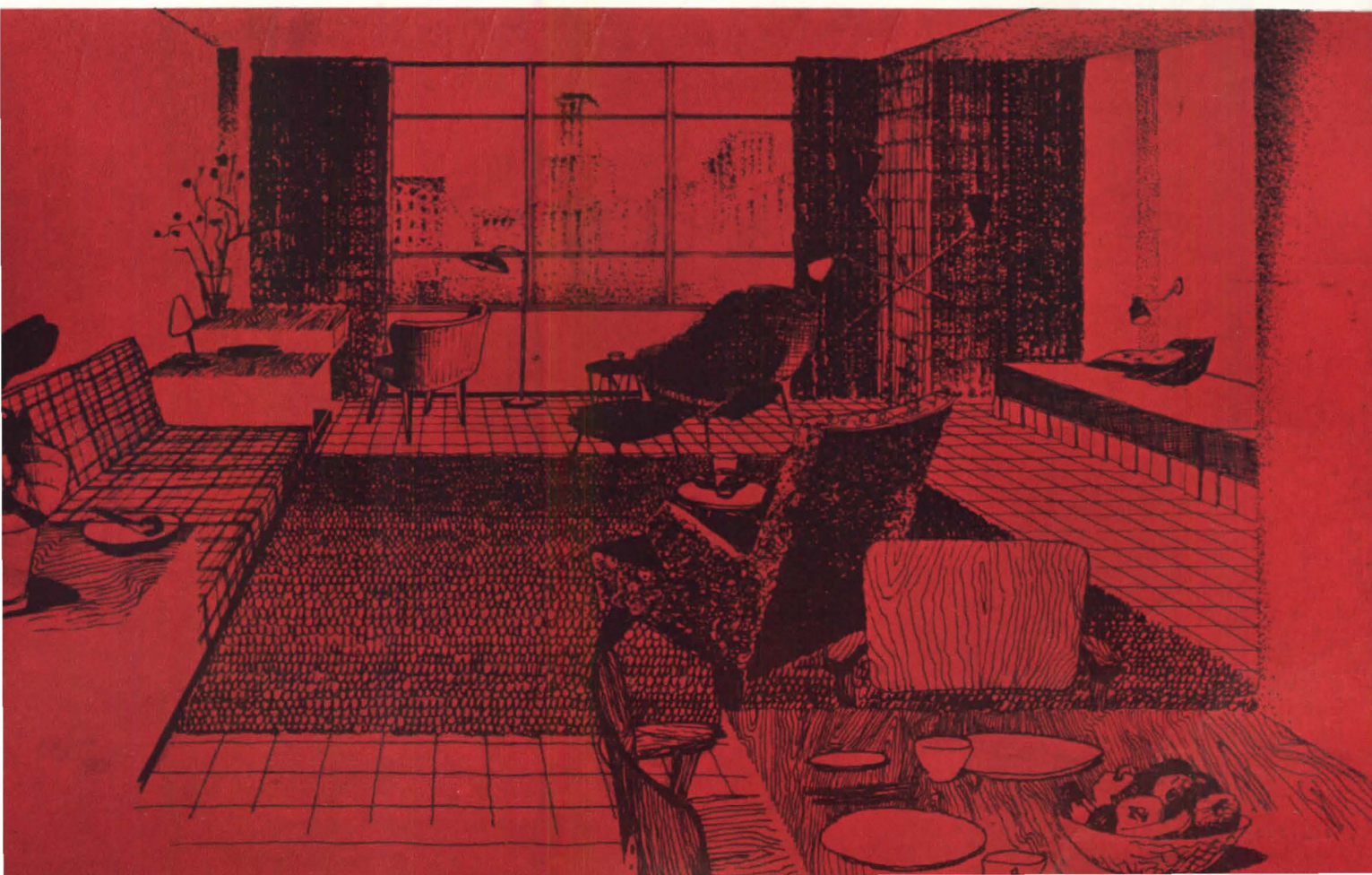


design theory: Designed to afford young married couples and single white-collar workers living space within walking distance of the business center of the city, these will be one-bedroom efficiency apartments or combination living-bedroom apartments in an apartment, office, and garage building. Office space will fill the lower floors, with the residential section beginning at the sixth floor. This affords maximum view and separation from the activity of lower floors. Actually, at the hour when most of the tenants return to their apartments the normal business day will be over. But, of course, the higher floors will be

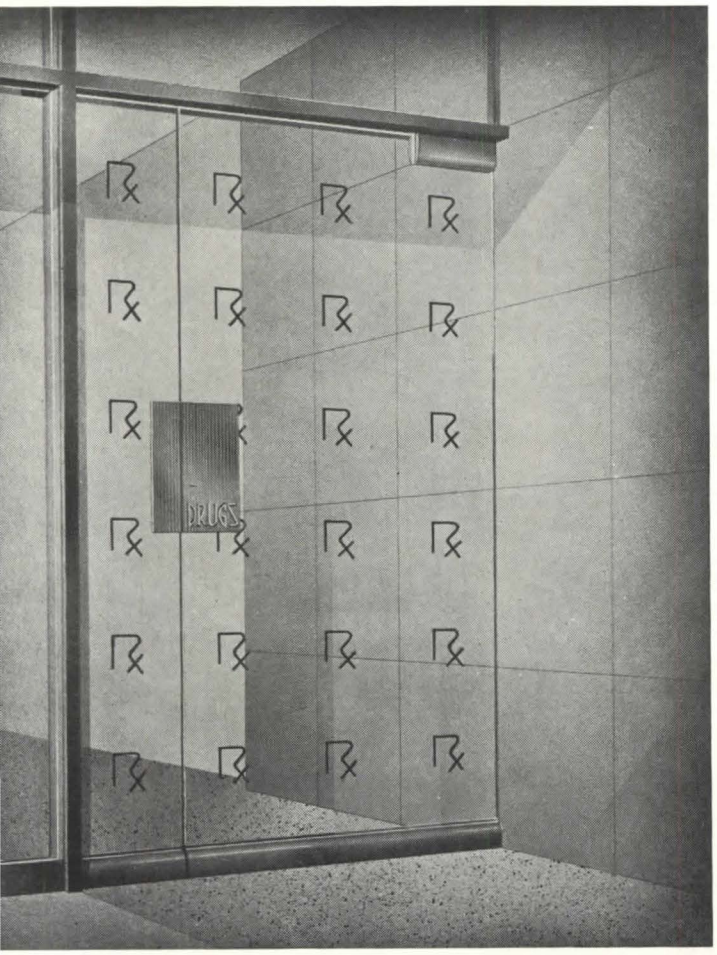
much more desirable. To protect this aspect as far as possible, the owners of the building also own the adjacent property on the North side, where new buildings will be subject to control of height and design character.

