

Graw-Hill's marketing and management publication of housing and light construction

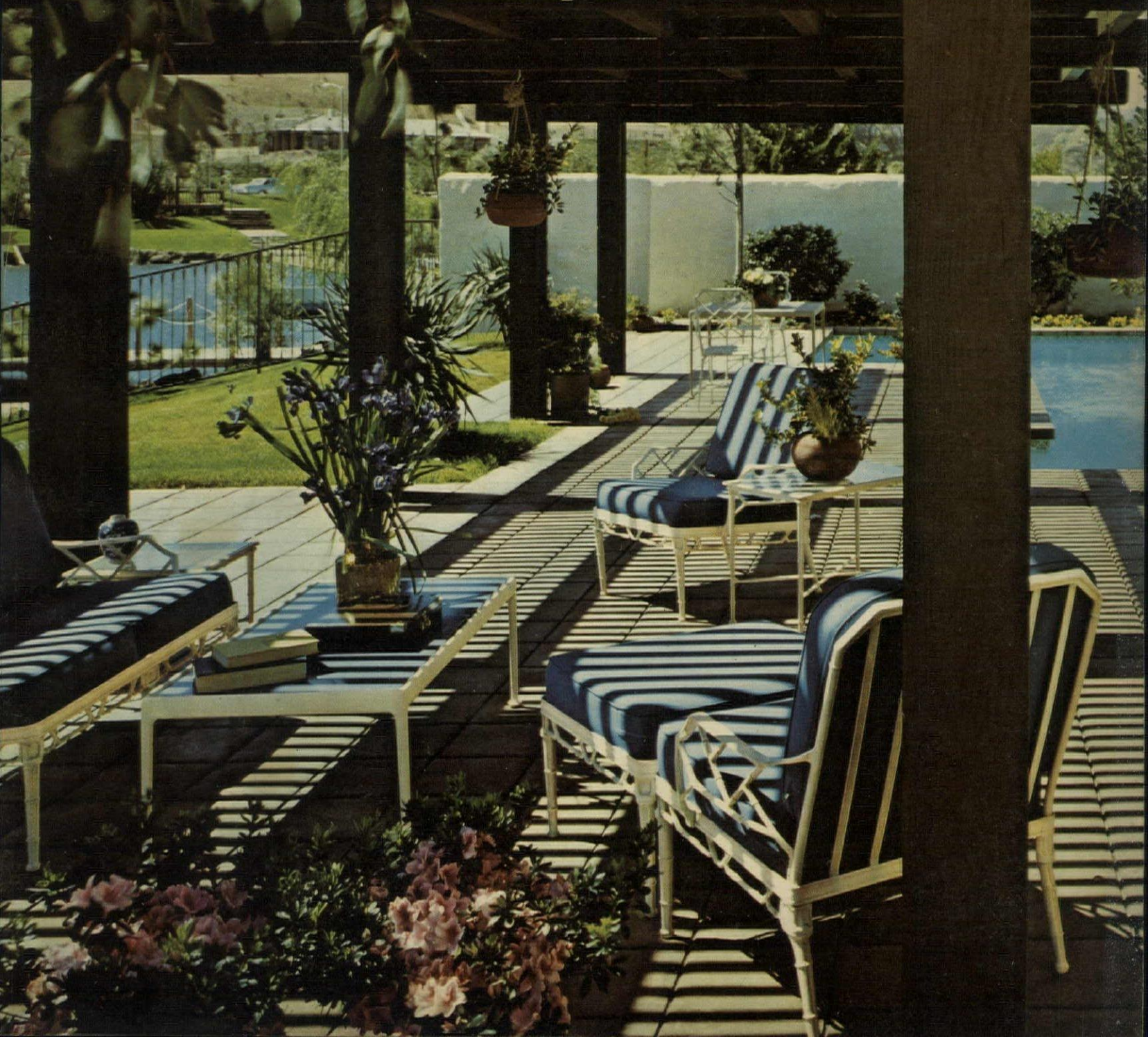
House & Home

NOVEMBER 1970

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House & Home

McGraw-Hill's marketing and management publication of housing and light construction

Volume 38 Number 5 / November 1970

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Architect: William R. Pauli. *Builder:* Harlan Lee & Assoc. Inc.
Photo: Julius Shulman. *For story, see page 48.*

Model Cities program gets a second chance—with the mayors taking control

Decentralization—a word heard frequently in the early days of the Nixon administration—has again found its way to the head of Administration policy.

This time, however, it involves the beleaguered Model Cities program, beset earlier this year by White House dissatisfaction and the likelihood of fund cuts.

Model Cities has now gotten President Nixon's blessing as a way to make decentralization work.

The White House views Model Cities as the program to eliminate much of the red tape surrounding not only federal housing grants to local governments, but also money going to cities for school and health programs.

The White House endorsement is a major victory for Housing Secretary George Romney and his assistant secretary for Model Cities, Floyd Hyde. Both fought hard this year to save the program from oblivion.

Mayors in control. The mayors in some 12 to 18 experimental cities will now control most, if not all, Model Cities funds for their areas.

The plan marks a major departure from past policy of both the Johnson and Nixon administrations. But Secretary Hyde has been saying all along that local governments must have more say over the use of federal funds in their jurisdictions.



HUD'S HYDE
A victory . . .



HEW'S RICHARDSON
. . . and an opportunity

"For too long," Hyde said at a recent press conference announcing the new program, "the federal posture has been that cities might make mistakes. As a result, we've tied the hands of local government."

Changes. The program, as envisioned by Administration officials, goes further than letting mayors control federal housing funds. Secretary Romney, commenting on the scheme, said that from 12 to 18 of the 150 cities participating in the program would undergo "planned variations." He cited three major changes:

- Elimination of all but statutorily defined federal reviews concerning the use of supplemental and categorical funds in cities.
- Permitting development of Model Cities plans and programs for entire cities rather than just limited model neighborhoods.
- Granting to local chief ex-

ecutives the right to review, comment on, and sign off all agency categorical programs before use in their cities.

Revenue sharing. The program has significance for a pet project of the Nixon administration—revenue sharing. President Nixon will probably make a major legislative drive beginning next year to effect a revenue sharing plan with state and local governments.

Secretary Romney noted, in fact, that "elimination of federal reviews will go a long way toward testing the feasibility of block grants and revenue sharing.

"Further, this variation will demonstrate the impact of a simplified federal delivery system on city ability to define and carry out innovative programs."

The idea has already won the support of the National League of Cities and the Conference of Mayors, two groups that have complained long and bitterly about "empty promises on

Model Cities and other Urban Renewal programs."

New powers. Now, however, the program would give the mayors much of the power over federal funds that has been lacking in these programs. And the presence of Secretary Elliot Richardson of the Health, Education and Welfare Department at the press conference announcing the plan adds considerable weight to the scheme. Secretary Richardson said, in fact, that the whole idea "is to give mayors as much muscle as we can legally."

This muscle is found in the mayors' new power to veto federally assisted programs in their areas. And that includes health and education programs, which are usually dictated by the states.

Of course the Administration does not expect the program to be free of all problems, including the possible misapplication of federal funds. There will remain, however, several federal checks on the cities.

But, as Secretary Romney pointed out, mayors today have virtually no say or control over spending of federal funds in their areas. A survey showed, for instance, that the mayor of Oakland, Calif., controls 15 per cent of all federal monies that move into his city. This is the apparent inequity that the Administration hopes to correct.

ANDREW R. MANDALA
Washington

Renewing urban renewal—and renewing the Republican cause in the cities

One of the more elusive goals of the Nixon administration has been the realignment of the urban renewal program to serve more closely the political ambitions of the Republican party.

Created during the Johnson tenure, urban renewal programs have become involved in the politics of the big—and Democratic—northern cities. One result is that fully \$450 million of the \$1 billion budgeted for the year ended June 30 went to pay for amendatories—the cost increases on existing projects. With another \$425 million earmarked for neighborhood development programs, building code enforcement and home rehabilitation, only \$125 million was available to the incumbent Republicans to finance

newcomers to the program. The applications backlog alone amounts to almost \$3 billion.

The Republicans would now like to favor at least some cities of their own choosing. This will require more "free" money.

Strategy. As a first step, the Administration's new housing bill, now on Capitol Hill, asks \$350 million more than the \$1 billion voted annually in recent years. And Housing Secretary George Romney intends to raise another \$50 million by imposing controls on program momentum generated by the previous Administration's decisions.

Romney has set up priorities regulating additional funding for existing programs. Top priority

would go to those cities that can show that their cost overruns result from changes in federal law, such as additional relocation housing for persons displaced by federal projects.

Second in line would be those cities that can prove that amendatory funding would enable them to complete projects within twelve months.

Those cities that can't close out projects within twelve months would go to the bottom of the list.

Goals. The Romney team hopes its priorities will pare \$50 million from amendatory spending, increasing "free" money to \$175 million plus whatever additional funds Congress will grant. This should enhance the Administration's

political leverage while at the same time providing sufficient monies for existing programs. The HUD policy, one insider says, will "reflect a funding approach designed to keep our urban renewal cities busy, keep current projects going, but still allow room for newcomers."

Outcome. Whether the Romney proposals—the balance of which will be revealed later this fall—will have the desired effect in shaking loose additional "free" funds remains to be seen. However, the plan should serve to jolt some cities into acting on programs bogged in their bureaucracies.

If it accomplishes nothing else, the Romney solution would then have to be considered a formidable achievement.



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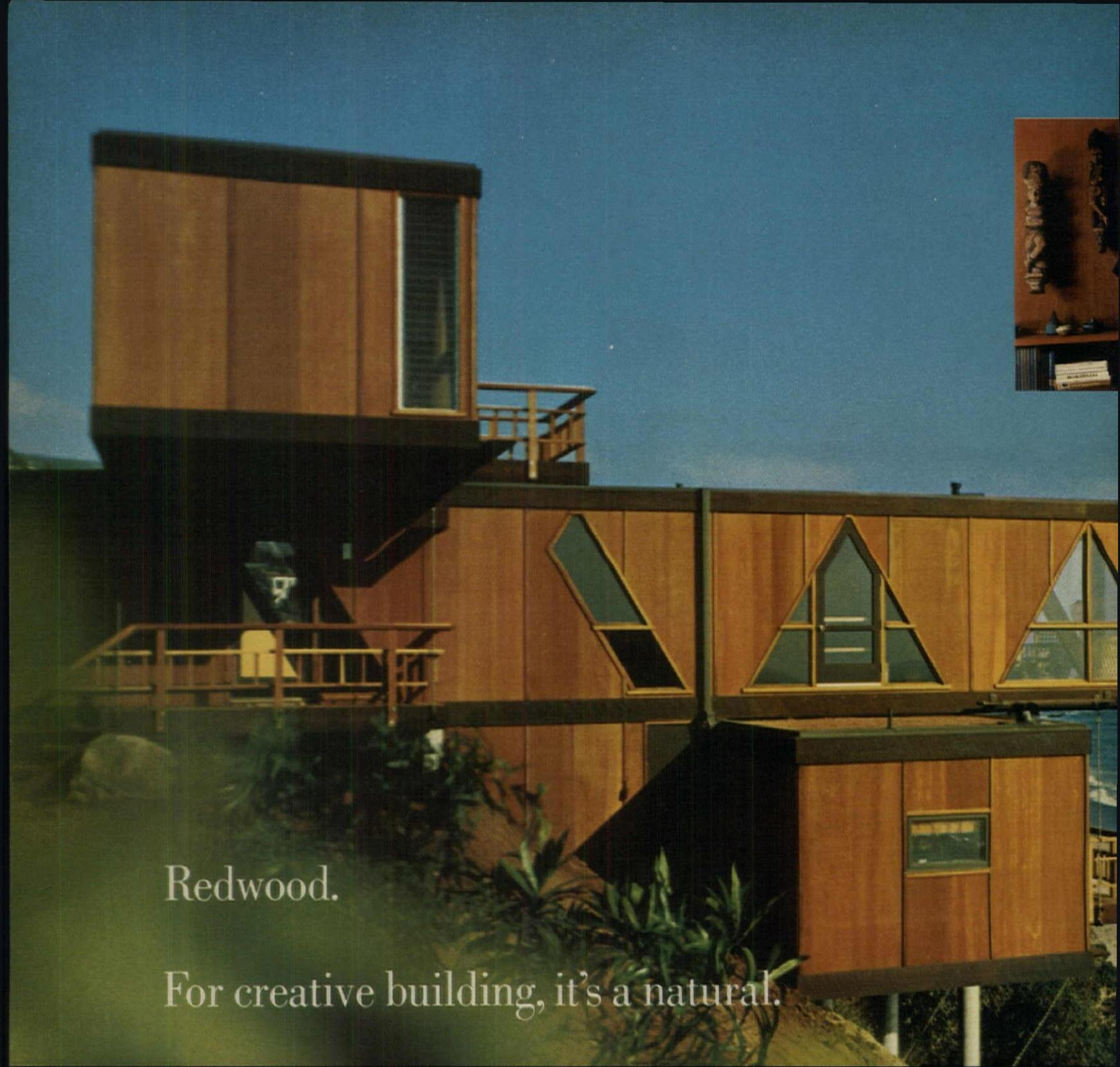
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A photograph of a modern modular building with redwood siding and geometric windows. The building is composed of several interconnected rectangular units. One unit on the left has a balcony with a wooden railing. The windows are triangular and trapezoidal in shape. The building is set against a clear blue sky. In the foreground, there are some green plants and a large rock.

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As in the modular beauty above.

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Outside, the long lengths of redwood fascia provide smooth, unbroken lines. Straight grained and knot-free, it stains uniformly. Same for the redwood rails,

trim and decking. And the big, light sheets of exterior clear-grade redwood plywood siding. (Available in 3 lengths, 5 groove widths.)

Inside, the unity is completed. Clear grade redwood lumber, with its contrasting tones, adds interest and style. Becomes part of a total look. (And is available in a variety of textures and patterns.)

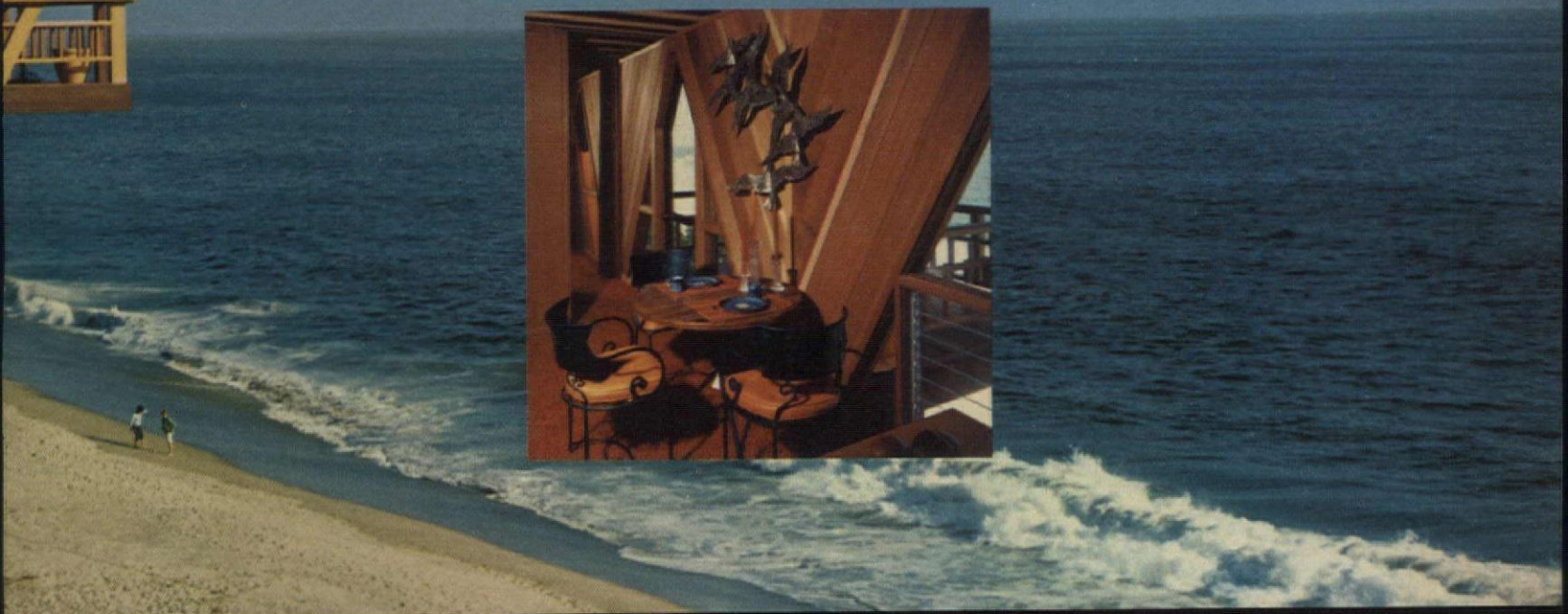
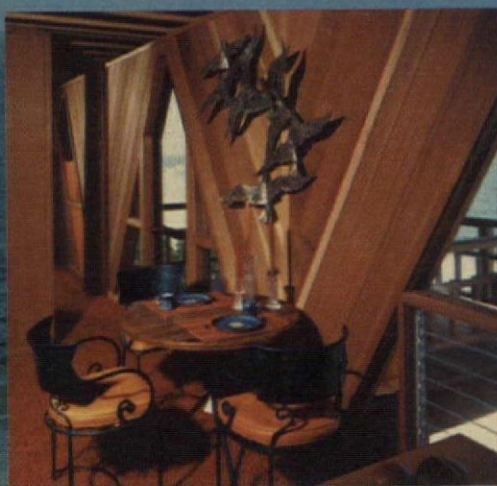
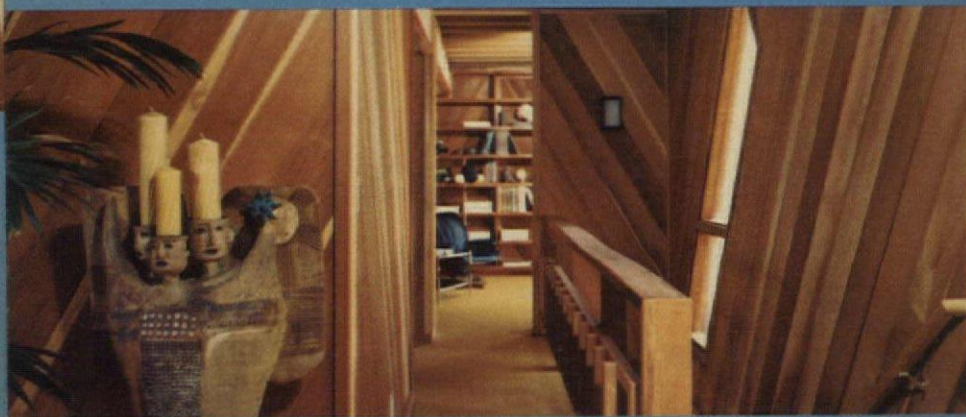
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Residence of Fred Lang, Landscape Architect, South Laguna, California. Architect: Lamont Langworthy, AIA.

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When is a private lake really private? Boise Cascade finds out the hard way

A 320-acre lake, a major feature of one of Boise Cascade Corporation's new recreational developments in northern California, was little more than a water hazard for the company after the 1970 legislative session.

At issue were fishing rights at Lake Wildwood, a 3,350-acre, second-home, recreation community in Nevada County, 162 miles northeast of San Francisco.

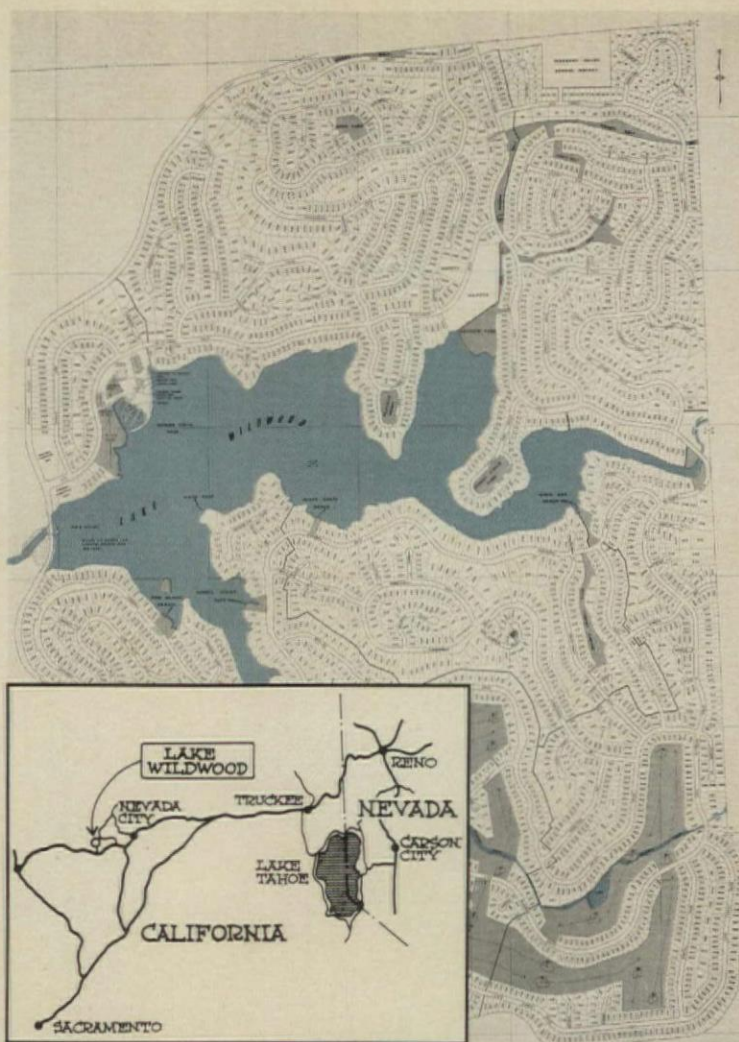
The company has been developing the project for two years; creating a lake by damming a small stream; building an 18-hole PGA standard golf course, club house, and pro shop; and constructing roads and a country club.

With sales scheduled to start on Labor Day weekend, the company became alarmed when a local district attorney, who has been critical of Lake Wildwood and similar developments in the Sierra foothills, cited a 1917 state law requiring anyone who dams a stream for a lake to guarantee public access. To dam a public stream is to create a public lake.

Application of the law was important for Boise Cascade. It meant that the big selling point for Lake Wildwood—private use of all facilities—would go down the drain.

Statewide furor. The answer seemed to lie in legislation, and Assemblyman Eugene Chappie (R., El Dorado County), in whose district the dam lies, agreed to draft a last-minute amendment to a non-controversial bill to protect oyster beds. According to Sam Donaldson, assistant to the general manager of Boise Cascade for recreation communities, the amendment was sought by the company and was intended as a stop-gap measure to protect Lake Wildwood.

But the amendment, when it turned up in the bill, was broad enough to raise questions about its effect on fishing rights throughout California. Sportsmen were urged to start a statewide campaign in protest, and the controversy heated to the point that Boise Cascade; Assemblyman Chappie; and the author of the oyster-bed bill, Senator Robert Lagomarsino (R., Ventura County), a champion of



Lake Wildwood was to be the private preserve of a recreation development built by Boise Cascade—until Gov. Reagan vetoed a bill to keep the lake private.

conservation, all urged Gov. Ronald Reagan to veto the package.

The veto. This the Governor did, in September, with the following message:

"I am returning, without signature, Senate bill 945, relating to fish and game.

"The bill was amended on August 20, the day before the regular session ended, to also exempt a nonprofit corporation that owns a dam from the requirement that the owner of the dam provide public access to the waters impounded by the dam during the fishing season.

"The author has recommended that the bill be vetoed. I concur."

Assemblyman Chappie defended the hasty action in offering the amendment in the final hours of the legislative session as "an accepted practice in Sacramento."

Chappie said his aim, rather than to benefit Boise Cascade specifically, was to protect land-

owners—including those who buy from developers—who construct small reservoirs on their property and do not want to open their land to the public. But he favored "putting the bill to sleep" if the amendment would keep fishermen out of areas to which they had enjoyed access.

Boise's side. Boise Cascade's Donaldson said that the company was cognizant of the California law requiring that any water impounded by a dam must be open to public fishing, but that it had never been applied in cases where the dam was for the benefit of a non-profit corporation. Like similar developments, Lake Wildwood will be operated by a property owners' association once it is sold.

"We sought a value judgment from the fish and game people as to whether the 1917 legislation would apply to this lake," Donaldson reported. "For two years they assured us that it was not their intent, or the intent of

the law, to apply the guarantees to fishing rights on a private lake such as this."

He said most of the land for Lake Wildwood was purchased from several private land owners, and previously had been closed to public fishing. The only access to the stream, without threat of trespassing action from land owners, was from a bridge crossing a county road.

"We decided to Nevada County a 100-acre park in the vicinity of the project on the stream for public fishing. If there were any charges we were taking something from the public, it was never the case, because it was private land in original ownership. We gave it back to the county in spades," Donaldson declared.

Appeal for help. Donaldson said that a subcontractor employed on the project by Boise Cascade suggested that the company go to an assemblyman for remedial legislation.

Reports from Sacramento indicate that the subcontractor put Boise Cascade in touch with Assemblyman Frank Murphy (R., Santa Cruz County), who in turn introduced the company's representatives to Assemblyman Chappie.

The company will seek a fuller look at the 1917 law at the next legislative session, Donaldson reported.

A warning. Boise Cascade has 29 recreational communities across the nation, and some in California besides Lake Wildwood have streams that have been dammed to create the lakes that attract buyers.

But Harold Berliner, the Nevada County district attorney who has urged enforcement of the 1917 law, says any action to restrict fishing rights will be "unfortunate."

He notes that many people move to foothill and mountain areas to enjoy fishing, and that it is important that subdividers live up to all access rights. His final warning:

"If important changes are to be placed in the law, all interested parties have a right to be heard in open hearings."

—JENNESS KEENE and

TOM ARDEN

McGraw-Hill World News,
San Francisco and Sacramento



The Roxboro as built by Peramore Builders, Inc., Mundelein, Illinois

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How the Kingsberry Man helped a Chicago builder double his production in two years.

It all began when builder Morton Weiner, president of Peramore Builders, Inc., watched a Kingsberry Home being erected. He saw precise fit. Top quality engineering. The perfect house package for his own operation. "I had been building conventionally for one year," says Morton, "and looking around for a good solid manufactured home package. But I hadn't found one that offered all the advantages I wanted. Not until Kingsberry."

Once he had seen a Kingsberry under construction, Morton made a call to the Kingsberry Man and learned more about Kingsberry's benefits: how the Kingsberry Man assists the builder—helps select land, co-ops two-thirds on advertising, prices out the houses. And helps maintain a profitable, smooth-running operation.

It has been two years since Morton Weiner first talked to the Kingsberry Man. That first year he built 25 Kingsberry Homes; this year he expects to build more than 50. "Now I'm completely sold on Kingsberry—top quality materials, a wide variety of good designs to offer my customers, plus the help of the Kingsberry Man."

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There's a secondary mortgage market—and it is elbowing Fanny May

Competition has hit the secondary mortgage market—and from early indications it cannot help but intensify.

The entry of the Federal Home Loan Mortgage Corporation into the market has already had an impact on the Federal National Mortgage Association.

Fanny May, until this year, has had a virtual lock in the secondary market for FHA and VA loans. Congress, in enacting the Emergency Home Finance Act of 1970, provided authority for the Federal Home Loan Bank Board to set up its own secondary market through FHLMC.

And the HLBB has created an uproar in the market. It bumped up prices in the FNMA auction. It pushed offerings to Fanny May to much lower levels than had been the case. And it created a short-run bonanza for mortgage bankers and savings and loan associations because of the high 97 price it paid for the loans.

The friendly foes. President Oakley Hunter of Fanny May insists that "competition is healthy," and Chairman Preston Martin of the Bank Board agrees. Both contend they are working together to iron out details of the introduction of a secondary market for conventional loans.

But the FHLMC's latest move into the FHA and VA market, to purchase another \$200 million of government loans from savings and loans, has produced some new and odd twists.

The effect has clearly been to cause some confusion in the market and more than a little annoyance to mortgage bankers, who see themselves losing the servicing operation.

Higher pricing. In announcing the program to buy \$200 million in FHA and VA loans from associations at a price of 97, the Bank Board failed to mention that, while no fee would be attached to immediate delivery commitments (90-days), a 1 per cent fee would be required for 12-month and a 1½ per cent fee for 18-month commitments.

The fees are heavy, but Thomas R. Bomar, executive vice president of the FHLMC, explains that the above-market price of 97 is firm—even if the FHA contract rate changes.

With rumors abounding that



Mortgage bankers honor Miles Colean

The full board of governors of the Mortgage Bankers Assn. turned out to honor Miles Colean, an authoritative commentator on the mortgage market for well over a quarter century.

The occasion was a black-tie testimonial dinner in Washington's Mayflower

Hotel on Sept. 27. It marked Colean's 25th anniversary as an MBA consultant.

The photo above shows Colean at right, being greeted at a subsequent reception by Arthur Burns, chairman of the Federal Reserve Board. President Robert H. Pease of the MBA looks on.

Housing Secretary George Romney was soon to lower the FHA rate, most mortgage men were astounded by the FHLMC's policy to maintain its pricing.

Puzzlement. Fanny May has historically adjusted its prices when the FHA rate was changed. (Mortgage prices rise if the FHA rate is raised; they fall if the rate is reduced.) For the FHLMC to reject this concept is

puzzling to mortgage experts.

But Bomar says: "We want our members (savings and loans) to be able to quote a price to builders and to have them stick to that price. It won't change three weeks before closing."

Bomar says, too, that if the FHA rate is lower at the time the FHLMC must pick up its commitments at 97, "the chances are more than good that our borrow-

ing costs will also be lower. So we won't lose any money."

Servicing dispute. For savings and loans the operation appears to be quite reasonable—with one major drawback: many S&Ls aren't experienced in the FHA and VA market—particularly in servicing the loans.

The FHLMC has insisted that savings and loans that sell loans to the Bank Board's secondary market system must service the loans themselves.

This has raised the ire of the Mortgage Bankers Association. While Bomar explains that the policy is "intended to get savings and loan associations more deeply involved in the FHA and VA markets," executive vice president Oliver H. Jones of MBA argues that this is simply a discriminatory restriction.

Jones has complained to Bank Board officials that "many savings and loans will be required to set up their own costly servicing departments that duplicate facilities available more economically elsewhere. Thus, this new business will go to the few large S&Ls that already have capabilities in originating and servicing FHA and VA loans, whether or not outside funds are needed in the areas."—A.M.

HOMEBUILDERS' MORTGAGE MARKET QUOTATIONS

Reported to HOUSE & HOME in week ending Oct. 9.

