

# **Dialectics of Vision :** The Voyages of Louis I. Kahn 1950-59

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Submitted to the Department of Architecture on May 12, 1995 in partial fulfillment of the requirements for the degree of Master of Science in Architecture Studies.

**Abstract:**

Kahn's genre of travel sketches offers us a visual basis to map his philosophical meandering. This thesis addresses the sketches produced from Kahn's voyages around the Mediterranean in 1950-51 and 1959 with an aim to understanding the premises that underlie them. During the trips, Kahn conjectured in his graphic oeuvre a dialogical method with the built forms of antiquity. On the one hand, he sought answers to his architectural and epistemological questions to these buildings; at another level, he recontextualized the buildings in an imagined landscape that would in turn inform his imperatives. The sketches also permit an interesting theoretical commentary as they parallel Kahn's emergence into active architectural career in the fifties. At first encounter, some of them seem to be perplexing, but once extended into the context in which Kahn operated, they reveal an interwoven terrain of concepts that would continuously flower.

There is no doubt that in his travel sketches Kahn was fighting a protracted battle about his architecture and that he benefited from the buildings of the past—but mostly at an epistemological level. Kahn raised questions on architecture that could have not been addressed by a formal retrieval of history. In that sense Kahn's travel sketches reappraise and repropose the lessons of history.

Thesis Supervisor: **Stanford Anderson**  
Title: Professor of History and Architecture  
Head of the Department





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Chapter

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O n e



# CHAPTER ONE

## Introduction:

Voyages to the sites of classical antiquity, for instance, those undertaken by Le Corbusier or Louis Kahn, in spite of the fact that they certainly correspond to a pedagogical legacy of the “Grand Tour” which from the Renaissance through Ecole des Beaux-Arts codified the examination and measurement of the classical buildings as critical learning of an architect, nonetheless represented an experience of individual initiation. The travel sketch is not only the embodiment of an individual response towards certain phenomena but also the conjecture of a premise/idea seeking objectives beyond the physical periphery of the phenomena. Hence, the representation of the same object/artifact in the travel sketches increasingly became varied. The transferals and interpretations which result from them constitute larger discourses beyond technical expediency. In his visit to the Athenian Acropolis during his 1911 “*voyage d’orient*,” Corbusier’s vision culminates in a resplendent image of the Parthenon itself, envisaged as the “pure creation of the mind.”<sup>1</sup> (Fig.1) Interestingly, in Kahn’s representation of the same site in 1951, the Acropolis assumes instead a holistic

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<sup>1</sup> Le Corbusier. *Toward a New Architecture*. trans. Frederick Etchells (Praeger Publishers, 1960), pp. 185





Fig. 1. Le Corbusier: The Parthenon, 1911.



Fig. 2. Louis Kahn : The Acropolis, 1951.

quality in a dialogue between its bulwark and the surrounding rocky terrain.(Fig.2) To Corbusier the Parthenon becomes exemplary for the creative process whereas Kahn's Parthenon is a constituent part of a "mythic" landscape.

Why does the same place evoke such diverse images? The answer lies partially in the fact that each beholder has his or her own agenda in responding to a place or a built form. As Walter Benjamin noted in his *Moscow Diary*, neither a singular point of view nor a linear approach can claim the authority to establish knowledge of a place.<sup>2</sup> The travel sketch can, then, very much become reflective of individual perception and objectives.

From this perspective, a premise—the sketch as a critical translation—could be developed. One can argue that the distance between the "real" subject and the sketch, as a mediated construction, becomes long. Long not in the sense of tangible polarities but in the sense of an ambiguous span of interpretability. Considering the act of sketching a translation from the subject to the sketch, analogous to the translation of languages, as opposed to the largely educative

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<sup>2</sup> Kahn, Andrea, "Disclosure: Approaching Architecture," *The Harvard Architectural Review*, no. 8. p.3

(prescriptive?) exploration of the Beaux-Arts *analytique*,<sup>3</sup> (Fig.3) a transmutation of meanings occurs in between. In his questioning the “Translations From Drawing To Building”,<sup>4</sup> Robin Evans has illuminated the point by proposing two possible options to define architectural drawing (i.e. the drawing of a proposed building) and then, by hypothesizing the impossibility of a translation from drawing to building without modulation. The first one is to surrender the claim to represent reality altogether and accept the drawing as a self-referential object without any communicative effect beyond itself. The second is to employ the communicative and transmittive properties of the drawing as a way of thinking about a future building with or through the drawing.

By broadening, and perhaps reversing the second paradigm in Robin Evans, the travel sketch could be viewed as a translation of an existing scene into a graphic representation where “meanings” do not

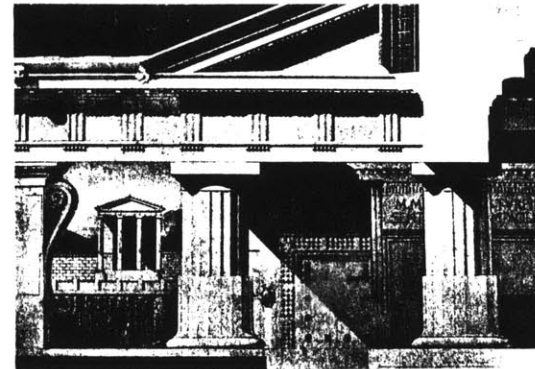


Fig. 3. John Harbeson, *In The Study of Architectural Design*, provides D’Espouy’s Cori, *Temple of Hercules* as an example of an *analitique*, showing plan and elevation at small scale, and details at a larger scale.

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<sup>3</sup> Following the examples set by the Renaissance architects, the students of the Ecole des Beaux-Arts recorded and presented in the form of a composite sheet or the *analytique*, their observations from the classical architecture. In *The Study of Architectural Design*, J. Harbeson gave a twofold definition of *analitique*: on one hand, “a study in proportion, and in the elements of architecture—the treatment of walls, doorways, windows, cornices, balustrades, porticos, arcades, etc.” and on the other, a description of a drawing which composes multiple architectural aspects in one drawing. Also see Crowe, Norman “Visual Notes: Drawings that Link Observations with Design,” *Central* (Winter 1986), pp. 5-14

<sup>4</sup> Evans, Robin. “Translations from Drawing to Building,” *AA Files* No. 12 (Summer 1986), pp. 3-18.

necessarily confront (or conform to) its putative subject; they may well be stemming from a relatively *a priori* construct that the person sketching brings, consciously or unconsciously, to the translatory motion.

Adopting this theoretical format for “sketch”, this thesis addresses the hermeneutic significance of Louis Kahn’s travel sketches produced during his travels. While his architectural oeuvre and textual productions inform us of his quest for an Order in architecture, this thesis, focusing “objectively” on his genre of travel sketches as a product by itself, attempts to map Kahn’s mental meandering rendered graphically in the lines of charcoal, pastel or pen.

An idealist, searching always for his final destiny in the *essence* of things, Louis Kahn has been a lifelong voyager, both literal and symbolic—a fact marked first by the child Kahn’s emigration in 1906 from the Baltic fringe of Estonia to Philadelphia along with his family and, finally, by his ironic death in 1974 in New York’s Pennsylvania Station upon returning from Ahmedabad, India. In the meantime, however, apart from numerous long trips to India, Angola, Bangladesh, Israel etc., necessitated by some of his monumental commissions, Kahn undertook a good number of “voyages of discovery” to Italy,

France, England, Greece, Egypt etc. producing a fairly large body of graphic works.<sup>5</sup>

Kahn's artistic talents flourished from an early age. He received art lessons in public school and at the Graphic Sketch Club, which was part of Philadelphia's Public Industrial Art School. His talents were recognized when at the age of thirteen he won the first prize for drawing and painting in the John Wanamaker Children's Drawings Art Contest, and at the ages of eighteen and nineteen he was awarded first prize for best drawings in Philadelphia high schools by the Pennsylvania Academy of the Fine Arts.<sup>6</sup> Like Corbusier,<sup>7</sup> Kahn also cherished and cultured all his life this artistic impulse to sketch.

Kahn's oeuvre of travel sketches spans over forty years and has three highlights. The first is a yearlong European voyage in 1928-29 having already received a degree in architecture under the tutelage of Paul Cret and having worked as a draftsman for Philadelphia city architect John Molitor.<sup>8</sup> The second voyage occurred in 1950-51 when Kahn spent

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<sup>5</sup> For the most systematic and inclusive collection of Kahn's travel sketches see Hochstim, Jan. *The Paintings and Sketches of Louis I. Kahn*. (Rizzoli, 1991).

<sup>6</sup> Hochstim, Jan. *The Paintings and Sketches of Louis I. Kahn*. p.19.

<sup>7</sup> In an interview with Richard Saul Wurman printed in *What Will Be Has Always Been: The Words of Louis I. Kahn*. (Access & Rizzoli, 1986), Norman Rice recalled Corbusier's lifelong fascination with the painting. p.294.

<sup>8</sup> Brownlee, David B. and David G. De Long. *Louis I. Kahn: In the Realm of Architecture*. (Rizzoli, 1991), p.22.

several months in Rome as the Architect in Residence at the American Academy and also went to Greece and Egypt. And finally, the trip in 1959 as Kahn made a detour to Carcassonne, Albi and Ronchamp in France when he went to present the keynote address at the Otterlo Congress in Holland.<sup>9</sup>

In the first trip, beginning from England, Kahn made his way through western as well as eastern Europe ending in Italy. Vincent Scully has characterized this period of Kahn's development as one of crisis and "intellectual dilemma": Kahn, trained under the Beaux-Arts curricula of the University of Pennsylvania, emerged during the late 20s into an architectural climate where its lessons were liked neither by most Beaux-Arts designers who opted for the structural rather than the eclectic side of the theory nor by the iconoclastic architects of the Modern Movement.<sup>10</sup> Referring to a traumatized Kahn finally finding his true 'destination' in classical architecture, Scully offered this succinct view:

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<sup>9</sup> Although technically this was the 11th CIAM, central to this congress was the agenda of the 'Team X'. Team X and the dissolution of CIAM have a complex historiography which is beyond the scope of this thesis. Hence, for convenience, in this thesis I will refer to the 1959 meeting as the Otterlo Congress. For general reference about this congress, see Mumford, Eric "CIAM Urbanism After the Athens Charter", *Planning Perspectives*, 7 (1992), pp. 391-417, and Oosterman, Arjen and Rob Dettingmeijer "The Otterlo Meeting", *Rassegna* 52 (1992), pp.82-87.

<sup>10</sup> Scully, Vincent J. *Louis I. Kahn*. (Braziller New York, 1962), p. 11.

“...an artist who was educated in a clear if rather limited artistic tradition, developed in it, lost it, tried to adjust himself to a wholly different set of influences, apparently failed to do so, floundered,” to finally find his way again in the 1950’s when he “was free to go forward on his own at last.”<sup>11</sup>

Although Scully’s view received wide acceptance among scholars, there is no record of Kahn’s actually speaking against modernism.<sup>12</sup> Much later in the 1950’s, Kahn metaphorically described how he learned about the doctrines of the Modern Movement :

“Now when I got through the school, I walked around the realm and I came to a little village, and this village was very unfamiliar. There was nothing here that I had seen before. But through this unfamiliarity—from this unfamiliar thing—I realized what architecture was. Not right then, because I was then dealing with answers, but Le Corbusier raised the question for me, and the question is infinitely more powerful than the answer. So through the question—the power of it—the real thing was brought out.”<sup>13</sup>

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<sup>11</sup> Scully, Vincent J. “Marvelous Fountainheads: Louis I. Kahn, Travel Drawings”, *Lotus International*, (1991), No.68, p. 49.

<sup>12</sup> De Long, David. “The Mind Opens to Realization”, in *Louis I. Kahn: In the Realm of Architecture*. p.51.

<sup>13</sup> Kahn, keynote address at the Otterlo Congress, printed in *Louis I. Kahn: Writings, Lectures, Interviews*. ed. Alessandra Latour (hereafter cited as *Writings*), (Rizzoli, New York 1991), p.93.



Fig. 4. Louis Kahn: Amalfi coast, Italy, 1928-29,



Fig. 5. Louis Kahn: San Gimignano, Italy, 1929, Watercolor.

Stylistically, sketches from Kahn's first trip were visibly receptive to many contemporary movements in the art world, and embodied influences of many European as well as American masters including Henri Matisse, Cezanne, Raoul Dufy, John Marin and Georgia O'Keeffe.<sup>14</sup> (Fig.4) Despite this wide array of influences, one can trace some thematic developments within the body of the sketches from the first European trip, such as a consistent predilection for the vertical masses exemplified by the tower series of San Gimignano (Fig.5) and Assisi in Italy or Warwick Castle in England and again, the landscape series of Amalfi, Capri and Positano. (Fig.6) But the most persistent underlying theme is the play of light on the built environment.

But Kahn's more original works come from his second and third voyages around the mediterranean in 1950-51 and 1959. The significance (the reason this thesis addresses this time period) of the body of sketches resulting from these trips evolves from a number of issues. First, they parallel not only the gradual emergence of Kahn's active architectural career beginning with the Yale Art Gallery in 1951-53 but also the steady crystallization of his thought process<sup>15</sup> since he

<sup>14</sup> Scully, "Marvelous Fountainheads", pp.50-53.

<sup>15</sup> Since his first extended theoretical paper "Monumentality" in 1944, Kahn did not produce any major paper until 1953 when *Perspecta 2* published "Toward a Plan for Midtown Philadelphia." In 1956 the *Pennsylvania Triangle*, (vol.42, no.3) published "An Approach to Architectural Education." For general reference see *Louis I. Kahn: Writings, Lectures, Interviews*. ed. Alessandra Latour.

became a visiting critic of design at Yale University in 1947. Second, one has to note that these sketches were coming from a committed architect witnessing an extremely “curious” decade for the architectural community,<sup>16</sup> which Kahn himself was very much related to. And finally, the two bodies of graphic works resulting from two voyages within little less than a decade, themselves concretize Kahn’s evolving mental trajectory coupled by his stylistic deviation in graphic techniques.

Triggered by these contexts, this thesis will analyze the sketches from these two trips. Although sketches from the late 20s and 30s cannot be simply dismissed as merely representational, pictorial or marginal in the genre of his graphic productions, they are apparently not the production of a mature Kahn, and would be relatively less informative for this thesis which enquires as to whether or not the inferences from these sketches could illuminate our understanding of Kahn’s larger

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<sup>16</sup> Haunted by the postwar dilemma and associated “disparate moods,” social critics and architects, in the fifties, increasingly voiced their distress at the erosion of community life and rise of a homogenizing mass culture. The role of modern movement in architecture as a critique of social agents was seriously questioned. Efforts to reinvigorate architecture’s social purpose from many directions became central to the architectural discourse of the fifties. See Ksiazek, Sarah. “Architectural Culture in the Fifties: Louis I. Kahn and the National Assembly Complex in Dhaka,” *Journal of Society of Architectural Historian*, 52 (December 1993). Also, see Gregory, Daniel “Look Back in Amber: American Architectural Attitudes 1957-1977,” *CRIT*, vol.3 (Spring 1978), pp. 11-14. For an introduction to postwar architectural theory, see *Architecture Culture: 1943-1968*. ed. Joan Ockman (New York, 1993).



Fig. 6. Louis Kahn: Positano, Italy, 1929, Graphite on paper.



agenda. The primary inquiries of the thesis will be: What do the sketches reveal ? What do we see in what Kahn saw ? Does what we infer from them inform us of Kahn's architectural and textual productions ? How does Kahn explore the potentialities of the medium with respect to the subject? The analytical methodology adopted will be first to focus on the sketches in a "non-speculative" gaze, and then juxtapose the "statements" made in them against some of the theoretical premises Kahn proposed through his architectural and textual productions.

The investigation will be aided by a few concepts such as vision defined as: "The manner in which one sees or conceives of something" and again "A mental image produced by the imagination";<sup>17</sup> dialectic, defined as: "The art or practice of arriving at the truth by using conversation involving question and answer";<sup>18</sup> translation, informed by Robin Evans' perspective that in the translatory motion there exists no uniform space through which meanings may glide without modulation.<sup>19</sup>

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<sup>17</sup> See *The American Heritage College Dictionary*, third edition, (Houghton Mifflin Company, Boston and New York), 1993, p.1509.

<sup>18</sup> *ibid.*, p.383.

<sup>19</sup> Evans, Robin. "Translations from Drawing to Building," *AA Files* No.12.

## Existing Approaches to Kahn's Travel Sketches:

Kahn's oeuvre of travel sketches first came to general attention posthumously, in 1978, through a traveling exhibition around the United States organized by the Pennsylvania Academy of the Fine Arts.<sup>20</sup> Since then the body of graphic works has largely been addressed in morphological relevance to his architectural production. Although Vincent Scully notes that they are "much more than a collection of architectural drawings or the simple record of an architect's travels and designs,"<sup>21</sup> the body of sketches has never been the subject of a critical investigation on its own merit. A barrage of articles dealing with the sketches, the most conspicuous ones by Vincent Scully, Kahn's longtime colleague at Yale, have revolved around a conjecture of morphological connections between Kahn's architecture and the historical buildings he drew. The towers of San Gimignano are said to have been resurrected in the "servant" towers of Richards Medical Research Building (1957),<sup>22</sup> (Fig.7) the pyramids of Giza in the tetrahedral ceiling of the Yale Art gallery (1951-53) or in the roof of the Trenton Bath House (1956),<sup>23</sup> etc. (Fig.8)

<sup>20</sup> see *The Travel Sketches of Louis I. Kahn: An Exhibition Organized by the Pennsylvania Academy of the Fine Arts 1978-1979*, introduction by Vincent Scully.

<sup>21</sup> Scully, Vincent. "Marvelous Fountainhead." p.49.

<sup>22</sup> *ibid.*, p.63.

<sup>23</sup> *ibid.*, p.60.

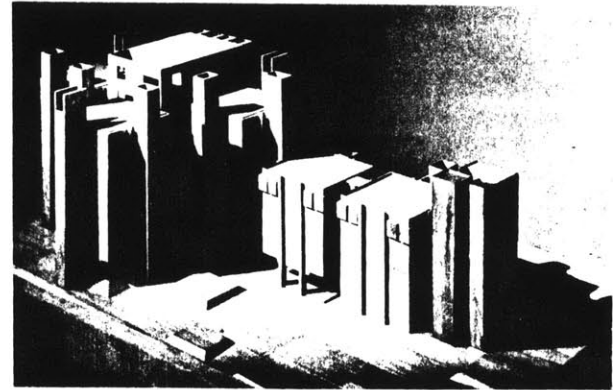


Fig. 7. Louis Kahn : Richards Medical Research Building (1957-65).

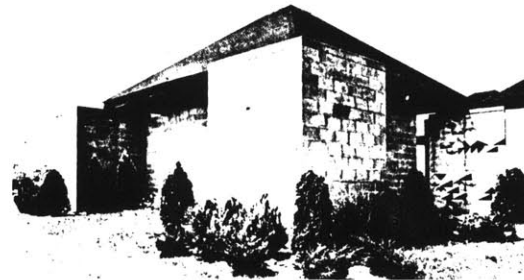


Fig. 8. Louis Kahn: Trenton Bath House (1954-59).

In fact, Kahn's emergence into architectural limelight, beginning with the design of the Yale Art Gallery in 1951-53, had long been associated with an epiphany of mythic dimension that Kahn was assumed to have been bestowed upon during his "fateful" voyage of 1950-51 to the seat of the classical civilizations. Alluding to "the blessed break", Vincent Scully rhapsodized:

"That trip brought him back to architecture of a more timeless kind. It broke the unsympathetic hold of International Style weightlessness upon his spirit, but also sanctioned the exploitation of that geometric abstraction which he had also perceived in the International Style."<sup>24</sup>

And yet again,

"The sites he had visited in 1950-1951 and afterwards with, or under the influence of, the great classicist Frank E. Brown, of the American Academy in Rome, now offered up their forms to him. The House of Augustus on the Palatine and the work of Rabirius, Trajan's Market, Hadrian's Villa, Ostia, all suggested those Forms out of which the grandeur of the Salk Institute for

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<sup>24</sup> *ibid.*, p.52.