materials: This project is still so much in the design stage that materials have not yet been selected. *Interior Studies: A. L. Aydelott*



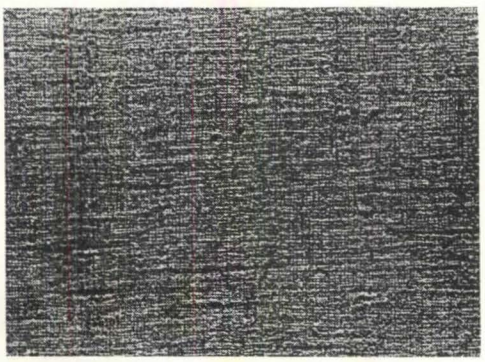


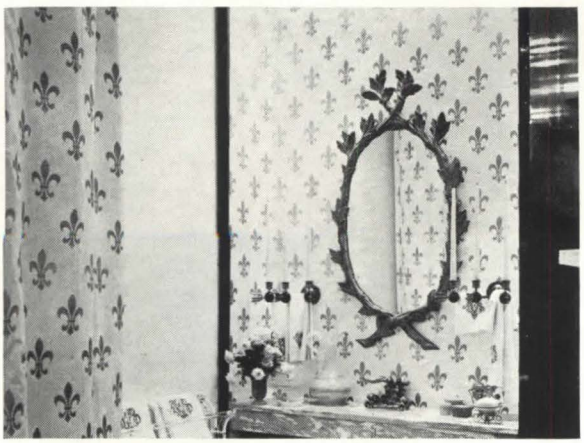
Domelight: #286 Series/ two domes with light between/ canopy, stem, and top of dome in shadow gray finish/ perforated metal bottom shield in flat finish/ designed by Harry Gitlin/ **retail:** $40.50 (17" diameter); $49.50 (24" diameter); $64.50 (30" diameter); $72 (36" diameter)/ **Stamford Metal Specialty Co., Inc., 429 Broadway, New York 12, N. Y.**



Tempered Glass for Doors: "Herculite"/ may be permanently decorated with fired ceramic colors or by sandblasting/ nonsolarizing, glare-reducing, compatible with greenish Solex heat-absorbing glass/ **Pittsburgh Plate Glass Company, 632 Duquesne Way, Pittsburgh 22, Pa.**

Plastic Fabric: "Glen Tweed"/ elastic Boltaflex supported plastic and 12-gage all-plastic Boltaflex/ lime, lemon, toast, cherry red, charcoal, dark green, and turquoise colors/ textured, fabric-like appearance/ **Bolta Products Sales, Inc., 151 Canal St., Lawrence, Mass.**





Hand-Screened Wallpaper and Shower Curtain: custom-designed/ leather-impregnated wallpaper with kidskin grain and Pyroxalin coating/ matching shower curtain in faille or taffeta/ may be produced in any color on variety of backgrounds/ **Sherle Wagner, 123 E. 57 St., New York, N. Y.**

May I commend to the attention of readers of this column the excellent report on architectural education by Walter A. Taylor, Director, Department of Education and Research, AIA, published October 1953 in the Higher Education Division of the Office of Education of the United States Department of Health, Education, and Welfare. Copies are obtainable from the author at The Octagon in Washington. I will comment on this report in a subsequent column.

•

I take pleasure in opening the New Year with a guest article on the Department of Architecture in the School of Engineering and Architecture, Howard University, Washington, D. C., by its Head, Dr. Howard H. Mackey. There is, in my opinion, a great future for the Negro architect in this country and throughout the world. While none of us wishes to perpetuate race consciousness, it should be clear to all of us that the Negro trained in so excellent a school as Howard University has an opportunity of practicing his profession among a people whose miraculous cultural development in recent times gives fair promise of a social integration in which the skills of the architect will be in great demand. Dr. Mackey, in his modest statement of the work at Howard University, makes no claims beyond those of a thorough program of architectural education. That the graduates of this school are moving into the world on an equal footing with their white brothers and with equally just claim of a sound training in architecture is a fact which we should all recognize as evidence of one more advance made in the development of our civilization.

•

Architecture at Howard University. Howard University in Washington D.C., was first projected November 20, 1866, as Howard Theological Seminary, so named in honor of Maj. Gen. Oliver Otis Howard, founder. At a meeting on January 8, 1867, the name of the institution was changed to Howard University. On March 2, 1867, the school was incorporated as "a university for the education of youth in the liberal arts and sciences under the name, style, and title of The Howard University."

Realizing the increasing demand for trained engineers and architects, the Board of Trustees of Howard University decided to offer courses in civil, electrical, and mechanical engineering, and in architecture. During the years 1908-1910, the general trend and adjustment of the work in the departments of physics, mathematics, chemistry, drawing, and biology made the introduction of such courses practicable.

In 1911, four-year college curricula leading to the Bachelor of Science degree in Civil, Electrical, and Mechanical Engineering, and Architecture were established at the University.

In 1948, the training program in Architecture was completely revised and reorganized on a five-year basis, leading to the degree of Bachelor of Architecture.

The Department of Architecture is accredited by the National Architectural Accrediting Board, is registered with the University of the State of New York, and is a member of the Association of Collegiate Schools of Architecture.

Whereas the student body in Architecture is predominantly Negro, students this year are enrolled from 28 states and many foreign countries including Nigeria, Liberia, Gold Coast, Malaya, Japan, South America, Puerto Rico, Cuba, and Canada. Approximately 5 percent of the total enrolment (110) is white.

