

Chapter 3: Metaphysics

3a. Metaphysics in Kahn's Text

The First Line on Paper

“Form and Design” begins with Kahn’s story of a young architect visiting him with a metaphysical question.

A young architect came to ask a question. “I dream of spaces full of wonder. Spaces that rise and envelop flowingly without beginning, without end, of a jointless material white and gold”. “When I place the first line on paper to capture the dream, the dream becomes less”.

This is a good question. I once learned that a good question is greater than the most brilliant answer.

This is a question of the unmeasurable and the measurable. Nature, physical nature, is measurable.

Feeling and dream has no measure, has no language, and everyone's dream is singular.

Everything that is made, however, obeys the laws of nature. The man is always greater than his works because he can never fully express his aspirations. For to express oneself in music or architecture is by the measurable means of composition or design. The first line on paper is already a measure of what cannot be expressed fully. The first line on paper is less.¹

Close inspection of this passage reveals that the young architect does not in fact ask a question and that there are two possible questions arising from his or her conundrum: *how* does one translate a dream onto paper and, *why* should such a translation be difficult or impossible in the first place? Since the question of *how* would not even be asked were it not for the question of *why*, it is this latter question that is the most pressing in philosophical terms and will become the focus of the present chapter. Why can’t dreams be drawn, much less built? Were the young architect’s dream merely a recollection of a particular building that he or she had once visited and now wished to copy some aspect of, then translating that memory onto paper would surely not be as onerous a task as Kahn’s passage suggests. But the young architect’s dream is not a recollection of a material building. Kahn’s inference is that the dream is of a building which does not, and could not exist. It

might be argued that the young architect is simply asking Kahn a technical question, to which Kahn might answer by referring to such materials as sprayed concrete, were it not for Kahn's insistence that the dream "cannot be expressed fully".²

The question of dreams and why they cannot be drawn can, in light of diffuse scholarship linking Kahn to Plato, be treated as a metaphysical one. If, as Kahn insists, "[t]he first line on paper is already a measure of what cannot be expressed fully",³ then, according to a Platonic reading, it is by virtue of a metaphysical gulf which Kahn sees separating dreams from drawn lines. According to traditional Western metaphysics, it is the kind of gulf which separates, for example, pure and applied mathematics, or which separates God from humankind.

The opening passage to Kahn's article raises what philosophers would call a question of ontology. Where exactly are these spaces full of wonder to which Kahn refers, if not in the physical realm of lines and paper? Kahn tells us that they are in an "unmeasurable" realm, transcending natural phenomena; though where this "unmeasurable" realm actually *is*, be it in a dreaming architect's mind, or in a transcendent realm of the kind Plato describes, remains unclear. The following discussion tracks one of a number of possible lines of interpretation, by exploring the hypothesis that Kahn's unmeasurable realm is comparable to Plato's realm of ideal Forms, which is transcendent.

Much that needs to be said about the metaphysical status of Plato's Forms as they are described in *The Republic* has been presented in the previous chapter. Notwithstanding claims by some that the Forms are products of human discourse, or that they lose their transcendence in later dialogues, the majority of Plato scholars describe the Forms as transcendent entities, in a timeless realm which is autonomous of humans or the physical universe. According to Alfred Taylor, the most famous advocate of this view

we merely miss [Plato's] meaning if we allow the Berkeleian notion of an 'Idea' as a state of mind to affect our interpretation. The suggestion that an 'Idea' is something which exists 'in a soul,' and therefore is a 'thought,' is only made once in Plato's writings, in a passage of the *Parmenides*, and is

only put forward there to be promptly rejected. With Plato the ‘Ideas’ are not ‘states’ of the knowing mind, but objects distinct from and independent of itself, *about* which it has knowledge.⁴

Taylor also argues that if the Forms are not thoughts, then neither can they be the thoughts of God, as Saint Augustine claims. David Ross, another champion of this view, adds that there “is nothing in Plato to justify the view sometimes expressed by scholars, both ancient and modern, that the Ideas are simply thoughts, in the divine or in the human mind”.⁵ If the Forms are not thoughts and do not therefore reside in minds, then either they exist in the objects which resemble them, as Aristotle maintains, or else they are transcendent. Taylor writes that from the time of Aristotle to the present day

the point which has given rise to the sharpest criticism of Plato has always been his insistence on the ‘transcendent’ character of the Ideas. This character is expressed in Plato by his reiterated assertion that the Ideas are something ‘separate from’ the things which ‘participate in’ or ‘resemble’ them, and are called by their names.⁶

Taylor acknowledges Aristotle’s difficulty with Plato’s separation of Forms from sensible things — that is, the inherent irrelevance of such a philosophy to the real world. However, Taylor explains that if geometry and mathematics — the only effective sciences in the ancient world — are seen as the primary inspirations for Plato’s theory of Forms, then a practical aspect of Plato’s dualism becomes apparent, since abstract mathematics can be put to practical applications. While it may be hard for Aristotle and those after him to imagine the concept of humanity apart from the existence of any actual people, Taylor argues that it would not be so hard to imagine, for example, how the transcendent concept of a point, having no dimension, could never be represented in a sensible medium. As a Form, *The Point Itself* cannot have its ontological existence in an actual ink-spot, which has at least some width. Only secondarily does Plato extend this notion to all sensible things. Asserting his belief that Plato’s Forms are transcendent, Taylor concludes that “Plato, to put the matter quite plainly, holds that all true science is ‘transcendent’

and deals with objects [Forms] which lie entirely beyond the range of any possible ‘experience’ of sense”.⁷ According to Taylor, Plato’s Forms are metaphysically removed from sensible things and therefore Plato’s metaphysics can be described as dualistic.

In works of architectural history, inquiries into the ontological location of architects’ generative ideas are uncommon and so it may seem odd to be asking about the *location* of the young architect’s dream. The present line of questioning and its significance can be better appreciated when held beside the definitive inquiry of its kind, Erwin Panofsky’s book, *Idea: A Concept in Art Theory*.⁸ In this text, Panofsky traces the influence of Plato’s idea of the beautiful, or *Beauty Itself*,⁹ on art and architectural theory, from antiquity to Michelangelo. His survey is particularly concerned with the dilution of the metaphysical status of this Form which, Panofsky argues, is conceived by most theorists in Aristotelian terms. The metaphysical value of the beautiful in Platonic doctrine is shown to have been reduced, since Forms are most often viewed as thoughts within an artist’s mind, rather than anything transcendent and absolute.¹⁰ Therefore, while it may seem over zealous to be questioning the ontological whereabouts of the young architect’s dream in Kahn’s story, Panofsky’s text shows that the present inquiry is not without precedent within architectural discourse.

Kahn’s opening passage contains a clue as to how the question of ontology within his text might be approached. Why can’t dreams be drawn? If this indeed is the young architect’s question then, according to Kahn, it “is a good question”¹¹ and he claims to have once learned that “a good question is greater than the most brilliant answer”.¹² It is worth considering this claim and its associated inference that the answer which may, or may not, be forthcoming within his text, is less important than the question. Such a reading would suggest that Kahn’s article is more concerned with stimulating inquiry than providing answers. This too has parallels with Plato.

In *An Introduction to Plato’s Republic*, Julia Annas describes Plato as a

philosopher who “wants us to think, to do philosophy, rather than to fall in dully with what he says”.¹³ Pointing to a passage from *Phaedrus*,¹⁴ in which Socrates criticises books for seeming to be intelligent while being unable to have a dialogue with their readers, Annas argues that certain ambiguities within *The Republic* are not mistakes; rather, Plato intends ambiguities to cause readers to think things through for themselves, since “[t]here is no short-cut to understanding by passively reading a book”.¹⁵ More than simply a philosophical treatise, *The Republic* is intended to be a catalyst for the reader’s own philosophising.

Preceding the text to her book about her father, Kahn’s daughter Alexandra Tyng quotes him as having once stated that “You’re not a philosopher by having read philosophy, not at all. I think you are a philosopher because you are naturally one”.¹⁶ In the context of his own ambivalence regarding books, Kahn boasts in 1973 of owning only the first volume of an eight volume history of England, of which he would only read the first chapter.¹⁷ In an interview in 1972, he speaks shamelessly of his inability to “look up and find other literature”.¹⁸ When speaking of historic illustrated architectural books in 1964, Kahn praises the impatient reader (presumably himself) “who must see something immediately”, who “will see what he sees, what his mind tells him it is”.¹⁹ Though reading the accompanying text in an illustrated book may reveal a totally different meaning from that which an individual could derive from glancing at the pages, Kahn maintains that individuals’ interpretations are “absolutely as important” as an author’s intended meaning.²⁰ While this statement may point to an unacknowledged awareness of emerging poststructuralist approaches to textural analysis, it also highlights Kahn’s ambivalence towards literature as a medium of communication. Evidence that Kahn actually practises this intuitive approach to texts can be found in a letter which he writes to William S. Huff in 1965, regarding a book which Huff had wished Kahn to read. In that letter Kahn writes, “I looked very quickly through the book and I find it simply fascinating, and without reading a word I can feel its significance”.²¹

Given Kahn’s unconventional approach to literature as a medium of

communication, would he have expected anyone else to read the whole of “Form and Design” when he was not in the habit of completely reading texts? More importantly, would Kahn have made sure that only one interpretation of his metaphysics was possible, when readers (like himself) might judge the meaning of the text without thoroughly reading it? Given his own disposition towards literature, it is possible that Kahn intends the reader to “feel” his text and that such feelings should catalyse philosophical thinking.

“Form and Design”, like *The Republic*, can be viewed as a catalyst for the reader’s own philosophising, but unlike *The Republic*, it does not try to supplant the reader’s prejudicial view of the world with a new metaphysical paradigm. *The Republic* repeatedly challenges its reader’s uncritical acceptance of sense knowledge, claiming that transcendent Forms are the only objects of unqualified truth. “Form and Design” is written for, or addressed to, an occidental audience for whom the dualism established by Plato, two and a half millennia earlier, has become what Jeffrey Kipnis calls the metaphysics of everyday life²². As such, “Form and Design” treats the existence of an “unmeasurable” realm, the realm of the young architect’s dream, as though the existence of some kind of non-physical realm were a commonly accepted fact. Whereas *The Republic* employs sophisticated arguments and analogies to justify and to describe the Form realm, there is nothing within “Form and Design” which even resembles a systematic attempt to locate the “unmeasurable” realm, or even defend that realm’s existence. Rather, Kahn laces his text with what could be described as cues, each merely suggesting where “forms” might reside. As further analysis will reveal, these cues, or metaphysically evocative terms, include the words religion, philosophy and psyche. Kahn’s text relies on readers sharing the meanings which he himself ascribes to these terms and on his readers giving a considerable amount of their own philosophical consideration to metaphysical questions.

Given Kahn’s dependence on readers sharing his own understanding of terms like religion, philosophy and psyche, “Form and Design” needs to be read in the

light of historical contingencies influencing Kahn at the time of its writing, so that these metaphysical cues may be better understood. For this reason, further analysis of “Form and Design” with respect to its metaphysics will be accompanied by discussion of the factors influencing Kahn’s metaphysical allusions.

The Meaning of “Religion”

When read from a philosophical standpoint, Kahn’s text dwells at some length on the theme of metaphysics. In the first instance Kahn intimates that the young architect’s dream may reside in his or her own “Psyche”.

"Then," said the young architect, "what should be the discipline, what should be the ritual that brings one closer to the psyche. For in this aura of no material and no language, I feel man truly is."

Turn to Feeling and away from Thought. In Feeling is the Psyche. Thought is Feeling and presence of Order. Order, the maker of all existence, has No Existence Will. I choose the word Order instead of knowledge because personal knowledge is too little to express Thought abstractly. This Will is in the Psyche.

All that we desire to create has its beginning in feeling alone. This is true for the scientist. It is true for the artist. But I warned that to remain in Feeling away from Thought means to make nothing.

Said the young architect: “To live and make nothing is intolerable. The dream has in it already the will to be and the desire to express this will. Thought is inseparable from Feeling. In what way then can Thought enter creation so that this psychic will can be more closely expressed? This is my next question.”²³

It is entirely typical of Kahn to invent multiple neologisms for single concepts, and occasionally, to ascribe new meanings to his own neologisms as well. An interesting example of the latter is all but hidden within the above quotation. In this example Kahn momentarily redefines his own term Order as “the maker of all existence”,²⁴ that is, as a kind of prime mover, reminiscent of the Demiurge in Plato’s *Timaeus*. Yet within Kahn’s vocabulary the word “Order”, at its most

simplistic, usually refers to a force which regulates biological structures and, when allowed to affect architecture, is typically expressed through space frames and other structural systems capable of accommodating service pipes within their interstitial spaces.²⁵

The most notable feature of Kahn's reply to the young architect though, are his three uses of the word *Psyche*, capitalised, along with one use of the word *psychic*. An undefined agent referred to as "this Will" is said to be *in* the psyche. It is also claimed that the psyche is *in* "Feeling". Perhaps this implies that through their feelings people can gain insights from their own psyches. Similar views are reiterated in a later passage in "Form and Design".

But what is unmeasurable is the psychic spirit. The psyche is expressed by feeling and also thought and I believe will always be unmeasurable. I sense that the psychic Existence Will calls on nature to make what it wants to be. I think a rose wants to be a rose. Existence Will, *man*, becomes existence, through nature's law and evolution. The results are always less than the spirit of existence.²⁶

Kahn's use of the word *psyche* suggests a line of inquiry which is not pursued in detail within this dissertation, but which nevertheless warrants critical attention. From the discussion of Kahn's influences which follows, it will be seen that Kahn's use of the word *psyche* can be understood in terms of Jungian psychology. In this case the young architect's dream and "forms" could be seen, in Jung's terms, as memory residues.²⁷

In 1961 Kahn's claims that "[n]ature, physical nature, records in what it makes how it was made",²⁸ and that "[w]ithin us is the complete story of how we were made",²⁹ along with other similar claims,³⁰ lend themselves particularly well to Jungian interpretations. As discussed in the introduction to this dissertation, Kahn also advances a psychological theory of the "ena" and "enai", which is indebted to both Freud and Jung who also distinguish between conscious and subconscious modes of thought. Already, a number of writers have claimed that Kahn's philosophy is informed by Jungian concepts. These include Anne and Alexandra

Tyng³¹ and John Lobell.³² Exemplifying the acceptance within some circles that Kahn's philosophy is specifically Jungian, Anne Tyng, in her Ph.D. thesis, describes Kahn as searching for Jung's archetypes,³³ where Kahn himself refers to his search for "forms".

In the light of these interpretations, claims by Jung himself that his own theory is built on a "Platonic footing",³⁴ are particularly interesting within the present context. Jung also compares his archetypes — which are "*a priori*, inborn forms of intuition"³⁵ — to Plato's Forms and he disparages philosophers who treat Plato's Forms as though they were simply thoughts, thereby reducing their metaphysical value.³⁶ Despite this, the ontology of archetypes in Jung's philosophy remains ambiguous. Regardless of his appeals to Plato, Jung's archetypes can also be seen to have existential origins. Throughout his writings Jung describes archetypes as being recalled from the residues of ancestral memory. Together, these residues constitute what Jung calls a collective unconscious. In contrast, Plato's Forms are recalled from an atemporal past-life.³⁷ According to Plato, it is through asceticism that the intellect turns from the distractions of sensory input and so *recalls* the Forms which it knew prior to birth. While Jung's collective unconscious is "of a collective, universal and impersonal nature which is identical in all individuals",³⁸ it would appear to have existential origins. Jung's memory residues are gathered from humanity's ancestors' earthly experiences, not from a soul's own prior transcendent existence. For this reason, isolated references to Jung that have been made by a small group of writers on Kahn, do not necessarily imply that Kahn might have been a Platonising architect because of his links to Jung.

Furthermore, when interpreting Kahn's 1961 claim that within humankind there "is the complete story of how [they] were made",³⁹ there is no reason to suppose that this record is necessarily the domain of "form". Since Kahn argues that this record is related to physical nature, it is presumably related to humans' corporeal existence. Consistently throughout "Form and Design", physical nature is presented as something which is merely "measurable".

The design, the making of things, is a measurable act. In fact at that point, you are like physical nature itself because in physical nature everything is measurable, even that which is yet unmeasured, like the most distant stars which we can assume will be eventually measured.⁴⁰

If physical nature is measurable, it can be viewed as the domain of what Kahn terms “Order”. “Order” describes the physical laws which, according to Kahn, must be obeyed when bringing “form” into material existence. This interpretation is supported by Kahn’s article written for *Perspecta* in 1965, in which he differentiates between the eternal, and the universal. According to Kahn, that which is universal

is really just what deals with the physical. But that which is eternal is a kind of completely new essence that nonconscious [sic] nature does not understand or know about, whereas man is the conscious desire that exists in nature. And I believe that because of this dichotomy, nature will change because of the presence of man, because man is of dream, and what nature gives him as an instrument is not enough. He wants much more.⁴¹

While, at a microbiological level, humans and other organisms in nature may be inscribed with universal structures, Kahn does not wish those universals to be confused with a separate, eternal, or atemporal realm of inspiration which is of unique interest to humans. He suggests the existence of a metaphysically higher class of universals, or eternal essences, known only to humans who are capable of dreaming.

Meanwhile, the remainder of Kahn’s introductory passage concerning metaphysics lends itself, not so much to Jungian or Heideggarian interpretations, but to interpretations of Kahn’s metaphysics in terms of Platonic philosophy. Whereas his use of the word *Psyche* suggests that architectural dreams may be in the mind, Kahn’s use of the word *Religion* suggests that dreams are in a transcendent and divine realm. Kahn writes

[w]hen personal feeling transcends into Religion (not *a* religion but the essence of religion) and Thought leads to Philosophy, the mind opens to realizations. Realization of what may be the *existence will* of, let us say, particular architectural spaces. Realization is the merging of Thought and

Feeling at the closest rapport of the mind with the Psyche, the source of
*what a thing wants to be.*⁴²

In the overall structure of Kahn's "Form and Design" article the above paragraph is especially significant in that it immediately precedes Kahn's introduction to his twin concepts, "form" and "design". Until this point in Kahn's argument, his text works to stimulate philosophical thinking about the metaphysical context surrounding the article's title concepts. The reader of Kahn's article is placed in the position of the young architect, perplexed as to why architectural visions cannot be adequately described by lines on paper and cannot be built. Kahn then introduces the concept of "form", by shifting the discussion from the ontology of dreams, to the ontology of "forms". Kahn suggests that architectural visions and "forms" are locked within the Psyche. Access to these psychic visions involves Philosophy, which, according to Kahn, is a transcendent kind of Thought. Earlier in the same article, Kahn implores his reader to "[t]urn to Feeling and away from Thought", since "[i]n Feeling is the Psyche".⁴³ For this reason Religion, the transcendent expression of Feeling, emerges as the primary route to the Psyche and architectural visions are either contained within the Psyche or else they are closely associated with it.

The metaphysical status of Kahn's "forms" depends very much on the meaning he intends to convey through the use of the terms Religion and Psyche and on the mechanisms of "realization". What might the terms Religion and Psyche mean to Kahn and what evocative effect could Kahn expect these terms to have upon his audience? Any attempt to address these questions requires an examination of Kahn's religious background and influences.

In tracing the origins of Kahn's religious statements, a number of scholars look to influences related to his Jewish ethnicity. For example, to explain why Kahn views the creative artist as "the mouthpiece of deity",⁴⁴ Joseph Burton traces Kahn's philosophy to the Jewish *kabbalah*. Offering a similar argument, Alexander Gorlin likens Kahn to ancient Jewish prophets to whom God revealed the plans for Noah's

Ark, the Tabernacle in the desert and the Temple in Jerusalem.⁴⁵

However, the tendency among scholars to attribute Kahn's metaphysics to his Jewish background has recently come under criticism. Susan Solomon observes that "[i]nterpretations which connected Kahn to Jewish mysticism were well anchored in the scholarly world by the early 1980s and continue to inform much contemporary research".⁴⁶ Pointing to Kahn's poor appreciation of Jewish customs and beliefs and to his many failures with Jewish clients, it is Solomon's contention that Kahn "did not become a mystical Jewish architect until he had been dead for almost a decade".⁴⁷ In an interview with the author of the present dissertation, Solomon states that there are aspects of Kahn's theory that resemble Christian Rationalism, and that the influence of Christianity on Kahn's theory requires detailed investigation.⁴⁸

A number of Kahn's statements suggest a Christian, rather than a Jewish disposition. One example is Kahn's expressed fascination, not with Synagogues, but with chapels. He frequently recalls that when walking past chapels, he winks at them, in a wry and knowing manner.⁴⁹ In this story, Kahn seems to imply that by winking he acknowledges Christianity, despite the fact that he does not usually enter chapels himself. Kahn often seems to deliberately pitch his illustrations to a Christian audience. For example, in 1970 he relays Tolstoy's disdain of the miracles, since "Christ has radiance without them".⁵⁰ In 1972 Kahn refers to the "force of the [Christian] cross".⁵¹ Furthermore, his distinction between an "unmeasurable" realm of inspiration and the "measurable" realm of sense experience reflects a dualistic epistemology with a distinctly Western pedigree. Similarly, Kahn's allusions to Socrates, and by implication Plato,⁵² link him more closely with Western culture⁵³ and Christianity⁵⁴ than to Judaism. For these reasons, Christian and particularly Christian Platonic influences on Kahn's use of metaphysically evocative terms, require further consideration.

