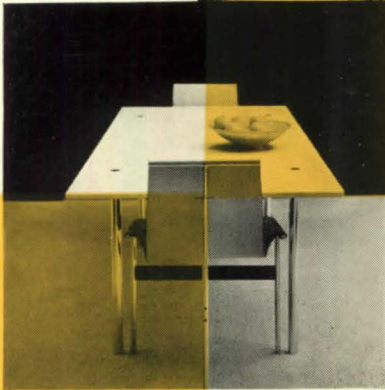


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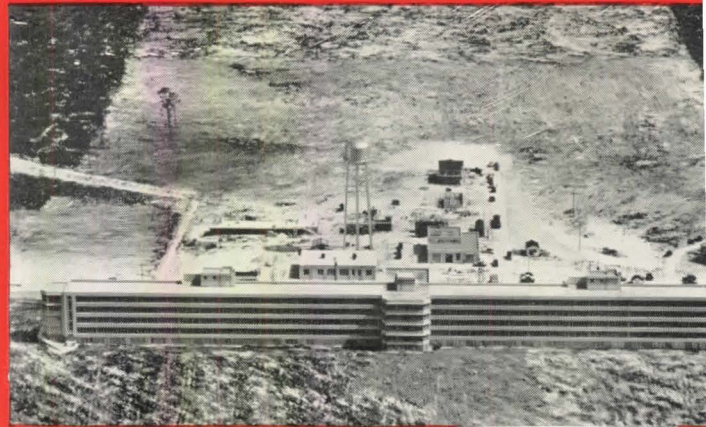
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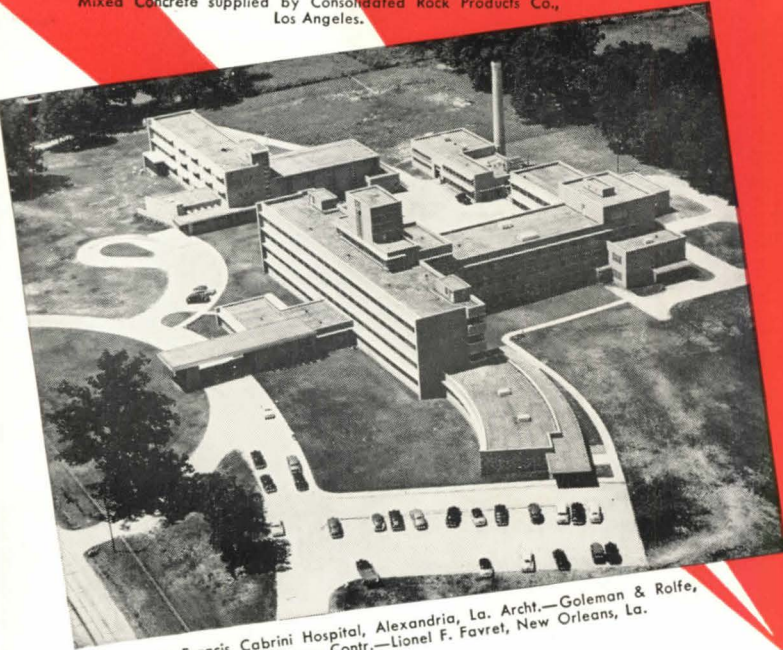
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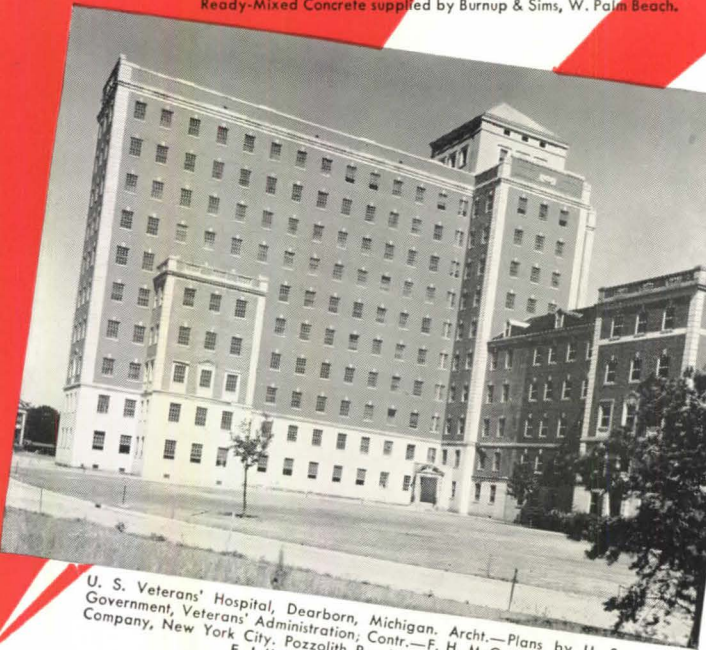
St. Francis Hospital, Lynwood, Calif. Archt.—Geo. Adams, Glendale, Calif.; Struc. Engr.—E. C. Hillman, Jr., Los Angeles; Contr.—J. K. Thomas & Theo. Bayer, Los Angeles. Pozzolith Ready-Mixed Concrete supplied by Consolidated Rock Products Co., Los Angeles.



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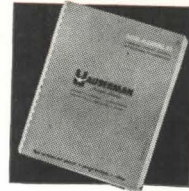
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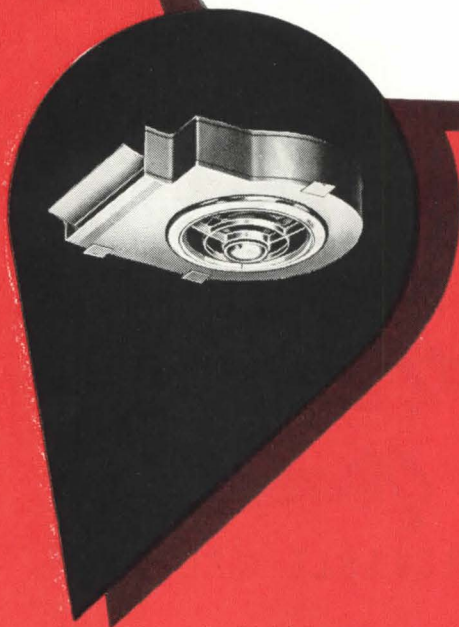
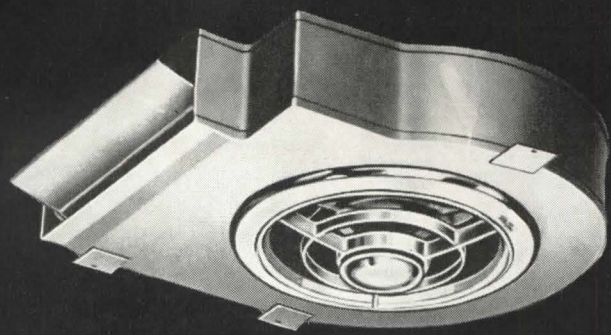
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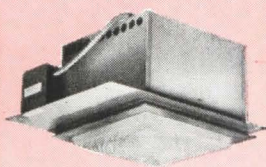
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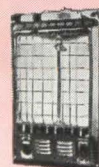
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22

In coming year, AIA and Producers' Council will expand services of Modular Coordination program, as well as broaden its financial support by doubling their subscriptions to the program.

During week of March 22-27, Sao Paulo Chapter of Institute of Architects of Brazil will hold second Institute on Hospital Planning. Isadore Rosenfield, New York architect and Hospital Consultant, has been invited by Rino Levi, IAB President, and Jarbas Karman, Director of Institute on Hospital Planning, to present papers on regional hospital planning and new trends in hospital planning.

This year's Sixth National Plastics Exposition will be held at Cleveland's Public Auditorium, June 7-10, and will show recent technical developments in all branches of the \$2-billion industry to more than 12,000 visitors from industry, business, retailing, and government. Exposition is sponsored annually by The Society of the Plastics Industry which represents 804 companies and 2015 individuals in plastics industry.

Prof. Turpin C. Bannister, Department Head, reports that largest body of architectural students in U. S. and one of world's largest is enrolled currently at the University of Illinois. Total of 856 undergraduates enrolled in five-year curriculum leading to Bachelor of Architecture degree—624 on Urbana campus and 232 at University's Undergraduate Division in Chicago.

1953 American Institute of Decorators' Design Awards will be made in June to winning designs in competition covering following classes: fabrics, furniture, floor coverings, lighting, and wall coverings used in interior design and decoration. Designs will be of products offered for sale after January 1, 1953 and which have reached consumer market.

Philadelphia Art Alliance, in its release covering schedule of exhibitions for first six months of '54, lists annual exhibition by Philadelphia Chapter of AIA, May 5-16.

"Building Your Home, 1954," public exhibition to demonstrate progress made in housing and residential materials and equipment, will take place at 42nd Infantry Division Armory in New York for one week beginning May 22nd. Under auspices of Architectural League of New York, exhibition will include exhibit devoted to work of League members and schedule of talks by prominent architects, city planners, home building experts, and finance authorities.

In its report submitted to President Eisenhower to guide his housing proposals to Congress, Advisory Committee on Housing Policies and Programs, appointed last September, recommended that federal housing activities be on a "revitalized" basis and suggested many liberalizations of Government financing for home construction, including 40-year mortgages on low-cost dwellings. Major change proposed centered on plan to set up private corporation to provide secondary market for mortgages with liquidation of existing Federal National Mortgage Association.

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Where the atom is taking architecture is now more than a subject for speculation. With more than 1500 hospitals and laboratories using isotopes purchased from Oak Ridge, basic requirements of nuclear science have become familiar to many architects in general practice. Many architects are designing lab facilities handling concentrations of radioactivity up to 1000 curies. Kilocurie sources are in widespread use in educational and industrial laboratories. Still more directly, hundreds of architects have been engaged in producing the buildings needed by the Atomic Energy Commission and its numerous contractors. But the most interesting architectural questions are still in the future: how atomic energy will change the practice of building itself by affecting location, size, the relative cost of building materials, types of services and equipment, and the way in which all of these elements are correlated in design.

The time is at hand when some of these imponderables must be resolved. Architects can count it fortunate that a professional committee under the leadership of Thomas K. Fitz Patrick (dean of School of Fine Arts, University of Virginia) is abreast of the situation. This small group, which has the necessary background, security clearances, and familiarity with AEC installations, is the sole hope that architecture can find a broader and more important role to play in the emerging field, still largely preempted by engineers, and regarded by the average architect with indifference.

Decisions on the shape of our future world and everything it contains, how it will be produced, and what it will cost, will now be accelerated by the effort to turn the vast potential of atomic energy into civil channels. For some time these efforts have accumulated. All that lies behind President Eisenhower's dramatic proposal to create an international "atomic bank," and to resume discussions with the Soviet Union on the control of atomic weapons, cannot be known. But some likely considerations are the growth of world knowledge of nuclear science (which has cut down our initial lead); the progress of other nations toward civilian applications of atomic power; possible technical developments which permit the use of the same nuclear materials interchangeably for both military and civilian purposes; and the need to enlist American business more comprehensively in this new and speculative field of enterprise, if we are to use our best creative talents where they are found, and to advance along traditional American lines. Beyond technical imponderables, diplomatic factors of first rate importance must have faced the President —

one of which was illustrated by Dr. Ralph Lapp with the remark that the Russians might be disposed to give an atomic reactor to Italy or India!

How to draw American business into the production and use of atomic power seems to form the cutting edge of the question, as it affects architects. Here will be decided the uses to be made of atomic power, and the speed with which applications will be attempted. First to feel the new impact of atomic science in building design will be public utility structures, such as power houses, industrial laboratories for quality control or dimensional control; followed by structures that have already been affected to some extent, such as hospitals and clinics, agricultural laboratories, or buildings for science teaching. Initial applications probably will alter present activities and production, rather than inaugurate new products or methods. In many fields, obsolescence will be accelerated.

The emerging pattern within which architects find themselves related to the making of the new world is thus clarified. Obviously, here is a new field for specialists. But obviously, too, architects in general practice will have to familiarize themselves with some new essentials if they are to design hospitals with isotope facilities, high schools equipped to train atomic technicians, and factories to use atomic power and control mechanisms. The chief contribution which architects can make to an atomic age, however, may not be in their traditional character of building specialists, but as the pilots who can chart the broader outlines of the new world. Even in the building industry alone, the piecemeal revision of much thinking about building materials and methods should be accompanied by broader thought on the reorientation and broader integration of building itself.

Two years have now elapsed since the first joint conference sponsored by the Atomic Energy Commission, the American Institute of Architects, and the Building Research Advisory Board, as a means of getting design information declassified and into the hands of private architects. At that time it was observed that "general knowledge of criteria used in AEC work is required, and widespread intelligent consideration as-yet-unsolved architectural problems must be pursued." Yet despite this need and the initiation of an acceptable technique for declassifying design data, there has been no further conference and no other follow-up. That seems to be the next step if the atomic age is to have its architecture; indeed, perhaps, any architecture.

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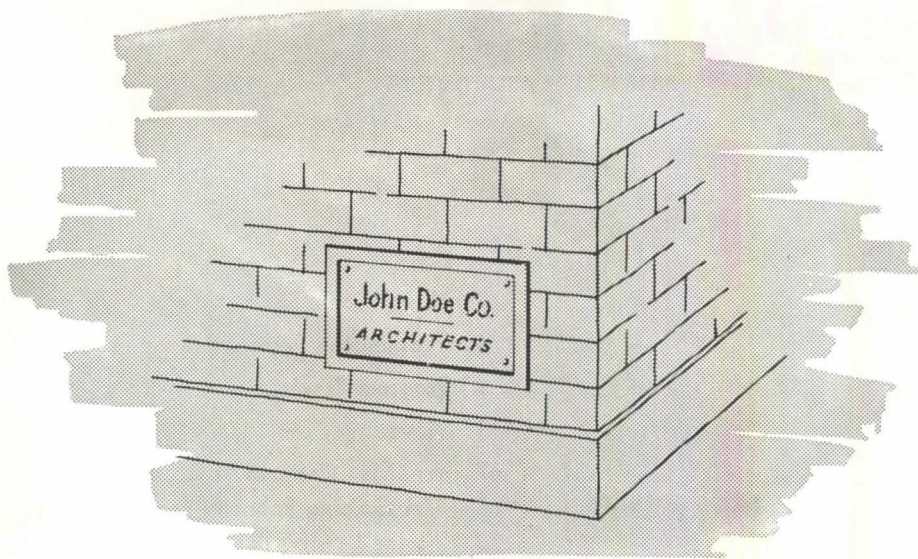
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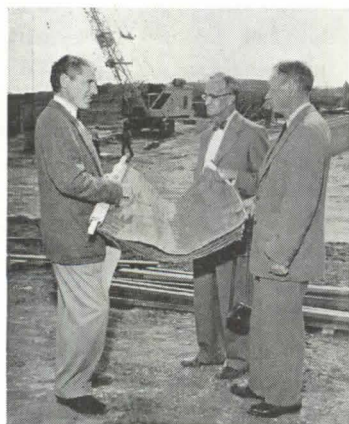
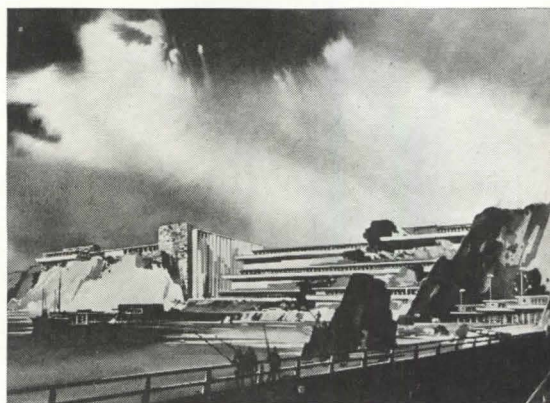
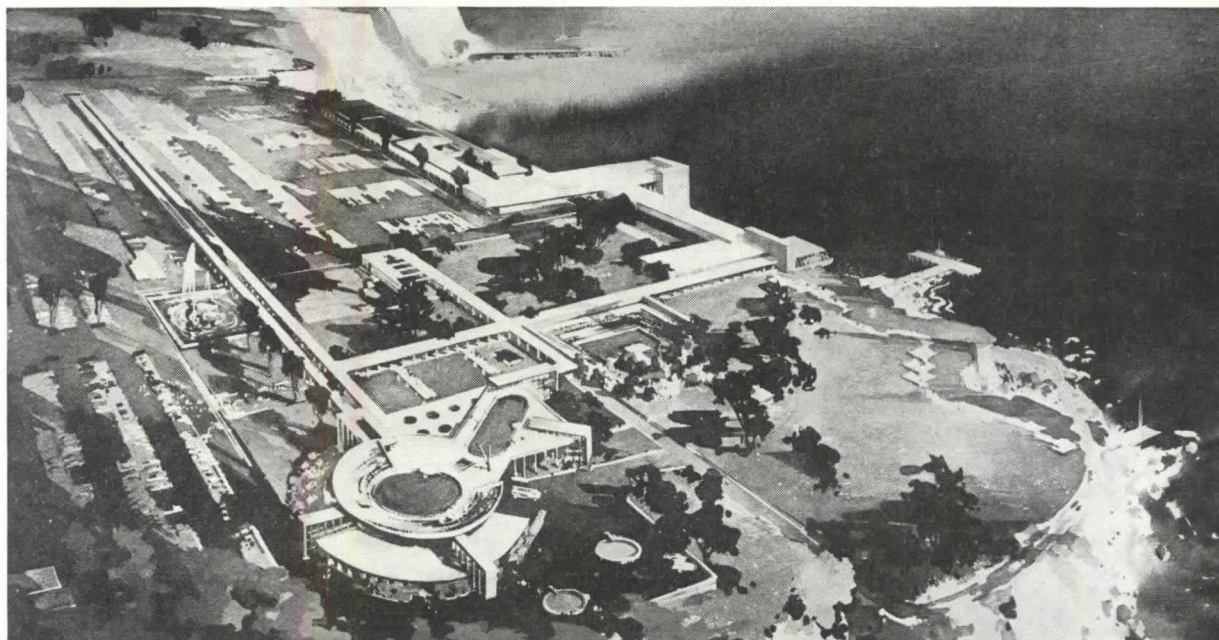
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oceanarium as tourist attraction

Construction of a spectacular "Marine Land of the Pacific" is under way at Palos Verdes, California, where some \$3 millions are being spent on two large oceanarium tanks, a restaurant, observation pier, and administrative and service buildings. The project, designed by Pereira & Luckman, Los Angeles architects-engineers, is scheduled for completion early in May.

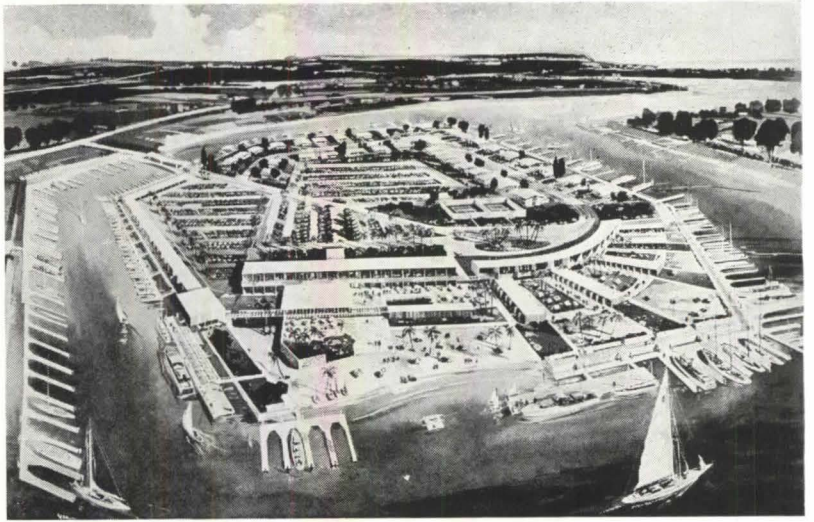
"We do not expect to stop construction with these structures," adds Henry U. Harris, New York, president of Oceanarium, Inc., owners and operators of the project. There are plans for an additional picturesque restaurant and for a hotel. General manager of the "Marine Land" is Ray W. Smith, vice-president

of Oceanarium, Inc. Exhibits in the huge tanks, where visitors will see thousands of marine specimens, will include such sea monsters as the manta ray, octopus, and killer shark.

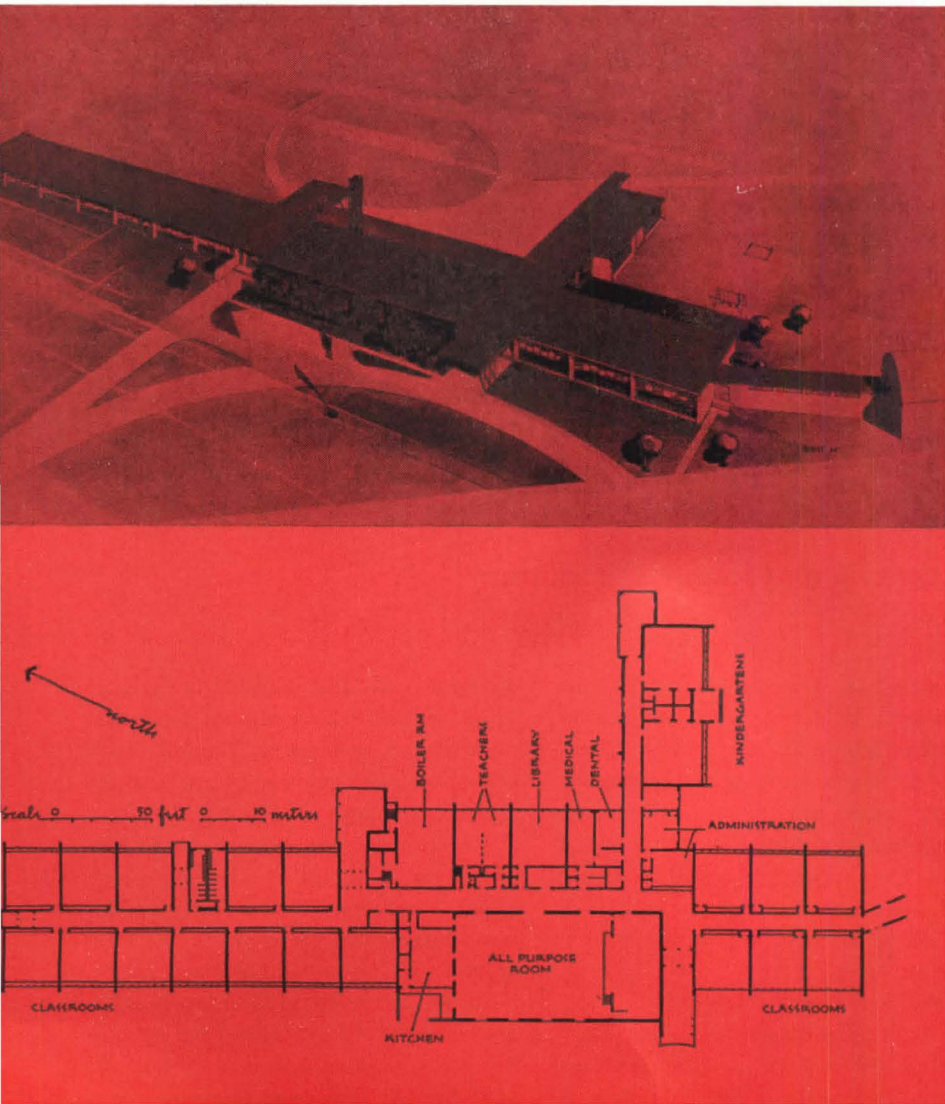
Architectural character of the 65-acre project is indicated by the renderings above. In the general view (*top*) the two large oceanarium tanks are in the foreground. The proposed hotel and restaurants are on the ocean bluff in the background, right. Closer view of the 11½ million-gallon tanks is below (*left*) and the hotel built in tiers descending the ocean bluff is pictured (*below, right*). Marine research laboratories also are contemplated in connection with the project.

Illustrations: Pereira & Luckman

vacation spot designed Linda Isle in Newport Bay on the California coast south of Los Angeles has been leased for a half-century by Dr. Forbes Farms Corporation, which proposes to spend more than \$5 millions developing a beach and boating resort. Welton Becket & Associates, Los Angeles architects-engineers, have designed the guest house, cabanas, and other facilities shown in the rendering (left). Home sites also will be offered.



simplified construction cuts cost of school



When designing expanded school facilities for the Long Island town of Copiague, the New York firm of Webber, Scheiner & Hornbostel, Architects, developed construction economies that resulted in bids almost \$91,000 under the preliminary appropriation for a new school and a school addition. The new elementary school (*right*) is of special interest, as the architects adhered strictly to a plan module of 29 ft; and by extending the (bearing) walls between classrooms to support roof overhang, exterior walls were lightened to a minimum and perimeter footings were omitted, grade beams being sufficient for the (minimum) perimeter load. Frank Swit was staff architect for the new school, Stewart Stiner was structural engineer, and Edwin T. Metcalf was mechanical engineer.

Notwithstanding the stringent planning economies, the architects were able to include terrazzo floors in all corridors and the kitchen; to use acoustical plaster ceilings throughout (except for all-purpose room); to provide a hot-air heating system with individual controls in each room; to use tile for all corridor walls, washrooms, and kitchen; to provide wardrobe cabinets, storage shelves along window walls, sinks, and green chalkboards with aluminum frames for each classroom. Interior furnishings, fabrics, and landscaping were included in the building budget (\$1.01 per cu ft).

further comment (cool to hot) on ciudad universitaria

vigorous and vital

Dear Editor: The keen and critical analysis of Mexico's Ciudad Universitaria by Sibyl Moholy-Nagy (November 1953 P/A) is of great interest to those of us, including the writer, who have visited this unique building project. Unfortunately, her critique overemphasizes the project's faults and underestimates its virtues.

There is no mention of the superb design and construction of the university's Olympic stadium; the warm, well related colors of the mosaic walls of the university library; the imaginative and appropriate use of native art and native building materials; or the magnificent landscaping that ties the whole site plan together. Above all, there is no acknowledgment of the fact that this is essentially a horizontal rather than a vertical building complex.

The vast majority of the buildings are less than four stories high, the skyscrapers are actually few and far between. The tremendous sweep of the entire campus, with its successive and varied courts, plazas and parking areas, its underpasses, pathways, and roadways, is very much in keeping with the huge lava plain which forms its site and with the distant mountains which bound the valley of Mexico. In fact, walking distances within the campus, in this high altitude, are almost excessive—at least to visitors from this country. By contrast, the scattered higher buildings provide needed concentration of space and activity for certain specialized university functions which could hardly operate as efficiently if spread out in low building units.

To be sure, some of the architectural clichés and borrowed structural forms found here and there within the university are regrettable. But even these mistakes are vigorous and vital experiments, bold attempts at a new and native architecture. Like so many architects in the United States, Mexican ar-

chitects are working their way through the International style towards originality. Judging their progress by this project, they have not got far to go.

MORRIS KETCHUM, JR.
New York, N.Y.

once most beautiful

Dear Editor: Mrs. Moholy-Nagy's "Mexican Critique" in November 1953 P/A is most interesting and surely worthy of careful reading by our "modern designers." To one familiar with Aztec and later Spanish Colonial design the "modernization" of Mexico City must be distressing. I have not been in the city since 1908. Before then I was down there quite often. The first time the only autos in the city were a couple of site-seeing buses. Nearly all the market produce and movables then came into town on the back of the "cargadares," the same as when Cortez came 400 years before.

The City of Mexico was at that time taken as a whole, the most beautiful in North America. There were no skyscrapers. Owing to the earthquakes, usually two stories was the skyline, except churches, a few theaters, and public buildings; but the miles of façades were in good design, all in harmony. They looked like they belonged in the wonderful natural setting. A style of building that has been developed under such natural conditions and surroundings over a period extending back possibly 2000 years can not be modernized overnight with happy results.

WILLARD M. ELLWOOD
South Bend, Ind.

disturbed, annoyed

Dear Editor: The "Mexican Critique" in November 1953 P/A is a disturbing and annoying document. In spite of its apparent inside information, its intellectuality about site, light, and scale, and its

lip service to indigenous culture, its general impact is snide, patronizing, and destructive.

The principal facts of University City, its sheer size and courage, and the vitality and richness of its combined architectural and art forms, are so much more important than these criticisms as to render them petty and irrelevant. Here is a relatively poor and backward country producing a center of learning bigger, bolder, and richer than anything we can show. Here are the artists and architects working together freely at the scale of the large landscape without fear of the petty carping of "good taste" and the sterile intellectuality of pure modern theories of structure and function. This is the biggest and richest thing that has happened in the western hemisphere. To pick around the fringes with small criticism seems to me to be rather shameful.

I agree with the critic's remarks about western contemporary architecture. It's certainly racing down a sterile, blind alley. Strangely enough, it's in Latin America where it is apparently not at home that it is being pulled out of the fire. I might close by saying that conversation with others who have been there and should know refutes the supposed inside information contained in your critique.

GARRETT ECKBO
Los Angeles, Calif.

destructive self-indulgence

Dear Editor: Whenever anybody does anything constructive there is always a knot of people sitting around waiting to swoop down upon it and try to tear it to bits. The persistency and continuity of this type of activity sometimes comes close to inducing discouragement. It seems to me that a magazine has some responsibility to avoid appearing to lend itself to this type of endeavor.

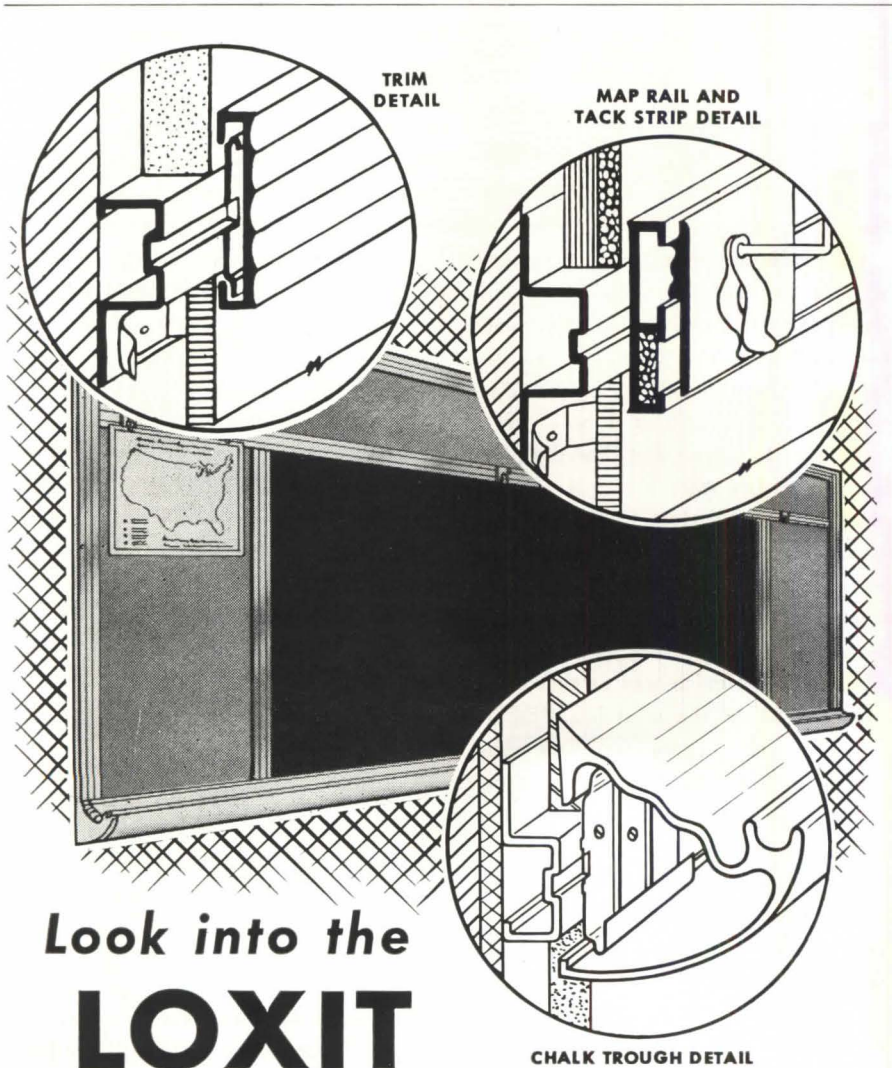
I think that "Mexican Critique" by Sibyl Moholy-Nagy in November 1953 P/A is perhaps one of the most flagrant

(Continued on page 14)

(Continued from page 13)

examples of an orgy of destructive self-indulgence that I have seen. Certainly it should not be graced by the title of "Critique" because it is completely blind to any of the positive aspects of the subject. It seems to me that criticism consists in a discussion and evaluation of all factors, including the good ones.

The author seems to be totally unaware of the fact that this (University City in Mexico City) is perhaps the largest and most courageous piece of unified construction based on an over-all design that is going on in the world today and, indeed, I would think one of the most important ever done. I think



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it would be approached with respect, particularly by a country like ours, which, as far as I know, has never even attempted anything of this character and magnitude. We all owe a debt of gratitude to the University and its promoters and designers because of the invaluable laboratory which it provides us to study design problems on a large scale.

Of course, there are errors. These very errors can help us immensely in our future work if we study them from an objective point of view. This the author seemed most uninterested in doing. Her almost frantic search for flaws and faults led her into inconsistencies within her own reasoning, and also into criticisms based on just plain ignorance. An example is her notion that the pylons for the fronton courts should be replaced by canvas when the purpose of the walls, well expressed architecturally and in a vernacular which seems to be consistent with Mexican tradition, is to provide a rigid surface for the balls to bounce against.

That she happens to dislike the magnificent library is perhaps an interesting commentary on her personal taste, but her attempt to tie up this dislike with primary principles of architecture is absurd. The wall panels containing the designs which are so distasteful to her, are themselves building material which "breathes in its own texture" just as much as any other building material, as far as I can see. In fact, they are made of native stone from many parts of Mexico and, to my view, are texturally superb.

I believe that University City provides us with perhaps the best research laboratory available where, for many years to come, we may study the problems connected with the design of a series of buildings so as to produce an inter-related whole. I do not think the way to begin is simply to sweep the whole project out of our consciousness with a smug assumption that it is all bad.

I really think you should seek out people who have been there and who can write on the positive lessons to be learned.

EDMUND N. BACON,
Executive Director
City Planning Commission
City of Philadelphia
Philadelphia, Pa.

(Continued on page 19)

With this issue, P/A moves its various OFFICE PRACTICE features into one section of the magazine, so that they can be easily found each month by the busy architect. Here there will be regular articles on matters of business and office procedure, on public relations problems—and solutions, and on legal matters. We call your attention to the fact that Bernard Tomson's IT'S THE LAW also has been moved to this section. This first article on "Overhead" is the beginning of a series on Architectural Office Management and Drafting Room Management subjects, by Siegmund Spiegel, Architect and Office Manager for the firm of Mayer & Whittlesey, Architects, New York. Spiegel has made an extensive analysis of architectural managerial functions, and has in preparation a book on the subject, which Reinhold will publish.

what is overhead? by Siegmund Spiegel

Every type of business operates with a certain overhead. Where commodities are sold, the overhead is relatively simple to determine, and it generally remains constant. In the case of architects, however, where the object of sale is service rather than commodities, overhead presents a special problem. It has direct bearing on every man-hour spent to produce the *drawing*, the instrument of service. Some of the items comprising an architect's overhead are not always easy to recognize. And yet, detailed recognition of his overhead and allocation of the proper amount when computing his fees are necessary if the architect is to conduct a successful practice. The first several articles in this series will discuss this problem, first in general terms, and then more specifically.

First of all, just what is overhead? It is a ratio of General Expenses (all costs incurred which cannot be allocated to specific jobs for which fees are received) to Direct Drafting Salaries. The next article in this series will detail these costs and explain the method of determining the ratio. As an instance of how overhead is "hidden" and must be carefully scrutinized in office accounting, consider the cost of a draftsman who is hired at the nominal salary of \$100 a week. Each employe is entitled to certain privileges of a nature accepted by standard practice and required by law. He is entitled to certain time off, as well as to either government-enforced or voluntary protection of various sorts. The "standards" regarding these things vary to some extent from office to office, and in the case of enforced insurances, from State to State. For the purposes of this illustration, practice in the State of New York is assumed.

As to paid time off, it is generally ac-

cepted that the employe is entitled, during a year, to two weeks of vacation, two weeks of sick leave, and approximately seven legal holidays. Thus the ratio of working days to the paid time off, in effect means that the actual cost to the employer is increased by some 10%.

As to insurance and taxes which the employer must pay, these are in most instances in direct proportion to the payroll, and roughly consist of the following:

Federal Old Age Benefits (<i>Social Security</i>)	2%
(<i>up to \$3600 of gross earnings</i>)	
Unemployment Insurance	2.7%
(<i>up to \$3000 of gross earnings; the rate of 2.7% may at times be reduced, but will generally stay between 2% and 3%</i>)	
Disability Insurance	0.5%
(<i>up to \$60 gross earnings per week</i>)	

These total approximately 5.2% of a large part of the employe's weekly salary. In addition, the employer has to carry *Workmen's Compensation Insurance*, the premium of which is based on a direct ratio to the yearly gross payroll. In the case of an office employing a given number of men for a designated period of time during the year, the architect is also required to pay an *Excise Tax* to the government, which again is in direct proportion to his gross payroll. To increase the burden still further, for certain jobs the architect may, for his own protection, obtain *Life Insurance* or *Accident Insurance* for some employes.

These two categories of "privileges," then, imply that the architect has to absorb some 15% to 16% of the draftsman's salary as "overhead" and consequently the man who was hired at \$100 a week actually costs his employer about \$115. These hidden costs of a draftsman's salary are of course, only a minor part of an architect's office overhead.

What is "normal" overhead for an architect's office? Every architect, especially the man just beginning practice, is concerned with this question. Unfortunately, there does not seem to be any definite answer. Certain basic expenses vary from firm to firm—rent, for instance, may be \$200 a month for one firm and \$400 for another of about the same size. Then overhead may vary greatly from year to year, for the same firm. If a year shows unusual activity in an office, one may be deceived by the relatively low percentage of overhead which an economic analysis will show. Another year, which unfortunately must also be anticipated, may show little productive activity with General Expenses at the same time remaining at a normal constancy. The overhead cost may then rise to as great a figure as—or greater than—Direct Drafting Cost. The one slow year will upset the entire concept of one's overhead percentages. To be realistic, the architect, although his experiences over several years had indicated an average of, let us assume, 65% overhead, must compensate for the periodic lean year and incorporate it into his over-all average, which may then rise to 70%, 75%, or even 80%.

A number of offices queried by the author speak in terms of 65% to 70% overhead, others somewhat more. But 70% seems to be about the average figure in offices of medium size, employing anywhere from 6 to 12 draftsmen. It will probably never drop below 50%. If it rises close to 90%, over a period of a few years, the office set-up should be re-examined with a view to curtailment of non-productive technical staff, rent, office personnel, and so on.

Why is it important to be able to estimate overhead percentages with reasonable accuracy? The answer is simple: overhead is an important factor in preparing a budget, on the basis of which fees are quoted to clients. The budget for any job, as the next article will outline in more detail, must include Direct Drafting Costs, other Direct Expense items, and a certain percentage of Direct Drafting Costs, for overhead. Anything miscalculated will eat into assumed profits, or result in a net loss.

In the case of jobs which are obtained on the basis of a fee which is a percentage of construction costs, even the recom-

mended fees, based on scales used by a number of local AIA groups, may prove under analysis to be inadequate for certain jobs, and hence should be tested in every case against the actual estimate of production cost before the percentage figure is quoted. Frequently the architect enters into a contract which guarantees him a fixed fee for his services, and

reimburses him for "Salaries of Technical Personnel" and ". . . % for Overhead." This type of contract generally designates an "up-set" figure of what salaries and overhead may total. Even if the sum anticipated for salary reimbursement is not exceeded, the architect may actually lose money by underestimating his overhead and consequently will eat into

his fixed fee, which can be absorbed only too quickly.

Although the architect maintains a "professional" office, he still conducts a business, and like every other business man he must watch overhead so that it does not grow beyond control. Not even a professional man can exist, unless figures at the end of the year show black.

p/a gaining publicity for architects

The magazine, *PROGRESSIVE ARCHITECTURE*, is dedicated to the promotion of architecture and architects. Within the pages of the magazine, the editorial staff speaks to architects in, we hope, their own language. Our purpose is not to reach the general public, as subscribers. But when we turn our face to the world outside the professional body of readers—in promotion, in selling, in building for the future—our aim is exactly that of our subscribers. It is to tell the story of the importance of the architect, and the influence of architecture on the community at large. Hence, in our magazine publicity activities, we can accomplish a double purpose. Very frankly, we help ourselves every time we gain recognition for another architect. And very truthfully, we can gear our own publicity to the advantage and help of members of the design professions.

Recognizing this, P/A began some time ago an experiment on which I would now like to report to our readers. Each time a building is published in the magazine, Reinhold's public relations department sends releases about the presentation, with a covering letter to all known media in the architect's own area. The public relations idea, of course, is that local papers and magazines will be interested in the "home town boy is honored" approach. And they certainly are interested. By this time, the magazine has a library of clippings that bulge from the file cabinets, to prove it.

The procedure is simple. At the time the issue of the magazine containing, say, a house in Dallas, Texas, designed by John Doe, architect, is off the press, a letter like this goes out to a list of local newspapers and other possible outlets:

Mr. Richard Roe, Editor

Dallas Times-Union

Dear Sir:

*The impressive new home of
in Dallas, designed by John Doe, architect, is cited*

for its fine design in the current issue of PROGRESSIVE ARCHITECTURE, national architectural magazine. In six pages of pictures and text, the editors praise this achievement of one of your local architects.

It occurred to us that readers of the Times-Union might be interested in this national recognition of a Dallas house, designed by a Dallas architect. In the event that you find this information newsworthy, we are enclosing a suggested news release and a copy of the issue. Photographs, should you wish them, can be obtained directly from the photographer, (. of such and such an address).

Very truly yours,
John Y. Cunningham,

Promotion Manager

PROGRESSIVE ARCHITECTURE

Obviously, we do not see clippings of all the releases that are picked up, but from the ones we have received, we know that this program has been highly successful. Local magazines have run stories based on the releases sent them; local newspapers have carried the items in their news column, in by-line columns of local commentators, as "home page" items, as real-estate page stories, and in many other ways. In a number of cases, the papers have seen enough of a story to send a reporter to the architect and the client, and occasionally a photographer of their own, to develop a more complete coverage. The resulting publicity has run from a paragraph to a full page—and in every case *the architect* has been the focal point of the story. A montage of a very small part of the result is shown, to indicate its variety.

P/A will continue to follow this program. It is done for the architect, without his own effort involved. Isn't it possible that the success of the activity might suggest a similar approach to public relations on the part of local AIA Chapters and other groups?

EXCELLENT DESIGN WINS AWARD FOR LOCAL HOME

National Magazine Cites City Architect

By DOBOTHY HYDE
Home Editor of The News

You could scour the country and probably couldn't find a more striking example of contemporary than the Jack V. Breaud's home.

Built on a scenic three acres of oak trees, the rambling structure at Meadowood Road leaves nothing desired in comfort and convenience.

Here's a house with the new most elegant in furnishings... that's livable and easy to keep that received national recognition for its design.

One main reason it stands out is its design around the needs of a family of five... three boys and a girl.

Heir and Granger did the exterior in bleached oak... year round, part of the year.

