ZINE OF BUILDING

August 1952

house+home

edition

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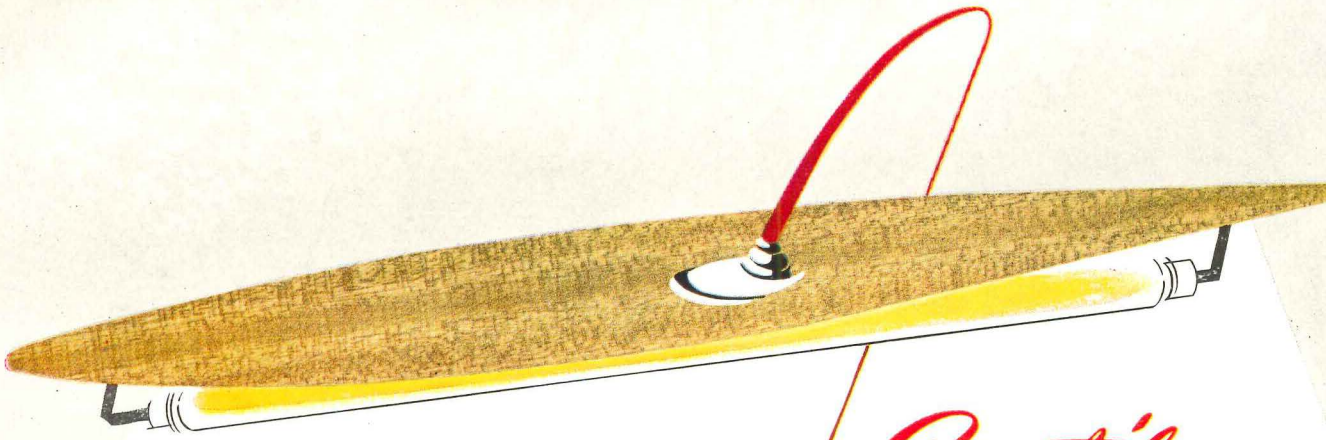
ARCHITECT & ENGINEER
CHARLOTTE, N. C.



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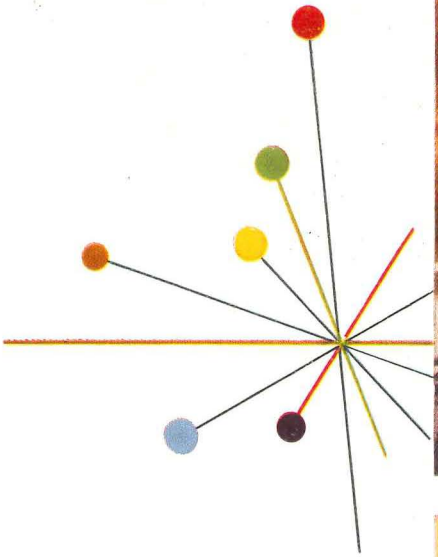

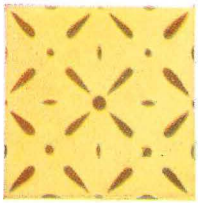

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THE MAGAZINE OF BUILDING **house+home** edition

August, 1952

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el shortage will be brief; big ost in CMP copper, aluminum

ne steel strike was on, building barely felt its effects. Now that it was inch was clearly in sight. Fortunately, the shortage promised to be rela- nort. DPAdministrator Henry Fowler hoped steel would be back to y again by next March.

DPA began spelling out building's poststrike future, homebuilders could nfort from the fact that they would be the least hurt segment of private tion. Despite the strike loss of 20 million tons of steel—a fifth of last roduction—controllers had no plans to reduce self-certifiable limits on der CMP. Moreover, DPA was ready to order big increases in self- le limits on copper and aluminum.

an ironic reversal. Even three ago, mobilizers were crying that nortages would be with the nation hs if not years. Last month, a top nstruction official declared flatly: is no longer a limiting factor in allocations for building."

to 4-family houses, DPA had plans nearly tenfold the self-certifiable copper:

	Old	New
er water pipe...	135 lbs.	1,000 lbs.
opper water pipe	35 lbs.	900 lbs.

inum, the controllers would raise certification ceiling from zero to per house.

or B products. DPAides said uld be "corresponding" improve- copper and aluminum supplies -B products such as plumbing, and aluminum windows. Even class-B products made chiefly of ch as stoves, refrigerators, hot- aters and bathtubs—supplies on ed adequate to match housing pro- Inventories of warm-air furnaces he second highest level in 5 years. A's John Haynes: "I can't see any ny place. There's enough in the so that if it's stretched a little it do the job." Builders would face ible buying steel pipe (not in omain) at least for the rest of this it DPA hoped that pinch would by its whopping increase in copper.

cial building. The new free- way with copper and aluminum ply to commercial and industrial ion, too. Increases planned in self- on limits on commercial building:

	per project per quarter Old	New
.....	750 lbs.	1,000 lbs.
.....	1,000 lbs.	2,000 lbs.

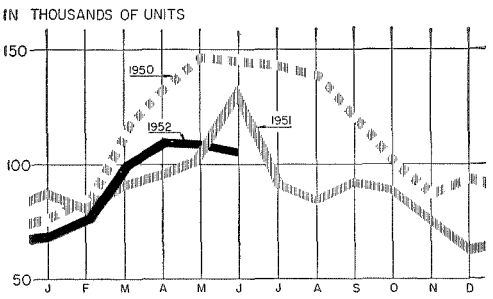
trial plants, DPA would raise the ication ceilings thus:

	per project per quarter Old	New
Copper	2,000 lbs.	5,000 lbs.
Aluminum	2,000 lbs.	4,000 lbs.

Squeeze or famine? In steel, controllers faced this picture: on April 1, steel inventories totaled about 17 million tons, about 3 million above normal. During April, May and June another 14 million product tons were produced, against an estimated 23 million tons consumption by August. Thus the 53-day strike pulled inventories down about 9 million tons and unbalanced stocks brought shutdowns among many steel users. The pinch was light on construction partly because NPA withheld allocations for all big new projects while the walkout lasted.

But it would take another six months to rebuild steel inventories. And most signs indicated that big building jobs requiring special NPA approval would bear the brunt of the fall and winter steel shortage. Commercial building might well become the chief whipping boy.

HOUSING STARTS



Source: Bureau of Labor Statistics

JUNE'S TOTAL of 106,000 housing starts gave the nation a first half production of 567,500, only 4% below the 1951 mark. Private starts for the first six months totaled 523,500, just 5,600 units below last year to the same time.

DPA Chief Fowler announced these plans:

To get military arms and construction started first, military orders for use through Nov. 30 would get a priority. Military orders for use through Oct. would get a superpriority. But third-quarter CMP tickets, normally invalid after Sept. 30, would be extended through Nov. Fourth-quarter tickets would be good through next Feb. Mills would be required to earmark a percentage of their output for AEC and armed-forces needs. Permitted inventory levels would be cut from 45 to 30 days.

No new starts. That means, said NPAides, that new starts on big building projects probably will be held close to zero until next year. But they hope that buildings already underway can keep building. One plan called for fourth-quarter allocations cut only 20% from third-quarter levels. The promised July 1 relaxation on commercial construction and the end to the ban on recreational building would be pushed well into the first quarter of 1953.

5% down payments expected by mid-Sept. as housing starts count begins with June

Even if Regulation X is relaxed, builders still faced some hurdles before 5% down payments would become a reality. The unwieldly provisions of the Defense Production Act (H&H, July '52, p. 35) force the government to ease credit curbs to 5% if housing starts sink below a 1.2 million a year rate for three months in a row. But the law stopped right there. FHA and VA would still be bound by down payments spelled out in earlier legislation. VA thus could approve some loans with nothing down but closing costs. But only a few FHA insurance titles permit a 95% loan. Bulk of FHA's regular program, under Sec. 203, would permit only 80% loans. And conventional lenders almost never lend more than 80%, often stop at 60 or 67%.

FHA amenable. Still it was good news to builders when FHA officials indicated at month's end that the insuring agency would surely relax its own rules (up to the legal limits) in conformity with any Reg. X relaxation ordered by the Fed. Builders of high bracket homes could then rely on conventional financing, with second mortgages, to keep down payments near the 5% mark.

New job, old faces. President Truman spelled out how the new mechanism will work in executive order 10.373. As anticipated, the widely respected Bureau of Labor Statistics got the job of estimating the starts, which it has been doing anyway for the last 32 years. Ordinarily, BLS reports the raw figures on housing, unadjusted for

winter's lull and summer's building peak. Its experts went into a huddle to figure out a formula for seasonal adjustments, announced they will have no answers before the end of this month.

Why mid-September? Most importantly, Truman ordered the three-month count to begin with June. That meant credit curbs must be lifted by Oct. 1 if June, July and August show a seasonally adjusted rate below 1.2 million starts. And the Federal Reserve, given the authority to announce the relaxation with HHFA concurrence, indicated it saw no purpose in waiting until Oct. 1 if the June–August figures came in before then. Ordinarily, the BLS report would be ready by Sept. 12 or 15. So this became a good target date for the good news homebuilders were waiting to hear. Both agencies denied an Associated Press report that they might ease controls any sooner.

How to sell a house meantime, while buyers awaited the virtual certainty of better terms, remained a tough problem. NAHB suggested one possibility: because credit-control rules apply at the time of the actual title transfer, builders should get a lawyer to insert an appropriate provision in initial sales contracts. "Be sure," warned NAHB, "that the local FHA and the lender will approve the higher mortgage."

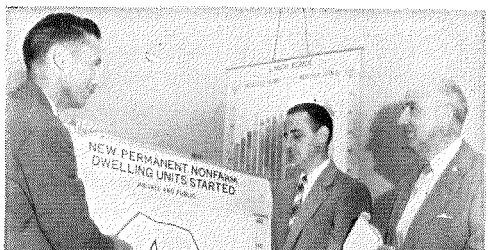
Budget bureau refuses BLS funds to speed housing starts count controlling credit terms

The Bureau of Labor Statistics' preliminary monthly estimate of US housing starts—only figure of its kind regularly compiled in the nation—acquired a new importance to homebuilders last month. The government will rely on BLS findings to determine whether housing starts sink below an annual rate of 1.2 million, thus compelling relaxation of Regulation X.

How good a yardstick? The big question was: how accurate were BLS' housing figures? BLS men insisted they are as accurate as they can be considering the money the bureau has available. No one disputed them. Congress cut the BLS construction statistics budget from a requested $625,000 to $300,000 for the new fiscal year. At first, the Budget Bureau hinted it might give BLS an extra $150,000 or $200,000 from presidential emergency funds to help assure accuracy. With the money, BLS planned to speed up "final" estimates of each month's housing starts to the 26th of the following month instead of 3½ months later. It planned to step up its surveys of lag and lapse in building permits (BLS figures 2% of permits are never used, but admits in abnormal times like today's the figure may have changed). It planned to increase its check from quarterly to monthly in 96 counties where no permits are issued. The 96 counties form a cross-section sample from which 22% of US housing is projected.

For want of a nail. At months end, the Budget Bureau ruled BLS could have no more money. Sadly, construction statisticians scrapped their bright plans for more speed and accuracy. BLS would have to rely on its existing "preliminary" estimate of housing starts for the thermostat governing credit controls. Completely out of the

Reni



BLS CONSTRUCTION STATISTICS chiefs—the men in charge of its painstaking monthly estimate of housing starts—are (l to r) Hersey (Pat) E. Riley, chief of the division of construction statistics (now on loan to the Point IV program); acting chief Walter W. Schneider and Herman B. Byer, assistant BLS commissioner who was the first chief of construction statistics.

picture was any chance for BLS to shift the basis for the weights it assigns its data from the 1940 census to the 1950 census. This could mean that BLS housing starts estimates are now chronically too low, because they do not take account of rising homebuilding in nonpermit suburbs. Nobody really knows. The basic fact was that the nation's biggest industry needs and deserves far better statistics.

How it works. The preliminary starts estimate is issued in Washington about the 12th of each month covering housing started the month before. The data with which BLS construction statistics division works covers, roughly speaking, about half of the total US housing. Reporting public housing is easy. BLS gets complete information directly from the government.

Measuring private housing is the main job. For the preliminary estimate, it goes like this: on the 4th or 5th of each month, BLS takes all of the regular permit reports received from prompt-reporting cities, adds in a selected sample of telegraph re especially from West Coast points. bureau sorts the returns into four categories (big cities, towns, rural areas and rural nonpermit areas) pl numerable smaller groups set up in ad to weight the statistics for such variab regional differences in building pace.

In February, 1951, which Constr Statistics Chief H. E. Riley consid month typical of the coverage attained received actual permit issuance r from building departments in 194 nation's 199 cities of 50,000 populati more. So this 26% chunk of private building (by 1940 standards) was fu ported at once. Another 30% of p building is usually accounted for by of less than 50,000. There are 3,2 them in the US. Riley received reports 1,520 in time for the preliminary esti

Rural ouija board. Rural areas building permits are issued accour some 22% of US homebuilding. In for the preliminary estimate, Riley from what counts as 7/8ths of them that 7/8ths means areas which had 7/8 the rural nonfarm dwelling units (a permit issuing areas) standing at the of the 1940 census. The last 22% o vate US homebuilding lies in rural permit areas. For the preliminary esti BLS simply guesses at these on the ba the trend in rural permit regions.

Against BLS' fixed yardstick of the tive importance of each type of repo area, the bureau then computes sepa the percentage changes in housing star each category. The weighted averag termines the preliminary estimate. F stance, February 1951 showed a 8% from the preliminary estimate for Ja 1951, so BLS' estimate of housing star February was reduced 8% below Ja —to 80,000 units.

Final returns. Considering the da its command, most experts agree BLS very well to keep the average error preliminary estimate down to 5%. Mi get corrected three months later (thoug by BLS' 12-year-old yardstick), whe bureau makes its final estimate of ho starts after hearing from all of the 9(permit rural areas where its agents count starts themselves, and from e more building departments to raise th coverage of US housing from 50% to 75%. For February, 1951, BLS' final on private housing starts was 80,600 was a correction of 0.7%. Since Jan 1949, the preliminary estimate has low 26 times (by as much as 6%), an 14 times (by as much as 13%), says

mocratic platform urges public housing; publicans ignore it, plug slum clearance

eir convention platforms Republicans Democrats last month laid the ground- for a campaign debate over housing s that could either swell to sizeable pro- ons or stay where it is: deep in the ground.

e Democrats took definite stands in of 1) rent control wherever there is "a antial shortage of housing at reason- prices," 2) continuation of the public ng, private housing and urban re- opment programs created by the hous- ct of 1949, 3) "special" (but other- unspecified) housing aids to veterans. e convention's resolution committee re- d the official credit for writing the cratic platform. Observers of strange idences, however, found an amazing arity between the Democratic housing s and a proposed statement issued e the convention by the Public Affairs ute of Washington, and urged upon emocrats in Chicago by public hous- pokesman Lee F. Johnson, executive resident of the National Housing Con- ce. Where the Democrats swallowed ublic housers' platform verbatim is n below in italics:

CRATIC PLATFORM

. We strongly urge continued federal rent l in critical defense areas and in the many localities still suffering from a substantial ge of adequate housing at reasonable prices. NG. *We pledge ourselves to the* [one word l] *fulfillment of the programs of private g, public low-rent housing, slum clearance, urban redevelopment, farm housing and housing research as authorized by the housing act of 1949.*

We deplore the efforts of special interests groups, which themselves *have prospered through government guarantees of housing mortgages, to destroy those programs adopted to assist families of low income.*

We pledge ourselves to enact additional legislation to promote housing required for defense workers, middle-income families, aged persons and *migratory farm laborers* [phrase deleted].

We pledge ourselves to provide special housing aids to veterans and their families.

The GOP platform struck many an onlooker as cryptically brief—more eloquent by what it omitted than by what it said. The Republicans disagreed positively only on rent control. They would limit it strictly to "defense" areas with "critical housing shortages."

For what cheer it might provide to public-housing opponents (who got a sly, gratuitous rap on the knuckles in the Democratic platform), the Republicans did not readopt their 1946 plank in favor of public housing. In economizing on words, the Republicans did not declare against it, either. It looked as though the GOP would like to think public housing is not an issue.

REPUBLICAN PLATFORM

We will oppose federal rent control except in those areas where the expansion of defense production has been accompanied by critical housing shortages. With local cooperation we shall aid slum clearance.

With platforms traditionally "written in June but forgotten by August," the building industry would also want to peer behind the verbiage to the men in high places on the two tickets. There lay more clues to the industry's stake in the election's outcome—a subject initially explored by HOUSE & HOME in June *(p. 134)*.

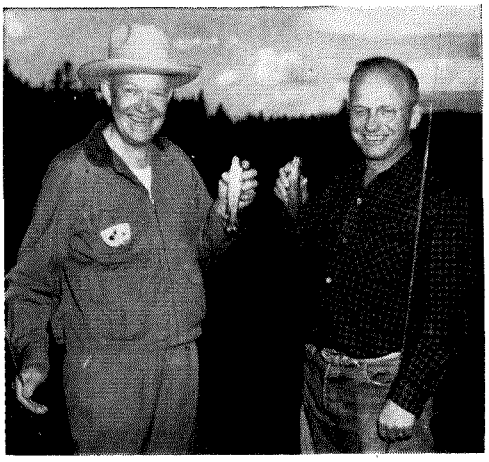
Well-known building figures were appearing prominently. Among them: Aksel Nielsen, former MBA president, who was host to Gen. Eisenhower for his postnomination vacation *(see photo)*; Sen. John J. Sparkman, the Democratic nominee for vice-president, who has been in charge of housing legislation in the Senate in recent years; Wilson W. Wyatt, former (1946) National Housing Expediter, whom insiders tagged for a key role directing Gov. Adlai Stevenson's campaign.

As for the candidates, Ike's housing-problem views were still as unknown as ever, although he has generally attacked "paternalistic" government activities. If he sought advice on housing from old friend Aksel Nielsen between fishing and political conferences he would have found little encouragement for public housing.

On the other hand, Stevenson has frequently gone on record in favor of public housing, but has also insisted that government subsidy is not the whole answer—"the problem is inherently one for private enterprise . . . the housing deficiency can only be met in the final analysis by all-out private building."

If precedent guides, in the months ahead both presidential candidates may devote at least one major speech each to housing. Thus the subject may become a hotter issue, particularly when the Sept. 30 deadline nears for limited federal rent decontrol.

Associated Press



THE SIZE OF THE FISH didn't lessen the smiles of Gen. Dwight D. Eisenhower and his host, Aksel Nielsen (r), president of Denver's Title Guaranty Co. and former (1949) president of the Mortgage Bankers Association. The Republican presidential candidate spent a week relaxing at Nielsen's 1,900-acre ranch near Fraser, 10,000' up in the western slope of the Rocky Mountains.

using stands of the VP candidates

ere on the 1952 political scene is ntrast between Democrat and Repub- housing views sharper than in the ls of the vice-presidential candidates. Richard M. Nixon (R, Calif.), the nominee, has an established anti- housing record. Three years ago in ouse, Nixon voted to eliminate the housing section of the 1949 housing He voted against the entire housing edevelopment measure. In the Senate ear he voted to limit 1951 federal housing starts to 5,000. This June he ed the same cutback. In the Los es public housing row he supported to cancel federal aid contracts.

. John J. Sparkman (D, Ala.), the cratic nominee, has registered un- ied approval of public housing. On ights and other matters, he has been bed as a middle-of-the-roader, but Washington homebuilding and realty spokesmen complain he has batted 1.000 for every "socialistic" housing measure.

As chairman since 1950 of Senate housing and rent control subcommittee he has favored all rent control extensions and steered these and all defense and public housing measures through the upper chamber. In 1949 he introduced an unsuccessful bill for direct federal mortgage lending. He has vigorously resisted attempts to raise the 4% VA loan rate. Assumption of greater risk by government justifies the differential from the FHA rate, he insists.

Sparkman has criticized Fanny May's big defense mortgage program. His argument: if lenders will only advance funds against a government takeout, the Treasury might as well make direct loans in the first place and save the taxpayers the expense of paying "mortgage brokers' commissions."

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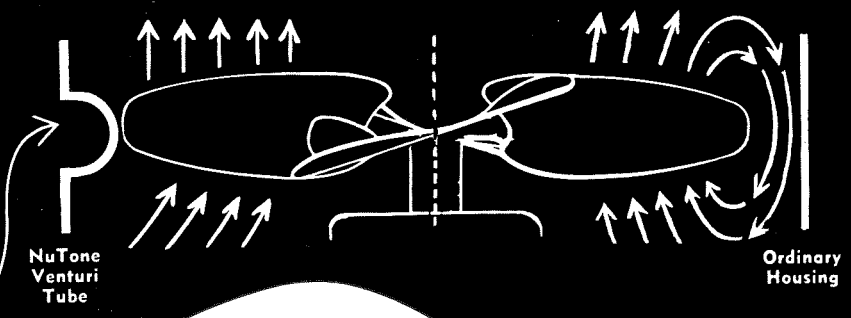

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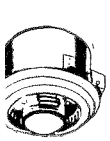

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st big cities will retain rent controls
er Sept. 30 deadline, survey indicates

housers who thought they won a vic-
er rent control in Congress faced
urprises this month. A HOUSE & survey showed that in six of the na-
even largest cities still under control
vernments probably will ask and get
ation of federal rent control instead
ving it to die automatically Sept. 30.
more were on the fence. Only one
Detroit—leaned toward decontrol.
utlook, as reported by HOUSE & correspondents:

on—Continuation already requested.
dge, Everett and 19 other communi-
o have asked for extension.

delphia—Council appears "certain"
ent expiration, probably by enact-
rent control ordinance.

eland—City is preparing legislation
probably retain control, but suburbs
obably drop it.

Louis—Continuation "appears cer-
East St. Louis, Ill., has already auth-
extension.

as City, Mo.—Survey underway for
arlier studies always led to continua-
ions, and Mayor expects similar vote
check shows continued shortage.
City, Kan., will remain under local
ontrol stemming from flood emer-

ago—Public hearings started July
ial action not yet indicated.

Francisco—Supervisors at stormy
temporarily tabled motion to con-
iblic hearings. But after dust settles,
ng to observers, city will probably
continuation.

er—City council, 6 to 3, rejected as
per" a motion for a referendum.
action uncertain until a mid-August
session.

ta—Mayor favors retention, but the
action is still unpredictable, al-
decision will probably be "close."

it—Survey being made for city
on which only two members are
to favor continuation. Decontrol
, but not certain.

York—Rent control already under
lministration. No prospect of repeal.

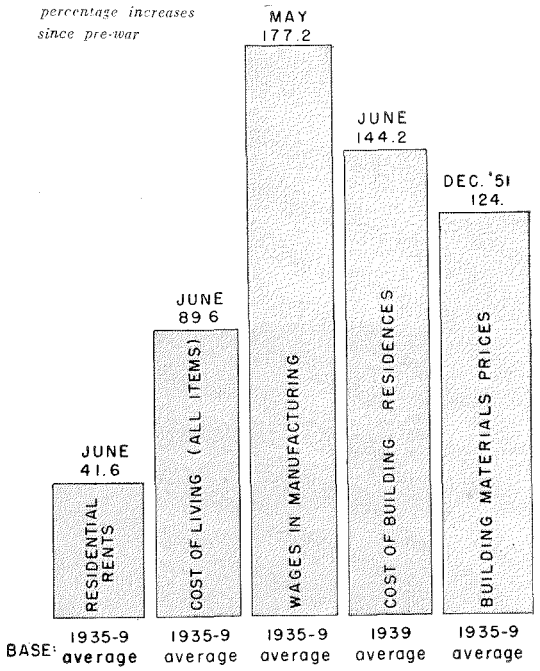
nt herrings? The ink was barely the defense production act extension promised decontrol (except for defense housing areas or in localities ng continuation) when Woods storm warnings over "serious eco-shock and hardship that might re-rent ceilings ended for as many as 6 million US families. NAREB countered with a warning to city officials to "beware of Washington political pressure" for a longer rent freeze. Cried the Realtors' Washington Committee: "We can expect a repetition of all the tired, overworked scare predictions of skyrocketing rents, mass evictions and civil disorder in the event of the return to a free market."

What were the facts? BLS data for 29 large cities indicated that average rent increases since 1939 in several controlled cities have exceeded the average increases in some decontrolled cities. But generally, in rent controlled cities, rents had risen far less since prewar days than in decontrolled ones. BLS figures on percentage increases in eight decontrolled and 21 controlled cities from Sept., 1939, to the 1952 month indicated:

CONTROLLED CITIES

	% Increase		% Increase
New York, April	15.9	Baltimore, March	37.9
Buffalo, April	33.1	New Orleans, Feb.	38.1
Pittsburgh, Feb.	25.2	Cleveland, Feb.	38.4
Cincinnati, March	26.2	Minneapolis, March	39.7
Scranton, Feb.	26.6	Chicago, March	42.4
Philadelphia, Feb.	28.1	Atlanta, Feb.	45.2
Boston, March	32.4	Kansas City, April	46.5
St. Louis, March	32.9	Seattle, Feb.	51.1
San Francisco, March	33.7	Memphis, March	53.9
Detroit, April	36.1	Denver, April	54.2
Indianapolis, April	36.6		

HOW RENTS TRAIL IN THE ECONOMY



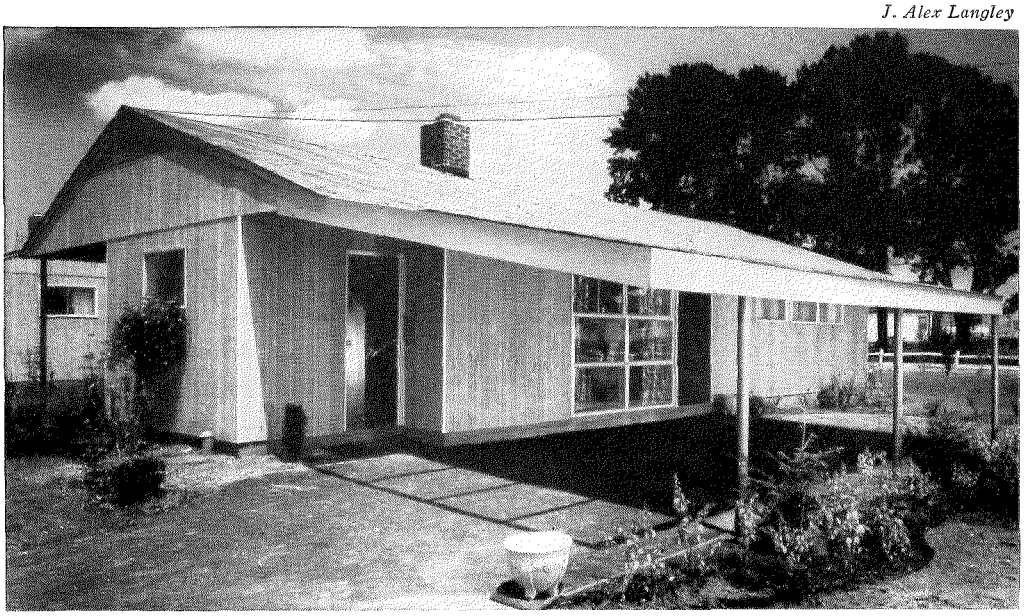
Source: BLS and E. H. Boeckh & Associates

DECONTROLLED CITIES

	% Increase		% Increase
Mobile, March	47.5	Jacksonville, March	57.0
Portland, Ore., April	48.9	Houston, Feb.	60.1
Richmond, April	51.8	Savannah, April	62.4
Los Angeles, Feb.	53.9	Birmingham, Feb.	80.9

Under general decontrol, Tighe Woods predicted, rent increases would range from 20% on higher-priced homes and apartments to "50 to 100% in the lowest brackets." Prospects were slim, however, that many homebuilders anywhere will feel much market boost as a result of rent hikes.

J. Alex Langley



Long Island builder apes Levitt design, finds sales great

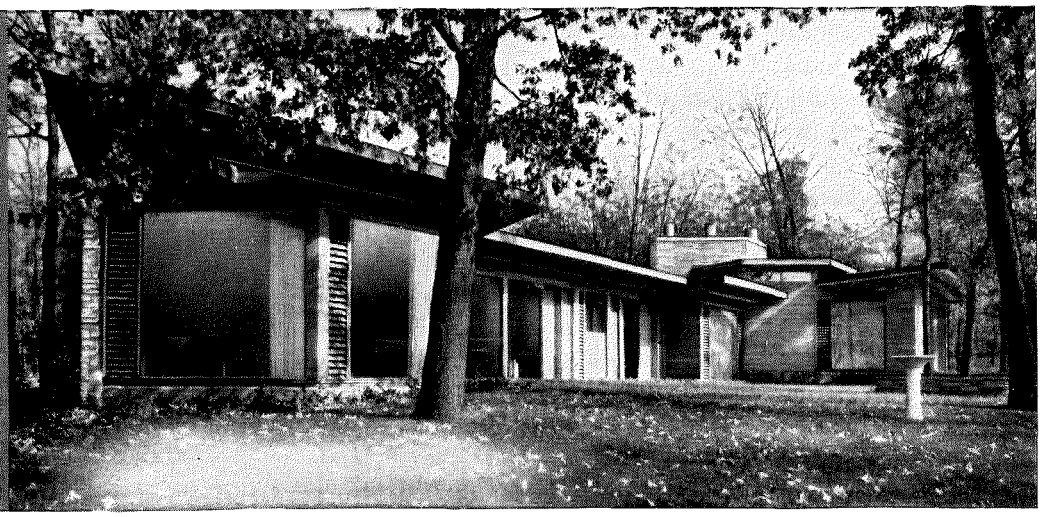
When pace-setting Levitt & Sons transferred its operations to Bucks County, Pa. last fall, many a Long Island builder began scheming how to gain first place in the market abandoned by Levittown's creators. Last month, builders Irving Warfield and Gus Tarlofsky insisted they had the answer: imitation. Like Levitt's 1952 "Levittowner" (Oct. issue '51, p. 217), Warfield's Southwood at Syosset house (above) was priced at $9,990. Its floor plan, rooflines and exterior facade (color asbestos) were all but identical. One difference: a solid, instead of folding wall, between third bedroom and living room. Like the Levitt house, the Syosset design by architect A. H. Salkowitz had 1,000 sq. ft., 3 bedrooms, a two-way fireplace, slab floor. (Warfield did not include a refrigerator and washing machine in the sales price.) Result: 173 sales in first three weeks after tract opened. Warfield thought his house was "fastest selling" on Long Island.

"A Good Roof . . . a Dry Basement . . . and a Good Heating Plant"

RANCH TYPE RESIDENCE
Lake Forest, Illinois

GEORGE FRED & WILLIAM KECK
Chicago, Architects

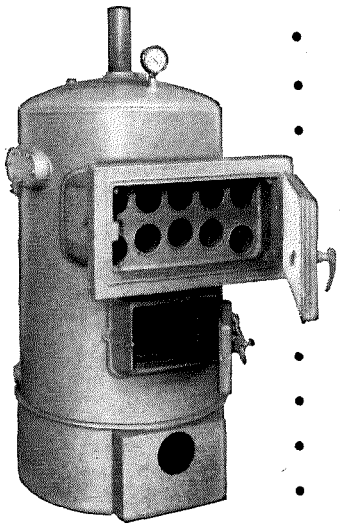
Kewanee Round "R" Boiler
Installed by
CLIFFORD MORAN
Plumbing & Heating Service
Highland Park, Ill.



KEWANEE

TYPE "R" STEEL BOILERS

It's an old adage among architects that a sound home must have *a good roof, a dry basement and dependable heat.* The tastes and requirements of owners must, of course, be considered in the plans but on such basic matters as heating, the architect or heating expert should decide.



Professionals in heating have known and used Kewanee Boilers for many years. Kewanee Type "R" Boilers . . . for homes and small buildings . . . are built of the same boiler plate and in the same faultless manner as the big Kewanees which for over 80 years have heated America's finest large structures.

There's a Kewanee Type "R" . . . Cottage, Round "R" and Square Heat . . . to produce 77,000 to 1,200,000 Btu hourly. An unjacketed Round "R" is pictured. All sizes of the three series are available in handsome insulating steel jackets in two-tone green enamel.

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A, PHA to begin anti-Red screening but erans Administration finds legal loophole

g attacks on public housing have a erting way of bouncing back on building. In 1949 when Congress nsidering the present public housing veral attempts were made to impose l segregation ban on all projects. ere voted down largely because pro- housing Congressmen threatened to the same restriction on FHA.

re World War II, labor henchmen in ss rose up in righteous indignation ersistent opposition to expansion of ublic housing program, voted an ment requiring that "prevailing be paid on all FHA-insured housing. minute compromise removed most sting by limiting this to multifamily s. Even so, thoughtful building men o realize that leftwingers could and use FHA as a hostage in housing's ar.

t boomerang. Last month, builders o realize their own bullet had rico- again—this time in an amendment Independent Offices Appropriation Rep. Ralph W. Gwinn (R, N. Y.), e of anything smacking of public g. As approved by the House, the rider would have shut off further aid to any public housing develop- arboring communists or members of ubversive groups blacklisted by the ment of Justice.

equently, a warning by investment s and outraged public housers that nguage would put the skids under housing bonds resulted in a water- n revision in the conference com- As finally enacted, the anticom- injunction was only an admonition. sives who managed to escape the ng would not subject a project to tion of federal subsidies.

goaded by the social planners, the es decided to scourge all govern- ded housing programs on Gwinn's Written into the final House–Senate was a policy statement declaring benefits of government insured or eed home loans should be denied s of all organizations branded as ive by the attorney general.

w, but enforced. Last month, the egan taking steps to comply with considered was a congressional e even though it was not law. Read- e forms on which FHA home buyers nave to certify that they do not be- subversive groups. Since FHA has direct dealing only with mortgagees, it will be up to the lenders to see that the certificates are properly signed. Along with the new forms, lenders will be given a list of organizations the Department of Justice regards as subversive.

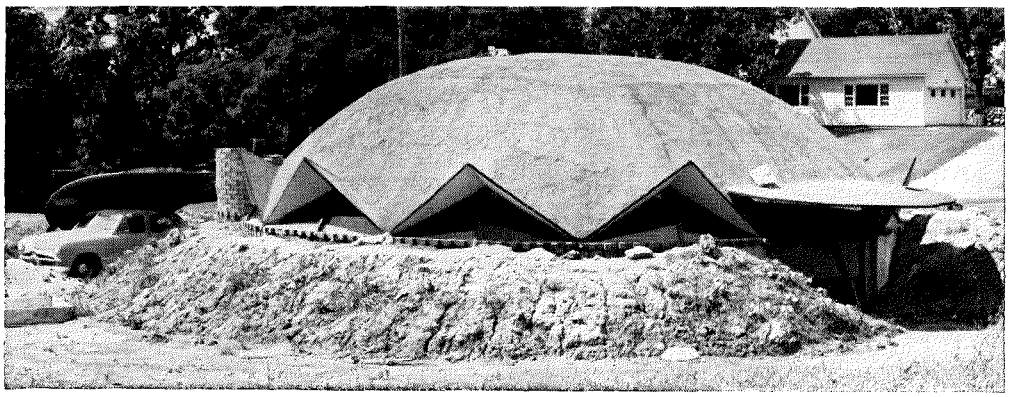
While lenders did not relish the nuisance of filling out another half million forms a year (the current total of all categories of FHA insurance), they could be thankful for two real breaks:

- Violations will not invalidate FHA insurance, although detected perjurers will be subject to felony prosecution for false swearing.
- Certification will not be retroactive. Thus occupants of the 3,750,000 units rented or sold under FHA financing since the program was launched 18 years ago will be unaffected.

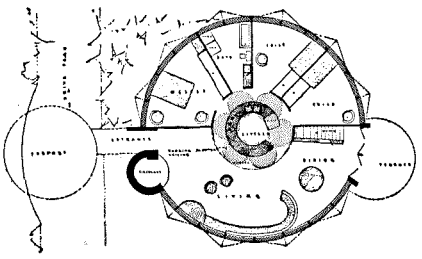
For tenants in FHA rental projects, however, the reprieve will be brief. Lease renewals as well as new purchase contracts will come under the subversive ban as soon as FHA headquarters staff finishes its paper work, dispatches the instructions and forms to its field offices. Officials hoped this would be by mid-August.

'Screen 'em all.' Jubilant over escaping the ignominy of having its program made the only target of a subversive purge, the Public Housing Administration whipped itself into a frenzy of compliance. PHA lawyers held that the amendment only applies to inmates of projects where federal-assistance contracts were made or amended after the effective date of the act (July 5, 1953). But the agency urged local housing authorities not to stand on this technicality, screen all tenants for subversion. One embarrassing reason: in Detroit, public housers were dismayed to find one tenant was the local correspondent of the Communist's *Daily Worker*.

VA dissent. Surprisingly, the Veterans Administration refused to take part in the loyalty purge. Reason: in setting up the home loan guaranty program for veterans, Congress gave VA no discretion as long as the applicants met prescribed terms: were honorably discharged, had not previously used their entitlements, were good credit risks. If the antisubversive policy were law, it would be different, advised VA lawyers. But Congress had only declared its views through a conference report. So VA's hands were tied. Unhappy VA officials hoped Congress would amend the law when it reconvenes in January.



Photos: Ed Stein, The Capital Times



Wisconsin round house is designed for built-in view

On a suburban lot with no appealing vista a house should have an interior that should be so rich and varied that no view is required. Or so reasoned 27-year-old architect James R. Dresser in designing his own circular, concrete-domed "sunflower" home (above) at Madison, Wis. Sunday motorists (right photo) stop and stare at the reddish domed round house, 40' in diameter with about 1,800 sq. ft. of floor area. Fourteen lenders also stopped short—"bewilderment was supreme," says Dresser—before "previous business relations and imagination" prompted Madison 1st Federal Savings and Loan to take the mortgage. Dresser sets the cost at $14,000, excluding the value of much work by himself.

Unusual interior has floor of ¾" x 1¼" laminated plywood strips laid edge up in circles conforming to the house. Walls of waxed industrial cork blocks reach 7' 6" above floor, so the dome is the ceiling for all rooms except the dropped-ceiling bath. Abstract intermediate ceiling of six concrete bowls each 5' in diameter will be hung over kitchen beneath central skylight 7' in diameter. Earth piled around exterior provides cheap insulation. Circular carport roof is ¾" plywood molded on the job.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ense housing program assailed by AFL; ders fear overbuilding in a few spots

anybody had ever been really happy e defense housing program. Archi- ared it would spread more ugly boxes across the US landscape (it lortgage bankers were little inter- advancing funds because of low higher-than-usual risk. Home- , even when they could scrape up ge money, found they had to haggle HA for commitments that would let ild. Military officials grumbled that ere too high.

ted defense. To the gradually ris- orus of complaint, the AFL last added a bitter attack. Said AFL nt William Green in a proposal to nocratic convention resolutions com- "The most neglected aspect of our program to date has been the utter an adequate federal housing pro- provide decent housing facilities low income and middle income fam- he nation. We urge federal action to w cost homes for workers now liv- huts and trailer camps in defense ities, as a vital part of the defense itself." Harry C. Bates, president FL bricklayers union and chairman 's housing committee added: "In areas all over the country, many workers have been forced to return homes because they could not find e housing for themselves and their . Others stayed on under terribly ate living conditions."

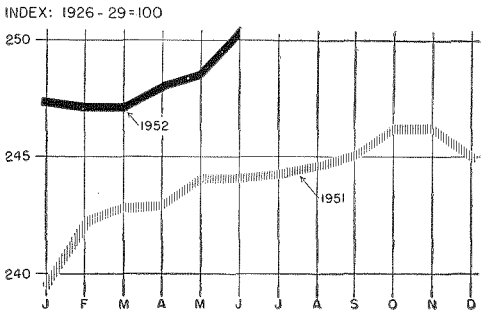
norance or malice, Bates blamed builders" for the fact that only the 85,931 defense houses planned tually completed in mid-July. A rsion came from Acting Mobilizer Steelman in his quarterly report: incipal obstacle to construction of housing continues to be the short- ortgage funds." Steelman also took he dismal construction progress. In with the largest housing programs r more units), less than a quarter nomes planned were built. In six Bridgeport, Bucks County, Camps Roberts, Calif., Hartford, Indian- d Topeka) "not a single house was y for occupancy," said Steelman.

ch or too little? As Federal Na- ortgage Association resumed issu- nce commitments, there was hope at much defense housing stymied of private mortgage money would o proceed. But now, homebuilders new worry: were some areas being overbuilt with defense and Wherry Act housing? With the rearmament stretchout, said Chairman Dick Hughes of NAHB's defense housing committee, "we are ahead of the (housing) demand in more instances than we are behind." Samples:

- In San Antonio, President R. N. White Jr. of the real estate board complained that the area's 2,712 Wherry units were "ruining the San Antonio rental market." He said the city's 7% vacancy rate was the highest since pre-war days. Builders will oppose construction of any more Wherry housing.
- In the Lawton-Ft. Sill, Okla., area, builders said vacancies in completed defense houses were running between 20 and 25%. To Maj. John C. Goodeve, Ft. Sill billeting officer, this was "just keeping abreast of the demand." When the next class of students reached the field artillery school, all agreed the vacancy rate should drop sharply.
- In Wichita, homebuilders said they were opposed to any more government-inspired defense housing. In the next three months, some 2,000 defense homes will be completed, yet already vacancies were appearing in the $80 to $150 a month rental bracket. Most defense workers were looking for something cheaper.

In nine areas, however, the Air Force last month declared adequate family housing was "almost non-existent": Dover, Del.; Bainbridge, Ga.; Kingston, N. C.; Moses Lake, Wash.; Limestone, Me.; Niagara Falls, N. Y.; Oscoda, Mich.; Rapid City, S. D.; and Sumter, S. C. NAHB officials summed up the problem for the War Manpower Commission: "It is extremely difficult to schedule completion of housing to meet the needs of defense workers in view of the many changes being made in the program."

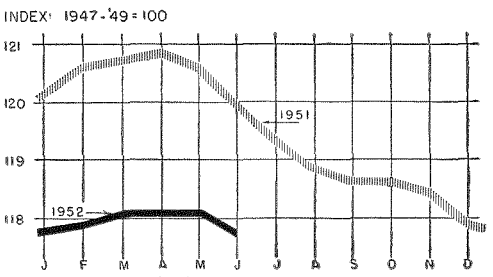
BUILDING COSTS KEEP RISING



Source: E.H. Boeckh & Associates

LABOR PAY INCREASES continued to push up the cost of residential building in June. Boeckh's index reached 251.1—3.6 points above its January level as pay hikes were reported for crafts in 80% of the 20 cities surveyed.

MATERIALS PRICES DROP



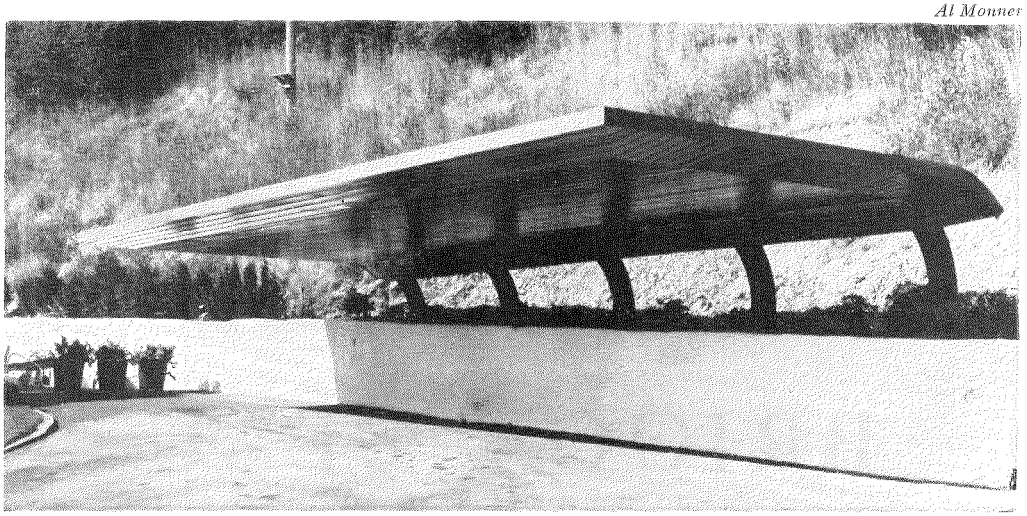
Source: Bureau of Labor Statistics

WHOLESALE PRICE INDEX of all building materials compiled by BLS sank 0.3 points in June to 117.8 as lumber prices dipped.