Alumni and Graduates. Prior to 1946, the enrolment in Architecture at Howard University was very small, averaging about 15 students for the total enrolment per year. Mortality in enrolment was very high, with many students dropping out before graduation. Economic insecurity, and lack of employment opportunities played a large part in contributing to this mortality. Following World War II, with the scarcity of trained designers and draftsmen, architectural firms were desperately in need of personnel. Men and women architecturally trained were in great demand. Color of skin became less and less a barrier to employment. G.I. privileges for higher education made it possible for many to go to college, who otherwise could not afford to go to college. As a result, all architectural schools were swamped with applicants. Enrolment at Howard jumped from 19 students in 1946, to 125 in 1947, and to 199 in 1949. White offices as well as Negro offices which employed our alumni and graduates became convinced that the students from Howard were capable of performance equal to that of students of other schools. Offices which were all white, in many instances, became integrated, and sociological incidents and problems which were expected to happen, just never happened. Office morale was not destroyed, as was feared, and white employers began to seek the services of Howard graduates.

Our graduates are engaged as practicing architects, teachers of architecture, designers, draftsmen, and clerks-of-the-works in such places as Washington D.C., Philadelphia, Trenton, Newark, Jersey City, Brooklyn, New York, New Haven, Pittsburgh, Cleveland, Detroit, Chicago, St. Louis, Nashville, Memphis, New Orleans, Atlanta, Sacramento, and Los Angeles. One of our recent graduates is conducting a practice in Nigeria, Africa, and is doing well. Others who will graduate this year and the next few years will, after obtaining adequate practical experience, return to their native countries (Liberia, Gold Coast, Malaya, South America, Puerto Rico, and Canada) to practice as principals, and make their contributions to the development of the social economy of those countries.

The architectural faculty of Howard University feels very optimistic about the future of its graduates in Architecture. With vast building programs projected in this country and abroad, and with employment opportunities becoming less a

(Continued on page 168)

out of school

(Continued from page 167)

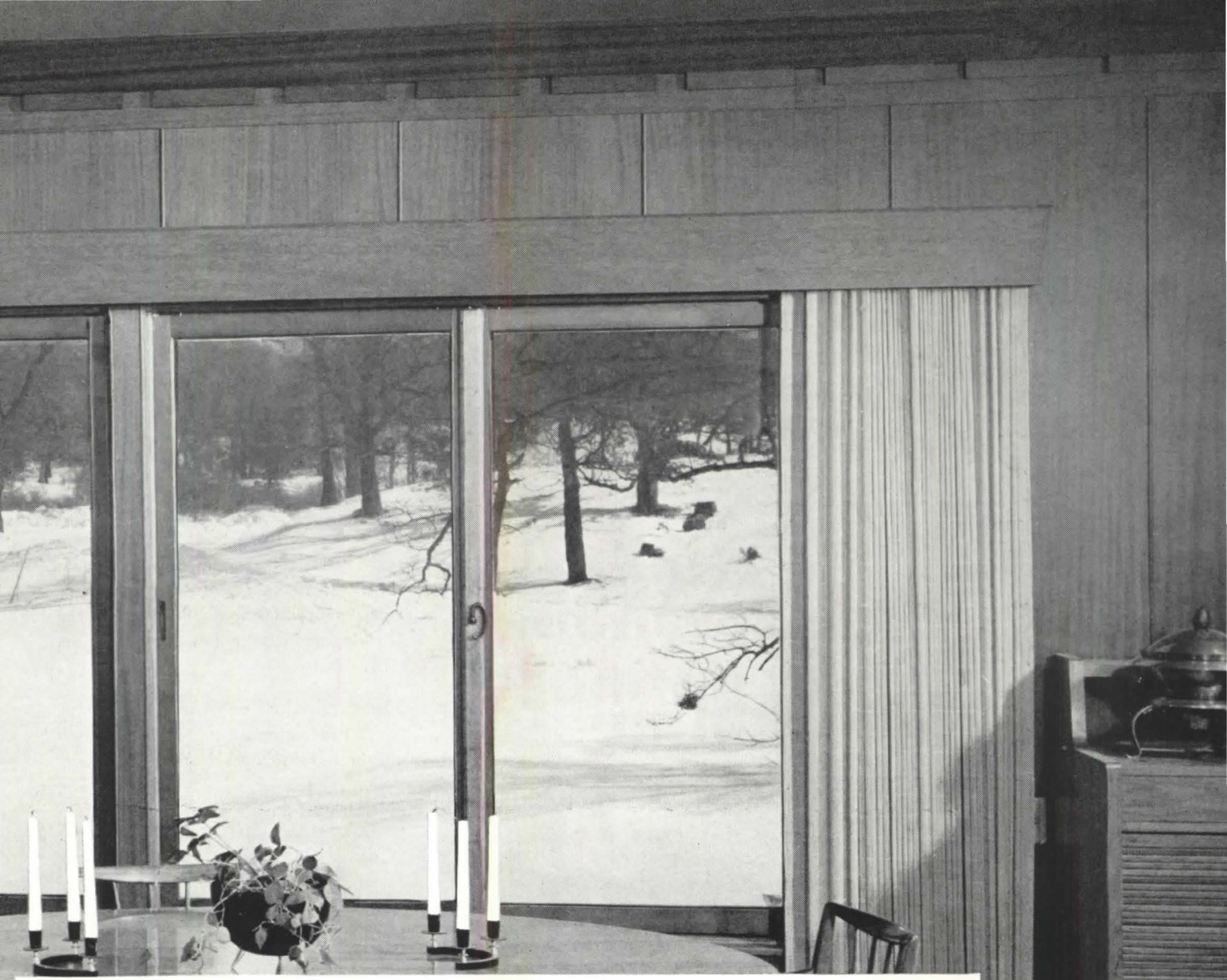
problem, the identity of race soon will be no longer a stigma or medium of evaluation, and professionals will be employed on the basis of ability to perform, rather than on the color of the skin.

Excellent facilities for study of Architecture have been provided in a new building recently completed to house the Departments of Civil, Electrical, and Mechanical Engineering, and Architecture. For Architecture there are spacious drafting rooms for upper and lower divisions in Architectural Design; a model-making room; a studio for instruction in Freehand Drawing, Water-color Painting, and Life-class; exhibition room for display of student work, traveling exhibits, and for architectural judgments; auditorium equipped for illustrated lectures and motion pictures (this auditorium is completely air conditioned); a construction museum with a file on current products, literature and samples of building materials and appliances, specially prepared structural models displaying the use of materials and methods of construction and fabrication, blue prints of working drawings and specifications of buildings actually constructed; and a library which contains a practical variety of documents, photographs, plates, and slides, and a file of American and foreign periodicals devoted to architecture and the allied arts.

