

Marcel Breuer's Starkey House:

The Parts over the Whole

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The work of Marcel Breuer has been accepted only with reservations into the canon of post-war modernism. Vincent Scully Jr. wrote in 1965 that "a small scale graphic sensibility made it impossible for Breuer to build a monumental building."¹ William H. Jordy described Breuer's work as lacking a "vitality of scale"², a sense of parts to the whole and their relation to the human body. Jordy also believed of Breuer that "it is a common deficiency of the superb craftsman as architect that his sensitivity to form and its proportioning tends to be lavished on details (objects) rather than the larger-than-life-size environment of mass and space which are especially the province of architecture."³ For Scully and Jordy, the result was that Breuer's work was akin to furniture or industrial products rather than architecture; for them, Breuer's buildings, however well-built and suited to their immediate purpose, are "bland" and "neutral."⁴

Breuer saw his own work differently. He describes his philosophy of design in Peter Blake's 1955 biography of his work, Marcel Breuer: Sun and Shadow, The Philosophy of an Architect:

The real impact of any work is the extent to which it unifies contrasting notions - the opposite points of view. *I mean unifies, and not compromises.* This is what the Spaniards express so well with their motto from the bull fights: *Sol y sombra*, sun and shadow. Half the seats in the bull ring face the sun, the other half is in the shadow. They made a proverb out of it - "sun and shadow" - and they did not make it sun or shadow. For them, their whole life - its contrasts, its tensions, its excitements, its beauty - all this is contained in the proverb *sol y sombra*.

The easy method of meeting contrasting problems is the feeble compromise. The solution for black and white is gray - that is the easy way. To me this is not satisfying. Sun and shadow does not mean a cloudy sky. The need for black and the need for white still exists. The Spanish sun is not diluted by the Spanish shadow. Both, in their undiluted clarity, are part of the same life, part of the same ideal.

In our work this seems to me one of the basic principles of creativity. It is certainly easy to oversimplify - to go in one direction and achieve a certain effect. We know that. We are exposed everywhere to specialized propaganda - salesmanship which stresses only one aspect of a product to the exclusion of everything else. It sells automobiles, even some architecture, but it does not tell the whole story.⁵

Yet where Breuer saw a pitting of contrasting aims in a tense, complex whole, his critics often saw weak and confused design.

Breuer's work, often perceived as a feeble result of misguided intentions, can be seen as the product of an open and additive design process. Breuer began with simple archetypal relationships between basic forms, and then overlaid his ideas on this basic framework as the project was developed. These ideas added to the overall framework and sometimes contradicted the basic relationships set up in the beginning. Breuer's many materials and systems wove together to express complex and contradictory requirements; the result was that the process imbued Breuer's work with a richness and clash of ideas not seen in many of his contemporaries. By closely examining one work, the Starkey House of 1954-55, this

pattern for design decisions emerges, a pattern based on local conditions rather than the clarification of the overall diagram. The Starkey House will be examined in a textual analysis through conceptual sketches, design development for the house. Only through this combing through of construction details can the story of Breuer's design process and the relationship of details to the whole.

June Alworth commissioned the Alworth/Starkey house in 1954. The house was a present from her father, Roy Halvorsen, the "Christmas Tree King" of Duluth, Minnesota. The house's design and construction were meant to occupy Mrs. Alworth's time, a recent widow, and help her past her grief.⁶ In Breuer's office, the main collaborators with Breuer on the project were at first Herbert Beckhard, and then at a later phase Robert Gatje.⁷

The commission for the Starkey House came during a period when Breuer's office was in the midst of a successful and publicly recognized practice. Recently commissioned to design the new UNESCO headquarters in 1953, the office was also busy with a major commission for a new church and campus plan in Minnesota as well as several other houses. A monograph of Breuer's work, *Sun & Shadow*, was published in 1955 and brought further recognition of the firm. Bob Gatje, soon to be one of Breuer's partners, comments:

Things were moving so fast in the rapidly expanding practice that we lost track of all that was going on and who was responsible for what. Breuer came up with solutions so quickly and sold them so effectively that projects progressed with a speed that would be astounding in other offices and led to a very efficient, and profitable, operation.⁸

From these accounts of the volume of work, it seems that both Breuer and his collaborators must have had a clearly defined way of developing projects and well-honed avenues for design exploration. As documented in the drawings of the house, the design development of the Starkey House bears out Gatje's observation. The basic form and arrangement of the house appears very quickly planned from the start.

