CASE STUDY HOUSE FOR 1949

DESIGNED BY CHARLES EAMES

This section of the east elevation is characteristic of the buildings. Of the three stucco panels shown here, one is pure white, one is brilliant blue, and one is black behind white crossed tension rods. The small rectangular panels and the sash are the natural warm gray of the Cemesto board; the two panels above the door are covered with gold leaf. The drapes are a natural colored rayon and linen fabric.
IN THIS ISSUE THE MAGAZINE PRESENTS THE FIRST OF A TWO-HOUSE PROJECT: ONE BY CHARLES EAMES, AND THE OTHER BY CHARLES EAMES AND EERO SAARINEN.

WE SHOW THIS 1949 CASE STUDY HOUSE WITH CONSIDERABLE PRIDE, FOR A NUMBER OF WHAT WE HOPE ARE VERY OBVIOUS REASONS. WE THINK IT IS A BEAUTIFUL JOB, SENSIBLY AND INTELLIGENTLY CONCEIVED, WITH INTERESTING PROBLEMS POSED, AND IN MOST CASES HAPPILY SOLVED.

THIS HOUSE REPRESENTS AN ATTEMPT TO STATE AN IDEA RATHER THAN A FIXED ARCHITECTURAL PATTERN, AND IT IS AS AN ATTITUDE TOWARD LIVING THAT WE WISH TO PRESENT IT.

WE HAVE IN PREVIOUS ISSUES SHOWN AND DISCUSSED THE SITE SELECTED, THE MATERIALS TO BE USED, AND THE METHODS BY WHICH WE INTENDED TO USE THEM. THERE WAS ALSO A FIRST SOLUTION OF THE PROBLEM WHICH WAS LATER REPLACED BY THE BUILDING AS IT IS NOW A REALITY. IN ITS FINAL RESOLUTION IT REPRESENTS AN AGGLOMERATION OF MANY ELEMENTS THAT BECOME A PART OF A HOUSE EVEN THOUGH THEY EXIST AROUND AND OUTSIDE IT AND SEEMINGLY APART FROM IT.

HERE IT IS ONLY IMPORTANT TO SAY, AND BRIEFLY, THAT WE FEEL THAT THE HOUSE MUST BE JUDGED ON THE BASIS OF ITS Appropriateness TO THE IDEA, AND THAT ITS CONTRIBUTIONS ARE THINGS TO BE DERIVED FROM IT RATHER THAN THINGS EXISTING PRECISELY WITHIN IT.


THE HOUSE IS ACTUALLY A KIND OF EXPERIENCE THAT ONCE COME UPON IS VERY LIKELY TO AT LEAST REARRANGE A NUMBER OF THE SPECTATOR'S IDEAS. WE WAIT REACTIONS WITH CONSIDERABLE INTEREST, AND LEAVE THE READER WITH AT LEAST ONE COMFORTING THOUGHT: THAT IN THIS CASE THE ARCHITECT WILL LIVE IN WHAT HE HAS DONE—THE EDITOR.

photographs: Jay Connor

The meadow sloping away from the house toward the ocean is planted in rye with scattered wild flowers. The flowers will do their bit in the spring, and the green rye will be allowed to grow yellow during the dry season. Mr. J. A. Gooch, Landscape Architect, is acting as planting consultant, and has sensitively provided a combination of shrubs and trees that are natural to the environment.
East elevation of house and studio from across the meadow.
Throughout the house and the studio, with the exceptions of the bathrooms, the Tucson open-webbed joists and firreboard decking form the exposed ceiling.

Northwest corner, second floor of house.

Northeast corner of house from north court.

Interior of studio work room looking north.

ADAPTATION TO SITE—IN ORDER TO MAKE THE MOST SENSE ECONOMICALLY, THIS HOUSE SHOULD BE ON A LEVEL LOT. THAT POSSIBILITY EXISTED HERE, BUT TO PLACE IT SO WOULD HAVE MEANT THE DESTRUCTION OF A NATURAL MEADOW, BEAUTIFULLY RELATED TO THE SEA. TO KEEP THAT PART INTACT AND TO TAKE FULL ADVANTAGE OF THE PROTECTIVE QUALITIES OF A TRULY GRAND ROW OF EUCALYPTUS TREES, A NEW SITE WAS EXCAVATED BEHIND THESE TREES INTO THE HILL, SAVING THE MEADOW AT THE COST OF A 200-FOOT CONCRETE RETAINING WALL 8 FEET HIGH. THE EXCAVATED EARTH WAS, IN A SENSE, LIFTED OUT AND DROPPED ON THE PROPERTY LINE BETWEEN THIS AND THE ADJOINING SITE (WHICH IS PART OF THIS PROGRAM), TO FORM A MAN-MADE MOUND AND EFFECTIVE BARRIER.

