

# A FEELING FOR THE UNSEEN: THOUGHTS ON THICKNESS AND THE TECTONIC

FRANK H. WEINER

Virginia Polytechnic Institute and State University

*The lived present holds a past and a future within its thickness.*  
(M. Merleau-Ponty)

## INTRODUCTION

Perhaps to a large extent style in architecture is the history of thickness and the sentient phenomenal understanding of thickness. A wall or any constructional element no matter how thick or how thin asserts the basic phenomena of thickness. The art historian Heinrich Wölfflin in his dissertation raised the question of how tectonic forms can be expressive of human sentience.<sup>1</sup> Following this idea, thickness may also have a significant role in the development of architectural emotion. It was in this capacity for making close visual readings of architecture that may have led to his later demarcation of the Renaissance and Baroque styles, as that between the linear and the painterly.<sup>2</sup> His illustration of a poched plan drawing of an immured column in the facade of Michelangelo's Palazzo Conservatori indicates his alertness for not only thickness but also the outer most surfaces of this thickness. Through the idea of a "psychology of style" he was close to establishing a phenomenology of style based on the manipulation of thickness.

## LITE-CONSTRUCTION AND THE LOSS OF POCHE

The issue of thickness has appeared again most recently in the *Light Construction* show held at the Museum of Modern Art in New York.<sup>3</sup> This exhibition brought together a group of works and architects under the guise of a "new sensibility" which calls for the drastic reduction of thickness and weight in architecture, in particular the production of images which are suggestive of this. The projects displayed along with the exhibition catalogue pose a question—to what degree can one push the reduction of construction to a minimum thickness and presence while still maintaining a viable tectonic expression? What will this conscious elimination of thickness and weight do to our sentient understanding of architecture and the emotive capacity of architectural form?

Bernard Tschumi's project for a glass-enclosed video gallery included in the M.O.M.A. show is a case in point. It is a long tilted rectangular volume built ostensibly of plates of glass clipped together and an open metal grated floor. Inside this volume are placed towers of stacked video monitors which are in turn partially enclosed by glass. The result is an overall spatial condition of disorientation. In this sense the project may have fulfilled the architects intention. The question then revolves around the efficacy of this kind of choice, of purposive disorientation and "disjunction" of six thousand years of architecture history.<sup>4</sup> This building is an extreme polemic in glass, a kind of

half or three quarter tectonic. One wonders if the tectonic is an infinitely divisible concept or is there a limit upon which it begins to break down. Can there be a partial or fractionalized tectonic?

Metal and glass are the preferred materials for "light construction" favored over the use of masonry and stone. In the confidence in conferring a new direction for contemporary architecture that the show provides may there be a need to more critically assess the value of this direction? By these choices is then emotion drained out of architecture leaving us empty and bereft of what makes us human? Can there be a tectonic without emotion? Are the employment of thin glass sheets and metal panels the only materials with minimal thickness that can redeem architecture? The Beinicke Library at Yale by S.O.M. shows that materials other than sheet glass can be employed with rather profound results. There is a dignity in the thin panels of stone which enable light to permeate the impenetrability of stone and infuse the interior.

Perhaps there is value in recalling the main polemic put forth in Victor Hammer's beautiful little book entitled, *A Theory of Architecture* (1952). Hammer's position which he knew would be most controversial recalls the morality of John Ruskin.

*And this is my conviction: I can accept only stone as a building material suitable to architecture. Metals and timber I admit as auxiliary materials and brick as a good substitute. All the so-called modern building materials, such as steel, glass, concrete, plastics, etc., may do well enough for transitory needs, or experiments; but they are by their very nature unsuitable for architecture. However, they have the lure of novelty; they raise expectations, they heighten the emotional, aesthetic appeal, but hinder by these very qualities active artistic treatment, that is, the reduction, or elevation, of raw materials to pure form.<sup>5</sup>*

Hammer's use of the word emotional rather than the word emotion is worth noting. Emotional as he uses it is the state of being emotional rather than the idea of emotion and its relation to architecture. This is not to say that architecture is devoid of emotion or unrelated to aesthetics.<sup>6</sup>

To this day perhaps only one architect, Mies Van der Rohe, could animate such materials and processes that Hammer rejects with a classical noblesse that remains unsurpassed and little understood. The Seagram building stands as an exception rather than a rule. As a story goes, Mies said that the space from the Rocky Mountains shtops[stops] at the outside walls of his Lakeshore Drive Apartments.<sup>7</sup> Where the space stops the emotion begins. There is a sumptuousness in his employment of these "modern materials." The lightness in the M.O.M.A. show is far removed from Mies's lightness or the presence of a paper

screen wall in a traditional Japanese house. Here the thinness of the handmade paper is founded on a kind of cultural thickness that lends an ultimate credibility and honor to such a wall. Despite a wall made of paper and relatively thin wooden frames a rather wide zone is activated by such a construction.