The faculty in Architecture is composed of eight full-time teachers and one part-time teacher, with visiting critics called in from time to time, and visiting lecturers. These teachers give instruction in the professional architectural courses only. Five teachers from the Art Department offer instruction to the architectural students in History of Art, Life-class Drawing, Freehand Drawing and Water-color Painting. Six teachers from the Engineering Departments offer instruction to our students in Surveying, Statics, Strength of Materials, Structures, Wood, Steel, and Reinforced Concrete, Mechanical Equipment of Buildings, and Electricity and Illumination. Liberal arts subjects are taught by the faculty of the College of Liberal Arts.

The architectural faculty is an inte-

(Continued on page 172)



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out of school

(Continued from page 168)

grated one, half of the members are Negro, half are white. Members of this faculty were trained at such schools as Harvard University, University of Pennsylvania, Western Reserve, Georgia Institute of Technology, Kansas State College, Catholic University, Cooper Union, Columbia University, and Howard University, with about 70 percent of the faculty holding advanced or graduate degrees in Architecture.

Most of the teachers are members of the American Institute of Architects, are registered architects and conduct private practices. At this writing, one faculty member is serving as vice-president of the Washington-Metropolitan Chapter of the AIA.

The curriculum or training program offers two options, (one in *Design* and one in *Construction*) leading to the degree of Bachelor of Architecture. The objective of the department is to train students (men and women) in the principles of Architecture and its practice. Both options offer instruction for a general understanding of the profession of Architecture from the standpoint of esthetics, design fundamentals of modern building construction, professional practice, and building economics. The first two years of work is identical in each option; specialization is selected in the third or Lower Junior Year.

The *Design Option* places the major emphasis on architectural design, and includes a substantial program in structural analysis and design, materials and methods of building construction, and the mechanical equipment of buildings.

The *Construction Option* places emphasis on engineering and structural design, and all phases of building construction, and mechanical equipment of buildings; and requires its students to pursue architectural design through the fourth or Upper Junior Year. In the Senior Year, students develop construction theses under varying conditions.

Each option includes, in its course of study, liberal education subjects such as mathematics, foreign language, English, public speaking, sociology, and physics.

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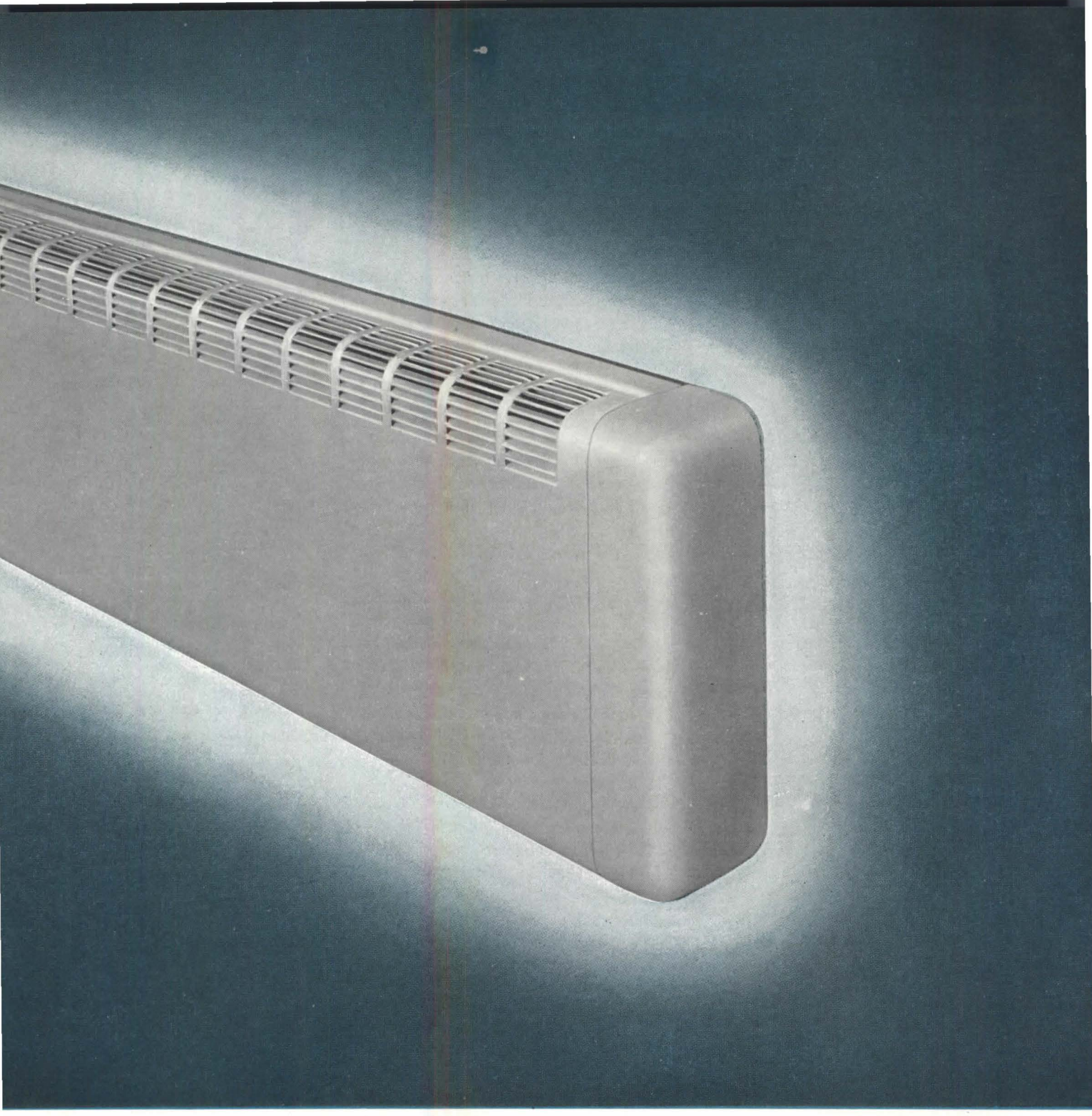

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out of school

(Continued from page 172)

Design Courses. Five levels of design are recognized: first-year predesign; second-year, third-year, fourth-year, and fifth-year design. First-year predesign is programmed to acquaint the student with the relationship between the characteristics of materials and their employment in design, wall openings, circulation, and ordinary equipment of the small plan. Lectures are supplemented by demonstrations and assignments of rendering in various media, sketches, and the development of a scale model of a particular structure.