Los Angeles tract deeds require garbage disposers

Real-estate developers' routines for riveting ritzy features into housing tracts through fancy deed restrictions reached a new altitude in Los Angeles. California Country Club Estates required that each of its 407 homes ($25,000–$60,000) include an electric garbage disposer. Another deed restriction: houses must be 1,500 sq. ft. or bigger. Said developer Louis Schulman: "We didn't want any flies."

Al Monner



Cantilevered carport solves hillside turnaround problem

When Dr. Howard Stenger, a big name in Portland, Ore. eye glasses, decided he wanted a carport for his hillside home, he was confronted by the fact that supporting posts would prevent turnarounds by his front door. The solution, worked out by builder Burton Newton with Engineer C. L. Stupfel, was this cantilevered carport. The aluminum-covered roof projects 14½', is held up by five 8" steel I-beams sunk 12½' in the ground in concrete. It will hold 1' of wet snow with no sag.

BRIGGS

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IT'S A TIME of keen competition in the plumbing ware industry—with every manufacturer on the alert for ways and means to increase his sales. Naturally there is a temptation to accomplish this by cutting prices. But with costs on the rise, as they are today, this usually means reducing quality.

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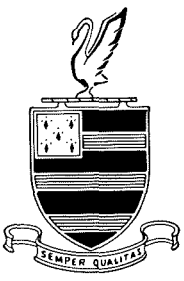
Briggs is proud that over the years every modification in its plumbing ware design—every change in materials and manufacturing techniques—has been made to *improve* the product. This is the way Briggs will always do business.

WHEN YOU ORDER BRIGGS BEAUTYWARE YOU BUY THE FINEST!



BRIGGS BEAUTYWARE

PLUMBING FIXTURES

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This is the second installment of a regular new feature in HOUSE & HOME*—a monthly report on important developments in the modernization of mortgage credit,, with particular emphasis on the expanding potential of the package mortgage, the open-end mortgage, and the expandable mortgage. In next month's installment Bert King of the Veterans Administration will discuss some of the new VA rulings.*

Savings and Loan League backs flexible mortgage

Says Bill Levitt: "Today we have to tell our buyers: 'If you want to im- your house next year by adding another bedroom you will have to get a new gage or else you will have to pay for the improvement with short term credit 5% interest.'

"It would be a very, very helpful thing if we could get a mortgage which d let us say to our customers: 'We have so arranged your financing that when want to add these value-increasing improvements you can get the money ly at low interest with 20 years to pay it back, even beyond the original total e mortgage and even before you have created more equity by paying your gage down."

Have you a client or customer who has recently moved into a new house would like to borrow some additional money on the first mortgage to pay for ng a garage? . . . or finishing the expansion attic? . . . or putting in air con- ning?

Have you a client or customer who has just bought an old house and d like to borrow some more money on his mortgage to modernize it and put labor-saving kitchen?

If you have, there will soon be good news for you—

For next month the U. S. Savings and Loan League will urge all its 3,900 bers to begin writing their conventional mortgages in such a way that it will sy for you to get the extra money needed for improvements.*

will require little more than reword- eir security clause to give first mortgage to additional advances even beyond the al amount of the loan.

ew wording to that effect has been d out by U.S. Savings and Loan League's l counsel, Horace Russell, who for years has been working with the editors magazine to develop a more flexible f mortgage, better suited to the needs eowners. It would modify the security to read:

secure a note for $0000 executed and ed concurrently herewith . . . *and any nal advances made by the holder of rtgage, provided that the total amount* ured shall at no time exceed $0000."

Explains Mr. Russell: "This recording of the larger figure charges third parties with notice of the total amount secured by the mortgage, and in most states gives additional advances the same priority as the original loan. In some states it will still be necessary to ascertain that no additional liens have been recorded. The City Title Insurance Co. will give title insurance on the additional advance anywhere in the US for $5 per $1,000** just on the homeowner's affidavit (*see* H&H, June '52, page 80). This is incomparably better for both lender and borrower than a refinancing, which is apt to take a month and cost about 1% of the entire mortgage.

"An adequate provision for additional advances, properly explained to the family in the beginning, will help the lender establish such good will with its customers that it can sell its loans for a better price and still have more satisfied customers and friends. Home mortgage lending is a family service, and in the long run the lender will find the safest and most profitable contract is the one best suited to the family's needs through the whole term of the mortgage.

Plenty of precedent

"Open-end mortgages whose amount might vary even from day to day (so as to secure a merchant's account) were well known at common law in England long ago and were adopted and widely used in this country from the beginning.

"Provision for additional advances for home improvement was less important when most mortgages were made for a short term, for additional needs could be taken care of in the regular refinancing. Today most mortgages run for 20 or 25 years, and over such a long period of time practically all families need some additional credit accommodation. As a result there is still too much refinancing—which costs too much and takes too long.

"The family with a good home as security is entitled to have imbedded in its first mortgage the means of obtaining mortgage credit at mortgage rates on mortgage terms to pay for any reasonable improvement of its property. In other words, it should be able to borrow at about half the interest rate and less than a fourth the monthly payment required by the most favorable FHA short-term credit."

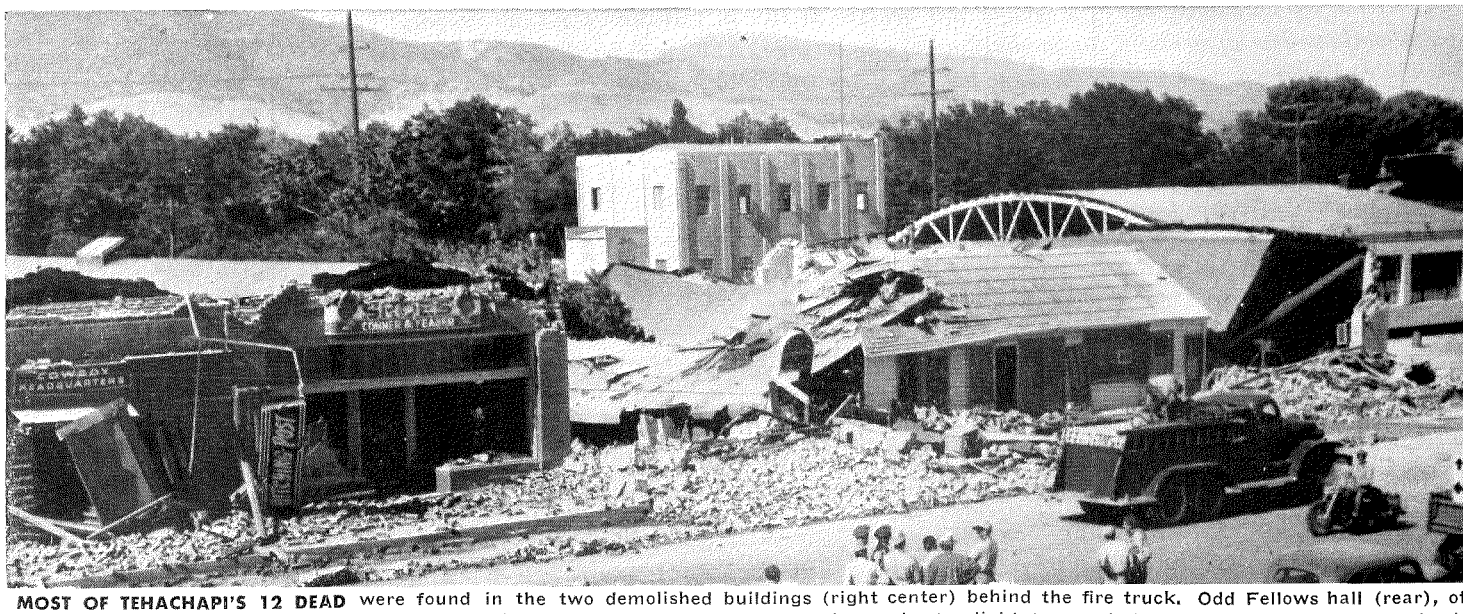
For expansion, modernization

"If a family applies for a small loan on a $20,000 house, the mortgage institution should be smart enough to write the mortgage with provision for additional advances up to $15,000. If a family applies for an $8,000 loan on a new $10,000 house with an expansion attic and no garage, the lender should be smart enough to write the mortgage with provision for additional advances up to perhaps $12,000, so that when the income of the family justifies the place can be finished without the delays and expense of refinancing. Likewise, when an old house is sold the lender should be smart enough to write the purchase money mortgage as a package mortgage (all mortgages today should be package mortgages) with provision for additional advances sufficient to modernize the property and equip it with all modern appliances including air conditioning."

---

st one of the big insurance company lenders al Life of Vermont) will take the same

** This is an all-inclusive charge, with no extras for title search, abstract of title, closing charges, disbursements, or attorney's fees, and it is offered on all titles, whether previously insured by this company or not.



MOST OF TEHACHAPI'S 12 DEAD were found in the two demolished buildings (right center) behind the fire truck. Odd Fellows hall (rear), of reinforced concrete, was undamaged. Prof. G. W. Housner of Caltech called the quake too light to test buildings designed to resist seismic

California quake wrecks most of a town but code-conforming buildings escape

The southern California earthquake of July 21, which took 13 lives and caused property damage that may well reach $100 million, gave the building industry a costly but invaluable demonstration of building code provisions intended to make structures withstand such violent shocks.

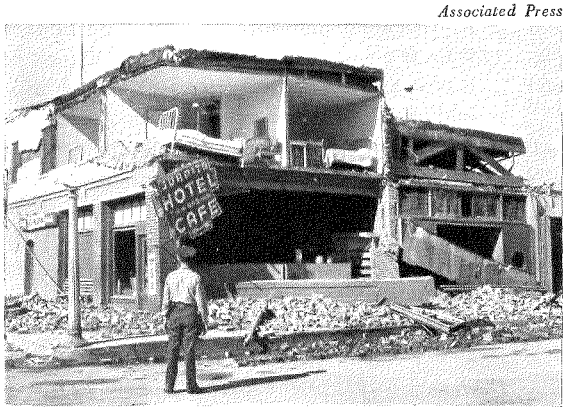
The quake, triggered by a shift in the Bear Mountain fault (not the Garlock fault as first reported), was the severest the US has felt since the San Francisco quake and fire of 1906. It had, said John M. Nordquist of Caltech's seismological laboratory, the force of 2,000 atomic bombs—enough to shift the west end of Bear Mountain Peak 3′ up and 3′ north. Eighteen miles from the quake's center, the sleepy railroad ranch and mill town of Tehachapi (pop. 1,557), 118 miles north of Los Angeles, bore the brunt of its shattering force.

Not well built. Many Tehachapi homes were built of adobe brick. Many an old Tehachapi business building, erected long before the town adopted the uniform building code of the Pacific Coast Building Officials Conference, was fashioned of unreinforced brick held together by lime mortar. So to building inspectors who flocked to the scene from Los Angeles, it was no surprise to find 41 Tehachapi business buildings damaged, including nearly every one along its Main St. Seventeen were in ruins beyond repair. Of Tehachapi homes, 57 were damaged or untenable. Four were completely demolished. Of the 13 deaths, 12 were in Tehachapi—nine of them in two families crushed beneath aged falling walls of brick, stone, or adobe. Damage estimates reached $2.6 million.

'Tie the corners together'. To Los Angeles' inspectors, it appeared that any Tehachapi building built to withstand a lateral force of 10% or more of its total static weight (a provision required by Los Angeles' building code) came through the earthquake undamaged provided it was properly erected. For instance, on one building built in 1945, roof corners broke off. Checking the plans, chief LA building inspector Dick Morris found the design had not been followed by the contractor. Several reinforced concrete structures rippe at the roof line. Inspectors said the was not enough reinforcing rods. reinforcing there was saved such bu from collapse, they added. Chief les builders who want to strengthen o code buildings was plain: be sur walls are reinforced and that corn tied together with stringers and bra

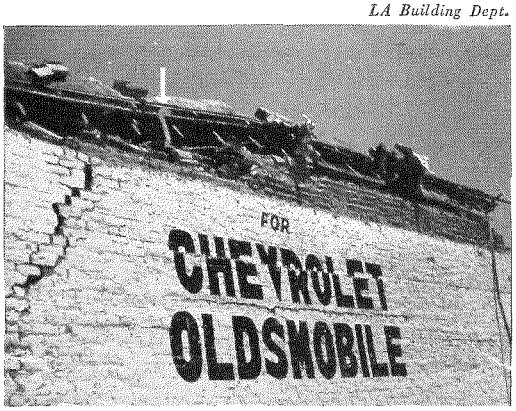
In other quake-rocked towns, dam higher, but loss of life less. At Bak (pop. 60,000), nearest city, two w Kern County general hospital we demned (as was all of Tehachapi hospital). Two giant water towers co flattening one building and da others. Kern County agriculture multimillion dollar beating through rigation pipes (which may shrivel $ lion of cotton) and earth upheava changed land contours so much new tion systems must be laid out. In L geles, the tremors shattered 27 str play windows in the May Co.'s do store. Cost: $500 each. The stores' 8 powder room was rendered unsafe a Co. officials were gravely consideri

Associated Press



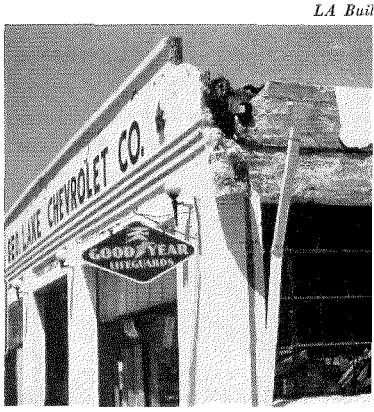
JUANITA HOTEL, where one man was killed, was rated as completely destroyed as was building at right. Construction: unreinforced brick.

LA Building Dept.



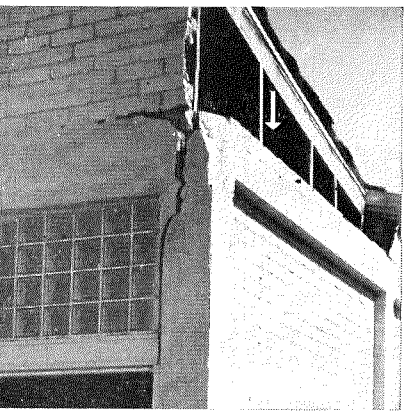
S-SHAPED FLANGES (arrow) one end of anchor bolts kept roof atop this quake-wracked brick wall, said building inspectors.

LA Buil



CORNICE COLLAPSED on reinforced building because of too little reinfo But what there was kept rest intact

LA Building Dept.



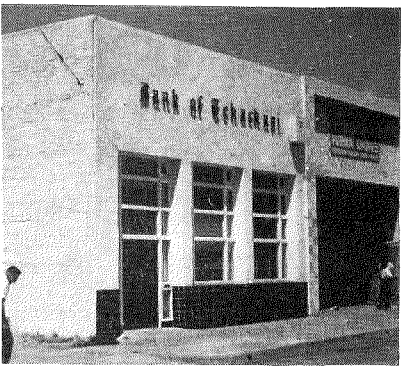
STORE was well designed except for tress. Inspectors found steel rod (arrow) bolted to framing.

extra travel time of female employes 5th floor comfort station to their nsurance claim. Many quake policies y for damage over 10%—annoying many southern California business me owners who suffered minor .

scent hazard. The quake felled led fluorescent light fixtures in scores lings, notably in the new Prudential g where literally miles of tubing up draped over desks and floors. nit were fixtures held to ceilings by ⅛" rods (strong enough to support nen) at one end and by flexible t the other. As the earth's vibration nized with the swing of the fixture, apped. Lights held up at both ends ns proved safe. Said Gil Morris, LA's department of building and who persuaded the city council to model antiearthquake ordinance rs ago): "It's just one of those veryone overlooked."

of Los Angeles' approximately chools suffered damage—not even laster. A strict antiearthquake code osed on all California schools after quake that took 118 lives in Long lso revealed many a school as a l quake death trap.

LA Building Dept.



CRACKS in otherwise unscathed con- nk building indicated builder did not igh lap to steel reinforcing between wall oet.

Builders denounce proposal to use FHA to enforce antiwaste national building code

Instead of going after the waste in building codes pointed out by the President's Materials Policy Commission (H&H, July '52), homebuilders last month went after the commission.

The commission, in its monumental survey of US raw materials problems, predicted a 35% increase in the rate of construction by 1975, but attacked the industry for its enormous waste of materials. It suggested, among other things, an antiwaste national building code enforced backhanded by government housing agencies.

'Unthinkable.' Protested NAHB's Executive Vice President Frank Cortright: "It is difficult to imagine anything more impractical and inequitable than the proposal that FHA insurance and VA guarantees should not be made available to home buyers in cities refusing to conform with a set of federal standards. Desirable as modernization of building codes is in many cities, the refusal of FHA and VA insurance to prospective home buyers because a locality will not accept federal dictation in the matter of codes is unthinkable."

The building industry might well agree that the presidential commission went too far in suggesting FHA insure no mortgages in a city which did not conform to a sense-making set of national standards. But the commission might have been 100% right if it had demanded that FHA stop making local codes basic to its insurance, stop giving a home built under a wasteful code a higher valuation than the same home built under a money-saving code.

Gentle pressures. Such gentle pressures as lower valuations for wasteful design, as Sen. Everett Dirksen (R., Ill.) recently observed, are "the kind that get things done." Fire insurance underwriters, for instance, often tell a city it must have another fire house, extend its hydrant system, or else face a big increase in insurance premiums. Local demand generally gets the fire house or the extra water mains.

FHA officials sometimes do require changes in materials—as a bar to extravagance. But builders know such cases are the exception, rather than the rule. As it is now, generally the more the required waste the higher the mortgage FHA will approve.

Silent officialdom. Housing officialdom behaved as if it considered the Presidential report a hot potato. A full month after the report had been issued, HHFAdministrator Raymond M. Foley still evaded comment after first promising to stand up and be counted. Foley said he would have something to say later. One apparent reason for his wary silence: the NSRB set up a task force of 25 agencies to study the report. The findings were due Sept. 22.

AFL bans jurisdictional strike picketing; WSB urges okay on builder bonus pay

In the last five years, jurisdictional strikes in building have swelled to a major nuisance. In 1947, there were 68. They involved 11,200 workers, caused 232,000 man-days of idleness. By last year, BLS counted 198 jurisdictional strikes involving 63,400 workers at a loss of 317,000 man-days.

Last month, the AFL Building and Construction Trades Department finally did something to stop it. The general presidents of 19 building trades unions agreed on a new policy banning picketing in jurisdictional disputes, sent it out to 12,000 local building trades unions, the 18 state councils and 576 local building trades councils with a stiff warning:

- Locals who post picket lines in jurisdictional strikes will face "immediate discipline." Building Trades President Richard Gray said this will be revocation of charters.
- Local councils who authorize or support jurisdictional strikes will face charter revocation.
- Other unions must ignore jurisdictional picket lines while waiting for discipline to strike. Gray insisted that this time the AFL "meant business."

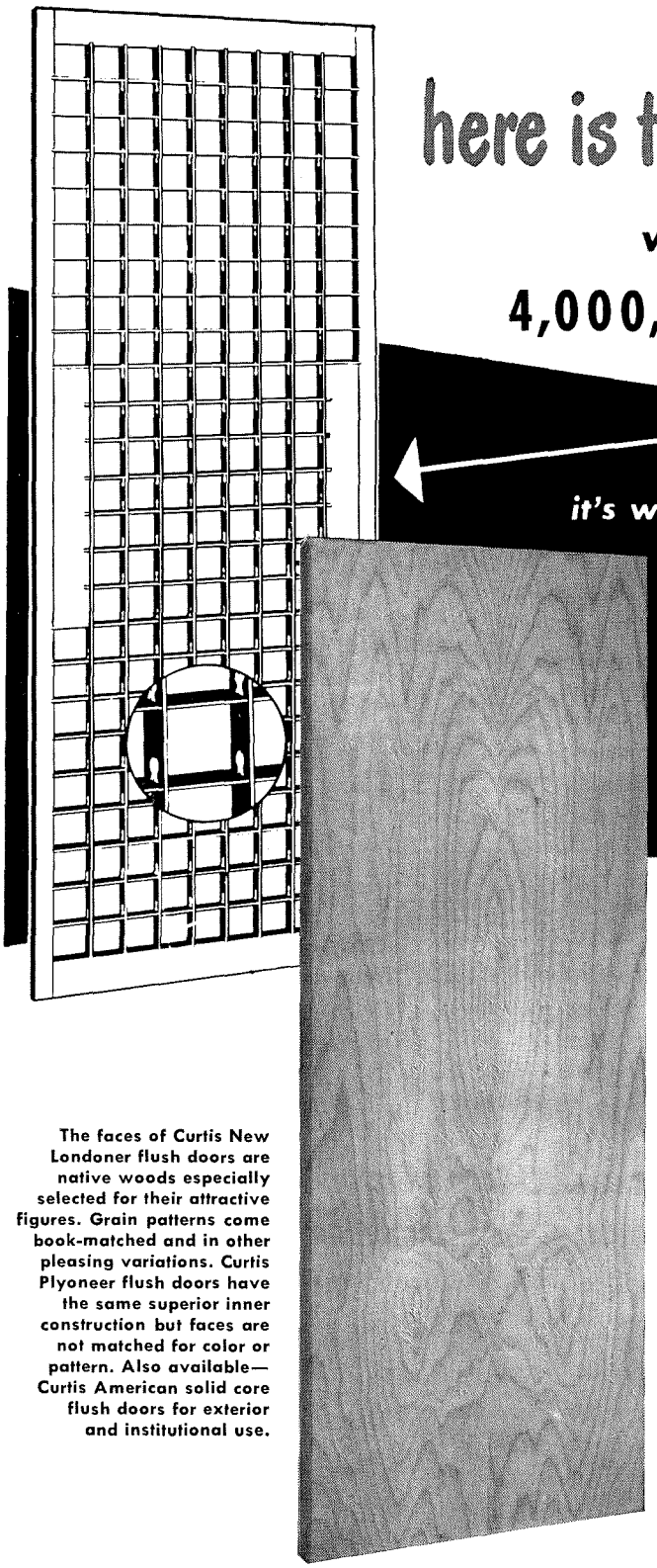
Last month also brought encouraging news about another labor problem annoying the housing industry. Before Korea, many a builder kept his key workers by paying them more than prevailing wages. But WSB has banned such bonus pay. Before leaving office, the old WSB passed along a recommendation to the wage board that took office at month's end: revoke the ban.

Boom in air conditioning grows; room units a sellout

By last month, the boom in residential air conditioning was on in a big way. An impressively growing list of homebuilders were announcing developments offering built-in air conditioning in the $18,000-up bracket. Newspapers across the nation broke out in a rash of stories proclaiming the trend (many of them quoting HOUSE & HOME's 42-page survey of air conditioning

here is the flush door CORE

with more than 4,000,000 SUCCESS STORIES



it's what's inside that determines how well a flush door will keep its shape—and its fit. More than 4,000,000 installations, over 33 years, have proved that the Curtis New Londoner hollow-core flush door assures lasting satisfaction. Here are the "core questions" which the Curtis New Londoner answers so successfully:

Is it all wood? The Curtis New Londoner core is made of carefully selected, properly seasoned wood. No inferior or substitute materials are used.

Is the grid properly meshed? The mesh formed by the interlocked pine strips provides great strength—with light weight—and a perfectly flat, sturdy base for the door faces.

Is the grid locked in place? The Curtis New Londoner door has no "floating" parts. The precision milled grid is locked into the door to form one completely joined unit.

Are stile and rail areas generous? There's no skimping in the stiles and rails of the Curtis New Londoner door. Ample widths assure superior sturdiness.

Is structural strain eliminated? The special method of assembling the various parts of a Curtis New Londoner door eliminates all interior structural strain—doors fit perfectly and are easier to open and close. The entire door is sealed against moisture.

Is construction balanced? In the Curtis New Londoner door, moisture content is balanced and carefully controlled in manufacture—3-ply panels forming each face of the door mean balanced sturdiness. This construction provides full protection against sticking and warping in all climates.

The faces of Curtis New Londoner flush doors are native woods especially selected for their attractive figures. Grain patterns come book-matched and in other pleasing variations. Curtis Plyoneer flush doors have the same superior inner construction but faces are not matched for color or pattern. Also available—Curtis American solid core flush doors for exterior and institutional use.

1866 CURTIS NEW LONDONER HOLLOW-CORE FLUSH DOORS

Curtis Companies Service Bureau
MB-8, Curtis Building
Clinton, Iowa

I want to know more about Curtis New Londoner hollow-core flush doors; also Curtis American solid core flush doors.

Name.....

Address.....

City.....*State*.....

. *Associated Press* gave national
on to a forecast that "complete year-
r conditioning of a new home at no
st may be just around the corner,
oment manufacturers."

onditioner stampede. Most
evidence of public acceptance was
ede to buy room air conditioners
pt dealers shelves bare in many a
e buying rush wiped out a backlog
) unsold units left over from 1951's
on of 237,490. Nearly every manu-
could report, like the Frigidaire
of General Motors, "we are sold
ss the country." By June 30, Car-
p. found it had sold 15% more
lers than in all of last year. Vice-
John R. Hertzler of York Corp.
1952 output was entirely sold) de-
lealers and distributors as "scram-
units which no longer are avail-
Vestinghouse, which does not make
olers, said the first half of 1952
of its 2 to 7½ hp packaged units
"42% greater" than ever before.

ng demand. The boom had be-
ne Southwest, spread to Southeast
to the East when summer turned
l heat and humidity. Now it gave
reaching back across the Midwest.

Plaines, Ill. Herzog-Knutze Realty Co.
subdivision of $18,700–$19,500 homes
oters described as the first large-scale
n medium-cost air-conditioned project.

ers adopt insurance st own embezzlement

go, a fast-talking promoter col-
7,000 in down payments from a
veterans, laid a few house founda-
convince them he meant business,
town with their cash. A woman
e operator absconded with $30,000
payments. Both were caught and
ut victims lost their money. And
ders got a black eye.

onth, NAHB ventured a forecast
the end of 1952, builders in 25
adopt a plan insuring home buy-
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identally) building confidence in
ebuilding industry. The scheme
Chicago, where the Metropolitan
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since the association was formed
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PEOPLE: rift splits Miami builders association; new FHA boss picks aides; Ferris elected N. Y. AIA chief

In Miami, dissension inside the Builders Association of South Florida swelled to revolt proportions. A group headed by builders **Emil Gould** and **Charles I. Babcock** laid plans to form its own association (though retaining membership in the old group). Reason, said dissident builder **James M. Albert,** was that "the association's membership has been broadened to include general contractors, subcontractors, material dealers [so that] out of some 275 members, there are only about 40 builder-members. . . . We don't see eye-to-eye with the association's leadership." Two other members of the insurgent faction: ex-NAHB president **Thomas P. Coogan,** builder **W. M. Porter.** Retorted Association President **Bill Thompson:** "The Gould-Babcock-Albert-Coogan-Porter faction has been after [executive secretary] **Cap Miller's** scalp about four years. They tried to get him ousted recently, but the board, instead, renewed Miller's contract . . . with a raise."

Appointment of **Walter L. Greene** as FHA commissioner was confirmed by the Senate just before Congress adjourned early in July. A few days later the new agency chief named **Hugh Askew,** director of Oklahoma City office for last six years, as asst. commissioner for field operations, key administrative position directing field officers, succeeding Herbert C. Redman. He also appointed **Edgar C. McIntosh,** assistant deputy for Title I division, as an assistant for liaison with prefabricated industry, succeeding Donald M. Alstrup. In New York, **Thomas G. Grace,** FHA state director since 1935, and previously state counsel for HOLC, resigned to return to private law practice.

AIA's New York chapter elected **Hugh Ferriss** as its new president. He succeeds Francis Keally, Ferriss was president of the Architectural League of New York in 1943, has served as consultant to the UN headquarters planning staff and currently is consultant for the Inter-American Center in Miami and Manhattan's Avenue of the America's Assn.

DIED: **Dr. Eugene Gustave Steinhof,** 71, professor of architecture at the University of Rio Grande do Sul, Porto Alegre, Brazil, and lecturer at Harvard, Yale and other US institutions under auspices of AIA and Beaux Arts Institute, July 10 in Los Angeles; **R. Clifford Bangs,** 68, former president of Washington, D.C., real-estate board, July 12 at Rehoboth Beach, Del.

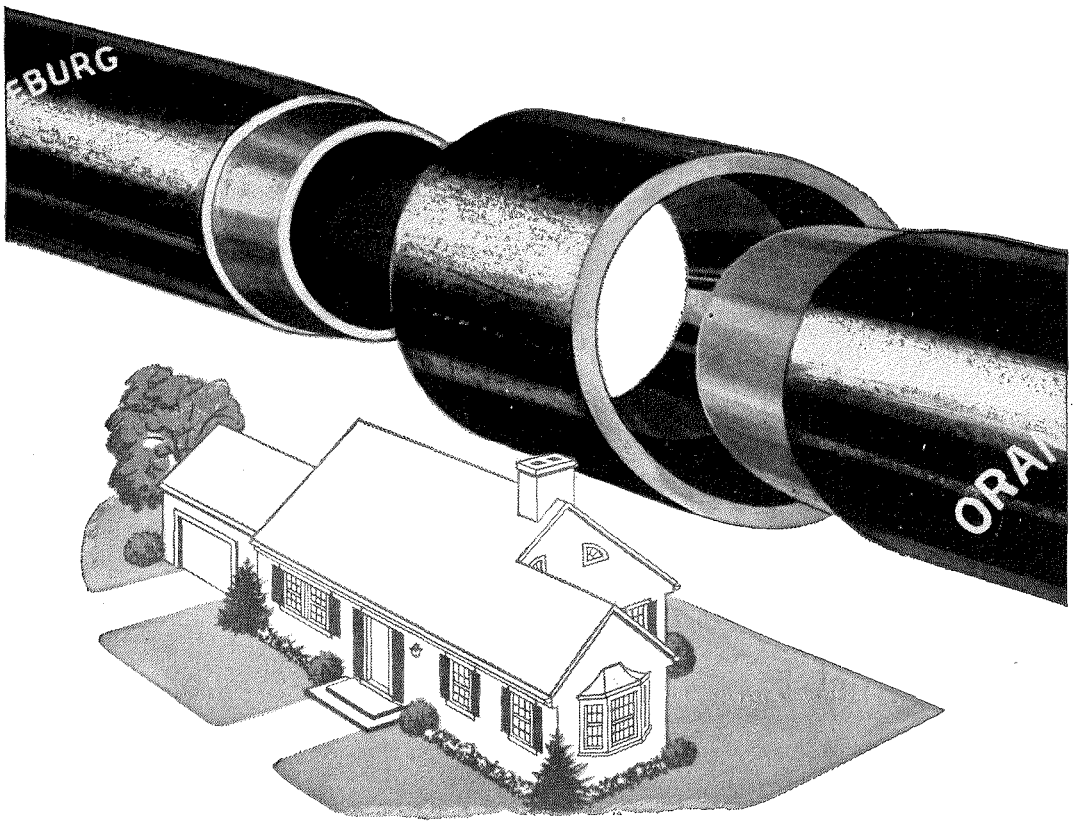
NAMED: mortgage banker **George H. Dovenmuehle,** as president of the Chicago Dwellings Assn., non-profit group formed in 1948 to erect low-cost veterans' housing; Engineer **Fred N. Severud** of New York, as winner of the Frank P. Brown medal given by Pennslyvania's Franklin Institute for "outstanding engineering accomplishments;" **Robert E. Entzeroth** of St. Louis, as winner of the 1952 LeBrun traveling scholarship of the New York AIA chapter.

Skelton Studios

Compact San Francisco gets first branch department store

San Francisco's first complet branch department store opened last month in builders Henry and Ellis Stoneson's $30-million suburb-like shopping center in the southwestern corner of the city. The branch of The Emporium, top dog of San Francisco retailing, was designed by Welton Becket & Associates, cost some $3.5 million, will have 92 departments—everything the main store has but a bargain basement and furs. The exterior of concrete, fieldstone and ruffle brick is topped with a white porcelain enamel tower over 100′ high which not only advertises the Emporium's "Big E" trademark but houses elevator and ventilating gear.

ROOT-PROOF JOINTS



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More and more Architects, Engineers and Builders turn to Orangeburg Sewer Pipe and Fittings for root-proof, sanitary installations. And since a sewer pipe is only as root-proof as its joints, Orangeburg originated TAPERWELD® JOINTS to seal pipe and fittings permanently against root entry, infiltration or leakage.

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Orangeburg assures it. That's why Orangeburg Pipe is extensively used in House-to-Sewer (or Septic Tank) connections; downspouts, storm drains; tight-joining drainage lines; conducting potable water supply — all non-pressure outside uses.

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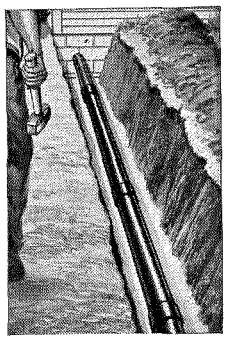
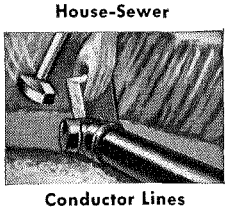
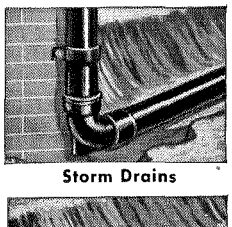
Orangeburg is non-metallic, resilient. It resists acids, alkalies, salts, oils, greases and gases found in sewage wastes and soils. No cement or compounds are needed.



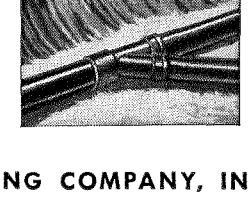
House-Sewer



Conductor Lines



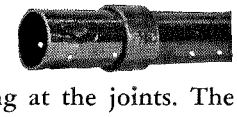
Storm Drains



Eight foot lengths are easy to install. Orangeburg fittings — ⅛ and ¼ Bends and Wyes — are made of Orangeburg material and tooled for Taperweld Joints.

Many Uses also for Orangeburg *Perforated* Pipe

...including Septic Tank disposal fields; foundation footing drains; draining wet spots in lawns, drive-in theaters, athletic fields, parking lots, airports, etc. Orangeburg Snap Couplings keep pipe in line, prevent silting at the joints. The new Orangeburg Fittings are also widely used with Orangeburg Perforated Pipe.



Remember — Orangeburg originated this *modern* pipe. Pipe and fittings are stamped with the Orangeburg trademark. For your protection, specify Orangeburg — *the original!*

SEND FOR NEW CATALOG *306-MB8,* for important data.

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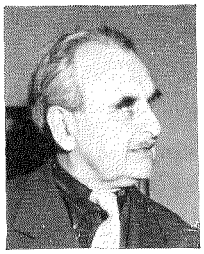
BEHIND THE BLUEPRINTS



Of RICHARD
someone has
"The Los
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sion." Such
the impact of
trian-born, 60-year-old modern
work. Trained at Vienna's Technis
shule, Neutra also studied under fa
Loos, was later associated with Eri
sohn on the important Berliner
Building (1922). Neutra migrated
in 1923, worked for Holabird and R
Sullivan, visited Wright for severa
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Ever since then, a stream of dar
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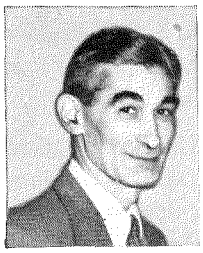

Washington
CHARLES GOO
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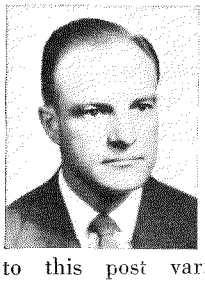
sity of Illinois and the Armour I
Technology, copping from the la
prize in sight available to architec
dents. His entree to Washington
with the Public Buildings Adm
where his "violent aversion to ecle
tecture" moved him to missionary
modern public design. Since 1938,
has had his own office, except for
stint with the Air Transport Comma
man is known for his well-designe
subdivisions, is responsible for
a builder development *(p. 80)*.



C. W. SMITH
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to this post varied experience
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cial and industrial building (1927)
housebuilder; housing engineer;
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36); regional public relations direct
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Smith now directs, was founded joi
MAGAZINE OF BUILDING and Reve
& Brass, Inc., in 1947, activated in
Housing Research Foundation beca
of Southwest Research Institute
Smith, 45, a native Iowan wrote
tiers for Home Builders (p. 130).

(Continued on page 66)

The mortgage mess

The text for this little sermon is from Matthew 26:52—*"They that live by the sword shall die by the sword."*

Or, to paraphrase the parable in more modern and less warlike words: *"No business that tries to live by government favors should be surprised if it ends up strangled in government regulations and red tape."*

For example, take a look at homebuilding and what government regulations are now doing to it. The homebuilders' three biggest headaches were deliberately created for them by the government:

> **Item:** The government has told homebuyers they can probably save most of the down payment if they don't buy a house this summer, but sit tight until Regulation X comes off.
>
> **Item:** Regulation X, which began as a legitimate credit control to curb inflation and save critical materials, has been taken over by the Fair Dealers and made a club to drive homebuilders into the under-$7,000 field (even though the government, for its public-housing program, has decided $7,000 homes are seldom worth building).
>
> **Item:** By forcing an artificially low interest rate which drove mortgage money into other channels, the government has made it extremely difficult for all but a few lucky or well-connected builders to get either FHA or VA financing.

What more could the government do to discourage homebuying and discourage the building of better homes? . . .

We agree wholeheartedly with every criticism the homebuilders can raise. But we do not agree that the cure for these government-created troubles is more government intervention—like having government lend more money through Fanny May to make up for the money government has driven out of the mortgage market.

On the contrary, we believe the faster the homebuilders shake themselves loose from any dependence on government favors incompatible with sound economics, the healthier and more prosperous their industry will be.*

This magazine has gone on record not once but many times that FHA financing is the best thing that ever happened to the homebuying public and the homebuilding industry, an outstanding example of partnership between government and industry at almost no cost to the taxpayer, a partnership which need involve only a very small subsidy and very little in the way of political favor. We see every reason why that partnership should be continued and strengthened on the basis of sound economics, but we view with alarm the two fairly recent changes in the FHA-VA pattern which threaten to transform the basis of FHA and VA from economics to politics.

These new and unsound features of the otherwise excellent FHA-VA mortgage insurance system—these two government favors which have cut FHA and VA financing off from the free market, the two government favors which now threaten to cut the homebuilders off from the free economy—are only these:

> ▸ A fictitious low interest rate—low enough so only the homebuilders are having any trouble borrowing all the money they want this year, but not low enough to be of any real value to homebuyers (on a $10,000 mortgage it saves them never more than $24 a year—all of it tax deductible);
>
> A fictitious amortization schedule, under which very little is paid off in the early years. As a result, only continuing inflation has kept FHA's default rate low, for without inflation a large proportion of five-year-old houses sold like rent might not be worth the mortgage today.

Neither of these new favors is worth the price the homebuilders are paying. ***A free place in a free economy is the birthright of every American, and the homebuilders should not sell that birthright for such a mess of potage as the mortgage mess today.***

** On rental housing there may indeed be no escape, for rent control has perhaps permanently destroyed rental housing as an attractive field for private investment.*

Richard Neutra desi

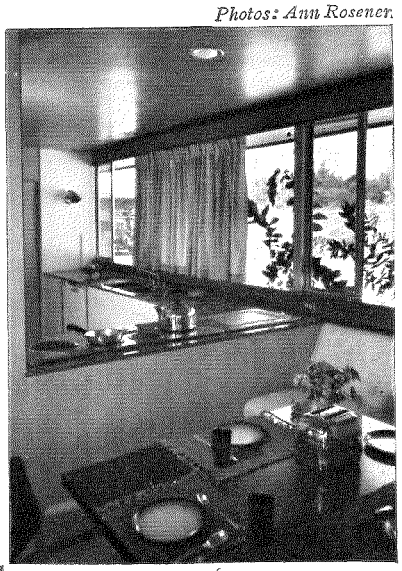
Compact enough to fit into a small builder house, neat enough to satisfy his big-house clients

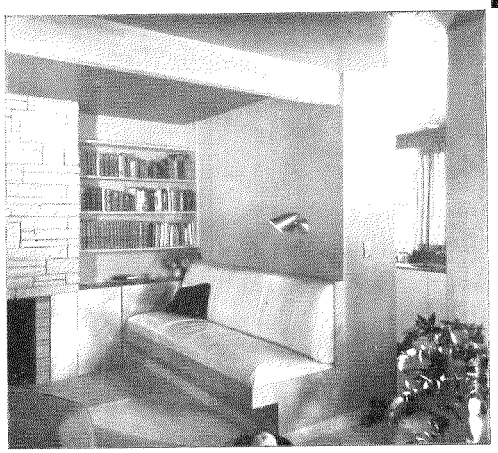
LOCATION: Ojai, Calif.
RICHARD NEUTRA, architect
D. E. COLEMAN, general contractor

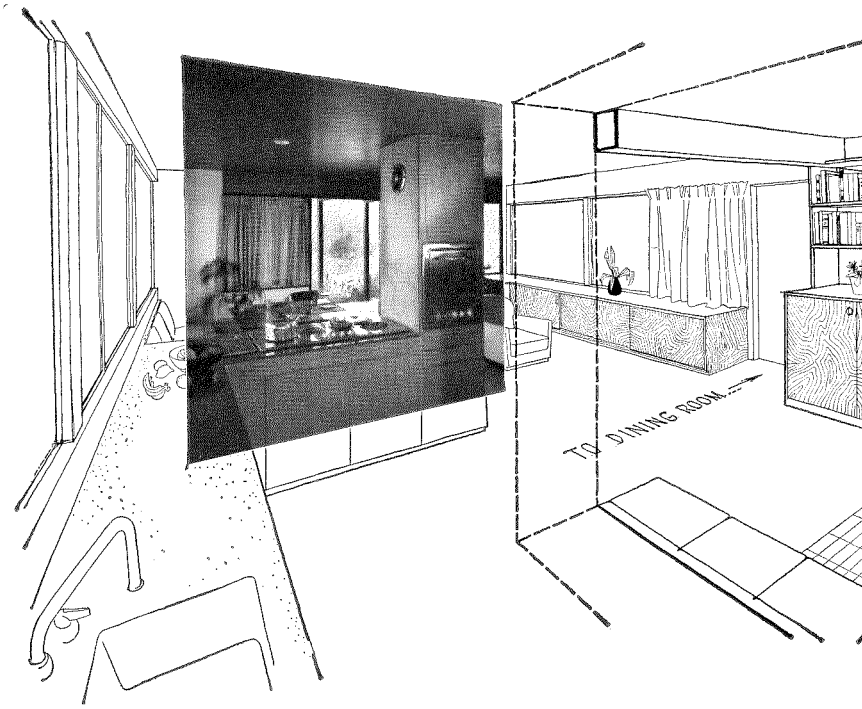
It happens that the minimum cooking-eating-w living space illustrated on these two pages is t ter of a very lavish house (which is illustrated next four pages). But however lavish the rest house may be, its 20′ x 20′ family room is a pact a solution as even the tightest-minded could hope to find.

