

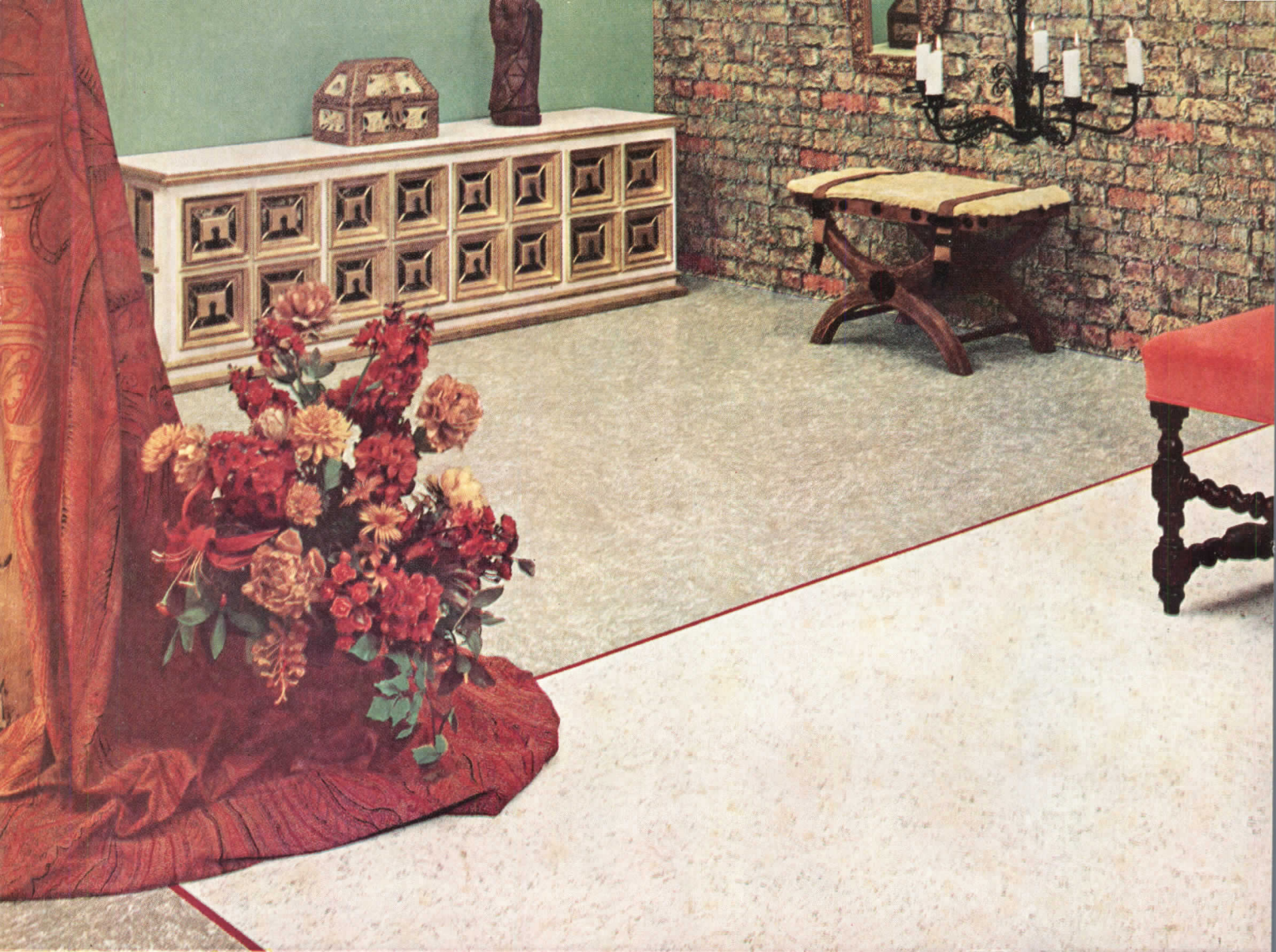
ARCHITECTURAL RECORD

MID-MAY 1963 ISSUE • BUILDING TYPES STUDY:

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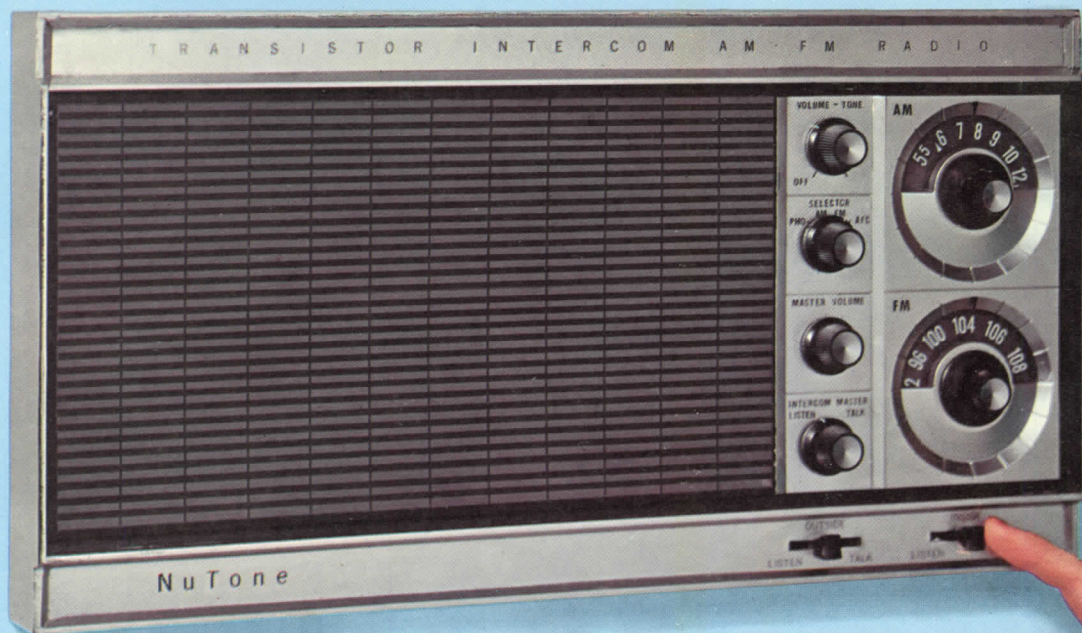
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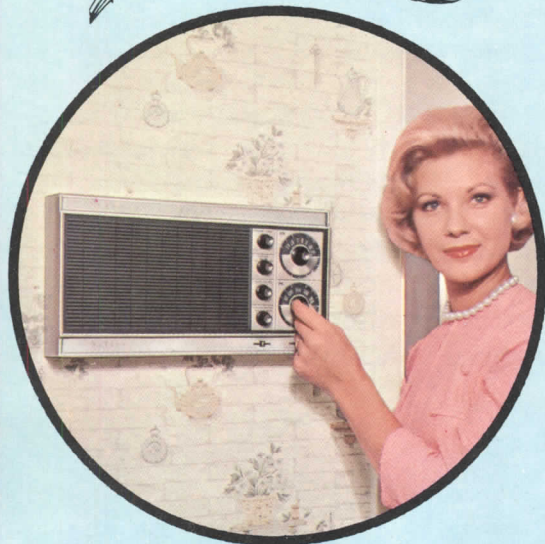
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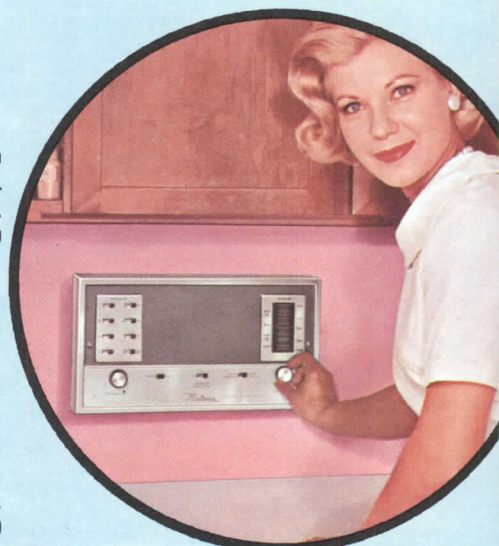
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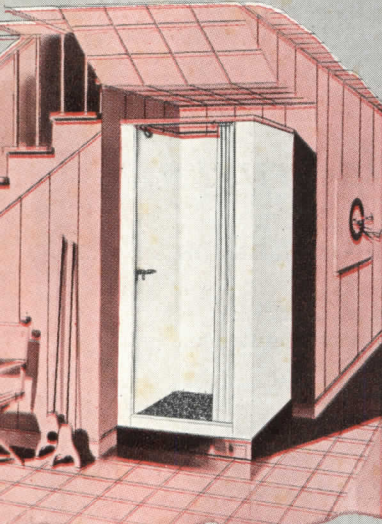
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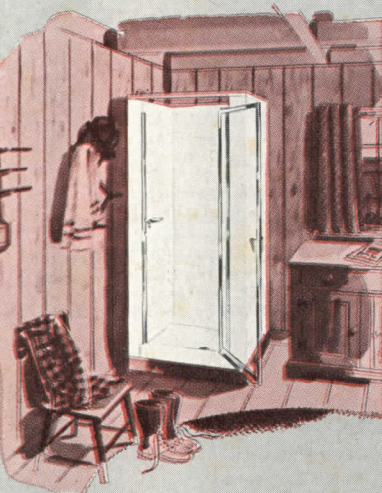
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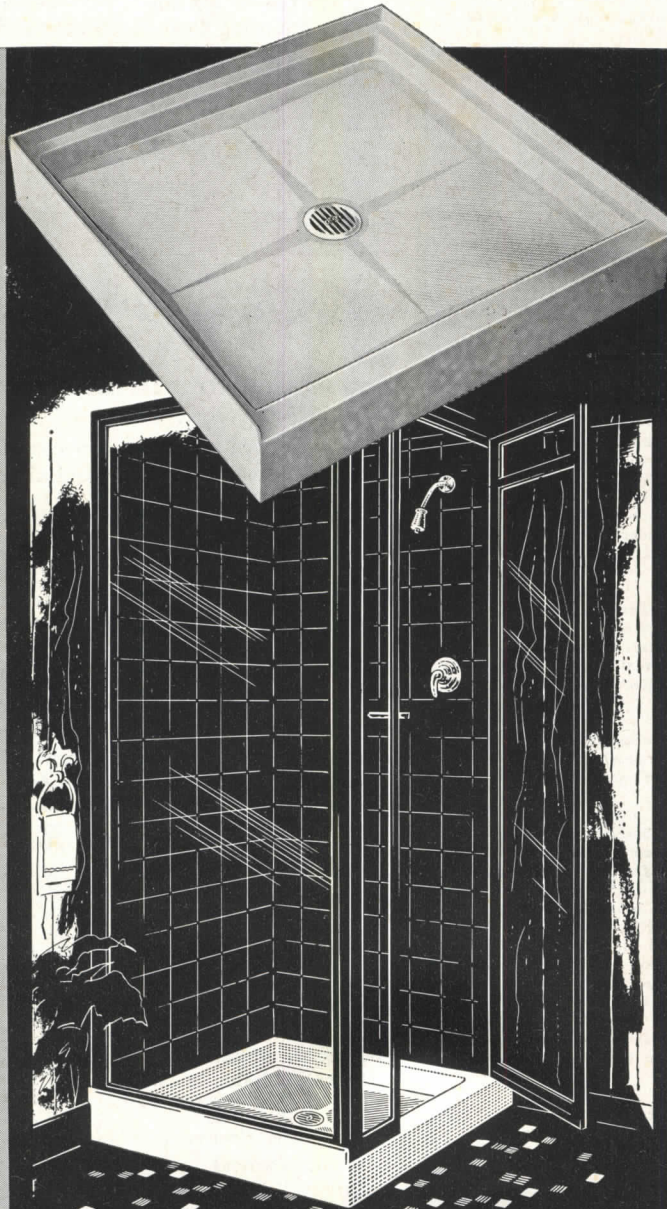


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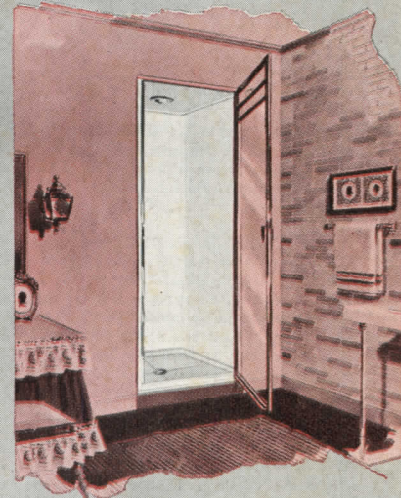


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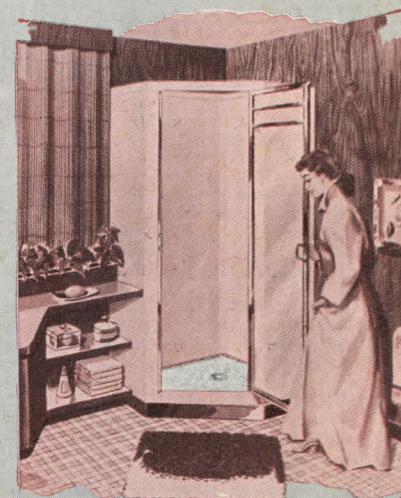
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House for Mrs. Virginia Hubbard, Greenwich, Connecticut, Ulrich Franzen, architect. © Ezra Stoller, photographer

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Note to Builders:

ARCHITECTURAL RECORD takes pleasure in bringing you this Mid-May issue with the hope that the award-winning houses presented here (five of which are development houses) may help stimulate even closer architect-builder cooperation for even better design, and for the benefit of all.

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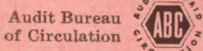
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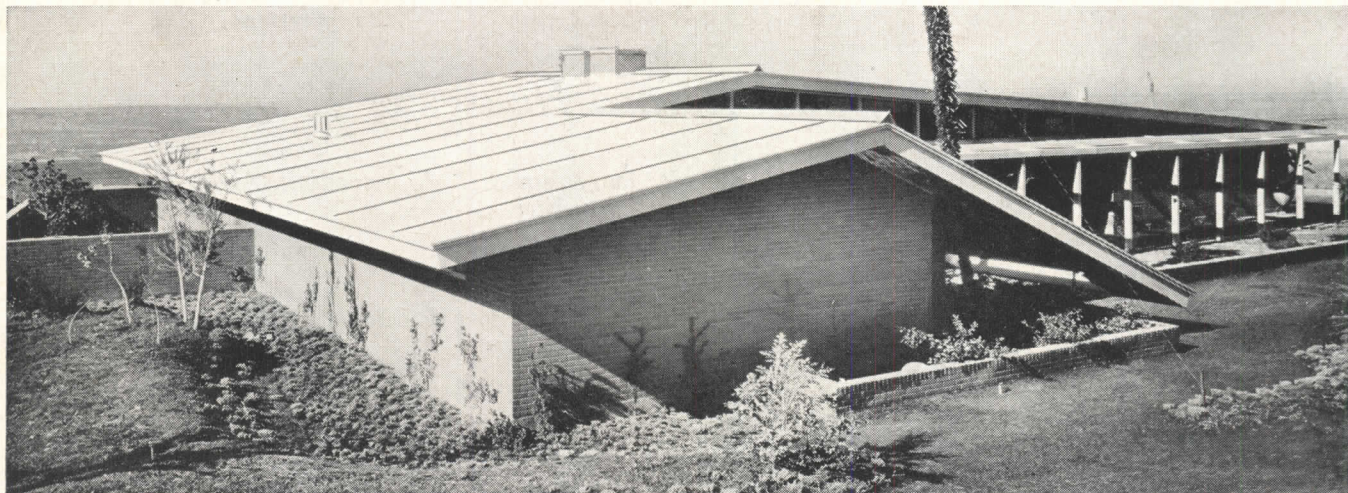
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ARCHITECT: RAY PARRISH, SCOTTSDALE, ARIZONA
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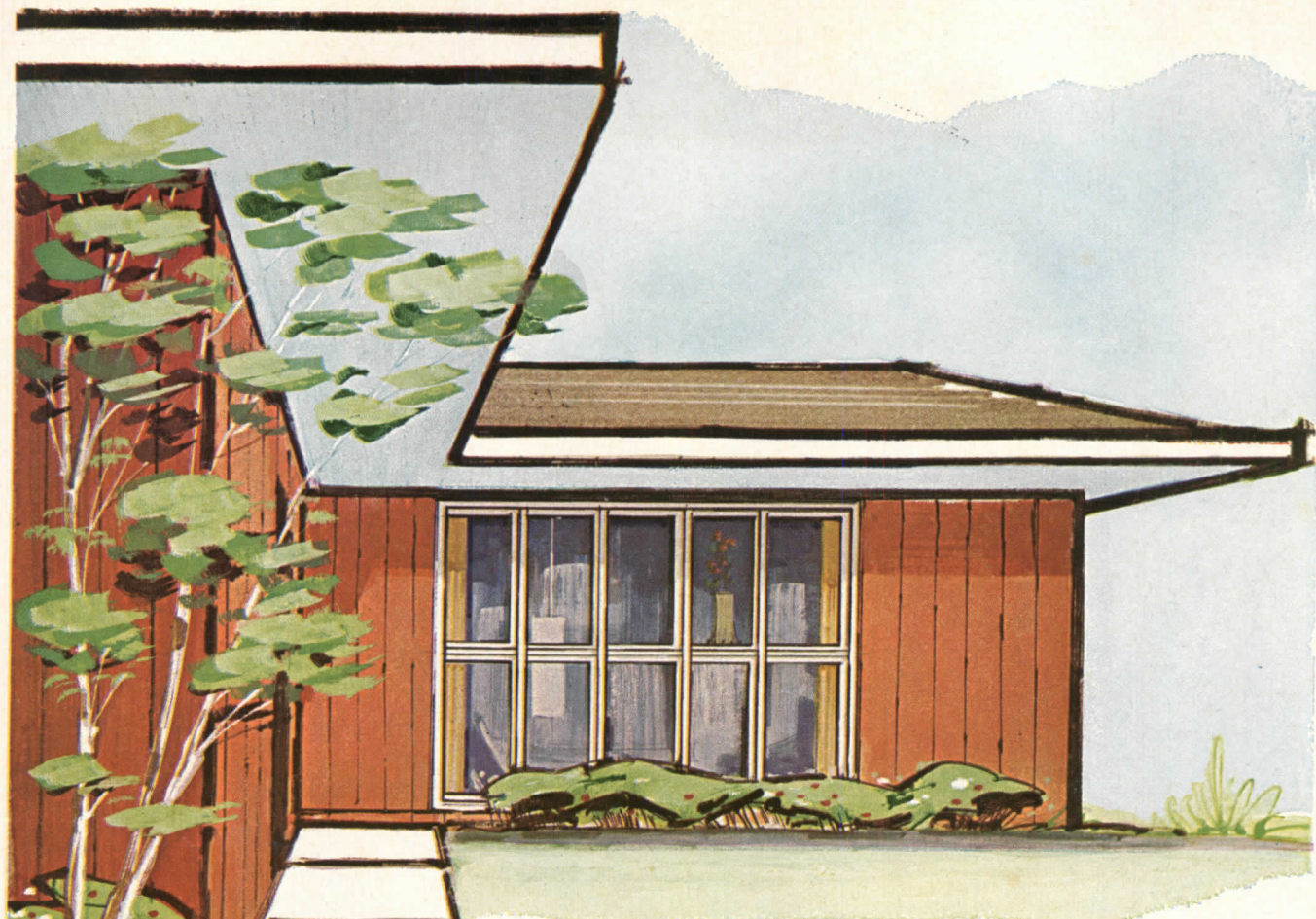
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Metal sculpture by Darrell Crisp courtesy Gump's



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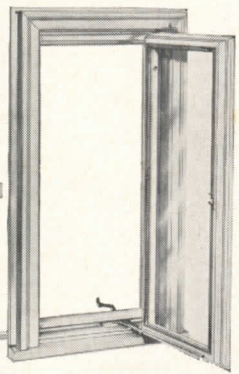
CREATIVE WINDOW PLANNING *... from an architect's idea file*

When a picture window cannot be related to an attractive view, we suggest window designs which do not rely on a favorable exterior view only, but instead serve a decorative function themselves. The window becomes the "picture" instead of the view. The designs illustrated attempt to recapture some of the small-scale intimacy of traditional windows while retaining advantages of modern building technology. The design above could be achieved with a 2" x 6" or 2" x 8" wood subframe into which standard casement ventilating sash and fixed glass could be placed. The window unit could be load bearing, eliminating need for a conventional header. Window arrangement possibilities are unlimited.

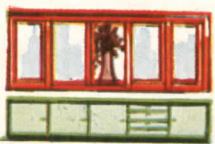
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MALTA CASEMENT WINDOWS

The casement windows suggested by the designs on this page can be supplied singly or in combinations from Malta's broad line. Malta Casements and standard picture window combinations are fully weatherstripped, available with insulated glass or standard glazing. Lifetime hardware. Right- or left-hand hinging to order. Malta has the windows to make your next home more exciting visually . . . inside and out. Send for Casement catalog, M7A. The Malta Manufacturing Company, 120 Mill St., Gahanna, Ohio.



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An arrangement suitable for any room in the house. Variety of sizes available.



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CLIMATE-BALANCED HOUSE DESIGN

Natural resources can increase efficiency and lower costs of heating and cooling systems

by Victor Olgyay, Research Associate Professor, Princeton University

The house structure which in a given climatic environment setting reduces undesirable effects of heat, cold and humidity, and at the same time utilizes all natural resources favorable to human comfort, may be called "climate balanced." Perfect balance can scarcely be achieved except under exceptional circumstances. But it is possible to achieve a house of great comfort at lowered cost through proper arrangement of windows and shading; insulation; openings for breezes; utilization of trees and planting. We will do well to study the local climate layout, then apply the findings, through a specific region, to a specific structure. The evaluation method to be outlined here is applicable to any climatic situation. And as it indicates the needs of the climatic variables throughout the year, it supplies a convenient index for architectural applications.

Shelter and Environment

Man strives for the point at which minimum expenditure of energy is needed to adjust himself to his thermal environment. Conditions under which he succeeds in doing so can be defined as the "comfort zone," where most of his energy is freed for productivity.

The Climatic Comfort Zone

As the temperature rises, we can counteract it (within certain limits) with increased air movement, with lowered radiant temperature (reduced solar effect), and with increased evaporation. A low temperature can be balanced by reduced air movement or by high radiant temperature (increased solar effect). On this basis, we can construct a chart (Figure 1). The comfort zone is in the middle.

We naturally cannot expect to solve uncomfortable conditions by natural means only. As we shall see, the en-

vironmental elements aiding us have their limits. Over those boundaries we should apply cooling or heating by mechanical equipment. But the architect should build the shelter in such a way as to bring out the best of the natural possibilities.

Explanation of the Chart

In the middle we can see the summer comfort zone (dotted area) based on the desirable and practicable ranges, which assumes a person to be exposed to outdoor conditions of air temperature, solar radiation and wind.

At higher temperatures, the wind effects can bring back the feeling of comfort. The wind effect counteracts the high temperatures. At humidities over 60 per cent relative humidity, the vapor pressure is counteracted by the winds.

At low humidities, the effects of winds are of little help. We can gain only around 8 degrees reduction in feeling at comparatively strong air movements. Here evaporative cooling is the tool with which to fight high temperatures. At high temperatures, the top curves indicate the limit of work of moderate intensity and show the unbearable condition.

At the lower perimeter of the comfort zone is the line from which shading is needed towards higher temperatures; and conversely, solar radiation is necessary to counteract the cold feeling towards lower dry-bulb temperatures.

Climatic Evaluation By Region

A bioclimatic chart (Figure 2, page 9) can be developed which maps the problems and describes the counter-

continued on page 9

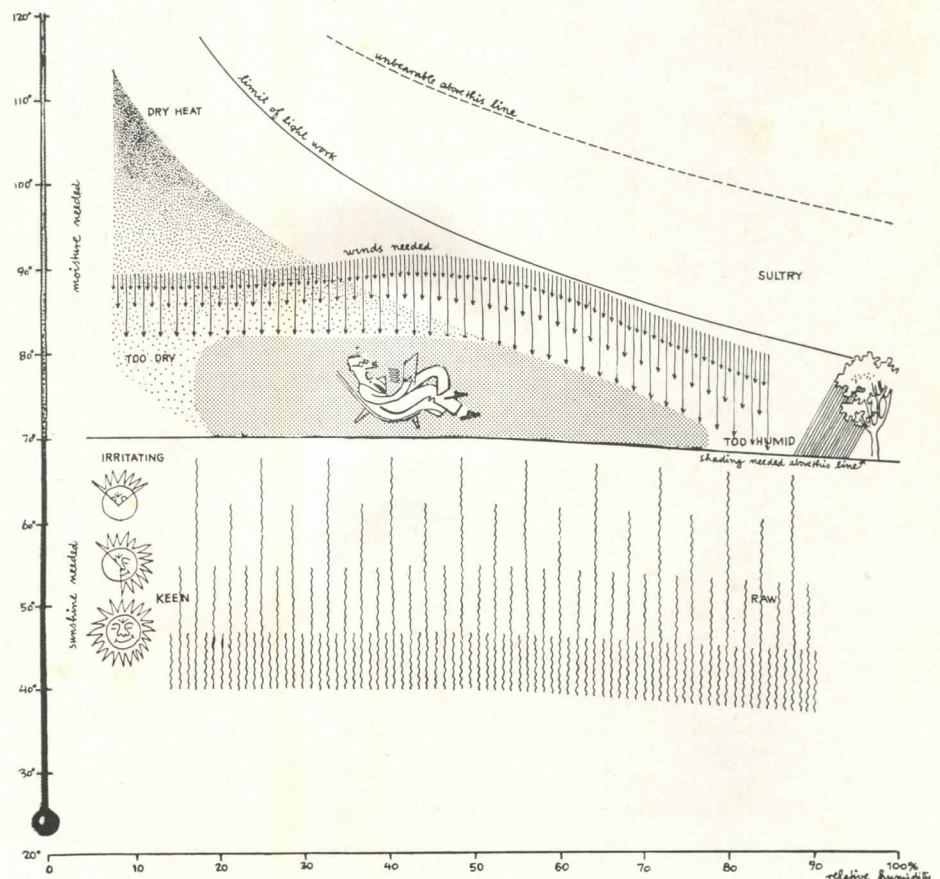
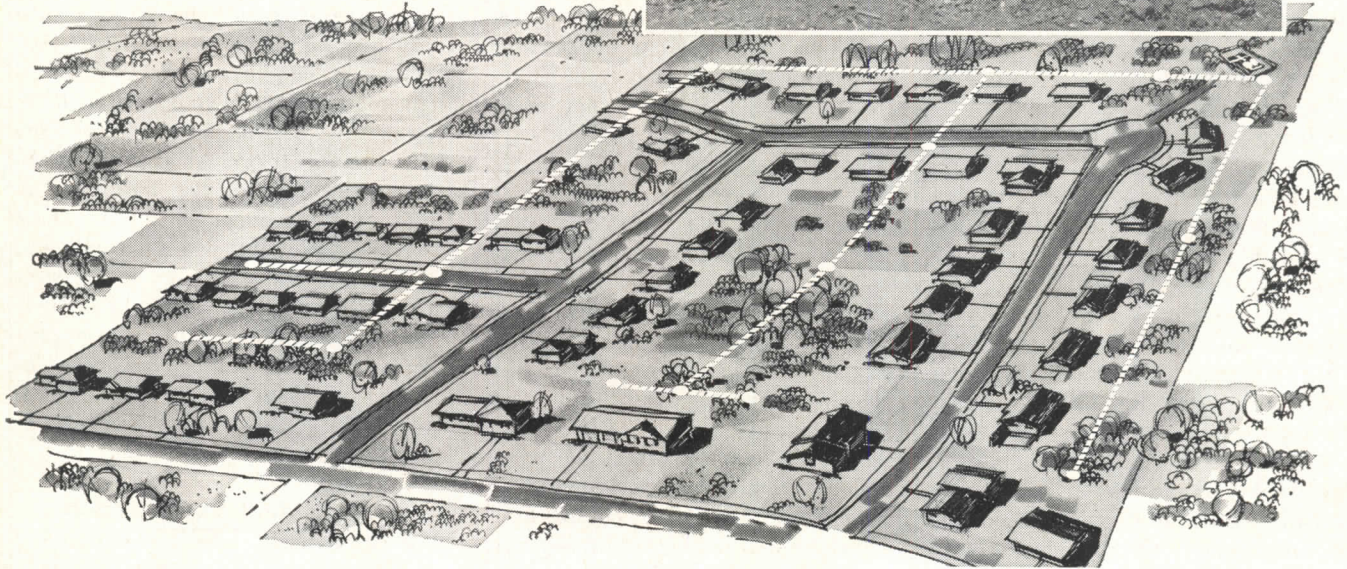
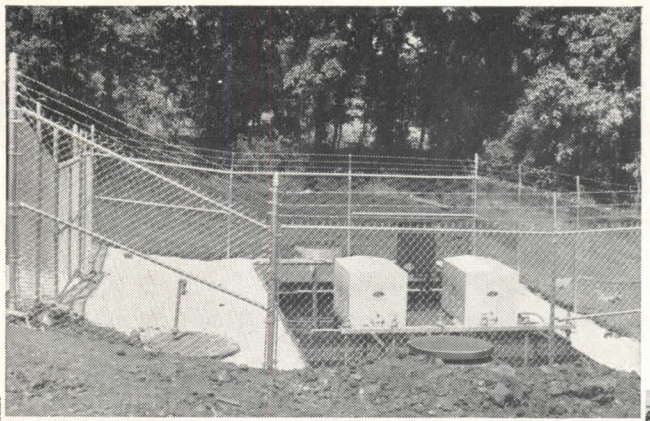


Figure 1: Schematic bioclimatic chart indicating comfort zone (dotted area)

This article is based on research developed at Princeton University's School of Architecture and recently published in the book "Design with Climate" (Princeton University Press)

COMPLETE SEWAGE TREATMENT for 50 HOMES

Total Cost: \$35,000
(\$700 per home)



COST STUDY: The actual experience of Developer Paul B. Bascom, Merriam, Kansas, at South Wornall Gardens in suburban Kansas City, Mo.



Bascom Development Company turned a proposed 36-home "septic tank community" into a 50-home subdivision with its own sewerage system and treatment facility at a cost of \$700 per home—only \$250 per home more than the cost of installing septic tanks.

The development of South Wornall Gardens began in 1959. The original survey called for 36 lots, averaging 100' x 150' to meet local requirements of 15,000 square feet per lot for homes on septic tanks. Only eight homes were built before initial home owners were plagued by septic tank problems. Lending agencies withdrew financial support until the problems were corrected.

The solution was to redesign the subdivision for a complete sewerage system including a Smith & Loveless factory-built "Oxigest" sewage treatment plant.

The 17,000 gallon-per-day "Oxigest" plant including accessory equipment cost approximately \$250 per home, delivered to the job site, ready to install. The cost of installing the plant, laying 3000 feet of lateral sewer lines with 15 manholes and five small lateral manholes, 180 feet of efflu-

ent piping from the treatment plant to a nearby stream, a by-pass line around the treatment plant, grading, drainage, wiring to the plant, a 10-foot wide crushed-rock roadway to the plant, fencing, landscaping and a water line to the plant was \$450 per home.

Under this plan the lot sizes could be reduced, averaging 75' x 140'. The subdivision was re-platted for 52 lots . . . an increase of 16 lots. Two of the lots were reserved for the sewage treatment plant, so the total increase was 14 additional home sites.

The original lot price of \$2,050 was maintained and a \$200 service charge for connecting to the sewerage system was added. On the 14 additional lots alone, the value of the salable land in the subdivision was increased by \$31,500. The sewer connection charge on the balance of the lots brought the total increase to \$38,700, which was more than adequate to cover the cost of the entire sewerage system and treatment plant.

The redesign had a definite impact on the market potential for the development. Home owners were pleased to get the problem "out of their backyards" and activity by prospective buyers was renewed within a week after the treatment facility was installed.

For a detailed cost study on South Wornall Gardens and information on Smith & Loveless "Oxigest" sewage treatment plants, write Dept. 150.



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measures for human comfort in certain climatic region. To evaluate the climatic situation of a given locale, a detailed analysis covering the complete yearly cycle is necessary. Local weather data supplied by meteorological stations may give the architect information that will enable him to construct his own evaluation. The regional evaluation of a climatic situation can be done by plotting combined temperature and relative humidity data on the chart at regular intervals to show the general characteristics of a region.

On a regional chart such as Figure 2, the climate situation of a typical average day of each month is plotted. From this the bioclimatic analysis can be translated to a yearly chart (Figure 3).

When the bioclimatic analysis is transferred to a yearly chart, the needs are put into a timetable, where the varying climatic elements of any day in the year can be read vertically. With such "diagnosis of the region," the relative importance of the various needs, assuming a person to be exposed to outdoor conditions—such as solar radiation (indicated in full lines to 300 Btu/hr intensities), shading (dotted area, overheated period), wind effects (vertical lines), and cooling—can be evaluated.

Regional Evaluation for Phoenix

Figures 2 and 3 show how bioclimatic effects are evaluated for Phoenix, Arizona. The daily temperature curves in Figure 2 have a marked high slope indicating a large daily range of heat. Since the yearly temperature distribution lies in a relatively short range (Figure 2), and the winter daily maximums and summer minimums approach the comfort zone, it is highly desirable to maintain those conditions. But the evaluation chart (Figure 2) indicates abrupt changes: there are days (such as the 1st of May) when the temperature soars from underheated levels to such extremes that even high air movements cannot restore comfort. In Figure 3 note that within the shaded area full lines indicate periods where over 300 fpm air velocities would be needed. Since too high velocities would be annoying, other remedies should be applied, such as evaporative or mechanical cooling during daytime hours the average

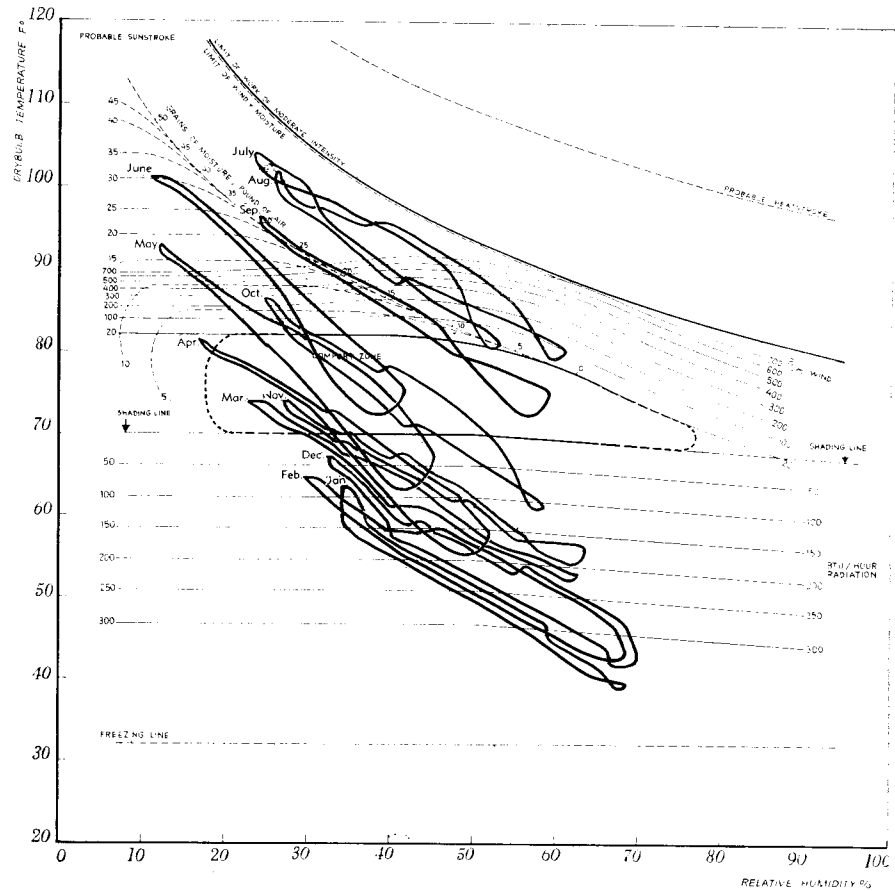


Figure 2: Climate data for a typical day of each month in Phoenix, Arizona

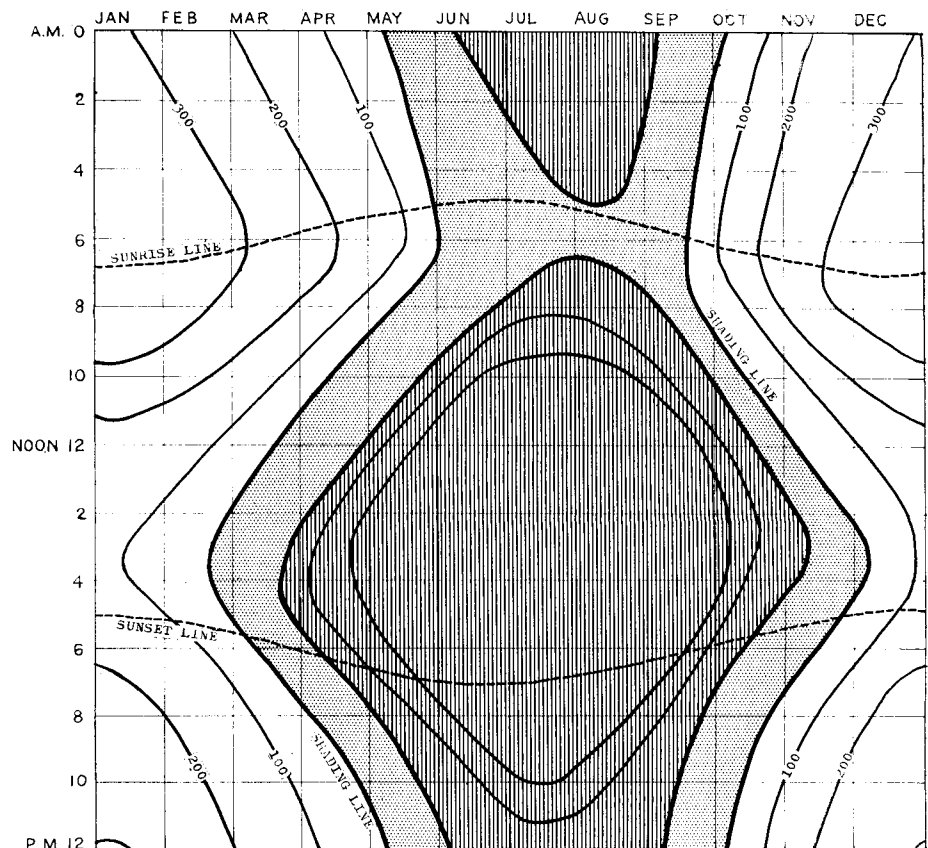
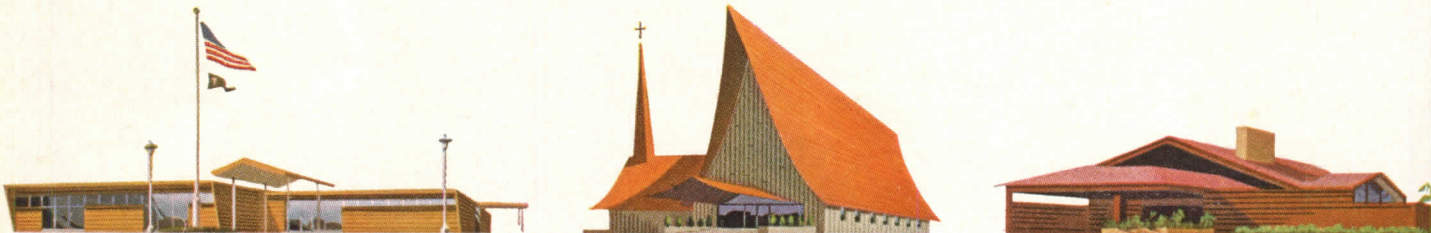


Figure 3: Yearly timetable of climatic needs for Phoenix, Arizona

continued on page 11

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early needs are: 37 per cent sun heat, 63 per cent shade, 37 per cent wind protection, 19 per cent breeze period, 28 per cent other additional cooling methods; 16 per cent of the time shade will provide comfort. From the specific climate needs the following architectural principles can be evaluated or interpreted:

In *orientation* the sun's heat is decisive both positively (in cold periods) and negatively (in hot periods).

Balance can be found between the "underheated period," when we seek radiation, and the "overheated period," when we want to avoid it.

Shading calculations are based on the maxim that throughout the year underheated times the sun should strike the building, and in overheated times the structure should be in shade. A chart of the sun's path, plus geometric and radiation calculations, can describe the effectiveness of shading devices.

Housing forms and building shapes should conform to favorable or adverse impacts of the thermal environment; accordingly certain shapes are preferable to others.

Air movements can be divided into two categories of winds and breezes, according to their desirability. Winds occurring at underheated periods should be intercepted, cooling breezes should be utilized in overheated periods. Calculations based on rate of air-flow through a building in combination with inside flow patterns may be used to determine location, arrangement and sizes of openings.

Indoor temperature balance can be achieved to a certain degree with careful use of materials. Both time lag and insulation characteristics of materials can be utilized for improved indoor conditions. The criteria for balance are: minimum heat-flow out of building in wintertime; minimum heat-gain in the structure during the overheated period.

Opaque Materials and Indoor Temperature Balance

The sinusoidal fluctuating daily temperature loads as they percolate through the structural elements become distorted in amplitude and are delayed in time. Both these functions of the material can be utilized favorably to approach balanced conditions at the interior of a structure. This technique is demonstrated for a particular case that follows.

The "shift in phase" effect pro-

vides the leeway to delay outside impacts from heat load periods to a cooler time phase, and to transmit the nighttime low temperatures to the daytime heat peak. Generally it can be said that in zones of high daily variation, an approximate half-day time-lag shift (that is, the delay of night coolness to the day and the day warmth to the nighttime) will result in thermal balance. However, as the sun's impact heats the various surfaces at different hours, the problem has to be studied in detail.

Such an analysis is applied for Phoenix, Arizona summer conditions (July 21, at clear day, average temperature conditions). The sol-air temperature impacts on the differently oriented surfaces are indicated in Figure 4. Here the accumulated heat load concentrating at the early afternoon hours is evident. In order to shift the impacts to cooler periods different exposures required different time lags. The heaviest load falls on the horizontal surface (roof), needing a shift of 11 to 12 hours. The load on the east exposure would need from a minimum 12 to an optimum 17

hour shift to avoid delivering its heat during peak hours, which indeed would be an extreme requirement. Therefore, the practical solution is to have no lag at all for the east, and to let the impact be felt at the inside while the daytime temperatures are still low. For the south side, the desirable shift is minimum 7 hours, optimum 10 hours. The west side which receives the heaviest load among the wall surfaces should have a minimum lag of 5, an optimum shift of 10 hours. The north wall has the least importance with regard to lag characteristics, however a 5 to 10 hours' delay helps somewhat in the daily heat distribution. The sol-air effect distribution delayed by optimum time lag requirements is shown in Figure 5.

A summary of the desirable time lag characteristics is illustrated in Figure 6 for Phoenix, Arizona. A schematic building is placed in center. The radial lines refer to the hours. The advantageous lag characteristics for the main orientations are indicated with arrows.

continued on page 13

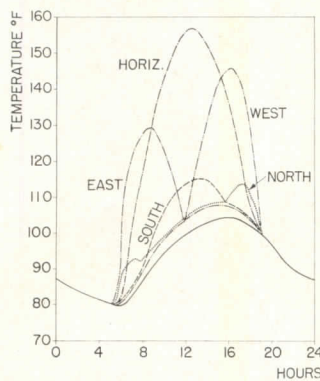


Figure 4: Sol-air impacts on surfaces of house in Phoenix

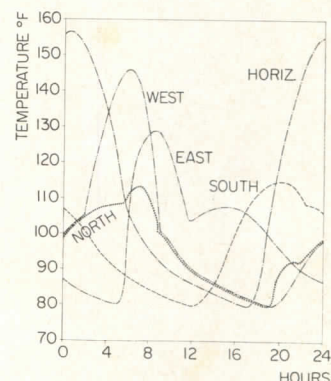


Figure 5: Desirable shift in sol-air impacts in Phoenix

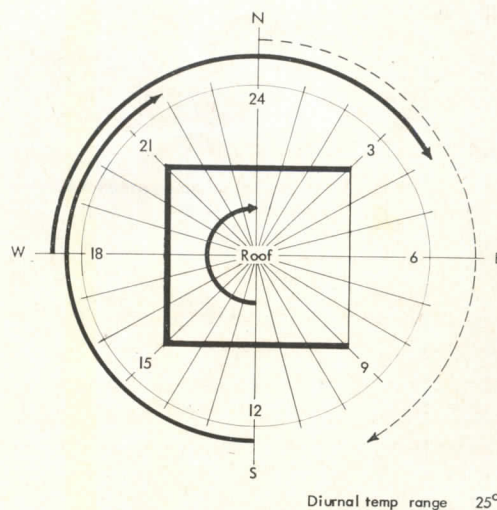
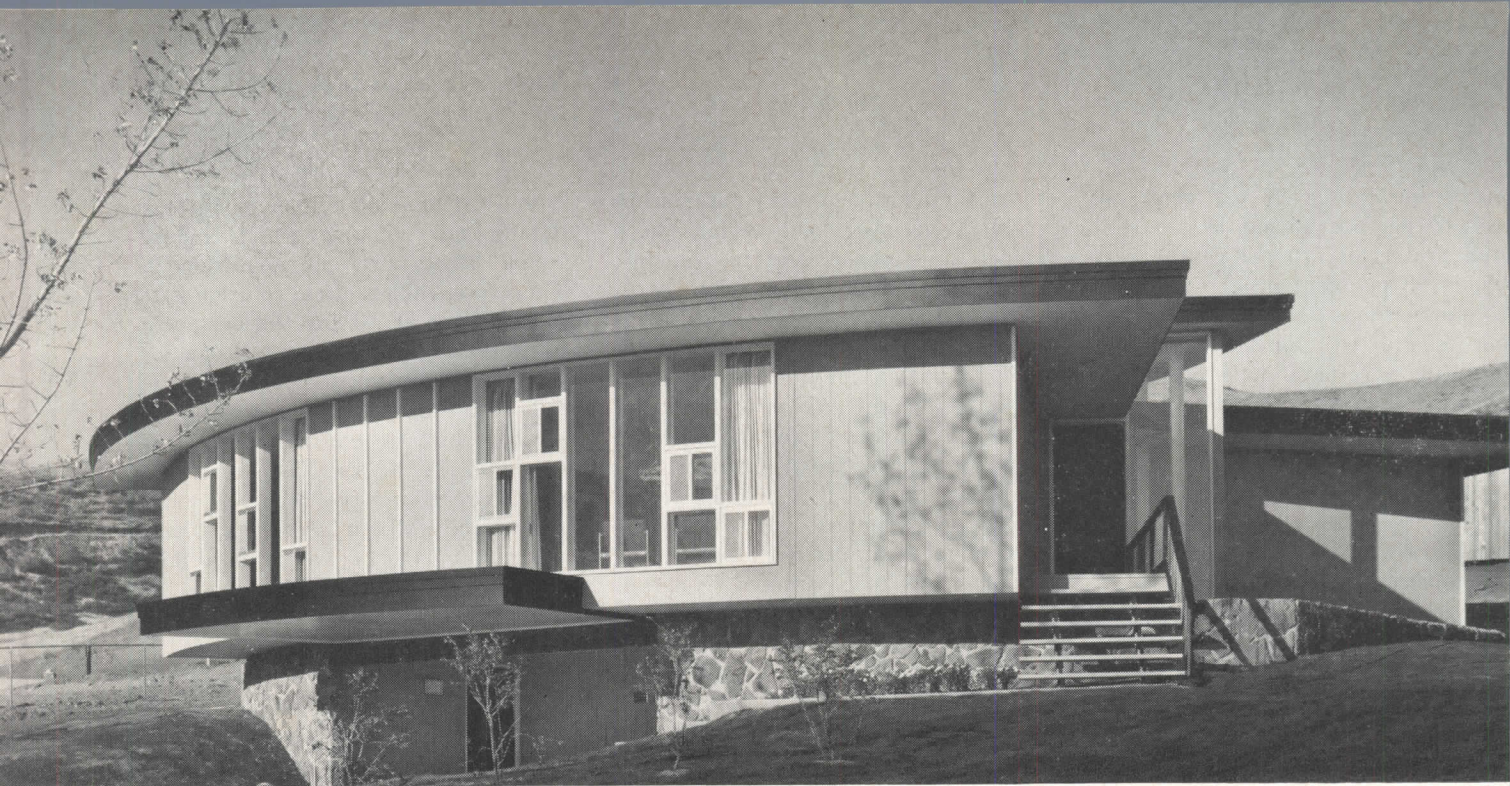
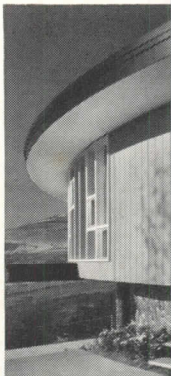
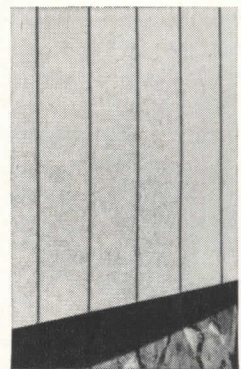
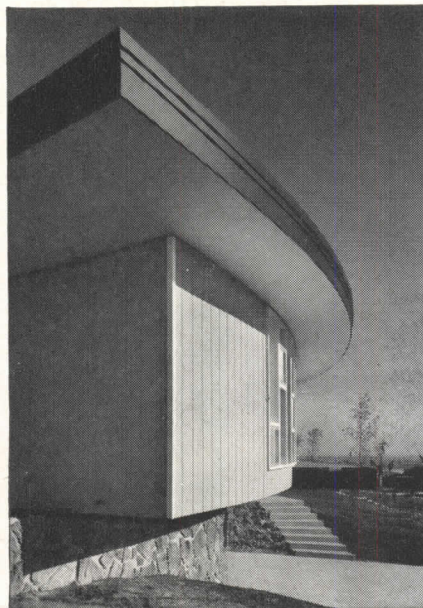
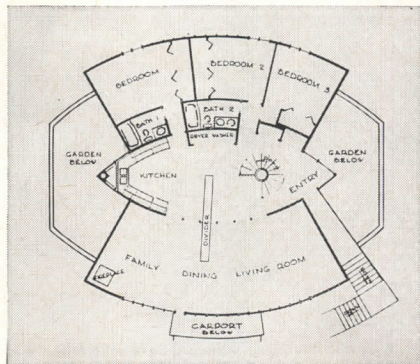
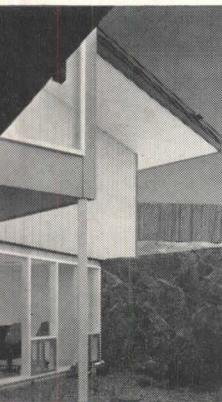


Figure 6: Desirable time lag characteristics of differently oriented surfaces



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In Phoenix the large daily temperature variation generally calls for heavy walls, with relatively little importance on the north, and with no lag requirements on the east. The delay effect of the roof in the hot-arid region is, however, a task difficult to fulfill, although extremely important.

The calculation method for balanced insulation effect is illustrated for Phoenix, Arizona in Figure 7. In the middle of the graph is the plan of the structure; at each side the hours of the day are indicated. The winter and summer sol-air temperatures are charted on unfolded elevations. The temperature curves, computed for sunny days at average conditions for light surfaces, are related to winter (dotted sections) and summer (vertically-lined) comfort conditions. The section of the structure is shown at the bottom to indicate roof impacts.

To illustrate difference in heat loads for an "orthodox house," and one controlled for climate balance, the "orthodox house" was assumed to be one of 1,225 square feet, insulated wood frame construction, with approximately 20 per cent window area distributed equally relative to the floor surface.

For the "balanced house" evaluations the same net proportions in wall, floor area, and glass surfaces were used.

The climate balanced house was achieved by orientation, overhangs and shading, masonry walls, ventilated roof construction, weather stripping, and ventilating appliances.

In summer the east wall brings 5 per cent, south 5 per cent, west 6 per cent and north 6 per cent heat gain. Window areas on the east account for 5 per cent, south 22 per cent, west 4 per cent, north 4 per cent of the total incoming heat. Heat gain through the roof amounts to 13 per cent, through infiltration 12 per cent, through doors 1 per cent, heat created indoors 7 per cent.

The daily heat behavior of the balanced structures in Phoenix can be reduced from the photos. The arrangement of openings (east 80, south 20, west 20, and north 20 square feet area) takes care of sol-air temperature effects. The gardens lower temperature loads (here conservatively taken as -5°F at peak values). A carport shades the west wall. The summer peak load of the orthodox house (40,513 Btu) is reduced to 17,794 Btu.