The site in Duluth, Minnesota overlooks Lake Superior on a steep slope, dropping nearly 27 feet from the northwest to southeast property lines. The site is not large (about three-quarters of an acre), and it is part of a larger, gridded development with similar sized lots. An early plan sketch shows a bi-nuclear configuration, a trademark of many Breuer houses, where the sleeping spaces are made a separate block from the living spaces and then connected by an entrance link with an arrow shaped ramp. The living and bedroom wings are almost bilaterally symmetrical around the house's longitudinal northeast to southwest axis. The bedroom wing in the sketch is more developed than the living area in the sketch, with four bedrooms clustered around a children's play space. The rectangular living wing is divided into four quadrants; two for the living room, one for the dining room and one for the kitchen/utility area. The sketch acknowledges the sloping site by depicting stone retaining walls extending out from the living and bedroom wing. An attempt to determine a structural system is also evident in the column grid drawn in the bedroom wing, where two columns are shown bisecting the play space, while two other columns are hidden within walls.

The heredity of the Starkey House can be thought of as the combination of two different types used by Breuer in earlier designs, the bi-nuclear house and the "long" house.⁹ The bi-nuclear house plan, where the living and bedroom wings are linked by the entry, provided both parents and children their own separate realms in the house. The bi-nuclear plan had been used earlier by Breuer in the Geller House of 1946 and Robinson House of 1948. At the same time the Starkey House was being designed, the Greico House in Andover, Massachusetts was designed with a similar, but more modest bi-nuclear plan.

The "long" house type, exemplified by Breuer's design for his own house of 1948, consisted of a box cantilevered above a smaller fieldstone or masonry base. A comparison can be made between the Starkey House and a slightly older "long" house project, the Smith House in Aspen, Colorado of 1949-51. The massing of the Smith House consisted of a box bridging across a divided stone base extending out into the landscape. A perspective sketch made by Breuer of the Smith House with the main

volume of the house hovering over walls extending into the landscape has a family resemblance to the view of the Starkey House from the south. Joachim Driller in his study of Breuer's houses postulates that the massing of the Smith House is influenced by Mies' Resor House as well.¹⁰

At this early stage of design, the underlying geometry and structural grid of the house was set out as an early drafted upper level plan shows. The shape of the living area is a rectangle about one and one half times as long as it is wide (32' x 50'). The living area is developed showing both the kitchen and utility room layout basically at their final configuration. The bedroom wing is clearly shown as a square volume (43' x 42'-6") and developed in a nine-square pattern. The bedrooms occupy the corners of the nine-square while in the center left to right, the entry is separated from the play area by a screen and then linked to an external balcony. The bathrooms and closets for the most part have been moved to the nine-square quadrants above and below the playroom in the center, although a small bathroom is placed at the most western quadrant. An internal stair has also been added from the bedroom wing into the storage and mechanical rooms below.

A 4'-3" module running the length of the house is shown in this drafted plan as well. The columns of the house are placed 6 modules apart (25'-6"). All the walls and lengths are to the module except for the northeast wall of the living room, the southwest wall of the bedroom balcony, the western bathroom interior wall and some minor lengths of wall in the kitchen/utility area. To find this level of modularity is common in Breuer's buildings. Breuer's interest in prefabricated and modular housing began with his work at the Bauhaus in 1925 for a Small Metal House made up of panels hung on a metal framework. In the 1940's, Breuer worked on two prefabricated house projects, the Yankee Portables and the Plas-2-Point Houses. For Breuer, issues of efficient construction were inherent to housing, whether for mass-produced units or a luxurious, bespoke home.

At this point in the design, all the basic plan elements of the completed house are in place. The development of the design takes a turn at

this point. While some design decisions continue to be distilled and clarified, many other decisions are made that contradict, hide or make ambiguous the clarity of the original design decisions. These decisions can be traced in two areas of the design: the structural system and the entry link.

