

BUILDINGS TYPES STUDY:

#### **RECORD HOUSES OF 1981**

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## ARCHITECTURAL RECORD

MID-MAY 1981

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#### Why some of today's most memorable creations are based on brick.



Forget, for a moment, that brick is economical, long lasting and energy-efficient. That it's good looking and practically maintenance-free. Because one of brick's most endearing qualities, to an architect, is a flexibility that frees him to create unique design solutions. And the Ward Building outside Washington, D.C., by Donald N. Coupard and Associates, is a very good example.

is a very good example. The Ward design features a variety of trend-setting shapes and elements not usually found in a brick building. Like the distinctive porthole-type windows (above), with circumferences rimmed by brick set in a circular soldier course. Brick's variety of color enabled Coupard to create an interesting effect by matching these circular brick with horizontal bands on the exterior walls—in contrast to the basic orange-red, modular brick used for the bulk of the wall surfaces.

It all adds up to an original building design which is beautifully suited to its function and location—based on brick.

For more information about the Ward Building, and about other innovative design applications of brick, write for a free copy of "Brick in Architecture," Vol. 36, #5, from the Brick Institute of America, 1750 Old Meadow Road, McLean, Virginia 22102.



Circle 15 on inquiry card



#### A research house for developing passive solar standards

Most passive solar systems for houses are designed on a gualitative rather than a guantitative basis. Furthermore, most knowledge that architects have of these systems is empirical. Mathematical models, and prediction methods based upon them, exist, but these have not been tested rigorously against actual passive-system components and houses operating under controlled conditions. And while some manufacturers of windows and skylights offer estimated seasonal performance values for these devices, presently there are no standard test procedures. In addition, test procedures are needed to give dependable data on other manufactured passive solar systems such as water walls.

So, at present, architects have to design passive systems with theoretical information and by rule of thumb. Obviously, these systems could be more cost effective if designers had more hard data on how the systems work.

Recognizing the need for research to develop data that would be helpful to designers, the Department of Energy commissioned the Center for Building Technology at the National Bureau of Standards to design and build a 1,400-sq-ft house that could be used to monitor and improve measurement techniques, which is now being readied for taking test data. The specific objectives are to: 1) develop performance standards for passive solar components, windows and skylights in particular, and 2) develop performance data on direct-gain passive solar systems (i.e., large south-facing windows) and masonry storage wall systems. For the latter, sufficient measurement points of surface, air and ground temperatures and recording equipment have been provided to enable the collected data to be used as input for the passive solar portions of computer programs designed to predict annual energy usage of buildings.

Additionally, architects at the Center for Building Technology will be able to study the thermal performance and daylighting benefits of shuttered clerestory windows and shuttered north-facing windows.

Prior to the research-house activity, DOE conducted a survey to determine what kinds of passive solar products exist. Not surprisingly, most of these were found to be windows, but also included were water walls and change-of-phase tiles and tubes.

Related to the performance-standards portion of research-house program was the purchase of stock windows that were sent to private test laboratories for measurement of their thermal characteristics.

The \$146,000 research house is divided into four areas: a calorimeter space for developing performance standards for manufactured passive components, a masonry-storage-wall (Trombe wall) space, a control space and a direct-gain space.

In the calorimeter space, an insulated test frame with cooling coils and an electric heater behind an absorber panel can be moved up to the wall behind the large single window, or hung below the skylight, to measure heat losses and gains through them. The purpose is not to test a window or a skylight, per se, but rather to develop a standard for measuring the performance of these types of elements. For, as Mark McKinstry, former group leader of the Passive Solar Systems Group of the Building Thermal Performance Division of CBT, states, the purpose is to develop standard test procedures, not to test products "The Bureau tests tests," is the way he puts it An earlier example is the test work done to serve as the technical basis for three ASHRA standards on water-type solar collectors.

The direct-gain space and the masonry storage-wall space have a very large number of sensors installed in mutiple locations so that data can be acquired to validate the passive solar portions of such energy-usage computer programs as DOE II, BLAST, DEROB, etc. or some simplification thereof for residentia application. Sensors will measure sensible and latent air temperatures, surface temperature of rooms, internal temperatures of the masonry storage wall and floor slabs, ground temperatures, and mean radiant tempera tures (to determine if uncomfortable dispara ties in room surface temperatures develop because of passive solar input). Instrumenta tion is being installed for over 100 channels o information. This type of investigationcalled class A by DOE-was originally con ceived to be conducted in a total of si houses. With much of DOE's solar programs in limbo or cancelled, managers of the pro grams do not know how much will go ahead In any case, DOE has committed \$180,000 for taking data in the NBS test house up throug October of this year.

Another type of investigation planned b DOE involves installing instrumentation for 1 channels of information in 60 occupiehouses from Maine to Florida to determin how well various passive elements in a hous work. Measurements are to be made in on zone of each house to determine what fraction of the heating input is solar and what fraction from the heating plant.

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#### Tax credits and energy-saving residential design

The tax laws today contain economic incentives to induce certain taxpayers, namely owners and renters of homes, to invest money in energy-conservation measures. These legal influences can create opportunities for architects to provide professional services to clients in the residential sector. The combination of an immediate tax credit and long-term savings on energy costs may convince clients to seek architectural services in connection with residential projects in order to maximize their technological and financial benefits.

by Arthur T. Kornblut, Esq. and Fiona A. Power, Esq.

The Energy Tax Act of 1978, by the addition of Sections 44C and 1016(a) (21) to the Internal Revenue Code, created a Federal income tax credit for qualified energy expenditures made each year in connection with a taxpayer's principal residence. Final regulations on this "residential energy credit" were filed August 27, 1980, and parts of Section 44C were subsequently amended by the Crude Oil Windfall Profit Tax Act of 1980. These recent changes in the tax law have created a number of opportunities for architects with residential practices.

The current tax credit is 15 per cent of "energy conservation expenditures" up to \$2,000 (or \$300 worth of tax credit) and 40 per cent of "renewable energy source expenditures" up to \$10,000 (or \$4,000 in tax credit) for a possible total tax reduction of \$4,300. The minimum credit allowed is \$10 per tax year. If the allowable credit exceeds the limitation, the excess can be utilized during the succeeding taxable year. However, there will be no carry-over allowed after December 31, 1987.

If the qualified energy expenditures were financed with Federal, state, or other grants, they are eligible for the residential energy tax credit only if the amount of the grant is taxable as gross income. Tax-free funds are not allowed to generate what would be, in effect, double tax savings.

The tax credit is limited to expenditures made in connection with a taxpayer's principal residence, which must be located in the United States. It does not apply to money spent for energy savings in vacation homes. The law does not restrict the credit to homeowners, but because of the considerable expense involved, renters probably would not make expenditures to take advantage of the tax credit without the security of a longterm lease.

The statute defines the term "energy conservation expenditure" as an expenditure

made on or after April 20, 1977 for insulation or any other energy-conserving component (or for its installation) for a dwelling which was substantially completed by that date. Qualified insulation materials include fiberglass, rock wool, cellulose, urea-based foam, urethane, vermiculite, perlite, polystyrene, and extruded polystyrene foam. The term "other energy-conserving component" is defined as any item (other than insulation) which is included within one of the following eight categories:

1. a furnace replacement burner designed to achieve a reduction in the amount of fuel consumed as a result of increased combustion efficiency,

2. a device for modifying flue openings designed to increase the efficiency of operation of the heating system,

3: an electrical or mechanical furnace ignition system installed to replace an existing gas pilot light,

4. a storm or thermal window or door for the exterior of the dwelling,

5. an automatic energy-saving setback thermostat,

6. caulking or weatherstripping of an exterior door or window,

7. a meter which displays the cost of energy usage, or

8. an item specified by regulations to increase energy efficiency.

The original use of the energy-conserving component must begin with the taxpayer. It must also reasonably be expected to remain in operation for at least three years and must meet established performance and quality standards.

"Renewable energy source expenditure" means, in general, an expenditure made on or after April 20, 1977 for property which, when installed in connection with a dwelling, transmits or uses solar energy, energy derived from geothermal deposits, or any other form of renewable energy specified in Internal Revenue Service regulations to hea or cool a dwelling or provide hot water o electricity for use within it; or wind energy fo nonbusiness residential purposes. The renew able energy source property must meet per formance and quality standards that are in effect at the time of the acquisition of the property and must reasonably be expected to remain in operation for at least five years. The original use of the property must begin with the taxpayer.

The performance and quality standards both for energy-conserving components and for renewable energy source property are to be established by the Secretary of the Treasury, who shall also establish a procedure for the certification of such items. The statute states that the manufacturer of the item must apply for certification. It was suggested that anyone (such as a homeowner or an architect) be permitted to request certification The regulations could not allow this, however, because the statute specified the manufacturer as the appropriate person to request certification. This could prove burdensome in an architect or other person finds an energy related use for a product which has not beer recognized by the manufacturer. The innova tor must then convince the manufacturer to go to the time and expense of the application process. However, the manufacturer might be persuaded to make the effort by the prospect of greater sales as a result of the newly found use for the product.

Some of the language of the statute was found to be ambiguous or confusing, and various amendments have been enacted subsequently to clarify meanings and answer questions raised by members of the public Most of the amendments involved addeed definitional material. It is in these definitions that one finds the denial of a credit for devices with a dual function, a recurring theme throughout the regulations.

The final regulations supplement the definition of "insulation" ("any item which is specifically and primarily designed to reduce when installed in or on a dwelling [or water heater] the heat loss or gain of such dwelling [or water heater] . . . ") by requiring that such item be installed between a conditioned area and a nonconditioned area (except wher installed on a water heater, water pipe, o heating/cooling duct). The regulations offe an example precluding awnings from qualify ing as insulation. Because "conditioned area" means an area that has been heated o
## ARCHITECTURAL BUSINESS

oled by conventional or renewable energy urce means, a taxpayer in a warm climate nnot get a credit for insulating a home that s neither heating nor air conditioning.

Dual-purpose items do not qualify as ulation even though they may have been signed in part to have an insulating effect. us, structural, decorative, or safety-related ms such as carpeting, draperies and their ngs, window shades, wood paneling, new replacement walls, and exterior siding are t eligible for an energy conservation tax edit because they perform more than one nction.

Other definitions include "furnace reaccement burner" and "furnace ignition sysn." The burner must replace an existing rner. It cannot be acquired as a component or for use in, a new furnace or boiler (new es presumably are energy-efficient alady). A "furnace ignition system" must blace a gas pilot light by mechanically or ectrically igniting the gas burner in a gased furnace or boiler. The credit for storm toors is limited to those prime exterior doors th an R-value of at least two throughout. form doors or thermal windows are eligible r credit but film applied on or over the rface of a window or door is not.

Perhaps the most significant parts of the gulations for architects are embodied in the ction on active and passive solar energy stems. This area not only produces the n's share of the annual tax credit (up to .,000) but also contains the greatest oppornities for design and technical innovation. olar energy property'' in general is defined materials and equipment of a solar energy stem which transmits or uses solar energy heat or cool a dwelling or to provide hot ater for use within the dwelling.

Active solar systems are distinguished om passive systems in that active systems ilize either mechanically forced energy ansfer (such as by pump or fan) to circulate dar-generated energy, or thermal energy ansfer (such as by thermal siphon princies). Active systems usually use collectors, orage tanks, rock beds, thermostats, and eat exchangers. Passive systems, in order to jalify for the credit, *must* among other quirements contain all of the following five omponents:

a solar collection area (defined as an panse of transparent or translucent materisuch as glass, positioned so that sun rays rectly strike an absorber),  an absorber (defined as a surface, such as a floor, exposed to sun rays admitted through the solar collection area, which converts solar radiation into heat and transfers the heat to a storage mass),

• a storage mass (defined as material, such as masonry, that receives and holds heat from the absorber and later releases the heat to the interior of the dwelling, is of sufficient volume, depth, and thermal energy capacity to store and deliver adequate amounts of solar heat for the relative size of the dwelling, and is located where it will be capable of distributing stored heat directly to habitable areas of the dwelling through a heat distribution method),

• a heat distribution method (defined as the release of radiation heating from the storage mass within the habitable areas of the dwelling or convective heating from the storage mass through airflow paths provided by openings or ducts in the storage mass to habitable areas of the dwelling), and

 heat regulation devices (defined as shading or venting mechanisms, such as awnings or insulated draperies, to control the amount of solar heat admitted through the solar collection areas and nighttime insulation or its equivalent to control the amount of heat permitted to escape from the interior of the dwelling).

Even if a system qualifies as a passive or active system, it does not mean that all of the materials and equipment are "solar energy property" for which a tax credit can be claimed. Only those materials and components (as well as labor costs for installation) whose sole purpose is to transmit or use solar radiation qualify for a tax credit as "solar energy property." (The definition of "insulation" is somewhat more liberal because it includes items whose primary purpose is insulating.) Thus a solar collector that is a structural part of the roof and such items as windows, skylights, and greenhouses do not qualify as "solar energy property" because of their dual function.

Yet another definition contained in the regulations is that of "wind energy property" which includes equipment (and parts solely related to the functioning of such equipment) installed in connection with a dwelling that transmits or uses wind energy to produce energy in a useful form for personal residential purposes. Examples are given of equipment such as windmills, wind-driven generators and storage devices that use wind power to generate electricity or mechanical forms of energy. If the device uses wind merely to ventilate, it does not qualify as wind energy property.

The final definition is that of "geothermal energy property." The term includes equipment and related parts necessary to transmit or use energy from a geothermal deposit to heat or cool a dwelling or provide hot water for use within the dwelling. Because of the dual-function rule, equipment such as a pipe which serves both a geothermal function (transmitting hot geothermal water within a dwelling) and a nongeothermal function (transmitting hot water from a water heater within the dwelling) does not qualify as geothermal property.

A geothermal deposit is described as a geothermal reservoir consisting of natural heat which is taken from an underground source and is stored in rocks or in an aqueous liquid or vapor (whether or not under pressure) having a temperature above 50 C at the wellhead or, in the case of a natural hot spring (where no well is drilled), at the intake to the distribution system. The proposed regulations had required a minimum temperature of 60 C, but several comments from the public convinced the IRS that the lower temperature would be appropriate.

Because these laws and regulations are relatively new, it remains to be seen how the Internal Revenue Service will apply them in situations in which building products and materials do not fall clearly within the categories for which tax credits are permitted.

