The Representation of Ambiguity on the Spaces of Luis Barragán House and Studio

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Abstract
Luis Barragán House and Studio, designed by Barragán in 1947, is the architect's most representative and significant work. In it, he first established his architectural language in terms of organizing the interaction between physical structure and surrounding nature. This paper focuses on the methodology of Barragán's coordination of a sense of boundary as an intriguing factor in Barragán House. Representations of ambiguity in the house—which contains a sense of openness, extension, and combination—were analyzed, yielding three conclusions. First, overlapped, undefined thresholds and structural fluidity stimulate visual ambiguity by implying spatial integration. Second, the adjacent juxtaposition of functionally diverse spaces creates spatial tension and leads to the effect of a vanishing, filmy boundary. Third, spatial experience penetrates the distribution of invisible boundaries such as light, memory, and sensuous synthesis, which renders phenomenological diffusion as a temporary, but rather dominant, ambiguity. The paper concludes that Barragán's spatial ambiguity does not represent disorder or confusion, but a methodology for the embodiment of his emotive architecture. It does so through still, simple, and minimal spatiality that refers to both tangible and invisible attributes and operates as a key factor in understanding the intrinsic quality of attraction and resonance in Barragán's spaces.

Keywords: Luis Barragán; Barragán House; ambiguity; sense of boundary; vernacular architecture

1. Introduction

1.1 Background
"Quiet Revolution" is a title that appropriately describes Luis Barragán's attitude toward space, architecture, and life. At the same time, it also refers to the criticism, interpretation, and appreciation of his works. However, an authentic appraisal of emotional architecture—the key feature of his work—requires a detailed observation of Barragán's spatial composition. His architecture is simple, gentle, and extremely abundant, and it requires a decisive choice of meaningful reinterpretation, rather than mere description. As Barragán declared, "I believe in emotive architecture," (Smith and Adin, 1968) and "My house is my refuge, an emotional piece of architecture, not a cold piece of convenience" (Pauly, 2002, p.214). Thus, the investigation of the structure of his representative projects is an essential step toward the understanding of his emotive architecture.

The exemplary Barragán House and Studio demonstrates the distinctive methodology of an existing spatial order. This experimental project, begun in 1947, generated Barragán's architectural language in terms of organizing the interaction between physical structure and surrounding nature. The combination of form, material, color, light, and nature—such as trees and flowers—in this house functions as an identity that establishes a unique boundary condition. Barragán appears to have used his intuition to design a sense of boundary as an intriguing factor in his house. The dispersion of boundaries at Barragán House leads to an effect of ambiguity, which yields a simultaneous sense of openness, extension, and containment. These transitional moments are a key feature for understanding the intrinsic quality of the attraction and resonance of this space.

1.2 Aim and Methodology
This paper aims at an anatomical analysis of the dispersion of boundaries at Barragán House. It attempts to clarify the elements that compose these boundaries and their state of dispersal among Barragán's diverse spatial strata. General information on Luis Barragán House and Studio and its relationship to Barragán's other houses is described in Section 2. This will provide logical connections between his mesmerizing space and its ambiguity. In Section 3, three
representational types of ambiguity will be categorized according to the texture that forms each boundary, such as its physical, functional, and phenomenal attributes. Ultimately, the distribution of Barragán's entire space combines and integrates, generating an emotional piece of architecture.

2. Spatiality of Luis Barragán House and Studio

Luis Barragán designed Barragán House in 1947 on a homogeneous street in the middle of a modest neighborhood in Tacubaya. Like many of Barragán's other houses, the homogeneity of its façade implies his careful consideration of the intrinsic quality behind it. When Louis I. Kahn visited the Studio House in Tacubaya, he felt immediately attuned to the intimate atmosphere. As Kahn himself remarked, "His house is not just a house. It is the house. Everyone can feel at home there. Its materials are traditional, and its character eternal" (Pauly, 2002, p.170). This house allowed Barragán to establish his own architectural language, with walls, gardens, and lights that he continued to develop in later years at the Chapel for the Capuchinas (1952-55), Antoni Galvez house (1955-57), Gilardi House (1976), and Barbara Meyer House (1981). Since this paper attempts to focus on the issue of a sense of boundary, this section concentrates on the spatial layout mainly in the ambiguous moments dispersed on the Luis Barragán House and Studio.

As Barragán stated, "It is essential that an architect know how to see." The ability to see the various aspects of architecture leads the perceiver to sense its intrinsic value. In a given space, one's eyes can follow a boundary at which an edge is formulated and will stop where the view is blocked. Barragán House contains abundant spaces full of multiple boundary conditions, wherein one's gaze drifts across the space. Therefore, the sense of boundaries functions as a critical component that integrates the house's overall spatial organization in terms of experiencing the space all the way through.

As Barragán's spaces are simple and minimal, the status of their boundaries also represents simplicity. What embodies substantive spatial structure is not a singular boundary, but a group of boundaries. Barragán had an instinctive attitude toward creating subtle arrangements to adjust the strength of boundaries according to their spatial effect. Sometimes he overlapped layers in order to maximize the enclosure effect with partial openings, or concealed a particular piece to erase the boundary line for the effect of spatial synthesis. In other words, it can be said that Barragán's ambiguity indicates the state of boundaries in his architecture.