An examination of Kahn's personal history also suggests that Christianity, with its Platonic associations, figures prominently in his thinking. Kahn was taken to

the United States of America as an immigrant at the age of five. He was raised among an impoverished Jewish minority, that was surrounded by a culture dominated by Christians of Anglo-Saxon descent. Vincent Scully recalls a story told to him by Kahn, of finding a Christian New Testament as a young boy, of reading it, then exclaiming, “they’ve got us!” before hiding the heretical item in a broken brick wall and trying to forget about it.⁵⁵ Wishing society at large to know of his interest in Christianity, Kahn tells a similar story to the New York Times in 1970, adding “I’m not so much of a bigot now. I regard the Bible, like other religious writings, as a well source of art”.⁵⁶

Despite his early brush with Christianity, Kahn remained duty-bound to his Jewish family, at one stage supporting them with money earned playing the piano at a local cinema.⁵⁷ Unlike the majority of his colleagues at university, Kahn could not rely on financial support from affluent Christian families. Rather, he advanced himself by his own ability, winning a scholarship to study architecture.

Kahn’s graduation into professional life was by no means a sudden liberation from the struggle of his youth. Once again Kahn found himself a member of a minority group, this time as a Beaux-Arts trained architect in a design culture presided over by the Modern Movement. As David Brownlee writes, Kahn was “torn between the lessons of the past and the enticements of the present”.⁵⁸ His fascination with Modernism was reflected in his postponing of “plans to travel to Europe after [his] wedding [...] to learn more about Walter Gropius”.⁵⁹

Like Protestant Christianity, Modernism has within its proponents and theories iconoclastic tendencies.⁶⁰ As with Christianity and Platonism, Modernism often promotes a dualistic world view, whereby an intangible realm of ideals is thought to exist beyond the face of material existence.⁶¹ This is the type of realm described in the New Testament letters of Saint Paul and previously in the dialogues of Plato. Like Christianity, Modernism harbours traces of Platonic thought.⁶² Reyner Banham argues that Le Corbusier’s Purist paintings exhibit Platonic tendencies.⁶³ Remarking on Le Corbusier’s influence on his early career, it is notable that Kahn

claims to have “lived in a city called Le Corbusier”⁶⁴ during the 1930s.

Until the mid 1940s Kahn’s approach to design remained comparatively introverted, as he languished in the shadow of his more extroverted partner Oscar Stonorov. Even so, of Stonorov and Kahn, their newly-graduated employee Anne Tyng found Kahn the more appealing and their well-known relationship ensued. Although romantic, their relationship also revolved around their common passion for architecture and architectural theory. Tyng played a role as Kahn’s muse in the phrasing of his 1955 “Order” thesis,⁶⁵ and she acted as a sounding-board for many of his embryonic theoretical formulations.

At the same time that Kahn’s and Tyng’s relationship was growing, Kahn was also involved with a Philadelphia-based discussion group called *The Connoisseur’s Club*.⁶⁶ As stated earlier, the group was pre-occupied with thinking, without regard for cultural or religious mores.⁶⁷ The Group’s minutes record Kahn’s opinion of the time, that happiness “consists in doing what you want to do of your own free will”.⁶⁸ In a similarly libertarian tone, Kahn derides Victorian values in his letters to Tyng while she was effectively exiled in Rome to have their baby.⁶⁹

For Kahn, the late 1940s and early 1950s are a period of renunciation, of disassociating himself from the sense of duty and moral obligation which had surrounded his youth. It is also a period of personal crisis. He writes to Tyng describing how he must fend off worries by absorbing himself in work, and on one occasion of his courage “being extracted from the depths of reticence and anticipated misunderstanding and thoughts of futility”.⁷⁰

While the nature of Kahn’s relationship with Tyng cannot be fully known, one factor is likely to have attracted him to Tyng, since for Kahn, Tyng would have epitomised Christian and Modernist culture. In Tyng, Kahn can be seen to have found acceptance from both of the cultures from which he had been estranged, since she is at once the daughter of Christian missionaries and a Harvard graduate trained in Modernist ideology.

Tyng’s latently Christian Platonic metaphysical outlook is a likely influence

on the development of Kahn's design philosophy. Her implicit belief in an intangible realm is evidenced by her research pursuits which link her thematically to the Christian Platonic tradition. In its title, her 1975 doctoral dissertation purports the existence of universals.⁷¹ Consistent with her religious upbringing, she is fascinated by the Probability Triangle of Blaise Pascal,⁷² a figure as famous for his theology as his mathematics.⁷³ In one article she describes Plato as one who, like herself, views intuitive images as resonant archetypes.⁷⁴ In providing an historical basis for her fascination with the divine proportion, Tyng quotes Plato who describes geometric proportion as the best of unifying principles.⁷⁵ Her projects, particularly her City Tower proposal for Philadelphia (designed with Kahn), demonstrate her fascination, after Buckminster Fuller, with tetrahedrons. Tyng cites Plato's *Timaeus* as an early recognition of the tetrahedron's properties,⁷⁶ thereby connecting her fascination with a realm of pure mathematics — beyond, yet underpinning, the natural world — to Plato, antiquity's major author on that theme.

The metaphysical dimension to Tyng's work is not lost on Kahn, who writes in a letter of recommendation that she “knows the aesthetic implications of geometry inherent in biological structures bringing us in touch with the edge between the measurable and the unmeasurable”.⁷⁷ The relationship between the “unmeasurable” and the “measurable”, could, in metaphysical terms, parallel the relationship between “form and design”, or other terms in Kahn's vocabulary, including “Silence and Light”. In each of these couplings, the first term concerns some kind of immaterial realm while the second concerns the phenomenal realm. Whether or not Kahn learned this kind of dualism from Tyng, he seems to appreciate the metaphysical distinction which underpins her interest in geometry.

Through his association with Anne Tyng, Kahn was introduced to D'Arcy Thompson's book, *On Growth and Form*,⁷⁸ which also promotes a teleological approach to nature that is rooted in Platonism. Evidence of this can be found in Thompson's description of common patterns underlying snowflakes as examples of Plato's “*One among the Many*”.⁷⁹ Thompson also quotes Plato's view that “the Book

of Nature is written in characters of Geometry”.⁸⁰

The extent of Kahn’s familiarity with this book is unclear. According to his nephew Alan, Kahn had never read the book himself, despite having recommended it to Alan as the single most important book he could ever read.⁸¹ Neither does a copy of Thompson’s book remain in Kahn’s personal library.⁸² Possibly alluding to its title, Kahn writes in a letter to Anne Tyng that a certain structural engineer “is unaware of the beauty that lies in [the] *growth of a form* from elements of combined members or surfaces”.⁸³ What can be said is that Kahn is aware of Thomson’s book, and, as Sarah Ksiazek establishes in her 1996 article on this topic, this awareness is primarily through Tyng.⁸⁴

Using a microscope, Thompson discovered that certain species of radiolaria are *built* from tetrahedrons⁸⁵ (in much the same way as Kahn and Tyng’s Philadelphia Tower proposal is built from tetrahedrons) (Figure 9). These and similar discoveries had led Thompson to the view that geometrical shapes represent nature’s underlying order. According to Ksiazek, both Kahn and Tyng believed that such an order, if embodied in a building, could have a unifying effect for that building’s users, no matter what their cultural background.⁸⁶

**Image removed for
copyright reasons**

The full thesis is
available in the
Auchmuty Library

Figure 9: City Tower Proposal, model.

Given her Christian upbringing, Tyng would have been attracted to the teleological aspects of Thompson's work. Thompson is convinced that nature must have some invisible underlying order, in this case a geometrical order. As Ksiazek establishes, Tyng and Kahn believe that Thompson's newly discovered order could unite people in peace, hence the didactic expression of that order in their various proposals utilising space-frames. Coupled in this way, Thompson's notion of an invisible order, and Tyng and Kahn's subsequent use of that order as a vehicle for human well-being, echo an ancient Stoic doctrine; that humans need to intuit, then bring themselves into harmony with, just such an invisible natural order.⁸⁷ As is the case with many ancient Roman cults, certain contemporary Christian attitudes can be traced to Stoicism, via the Stoics' contact with the early church.⁸⁸ Considering the influence that Platonism has exerted on Christian thinking, Thompson's references to Plato are also significant. Given her Episcopal Christian upbringing, Anne Tyng would have agreed with Thompson's Stoic and Platonic views. While Kahn may not have been consciously aware of these Christian undercurrents, these ideas are introduced to him by Tyng and so he would have associated them with her and the Christian world which she embodies.

As discussed previously, the possible influence of Carl Jung's theories on Kahn cannot be taken as proof that Jung's, Kahn's and Plato's metaphysics are alike. However, like Thompson's ideas, Jung's ideas are part of a corpus of vaguely Christian Platonic views that were introduced to Kahn by Anne Tyng. Although Kahn does not publicly acknowledge Jung's influence and the true extent of this influence is unknown, Kahn was at least aware of Jung's theories. Earlier in this chapter it was seen that a number of Kahn's associates make comparisons between his theories and Jung's. Kahn was also quoted making Jungian statements. Further evidence that Kahn was aware of Jung can be found in Kahn's office files, where he kept the findings of a study on creative individuals, including himself.⁸⁹ The tone of the correspondence sent by the researchers to Kahn suggests that flattery may have influenced his decision to travel to California to be interviewed as a subject. For this

effort, Kahn was paid a token one hundred dollars towards his travel expenses. Given Kahn's personal (and somewhat vain), interest in the success of this study, he is likely to have read its findings closely. In line with Jung's cult status within artistic circles, that study provides explicitly Jungian explanations for its subjects' genius.

Just as Kahn's reception of Thompson's ideas marks an interest in Tyng's Christian metaphysics, so too Kahn's interest in Jung might be connected to Tyng's Christian world view. Tyng's passion for Jungian psychology is in keeping with her own Christian Platonic leanings, since not only is Jung the child of Christian clergy (as she is), but he credits his own theory to Saint Augustine, and ultimately to Plato. Jung writes that

[i]n Plato [...] an extraordinarily high value is set on the archetypes as metaphysical ideas, as "paradigms" or models, while the real things are held to be only the copies of these model ideas. Medieval philosophy, from the time of St. Augustine — from whom I have borrowed the idea of the archetype — down to Malebranche and Bacon, still stands on a Platonic footing in this respect.⁹⁰

The first effect of Kahn's extramarital relationship with Tyng was that it challenged his identity as a dutiful Jewish son and husband. Then, through her interests in geometry and psychology, Tyng exposed Kahn to notions at the heart of the Christian Platonic tradition, in particular, Plato's theory of Forms and the rationalistic epistemological framework surrounding that theory.

During the 1940s Kahn developed an interest in the dominant religion of his host culture, as though he were retrieving the New Testament he had once hidden in a wall. Hence, his personal library contains books dealing with Christian subjects, including *Pilgrim's Progress* and Dante's works, but no Jewish equivalents.⁹¹ His library also contains history books relating to England and to Christian church architecture, but none relating to Israel or Jewish architecture.⁹² Also, Kahn's office correspondence reflects a commitment not only towards Jewish community groups,

but to Christian groups as well.⁹³

Finding numerous equilateral triangles in Kahn's designs during the 1940s, David De Long observes that Kahn "must have found the plan device of a triangle inscribed within a symmetrical enclosure [usually a circle] compelling", and that beneath the visual similarities between such plans "lie diverse unidentified sources".⁹⁴ Given Kahn's interest in Christian theology during this period, Christian symbols for the Trinity are a possible source of this motif. It is also known that Kahn is conscious of religious symbolism as it can apply to architecture. A letter to Anne Tyng in July 1954, objecting to her suggested use of a Star of David for the planning of a synagogue,⁹⁵ demonstrates this point. Had Kahn been poised at a personal level between his Jewish ethnicity and a growing interest in Christian metaphysics, then this internal conflict may have been played out at a symbolic level in his designs, although proving such a thesis would be impossible given the available evidence.

While his interest in tetrahedral space frames does not seem to have lasted beyond the time of his romantic involvement with Tyng,⁹⁶ the latent Platonism which underlies Tyng's interest in tetrahedrons seems to have been instilled into Kahn's thinking during the late 1940s, to be recalled in 1960 with the announcement of his "form and design" theory. Given her forthright belief in dualistic concepts, and her mental and physical intimacy with Kahn during the formative years of his philosophy, Anne Tyng is a strong and proximate agent of Christian Platonic thought in Kahn's milieu.

Just as Kahn readily embraces Modernism after graduation, thus assimilating his work into the dominant design culture of his day, at a personal level, he appears to embrace the metaphysics of the dominant religious culture around him. Kahn's exposure to Christian Platonic thought, together with an apparent desire to be assimilated with the predominantly Christian culture around him, can be taken into consideration when interpreting his metaphysically evocative terms, particularly the word Religion as it is used in his article "Form and Design".

Although Kahn does not practice religion by attending a church or a synagogue, his philosophy remains steeped in quasi-religious descriptions. His frequent use of words such as sacred, transcendence, spiritual, religious, belief and God, constitute an undeniably religious dimension in his theory.

A quasi-religious tone first comes to Kahn's vocabulary in 1955, with his apparent deification of the word "Order". In the following quotation, Kahn recalls the development of his phrase "Order is".

I tried to find what Order is. I was excited about it, and I wrote many, many words of what Order is. Every time I wrote something, I felt it wasn't quite enough. If I had covered, say, two thousand pages with just words of what Order is, I would not be satisfied with this statement. And then I stopped by not saying what it is, just saying "Order is". And somehow I wasn't sure it was complete until I asked somebody, and the person I asked said, "You must stop right there. It's marvellous; just stop there, saying, "Order is".⁹⁷

Kahn's phrase "Order is" follows the grammatical pattern established in a famous Biblical passage in which God refers to himself as "I AM".⁹⁸ Given the place of religion in American culture, Kahn should have been aware of the air of religious profundity conferred on "Order" through the employment of a Biblical allusion. Although Kahn's concept of "Order" seems to lose much of its divine status in later years, the phrase used to describe it during the mid 1950s, "Order is", evokes an atemporal state of Being, traditionally associated with divinity.

A later example of a religious evocation by Kahn is his 1964 assertion that "every building must have a sacred place".⁹⁹ In the case of his Performing Arts Theatre in Fort Wayne, Indiana, the "sacred space here is the place of the actor, the dressing rooms, the rehearsal room".¹⁰⁰ He concludes that the completed building is a "religious place".¹⁰¹ David De Long comments on Kahn's "belief in the sacral meaning of secular assembly".¹⁰² De Long quotes Kahn describing houses of legislation as religious places, and assembly buildings as places of transcendence for political leaders.¹⁰³

In an address to a Milanese audience in 1967, Kahn states that the “mind is the soul, the spirit, and the brain”, that certain institutions are “manifestations of man that come from the inspiration to live forever” and that “art is the language of God”.¹⁰⁴ Kahn’s tripartite breakdown of the human mind may reflect Christian influences, since Saint Paul too treats the soul, spirit and body as separate entities.¹⁰⁵ Apparently thinking within this tradition, Kahn differentiates between the spiritual and the physical, and what may be an admixture of the two, the human soul or personality.¹⁰⁶ Should Kahn’s conception of the mind only consist of the brain and the soul, then a transcendent dimension to human consciousness could not be presumed. However, his addition of “the spirit” appears to be an incantation of divinity and an intimation that he believes in a transcendent or heavenly realm. His religious tone continues with his contemplation of “the inspiration to live forever”, and culminates with a direct reference to God. It is unlikely, given this context where immortality and spirituality are discussed, that Kahn refers to God merely for poetic effect. Moreover, Kahn’s religious pronouncements can be interpreted literally. He claims that an artist is a channel of God. In Joseph Burton’s words, Kahn sees architects as “the mouthpiece of deity”.¹⁰⁷ Or, as Kahn expresses this view in 1969, “what man has made is... [the] very manifestation of God”.¹⁰⁸

Most significant, from the standpoint of the current discussion, is Kahn’s incantation of the divine within the context of his “form and design” theory. Kahn deifies the word “form” through the use of such words as transcendent, belief, sacred, worshipful and religion. The following passage is transcribed from Kahn’s personal notebook (circa 1959). This notebook entry seems to contain the first formative drafts of his “form and design” theory that would later be espoused in his Cooper Union address titled “The Scope of Architecture”,¹⁰⁹ and his subsequent Voice of America broadcast of November 1960.¹¹⁰ The first of these drafts is as follows.

The beginning is the time of belief in Form. Un [sic] existence without material without shape or dimension. Design serves this belief into being

by placing the maker and places in harmony with Order and being. When the work is completed the beginning must be felt.¹¹¹

In this initial draft, Kahn links his earlier term “Order” to the terrestrial matter of “design”, since “Order” refers to the universal principles of “physical nature”, which can be observed empirically. Meanwhile “form” cannot be observed empirically but is a matter of belief. “Order” is further diminished in Kahn’s next draft, where it is not capitalised.

Belief is the beginning of form unexistence [sic] without material without shape or dimension. Design serves this belief and places the maker in harmony with order and being. The work completed.¹¹²

Kahn’s third draft turns to the religious and philosophical aspects of “form”.

Beginning is the belief in form. It is feeling as religion as dream ~~aspiration~~ and ~~dream~~ and as ~~belief~~ and thought as philosophy.

It exists ... material without shape and dimension. Design is the maker and [sic] harmony with order and being[.] A work inspired by form inspired ~~completed~~ ~~reflects~~.

The aura of commonness

One feels the work of another in transcendence.¹¹³

The last line of the preceding draft represents Kahn’s first indication that “form” is transcendent, because it is possible to recognise a “form” underlying another’s work “in transcendence”. In the following draft, Kahn refers directly to the “transcendence of form”.

Form is belief in beginnings. Design [illegible] inspired [illegible] fits in the laws of order ... that binds thought and feeling and links them to [the] realm of philosophy and ~~religion~~ and aspirations, reading is [sic] one experiences renewal of form as immanent, immaterial, undefinable yet characteristic reality, that is ever beginning, and we celebrate a work which achieves the kind of sacred realization ... in man’s worshipful labors ... perpetuates *the transcendence of form* by that of himself.¹¹⁴

In Kahn’s final draft, religion and philosophy constitute the milieu of “form”.

[T]he beginning is belief in form, feeling as religion, thought as philosophy is the ~~aura~~ milieu [of] form.

Beyond the personal limits of feeling and thought.

It is hard to ... [write] about a work.

I find it hard to write about my work after it is built. I recall the beginning as belief. It is the time of realization of form. It is feeling as religion and thought as philosophy. Though there is no material, no shape, no dimension ... and the recall ... the [illegible] of design when dream inspired form must answer to the laws of order so as to be. One feels the work of another in accordance in an aura of ~~commonness~~ transcendence and in the Belief.¹¹⁵

This draft represents a deeply introspective and personal journal entry. In it, all of Kahn's religious tendencies are borne out and married to his notion of "form". There is nothing in this passage to link "form" to the empirical world. To the contrary, Kahn describes "form" as being hard to write about, since it is beyond the limits of his own feeling and thought, much less his empirical observation. In another's work, "form" is not perceived empirically, but in "an aura of transcendence and Belief". This journal entry provides a clear indication that "forms", with their quasi-religious associations, can be viewed as transcendent entities, like Plato's Forms.

The question that Kahn raises at the beginning of "Form and Design" — regarding dreams and why they cannot be drawn — can, in light of diffuse scholarship linking Kahn to Plato,¹¹⁶ be viewed as a question of metaphysics. Dreams cannot be drawn because, metaphysically, they are of another realm. Likewise, "forms" are fundamentally different from buildings. Architects' insights regarding dreams and "forms" are gained through Religion (capital-R). Kahn's own religious background and his interest in Christianity, suggests that the word Religion can be understood in terms of Christian Platonism. Kahn intends this word to shroud his concept of "form" with a sense of divine, or heavenly transcendence.

Kahn's Redefinition of "form"

To better understand the precise meaning given to the word "form" in Kahn's text, it is useful to keep in mind two possible interpretations of this term within his vocabulary. The first interpretation is by now familiar, and, insofar as Kahn's post-1960 pronouncements are concerned, it might be called the Kahnian definition of "form". Kahnian "forms" are intuitive, yet at the same time authoritative conceptions of ideal planning strategies described in terms of inseparable component parts. From the more obvious influence of his Modernist contemporaries comes an alternative interpretation of the word "form" as it is used in "Form and Design". According to this interpretation, Kahn uses the word "form" as other architects would, to denote a building's shape. If the Modern Movement in Architecture has a single defining credo, it would be that form follows function; meaning that functional concerns should determine the three dimensional shape of a building.¹¹⁷ While primarily using it to describe ideal types, Kahn's use of the word "form" in the text "Form and Design" also plays on understandings of this term within Modernist parlance. As such, the definition of "form" is both evocative and provocative and reflects Kahn's awareness of the word's meaning within architectural and philosophical discourse.

Kahn's "form and design" theory and his First Unitarian Church and School in Rochester are inextricably linked. They are interdependent, since the terms "form" and "design" appear to have been coined in response to the halting evolution of that church, which in turn became Kahn's primary exemplar of his "form and design" paradigm. Robin Williams argues that Kahn's use of the terms "form and design" to describe the design process for this church represents an oversimplification of events, and the creation of an architectural myth.¹¹⁸ Kahn employs what Paul-Alan Johnson refers to as the myth making role of theory,¹¹⁹ by using his "form and design" theory to mythologise his actual mode of operation. Consideration of the context in which this church was built confirms that this

building is the inspiration for Kahn's "form and design" myth. With the Richards Medical Building complete and any real work on the Salk Institute or the Luanda Consulate yet to begin, designing the First Unitarian Church was the only major task coinciding with the emergence of his "form and design" theory in early 1960. For the five years leading up to this commission, Kahn had been involved with designing the Jewish Community Centre in Trenton.¹²⁰ This would prove to be a frustrating project, yielding only a pool-side pavilion and modest day-camp shelters. In the wake of that ordeal, it is also likely that Kahn was anxious to succeed with a religious commission.

The story of the development of the Unitarian church represents a significant challenge to the tenets of Modern architecture, since it begins with an architect's preconception about a building's final planning strategy, without regard for the details of its program. Before being briefed by the building committee in Rochester, Kahn began design work (Figure 10). His sketch suggests an octagonal sanctuary encircled by ancillary spaces, recalling the centralised churches that Kahn had seen in Wittkower's book, *Architectural Principles in the Age of Humanism*.