Architects normally design the energyrelated aspects of a new or remodeled dwelling in accordance with the client's functional, esthetic and budgetary requirements. However, if the design can achieve tax savings, the client will receive a double benefit. Steadily rising fuel prices should encourage more people to approach residential design with an eye toward taking advantage of these tax credits. Architects with an awareness of how to design with tax credit-eligible housing components should be able to assist them.

Mr. Kornblut is a registered architect and practicing attorney in Washington, D.C. Ms. Power is an associate with Mr. Kornblut's law firm.

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SUN TRONIC HOUSE

...an excitement of elegance and inspired concepts





# Raise high again your expectations with the inspiration of Copper Meta

The exciting Sun/Tronic House<sup>™</sup> features inspired concepts for the copper metals in an elegant home setting using the latest in residential solar energy and the precision of household management control provided by personal computers. Conceived and built by the Copper Development Association Inc., advanced market development arm of the copper and brass industry, the Sun/Tronic House is a dazzling showcase of sensitive design, superb building materials, tasteful home furnishings by W&J Sloane and clean-lined, efficient appliances from General Electric.

The Sun/Tronic House is a comfortable <u>real</u> home. The home is proof-positive that with sound energy management and personal computer technology, you can raise high again your expectations for elegant living — even in an era of tightening fuel supplies.

An interplay of active and passive solar systems in the Sun/Tronic House provides more than 60% of the home's space heating and hot water. Photovoltaic cells that directly convert the sun's power into electricity furnish a portion of the home's electrical needs.

Nature and the creative intellect work together brilliantly in the Sun/Tronic House to give a strong yet subtle statement of the sensibly elegant comfort that is available today. Natural building materials, the captured sun, and electronic systems in the Sun/Tronic House are aimed directly at convenience and efficiency, in an environment of confident good taste and carefree elegance. California redwood, upholstery fabrics of Herculon® olefin fibers and Karastan carpets, along with copper metals used throughout the house, provide an almost maintenance-free environment. In addition to copper solar equipment, the home's copper, brass, and bronze products are hallmarks of quality construction and design. These include copper plumbing and wiring and copper metals for architectural and decorative uses.

Home's southern exposure features copper solar collectors by Libbey-Owens-Ford, mounted at ground level for easy maintenance. They flank two-story Lord & Burnham greenhouse-solarium, flashed with lead sheet. Copper is first choice for solar panels because of its superior heat conductivity and corrosion resistance.







Snug in a hillside, north side defends against winter winds. Vestibule serves as airlock against drafts. Copper-clad doors by Stanley have magnetic weatherstripping. Siding is durable, clear-grade certified kiln dried California Redwood.

East and west elevations reveal the design versatility of the "Tough 12" high-strength standing seam copper roof. Copper roof was installed with new automatic forming and seaming equipment, reducing total cost. Underneath every roof surface: 9" of R-30 Owens-Corning Fiberglas<sup>®</sup> blanket insulation plus 1" of Owens-Corning Fiberglas<sup>®</sup> High-R sheathing.

Floor plan depicts Sun/Tronic's various room levels, spacious living areas and graceful, curved wall surfaces.







# Living spaces that radiate gracious warmth and comfort

Interior spaces of the Sun/Tronic House flow effortlessly into one another, charming the eye with change and surprise. The lines are gentle, soft, and curved, and yet there is sufficient angularity to establish a pleasing balance of grace and quiet strength.

Natural materials used on the exterior, such as redwood, slate, and copper metals, combine beautifully with the distinctive interior furnishings from W&J Sloane, the fine carefree fabrics of Herculon, distinguished furniture from Sherrill, and the lush Suede Manner broadloom carpeting from Karastan.

The plan of the Sun/Tronic House is eminently practical. The soaring ceiling takes advantage of convection currents; rising warm air is recycled down an energy column and circulates under the Vermont slate floors of the lower levels. The bold, brass-appointed fireplaces add steady warmth to the living spaces by recirculating heat to other rooms.

The semi-circular library is one-half level below the living room, and the microprocessor system from Apple Computer is located there. Continually monitoring data from electronic sensors, the personal home computer determines when to activate the solar systems and in what combinations; when to distribute space heating from storage; and when to operate heat pumps, solar cells, and night setback thermostats for maximum efficiency, comfort, and economy. The home computer also controls the security, fire sprinkler, and smoke detector systems.

Architects for the Sun/Tronic House are the Berkus Group Architects of Santa Barbara and Washington, D.C. Mechanical engineers are Mueller Associates of Baltimore. Contractor is, W. R. T. Smith, Wilton, Conn. Interior design is by MAC II of New York.

Vaulted space of living-dining areas is divided by soaring mirroredbrass, double-faced fireplace. Column in living room collects warm air that rises toward the celling and then directs it down for circulation in lower level "air floor." Vermont slate flooring radiates the warmth upward again.







ary's computer console monitors energy reces, lighting, fire and security protection. TVs keyboards in other rooms have access to Apple it's 48K memory. The skylight (with its thermallating shade to limit nighttime heat loss) opens library to brighttime comfort.



Two-story Lord & Burnham greenhouse-solarium is part of passive solar system, which provides 15% of space heating. It's equipped with insulating glass, power fan ventilation, computer-controlled Roll-A-Way motorized insulating shutters. Redwood hottub invites the family. Masonry greenhouse walls, slate floors, copper tubes in the family room solar wall — all store sun's heat.



ly room focus is media wall with GE electronic e entertainment products including a 45" onal GE Widescreen TV, GE video cassette reer. Also featured: 4-speaker stereo system, 13" ith Apple II computer, seating group with stain ant fabrics of Herculon.

Sectional group by Sherrill in the quiet corner of the living room stimulates conversation and relaxation. A brass-faced sliding glass door has easy access to the open redwood deck beyond.

Looking down from the balcony: W&J Sloane furnishings reflect traditional and contemporary taste. Sherrill sectionals and other furniture are covered in fabrics of Herculon® Carpet is Suede Manner by Karastan. Brass end tables and cocktail tables are from W&J Sloane. Greenhouse-solarium provides solar-heated air that warms floors in family room and library.

Open spiral staircase leads to the upper level balcony commanding exciting views of the living areas.









# Sun-filled spaces bring good friends, good food together

Sun/Tronic's formal dining setting is gracious, light, and calmly ordered. Entertaining in this home makes evident Sun/Tronic's exceptional and elegant qualities.

The kitchen fulfills all the criteria for excellence and joy in food preparation. The work island with salad sink is convenient to all resources as well as the informal dining area. Windows of Libbey-Owens-Ford Thermopane<sup>®</sup> insulating glass in brass frames provide a warmth that blends beautifully with the copperware, the slate flooring, and the St. Charles cabinets that are finished with hardwood countertops and solid brass trim.

Computer efficiency comes to the kitchen also. A GE television equipped with keyboard is linked to the central computer. Simple instructions command the computer to display selected menus, recipes, and food and wine inventories and to forecast expenses.

GE's kitchen appliances and nearby laundry appliances,

all placed with an eye to work flow, were chosen because their proven quality and energy conservation. Copper coo ware is here also, the overwhelming choice of gourmet coo Copper has no equal for even-heating.

The GE dishwasher and microwave oven are real en gy savers. The GE Food Saver Refrigerator has compa ments for specific foods with their different temperature a moisture requirements. Color-coordinated fixtures 1 American-Standard's Fiesta dual-level sink add to the shi visual delight of Sun/Tronic's kitchen.

St. Charles' cabinets provide fingertip access to uten and storage areas. Gliding out at a touch are such units bread box, ventilated trays for fruit and vegetable stora and deep-base sliding shelves for bulkier items.

Antique mahogany dining table with place settings from W&J Sloane sparkles from through Thermopane® insulating glass by LOF set in brass insulated window frail Brass-trimmed breakfront and brass service cart add touches of elegance.







Island food preparation center is complete with salad sink by American-Standard. Note dual-handle brass pantry faucet. Professional-quality copper cookware functions beautifully, lasts a lifetime with easy care. Antique mahogany table and chairs from W&J Sloane echo curving corner window in charming breakfast nook.



place opens at floor level in living room, at table ght in dining room. Sheraton-styled mahogany le and floral print chairs from W&J Sloane const with the home's contemporary architecture. Inble assist for pleasant dining: full-length lead set in walls to dampen kitchen sounds.

Platinum color, brass-accented cabinets lining work areas are from St. Charles Fashion Kitchens. Side-byside refrigerator-freezer, food processor, compactor, and stove with large-capacity oven are latest worksaving designs by GE. Cross-sectional view of the Sun/Tronic House reveals an integrated architectural design, which blends secluded northern exposure with open, sun-filled living areas on the south.



pper chafing dishes on the breakfront cast a melv glow over entertaining. Delightfully sophisticatoriental art is from W&J Sloane.





# Special places in this home give new meaning to privacy

The Sun/Tronic House provides special areas of restorative privacy for family members.

Thoughtful zoning by the architect is where it starts. The master bedroom suite and the children's bedrooms are located at opposite ends of the house. Behind the master suite's double doors we find an adult retreat, providing basic human comforts with Sherrill furniture, Herculon fibers, and Karastan carpeting, all available at W&J Sloane.

It's still a solar environment, of course. The serene copper cylinders gracing the suite's southern window wall are passive solar heating units. Water inside the cylinders is warmed by freon charged heat pipes, which collect their heat from a copper absorber plate on the outside. Copper is exceptionally efficient for heat transfer. The wall between is insulated with Owens-Corning Fiberglas<sup>®</sup> insulation. The stored heat in the cylinders radiates into the room. The fireplace and mantel are beautified by brass. It opened to view on two sides, delighting the bed and sittir areas and the expansive bathing space beyond. Fitted bras framed glass doors prevent heat loss. Outdoor air, no warmed room air, is used for combustion.

The master bath is, without contradiction, both simp and sumptuous, having a shower and sunken whirlpool ba by American-Standard. Twin pedestal island lavatories en hance the master bath area. The self-venting copp Sovent<sup>™</sup> single-stack drainage system makes possible the design and location of island lavatories like these.

Sleeping as well as living areas in the Sun/Tronic Hous are protected by an all-copper fire sprinkler system.

Brass-accented fireplace separates sitting and bathing areas. Dropped floor puts hearth comfortable sitting height. California redwood deck outside semi-circular brass window echoes breakfast nook design at other end of house. Sherrill chaise upholstered w fabrics of Herculon supports a decorative pillow grouping.





American-Standard whirlpool bath is nestled between the brass-accented fireplace and plant-adorned shower area. Sun enters skylight to warm and brighten bathing area and dressing room. Computer controls insulator-shade under skylight.





Four-poster brass bed in a supremely comfortable setting of restrained luxury is located for privacy while commanding a view of the outdoor redwood deck and the fireplace-sitting area. Copper heat pipe wall is in background.

Multi-faced brass framed mirror serves separate American-Standard Ellisse Grande lavatories. Copper Sovent<sup>™</sup> plumbing makes this island design possible. Beyond is another convenience: twin walk-in clothes closets.

Girl's and boy's rooms have upholstery fabrics of Herculon and Karastan Berbereau Prisms carpeting. Both can take active wear from energetic children and still keep their freshness. Overhead: practically invisible copper firesprinkler protection.

A dual-bowl pedestal lavatory from American-Standard in the second floor bath. Brassframed shower enclosure reflects its elegance in mirror above lavatory.







UN TRONIC HOUSE

### **Copper keeps the energy flowing**

The Sun/Tronic House is certified by the National Energy Watch, the energy conservation program developed by the Edison Electric Institute. In this home, Owens-Coming Fiberglas insulation and LOF solar systems are put to full use to conserve energy.

All-copper liquid flat-plate solar collectors by LOF meet primary space heating needs by circulating sun-warmed water through copper tubes to the 1,000-gallon insulated tank, where its heat is stored and eventually distributed as warmed air. Passive solar systems, including a copper tube water storage wall, a copper heat pipe wall, a Lord & Bu ham greenhouse-solarium, and Vermont slate floors s and radiate supplemental heat. GE high efficiency Execu Weathertron<sup>®</sup> heat pumps supplement the various solars tems and provide the home's central cooling. Hot water household use is supplied by the active solar system, Hot-Water-Bank heat recovery unit, and auxiliary electric

Solarex photovoltaic cells convert sunlight directly electricity, which is stored in C&D's lead-acid batteries operate pumps in the active solar system and to prov



1 One of home's two GE high efficiency Executive Weathertron heat pumps which provide auxiliary heating and cooling.

2 1,000-gallon tank is for solar storage and holds water supply for the fire sprinkler system.

3 Copper service lines carry electricity to house through ever reliable copper cables. Safe and sure copper building wire distributes power throughout the home.

4 Dependable, durable copper plumbing tube and fittings integrate liquid solar, fire sprinkler, water distribution, and drainage systems. 5 C&D lead-acid batteries store electricity supplied by Solarex photovoltaic cells.

6 Bronze-bodied pumps keep fluids flowing through advanced mechanical systems.

7 Heat exchangers transfer heat from liquid solar collectors to solar storage tank.

8 Copper Sovent single-stack drainage system takes care of home's sanitary requirements and provides architectural design flexibility.

9 Glazed black copper absorber plate captures sun's warmth and transfers it to freon charged copper heat pipes inserted in copper storage tanks. 10 For convenience and security: Stanley's new Pre garage door opener with safety reverse.

11 LOF all-copper liquid solar collectors supply s heating and domestic hot water.

12 Numerous types and sizes of bronze valves varied and flexible control of mechanical systems.

13 Forced air flows over copper fan coil unit thre which circulates solar hot water.

14 The Solarex photovoltaic panels satisfy a portion the home's demand for electricity.

### nd the home secure ... beautifully so!

rgency lighting and computer power.

Coordinating these active and passive systems is the iputer program prepared by W.W. Gaertner Research. software also handles other aspects of environmental trol, monitors fire and intrusion protection, and facilitates iputer access to the family's personal files.

