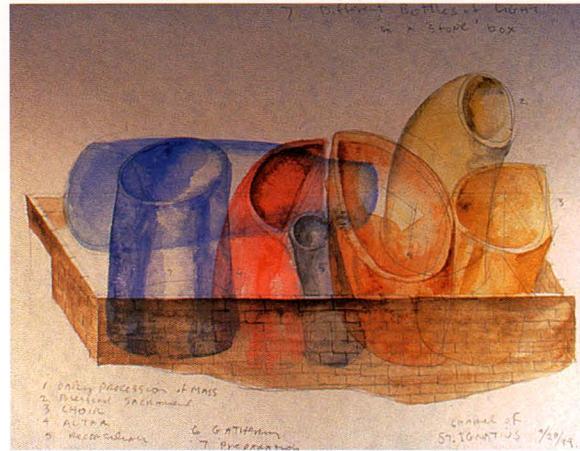


Twofold Meaning

Steven Holl



Concept drawing for Chapel of St. Ignatius: "A Gathering of Different Lights," seven bottles of light in a stone box.



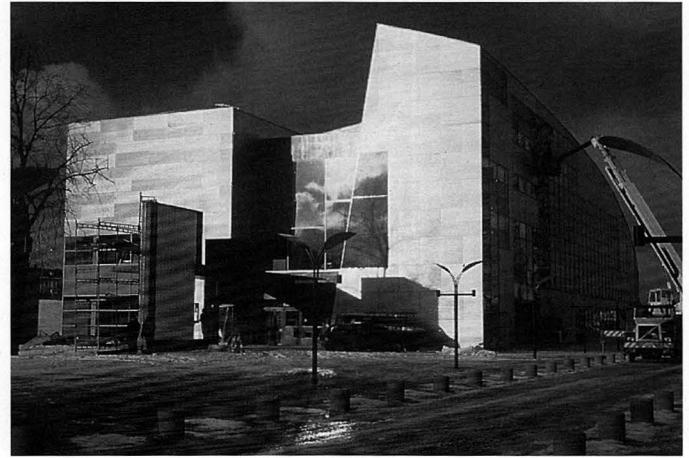
Interior of the Chapel of St. Ignatius at Seattle University.

The essence of experience, the basic sensory phenomena of an architectural work, is bound up in its conceptual intentions, even if the immediate bond between concept and phenomena seems loose. No true meaning is perfectly simple. Meaning revolves around a twofold interaction of experiential phenomena and concept. Rather than a verbal dialectic, a twofold merging of thought, with space and raw material evolves in perception. A counterbalance of experiential essence and idea-intention does not divide but matches a twofold richness in a fulfillment of the intensities of architecture.

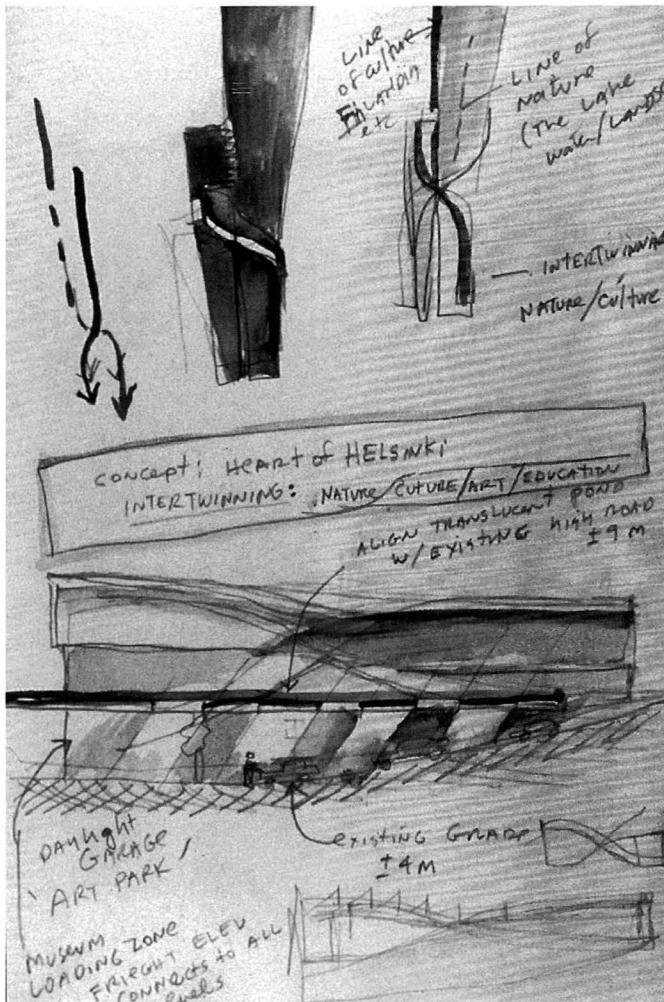
We are aware of a conceptual intensity underlying sensuous spatial and haptic experience even if we cannot articulate it. Something similar occurs in the experience and meaning of an intense musical composition; we can be enthralled by its experiences in time, counterpoint, disharmony, contrast, and harmony without knowing the exact intellectual dimensions of the composer's aim. Behind the experience of the music, ready to be discovered by the inquiring mind, the conceptual structure and its manifold relations stands in reflection.

