# **Consequential Encounters: Luis Barragán's Influence** on Louis Kahn

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Figure 1: Barragan's Study: The Place of the Encounter (author)

I sense Light as the giver of all presences, and material as spent Light. What is made by Light casts a shadow, and the shadow belongs to Light. I sense a Threshold: Light to Silence, Silence to Light – an ambiance of inspiration, in which the desire to be, to express crosses with the possible.<sup>1</sup> Louis Kahn, 1969

Light defines mood and animates material. "Kahn conceived of light as an idealized material..."<sup>2</sup>, and stated, "Light is material life".<sup>3</sup> Luis Barragán was widely recognized for his architectural expression of "sensual and passionate light".<sup>4</sup> These two soulful men of similar age and interest shared a momentous exchange that expanded Kahn's attitude about *light* and awakened him to *silence* as a handmaiden to *light*. Silence is the singular and intimately felt quiescence of pure luminosity. Take away sound. Render smell and touch ineffectual in relation to objects beyond their reach. Then, the play of light becomes the whole of sentient perception. As in cooking, reduction concentrates the essence. And it was Barragán whose first probings at this intersection of the auditory and the visual exposed an intellectual current that would in time envelop the work of both men. The source and meaning of this current, the manner of its transference from one architect to another, its evolution in transit, and its ultimate consequence for the work of these two giants of architecture are the subject of this discourse.

Following a brief, but inspiring meeting at the Salk Institute, Louis Kahn visited Luis Barragán at Barragán's home in Mexico City in late April 1966.5 Kahn was impressed with Barragán's austere vocabulary, and Kahn would surely have understood and echoed the sentiments expressed in the citation for Barragán authored in 1980 by the Pritzker Jury, had he lived so long. These described Barragán's "commitment to architecture as a sublime act of poetic imagination." Kahn's searching conversation with Barragán on that spring day in Barragan's home was, it seems, unusually evocative and insightful. The discussion was wideranging, traversing subjects so disparate as art and architecture, literature, music, tradition, spirit, silence, and the play of light on form. Kahn made this clear in several lectures given subsequently, praising Barragan.<sup>6</sup>

It was Barragán himself who introduced Kahn to Barragan's ideas about *silence* and inspired Kahn to sharpen his appreciation of the power of *light* in relation to his future writings and projects. This paper sorts out the sequence of events surrounding their encounter, discusses Barragan's efforts to join together the concepts of *light* and *silence*, and compares Barragan's and Kahn's writings on the subject. By doing this we may further understand Kahn's writings and designs regarding the interplay of *light* and *silence*. And in so doing we begin to uncover Barragan's seminal influence, and how this intellectual stock took root and then was shaped by Kahn's own design vocabulary.

#### THE ENCOUNTER

On a quiet, cool April afternoon in 1966 two aging architects, Louis Kahn and Luis Barragan, "gathered in good company"<sup>7</sup> for a noteworthy conversation at Barragan's home in Colonia Tacubaya in Mexico City. This encounter was the result of an earlier invitation by Kahn to Barragan to collaborate on the design of the "garden" located in the center of the Salk Institute laboratory buildings.<sup>8</sup> Richard Ingersoll, the architectural historian who wrote about Barragan, reports that at the time Barragan's work was not well known:

Kahn, however, had noticed Barragan's landscapes in a 1964 publication, *Modern Gardens in the Landscape*, which featured a few photographs of the gardens in El Pedregal and Las Arboledas. After considerable difficulty communicating his identity and his intention to invite the Mexican architect to design the central court of the Salk Institute, Kahn eventually arranged to visit Barragan.<sup>9</sup>

As reported by Robert Mc Carter in his book on *Louis Kahn*, Kahn recalled the following of Barragan's eventual visit to the Salk Institute's laboratories and its undeveloped interior "garden:"

When [Barragan] entered the space he went to the concrete walls and touched them and expressed his love for them, and then said as he looked across the space and towards the sea, 'I would not put a tree or a blade of grass in this space. This should be a plaza of stone, not a garden.' I looked at Dr. Salk and he at me and we both felt this was deeply right. Feeling our approval, [Barragan] added joyously, 'If you make this a plaza, you will gain a façade—a façade to the sky.'<sup>10</sup>