Biological Research, the Indian School of Management at Ahmedabad, and the capitol complex at Dhaka took shape.”<sup>25</sup>

Espoused primarily by Vincent Scully and implicitly or explicitly echoed by others, this approach of “the blessed break” maintains that, long unable to build any major building although he was approaching the age of fifty and torn between his Beaux-Arts indoctrination and the International Style that he plunged into, a frustrated Kahn finally rediscovered during the 1950-51 trip his true destiny through classical architecture—an architecture which he had learned through Beaux-Arts pedagogy but which he had lost in the Modern Movement. This mediterranean sojourn to the classical sites, in the post-Scully scholarship on Kahn, was also quite monolithically seen as an event that contained the roots of Kahn’s adoption of classical references. Martin Filler notes:

“Although Kahn had traveled in Europe during his late twenties, the ancient Egyptian, Greek and Roman architecture which he saw twenty years later at Saqqara, Mycenae and Tivoli, as well as other archaeological landmarks, had a far more immediate impact on him.”<sup>26</sup>

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<sup>25</sup> Scully, Vincent J. “Jehovah on Olympus: Louis Kahn and the End of Modernism”, *A&V* 44 (November-December 1993), p.98.

<sup>26</sup> Filler, Martin. “The Emperor of Light: Kahn’s Oeuvre, Twenty Years Later”, *A&V* 44, p.105.

Addressing Kahn's "Egyptian connection" through his observation of the impact of hieroglyphics on Kahn's thinking, Joseph Burton proposes more or less similar morphological connections between Kahn's unbuilt Washington University Library of 1956 and the stepped pyramid of Egypt.<sup>27</sup>

In short, these readings more or less adopt a morphological frame of reference when addressing Kahn's architecture. The travel sketches and their references to classical architecture, hence, become central to these investigations. Such approaches ironically overlook (or oversimplify) Kahn's larger philosophical agenda, as William Curtis points out:

“Recent discussions of Kahn's architecture run the risk of reducing his idea of the past to a convenient vulgate of 'sources', and fail to realize that he was radical in the deepest sense: revolutionary, yet returning to roots.”<sup>28</sup>

The investigation to take a different approach to Kahn's later architecture is that of Sarah Ksiazek, which emphasizes the philosophical roots of Kahn's architecture in the web of cultural and

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<sup>27</sup> Burton, Joseph. "Notes from Volume Zero: Louis Kahn and the Language of God," *Perspecta*, v.20 (1983), pp. 69-90.

<sup>28</sup> Curtis, William. "Cosmos and State: The National Assembly in Dhaka," *A&V* 44, p.103

political discourses of the period.<sup>29</sup> Sarah Ksiazek's investigation is more concerned with the impact of postwar politico-social discourses on Kahn's architecture; the travel sketches, hence, do not constitute a central issue. It is Stanford Anderson's observations on "Louis I. Kahn's reading of Volume Zero" that offers us a basis for an alternative reading of Kahn's travel sketches. Although mainly addressing Kahn's attempt to redefine public institutions through abstract search in architecture, Stanford Anderson finds in Kahn's travel sketches similar abstract conjectures:

"Kahn seeks an imaginative projection beyond the detail, beyond the particularity of the ancient monument. It is his quest, and his projection, one that may serve his vision in his circumstance."<sup>30</sup>

Critical investigations on Kahn's architecture from various angles have by now reached a fairly conspicuous size,<sup>31</sup> nonetheless, Kahn's critical operation specifically within his travel sketches has received

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<sup>29</sup> Ksiazek, Sarah. "Changing Symbols of Public Life: Louis Kahn's Religious and Civic Projects (1951-1965), Doctoral Dissertation, Columbia University.

<sup>30</sup> Anderson, Stanford. "Public Institutions: Louis I. Kahn's Reading of Volume Zero," *Journal of Architectural Education*. (forthcoming) The author would like to acknowledge his indebtedness to Stanford Anderson's analytical methodology and also, for allowing him to read the yet unpublished material.

<sup>31</sup> To name a few works, apart from those of Vincent Scully, those by Christian Norberg-Schulz, Kenneth Frampton, Stanford Anderson, William Curtis, Maria Bottero, and, more recently by David Brownlee, David De Long and Sarah Ksiazek.

scant attention beyond Scully's initial essay for the traveling exhibition of 1978.

This thesis undertakes the task of mapping Kahn's thinking process in his travel sketches. Based on the notion of the 'sketch as a critical translation' mentioned earlier, it is plausible that Kahn's sketches will give us a visual basis to grasp his mental meandering—afterall he was a philosopher-architect who held that 'everything that an architect does is first of all answerable to an institution of Man before it becomes a building'. A critical reading of his travel sketches should illuminate his philosophical trajectory, triggered by those places and buildings he encountered, and this trajectory would in turn shed new light on our understanding of his architecture.

### **Kahn: 1930s and 1940s**

But before looking into the sketches, one might wonder what was Kahn doing and thinking prior to this period: what was Kahn's frame of reference through which his mental operation occurred and was manifested in those sketches. Although, in chapter three, the sketches will be discussed in greater detail in the context of Kahn's larger

enterprise, a brief account of his activities and the line of his thoughts during the postwar period, will be addressed here.

First is the political nature of Kahn's development in the post-Depression era resulting from his involvement in various housing schemes. Although scholarship on Kahn favors his later architectural works, Kahn's earlier works in the 30s and 40s on various public housing schemes confronted larger societal forces in architecture and intensified through the years of the New Deal and World War II. These works permit an interesting political commentary.<sup>32</sup>

A pivotal role has usually been attributed to Kahn for his later mature works, as Francesco Montuori expressed: "Louis Kahn's work seemed

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<sup>32</sup> Kahn's interest in the civic dimension of architecture comes to notice with his founding of the Architectural Research Group in 1931, for which he carried out extensive research on low-cost housing in Europe and the United States. In the mid-thirties Kahn collaborated with the émigré architects, Oscar Stonorov and Alfred Kastner, who had already worked on housing schemes for factory workers inspired by a growing awareness as slum conditions worsened because of the Depression. As Kahn worked on many housing projects, built and unbuilt, for federal agencies, he became a recognized authority on housing matters. These experiences gave Kahn a critical edge on the social issues of architecture. In 1942, Kahn, along with George Howe and Oscar Stonorov, published an article in *Architectural Forum*: "'Standards' Versus Essential Space: Comments on Unit Plans for War Housing." Kahn already led many research groups advocating architect's larger social role, and served on many city councils and with Stonorov published several pamphlets on the subject of urbanism. In 1947 Kahn's career reached a visible political level as he assumed the presidency of the American Society of Planners and Architects. For general reference, see Brownlee, David B. "Adventures of Unexplored Places: Defining a Philosophy, 1901-51, in *Louis I. Kahn: In the Realm of Architecture*.



like an outlet from the 'blind alley' where the modern movement has ended."<sup>33</sup> However, that what has rarely been discussed is the political dimension of this outlet. Perhaps Kahn's deep belief in architecture as a moral force able to chasten society and its Institutions might have its roots in the politicization of his thought process due to his experiences with public housing as a socio-architectural experiment.<sup>34</sup>

Second, Kahn's first extended theoretical paper in 1944 entitled "Monumentality"<sup>35</sup> signals a process of 'spiritualization' in Kahn's thought processes. Some of the ideas Kahn puts forward in the paper are of particular interest in understanding this process. He defines Monumentality as "a spiritual quality inherent in a structure which conveys the feeling of its eternity, that it cannot be added to or changed." Notions such as 'spiritual quality', 'feeling of [its] eternity', 'beginning of social reform' etc. are embryonic concepts that will steadily flower in Kahn's vocabulary to enlighten his whole life. Interestingly, in his talk Kahn exemplifies the feeling of eternity by citing the Parthenon as he says: "We feel that quality in the Parthenon, the recognized symbol of Greek civilization." Kahn voiced his aspiration for a New Monumentality by reinterpreting architecture's

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<sup>33</sup> see the review of *Louis I. Kahn: L'Uomo, Il Maestro*. ed. Alessandra Latour, by Plunz, Richard A. *Design Book Review* 21 (Summer 1991), p.10.

<sup>34</sup> Ksiazek, Sarah. "Changing Symbols of Public Life."

<sup>35</sup> Kahn, "Monumentality," 1944, in *Writings*, p. 18.

historical development in the light of a new expressive meaning of lightweight structure. He sought a new symbolic meaning of technology that would imbue society with a new hope, especially when the society faces the daunting task of readjusting itself to the volatile postwar era.<sup>36</sup>

Third, that Kahn became a visiting critic to the Yale School of Architecture in 1947 was contributive in two ways. On the one hand, it gave Kahn an academic setting to articulate his rather cryptic thinking process: as Kahn once said “As I teach myself, I teach others.”<sup>37</sup> On the other, Yale brought Kahn to a true forum of multidisciplinary intellectuals, ranging from Buckminster Fuller to George Howe, Philip Johnson and Joseph Albers, that provided conspicuous philosophical nourishment.<sup>38</sup> The climate of modernism that flourished at Yale after the war promoted more flair and heterodoxy than Gropius’ Harvard or any other architectural school in

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<sup>36</sup> see *Architecture Culture 1943-1968*, ed. Joan Ockman, (New York 1993).

<sup>37</sup> *Perspecta* (The Yale Architectural Journal) published Kahn successively from 1953 to 1955 in issues 2,3, and 4—his words and his projects. See Huff, William S. “Kahn and Yale,” *Rassegna*, vol.21, (July 1985). Also, for the articles see *Writings*, ed. Latour.

<sup>38</sup> Robert A.M. Stern. “Yale 1950-1965,” *Oppositions* 4 (October 1974). Also see Huff, “Kahn and Yale.”, Ksiazek, “Changing Symbols,” (chapter two),

the States, a fact that gave Kahn the opportunity to view architecture from different perspectives.<sup>39</sup>

Another thing at Yale during that period was of great importance to Kahn and also, presumably very relevant for his travel sketches, especially for those he produced during the 1950-51 trip. The Yale pedagogy at that time sought a closer integration of the allied arts: a synthesis of architecture, painting and sculpture. A studio project: National Center of U.N.E.S.C.O., directed by Kahn and Jean Charlot, a noted artist from the Colorado Springs Fine Arts Center, exemplifies this collaborative approach.<sup>40</sup> (Fig.9) In writing the program, Kahn assigned roles to the members of the collaborative teams: the architects were assumed to be the master planners, the painters and sculptors were expected to collaborate in the development of ground sculpture, in the articulation of the enclosed areas with the means of vertical and horizontal circulation. The then Dean of the School of Fine Arts, Charles H. Sawyer, noted that it “served to stimulate their imagination and provided a real challenge for all members of the teams.”<sup>41</sup> This collaborative theme itself must have given Kahn an opportunity to

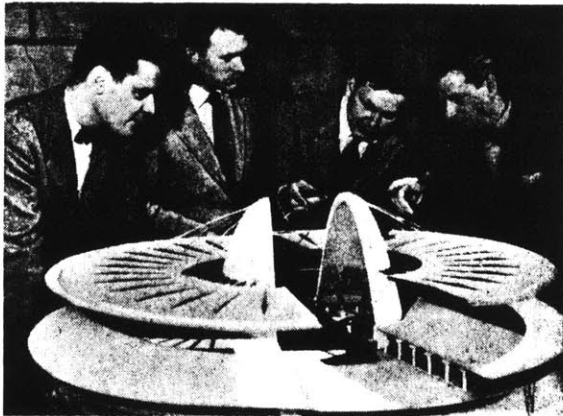


Fig. 9. Yale 1949: Critic Kahn (right) at the “collaborative” studio.

<sup>39</sup> See Stern. “Yale 1950-1965.” Also, Saint, Andrew. “What Bricks Actually Want,” *The Times Library Supplement* (May 15, 1992) and Huff, “Kahn and Yale.”

<sup>40</sup> “Student architects, painters, sculptors design together.” *Progressive Architecture* (April 1949). Also see Ksiazek, “Changing Symbols,” (chapter two).

<sup>41</sup> See *Progressive Architecture*, (April 1949), pp.14,16 and 18.

realize how the creative impulse of the architect could be sparked not only by architectural exercises but also by other allied arts.

The next chapter will address Kahn's sketches, primarily with a central question about how they inform us when we examine them critically. Chapter three will attempt to expand the 'inferences' found from the sketches in the broader context of Kahn's own development as an architect. In extending the sketches to a larger frame of reference, the thesis will rely heavily on Kahn's own words.



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# Chapter

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T w o



## CHAPTER TWO

### Kahn and the Sketch

Like his design process,<sup>1</sup> Kahn's sketching assumes a dialogical methodology. Kahn spent a lifetime learning and reevaluating, questioning and elaborating, as he put it: "When you have all the answers about a building before you start building it, your answers are not true. The building gives you answers as it grows and becomes itself."<sup>2</sup> Kahn's design often developed through a continuous interaction with clients, engineers, and assistants. Kahn's longtime associate Marshall D. Meyers recalls how Kahn rarely worked alone. He liked to have one of his assistants by his side, with whom to extend his exploration on paper by dialogues. He needed this dialogue, in a manner of question and reaction with a view to verify and rectify his design ideas. His allegorical conversations, for instance, with the brick "What do you want, brick?... Brick says, " I like an arch." testify to the dialogical agenda he often employed in his design process.

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<sup>1</sup> Meyers, Marshall D. "Louis Kahn and the Act of Drawing: Some Recollections," in *Louis I. Kahn: l'uomo, il maestro*. ed. Alessandra Latour, Edizioni Kappa, 1986. pp. 291-295. Also see, Ingersoll, Richard. Review of *Louis I. Kahn: The Last Master*, in *Design Book Review* 21 (Summer 1991), p.7.

<sup>2</sup> Kahn, in conversation with the client, 1971, reported in *Light is the Theme: Louis I. Kahn and Kimbell Art Museum* compiled by Nell E. Johnson. Kimbell Art Foundation, Fort Worth. 1975.



Kahn's travel sketches reveal a similar approach. During his voyages, especially in the 1950s, Kahn did not simply engage himself with the buildings of antiquity in a formalistic monologue. Rather it was, as we shall see when we analyze his sketches, a reciprocally informing dialogue, where at one level Kahn sought answers to his architectural as well as epistemological questions through those buildings; at another level, he recontextualized those buildings in an imagined landscape that would in turn inform his imperatives. Kahn's words from an article "The Value and Aim in Sketching," testify to his belief in this mutually-critical dialogical method:

“ I try in all my sketching not to be entirely subservient to my subject, but I have respect for it, and regard it as something tangible—alive—from which to extract my feelings. I have learned to regard it as no physical impossibility to move mountains and trees, or change cupolas and towers to suit my taste.”<sup>3</sup>

How Kahn put this reciprocally-critical precept into his travel sketches is what this chapter will address. As mentioned and elaborated in chapter one, the investigation will center on the sketches produced from two of

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<sup>3</sup> Kahn. "The Value and Aim in Sketching," (1931), in *Louis I. Kahn: Writings, Lectures, Interviews*. ed. Alessandra Latour, (Rizzoli, 1991), (hereafter cited as *Writings*).

Kahn's voyages in the 1950s: first, his European (also Egypt) trip in 1950-51 when he was appointed the Architect in Residence at the American Academy in Rome and second, his trip to France in 1959 when Kahn went to Holland to deliver the keynote address at the Otterlo Congress.

Although chapter one addressed Kahn's activities and thought processes in the preceding two decades, especially in the late 1940s, before analyzing the sketches we must discuss Kahn's visit and his concerns at the American Academy in Rome.

### **The American Academy in Rome<sup>4</sup>**

Founded in 1894, the American Academy in Rome had the objective of furthering the fine arts and classical studies in the United States, principally by granting fellowships to outstanding young American

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<sup>4</sup> The author would like to express his deep gratitude to Sarah Ksiazek, who allowed the author to see chapter two of her doctoral dissertation, "Changing Symbols of Public Life: Louis Kahn's Religious and Civic Projects (1951-1965) and the Architecture of the Fifties." Regarding Kahn's activities at the American Academy, I got many valuable information from Sarah Ksiazek's chapter (hereafter cited as "Changing Symbols."). My research at the Louis I. Kahn Collection, the University of Pennsylvania, funded by a Schlossman Fellowship 1994-95 from the Department of Architecture, MIT, have also been extremely helpful.

artists and scholars for independent work. Kahn first applied for a Fellowship of the Academy in 1947 but was rejected on the grounds that he did not exactly fall into the Academy-specified category of a “promising young architect at the outset of going into the profession” and that he already had a quite well established practice.<sup>5</sup> What Kahn expected from being a Fellow of the Academy could be understood to some extent from his application to the American Academy:

“ I should consider work in Rome, away from practice, as the opportunity I have looked for to develop the thoughts I have on architecture of today. These thoughts are about the frames and enclosures of new Architectural spaces, their effect and relation to painting, sculpture and the crafts, their significance to the people and their place in the continuing evolution of traditional forms. I believe that living in the environment of the great planning and building works of the past should stimulate better judgment in maturing these thoughts.”<sup>6</sup>

In 1950, having been very strongly recommended by George Howe, the Resident Architect at the American Academy in Rome in 1948, Kahn was invited by the then director of the Academy, Laurance P. Roberts to join the Academy as the Resident Architect. Inviting Kahn to work at the

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<sup>5</sup> Letter dated May 28, 1947 from Michael Rapuano, Chairman, Fine Arts Committee. Box LIK 60, Kahn Collection.

<sup>6</sup> Signed LK, letter dated April 25, 1947, application sent to Park Ave, New York. Box LIK 60, Kahn Collection.

Academy for four months from October 1950 through January 1951,  
Laurance wrote to Kahn:

“ The duties will be to act as advisor to the Fellows in architecture, to accompany them on occasional trips, and perhaps to supervise the collaborative exercise between architects, painters and sculptors. These duties are not at all time-consuming and should leave you ample time for your own sightseeing, work, and recreation.”<sup>7</sup>

After having postponed his trip several times since September 1950, Kahn finally came to Rome in December 1950, taking a leave of absence from Yale where he was a visiting critic. Kahn’s sojourn continued tentatively for three months; he spent seven weeks in Italy and five traveling in Egypt and Greece.<sup>8</sup> (Fig.10) Joseph Amisano, a fellow at the Academy at that time, recalls that within Rome, they followed an architect’s typical itinerary to all the major monuments, ancient, Early Christian, Renaissance, and Baroque. They visited the Roman catacombs, baths and ancient sewers.<sup>9</sup> Apart from Rome, Kahn traveled to Siena, Florence, Pisa, Venice, Milan and Pompeii producing a fairly large body of graphic works. But as for Rome itself, other than two tentatively identified sketches (one is of Bernini’s Piazza San Pietro and



Fig. 10. Kahn’s itinerary of 1950-51 trip to Italy, Egypt and Greece.

<sup>7</sup> Letter dated February 17, 1950 from Laurance P. Roberts. Box LIK 60, Kahn Collection.

<sup>8</sup> Ksiazek, Sarah. in “The American Academy in Rome,” in *Changing Symbols*, p.85.

<sup>9</sup> *ibid.*, p.85.

the other, Michelangelo's Campidoglio), no drawings of Roman ruins seem to exist.<sup>10</sup> Interestingly, in Rome, Kahn took great interest not only in the Parthenon and the Baths of Caracalla but also in Luigi Nervi's recently-completed long-spanned bridges. In fact, Kahn mentioned Nervi as a great engineer on many occasions, especially in *Order Is* (1955) and in his Otterlo talk (1959). (Fig.11)

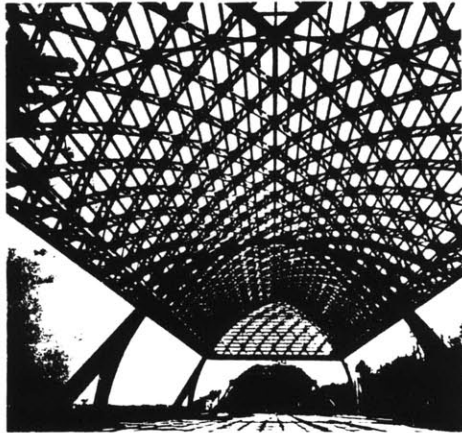


Fig. 11. Pier Luigi Nervi: Reinforced concrete hangar, Orbetello, 1938.