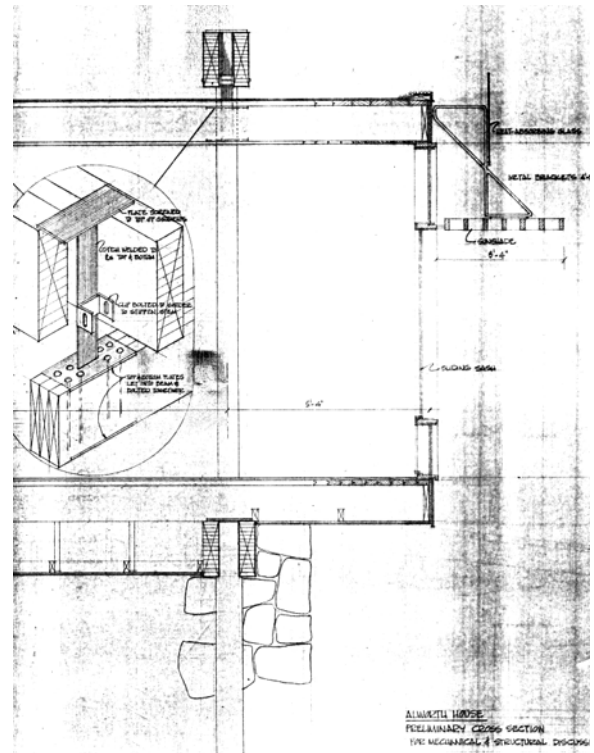


Figure 1: Starkey House Building Section

The structural system of the house is unusual in itself. The house is supported by a system of double 5"x18" laminated wood girders that run along the length of the house. These girders are exposed to the outside so that a pair of girders support the main floor of the house from below while the roof is hung from girders above. The girders are inset from the exterior wall by six feet and support a cross frame of tripled 2x12 floor beams underneath the floor and a hanging cross frame of the same tripled roof beams from above. A flooring system of 2" wood planking spans six feet between beams. The loads are transferred to the ground by laminated wood columns that fit between the double girders and anchor to the ground with steel pins. The columns step in from an 8x8 under the floor, to an 8x6 in the house to an

8x4 above the roof to seat the girders (Figure 1).

The genealogy of this system might be attributed to a number of sources. Pier Luigi Nervi, Breuer's collaborator on the contemporaneous UNESCO headquarters project, as well as Mies' long span projects are thought to be influences for such a show of structure.¹¹ Mies, while exposing large girders to the exterior at Crown Hall, brought the columnar supports to the outside of the wall. Yet the formal elegance of Mies' Crown Hall structure, wrapping a volume of pure space on the inside, is structurally inefficient compared to Breuer's more practical solution. By cantilevering both ends of the floor beams, the size of the beams can be reduced compared to a span where the beams are supported on the ends. Breuer's more practical approach to structure separates his design sensibility from Mies' (although we see a structural system similar to the Starkey House in Mies' Resor House.) The exposure of structure has precedents as well in Breuer's own work; the Caesar Cottage of 1951-2 uses a system of exposed and cantilevered beams. Cable stays suspended the balcony of Breuer's own house in Connecticut and he cantilevered the end of the house by placing the sheathing on the diagonal. Such structural experimentation by Breuer was so typical that the supposed influence of a Nervi or Mies seems unnecessary.

While the logic of this structural system is complete in the living wing, the system is contradicted and breaks down at the link and the bedroom wing. In fact, the floor framing plan and the roof framing plan seem to be from two entirely different houses (Figure 2). At the bedroom wing, the wood girder and column system is evident under the wing but the girders disappear at the roof. The columns also disappear at the first floor, and the columns under the bedroom wing would pierce through the center of each of the bedrooms if they continued. Rather than hanging from the beam, the structural system for the bedroom wing is really a wood frame box that is lifted up by the column and girder system. Thus the structural system at the bedroom wing is not what is visually implied from the exterior.