AS A CASE STUDY HOUSE—MOST MATERIALS AND TECHNIQUES WHICH HAVE BEEN USED HERE ARE STANDARD TO THE BUILDING INDUSTRY, BUT IN MANY CASES NOT STANDARD TO RESIDENTIAL ARCHITECTURE. IN THE STRUCTURAL SYSTEM THAT EVOLVED FROM THESE MATERIALS AND TECHNIQUES, IT WAS NOT DIFFICULT TO HOUSE A PLEASANT SPACE FOR LIVING AND WORKING. THE STRUCTURAL APPROACH BECAME AN EXPANSIVE ONE IN THAT IT ENCOURAGED USE OF SPACE, AS SUCH, BEYOND THE OPTIMUM REQUIREMENTS OF LIVING. HOWEVER THE ACTUAL PLAN WITHIN THE SYSTEM IS PERSONAL, AND WHETHER OR NOT IT SOLVES THE PARTICULAR REQUIREMENTS OF MANY FAMILIES IS NOT IMPORTANT AS A CASE STUDY. CASE STUDY WISE, IT IS INTERESTING TO CONSIDER HOW THE RIGIDITY OF THE SYSTEM WAS RESPONSIBLE FOR THE FREE USE OF SPACE AND TO SEE HOW THE MOST MATTER-OF-FACT STRUCTURE RESULTED IN PATTERN AND TEXTURE. ANOTHER INTERESTING STUDY, IN ANY CASE, IS THE WEIGHING OF THOSE IDEAS THAT DID NOT COME OFF AGAINST THOSE THAT DID, IN MOST INSTANCES THOSE THAT DID NOT FAILED EITHER BECAUSE THEY WERE NOT CARRIED TO THEIR LOGICAL CONCLUSION OR BECAUSE THE OFFENDING PART WAS NOT CONSIDERED IN RELATION TO ITS SURROUNDINGS. PROMINENT AMONG THESE ARE THE OLD PROBLEMS OF SERVICE CONNECTIONS, HOSE BIDS, ELECTRICAL OUTLETS, FLASHING, VALVES, GRILLS, ETC. NEGLECTED.
John Rolfe, head of Frank Brothers drapery department, hung sharply pleated drapery of a natural colored linen and rayon fabric by Deering-Milliken. Textured by day, light and plain by night.

West wall of the storage room and the studio balcony. The obscure glass in the window is Mississippi Glass Company’s Fostrolite, which is the same as that used in the baths, the front entrance, and the northeast corner of the dining area.

Exterior of the same sash shown at left. The vertical Ferbo-board shown here on the court side is painted aluminum.

These can easily take over the architecture through no fault of their own, but because they have not been carefully enough selected and placed.

Most of the qualities that proved satisfying were inherent in the materials themselves—the texture of the ceiling, the metal joists, the repetition of the standard sash, the change of glazing from transparent to translucent—the surprise of seeing the plane in space through the wire glass in the studio.

Relationship between the second floor bedroom and the 17 ft. high living area seems good, as does the skylight over the stair well and again, the satisfaction, architecturally, of the relation of house to nature.

Color—Color was planned and used as a structural element, and while much concern was given to its use in the various structural planes, the most gratifying of all the painted surfaces is the dark, warm gray that covers the structural steel and metal sash. The varying thickness and constant strength of this line does more than anything else to express what goes on in the structural web that surrounds the building. It is also this gray web that holds in a unit the stucco panels of white, blue, red, black, and earth.—Charles Eames
Dividing sitting area from entrance and next to spiral stair are storage closets for many uses including guest wraps. The sliding doors are prefabricated all metal units which are now in the stages of production development by Republic Steel.

These three views show the development of the southeast corner of the 17' high living room. Seen in the upper right corner, the Truscon Maximaire Window provides circulation in the upper part of the room. Like all the other plain white interior surfaces in the building, the one shown here is covered with Walltex, stiffened canvas, unpainted.