As Joseph Amisano recalls it was really Rome's piazzas and streets that intrigued Kahn:

“The streets late at night revealed the Renaissance as it was: fore-squared to the coarse stone streets, facades undulating, sculptured, made live by flickering overhead lights swaying in the wind. It was the effects of the light that preoccupied Louis and fascinated him: the deliberateness of the detailed forms, some carved like deep wounds with shadows deepening into reaches that promised forbidding secrets. The streets were mystically quiet, and Louis would lean away from a scene and then rapidly walk up to a building and touch it, like a friend.”<sup>11</sup>

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<sup>10</sup> De Long, David. “The Mind Opens to Realizations,” in *Louis I. Kahn: In the Realm of Architecture*, (hereafter cited as *In the Realm*), p. 50. John Cook in *Conversations with Architects* (Praeger Publishers, 1973) claimed to have seen the sketch Hadrian's Villa in Kahn's sketch book. p. 193.

<sup>11</sup> Amisano, Joseph in *What Will Be Has Always Been: The Words of Louis I. Kahn* (hereafter cited as “*What Will Be*”). ed. Richard Saul Wurman, (Access and Rizolli, 1986), p.265.

In fact, a recurrent theme of the group of sketches that Kahn produced in the cities of Italy is his fascination for the urban space: he drew Piazza del Campidoglio (Rome), Piazza del Campo (Siena), Piazza della Signoria (Florence), Piazza del Duomo (Pisa), Piazza di San Marco (Venice).

Kahn's companions included other Fellows at the Academy at that time: William H. Sippel and George Patton. In January 1951, Kahn along with the group flew from Rome to Cairo where Kahn spent about a week exploring and sketching the Pyramids at Giza. Then from Cairo the group took the train to Aswan where Kahn produced many sketches exploring the stone quarries, and then they set out for their way back in a 'biblical' boat ride on the Nile stopping in all the major sites including Karnak, Luxor and Edfu.<sup>12</sup> (Fig.12) In February, they traveled to Greece where Kahn and Sippel spent three weeks undertaking many voyages to the sites of Greek antiquity including Athens, Delphi, Corinth and Mycenae.

Although a fairly large body of graphic work was produced on these voyages, one can notice several dominant themes underlying them: in Italy the urban spaces form/stimulate the core work whereas in Egypt

<sup>12</sup> Hochstim, Jan. *The Paintings and Sketches of Louis I. Kahn* (hereafter cited as "Paintings and Sketches"), (Rizzoli, 1991), p.241.

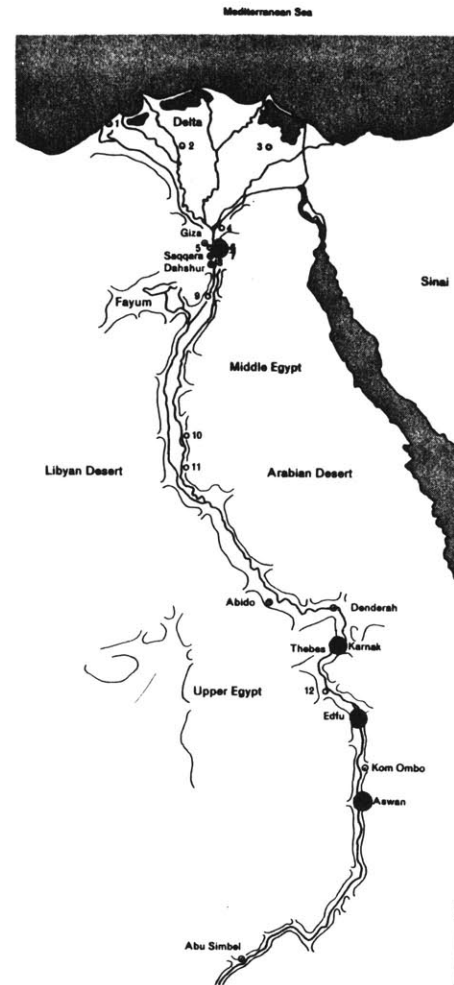


Fig. 12. Kahn's itinerary in Egypt, 1951.

and Greece the ruins seem to spark his creative impulse. What follows is the selection of sketches representative of these thematic developments in each country and their analysis under each developments : What do they really tell us ? What were Kahn's implicit and explicit agenda in the act of sketching? This is a difficult undertaking, especially when the task is to deduce meanings from the visual language of a special kind of drawing (travel sketch), which presumably evade any definable criteria and whose final objective is ambiguous. As the analytical methodology will be at an interpretive level, the thesis acknowledges the possibility and necessity of extending, elaborating and speculating on the the sketches beyond their ocular narratives.

## **Italian Piazzas**

Over the centuries voyage to Rome has become a critical part of architect's education. Although the tradition probably has its root in antiquity, and carried through the middle ages, perhaps the most celebrated examples of this learning process were the Renaissance architects. The Renaissance grew out of an examination and measurement of Roman space, composition, and construction.

From the Renaissance to the Ecole des Beaux-Arts, a pedagogy evolved which institutionalized the experience of Rome as a critical learning from the examination and measurement of classical architecture.<sup>13</sup> Trained in a Beaux-Arts education, Kahn's interest in Rome is surely derivative of that pedagogical legacy; however, like some of his visionary predecessors, especially Piranesi and De Chirico, Kahn had a unique vision of Rome. The body of sketches produced from Kahn's voyage to Italy in 1950-51 shows Kahn's fascination with the Italian piazzas and their spatial quality.

Kahn's focus was on grasping the character of Rome as a place rather than as the container of individual classical monuments. For him the Roman *genius loci* remains in its great piazzas. Kahn's sketch "Rome, 1959", (title given by Kahn, which he rarely did) is the collage of different mythic urban images as well as architectonic elements that he contemplated during his encounter with the landscape of classical and contemporary architecture of Rome. (Fig.13) The fragmentary nature of the elements assembled depicts an imagined urban space fanning out in many direction, quite in contrast to the enclosed and integrated urban totality of Rome: a Roman street does not separate the houses, it unifies them giving one a feeling of being inside when one is out. In the piazza

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<sup>13</sup> Schwarting, Michael J. "The Lesson of Rome," in *The Harvard Architectural Review*, vol.2, (Spring 1981) pp. 22-47.

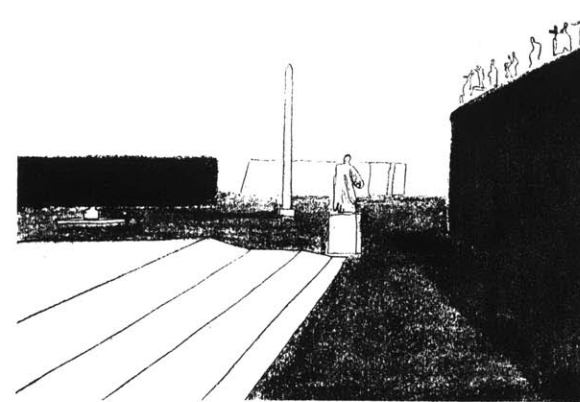


Fig. 13. Louis Kahn: "Rome, 1951."  
Pastel on paper.





Fig. 14. Piazza San Pietro, Rome.

this character of interiority is emphasized; the houses surround the space, and the center is usually marked by a fountain or an obelisk.<sup>14</sup> In Kahn's sketch the fragmentary assemblage of an obelisk, a fountain and a statue create an antithesis to the ideas of interiority and centrality, although in the two-dimensional composition the obelisk does occupy the center. It is fluidity (amorphous) as opposed to interiority that the sketch tries to depict.

But as one starts looking very carefully at the sketch, one realizes how Kahn, based on his own proclivities, actually drew Bernini's Piazza di San Pietro (**Fig.14**) in the foreground with a seemingly modern building at the distant horizon. Standing near the low steps to the right of the central axis with his back to the facade of St. Peter's and looking towards the oval-shaped piazza, Kahn reconstructs a strikingly different image. Kahn's Piazza San Pietro completely overlooks the centrality of the oval space delimited by the monumental baroque arcade. (**Fig.15**) The dominating presence of the vast Basilica is purposefully denied. Whereas in San Pietro the main axes of the oval are clearly defined and the center is marked by an obelisk, flanked by two fountains on either side, (**Fig.16**) Kahn not only de-emphasizes the strong centrality of the oval space by drawing only one fountain on one side of the obelisk

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<sup>14</sup> Norberg-Schulz, Christian. "Genious Loci of Rome," *Architectural Design*.

but also breaks down the sense of interiority of the piazza by a curious perspectival technique.

The double theme of enclosure and direction of Piazza San Pietro created by the grand colonnade has here been purposefully reduced, evidently for a different agenda, to a disjointed and minimal theatricality. Here Kahn does not take any single element or building as his point of departure, but takes a disjunctive vista of the piazza and then transcends it into a mystically silent urbanscape recalling the mythological fantasy of De Chirico's Italian squares. (Fig.17)

A consistent metaphoric theme of De Chirician Italian squares is a vista of silent space enclosed by architectural facades subjected to deep perspectival technique, peopled by shadows and statues, bounded by distant horizons and pervaded by an elegiac sublimity.<sup>15</sup> For the Italian painter the urban squares of Italy become melancholic assemblages of architectural elements. As he says:

“In the planning of cities, in the architecture of houses, squares, gardens, promenades, seaports, railway-stations—are the very foundations of a great metaphysical esthetic.”<sup>16</sup>

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<sup>15</sup> Soby, Thrall J. *Giorgio de Chirico*. The Museum of Modern Art, (New York, 1966).

<sup>16</sup> *ibid.*, p.40.

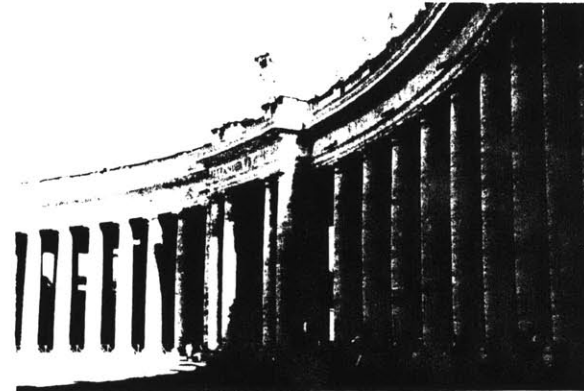


Fig. 15. Bernini: arcade, Piazza San Pietro, Rome.

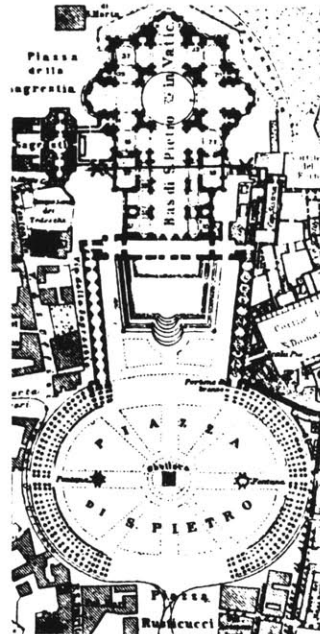


Fig. 16. St. Peter's at Rome.

The “metaphysical” premise underlying De Chirico’s dream-lit architectural squares of Italy partly evolved from his exposure to the writings of German Philosopher Friedrich Nietzsche. A quotation like the following relating to the “ideal artist”, from Nietzsche’s *The Birth of Tragedy*, which De Chirico read very avidly, must have ignited for him a longing for a supernatural intensity of expression: “The beautiful appearance of the dream worlds, in the production of which every man is a perfect artist, is the presupposition of all plastic art and in fact..... of an important half of poetry also.”<sup>17</sup> Nietzsche proposed a lyric reappraisal of everyday objects and scenes, suggesting an ulterior meaning beneath surface appearances. In De Chirico the heavily shadowed receding arches, the solitude of the silhouetted figures, the statue, the box, the train etc. perhaps propose a Nietzschean counter-reality based on reverie and incantation.

Speculating about a direct De Chirico influence on Kahn might run the risk of becoming far-fetched; however, due to their consistent architectural theme, De Chirico’s paintings must have drawn wide attention among architects. De Chirico was born in 1888, thirteen years earlier than Khan, and attained international fame during the early

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<sup>17</sup> Quoted in Soby, p.27.

1920s. In his own paintings since the late 20s, Kahn was very much receptive to contemporary art movements. Besides, one of Kahn's popular pastimes was to collect paintings from the magazines which he often flipped through.<sup>18</sup> Hence, Kahn's exposure to De Chirico is plausible.

Looking at De Chirico and Kahn's sketch, one can feel the spatial mystery of the Italian piazzas with which both men were fascinated. Like De Chirico's, the vista in Kahn's sketch is contained on one side by a straight colonnade, whose rapidly diminishing plane, along with the sharply radiating flights of steps, intensifies the illusion of a limitless space. The illusion is further heightened by the scaling-down of the distant architectural elements in relation to the large foreground steps. The deep perspectival technique is in no way an end-product in itself. Rather it has been adopted, in the De Chirician manner, as a tool to enhance emotive power.

Unlike De Chirician shadows, dramatized to an unnatural degree, Kahn's shadows are quite realistic; however what is interesting is that in allocating light and shadow, Kahn takes extreme liberties—only the arcade on the right and the obelisk cast shadows. The willful exclusion

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<sup>18</sup> Hochstim, Jan. Interview with the author on March 21, 1995.



Fig. 17. Giorgio de Chirico: "The Enigma of a Day." 1914.

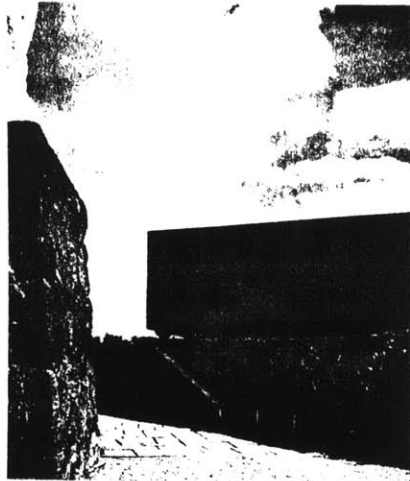


Fig. 18. Monument to the Fosse Ardeatine, 1944-47, Rome.



Fig. 19. E.U.R. Complex, Rome, 1942.

of any human figure makes the silence and inertia of the reimagined space absolute. Kahn is not interested in the texture or materiality of the elements; the space suggested is skeletal, reduced to a disjointed interlocution of constituent elements in an optative urban image.

Another curious part of the sketch is its highly ambiguous cross-reference between the vaguely drawn classical architecture of San Pietro in the foreground and a seemingly modern building in the horizon, which recalls one of the architectural centerpieces of postwar Italy: the Monument to the Fosse Ardeatine in Rome erected between 1944 and 1947 by Mario Fiorentino and others.<sup>19</sup> (Fig.18) Also, the sketch suggests a cross-fertilization between the classicism of the colonnade and Mussolini's complex of Esposizione Universale di Roma (EUR) which Kahn visited with Joseph Amisano. (Fig.19) However, despite these speculative iconic semblances and their disquieting interpretability, Kahn's sketch remains a very personal statement.

The sketch of Piazza del Campo (Fig.20) in Siena offers a more original basis to map Kahn's mental meandering in the spatial mystery of Italian piazzas. Here Kahn thinks in the intrinsic red tones of Siena,

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<sup>19</sup> Tafuri, Manfredo. *History of Italian Architecture, 1944-1985*. trans. Jessica Levine, (The MIT Press, 1989), p.4. Also see Gregotti, Vittorio. *New Directions in Italian Architecture*, (Braziller, 1968), p.44.

further accentuated by the light of a late afternoon sun in a winter day.<sup>20</sup> Not only does he perceive the light in all its subtle modulations in the surrounding building facades and the bowl of the Campo but also measures the different degrees of intensity in the shade, emphasizing through darkness the radiance of the reflected sun. The building facades are seen as shades of different degrees as Kahn stands facing the sun. The shadows move, climb walls, inhabit corners, and are elusive. Kahn is interested in the critical reciprocity of the light and the space. The evocation of the spatial mystery resulting from the mutual correspondence of light and space is what Kahn's sketch seems to inform us.

Standing on one side of the Palazzo Pubblico and looking north towards the Cathedral and the campanile, Kahn renders the facade of the Palazzo at the left in the darkest tone as it is totally opposite to the direction of light. But the kiosk of the Palazzo, as its surface is marble cladded, is rendered somewhat luminous for it catches reflected light from the ground. The sharp red passages outlining the shape of the Palazzo tower in the foreground and the shadow line of the buildings around the square show Kahn's interest not in catching the picturesque details but

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<sup>20</sup> Kahn's itinerary shows that he went to Italy in December 1950 and left for Egypt in late January 1951. See Hochstim, *Paintings and Sketches*, p.241.

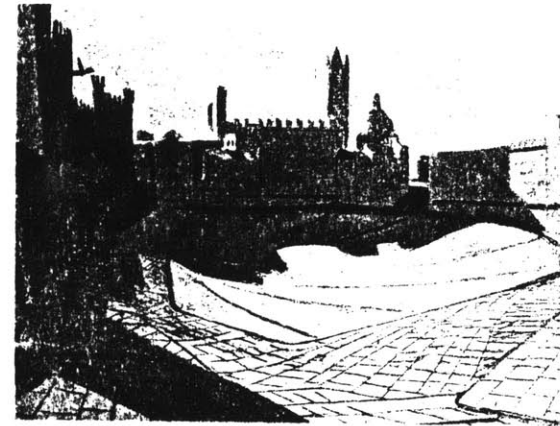


Fig. 20. Louis Kahn: Piazza del Campo (facing the sun), Siena, 1950-51. Pastel on paper.

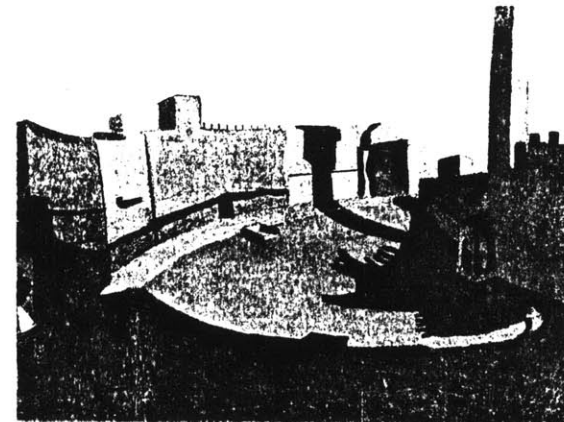


Fig. 21. Louis Kahn: Piazza del Campo (with sun behind Kahn), Siena, 1950-51.

rather in exploring the mood of the piazza at a very specific time of the day.

There is no doubt that Kahn was thinking in terms of light, as one will notice in the other of the two sketches he did in the Campo. (**Fig.21**) Kahn changes his position to go to the other side of the Piazza, turning his back to the sun and exploring the changability of the spatial quality due to the change of the direction of light. He meticulously captures an emerald-like luminosity in the brick surface of the Campo in the foreground, probably due to the reflected light from building facades. Not only is he interested in the different tonality/hues of light but also in the changability of texture and materiality due to the quality of reflected light. It is not the extravagant tower, Torre del Mangia, which rises far above its surroundings (cut in Kahn's vista), but its thick shadow across the great Campo that intrigues Kahn like the gnomon of a sundial tracing hours across the concave bowl of the piazza. Again, the kiosk of the Palazzo Pubblico, although within the thick shadows of the Palazzo, is rendered luminous due to the reflectibility of its surface material.