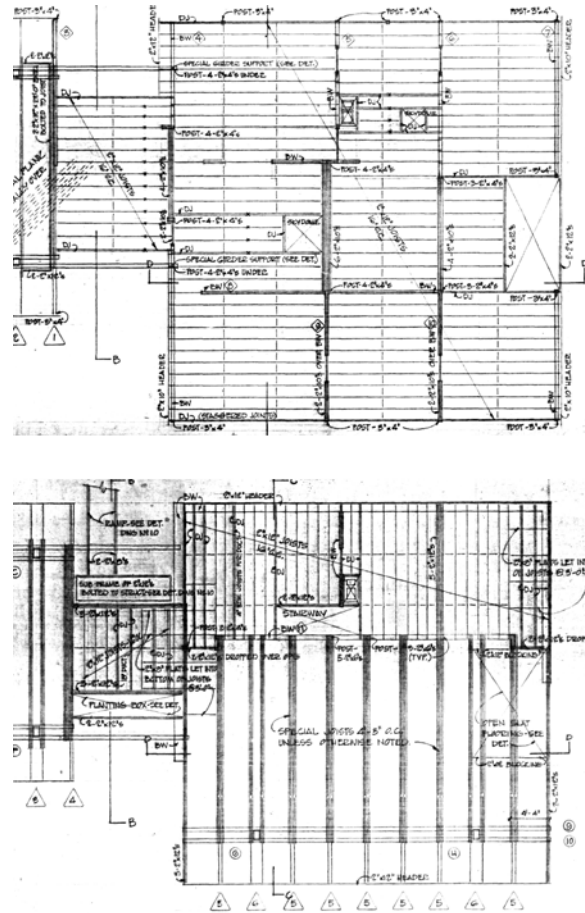


Figure 2: Starkey House Framing Plans

Because of the contradictory goal of the exterior, the visual prominence of the columns and girder system, and freedom from structural columns in the interior planning, Breuer and his office chose not to resolve or accentuate the different requirements, but rather to disconnect the two as separate instances and hide the factual resolution. Unlike Mies' Resor House, where a column intersecting through a bedroom space provides a tension between the program requirements and the structural system, the Starkey House lets either structure or space predominate depending on the situation. In fact, the understanding of the nature of the house changes as one's view of the house changes. The experience at a particular place in the house is as important in developing the architecture as the idea of a system that ties the pieces together.

The entry link of the Starkey House shows how the experience of a particular view was more important than the structural/construction system for Breuer. The link connects the bedroom wing to the living wing and also provides the entry to the house, a common configuration for Breuer's houses. From the earliest drawings documenting the house, the entrance ramp was constantly shifting and changing position. In the first extant sketch, the link consists of an entrance ramp symmetrically placed with equivalent access to both wings. A zone containing the coat closet and small bathroom is in the bedroom wing, but facing away from the link so the link is completely clear of any elements and thus an independent piece.

As the project progresses, the coat closet is now facing the link rather than the bedroom wing, but hidden from view by a stone wall. In the final configuration, the wall separating the link from the bedroom wing is removed and the spatial definition of the link extends to the coat closet. The space of the link now flows into the bedroom wing. The link is blocked further from the living wing by a wall, orienting the link toward the bedroom wing. In the construction documents, the bluestone flooring of the entry link is carried to the coat closet and into the small bath, further extending the entry into the bedroom wing.

The change in the design of the link seems to have occurred for purely practical reasons, namely for houseguests to find the coat closet and the small bathroom. The reasons for this change are of interest here. For other architects of the time, the pure diagram of the binuclear house; living wing, link, bedroom wing would be contaminated or compromised by the extension of the link space into the bedroom wing. An architect such as Mies van der Rohe or Phillip Johnson would have kept the link pure and spatially separate, or would have at least hidden away the compromise. The formal diagram of the house for Breuer was just a starting point, which would gain complexity from the requirements of the client and the local visual and spatial requirements; namely the requirements of finding the coat closet but also the desire to not block the windows of the link with a coat closet. The skeleton of the diagram is contradicted by Breuer to accommodate what needed to be done locally.