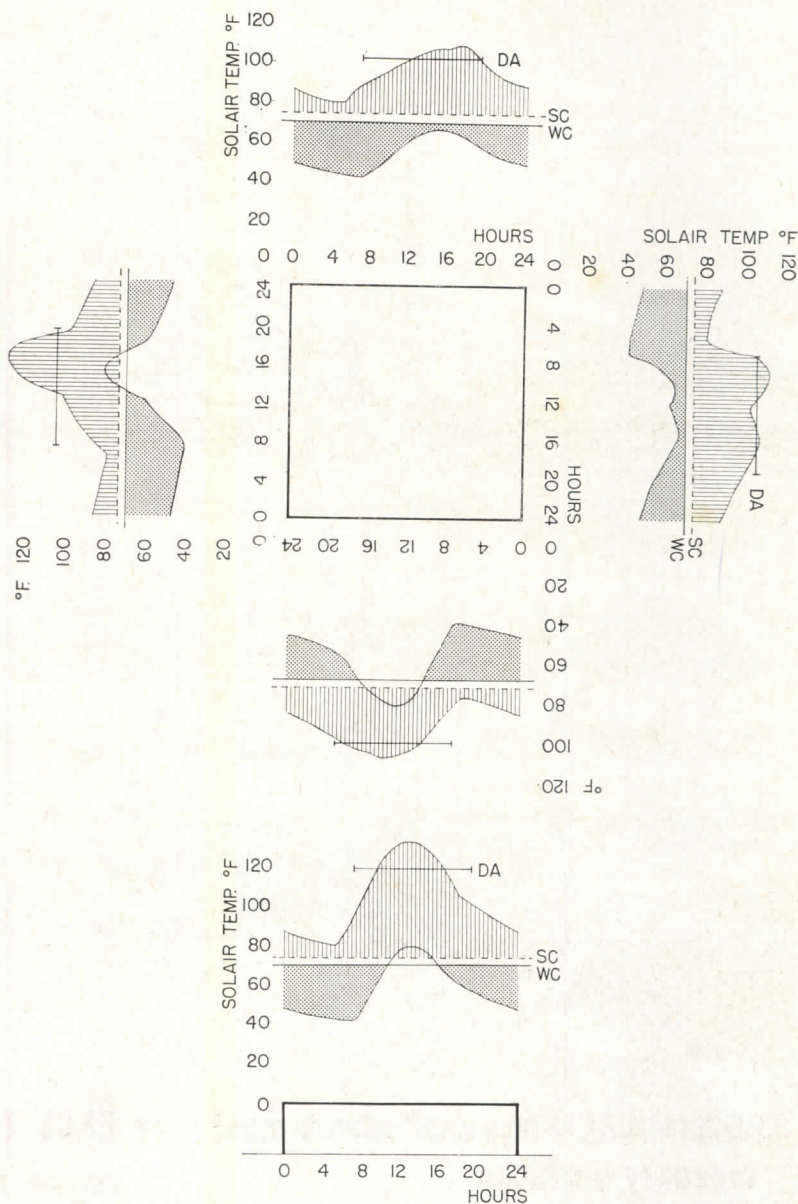


Figure 7: Sol-air impacts on various surfaces for summer (vertical-lined areas) and winter (dotted area)

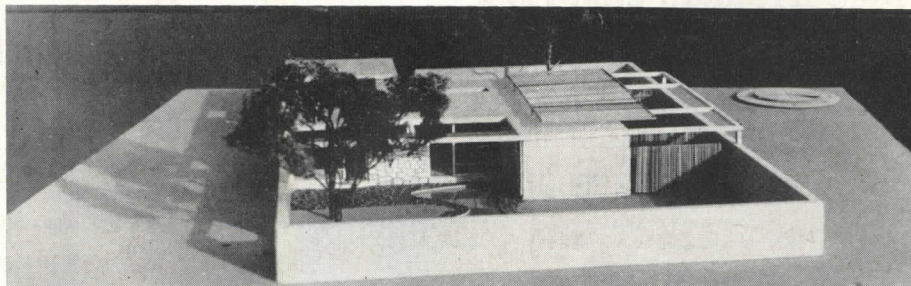


Figure 8: South view of climate-balanced house in Phoenix

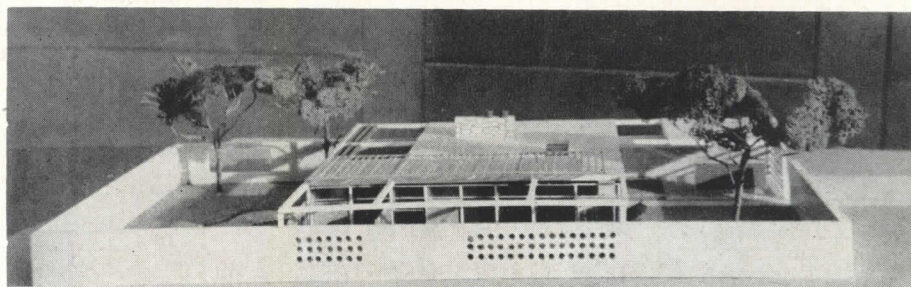


Figure 9: East view of climate-balanced house in Phoenix

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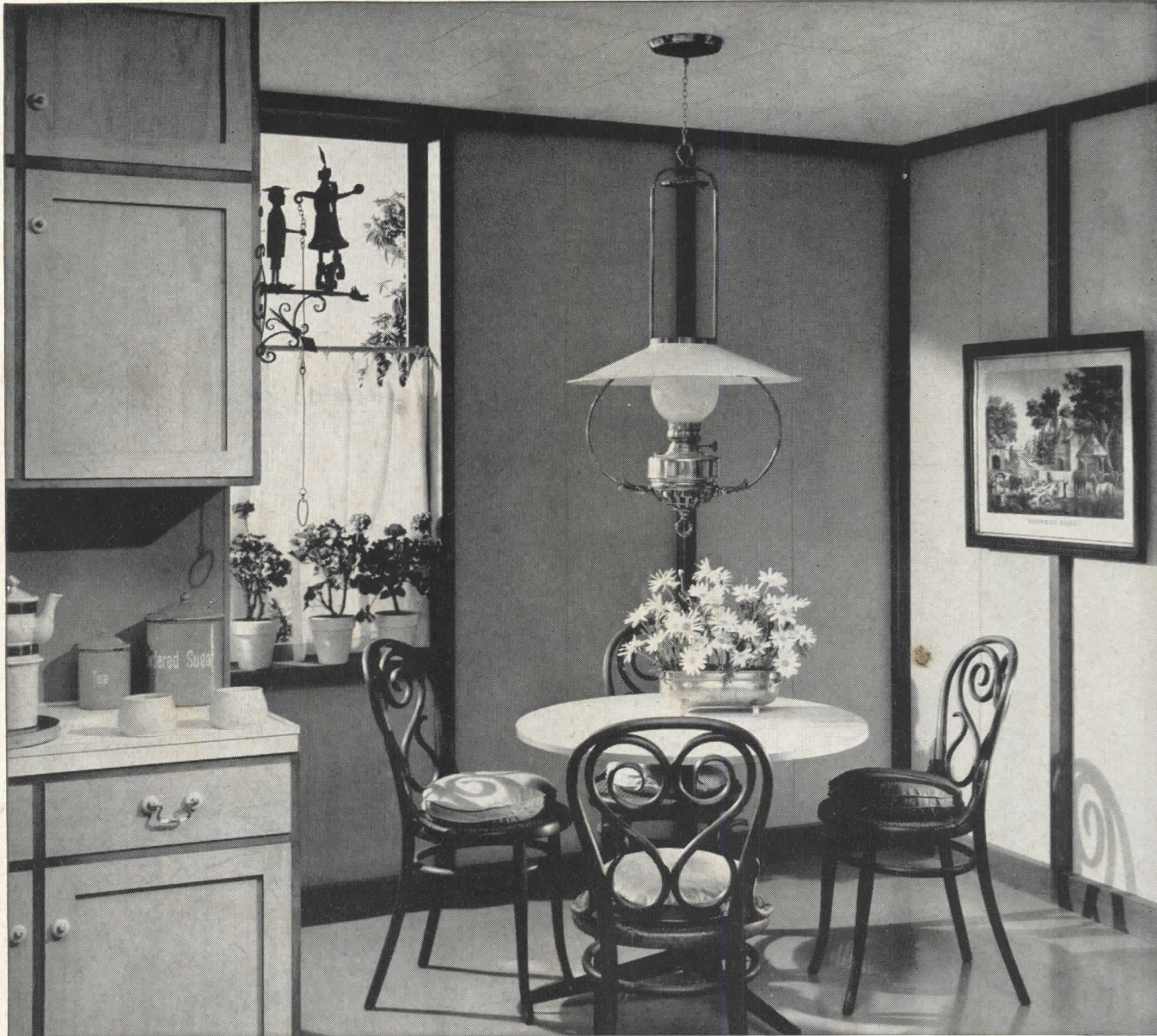
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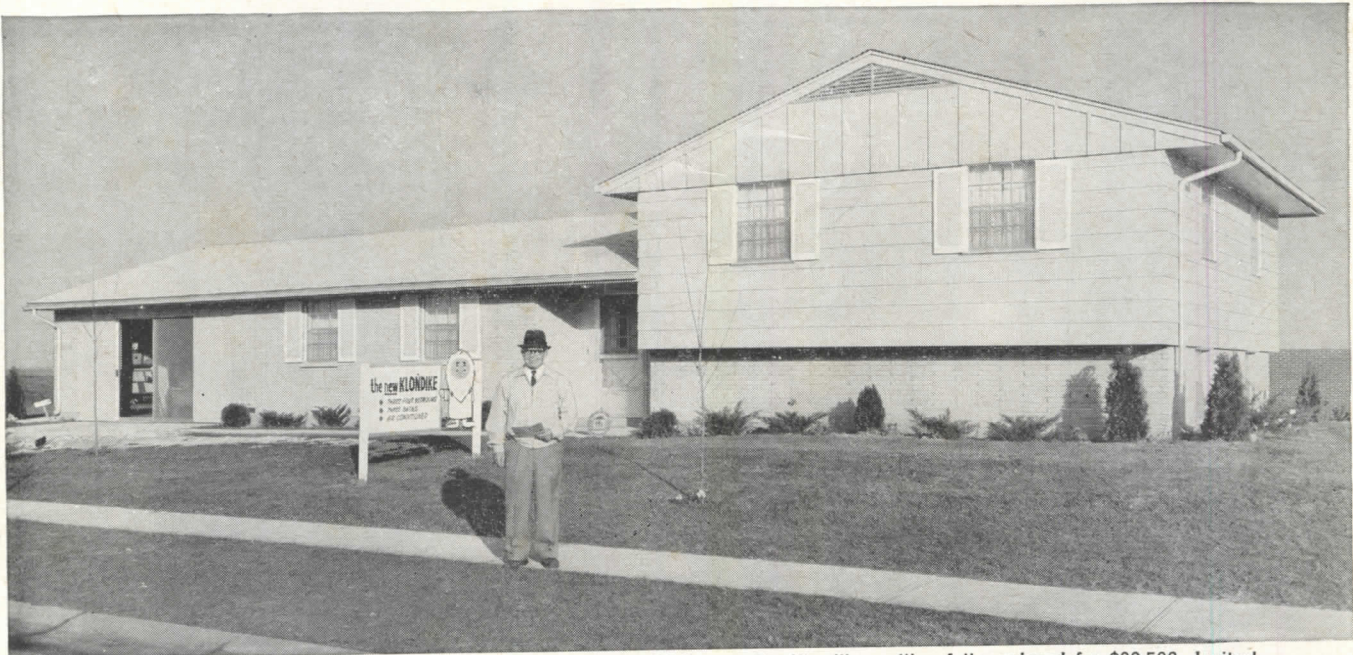
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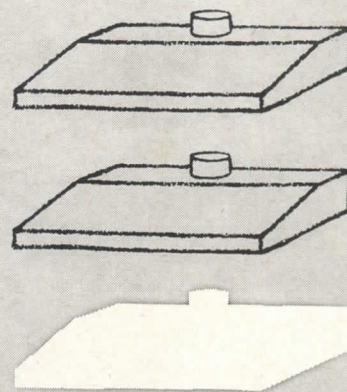
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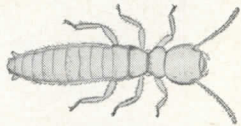


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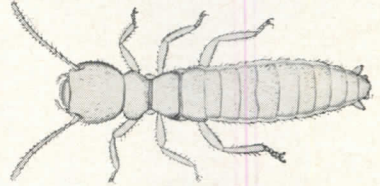
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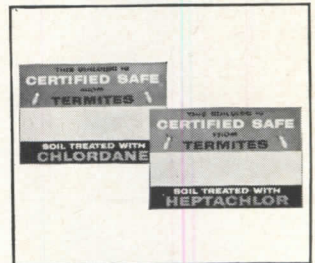
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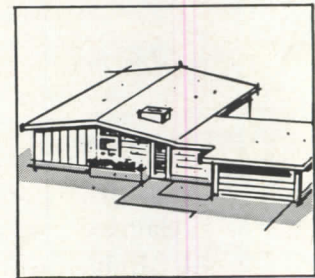
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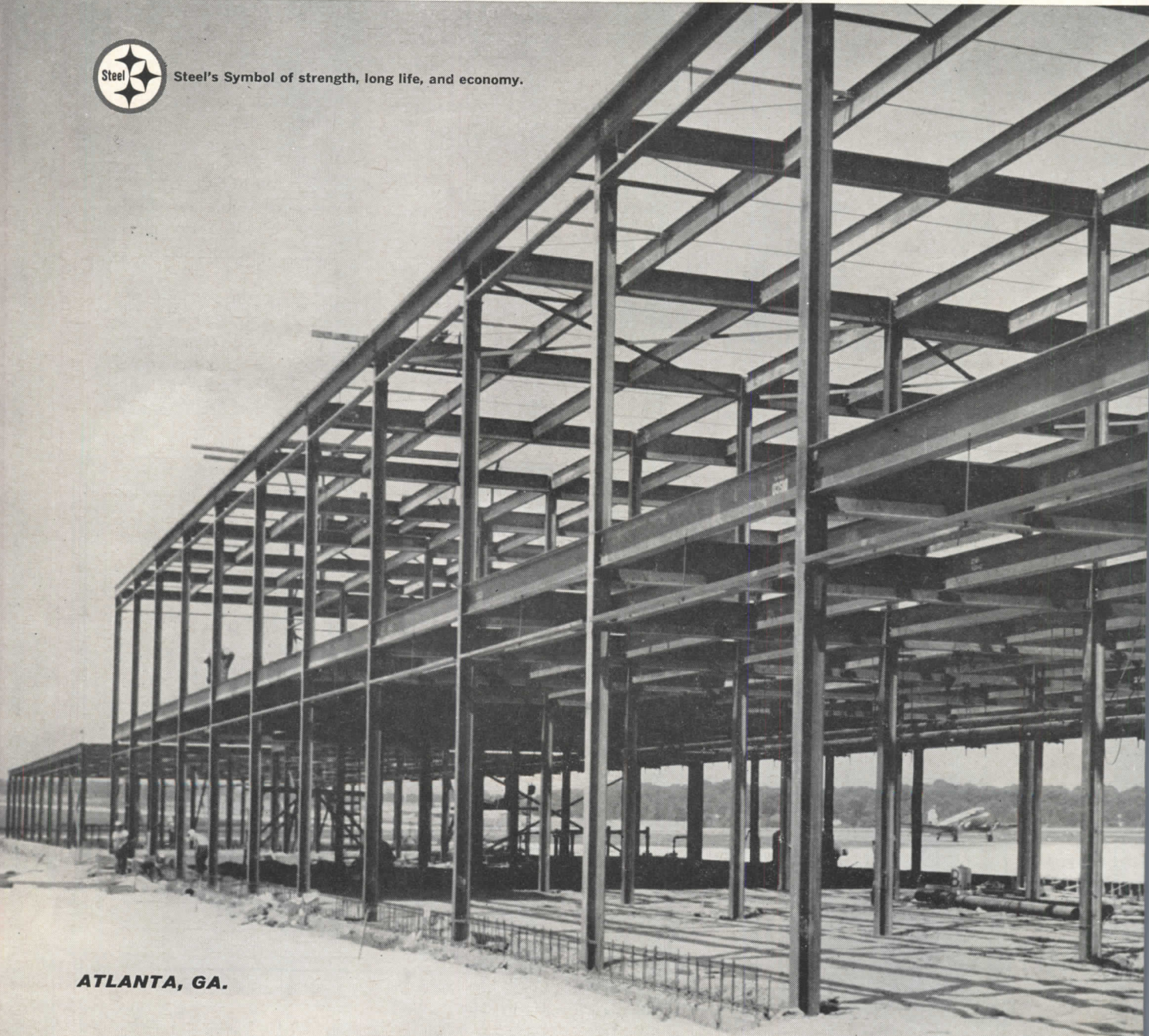


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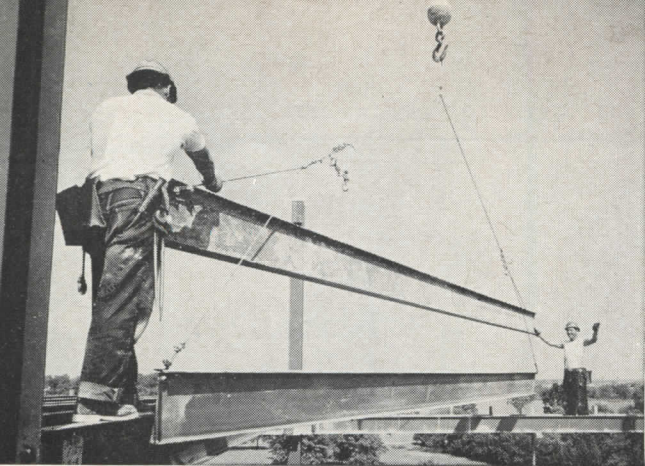
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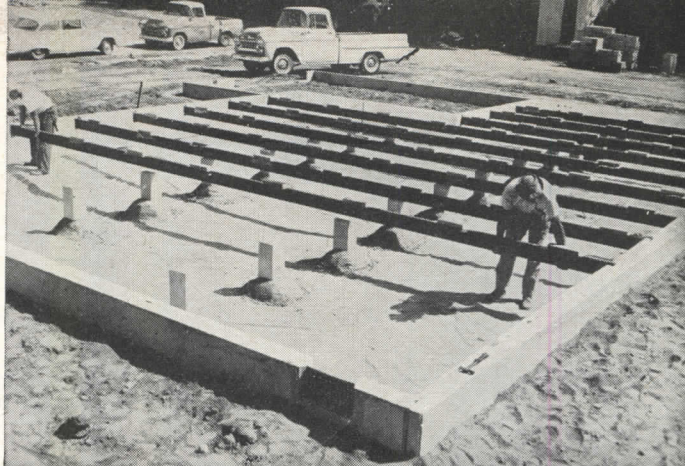
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BALTIMORE, MARYLAND

In the 9-story 11 Slade Apartments, a Mullan Contracting Company project in Baltimore, secondary floor members (12" Junior Beams and 14" Light Beams) were embedded in reinforced concrete girders. These were formed with removable Junior Channels spanning between columns and supporting secondary beams. Cast iron "K-Clips" were then hooked over the top flanges of the Junior Beams, and plywood forms placed on the protruding ends of the clips. After curing of the concrete girders and the

floor, K-Clip ends were knocked off, allowing the plywood forms to drop. Construction efficiency and re-use of forms saved considerable money and time—four days to complete a floor instead of the usual six. Architect, Joseph Foutz; Structural Engineer, Edward S. Klausner; Associate Engineer, Wallace & Gutberlet.

SOUTH BEND, INDIANA

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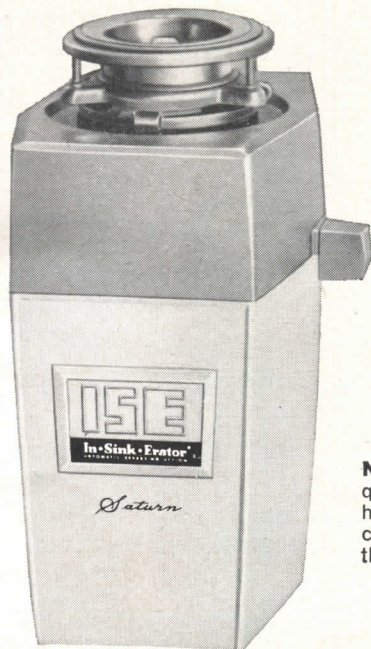
A real persnickety customer, this one! She knows the innards and performance of practically every disposer. But she's hopelessly in love with the handsome Saturn. Reason: Saturn's wealth of exclusive features: exclusive, patented Automatic Reversing Action that *doubles* shredder life and prevents jams • Exclusive Detergent Shield that guards against corrosion • Exclusive Polystyrene Sound Barrier for kitten-quietness. Only In-Sink-Erator has them all—and Mrs. Quality Sleuth knows it!



3: Name Dropper

A bit snooty, but likeable. Likes to surround herself with celebrities, famous names, and prestigious household goods. So naturally, she cottons to In-Sink-Erator—first name in garbage disposers.

She adores the Saturn's striking beauty and fine design. They say nice things about her own taste and judgment. Her magazines—McCall's . . . House Beautiful . . . Better Homes and Gardens . . . Vogue, plus Queen for a Day on network TV—confirm In-Sink-Erator's upper status.



Saturn 707

Offers greater reliability . . . more features . . . better warranty . . . and bigger value than any other comparable disposer. Installs quickly and easily.

NOTE: 8 Models to choose from! There's a top-quality In-Sink-Erator priced exactly right for any home you design. You can depend on it to eliminate complaints and costly call backs. And it helps build the reputation you're so proud to have!

25th
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In • Sink • Erator ISE[®]

The originator and perfecter of garbage disposers

In-Sink-Erator Manufacturing Company • Racine, Wisconsin

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Looking for ways to build better houses at lower costs? Use colorful Gold Bond Prefinished Asbestos-Cement Panels. These A/C wallboard panels come in large sizes to speed erection and reduce costs. Perfect for board-and-batten or any panelized construction. A choice of two finishes—Gold Bond Plasti-Clad in 6 regular and 24 special colors, guaranteed for 10 years against blistering, peeling and crazing; or weather-resisting, protective Plasti-Crylic® finish in 6 colors. Gold Bond Prefinished Asbestos-Cement Panels are rot-

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Gold Bond materials and methods make the difference in modern building.





The Princess phone contributes to the beauty and utility of this unique kitchen which features an indoor-outdoor grill beside the indoor range. For help in telephone-planning your homes, call your Bell Telephone Company Architects' and Builders' Service. See Sweet's Light Construction File, 11c/Be, for other residential telephone installation ideas.

YOU CAN ACHIEVE striking, dramatic effects by providing for built-in telephone outlets and concealed wiring. They protect interior beauty and offer flexibility for a family's changing telephone needs.



BELL TELEPHONE SYSTEM

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PLANNING FOR QUIETER, "SOUND-CONDITIONED" HOMES

Acoustical consultants discuss today's available means and techniques for noise reduction

Lewis S. Goodfriend and R. L. Cardinell

An unfortunate by-product of our civilized way of life is an ever-increasing production of noise. A city dweller, attempting to escape the din of city noises, buys a home in the suburbs and is often doomed to disappointment. He merely exchanges one set of annoying sounds for another. Certain sounds indigenous to city locales may be unnoticed in the suburbs, but a great nuisance in the suburbs where total quiet is often expected. They stand out to greater extent there than they do in the city, where the level of general background noise is considerably higher. Modern home construction has provided us with many things of merit—efficiency, convenience, comfort—and architects and builders have striven to keep costs down in the face of spiraling inflation. However, one factor has either been generally overlooked or given only minimum attention, and that is freedom from annoying sounds. This is rather surprising in view of a growing public consciousness of noise and well-publicized efforts at noise abatement which have been taking place over the past few years.

If a man's home is his castle, it could be a fortress against annoyances of all kinds, disturbing sounds included. Indeed, the drafty, cold, austere castles of old were no doubt considerably less noisy than today's average home simply because modern noises did not exist. By their size and structure these edifices allowed up or blocked the transmission of those sounds that were desired. Floors were covered with rushes, sometimes to a depth of 2 feet, and walls were covered with tapestries and hangings to block the cold. They also contributed sound absorption. Dungeons were located far enough away so that prisoners' screams could not be heard. Kitchens were not equipped with dishwashers,

mechanical garbage disposers or food mixers. Music was provided by a minstrel not a 50 watt amplifier. There were no trains, planes, trucks or motorcycles to create intrusive noises.

Despite all this, no one today would like to return to those times. But what can be done to alleviate the constantly increasing assault on the nervous system by the sounds of today? The following partial inventory of noise annoyances may serve to indicate what Sir John Q. Homeowner is up against.

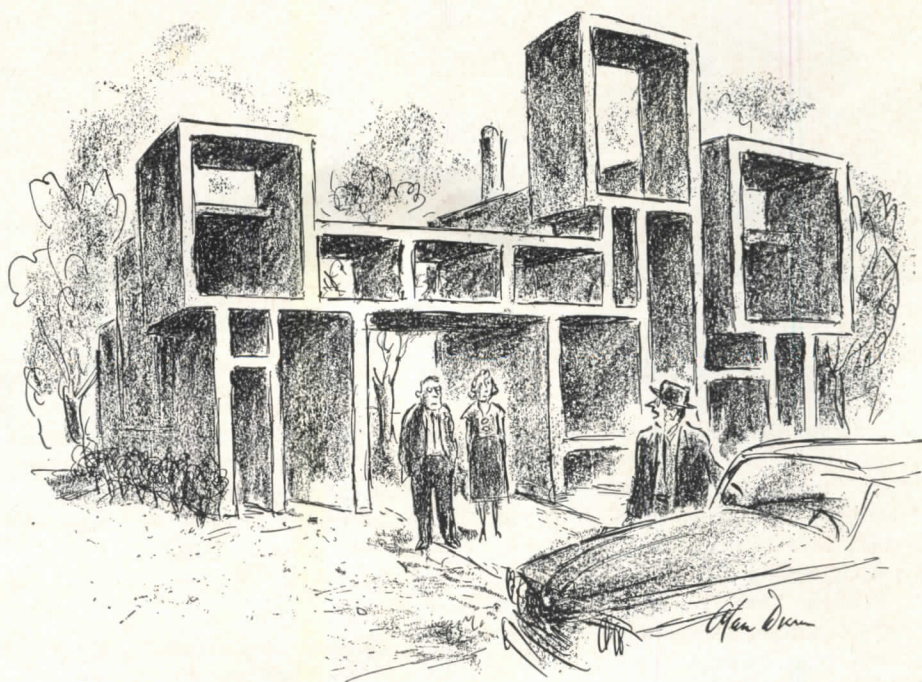
The outer walls of his castle are assailed by the sounds of transportation: planes, trains, automobiles, trucks, ambulances and fire equipment; by the sounds of his neighbors: children, pets, power lawn movers, radio, television, parties and family fights; and by sounds of na-

ture from birds and insects to wind and thunder storms.

Within the fortress walls, Sir Homeowner has additional noise to contend with. Noise sources within the home include dishwashers, garbage disposers, kitchen ventilators, food mixers, oil burners, air circulating systems, plumbing fixtures, radio and TV sets, musical instruments, air conditioners, the children, and possibly at times Lady Homeowner. (Of course, she may be annoyed by noise also, in which case Sir John belongs on the list.)

To battle intelligently with an enemy it is well to examine his modus operandi before deciding on a plan of attack. Sound originates at a source and travels to the listener by means of a path of some sort—through the air, through the building

continued on page 31



—Drawn for the RECORD by Alan Dunn

"One thing more—it still takes a heap o' livin', you know—"



Room design by Marvin Culbreth, N.S.I.

Charter pecan paneling warms a room, too

... and you don't need money to burn. Enough for 12' x 8' wall costs only \$65. Here's a tawny glow that invites a party or a festive family meal—a warmth that doesn't come from the fireplace alone. The walls radiate a golden air like summer sunlight. That's Weldwood® Charter® Pecan. A natural background for entertaining—or relaxation. A relative of hickory, rich in tawny swirls and figures, its full beauty is revealed by the Weldwood 18-step finishing process. And protected by

genuine lacquer, it will stay lovely for a lifetime. That's why Weldwood paneling (100 different types available) is such a beautiful investment. Look for this name on the back of each panel.

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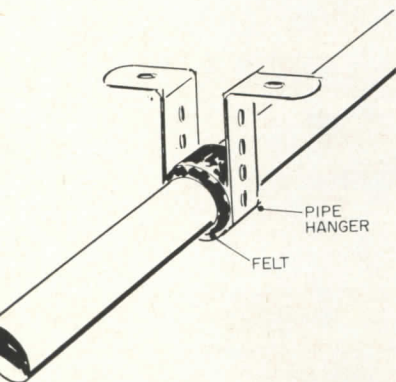
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structure or a combination of both. The basic plans of action, therefore, are to quiet the source, to operate on the path of travel or to protect the listener with a protective shield.

An example of the last mentioned method of combatting noise is the use of sound reducing ear plugs. Although these are often used by city dwellers, they have certain drawbacks, and are only recommended under extreme circumstances. Since anything that hampers the individ-



Seal ALL pipes from pipe hangers

is to be avoided, we shall consider only the first two plans above mentioned.

It should be mentioned parenthetically, however, that there is a fourth plan of battle against unwanted noise which has been promoted for certain spaces. This is, in a sense, a flanking attack or a feint. It consists of deliberately providing another noise which will serve to mask or cover the annoying sound, making it less obtrusive. This plan has merit in certain instances, but we feel it should be out of place in the home. Noise is not equal silence.

Distance Reduces Sound

Obviously, it is difficult to do anything at the source about the exterior noises that impinge on the home. One cannot stop traffic, exert control over the neighbors, or otherwise muffle these sources outside the home. There remains, then, the path to be considered.

Adding space between a sound source and the listener is advantageous. Theoretically, every doubling of the distance results in a reduction of 6 decibels in sound pressure level. Wind and other factors can vary this amount greatly. To avoid a complicated discussion of techniques of sound measurement,

decibels, etc., let it be said here that in general a reduction of 10 decibels may be considered as cutting the apparent loudness in half. An individual who builds his home adjacent to a major highway or off the end of an airport runway is asking for trouble, and often has it. The point of all this is that the house should be located as far as possible from the sources of annoying sounds.

Any Openings Spread Noise

Sound travels with great facility through small cracks and openings. The extent of this is a surprise to many people. For instance, a one square inch hole in a wall of 100 square feet will reduce the isolation of the wall by about 50 per cent. Doors and windows must seal tightly to eliminate such sound leaks.

Sound will pass through window panes with greater ease than through normal exterior wall construction. It is advisable to avoid large expanses of window on the side of a house facing annoying noise sources. Double glazing of windows is one method by which sound transmission along this particular path may be reduced. However, double panes such as are sold for thermal insulation are not particularly effective sound barriers. There should be a larger air space. Certain types of laminated glass recently appearing on the market show great promise in this respect. Under extreme conditions, well sealed storm windows are indicated.

Planning For Sound Control

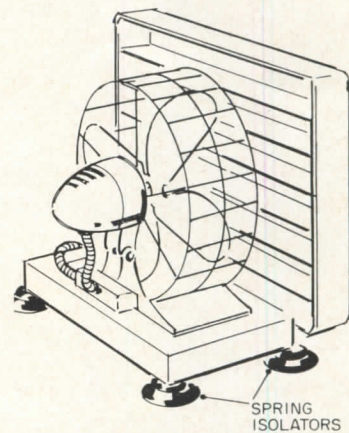
Many of the interior noises that assail the homeowner's ears can be greatly reduced through careful planning in the early stages. Today's compact floor plans tend to bring the noisy areas of a home in close proximity to the spaces where quiet is desirable. It is most disconcerting to hear a noisy toilet flush while eating in the dining room or entertaining guests in the living room. Therefore, the layout of the various spaces becomes important. The greater the distance that can be achieved between the living room and the kitchen, bath or powder rooms the less will be the difficulty.

At the same time these spaces need extra care in isolation measures, such as tightly fitting doors and good wall construction. Nowadays the dry construction wall is

rapidly replacing the use of plaster. The old fashioned plaster wall was a much more effective isolator of sound than many of the new ones. However, there are various methods by which the dry wall transmission loss can be increased to more than "just adequate," such as laminated drywall techniques.

Back-to-back electric outlets on opposite faces of a wall afford passages for sound. So will a thin metal medicine cabinet recessed in the wall. These can be avoided in the planning or control measures introduced, such as coating the backs of medicine cabinets with damping compound.

The popularity of basement playrooms presents problems in the transmission of sound to the first floor areas. Often a ceiling of acoustical tile installed on furring strips is expected to be the answer. Unfortunately, this is not the case. Acoustical tiles absorb sound but also allow the sound to pass through, and although some slight reduction of noise may be observed in the upstairs area, it is not nearly as great as might be expected. A much more effective treatment is a ceiling of taped gypsum board. (Non-porous



Mount attic fans on elastomer mounts—floor mounting shown

surfaces are required for sound barriers.) Then add acoustical tile for controlling the level of sound in source room.

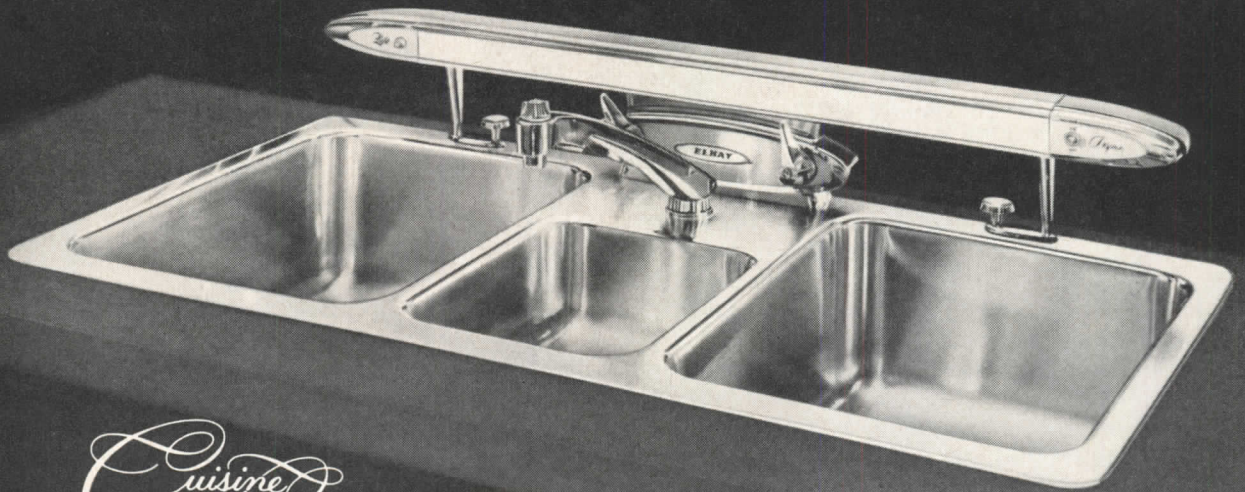
Impact Noises

Between first and second floor areas there is generally a plaster or gypsum board ceiling, a sub-floor and a finish floor. Normally there are no problems connected here with the air-borne sound transmission presented in the average home. How-

continued on page 33

In Award Winning 'Record Houses' It's Elkay 9 to 1!

Record House designers have specified Elkay 33 times in 4 years, no other brand more than 8. Among stainless steel sinks alone, it's Elkay 9 to 1. Elkay's exciting display of fashion and function is one reason. Another is selection—over 200 models in 5 price lines, a sink to match any budget. Little wonder Elkay is the trend-setter. Write for free, full line catalog.



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by **ELKAY**

ELKAY MANUFACTURING COMPANY

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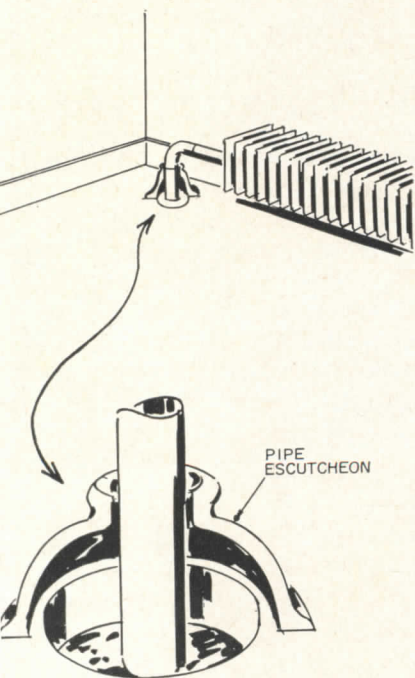
BROADVIEW, ILLINOIS

© 1963 ELKAY MFG. CO.

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er, there can be annoyance caused by the impact sounds of footsteps—particularly with the current styles of ladies' high heels. Here, the annoyance can be muffled by requiring the removal of the shoes—which is a most unlikely solution. The simplest way to operate on the sound path is to use well-padded carpet on the second floor. Resiliently hung ceilings are also effective but are seldom used in home construction because of expense.

To sum up what has been said so far: noise control begins in the early planning stage with the room layout and continues with the construction ensuring tight fitting doors and windows, adequate walls and absence of sound leaks. A degree of supervision is required throughout these stages because most contractors and sub-contractors understand little about the nature of sound or what measures are required to control it. As pointed out earlier in connection with exterior noises, a great deal of sound can leak through small openings. Such leaks are quite prevalent around piping. Oversized holes made in walls to admit pipes into a room and covered with escutcheon plate convector covers, or fan-coil unit covers. Although one cannot see into the opening, the escutcheon allows sound to pass freely into the



DON'T MAKE PIPING HOLES OVERSIZE!
For increased sound isolation, pack hole with glass fiber wool—maximum isolation is obtained by capping glass fiber with high-temperature cement

space with the possibility that it will emerge somewhere else in the house. Care must be taken to seal all such openings with grout or caulking compound.

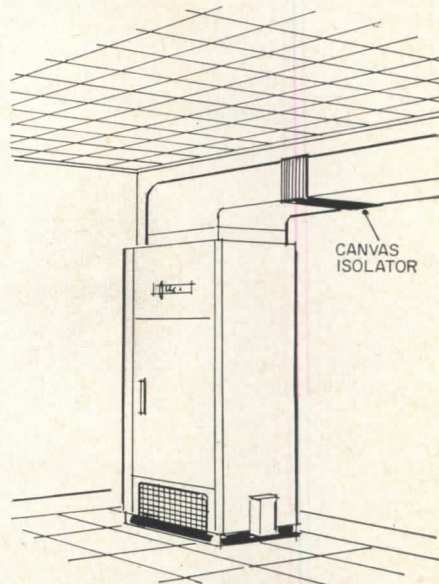
A further point should be brought up at this time: the use of sound absorbing materials such as acoustical tiles. Although these materials do not block the passage of sound to any great degree, they are useful, in fact often essential, in a noise reduction program. No wall is absolutely "soundproof." At best, a wall reduces the sound energy which passes from one room to another. If neither room has much absorption in it, the room reverberation, in effect, amplifies the sound that is present or which arrives through the wall. Most living and bedrooms contain rugs, upholstered furniture and draperies which all contribute sufficient sound absorption. Other spaces such as kitchens, playrooms and baths could benefit by the addition of acoustical ceiling.

With the structure of the house planned and built there are a number of mechanical noisemakers installed which need consideration. Many of these can be selected on the basis of being the quietest operating of several acceptable styles or models. Included in this category are oil burners, garbage disposers, toilets, kitchen or bath exhaust fans and refrigerators. Dishwashers, stainless steel sinks and other appliances involving large expanses of sheet metal can often be quieted by the application of damping compounds to the underside of the metal surfaces. It would appear that some manufacturers have taken steps to do just this.

It is advisable that dishwashers, and laundry washers and dryers be set against an exterior rather than an interior wall. In this position, near the supported edge of the floor structure, the vibration forces transmitted by the floor will be reduced.

Noise in Heating Systems

In warm air heating systems a fan is employed to move the air. All fans generate noise; some more, some less according to their design. The noise travels down the ductwork and emerges into the various rooms. Prefabricated sound traps or sections of acoustically lined ducts can be employed very effectively to reduce the amount of sound transmitted. Both



Provide vibration break with canvas on all hot air ducts at or near furnace on hot air systems

supply and return ducts must be considered because the noise will travel in both directions. Flexible canvas or asbestos cloth connections must be used at the furnace casing to avoid transmitting vibrations into the ductwork which will emerge as noise. Grills and registers can produce noise due to turbulences caused in the air passing over them, and should be selected for quiet operation.

While on the subject of ductwork it should be noted here that registers to various rooms should not be in close proximity on a common duct without a sound trap in between them. Air ducts form giant speaking tubes and allow sounds to pass freely from one room to another. Indeed, so efficient are they that one enterprising company is offering a loudspeaker to be installed in the ductwork so that every room will have music from a single hi-fi or radio.

Hot water heating systems employ circulating pumps which again are more or less noisy according to their design. It should be possible to choose one for quiet operation so that the sound is not carried along the piping.

Hot water systems sometimes develop annoying creaking sounds due to expansion and contraction of the pipes when they are solidly clamped to the structure. A simple remedy for this is to wrap the pipe with felt wherever it is clamped.

Equipment such as attic fans and
continued on page 36



Filite LUMINOUS CEILINGS BRIGHTEN APPEAL OF MEREDITH VILLAGE HOMES

Glowing ceilings of FILITE fiberglass diffuser panels are prospect-attracting features in the 155 homes of Meredith Village, \$6,000,000 residential development in Orange, California.

"We have included a FILITE ceiling installation in two baths in each home," Meredith Company representatives report. "Valuable merchandising aids, they highlight the quality and distinctiveness of our homes. They're a different idea in new home sales appeal.

"Because our homes are available in six split-level and two-story designs and 32 different floor plans, the ease with which FILITE panels adapt to all ceiling areas is especially valuable to us," they add.

FILITE panels are used exclusively in Meredith Village homes because "quality styling and constructional integrity is traditional with the Meredith Company". A product of FILON CORPORATION... FILITE panels

are superior in every way. Panels are "Luminous White" in color and reinforced with new "Water Clear" fiberglass for the ultimate in uniform light diffusion. Additional reinforcement with exclusive parallel nylon strands assures a *lasting look of lighting beauty.*

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Tappan Built-Ins—Automatic start/stop oven. Easy cleaning: lift-off doors, chrome lined ovens, removable spatter shield and oven bottom. Gas or electric.

'Fabulous 400'—'Instant built-in.' 2 ovens, eye-level controls, hideaway cooktop.

New Electronic Oven—cooks 10-pound roast in one hour, bacon in 90 seconds. Now under \$800.

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how to keep an apple



Market-wise fruit growers keep apples younger longer to catch top prices—retard ripening with activated charcoal. Maybe your product—food, chemical, drugs, or what have you—has an air about it (sh-sh-sh) and can benefit from processing, storing, or packaging with activated charcoal.

activated charcoal



Activated charcoal acts as a molecular sponge, purifies air, gases, liquids—recovers solvents—removes odors and impurities. Write for Bulletin L-362, Barnebey-Cheney, Columbus 19, Ohio.

Barnebey Cheney

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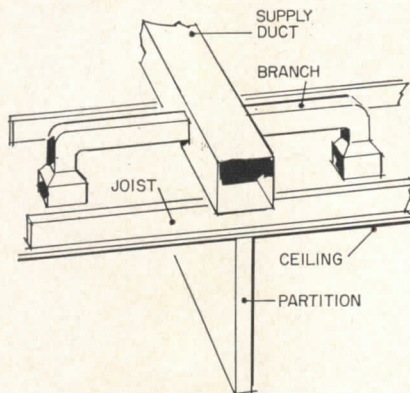
Sound Conditioning

continued from page 33

heat exchangers often induce vibrations into the structure which result in a generally pervasive noise. Resilient mountings will eliminate most of these annoyances.

Noise From Appliances

Two noisy pieces of apparatus are commonly brought into the home by the owner: a kitchen mixer and a vacuum cleaner. Noise from the mixer may be reduced by placing a soft rubber or felt pad between it and the counter top. In this way the sounding board effect of the counter will be reduced. No one has as yet effectively reduced the noise of a vacuum clean-



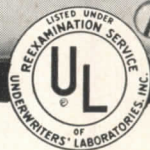
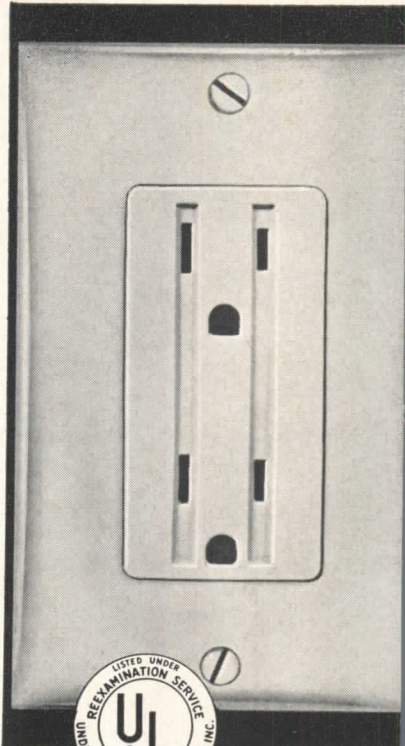
A typical duct installation, such as this conducts sound from room to room, and for good sound control should not be used. Avoid cross-talk problems between rooms by not using branches from a common duct that are directly in line—a glass fiber lined duct helps reduce cross-talk

er. However, if the homeowner wishes to splurge, he can have a built-in vacuum system with hose outlets in each room. The noise generating equipment can be located in the basement or elsewhere.

The hubbub, clatter and roar of modern times is constantly on the increase and the point has been approached where people will be willing to pay a premium for peace and quiet, particularly in the home. At least one forward-looking developer, conscious of this fact, is selling "sound-conditioned" homes in which considerable thought has apparently been given to many of the items mentioned.

The means and techniques of quieting are here and if the prospective homeowner demands it we can achieve restful quiet.

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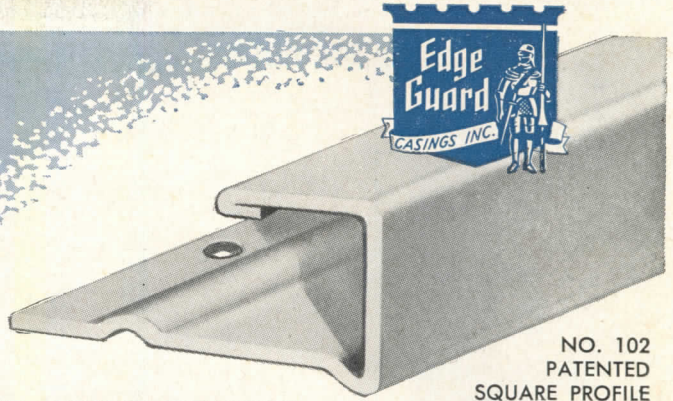
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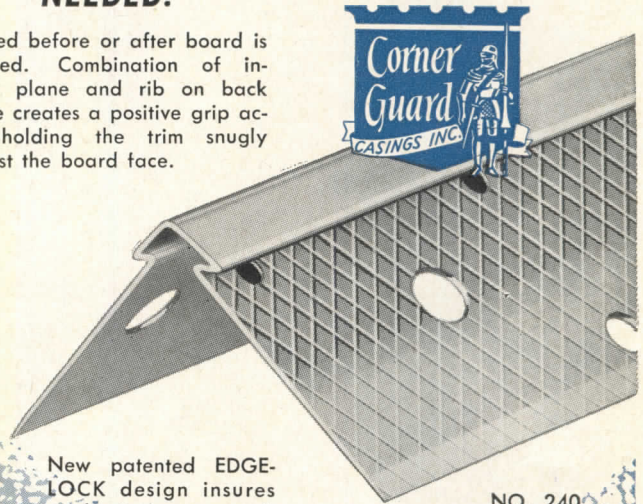
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New patented EDGE-LOCK design insures mechanical cement adhesion by means of cement holes under the nose and undercut design.

NO. 133 "L" SHAPE Same patented EDGE-LOCK features as No. 240 corner guard.

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NO. 106

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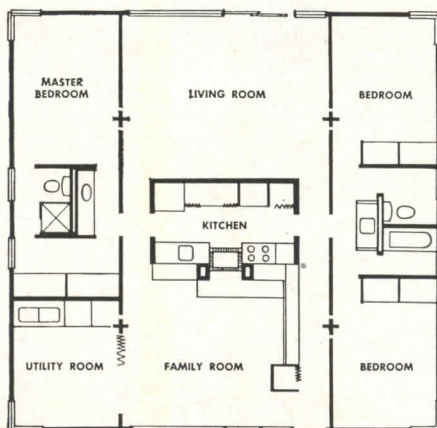


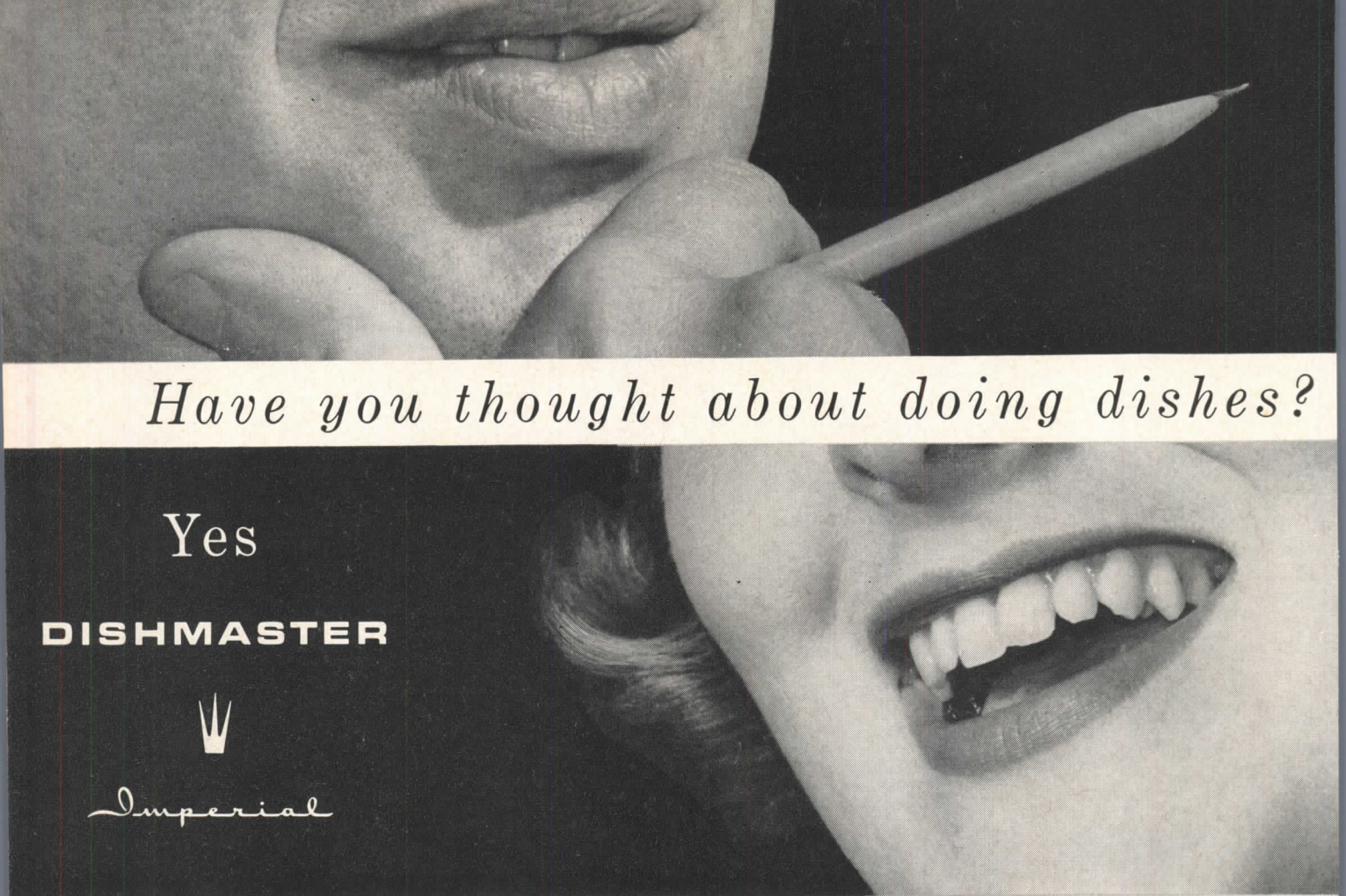
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A home that states a new tradition in wood. Available to courtesy of Living for Young Homemakers, a program of the National Lumber Manufacturers Association, Research and Design Program.





Have you thought about doing dishes?