In both sketches, architectural elements are imagined merely in terms of light and absence of light. But again, for Kahn, the phenomenon of the presence and the absence of light is not a black-and-white polarization;

he also captures the intermediary illuminations due to the direction of light, texture, materiality etc.

But the study of light in Kahn's exploration of the Campo is not an end-product in itself. No doubt at one level of operation, he is very much engaged with the space in experiential terms as he seeks to understand the architectural elements that all march to the same inexorable disciplines of time and geometry as the earth twists in front of the sun. But at another level, more abstract and subjective, Kahn does not look anymore; he envisions. He projects what he sees into an imagined landscape—a process that entails reformation and deformation of the extant elements, but this does not matter much since he is more interested in transcending that reality. All this is echoed in Kahn's oracular pronouncement: "The painting is the shadow of consciousness."<sup>21</sup>

Kahn quite purposefully blots out all details such as the fenestration in the surrounding building facades that could suggest any particular scale or function, achieving scalelessness and timelessness. He leaves out all human figures, so much the integral part of the landscape of the Campo, accentuating a deep sense of silence, again recalling De Chirico's

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<sup>21</sup> Kahn, Lecture 1968, Box LIK 60, Kahn Collection.



haunted urban piazzas. Kahn's construction becomes a synthesis of "timed" and timelessness. Timed, because he captures a very specific moment of the day defined by the sun-earth relationship; and timeless, as he attempts to reposit the physical realm into an archetypal terrain where the conception of time as a movement becomes irrelevant. This is an operation between the empirical conditions, such as light, shadow, material, texture, skyline etc., and the utopian formulation, such as, silence, sublimity, allegory etc. Kahn's agenda can be best viewed, in the Siena sketch, in terms of a dialectic between experiential and conceptual, physical and metaphysical. Kahn's Campo is an imagined reconciliation of the temporal and the eternal. T.S. Eliot expressed similar views<sup>22</sup>:

Between the idea  
And the reality  
Between the motion  
And the Act  
Falls the Shadow

The idea of "in-between" as a tool to synthesize idea and reality, beautifully depicted in T.S. Eliot, is a theme inherent in Kahn's dialectical vision. The significance of his agenda evolves from his

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<sup>22</sup> Eliot, T.S. *The Hollow Men*. Quoted in Lobell, John. *Between Silence and Light: Spirit in the Architecture of Louis I. Kahn*. (Boston: Shambhala, 1985), p.70.

search for the archetypal answers in the temporal conditions. The schemata of his travel sketches constantly seek this union.

## **The Monuments of Egypt**

In Kahn's itinerary, Egypt is next after Italy. In Egypt he encountered the monumental architectures of the Pharaonic age. Whereas in Italy his interest was in the spatial quality of the piazzas, in Egypt his attention centered more on the monuments themselves. He produced a family of sketches of the great pyramids of Giza and then, as he took a 'biblical' boat ride on the Nile from Aswan towards Cairo, he stopped in all the major sites along the river: Luxor, Karnak, Edfu, Deir el-Bahari etc. producing a good number of sketches in pastel and charcoal.

In Egypt, the bright mediterranean light on one side, and the pyramids and the pylons, the temples and the hypostyle halls, on the other, provided him with an architectural laboratory set perfectly in the theatrics of the desert environment. In the grand hypostyle hall of the temple of Ammon at Karnak or in the court of the temple of Khons, the study of reciprocity between light and material becomes a recurrent theme in Kahn's sketches. Kahn sets out to see how the bright mediterranean light accentuates the texture, grain, color and mood of the

grand columns which in turn produce reflected light of different hues and tones.

The sketch of the court of the temple of Khons at Karnak (**Fig.22**) explores the variability of light and shadow. The fragmented, disjunctive nature of the columns, discontinuous entablature and the wall with its obscure hieroglyphics itself creates a sublime stage-set. Using bright yellows, reds and oranges, Kahn emphasizes the warmth of secondary illumination. The shadow is darkest in the wall under the entablature, and then acquires an increasingly reddish tone as it approaches the bottom of the wall due to the reflected light from the floor. The darker the shadow, the more in detail he could see the texture of the wall. In the bright light of the mediterranean, we actually see things better not in the direct light but in the shadow. The first column on the right picks up an orange reflection from the side wall whereas the entablature on the left is rendered light brown which appears somewhat incongruous for the direction of the light depicted.

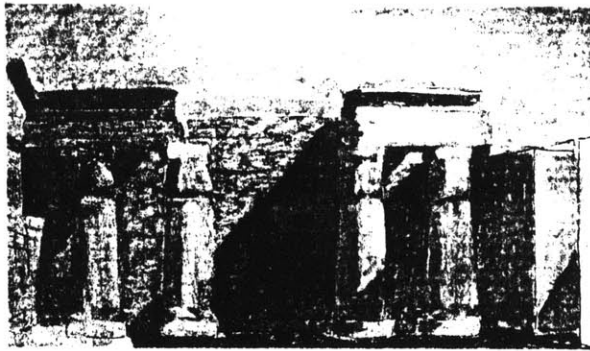


Fig. 22. Louis Kahn: Temple of Khons,  
Karnak, Egypt 1951.  
Pastel and charcoal on paper.

Moreover, the right side of the sketch is more or less a depiction of the natural conditions of light and shadow. But as one gradually moves to the left, the sketch appears to be a construction: the color scheme is more somber, the directionality of light is ambiguous and the shadows cast are curious in their outline. This leads to an interesting question of

changing perception within one sketch: a conceptual juxtaposition of reality and imagination. This seems to be how Kahn integrates eye and mind. He himself had put it thus, some twenty years earlier:

“We must learn to see things for ourselves, in order to develop a language of self-expression. The capacity to see comes from persistently analyzing our reactions to what we look at, and their significance as far as we are concerned. The more one looks, the more one will come to see.”<sup>23</sup>

While sketching the hypostyle hall of the Temple of Ammon at Karnak, (Fig.23) Kahn attempts to capture the spatial mystery heightened by the play of light and shadow on the columns. (Fig.24) Since he does not include the lintels that actually cast the shadow, the drama of the space is further accentuated. It is very much evident from the sketch that it is an exploration of both light and mass. He feels the columns but looks at the light. He is interested in grasping the mutual reciprocity between the column and the light and how the rotundity of the column is accentuated by the curved shadows.

The sketch, done in charcoal, shows how Kahn uses the medium to his desired effect. Charcoal seems kindred to Kahn’s temperament; the fact that the mark of charcoal can be bold, black, heavy, and thick, and then,



Fig. 23. Louis Kahn: Hypostyle hall, Temple of Ammon, Karnak, Egypt 1951. Charcoal on paper.

<sup>23</sup> Kahn, “The Value and Aim in Sketching” (1931), in *Writings*, ed. Latour. p.11.



Fig. 24. Second hypostyle hall, Temple of Sety I at Abydos, Egypt.

at the release of the hand's pressure soft, wavering and, evanescent, and Kahn could produce the quality of light he intended. In fact, Marshall D. Meyers, a longtime associate of Kahn, recalls charcoal as his preferred medium.<sup>24</sup>

In another of the sketches of the hypostyle hall, (**Fig.25**) Kahn takes a "hypothetical" microscopic gaze at the column capitals. Turning his head upward and then zooming in on the two types of column capitals, open and closed papyrus, he depicts, in a color scheme of red, yellow, green and blue, a moment conditioned by light and shadow. Just looking at this sketch one may find some of the patches of color quite whimsical; however, comparing it to an enlarged portion of Fig. 14, (**Fig.26**) the somewhat mystical patterns reveal their positions in a larger vista/context. The red, green and black correspond to different degrees of darkness of the shadow. The red is evidently the lightest shadow since it picks on the maximum reflected light whereas the portions under the lintels are obviously the darkest.

But it is the genre of the Pyramid sketches that offers us a glimpse into the mental wanderings of Louis Kahn. The color schemes chosen and

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<sup>24</sup> Meyers, Marshall D. "Louis Kahn and the Act of Drawing: Some Recollections," in *Louis I. Kahn: L'uomo. Il maestro* (hereafter cited as "Il Maestro"), (Edizioni Kappa, 1986).

the representational techniques employed invoke not a typological search for future inventiveness, as many suggested,<sup>25</sup> but a personal quest responding to its own internal imperatives and agendas.

The two sketches, done in pastel and charcoal, show how the monumental Pharaonic tombs become, for Khan, the matrix of a mythological landscape. In the first sketch, (**Fig.27**) the pyramids are heavily textured, abstracted and whimsically truncated neither giving any sense of scale nor proposing any directionality or presence of light. The foreground is populated by strewn stones and ravaged walls. Kahn's approach is frontal and, hence, the pyramid is seen merely as a flat triangle. As he changes position in the second sketch, (**Fig.28**) another plane of the pyramid appears and so does the effect of light. whole group of pyramid sketches (**Fig.29&30**) actually shows how Kahn circles around the great pyramid trio of Giza like an ancient ritual, looking not for the pyramids but for what constitutes the pyramidal: the quintessence of the platonic form.

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<sup>25</sup> Scully maintains in "Marvelous Fountainheads," *Lotus Int.* No. 68, that "In the Pyramids Kahn finds the first architectural form that he can make wholly his own and upon which he can begin to base his Order. So, it appears not only as tetrahedron in the slab of his Yale Art Gallery of 1951-53 but also as the roof shape in his Trenton Bath House of 1955...." p.54.

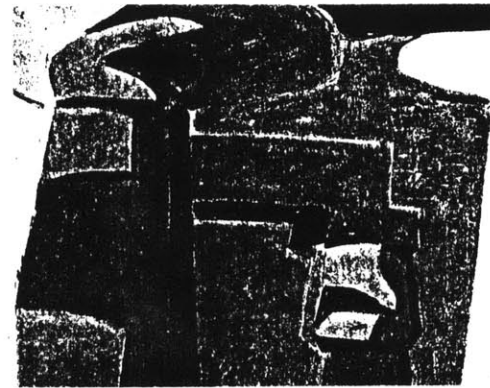


Fig. 25. Louis Kahn: Karnak, Egypt 1951. Pastel on paper.



Fig. 26. Partial enlargement of (Fig. 23).

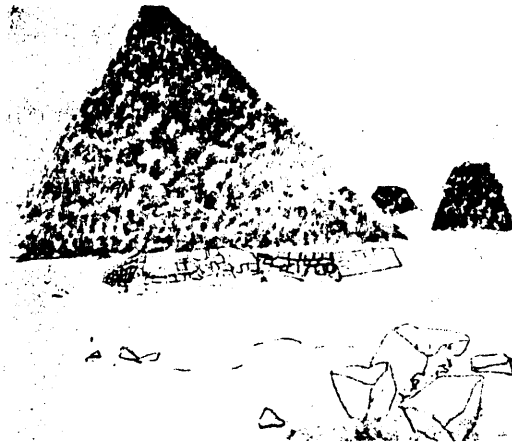


Fig. 27. Louis Kahn: Pyramids, Giza, Egypt 1951.  
Pastel and charcoal on paper.

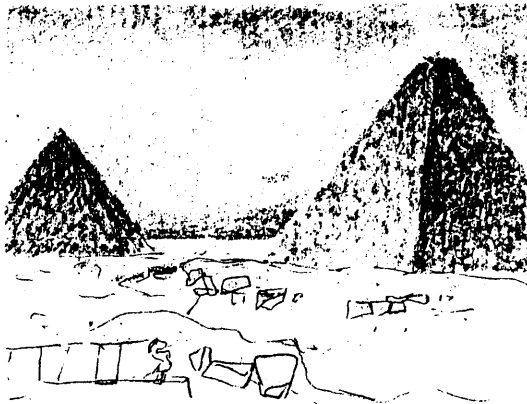


Fig. 28. Louis Kahn: Pyramids, Giza, Egypt 1951.  
Pastel and charcoal on paper.

In the course of his circling, he totally overlooks the emphatically present Sphinx since his agenda is not to explore the details of the Pharaonic complex. Corbusier had a different agenda when sketching in the same site. (Fig.31) Corbusier represents the sphinx and the pyramid in a mutual correspondence graphically compressing them together. He proposes a formal affiliation between the platonic and the figurative, setting their silhouetted profiles against the sky. Kahn does not seem to be interested in such formal analogy. Nor is he inquisitive about the tectonic essentials of the pyramids as he never zooms in his gaze on the pyramid. His enterprise appears to “see” the correspondence between the vertical growth of the pyramids and the infinitely horizontal expanse of the desert. Kahn’s pyramids acquire their form in the course of a dialogue with a mythical territory of land and sky.

To Kahn the pyramids assume an ahistorical dimension; they do not give any idea of time, place or history. He perceives them elementally in order to decode their internal dialogue, which is independent of time or context. Kahn does not seem concerned about the historicity or archeology of the place; for him the pyramids belonged to the realm of archetypal geometry. Kahn’s long time associate Anne Tyng reiterates

the fact that in the pyramids Kahn found the perfect context to examine his earlier interest in the emotive power of elemental geometry.<sup>26</sup>

But what is most interesting in the genre of the pyramid sketches is how Kahn juxtaposes two kinds of reality : the materiality of the subject, the pyramid, and the immateriality of the strewn stones in the foreground—a theme that becomes recurrent in the sketches of his next destination of his itinerary: Greece. For Kahn, there appears to be a complex equilibrium of two opposing concepts: eternity as opposed to temporality. The eternal presence of the primary forms reaching out to the sky, on the one side, and the temporal archaeology of the stones emblamating the ravage of time, on the other, lead us into a discourse much larger and more complex than its physical ‘referents’. Not only does Khan emphasize this notion of real and virtual by graphic means (one is planar and colored by virtue of its medium pastel and the other is linear by the use of charcoal) but also one is subjected to the environmental conditions such as light and the other is denied any empirical presence. The scattered stones, thus, acquire a symbolic meaning: they are no longer material but the memories of ancestral presence on the earth’s surface.

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<sup>26</sup> Ting, Anne G. “Louis I. Kahn’s “Order” in the Creative Process,” in *Il Maestro*, ed. Latour. p.289. Also, the author would like to express his deep gratitude to Anne tyng for a long and valuable discussion in Philadelphia.

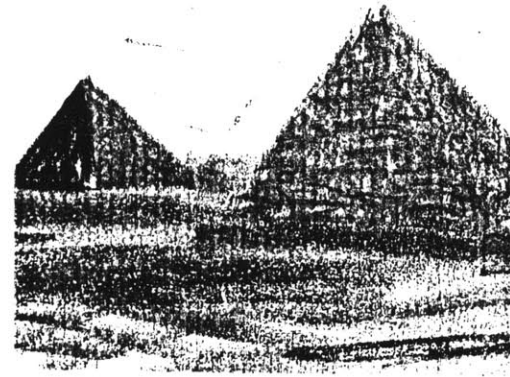


Fig. 29. Louis Kahn: Pyramids, pastel and charcoal.

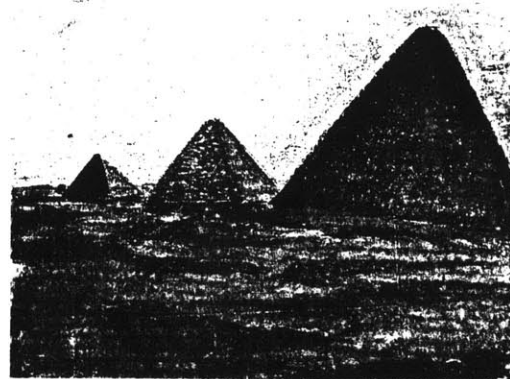


Fig. 30. Louis Kahn: Pyramids, pastel and charcoal.



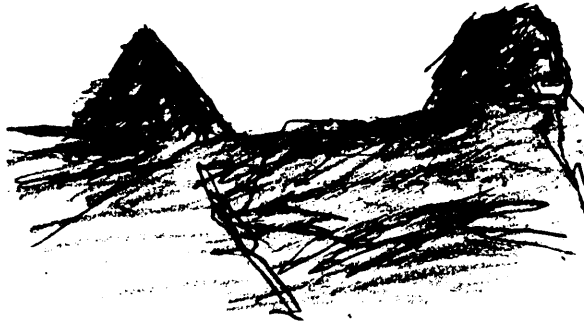


Fig. 31. Le Corbusier: Pyramid and sphinx, Egypt, 1952. Ink and colored pencil.



Fig. 32. Louis Kahn: Acropolis, Athens, Greece 1951. Charcoal and black crayon.

## The Acropolis

In February 1951, from Egypt Kahn went to Greece and with William H. Sippel, he traveled there for three weeks exploring the sites of classical antiquity.<sup>27</sup> Apart from Athens, they went to Delphi, Mycenae and Corinth. However, central to Kahn's graphic productions in Greece is the family of sketches depicting the Athenian Acropolis. Charcoal and pastel became his touchstones in the process of the exploration; he deeply believed in the "hidden potentialities" of the medium and fully exploited that to his advantage. Writing about Rodin's drawings in 1931, Kahn said that the sculptor "was always thinking in terms of his chisel and hammer," and these "are great drawings because they embody the hidden potentialities of his medium. They are the true visions of a creator."<sup>28</sup>

The Athenian Acropolis, in Kahn's sketch, assumes an image outside canonical depiction of the sanctuary. (Fig.32) He de-emphasizes the Parthenon's climactic position and focuses instead on the bulwarks of the Acropolis. The retaining wall demonstratively draws his main attention as he renders with meticulous detail the buttresses and the dark shadows they cast. Corbusier's sketch of the Acropolis, produced

<sup>27</sup> Hochstim, *Paintings and Sketches*, p.241.

<sup>28</sup> Kahn, "Value and Aim," in *Writings*. ed. Latour.

during his 1911 “Grand Tour”, informs us of a different agenda. (Fig.33) For Corbusier, the Parthenon itself grandiosely celebrates its solitary position as the zenith of the Acropolis as he calls it “a sovereign cube facing the sea”<sup>29</sup> and yet again “Nothing existed but the temple, the sky, and the surface of paving stones...”<sup>30</sup> Corbusier’s search is for an ideal Parthenon—a vision that led him to conjecture the Parthenon in its totality: from stylobate to pediment, which in reality one cannot see when standing below the hill. (Fig.34)

Corbusier attempts to understand the Greek classical grammar in climactic siting of the temple on natural contour;<sup>31</sup> Kahn, on the other hand, tries to grasp the force of manmade profile. Corbusier anatomizes the Parthenon to understand the internal dialogue of its various constituent elements: column, capital, entablature, pediment etc., (Fig.35) whereas Kahn emphasizes the conditions of light to which the object is subjected.

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<sup>29</sup> Le Corbusier. *Journey to the East*. trans. Ivan Zaknic, (The MIT Press), p.211.

<sup>30</sup> *ibid.*, p.217.

<sup>31</sup> See Le Corbusier, “Architecture, Pure Creation of the Mind,” in *Towards a New Architecture*. Corbusier’s view on the singular accentuation of the Parthenon on contour is reflected in his observations on Greek thought: “The Greeks on the Acropolis set up temples which are animated by a single thought, drawing around them the desolate landscape and gathering it into the composition. Thus, on every point of the horizon, the thought is single.” p.188.



Fig. 33. Le Corbusier: Parthenon, 1911.



Fig. 34. Acropolis, Athens.

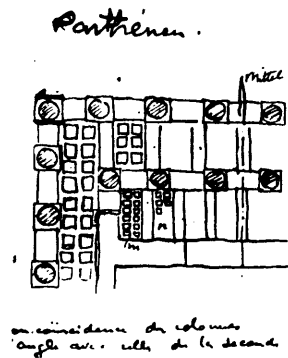
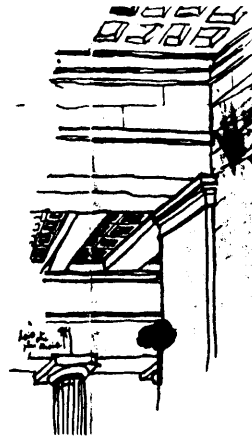


Fig. 35. Le Corbusier: Details of the Parthenon's ceiling and columns, 1911.