At the outset of design, pure thoughts may be detached from intuitions. Representation of concept begins in word and diagram; here a world of intuition and perception emerges via reflective words. In this process the word does not create concept but neither is it a mere appendage. Language is a central instrument for the actualization of twofold meaning in architecture, it outlines the soul of the work. For example, a particular metaphoric idea aimed at fusing a building to its site and program might begin in a detached abstract statement while intuitive perspectival views of spatial and site relations are sketched.

Particularities of culture, site, and program redirect the flow of initial causality from the outside in, while experiential knowledge must allow the reverse; from an inward experience to an outward understanding. A twofold meaning is an aim at something beyond sensation; it is the convergence of idea and phenomena. A concept focuses architecture's transcendental aspirations. "Ideas" driving architectural designs, are first tested and formed in the experienced phenomena, first realized in construction.



Helsinki Museum of Contemporary Art.



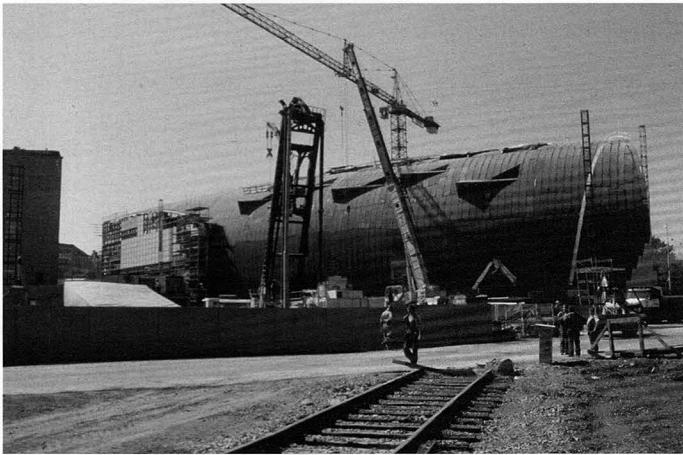
Kiasma: concept sketch of intertwining site forces.

Manifest already in the construction process, the densities of materials, the contrast of lightweight and heavyweight construction play out the concepts like instruments from a musical score. What sometimes seems complicated in drawings becomes apparent in physical construction. It is not surprising that construction workers on site are the first to show public zeal for the work. Physical construction construes the spatial phenomena, the material sensory experiences, the forces of darkness and light, fulfilling architecture's twofold meanings. Steel and concrete bring forth the skeleton of the intellectual and emotional experience. In the construction process the first joy and exhilaration of the interconnectedness of idea and phenomena become evident.

All architecture is about limits. Gravity, material capacities and engineering methods have set limits that new engineering techniques and material technologies are constantly challenging. The limits of building codes, planning regulations, local design restrictions and various historical context regulations set today's architecture in particularly strict frames. However architecture's conceptual beginning points are more open

now than at any time in history. The exhaustion of general ideologies over the past 30 years has opened architecture to a wider freedom of beginnings. Rather than an ideology or style carried from one site to another, unique ideas can establish individual works; the universal is better manifest in the particular.

