LOUIS KAHN’S SALK INSTITUTE
PRE-MODERN INFLUENCES IN KAHN’S WORK

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THESIS

While widely considered one of the masters of Modern Architecture, Louis Kahn’s Beaux-Arts training is reflected in works like the Salk Institute in La Jolla, California, which features classical elements such as monumentality, symmetry, and non-industrial materials like marble.

BACKGROUND

Louis Kahn was an American architect who created many famous works from the 1930s through his death in 1974. Kahn’s work is often known for its monumental and imposing character and his buildings’ clear geometries.

PHILOSOPHY

Kahn believed in monumentality, servant and served spaces, and measurability versus immeasurability.

MONUMENTALITY

Kahn believed that architects “could – and should – produce buildings which were as monumental and as spiritually inspiring as the ancient ruins of Greece and Egypt” (“Louis Kahn,” n.d.).

SERVANT/SERVED SPACES

Kahn distinguished “served” spaces which were used for human functions and “servant” spaces which contained mechanical considerations such as stairwells and pipes.
INTRODUCTION

MEASURABILITY

He also conceived of the “immeasurable, the inspirational insight into the nature of the institution, and the measurable, the means available to the architect to build in his place and time” (McCarter 2005).

“He was capable of handling problems of large size without degenerating into either an ‘additive’ approach or an overdone grandiosity; he knew how to fuse together modern constructive means with traditional methods; he was steeped in history but rarely produced pastiche; and his architecture was infused with a deep feeling for the meaning of human situations, which enabled him to avoid the mere shape-making of the formalists.”

-William J. R. Curtis, 1996

VISUAL CHARACTERISTICS

Louis Kahn rejected the use of light materials like steel and glass that appeared in many other Modern or International Style works in favor of heavier materials like reinforced concrete and brick. Many of his buildings were comprised of large, monolithic geometries to convey the sense of monumentality he hoped to achieve. While most other Modern architects were using balanced asymmetry in their floor plans, Kahn often utilized a more classically influenced symmetrical plan for his designs, as seen in the Exeter Library and the Salk Institute. According to Leslie, one can see Kahn’s “philosophical appeals to such metaphysical values as light, silence, and order” (2005). These appeals would appear as a complex skylight in the Kimbell Art Museum or the contemplative courtyard in the Salk Institute.
CASE STUDY: SALK INSTITUTE

OVERVIEW

The Jonas Salk Institute for Biological Studies, built on a high coastal site in La Jolla, California from 1959-1965, is considered by Wiseman to be the “single image [that] conveys to the public what Louis Kahn accomplished as an architect” (2007). The building was born of a collaboration between Kahn and his client, Jonas Salk, a man with “a romantic vision of human potential that matched his own” (Wiseman 2007). Kahn is even quoted as saying “[Salk] listened to me more carefully than I did to myself” (Quoted in Wiseman 2007).

In regards to the function of the building, Salk required a hundred thousand square feet, divided into ten equal laboratory spaces, but also added that he “would like to be able to invite Picasso to the laboratories” (Quoted in Wiseman 2007). The site offered beautiful views of the Pacific Ocean which Kahn would keep in mind through the design process. The finished plan consists of two buildings with five laboratory wings each, mirrored over a central courtyard with a single water feature running its length.
The foremost aspect of the exterior of the Salk Institute is its reinforced concrete construction. Kahn was more than masterful in his use of concrete for the institute, even experimenting with several types and mixtures before settling on a final product. Special attention was paid to the board-forming process and the forms the process left in the concrete. In contrast, the less modern materials of marble and wood were used for the courtyard and office screens, respectively. Viewing the North or South elevations, one can see how the nearly symmetrical plan and repetition of five monolithic rectilinear forms can evoke images of classical columns. The sheer size and imposing forms evoke the monumental feel Kahn was intentionally trying to express in his architecture. Additionally, the symmetry of the plan reflects an embracing of certain pre-Modern ideas.

The idea for the open plaza or “façade to the sky” actually came from Kahn’s contemporary, Luis Barragan. This relationship of the plaza to the sky and its magnificent view of the Pacific are often compared to the villas of Rome or a Greek temple on the Aegean (Wiseman 2007). The very presence of a space with no true function other than contemplation or enjoyment in itself was very anti-Modern.
Perhaps the most non-Modern feature of Kahn’s interior of the Salk Institute is the use of warmer wood in contrast to the brutal concrete used on the exterior. While most of the interior surfaces are also exposed concrete, Kahn introduces Burmese teak wall screens and oak furnishings as a sort of organic contrast to the man-made concrete material (Wiseman 2007).

Kahn’s concept of servant and served space is “lent a new quality in the Salk Institute” (Gast 2001). Not only are there service cores on the North and South ends of the buildings to house stairs, restrooms, and the like, but there are even entire floors dedicated to separating the mechanical considerations of a building from the laboratory space. The way spaces are located within the floor plan recalls the way Palladio’s Villa Rotunda used the same rectangular form for every room. Kahn uses the same five service towers and five study towers on the exterior and courtyard edges of the building, respectively. He even places the lab spaces in the center in a similar way to the round central area of the Villa Rotunda.
CASE STUDY: SALK INSTITUTE

WATER FEATURE

The water feature running the axis of the central plaza is one of the most non-Modern elements of the Salk Institute. It serves no real function other than to add a visual element to the courtyard. In some sense, it opposes the modern rejection of ornamentation.

Added to the central channel was a “sculptural cistern” at the west end of the site (Wiseman 2007). The cascading pools of the cistern are thought to be inspired by either the Mughal garden Kahn saw in India and Pakistan or the Alhambra in Spain (Wiseman 2007). Either way, it is clear that there are pre-Modern influences. Although at first sight there are striking modern elements, like the use of rectilinear forms and slabs, the presence of travertine marble and a water feature suggest Kahn’s pre-Modern influences. The “sculptural cistern” also features its own use of hierarchy and monumentality that one might find in a classical fountain. Additionally, it is completely symmetrical, with the water channel dividing it into two equal halves.
While Louis Kahn’s Salk Institute appears at first sight to be a monument to Modernism, there are many underlying pre-Modern influences in its design that elevated the building beyond the International Style of many buildings of the time. The use of symmetry, monumentality, repetition of forms, and pre-Modern materials like wood and marble is indicative of Kahn’s Beaux-Arts schooling. The table below outlines the contrasting Modern and pre-Modern elements in the Salk Institute.
Louis Kahn combined new techniques and forms with pre-Modern elements to achieve his monumental style, embracing of the forms and ideas of the past which were rejected by most other Modern architects of the time to prove that the International Style and pure European Modernism were not the only roads to fulfilling the needs of a contemporary building. This work by Kahn and some of his contemporaries would allow architects to move beyond the strict rules of European Modernism and create new styles and forms.
REFERENCES

TEXT REFERENCES


IMAGE REFERENCES