Let us now attempt a critical look at Kahn's sketch. (Fig.32) The arrangement of the composition is in four horizontal layers: the dark sky, the buttressed wall, the middle ground and the foreground consisting of strewn relics. Kahn fully exploits the potentialities of the charcoal; by controlling the pressure of the hand, he produces various tonalities to depict different aspects of the vista. The sky is quite willfully rendered dark giving the Frankish walls a luminous quality. In fact in many of his sketches Kahn uses the sky to enhance some kind of sublimity. (Fig.36) The marginal presence of the Parthenon emphasizes his interest in the rugged landscape of the Acropolis. He has no typological curiosities and makes no attempt at "reconstructing" the lost architecture as originally envisioned.

The most curious part of the sketch is, however, Kahn's juxtaposition of two kinds of realities, a notion that I suggested in the earlier sketches of Egypt, especially those of the Pyramid's. The sketch of the Acropolis reaffirms that conjectural concomitance of reality and counter-reality. The bulwark of the sanctuary celebrates an eternal presence defying the ravage of time—a realization of mankind's primeval mark on the nature. On the other hand, the carefully executed foreground creates an antithesis to this; the strewn stones, the broken wall, the fallen capital and, the displaced bust—all become the "immaterial" constituent of a metaphorical realm embedded in memory. They are relieved from all

phenomenal conditions of light, shadow and wind but yet emphasized by the graphic vigor of bold lines of the charcoal. In this allegorical juxtaposition of reality and counter-reality, Kahn's agenda transcends the utilitarian premise of a factual record. This is how Kahn leads us from a raw natural terrain to a mythological landscape.

In another sketch, depicting the Erechtheion and the Parthenon, (Fig.37) the metaphorical juxtaposition of "real" and "virtual" becomes more pertinent. The temples are emphasized not only by the graphic techniques, color and their projection against the sky, but also by their subjection to the conditions of light and shadow. The columns of the Parthenon pick up the reflected orange light from the clouds. The inclusion of the human figures on the stylobate of the Parthenon is clearly intended to incorporate a sense of scale and to enliven the temple. On the contrary, the rocks and the fallen column shafts in the foreground do not seem to appear merely for compositional or perspectival purposes; they seem more like an antithesis to the empirical conditions suggested in the background. Those elements do not cast any shadows, and are transparent, linear, and immaterial as if they do not really belong there. They are like memories; in other words, suggestive of some ancient events like a biblical catastrophe. The sketch of the Temple of Apollo at Corinth, (Fig.38) although rendered in a much more vibrant color scheme, suggests similar conjecture.



Fig. 36. Louis Kahn: Temple of Ammon, Luxor, Egypt 1951. Charcoal on paper.

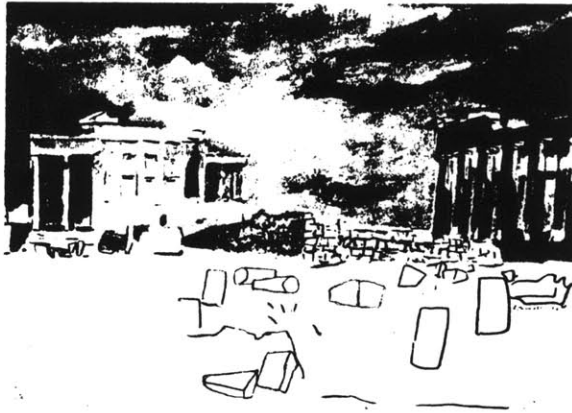


Fig. 37. Louis Kahn: Erechtheion and Parthenon, Acropolis, Athens, 1951. Pastel and charcoal

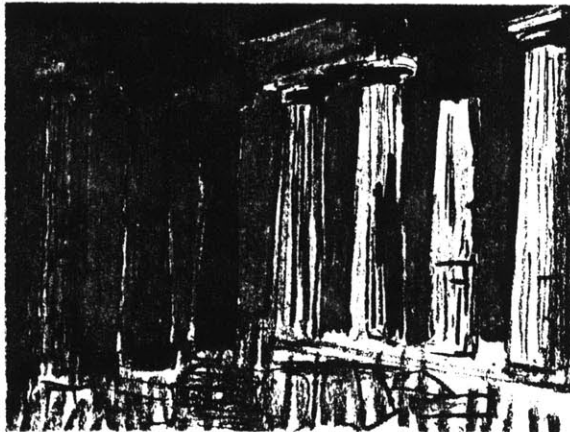


Fig. 38. Louis Kahn: Temple of Apollo, Corinth, Greece, 1951.

Kahn leads us from the phenomenal world into an apparitional/optative landscape. His inquiry is neither purely experiential nor fully utopian speculation, especially when considered in the light of *Outopia*, in Greek, meaning no place, and *Eutopia*, meaning the good place that have been used since Thomas More's *Utopia* (1516) to employ the *imaginary* to project the *ideal*.<sup>32</sup> Kahn's trajectory constantly oscillates between his experience, reaffirming his bodily presence in the place, and an imagined projection of a concept of epistemological nature. His agenda invokes an inquiry in which he seeks, "interrogates", and then verifies his concepts in those buildings or elements of antiquity as they become participants in a hypothetical interlocution.

### Carcassonne, Albi and Ronchamp: 1959

Kahn traveled to Europe in August of 1959 to deliver the key address at the Otterlo Congress in Holland. During this trip, approximately two months and a half long,<sup>33</sup> Kahn made significant side trips not only to Albi and Carcassonne, but also to the recently completed pilgrimage

<sup>32</sup> Schwarting, Michael J. "The Lessons of Rome." p.25.

<sup>33</sup> Johnson, Eugene J. "A Drawing of the Cathedral of Albi by Louis I Kahn," *Gesta*, XXV, No. 1 (1986) p. 165.

church at Ronchamp by Corbusier. The trip resulted in a relatively smaller but original group of pencil and pen-and-ink sketches.<sup>34</sup> This series is exclusively black and white, mostly line drawings, in sharp contrast to the heavily shaded charcoals and expressionistic pastels from the 1950-51 trip.

Examining Kahn's sketches of this trip, one is immediately struck by two unique developments in his graphic productions: first, Kahn's concerns are now exclusively in the built forms, taken out of their physical context, approached in a microscopic gaze and then perceived most rudimentarily, as is especially evident in the sketches of Ste. Cecile at Albi. (Fig.39) Second, his clear departure from his earlier graphic techniques to represent the effects of light and shadow in the built forms. In his 1950-51 trip charcoal and pastel gave Kahn a natural way to make flat planes to denote shaded areas or sky; now with pen and ink, images are instinctively in the incisive, spartan, scrawling manner recalling Corbusier's quick, impatient grasp of the phenomenal world.

To see whether this stylistic shift in Kahn's 1959 graphic productions is paralleled by his increasingly evolving quest for Order in architecture

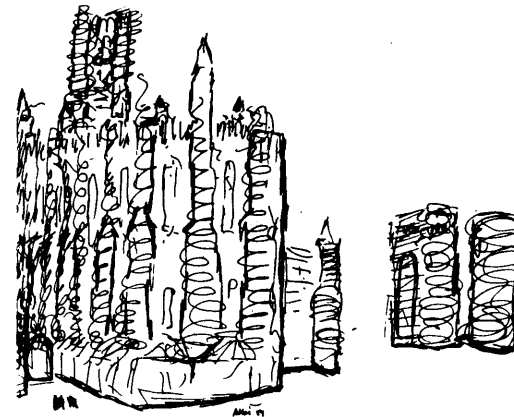


Fig. 39. Louis Kahn: Ste. Cecile Cathedral, Albi, France, 1959. Pen and ink on paper.

<sup>34</sup> Hochstim, *Paintings and Sketches*, pp.305-332.



Fig. 40. Louis Kahn: Carcassonne, France, 1959. Pen and ink on paper.

during this period,<sup>35</sup> would be an extremely complex issue to address, and is beyond the scope of this thesis. However, in order to shed some light on Kahn's implicit agenda underlying the sketches of Carcassonne, Albi and Ronchamp, a "glimpse" through Kahn's frame of mind at this particular period could be telling. His keynote address in the 1959 Otterlo Congress, an event either immediately preceding or following the trips,<sup>36</sup> although it might run the risk of being reductive in addressing Kahn's larger agenda during the 1950s, nonetheless, could give us an insight. Having this in mind, in the next chapter, I will try to broaden the sketches into the context of this talk.

#### CARCASSONNE:

The sketches of Carcassonne all revolve around more or less the same subject matters: fortifications, castles, and battlements. In one sketch of the castle (**Fig.40**) Kahn conjectures an elemental, fairy tale-ish growth of the castle and the ramparts. A part of his enterprise seems to visualize how the towers punctuate the sky and how the built form and the sky engage in a dialogue. He emphasizes their critical correspondence yet

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<sup>35</sup> Since mid-fifties Kahn's words clearly revolved around the notion of Order. A number of articles was published: *Order Is* (1955), *Space Form Use* (1956), *Order in Architecture* (1957), *Spaces, Order and Architecture* (1957), *On Philosophical Horizons* (1960) and so on.

<sup>36</sup> Eugene Johnson maintains that Kahn's trip to Albi probably took place between his departure from Philadelphia shortly after August 17, 1959 and the Otterlo Congress in September 7-15, 1959.

differentiates them by graphic techniques: the rhythmically twisted lines of the sky and the heavily textured dark tones of the built form produced by scratchy vertical lines.

The forms suggested do not seem to dwell in the physical realm; they are amorphous, a kind of pulpy mass waiting to be resculpted. His reaction to the object is visceral and improvisatory. Some of the elements such as the battlements and windows are emphasized by thicker pen lines as if he “interrogated” them to unveil an internal structure which would in turn evoke an archetypal grammar for the creative impulse. Kahn’s enterprise is to subsume the particularities of the building to the transformative energies of the mind that would in turn propel a creative process (a positive utopia?). The same point is cogently marked by Stanford Anderson:

“In Kahn’s drawings of Carcassonne, as in all drawings, there is of course selectivity and reductiveness-but there is more than this. Kahn draws battlements and towers with selective emphases that lead away from what would normally be recognized; he gives a counter-intuitive emphasis to the battlements—to a system of form that is the slighter one in its context, but which is for Kahn the more provocative one in a

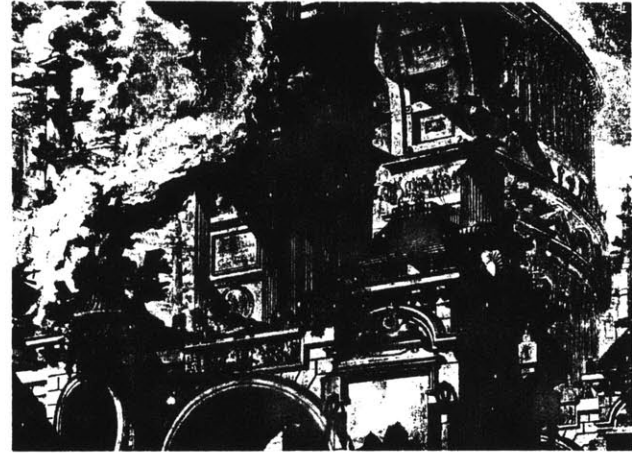


Fig. 41. Giam Battista Piranesi:  
Magnificent Port. *Opera Varie.*  
(1760s ?)



projective sense. He enters Carcassonne imaginatively in order to propose beginnings and project a possible architecture.”<sup>37</sup>



Fig. 42. Louis Kahn: Carcassonne, France, 1959. Pencil on notebook.

The point could be further clarified by comparing it with the Piranesian reconstruction of a deceptive reality based on “reverie” and impossible geometry. (Fig.41) Piranesi and Kahn represent two poles of confronting reality, one is obsessed with making out of Rome and its archaeology a graphic labyrinth of unattainable grandeur—what Manfredo Tafuri calls a “negative utopia”;<sup>38</sup> whereas the other reforms/transforms (as opposed to deform) what is given to a most elemental and ahistorical framework as if to begin things anew. (Fig.42) In his mythic gaze, Piranesi flattens time and proposes an authoritative denial of history through a synchronic vision of the past; Kahn on the other hand breaks free from the grasp of time and history where objects are “more rudimentary in their representation and more forceful in their imagined projections.”<sup>39</sup>

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<sup>37</sup> Anderson, Stanford. “Public Institutions: Louis I. Kahn’s Reading of Volume Zero,” *Journal of Architectural Education*, forthcoming.

<sup>38</sup> Tafuri, Manfredo. *The Sphere and the Labyrinth: Avant-Gardes and Architecture from Piranesi to the 1970s*. trans. Pellegrino d’Acierno and Robert Connolly. (The MIT Press), p.29

<sup>39</sup> Anderson, “Public Institutions.”

ALBI:

At Albi, Kahn produced a group of extremely provocative sketches of the late 13th-century Ste. Cecile Cathedral (**Fig.43**), an imposing Gothic structure begun in 1282 AD by Bishop Bernard de Castanet, who intended it as the visual and physical expression of his dominance over the city, including its tortured heretics.<sup>40</sup> Whether or not Kahn was interested in its history is uncertain and, as far as the sketches go, it seems irrelevant to consider Kahn's probable acquaintance with its past since looking at the sketches one is immediately struck by their most elemental and gestural representation, outside of any historical framework.

A group of these sketches, (**Fig.44**) from across the river Tarn, shows the north flank of the cathedral and the Archbishops Palace in the foreground. The towers and walls that enclose the gardens of the Bishop's palace rise from the river's edge. A little off-center to the left, appears the quadrilateral bulk of the palace, while farther back rises the seemingly flat-roofed rectangle of the cathedral, terminated by its domineering west tower. Kahn's program in this sketch seems to seize the overall gesture of the physical setup, as he quite faithfully renders

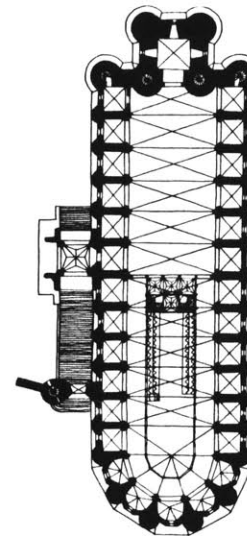
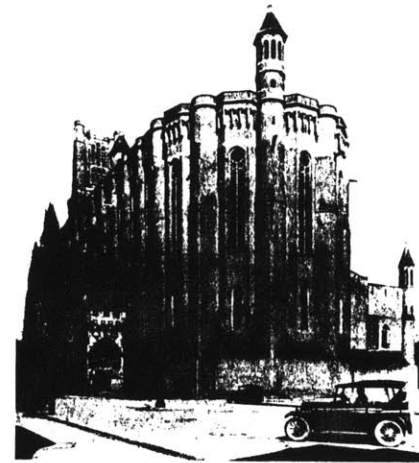


Fig. 43. Cathedral of Ste. Cecile, Albi (begun in 1282). Plan and exterior from the southeast.

<sup>40</sup> Stoddard, W.S. *Monastery and Cathedral in France*. (Middletown, Conn., 1966), p.301.

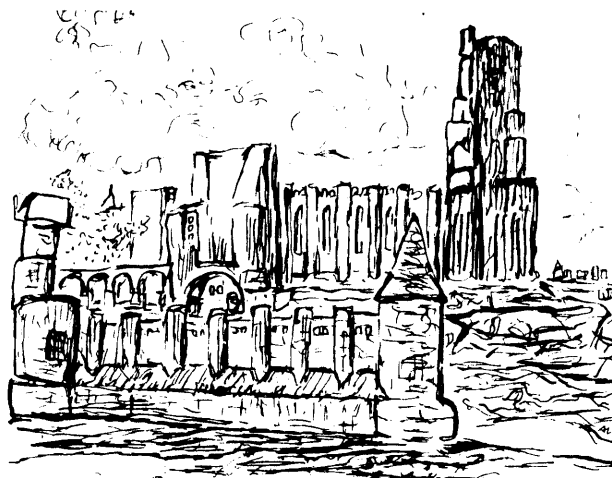


Fig. 44. Louis Kahn: Cathedral of Ste. Cecile, Albi, France, 1959.

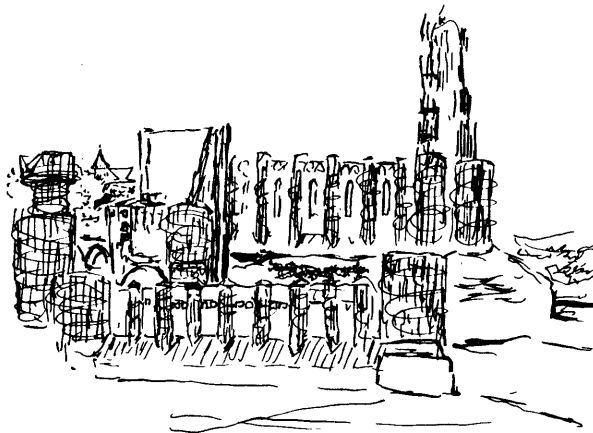


Fig. 45. Louis Kahn: Albi, 1959. Pen and ink on paper.

not only the series of the cylindrical buttresses more or less as they are but also the water bed of the river and the sky.

But another sketch (Fig.45), executed from the same site, shows how Kahn starts envisioning his own schemes in a given context. He starts thinking in cylinders as he purposefully stresses the power of the cylindrical masses by the graphic vigor of swiftly sketched spirals. Not only does he eliminate the sky and the river as they become irrelevant for his agenda but also the conical roof of the cylindrical tower in the foreground since it does not conform to his “cylindrical” scheme.

While sketching the east end of the cathedral, (Fig.46) as he starts circling the cathedral, he again emphasizes what is of interest to him: the cylindricality of the buttresses. He transforms the half-round exterior buttresses which are actually solid masses of bricks that absorb the thrust of the nave vault, seemingly into hollow cylinders defined by spiral lines, a representative graphic technique Kahn had used to denote vehicular circulation since his Philadelphia City Plan of 1952-53. (Fig.47) Eugene J. Johnson has shown through a brilliant study of Kahn’s sketch of the Cathedral of Albi, how Kahn’s concept of the “hollow column” evolving since his Philadelphia Plan became the premise for his study for the hypothetical “hollow buttress” in the

Cathedral of Albi.<sup>41</sup> One is perhaps reminded of an article about the Philadelphia plan Kahn published in 1953 where he said: “In Gothic times, architects built in solid stones. Now we can build with hollow stones.”

**RONCHAMP:**

Kahn’s reverence for Corbusier is well-known. His quasi-eulogistic pronouncements, “I live in a city called Corbusier.”, “How am I doing, Corbusier?” etc. testify to his constant self-reference to Corbusier. No wonder that he would make a detour during his 1959 Otterlo conference to visit Corbusier’s recently completed pilgrimage chapel at Ronchamp. **(Fig.48)**

We come across Kahn’s two sketches of the interior of the chapel.<sup>42</sup> **(Fig.49)** The impatient, quick and discontinuous pen lines make his effort to grasp what it is in the chapel that moves him almost visual. One is immediately struck by the fact that the absence of his customary shading technique by the charcoal or pastel does not deter him from literally drawing the light by pen lines. But what is most interesting is to see how Kahn “discovers” a source of light in a corner under the

<sup>41</sup> Johnson, “A Drawing of the Cathedral of Albi.” *Gesta*, XXV, No.1, (1986).

<sup>42</sup> Hochstim, *Paintings and Sketches*. pp.331,332.