For small houses this room suggests new make better use of limited space, for big ho might be the prototype for a new kind of roo the American house now lacks: a room for in living, distinct and separate from a formal " to be used only on "occasions." For many a is beginning to find that it needs *two* living and the rough and ready family room which Neutra has designed for this house is a fine e of what that second living room might be lik

Photos: Ann Rosener

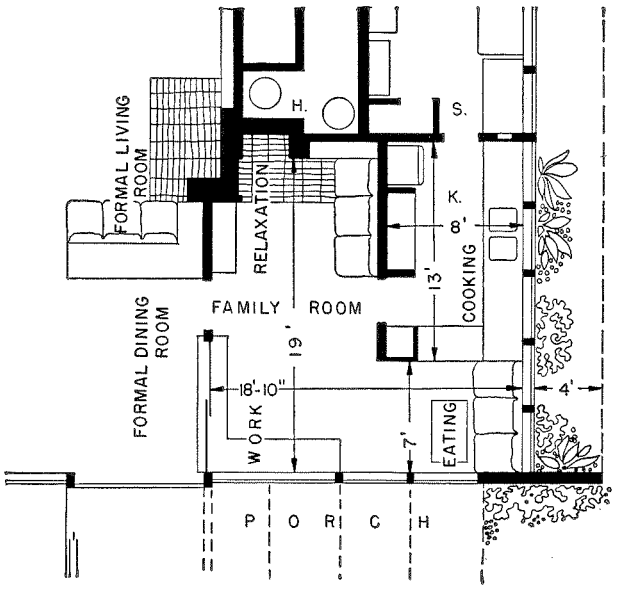




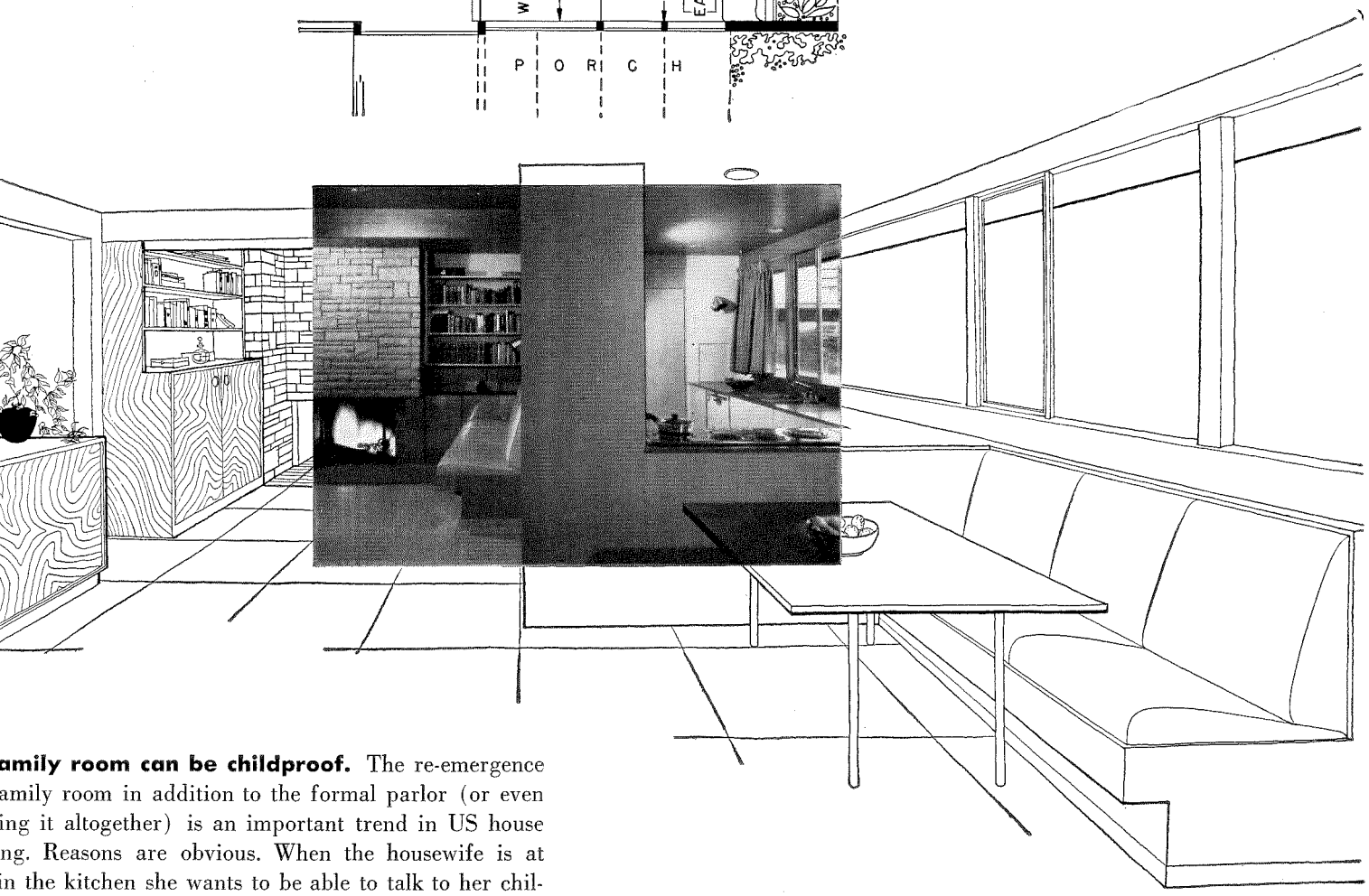


The kitchen is the nerve center *of this family room. It measures about 8′ x 12′, has an open counter with a stove top from which to serve the eating nook. The counter is closed off at one end by a shaft that contains the oven and an exhaust fan. The eating nook is as efficiently planned as a drugstore booth, with a leather bench under the window and no space wasted for moving chairs around or formal serving. Just beyond is a screened porch for outdoor meals.*

multipurpose family room . . .

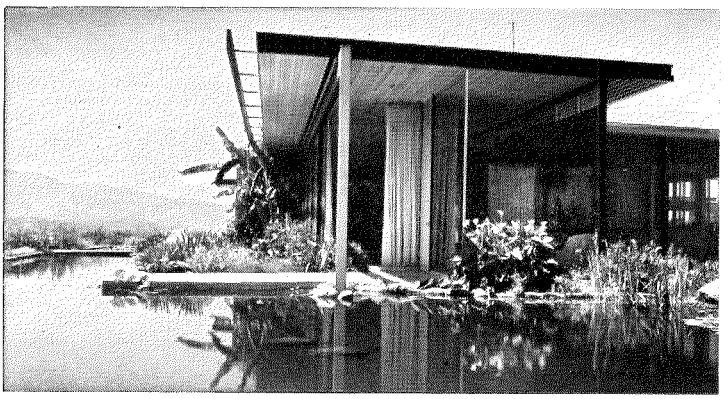


The family room has four zones: *Kitchen, eating nook, inglenook with leather bench and bookshelves, and work area with a desk, built-in typewriter stand and more shelves. Practically all daytime activity takes place in this 20′ x 20′ area. A laundry adjoins the kitchen, and a dining room is beyond the work area. The dining room is used for formal entertaining only, as is the big living room to the south of it (shown on the next page).*



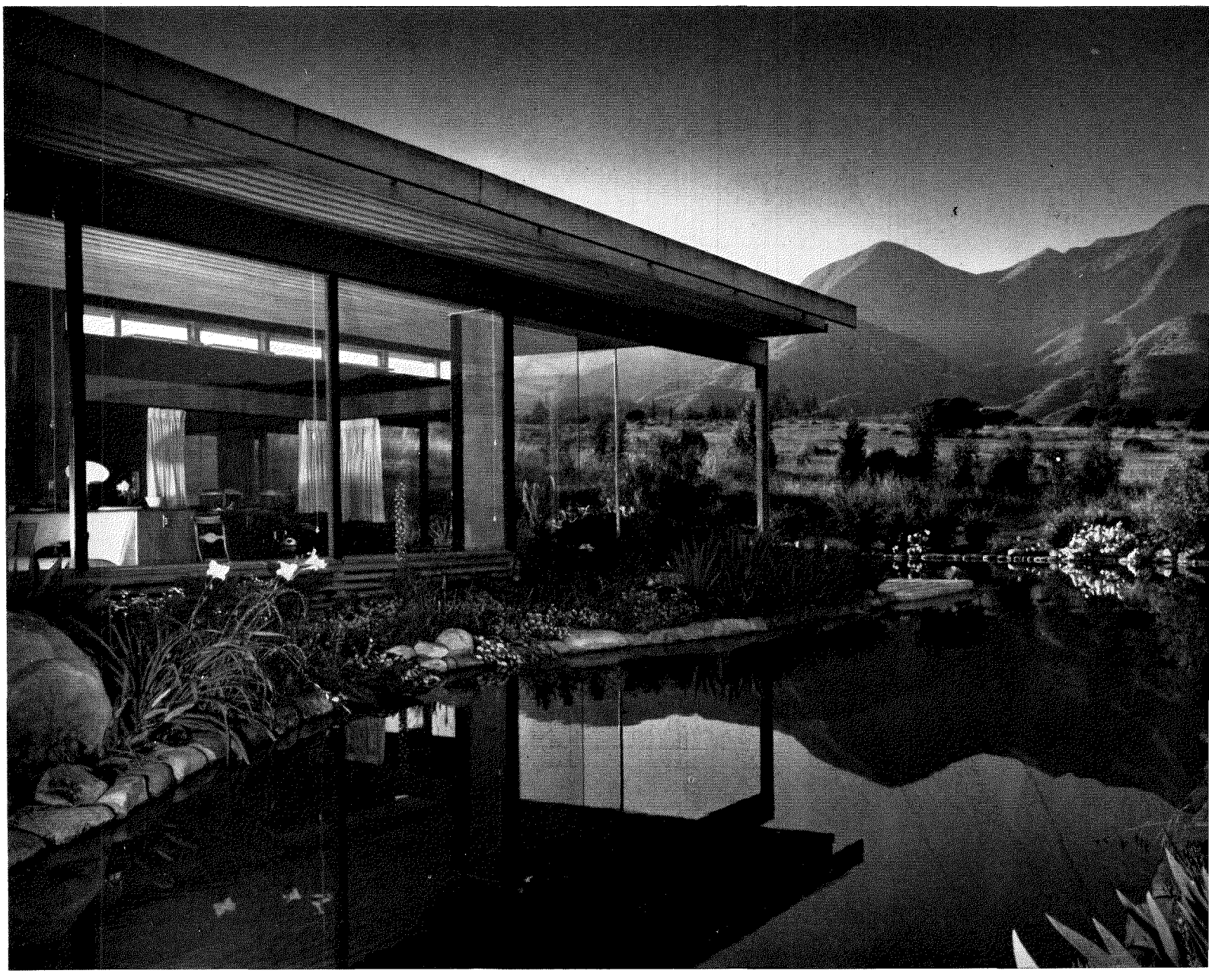
amily room can be childproof. The re-emergence amily room in addition to the formal parlor (or even ing it altogether) is an important trend in US house ng. Reasons are obvious. When the housewife is at in the kitchen she wants to be able to talk to her chil- watch them at play or doing their homework or reading ooks—without having to worry about whether or not re going to spill ink on the carpet, break a precious r disarrange the furniture. The children, in turn, want e a living room in which they don't have to tiptoe d. For these reasons the development of the family room come of prime interest to US architects; and few have d the problem as well as Richard Neutra did it in this ct 20′ x 20′ space.

uccessful is this family room that Mr. and Mrs. James ore, Jr., for whom he built it, spend more time in it ey do in the rest of their spectacular house. For details e page.



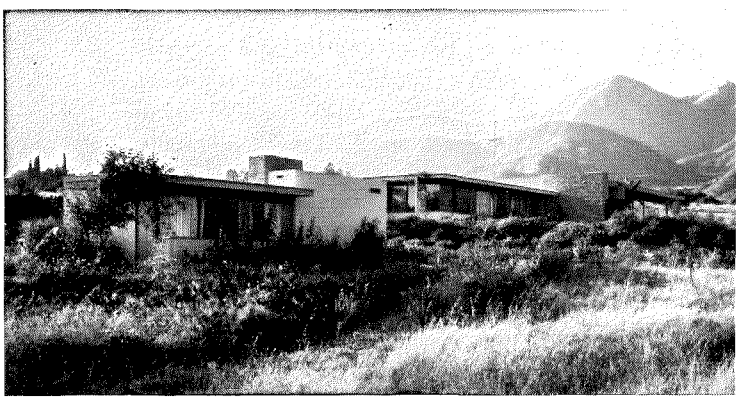
Photos: Julius Shulman

. . . and builds a lavish house around

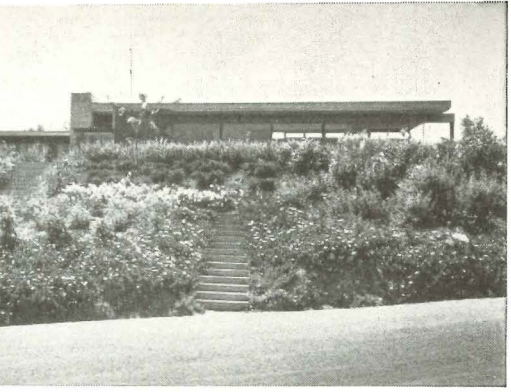


View across pool into living room. The Moore house is the center of a ranch located in the subtropical landscape of the Ojai Valley.

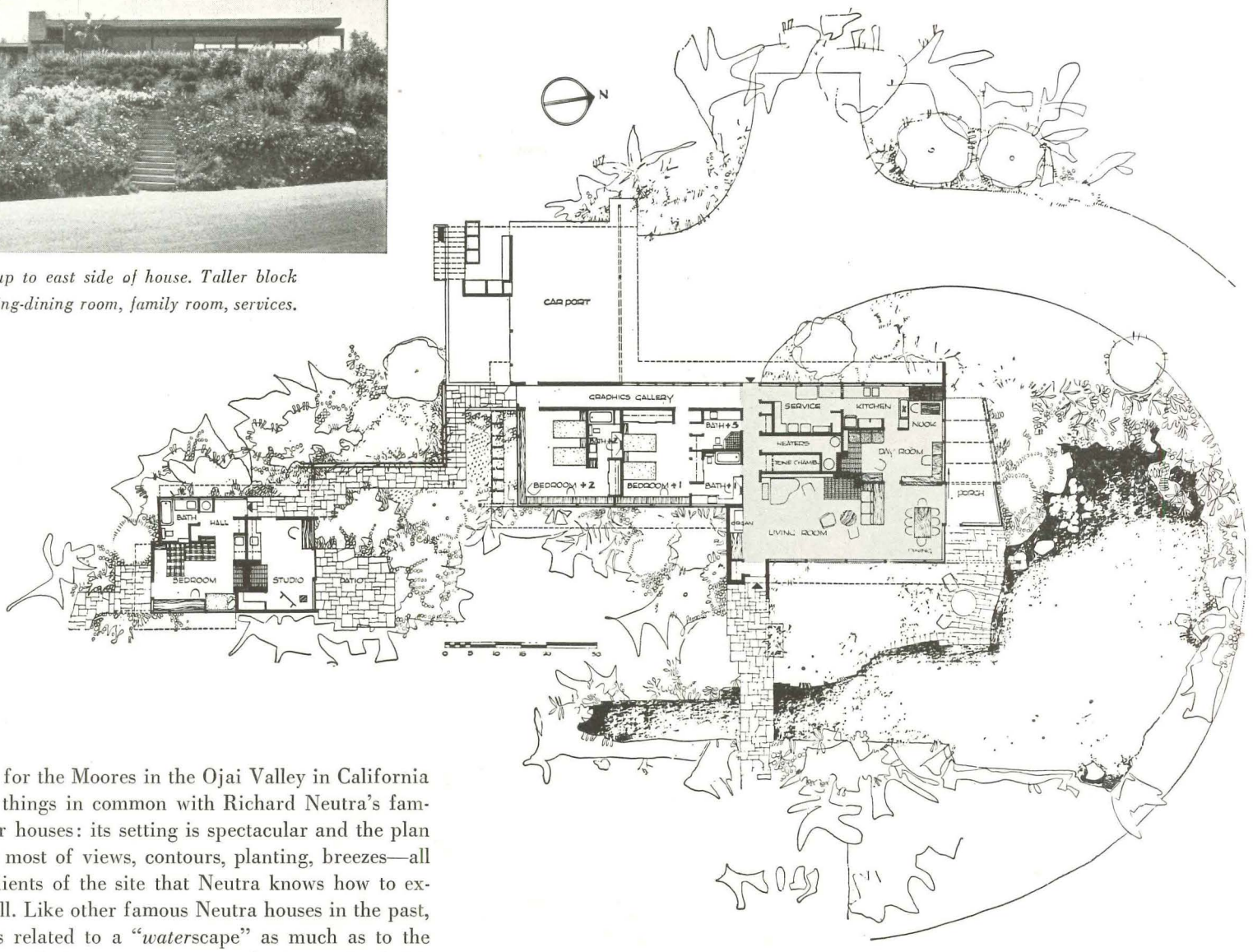
Photos: Julius



Over-all view of Moore house shows extended wings; detached studio in foreground.



ad up to east side of house. Taller block living-dining room, family room, services.



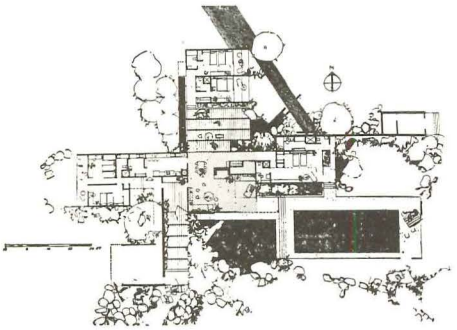
use for the Moores in the Ojai Valley in California ny things in common with Richard Neutra's famrlier houses: its setting is spectacular and the plan the most of views, contours, planting, breezes—all gredients of the site that Neutra knows how to exwell. Like other famous Neutra houses in the past, e is related to a "*water*scape" as much as to the pe—and (again as in the past) the result of this g-with-water is spectacular.

hese devices are part of Neutra's art. They are gly documented in the photographs on these pages the cover. What the camera cannot show is Neutra's g principle—a principle as much rooted in prac- as it is conceived in romantic mysticism.

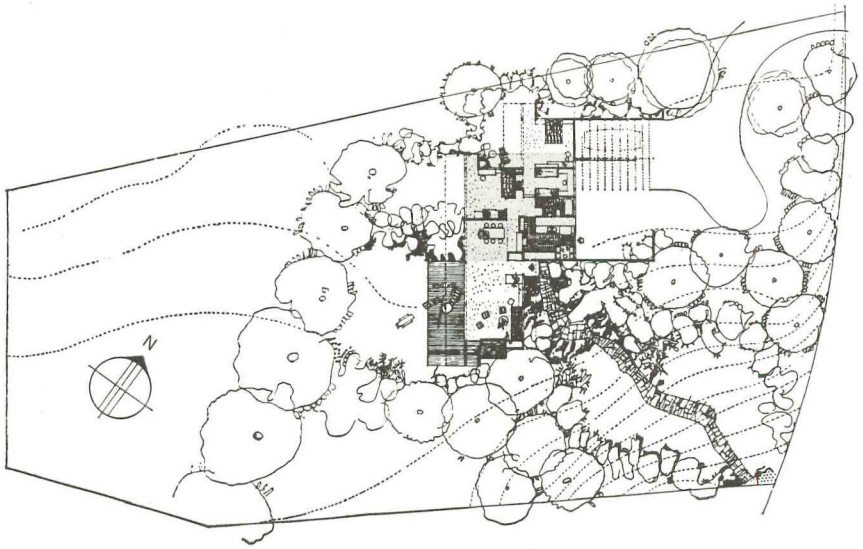
he face of them, no two Neutra houses look alike. asons are obvious: a man so fascinated by the y of the site" would never put up the same house nyon and in the desert. But upon closer analysis, s plans betray a fascinating family resemblance.

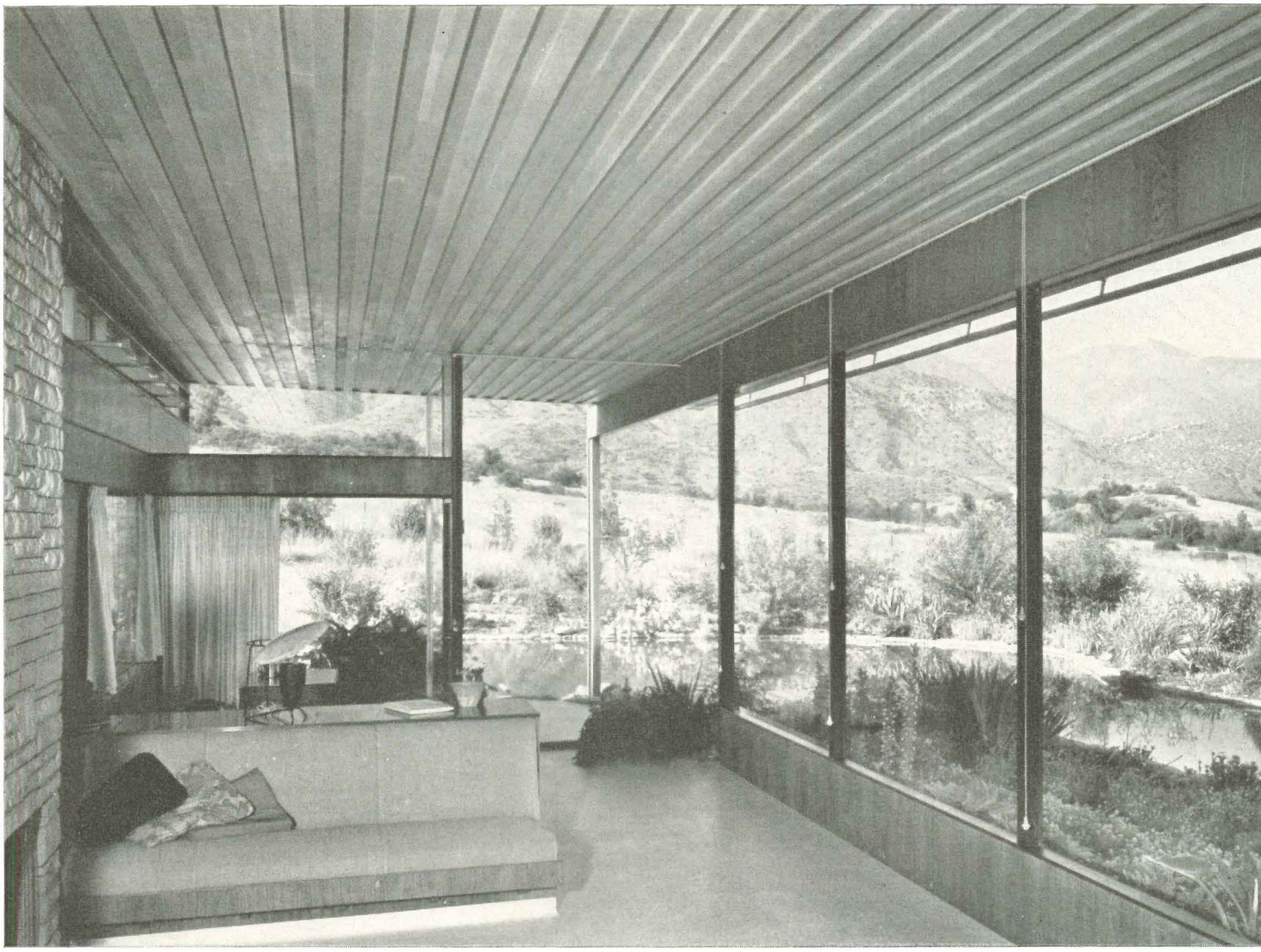
basic Neutra plan has a central unit—often a —which contains an efficient concentration of the al services (kitchen, utilities, etc.) plus the living- area. Not infrequently, that central unit is quite to the typical square, two-bedroom builder house. will now take this central unit and shoot out one or ings from the square core. These wings may conlrooms, guest rooms, service or other areas demandhe program; more likely than not, the wings will slung so as to give architectural dominance to the linged central unit.

philosophic base of this plan is a fascinating mix- mysticism and eminent practicality. The mystic are that the organic building has a heart—a heart p of the ancient elements: fire, water, and earth, s central units are in turn centered upon the nd Neutra likes to bring water and rock or plant- right into the heart of the house, close to the fire.



Two earlier Neutra houses show organization of plans around central unit, wings extending pinwheel fashion in one or more directions. Above: Palm Springs house; below, house in Los Angeles

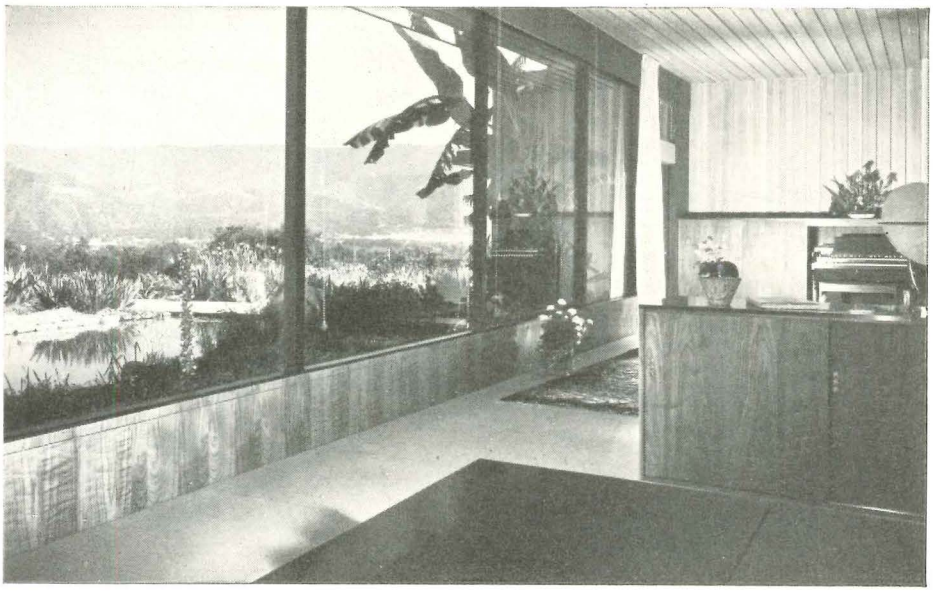




Glass wall in the living room has hinged ventilating panels under the sill.

View from formal dining area into living room. Organ console is visible recessed into end wall of living area. The organ loft adjoins the fireplace.

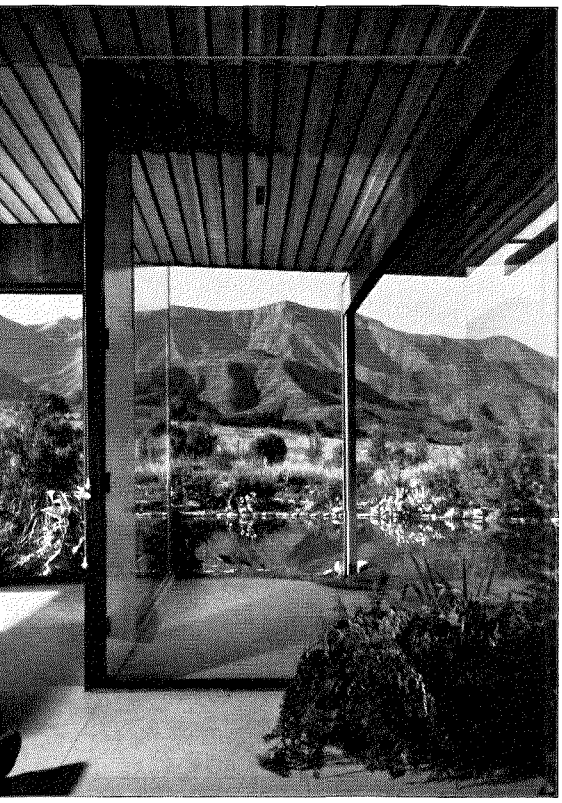
Photos: Julius Shulman



And then, from this heart Neutra will extend low roof-planes that carry the eye toward the distant ho —originally, in the first days of modern architect was Wright's prairie horizon; now, the frontier has farther west, and the horizon is that of Neutra's h California desert, with the distant Sierras.

But romantic mysticism is not the only source plan: obviously a house so designed can be built panding stages; obviously, too, a house with a com core makes for good circulation; finally, the wing extend in all directions create many pleasant terra many kinds of outdoor living, and each wing an terrace will have a different kind of view.

The Neutra plans on *p. 77* demonstrate how t this basic principle turns out to be, how it can be ad to many different site conditions, how it can be app the smallest house and the most lavish mansion. Ojai house the central-unit plan contains, in addition



Left, Ojai Valley as seen from dining room, across porch and pool

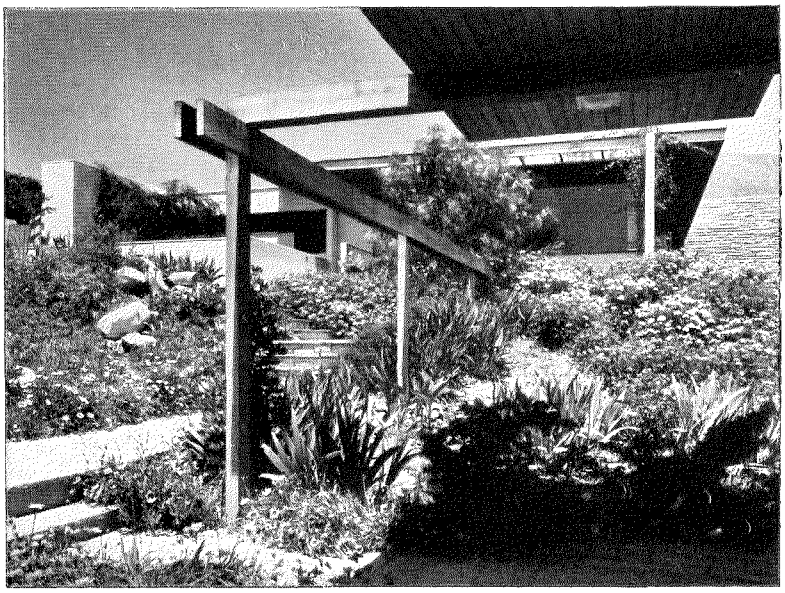
room already described, a big living room in which
oore likes to give musicales (she is a harpist herself,
d an organ in her requirements for the living
Finally, there is a dining area used for formal en-
ng. The living–dining room overlooks the pool to
t through a wall of fixed glass (with ventilating
under the sill) and has a view of the mountain
beyond.

this virtually square, central unit Neutra has shot
bedroom wing toward the south, and a carport
s to the west out of that bedroom wing. Finally, to
south, there is a detached studio building used by
ores' daughter, who is a painter. A pergola links
lio to the main house.

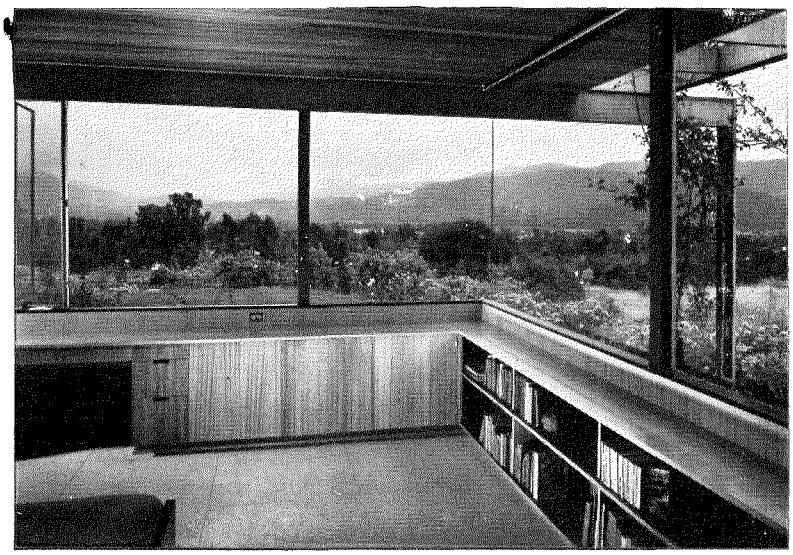
architectural pattern that results from this type of
alized plan covers the surrounding gardens and
almost like a grid of map-coordinates, gives the
planting an orderly coherence—but without forc-
nto rigid, classical, flower-bed arrangements. This
of the landscape is a much more subtle process
at employed by the classical landscape designers,
e is no clear dividing line that separates man-made
pe from Nature's spectacular improvisation. The
g becomes gradually—*very* gradually—more form-
gets closer to the building proper, until, finally, the
on from the outdoors to the formal indoor archi-
is made without a noticeable break.

of Neutra's work—like that of most other modern-
ves something to the pioneer designs of Frank
Wright at the beginning of the century. What
Neutra's work so easily recognizable and so clearly
, however, is an ingredient that he added to what
ned from his one-time master: a clean-cut, rec-
r geometry—something Wright might abhor. To
however, this clean-cut geometry is the *sine qua*
at makes standardization of industrial building
ossible; and because Neutra's grid is geometric and
ular, his houses—with all their romanticism and
sm—are essentially of our time.

Below, paved walk from studio building to main house



Bedroom at south end of house has view of horizon through band of glass



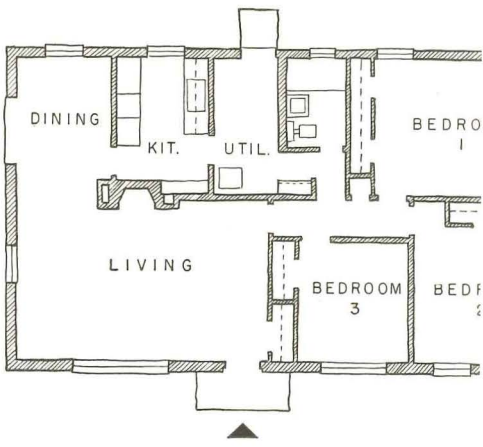
Photos: Robert C. Lautman

BEFORE—*Typical house in Tauxemont subdivision remodeling was a boxy structure, built of either concrete block. The 1,180 sq. ft. floor plan had culation through living room, main window loo street, and dining, kitchen and utility spaces br into inconveniently small spaces.*

What's wrong with this house? Why did it have to be remodeled before it was 12 years old?

A house that is planned right should last a generation before it has to be made over. The only time remodeling is cheap is on the drawing board before the house is built.

If this house had to be modernized so soon, what about millions of builder houses almost exactly like it that are still being built? Are they ripe for remodeling before they are sold? If so, might it not be better to change the model while it can still be done with ink and paper instead of with wood and brick?



A CAUTIONARY TALE FOR BUILDERS

Seven case studies in how to bring a small house up-to-date—preferably *before* or if necessary *after* it has been built

Remodeling usually means doing over an old-fashioned house—the kind of house no one would build today. It means modernizing a house that is either too old or too big—too old to offer today's new comforts and conveniences or too big to suit today's changed way of life. It means doing something to a colonial farmhouse, or a Victorian white elephant, or a *nouveau-riche* château.

But for this remodeling none of these reasons holds true. The houses are not too old—they were built in 1940-41. They are not too big—only 1,180 sq. ft. They can hardly be called old-fashioned, for they are just like 90% of the houses being built this year and perhaps even a bit above the 1952 average in plan, construction and design.

So for any merchant builder who says "I give them conventional because that's what they want" it may be an eye-opener to learn why family after family was getting ready to move out of this development, despite its good location just outside Washington, despite its large well-treed lots, despite pleasant neighbors and a pleasant community life with such advantages as a communal nursery school. They like the neighborhood so much that when architect Charles Goodman showed one of them he need not move to get what he wanted, it started a chain reaction which has already modernized the houses shown here, and will soon spread to others in the 55-house development.

Why were the owners dissatisfied with their "conventional" houses? What more did they want? Every owner's answer was the same:

1. More light than the small windows could admit
2. More air and breeze for the Washington summer
3. Better orientation, both for privacy and comfort
4. Roof overhangs to shade the windows
5. More contact with outdoors to let them enjoy their trees and acre plots through the long warm season
6. An entry hall
7. An open work center (instead of walled-off tiny separate kitchens, utility rooms, and dining alcoves
8. A bigger living room, a living room planned for better furniture arrangement, a living room that would not have to do double duty as the main traffic artery.

All these advantages could have been designed into the houses before they were built at small extra cost and with little extra cubage. To add these advantages now costs most of the owners more than the original $6,500 price of house and lot combined, and in every case but one the house had to be made bigger. But the owners wanted these changes so badly they were willing to pay the price.

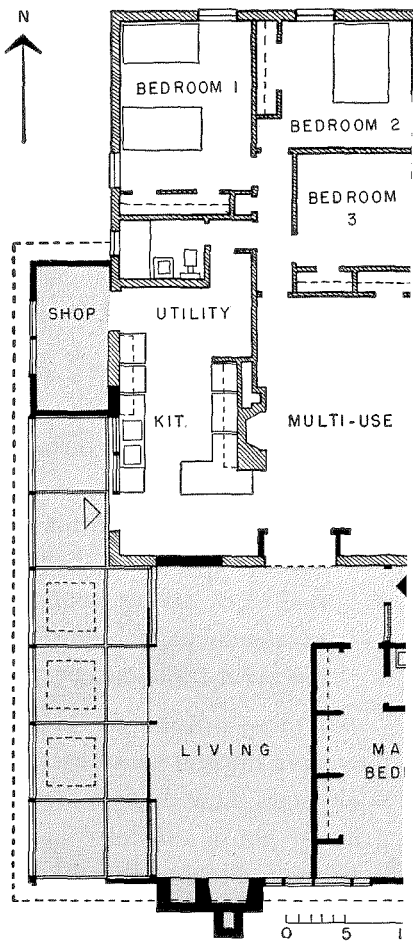
CASE STUDY NO. 1—$12,500 (1952 prices)

LOCATION: Alexa
CHARLES M. GOODMAN

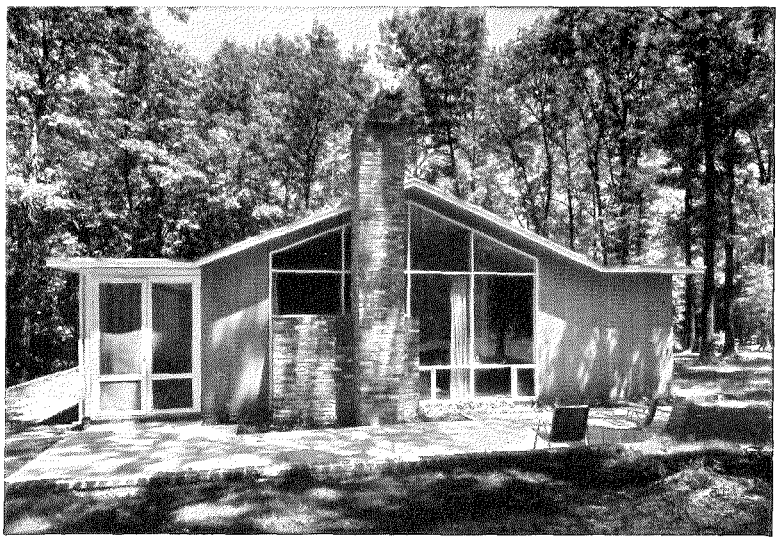
New living area has free-standing fireplace, scree

Additions: a new living room, bedroom, bath, front and back porches and workshop. Remodeling: old partitions dividing dining, kitchen and utility rooms into small spaces were removed, kitchen realigned for space and convenience and $2,000 worth of kitchen cabinetwork added. Old living room now serves as multipurpose "family room" and children's play area.

The new living room is what the living room of the original house *might* have looked like. It is just a little bigger—but many times more spacious. Through the glass end it is open to all outdoors, and the sliding glass walls make it easy to throw it open to the porch. Brick, fir siding and plank ceiling provide a warmth of materials lacking in the plain exteriors and white plaster interiors of the old house. *(New or remodeled areas are indicated in gray on all plans.)*



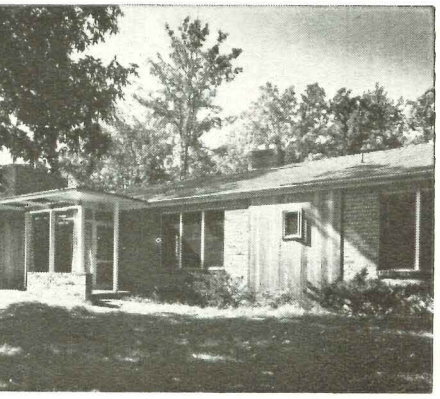
New gable end of glass lights living and bedrooms



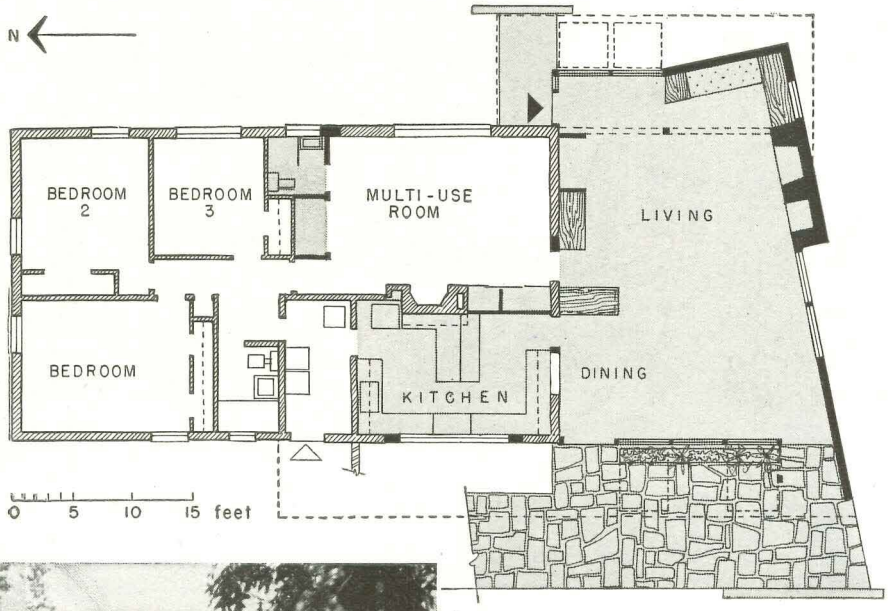
E STUDY NO. 2—$7,500 (1949 prices)

ns: a new living room to the south, flagstone sun terrace to t. Remodeling: kitchen extended into old dining area by of partition, addition of closet to keep it separate from old oom, which is now a multi-use room. Pass-through from kitchen ining portion of new living room near terrace. Old main *op center of plan)* was boarded up, replaced with new bath- nd closet. Like the other renovated houses, this one now has that is covered outside and arranged so that visitors do not to the middle of the living room. Canted wall of new living angled for best view; solid part extending onto terrace blocks om neighboring house. Flagstone flooring is carried through oom to terrace to tie both together visually.

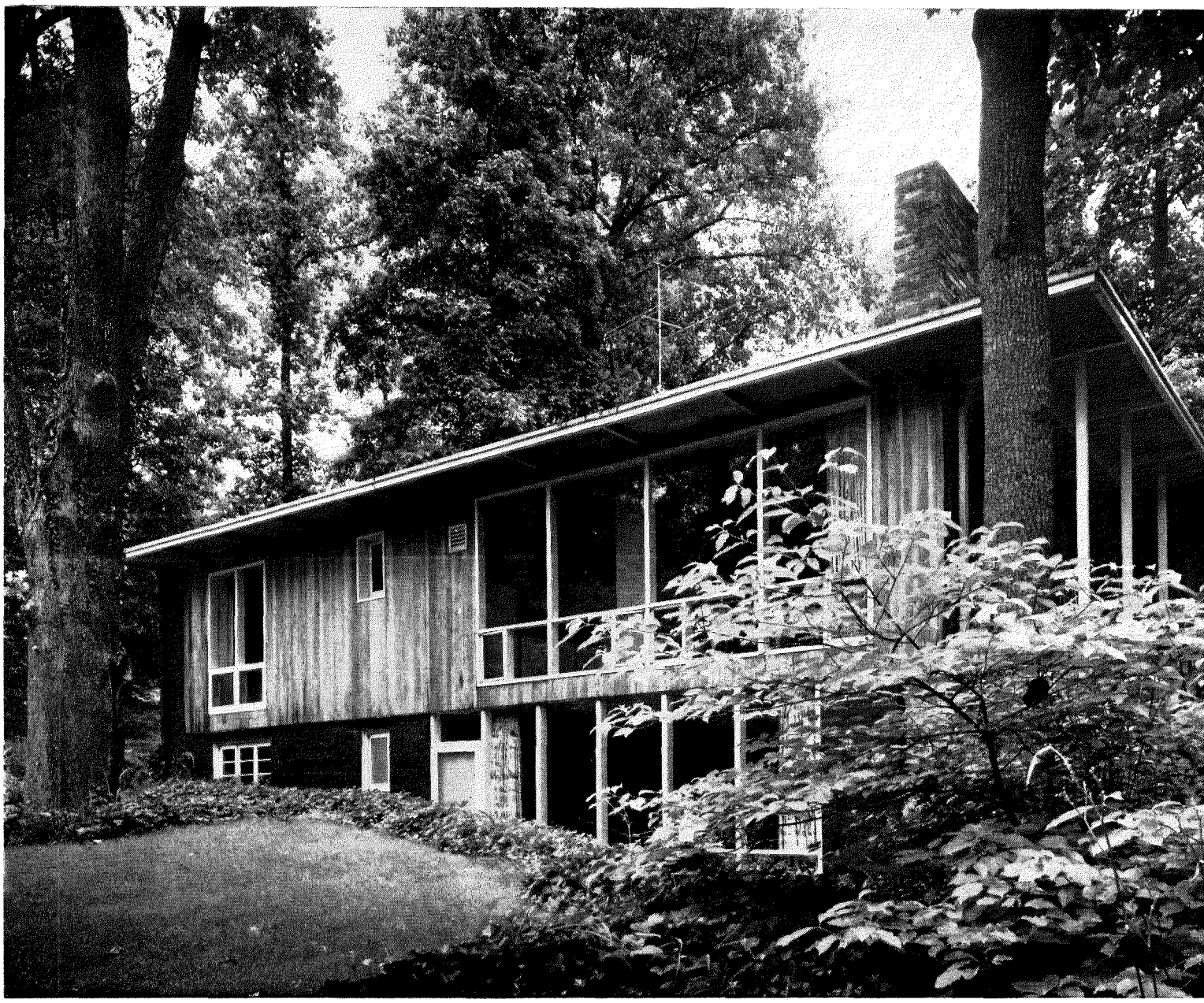
Living room opens through glass wall to outdoors



ng wing, left, ties into old house



Solid wall of the new living room extends to shelter-glass wall and adds privacy to the terrace. Wide overhangs cut glare, have openings to allow sun to fall on a planting bed which parallels the glass wall.