Copper's traditional uses in plumbing and electrical syss are basic to the functional performance and security of Sun/Tronic House. For these uses, copper has always n the standard of quality and true economy. In addition, copper's role in countless consumer products, lighting fixtures, and other applications inside and outside the home demonstrates an extraordinary versatility. But its story does not end there. The good news goes on — for the future is bright as to the plentiful supply of copper in the USA. Natural abundance plus recycling make the USA essentially selfsufficient in copper. So use it with complete confidence as is done so beautifully in the

SUN TRONIC HOUSE



opper-clad insulated entrance doors offer an imve and elegant welcome.

irrored brass switchplates conveniently group conand lend a classic decorative touch.

l-copper passive solar heat pipe wall provides th to master bedroom.

e attractive and durable polished brass threshold is ed in copper entrance door.

II-formed insulated brass framed projection winenclose LOF Thermopane insulating glass. 6 Convenient to entertaining is the wine rack and wet bar highlighted by stunning brass and glassware.

7 New automatic techniques make copper roofing's installation quick and economical. Copper provides a maintenance-free and permanent cover.

8 All-copper fire sprinkler system is essential for protection of home and family.

9 Beautiful copper cookware and modern microwave oven offer kitchen efficiency — with status.

10 Computer controlled motorized Roll-A-Way Insulating Security Shutters provide heat control and security. 11 Brass faucets complement pedestal lavatories.

12 Crisp computer keyboard provides finger-touch control of home's key functions and family records.

13 Shimmering brass door hardware adds luster to every entry throughout the house.

14 Antique brass trim holds firm the rectilinear lamp, one of many which grace the home's exterior.

15 Brass railings serve to keep continuity of decorative theme throughout home.

#### SUN TRONIC HOUSE

Products and concepts from the following participating sponsors are featured in the Sun/Tronic House with the thought that they will assist you in your own quest for the good life.

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# RECORD HOUSES

### 1981

From Bermuda to California, from Texas to Michigan, the houses in this issue reflect with striking diversity the variety of their owners' programs, their environments, and—in a nation dominated by irregular topography—the distinguishing features of the sites on which they are built. As a group, they are idea-rich and remarkably free of cliché. Historic and regional themes, although fully and freely re-examined, provide no more than the simplest design constraints. And in several of the houses like Hugh Jacobsen's "telescoping" plan (cover and pages 116-121), wit makes a welcome contribution too. But humor never comes at the expense of solid, thoughtful design, for when the smile passes, a substance remains. Energy concerns are apparent in nearly all of the designs, and as these concerns continue to mount, as they continue to reshape residential buildings, the need for more comprehensive and reliable data on energy use is widely felt. To help satisfy this need, the U.S. Bureau of Standards is presently conducting extensive trials on passive solar design components in a specially constructed test house north of Washington, D.C. RECORD's senior editor Robert Fischer examines the significance of these trials in an article on pages 26-27. A second and related article, this one by architect-attorney Arthur Kornblut and his associate Fiona Power, de-mystifies the new IRS amendments to the Energy Tax Act of 1978. These amendments define as specifically as possible which home improvements gualify for tax credits and which do not.

Finally, to make space for these articles and give each of the 16 award-winning houses the space it deserves, Record Apartments—long a part of this issue—will be given a separate, more generous, more appropriate setting in our regular July issue where it will continue to recognize and celebrate the increasingly meaningful achievements of architects in the important field of higher-density, multi-family design.—*Barclay F. Gordon* 



#### PRIVATE HOUSE, BERMUDA

Bermuda architecture has a character all its own-a distinct hybrid combining the English vernacular traditions of its 17th-century settlers with the exigencies of a semi-tropical place. This well-tempered blend of history and practicality is a legacy Bermudians are intent on preserving. Any new building must necessarily pass under the watchful eye of a committee, charged with maintaining the island's architectural continuity; if the proposed plans are not deemed appropriateread "traditional"-they must either be revised or the building isn't built. Five years ago, that guardian committee was presented a set of drawings detailing the house shown here; one can only imagine their delight. The committee was being presented with the quintessential Bermuda House-almost.

The ``almost'' belongs to Robert Venturi,

John Rauch and Denise Scott Brown, who argue that the existing conditions (architecture, tradition, topography, culture) of any given place (not just the beautiful places) should not only be acknowledged, but should generate architectural form: from Las Vegas to Levittown to Nantucket to Bermuda, these architects do indeed take their cues from the environment-and then enhance what is there. Case in point: If "Main Street is almost all right," then designing on Main Street should look almost like Main Street-or Main Street enhanced. And so with Bermuda. Robert Venturi provides the firm's basic design premise, as applied to this project: "The game to me was to take the classic elements, use them generally correctly, and sometimes incorrectly-knowledgeably." Therein lies the "almost," explicit in this firm's work: it is the conscious tens and the *incorrec* between the time-ho refers to as the ``elen. and reduction of class

The classic elemen da, are rendered with e this house; they're dis advisedly employed. Fir: tropical place, Bermuda quite specific architectur; the white stucco is esp because it reflects the sun; collect rain water for dome

few wells in Bermuda); louvered shutters hinged at the top and sides—admit cooling breezes while keeping out the sun; and the generous overhang of the oceanside doubleporch (overleaf) shields the interior from

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excessive sunlight. But less pragmatic considerations are given equivalent design vent in Venturi, Rauch and Scott Brown's vestigial recall of elements more specifically identified with the Bermudian vernacular. A soft porous stone (quarried on the island) is the traditional building material of Bermuda. And though it has been replaced—in this and other new houses-by the now more economical concrete block, a close inspection of the house identifies the stone's conspicuous application for the fat column supporting an arbor extending from the garage (photo top left, overleaf), for the square gate posts (photo above), and for the low walls encircling the entry courtyard. Under the eaves of the service quarters (at left in photo above), a cedar-timber sill plate serves as a reminder that Bermuda used to be covered with cedar







#### VENTURI, RAUCH AND SCOTT BROWN

trees. A more literal re-employment of Bermuda's architectural history can be witnessed in the "buttery" (far left in photo below), which traditionally served as a storehouse for perishables—this small structure houses the electrical transformers.

While the particular forms and the general approach exercised for this house are respectively signature Bermuda and signature Venturi, Rauch and Scott Brown, the siting and plan represent a considerable departure from the regional vernacular and for the architects. The site is a dramatic isthmus spanning ocean and bay. Rather than embrace proper English discretion—which would have hidden the house-the clients sought to expose their house to magnificent and romantic views. Consequently, the house becomes a small village-spreading out in a crescent over the jagged site. The individual pieces appear to have been neatly exploded into identifiable objects-each with its own characteristics: the buttery is local history incarnate; the garage, an undecorated shed; the service quarters, cottage architecture complete with picket fence; and the main living area, a modestly monumental gesture. The intersections of these disparate elements are intentionally explicit. There is neither attempted deception nor contrived resolu-







Due to the jagged site, the split-level house has been draped—like a small village—over the terrain; the individual elements recall Bermuda's local vernacular—double-hung windows, English proportions, shutters, white stucco, and stepped roofs. The bogus coining (photo middle left), the giant oculus (photo left), the flattened columns applied to the structural columns (photo above), and the oversized lunette window (photo above) are characteristic of the architects.





STUDY



tion struggling to meld the MAID house/village together: the juxtaposition of a grand oversized scalloped entry gable with the humble picket fence of the cottage is telling enough. This house is an assemblage of elements-some particular to Bermuda and some particular to Venturi, Rauch and Scott Brown. But one measure of success in architecture is how well a building communicates its purpose, its place, and its time: a house built on the island of Bermuda in the latter 20th century should look like just thatthis one does. "Almost" is just right. -C.K.G.

Private house, Bermuda. Architects: Venturi, Rauch and Scott Brown-project architect, John Chase. Associated architects and consultants (structural/mechanical/electrical): Onions, Bouchard & McCulloch. General contractor: The Linden Construction Co., Ltd. Photographer: Thomas Bernard. MAIN LEVEL

D. R.

VENTURI, RAUCH AND SCOTT BROWN









The front door opens to a view of the ocean (through the giant lunette) and a view of the backyard (through the lower level door). Robert Venturi credits this idea to George Howe's 1914 Philadelphia House "High Hollow." In the library, (photo left) pilasters are again flattened as *elemental* decoration—reduced and abstracted to two-dimensional form. The tie rods in the living room are necessary tension members. Interior walls are painted pale blue to suggest reflection from the ocean.







## BOHLIN POWELL LARKIN & CYWINSKI

#### GAFFNEY HOUSE, ROMANSVILLE, PENNSYLVANIA

Rolling farmland in Chester County outside Philadelphia is the setting for this modest, unassuming, and altogether appealing house built amid the stone foundations of an old barn that was destroyed by fire in years past. The decision to use this building site-to integrate the old and new-was particularly felicitous, and obvious only in retrospect. The main approach to the house is from the south and it terminates in a grassy entry court (photo left), which is defined by low stone walls. These walls step up to a story and a half in height at the north and west to provide a hard outer shell for the new wood structure. On these two elevations, the narrow space between the inner and outer walls is covered with a sloping glass hip roof that serves as connective tissue between the old and the new. On the other two elevations, the old foundation walls stand at a distance and simply provide a comfortable, loosefitting envelope for the new construction within. The sensitivity with which these relationships are maintained is one key to the success of the design. Old and new construction are freely and closely juxtaposed. The contrasts they create are enjoyed, but the relationship is never permitted to become blurred.

The success of the design also depended on the skillful manipulation of the simplest, most vernacular forms in ways that created enchanting spaces. The owner, who grew up on a Wisconsin farm, wanted "spaces defined not so much by function as by moods, feelings and atmosphere." He got these things in the informal, vertical, relationships of spaces, in the use of daylighting to amplify these relationships, and in the selection and inventive use of finishes-like the brick and block wall that serves as a heat shield for the wood burning stove and its flue, or like the industrial sash that floods the









The Gaffney house is filled with small personal touches. The "bite" taken out of the coffee table (photo below) echoes the line of the balcony above. A selection of gray tones unifies the interior and recalls the exterior which is also pale gray except the roof, which is finished in red asphalt shingles. The house is furnished simply and in the best tradition of the region's working farmhouses.

BOLLIN POWELL LARKIN & CYWINSK







southeast section of the house with sunlight.

Among a rich assortment of unexpected features are the oblique placement of the stairs and the cutout in the corner of the master bedroom. Both are designed to exploit the fine views to the southwest.

Inside and out, it is a personal house, a comfortable house, a house in which modest means have produced uncommon richness and variety. -B.G.

Owner: Norman Gaffney. Architects: Bohlin Powell Larkin & Cywinski. Engineers: McCormick Taylor & Associates (structural); Thomas Melia (mechanical/electrical). Landscape architects: John Brown. Contractor: Grant Benham. Photographers: Joseph W. Molitor and Sandy Taylor.





ş



# WILLIAM KESSLER AND ASSOCIATES

PRIVATE HOUSE, SOUTHEASTERN MICHIGAN

Modern architecture rarely gets a chance to express domestic grandeur, since clients who can afford such a gesture usually opt for Elizabethan or 18th-century palatial tradition. But William Kessler, an architect whose modern *bona fides* are beyond question, did get such an opportunity when a wealthy couple abandoned a conventional mansion and asked him to design a new house for them.

For a site that edges a small lake in suburban Michigan, the architect combined axial formality and asymmetry. A tidily bricked drive enters the grounds between a pair of low posts to circle a landscaped island (camouflage for air-conditioning equipment). This formal axis continues through the house's central atrium and is taken up at the back by a maze of trimmed evergreens to culminate at a gazebo over the water.

Placing the house at right angles across this axis, Kessler has permitted its massing a less stringent composition. The central atrium declares itself at the entrance, but the wings outstretched on either side, however carefully composed their elevations, take form from the different contents. The rear elevation (next page), which overlooks the maze and the lake, seems less guarded, opened up with windows and a multiplicity of loggias. Paradoxically, however, the rear facade is more nearly symmetrical than that in front.

The smooth-faced finish—a seamless stucco-like insulating system—lends the house an air of reticent formality somewhat reminiscent of Regency propriety. Its relative blandness provides a good foil for the splendor of the stainless steel turret projected from one end of the house. The tower, which encloses a stairway from the library to a bridge on the second floor, is wrapped with spiraled steel panels. Though a spiral of curved glass appears to support the top of the tower, top and bottom are in fact separately cantilevered from the steel structure. A more discreet luxury, one that is essen tial to the building's suavity, is the garage door on the front facade. A converted han gar door, its single horizontal joint domesti cates the scale of the three-car garage.

For architects who may envy him his design opportunity, however, Kessler admonishes, "It *is* harder to do an expensive house than an austere one. Can't justify design compromises because of cost!" -G.A.

Private house, Southeastern Michigan. Architects William Kessler and Associates, Inc.—project designers: William Kessler, Michael Patten; project director: Tom Paczkowski; technical development and construction: Eugene DiLaura. Engineers: Wil liam Paxton and Associates, Inc. (structural); Potap. Mancini & Associates (mechanical/electrical). Interi or furniture: Jane Baum Interiors. Landscape archit tects: Johnson, Johnson and Roy, Inc. Contractor Tage Ketelsen & Co. Photographer: ©Timoth Hursley, B. Korab, Ltd.





The lofty atrium that anchors the center of the house was a particular request of the client. Two stories high at the entrance, three as it emerges to the garden below (see also next page), it functions chiefly as an impressive reception hall and for regal circulation in a house meant for generous entertainment. The evergreen maze (below) will not confuse or lose strollers ("Oh, we wouldn't want that," says Kessler), but rather will prolong the leisurely saunter to the gazebo. The house plan (left) provides: 1) exercise










#### WILLIAM KESSLER AND ASSOCIATES

The atrium boasts two grand staircases: a white marble flight bordered by trees and plants, leading to the maze, and a riserless flight with glass and stainless steel railings leading upstairs. Daylight enters the space through similar but opposed setbacks. Above the entrance, skylights are supported by stainless steel panels, which emphasize the



central front entrance. At the back, the setbacks become clerestories with stainless steel roofs and admit south light for the benefit of planting. For the indulgence and pleasure of guests, a raised platform at one end of the living room (above right), reached by a short flight of steps with fluorescent noses, leads to the neon-lighted stainless steel bar. The white marble powder room (lower right) has a semicircular basin and mutually reflective semicircular mirrors.