A PARADENA home has received national recognition for its design. The Breaud home at 708 Linda Vista Ave. was one of the U.S. homes to be recognized in the March issue of Progressive Architecture, national architectural magazine, after a study of design in American single-family homes.

It was one of the U.S. homes to be recognized in the March issue of Progressive Architecture, national architectural magazine, after a study of design in American single-family homes.

Architect of the home also was a ParadeNA. He is Leland L. Ely.

A four-page article, complemented with pictures and diagrams, was developed from a study of design in American single-family homes.

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Air Station At Plattsburgh Wins Acclaim

The air station at Plattsburgh, N. Y., has been singled out for its excellent design in the July issue of Progressive Architecture, national architectural magazine. The station, designed by the architectural firm of Fehr & Granger, is a fine example of the modern architectural style. It is a four-story terminal building with a glass facade and a modern interior. The station is a favorite spot with her family. Notice the barbecue at the end, the gray marble floor and the modern chairs which open into the den and dining room. The copy of Progressive Architecture is available at the airport.

Magazine Featuring Architecture Of NW

A national magazine which devotes 30 pages to Pacific Northwest architecture will be distributed at the convention of the American Association of Architects Tuesday through Thursday in the Olympic Hotel. The magazine, published by the Northwest Architectural Association, features the historical background of the Northwest and the architectural achievements of the region. It is a valuable reference for architects and students alike.

Florida Architect Praised By Magazine

The new cabins colony at Key Biscayne is cited for its excellent design in a recent issue of Progressive Architecture, national architectural magazine. The colony, designed by the architectural firm of Robert Fitch Smith, is a fine example of the modern architectural style. It features a variety of excellent design, including a four-page article in the July issue of Progressive Architecture. The colony is a favorite spot with her family. Notice the barbecue at the end, the gray marble floor and the modern chairs which open into the den and dining room. The copy of Progressive Architecture is available at the airport.

Air Terminal Wins Acclaim

The new air terminal at Anchorage is cited for its excellent design in a recent issue of Progressive Architecture, national architectural magazine. The terminal, designed by the architectural firm of Fehr & Granger, is a fine example of the modern architectural style. It features a variety of excellent design, including a four-page article in the July issue of Progressive Architecture. The terminal is a favorite spot with her family. Notice the barbecue at the end, the gray marble floor and the modern chairs which open into the den and dining room. The copy of Progressive Architecture is available at the airport.

Magazine Features Airport Terminal

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Magazine Praises Design of High School

The Birmingham high school has been singled out for its excellent design in the July issue of Progressive Architecture, national architectural magazine. The school, designed by the architectural firm of Fehr & Granger, is a fine example of the modern architectural style. It features a variety of excellent design, including a four-page article in the July issue of Progressive Architecture. The school is a favorite spot with her family. Notice the barbecue at the end, the gray marble floor and the modern chairs which open into the den and dining room. The copy of Progressive Architecture is available at the airport.

Auditorium Given Praise

The new auditorium at Madison School No. 2, Campbell Avenue and 20th Street, is cited for its excellent design in the March issue of Progressive Architecture, national architectural magazine. The auditorium, designed by the architectural firm of Fehr & Granger, is a fine example of the modern architectural style. It features a variety of excellent design, including a four-page article in the March issue of Progressive Architecture. The auditorium is a favorite spot with her family. Notice the barbecue at the end, the gray marble floor and the modern chairs which open into the den and dining room. The copy of Progressive Architecture is available at the airport.

League Home Earns Praise For Architectural Excellence

The new home at 1849 Waverland Drive is cited for its excellent design in the latest issue of Progressive Architecture, national architectural magazine. The home, designed by the architectural firm of Fehr & Granger, is a fine example of the modern architectural style. It features a variety of excellent design, including a four-page article in the latest issue of Progressive Architecture. The home is a favorite spot with her family. Notice the barbecue at the end, the gray marble floor and the modern chairs which open into the den and dining room. The copy of Progressive Architecture is available at the airport.

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Architects Claim New Scarsdale Idea

The living-dining area of the J. Gordon Lippincott home in Scarsdale is praised for its excellent design in the August issue of Progressive Architecture. The home, designed by the architectural firm of Fehr & Granger, is a fine example of the modern architectural style. It features a variety of excellent design, including a four-page article in the August issue of Progressive Architecture. The home is a favorite spot with her family. Notice the barbecue at the end, the gray marble floor and the modern chairs which open into the den and dining room. The copy of Progressive Architecture is available at the airport.

Miss Dykes, Bobby Smith Are Married

Beauty and style speak for themselves in the livable home of Miss Hilda Dykes and Bobby E. Smith of Mason were married in a ceremony at the home of the bride's parents. The home, designed by the architectural firm of Fehr & Granger, is a fine example of the modern architectural style. It features a variety of excellent design, including a four-page article in the latest issue of Progressive Architecture. The home is a favorite spot with her family. Notice the barbecue at the end, the gray marble floor and the modern chairs which open into the den and dining room. The copy of Progressive Architecture is available at the airport.

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THE BIRMINGHAM ECCENTRIC August 6, 1933

Bernard Tomson **it's the law**

In a series of three columns the relationship between the "Supervision of the Contractor" and the adequacy of the "General Conditions of the Contract" have been discussed (September through November 1953 P/A). Certain changes in the "General Conditions" were recommended, in order to accomplish a more effective supervision of the contract and to furnish both Architect and Owner with greater protection. In this connection, I was recently asked by an architect to outline the role he should play in the contractor's furnishing a performance bond. I pointed out that a suitable performance bond furnished by a responsible bonding company is one of the most effective aids in assuring proper performance on the part of the Contractor. I also stated that both Owner and Architect have a vital interest in the selection of a proper bonding company, represented by an able broker or agent.

Article 30 of the AIA General Conditions of the Contract, reads as follows (the emphasis is mine):

"Guaranty Bonds.—The Owner shall have the right, prior to the signing of the Contract, to require the Contractor to furnish bond covering the faithful performance of the Contract and the payment of all obligations arising thereunder, in such forms as the Owner may prescribe and with such sureties as he may approve. If such bond is required by instructions given previous to the submission of bids, the premium shall be paid by the Contractor; if subsequent thereto, it shall be paid by the Owner."

Generally the Owner's "right" is *not* exercised. His interest is usually confined to the amount of the bond alone. In some instances, the Owner may be lulled into a feeling of security that the Contractor is able to perform, because he believes that the Contractor has been thoroughly investigated by the bonding company when, as a matter of fact, the bonding company doubtful of the Contractor's reliability, may have insisted on guarantees from others. This information, of course, is not made known to the Owner.

The choice of the broker or agent, through whom the bond is written, is also a matter of some importance since he can be of substantial value in keeping a wavering contractor in line, in getting the bonding company to give assistance to the Contractor temporarily financially embarrassed, or in prodding the bonding company to take over the project with the least amount of delay, inconvenience, and financial loss to the Owner.

It is good business for the Owner to insist on exercising his right to approve the bonding company and the terms of the bond. The bond is for the protection of the Owner (*not the Contractor*) and paid for by the Owner directly or indirectly (and not by the Contractor). The interests of the Owner and of the Contractor in respect to the choice of bonding company are *not* similar—and in many respects conflicting. The accompanying table outlines the divergent motivations of the Owner and Con-

tractor in the selection of a bonding company and an agent or broker to write the bond.

RESPECTIVE INTERESTS OF OWNER AND CONTRACTOR IN SELECTING BONDING COMPANY AND AGENT OR BROKER

criteria for owner:

1. A bonding company which will require the Contractor to furnish *maximum* financial, personal experience, and other necessary data to assure Contractor's responsibility and ability to perform.

2. A bonding company which will give maximum supervision to and interest in the operations of the Contractor to insure proper performance on his part and to minimize claims.

3. A bonding company which will intervene at the earliest possible moment to aid the Contractor financially, or take over the job, if required.

4. A bonding company which has the highest financial rating.

5. A bonding company which has an excellent record for the assumption of responsibility when Contractor fails to perform in whole or in part, and a company which does not have a litigious history based upon its efforts to avoid responsibility.

6. A broker or agent* who shall be in an influential position to act on the Owner's behalf, and who will be in a position to exercise sufficient supervision over the Contractor's performance to protect the bonding company's and the Owner's interest.

7. A broker or agent whose ability and experience in the Contractor-surety field is extensive, and whose status, ability, and experience is affirmatively recognized by the bonding company.

* Broker must write bond through the agent or company while agent issues bonds immediately in company's name.

contractor's motivation:

1. A bonding company which will require the Contractor to furnish *minimum* financial, personal experience, and other data.

2. Minimum "interference" and interest by the bonding company in the Contractor's operations.

3. Intervention by bonding company at last possible moment, if Contractor is not applying funds according to contract, or job otherwise goes sour.

4. No interest in bonding company's financial rating.

5. No interest in bonding company's history in accepting responsibility.

6. An agent or broker who will exercise a minimum of supervision and "interference" in the Contractor's performance.

7. Interest in broker or agent is confined to ability of broker or agent to use influence in Contractor's behalf.

What role should the Architect play in all of this? The answer is implicit in the foregoing. He should call the substance of this article to the Owner's attention, and if required by the Owner, he should see to it that a proper bond is written through an appropriate broker or agent.

Changing Living Habits

What factors in today's world might be said to have effected the greatest change in the dwellings we now build, from those of the past? These seem most significant:

Economic factors: Wider distribution of wealth than in any past time; higher construction costs; fewer servants.

Architectural effect: *Fewer mansions but more house construction and ownership; lighter construction and more prefabrication; more attention to ease of maintenance.*

Technological factors: Fabulous industrial production making more work-saving and pleasure-giving devices and gadgets; communication and transportation greatly accelerated—radios, TV's, planes, automobiles, deep freezers, dishwashers, air conditioners, etc.

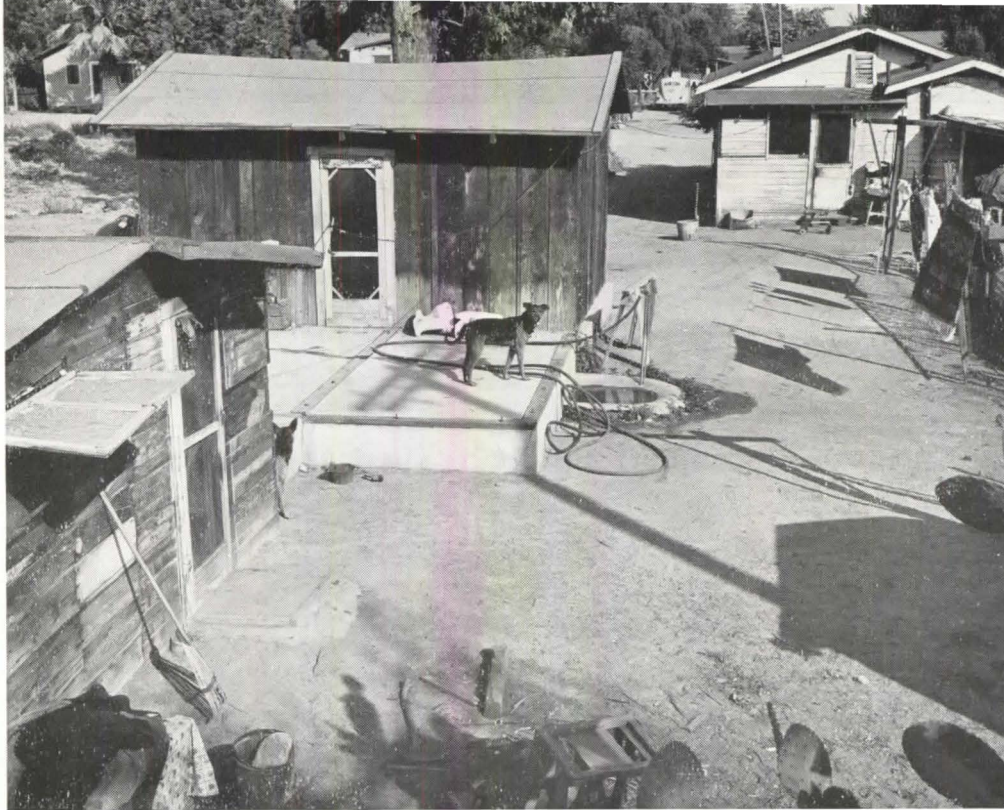
Architectural effect: *Planning to include mechanical equipment and time savers; sealing of structures as a result of indoor climate control; more homes built well away from crowded areas; carports an integral part of design.*

Leisure-time factor: Less time is spent working, more in recreation. Enormous step-up in living tempo. Man's need to work, play, and relax hasn't altered, but he does these things in a totally new time-living ratio. Time budgeting is required.

Architectural effect: *Openness in house planning; fewer separate rooms; more multiuse living areas; materials chosen for minimum housekeeping; planning for less formal living; efficiency apartments.*

Psychological factors: Tendency away from pompous stylism and conspicuous waste; a widespread urge to tie dwellings to something permanent and reliable—nature, trees, a view, the sun—presumably a protest against the swift movement and transiency of life outside the home.

Architectural effect: *Concern with purity of line, basic forms, and integration of all elements; elimination of ostentatious or sentimental detail; resourceful use of site as part of the dwelling unit; planning for privacy from one's neighbors as well as from the busy world; use of private gardens and terraces closed to the street; planning for view and light.*



less divergence in living standards

Symbolic of the attempt to improve low-rent living standards throughout the country, Pacoima Public Housing Project promises a new way of life to a large group of Los Angeles' farm laborers. To replace the present shanties, Architects Gallion and Gruen first planned 312 dwelling units for this site—an excellent solution in terms of design and density. With approximately 10.5 dwellings per acre, no more than two units were grouped into one structure, and there was space enough to give every family an individual garden—a plan which would have preserved the site's semi-rural character. These preliminary sketches were, however, soon subjected to economic adjustments which required that the architects provide 448 dwelling units for the site, raising the density to 15 families per acre. It was evident that the open character of the development could not survive—indeed, it became obvious that, if the architects could avert the catastrophe which a repetitious row-house scheme often presents, they would have done

well. The problem became one of overcoming the usual straight-line-row-house compromise, without losing the end-relationship economy which that system offers. The architects found that, by planning some straight-line units interspersed with some which are bent, not only could they maintain the minimum loss of space between buildings but also they could better the minimum and produce a layout more pleasing than the usual row-house development. The 120° angle of bend was chosen in order to avoid dark spots at the inside corners (*see plan*) which a more acute angle would have created.

The buildings themselves are of three basic types: R—two-story row houses, both straight and bent; T—two-story twin or duplex houses; F—one-story row houses. In both two-story types, apartment units are duplex, the kitchen, dining, and living rooms being downstairs; bedrooms and bath upstairs. The structural system employed throughout is a combination of concrete block and wood,

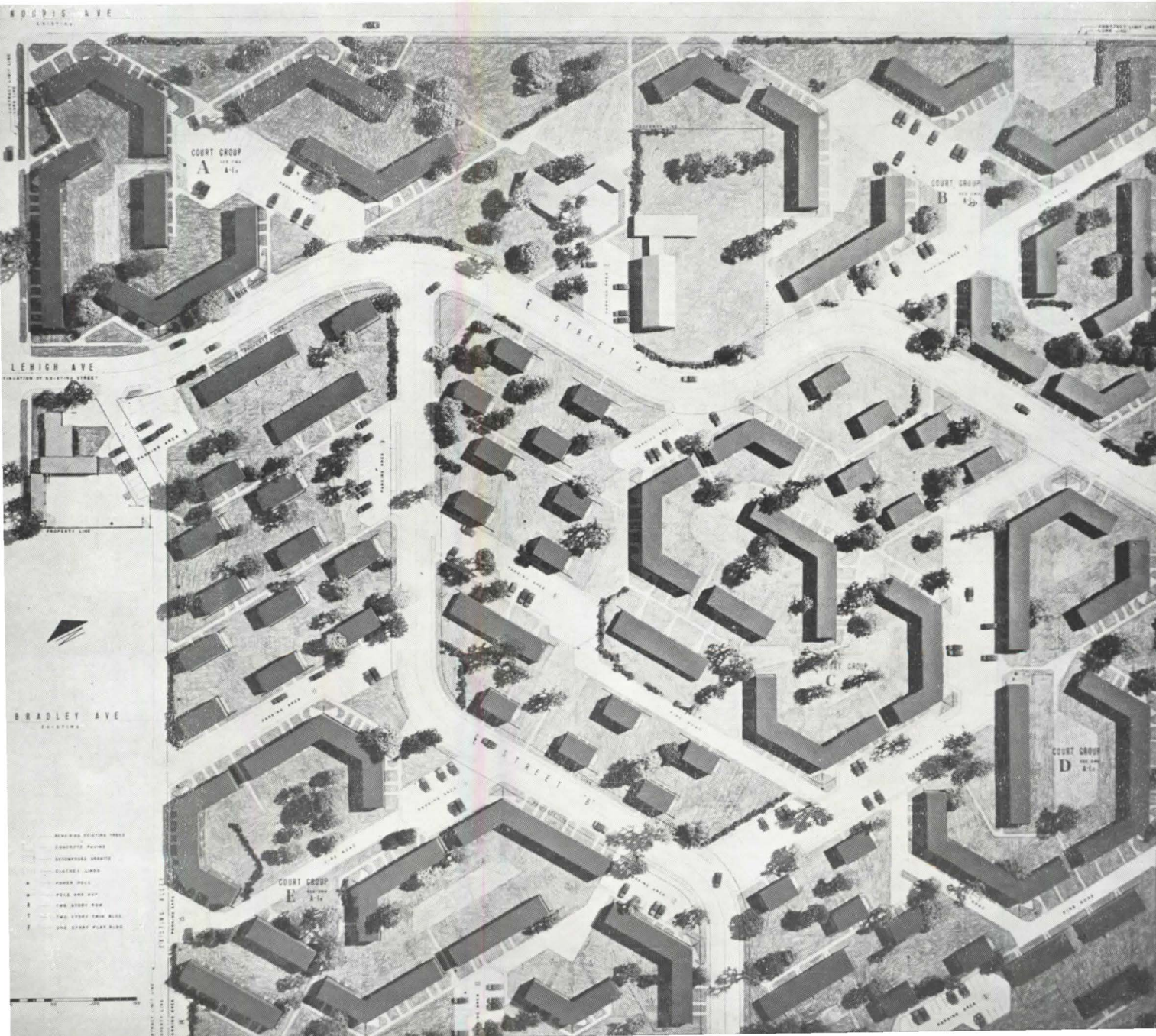
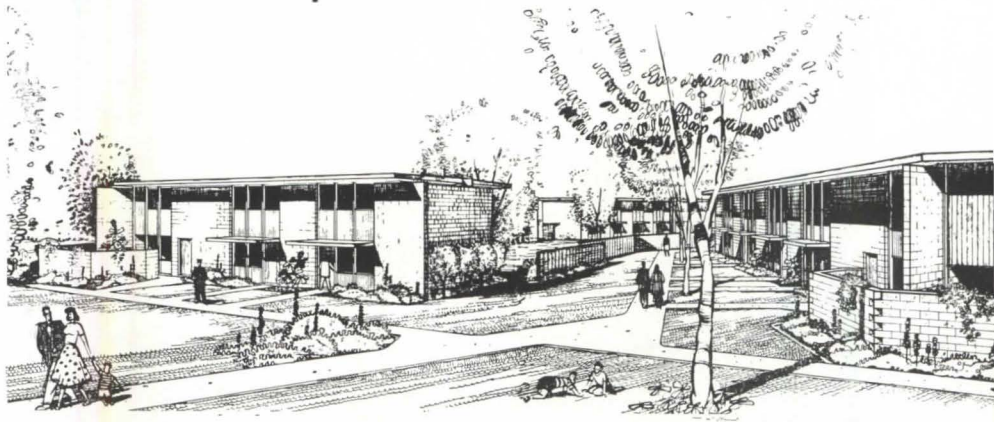
with concrete foundations and first floors. The architects originally planned for group clothes-drying yards, but the Los Angeles Housing Authority required that private facilities be provided for each family unit, which the architects realized unhappily complicated their landscape planning. However, each unit enjoys the convenience (no longer a luxury in modern living) of a private terrace, and there is ample off-street play space for the children. This has been achieved at the phenomenally low price of \$7.33 per sq ft including site improvements. This is certainly an excellent economic argument in favor of low-rise housing. And it is equally true that the automobile has made it possible to get far enough out from high-property-value urban areas to make low-rise housing feasible.

Turning to another aspect of this project and similar projects, the question always arises as to the effect that these new dwellings will have on the people who move into them—what change will be brought about in their living habits?

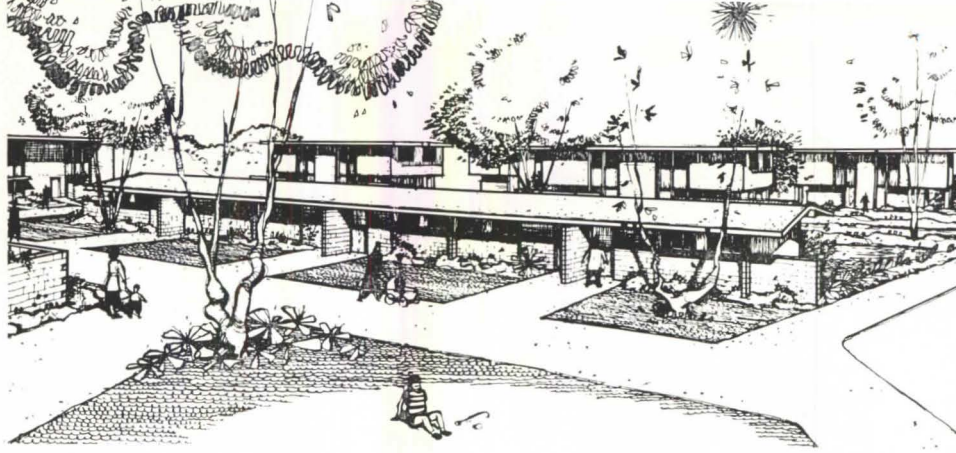
location	Pacoima, Los Angeles, California
associated architects	Arthur B. Gallion and Victor Gruen
civil engineer	Edgardo Contini
mechanical-electrical engineers	Bartlett & Berky
landscape architect	Francis Dean

Type R, two-story row houses (right), are the dominant bent forms in the model below. Terraces at 120° corners are enclosed by concrete walls.

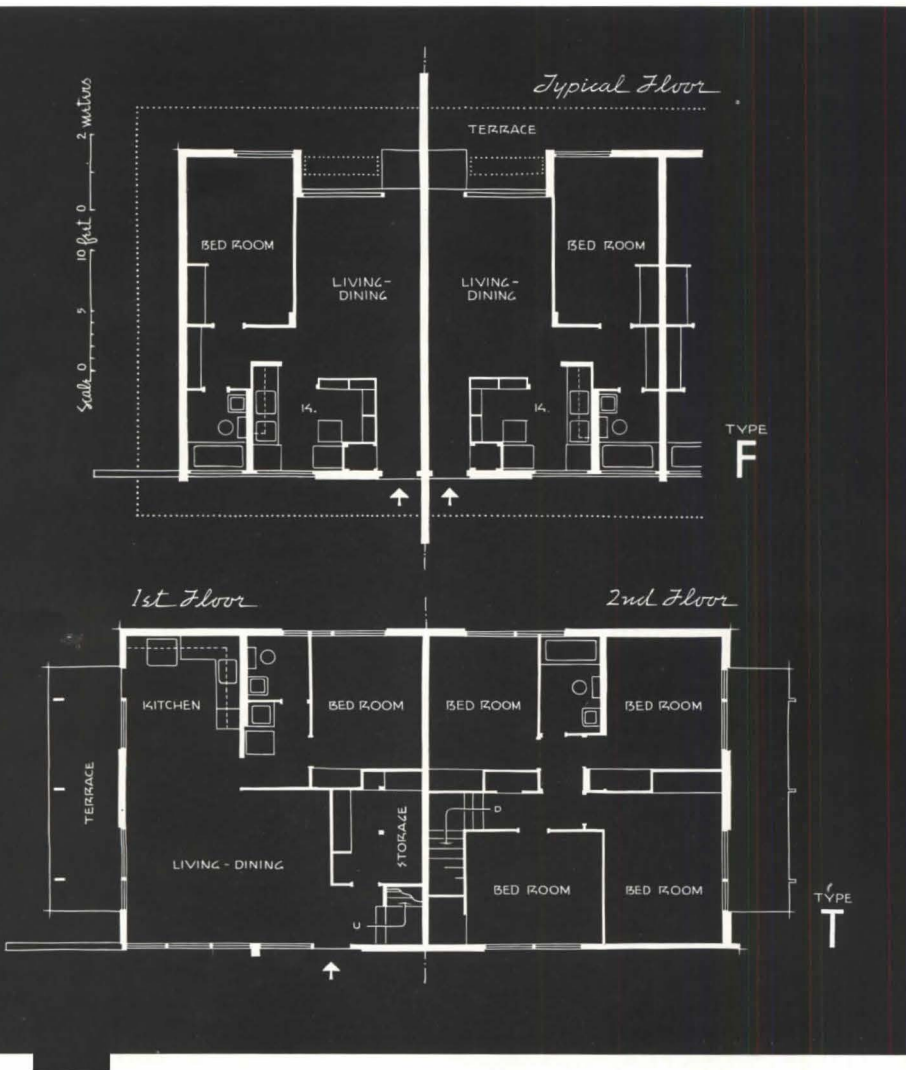
Site (model below) is bordered on the north by a public park and on the east by a small airport; thus, through traffic on the site will be virtually nonexistent.



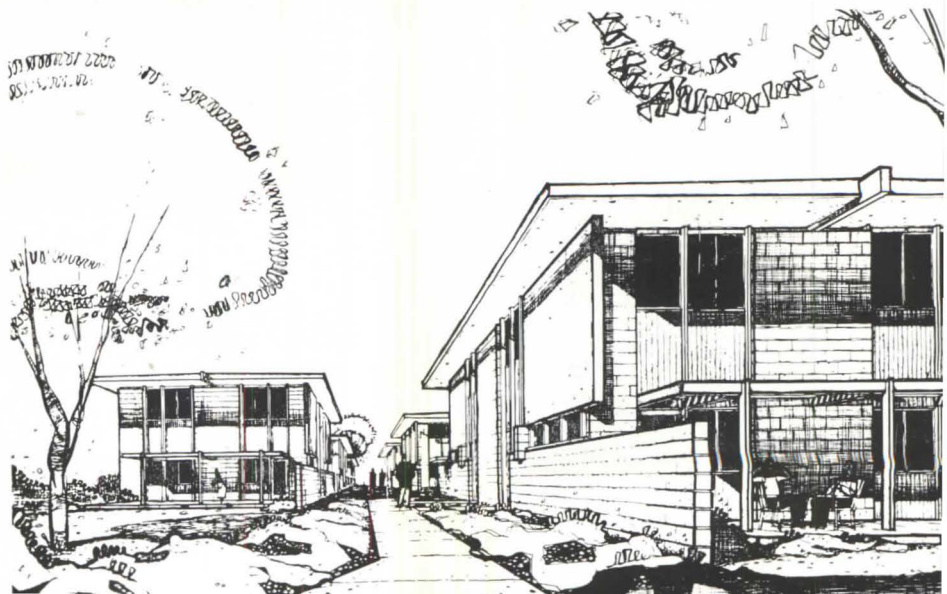
housing project: Los Angeles



Front of Type F, one-story row house. Notice, in the plan (left), small terrace off kitchen which is covered by roof overhang.



Type T, two-story twin buildings. Extension of concrete-block wall along sidewalk not only gives privacy to the terrace but also accents the human scale of the buildings. Panels above can be made either of stucco or wood siding. Apartments in this type of structure are two-story: living room, kitchen, dining downstairs; bedrooms and bath upstairs.



—and what effect will the people have on the dwellings? Let's consider the last question first.

Even after the best planning, many public housing projects quickly assume the appearance of slums; the architects are shocked; and housing authorities are embarrassed. Tenants, used to a different environment, must learn a new manner of living. They will necessarily bring their old furnishings with them; and it is ex-

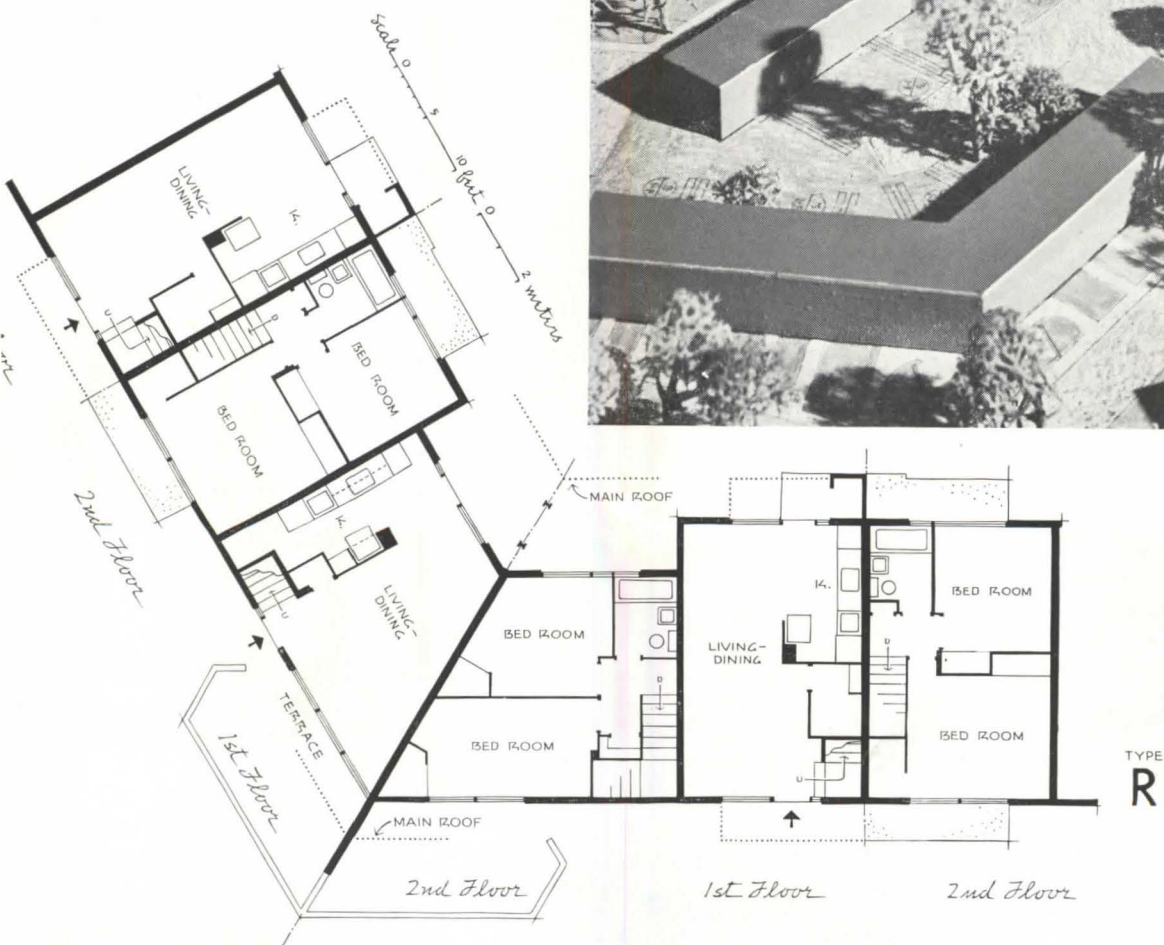
tremely unlikely that their habits of home maintenance will change immediately. Children may gravitate to the streets and parking lots instead of to areas provided for play; and clotheslines may appear on the terraces, since they are handier than drying yards.

In this case, Architect Gruen believes that such abuse can and should be avoided through a realistic social program of home crafts (the making of fur-

niture and decorations) and instruction in the use of these new facilities.

Thus, the future of such an architectural work, though somewhat out of the hands of the architect, is nevertheless an important concern to him. It remains for the local housing authority to provide sympathetic and adequate management; to offer the tenants adequate instruction in the use of this new "tool" for better living.

Plan of typical corner bend in Type R units shows how light is brought in from both sides to avoid darkness without cramping interior plan.





closer relation to nature

location	Bloomfield Township, Michigan
architects	Leinweber, Yamasaki & Hellmuth
structural engineer	Edgardo Contini
landscape architect	Milton Barron
contractor	Shafman Construction Company

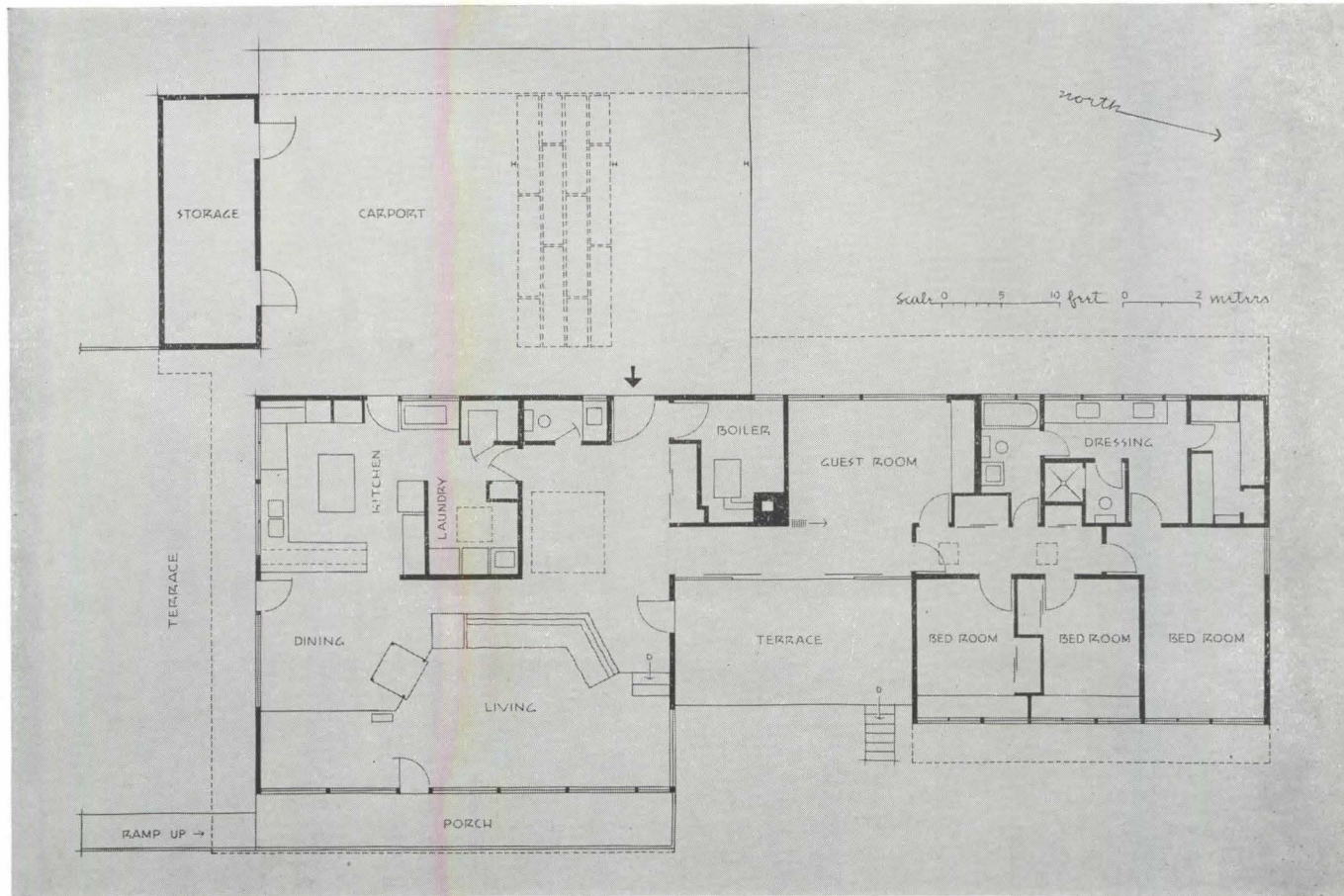
To a very exceptional degree, this house is planned to embrace nature. The rear of the property—toward the east—is beautifully wooded and slopes down to the Rouge River. In all main rooms, including the family bedrooms, large window areas make this outlook part of the daily living experience. Even the guest room, which doubles as a TV room and is located on the opposite side of the house, can be opened to the river view by means of a folding partition and the sliding doors to the open terrace. The latter, recessed between the bedroom wing and living-dining mass, allows peaceful outdoor contemplation of the

sylvan scene and the river. Bordering the entire long side of the living-dining space facing the view is a porch, protected by a deep roof overhang. For enjoyment of the midday sun, there is a landscaped living terrace at the south end of the house, just outside the dining area.

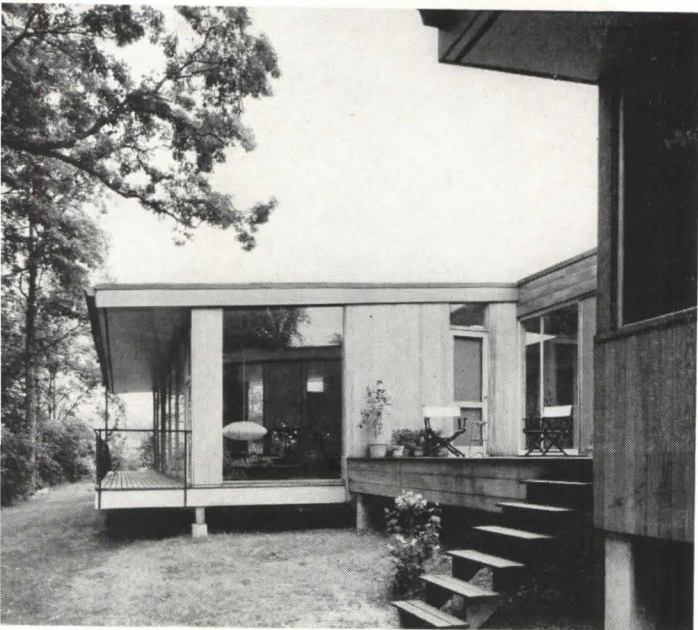
The family consists of parents and two teen-age daughters. In addition to customary family-living requirements, the owners wished a house arranged to facilitate the frequent entertaining that they enjoy.

Regarding the construction of the house, the architects comment: "The

structural system is wood frame, and because of the slope, we lifted part of it above ground on posts. The floor materials, therefore, range from slate and asphalt tile on the entrance side of the house, to wood on the river side." Cypress boarding is the exterior wall surface; interiors are mainly plaster. Sash are both wood projected, and aluminum sliding and variously glazed with 1/4" plate, double-strength A, and double-insulating glass. Above the bedroom passage, plastic-bubble skylights are used. A radiant hot-water system, with copper tubing and aluminum fins, is served by an oil-fired boiler.



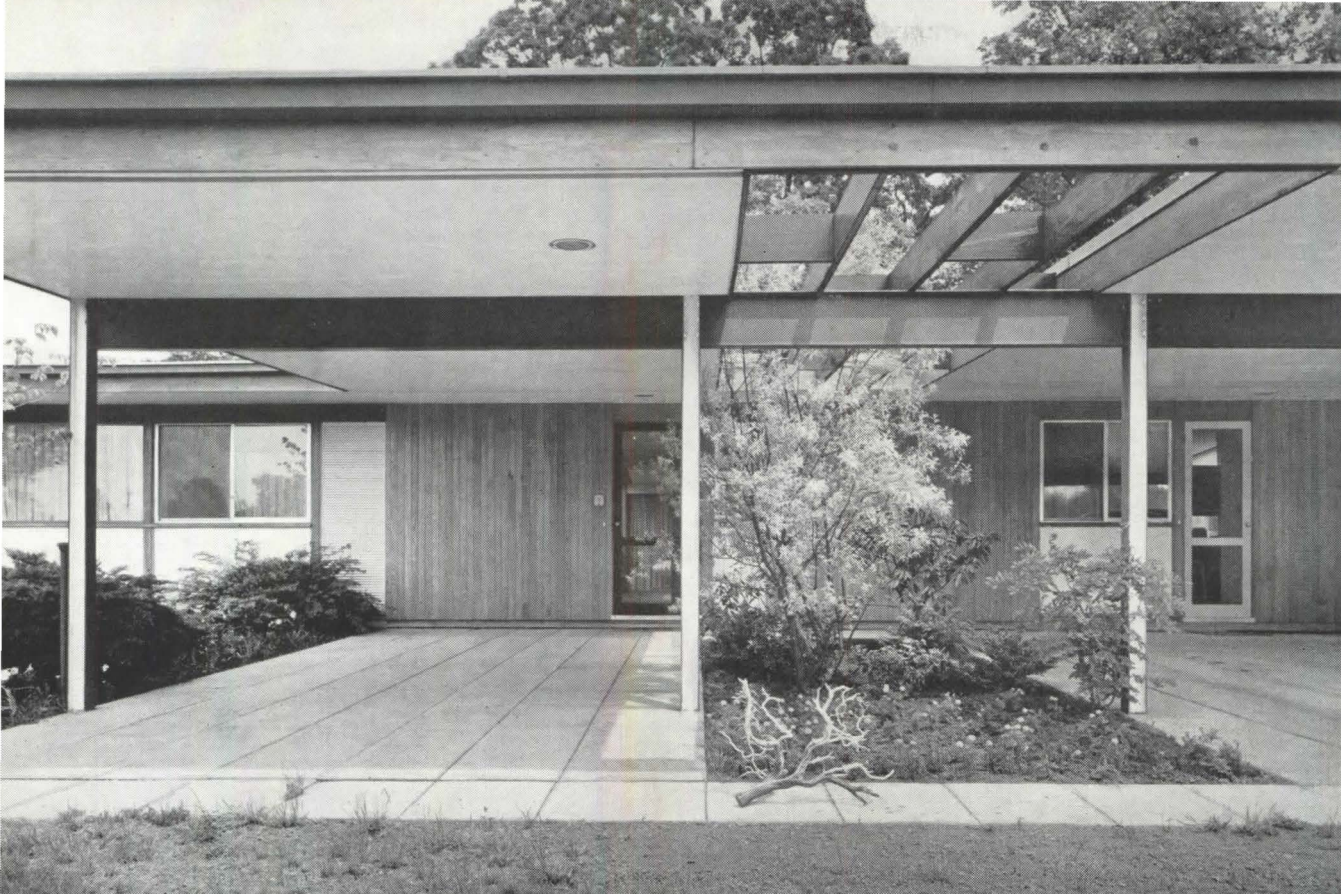
house: Bloomfield Township, Michigan



Between the family living wing (photo at left, background) and the bedroom wing is the open wood-deck terrace (below) that forms an open loggia of the flagstoned passage, when the great sliding-window panels are open.

Photos: Lionel Freedman





On the entrance side of the house (above) the relation-to-nature theme is also emphasized, with planting introduced back into the approach pavilion. Above the entry hall itself (right) is a large skylight that allows a well-lighted planting group inside the house.