Yes

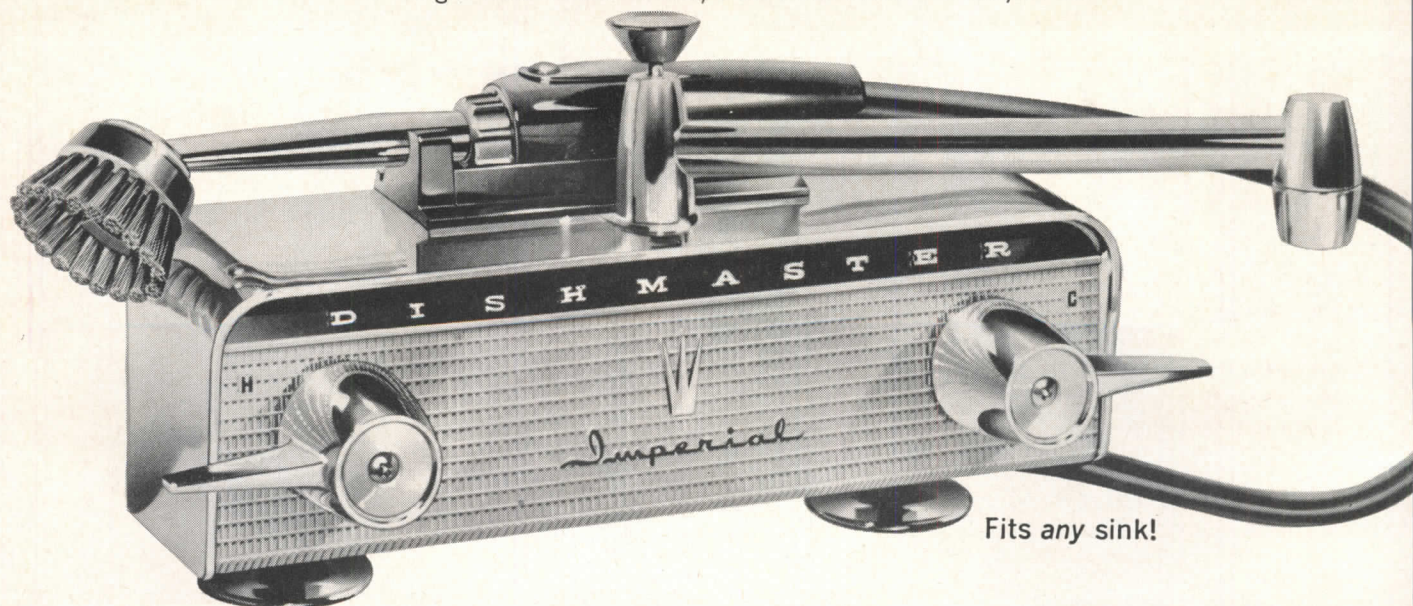
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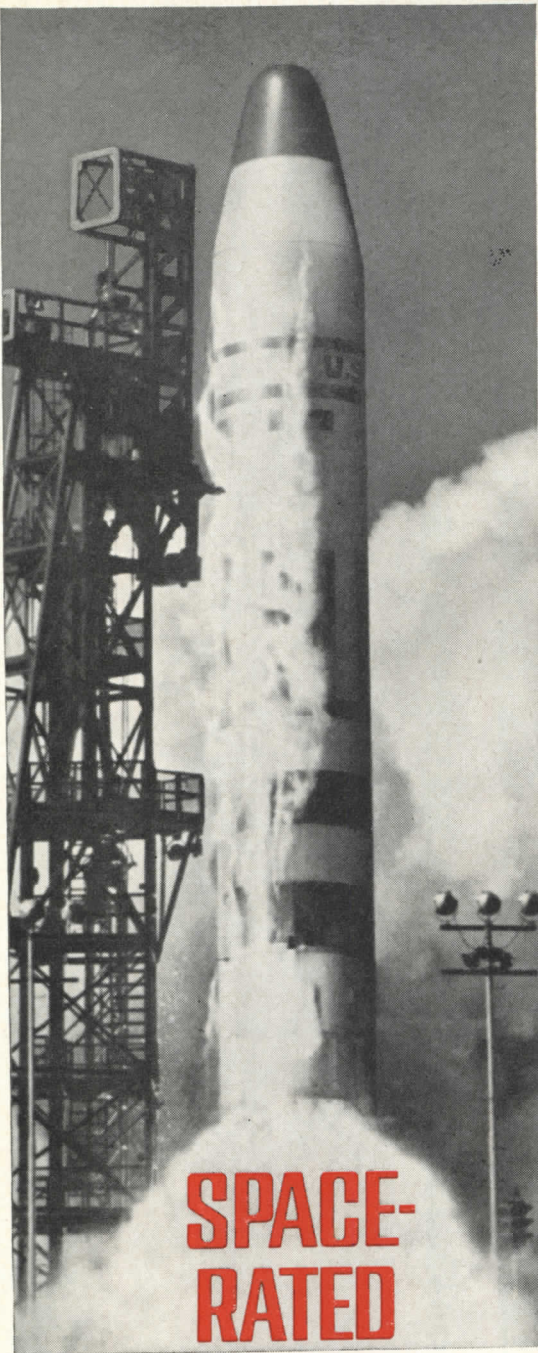


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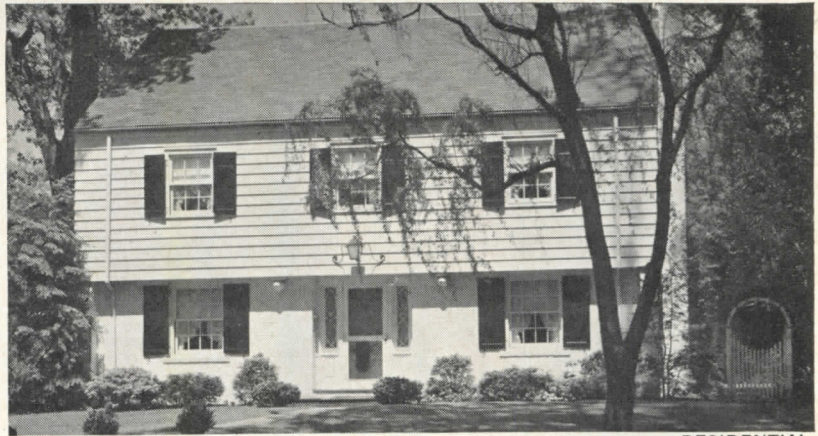
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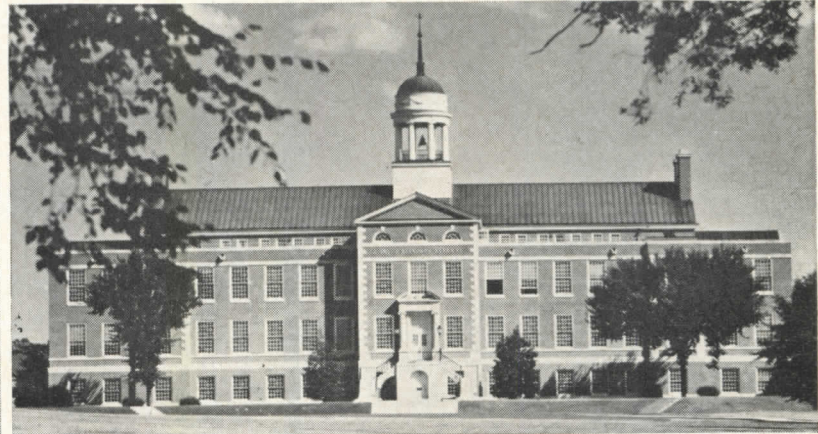


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makes water flow like champagne

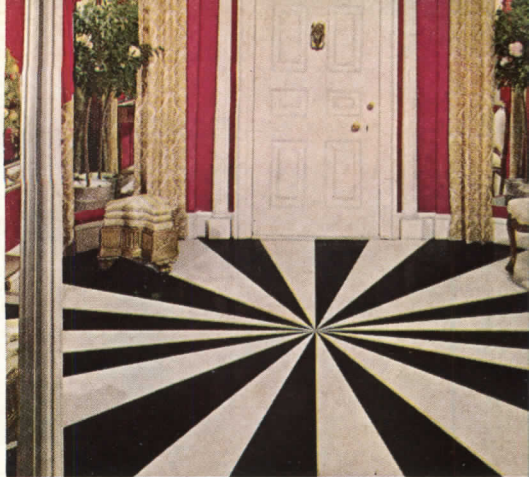
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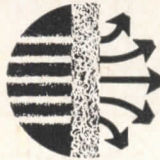
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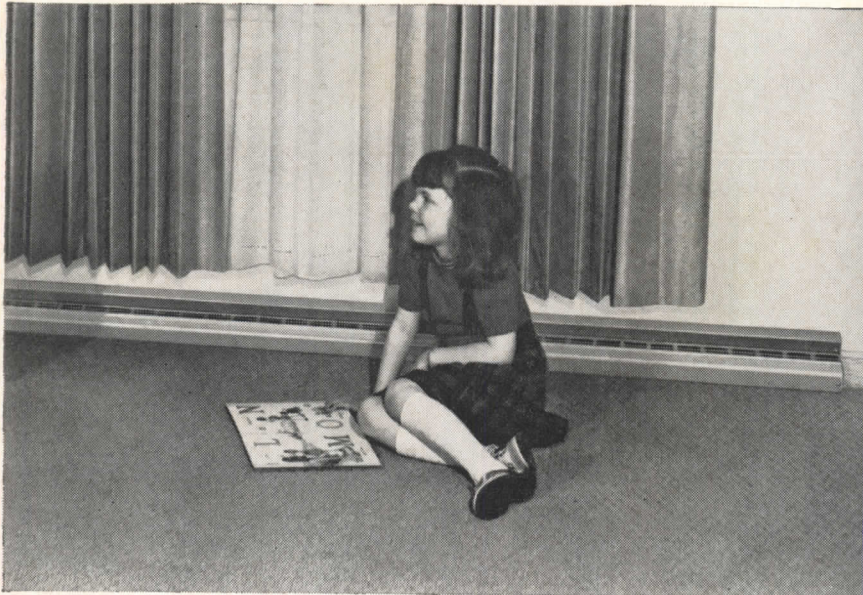
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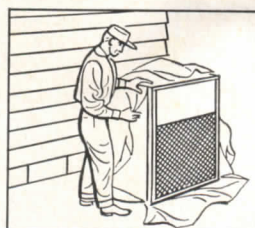


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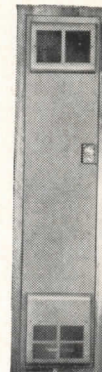


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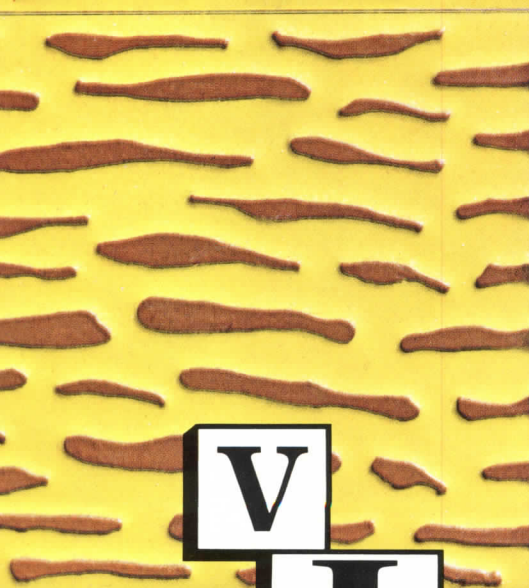
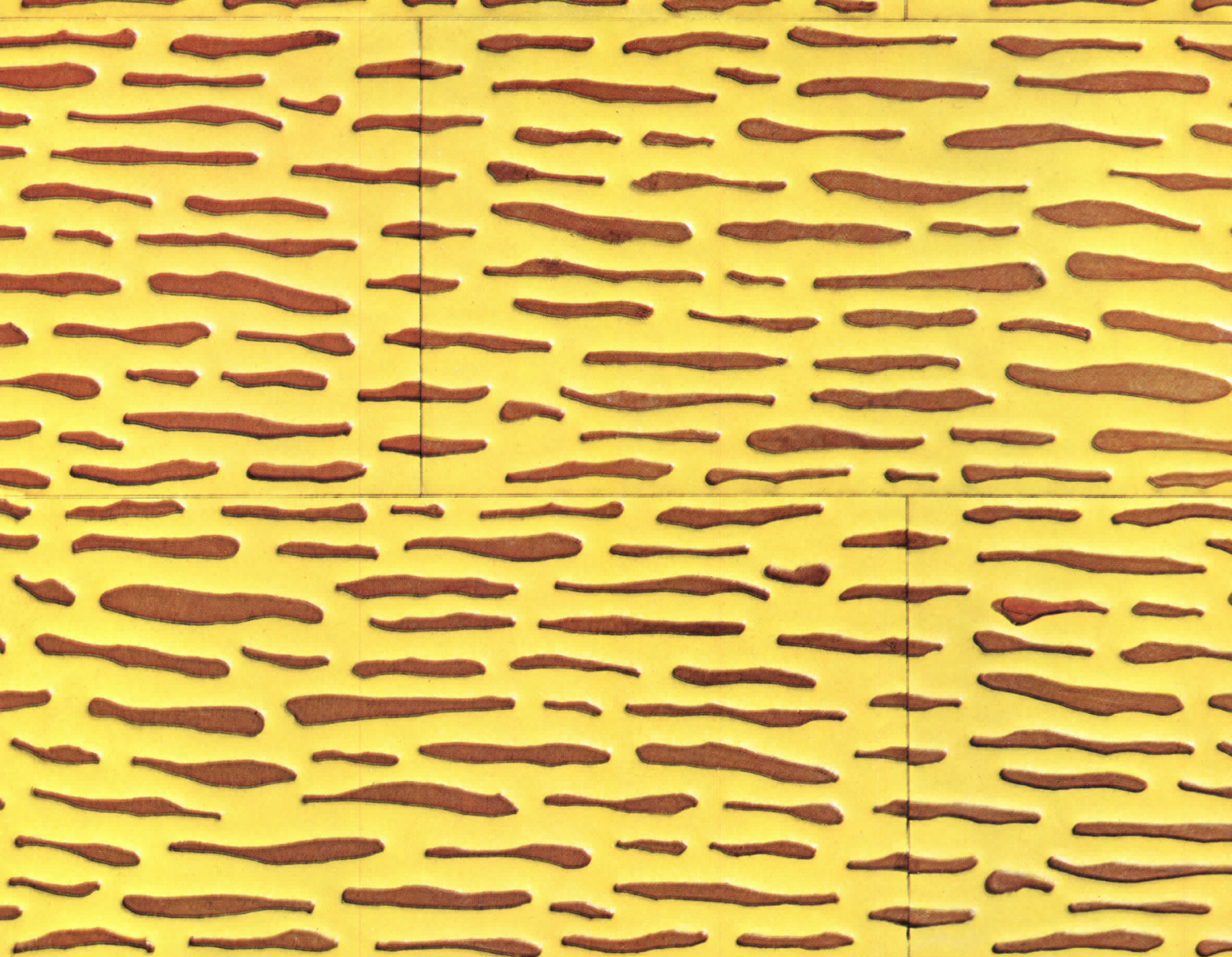
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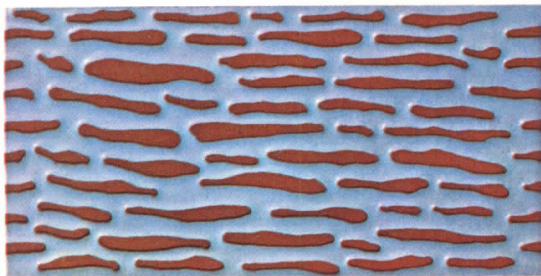


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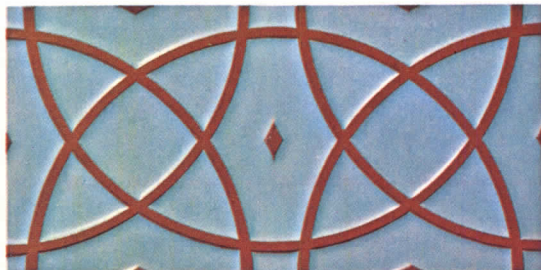
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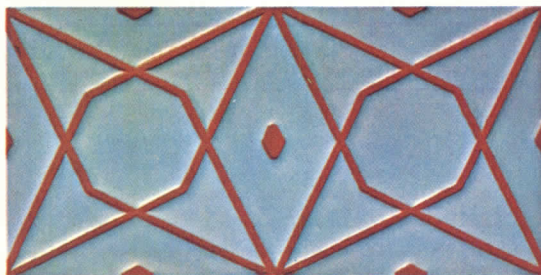
6 DESIGNS



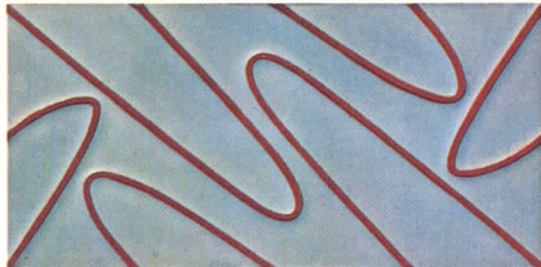
Design 04 - Bark



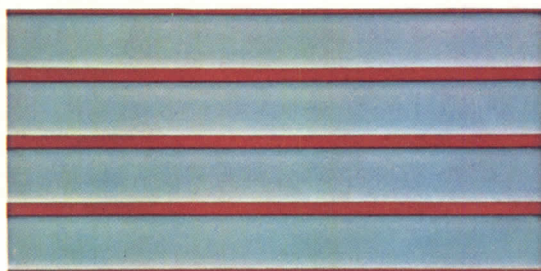
Design 32 - Circles



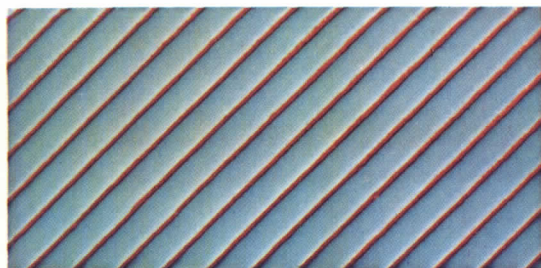
Design 18 - Octagons



Design 36 - Free Form

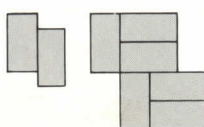
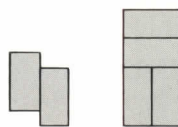
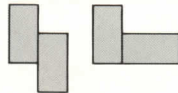
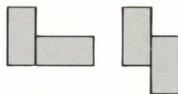


Design 07 - Wide Stripes



Design 20 - Thin Diagonal Stripes

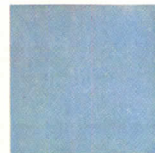
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13 BASIC COLORS AVAILABLE IN ANY DESIGN



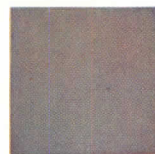
204 - Blue



005 - Yellow



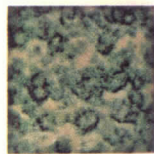
105 - Moss Green



401 - Grey



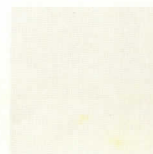
501 - Dark Brown



108/s - Speckled Dark Green



302 - Dark Red



601 - White



205 - Cobalt Blue



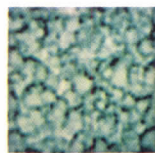
006 - Orange



402 - Black



603 - Cream



107/s - Speckled Light Green

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RECORD HOUSES OF 1963

ARCHITECTURAL RECORD'S annual *Awards of Excellence for House Design* is proudly presented to the architects and owners of the 20 fine contemporary residences in this issue. This marks the eighth consecutive year of these awards, and, we firmly believe, continues to reflect the creative vitality of American architects in this field. In their selection from among the great number being built throughout the country, every effort has been made to reflect the widest range of design, cost, geography and structure. We have also sought to ferret out the work of bright, new talent, as well as buildings by the better known practitioners. The costs of the houses range from \$14,000 to over \$100,000.

Five of the awards were again given to architect-designed development houses, and the issue is going to 20,000 builders in the interest of promoting better design and cooperation in this vital area. A book-store edition will also be available to the public, as in the past.

We also wish to express again our warmest appreciation to the press all over the country for their efforts to help us promote better designed and planned houses through the RECORD HOUSES program.

HERBERT L. SMITH JR.

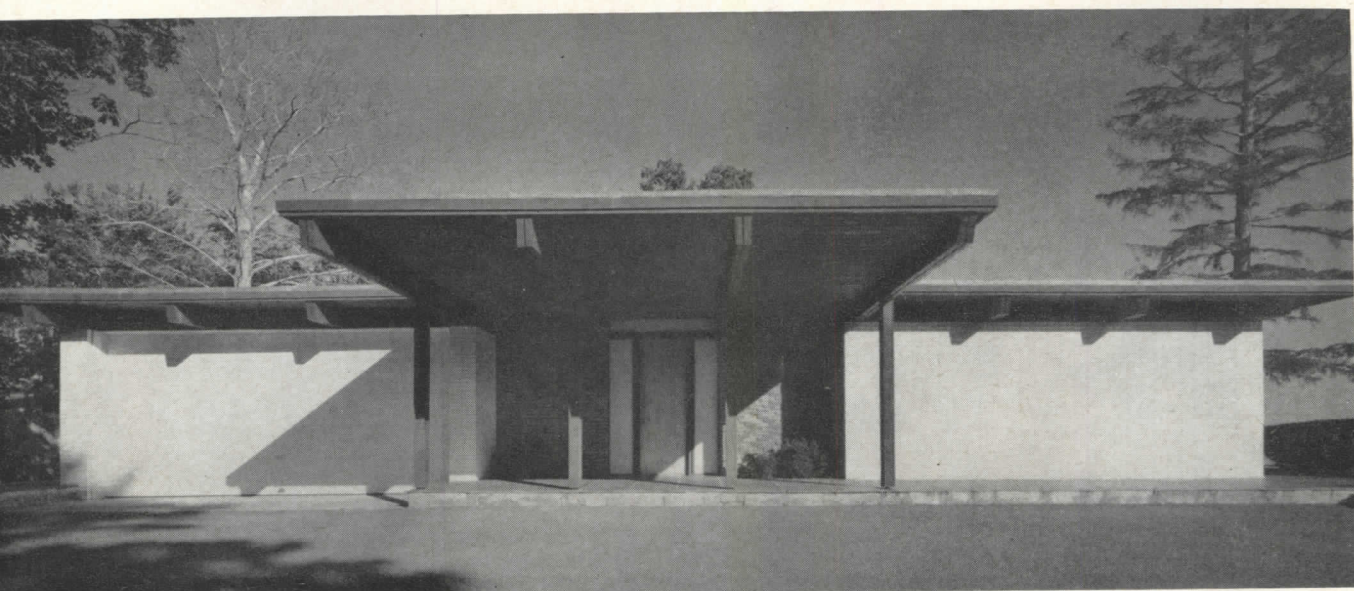


ARCHITECTS: G. P. JENNEWEIN & J. J. JENNEWEIN

RESIDENCE FOR MR. & MRS. SEYMOUR KIMMEL

New York City Suburbs

SEASIDE HOME IN THE CLASSICAL TRADITION



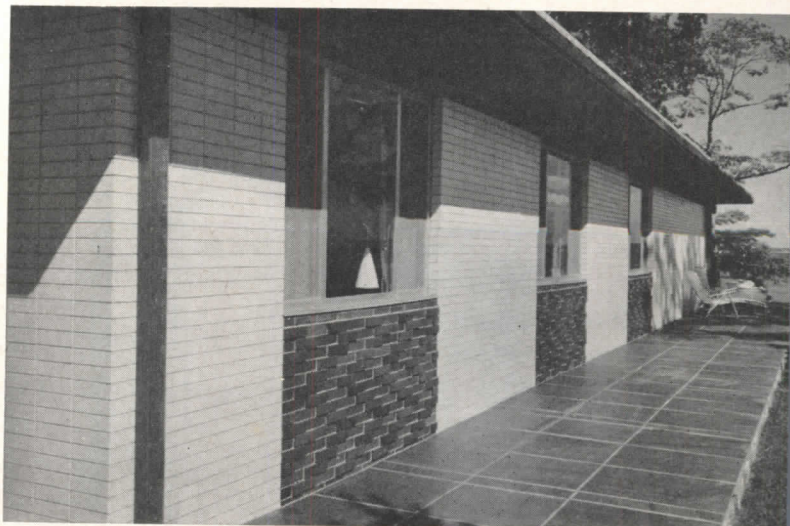
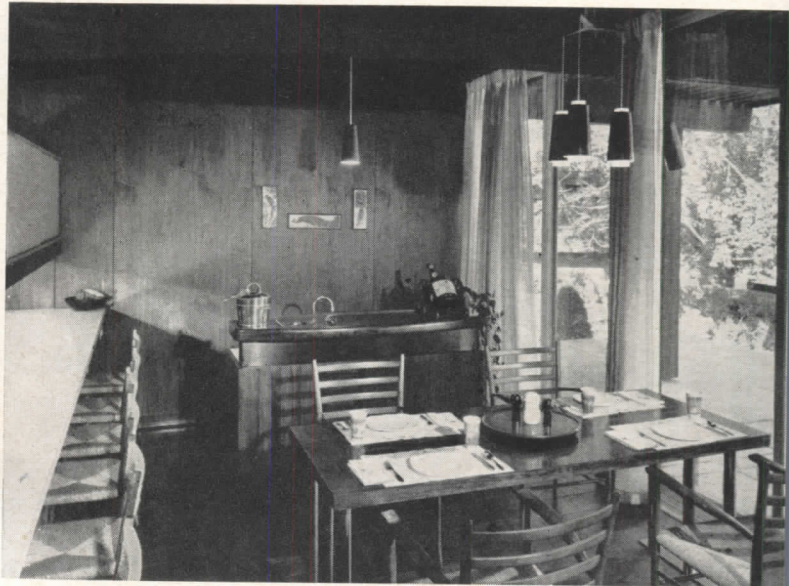
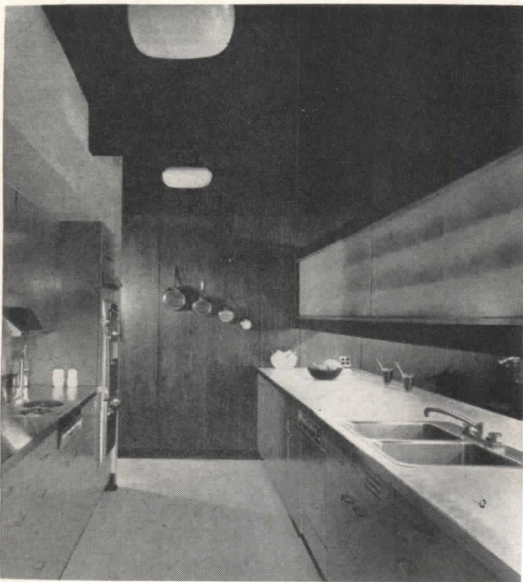
ARC NEUHOF PHOTOS

Many of the design concepts in this house on the shore of Long Island Sound stem from precedents in the Roman homes of centuries ago: a stone platform, or podium, for the base of the house; a blank front facade for privacy; and the open courtyard, or atrium, with its pool. One could also include the use of white marble floors throughout the central portion of the house in this category. In this house, the classic influence is a direct one: Peter Jennewein studied in Rome as a Fulbright grantee and practiced architecture there for two years before returning and setting up his office in the United States.

These ideas work well for the site. The only view is to the rear of the lot—but it is a beautiful one looking towards Long Island and the New York City skyline. The living

room, master bedroom and one of the dining areas have completely glass walls on this side. The other three sides of the lot, however, needed shielding for privacy. The court thus forms a beautiful relief from a possible closed-in feeling in this part of the house. The plan is divided into three activity zones with the central one devoted to the social areas and circulation. The “private zone” is to the right of this (and most distant from the road). This part consists of bedrooms, dressing areas, bathrooms and study. The “work zone” to the left contains the kitchen, maids’ suite, laundry and garage. The heating and air-conditioning equipment is located in the basement. All construction is precise and handsomely done, and was supervised by the owner, a prominent builder of New York apartments.

FINE FINISHES AND DETAILS
QUIETLY ACCENT DRAMATIC
VISTAS THROUGH THE HOUSE



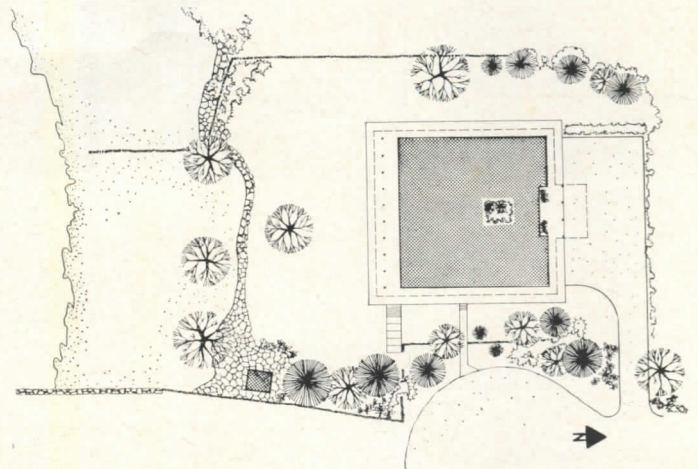
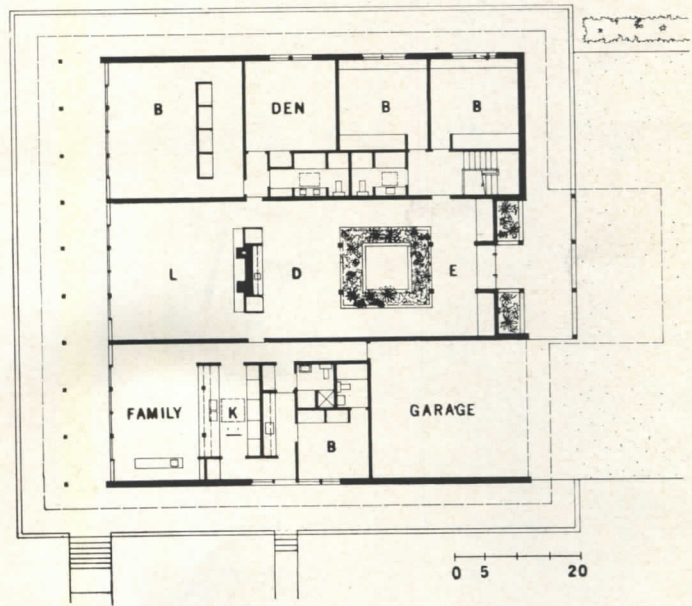


MARC NEUHOF PHOTOS

The plan of the Kimmel house provides for an extremely pleasant, and almost ceremonious sense of "arrival." The house is largely screened from the road by trees and planting. On turning into the property, one comes upon a large motor court and the solid and quiet facade of the house with its big cantilevered overhang for a *porte cochère*. On entering, one is faced with the light-splashed planting in the court, then on turning into one of the side passages, a view is opened to the sea. In the living area, the furniture (topped by a wood lighting grill) is carefully placed to keep this vista open.

The stone base of the house is terraced with black slate. The structure is wood post and beam, with a 6-foot 8-inch modular spacing of columns. Walls are brick veneer. The roof deck is wood on exposed beams, and the main level floors are marble or wood except for vinyl in the kitchen and tile in the baths. The interior walls are walnut plywood and white painted plaster. Window sash is aluminum. Bathroom counters are marble.

The basement contains the gas heating and air-conditioning equipment, as noted before, plus a playroom and storage; it has an area of 2,000 square feet in all. The main level, including the two-car garage, has a total floor area of 3,600 square feet. The site measures roughly 140 by 240 feet in an irregular shape, with a 100-foot-wide sand beach at the back.



A HOUSE OF CONVERTIBLE PAVILION ADAPTS TO CLIMATE AND FUNCTION

ARCHITECT: VLADIMIR OSSIPOFF

Residence for Mrs. Blanche Hill

Honolulu, Hawaii

CONTRACTOR: *S. Miura*

LANDSCAPE ARCHITECT: *Richard C. Tongg*

A lot of surprising features are incorporated into this quietly elegant house. Major living areas form a sort of "living porch" which can be opened or closed, as desired, by a series of adjustable panels. Other parts of the house are in separate pavilions linked to this sheltered platform; the unit containing the master bedroom suite is connected to the living section by a glass-roofed walk to emphasize its being apart while still giving weather protection. The guest house is entirely separate.

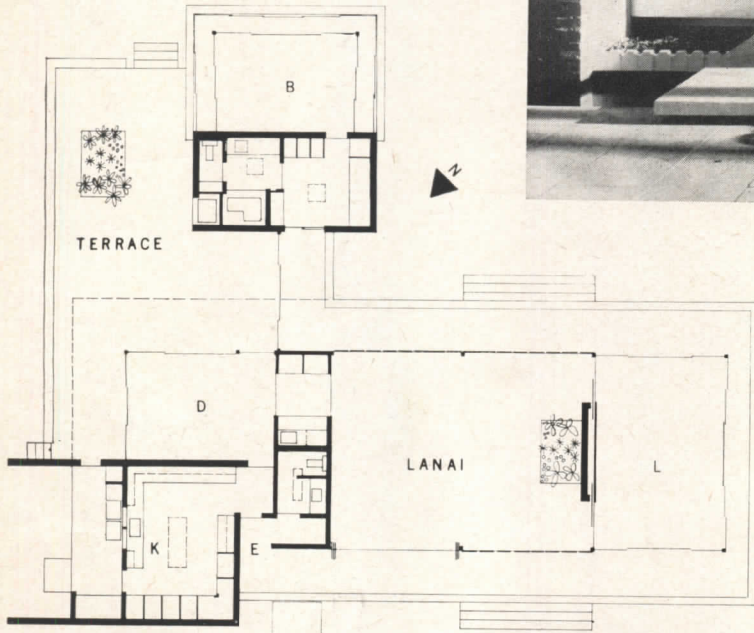
These basic planning concepts stem from the requirements of the owner: the house was to be a second house for use several months of the year, and was desired to be as informal and open as possible; it was to be arranged in a manner giving maximum convenience for the owner to live there alone, or for her to have house guests quartered in a separate cottage to give them independence and to interfere with normal daily life as little as possible.

As built, the house is a handsome and appropriately understated design, and extremely well adapted to expansive indoor-outdoor living and its lush ocean front setting. However, this very quality of attractive openness has created problems. On this, the architect states that, "the client was warned and was willing to suffer certain inconveniences for the sake of openness of the house. It is expected that in bad storms, the lanai area connecting the dining room and living room areas will have water infiltration through and under the folding shutters, hence the terrazzo floor which can be easily mopped up."

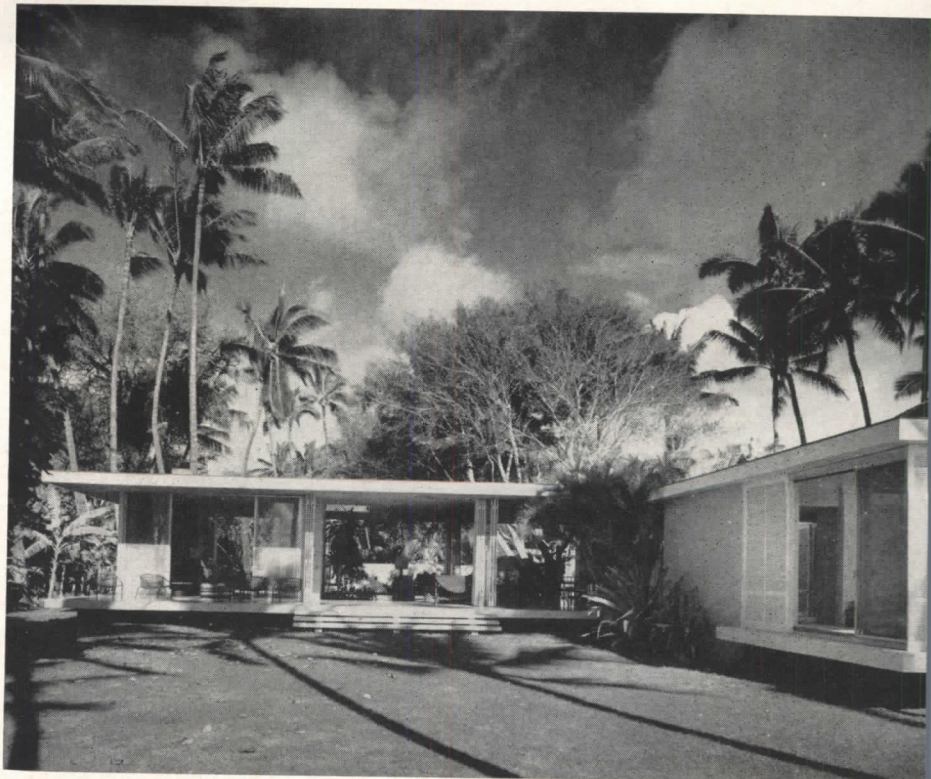
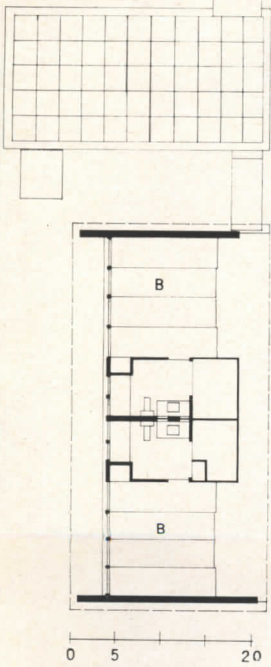


R. WENKAM PHOTOS





TROPICAL GARDEN ROOMS ADD PRIVACY AND SPACIOUSNESS TO HOUSE

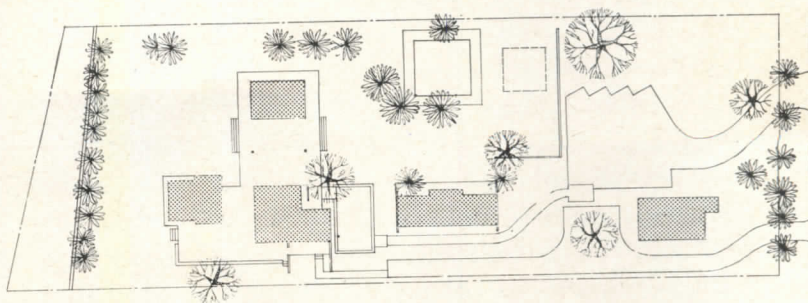




R. WENKAM PHOTOS

The units of the Hill house were arranged so that a variety of vistas and areas are revealed in sequence as the visitor approaches. As can be noted in the plot plan (*right*), the approach is from the parking area and garage, past the guest cottage on the far side of the garden. An Italian bas-relief is incorporated in the wall along this area. As one arrives at the entrance terrace with its tall banyan tree, a turn to the right reveals the garden and swimming pool; and from the lanai, there are views of the ocean and two partly enclosed gardens. The main house is raised a bit, and has a floor slightly cantilevered from its foundations to look lighter.

The house is constructed on concrete foundations, with walls of hollow concrete block and tongue-and-groove redwood. Interior partitions are wood and plasterboard, ceilings are teak flooring, and floors are terrazzo or vinyl tile. The living room, dining room and bedrooms have sliding glass doors as well as shutters, and the master bedroom is air conditioned. The cost was about \$100,000.





MORLEY BAER PHOTO

RUGGED ELEGANCE KEYNOTES MODEL DEVELOPMENT HOUSE

The strong, handsome character of this house amply fulfills the owners' outline program for a display home for their development at Lake Tahoe. The owners felt that: "The exterior should be straightforward, yet with distinguishing character. Applied trimmings should be held in great restraint; we do not want a house that identifies with any set style."

As a pilot development house, the structure was planned to accommodate a family of four or five, plus some space for guests. It was also to be adaptable to other sites. The plot on which the house is built is an arc-shaped one with a beautiful view of Lake Tahoe; thus, the plan as developed understandably turns all rooms toward the glass wall overlooking this vista.

The principal force in the design comes from the strongly expressed, two-story post and beam structure, and walls of diagonal redwood siding. This same siding also forms the interior wall surfaces in the living areas. Both frame and siding are rough textured. To further accent the frame, the laminated two-by-four ceilings and wallboard partitions are painted white.

The house was developed with Better Homes and Gardens as a co-sponsor with the owners.

ARCHITECTS: KNORR & ELLIOTT

*Development house for J. H. Pomeroy Company
Tahoe Keys, California*

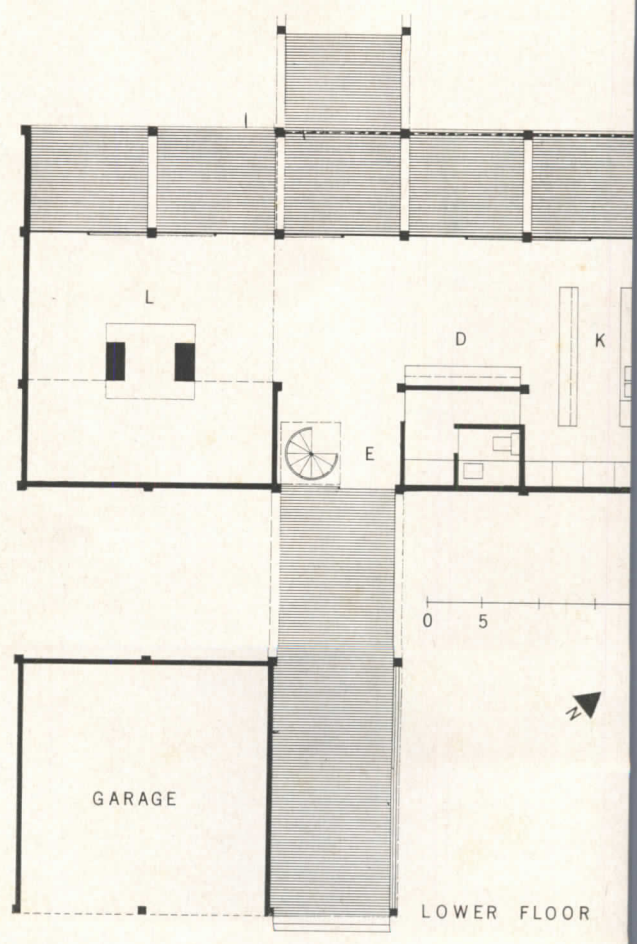
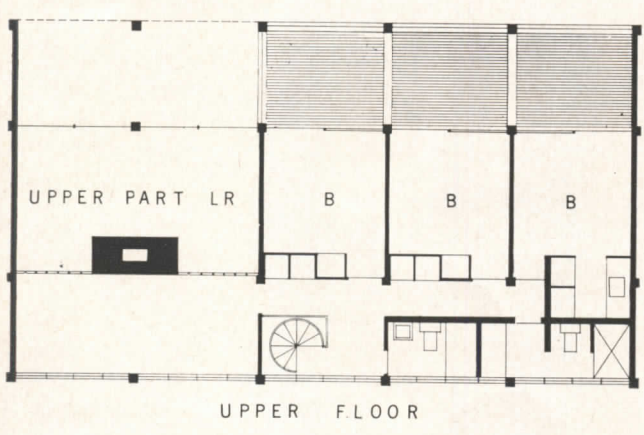
STRUCTURAL ENGINEER: *Stefan J. Medwadowski*

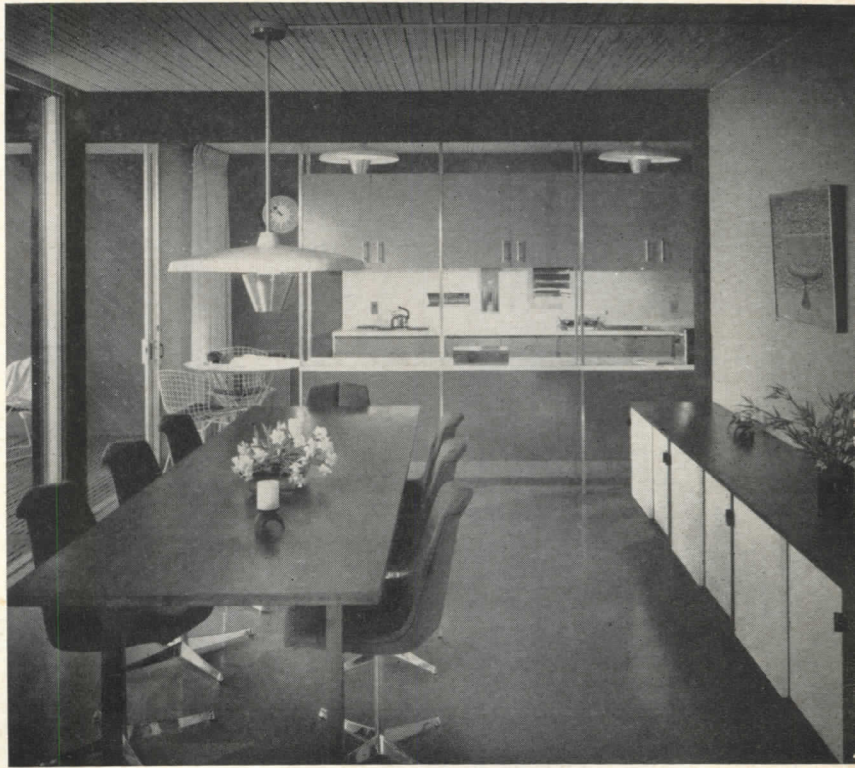
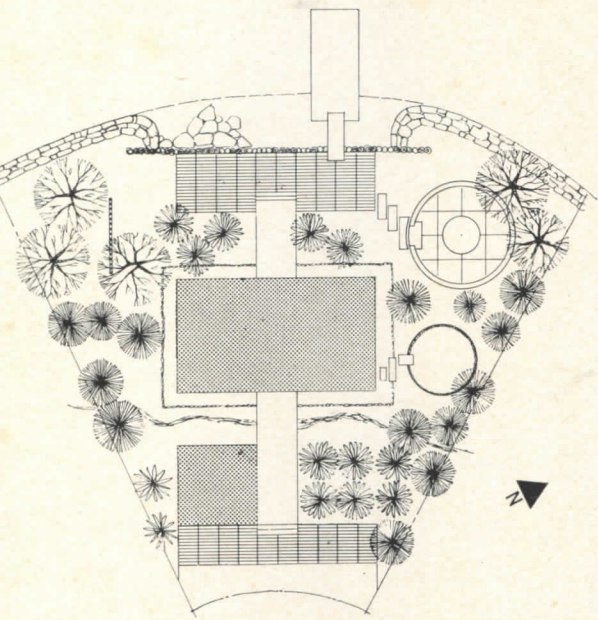
MECHANICAL ENGINEER: *Alex Boome*

CONTRACTOR: *John Speck*

LANDSCAPE ARCHITECT: *Sasaki-Walker & Assoc., Inc.*







A SPACIOUS, OPEN PLAN FITS INTO A COMPACT STRUCTURE

The entire lower floor and part of the upstairs of the Tahoe Keys house are one big, open space. "Rooms" are mainly created by drastic changes in ceiling heights, and by the "look through" fireplace and kitchen cabinets. Three living areas of different characters are created by this method: a balcony sitting and lounge area; a tall, open room which visually adds the adjoining deck to its space; and a sort of cave-like "inglenook" rimmed with built-in seats which is beneath the balcony.

Outdoor sitting decks are created for each of the upstairs bedrooms by extending the ceiling/floor plane over the dining area out across the open deck at the back. All in all, the plan is an extremely simple and workable one.

The facade of the house is also very simple and effective. A very narrow band of high windows, just under the top beam, and a glass door and panel at the entry (note indications on the plans) are the only variations from the end walls. The entry is connected to the garage by a bridge-like covered walk. The approximate cost was \$45,000; excluding lot, landscaping and furnishings.

WALLED-IN PRIVACY FOR A HOUSTON TOWN HOUSE

The traditional "townhouse" concept has been very successfully revived in this southern house, one of a group of custom-designed row houses for a Houston development planned by the architect. Stylistically, the houses are all quite contemporary, but the use of similar and fairly traditional materials gives a unified, almost "timeless" quality as seen in the sketch and plot plan on the next page, and in the photographs shown here.

The development is built in the midst of a typical city sub-division which has large lawns and traditional houses built out to 10 foot restriction lines at the sides of each lot. By plan-

ning this new development as a unit, it was possible to extend the encompassing walls of each house to the lot lines. A communal swimming pool and recreation pavilion are placed at the center of the development. Service alleys range the back of each block of houses.

This house is built on a corner lot of the area on a site measuring 45 by 75 feet. To minimize the space required, a carport was devised for parking sideways at the back, off the service alley. Vistas are provided for each room inside the house by a series of patios formed by colonnades of brick arches. The arches carry through the house as a design motif.





EDWARD A. BOURDON PHOTOS

ARCHITECTS: P. M. BOLTON ASSOCIATES

Residence for Mr. and Mrs. Preston M. Bolton

Houston, Texas

STRUCTURAL ENGINEER: *R. George Cunningham*

CONTRACTOR: *Stewart & Stewart Construction Company*



EDWARD A. BOURDON PHOTOS

THREE PLANTED COURTYARDS PLUS SKYLIGHTS GIVE OUTDOOR FEELING TO ENCLOSED ROOMS

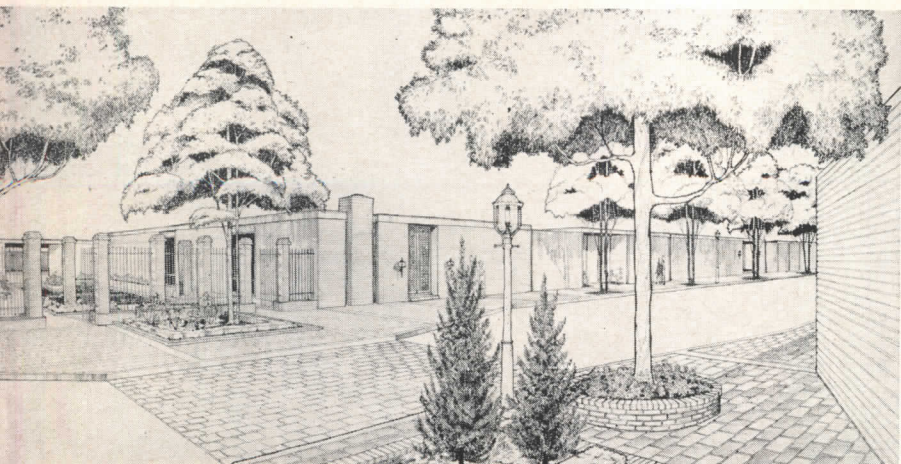
Behind the 12-foot-high paneled doors at the entrance of the Bolton house lies a series of rooms with a startling sense of spaciousness—a quality which is unfortunately not adequately conveyed by the photographs. The owners state that: "People are continually amazed that we have four bedrooms and four baths, each with its own patio view in the limited space, but the living area of our house has been considerably increased by the garden courts. We have small bedrooms and this is the way we like to live—with a minimum of furniture and maximum use of organized dressing room storage. Our favorite place is the library with its walls of books and glass doors. One way we look out on a patio with a fountain of playing water; the other way, to a tropical garden with swaying palms. We love our house and wouldn't change a thing."

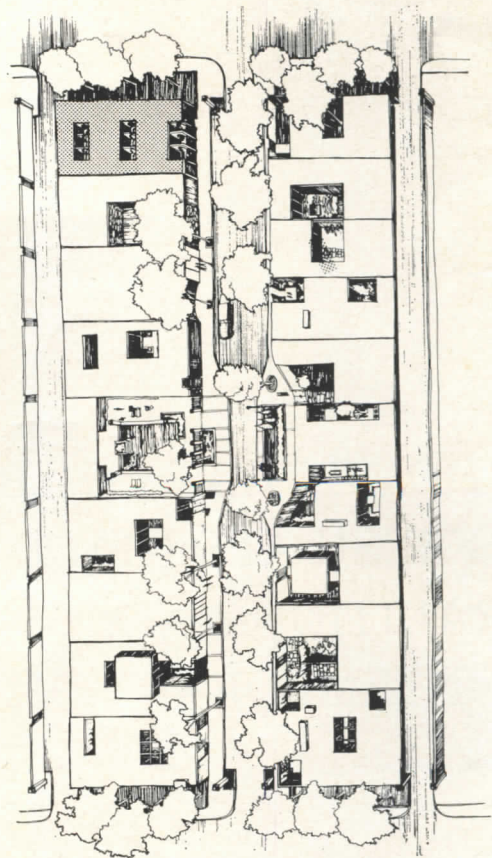
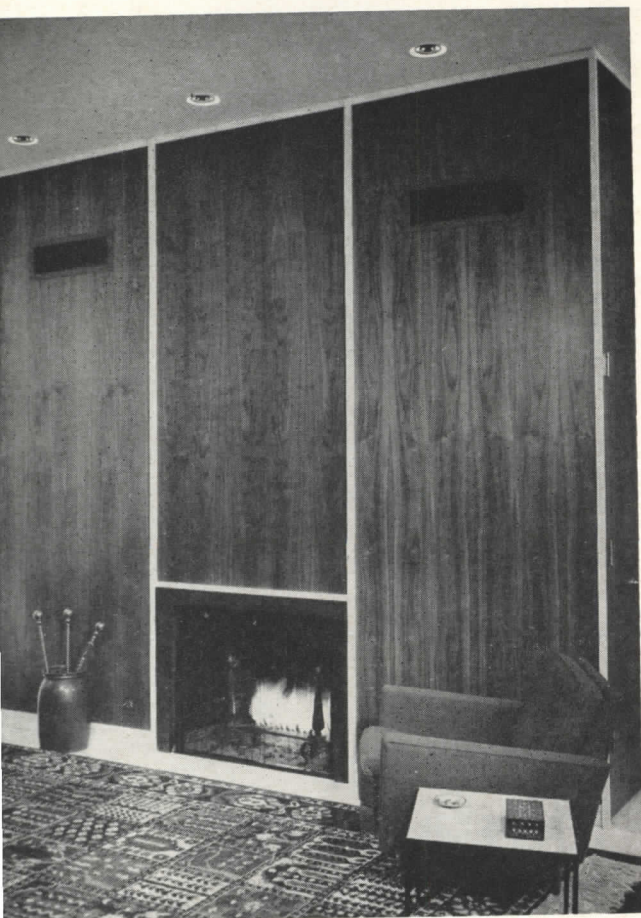
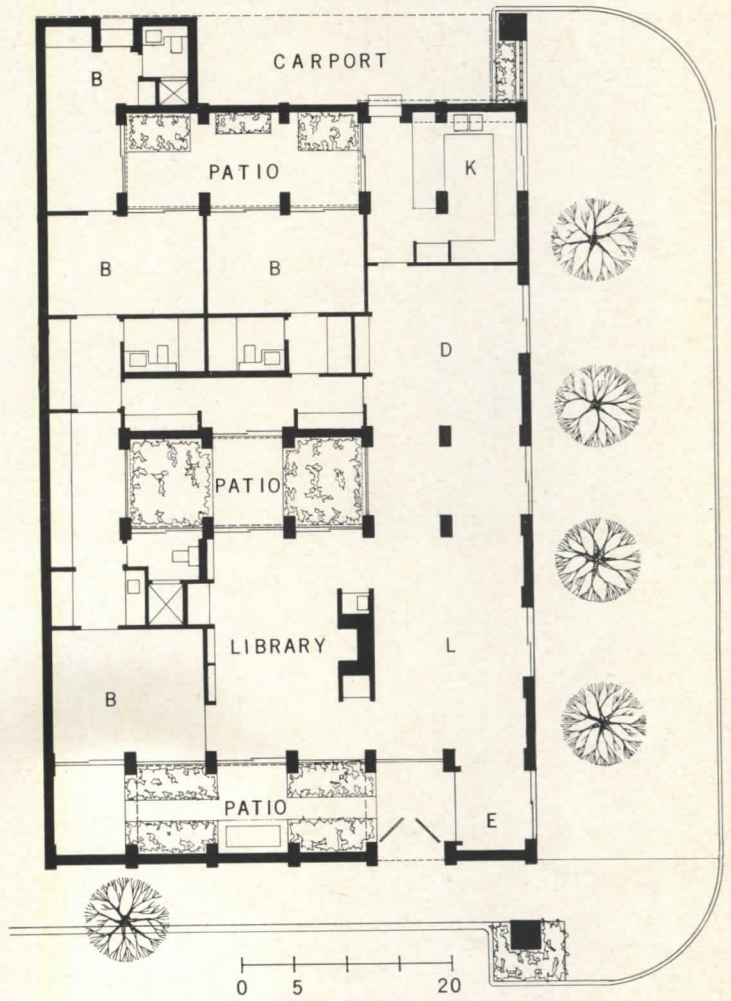
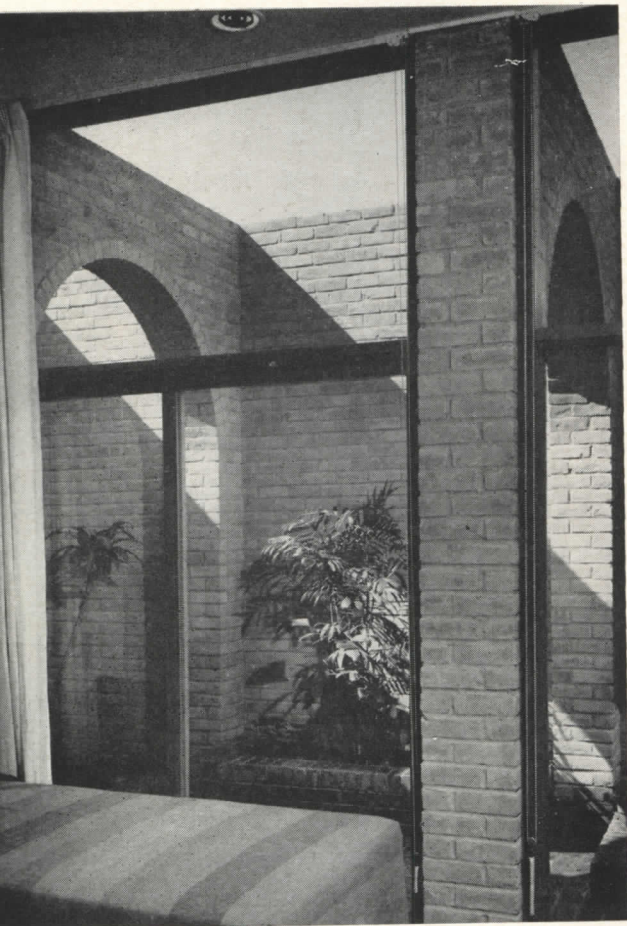
The interior organization of the house is also a very conveniently and flexibly arranged one. For example, the library is placed where it may be used with the living area for entertaining, or with the master bedroom to form a private apartment. The library and living room are divided by a fireplace (*below right*) enclosed in natural finished walnut with white divider strips.

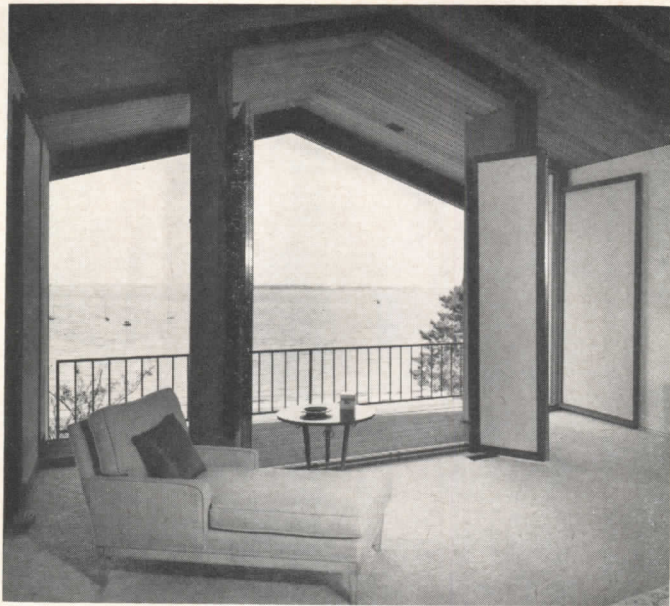
The kitchen is placed for direct service to the living-dining area or the rear patio, and adjoins the carport to ease the handling of groceries and deliveries. The maid's quarters at the back also have an entrance through the rear patio, which doubles in function as a children's play area. The child's bedroom, bath and dressing room open both from the maid's room and the master bedroom corridor to afford surveillance. The fourth bedroom, bath and dressing room, forms a guest suite. Along the side of the house flanking the public street, are a series of arched windows, shielded by walnut shutters to allow complete privacy or openness, as one desires.

The structure of the house is wood framed on a concrete slab, with exterior walls of champagne colored Mexican brick and concrete block.

Interior walls are white-painted wall board, brick and walnut paneling; floors are dark oak with borders of white tile. The cost of the house was about \$45,000, without lot.







A HOME THAT COMBINES A FRESH APPROACH TO TRADITION AND CONTEMPORARY DESIGN

This handsome house is a good example largely traditional materials being used create a contemporary design of warmth and vitality. Familiar items—wood, stone, stucco, shingled pitched roofs—are combined with a fresh eye and careful attention to detailing.

The site is a sloping one flanking Long Island Sound, and has a beautiful view across the water. There was also an existing swimming pool and bath house on the front, southeast corner of the lot, which had to be related to the new house. The owners also desired a sheltered garden area on one side to contrast with the view of the sound on the other.