### FISHER-FRIEDMAN ASSOCIATES

#### PRIVATE HOUSE, SANTA CLARA, CALIFORNIA



Several separate design ideas have been adroitly combined behind the handsome, rambling-almost nonchalant-exteriors of this hillside house outside San Francisco. The house is "dug into" the slope (see section) and its spaces are arranged in a linear pattern parallel to the contours. But because the site slopes to the west, the architects layered this elevation with a double height arcade that masks the house visually at the same time that it protects occupants against a low western sun. A combination of flat and shed roof forms further enlivens the massing. All these varied angles and projections are unified, however, by a tightly stretched outer skin of cedar shingle, a material that will eventually weather to a soft silver gray.

The lower level contains the main living spaces including living, dining, family room, kitchen, garage and guestroom. The upper level, reached by separate stairs in the entry and in the family room, houses two childrens' rooms, a play space, an outdoor sun deck, a





study and a master bedroom suite with a small private deck. The long corridor that links these upper level spaces provides overlooks into the living room, the family and the entry. The design, as a result, has a strong horizontal and vertical development.

The treatment of interior spaces is no less lively. The living room, shaped by a sloping beam ceiling, has generous views of the site—including (see photo above left) framed openings that are designed to look like landscape paintings. Similar window treatment in the family room and on the upper level corridor (small photos at right) gives unexpected glimpses into and through other spaces of the house.

In all its details, the design suggests that thoughtful attention has been given to the daily requirements of family living, and to the individual and collective needs that must be accommodated if a house is to satisfy its owners over many years. -B.G.

Architects: *Fisher-Friedman Associates*. Structural engineers: *Robinson-Meier-Luilly*. Landscape architects: *Omi-Lang Associates*. Contractor: *Vintage Construction*. Photographer: Joshua Freiwald.





UPPER LEVEL

LOWER LEVEL















## EISENMAN/ROBERTSON

#### PRIVATE HOUSE IN EASTERN LONG ISLAND, NEW YORK

Long a showcase for the progress of significant contemporary house design, East Hampton on New York's Long Island continues to echo current concerns and trends in its new buildings. If one wanders amongst its woods, potato fields and dunes, a truly remarkable collection of summer houses can be discovered, from the relaxed traditional and shingle styles of earlier eras to the crisp, geometric white boxes of more recent times.

This house, designed by architect Jaquelin Robertson, is a choice example of a current preoccupation with searching out architectural means to relate with the earlier, more regional qualities while maintaining a contemporary freshness and originality.

In describing his basic design intent, Robertson comments that "formally the house is a response to the general 'manners' of an historic summer residential colony with a distinctive architectural tradition—and a demanding climate. The archetypal local dwelling is the New England salt box amended over the years by the 'amenities' of a more easy-going summer cottage style—porches, rooms-as-bay-windows, inglenooks, etc.— and the house has consciously attempted to employ these images so as to fit into a popular, genteel and still valid visual and social environment. Materials, massing, scale of openings, trim color, roof silhouette and siting with respect to lot lines and other buildings are within an established local vocabulary." In all this, the house is a resounding success, without resorting in any way to "applied" eclectic or historic elements.

The house is organized in a well-zoned but relatively informal manner. The front approach to the house (photo top right) provides guest parking near the entry porch, while a family parking and service court is to the back (top left), screened by a long—soon to be rose-covered—trellis. (The garage shown in the exploded isometric drawing at right has not yet been built.) The service court is reached from the house through a coat and mud room just off the main entry.

In a slight departure from today's typical zoning, the adult living and entertaining areas are placed on the second floor—with living room and a big fireplace inglenook, master bedroom, dressing and bath areas (see cutaway section in the isometric). These open onto a partially covered porch and have sweeping views over the lawn to the dune and ocean. This second level is reached by three separate stairs: an inside one from the entry hall, an outside covered one off the front porch, and an open one to the big raised terrace below. A painting studio over the master bedroom overlooks the doubleheight living room.

On the ground floor, the two-story entry hall leads to a sizable, multi-purpose family room and the raised terrace beyond. A short, top-lit corridor leads from the entry to two children's bunk rooms and a guest suite. Throughout the house there are unexpected interior views and change in light and scale. -HLS

Private house, Eastern Long Island. Architects: Eisenman/Robertson—partner-in-charge: Jaquelin T. Robertson; project architect: Edmund Stoecklein; project staff: Charlie S. Mock. Engineers: Marvin Lewin (mechanical); R. Silman (structural). Lighting consultant: Carroll Cline. Contractor: M. Clarke Smith. Photographer: Edmund H. Stoecklein.





The elongated, gabled front (above) shows how openings on the sunny sides are inset on the cedar-shingled exterior to temper summer glare and heat. For emphasis, the insets are clad in T & G cedar siding. Sash and trim are stained. Below are shown inner and outer views of the main entry.







SECTION A-A

EISENMAN/ROBERTSON

Large, protected windows face south and west for views (photo above), but the north and northeast facades have small openings against the cold winter winds, yet give through ventilation in summer (photo top right).









SECOND FLOOR



Roof dormers and skylights (see section and entry photo below left) add dramatic daylighting through the house. Interiors are painted drywall with pine trim, as in the living room photos below. Floors are oak or Mexican tile.







## CRISSMAN & SOLOMON

#### PANTALEONI AND SPOONER HOUSES, MASSACHUSETTS COAST

They stand as twin sentinels looking out to sea—two lean, intelligent, and refined houses by Crissman & Solomon, Architects, for the Pantaleoni and Spooner families on the Massachusetts coast. Their steeply gabled wood frames and shingled sidings bespeak their ties to the vernacular houses of New England and Long Island Sound. Yet they are as different as they are alike, being a sympathetic response to the clients and the landscape.

Creating paired houses for two long-time friends challenged the architects to establish and control the relationships of the houses to the site, the houses to each other, and the individual elements of the houses to their over-all form. The first step was to attempt the renovation of a modest house existing on the site for joint use by the families. When this proved unfeasible, the clients agreed to demolish it as part of the cost of preparing the site for two new detached houses.

With the Atlantic Ocean as a focal point, it was obvious from the start that both houses would face seaward. The difficulty lay in aligning them to the sea without locking them into a classic geometrical relationship deemed antithetical to the wooded site. As seen in the view and plan on this page, the architects have situated the Pantaleoni house (left) slightly further from the road and the sea than the Spooner house (right) but have lifted it to a higher elevation. To augment the sense of informality, they have turned the Spooner house slightly askew so that the houses appear to nod at one another like passing friends. Neither house can therefore







TWO HOUSES BY CRISSMAN & SOLOMON ARCHITECTS, INC.

be interpreted as an adjunct of the other, and members of each household never look directly at a facade of the other house.

The houses share the same compact 10-foot module, exterior dimensions, and room proportions. Their differentiation is mainly due to the Pantaleoni's preference for placing the living, dining, kitchen, and guest bedroom on the ground floor and the family bedrooms above (see previous page). The Spooner house (on these pages) results from the reverse order; three children's and guest's bedrooms are placed below the living, dining, kitchen, and master bedroom.

Since the Pantaleonis do not need the entire potential floor area of the upper story for bedrooms, the two children's bedrooms and the master bedroom were placed at the ends of the principal longitudinal axis and connected by a jaunty bridge with a nautical air. The roof and ceiling lines express this hiatus in a reversal of slope between bedrooms and bridge. The roof rises to its zenith over the bedrooms.

By contrast, the Spooner house is more traditional. The roof peaks over the living, dining, and master bedroom. The ground floor terrace of the Pantaleoni house is translated into a balcony for the Spooners. In both houses, the interiors are simple volumes flooded with light and air, as all eyes turn to the sea. -R.Y.

Owners: Mr. and Mrs. Anthony Pantaleoni, Mr. and Mrs. John D. Spooner. Architects: Crissman & Solomon, Architects, Inc. Engineer: Charles Chaloff. Contractor: Costa J. Limberakis. Photographer: ©Steve Rosenthal.







BR.

FIRST FLOOR

SPOONER BR.

21











# GWATHMEY SIEGEL & ASSOCIATES

#### PRIVATE HOUSE, CINCINNATI, OHIO

Styling the firm's previous work an evolutionary process of "remaking the optimum composite object," Charles Gwathmey points to this Ohio residence as a marked shift in direction. Here, he says, "We were not making an object at all. . . . For the first time, we consciously pulled the house apart."

The impulse to do so emerged in equal parts from site and program. The site is a rolling meadow that is enfolded by woods on three sides and falls gently away from a high northern approach to a sweeping view of the Ohio River Valley on the south. Its freedom from contextual constraint, together with the owners' desire for generous guest accommodations distinct from but connected to the main house, invited for this residence an expansiveness that prompted the architects to relax if not release the taut spatial organization that has been their hallmark.

The underlying conception is that of a "court" house, with its implied overlapping of indoor and outdoor spaces. But because the privacy of its location made literal enclosure unnecessary, the house was exploded into three separate elements clustered in an "L," while the focal courtyard of the original image was rendered as a varied procession of exterior courts.

At the base of the L-shaped cluster are the guest quarters, which pair a small but self-sufficient villa for grown children with a matching unit containing guest apartments above and garage below. Yoked by an upper level corridor, the guest wings are in turn connected with the main house by a strongly articulated gallery bridge mortised firmly within the structures it joins.

The complex is entered from an auto forecourt screened at its far end by an arbor and walled on the house side by an almost featureless facade. From the court, a gateway scarcely distinguishable from the bays of the adjacent garage passes under and between the paired guest houses, emerging to reveal a large paved pool terrace and, beyond, the main house, which is approached by way of a partially screened walkway that follows the curve of the overhead gallery past a small sculpture garden to a second understated entrance.











Within the house the passage expands to an entry hall, contracts again to corridor and stair hall, and seems to end in the soaring space of a two-story living room. Visually, however, the passage extends forward in horizontal plane through a sitting room alcove to the glass south wall and outward to the view.

On the upper level the volumetric as well as planar interconnections established by this carefully wrought circulatory chain are yet more evident. Widened as on the floor below to form a balcony sitting area between the airy living hall and the master bedroom, the passage narrows at the stair well and again expands to a small study. Its heightened ceiling emphasized by clerestories, the upper gallery here becomes a distinct crossing from the main house to the guest house, where it is anchored in a flared sitting area between the two wings.

Because of the strong, though controlled, thrust of its north-south axis and the relative inconclusiveness of the glass boundary on the south, the house wanted . . . a destination. It got one: a monumental structure at once sunscreen, sculpture, and added space. Rising three stories (and so defining the roof terrace as yet another exterior space), the massive frame reinforces the composition of the facade with a Mondrian pattern of deep reveals that outline the spaces within and, from within, contain the views. So effective is the structure as pure form that its functional uses seem almost incidental. Yet it not only serves as a sheltering brise soleil, it also encloses a two-story screened porch that adds to the master bedroom suite a welcome private "outside" space. As a bonus, the grid of the screen framing sets up a contrapuntal scale and texture within the larger grid. And, not least, the huge screen provides a bold and fitting coda to a composition marked throughout by both daring and assurance. -M.F.G.

Private house, Cincinnati, Ohio. Architects: Gwathmey Siegel & Associates—Gustav Rosenlof, associate-in-charge. Engineers: Thomas A Polise (mechanical/electrical). Contractor: Don Curleff Inc. Photographer: Richard Payne.





#### GWATHMEY SIEGEL & ASSOCIATES

Although the familiar signatures of Gwathmey Siegel's work-play of rounded and rectilinear forms, crisp elegance of finish and detail-are evident in this residence, the tight density of interlocking volumes seems here less insistent, the spaces more flowing. The pervasiveness of the gallery as a place-making as well as connective device is suggested in the views of the small study bowing outward over the two-story breakfast room (right) and of the sitting room nestled in the flare of the gallery's sweep to the guest quarters (below). In both spaces, clerestories mark the raised roofline that defines the gallery as a formal element in the composition of the house.











FULTZ HOUSE, PORTAR COUNTY, INDIANA





Characterizing his design for the Fultz house in northern Indiana, architect Thomas Beeby calls it "a super-idealized modern historical revival." While the simple classical form and the legibility of its structure recall the "modern" influence of Mies van der Rohe, the rigorous symmetry of the plan recalls just as clearly the "historical" influence of Andrea Palladio. Disciplined by a strict 4-ft grid, the 36-ft square plan encapsulates a 12- by 28-ft rectangle, which itself encapsulates a square kitchen lighted by a skylight in the exact center of the roof.

Virtually all of the house's elements appear in duplicate, set as mirror images of each other: two entrances, two bathrooms, two wood stoves, two kitchen counters, a pair of painted crossed tie rods on the front facade—and on the identical back facade. The inexorable symmetry relaxes only where pocket doors trisect one side of the house, allowing sliding partitions to isolate corner bedrooms and a center study. Other sliding doors close off the brick core.

Standard industrial components figure largely in the house's construction, their precision and cleanness (metal panels and industrial glazing are all painted an even white) combining common sense and formality. On the interior, materials are equally straightforward and easily maintained: exposed steel decking on the ceiling and exposed steel





panels on the walls. Punched metal C sections act as joists and provide ventilation outlets for the bathrooms. Aggregate in the concrete floor slab was polished with a terrazzo grinder, giving the floor a more luxurious finish than that mundane material usually gets.

Intended for weekend use now and retirement living later, the house occupies a 20-acre site, the acreage divided equally between plowed farmland and forest. Of the forest, Mrs. Fultz, a botanist, writes that it is "nearly climax forest—beech and maple, with a generous admixture of other trees, including the tulip poplar, a very tall tree not usually found so far north."

Professor Fultz, who teaches chemistry, also finds professional reference in the house: bathroom fixtures are laboratory equipment, including deluge showers. For ease of maintenance, curtains replace shower stalls around a depressed circle in the floor slab.

The house cost \$60,000, exclusive of the new pole barn nearby, which accommodates a studio, laundry and stable. -G.A.

Owners: Professor and Mrs. Dave Fultz. Architects: Hammond, Beeby and Babka—Thomas H. Beeby, partner-in-charge. Engineers: Gullaksen and Getty (structural); Harry S. Nachman & Associates, Inc. (mechanical/electrical). General contractor: Carmen Good Builders, Inc. Photographer: Howard N. Kaplan.