FNMA Auction Prices Oct. 5 8½%	FHA Sec. 203b— Min.-Down* 30-year immed.† Discount paid by builder			FHA 207 Apartments Discount to builder 8½%	Conventional Loan Interest Rates			Construction Loan Rates Interest+fees All lenders
	City	Private mkt. 8½%	Trend		Comm. banks, Ins. Cos. 75%	Savings banks, S&Ls 80%	Savings banks, S&Ls Over 80%	
90-day commitment Average 97.39 Accepted bid range 96.61-97.70	Atlanta	3½	Down ½	a	4-5	8½-8½+2-4	8½-8½+2-4	9-9½+1-1½
	Boston	1	Steady	a	8½+1-2	b	a	8½+1
	Chicago	3-4	Steady	3½	7½-7¾+1½-2½	7¾-8+1½-2	a	9-10+2
	Cleveland	4½-6	Steady	b	a	8-8½+1-3 ^b	a	9+2
	Dallas	2½-3½	Down ½	6-7	a	8½+1	9+2	9-9½+1
	Denver	3-4	Down ¾	a	8¾-9+1	8¾-9+1	9¾-9¾+1-1½	9-9½+1½-2
	Detroit	3½-4	Down ¼	a	b	8½-8¾	a	9½-10+1-2
	Honolulu	4-5	Steady	a	9-9½	8¾-9¾+2-3	b	10+2-3
	Houston	3-3½	Down ¾	3-4	8+1-1½	8¾-9+1½-2	9+2½-3	9-9½+1-1½
	Los Angeles	2½-3	Down ¼	a	b	8½-9	9+3	9½-10+1½-3
180-day commitment Average 97.48 Accepted bid range 96.74-97.89	Miami	4½-5	Steady	a	8-8¾+3½	8-8¾+3½	8¾-9+4 ^b	8½+1
	Minn.-St. Paul	2-4	Down 1	a	8 ^b	a	a	10-12+1-2 ^b
	Newark	2½-3½	Down ½	a	8	8+1 ^b	b	9½-10+1-2
	New York	4	Steady	b	7½ ^b	7½ ^b	a	9½-10+1½-2
12-18 month commitment Average 97.38 bid range 96.87-97.75	Okla. City	2-3	Down ¼	3½	a	8½+½-1	8¾+1-1½	9-9½+1-2
	Philadelphia	2-3	Steady	3-5	8½-9	8¾-9	a	9+2-3
	San Francisco	2½-3	Down 1	3¾	8¾+1	8¾+1-1½	8¾+1-1½	8½+1½-2
	St. Louis	4-5	Down 1	a	7¾-8+1	8+1-2 ^b	8+2-3 ^b	9-10+1-2
	Seattle	3½-4½	Steady	a	b	8-8¾+1-1½	8½-9+1-1½	9½-9¾+1½-2
	Wash., D.C.	3-4	Down 1	4-4½	8 ^b	8 ^b	8 ^b	8¾-9¾+1½-2

* Immediate covers loans for delivery up to three months, future covers loans for delivery in three to twelve months.

• Quotations refer to prices in metropolitan areas, discounts may run slightly higher in surrounding towns or rural zones.

• Quotations refer to houses of average local quality.

* 3% down on first \$15,000; 10% of next \$5,000; 20% of balance. Footnotes: a—no activity. b—limited activity. c—Net yield to investor of 8½% mortgage plus extra fees. w—for comparable VA loans also.

Sources: Atlanta, Robert Tharpe, pres., Tharpe & Brooks Inc.; Boston, Robert Morgan, chairman, Boston Sav. Bank; Chicago, Robert H. Pease, senior vice pres., Draper & Kramer Inc.; Cleveland, Richard J. Quint, vice pres., Jay F. Zook, Inc.; Dallas, M. J. Greene,

pres., Southern Trust & Mortgage Co.; Denver, Clair A. Bacon, sr. vice pres., First National Bank; Detroit, Sherwin Vine, vice pres., Citizens Mortgage Co.; Honolulu, H. Howard Stephenson, vice pres., Bank of Hawaii; Houston, Everett Mattson, sr. vice pres., Lomas & Nettleton West; Los Angeles, Robert E. Morgan, senior vice pres., Colwell Co.; Miami, Lon Worth Crow Jr., pres., Lon Worth Crow Co.; Minneapolis-St. Paul, Walter C. Nelson, pres., Eberhardt Co.; Newark, William W. Curran, vice pres., Franklin Capital Corp.; New York, Sigfred L. Solem, sr. vice pres., Dime Savings Bank; Oklahoma City, B. B. Bass, pres., American Mortgage & Investment Co.; Philadelphia, Nicholas J. S. Stevens, vice pres., First Pennsylvania Banking & Trust Co.; St. Louis, Charles A. Keller, vice pres., Mercantile Mortgage Co.; San Francisco, John Jensen, senior vice pres., Bankers Mortgage Co. of California; Seattle, Kirby D. Walker, vice pres., Continental, Inc.; Washington, Don DeFranceaux, pres., the Berens Cos.



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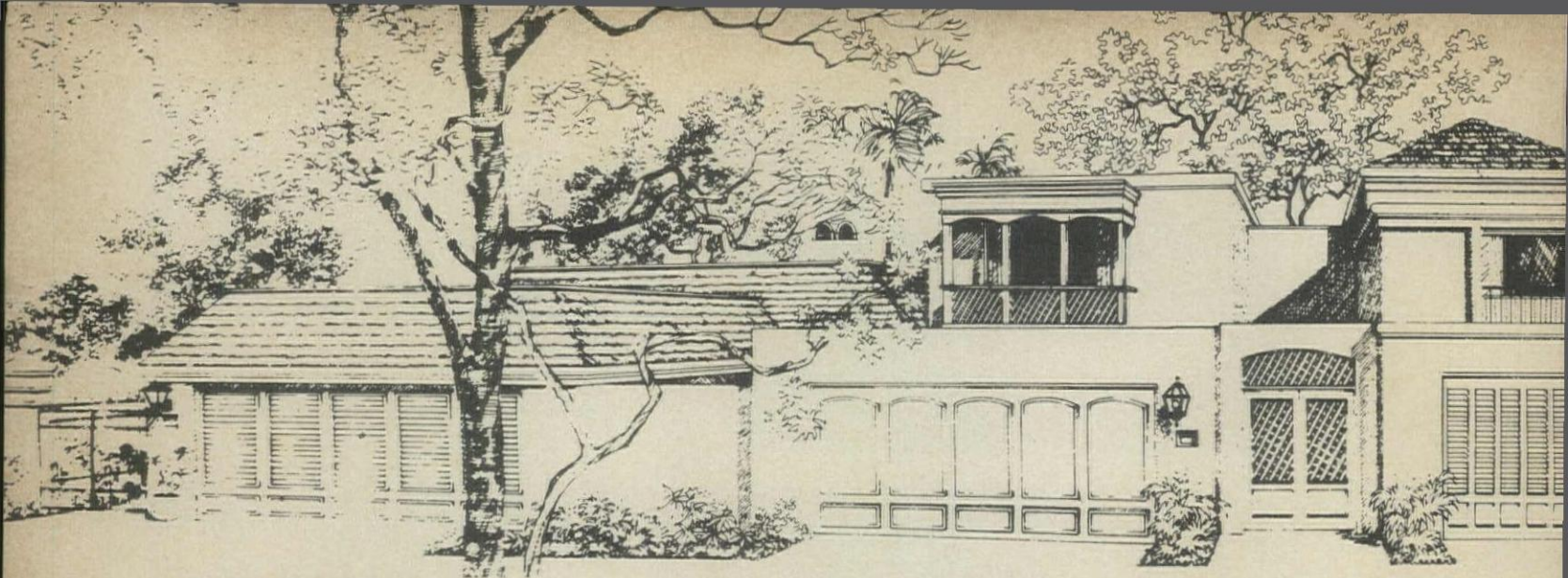
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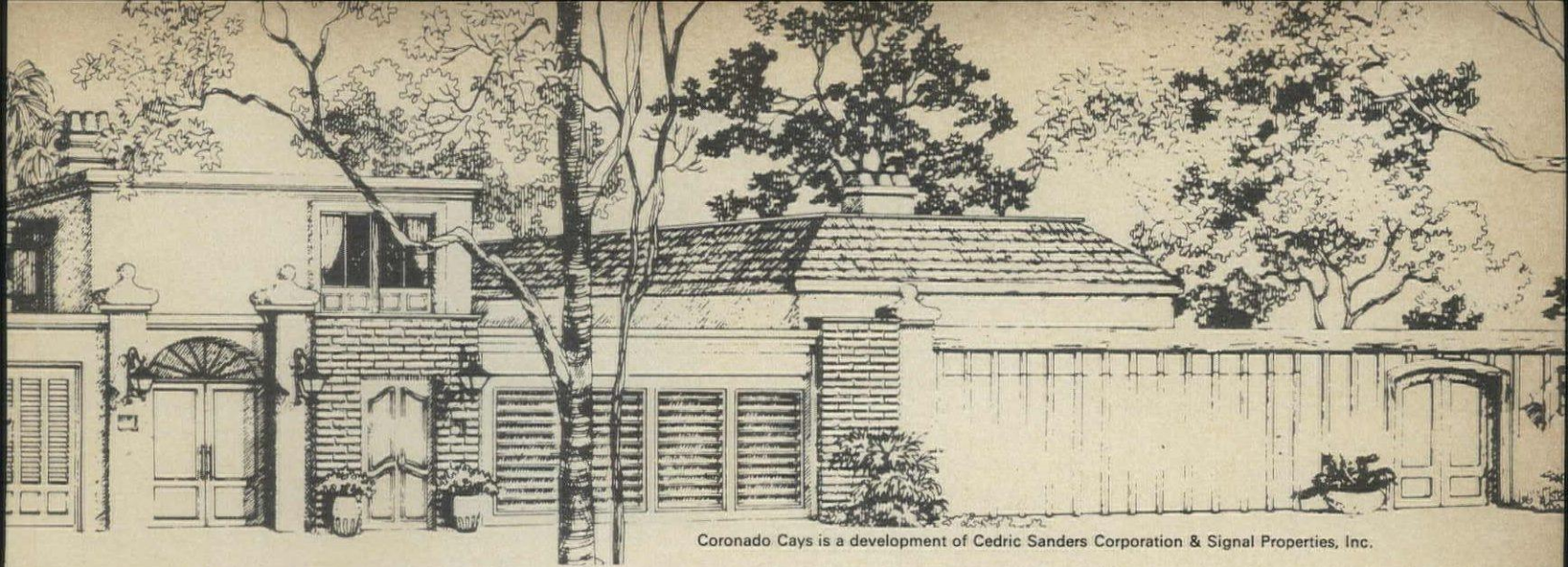
economy is up. And there's more.

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A. At Coronado Cays, many of the homesites front on a manmade channel in San Diego Bay, with a spectacular view of downtown San Diego.

B. Only glass can make that expensive surrounding property an integral part of the home—bringing the environment indoors where it adds extra value to the structure. Here, an impressive townhouse entryway features a U-shaped courtyard with glass extend





Coronado Cays is a development of Cedric Sanders Corporation & Signal Properties, Inc.

ing two stories high. In high-traffic areas like this, use *Herculite® K* tempered safety glass for maximum safety.

C. The spacious bath will be a pleasant surprise to just about any of your prospects. Wall-to-wall mirrors make everything seem even bigger. And if they're *High-Fidelity®* mirrors made of PPG glass, the beauty of it all will be beautifully reflected.

D. This impressive entryway, with its dramatic clerestory windows, makes a spectacular high-ceilinged foyer even more spectacular. And if it's a sunny elevation, consider windows with PPG tinted glass—to create some unusual

lighting effects while adding comfort.

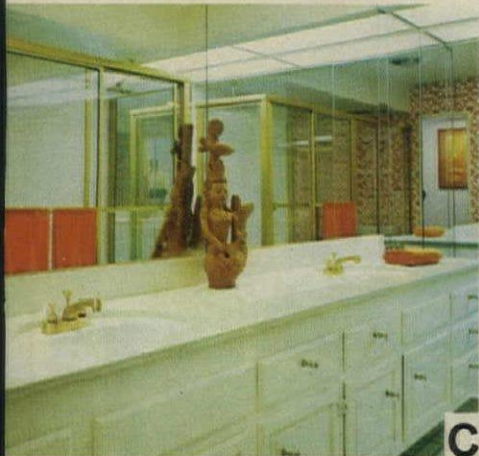
E. This spacious master bedroom becomes dramatically more spacious with the use of a walk-in wardrobe with mirrored sliding doors. And the mirrored wall behind the bed, covered with latticework, adds more depth and dimension to the room. PPG *High-Fidelity* mirrors can double your apparent square footage at reasonable cost.

F. The garden-type kitchen has a pass-through serving bar to the patio. The imaginative use of glass here makes the great outdoors and the kitchen one big happy unit.

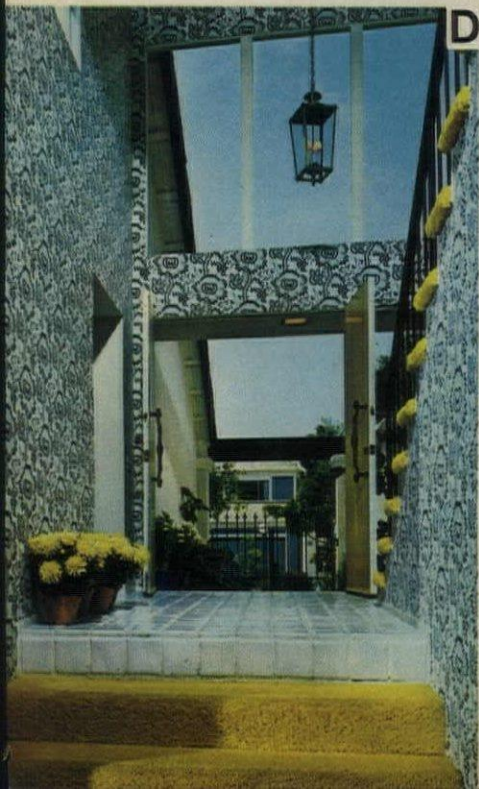
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PPG's full-color brochure on high-density planning and building—"PPG Lifestyle/'70s." See how glass can give your developments the wide-open spaces. Write: "PPG Lifestyle/'70s," PPG Industries, Inc., Dept. HH-110, One Gateway Center, Pittsburgh, Pa. 15222.

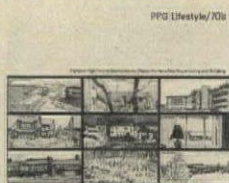
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CIRCLE 72 ON READER SERVICE CARD

Case against FNMA—Needless competition for private mortgage market?

Clarence Ostema, a New York City mortgage broker, was one of the first market makers in the stock of the Federal National Mortgage Assn. He recently wrote for The New York Times a reply to a Times article on FNMA by HOUSE & HOME's Washington correspondent, Andrew R. Mandala. An abridgement of this reply follows. Both FNMA and Mr. Mandala will have an opportunity to answer in turn.

It is about time to blow the whistle on the Federal National Mortgage Association:

- While the government controlled Fanny May, the debt-to-equity ratio was 10 to 1, then increased to 15 to 1. Now that Fanny May is owned by the common stockholders, the ratio has increased to 25 to 1. Either the early management of Fanny May was ultraconservative or the present management has stockholders way out on a limb.

- Fanny May has, since 1963, consistently paid 1 to 3 points above the private market for mortgages, thereby distorting the market so that potential buyers have sought other investments.

- Today we have an excellent program whereby mortgage originators can offer their bonds with a Government National Mortgage Association guarantee. But it has been difficult for this program to get off the ground because Fanny May has, by pumping tremendous funds into the mortgage market, made mortgage yields unattractive in relation to corporate bonds.

The need. I question whether we really need Fanny May as a mortgage bank competing with private investors. Fanny May has purchased billions of dollars worth of mortgages on high-priced homes from affluent home owners. Should this be the function of a government agency during the most prosperous period in the nation's history? The direct subsidy programs, such as FHA 235 and 236, which subsidize eligible borrowers down to 1 per cent, would seem to be sufficient.

Regarding the debt-to-equity ratio, it seems that Fanny May ignores the old-fashioned prudent-man rules by borrowing \$25 for every \$1 of equity. And

the capital notes are included as equity, adding to the risk. These capital notes are a debt instrument (at least the buyers of these notes hope that this is true) with a fixed interest rate and maturity date, and they carry no conversion privilege. They are subordinated to the regular Fanny May debentures and the bank line of credit, but come ahead of the common stock. A conservative buyer would, therefore, consider the capital notes as debt and cross his fingers and pray that interest rates continued to come down. In my opinion, Fanny May would have soon been the next Penn Central had interest rates not turned around recently.

Disintermediation. Another point not provable but generally conceded in the industry—is that the tremendous volume of Fanny May borrowing, and the borrowing of the Federal Home Loan Bank, surely have been an important factor contributing to disintermediation. Fanny May, in borrowing at rates more than 50 per cent higher than savings and loan institutions or savings banks were permitted to pay for deposits, must have pulled away millions of dollars. No wonder the savings institutions had little money to invest in the mortgage market.

The facts are that Fanny May today has a portfolio of FHA-VA mortgages that is larger than the combined FHA-VA and conventional mortgage portfolios of the ten largest mutual savings banks in the United States.

Should Fanny May be required to purchase all of the mortgages that it has under commitment today, the portfolio would be larger than the mortgage portfolio of the 15 largest mutual savings banks. How big does Fanny May want to be?

Effect on starts. Some say housing starts would have gone to zero without Fanny May. This might have been good, for it would have forced the Administration to have increased taxes, or in other ways to have gotten inflation under control at an earlier date.

Why does Fanny May now have the Government National Mortgage Association guarantee these bond offerings? Is it to get around the 25-to-1 debt-to-equity ratio? Until this time



BROKER OSTEMA
Divorces Fanny for Ginny May

Fanny May debentures enjoyed a good rating and commanded a good price.

One thing the directors of Penn Central should have learned, and I hope the directors of Fanny May realize, is that leverage can work two ways: for or against you. Ginny May-guaranteed bonds are still an obligation of the Fanny May stockholders, just as is any debt. Even if it does not come under the 25-to-1 debt-to-equity ratio, it must be paid before stockholders realize one cent.

Stock trading. It really surprised me that the New York Stock Exchange approved FNMA for listing. The Big Board had to bend its rule that no open-end stock could be listed.

I am almost certain that Fanny May is the only stock traded where not one of the directors (including the chairman of the board of directors) owns as much as one share. There was a ruling that no officer could own stock in the company.

In spite of this, the stock acted like a yo-yo in the over-the-counter market last year. Surprisingly, the stock exchange allows Fanny May to continually offer new stock to mortgage sellers at a fictitious book-value price. Should the price not be the average closing price on the exchange for the period between each auction? This would be to the present stockholders' advantage inasmuch as the stock is selling above the subscription price.

The mortgage market. The pay-off is the current battle between Fanny May and the Federal Home Loan Bank Board to try to monopolize totally the mortgage market. Fanny May wants to purchase conventional residential mortgages that have

heretofore been the domain of the Federal Home Loan Bank and the savings and loan industry. Apparently in retaliation, the Federal Home Loan Bank now has purchased FHA and VA mortgages that heretofore were the domain of the mortgage banker and the savings banks. The bank plans to offer these as Ginny May bond-type securities. This nonsense should be stopped immediately.

It doesn't seem proper to have a government agency in which speculators may purchase the stock and make windfall profits when another Government agency manipulates interest rates downward. Since the stock is exempt from the SEC, it may be purchased or sold short on a 25 per cent margin. This affords speculators chances to make killings in the market because of the extremely heavily margined position of Fanny May's portfolio.

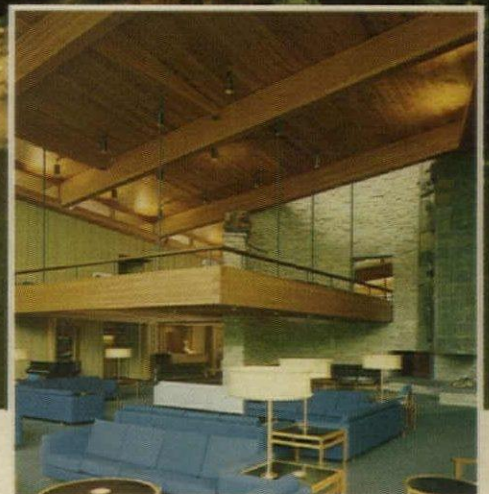
It is my opinion that Fanny May's portfolio should be liquidated in an orderly fashion down to a point where the leverage is again at a reasonable level.

Ginny May. At last the mortgage market has a very good program—namely, the Government National Mortgage Association guaranteed pass-through security program. A mortgage originator can put together a \$2-billion package of FHA-VA mortgages and issue his security with the Ginny May guarantee.

This is what the mortgage market has needed—to eliminate the real estate nature of mortgage transactions and allow companies to issue a security as a bond that can be freely traded in the market. The beauty of the program is that it provides a method to tap the long-term market rather than the one-to-three-year area, where the two giant government agencies have been in the last few years, operating to the detriment of savings institutions. The Fanny May pass-through program will not work as long as the two agencies compete to see how high they can make FHA-VA mortgages sell.

Now that we have the interest-subsidy programs and the Ginny May guaranteed pass-through programs, it would seem that Fanny May has outlived its usefulness.

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California's \$30-billion S&L industry is told: adapt to social change—or die

It wasn't business as usual at the annual convention (80th) of the California Savings & Loan League, held, this time, not in the pleasure-dome cities of Coronado or Palm Springs but in Los Angeles.

Talk centered on challenges of the changing times. The S&Ls, the 800 or so on-hand executives were warned, must turn to new patterns of operations and socially oriented business practices that improve the image of the \$30-billion industry. Or they'll be left behind.

The convention issues even took on today's terminology:

- Law and order—A new league program will crack down on crimes against associations (last year: 50 holdups). It offers up to \$1,000 in reward for information leading to arrests and convictions.

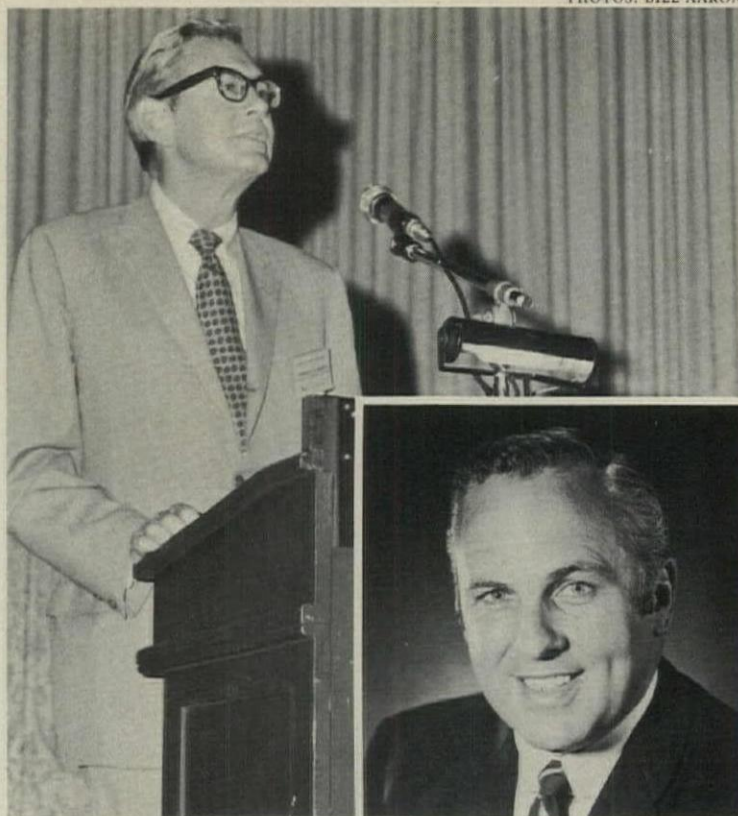
- Low-cost housing—A number of S&Ls are forming jointly-owned service corporations to get some projects under way. Mostly, the housing will be government insured, including rentals and leasing. The idea is to help smaller associations participate. The loan target: \$500 million over two years.

- Consumer protection—The state savings and loan department will increase emphasis on customer service.

Environment. Ecology was another buzz-word used by convention speakers.

The state savings and loan commissioner, Michael MacBan, reminded executives that—as leaders and developers—they have a voice in the pattern of community development. Still, he noted, some real estate developments endanger lives and property because they are built on flood plains or along unstable slopes. And, he added, a report by the Department of Health, Education and Welfare now questions the ability of most water systems to deliver adequate safe water in the future. "How many of us have considered the future availability of safe water when evaluating a proposed development project?"

Added MacBan: "Association officers often overlook implications of a project for our environment, vanishing open spaces, limited waste facilities. And some of the construction of to-



California's S&L leaders hear a warning from state's S&L commissioner Michael MacBan; they must pay more attention to environment. The inset shows the California S&L League's incoming president, John J. Goodwin Jr. of Gibraltar Savings.

day shows little regard for esthetic values. I don't mean we should forsake the profit motive for other social benefits, but I do contend that our quality of life can be enhanced, at minimum cost, with a little insight and foresight."

Battle for survival. "An association will have to hold out a favorable image to the public if it is to survive and grow," MacBan cautions.

Survival, in fact, has already become one name of the game. Bigger associations continue to snap up the smaller through merger and acquisition. There are 221 California associations today. This compares with 281 early in 1965 (the high mark) and 239 at the beginning of 1970. Two dozen more mergers are pending.

Down to 100 S&Ls? For the big boys, the purchase is often a cheap way of getting new branches in outlying areas, where much of the savings money is.

Says Executive Vice President Franklin Hardinge Jr. of the league: "I wouldn't be surprised if within two years we are down to 150 associations in California. And, eventually, I expect that number to be reduced to 100."

Regulator's view. Preston Martin, chairman of the Federal Home Loan Bank Board, says the regulatory agency supports the merger trend, within limits. It's all part of the plan to try to encourage the industry to innovate—with new services and new packages—in financial as well as other areas.

Savings recovery. Not only does the industry have better management these days; it seems to be in the midst of a significant recovery of funds. Ray Jallow, senior vice president and chief economist of the United California Bank in Los Angeles, came up with a rosy prediction that by year-end California S&L savings accounts will reach an all-time peak of \$25 billion. This year's increase of \$1.25 billion compares with a \$400-million decrease last year.

Loan demand, however, is still depressed as far as new-home sales go. People on the buying strike are waiting for prices to fall.

But prices, Jallow said, will keep on going up at 6 to 8 per cent a year. "The average cost of a new house in southern California has risen from \$24,000 in 1965 to \$32,000 today—\$8,000, or 33 per cent."

Under these conditions, the

S&Ls expect no great increase in the amount of lending.

And if net savings don't move up, Hardinge said, the S&Ls ability to generate home loans will depend on selling loans out of portfolio. "As associations gear to using the secondary market for conventional loans, we may see a change in the entire structure of fees, pre-payment fees, and acceleration practices."

Builders. Homebuilders can expect changes—both in construction and financing, according to D.W. Ferguson, outgoing league president and head of Quaker City Federal Savings, Whittier. (The new president is John J. Goodwin Jr., president of Gibraltar Savings of Northern California.)

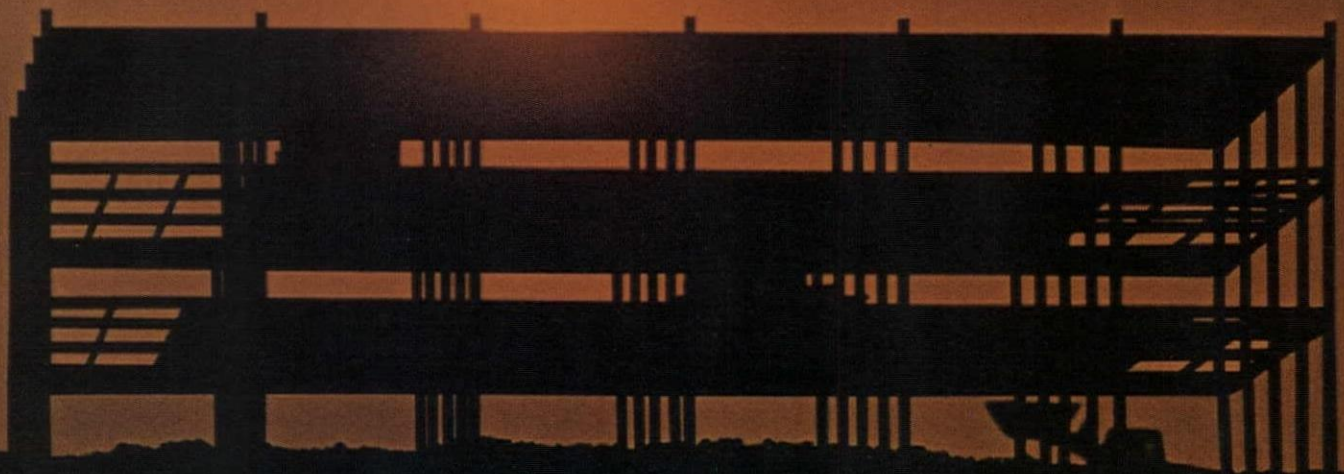
"Large conglomerates, building planned communities, reduced the amount of financing from our institutions," Ferguson noted. "Some of them were able to procure financing by sale of stock or other debt instruments to the public. Many conglomerates, being publicly held, by-pass normal financing channels or raise their funds from other sources. This trend has caused further decline in the ranks of smaller builders building a few homes a year. Except in rural communities, there doesn't seem to be much hope for the small operator."

New loan techniques. What S&Ls have to worry about, said Ferguson, is producing enough savings capital, at a price that will allow them to compete in financing large projects, possibly on a joint organization of some sort or sale of participation interests.

One sales tool is the variable interest rate plan. Another offers interest at 6 per cent for three years and then renegotiation.

Another Ferguson proposal—as a new type of home financing—is the split mortgage. "You pay interest only on the land portion—since it does not wear out, you need only to rent it. This would be similar to some of our present leased-land building programs. Then, there would be a long-term amortization, 40 to 50 years, on the buildings. And, a 10- to 15-year pay-off on the equipment used in the home."

BARBARA LAMB
McGraw-Hill, Los Angeles



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Uncle Sam subsidizes rescue of LFC Financial Corp.—at \$6.6 million a year

A rescue operation for LFC Financial Corp. of Los Angeles, heir to the financial empire of the late savings and loan tycoon Bart Lytton, has been organized with the aid of a substantial government subsidy.

Great Western Financial Corp., one of the nation's largest s&L holding companies, has agreed to take over debt-ridden LFC. Chairman Stuart Davis of Great Western and Oscar Patiz of LFC announced the arrangement.

Great Western will assume LFC's \$310-million debt to the Federal Home Loan Bank of San Francisco, but the government will reduce the interest on the loan from its present 7½ per cent to 5½ per cent for five years. At the Home Loan Bank's present lending rate of 7¾ per cent, the subsidy would amount to about \$6.6 million a year.

After five years, Great Western would begin to pay off the debt in regular installments over the next five years.

The Federal Savings & Loan Insurance Corp., which guarantees deposits in the nation's



GREAT WESTERN'S DAVIS
A winner among giants

s&L's, would reimburse the Home Loan Bank.

Stock. Great Western is to issue one share of common for every four shares of LFC outstanding. Since LFC has 6,691,433 shares out, Great Western will issue 1,672,000. Great Western closed at 21 on the New York Stock Exchange the day of the deal, giving the transaction a value of \$35 million.

The merger will make Great Western the country's second largest s&L holding company, with assets of \$3.2 billion. Home s&L of Los Angeles is first with \$3.3 billion and Imperial Corp. of America, based in San Diego, is third with \$2.5 billion. Both were

contenders to take over LFC.

Competition. The real contest was reportedly between Great Western and the late Howard Ahmanson's Home s&L. Negotiations involved several federal and state regulatory agencies, and the Federal Home Loan Bank Board, the s&L industry's regulatory agency, analyzed prospective buyer's proposals by computer.

The choice of Great Western was ostensibly that of the LFC directors, but it was understood to have been dictated by the government.

Branches. The two principal operating subsidiaries of LFC

use the name Equitable s&L, and they will be merged into Great Western s&L, the holding company's operating arm. Great Western s&L will sell off two of the Equitable offices, which are adjacent to two of Great Western's own branches, and will retain the other 12.