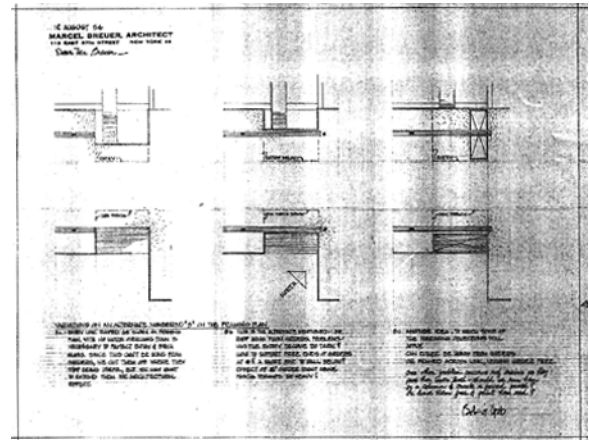


Figure 3: Link Options

Breuer's approach to solving design problems locally is also seen in the design solution to the exterior expression of the link. In a drawing dated the 12th of August, of 1954, Beckhard and Gatje lay out some alternatives for resolving the roof framing over the link (Figure 3). The drawing is a request to settle a design impasse, and shows three variations for the link roof. The first variation, labeled "3a," shows the laminated girders on the roof of the living wing ending where the link starts. On the drawing itself, Beckhard and Gatje note about this variation; "since this (the link roof) can't be hung by the girders, we cut them off where they stop being useful, but you may want to extend them for architectural effect." The roof of the link is set in from the girders, signaling that another structural system is being used to support the link roof. Alternative "3b" shows the girders passing across the link to the bedroom wing with the roof of the link extending to the line of the girders. The note for this variation reads "link roof hung from girders." Alternative "3c" shows the girders extending across to the bedroom wing but with an opening cut into the roof to let in more light than the "3c" alternative. The note on this alternative states that the roof "can either be hung from girders or framed across link, leaving girder free." In all of the solutions proposed by Beckhard and Gatje, there is a logical extension of one structural and formal system or another already established to resolve the design issue, whether cutting the beam to separate the two wings more firmly or clearly making the roof hung by the girders.

The built solution that we assume was provided by Breuer leaves the girders extending across to the bedroom wing. The roof of the link follows the outline of the floor but does not extend to the girders above. The roof is, in fact, framed by a separate structural system of 2x12 joists. Breuer also cuts back one of the beams reaching across the link so that the visual weight of the beam is lighter. Beckhard's and Gatje's systematic alternatives are dropped for a solution that is based on what looks right from the entrance. The local condition, in other words, the view and experience of entering the house, has much more importance for Breuer than struggling for a totality and consistency of the system.

The importance of the local visual condition for Breuer is again evidenced in a series of perspective sketches made for the client's approval where a fieldstone wall to the left of the entry is shown at three different heights (Figure 4). The height of the wall is not judged in a conceptual manner (how the wall provides a marker between the public and private parts of the house), but instead how the wall contributes to the entry view. The first shows the wall to the top of the fascia and almost fifteen feet high. The second version shows the wall almost to the bottom of the bedroom windowsill. The third shows the wall passing under the link and by the designer's notations on the drawing is the favored solution. Conceptually for the wall to be a clear boundary between the private wing and the public entrance, the tallest version should have prevailed. Yet it is clear in the drawing that the designers felt that the scale of the wall would have been overwhelming because they emphasized the height of the scale person drawn. While in the sketch, the wall of the bedroom wing is shown to be wood board and batten consistent with the rest of the house, the house was built with a white painted brick wall. The painted brick is a remnant of the previous intention to mark the division between public and private. The contrast of brick to wood marks the difference, yet the brick is painted white so not too great a contrast is made with the rest of the house. The painted brick is placed on top of the fieldstone wall, creating a strange juncture between the two materials. In this case, Breuer's unwillingness to promote a single reading or combine through contrast two

competing readings gives the wall a sense of strangeness and ambiguity.