### MARCEL BREUER AND HERBERT BECKHARD

#### BRATTI HOUSE, NEW CANAAN, CONNECTICUT

Houses that are classics of the Modern Movement fare no better than most fine contemporary houses that pass from the hands of their original owners. The passion for good design shared by the first owners and their architect, being rare, is seldom to be found in the hearts of the next family to move in. Though their house may be in the architectural history books, to them it is their new home. They do what they like with it, often bringing to an end its short life as a work of art.

By good chance, an important landmark house by Marcel Breuer will live on. The Breuers completed it in 1951 and used it as their year-round home until they sold it five years ago to the Brattis, a couple with children, who wished to enlarge the house, yet maintain its esthetic character. Before the house came on the market, the Brattis had been working with Breuer's long-time associate Herbert Beckhard on the design of an entirely new house for a nearby site. Thus by further good chance, Beckhard, who has collaborated with Breuer on many houses, took charge of this project.

Much had to be done to adapt the house to today's more sybaritic lifestyle. The vanguard houses of the late forties and early fifties were really designed for people who had elected, either consciously or unconsciously, to lead Spartan lives. The original Breuer house had no fine cabinet work and little furniture except for a few pieces modern classics—some designed by Breuer.

The new house was to be larger and more comfortable. It was also to be luxurious. As the plans (overleaf) indicate, the interior of the house was virtually gutted. Bathrooms were improved, bedrooms were rearranged to meet the Bratti's storage requirements, and the kitchen was greatly enlarged and relocated in such a way as to significantly increase the living-dining area. Here natural light was augmented by the addition of skylights. A children's wing was added with its own entrance and courtyard.

In spite of the introduction of alien luxury, and because architect Beckhard and the Brattis have respected the basic esthetic of this long, horizontal, ground-hugging house with its massive stone walls and terraces, its floor-to-ceiling windows, and its wide continuous cornice, the Breuer landmark has remained of a piece.

#### -M.F.S

Owners: Gerald and Nancy Bratti. Architects: Marcel Breuer Associates—partner-in-charge: Herbert Beckhard. Contractor: Louis Lee Company. Photographer: Nick Wheeler.









The plan and photo of the original house (left) reveal that the Breuers lived simply. The plan (below) shows the new Bratti arrangements and the added children's wing. The original floor of irregularly shaped pieces of waxed bluestone has been kept and extended into the addition. So has the wooden ceiling. The original fireplace and its surrounding fenestration remain intact as does the window wall with its elegantly displaced columns. These rigorous reminders of the Modernist esthetic, in juxtaposition to the newly soft interior, give the Bratti house its distinction.









#### FRIEDMAN HOUSE, SOUTHERN FLORIDA

Geometric volumes with crisp white surfaces may have gone a little out of fashion these days with some architects—but not with Whitton and the clients of this house. For them, such a precise design language has solved a number of unusual problems.

The one-acre site is separated from Biscayne Bay by a forest on a coastal strip of marshy wetland. To raise the major living spaces above the trees for a view, Whitton has designed a tall, sculptural form that maintains a graceful relationship with the landscape. Inside, there are three levels of living space with a screened pool terrace and a bedroom-level deck. The roof—covered with wood slats—becomes a fourth level.

Because Mr. Friedman is both a lawyer and an art dealer, an important requirement was that the house also function as a gallery to show large modern paintings to best advantage. The design language is especially effective in producing large and unbroken expanses of white walls that highlight the colorful canvases. And Whitton has produced an appropriate sense of scale for the artwork, together with an easy visual flow from one space to another. Inside the carefully controlled exterior walls, there are a minimum of partitions and each level opens to those above and below.

The second level is the main one, containing the living room, dining room, kitchen and a guest room. The living room rises through a third level of bedrooms and a study. In turn, both the living room and dining room open onto the first level which contains—besides the pool—a family living area and a studio for Mrs. Friedman, who is a fashion designer. A secluded room for two children is located over the guest room.

Whitton has created the extraordinary sculptural composition with a most economical construction system common in the area: White stucco covers concrete-block bearing walls, reinforced with concrete "tie" beams and columns. A separate system of supporting beams and columns cantilevers over the entry, spans largest openings. -C.K.H.

Owners: Mr. and Mrs. Marvin Ross Friedman Architect: Robert Whitton. Structural engineers McGlinchy and Pundt. Contractor: Vihlen Brothers Construction. Photographer: ©Wolfgang Hoyt/ESTO.







Α\_

FIRST FLOOR











ROBERT WHITTON

From the living room (large photos above), the view is up to a mezzanine containing Mr. Friedman's study and the master bedroom (small photo) and out across the tops of trees to the nearby bay. The dining room (photo far left) has a view over the pool area, which is covered by fiberglass screening stretched on stainless steel cables for maximum visibility. The master dressing area (photo right) opens to a small sun deck above the dining room.











#### POINTS OF VIEW, MT. DESERT, MAINE

In a recent issue of *Interview* magazine, architect Robert A.M. Stern was asked: "You're a little controversial aren't you?" He replied: "I'm a lot. I better be, otherwise I'll be very unhappy." Stern clearly revels in his position as architecture's in-house *enfant terrible*. An outspoken critic of "Modern" architecture, and a zealous proponent of "Post-Modern" architecture, Robert Stern has made sure that he's in the heat of the current architectural battle. But for a year-round vacation house on a craggy promontory jutting out from the shoreline of Maine's Mt. Desert Island, Stern displays a new (temporary?) conservatism.

Named "Points of View" by the client, and referred to as a "shingled cottage" by the architect, the house is surprisingly mildmannered for Stern: "It's the first time I've tried to do a house in the tradition of the shingle style, where I didn't try to one-up the shingle style—but rather to take the shingle style on its own terms and to extend the vocabulary." In its plan, massing, and over-all proportions, "Points of View" is a modest





#### ROBERT A.M. STERN

admixture of the vernacular and the classical-with only minor variations.

The site was made available after a fire destroyed an existing house, which Stern refers to as "belonging to the Vermont ski lodge school of architecture," and dubs "aspirant triangles." Unfortunately, the blaze also destroyed most of the trees on the property, and though "Points of View" is sited like "aspirant triangles," the new house will continue to obtrude along the coastline much to the neighbors' dismay-until the newly planted trees are larger. Because of the sloping contours of the site, the house is below-grade from the driveway; consequently, approach is by descent. The double chimneys, however, add verticality to the lowlying house and, in addition, draw the eye upward as they frame the spectacular view. Sliding down in increments from the main mass of the house, a porch that the architect refers to as a porte-cochère (photos left), provides focus for the entrance.

Though the house is essentially a traditional box, Robert Stern—even in this mildmannered incarnation—couldn't be expected to resist the temptation to deviate from the accepted norm, or in his words, "to extend the vocabulary . . . to distort." Acknowledging the impetus for these deviations, Stern points to the obvious mandate for accommodating "views and use." But the simple fulfillment of programmatic requirements is not what this architect is about.

Of the vocabulary "extensions," the most visible is the framed arch (photo right), partially infilled with lattice, which assumes the profile of an eyebrow dormer-a common detail of the classic 1880's shingle style. A second referential gesture can be found in the elongation of the roof line that extends over an outdoor deck; this unexpected diagonal slope faintly echoes the bold diagonal roof planes of early McKim, Mead and White-most especially the 1887 Low House in Rhode Island. Additionally, "distortion" can be glimpsed in the maid's quarters: a conspicuous appendage to the western corner of the box; its curved wall and low roof, sharply contrast with the two-story right-angles of the house proper. And along the oceanside elevation, various porches and verandahs take a bite out of the main volume.

It is ironic and interesting that in 1981 when even mainline modernists are busy reexamining the boundaries of architecture that the "controversial" Robert A.M. Stern offers the low-key "Points of View." But as he says: "There are places in the world that have their own magic, every building program has a life of its own, and those are the things that should inform the architect... not some a priori notion of what a building should be." Decidedly so. -C.K.G.

Points of View, Mt. Desert, Maine. Architects: Robert A.M. Stern Architects—associate-in-charge; Daniel Colbert. Engineers: Robert Silman Associates (structural), Arthur Fox (mechanical/electrical). Interior design: John Husel of Jessup Inc. General contractor: The Herrick Corporation. Photographer: @ RETORIA/Y. Futagawa & Associates Photographers/Y. Takase.





Between design and construction, many of the non-essential elements-some decorative, others amenities-went unexecuted due to budgetary restraints. The two elevations shown here depict Stern's original scheme which included extensive latticework, stone chimneys, a roof oculus, and horizontal strips of "fancy butt" shingles that would have added stronger horizontal banding to the facades; a ``widow's walk'' type roof deck was also planned, with the false chimney housing the stairway.









The first floor plan (above left) shows the small "snuggery" off the main living area. This less public, more intimate room houses the family library and a second fireplace; an even smaller seating area is adjacent to the "snuggery," and takes the shape of a trian-

gle in order to position the room for maximum views. The second floor plan (top left) is especially straightforward; according to the architect, "all we wanted to do was provide reasonable rooms, good closets, adequate bathrooms, and good ventilation."




A "central hall, typical of Georgian houses," served as the model for the main living area (photo above). In order to provide the necessary defiing and employed four pairs of columns to articulate the essentially open space. Somebut not all-of the columns are structural. The massive fireplace with its grand stonework further strengthens and anchors the room.





#### STRUPP HOUSE, RYE, NEW YORK

Designed for a family of four that includes two teenagers, this hillside house overlooks a placid cove on Long Island Sound, and offers sweeping water views through a wide visual arc. The spaces are sensibly organized to exploit this view. Living room, dining room, master and children's bedrooms all open through glass window walls to vistas down the grassy slope, across massive stone retaining walls (the property was part of a large and grand estate) to the Sound some 50 yards away. All of these spaces are pivoted around a central circular stair that links the three levels of the house. The three-level solution not only adds drama to the views but allows an easy vertical zoning between sleeping spaces for the family's two generations. The middle level contains the principal living spaces. These volumes have been so artfully joined that the eye passes from one to the next almost without interruption. The living room gives directly to the dining room with only the delicate modulation of ceiling heights, and the dining room opens to the kitchen with only a three-step change of level. This almost frictionless flow of spaceso evident in the photos on the next pagesresults in a lightness and openness that was one of the owner's chief design requirements from the start. There is little doubt that it contributes enormously to the appeal of the design.

Because both the owners like to cook, and because the family tends to collect in this space, the kitchen received more design attention and more square footage than might be expected in a house of this size. In addition to the usual kitchen appointments, the architects added a fireplace, a television set, and built-in soft seating as part of a handsome and beautifully crafted counter.

The house is heated by an oil-fired, forced air system. It is fully insulated and makes abundant use of double glazing. The largest glass areas face south and are protected by broad overhangs. Operable vents admit summer breezes that, for all but the hottest mid-summer months, are sufficient to cool the house. The low winter sun is invited in and some of its heat is stored in the dark **gray slate floors for radiation in the evening.** Though probably modest in the amount of energy they conserve, these devices add to the comfort of the house at all seasons.

In the animation of its exteriors, in the rich texturing of its interior finishes, in the careful craftsmanship it exhibits throughout and, most assuredly, in the fine panoramic views it commands, the Strupp house bears the unmistakable stamp of design quality in its every part.

-B.G.

Owners: Mr. & Mrs. David Strupp. Architects: Morse & Harvey—project designer: John Harvey. Engineers: Harwood & Gould (structural); Gleit-Olenck & Associates (mechanical-electrical). Landscape architects: Vreeland & Guerriero. Contractor: Slavin Contracting Company. Photographer: Otto Baitz





















The various ceiling cut-outs (see photos) provide not only a visual release, but the opportunity to bring daylight deep into the interiors. Only the master bath (photo right) is developed with any sense of sybaritic delight. The other spaces make quieter claims on our attention and achieve their interest through the manipulation of space and the appropriate use of fine materials.





## MICHAEL ROSS ASSOCIATES

#### ROSS HOUSE, OLD WESTBURY, LONG ISLAND, NEW YORK

Architects have always been challenged to deal creatively and economically with the design of simple "box" structures. And houses as a building type are prime ground for such experimentation. This house by Los Angeles architect Michael Franklin Ross for his parents on Long Island is what he describes as an "eroded box to achieve open interior spaces." This erosion is most dramatically exhibited at the southeast corner (above) where a curved two-story-high window (of curtainwall construction) slices behind a corner column. There are two other deviations from a flat facade—a major one on the western elevation done to save a large copper beech tree (bottom right), and the other at the entrance. All of these expressions are cut *into* the house and each has a curved surface. The only protrusion, aside from the attached garage, is a small balcony located on the southern elevation (top right). The interior spaces play a different variation on the box theme. They are rotated 15 degrees in relation to the exterior walls orienting the user to views of a broad meadow to the southeast. This internal geometric shift also creates an

unexpected sequence of spaces and striking room shapes. Even though the house is situated on a plateau in the middle of a two-acre site, Ross decided to accentuate the 10 per cent grade change in the interiors of the first floor by creating four levels, each separated by a few steps. A central corridor, with slight jogs to give the impression of a rambling hallway, leads from the entrance to the twostory living room. Almost every room has access to an outdoor space, a result of either the protruding balcony or open decks on the second floor or a large outdoor patio on the







western elevation. The house is sheathed in cedar siding to correspond to its heavily wooded site. –*J.N.* 

Owners: John and Jean Ross. Architects: Ross Associates — Michael Franklin Ross, principal-in-charge; assisted by Ted Tanaka and Frank Purtill. Engineers: William McKerracher (structural); William J. Yang & Associates (mechanical); G & W Consulting Engineers — Phil Gruber, partner-in-charge (electrical). Interiors: Ross Associates. Weavings: Joanne Schenendorf. Contractor: Harry Sprukts Construction Co. Photographer: Norman McGrath.



#### ROSS ASSOCIATES

The interiors of this house were purposely set askew to the exterior walls to capitalize on views and to add an element of surprise. The most glorious view is seen through a two-storyhigh curved glass wall in the living room (left and below right); this curve is reflected in several other walls, most notably in the kitchen (middle right). A painting studio (top right) receives northern light through a skylight, and is positioned to have a "line of sight" to the major first floor living spaces and driveway; this also permits easy transportation of supplies and paintings from the car park. A custom rug in the living room is designed by Michael Franklin Ross and woven in Mexico by a college classmate James Mac Williams.