The basic troubles of LFC trace from Lytton's overlending in the early 1960s, but the fickle disposition out-of-state savers accounted for many of the company's most recent difficulties. They made heavy withdrawals of savings, and the corporation posted a loss of \$2.3 million in the first half.

Housing's problems are more than financial

So says Walter E. Hoadley, chief economist for the Bank of America.

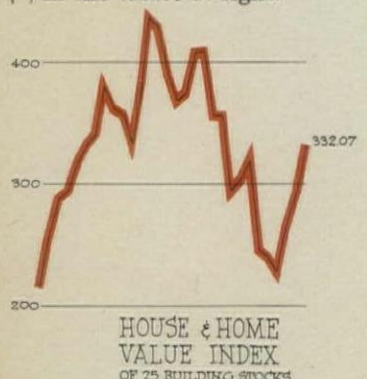
Hoadley told the California Real Estate Assn. last month that easier mortgage money in 1971 will not solve housing's problems but will simply direct attention to other serious difficulties. He cited slower job growth

and California's static immigration, but he homed in particularly on rising costs:

"In 1971 the industry may well recognize it has marketing problems—rising home prices have eliminated more than 75 per cent of California families from the market for new median-priced single-family homes built in 1970."

Housing stocks up sharply

HOUSE & HOME's index of 25 housing stocks rose to 332.07 from 295.12 in the month ended Oct. 5. It was the third consecutive monthly gain for the index, shown below. Stocks on the index are indicated by bullets (•) in the tables at right.



How top 5 did in each group:

	Oct. '69	Sept. '70	Oct. '70
Builders	490	371	412
Land develop.	661	368	443
Mortgage cos.	530	498	558
Mobile homes	902	590	702
S&Ls	187	150	157

HOUSING'S STOCK PRICES

COMPANY	Oct. 5 Bid/Close	Chng. Prev. Month
BUILDING		
Bramalea Cons (Can.).....	3.38	+ .26
Capital Divers (Can.).....	1.05	- .10
Centex Corp.....	28½	+ 4
Christiana Oil ^b	10½	+ 2½
Cons. Bldg. (Can.).....	1.20	+ .05
Dev. Corp. Amer.....	14	+ 3½
Dev. Int. Corp.....	7¼	- ½
Edwards Indus.....	7¼	- ½
First Hartford Rty.....	5¼	+ 2
First Nat. Rty. ^b	3	+ ½
Frouge.....	2	+ ½
-General Bldrs. ^b	6½	+ ¼
-Kaufman & Bd. ^e	39	+ 4½
Key Co. ^b	6¼	- ¼
(Kavanagh-Smith)		
Leisure Technology Corp. ^b	19	+ 5½
H. Miller & Sons.....	5½	+ ¾
McGrath Corp.....	5½	- 2
National Environment (Sproul Homes).....	2½	+ ¼
Nationwide Homes.....	6¼	+ ¾
-Presidential Realty A ^b	9	+ 1
Presley Development.....	19½	+ 5¼
Pulte Homes.....	9½	+ 3½
Ryan Homes.....	46½	+ 4½
Shapell Industries ^a	20½	+ 1½
Standard Pacific Corp. ^b	7¼	+ 1½
U.S. Home & Dev. ^b	32½	+ 6½
-Jim Walter ^e	32½	+ 2½
-Del E. Webb ^e	10	+ 1½
Washington Homes.....	7¼	+ 2¼
Western Orbis ^b	5½	+ 1½
S&Ls		
American Fin.....	17½	+ 3½
Calif. Fin. ^e	8½	- 1½
Empire Fin. ^b	13¼	+ 1½
Far West Fin. ^e	14½	+ 1½
-Fin. Fed.....	16¼	+ 1½
-First Char. Fin. ^e	43	+ 2½
First Lincoln Fin.....	5½	+ ¾
First S&L Shares ^b	15¼	+ 1
First Surety.....	4½	- ¼
First West Fin.....	2½	- 1
Gilbratrar Fin. ^e	20½	+ 1½
-Great West Fin. ^e	22	+ 1
Hawthorne Fin.....	10¼	+ 1
-Imperial Corp. ^e	11½	- ¼
-LFC Financial (Lytton) ^e	6½	+ 4½
Trans-Cst. Inv.....	8½	+ ¼
Trans World Fin. ^e	9½	+ ¾
Union Fin. ^b	9	+ ¼

COMPANY	Oct. 5 Bid/Close	Chng. Prev. Month
United Fin. Cal. ^e	9	+ ½
Wesco Fin. ^e	19½	+ ¾
MORTGAGE BANKING		
Charter Co.....	12	+ ½
-Colwell ^b	23	+ 4½
-Cont. Mtg. Investors ^e	18	+ 1½
Cont. Mtg. Insurance.....	18	+ ¼
Excel Investment.....	9¼	+ ¼
FNMA ^e	56½	+ 6½
First Mtg. Ins. Co.....	8¼	+ ½
-First Mtg. Investors ^e	23¼	+ ½
-Lomas & Net Fin.....	10¼	+ 2½
-MGIC Invest. Corp. ^e	59½	+ 7½
Mortg. Associates.....	20¼	+ 4½
Mortg. Trust of Amer.....	17½	- ¾
North Amer. Mtg. Inv. ^b	23½	+ 2½
Palomar Finan.....	6½	- ¾
UIP Corp. ^b	4	+ ¾
(United Imp. & Inv.)		
Universal Invest. Trust (South. Mtg. Inv.).....	2½	+ ¾
LAND DEVELOPMENT		
All-State Properties.....	¾	+ ½
American Land.....	¼	- ½
-AMREP ^b	31½	+ 9½
Arvida.....	9	+ 1½
Atlantic Imp.....	17	+ 2
Canaveral Int. ^b	6	+ ¾
Crawford Corp.....	3¼	+ 4½
-Deltona Corp. ^b	27¾	+ 4½
Disc Inc.....	3¼	- ¼
Don the Beachcomber Ent. (Garden Land).....	7½	+ 1
FPA Corp. (Fla. Palm-Aire).....	7¼	- ¾
-Gen. Devel. ^e	22½	+ 2½
-Holly Corp. ^b	2¼	+ ¾
Horizon Corp.....	32	+ 11½
Major Realty.....	5¼	- ½
-McCulloch Oil ^b	34½	+ 6½
Scientific Resources ^e	5¼	+ 2½
(Sunasco)		
So. Rty. & Util. ^b	5¼	+ ¾
DIVERSIFIED COMPANIES		
Boise Cascade ^e	53¼	+ 7½
Citizens Financial ^b	12½	+ 2½
City Invest. ^e	14¼	- 1½

COMPANY	Oct. 5 Bid/Close	Chng. Prev. Month
Cousins Props.....	29½	+ 2½
Forest City Entr. ^b	16½	+ 1½
Great Southwest Corp.....	3	- 1¼
Investors Funding ^b	11½	+ 1½
Midwestern Fin. ^b	15½	+ 2½
Rouse Co.....	32¼	+ 4½
Tishman Realty ^e	18½	- ¼
MOBILE HOMES & MODULES		
Con. Chem. Co. ^b	8	+ 1½
-Champion Homes ^b	29½	+ 4½
Commodore Corp. ^b	9¼	+ 2½
-Fleetwood ^e	36½	+ 7½
-Guerdon ^b	16½	+ 2½
Mobile Home Industries ^b	15½	+ ¾
Monarch Ind. ^e	17¼	+ ½
-Redman Indus. ^e	24½	+ 1½
Rex-Noreco ^b	18½	+ 2½
-Skyline ^e	31	+ 5¼
Town & Country Mobile ^b	9½	+ ¾
Zimmer Homes ^b	18½	+ 2½
Hodgson Houses.....	4½	+ ½
Modular Housing Systems Inc.....	20½	+ 10½
Nat. Homes A. ^e	16½	+ 2¼
Shelter Resources.....	14½	+ 1½
Stirling Homex.....	23½	+ 5½
Swift Industries.....	3½	+ ¾

a—stock newly added to table. b—closing price ASE. c—closing price NYSE. d—not traded on date quoted. g—closing price MSE. h—closing price PCSE. k—not available. —Computed in HOUSE & HOME's 25-stock value index. y—adjusted for 1-for-5 reverse split. z—adjusted for 3 for 2 split. NA—not applicable.
Sources: New York Hanseatic Corp., Gairdner & Co., National Assn. of Securities Dealers, Philip Beer of Russell & Saxe, American Stock Exchange, New York Stock Exchange, Midwest Stock Exchange, Pacific Coast Stock Exchange. Listings include only companies which derive a major part of their income from housing activity and are actively traded.

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a timesaving guide to the 1971 NAHB exhibits

Builders attending the big sprawling NAHB convention in Houston next January will face a bewildering array of products, new and old, spread out over a huge exhibit area. Products '71 has been created by House & Home and its advertisers to organize your shopping tour of this impressive display and copies will be available free at the show.



see the best, newest, most exciting

This pocket sized guide to the exhibits is a collection of building products, materials, tools and equipment . . . in each case especially selected by the exhibitors themselves as being the best, the newest, the most exciting they will be offering in 1971. Each product will be handsomely illustrated in full color, described in detail and identified by company and booth number.

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efficiently through the aisles pinpointing just the specific products of interest to you.

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If you can't make the show this year you can use Products '71 to see for yourself just what the participating exhibitors are displaying as their

best, their newest, their most exciting. Every copy of Products '71, including those distributed at the show, will have two reader service cards so that you and your associates can request catalog information by mail.

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Be sure to attend the NAHB Convention in Houston: January 17-21, 1971

Modular house draws crowds to a New York City museum

Few modulares have had as much public exposure in a short time as the one at right. The main attraction of a housing show at New York's Whitney Museum of American Art, it was visited by more than 25,000 persons in two weeks.

Visitors paid \$1 a head (the museum admission charge) to see the show, which also displayed models and plans of housing projects to be built by the New York State Urban Development Corp. UDC is a nonprofit, state-chartered corporation with current commitments to build 43,000 housing units at 54 projects in 26 cities.

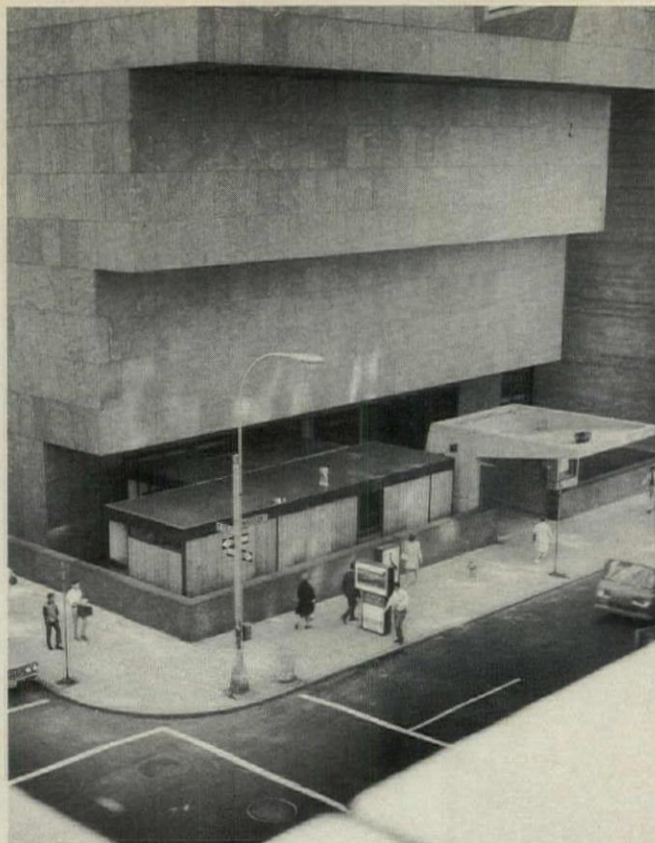
The house, a prototype designed by the architectural firm of Wells/Koetter and built by General Shelter Corp. of Waverly, N.Y., is made up of four factory-built modules. It was first assembled as a test house on a site at Waverly, then disassembled and trucked to New York, where it was installed in a sunken area outside the Whitney in eight hours.

To minimize disruption of traffic on the busy corner at Madison Ave. and 75th St., workmen started unloading and positioning the modules at midnight. They finished the job at 8 a.m.

Structurally, the house is a series of volumetric steel frames—8 ft. high and 12 ft. square—which are combined to form the four modules. Interchangeable wall and partition panels are set into the loadbearing steel frames. The panels have steel studs, outer skins of Texture 1-11 plywood, and inner skins of gypsum board.

General Shelter, which says the prototype house could be sold for \$15,000 (or \$10 a sq. ft.) has no plans to market it at this time. But the company will use the same steel structural system to produce 84 one-module units in a project for the elderly at Owego, N.Y.

For a look at other exhibits in the Whitney's housing show, see page 28.



H&H STAFF

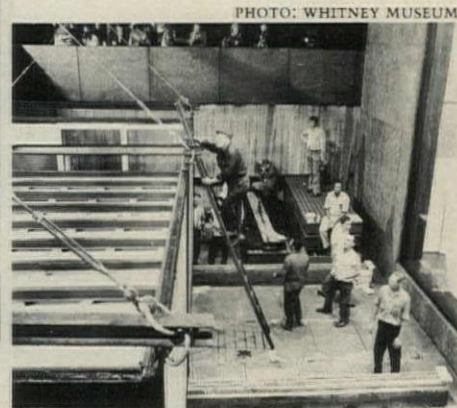
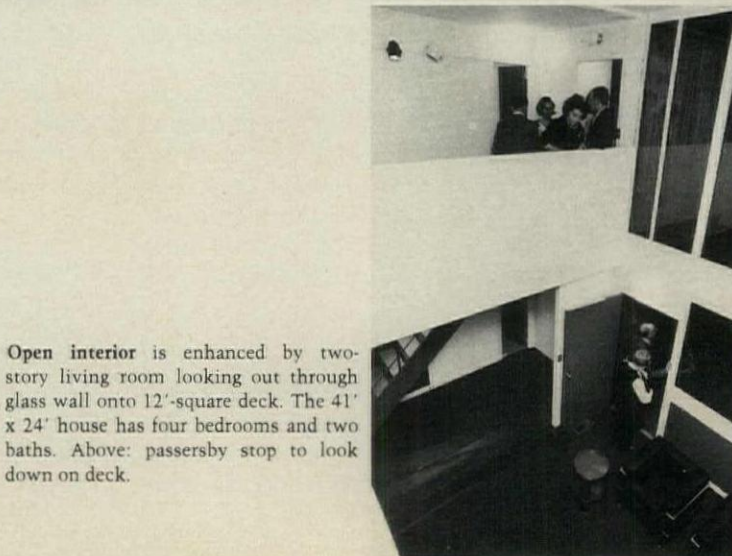


PHOTO: WHITNEY MUSEUM

Module is lowered into court of museum (above) while passersby peer over street-front wall. After upper module was set on lower module, both units were rolled back under museum's overhang (left) on tracks.

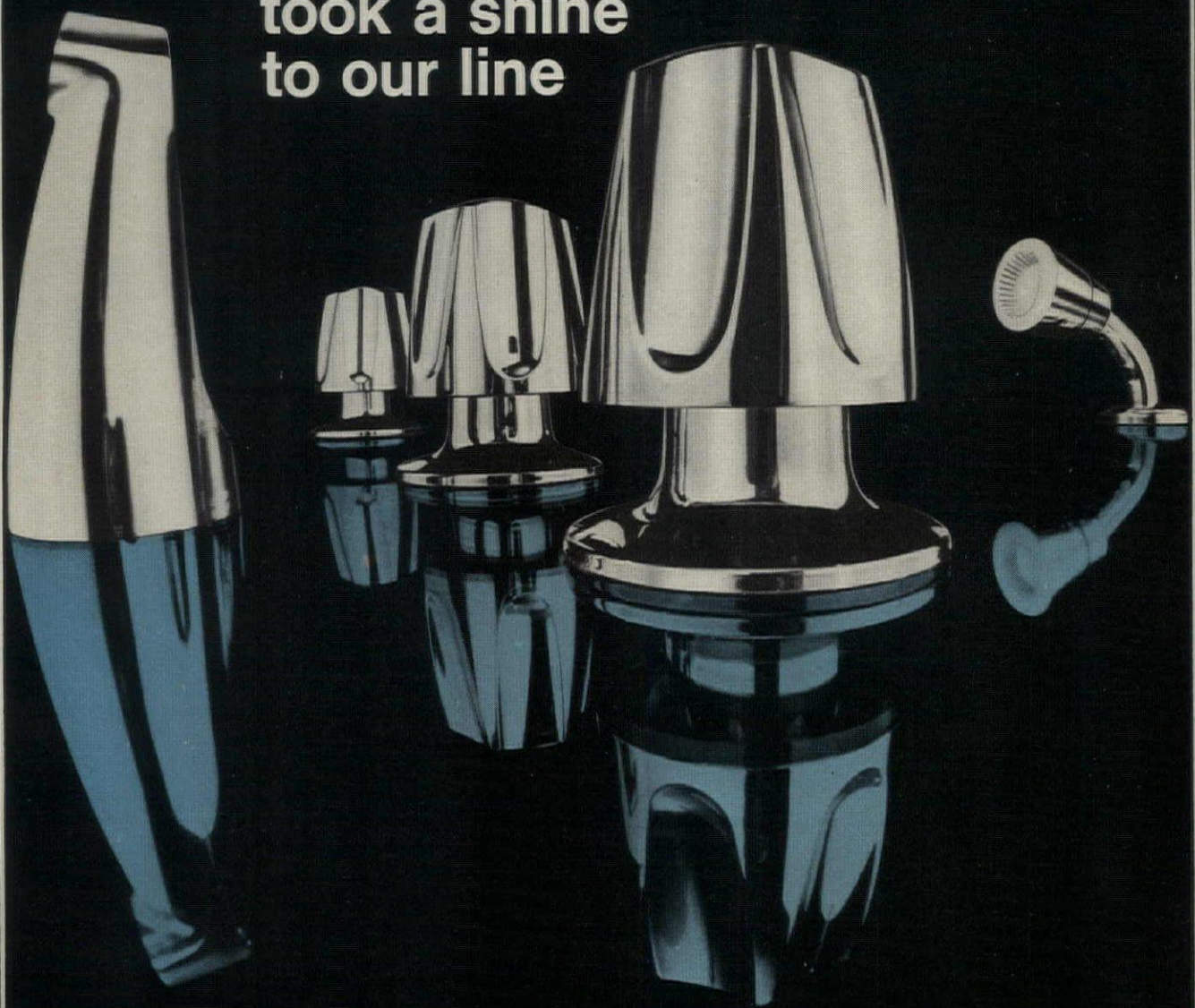


Open interior is enhanced by two-story living room looking out through glass wall onto 12'-square deck. The 41' x 24' house has four bedrooms and two baths. Above: passersby stop to look down on deck.



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New York's urban housing program displays its innovative plans

The modular house pictured on page 26 was just one of 22 exhibits in the housing show at New York's Whitney Museum. The other 21 were plans and scale models (like those at right) of projects to be built by the state-chartered, nonprofit Urban Development Corp.

UDC is a first-of-its-kind organization with sweeping authority, including the right to order changes in local zoning and building codes. Its proposed projects range in location from New York City to Buffalo, in size from 100 units in Rome to 1,600 in the Bronx, and in structure from modulars to conventional prefabs to precast concrete.

By year's end, UDC expects to have 7,000 units in 22 projects under construction. Their total cost: more than \$260 million. In addition, UDC has signed agreements to produce \$900 million worth of residential, commercial and industrial construction. And it is planning to spend another \$900 million to house 65,000 persons in three new communities—two upstate and one on New York City's Welfare Island.

In some quarters UDC's ambitious plans arouse considerable skepticism. Critics doubt UDC will get all the financing it needs from the state. And they say local zoning changes, for example, will involve the program in political battles.

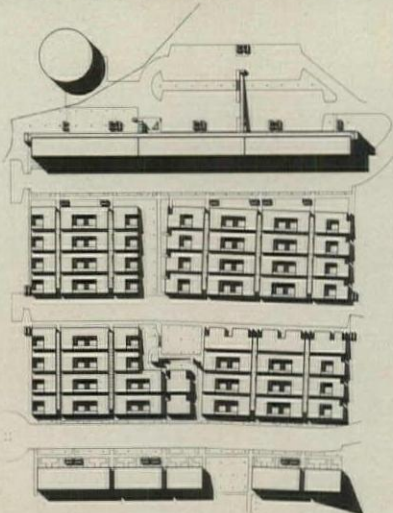
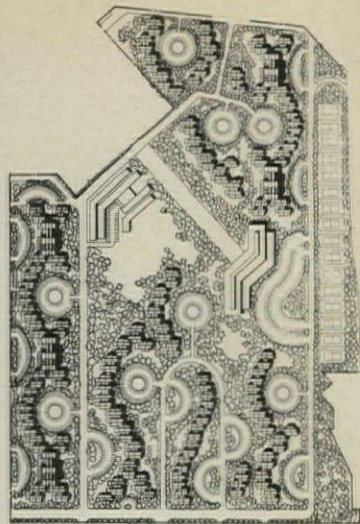
UDC President Edward J. Logue (the man responsible for most of Boston's and New Haven's renewal) disagrees.

Thus far, he says, UDC has been adequately funded by the state's Housing Finance Agency and the legislature. And, he adds, the last roadblock to issuing \$1 billion in UDC bonds—their non-tax-exempt status—will soon be removed by the Internal Revenue Service.

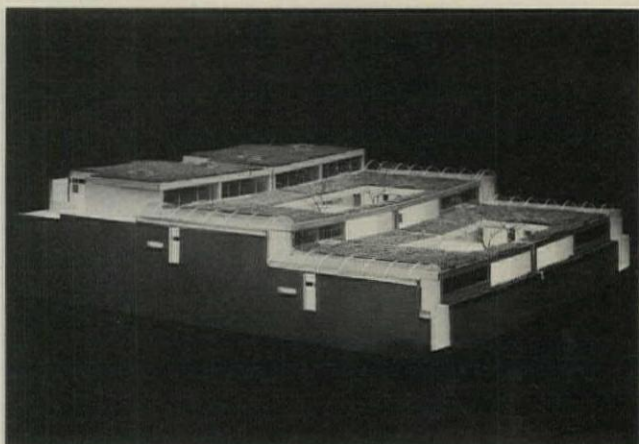
Logue also feels the potential political problems are overblown. To date, he notes, only one zoning change has been necessary, and it aroused no local opposition.



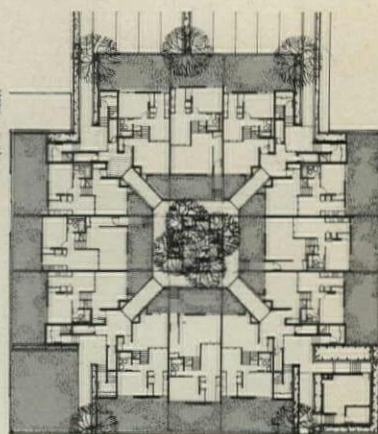
Lakefront housing in Buffalo, designed by Paul Rudolph, will have 2,500 units, below-grade parking in circular areas.



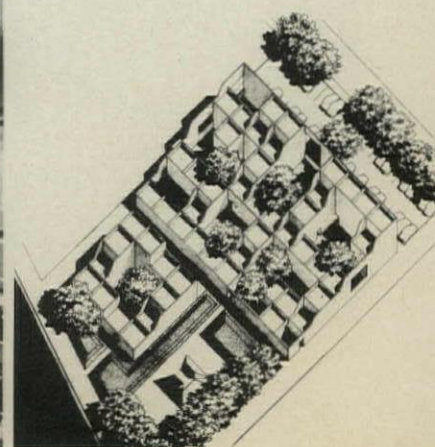
Atrium housing in Ithaca was designed by Werner Seligmann & Assoc. Building at top of plan is five-story mid-rise.



Courtyard housing at Coney Island is by architect Roger Decourey Glasgow. Drawing and plan show 20 of 500 units.



Riverfront housing in Rochester, by Conklin & Rossant, combines patio units with three high-rise buildings.



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*Du Pont's registered trademark for its polyvinyl fluoride film.



Entry bridges (left) lead to apartments and townhouses at The Paces, a 30-acre, 250-unit project. First section (shaded in plan) is complete.

Surprise: luxury housing for empty-nesters uncovers a broader market



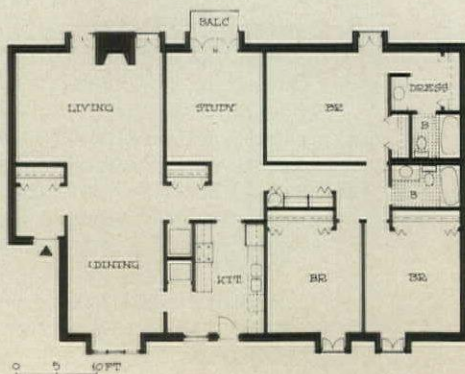
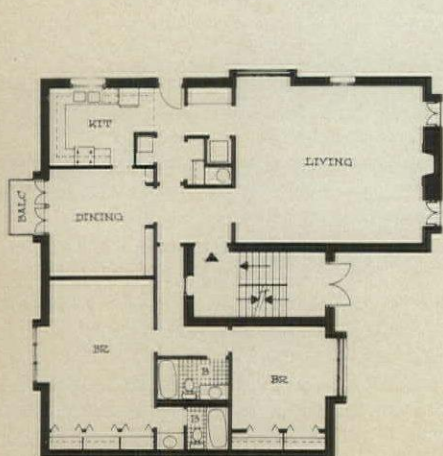
Gatehouse, manned by 24-hour guard, is security feature that also adds to aura of prestige. Project was designed by Jova/Daniels/Busby.

This high-rent Atlanta project (\$450 to \$700) is luring the wealthy out of large houses they no longer need because their children have grown up and moved out. That's what its builder/owner—the Ventaco division of Cousins Properties—intended. But what surprises Ventaco is that it also draws younger tenants—recently married couples, for example, and even families with children.

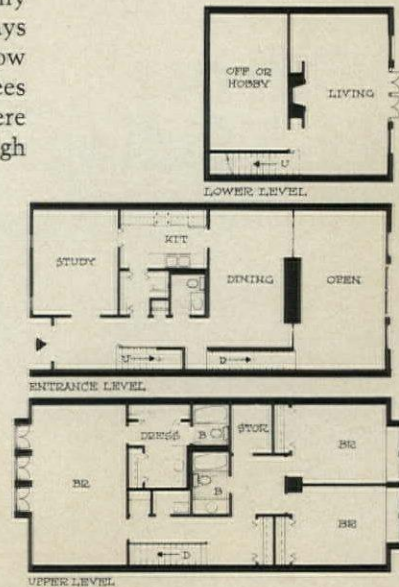
"We expected to draw only from the immediate area," says a Ventaco spokesman. "But now we're getting young transferees from cities like New York where they're used to paying high

rents but getting less space."

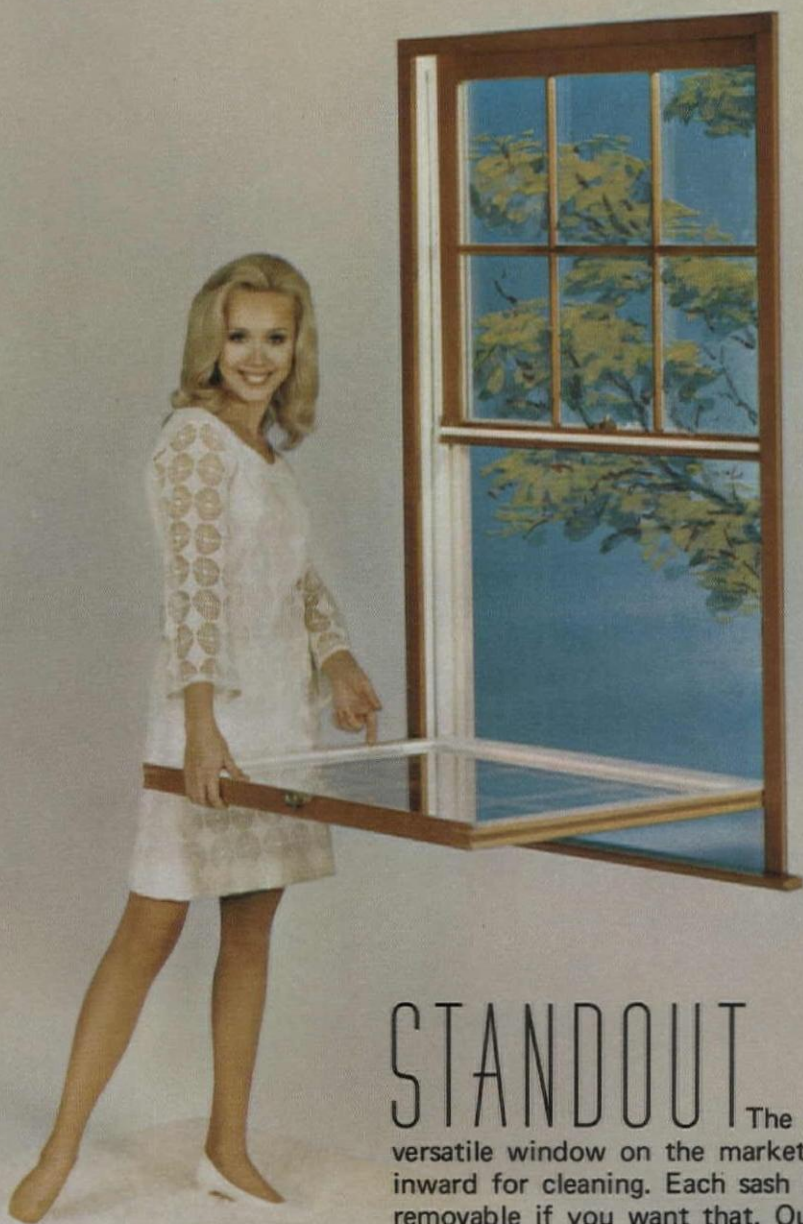
The project has much of the flavor of expensive single-family housing. It is located in a neighborhood where homes are valued at \$150,000 and up; its apartments and townhouses are spacious (1,500 to 3,000 sq. ft. with 9' ceilings); and most of its units offer such amenities as fireplaces, separate service entrances, and French doors opening to balconies.



Large units offer a variety of room arrangements. Three of six available plans are shown here. Most units have separate dining rooms and studies.



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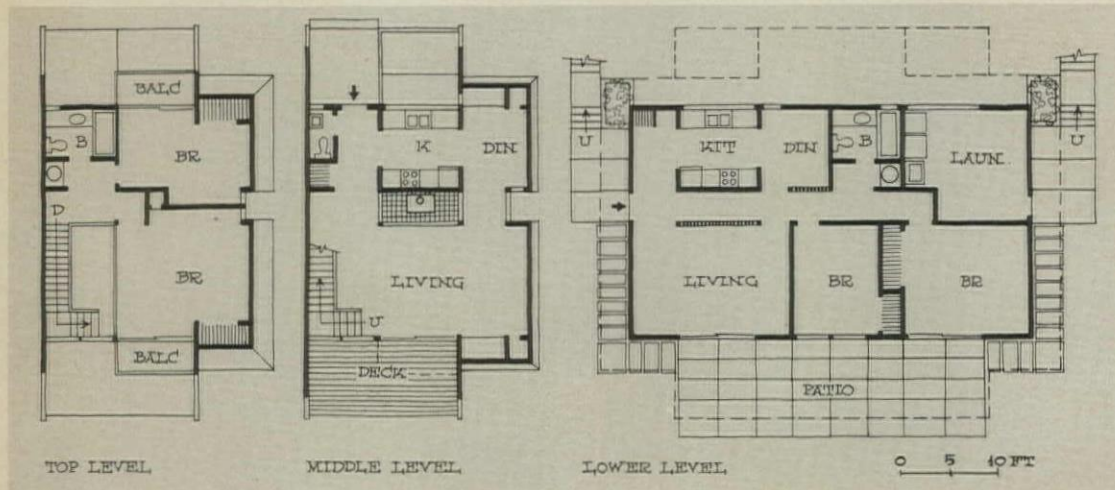
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Two-on-one triplexes save open space on a tight suburban site



There are 21 apartments and townhouses on this 1½-acre site in Seattle, but they cover only 14% of the land.