The architect states that "the chief problem was to build a large house while keeping the feeling of a home, not a public place, and also to give each individual privacy and a variety of views. This was done by breaking down the house into smaller elements, separating functions, and keeping appropriate scale."

The plan solves these various problems very nicely. A two-story element, containing bedrooms, playroom, dining room and service, is set into the slope, with an entrance at mid-level. The living room and study is detached from the rest of the house, forming a sort of family and entertainment center, and connected to the entrance by a glass corridor. A stone garage is placed at the front of the site by a motor court. The entrance approach to the house from the parking area is through a covered (and skylighted) entrance between the garage and service entrance, where one has a vista of the garden. A covered walk along the garden then brings one to the glass entrance link, and the view of the water.

ARCHITECT: GEORGE NEMENY

Residence for Marshall Safir

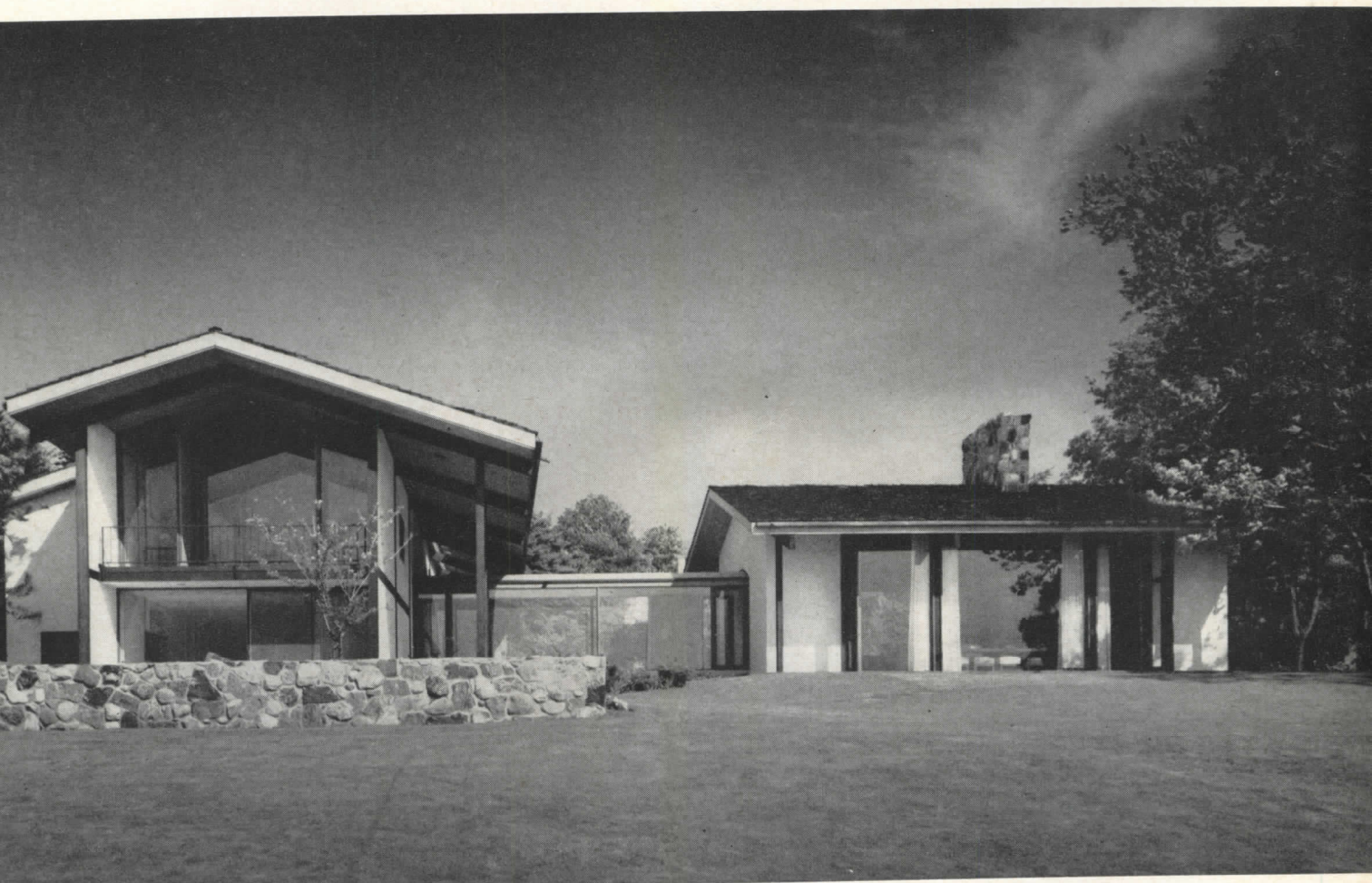
Long Point, Long Island

ENGINEER: *Edward S. Klausner*

STRUCTURING CONSULTANT: *Edward Simpson*

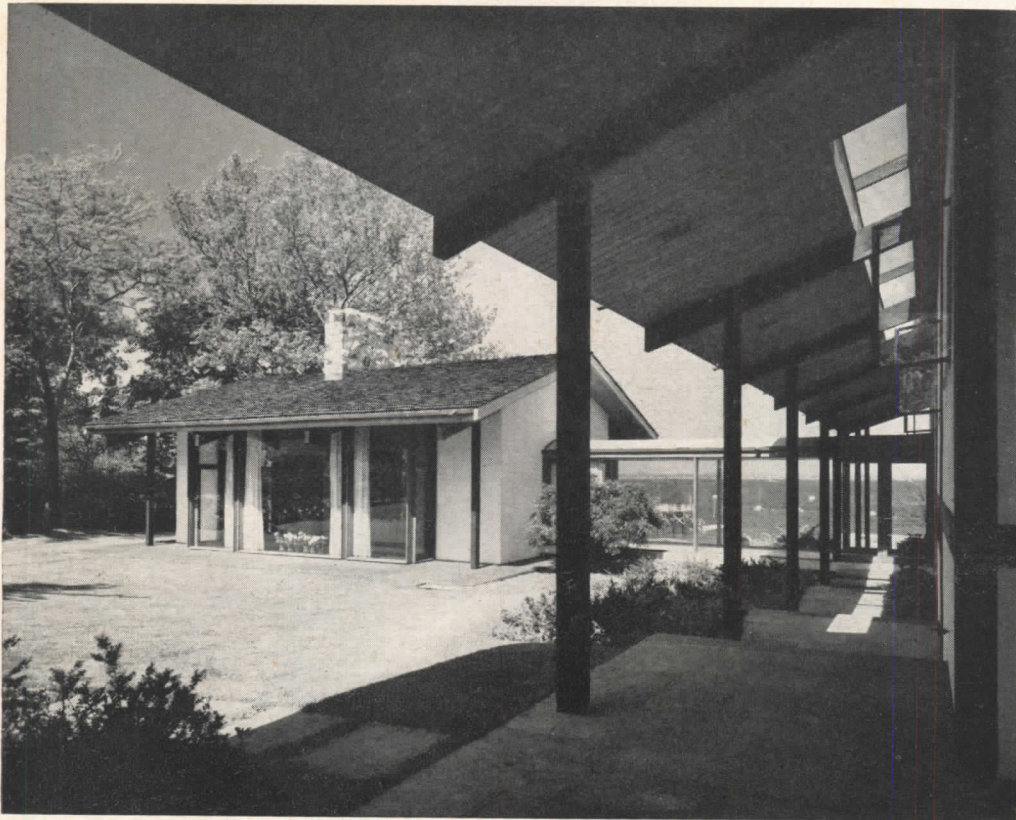
LANDSCAPE ARCHITECT: *J. J. Levison*

INTERIOR FURNISHINGS: *Evelyn Jablow*

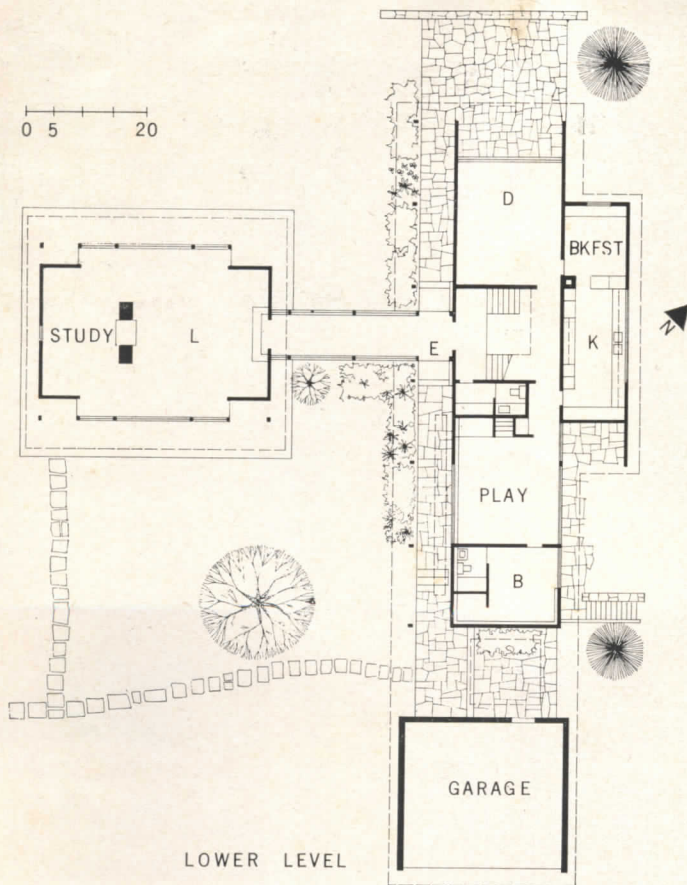
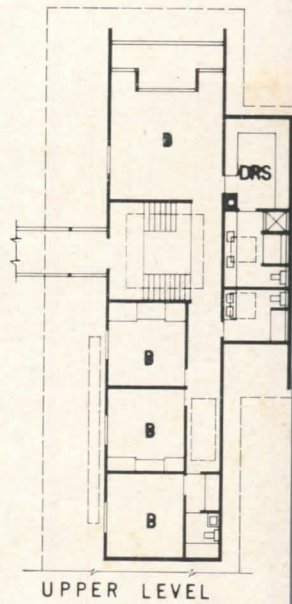


PHOTOS © EZRA STOLLER ASSOCIATES PHOTOS

PLAN ORGANIZATION ZONES ACTIVITIES



MARIS © EZRA STOLLER ASSOCIATES PHOTOS





The Safir house plan neatly segregates all the various functions for daily life and entertaining, while keeping a very good relationship among the different elements. The living room and study, as noted before, are isolated in a separate unit for quiet concentration or for parties. The major part of the lower floor of the two-story part of the house is devoted to the dining room and a play room, separated by a spacious stair hall. These rooms are arranged so they can be used with the living pavilion for really big gatherings. The kitchen and service areas are placed to open directly into both dining and play rooms, and (via the glass corridor) to the living room.

Upstairs, the stair hall separates the master bedroom suite from those for the children, which are directly above the playroom. Most of the baths, and the master dressing room are in a "service block" over the kitchen. The service entry is by an inconspicuous stair by the ground floor maid's room.

The living room, which has glass walls opening on both the garden and ocean sides, has a slate floor extending outdoors to form

a surrounding terrace which is partially protected by the wide roof overhang. The entrance walk also doubles as a covered terrace along the play room. A play yard, in view of the kitchen, is on the opposite side of the house.

The structure of the house is wood frame on a concrete block foundation. Exterior walls are stone and painted stucco, and the roof is of hand split shingles. The interiors have walls and ceilings of painted plaster, except for the living room ceiling of cypress, and acoustical plaster for sound conditioning in the kitchen. Floors in the living areas are slate; quarry tile is used in the kitchen, ceramic tile in the baths, and travertine in the playroom. Below grade, floors are asphalt tile. This area (under the two-story unit) contains a heater room, laundry room, dark room, workshop and storage room.

For variety and privacy, some of the interior rooms and baths are daylighted by glare-resistant skylights, and a large skylight is placed over the stairs for dramatic emphasis in this big room.



A SCULPTURED HOUSE OF CONCRETE BLOCK

ARCHITECT: PAUL RUDOLPH

SUPERVISING ARCHITECT: *Robert Ernest*

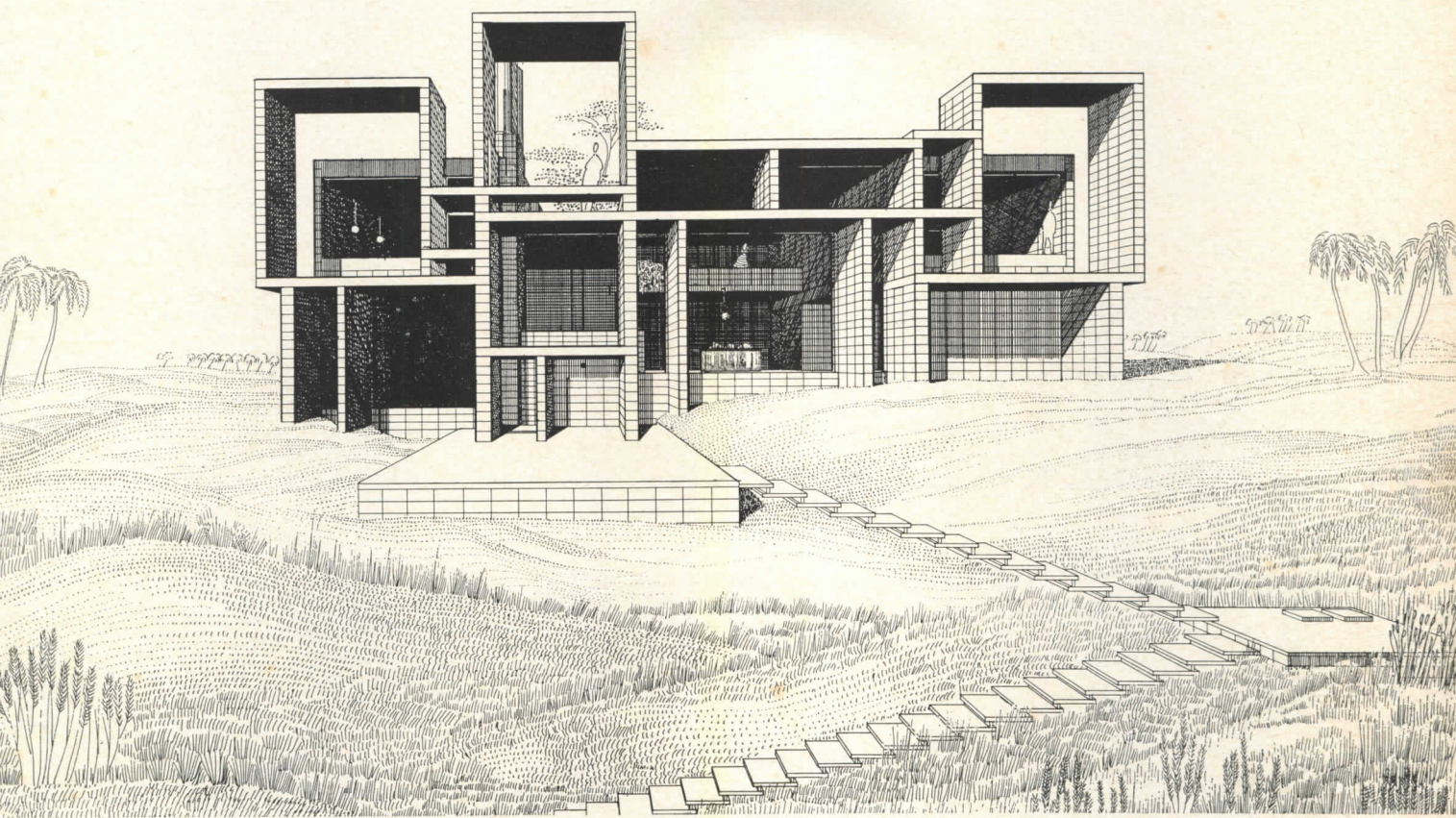
Residence for Mr. and Mrs. Arthur W. Milam

St. John's County, Florida

STRUCTURAL ENGINEER: *Herman Spiegel*

MECHANICAL ENGINEERS: *Frank B. Wilder & Associates*

CONTRACTOR: *William E. Arnold Company*



One of the most uniquely different designs among this year's Record Houses, is this one with its very sculptural use of concrete block. The exterior of the house is dominated by the powerful composition of rectangles forming a sunshade across the rear facade (shown above in the original sketch and completed structure). The spirit of this wall is continued on to the interior of the house, where the floors are arranged on seven different levels.

Comments of the owners, after having lived in the house for some time, are worth noting: "We knew enough of Mr. Rudolph's previous works to know that the end result would correspond to our ideas of beauty . . . (and) our faith in the architect was well placed. We are

extremely fond of the house. Externally, it is a beautiful piece of sculpture—blending graciously with the sea and the sand surrounding it. It is very comforting inside . . . different ceiling heights, different views, different floor levels make it always interesting, always varied."

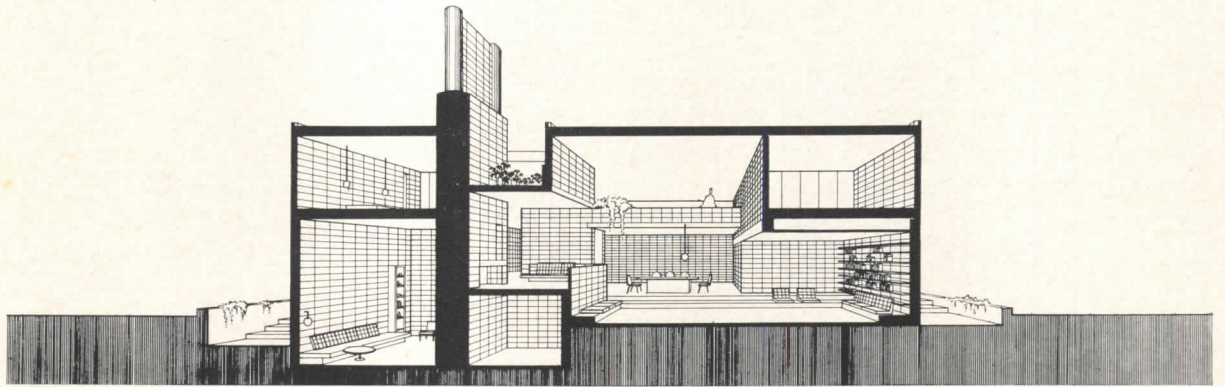
The house is a very spacious and conveniently arranged one. All the living areas are essentially one room, with areas for dining, sitting by the fireplace, and the like, created principally by changes in the floor levels. The hallway linking the upstairs bedrooms is treated as a balcony, and adds yet another level to this varied space. As a counterfoil, colors and other decoration are subdued.

As can be noted in these photos of the Milam house, the already big living areas are made to appear even larger and more open by using very few pieces of portable furniture. In fact, about the only ones are the dining table and its seats. Basic seating for conversation and lounging is formed by cushioned units supported by one of the floor levels.

The house is constructed of sand colored concrete block, left exposed inside and out. The main floor is terrazzo, and the second floors are hardwood or carpet except for tile in the bathrooms. Ceilings are acoustical

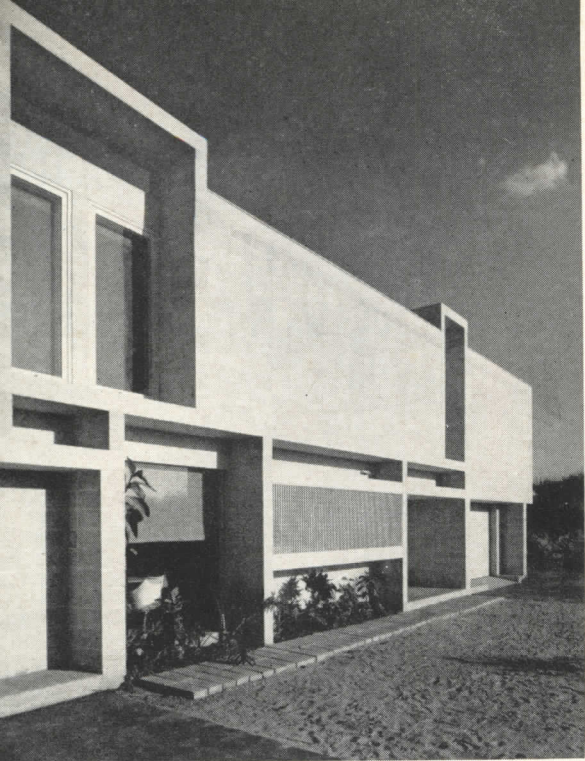
plaster for noise absorption in the big areas. The small windows in the baths are supplemented for daylighting by plastic skylights. One of the baths also has an outside exit and stair to serve as a dressing area for swimmers from the beach. Bedroom closets are provided in the nooks near each entrance.

The kitchen (*center right*) is conveniently placed for access to the living and dining areas (via a pass through), to the garage for unloading groceries, and to the front door. The entire house is air conditioned. The cost of the house itself was about \$88,074.

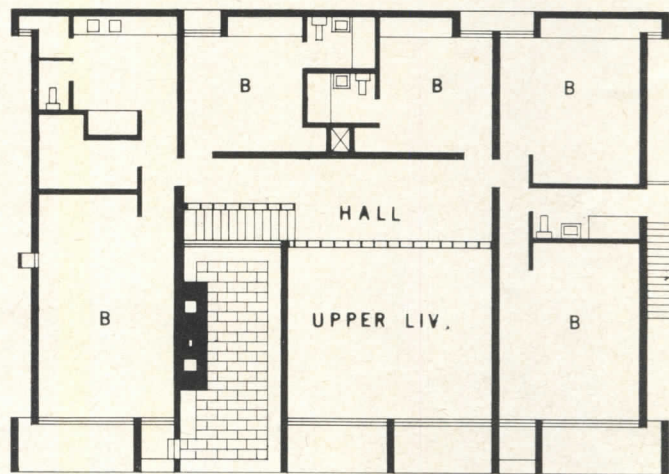
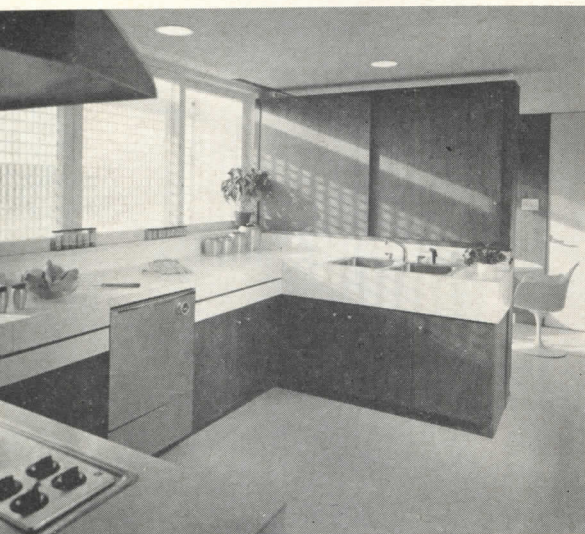


JOSEPH W. MOLITOR PHOTOS

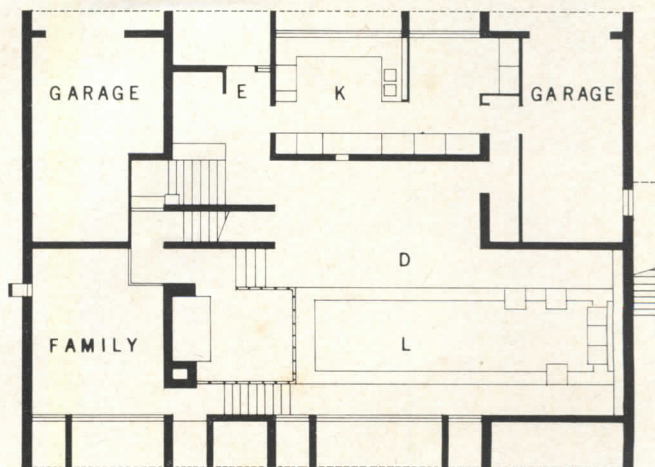
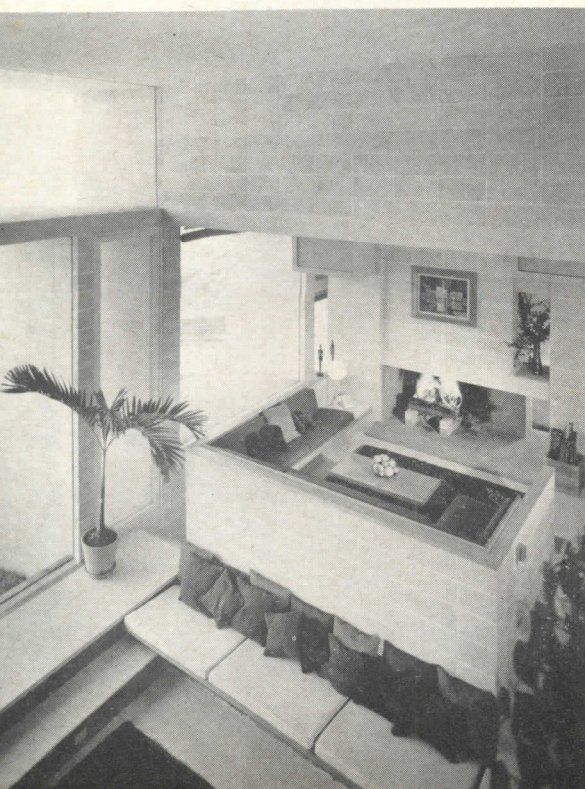




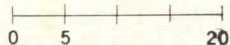
BUILT-INS AND THE MANY LEVELS
MINIMIZE NEED FOR FURNITURE



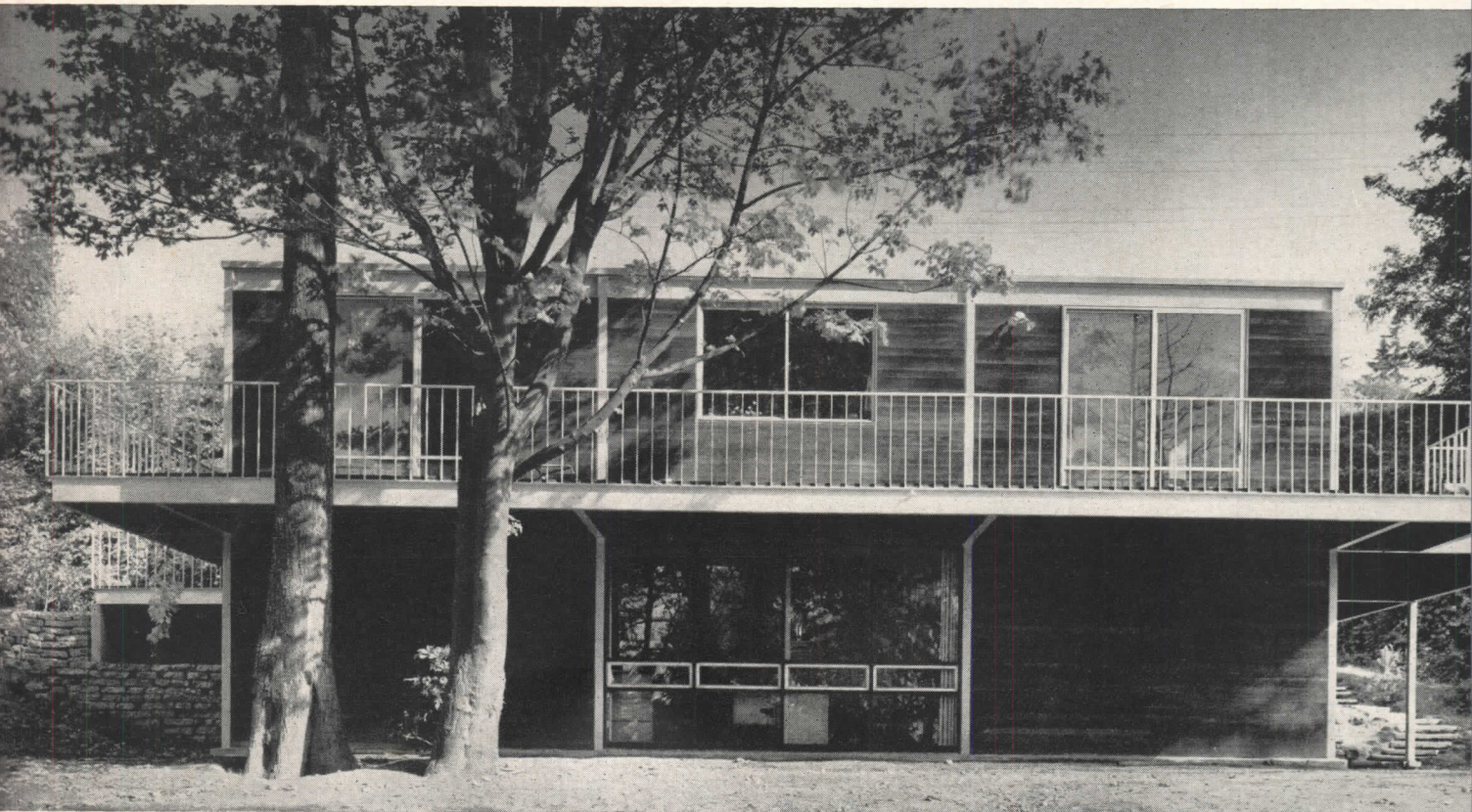
SECOND FLOOR



FIRST FLOOR



A TWO-STORY COU
FORMS HUB OF HOUS
FOR A LARGE FAMILI



CHARLES R. PEARSON PHO

ARCHITECTS: IBSEN A. NELSEN, RUSSELL B. SABIN, GORDON B. VAR

Residence for Mr. Benjamin E. We

Seattle, Washing

STRUCTURAL ENGINEERS: *Gray & Ev*

CONTRACTOR: *Eberharter & Ga*

This neat, compact steel-framed house uses some very interesting planning devices to accommodate a family with six children. Within its cube shape are seven bedrooms, two large living rooms, a big multi-purpose play court, dining room, a workshop, a kitchen, a study area, three baths and a utility room for laundry and sewing.

All the rooms are arranged around a central clerestoryed "court," which virtually eliminates hallways in the house. It serves for circulation to all rooms on the lower level, and doubles as a large indoor play area for the children. A space-saving spiral stair leads to the balconies and living areas on the upper floor.

Except for the master bedroom and bath, the rooms on the upper floor are extremely open in plan, and, together with the court, give a great air of spaciousness. One of the living areas is more formal and for the adults; the second one is treated more as a family room for the children. Eventually, shoji screens will be installed to separate the adult room from the court.

The house is framed in steel, expressed directly and simply, and painted white for accent. Wood was used for filler panels wherever possible to "soften the effect and render it more human." The end result is a very trim and unified structure.

The site is a pleasantly wooded, sloping one. Use was made of the slope to create a main entrance opening into the adult areas of the upper level. A balcony surrounds three-quarters of the top floor to add outdoor sitting and entertaining space, and to give sheltered play areas around the lower level of the house. These areas will be supplemented later by a terrace and swimming pool. Thus, indoors and out, there is a variety of places for the family's friends of different ages to gather for their respective activities. A galley-type kitchen was placed for easy service to either of the two upstairs living areas, the dining area and the surrounding decks.

Ample storage is provided for all the members of the family. Each bedroom has one wall banked with closets, and a wall of adjustable bookshelves. There are also banks of built-in storage units in living areas and a carport.





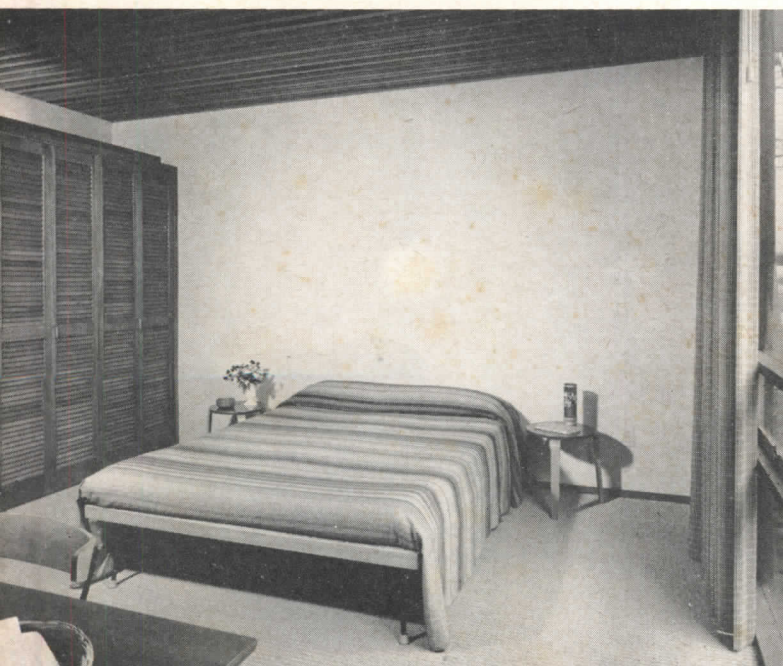
A STEEL POST AND BEAM FRAME PERMITS OPEN INTERIOR SPACE

An extremely light, tidy appearance is given to the Weeks house by the white-painted steel frame. The contrasting exterior walls are of stained cedar tongue-and-groove siding. The flat roof is built-up.

Interior walls are gypsum board finished with stipple enamel, except for the walls in the bathrooms, which are ceramic tile. All floors are plastic tile, and living areas are covered with matting. Ceilings are one-by-two cedar strips. Aluminum sash is used for windows throughout the house. The main entrance door is vertical-groove Douglas fir while all the others are mahogany. The doors on the banks of closets are folding and louvered. Glass fiber blankets are used for both acoustical and thermal insulation. The heating system uses a gas-fired furnace, with thermostat controls. All bathrooms and the kitchen have exhaust fans.

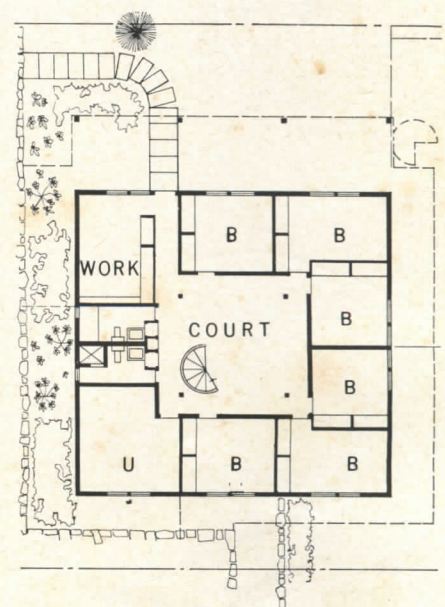
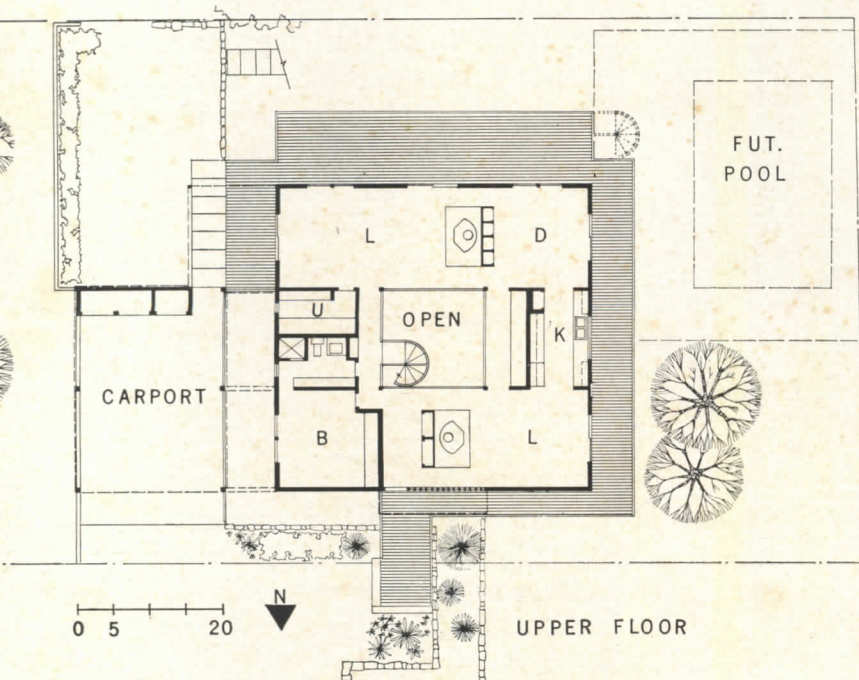
Among the items of special equipment in the house is a built-in Hi-Fi system, housed in the storage wall on the court side of the kitchen partition. This wall also houses a large food freezer unit. A washer and a dryer are in the downstairs utility room.

The approximate cost of the house, excluding lot, landscaping, and interior furnishings was \$39,000.





CHARLES R. PEARSON PHOTOS



SOARING LAMINATED ARCHES CREATE DRAMATIC INTERIORS FOR A HILLTOP HOUSE



MARC NEUHOF PHOTOS

ARCHITECT: JULES GREGORY

Residence for Mr. and Mrs. John E. Gombos

Verona, New Jersey

ENGINEERS: *Bliss & Hanle*

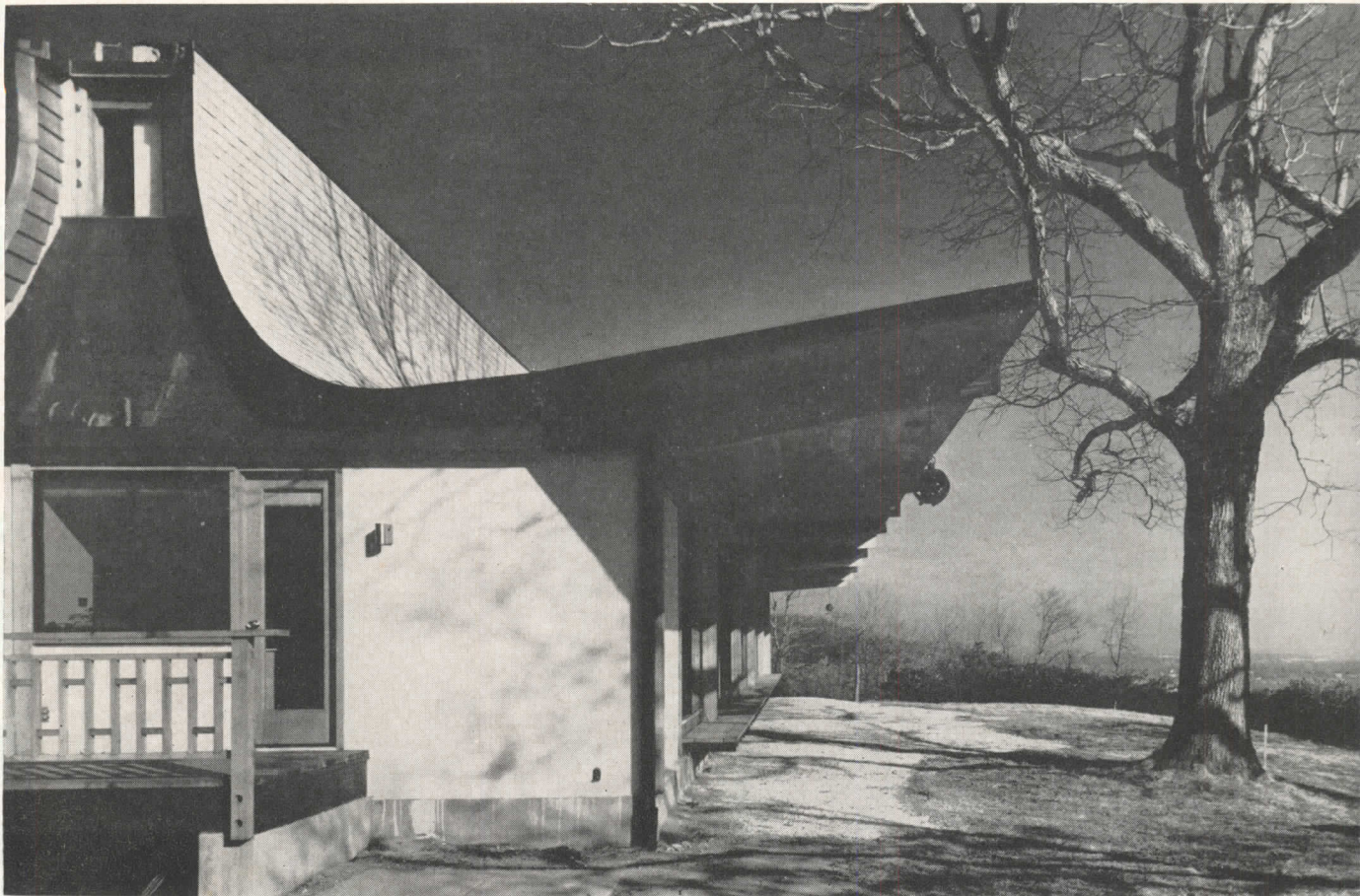
CONTRACTOR: *Phillip Leone*

Some truly exciting and dramatic spaces are created in this large house by its roof of laminated arches and solid, curved wood deck. Although roofs of this type have often been seen in religious and other structures, it is a fairly unique application for a residence. Its effect is heightened by the peak skylight.

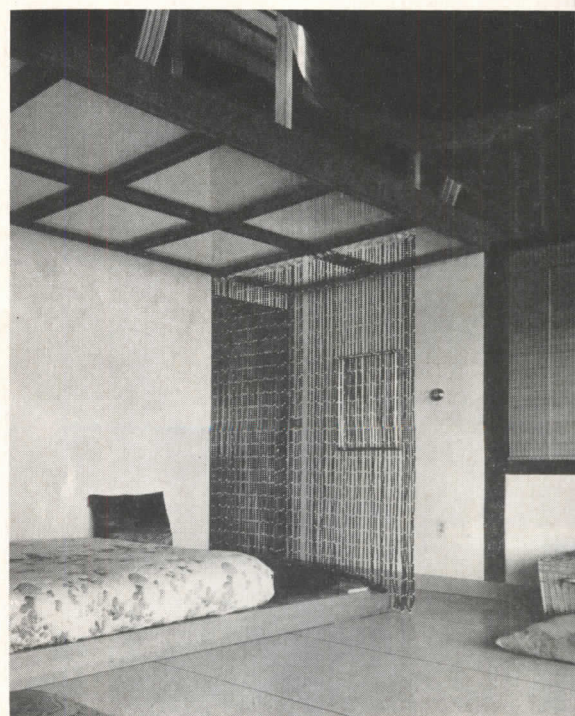
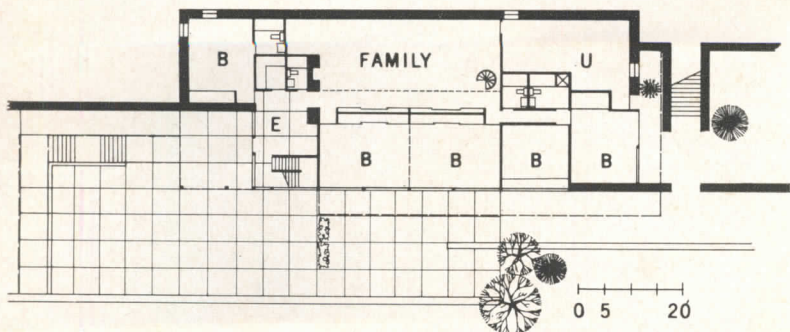
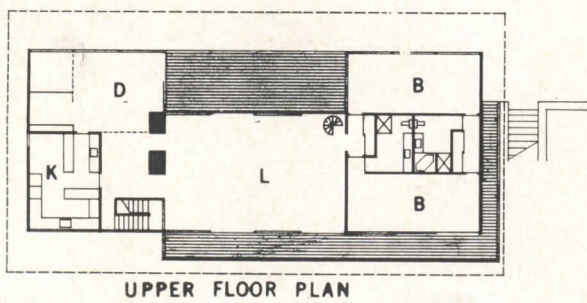
The house is built on the highest point of land in Montclair, New Jersey, and provides views of New York from the Statue of Liberty to the George Washington Bridge. An ancient, four-story Victorian house was demolished to provide site and foundation for the new structure. The size of the house was thus limited by these existing stone foundations.

The upper level of the house is devoted to the parents' use, with living room, dining room, bedroom, bath and dressing room, and kitchen. The lower floor is for use of the children, with bedrooms, bath, recreation rooms and servants' quarters.





A VARIETY OF SPACES ARE CREATED UNDER THE BIG DOMINANT ROOF



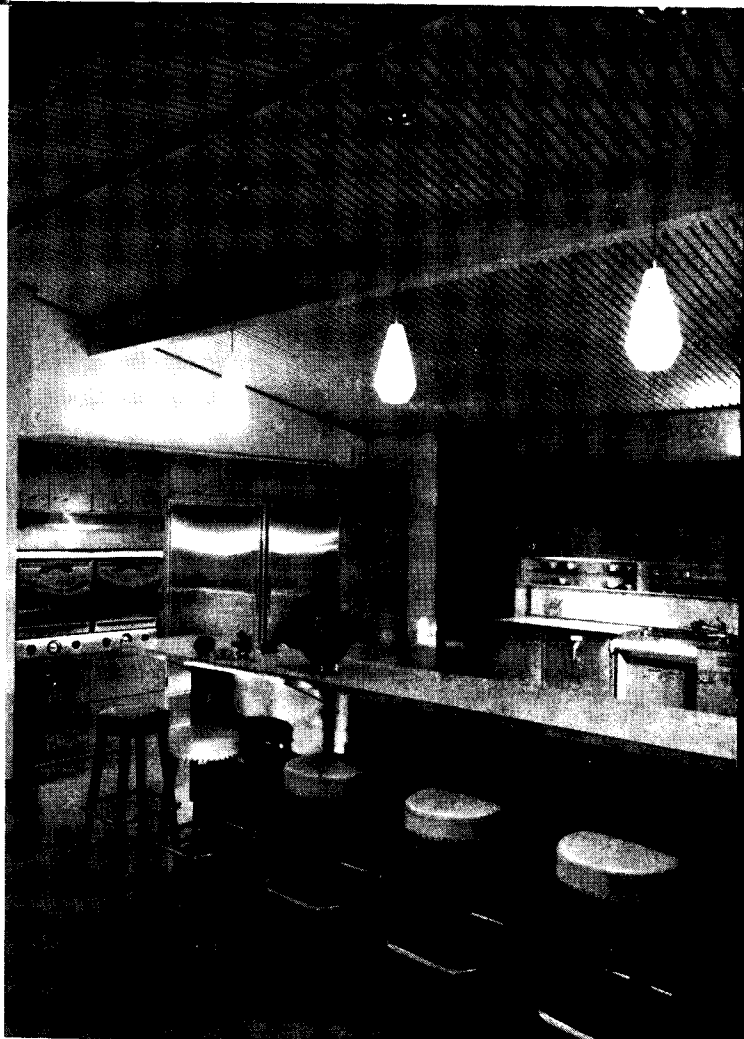


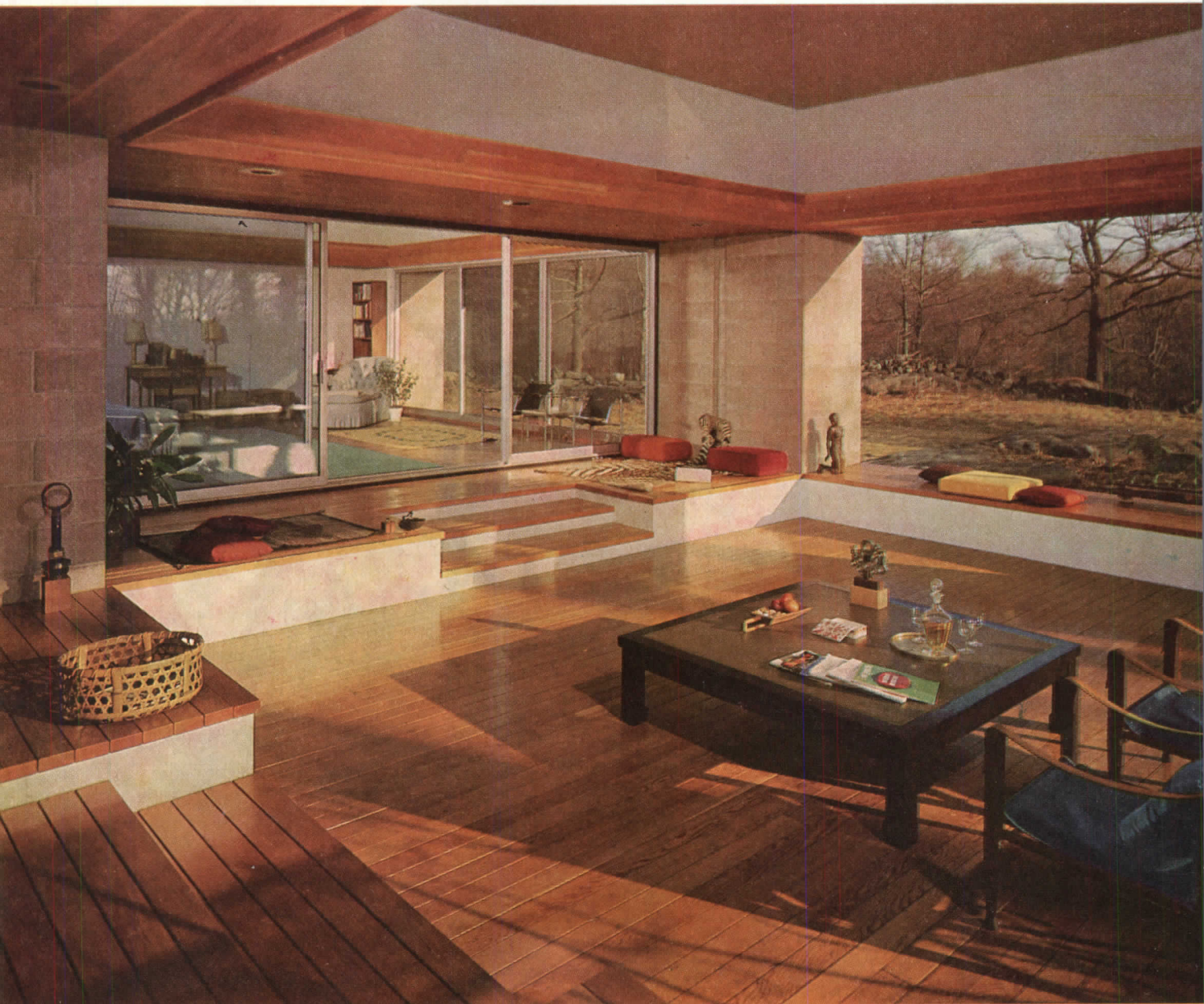
One of the many nice features of the Hoehn house is the laminated roof, exposed as the finished ceiling in the interiors. It is composed of 2- by 6-inch and 1- by 4-inch boards, with $\frac{3}{4}$ -inch wood dowel spacers. On the exterior the roof presents a very attractive dentilated edge.

The same care was carried through all parts of the construction and finishing. The basic structure is an exposed pattern of wood posts and beams with filler panels of glass, red cedar and tile; this rests on a base of brick-veneered concrete walls.

The interiors are walled with painted plaster and stained wood paneling, except for ceramic walls and floors in the baths. Other floors are finished in carpet, travertine or walnut, and slate in the downstairs playroom. This room also has a suspended acoustical plaster ceiling for sound control. All windows and glass doors are double-glazed. The sliding units have aluminum sash, while the fixed ones are framed in wood. Aluminum sliding screens are provided for all units that open. The entrance and all interior doors are flush wood.

The house is year-round air conditioned, supplemented by exhaust fans in the spacious kitchen and in all bathrooms.





ARCHITECTS: ULRICH FRANZEN & ASSOCIATES

ASSOCIATE ON JOB: *Sam Nysten*

Residence for Mrs. Virginia Hubbard

Greenwich, Connecticut

CONSULTING ENGINEER: *Vladimir Busch*

CONTRACTOR: *Emil Toikka*

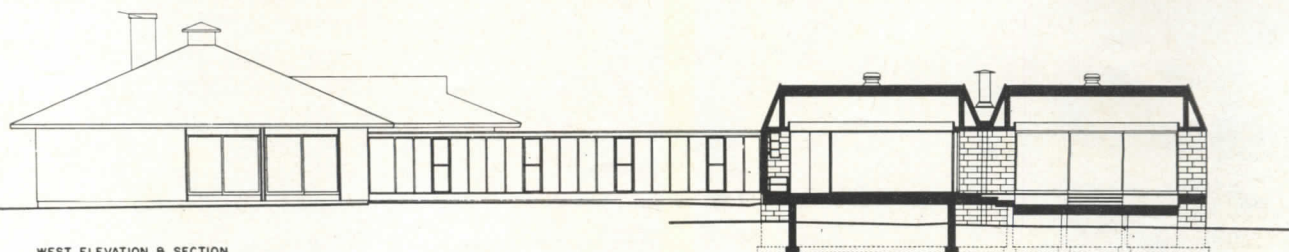
ADDITION FITS COTTAGE FOR A NEW WAY OF LIFE

This extremely interesting and sophisticated house had its origin in the needs of a family whose children had reached college age. With the children away a good part of the time, their original house was too big, while another one on the property was inadequate.

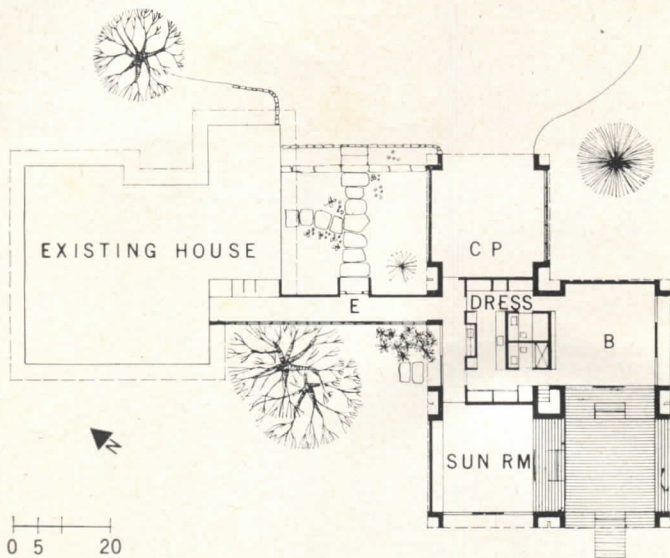
The architect states that: "a run-down cottage on a spectacular site was to be remodeled for a 'one-level life,' and the larger house on the same grounds was sold. The remodeling program called for a sitting room, a bedroom, a terrace and a carport. It quickly became evident that substantial changes in the existing cottage would cost more than new construction. This scheme groups the new construction into a cluster of units tied to the cottage by a new entrance hall."

The old cottage was merely simplified and freshened up, and a bi-nuclear, contemporary house is the result. The new wing is essentially for quiet and adult use, while the original part serves the active needs of a family and their grown children.