# HUGH NEWELL JACOBSEN

#### PRIVATE HOUSE, CENTRAL PENNSYLVANIA

A mile-long private road lined with large houses leads to both this site and this design solution. Because most of the houses are period designs-and owned by families who wanted the historic character of their neighborhood preserved-Jacobsen borrowed traditional themes from the surrounding Central Pennsylvania region, especially from one of the utopian communities that gathered in the area more than a century ago. Chief among these is the telescoping plan in which increments were added by tradition as families grew until they became extended families that spanned several generations. Each successive addition was made to the gable end of the last and was similarly proportioned but diminished in size.

Jacobsen seized on this theme, enjoyed it, and pushed it almost to the point of

caricature. The seven-unit massing, for example, houses space for a family of only three. There is a partial basement under the center sections of the house, but the basement windows at far left in the photo above, occur just above the finished floor of the living room. Other things that are not quite what they seem include upper level windows that gradually disappear under the eaves as the roof sections step down. (The sill heights are uniform across the entire length of the facade, but the head sections are successively lowered).

These are just the first in a mounting series of surprises. As the units are graduated down in size, the exposed gable edges are filled with glass strips (see photos at right). By this device, the idea of the telescope is reinforced at the same time that daylight can be introduced high in the tall spaces. Without this high light source, the high spaces would become somewhat gloomy. The largest gable end (see cover and photos next pages) is completely glazed. A heavy wood frame, stiffened with steel, compensates for the absence of either sheathing or diagonal bracing on this elevation. When lighted from without, like a theater scrim, the glass wall is almost totally reflective. At night, however, it is almost completely transparent so, for future privacy, the architect has planted the area in front of the glass wall with an orchard of 34 dogwood trees.

At the rear of the house (see photo far right) historicism is not maintained with any stringency, and inside it is dropped altogether. The interiors are developed in the now familiar Jacobsen idiom and palette of







#### HUGH NEWELL JACOBSEN

materials: gray slate under thick carpet, white painted gypsum board that unfolds in broad, uninterrupted, origami-like wall and ceiling surfaces, pendant light cans, and building details of near miraculous simplicity.

There is a grace in the proportions and a lively sense of invention in the massing. Jacobsen has borrowed from a regional vernacular as it suited his or his client's purposes, but abandoned it quickly when it no longer served. The final result, therefore, is a composite of many ideas all masterfully integrated into a handsome and united whole—into a house that looks comfortable and uncommonly inviting. -B.G.

Architect and interior designer: *Hugh Newell Jacobsen*. Structural engineer: *Kraas and Mok*. Photographer: *Robert Lautman (Courtesy Condé-Nast)*.









The glazed surfaces (photo below) mirror the siding and brickwork on the historic side of the house, and are inset with a minimum of detail. At far right (below) is a library which offers narrow glimpses back out through these same glazed surfaces to the site.











Destined to become, in the final phase of a three-phase development plan, a permanent working ranch, this weekend house on the rolling plains of central Texas announces its future function in a visual dialect so broad it invites a grin. But the architect-owner's outspoken use of the vernacular of the rural Southwest—outbuildings and verandas, rough wood framing and tin roofs—is tempered by more sophisticated references, establishing through a series of metaphors and contrasting statements a controlled dia-



# WM.T. CANNADY & ASSOCIATES

CANNADY RANCH, ROUND TOP, TEXAS

ogue on the architecture of country living.

With its shed-like form and a planar acade that reads almost as an Old West false ront, the house suggests an organic functionlism that is belied by its formal siting. Frontng on a large auto forecourt, the main buildng is flanked on the west by a garage that epeats in small its shed configuration and on he east by a row of trees to frame a special view. As yet only sketched by saplings planted in the first development phase, the closure of the forecourt will, as the trees mature, be completed by additional landscaping and a formal drive on the south, boxing a composed square both oasis and landmark in the ranch's largely treeless setting.

To gain cross ventilation from strong prevailing southern winds and capitalize on views across the valley sloping to the north, the house is oriented east – west. Outlined by conventional stud framing and 20-foot clear span timber beams and trusses, its long rectangular plan is staunchly symmetrical, centering on a two-story living-dining space divided by a freestanding double-sided fireplace whose bulk also hints at an entry hall.

Flanking this common area and separated from it by stairs and service cores are more private quarters: master bedroom and guest suites opening to stacked verandas on the east; kitchen and family room and children's bedrooms (now truncated to kitchenette and bunkroom) on the west.

This studied symmetry of plan, however, is denied in elevations pierced by small square windows whose random rhythm is







WM. T. CANNADY & ASSOCIATES

counterpointed by the regular spacing of attic ventilators. With the added accent of deep offset porches, the fenestration of the house, like its siting, sets up a play of contradiction between plan and volume that sounds in this unpretentious but thoughtfully made ranch-stead a unifying note. -M.F.G.

Owner: William Cannady. Architects: Wm. T. Cannady & Associates Inc. Structural engineer: Nat Krahl. Contractor: Kermit Wunderlich. Photographer: Paul Hester

124 ARCHITECTURAL RECORD HOUSES OF 1981









#### RODES HOUSE, LOS ANGELES, CALIFORNIA

This small house fulfills a very wide range of program requirements: not just functional requirements, but requirements of image and of illusion. The owner is a bachelor professor of English with strong interests in the classics, history, and the theater; and a gourmet cook who enjoys entertaining large groups. Despite a modest budget, he hoped for a house that would be formal, imposing, and indeed a little grand. To an extraordinary extent, the architects succeeded.

The house is set in a ravine overlooking a meadow soon to be an orchard, and beyond, the lights of Los Angeles. The major facade, seen as one drives in alongside the orchard (left in site plan), clearly has strong Palladian roots. But with its symmetry and curving forms, it can also be read as a proscenium for performances by theater groups visiting the client's university-with the oval patio (photo below) serving as stage while guests sit at the edge of the orange grove on "the remains of a grand Baroque stair" designed as an integral part of the house (see site plan) but not yet built. When complete, the composition of terrace and steps and trees should add to the hoped-for illusion that this house is but a small pavilion at the end of a grand procession, a small pavilion that is part of some grand estate.

Inside, the house is dominated by the large, two-story-high living room (see plan and photos next pages). This room, with its concave end walls, is treated as an extension of the patio (the stage). This imagery is heightened by a vestigial truss (top left photo, next pages), which acts as an armature for theatrical lighting instruments. (This pipe form is a vestige of an earlier construction scheme. The meadow on which the house sits is loose fill, and the first scheme was to span between the ravine walls with three trusses piercing in turn the curved facade, the inner wall of the living room, and the rear facade. This system proved too expensive, and the house in fact rests on a buried bridge of caissons and grade beams. But both owner and architects so enjoyed the play of straight truss and curved wall that the truss is recollected in the lighting armature, extended outdoors as trellises.)

The octagonal-shaped dining room behind the fireplace is two stories high, and overlooks a smaller, very private patio (photo lower right). A large kitchen, handsomely finished and tiled, opens off the dining room to the left. Beyond it is a well-finished utility room with a door to the carport which serves as the owner's usual entrance. (The "formal entry" for guests is the central door in the curved facade.) The owner chose to use a small alcove off the dining room as "the master bedroom." Beyond it is a truly grand master bath-two stories (some 25 feet) high, with two curved walls, lit by windows up at the second level, and with a door opening from the shower to a covered patio behind the trellis at the right in the photos.

Upstairs is a guest suite and, across a bridge at the fireplace, a book-lined den. A hidden door in the bookshelves opens to a storeroom.

Color was worked out in intricate detail. The exterior stucco is a soft gray, with beige trim and pale blue doors—all soon to be set off by greenery on the trellises. Inside (see photos and caption next pages) the color palette is subtle, effective, and beautiful.

In all, this house is a stage for a very graceful way of living. -W.W.

Owner: Professor David Rodes. Architects: Moore Ruble Yudell—project architects: Charles W. Moore, Buzz Yudell; project staff: J. Timothy Felchlin, Regula Campbell, Jim Meyer. Color: Tina Beebe. Contractor: Carde/Killifer, Scott Carde. Photographer: Tim Street-Porter.



















#### MOORE RUBLE YUDELL

The living room dominates the interior of the small house. Its colors are worked out in the same detail as the design, with the changing planes picked out in off-white, a range of grays, soft apricot on the concave end walls, very pale blue for the ceiling. In most other rooms, a palette of cool blues and greens is used, though the master bedroom alcove (photo above) is in raspberry. A bridge (photos below) separates the two-story living and dining rooms; upstairs it links a guest suite and the owner's book-lined den. Skylights down the centerline of the roof wash all the major walls.











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Designer: Santo Lanzafame

#### LITERATURE

For more information, circle item numbers on Reader Service Inquiry Card, pages 179-180



BATH ENCLOSURES / Standard and custom aluminum-framed bath and shower enclosures are illustrated in a color catalog. Special units include sauna entrances and multiple shower enclosures. 

Howmet Aluminum Corp., Terrell, Texas.



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**RESIDENTIAL WALLCOVERINGS** / The latest volume in Sanitas's "total home" coordinated wallcovering line, "The American Way" contains 37 different patterns and many matching fabrics. 
Sanitas Div., L. E. Carpenter & Co., Pine Brook, N.J.

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SPACE-SAVING KITCHENS / Compact, multi-use Dwyer refrigerator, range, oven, sink-worktop and storage cabinet units are displayed in a full-color kitchen unit catalog. Also included are optional accessories such as microwave ovens, icemakers, hot water dispensers, range hoods, etc. Dwyer Products Corp., Michigan City, Ind.

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ITALIAN TILE / A 16-page booklet, "Decorate Your Home with Italian Ceramic Tile," contains design ideas for every room in the home, illustrated with color photographs. Design and shopping tips are included. Italian Tile Center, New York City. circle 403 on inquiry card

STEEL ENTRANCE / A brochure on



the Entergy replacement door and frame system shows how homeowners can save fuel energy and installation time with this insulated galvanized steel entrance system. Doors are available in a variety of widths and heights, and come with an adapter frame that fits a range of residential openings. - The Ceco Corp., Oak Brook, III.

circle 404 on inquiry card



DIGITAL CLOCKS / Color brochure describes wall and table model digital clocks for home and office, imported from France and Japan. . Peter Pepper Products, Inc., Compton, Calif. circle 405 on inquiry card

BATH PLANS / Six bathroom designs that demonstrate the creative use of space and color are illustrated in "Expressions," a 40-page color brochure. Included are before-and-after floor plans and a list of materials used in each bathroom, plus a section of tips on planning and product selection. All Elier tubs, basins, toilets, faucets, etc. are shown. There is a \$2 charge for the booklet, available from Eljer Plumbingware, Three Gate-

tionally Speaking . . ." collection of wallcoverings and fabrics is illustrated in a color brochure. All 25 designs are shown in their various color choices. Wallcoverings are 28-in. wide, easily removed, and are gravure-printed on vinyl, Mylar or Kraft paper grounds. James Seeman Studios, Div. Masonite Corp., Garden City Park, N.Y.

circle 406 on inquiry card



CEDAR PRODUCTS / "Construction Concepts" brochure contains color photos of interesting applications of western red cedar framing and board materials. 
Western Red Cedar Lumber Assn., Portland, Ore. circle 407 on inquiry card

ELECTRIC APPLIANCES / This 1981 "Showcase" catalog covers residential appliances-refrigerator-freezers, ranges and ovens, laundry equipment, air conditioners, etc.-with the latest design and convenience features. New products include a smaller-size side-by-side refrigerator with through-door ice service, and a "Grill/Griddle" range. All product specifications are listed, and dimensional drawings facilitate kitchen layout. 
General Electric Co., Louisville, Ky.

circle 408 on inquiry card

WROUGHT IRON / Window and door grilles, gates, railings and balconies of hand wrought iron are shown in a color brochure. Photographs illustrate installation in homes, offices and stores. . The Forge, Div. of Pinecrest, Minneapolis, Minn.

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way Center, Pittsburgh, Pa. 15222. **RESIDENTIAL PAPERS** / The "Tradi-



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BASEBOARD HEATERS / The Intertherm line of residential and commercial electric hot-water baseboard heaters is shown in a 12-page color catalog. Each product is pictured in an actual situation, and controls and accessories are illustrated and explained. Intertherm, St. Louis, Mo. *circle 410 on inquiry card* 



CEILING FANS / A 16-page brochure on "The Original Hunter Olde Tyme Ceiling Fan" illustrates many models, styles, colors, decorating ideas, accessories, and blade and control options. Installation tips are included. ■ Robbins & Myers, Inc., Memphis, Tenn.

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OFFICE TRADITIONAL / R-Way's "Magistrate" catalog shows desks, modular credenzas, bookcases, seating and tables of traditional Chippendale design. • R-Way Furniture Co., Sheboygan, Wisc.

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MAJOR APPLIANCES / A sampler catalog features washers and dryers, including the "Space Mates" compact units; gas and electric ranges; refrigerators; through-wall air conditioners; electric water heater; and commercial laundry products. ■ White-Westinghouse Appliance Co., Pittsburgh, Pa. *circle 411 on inquiry card* 



SLIDING DOOR / A descriptive brochure on "Series 5000" residential sliding glass doors discusses ten features which demonstrate the value, reliability, security and energy savings built into this *Howmet* door. I Howmet Aluminum Corp., Terrell, Texas. *circle* 413 on inquiry card

WOOD STAIRWAYS / Hand-turned balusters and newel posts form part of the custom-installed *Challis* stairway. Free-standing and suspended stairs with circular and straight railings are illustrated in a color brochure. • Challis Stairways, Salt Lake City, Utah.

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**CONTRACT CARPETING** / Sample folders on the entire range of *Mohawk* contract carpeting are available to architects, designers and end users. Books contain carpet specifications and swatches showing the full color line offered. Mohawk Carpet, Amsterdam, N.Y.

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**CONCRETE PAVING** / A color brochure describes three different paving systems: *Bomarite* colored, imprinted concrete; *Bomacron* colored, textured concrete; and *Grasscrete* structural grass/concrete. All three have wide architectural, landscape and urban renewal applications. • Bomanite Corp., Palo Alto, Calif.

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**TEXTILE WALLCOVERINGS** / Seventy-five patterns of contract wallcoverings are shown in the newest *Tektura* catalog. Textiles used range from wools, linens, silks, and flannels to suedes. • Tektura, Houston, Texas. *circle 420 on inquiry card* 

more literature on page 135

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burg, Va.