**Image removed for
copyright reasons**

The full thesis is
available in the
Auchmuty Library

Figure 10: Preliminary sketch of First Unitarian Church Rochester, 1959.

Although Kahn's accounts of this building's design process make no mention of these sketches, he gives the impression that he began designing, as his Beaux-Arts training had taught him to, with an *esquisse* drawing.¹²¹ In "Form and Design" Kahn recalls presenting what he refers to as a "form" diagram to the building committee in Rochester.

I made a square center in which I placed a question mark. Let us say I meant it to be the sanctuary. This I encircled with an ambulatory for those who did not want to go into the sanctuary. Around the ambulatory I drew a corridor which belonged to an outer circle enclosing a space, the school. It was clear that School which gives rise to Question became the wall which surrounds Question. This was the form expression of the church, not the design.¹²²

According to Bob Jonas, who sat on the building committee

[f]rom the very first time he came and presented this idea about the question surrounded by the other things, that was the central theme of the building he was going to build, regardless of what the building committee might have in mind.¹²³

During his first visit to Rochester, Kahn also assisted the building committee with the selection of a site. He recommended a green-field site, on South Winton Road outside central Rochester. This was a site without urban constraints which might have hindered Kahn's realisation of a radially symmetrical edifice.

Throughout the following months, there was relatively little communication between Kahn and the church building committee, hence records of preliminary designs and their dates are largely incomplete. From an undated report from the building committee to the congregation, it can be deduced that a radially symmetrical scheme was presented on 12 December (Figure 1) and that this would have cost \$860,000 to build, "whereas we certainly could not anticipate spending more than 450 thousand".¹²⁴ Later in December of 1959, Kahn responded with an almost identical scheme, with an estimated budget of \$650,000.¹²⁵ When the building committee reconvened on 4 January, after the Christmas-New Year break,

their former complacency had turned to anxiety. Shocked by Kahn's apparent disregard for their financial circumstances, they kept accurate minutes of this and all subsequent meetings. Dr. Maurice Van Horn was replaced by a more assertive chairperson, Mrs. Helen Williams, who was asked at that meeting to

write to Mr. Kahn immediately, telling him that members of the building committee are enthusiastic about the general style of the building but that it is too expensive for our congregation and does not meet our needs – to point out that he did not come near our original figure and did not give us what we specified.¹²⁶

A few days later, on 8 January 1960, Kahn received Helen Williams' letter, stating that his proposal was over budget, inflexible, deficient of classroom space and unsuited to the site. She writes

[u]nder the circumstances, we feel that further revision would be futile and that a brand new approach to the problem would be preferable [...]. It is disappointing to realise that some eight months have elapsed already and we have nothing to show.¹²⁷

Kahn responded with two sketches, which, according to Williams' next unfavourable letter dated 1 March 1960, "represent a modification of your original idea [merely] pared down to meet our conflicting space and budget requirements".¹²⁸

In his job file for Rochester, within close proximity to these two letters, Kahn filed a quotation from author Victor Hugo.¹²⁹ Recalling major themes of Western mysticism, Hugo describes an odyssey embarked upon by a dreamer (part poet and part prophet), who lives "a sort of diffused prayer", and "attaches himself to an intermediate certainty which he calls God".¹³⁰ In tones reminiscent of Plato's parable of the cave in *The Republic*, Hugo writes of a "twilight" between the "anterior life" and the "ulterior life", of a "promontory of thought from which one perceives the shadow", and of finding "the boundless release of infinite meditation".¹³¹ Hugo's sentiments, which can be thought of as having a Christian Platonic character, appear to strengthen Kahn's resolve to persist with his preconceived "form".

Kahn's announcement of his "form and design" theory at the Cooper Union Great Hall on 20 January 1960, titled "The Scope of Architecture",¹³² occurs during the vexing period following Williams' first reply, as Kahn considers how to bring his first design solution within budget. Many of the themes introduced in this address are a direct reflection of the conflict he faces in Rochester, between a preconceived ideal and his clients' fiscal constraints. In this address Kahn reacts against the Modernist dictum that form follows function, claiming that "form follows function very much in a machine, but I think that in architecture the form *evokes* a function".¹³³ In this instance, Kahn uses the word "form" as his Modernist counterparts would, to denote a building's shape. This is consistent with his use of the word "form" prior to 1960.

Five years earlier, in 1955, Kahn had also used the word "form" in the manner of his Modernist counterparts.

Order is

Design is form-making in order

Form emerges out of a system of construction.¹³⁴

This descending list of key words — order, design, form — suggests a descent in importance, where "form", meaning shape, is the least significant. For Kahn in 1955, a building's "form" (or final shape) is inconsequential, merely the result of a "system of construction".¹³⁵ As late as 1959, in his address to the CIAM conference in Otterlo, Kahn uses the word "form" to describe shape. At this stage, his primary concern is still with nature and Order, which he maintains are "not concerned with form [shape], only man is concerned with form. It [He/Man] makes it [form/shape] according to circumstances".¹³⁶

His 1959 CIAM address also prefigures Kahn's distinction in 1960 between ideal types ("forms") and particular buildings. In his 1959 CIAM address Kahn refers to an archaic concept which he calls both "preform" and "protoform". However, his treatment of the concept in 1959 is nebulous, and presented primarily as a reaction against artificiality in façade treatments.¹³⁷

In Kahn's Cooper Union address of January 1960 "form" *evokes* function. At the time of this address, it can be assumed that the word "form" is synonymous with shape. That is, in January 1960, Kahn's definition of the word "form" has not changed since his address to the CIAM conference in 1959. The present claim that, in this context, "form" means shape is based on Kahn's persistence in January of 1960 with polygonal design proposals in his designs for Rochester; he associates these with his "form" diagram depicting a question mark within a hatched ring. Kahn's statement at this time that "form" evokes function can therefore be taken to mean that shape evokes function. Kahn claims that a radially shaped building, conforming to his "form" diagram and subsequent proposals, somehow *evokes* Unitarianism. Consistent with there being an alignment between the words "form" and shape, Kahn uses the Cooper Union address to privilege shape over circumstantial factors. In the Cooper Union address Kahn also states that an architect's preconception regarding shape has

a very deep life beyond the necessities of the day. The client is only an interim thing. He's there to make the building possible. He's got to live in the place its true but the building [...] only has its value, real value as architecture if it can transcend his life and if it can be clearly seen that somebody else can live in it as well. The test of a great house is not, in my opinion, the fact that you have solved very well what the client wanted, but whether the building actually has abstractly the qualities of house. Not a house, which is a specific solution, but house, which is symbolically a place to live.¹³⁸

Kahn uses the example of a house to illustrate the importance he places on universal building types and, although he is also working on the Margaret Esherick House in January 1960,¹³⁹ his views seem to be directed towards his work on the Unitarian Church, for which the clients are very particular about their immediate needs. The Platonic character of Kahn's differentiation between "a house" and the idea of house (no "a"), is particularly significant. In his Cooper Union address Kahn comes close to linking his own theory to Platonism when he states that to contemplate the idea of school (no "a"), an architect must "start right at the

beginning, as though he were Socrates when he's talking about school" and that "form" comes from the Socratic contemplation of typology.¹⁴⁰

As well as referring to Socrates — Plato's mentor and the protagonist in many of his dialogues — here Kahn introduces his often repeated theory of "form and design" where the word "form" can be viewed in the Platonic sense.¹⁴¹ On this occasion Kahn also uses the words "form" and "design" to describe his long-standing delineation between the universal and the particular. Unlike the various dialectical pairs which Kahn would later use — such as "law and rule", "belief and means" or "silence and light" — the leading term "form" specifically refers to a universal relationship of inseparable parts (as spoon, no "a", consists of a container and an arm). His later leading terms can be interpreted as referring to a universal spirit, ambience or set of principles. Likewise, with his earlier sequence, the term "Order" has metaphysical connotations; however that term merely pertains to a set of principles, not a building's underlying planning strategy. This point is illustrated in a sequence drafted in a letter written to Anne Tyng in 1954.

Nature of space	Order	Design
desire	seed	composition
what do you want?	what are the principles which lead to its being?	what are the circumstances (environment) which are at play? ¹⁴²

At this time Kahn's planning strategies (the "Nature of space"), appear to be a personal matter, like "design", epitomised by the phrase "what do you want?" In this sequence, "Order" stands out as the metaphysically loaded term, as it would be in his 1955 article, "Order is".¹⁴³ At its most simply defined, the word "Order", as Kahn uses it during the mid-1950s, refers to universal principles which supposedly govern nature and architecture alike. In Kahn's work of the 1950s this conception of "Order" is expressed through his sense of structural rationalism and his integration of services with structure, (as exemplified in his Richards Medical Building).

Meanwhile Kahn's use of the term "design" seems to remain unchanged, referring always to an architect's response to circumstantial factors.

It should be noted that David De Long identifies a Platonic shift in Kahn's vocabulary as early as 1954, when Kahn speaks of "order and design", but not of order "in the usual sense of a superimposed geometric pattern, but rather as a preexisting [sic] Platonic ideal".¹⁴⁴ In the 1954 example to which De Long refers, Kahn writes, typically, that "design is circumstantial", and that "order is what we discover the aspects of".¹⁴⁵ However, it remains doubtful as to whether, in this instance, the word "order" refers to a planning strategy, or to an inseparable relationship of parts as the word "form" later would.

Returning to Kahn's Cooper Union address, it can be noted that his likening of himself to Socrates infers that his preconception about a centralised planning strategy has transcendent and absolute origins (presumably in the realm of Forms). In this sense, his use of the word "form" can be related to Plato's conception of Forms. Also, Kahn's refusal to think in terms of what others have done before him can be seen as a reaction against the building committee's repeated suggestions that he adopt a binuclear planning strategy, separating the school and sanctuary into two buildings, as Frank Lloyd Wright had done with his prototypic Unity Temple.

Kahn must have sensed some pressure to follow Wright's 1906 solution to the problem of pairing a Unitarian church with a school, and not only because of Unity Temple's fame. The congregation in Rochester had actually had a direct connection to Wright for more than fifty years before their involvement with Kahn and so some members might have expected Kahn to design a new church for them which resembled Wright's Unity Temple. Their connection to Wright is through Dr. William Gannett, who had been their minister at the turn of the century. Gannett had been an early mentor to Wright, and Wright had produced the layout and graphic design for Gannett's 1895 book, *The House Beautiful*.¹⁴⁶ At the Unitarian church in Rochester, it had become a tradition to present all newly married couples with a copy of Gannett's book,¹⁴⁷ thus giving many in the congregation a personal interest

in Wright's work. It will also be recalled that Wright had been invited to design the First Unitarian Church in Rochester but had been unavailable at the time. It is highly likely therefore, that Kahn's claim that he should not think in terms of what others have done before, is made with Wright's Unity Temple in mind.

Since in his Cooper Union address Kahn uses the word "form" in both the Modernist and Platonic senses, it is proposed that his "form and design" theory begins as an inversion of the Modernist dictum that form follows function. It is also possible that Kahn makes this inversion intuitively, rather than self-consciously. His trouble reconciling his clients' fiscal constraints with his own, somewhat grandiose preconceptions about their building's shape, provides Kahn with a strong motive to claim (during his January 1960 address) that function follows form. This implies that architects' consideration of shape rightfully precedes their consideration of function. As David Brownlee argues, Kahn then fortifies the term "form" by using it as a Platonist would.¹⁴⁸ From a Modernist standpoint, persisting with a preconceived "form" or shape, as Kahn does in Rochester, amounts to heresy, and Kahn is compelled to justify this approach. He attempts to legitimise his use of a preconception by effectively canonising a new theory, which may be expressed as follows: Platonic Form evokes function.

Shortly after the Cooper Union address in March 1960 an ultimatum from the building committee in Rochester finally broke Kahn's persistence with radially symmetrical plans for the Unitarian church project,¹⁴⁹ leading to the more amorphous shape of the realised building. The "form" diagram showing a question mark within a hatched ring, which Kahn had presented to the building committee in Rochester at their first meeting in 1959, is radially symmetrical. Though he had tried to emulate this aspect of the diagram with his preliminary schemes, after March 1960, empirical circumstances (his clients' budget, their brief, and their particular dislike for the squareness of his proposals), force him to arrange classrooms and auxiliary spaces asymmetrically about the central sanctuary. Given these circumstances, the myth which he had cultivated, that this building's "form" could

be represented by a preliminary “form” diagram, would be discredited unless he could disassociate the building’s “form” from its shape. Hence, in June of 1960 Kahn states that “[f]orm doesn’t have shape or dimension. It simply has a kind of existence will”.¹⁵⁰ Rather than concede that he has abandoned his guiding “form”, from June 1960 onwards, Kahn redefines “form” as “something which does not have shape”,¹⁵¹ thereby divorcing the term from its Modernist origins.

After June 1960, Kahn’s awareness of the meaning attached to the word “Form” in Platonic philosophy appears to contribute to his own definition of that word. It could be speculated that in Platonism, Kahn finds a definition of “Form” which is sufficiently unlike “shape”, and which has suitably authoritative overtones.

To a lesser extent, it could also be argued that by adopting a Platonic approach to building types, Kahn’s theory resonates with the metaphysics of the broader culture of 1960s America. Here, the influence of the American movement known as Transcendentalism on mainstream American culture has some significance. The Transcendentalists were a nineteenth-century faction of the Unitarian Church, whose philosophy Kenneth Cameron defines as “a new humanism based upon ancient classical or Neo-Platonic supernaturalism and coloured by Oriental mysticism”.¹⁵² Their core belief is that every individual can have their own personal revelation from a divine realm; the kind of revelation that Kahn alludes to in “Form and Design”. Cameron argues that the Transcendentalists’ influence upon American culture would extend to American Romanticism and, much later, to counter-cultural movements of the 1960s. That the movement grew out of Unitarianism is testimony to a transcendental undercurrent in that religion, and may partially explain the building committee’s receptivity towards Kahn’s transcendental rhetoric surrounding his notion of “form”.

Having examined Kahn’s use of the word “form” in the context in which he announced his “form and design” theory, it can be seen that Kahn’s rhetoric underwent a complex evolution at this time. During the 1950s Kahn’s theory had privileged nature’s laws, referred to as “Order”, as a kind of filtering process

through which an individual's conception of type passes into the "measurable" realm of Becoming. Before 1960, an individual's conception of type is vested with no significance. However, prompted by his difficulties in Rochester, Kahn's attention seemingly shifts to type, which he'd previously described as "The Nature of [a] Space", dismissively defined by the question "what do you want?" In Rochester though, what Kahn wants — that is, a radially symmetrical church — attracts the metaphysical status previously reserved for nature's laws, defined as "Order". Initially, Kahn's notion of "form" seems to encompass a building's planning arrangement *and* its shape, but circumstances force Kahn to abandon the latter of these. In the process, Kahn's notion of "form" naturally evolves to resemble Plato's notion of Form.

The Psyche and the Form Realm

The portrayal of Kahn which is emerging from this chapter belies his apparent humility. To some observers Kahn's deification of "form" would cast him as a rather arrogant figure, one who would treat his own preconceptions as though they were divine revelations. The pictograph Kahn produced for Rochester is not intended to represent his own humble opinion regarding the optimal planning strategy for Unitarian churches, but the only valid approach to the planning of Unitarian churches anywhere. He speaks of discovering this "form" and of it not belonging to him personally, but to anyone building a Unitarian church and associated school. Just as he claims that all spoons consist fundamentally of a container attached to an arm, Kahn would claim that all Unitarian churches with associated schools should feature a questioning space, surrounded by an ambulatory, surrounded by class rooms, as described by his pictograph.

One scholar who recognises an air of fundamentalism in Kahn's position, yet who refuses to cast Kahn as a dogmatist, is Stanford Anderson. Pointing to Frank Lloyd Wright's binuclear Unity Temple — which adopts a planning strategy

diametrically opposed to the one that Kahn employs in Rochester — Anderson concludes that Kahn’s pictograph could not possibly be meant to be anything more than an “hypothetical appeal”.¹⁵³

Anderson’s interpretation is sympathetic towards Kahn, but within the present context, the case for Kahn’s dogmatism should also be made. By exploring the hypothesis that Kahn genuinely states that “forms” are absolute, and not hypothetical appeals, the following discussion will also provide a means of interpreting the role of the Psyche in “Form and Design” where it is claimed that “Realization is the merging of Thought and Feeling at the closest rapport of the mind with the Psyche, the source of *what a thing wants to be*”.¹⁵⁴

Before examining Kahn’s fundamentalism, Anderson’s counter argument should be considered in greater detail. In order to defend his view that Kahn’s “forms” are merely hypothetical, Anderson presents a complicated argument, drawing heavily from Kahn’s Judaism. Anderson commences by quoting Kahn’s reference to a “Volume Zero” of English history,¹⁵⁵ and argues that such an *imaginary* realm is the source of Kahn’s “forms”. Kahn’s phrase “Volume Zero”, according to Anderson, refers to England’s ancient, unwritten legal constitution surviving to the present through the agencies of custom and institutions.¹⁵⁶ From a Platonic standpoint it is significant that Kahn’s “Volume Zero” has, according to Anderson, terrestrial origins. Anderson speculates that Kahn’s interest in an archaic, unwritten, yet terrestrial constitution reflects his own Jewish background. He then quotes André Neher, who writes that Jewish history “does not begin with Genesis”, but that Genesis “is the [p]arousia of a history which is already mature, which carries with it the remains, the wreckage perhaps, but also the vital germs and above all the irretrievably lost realities of the preceding Alpha”.¹⁵⁷ According to Neher, there was once a creation about which nothing has been written. Should such a mythical, yet earthly past, be Kahn’s inspirational realm of “form”, then Kahn’s “forms” would emanate from what Plato calls the sensible realm, rather than the intelligible realm in which Forms reside. According to Anderson’s analysis, Kahn’s

religion and ethnicity would rule out dualistic divisions between the material world and Kahn's realm of "form", since the realm of "form", while being prehistoric and mythical, is nonetheless terrestrial.

Anderson's argument is convincing when considering Kahn's references to "Volume Zero", but it does not take into account Kahn's other references to a "Volume Minus One".¹⁵⁸ An imaginary "Volume Zero" of English history may be thought of as having existential origins, representing a forgotten moment in history, but when Kahn refers to "Volume Zero Minus One", he appears to be making reference to an atemporal realm, comparable to the transcendent past-life advanced in Plato's *Meno*.

It needs to be remembered that Anderson's overriding reason for arguing that Kahn's "forms" are hypothetical, is to account for Wright's masterly Unity Temple. If Kahn's "form" diagram for Rochester is universally valid, then Wright's Unitarian church and school should be concentric, rather than binuclear. By insisting that his own "form" for Unitarian centres is a discovery for others to follow, Kahn insinuates that Wright's church is ill-conceived. Anderson cannot accuse Kahn of such arrogance in the face of Wright's work and so concludes with the inference that Kahn's "forms" are products of his imagination, residing in his mind, in the Aristotelian sense of the word Form.

Indeed, various statements made by Kahn lend considerable weight to Anderson's analysis. In 1973, Kahn states that "form" is inaudible and invisible and that as an architect one turns to nature to "make [form] actually present from existence *in the mind*".¹⁵⁹ In similar fashion, he had claimed in 1964 that architecture — that is, the notion of architecture, as opposed to a particular work of architecture — does not exist, but as a notion, architecture "does exist in the *mind*".¹⁶⁰ If Kahn's words can be interpreted *prima facie*, then his meaning is clear: "form" is not transcendent in the Platonic sense, but actually *in* an architect's own mind.

However, other statements by Kahn complicate this issue. Firstly, there is his aforementioned claim from 1967 that the mind consists of "the soul, the spirit and

the brain”.¹⁶¹ In other words, he attributes a transcendent dimension to the mind. While “form” may be in the mind, that part of the mind which is spirit is not ontologically bound to the brain. On another occasion in 1967, Kahn states that “[f]orm has no presence”, and that “[i]ts existence is in the mind”, but then he goes on to state that “[f]orm, when realized, does not belong to its realizer”, in the same way that oxygen “does not belong to its discoverer”.¹⁶² This is consistent with his view that “form” is impersonal. In “Form and Design” he writes “Form is ‘what’. Design is ‘how’. Form is impersonal. Design belongs to the designer”.¹⁶³ Kahn’s suggestion that identical “forms” reside in all human minds, combined with his view that the human mind consists of a spiritual component, raises the prospect of a transcendent realm of “forms” which all human minds can behold. Rather than “form” having its *existence* in the mind, it is possible, and perhaps more accurate, to view “form” as something which is *beheld* by the mind. The mind is a faculty capable of perceiving universal “forms” since it is composed of a soul and a spirit which transcend their corporeal and temporal vessel, the brain. In “Form and Design” Kahn claims that Feeling and Thought are in rapport with “the mind *with* the Psyche”.¹⁶⁴ In this quotation Kahn’s grouping of the mind and the Psyche suggests that both are interdependent faculties. Should Kahn’s treatment of the mind in the above references be extended to the Psyche — and it would seem that it could be — then the Psyche’s role in “Form and Design” becomes clear and distinct from that of Religion and Philosophy. If realisations occur when Thought (raised to the level of Philosophy) and Feeling (raised to the level of Religion) are in rapport with “the mind with the Psyche” then it is by virtue of the Psyche’s ability to act as a window to a transcendent realm of “form”. Therefore, the Psyche may be “the *source* of what a thing wants to be”,¹⁶⁵ in the same sense as a window is a *source* of sunlight.