AFTER—*Remodeling opened-up living room, adde*
hang. Cellar became a playroom with floor-to-c

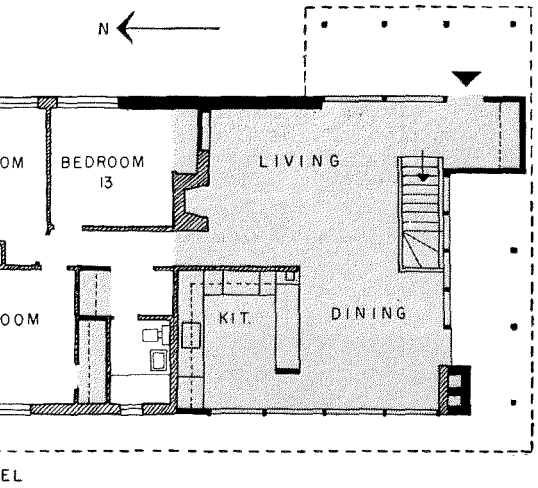
CASE STUDY NO. 3—$10,000 (1950 prices)

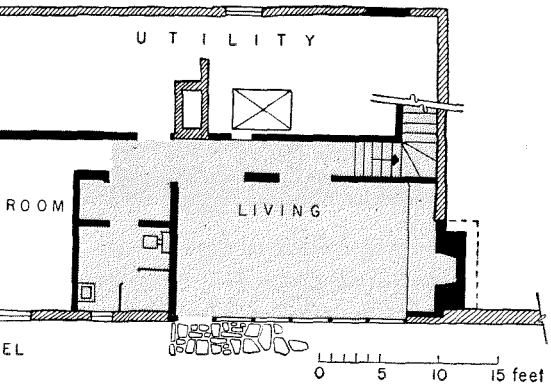
In this house, one of the few in the subdivision with a full basement, it was possible to provide almost all the desired modern features *within* the shell of the old structure.

Additions: small entry hall and closet, entry porch, living-room porch and fireplace, wide roof overhang. Remodeling: kitchen opened up, stairs to basement replaced by closets between bath and bedroom and placed more conveniently near front door. Bedroom behind chimney enlarged by bricking up old front entrance and replacing it with a new closet. Basement, previously one big storage space, was transformed into a playroom and second living room opening through new glass wall and door to flagstone terrace. Cool in summer, this room is in constant use. Next to it are separate storage-heater space, new bathroom and rough-in for a bedroom to be built in the future.

West facade, above, shows striking change brought about by extending glass walls from ceiling to floor between 3″ x 6″ structural mullions 3′ o.c. Concrete block exterior was either painted or covered with vertical redwood siding.

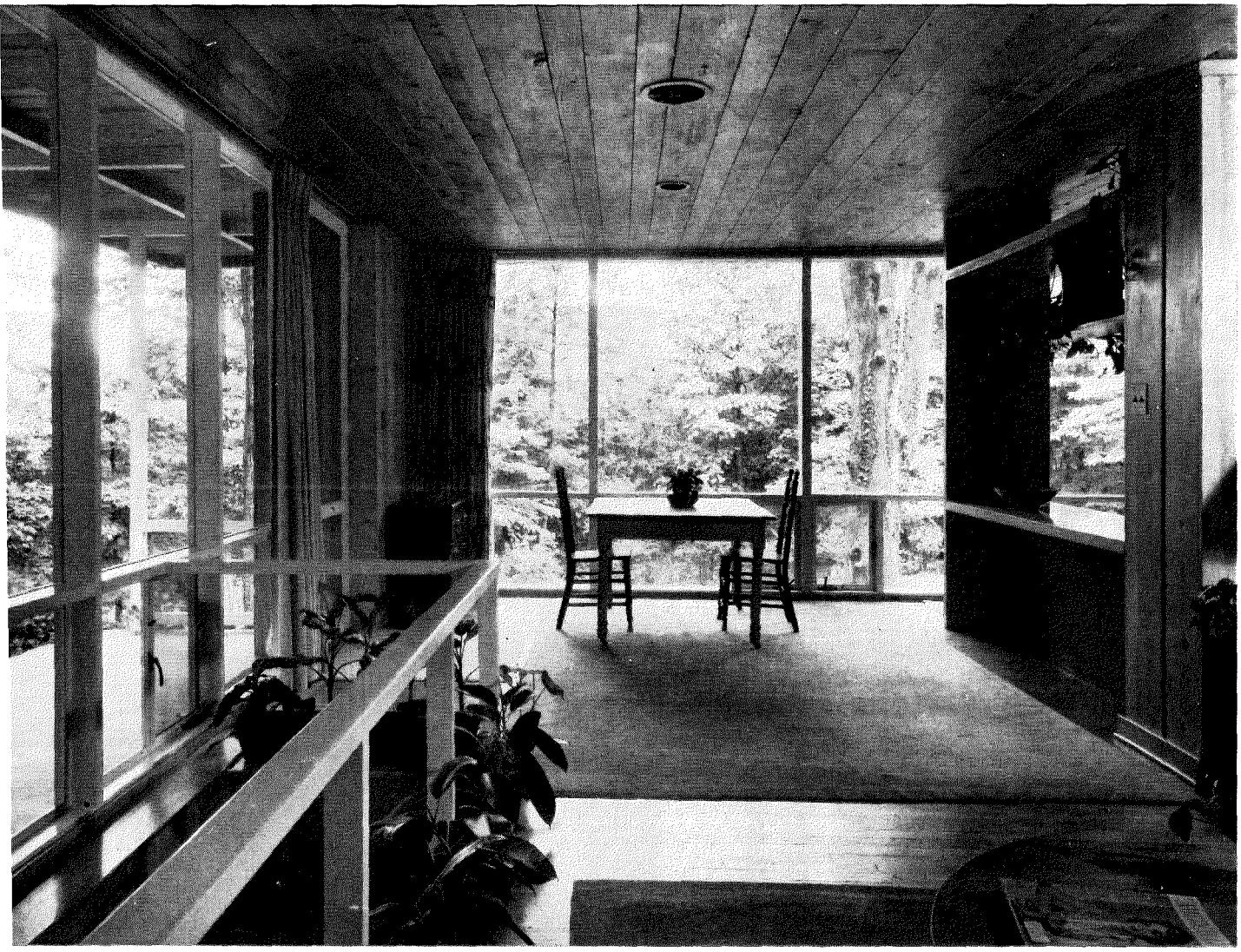
BEFORE—*Rear had drab kitchen entrance, sma*





Entry was moved from middle to end of plan, given a covered porch, wide glass area, at right in photograph above, to light living room, and a separate entrance hall.

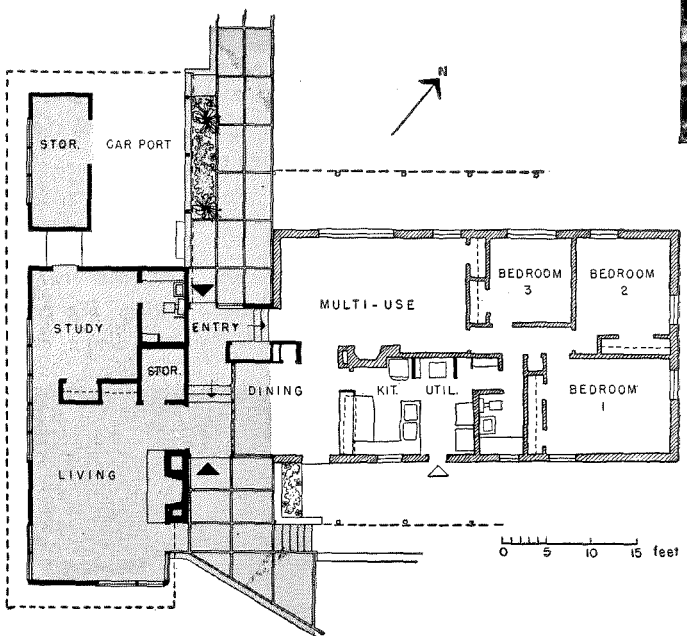
Living–dining area, seen from entry, shows new stair to basement, full glass walls, new plank ceiling. Big pass-through counter opens the kitchen to the dining area.



CASE STUDY NO. 4

—$17,000 (1952 prices)

In this, the most expensive of the seven renovations, the size of the original house was nearly doubled. Additions: new living room, study and bath, terraces, carport and storage. Two porches, with flagstone paving and roofs 7′ wide, were grafted along the full length of the old house. Remodeling: inadequate dining area enlarged, window substituted for old front door, kitchen enlarged and rearranged. Note how old living room (now a multi-use and children's playroom) faced north and toward street, whereas new living room faces south and west for sun, breeze and garden view. Separate entrance hall, with access from either side of plan, serves as a link between old and new house.



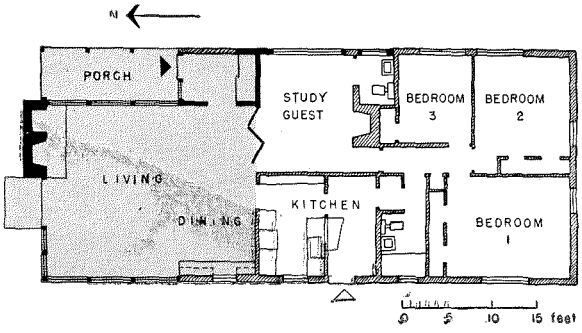
New living room, left, faces through corner w
outdoor living spaces. Rear entry, center, links
to old house. Door was cut through from old di
so that the owners could dine on newly landscap

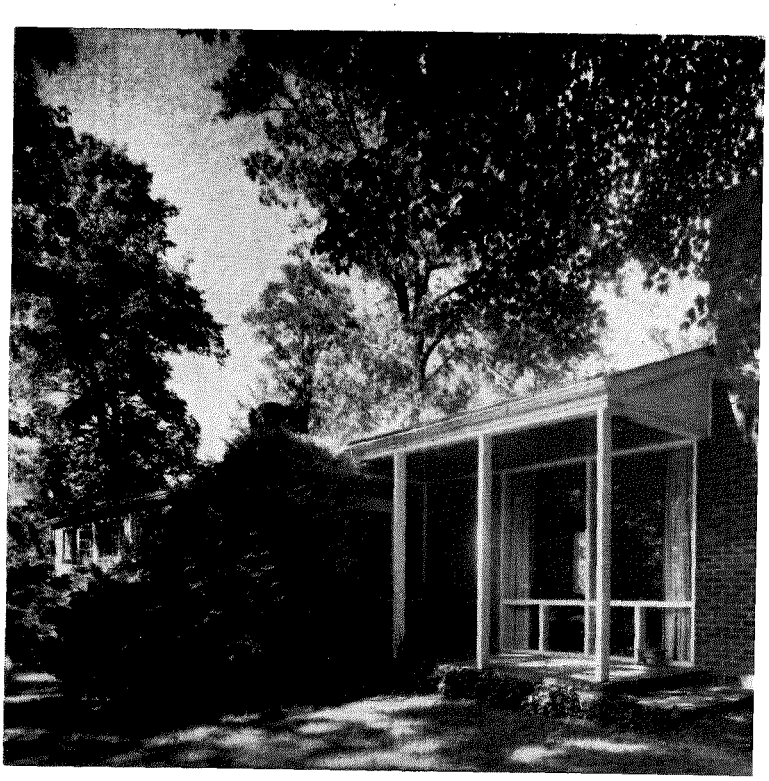
Addition ties into roof line of existing house
picture below). Covered entrance porch is a mi
innovation. Ceiling-high, 10′ wide glass wall ha
mullions, like a low railing, running at 2′ height.

CASE STUDY NO. 5

—$4,000 (1948 prices)

Here is another case of inadequate living space that made a living-room extension necessary. The entire end wall was torn out and 15′-6″ more length added to the south. Entry porch, hall and closet were cut into one side of the addition; old entrance was boarded up and replaced with a second bath. Folding doors divide new space from old living room, which is now used as a study or guest room.



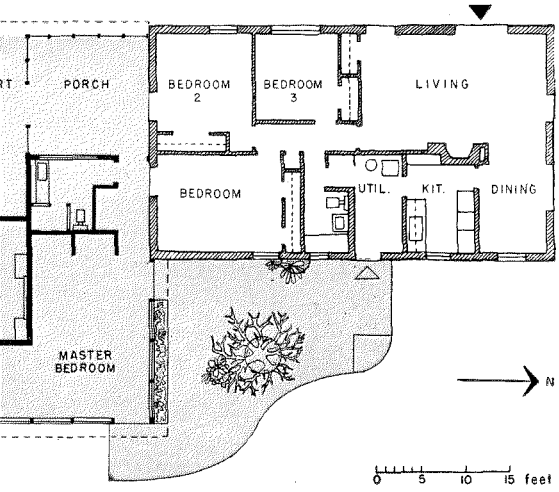


E STUDY NO. 6

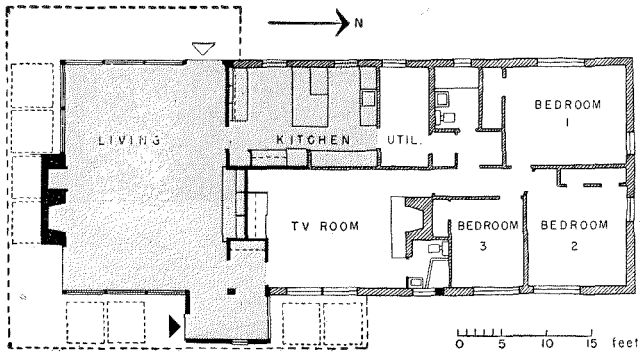
500 (1949 prices)

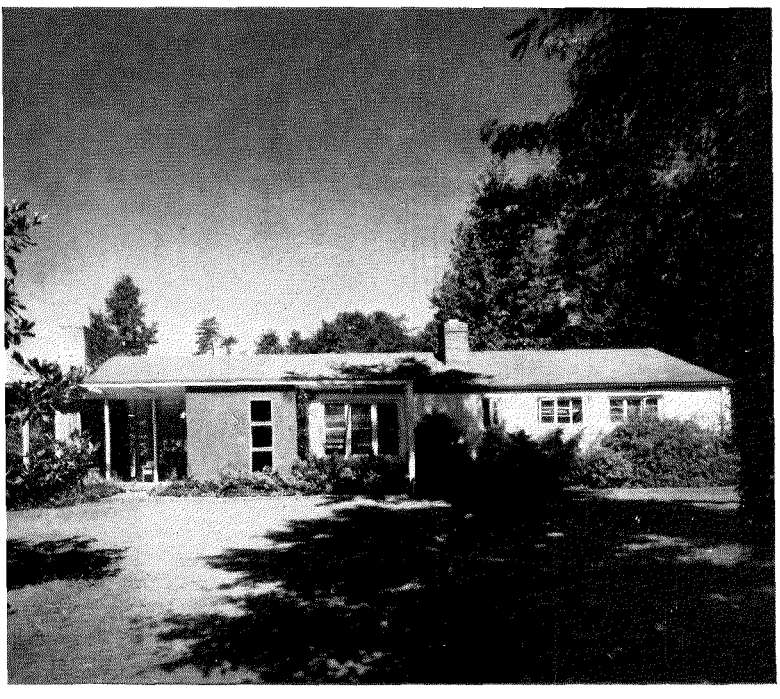
nodeling illustrates a slightly different ap- adding a new master bedroom and bath, screen porch, carport and storage-heater The owners originally wanted the new bed- be larger but decided to cut their plans to budget so that they would be able to en- ie living room at the opposite end of the s soon as the present addition is paid for. difficulty of getting to the master bedroom, ie fact that this standard builder plan is not ble. A poor original plan can be costly ways.

A major gain in this remodeling is the way the new wing shelters an outdoor living terrace. New double doors in a bedroom of the old house help to link the two wings.



g, below, blends into old house almost imper- 6′ wide porch roof, pierced with squares open to weeps around three sides of the plan. Vertical trio s lights new entry hall.



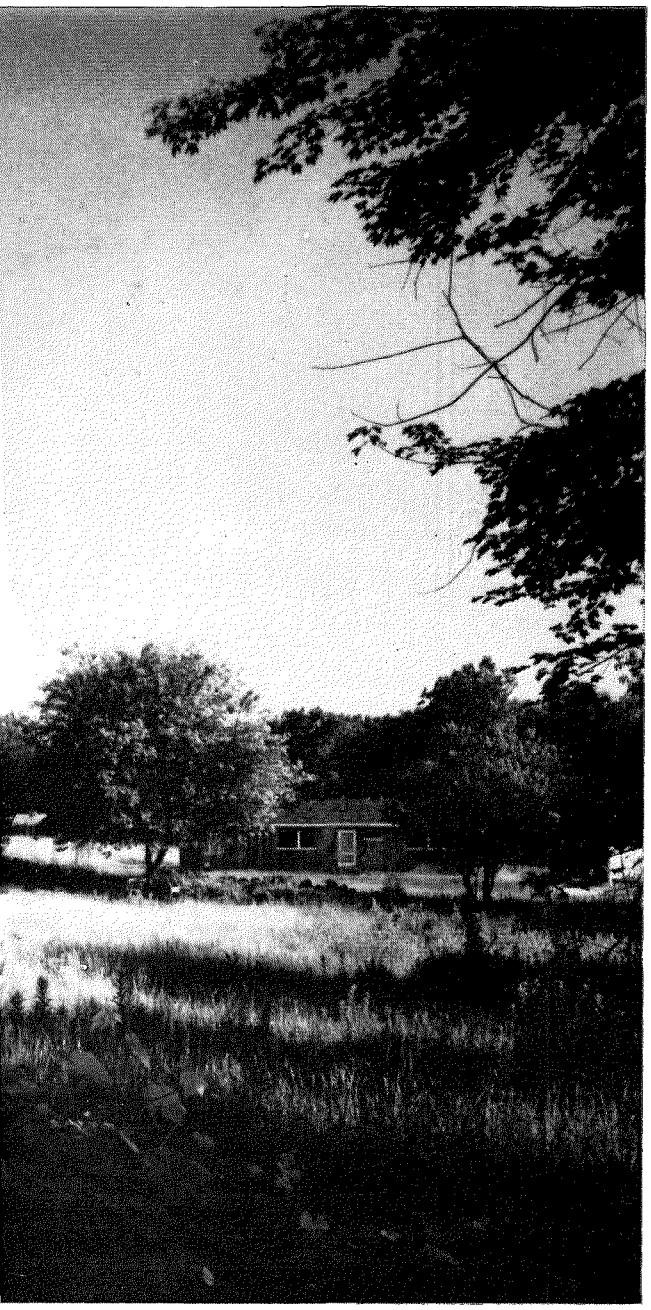


CASE STUDY NO. 7

—$6,000 (1948 prices)

The lines of the existing house were extended to the south 18′-6″ to provide additional living space enclosed by glass on three sides. Former entrance was turned into a high window for the new bath; box of fir planks added to side serves as new entry hall with access to new and old ends of house. Old living room is now used primarily for TV and record-playing. New built-in unit in center of plan has desk and bookcase on one side, closet and shelves on the other. Partition separating kitchen and dining was lowered and bridged with a counter to enlarge kitchen, which has been remodeled to accommodate new cabinets and a built-in seat.

Photos: Ezra Stoller-Pictor



ATION: Lexington, Mass.
ARCHITECTS COLLABORATIVE: Jean Bodman Fletcher, Nor-
n Fletcher, Walter Gropius, John C. Harkness, Sarah Harkness,
ert McMillan, Louis A. McMillen, Benjamin Thompson; associate:
ester Nagel.
MBERS & MORIECE, civil engineers
SI CONSTRUCTION CO., contractors

, one of the two level houses faces south for view, summer breeze
vinter sun. This plan type has three bedrooms, kitchen and living
upstairs, carport, playroom and storage in basement. Five farmer's
separated by old stone walls gives tract its name—Five Fields.

Architects turn merchant builders

produce a model community

of well-designed houses

What happens when a front-rank group of architects turn merchant builders on their own account instead of waiting for some builder to employ them?

Here is a tract development, Five Fields, sponsored by The Architects Collaborative (TAC), one member being Dr. Walter Gropius, founder of the Bauhaus, Dean of Architecture at Harvard, crusader for more active architect participation in building. And in a special way it is a considerable success.

Five Fields is quite different from the same architects' custom-built colony nearby at Six Moon Hill, where they tried to achieve rural domesticity with the International Style which characterizes most of their work (like their beach house shown for contrast on page 94). Here they have gone semiconservative and given distinction to what builders might call "the ranch house style with a low pitched roof."

Five Fields is also quite different from any merchant-builder venture—so different that at first glance some builders might be tempted to shrug it off as "not practical." Actually it is so different that smart builders who take a second look will almost certainly find more than one lead they will wish to follow.

Here are a few of the points of difference:

1. Styling is much smarter than in 99/44-100% of developments—crisp, direct, simple. The simplicity may look easy, but don't be fooled. It is the simplicity which comes only from the most careful detailing and the most careful thought for the coordination and combination of design elements.

2. Lots are bigger—never less than 1/3 acre for the $15,000 model, sometimes over an acre for the $20,000 house.

3. All the old trees were saved so the new development already looks as if it had been standing there for years. Additional planting gives each house privacy from its neighbors. Instead of formal lawns the fields between houses are left as they were.

4. All houses are carefully sited for view.

5. All houses are oriented to southern sun and breeze (instead of being set in rows parallel to roads).

6. All houses are tailored to the site, with a one-floor plan for flat ground, a split-level plan for gentle slopes, a two-level plan for steep hillsides.

7. All houses turn small windows to the road, but open up wide toward the view, with bedroom and living-room glass often running from wall to wall and floor to ceiling.

8. All houses are so open and so simple that they seem much larger than they really are.

9. Curving roads and culs-de-sac give children more traffic safety and everyone more visual variety of over-all scenes.

10. A 20-acre strip bisecting the 80-acre community was set aside as common land for all the residents. Among its pleasant assets are a small pond and an old barn left standing for possible conversion into a community building with nursery school.

Upper-story living room of this hillside house opens through glass to balcony and view

The architects-turned-builders were most successful, understandably, in providing better architecture. On costs their success is not so clear, for $15,059 is a stiff price for a two-bedroom, 960 sq. ft. basementless house—a price the architects justify on the basis of quality construction, plan variety, and small volume. On financing they achieved something most volume builders will envy—they got a 4% interest rate for their conventional mortgages from the local bank. On profits their success is modest. They expect to earn no more than their 5% architect's fee unless their $115,000 land investment shows a profit over development costs after the last house is sold.

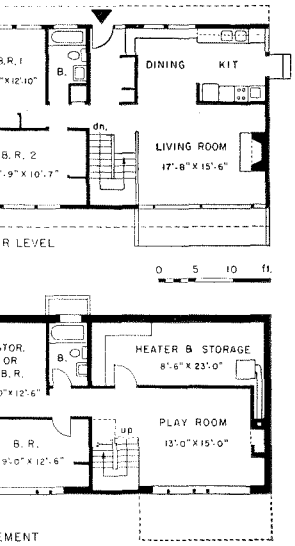
Since ground was first broken in June, 1951, 29 houses have been started and adjoining land lotted for 30 more. While continuing to take orders for new individual homes, the architects have built six on speculation and sold four of them already.

Fifteen thousand dollars for the 960 sq. ft. "A" plan *(see plan types")* is over $15 per sq. ft. to the buyer for house, lot and architect's fee. Of course, as more bedrooms are added to either the one-level basic plan or the two-level basic plan, the cost per sq. ft. comes down; in the biggest (C1) house, with finished basement, the buyer gets 2,448 sq. ft. of space for a little over $20,000, or a much lower price of $8-$9 a sq. ft.

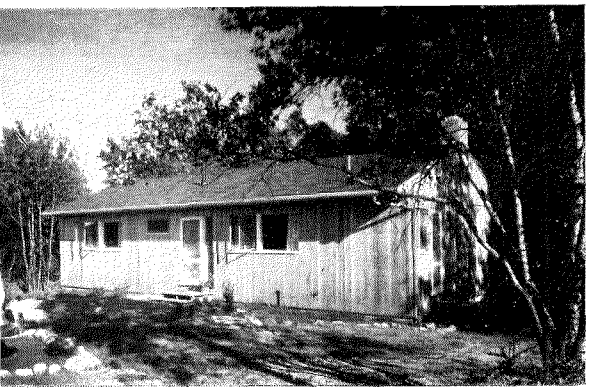
COST BREAKDOWN of a typical house
room A-1 plan, with unfinished basement
ing 5% architects' fee, $300 planting
and improved $1,600 lot. (Three other
are priced at $2,100, $2,600 and $2,950.

Excavation	
Backfill	
Foundation walls	
Concrete slabs	
Wood framing and boarding	
Exterior finish	
Roofing	
Interior framing	
Millwork	
Chimneys	
Lath and plaster	
Painting	
Wood and linoleum floors	
Plumbing	
Heating	
Electric	
Water service	
Hardware allowance	
Septic tanks	
Insulation	
Contract price	
5% architects' fee	
Improved "A" lot	
Planting allowance	
Price to purchaser	

(1951 price; costs now make selling pric

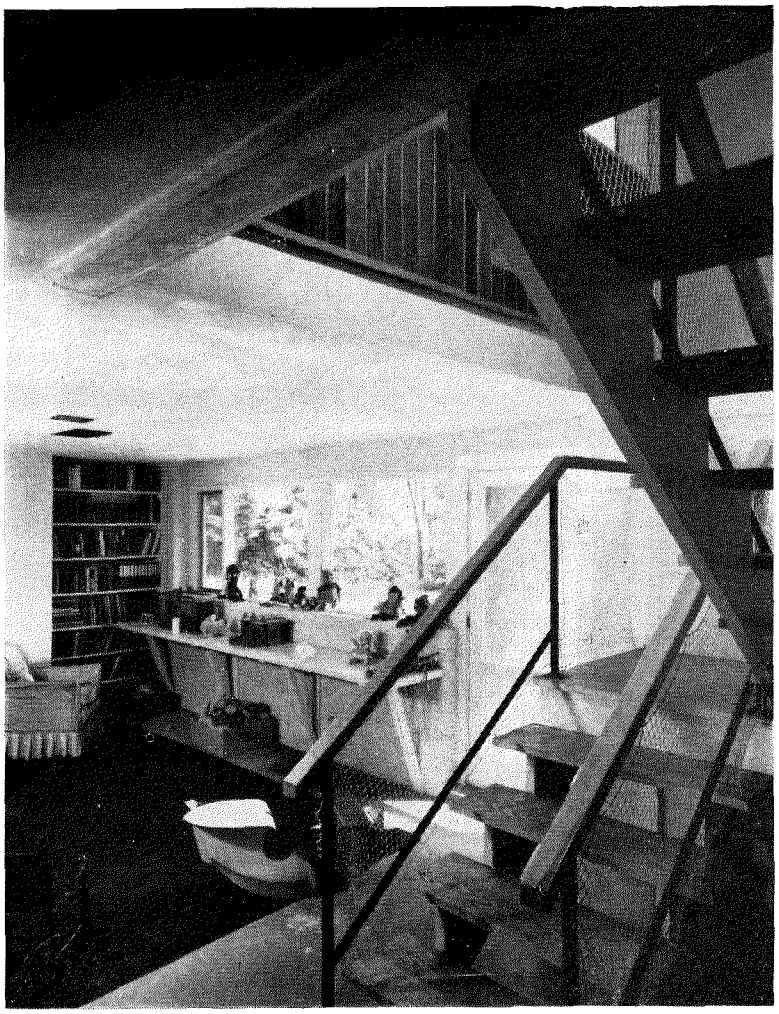


o-level plan may be expanded or down by finishing big base- u. Below, main entry side pre- ll windows to street for privacy.



In the two-level house, shipshape stairs lead up from the children's playroom to the family living room, make supervising the young an easy matter.

Photos: Ezra Stoller-Pictor



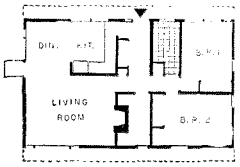
one-story house, *built over crawl space, in these two-, three- and four-bedroom d their reverses). Good plan features: entry has coat closet and a pass- o the kitchen.*

ll wastes little floor space, provides ess to all rooms from center of plan. ion is not through middle of living, din- chen areas; this means freedom of move- edom in furniture placement.

is provided in large heater room.

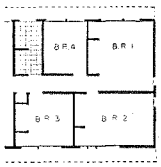
two-level house *has much the same e one-story types, below, with basement lacing heater room, kitchen and chim- l to the opposite side to permit more ning through the center of the house. also is offered in two-, three- and four- plans and their reverses, with finished hed basements. Plumbing for a future ughed in directly under upstairs bath; runs from $780 (for A-1 house) up, ludes wiring, plumbing fixtures, asphalt nterior partitions that divide basement om, bedrooms, storage and heater rooms.*

PLAN TYPES *(prices include 5% architects' fee, $300 planting allowance and $1,600 "A" lot).*

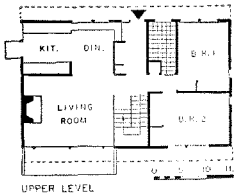


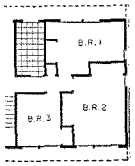
A. *Two bedrooms: $15,059 24′ x 40′ = 960 sq. ft.*

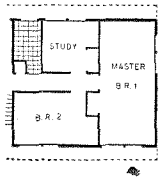
B. *Three bedrooms: $15,971 24′ x 45′ = 1,080 sq. ft.*

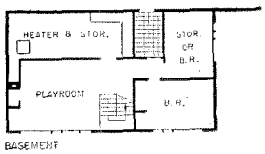


C. *Three or four bedrooms: $16,868 24′ x 51′ = 1,224 sq. ft.*

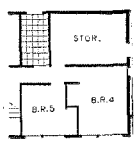




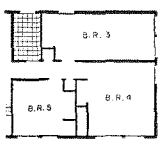




A-1. *Two bedrooms upstairs: $17,204 — 24′ x 40′ = 960 sq. ft. x 2 floors = 1,920 sq. ft.*



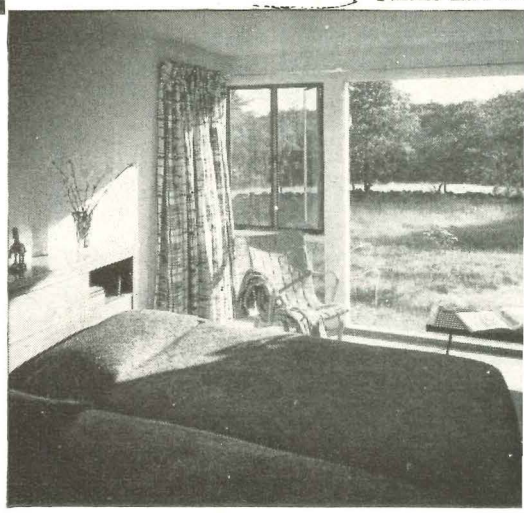
B-1. *Three bedrooms upstairs: $17,895 — 24′ x 45′ = 1,080 sq. ft. x 2 floors = 2,160 sq. ft. (An alternate plan with carport in part of basement sells for $17,795.)*



C-1. *Three (or four) bedrooms upstairs: $19,229 — 24′ x 51′ = 1,224 sq. ft. x 2 floors = 2,448 sq. ft.*

Living room *of this one-level house has big gla toward paved terrace and rural vista beyond, also space from its dining area, (foreground). This m enclosed kitchen at right. Standard framing is finis plaster on walls, oak floor.*

Photos: Ezra Sto

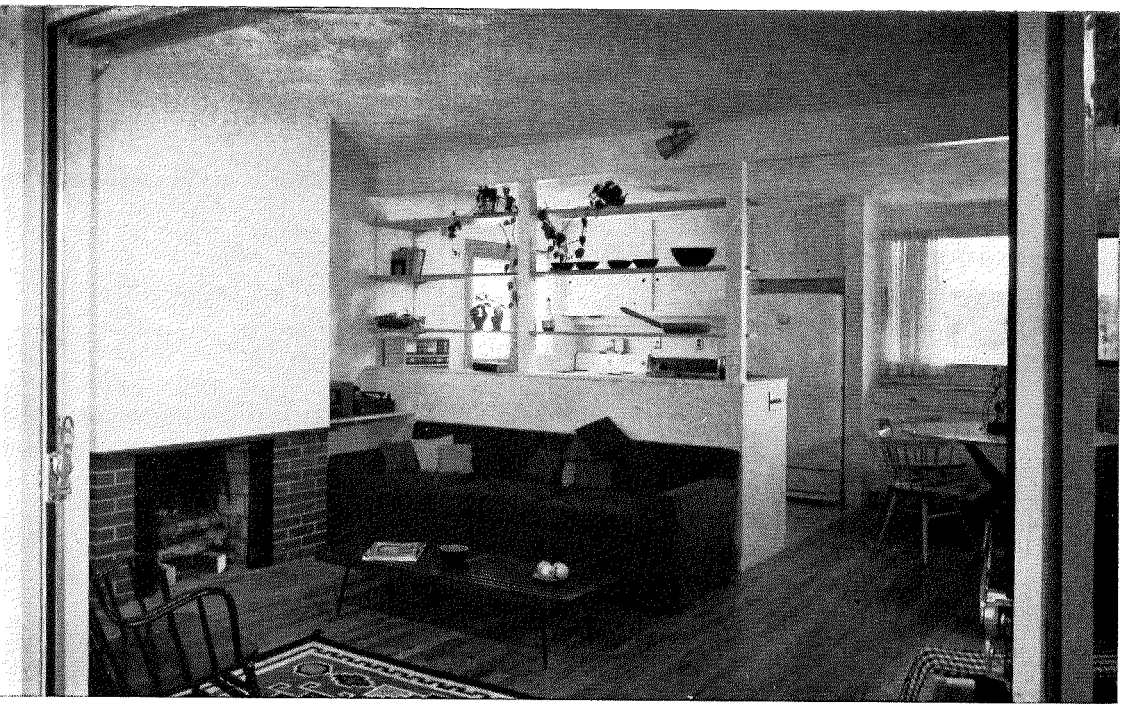


Bedroom, *with one whole wall a windo twice as big as it is. Proper placing of ho allows all this glass and privacy too.*

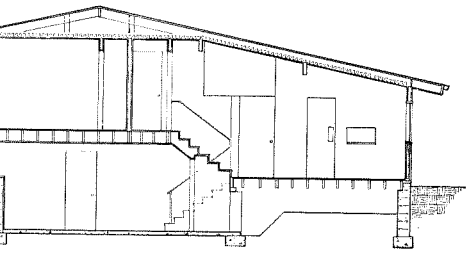
Five Fields houses are good examples of today's open planning and efficient room arrangement within a general house shape familiar to prospective buyers. Their appeal to buyers lies in generous use of glass areas and porches, warm natural materials and crisp detailing. One reason why pitched roofs were used: since most of the houses are on hillside sites, it might have detracted from the general appearance of the subdivision to look down on neighbors' flat roofs.

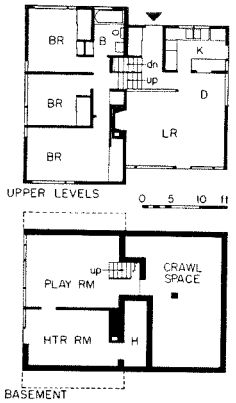
To keep labor costs down, the houses were designed for relatively standard construction: a frame of 2 x 4's 16″ o.c.; interior partitions of nonload-bearing 2 x 3's, and 24′ roof trusses site fabricated of 2 x 6's. TAC wanted the houses to last, so they kept jobs under close supervision, used above-average materials and methods: oak floors, oiled redwood siding, wet plaster walls and ceilings, metal vent sash and door bucks instead of wood. Exclusive of the largest glass areas, frames for two window sizes were milled on the job from TAC designs.

One of TAC's biggest construction headaches has taught them a lesson merchant builders learned long ago: don't be too lenient in allowing purchasers variations and "minor changes"; it makes design and building much slower and more expensive.

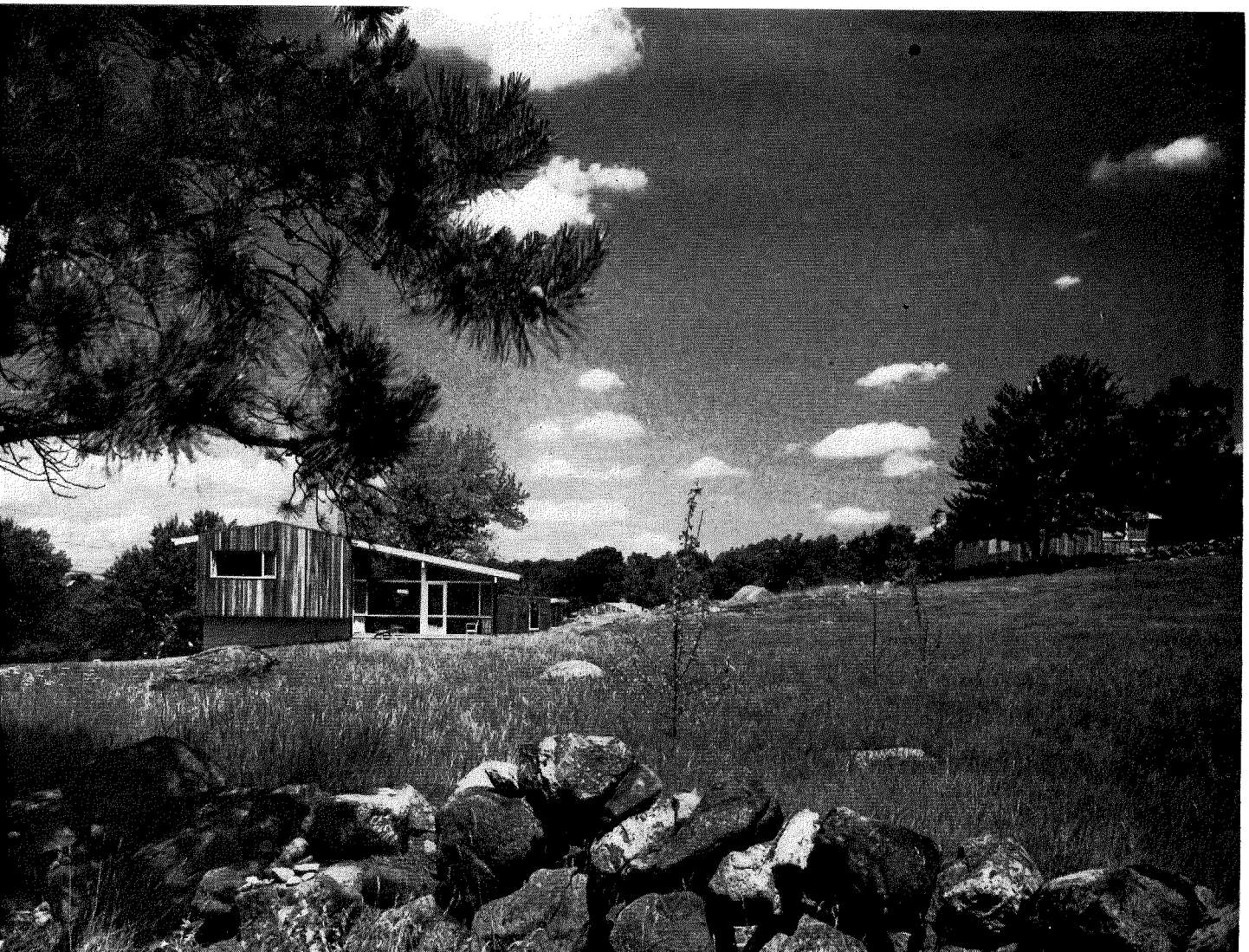


Plan variation: *opens shelves make kitchen part of living area, provide decorative storage for utensils, plants.*





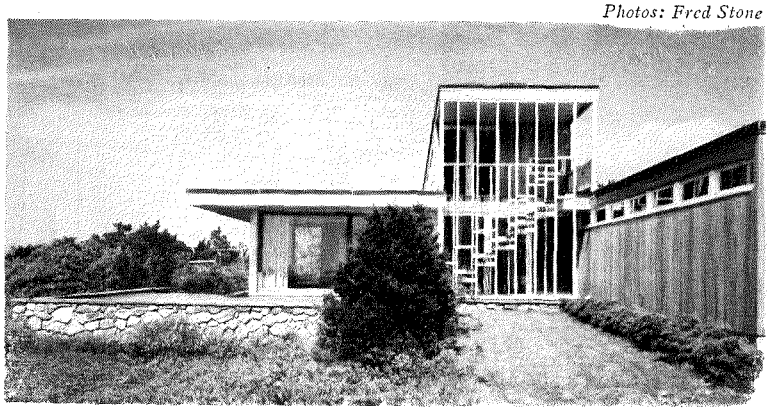
Split-level house—*$17,249—1,550 sq. ft., including 553 sq. ft. basement. From the basic one- and two-level house types TAC developed a third, split-level plan to give houses on flatter lots the same advantages of inexpensive,* windowed *basement space. With bedrooms half a story higher and a partial basement half a story lower than the main living areas, it is possible to finish the lowest level of this house as study, playroom, laundry and give them a wall of 3' high windows just above grade (see section left). Note plan advantages similar to other house types: separate entrance hall, convenient central and cross hall, living room looking away from road toward back of lot.*



THE PLAN of this Cape Cod summer house reverses tradit

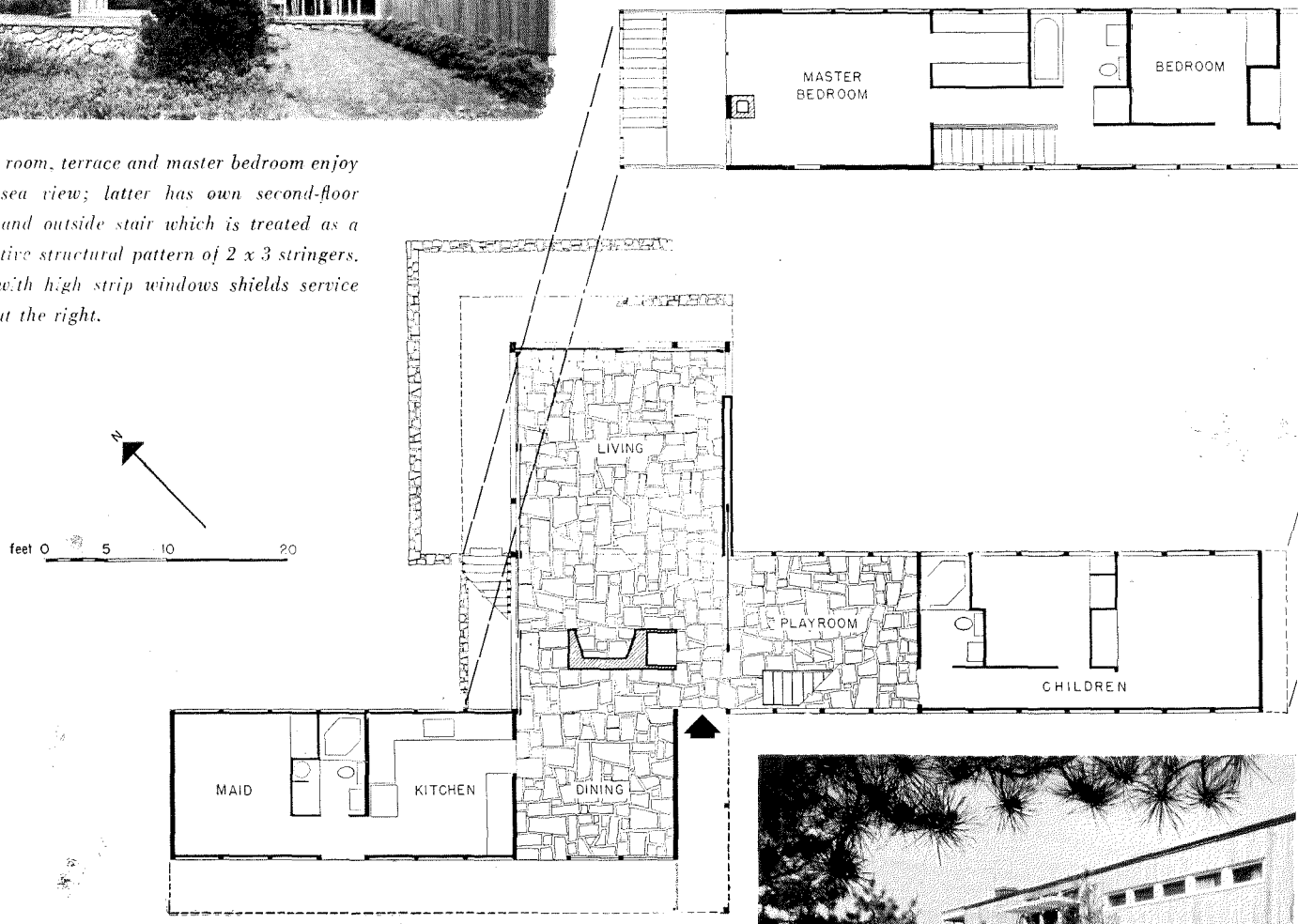
procedure to get privacy and a view

Photos: Fred Stone

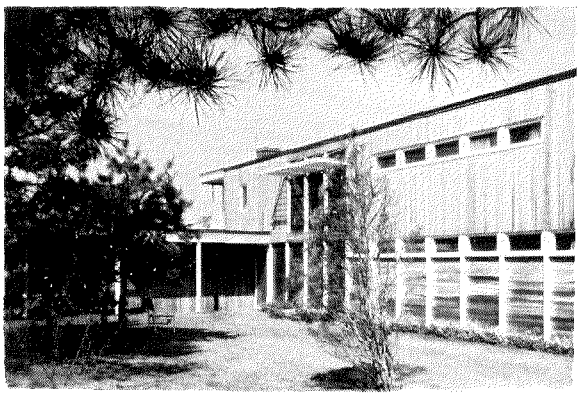


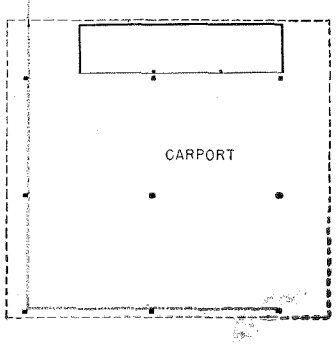
LOCATION: Cape Co
THE ARCHITECTS COLLABOR
Robert S. McMillan, job
CAPE COD CONSTRUCTION CO., c

Living room, terrace and master bedroom enjoy main sea view; latter has own second-floor porch and outside stair which is treated as a decorative structural pattern of 2 x 3 stringers. Wall with high strip windows shields service wing at the right.