For the second, third, fourth, and fifth years of design, CYCLES of subjects for design programs are established by the design committee. Each of these cycles covers one year's work. The cycle for the second, third, and fifth years of design is arranged from the following subjects:

a. Residential buildings
b. Commercial-Industrial buildings
c. Ecclesiastical buildings
d. Social buildings
e. Institutional buildings
f. Monumental or Public buildings.

The cycle for the fourth year of design which embraces site planning and community planning is arranged from the following subjects:

a. Subdivision projects
b. Institutional projects
c. Recreational projects
d. Industrial projects
e. Redevelopment projects
f. Civic or Monumental projects.

Programs for the fifth year of design for the most part are selected and written by students, under the guidance and advice of the design staff. The general cycle for this year of design is arranged from the same subjects that are used for the second and third years.

Students in fourth-year and fifth-year design frequently are required to work in teams of two or three students on each problem. Design solutions and decisions are thus achieved by collaboration.

The cycle system was initiated for the following reasons:

a. To make possible the selection of eminent visiting critics and specialists for

(Continued on page 178)

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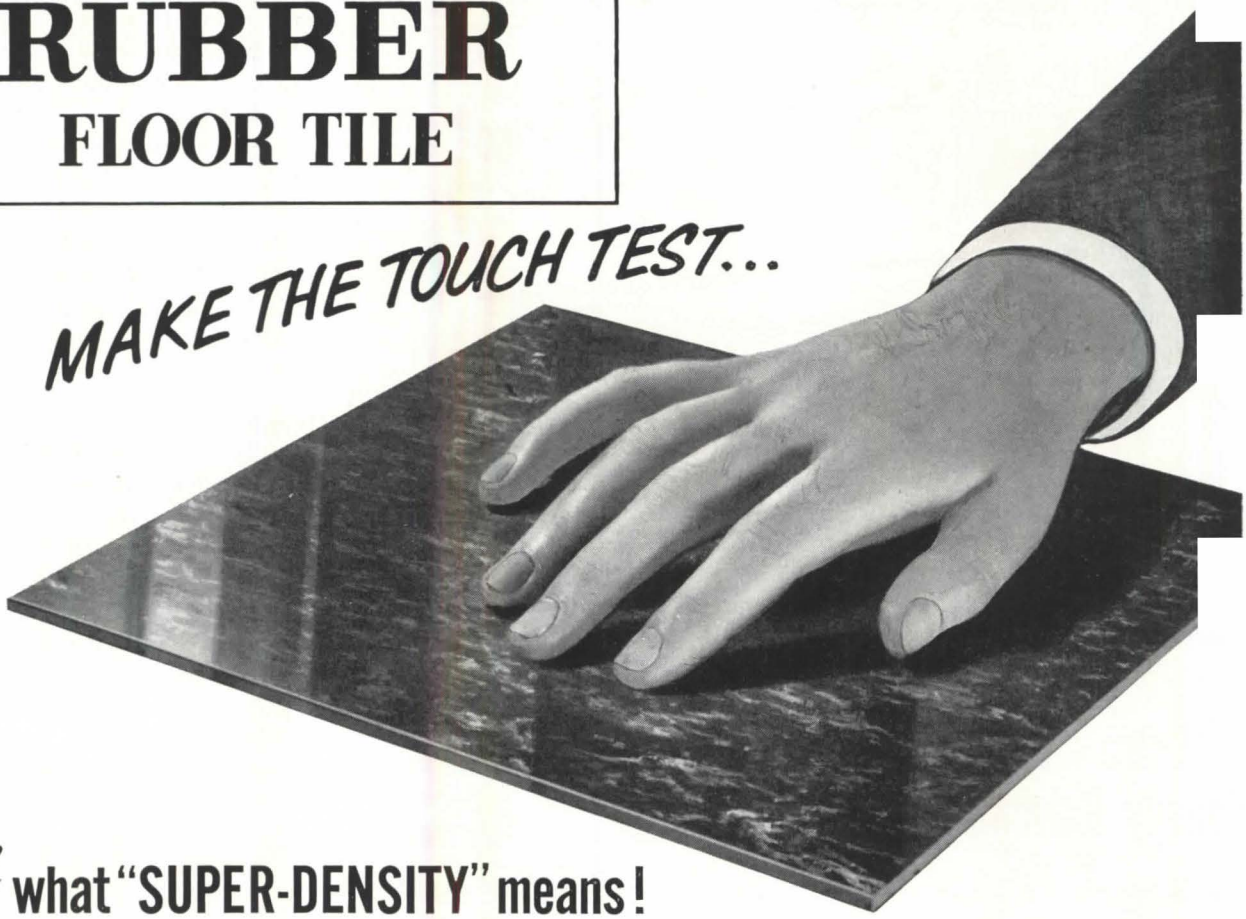

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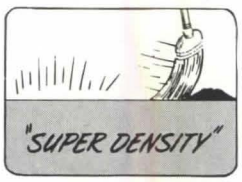

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out of school

(Continued from page 174)

problems well in advance of the writing of the actual problems.

b. To insure student contact at various levels of design with a wide and carefully considered range of problem types.

c. To improve the integration of design with other courses in the curriculum. Teachers of other subjects will know well in advance what the design problems will be, and thus can gear their courses to include discussions on current design problems.

Design Procedures. Design programs are written by members of the design staff, visiting critics, and guests who are frequently eminent local practitioners. Each program is accompanied by a site, showing shape, boundaries, orientation, geographical location, contours, improvements, and physical characteristics. Students are required to design the building or project in accordance with the limiting influences of the site.

Three stages are recognized in the development of each design problem. These are:

a. Basic research stage
b. Progress study stage
c. Final study and presentation stage.

The basic research stage varies in length according to the problem given, but normally lasts one week. During this period the students are expected to:

a. Pursue independent research.

b. Attend and participate in discussions. Discussion periods are one hour each, three times per week. Discussion is lead by the writer of the program, with the critics in that level of design in attendance and participating. Visiting critics and specialists are brought into these discussions as often as possible.