Returning to Anderson’s concerns, Kahn can be accused of disregarding Wright’s famous Unity Temple, as though it were simply an incorrect response to the problem of a Unitarian church and school. Kahn must be aware of Wright’s

canonical work when he draws a series of diagrams circa 1961, with a categorical “No!” written beneath a diagram representative of Wright’s binuclear scheme (Figure 11). Kahn claims in 1961 that he cannot imitate how others, namely Wright, have made their churches.¹⁶⁶ Commenting on the church building committee’s request that he investigate a binuclear arrangement reminiscent of Wright’s, Kahn explains that he could only bring himself to draw a rough diagram to appease them.¹⁶⁷ Kahn is so adamant that such a response to the problem of a Unitarian Church is wrong, that he claims to resist “making any sort of plan. I wouldn’t have done it”, he insists.¹⁶⁸

**Image removed for
copyright reasons**

The full thesis is
available in the
Auchmuty Library

Figure 11: Kahn’s test for the validity of his “Unitarian Church” “form”.

The hypothesis being explored within this chapter, that for Kahn “form” is of another realm, finds further support in his writings. In his 1972 text “I Love Beginnings”, Kahn again differentiates between a work of architecture and the idea of architecture, on this occasion describing the latter in a decidedly Platonic tone, as “Architecture itself”!¹⁶⁹ He goes on to state that an architect “can build a house and build a city in the same breath only if he thinks about both as part of a marvellous,

expressive, and inspired *realm*".¹⁷⁰

The related hypothesis, that an individual's mind or Psyche is a window on this inspired realm, is supported by Kahn's position regarding the individual's role in society. The following argument consists of two parts. Firstly, it will be established that for Kahn, architecture should be encoded with truly universal structures and planning strategies rather than culturally specific ones. Secondly, it will be shown that Kahn sees individual architects, rather than collectives or groups, as channels of universal planning strategies.

Pointing to Kahn's political affiliations, Ksiazek establishes his interest in global unification.¹⁷¹ Ksiazek argues that Kahn sees a role for architecture to this end, through the encoding of a "formal order grounded in all humanity's shared experience of nature".¹⁷² Whatever their racial or cultural background, all humans are meant to recognise profound symbolism embedded within Kahn and Tyng's Philadelphia City Tower proposal, since, through its use of the tetrahedron, it is a re-enactment of the true structure of the world.¹⁷³ According to Ksiazek's analysis, Kahn must believe such symbols as cubes and tetrahedrons to be universal and not culturally specific. If they were culturally specific, they would not be able to convey a subliminal message to all races. Although by the late 1950s Kahn abandons the regular solids as ordering devices, there is no reason to suspect that he abandons his interest in global and cultural unification and his notion that architecture can serve this cause through the use of universal symbols. When he later advocates a universal status for "form", it is likely that he sees universally valid planning arrangements playing the same role that regular solids had played in his earlier schemes.

Of particular interest at this point is Kahn's insistence that "form" cannot be realised by groups, but only by inspired individuals. Kahn expresses a non-conciliatory attitude towards the building committee in Rochester, to whom he presents a diagram of "the building *he* [is] going to build, regardless of what the building committee might have in mind".¹⁷⁴ In a seminar discussion in 1961, Kahn expresses this attitude in clear terms. After emphasising the importance of "form",

from which “many designs can come”, he implores architects to look into the nature of man, and in so doing comprehend universal virtues such as empathy, which is “a realization of in-common-ness — that which is true of all men. In-common-ness is not just common place”, he claims. “It is a kind of transcendency, commonness in transcendence. It is where you and I become ‘thou’, instead of just I”,¹⁷⁵ he states, clearly evoking some kind of transcendent, or quasi-religious realm. Even though Kahn expresses an interest in virtues which are common to all, he states next that these are not found “by a committee or by many people. It is the work of a single person right from the start and supported with unquestioning enthusiasm because it is so true of existence itself”.¹⁷⁶ In 1964, when challenged about his view that individual architects should express their inner natures, even when it comes to city planning, Kahn reiterates his view that a committee cannot set a program, but that “one man does it”.¹⁷⁷

It would normally be assumed that anything which is supposed to be universally valid, such as a Kahnian “form”, would be best arrived at by as large and culturally diverse a committee as can be gathered, to moderate the subjective influence of individuals. However, the opposite would be true should the minds of certain individuals provide a window on a realm of universals. This later premise seems to underlie Kahn’s position. Any outside influence, including that of committee members, could only be treated as a distraction by one who tells his students in 1964 that they can have philosophic realisations by closing their eyes.¹⁷⁸

Kahn’s position is open to criticism from those not sharing his metaphysics. His appeal for unquestioning and enthusiastic support — presumably from client committees, authorities and those with whom architects are normally expected to *negotiate* — may seem particularly arrogant. Paul-Alan Johnson’s remarks about Platonic architects seem particularly relevant at this point: Johnson writes of a Platonic architect’s “vested interest as a designer to make life simpler or less demanding, to willingly participate in a deceit rather than admit to a conceit”.¹⁷⁹

School and Schools

A Platonic interpretation of Kahn's metaphysics is consistent with various statements made later in "Form and Design". Following Kahn's paragraph stating that "[r]ealization is the merging of Thought and Feeling" is his introduction to the twin concepts of "form" and "design". He also introduces his primary illustration of that concept, which distinguishes between particular spoons and the "form" which Kahn calls Spoon (no "a"). Since this illustration raises another Platonic theme, that of participation, it will be discussed in greater detail in the following chapter, which is devoted to that theme.

The article "Form and Design" again raises the question of metaphysics a few paragraphs later, when Kahn presents a parable describing a mythical first school.

I think of school as an environment of spaces where it is good to learn. Schools began with a man under a tree who did not know he was a teacher discussing his realization with a few who did not know they were students. The students reflected on what was exchanged and how good it was to be in the presence of this man. They aspired that their sons also listen to such a man. Soon spaces were erected and the first schools became. The establishment of school was inevitable because it was part of the desires of man. Our vast systems of education, now vested in Institutions, stem from these little schools but the spirit of their beginning is now forgotten. The rooms required by our institutions of learning are stereotypical and uninspiring. The Institute's required uniform classrooms, the locker-lined corridors and other so-called functional areas and devices, are certainly arranged in neat packages by the architect who follows closely the areas and budgetary limits as required by the school authorities. The schools are good to look at but are shallow in architecture because they do not reflect the spirit of the man under the tree. The entire system of schools that followed from the beginning would not have been possible if the beginning were not in harmony with the nature of man. It can also be said that the existence will of school was there even before the circumstances of the man under a tree.

That is why it is good for the mind to go back to the beginning because the beginning of any established activity of man is its most wonderful moment. For in it lies all its spirit and resourcefulness, from which we must constantly draw our inspirations of present needs.¹⁸⁰

Kahn's parable of the first school holds a significant place within scholarship which deals with his philosophical comments as, from it, Norberg-Schulz argues that Kahn's theory can be interpreted and developed in terms of Martin Heidegger's philosophy of Existentialism. As one of the early scholars to examine Kahn's philosophical statements, Norberg-Schulz casts into stark relief the tension which exists between Kahn's overarching metaphysics (which "subordinates the *existentia* to the *essentia*"¹⁸¹), and the possible sources of Kahn's generative ideas. Norberg-Schulz argues that Kahn's generative ideas, or "forms", have existential origins and the fact that schools, in Kahn's thinking, began with a terrestrial meeting (or existential moment), actually on the ground, beneath a tree, is presented as evidence in support of this interpretation.

As with any interpretation, Norberg-Schulz's reading of this passage is as valuable for the argument it makes, as for the argument it invites, that is, the opposing case. It can equally be argued that the above passage from "Form and Design", while focusing on the *prototypical* school which is beneath a tree, also alludes to the *archetypal* school which existed even before that first terrestrial meeting. In other words, Kahn's parable of the school is similarly open to an interpretation in terms of Platonic metaphysics.

Here is Kahn's parable as it is reprinted in Norberg-Schulz's text (note how the word "schools" is used in its plural mode in both instances).

Schools began with a man under a tree who did not know he was a teacher, discussing his realization with a few who did not know they were students. The students reflected on what was exchanged and how good it was to be in the presence of this man. They aspired that their sons also listen to such a man. Soon spaces were erected and the first schools became.¹⁸²

Most original sources of this anecdote, such as Kahn's article "Form and Design", begin by referring to schools in the plural sense, as in Norberg-Schulz's quoted version, but they also go on to refer to "school", singular.

Schools [plural] began with a man under a tree discussing his realization with a few who did not know they were students[...]. Soon spaces were erected and the first schools [plural] became. The establishment of school [singular] was inevitable because it was part of the desires of man. It can also be said that the existence will of school [singular] was there even before the circumstances of the man under the tree.¹⁸³

In the article "Form and Design", and on at least six other occasions,¹⁸⁴ Kahn consistently uses the singular term 'school' when referring to what a Platonist might call *The School Itself*. Interestingly, Kahn's careful mix of singular and plural terms fits neatly with *The Republic's* notion of the one and the many. Kahn's school (singular), is comparable to Plato's one, while Kahn's schools (plural), are many. According to Plato's theory of Forms, *The School Itself* would be the singular archetype, or Form, on which many phenomenal schools are modelled. What Kahn refers to as schools, can be viewed as particular manifestations of school (singular), in the phenomenal realm. Particular schools may have had their first terrestrial manifestation beneath a prehistoric tree, but the "form" which Kahn refers to as school seems to precede and transcend this mythical meeting, since "the existence will of school was there even before the circumstances of the man under the tree".¹⁸⁵

While some individual statements made by Kahn do suggest the influence of Existentialism on his thinking, other evidence casts some doubt over claims that Kahn was an Existentialist. One address which Kahn gave in 1966 provides a relevant illustration of his tendency to toy with Existentialist thought, then distance himself from it. Early in this address Kahn describes the passing of time in a manner which recalls Heidegger's philosophy. Consistent with Norberg-Schulz's interpretation, Kahn describes a "razor edge that exists between the moments that have just passed",¹⁸⁶ and he speaks of anticipation, both in a manner that recalls

Heidegger's concept of Becoming.¹⁸⁷ He also speaks of humanity's works belonging to eternity and of "forms" simply being still, in a manner which recalls Heidegger's concept of Being.¹⁸⁸ However, Kahn concludes his discussion with an emphatic refutation of Existentialism. He insists that he is "not in favor of existentialism of any kind",¹⁸⁹ but is really interested in anticipation. Anticipation, in the context of his 1966 address, seems to refer to Kahn's expectation that humankind will discover new "forms". His rejection of Existentialism is also consistent with an assertion made by Vincent Scully that Kahn had not read Heidegger.¹⁹⁰

Since Kahn's parable of the first school alludes to an archetypal school, predating the first terrestrial school, and since Kahn claims not to be in favour of Existentialism of any kind, this passage from "Form and Design" is also open to Platonic interpretations. According to such an interpretation, when Kahn thinks of school, in the singular, "as an environment of spaces where it is good to learn",¹⁹¹ he is thinking of *The School Itself*. As a form, *The School Itself* can only be described indirectly, as the interrelation of spaces ideally suited to learning. When Kahn moves to discuss schools (plural), beginning with a meeting beneath a tree, he is speaking of an event which demonstrates the need to craft artefacts which would participate in *The School Itself*. Since this meeting was an inevitable event □ inevitable because humans need to gather to learn □ *The School Itself* (or school, singular), has what Kahn calls an "existence will". Turning to Plato's parable of the bed maker in Book 10 of *The Republic*, it could be said that *The Bed Itself* has a will to exist, by virtue of the fact that humans need to sleep. *The Bed Itself* in Plato's illustration corresponds to the human need to sleep, as Kahn's school (singular), corresponds to the human need to gather to learn.

It is possible to imagine a mythical moment when a human first slept on the ground, or on the floor of a cave. In terms of Kahn's illustration, this moment represents the beginning of beds (plural), and it has its counterpart in Kahn's illustration of "a man under a tree discussing his realization with a few who did not

know they were students”.¹⁹² Neither the person sleeping on the ground, nor the group beneath a tree, yet have access to any artefacts participating in either *The Bed Itself* or *The School Itself*. Each mythical event is merely a catalyst for the making of beds and schools. According to this interpretation, Kahn uses the word, beginning, to denote mythical terrestrial events which demonstrate a need for the basic artefacts associated with human existence. Kahn claims that, seeing a need, humans respond to these events with “spirit and resourcefulness,”¹⁹³ and that “[s]oon spaces were erected and the first schools became”.¹⁹⁴ However, in Kahn’s case, need is not the mother of invention, but a catalyst for discovery. Paralleling Plato’s view that *The Bed Itself* is eternal while particular beds are of a world in flux, Kahn proposes that the “existence will” of school was “there *even before* the circumstances of the man under the tree”.¹⁹⁵ In other words, Kahn’s “forms” are not devised by humans to meet needs as they arise. Rather, it would appear that Kahn’s “forms” await discovery, or, as Kahn puts it, they await “realization”, in the same sense as *The Bed Itself* existed before the making of the first particular bed.

3b. Metaphysics in Kahn's Oeuvre

The Influence of Modern Art

The next passage from “Form and Design” which raises questions regarding Kahn’s metaphysics points to the influence of Modern art on Kahn’s thinking. Modern art can be viewed as a significant predisposing cause influencing Kahn’s philosophy. Just as prevailing religious beliefs are a likely influence on Kahn’s metaphysics, dominant currents of thought among twentieth-century visual artists can also be seen to influence Kahn’s theory. In “Form and Design” Kahn writes:

I want to talk about the difference between form and design, about realization, about the measurable and the unmeasurable aspects of our work and about the limits of our work.

Giotto was a great painter because he painted the skies black for the daytime and he painted birds that couldn't fly and dogs that couldn't run and he made men bigger than doorways because he was a painter. A painter has this prerogative. He doesn't have to answer to the problems of gravity, nor to the images as we know them in real life. As a painter he expresses a reaction to nature and he teaches us through his eyes and his reactions to the nature of man. A sculptor is one who modifies space with the objects expressive again of his reactions to nature. He does not create space. He modifies space. An architect creates space.

Architecture has limits.

When we touch the invisible walls of its limits then we know more about what is contained in them. A painter can paint square wheels on a cannon to express the futility of war. A sculptor can carve the same square wheels. But an architect must use round wheels. Though painting and sculpture play a beautiful role in the realm of architecture as architecture plays a beautiful role in the realms of painting and sculpture, one does not have the same discipline as the other.¹⁹⁶

The first point of comparison between this passage and *The Republic* is rather obvious and does not require elaboration. Like the parable of the bed maker in Book 10, the above passage highlights the difference between making things (what Plato calls craftsmanship), and representing things pictorially. The former endeavour produces objects of utility and therefore requires greater discipline. Painting and

sculpture are purely mediums of communication, and as such, they enjoy greater liberties, but their products are of little practical benefit. Unlike Plato, Kahn does not privilege architecture (or craftsmanship), over the visual arts, simply providing the valueless observation that “one does not have the same discipline as the other”.¹⁹⁷

What is more interesting about this passage, is that Kahn seems to envy the liberties enjoyed by visual artists, particularly their freedom to depict scenes which could not exist in the physical world. While his admiration of mimetic mediums may, in one sense, place Kahn at odds with Plato, certain values which art theory embraces can be seen to predispose Kahn, the art lover, to concern himself with a non-physical realm.

To fully appreciate the importance of art theory to Kahn and why he is receptive to the influence of painters, perhaps more so than to the influence of contemporaneous architects, consideration needs to be given to Kahn’s personal background in the visual arts. Were it not for his high school teacher, William F. Gray, formerly an architectural critic, Kahn would have followed his parent’s influence (they had directed him towards artistic rather than technical pursuits¹⁹⁸), and accepted a scholarship to study art. When asked what career he would have pursued had he not become an architect, he would routinely reply that he would have been an artist.¹⁹⁹ Eugene Johnson argues that Kahn “never gave up practising both arts. We remember him primarily as an architect, but even in the last years of his life [...] he was hoping to devote more time to painting”.²⁰⁰ Notwithstanding the demands of architectural practice, Kahn remained a prolific water-colourist throughout his career. As catalogued in 1978, Kahn’s personal library includes four books dealing with modern art and only three dealing with modern architecture!²⁰¹ Just as he collected books related to modern art, he would souvenir post-cards of modern works of art on gallery visits.²⁰² The importance of minimalist sculpture to Kahn and its influence on his architecture, particularly his tendency to mount buildings on platforms, has been written about in detail by Christian Bonnefoi in his article, “Louis Kahn and Minimalism”.²⁰³ Kahn expresses frustration regarding the

practical constraints associated with his chosen profession, once lamenting that, “Chagall can paint a village up side down and paint the powers of a dream, architects wish for ‘sky-hooks’, but must use cranes”.²⁰⁴ By wishing for “sky-hooks”,²⁰⁵ Kahn implies that he would like to embody within his work “the powers of a dream”,²⁰⁶ or simply do the impossible.

While many modern architects have been linked to movements in the visual arts, the work of Gerrit Rietveld, who is associated with the De Stijl Movement, warrants consideration in the present context. Like Kahn, Rietveld advocates an agenda based on the visual arts. This aims to produce buildings in the material realm which embody a series of supposedly universal principles that transcend nature. Thus, the planes of Rietveld’s 1924 Schröder House purport to defy gravity, a principal of the terrestrial realm. As Vincent Scully notes, Kahn’s own pen and ink drawings of the late 1940s (Figure 12), recall the work of De Stijl and “especially Doesburg’s and van Eesteren’s studies of interior and exterior spaces formed by flat planes of color interpenetrating each other”.²⁰⁷

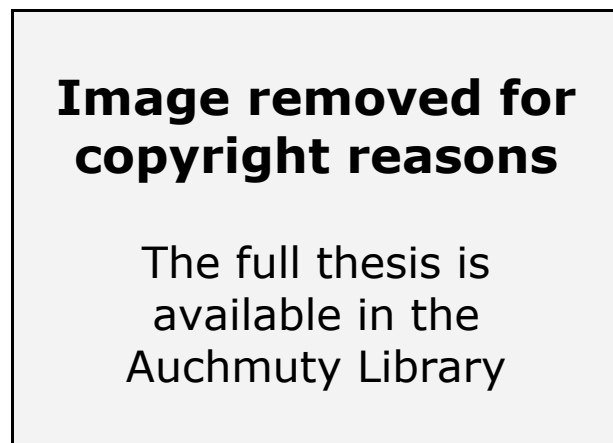


Figure 12: Memorial Playground, rendering by Kahn.

Metaphorically, exponents of De Stijl use what Kahn would call sky-hooks to materialise intangible concepts, whereas in his late work Kahn accepts the banal inevitability of cranes. Kahn’s buildings are massive and expressive of their weight.

In this regard, they adhere to the structural rationalism of his teacher Paul Philippe Cret.²⁰⁸ While his contemporaries embraced Le Corbusier's five points (by, for example, freeing their plans from structure or by relieving their walls of their load bearing function), Kahn, according to Colin St. John Wilson, "reversed Le Corbusier's values, preferring the old canon to the new".²⁰⁹

Kahn's empathy for visual artists is strengthened through his friendship with Josef Albers. Together with Charles Sawyer, Kahn was influential in bringing Albers to join the staff of Yale in 1950. Albers, a former Bauhaus professor and artist, produced works which demonstrate de Stijl influences, a style philosophically founded on the Platonic writings of Theo van Doesburg. Philosophically underpinning Albers' series of paintings titled "Homage to the Square" is a theme which had fascinated Greek thinkers of Plato's day, namely, the unreliability of sense knowledge. In Albers' case, sensorial doubt applies to our visual perception of colour (it will be recalled that Heraclitus' distrust of sense knowledge had led Plato to his theory of Forms). Albers writes that

[I]n visual perception a colour is almost never seen as it really is/as it physically is. This fact makes colour the most relative medium in art [...] in order to use colour effectively, it is necessary to recognise that colour deceives continually.²¹⁰

In the paintings of Albers' "Homage to the Square" series, varying hues are juxtaposed in concentrically radiating square bands. This is of interest firstly since squares are the kind of geometrical figure which interest Plato who sees their derivation in terms of a purely intelligible realm. Secondly, radiating squares feature in many of Kahn's subsequent plans, such as the plan of his Phillips Exeter Library (Figure 13). Given Kahn's liking for Albers,²¹¹ it is possible that Albers' paintings of squares and his philosophical views (namely, his distrust of sense knowledge), had an influence on Kahn's work and theory. As discussed later in this chapter with respect to Kahn's rationalistic tendencies, Kahn also expresses distrust of empirical knowledge.

**Image removed for
copyright reasons**

The full thesis is
available in the
Auchmuty Library

Figure 13: Phillips Exeter Academy Library, typical plan.

By 1972, Kahn views architecture as no less an art than painting, “[a]n art you can walk around and be in”.²¹² Within Kahn’s vocabulary, the word art can also take on metaphysical connotations, since elsewhere he claims that art “is the language of God”.²¹³ In Platonic terms, Kahn’s conception of the role of art may constitute first-generation mimesis, since he views art as a process of materialising the immaterial and not simply depicting things already manifest. Elsewhere Kahn writes

I thought that Art was a kind of oracle, an aura that had to be satisfied by the artist. If the artist made something, he dedicated it as an offering to Art, as though Art were something that preceded the work. Art cannot be Art unless it is a work and not something abstract, out in the blue somewhere.²¹⁴

As Kahn views it, the role of art is to materialise the immaterial, to bring it from “out in the blue somewhere”²¹⁵ to earth. That Kahn holds a similar opinion about the role of architecture is most clearly demonstrated by his reiteration of a young architect’s question regarding a vivid dream which cannot be translated onto paper, much less into a building.²¹⁶ It is the architect’s role to materialise the immaterial, as artists do. While Kahn’s reverence for the visual arts finds no parallel

in *The Republic*, his conception of the visual arts as being concerned with an immaterial realm leads him to a dualistic world view.

Mimesis

The next passage in “Form and Design” where questions of metaphysics are raised occurs about three quarters of the way through the text. From a philosophical perspective, the interest here lies in the fact that Kahn views the Salk Institute, in La Jolla California, as having an unprecedented program. According to a Platonic interpretation of the following passage, Kahn infers that during the conception of the Salk Institute, he does not commit bad mimesis by copying historical precedents.

