

LESSON THREE: The Process of Design

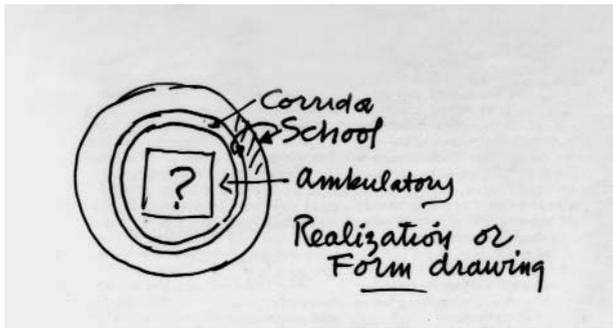


IMAGE NINE: Louis I. Kahn. American, born Estonia. 1901–1974. First Unitarian Church, Rochester, New York. Plan. 1961

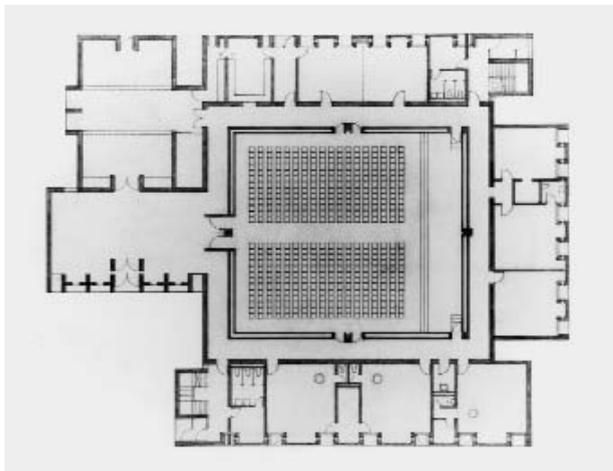


IMAGE TEN: Louis I. Kahn. American, born Estonia. 1901–1974. First Unitarian Church, Rochester, New York. Floor plan. 1961. The Architectural Archives, University of Pennsylvania, by the gift of the First Unitarian Church, Rochester



IMAGE ELEVEN: First Unitarian Church, Rochester, New York. Louis I. Kahn Collection, University of Pennsylvania Historical and Museum Commission

INTRODUCTION

In 1959, Kahn was commissioned to design a new building for the First Unitarian Church of Rochester, New York. The original church building, designed by well-known nineteenth-century architect Richard Upjohn (whose other projects include Trinity Church in Lower Manhattan), was demolished as part of a redevelopment plan for downtown Rochester. This lesson examines Kahn's design process from the initial **concept** through to the final plan.

Note: Additional information about the First Unitarian Church of Rochester building and about Unitarian philosophy is available on the First Unitarian Church of Rochester's Web site, at www.rochesterunitarian.org.

LESSON OBJECTIVES

- Students will learn how an architect conceptualizes and plans a building design.
- Students will compare conceptual representations, drawings, and photographs.
- Students will learn the following vocabulary words: **plan, ambulatory, concept.**

INTRODUCTORY DISCUSSION

In the late 1950s, a committee was formed in Rochester to search for an architect to redesign the First Unitarian Church to equal the architectural integrity of Upjohn's original building. A number of well-known architects were interviewed, but the committee was drawn to Kahn for his sense of spirituality and mysticism, which closely echoed the ideals of the Unitarian faith. Committee members were also impressed with Kahn's innovative approach to building and his style of expressing "only what matters."⁸ Kahn was selected, and shortly afterward he began the process of envisioning a space that would function as a sanctuary (a space of congregation) and a school of religious instruction for children, from infants to teenagers. Have your students work in pairs to discuss what a space like this might look like if they were to design it. Have them take turns pretending to be client and architect, one determining the activities for the space and the other creating sketches of possible design solutions for those needs.

IMAGE-BASED DISCUSSION

- Give your students a few minutes to look at Kahn's concept sketch for the First Unitarian Church (Image Nine). While your students are looking at the work, read the following quotation from Kahn out loud:

Form precedes Design. Form is "what." Design is "how." . . . Design gives the elements their shape, taking them from their existence in the mind to their tangible presence. . . . In architecture, it characterizes a harmony of spaces good for a certain activity.⁹

Tell your students that Kahn called this type of sketch a "form drawing." While in an early design meeting with members of the First Unitarian Church congregation, he drew this to express his ideas. Kahn often used this kind of drawing as a tool for visualizing and explaining his thoughts about a project. It also helped him explain his ideas to others. In this sketch, Kahn began his exploration of a design concept.

8. Louis I. Kahn, quoted in Jean France's untitled essay in the architecture brochure distributed to visitors at First Unitarian Church of Rochester, in Rochester, New York, 2006.

9. Louis I. Kahn, quoted in Lobell, *Between Silence and Light*, 28.

- **Ask your students to work in pairs to consider Kahn’s ideas, basing their discussions on this sketch and on the information they have learned. Why would he begin the process with a question mark? Could the lines and shapes have a specific meaning?**

Inform your students that Kahn chose a question mark to represent the sanctuary, which he believed should be the central part of the space. He surrounded the sanctuary with an **ambulatory**, or aisle, which is represented by the two circles surrounding the question mark. The aisle would be structural as well as functional, serving as the walls of the sanctuary. The outer ring, in which Kahn drew diagonal hatch marks, represents the school, surrounding the sanctuary.

This sketch, or form drawing, is not a literal representation of what the building will look like or a final architectural plan. It serves as the visual expression of Kahn’s design concept for the space. Share the following quotation from Kahn, in which he explains the early process of developing this project and discusses his sketch:

[This] idea was my first reaction to what may be a direction in the building of a Unitarian Church. Having heard the minister give a sense of the Unitarian aspirations, it occurred to me that the sanctuary is merely the center of questions and that the school was that which raised the question . . . and I felt that that which raised the question—[and] the spirit of the question—were inseparable. So I drew the ambulatory to respect the fact that what is being said or what is felt in a sanctuary was not necessarily something you have to participate in. And so you could walk away from what is being said. And then I placed a corridor next to it—around it—which served the school which was really the walls of the entire area.¹⁰

- **Have your students go back into their pairs to reexamine the drawing with this new information in mind. Ask them if this information has changed their interpretation of the sketch. Can they get a sense of Kahn’s intention based on this drawing?**

Once Kahn had decided on the form of a project, he continued to make rough sketches to test its validity, then moved on to the first designs of the way the spaces would be built. These sketches brought him further toward finalizing a plan that he could then render in detail.

- **Show your students the final plan for the First Unitarian Church (Image Ten). This plan consists of the sanctuary and school (on the right side) and a central corridor that connects them to an additional space, which would serve as a meetinghouse (left of the sanctuary).**
- **Have your students compare this final plan to the photograph of the finished building (Image Eleven) and with Kahn’s form drawing. What elements has Kahn retained? What has changed?**

ACTIVITIES

1. Kahn’s form drawing is a kind of diagram, or visual representation of an idea. Ask your students if they have ever made use of a diagram to solve a problem.
2. Have your students work in teams to create a basic plan of your classroom or school as it exists. Then, ask them to brainstorm things that they feel could be improved upon or changed. Once they have identified a problem, ask them to diagram a possible solution. Their diagrams could include shapes, lines, text, or even pictorial representations collaged together. Have each group plan a presentation to the rest of the class to illustrate its concept.

10. Louis I. Kahn, quoted in Heinz Ronner, Sharad Jhaveri, and Alessandro Vasella, eds., *Louis I. Kahn: Complete Works, 1935–74* (Colorado: Westview Press, 1977), 169.