At the end of the period, a *Preliminary Study* is prepared by the student and submitted for criticism. The nature, form, and due date of this preliminary study is stated in the program. In general the preliminary study is made on 8½" x 11" or 11" x 17" tracing paper, and will show a *scheme* in diagrammatic form. Its purpose is to record the results of the research and thinking during the basic research period as applied to the problem

(Continued on page 182)

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out of school

(Continued from page 178)

at hand. The preliminary study is criticized and graded. Failure to submit a preliminary study results in a penalty of 10 percent reduction in the final grade for the finished problem.

The progress study stage varies in length from ten days to two weeks. At the end of this period a *Progress Study* is submitted. The exact requirements for the progress study varies, hence these requirements are stated in each program. In general the progress study shows a carefully considered design, and should be simply and appropriately presented. The progress study is judged and graded, and grade received affects the final problem-grade to the extent of 15 percent.

It is not mandatory that students in submitting final designs adhere to the scheme presented in either the preliminary study or the progress study. Changes that will improve the design may be made at any time without penalty.

The program states in each case the nature and form of the *Final Submission.* A model is frequently a required submission for selected problems in each year of design.

It is universally recognized that a simultaneous consideration of space relations, techniques, and economy are necessary for good design. In order to promote such thinking, the design staff requires:

a. Construction sections and outlines as a part of the final presentations of all design problems.

b. Cost studies and other economic studies whenever these are feasible.

c. A tie-in or integration of courses in construction, acoustics, mechanical equipment, specifications, etc., with design as closely as possible.

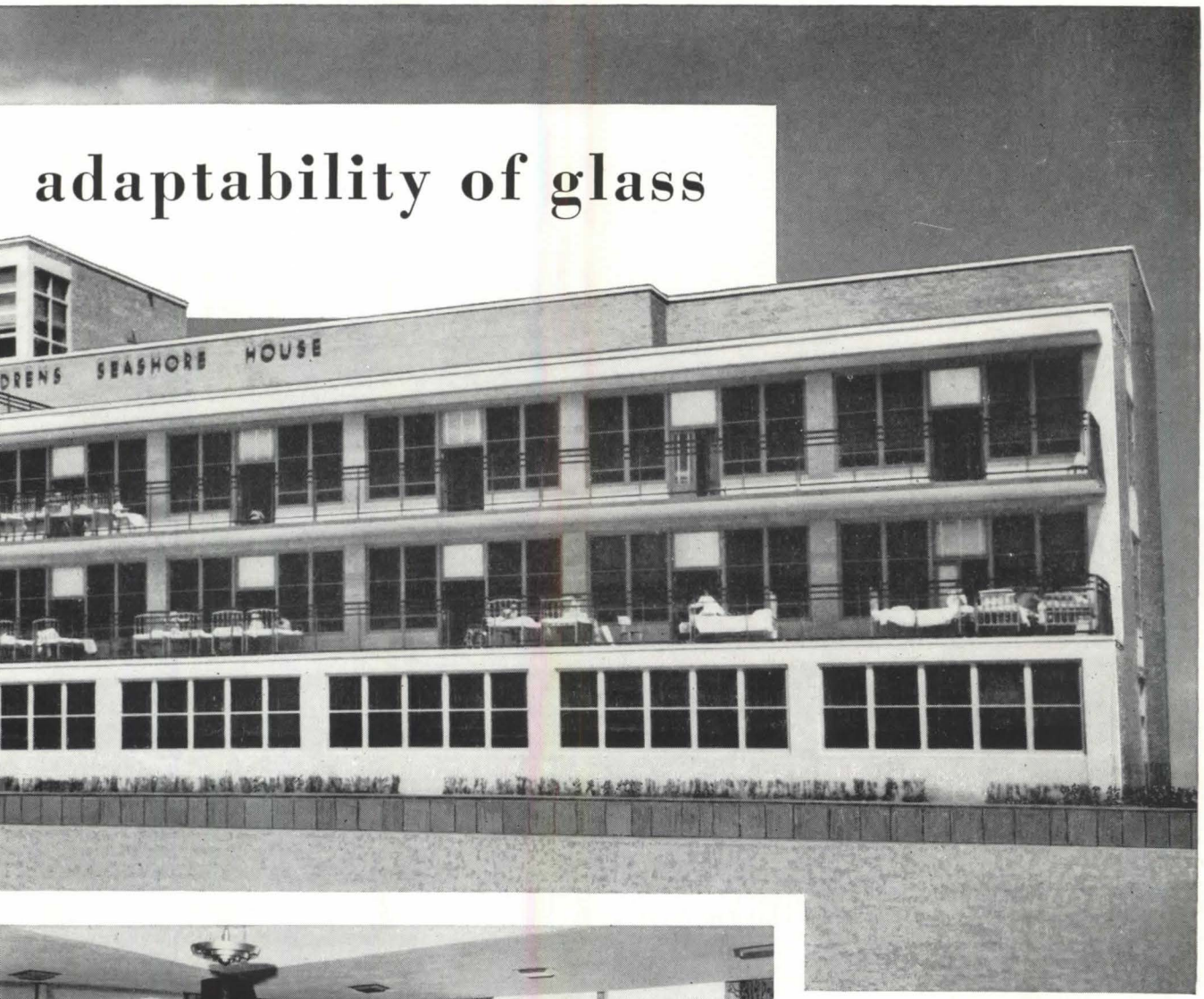
d. Consideration of the social and economic aspects of problems in each case.

e. The consultation services of experts in the fields of special building types (hospitals, schools, libraries, and the like), special structural systems, mechanical and electrical engineering, finance, etc., as visiting critics.

The design staff is divided into teaching teams of at least three critics to a team, for each design level. Design criti-

(Continued on page 186)

adaptability of glass



SOLEX Heat-Absorbing, Glare-Reducing Glass is utilized in the main lobby (shown at left) and in other oceanside windows of the Children's Seashore House. Solex is ideal here, for it transmits 75% of the total solar light while absorbing 50% of the sun's total heat. The result is an exhilarating, unobstructed view of the Atlantic Ocean, as well as interiors that are cooler in summer, more comfortable all year through.

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out of school

(Continued from page 182)

icism is accomplished by individual criticism and by group discussions. Differences of opinion frequently arise and are expressed by the critics of a teaching team. This we feel is not confusing but healthful to the student. The student hears these differences and learns that there is no hard and fast oneness of approach to the solution of a problem, and develops frequently a philosophy of his own for solving the problem.