The key to such low coverage is the building design developed by architect Jan Kiaer and builder Fred Peterson. In each of the seven identical triplexes, a one-level apartment is tucked under a pair of two-level townhouses.

This arrangement works well on the irregular terrain: where a building is set into a slope, the bottom-level unit opens to grade on one side, and the townhouses are entered at grade on the other. Each townhouse has front and rear decks or balconies on both floors.

Surface materials, picked to echo the wooded environment, are red cedar shingles, textured plywood, and cedar interior paneling.

Apartments rent for \$175, townhouses for \$200. And the project was rented out two weeks after it opened.

Triplex plans put two townhouses like the one at left over the apartment and laundry room shown above. On sloping sites, lower level is a daylight basement with main living areas opening to grade.

Townhouse has window walls at both ends, open master bedroom on balcony (left), open stairway from living room (below), and prefab fireplace.



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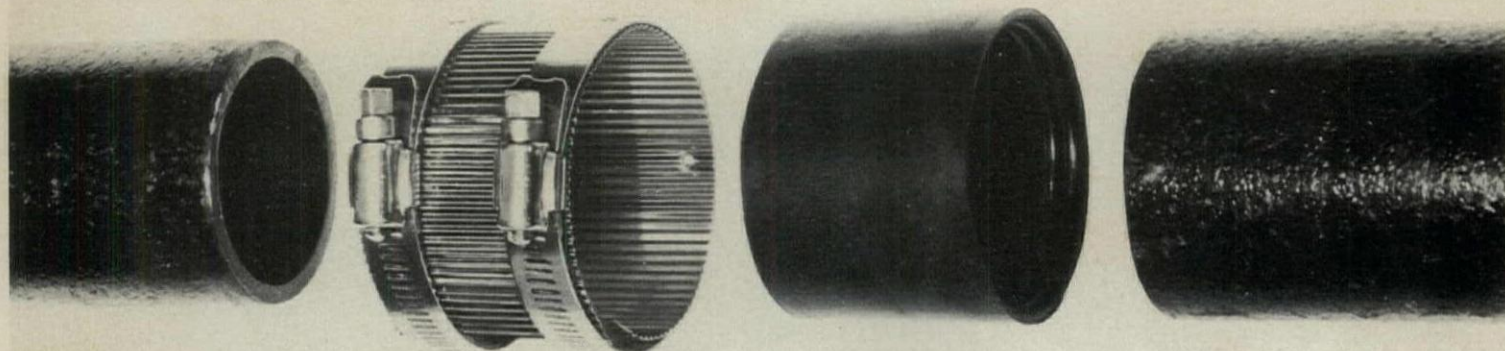
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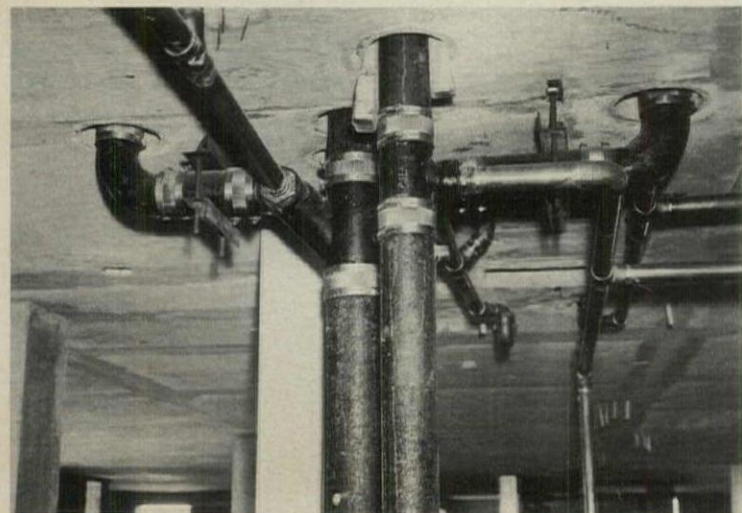


Clamp joint for cast iron pipe consists of molded neoprene gasket and stainless steel shield with band clamps. Joint requires square-cut pipe ends to seat firmly against inner shoulder of gasket—plus plenty of turns on clamps. New studies on sound-dampening qualities should give system a big boost.

Gasketed joint for cast iron pipe dampens sound—and costs less to install



Torque wrench is used to tighten band clamps around coupling. System is fast—plumbers can job-assemble trees rather than prefab them in shop.



Drain lines in typical multi-story installation require extra bracing and hangers to provide rigidity—one of few additional expenses of system.

Do drain pipes have to be noisy? The Cast Iron Soil Pipe Institute says no. And to support their contention they're offering the results of two years of field and lab testing on a gasketed pipe joint system.

Sound travels down drain pipes, CISPI says, because there's nothing to stop it. Put a sound-dampening material between each joint, and you cut sound transmission to practically nothing.

This is exactly what happens with CISPI's system of coupling cast iron pipe with a neoprene gasket and stainless steel band clamps.

Key to the sound-dampening ability of the joint is the neoprene gasket made by DuPont. An inner collar or ridge fits against the butt ends of two connecting pipes, preventing any metal-to-metal contact which would transmit sound. The clamps, when tightened, secure the joint against leakage. Both the clamps and the gaskets are resistant to all kinds of acids and chemicals.

The system has been tried for several years with complete success. It's approved by most codes, though there are still a few local ones that prohibit it because plumbing contractors don't like the way it speeds up a job. In some cases it has proved six times faster to install than the old lead and oakum joint.

CISPI says that tests show its gasket-and-clamp system cuts noise transmission better than all other piping systems. The report shows that drops of 12 decibels per joint are, in fact,

possible for sounds of relatively high frequency—more than enough reduction to achieve an adequately quiet waste-pipe system.

Also tested were copper pipe with sweated joints, plastic pipe with glued joints and galvanized pipe. "No essential reduction in vibration across joints" was recorded. Cast iron pipe with conventional lead and oakum joints came off worst of all for sound-dampening properties.

For builders of apartments, motels, hospitals, and multi-family units—wherever back-to-back or tiered bathrooms are required—the test results should be of special significance. Duplex housing units and retirement homes are other markets where quiet plumbing drains are desirable.

In addition to being considerably quieter than other systems, the gasketed joint is also less costly than either copper or plastic pipe to install. And it has these advantages: 1) its 3" hubless vent or waste pipe fits easily inside a standard wall space; 2) it allows easier make-up of joints in close quarters; 3) it permits quick removal of a pipe section for cleanout; 4) additions to an existing system are easier to make; 5) testing takes less time—a five-floor installation can be checked in the time it takes for three floors with other systems.

In a residential system, CISPI's cost comparisons show that gasketed joints go in twice as fast as sweated copper, and at half the material cost.

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“Everybody’s talking about those eager-to-rent families with children—but who’s doing anything about them?”

Around our San Francisco Bay Area, talk about the burgeoning family-apartment market goes like this:

First, the cost of owning a single-family house has risen 45% in the past five years while families’ incomes increased only 25%. Decent-quality houses now cost at least \$30,000, meaning monthly payments of \$300 which only about 25% of families in the Bay Area can afford.

Second, not quite 30% of all apartments in the Bay Area are open to children, and most of those are in rundown older buildings. The vacancy factor in apartment projects that do accept children is generally never higher than 1%. And to aggravate the shortage, virtually all new apartments built in the past four years have been designed exclusively for adults.

Third, during the 1970s new family formations will increase 51% in the Bay Area, compared with 11% during the ‘60s.

Conclusion: with all those young families looking for housing but unable to afford single-family homes, any apartment developer who wants to build for families has got it made.

Sounds logical, but the conclusion is not quite valid.

Families are far from sold on the idea of bringing up their children in apartments. And the kind of apartments families really need are expensive to build and expensive to manage.

Actually, only a handful of developers have made an honest effort to build apartments for families. The rest have occasionally experimented with renting to children, but not with a housing package really designed to accommodate children.

Telltale signs. In our area, the apartments that accept children were usually designed originally for adults only. As they began to wear, and the owners fell behind in maintenance, rising vacancies were stopped by relaxing the rental policies to permit children. Without spending an additional cent on improvements or upkeep, the owner of a falling-down apartment project can expand his market and keep his units full by simply setting out an A-frame sign reading “Children Welcome.”

If it’s so easy to rent to families with children, why don’t more developers do it? Because the decaying project that takes children as a last resort is strictly a short-term investment. Families who rent there do so

out of desperation because they can’t find any other housing they can afford that will accept children.

In the typical adults-only complex that reluctantly opens its doors to families, children are permitted in the swimming pool only during off hours when other tenants are at work. A token play area may be shoe-horned in, but it is usually so small and ill-equipped that the children play on decks, walkways, and driveways. These and other makeshift accommodations are so incompatible with children’s needs that families who take apartments of this type are soon more desperate to get out of them than they were to get in.

Apartment developers know how to meet families’ needs, but not many have figured out how to cover the extra costs and still keep rents at a practical level.

Best in the West. The best-designed family-apartment project in California is The Heather, 400 units opened by the Ring Brothers several months ago in Los Angeles. It has a full array of recreational facilities for children and parents: wading pools, paths for wheeled toys, large play areas with an abundance of equipment, tennis courts, badminton and basketball courts, and a recreation building with a special section for youngsters.

Most commendable of all, the project has its own day-care center designed for up to 75 preschool-age children.

But rentals at The Heather range from \$250 to \$465, with an overall average of \$365. This puts the project in direct competition with homebuilders, and out of reach of most young families. So despite the big pent-up demand for family apartments, The Heather has not rented as well as the Ring Brothers’ adults-only complex across the street.

A family project costs about 15% more than one built for adults because unit sizes are larger and the percentage of two-bath apartments is higher. But a well-designed family project also has several other items that add to costs. Besides play facilities, family apartments should have large pantries, better-than-average sound-deadening, extra-durable floors, hardy landscaping, scattered laundry rooms close to the apartments, and amateur child psychologists for managers.

That last item, aside from being an extra expense, is a tough challenge for property

management people. If the kids don’t like your manager, the whole project can turn sour. So a family-apartment manager needs special qualities. Besides the supervisory problems children create, he has the difficulty of sizing up children as well as adults in deciding whether to rent to prospective tenants. The upshot: few managers will have anything to do with a family project.

It’s mutual. If developers aren’t eager to produce apartments for families, neither are families eager to be housed in apartments. The single-family home is still the traditional goal for young families. And the fact that no house can be found within their means today doesn’t make them any happier with the idea of settling for an apartment.

But like it or not, apartment living is becoming inevitable for many families who can’t afford a high-priced, close-in house and don’t want to commute two hours a day to a low-priced house in the boondocks.

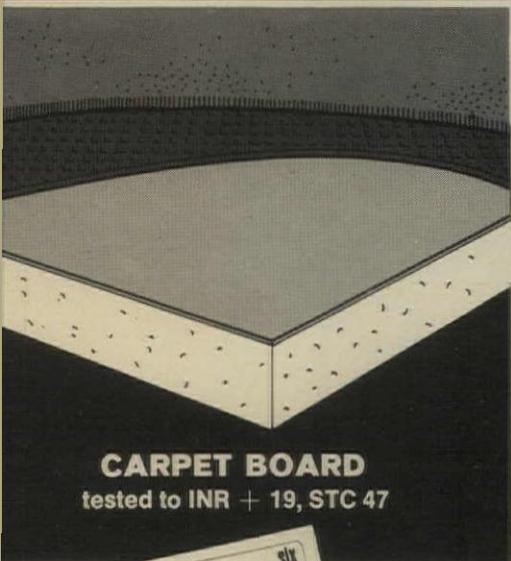
What can the apartment industry do to speed up the inevitable? With intelligent planning, developers could come up not only with high-quality rental units that the average young family could afford, but with a social and recreational environment that might have more to offer children and parents than the conventional detached-house subdivision.

The problem they must solve is how to design family housing to rent for \$175 to \$225—comparable to the monthly payments of the near-extinct \$20,000-to-\$25,000 house. One answer lies in more efficient floor plans. For example, there are ways to design three bedrooms into the square footage normally used for two, so that a family with three children can be accommodated in 1,200 sq. ft. Another answer lies in adequate project size—it takes about 400 units to support essential child-oriented facilities. Still another answer lies in designing for specific age groups. Even The Heather, with its progressive family concept, imposes an age limit of eight on the children it accepts. In fact, most developers who have experimented with families say that 10 should be the absolute limit and advise steering clear of teenagers and the special management problems they create.

For more on family apartments and the men who build them, see page 68.

H. CLARKE WELLS, MARKETING VICE PRESIDENT, L. B. NELSON CORP., PALO ALTO, CALIF.

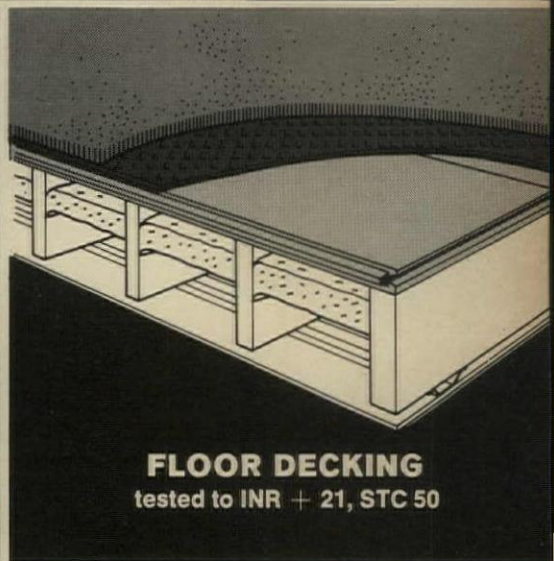
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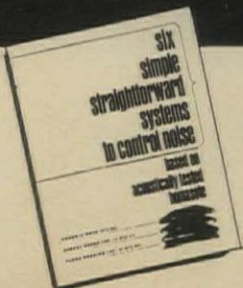
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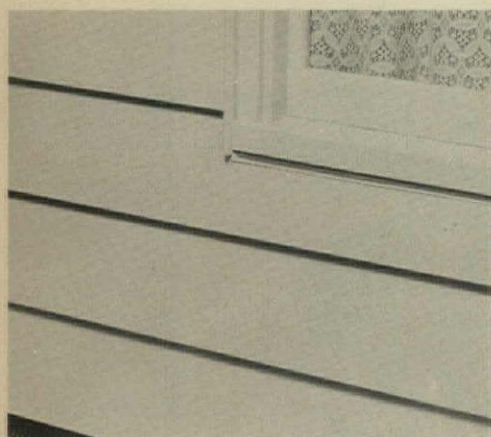
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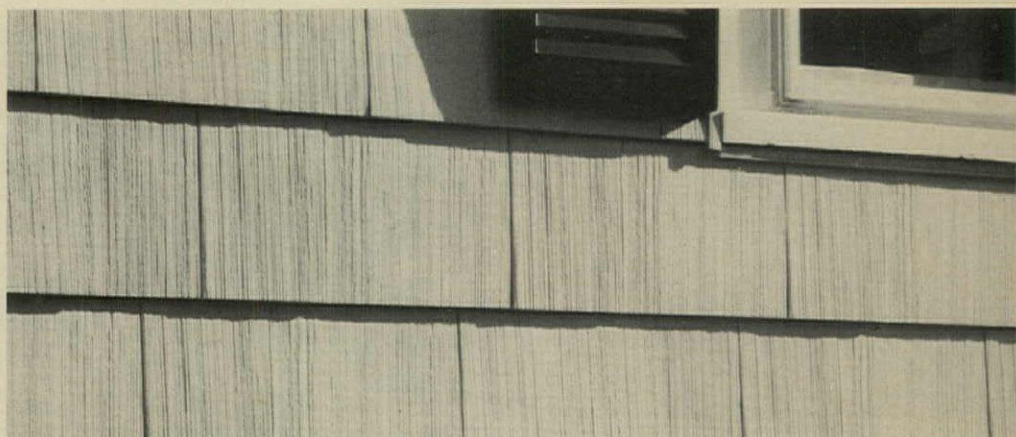
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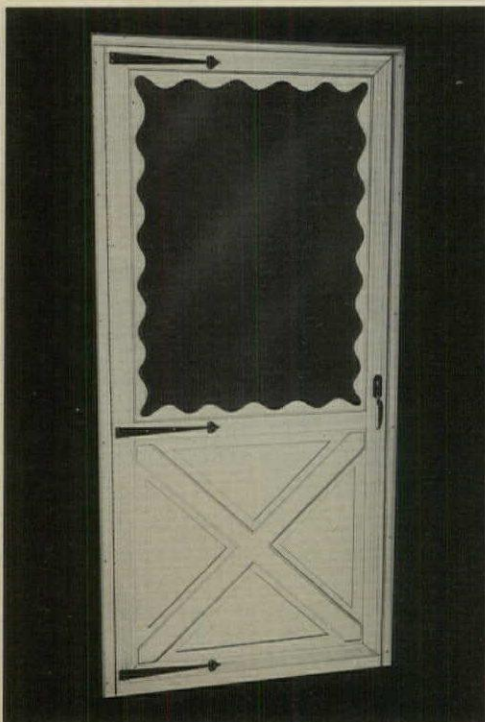
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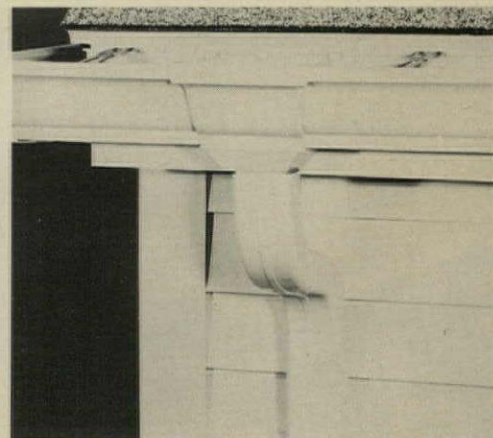
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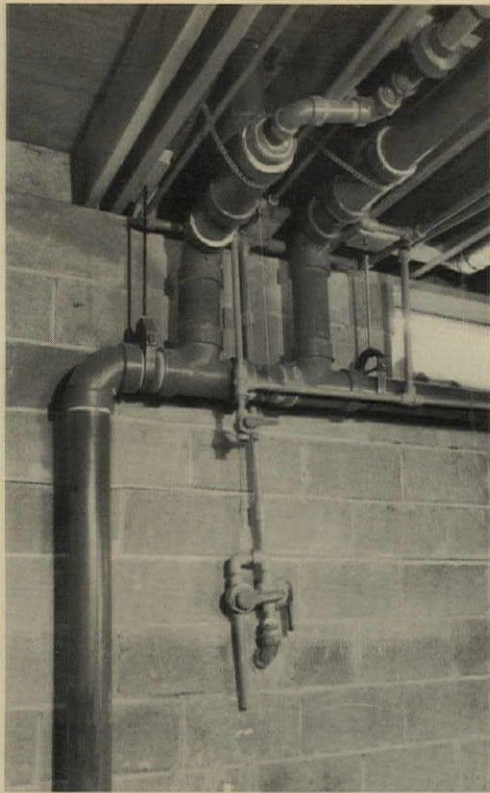


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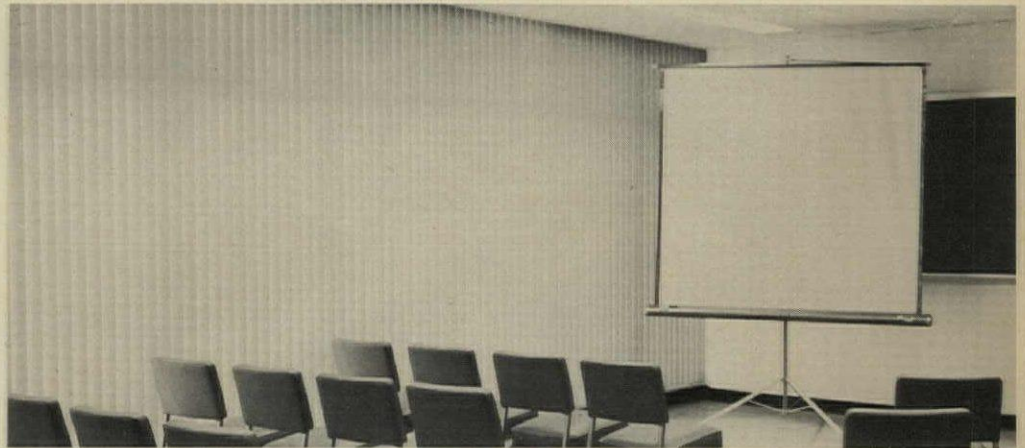


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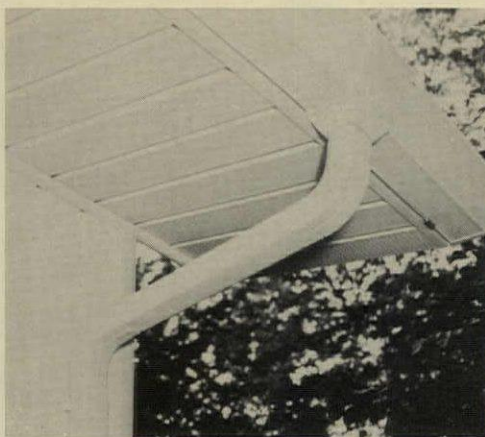
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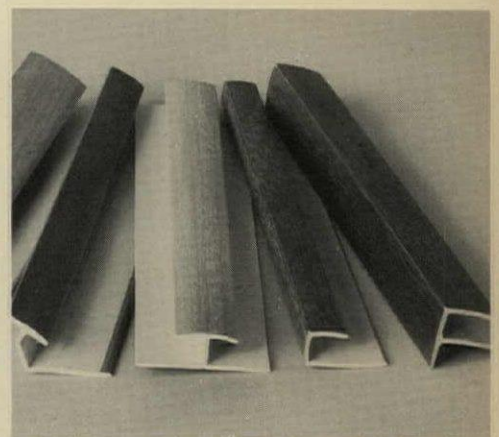
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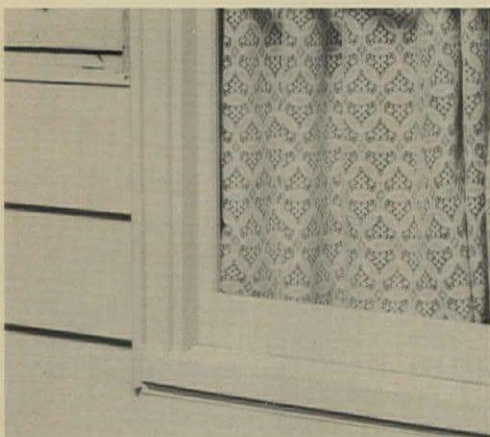
Shutters that don't rot or peel.



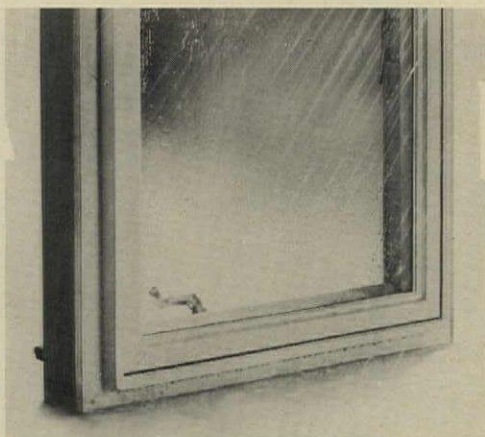
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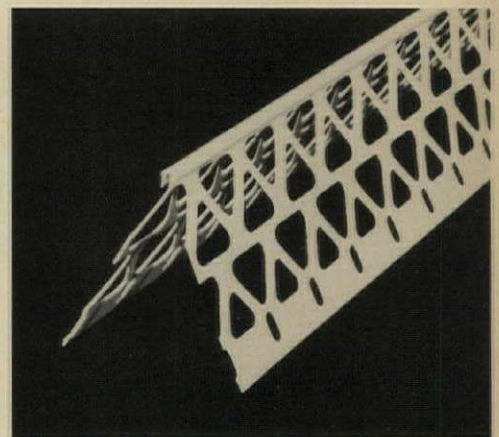
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**“We selected Maytag’s for all of our 13
Executive Director, Akron**



Akron Metropolitan Housing Authority's Executive Director, Jack Saferstein, in front of Saferstein Towers.

buildings," writes Mr. Jack Saferstein, Metropolitan Housing Authority.

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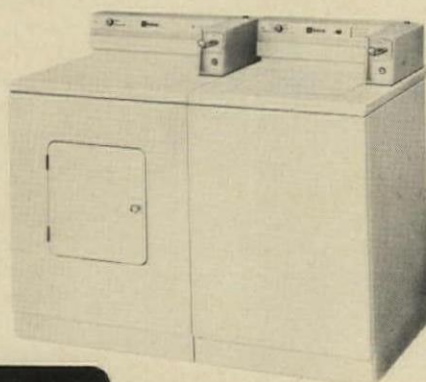
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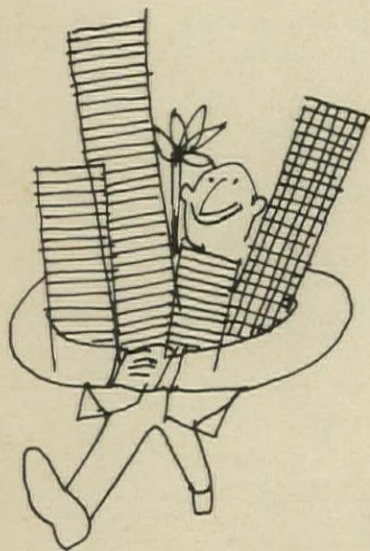
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LETTERS

Memphis rehab

H&H: I personally feel that your fine article in the December 1969 issue about the Memphis rehabilitation program was responsible for an honor I received last week. The City of Memphis Council presented me with one of the first certificates of appreciation issued by the Council.

Since your very detailed article appeared, I have been getting calls from all over the U.S. to be a consultant, and last month succeeded in opening up the City of Dallas.

I also am sure that your fine article had a great deal to do with Memphis being picked as one of the first "Project Rehab Cities" in the country, which guarantees federal backing of 2,000 units over the next two years for our rehabilitation program.

FRANK ROMEO JR.
Memphis, Tenn.

Reader Romeo is the realty and modernization expert hired by Home Builders Rehabilitation of Memphis Inc. to supervise their renovation program ("Homebuilders tackle the low-income market: how two different approaches work," Dec. 69)—ED.

Environment and PUDs

H&H: Your August editorial ("Better environment is a matter of life and death and good business too") was an interesting expression of concern about the relationship between our environment and the developer, but it was also exceedingly superficial. Your answer to the way in which the homebuilding industry is messing up our environment is the PUD.

There is no question that the PUD is a very useful tool in land development, through which design solutions compatible with the environment can be achieved. But it is time that developers started asking themselves whether a specific piece of land should be developed at all! In many instances, the answer is "No."

If developers are ready to display their concern for the environment, let them not only question the desirability of development, but when a very unique piece of land is discovered, let them notify the local office of the NAHB to put the land on "reserve" so other developers in the area will not be tempted. Then call public attention to the find and work with governments, private individuals, and groups to preserve these lands.

PUDs are probably one of the easiest ways developers can work for a better environment because, as your editorial points out, it's "good business." I submit that the real test of the developer's concern for the environment is when "good business" is *not* the determining factor in the preservation of the landscape.

DOUGLAS K. CALDOW
Oakland, Calif.

Trailblazing ordinance

H&H: The city of Arlington, Tex., on August 18, 1970, passed an ordinance providing for the inspection of modular and prefabricated buildings and certification of lawful compliance, authorizing acceptance of inspection and certification of such buildings by other governmental entities or other approved inspection agencies applying equivalent standards, and establishing an inspection fee.

We believe that this is the proper action to take to help relieve the situation of transporting this type of building from one part of the country to another. We think that we are capable of making inspections and supplying certification to any city within the United States, and we will also accept buildings in our city, under the same circumstances.

I would like to have this ordinance published in your magazine so that other cities, building officials, and interested parties may be made aware that a lot of our problems can be solved if we will take such initiative.

JON N. JONES
building official
Arlington, Texas

We are sorry that limitations on space make it impossible to reproduce Arlington's new ordinance. But we heartily endorse the concept, and urge other municipalities to follow suit—ED.

Syndication

H&H: In regard to September's "Built-for-sale apartments: a threat to you?": we feel the coverage given to syndicates and syndicators was not totally correct and tended to be derogatory in tone. Far from being a threat to the builder, syndicators can be extremely beneficial, especially in light of current economic conditions.

Our company, for example, is totally integrated into all aspects of the real estate business. Our subsidiary companies buy land, construct the building, manage it, and then syndicate, too. So you can see we are prepared to live with all the syndications we put together. Our latest syndication is structured to pay a minimum of 8% interest to investors, with clauses precluding payment of management fees and interest on second-trust deeds until the 8% has been paid to investors.

We feel that the inaccuracies in the representations of the builders quoted in your article are serious enough to warrant more than just a letter to the editor. And we believe we could provide your readers with a timely and authoritative rebuttal.

BARRY Z. LEVINE
director of communications
Prosher Corp.
Los Angeles

Low-cost housing?

It absolutely demands subsidies if we're to keep our shelter and environment to adequate standards

Coming up next month is a major story about the greatly increased federal involvement in housing. That involvement is vital because without some form of subsidy, private industry cannot build new housing for about half of the families in this country who need shelter.

Last month, in this space, we discussed some of the forms in which subsidies could be made. This month we're going to look in more detail at why the subsidies are necessary.

It is no surprise to a lot of people that the vaunted Operation Breakthrough is essentially a bust. There are solid technical reasons why, apart from all the political factors involved.

It is no surprise that modular housing manufacturers must build primarily for their own account or as general contractors for local housing authorities. They cannot produce modulares cheaply enough to sell them to big builders.

And it is no surprise that the monthly cost of living in a new mobile home in a mobile home park is just as great as the monthly cost of living in a new house or apartment of comparable size and amenities.

Why do we say all this is no surprise? If you examine the value-added factors in the various ways of producing shelter, you will find that the value added in most systems is barely enough to justify the assembly line, the manufacturing plant, the payroll, and the distribution and marketing costs. In a mobile-home plant, for instance, the manufacturer adds only 16% to the value of the materials and equipment used to make a mobile home. That small value-added factor is why about 50

mobile home manufacturers went bankrupt last year. The value-added factor in prefabrication is higher, but today it only begins to justify the investment needed to set up a prefab operation. We will gradually shift over to factory built housing, but the reason is the growing scarcity of the skilled labor necessary for on-site building. Factory built housing does not, at the moment, promise significant, or even measurable, savings.

Next, examine the specifications for new housing and its environment. You will come upon factors that absolutely limit cost-cutting. We say that all dwelling units must last the life of the mortgage or the municipal bond issue, must not erode the municipal tax base, must have all the appliances and fixtures American families demand. And such housing must have an adequate environment, which includes sewers and water, streets and sidewalks, street lights and municipal maintenance, fire and police force, access to shopping and transportation, entertainment and adequate schools.