The Helsinki Museum of Contemporary Art Competition (1993) had strict program limits and a constricted central urban site. The thirteen-thousand square meter area had to be absolutely adhered to with a strict balance of exhibition space, staff offices, and service areas. The site, exactly in the center of Helsinki, in front of the Parliament House, has limits beyond height, breath, and depth, in terms of spatial perspectives of the partial urban views that complete the cityscape. Our concept "Kiasma" called for a building that folds into itself; intertwining the geometric forces of the landscape and urban geometry as well as forces of light entering the building's section according to the low angle of the sun in northern latitudes. An implicit cultural line connects Kiasma to the geometry of Finlandia Hall while a natural landscape extension brings water gardens



East elevation of the Helsinki Museum of Contemporary Art.

connected to Töölo Bay up and through the building.

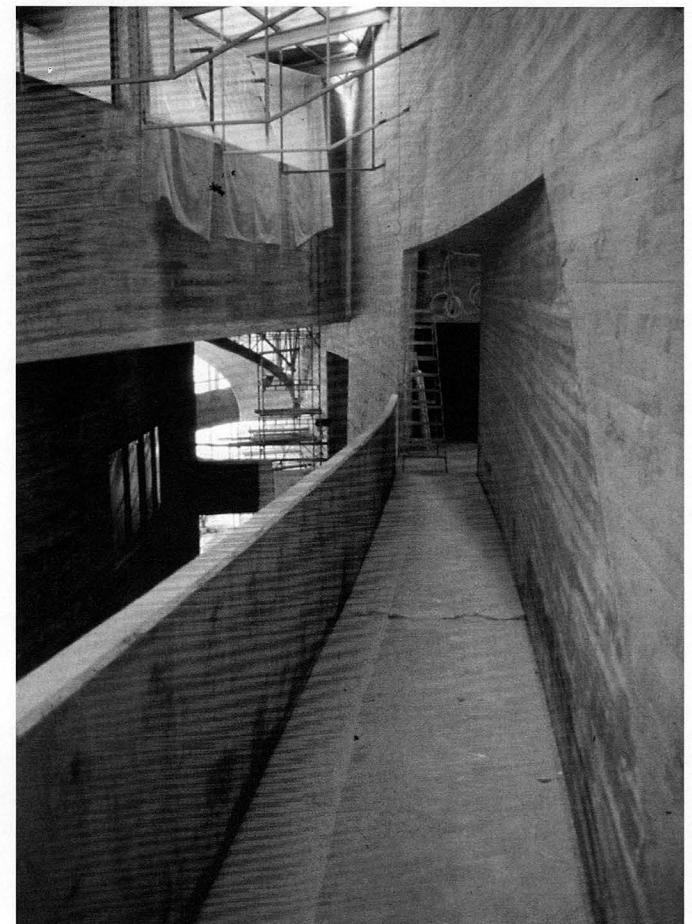
The building's twenty-five galleries for contemporary art all have some aspect of natural light. The sun in Helsinki never reaches an altitude higher than 51° so the potential of diffused horizontal light is answered in the warped central wall. From an urban perspective, the long dark Finnish winters are addressed in the spatiality of night light emanating through the main doubly-warped glass wall that runs the length of the building like a wall of ice. The wall tilts $9\frac{1}{2}^\circ$ to the east at the south end and warps to $9\frac{1}{2}^\circ$ to the west at the north end. A ruled geometric surface of Reglit "U" plank glass, developed through the construction of a half scale mock up of the building section, allows the realization of the complex geometry. The wall's triple glazing has automatic shading devices which adjust the light to galleries according to seasonal change.