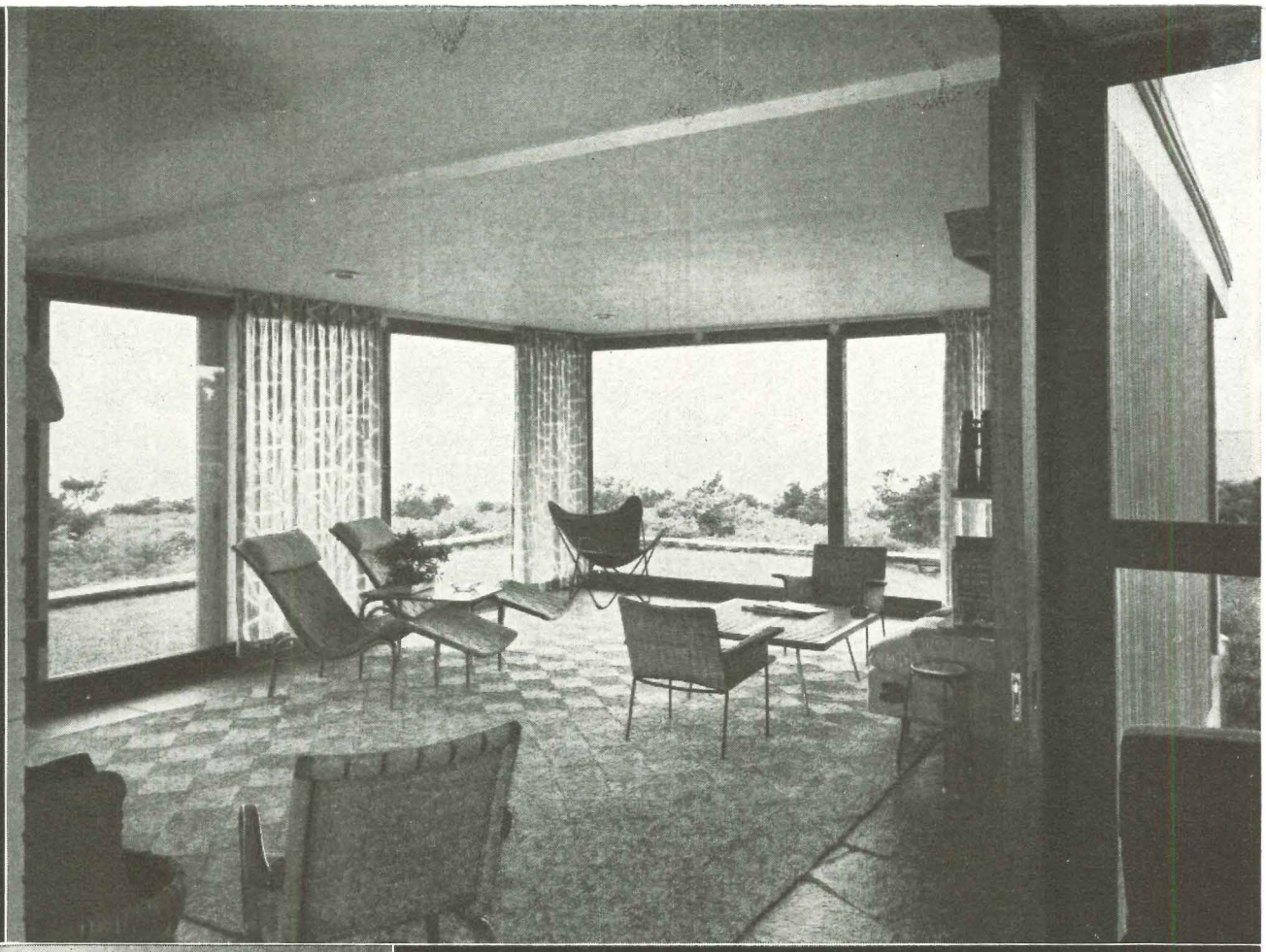


On opposite side of service wing, dining, kitchen and maid's quarters open to service yard, separated from carport by high fence. Shed in foreground is pumphouse.





On front of house facing road halls on both floors are lit by windows. Two-story window screen gives light and cross- to stairwell, playroom, other li can be glassed in with storm



Sliding glass walls around two sides of living room open to terrace, sea view and breeze. A 12′ opaque door (right foreground) slides out of a pocket in living room's one blank wall to close off playroom.

Free-standing fireplace of whitewashed brick takes the place of walls and doors to define spaces for communal activity: living (foreground), dining (right background) entry, and playroom (far left). Continuous flagstone floor ties areas together visually. Door opening at left leads to downstairs children's bedrooms, stairs to master, first and second bedrooms.

temporary house on Cape Cod has more in common with Cape Cod cottage than you might suspect. It could even be sympathetic 20th-Century variation of that ancient theme. riginal was a tightly enclosed box, a "four-corner" plan round a central fireplace. It was a winter house, so it was to offer snug protection against buffeting winds. This is er house, so TAC has turned the prototype inside out.

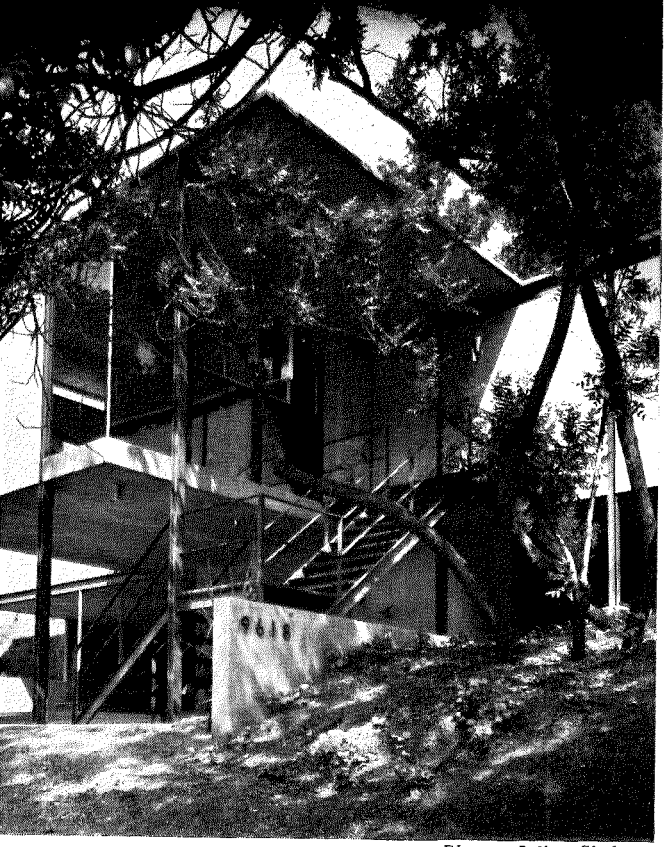
he original, this house is divided into four sections, with lace at its heart. It was planned for economy, here achieved ple structure of wide-spaced posts and beams and a single s of 1″ lumber that kept the total cost under $25,000 for is sq. ft. of space.

the original, the new house has a ranging plan, with an race in each quadrant instead of a closed room to suit orary living patterns: most people today work indoors, loors; our forebears worked in the open, relaxed indoors. lan *(opposite)* accomplishes four things: 1) it isolates ervice, children, car storage in four distinct wings which pin-wheel fashion, from the hub; 2) it groups the most nmunal rooms nearest the center, convenient to one another, to front door and stairs; 3) it makes the house one room thick at all points for maximum sea-breeze ventilation and views through wide window areas; and 4) it splits up its plot into four separate quadrants.

These four outside zones are shielded from one another and from dissimilar indoor functions by sight barriers: fences, solid walls, walls with only high strip windows. Opposite each such solid wall, doors and window walls open the indoor space to its outdoor counterpart (e.g., living room is walled off from the children's play yard, instead looks out to its own terrace and sea view). **The structure is simply a cage** of 4″ x 4″ posts on a 4′ module, their spaces filled with glass or sheathed with a single wall of 1″ x 4″ T & G cypress siding, nailed horizontally or vertically to the inside or outside of the posts. The cypress weathers well and sea moisture keeps the V-joints swelled weather-tight.

Price was cut to under $10 per sq. ft. mainly because: 1) fewer structural members and wall layers meant faster erection, less labor, 2) only insulation is 3″ of fiber insulation board under the tar and gravel roof, and 3) only heating is a floor furnace under the stairs to take the chill off both levels on crisp days.


CEZANNE
PICASSO
ART IN OUR TIME
THORNE VOTT



At the entrance, the slim columns and light steel stairway form a linear, red-orange pattern against plaster walls.

LOCATION: Los Angeles, Calif.
CRAIG ELLWOOD, designer
ECKBO, ROYSTON & WILLIAMS, landscape architects
HENRY SALZMAN, general contractor
MACKINTOSH & MACKINTOSH, consulting engineers

Photos: Julius Shulman

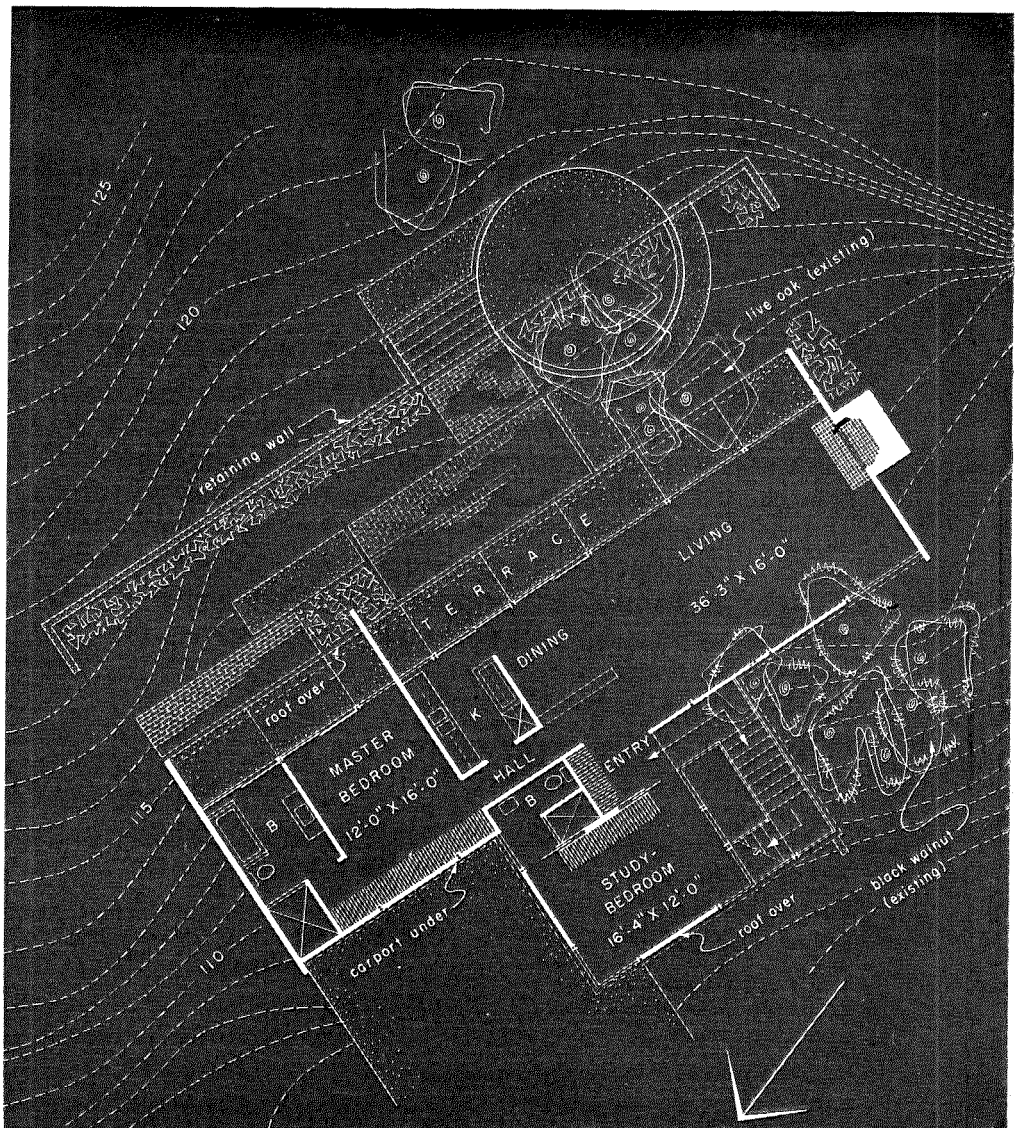
GANCE AT $9.87 a sq. ft.*

-designed houses shown on the next have a lot to say about two sub- are rarely mentioned in the same nomy and elegance.

or their steel posts, there is little run up even a volume builder's hey achieve a simplicity and dis- ally found only in very expensive t elegance is one good reason the houses (p. 102), built for only ece, have been rented month after $500 (or $6,000 a year). It is a why this house, built for $18,500 0 for land and landscaping) has sed at $29,500.

es come as no surprise to Craig e young designer of the houses. e result of six years' work aimed exciting structures at reassuring s now so confident of his cost-con- hat he writes a top-price guarantee ndard design contract.

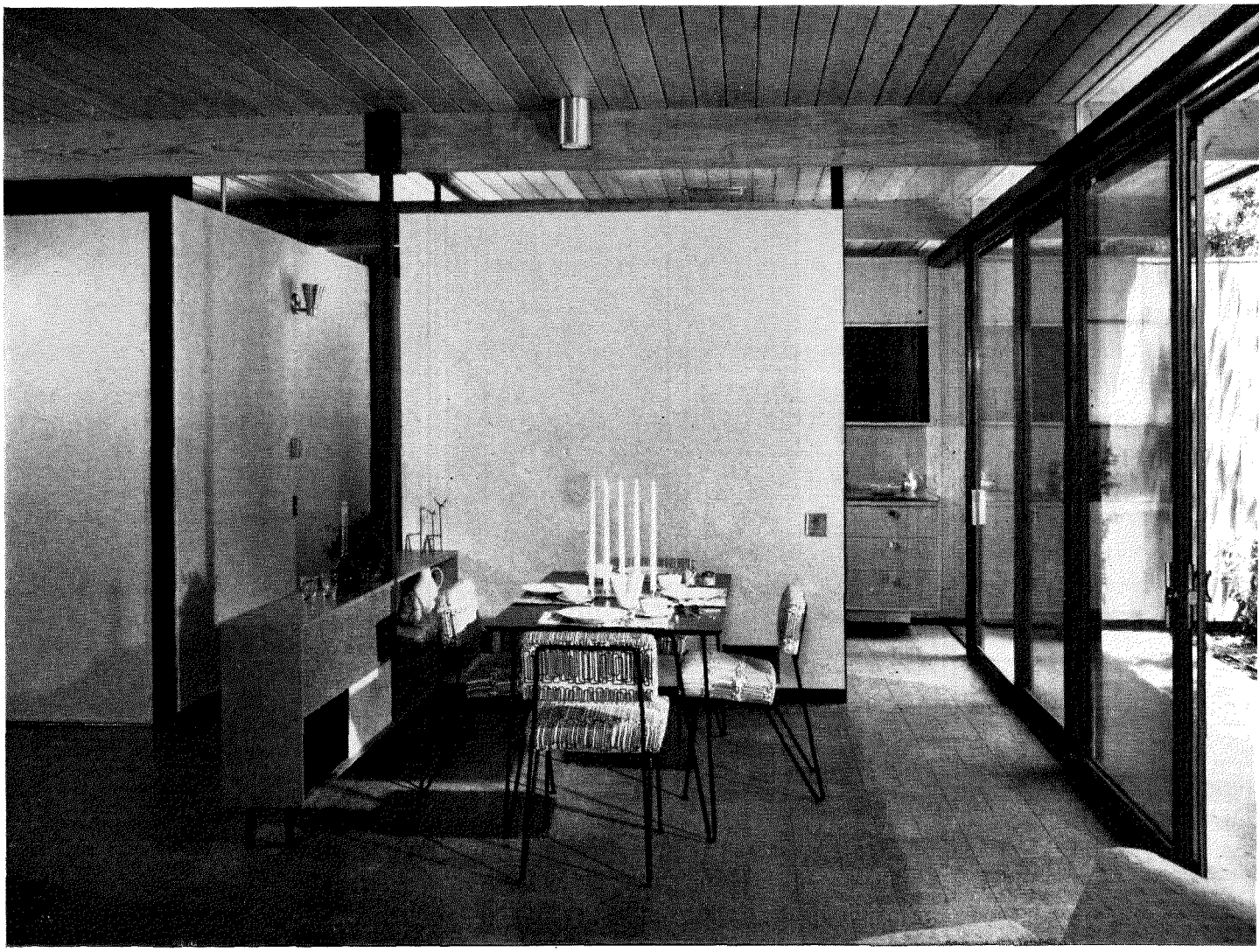
e customary 50% for covered entrance, car- ut excluding land, landscaping, design fees.

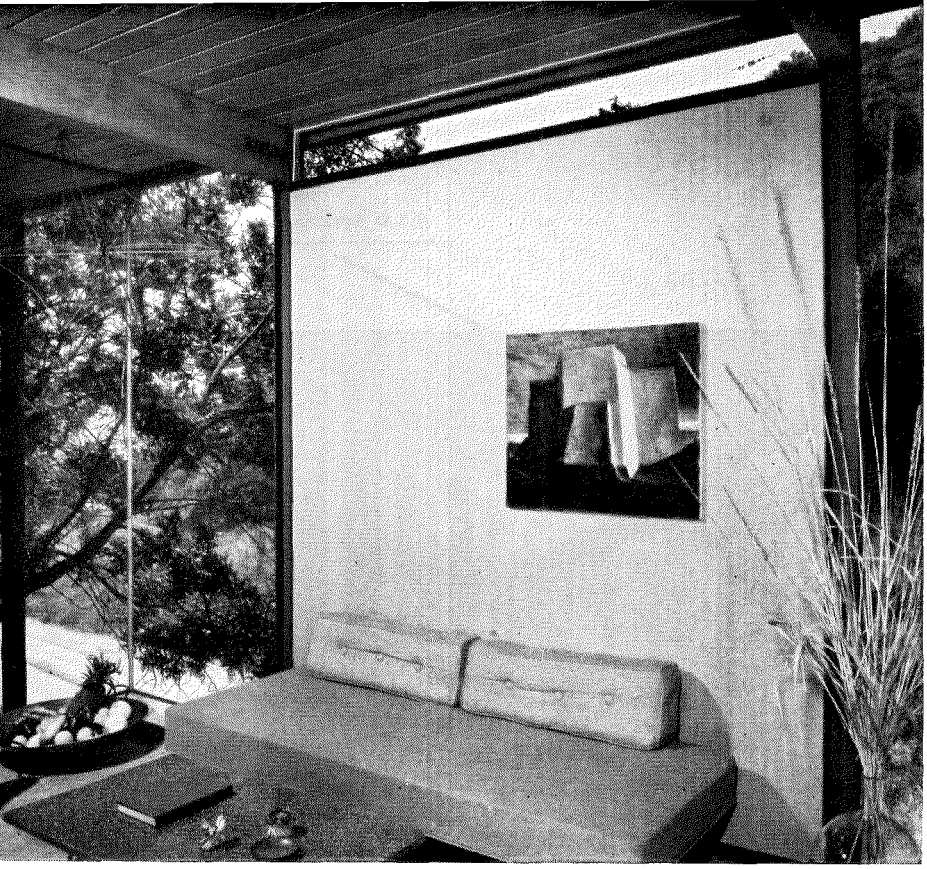


sterly rooms open to a two-level terrace

The airy living room, above, enjoys a canyon view on two sides

Below, a nearly square panel divides kitchen from dining area; entry

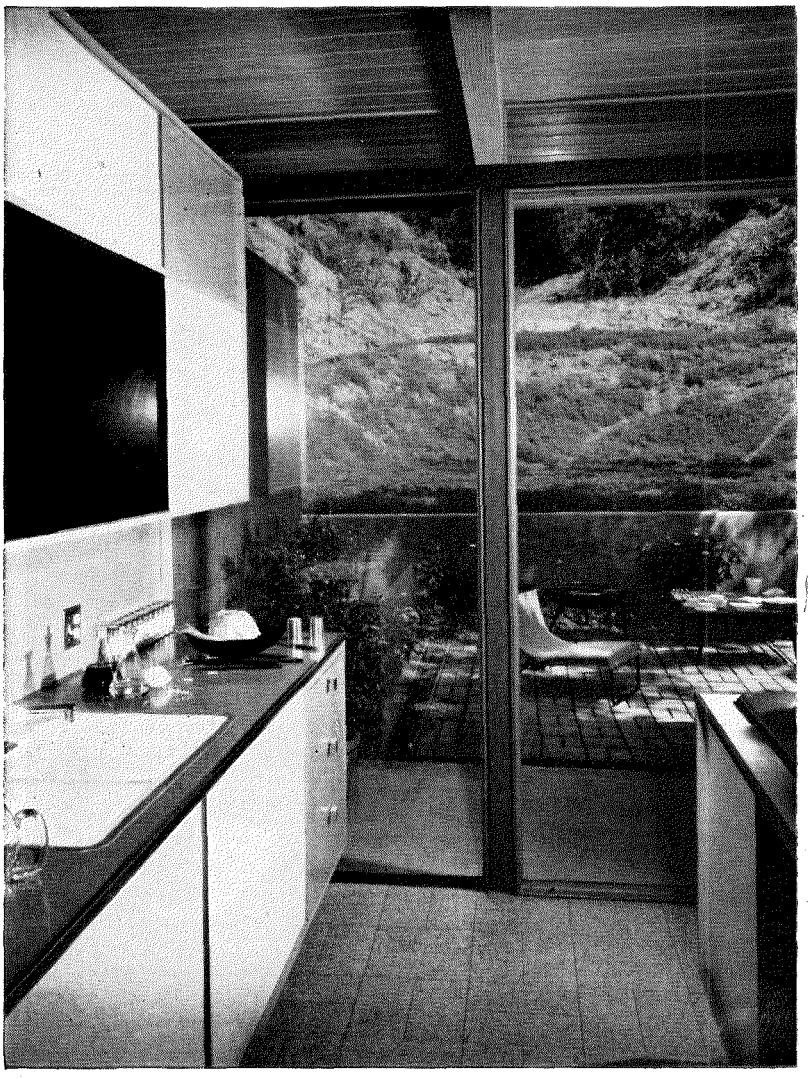




The study–bedroom, left, overlooks the entrance and passing traffic through glass-walled corners but is above the sight of people on the road below.

The handsome kitchen, below, is open to living room and terrace. The sliding doors of the cabinets are tempered hardboard enameled in a pleasant pattern of black, white and red panels.

Photos: Julius Shulman



and space

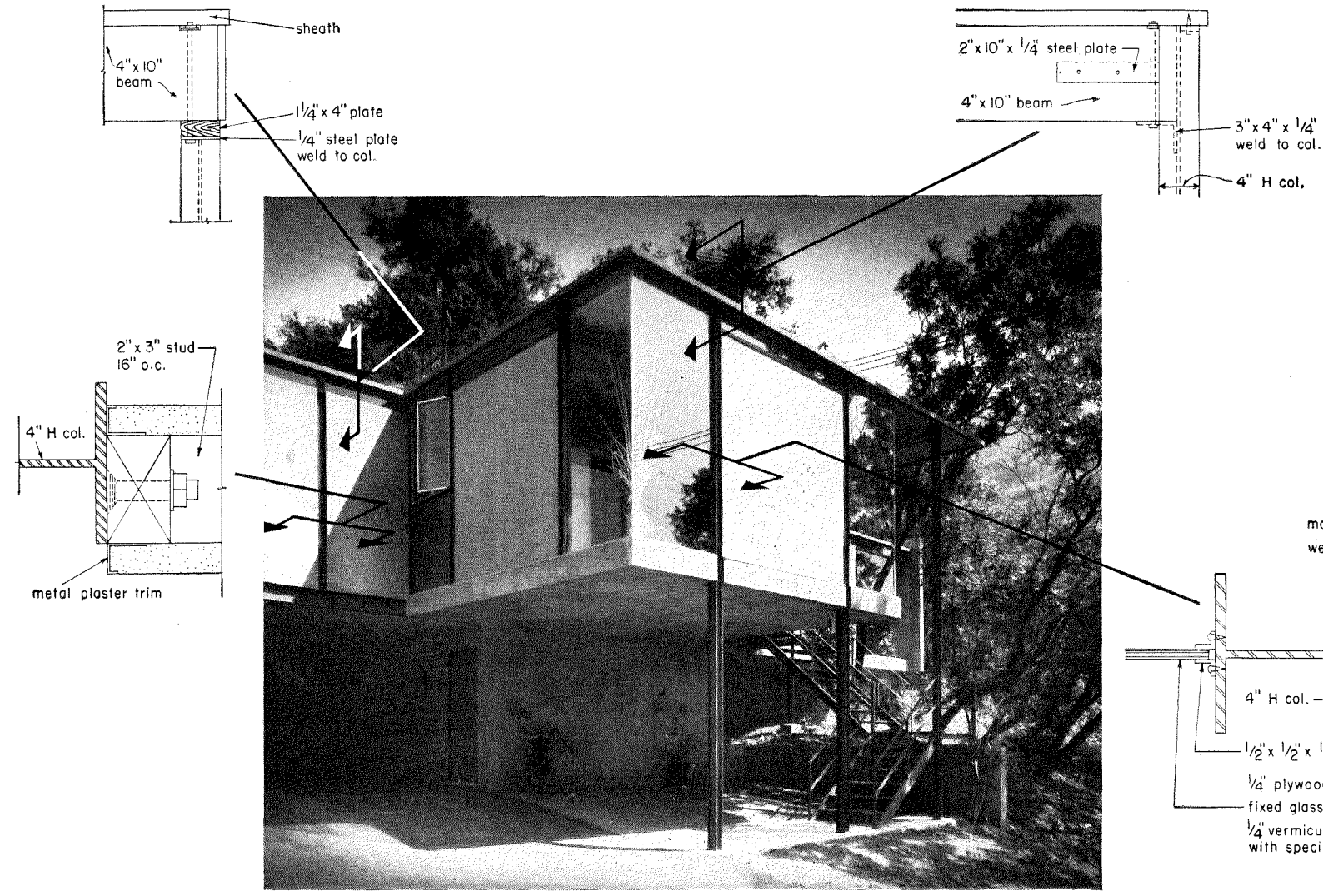
ssity, Ellwood has developed a working philosophy on where s most worth spending. First is *space*—the most telling luxury and like any thoughtful designer, Ellwood knows that square is only half the space. In this house, when you lean back the fireplace wall, the living-dining room stretches out in you for 36′ but the free-standing panel-partitions suggest d expanses beyond. If you look up, you can follow the plank- m ceiling across the partition tops for 48′ within the house far as the sky outdoors. To gain outdoor vistas on land between canyon walls, Ellwood decided to raise the house stilts. Result: a front view up and down the canyon and a l terrace at the rear bounded only by the canyon walls.

and joints

se is essentially a simple enclosure, but seen at close range— the only way you normally look at it because of the restricted ere is plenty of elegance to delight the eye. What's more, all its is a part of the essential structure of the house.

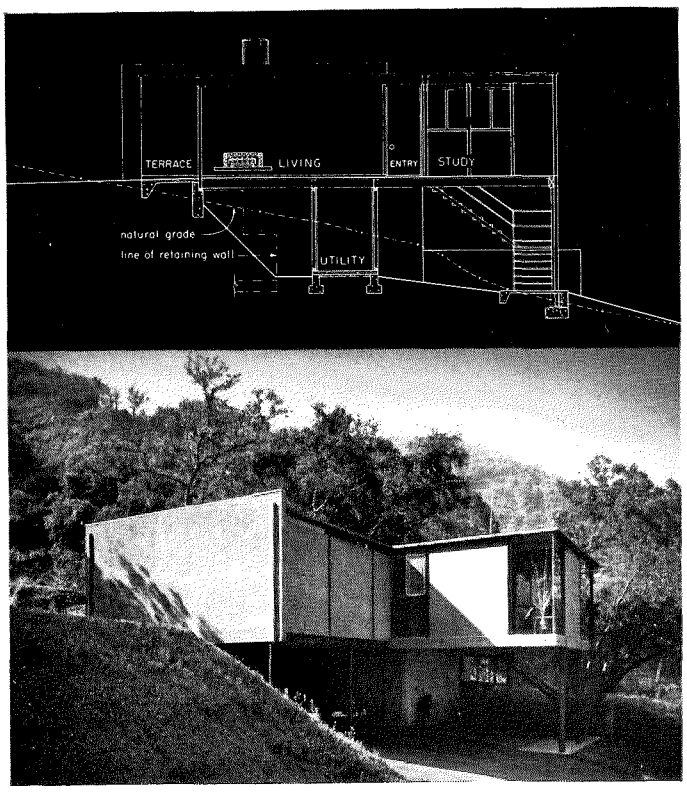
eral, there is the elegance of precision, neatness, rhythm:
ecision of walls assembled primarily from manufactured units.
atness of tops of partitions, exterior wall panels, door and heads all aligned with the underside of beams.
ythm of repeated 8′-square panels tied together at the top by ribbon running between the beam ends.

il, Ellwood makes deft use of the floating plane, the incised the wit of forthright solutions:
ane of the roof appears to float free above the walls.
aster of the partitions is a plane floating on the supporting rk.
ised verticals of the H-columns are emphasized by reinforcing ication's red lead priming coat.
se-shoe of partitions is cut back to gain a shadow line which s imperfections of workmanship.
plumbing and heating vents cannot easily be hidden, they kly exposed, as are the tin-can cylinders surrounding ceiling at can't be recessed in the 4″ plank roof.



For an uphill site, below, the reversal of a common hillside plan: terrace on the hill, house on a platform. The plan runs paralled to the natural contours.

For door and window heads throughout the house, Ellwood uses the same milled 2" x 3" profile. To define the separate units which make up the walls, all trim is painted black, sliding-door units the manufacturer's gray, and steel with red oxide.



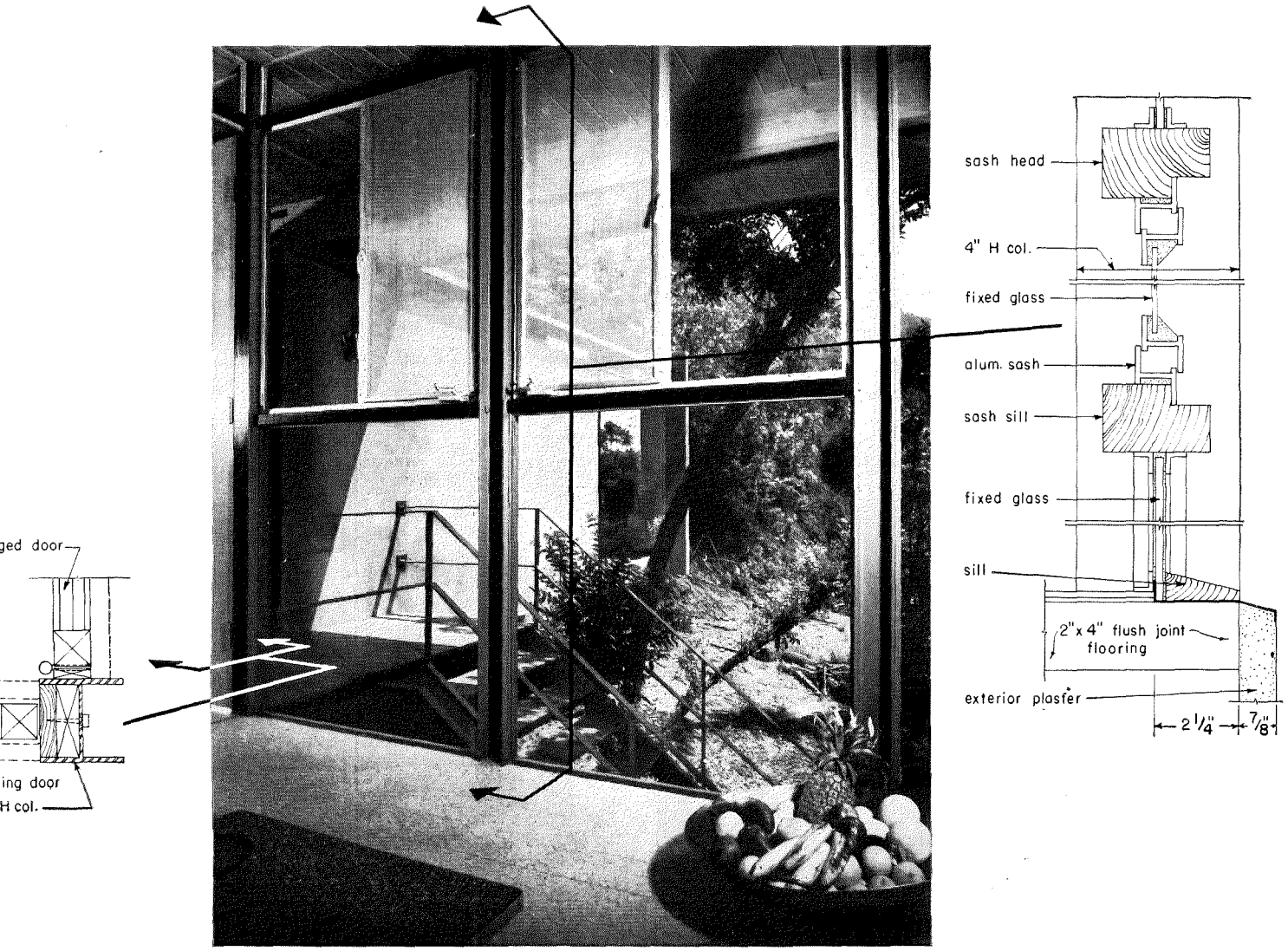
Costs and specifications

Ellwood believes a client is entitled to a firm budget ceiling barring natural phenomena or acts of Congress—he is wil back his contention with a guarantee. His methods are about as as a CPA's. Before specifications are written, he secures bid subcontractors on all major items in several alternate materi assemblies. With these figures in hand, he reviews the progra his client and writes final specifications. Henry Salzman, a con who likes and understands modern methods, usually pops up w low bid.

On this job, Ellwood would have preferred an all-steel fra the cost index pointed to wood beams, a saving of about $575 and materials considered. Advantages over steel: easier direct of floor and roof decks, column connections without the positioning of steel on steel, easier handling because of the weight.

Posts and panels

Ellwood's half-and-half frame is made of 4" steel H colum 4" x 10" wooden roof and floor beams forming rigid frames 8' apart. The beams run the short way for 16' except at th of the building where the study projects like a bay wind Ellwood's typical beam-to-column connections the beam sit 2" x 4" wood plate which runs from column to column th

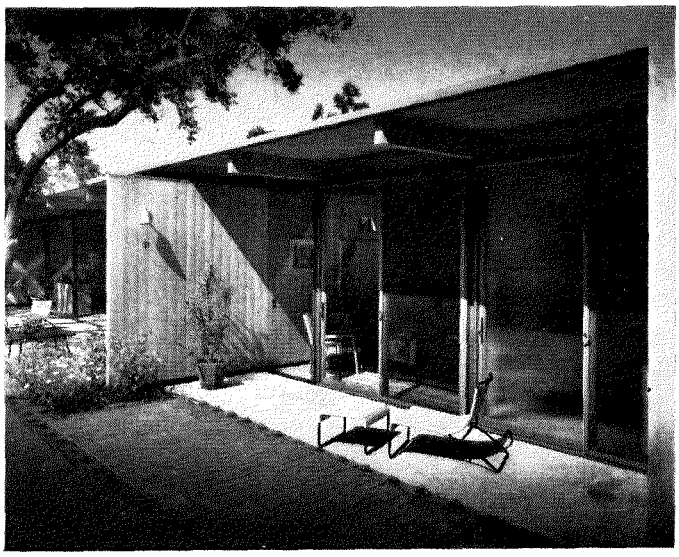


Wall panels, above, are bolted or screwed to column flanges. The cement board for the two opaque panels of the study is a Canadian material with a smooth, black-and-white stippled finish.

he beam is bolted through twice vertically to the wood plate
1/4" steel plate, welded to the top of the column. At the
he beams frame into the web and 2" x 10" x 1/4" straps welded
column flanges supplement a 3" x 3" x 1/4" angle underneath;
ıe column can run through to form a stilt.
ls between the columns are glass, plywood or plastered stud
. Openings above the wood plate are glass, either fixed or
. The two end walls are of conventional stud framing with
ıd plaster. The system allows Ellwood to:
nate all bearings or bracing partitions (lateral forces are taken
rigid connections).
or bolt on his exterior wall panels.
l blocking around doors and windows by dropping beams to
ight.
tock sash and sheet materials.

ıd & Johansen

vill compare this system with the "housebuilding kit" of rough
illed lumber developed by eastern architect John MacLane
n (H&H, June '52). Ellwood emphasizes the independence and
ty of partitioning. Johansen is a purist who carefully artic-
corners and is consistent in the use of his system. Ellwood on
er hand keeps his columns away from corners entirely and if
em gets in the way of the design and living qualities he is after,
polates freely. But about costs they both are single-minded—
ıve discovered how to make $20,000 to $30,000 stretch way
its normal limitations.



A terrace for the master bedroom and bath, above, is screened off by extending the bedroom wall. Since the roof affords no space for recessed fixtures, lighting is by wall pin-ups, ceiling-attached metal cylinders and troughs in cabinets.