As the design student develops from the early stages of his course to greater maturity in design, the critic or critics make less use of the graphical method of conveying suggestions to the student, and employ the verbal means of communication. The critic will ask such questions as the student probably has not thought asking himself about the problem, and about the probable effects of that particular solution on the efficient functioning of the building. Thus the student is forced to make many trial sketches and drawings in order to visualize the answer to these questions. Sooner or later by drawing and comparison he becomes more sensitive and more mature in judging the proper esthetic and functional relationship of the various parts of his design.

Judgment of all design problems is accomplished by a jury composed of the faculty in Architecture, a student representative (elected by the students in the design level being judged, from the design level just above), eminent local members of the AIA, and specialists in the design and/or operation of buildings similar to those being judged. The student author of each design problem has an opportunity to appear before the jury; explain his design and his philosophy of interpretation of the program; answer questions from members of the jury; and in general defend his solution. (This procedure, we feel at Howard, develops the student's ability to express himself and verbally communicate his ideas to others convincingly.) He is then excused from the judgment room, and judging by the jury, after careful consideration of how well the student has solved his problem, is done by blind ballot. The average of

(Continued on page 188)

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Cincinnati	Indianapolis	New Orleans	St. Louis	office only)

out of school

(Continued from page 186)

the tabulation of the votes by the jurors on each problem is the grade given that design problem (less, of course, any penalties incurred in the preliminary or progress submissions).

The Construction Thesis. Fifth-year students who have selected the *Construction Option*, are required to design a building which will lend itself to the development in one year, of a construction thesis composed of the complete architectural design, contract working drawings (architectural, structural, plumbing, heating, cooling, and electrical), large scale details, and complete specifications.

The construction thesis is pursued under the guidance of a committee of the design staff and consultants from the Departments of Civil, Electrical, and Mechanical Engineering.

•

A reading of Dr. Mackey's statement above, in the cool medium of print and without illustrations of work performed, tells the story only in part. A visit to the Department of Architecture at Howard University is a rewarding experience. I am thoroughly convinced that the graduates of this school have proved and will continue to prove that the Negro architect is no different than his white brothers in his professional competence and in his design talents. I anticipate the day when the profession of architecture leads all other professions in ignoring difference in "the color of the skin" of its members.

notices

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NORMAN F. SORGENFREI, new assistant sales manager for the C. A. Dunham Company, 400 W. Madison St., Chicago 6, Ill.

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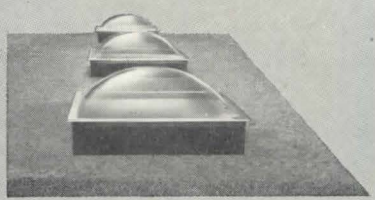

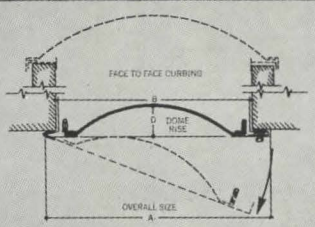

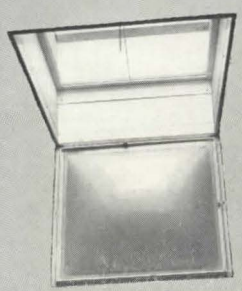

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books received

Planning and Caring for our Schools. The 1953 Report. Conference on Operation and Maintenance of School Buildings, Conference on School Planning, Stanford University, Stanford, Calif., 1953. 69 pp., $3

Renewing Our Cities. Miles L. Colean. The Lord Baltimore Press, Baltimore, Md., 1953. 181 pp., illus., $2.50

Pencil Techniques in Modern Design. William W. Atkin, Raniero Corbelletti, Vincent R. Fiore. Reinhold Publishing Corp., 330 W. 42 St., New York 36, N. Y., 1953. 122 pp., illus., $8.25

Design & Construction of the General Hospital. U. S. Public Health Service. F. W. Dodge Corp., in collaboration with *Modern Hospital* magazine, 119 W. 40 St., New York 18, N. Y., 1953. 214 pp., illus., $12

creative landmarks

New Design in Exhibitions. *Richard P. Lohse. Museum Books, Inc., 48 East 43rd St., New York 17, N.Y., 1953. 260 pp., illus., $13.50*

Few of us realize the great importance of exhibition design as a source of inspiration to those who organize buildings and the spaces within and around them. Since the first international exhibitions of our industrial age were organized, nearly 200 years ago, they have evaluated, step by step, the development of contemporary architecture, furniture, decoration, and equipment.

One has only to look back at the long roll call of great international exhibitions to see proof of this. London's Crystal Palace (1851) introduced buildings of steel and glass; Paris (1889) marked their further development, with a huge Palace of Machinery and the Eiffel Tower. After the romantic reaction typified by the Chicago World's Fair (1893) and its successors here and in Europe, the rebirth of modern design was celebrated at Cologne (1914) with exhibition buildings by van de Velde and Gropius. The strength and power of the new movement was proven at Paris in 1925, where projects by Josef Hoffman, Frederick Kiesler, and Le Corbusier exposed the shoddy sensationalism of the Arts Decoratif. It shone again at Barcelona (1929) with Mies's superb German pavilion. Then at Stockholm (1930), for the first time an entire exhibition area, indoors and out, was organized as a complete expression of the structural clarity, transparency, and spatial penetration of today's architecture.