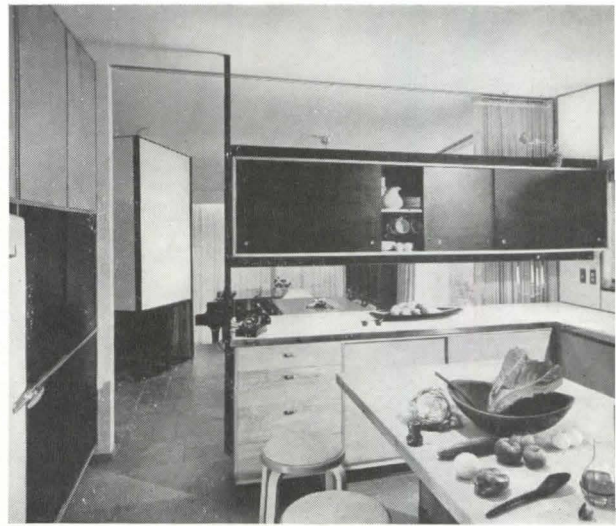


house: Bloomfield Township, Michigan



The living-dining space is developed on two levels, with the many-windowed lounging area (above) three steps below the flagstoned area that leads along the west wall (behind the sofa) and widens at the south end of the room to form the dining platform (right).





The dining platform (left), with its huge south window overlooking the living terrace, is separated from the kitchen (above) by no more than a pass-through counter-storage unit, and a floor-to-ceiling curtain.

The children's twin bedrooms (below) have built-in storage-desk units beneath the wall-to-wall, sliding aluminum sash that look out onto the river view. In the owners' dressing suite (bottom), twin washbasins occur under wall cabinets, with sliding, mirrored front panels; counter tops are of laminated plastic.





carefree rest and recreation

location	North Kingston, Rhode Island
architect	Conrad E. Green
contractor	Karl Below

The need to get away from it all seems happily symbolized in this vacation camp for a city family. Housekeeping is reduced to simplest terms—there wasn't even electric wiring—and the opportunity to relax and enjoy nature is maximum. The site is an attractive, wooded, six-acre tract that drops off rapidly on its north-easterly side to a river-like tidal inlet. From the house, there is a restful view across the inlet to rolling open fields and pastures.

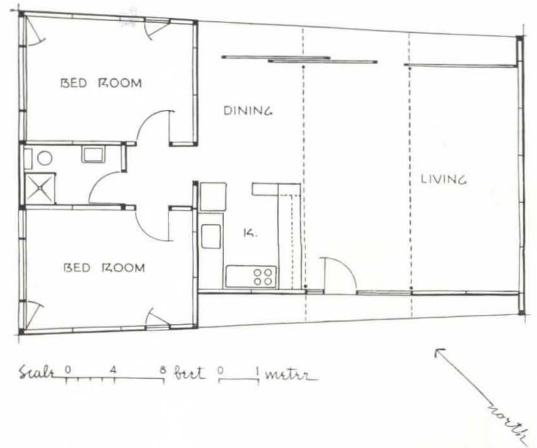
The family initially had thought of

purchasing a little prefabricated house, but the architect convinced them that he could not only provide pleasanter holiday-living space but could provide it at a comparable price. To accomplish this, he minimized labor costs by designing the structure so that it required the fewest possible building operations. The walls at the ends of the big room are bearing, and these, together with two 8-in. WF steel beams that span the room at 9-ft intervals, support a 3-in. plank roof. In the bedroom-bath area, the planking

spans in the opposite direction, resting on four bearing walls. All bearing walls are made up of semi-prefabricated wall panels, mostly 4 ft wide, with 1 x 6's, 16 in. o.c. installed horizontally to receive the outside oak-flooring siding. There is no sheathing, and the exposed frame "provides handy shelves." The roof is insulated with 2 inches of glass-fiber insulation. The nonbearing walls are of glass, vertical cedar clapboarding, or plywood.

Cost of the camp, built in 1949, including well, pump pit with pressure tank, electrical pump and piping to the house, bath and kitchen plumbing and fixtures, and cesspool, came to \$5000.

Photos: Richard Garrison





privacy among near neighbors

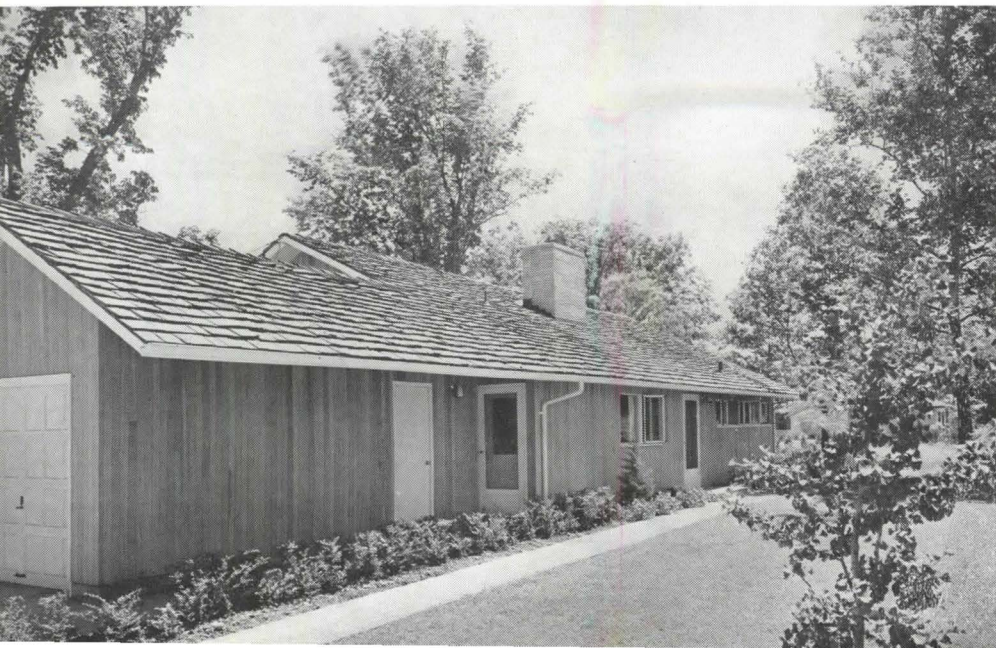
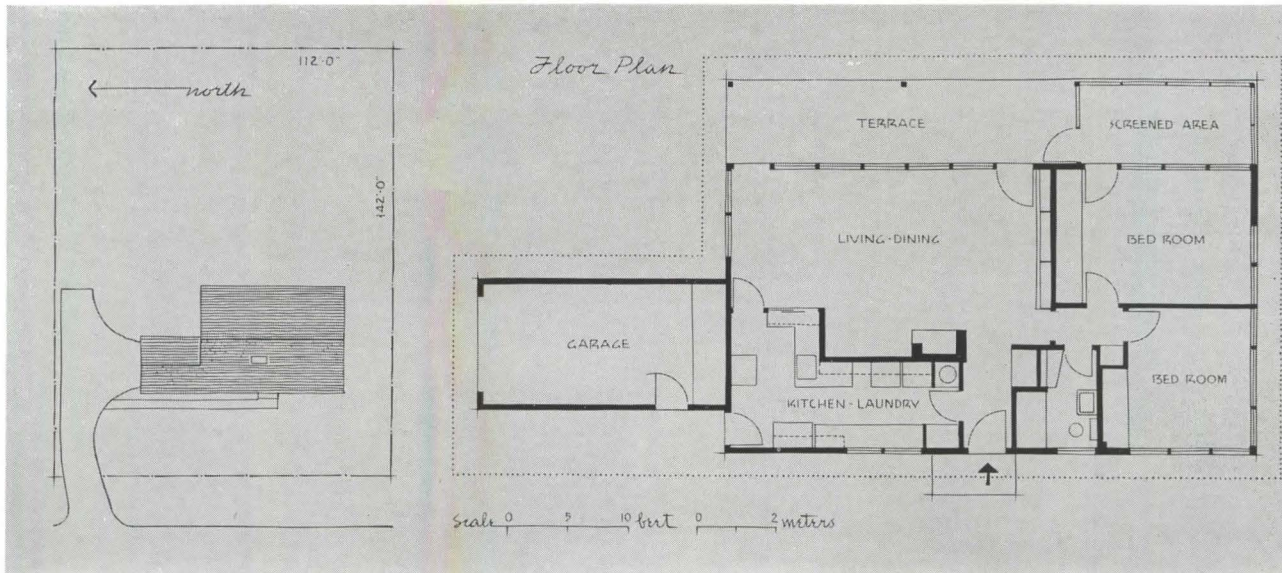
location	Ponca City, Oklahoma
architect	Robert E. Buchner
associated architects	Ramey & Himes
contractor	Mont Connelly

In a most disarming way, this small house designed for a young couple with one child solves one of the most common of today's living problems—how to achieve a measure of privacy and quiet on the typical residential street, with houses either existing or to be built on the lots at either side.

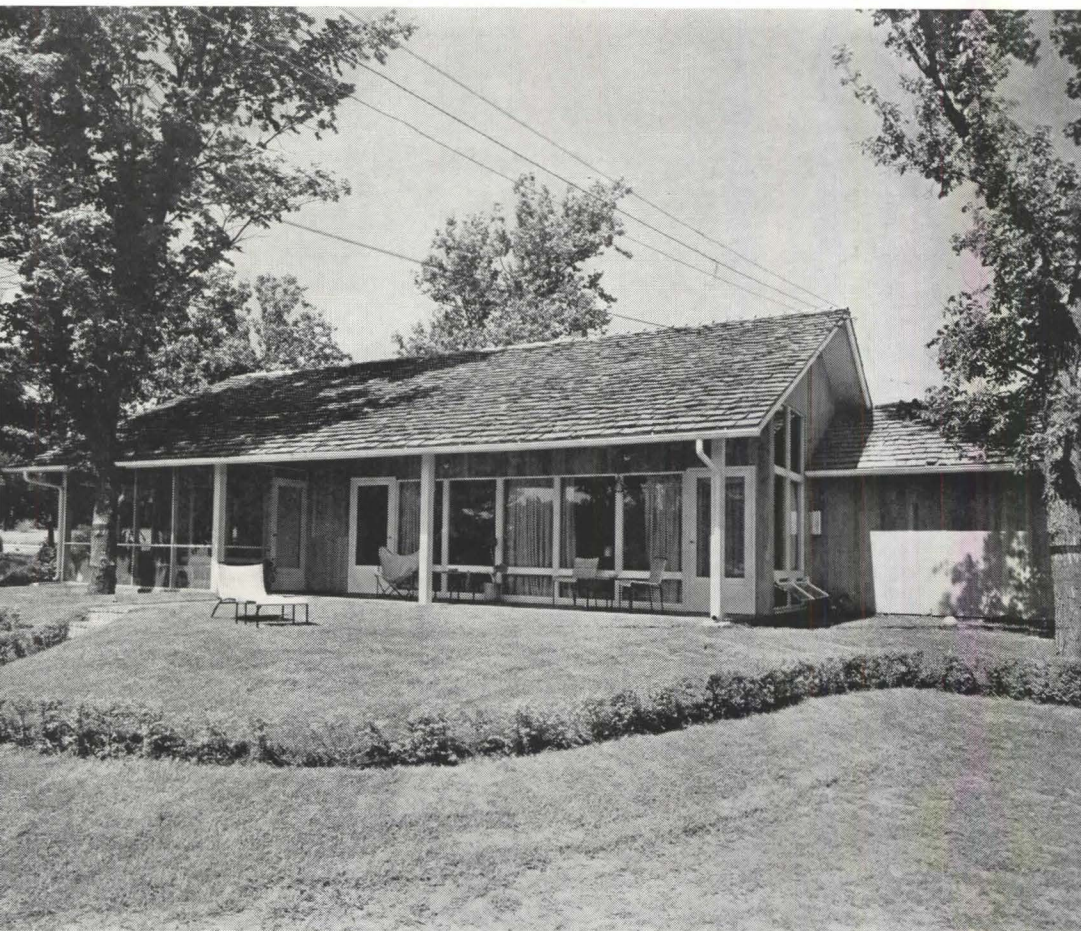
The simplest of plan elements are arranged to provide the answer. The house, in effect, turns its back on the street, thus minimizing the noise and distraction of passing traffic. The entire main living area is oriented east, overlooking the rear lawn and garden. And the extension of the garage wing at one end of the house and arrangement of the bedrooms across the opposite end brings the family living-dining space, with its 7-ft-deep cov-

ered porch, well away from the neighbors at either side. The south end of the porch is screened.

Of standard frame construction, the house has exterior walls surfaced with cedar boarding stained with a driftwood oil stain that "has weathered to a beautiful honey color." Roof soffits are a subtle, light turquoise, and window and door trim is painted bone white. The hand-split, cedar roof shakes are laid over 1" x 4" wood stripping and membrane felt. Interior walls are mainly of plaster, applied to rigid wall lath; floorings are either carpeting or asphalt tile. Both double-strength B and 1/2-in. plate glass are used in the steel window sash. The house is heated by a forced-air system, with attic ducts and automatic controls.



house: Ponca City, Oklahoma



The 27-ft-long living-dining room, with tall windows along both its east and north walls, occurs near the center of the house, as far as possible from next-door neighbors. Landscaping and terracing further assist the scheme.

Photos: Yarnell-Nelson





The master bedroom, with its wall of storage closets, forms a unit with the screened sitting porch that adjoins on the garden side.





less formal living

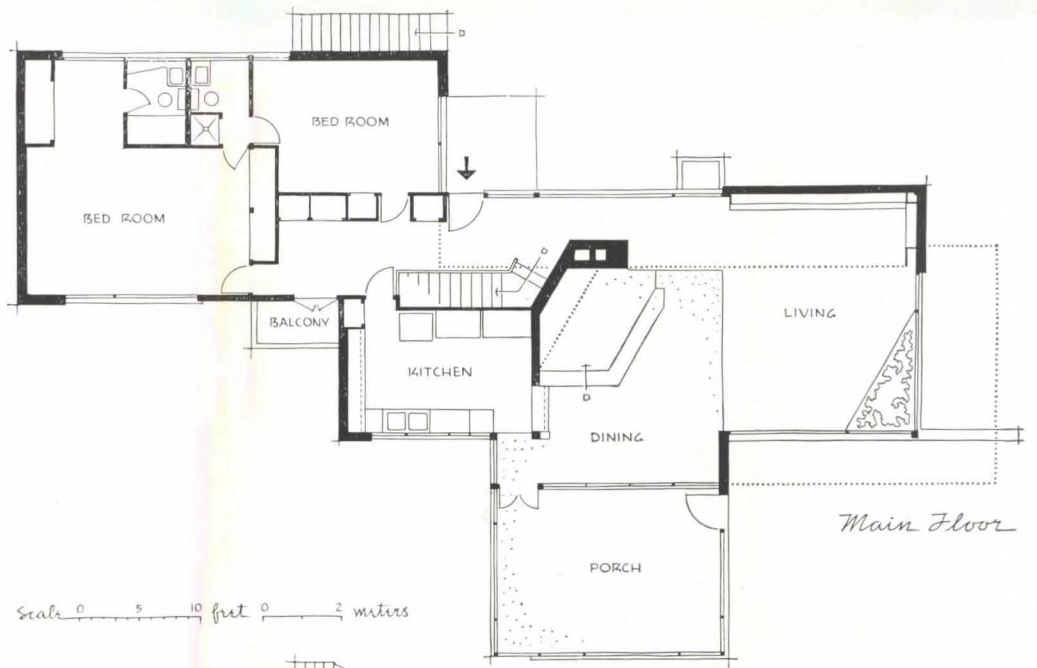
location	West Hartford, Connecticut
architect	Robert Carroll May
contractor	The Edward Factor Company

Though this is not a large house from the point of view of family accommodation—the owners are a couple without children—the sizes of the rooms are generous, and there is an unmistakable air of *elegance about the use of materials and textures and over-all design for liv-*

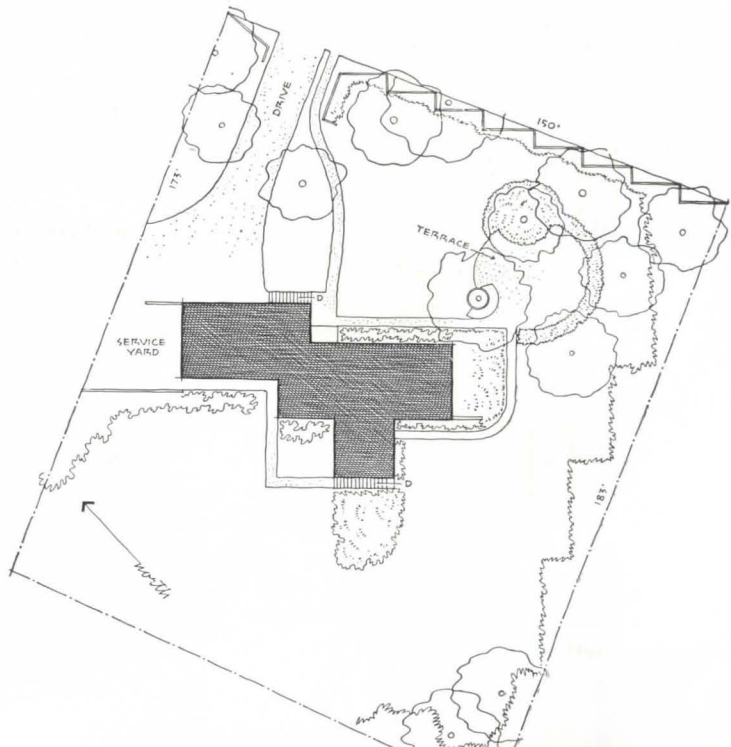
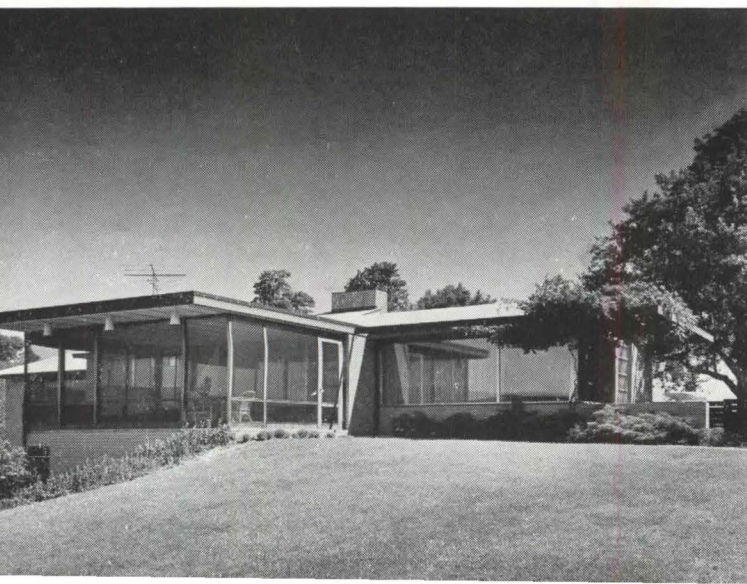
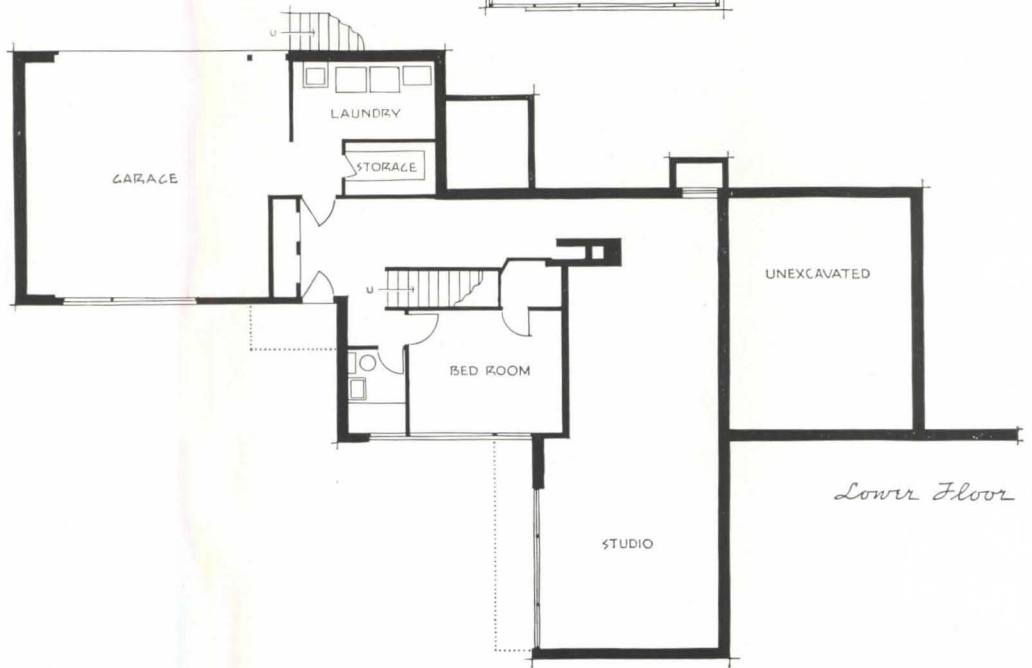
ing. The site, a beautiful slope, with an eye-filling view in the southwest-northwest quadrant and an apple orchard in the southeast corner, was a strong factor in determining the plan organization.

Perhaps most significant of a shift in living values is the naturalness and in-

formality of the plan itself—sitting, study, and viewing areas; the sheltered fireside; the dining bay; and the big screened porch; all flow into one another in an almost plastic visual and structural continuity.



Scale 0 5 10 feet 0 2 meters



house: West Hartford, Connecticut

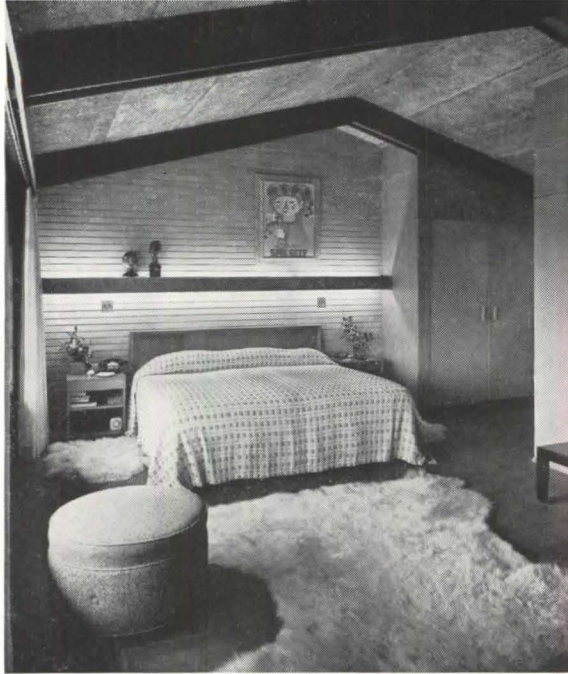
In the windowed, south corner of the living area, a triangular plant box brings nature right into the house; a high fence at the edge of the property provides permanent privacy. Photos: Gottscho-Schleisner



Not only does the open planning of the main living areas increase the sense of spaciousness, but the elimination of separate rooms bespeaks a relaxed way of life. The owner's wife is a painter-sculptor (many of the objects in the rooms are her handiwork), and a north-lighted studio is provided on the lower level.

Structural steel frames the house—the bents exposed on the interior, but cased along their sides in redwood; reinforced, nailable, precast, lightweight concrete planking (also exposed) forms the roof

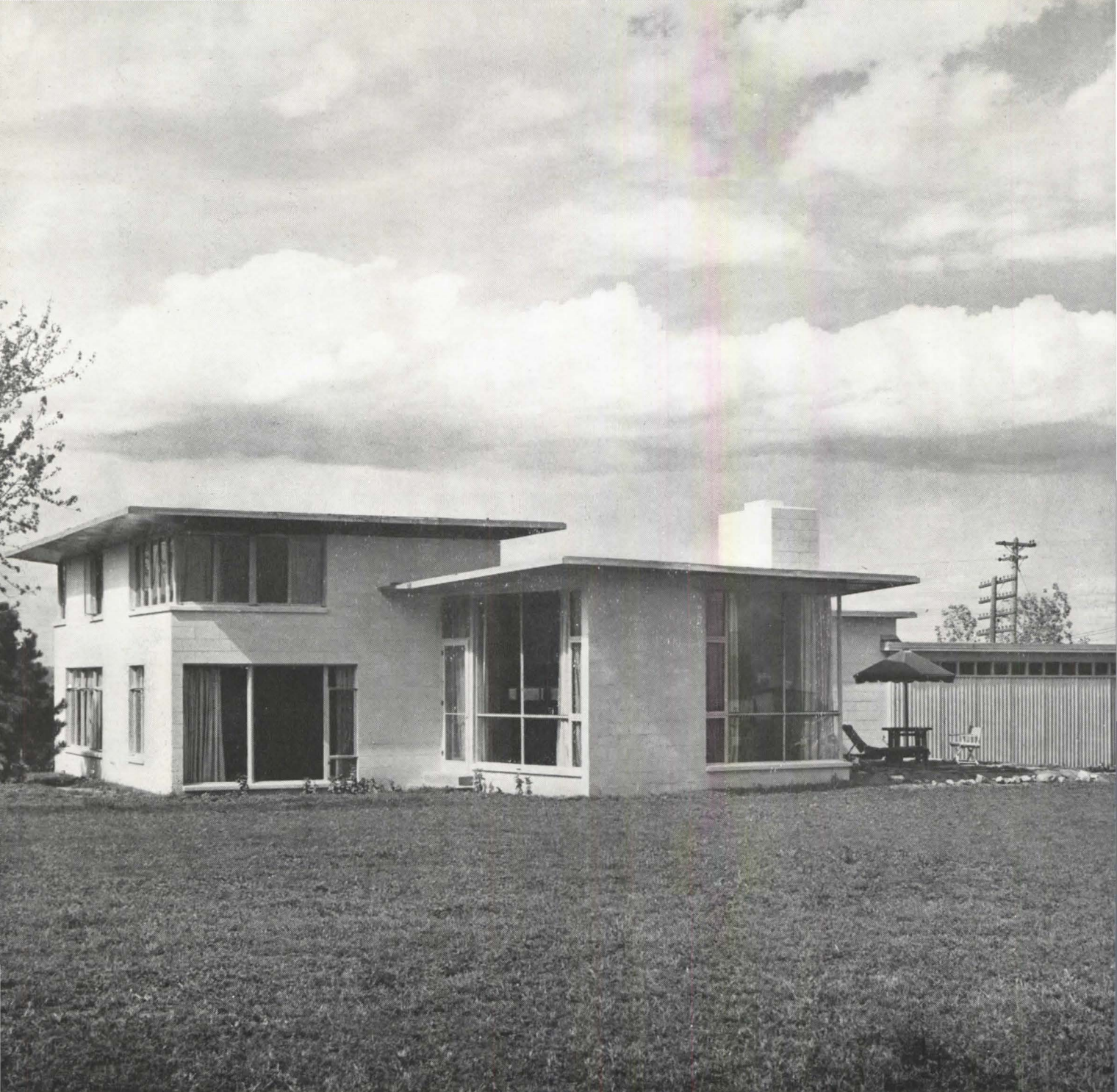
system. Exterior walls are either pressed brick cavity walls or redwood V-joint siding. Sash are aluminum awning type, and the house is heated by a forced warm-air system. The lighting of the house was worked out with Richard Kelly, consulting lighting engineer; most of the built-in furniture and cabinet work (except in the kitchen) was made by Mayer & Company, Washington, D.C.; and Florence Barron worked with the owners in selecting fabrics, bed covers, upholstery, etc.



In the bedrooms, 2' x 4' rectangles of slate form the flooring. Throughout the house, the soft warm tones of the buff brick, wheat-colored roof plank; natural redwood; and white-oak partition facing are in perfect color harmony.



Flooring for the hearth, dining bay, and screened porch is pressed brick. The view from the sitting corner across the hearth and into the dining bay (left) bears out the architect's expressed design wish to "let the lines of walls, ceilings, floors connect the major areas fluidly as far as possible; let the sense of structure underlie the sense of the plastic."



delight in the sun and view

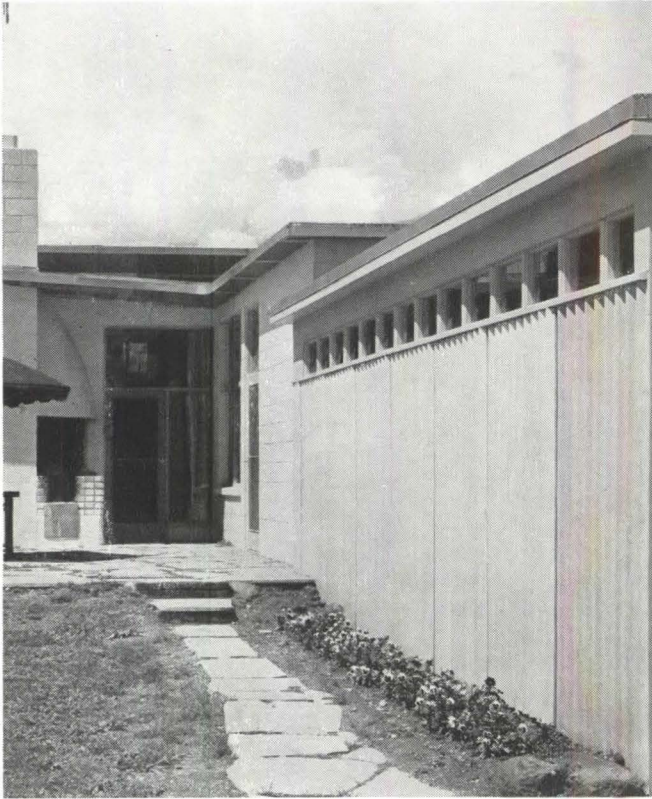
location	Colorado Springs, Colorado
architect	Jan Ruhtenberg
contractor	Hugo Fischer

The site on which this house is built commands a lordly view of the plains and Cheyenne Mountain in a southeast-southwest arc. Thus, it was possible to plan a home that would at once gain fullest advantage of the outlook and welcome the sun in all main living areas. In addition to enjoying the pleasures to be derived from this close harmony with

nature, the owners also wished to have the house as compact and efficient as possible—a wish shared by numberless contemporary homebuilders.

The two sons in the family are usually away at school or college. To give them privacy when home on vacation, the small second floor has not only two small bedrooms (with a partition between that

can be removed at some later date), but a private sitting room, as well. The latter is used as a study when the young men are away from home. For the parents, accommodations are all on the ground floor and these are all so disposed around the entry that the bedrooms, the kitchen, or the living-dining area are accessible with minimum walking.

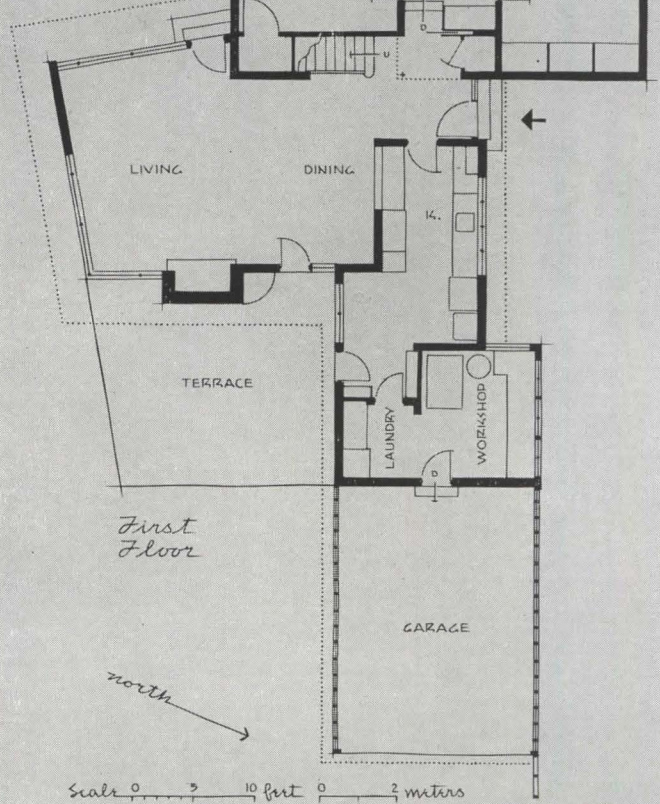
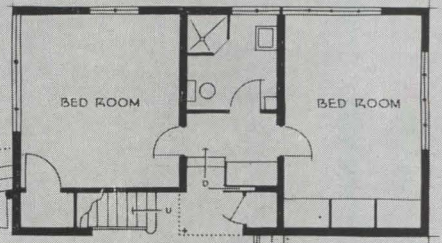
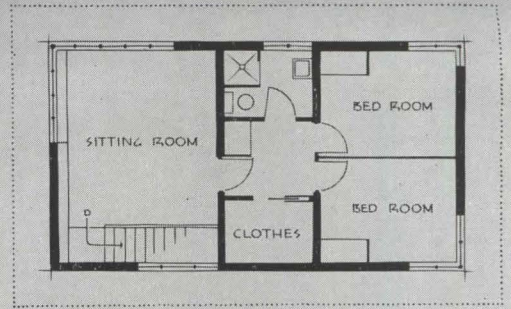


A terrace with a barbecue fireplace occurs in a sheltered, sunny corner where the service and living wings of the house meet. The house is steel framed, with insulated pumice-block walls and lightweight concrete roof deck.

Photos: Guy Burgess

The great south and west windows add definite solar-heating factors to the gas-fired, hot-air perimeter-heating system. A simple handrail separates the son's upstairs study (right below) from the stairwell.

Second Floor



First Floor

Scale 0 5 10 feet 0 2 meters





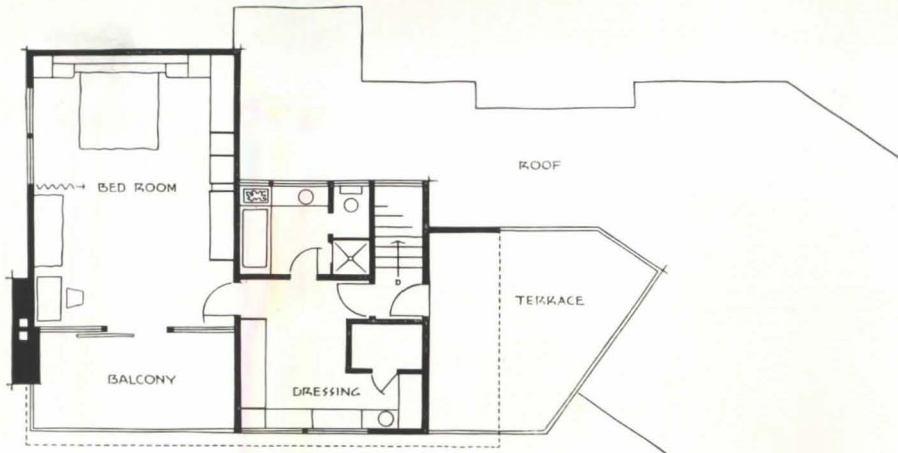
respect for age-group needs

This elegant house has so many aspects that echo today's living preferences—close relation to nature; orientation for maximum enjoyment of sun; openness; all manner of time-saving built-in elements and labor-saving devices; a serene and relaxed atmosphere—that it is difficult to separate them and say that this or that single element particularly distinguishes it.

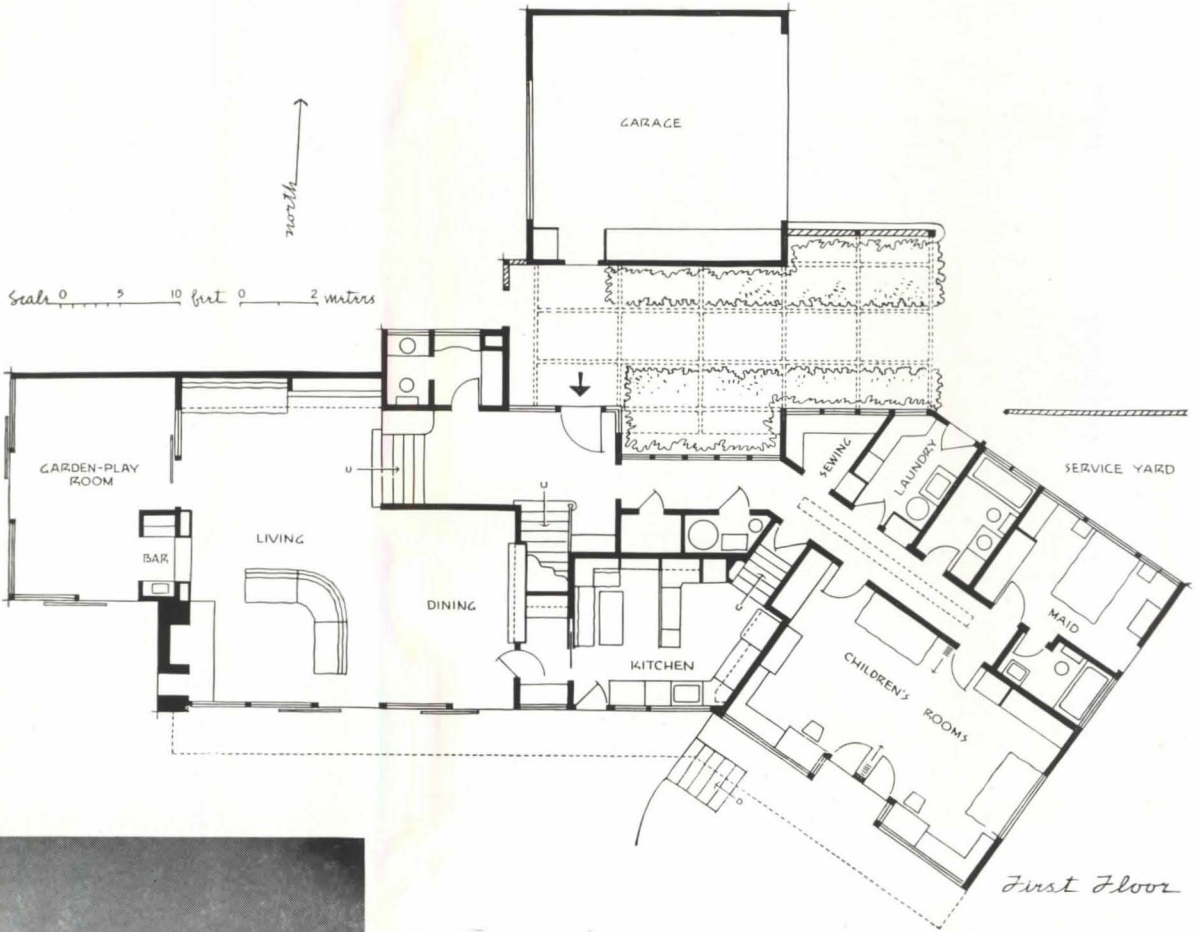
One factor that sets this home apart from any of the others shown in this issue, however, is the use of the three levels, a half flight apart (an ingenious solution for the site) to provide privacy (including outdoor living space) for different members of the family. There is a place, with its separate terrace, for adult social entertaining; the children's wing has its own fenced-in play yard;

and an open sun deck and sheltered balcony are integral parts of the owners' upstairs suite. The site includes a distant view of the Pacific, to the South. The bend in the plan allows good access to the garage and guest parking area and also provides a clear view of children's activities from other parts of the house.

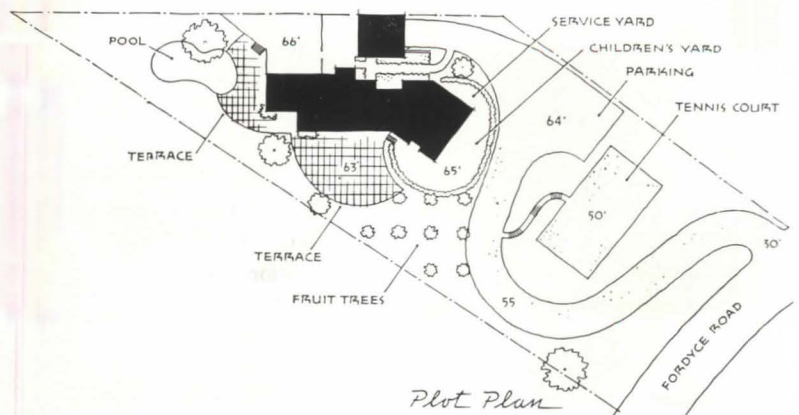
location	Los Angeles, California
designer	J. R. Davidson
engineer	J. H. Lehman
contractor	Ben Polin



Second Floor



First Floor



Plot Plan

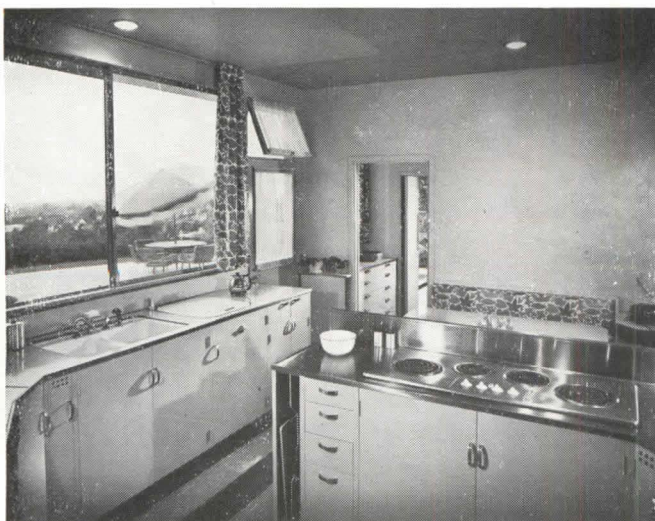
house: Los Angeles, California



For group entertaining, the dining-living-play-room space may all be combined as one irregular-shaped area; glazed wall panels at numerous points slide back to add the outdoor living terraces to the indoor space.

Photos: Julius Shulman

The kitchen has remarkable equipment, including automatic dishwasher; table-type electric range; paired, built-in electric ovens; and exceptional built-in cupboards and storage elements specially designed to contain things of various shapes and sizes. Cooktop surfaces are stainless steel; work-counter tops, gray-plastic sheet.



Almost all living areas have their outdoor extensions. Great aluminum window panels in both living and garden-play rooms slide to open the rooms wide to the adjoining terraces. A door from the kitchen allows direct service to the terrace; doors open from the children's rooms to their own play terrace; and a sliding panel at the sitting end of the master-bedroom suite opens this area to

the adjoining recessed balcony.

The house is framed with both wood and steel, and its frame walls have exterior surfaces of either stucco or cypress boarding, while plaster and ash plywood are used indoors. Carpeting, rubber tile, and cork all serve as floor surfaces. Sash are sliding aluminum units. A radiant-panel-heating system is served from concealed copper piping.