Elegance at $9.10 a sq. f

LOCATION: Los Angeles, Calif.
CRAIG ELLWOOD, designer
ECKBO, ROYSTON & WILLIAMS, landscape architects
HENRY SALZMAN, general contractor
MACKINTOSH & MACKINTOSH, consulting engineers

These two houses, identical rental units built for the owner adjoining hotel, were a rigorous test for designer Craig Ell specialty—turning out "exclusives" on bargain-basement b The job had one striking advantage: 180° of Pacific panoram one expensive liability: filled ground requiring floating found However, the increased cost of excavation and concrete work per unit) was handsomely offset by the relatively low cost of lots ($5,000 each in an area where lots sell up to $35,000). rest, it was a matter of making $10 a sq. ft. look like $500 a With the cooperation of contractor Salzman, Ellwood succee well that the owner is planning to build 14 more units near

This is what has persuaded the tenants to part with the sti rental month after month for the last two years:

- The privacy of living in a real house but under the convenie pices of a residential hotel
- The view—and it's with you nearly anywhere you choose to
- A wide-open plan that seems yards larger than its 1,340 sq. larger, for each room has nearly half again as much space terrace with sliding glass walls to make it accessible
- A sleek design of broad, unbroken planes that make such background for the view and bright linear furniture that you notice its humdrum brick, plus stud-and-plasterboard walls
- Interiors that strike a good mean between Hollywood plu modern severity
- Amenities you rarely find in rented houses such as air condit indirect lighting, covered entrance walks, a fireplace and seven

** Figured at the customary 50% of square footage for covered entrance, carpart, terrace excluding land, landscaping, design fees.*

Photos: D. J. Higgins

Kitchen may be wide open or discreetly closed to dining area, above

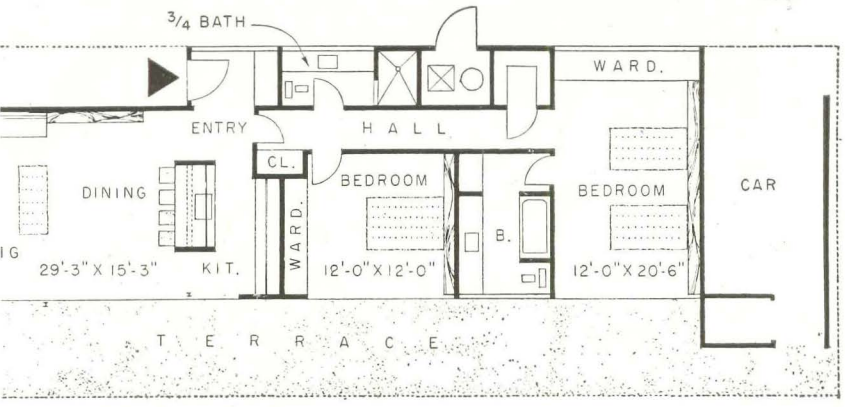
Outdoor emphasis plus an 8′ terrace make the 15′-6″ x 23′ living area loo

COST BREAKDOWN

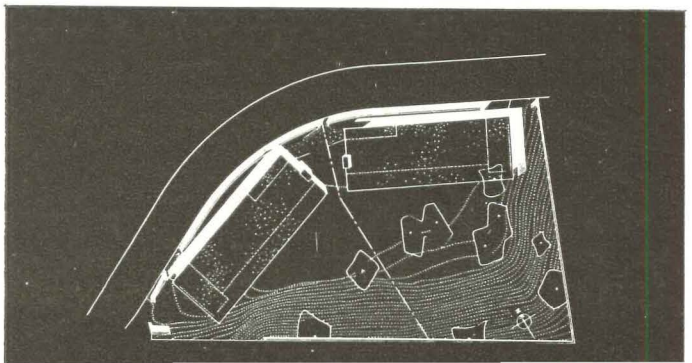
Concrete, excavation, extra for floating foundations	$4,760
Masonry	785
Lumber and insulation	2,500
Carpentry	2,000
Plumbing, fixtures, sewers	2,145
Exterior plastering, interior plasterboard, wallboard	2,920
Cabinets, millwork, doors, trim counters	2,850
Glazing	890
Sheet metal	400
Heating and air-conditioning units	1,340
Rough and finished hardware	875
Roofing	380
Electrical including bath heaters, fans	1,085
Sliding-door units, sash	2,655
Ceramic and asphalt tile	185
Painting	1,450
	27,220
Contractor's overhead, insurance, taxes	3,000
Design fee (10% first unit, 2% of second)	1,813
	$30,220

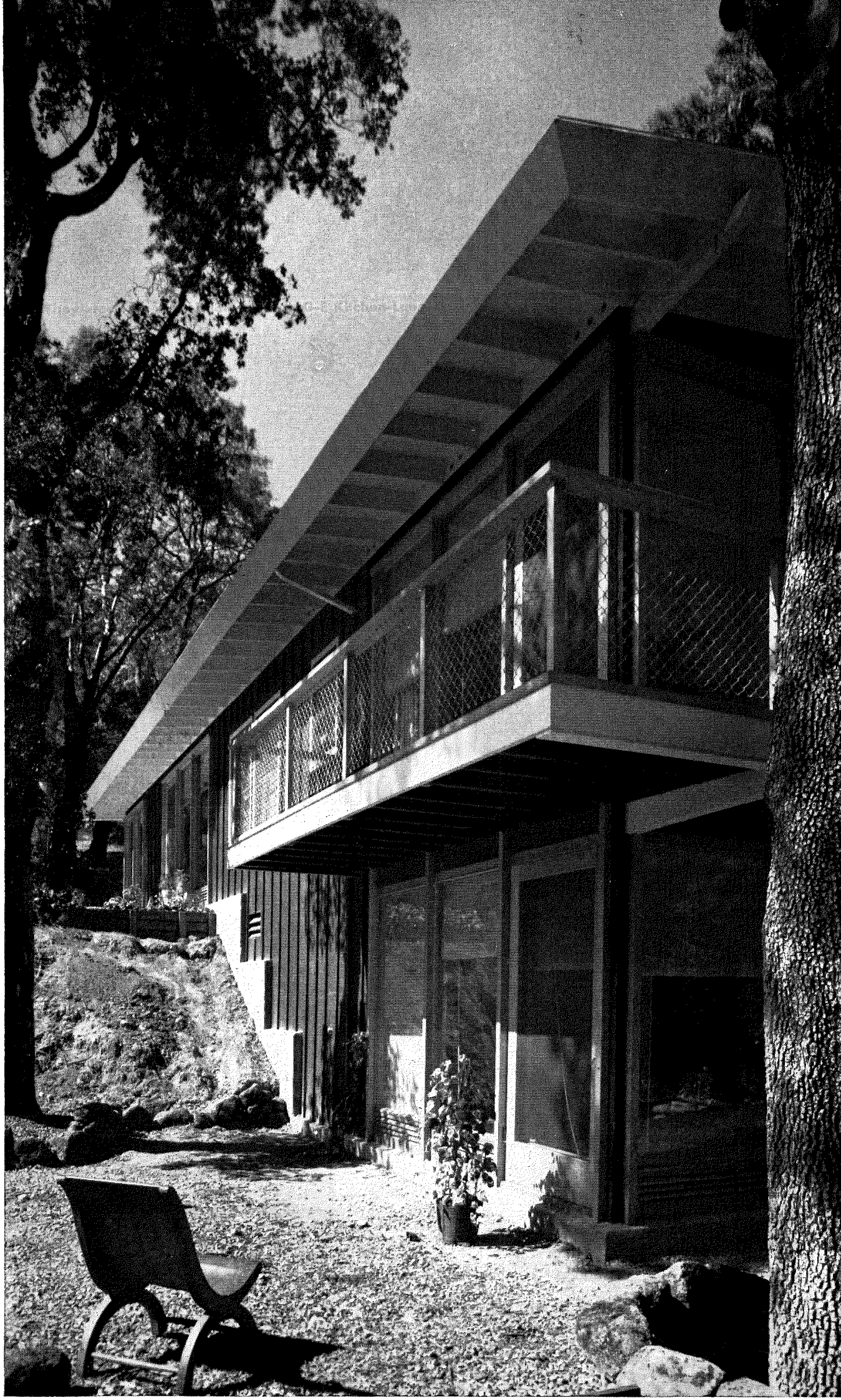
J. Higgins

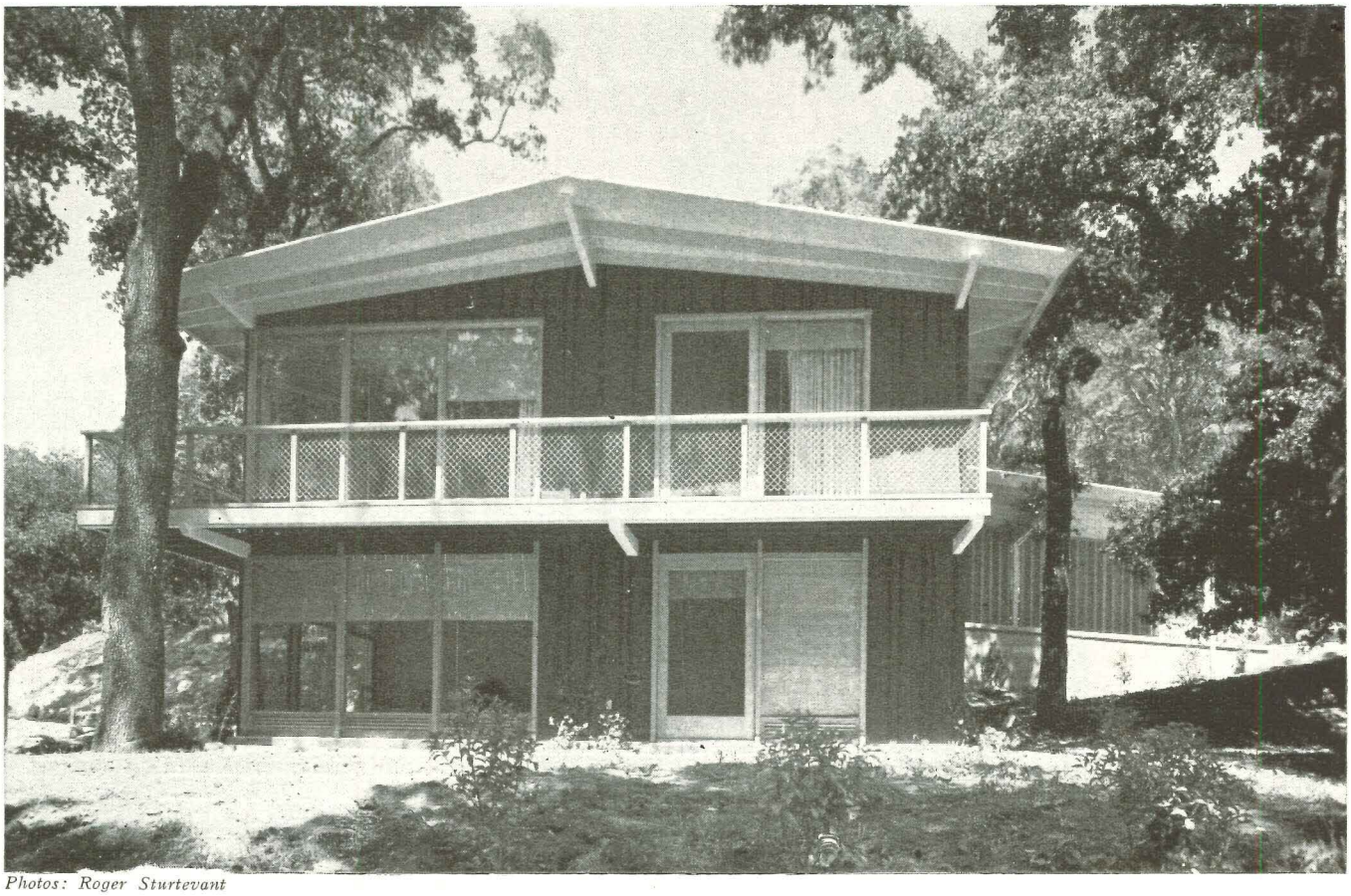
On the terrace side, houses have 180° view down to the water



Plan of adjoining houses is reversed, bedrooms are farthest apart





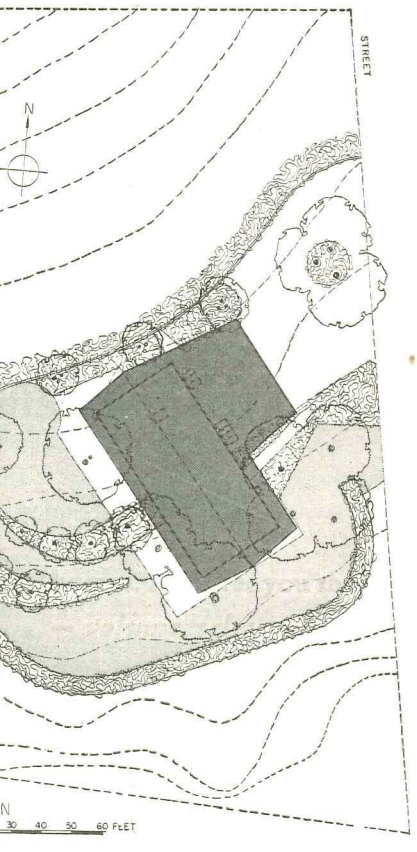


Photos: Roger Sturtevant

South end of house is two stories high, has two bedrooms and balcony upstairs, bedroom and playroom downstairs with direct access to garden. Picture opposite shows play yard and exposed stepped-down foundation walls at side of house.

TION: Marin County, Calif.
H ESHERICK, architect
LAS BAYLIS, landscape architect
M. JONES, general contractor

Hillside house



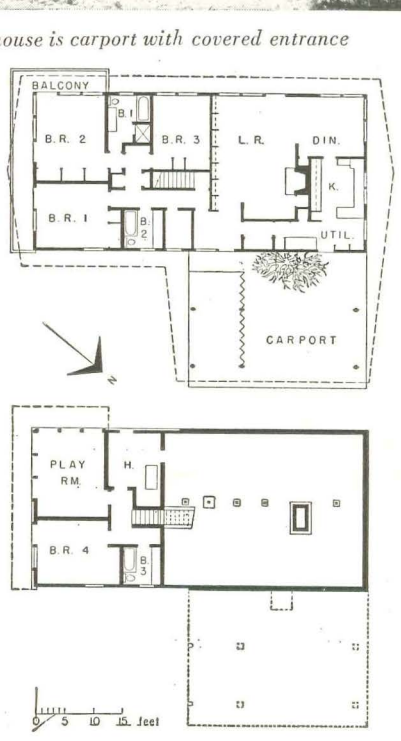
This is a simple, straightforward house that solves a pretty common problem—the problem of the hillside house with access generally from above—in a simple and straightforward way. It is a house with a good deal of unaffected charm, too, and this absence of affectation makes you wonder why there are not more houses like it.

The reason is that there are not very many architects as good as Joseph Esherick (*see* H&H, Jan. '52). His work has a kind of reasonableness and simplicity that carries a good deal of conviction: for example, when he has a problem of designing a five bedroom house for some $26,500 (as he did here), his primary concern is likely to be with just how much space he can carve out of his hillside lot and stay within this limited budget.

There are two main ways of solving this kind of sloping-lot problem: Method No. 1 might be called the "Harvard method"—it would consist of running a long, rectangular box *parallel* to the slope, resting it on a recessed masonry base (containing utilities, storage and playroom), entering the house on the back of the second floor (which would be the basic living floor) and, possibly, stepping down from that floor to the downhill garden by means of some suspended, cantilevered, or otherwise articulated stair.

Living–dining area in northwest corner of plan extends outward onto a

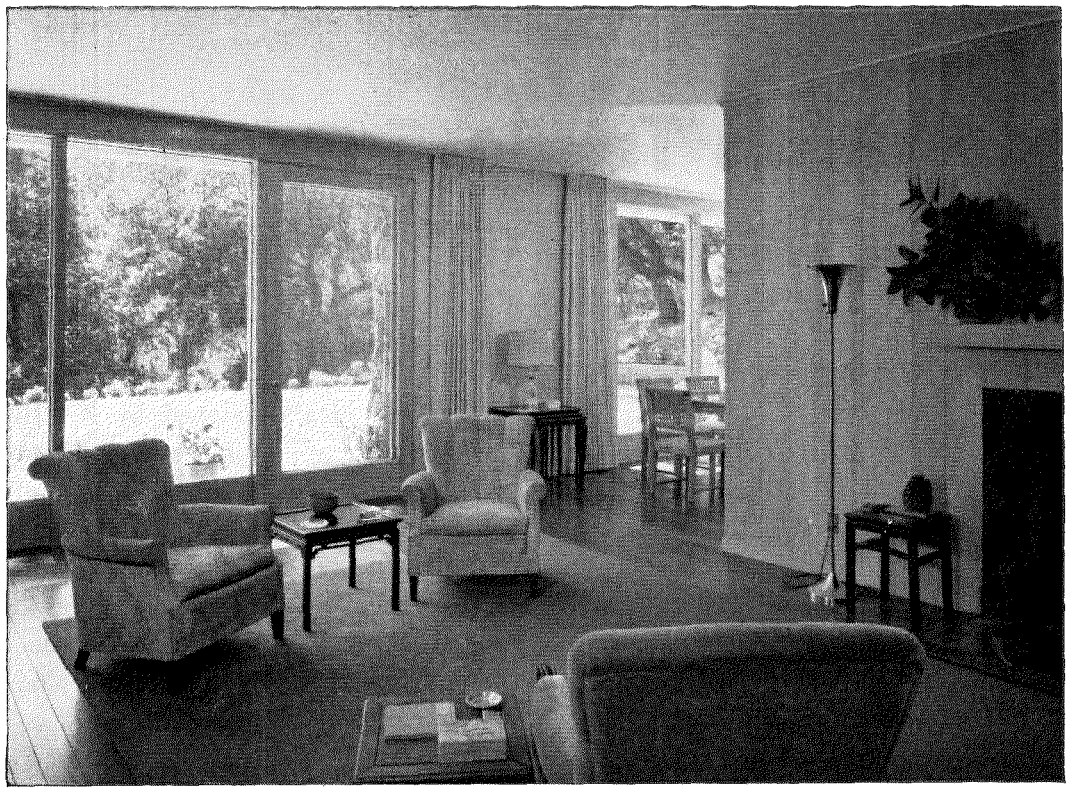
At northeast corner of house is carport with covered entrance



Method No. 2 might be called the "California meth and this is the one Esherick used here. It consists of r the rectangular plan *downhill* (which makes more sens cially on narrow lots than running it parallel to the slop making quite a feature of this downhill "motion" of the (Esherick does it with the regular steps of his foundatio which he has exposed along both sides of the house. advantage of this downhill plan over the "Harvard meth that it requires somewhat less excavation and a good de grading (levels of the lot can be allowed to change gra from the upstairs entrance level to the downstairs play-ya at the far end of the house). The disadvantage is that i to cut up the lot—but this can be used skillfully in such as to create a series of small, useful outdoor terraces of th that has been created here.

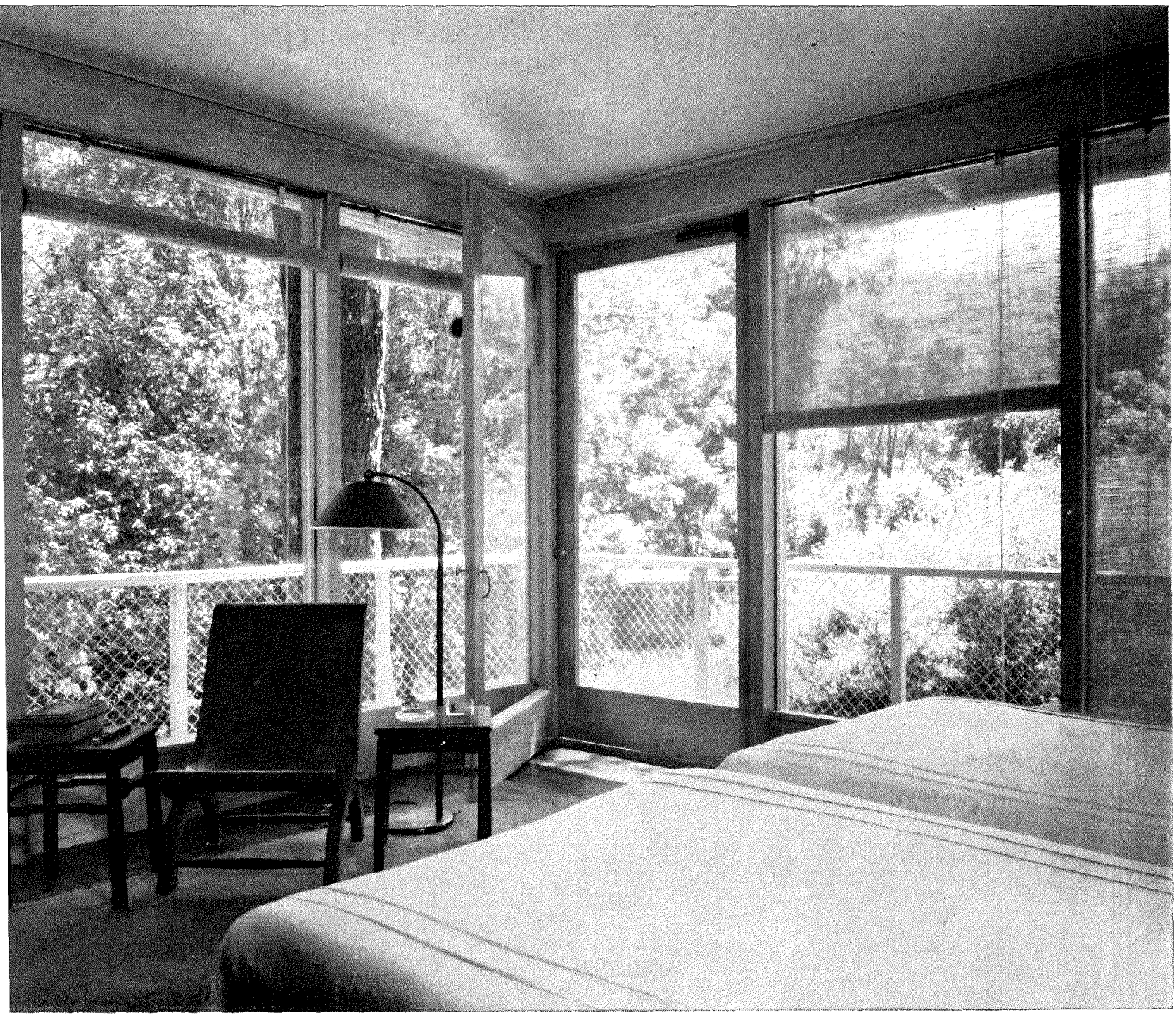
Esherick's manner of detailing his houses has been di in an earlier issue of H&H. It is generally forceful enc give strength and coherence to even the most casually ar plan. In this house, he has used the roof lid with pointed hanging gable ends to tie his house together. The post-an structure that holds up the roof and the balcony is use dominant design feature and repeated, with variations, uphill carport.

Incidentally, the beam ends project beyond the pointe ends and are pointed themselves. This is not a new id anyone interested in finding out how important nice deta to nice over-all design might just try to sketch this hou straight, cut-off gable ends and beams—and see how m design of the whole begins to lose! This is the kind of but all-important touch that distinguishes the good ar designed house from the vast majority of dwellings b the US every year.



ing area is shown at
ed terrace outside it
picture opposite.

aster bedroom with
beyond. Note the
of "tree-top-living"
this part of house,
st with one-story
garden living effect
lsewhere



"Operation Trade Secrets" in full swing again.

More than 20 meetings are planned for the new to be held in all parts of the US

LOCATION: Biloxi, Miss.
SPONSOR: National Association of Home Builders
CHAIRMAN: Martin Bartling, Knoxville, Tenn.

The best idea developed by NAHB in 1951—"Operation Trade Secrets"—has swung into its second year.

Sparked by a fast-moving committee headed by Martin Bartling, with Ned Cole, Andy Place and Dave Slipher as co-chairmen, meetings have already been held in Dallas, Ft. Worth, and Biloxi. Other meetings are planned for Houston, New Orleans, Phoenix, Madison, Denver, Salt Lake City and Minneapolis-St. Paul. A summary meeting is planned for the Chicago convention in January.

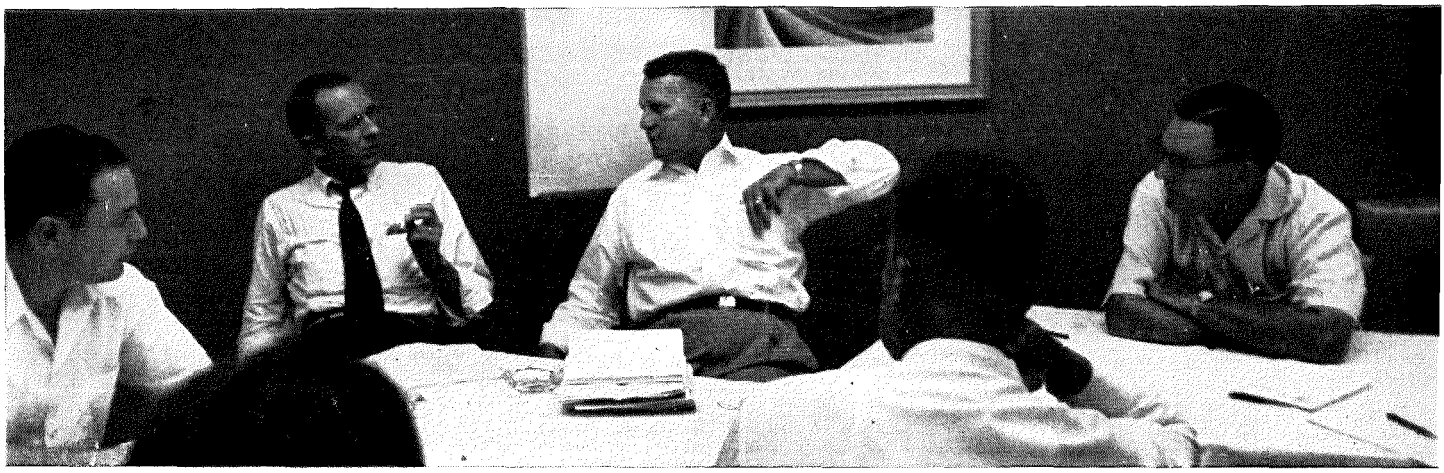
Under the guidance of the Trade Secrets Committee of NAHB, the country has been divided into seven regions, meetings planned for each. As each builder gets new ideas from a meeting, he is expected to hold his own meeting and invite outstanding builders from out of town.

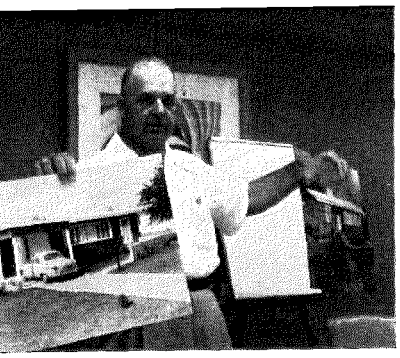
Typical of the 1952 series was the two-day meeting at Biloxi beginning July 17. Planned by Floyd Kimbrough and arranged by Frank Steudlein, the meeting discussed the issues reported on the following pages.

Builders attending the Biloxi meeting

Martin Bartling, *Knoxville, Tenn.*
Richard Hail Brown, *Birmingham, Ala.*
George S. Goodyear, *Charlotte, N. C.*
Floyd Kimbrough, *Jackson, Miss.*
Floyd Kimbrough, Jr., *Jackson, Miss.*
Fred C. Loucks, *New Orleans, La.*
Frank Robertson, *San Antonio, Tex.*
Frank J. Zuzak, *Shreveport, La.*
Chester Camp, *Memphis, Tenn.*
Charles K. Chandler, *Memphis, Tenn.*
Manny Delugach, *Memphis, Tenn.*
J. M. Powell, *Baton Rouge, La.*
Frank Steudlein, *NAHB, Memphis, Tenn.*
Kemmons Wilson, *Memphis, Tenn.*

Left to right facing camera:
Frank Zuzak, Martin Bartling, Kemmons Wilson, Charles Chandler.





Floyd Kimbrough and architect-designed house

architect!

mbrough: *"We expect to handle the many of our houses not just once but times. We can make resales faster if ses are well designed. $50 for an t is the best money we can invest."*

cross-country trip, Kimbrough was d that his $11,000 house should have . ft. and 70′ lots. *"An extra 100 sq. ft. costs less than $5 per sq. ft."*

ding-supply business?

s Wilson: *"A builder needs to buy at million worth of materials per year fy owning his own building-supply ."* Wilson does $100,000 a month in ly subsidiary at a cost of about 8%, inventory of around $125,000 and ac- receivable of $100,000, so his capital is $225,000. *"It is not profitable to ry small item we need; it is cheaper nany items from local sources."*

Brown: *"We have our own building- business and $10,000 invested in odds s we have no use for."*

about discounts?

Bartling: *"Some careful studies we owed that it often paid to buy items they were needed instead of getting unts by buying wholesale but having problems."*

Chandler: *"When I went to a cement- firm I told them I did not want a I wanted deliveries at the time I hem, not late in the afternoon, for when I'd have to pay overtime. If given me a 10% discount they would d to save that money somewhere and not have gotten the same service on eries."*

"The money made in the building is the little extras picked up all line. You can make a good living the volume is large enough."

d cautiously

He cited an example of a builder ed into a land purchase without giv- per study, only to find that he would ay $82,000 to develop 39 lots because ge problems.

"I consider $2,500 a cheap option to pay on 100 acres for 30 days. This gives a chance to get engineers in to study the land. Often it provides a cooling-off period that permits a builder to back out if he wants to."

What sites to buy?

In addition to the esthetic values of sloping sites, Chandler added the mundane advantages of sewers being cheaper to build than on absolutely flat land and the fact that the slope would minimize having to take extensive drainage precautions.

Chandler: *"Watch out for filled-in land. One builder I know was forced to spend $150 more per house to put in spread footings after the FHA discovered he was building on filled land.*

"I recommend scattered trees as the best type of growth. Too few trees are a sales handicap, but a heavy growth may cost the builder $100 a house to cut trees and dig up stumps." *

As one of the South's leading land developers (with some 5,000 Memphis lots behind him), Chandler recommended that 20% of the land should be provided for streets, 3% for commercial development, 2½% for play areas and the balance for houses, a division that would permit 430 lots 60′ x 125′ in a 100-acre subdivision.

Chandler: *"Lot costs, including utilities, should not be over 15% of the selling price."*

How to sell VA mortgages

(or any other kind)

George Goodyear: *"Get your whole package together properly when you are trying to sell VA loans. By 'whole package' I mean the complete story of the proposed developments. In addition to plot plans, drawings, specifications and other usual material, we prepare long strips of colored renderings of the way our houses will look on each street. We do this for every street in the project and when the drawings are blueprinted, our draftsmen fill in the proper colors with crayon.*

"We use these strip drawings over and over. We show them to FHA, VA, to buyers of our mortgages and to our customers. Though we build only one floor plan throughout a project, the renderings help show how many variations we get by changing roof lines, door and window arrangements, materials and color."

Proof of builder-mortgageman Goodyear's pudding is the fact that he is currently servicing over $22 million in North and South Carolina mortgages, though his own building is limited to 125 houses a year. And in his own words, *"We've got lenders standing in line for our VA loans at 98."*

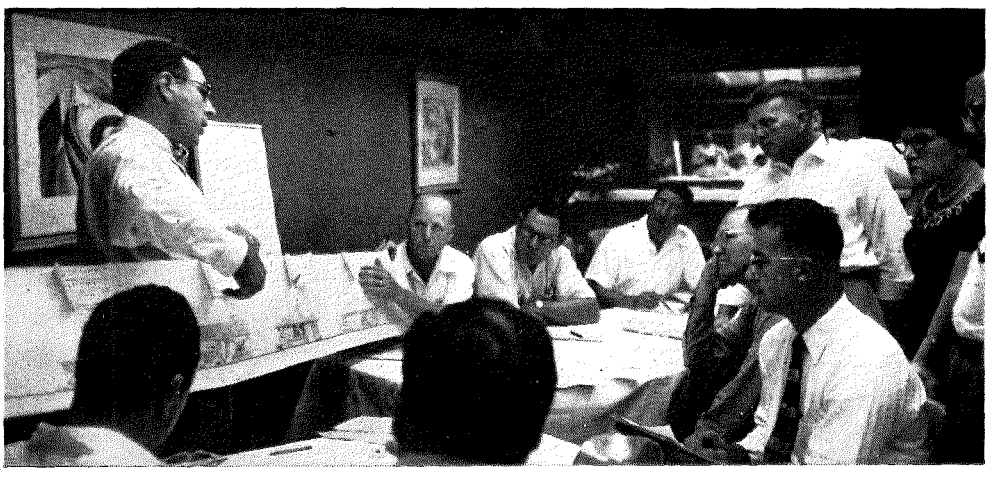
Items that increase values

Wilson: *"In our $20,000 houses we supplied wall-to-wall carpeting on our slabs for only 50¢ per sq. ft. more than hardwood floors would have cost, and the carpeting was one of our biggest sales assets."*

Goodyear: *"Put in items that will build up your evaluation. An attic fan that costs you $65 will raise your evaluation $135. A kitchen fan costing $25 will increase value by $50. We used to provide storage space outside the house but now we put it in the house (with only an outside door) and we are getting almost full credit for this unfinished space."*

* *While it may cost $100 to take out superfluous trees, $100, or many times $100, will not replace mature trees that your bulldozer has rooted out—Ed.*

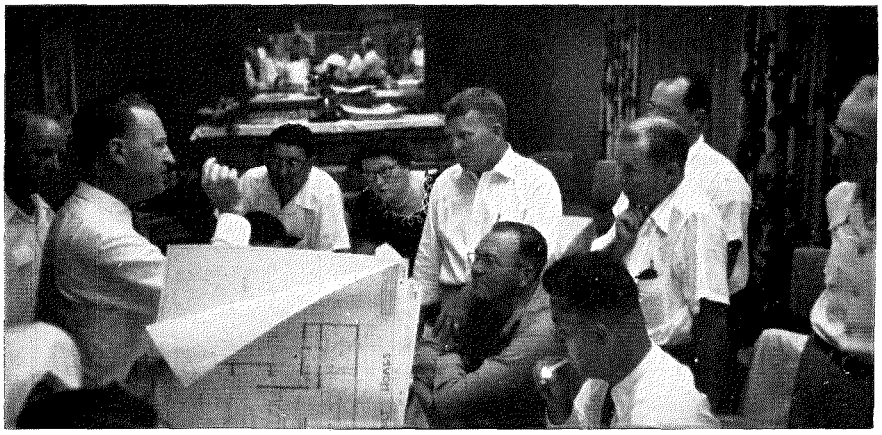
George Goodyear with strip drawings



Flexible houses

The problem was how to keep a house flexible enough to fit the varying needs of the American family, through its initial stage as a young couple, progressing through the child-raising stage (which may consist of one child or the proverbial "there was an old lady who lived in a shoe" condition), then back to the couple again, now 20 years older. Builders have tried to allow for this with expansion attics and varying plans for augmenting the livable space in their houses. One neglected facet of this thinking has been what to do with this space after the need disappears. In many communities oversized, limited-use houses are sore spots, tending to degenerate into rooming houses or substandard slums.

The builders attending the Biloxi Trade Secrets meeting were treated to a preview of an exciting experimental attempt to find a solution to this problem by San Antonio's Frank Robertson. In a brief description of the five pilot models that he already has under construction, builder Robertson kept many details under wraps but brought out these points:



Frank Robertson (left of plans) describes his flexible houses to builders.

1. **The house will have 1,250 sq. ft. and will sell for approximately $16,000.**
2. **Bathroom and kitchen will have the only interior-fixed walls.**
3. **Bedrooms can be varied in number from one to four.**

Basis for Robertson's thinking is the fact that needs of a young couple are very similar to those of an old couple, but that in between these two states, requirements are subject to a wide variation. He is trying to produce a home that will give maximum coverage to the needs of the family at any stage. Like a balloon which can be inflated or deflated without altering how much balloon there is, Robertson's new houses will be "distributed differently," for different needs.

Though bedroom arrangements can be set up for a family with any number of children, the house can also be made suitable for the family during later years when all they want is one or two bedrooms, plus an extra-large living room or recreational and entertainment space. Even such special cases as that of a widow who wants to rent out a small efficiency apartment can be accommodated by Robertson's "Flexabilt" house. Two bathrooms will be included in the original planning which will permit two-family living or a separate apartment. The first five experimental models will be ready in late autumn, complete with cost data.

Though builder Robertson is bringing new thinking to the problem of flexibility in houses, he is not working from the ivory tower of pure theory. His San Antonio firm now builds from 150 to 300 houses a year, ranging in price from $8,500 to $20,000.

How to sell a house

In an open discussion of "musts" for builders led by Chester Camp and W. D. Jemison, Jr., of Memphis, Dick Brown of Birmingham and Frank Zuzak of Shreveport, the 17 home-builders took up the vitally important nonbuilding points of public relations, merchandising, advertising and publicity. Out of the welter of ideas came a series of points that all added up to:

1. Land is the basis of all building; therefore the best policy is to pay more if necessary and get the most desirable land.

2. Subdivision layout (land planning) that includes culs-de-sacs, boulevards and circles, and staggered house siting has a great appeal.

3. Landscaping helps to sell any house. If trees are planted back from the sidewalk, the house, not the street, gets the benefit of the shade. Trees planted next to the curb are wasted.

4. Good design is of the greatest importance. Said Zuzak: "Giving a house a pleasant facade is like adding fresh makeup to a woman's face."

5. Advertise regularly in all proven media.

6. Train your sales staff in advance so that any salesman can answer any question concerning the house with enthusiasm and knowledge.

7. Approval by a design-recognizing organization is of great help in sales and publicity.

8. Furnish your model house as a sales stimulant.

9. Keep your model house exactly like the houses that will be sold to prevent confusion.

10. Give a printed warranty.

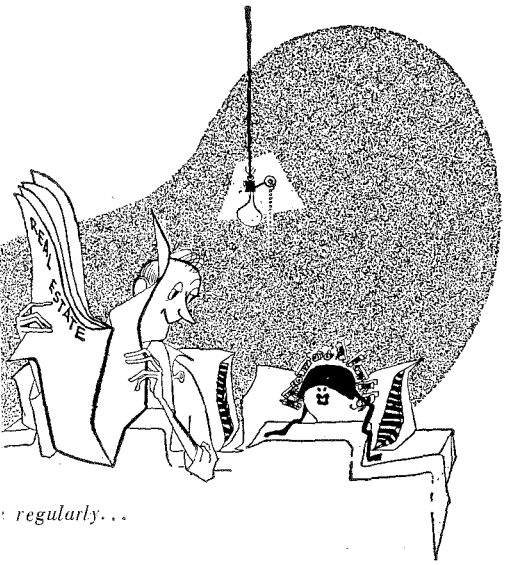
11. First impressions are critical, so have an attractive arrangement just inside the front door (a welcoming vestibule, a planting box, etc.).

12. Include pamphlets telling how to maintain a house, with names and phone numbers of subcontractors who should be called.

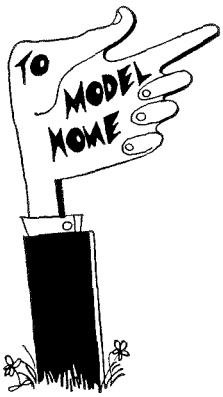
13. Include air conditioning in any house where the need demands it, and the price will warrant it.

14. Be prepared to accept a sales cost of from one to four per cent of the sales price.

15. Handle complaints speedily and honestly. Let the buyers know what is, and what is not, covered by any guarantee. One builder called complaints the Achilles' heel of the business.



regularly...



a model home...

...to make sales

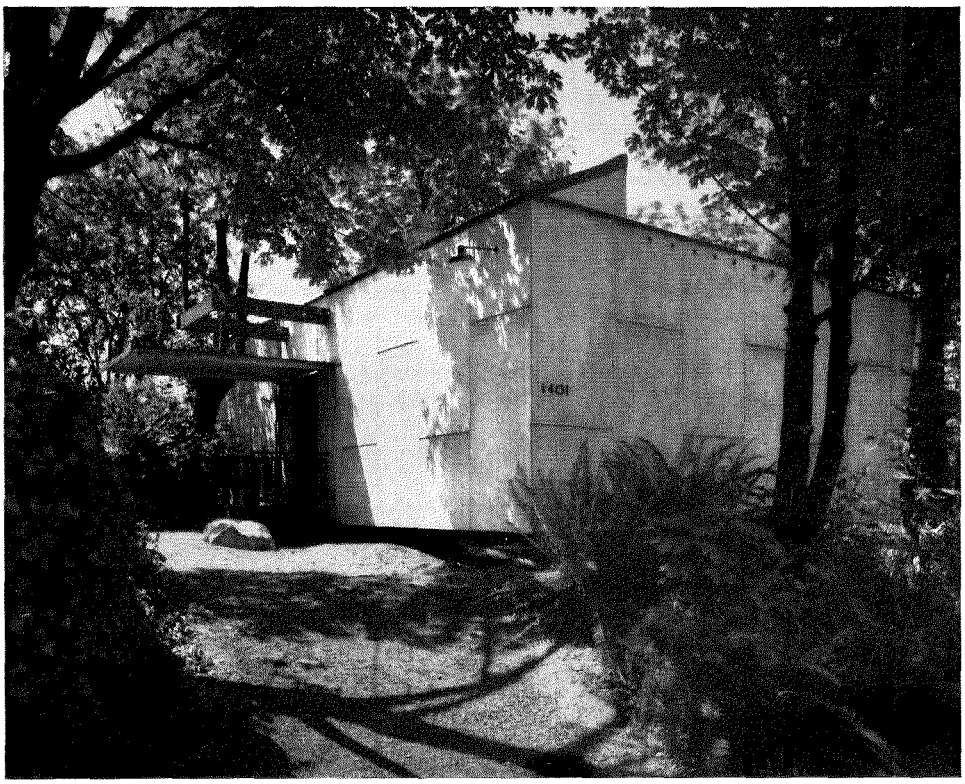
700 SQ. FT. HOUSE

shows imaginative handling

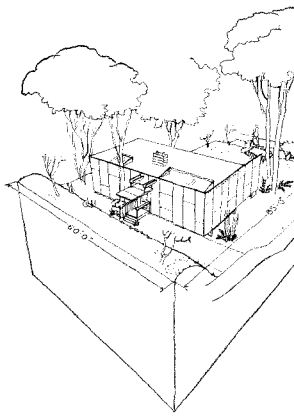
of a difficult site,

of commonplace industrial m

and of space and light



LOCATION: Seattle, Wash.
VICTOR STEINBRUECK, architect



Corner lot 60′ x 85′ dro almost 20′, is heavily woode is angled slightly to save

This is a very strange house with a good many interesting points—so many interesting points that the Washington State AIA picked it out for an Honor Award for excellence in design.

It is a strange house largely because it was built on such a strange site. In the pictures it looks as if it were hidden way out in the woods—raising a legitimate question of why it should be as windowless on three of its sides as a downtown row house. In actual fact, however, it was built on a tiny (60′ x 85′) corner lot less than a mile from downtown Seattle, in an old neighborhood that is going downhill fast. That explains why the house is considered a real asset to its street rather than an affront to its neighbors.

The 700 sq. ft. house that architect Victor Steinbrueck has built himself for $10,000 is much more than a special solution to a very special site problem. It is also an interesting solution to two increasingly common problems:

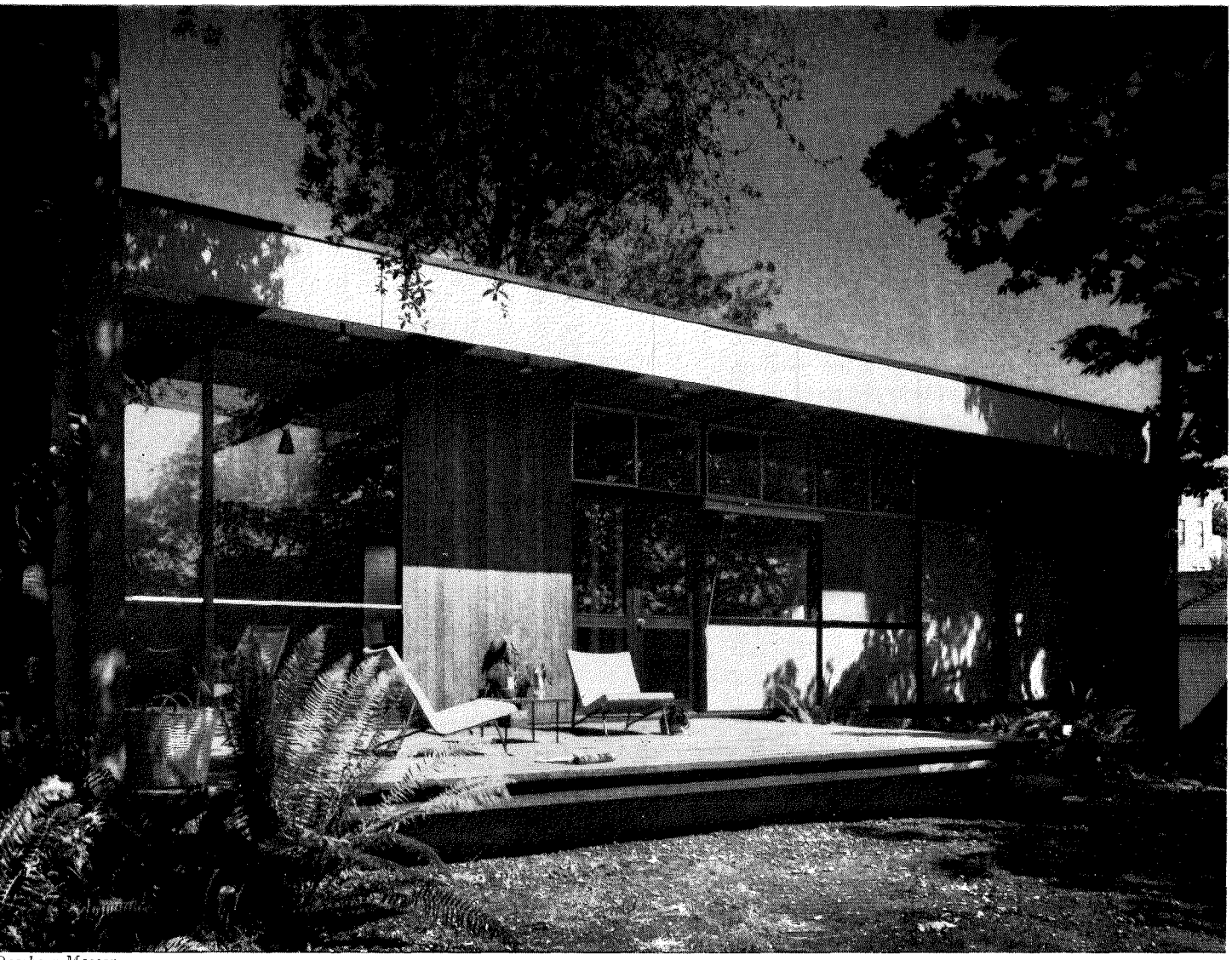
How to use industrial materials in residential building—which requires, among other things, an understanding that materials have a character of their own and don't need to be "typed" by previous associations, e.g. cement asbestos, aluminum foil or corrugated wireglass don't have to spell "factory"—they can spell "home" just as well. And

How to use space and light—which is r important as when there is very little actu and when light comes from only one sid house. Here space (stressed by a 10′ ceili light (obtained in part through skylights th light the rooms) combine to make a sma seem big and bright, and make *all* of its light and cheerful *all* of the time.

Steinbrueck's solutions to these two prob discussed in detail *below*. First, however, let close look at what his site and neighborhoo make the overall concept of his house so

Privacy on a difficult site. Architec brueck's site is not only a 60′ lot (a hideou tion under any circumstances), it is also a sloping lot, a heavily wooded lot, a corner finally, a lot in a rather dingy neighbor drab, old homes, warehouses and gas stat such a setting he may well be excused fo what might seem impolite in more appeali pany: turning his back upon street and ne building a 12′ high, cement asbestos wall three sides of his house and opening up fourth to a small garden.

