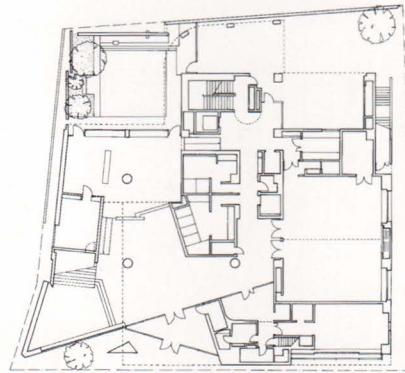
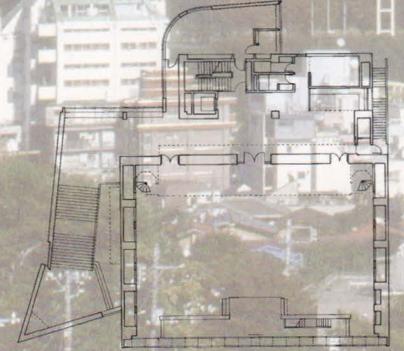


Tokyo Church of Christ

Fumihiko Maki



First Floor.



Second Floor.



The dual nature of the church, a place for both congregation and contemplation, has always fascinated me. Regardless of the denomination to be served, church design must consider both space and music, elements that transcend the boundaries between religions and serve as a common existential foundation for all. Another subject of intense exploration in places of worship is light—a primary theme of such diverse examples as the Hagia Sofia in Constantinople, Gothic cathedrals, and many contemporary churches.

A truly original exploration of light first requires inspiration with respect to the abstract issues touched on above. However, the realization of these ideas requires further inventiveness in the realm of technology and detailing. The Tokyo Church of Christ, a project completed in 1995, was no exception; though the initial conception of its light-filled Main Hall was rooted in existential notions of space touched on above, its execution was the result of careful study and innovation at the micro-scale. Thus, as one answer to the query—what gives a building substance in time—I present this project, along with the possibility that such substance

might come from the balancing of abstract ideas with the grounded intensity required for their execution.

For forty years, this site in west-central Tokyo housed a modest wooden church tucked away behind layers of greenery along Yamate Boulevard. As part of a comprehensive plan to improve traffic flow in the city, the government decided to widen this street, and acquired the front portion (roughly one-third) of the church's property. After ceding this land to the government, the church was able to begin planning for a new facility to house their congregation on the remaining site.

The church's most urgent need was a significant increase in seating capacity. Over the years the congregation had outgrown the old building; hoping to accommodate further growth, the church requested a main space that would seat 700 people. At the same time, the smaller site posed many restrictions, including strict regulations governing the preservation of sunlight access for the surrounding residential neighborhood. Thus, the building's overall volume and disposition of parts were largely determined by balancing



the need for minimal shadow impact on neighboring structures with the congregation's desire for maximum floor area.

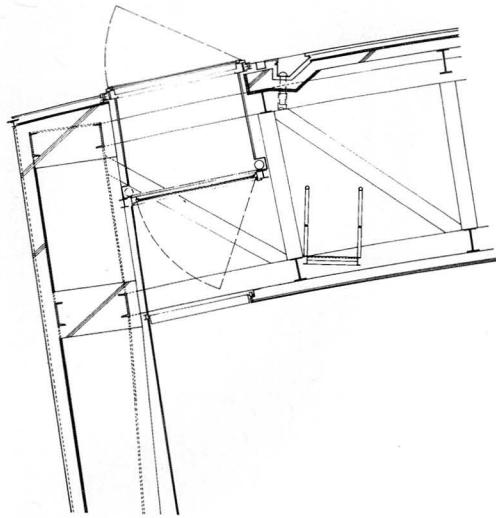
Given the limited volume available for construction, we allocated most spaces related to the daily functioning of the church—its offices, a lounge, children's rooms, and a fellowship hall—to the ground floor. The Main Hall required a tall volume, so it was raised up to the second floor level where its ceiling space could expand freely and create a symbolic roof line for the building. A simple, shallow arch shape appeared in my earliest sketches as a metaphorical expression of the celestial vault, and eventually became the form of this roof.

Major exterior materials are glass and cedar board-formed concrete, with discrete use of hammer-finished granite along the most public pedestrian areas. One of our original conceptions of the church's image was that of a large house. Therefore, we used natural wood extensively on the interior in order to give the facility an intimate, residential atmosphere. From the entrance lobby and lounge, through the grand staircase, to the Hall's foyer, we created a series

of interwoven spaces with benches and seating areas where the congregation can relax, linger after the service, and get together for a variety of social activities. The sequence through these spaces is designed to progressively filter out the visual and acoustic distractions of the street and city just outside. At the end of this sequence, one turns back towards the front facade, enters the Main Hall, and experiences the interior of the glass wall for the first time. The commotion of the cityscape lying just beyond is transformed into the sensation of pure light filling a quiet space.