Ingersoll notes however, "Whether or not Barragan designed the spaces of the Salk courtyard is doubtful; that some sort of drawings were prepared by his office and that he was paid \$1,000 by Kahn's office, however, is documented."<sup>11</sup>

There are conflicting statements by several scholars<sup>12</sup> about to whom credit for the water channel in the Salk courtyard rightfully belongs. This water motif has long been associated with designs by Barragan. His early embrace of this landscape motif was inspired by his visits to Europe, to the monastery of San Francisco at Assisi, and to the Alhambra in Granada, Spain. McCarter asserts compellingly that the Salk Institute's unplanted stone plaza is clearly an expression drawn from the poetic imagination of Barragan. Bolstering his case, he points out that Kahn's original sketch for the Salk courtyard, prior to Barragan's involvement, shows two rows of trees and a central channel of water. But McCarter also notes that the completely paved central courtyard at the monastery of San Francisco at Assisi might additionally have influenced Kahn or made him more receptive to Barragan's proposed treatment of the space. Kahn, however it seems, somehow lost sight of that inspiration during the design development of the project. McCarter reminds us as well that the unrealized design of the Salk Meeting House courtyard had a central water channel reminiscent of a favorite garden of Kahn, in the Alhambra in Granada, Spain, which is very similar to the laboratory's courtyard water channel which of course had itself inspired Barragan himself.<sup>13</sup>

Notwithstanding knowledge of all of the details of the exchange between Barragan and Kahn, a friendship and genuine admiration—each for the other—began that day in La Jolla between the two. A gracious Mexican invitation to visit his home and to see his projects was undoubtedly proffered by Barragan. Kahn's desire to delve deeper into common ground led to the second and final, and even more consequential, April meeting in 1966, in Mexico City.

Barragan came from a privileged family. He lived alone in proud solitude that fostered what could seem an intellectual idleness. He read extensively. He had close friends who met regularly at his home for worldly conversation about sublime topics. He nursed philosophical views acquired over his lifetime and arising from the peculiar circumstances that orchestrated his life and work. And he, Barragan, was an imaginative communicator about his own ideas, an active proponent able to frame them in a manner able to enlist converts.

Kahn came from a decidedly different culture and an impoverished family. Nevertheless, he was

similar to Barragan in important ways. Their early schooling in the Beaux Arts style, their professional awakening during their individual trips to Europe, their flirtation with Le Corbusier's ideas, their unorthodox secret life styles, and their mutual capacities for self-justification all seem to have enabled a bridge transcending their distinctive personal histories.

Kahn's following statement beautifully if disjointedly summarizes this type of design evolution:

he gets it [inspiration] also from another beautiful source, and that is through the experience or the Odyssey of life that goes through the circumstances of living and what falls as important are (sic) not the dates or what happened, but in what way he discovered man through circumstances. It's the golden dust that falls which, if you put your fingers through, you have the powers of [creativity].<sup>14</sup>

Their lengthy and provocative conversation was a delight to both men. However, Barragan was the provocateur. His ideas dominated the conversation and expanded Kahn's views. Ingersoll offers the following observation:

Kahn's encounter with Barragan seems to have triggered a subtle change in the former's compositional method (apart from Le Corbusier, Barragan is the only modern architect to whom Kahn refers frequently in his lectures). From a strict order of repeated components Kahn moved to a more relaxed organization of them, reminiscent of Barragan's "emotional" method.<sup>15</sup>

# THE WRITINGS

Kahn's writings after April, 1966, reflect a sharpened attitude about *light* and introduce its helpmate *silence*. To understand this, Barragan and Kahn's conversation must be reconstructed. Barragan's design ideas are summarized many years later in his Official Address, for the 1980 Pritzker Architecture Prize given at Dumbarton Oaks. These remarks are the most essential text in existence that describes his personal sources of inspiration. The following phrases drawn from his searching and introspective Pritzker address—his most fully wrought account of his own design sensitivities—undoubtedly provide a window upon the thoughts, offered with such insistence, to Kahn 14 years earlier:

...It is alarming that publications devoted to architecture have banished from their pages the words beauty, inspiration, magic, spellbound,

enchantment, as well as the concepts of serenity, silence, intimacy and amazement. All of these have nestled in my soul, and though I am fully aware that I have not done them complete justice in my work, they have never ceased to be my guiding light...Silence. In the gardens and homes I have designed I have always tried to allow for the interior placid murmur of silence, and in my fountains, silence sings...Being a Catholic, I have frequently visited with reverence the now empty monumental monastic buildings that we inherited from the powerful religious faith and architectural genius of our colonial ancestors, and I have always been deeply moved by the peace and well-being experienced in those uninhabited cloisters and solitary courts. How I have wished that these feelings may leave their mark on my work...Nostalgia is the poetic awareness of our personal past, and since the artist's own past is the wellspring of his creative potential, the architect must listen and heed his nostalgic revelations.

Several important themes emerge from these words. First, he emphasizes the importance of creating designs that convey a sense of mystery, surprise and fascination. This may explain the design moves that Ingersoll observed. Second, Barragan refers to the direct reference to *silence* to be found in his water fountains. Those fountains often featured still water or the very gentle movement from water inlets. And, thirdly and most importantly he reveals the great inspiration of his mature work, namely the 16<sup>th</sup> century Mexican monasteries. When Cortez conquered Mexico in 1523 a huge building effort commenced. It was to persist over three-quarters of the ensuing century. One hundred monastic settlements were built that were loosely modeled after northern monasteries of Spain. These monasteries were never fully occupied because the church in the end did not allow the indigenous people to become clergy members and there were not enough Spanish clergy to fully occupy the structures. Eventually abandoned, they were in time accessible for all to experience. For Barragan their impact was profound and lasting. Their heavy plastered walls, beamed high ceilings have been recognized as a primary generator for Barragan's work.<sup>16</sup> Most important, is the sense of solitude and spiritual silence one feels from the guiet sunlight entering through the small window openings in these largely intact ruins. These features Barragan absorbed into his own design motifs.

Barragan's thoughts about *nostalgia* must have resonated with Kahn. Barragan's love for the

16<sup>th</sup> century monastic structures paralleled Kahn's affection for castles not the least of which was the 14<sup>th</sup> century Bishop Castle at Kuressaare, Estonia where Kahn was born. Barragan's spiritual interest in monasteries and Kahn's secular interest in castles permeated their architectural thought. Further, Barragan's explanation about *tradition* must have found resonance with Kahn's own sense of time and the track of history. They both believed that the essential *first principles* of traditional structures were available for appropriation, but not the designs themselves. Antonio Riggen Martinez, the Mexican historian who wrote about Barragan explains:

He [Barragan] believed that the traditionalist is the individual who designs for his or her own time while an enemy of tradition is instead the individual who realizes architecture in imitation of the past.<sup>17</sup>

Kahn's numerous speeches and less frequent articles give us a clear enunciation of his thoughts prior to 1966 and thereafter. Comparing across this temporal divide we have a basis for inferring the consequence of his encounters with Barragan. Following those encounters we find a significant change in his design vocabulary and in his manner of expression. This no more emphatically demonstrated than in the articles entitled, *Silence and Light I* (1968) and *Silence and Light II* (1969). In these articles he writes explicitly about Barragan's manner of design and its seminal influence upon his own thinking. All of his subsequent narrative speculations record and reinforce his willful assimilation of its central tenets.

Robert Twombly, architectural historian, underscores by implication the essential contrast between Kahn and his modernist contemporaries in his edited volume entitled *Kahn's Essential Texts*:

"Subtleties of natural light and color were not much appreciated by modernist architects at midtwentieth century; nor were architects of that era apt to ruminate about the spiritual qualities of historical design—religious structures excepted, of course—that captivated him [Kahn] so."<sup>18</sup>

But, of course, it was Barragan who, it appears was first to plant the seed that became an intellectual pillar in Kahn's own thinking on the role of light. **Prior to 1966** Kahn said this of light: "There is another thing—light must also be there."<sup>19</sup> In another 1959 article Kahn states: I would say that dark spaces are also very essential. But to be true to the argument that an architectural space must have natural light, I would say that it must be dark, but that there must be an opening big enough, so that light can come in and tell you how dark it really is – that's how important it is to have natural light in an architectural space.<sup>20</sup>