The result is a shadow-box of a house, l 42′ wide, 10′ high on the inside. This is a fi direct way of saying "no" quietly to any int it is as if Steinbrueck had gathered up th



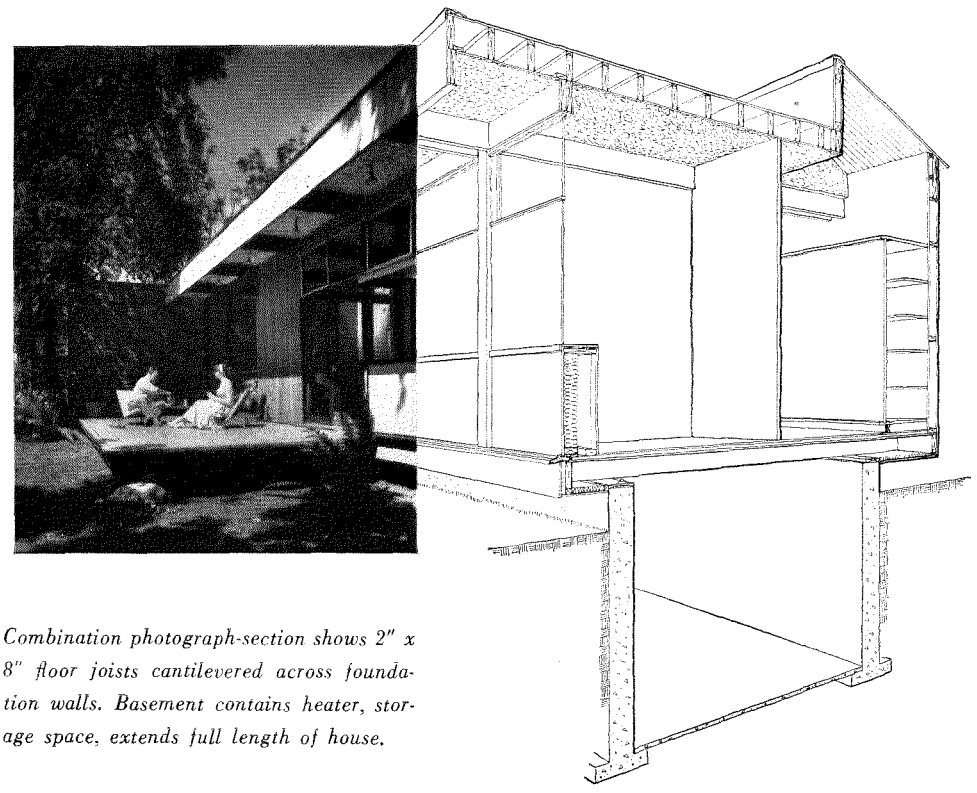
Dearborn-Massar

Garden facade is almost all glass, faces west. Porch at left is cantilevered like rest of house. This cantilever all around the periphery of the building gives it lightness and grace, crisply defines the building's silhouette.

oard fence and pulled it tightly around his Actually, the neighbors think the house looks en though they only see its somewhat for- blank walls, and even those are only barely ver the top of an 8′ high bank along the rear and through the thick screen of trees.

may feel that this uncompromising shadow- ition should not be emulated by anyone else on the more exposed 60′ lot; but so long as bstandard lots exist, solutions such as this likely to be found even where neighbors are d visible. On such a lot, this kind of house e similar to a one-family slice taken out of a row houses—and the case for the row house w-lot developments has always been strong. rueck's shadow-box is entered from the ross a little covered platform. This platform canopy are elements of small-scale relief in wise brutally plain exterior.

ve that exterior its crisp outline, the archi- exactly what a sculptor does: he placed his a pedestal, raised it off the ground to get a adow line under his floor, a parallel floor edge, and an unmistakable definition to the silhouette. (H&H discussed this point at n last month's issue, in our *Advice to the praiser* series.) To raise his box off the Steinbrueck recessed his excavated base- etween foundation walls) by 2′ along the



Combination photograph-section shows 2″ x 8″ floor joists cantilevered across foundation walls. Basement contains heater, storage space, extends full length of house.

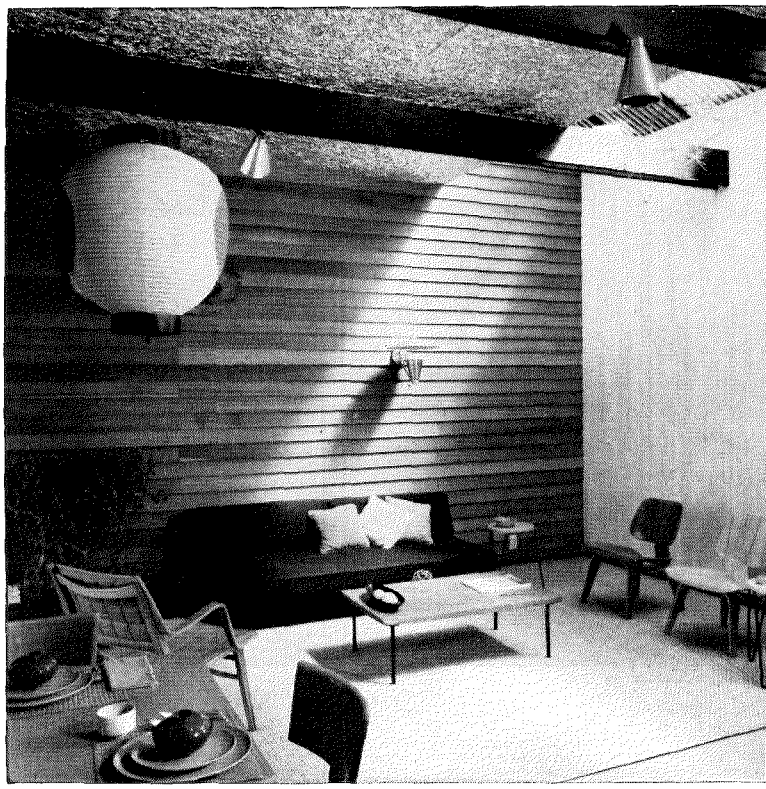
rear side, and by 1′ along the long garden side. Next, he cantilevered the floor joists out beyond the walls. In addition to giving the box a sense of floating on air (and so increasing its importance), this simple device also reduced the clear span of floor joists, enabled him to use 2″ x 8″s (rather than 2″ x 10″s) for all his floor spans. Incidentally, a porch with screen wall on the west side was cantilevered out in a similar fashion, as was the entrance platform to the east. Thus the notion of the "floating box" was carried through without compromise.

The plan inside the shadow-box is in-line. Rational and compact, its only questionable feature is the location of the fireplace (which seems to discourage furniture grouping in that area).

Materials out of a factory

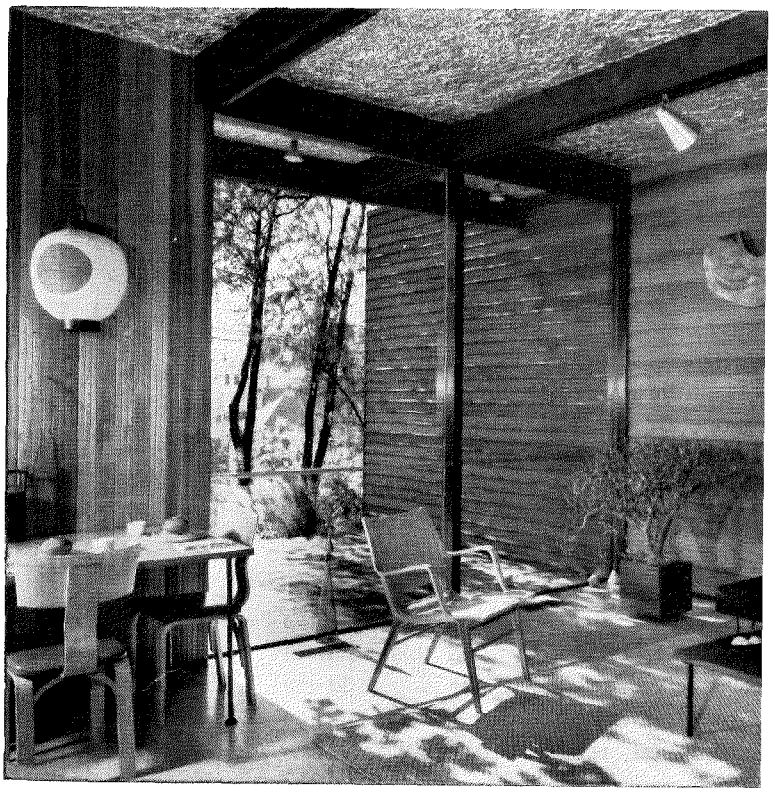
On the exterior of his plain-faced shadow-box, Steinbrueck used 3/16″ cement asbestos boards with copper-flashed, horizontal and vertical joints. The material harmonizes with adjoining gray clapboard houses, reveals no traces of its earlier association with industrial structures. The joints between the 4′ x 8′ panels are staggered to create a more interesting pattern and to relieve monotony.

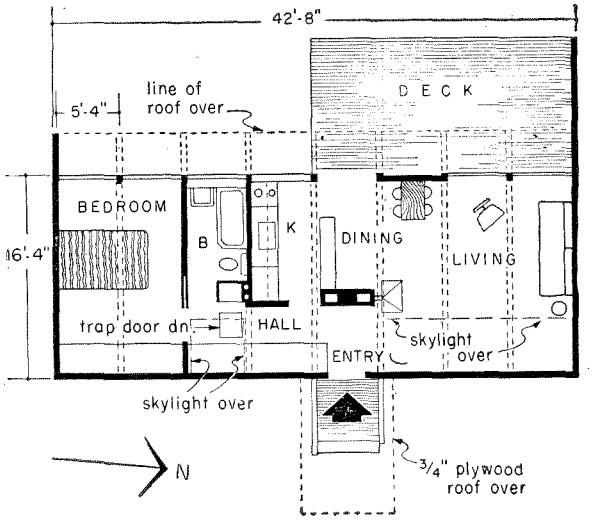
Inside, the architect again found that industrial materials can be made to look interesting and even luxurious. Between dropped, double 2″ x 10″ beams (5′-4″ on centers, and 2-5/8″ apart to frame around his 3″ x 4″ posts), he applied .0030″ aluminum foil to a plywood ceiling. The crinkled, silvery foil contrasts brightly with the Prussian blue stain used on the dropped beams, and it sparkles by night like a Christmas tree when lamps and candles are reflected in its surface. Other, adjoining colors—cedar siding, cadmium yellow and orange in cabinets and trim—are also reflected in its bright texture. All in all, this is quite a luxurious effect to get in a minimum house—and the cost of the foil (crinkled and stapled in place) was only 10¢ per sq. ft.

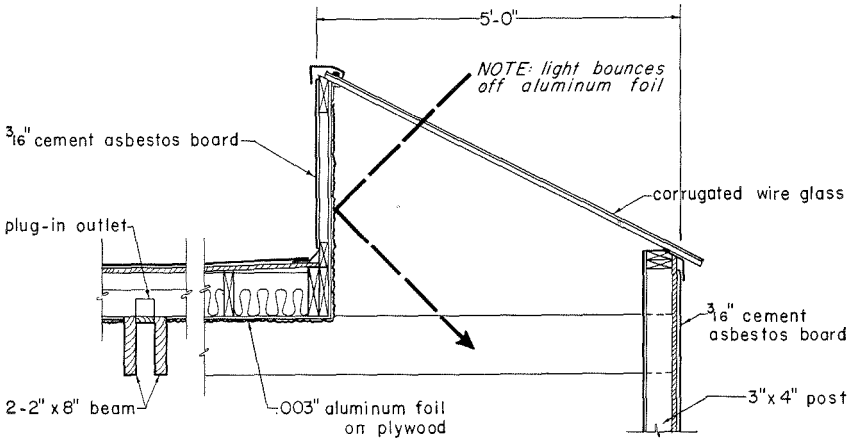


View of east wall of living room shows effectiveness of skylights

Living room with porch beyond. Note crinkled aluminum-fo







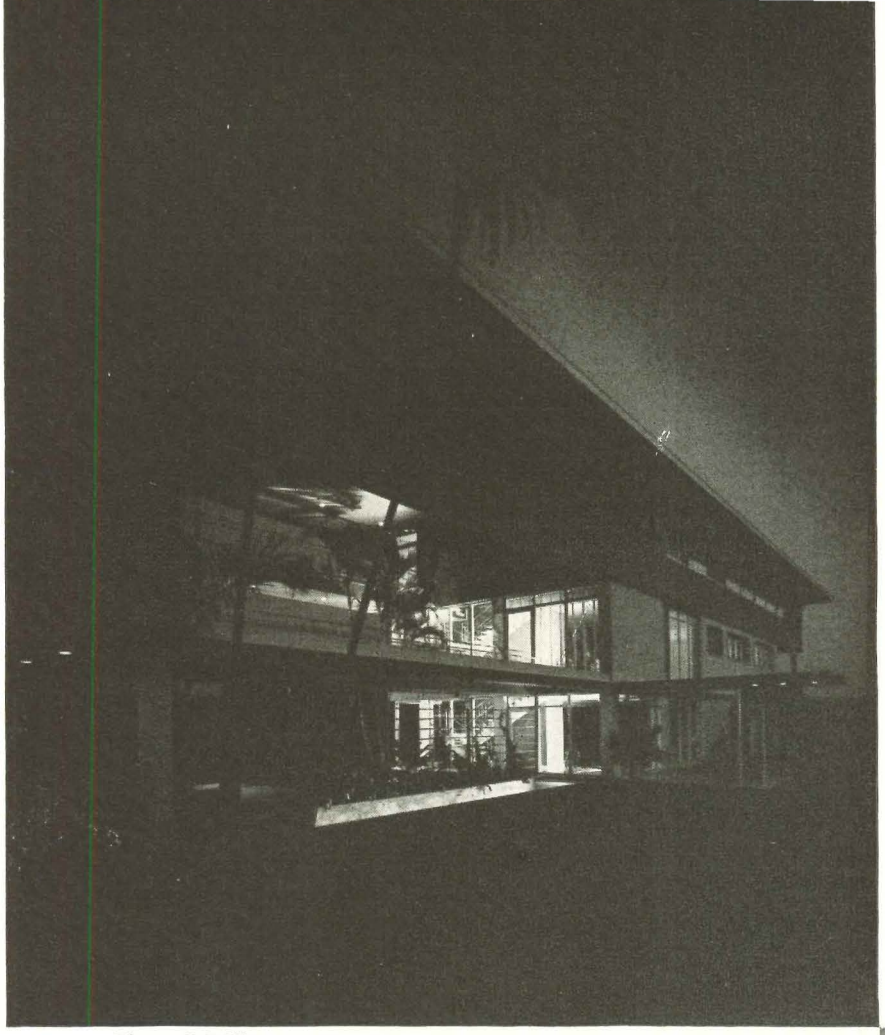
Skylights are angled to make light bounce off aluminum-foil surface and back onto east wall. Picture below shows night lighting, reflections in aluminum-foil ceiling.

ıce, brightly lit

e many advantages to the AIA-NAHB ıded ceiling height of 8′-0⅜″, but a sense aciousness is not always one of them. Stein- living–dining area is only about 21′ x 16′, anted to make it seem a good deal bigger. that illusion, he raised his roof and built a kylights to make sure that what space he ays bright.

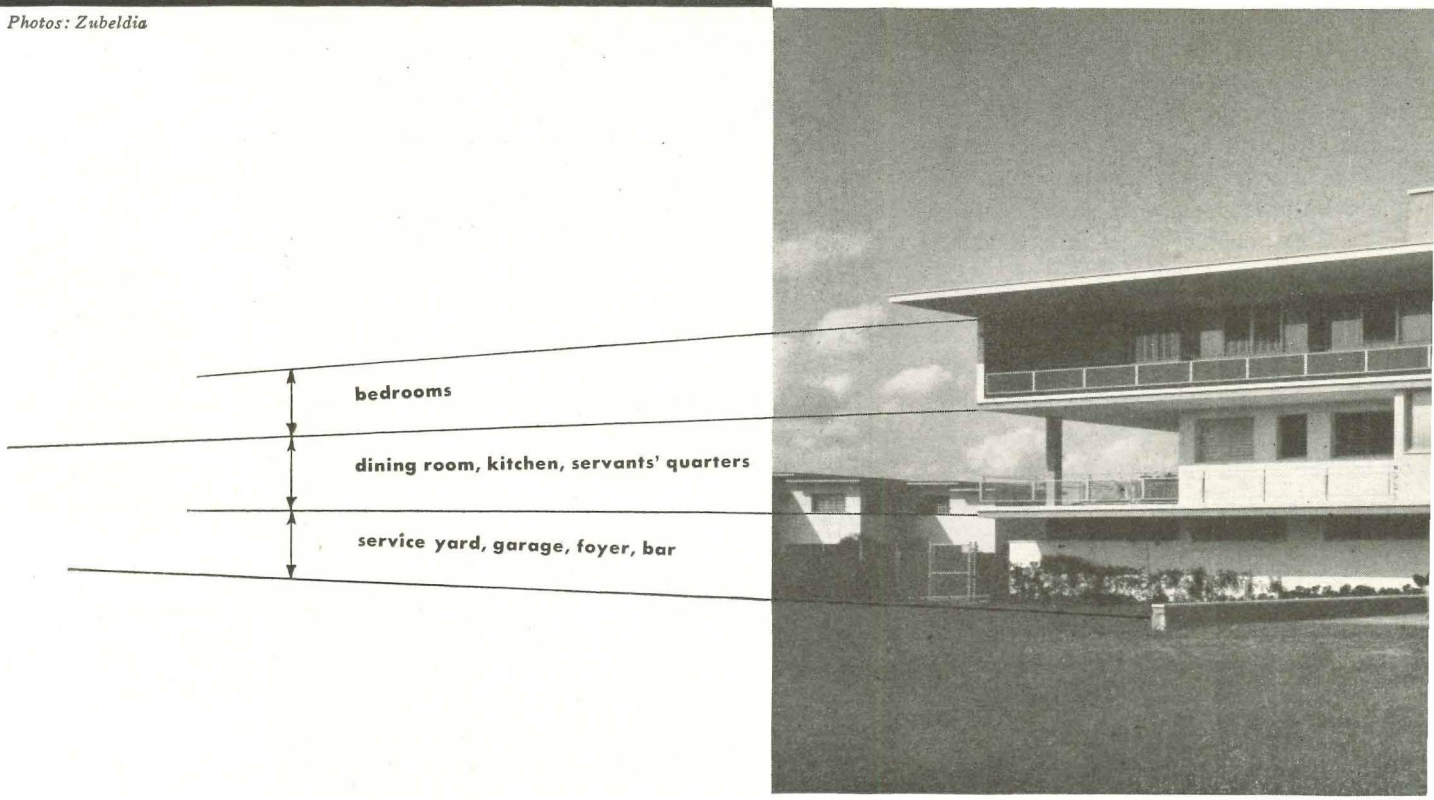
′ ceiling height (to the underside of the ı-foil surface) not only produced a sense usness; it also simplified some structural . For example, this ceiling height pro- exterior wall just about 12′ high (from p down to bottom edge of cantilever). This at the 4′ x 8′ asbestos cement sheets could n full and half standard sizes throughout, a boards could be eliminated entirely on s of the house.

light next to his windowless walls, Stein- ıilt a continuous slot of corrugated wire- ights over a large portion of the east end use. The light coming in through these balances the bright natural light from the s on the opposite side and is, according to ect, "very pleasant and cheerful on some of gray days. There is probably quite a heat ıgh these lights in the winter," he con- ut the light and cheeriness seem to com- or this." Some may ask why he did not n a clerestory slot under his 10′ ceiling rear of the house; it would have given him privacy as he has now, and might have One reason, however, is that the skylights ed to reduce direct sky glare *(see section)*. einbrueck house makes no attempt to be s module in the east-west direction is de- by the 5′-4″ column spacing: two such e up the bedroom, one the bath, one the nd four make up the living–dining area. orderly and sensible structure, because a se had better be orderly, sensible and as not to appear even smaller than it is.



Night view shows entrance side (west) of house, with reflecting pool in foreground. Bridge from dining level to living room is seen directly above pool. Lighting emphasizes theatrical qualities of composition.

Photos: Zubeldia



ribbean mansion

lous space construction

Cuban breezes,

that beauty and climate-control functionalism

t mutually exclusive

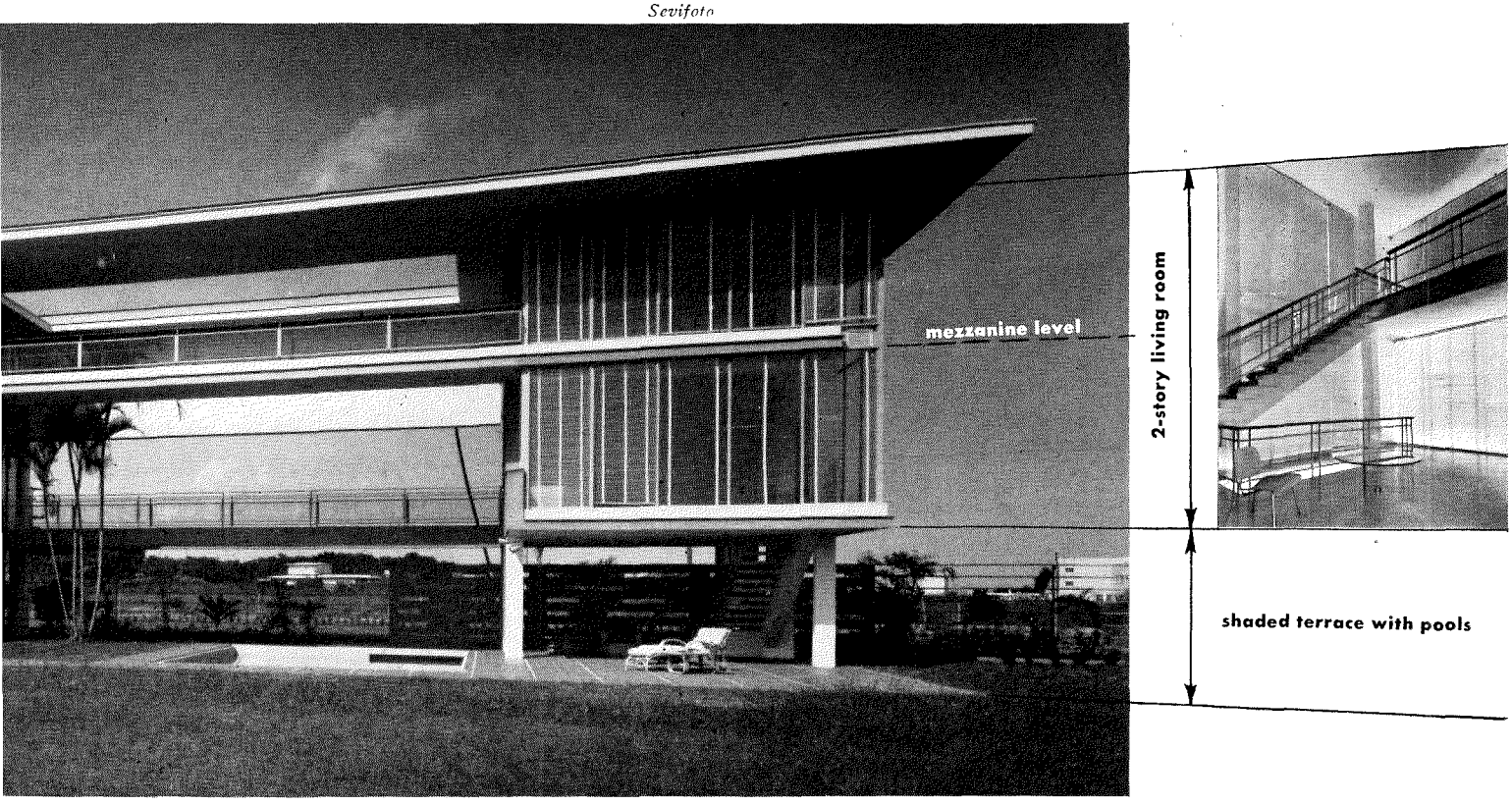
When Walter Gropius returned from Cuba recently, the house he talked about most enthusiastically was the extraordinary structure shown on these pages. One glance at the photographs will go far to explain why.

But this house is not only a dynamic piece of modern design; not only a photogenic arrangement of planes, forms and spaces; not only an exciting visual experience.

It is also a fine example of how much can be done to make space—the "reality within the glass shell"—a distinct architectural element. It is a fine example of how a complex building can be given architectural unity and order with a few powerful, broad strokes. Finally, it is impressive evidence that "climate-control functionalism" and esthetic purity need not be mutually exclusive approaches to design.

N: Havana, Cuba
ROMANACH, architects

Sevifoto

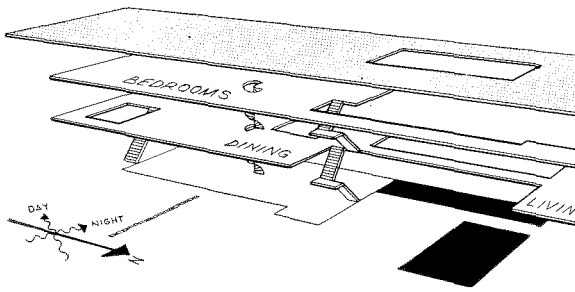


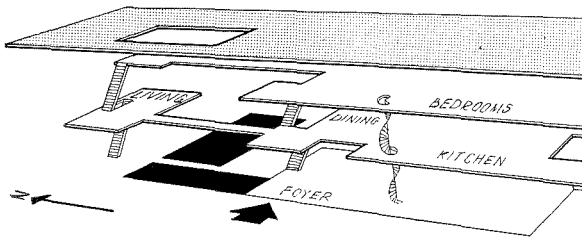
East facade is fairly open, protected by deep overhangs against sun and driving rains. At south end of house (left) is three-story complex containing services, dining and kitchen areas, bedrooms. At north is two-story living room.

Two-piece house with levels for all. This house for the Noval family outside Havana is really two houses under one roof: the bigger house is three stories high, contains foyer, bar and garage on the first floor, dining room, kitchen and servants' quarters on the second, and bedrooms on the third; the smaller house contains only a two-story living room raised on stilts. These two houses are linked by the common roof, by long bridges on the second and third floors, by a paving pattern and other landscaping on the ground floor.

To make these two houses hang together *internally* (as well as by virtue of their sweeping roof plane) the architects evolved a series of vertical space penetrations that link one level to the next. Thus the entrance foyer has an 8′ x 15′ hole cut into its ceiling to link it visually to the dining area on the second floor; the two-story living room has a mezzanine which becomes the bridge into the third-floor bedroom area; and the open area right in the center of the house is as elaborate and exciting a space construction as any that you might find in the stagehouse of a theater: bridges seem to leap across the open space like catwalks and a 20′ x 40′ opening in the roof above provides them with a view of the sky. Since the bridges are not above one another, that view is never obstructed.

The result is indeed like something out of the theater: for this is truly a dramatic stage set, reminiscent of some of the fabulous constructivist sets built on European and American stages in the 20s and early 30s. Each walk across the length of the house becomes a minor dramatic production, each view reveals a different interplay of planes and surfaces, each approach to the house and under it leads through spaces of different height and character.



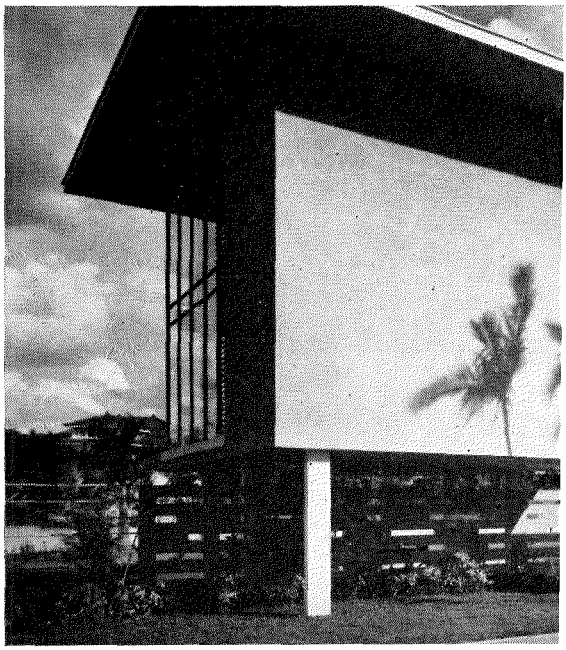


Diagrammatic sketches of Noval house show interpene spaces, planes and forms. View above was taken from nor one below from the southwest. Both indicate the way diffe were linked by bridges and the way spaces were allowed gether vertically as well as horizontally.

Climate control without loss of art. But the love of drama alone does not account for the open spaces, the catwalks, the three-story patio in the center. According to the architects (who are safely removed from the highfalutin' esthetic controversies of New York, Boston and Chicago and may not have been told yet that "functionalism is dead") this fabulous residence makes a great deal of climate control sense as well. Its sweeping roof plane with a 5′ overhang all around is not just the lid that keeps the complex space construction from flying apart visually; it is also an exceedingly necessary protection against the sun and the driving rains. The raised floors on stilts and the catwalks in the sky are not just part of an extravagant esthetic composition; they also assure that Cuba's cool breezes can sweep right through the house and help air condition it during the hot and humid months. (Actually, the owners insisted upon having dining and bedrooms air conditioned, though the architects felt—and still feel—that this was unnecessary.) The pools under the raised portion of the house provide the water needed for the cooling system! Originally, the long, north-south pool extended all the way into the bar-foyer; but after some of the Novals' guests staggered into its cool waters—their judgment having been impaired by the local rum—the owners decided to fill in the indoor portion of the pool to discourage intemperate swimming. (Air-conditioning engineers will please note!)

The raised portion of the house also creates a shaded outdoor area whose terraces, lawns and pools are really another living room for much of the year. Here again, then, an esthetic notion—Le Corbusier's *pilotis* concept, to be exact—has been used as an effective climate control device. And, finally, the west side of the house, with its exposure to the most murderous hours of solar heat, has large areas of blank walls: they look fine in contrast to the glass areas elsewhere, and they also keep out the sun when it most needs to be kept out. Orientation, incidentally, is due east-west: the breezes come generally from the east, by day and by night, so that the house can be turned into a real breezeway; and the sun, striking only a minimum wall area of the house in the course of each day, does not get a chance to heat up the walls unduly.

West facade has large, blank wall areas to keep out the



Sevifoto

View looking south toward entrance foyer. Swimming pool is in foreground

Zubeldia

Form and function in harmony. Needless to say, the Noval house will have little direct influence upon run-of-the-mill modern architecture: contemporary house architects are not often called upon to ponder the problem of pools at the foot of cocktail bars, the problem of how to relate the swimming pool to the reflecting pool, the problem of where to entertain the client's male guests while the client's wife is entertaining her women friends (Mrs. Noval does it in the living-room house; Mr. Noval in the now poolless foyer-bar).

But while such delightful problems are no longer acute, the problem of how to make a house good *functionally* (in every respect) as well as good *esthetically* (in every respect) is present wherever architects care as much about the spirit of man as they do about his thermal comfort. And this house, with all its extravagant fun, has something serious to say on that subject to anyone who would care to listen.

HOW TO MAKE A SMALL HOUSE LARGER – AND GIVE IT PRIVACY

By investing extra time at his drawing board, builder-designer Edward B. Hawkins of Denver added value to his small flat-tops

These small flat-tops have been so designed that they look a lot bigger than their 855 sq. ft. suggest, and so designed that they offer a sense of privacy, indoors and out, usually found only in much larger houses on bigger lots.

To make his small houses look bigger Edward Hawkins:

1. Put them on wider (70′) lots.

2. Lengthened his horizontal lines by tying each house to its next-door neighbors' with masonry block walls. This made each house almost as wide as the lot.

3. Used wide overhangs of 4′ on the front and 3′ 4″ on the sides.

4. Emphasized horizontal lines by a wide fascia, bands of windows, raked out horizontal masonry joints, and with strong shadow lines cast by the front overhang.

5. Designed the garage as an extension of the house.

To give his buyers more privacy, better outdoor living, he:

1. Set each house at an angle to the street, to give longer, more private vistas from front and rear windows.

2. Gave each house a small rear terrace that is private of the angle of the house. (*See plot plan opposite.*)

3. Provided high wood fences at the sides and lower the rear as an optional extra which all families bought.

4. Concealed service yards behind walls at the side houses, kept rear yard clear for lawn or garden.

5. Kept garages in front or at side of the houses, so th as buffers between rear yard and street.

6. Put each house approximately in the center of a 7(lot. The front setback (and placement of house at an ang the front living room of most of the houses some priva street traffic.

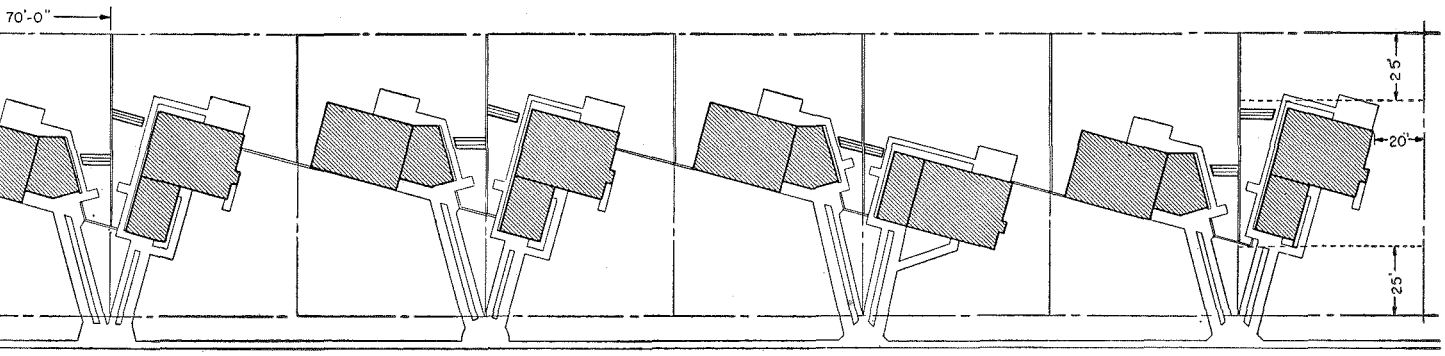
7. Prevented neighbors from looking into bedroom because of angle of house and high fences.

Lots 70′ wide

Basic to Hawkins' planning was a lot 70′ x 105′. Altho is actually 200 sq. ft. less than a typical 60′ x 125′ lot, it

Private rear terrace *and fenced sidelines sales attraction. Rear facade is as well designed*

Photos: Guy Burgess



Plot plan *shows how houses are built in pairs, set at angle to the street, how rear terrace is located for privacy.*

bly larger. Houses are placed so front yards are ample. rds provide all the lawn a family is willing to water n Denver must be done most of the summer). This wider a house that seems to cover the entire width, is the single eature in making the house look large.

nd design influence was the east-west street, causing all face south in the block where the first project was built. the cheerful south sun, he put the living room in front, r-to-ceiling windows on the street side. Yet his plan has the effect of a continuous front-back living-room house he open dining area has floor-to-ceiling windows and a he rear terrace.

houses clearly demonstrate how much eye appeal a well- rear living area can have. Hawkins supplies a small, rrace, but far more important, he planned his houses so terrace amounts to something. As the plot plan above s, the terrace is far enough from the sidelines so there is and each house is located so that people on one terrace ok into the adjacent terrace.

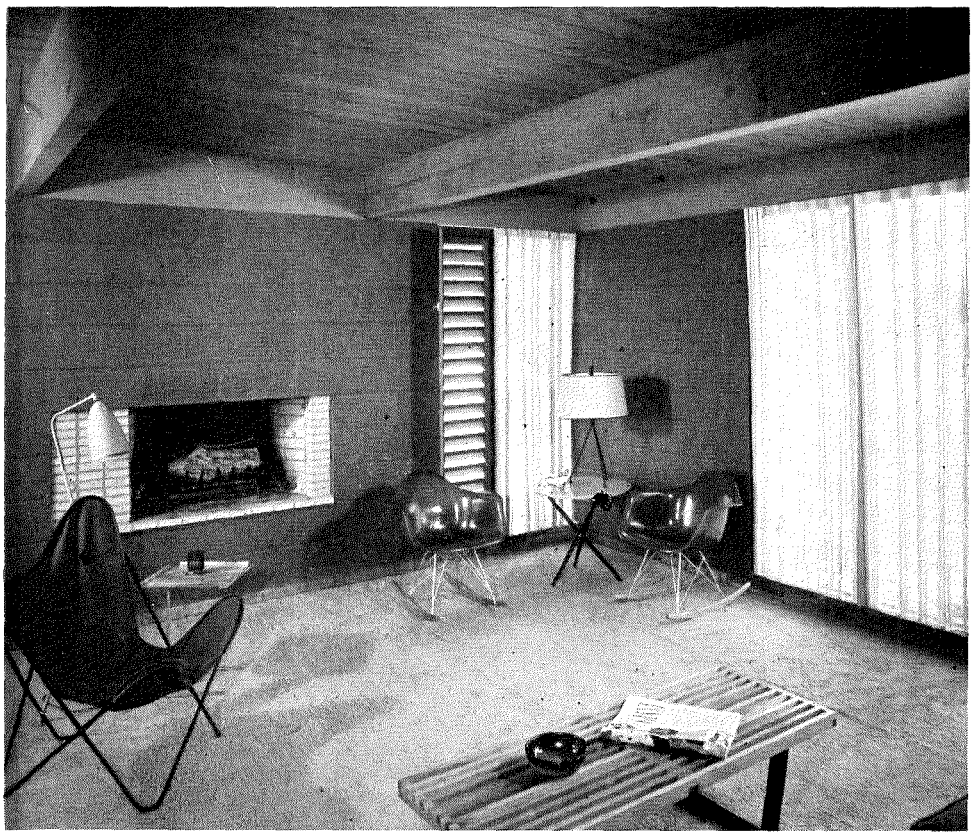
His back yards are uncluttered with garbage cans and junk because his wide lots and walls between houses permit him to use side yards for incinerators, clotheslines, garden tools and outdoor storage. Highly important to the success of his rear terrace are the solid wood fences—a $3-a-ft. extra that every family has been willing to pay for.

Inside the house

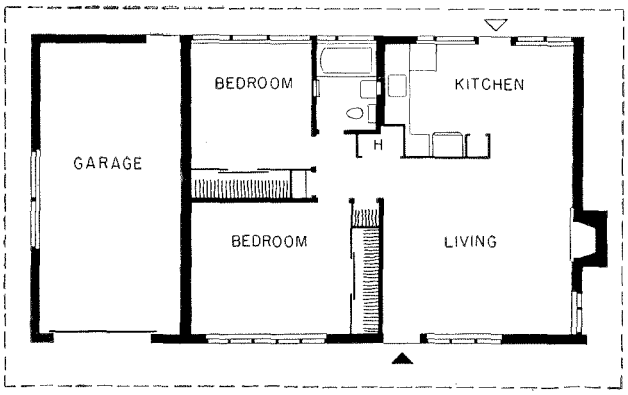
There are three variations of one floor plan. The garage is shifted from side to side and is built pie-shaped or rectangular. There are also slight variations in the front facade and its window arrangements. Hawkins gets a considerable individuality from the colors of his brick and the colors he paints his pumice block, front siding, doors and gates.

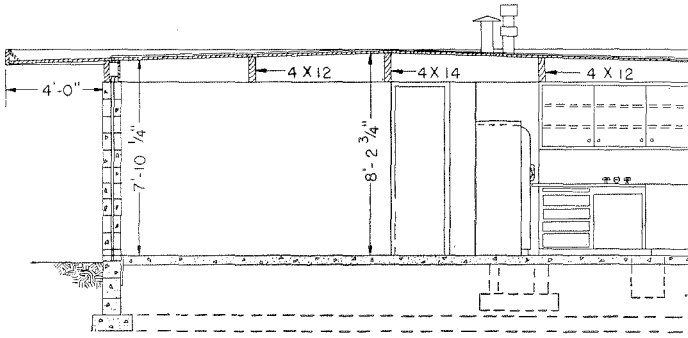
For an 855 sq. ft. house this plan has a lot of usable space. The small center hall serves as an entrance to both bedrooms, bath, coat closet, linen closet and the furnace room. A storage wall

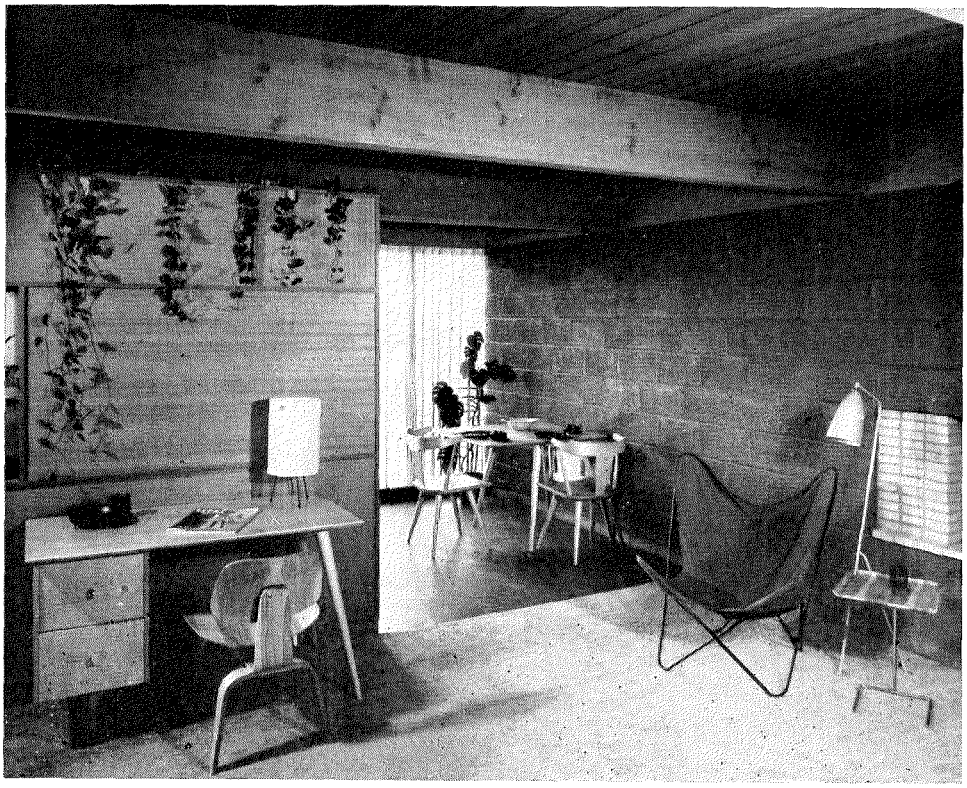
Pumice block walls *connect the houses, below, make them appear larger and hide side service yards.*



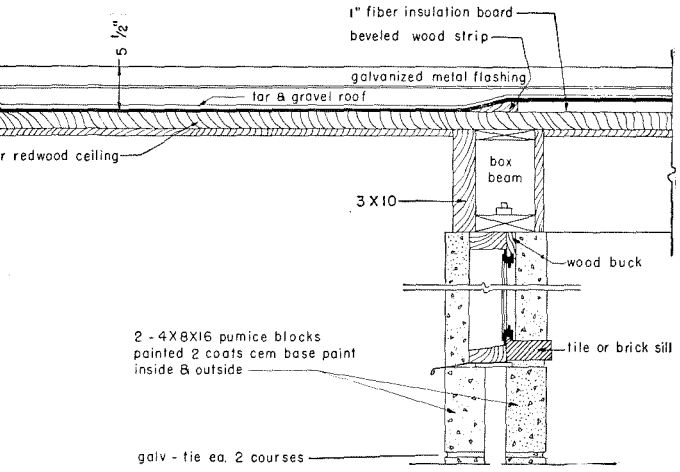
Houses with fireplaces *sell for $13,5 without for $13,000. Rough-textured pum left, painted in soft colors, complements mahogany finishes. At right of fireplace ar ceiling louvers for ventilation. This hands is 14'-18" x 15'-8" which, with its floor-to-ce dows, becomes a real asset in a small hous*

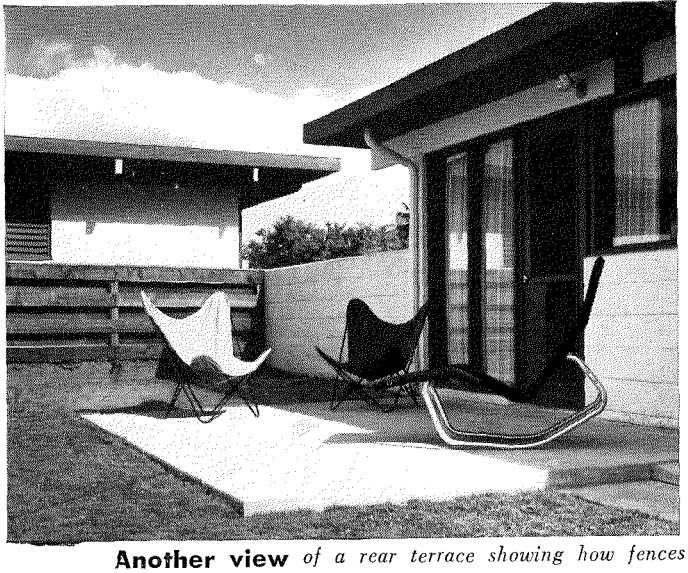




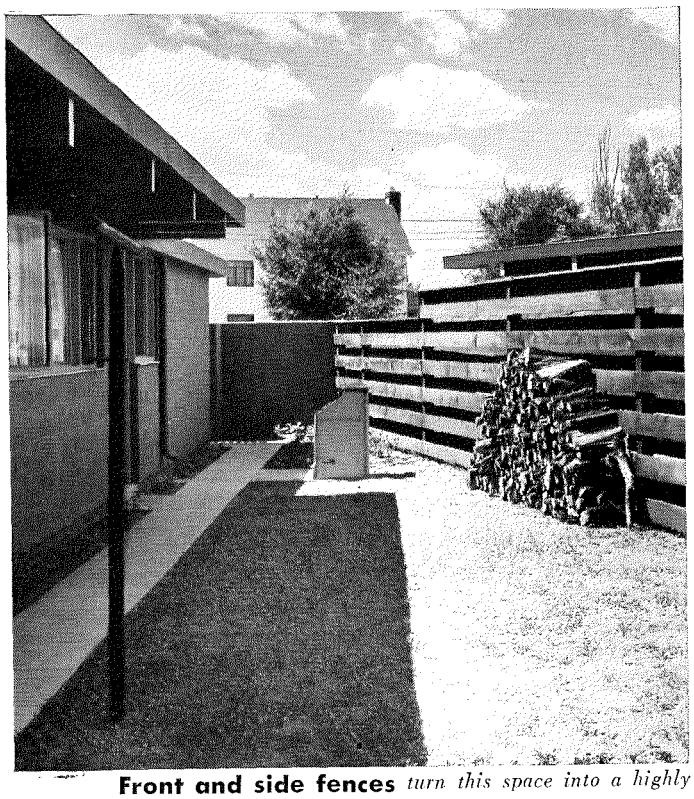


Floor-to-ceiling windows *opening area to rear terrace are seen from the li (left). Free-standing partition between li and kitchen is nonload bearing. Heavy 4" x in center gives solidity to interior and adds tive quality of wood ceiling and other woo All floors are covered with asphalt tile.*





Another view *of a rear terrace showing how fences between houses assure real privacy for outdoor living.*



Front and side fences *turn this space into a highly usable storage and service area, give bedrooms privacy.*

Hawkins *includes garbage grinder, automatic clothes washer and exhaust fan, but not the stove or refrigerator.*

sound baffle between the two bedrooms, and the front is similarly separated from the living room.