While we wanted this Main Hall to be filled with natural light, the visual chaos of the surrounding city created a relatively hostile setting for a space of spiritual reflection. Beginning from the premise that abundant light might enhance the desired quiet mood of the Hall interior, we decided to create a translucent wall of light across the front of the Main Hall to interpret the conflicting conditions of a chaotic exterior and a contemplative interior; this wall became the major design investigation of the church. Filling the church sanctuary with light, tranquility, and warmth, it





Skylight Detail.



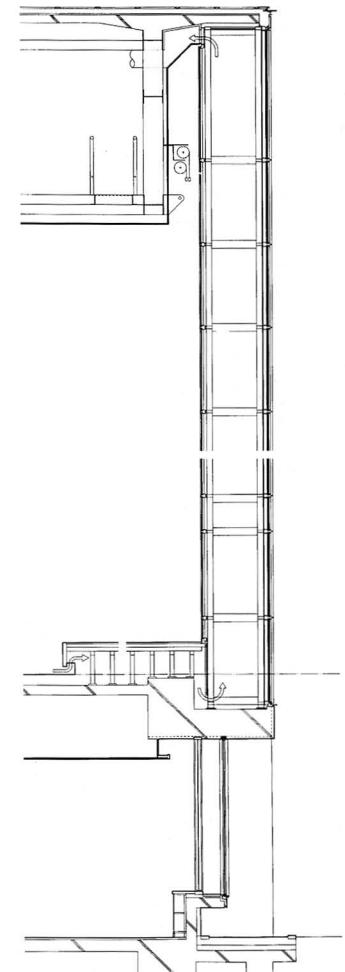
allows the expression of inner light on the front exterior facade, and creates a sense of depth since (from either side) the inner layer of glass can be seen through the outer.

Although this wall recalls the image of a large, traditional Japanese *shoji* screen, it is actually a double curtain wall comprised of two composite glass layers supported on a vertical steel Vierendeel truss system. The outer glass layer is fritted with a ceramic dot pattern, which screens out excessive heat gain, and further enhances the wall's perceptual depth, not unlike a veil. The inner glass layer (forming the front wall of the sanctuary space) consists of a thin glass fiber tissue sandwiched between two panes of sheet glass; its interior surface is finely sandblasted in order to avoid reflection at night. The 80 centimeter air space between the two glass layers not only greatly reduces traffic noise from outside, but is also used as a return air chamber to circulate warm air back into return ducts in the ceiling.

The other surfaces and textures of the Main Hall were designed to complement the atmosphere created by the front wall. The side walls are tilted outward to receive light (softened by aluminum louvers) from continuous skylights above that balances the brightness of the front wall. For acoustical reasons, the skylights are made from two layers of double-pane glass approximately eighty-five centimeters apart; motorized blinds are provided between the layers to darken the hall when desired, and the skylights can be fully opened for natural and smoke ventilation. The side walls are finished with vertical ribbed panels, whose grain subtly shifts with changes in the natural light throughout the day. The rear wall incorporates sound absorbent vertical lattice panels made of a ceramic-based synthetic wood and painted white; scarcely visible behind the lattice is a layer of sound-absorbent glass wool wrapped in matching white cloth. Finally, the ceiling design was also carefully considered, using an image of the heavens as its starting point. Chandeliers providing reading light for the congregation are grouped in ten clusters of five, and were conceived as hovering planets or clouds. Simple sconce fixtures along side walls complete the lighting scheme and give the space an appropriately ceremonial rhythm and scale.

Overall, the detail design of the Tokyo Church of Christ was a rigorous process of refinement involving numerous models and drawings at a variety of scales, and including full-scale mock-ups of the curtain wall that tested its design on site with actual materials. Starting with the landscaping, through exterior walls, interior surfaces, window sashes, staircases, handrails, lighting—all the details of the project were designed to both articulate the overall composition and to give presence to the materiality and individuality of parts. It is this intensity of commitment at very tangible levels that supported the more abstract inspiration from which we began; the result is a building not only well-constructed, but conceptually consistent at all levels.

Photos Courtesy of Toshiharu Kitajima



Curtain wall section.