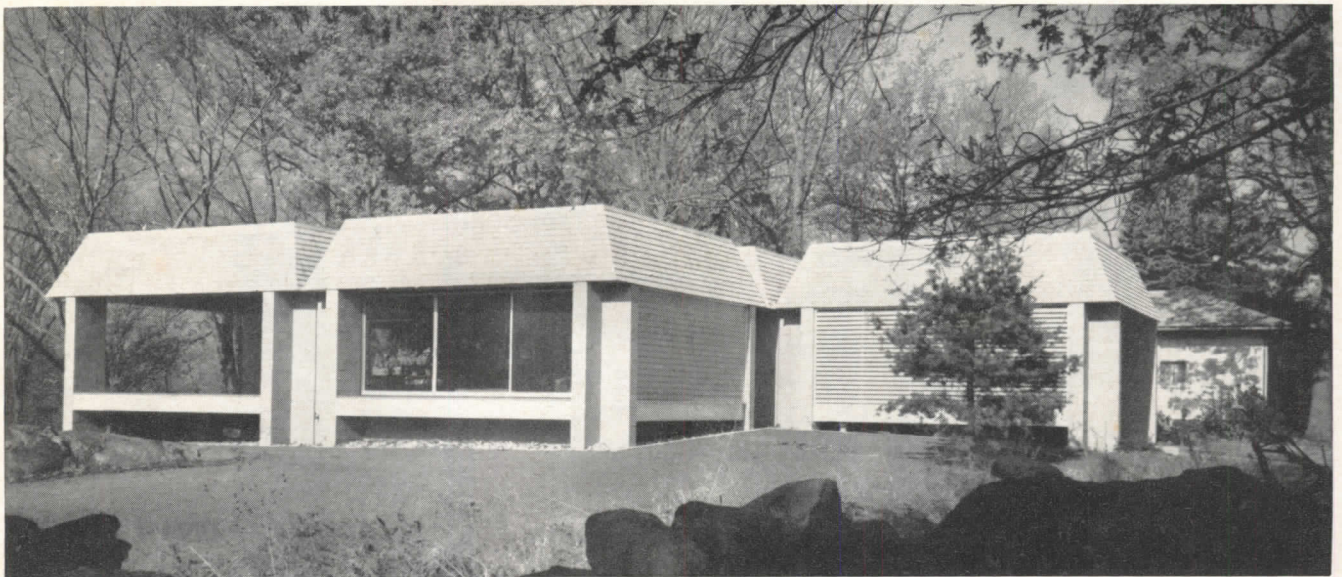
Though totally different in design, the old and new sections were given unity by use of the same materials: gray clapboard siding and sloping shingle roofs. But here the similarity ends, and the new wing becomes the dominant and arresting focal point of the house compound (see photos on the next page). Each new room, including the open terrace (shown here, and in color on the cover), is roofed by a truncated hood on concrete piers.



WEST ELEVATION & SECTION



CLUSTERED UNITS OF NEW WING
GIVE ROOM INDIVIDUALITY



As can be noted in the plan, the hall linking the old and new wings of the Hubbard house also creates a very pleasant entrance court. The front side of the hall is closed-in and forms a gallery for the display of paintings. The opposite side as seen in the photo (*left*) is all glass, and overlooks the pleasant stream shown in the photo (*right*).

The new rooms are generous in size, but seem even larger because of the wide expanses of sliding glass sash. When open these can be protected by glass fiber screens. A strong horizontal return at the lower roof line gives a pleasant unity to all the openings, whether they are glazed or not.

The interiors have painted gypsum board walls and red oak floors; baths are surfaced with unglazed ceramic tile. Ceilings are gypsum board and Douglas fir boards. Heating is by a warm air, down flow furnace, with ducts sized for future air conditioning.



A SIMPLE, WELL-DESIGNED HOUSE FOR \$15,867



ALEXANDER GEORGES PHOTOS

ARCHITECT: WILLIAM MORGAN

Residence for Mr. & Mrs. Alvin D. James

Atlantic Beach, Florida

CONSULTING STRUCTURAL ENGINEER: *H. W. Keister*

CONTRACTOR: *Charles J. Pyatt*

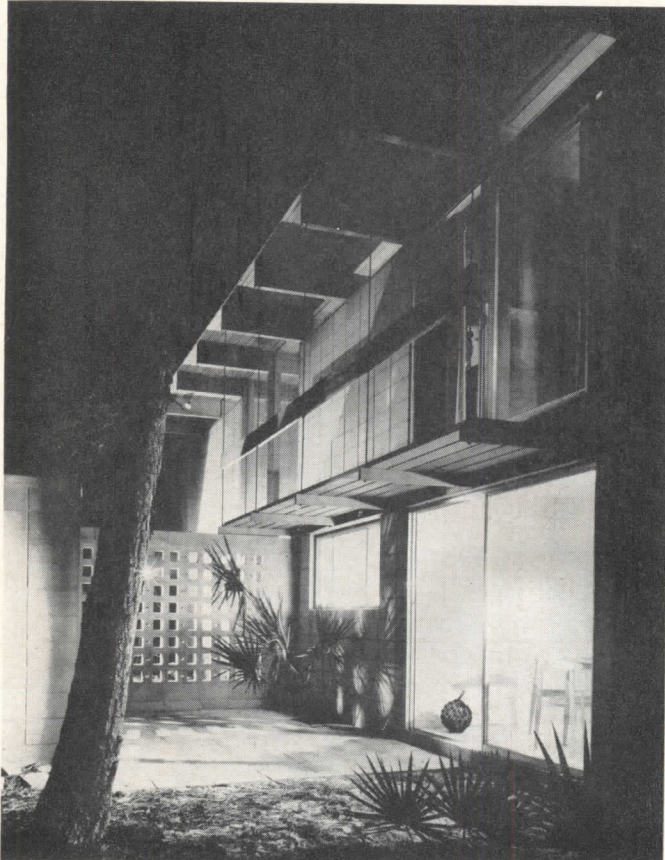
This trim house is excellent proof that a well designed, livable home for a family of five can be built for a reasonable budget. The owners who have three girls (ages 8, 5 and 2), desired a house in which they could entertain frequently and informally, and which had a separate children's activity area that would not have to be tidied up when unexpected guests drop in.

To fulfill these requirements, the architect created a very effective two-story entrance and living area, flanked by a separate but connected family and dining room. A third living space is provided by a balcony sitting area. These rooms have a sense of spaciousness unusual in a small house. Changes in ceiling heights, glass walls opening on little terraces and simplicity all contribute to this effect. The cost was kept down by use of a compact, rectangular plan, and simple materials.



LOW CEILINGS IN SUBSIDIARY ROOMS
 DRAMATIZE TWO-STORY LIVING AREA

ALEXANDER GEORGES PHOTOS



The James house is built on a lot with a little pine grove, and located about 200 yards from the Atlantic Ocean. Setbacks on all sides of the site limited the building area to 22 by 52 feet. The house was carefully placed, and the trees were protected during construction to maintain the natural landscaping. Privacy from neighbors close by on the north is assured by a blank wall on that side.

The high central space in the house is made to appear even larger by contrasting it with low ceiling heights (7 feet 4 inches) in the other rooms on the first floor. The openness of the high space is preserved by use of an open staircase, and a "bridge" to connect the master bedroom and children's bedrooms on the second floor. A delicate wood lattice shields the upper glass wall of the living room from sun and glare. Except for high glass strips between the roof beams and narrow ventilating windows, the children's bedrooms are enclosed by unbroken walls for quiet and seclusion. The master bedroom has a sliding glass wall opening on a little balcony suspended from the roof by steel rods.

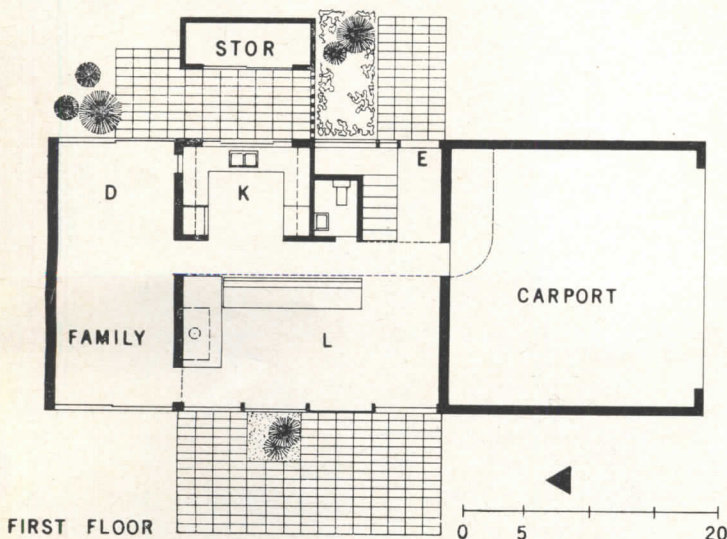
On the main floor, the kitchen is placed at a rather unorthodox location, but appears to work well for a household with three children. A pass-through connects it with the dining end of the family room. A little dining terrace is just off these rooms (left) screened by a fence flanking the entry and a little storage house. As can be noted on the plan, the carport is incorporated into the volume of the house, and substantially increases the apparent size of the building.

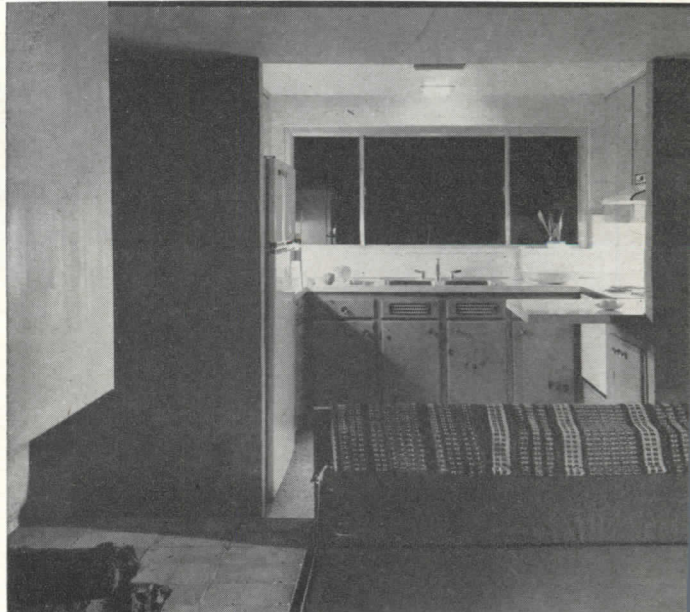
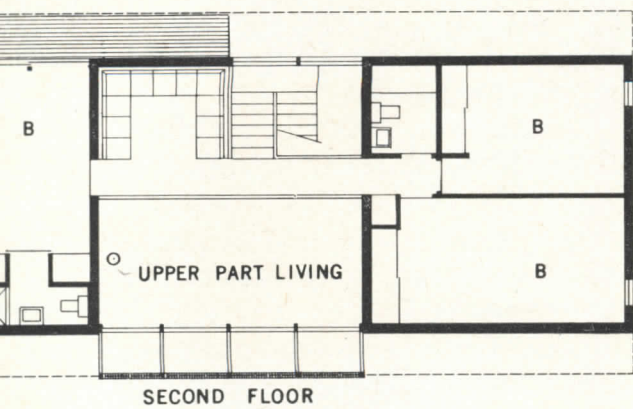
The structure is built with concrete blocks on grade, and load-bearing concrete block walls. Floors on the first level are terrazzo. The second level has wood joists and floors of vinyl tile on plywood. The roof construction has 4- by 12-inch beams on 5-foot centers spanned by 2-inch tongue and groove wood planks laid flat. These are topped by rigid insulation and built-up tar and gravel roofing. All non-bearing second floor partitions are drywall panels on wood studs.

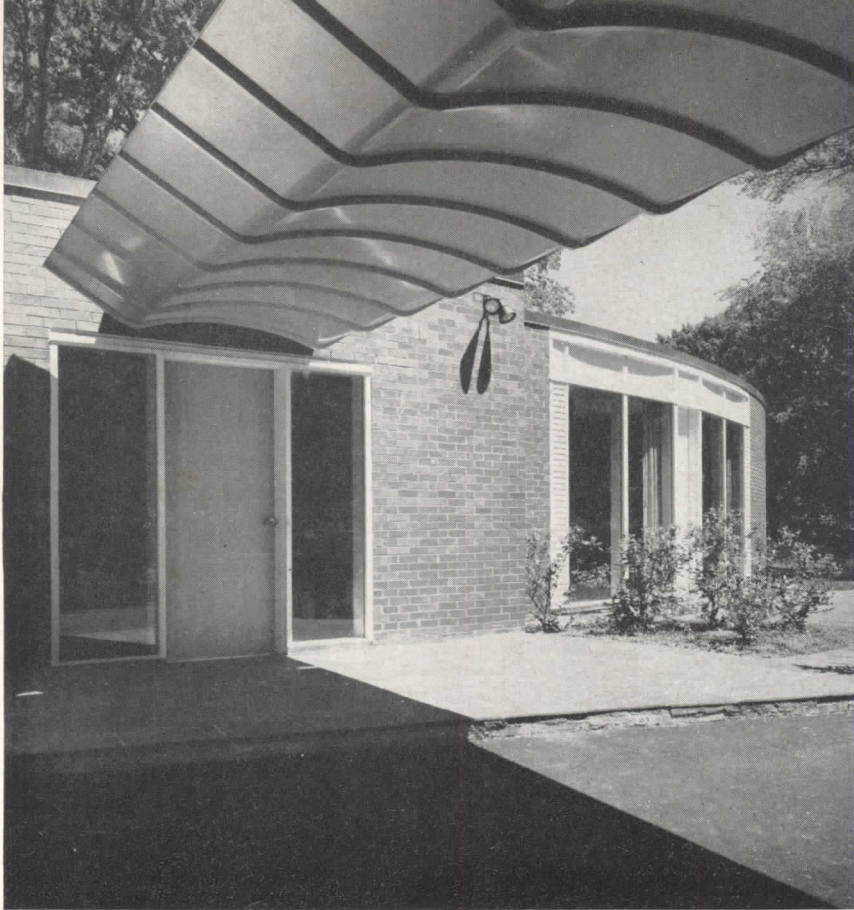
The finishes throughout are mostly natural ones. The beige concrete block is coated with clear silicone waterproofing, and all exposed woodwork is strained driftwood gray. Bathrooms are finished in mosaic tile.

Heating and air conditioning is provided by a horizontal heat pump unit under the carport ceiling, from which a single duct runs under the balcony bridge to serve all rooms.

The cost was \$15,867, excluding land, kitchen appliances and architect's fees. The square foot cost was about \$8.62, a bargain price for these days.







HEDRICH-BLESSING PHOTOS

The curving facade of this large, restful house has been well adapted to accommodate several restricting site requirements. The lot is a fair sized, beautifully wooded one on the shore of Lake Michigan. The owners wished to have the house set well back from the street for privacy, and to accommodate off-street parking for guests. A large lawn between the house and the lake view was also desired. However, about half of the property consisted of an abrupt slope down to the lake, leaving a not too large area for the house and lawn. This was solved nicely by the crescent shape, with the ends turning away from the street to enclose a central lawn at the back.

For greater privacy, the front of the house has relatively few openings and mainly contains service areas. All major rooms open out the back to the gallery, lawn and view.

Parking is provided in a circular entrance drive; at the center is a "drive-through" garage, with doors on both sides, and connected to the house by a *porte cochère*. The house is black brick with white trim. Windows are fixed glass flanked by louvers, which can be adjusted for controlled ventilation free from drafts. Screens are fitted over these ventilators, so the view through any glass is unobstructed.

ARCHITECTS: GEORGE FRED KECK —
WILLIAM KECK

Residence for Milton Hirsch

Highland Park, Illinois

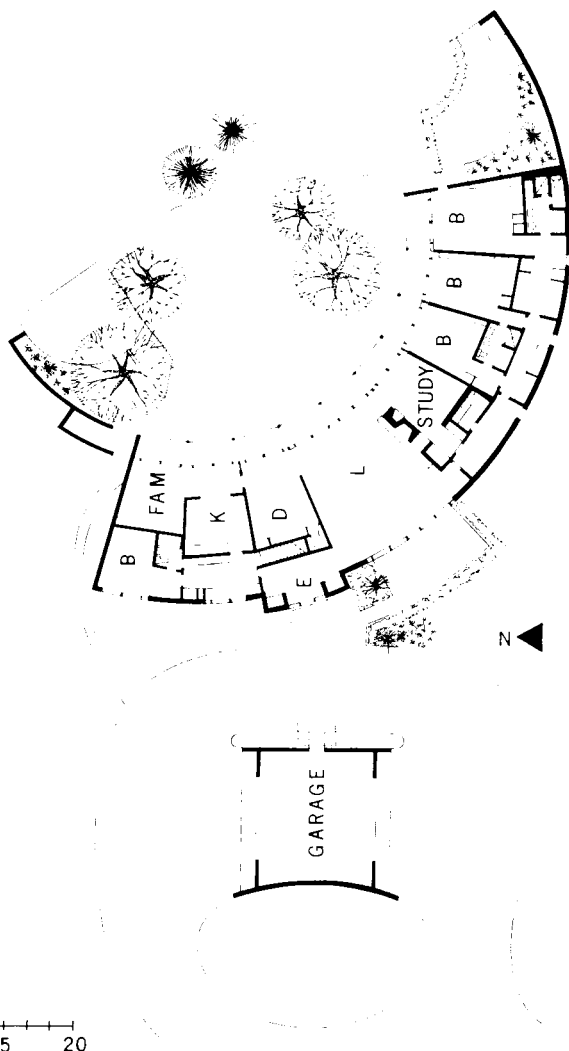
CONTRACTOR: *R. H. Roberts Construction Company*

LANDSCAPE ARCHITECTS: *Atkinson & Fitzgerald*

INTERIOR DESIGNER: *Marianne Willisch*

CRESCENT HOUSE TO ENCOMPASS A LAKE VIEW





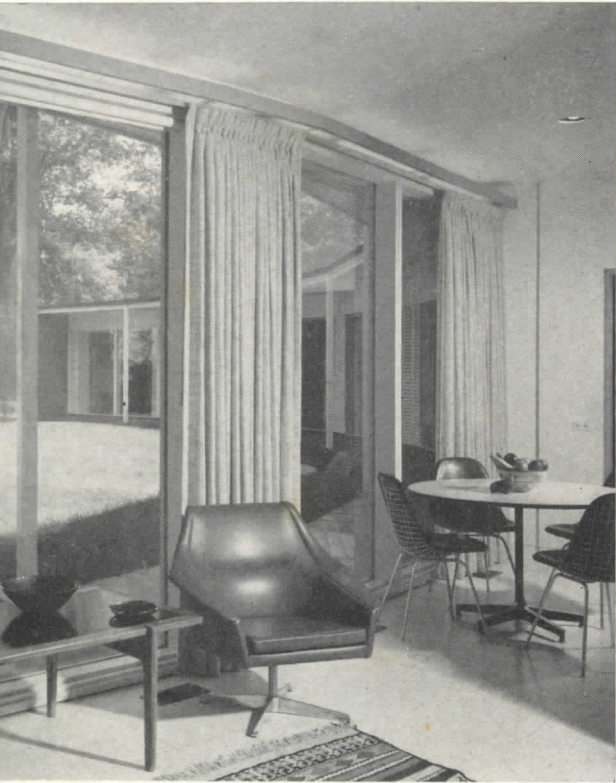
The Hirsch house was planned for a somewhat formal way of life, and as a suitable background for a growing collection of paintings and sculpture (only a few items from the collection can be noted in these photos). With this in view, rooms are equipped with recessed picture moldings, recessed directional ceiling lights, and (in the living room) stands and glass cases for sculpture.

The structure has poured concrete foundations and a partial basement. Exterior walls are brick, with double-glazed windows. The flanking louvers, a typical and handsome detail of the Kecks, are of aluminum and fitted with screens. The house is air conditioned and uses gas-fired hot water heating.

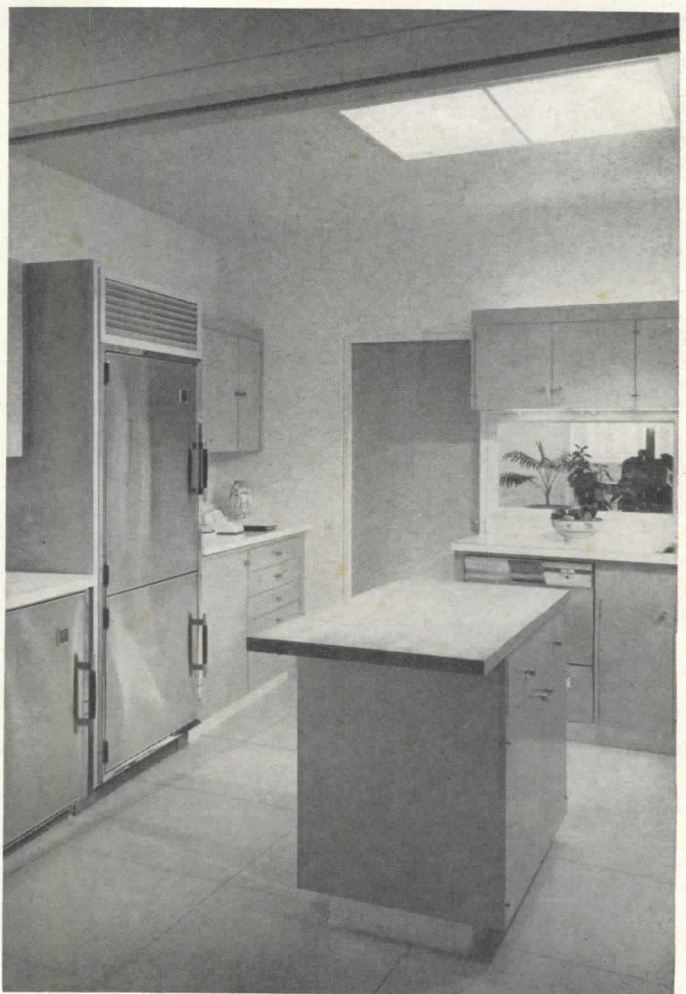
The interior walls are finished with plaster, except for the baths, which are marble and tile. Floors are parquet wood in the living areas, terrazzo in the kitchen, and asphalt tile in the playroom (*top right*). The kitchen ceiling is acoustical tile to reduce noise transmission. Plastic skylights are used to add light to dining room, kitchen and baths.

The plan is simply organized, with living-dining areas in the center, flanked by bedrooms to the east, and service areas and playrooms to the west. The playroom has an area for breakfast and informal meals.

Terraces and walks are slate; there is provision for sculpture to be added outside.



ELEGANT FINISHES AND DETAILS
COMPLEMENT OWNERS' ART COLLECTION



When designing his own house, Thomas Lehrecke set himself the dual task of fulfilling the requirements for his family and those of a prototype for a 15-unit development. After careful analysis, these requirements were simplified to three criteria for the design: (1) low cost construction; (2) flexibility and adaptability of the layout; and (3) contemporary architectural design.

This handsome, orderly house succeeds very well on all three counts, and has been handled with a quiet restraint that could well bear repetition. Changes in color and landscaping

could give the needed variety in a development. The exterior of this well-detailed prototype relies on natural finishes of redwood Douglas fir and concrete block, accented with white panels.

The cost of this good size house (two living areas, four bedrooms) was kept \$28,000 by a compact design, short plumbing and heating duct lines, and standard size simple, conventional materials. With the exception of routing one jamb, materials were cut only in length. This price could be lower if the house was built in quantity.

BEN SCHNALL PHOTOS





ARCHITECTS: OPPENHEIMER, BRADY
AND LEHRECKE

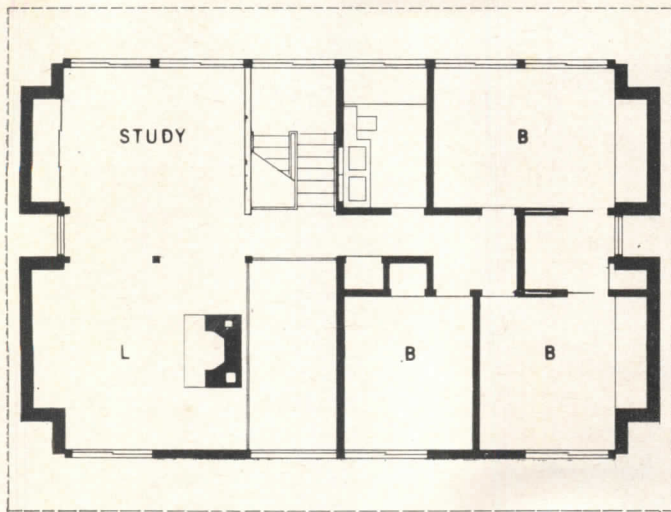
PARTNER IN CHARGE: *Thomas C. Lehrecke*

Residence for Mr. and Mrs. Thomas C. Lehrecke
Tappan, New York

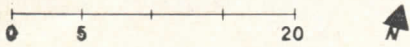
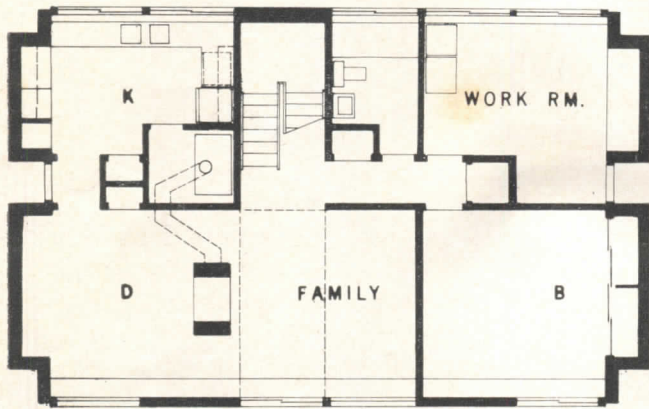
CONTRACTOR: *Voto and Low Construction, Inc.*

ARCHITECT'S HOME IS DEVELOPMENT PROTOTYPE





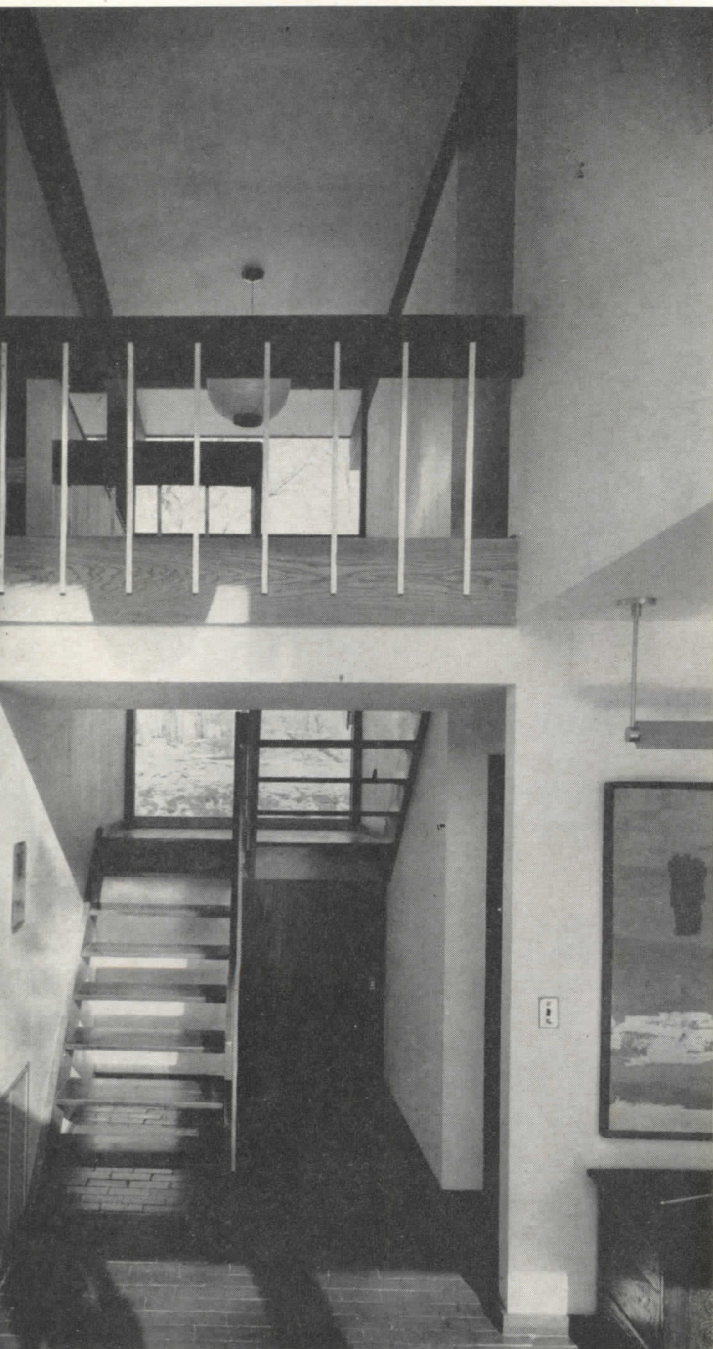
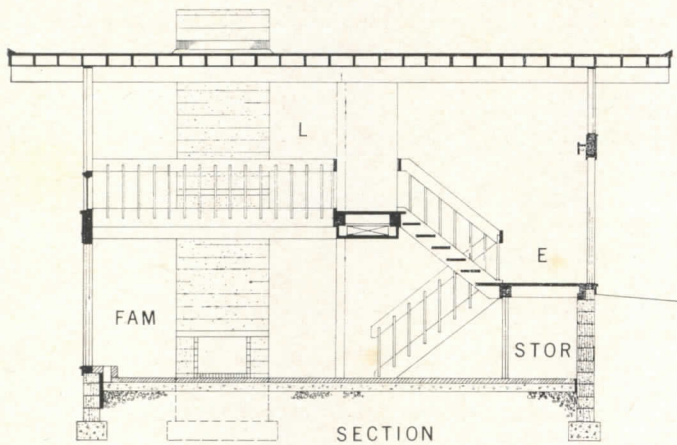
UPPER FLOOR



BEN SCHNALL PHOTO



A MID-LEVEL ENTRY GIVES EASY ACCESS TO ROOMS ON BOTH FLOORS



The Lehrecke house has more flexibility in its plan than might be remarked at first glance. Post and beam construction, with 14-foot maximum spans, makes all partitions non load-bearing and movable. In the plan developed here, it has also made possible the open plan in the living areas, and permitted the omission of flooring in one bay over the family room, giving a vertical flow of space from the lower to the upper level. This open space also gives a good view of the wooded landscape from the mid-level entry (*left*).

The plan is arranged with childrens' bedrooms in the eastern half of the upper level, and the master bedroom on the lower level for privacy and direct access to a future terrace and swimming pool.

Except for two conventional doors, in the center strips of the sidewalls, providing access to the kitchen and workroom, all openings are sliding aluminum doors with sliding screens. These allow maximum cross ventilation in the summer. Winter heating is by a hot air furnace.

The structure of the house has a concrete foundation, and a frame of Douglas fir. The roof is built-up. All interior walls and ceilings are gypsum wall board, painted. Floors are brick, red oak or tile. The staircase is built of oak, walnut and aluminum.

The architect states that, "the builder confirmed that this kind of house, if constructed in groups of more than 15 at a time, could be built for \$25,000 each," a competitive price.

CLASSIC ELEGANCE IN STURDY MATERIAL

ARCHITECT: EDWARD D. DART

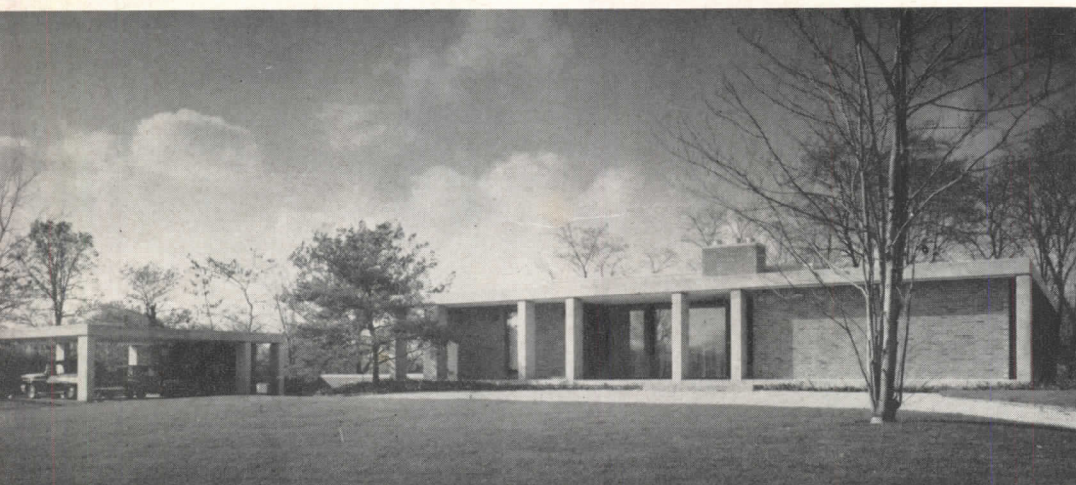
Residence in Highland Park, Illinois

ENGINEERS: *Samartano & Robinson*

CONTRACTOR: *Pepper Construction Co.*

LANDSCAPE ARCHITECT: *Catherine Cole Church*

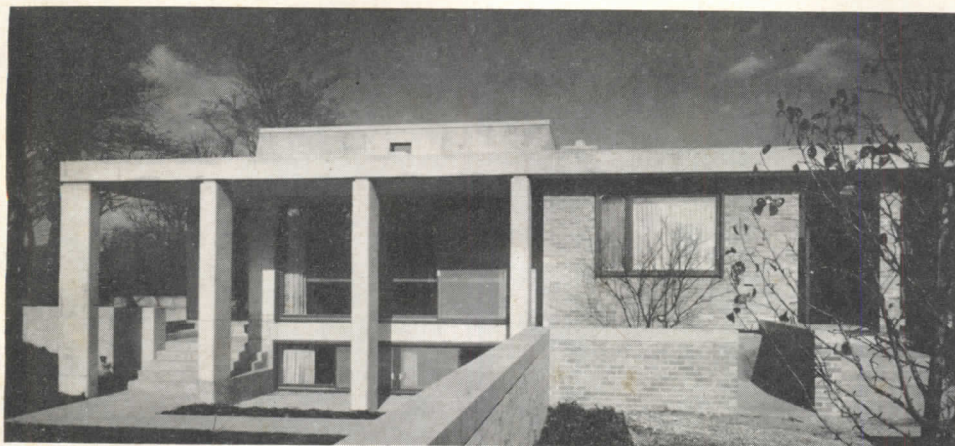
INTERIOR DESIGNER: *Bernice Davis Fligman*



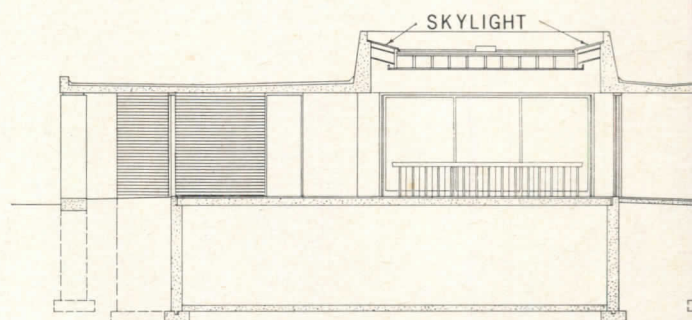
A very noteworthy and sensitive use of concrete, and other durable and easily maintained materials is apparent in this house. The main design force comes from the strongly expressed concrete frame, with its asymmetrically placed columns and slab roof; brick and glass fill walls are set well back to increase the effect. Among the niceties of detailing is an indentation created between the joint of the column to the underside of the roof slab. This was planned to avoid the invariably unsightly joint that occurs wherever the pouring of concrete is interrupted. The concrete has a good finish: plastic lined forms and careful vibrating during the concrete pouring gave a smooth light gray surface with no honeycombing. None of the concrete surfaces were worked over, except for washing to get rid of the "gravy" that occurs on the surface. The concrete is left exposed inside as well, complemented by floors of gum metal paving brick and ceilings of textured plaster or wood.



A "FLOATING" CEILING DRAMATIZES THE LIVING AREA

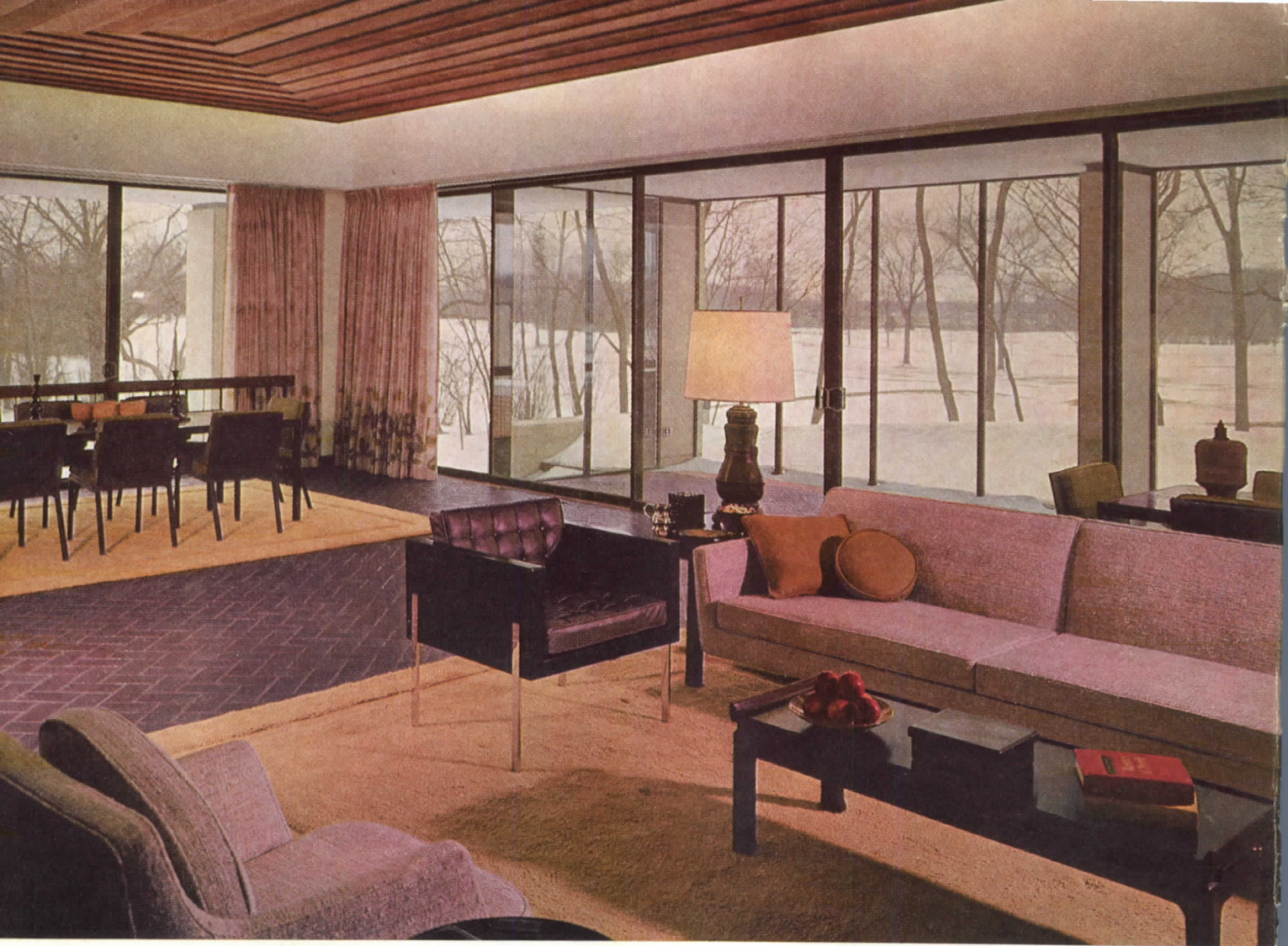


ROBERT NOWELL WARD PHOTOS



SECTION THROUGH ENTRY & LIVING ROOM

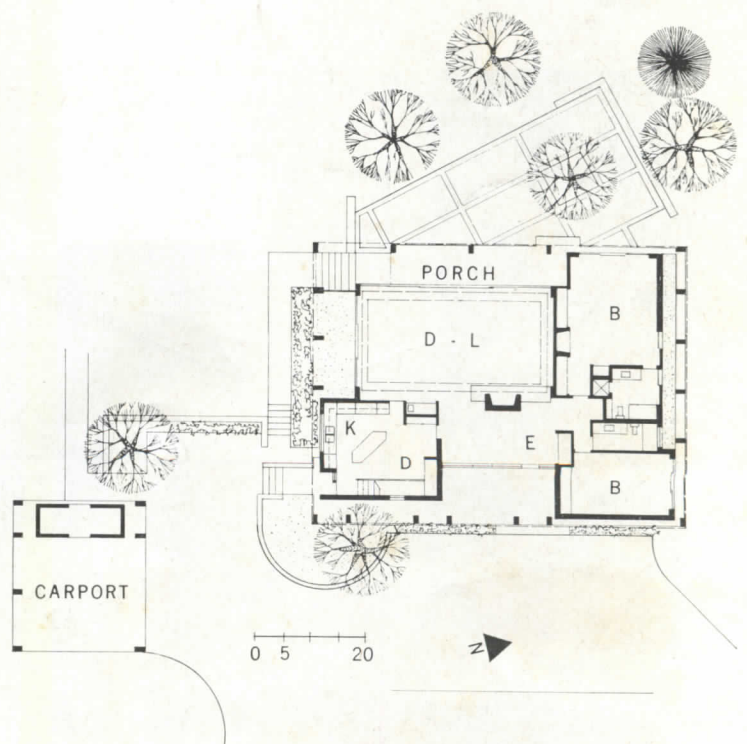




The Highland Park house is located on the edge of a golf course in a suburban neighborhood. Major rooms of the house open toward the westerly view of the course, with as little exposure as possible to neighboring houses. Wide roof overhangs give good sun control. To give added light to the living areas, an interesting "floating" ceiling was developed. A raised parapet was designed with walls to act as beams to support the long spans in the room, and to give a higher ceiling to the big area. Within this frame, a ceiling panel of wood frame clad with rough sawn lapped boards in a mitered pattern, was suspended beneath a peripheral skylight. The mass of the parapet also reinforces the strength of the exterior facades.

Though basically a one-story house, a slope of the land to the south was used to gain eight-foot-high windows in servants' rooms on that side of the basement. A utility room is located on the north side of the basement. Brick garden walls and steps help to make the level transition at the south corner. The house has air-conditioning and gas heating.

The cost of the house was approximately \$150,000, excluding lot, landscaping and interior furnishings.



NATURAL MATERIALS AND LANDSCAPE BLEND IN OPEN-PLAN HOUSE

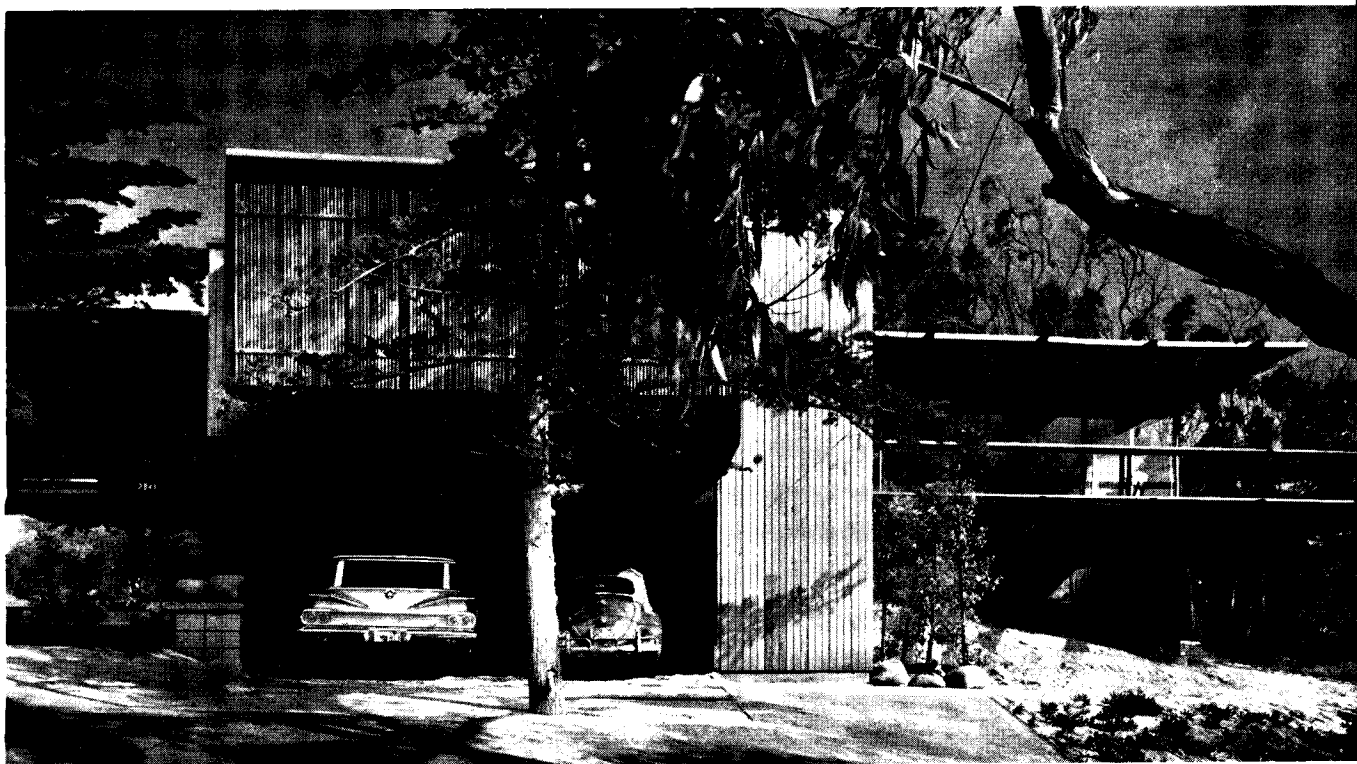
A deceptive simplicity pervades the design of this warm and extremely attractive house. Closer inspection, and in the entrance photo at right, will quickly reveal the careful detailing and material selection that has been put into its construction. Robert Jones describes it as: "An attempt to rest the structure in an unobtrusive way on the sandstone and among the existing trees and landscape, utilizing natural materials. The plan controls the psychological approaches to the different spaces and expands them into the nature around them. Privacy is controlled primarily by orientation and planting."

The "attempt" is a very successful one, with

a variety of terraces, porches and courts extending each room into its area of outdoor

The plan is a very open one—all the living areas are really one room, and the master bedroom has sliding plastic shoji screens for separation—but adroit use of baffle walls creates a series of intimate spaces within the over-all big "room." Variety in the vistas seen from different points in the house is controlled in the same way.

The actual enclosed space in the house is surprisingly small 1,600 square feet, considering how large the house appears. The cost was about \$30,000, excluding lot, landscape and furnishings. Heating is by forced warm air





DOUGLAS SIMMONDS PHOTOS

ARCHITECTS: HESTER • JONES AND ASSOCIATES

PARTNER IN CHARGE: *Robert E. Jones*

Residence for Mr. and Mrs. Robert E. Jones

Del Mar, California

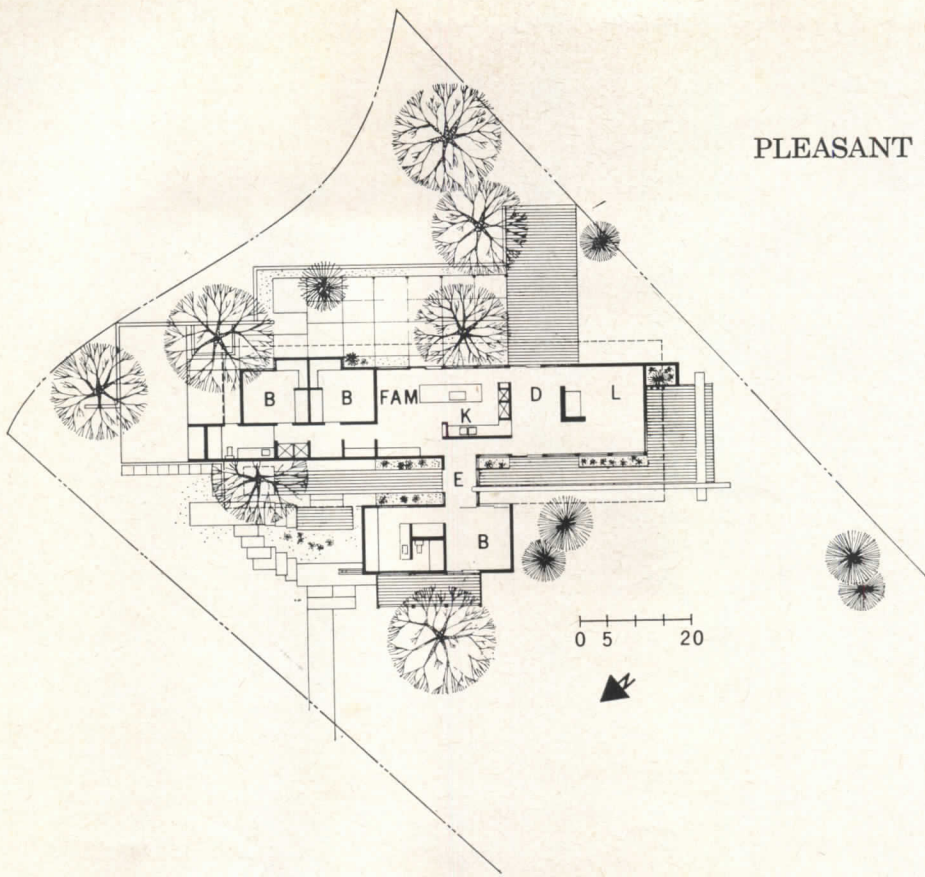
ENGINEER: *Harry F. Deardoff*

CONTRACTOR: *Herbert Turner*

LANDSCAPE ARCHITECTS: *Wimmer & Yamada*

INTERIOR DESIGNERS: *Design Center*

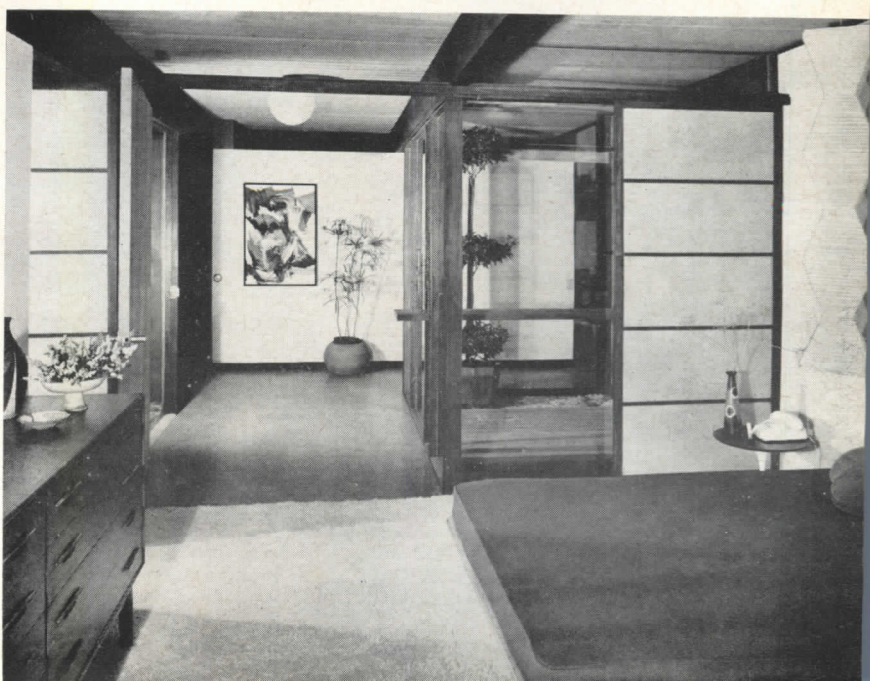
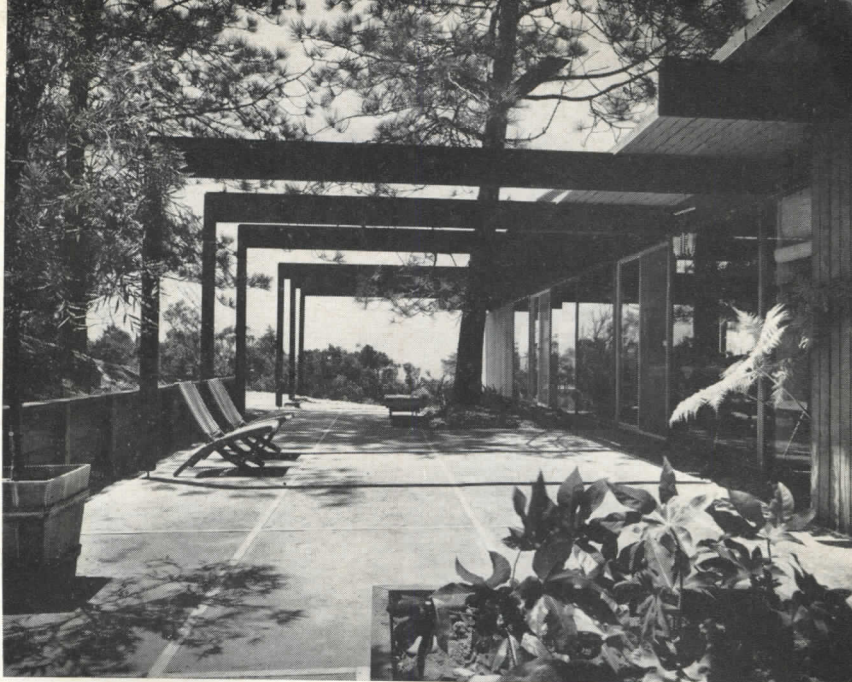
PLEASANT FLOW OF SPACE HIGHLIGHTS
EVERY AREA OF THE HOUSE

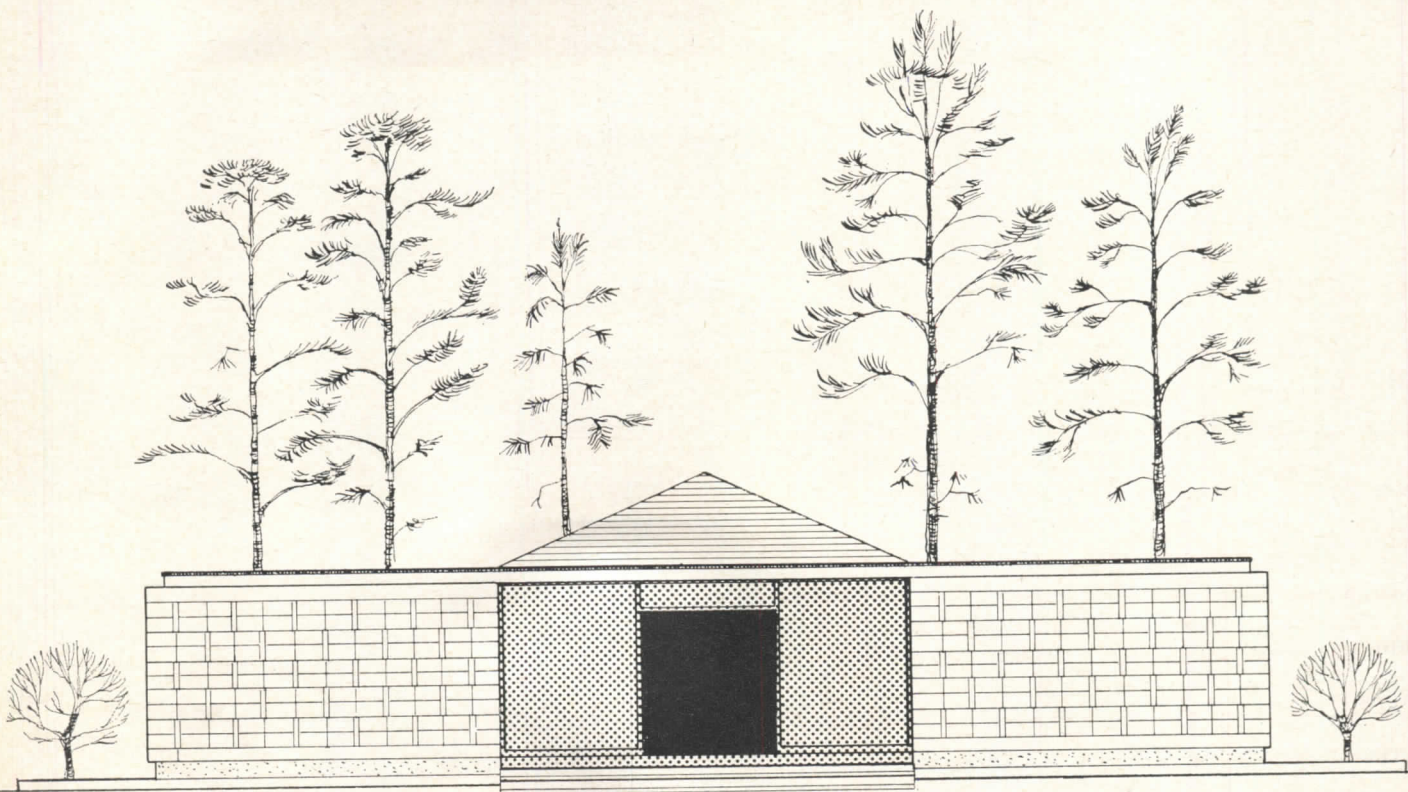


One of the many pleasant areas in the Jones house is the kitchen-family room (*across-age*). One entire wall of the room opens into the big terrace (*top right*), making it extremely convenient for either family meals or big buffet parties in nice weather. The kitchen appliances are arranged in a somewhat unorthodox manner in the room. Ovens and refrigerator are built into walnut cabinets at one end, and the sink set into the plastic counter of the adjoining fin wall. The range, however, is built into a "cooking and eating island" in the center of the room, and can double as food warmer for a buffet. The height of this unit was carefully studied to suit both uses.