There is no cheap way to get all this. Yet most lending practices allow a family to spend only about 20% of its gross income on housing, which means that half of them can't afford new adequate housing.

Cutting good housing costs is a little like saying we must have top-grade sirloin steak for 20¢ a pound. Unless a grocer is heavily subsidized, all he can sell you is dog food for 20¢ a pound.

RICHARD W. O'NEILL



PHOTOS: JULIUS SHULMAN

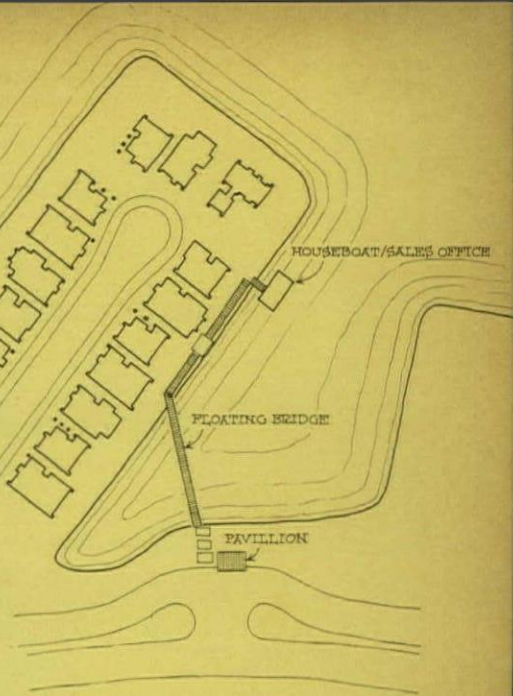
From its dramatic entrance to the table settings in its houses, this new project in Westlake Village, Calif., is a model of good presentation. Acting on the principle that the best kind of merchandising focuses on the merchandise itself, builder Harlan Lee has combined a lakefront site, designs that pay equal attention to indoors and outdoors, and a rich blend of landscaping and decoration with results that are exciting even by California standards. In a word, this is

**a
marketing
package
that puts
it all
together**



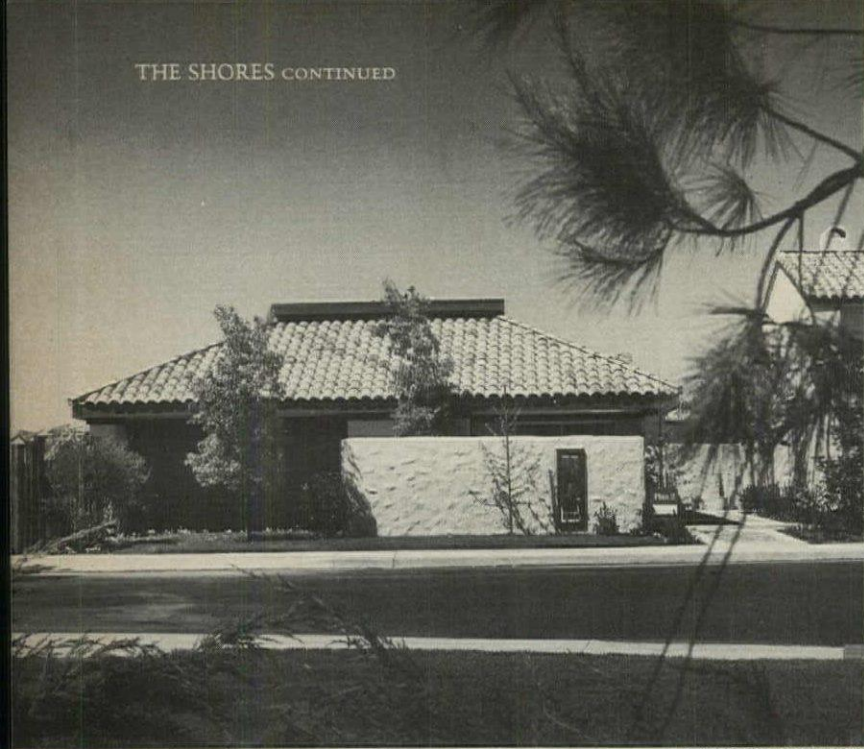


Entrance promenade (photos, left, and plan, right) starts at a shore-side parking area, crosses to one of the project's peninsulas, and passes through a floating sales office. The four models are at the tip of the peninsula.



Side terrace (below) of one of the project's two-story models shows key living features: close integration of indoor and outdoor living, a variety of outdoor spaces, and a combination of privacy from the land side and openness to the water, visible at right.





PHOTOS: JULIUS SHULMAN

The Shores' four models put a lot of living on small lots

The lots are only 50'x80' but every square foot is put to work. As the plans at right show, just about every major room opens to some sort of outdoor living area.

Despite the narrow frontage, these are not property-line houses. Says Lee: "We've kept everything back one foot from the lines so there will be no questions about who owns the walls. We want to emphasize the kind of living we offer, not a lot of legal details."

The lots are not completely walled. "We use walls just where they're necessary for privacy," says Lee. "That saves money, and also gives a less forbidding streetscape than would a solid stretch of wall. We think of the models as sort of second-generation patio houses."

To date, 20 of the first section's 35 units have been sold; ultimately, the projects will have just over 100 houses, all of them on peninsulas that put each unit right on the water.

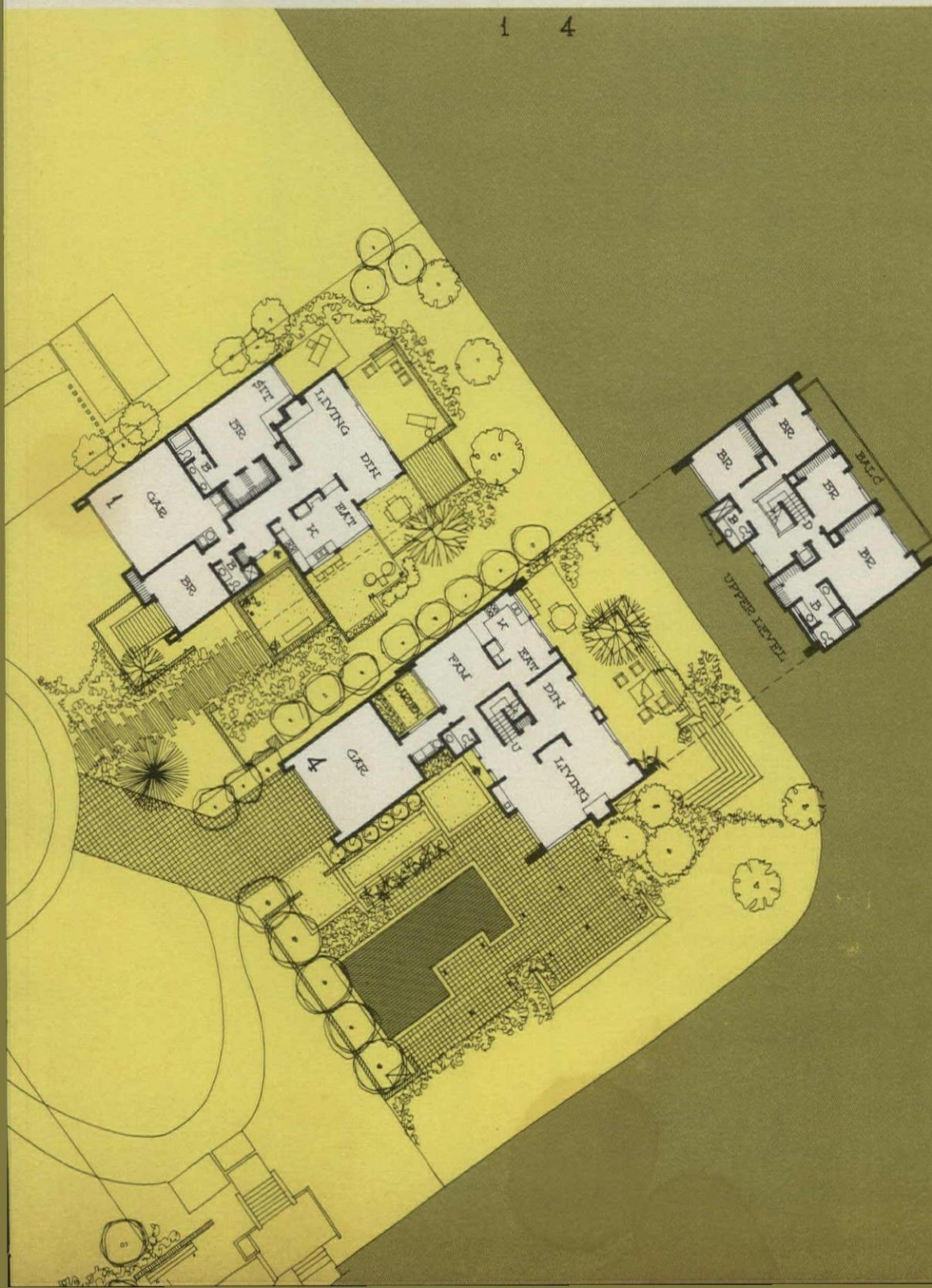




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Four model houses at The Shores are shown in the photos above. Each is available with either two or three exterior treatments. The model at far right is also shown on the cover, and in the photo on p. 49. Numbers below the models are keyed to the model area plan below. Basic prices are: No. 1, \$45,950; No. 2, \$46,750; No. 3, \$49,500; and No. 4, \$54,950. With extras, some models have sold for more than \$83,000; one went for \$115,500 (it included \$20,000 worth of landscaping). William R. Pauli of Encino was architect and landscape architect.

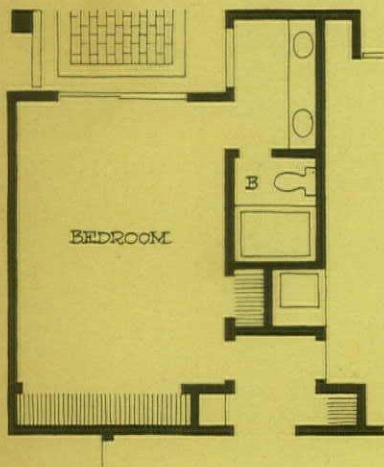
Site plan (left) includes floor plans of the models. Note that houses and walls are set back 1' from property lines; deeds include easements to allow for repairing walls. The builder, Harlan Lee & Associates, Inc., is a division of Leisure Technology Corp. of New Jersey.



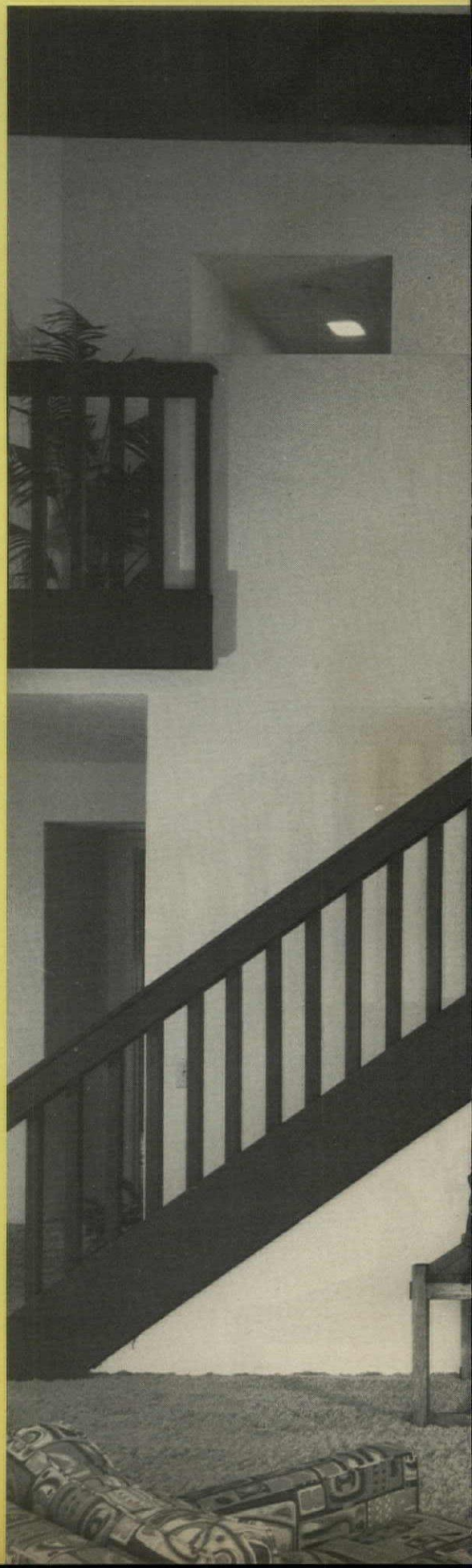
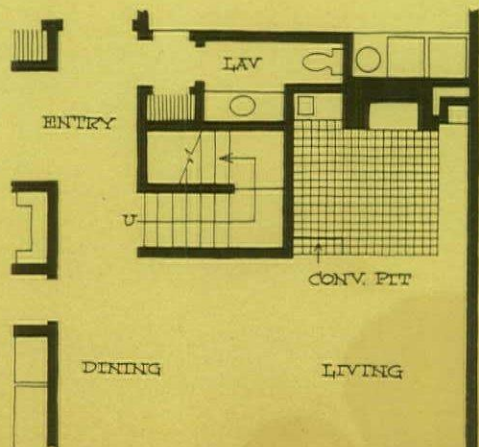
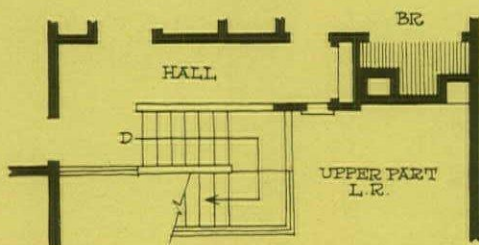


PHOTOS: JULIUS SHULMAN

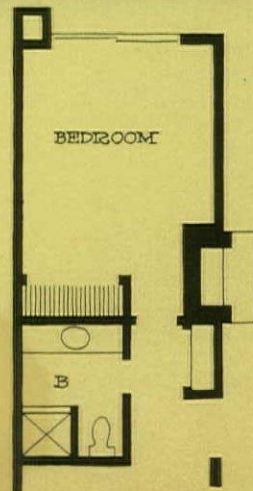
Master-bedroom suite (above) in model No. 2 opens onto its own front terrace through the sliding glass doors at far right. Mirror over bed reflects the door to the master bath. All decorating and furnishing in the models was done by Carol Eichen Interiors, Inc.



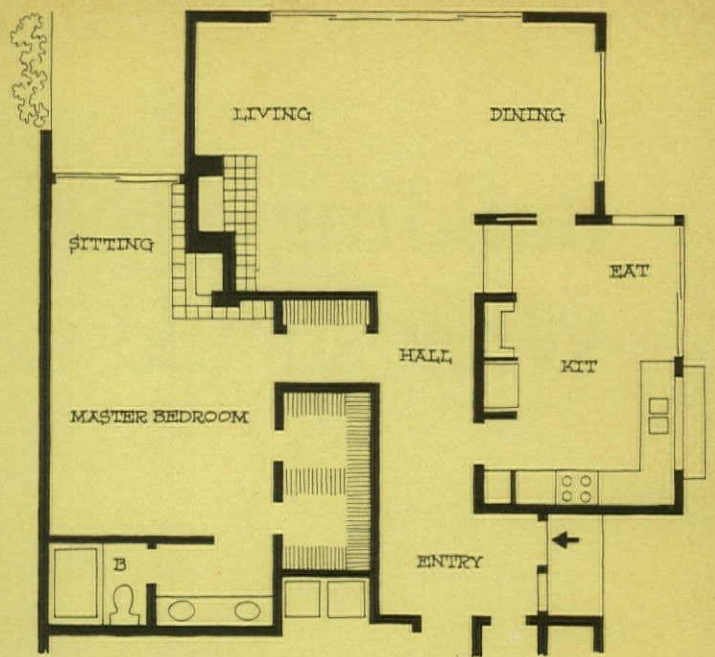
Living room (right) in model No. 3 includes a large conversation pit in front of the fireplace, and a bar to the left of the fireplace. The carpeted area at left is the dining room. Floor plan below shows position of staircase and upstairs balcony hall relative to the conversation pit.







Second bedroom in model No. 2 is furnished as a den. Patio beyond the sliding glass doors typifies the way walls are used at The Shores. Instead of surrounding the entire lot, they are built in short sections only where necessary to insure privacy.



Master bedroom (*left*) in model No. 1 includes this corner called a hideaway. It has its own fireplace, and sliding doors opening to a small terrace. No privacy wall is put up because it would interfere with the view of the lake. The kitchen (*below*) in the same model has full glass walls to take advantage of that view.



Building a golf course? What should it really cost you?

A golf course can be a tremendous asset to a new community, but it's also a very expensive asset, and a lot of builders are paying a lot more than they should to build a course because they have no dependable standard to measure against. This article offers you guidelines, based on the experience of experts, on what you should pay and where you can save.



Five or six years ago, most developers considered a golf course an expensive luxury. Today, in projects where recreation is an important feature, golf courses have shown themselves to be solid assets. Items:

Projects with golf courses tend to sell out faster.

Lots on golf courses are worth more, and people are willing to pay the difference. In fact, houses with prime golf course locations generally go first.

Lenders tend to appraise higher in golf-course projects. Where an ordinary project might get 70% financing on its houses, developers with golf courses have sometimes been able to get 75% to 80% because the lender considers them a better risk.

Golf courses provide from 100 to 200 handsomely-manicured acres of greenbelt that rather than being a financial burden, can at the least carry themselves and often show a profit.

Planning and zoning boards are often inclined to grant higher densities to golf-course projects because they provide relatively large expanses of greenbelts.

Finally, a golf course gives the developer the marketing appeal of one of the fastest-growing participation sports in the country.

A growing number of developers recognize these assets. Despite the depressed market, and despite the fact that a golf course requires a lot of money right at the beginning of a project, almost half the 400-odd golf courses that were built last year were part of real-estate ventures.

But not all of these developers paid a reasonable price for their golf courses. Being new to golf, some of them paid two, and even three times as much as other more fortunate, or more wary developers. And since the cost is measured in hundreds of thousands of dollars, the overspending can be critical.

To find out what a golf course should really cost, HOUSE & HOME talked to four people experienced in different aspects of golf-course construction:

Chris Bargas, president of Bargas Development Corp., Stratford, Conn. He is currently completing a course in Oronoque Village, a 304-acre condominium (H&H,

May). And since it is the second course he has built, he ranks as something of an expert among developers, few of whom have built more than one.

Max Genet Jr., president of Mission Hills Enterprises, Ltd., Palm Springs, Calif. He is just completing the first of two courses in Mission Hills, a 640-acre recreation condominium PUD. Genet is unusual among developers in that he is a former scratch golfer who understands both the game and the care and feeding of golf courses.

Desmond Muirhead, a planner who has also become widely known both for designing top golf courses and for seeing that they are built at reasonable cost (H&H, June 65.) Muirhead has designed and supervised some 50 courses.

Keith Dewar, an earth-moving contractor who specializes in golf-course construction. He has built eight of Muirhead's most recent courses.

Starting on the next pages, these four offer practical advice on how to get the most for your golf-course dollar.



PHOTO: TONY ROBERTS

CONTINUED

Start with the idea that you know nothing about building golf courses

And the chances are you'll be right. Says Max Genet:

"Most developers know their housing and developing costs to a gnat's eyebrow. But how many of us have ever built a golf course before? So the first step is to find a project with a course that you like, then go find the people responsible for it."

The key man to be found in most cases is the golf-course designer. He has been involved in golf courses before, so presumably he knows costs, knows the possible pitfalls, understands such basic golf-course technology as earth sculpturing, irrigation systems, and the like. Most important, he knows how to put them all together efficiently.

Desmond Muirhead offers this advice on choosing a member of his own profession:

"It's terribly important to find an experienced designer who has done several courses. Or you may find a man who previously worked for another golf-course designer. If so, try to find out if he really did any of the designing himself, or if he merely supervised the building of the courses."

Having found a man who meets these qualifications, says Muirhead, go and talk with the owners of some of the courses he designed and find out how they feel about the job. Was the designer also a good supervisor? Did he bring the course in on budget? What problems arose during construction, and how did he deal with them?

The designer must have a good working knowledge of earth moving, because that is almost always the biggest single cost in any course. Just how much that can mean is pointed out by contractor Keith Dewar.

"Muirhead's plan for the Mission Hills course called for a lot of land sculpturing," says Dewar, "because the original site was as flat as a pancake. The engineers had originally graded the plans for the course and the condominium units at two million yards. Muirhead went out to the site, reassessed the various heights and lake cuts, and reduced the necessary grading to 1.2 million yards. Later, he and I got together and knocked off another 200,000 yards. The course is still basically the same, but we saved close to \$300,000—all of it front money."

Costs will vary, but there is a predictable range

The consensus of the experts is that most courses should cost between \$300,000 and \$750,000. Anything much under this range is likely to be below par in some respect;

and barring horrendously difficult terrain, anything much higher usually means inefficiency somewhere along the line. Further, if a full-sized, 18-hole course is brought in at the bottom of the range, it's probably because the natural terrain is well enough suited to an interesting layout so little or no land-sculpturing is necessary.

Oronoque Village and Mission Hills are good examples of what golf courses should cost when they are handled efficiently. Both are what is termed championship courses—around 7,000 yards long; both encountered what might be termed the normal difficulties related to their locations; both were heavily sculptured; and both promise to be first-class courses, both from the point of view of the golfer and of the project resident who is concerned with the esthetics of his environment.

Oronoque Village, says Bargas, will have cost from \$450,000 to \$500,000 by the time it is ready for play next spring.

"And that includes everything a first-class course should have," says Bargas; "great design, a fully automated irrigation system, a couple of lakes and several original holes."

Bargas' chief problem was clearing; the site is heavily treed. "If we'd had fewer trees and more pasture land, we could have saved from \$60,000 to \$70,000 in cutting, burning, and burying stumps."

Mission Hills, says Max Genet, will have cost about \$700,000 by the time it opens in December. There are two reasons for the high price tag: first, the desert location requires an extensive irrigation system; it cost \$250,000, more than twice as much as required for a typical northern course. And second, Genet wanted to give all of Mission Hills a rolling look so it would stand out from other projects in the flat desert area; this required moving 1,000,000 yards of sand—a difficult substance to push around—at a cost of \$300,000. Just like Oronoque, Mission Hills has fully automated irrigation and several original holes. It also has 25 acres of lakes, all of which must be lined with plastic.

As a rough rule of thumb, Muirhead offers these average prices for the most important areas of building a golf course:

Plans and specifications: from \$25,000 to \$50,000 for a fully qualified, name designer. "Anything much higher is just too much," says Muirhead, "and anything much lower means that the designer isn't going to give it enough attention, that it's a bad job, or possibly that there's a kickback involved."

And, he adds, the fee should include regular supervision of construction.

Grading: "On a typical course, 250,000 yards would be the average volume to be moved. The exception would be a lovely site that needed no fairway grading. Then only greens and tees would be involved, and they might involve 1,000 to 2,000 yards."

Grading costs, says Muirhead, are different on every job. "But if the contractor is good, the range is usually from 35¢ to 60¢ a yard. And if he's a real pro, and the conditions are just right, it could drop as low as 17¢."

Typical items that can boost grading costs, says Muirhead, are springs, very bad weather, rocks, a site that is naturally badly drained, and sand with round grains which slips and has no angle of repose.

Irrigation: from \$100,000 to \$300,000, depending on the geographical location, for a fully automated system. Says Muirhead: "If you pay less than \$100,000 for a fully automated system, something's wrong. In the East, we figure from \$100,000 to \$150,000; in Florida, from \$150,000 to \$200,000; and in California, from \$200,000 up. You could pay \$300,000 for heavy coverage on a 200-acre course in a dry climate, where head spacings had to be no more than 70 ft. to assure good coverage in a wind."

Says Chris Bargas: "We got one quote for \$175,000, but the contractor was planning to irrigate the rough, the way they do in California. That's not necessary in New England because we have lots of shade trees. So \$100,000 to \$145,000 should give you a first-class system. But we'll pay less because we're doing our own digging, and we can trench 2,000 ft. a day."

Max Genet points out two other cost areas that are easily overlooked:

"Remember," he says, "that the course must be maintained between the time it is finished and the time play starts. That can cost \$10,000 a month, and the time span could easily be eight to ten months. That's a cost that properly belongs in the construction category."

And changes, says Genet, are expensive. "It's just like building a house. Every change during construction means more earth moving, more grass seed, more piping. The guy who can build his course most economically is the one who can okay the plan and then go to Europe."

Speed is vital because time is big money

To fulfill its role as a sales asset, a golf course has to be there when prospects arrive. And since golf courses can't be financed without recourse to what Genet calls "expensive and exotic deals," their

cost comes out of front money. Obviously, the faster the course is built, the sooner this front money can go to work helping to create cash flow. Conversely, a course that takes an unduly long time to complete ties up front money longer. And not only does it not help sales, it may actually hurt them, since 150 acres (the area of a typical championship course) of raw excavation is not particularly attractive.

In most areas, a course should be playable within a year after it is started. This allows six months for actual construction, and another six months for the grass to grow strong enough to support play.

"But," says Muirhead, "the average course takes much more time than that—18 months or so. And some take more than two years."

Why so long? In some cases, it's management error, Muirhead says: the most common foul-up is not letting contracts on time. But by far the biggest cause of delay is what Muirhead calls "general inefficiency," particularly in rough grading.

"The contractor is the key. He's even more important than the designer. You should try to get a man experienced in building golf courses, and you should check on how fast he's finished courses before. Some promise to finish in six months but take two years. Then, if possible, turn the entire construction job over to him. That way, the responsibility for finishing on time can be fixed."

Oronoke Village is an example of an efficient scheduling job. Construction began last spring, and play will start next spring despite 1) the aforementioned heavy clearing of woods and 2) an unusually wet spring.

"If we'd started earlier, in June, say," says Bargas, "we would have had dry weather. And we would have saved more than \$30,000 in grading costs because we wouldn't have had to push mud around. But we needed the growing season at the end of the summer to be able to open next spring."

When conditions and climate are more favorable, construction time can be even faster. Dewar managed to finish a course (to the point where the grass could start growing) in Albuquerque, N.M. in just three and a half months. The developers, unused to such speed, were caught without a well for the irrigation system, and it took them three months to dig one and get the course seeded.

An even more spectacular job was done in Ocala, Fla., where Dewar moved 1.5 million yards of dirt to complete a course in two months. It will open next April, and the time from start to play will be eight months.

Is this the limit? Muirhead thinks not. "We're aiming at getting the building

time down to one month. And we think we'll be able to do it quite soon."

The experts tell how to avoid the most common pitfalls

In grading. Says Muirhead: "Get from the contractor an estimated earth-moving cost. Then take the plan to an engineer to see how much dirt has to be moved. This will tell you how expensive a course the architect has designed, and it will also provide a checkpoint against the earth-moving bill."

Says Genet: "You can lose money if you don't get a contractor that knows golf courses. Most of them are road builders. So get the best you can. And lease all the equipment; it will save you money."

Says Bargas: "Rough grading is the most expensive part of a golf course, and bad machine operators and poor or too small machines could double the cost. Suppose, for example, you're using a cable dozer instead of a hydraulic machine, and the blade hits a rock, jumps and misses. You have to go back over it, and that's expensive."

"And you need big enough equipment—D-8s and D-9s. Some guys hear the price—\$55 an hour and ten machines working—and they chicken out and get lighter machines. But the heavy stuff will work many times as fast, and in the end it will cost a lot less."

Says Dewar: "The big equipment can move 20,000 to 30,000 yards a day, but you have to have an accurate grading plan to do this, and the dirt must be programmed. We try to keep our scrapers moving at 20 mph or better, and our bulldozers operating in second and third gear. You can double the usual amount of dirt you move if you bear down heavily enough."

In Irrigation. Says Muirhead: "The irrigation contractor must be good. There are 200 to 2,000 sprinkler heads on a course, and every one of them can leak. Be sure the pipe meets ASA specifications, and be sure it goes in at the right depth. Flushing the system should be part of the contract, and the contractor should also teach the superintendent about the system. And in a cold climate, the system must be drainable."

"I wouldn't recommend anything but a fully automated system. Watering is done at night, and if the system isn't automated, you'll need a man to work that shift. He'll be expensive and hard to hire. Also, he gets wet, so he might move a sprinkler every hour instead of every half hour. Some areas will get too little, others too much, and you'll have wet fairways the next day."

Says Genet: "With an automated system, as opposed to an automatic system, you

can override the master control at any station. You might have to syringe a green that's too hot, for example, and the automatic system could require a man to walk a long way to turn on the water. He might not do it, and you lose a green."

Says Bargas: "You'll have less trouble later if you use brass sprinkler heads, not galvanized. And be sure to cushion the pipes in sand. Otherwise they're liable to break, especially in frost areas."

Says Dewar: "Our biggest problem today is irrigation. For some reason the developer hates to let the irrigation contract on time. You have to bear down on him, and on the well digger and the irrigation contractor, if you want to get done on time. For the average irrigation contractor you can double his estimated time of finishing. And we have also discovered that it almost always takes three to four weeks to get the irrigation materials delivered."

In future maintenance. Says Muirhead: "Greens must have USGA-specified soil mixture, which is expensive, and the top must be 14" thick. Otherwise, you'll have to start rebuilding in a few years, and that can cost from \$2,000 to \$10,000 a green."

"If drainage is badly done, you'll need lots of regrading and tiling later. The contractor should be responsible."

"Grading must be done so as to take a nine-gang hydraulic lift mower, and trees must be 17 ft. apart. Otherwise you'll need lots of expensive hand mowing."

"Seeds must be of top quality. Otherwise you'll get weeds that won't ever go away."

Says Bargas: "You'll get hurt later on if you don't have proper topsoil on your fairways. It should be at least 4" thick. Get the best seed, even though it may cost up to \$2 a pound. And be sure that all rocks have been taken out of the fairways by the time you seed; otherwise they'll pop up in the winter frost."

And in miscellaneous areas. Says Bargas: "Before you do any seeding, get a soil analysis. Then find out what's the best kind of treatment for that soil, and what kind of grass will grow best in it."

Says Muirhead: "Try and have the fine grading—greens, tees, traps, etc.—done by a specialist. Even if you let a poor rough-grading job get by, you must have a good job on the final grading."

And says Genet: "Someone in the picture has to know golf. He must hit some balls before the grass is in to check things like rolls, trap positions, etc., that the designer simply can't foresee. If you have to make changes, this is the time to do it. Later, it will cost a mint."

"But you can get carried away, too, if you try and make everything too perfect. The man who can build a course most efficiently is probably the man who never picked up a club in his life."

Here's more
evidence of . . .

The space revolution in multilevel houses

Innovative treatment of interior space is creating drama and surprise in more and more single-family houses—not only custom homes but also the built-for-sale variety. And it's such innovation that distinguishes the five houses in this eight-page portfolio.

You will see a three-story dining room, a pair of rooftop studios, room-to-room changes in ceiling height, and a house in which rooms trade light and height as they spiral up around a central stairway.

The five houses, all custom designs, were among 34 award-winners in the 1970 Homes for Better Living program, sponsored by The American Institute of Architects, *American Home* magazine, and HOUSE & HOME.

H&H showed 19 of the winners—built-for-sale and custom houses, townhouses, and apartments—in July, August, September, and October; will publish the others in forthcoming issues.



Upper level (above) has two sleeping areas divided by storage partition. Both look up into trees through clerestories and down into living-dining room. Kitchen (below), beneath upper level, has open shelves and long serving counter.