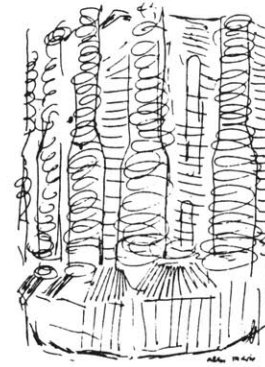


Fig. 46. Louis Kahn: Albi,

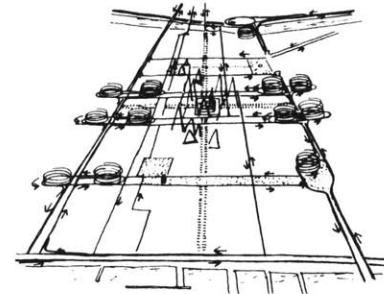


Fig. 47. Louis Kahn: Philadelphia City plan 1952-53.

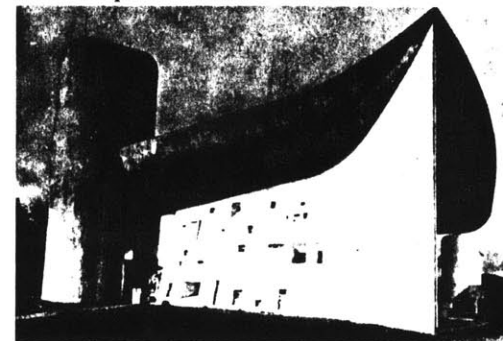


Fig. 48. Le Corbusier: Notre-Dame du Haut, Ronchamp, France, 1950-55.

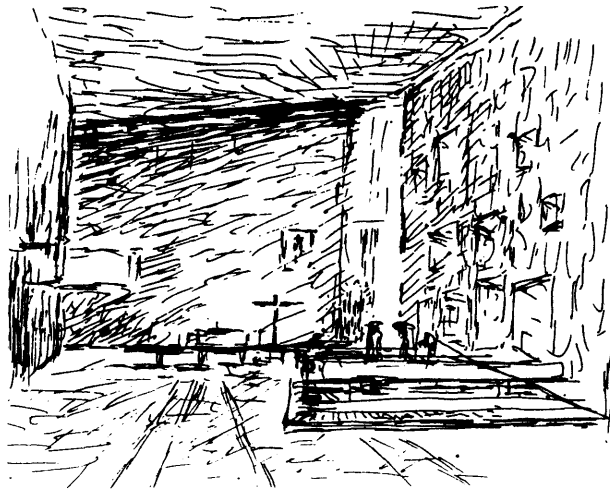


Fig. 49. Louis Kahn: Interior, chapel at Ronchamp, France, 1959. Pen and ink on paper.

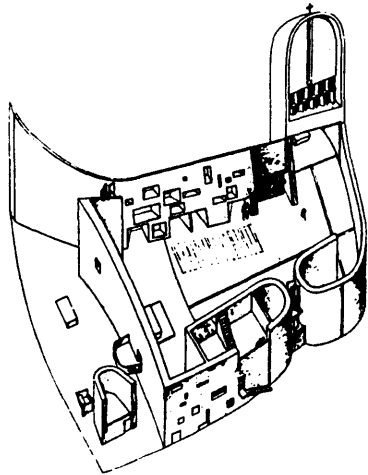


Fig. 50. Axonometric: chapel at Ronchamp.

sloping roof which would normally be subordinate to the more appealing side wall with apertures of different sizes. (Fig.50&51) He barely acknowledges those famous “celestial” light sources, and also the curious slant in the side wall, and rather emphasizes his “rediscovered” source of light like a halo. He even draws lines in the side walls and the floor representing the continuation of the light beams from that source. In the other sketch (Fig.52) the illumination of the same corner is highlighted by the absence of any lines whereas the lines in the side walls pick up the diminishing light.

Kahn in fact never forgot light in his explorations. One is reminded of his insatiable inquiry in the sketches of Karnak in 1951 to see the changeability of different hues in light. The theme of light came recurrently in his textual productions:

“...it’s a consciousness of the fact that the yellow light would give you blue shadows, and that red light would give you green shadows.”<sup>43</sup>

The striking selectivity and reductiveness of the interior views of the Ronchamp chapel in Kahn’s sketches show his interest not in its “canonical” exterior view but in a spiritual dimension of its interior

<sup>43</sup> Kahn, interview with William Jordy, 1973.

accentuated by light. In his address at the Otterlo conference, Kahn gave a highly personal definition of chapel, which echoes this search for the inner spirit of form making:

“A chapel, to me, is a space that one can be in, but it must have excess of space around it, so that you don’t have to go in. That means, it must have an ambulatory, so that you don’t have to go into the chapel; and the ambulatory must have an arcade outside, so that you don’t have to go into the ambulatory; and the object outside is a garden, so that you don’t have to go into the arcade; and the garden has a wall, so that you can be outside of it or inside of it. The essential thing, you see, is that the chapel is a personal ritual, and that is not a set ritual, and it is from this that you get the form.”<sup>44</sup>

At Ronchamp, Kahn’s search seemed to have acquired a highly metaphoric dimension. Interestingly, it was also a time when Kahn’s words embodied a clear “spiritual” theme.

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<sup>44</sup> Kahn, Otterlo 1959, in *Writings*. ed. Latour.

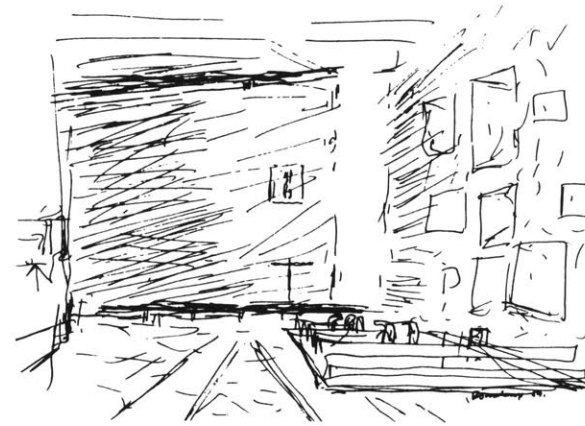


Fig. 52. Louis Kahn: Interior, chapel at Ronchamp, 1959.



Fig. 51. Interior: chapel at Ronchamp.



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Chapter

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T h r e e





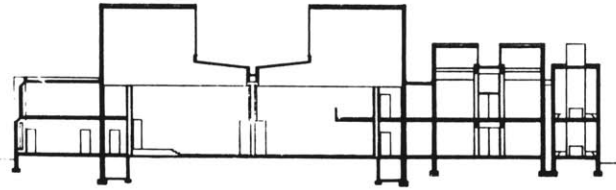
## CHAPTER THREE: REFLECTION

This chapter is not intended to be conclusive. Quite the contrary, the purpose of this chapter is to broaden Kahn's travel sketches into the context of his larger agenda. Like his words<sup>1</sup>, 'meanings' in Kahn's sketches, at the first encounter, seem to be perplexing, at times lost in the maze of their own introverted definitions, but once extended into the context within which Kahn operated, they reveal an interwoven terrain of concepts that would continuously flower. There seems to be no doubt that Kahn's mental trajectory within his sketches leads us into a discourse much larger and more complex than its physical referents.

Having looked into the sketches, what immediately strikes us is the recurrence of Kahn's own internal imperatives that appear to be the motivational force for his graphic genre. In fact, we come across a number of thematic developments once we take a collective look at the body of sketches. These are: first, the study of light both as a phenomenon and an emotive metaphor, as we have seen in the sketches of Siena, the Acropolis, the pyramids and, later in the chapel of Ronchamp; second, the depiction of a kind of mythical landscape where

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<sup>1</sup> See the conclusion in Pedret, Annie. *Within the Text of Kahn*. S.M.Arch.S. thesis, MIT, 1993.



Kahn conjectures a complex equilibrium of reality and counter-reality, again exemplified by the sketches of the pyramids and the Acropolis; and finally, the elemental perception of physical phenomena, thematized mainly by the family of sketches done at Carcassone, Albi and Ronchamp.

## Light

Let us begin from where we stopped in the preceding chapter: the 1959 sketches of the chapel at Ronchamp. Kahn literally draws the interior light in single pen lines around a specific aperture like a halo. (Fig.54) Kahn's rendition of the interior of the chapel is elemental, the celebrated poetics of the chapel roof or the slanting wall with many 'eyes' are not acknowledged in his sketch. It is an interior defined by light, where light itself is redefined. Light here tends to acquire a metaphoric meaning, which Kahn would later call the "giver of all presence."

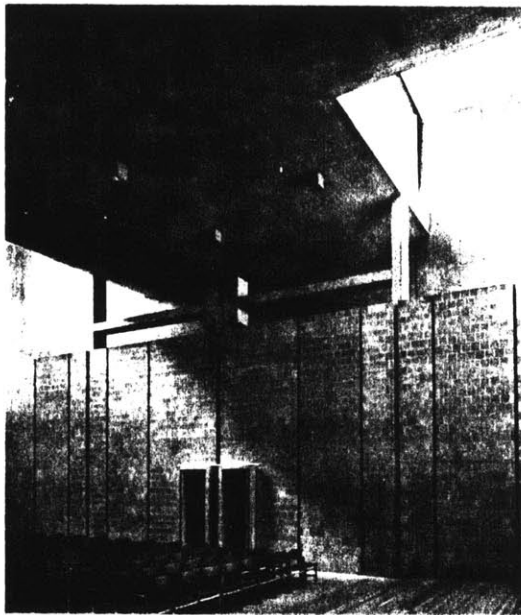


Fig. 53. Louis Kahn: First Unitarian Church, Rochester, 1959-69. Longitudinal section and interior.

Now let us turn for a moment to Kahn's course of thinking manifest in his textual productions at this time. Since 1959, a period that marks the beginning of a 'spiritual phase' in Kahn's thinking,<sup>2</sup> light was not only central to Kahn's agenda, as one would notice in the design of the First Unitarian Church at Rochester (1959-69), (Fig.53) but was also

<sup>2</sup> *ibid.*, p.7.

evolving towards a highly personal definition within the polarities of silence and light (1969). In fact, with the introduction of *Silence and Light*, that evolving trajectory reached almost an allegorical level:

“ In my own search for beginnings a thought has recurred—generated by many influences—out of the realization that material is spent light. I likened the emergence of light to a manifestation of two brothers, knowing quite well that there are no two brothers, nor even One. But I saw that one is the embodiment of the desire *to be/to express*; and one (not saying “the other”) is *to be/to be*. The latter is nonluminous; and “One” (prevailing) is luminous, and this prevailing luminous source can be visualized as becoming a wild dance of flame which settles and spends itself into material. Material, I believe, is spent light. The mountains, the earth, the streams, the air, and we ourselves are spent light. This is the center of our desires. The desire to *be/to express* is the real motivation for living. I believe there is no other.”<sup>3</sup>

Kahn even proposed a visual analogue of this rather cryptic concept. (Fig.55) The curious diagrammatic resemblance between this and the ‘halo’ in the sketch of Ronchamp is highly suggestive. Although conjecturing such connections might be farfetched, the underlying impulses to render these ideas graphically seem to be generating from one realization. The radiating pen lines in both diagrams appear to symbolize the illumination of one intuitive center.

<sup>3</sup> Kahn. “I Love Beginnings,” (1972) in *Writings*. ed. Latour, p.285.

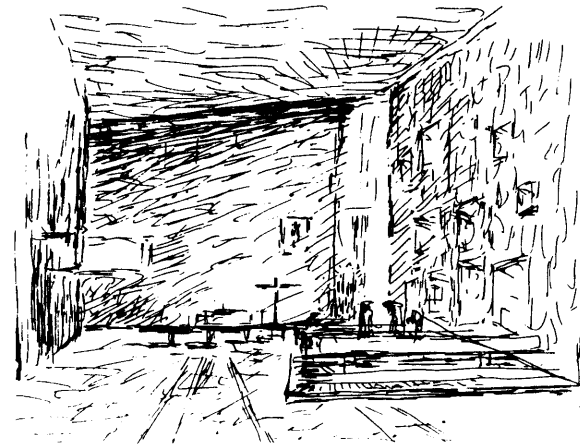


Fig. 54. Louis Kahn: Interior, Ronchamp, 1959.

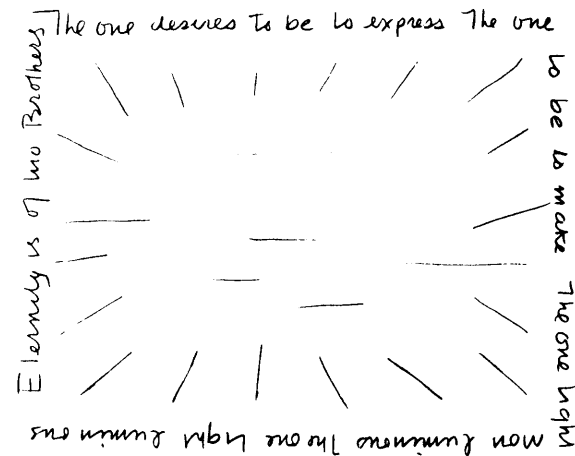


Fig. 55. Louis Kahn: pages from sketchbook, 1969.

Let us go back for a moment to the earlier sketches of Egypt. In the columns of the Temple of Khons or the Temple of Ammon, Kahn explores the critical correspondence between light and material: on the one side, it is the story of light, which upon reflection breaks down into its different hues; on the other, it is the material that is resculpted or re-discovered by different qualities of light. In Kahn's re-discovery this correspondence actually becomes an internal dialogue between two definitions of light that Kahn would much later propose in laconic terms: "the structure is the maker of the light."<sup>4</sup> and light, "the giver of all presences."<sup>5</sup>

In the Acropolis sketch, (Fig.32) the bulwark of the sacred terrain becomes emphatic partially by its empirical presence conditioned by the play of light and shadow. But once the whole frame of the sketch is taken, a "mythical" landscape gives a deeper meaning to the notion of light. The study of light itself is not an end-product, rather it is a conceptual tool to mobilize a conscious-unconscious, finite-infinite operation. In the sketches of Siena or the pyramids, similar cerebral operations occur. His definition and depiction of light evolved, but Kahn never forgot light, be it in his sketch or architecture, in his

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<sup>4</sup> Kahn. "Statements on Architecture," (1967) in *Writings*. ed. Latour, p.223.

<sup>5</sup> Kahn. "Architecture: Silence and Light," in *Writings*. ed. Latour, p.248.

exploration or re-imagination. This is one thing we consistently learn from his sketches. This can be seen as a corollary of Kahn's Beaux-Arts indoctrination, as Kahn himself intimated:

“ The Beaux-Arts system which prepared a person to regard drawing of great importance, included lessons in shades and shadows (and made) you aware of light and shades, shadows and reflected light. The exercises..... gave us an unquestionable feeling of the inseparability of light and building. The fact that you could construct the results of light playing on a surface and differentiate shade from shadow, and that yellow light gives you a blue shadow and red light gives you a green shadow, was something that aroused the inventiveness of the person:--theater entered the building by that knowledge. The fact that you could initiate the effects of light on a building was of great importance.”<sup>6</sup>

Kahn always thought in terms of light. He had long assigned light a central role in his architectural pursuit. In fact, he deeply believed that architecture began “long ago” with the intrusion of first light into the space “when the wall parted and the column became.” In Siena or in the Pyramids, in the Acropolis or in the chapel of Ronchamp, he intuitively re-discovered the subtlest modulations of light that would in turn lay the foundation of his later definition of light as Light.

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<sup>6</sup> Kahn, interview with William Jordy, 1973. Quoted in Meyers, Marshall D. “Louis I. Kahn and the Act of Drawing: Some Recollections,” *Il Maestro*. ed. Latour, p.293.

## The 'Mythical' Landscape

Kahn's encounter with ruins, as manifest in his sketches, is complex and evades any kind of canonization. Kahn neither takes the Renaissance and Beaux-Arts attitude to ruins as archaeological document, nor does he adopt the path of eighteenth century Romanticists, who took an aesthetically anti-classical approach towards ruins. The Renaissance attitude towards ruins grew out of an examination and measurement of ancient monuments. Renaissance architects, following the examples set by Brunelleschi and Alberti, approached ruins pragmatically with a view to understand the principles and ideals underlying them.<sup>7</sup> As opposed to the rational Renaissance approach, the Romantic thought advocated emotion and sentiment over reality as a logical construct. In his work of 1756, *Philosophical Inquiry into the Origin of Our Ideals on the Sublime and the Beautiful*, Edmund Burke rejected the Renaissance attitude on the premise that it was not clarity, distinction, and formality which makes things sublime, but on the contrary, obscurity, without a logical system and without any bounds. This view was reinforced by Romantic poets, particularly

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<sup>7</sup> See Schwarting, Jon M. "The Lesson of Rome," *The Harvard Architectural Review*, Vol. 2 (1981), p.23. Also see, Zucker, Paul. *Fascination of Decay, Ruins: Relic-Symbol-Ornament*. New Jersey: The Gregg Press, 1968, p.11.

William Wordsworth and Samuel Taylor Coleridge, who took the sublimation of reality as the natural starting point for their thoughts.

Considered against these two approaches, Kahn's rendition of ruins takes neither the rational and objective view of the Renaissance ideals nor does it embrace the sublime poetics of the Romantic doctrines. This is not to say that he adopts a middle passage between these conceptual polarities. Quite differently, his approach seems to synthesize what is there and what is wished for. Kahn employs a dialogical method that oscillates between imagined polarities: real and ideal, phenomenology and epistemology—later redefined in his own terms as *measurable* and *unmeasurable*. Alone, none of these coordinates could fully and satisfactorily describe his agenda in the sketches.

Let us elaborate this point by an example. A comparison between a sketch from the 1950-51 trip to Italy (**Fig.56**) and a photograph of the Baths at Hadrian's villa is particularly revealing.(**Fig.57**) Kahn's sketch may not be of the same site,<sup>8</sup> nevertheless, when juxtaposed they offer curious similarities at an "unconscious" level. One could perhaps trace in Kahn's sketch a fragmentary assemblage of different

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<sup>8</sup> Jan Hochstim catalogued it in *The Paintings and Sketches* as of Ostia, Italy; although Kahn visited Hadrian's Villa at Tivoli during his 1950-51 trip, it is not known whether or not he sketches there.

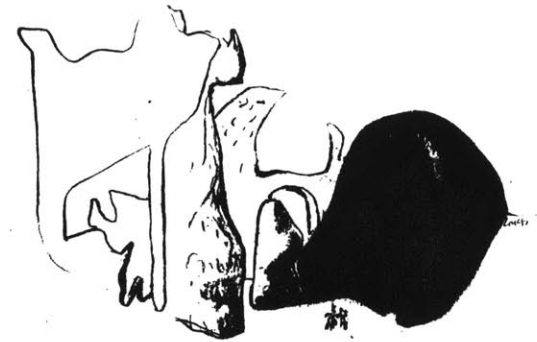


Fig. 56. Louis I. Kahn: Italy, 1950-51.  
Charcoal on paper.



Fig. 57. Bath at Hadrian's Villa, Tivoli,  
Rome.



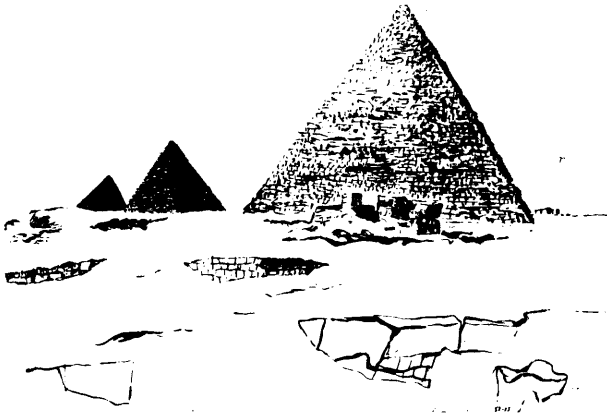


Fig. 58. Louis Kahn: Pyramids, Giza, Egypt, 1951. Ink brushed on paper.

concepts: material and immaterial, measurable and unmeasurable. The disjointed archway and the mystically dwarfed human figures are the only comprehensible elements while the rest is depicted in a dreamlike ambivalence. But together they form an amorphous dialogue where illusion and reality merge without visible boundary. Like fluid they flow into each other. The directionality of light is quite realistically manifested but again, only the element at the center is allowed to cast shadows. Although subject to speculation, the deep shadow of the Bath seems to be the surrealistic dark rock in Kahn's sketch. This is how Kahn weaves context and vision together.