The house was also planned for later expansion in three directions. The family room can be expanded beneath the structural supports forming a trellis over the terrace when the children grow to teenage and need an entertainment area of their own. For more formal dining, a room can be added under similar supports, and the present area converted into a music and bar room. Finally, a studio-guest room will be added beneath the living room, and will have a separate access from the remainder of the house.

The house has a Douglas fir post and beam frame on a concrete foundation, and exterior walls of redwood. The colors are kept soft: frame and trim are all brownish-black creosote; exterior concrete is colored with raw amber or whitish-ochre pebbles; and the walls finished in a buckskin hue. Interiors are similar, with gypsum board walls painted off-white or raw umber, and natural wood millings stained light gray. Floors are vinyl park, except for unglazed tile in the baths.





NEO-CLASSIC BUILDER HOUSE IN CONCRETE BLOCK

A symmetrical and classic design has been devised here for a development in New Jersey. It is built of a simple material—painted concrete block—but the over-all effect is one of considerable sophistication. Perhaps the most interesting stylistic feature is the handling of the exterior wall masses. All openings, windows and doors, are massed together in banks, leaving the masonry portions of the walls solid and unbroken. The masonry masses are further emphasized by projecting them beyond the lines of the foundation and cornice. The central portion of the house is opened front and back by glass walls, and flanked by inset terraces. Its apparent spaciousness is given further emphasis by the use of a pyramidal roof over the area; ceilings follow roof line.

The plan organization is a simple, but workable one, with three bedrooms to the right of

the living area, and dining room, kitchen and a fourth bedroom or study to the left. A storage unit shields the living area from the entrance and creates a foyer.

For repetition in a development, the house was planned for some variations of the projecting pattern on the exterior wall surface and of the raised portion of the roof. The latter would be obtained by using precast barrel vault sections, a concrete folded plate roof, or a raised flat-roofed area with a clerestory around its periphery. The building is designed around a 5-foot module, and can be varied in size by varying the size of the module.

The approximate cost of the house was \$25,000, excluding lot, and landscaping.

The house won the design and merchandising Eastern Region awards in the 1962 Concrete Industries Horizon Homes Program.

ARCHITECT: JOHN ROBERT GILCHRIST

Development House for Robilt, Inc.

Lakewood, New Jersey

ENGINEER: *Marcus Russell*

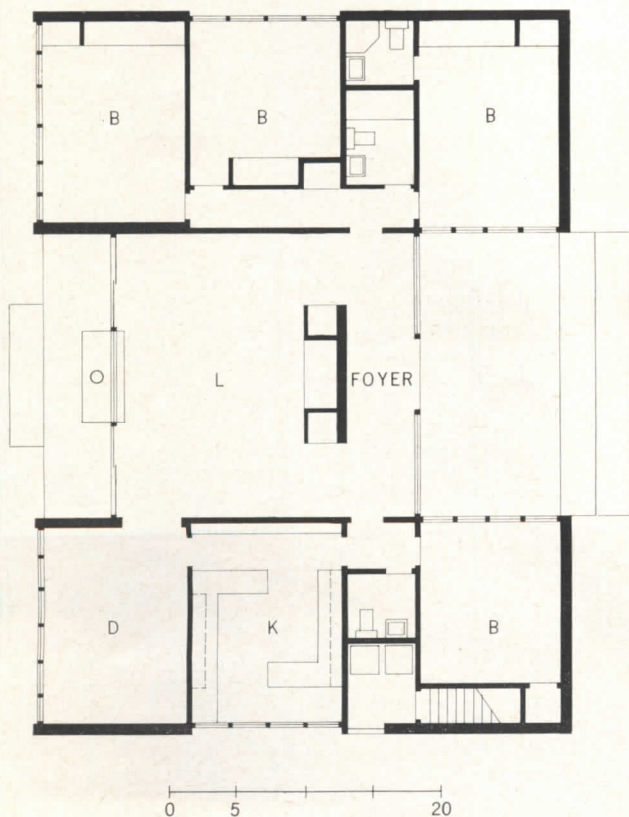
CONTRACTOR: *Robilt, Inc.*

LIGHTING CONSULTANT: *Robert Thompson*

LANDSCAPE ARCHITECT: *Joseph Theibault*

INTERIOR DESIGNERS: *Theodore Weiss Associates*



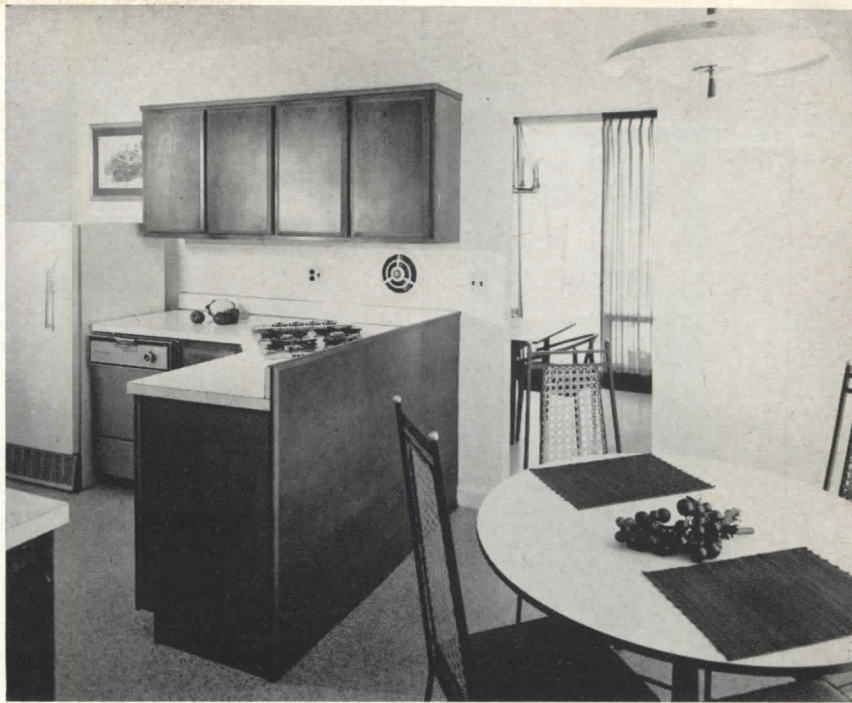


Several methods were used in the Robilt house to avoid a heavy appearance in the banks of solid masonry walls. These include the previously noted projections of the walls and the grouping of the windows, as well as floor to ceiling windows, light colors, and surrounding the house with a gravel garden.

The structure was built of concrete block cavity walls on 12-inch block foundations. Interior partitions are painted or papered wallboard. The roof has wood rafters, plywood deck on flat areas and built-up surfacing. The rafters and pine sheathing of the pyramidal roof are left exposed.

The original scheme for the house, as shown in the plan, was designed with a basement. The model shown in the photographs, however, was constructed with a concrete slab on grade, with the stair space devoted to the mechanical equipment required for heating, cooling and ventilating. The floors are surfaced with carpet, vinyl and inlaid linoleum. The plan was also reversed for its particular, corner site. A detached garage of similar design to the house is on the service wing side, and shields the garden.

E DESIGN AND COLORS OF THE
USE GIVE A LIGHT AND AIRY
LOOK TO THE MASONRY STRUCTURE



JOSEPH W. MOLITOR PHOTOS





WARREN REYNOLDS OF INFINITY, INC. PHOTOS

AN ATRIUM ADDS AN INDOOR GARDEN TO A NORTHERN HOUSE

Considerable farsightedness for the inevitable changes in family occupancy are apparent in this serenely elegant house. It is a large house with seven bedrooms, planned for a young couple with small children. However, the bedrooms were explicitly planned so that they could be easily shut off when the children go away to college. The present maid's quarters are also designed to serve as a future guest suite with a private garden.

The house is built on a 40-acre site with meadows, woods and a small lake, and rises to a wooded hill on the northwest. The area chosen for the house was a narrow ledge half way up the hillside for protection from the severe northwest winds. The house was carefully sited so that few of the large, old trees were lost. Landscaping was planned for a long range development of the site's natural assets. A hedge of yew and a gravel bed around the perimeter provide a base for the house. To supplement planting for months beyond the short growing season of the area, the big entrance hall has been developed into a lush skylighted atrium, or entrance court.



ARCHITECT: BLISS AND CAMPBELL

House in Minnesota

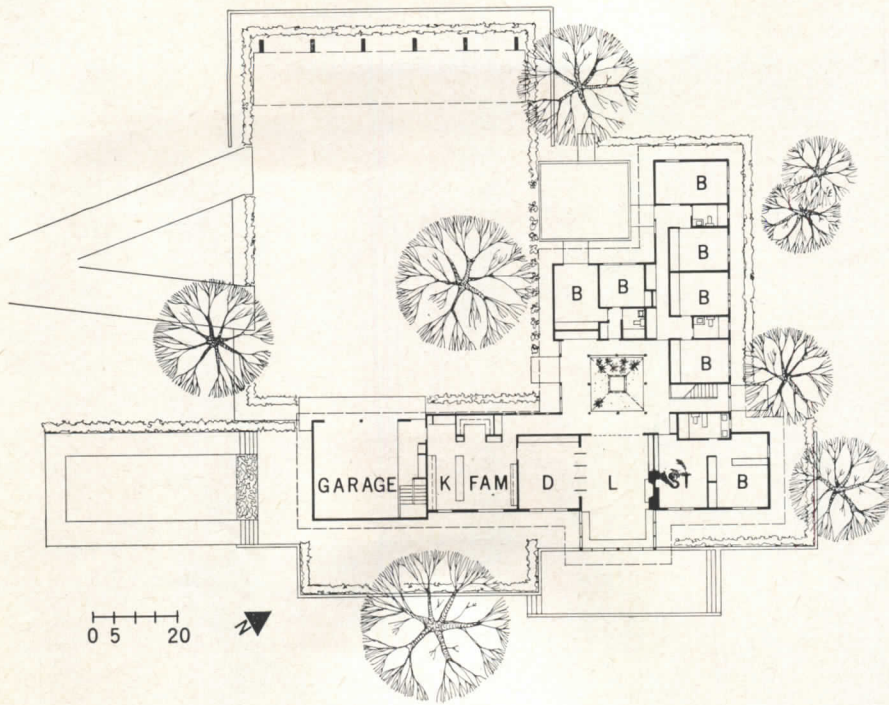
STRUCTURAL ENGINEERS: *Meyer & Borgman*

MECHANICAL ENGINEERS: *Frey & Bergsten*

CONTRACTOR: *Joe Peterson*

LANDSCAPE ARCHITECT: *Dan Kiley*

INTERIOR DESIGNERS: *Dayton's Studio*

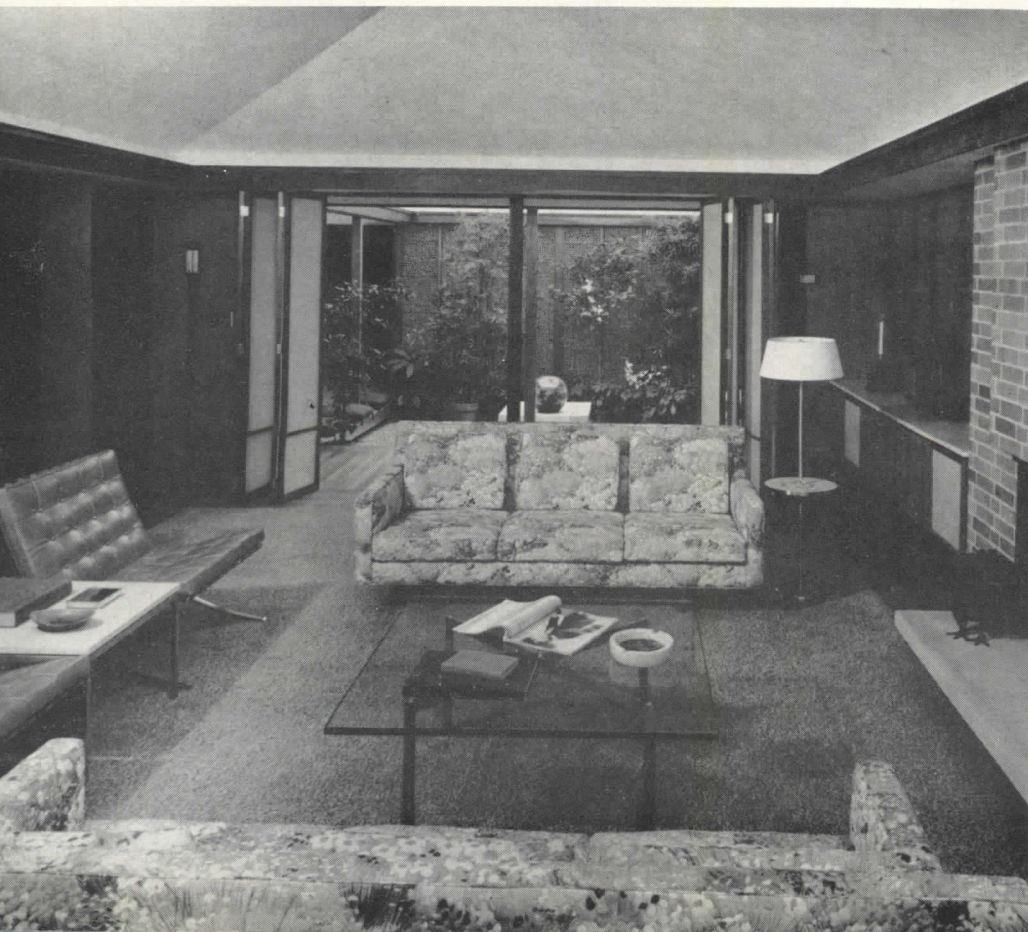
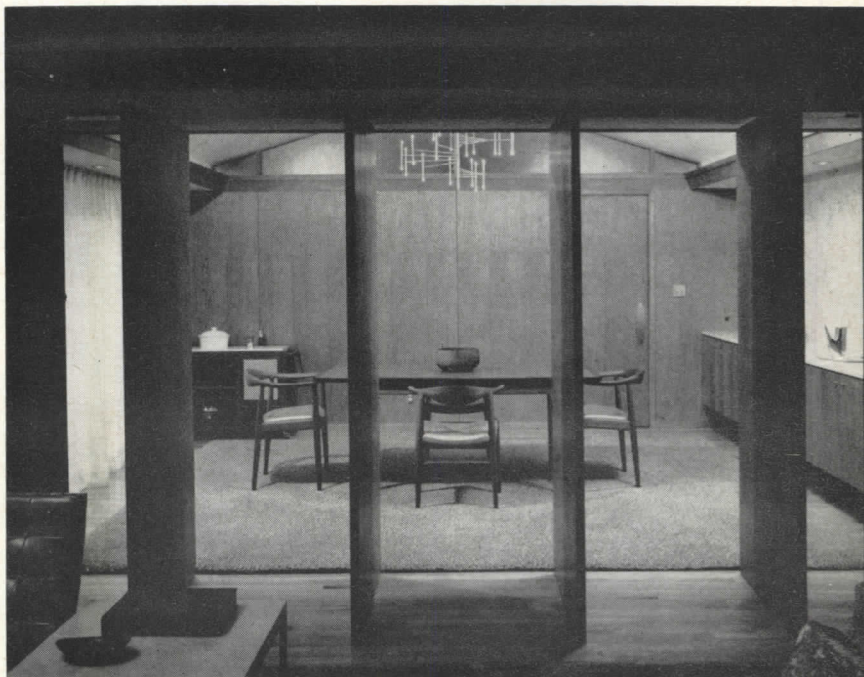


specially during the cold winter months, the courtyard adds pleasant daylight and vistas of greenery to the living areas and hallways of this Minnesota house. Translucent folding and sliding doors close off the areas when needed.

As noted previously, the bedroom wing is divided into three sections: the master bedroom suite and study are in the lower right corner of the plan, the maids' (and future guest) bedrooms are at left center, and the remainder are for the children. Any of these can be shut off from the rest of the house, as needed.

The house is built of wood frame on concrete block foundations. The exterior is natural cedar boat lumber. The roof is pitch and gravel for the lower pitched areas, asphalt and gravel for the steep ones. Interior walls are cherry paneling and trim, combined with plaster for contrast. Floors are oak in the main living areas, cork in the children's wing, charcoal marble pebbles set in cement for the court floor. Marble is used for the fountain tab, and for the counter tops of the cherry built-in cabinets. The screens in the court are stained bamboo. The house has a warm air heating and ventilating furnace, with a three stage oil burner. There is a small laundry in the children's wing, and a basement laundry, storage, shop and playroom.

UNUSUAL WALL OPENINGS MERGE SPACE OF COURTYARD TO MAIN LIVING AREAS



WARREN REYNOLDS OF INFINITY, INC., PHOTOS



AN ELEGANT SMALL HOUSE DOUBLES ITS APPARENT SPACE BY A SEMI-ENCLOSED COURT

ARCHITECTS: KILLINGSWORTH, BRADY, SMITH

ASSOCIATES

Residence for Mr. Edward Frank

Long Beach, California

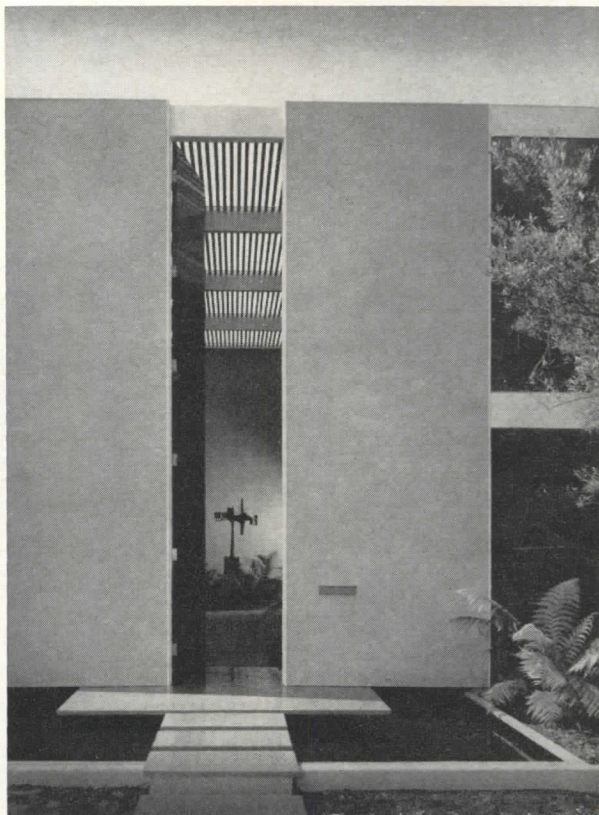
CONTRACTOR: Stromberg & Son

INTERIOR DESIGNER: Edward Frank

This handsome, sophisticated little house gets quite an air of grandeur from its big walled-trellis-covered entrance court. The site is a long, narrow one, facing the water front at one end, and a public street on the other. As each approaches are used frequently, entries are placed at both ends of the court, to afford a rather spectacular arrival from either direction. The sides and street front of the house are blanked off for privacy, and all major rooms open, via glass walls, on the court. The solid walls of rooms facing the water are simply glazed. Draw draperies are provided for times when privacy is required.

The solid walls are constructed of pre-assembled, two-story-high panels. Their verticality is emphasized by the use of an entrance door of the same height on the water side.

The house is one of the latest to be constructed under Arts and Architecture's "Case Study House" building program.



JULIUS SHULMAN PHOTOS



The plan is a simply arranged, open one. At the street front, the carport and a covered entrance terrace are at the ground level, flanked by the little service wing with separate entrance at the side. The remainder of the first floor is one big room, with only a cabinet to separate the living and dining areas.

On the upper level, the study and master bedroom suite also form one big open area, but the rooms can be shut off by sliding doors. A guest room is set somewhat apart at the front of the house, and opens onto an upper terrace over the carport. A short brick fire wall at the street end adds privacy to the room. The guest bathroom is placed so it can double as a powder room.

The main "decoration" in the house comes from lush plants and shadow patterns cast by the trellis topping the court. One might also add the elegant reflecting pool edge of the court and waterfront entrance. All other details have been kept utterly simple and unobtrusive, making the sensitively worked-out proportions the dominant factor in the design. Interior furnishings have also been kept to a well-chosen minimum.

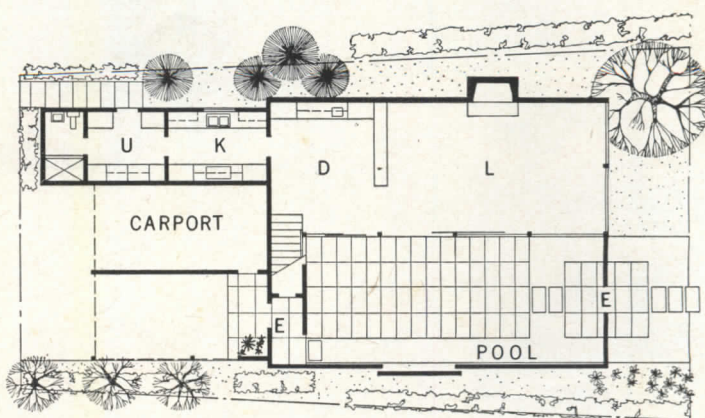
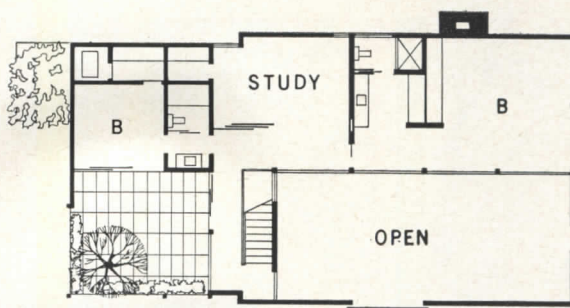
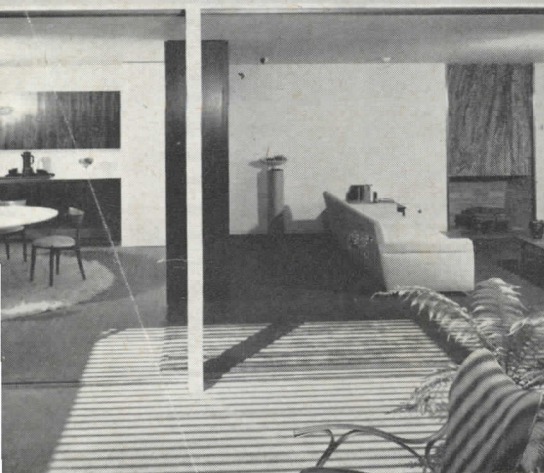
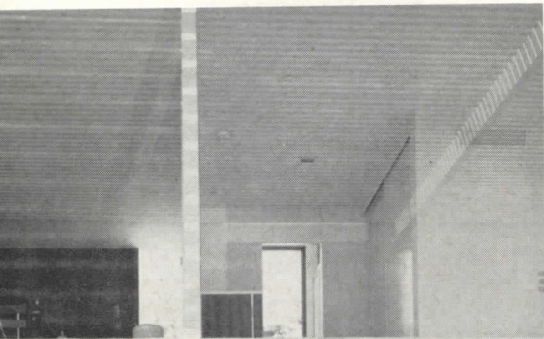
JULIUS SHULMAN PHOTO



The Frank house is framed with Douglas fir, with exterior wall panels of painted plaster. Similar painted plaster is used for walls and ceilings throughout the house. The roof is flat and surfaced with built-up tar and gravel with insulation batts in the joist space. Sliding glass doors and windows are framed in aluminum.

The dramatic entrance door is metal clad, and measures 3 feet 6 inches by 17 feet 4 inches. All other doors are flush wood, except for the use of textured plywood for the garage door. The house has year-round air conditioning in the enclosed parts. The kitchen and baths have exhaust fans. The house is also equipped with a built-in Hi-Fi and intercommunications systems, and has a low-voltage, remote control electrical wiring system. Kitchen equipment—including sink, range, refrigerator, garbage disposer, dishwasher and oven—is all built in. Cabinets are walnut, with laminated plastic counter surfaces in kitchen and baths.

Floors in the living areas are carpeted. Those in the dining room and the court are carry tile. Vinyl asbestos tile is used in the kitchen and vinyl tile in the baths.



0 5 20



LOWER FLOOR

A TWO-STORY HOUSE USING A SYSTEM OF STEEL COMPONENTS

This extremely pleasant, attractive house is a further development, using steel components for the shell, of Carl Koch's well known *Techbuilt* design in wood. Interior finishes are of more standard materials which have been available for some time. The architects and developers expect that the new methods, and the steel system used here, will substantially reduce maintenance, speed erection and cut construction costs of houses. There is, of course, considerable design and plan variation possible in the use of the components. The basic elements of the system include: (1) a roof formed as a stressed-skin truss, using an aluminum-coated steel roof sheet as the top chord; (2) a load-bearing, window-wall system; (3) load-bearing, prefinished exterior wall panels; and (4) a floor-ceiling system that also functions as an air distribution system. The roof truss and steel framing system provides open spaces for flexible, non-bearing interior partitions. The steel shell erected is priced at about \$4,076 and erection time is approximately one week.





ANTHONY LINCK PHOTOS

ARCHITECTS: CARL KOCH & ASSOCIATES

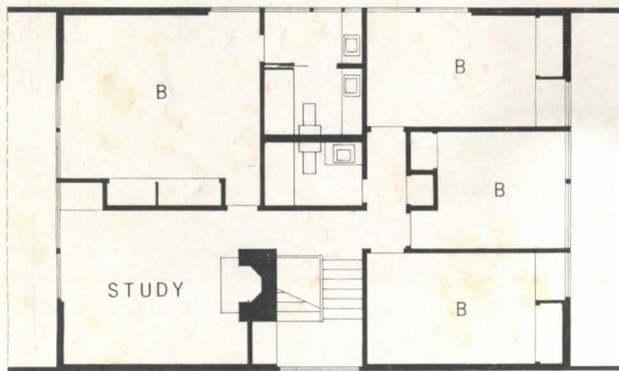
Development House for Armco Steel Corporation

Yorktown Heights, New York

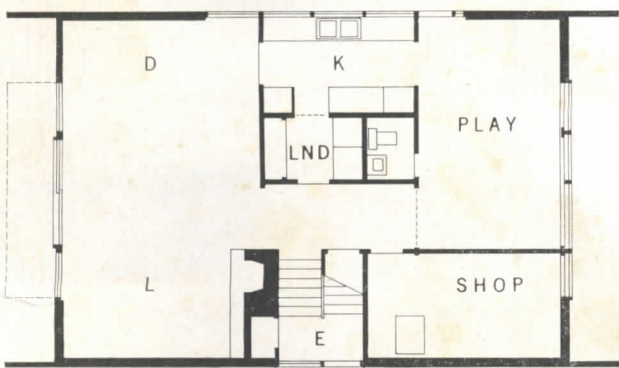
HEATING ENGINEER: *Leo Brissette*

CONTRACTOR: *Eastrock Construction Company, Inc.*

INTERIOR DESIGNERS: *Edward Diehl Associates and
Design Research, Inc.*



UPPER FLOOR



0 5 20



THE PILOT MODEL OF THIS DEVELOPMENT HOUSE HAS A SPLIT-LEVEL ENTRY

This house in Yorktown, New York, is a two-story, 28- by 40-foot building, with 4-foot eaves on all four sides. Use was made of a sloping lot to gain a convenient mid-level entry, and utilize foundation walls to support the upper story on that side.

The plan is organized with living and entertaining areas (plus service areas) on the lower floor, and four bedrooms and a study on the top level. Partitions are prefabricated gypsum board panels with fiberboard tube cores. Floors in the living areas have wall-to-wall carpeting, those in the kitchen and playroom are surfaced with vinyl asbestos,

and bath floors are ceramic tile. Ceilings on the lower floor are the steel undersides of the floor system. The upstairs ceilings are gypsum board. All doors are steel. The outside sunshades are expanded wire mesh.

The heating is by a warm air system, with the furnace located in the shop area. Thermal insulation is plastic foam. Both the living room and the study have brick fireplaces.

The kitchen is conveniently placed to serve either the playroom and the dining area. The adjoining laundry area doubles as a pantry. The approximate cost of the entire house was \$28,000, excluding lot, landscape.



ARCHITECTS OF THE RECORD HOUSES OF 1963

Houses designed by the following firms and individuals appear on pages noted:

P. M. BOLTON ASSOCIATES 62

5111 Woodway
Houston, Texas
P. M. Bolton, A.I.A.



BLISS AND CAMPBELL 122

1409 Willow Street
Minneapolis 3, Minnesota
Anna Campbell Bliss
Robert Lewis Bliss, A.I.A.



EDWARD D. DART 106

21 E. Superior Street
Chicago 11, Illinois
Edward D. Dart, A.I.A.



ULRICH FRANZEN & ASSOCIATES 90

124 East 40 Street
New York, New York
Ulrich Franzen, A.I.A.



JOHN GILCHRIST 118

60 West Main
Bergenfield, New Jersey
John Gilchrist



JULES GREGORY 78

Lambertville, New Jersey
Jules Gregory, A.I.A.



HESTER • JONES AND ASSOCIATES 110

7863 Herschel Avenue
La Jolla, California
Robert E. Jones
Henry H. Hester, A.I.A.



G. P. JENNEWEIN & J. J. JENNEWEIN 50

G. P. Jennewein, A.I.A.
101 Park Avenue, New York, N.Y.
J. J. Jennewein, A.I.A.
310 Jackson Street, Tampa, Fla.



WALK C. JONES JR. 66

1215 Poplar Avenue
Memphis, Tennessee
Walk C. Jones Jr., A.I.A.



GEORGE FRED KECK-WILLIAM KECK 98

612 North Michigan Avenue
Chicago 11, Illinois
George Fred Keck
William Keck, A.I.A.



KILLINGSWORTH • BRADY • SMITH & ASSOCIATES 114



3833 Long Beach Boulevard
Long Beach, California
Edward A. Killingsworth
Jules Ellsworth Brady, A.I.A.
Waugh Smith, A.I.A.

58 KNORR & ELLIOTT



40 Gold Street
San Francisco, California
Don Knorr, A.I.A.
Edward Elliott, A.I.A.

126 CARL KOCH & ASSOCIATES



55 Brattle Street
Cambridge, Massachusetts
Carl Koch, A.I.A.

94 WILLIAM MORGAN



1611 Ocean Boulevard
Atlantic Beach, Florida
William Morgan

74 NELSEN, SABIN, AND VAREY



1314 N.E. 43rd Street
Seattle 5, Washington
Ibsen A. Nelsen, A.I.A.
Russell B. Sabin

86 GEORGE NEMENY



157 West 57th Street
New York 19, New York
George Nemeny, A.I.A.

102 OPPENHEIMER, BRADY AND LEHR



55 West 42 Street, New York
Thomas C. Lehrecke, A.I.A.
Herbert B. Oppenheimer
John J. Brady

54 VLADIMIR OSSIPOFF



1210 Ward Avenue
Honolulu, Hawaii
Vladimir Ossipoff, F.A.A.

70 PAUL RUDOLPH



31 High Street
New Haven, Connecticut
Paul Rudolph, A.I.A.

82 DONALD A. WEXLER



557 S. Palm Canyon Drive
Palm Springs, California
Donald A. Wexler, A.I.A.

COST OF RECORD HOUSES NEAR YOU

Using Record Houses our readers have asked, "If I build a house like and so built in _____ city what would it cost here?"

We again put this question to Myron L. Matthews, editor of the Dow Building Cost Calculator and Valuation Guide, an F. W. Dodge Corporation service. He did some research and presented us with the answers for those Record Houses for which data was available, as though they were to be duplicated in 14 selected cities located in representative geographic areas of the United

States. The figures for each listed city would be applicable within a 25 mile radius of it.

In an effort of this kind it must be recognized that the estimates in the tabulations following can only be approximate within 5 to 8 per cent one way or the other, and maybe more if unusual abnormal conditions prevail in one locale or another. However, over a period of 37 years the Dow Calculator has established a good record and we believe their figures will work out well for the purposes intended.

If you are impressed by certain Record Houses look up their local estimated approximate cost for a location nearest to you. If the Dow figure for such a location is attractive, consult an architect to see what he can do for you.

Incidentally, the figures given here do not include land, landscaping, unusual foundation conditions due to topography or soil, furnishings, or the architect's design and supervision fees, but cover the costs of the construction of the house itself, and the basic equipment.

RECORD HOUSES 1963 COMPARATIVE BUILDING COSTS* FOR SELECTED CITIES

Prepared by Dow Building Cost Calculator and valuation guide, an F. W. Dodge Corporation service

NAME OF HOUSE WHERE BUILT	House in Tahoe Keys, Calif. (58)	Bolton House, Houston, Tex. (62)	House in Lakewood, N. J. (114)	Heller House, Highland Park, Ill. (106)	House in Yorktown Heights, N. Y. (126)	Jones House, Del Mar, Calif. (86)	Lehrecke House, Tappan, N. Y. (102)	House in Atlantic Beach, Fla. (94)	Weeks House, Seattle, Wash. (74)	Blanche Hill House, Honolulu, Hawaii (54)	Milam House, St. John's County, Fla. (70)	House in Palm Springs, Calif. (82)
CONSTRUCTION COST*	\$45,000	\$45,000	\$25,000	\$95,000	\$28,000	\$30,000	\$28,000	\$15,867	\$39,000	\$100,000	\$88,074	\$14,000
CITY TO BUILD IN												
ATLANTA, GA.	37,700	39,900	22,100	76,200	22,400	25,700	22,100	15,000	32,800	67,100	83,100	11,900
BALTIMORE, MD.	42,300	44,900	24,800	85,600	25,200	28,900	24,800	16,900	36,800	75,400	93,400	13,400
BOSTON, MASS.	44,600	47,300	26,100	90,200	26,500	30,500	26,100	17,800	38,800	79,400	98,300	14,100
CHICAGO, ILL.	46,500	49,300	27,200	94,100	27,700	31,800	27,200	18,600	40,500	82,900	102,700	14,700
CLEVELAND, OHIO	49,000	52,000	28,700	99,200	29,200	33,500	28,700	19,600	42,700	87,400	108,200	15,500
DALLAS, TEX.	41,500	44,000	24,300	83,800	24,700	28,300	24,300	16,500	36,100	73,900	91,400	13,100
DENVER, COLO.	43,800	46,500	25,700	88,600	26,100	30,000	25,700	17,500	38,100	78,100	96,700	13,900
KANSAS CITY, MO.	44,100	46,700	25,800	89,100	26,200	30,100	25,800	17,600	38,400	78,500	97,200	13,900
LOS ANGELES, CAL.	44,300	47,000	25,900	89,600	25,400	30,300	25,900	17,700	38,600	78,900	97,700	14,000
MAMI, FLA.	44,300	47,000	26,000	89,700	26,400	30,300	26,000	17,700	38,600	79,000	97,800	14,000
NEW YORK, N. Y.	52,900	56,100	31,000	107,000	31,500	36,200	31,000	21,100	46,100	94,300	116,700	16,700
PITTSBURGH, PA.	48,200	51,100	28,200	97,400	28,700	32,900	28,200	19,200	41,900	85,900	106,300	15,200
SAN FRANCISCO, CALIF.	45,000	47,700	25,400	91,100	26,800	30,800	26,400	18,000	39,200	80,200	99,300	14,200
SEATTLE, WASH.	44,800	47,500	26,300	90,700	26,700	30,600	26,300	17,900	39,000	79,900	98,900	14,200

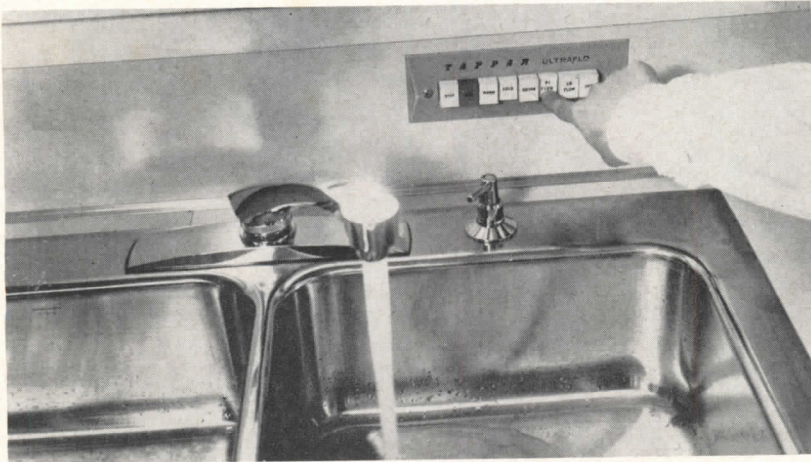
* Excludes land, landscaping, special foundations, architectural design and supervision fees.

Dow Building Cost Calculator and Valuation Guide is used widely throughout the United States and Canada. Its objective is to show replacement costs for more than 650 building types with counterparts almost everywhere. The costs are revised and supplemented at intervals keeping them in balance with changing prices for building

materials and wage rates for building trades craftsmen. Dow building costs data is generally recognized by courts as authoritative and is used by real estate tax assessors, fire insurance valuation engineers, real estate appraisers, mortgage loan officers in financial institutions, architects, builders and a broad list of governmental agencies—Federal, state, county and municipal.

New Products for the House

Reviews of some of the new products introduced in the last year are given here and on following pages



300

PUSH BUTTON WATER

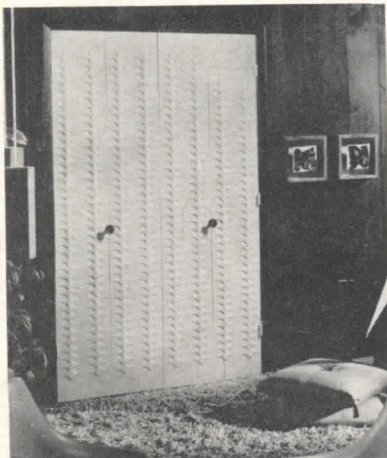
Push buttons release mixtures of hot and cold water at pre-set temperatures and pressures. A bank of solenoid valves centrally located at the water source controls the system. *The Tappan Co., Mansfield, Ohio*

CIRCLE 300 ON INQUIRY CARD

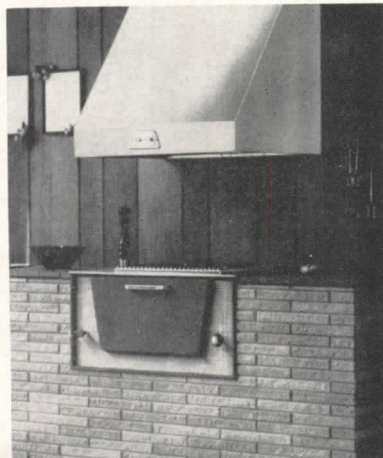
PRE-HUNG FOLDING DOORS

Four decorative patterns are offered for the *Homestead* pre-hung folding door which opens flat against the wall to give full access to the space behind. The door is pre-hung on a painted aluminum frame, packaged as one unit. The surface is a rigid, paintable polymer. Hardware is pre-adjusted at the factory. *American Screen Products Co., Chatsworth, Calif.*

CIRCLE 301 ON INQUIRY CARD



301



302

INDOOR/OUTDOOR BARBECUE GRILL

Char-Grill barbecue grill features a stainless steel hood with two-section door for more efficient cooking and smoke flavoring both indoors and outdoors. Outer surfaces are enamel. *The Majestic Co., Inc., Huntington, Indiana*

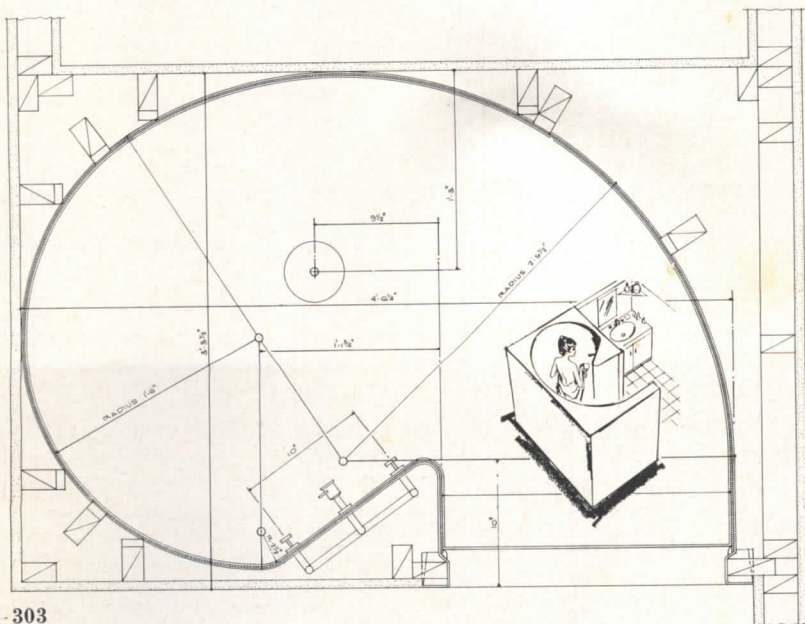
CIRCLE 302 ON INQUIRY CARD

OPEN SHOWER GIVES PRIVACY

A curved shower room of molded fiberglass has no door, yet the shower area is completely private. The unit takes a floor area 4 ft 6 in. long and 3 ft 4½ in. wide. The plastic base has a non-skid safety surface. The top is a duplicate of the base, so the unit can be assembled with either a right or left hand entrance. It is available in four colors. *Swan Enterprises Inc., 283 Greenwich Ave., Greenwich, Conn.*

CIRCLE 303 ON INQUIRY CARD

more products on page 156

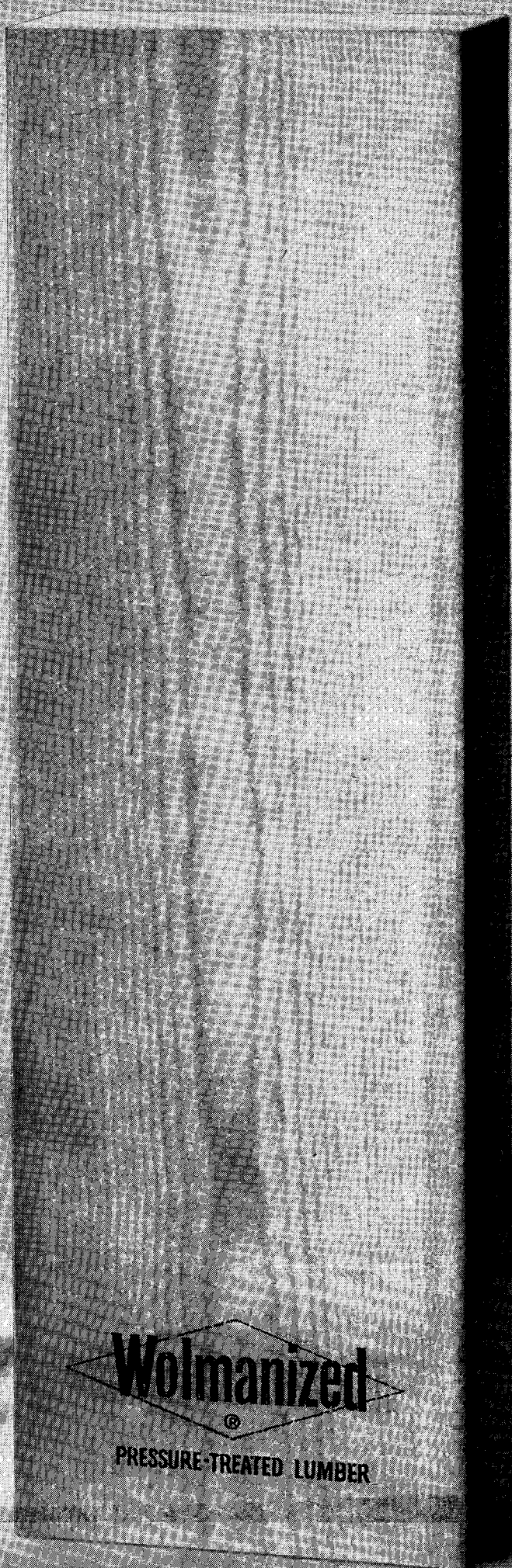


303

For more information . . . circle the key numbers of the products on which you want more information (see number below each product item) on the Inquiry Card, pages 155-156.

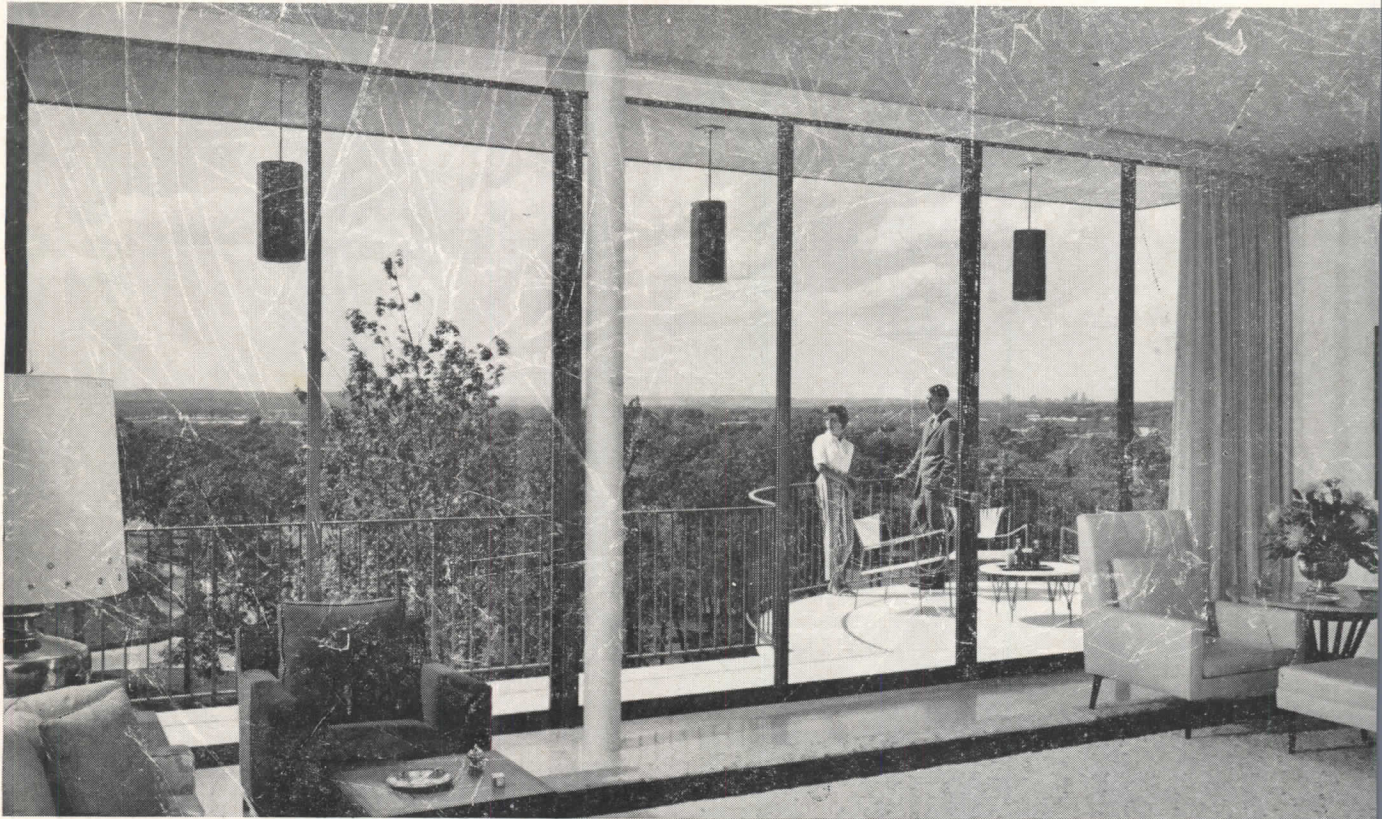
Deadly Enemies . . . Wolmanized pressure-treated lumber
resists termites. Wolman® wood preservative salts—impregnated deep in the
wood cells—form a permanent roadblock to invading termites and decay,
and protect them. Good news for you. Wolmanized lumber is one of the best
building points you can present a homeseeker. What's more, it's as work-
able as untreated wood, clean and odorless, paintable, non-corrosive to
metal. Need more incentive? Consider this: Wolmanized lumber is a
product of Koppers research—exhaustive technological probing which has
enabled Koppers Company achieve dramatic accomplishments in the
science of wood preserving. Be wise. Specify Wolmanized pressure-
treated lumber for your next job.
Write for brochure "Safeguard Building Dollars." Wolman Preservative
Company, Koppers Company, Inc., 751 Koppers Building, Pittsburgh 19, Pa.

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PRESSURE-TREATED LUMBER



Wolmanized
®
PRESSURE-TREATED LUMBER

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Living...L·O·F glass makes it as practical as it is pleasurable

L·O·F makes special kinds of glass to help solve special house-design problems. Your L·O·F Distributor knows glass and how to use it. Try him. Or call your nearest Libbey·Owens·Ford District Office. They are listed under "Glass" in the phone book Yellow Pages.

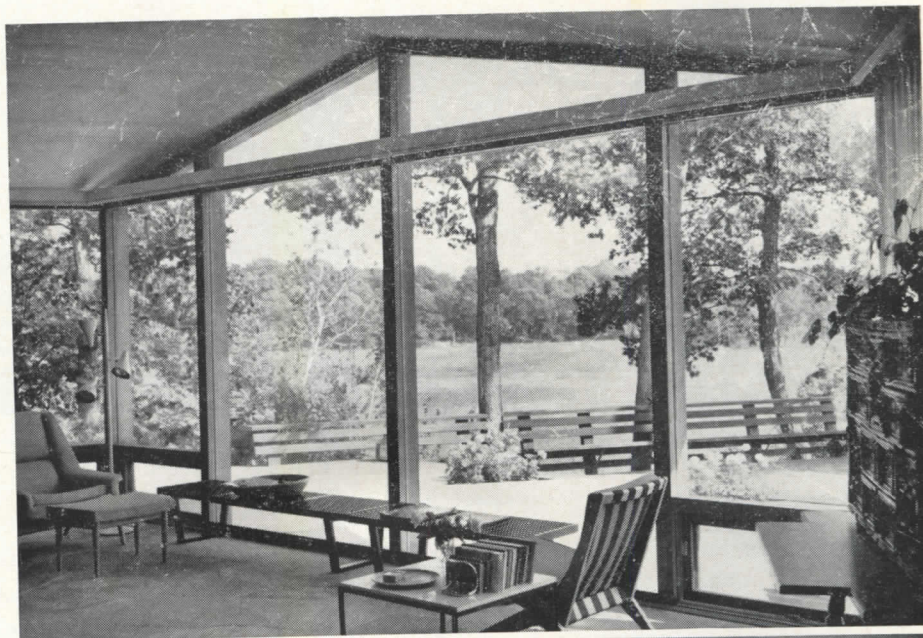
TO REDUCE SUN GLARE and heat, *Parallel-O-Grey*® plate glass excludes approximately 50% of natural daylight and 40% of solar heat. Residence in Tulsa, Oklahoma. Architects: O'Neil Ford & Associates, San Antonio, Texas.

TO ASSURE YEAR-ROUND COMFORT ▶ to reduce heating and air-conditioning costs, use *Thermopane*® insulating glass. Architects: Elizabeth and Winston Close, Minneapolis, Minnesota.

FOR BEST VISIBILITY, clear *Parallel-Plate*® glass is twin ground to remove surface waviness that could cause distortion. William Matera residence in San Antonio, Texas. Architect: Phil Lloyd Shoop, San Antonio.

TO KEEP INTERIORS COOLER, L·O·F ▶ heat Absorbing plate glass (pale blue-green color) excludes more than 40% of the sun's radiant energy, yet transmits 75% of light. Home of Sen. Barry Goldwater. Architect: Paul Yeager, Phoenix, Arizona.

Libbey·Owens·Ford
TOLEDO 2, OHIO



For more data, circle 36 on Inquiry Card



By switching to hydronic heating, with Copper and Brass, at the same time, offer home owners a heating system that is more efficient and less expensive.

Says "NICK" GUTTMAN, *President,*
NH BUILDING CORPORATION, NEW CITY,
NEW YORK.

"The first two homes that my partner, Harry Degenshein and myself, put up had forced hot air heat with summer air conditioning. After listening to the comments of some of the prospective home owners, regarding the heating system, we decided to investigate hydronic heating more thoroughly. The result was that in these homes priced from \$29,500 up, we are able to give prospective home owners a basic hydronic baseboard heating system with two-zone temperature control, heated bathtub, and instant hot water at the faucet for \$500 less than a warm air system with summer air conditioning.

"To look at it another way, this superior hydronic heating system costs only \$120 more per home than an ordinary warm air system without air conditioning.

"So, no matter which way you approach it, we are able to offer our clients much better value for their money.

"In addition, by using hydronic heating, we are also able to offer such items as a snow melting system in the driveway, heated greenhouse, and heated swimming pool, which cost would be prohibitive if the basic heating system were not



hydronic. Also, being able to offer these extras, we know that our sales job will be made easier.

"And, of course, we wouldn't think of using anything but copper water tube in our hydronic systems, for it is the mark of a quality home, which the public accepts with complete confidence," concluded Mr. Guttman.

Why don't you take advantage of the many money saving opportunities to be realized by the use of hydronic heating and Revere Copper Water Tube? Should you have installation problems, call your Revere distributor and he'll be glad to put you in touch with Revere's Technical Advisory Service.

**INSTALL A REVERE SNOW MELTING SYSTEM
TO HELP SELL YOUR HOMES**

Send, today, for free brochure on how to install a Residential Snow Melting System. You will also receive a free companion piece on proved and tested installation techniques used in commercial projects. Write: Dept. "S-M" at address below.