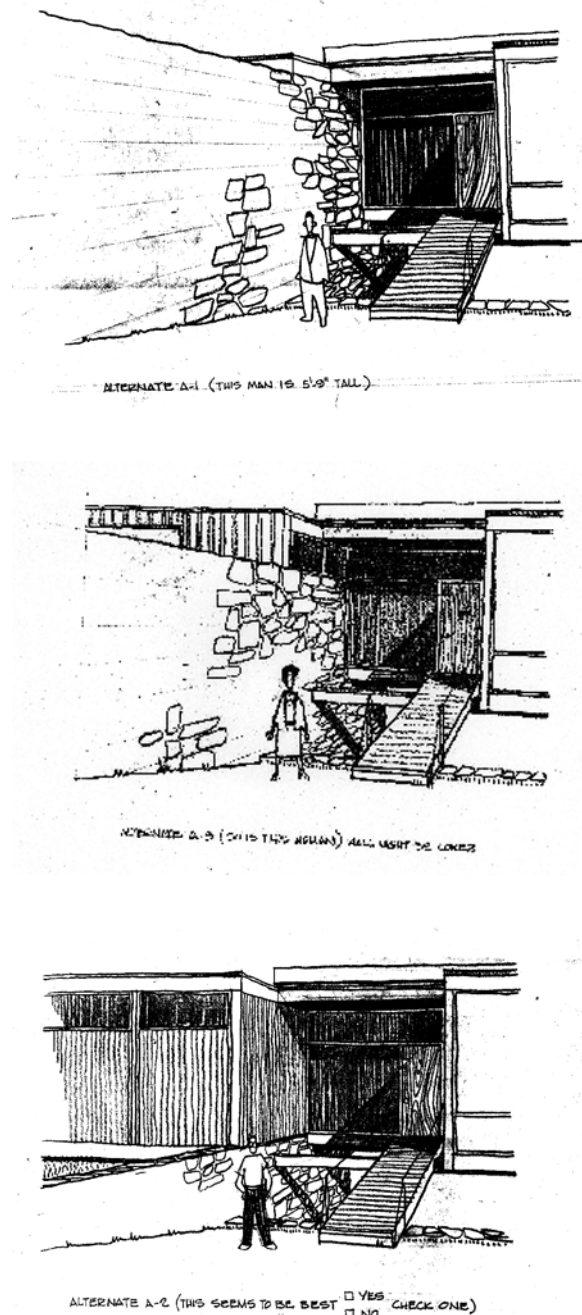


Figure 4: Entry Options

CONCLUSION

The design process of the Starkey House documented in the design drawings illuminates Breuer's additive and discursive design process. It seems that after a basic framework was laid down, Breuer began to make further design decisions based more on local conditions, depending on whether these conditions were programmatic or visual. Jordy and Scully both charge that this approach lead to weak, ambiguous, or detail oriented buildings.

Yet, the context of Jordy's and Scully's arguments was a period of post-war modernism where the fear was that modernism would not amount to a language and an urbanism of its own. The call for a "new monumentality" was sounded, and the work of Mies and the emerging work of Kahn were held up for their classical qualities. Buildings were to be about clarity and edited down to their essential elements in an unyielding formal diagram. The ambiguity practiced by Breuer was seen by his critics as antithetical to a long-lasting, urban architecture.

Today with the fluidity of our world, many practitioners are questioning the value of formal clarity. Breuer's approach where the detail or partial view is allowed to influence the conceptual diagram is certainly a model of 'bottom-up' design. While Breuer begins with a conceptual diagram, that diagram is not allowed to predominate, but instead the struggle between the authority of the detail and the diagram in the design is resolved locally by reference to the perceptual experience. Whether that detail is the visibility of a coat closet or the decreasing of a structural beam system for appearance, Breuer's approach, with its ambiguity and ability to bend and accommodate many different requirements appears as a useful precedent today.

¹ Vincent J. Scully Jr., "Doldrums in the Suburbs", *Journal of the Society of Architectural Historians*, March 1965, p.40

² William H. Jordy, *American Buildings and their Architects*, (Garden City: Anchor Books), 1976, p. 216

³ Ibid, p. 216

⁴ Ibid, p. 215

⁵ Peter Blake, *Marcel Breuer: Sun and Shadow, The Philosophy of an Architect*, (New York: Dodd, Mead & Co.) , 1955, p. 32

⁶ Robert F. Gatje, *Marcel Breuer: A Memoir*, (New York: Monacelli Press), 2000, p. 58.

⁷ Ibid. p. 58

⁸ Robert F. Gatje, *Marcel Breuer* (New York: Monacelli Press), 2000, p.56

⁹ Driller describes this type with Breuer's second house of 1947 as the ideal long house type.

¹⁰ Joachim Driller, *Breuer Houses*, (London: Phaidon Press), 2000, Cat. 62.

¹¹ Ed. Antonio Armesto, "Marcel Breuer, American Houses", *2G*, p. 102-3.