These are more or less familiar highlights in recent architectural history. Less familiar, but equally important, are the achievements in exhibition building and display techniques which have taken place within the last 20 years. There is a tremendous contrast between the barn-like halls and static displays of the Crystal Palace and the rich and varied organization of the Triennial at Milan (1951). A whole new world

(Continued on page 198)

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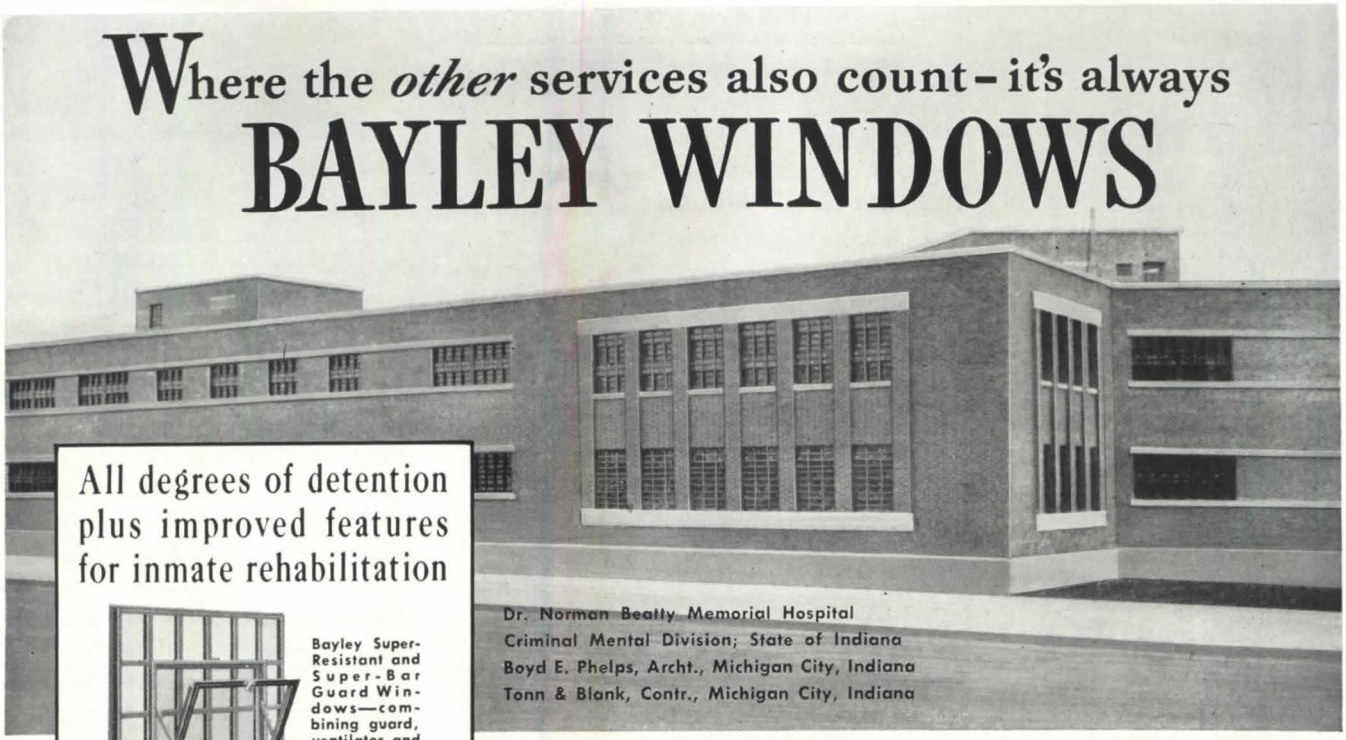

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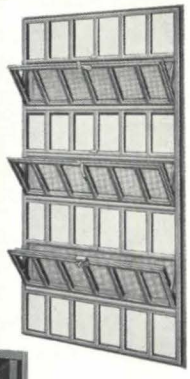

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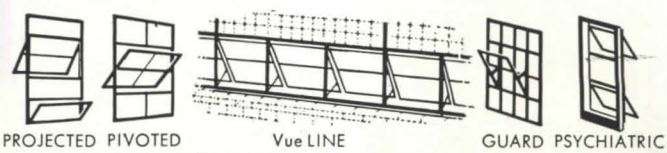

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reviews

Continued from page 196)

of design has developed in a century. Its most challenging and stimulating achievements have been produced within the last two decades.

These achievements are worth cataloging. *New Design in Exhibitions* presents a brilliant array of creative landmarks that have helped to form the background of current design. In sections devoted to national, industrial, cultural, social and political, and permanent exhibitions it deals with every outstanding example of exhibition architecture and display—from small areas for individual exhibitors, through large thematic exhibition sections, to temporary or permanent exhibition buildings, and traveling exhibitions. Its lists of architects, furniture designers, sculptors, muralists, on these projects reads like an international roll call of fame. These lists, in themselves, prove that the arts can still successfully collaborate with architecture.

The entire volume is paced with plans, photos, and brief explanatory texts that cover each example throughly, and in detail. The menu is rich and varied: the meal is satisfying. All told, this is an inspiring guidebook to modern design—one which every creative architect should own and enjoy.

MORRIS KETCHUM, JR.

basic principles

What You Should Know About Paints. *E. M. Fisher. National Painters Magazine, 30 Church Street, New York 7, New York, 1953.*

Confusion on the complicated subject of house paints is unquestionably one of the major reasons why architects often find it difficult to specify paints for modern buildings. From the chemist's point of view, paints are no more complicated than any other matter having to do with the chemical industry. But to the architect the subject of paints can be an impenetrable jungle filled with unpronounceable names, varying formulas, competing claims, and unpredictably differing specific uses and performance qualities.

The present book does not, of course, set out to be the architect's *compleat vade mecum*, for to provide a handbook that would list the formulas and the performance qualities of the thousands of paints, varnishes, etc., currently on the market would require the efforts of an encyclopedia staff and a publication running, probably, into thousands of pages.

What this book does, and very effectively, too, is to present in everyday language the basic principles of paint technology. It offers practical analyses of the different functions of paint components such as pigments, binders, driers, and solvents. It discusses the functions of different types of outdoor and indoor paints, varnishes, synthetic resins, latex, and other water-thinned paints, primers, lacquers, enamels, and so on. By doing this simply and practically, it becomes a handy guide to help architects in their dealings with painters and paint contractors, enabling them to tell the painter exactly what he wants and can expect to get within the limits of existing paint technology.

The book is a small one, based on a series of articles which originally appeared in *National Painters Magazine*, of which the author is Technical Editor. Although the treatment is in general moderately comprehensive, it seems unfortunate that the problem of film permeability is not discussed, and that there is no more than a passing reference to the value of certain paints as vapor barriers. Perhaps these subjects are still too new and controversial for a book of this type.

It is also a bit disturbing that the author did not omit the opening and closing paragraphs of each article as it originally appeared in the magazine. They were necessary for the purpose of summary and introduction when published serially, but they are repetitious and awkward now that the whole series is in book form.

However, these are minor cavils. On the whole, this is a practical and useful little book which every architect will find of considerable value. GROFF CONKLIN