These statements do of course underscore Kahn's belief that light defines form and space. Without light and shadow there can be no understanding of the space. The statement hints of the potential of light to add drama of the space. But take note of the banality of these pre-1966 utterances. In these, light is simply a medium to be manipulated, not a repository of intimate wonder or an enabler of the personal joys that arise at the intersection of silence and light. Light, that is, is not informed by silence in Kahn's pre 1966 decidedly utilitarian statements. And while silence is by definition an absence of sound, its effect is something more. The absence of sound is an elevation of light as the bearer of meaning, as sentient individuals encounter natural and built forms. Silence, moreover, for Barragan is associated with that singularity of experience associated with highly personal confrontations with the spaces that surround, as in the old monastaries of Mexico. There supplicants met God in the reverential silences encompassed in religious architecture where intimate and infinite merge. Kahn's castles bore history but no such meaning.

Kahn also writes elsewhere about the inability of artificial light to replace natural light. The pragmatics of task lighting is addressed in the following statement:

People need light and I place as much emphasis on light as I do there. To place something near the light is only a momentary advantage. I can build a room here and build a file and borrow the light from here. I shouldn't think I have to get near the light, necessarily, if I need light.<sup>21</sup>

**After 1966** Kahn's writing expands on the subject of light and its inner-relationship with silence. Twomby explains:

Kahn did not necessarily use words in the same way as other people, or mean the same things by them. "Silence" and "light" are but two of many that in his thinking carried much greater significance (bordering on the meta-physical) than their dictionary definitions allow, but which can nevertheless be understood through careful consideration.<sup>22</sup> Consider the rival definitions of *silence* as offered by Riggen Martinez and Twombly:

[For Barragan] the term "silence" suggest a serene attitude, one open to depth, to truths, to what chatter cannot understand but must conceal...his silence was not devoid of sounds but was a field planted with every authentic expression, whose resonance renewed the silent condition. Barragan created silent and isolated spaces and shapes, protected from the external world, built not to satisfy the material desires of those who lived there but to favor the blooming of their spirit and to inspire them to meditate and think...<sup>23</sup>

[For Kahn] Silence is a void, not a place but the desire—a 'commonality,' he calls it in these texts— of every person to create, which for Kahn was the same thing as being alive. Light was 'the giver of all presences,' themselves 'spent light.' He meant, quite literally, that light enabled people to see and experience space and structure: No light meant no architecture. Shadow is not the absence of light but the result of its interplay with material, hence 'the shadow belongs to the light.<sup>24</sup>

For Barragan silence was "the blooming of the spirit...to inspire... (persons) ....to meditate and think." Light must inspire the participant to become focused even mesmerized by the light, to retreat deep within themselves, and call forth their clear primary thoughts and actions. Light and silence have a deeper meaning than to just illuminate. For Kahn silence was the "desire to create." For both, the light must be restricted to defined openings. The modern interest in removing large areas of the building envelope will not provide the kind of mystic light needed to create. Kahn elsewhere celebrates that ancient day when windows broke through the wall plane allowing for the passage of light to previously dark interior spaces.

The following statements taken from Kahn's post 1966 writing flesh out these ideas further and demonstrate the subtle evolution of Kahn's thoughts about *Light* and *Silence* and their association with inspiration:

[For Kahn] I sense Light as the giver of all presences, and material as spent Light. What is made by Light casts a shadow, and the shadow belongs to Light. I sense a Threshold: Light to Silence, Silence to Light – an ambiance of inspiration, in which the desire to be, to express crosses with the possible.<sup>25</sup>

and

When you see the pyramids now, what you feel is silence. As though the original inspiration of it may have been whatever it is, but the motivation that started that which made the pyramids, is nothing but simply remarkable.<sup>26</sup>

## THE CONSEQUENCES

These writings reveal an important new understanding for Kahn, which he communicates to admirers and students through his lectures and writings. Beyond these lessons, the question arises: did this new understanding of the relation between *light* and *silence* affect his architecture or simply the substance of the accompanying narrative? Prior to 1966, Kahn writes about the way natural light coming from the skylight in the stairway in the Yale University Art Gallery (1951-53) and defines the space. The Esherick House (1959-61) exploits the use of light and shadow. And, certainly the natural indirect lighting of the First Unitarian Church and School (1959-69) is a spatial tour de force.