He was also interested in the concept of intermediate conditions. "Architects are forgetting the need of human beings for half-light, the sort of light that imposes a tranquility, in their living rooms as well as in their bedrooms," he stated. "We should try to recover mental and spiritual ease and to alleviate anxiety, the salient characteristic of these agitated times, and the pleasure of thinking, working, conversing are heightened by the absence of glaring, distracting light" (Smith, 1967, p.74). He also said: "I attentively studied light and colour, because I wanted to create an atmosphere of stillness and spiritual meditation. The idea of semi-darkness was very important in this project. I underline the study of colour above all" (Pauly, 2002, p.148). Barragán's sense of semi-darkness, or half-light, not only involves the intensity of light but also refers to the entire atmosphere created by the balance between walls, colors, material, and structure. This may be a matter of visible property, or of invisible features such as memory and serenity, as Barragán emphasized in interviews. In a 1980 speech at the presentation of the Pritzker Architecture Prize, he stated: "Serenity is the great and true antidote against anguish and fear, and today, more than ever, it is architect's duty to make of it a permanent guest in the home, no matter how sumptuous or humble. Throughout my work I have always strived to achieve serenity." He was clearly well aware of the interplay between tangible and emotive elements in his work.
particular pieces. Various architectural layers are found in a single glance at this scene, which is full of meaningful resonance representing ambiguity. The ambiguity here does not involve illogical criteria, but refers to the possibility of the connection of adjacent, undefined elements. The classification of these elements and the specific procedure of their integration will be discussed in the following section.

3. Representations of Ambiguity
3.1 Physical Boundary

The layout of walls, variation of levels, quality of materials, and use of colors determine the tangible boundaries of Barragán House. The combination of these settings creates the effect of layers and overlapping views, which represent the ambiguity of the overall atmosphere. There are two main attributes of this visible ambiguity: undefined thresholds and structural fluidity. Both suspended boundary and spatial flexibility offer a scope of uncertainty within the physical layouts, stimulating their uniquely ambiguous sense of tangible integration.

3.1.1 Undefined Thresholds

As Barragán initially emphasized the significance of enclosures within dwellings, he also investigated ways in which to coordinate architectural language in the ambient joints at which spatial enclosures are formulated. His elaborate approach established specific patterns that created a sense of a continual, enclosed room with open edges. This undefined threshold renders the sense of a multi-layered enclosure and strengthens the sensuous ambiguity of the space at the same time.

Furthermore, these partially open walls not only produce layering effects, but can also be perceived as a form of unspecified ambiguity, especially when they have intersecting layouts. Here, Barragán seems to have focused more on how to disperse the relationships among the enclosure-ness of his house than on how to create a single powerful unit. Thus, it seems probable that Barragán saw the partially open thresholds in the house as a means of weaving together its structural tissue. This undefined scope extends the function of walls from division to integration. Other houses designed by Barragán also adopted the undefined threshold as an indigenous feature.

Intentionally effacing certain objects also creates another aspect of the undefined threshold. Effaced stair banisters and missing furniture legs stimulate the sense of integration as a whole. The stairs in the entrance hall and library, which lack handrails, enhance the concept of visual synthesis between a main body and its attached parts. Even the underneath white color helps the threshold pervading vanishing process. The conception of a vanished object opens up the idea of extended parts folding out from existing objects. Essentially, physical ambiguity implies spatial connection.

3.1.2 Structural Fluidity

Barragán House contains various places in which flexible structures provide selective situations. Barragán devised particular types of doors and windows that have various degrees of opening according to the user’s immediate needs, direction, or time. This selective alteration provides another form of augmented ambiguity, other than rigid structure. Moreover, even fixed walls assume different expressions according to the color and texture of the adjacent walls as a reflection. The walls in the cloth room (Fig.5.-(R)) on the second floor bear the property of yellow even though they do not have any such attributes. The gradual transition of such attributes molds an innate spatial appearance, while transient, continuous fluidity becomes another factor of the house’s ambiguity. This fluidity creates variations on situation and time, and the experience penetrating all of these various aspects maximizes the house’s undefined ambiguity.
3.2 Intrinsic Attributes

Another ambiguous aspect of Barragán House stems from the intrinsic role that the space initially played. This is more of a functional dimension that extends to the level of the perceiver's awareness than a physical structure of the kind discussed above. These invisible properties lead to a methodology that can compound, juxtapose, or reverse the house's primary functions.

3.2.1 Nature/House

Barragán consistently investigated the relationship between dwellings and their surrounding nature. He maintained a strong identity as a landscape architect as well. Barragán House has a main garden on the west side, which the living room faces. He accentuated the daily intimate communion with nature, stating, "Architecture, besides being spiritual, is also musical. That music is played with water. The importance of walls is that they isolate one from the street's exterior space. The street is aggressive, even hostile. Walls create silence. From that silence you can play with water as music. Afterwards, that music surrounds us" (Saito, 2002, p.25), and, "In the gardens and homes I have designed, I have always endeavored to allow for the placid murmur of silence. In my fountains, silence sings" (Artes, 1999, p.74). To Barragán, a garden was a place of meditation where spiritual and musical moments permeate mundane routines.