#### LIGHT ENGINEERING

The recent move towards the impression of lightness is not completely new. Although it is possible to locate an origin in the French Gothic cathedrals such as St. Chapelle this too remains a physically and statically redundant mode of building as perhaps to an extent all building must be. One can see the emergence of this tendency towards structural lightness in the field of structural engineering in the work of the Swiss engineer Robert Maillart. The long-accepted assumptions about the over-design of structure based on the inflation of building code safety requirements became a starting point for a critique of structural weight. Reduced more minimal structural forms emerged out of this reassessment of factors of safety.

One recalls Buckminster Fuller asking architects this simple and provocative question—how much does your building weigh? With this question the entire history of statics is re-directed away from the seminal influence of Galileo's *Dialogues Concerning the Two New Sciences*. Galileo studied what bound or held a solid-cross section against external disturbances—in short, what made a solid solid. For centuries the accumulated weight of a structure and the notion of opaque structural members that more than adequately resist external forces may have been the very basis of structural soundness. This redundancy of weight, mass and thickness was also a prerequisite to any architecture. Here one can see a link to these beliefs and Corbusier's famous definition of architecture, "Architecture is the masterly, correct and magnificent play of masses brought together in light."<sup>8</sup> Is it not possible to go back through Laugier, Alberti and eventually to Vitruvius's notion of *firmitas* to an original written affirmation of architecture and weight?

Fuller believed that optimizing the weight of a structure would be the basis for a new definition of a "massed produced structure" that would encompass architecture. The idea of a long span made up of a multiplicity of short, relatively light members set up a new understanding of what constituted the spanning and covering of a space. The engineer Robert Le Ricolais taking somewhat of an opposite tact than Fuller understood structure to be, "...the art of making a light structure with big, heavy members."<sup>9</sup> His theoretic goal was to have an infinite span with zero weight. In this way attention is brought away from the design of solid members of a structure towards the voids of and in a structure and their interrelationships. Structure became the art of making holes. This can be viewed as the ultimate spatialization of engineering construction that had a decided influence on architecture. So called "solid" structural members could be made with hollow insides. Solids were no longer solid.

#### TWO REMINDERS: TORROJA AND RUSKIN

The engineer Eduardo Torroja in his *Philosophy of Structures* has written most eloquently on these matters:

*It could...be supposed that since only the external surface (of any construction, in this case the cupola of St. Peter's) is visible, the observer can always imagine the thickness (of that part of the construction hidden from sight)...*

This matter of unseen thickness or dimensions is fundamental in construction.

*We have learned to have a feeling for the hidden human skeleton, which we do not see, and do not wish to see, under the expressive softness of the flesh.*<sup>10</sup>

Torroja writes of the observer (and one might add the architect) who imagines the thickness that is hidden from view. The veracity of the tectonic may depend on this imagining of the unseen aspects of construction, including the space that lies within walls ceilings, and other constructional elements. The tectonic then is not fully disclosed by what we can see of a finished condition but is that sense we have of its architectural totality in relation to what we can see. He makes a relation between these thickness' that are out of view to the idea of construction. Construction is not the mere instrumental assembly of parts but has within itself a most remarkable aspect of undisclosedness. Construction slowly buries itself during the process of its completion. If one watches the construction of a building they will see for the last time pieces and spaces that may never see the light of day again. It is only during a renovation that these conditions will be brought out into the light again. Perhaps this is why a partially demolished building awaiting alteration rings so profoundly within us. This sympathy is wonderfully captured in Torroja's metaphor of the human body and construction quoted above. Our unwitnessed detection of the human skeleton under our flesh shows that we can sense the existence of what we may never see. This is a similar sentiment to that expressed by Geoffrey Scott in *The Architecture of Humanism* where he writes: "We transcribe architecture in terms of ourselves."<sup>11</sup>