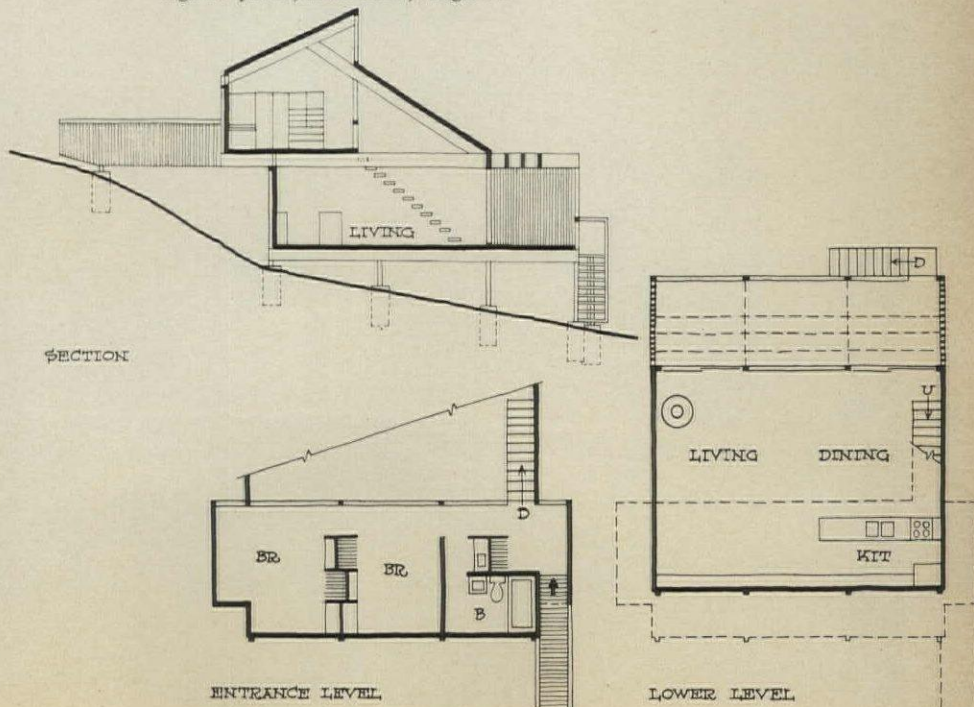
Entrance bridge leads from parking area, in foreground, to upper level (plan, below) of hillside house, which is set on piers. Side walls are blank and street windows high for privacy from nearby neighbors.

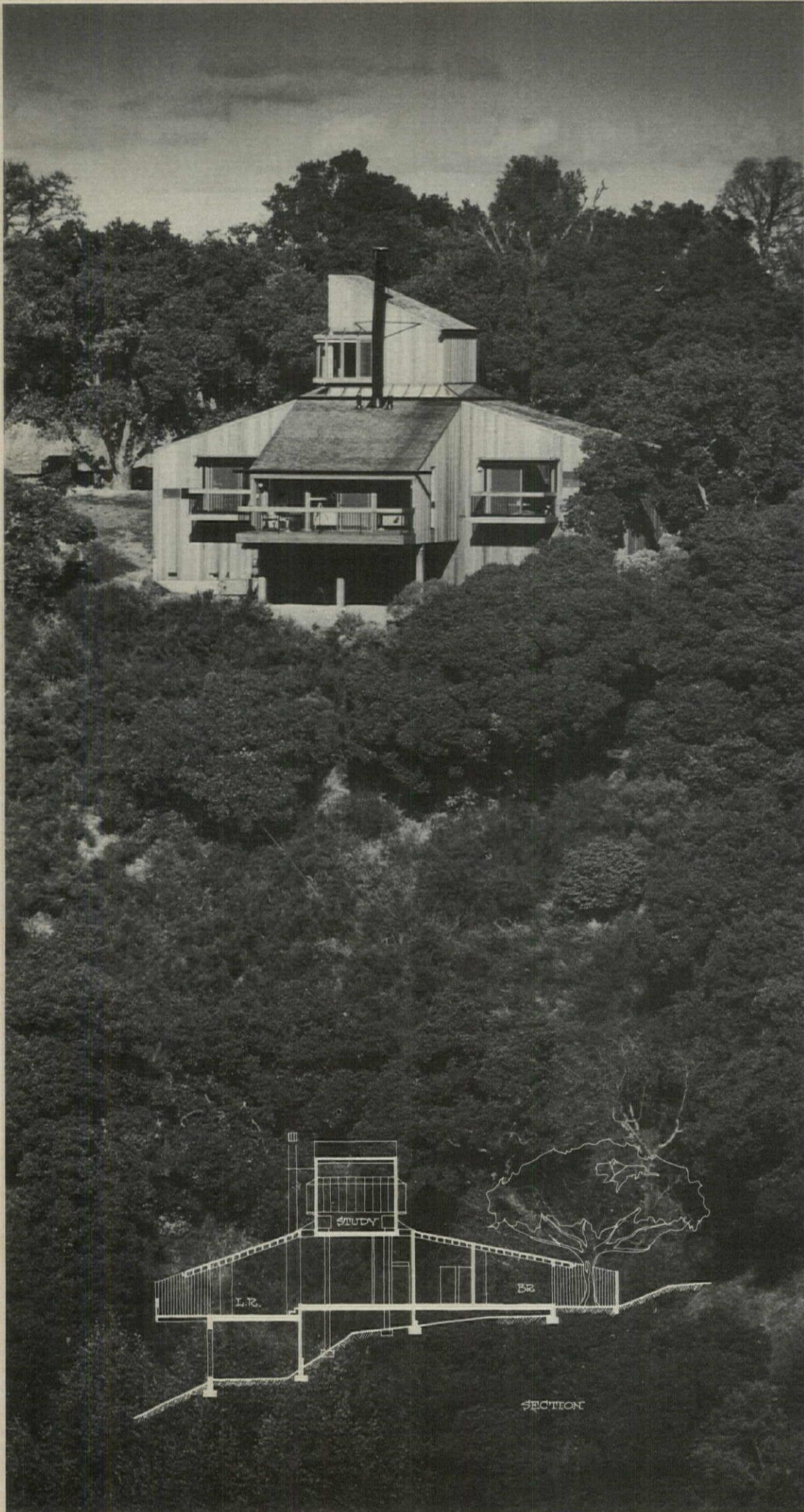
1 HONOR AWARD

Even a one-room house can have a variety of interior spaces, and this 900-sq.-ft. vacation home—actually a single large room—is a case in point.

Beneath its two shed roofs are three distinctly different spaces—a high ceilinged living area, a sleeping mezzanine overlooking the living area, and the kitchen tucked under the mezzanine. Side walls are windowless, and the front has only horizontal strip windows, but the interior gets plenty of daylight from deep clerestories and a rear window wall. Built out over a steep lake-front site, the house is tied to the site by an entrance bridge and stairs from a rear deck.

Architect: Bernard A. Marson. *Builder:* Francis Mooney. *Location:* Monterey, Mass.





Living room fireplace is flanked by steps to central gallery. Spiral stairs in background lead to studio.



Studio has three walls of windows for work light and distant view.



Side view of house shows master bedroom wing in foreground and living room wing at right. Perimeter skylights beneath rooftop studio bring daylight into central gallery.

2

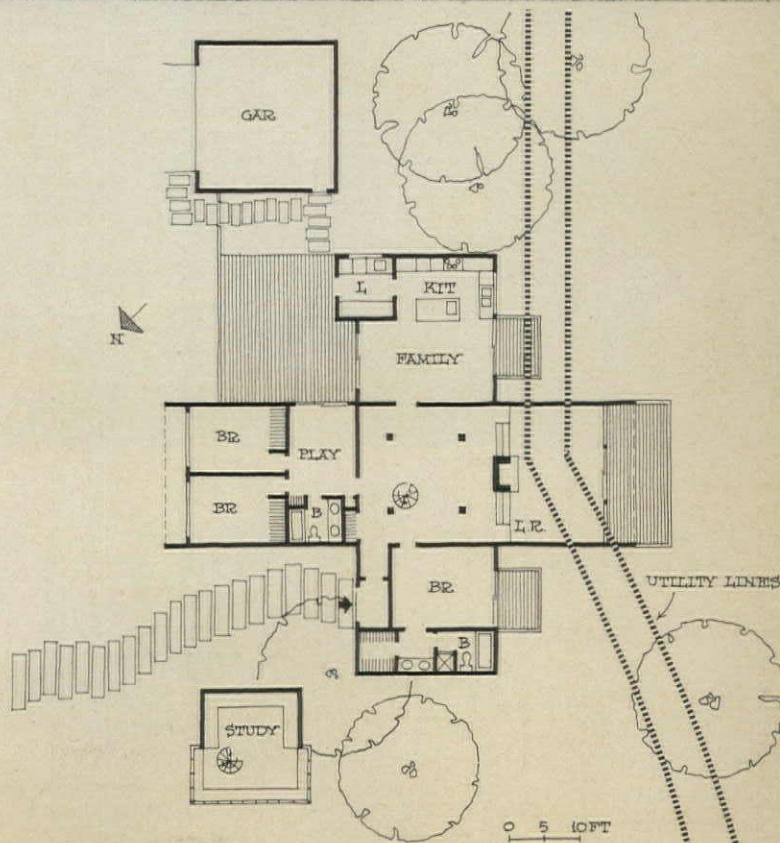
HONORABLE MENTION

Every area of this cruciform house works off a 1½-story central gallery (*plan, right*).

Above the gallery, and reached by a spiral stairway, is a rooftop studio (*above and small photo at left*) with wall-to-wall windows commanding a 40-mile view. Directly off the gallery are the four wings of the house: living room, family room and kitchen, children's rooms, and master suite. Sliding glass doors open each wing to a deck, patio, or balcony.

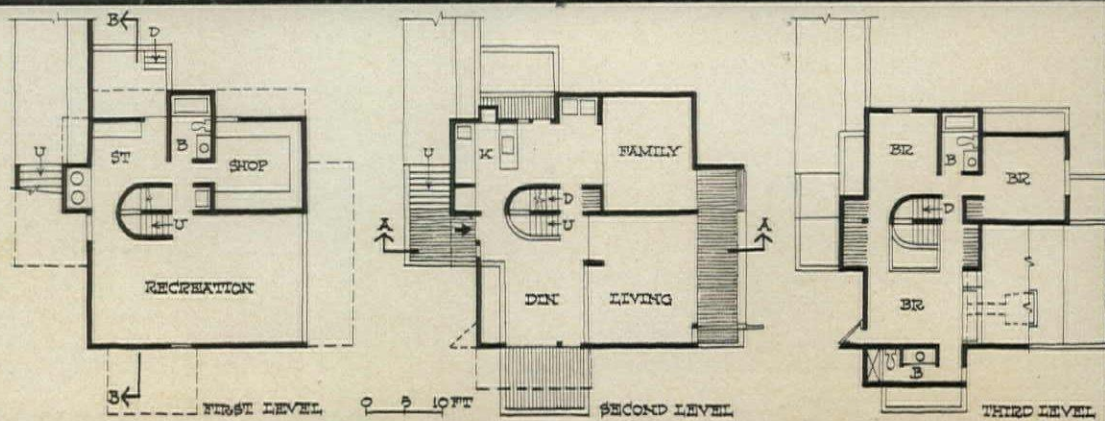
The 2,820-sq.-ft. cruciform plan not only zones the house uncommonly well but also made it possible to save many of the old trees on the ridge-top site.

Architect: Fisher-Friedman Associates.
Builder: Silver Construction Co. *Location:* Alamo, Calif.





Projecting boxes (photo above) enclose the master bath, in center on the third level; a loft above it; and a living room extension, at right on the second level. Entry deck is at left on second level.





Living room looks into dining room, in background, and up to bedroom.

3

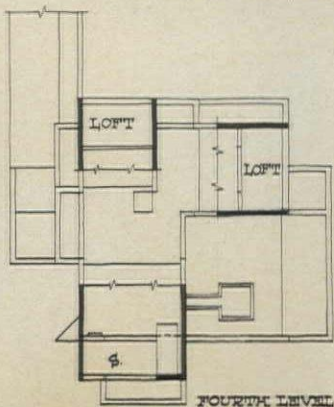
HONORABLE MENTION

There's a continual flow of space in this house—not an unusual attribute when the flow is horizontal—but here it's upward and downward rather than on one level.

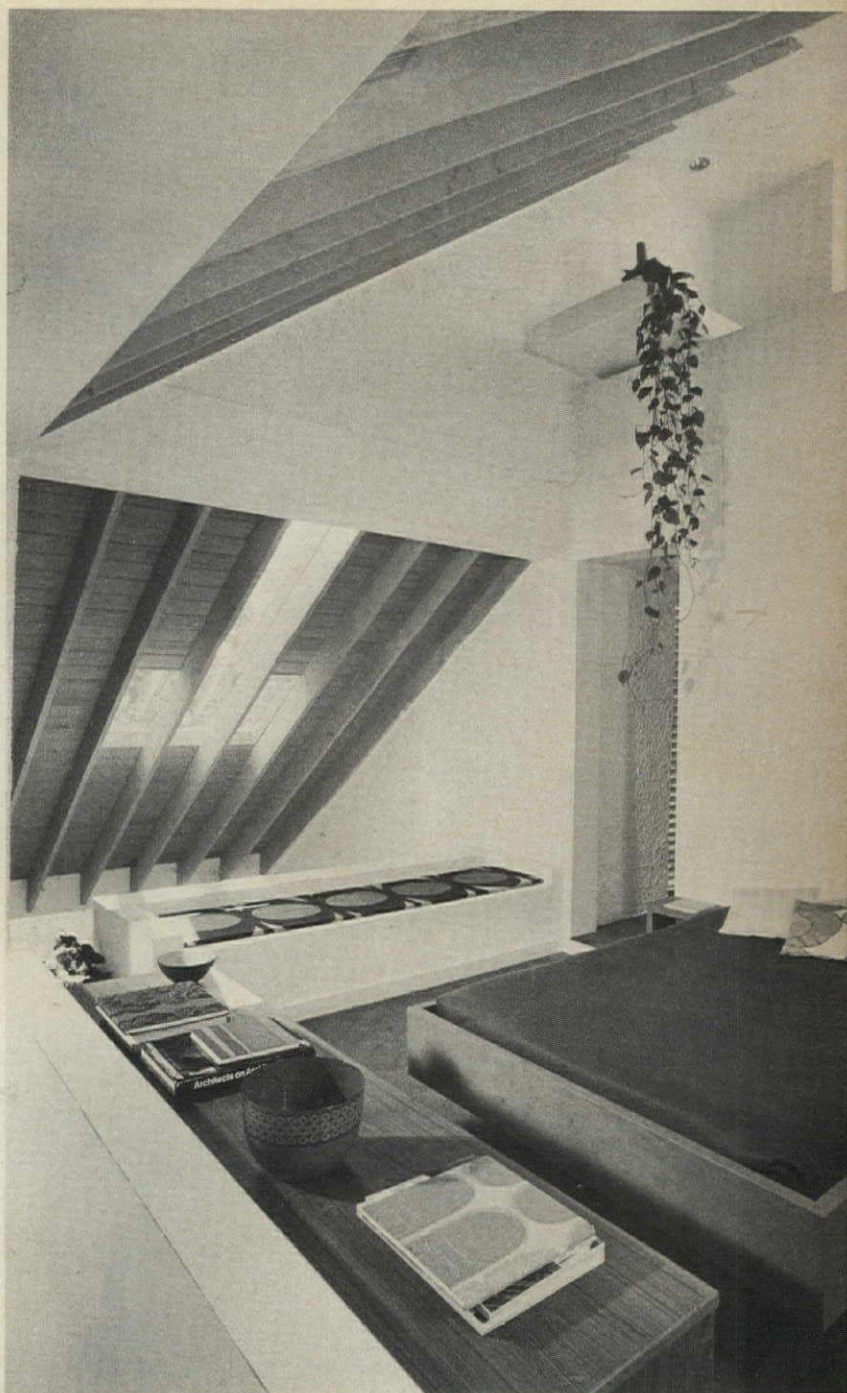
From the second to the fourth level, rooms borrow height and light from each other as they spiral up around a central stairway. What's more, a variety of window and skylight shapes and the placement of projecting boxes (left) make for changing light patterns and views.

Like the house at the top of the following page, this one rises boldly from a flat site. Its four levels—the first is set halfway into the ground—have 2,750 sq. ft. of living area.

Architect/builder: Robert W. Whitton.
Location: Miami, Fla.

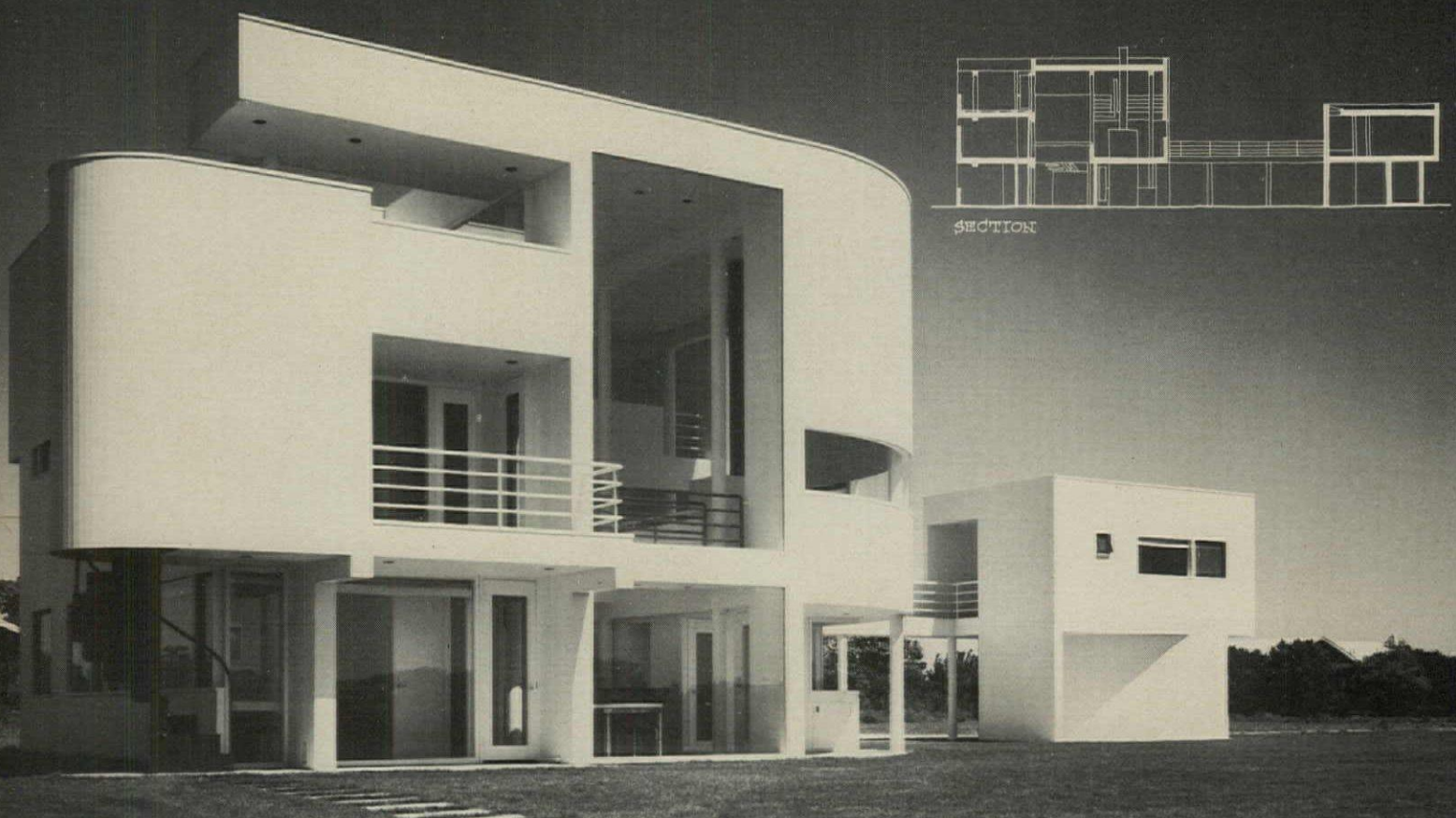


Glass-walled extension of living room projects out over strip window of bottom-level recreation room. Inverted-T skylight is in pitched living room ceiling. Windows of loft and third-level bedroom are at right.



Master bedroom looks down to living room, up to loft over bath at right.



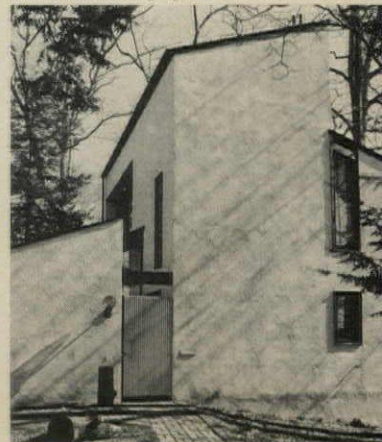


Three-story glass wall of dining room brings light and view into center of house. Bridge links main structure to guest house at right.

PHOTOS: REGINALD RICHEY



Living room borrows space from dining room (background, above) and second-floor bedrooms, which can be closed off with shutters. Third-floor study (left) has wall of windows overlooking town. Entry (below) is through gate in courtyard wall.





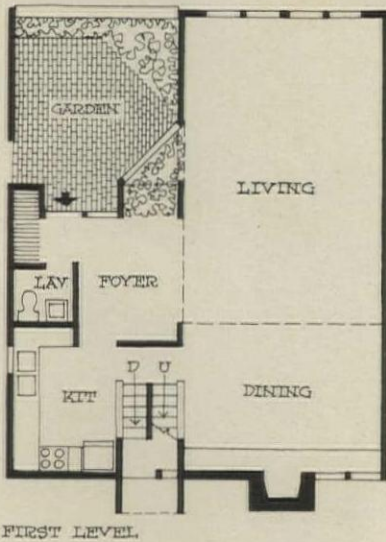
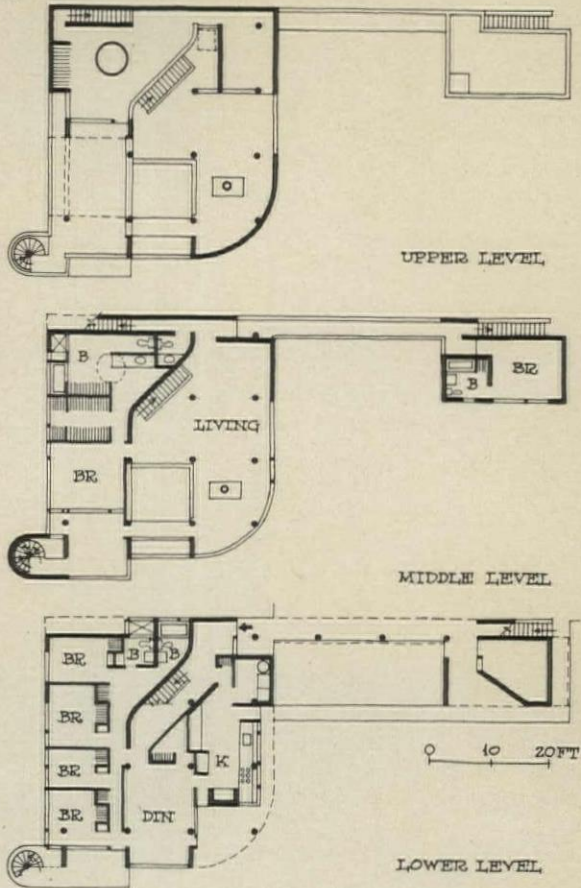
Two-story living room, on second floor, has railing, right background, around three-story dining well.

4

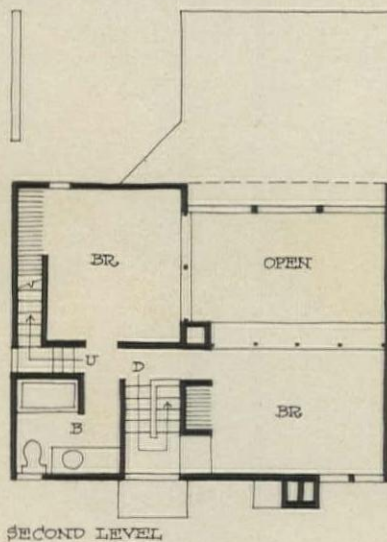
AWARD OF MERIT

A three-story dining room, rising through a two-story living room, opens up dramatic spaces in this large vacation house (more than 2,500 sq. ft.). High windows, third-level platforms, see-through catwalk railings, and white interiors increase the apparent volume. The second and third levels command an ocean view.

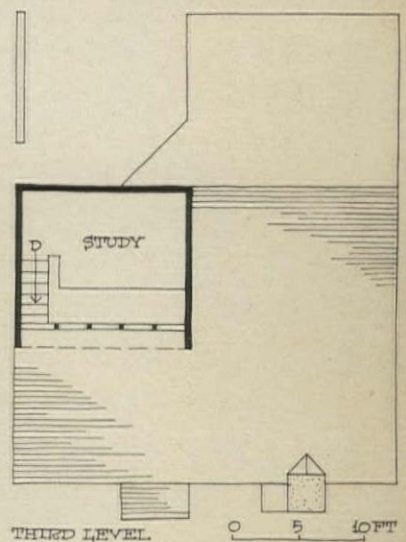
Architect: Richard Meier. Builder: Volgraff & Son. Location: East Hampton, N.Y.



FIRST LEVEL



SECOND LEVEL



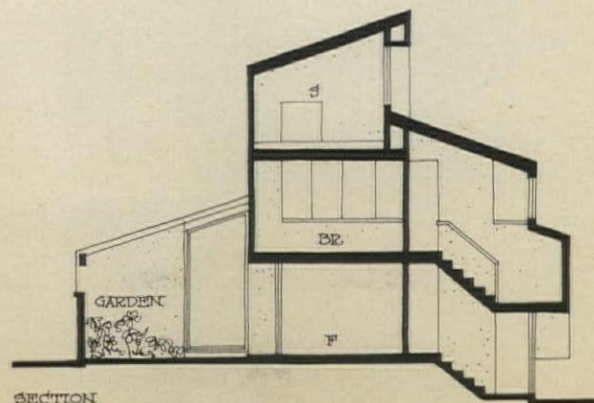
THIRD LEVEL

5

HONORABLE MENTION

Behind the almost austere facade of this small house (1,542 sq. ft.) on a quarter-acre corner lot is a freewheeling plan. At its center, a two-story living room is open to three other main-floor areas—dining, family, and music rooms—and to two second-floor bedrooms. Up top a study is isolated from the rest of the house.

Architect: Lynn Charles Taylor. Builder: Trueblood Inc. Location: Doylestown, Pa.



SECTION



Family apartments

There's a huge demand for them . . .

Any apartment hunter with a wife and two children can tell you it's tough to find a place to live. And any apartment builder will admit that families represent a big potential that is steadily getting bigger.

"There are several factors," says Stan Hickman of Hickman, Hoppe, Dallas-based apartment builder. "One is tight money; families that could qualify for a mortgage a few years ago can't today, so they have to settle for an apartment. And even those who could afford a house often go into apartments anyway because they don't want to pay present interest rates."

Another factor is the recession. "A man is afraid to buy a house when he thinks he might lose his job any day. And there's enough unemployment in Dallas to make those who still have jobs uncertain about the future."

Finally, says Hickman, there's a long term factor. "The generation coming up is inclined to spend less on housing and more on fun. It's a difference in life style—live in an apartment and drive a Maserati."

With demand so strong and supply so scarce, apartment builders could logically be expected to be jumping into the family-apartment market.

. . . but it's a tough market to build for





What makes the family-apartment market tough to build for is the ability of young children to create management and maintenance problems much faster than builders can economically solve them. More simply stated, children are the reason builders steer clear of the market.

It's not that apartment builders don't like children. It's just that they would rather not face the problems which kids create in the design and management of apartment projects.

Compared to family apartments, the adults-only market is a snap. Family apartments require more recreational facilities, larger living units, lower density, and special management. Construction and operating costs are higher than they are for adults-only projects, and family apartments usually bring in less rent per square foot.

Faced with higher costs and lower rents, most apartment builders are as eager to build for families as they would be to contract bubonic plague.

In California, a Mecca of apartments, builders simply avoid the market. Says a spokesman for the Klingbeil Corp., an apart-

ment developer based in Columbus, Ohio, which is building what is virtually Northern California's first family-apartment project: "Northern California builders appear to have gotten into an adults-only rut."

Northern California builders had good reason to get into an adults-only rut. The market, until recently, was strong. And there is no question that in comparison, family-apartment projects are greater risks. In fact, they often come close to being unfeasible.

"The costs are higher, much higher," says Mort Brodsky, a Rochester, N.Y., apartment builder, "and family apartments bring in less rent per square foot. In Rochester, we've never been able to get as much rent for the second and third bedrooms as we do for the first."

Dallas's Hickman states flatly he would not be building his current project if he had not been able to purchase land at a lower price than he normally pays for adults-only apartment sites.

"We get 26½ cents per square foot for an adults-only unit," Hickman says, "and we get 23 cents for a family unit. We have to

make up the difference somewhere, and in this case we did it by buying land a little farther out."

Why do family apartments bring less rent?

"The breadwinner with three or four people to support," says Dr. Ellis Ring of California's Ring Brothers, well-known apartment developers, "can't pay what someone with himself and only one other person to support can pay."

Ring agrees that the logical conclusion is that family apartments must be brought in at a lower cost, and therefore, lower rents. "But," he says, "you can't do that if you build in a good area. The costs are higher than they are in an adults-only project."

Despite the cost-rent gap, the trend in family apartment planning is to offer tenants more—more space, more facilities, more services, and more management. Ordinarily, strong demand and shortage of units would enable a builder to offer less without adversely affecting the vacancy rate of his project. But in the family-apartment market, factors other than vacancies must be considered.

Builders in the market say family apartments require special facilities

The standard recreation building and swimming pool are being augmented by elaborate tot lots, large wading pools, day-care centers, babysitting services, and a calendarful of organized activities for both children and parents.

It's obvious that the facilities and activities are not intended to accelerate the pace of the initial rent-up. In fact, the facilities are often not installed until the second section of a project is under construction.

Rather, the strategy is to keep the kids busy and out of trouble. For example, one problem Brodsky encountered was vandalism during construction; kids living in the first section of a project, it seems, tended to make the site of the second section their playground. Vandalism is a problem common to builders of all kinds of housing, but on family apartment projects, says Brodsky, "It's even more of a problem than usually."

Brodsky's solution was to make the young children of his tenants junior sheriffs, and offer a \$25 bounty for vandals. The theory was that if all the kids are wearing white hats, there won't be any in black hats, a tactic not unlike organizing a game of cops and robbers without robbers.

"It's working," says Brodsky. "We've reduced the vandalism on the site."

There are other ways to keep kids occupied, and providing them with recreation facilities is one of them. Brodsky's current project, for one example, will have a \$320,000 clubhouse, swimming pool, kiddie pool, putting green, shuffleboard, tennis court, and a combined badminton and basketball court. Still undecided is whether to install a day-care center. "We're leaning towards it," says Brodsky.

There is widespread interest among family-apartment builders in the day-care center. The reason, according to Hickman, is simple: "Forty per cent of the mothers in this country work. They need a place to leave their children."

Without a day-care center or an organized babysitting service, an apartment builder runs the risk of having the need satisfied by an enterprising tenant. It is not uncommon for a housewife to supplement her family's income by taking care of other tenants' children. The results can be deafening—and devastating; a half-dozen children spending weekdays in a two-bedroom apartment will quickly bend a maintenance budget out of shape.