Walls of the master bathroom (left above) have plastic-finished paneling. A second basin occurs in a corner of the dressing room (right above) alongside the storage wardrobe organized for hats, shoes, and handbags. In the master bedroom (right) a pull-across, transparent curtain separates the sitting from the sleeping end of the room; above the wardrobes that line the left-hand wall is a continuous fluorescent strip reflector.





urban convenience—on a hillside

location	Montpelier, Vermont
architects	Whittier & Goodrich
mechanical engineer	N. E. Jennison
general contractor	Kenneth Baird

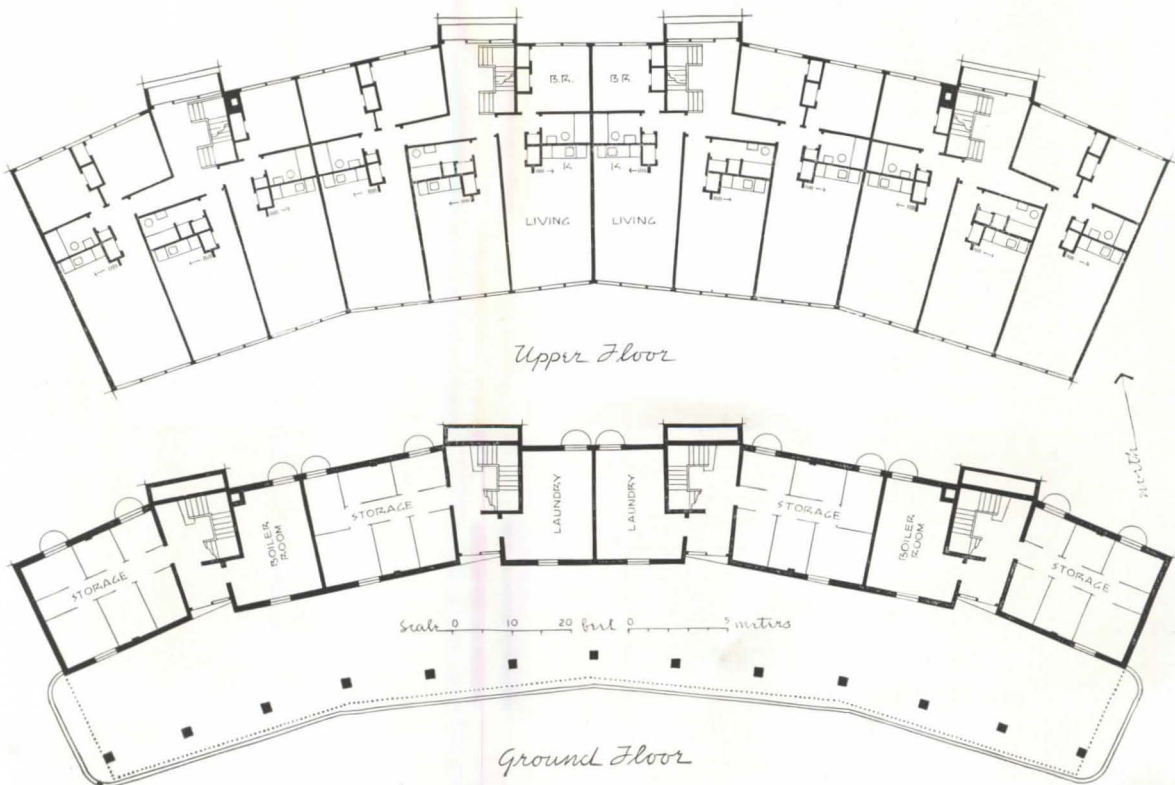
Montpelier is the capital of Vermont and also the home of a major life insurance company, therefore has a large number of apartment-dwelling clerical workers. Having, generally, fewer family responsibilities, and living on a more rigid schedule than their neighbors, their demands from a home are somewhat smaller. They live in such a way as to waste as little time and money on home maintenance as possible, both inside and out. Privacy within the dwelling is not as important to them as it is to large families, but accessibility to centers of social activity is perhaps more important. As a result of today's easier and faster transportation, these same requirements have been met here in a more salubrious environment than the noisy and constricting business district. In no more time than it takes to walk several blocks from the office to a downtown apartment house, tenants of Capital Apartments can drive

to their hill overlooking the city and the Capitol. Conversely, the fact that they now have space to keep cars enables them to enjoy more of their leisure time away from home than if they lived in apartment houses too crowded to permit car storage.

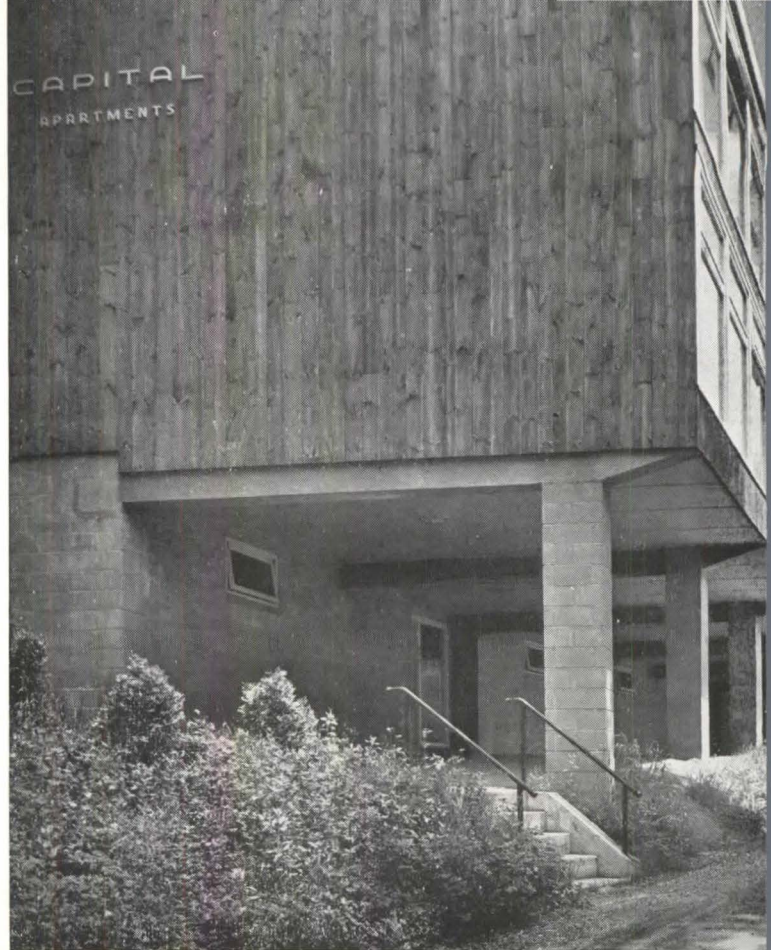
This change in the living habits of apartment-dwellers is taking place in many cities today, but Capital Apartments is the result also of Montpelier's unique topography. The valley in which the city lies is so completely developed that the only remaining building sites are hillside niches which were considered economically impractical before automobiles and better construction methods.

Architects Whittier & Goodrich have made excellent use of one such niche, which they found in the natural shape of an amphitheater. By following the curve of the hillside they have saved costly excavation while gaining an interesting

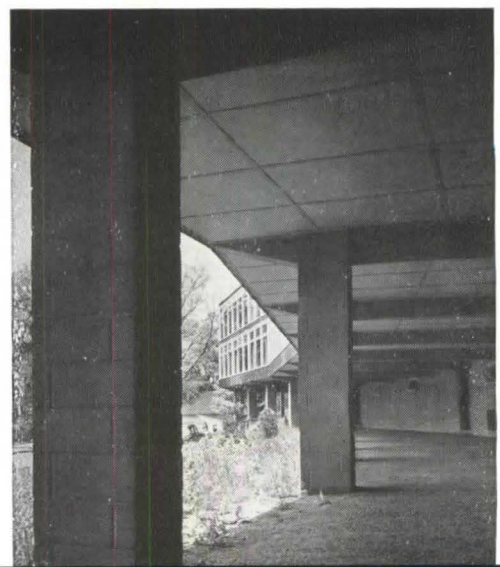
crenescent form. To avoid the expense of elevators and complete fireproofing, the architects planned the 24 apartments on two floors, the lower one entered directly at grade from the rear. Concrete piers and reinforced beams carry the first floor out over the slope of the hill, creating a covered terrace below, part of which is enclosed for utilities, storage, and stairs for those entering from the terrace. The rest of the structure is wood frame, covered on the outside by vertical wood siding and on the inside by plaster. The plan of each floor consists of a series of four bays within which are three apartment types—two-bedroom, one-bedroom, and "efficiency." However, efficiency is obviously the salient feature in all three types, since even the two-bedroom units are not luxuriously large. Dining and living area is combined in each type—but can be shut off from the kitchen.



apartment house: Montpelier, Vermont

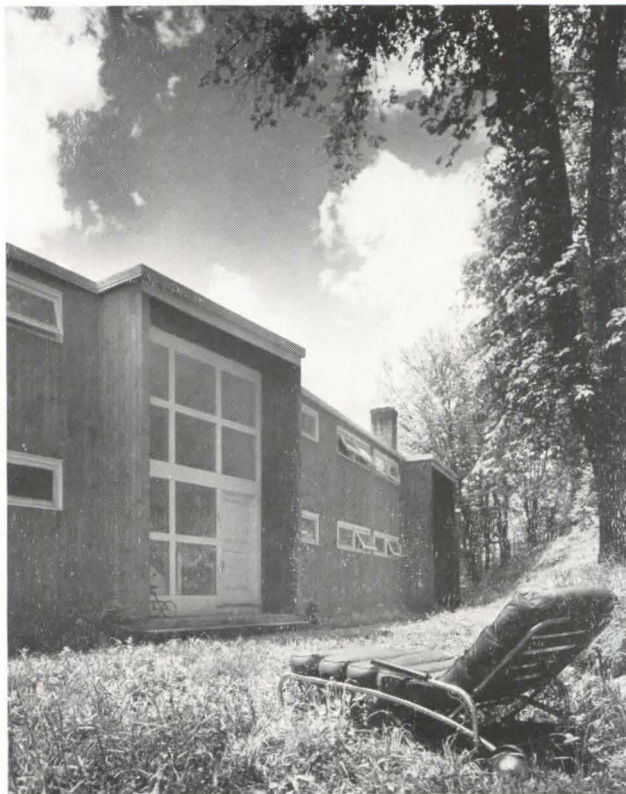


In inclement weather, the children play on the covered terrace, as the architects had planned. Gravel floor and wood ceiling keep noise and echoes at a minimum. Distance between piers governs the width of each living room; every third pier supports a fire wall. Although cars can be seen from living rooms, they do not obstruct the view of the Capitol and city.



Well-lighted stairwell (right) at rear is entered at first floor level. Through ventilation is achieved with the high windows between stairwells.

Drapery variations (below) provide an interesting irregular pattern within the unified exterior pattern.



planning for residential air conditioning

by William J. McGuinness

Air conditioning in the home, once considered a luxury, is now taking its place as a requirement for comfort and efficiency. The air conditioning of public and commercial buildings has been an established practice for the past 30 years. During this period, there have been many predictions that within a few years it would be quite universal in residences. These predictions have not in the past been fulfilled. Are there reasons for this default which still impede the program or may we hope for great progress based on the present activity in residential cooling? There seems to be reason to believe that new installations will be better, cheaper, and easier to install and operate.

Let us examine the history of cooling in homes. In spite of the development in 1930 of Freon, a nontoxic and nonexplosive refrigerant suitable for small as well as large systems, the expected acceleration of central cooling in homes did not occur in the 30's. This was due to the depression. In 1940, it was thought that within 10 years a large part of the population would live in conditioned homes. World War II dispelled this hope by confining the use of conditioning equipment to essential operations and delaying the residential program by at least five years. The present availability of standard and suitable equipment and the development of simple and effective design methods now give promise that within five more years residential air conditioning will finally be in the same category as automobiles and refrigerators. Room air conditioners have been a partial solution but have actually impeded the progress of central cooling. Sales now indicate that the larger units may soon surpass room units in popularity, leaving the latter to serve only in existing houses and apartments. There is no question but that a well-designed central system can serve a home cheaper and more quietly than the required number of window units. The

matter of appearance is also a prime consideration.

Except in very special cases, the home purchaser or builder cannot afford to include equipment which is difficult to obtain or systems that require special engineering design. These essentials of economy—availability and simplicity of design and installation—are rapidly being met. It now costs less than half the price of an automobile to install air conditioning in the average home. The seasonal cost of cooling is often less than \$100. Cooling units combined with air furnaces or easily adapted to parallel use are making their appearance. Small cooling towers and air-cooled condensers may be obtained to solve the water-use problem. The bugaboo of difficult engineering design has been dispelled by the publication of *Manual 11* of the National Warm Air Heating and Air Conditioning Association. It is called *The Design and Installation of Summer Air Conditioning for New and Existing Residences*. The engineering design has been simplified to put it within the purchasable reach of the average home owner and to make it understandable by the builder and heating contractor. Planning the home for minimum heat gain, selecting equipment, and sizing the ducts and registers are subjects that have been standardized by this valuable new reference.

planning for minimum heat gain

The design of any heating or cooling system truly begins with the selection of a site, orientation of the house, and the design of the house itself. A home well arranged for minimum heat loss during the winter may easily be very poor at resisting the entrance of heat during the summer. Reduction of heat loss is quite simple and involves only double glazing, improving insulation, and minimizing air infiltration. Control of heat gain is more complex and may have a greater effect on the architectural design. The critical heat loss is usually computed on the basis of

the inside and outside temperature difference without credit for the effect of solar heat or the gain from people or equipment. Critical heat gain for cooling load, however, *must* include the adverse effect of sun, people, and equipment. It must include also the reradiating effect of surfaces already heated for many hours. One must therefore consider that the worst winter condition occurs at night, and the worst summer condition in the late afternoon when all surfaces have been sun-heated.

Of the several items of heat gain—namely transmission due to temperature difference, heat emission of people, humidity gain, and sun effect—the last item is by far the greatest problem and will be observed to dominate the design. A simple consideration of sun effect will quickly establish design criteria. It can be seen that the direct sun intensities on an east wall in the morning, roof at noon, and west wall in the late afternoon are respectively 211, 290, and 211 Btu/hr/sq ft (*Figure 1*). Glass permits practically all of these heat units to enter the house. Insulated frame construction, on the other hand, will reduce these transmissions to about 2, 4, and 2 Btu/hr/sq ft or about 1/100 of the sun-through-glass gain. Thus glass in the east and west walls and roof, which advantageously borrows sun heat in the winter, is virtually ruled out when summer operation is considered. It is possible, however, to retain the usual south glass if it is protected by a roof overhang. This feature, which admits great and beneficial heat gain in winter through unshaded glass, admits only 33 Btu/hr/sq ft in summer through shaded glass. *Glass in the north* also brings only a slight addition to the load. There are many other precautions against heat gain but the one just discussed is the most important. The interposition of glass between the sun orbit and the interior of the house by placing it on the east, roof, or west is the greatest single error in planning for minimum cooling load. If

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the use of glass in any of these positions is unavoidable, then placing it in full shade from the outside will reduce the heat gain by about 70 percent.

Aspiration to perfect planning from the engineer's point of view will suggest the following additional items of heat-gain reduction.

(1) Double glazing which reduces the heat transmission through shaded single glass, by about 50 percent.

(2) No direct sun on any glass.

(3) Full insulation in all frame structure, including roof.

(4) Use of very thick masonry walls which provide a 12-hr time lag in heat transmission.

(5) Every possible surface of the house to be placed in the summer shade of deciduous trees (which will admit sun in winter).

(6) Outside shades, baffles, or blinds to protect glass from sun. These reduce the gain 70 percent while inside shades or blinds decrease it only 10 to 30 percent.

(7) Real ventilation of double-surface roofs, not just a few small holes for air

circulation. Insulation should be in the lower surface.

(8) No operable windows; house fully sealed winter and summer. This prevents the uncontrolled entrance by infiltration of warm air and humidity. Freshness can be maintained by adding a controlled portion of 25 percent fresh air to the air circulated. Exhaust fans in baths and kitchens eliminate excessive humidity.

(9) Vapor barriers in all surfaces, including floors separating crawl spaces from living areas above. This reduces the humidity load.

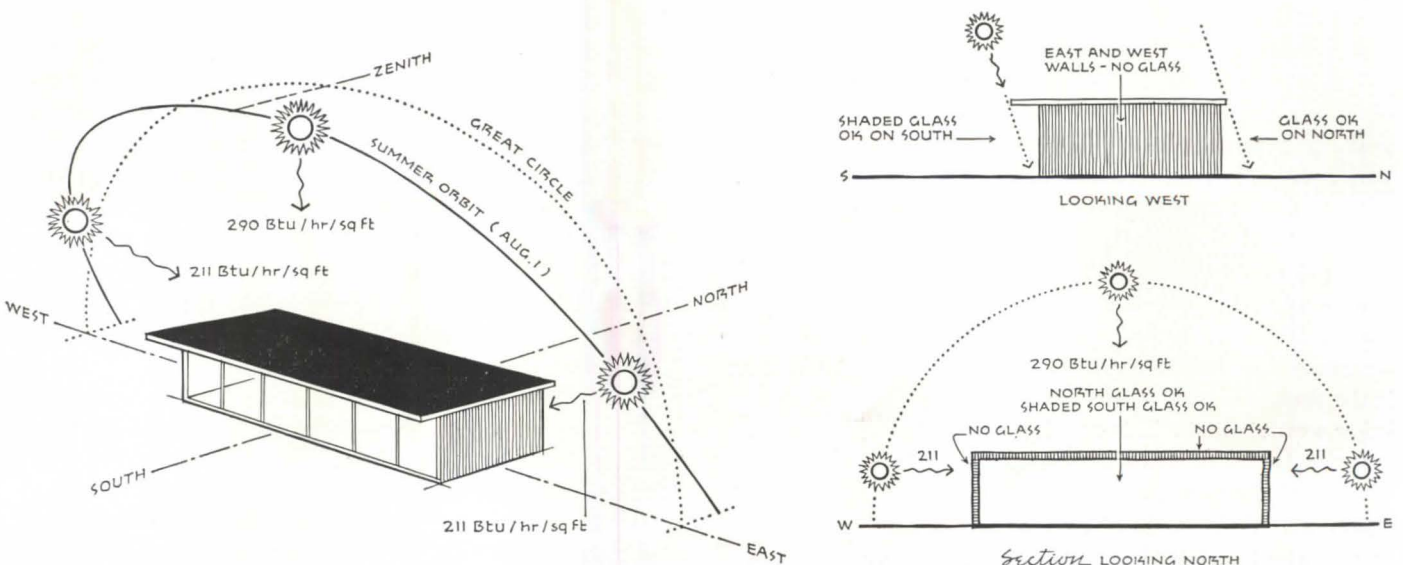
(10) Continuous operation of the cooling unit to prevent the carry-over or fly-wheel effect of surfaces previously heated, and to prevent the accumulation of humidity in dead spots caused by still air.

The concept of air conditioning as an adjunct, cooling only part of the house or turned on only occasionally, seems to be giving way finally to the acceptance of full environment control both summer and winter. Owners who have lived in fully air-conditioned homes for 10 years or more report very favorably on the advan-

tages. They like the continuous air circulation, the controlled addition of outside fresh air, the reduction of humidity in summer, and its increase in winter. The tendency is to keep the system operating at all times for air circulation and to add the operation of heating or cooling as needed. Desirable results are dust-free rooms, little cleaning needed for drapes and upholstery, and fewer colds. Quietness is assured because street noises are muffled by double glazing and sealed construction. The cost of continuous operation is very little more than for intermittent use—and the performance of a system designed for full air conditioning is not good if it operates only part of the time.

The house-design changes for full air conditioning may affect our present design esthetics somewhat. There is no need, however, to sacrifice glass-to-the-south or the concept of indoor-outdoor living, except that it will be modified by a permanent glass division between rooms and outdoors. Breezes, now less essential, will have to be enjoyed on outside ter-

Figure 1—insulation against direct sunlight and the use of light colors are recommended for air-conditioned homes. (Values are approximate and for conditions on August 1 at 40 degrees north latitude.)



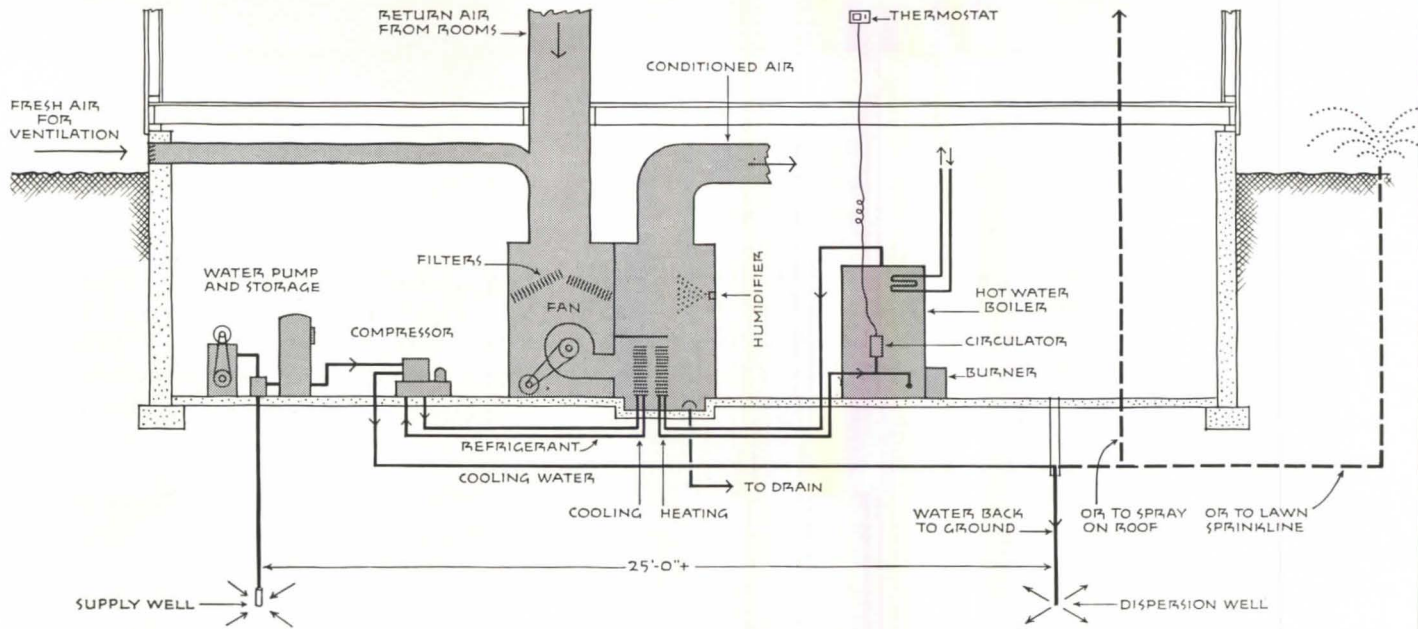


Figure 2—schematic layout of a complete system using a hot-water boiler.

paces. The slight increase in cost of mechanical installation may be largely offset by construction savings such as the omission of all operable windows.

selection of the central unit

In planning for air conditioning it is presupposed that a ducted warm-air installation will be used for distribution. The combination of separate ducted-air-conditioning and a "wet" steam or hot-water radiator system is not economically feasible. The use of a hot-water boiler, however, is not impractical and offers many advantages. A scheme which has been used with great success is shown (Figure 2). The hot-water boiler supplies water to a finned coil in the air unit. Winter and summer the boiler water is kept at 200 F by an aquastat which operates an oil burner or gas unit. This facilitates the year-round generation of domestic hot water. In winter the room thermostat turns on the water circulator which sends water to heat the air-unit coil. Air is delivered to the house at temperatures somewhat milder than in an air-furnace system. The fan runs full time but could be arranged to turn off for short periods if the furnace-bonnet temperature drops below a certain limit. This would prevent the circulation of low-temperature air which might be uncomfortable. A humidifier operated by a humidistat sprays warm water into the air stream.

Summer performance depends on the cooling coil which dehumidifies as part of its cooling function. Frequently the latent load (moisture to be condensed) is 30 to 40 percent of the entire load. This necessitates a plumbing drain which in this case also takes care of the excess water used in winter humidification. If reheating is needed after chilling out the moisture at a low dew point, the heating coil is available for the purpose. Fresh air is added through a duct from a grill in an outside wall. On the coldest winter days this may be shut off, if desired. The compressor in this case is cooled by well water, which is a good solution for this problem when ground water is plentiful. The well pump is started on call from a thermostatic heat element in the compressor. Several ways of disposing of the warm water are possible. It may be dispersed back into the ground, through another well not closer than about 25 ft. Lawn sprinklers may use it or it may be sent to a spray on a flat roof, which is a great aid in reducing the cooling load. The use of municipal water for cooling is generally prohibitive in cost.

Another solution to the central unit problem is shown (Figure 3). The air furnace is tandem-connected to a package air conditioner of proper size for the load. Manually-operated splitter dampers change the air routing for summer or winter operation. Problems which are

common to all air conditioning are: provision of a drain; periodic cleaning or replacement of filters; introduction of fresh air; and addition of moisture in winter by humidification. This system makes no provision for domestic hot water, which must be separately generated. For heat, the oil or gas burner responds to the thermostat. The fan operates whenever the warm air actuates the furnace-bonnet switch and until the air has cooled considerably following the turning off of the burner. Continuous operation is approached. In summer the fan will operate continuously for ventilation, circulating the cooled air when the thermostat actuates the refrigeration unit. This cooling unit is equipped with its own fan.

A combined unit, utilizing one fan with a damper to change the air stream from summer to winter operation, is most economical of space (Figure 4). Even the compressor is an integral part of the package. It is merely necessary to connect the burner, humidifier, ducts, drain, and the air-cooled condenser. In this illustration, the compressor cooling problem is handled by an air-cooling unit which may be located in the breezeway or above a flat roof. In the larger sizes, air-conditioning units require cooling in the form of a water tower operating on the principle of the evaporation of some water. In this case, a make-up water connection will be needed. The air-cooled condenser

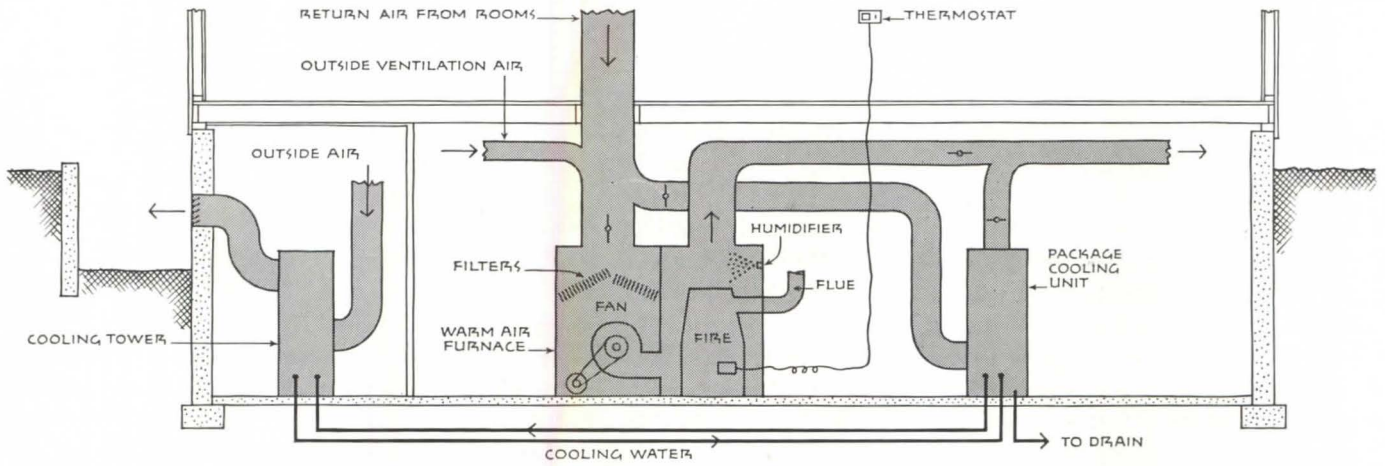


Figure 3—diagram of system using warm-air furnace and package cooling unit.

or the water tower must be placed in exposed positions. The combined unit is now available with cooling in 2- and 3-ton sizes. Since 1 ton of refrigeration represents a cooling rate of 12,000 Btu/hr, these units will carry a heat-gain load of 24,000 to 36,000 Btu/hr. This is appropriate cooling for the average house in the middle latitudes of the United States. Six-ton sizes will be available soon. The smaller units come with air-cooled condensers, which are much neater than cooling towers. The heating sections of these units must be correctly sized. In the middle latitudes, the average house may have an hourly winter heat loss of about twice the rate of summer heat gain. Thus the heater will have to have about twice the power of the cooling apparatus.

air distribution

In designing a joint installation to heat and cool by air, it is necessary to re-appraise the principles that affect air distribution in cooling and in heating systems separately. In this way, it is possible that the important features of each may be retained and intelligent compromises made when necessary.

The old "gravity" warm-air system made a practice of delivering warm air at low points from interior walls. From these locations the warm air rose. Short ducts served these interior locations. Return air was collected at a few cool loca-

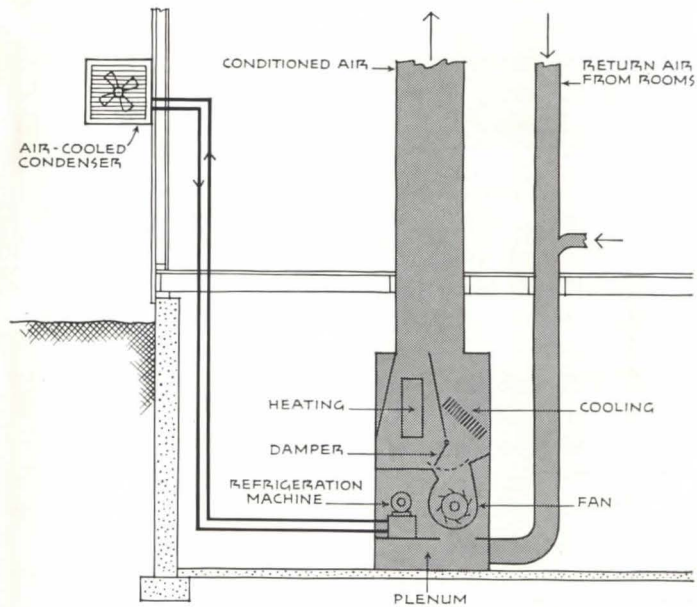
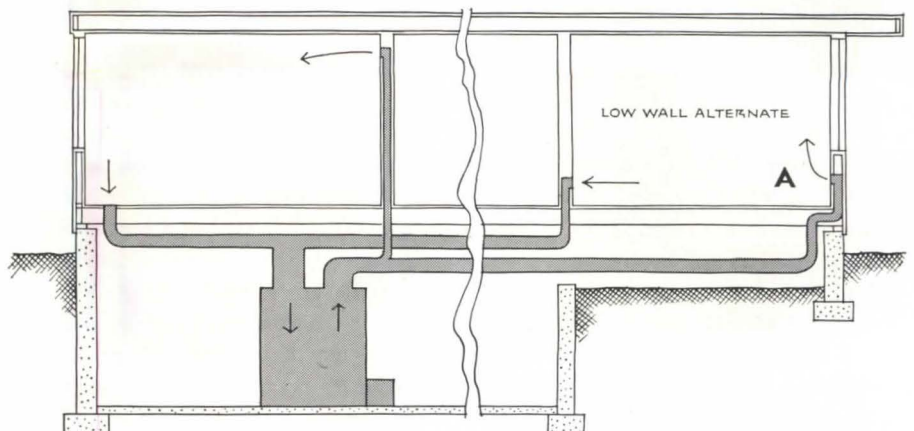


Figure 4—this unit combines heating and cooling functions.

Figure 5—conventional distribution (left); newer low-wall delivery beneath window (right) "fans out" air stream flat against the wall.



tions at the outside walls. With the development of forced warm air, the delivery registers were raised to high wall positions so that the air delivered now at high speed would not impinge on the occupants. Registers were still at interior walls and cool-air collection at points below windows (Figure 5). Distribution is better because the warm air can be blown across the room toward the cool exterior walls. Force thus "pulls" the air to the return grills, instead of waiting until it cools sufficiently to drop. Recent use of much glass has pointed up the shortcomings of discharging warm air at warm interior walls and allowing the exterior walls to remain cool because of the proximity of cool return air.

The reversal of this conventional distribution is now gaining favor (Figure 7). Warm air blown upward along the window surfaces immediately counteracts the coldness of the outside walls. By the time the air starts across the room to the return grill, it is milder in temperature than if it had started from an interior wall register without the tempering effect of the cold wall. Low-wall delivery (Figure 5-A) used in the older system is also possible in the new one, provided the register "fans out" the air stream flat against the wall and if it is placed below windows.

It will be noted that all of these methods deliver air parallel and close to the ceiling or an outside wall and away from people. All of the foregoing comments about improved distribution of warm air apply with equal importance to the routing of cooled air. Upward discharge along outside window walls has the same effect in creating a uniform, mild temperature in occupied space. Low-temperature air is even more uncomfortable than warm air when it is directed toward one in a stream. The dual use of air for heating and cooling has brought with it a device for air distribution which originated with air conditioning. This is the ceiling diffuser which is still used by preference over wall registers in the best commercial and industrial air-condition-

ing practice. It is new and very effective in residential design. Low-cost, efficient units have been developed. They distribute (Figure 6) to a full perimeter which is about four times the scope of a wall register. Within two ft, and thus above the heads of people, they blend air temperature to a degree close to the room average. They accomplish perhaps the best dispersion of any distribution system. By the use of ceiling diffusers, a short-radial duct system from a central plenum can be used in the attic. In many cases this will be on the side of economy. Rapid heat loss which tends to reduce the inside temperature of glass walls also affects greatly the surface temperature of slabs on grade. Research has shown that any heating system that does not directly warm slabs and slab perimeters will permit floor temperatures so cool as to be uncomfortable. These temperatures, sometimes as low as 60 F may be raised to 85 F by schemes such as those shown (Figure 7). Besides the improvement in the heating cycle, it is obvious that when cooled, these floors can form radiant-cooling surfaces. The presence of these cool surfaces, which improves the comfort of the space, makes it necessary to keep the dew point of the air below the temperature of the slab. In order to prevent condensation, the dew point of the air should be kept at about 60 F or lower, if the slab is about 65 F.

size of ducts and registers

While the heat gain in a room may be only about one-half the heat loss, the required delivery of cool air in cubic feet per minute is usually greater than for warm air in winter. The reason is that cooled air is delivered at only 20 degrees lower than room temperature while warm air is often delivered at a temperature 80 degrees higher than room temperature. More cooled air must be supplied at the smaller temperature differential. This requires that the ducts and registers be sized for cooling operation and perhaps dampened down for winter use. This is

one reason why the adaptation of existing heating systems to the addition of cooling is difficult. The ducts are generally inadequate. The modern trend is to have a number of small standardized supplies for each room, one or several of which can be turned off or dampered down in winter.

Occupancy of a closed house with continuous circulation summer and winter requires that the air motion be as imperceptible as possible. Consequently diffusers, air-base distribution, or numerous discharge registers are indicated. Saving in this phase will inevitably lead to discomfort. An analogy can be made to lighting. Intensity for room illumination could be had by hanging a naked 200-w bulb in the center of the ceiling. Yet a more subtle lighting is generally chosen, using dispersed sources of lesser intensity. It would be just as inefficient to attempt to blast into a room through one register sufficient air for heating or cooling needs.

There is another determining factor in the choice of the size of supply ducts and registers. The heat gain of an individual room varies during the day according to the location of the sun. The ducts and registers for a room must be chosen for the time when the room heat gain is greatest even if this is different from the time when the over-all heat gain to the house is greatest.

size and operation of the unit

The proper capacity of the unit is not the sum of the critical heat gains of the several rooms. Each room has its maximum gain at a different time of the day. The central unit which cools all rooms carries the maximum cooling to only one room at a time, the other rooms adding somewhat less than their maximum gain. So the over-all heat gain of the house is computed as though there were no room divisions and for the time of day when the house as a unit experiences its greatest heat gain. This is generally about 4 p.m., after the house has been exposed to the sun all day and the air temperature outside of

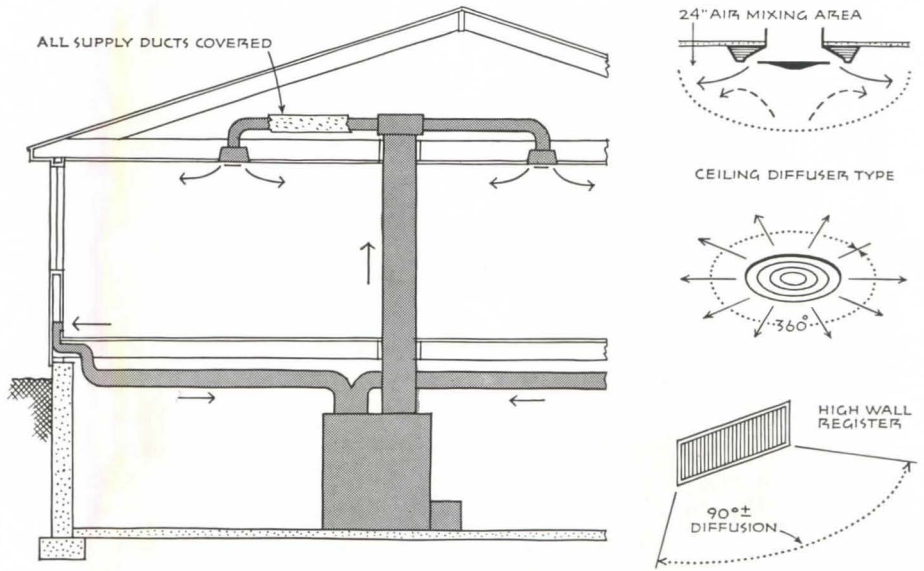


Figure 6—ceiling diffusers have advantages for residences.

the house still remains critically high.

In the interest of continuous operation, it is important not to oversize the cooling unit. By keeping it small, it will run most of the time and so reduce the humidity that might otherwise accumulate between periods of operation. By continuous cooling, even during the night, the house can be maintained at a lower thermal content with correspondingly lower inside surface temperatures. This flywheel effect provides a lower mean-radiant temperature of walls, ceilings, and floors. This effects radiant cooling during short periods (Figure 8) when the inside air temperature might rise slightly above its design value. With a cool environment the rise in air temperature may never be noticed. On the other hand, if the house were permitted to heat up during most of the day and night, even a larger unit might fail to overcome by low room temperature the warm effect of the heated surfaces. Homes, unlike public buildings, are not regularly subject to critical loads due to many people and so do not require large units for short duration cooling. A small unit operating continuously to keep house surface temperatures low is the proper choice.

A prominent heating engineer tells an anecdote about the "flywheel" effect in the heating of a church. The system was designed to keep the church at a comfortable temperature on Sunday, provided it was kept partially heated all week. In operation the design was justified. Later, in an effort to save fuel, the heat was turned off completely during the week. Thereafter, no amount of heat on Sunday could keep the congregation warm because of the chilling effect of the cold masonry walls. In the application of this principle to the air conditioning of homes, there is no attempt to cool people by supplying cool air during the hottest part of the day but rather to keep a house cooled to provide a low-temperature radiant environment for the occupants. In this aim a small unit is more effective than a large one.

Figure 7—perimeter or cavity-slab distribution gives radiant effect.

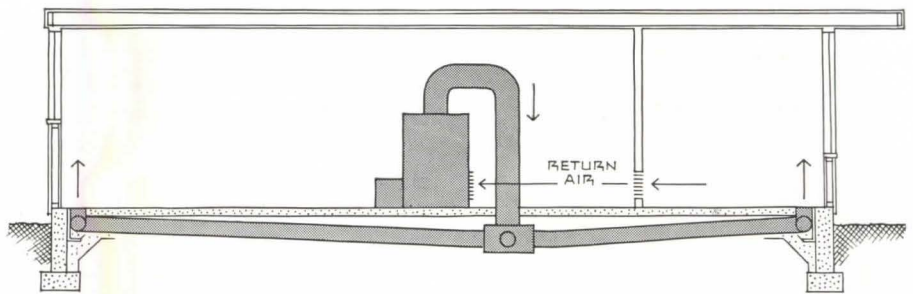
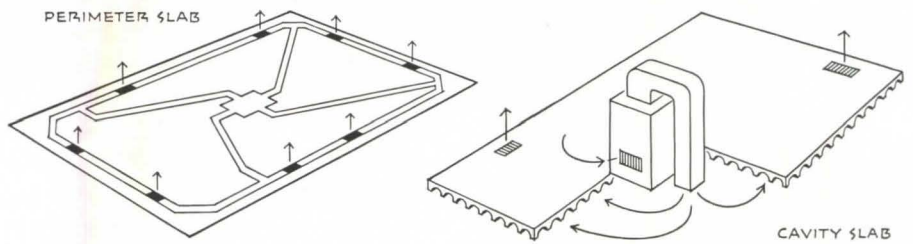
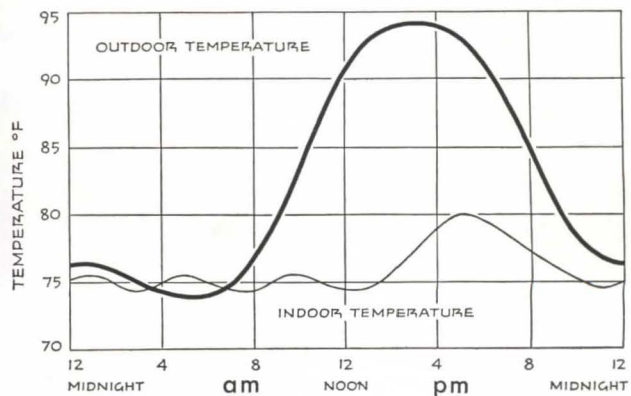
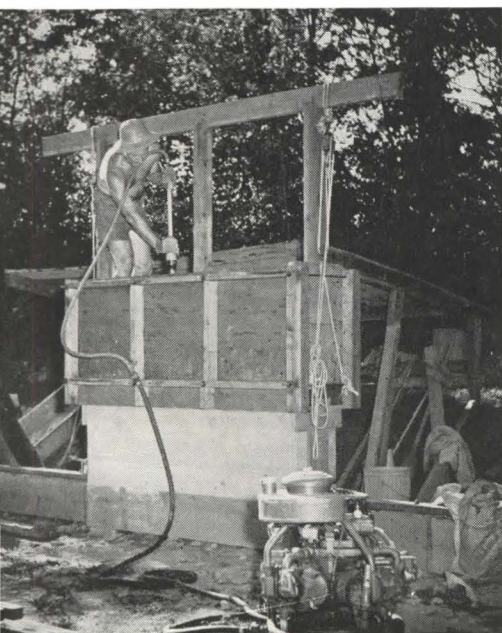


Figure 8—24-hr operation cycle, thermostat 75 F, differential 15 degrees.



new residential structure:



Second section of a rammed-earth pier wall is tamped by Kauten with compressed air equipment loaned by Ingersoll-Rand Company (above).

After extensive research and consultation with various building material specialists, Designer Mat Kauten has planned a pavilion-type single-story, basementless home in Glen Gardner, New Jersey, which combines the use of rammed-earth walls and a double-butterfly roof system. Kauten describes his home as "an experimental station" in which he can test practically the various economical materials and methods that become of interest to him. Working from his design for five rooms contained in an area of 1100 sq ft, the designer and his wife have accomplished very nearly all of the construction.

All of the load-bearing rammed-earth walls, the most unique feature of the Kauten house, were raised by one form—each wall being 6' wide, 6'-6" high, and 1'-6" thick. At the outset, samples of the soil on the site were sent for analysis to the experimental station maintained by the South Dakota Department of Agricultural Engineering which has conducted experiments in rammed earth for the past 20 years. The analysis led to the addition of sand to the heavy-clay soil. A hammer mill owned by a neighboring farmer was used for the mixing and grinding and provided an unusually even texture. Construction of the rammed-earth walls in this instance was made much less tedious by compressed-air tamping, raising of the walls in three sections, and by the design of the house itself. The plan calls for unit wall lengths, an arrange-

ment of the walls to eliminate rammed-earth corners, and windows and doors that extend to the ceiling to avoid tamping earth over lintels. At present, the walls are untreated but they may be plastered or painted at some future time.

The design of the truss-roof system takes advantage of rammed-earth's remarkable compressive strength (30,000 psf, according to the Bureau of Standards). In this design, two inverted triangles with their apexes resting on 2" x 8" plates anchored atop the piers span the width of the house. They lock as well as brace each other at the ridge (*section acrosspage*). On the exterior, the trusses form a six-ft overhang with the slope of the underside fixed by the azimuth of the sun for December 21, approximately 25° in that region. With this provision, sunlight enters during the winter but is shielded during the summer. In addition, the overhang offers protection for the earth walls.