Of special interest also, are the plans for the unbuilt United States Consulate Chancellery and Residence in Luanda, Angola (1959-62), where Kahn focused on issues of sunlight. The double exterior wall he proposed pragmatically addressed issues of glare and the harsh heat, and spawned the beginnings of the encirculating ambulatory outdoor spaces in the Salk Institute (1959-65), the Indian Institute of Management in Ahmedabad, India (1962-74), the Bangladesh National Capital in Dhaka, Bangladesh (1962-74), and other of his projects. However, Kahn's use of light became more nuanced and the purposes so served more fully and dramatically expressed after 1966.

Was Kahn's ambition to create spaces that coalesced *light* and *silence* in the exact manner of Barragan? The answer would have to be "no, of course not". Barragan created small intimate spaces. Generally his light sources were skylights or single small windows placed high on the wall that protected his privacy. In his study where he spent most of his time reading and meditating the same place where his conversation with Kahn would have occurred—the window was high above his desk in the two story space. The sunlight entered the room in rays. The seasons, and local weather conditions were evident in the light. As one gazes at the sunrays, particles of dust slowly move in space and one is lost in thought. The quiet orthogonal geometry of the room hardly competes with its meditative silences. This is the light that bears the *silence* that Barragan spoke about. Barragan also uses this meditatively penetrating light strategically, placing it along the primary path of circulation. This has the effect of leading the participant through a series of almost ritualistic movements, as the body negotiates the surround.

Although Kahn's work after 1966 was a mix of large institutional buildings and religious buildings, he nevertheless found occasions deliberately to employ meditative expressions of *light* and *silence* that were not fully developed in his earlier works. In the Kimbell Art Museum auditorium there is a published photograph of a meditative Kahn leaning against the end wall where the speaker would stand. A stream of sunlight crosses the wall. The auditorium is empty. A place where ideas are shared is enhanced by the *light* and the *silence*.

Again, we see light streaming into the prayer hall of the Assembly building in the Bangladesh National Capital; in the study carrels at the Phillips Exeter Academy Library; and in the deep porch of the Kimbell Art Museum. In the computer generated images of the unbuilt work in the sanctuary of both the Mikveh Israel Synagogue for Philadelphia and the Hurva Synagogue for Jerusalem; and in the 'side street' circulation space of the main congress hall for the proposed Palazzo del Congressi in Venice, Italy, we see this mesmerizing sunlight. All of these are apt settings for personal reflection. Silence focuses ones attention on both the environmental residual-light-and this opens the mind to the other tasks of personal reflection. Indeed, such *reflection* is an act of inward appraisal as if mirrored—as light itself—off an external point of reference.

Perhaps, as Barragan recognized the rhythmic articulation of structure as he experienced the columns of monastic cloisters, Kahn also articulates with a cadenced light in his design of the Phillips Exeter Academy Library and the proposed Palazzo del Congressi in Venice:

Structure is the maker of light. A column and a column brings light between. It is darkness – light, darkness – light, darkness – light. From the column we realize a simple and beautiful evolvement of rhythmic beauty from the primitive wall and openings.<sup>27</sup>

The encounter between Barragan and Kahn has been little more than an interesting footnote in the scholarly tomes assessing their accomplishments. And yet, as we study Kahn's post-encounter writings and works we find a far more nuanced and sophisticated understanding of the potential interplay of light and silence. The encounter, it seems, was profoundly transformational. In Kahn's early work, the pragmatic and programmatic requirements of natural sunlight as form-giver and illuminator were primal. Only later following his consequential encounters with Luis Barragan did Kahn's treatment of the interplay of light and silence give rise to spatial and structural forms that, to this day, fill the sentient viewer with thoughts simultaneously of both intimate awareness and shear awe in the beauty of sublimely illuminated structures and spaces. Indeed, visiting the works of each man inspired-for this viewer at least-a deep and personal examination of ones own values and aspirations. It connects one to his inner discourses about primary principles that could guide life and work. In ways too obscure for words, the experiencing of their works nudges us forward, transformed by the ineluctable modalities of the visual.