John Ruskin in his *Seven Lamps of Architecture* wrote of the importance of finishing the parts of a building that due to the process and nature of construction are hidden from view. Ruskin realized that these hidden conditions are an intrinsic part of construction, not of secondary or trivial concern. Even ornament should sometimes continue into these concealed conditions. As he writes: "...never, perhaps, to be seen, but not lawfully to be left unfinished."<sup>12</sup> For Ruskin the continuation of the ornament into these "palpably impenetrable recesses" becomes a moral issue. One wonders if the existence of these recesses are also a moral issue. The elimination in architecture of these unseen spaces may lead to an architecture that is all to "transparent" in terms of significance.

#### M. MERLEAU-PONTY: PHENOMENOLOGY AS A STYLE OF SEEING

Merleau-Ponty in an essay entitled, "The Primacy of Perception and Its Philosophical Consequences," lays out a general foundation for thinking about the unseen and hidden in human perception. He formulates the following question to begin his considerations:

*If we consider an object which we perceive but one of whose sides we do not see, or if we consider objects which are not within our visual field at this moment—i.e., what is happening behind our back or what is happening in America or at the South Pole—how should we describe the existence of these absent objects or the nonvisible parts of present objects?<sup>3</sup>*

His position about perception and what he calls the perceived world is an attempt to break from classical philosophi-

cal notions of perception that seek a single *truth* in perception as well as that of psychologists that suggest that the we *represent* to ourselves that which is always missing in perception. The classical approach to perception for Merleau-Ponty has within it a flaw that privileges and applies the relationship that a thinker may have to a thought with a perceiver and an object perceived. The mistake of the psychologists is that they allow that a representation can be of something that does not lie before us.

For Merleau-Ponty perception contains a necessary paradox of immanence and transcendence, immanent because the object perceived stands right there before us intimately known to us and transcendent because there is always an aspect of the object that lies beyond or out of our reach. He writes:

*The perceived thing is not an ideal unity in the possession of the intellect, like a geometrical notion, for example; it is rather a totality open to a horizon of an indefinite number of perspectival views which blend with one another according to a given style, which defines the object in question.*<sup>14</sup>

Seeing style then requires a style of seeing. In this sense as Wölfflin provides a way to see style and style change in architecture, Merleau-Ponty offers a general style of seeing or visibility, which may have implications for architecture. What is the “style of visibility”<sup>15</sup> of architecture? Merleau-Ponty has insights into what he calls our *tactile life* of which architecture is a part.

In a remarkable and difficult essay “The Intertwining—The Chiasm,” Merleau-Ponty writes of “the thickness of flesh between the seer and the thing [seen]...”<sup>16</sup> Of course this idea of *flesh* is not to be taken literally or as having a physical existence as architecture must have but could provide a philosophical ground for a discussion of architectural thickness. Of this idea of flesh he writes:

My flesh and that of the world ...involve clear zones, clearings, about which pivot their opaque zones, and the primary visibility, that of the *quale* and of the things,... the massive flesh and the rarefied flesh, the momentary body without a glorified body. When Husserl spoke of the horizon of the things—of their exterior horizon, which everybody knows, and of their “interior horizon,” that darkness stuffed with visibility of which their surface is but the limit—it is necessary to take the term seriously. No more than are the sky or the earth is the horizon a collection of things held together... it is a new type of being, a being by porosity, pregnancy, or generality, and he before whom the horizon opens is caught up, included within it.”<sup>17</sup>

#### **DARKNESS STUFFED WITH VISIBILITY: THICKNESS AS A BEGINNING**

Descending from the lofty heights of Merleau-Ponty’s emmattered thoughts about the hiddenness of perception one returns to the rather plump domain of architecture. Given what we have at hand in our time have we ignored the sheer potential of thinking about thickness in architecture? It is surprising how little we know about this simple fact and how this knowledge could lead to a deeper understanding of such venerable concepts as style and the tectonic. Recent proclamations about the end, such as the “end of history” have proved to be spurious. Maybe in thickness a nascent beginning can be discovered again, moving us a safe distance from the “end of architecture.”

Many architects today seem to be searching for the moment of degree zero. Is there not a fear that if this moment is reached we will have extinguished architecture never to be felt or

seen again? Thinking back to Tschumi’s project one wonders what can be said about the perception of this “kind” of object. There may be no style to see and therefore no way of seeing it. Has a thief stolen our perception and taken our feeling? One more question remains—what is that contemporary architects will choose to bring together in light?