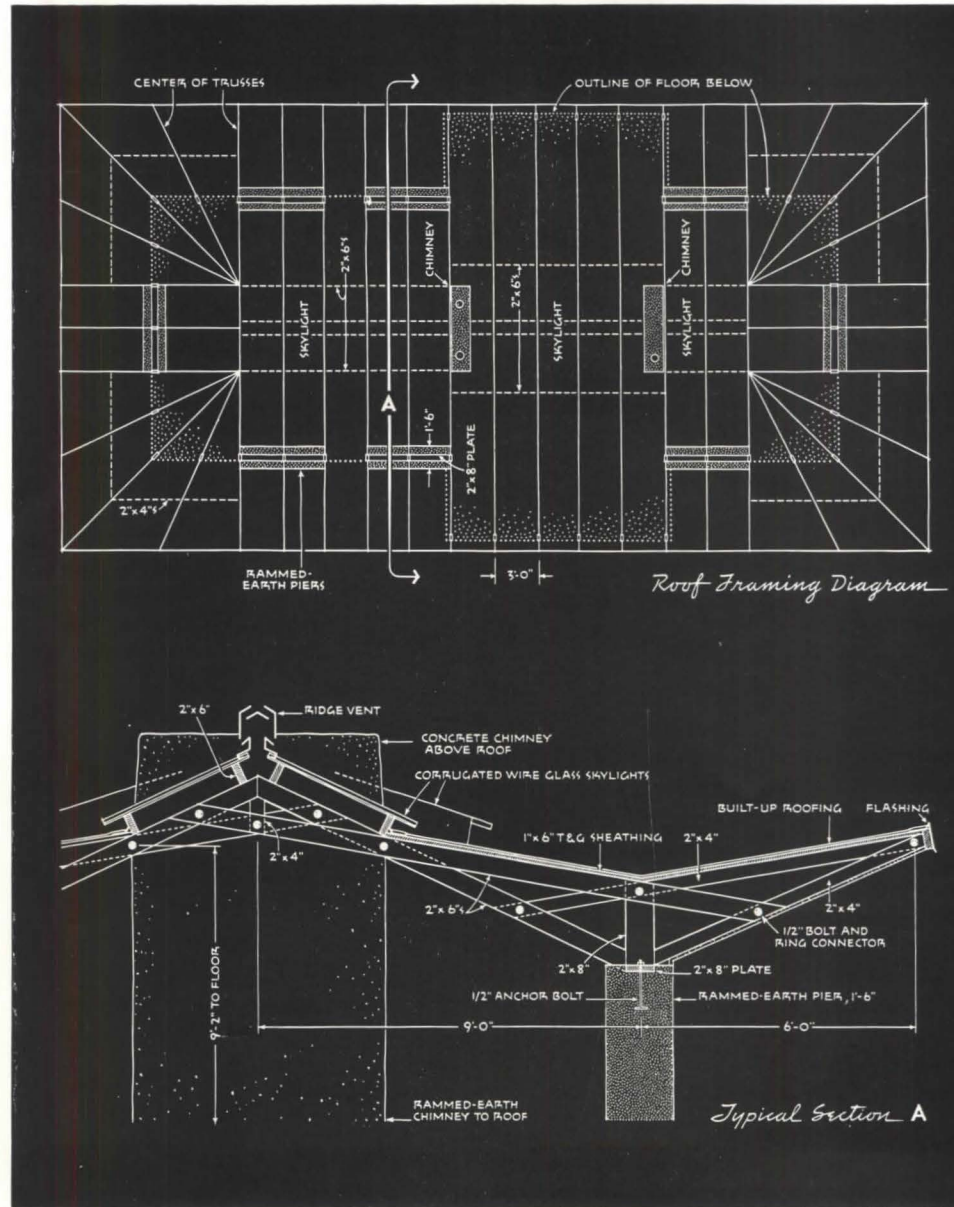
A number of truss-design possibilities were originally explored by the designer, including two- and three-hinged arches. The component members of the truss finally decided upon easily resist the largest stresses calculated in the original designs. Spacing of the trusses corresponds with the three-ft-module floor plan. As a result of Kauten's calculations, which were checked by engineers of Timber Engineering Company, the members used were almost entirely two by fours. The

Glen Gardner, New Jersey

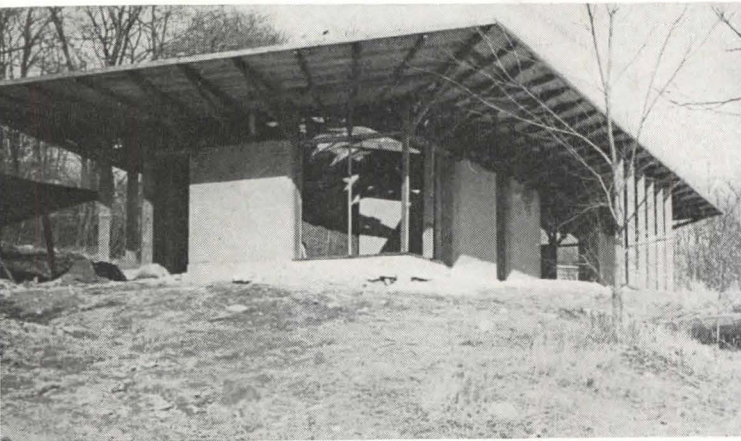
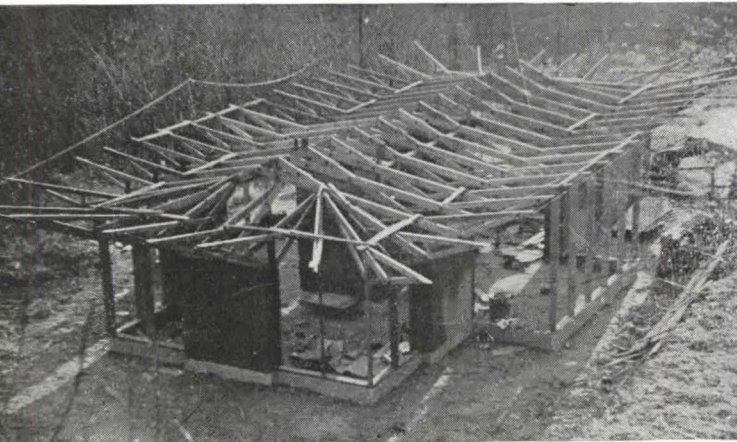
design load for the roof was 50 psf, including a combined snow and wind load of 40 psf. Loads were transferred by the use of split-ring connectors installed between flush members with $\frac{1}{2}$ -in. machine bolts used to hold the members in contact. Metal framing anchors were also used at various points. In comparison with a flat roof with 2" x 12" rafters and requiring 120 board ft of framing lumber for a strip of roof three ft wide, the framing of this truss required only 74 board ft for the same area.

The trusses have been sheathed with 1" T & G planks covered by a built-up roofing of tar and white stone. Skylights of corrugated wire-reinforced glass at the peak of the roof provide secondary lighting above the living room, bathroom, and bedroom. The skylights, which have factory-type ridge ventilators opened or closed by a pulley device, are also used for air circulation.

Accommodating a perimeter-heating installation, the foundation plan of this house contains six-in. hollow tiles used as heating ducts. These tiles are placed on concrete with a soil-cement flooring poured over them. Warm air passes from a centrally located furnace to one main duct running the length of the house and then passes into the hollow tiles laid at right angles to the duct. Thermal insulation has been provided for by the non-conductive rammed-earth walls, double windows, and conventional insulation.



A plan of the roof frame (top, above) shows the spacing of the trusses which corresponds with the three-ft module floor plan, while the positioning of the trusses and the location of split-ring connectors are shown in cross section (above) and photo (left).



Six-ft overhang of the double-butterfly roof shields large glass areas from the sun in summer and also serves as a protection for the rammed-earth walls (left).

With roofing completed (below), installation of double windows and pouring of soil-cement flooring are the next steps on Kauten's schedule. Site is protected from the most severe winds and rain by a steep slope which rises to the northwest.

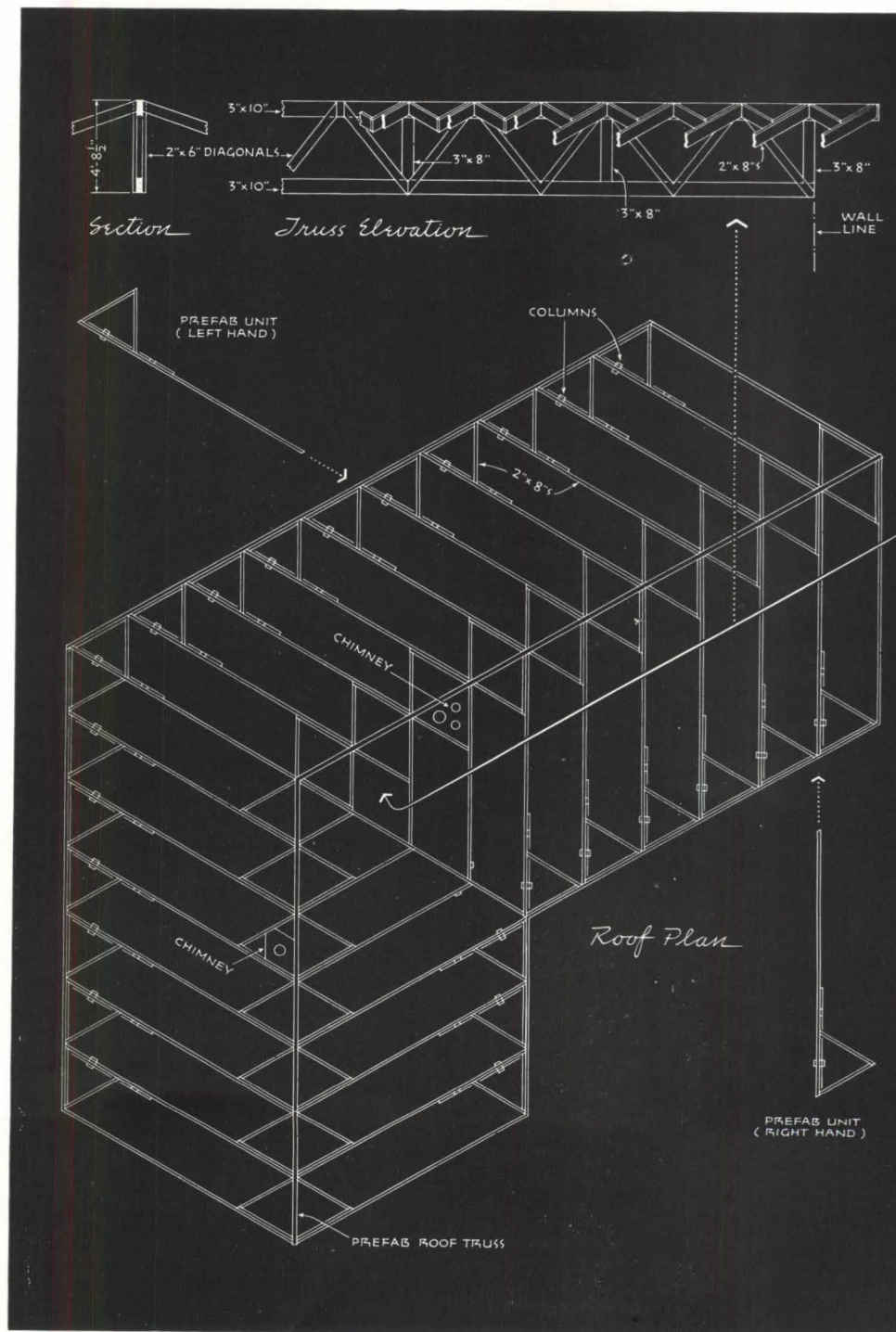


new residential structure: New Rochelle, New York

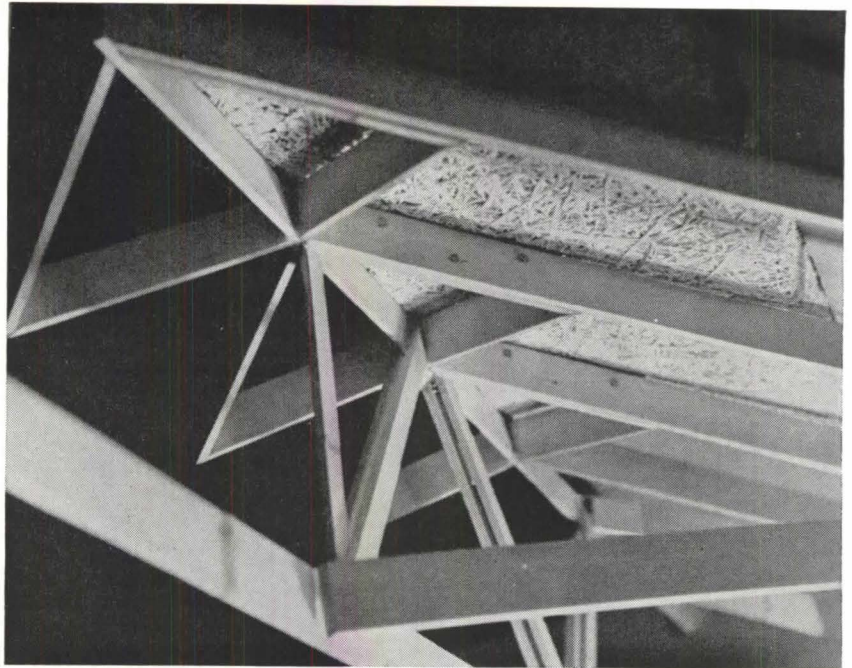
The site for this home has several rocky ledges, contains a good number of trees, and is steeply contoured with a rise of 20 ft in 100 ft. It was considered most desirable to retain a maximum number of trees for protection from the sun and as suitable landscaping. To meet these site conditions the house slab turns at an angle and steps down in three levels, setting a 60 by 120 degree parallelogram unit system.

Alfred Bush, designer, contemplates that shop subassembly of exposed-wood joists and brackets and spinal-column-like ridges will permit rapid erection in the field. By use of a simple jig, he foresees a type of mass production with shop glue-nailing. His construction system makes use of industrial-type materials in both the ceiling and the walls. Above the exposed-wood framing and nailed to it will be three-in. slabs of wood-fiber-cement planking. This material not only lends rigidity to the framing system but also provides thermal and acoustical insulation at the same time. Both exterior and interior wall surfaces will be exposed, phenolic-coated hardboard and accordion-foil aluminum reflective insulation will be placed between the wall columns.

Field assembly will be facilitated by the extensive use of power-driven studs. These will greatly simplify the problems of anchoring the columns to the sill as well as speed the assembly of columns and joists. Eliminated will be the need for predrilling holes, aligning holes in the field, and handling nuts, bolts, and wrenches. Relatively rigid joints will result at both ridge and eave. Roofing of



Roof-framing plan (below) illustrates 60 by 120 degree parallelogram unit system of construction. Typical spinal-column-like ridge (top) and roof joists will be connected by power-driven studs.

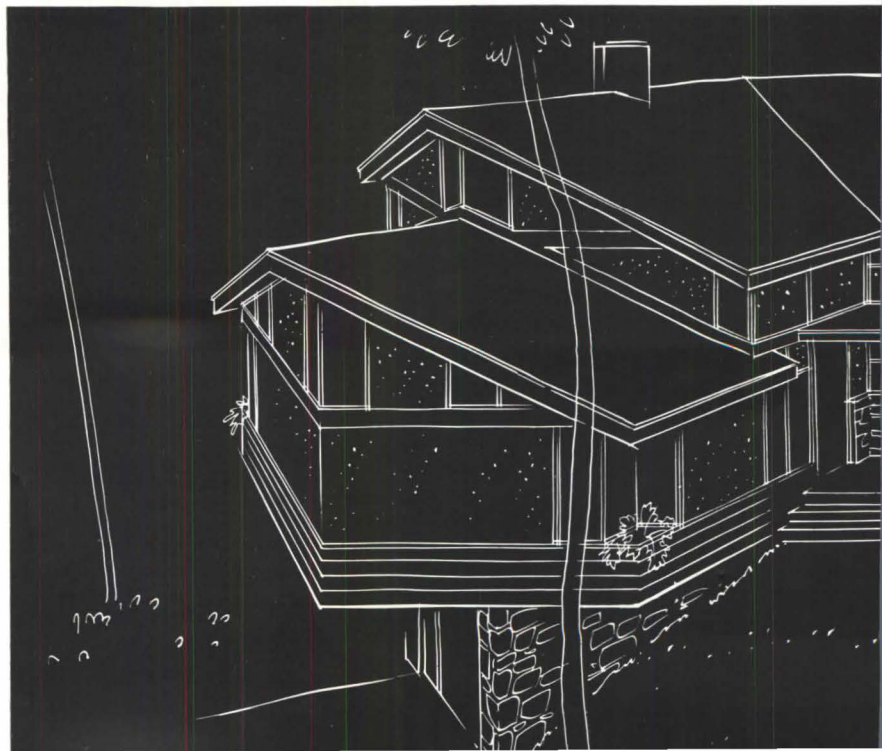


standard three-ply will be applied directly over the wood-fiber-cement board and a coating of aluminum-asphalt paint will act as the heat reflector.

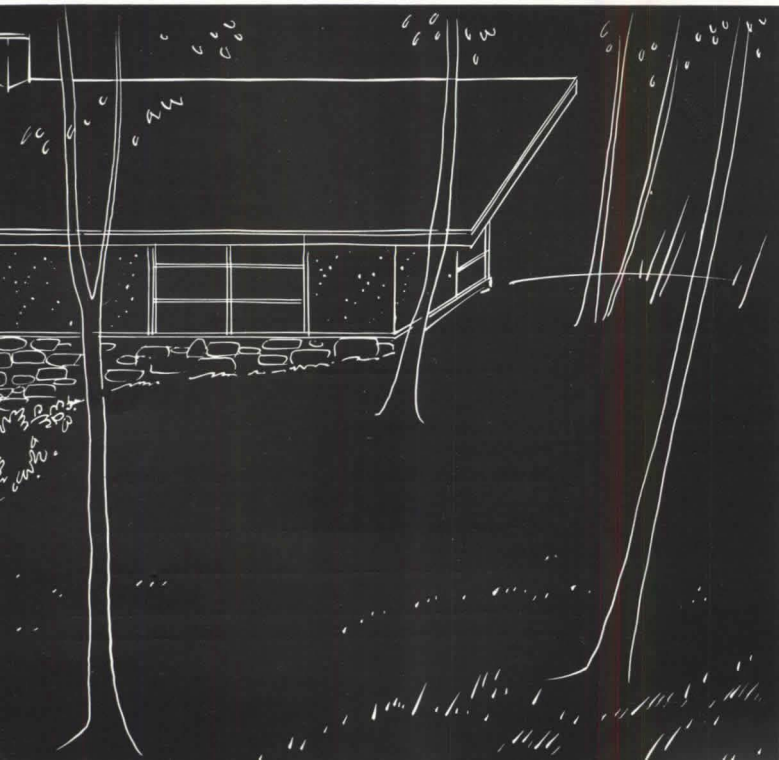
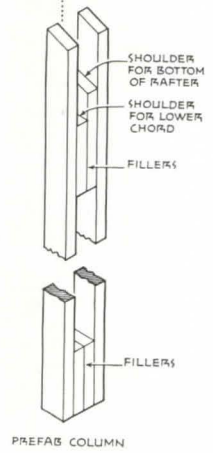
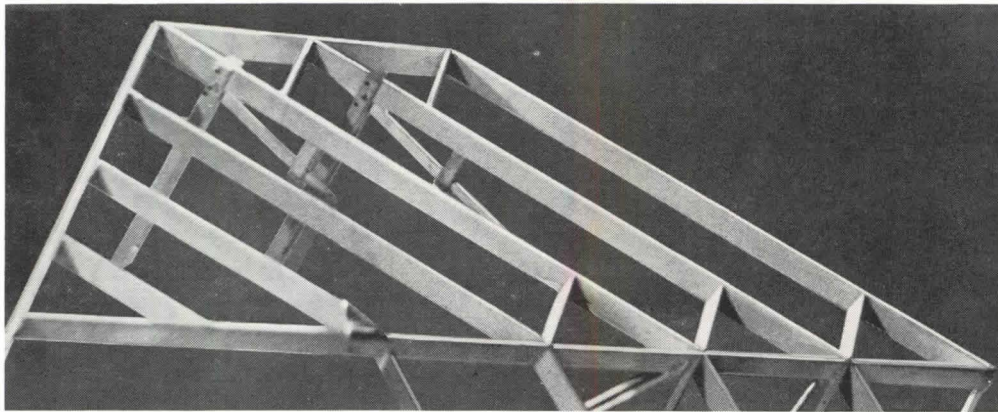
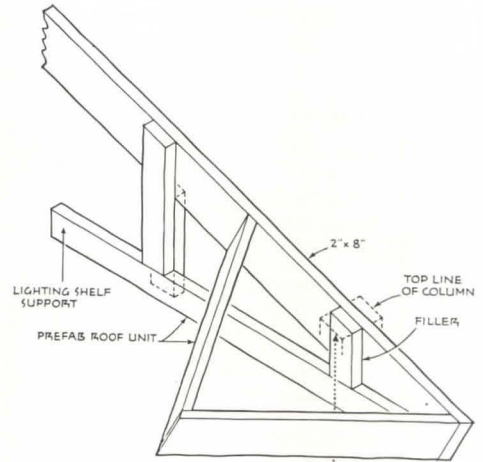
The floor slab will be lightweight perlite concrete and will contain copper tubing for radiant heating. Where the ground drops rapidly the concrete slab will be poured on wood framing covered with a skin of steel floor lath. This lath easily spans the four-ft spacing of the floor beams and acts as a base form for the

concrete as well providing integral reinforcing and waterproofing.

By utilizing many of the materials and techniques being used industrially, it is anticipated that this residence of approximately 1400 sq ft can be built for less than \$13 per sq ft. This system of construction may be of interest for further development in larger projects where the values of the methods used for partial prefabrication and simplified field erection would prove even more economical.



Detail at ridge (left) shows wood-fiber-cement slabs over roof joists. Subassembly of joist, eave bracket, and column bracket as well as individual column (right). Model (below) illustrates field assembly of components of this construction system.



Perspective of northwest elevation (left).

**Out of Sight . . .
Out of Mind!**

Kitchen work area disappears in a second when you close this handsome "Modernfold" door. When the "Modernfold" door is open the entire area is free for big family dinners—informal entertaining.

Here's how builder George M. Holstein III combines *ideas* and "Modernfold" doors to build more room for living into his low cost "Westmont Tract" homes in Los Angeles. Reports Mr. Holstein, "Our homes with "Modernfold" doors sell faster than those without."



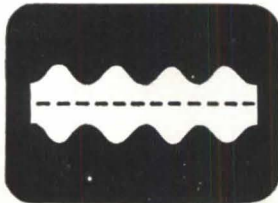
**Your ideas come to life . . . for life
with "MODERNFOLD" doors**

You're sure to keep clients happy when you specify "Modernfold"—the original folding door. Why? Because no other folding door *anywhere* equals "Modernfold" for quality of design . . . for quality and strength of materials.

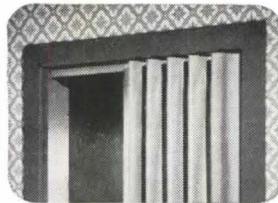
Your clients will like space-saving "Modernfold" doors because they last longer, look better, operate easier. You'll like specifying "Modernfold"—because the line is so complete. You can get exactly what you need in a "Modernfold" door for every closure or space division problem.

Sold and Serviced Nationally

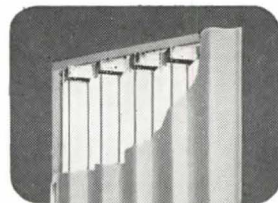
NEW CASTLE PRODUCTS, INC., NEW CASTLE, INDIANA
In Canada: New Castle Products, Ltd., Montreal 6



Only "MODERNFOLD" Doors
have center-line design—the same number, same type, same size hinges . . . both top and bottom . . . on both sides of the track.



Better Looking
Fabric covering completely conceals all operating mechanism—no cornice needed to hide track, trolleys and hinges.



Longer Lasting
"Modernfold" doors have more steel hinges both at top and bottom; more steel in each hinge more vertical steel rods.

YOU CAN'T GET MORE IN A FOLDING DOOR



the doors that fold
like an accordion

modernfold
DOORS

by NEW CASTLE

Copyrighted New Castle Products, Inc., 1954

New Castle Products, Inc.
P.O. Box 890
New Castle, Indiana

Gentlemen:
Please send me full details on "Modernfold" doors.

Name.....

Address.....

City.....County.....State.....



separate contracts

More often than not, when specification troubles arise the subject has to do with co-operation among separate contractors and co-ordination of their respective contracts. The additional burden imposed upon the architect, due to this arrangement, is often overlooked. The AIA standard forms recognize the need for extra compensation but many architects, in their anxiety to compete with their colleagues on a fee basis, find themselves doing considerable extra work in administering the separate contracts. How many of you are aware of mandatory requirements for separate contracts? Take a look at ours in New York State:

"Separate Specifications For Certain Contract Work. Every officer, board, department, commission or commissions, charged with the duty of preparing specifications or awarding or entering into contracts for the erection, construction or alteration of buildings, in any county, city, borough of any city, township, village or free school district, when the entire cost of such work shall exceed fifty thousand dollars, must have prepared separate specifications for the following three subdivisions of the work to be performed:

- "1. Plumbing and gas fitting.
- "2. Steam heating, hot-water heating, ventilating and air-conditioning apparatus.
- "3. Electric wiring and standard illuminating fixtures.

"Such specifications must be so drawn as to permit separate and independent bidding upon each of the above three subdivisions of work. All contracts hereafter awarded by any county, city, borough of any city, township, village, free school district or a department, board, commission or commissioner, or officer thereof, for the erection, construction, or alteration of buildings, or any part thereof, shall award the three subdivisions of the above specified work separately to responsible and reliable persons, firms or corporations engaged in these classes of work. Nothing in this

section shall be construed to prevent the authorities in charge of any county, city, township, village, or free school district building, from performing any such branches of work by or through their regular employees, or in the case of public institutions, by the inmates thereof."

Don't say I didn't warn you. Insist upon more lettuce.

tile talk

The pretty girl in the asphalt-tile advertisement made tile laying seem so effortless that I decided to do my basement last month. If a frail woman can do it with a more play than work look in her eye, why can't I? Well, sir, I trudged through the cold, windy streets, purchased packages of tile and trudged back home through the cold, cold windy streets. Upon arriving home my arms ached, so I dropped the tiles, which smashed into a million fragments. (Any specification writer knows that asphalt tile does not bounce when cold.) The following weekend, I tried once more and managed to transport the tiles home safely. Three weekends later I completed the job. The cost came to \$1.875 per square foot. This includes the doctor's bill for restoring my back to normalcy. Down with "Do It Yourself Week." While on the subject of tile I find my day is not complete unless I receive literature concerning vinyl-asbestos tiles. They are coming thick and fast now and at the moment my score card looks like this:

- Excelon—Armstrong
- Vinylbest—Congoleum-Nairn
- Koroseal—B. F. Goodrich
- Vinylflex—Hachmeister
- Terraflex—Johns-Manville
- KenFlex—Kentile
- Aristoflex—Mastic
- Mouflex—Moultile
- Flor-Ever—Sloane-Delaware
- Flexachrome—Tile-Text
- Vina-Lux—Uvalde

I am almost afraid to open tomorrow's mail. In comparing the vinyl-asbestos tiles with rubber tile, I think you will find them harder, more color fast, no better or worse with respect to solubility in water, no better or worse resistance to common



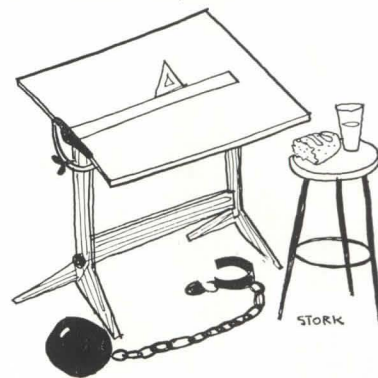
cleaning agents, oils and greases, slightly better resistance to curling, better recoverability after indentation, weaker than rubber in fatigue bending and flexibility, better in abrasion resistance.

pour it on

In that next roofing specification of yours instead of writing, "Over entire surface, apply uniform coating of pitch into which, while hot, firmly embed at least 275 lbs of slag for each 100 sq ft of finished roofing" you will be on better ground (I mean roof) if you say, "Over entire surface, pour (do not mop) heavy coating of pitch . . ."

announcement

I have been rambling on and on in this column for some time now and am not quite sure how useful it has been. The ensuing fragment of information will, I am reasonably certain, more than justify my imposition on your reading time. (Roll of drums, background music, soft lights.) On government contracts the following labor laws do or do not apply to architects: Walsh-Healy Act, no; Davis Bacon Act, no; Copeland Act, no; Eight-Hour Law, no; Anti-Discrimination, no; Convict Labor Law, YES.

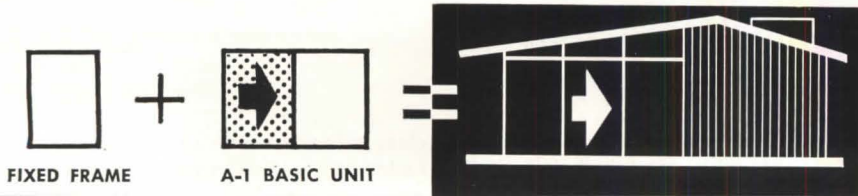


unco-ordinated chops

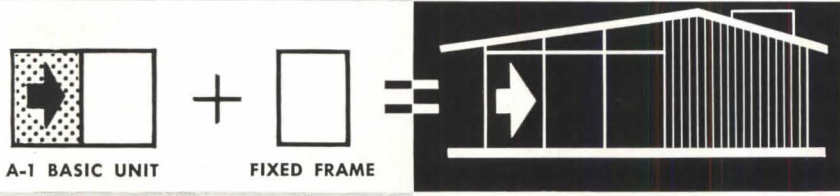
Note to William Demarest, Jr., Secretary for Modular Co-ordination: Awhile back, I had dinner with Theodore Irving Coe, AIA Technical Secretary. The main course consisted of very fatty lamb chops. Ted quipped: "These are nonmodular chops—too much trimming and too much waste."

plain words

In the book *Plain Words* by Sir Ernest Gowers there appears a reassuring note to architects. Sir Ernest concerns himself with advice to government officials on the use of words and points the way to simpler English. He illustrates the application of unnecessary adjectives with this example: "This is a matter for an expert architect."



it's all a matter of addition!



9 BASIC UNITS

FIXED FRAME
Steel-framed fixed unit available in three stock widths for "Multi-Width" doors.

A-1 BASIC UNIT
Left vent sliding in three stock widths. Use singly or with other units.

A-2 BASIC UNIT
Right vent sliding in three stock widths. Use singly or with other Basic Units

From these 9 Basic Units (three stock widths in three types illustrated) you may design any type or any width door you desire. Basic Units are joined on the job, quickly and easily.
New "Multi-Width" program offers countless widths of door openings without custom sizes.
NOTE: All Basic Units in "Multi-Width" door program are stock height: 6'10". Only widths vary.

arcadia
multi-width

SLIDING GLASS DOORS NOW GIVE YOU EXCLUSIVE NEW PLANNING FEATURE

Now, for the first time, Arcadia offers a flexible, practical plan for providing sliding glass doors for nearly any width opening without necessity of custom sizes.

You choose from 9 Basic Units the widths you want. Combine these Basic Units in any way you wish. For example, you may want to specify four fixed frames and one sliding unit for an exterior wall, or two sliding units with a fixed frame section in the center. Whatever width you prefer, you may now order from Arcadia's Basic Units. These Basic Units provide the many widths which are possible in the new Multi-Width door program. Immediate delivery on all Basic Units. Let Arcadia tell you more about this new plan.

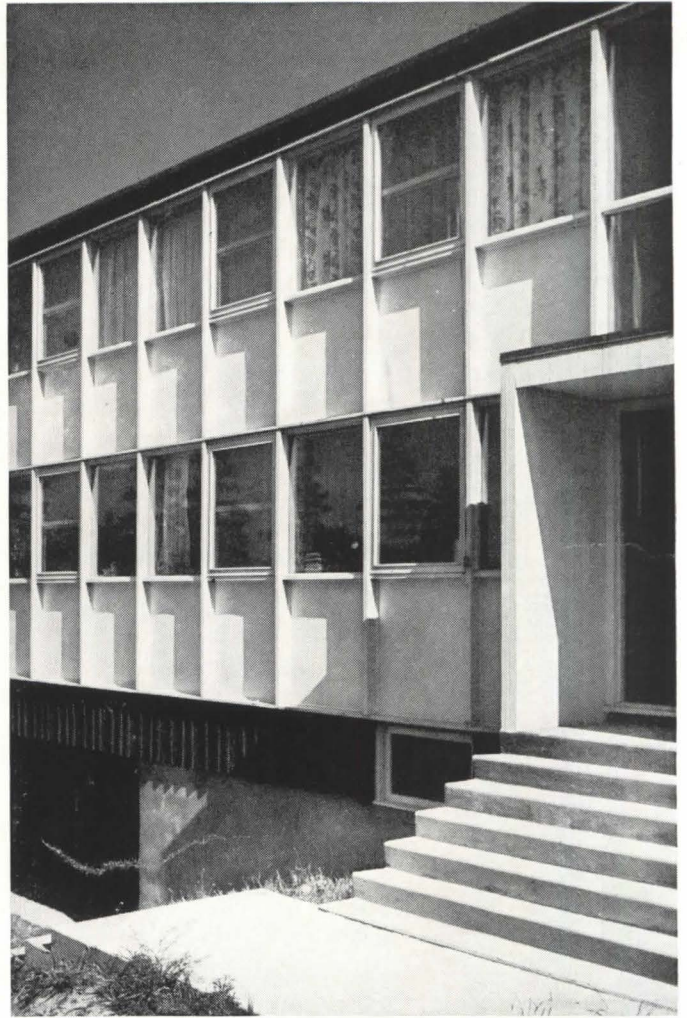
When you specify Arcadia, you specify the symbol of quality in the sliding glass door industry.

Write today for details of Arcadia doors.

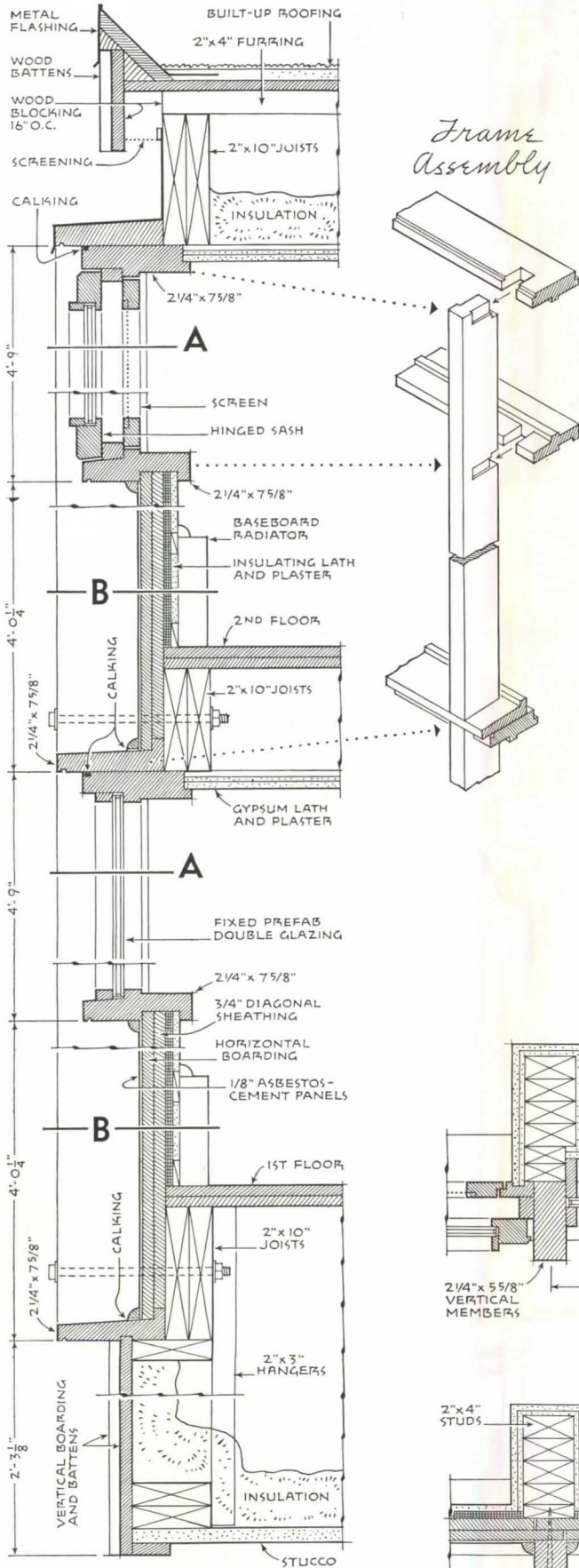
arcadia METAL PRODUCTS

324 N. Second Ave., Arcadia 2, Calif.
Please send me more information on the new Arcadia "Multi-Width" steel-framed sliding glass doors.