From above, the white gravel on the Celotex roof forms crisp rectangles which become an important element. The vertical Ferraloid wall is a brilliant primary blue, and all but a few Cemesto panels retain their natural color.

The white rectangles shown here on the east wall of the studio are Cemesto panels set into the lower section of Truscon architectural projected sash, providing both exterior and interior surfaces. In this case they have been painted white, but in most cases they have been left the natural warm gray of the Cemesto panels, which is a sandwich of asbestos board faces and Celotex core.
The two bathrooms—each one bay wide and one bay deep—are crisp cubes in form and color. The floors are Vost Rubber Tile, one in black and white checkers, the other in Sea Sand. The interior walls are plain colored Micarta, the ceilings are of U. S. Plywood’s bird’s eye maple, applied in the baths to the under side of the Ferroboard in order to cut down condensation.

In a steel structure so close to the sea, protection of the surface becomes most important and calls for a surface covering designed primarily for industrial plants subject to the attack of corrosive fumes. Such a paint was a rubber based #5 coating of the A. C. Horn Company, from which was mixed a dark, neutral, and very satisfying gray.

Detail in northeast corner of studio building shows the Mississippi polished wire glass used in this work room essentially because of the factor of safety, but in actuality, the plane in space described by the wire mesh became an important contributing esthetic element.
Southwest corner of guest room. Sliding panel which opens to upper part of living room by movable fabric covered panel. The sliding diffusion screens which are shown drawn over the sash, are of Plyon, a translucent glass cloth laminate by Swedlow Plastics Company. These are on hard wood tracts set between the columns and free from sash. Vail Rubber Tile covers the entire second floor area.

The spiral stair well is lined with U.S. Plywood Karina, which carries directly up to a polished wire glass sky light above. On the first floor the Karina plywood continues around to form the south wall of the kitchen. The spiral stair is made from sections of "H" beam welded on one pipe and threaded on to another. One-and-one-eighth inch hard wood plywood treads secured to the plangia by step bolts.

View looking down through Mississippi wire glass sky light. Brass pipe hand rail which is secured to the quarter points by step stanchions, is not in yet.

The dining space and kitchen become one space with the Modernfold Door open. Mississippi Corrugated Glass Wall forms a translucent division between kitchen and utilities. The cabinets are steel by Berger Manufacturing. The refrigerator and range are Kelvinator; the exhaust fan, Pryne; the recessed light, Century; and that over the sink, Gotham.

Sliding metal closet doors and walnut plywood wall.

View from living room through entry—with dining room beyond.

Section of studio working area showing sliding light diffusion screens of translucent Plyon, and in the foreground, a section of Shop Smith—a useful and well-engineered multiple purpose tool.

Two sections of Tucson's standard architectural projected sash form the typical bay.
IT BECOMES AN AIRY PAVILION WHEN THE FERROBOARD ROOF DECK IS APPLIED.

THE LACINESS OF THE STEEL STRUCTURE.

RETAINING WALL AS IT CUTS INTO THE SIDE OF THE HILL.

EXTERIOR WALLS CHANGE INTO A GLOOMY CAVE.

BUT GLASS AND REFLECTIONS RESTORE TRANSPARENCY AND ADD DOUBLE IMAGES THAT BECOME CHARACTERISTIC OF THE BUILDING.

PAINT DEFINES THE SURFACE IN LINES AND RELATION TO EACH OTHER . . .

... AND NIGHT AND ARTIFICIAL LIGHT COMBINE TO MAKE AN ENTIRELY DIFFERENT SERIES OF RELATIONSHIPS.

Members of the Eames staff, left to right: Frederick Usher, Charles Krotka, Verla Schulman, Charles Eames, Ray Eames, Don Albinson. Missing in picture is Kenneth Acker.
Scale details of east wall of studio building. Photograph at right shows this wall through kitchen window, and at left, the view from small window shown in detail above.
The house by Eames and Eero Saarinen which is now reaching completion on the same site, will be shown in the final stages of construction.
The southeast corner of the house shows the use of Rocklite lightweight concrete block walls, and draperies from Laverne Originals.

Contractor on both houses:
LAMPORT-COFER-SALZMAN, INC.