I am designing a unique research laboratory in San Diego, California.

This is how the programme started.

The director, a famous man, heard me speak in Pittsburgh. He came to Philadelphia to see the building I had designed for the University of Pennsylvania. We went out together on a rainy day. He said, "How nice, a beautiful building. I didn't know a building that went up in the air could be nice. How many square feet do you have in this building?" I said, "One hundred and nine thousand square feet." He said, "That's about what we need."

That was the beginning of the programme of areas. But there was something else he said which became the Key to the entire space environment. Namely that Medical Research does not belong entirely to medicine or the physical sciences. It belongs to Population. He meant that anyone with a mind in the humanities, in science, or in art could contribute to the mental environment of research leading to discoveries in science.

Without the restriction of a dictatorial program it became a rewarding experience to participate in the projection of an evolving programme of spaces without precedence.

This is only possible because the director is a man of unique sense of environment as an inspiring thing, and he could sense the existence will and its realization in form which the spaces I provided had.²¹⁷

According to Plato, craftsmen copy the Forms to make artefacts and artists copy artefacts to produce likenesses, but what would Plato say of a craftsman who

copied artefacts rather than looking to the Forms? Were a bed maker simply to copy another bed without looking directly to *The Bed Itself*, then Plato would see their work as being twice removed from truth also. A bed maker's copying of a particular bed has an obvious architectural corollary, since the copying of prototypical or historical buildings is an established practice among architects. Since buildings can be classified as useful artefacts along with beds,²¹⁸ then, in Plato's scheme, architects would join the ranks of craftsmen, and be required to work directly from transcendent sources, for example, *The House Itself*. As soon as an architect's conception of *The House Itself* is influenced by a particular house, no matter how slightly, they would have copied a copy, reducing their work to an imitative art form, or a "double lie".²¹⁹ In *The Republic* (510), Plato insists that nothing perceptible at all should cloud the search for unassumed conclusions. For architects, this would appear to negate the seemingly unavoidable use of precedents in the generation of architectural plans and shapes, for how can unassumed conclusions be reached with past solutions to similar problems already in mind?

Inevitably, Arthur Danto's essay concerning Kahn and Plato also arrives at this problematic point. According to Danto, "*The Republic* projects a state minimally subject to alteration",²²⁰ but he notes there is "one sort of change the Greeks [...] had no sense for, and that is that houses-small-h are historically sequenced".²²¹ He continues

Any house, to be a house, has to exemplify the form of House-capital-H, as any spoon, to use Kahn's example, has to capture the essential features that specify Spoon-capital-S. So historical differences do not penetrate the essence. But designs do explain subsequent designs: historical explanation has a different logic from the one appealed to in the formal explanation of classical metaphysics.²²²

For this reason, it is impossible to imagine how a modern day architect, faced with the design of a house, could possibly shut out the memory of every house they had ever seen and truly consider the problem afresh in the manner Plato suggests. Yet on a number of occasions, as will be shown below, this is precisely what Kahn claims

to do; he claims to block precedents from his mind when conceiving “forms”. It is likely to be this tendency of Kahn’s which Danto has in mind when he states that “Kahn’s own view of history was complex”.²²³ According to Danto

[Kahn] clearly saw the past in part as a repository of meaningful forms, and my sense is that he would have been altogether opposed to an architectural vision that projected an erasure of the past and its replacement by rational forms.²²⁴

Danto argues that if Le Corbusier’s *tabula rasa* approach made him a Modernist, then “Kahn was not a modernist. He was an eternalist”.²²⁵ According to Danto

[t]here are historical borrowings or appropriations in Kahn’s work — he after all belonged to the beaux arts tradition — but I think they are not meant to celebrate whatever they are taken from: Kahn wanted to ground his architectures in the timeless traits of being human, deeper than history — in “beginnings”. [...] [Kahn’s buildings] express the idea the building is meant to exemplify, but the idea itself is connected to some primordial dimension of human activity like “learning, meeting, well-being” — the way the bed [in *The Republic*] is connected with sleep, love, convalescence, birth, and death. That is why they are Platonic without *looking* Platonic, either in the sense of looking classical or looking geometrical. They look, if anything, primordial.²²⁶

By shifting the emphasis away from historical precedents and onto primordial human activities, such as learning and sleeping, Danto is able to describe Kahn’s buildings in such a way that their essence, or “form”, cannot be penetrated by those historical buildings which Kahn so clearly admired. Danto’s analysis is in keeping with the aloof tone which Kahn uses when describing his notion of “form”. It should also be noted that this issue has polarised many scholars of Kahn’s theory, and that Danto’s handling of it is both deft and convincing. The debate revolves around this question: are Kahn’s “forms” derived from historical buildings, or are they derived from his direct experience of transcendent Forms?

A significant number of scholars approach Kahn’s work as though his “forms” do have an historical basis. These scholars attempt to trace Kahn’s

buildings to empirical sources from history, rather than the transcendent “forms” which Kahn speaks of. Pre-eminent among these scholars is Vincent Scully, a personal friend of Kahn’s and the author of the first major book on his work.²²⁷

Linking Kahn’s travel sketches to his buildings, Scully writes in 1991 that

[i]n the (Egyptian) pyramids Kahn finds the first architectural form that he can make wholly his own [...]. 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 [...].

In the columns of Egypt Kahn seems to have found his Jewishness. They were to become the hollow cylinders of his project for the Mikveh Israel Synagogue.

[..]in the [service towers of the] Richards Medical Laboratories, Italy returned for Kahn in San Gimignano’s competing towers.²²⁸

Scully’s identification of these connections stems from his 1962 observation that Kahn’s École des Beaux-Arts education had trained him “to regard the buildings of the past as friends rather than as enemies, friends from whom one was expected, perhaps with more intimacy than understanding, to borrow”.²²⁹

Scully’s view is shared by Jan Hochstim, who proposes that the subjects of Kahn’s travel sketches may form the subliminal material for his architectural designs.²³⁰ Writing in 1991 Hochstim observes that “we can discern certain obvious formal similarities between some subjects of his sketches and his architectural works”.²³¹ Hochstim’s analysis is repeated, almost verbatim, in an article from 1996 by Heidi Zuckerman.²³² It should also be noted that Scully’s, Hochstim’s and Zuckerman’s analysis is consistent with at least one of Kahn’s public statements, made in 1971, that an “architect draws to build”.²³³

However, neither Scully nor Hochstim identify historical precedents as the sources of Kahn’s basic planning strategies. In each of Scully’s examples, the historical precedents are only claimed to influence Kahn’s cosmetic embellishments onto an underlying planning strategy. For example, insofar as its planning strategy is concerned, The Yale University Art Gallery is a simple stacking of universal space. This planning strategy owes nothing specific to the pyramids. Similarly, Kahn’s

choice of roof shapes for the Trenton Bath House and his treatment of the Richards Medical Laboratories service towers have little impact on the underlying planning strategies employed for both buildings. If Scully and Hochstim are right, then in these cases precedents only influence Kahn's "design" phase, during which an architect's personal tastes are allowed free reign. In Kahn's own case, this freedom may accommodate the architect's taste for historical imagery. The preceding analysis says nothing about the role precedents may have had on Kahn's conception of "form". As Scully claims, Kahn may choose to make the service towers of his Richards Medical Laboratories *look* like the towers of San Gimignano, in their shape, proportion and materials, but this matter in no way relates to his "form-realisation" that stale air needs to be kept separate from fresh air in laboratories.

In contrast to the view outlined by Scully and Hochstim, Joseph Burton's research leads him to Egyptian hieroglyphs, which, he argues in 1983, are viewed within the Neoplatonic tradition as manifestations of Forms. Having argued that "Kahn's primary notion of Form is like Plato's theory of ideas", Burton then argues that, for Kahn, "[f]orm manifests itself in the phenomenal world as the hieroglyphics of primitive languages, the Bible, history, nature, psychology, and art".²³⁴ Such prototypic manifestations of Forms, Burton argues, are potential sources for Kahn to copy. It is on this basis that Burton argues that a number of Kahn's buildings are modelled on hieroglyphs. Despite his suggestion that Kahn has an interest in Plato's theory of Forms, in strictly Platonic terms Burton portrays Kahn as an imitator, not of buildings specifically, but of hieroglyphs. Insofar as Plato's parable of the bed maker is concerned, Burton's case effectively accuses Kahn of second generation mimesis.

Like Scully and Hochstim, Burton typically connects sensible phenomena (in this case hieroglyphs), with Kahn's treatment of relatively cosmetic elements. But, in a few cases, Kahn's fundamental planning strategies are also attributed to the influence of sensible phenomena. For example, Burton describes a stepped pyramidal Egyptian hieroglyph, translated as "the place of ascension", and known to

Kahn by way of I.E.S. Edwards' book, *The Pyramids of Egypt*,²³⁵ as the fundamental source for Kahn's Washington University Library proposal of 1956 and the Theological Library at Berkeley of 1973 to 1974. Both of these buildings display similar stepped planning arrangements. Burton argues that, through his German Romantic influences, Kahn would think of hieroglyphics as "visual analogues of the Platonic ideas".²³⁶ However, as prototypical as they may be, hieroglyphs cannot be thought of as anything more than terrestrial or sensible adumbrations of Forms. They are not Forms themselves. Indeed, Kahn's thinking would be contrary to Plato's if he saw hieroglyphs as appropriate sources of typology. If Burton's speculations are correct, then Kahn's "form and design" theory is inconsistent with Plato's views on mimesis. Yet Burton is not the only author to make such connections.

Writing in 1985, Alexander Gorlin positions Kahn within the Biblical tradition of divinely revealed buildings, such as Noah's Ark, the Tabernacle in the desert and the Temple in Jerusalem.²³⁷ Like Burton, Gorlin also describes Kahn as drawing on historical sources. For example, Kahn's Hurva Synagogue proposal is interpreted by Gorlin as resembling reconstructions of Solomon's Temple. Despite his description of Kahn as an "ancient Biblical patriarch", and "a prophet",²³⁸ Gorlin makes no suggestion that Kahn models his buildings on transcendent models, be they Forms or even God's thoughts. While Gorlin attributes Kahn's works to particularly esoteric precedents, like Burton he ultimately portrays Kahn as an historicist architect employing a kind of second generation mimesis. A different case is found in the writings of Peter Kohane.

According to the terms of Kahn's philosophy Kohane attributes the highest status in Kahn's theory to historical precedents. This is consistent with an interest Kohane expresses elsewhere, in a history-based realm of inspiration.²³⁹ In 1990 Kohane argues that historical precedents "must be acknowledged as an integral aspect of [Kahn's] realm of Silence and its related concept 'form'"²⁴⁰ and that his "respect for historical buildings and projects was most fruitful when it contributed to

the difficult search for “form”.”²⁴¹ This suggests that historical precedents inhabit the realm of “Silence”, since, in metaphysical terms, past buildings are equal to “form”. In *The Republic* (510b) Plato distinguishes between two classes of knowledge. There is the purely intelligible class (mathematics, geometry, Forms), which can never be sensed, and the purely sensible class (manifestations known via our senses), which is totally unintelligible. Viewed in the light of Plato’s distinction, “form”, and therefore the whole realm of “Silence”, must, according to Kohane’s analysis, be of the sensible realm. In Platonic terms, Kahn is once again cast as an imitator, rather than a craftsman, since it is suggested that he draws on knowledge known by way of his senses to deduce his “form” diagrams. Kohane’s argument is based on fundamental similarities between Kahn’s Phillips Exeter Library and various other libraries known to Kahn at the time of its conception. In particular, Kohane identifies a preliminary sketch made by Kahn for that library (possibly a “form” diagram), which appears beside a precedent study of an existing library (Figure 14).

If the particular preliminary sketch to which Kohane refers is indeed a “form” diagram, then it could be claimed that Kahn has a precedent in mind when he realises the “form” corresponding to his Phillips Exeter Library. This is a likely interpretation of events as they happened, but from the standpoint of the present inquiry into Kahn’s espoused design theory, it is important to note that such an analysis conflicts with certain rhetorical statements by Kahn regarding mimesis, which will be discussed shortly.²⁴²

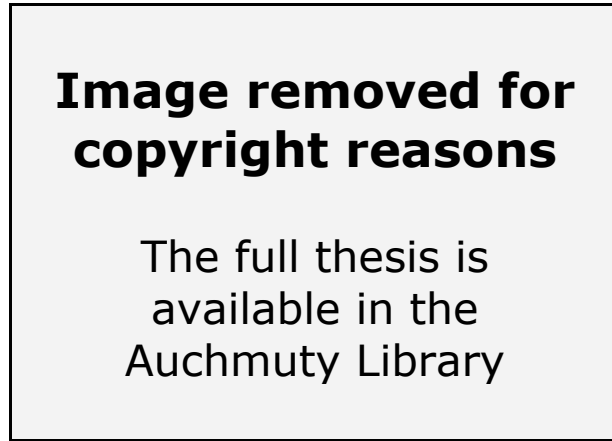


Figure 14: Possible “form” diagram (lower right) beside precedent study (upper left).

Despite being the primary exemplar of his “form” and “design” theory, Kahn’s “form” diagram for the First Unitarian Church in Rochester can be attributed to existing precedents. In 1956, just three years prior to the conception of Kahn’s “form” diagram, he had received a copy of Rudolf Wittkower’s *Architectural Principles in the Age of Humanism* from Colin Rowe.²⁴³ As noted previously, Wittkower’s book attributes the circular plans of Renaissance churches to passages from Plato’s *Timaeus*.²⁴⁴ Possibly echoing Wittkower’s description of these churches as inscriptions of a circular macrocosm — namely, the spherical Earth — within the microcosm of buildings, Kahn claims in 1962 that the round building “is something which is irrefutable as an expression of a world within a world”.²⁴⁵ It is tempting to conclude, as Robin Williams does in 1991, that past solutions to church planning influence Kahn’s conception of his “form” diagram corresponding to Unitarian centres.²⁴⁶ Considering the aforementioned Christian Platonic influences on Kahn’s thinking, the Platonic overtones associated with the Renaissance church type may

have appealed to him. However, if this were true, he would be acting as an artist, not a craftsman, if he had based his “form” diagram for Rochester on illustrations from Wittkower’s book, rather than on his direct knowledge of a transcendent Form. But no matter how obvious these references to historical precedents may seem, they remain speculative. Contradictions between these analyses and Kahn’s own testimony regarding precedents will be discussed below, but first, the opposing views of other scholars and those of some associates of Kahn’s should be considered.

Kahn attracted many disciples, who continue to view him as an almost mystical figure. According to many individuals who knew him personally, as well as those scholars who view Kahn’s theory through the lens of the mystical persona he would often project, Kahn’s notion of “form” is atemporal and unrelated to historical precedents.

Kahn’s protégé, Romaldo Giurgola, writes in 1982 that Kahn’s forms “are made through the joy of discovery rather than the rhetoric of citations; an architect cannot demonstrate coherence in his work by repeating formal motives”.²⁴⁷ Expressing a similar view, Robert Harbison writes in 1997 that Kahn’s handling of simple solids in Dacca “is more like the manipulation of a stock of archetypes than that anguished search for the lost roots of architecture”.²⁴⁸ Gerhard Auer writes in 1992 that, “Kahn endeavours to silence all regional, traditional or technological Zeitgeists, and to forbid any symbols which might be recognisable as well as all visual references to other works, etc”.²⁴⁹ Referring to Kahn’s desire to sense “Volume Zero”, or even “Volume Minus One”, Auer adds that “Kahn’s retrospective glimpses are not directed at historical but at archaic aspects, i.e. at the beginnings”.²⁵⁰ In his 1975 description of Kahn as the “yogi” of architecture,²⁵¹ Kahn’s former colleague in India, Balkrishna Doshi, implies that there is a transcendent dimension in Kahn’s method. John Lobell, one of Kahn’s students, writes in 1979 that “by beginnings, Kahn did not mean historical beginnings, but rather eternal beginnings outside of time”.²⁵²

In 1980 Kenneth Frampton also identifies similarities between Kahn's works and precedents known to him. However, Frampton does this in order to argue that Kahn does not literally copy these precedents as empirical entities. Frampton acknowledges that the "importance that [Paul Philippe] Cret attached to precedent and imitation clearly had an influence on Kahn's early development".²⁵³ He also notes similarities between the planning strategy Kahn employs for his preliminary proposal at Rochester and Ledoux's De Witt house (c.1780). Despite this, Frampton argues that "none of this should be regarded as being evidence of any direct imitation of Ledoux".²⁵⁴ Moreover, Frampton sees Kahn as "*transforming* these forms rather than reducing them to the status of being mere references which made rather obvious allusions to historical precedents".²⁵⁵ While it could be argued that transforming existing "forms" falls short of discovering "forms" afresh, the essence of Frampton's argument remains that Kahn does not mimic precedents. Frampton adds that, "it may well be that it is this subtle distinction which accounts for [Kahn's] eclipse from current [postmodernist] discourse",²⁵⁶ that discourse frequently being concerned with historicism.

Related to Frampton's argument that Kahn does not copy precedents, is his aforementioned claim that Kahn developed a "transcendental strain"²⁵⁷ later in his career, when, through Tyng and Buckminster Fuller, he was influenced by the discoveries of D'Arcy Thompson. This statement by Frampton suggests that he believes Kahn's true sources of inspiration were transcendent entities of the kind Thompson had found adumbrated in microscopic organisms. What is notable about Kahn's use of geometric structures is the way that Thompson and Tyng associate these with Plato's Form realm. As previously seen, Thompson views snowflakes as examples of Plato's "One among the Many",²⁵⁸ since one Form, the hexagon, has many manifestations. Tyng has produced an audio visual production in which she observes that the tetrahedron was first recorded in Plato's *Timaeus*,²⁵⁹ and she refers to it as a Form with many microscopic manifestations in nature (as Thompson had discovered²⁶⁰). The transcendental strain which Frampton observes, appears to have

influenced Kahn's and Tyng's choice of the tetrahedron as a fundamental ordering device in their Philadelphia City Tower proposal (Figure 9). Considering the tetrahedron's metaphysical connotations, this project might be viewed as Kahn's first flirtation with transcendent Forms as sources.²⁶¹

The view that Kahn does not copy historical precedents but looks to transcendent sources of inspiration is strongly supported by Anne Tyng. In an interview with Alessandra Latour in 1982, she states

I get angry at the kinds of things the architectural historians say about Lou's sources of inspiration; for example, exactly equating the idea of seeing the four sided pyramids of Egypt and then using the three sided pyramid of the tetrahedron in the Yale Art Gallery ceiling [...]. For him, the discovery of similar forms in history simply confirmed the strength of that archetypal source. So when historians write about his traveling in Europe and being inspired by certain things which he is supposed to have incorporated in his work, they are putting the cart before the horse.²⁶²

Clearly Tyng's archetypal sources are atemporal, like Plato's Forms, since she distinguishes them from forms within history. The aforementioned recurrence of Platonic themes in her own research would further suggest that she uses the term archetype in the Platonic sense.

Other figures who view Kahn's sources as transcendent are Alexandra Tyng,²⁶³ Lobell²⁶⁴ and John Paul Roth,²⁶⁵ who liken Kahn's realm of "Silence" to Jung's collective unconscious and Kahn's notion of "form" to Jung's archetypes.²⁶⁶ By likening Kahn's notion of "form" to Jung's archetypes, Anne and Alexandra Tyng, Lobell and Roth, deny that Kahn looks to empirical precedents as sources.

Particularly critical of Scully's linking of Kahn's buildings to historical precedents is Christian Devillers, who, in 1991, accuses Scully of enrolling Kahn "by force, in a revisionist battle to which he was extraneous, deforming his thought and obscuring his contribution to contemporary art and architecture".²⁶⁷ Concluding his attack, Devillers states that Kahn was profoundly anti-historicist, "he said so, and demonstrated as much many times: for this reason, a search for the models behind

his works, even when they were inspired by modern architecture, can never be convincing”.²⁶⁸

Given the focus in this dissertation on Kahn’s espoused theory, the greatest emphasis here is on what Kahn himself states regarding mimesis. In the vast majority of his statements on this topic, Kahn does not condone the copying of precedents. His view is most succinctly expressed by his statement in 1964 that by “imitation you destroy the wonderful gift of being a singularity”.²⁶⁹ Despite this, there are occasions where Kahn acknowledges the influence of precedents on his “design” phase. For example, in 1964 he acknowledges the influence of the Baths of Caracalla on his “design” work in Dacca²⁷⁰ (Figure 15). However, insofar as Kahn’s notion of “form”, meaning inseparable elements, is concerned, the influence of the Baths of Caracalla is not directly relevant to the fundamental planning strategy employed in Dacca, the former being rectilinear in plan, while the latter is concentric.



Figure 15: National Capital of Bangladesh, hospital.

With one of his famous arguments, Kahn does hint at a possible role for precedents in his conception of “form”, but it does not involve mimicry. As in the following quotation from 1971, Kahn often states that “when [a] building is a ruin and free of servitude, the spirit emerges telling of the marvel that a building was made”.²⁷¹ When describing the Parthenon as a great building of the past “that had no

precedent”,²⁷² Kahn does not so much refer to the actual building but its spirit, meaning the quintessentially human desire which had inspired its construction, when no precedent could have. Of the modern architect’s role, Kahn goes on to say that, “[w]e are simply extending what happened long ago”,²⁷³ that is, building to express these timeless desires, as though we have no precedents to copy. From ruins, Kahn intuitively whatever desire had inspired them — inspirations to express, to question, to learn or to live²⁷⁴ — thus compiling a bank of *desires*, not precedents.

Kahn is even more emphatic when denying the influence of past libraries on his own designs for buildings of this type. He explains to a group of students in 1964 that “[y]ou plan the library as though no library ever existed”.²⁷⁵ While it is conceivable that Kahn uses this statement to mythologise his actual inspiration process, it is consistent with his design philosophy, which denies the influence of precedents during the conception of “form”.