### ENDNOTES

1. Louis Kahn, "Silence and Light (1968, 1969)," in Robert Twombly, ed., *Louis Kahn Essential Texts* (New York: W. W. Norton & Company, 2003), p. 229.

2. Robert McCarter, *Louis Kahn* (New York: Phaidon Press Limited, 2005),p. 175.

3. Kahn, "The Room, the Street, and Human Agreement (1971)," p. 259.

4. Tadao Ando, "To Luis Barragán," in Federico Zanco, ed., *Luis Barragán: The Quiet Revolution* (Milano, Skira Editore, 2001). p. 12.

5. Mark Treib, "A Setting for Solitude: the Landscape of Luis Barragan," footnote 24, in Federico Zanco, ed., p.137.

6. Kahn, "Space and Inspiration (1967)" and "Silence and Light (1968, 1969)", pp. 220 – 251.

7. Kahn, p.227.

8. Maria Emilia Orendain, "El diario de un alma" in *en Busca de Luis Barragan,* (Guadalajara, Jalisco: Ediciones de la Noche, 2004), p.54.

9. Richard Ingersoll, "In the Shadows of Barragan," in Federico Zanco, ed., *Luis Barragan: The Quiet Revolution*, (Milano, Italy: Skira Editore, 2001), pp. 219-220.

McCarter, "Salk Institute for Biological Studies," p. 204.
Ingersoll, p.220.

12. One example of this is Danielle Pauly, *Barragan: Space and Shadow, walls and Colour* (Basel, Switzerland: Birkhäuse, 2002), p. 86.

13. McCarter, p.205.

14. Kahn, "Silence and Light II (1969), p. 239.

15. Ingersoll, p. 220. Ingersoll further states, the Kimbell Museum (1966-72), for instance, while symmetrically

arranged and based on the repetition of cycloid vaults, displays several qualities that seem inspired by Barragan's sensibility. Most importantly, none of the spaces is approached axially. Some sort of obstructing element, such as the bosque of yupon trees on the front entry, or the staggered placement of the three internal courtyards, creates a series of intimate settings and forces the visitor to meander through the museum despite its open plan. Kahn's reaction to Barragan's spaces - "Small places/ In their tranquility can be found the repose which is the beginning of belief" - seems to have conditioned his own. The surprise of different qualities of daylight entering the galleries through the protected shafts of the courtyards, through the pinched clerestories and through baffled monitor slits in the vaults created new opportunities for shadows.

16. Juan O'Gorman pejoratively asserted the common view that Barragan's work was "nothing more than 'convent moderne.' Keith L. Eggener, *Luis Barragan's: Gardens of El Pedregal,* (New York: Princeton Architectural Press, 2001), p.89.

17. Martinez, pp. 171-174.

18. Robert Twombly, "Introduction, Kahn's Search," *Louis Kahn Essential Texts* (New York: W.W. Norton & Company, 2003), p. 9.

19. Louis Kahn, "Talk at the Conclusion of Otterlo Congress (1959)" *Louis Kahn Essential Texts* (New York: W.W. Norton & Company, 2003), p. 50.

20. Kahn, "Talk at the Conclusion of Otterlo Congress (1959)," p. 53.

21. Kahn, "Lecture at a Conference on 'Medicine in the Year 2000' (1964)," p. 174.

22. Twombly, "Introduction, Kahn's Search" p. 17.

23. Antonio Riggen Martinez, *Luis Barragan: Mexico's Modern Master, 1902 – 1988,* (New York, Monacelli Press, 1996). pp.162-163.

24. Kahn, "Lecture at Pratt Institute (1973), p. 274-275. 25. Louis Kahn, "Silence and Light (1968, 1969)," in Robert Twombly, ed., *Louis Kahn Essential Texts* (New York: W. W. Norton & Company, 2003), p. 229.

26. Kahn, "Silence and Light II (1969)," p. 240

27. Kahn, "Silence and Light I", p. 231.