Kahn's conjecture of a 'mythical' landscape, that the thesis suggested, for instance, in the sketches of Siena or the pyramids, is not phantasmagoric. His landscape is hypothetical and imagined, but not exiled from its empirical conditions. The mythical character of Kahn's landscapes evolves from a conceptual equilibrium of reality and suprareality based on the observations of subject-foreground disposition, a suggestion made in the preceding chapter. (Fig.58) Acknowledging the risk of considerable speculation, one can attempt a hypothetical reading of this subject-foreground matrix of Kahn's mythical landscape as a conceptual axis in time connecting the eternal presence (in this case, the platonic form, not the pharaonic pyramid) with the temporal archaeology of strewn stones in the foreground. The

idea of a conceptual axis in time—temporal-eternal, seems to be paralleled by Kahn’s notion of measurable-unmeasurable, when he says,

“ A great building must begin with the unmeasurable, must go through measurable means when it is being designed and in the end must be unmeasurable.”<sup>9</sup>

In fact, Kahn’s synthesis of transcendental/eternal and phenomenal/temporal in his ‘mythical’ landscape seems to have prefigured his premise of *unmeasurable* and *measurable*. Kahn introduced the concept of unmeasurable-measurable in 1960,<sup>10</sup> and since then it constituted one of the central themes of his textual productions. For Kahn, any artistic creation resides at the interface of the measurable and the unmeasurable. The concepts of *Form and Design*, *realization*, *expression* and *Silence and Light* are various theoretical constructs that Kahn tried to articulate from the early 1960s more or less to understand the measurable and unmeasurable aspects in architecture. Kahn believed in the measurable as long as it could be a tool to reach the unmeasurable. The psyche of his artistic genre accrues from his deep belief in the unmeasurable qualities of being, as he says:

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<sup>9</sup> Kahn, quoted in *The Notebooks and Drawings of Louis I. Kahn*. ed. Richard S. Wurman and Eugene Feldman. Philadelphia:Falcon Press, 1962.

<sup>10</sup> Kahn, “On Form and Design,” in *Writings*. ed. Latour. p.103.

“During the time when I was thinking about form and design and making distinctions between the two I thought that the unmeasurable aspects of our existence are the ones that are the most important. Such things as thought, feeling, realization are all unmeasurable.”<sup>11</sup>

Kahn admires Einstein because for him Einstein is at the same time a scientist and a poet. Kahn opines:

“No Piece of knowing, which is always fragmentary, is enough for a person who is truly a visionary like Einstein. He would not accept knowledge unless it belonged to *all* knowledge, and therefore he so easily wrote his beautiful formula of relativity. Thus he could lead you to a sense of all of Order, which knowledge is really answerable to.”<sup>12</sup>

The notions of ‘piece of knowing’ and ‘all knowledge’ here, for Kahn, correspond to measurable and unmeasurable.

Seen from the context of measurable-unmeasurable, Kahn’s travel sketches become very pertinent. One can draw from the premise of measurable-unmeasurable parallel inference in the sketch of Piazza del Campo in Siena. (Fig.20) As we have seen in the preceding chapter,

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<sup>11</sup> *ibid.*, p.103.

<sup>12</sup> Kahn, quoted in “The Unmeasurable and the Measurable,” in Lobell, John. *Between Silence and Light: Spirit in the Architecture of Louis I. Kahn*. (Boston: Shambhala, 1985). p. 14.

Kahn's Campo becomes an imagined synthesis of a temporal condition, on the one side, defined by a unique study of light, shadow, materiality, texture etc., and on the other, an ideal formulation of archetypal space populated only by scaleless architectonic elements. At one level of operation, it is measurable and tangible by virtue of its emphatic light conditions and conspicuous surface texture, but at another level, it is dreamy and subliminal, especially when defined as: "inadequate to produce conscious awareness but able to evoke a response."<sup>13</sup> Here, Kahn does not defy time, he synthesizes time and timeless, but eventually constructing the timeless—a parallel trajectory of what he calls the creative process—starting with the unmeasurable and traversing the path of the measurable to finally reach the unmeasurable.

Let us think for a moment about a Piranesian drawing to clarify this point. Piranesian vision begins with an impossible, apocalyptic and dream-like world—the very anti-thesis of classic regularity—but still paradoxically purporting (claiming credibility) to be true through their accuracy and detail. (Fig.59) Kahn, on the contrary, takes the given territory as his point of departure in order to reach an imagined realm

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<sup>13</sup> *The American Heritage College Dictionary*, third ed. (Boston and New York: Houghton Mifflin Company, 1993). p.1352.

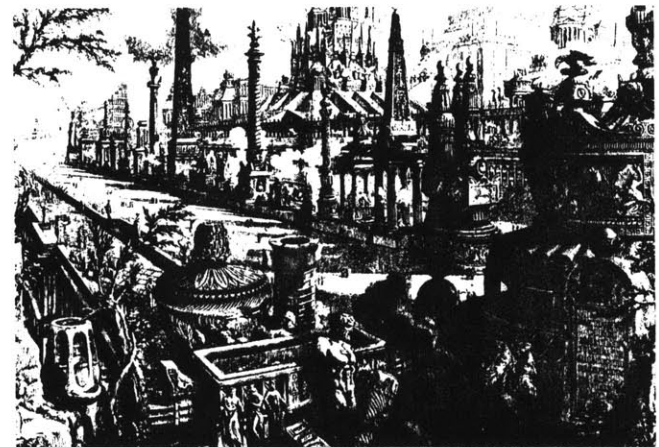


Fig. 59. Piranesi, Fantasy of an imperial circus: Antichita Romane III.

whose similitude to the physical referents is not the matter of significance.

Kahn's 'mythical' landscape is characteristically silent. Let us consider the sketch of Siena briefly again. Despite strong empirical presence defined by sun-earth axis and graphic resplendence, it is silent but not mute. Silent not in the sense of a soundless stasis but in its meditative infinitude. The most curious part of the sketch is, however, to see how this notion of silence becomes synonymous with an idea of absence. Looking very carefully at the sketch, one would notice that the sketch at an intuitive level actually celebrates a kind of territorialized void: an absence, yet defined by a finite periphery. In other words, it is an absence (in the limited world), envisioned as presence (unlimited in the concept). It is this critical reciprocity of absence and presence, through which Kahn poeticizes silence. This entails clarification by an example. Let us take a leap forward in time (a decade) to reach Kahn's Salk Institute (1959-65). In a typical u-shaped Beaux-Arts scheme, the side wings are expected to terminate in an emphatic central structure. But at the Salk, that center is most emphatically marked by a void, an absence so conspicuous that it almost starts functioning as presence. **(Fig.60)** More appropriately it is a transparent presence allowing one a cosmic view of the infinite/silence. This is how Kahn gives his notion of silence a meditative dimension, as he did in Siena.

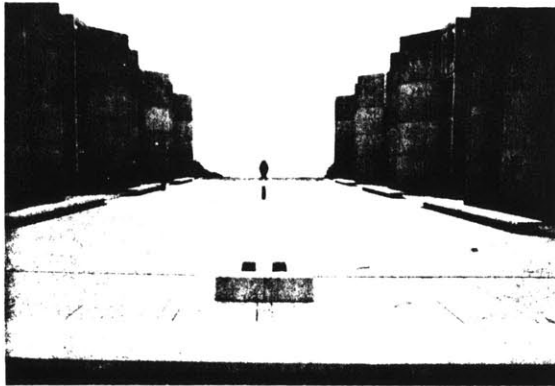


Fig. 60. Louis Kahn: Courtyard, Salk Institute for Biological Study, 1959-65.

In fact, Silence as a theoretical construct embodying deep spiritual allusion, like Light, became deeply engrained in Kahn's thinking from 1967. (Fig.61) One is reminded of his mystic pronouncements:

“Inspiration is the feeling of beginning at the threshold where Silence and Light meet. Silence, the unmeasurable, desire to be, desire to express, the source of a new need, meets light, the measurable, giver of all presence, by will, by law, the measure of things already made, at a threshold which is inspiration, the sanctuary of art, the Treasury of Shadow.

The artist offers his work to his art in the sanctuary of all expression, which I like to call the Treasury of the shadow, lying in the ambiance: Light to Silence, Silence to Light. Light, the giver of presence, casts its shadow, which belongs to light. What is made belongs to Light and to Desire.”<sup>14</sup>

This critical reciprocity between Silence and Light became the anchor of Kahn's philosophical wandering. Decades earlier, in his travel sketches these constructs seemed to have appeared in embryonic shapes. Kahn had re-discovered the pyramid as a metaphor for what he would perhaps later call *Silence*. By *Silence* Kahn did not imply quiet; referring to Andre Malraux, he elaborated his point :

“...in the sense that Malraux calls his book ...*The Voices of Silence*--he means only the feeling you get when you pass the

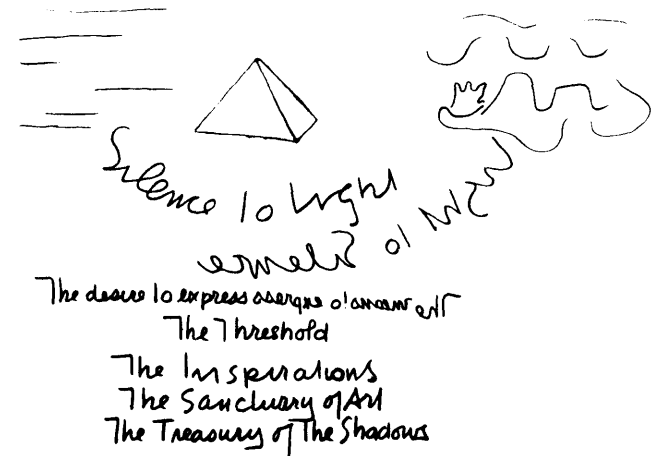


Fig. 61. Louis Kahn: pages from sketchbook, 1969.

<sup>14</sup> Kahn, quoted in "Silence and Light," in Lobell, *Between Silence and Light*. p.20.

pyramids, you feel that they want to tell you how they were made. Not *how* they were made, but what made them *be*, which means what was the force that *caused* them to be made,..."<sup>15</sup>

What comes out of this discussion is that Kahn's encounter with the buildings of antiquity, as manifested in his travel sketches, does not show a retreat to history as object. On the contrary, the voyages to the classical sites brought Kahn the opportunities to see how the hypothetical synthesis of vision and context could be best put to work in the great buildings of the past. His approach to history is characteristically in abstract terms. The Acropolis sketch signifies not a nostalgic longing for a retreat to the past glory but a conjecture seeking what he calls the *preform* that underlies the phenomenal experience. Looking at the sketches of the pyramids one would immediately be struck by the fact that his operation was very much at the 'unmeasurable' level, although he had already traversed the path of the measurable.

## **Elemental Perceptions**

Carcassonne, Albi and Ronchamp:

Conceiving built forms most elementally occurred uniquely during Kahn's 1959 trip. These sketches are of particular interest for a number

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<sup>15</sup> Kahn, quoted in "How'm I doing, Corbusier ?" (1972), in *Writings*. ed. Latour. p.308.

of reasons. First, they interestingly coincide with the mature ‘spiritual phase’ in Kahn’s thinking, as he sought to define, through his textual and architectural productions, many complex notions in ‘unmeasurable’ terms. Second, they show Kahn’s clear departure from his customary graphic techniques of pastel and charcoal to reach a complete gestural quality of elemental rendition by scratchy pen lines. Finally, the sketches, especially the ones at Albi, quite demonstratively manifest, as we have seen, how Kahn reforms and reconceptualizes a given building in his own conceptual scheme.

The late fifties was a period of transition for Kahn’s architecture in formal terms as he was increasingly adopting a vocabulary of mass and juxtaposed geometry. Also this was a time when his evolving thoughts were reaching a ‘theorizable’ format.<sup>16</sup> The sketches cannot be adequately understood without being referred to this transitional phase.

Beginning with the much-discussed tetrahedral ceiling slab of the Yale Art Gallery in 1951-53, (Fig.62) the activities in the first half of the decade show Kahn’s growing interest in technology’s new symbolic meaning, manifest in his unrealized projects: Philadelphia City Plan (1952-57) and Philadelphia’s new City Hall Tower (1952-57).

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<sup>16</sup> A number of important talk came about from early 60s: On Form and Design (1960), The Nature of Nature (1961), Silence and Light (1967) etc. See *Writings*. ed. Latour.

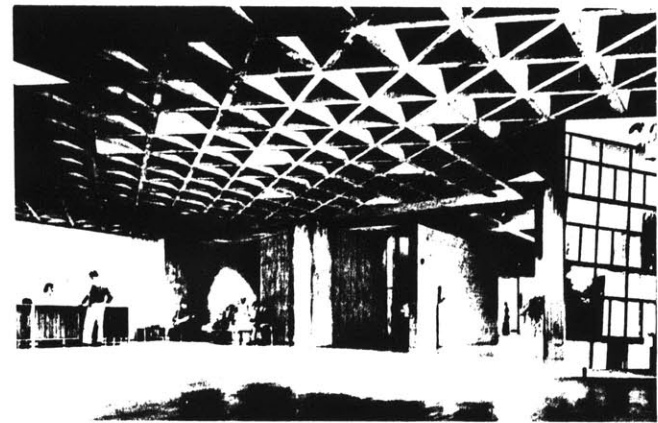


Fig. 62. Louis Kahn: Tetrahedral ceiling, Yale Art Gallery, 1951-53.



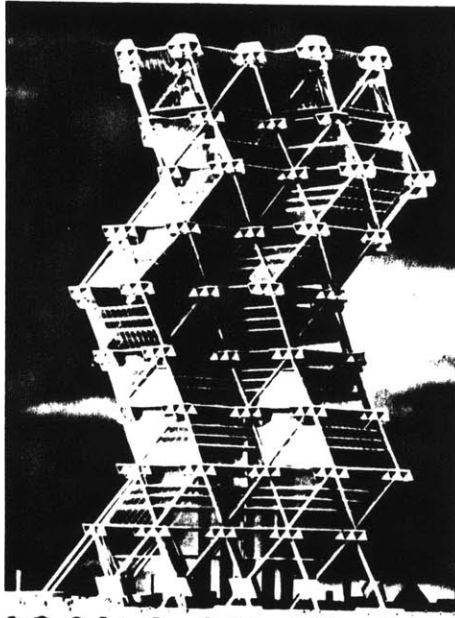


Fig. 63. Louis Kahn: City Tower, Philadelphia, 1952-57.

(Fig.63) Sarah Ksiazek mentions Kahn’s interest in the space-frame at this time :

“ Through colleagues such as Anne Tyng, Buckminster Fuller, and Robert Le Ricolais, he [Kahn] discovered that space frames bespoke an ideology consonant with his desire to reinforce communal life; simultaneously, they used advances in technology to derive new architectural forms.”<sup>17</sup>

Sarah Ksiazek maintains that Kahn’s interest in technology’s new symbolic implications was part of a larger postwar American scene, where new scientific discoveries were envisioned as steps towards achieving greater social and communal harmony. In general, architects, imbued by emerging structural and technological innovations, sought to recharge the Modern Movement with new hopes for a better future.<sup>18</sup>

Sarah Ksiazek thoroughly investigated Kahn’s Philadelphia City Tower project in active collaboration with Anne Tyng, as embracing this idealist perspective, as she says:

<sup>17</sup> Ksiazek, Sarah. “Changing Symbols,” (chapter two), p.76.

<sup>18</sup> Central to this discourse were Buckminster Fuller’s geodesic space frame, D’Arcy Thompson’s *On Growth and Form* (although originally published in 1917, became widely read by architects after its reprint of 1942), greater engineer-architect collaboration etc. See Ksiazek, Sarah. “Changing Symbols,” (chapter two); Frampton, Kenneth “ Louis I. Kahn and the New Monumentality, 1944-1972,” *Design Book Review*, issue 28 (Spring 1993); Sabini, Maurizio “Between Order and Form: Fragments and Idea of Architecture,” *Rassegna* 21 (July 1985).

“The call to use recent scientific and technological discoveries to find a new architecture had an identifiable, and escalating, impact on Kahn’s thought: he increasingly embraced not only this movement’s forms but also its social vision.”<sup>19</sup>

Also, in the Philadelphia City Plan project of 1953, Kahn attempted to capture the spirit of the new expressive technology, as he wrote:

“The spaces defined by the members of a structure are as important as the members... The desire to express voids positively in the design of structure is evidenced by the growing interest and work in the development of space frames....I believe that in architecture, as in all art, the artist instinctively keep the marks which reveal how a thing was done.”<sup>20</sup>

Kahn, in different speeches at this time, consistently referred to the structural rationale of the design process, for instance, “Gravity and wind and the logic of space in proportion to its service suggest a tower pyramidal in form.”<sup>21</sup>

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<sup>19</sup> Ksiazek, “Changing Symbols,” p.116.

<sup>20</sup> Kahn, “Toward a Plan for Midtown Philadelphia,” *Perspecta 2* (1953). Also see, Reed, Peter S. “Philadelphia Urban Design,” *Louis I. Kahn: In the Realm of Architecture*. pp. 304-313.

<sup>21</sup> Kahn, “An Approach to Architecture,” (1956) in *Writings*. ed. Latour. p.69.

But with the designs of Trenton Bath House (1954-59), Richards Medical Research Building (1957-65) and the First Unitarian Church ((1959-69), a change in formal expression, accompanied by Kahn's kind of 'spiritual rhetoric', started to take shape. Now architecture is most emphatically envisaged as "the thoughtful making of spaces."<sup>22</sup> or design, as "very comparable to a musical composition."<sup>23</sup> Given this transitional context, Kahn's 1959 trip, and the sketches produced from this trip, both give us crucial clues to comprehend the evolving trajectory of Kahn's architecture and thinking.

Kahn's participation to the Otterlo Congress itself is in a way crucial to understand this transitional phase. Although CIAM still technically existed in name, the Otterlo Congress was in reality the meeting of the Team X, consisting primarily of the younger CIAM delegates: J.B.Bakema, Aldo Van Eyck, the Smithsons and others, who were seeking a new Urbanism with more "vital human associations."<sup>24</sup> Critiquing the urbanism considered and developed under the Athens Charter, this group sought to formulate a 'Charter of Habitat' based on a more socially-rooted definition of human institutions. In general this was a time when the prevailing dominant tenets in architecture

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<sup>22</sup> Kahn, "Spaces Order and Architecture (1957) in *Writings*.

<sup>23</sup> Kahn, Otterlo Address (1959), in *Writings*.

(International Style) were challenged in favor of more social concerns, and there emerged many subjectivist modes of expression in architecture. Van Eyck sought a 'primitive' source of architecture in the circular houses of a sub-Saharan tribe. There seems to be no doubt that Kahn shared the ideological concerns of this group and his participation in the Congress is part of that agenda. In fact, it is quite interesting to note that at the end of his Otterlo address, Kahn quite emphatically praised Van Eyck for his speech charged with symbolic associations and social concerns.<sup>25</sup>

Kahn himself addressed the Congress with a highly 'poetic' speech, filled with numerous references not only to his evolving concepts, such as, 'realization', 'existence will', 'essence', 'pre-form', 'music' and the like but also, quite interestingly, to Giotto, Chagall and Picasso. A careful investigation of Kahn's talk, without claiming any direct connection with the sketches, would offer us a glimpse into his cast of mind, which would in turn make the sketches from this trip more 'accessible'.

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<sup>24</sup> Mumford, Eric. "CIAM Urbanism after the Athens Charter," *Planning Perspectives*, 7 (1992). For general reference, see *Rassegna* 52 (1992).