The feasibility of including a day-care center in a project depends in part on the state in which it is located. Some states have stiff requirements, others don't.

A report prepared by the L. B. Nelson Corp., a Palo Alto, Calif. apartment developer, points out that California has "a very specific and rigid code of standards," which in addition to making "the quality of care and facilities quite high," also pumps up the cost.

The easiest way to get a day-care center is to lease the facilities to an organization which operates it. The Nelson report examines the economics of this method:

"The common rental rate for a nursery building and play area is \$8 to \$10 per child capacity. So a 50-child nursery with 3,000 square feet of outdoor play area would be rented to a nursery operator for up to \$500 per month. The building, including the necessary built-in play apparatus, would cost approximately \$12 per square foot, or \$36,000. The space would rent for 16.7 cents per square foot, or approximately 38% less than the square footage rent for apartments."

Most apartment builders allow the nursery or day-care center to accept children who do not live in the project. Others insist on limiting enrollment to children of tenants. That policy would be subject to negotiation with the operator of the day-care center, and would depend to a large degree on whether the project is judged

large enough to support the nursery without taking in non-tenants.

One alternative to contracting with an operator of a day-care center is to locate near an existing center and make its availability known to tenants. Klingbeil is taking this approach in its Santa Clara, Calif., family project.

Another alternative is to help tenants organize a cooperative day-care center or nursery. Carl Freeman Associates of Silver Spring, Md., has used this approach in one of its family projects (since sold) and says

it was satisfied with the results.

Pre-school children present one kind of problem; school-age children, especially teenagers, present another. Some builders avoid the problem by placing an age limit on children moving into a project. The Ring Brothers will not accept a child older than eight in their Culver City, Calif., family project, The Heather. Presumably, the Rings expect a family to move out before a child reaches his teens.

But where there is no age limit, the family-apartment builder must provide

special facilities for each age group. Indeed, Hickman-Hoppe is now planning to expand its facilities for adults.

Comments Hickman: "Adults need as much attention as children. The mother and father can't very well make mudpies or the men in white coats will take them away."

So, Hickman-Hoppe is installing such things as an automotive shop, photo lab, and woodworking shop, places where parents "can get away from their kids for a few hours and relax."

Family apartments require special management all along the line

The special requirements begin with the screening of tenants.

States the Nelson report: "... a bad mistake in the screening process becomes a nasty problem. Tenants must be stable, cooperative people who can live in a dense community with quite a few children running and making some noise. Also, apartments are not soundproof, and no matter what we do to lessen sound transmission, children are going to be heard, and the adult tenants will have to go along with the noise that remains... A high-strung divorcee with two spoiled, bitter children could make everyone miserable if the manager rents to her."

A basic requirement is to limit the number of children in each type of unit. Brodsky will not permit a family with more than two children to rent a two-bedroom apartment. Neither will he permit a family to use a living room or family area as a bedroom.

Those prohibitions enable Brodsky to control the child population of his projects and to calculate in advance the facilities he will need to serve the children who do move in.

Another tactic is to segregate children according to their age group. Under this plan, each section of a project is restricted to children of a specific age. Parents of pre-school children tend to be sympathetic of problems caused by other tenants' pre-school children.

"It's difficult for a tenant with an infant to complain about the baby crying in the next apartment," says Hickman. On the other hand, the parents of a teenager may not be as tolerant of a crying infant, while the parents of an infant may object to the rock music coming from a teenager's transistor radio.

With any age group, management should include organized and supervised activities.

"We have to have planned activities,"

says Brodsky. During the summer, his firm relies on swimming pools to keep children busy and quiet. He has four pools in his family projects, hires 17 lifeguards to supervise them, and keeps them open from ten in the morning to nine in the evening. Several times during the summer the company sponsors pool parties. Twice a year it sponsors a carnival with contests and games. And once a year, it sponsors a teen dance for which it hires a rock band.

"We warn all the tenants that it's coming," says Brodsky.

Hickman attempts to solve problems caused by children by dealing with parents.

"It's not a kid problem," Hickman says. "It's a parent problem. You can't let parents abdicate their responsibility."

Hickman has a number of ploys designed to remind parents of their responsibility. If, for example, a manager finds a child's toy lying on the ground, he takes it to the office and asks the parent to reclaim it—for a 50-cent redemption charge.

"We're not interested in the 50 cents," says Hickman, "but we do want the parent to come to the office so we can talk to her."

Hickman-Hoppe also inspect a unit for damage every 45 to 60 days. If a repair is necessary, it is made, and the cost is taken out of the tenant's security deposit. The tenant is then requested to restore the security deposit to its original amount.

"If we waited until the tenant moved out to repair the damage done," says Hickman, "the cost would exceed the amount of the security deposit."

Management of a family-apartment project, suggests the Nelson report, can be made easier—and less expensive—by getting parents to help. Parents could be induced to supervise activities in the recreation building one-half day a week, the report states. A committee of parents could be organized to plan activities for children

Family apartments: answer to a glutted adults-only market?

Maybe. At least that's what apartment builders in Northern California are beginning to think. For the past several years, larger and larger apartment projects—all restricted to adults—have been built in the area. Vacancies have now become a severe problem, and for the first time, apartment developers are thinking about the family market.

"During the last half of 1969," says a report prepared by the L. B. Nelson Corp. of Palo Alto, "the South Bay area saw one large project after another open and fizzle. The vacancy factor in the buildings completed in the West Valley area during the last half of 1969 is over 20%, with several buildings behaving

very poorly."

Until recently, California families hunting for apartments were limited to older projects with vacancy problems. Usually the projects had been through several owners and were showing signs of old age and poor maintenance.

"When you see a sign outside a project that says children and pets are welcome," says one California builder, "you can be sure the project is in trouble. It's often the last step before the project turns into a slum."

But with an overbuilt adults-only market staring developers in the face, the family tenant may soon find himself in a much happier position.



of all tenants. There are many other ways in which parents can help, and all are effective in getting tenants to identify favorably with apartment management.

Similarly, some apartment managers have induced older children to help supervise the activities of younger children. That arrangement keeps all of the kids under control.

To get tenant volunteers, an apartment

builder needs a manager who can create and sustain the right kind of atmosphere. There is no agreement on the kind of person best suited for that role.

Brodsky prefers men as managers, because "they have a little more authority." Hickman, on the other hand, believes that "men do not make good managers." The Nelson report suggests that the ideal

manager would be a retired elementary school principal "with a real gift for communicating with this age group and their parents—someone who has a deep understanding of the thinking patterns and motivations of young children.

"Whoever the manager is, his job will be easier if the project has been designed for the needs and problems of children."

Family apartments require special design and planning from the ground up

It's impossible to plan a family-apartment project without considering the living patterns of children and parents.

Some California builders believe that the Ring Brothers made a major mistake when they put up three-story buildings at The Heather.

"First, they have to put in an elevator, and that's expensive," says one builder who has visited the project. "Then they run into resistance from the mother who thinks that the elevators are going to be tied up all day by kids riding up and down or pushing all of the buttons. She has visions of lugging her kids up and down three flights of stairs."

The Heather is believed to be renting more slowly than anticipated, and builders who have toured the project (and they include almost every builder in California who is interested in cracking the family-apartment market) contend that it's the third-story apartments which are moving slowly.

The Heather's problem illustrates the dangers which characterize the family-apartment market, because the project is otherwise regarded as an outstanding example of how a family project should be designed.

States the Nelson report: "A real effort has been made at The Heather to meet the needs of this rental group. The apartments are both single-level and townhouse units in two- and three-story buildings built around a two-car park in the center of the project. The site plan is tight, understandably, due to the needed density, but the open areas are so well done that the tightness is adequately relieved . . . This project reinforced . . . the validity of the concept of offering quality apartments to young families, but at rents they can afford. It also showed . . . that relatively high density can be achieved where necessary in a family project if the open areas are handled well."

But there is ample opportunity for builders to make design and planning errors.

While just about every apartment builder knows that a building with a double-loaded corridor will run up maintenance costs, not everyone is aware of the dangers of placing too many units on one stairway in a family project.

Says Bob Friedman, senior vice president of Carl Freeman Associates: "If you put four to six units on a single stairway, you'll have too many kids coming out of the units, and you can expect noise and maintenance problems." Friedman says his company "has given up on grass" in front of buildings, using ground cover instead. Sculptured terrain (mounding) is gaining popularity.

"Small children not yet interested in games," states the Nelson report, "enjoy these contoured surfaces that make even the ground a 'play thing' that you can roll or somersault down and run up. Contouring, combined with landscaping of the ridges, can define or frame play areas, making them look like something special, and giving a well-designed group of play pieces more importance, and the appearance of more substance than if spotted around a large flat area."

Outdoor lighting also has to be planned with children in mind. Carl Freeman Associates, which has as much experience as anyone in the family market, made the mistake of using standards 2' high. "They didn't last," says Friedman. They were replaced by standards 8' high.

The location of play areas can be troublesome. Placing one large playground in the center of a group of apartments affords parents the opportunity to supervise their children without leaving the units. But it also creates a concentration of noise. For that reason, there seems to be a tendency among builders to favor several play areas scattered throughout a project.

Drainage in play areas should be good enough to make the areas useable the day after a rain. Of the projects surveyed for the Nelson report, most of them were plagued by poor drainage: ". . . the play

yards (were) unusable for weeks after a rain. . ."

In the units themselves, builders rarely make major concessions to children's capacity for damage.

Says Hickman: "You can't create an environment that a kid can't destroy. And the more damage-proof you try to make the unit, the bigger the challenge to the kid who is destructive."

There are things which can be done, however, to reduce maintenance, and they usually entail such things as more tile in the bathroom, heavier use of laminated plastics on interior surfaces, vinyl wall-coverings, and blackboards and bulletinboards on walls or closet doors.

Initial cost can be reduced by devising ways to make smaller units satisfy tenants' needs. The Nelson report borrows an idea from single-family homebuilders: the master bedroom suite with an alcove to be used as a bedroom for a child four years old or younger.

"With this small 'bedroom', a couple with a young child can live in a 700-square-foot two-bedroom unit," the report says. The alcove could also be added to a two-bedroom unit and marketed as a three-bedroom apartment. The report suggests that the alcove could serve as an office or sewing room if it is not needed as a bedroom.

Shareholder's Capital Corp. of Los Angeles is building a project in which it makes the children's bedroom serve double duty. Calling them "Jack and Jill" rooms, Shareholders will separate the rooms with a sliding partition. When the partition is retracted, the two bedrooms become a 29' x 10½' playroom.

More cost-reducing design innovations can be expected in the next year, because as in no other type of housing, family apartments invite experimentation. The demand is substantial; the challenge is to satisfy it without pricing the apartments out of the market.

And for builders who find the right formula, the rewards should be great.

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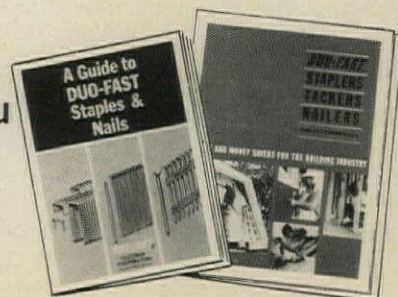
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First, they're bigger: the washer basket and dryer drum are twice

easier access. . .

their old size. And the dryer mouth has been enlarged (*photo, far left*) as well as raised.

Second, they're easier to get at: the control console comes off (*second from left*) by loosening two screws and unplugging it from machine. The front panels also lift off, and all parts are easy to reach.

Third, servicing is quick: the repairman uses an analyzer he carries with him (*third from left*) to

on-the-spot service. . .

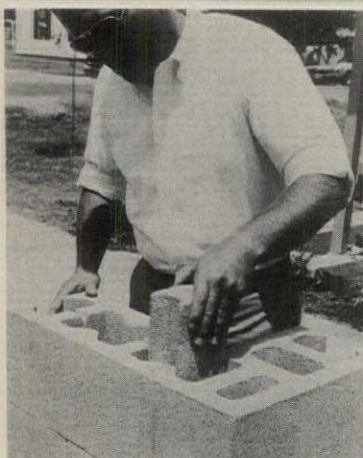
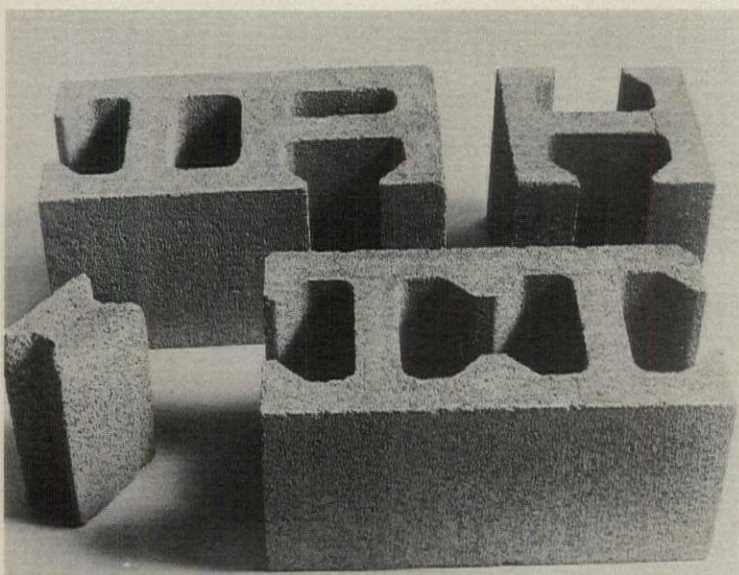
find out which circuits aren't working. He replaces them immediately. The dry motor needs no lubrication, has a rugged urethane roller that is easy to change.

Fourth, they are more versatile: the washer takes any size load and has water levels to match that are clearly marked on the console (*far right*). The dryer also does any type of load including no-tumble items like sweaters on a rack.

and greater versatility

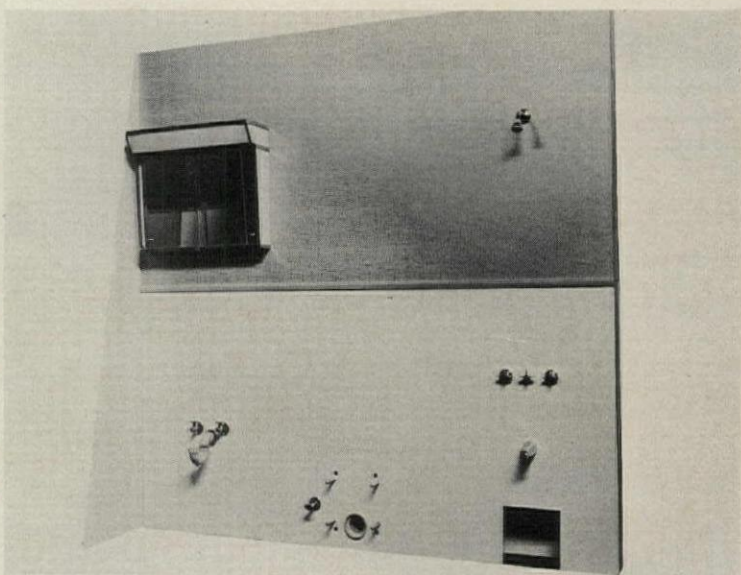
Finally, they're nearly foolproof: if either machine stops, it must be restarted by pushing a control panel button. The dryer door could be opened from inside. Lint screens are right in front. And even the on-off switch for the washer is hidden on a lid hinge so it can't be jimmied. All this means: fewer complaints from buyers or tenants. Frigidaire, Dayton, Ohio.

CIRCLE 250 ON READER SERVICE CARD



Mortarless blocks combine four basic pieces (*photo above*): a stringer block for straight walls, a half block for starting or finishing a partition or wall, a combination block for corners or interior partitions, and an insert plug. The blocks on each course are firmly interlocked by the insertion of the plug (*photo, left*). They install rapidly, can be laid up by unskilled workers, and were designed for low-cost housing. Exteriors are sealed with latex-based mortar that looks like stucco when it dries. Interblock, Dallas, Tex.

CIRCLE 251 ON READER SERVICE CARD



Plumbing wall is complete and ready to install. Its wall of vinyl and fiberglass reinforced plastic contains all the connections for a standard bath, and even includes the medicine cabinet and showerhead. Vinyl piping and PVC drain, waste, and vent pipes (by B.F. Goodrich), the wiring, and the foam core, are all molded simultaneously.

Its all-plastic construction makes it weigh $\frac{1}{3}$ as much as a standard 8' x 8' wall, so it can be shipped—and carried on the job site—more easily. Two men can install it in a few hours. Modules can be 4' x 8' or other sizes, for bathrooms, kitchens, or combinations. Stal, Youngstown, Ohio.

CIRCLE 252 ON READER SERVICE CARD



Concrete cleaner contains no muriatic acid, is non-etching, safely cleans off dirt, grass stains, or construction grime. It can be used on most colored concrete matrixes and aggregates and on smooth white. Process Solvent, Kansas City, Kans.

CIRCLE 253 ON READER SERVICE CARD

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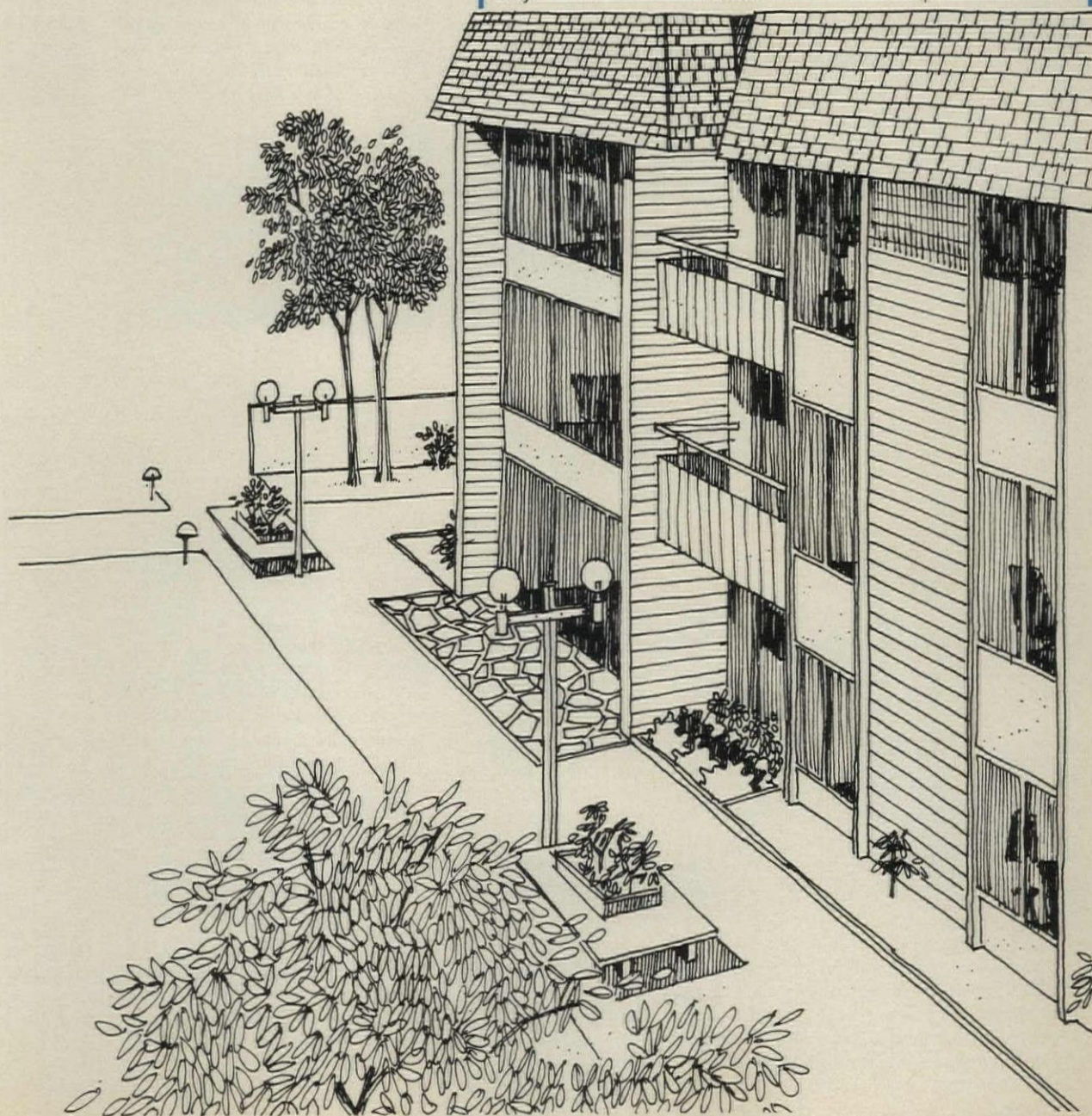


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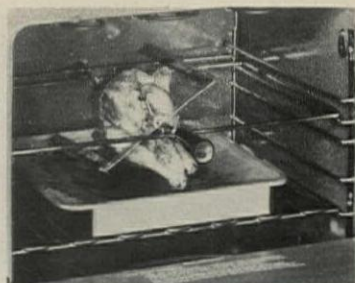




High-style cabinets with functional insides

The cabinets above are finished like furniture and handsome enough for any room. Yet they turn any kitchen into an efficient work room. Behind the hand-carved look and antique brass hardware are 16 optional convenience features including the two shown at right: a glide-out towel rack and pop-up mixer shelf. Long-Bell, Portland, Ore.

CIRCLE 200 ON READER SERVICE CARD



Automatic baster cuts down on messy spills and heat escaping into kitchen. Motor-driven arms pick up sauce from special baster pan, pour it over meat repeatedly. Rotisserie is feature on manufacturer's line of electric ranges. Kelvinator, Grand Rapids, Mich.

CIRCLE 202 ON READER SERVICE CARD



Ice dispenser now also produces crushed ice, as well as ice cubes and chilled water, right in the glass, without opening the door. Pushing the glass against a cradle starts mechanism. Ice maker stores 260 cubes. General Electric, Louisville, Ky.

CIRCLE 203 ON READER SERVICE CARD



Compact laundry can go anywhere with this pair: in the master bedroom as shown, in an apartment, mobile, or vacation home, upstairs as a second laundry—even in a closet. Dryer can be mounted over washer or hung on wall. Each unit is 30" high, 24" wide, and 15"

deep. Washer rolls to sink, is filled with water and half a standard wash load, washes for five min., drains into sink, then spins for one min. Clothes, transferred to dryer, tumble for 45 min. or less. Maytag, Newton, Iowa.

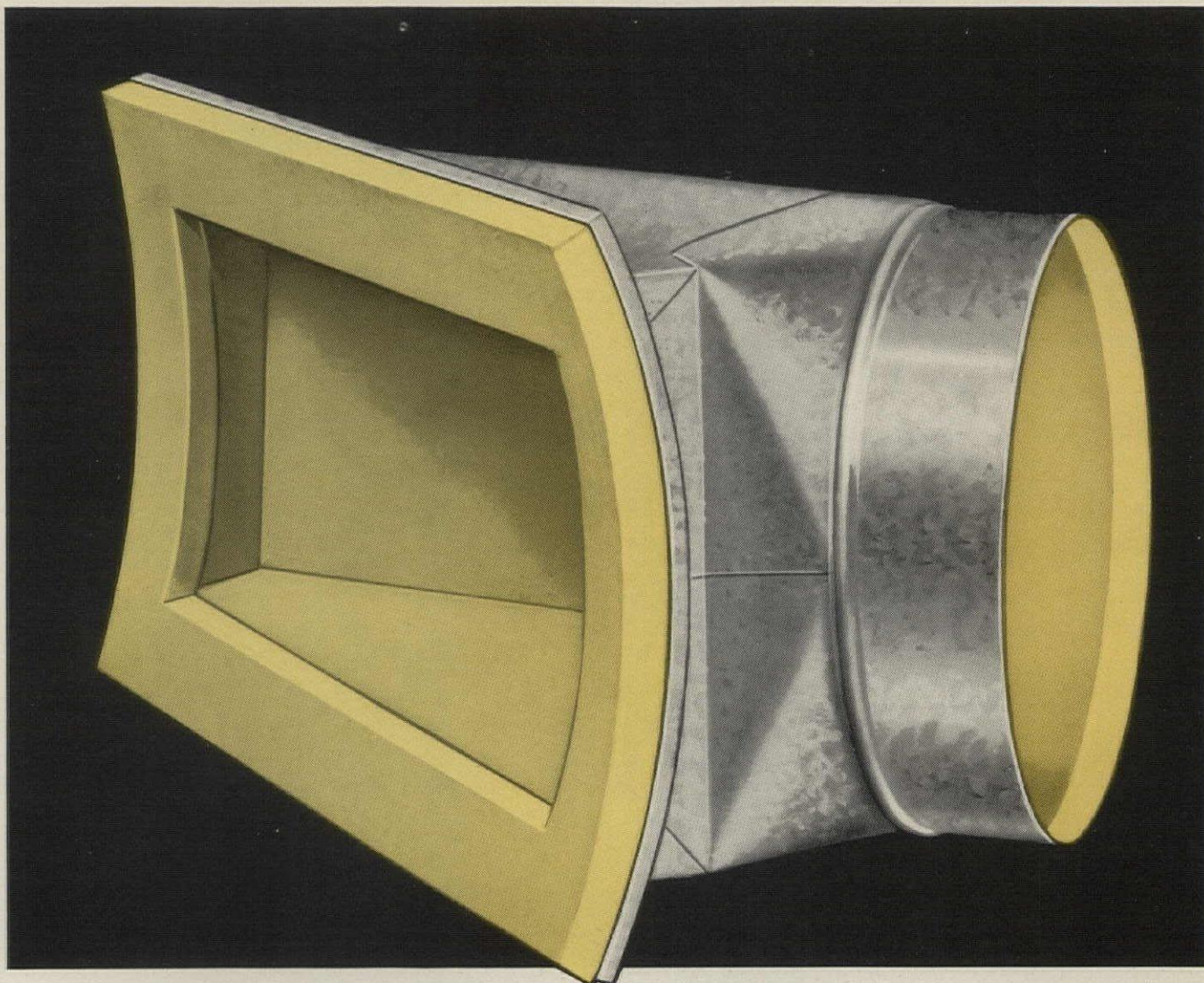
CIRCLE 201 ON READER SERVICE CARD



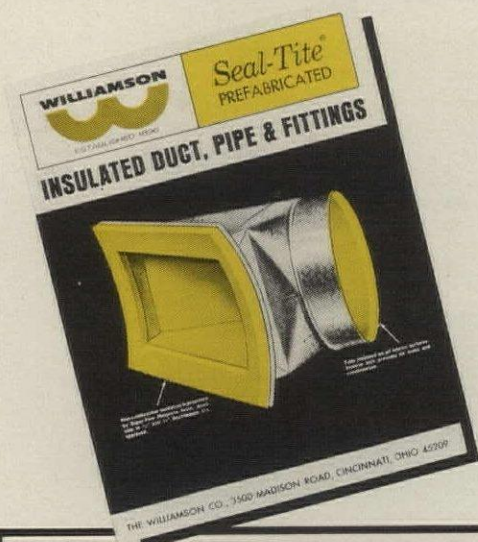
Double-decker range is 36" wide, has six gas burners with stainless steel utensil supports, rotisserie, storage compartment, waist-high infra-red broiler, keep-warm system, timed cooking, and two ovens. Four removable panels in upper oven go into lower oven for high-heat self-

cleaning cycle which takes about two hours, makes use of oven burner and broiler to produce 985° cleaning heat. Other features: removable oven doors and cook top, molded-in unitized burner system. Caloric, Topton, Pa.

CIRCLE 204 ON READER SERVICE CARD



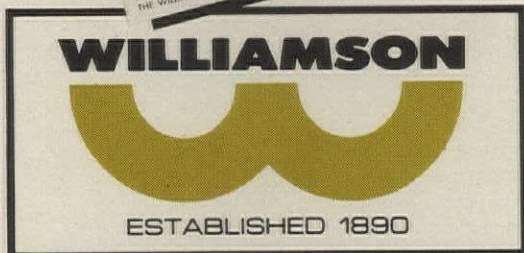
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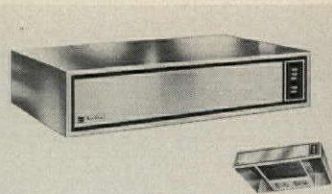
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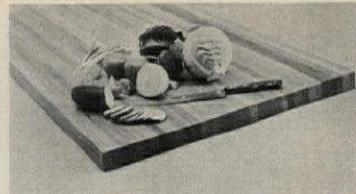


Electronic range features a microwave oven above, a conventional, self-cleaning, oven and broiler below. The electronic oven—about 19"x11"x13"—holds a large roast or fowl, cooks a ham in less than a half

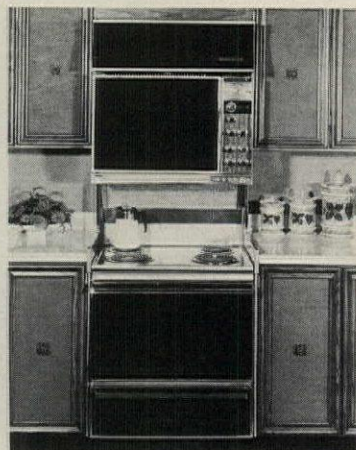
hour, can be used with paper or normal serving dishes, needs only wiping with a damp cloth since there's no heat to cook spills on. A browning element makes foods "cooked" by energy look like conventional cooking. Tappan, Mansfield, Ohio. CIRCLE 205 ON READER SERVICE CARD



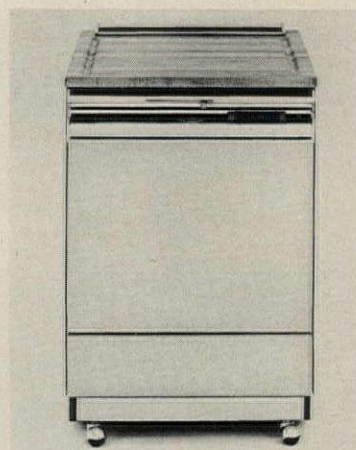
Range hood for the built-in look, has squared-front design, interchangeable panels in gold, avocado, copper, white, and wood-grained vinyl, as well as the standard brushed aluminum shown. Basic 30" and 36" sizes come vented or ductless with twin recessed lights. Berns Air King, Chicago. CIRCLE 207 ON READER SERVICE CARD



Laminated countertopping, made like a butcher block of edge-grained hardwood, is 1½" thick, and 25" wide, comes in lengths from 15" to 96". It can be installed as a small cabinet-top working surface, as a sliding shelf, or the full length of a counter. Bruce Paneling and Molding, Covington, Tenn. CIRCLE 208 ON READER SERVICE CARD



Two self-cleaning ovens are the attraction of this range. The upper one has removable catalytic (continuous self-cleaning) panels. The lower one cleans itself during a conventional high-heat cycle. All controls are at eye level. Upper unit is 21", lower unit, 24". Modern Maid, Chattanooga, Tenn. CIRCLE 209 ON READER SERVICE CARD



Stainless steel dishwasher is top-of-the-line portable model. It has a new cookware soak cycle, plus five others (full, sani-heat/full, pre-wash, short, plate-warm), H-arm washing, new pushbutton controls, cutting board top and a 20-year guarantee on its stainless steel parts. Waste King Universal, Los Angeles. CIRCLE 210 ON READER SERVICE CARD



Hood fans come in roll-out version for high ovens (above) or tip-out model for built-in ovens (left). Roll-out glides on nylon rollers, can ventilate just the oven or be pulled out to cover the front burners. Silver anodized aluminum finish. Fold-away model tips out to start fan, back to shut fan off, has a removable filter. Stainless steel or copper finish. NuTone, Cincinnati, Ohio. CIRCLE 206 ON READER SERVICE CARD



Plastic-finished cabinets have door and drawer fronts of high-density industrial flakeboard that is permanently fused to pvc. Natural-looking wood grain is printed on the reverse side of the clear rigid protective surface film. Flakeboard resists warping, can't delaminate. Surface resists most soils and stains and abrasion. Brammer, Davenport, Iowa. CIRCLE 211 ON READER SERVICE CARD



Extra capacity dryer features an eight-cu.-ft. drum, a high-volume forced-air system that dries faster at lower temperatures (150 to 170°), and a 110-sq.-in. lint filter. Model shown is one of five gas and six electric units that have buzzers that adjust for loudness, pushbutton heat selectors, and a no-tumble cycle for sweaters or wigs. Norge, Fedders, Edison, N.J. CIRCLE 212 ON READER SERVICE CARD

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CIRCLE 98 ON READER SERVICE CARD



Reversible door fronts that change from dark to light, are standard on this line of cabinets, as are the two-toned antique bronze door and drawer pulls. The new line is

designed to sell between manufacturer's cherry and maple lines, has all the same features and accessories. Kemper, Richmond, Ind.