4′-8″ x 15′-8″ living room seems spacious because of its n. One bedroom is 13′-8″ x 11′, the other is 10′-8″ x 10′. tchen is not close to the front door or garage but Hawkins ilies like a rear kitchen for its convenience for serving the terrace.

of the windows have fixed sash. Hawkins has used floor- movable louvers to provide ventilation, as the interior phs show. These might not provide enough ventilation eep South but are ample for mile-high Denver.

owed by big down payment

4 houses of this type, Hawkins has sold ten. (Three of d are still under construction.) He is sure the down pay- $3,350 and $4,050 have kept away many buyers. But favorable reaction of people who have seen the houses isfied he has a design that will please a strong though ortion of the Denver market.

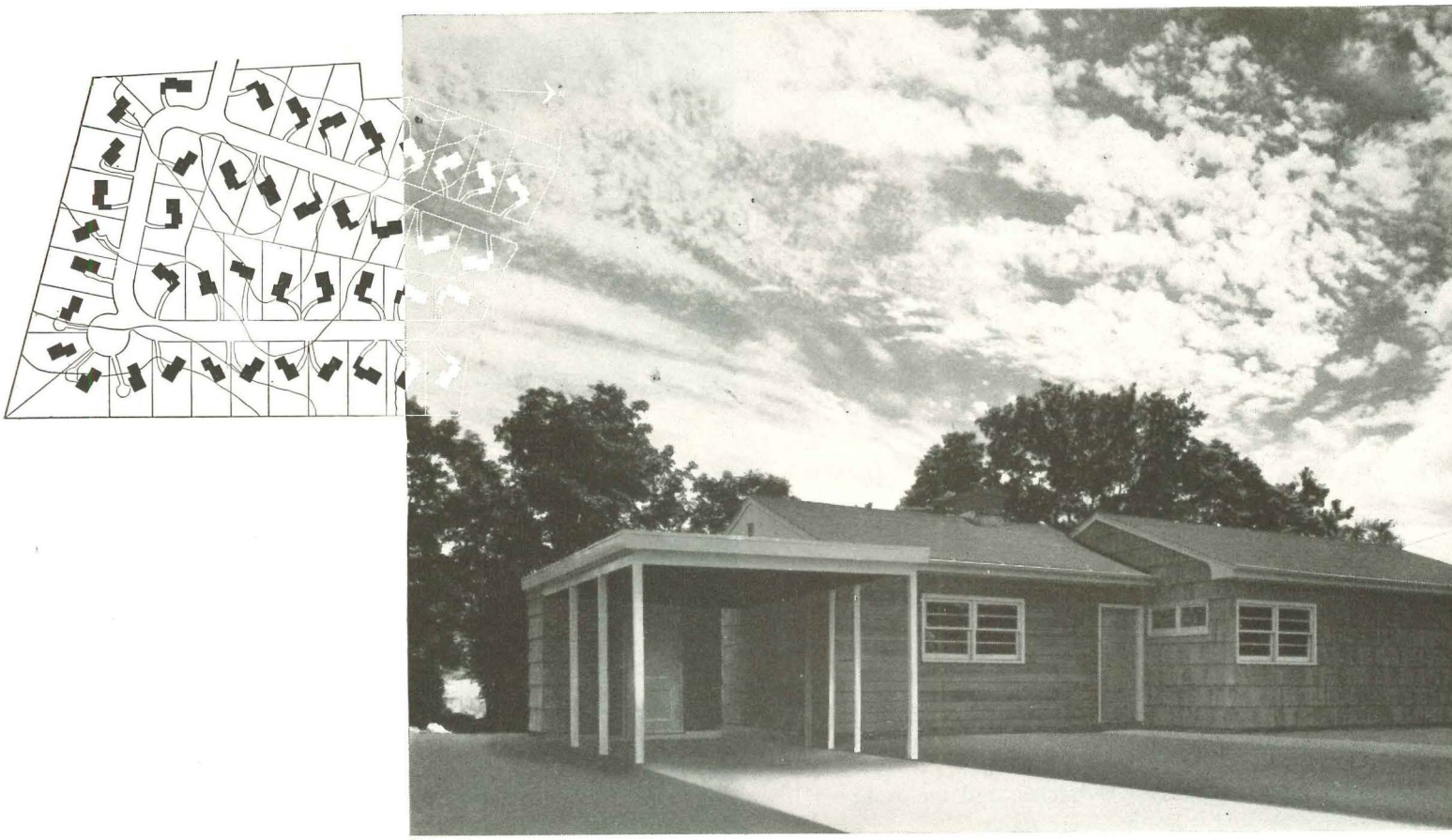
:tion methods

ıre built on a conventional 4″ slab resting on 12″ of Cavity walls are of two rows of 4″ x 8″ x 16″ pumice h a 2″ air space between. Hawkins has built numerous ith this construction and reports his buyers find them winter. Interior walls are left rough and painted in attrac- s, a practice followed in many more expensive houses. ilt-up tar-and-gravel roof appears flat but has a 4″ pitch point to eaves, as the drawing opposite shows.

s provided by a reverse-flow, gas-fired furnace forcing through a radial system of 8″ sewer pipe in the slab to w registers under windows.

ıs subcontracts his slabwork, plumbing, heating, elec- k and roofing. His men do all the carpentry, millwork nry. He provides basic landscaping.

red with the big contractors of Denver Hawkins is a small But he is a commendable example of a builder doing a for buyers who want contemporary designs in small, neighborhoods.



Patry Carr

Basementless house *with 1,100 sq. ft. sells f*

PREFABBED PANELS PAY OFF FOR A SMALL BUILD

Painstaking planning, highly efficient framing

produce low-cost ranch houses in colonial New En

LOCATION: Westport, Conn.
P. WM. NATHAN, INC., builder
HARDING, DRISCOLL, & BRIGHT, land planning

Can builders—big or small—cut framing costs by prefabricating their walls in panels?

Many have tried it, notably Fritz Burns of Los Angeles. Most have decided the answer is no. But here is a smart small builder in high-cost Connecticut who believes he has worked out a panel and truss system that cuts his framing costs 20%, saves $400 to $450 on each of his 1,100 sq. ft., $14,500 slab houses. Half the economy, he figures, is on labor, half on lumber.

His system takes only 21 panels per house—seven are 4′ wide, the rest are 8′. Four carpenters put them in place and after scaffolding is up (a 90 min. job) the same crew plus four more carpenters from the shop erect the 26 roof trusses in 35 min. The entire house is framed and the roof sheathed in less than a day.

The builder is William Nathan. As Lustron's New England sales manager (1948 to 1950) he sold himself on the economy of panel construction. Now he has translated the panel idea from metal in

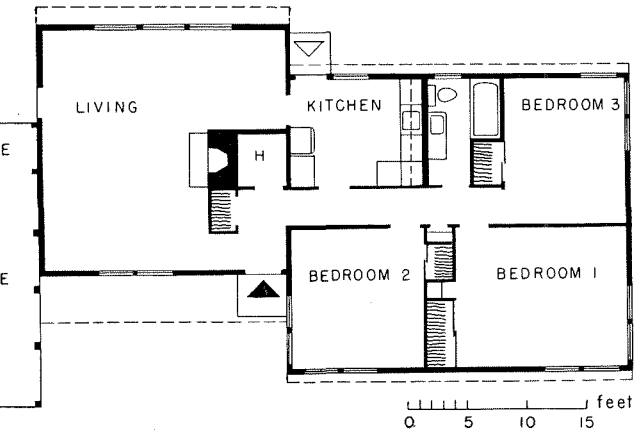
Nathan has avoided most of the mistakes are apt to make when they try prefabricati opinion of Fritz Burns' construction bo Slipher. For example:

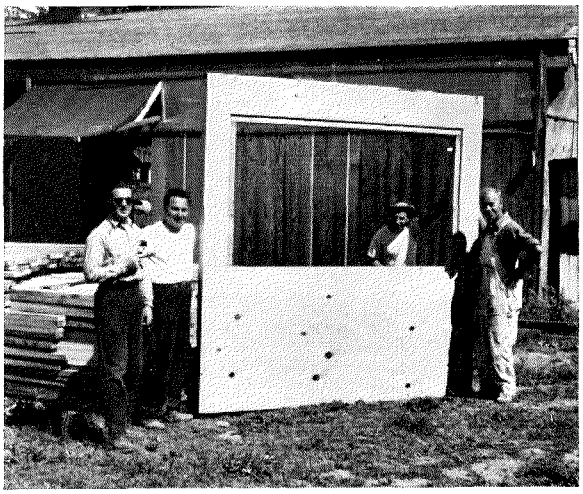
1. He has kept his panels light enoug men can handle them easily. (His heavies panel weighs 150 lbs., the 4′ x 8′ only 75 l consist only of studs nailed between 2′ x 4′ plate and covered with ½″ plywood sheath door and window openings framed in.

2. He has no handling-damage worry, panels will be completely covered after er exterior shingles and interior wallboard.

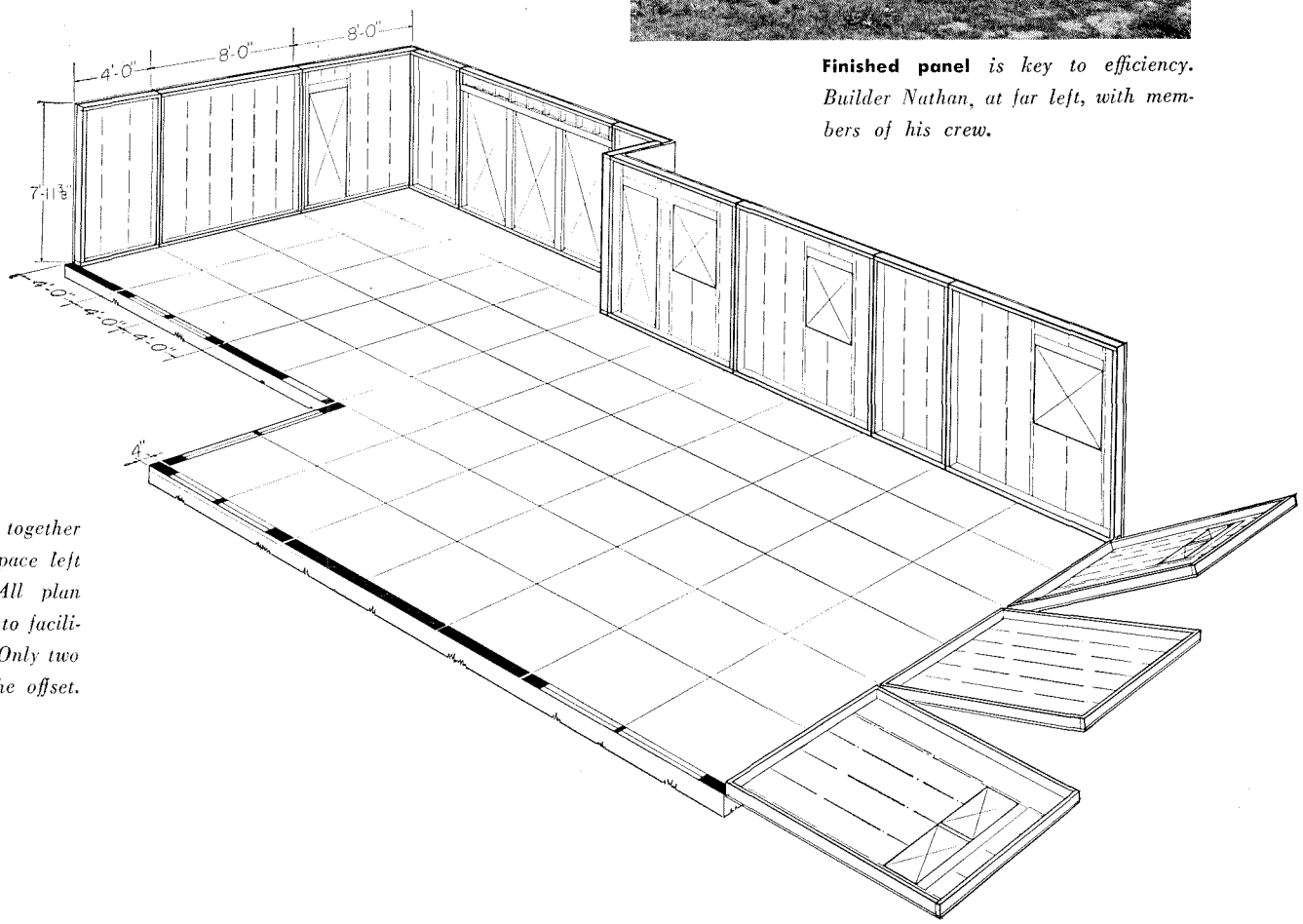
3. He has almost no plant investment to —only $750 for his shed, $80 for his jigs. of this he will salvage the roof trusses panels to build his last house.

4. He has not pushed prefabrication fa to run into trouble with any of the trades.





Finished panel *is key to efficiency. Builder Nathan, at far left, with members of his crew.*



l panels *are joined together alls except for 12′ space left picture window. All plan is are multiples of 4′ to facilitruction with panels. Only two nels are needed for the offset.*

ıe positive side, Nathan himself lists five easons why his prefabricated framing sys- costs:

lodular design minimizes material waste. ɛls just fit the standard 8′ x 4′ dimensions of plywood sheathing and interior wallboard, to the 8′ ⅜″ standard ceiling height rged by AIA and NAHB which was also set ′ x 4′ materials.

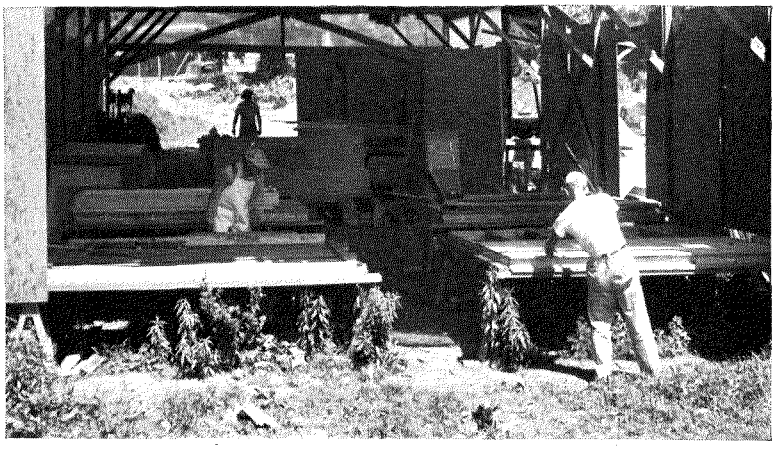
ırpenters need lose no time figuring things scratching their heads. In the shop, jigs m a precise pattern to follow. On the spot, e so few pieces to assemble that they do not eprints.

ıere is less material handling on the site. ɛrs do not have to carry materials all around e. Roof trusses (weighing 200 lbs.) are unrom trucks right to the roof scaffold.

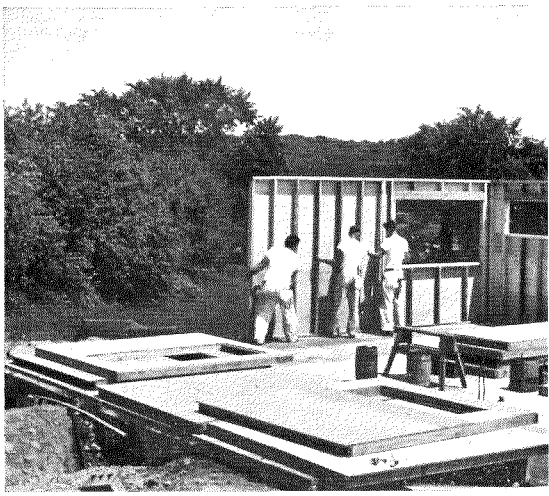
s in tilt-ups, jigs square and dimension ıccurately, so carpenters lose very little ing them up before they bolt them to the sill and nail a top plate across the top. (Sills are leveled on cinder-block foundations before slabs are poured.) Also they lose no time leveling door and window openings.

5. He figures he saves over 1,050 board ft. of framing lumber—425 in the walls, 625 in the roof (1,975 vs 2,600). (His 4′ in 12′ pitch permits more economical truss design than flatter roof.) Stud lumber saving comes partly from nonbearing end walls and interior partitions, for which he can use 2′ x 3′ studs. Panel construction lets him take advantage of the plywood stressed skin to space many bearing wall studs 24″ apart. (With this wider spacing he uses ½″ gypsum board instead of ⅜″, pays from ½ to 1¢ a sq. ft. more for it.)

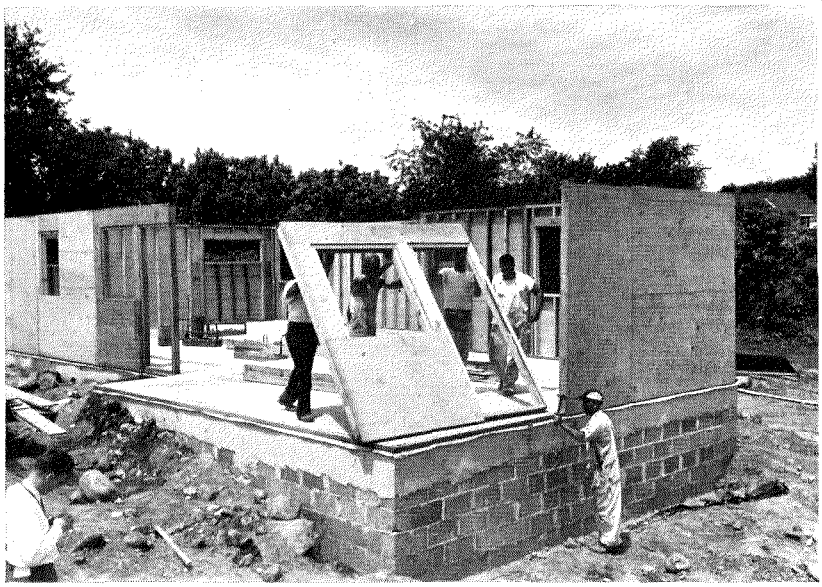
6. Panel standardization lets work go on rain or shine, so Nathan can operate with a small picked crew of 13 carpenters and laborers and give them steady work. On clear days five carpenters work in the shop—one at the electric saw, two on the panel jigs, two on the truss jig turning out five trusses an



Two men on jigs *make all panels for one house from precut lumber in less than a day. Two extra jigs in background are used on rainy days when four men make panels for future houses.*



Five minutes *after unloading (which mins.) third panel is erected. The build experimenting with stud spacing. Alth o.c. is ample for wall strength (with panels), some studs are spaced closer the plasterboards will not bend betwe*



Twenty minutes *after walls are started eighteenth panel is lifted into place, left. End 2 x 4s of adjacent panels are spiked together. Panels are quickly lined up over plate around perimeter of slab. After walls are up, a top plate is nailed over all panels before trusses are erected.*

hour (daily payroll $108). But when it rains two more jigs are used, and sometimes enough panels for four houses are nailed together in a day. (Biggest time-saving on jigs is on panels with door and window openings.)

Nathan's plan uses 21 panels. The seven narrow ones are all solid fillers. The 14 wide ones include:

Three solid plywood
Three with two double-hung windows
Three with two high bedroom windows
One with one double-hung window
One with bathroom window
Two with a rear door and window (one to kitchen, one to garage)
One with front door.

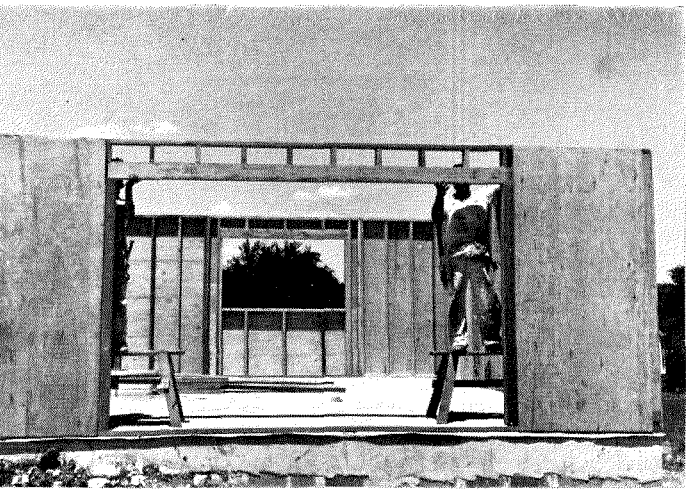
There is no panel for the 12′ wide picture window which is built on the site after the prefabricated panels are in place.

Success of standardization is vividly illust the way efficiency increased from house to h took four men 3½ hrs. to put up panels for house, 2 hrs. for the second, and by the nint they were down to 30 mins.

Erection time for trusses followed a simil ward curve as the men became more a familiar with their work.

Nathan subcontracts all his work except and trim, feeling his volume is too small to his doing the other work himself. He is wallboard sub could cut his costs hard by f the "one man" method by covering exteri and ceilings before interior partitions are but the sub prefers to do things the old way. figures he could save time and money a better roof if the local code would let him plywood sheeting in 8′ x 4′ sheets on his roo of 1′ x 8′ boards. One time saver he does avoid all cutting and fitting in his plumbing

Plywood overlap *is nailed to perimeter plate, right, embedded flush with the top of the slab. Filler pieces take up corners.*



inutes *after walls are started last panels cture window. Header is cut on job be- few inches leeway must be allowed with onstruction. Picture window is placed in rear wall (and panels reversed) depend- the exposure of the particular house.*

Using precut lumber *two men make five trusses an hour. Trusses are bolted at ends and top, pitch 4′ in 12′. Nathan shied away from smaller pitch because of possible sales resistance to flat roofs. Also, less pitch would have required much heavier truss construction.*

g two lines of 2″ x 3″ studs (on 24″ centers) er side of the pipes.

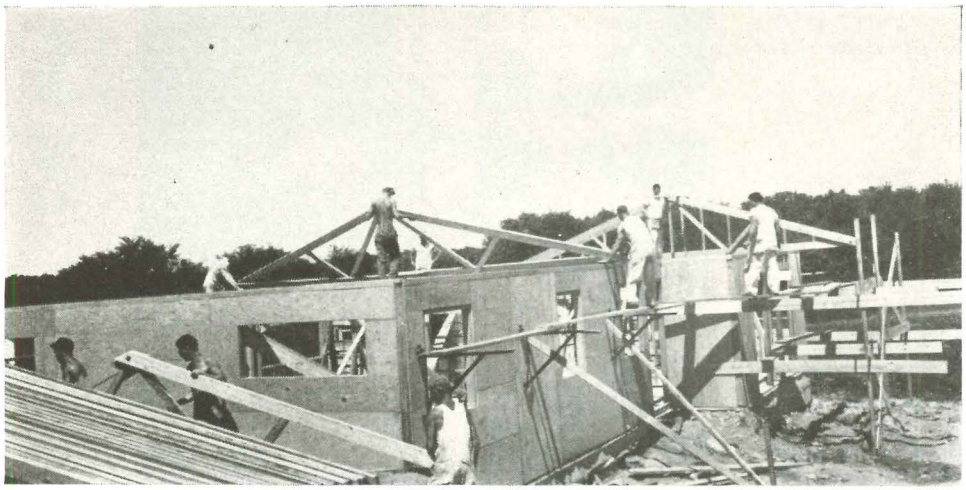
plan with two offset rectangles was worked Nathan and his wife and offers several in- g advantages. Offset gives cross-ventilation y room except kitchen and bath, permits m entry at the very center of the house with ccess to kitchen and bedroom hall. Circula- excellent, for occupants can reach every room the hall without going through any other Chimney, carefully located to fit between serves utility room too.

ower width of the living-room rectangle lets use the same 26′ roof trusses to create a overhang to shade the floor-to-ceiling window his overhang economy helps pay the $87 ost of offset. (Elsewhere overhang is 10″.) plan lends itself easily to variation by just panel sequence. Big living-room window of overhang can be put front or rear for orientation. High bedroom windows usually face north. Overlap of panels follows itself around house, so dimensions are 48-8″ (twelve 4′ modules plus 4″ overlap at end and offset) by 20′-4″ and 24′-4″.

Nathan's slab house has a carport and storage room for $14,500. Each slab house includes an electric stove, refrigerator, and washing machine. Because slab houses meet with some sales resistance in New England he offers the basement model with garage (at $16,200). Fireplaces are included in both ($400 cost to Nathan) since they are practically mandatory in rural Connecticut. Smallest lots are 1,100 sq. ft. and wherever possible he managed to save the old trees.

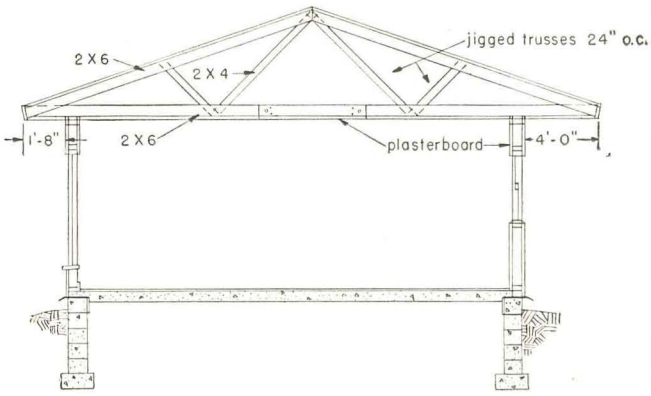
Success of the 43-house development is virtually assured. Twenty-four buyers have already signed up, three others have paid out $50 for binders.

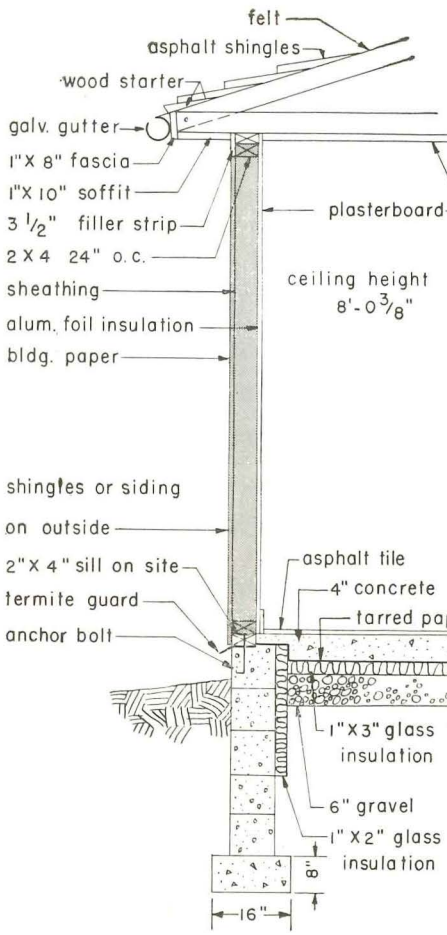
The sequence of photographs on these pages shows how Nathan's men erect walls, trusses and close in a house in one day.



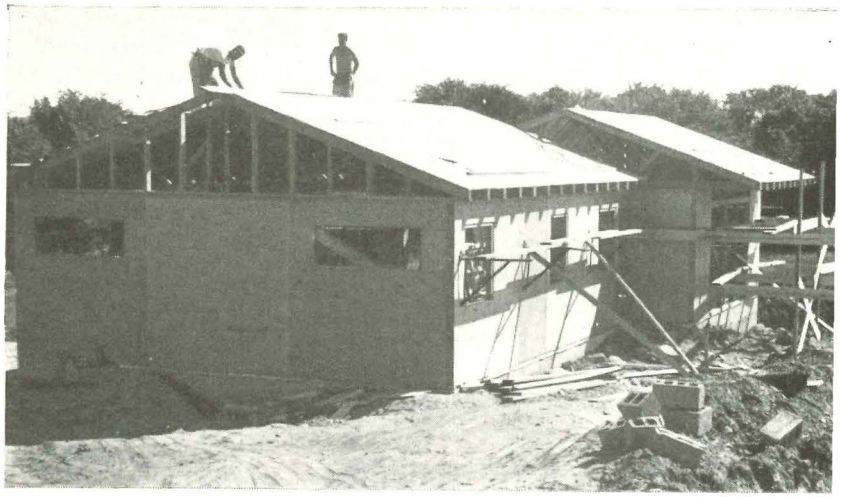
Erecting trusses *is a smooth operation. Before this truss work begins it takes 80 mins. to put up the scaffolds and brackets.*

Thirty-five minutes *after trusses were unloaded, they were in place in this house. Superintendent in foreground directs the operation. Since all trusses have identical dimensions, they are easily aligned and present no leveling problem.*

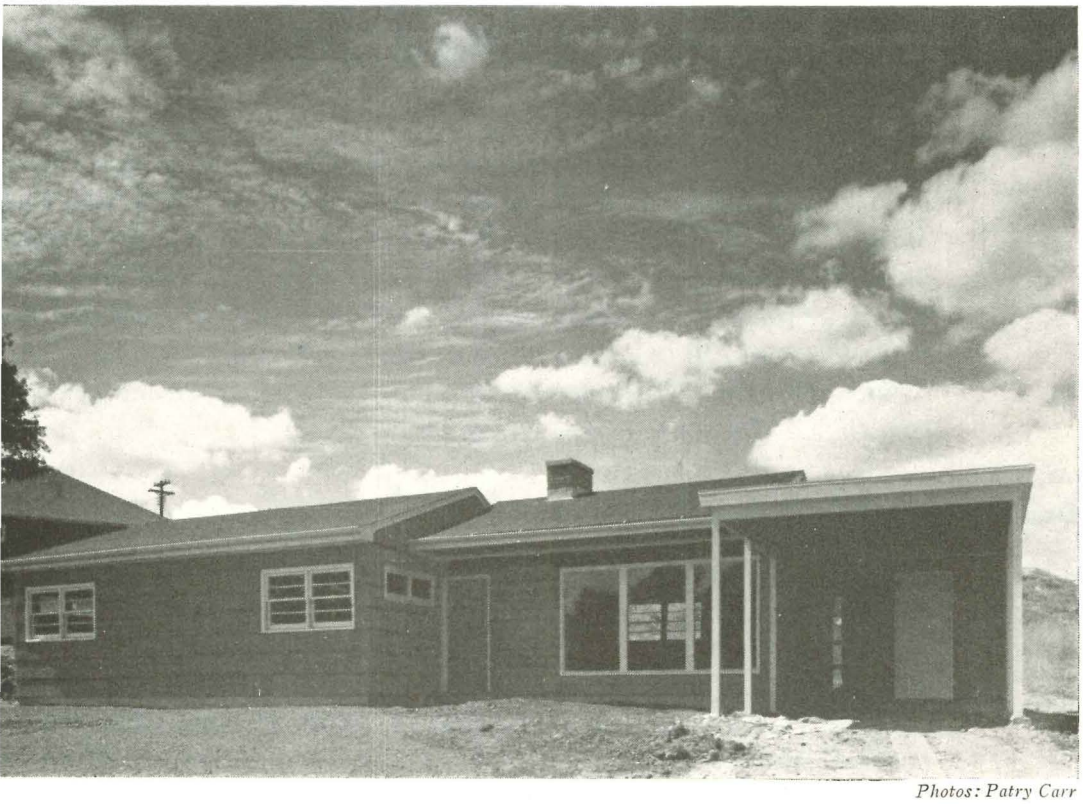




Ceiling height *of 8'-0 3/8" is the mended AIA-NAHB standard. uses 1/2" plasterboard for extra although 3/8" thickness is permitt*

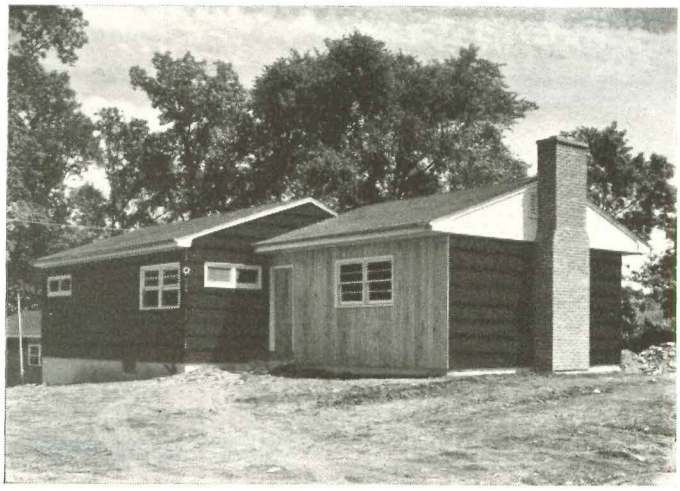


At the end of the day *house is closed in by four put 1' x 8" sheathing on the roof. This operation speeded up with 1/2" plywood panels for sheathing trusses are on 2' centers local code forbids 1/2"*



Photos: Patry Carr

shed house *is characterized by the horizontal look. ds of all doors and windows line up and bottoms of high lows line up with center bar of double-hung windows.*



Basement model *with garage sells for $16,200*

Varied appearance *is achieved by reversing offset*

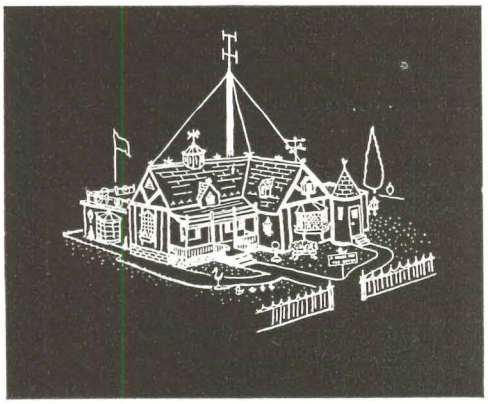
REAKDOWN

vater, streets, grad-		Bathroom tile	160
	$2,325	Glass	80
tion, slab, fireplace		Hardware & fittings	150
	1,370	Asphalt tile	212
& millwork	2,140	Kitchen equipment	615
ry & labor	928	Cabinets	225
ng	775	Financing, sales & misc.	1,120
	990	Overhead, fees, permits, etc.	510
al	290	Extra landscaping	100
& roofing	615	Profit	850
ck & painting	940		
on	105	Total	$14,500

New frontiers for homebuilders

Just published by the Southwest Research Institute of San Antonio is a 91 book, "New Frontiers for Homebuilders," written by C. W. "Bill" Smith, di of the Institute's Housing Research Foundation. Based on what Smith has le in working with builders from coast to coast during the past three year book is considered so definitive by the NAHB's Frank Cortright that he in the foreword: "I would like to see it read by everyone in and out of the building business. The book issues a challenge by setting up new and imp objectives." These are excerpts from Smith's text:

Don't sacrifice quality for variety



". . . wasting money on a mixture of bird houses, false gables, shutters and meaningless variations of exterior materials and colors"

Most bad housing projects are characterized by a conscious effort to ac dissimilarity in the appearance of the houses. Apparently this concept of constitutes a good neighborhood is based on the dissimilarity of houses in areas built up by custom contractors.

Where builders attempt to use a great variety of house plans they a evitably inferior in quality because the cost of competent architectura vices is prohibitive when it must be amortized on one or a very few house architect worthy of the profession can do a capable job of designing a house for less than 10 per cent of the cost. An architectural fee of $1,0 more per house is simply out of the question if merchant builders are t tinue economical housing.

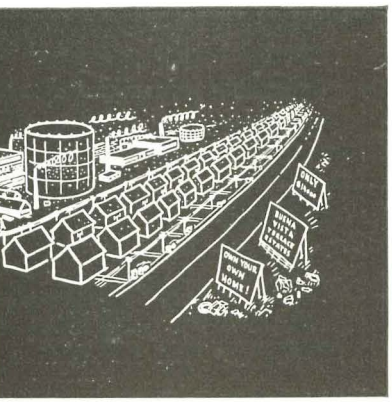
Furthermore, the whole objective of achieving dissimilarity between h in a project group is basically unjustified. Simply because older neighbor happened to be built up without any over-all plan and with no archite similarity between the houses is no reason why we should try to duplicate older neighborhoods today. Experience has demonstrated that it is far be have a community group of houses entirely designed by one architect, co to one or a few basic plans to fit the community, and so placed on the lots lend distinction and beauty to the project.

Don't waste money on apple crapple

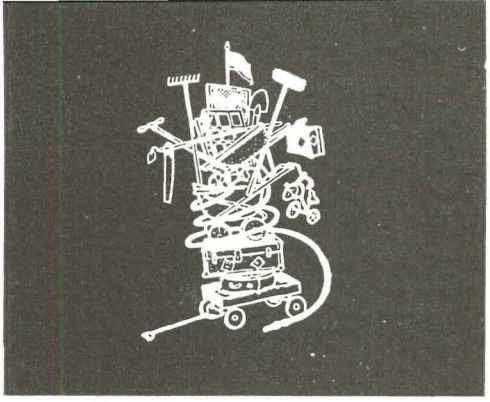
Too often builders using basic plans repetitively try too hard to achiev similarity by wasting money on a mixture of bird houses, false gables, sh and meaningless variations of exterior materials and colors. If the basic is good this is unnecessary, and anyhow ornamentation never does di similarity of the design and structure. The same amount of money spent vance on a good site plan to create a community group with the houses on their lots more logically would add far more value to the project; in would create superior values unobtainable any other way.

Don't be "smug" about a seller's market

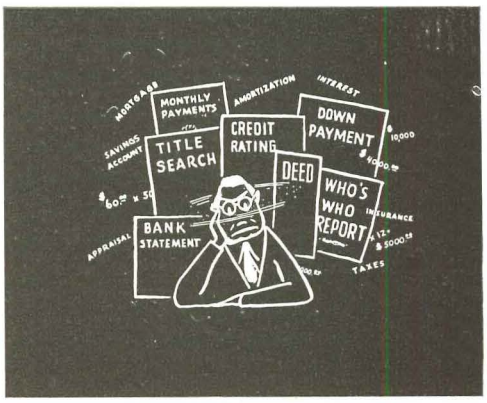
The subject of architecture has always been a controversial one with me builders because, in the seller's market builders have enjoyed in the past chasers were forced to buy whatever was offered. Many builders, able t houses of inferior design, concluded that the public was satisfied with neo Cod and neocolonial abortions and saw no reason for spending money, ti effort on an architect. Now the better builders are upsetting the marke making the public more discriminating because they have learned that us good architect to design clean contemporary houses, without the gimcrac the past finds an immediate and enthusiastic response on the part of the p



". . . this matter of site planning"



". . . one of the greatest shortcomings in most plans is lack of adequate storage space. . . ."



". . . the delays and expenses in purchasing and financing a house. . . ."

Don't try to hire a cheap architect

A few years ago it was very difficult to find architects who understood the merchant builder's problems, his techniques of repetitive construction, the economies which can be obtained through teamwork collaboration, the advantages of using standard-sized millwork, and other time- and labor-saving methods. Even today some merchant builders think of an architect as an impractical dreamer who draws pretty pitctures but knows nothing about costs. It is perfectly true that some architects fit this concept. There are good and bad architects, just as there are good and bad builders. It is very encouraging, however, to note that in all parts of the US today there are capable architects who are learning to work with merchant builders and who are realizing that this is a profitable and most satisfying field of endeavor.

More and more builders find they can increase their profits through using the service of a capable architect, which either lowers the over-all cost of their houses or inevitably adds more value than the amount of the architectural fees. Incidentally, typical architectural fees for merchant builders have been very modest. They amount to about $200 to $300 per house for groups of 10 to 20 moderate priced houses. For projects involving as many as 100 houses, the very best architectural services seldom cost more than about $75 to $100 per unit.

One danger we should warn all builders about is trying to employ a "captive' 'architect as one of their regular staff. In the first place, an architect's skill and professional ability is enhanced by his independence and his freedom to work on a variety of different designs and projects. Second, architects who are on the permanent staff of a builder may hesitate to argue with the "boss" when they know he is wrong.

'e architects . . . are learning 'th merchant builders"

Don't let traffic get snarled up

A good architect will recognize the importance of striving for maximum goals instead of merely attempting to meet minimum construction standards. He will either have, or must acquire, a detailed knowledge of the local conditions which will affect the design. In every community and in every geographic area there are differences in materials costs and availability, labor costs, community preferences and climate factors to consider. Your architect will give primary consideration to site planning so that the house is properly placed on the lot to take advantage of views, summer breezes, winter sunlight, the natural features of the site, and to provide privacy for family living indoors and out. He will try to make the most efficient use of the floor layout so as to avoid awkward traffic through the living room or such odd situations as people having to go through the kitchen to get to the outdoor dining space or the garden. The garage or carport will be placed adjacent to the kitchen or utility-room entrance with an overhang or other shelter to provide easy access.

Don't overlook the open kitchen

Since exhaust fans in the kitchen can remove objectionable odors, necessary to shut the kitchen off from the dining space and the res Planning rooms for more than one use and giving an "open" whole living area gives a sense of spaciousness even when the h cause of price limitations, be relatively small.

Don't forget space for air conditioning

We predict that before many years very few new houses will be summer cooling equipment and it would be wise, even now, to pr space in the utility room for a summer cooling unit to be installed with the heating system.

Every good builder has learned that it pays to select materia equipment which are of high quality and will provide long serv quiring frequent repairs or maintenance. In many instances it i expensive to use materials which, in themselves, may cost sligh the cheapest available, but which can be installed with less lal

Don't stick to last year's model

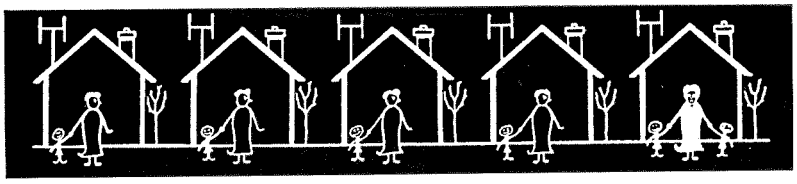
Styles change in houses as they do in women's clothes but less To a great degree they reflect both the practical needs and the esth of a particular society. Cape Cod and colonial houses fitted our pi very well, just as bustles and corsets were probably appropriate (But) your wife would not wear 19th-Century clothes today longer want to live in 18th- and 19th-Century houses. It has often the public is far ahead of the building industry in the matter of h Many builders doubted this until in recent years they have learne surprise that the most successful builders who are offering the signed contemporary houses are finding a tremendously enthusi

A design which is good today will not be as good ten years f as there is a steady demand for new women's clothes based not o the old ones are worn out, but on the desire for new designs, so tinual and steady demand for new houses be realized when more late this demand by offering the public continually improved mo

Don't be limited by FHA

The mortgage finance policies which determine who can buy h they can buy them are controlled very largely by the Federal Ho tration. The minimum construction standards promulgated by th very fine development and one which quite properly established which inferior construction practices were unacceptable. It is to FHA stopped at that point and did not go on to defining the qual ance, performance, and livability which should be the goal of and which should be held out to the industry as a basis for juc of houses. Present FHA appraisals are geared only to minimu standards. Builders who conform to these minimums obtain top commitments. You who strive to obtain the utmost value and s in your housing projects are usually penalized because the FHA nize and has no machinery for giving preferential appraisals to achieve these superior qualities.

"... styles reflect the practical needs ... of a particular society"



(Illustrations on these pages are reprinted from the book.)