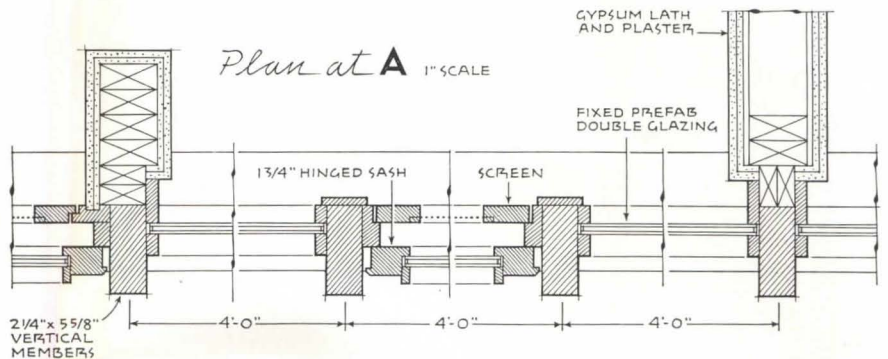
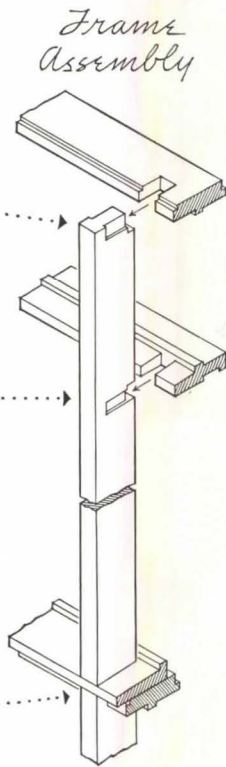
NAME _____
ADDRESS _____
CITY _____ ZONE _____ STATE _____
My profession or business is _____



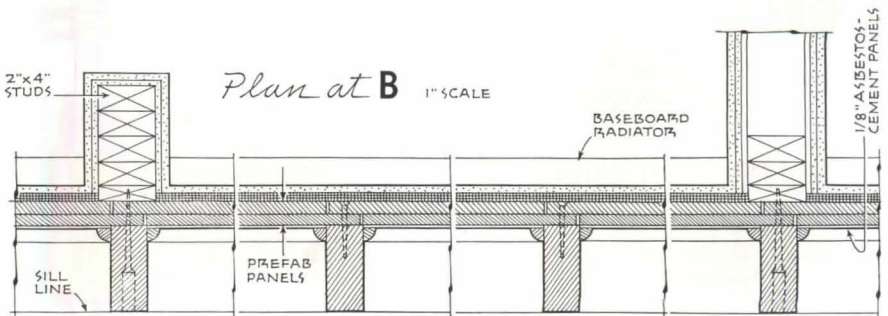
RICHARD GARRISON



Wall Section 1" SCALE



Plan at A 1" SCALE

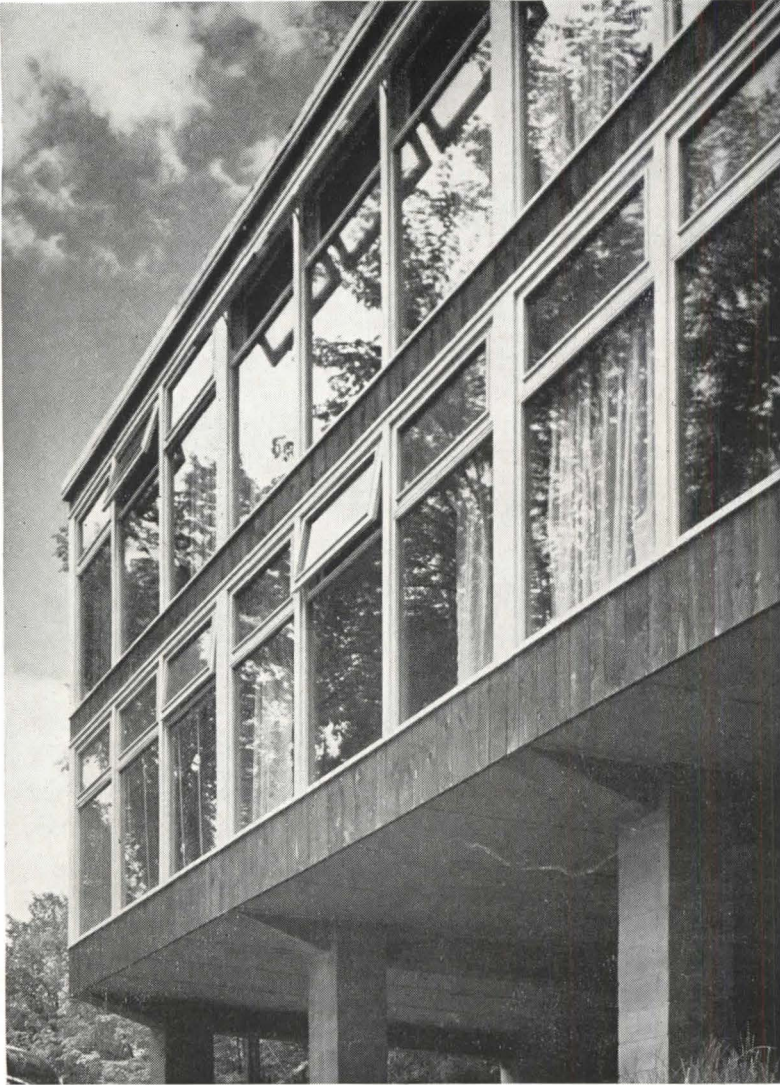


Plan at B 1" SCALE

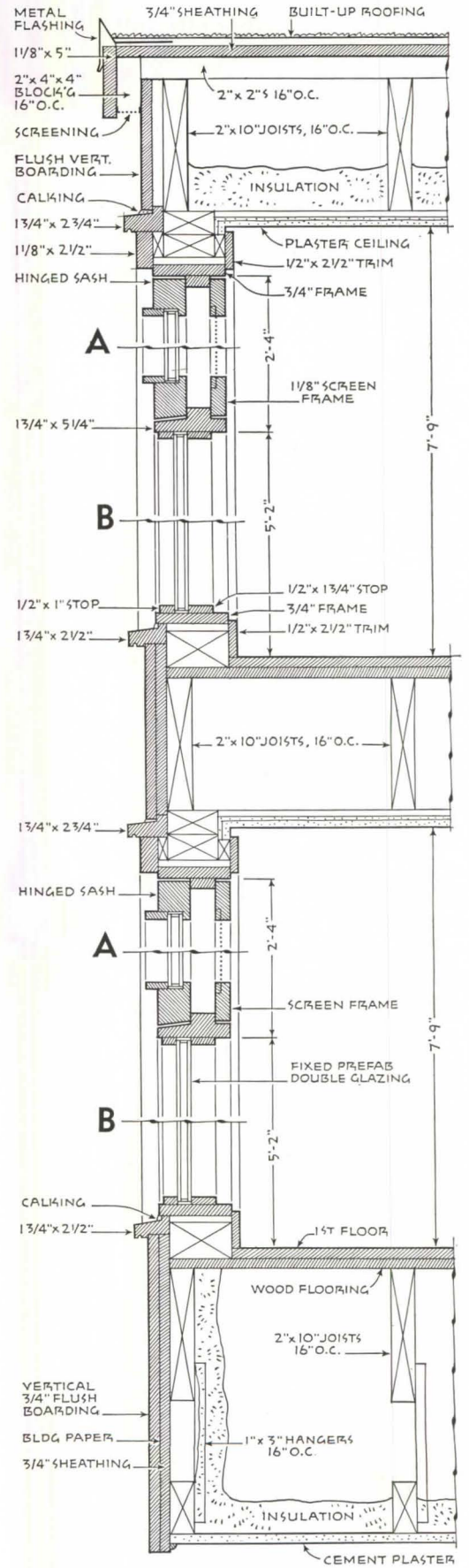
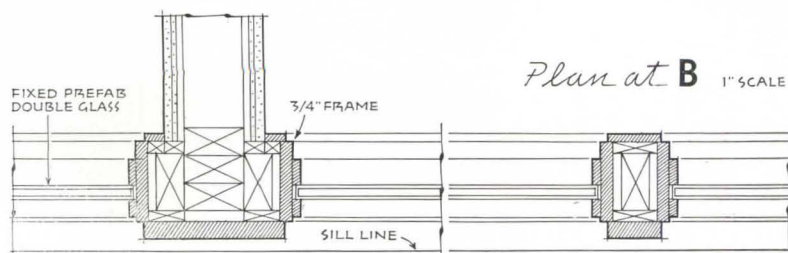
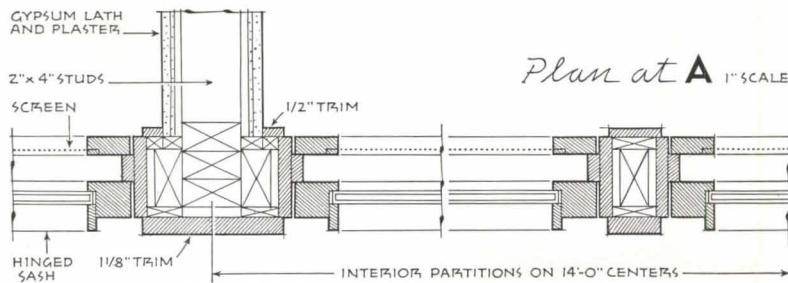
CRESTWOOD APARTMENTS, Rutland, Vt.
Whittier & Goodrich, Architects

p/a selected detail

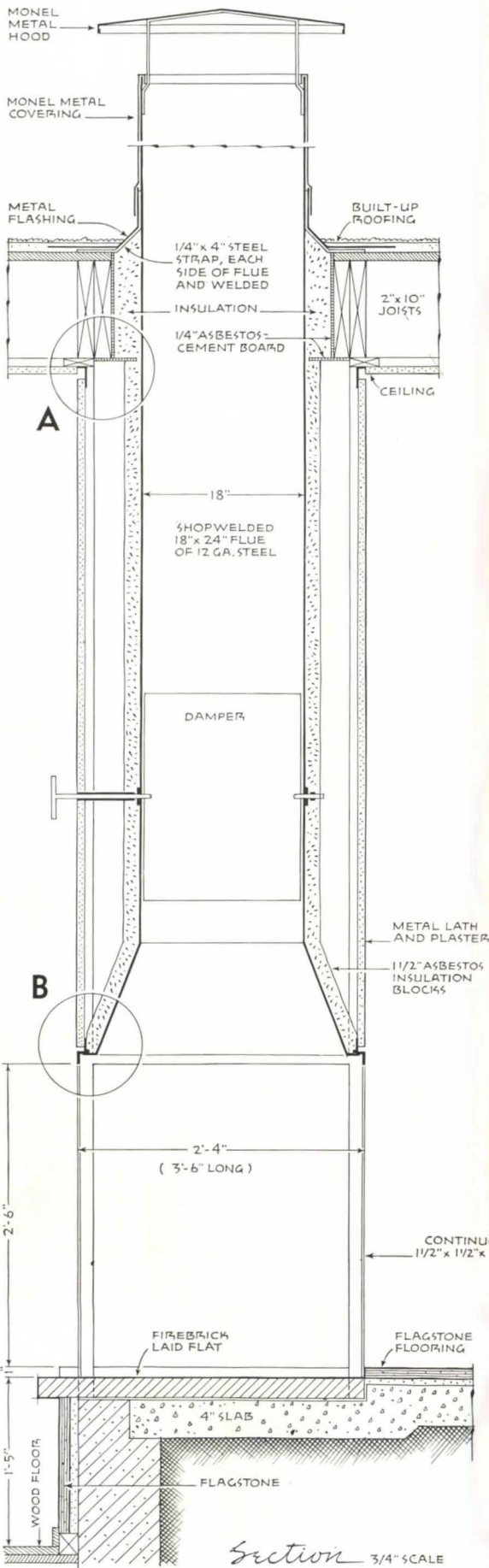
apartment: window wall



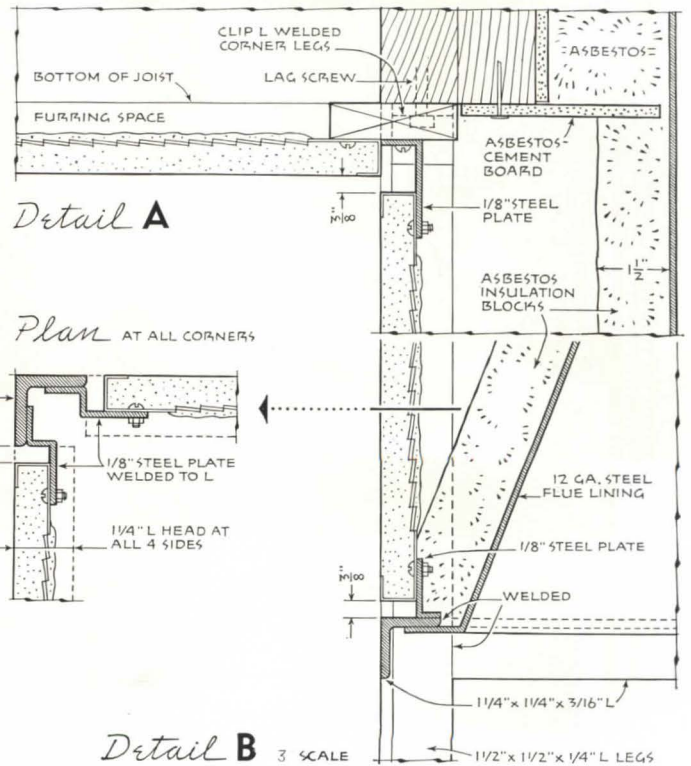
RICHARD GARRISON



CAPITAL APARTMENTS, Montpelier, Vt.
Whittier & Goodrich, Architects



LIONEL FREEDMAN



GOLDSTEIN HOUSE, Bloomfield Township, Mich.
Leinweber, Yamasaki & Hellmuth, Architects

Each room decorates the other...

through this

lovely door



See how this door of translucent glass picks up the colors and light in the room beyond. Notice how it blends them and brings them through for a charming, decorative effect. Yet each room has privacy.

The Blue Ridge *Securit** Interior Glass Door is a single piece of glass patterned on both sides. And it's tough—tempered to take hard usage.

The *Securit* Door is easy to hang. It requires no cutting, no mortising. Distinctive, easily applied hardware and hinges come to the job with the door. When specified, the door can be shipped with a Sargent closer or prepared for use with an LCN concealed closer.

The cost of this door compares favorably with high-quality doors of ordinary materials—and you save on installation costs and maintenance.

The Blue Ridge *Securit* Door contributes new decorative appeal for offices or homes, for stores or institutions. This beautiful glass blends with all colors. And goes well with other building materials.

See your L·O·F Glass Distributor or Dealer about this new door. He's listed in phone book yellow pages in many principal cities. Or write Libbey·Owens·Ford Glass Company, Patterned & Wire Glass Sales, B-2224 Nicholas Building, Toledo 3, Ohio.

*®

BRIEF DATA

Glass— $\frac{3}{8}$ " thick. Muralex pattern on both surfaces.

Tempered—Three to five times stronger than untempered glass of same thickness.

Reversible—Can be used right or left hand

Standard Sizes—2'6" x 6'8" 3'0" x 6'8"
2'8" x 6'8" 3'0" x 7'0"

—also 4 sizes for openings of these dimensions with proper allowance for clearances

For more complete information, see the *Securit* Door insert in the *Sweet's Architectural File*.

Designed for Cappel, MacDonald Co., Detroit, by John B. Wisner, A. I. D., New York.



Libbey·Owens·Ford Glass Company
Patterned & Wire Glass Sales
B-2224 Nicholas Building, Toledo 3, Ohio

Please send me your folder, *Blue Ridge Securit* Interior Glass Doors.

NAME (PLEASE PRINT) _____

ADDRESS _____

CITY _____ STATE _____

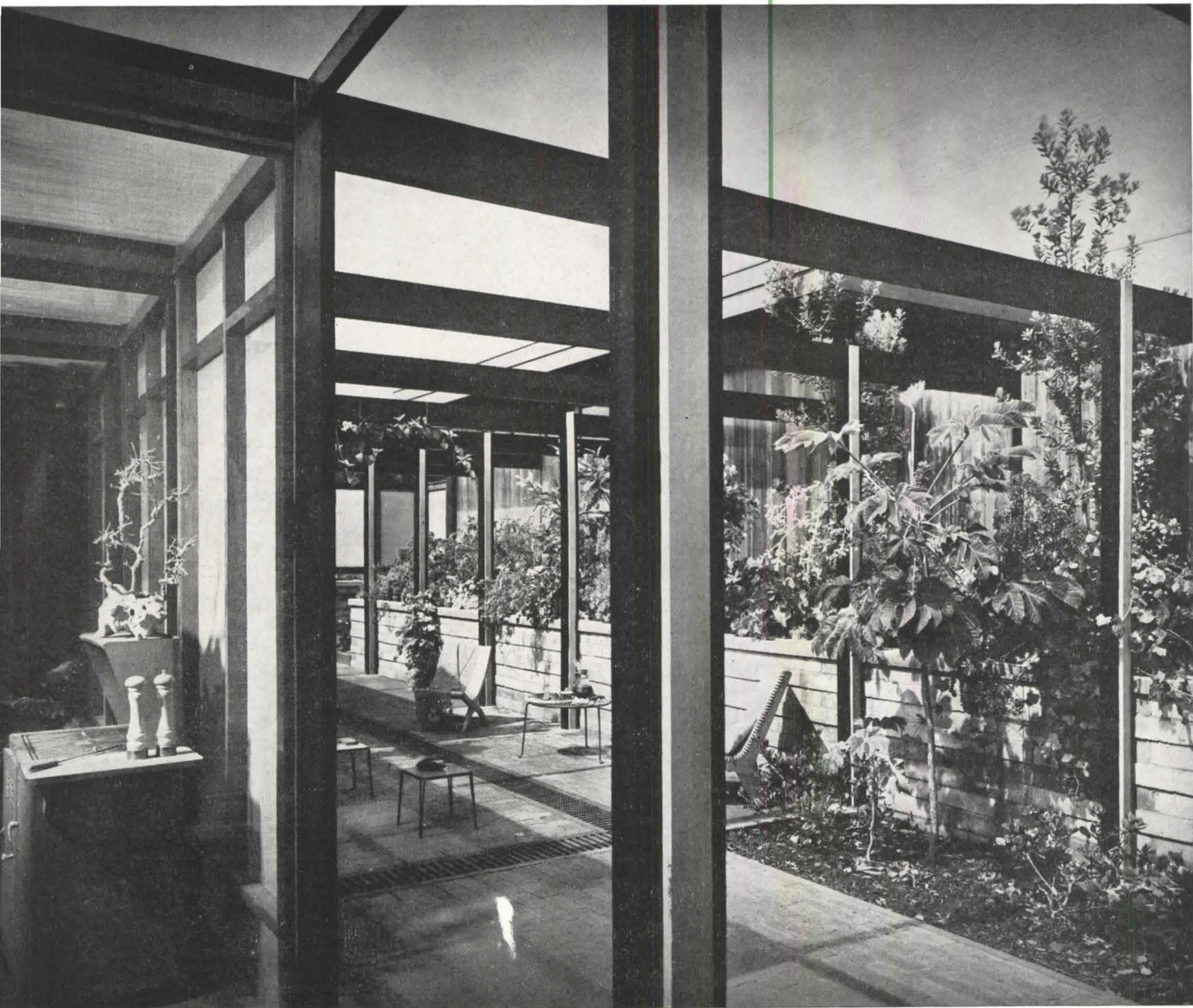
Page Beauchamp **terraces**

As family living becomes more informal, terraces or patios are increasingly important as a part of the home. More area is being devoted to living out-of-doors, and with this way of life the entire functional balance and appearance of the home are changing. Glass walls and sliding panels capture views from inside and also allow easy access to the terrace. The entire house is opened up. The terrace is planned to allow expansion and designed to permit freedom of living. Many important considerations must be dealt with by the interior designer. Sometimes sunlight may be too strong and must be filtered. Occasionally there is need for protection from prevailing winds, or need for screening for privacy. But materials must be chosen to do the required job of regulating without confining. Louvers, trellises, and planting come into play importantly.

It is particularly interesting to see the four examples in the following section. They are in areas of the country where a terrace may be used to advantage a great part of the year. Each has nicely related the terrace to the rest of the house. It is an integral part of the entire design and not an after-thought or unsympathetic addition. Color, too, has been expertly planned — the use of materials in their natural state or stained to be sympathetic to the surrounding terrain. Earth colors, neutrals, and grayed shades give a feeling of relaxation, quiet, and coolness. The planting schemes are particularly well managed because they, besides being decorative, act as shelters from sun and wind, and also provide privacy. They offer a softening effect on the flow from indoors to outdoors.

terraces

redwood

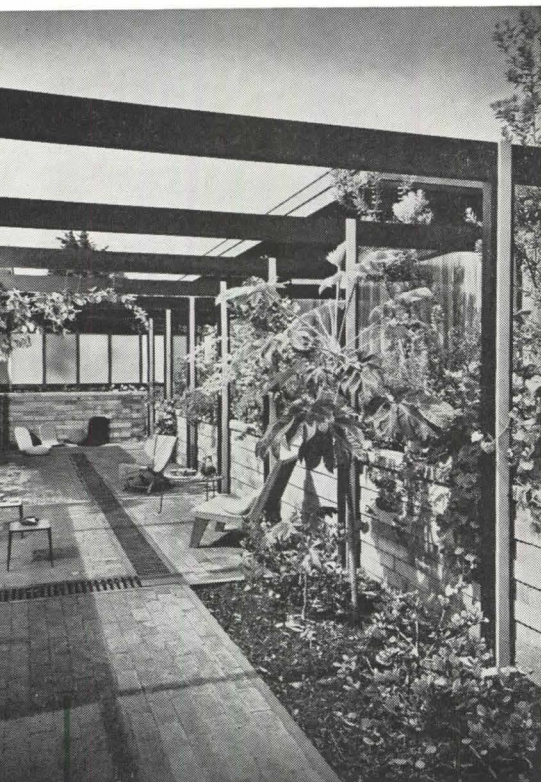


The structure of this house has a beautifully integrated flow of line, from one side to the other. The soffit over all doorways tends to unite the entire scheme, and eliminate the unpleasant broken lines of doors not carried to the ceiling. The roof beams carry from indoors to outdoors to organize patio, fences, and trellises. The architect was concerned with never having a passage from shade to sunlight without a trellis or planting to soften the flow. Glass is used, but without sacrificing privacy. Color is black-green, gray-green, and sand beige to repeat the hillside coloring.

Photos: Julius Shulman

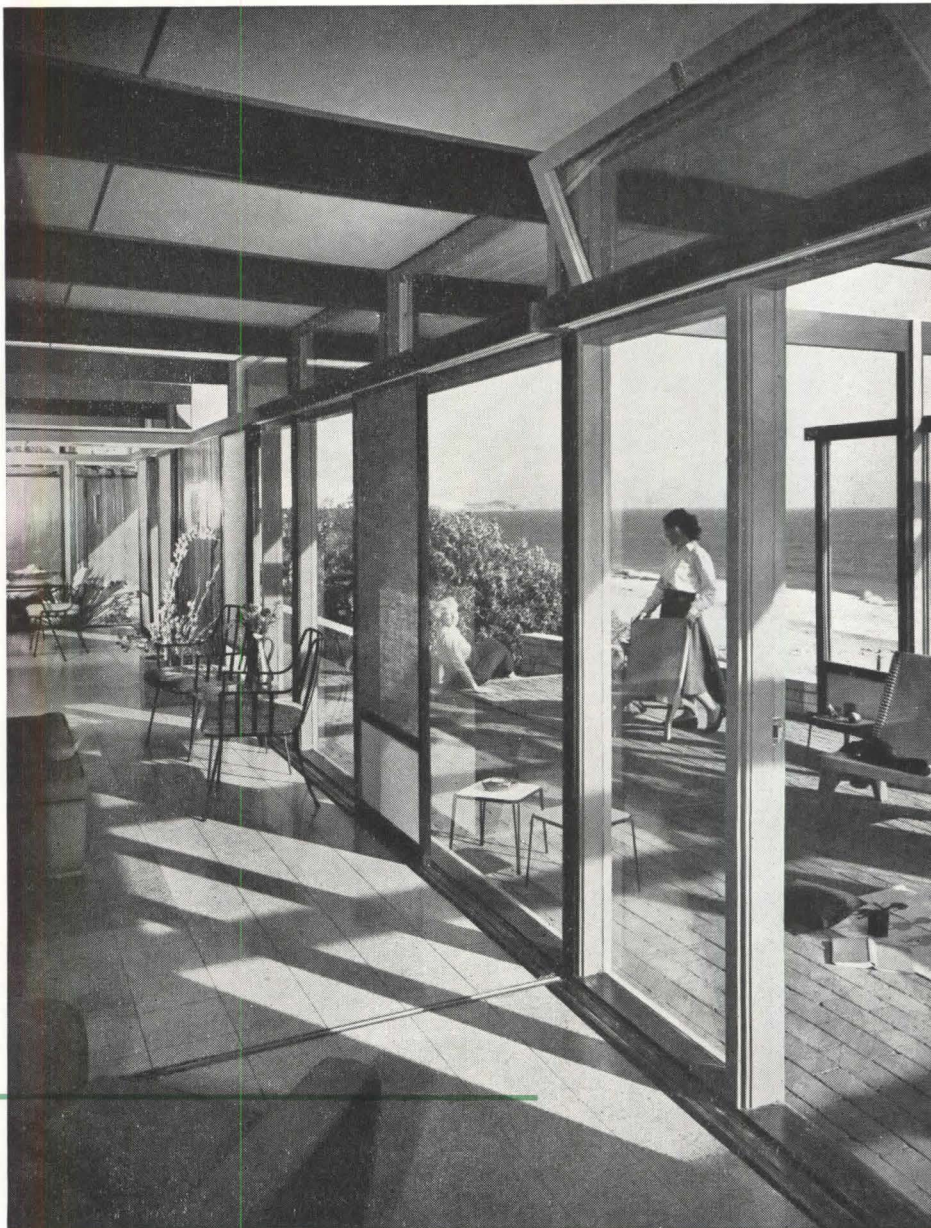
location | Encinal, California

designer | Gordon Drake



cork tile

common brick



data

cabinetwork

Barbecue: designed by architect.

doors and windows

Sliding Panels and Wind Screens: custom-designed

furnishings and fabrics

Chairs: leather on wood/ designed

by Clara Porset, 38 Parque Melchior, Ocampo, Mexico City 5, Mexico.

Tables: wrought-iron and glass/ Modern Color Inc., 2025 San Fernando Rd., Los Angeles 65, Calif.

Foam Rubber Seat: 4" foam/ custom-made.

Dining Table: #1734/ designed by Milo Baughman/ Pacific Iron Works, 11930 W. Olympic Blvd., W. Los Angeles, Calif.

Canvas Chairs: "TV-Tilts"/ canvas on tube metal frame/ Modern Color Inc.

Rush Rug: English import.

Sculpture: "Eagle" and "Dove"/ Cornelia Runyon, Route # 2, Malibu, Calif.

lighting

Recessed indirect-direct lights: flush light soffit across top of doorways.

walls, ceiling, flooring

Interior Walls: natural redwood from floor to door height/ "Celotex" from door height to ceiling/ Celotex Corp., 120 S. La Salle St., Chicago 3, Ill.

Ceiling: natural redwood battens and molding/ aluminum insect screen.

Flooring: 9" square cork tile/ Armstrong Cork Co., Lancaster, Pa./ common brick on sand.

terraces

location | McAllen, Texas

architect | Richard S. Colley

fluorescent lighting





natural wood columns

data

doors and windows

Sliding Doors and Windows, Awning Type Windows: Hawn Sash and Door, Corpus Christi, Tex.

equipment

Air Conditioning: Servel Inc., Evansville 20, Ind.

furnishings and fabrics

All Furnishings: Owner supplied.

walls, ceiling, flooring

Walls: plywood/ Mengel Company, Fourth St. and Colorado Ave., Louisville, Ky./ hand-made sand brick/ Harry Anderson, Olmito, Tex.

Ceiling: plywood/ Mengel Company.

Flooring: hand-made sand brick/ Harry Anderson.

The natural wood used for columns on this terrace immediately sets a mood of informality. The planting serves as attractive setting and also helps in screening sunlight and providing privacy. Located in the Rio Grande area in Texas, this house is subjected to hot climate — sometimes dry, sometimes humid. Wind blows constantly, and although summers are uncomfortable, winters are pleasant. The wide roof overhangs, screens to temper sun rays, and the planting, all offer sun protection.

Photos: Ulric Meisel



sand brick

terraces

location | Los Angeles, California

designer | Craig Ellwood



data

cabinetwork

All **Cabinetwork**: designed by architect/ rift-oak plywood/ U. S. Plywood Corporation, 55 W. 44 St., New York, N. Y.

doors and windows

Sliding Glass Doors: aluminum frames/ Glide Windows, Inc, 7463 Varna Ave., North Hollywood, Calif./ glass/ Pittsburgh Plate Glass Co., 632 Duquesne Way, Pittsburgh, Pa.

furnishings and fabrics

Plastic Chairs: Herman Miller Furniture Co., Zeeland, Mich.

Garden Dining Table and Spring Chairs: Van Keppel-Green, 9501 Santa Monica Blvd., Beverly Hills, Calif.

Lounge Chairs, Slipper Chairs: #704, #503/ Felmore Associates, 7570 Woodman Ave., Van Nuys, Calif.

Woven Matting: Tropicraft, 14 Sherwood Pl., San Francisco 3, Calif.

Drapery: "Celaloom"/ Celanese Corporation of America, 180 Madison Ave., New York 16, N. Y.

Coffee Table: #IN-50/ Herman Miller Furniture Company.

lighting

Wall Bracket: "Formlite"/ Gotham Lighting Corp., 37-01 31st St., Long Island City, N. Y.

Recessed Ceiling Fixtures: "Prylites"/ Pryne and Co., 140 N. Towne Ave., Pomona, Calif.

walls, ceiling, flooring

Walls: smooth-finish plaster/ painted.

Ceilings: sand-finish plaster/ painted.

Flooring: parquet wood/ "Bruce Block"/ E. L. Bruce Co., Box 397, Memphis, Tenn.

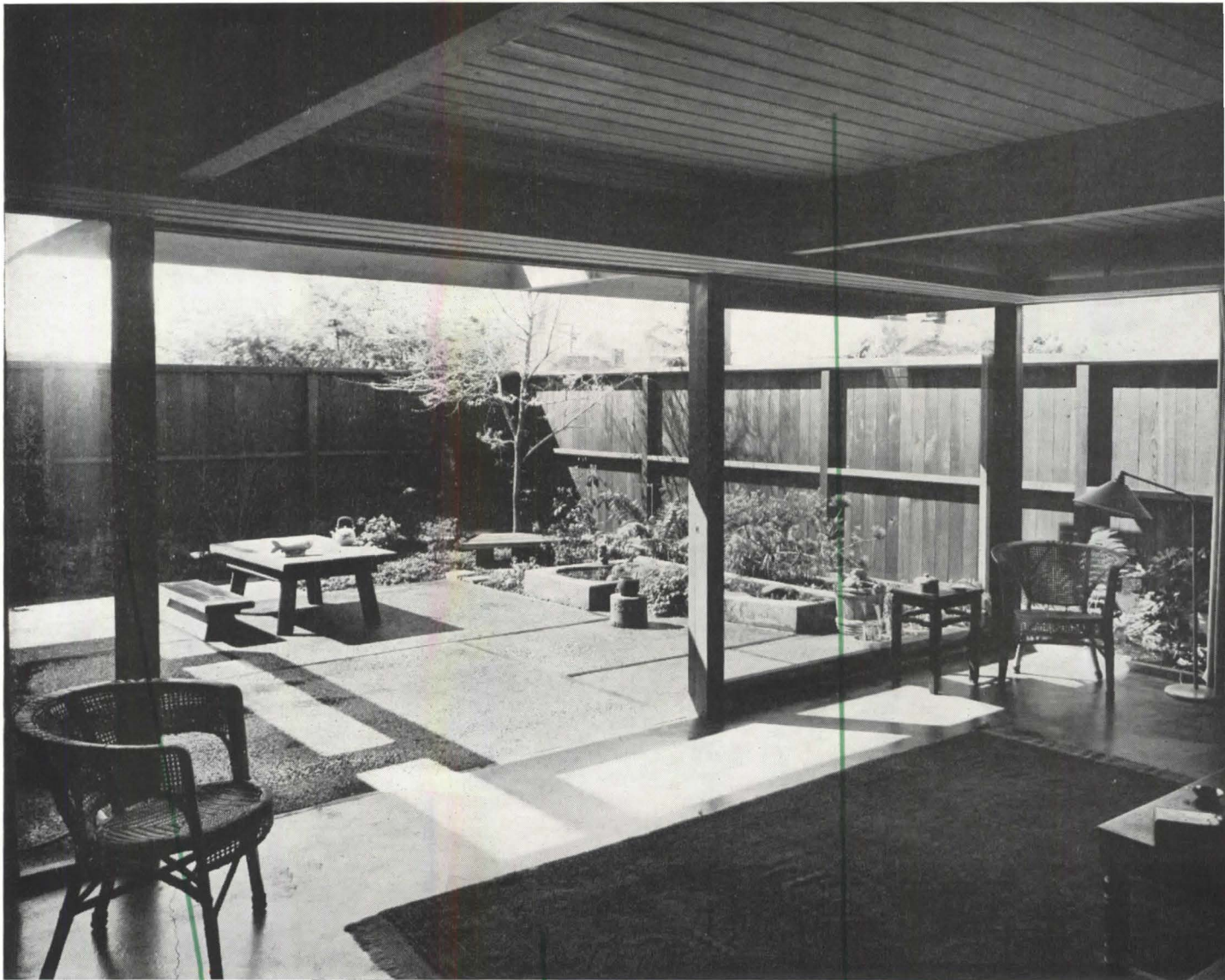
Tile Pavers: 6" square/ terra cotta/ The Mosaic Tile Co., Zanesville, Ohio.

Smooth Pebble Terrace: embedded in concrete/ 2" square redwood strips/ California Redwood Association, 405 Montgomery St., San Francisco, Calif.

The terrace is available to the living-dining area through four sliding glass doors. The glass extends to the ceiling to maintain complete definition of vertical planes and horizontal slabs. Drapery, rug, and furniture fabrics are all in subtle tones; while the pillows, paintings, and Formica-topped stacking tables add accents of primary colors. *Photo: Julius Shulman*

location | Berkeley, California
architect | Roger Lee

All the colors of materials used in this terrace, whether natural or stained, are repeated in the Oriental rug. Natural straw color and mustard draperies combine harmoniously; the ceiling, doors, and floor are all shades of gray. Here the terrace has been enclosed for privacy, but still lends a pleasant extra room out-of-doors. *Photo: Theodore Osmundson*



data

cabinetwork

All cabinetwork: custom-built/ natural redwood.

doors and windows

Door and Window Frames: Douglas fir/ gray stain.

Glass: Libbey-Owens-Ford Glass Co., Nicholas Bldg., Toledo, Ohio.

furnishings and fabrics

Chairs: Chinese bamboo peel.

Small table: Chinese teakwood.

Carpet: Khivi Bukara oriental.

Draperies: French rep/ Kandell Inc., 261 Fifth Ave., New York, N. Y.

lighting

Strip Lighting: "Lumiline"/ General

Electric Co., One River Rd., Schenectady, N. Y.

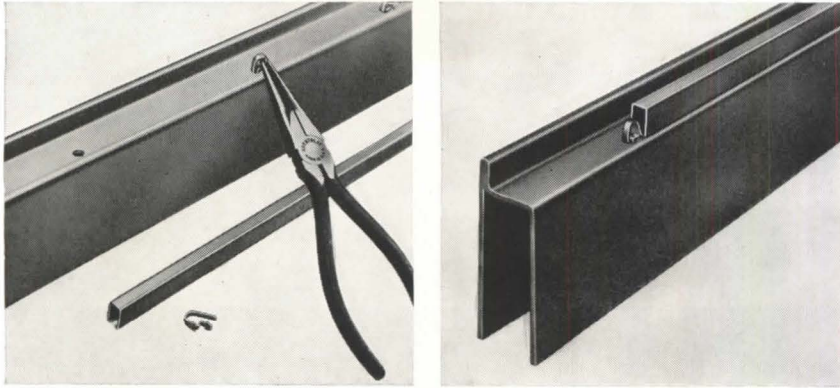
Floor Lamp: Kurt Versen Co., 4 Slocum Ave., Englewood, N. J.

walls, ceiling, flooring

Walls: natural redwood siding.

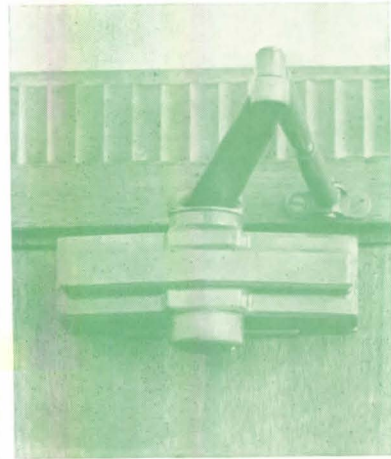
Ceiling: Douglas fir beams and planks/ gray stain.

Flooring: exposed concrete/ colored charcoal gray, waxed.

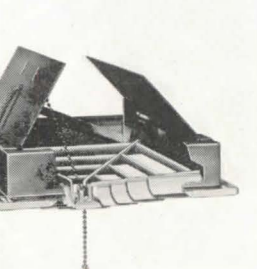
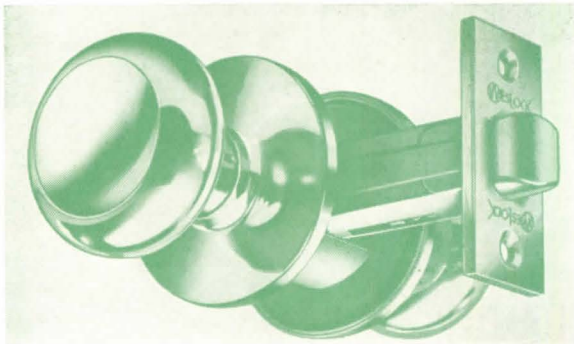
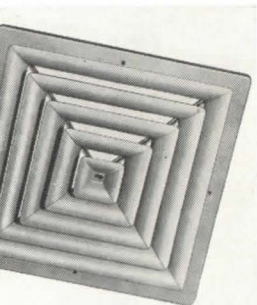


Glass Mold: "snap-on" spring-lock steel-molding fastener installed with needle-nosed pliers in predrilled holes/ permanent waterproof installation/ eliminates use of screws and cuts time of installation/ **Arcadia Metal Products, 324 N. Second Ave., Arcadia, Calif.**

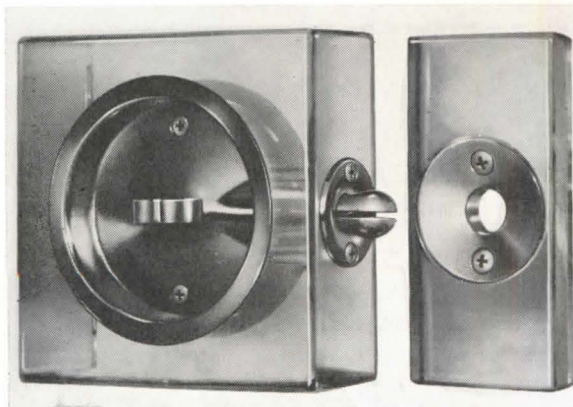
Concave Doorknob: 500 Series/ available for any door type/ finishes: dull or polished brass, dull bronze and dull or polished chrome/ **Western Lock Manufacturing Company, 211 N. Madison Ave., Los Angeles 3, Calif.**



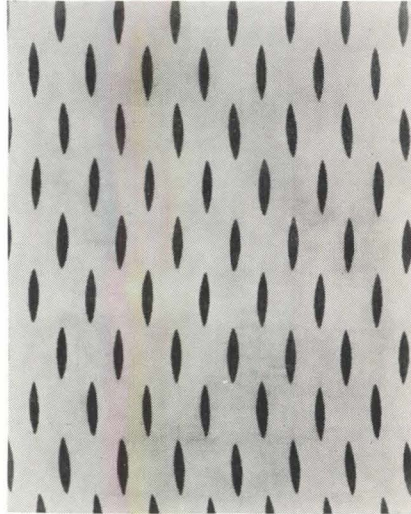
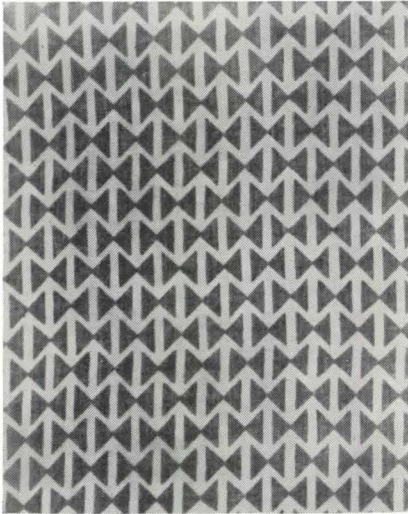
Door-Closing Device: compact, smaller than preceding models (smaller than a carton of cigarettes)/ operated by a compression spring in conjunction with a hydraulic piston and two adjusting valves/ door may be closed in two seconds, or two minutes, according to adjustment/ reversible for right and left doors/ **Schlage Lock Company, 2201 Bayshore Blvd., San Francisco 19, Calif.**



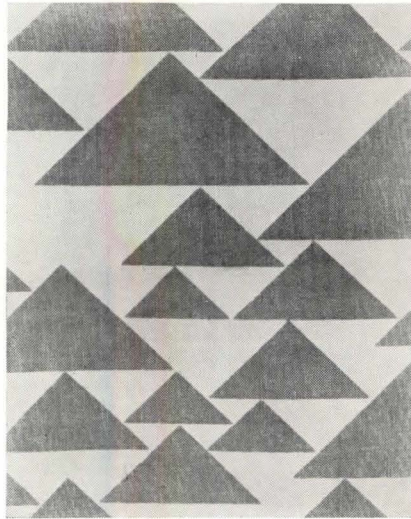
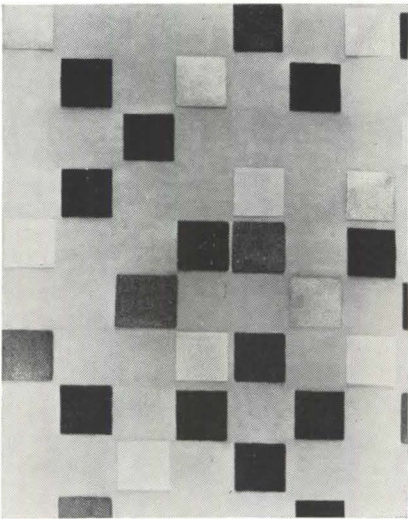
Ceiling Diffuser: Series 60/step-down vanes discharge air for complete four-way diffusion/ for warm air or cooling outlet/ sponge-rubber gasket assures fit/ 6", 8", 10", 12", 16" and 20" square/ **Lima Register Company, Lima, Ohio.**



Sliding-Door Lock: #600, "Two-Bore"/ split ball-shaped bolt gives smooth snubbing latch action and serves as an edge pull/ compensates for misalignment of doors/ solid brass with steel bolt and strike/ **Adams-Rite Manufacturing Company, 540 W. Chevy Chase Dr., Glendale 4, Calif.**



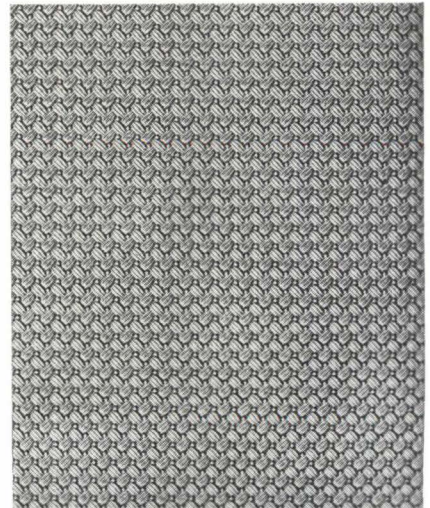
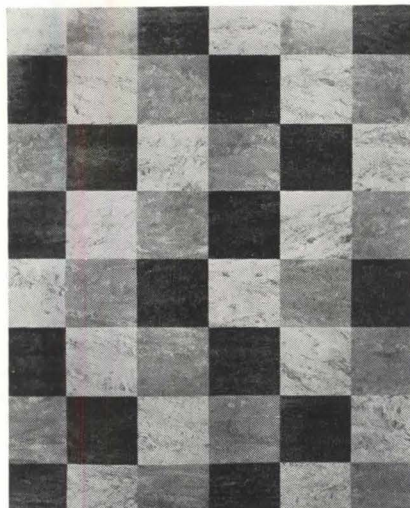
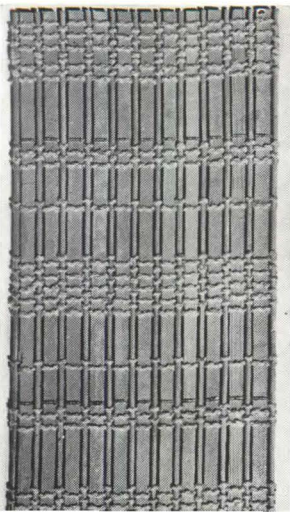
Fabrics: # 600, "Double Triangles"/ white batiste/ color: raspberry pink on white/ width 48"/ **retail:** \$4.20 a yd.; #605, "Pepitas"/ white batiste/ color: dark crimson/ width 48"/ **retail:** \$4.50 a yd.; #554, "Small Squares"/ white silk organdy/ colors: yellow, white, sepia, raw umber and gold and silver metallic/ width 48" **retail:** \$8.40 a yd.; #596, "One Way"/ white Parma linen/ color: raspberry pink/ width 48"/ **retail:** \$4.20 a yd./ all designed by Alexander Girard/ **Herman Miller Furniture Company, Zeeland, Mich.**



Woven-Wood Shade: "Telegraph Hill"/ color: frosty billiard green/ metallic thread woven at intervals/ available in widths to 12 feet—any length/ **Tropicraft of San Francisco, 14 Sherwood Pl., San Francisco 3, Calif.**

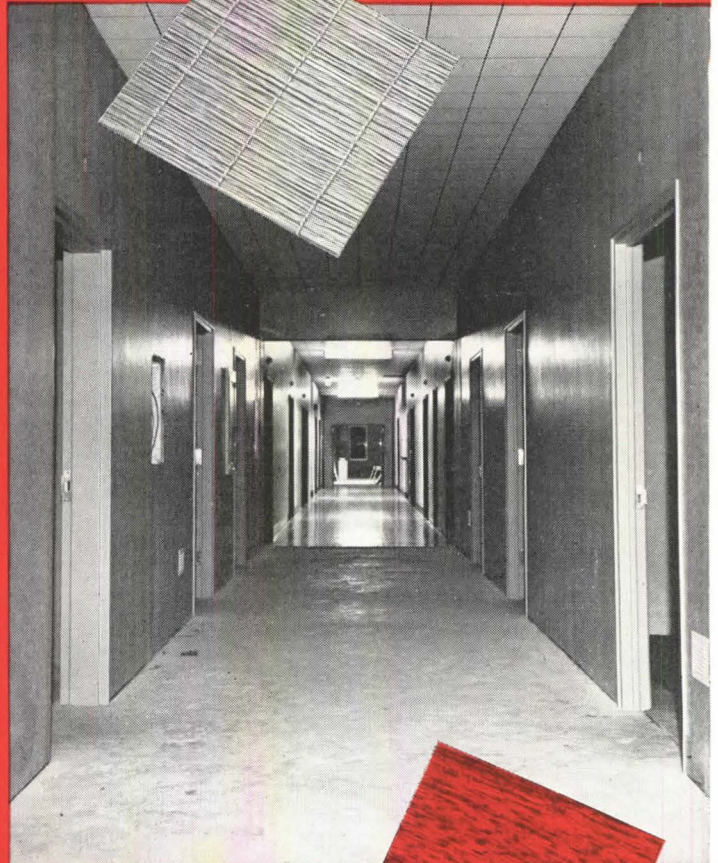
Inlaid Linoleum: "Square Dance" pattern/ 27" repeat in 3 colorings of marbled 9" square tiles/ **Congoleum-Nairn, Inc., 195 Belgrove Dr., Kearny, N. J.**

Elastic Fabric: Tolex/ plastic-coated/ appearance of basic fabric weave/ easily cleaned with soap and water/ designed especially for upholstery/ stretches in both directions/ colors: antique white, charcoal, lime, brown, gold, turquoise, toast, Hunter green, persimmon, avocado, gray, and red/ **Textileather Corp., 607 Madison Ave., Toledo 3, Ohio.**



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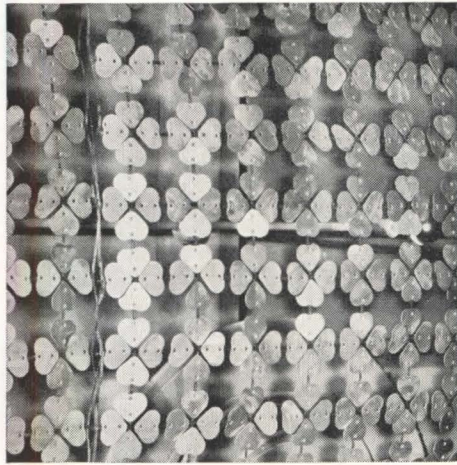
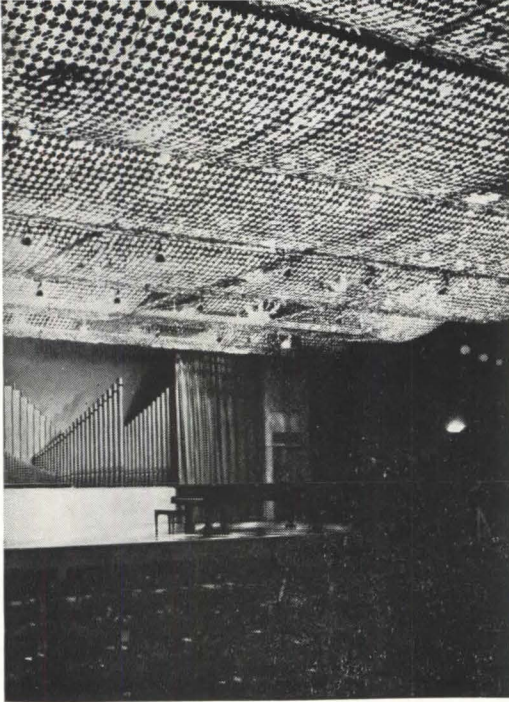
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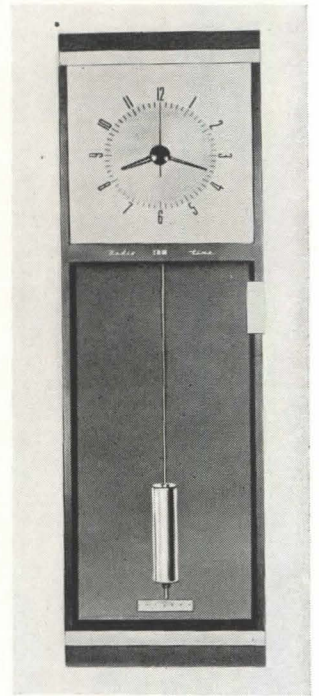
Address.....