Two precedents which Kahn frequently refers to are the Parthenon and the Pantheon. In 1964, he describes these buildings as “offerings to architecture”,²⁷⁶ before claiming that “*architecture really does not exist*. Only a work of architecture exists”.²⁷⁷ In this example Kahn emphasises the transcendent nature of architecture, which does not have a material existence. Kahn sees architecture as an immaterial concept, as though it resides in Plato’s Form realm. In 1969, Kahn again makes a distinction between architecture as a transcendent concept and material works of architecture. In terms which recall Plato’s theory of Forms, Kahn describes architecture as something which “sits there waiting”²⁷⁸ for works to come into existence. According to Kahn, particular works of architecture remain adumbrations of an immaterial realm.

In 1973, Kahn also testifies to being more interested in “Volume Zero” and “Volume Minus One” of ancient law, than the earliest *recorded* law that we read in “Volume One”.²⁷⁹ As Stanford Anderson writes, Kahn sees even our earliest traditions as sullied, containing the seeds of the modern institutional crisis, and so he tries to look beyond history.²⁸⁰ It might be assumed that Kahn views architectural

precedents with similar disregard to “Volume One” of history. If this is so, then he is more interested in what preceded, or inspired, an historical building’s construction.

In his lecture at the Cooper Union, immediately prior to stating that an architect must “start right at the beginning, as though he were Socrates when he’s talking about school”,²⁸¹ Kahn also states that an architect “must never think in terms of what did they do before. It’s pure death architecturally to think that way”.²⁸² It is likely that this statement refers to Wright’s Unity Temple in Oak Park Chicago rather than to more antique precedents, since Kahn’s remark coincides with the stand-off between him and his clients in Rochester over their suggestion that he consider a binuclear scheme. Nonetheless, this quote represents a clear denial by Kahn that precedents have influenced his realisation of “forms”.

Finally, Kahn’s search for a building’s “form” cannot be solely dependant on previous solutions, since he anticipates the discovery of new building types, without precedent. In 1965 he writes

why must we assume that there cannot be other things so marvellous as the emergence of the first monastery, for which there was no precedence whatsoever? [...] It is really nothing short of remarkable that a time comes in the history of man when something is established which everybody supports as though it were always eternally so.²⁸³

Since Tyng’s attack in 1982 on architectural historians who look for phenomenal sources of Kahn’s “forms”, Scully has re-emphasised the lesson of Kahn’s École des Beaux-Arts training — that is, to imitate precedents — on his mature career. In 1987 Scully describes Kahn as “embracing the Modernist dictum that everything had to be reinvented from the ground up”,²⁸⁴ but later “relearning his early [École des Beaux-Arts] lessons, though he was not admitting that heretical fact to anyone, certainly not to his associates, probably not at this time to himself”.²⁸⁵ In this light, Kahn’s pronouncements on the transcendence of “form” can be interpreted as elaborate attempts to mask his imitation of precedents.

Responding to Tyng’s 1982 claim that for Kahn, finding similar “forms” in

history simply confirms the strength of archetypal sources, Scully also writes in 1987 that “human order is a cultural construction and its archetypes are therefore to be found in human history”.²⁸⁶ Whereas Tyng’s archetypes are atemporal, and not to be found in history, Scully insists that archetypes are historical. What could be overlooked as a minor semantic difference, actually points to an epistemological gulf separating the source-hunters from many of Kahn’s disciples. Broadly speaking, the former can be considered empiricists, dealing with tangible facts,²⁸⁷ while the latter show signs of being rationalists. Whereas the advocates of transcendent sources imply or express a belief in universals, the material source-hunters concern themselves with tangible causes and effects. As Alberto Pérez-Gomez writes

intentions have to be understood in reference to their epistemological contexts. Architectural history should not therefore be filtered through a pattern of evaluation whose judgments of success and failure corresponds only to latter-day ideology.²⁸⁸

Whether Kahn’s “forms”, as they are described in his article “Form and Design” and elsewhere, are to be considered transcendent (as are Forms in *The Republic*), or as derivatives of history, must, in the context of the present inquiry, depend on what *Kahn* has to say regarding his personal epistemology. The issue of Kahn’s epistemological leanings will be dealt with later in this chapter, however, from the arguments presented above, it can be seen that some doubt surrounds claims that historical precedents are an influence on Kahn’s conception of “form”, at least insofar as the process of “form” realisation is outlined in “Form and Design”. Perhaps it is in recognition of Kahn’s own testimony that Vincent Scully has recently departed, slightly, from his long-held view that precedents influenced Kahn’s conception of “form”. In 1992, Scully concedes that Kahn

was a modern architect in every way; that is to say, he wanted to invent, to “reinvent the wheel” in every project. He was determined not to use readily identifiable historical forms in his buildings, and he continues to be hailed as a prophet and a hero by those architects who consider themselves modern in the canonical sense, who don’t want anything to do with the revival of tradition.²⁸⁹

As Danto writes, Kahn's view of history was certainly complex.²⁹⁰ Despite evidence that precedents may have guided his search for "form" on a number of occasions, Kahn denies this. The present study is ultimately concerned with his stated position, regardless of whether it is sincere or spurious. Kahn's testimony and the testimonies of those enamoured of him, do not acknowledge the influence of precedents on the conception of "form". To draw a circle, a geometrician might ask, "what is a circle?" Knowing *a priori* that it is a line equidistant from a point, they would find it more accurate and truthful to construct a circle from this knowledge than to trace a circle already drawn. Kahn claims to work in a similar manner, asking afresh, "what is a Unitarian Church?" rather than copying one already existing.

Imitating the Beauty of Nature

Kahn may not admit to copying existing buildings, but like many twentieth-century architects, he often speaks about the beauty of nature. This opens the possibility that Kahn treats natural phenomena, particularly biological organisms, as paragons of beauty. If so, can Kahn be aligned with the many twentieth-century architects who claim that their buildings are beautiful insofar as they reflect the beauty of nature? Should this be the case then his aesthetics would differ radically from Plato's.

Plato does not write at length about the synthesis of beauty into human artefacts, but he does write about *Beauty Itself*, claiming it to be a transcendent ideal. Contrasting Plato's aesthetics with Aristotle's, Alan Holgate explains that Plato treats beauty as "something which exists independently of objects and observers and which would continue to exist if all human beings disappeared from the face of the earth".²⁹¹ For Plato, beauty is ontologically separate from beautiful things. "In contrast", Holgate writes, "Aristotle [holds] that beauty actually resides in the

objects, so that if they were all destroyed there would be no more beauty”.²⁹²

Platonic aesthetic theories treat beauty as a transcendent ideal and therefore as something which cannot have its ontological existence in the material realm, either in human artefacts or the natural environment. To use a simple taxonomy, architects with a Platonic basis to their theories are likely to treat beauty as something which is transcendent, while those with an Aristotelian basis to their theories are likely to treat beauty as an existential phenomenon.

The history of Western architecture — and, more specifically, Christian Church architecture — is marked by shifts between Platonic and Aristotelian conceptions of beauty, since the opposition between Plato and Aristotle is a recurring theme in the aesthetic philosophies of Christendom’s most influential theologians. Prior to the philosophical revolution of the twelfth-century, when Aristotle’s previously unknown writings became available to scholastic philosophers by way of Arabian trade routes, the Platonic belief that beauty is transcendent, as propagated in Saint Augustine’s writings, dominated Western thinking. Augustine had synthesised Platonic thought with Scripture, primarily the epistles of Saint Paul, who was himself of a Hellenistic background and therefore familiar with dualistic Platonic concepts. According to the Christian Platonists *Beauty Itself* and the other Forms are in Heaven, so everything of the natural realm is to be dismissed in the pursuit of transcendence. This changed after the philosophical revolution of the twelfth-century when, Augustinian/Neoplatonic aesthetics were challenged by Thomist/Aristotelian aesthetics. This new attitude was first expressed architecturally in the decoration of church masonry, where the depiction of flora, fauna and commonplace events became increasingly realistic. Accounting for this event, Wim Swaan writes that, “[p]erception by means of the senses [...] and the beauties of nature, hitherto disdained, were invested with a new significance”.²⁹³

Insofar as any clear distinction between Platonic and Aristotelian conceptions of aesthetics is concerned, a great deal of confusion surrounds architectural theories of the Renaissance period.²⁹⁴ For instance, Alberti — whose

philosophy is in other ways influenced by Platonism — writes that the most expert artists among the ancients “were of the opinion that an edifice was like an animal, so that in the formation of it we ought to imitate nature”.²⁹⁵ This statement belies Alberti’s partial acceptance, or more likely, his partial *understanding* of Plato’s broader philosophy. As Wittkower argues, Alberti appeals to the authority of Plato’s *Timaeus*²⁹⁶ but, by imitating nature, Alberti seems unaware of *The Republic*’s ban on simulacrum. Imitating nature implies that nature is beautiful, yet to Plato it is a deception. The practice of imitating nature, as it is perceived by way of the senses, would also constitute second generation mimesis; which Plato condemns as a double lie.

The Platonic conception of beauty as a transcendent ideal, coupled with the inference that nature is not beautiful, is present today in the dominant Christian Platonic world view which is dismissive of material things. According to one Christian doctrine, Adam’s and Eve’s sin is believed to have cursed the ground, producing thorns and thistles.²⁹⁷ Saint Paul sees creation (or nature) as being “subjected to frustration”, and seeking liberation from “its bondage to decay”.²⁹⁸ Even modern theologians call on this post-Eden doctrine to explain the presence of evil in God’s creation. For example, Millard Erickson writes that we

live in the world which God created, but it is not quite as it was when God finished it; it is now a fallen and broken world. And part of the evils which we now experience are a result of the curse of God upon creation.²⁹⁹

This view, with its Platonic roots, is criticised by writers including Sean McDonagh,³⁰⁰ and Ian Bradley,³⁰¹ who blame Western indifference towards the environment on Plato and the Neoplatonic tradition which influenced Christian theology. One Christian writer, Paul Collins, argues that Platonism should be completely “jettisoned” from our thinking.³⁰² By calling for its removal from contemporary thought, these writers confirm that Plato’s conception of beauty as a transcendent ideal which is extrinsic to nature, continues to influence Western thought.

There is evidence to suggest that Kahn is aware of Christian attitudes towards the environment. Though the extent of his attendance cannot be confirmed, it is telling that he keeps the program for a lecture series given at the University of Pennsylvania titled “Man and the Environment”.³⁰³ The first part of that series, “Scientific Views of Creation”, features two lectures by Dr. William M. Protheroe dealing with “Cosmic Creation”. More significantly, part two, “Religious Attitudes to Man and Environment”, features lectures on the specific views of various religions towards nature, including Judaism, Islam, Christianity, and Zen Buddhism. Transcripts of that series do not remain, although the diminution of nature by Christendom and the Platonic roots of that attitude are likely to have been discussed.

Despite Platonism’s latent influence, the aesthetic claims of twentieth-century architects often suggest an Aristotelian conception of beauty, since many appeal to nature (particularly plants and the human body) as the epitome of beauty.³⁰⁴ In his book, *Origins of Functionalist Theory*, Edward De Zurko describes the imitation of organisms as one of three main analogies employed by twentieth-century architects in the promotion of functionalism.³⁰⁵ Also pointing to the centrality of nature to modern conceptions of beauty, Andrew Metcalf refers to a “tradition of using landscape as a framework for aesthetics”.³⁰⁶

Examples of nature-based aesthetic formulations can be taken from the literature pertaining to many eminent architects, including Louis Sullivan, Frank Lloyd Wright, Antoni Gaudi, Ludwig Mies van der Rohe and Jorn Utzon.³⁰⁷ Wright’s notion of an organic architecture is associated with a pantheistic world-view which accommodates Aristotelian aesthetics.³⁰⁸ From a Platonic standpoint, figures such as Gaudi and Utzon perform acts of bad mimesis by imitating nature, albeit abstractly, in their works. For example, Gaudi’s Casa Milà is described as a mannerist imitation of the serrated cliffs of Montserrat mountain,³⁰⁹ and Utzon describes the reinforced concrete ceiling of his Bagsvaerd Church as an abstract imitation of clouds.³¹⁰ Supporting an Aristotelian reading of their aesthetic positions, both Gaudi and Utzon appear to copy beautiful phenomena, without recourse to

transcendent models of beauty. Meanwhile, according to Richard Padovan, Mies van der Rohe appeals to nature's beauty by contrasting its complexity with the simplicity of his buildings.³¹¹ Padovan describes the Farnsworth house as a mediator between that which is man-made, and thus revealing a finite creativity, and its natural setting, creation, which attests to an infinite maker.³¹² In support of his analyses, Padovan cites instances in which Mies van der Rohe quotes St Thomas Aquinas, the scholastic philosopher whose own theory of aesthetics, *Natural Theology*, is a synthesis of Scripture and Aristotle's empiricism.³¹³

In Le Corbusier's writings, the ontology of beauty — that is, whether beauty is transcendent or existential — is ambiguous. Many of Le Corbusier's writings suggest that his aesthetics are Aristotelian, reflecting his early interest in Art Nouveau, and, as William Curtis claims, his pantheism.³¹⁴ Curtis describes Le Corbusier as having “soaked himself in nature worship, in the writings of Ruskin, in the symbolic allegories of Art Nouveau”.³¹⁵ With respect to his chapel at Ronchamp, Curtis writes that for Le Corbusier “natural forms were capable of divine and natural character”.³¹⁶

Consistent with Curtis' analyses, in *The Home of Man*,³¹⁷ Le Corbusier promotes the human body as a paragon of beauty, which should be mimicked by architects.³¹⁸ LeCorbusier appeals to the beauty and rightness of the human body as his authority, justifying his Dom-ino paradigm insofar as it imitates the human body. Within the context of this dissertation, he can be said to adopt an Aristotelian aesthetic position.

On its own, LeCorbusier's use of a corporeal analogy does not automatically indicate an Aristotelian attitude towards beauty. Despite Plato's contempt for the corporeal body elsewhere, even *The Republic* (462D) employs such an analogy, albeit in a literary sense, comparing the separate parts of the human body to individuals within his ideal society. For Plato, some people are like the hands of the city, while others are like its eyes. What distinguishes Le Corbusier's appeal to the body as Aristotelian (within the context of this dissertation), is that he offers no

transcendent ideal elsewhere. Plato's ideal republic is ultimately modelled on another state in the Form realm, while Le Corbusier appeals to the human body as an authority or first principle. Yet, with another of his analogies, Le Corbusier hints at a more rationalistic, or Platonic view of nature. In *The City of To-morrow and Its Planning*,³¹⁹ he compares the meandering tracks made by animals, as they wander between shaded spots and along paths of least resistance, with the rational lines humans tend to impose upon nature. Since orthography does not occur in nature but is a product of the human imagination, its imposition upon the natural world speaks of our higher rationality. Unlike his corporeal analogy above, which points to an empirically known paragon of perfection, Le Corbusier's animal track illustration points to what Plato would call the purely intelligible realm as the seat of beauty, perfection, or rightness. In *Modulor 2*, Le Corbusier specifically connects his conception of a purely intelligible realm of mathematics to Plato and contemporaneous Greek mathematicians, referring to Plato on five separate occasions.³²⁰ Le Corbusier's animal track illustration, read in conjunction with his direct references to Plato, suggests a Platonic aesthetic position. It can be seen from these examples, that Le Corbusier's own position with regards to aesthetics shifts according to circumstances.

When comparing architects' philosophies with Plato's metaphysics, architects' accounts related to the ontology of beauty can be viewed as possible indicators that their philosophies may either be Platonic, or Aristotelian. How architects address the topic of beauty may indicate whether beauty, in their opinion, is something which exists in matter, or if it is transcendent. As the naturalistic stone masonry in thirteenth-century Gothic church architecture is seen to indicate a shift towards an Aristotelian conception of beauty, the imitation, or lack thereof, of nature in an architect's work may also indicate whether their aesthetics are Aristotelian or Platonic.

Given this distinction, where does nature fit within Kahn's thinking and does he perform second generation mimesis by copying nature or by treating nature as a

paragon of beauty? To answer these questions, Kahn's statements about beauty and about nature need to be examined. Kahn's buildings can also provide valuable indications regarding his approach to nature.

Very late in his career, in 1972, Kahn states

I like English History. I have volumes of it, but I never read anything but the first volume. Even at that, I only read the first three or four chapters. My purpose is to read Volume Zero, which has yet to be written. That's a kind of strange mind which causes one to look for this kind of thing. From such a realization, one thinks of the emergence of a mind. *The first feeling is that of beauty. Not the beautiful, just beauty.* It is the aura of the perfect harmony.³²¹

It is unusual for Kahn to speak of beauty in this manner. Typically, he speaks of beauty with respect to nature, but in this instance he refers specifically to the topic of beauty. Most significant here is Kahn's distinction between "the beautiful" and "beauty". Since beauty is described as an aura, "the aura of the perfect harmony", it would seem to be intangible. Given Kahn's consistent delineation between the material and the ideal, as exemplified by all of his dialectical pairs — "measurable and unmeasurable", "form and design", "silence and light", "belief and means" — it can be extrapolated that "the beautiful" in this case is the material counterpart of beauty. His phrase "the beautiful" might therefore refer to particular material objects which happen to be beautiful, or which happen to partake of beauty. Since Kahn sees beauty as something that is separate from beautiful things, the aesthetic theory expressed in the above quotation closely resembles Plato's theory as outlined in *The Republic*.

The above quotation also reveals that Kahn's sense of beauty emerges from what he refers to as a mind. It has been seen how in 1967 Kahn distinguishes between the mind, which consists of soul, spirit and the brain,³²² and the brain alone, which Kahn claims to be "purely physical".³²³ As Plato does, Kahn too divides the human being into a consciousness and a corporeal vessel. Therefore, in "mind and brain", another of Kahn's dialectical pairs can be found, which again distinguishes

between the phenomenal and the transcendent. For Kahn, beauty emerges from the mind, which is the metaphysically loaded term in his dichotomy between the mind and the brain. This also suggests that his aesthetics are Platonic.

The same quotation about English history also reveals that Kahn's contemplation of the mind, or his own consciousness, flows on from his contemplation of a mythical "Volume Zero" of English history. Notably, he does not contemplate a new *preface* or *forward* to his volumes of English history, or the rewriting of Volume One to incorporate even earlier archaeological findings. Rather, "Volume Zero" infers an atemporal chapter in the earth's history, to be contemplated by the metaphysical faculty of a human's consciousness, that being the mind. What is significant here is that the contemplation of beauty, which could be thought of as a Form, *Beauty Itself*, flows from the contemplation of an atemporal realm, which resembles Plato's Form realm.

On first appraisal, Kahn's writing about English history may seem disjointed, shifting from history, to philosophy to aesthetics. However, read in the manner outlined here, Platonism ties these seemingly unrelated themes together and allows them to be interpreted in a more cohesive manner. The contemplation of an atemporal realm raises the issue of a transcendent dimension to human consciousness. Given Kahn's view, that the mind provides a window to a transcendent realm, which broadly resembles Plato's Form realm, it follows that such a mind is able to grasp ideals, or Forms, including *Beauty Itself*. If humans are mentally endowed in the manner Kahn suggests, they would not confuse the Form *Beauty Itself* with those earthly things which merely partake of that Form.

A statement by Kahn regarding the beauty of two buildings from antiquity also suggests an aesthetic position paralleling Plato's. He claims that "to make a thing deliberately beautiful is a dastardly act; it is an act of mesmerism which beclouds the entire issue. I do not believe that beauty can be created overnight".³²⁴ In the same passage, Kahn argues that the buildings of Paestum are more beautiful than the Parthenon, since the former are archaic. Paestum "is infinitely more beautiful to

me”, Kahn states, “because to me it represents the beginning of architecture”.³²⁵ Two kinds of beauty are referred to in this quotation. The first kind can be applied by means of proportions and refinements and is exemplified by the Parthenon. However, the kind of beauty that interests Kahn is synonymous with Plato’s views about mimesis. If, as Kahn claims, Paestum is the prototype and the Parthenon is its copy,³²⁶ then Paestum, since it represents the beginning of architecture for Kahn, can be viewed as a first generation copy of *The Temple Itself* and the Parthenon, just like a painting of a bed, is twice removed from truth, since it is a copy of Paestum. Therefore, like Plato, Kahn is more interested in the chronological proximity of particular artefacts to their parent Forms.

Where Kahn speaks of nature, there are occasions when he specifically reacts against the Modernist’s fascination with nature as a design paradigm and others where he appears to venerate nature. These apparently contradictory attitudes are discussed separately hereafter and an attempt is made to reconcile the two.

In a manner indicative of his rejection of nature’s role in aesthetics, Kahn writes in 1966 that the “inspiration to express is that which sets up man’s urge to seek shapes and forms which are not in nature. Nature cannot build locomotives”, he maintains, “nor build houses”.³²⁷ Reacting against what De Zurko describes as the organic analogy of functionalist theory³²⁸ (epitomised by Wright’s organic design approach whereby architects see themselves and their buildings as products of nature³²⁹), Kahn refers to a uniquely human impulse. Kahn also writes in his article “Form and Design” that “nature, physical nature, is measurable”,³³⁰ rather than “unmeasurable”. Thinking within the Western metaphysical tradition, Kahn subordinates nature to the human soul — or, in Norberg-Schulz’s words, Kahn subordinates the *existentia* to the *essentia*.³³¹

The privileging of human creativity over physical nature in Kahn’s thinking is echoed in a number of his statements. In 1964, after lamenting that an architect, unlike a painter, “must use round wheels, and he must make his doorways bigger than people”,³³² Kahn further states that

architects must learn that they have other rights [...] their own rights. To learn this, to understand this, is giving the man the tools for making the incredible, that which nature cannot make. The tools make a psychological validity, not just a physical validity, because man, unlike nature, has choice.³³³

In 1967 Kahn writes that “[w]hat man makes, nature cannot make, though man uses all the laws of nature to make it”.³³⁴ In his 1962 text titled “A Statement”, Kahn writes that

[n]ature is unconscious, but the psyche is conscious, demands life, and gives life. Nature makes the instruments which makes [sic] life possible. It will not make the instruments unless the desire for life is there.³³⁵

In each of these quotations, Kahn privileges the human mind over nature. However, in “A Statement”, Kahn also claims that “[n]othing can be made without nature”,³³⁶ and indeed that “nature is the workshop of God”.³³⁷ Apparently contradicting his other claims which subordinate nature and privilege human imagination, here Kahn seems to deify nature. He seems to recall a much earlier position, reflected in his 1957 claims that “[i]ntegration is the way of nature”,³³⁸ and that we “can learn from nature”.³³⁹ How might Kahn’s typical post-1960 elevation of the human imagination above nature, be reconciled with his apparent veneration of nature in 1962?