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Pinecrest, Minneapolis, Minn.

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**RESTORATION DIRECTORY** / The 1981 edition of "The Old House Journal Catalog" lists over 1,100 firms involved in the sale of products and services to those interested in the restoration or recreation of pre-1920 houses. There are classified groupings of products, and an alphabetized listing for each company giving complete address, phone number, literature offerings, and a description of the items available. The 142-page catalog may be ordered for \$9.95, plus \$1 postage, from The Old-House Journal, 69A Seventh Ave., Brooklyn,

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International Paper Cabinet Div., Portland, Ore.

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STAINLESS STEEL SINKS / A 12-page brochure contains detailed information on the complete line of Quality-Craft nickel bearing, stainless steel sinks in four price series for residential and commercial builders. . Brass-Craft, Detroit, Mich.

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American-Standard, circle no. 302

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### Sophisticated designs for faucets

Since good design includes paying as much attention to detail as to the over-all concept, the four products shown to the left represent some of the more striking designs for faucet handles for the bath. Sherle Wagner International, Inc. (circle no. 300) based the design of their new bath accessories on contemporary art, and elegantly defined them in polished chrome and semi-precious stones. Shown in the photo far left are three different towel bars, a hook, a square soap dish, a glass holder and a square towel ring in polished chrome with tigereve inserts. The same designs may be ordered with gold finish, malachite, or all metal. Artistic Brass (circle no. 301) has just announced its 1981 "Reflections" line of faucets and accessories. The high-styled collection features widespread and centerset lavatory faucets, shower sets, tub sets with optional Roman tub spout, tank and bidet fittings, and matching accessories, including towel bars and rings, tissue holders and robe hooks - all in chrome and Lucite. American-Standard (circle no. 302) has introduced an entirely new line of deluxe residential plumbing fittings, called the Roma Lavatory Faucet, designed to be complementary to the Roma Suite line of lava-

tories, toilets, whirlpool baths and bidet. The square base is solid brass and finished with chrome. The lever handles are 4- by 1- by 1-in. and are available in green, brown or ivory onyx, and clear acrylic. The units have Aquaseal valving, and an aerator having 2.5 gpm water flow restrictor. Kohler Company (circle no. 303) is exhibiting the "Alterna Crystal Water-Guard'' faucet line, which features cube-like handles of solid brass encased in crystalline acrylic. The faucets offer water-saving flow control, and are available in brushed or polished chrome, and brushed or polished 24-carat gold finishes.





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**RATED STUD INSULATION** / Said to be the only steel-stud fire-rated assembly incorporating rigid foam nsulation available, *Foamular* polystyrene sheathing panels achieve a onenour fire rating under ASTM E119 fire exposure and hose stream test conditions. The steel-frame exterior wall for residential and low-rise construction has an R rating of 17, and provides strength, rigidity and exceptional water resistance. UC Industries, Parsippany, N.J.

Circle 304 on inquiry card



shape in the *Corian* basin line, model "821" is a contemporary, rectangular shape offered with 4- or 8-in. faucet holes. Non-porous, homogeneous *Corian* is solid color clear through; the surface cleans easily, does not water spot, and resists abrasive household cleansers. ■ Du Pont Co., Wilmington, Del.

Circle 305 on inquiry card



**SOLAR SCREENS** / KoolShade solar screens are estimated to block out up to 85 per cent of the solar heat-gain that enters a building through glazed openings, lowering room temperatures by as much as 20 F. The photo illustrates the outward visibility through the KoolShade screen, which allows diffused daylight to enter, saving on costs of artificial lighting. • KoolShade Corp., Solano Beach, Calif.

Circle 306 on inquiry card



**REPLACEMENT WINDOW** / The Vinyl-Matic residential window combines the structural strength of aluminum with the thermal advantages of vinyl. The interior of the frame is vinyl-clad, and the sashes are extruded solid vinyl. Available in double-hung (shown) and slider versions, the Vinyl-Matic window features tiltin sash, double-glazing, extruded lift handles, and a positive interlock at the meeting rails. • Air Master Sales Co., Bensalem, Pa.

Circle 307 on inquiry card

more products on page 141

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**EXTERIOR PANEL** / A color-coated, aluminum-faced plywood panel, *Altex-20* has a Class A flame spread rating, and is used for facades, fascias, soffits, mansard roofs, dividers and other architectural facing applications. The stucco-embossed aluminum has a polyester melamine finish guaranteed for 20 years, and is available on one or both faces of the structural plywood core. The *Altex-20* system includes a range of color matched, extruded and roll-formed aluminum moldings, nails and touchup paint. ■ GII Corp., Reading, Pa.

circle 308 on inquiry card



TAILORED SOFA / The "Stratum Sofa" uses a series of cushions with varied densities for firm support. It is also available with cushioned arms and concealed lighting from beneath. Other "Stratum" pieces include a multi-level sofa, corner units, and a loveseat. • Vladimir Kagan Designs, Inc., New York, N.Y.

circle 309 on inquiry card



KING-SIZE BED / Designed by Vladimir Kagan to be placed in the center of the room, this "Landscaped Bedroom" unit incorporates a kingsize bed with two illuminated night tables, twin chest of drawers, a lighted vanity and dressing table (shown opened in the photo), a bookcase area that can also house a radio, telephone and display, and an upholstered footboard that serves as a hassock for dressing. Finish options include a number of wood species and custom colored lacquers. Vladimir Kagan Designs, Inc., New York, N.Y.

circle 310 on inquiry card



**GRILL/GRIDDLE RANGE** / A plug-in convertible grill and griddle module is offered with this self-cleaning 30-in. electric range. Smoke can be vented through the companion hood, which has an exhaust capacity of 460 cu ft per minute. • General Electric Co., Louisville, Ky.

circle 311 on inquiry card



**ENTRY PHONE** / An entry phone for apartments and other multi-family units, the *Identifone* uses existing telephone lines to identify callers to occupants and open doors. Phone and computer components are separated: the handset in front of the locked doors, and the control unit located in the manager's office, a closet, etc. The security system can be installed in existing buildings in a few hours, and is said to be economically priced. ■ Digital Instruments, Inc., North Hollywood, Calif.

circle 312 on inquiry card



**SOLAR GREENHOUSE** / Solar radiation entering the *Garden Way* greenhouse is captured by a thermal storage system which retains heat all day and releases it slowly at night. Insulated glazing and sidewalls, a masonry foundation, plus a reflective night curtain, greatly reduce night-time heat loss. Curved top glazing is *Exolite*; the aluminum-framed structure will resist heavy snow and wind loads. • Garden Way Solar Greenhouse, Charlotte, Vt. *circle 313 on inquiry card* 

more products on page 143



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Circle 41 on inquiry card


FLUORESCENT LAMP / A functional task light for home or office, "Circulo" stands 13<sup>1</sup>/<sub>2</sub>-in. high and has a 12-in. diameter polished aluminum or brass shade. Designed by Peter Hamburger, "Circulo" lamp takes a 32-W *Circline* fluorescent bulb. • Koch + Lowy, Long Island City, N.Y.

circle 314 on inquiry card



**KITCHEN CASEWORK** / A new *Tri-Pac* cabinet line, "Warwick" features solid raised panel oak doors, with brass finish door and drawer pulls. The natural finish protects the wood from most household chemicals, while showing off the oak grain pattern. "Warwick" cabinetry is also available in matching vanities, medicine cabinets, hutches, and wall systems. ■ Triangle Pacific Corp., Dallas, Texas

circle 315 on inquiry card



TRIPLE-GLAZED DOORS / Now offered as an option on all vinylsheathed *Perma-Shield* sliding doors, triple-pane insulating glass consists of three panes of tempered glass separated by two ¼-in. air spaces. Glazing is factory-sealed with tape and silicone spacers for minimum heat loss. Glass may be ordered clear, or tinted gray or bronze. • Andersen Corp., Bayport, Minn

circle 316 on inquiry card



SHELVING SYSTEM / Whether fit into a closet or freestanding along a wall, the Swedish-made "Pellysystem" provides versatile, decorative storage and display for home, office, or workroom. The system uses steel standards and brackets, and *Melamine* foil-finished wood shelves and cabinets. Accessories include wire baskets and shelves, lamps, bottle racks, tool boards, floor stands, etc. • ELFA Corp. of America, Norcross, Ga.

circle 317 on inquiry card



**CEILING FAN** / The "Bentley" fan is said to operate with virtually no vibration or residual noise. Fan blades are hand-finished solid wood, in either 46- or 52-in. lengths. Options include a wall-operated light, and a reversible control to produce either updraft or downdraft. **•** A&G Machinery Corp., Bay Shore, N.Y.

circle 318 on inquiry card



KITCHEN ACCESSORY / A new product in the *Merillat* cabinet line, this "appliance garage" fits under corner wall cabinets and provides countertop, out-of-sight storage for toasters, mixers, blenders and other small kitchen machines. The roll-up tambour door matches the light or dark wood tones of the cabinets. • Merillat Industries, Inc., Adrian, Mich.

circle 319 on inquiry card more products on page 145

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Circle 43 on inquiry card

A lake in southern Ohio. Architect: Ireland & Associates. Inc.



VINYL MOLDINGS / Gossen cellular vinyl moldings bend without breaking, and saw and miter without chipping or splintering. Embossed wall and door moldings are available in various wood-look grains, and a number of low-gloss solid colors. • Gossen Co., Milwaukee.

circle 320 on inquiry card



**DAMP-PROOF FLOORING** / Made of flexible polyethylene in a flowthrough honeycomb pattern, interlocking *Mateflex* squares are especially suitable for such residential areas as damp basements, laundry rooms, decks and porches. Tiles are offered in nine colors, and may be assembled in solid colors, or mixed to form weaves, stripes, and other patterns. A beveled edging prevents tripping. • Mateflex/Mele Mfg. Co., Utica, N.Y.

circle 321 on inquiry card



MULTI-UNIT HEAT PUMPS / Efficient Zoneline III extended range heat pumps are said to be ideal for condominiums and apartments where residents pay their own hvac costs. Through-the-wall units are easy to nstall, with no extensive ductwork required. Separate controls allow precise, individual temperature adlustments. Four sizes are offered in the 230-V line; options include remote control and freeze sentinel. • General Electric Co., Louisville.

circle 322 on inquiry card



**ROOM AIR CONDITIONERS** / An expanded product line includes 41 units in sizes ranging from 5,000 to 27,500 Btus, many of which operate on 115-V power. Control panel features a power saver range indicator that acts as a visual reminder to help conserve energy. • White-Westinghouse Appliance Co., Pittsburgh.

circle 323 on inquiry card



MICROWAVE OVEN / Magic Chef's "Microwave ventilation product" replaces the conventional over-therange hood with a full-size, 1.1 cu ft microwave oven and two-speed ventilation system. Three oven models are offered, all 30-in. wide in a black, textured-steel housing. Fluorescent work light is included. Magic Chef, Inc., Cleveland, Tenn.

circle 324 on inquiry card



**TASK LIGHTING** / Offered in both clamp-on and table models, the "Erazio" lamp features a fully articulated arm that can be moved in every direction, and will stay in that position without springs. Lamps range from about 15-in. to 38-in. over-all height, and are finished in either black or white with rubber detailing on the shades. • Koch + Lowy, Long Island City, N.Y.

circle 325 on inquiry card more products on page 146



Nothing matches the quality, feel and look of solid metal. And, because METTLE MICA™ is anodized aluminum, it gives you a solid edge over foil laminates.

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If he doesn't have ProperVent, write or call us.





**SOLAR HOT WATER** / Lennox' third generation of solar units, the "SMS 3" has a larger, more efficient fin-tube type solar collector and an easily installed heat transfer module. Except in colder northern climates, "SMS 3" components can be added to an existing residential hot water system without the addition of a solar storage tank. • Lennox Industries, Dallas, Tex.

circle 326 on inquiry card



TABLE LAMP / Paul Mayen's table lamp stands 19-in. high on a 5-in.wide polished chrome or brass column. The shade is an off-white fabric on translucent backing. ■ Architectural Supplements Inc., New York City.

circle 327 on inquiry card



**EXTERIOR SIDING** / A lap siding with the appearance of cedar, "V-Side" hardboard features  $\frac{1}{2}$ -in.-wide Vgrooves, and can be applied horizontally, vertically, or on a diagonal. The textured, rough-hewn siding comes in  $\frac{1}{2}$ -in.-thick planks 8 in. wide by 16 ft long, and will not split, crack or delaminate. • Masonite Corp., Chicago, Ill.

circle 328 on inquiry card



VINYL FLOORING / Available in tone-on-tone white, beige, copper and brown, "Sonesta" vinyl has a look of hand-decorated tile. Its Vynlgard wear surface provides long wear and easy maintenance. ■ Biscayne Decorative Products, a National Gypsum Co., Miami, Fla.

circle 329 on inquiry card



FLUORESCENT FIXTURES / Residential fixtures from *Lightolier's* "Designers Collection" supply a warmer, more natural look to efficient, low maintenance fluorescent lighting. Shown here is "Lyte-oak," with natural oak frame and louvers supporting a luminous acrylic panel. • Lightolier, Inc., Jersey City, N.J.

circle 330 on inquiry card



**CANDLE LAMPS** / The "Night Moods" line of 17-in.-high candlestick lamps is particularly suitable for restaurant tables. Designed by Angelo Donghia, the lamps have bases fitted with a spring-operated candle holder topped with shades. • Toscany Imports Ltd., New York City.

circle 331 on inquiry card

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Circle 48 on inquiry card

#### PRODUCT REPORTS continued from page 146



VANDAL RESISTANT / A fire alarm/extinguisher system for apartments, offices, hotels, etc., the "Fyre Call" unit sounds a continuous alarm as soon as its extinguisher is removed from the panel. Besides deterring vandals, this ensures that a fire will not go unnoticed by other occupants of the building. A local fire station pull-box is included in the system. The Nor'Easter Group, Inc., Manchester, N.H.

circle 332 on inquiry card



WHOLE-HOUSE VENTILATOR / With an extra-deep steel self-framing housing to accommodate deeper attic insulation, the "WHV-20" ventilator comes equipped with whitepainted automatic louvers. The V<sub>4</sub>-hp direct-drive motor, isolated with a rubber mount for quiet operation, uses only 8.2 amps. • NuTone, Div. of Scovill, Cincinnati, Ohio.

circle 333 on inquiry card



**DEEP CUSHIONED SOFA** / Fully upholstered in a choice of fabric and leathers, the "Premier" sofa has a hand-tailored seat and back for correct lumbar support. Wedge-shaped arm rests have a standing seam edge detail. ■ Brayton International Collection, High Point, N.C.