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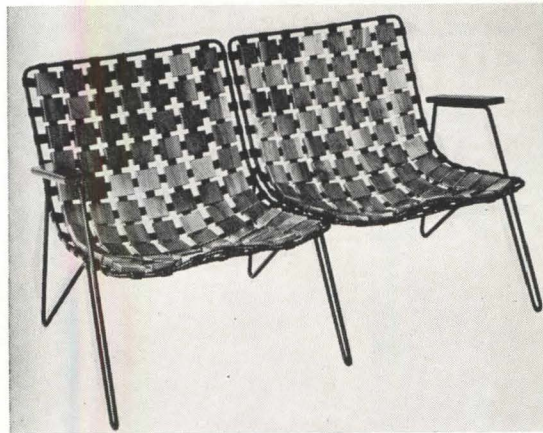
*Tests by New York Testing Laboratories, Inc. indicate conformity with requirements of Paragraph E-3b of Federal Spec. SS-A-118a.



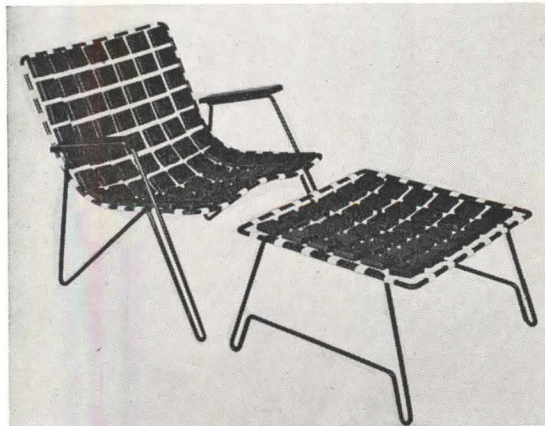
Acoustical Ceiling: "Fish-Net"/ installed in Fine Arts Center Auditorium, University of Arkansas, Fayetteville, Ark./ suspended aluminum stampings/ acoustically effective because it breaks up and scatters sound waves/ designed by Edward Stone/ Reynolds Metals, 2500 S. Third St., Louisville, Ky.



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Teachers of architecture and city planning in the collegiate schools are being addressed directly by this column this month. The subject is the teaching of urban renewal: slum clearance and urban redevelopment; neighborhood conservation; area rebuilding and rehabilitation; and the enforcement of the codes and ordinances affecting architecture and city planning. Writing about the education of the comprehensive architect can no longer be avoided. The architect and city planner are technicians working over the same drawing board for the benefit of city building and rebuilding. In the future they are the ones to be judged by the results—not the entrepreneurs, politicians, or financiers, who will be forgotten.

Since January 1950 when I entered the service of the Division of Slum Clearance and Urban Redevelopment of the Housing and Home Finance Agency, I have studiously side-stepped shop talk. This has been for two specific reasons, first because it is inappropriate for a Federal official to discuss in the private journals the functions and activities of his employing Agency, and second, because if, when, and as speeches and articles are written on subjects directly related to a particular Federal activity, such utterances of a public official must of necessity be cleared through the official channels of a public relations office. This is all obviously as it should be, but it also obviously puts a crimp in the fullness of the coverage of certain subjects by this column. It will continue to do so as long as I remain in the Federal service, of course. I want to emphasize that what I write here is not official. That education of architects and of planners affects and is affected by government programs is not surprising. A discussion of the two will not be avoided, but policy matters will relate to education, not government.

Two recent studies made for the use of the American Institute of Architects placed urban rebuilding in unimportant categories. One of these studies, a "confidential" work program recommended to the AIA Board of Directors for one of the AIA departments, placed last in a column of nine subject committees "Urban Design and Housing," with this statement

immediately following: "The activities of these last committees are limited and generally fail to be of interest to the majority of the membership at any one time. Only a part of their activities would warrant staff collaboration." Apparently the Report of the 1950 Survey Commission for Architectural Education and

Registration is taking a similar stand—although my facts at the time of writing (December 15, 1953) can only be based on Chapter V of the semi-final draft of May 1952. I find nothing in this draft or in any subsequent public statements of members of the Commission that there

(Continued on page 151)

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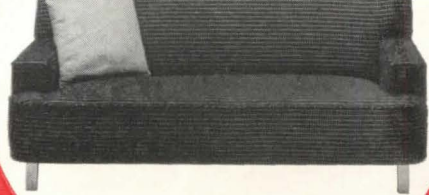
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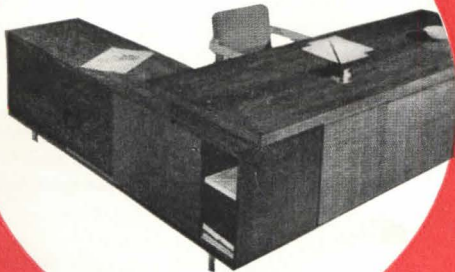
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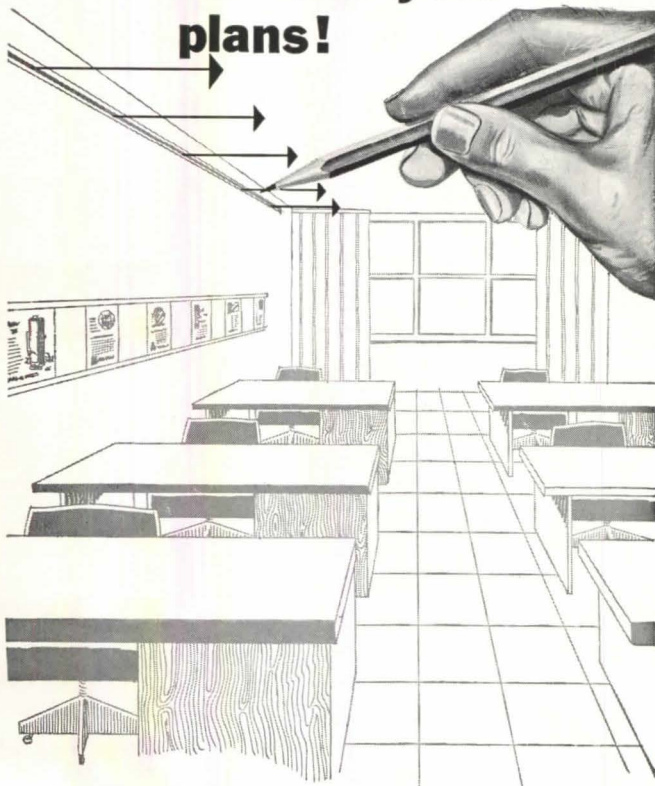
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out of school

(Continued from page 149)

should be a positive recognition on the part of educators of the most significant opportunity now opening up to the contemporary architect and planner. Yet the facts are so clear that I sometimes wonder how stupid we can become.

Conversely to this limited, classical approach to architecture and the broadening of the profession, let me quote from a recent book, *Renewing Our Cities*, by Miles Colean:* "In the end, renewal means rebuilding; and unless the result of all efforts to maintain the vitality of cities is the actual replacing of worn-out structures with new buildings for the private and public needs of the people, the effort will be meaningless." To quote further, Colean states in the first three of his final nine recommendations:

"1. The city must in the first place be worth renewing; that is, it must have a defensible economic justification for the effort required to bring about its constant renewal.

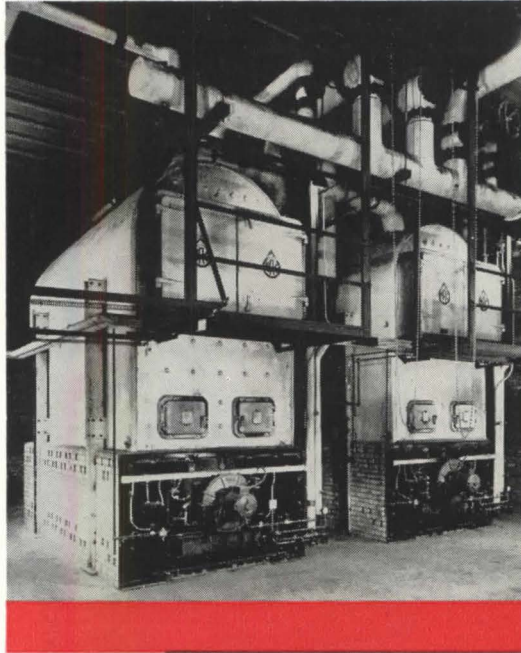
"2. A healthful, decent living and working environment must be assured by (a) the vigorous performance of the functions of municipal housekeeping: conservation of aging areas, slum clearing, smoke and noise control, street cleaning, garbage collection, vermin elimination, etc.; and (b) adequate provision for public safety, health, and education.

"3. The city and its environs must be planned to take advantage and to meet the requirements of modern transportation and the defense against modern weapons of war; and, through zoning, subdivision regulation and other measures, a reasonable pattern of land use should be established and the trends toward dispersion brought under some measure of control as to rate and extent."

Colean is one of the three architects appointed by President Eisenhower to serve on the recent President's Committee of 23 to study Federal housing policies and programs. His approach, as contained in the important little book from which I have been quoting, had an obviously significant effect on the final re-

(Continued on page 153)

* *Renewing our Cities*, Miles Colean. Twentieth Century Fund, New York, 1953. \$2.50.



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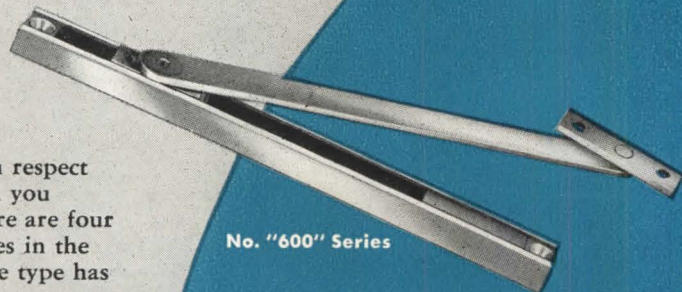
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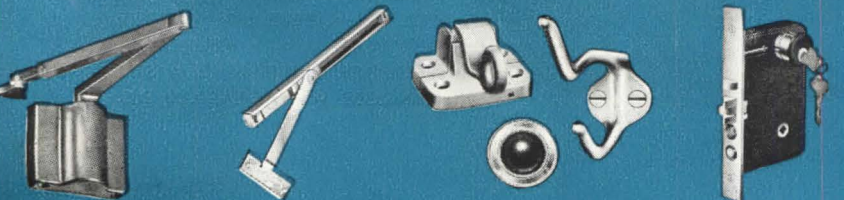
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out of school

(Continued from page 151)

port of that Committee, even to the use of the excellent phrase, "urban renewal," which it seems can be credited to Colean. But long before the recommendations of the President's Advisory Committee on Government Housing Policies and Programs, urban renewal had been actively under way in various guises and under various public and private financial terms. The most spectacular enterprises of this sort, and ones which should excite the architectural educator, if not the architectural profession at large, are such area developments as have rebuilt the Pittsburgh Golden Triangle and the Chicago South Side. Van der Rohe has built in Chicago a new Illinois Institute of Technology on the site of some of the world's most noisome slums (I once went into the Mecca Building and I still shudder at the memory), and a few blocks away Skidmore, Owings and Merrill are erecting the great Lake Meadows group—including a shopping center—for the New York Life Insurance Company on a slum site acquired by the Chicago Land Clearance Commission. And reasonably alert educators know what is being planned for cleared areas in or near the centers of Philadelphia, Boston, Nashville, St. Louis, St. Paul, Detroit, and many other cities. The restricted word "project" is no longer applicable to the vast schemes of rebuilding which are beginning to revitalize our senescent cities. These are "area developments" and parts of the growing concept of large scale urban replanning.

All of such programs are not invariably good. We are all aware of those hideous new agglomerations which add to densities of people and buildings. They continue, and augment urban confusion and create new slums and new obsolescence before the paint is dry on the walls. A sense of quiet order and space is lacking from such dynamic concepts as the Back Bay Center or the Penn Center, and lessons which could have been learned from the architectural and planning successes and failures of Rockefeller Center and the United Nations group do not seem to have been noticed. We are still doing piecemeal on a large scale—patching together building de-

signs which do not really relate to each other or to what has to remain in the vicinity of such areas.

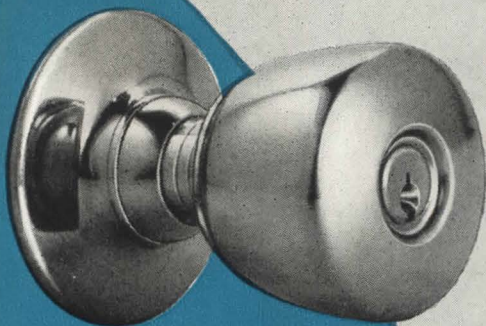
Not long ago a nationally known architect came to me and said that what the Federal government should do is to build some new towns for purely experimental and demonstration purposes. He cited the need for research into the verities of the architect-planner's philosophical and social theories. He asked me, "Does the super-block really work? Is the row house or the single family dwelling better or worse than the high-rise apartment? What do we know about densities? Occupancy standards? Do people really want gardens? What about segregation of minority groups?" He had many good questions. But the only good answer to him was, "No, we do not need to build new towns for this purpose."

The architectural educator is notoriously incurious, or maybe he follows the line of disinterest as the line of least resistance. In any case we have many demonstration projects to study—in fact badly needing research in order that many of our most glib assumptions can be converted into sound knowledge. We have very few, if any, facts about the Greenbelts, Stuyvesant Towns, Park Forests, and the multitude of large scale in-town and suburban communities for which the architect and planner's services have been essential. These and many more are existing entities, designed and built in the past thirty years, but so far they add little to the sum total of our knowledge except that we can build big—bigger and faster and sometimes uglier than ever before in history. Small comfort! The vital question still remains as we look at Parkchester and Stoneston and the glittering towers along Lake Michigan: Are we building better?

The rebuilding of American cities and the building of new communities, which subjects form part of today's great political debates, are ultimately the responsibility not of the realtor, the material manufacturer, the public official, the politician, the lawyer, or the banker. They are the job of the architect, the engineer, and the planner. These others

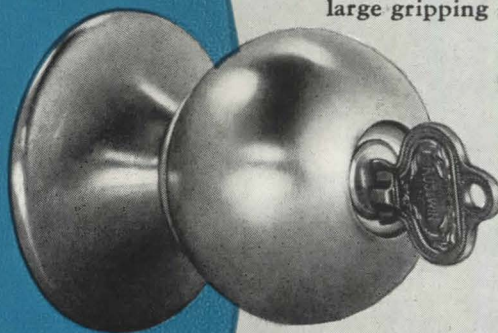
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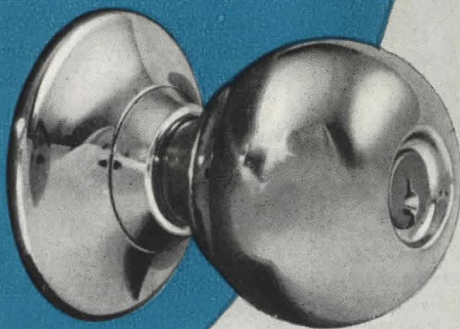
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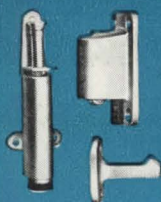


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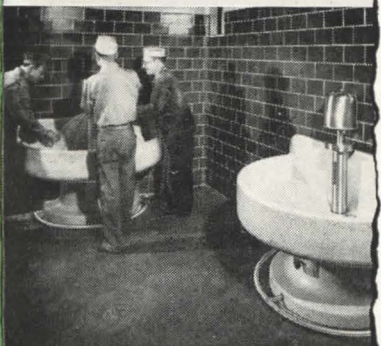
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out of school

(Continued from page 153)

may provide the financial and administrative climates within which urban renewal programs are undertaken, but they are not the building designers, nor do they build the buildings.

The collegiate schools of architecture and of planning must assume the responsibility for an early modification of their programs for the teaching of urban renewal. One of the necessities in such modification has to be a much closer relationship between the teaching of architecture and of city planning than now exists. Let me explain. As I have said in previous articles, the historical development of city planning education began in schools of landscape architecture but that a high percentage of planning training is affiliated with a department or division of architecture, landscape architecture, or engineering. I do not have the exact figures yet, but shortly there will be available the important study by Prof. Frederick J. Adams of MIT on City Planning Education in the United States, which will give them. About a year ago (January 1953), there were a number of colleges offering city planning as majors, in options, or in complete curricula with a professional degree in planning. Of these there were 23 offering some kind of a degree, and as far as I can figure, while six of these were not affiliated directly with technical schools, 12 were in departments of architecture or directly related. The other five had a landscape or engineering affiliation. Despite this historically close physical relationship between architectural and planning education, the fact remains that in only rare instances do we find any continued and thoroughly integrated programs. Urban renewal requires a new type of comprehension between the problems of physical planning design and architectural design. If there ever were a justification for the retention of architectural and planning training programs in an educational group it is to be found in the colossal rebuilding problems requiring technical competencies which can be supplied only by this kind of integration. I am not excluding from this concept the other social

(Continued on page 156)

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(Continued from page 154)

sciences but for the purposes of this article I am making an emphasis on the physical planning. We cannot escape the hard and cold fact that city renewal, renovation, rebuilding, redevelopment, reconditioning, conservation enforcement, and all the rest of the synonyms, antonyms, verbal garbage or what you will, mean nothing else but rebuilding in accordance with a plan. It is a three-dimensional job, and the results will be as solid and specific as any other architecture. And that is wherein the teaching problem lies.

There is a growing feeling among certain of the city planners, a feeling which is the converse of that of the architects, cited at the beginning of this article. The planners do not wish to be associated in their own or in the public mind with the architectural profession or skills. In the search for boundaries to each profession, the technician foolishly seeks to build himself into deep wells of isolation instead of joining hands on the open field of mutual enterprise. No one outside the profession cares who does what to whom, but the public is beginning to want slums torn down and replaced with the right land uses. It is beginning to want future slums prevented. The best of man's ambitions for good living can be materialized. Petty professional nationalism will not rebuild America.

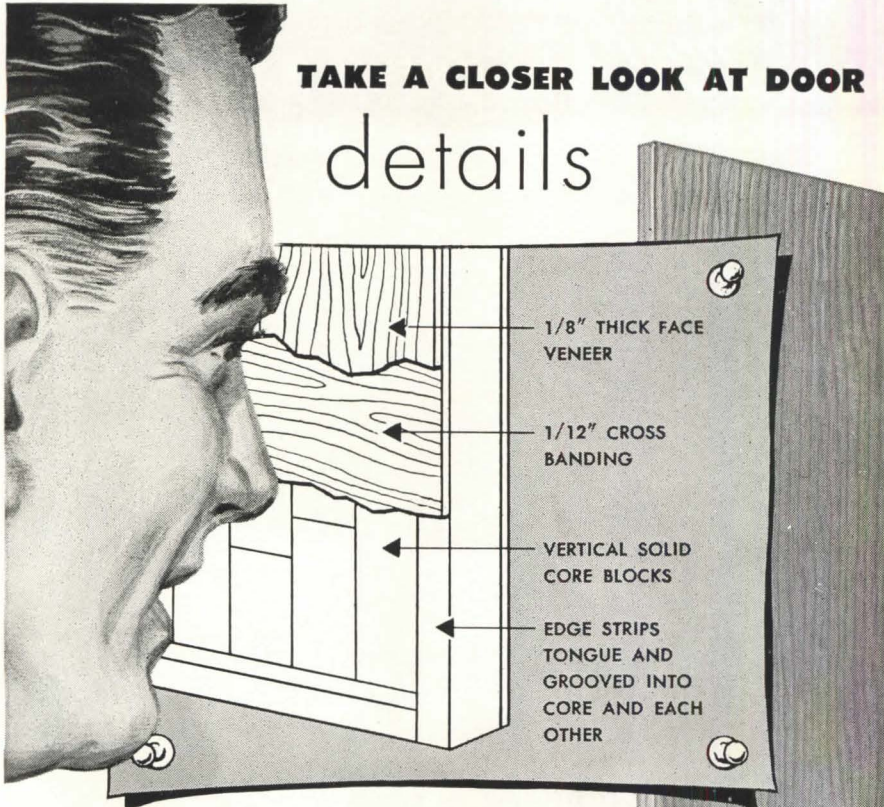
In the meantime the wave of interest in slum destruction and prevention is gaining momentum. National and state legislation is being geared up to an all-out attack requiring trained men at the final count. Who is to tell those legislators and zealous reformers that the plans are not ready and that we do not have enough trained men to go around? Who is to tell the legislator, the realtor, the banker, the social scientist that the architect is really not interested? Or that the two professions are not interested in each other's skills?

Gearing up the training of architect-planners (or comprehensive architects) in the collegiate schools will require careful curriculum study. If there is anything which Title I of the Housing Act of 1949 has proved, it is that no two slum

(Continued on page 158)

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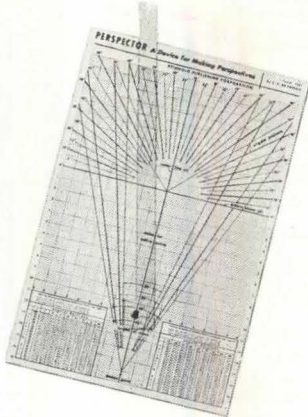
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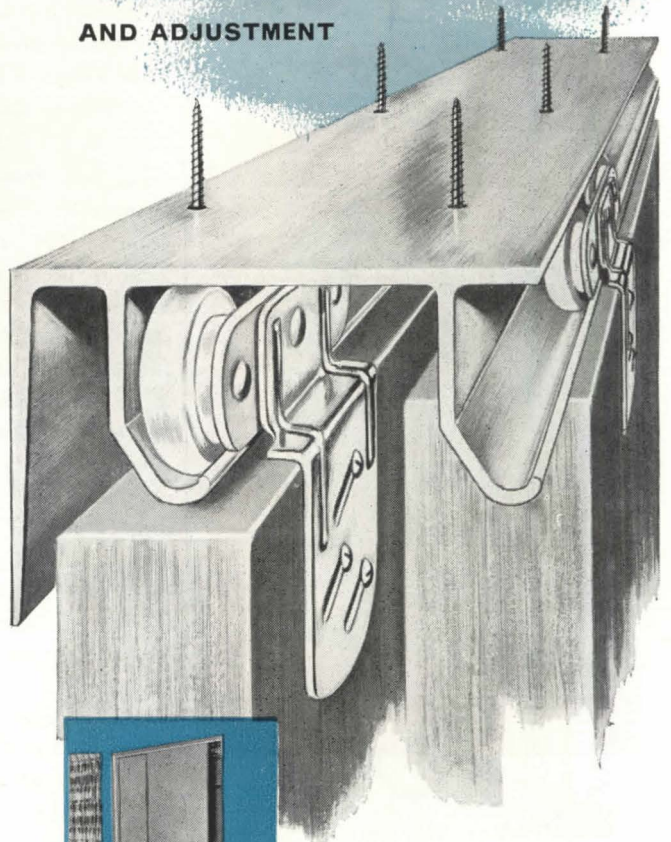


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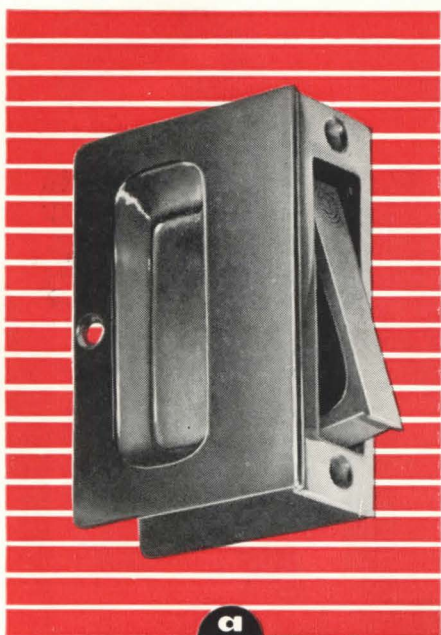
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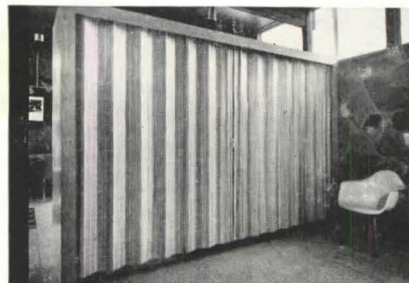
(Continued from page 156)

clearance and urban redevelopment projects will ever be the same. In designing certain kinds of architecture there are fixed and constant elements, but in city rebuilding the ingenuity of the designer is taxed as seldom before. It is true that in many small towns and in parts of some larger communities small scale and uncomplex problems require only simple solutions. But on the whole, community renewal involves such a co-ordination of wide ranges of knowledge and skills that our previous concepts of training seem limited indeed.

My first thought on the problem of training for urban renewal in the curriculum is that in those few cities where local architects are taking the leadership in urban renewal as part of their job, the schoolman should consult with them first. In most cases, however, it is going to have to be the director of some official local public agency, sometimes of a planning commission, who will give the first clues as to the jobs to be done. The case or project method of design teaching has always hung fire between the extremes of imagination and realism. The design teacher and student in the dreaming up of programs for any period of study usually try to avoid the purely hypothetical and impossible problems of the old Beaux Arts type, for all they may have provided in the way of spiritual stimulus. Actually, the advent of the large scale urban renewal problem creates, after a hiatus of some 20 years, an equivalent in such exciting large scale ideas as were contained in the old "Grand Plan." But this equivalent contains a new magic realism in which time, people, space, law, and money play a part in the design of place and buildings.

This has been a long preamble to some specific suggestions which I will make in a column soon to follow. In the meantime watch the papers. There is a new spirit abroad in the land. It is a spirit of impatience with city decay and obsolescence. The architect and planner had better be trained for city rebuilding quickly because the new towns to be built may well lie not in the wide open country but in the rotten core of the old city.

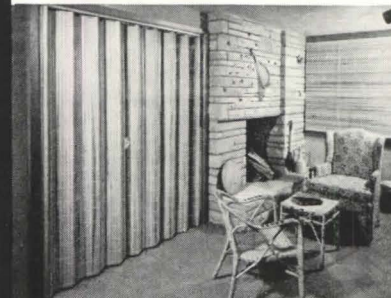
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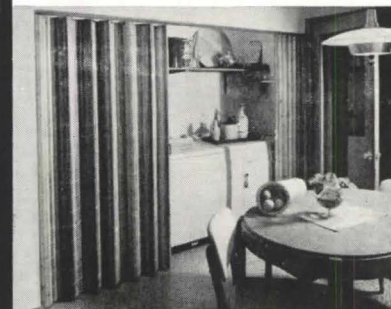
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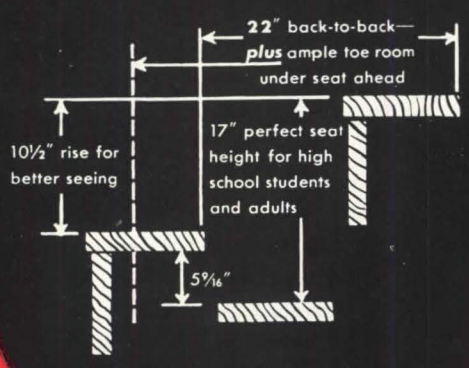
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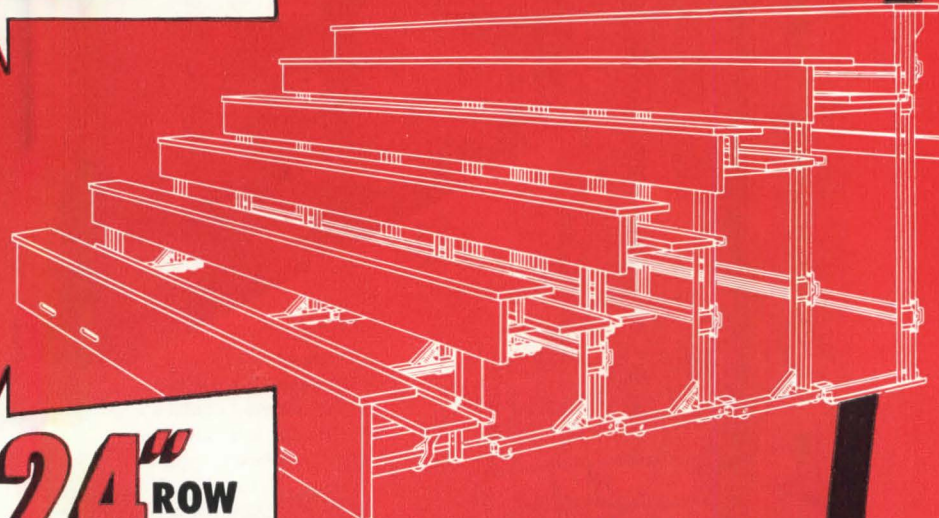
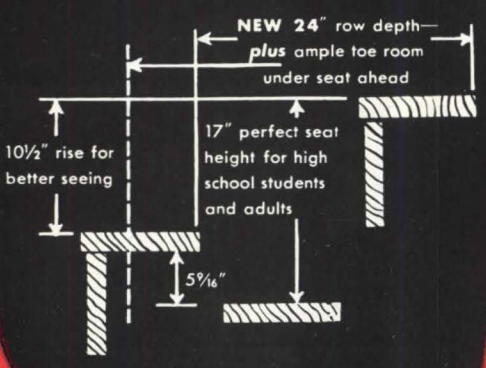
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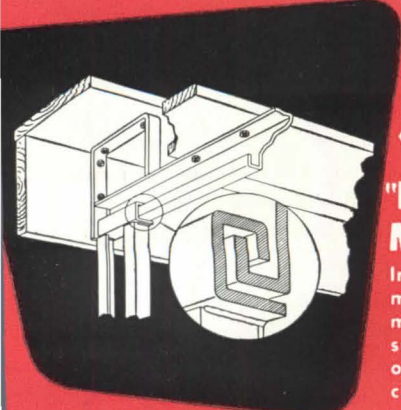
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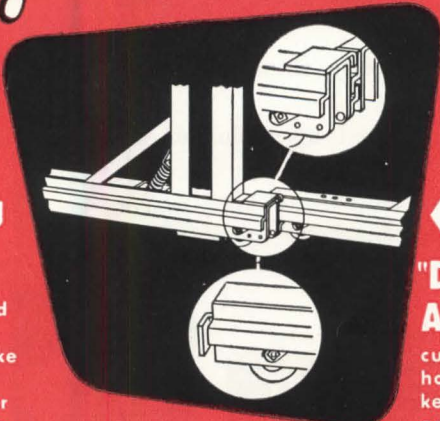
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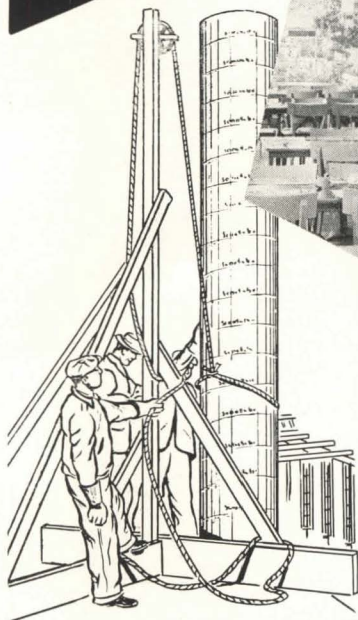
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out of school

(Continued from page 158)

While this possibility may not be entirely in accordance with present thinking on dispersal for defense, it need not be in conflict with vulnerability principles. However, Lewis Mumford needs to re-write the last chapters of *The Culture of Cities*. In his excellent column, "The Sky Line," in the *New Yorker* for December 12, 1953, in which he comments on F. L. Wright's exhibition, Mumford hints that he may be doing some rethinking. Speaking of Wright he says (page 110): "Thus he has never faced the paramount problem of modern architecture—to translate its great individual accomplishments into an appropriate common form in which, by pooling economic and social resources and co-operatively integrating designs, advantages that are now open only to a wealthy few will accrue to a great many. If the contemporary architect has not yet found an adequate answer to this problem, Wright characteristically has not even asked the question."

Mumford and Colean might collaborate and put out a really good textbook for the student of comprehensive architecture.

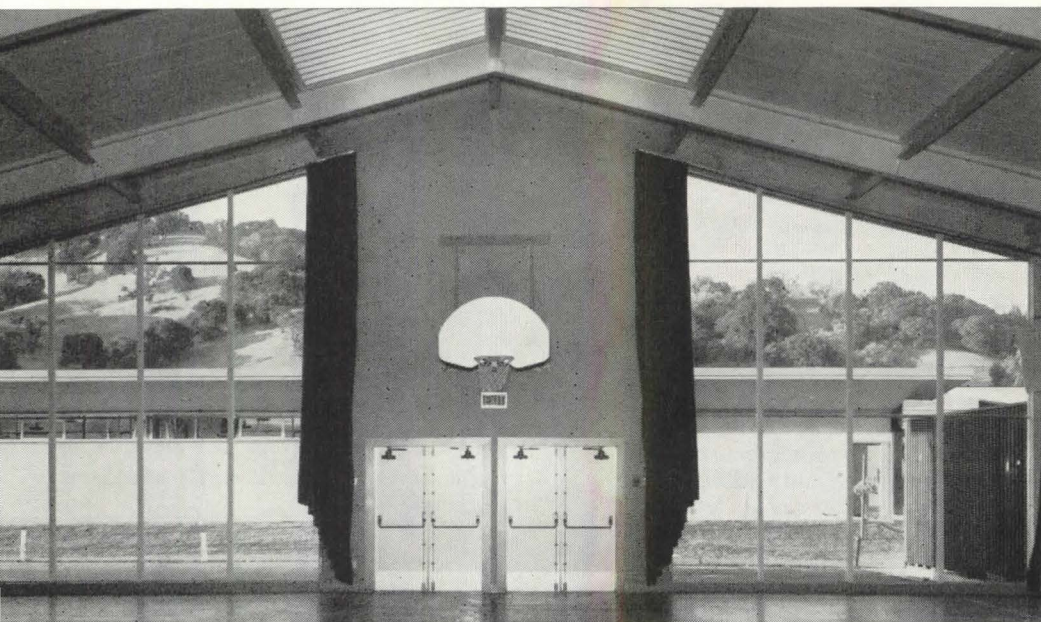
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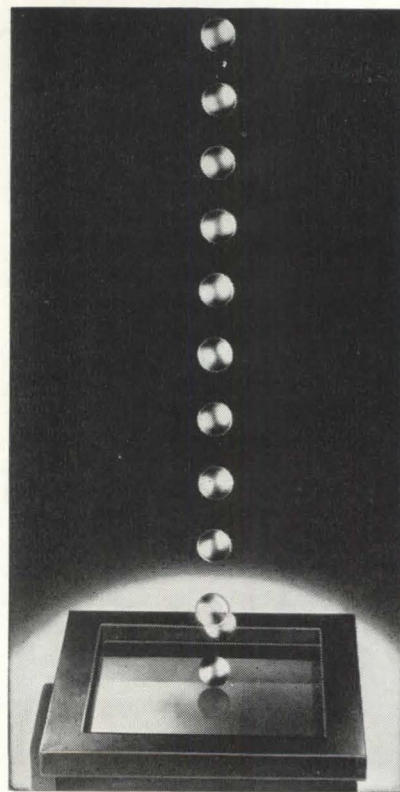
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reviews

(Continued from page 164)

the list of authors proves that American scholarship has come of age. American art historians (19 names) outnumber even the English contributors to the series. This is a great tribute to the intensive work in research and teaching that has been going on, almost anonymously, at American universities and museums. Its great value was known only to experts, but with *THE PELICAN HISTORY OF ART*, American Scholarship in the field of Art and Architecture will finally find international recognition.

The first two volumes to be published are characteristic of the joint Anglo-American character of the whole enterprise.

For Americans, and most probably for readers in other nations, the first volume, *Painting in Britain 1530-1790*, seems at first glance somewhat pointless. English painting was slower in maturing than that of any other of the great Western powers; and there is little to recommend it outside Hogarth, Ramsay, and Gainsborough in that long period of 260 years covered by the Waterhouse survey. The majority of painters during that courtly era were foreign born, and their connection with Britain was determined solely by the entries on the royal payroll. Their artistic value was either firmly established long before they landed on the island, as in the cases of Holbein, van Dyck, and Kneller, or remained imitative and superficial.

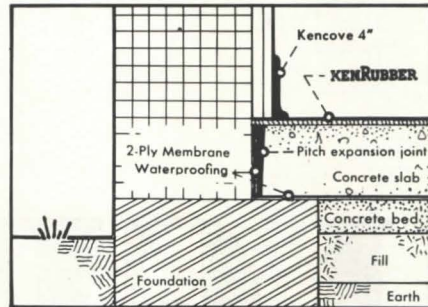
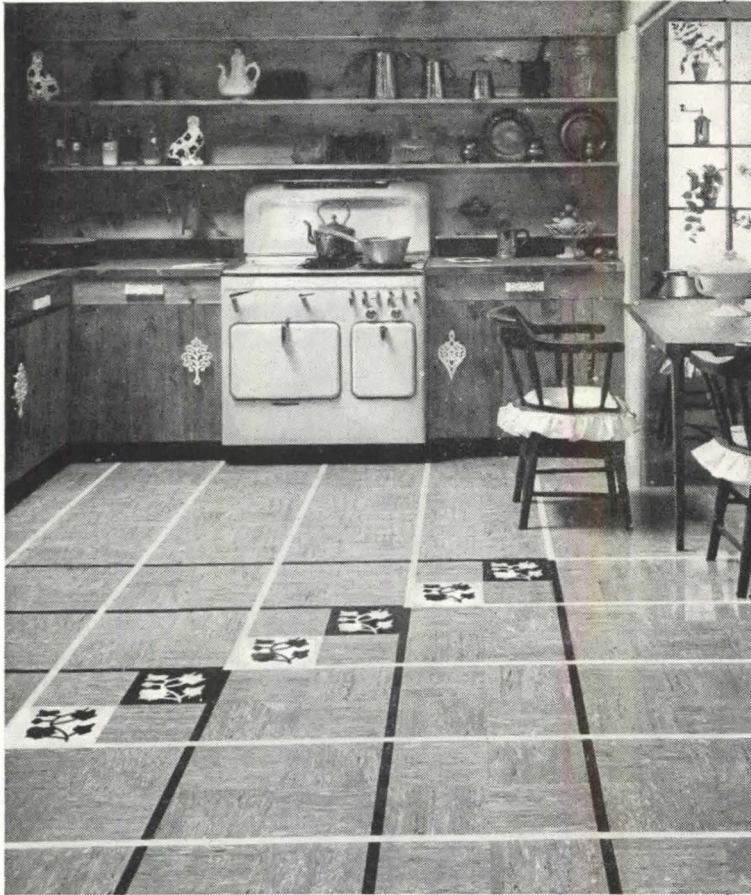
But on second thought, this first volume of an English-sponsored and English-financed art encyclopedia reveals itself as a noble and engaging gesture toward the sponsor. Waterhouse's book plays exactly the same roll as the red-frocked toastmaster at official English parties, whose sole function it is to "propose the King" before individual indulgence blots out patriotism. After all, it was war-impooverished Britain that took the initiative in creating this monumental survey, and we gratefully join the toast.

The second volume, *The Art and Ar-*

(Continued on page 170)

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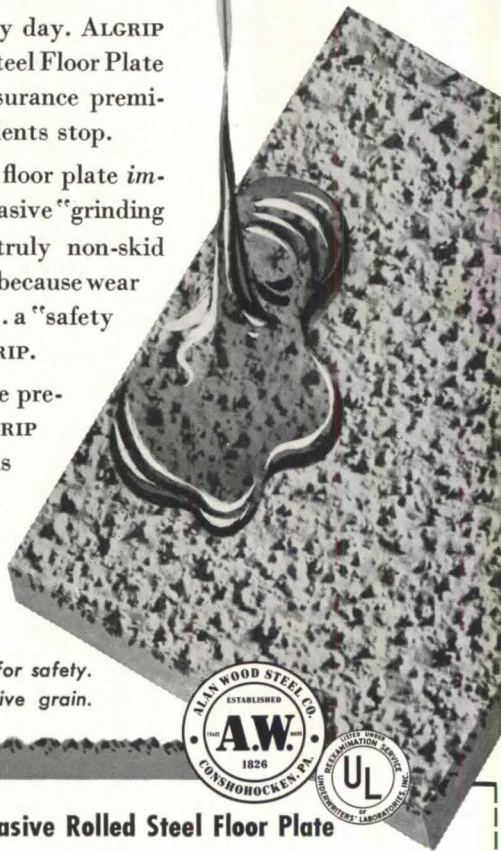
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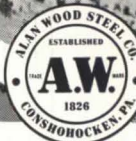
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reviews

(Continued from page 168)

chitecture of India, needs no metaphorical justification. It is a beautiful and highly informative book that combines scholarship with simple and entertaining writing. The introduction alone, stating the case of useful art historical knowledge against "the rigmaroles of aesthetic analysis," is a fine piece of contemporary philosophy that will enrich any reader who might approach this sort of book with qualms about the investment in time and brain effort. Whether it was a conscious decision on the part of the editor or not, the choice of India as subject matter for the first art-architectural study seems particularly significant. Because, through the peculiar character of this art, as a cross-breed between Semitic-Mesopotamic, Negro-Mongol and Indo-Aryan civilizations, the visual creations of Hinduism and Buddhism present a complete survey of the basic ingredients of our own traditions in art and architecture. It is a story of almost novelistic suspense to see the Sumerian influence of the Indus Valley civilization give way to the invading Aryans, who amalgamated with indigenous Dravidians in much the same way that the barbarian Achaeans of Greece failed to escape the influence of the aboriginal Pelasgians. In successive layers, Greco-Persian, Roman, and Early Christian elements mix with the persistent ancient forms. The Nordic round hut, the cella of the Greek temple, the Christian nave, and the exuberant ornamentation of the Orient, form symphonic entities. They are beautifully presented in examples that reach from the astonishing Harappa sculptures, coinciding with Egypt's Old Kingdom, to the extravaganza of Barabudur. The result of this long additive process, strangely enough, is not the sterile eclecticism of other derivative cultures, but a uniquely Indian art, created by an all-pervading religious faith, this "veritable hallucination with the absolute" that transformed assimilated style elements into an indigenous form language.