Before addressing this, it should be noted that Kenneth Frampton also emphasises the role of nature in Kahn’s theory. Referring to Kahn’s integration of structure and services, espoused in his “servant and served” thesis, Frampton writes that during the 1950s Kahn “appears to have become preoccupied with the latent order of nature as this had been revealed through scientific research”.³⁴⁰ Hence the hollow structure of the Richards Medical Building recalls the integration of vascular systems and structures found in organisms. Elsewhere Frampton proposes that Buckminster Fuller, whose space-frame designs are an obvious influence on Kahn in the 1940s and early 1950s, “clearly intended that a new architecture should be based exclusively on the principles of empirical science and the laws of nature”.³⁴¹ Frampton also traces Kahn’s adherence to the Greco-Gothic ideal — as espoused in

his 1944 essay *Monumentality*,³⁴² and the structural rationalism inherent in his later treatment of materials, especially his brickwork — to Laugier’s *Essai sur l’architecture* of 1753.³⁴³ According to Frampton, Laugier advances “the authenticity of Greco-Gothic architecture on the grounds that it had been directly derived from nature and man’s interaction with nature”.³⁴⁴ Frampton recalls an instance in which Kahn compares the joints of a building to the knuckles of a hand. This comparison prompts Kahn to claim that “a building is like a human”.³⁴⁵ Frampton also discusses an instance in 1969 where Kahn describes Carlo Scarpa’s detailing as “the adoration of nature”.³⁴⁶ Frampton argues that Kahn’s “feeling for the organic surely derives in large measure from Frank Lloyd Wright”, who, according to Frampton, is “an insufficiently acknowledged influence on Kahn”.³⁴⁷

However, even if Kahn’s theory is indebted in some measure to Wright, it is difficult to imagine Wright subordinating nature as Kahn does with his claim that physical nature is merely “measurable”. Despite a few shared sentiments, there remain fundamental differences between Kahn’s and Wright’s attitudes towards nature. A clue to differentiating Kahn’s position is provided by Alexandra Tyng who aligns her father’s sense of order with Albert Einstein’s. Each, she claims, believe that God has encoded the universe with an “underlying thread”.³⁴⁸ Sarah Williams Ksiazek makes a similar point, arguing that Anne Tyng, Buckminster Fuller and Robert Le Ricolais interpreted the discovery of microscopic geometric patterns in nature as evidence of an underlying cosmological order.³⁴⁹ She writes that “if the reality in which we moved was chaotic and inscrutable, beneath lay a profound order of almost mystical simplicity”.³⁵⁰ What fascinates these figures regarding nature is not its empirical appearance, but its underlying Platonic order.

This may explain why Kahn contradicts himself by at once subordinating nature and also championing it. If, when Kahn writes that architects can learn from nature, he refers to nature’s underlying universal principles, then he need not be seen to copy nature as it is known via the senses. While physical nature remains “measurable”, a reasoned consideration of nature can yet reveal intangible, universal

principles of relevance from Kahn's position. While the principles to which Frampton refers can all be observed empirically — those principles being structural rationalism, the disclosure of joints, the integration of structure with circulation and the use of close-packing regular solids — all of these principles can also be viewed as intangible ideals, having an intellectual existence apart from their various material manifestations. Unlike physical nature, Kahn appears to treat these principles as “unmeasurable”. Kahn's copying of such abstract principles is not comparable with the literal imitation of nature by Gothic architects which, as mentioned earlier in this chapter, occurred in the wake of the philosophical revolution of the twelfth-century. Neither can his borrowing of principles be compared to the abstract imitation of nature by Wright, Gaudi and Utzon. Rather, Kahn specifically rejects the imitation of nature, and writes in 1973 that

[t]he garden has to do with nature as it applies to a place that has been chosen by man and is developed for man's use in a certain way. The architect becomes the advocate of nature, and makes everything in the deepest respect for nature. He does this by not imitating it at all, and not allowing himself to think that he is a designer — if he imitates how, let us say, the bird plants the tree. But he must plant the tree as a man, a choosing, conscious individual.³⁵¹

This view, that nature cannot be copied by architects, would explain why Kahn implies that his friend Luis Barragan's own garden is a contrivance. While bestowing it with poetic praise, in 1968 he also describes it as “a fragment of natural landscape captured out of context by a high wall”.³⁵² This attitude would also explain Kahn's earlier acceptance of Barragan's suggestion to leave vegetation from the central plaza of the Salk Institute all together, rather than attempt to copy nature.

Where Kahn does propose planting around his buildings, his landscaping schemes are not naturalistic. A memorable example of his landscaping style is his planting of the forecourt to the Kimbell Art Museum where Yaupon holly trees are planted in regular rows. By planting trees in rows, Kahn does not attempt to imitate the way trees grow in nature. In his own words, Kahn plants his trees “as a man, a

choosing, conscious individual”.³⁵³ The same is true of his landscape proposal for the First Unitarian Church in Rochester, where the building is given precedence over nature. Kahn’s landscaping plan for this church instructs the contractor to carve a sight line through a natural grove of trees standing between the church and Winton Road, such that the remaining trees may frame a view of the church as seen from northbound cars. The human-made, in this case Kahn’s church, is given clear precedence over the natural, represented here by existing trees.

Conversely, nature is not usually venerated from within Kahn’s buildings. While there are notable exceptions to this trend, such as the offices of the Salk Institute which face the ocean and the living areas of the Dr. and Mrs. Norman Fisher House which capitalise on a natural outlook to the rear of that house, many of Kahn’s buildings are markedly fortress-like and inward looking. For example, the living spaces of the Eleanor Donnelley Erdman Hall at Bryn Mawr College are entombed by concrete walls, providing no outlook at all.

A comprehensive statement by Kahn regarding his aesthetic philosophy can be found in an article of his from 1970, “Architecture: Silence and Light”.³⁵⁴ An exegesis of this passage reveals similarities between Kahn’s aesthetics and Plato’s. Kahn writes that he senses “a Threshold: Light to Silence, Silence to Light — an ambience of inspiration, in which the desire to be, to express crosses with the possible”.³⁵⁵ What Kahn calls the “Threshold” refers to a contemplative mood, described in “Form and Design” as both philosophical and religious.³⁵⁶ In “Form and Design” Kahn states that architects, when they are in a philosophical and religious state of mind, are capable of realisations from what he later refers to as the realm of “Silence”, which can be likened to Plato’s exclusively intelligible Form realm. According to Kahn, architects are able to realise entities, comparable to Forms, which have a desire to be. Furthermore, these entities “cross with the possible”, that is, they are capable of being built in the material realm which Kahn calls “Light”.

Kahn continues: “[t]he rock, the stream, the wind inspires [sic]. We see what is beautiful in the material first in wonder, then in knowing, which in turn is

transformed into the expression of beauty that lies in the desire to express”.³⁵⁷ To illustrate the numinous function of matter, Kahn uses the “rock, the stream and the wind”. These happen to correspond with three of the constituent elements of Plato’s cosmology from *Timaeus*, earth, water and air, themselves Forms. As elementary manifestations of their corresponding Forms, Kahn feels that these three have an immediate effect, elevating a viewer’s consciousness to the “Threshold”. Faced with such simple manifestations of Forms, a viewer feels inexplicable wonder, followed by cognisance. Finally, in the viewer’s mind’s eye the image is transformed into an expression of *Beauty Itself*, which lies in “the desire to express” — yet another of Kahn’s terms for what might also be referred to as Plato’s Form realm. The Form-like quality of something seen has a mnemonic effect, reminding the viewer of the singular Form, *Beauty Itself*.

In the above passage, Kahn outlines an aesthetic theory which is remarkably similar to the aesthetic position advanced in Plato’s *Phaedrus*. To those ordinary people who, according to one of Plato’s analogies, are imprisoned in their bodies, like oysters in their shells,³⁵⁸ a person may seem mad “who, when he sees the beauty of earth, is transported with the recollection of true beauty”.³⁵⁹ Of *Beauty Itself*, Plato writes,

we saw her there shining in company with the celestial [F]orms; and coming to earth we find her here too, shining in clearness through the clearest aperture of sense. For sight is the most piercing of our bodily senses.³⁶⁰

From this analysis it can be seen that where Kahn directly addresses the issue of beauty, he, like Plato, makes it clear that he views beauty as something which is separate from material objects. It has also been shown in this section that Kahn makes a Platonic distinction between beauty and “the beautiful”, as though distinguishing between *Beauty Itself* and particular things which happen to exhibit this quality. Confirming this distinction, Kahn associates the transcendent notion of beauty with two other metaphysically loaded concepts, “mind” and an atemporal

“Volume zero” of history. Significantly, Kahn also equates beauty with archaic prototypes and he praises the metaphysical proximity of the buildings of Paestum to the immaterial human desires which inspired their construction. While Kahn sees nature as the workshop of God and claims that architects can learn from nature, he does not advocate the imitation of nature as it is presented to the senses. Rather, his interest lies with a transcendent realm of mathematical patterns, structures and principles which nature adumbrates.

Epistemology

Consistently throughout “Form and Design”, Kahn outlines a deductive process, whereby particular “designs” proceed from *a priori* facts, through a process of realisation. Significantly, on other occasions, Kahn refers to realisation as though it involves some kind of sudden catharsis. In 1965 he writes that he had fallen out of bed with the realisation that political assembly buildings are of a transcendent nature.³⁶¹ However, in the final paragraph of “Form and Design”, Kahn makes a statement which seems to allow for an inductive realisation of “forms”, from the study of multiple “designs”.

From all I have said I do not mean to imply a system of thought and work leading to realization from Form to Design.

Designs could just as well lead to realizations in Form.

This interplay is the constant excitement of Architecture.³⁶²

Kahn’s deductive process in “Form and Design” has strong parallels with Plato’s epistemology in *The Republic*, while his later acceptance of what appears to be an inductive process, does not. According to Alfred Taylor, Plato’s theory of knowledge stands at the centre of his philosophy,³⁶³ and true knowledge, or science, in Plato’s philosophy

is a body of consistent and fixed convictions, a system of truths, valid absolutely, always, and for every one, in which the various members are

connected by a bond of logical necessity — in a word, a body of reasoned deductions from true principles.³⁶⁴

The Republic's epistemological argument begins in Book 7, where it is claimed that knowledge is of what *is*, ignorance is of what *is not*, (476e-477a) and opinion lies somewhere in between (478c). Since it is argued that visible things of beauty are always partly ugly (479a), and that big things are small when compared to bigger things (479b), any particular thing both *is* and *is not*. The Forms, the existence of which Socrates' otherwise argumentative interlocutors accept with compliance, are presented as examples of what truly *is*. Within this framework, a person's observation of a beautiful thing can therefore only lead to an opinion about beauty and people whose eyes are distracted by beautiful objects will never behold *Beauty Itself*, or any other Form which entirely *is*. Knowledge of what *is*, therefore requires a complete rejection of the world of everyday experience.

In terms of Platonic philosophy, Kahn's "designs" — being site-specific, client-specific, means-specific and generally of the phenomenal realm — would make poor aids in the comprehension of Forms. Kahn's claim that "[d]esigns could just as well lead to realizations in Form",³⁶⁵ departs radically from Platonic philosophy. While to the discerning eye, a number of "designs" for a particular house project may share a common essence, *The House Itself*, all "designs" for houses are, in part, not houses. That is, they do not bear their predicate, "house", completely. Perhaps in its planning, fenestration or level of conduciveness to inhabitation, a particular house may be comparable to a shop, or a school, or a tent. According to Plato's definition of knowledge, what Kahn refers to as "designs" are fundamentally objects of opinion. By concerning themselves with "designs", architects cause themselves to stray further from what truly *is*, that is, the Platonic Form corresponding to the project at hand.

Plato's epistemology is strictly rationalistic. For Plato, the objects of knowledge are the Forms which are known *a priori*, and further knowledge can only be deduced from them using pure reason. *The Republic* provides a clear illustration

of how the deductive process should work.

I think you know that geometers and arithmeticians and so forth assume the odd and the even, the figures, the three kinds of angles, and all the other things that pertain to each field. They posit these as assumptions, as if they were known, and consider them so self-evident that they needn't give any further account of them either to themselves or to others. Starting from these, they go through the rest of their inquiry and finally reach the logically consistent conclusion they were looking for when they began.³⁶⁶

After praising geometers and arithmeticians, Plato describes the logical processes by which conclusions can be deduced from such assumptions.

Then understand that by the other intelligible segment, I mean the one that reason itself grasps by the power of dialectic [Plato is here referring to the Form realm], taking assumptions not as sources, but in the literal sense — as starting points or rungs — to climb to the unassumed up to the source of the whole, grasp it, and then, clinging to the consequences clinging to it, climb back down to a final conclusion, using nothing perceptible at all, but only forms themselves by themselves to themselves, ending at forms.³⁶⁷

In “Form and Design”, the majority of Kahn’s descriptions of the realisation process are compatible with the deductive process outlined in *The Republic*. Conversely, Kahn’s closing statement seems alien to the rhetoric he has constructed to describe the religious and philosophical moment when “forms” are realised, as though “forms” come to architects as a sudden revelation from God. The distillation of “forms” from the consideration of many circumstantial “designs” seems pedestrian by comparison. Kahn’s closing words also have the character of a confession. On this point, a claim by Anne Tyng that Kahn’s design process is one of testing innumerable planning strategies in search of Jung’s archetypes,³⁶⁸ suggests that Kahn’s late admission of an apparently inductive process actually betrays his normal way of distilling the essence of a building. During her time in Kahn’s office, Tyng claims to have witnessed Kahn experimenting with many “designs”, until arriving, through a process of trial and error, at particular schemes which he thought reflected ideal “forms”.

The only way in which Kahn's proposition that "design" can lead to "form" might be reconciled with the epistemology of *The Republic*, is to interpret Kahn's statement in terms of what Plato refers to as dialectic. Dialectic, Plato writes

is the only procedure which proceeds by the destruction of assumptions to the very first principle, so as to give itself a firm base. When the eye of the mind gets really bogged down in a morass of ignorance, dialectic gently pulls it out and leads it up.³⁶⁹

Dialectic, rather than some sudden cathartic recollection, is the method which Plato exercises throughout *The Republic* to deduce the nature of various Forms. For example, Book 9 critiques various models of governance — timarchy, oligarchy, democracy and tyranny — as a way of demonstrating the need for philosopher kings. If Kahn's claim that "design" can lead to "form" implies a process of elimination, by which particular designs are destroyed in the manner that Plato destroys wrong assumptions until only a first principle, or "Form", is left standing, then indeed, the final paragraph of "Form and Design" would be very much in the grain of Plato's epistemology. However, being at the end of Kahn's text and having the character of an afterthought or confession, Kahn's claim that "designs" can lead to "forms" does raise doubts concerning the rationalism which is so clearly articulated in the body of his text. This apparent irresoluteness regarding the process by which "forms" can be ascertained suggests the need for a more comprehensive study of Kahn's epistemological leanings.

Where there is relatively little scholarship concerned with the precise location of generative ideas in architectural discourse, the broader epistemological debate between empiricism and rationalism is familiar. For instance, in his book, *Emerging Concepts in Urban Space Design*, Geoffrey Broadbent accurately describes rationalism in philosophy. He summarises Descartes' argument that "we really cannot trust the evidence of our senses and must search, instead, for universal truths which, like Plato, he believed could be reached by logical thinking. The philosophy of Descartes and his followers", Broadbent explains to an architectural

audience, “is known as Rationalism”.³⁷⁰ Broadbent argues that the rationalist architect “by definition, is more concerned with purity of form, two-dimensional, three-dimensional or whatever, than with the ways in which his designs might effect the senses of the users”.³⁷¹ For most architects, members of the Rationalist and Neorationalist movements out of Italy — Guiseppe Terragni, Aldo Rossi, Superstudio and others — have put rationalism on the agenda of architectural discourse. While in their own work the principles of philosophical rationalism are not always strictly adhered to, the Rationalists are united by a concern for objects of reason: geometrical figures, mathematical constructs and type-classes.³⁷²

A lesser known text, *The Church Incarnate*³⁷³ by Rudolf Schwarz, provides a better example of how Plato’s epistemology might be applied to architectural theory. However, Schwarz does not mention either Plato or rationalism. Schwarz attempts to deduce *the* ideal church type using the kind of rationalistic dialectic that Plato prescribes for the comprehension of Forms. Schwarz posits many assumptions as though they were self-evident.

The altar itself is simply a table but it is raised and emphasised by means of steps. The people stand around it in a ring and if there are more people than can be contained in one ring then they stand ring within ring, ordered concentrically.³⁷⁴

Schwarz does not refer to Scripture to justify these claims, or to observable styles of worship as actually practised by any sample group of worshippers. Neither would he refer to the traditional cathedral to justify his claims, since it is his expressed aim to deduce an ideal church type anew. His claim that Christians stand in concentric rings about altars is made as though it required no justification. It is an idea about the nature of worship. To use Plato’s terminology, the statement “[t]he people stand around it [the altar] in a ring”,³⁷⁵ can be thought of as a Form, as it is considered to be known, yet it has no empirical basis. Schwarz constructs a picture of an ideal church type based solely on these kinds of claims. As Plato prescribes, Schwarz uses assumptions as rungs to conclusions, “using nothing perceptible at all, but only

forms themselves by themselves to themselves”,³⁷⁶ ending at *The Church Itself*, his model for the church incarnate.

Kahn has no rationalistic exposition which can be compared with Schwarz’s search for the ideal church type, but there are a number of statements by him and aspects of his philosophical milieu, which indicate that his epistemology is shaped by rationalistic concerns. For example, in 1965 Kahn champions the Greeks’ preference for reason over empirical observation. “After all, the Greeks”, Kahn writes, “didn’t have the [empirical] knowledge that we have now, and look what marvellous things they did, only because the mind was respected”.³⁷⁷ Kahn goes on to describe a wilfully ignorant approach to designing buildings — similar to that which Jeffrey Kipnis describes as a “surd” approach to design³⁷⁸ — that is happily deaf to empirical influences, a building’s site and program for instance. Kahn implies that marvellous things can be achieved in modern times without recourse to any of the empirical knowledge which science has accumulated since the time of the ancient Greeks. This implies that the mind, with its capacity for pure reasoning, is capable of great achievements on its own.

In 1962, Kahn also expresses scepticism regarding empirical science. “When I hear a scientist speak in categorical terms of what he has discovered”, he states, “I feel that as he grows older, he will change his categorical term into something which is not quite so sure”.³⁷⁹ Frampton connects Kahn, through his Beaux-Arts training, to Claude Perrault, who first introduces Cartesian doubt to architecture.³⁸⁰ With his statement about scientists, Kahn applies Cartesian doubt towards empirical science generally; this parallels Plato’s distrust of all sense knowledge. According to Plato’s account in *Meno*, the sensory onslaught of the material realm causes humans to forget their knowledge of the Form realm at birth. Plato expresses this view in *The Republic* in his criticism of those who admire physical beauty and so deny themselves the chance to ever behold *Beauty Itself*. Echoing Plato’s view, in 1964 Kahn describes the corporeal life as one in which “[y]ou are passing things that dangle before your eyes, and they tempt you in a way to stop your mind”.³⁸¹

Belief in innate knowledge is an essential component of rationalistic epistemological systems.³⁸² Kahn's belief in innate knowledge is expressed in his 1962 statement that

[w]onder in us is — you might say — a record of the way we were made.
It is a well, which is completely full of all the things you will ever learn;
because nature, in making things, records every step of its making.³⁸³

Kahn's view recalls Socrates' inability to teach a slave boy that four to the power of two equals sixteen in *Meno*. Rather, Socrates claims to *remind* the boy of this fact.³⁸⁴

In practice, Plato's epistemology relies to a great extent on statements of fact which appear to be self-evident, but which have no empirical basis. In sympathy with Plato's approach, Kahn relies on his own assumptions, over and above that which can be verified empirically. That the assumptions from which Kahn begins his various reasoned deductions are known *a priori* and are without an empirical basis, is brought out on other occasions as well. His belief in the mind's inner vision is yet another demonstration of this tendency. In 1964, he claims that

[o]ne of the most important [facets of architectural education] that I know, since art involves the eyes, involves vision and the mind. You see it through association and in other ways. You can close your eyes and see a philosophic realization. You can see it in a way that you can listen to it, something philosophic you can see [...] with your mind.³⁸⁵

In this quotation Kahn advocates the existence of philosophical knowledge which is beheld intellectually, without recourse to sense knowledge. Notably, Kahn does not speak of closing his eyes and recalling images of sensory origin. Rather, the knowledge to which he refers is of some superphysical kind which can be seen in the same way as it can be heard. Considering the spiritual or divine dimension which Kahn attributes to the human mind, it is possible to conclude that such knowledge emanates from a transcendent or divine realm.