<sup>25</sup> Kahn, Otterlo 1959, in *Writings*. ed. Latour. p.95.

The reference to Giotto is obviously curious. It does not seem merely incidental, as Kahn spoke with particular emphasis. Kahn exemplified his deep faith in the freedom of the artist by citing Giotto:

“Giotto was a wonderful painter. But why was he wonderful? Because he painted the skies black in the daytime, and painted dogs that couldn’t run and birds that couldn’t fly, and people who were larger than buildings--because he was a painter....The prerogatives of the painter allow him--the very fact that he can draw in this way allows him--to do that very thing. The extent of his fantasy is within his realm....”<sup>26</sup>



Fig. 64. Giotto: Deposition, 1304-1306.  
Cappella degli Scrovegni, Padua.

What Kahn implies here is the moral power an artist/painter can exercise to envision a new purer society. But still, the question remains: why Giotto? One wonders how would an architect, claiming to be living “in a city called Corbusier” or somebody who spent almost the whole decade seeking structural clarity, and now a ‘spiritual’ Order, relate himself to the thirteenth century painter who primarily belonged to the representational/narrative art culture of the Middle Ages.<sup>27</sup> (Fig.64) The answer could be hypothesized in two ways. First, a factual one—Kahn visited and sketched the Convent of St.Francis at Assisi, Italy in 1929 and must have been exposed to and intrigued by Giotto’s

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<sup>26</sup> *ibid.*, p. 90.

<sup>27</sup> Salvini, Roberto. *All the Paintings of Giotto*. (New York: Hawthorn Books, Inc. 1963), p.7.

frescos of the Legend of St. Francis in the convent. (Fig.65) Second, the fact that Giotto not only was the last master of his epoch (Middle Ages) but also that he influenced the era to come, the Renaissance, and was greatly revered by the Renaissance masters, seemed to have fascinated Kahn.<sup>28</sup>

Given that Kahn was adopting a 'spiritual' theme both in his architecture and words, referring to Giotto bears a special significance. Indeed, this reference reinforces the fact that Kahn was to increasingly embrace a spiritual theme. One is again reminded of Kahn's words:

"The combination of both the beautiful sense of the rights of the painter that Giotto very thoroughly understood--felt--combined the life of St. Francis with the mystical atmosphere which was necessary to bring it to a religious sense, of nobility, of sacrifice, of things which are religious."<sup>29</sup>

This frame of mind must have impacted Kahn while he was sketching at Carcassone, Albi and Ronchamp. Let us consider for a moment a sketch of Ste. Cecile Cathedral, (Fig.66) without any attempt to forge a relationship between his words and sketch. What was Kahn looking for here ? What do we really see ? The form depicted is most elemental and approached almost with zero distance. The crayon lines follow their path

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<sup>28</sup> *ibid.*, p.7-9.



Fig. 65. Louis Kahn: Convent of St.Francis, Assisi, Italy, 1929. Graphite on paper.



Fig. 66. Louis Kahn: Cathedral of Ste. Cecile, Albi, 1959.  
Crayon on paper.

with the assurance of the hand. The form does not give the slightest impression of its context, as if context is totally irrelevant for the scheme. The power of the tower in the front is willfully stressed. Without any risk, one can say that it is not how the castle is made (the tectonics), but what underlies it (in this case, the cylindricality) that seems to have propelled Kahn. It is cylindricality as opposed to cylinder that, here, seems to concern Kahn. Cylinder is measurable but cylindricality is unmeasurable. Cylindricality, as a concept, precedes cylinder which is tangible. When Kahn proposes the notion of “preform”, he means something that precedes a tangible form: “In the preform—in the beginning, in the first form—lies more power than in anything that follows.”<sup>30</sup> The sketches of Albi and Carcassonne acquire their true significance once seen from this perspective which in turn sheds light on the maturation process of Kahn’s thinking. They do indeed form an ‘inner’ commentary.

## The Travel Sketch and Architecture

A question inevitably arises: what role did the travel sketches play in Kahn’s architecture? Before addressing this, let us again for a moment

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<sup>29</sup> Kahn, Otterlo 1959, in *Writings*. ed. Latour. pp.90-91.

<sup>30</sup> *ibid.*, p.91.

consider the different approaches scholarship has taken towards the post-1950 Kahn. Two main approaches could be identified: one first promulgated by Vincent Scully begins with the premise that Kahn, educated through Beaux-Arts pedagogy but forced to adjust with the Modern Movement, encountered difficulty right from the beginning of his professional career. This approach further asserts that it was only when Kahn found his 'primitive' sources (referring to the 1950-51 trip) could he shed the ideology of the Modern Movement to embrace Classicism and finally, being able to become the 'pivotal' Kahn that we know today (FN).<sup>31</sup> The other approach is espoused primarily by a younger scholar, Sarah Ksiazek, who maintains that Kahn's social ideology of architecture evolving since his public housing schemes of the 30s and 40s remained essentially the same and that Kahn in the 50s rather attempted to abstract Modernism sharing the postwar socio-political concerns.<sup>32</sup>

These two approaches can give us some clues as to how to place the travel sketches in the context of Kahn's architecture. For Scully, the 1950-51 trip gave Kahn the 'required' opportunity to revisit the lessons

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<sup>31</sup> Scully, Vincent. "Marvelous Fountainheads, Louis I. Kahn: Travel Drawings," *Lotus Int.* No.68 (1991) Also see, Scully, "Louis I. Kahn and the Ruins of Rome," *The Museum of Modern Art (MoMA)*, (Summer 1992).



of history he always cherished (as a corollary of his Beaux-Arts training) and which he subsequently adopted for his architecture. Sarah Ksiazek argues instead that upon returning from his sabbatical in Rome, Kahn was still very much involved with the postwar discourse of technology's socio-political implications.<sup>33</sup> Scully characterizes the 1950-51 trip as decisive, as he says, "Historically, it seems clear enough that Kahn could not begin to grow as an architect until he found his own 'primitive' sources, his personal Beginnings."<sup>34</sup> Scully's position was furthered by David Brownlee and David De Long who saw the later productive phase of Kahn's career as an inspired revitalization of his Beaux-Arts education. Referring to the 1950-51 trip, De Long in his essay "The Mind Opens to Realization" opines:

"His [Kahn's] stay there was relatively brief—only three months—yet it seemed to have effect, for afterward the direction of his work began its decisive change. Clearly the physical presence of Rome, which offered fundamental lessons of history, was overwhelming."<sup>35</sup>

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<sup>32</sup> Ksiazek, Sarah. "Architectural Culture in the Fifties: Louis Kahn and the National Assembly Complex in Dhaka," *Journal of Society of Architectural Historians* 52, (December 1993).

<sup>33</sup> Ksiazek, Sarah. "Changing Symbols."

<sup>34</sup> Scully, Vincent. "Jehovah on Olympus: Louis Kahn and the End of Modernism," *A&V* 44 (November-December 1993). p.97.

<sup>35</sup> De Long, David. "The Mind Opens to Realizations: Conceiving a New Architecture, 1951-61," in *Louis I. Kahn: In the Realm of Architecture*. p.54.

In the Scullian legacy, Kahn's changing architectural vocabulary of mass and juxtaposed geometry from the mid-fifties onward has been characterized as a stylistic shift (Modern to Postmodern?) that recalls earlier periods of transition in history: from Renaissance to Baroque, from premodern to modern, and so on. This approach tends to rely exclusively on a formal reading of architecture and this seems to bypass Kahn's ideological and cultural commitments. Sarah Ksiazek, on the contrary, observes in Kahn's architecture of the fifties a desire to express the democratic ideals through the figural abstraction of archetypes. As part of this observation, she attempts to show through an investigation of Kahn's City Tower project (1952-57) how Kahn, in the unbuilt project, upheld the symbolic potentialities of an emerging vision of organic technology.

Bringing the sketches in the political discourse of the fifties would, no doubt, be farfetched and had not been the agenda of this thesis. The thesis attempts to map Kahn's critical translation of the physical phenomena in his sketches. Focusing on the sketches as a body of work by itself, the thesis seeks to follow Kahn's mental trajectory. However, given the relevancy of the sketches (especially the ones from the 1950-51 trip) to the two approaches discussed above, the analysis of the sketches is inevitably faced with the question of how they affected

Kahn's architecture, (accepting the fact that Kahn was asking architectural questions in those sketches). This question can be addressed in two ways. First, by the analysis of the sketches itself, carried out in the preceding chapter and elaborated under the three themes of light, 'mythic' landscape, and elemental perception in this chapter. Second, by following Kahn's architectural activities after his 1950-51 trip.

As far as the sketches are concerned, we have seen that they neither portray a monolithic formal retrieval of history nor do they aim at antiquity in a romanticized view. In fact, in his sketches Kahn, at one level, repropose our sense of history and, at another level, shows a moral function of an artist by idealizing what he sees. This is where Vincent Scully and Sarah Ksiazek's hypotheses become very relevant. It was seen how Kahn engages himself with the sites and buildings of antiquity in a dialogical enterprise not only exploring and learning but also resolving some of his own steadily evolving concepts about architecture. In Siena he explores the subtlety and modulation of light and shadow on the Piazza del Campo but he also recontextualizes the piazza in an imagined landscape, a conceptual projection that provokes meanings much more complex than its putative subjects. The pyramid sketches do not show a passive submission to the grandeur of the Pharaonic tombs; he does not readily accept a physical context as given.

He investigates those aspects of the context that would inform his circumstances. The pyramid is conceptually “empowered” in the sketches to “talk”:

“When I saw the pyramids, they seemed to talk to me and tell me how they were made and tell me the wonder of their beginning....”<sup>36</sup>

One is also reminded of the sketch of Bernini’s Piazza San Pietro, where Kahn actually collaged different urban icons and architectonic elements achieving some sort of spatial mystery. Kahn’s sketches could be described as a personal reappraisal of the lessons of history. From this point of view, one can question the validity of Scully’s reading of Kahn’s architecture largely at a morphological level.

Kahn’s architectural activities after his return from his sabbatical in Rome does not give any indication of a major stylistic shift. The design of the Yale Art Gallery, for which he started to develop his ideas in Rome, is much less an adoption of classical reference than a Miesian vocabulary seeking structural clarity and simplicity. There is no doubt that a source-and-production proposition for Kahn’s voyages

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<sup>36</sup> *What Will Be Has Always Been: The Words of Louis I. Kahn.* (hereafter cited as “What Will Be”) ed. Richard Saul Wurman. (New York: Rizzoli and Access Press Ltd.) p. 121.

reductively misreads the larger motivations that underlie his architecture. Kahn himself addressed this question of “influence” of “sources” :

“I’m not one who takes things verbatim from some place. I think things out for myself....The circle, for instance; I would never think of using a circle I saw somewhere else unless it confronted to a sense of order in which I am looking for something that answers it.”<sup>37</sup>

It is interesting to note that during his sabbatical in Rome Kahn not only found the Parthenon as “one of the greatest building of the world”<sup>38</sup> but also, interestingly, took great interest in Pier Luigi Nervi’s recently-completed Exhibition Building in Turin (1948-49).<sup>39</sup> That Kahn was impressed with the Italian engineer’s work becomes manifest in Kahn’s ‘hermetic’ pronouncements in *Order Is* (1955):

“A Form emerges from the structural elements in the form.  
A dome is not conceived when questions arise how to  
build it.  
Nervi grows an arch  
Fuller grows a dome  
Mozart’s compositions are designs  
They are exercises of order--intuitive.....”<sup>40</sup>

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<sup>37</sup> Cook, John W. and Heinrich Klotz. *Conversations with Architects*. (New York and Washington: Praeger Publishers, 1973). p.195.

<sup>38</sup> *What Will Be*. ed. Richard Saul Wurman. p.257.

<sup>39</sup> Ksiazek. “Changing Symbols.” (Ch. two) p.77.

<sup>40</sup> Kahn, *Order Is* (1955), *Writings*. ed. Latour. p.59. Kahn also mentions Nervi as the “right engineer” in 1959 Otterlo Talk. Anne Tyng, Kahn’s long time associate, was at the American Academy in Rome in 1953 and showed the City Tower project to Nervi, who

Despite a changing architectural expression in the late fifties, Kahn's strong belief in the humanistic goals of architecture was never compromised. One is reminded of Kahn's daughter Sue Ann Kahn's memoir:

"I just want to point out that he had a strong personal view of how the world should be, a very moral idea, and he really tried to live that way."<sup>41</sup>

In the sketches, one can perhaps read the idealization of the unmeasurable as the extension of that moral belief. To what extent Kahn's belief in architecture as a moral force able to chasten society is a reaction to postwar *Zeitgeist* of social decadence and homogenizing mass culture, is an open question, nonetheless, the 'reading' of Kahn's travel sketches as part of an ideal and abstract search, lends partial support to Sarah Ksiazek's argument.

For Kahn, voyages did not mean revisiting the built forms of classical antiquity in typological curiosity. His elemental perception at Albi and



Fig. 67. Second temple of Hera, Paestum. c.450 BC.

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showed keen interest in it. This could be another possible connection. See Frampton, Kenneth. "Louis I. Kahn and the New Monumentality, 1944-1972," *Design Book Review* 28 (Spring 1993).

<sup>41</sup> Sue Anne Kahn in interview with Alessandra Latour in *Il Maestro*. ed. Latour. p.31



Fig. 68. Louis Kahn: Carcassonne, France, 1959. Pen and ink on paper.

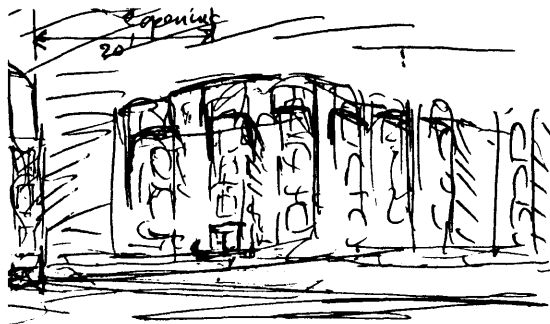


Fig. 69. Louis Kahn: Concept study for Mikveh Israel Synagogue, 1961-72.

his saying that he prefers Paestum to the Parthenon,<sup>42</sup> (Fig.67) (because from Paestum evolved the Parthenon) are in fact parallel trajectories to conceive the same point of departure for a re-imagined future.

## EPILOGUE

This is not a conclusion but rather an epilogue without any claims of finality. In his travel sketches, Kahn pursued complex goals. This thesis attempted to understand them. Like his words and personality, his travel sketches seem to evade a simple synopsis. Nonetheless, Kahn's travel sketches illuminate his mental meandering—envisioning and learning about architecture at an abstract level. His search is neither typological nor antiquarian. It is a continuous synthesis of the empirical phenomena and transcendental concepts—eventually achieving transcendence.

But most importantly, in his travel sketches Kahn, like Corbusier,<sup>43</sup> was fighting a protracted battle for his architecture. His Yale experience of

<sup>42</sup> *What Will Be*. ed. Wurman. p.257.

<sup>43</sup> *ibid.*, Norman Rice. p.294.

the fifties with the collaborative theme among architects, painters and sculptors gave him the clues to see how architecture and painting could be a reciprocally informing process. Towards the end of the fifties, Kahn's travel sketch (Fig.68) and his design sketch (Fig.69) increasingly tended to converge to an interface where both an extant building and a building to-be-built became responsive to the same fundamental concerns in architecture.

For Kahn, the travel sketches and architectural designs became parallel trajectories seeking the same abstract objective: *order* of things. For instance, having already experienced the innate dynamism of the vertical masses in Philadelphia City Plan (1952-53) (Fig.70) and Richards Medical Research Building (1957-65), (Fig.71) Kahn, when sketching the thirteenth century cathedral of Ste. Cecile at Albi in 1959, purposefully stressed the power of the cylindrical buttresses by the graphic vigor of swiftly sketched spirals (Fig.72)—a real life experience which in turn provided the creative spark for designing the towers of Mikveh Israel Synagogue (1961-70). (Fig.73)

Kahn was a seeker. But his search took place at a very personal and abstract level. Undoubtedly his architecture was informed and fueled by the experiences of his voyages but that occurred mostly at an

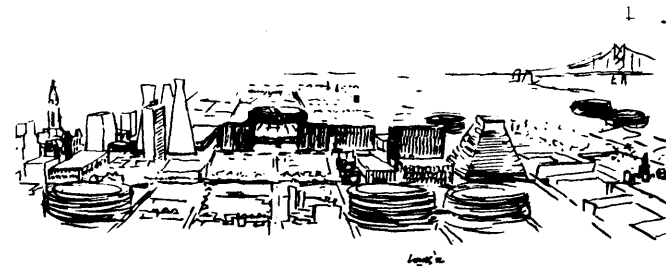


Fig. 70. Louis Kahn: Concept study for Civic Center, Philadelphia, 1956-57.

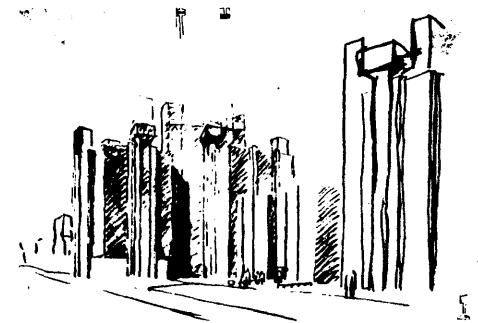


Fig. 71. Louis Kahn: Study sketch, Richards Medical Research Building, 1957-65.



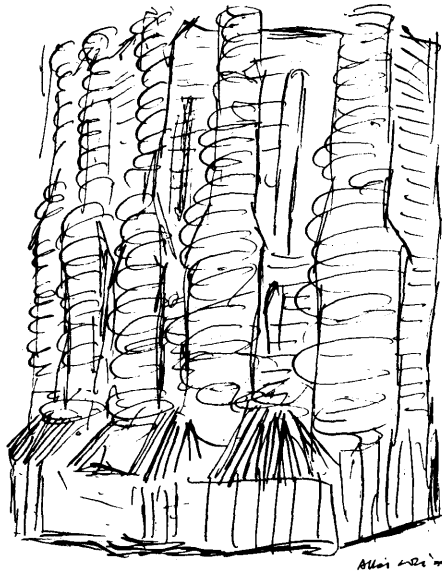


Fig. 72. Louis Kahn: Cathedral of Ste. Cecile, Albi, 1959.

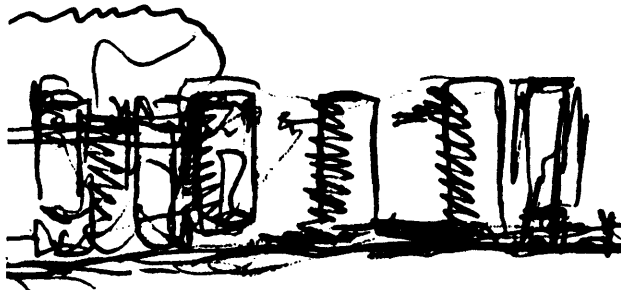


Fig. 73. Louis Kahn:  
Mikveh Israel Synagogue, 1961-72

epistemological level. Kahn raised fundamental questions about architecture which could not have been answered by typological correspondence with the buildings of the past. His pursuit of those questions entailed both learning and envisioning, seeking and verifying. This is how his mental trajectory within his sketches assumed a dialogical character and this is where the true significance of his sketches resides.



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- Fig.59. Wilton-Ely, John. *Piranesi as Architect and Designer*. pl.35.
- Fig.60. Photograph by Maurizio Sabini, printed in *Rassegna*, No.21 (July, 1985).
- Fig.61. *Louis I. Kahn: Writings. Lectures, Interviews*. ed. Latour, Alessandra. p.250.
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- Fig.63. Scully, Vincent. *Louis I. Kahn*. pl.63.
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- Fig.70. Ronner, Heinz, and Sharad Jhaveri. *Louis I. Kahn: Complete work 1935-1974*.
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- For detail information see bibliography.