#### **NOTES**

1. See the English translation of Heinrich Wölfflin’s doctoral dissertation entitled, “Prolegomena to a Psychology of Architecture” (1886) in, *Empathy, Form and Space: Problems in German Aesthetics, 1873 - 1893*, trans. Harry Francis Mallgrave and Eleftherios Ikonomou (Santa Monica, CA: Getty Center for the History of Art and Humanities, 1994), pp.148-190. For the question of style in relation to the tectonic see, *In What Style Should We Build? The German Debate on Architectural Style*, trans. Wolfgang Herrman (Santa Monica, CA: Getty Center For The History of Art and Humanities, 1992).
2. Heinrich Wölfflin, *Renaissance and Baroque: An Investigation into the nature and origin of the Baroque Style in Italy*(1888), trans. Kathrin Simon (Ithaca, New York: Cornell University Press, (1975), second edition.
3. Terence Reily, *Light Construction*, (The Museum of Modern Art, New York: Harry N. Abrams, Inc., 1995). This exhibition catalogue was published in conjunction with the exhibition, *Light Construction*, organized by Terence Reily, Chief Curator, Department of Architecture and Design, at the Museum of Modern Art, New York, September 21, 1995-January 2, 1996. It should be noted that running almost concurrently with the M.O.M.A. exhibit was an exhibition titled, *Monolithic Architecture*, held at the Heinz Architectural Center, The Carnegie Museum of Art, Pittsburgh, September 30, 1995-February 11, 1996. Curiously Herzog & de Meuron’s Signal Box auf dem Wolf, Switzerland is included in both exhibitions, which is an indication of the relativism of recent discourse.
4. For an explication of Tschumi’s general position see his book *Architecture and Disjunction*, (Cambridge, Massachusetts: The MIT Press, 1994), where he writes in the introduction that, “...architecture is never autonomous, never pure form, and, similarly, that architecture is not a matter of style and cannot be reduced to language.”
5. Victor Hammer, *A Theory of Architecture: The Second Chapter From A PLATONIC DIALOGUE BY VICTOR HAMMER*, (New York: Wittenborn, Schultz, Inc., 1952), p.47.
6. For this distinction see, Susanne K. Langer, *Feeling and Form: A Theory of Art*, (New York: Charles Scribner’s Sons, 1953). See chapter three, titled “The Symbol of Feeling.”
7. This story was told to me by the Boston architect Peter Forbes who when working in Chicago sat in on discussions Mies would preside over.
8. Le Corbusier, *Towards a New Architecture*, trans. Frederick Etchells (New York: Praeger Publishers, 1974, seventh edition), p. 31
9. Robert Le Ricolais, “Interviews with Robert Le Ricolais,” in *VIA*, Publication of the Graduate School of Fine Arts, University of Pennsylvania, Vol. 2, 1973, p. 84.
10. Eduardo Torroja, *Philosophy of Structures*, (University of California Press, 1958), pp. 272-73.
11. Geoffrey Scott, *The Architecture of Humanism: A Study in the History of Taste*, (New York: W. W. Norton & Company Inc., 1974), p.159. Originally published in 1914.
12. John Ruskin, *The Seven Lamps of Architecture*, (New York: Dover Publications, Inc. 1989), p.23. This is an unabridged republication of the second edition published in 1880. Most useful for this discussion are the lamp of sacrifice and the lamp of truth.
13. Maurice Merleau-Ponty, *The Primacy of Perception: And Other essays on Phenomenological Psychology, the Philosophy of Art, History and Politics*, edited, James M. Edie, Northwestern University Studies In Phenomenology & Existential Philosophy, (Evanston: Northwestern University Press, 1976, fourth paperback printing), p. 13.
14. *Ibid.*, p.16.
15. Merleau-Ponty, *The Visible and the Invisible*, edited by Claude Lefort, trans. Alphonso Lingis, (Evanston: Northwestern University Press, 1968), p.146.
16. *Ibid.*, p. 135.
17. *Ibid.*, p. 148- 49.

I would like to thank a colleague of mine, Mark Schneider, Virginia Polytechnic Institute and State University for the suggestion of looking at the writings of Merleau-Ponty to establish philosophical implications of the idea of thickness.