While the galleries billow out in lightweight steel construction, the hard doubly-warped concrete curves of the central ramp space take on opposing tectonic form. The entry opens on to

this main space which disappears into the Kiasmatic curved intersection of the building. Here lower and upper ramps position the body in space at three different levels always indicating the human scale. While moving from the different galleries one is reoriented by passing through this central warped space. This warped heart of the Kiasmatic intertwining draws the visitor in and up while keeping the ensuing spaces in mystery. The final view disappears into a curved perspective.

"Bow-tie" skylights are torn into the great curve of the east elevation to assure natural light to the lower galleries in the section. Due to the deepness of the cut, natural undiffused light bounces down through the cut section with direct sun. This "cutting twist" further expresses the lightweight aspect of the construction. The whole roof-wall is skinned in blue-gray zinc with standing seams not unlike a traditional Helsinki roof.

When construction was fifty-percent complete a particular quality of the building became evident, it appears smaller from the urban outside views and feels larger on the inside. Unlike the model, which was experienced as an



In the erection of the open trusses, the lightweight open frames already indicate the service walkway and space of all the mechanical ducts to feed the galleries.



Distinct from the heavyweight exterior perimeter construction, the steel roof tubes, bent by magnetic induction, define the complex curves of the individual light bottles.



Steel framing of the Chapel of St. Ignatius.

object, the experiential reality of the Kiasma building occurs through partial urban views. From the south the building has a narrow frontality with an intimate main entryway. From the east the elevation begins in an urban curtain wall that merges with the curved roof-wall dropping away in perspective.

On the construction site, the intentions and meanings of our open ended Kiasma concept already have steel skin, steel skeleton, and a concrete doubly-warped core. Idea-intention and phenomena begin and continue to merge in their twofold meaning.

Inspired by a quote from St. Ignatius about the metaphor of light, the Chapel of St. Ignatius at Seattle University began with the concept “A Gathering of Different Lights.” This concept, a double entendre, refers to the many different nationalities of students attending Seattle University while also corresponding to parts of the program of Jesuit Catholic worship. The “Seven Bottles of Light in a Stone Box” define the Procession, the Narthex, the Main Gathering, the Reconciliation Chapel, the Choir and the Blessed Sacrament Chapel. The Seattle University campus

originally evolved bit by bit on existing urban blocks and lacked common green space. The box rectangular plan defines campus quadrangles on all four sides of the chapel. By siting the chapel in the center of a former street and elongating its plan, new campus quadrangles of green space are formed on all sides.

The initial idea of a “stone box” was too expensive; our exploration of alternatives led to the technique of tilt-up construction; giant cast concrete “stones.” The economical construction of integral-color tilt-up concrete slabs defined a tectonic more direct than stone veneer. The building’s outer envelope was divided into twenty-one interlocking concrete panels cast flat on the chapel’s floor slab and the reflecting pond slab. In two days these panels were picked up and rotated into place by a hydraulic crane straining at weights up to eighty-thousand pounds. The pick pockets, hooks inset in the panels, were capped with bronze covers once the panels were upright. Windows were formed as a result of the interlocking of the tilt-up slabs allowing, the $\frac{5}{8}$ ” open slab joint to be resolved in interlocking detail.

The concept of Different Lights is further developed in the dialectic combination of a pure colored lens and a field of reflected color within each light bottle. A baffle is constructed opposite the large window of each light bottle. The baffles are back painted in bright colors, only reflected light is seen from within the chapel. This light pulses with life when a cloud passes over the sun. Each bottle contains a reflected color and a colored lens of the complementary color. The visual phenomena of complementary colors; for example, stare at a blue rectangle—then a white surface—see a yellow rectangle; contributes to the two-fold merging of concept and phenomena in the chapel. It must be experienced to be fully understood.

Beginning in a metaphor of light, the Chapel of St. Ignatius, like the intertwining “Kiasma” of the Helsinki Museum are among conceptual strategies unlimited in their points of origin. A driving force connecting manifold parts finds its phenomenal answers in the struggle of physical and material realization.

The aspiration of design is a struggle to bring together twofold meanings. It is a

struggle to carve experiential phenomena from the aspirations of pure thought. It is a battle to form phenomenal intensity from a concept embodying the highest aims of a particular culture and program.