Circle 334 on inquiry card



HANDMADE RUGS / The "Summa Sino" line of all-wool handmade rug from China is now available in stoc in sizes ranging from 2- by 4-ft to 9-10-in. by 14-ft. Pictured here is th "Beige Peking" design, one of tw Peking patterns; an Aubusson rug also offered in the initial group • Couristan, New York City.

circle 335 on inquiry car



GEOMETRIC FAUCET / Winner of Resource Council, Inc. Design Award Stanley Paul's "Jetset" faucet se combines hand levers and tub spot into an integrated geometric pattern Fitting is available in polished chrom and a number of other finishe Paul Associates, New York City. *circle 336 on inquiry ca* 



**NO-PATTERN PATTERN** / "Sierr Mesa" Antron III carpeting has a curvilinear design which gives the effect of a range of mountains or a flowin sea in subtle self-tone colorings, an can be used with plain or patterne fabrics. Carpet is available in 25 co orways, at a suggested retail price of \$34.00 a square yard. • Karastan Ru Mills, New York City.

circle 337 on inquiry car more products on page 15





### The new steel door from Raynor for the 80's and beyond

The warm, welcome design of a raised panel door is classic in its appeal and timeless in its beauty. A style that is as fashionable today as it was in times past and will be so in the future.

The Decade door reflects the quality that's built into every Raynor sectional garage door. It combines the elegance of wood with the strength of steel. And because it's made of steel, Decade won't rot, warp or shrink ever.

Decade features a baked-on prime coat over hot dipped galvanized steel. The finish coat, in any choice of color, can be easily applied. It's offered in both one and two car sizes and is available with 1¼" polystyrene insulation with a white metalized polyester facing.

For complete information on the new steel Decade sectional garage door, call your local factory-trained Raynor distributor/installer. You'll find him in the Yellow Pages under "Doors." Or write Raynor Manufacturing Company, Dixon, Illinois 61021.

\*SRP is Raynor trademark for steel raised panel doors







Circle 51 on inquiry card





### Free guide for locker specifiers includes new expanded metal models All the answers you'll need are in this helpful new locker catalog.

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LYON METAL PRODUCTS, INC. 571 Monroe Avenue

Aurora, Illinois 60507 the STORAGE ARCHITECTS

### PRODUCT REPORTS continued from page 148



CORNER SAUNA / Available in a prefabricated, ready-to-install kit, "Special Corner's" saunas are available in sizes from 4- by 4-ft to a complete 9- by 12-ft room. Am-Finn Sauna Co., Valley Forge, Pa. *circle 338 on inquiry card* 



**SHOWER DOOR** / The Vista-Pivot door adjusts to fit almost any shower opening width from 24- to 36-in.; a special jamb allows for out-of-plumb wall conditions. The four-sided aluminum frame has a leak-proof threshold and a utility hook; the tempered glass panels come in four different styles, including the pebble-texture opaque glass shown here. • Kinkead Industries, Inc., Downers Grove, Ill.

circle 339 on inquiry card



**PATTERNED CARPET** / A bold plaid, "McIntosh" heavy-traffic commercial carpeting is made on the *Graphics* tufting machine, which can produce patterns previously available only in more costly woven products. The carpet is constructed of wool-like stock-dyed *Zeftron* nylon yarn, patterned through the back and available in 10 colorways. "McIntosh" is one of three new "Ultra-Graphics" contract styles, all anti-static and guaranteed for five years. • Charleston Carpets, Div. Wellco Carpet Corp., Calhoun, Ga.

circle 341 on inquiry card



TEXTURED WEAVE FABRIC / Called "Wunderbar," this textured weave is now shown in three new color combinations — beige/brick, graybeige/evergreen and gray/plum. It meets the requirements for the FAA 25.853(b) vertical flame code, and is intended for both residential and corporate applications. It will be exhibited in the Donghia, Inc. showroom. • Gretchen Bellinger Inc., New York City.

circle 342 on inquiry card



**TUBULAR FRAME** / The "Graphis Seating System" consists of chairs, ottomans, and full- and half-tables that can be grouped in a variety of configurations for residential and commercial use. Tubular steel legs are lacquer-painted; the grid frames and perforated steel table tops are vinylcoated. The removable channelquilted covers are washable cotton/polyester. ■ Beylerian Ltd., New York City.

circle 340 on inquiry card



**NEW CARPET FIBERS** / The Du Pont company will introduce reduced surface area carpet fibers in its newly redesigned showroom. The new fibers are available in both continuous filament and staple forms, as the latest development of "Antron" nylon for commercial contract purposes. • Du Pont Company, New York City.

> circle 343 on inquiry card more products on page 154



Attractive home on Cape Cod, Massachusetts; Architects Bedar & Alpers, Boston, Massachusetts; Wood siding and wood trim treated with Cabot products.

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Here is a wood at its wonderful best. The architect, in specifying a finish for this home, sought beauty and more...a finish that would stand up to summer sun and winter cold, that would require minimum maintenance while protecting the wood for a long, trouble-free life. His choice: Cabot's Stains.

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Cabot's Stains, in 87 unique colors, enhance the wood grain, grow old gracefully, never crack, peel, or blister...are ideal for shingles, siding, clapboards, paneling, and decking. In terms of natural beauty, economy, and ease of application, Cabot's Stains are best for all types of wood, exterior or interior, and all wood surfaces, smooth, striated, or rough-sawn.

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"Cabot's Stains, the Original Stains and Standard for the Nation since 1877" Circle 52 on inquiry card





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AREA RUG / Manufactured by Customweave Carpets, Inc., the "Tiffany" pattern has a hand-carved floralmotif border. Deep plush carpet is available in a choice of sizes and colors. 
Customweave Carpets, Inc., Fountain Valley, Calif.

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WASHABLE FABRIC / Woven in Norway in 36-in.-wide bolts, the "Get Acquainted" line of natural fabric wallcovering has a layer of polyethylene laminated between the fabric and the paper backing, and can be washed with soap and water to remove normal soiling. Available in eight colors, the fabric wallcovering has a Class A flame spread rating. Gilford Inc., New York City.

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FRENCH FABRICS / New cotton prints from Boussac include largescale Art Deco, small-scale country and petite geometric designs. Fabrics pictured are "Jerry," with Art Deco semi-circles in an all-cotton chintz, and "Artigny," a cotton ottoman in 81 colors. Boussac of France, Inc., New York City.

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RESIDENTIAL SMOKE DETECTOR The "Model 7078" is a competitively priced ionization-type smoke detector for the residential market. The battery-powered, dual-chamber unit is UL-listed, with a test circuit and a flashing LED that indicates proper operation. Chloride Pyrotector, Hingham, Mass.

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TABLE SERIES / A solid oak faceted and rounded edge defines the "Prow Edge" series of desks and tables. The desks are offered in executive and secretarial versions with floor pedestals. Both circular and rectangular parquet tops are available for the tables, which rest on oak-edged bases. Harvey Probber, Fall River, Mass.

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automatic dishwashers, including five that heat their own water, are offered by White-Westinghouse, All models feature a switch that allows the user to dry dishes without additional heat, saving about 30 per cent in electricity costs per normal cycle. White-Westinghouse Appliance Co., Pittsburgh, Pa.

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**MODULAR LOUNGE SEATING** / A meticulously detailed and upholstered modular lounge seating group, the "84 Series," will be offered to U.S. designers under an exclusive manufacturing and marketing license granted by Wilkhahn of West Germany. Single-, double-, and triple-seat ganging with connecting tables make many configurations possible. • Vecta Contract, Grand Prairie, Tex.

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OFFICE CHAIR / A concealed spring mechanism buried within the "Task Chair" gives flexibility to the onepiece urethane foam and integral sprung steel frame seat and back assembly. It is offered with and without arms. • Harvey Probber, Fall River. Mass.

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**BERBER CARPET** / Joining the growing family of contract Berber carpets is "Regimental Rib"—from Downs Carpet Mills—a stock-dyed acrylic berber ZEFRAN® yarn from Badische Corp. Prominently ribbed, the 38 oz per sq yd textured loop fabric is intended to coordinate with "Grenadier Hall" berber, another in the line. • Badische Corp., Williamsburg, Pa. *circle 352 on inquiry card* 



WATER-SAVING TOILET / Made of *Azurelite* honeycomb plastic material, the *Delta 4000* water closet weighs 29 lb, and uses only 3.5 gal. of water per flush. It is made as an integral one-piece bowl and trapway with no joints, glues or welds, and is impervious to household cleaners. Priced to retail for about \$250, the *Delta 4000* toilet has a pushbutton flush, low profile, and smooth-mounting bolt covers. • Delta Faucet Co., Indianapolis, Ind.

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JACQUARD FABRIC / "Alma" is one of four miniature geometric patterns in a jacquard weave featuring intricate texture and a wide range of colors. This matelasse is a blend of rayon and cotton, 51 in. wide. Manuel Canovas, New York, N.Y.

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**TRUE-WHITE TILE** / A recent addition to the "Primitive Encore" line of ceramic tile, "Glacier" is a true-white, matte-glazed unit recommended for counter and vanity tops, interior and exterior walls, and moderate-use residential and commercial floors, including malls. Various sizes of 1/2-in.-thick tile may be used independently or combined; "Glacier" is slip- and stain-resistant. American Olean Tile Co., Lansdale, Pa.

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PRODUCT REPORTS continued from page 157



**CONTRACT CARPETING** / Rated for heavy-duty wear, "Design Point" *Zefran Blend* carpeting features a soilhiding check pattern of three intermingled colors. Available in eight different tri-toned colorways, smallscale "Design Point" meets rigid flammability tests with a .57 critical radiant flux rating on the flooring radiant panel test. ■ Downs Carpet Co., Inc., Willow Grove, Pa.

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**CARPETS** / The "Irish Collection" of carpets will be exhibited by Tintawn Carpets Ltd. Traditional motifs come in non-berbers in a variety of natural colors. Shown is "Inisheer". Initawn Carpets Ltd., Newbridge, County Kildare, Ireland.

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**WOOD-FRAMED ARMCHAIR** / An addition to the "UDC" seating series, the "UDC138" armchair features a round back and tightly-upholstered seat. The chair is outlined in a continuous bullnose-shaped wood frame, available in ash and walnut. The chair is 27-in. wide by 30-in. high, with a polyurethane seat over rubber webbing, upholstered in all types of fabrics and leathers. • Helikon Furniture Co., Inc. Taftville, Conn.

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**SOLAR HEATING** / Each 3- by 4-ft *Solar Micro* solar reflector has 99 tetrahedral honeycombs that collect the sun's energy from any south, east or west exposure. Said to be easily mounted in windows or through the wall like an air conditioner, each *Solar Micro* panel delivers enough heat for 300-400 sq ft of space. ■ Solar Micro Inc., Farmingdale, N.Y.

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**WALL LAMP** / Lit by one 100-W bulb, the "Chiaroscuro" lamp creates a shadow and light effect, providing both up- and down-light from one fixture. Suitable for use as a corridor light or wall wash, the fixture has many hotel, contract and residential applications. Lamp comes in either polished brass or chrome finish, measures 9-in. high, and extends 10<sup>1</sup>/<sub>2</sub>-in. from the wall. • Koch + Lowy, Long Island City, N.Y.

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Attached to the floor, the SICO In-Wall bed can qualify as part of your financing. Options include mattress/box spring (twin, double, or queen), night stand, desk/table, and cabinet



in your choice of several attractive finishes. Don't wait. Send for the name of your local SICO representative. And for more information on how you can save space and add profit. Write: SICO, Incorporated, 7525 Cahill Road, Minneapolis, MN 55435, Dept. AR-5 Phone (612) 941-1700 WILSICO EDNA TWX 910-576-1771.

Innovation by design

SICO INCORPORATED

# "There's a mystique to Redwood that just stops people in the street by Robert Lawrence, Vice President Thrust IV Homes, Inc., Mountain View, Calif.

"As a quality home builder, we know the importance of curb appeal. And we know we have something special when we get people's attention before they even get inside the house.

'That's why we've been using Simpson

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The natural beauty and warmth of Simpson Ruf -Sawn Redwood provides outstanding design versatility. But beauty is only the beginning.

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What's more, you get these quality features



with the in-place economy of plywood. It's strong yet lightweight. And gives you all the installation efficiency associated with panel

1217

'Set this siding off with a Redwood deck or trim and nothing comes close to the look. I'm convinced that dollar for dollar, no other

building material can match the beauty, performance and prestige of Simpson Ruf-Sawn Redwood. Or

deliver the results. For complete design information write Simpson Timber Company, 900 Fourth Avenue, Seattle, WA 98164.



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# construction.

# Framework

### When you specify Wheeling Steel Framing Systems, you specify savings.

The best framework for savings is smart specifying.

And that means your specs should name Wheeling Steel Framing Systems for wall, roof and floor construction.

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Wheeling Steel Framing can support greater loads than wood because steel is inherently stronger. So you can put studs on 24" centers or more, even on

Wheeling Steel Framing helped reduce the cost of this 17-story office building. Complete exterior curtain wall panels using steel framing and brick were fabricated and shipped to the job site ready for erection. lower floors. Once you reduce the number of structural members, you reduce installation time, and that saves on labor costs. Finally, Wheeling Steel Framing works with just about any







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So Wheeling gives you the framework you need to save money on practically *any* job. For detailed information, send

for our new brochure, WC 608-R-5. Write Wheeling Corrugating Company, Division of Wheeling-Pittsburgh Steel Corporation, Dept. GC-16, Four Gateway Center, Pittsburgh PA 15230.

### Wheeling Steel Framing

The strength and versatility of Wheeling Steel Framing Systems provide many design options. Here's one example: the unique shape of this 2-story office building complex.

Ease of handling of Wheeling Steel framed assemblies meant shorter construction time and a corresponding cut in labor costs on this low rise senior citizen nursing care facility.



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