Architects, in particular, should read this book. There is challenge as well as consolation in the inescapable interde-

(Continued on page 174)

Here's.

the

BIG TRUTH*

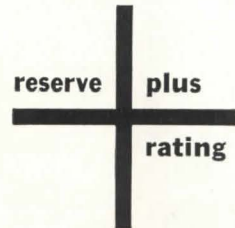
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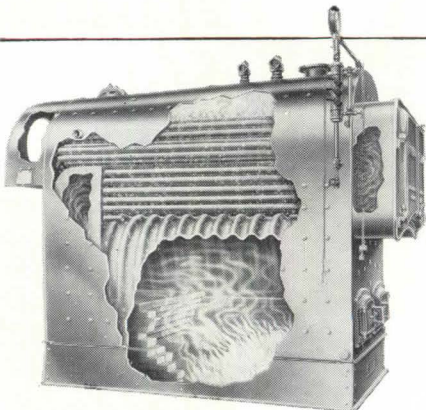
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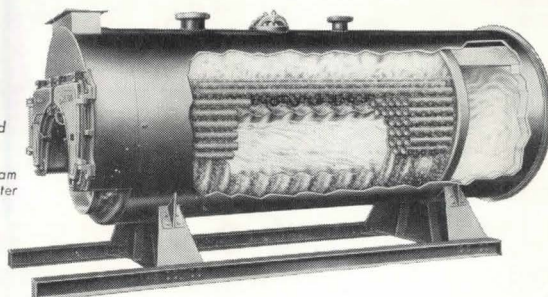
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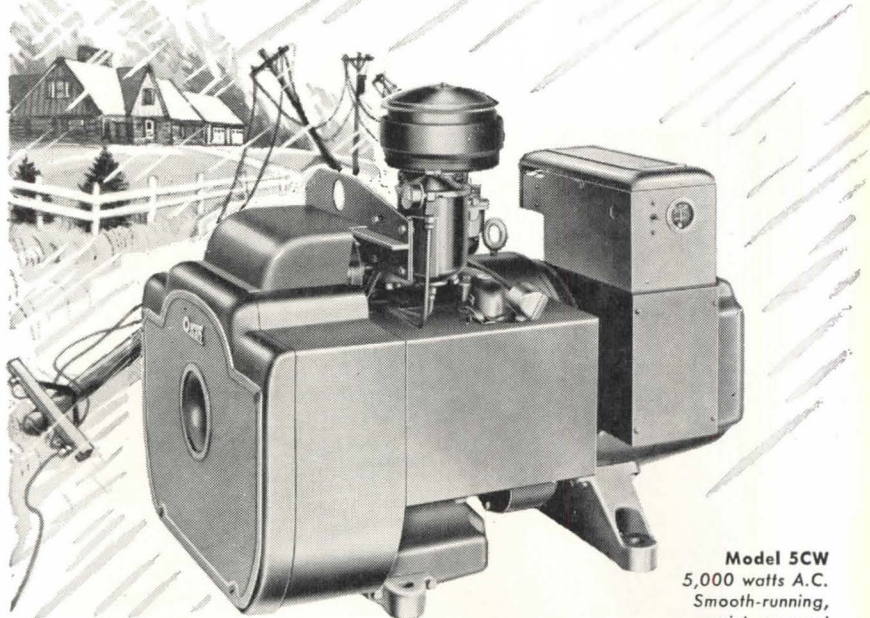
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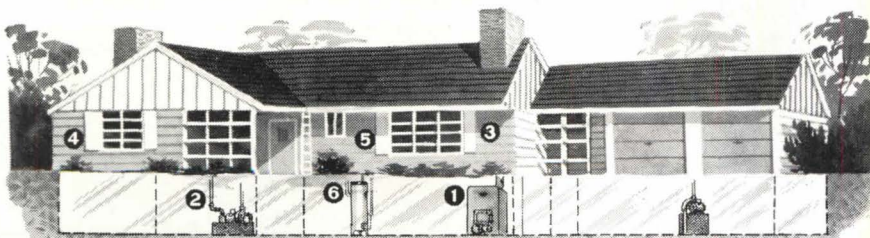
Suburban homes are especially vulnerable because of their complete dependence upon electricity. When power interruptions occur, these homes are without heat, water, refrigeration and lights. Freeze-ups and food spoilage can cause severe losses; fire hazards are increased.

You can insure the homes you design against power interruptions by specifying a low-cost Onan Emergency Electric Plant in your plans. When power interruptions occur,

the Onan Electric Plant supplies regular 115-volt 60-cycle A.C. electricity for all essential uses as long as the emergency exists. Automatic controls start the Onan unit when power fails and stop it when power is restored; protect the home at night or when the family is away.

Very little space is required for installation in basement or garage. Hook-up to the wiring system is simple and inexpensive. Write today for folder describing Onan Standby Electric Plants, gasoline driven, 1,000 to 50,000 watts A.C. Helpful literature on installation and wiring is also available.

PROVIDES ELECTRIC POWER FOR THESE ESSENTIAL USES—



1. Automatic oil, gas or coal furnaces.
2. Electric water system.
3. Home freezer and refrigerator.
4. Lights, radio, etc.
5. Electric range (limited use).
6. Water heater.

Write for Standby Power Folder

D. W. ONAN & SONS INC.



4494 University Ave. S.E.

Minneapolis 14, Minnesota

reviews

(Continued from page 170)

pendence of form and environment—social, philosophical, topographical. The solutions found by these ancient colleagues make one proud of a profession that has determined the physiognomy of the earth. Plans, elevations, and details are abundant in the text; and the breathtakingly sensuous beauty of Indian sculpture lightens the burden of historical and philosophical data. One cannot help but feel keen anticipation for the next volumes of *THE PELICAN HISTORY OF ART*.
SIBYL MOHOLY-NAGY

principle as reference

The Future of Architecture. Frank Lloyd Wright. Horizon Press, Inc., 220 W. 42 St., New York 36, N. Y., 1953. 326 pp., illus., \$7.50

This is an important book by the great architect, Frank Lloyd Wright. The main reason for this book's importance is that it inspires—it offers hope that the future of architecture will be creative, with the idea of principle as the central motivating reference.

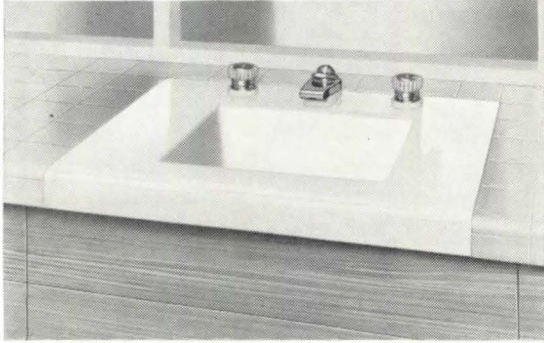
Much of *The Future of Architecture* conveys the feeling of being addressed to youth, where indeed the future lies. But, of course, it is also addressed to forward-looking minds of any age. The reprints of the London Lectures (1939) are still fresh and vital. They were evolved from long years of consistent thought and action brought to focus by what must have been a youthful and enthusiastic audience.

Youth makes direct demands. It wants clear blueprints as answers to questions that are not simply answerable. Wright's poetic, broad principles may at first seem puzzling but they are the best of answers because organic architecture means an individual growth, usually a slow growth. Too slow for youth? The organic approach is a developing process with individual variation, varying even in the growth of the same individual. Wright shows this when he says of his Imperial Hotel, "Were I to build it again, it would be entirely different." His creative work has many facets yet maintains a solid

(Continued on page 178)

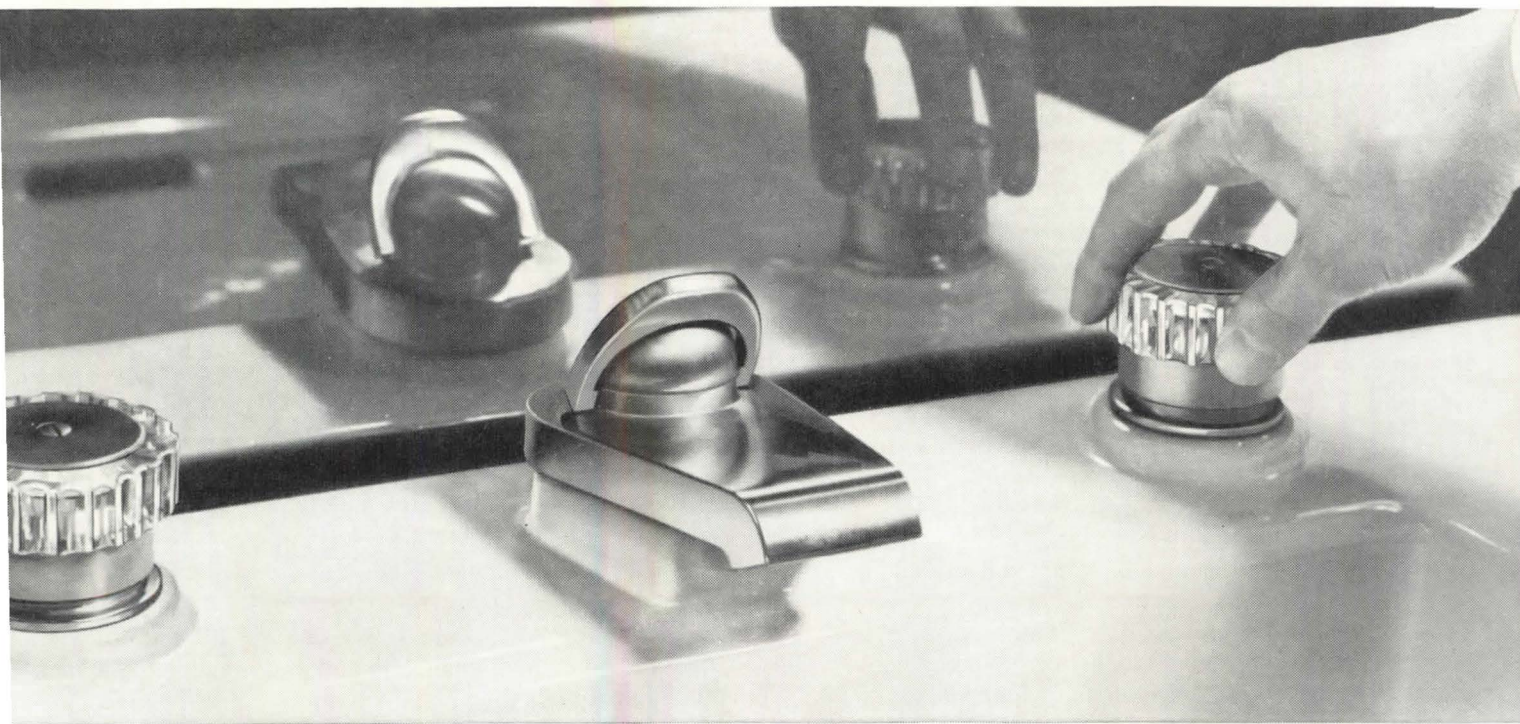
ANY WAY YOU LOOK AT IT— CRANE CAN HELP YOU

When asked to name a preference in plumbing, most people choose Crane. In fact, on all counts—design, quality, workmanship and long life—Crane is the preferred plumbing.



Crane Criterion lavatory, styled by Henry Dreyfuss, either fits into counter-top or stands alone on brush-finish chromium-plated legs. Dial-ese controls, Securo waste, choice of eight Crane colors. Two sizes: 21½" x 17¾" and 30¼" x 22".

Naturally, Crane is the choice of leading architects, too. When you recommend Crane you can be sure your clients will be pleased with its modern styling, its easy and dependable operation.



In addition to the public preference enjoyed by Crane, other Crane product advantages include the availability of a complete line of sizes and types—the widest choice of modern plumbing fixtures, trim and color—

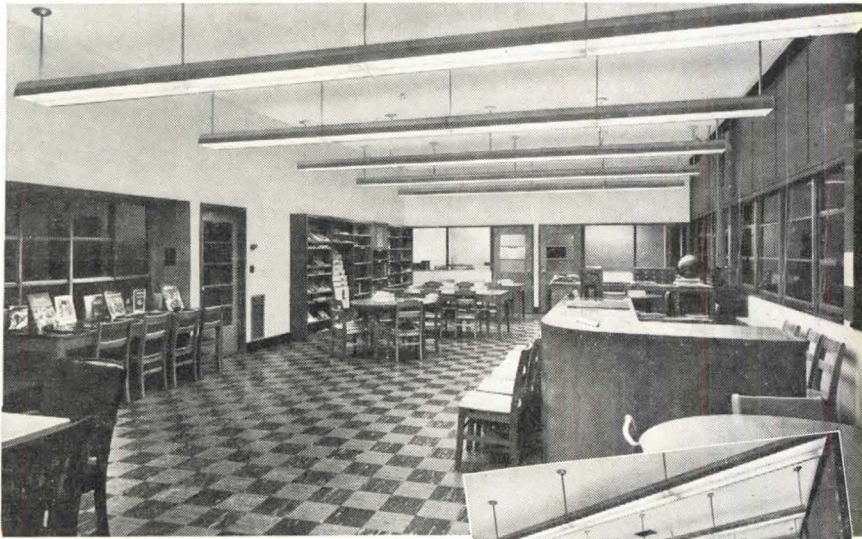
to suit any plan and any budget.

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VALVES . . . FITTINGS . . . PIPE . . . PLUMBING AND HEATING

Where Lighting Keeps Pace With MODERN SCHOOL PLANNING



New Sylvania IC Fluorescent Fixtures meet highest standards of new Thomas Jefferson Junior High School, Clairton, Penna.

Notice the soft, well-diffused light provided by these Sylvania IC Low-Brightness Fluorescent Fixtures in this modern classroom installation. Architect: Joseph Hoover, Hoover Bldg., Pittsburgh, Penna. Electrical Engineer: Elwood S. Towers, Investment Bldg., Pittsburgh.

In planning this handsome new junior high school, educational authorities, architects, and lighting engineers agreed that the new Sylvania IC Low-Brightness Fluorescent Fixtures met their strict requirements for uniform light distribution, quick easy installation, low maintenance, and attractive appearance. The 40-watt T-17 low-brightness lamps minimize reflected glare, and the excellent 42° crosswise shielding shields the lamps from direct view.

Writes Mr. Joseph Hoover, Architect of this up-to-the-minute school: "In designing school buildings, we endeavor to provide the most efficient classrooms and facilities possible. The Jefferson Junior High is an example of this idea in operation. Essential to these requirements is proper lighting, providing even distribution, correct intensities, easy maintenance, low replacement, and competitive costs. We believe the Sylvania IC Units meet these requirements."

Let us give you full information concerning the many advantages of Sylvania's new line of IC Fluorescent Fixtures. For illustrated folder simply address Sylvania, Dept. 4X-4302, today.

SYLVANIA

Sylvania Electric Products Inc., 1740 Broadway, New York 19, N. Y.

In Canada: Sylvania Electric (Canada) Ltd., University Tower Bldg., St. Catherine St., Montreal, P. Q.

LIGHTING · RADIO · ELECTRONICS · TELEVISION

reviews

(Continued from page 174)

idea or "centerline." Wright's idea that man, his life, his work, his religion, his culture are one through principle, is an ideal that he came to early and one that he has maintained through a long, creative, architectural life. This driving force has long been expressed in building and words for all to see and hear. In his book, Wright vitally states again this dominating purpose of his life and, in addition to his great buildings, makes an essential contribution to the future of architecture.

The poetic handling of his ideas tends to a greater variety in architecture. If the book had analyzed his buildings in a technical way and pointed out specific organic principles at work, certain aspects of his whole concept would have been pinned down so that some might make of it a frozen book of rules, defeating the whole meaning of organic architecture. The inquiring architect should rather see Frank Lloyd Wright's buildings and dig out his own answers, working with the general principles supplied by this book as a guide. "Organic architecture cannot be learned from books," nor can it be handed over. Youth and those young in mind must be inspired to seek out and work out these principles as a way of life for themselves. This the book conveys. It is inspirational and demands that one "read between the lines."

If architects are imbued with the responsibility for the quality of their culture, they will find, as Frank Lloyd Wright did, that it is one and the same with their daily life and work, with principle as source and cause. This then is his great hope for the future of architecture.

MAT KAUTEN

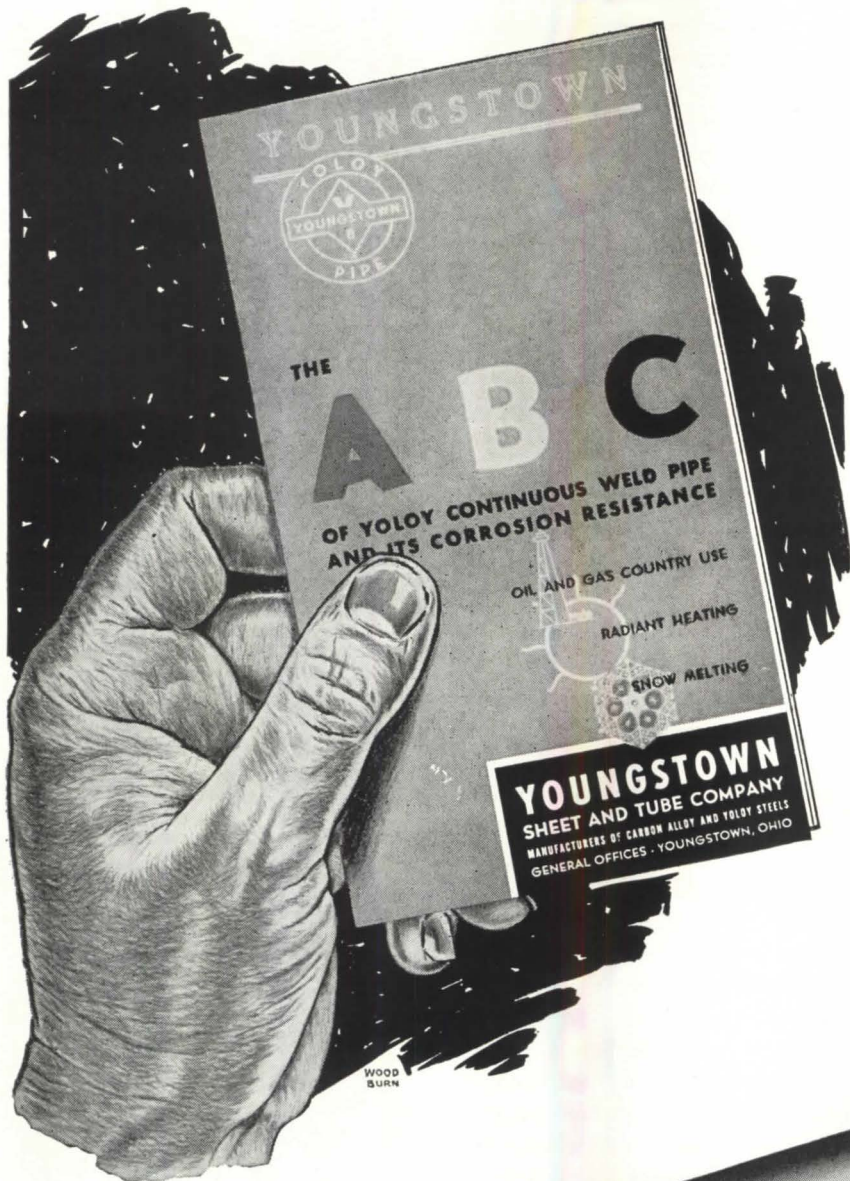
concise, informative

Pencil Techniques in Modern Design. William W. Atkin, Raniero Corbellotti, Vincent R. Fiore. Reinhold Publishing Corp., 330 W. 42 St., New York 36, N. Y., 1953. 128 pp., illus., \$8.25

The authors of *Pencil Techniques in Modern Design* have performed a feat in this first of a series of books on architectural presentation methods. For surely it

(Continued on page 182)

This DATA may solve YOUR piping problem



● Here is the up-to-date story of Yоло Continuous Weld Pipe—a remarkable low alloy steel whose nickel-copper content gives it unique ability to withstand corrosion, abrasion and shock. These outstanding advantages combined with high strength, ductility and weldability make Yоло Pipe an excellent selection.

Proved by 18 years of satisfactory performance, Yоло is highly recommended by users in such service as radiant heating, snow melting, gas line gathering, brine lines and other industrial piping.

This new folder presents the facts and figures on Yоло's physical and chemical properties, with data on sizes now available and other information you'll need to select Yоло Continuous Weld Pipe to meet your special requirements. Write for a copy today.



THE YOUNGSTOWN SHEET AND TUBE COMPANY

Manufacturers of Carbon, Alloy and Yоло Steel

COLD FINISHED CARBON AND ALLOY BARS - ELECTROLYTIC TIN PLATE - COKE TIN PLATE - WIRE - PIPE AND TUBULAR PRODUCTS - CONDUIT - RODS - SHEETS - PLATES - BARS - RAILROAD TRACK SPIKES.

General Offices — Youngstown 1, Ohio

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TILES

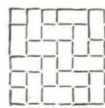
by

SPARTA



SPARTAN MOSETTES

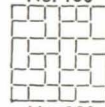
These unglazed ceramic tiles are fired at high temperature, assuring ruggedness, impermeability, slip-resistance, and a high degree of vitrification. Available in sizes 1x1, 2x1, 2x2, 1/4" thick in the following wide range of colors: Golden Pheasant, Ember Glow, Light Grey, Dark Grey, Brown, Red, Light Green, Dark Green, Spartan Blue, Ivory and Black. The following Mosaic colors are supplied in sizes 2x1 and 1x1 only: Pearl Grey, Cream, Pink, Canary and Dresden Blue.



No. 110



No. 130



No. 180



No. 317



No. 330

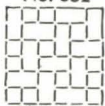


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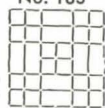
Mosettes are extremely versatile and easy to set in irregular shaped spaces.



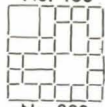
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No. 183



No. 158



No. 320

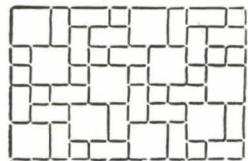


No. 192



No. 132

Right:
No. 300



Write for complete information.

Practical for Floors in
SCHOOLS • HOSPITALS • INSTITUTIONS
also SWIMMING POOLS

**THE SPARTA
CERAMIC CO.**

P.O. BOX 4, EAST SPARTA, OHIO

reviews

(Continued from page 178)

is a feat to have written a book which is a goldmine of information for anyone who has ever had to take a pencil in hand and express his ideas—whether a student, a practicing architect, or a career renderer.

Atkin, Corbelletti, and Fiore have pooled their respective talents to accomplish exactly what they state as their objective in the introduction, "to present in this book as much material on Pencil Techniques in Modern Design as they could within 128 pages." The result is a concise book that reads simply and easily, yet surprises the reader by containing so much information. It is the very opposite of a picturebook sort of random compilation that attracts the eye but disappoints the user on repeated examination and critical analysis.

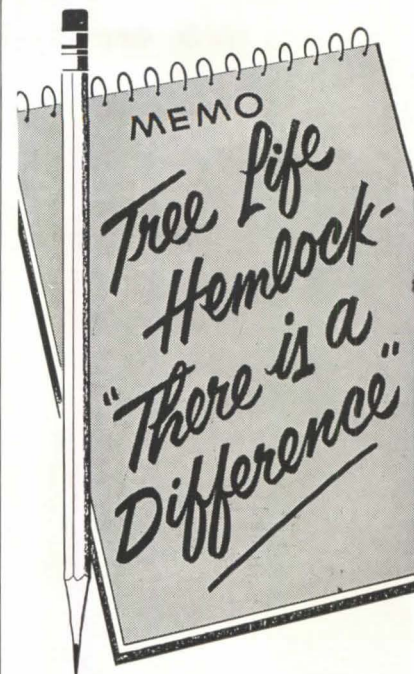
The two sections comprising the book are about equal in length and emphasis. Part One, "Presentation Techniques," is written for the experienced renderer and covers such methods of pencil design as fine and bold lines, value rendering, pencil painting, character rendering, and combined technique. After describing a technique, the authors state its advantages and disadvantages, list the materials to use for best results and give other hints for successful execution. With each illustration, not only in the first part, but throughout the book, is given exact data on pencils, paper, and other materials used, with a commentary explaining any special effects. This analytical approach, consistent throughout the book, together with the high caliber of renderings chosen as illustrations, is what makes this volume so invaluable, especially to the practicing architect who does his own presentation renderings for clients.

The chapter on rendering for printing processes should be required reading for every architect. It can save him much disappointment and money by giving him a quick grasp of the basic information needed in preparation of a rendering meant specifically for publication by any of the printing methods, and how to make a presentation rendering that can print well if it should have to be reproduced.

Part Two, "How to Render in Pencil," teaches the art of rendering. Materials

(Continued on page 186)

Make a note!



Right! West Coast Hemlock should never, never be confused with Eastern Hemlock. West Coast Hemlock (*Tsuga heterophylla*) is an entirely different species. TREE LIFE West Coast Upland Hemlock, grown only at high altitudes on western slopes of the Cascade Mountains, is a superior wood for many uses—the finest type of Hemlock grown! Check its features!

- West Coast Hemlock is strong. Has fewer and smaller knots.
- West Coast Hemlock is uniform, relatively hard. Minimum spiral grain. Fine texture.
- West Coast Hemlock is stable, easy to work. Takes paint smoothly. NO pitch pockets.
- West Coast Hemlock is durable. Not brashy.



Write for "TREE LIFE HEMLOCK," a 20-page booklet on properties and uses. St. Paul & Tacoma Lumber Company, Dept. PA, Tacoma 2, Washington.

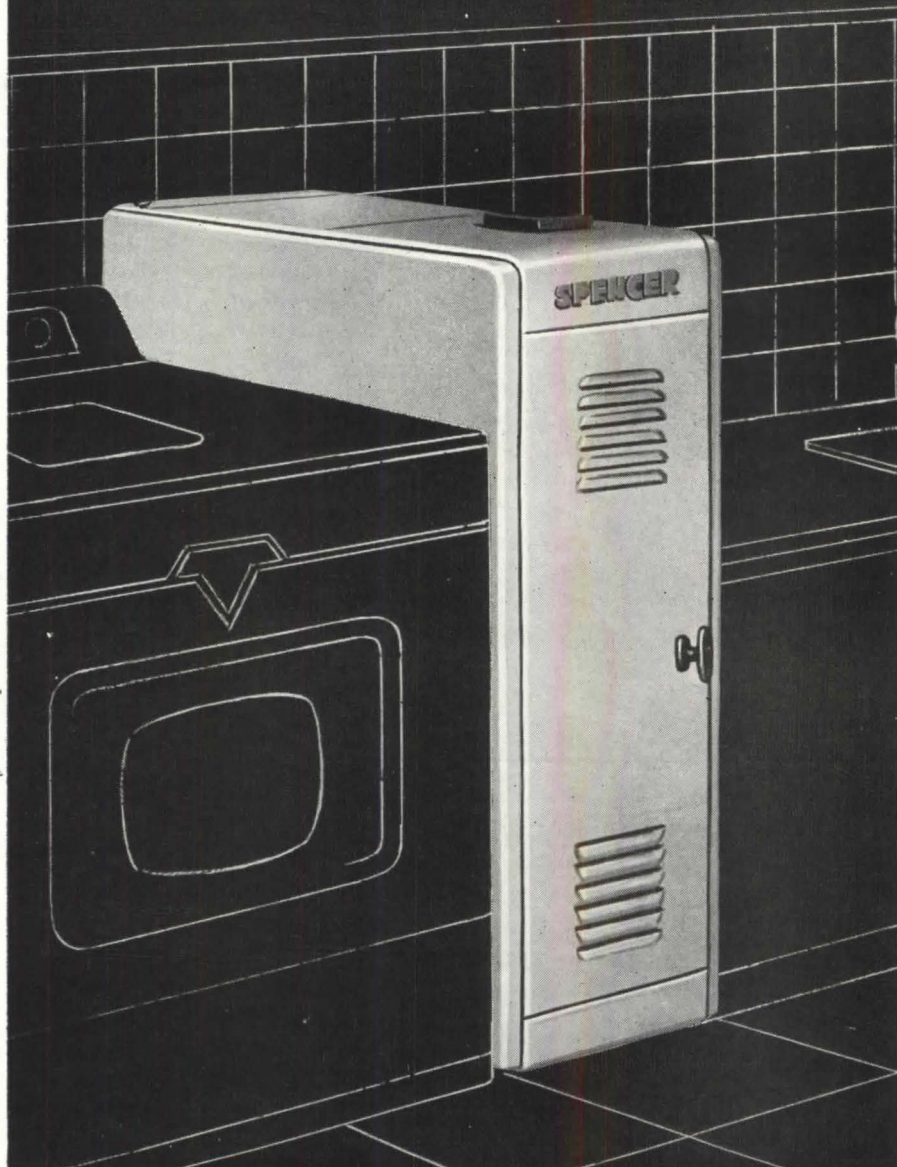
Specify with Confidence

TREE LIFE
WEST COAST UPLAND
HEMLOCK

ANOTHER
FAMOUS
MEMBER OF
THE TREE LIFE
FOREST
PRODUCTS
FAMILY



NEW BEAUTY IN GAS BOILERS...



NEW SPENCER RANCHER

1G Series: 6 Models—40 to 128,000 BTU output
W—13½", L—25¼" to 43¾", H—42¾"

2G Series: 6 Models—80 to 232,000 BTU output
W—18½", L—28½" to 47", H—49¼"



NEW PRODUCT

OUTSTANDING NEW GAS UNIT

**COMPACT...
EASY TO INSTALL...
EFFICIENT**

New beauty, compactness and rapid-heating qualities make Spencer's new ready-to-install gas boiler an outstanding choice for either large or space-budgeted homes.

Easily installed anywhere in any home, the new Spencer Rancher adds attractiveness to a kitchen, utility room or finished basement. It is completely enclosed in a compact gleaming white jacket—even the flue diverter is out of sight. The door is designed to be hinged on either left- or right-hand side. The walls and base are water-cooled, so it can be set directly on a wooden floor.

Easy to service. Controls and burner are readily accessible through the front of the boiler. Cleaning may be accomplished without disturbing controls or piping.

A code boiler, built to ASME and IBR regulations. AGA approved for manufactured, mixed, or natural gases. Other features—self-cleaning boiler, rapid heat transfer, compact design.

*This is only one of
Spencer's Complete Line.*



••••• CLIP & MAIL •••••

Spencer Heaters, Dept. PA-2-4
Lycoming Division
AVCO Manufacturing Corp.
Williamsport, Pennsylvania

Please send complete information and specifications on the new Spencer Rancher to:

Name _____

Position _____

Company _____

Address _____

City _____ Zone _____ State _____

•••••

A STRONG POINT with MARS — SAVE TIME AND MONEY

Sharpener
in push-
button
head

Save considerable time, money and effort by using imported MARS-LUMOGRAPH products.

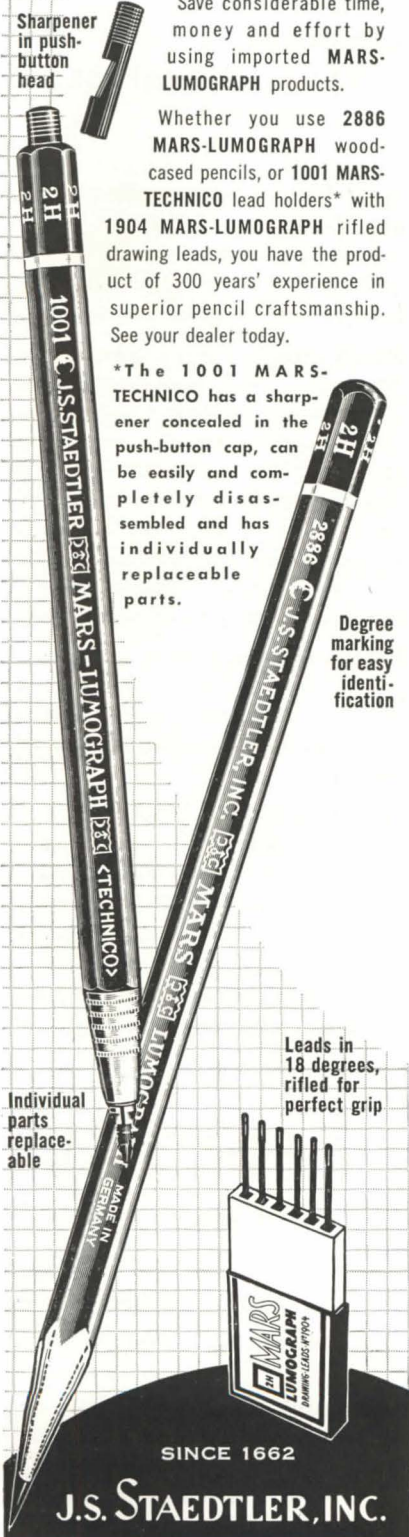
Whether you use 2886 MARS-LUMOGRAPH wood-cased pencils, or 1001 MARS-TECHNICO lead holders* with 1904 MARS-LUMOGRAPH rifled drawing leads, you have the product of 300 years' experience in superior pencil craftsmanship. See your dealer today.

*The 1001 MARS-TECHNICO has a sharpener concealed in the push-button cap, can be easily and completely disassembled and has individually replaceable parts.

Degree marking for easy identification

Leads in 18 degrees, rifled for perfect grip

Individual parts replaceable



SINCE 1662

J.S. STAEDTLER, INC.

HACKENSACK
NEW JERSEY
MADE IN GERMANY

reviews

(Continued from page 182)

and equipment, fundamental strokes and exercises, composition, shade and shadow are explained in simplified terms with the same economy of words that characterizes the book as a whole. Here is also a fast course in perspective—eight pages in all—really covering the fundamentals of this students' bugaboo, as simply and painlessly as possible.

For the current crop of architects who often find themselves lacking in fundamentals that used to be taken for granted and that become daily necessities, this book is a means of catching up quickly with experienced architects and even top-notch professional renderers (if they are that ambitious).

For the older architect who enjoys doing his own rendering, or must do it, here is a dictionary of techniques and renderings with enough data on each for him to expand his repertoire or to improve his present style. Even the expert professional renderer who is curious what others in his field are doing, and how, can profit from a study of this volume.

CALEB HORNBOSTEL

notices

new AIA chapter

MONTEREY BAY CHAPTER, AIA, was recently formed in California to serve the Monterey Peninsula area. FRANK LLOYD WRIGHT attended the Chapter's first meeting. Official presentation of the charter was made by CHARLES O. MATCHAM, regional director of the Sierra Nevada Region of the Institute. First officers are: FRANCIS X. PALMS, president; GEORGE L. WILLOX, vice president; JEROME KASAVAN, secretary; WILLIAM D. CONCOLINO, JR., treasurer; WALLACE J. HOLM, two-year director; and ROBERT R. JONES, one-year director.

Charter members include: CHARLES E. BUTNER, WILLIAM L. CRANSTON, C. J. RYLAND, ROBERT STANTON, JOHN H. WATERMAN, and FRANK WYNKOOP.

competitions

A competition for the design of "A Coast Defense and Rescue Center" is announced

(Continued on page 190)

Sedgwick DUMB WAITER DOORS improve Dumb Waiter Service

Hoistway doors have a direct effect on the efficiency of the dumb waiter. Whether you need doors for electric or hand power dumb waiters or for the landing openings of conveyors, laundry or package chutes, or other types of floor-to-floor equipment, you can make sure of improving service by specifying a Sedgwick Door. Over half a century of experience in successful engineering, manufacturing and installing lies behind Sedgwick Dumb Waiter Doors and Sedgwick Dumb Waiters.

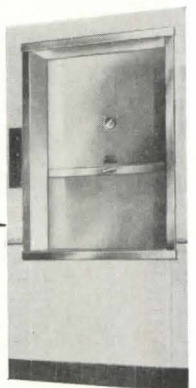
► DURABLE
STEEL
CONSTRUCTION

► OPERATE
EASILY

► ENGINEERED
BY VERTICAL
TRANSPORTATION
SPECIALISTS

► ENTIRE UNIT
FACTORY
ASSEMBLED

► UNDERWRITERS'
LABEL
WHEN REQUIRED



Bi-parting type



Also
slide-up,
slide-down
or hinged types

Write for booklet
on Sedgwick Dumb Waiter Doors
and complete line of Dumb Waiters and Elevators

Sedgwick MACHINE WORKS
164 WEST 15th ST., NEW YORK 11, N. Y.
Specialists in Vertical Transportation Since 1893

SOME OTHER SEDGWICK PRODUCTS:



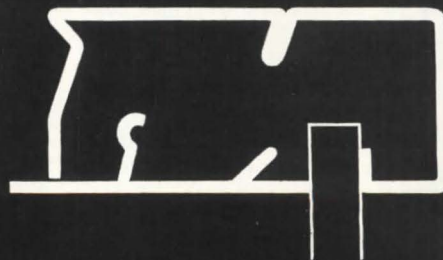
New Pittco

NO. 17

Recessed Sash



... provides an inconspicuous flush setting for installations where you desire to preserve an unbroken plane between interior and exterior. It is self-adjusting to various glass thicknesses and is easily installed from the outside with the face piece and clips merely snapped into place. For complete details, see your Pittco Store Front Metal representative.



PAINTS · GLASS · CHEMICALS · BRUSHES · PLASTICS · FIBER GLASS

PITTSBURGH PLATE GLASS COMPANY
IN CANADA: CANADIAN PITTSBURGH INDUSTRIES LIMITED



With this issue P/A begins another continuing series on the topic of architectural public relations. Last year we concluded the series by Etkes and Dodd on the elementary "facts of life" about the subject—and from all indications that approach was useful to many members of the profession. This year we plan to document a number of case histories—successful exhibits, TV shows, newspaper stories, and other means of letting the public know how important architecture (and individual architects) are to the community.

This is by way of introduction to a little airing of some troubled thinking about architectural public relations that I have engaged in, privately and in conversations and meetings with others. The trouble comes from an inability to understand the profession's official attitude toward the subject. It would seem that the Institute had gone all out for public relations by voting a sizable budget for the activity, by agreeing to a three-year program, and by retaining a firm of Public Relations Consultants—Ketchum, Inc.—to direct and carry out the program. Now, however, a curious inconsistency is developing. While Ketchum's representatives are traveling around the country making architects "public relations conscious" and at the same time issuing a handbook on how to achieve local notice for architects, the Institute, through its President, is taking a firm stand against advertisements which carry an architect's picture, "without any quoted comment from him," as being "in bad taste."

I have been trying to analyze, in my own mind, the matter of "ethics" involved. First, let's review what has happened. Minneapolis-Honeywell ran a series of "institutional" ads (I saw them in *Time*; they may have appeared elsewhere) which were, in my opinion, very fine statements about the architect's role in the community. Each ad showed an example of the work of an architect, and credited him. The copy was so good, the benefits to the profession so obvious, that individual architects and some Chapters applauded the series heartily. A little later, a Miami window manufacturer—Adams Engineering Co., making ABC Jalousies—did the same sort of thing on a local scale, planning to expand it to national advertising. Adams's President, Charles Silvers, had two advertisements prepared for the Sunday editions of *Miami Daily News* and *Miami Herald*. They were headed "ABC Jalousies salutes achievement . . . the Architect . . ." and went on to laud architectural services and counsel. No plug for Adams

Engineering; just the manufacturer's name at the bottom of the ad. Then followed a series of ads showing pictures of individual architects, and their signatures. The copy continued to start off, "ABC Jalousies salute achievement . . ." There was a brief paragraph of factual biography about the architect and then a final statement: "Remember that tomorrow's America is being conceived by the architect—a professional advisor of undisputed integrity who uses specialized training to your advantage."

This series was checked with the Chapter, and Silvers agreed to three stipulations: that architects would be singled out alphabetically from the Chapter roster; that the ads would contain no sales pitch for Adams or its product; that all copy would be approved by the Chapter's publicity committee.

Printers' Ink, trade magazine of the advertising field, thought this was such a swell gesture that it prepared a story on the subject. Before it went to press its editor received a letter from Henry Saylor, editor of the *Journal of the AIA*, enclosing a copy of AIA President Clair Ditchy's statement in the October *Journal*. This statement, reproduced by *Printers' Ink*, says in part: "If an architect's picture appears in an advertisement, with his recommendation, there is an implication . . . of something akin to bribery . . . If an architect's picture appears in an advertisement, without any quoted comment from him, it is still in bad taste, and sets a precedent for more flagrant transgression . . ."

Printers' Ink comments editorially, "Architects saluted in the Adams series appear to be violating the AIA code of ethics, even though the ads contain no endorsement or recommendation by them of the company or its product . . ." and further restates its editorial opinion that "such codes constitute a suppression of advertising—particularly when they go so far as to even forbid advertising that is dignified and in good taste."

What does all this mean? Let us be analytical for a moment. There are four possible types of ads mentioning architects' names:

1. The common ad that shows a picture of a building, with or without the name of the architect, and then advertises the company's product.
2. The "institutional" ad that plugs for architecture in general, and perhaps singles out one architect by name, with an illustration of his work, but no picture of him.

3. The Type 2 ad with a picture of an architect. This, President Ditchy says, is "in bad taste."

4. The testimonial ad which, usually with a picture of the architect, carries a statement from that architect endorsing the product. This, Ditchy says, is "an implication of something akin to bribery," but (and here is what puzzles me) "if the architect's picture appears . . ."

What, then, is the criterion of "good taste"? It seems to be solely, unless my analysis is all wrong, the matter of a picture of the architect appearing.

Finally, what *should* be the criterion? To me it seems very simple. The sole reason for the code of ethics, I am sure, is to keep clear the freedom and objectivity of the architect in selecting and specifying materials and equipment. Hence, it seems to me a published endorsement of a competitive product, in an advertisement or out of an advertisement, might raise questions about the architect's unbiased judgment in that particular sphere of selection. If he does not endorse a product, I fail to see where, in any sense, he has sold his professional soul. The only remaining question would seem to be: does his name, his signature or his picture, without any statement from him, constitute an "indirect endorsement"? I feel that this question must be settled—and fast. And I feel that the use of a photograph of a job, with the name of the architect, in an ad that plugs the product, is as much (or more) an indirect endorsement as a picture of the architect in an ad that does not contain a "sales pitch" for the product.

Of this I am sure: the community at large needs to know more about the services of the architect. The profession, even the professional organization, cannot afford an expensive series of "institutional ads" in its own name, even if that should be considered ethical. And when a national or even a local manufacturer wants to spend part of his advertising budget for public education on the value of the architect's services, it seems very shortsighted to scold him by saying that this is "a type of advertising which grossly violates the intent of the standards of professional conduct as promulgated by The Institute." I'd personally like to hear of a little less promulgation and a little better public relations from The Institute.

Thomas H. Ceightor