Barragán presented a prudent approach in the places where inner dwelling space encounters nature in the house's living room (Fig.6.). He omitted the general mullion on the window frame and attached a single window the size of a whole wall facing the garden. The window as a façade becomes a thin film that directs the dramatic spatial tension with the effect of a vanishing, filmy boundary. All of a sudden, the separation between landscape and house disappears through a vague boundary, like a light membrane.

3.2.2 Main Space/Service Space

The service spaces in Barragán House are located between the primary living spaces, bedrooms, and dining areas. They have been inserted via both horizontal interposition and vertical adding, creating level differences. There are spatial gaps amid the inserted service spaces, and Barragán made use of those locations in his design strategy. The boundary between main space and service space in Barragán House contains additional furniture and features, including a bench at the house's entrance (Fig.7.) and a split window underneath the indoor service patio on the third floor, which drops light onto the main stairway hall on the first floor. The attached stairway space (Fig.2.) with its adjusted level differences also functions as a connecting piece through its surrounding wall with a partial opening at the top.

Fig.7. Entrance on the First Floor (L) and Split Window (R) (Photo Courtesy of Yutaka Saito (L) and Luis Barragán House and Studio (R))

3.3 Phenomenological Diffusion

From a phenomenological perspective, Barragán house offers a multi-sensuous experience, interplaying with light, sound, memory, movement, and emotion. While this natural phenomenon creates temporary ambiguity, its intensity is rather dominant. The intangibility of phenomenological diffusion has divergent criteria, whereas physical or functional attributes have visible contact boundaries.

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3.3.1 Permeating Light

There are two types of light in Barragán House: direct light and half-filtered light. The degree of light connects to the concept of serenity. To avoid glare from direct light, Barragán positioned additional pieces, such as awnings, covers that open and close, and deeply shaded zones. He often used lattice windows (Fig. 8.) to create the kind of half-light that he emphasized. The lattice window in the living room is an early style of Barragán’s, which he continued to develop in the Chapel for the Capuchinas (1952-55) and the Barbara Meyer House (1981). Lattice windows not only filter light, but also penetrate one’s perception as a boundary plane. The one at the entrance to the Chapel for the Capuchinas implies the transition between mundanity and spiritual sanctuary, rendering them glimpses of each other. Although the early version in Barragán House is more passively transparent than later examples, it still opens up the possibility of the connection between porosity and ambiguity. Filtered half-light has ambiguity in that it lies somewhere between transparency and opacity.

3.3.2 Bringing Memory and Cognition

Juan Palomar described Barragán as an alchemist of memory (Artes, 1999, p.76). Indeed, Barragán was masterful at drawing inner memory from an architectural atmosphere. The moods that he designed relate to the original character of a given site, the particular objects in common awareness, or the general cognition of a spatial structure. A wooden chair stimulates a sense of meditation, while the Jacaranda tree in the middle of Gilardi House (1976) traces back to the origin of that project. Sometimes Barragán reverses common awareness by rendering illusionary moments. For instance, he colored the water black in the patio pool at the Chapel for the Capuchinas (1952-55), creating an illusion of depth. In addition, the color of the walls in Barragán House operates as a cognitive process by matching the color of the materials in each room. The doors’ textures are normally different from that of the walls, providing a guideline for visitors’ perception and movement. Thus, the process of stimulating memory creates an intangible integration, especially amid the discordance between visual form and cognitive sense, which leads to other spatial properties.

4. Conclusion

The architecture of Luis Barragán is based on the concept of integrating tangible structures with invisible values. This paper focused on Luis Barragán House and Studio, which UNESCO added to its World Heritage List in 2004, as the most representative example of this concept. In this project, Barragán experimented with breaking the rigid spatial frame and representing the continuous superimposition of undefined boundaries. It is hard to recognize the precise composition of this space; however, it is clearly rich and abundant because it is full of spatial ambiguity. Concealed pieces of boundaries and discordant distribution maximize this effect. Those features continued to be used in his later architecture, and became a pattern within his architectural language.

This paper’s main analysis concentrated on the total experience of Barragán House. It analyzed the physical structure of the house in terms of boundary conditions, examined the issue of how the given space is used, and revealed how the perceiver can penetrate and sense the status of phenomenological diffusion within the house. Barragán was not an architect who created diverse discourses on his architectural theory; his tracing process would have been delicate enough not to merely describe the work’s separate traits. This paper concludes that Barragán’s spatial ambiguity does not represent disorder or confusion, but provides a methodology for the embodiment of his emotive architecture. It does so through still, simple, and minimal spatiality that refers to both tangible and invisible attributes and operates as a key factor in understanding the intrinsic quality of attraction and resonance in Barragán’s spaces.

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