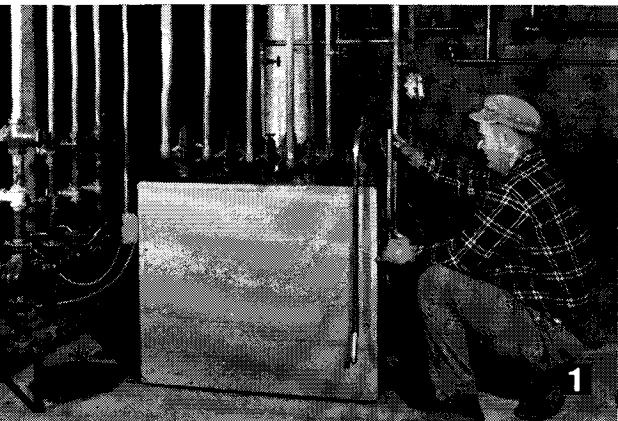
REVERE

COPPER AND BRASS INCORPORATED

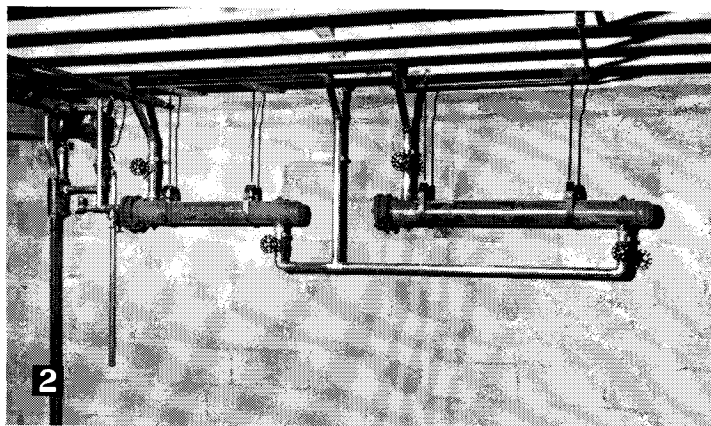
Founded by Paul Revere in 1801
230 Park Ave., New York 17, N. Y.

Offices in Principal Cities. Distributors Everywhere.

For more data, circle 38 on Inquiry Card



1



2

THIS BOILER has a rating of 180,000 BTU, which will take care of heating the house, garage, providing instant hot water at the faucet, heating the driveway snow melting system, greenhouse, and water in the swimming pool. It also provides for an entire third bath if needed at a later date.

HEAT EXCHANGER at left is used in connection with the Revere snow melting system which circulates a solution of ethylene glycol anti-freeze and water. The heat exchanger shown at right is for the swimming pool.

THIS IS WHERE Revere Copper Water Tube really shines—in the tight spots where there is room only for solder fittings and a blowtorch. Plumbing and Heating Contractor, T.H.M. Plumbing and Heating Company, Incorporated, Emerson, N. J. These are over 5,500 feet of Revere Copper Water Tube in sizes of $\frac{3}{8}$ " to 3".

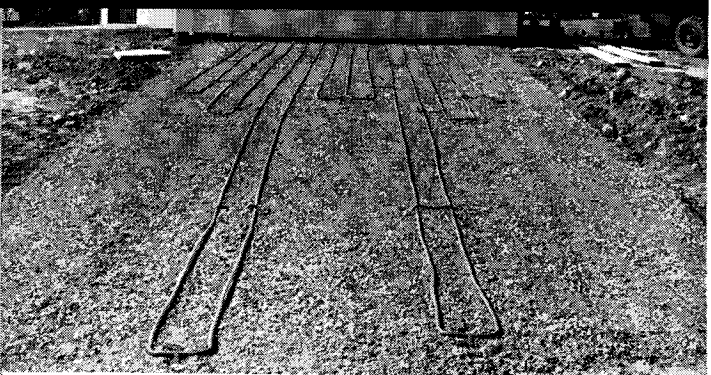


3

Water Tube, we **SAVE \$500 A HOME** and, at a system of much greater flexibility and efficiency, ”



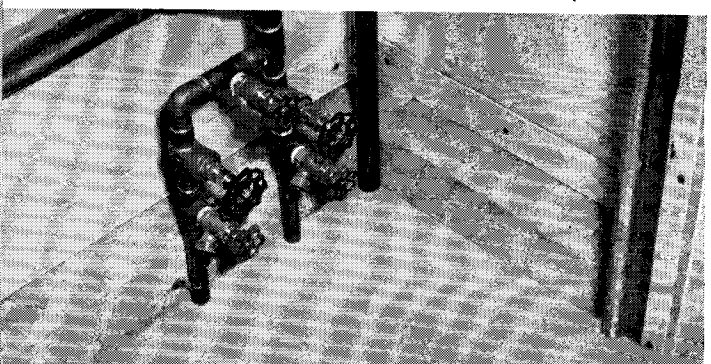
THIS IS FIRST OF 172 hydronic homes to be erected on $\frac{1}{2}$ acre plots in New City, Rockland County, New York.



HERE YOU SEE sinuous coils of Revere Copper Water Tube laid on top of the crushed stone in driveway prior to applying the black top.



FINISH-ROLLING the black top. Note how embedded Revere Copper Water Tube readily withstands the weight of this large roller.

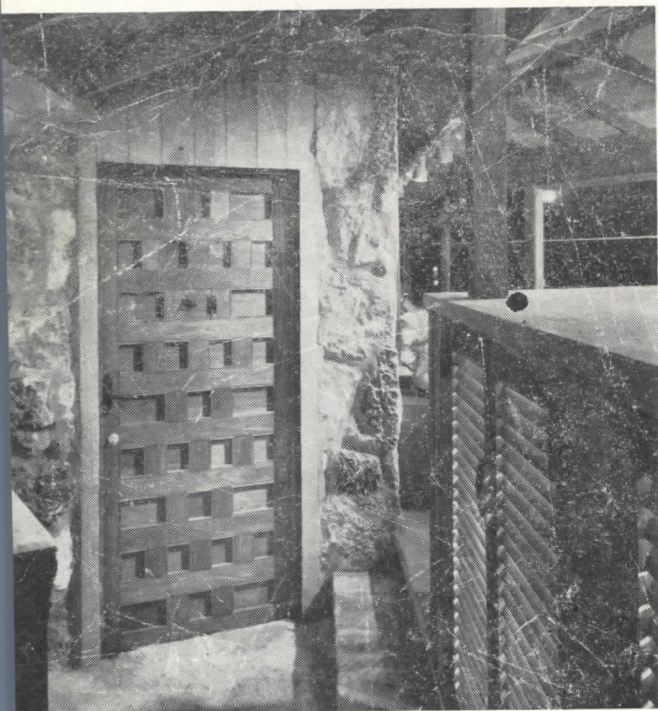


CONTROLS FOR THE Revere driveway snow melting system are located conveniently in a corner of the garage.



A vacation hideaway in the Bahamas uses wood converging beams and rough-sawn ceiling to work wonders in its very livable, triangular living room. Note the complementing wood built-ins designed by The Richard Plumer Company, Miami, for this Frazer Hog Cay cottage.

For envied retreats on secluded sites
use **WOOD** . . . and your imagination



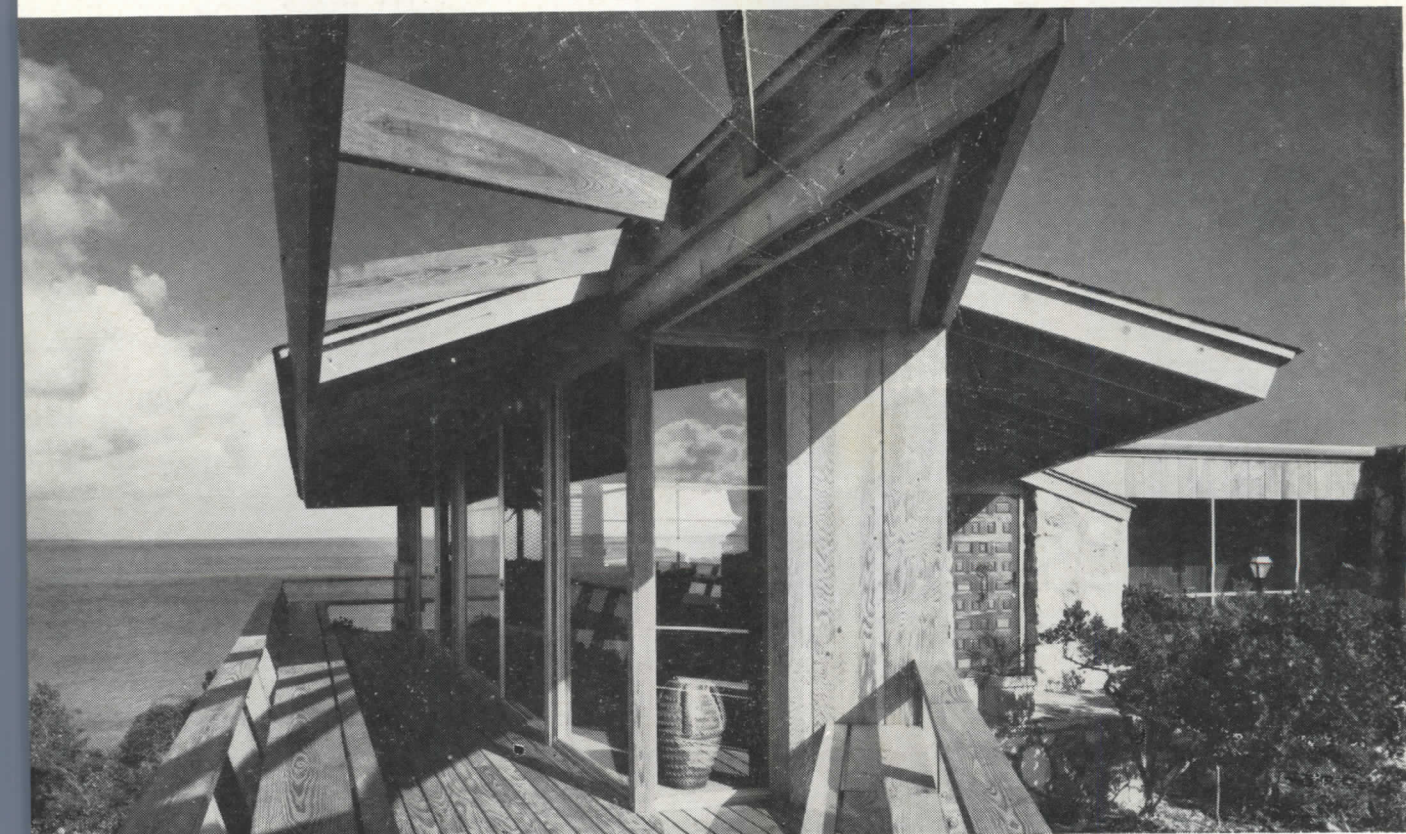
Take a holiday from everyday homes . . . with a seasonal house or weekend cottage of wood. The economies of wood allow infinite flexibility in your design, definitive structures for their purpose. Wood beams, siding, flooring, and roofing are on familiar grounds anywhere . . . weather every climate beautifully, welcome other materials warmly.

The many grains, tones, and textures of wood create patterns that never tire, always relax. Sound control for rest, insulating ability to help keep temperatures up or down for comfort . . . these, too, are wood's inherent virtues. Wood makes perfect resort places that endure for generations of vacations. For more information on designing with wood, write:

NATIONAL LUMBER MANUFACTURERS ASSOCIATION
Wood Information Center, 1619 Massachusetts Ave., N.W., Washington 6, D.C.

Sturdy and heavy and virtually set in stone, a magnificent door demonstrates wood's natural compatibility with other materials. See warm results of lighting on wood in the Frazer Hog Cay house.

nlma
find the better way with **wood**



Spectacular exposure on every side makes the Frazer Hog Cay cottage sure of its site. Wood siding, railing, and unique roof supports show wood's way to resist occasional high winds, yet maintain a serene retreat from the busyness of daily living. Architect: Peter Jefferson.

For more data, circle 39 on Inquiry Card



National Biscuit Company
Research & Development Bldg.
Fair Lawn, N. J.

Architect: Owner
Contractor:
Waller Kidde
Constructors, Inc.

For Enduring Charm

... Specify
Architectural METAL WORK
by Fiske

Aluminum, Bronze
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For over 100 years, Architects have relied upon Fiske for the widest choice of artistic designs, materials, craftsmanship and dependability. Now, more than ever, Architectural Metal Work by Fiske... in Aluminum, Bronze, Stainless Steel and Iron... represents the finest obtainable.

Write for our catalog of designs or send blueprints for quotations.

J. W. Fiske ARCHITECTURAL METALS, Inc.

113-115 Pennsylvania Avenue, Paterson 3, N. J.

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For more data, circle 37 on Inquiry Card



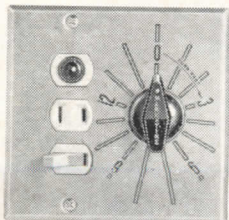
For big dividends in client satisfaction...



WALL BOX TIME SWITCH

Reduces electric bills to a bare minimum

Set it-Forget it!



The Mark-Time "90,000" is the proven, economical time control for turning "OFF" outside and garage lights, ventilating and attic fans and bathroom space heaters after pre-determined time intervals. Models available to turn "OFF" from 3 minutes to 12 hours maximum. For motels, schools, public buildings, homes.

Flush mounts in standard switch box. Optional face plate (illustrated) provides for Despard type interchangeable devices.

Available from electrical wholesalers... or write for literature.



M. H. RHODES, INC.
HARTFORD 6, CONN.

In Canada—M. H. Rhodes (Canada) Ltd., Ottawa 5, Ontario

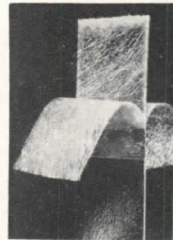
For more data, circle 40 on Inquiry Card

New Products

continued from page 132

GLASS FIBER AND PLASTIC PANELS

A 20-year guarantee covers structural integrity, color fastness and weather resistance of Alsynite's *Superglaze* panels. The panels are made with a fiber-glass reinforcing core sandwiched between two surface mats of monofilament fiber-glass. All three plies fuse when saturated with special acrylic resins. They are made in a variety of sizes and colors. *Alsynite Div., Reich Chemicals, Inc., White Plains, N.Y.*



CIRCLE 304 ON INQUIRY CARD

LIGHTWEIGHT PACKAGED SHOWER

Pilot Plus shower cabinet comes complete and ready to stall. It features a new *Molded Stone* floor, a combination of concrete and resins. *Fiat Metal Mfg. Co., Inc., Plainfield, N.J., N.Y.*

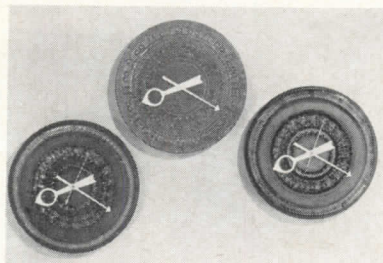
CIRCLE 305 ON INQUIRY CARD

PLASTIC-SURFACED PLYWOOD SIDING

Prefinished plywood siding surfaced with DuPont's *Telomer* polyvinyl fluoride film comes with a guarantee that it won't need painting for a minimum of 15 years. White, gray, green and yellow are colors available. *U.S. Plywood Corp., 55 West 44th St., New York 36, N.Y.*

CIRCLE 306 ON INQUIRY CARD

CLOCKS AND WALL-HUNG STORAGE CHESTS



New designs in clocks and wall-hung storage chests feature disks of ceramic glass in rich ceramic glazes. A collection of wall-hung storage chests is made of hand-rubbed walnut, the largest of which is only 30 by 20 by 12 inches.

Howard Miller Clock Co., Zeeland, Mich.

CIRCLE 307 ON INQUIRY CARD

VINYL-COATED WOVEN WALL FABRIC

Vinyl-coated *Fabricraft* woven wall covering is a rare textured fabric available in eight colors. It can be installed without special wall preparation. *Deltax, Inc., Oshkosh, Wis.*

CIRCLE 308 ON INQUIRY CARD

REDWOOD FURNITURE FOR INDOORS AND OUTDOORS

Redwood furniture, designed for use both indoors and outdoors, includes tables, chairs and lamps. All redwood is kiln-dried, with table and seat tops finished with a urethane coating which lets wood graining show through while providing resistance to water, alcohol, etc. Other wood parts are treated with a water-repellent wood preservative. *Recreation Designs, Inc., Berwyn, Pa.*



CIRCLE 309 ON INQUIRY CARD

ROOM AIR CONDITIONERS

acette room air conditioners are only 1/4 in. wide, so they can be installed in narrow or casement windows. The Speedy-mount series, ranging in capacities from 100 to 10,800 btuh, are a pre-assembled mounting unit which



requires no screws. All room air conditioners are performance tested and have permanent foam filters which can be washed or vacuum cleaned. *Kelvinator Div., American Motors Corp., Detroit 32, Mich.*

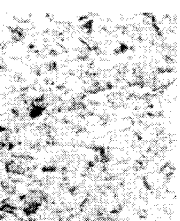
CIRCLE 310 ON INQUIRY CARD

INSTANT HOT AND COLD WATER

Hot and cold water is dispensed instantly from *Quick-Temp*, a built-in appliance which fits under kitchen counter and requires a space only 8 1/2 in. wide and 25 1/2 in. high. *Rangaire Corp., Robert Mfg. Div., Cleburne, Tex.*

CIRCLE 311 ON INQUIRY CARD

VINYL ASBESTOS TILE



Fine chips of marble in textured translucent vinyl are incorporated in vinyl asbestos tile to give a textured surface and terrazzo-like pattern. The chips are deeply imbedded in the tile for longer life and greater wear-resistance. *Azrock Floor Products Div., Uvalde Rock Asphalt Co., P.O. Box 531, San Antonio 6, Tex.*

CIRCLE 312 ON INQUIRY CARD

ROCK WOOD FOLDING DOORS

Panelfold wood folding doors are now available in two heights, in widths up to 6 ft. Dual-wall vinyl hinges assure quiet operation and even alignment of panels. *Panelfold Products, Hiialeah, Fla.*

CIRCLE 313 ON INQUIRY CARD

FOLDING ENCLOSURE FOR BATHTUBS

Plastic panels fold against walls at each end of tub to give easy access for cleaning or for bathing children. *Tub-Mas Corp., 409 Virginia Dr., Orlando, Fla.*

CIRCLE 314 ON INQUIRY CARD

ALUMINUM SHINGLES WITH WOOD EFFECT

Lock-Line aluminum shingles are striated to give a wood grain effect on the roof. The panels are 10 ft long and 12 in. wide, with a 5/8 in. butt thickness which give a shadow line similar to cedar shakes. The panels are interlocked into position with interlocking construction so each panel is locked to the one above and the one below for weather tightness. *Consolidated General Products, Houston 6, Tex.*



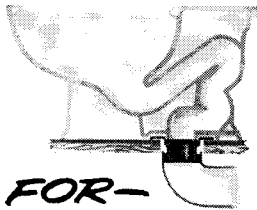
CIRCLE 315 ON INQUIRY CARD

more products on page 146

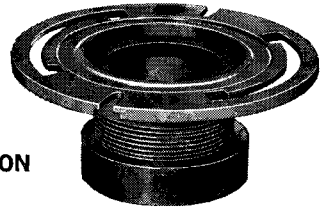


For New Construction or Remodeling

use the new **HUDEE**



Closet-Seal



FOR—

● FAST, SAFE, LIFETIME POSITIVE-SEAL INSTALLATION OF WATER CLOSETS

● IDEAL FOR NEW WORK PERFECT FOR REPLACEMENT

COMPLETE HUDEE CLOSET SEAL

135

- ★ Installs in 10 minutes or less—no lead or wax required.
- ★ Fits perfectly any discharge outlet horn—flush or extended.
- ★ More sanitary—prevents offensive odors, gas or water seepage and damage to floors.
- ★ Resilient Neoprene Seals protect against building movement and vibrations.

Phone or write for literature today!

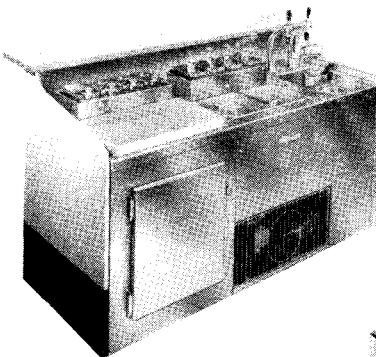
WALTER E. SELCK and CO.

7125 W. GUNNISON ST., CHICAGO 31, ILLINOIS

For more data, circle 41 on Inquiry Card



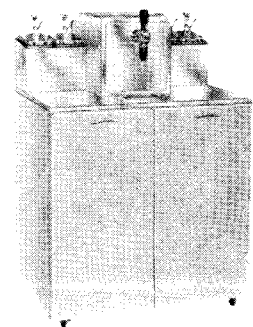
INCLUDE GAY BAR HOME SODA FOUNTAINS IN YOUR PLANS



NEW GAY BAR Jr. Mobile

A low priced, portable soda fountain with or without cabinet requiring no electricity or plumbing which can be used indoors or outdoors. 30" wide 24" deep 45" high

- Complete
 - Self-Contained Carbonator & Compressor
 - Durable
 - Economical
 - Color Choice
- 68" wide 28" deep 42" high



JAMES J. GAVIGAN & CO., Inc. GAY BAR SODA FOUNTAINS
388 11th Avenue New York 1, New York

Please send me specifications and information on
GAY Snac BAR GAY BAR GAY BAR Jr. Mobile

Name
Address
City Zone State

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RIMCO *windows accent the
with a hint of the classic*

The right windows—the right grouping—in the right spot—the combination comes easy with RIMCO's wide selection. Five basic styles provide complete design freedom, and natural wood frame and sash bring out the best in all modern building materials. But more than a beautiful solu-

tion to your creative problem, RIMCO windows are a constant source of pride and satisfaction to the home owner. RIMCO's many window features ease upkeep problems. For a plan-and-elevation view of RIMCO advantages, send for the stimulating booklet, "Accent on Windows".



weep of modern lines

FREE BOOKLET 3AR3

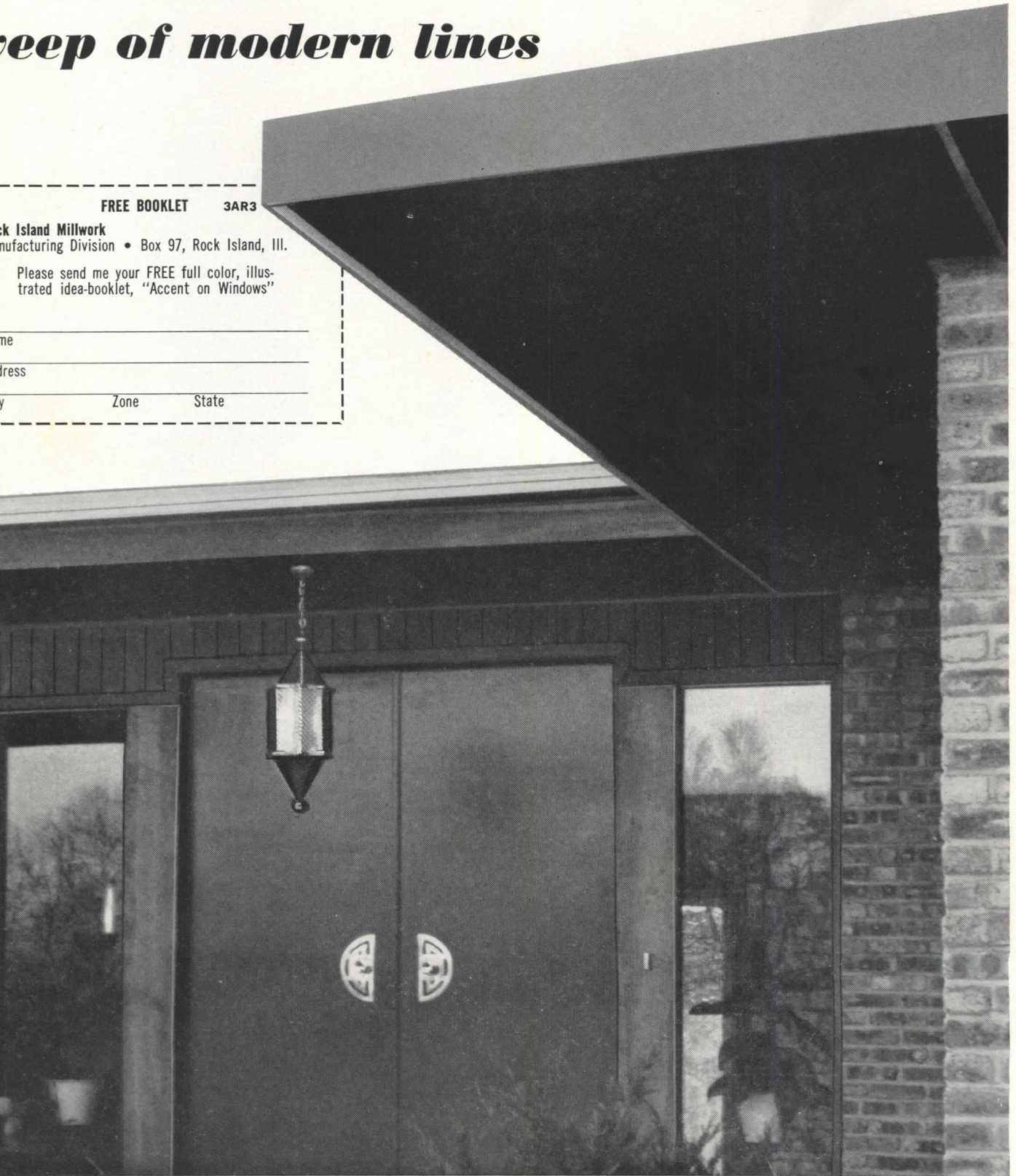
Rock Island Millwork
Manufacturing Division • Box 97, Rock Island, Ill.

Please send me your FREE full color, illustrated idea-booklet, "Accent on Windows"

me

dress

y Zone State



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*What keeps
homebuyers smiling*

WINTER



...AND SUMMER?

MUELLER CLIMATROL HEATING AND AIR CONDITIONING!



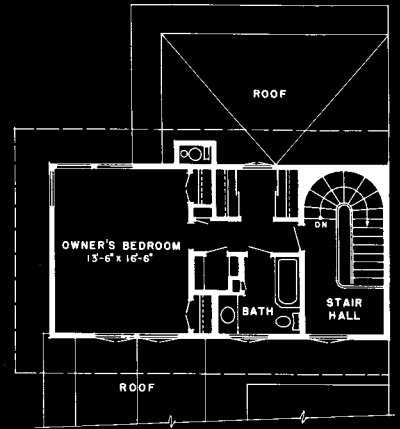
Look at the record: even though so many other brands are cutting quality in order to cut price, Mueller Climatrol heating and air conditioning units are growing more popular every year. Why? Because of the growing demand for better quality in today's homes. ■ Today's homebuyer is far more quality conscious. He buys *value*, not price alone. Smart home planners are cashing in on this trend by insisting on Mueller Climatrol quality — famous for over 100 years. Quality that stops call-backs. Quality backed by a nationwide network of conscientious dealers. Quality that makes satisfied customers our best ads. ■ You name it: boilers or warm air; oil, gas, or electric; whole-home package or remote air conditioning; heat pumps or humidity-control . . . we've got it. Write direct for details.



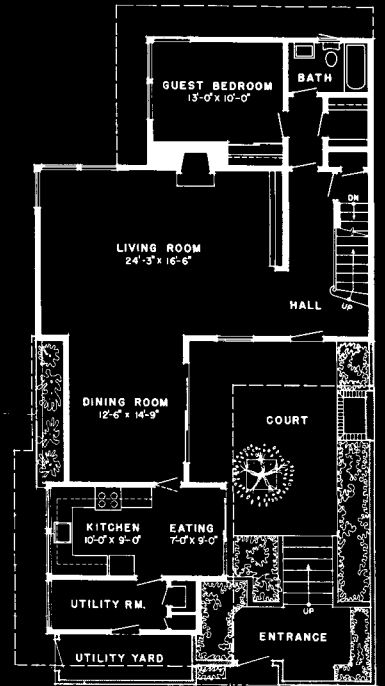
2058 W. OKLAHOMA AVE., MILWAUKEE, WISCONSIN
ALHAMBRA, CALIFORNIA / PLAINFIELD, NEW JERSEY

MC-160

For more data, circle 43 on Inquiry Card



SECOND FLOOR PLAN



MAIN FLOOR PLAN

*Residence: San Francisco, California
Architects: Wurster, Bernardi & Emmons*

Beauty comes naturally to Red Cedar Shingles

This is a versatile material, one that adapts itself to many moods. Warm color, interesting texture, strong line are only part of the value of Red Cedar Shingles. They're also rugged, long-lasting, maintenance free, and they offer good insulation. Best of all, Cedar Shingles age gracefully,

gaining beauty and character with the years. For further information about specifications and application, write, wire or call: Red Cedar Shingle Bureau, 5510 White Building, Seattle 1, Washington. (In Canada: 550 Burrard Street, Vancouver 1, B.C.) **RED CEDAR SHINGLES**

DOCUMENTED

UP TO 50% SAVINGS ON TOWEL COSTS



U. S. Patent Nos. 2,839,202 and 2,990,006. Des. 184,595.

More than 185,000 Plaza Towel Holders now in use across the country testify to positive savings they guarantee!

Plaza Towel Holders hold each towel separately... eliminate spilling... save on laundry, labor, and space.

WRITE FOR FULL INFORMATION
THREE SIZES AVAILABLE

PLAZA TOWEL HOLDER CO.

2016 N. BROADWAY / WICHITA, KANSAS

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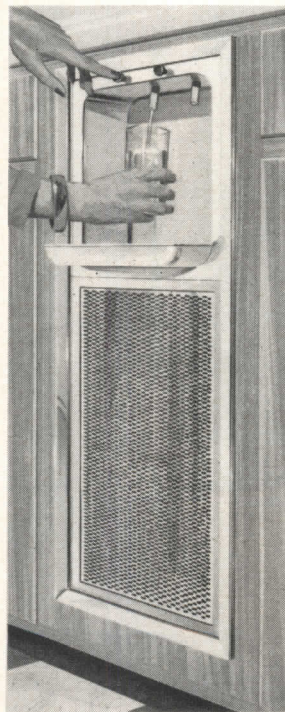
New Idea in home built-in products

Rangaire quick temp

INSTANT

HOT and COLD WATER DISPENSER

Quick-Temp, the sensational new built-in kitchen appliance, gives you instant hot or cold water at the touch of a fingertip. Hot coffee, tea, a glass of ade or ice cold drinking water instantly — the water is ready at the right temperature, always. Quick-Temp offers new luxury and convenience to the modern kitchen and economizes too. Reduces refrigerator use — virtually eliminates heating water on the range for the many instant drinks in use. Easily installed in a minimum of space.



Write for Catalog Information

Rangaire

quick+temp

RANGAIRE CORPORATION • ROBERTS MANUFACTURING DIVISION • CLEBURNE, TEXAS

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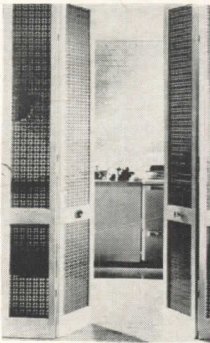
New Products

continued from page 141

BI-FOLD DOORS WITH FILIGREE PANELS

Panelaire Decora bi-fold doors have sculptured filigree insert panels, available in two patterns. The doors are made of 1 1/8-in.-thick white pine with insert panels made of durable silicon-impregnated hardboard. The doors are made in four widths and two heights, adaptable for use in various locations. Panelboard Mfg. Co., Inc., Newark 14, N.J.

CIRCLE 316 ON INQUIRY CARD

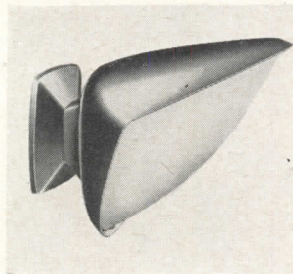


LOCKSET SYSTEM

Protectokey lockset system has four tiny steel balls which drop into a blind opening in the cylinder when the homeowner first uses his personal key to his new house. The tumblers combination is thus changed so the master key used during construction no longer can open the lock. Kwikset Div., The American Hardware Corp., 516 Santa Ana St., Anaheim, Calif.

CIRCLE 317 ON INQUIRY CARD

LOW-COST FLOODLIGHT FOR HOMES



A low-cost floodlight luminaire specially designed for residences uses an incandescent lamp of 150-watts or less. It can be mounted on a post to wall or pipe. Westinghouse Electric Corp., Lighting Dept., Edgewater Park, Cleveland, Ohio

CIRCLE 318 ON INQUIRY CARD

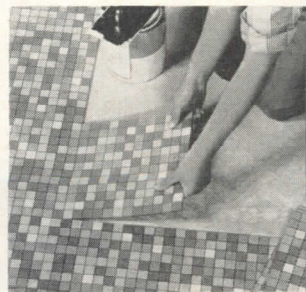
AUTOMATIC LAWN SPRINKLING

An automated electronic master station controller offers a flexible 14-day lawn watering cycle. Switches can be set for any schedule and the sprinklers will go on for long or short periods. Weatherproof housing for the station is corrosion-resistant and has an attached cover to prevent tampering. Rain Bird Sales, Box 547, Azusa, Calif.

CIRCLE 319 ON INQUIRY CARD

CERAMIC TILE IN VINYL

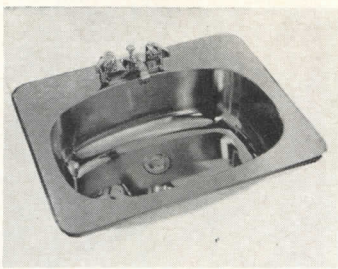
One-in.-square ceramic tiles are grouted and underlaid with vinyl to provide a resilient, easy-to-maintain flooring, which can be installed above or below grade. All the color in the Vinylbond Ceramic Tile is in the ceramic, so there is no danger of fading. The tile is available in 12-in. vinyl squares containing 144 ceramic tiles. Styco Corp., Milford, Mass.



CIRCLE 320 ON INQUIRY CARD

AINLESS STEEL VANITY TOP SINKS

o new vanity top sinks
ne round, the other
angular—are made of
inless steel with a mir-
finish and are self-
med for ease of in-
llation in vanity count-
*Jensen-Thorsen Corp.,
dison, Ill.*



CIRCLE 321 ON INQUIRY CARD

CKAGED GLASS FIBER CEILING PANELS

ckaged wall-to-wall ceiling kits contain *Filite* smooth
corrugated glass fiber luminous panels, anodized alu-
mum grid and lighting fixtures. *Arterest Products Co.,
, 255 W. 79th St., Chicago 20, Ill.*

CIRCLE 322 ON INQUIRY CARD

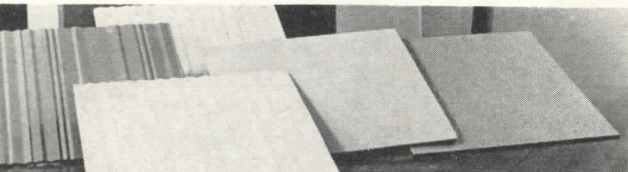
UMINUM SCREENING

screen woven aluminum mesh for screening doors and
windows reduces sun penetration by as much as 78 per
cent. Because of the woven construction it is strong, but
does not spoil either view or ventilation. The material han-
dles as easily as wire cloth. *Phifer Wire Products, Tusca-
loosa, Ala.*

CIRCLE 323 ON INQUIRY CARD

ASTIC-COATED PANELS

Bond prefinished asbestos-cement panels are now
available with a *Plasti-Clad* baked-on coating of heavy
vinyl chloride. The panels have either a pebble-like or



smooth surface, and are available in six standard colors.
National Gypsum Co., Buffalo 2, N.Y.

CIRCLE 324 ON INQUIRY CARD

BRIC WALL COVERING

Wave wall covering fabrics have designs woven in,
screen printed. Made with Dow Chemical's *Rovana* yarn, the
fabric is available in solid colors, damask patterns, tex-
tures and stripes. Color-matched drapery fabrics are also
available. The fabrics are fire- and mildew-resistant and color-
fast. *C. W. Stockwell Co., 3262 Wilshire Blvd., Los Angeles
4, Calif.*

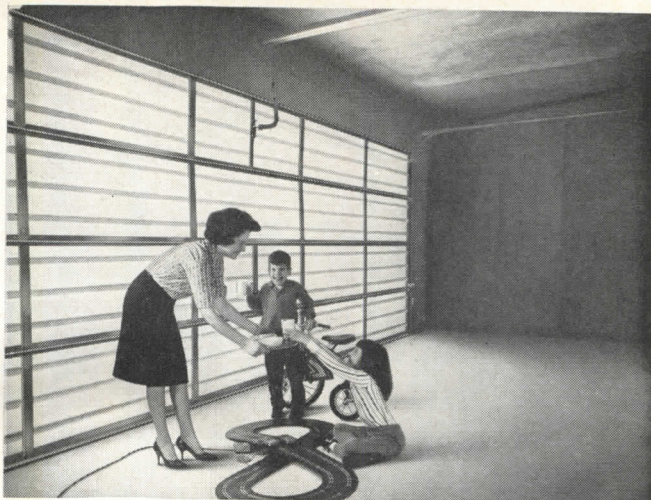
CIRCLE 325 ON INQUIRY CARD

OLVING SHELVES FOR CORNER

Er-Susan is a pie-cut re-
volving shelf mechanism for
corner cabinets. It is a stack-
ing unit which occupies a 3-ft-
square area. The shelves are 32 in.
in diameter and do not have a
center post. Shelves are sup-
ported by a sectional steel
frame which is bolted together on the job. *Murray Equip-
ment Co., York, Pa.*



CIRCLE 326 ON INQUIRY CARD
more products on page 150



Turn your garage into a Fun Room...with FILUMA®!



* Design Pat.
No. 194094



Why use your expensive garage just for the car? A translucent Filuma Garage Door floods the interior with bright daylight, makes it an ideal place for a fun room, extra play space or work area, and doubles garage usefulness! It's a Fiberglass-Aluminum beauty.

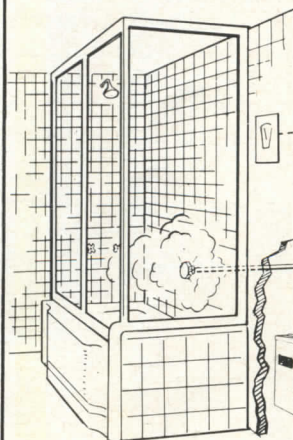
Filuma is amazingly easy to operate, light in weight but built to last a lifetime. Attractive sculptured design* in a choice of 4 colors! Send 10¢ for colorful brochure.

NATIONALLY DISTRIBUTED—VISIT YOUR LUMBER OR BUILDING SUPPLY DEALER TODAY!

FRANTZ Filuma® FRANTZ MANUFACTURING CO.
STERLING, ILLINOIS

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*Accent on Luxury...
For More Enjoyable Living*
"MR. STEAM"
*The World's Finest
Home Steam Bath*



Designed to allow any bath or shower enclosure to double as a steam room. Larger models available for health and country clubs and motels.

Manufactured by
America's largest
producer of electric
steam generators
— since 1917.

Send for File AR-5

AUTOMATIC STEAM PRODUCTS CORP.

3 West 61st Street, New York 23, New York • Plaza 7-2024

For more data, circle 48 on Inquiry Card

Millions of reasons why an architect should care about electronic air cleaning

There may be 100 to 500 million reasons in every cubic foot of city air. They're the tiny particles of dust, pollen, smoke, soot, grease and industrial wastes that can make a home dirty, unpleasant—even unhealthy to live in. And, no matter how beautifully it is conceived, the true test of the home you design is the degree of living comfort it ultimately affords your client.

Clean air is as important as temperature, humidity, and air motion. It is now a controllable factor, practical in today's modern home. As air pollution becomes a bigger problem, clean air becomes a valuable commodity. Now you can get it for your clients by the houseful when you specify a Honeywell Electronic Air Cleaner. Two-stage electrostatic precipitation, the principal used in both the Honeywell "whole-house" and portable units is today's most suitable method available for high-efficiency, residential air cleaning.

The compact "whole-house" central unit fits in the return air duct of any forced air heating or cooling system, and removes up to 95%* of all airborne dust, pollen and other particles passing through it. It can trap particles as small as .03 microns by actual test. (Tobacco smoke particles fall in this class.)

By comparison, ordinary furnace filters, as you may know, are only about 5% to 8%* efficient. Generally, they can only catch particles that measure 5 microns or larger. They miss most of the great quantity of particles less than 5 microns that do much of the real soiling damage . . . cause the bulk of the real work.

As you know, your clients care a great deal about the appearance of their home. And, they care about a clean, fresh, comfortable indoor climate. They know that airborne particles, such as soot, smoke, dust, pollen, etc. cause discomfort, dusting, dulled mirrors, dingy curtains, windows and glassware, and "ghosts" behind pictures.

They'll notice the difference. They'll breathe air that's purer. Mirrors and windows will stay cleaner, longer. So will walls and furnishings. They'll save on cleaning bills. And they'll thank you for it.

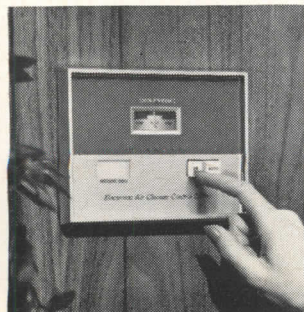
Can be included with the mortgage on a new home for as little as \$1.50 per month. Or, in an existing home on a 3 year FHA Title I plan, it costs as little as \$14.38 a month, installed.

Look into it. Why not find out more about the benefits of residential use of the same type of air filtering system that has been used for years in hospitals and commercial buildings. Just clip and mail the coupon for our special architect's brochure on electronic air cleaning: A PLAN FOR THE SELF-CLEANING HOME (AIA file no. 30-D-3.) You'll receive complete information and specifications on both the "whole-house" and portable unit. Get *all* the facts on air cleaning. You'll be better prepared to give your clients advice on this newest crowning touch to their custom home — Honeywell Electronic Air Cleaning.

FIRST IN CONTROL



*As measured by the National Bureau of Standards Dust Spot Method

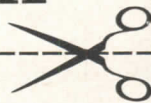


Handsome panel in living area shows cleaner efficiency. Signals when unit needs cleaning.



Easily installed in the duct work of new or established homes with forced air systems.

Honeywell



MAIL TO:

Honeywell, Dept. RH5-109
Minneapolis 8, Minnesota

Send me your folder, PLAN FOR THE SELF-CLEANING HOME

Name _____

Address _____

City _____ Zone _____ State _____

For more data, circle 49 on Inquiry Card

For more data, circle 51 on Inquiry



Dark

for distinction

There's dramatic appeal in the dark finish of Bruce Fireside Plank . . . a low-cost solid oak floor with charm for any home. Alternating 2 $\frac{1}{4}$ " and 3 $\frac{1}{4}$ " strips create the interesting plank effect that is accentuated by wide but shallow side bevels. Bruce Fireside Plank is completely finished at the factory for beauty, durability, and on-the-job cost savings. Write for color booklet. See our catalog in Sweet's Files.

*E. L. BRUCE CO. Incorporated
Memphis 1, Tennessee*



Bruce

Fireside Plank
Floor
Naturally Beautiful

Furniture by Knoll Associates, Inc.
Photo by Hedrich-Blessing

New Products

continued from page 147

QUIET AUTOMATIC DISHWASHER



A new split washing action, a new inlet valve and sound-insulation of the cabinet help make Model 24KW36 automatic dishwasher quiet operating. Dishes in lower rack are deluged by water driven by an impeller blade. Upper rack gets a high-pressure needle spray which assures thorough cleaning of glasses and bowls. *Philco Corp., Tioga & C Sts., Philadelphia 34, Pa.*

CIRCLE 327 ON INQUIRY CARD

PLASTIC-SURFACED ALUMINUM SIDING

A 30-year guarantee is given on *Premium 30* aluminum siding, which is surfaced with DuPont's *Tedlar* poly-vinyl fluoride film. It is available in white, green and gray. *AlSCO Inc., 225 Forge St., Akron 8, Ohio*

CIRCLE 328 ON INQUIRY CARD

ELECTRIC LANTERN SIMULATES GASLIGHT

Jacob's Lantern is an electric post light made of heavy-gauge copper, designed to resemble gas lanterns. *Jacobsen Products, Inc., 107 Capital Ave., Pittsburgh 26, Pa.*

CIRCLE 329 ON INQUIRY CARD

THREE-RINGED SHOWER HEAD

Three concentric circles of spray in a new shower head provide both a feeling of luxury and a firm method of control, regardless of changes in water pressure. The controlled spray control has smooth action from nee spray to flood flow. *Symmons Engineering Co., 445 C Boston 16, Mass.*

CIRCLE 330 ON INQUIRY CARD

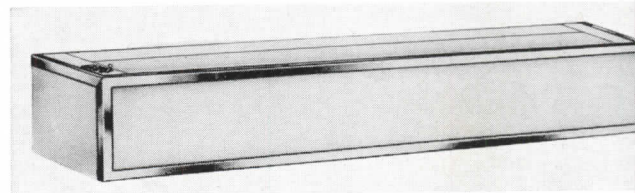
TEXTURED SHEET VINYL FLOORING

A textured sheet vinyl flooring for installation on or above grade retails at \$3.50 to \$4.00 a sq yd. The textured vinyl is available in three design series, and also in 1-ft-sq tile. *Flooring Div., Goodyear Tire and Rubber Co., Akron, Ohio*

CIRCLE 331 ON INQUIRY CARD

INCANDESCENT BATHROOM FIXTURES

Incandescent bathroom fixtures with frosted diffusers and stainless steel trim are made in five models, in lengths from 24 to 48 in., holding up to six 60-watt bulbs.

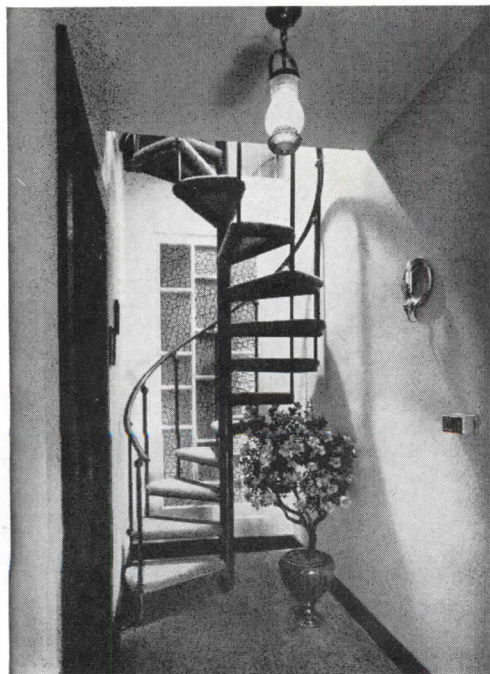


three-directional fixtures illuminate cabinet, person and rest of room. *Grote Mfg. Co., Madison, Ind.*

CIRCLE 332 ON INQUIRY CARD
more products on page

Now PresTeel Spiral Stairways for Houses

INTERIOR AND EXTERIOR TYPE



SAVES SPACE—CUTS COSTS

More and more architects are now specifying Woodbridge PresTeel spiral stairways for houses. They require floor area only the size of an average clothes closet. Optional features of these graceful PresTeel stairs are a choice of wood treads and 7 gaily colored plastic handrails.

A stairway for an average enclosed stair well 4'-0" in diameter by 8'-0" high will cost from \$275 to \$325. Send us your plans or specifications and we'll be happy to send you a quotation by return mail.



WOODBIDGE ORNAMENTAL IRON CO.
2715 N. Clybourn Ave. Chicago 14, Ill.

For more data, circle 52 on Inquiry Card



NO. 4100 ELONGATED
SILHOUETTE ONE-PIECE CLOSET

The new look of luxury
in the new elongated *Silhouette*

Elegant! Elongated! Exquisite! It's from Case—quieter by far with the famous Case Whispering Flush. Low silhouette—the famous Case design that's so popular and so low in cost. Just \$123.95*! Yet, what features—positively will not overflow, flushes with only 14 quarts of water, operates on as little as 15 pounds of pressure. It uses a jet pump principle to obtain a more efficient rim flush. And what a choice of colors—a fantastic 50 in all, plus sparkling black. Want to know more? Turn the page to see how the moderately priced Elongated Case Silhouette fits so many of your installations. Next step, contact Case.

*Suggested consumer price in white.



Also available in No. 4000 round front silhouette one-piece



CASE MANUFACTURING

DIVISION OF OGDEN CORPORATION / ROBINSON, ILLINOIS

What you should know about the Case Silhouette

If you're an architect or specifying engineer...

you will be interested in the fact that the bowl rim of the Silhouette is only 14" from the floor. Overall height is 19½", and the elongated closet extends only 27¼" into the bathroom. You will also appreciate the noticeable lack of bulk, plus the contoured tank and sculptured base.

You can specify the Silhouette for high-rise buildings with no worries about minimum pressure. It operates satisfactorily on as little as 15 pounds of pressure or more than 150. What's more it meets all anti-syphon requirements—even the most rigid plumbing codes.

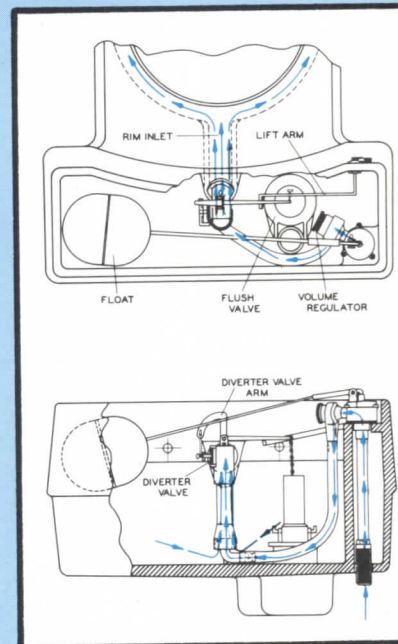
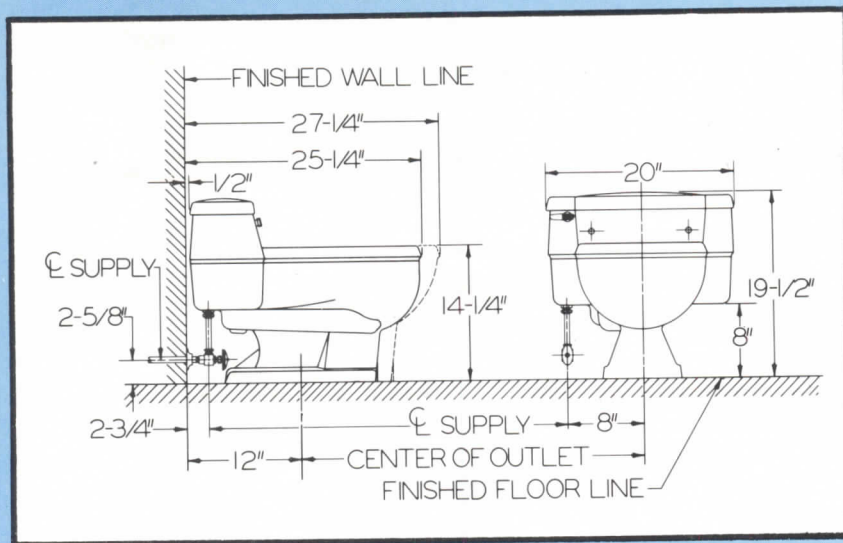
A tailored seat is another luxury Silhouette feature. Made of high impact polystyrene, it has a 10½" spread between posts which gives it a firm mounting. A free-standing check hinge is also included.

If you're a builder or homeowner...

you will recognize the importance of the Case "Whispering Flush." It is so quiet you never have to worry about a disturbing flushing noise—no matter where the bathroom is located.

As quiet as the flush is it's hard to imagine it could also be extremely efficient. But take a look at the drawing below. It shows how the Silhouette uses a jet pump principle to aspirate tank water and supply twice the usual amount of water for a strong, cleansing rim flush.

You will also appreciate the fact that the Silhouette positively will not overflow the bowl—even if the trapway is completely clogged. When a clogged condition occurs, water levels in the tank and bowl equalize and incoming water automatically shut off before overflowing.



A.I.A. NO. 29H

If you're a plumbing contractor... you will find the Silhouette is much easier to install. The No. 4100 weighs just 79 pounds, so you won't have any trouble handling it. Designed for a standard 12" roughing.

Pressure is no problem either. The Silhouette operates on as little as 15 pounds or as much as 150 pounds or more!

Another time-saving feature of the Silhouette is the simplified anti-syphon ball cock with a minimum number of parts. It requires only one volume control adjustment to give proper operation for the pressure available.

POSITIVELY WILL NOT OVERFLOW!



SPECIFY: Water closets shall be Case #4100 elongated or #4000 round front non-overflow one-piece with riser pipe housed in dry channel separately from tank water. Ball cock shall be Case #62 employing jet pump principle to aspirate tank water and prevent back-syphonage. Complete with tailored high impact polystyrene seat.



SINCE 1853

Case distinctive one-piece water closets are available through leading plumbing wholesalers everywhere.

CASE MANUFACTURING

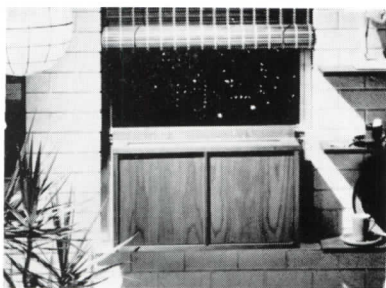
Division of Ogden Corporation • Robinson, Illinois

New Products

continued from page 150

CABINETS FOR ROOM AIR CONDITIONERS

Wooden cabinets fit over room air conditioners to give fronts that will blend with furniture. Cool air is directed into the room through louvers or grilles in cabinet top. *Major Appliance Div., Westinghouse Electric Corp., Columbus, Ohio*



CIRCLE 333 ON INQUIRY CARD

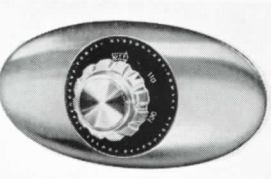
TURKISH BATH FOR HOME BATHROOM

A home Turkish bath that can be installed in any tub or shower has an automatic electric steam generator that is placed in a nearby closet, ceiling or wall. Ten models are available to fit any enclosed area from 60 to 990 cu ft. *Automatic Steam Products Corp., 3 W. 61st St., New York 3, N.Y.*

CIRCLE 334 ON INQUIRY CARD

SHOWER/BATH THERMOSTAT

Shower/bath thermostat maintains exact temperature selected. Safety features stop scalding water even if handle is turned to maximum "hot" position and prevent sudden bursts of hot or cold water. New styling combines an easy-to-handle transparent control knob and contrasting dial face. *The Powers Regulator Co., 3400 Oakton St., Skokie, Ill.*



CIRCLE 335 ON INQUIRY CARD

MASONRY SIMULATES BRICK

Gun-applied masonry product called *Brickstone* is sculptured with special tools to give the appearance of real brick or stone. *Brickstone International, Inc., 4125 Richmond Ave., Houston 27, Tex.*

CIRCLE 336 ON INQUIRY CARD

PORTABLE DISHWASHER

Mobile Maid portable dishwashers have *Textolite* laminated plastic tops that double as serving tables in dining areas. *General Electric, Appliance Park, Louisville, Ky.*

CIRCLE 337 ON INQUIRY CARD

INTERLOCKING SIDING PANELS

Dura-Lok interlocking siding panels are made of rigid polyvinyl chloride in colors that run through the entire thickness of the material, so that the panels never need painting. The material is fire-resistant, "dent-proof" and unaffected by weather. The 12½-ft-long panels can be handled by one man. *Dura-Lok Div., Acorn Chemical Co., 8203 Franklin Blvd., Cleveland 2, Ohio*



CIRCLE 338 ON INQUIRY CARD

Pre-cut...ready to install

K-Lux[®]

LUMINOUS CEILING

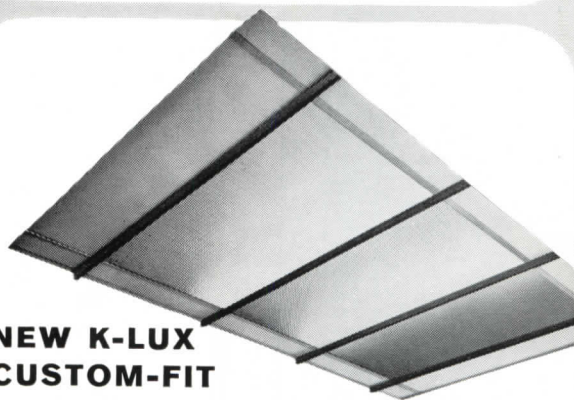
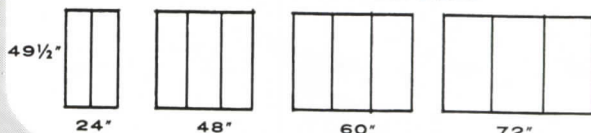


NEW K-LUX FLOATING PANELS

Provide a contemporary spacious atmosphere in your bathroom, kitchen, hallway or any other area. Can be installed in any home... old or new. Floating panel concept eliminates exacting fit with walls... simply floats from ceiling. 6" depth clears any obstacle. Entire assembly, including fixtures, is suspended by 4 screws... in less than 1 hour.