CIRCLE 213 ON READER SERVICE CARD



Hand-forged look on metal hoods is now possible with a new line of traditional finishes. They include antique brass and copper, hammered brass, copper, or iron, and black. Top-of-the-line hoods have handcrafted seams, solid state controls, infinite air speed settings. Broan, Hartford, Wis.

CIRCLE 217 ON READER SERVICE CARD



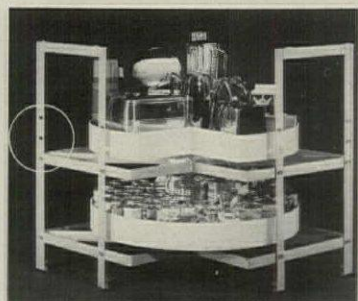
Double ovens both have timed baking and removable catalytic liners that continuously clean themselves during cooking. The upper oven also has a keep-warm system, a rotisserie, and an infra-red broiler. Gas unit comes in chrome as shown and all popular colors. George D. Roper, Kankakee, Ill.

CIRCLE 218 ON READER SERVICE CARD



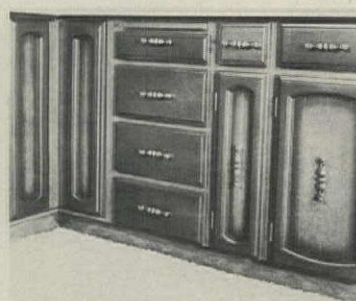
Small side-by-side is just 28" wide, suitable for smaller homes, apartments, or mobile homes. It has a 15.3-cu.-ft. capacity: 8.73 cu. ft. on the refrigerator side, 6.58 in the freezer. Exterior has wood-grained vinyl on door handles, and a bronze grille. Hotpoint, Louisville, Ky.

CIRCLE 214 ON READER SERVICE CARD



Lazy Susan, for added flexibility, has extra drillings on its steel frame (inside ring) so upper shelf can be moved up or down 3" for more clearance below or a small appliance and mixing center on the upper shelf. The revolving mechanism has 32"-dia. shelves. Murray Eqpt., York, Pa.

CIRCLE 215 ON READER SERVICE CARD



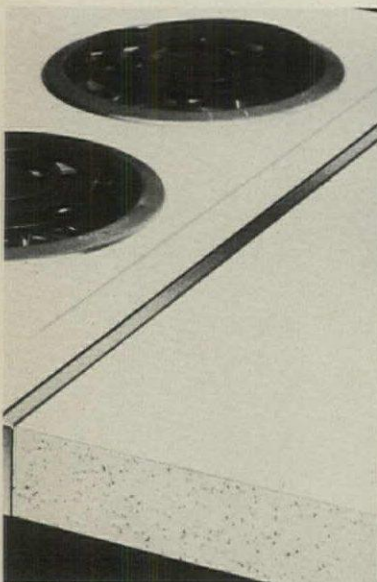
Flexible cabinets come in a new Spanish style line of solid hardwood doors with birch panels. Basic cabinets can be installed by builder or landlord, then any of five styles selected. Hinges slide into hidden slots precut in the edges of doors, are secured by tightening two screws. Noblecraft, Hillsboro, Ore.

CIRCLE 219 ON READER SERVICE CARD

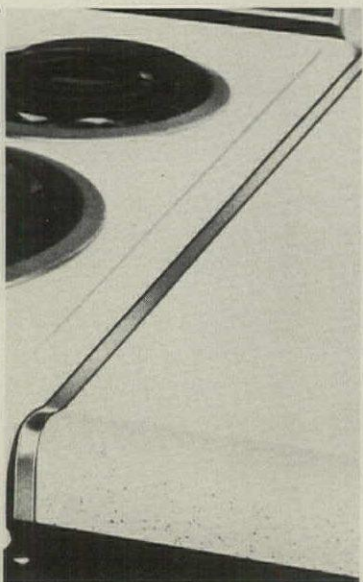


Island hood is ducted for use over peninsula or island range. It has 3-speed blowers, concealed light, and a 200-sq.-in. aluminum mesh filter that is removable for easy cleaning. Scalloped edge shown is an optional kit in copper only. Others are stainless steel or avocado. Miami-Carey, Cincinnati, O.

CIRCLE 220 ON READER SERVICE CARD



Floating trim kit converts any freestanding range to a built-in. The heavy-gauge, bright anodized aluminum trim attaches to range, adjusts to any type of counter,



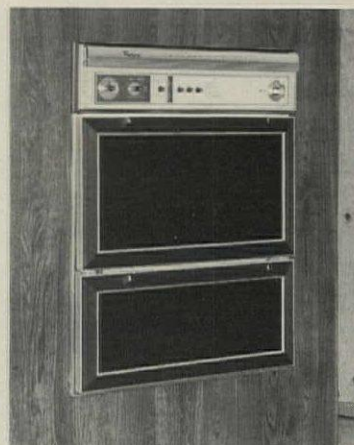
and completely fills the area between stove and cabinet so that crumbs won't fall through. Athens Stove Works, Athens, Tenn.

CIRCLE 216 ON READER SERVICE CARD



Compact refrigerator is just 24" wide for apartments and smaller kitchens. It fits into a space 56 1/4" high and 21 1/2" deep, holds 11 cu. ft. Single door, for right- or left-hand swing, has egg racks, cheese compartment, and three shelves. Four sliding shelves increase storage. Magic Chef, Cleveland, Tenn.

CIRCLE 221 ON READER SERVICE CARD



Built-in ovens are continuously self-cleaning. The 30" gas units have see-through doors and oven lights, a keep-warm system, a low-temperature control, a meat probe that controls doneness, rotisserie, timers and a lighted glass-covered control panel at eye level. Whirlpool, Benton Harbor, Mich.

CIRCLE 222 ON READER SERVICE CARD



H P PRODUCTS INC.

LOUISVILLE, OHIO 44641 · (216) 875-5556

Dear House & Home Reader:

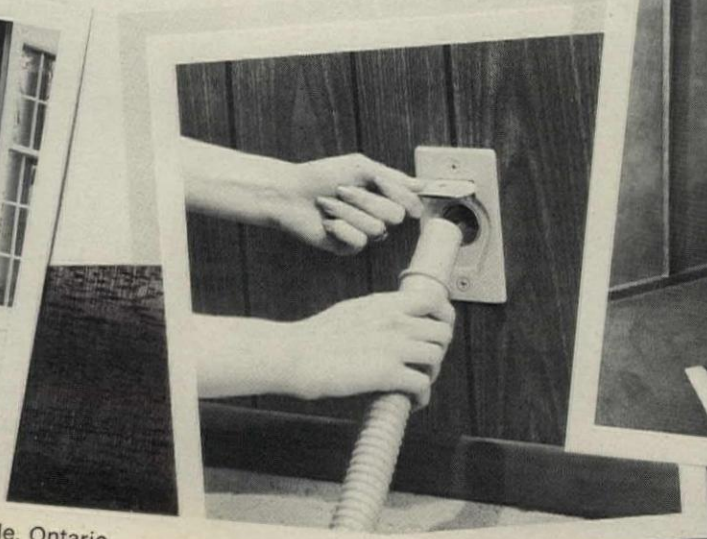
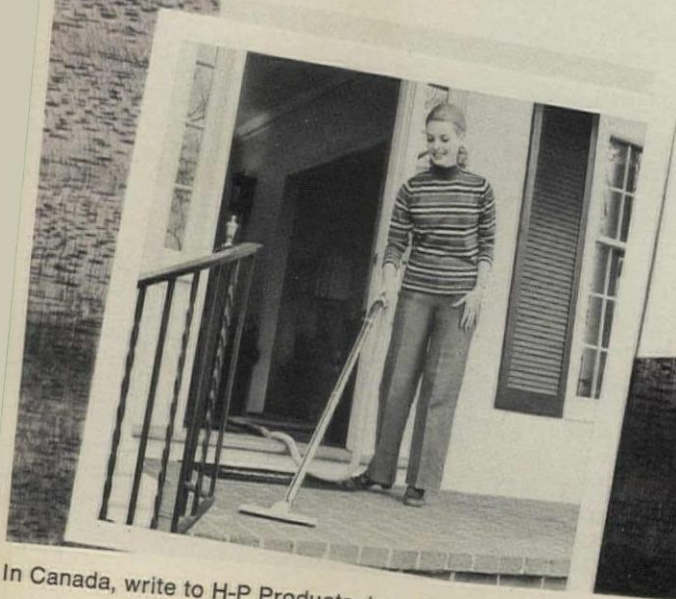
We manufacture a product which should definitely interest you: Built-In Cleaning Systems. VACUFLO is our name. We claim many firsts. Principally that our system has no bag or filters. That's important.

No doubt you've been approached about built-in cleaning before and perhaps have evaluated or even used a few systems. Whether you are involved in the construction of 10 homes a year or 3,000; townhouses or garden apartments; modulars or mobiles, we know that built-in cleaning is important to you because it has become as much a part of the home building scene as plumbing and central heating.

Why not have the appropriate people in your organization talk with us to discuss not only built-in cleaning, but how VACUFLO specifically can add a new dimension to your homes? We think you'll find VACUFLO has a lot going for it.

Sincerely,
H-P PRODUCTS, INC.

Paul R. Bishop
Asst. to the President



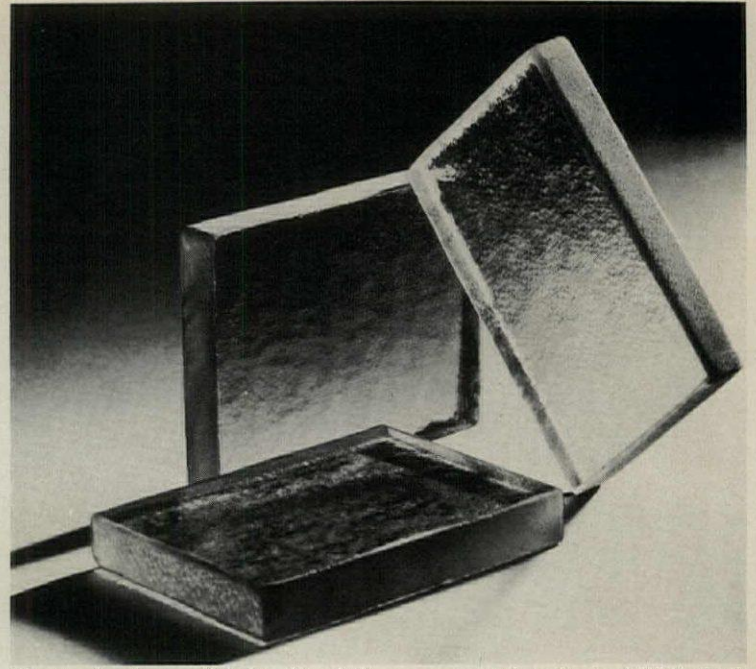
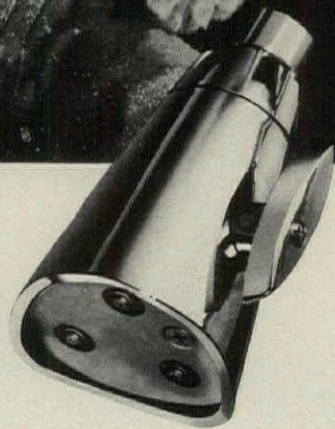
In Canada, write to H-P Products, Inc., Box 523, Oakville, Ontario

CIRCLE 99 ON READER SERVICE CARD



Rainstorm showerhead has three miniature turbines that spin with the flow of water, break it up into droplets, and disperse them in a rain-like pattern. Side handle advances the jets for fine spring rain droplets, retracts them for floodlike rinse, eliminating both stinging jets and excessive splashing. In chrome, gold, avocado, and porcelain white. H.B. Sherman Mfg., Battle Creek, Mich.

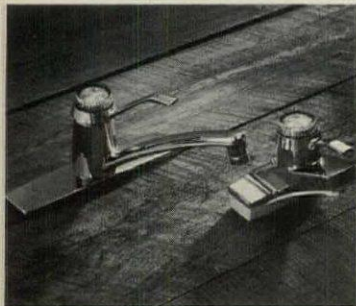
CIRCLE 223 ON READER SERVICE CARD



Textured glass, slightly dimpled like an orange peel on one side and finely striated on the other, hides fingerprints, diffuses light, and prevents glare. Colors are amber, blue, green, or pink. Square

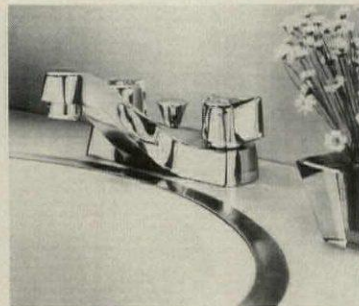
or rectangular sheets 15/32" thick come in any size from 24" x 24" to 55" x 100" for panels, partitions, or balustrades. Glaverbel, Manhasset, N.Y.

CIRCLE 227 ON READER SERVICE CARD



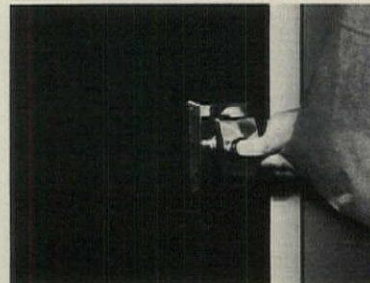
Streamlined faucets have discs that tilt easily forward or back, left or right, to control volume and temperature. New ceramic cartridge valve shears water off like scissors, is drip-proof. American-Standard, New York City.

CIRCLE 224 ON READER SERVICE CARD

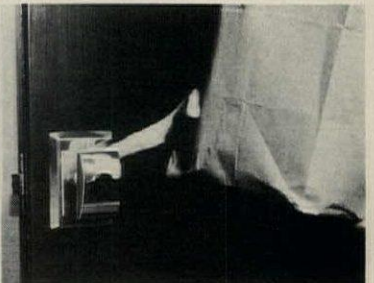


High-rise spout on this 4" centerset faucet is designed for use with countertop lavatory bowls. It is extra long so that it will clear the bowl, position water correctly, and allow handwashing room. Gerber, Lincolnwood, Ill.

CIRCLE 225 ON READER SERVICE CARD



Push-pull latch opens or closes at the touch of a finger—or an elbow, arm, side, or hip—when both hands are full, works in direction of door swing. To lock, center button is pressed. Latch can be used for in-

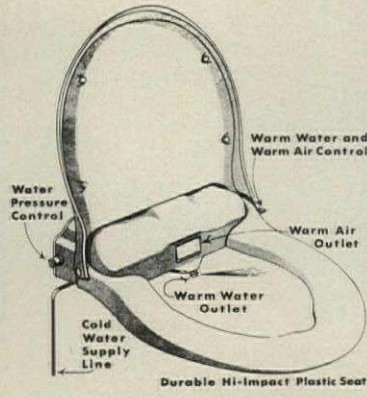


terior doors or with pushbutton combination locks for exterior doors. Finishes: bright or satin brass, satin chrome, antique bronze. Preso-Matic, Lyons, Ill.

CIRCLE 228 ON READER SERVICE CARD



Bidet seat resembles a conventional seat and fits on any standard toilet. But it automatically sprays warm water for washing and blows warm air for drying at the touch of a



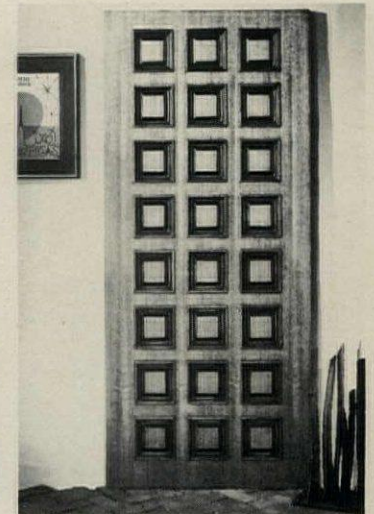
button on the side of the seat. It can be installed in minutes by a plumber. World Industries, Gardena, Calif.

CIRCLE 226 ON READER SERVICE CARD



Hollow-core bifolds have a vinyl surface that shields them from damage, is easy to clean and long-wearing. Prefinished doors, 1 3/8" or 1 3/4" thick, come in all standard sizes, a variety of color tones, textured wood grains like birch, maple, or walnut, plus white vinyl.

CIRCLE 229 ON READER SERVICE CARD



Hand-carved door, made of solid mahogany, is of seven-ply chopping block thickness, weighs 100 lbs., comes unfinished or finished in walnut or fruitwood. Besides this classic design, there are three other styles to blend with any type of house. Elegant Entries, Worcester, Mass.

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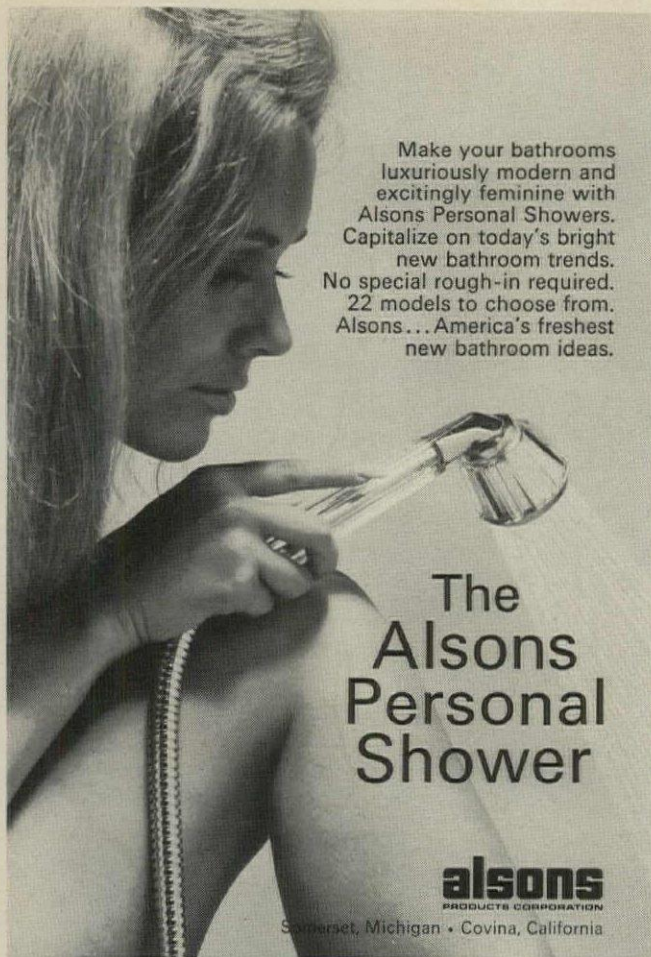
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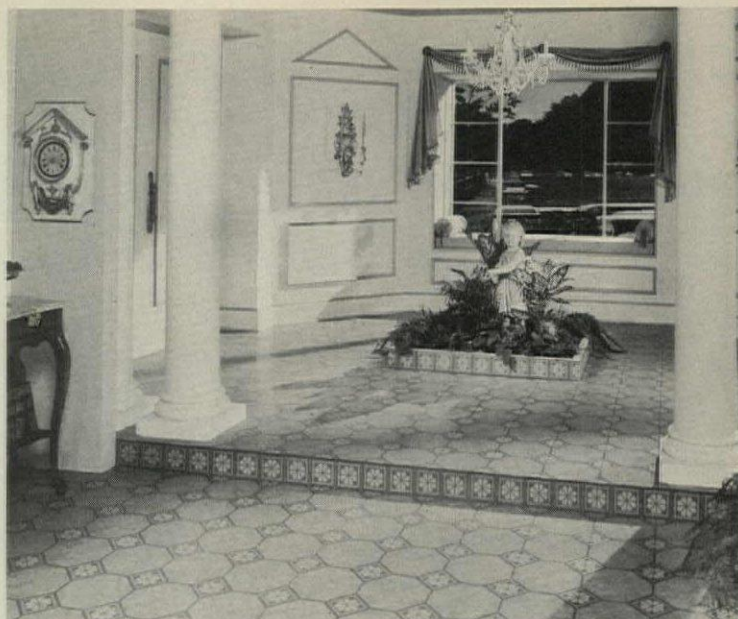
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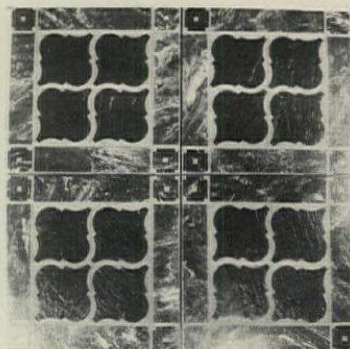
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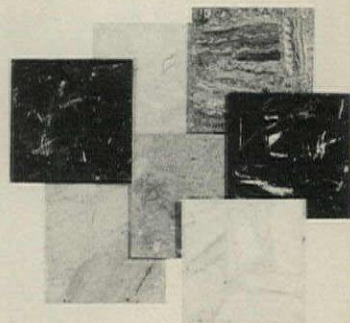


Cushioned vinyl features an asbestos backing so it can be installed in rooms below or on grade. This formal pattern comes in antique

gold, citron, delft blue, saffron, and bronze. Flooring comes 6' wide. Congoleum, Kearny, N.J.
CIRCLE 231 ON READER SERVICE CARD



Handcrafted tiles are pure vinyl. Individual pieces are cut according to an exact register, then appliquéd onto base by hand (instead of being printed and embossed). Result: a pattern with both lizard and slate finishes. Each 12"x12" tile has individual veining. National Floor, Florence, Ala.
CIRCLE 232 ON READER SERVICE CARD

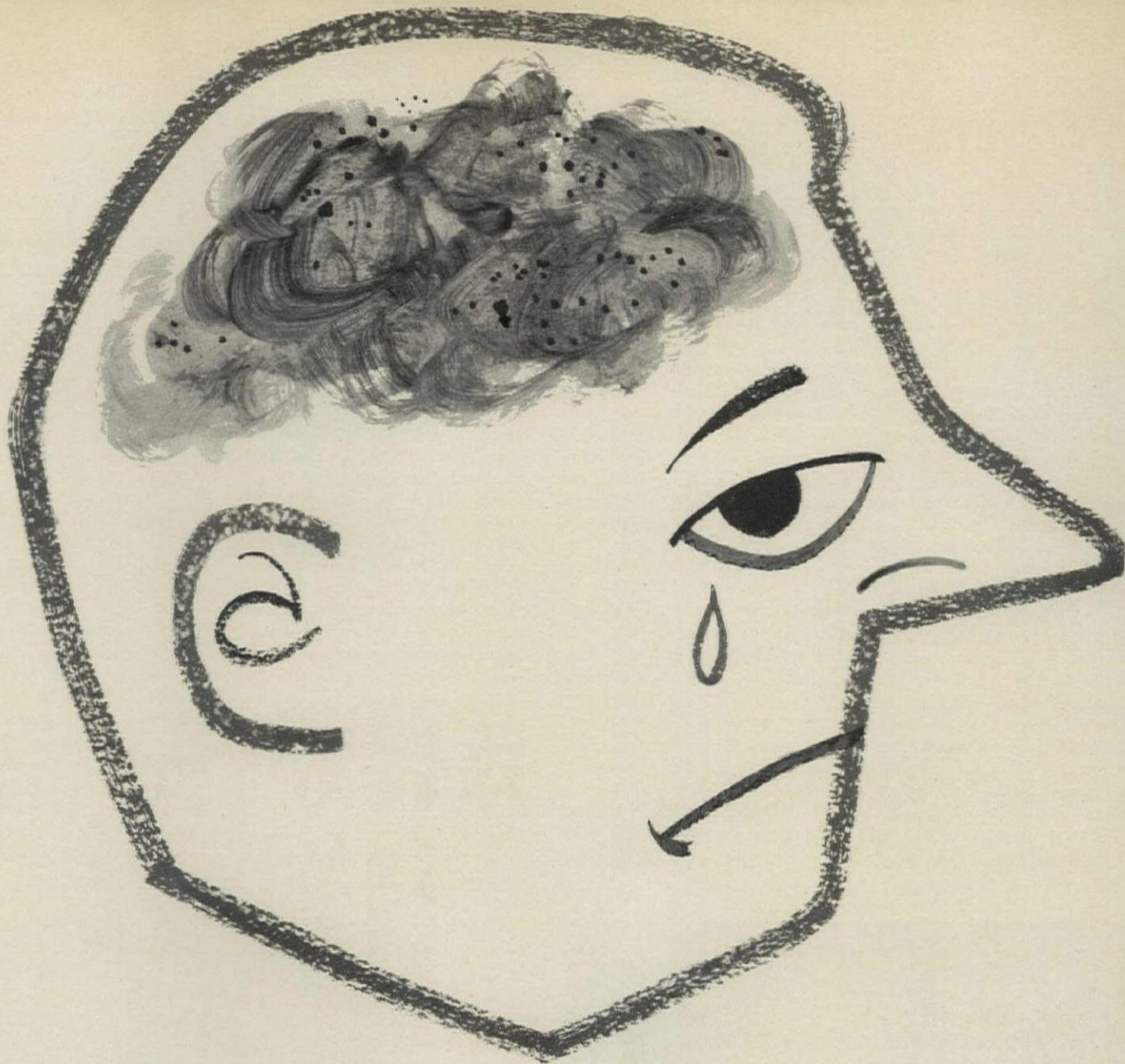


Marble floors are possible at reasonable prices with these 12"x12" tiles. Large pieces of marble, quarried in Carrarra, Italy, are set in a resin base. There are seven color variations from which to choose. For use indoors or out, in foyers, on fireplaces, or as veneer. Quamagra, North Hollywood, Calif.
CIRCLE 233 ON READER SERVICE CARD



Self-adhesive squares, pre-coated with an adhesive backing, can be installed with no tools other than a ruler and scissors, or linoleum knife. They can be used above or below grade on either wood or con-

crete subfloors. Indexed 12"x12" tiles form a continuous pattern, appear to be seamless. Colors: green, rust, gold, beige, and white. GAF, New York City.
CIRCLE 234 ON READER SERVICE CARD



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Call your Whirlpool Heating and Cooling Distributor soon for more information on how to sell housing in the 'seventies.


Benton Harbor, Michigan

LITERATURE

Interior paneling. The first of 16 chapters in a product training manual is devoted to interior paneling and is 26 pages long. Removable file sections cover panel selection and application, moldings and fittings, related tools and hardware, and a glossary of terms. Described are: types of paneling, edge styles, patterns, and textured surfaces. A selection chart compares composition, standard sizes and thicknesses, colors, and surfaces. Single copies are \$2 each, multiple orders of more than ten cost less. Write directly to The Retail Lumber Dealers Foundation, Dept. HH, 339 East Avenue, Rochester, N.Y. 14604.

Roofing systems. A fully illustrated four-page brochure describes two types of fire-retardant red cedar shake and shingle roofing materials. The new "Class B" roof system is applied over a 1/2" untreated plywood deck covered with plastic-coated steel foil. The brochure includes descriptions, size and weight specifications, and installation instructions. Koppers, Pittsburg, Pa. CIRCLE 300 ON READER SERVICE CARD

Ceiling panels. A full-color 8-page brochure contains photographs and descriptions of typical applications of a new high-density ceramic

ceiling material. The panels, which can be either acoustical or non-acoustical, are fire-resistant, washable, immune to the effects of moisture, freezing, and thawing. Installation information and complete descriptions of the lay-in board and 12" x 12" tiles are included. Armstrong, Lancaster, Pa. CIRCLE 301 ON READER SERVICE CARD

Wall panels and scenics. A new fully illustrated brochure features photographs, specifications, and hanging instructions for 14 designs of vinyl wall scenics and panels. The panels are hand printed for maximum color and design fidelity, pre-trimmed for easy installation, and scrubbable for lasting utility. Designs for all decors. James Seeman, New York City. CIRCLE 302 ON READER SERVICE CARD

Plastic laminates. "Textolite" countertopping is described in a folder that contains data on rate of wear, resistance to burns and stains, and color fastness. Also included: three sample chip sheets for 30 wood grains and tones, for 16 abstract patterns in muted colors, and for 51 solid colors—from bold accents to neutrals. General Electric, Coshoc-ton, Ohio. CIRCLE 303 ON READER SERVICE CARD

Wall tiles. A handsomely illustrated 32-page brochure introduces a new line of more than 50 unique patterns of ceramic tile for residential and commercial interior decorating and architectural applications. The tiles come in 6" x 6" and 4 1/2" x 4 1/2" sizes, in a wide variety of colors, and are shown in more than 30 room settings. Villeroy & Boch, distributed through Amsterdam Corp., New York City. CIRCLE 304 ON READER SERVICE CARD

Sound insulating doors. Latest STC test ratings are included in a brochure on hollow steel doors and frames. Described is an automatic drop seal that lowers out of the bottom edge of the door only when door is almost closed. The feature is said to prevent carpet wear and acoustical seal deterioration. Pioneer, Carlstadt, N.J. CIRCLE 305 ON READER SERVICE CARD

Liquid bonding agent. A handy loose-leaf information sheet is now available describing a liquid bonding agent for cement-base materials. Available in containers from one quart to 55-gallons, this bonding agent is especially designed for dense concrete and masonry repairs. The information sheet includes descriptions, uses, applica-

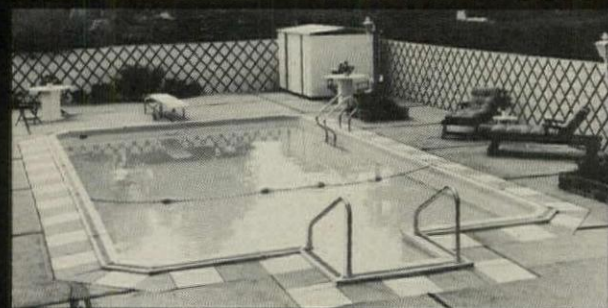
tions, mixing instructions. Standard Dry Wall, Miami, Fla. CIRCLE 306 ON READER SERVICE CARD

Annual H&H indexes

Copies of House & Home's editorial indexes for 1965, 1966 and 1967 are still available. Each is an eight-page, cross-referenced listing of subjects covered that year by this magazine. To get copies (there's no charge) write to: Editorial Index Dept., House & Home, 330 West 42nd St., New York, N.Y. 10036.

Power outlet boxes. Described in a new 16-page catalog is a complete line of pre-wired power outlet boxes. Nearly 150 of the 400 standard models are illustrated. The catalog includes a variety of multiple pre-wired outlet boxes for use in schools, industry, institutions, and home laboratories. Waber Electronics, Philadelphia, Pa. CIRCLE 307 ON READER SERVICE CARD

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