K-LUX FLOATING PANEL SIZES



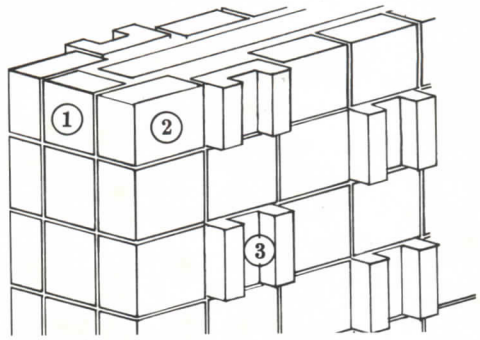
NEW K-LUX CUSTOM-FIT WALL-TO-WALL LUMINOUS CEILING PACKAGE

A beautiful dimensional combination ceiling and lighting installation for your bathroom. Perimeter angles and U-shaped aluminum channels lock this unit, including fixtures, in place... minimum of installation. Unit is designed to allow for special problems such as closets, cabinets or other structural features which change the rectangular shape of the ceiling.

DYCOUSTIC[®] DIVISION
K-S-H PLASTICS, INC.

10212 MANCHESTER • ST. LOUIS 22, MISSOURI

For more data, circle 53 on Inquiry Card



KEY: ① 8"x4"x6" BLOCK ② 8"x4"x8" BLOCK
③ 8"x4"x8" "U" LINTEL BLOCK



Watch for the Concrete Industries
HORIZON HOMES
program in your area.

For wonderful walls with a timeless flair

Architect: Palmer & Krisel

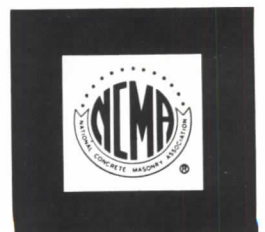
CREATE WITH BLOCK

Design dramatic walls of fashion with the versatility of concrete masonry. Countless shapes and sizes of block let you create rich wall expressions for new homes. And qualities abound: more beauty and space per dollar, complete fire-safety, unusually high sound absorption, self-insulation and little need for maintenance. See your local NCMA block producer.

Design dramatic walls of fashion with the versatility of concrete masonry. Countless shapes and sizes

of block let you create rich wall expressions for new homes. And qualities abound: more beauty and space per dollar, complete fire-safety, unusually high sound absorption, self-insulation and little need for maintenance. See your local NCMA block producer.

NATIONAL CONCRETE MASONRY ASSOCIATION • 1015 WISCONSIN AVENUE, N.W. • WASHINGTON 7, D.C.



New Literature for Home-Planning

Free literature about products for the house made available from manufacturers through reader inquiry service

CENTRAL AIR CONDITIONING

32-page handbook on central air conditioning discusses installation and operating costs and gives design suggestions. *E. I. Du Pont DeNevers & Co., Wilmington 98, Del.*

CIRCLE 400 ON INQUIRY CARD

DECORATIVE LIGHTING

(A.I.A. 31-F-2) Decorative lighting fixtures—including 84 new designs—are illustrated and described in 78-page catalog. *Emerson Electric Mfg. Co., 100 Florissant Ave., St. Louis 36, Mo.*

CIRCLE 401 ON INQUIRY CARD

STAINLESS STEEL SINKS

Two lines of stainless steel sinks (20 gauge and 18 gauge) are described in eight-page catalog. *Vance Industries, Inc., 7401 W. Wilson Ave., Chicago 38, Ill.*

CIRCLE 402 ON INQUIRY CARD

HARDBOARD SIDING, PANELS

Two illustrated, 16-page booklets give information of Masonite hardboard sidings (A.I.A. 19-D-2) and hardboard panels for interiors, available in a variety of surface patterns. *Masonite Corp., 29 N. Wacker Dr., Chicago 6, Ill.*

CIRCLE 403 ON INQUIRY CARD

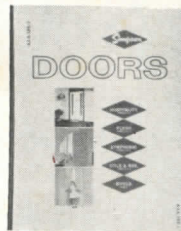
EPOXY-RESIN FLOORS

A fiber-glass-reinforced epoxy resin is used for resilient floors which simulate natural slate and brick floors. Data sheet gives details. *Chemtronics, Inc., 2040 S. Hamilton Rd., Columbus 27, Ohio*

CIRCLE 404 ON INQUIRY CARD

For more information . . . circle the key numbers of the literature you want (see number below each literature item) on the Inquiry Card, pages 155-156

WOODEN DOORS



(A.I.A. 19-E-1) All types of decorative wooden doors are illustrated in an eight-page booklet which gives data on sizes and thicknesses. *Simpson Timber*

Co., 2040 Washington Bldg., Seattle 1, Wash.

CIRCLE 405 ON INQUIRY CARD

MEDICINE CABINETS

(A.I.A. 29-J) Medicine cabinets, lavatory mirrors and accessories are illustrated in 32-page catalog. *The F. H. Lawson Co., Cincinnati 4, Ohio*

CIRCLE 406 ON INQUIRY CARD

PINE WINDOWS

(A.I.A. 16-L) Pine panel windows with straight-line or bow shape are pictured in two folders. *Woodco Corp., North Bergen, N. J.*

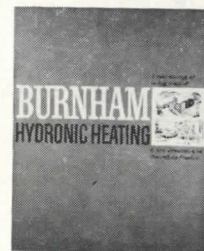
CIRCLE 407 ON INQUIRY CARD

more literature on page 161

Better homes are built around a Burnham Hydronic Heating System



The basic requirements for the best in modern home design are beauty, efficiency and comfort. Burnham hydronic heating meets all these requirements best. BASE-RAY® radiant baseboard has the beauty of slim-line unobtrusiveness, the efficiency of fully water-backed design and the healthful comfort of true radiant heat. It's clean, quiet and draft-free. And cast-iron construction provides lifetime trouble-free performance. Team BASE-RAY with a space-saving Burnham cast-iron packaged boiler, the HOLIDAY for gas or the JUBILEE® for oil, in an F.H.A. approved series loop system. It's the modern heating system that sells homes faster.



Our new free brochure "Burnham Hydronic Heating" tells you how to use this system to satisfy your clients best. Write Dept. AR-53 for it today.



BURNHAM CORPORATION

Heating & Cooling Div., Irvington, New York
Since 1873 the finest in hydronic heating



For more data, circle 54 on Inquiry Card

Would your client like living in a steel-framed house?

If your client likes crisp, contemporary design . . . if he likes outdoor-indoor living along with absolute privacy, a steel-framed house might be his cup of tea. Here's why.



STEEL PERMITS FREEDOM OF DESIGN. The limitations of other materials disappear when you design with steel. It's just right for contemporary architecture. It allows big, open areas, 30, 40 or more feet wide without any interior supports whatsoever. Steel framing also permits flexible interiors, often with movable partitions instead of fixed walls. Steel-framed houses can easily be expanded to meet future family needs, too. And you can design generous overhangs outside for sunshade effects, for patios and covered walkways.

CURTAIN WALLS OFFER DRAMATIC POSSIBILITIES

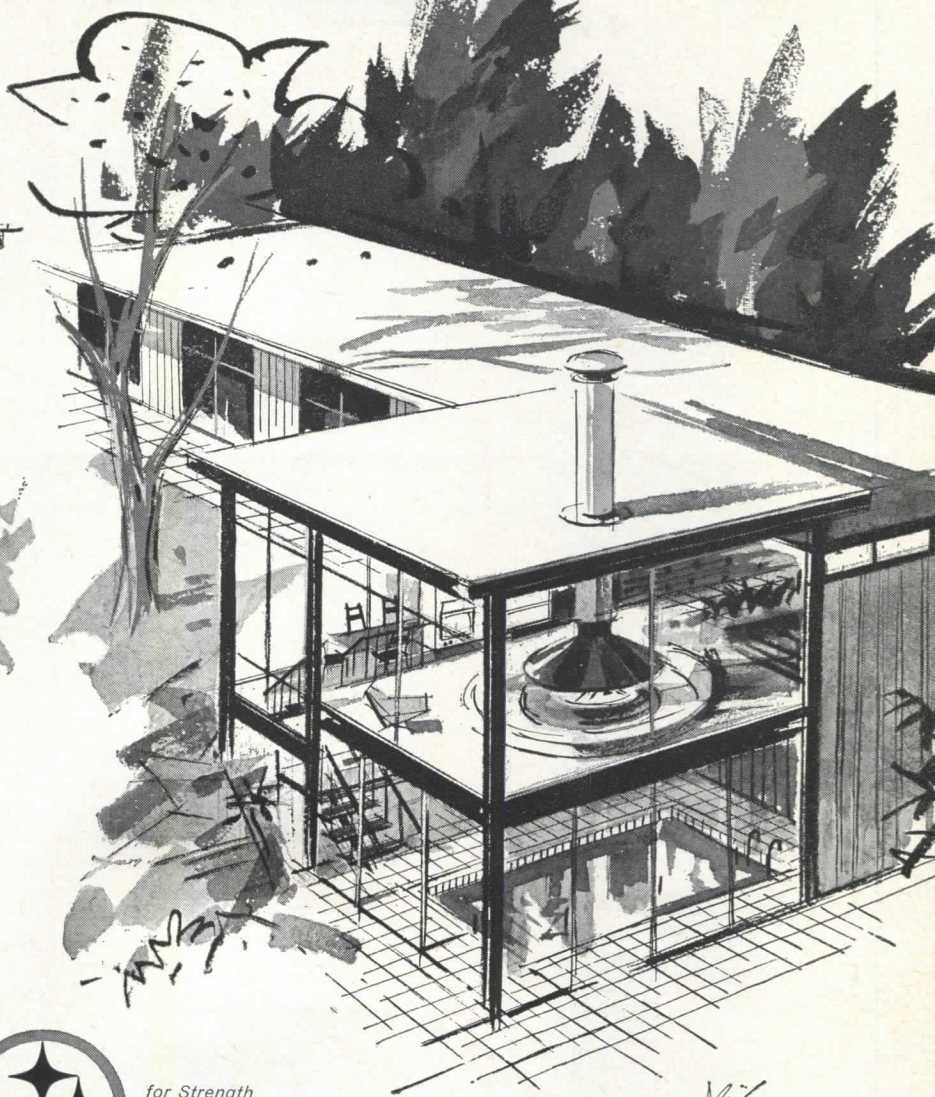
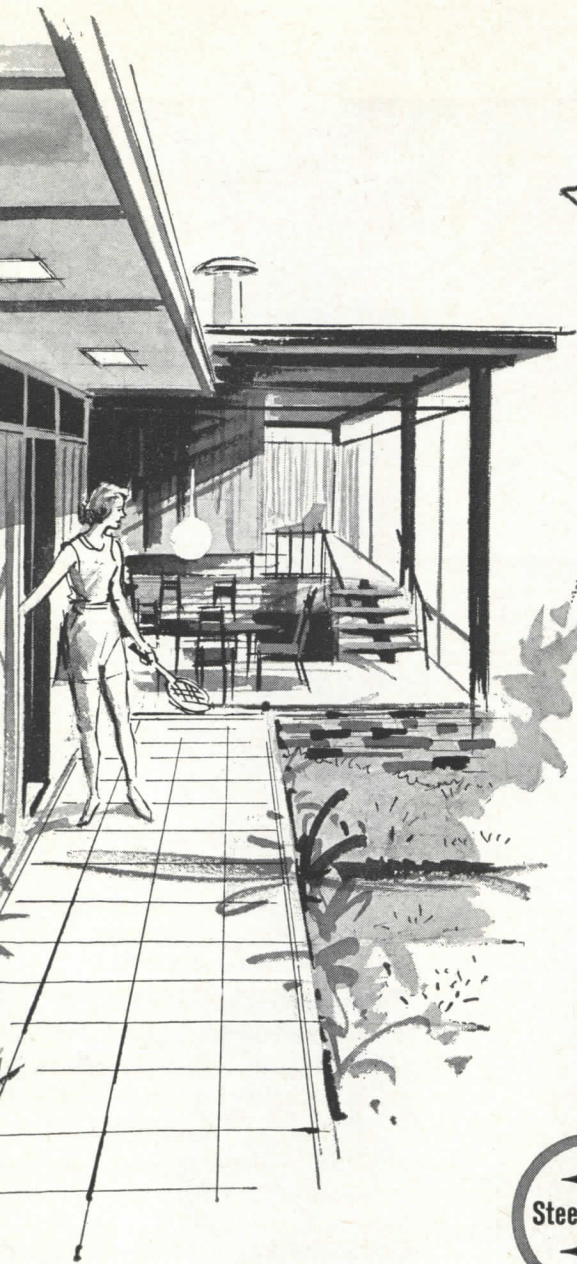
When a house is framed with steel, the walls do not carry weight. Exterior walls need not be designed to provide insulation and security. Many types of panel materials can be put in place for less than the cost of conventional wall systems. For instance, large glass panels and sliding glass doors can be placed between the steel columns to bring the outdoors in. Where opaque wall materials are preferred, you can use anything you like—porcelain-enamelled steels, plastics, wood, brick, or stone.

PROBLEM SITES.

With steel you can build on the side of a steep hill, or on top of rock formations. You can even build *over* the terrain—elevating the house on steel stilts. This makes "impossible" sites usable. Such lots can often be bought at bargain prices, and save on grading, too. And if the "problem" site is rugged but attractive, its natural beauty needn't be bulldozed away. Save the trees, the shrubs, the rocks.

HOW ABOUT THE COST?

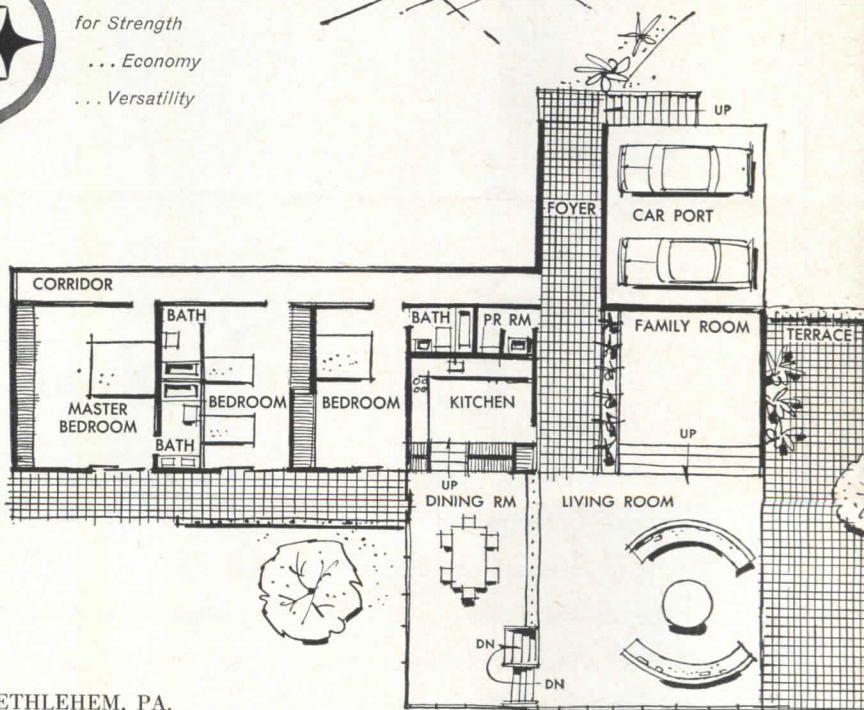
With "problem" sites, steel commonly *saves* clients money. But even on level lots a steel-framed house need not cost a penny more than any other.



for Strength
... Economy
... Versatility

HOW ABOUT TIME? Once you complete the design of a steel-framed house, it can be ready for occupancy faster than any other type. A fabricating shop can prepare the steel in a few days; most likely the entire frame can be put up in a matter of hours—and quickly roofed over—compared with many days required for a carpenter-built house.

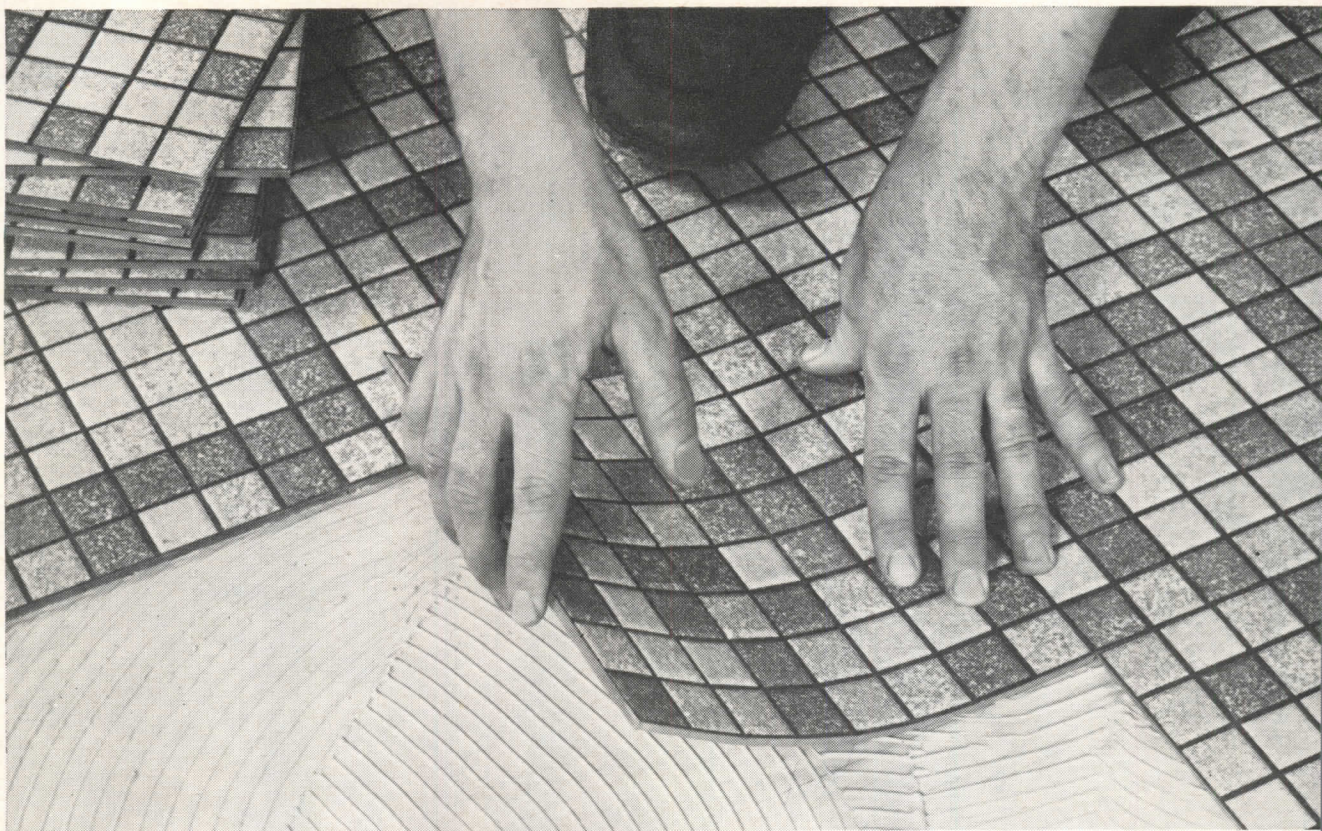
FREE LITERATURE AVAILABLE. We'd be happy to send you a new booklet showing what other skilled architects and builders have done for clients just like your own. Write to Advertising Department, Bethlehem Steel Company, Bethlehem, Pa.



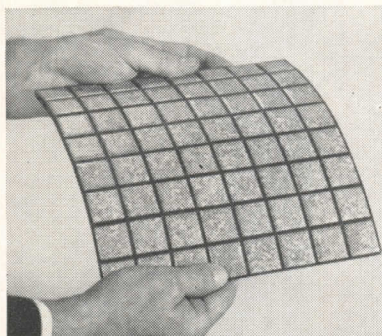
BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.
Export Sales: Bethlehem Steel Export Corporation

BETHLEHEM STEEL

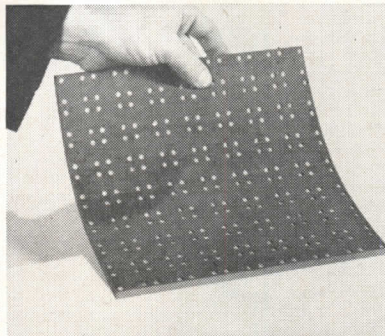
For more data, circle 55 on Inquiry Card



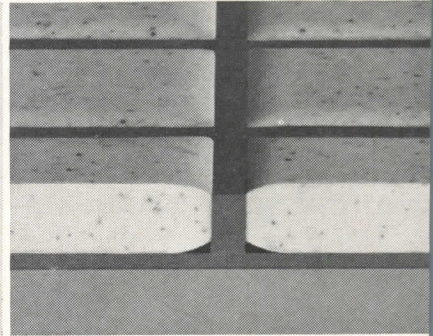
Each 9" x 9" x 1/8" Ceramaflex tile is made up of 64 one-inch square ceramic tiles securely bonded in a pre-formed flexible rubber grid. It's quickly and inexpensively installed on, above or below grade. And it's ready for use the instant it's laid.



This is the "working" surface of Ceramaflex—genuine dent-proof ceramic tile in one-inch squares, joined by impervious rubber to eliminate grout failures.



Now let's look at the back. This cushion of live rubber remains permanently flexible—guarantees a lifetime of comfort and quiet underfoot.



This enlarged cross-section of Ceramaflex shows the relationship of the rubber grid to both back and sides of each individual tile. Notice how the joint surface is flush with the edge of the tile.

There's only one resilient ceramic flooring...

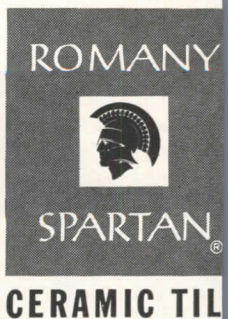
CERAMAFLEX* by Romany•Spartan

Where resilience, permanence and minimum maintenance are required, there's only one answer—Ceramaflex. Choose from a handsome variety of plain colors and buckshot patterns to create any desired decorative effect. Use unglazed in areas where foot traffic is heavy and either glazed or unglazed where light service is anticipated. Your nearby Romany•Spartan distributor will provide samples and additional information. Or write United States Ceramic Tile Company, Department AR-19, Canton 2, Ohio.



Ceramaflex® is the exclusive product of United States Ceramic Tile Company

UNITED STATES CERAMIC TILE COMPANY



For more data, circle 56 on Inquiry Card

New Literature

continued from page 157

BUTTON COMBINATION LOCK

sheet gives details on a locking system for drawers and doors which consists of a collection of five buttons and a small knob. There are 1,800 possible combinations. Changes can be made quickly without dismantling or using tools. *Simplex Lock*, 150 Broadway, New York 38, N.Y.

CIRCLE 408 ON INQUIRY CARD

TRIAANGLE CABINET FOR BATHROOMS

(A.I.A. 23-I, 29-I) *Visionaire* corner cabinet for bathrooms has large capacity and adjustable shelves. When wall mirror is used, it fits behind mirror door frame giving the effect of a single mirror. The cabinet may be used on either right or left side. Folder gives details and suggested arrangements. *Triangle Products*, 632 S. Indiana Ave., Chicago 16, Ill.

CIRCLE 409 ON INQUIRY CARD

ALUMINUM SPACE DIVIDERS

Decorative aluminum space dividers are strong and easily assembled to almost any size using square panels. Folder shows applications in various settings. *Meta-Mold Aluminum Co.*, Cedar-Rapids, Iowa.

CIRCLE 410 ON INQUIRY CARD

HYDRONIC-ELECTRIC BASEBOARD

Folder gives details on *Sunnybase-Lectric* hydronic-electric baseboard heating system. Each baseboard contains its own heating element and thermostat controls. *Crane Co.*, Johnstown, Pa.

CIRCLE 411 ON INQUIRY CARD

DENMARK FURNITURE

Illustrated catalog of furniture from Denmark imported by Mills-Denmark shows the complete line including more than 40 new items. *Mills-Denmark, Inc.*, 156th St., New York 22, N.Y.

CIRCLE 412 ON INQUIRY CARD

ONE-WAY GLASS FOR FRONT DOOR

Folder describes *Mirropane*, a one-way glass for front doors. When outside of door is lighted and inside is dim, person inside can see out but those outside see only a mirror. *Libbey, Owens, Ford Glass*, 1 Madison Ave., Toledo 7, Ohio

CIRCLE 413 ON INQUIRY CARD

FREE WOODEN SHUTTERS

Shutters with frames of ponderosa pine have sliding panels made of birch plywood. Translucent fabric liners and two filigree patterns provide a variety of designs. Folder shows applications as furniture fronts and as window shutters. *Artply Co.*, 107 Shepherd Ave., Brooklyn 8, N.Y.

CIRCLE 414 ON INQUIRY CARD

more literature on page 164

For more data, circle 57 on Inquiry Card ➔



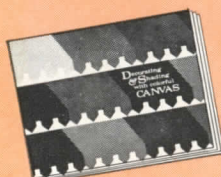
89

PRACTICAL IDEAS

FOR DECORATING AND SHADING WITH COLORFUL

CANVAS

Free 24-page booklet shows how to use colorful canvas in sparkling design ideas for homes and commercial buildings. A first-class reference for architects, builders and decorators. Order your copy today.



CANVAS AWNING INSTITUTE, INC.
NATIONAL COTTON COUNCIL
P.O. Box 9907-CC, Memphis 12, Tenn.
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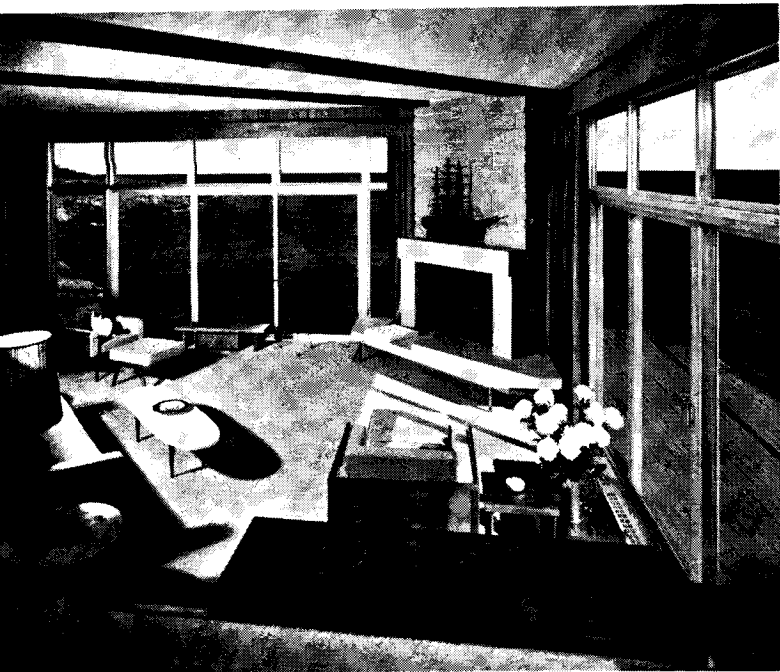
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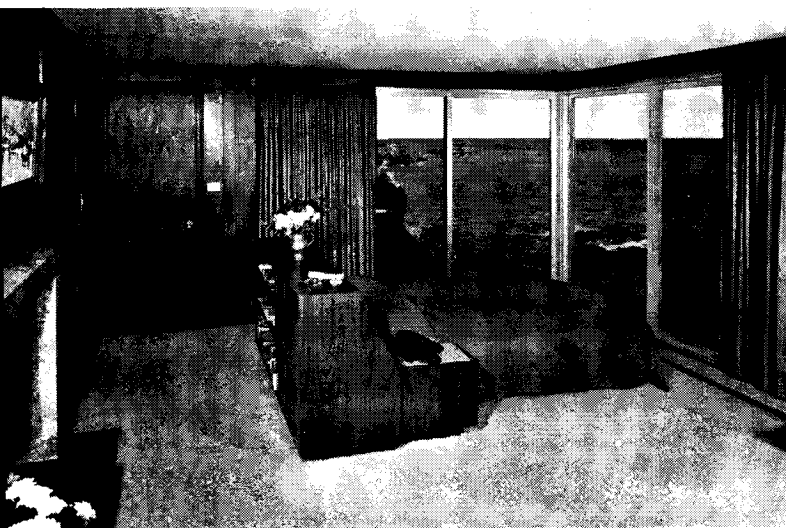
City _____ Zone _____ State _____

COTTON . . . THE FIBER YOU CAN TRUST

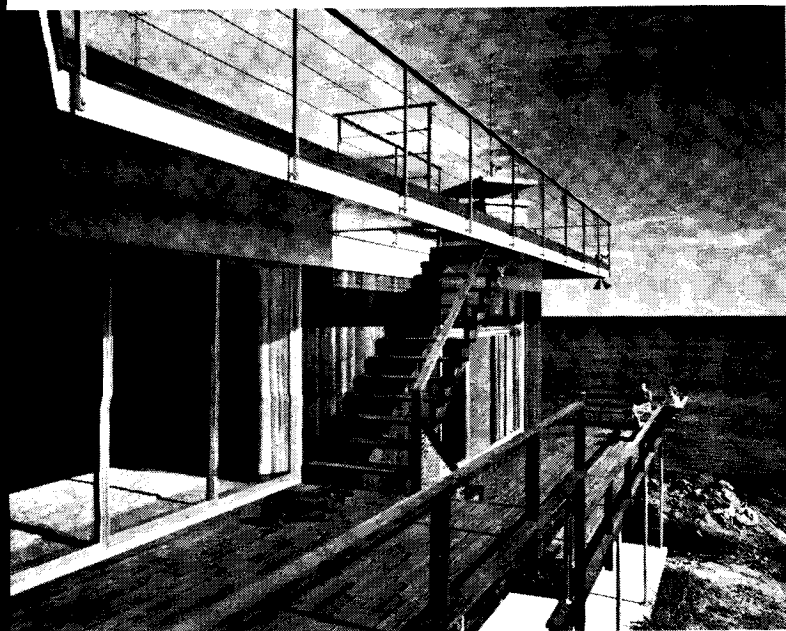
LUXURIOUS



Living room, on upper level, occupies apex of "V." PRTCO sliding doors glazed with 1" TWINDOW Insulating Glass provide views of shoreline in both directions. Used in conjunction with perimeter heating here, TWINDOW eliminates uncomfortable downdrafts, condensation-obscured views, makes entire room usable.



Winter gales cannot disturb the comfort of this lower-level suite. TWINDOW's "invisible insulation" allows furniture placement which takes advantage of the day and night beauty outside, with comfort inside. PRTCO sliding glass doors open to sheltered cove, pebble beach.



PRTCO sliding doors give access onto terraces which surround two major levels of the house. The deep overhangs of the flat roof protect glass areas from driving rains, glaring sun. Walls of rough-cut, creosoted native white pine are relieved by white trim.

Pittsburgh Plate Glass Company
Paints • Glass • Chemicals • Fiber Glass
In Canada: Canadian Pittsburgh Industries Limited



MAINE COAST HOME POINTS "V" TO SEA •

comfortably...with PPG products

"A MARK" was designed by Edwin A. Koch, AIA, for a client with a diverse range of talents and interests. The structure's "V" shape evolved from the consideration that the house, instead of facing out to sea, be oriented in both directions to views of the shore's surf-etched rocky cliffs. The resulting plan meets this challenge through functional use of expansive glazed areas. Each major room opens to the view with fixed or floor-to-ceiling PPGco® sliding glass doors which, in season, open to admit cooling breezes from the sea. All glazing is PPG Twindow® Insulating Glass. For further information about these and other PPG products, write Pittsburgh Plate Glass Company, Room 3017, 632 Fort Duquesne Boulevard, Pittsburgh, Pennsylvania.

EDWIN A. KOCH, AIA, ARCHITECT
Residence for Miss Joan Baldwin
Cape Neddick, Maine
Archer Littlefield, Builder



For more data, circle 58 on Inquiry Card

New Literature
continued from page 161

KITCHEN HOODS

Eight models of kitchen hoods, including one with automatic control, are pictured in eight-page booklet. *Emerson Electric, 8100 Florissant Ave., St. Louis 36, Mo.*

CIRCLE 415 ON INQUIRY CARD

INTERCOM-RADIO



(A.I.A. 31-I-51) Built-in intercom-radio system uses transistors. Intercom is independent of the radio. Eight-page booklet shows models available.

NuTone, Inc., Madison and Red Bank Roads, Cincinnati 27, Ohio

CIRCLE 416 ON INQUIRY CARD

VENTILATING EQUIPMENT

Ceiling and wall ventilators, range and oven hoods, exhaust fans, attic fans and radiant wall heaters are shown in 28-page catalog. *Fasco Industries, Inc., Rochester 2, N.Y.*

CIRCLE 417 ON INQUIRY CARD

PLASTIC-FINISHED PANELS

Eight-page catalog shows installations of *Marlite* wall and ceiling paneling, made of hardboard with a washable plastic laminate surface. *Marsh Wall Products, Inc., Dover, Ohio*

CIRCLE 418 ON INQUIRY CARD

CEDAR SIDING

(A.I.A. 19-D) Advantages of bevel siding made of western red cedar are listed in brochure. *Western Red Cedar Lumber Assoc., 4403 White-Henry-Stuart Bldg., Seattle 1, Wash.*

CIRCLE 419 ON INQUIRY CARD

ACRYLIC SKYLIGHTS

Skydome acrylic skylights are described in illustrated brochure. *American Cyanamid Co., 5 Bay State Rd., Cambridge 38, Mass.*

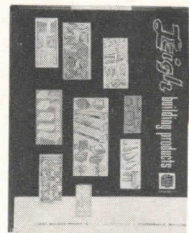
CIRCLE 420 ON INQUIRY CARD

COLOR FOR CONCRETE

(A.I.A. 3-M-1) Color chips are included in six-page folder on *Harcot Redi-Mixed*, a quartz aggregate that hardens and colors concrete surfaces. *Sonneborn Bldg. Products, Inc., 10 E. 40th St., New York 16, N.Y.*

CIRCLE 421 ON INQUIRY CARD

BUILDING PRODUCTS



(A.I.A. 27) Folding doors, closet accessories, door hardware, ventilator range hoods, bathroom accessories and canopies are some of the household building items illustrated in a 64-page color-coded catalog. *Leigh Building Products, Coopersville, Mich.*

CIRCLE 422 ON INQUIRY CARD

LIGHTING HINTS

"Ways to Brighten Your Home with Light" gives details on cornices, valances, wall brackets, luminous ceiling and wall panels, etc. *Inquiry Bureau, General Electric Co., N. Park, Cleveland 12, Ohio*

CIRCLE 423 ON INQUIRY CARD

REDWOOD SAUNA ROOM

Folder gives details on *Viking* sauna bath, which is made of interlocking solid redwood bricks 3½-in.-thick that stack to make a sturdy room. An electric heater is used. *Viking Sauna Co. of New York, 330 E. 42nd St., New York 17, N.Y.*

CIRCLE 424 ON INQUIRY CARD

40% of the Award-Winning Architects for the 1963 "RECORD HOUSES" specified

Cabot's STAINS

OVER THE YEARS . . .

40% in 1963; over a 9 year span, Cabot products were used on 61 out of 175 Record Houses . . . an astonishing 35%. The record speaks for itself.

The following architects specified Cabot's for 1963 "Record Houses":

BLISS and CAMPBELL Minneapolis, Minn.
G. P. JENNEWAIN and J. J. JENNEWAIN New York, N.Y.
HESTER & JONES La Jolla, Cal.
KNORR & ELLIOTT San Francisco, Cal.
GEORGE NEMENY New York, N.Y.
BRADY & ZAZZI New York, N.Y.
VLADIMIR OSSIPPOFF Honolulu, Hawaii
ULRICH FRANZEN & ASSOCIATES New York, N.Y.

Send for color cards on Cabot's Stains.

SAMUEL CABOT INC.
 529 S. Terminal Trust Bldg.
 Boston 10, Mass.

A 1962 "RECORD HOUSE"
 Home of Marathon Shores, Key Vaca, Florida.
 Cabot's Bleaching Oil on siding. Architects:
 Robert B. Browne, Miami, Florida.

For more data, circle 59 on Inquiry Card

ELECTRICAL EQUIPMENT

Westinghouse's complete line of products for residential building is shown in 32-page catalog. *Westinghouse Electric Corp., P. O. Box 2099, Pittsburgh 30, Pa.*

CIRCLE 425 ON INQUIRY CARD

KITCHEN VENTILATING

Lines of kitchen ventilating fans are described in data sheets. Fans are ventless with charcoal filter. *De-Wind Div., Robbins & Myers, 7755 Paramount Pl., Pico River, Calif.*

CIRCLE 426 ON INQUIRY CARD

WOOD FLOORS

(A.I.A. 19-E-9) Construction of wood floors using *Versabord* underlayment is discussed in six-page folder. *Weyerhaeuser Co., Tacoma 1, Wash.*

CIRCLE 427 ON INQUIRY CARD

CEILING PANELS

Acoustic-finished hardboard panels for indoor use and fiber-glass-reinforced plastic panels for outdoor use are shown in six-page booklet. *Barclay Co., Bronx 51, N.Y.*

CIRCLE 428 ON INQUIRY CARD

GAS LOG FIREPLACES

(A.I.A. 14-E-5) Folder shows four models of *Dyna-Flame* factory-built gas log fireplaces which give an effect similar to wood-burning fireplaces. They can be mounted on existing walls. *Dyna Mfg. Co., 4865 Exposition Blvd., Los Angeles 16, Calif.*

CIRCLE 429 ON INQUIRY CARD

FLOORS AND CEILINGS



(A.I.A. 23-G) Color pictures of linoleum and resilient floor tiles are shown in 24-page specification guide. Two other booklets give decorating ideas using Armstrong acoustical ceilings and *Excelon* vinyl-asbestos tile. *Armstrong Cork Co., Lancaster, Pa.*

CIRCLE 430 ON INQUIRY CARD

WATER-ELECTRIC BASEBOARD

(A.I.A. 30-C-44) Operation of an electro-hydronic baseboard heating system without plumbing is explained in folder. *International Electric Heating Div., 3800 Park Ave., St. Louis 10, Mo.*

CIRCLE 431 ON INQUIRY CARD

ALUMINUM WINDOWS

(A.I.A. 16-E) Complete line of aluminum windows is listed in 12-page catalog. *Fleet of America, 2015 Walden Ave., Buffalo 25, N.Y.*

CIRCLE 432 ON INQUIRY CARD

COOKING EQUIPMENT

Cooktops and exhaust hoods, built-in ovens and *Americana* ranges with window oven above and regular oven below surface units are detailed in separate folders. *General Electric, Appliance Park, Louisville 1, Ky.*

CIRCLE 433 ON INQUIRY CARD

BATHROOM CABINETS

Bathroom cabinets, accessories, mirrors and lighting fixtures—212 products in all—are described in 24-page catalog. *The Grote Mfg. Co., Madison, Ind.*

CIRCLE 434 ON INQUIRY CARD

HOME SODA FOUNTAINS

Three styles of mobile and stationary home soda fountains are described in folder and data sheet. *James J. Gavigan & Co., Inc., 388 Eleventh Ave., New York 1, N.Y.*

CIRCLE 435 ON INQUIRY CARD
more literature on page 166

* LIGHTNESS



RAYLON GARAGE DOORS by RAYNOR

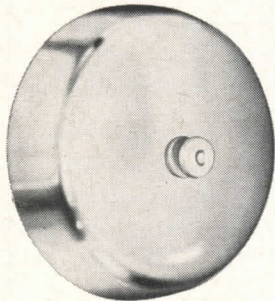
* Aluminum & fiberglass weigh 1/3 the weight of a wood door . . . it's a new experience in garage door handling ease — * Translucent fiberglass panels . . . flood the garage interior with natural daylight — * Single or two-car doors to blend with any architecture . . . offered in three colors — Dover White, Desert Tan, and Nile Green. RAYNOR MFG. CO. Dept. RH63 Dixon, Illinois Hammonton, New Jersey.

For more data, circle 60 on Inquiry Card

Specify the very latest for safety and convenience

new convenience—

Concealed BATHROOM CLOTHES LINE



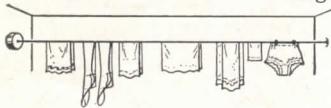
To use—grasp knob and pull out cord—then hook knob in retainer plate on opposite wall.

UP TO 10-FT. WHITE NYLON CORD
GIVES EXTRA DRYING SPACE

This new Hall-Mack clothes line provides added convenience for all bathrooms, service porches and kitchens—for apartments, motels and hotels. Attractive and small, the chrome-plated case is easily mounted on any wall surface. A strong nylon cord is fed out or retrieved by a spring concealed inside. Simple installation over the tub furnishes ample space for overnight drying of nylons, lingerie and other items.



Wall Retainer Plate



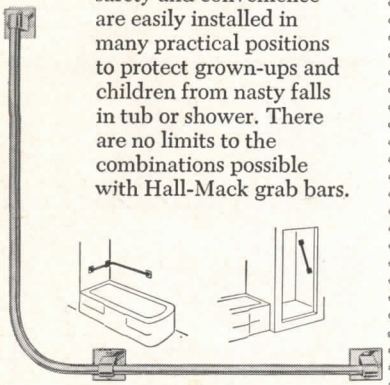
HANDY — ATTRACTIVE — EASILY INSTALLED

new features by **HALL-MACK®**

for safety's sake—

INSTALL GRAB BARS

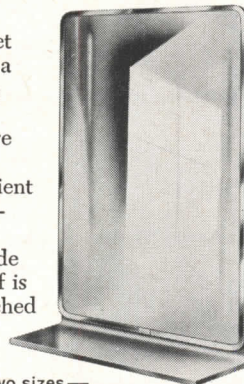
Hall-Mack grab bars add safety and convenience—are easily installed in many practical positions to protect grown-ups and children from nasty falls in tub or shower. There are no limits to the combinations possible with Hall-Mack grab bars.



new utility—

COMBINATION MIRROR AND SHELF

For guestrooms, washrooms or toilet rooms—wherever a mirror and shelf is needed. Easily installed. There are no obstructions to prevent easy, efficient cleaning by house-keeper, maid or janitor. The 5" wide stainless steel shelf is permanently attached to mirror back.



Available in two sizes—
16" x 23 $\frac{3}{4}$ " and 18" x 27 $\frac{3}{4}$ "

new ideas—

ON BATHROOM PLANNING

Hall-Mack's colorful new brochure, "Accent on Accessories" is full of original bathroom ideas designed and produced by Hall-Mack. Write for your free copy today.



HALL-MACK COMPANY

a **textron** company 000
1380 W. Washington Blvd., Los Angeles 7, Calif.

Please send your "Accent on Accessories" brochure to—

Name _____

(PLEASE PRINT)

Address _____

City _____ Zone _____ State _____

Sold by leading plumbing, tile and hardware dealers everywhere.

AR-563

For more data, circle 24 on Inquiry Card

New Literature

continued from page 165

VINYL UPHOLSTERY

Samples of three kinds of vinyl upholstery fabric—*Naugahyde*, *Ro Naugahyde* and *Naugaweave*—are included in booklet. *United States Rubber, Mishawaka, Ind.*

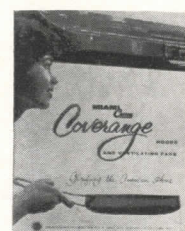
CIRCLE 436 ON INQUIRY CARD

BUILT-IN SCALE

Built-in bathroom scale with lock-place handle folds into wall. *Da Steel Products Co., 219 W. 7th St., Los Angeles 14, Calif.*

CIRCLE 437 ON INQUIRY CARD

HOODS AND CABINETS



(A.I.A. 29-J, 30) Range hoods and ventilating fans illustrated in page booklet. Bathroom cabinets, mirrors and accessories are shown in 32-p

booklet. *The Philip Carey Mfg. Co., Middletown, Ohio*

CIRCLE 438 ON INQUIRY CARD

INSULATION

(A.I.A. 37-C) Design data and considerations for residential installations are given in 20-page booklet. *Owens-Corning Fiberglas Corp., Toledo 1, Ohio*

CIRCLE 439 ON INQUIRY CARD

VINYL, RUBBER FLOORING

Color swatches of Amtico's vinyl rubber flooring are given in 16-page booklet. Fourteen installation features are included. *Amtico, Trenton 2, N. J.*

CIRCLE 440 ON INQUIRY CARD

TILTING WINDOWS

Twin Tilt hardware that converts double-hung windows into tilting windows is detailed in brochure. *Twin Tilt Window Corp., Steuben St., Pittsburgh 20, Pa.*

CIRCLE 441 ON INQUIRY CARD

PLANNING PATIOS

An idea booklet on patios has suggestions on how to plan and light patios and gardens. Included is information about using *Waterlox* protective coatings for wood, concrete, stone masonry and metal surfaces. *Empire Varnish Co., 2636 E. 12th St., Cleveland 4, Ohio*

CIRCLE 442 ON INQUIRY CARD



Just add Flintkote



and you've got it made.

Make sure your houses are solid Flintkote and you're sure to make a solid hit with your clients. Quality is built into every Flintkote product. Client appeal is built in, too. One example: fabulous Designer's Solids—the most advanced color concept in floor tile. Another: brilliant new ceiling tile designs selected by a panel of women! It's the same story all down the line. And nobody makes a more complete, thoroughly advanced line of building products. But nobody! For roofing, siding, walls, floors, ceilings, chimneys—virtually everything but the front door — depend on Flintkote, America's broadest line of building products.

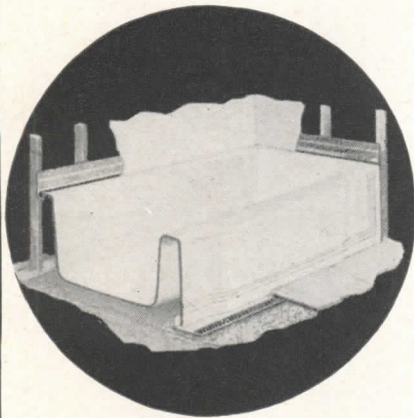
THE FLINTKOTE COMPANY, 30 ROCKEFELLER PLAZA, NEW YORK 20, NEW YORK



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Prevent Bathtub SAGGING

with



LUCKE BATHTUB HANGERS

*Essential—but
often overlooked*

Make certain that every bathtub installed in your projects is insured against settling and subsequent water seepage. Lucke tub hangers distribute the weight of the tub evenly on all joists and a special flange insures a perfect water seal when bonded with Lucke Leak Proof Filler. This mastic compound is guaranteed to maintain its elasticity during extreme temperatures.

Used in quality houses, motels, hospitals and institutions for over 20 years.

WILLIAM B. LUCKE, INC.

514 Popular Drive, Wilmette, Illinois

Please send me without obligation, a folder illustrating and describing how Lucke Leak-proof Bathtub Hangers may be used with various type and size bathtubs.

NAME

- Engineer Architect
 Plumber Builder

Street

City Zone

State

PHOTOGRAPHERS OF RECORD HOUSES OF 1963

Photographs of the houses by the following photographers appear on pages noted

MORLEY BAER 7 Greenwood Common Berkeley 8, California	58
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ROBERT N. WARD 833 Reba Evanston, Illinois	106
ROBERT WENKAM 3578 Waiialae Avenue Honolulu, Hawaii	54

HOW SPACE AGE ELECTRONICS SOLVES SPASMODIC HEATING

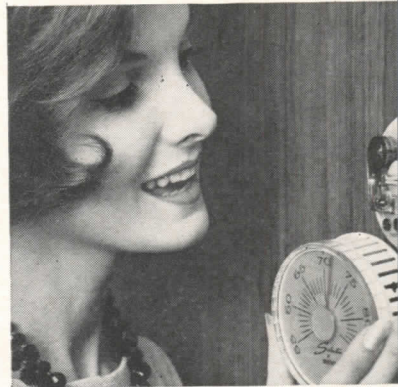
All gas-fired forced air furnaces are deliberately oversized to provide ample capacity for colder winter days. Most of the time, heat is delivered in short bursts, followed by long off periods. Result: temperature stratification, cold corners, then hot blasts.

The logical solution is to run a furnace slowly and continuously—just enough to meet heat losses.

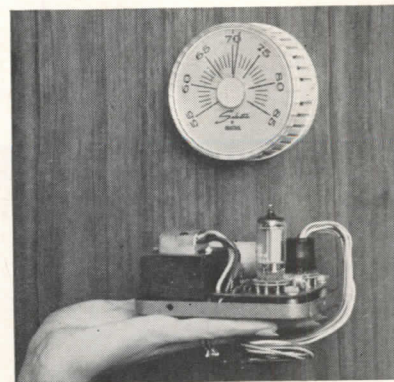
Selectra electronic modulation provides this new concept. Except on mild days, the fan and burners run continuously; but, Selectra changes the size of the flame to meet changing demands. Registers emit a gentle flow of warmth, eliminate temperature see-saws.

Key to performance is a tiny space age thermistor in the Selectrastat. It senses 1/10 degree temperature changes, advises an electronic amplifier which in turn causes a valve to regulate gas flow. Many progressive gas-fired equipment producers now offer Selectra. Among them: Bard, Hastings Hall Neal-Victor, Janitrol, Mueller Climate-Thermo Products Thermo-Pride, XXth Century. Now also a key to practical make-up air heating.

Selectra



**MAXITROL
COMPANY**
23555 TELEGRAPH ROAD
SOUTHFIELD, MICHIGAN



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Provence, Valencia and Renaissance patterns available in brushed or smooth, in red or fire flashed colors.

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Manufacturers of quarry tile, the nation's largest producer of roofing tile and NAILON Facing Brick

WEST COAST REPRESENTATIVES: Gladding, McBean & Co., Los Angeles, San Francisco, Portland, Seattle, Spokane, Phoenix

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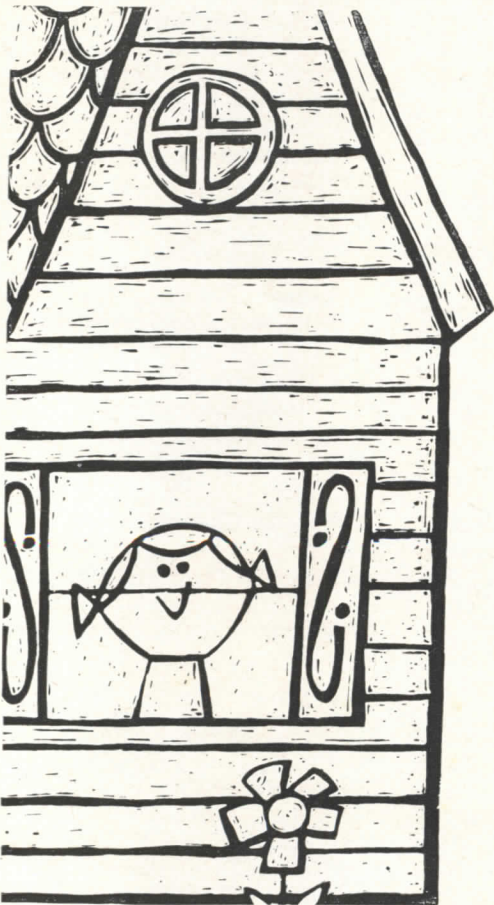
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. . . was completed ahead of schedule. One reason was Jack's use of the manufacturers' catalogs in Sweet's Light Construction Catalog File. In the building industry, there are three Sweet's Files—Architectural, Light Construction and Industrial Construction. Whenever you or your client has a building product need, reach for Sweet's, where a wide selection of manufacturers' catalogs is ready to speed and simplify your product selection and specification tasks.



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FOR SIGNIFICANT NEW HOMES (Like this house in Hartsdale, N. Y. Architect: Harry Wenning. Builder: Meadowbrook Development, Inc.)
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It looks monolithic, has deep fissures, and absorbs sound. Today's elegant homes deserve new luxury ceilings. Deeply fissured Fashiontone tiles have edges that fit together so snugly you scarcely see a seam. The ceiling is all one handsome uninterrupted design. Because Fashiontone is made of mineral fiber, it's incombustible. And it's ideal for high humidity areas.

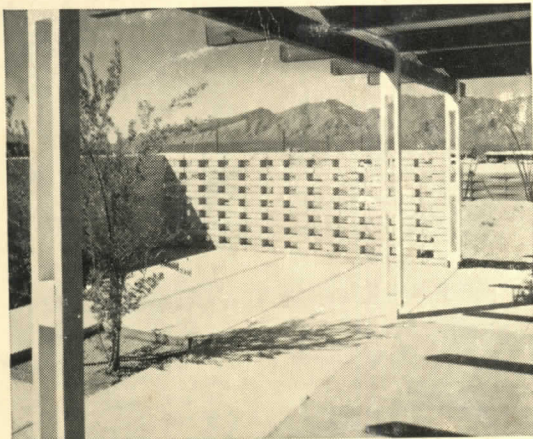
WRITE FOR FREE SAMPLE: Write direct to Armstrong on your letterhead for a sample tile and data. Address your request to Armstrong, 105 Tenth Avenue, Lancaster, Pennsylvania. **Armstrong CEILINGS**

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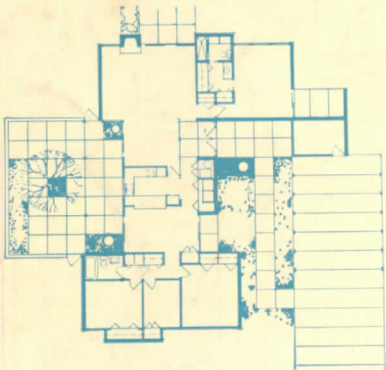
National award-winning home gives new spirit to desert living with modern concrete



Horizon Home, Tucson, Arizona, winner of 1962 National Design Award. Architect: Cook & Swaim, A.I.A., Tucson.



Slump block in full and half units provides an attractive wall for this patio. Floor plan below shows effective use of zone planning.



A dramatic blending of indoors and outdoors provides stimulating livability in this outstanding design from the Horizon Homes Program, sponsored by the nation's concrete industries.

From the many new and exciting forms of concrete masonry now available, the architect chose slump block. Its natural look and bold dimensions well suit the low, simple lines of the house. To extend the color and texture of the desert floor, wall areas below the windows are finished with stucco in earthy tones. In the courtyard and gardens concrete creates added textural interest—from abstract sculpture to the patio floors, terraces and gardens.

For distinctive home design in every locale, more and more architects are turning to modern concrete.

PORTLAND CEMENT ASSOCIATION

*A national organization to improve and extend
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