Another aspect of Kahn's theory which is significant when viewed in the light of Plato's epistemology, is his view that ideal planning arrangements are not human inventions, but discoveries. In 1964 Kahn claims that

[i]f I were a musician, and I were the first person to invent the waltz,
the waltz doesn't belong to me at all,
because anyone can write a waltz —
once I say there is a nature of musical environment
which is based on three-four time.
Does that mean I own the waltz?
I don't own the waltz
any more than the man who found oxygen owns oxygen.³⁸⁶

As he does when arguing that as oxygen does not belong to its discoverer,³⁸⁷ here Kahn implies the existence of autonomous entities of the kind Plato describes. For Plato, entities such as mathematical truths are not conceived, or invented by humans. Rather, they are recalled or discovered. Given the congruency within Kahn's vocabulary between the words realise and discover, his frequent references to realisations can also be interpreted as discoveries.

On occasions Kahn uses diagrams to describe his epistemology. These can be thought of as Kahn's dividing line diagrams (Figures 16 and 17). They describe a threshold which Kahn believes separates the realm of "Silence" from the realm of "Light",³⁸⁸ and they are remarkably like Plato's dividing line illustration in *The Republic*.³⁸⁹

According to Plato's illustration, a dividing line can be imagined which separates intelligible knowledge of mathematical entities and the Forms, from sense knowledge of material things.³⁹⁰ According to Kahn's illustration, a dividing line can be imagined which separates the realm of "Silence" from the realm of "Light". In what David Brownlee describes as an allusion to Plato's parable of the cave,³⁹¹ in 1969 Kahn refers to the line, or threshold, separating these two realms as the "treasury of the shadows".³⁹²

**Image removed for
copyright reasons**

The full thesis is
available in the
Auchmuty Library

Figure 16: Kahn's dividing line diagram distinguishing the realm of "Silence" from the realm of "Light".

**Image removed for
copyright reasons**

The full thesis is
available in the
Auchmuty Library

Figure 17: Kahn's dividing line diagram identifying a threshold between reality and "the desire to express".

Kahn's dividing line illustration, with its similarities to Plato's most famous illustration of dualism, suggests that Kahn's terms "Silence" and "Light" describe two ontologically discrete realms. As Brownlee also argues, Kahn's "notion that art [is] created at a 'threshold' between the real and ideal"³⁹³ is expressed long before

the appearance of his terms “Silence” and “Light”, through such couplings as “measurable and unmeasurable” and also “form and design”. The implications of his dividing line illustration can therefore be applied to his “form and design” theory. The ideal realm of “form” is comparable to Plato’s transcendent realm of Forms. The circumstantial realm of “design” is comparable to the phenomenal or sensible realm, which Plato treats as an illusion.

Kahn’s tendency to treat things as though they are either above or below a metaphysical dividing line, has been seen already. His claim in “Form and Design” that feeling can transcend into religion and that thought can lead to philosophy, presents feeling and thought as earthly manifestations of their transcendent counterparts, religion and philosophy. Couched in terms of Plato’s dividing line illustration in *The Republic* (510b), feeling and thought are below the line, while religion and philosophy are above it. Indeed, Plato’s dividing line illustration can be used in the interpretation of a number of Kahn’s otherwise elusive statements. For example, Kahn’s view that particular works of architecture exist, while “architecture does not exist”³⁹⁴ may be taken to mean that works of architecture are not *Architecture Itself*, but exist below the dividing line and are examples of what *is* and *is not*. Meanwhile, “architecture”, or *Architecture Itself*, exists above the dividing line and bears its predicate unqualifiedly. Things which Kahn describes as “unmeasurable” can similarly be interpreted as existing above Plato’s dividing line. When Kahn states in 1962 that “you cannot measure love; you cannot measure hate; you cannot measure nobility — they’re completely unmeasurable things”,³⁹⁵ he may be referring to *Love Itself*, *Hate Itself* and *Nobility Itself*. Notably, most of the Forms discussed in *The Republic* pertain to values such as the ones Kahn lists, for example justice. Of another quality, Kahn asks his audience in 1972 to

[r]eflect on the tremendous value of the word “good”, and then say “very good”, and tell me which is more powerful. “Good” is infinitely more powerful than “very good”. Already the measurable sneaks in and depicts it less.³⁹⁶

In contrast with Kahn's term "unmeasurable", his term "measurable" refers to that which is circumstantial, terrestrial, or, in Plato's words, sensible. As Kahn treats it, the transcendent idea of being good is metaphysically diminished when it is qualified using words like "very" which pertain to the "measurable" realm of sense experience. From a Platonic standpoint, the phrase "very good" suggests the participation of some particular in the idea of *The Good*, and to a greater extent than some other particular which is, for example, fairly good. Meanwhile, the Platonic concept of *The Good*, or the word "Good" as Kahn uses it above, represents a pure essence and can be thought to exist above Plato's dividing line.

In 1967 Kahn coined his famous aphorisms "Silence" and "Light", the former to refer to the realm of "form", and the latter to the realm of "design" (where "form" is made manifest).³⁹⁷ Kahn's terms closely parallel ones used by Plato. "Silence" cannot be sensed, but is a purely intelligible concept, while light is perceptible by way of the senses.

The topic of Kahn's epistemology can also be approached by examining the type of evidence which he produces to persuade clients regarding his design decisions. In situations requiring proof, does Kahn rely on empirical evidence, or reasoned arguments? Insofar as Kahn's espoused theory, or his rhetoric is concerned, an examination of the circumstances surrounding Kahn's generation and subsequent defence of his "form" diagram for the Unitarian Church in Rochester, suggests that in this instance, rationalistic arguments are his preferred kind of defence. As the following discussion highlights, Kahn does not rely on empirical evidence, even when it is readily available to him, but chooses instead to employ a Socratic kind of dialectic.

The scepticism of empirical knowledge which Kahn voices in quotes seen thus far, as well as his countenance of innate knowledge and his invocations of the divine, all may disguise quite ordinary empirical sources for his "forms". Various historical precedents have already been cited as possible sources of his Unitarian centre "form". The "form" diagram produced for that building may have an even

more pedestrian source, namely, a report which the building committee in Rochester had sent Kahn on 3 June 1959, prior to their first meeting together.³⁹⁸ That report contains the findings of a meticulous survey, in which the congregation had been asked to help the building committee by indicating their understandings of Unitarianism. Of forty-seven adjectives used to describe Unitarianism in that report, the word “searching” is by far the most popular, being used by 60% of respondents. Briefed with no more than the empirical data collated in this survey — and possibly a discussion of Unitarianism with a minister in Philadelphia³⁹⁹ — Kahn met the church building committee on 17 and 18 June 1959, having already investigated centralised planning strategies conforming to the “form” diagram he would present to them on that day. The notion of a school surrounding and formulating a question — the underlying premise of his “form” diagram — may have been gleaned already from his reading of the aforementioned survey. What is most significant about this report, is that at no point during his negotiations with the building committee in Rochester can it be ascertained that Kahn ever made reference to this report. Particularly in the later stages of his “design” process, when he is called on to justify his centralised plan over a binuclear plan, Kahn might be expected to produce this report, since it could give empirical validity to his “form” diagram, which literally revolves around a question, thus fostering a searching environment. However, Kahn does not use this survey to authorise his preconceived planning strategy. To the contrary, his difficulties in Rochester spark the flurry of metaphysical appeals discussed throughout this chapter, as Kahn seeks to bestow a sense of religious significance on his “form” diagram. When called upon to justify that diagram in more objective terms, he chooses to refute the validity of its opposite, a binuclear diagram (Figure 11); in the same manner Plato, in *The Republic*, finds fault with imperfect types of societies to validate his definition of the ideal society.⁴⁰⁰ In “Form and Design” Kahn relays the details of this meeting with his clients in Rochester.

At one stage of discussion with the members of the church committee a few insisted that the sanctuary be separated entirely from the school. I said

fine, let's put it that way and I then put the auditorium in one place and connected it up with a very neat little connector to the school. Soon everyone realized that the coffee hour after the ceremony brought several related rooms next to the sanctuary, which when alone were too awkwardly self-satisfying and caused the duplication of these rooms in the separated school block. Also, the schoolrooms by separation lost their power to evoke their use for religious and intellectual purposes and, like a stream, they all came back around the sanctuary.

The final design does not correspond to the first design though the form held.⁴⁰¹

By subjecting a binuclear diagram to a kind of Socratic inquisition, referred to in *The Republic* as dialectic, Kahn exposes its logical inconsistencies, without recourse to empirical data.

Kahn's decision not to validate his "form" diagram in Rochester with available empirical evidence can be interpreted as a Platonic strategy. Viewed in this way, Kahn's attempt to disguise the empirical basis of his "form" diagram brings to the fore one possible objection to Platonic design theories which ask others to believe in unseen truths. To empiricists and logical positivists, the absurdity of Platonism, with its strictly rationalistic epistemological basis, is that it cannot provide an objective basis to any inquiry, be it architectural or otherwise, since, without recourse to things known empirically, no initial assumption can ever be made which is beyond refutation. Descartes' initial rejection of empiricism leads to his certainty in nothing but doubt, from which he would not hope to deduce the nature of ideal building types.

The question of belief as it applies to Platonic design theories, specifically Mies van der Rohe's appeals to a transcendent realm, is addressed by Charles Jencks in 1973. In his discussion of Mies' alleged Platonism, Jencks argues that

in the best of Mies' work we are brought up to the question of belief, because, depending on our own beliefs in the existence of a transcendental world, we will experience this work as an adequate symbol of that world or, alternatively, as just a very exquisite farce. For instance, nominalist philosophers and pragmatists, who believe that universals do not in fact

exist, would find the Platonic statements of Mies mostly just humorous, because they go to such terrific pains to project a non-existent reality.⁴⁰²

Since, as Taylor argues, Forms exist in a “supraphysical world”⁴⁰³ their very existence can neither be proved nor disproved. Rather, their existence can only be speculated upon. Referring to a passage in Plato’s *Timaeus* which directly raises the question of the Forms’ existence, Taylor writes that “[The Forms’] existence is said [by Plato] to be a necessary implication of the reality of the distinction between ‘true opinion’ [derived via the senses] and ‘science’ [the product of reason]”.⁴⁰⁴ However, empiricists, logical positivists, nominalists and pragmatists would refute this. Despite the efforts of those who argue for the existence of universals,⁴⁰⁵ autonomous Forms of the kind which Plato describes can at best be *believed* in. One of Kahn’s statements from 1965 suggests a similar position.

I really felt very religiously attached to this idea of belief because I realized that many things are done with only the reality of the means employed, with no belief behind it [...]. When men do large redevelopment projects, there’s no belief behind them [...]. You don’t know what the building is, really, unless you have a belief behind the building [...]. Every architect’s first act is that of revitalizing a prevailing belief or finding a new belief which is just in the air somehow [...]. Why must we assume that there cannot be other things so marvellous as the emergence of the first monastery, for which there was no precedence whatsoever?⁴⁰⁶

The “form” of building types such as monasteries is a matter of belief for Kahn, and as such, empirical evidence cannot be enlisted to validate “forms”. According to the epistemology of *The Republic*, empirical evidence amounts to no more than an opinion of something which both *is* and *is not*; what truly *is*, a Form, cannot be substantiated by opinions. To even suggest that Forms might require empirical confirmation, could be construed as an admission that Forms are bound somehow to the world of opinion. In this light, Kahn’s decision not to confirm the rightness of his “form” diagram for Rochester by producing the congregation’s survey results, can be seen as a conscious effort to protect the transcendent status of

that diagram.⁴⁰⁷

All that can be said with certainty about the final paragraph of “Form and Design”, in which Kahn argues that “[d]esigns could just as well lead to realizations in Form”,⁴⁰⁸ is that its message remains ambiguous. Whether it refers to a process involving the induction of a common essence through the study of particular “designs”, or to a process of elimination resembling what Plato calls dialectic, is unclear. More often though, Kahn is forthright in his assertions that “form” is known *a priori* and he bolsters his position with consistent rationalistic claims. He maintains that “forms” are discoveries, that reason surpasses empirical observation, that empirical science is limited, and so on. Most significantly, he refuses to support his own realisations of “forms” with empirical evidence, even when he could easily do so, as though “forms” must remain articles of faith in order to preserve their metaphysical status.

One aspect of *The Republic*’s epistemology remains to be discussed and that is its underlying mysticism. In order to extend the Pythagorean realm of geometry and numbers to embrace such notions as justice, beauty, craftsmanship and ideal republics, Plato describes a realm of entities which are not easily beheld, but which require some kind of mystical insight. To allow for such claims, in *Meno* Plato had constructed an elaborate metaphysical framework in which the terrestrial incarnation is seen merely as a temporary interruption to the soul’s true existence in the Form realm. Through asceticism, but ideally through death, the intellect can turn from the distractions of sensory input and *recall* the Forms which it knew prior to its physical birth. The doctrine of recollection continues to play a silent though foundational role in *The Republic*. Kenneth Sayre articulates this position, arguing that it was his abandonment of the doctrine of recollection that led Plato, later in his life, to change his metaphysics.⁴⁰⁹ Sayre maintains that Plato’s transcendent metaphysics does not stand up to internal scrutiny without the mystical theory of recollection and so, by implication, the doctrine of recollection remains a corner stone of Plato’s middle and early period dialogues (including *The Republic*). Therefore, any interpretation of

Kahn's design philosophy in terms of *The Republic*, needs to take account of this little known doctrine.

However, there is little in Kahn's philosophy which really lends itself to such an interpretation. In stating that "what was has always been, and [that] what is has always been, and [that] what will be has always been",⁴¹⁰ Kahn implies an atemporal realm of Being, akin to the realm which Plato purports and unlike the material realm which is in a constant state of flux, or Becoming. To Kahn's thinking, human consciousness may be of that realm, insofar as he sees the mind as consisting of brain, soul and spirit. However, Kahn gives no indication that the soul had a previous incarnation in that realm. In 1973, after stating that "what will be has always been",⁴¹¹ Kahn reiterates his interest in "Volume Zero", and "Volume Minus-One". These analogies could invoke the possibility of a previous incarnation, but whether or not such an existence can be likened to the one purported in *Meno* is inconclusive. Kahn's repeated statements that "[i]n man is a record of how he was made",⁴¹² can also be seen to imply the existence of a past life. Among the multiple interpretations that could be applied to this statement, there is a remote possibility that Kahn's meaning is related to a past incarnation. Neither would such an interpretation necessarily be at odds with Kahn's Judaic/Christian background.⁴¹³ However, since Kahn does not develop this theme, such conclusions are highly speculative.

Broadly speaking though, Kahn does promote himself as a mystical figure, through his article "Form and Design", as well as many of his other texts, and to this limited extent, his thinking is in line with the mystical undercurrents present in *The Republic*. Although he does not directly claim to be a mystical figure, he does seem to want his audience to view him as such. Earlier in this chapter, it was proposed that Kahn embraces the metaphysics of the dominant religious culture around him. To predominantly Christian audiences, Kahn presents himself as a kind of prophet. Typifying the sentiments of many who knew him, Luis Vincent Rivera recalls that, "the longer I worked in Kahn's office, the more I, too viewed Lou as a transmitter of

something divine [...]. I don't mean divine like God, but someone of a mystical presence".⁴¹⁴ Although Rivera claims that Kahn "was embarrassed when people would approach him on that level",⁴¹⁵ Kahn is likely, by his manner, to have encouraged such perceptions of himself. Likewise, William Huff recalls that the first impression he and his fellow students at Yale had of Kahn's lectures was of a mystical rhetoric.⁴¹⁶ In a discussion with the present author, Robert Segrest describes Kahn as a mystical figure, likening many of his students to disciples.⁴¹⁷ Richard Forbes of the building committee in Rochester recalls an evening at fellow Unitarian Jim Cunningham's⁴¹⁸ house, where Kahn had gathered a small group of acolytes from the congregation to sip gin and espouse his psychological theories about the so-called *ena*.⁴¹⁹ Kahn's later laconic, poetic and enigmatic addresses are clearly those of a person who either has mystical insights or who wishes to be seen as one with such insights. Hence Michael Benedikt describes Kahn as "architecture's exemplary 'metaphysician of the practical,'" who is committed to uniting "the transcendent with the workaday worlds".⁴²⁰

Kahn appears to tailor this mystical persona to suit the metaphysical preconceptions of his audience. His reception in India, where Kahn presents himself as a Yogi, provides clear evidence of this chameleon nature, that is, his tendency to adopt the terms and parameters of a host-culture's metaphysics. An evening during which Kahn speaks of metaphysical concepts with an Indian audience leaves Doshi with the impression that Kahn has mystical insights.⁴²¹ Doshi writes that "Lou appeared to me a Yogin (Yogi) because of his Samadhi (heightened consciousness) to discover the value of the eternal — the Truth — the Atman — the soul".⁴²² To his Indian audience Kahn is able to portray himself as the epitome of Indian spiritualism.

From an impartial standpoint it could be claimed that Kahn simply tailors his metaphysics to whichever culture he addresses. In the eyes of his family, Kahn appears to retain his traditional Jewish values. According to his daughter, Alexandra Tyng, Kahn's formative years were influenced by the spiritual virtues of his Jewish

family and his nephew Alan believes that Kahn's religious outlook remains specifically Jewish, echoing his parents' Jewish values rather than any "mysterious mystical bent".⁴²³

The impression which Kahn leaves Rivera and Doshi, as well as many others who knew him personally, suggests that he presents himself as a person with mystical insights. His mystical persona is the basis of his supposed ability to perceive intangible "forms" which can barely be described, much less validated empirically. Hence Kahn realises "forms" in a heightened state, when his feelings are raised to the level of religion, and his thoughts are raised to the level of philosophy. Kahn's process of "form" realisation appears to stand on a mystical foundation. A position which Talbot Hamlin supports with regards to other Platonic design theories seems particularly relevant at this stage. Hamlin argues that with their emphasis on transcendent sources, Platonic design theories lead almost inevitably, into mysticism and metaphysics.⁴²⁴

The previous discussion has highlighted ways in which Kahn's theory as outlined in "Form and Design", like Plato's philosophy as outlined in *The Republic*, is sceptical of empirical observation, relying more heavily on deductions based on assumptions. Acting as a rationalist, Kahn appears to believe in innate knowledge. Consistent with such a Platonic position, Kahn holds that "forms" are discovered, rather than invented or conceived. Conscious of how his epistemological stance would be received by empiricists, Kahn emphasises the role of belief in his thinking and he refuses to validate his assumptions empirically, lest the metaphysical status of his assumptions be diminished.

According to this interpretation of Kahn's text, "forms" can be realised by a process which is comparable to the dialectical method used by Plato in *The Republic*, whereby wrong assumptions are shown to be internally inconsistent, while right assumptions survive their respective inquisitions. Another means by which Kahn's "forms" can be realised involves a heightened state of consciousness, when feeling is raised to the level of religion and thought is raised to the level of

philosophy. Such a process relies to some degree on an architect's mystical insight, as ultimately, Socrates' deductions also rely on a degree of mystical insight. What cannot be claimed, is that Kahn views his mystical discoveries of "forms" as recollections derived from his soul's prior incarnation in a realm of "forms". Yet this deviation from Plato's metaphysics should be viewed as a minor one, since, although the doctrine of recollection is not discarded after *Meno*, neither is it specifically mentioned in *The Republic*.

Chapter Summary

Certain factors have been considered in this chapter which may have predisposed Kahn towards a Platonic position, including his apparent desire to be successful in a predominantly Christian culture (with latently Platonic metaphysics), and his desire to be associated with modern artists, many of whom, during the 1950s, espoused a latently Platonic interest in making manifest that which is immaterial. However, an architect's milieu may be saturated with such influences, while their theory contradicts key aspects of Plato's metaphysics. Conversely, an architectural theory may comply perfectly with Plato's system, despite its author having no exposure to Platonism whatsoever. In communications with the current author, Kahn's former associate Marshall Meyers has no recollection of Kahn mentioning or reading Plato. Rather, Meyers suggests that similarities between Kahn's and Plato's philosophies may simply be a case of great minds thinking alike.⁴²⁵ Within the context of this study, the congruencies which have been identified between "Form and Design" and *The Republic* are ultimately more important than any factors which may or may not have predisposed Kahn towards a Platonic world view.

At the end of this chapter about the metaphysical status of Kahn's "forms", it needs to be remembered that any apparent conclusions reached thus far need to be viewed in the light of an earlier claim, that "Form and Design" is an evocative text.

It is not so much a manifesto, as Kahn's presentation of his own philosophical reflections of the time. Within the text itself, is an admission by Kahn that "[a]s I write alone in my office, I feel differently about the very same things that I talked about only a few days ago to many at Yale".⁴²⁶ That Kahn's own resolve about the transcendent nature of "forms" is inclined to waiver, even during the early 1960s when his "form and design" thesis was at the forefront of his thinking, is evidenced by a statement made in 1961, in which Kahn replaces "form" with the expression "our rules", and he refers to the physical restraints stemming from the physical world as "nature's laws". In the following quotation, Kahn gives precedence to nature's empirical laws over human desires.

There is a distinction between nature's laws and our rules. We work by rules, but we employ nature's laws to make something [...]. The rule is made to be changed, but nature cannot change its laws. If it did there would be no Order whatsoever. There would be what we think is chaos. The laws of nature tell us that the colour, the weight, the position of the pebble on the beach are undeniable. The pebble is placed there non-consciously by the interplay of the laws of nature. A rule is a conscious act needing circumstances to prove its validity or its need for change.⁴²⁷

In this instance, that which is terrestrial, "nature's laws", precedes and governs that which belongs to human reason, namely "our rules". Here, "rule", the term replacing "form", is validated by circumstances. Whereas Kahn had given precedence to his own preconceptions with the previous expressions "form and design" and "form evokes function",⁴²⁸ within two years he seems to be inverting that which stands at the heart of his design philosophy. In a sense, his "Law and Rule" theory represents a return to his "Nature of space, Order, Design"⁴²⁹ theory, where the leading term, "Nature of space", representing an architect's own desires, is vested with little significance, but rather "Order", the equivalent of "nature's laws", is pre-eminent.

Despite this kind of anomaly, there are many more occasions throughout his lecturing career in which Kahn continues to use the terms "form" and "design" in the manner canonised in "Form and Design". As late as 1973 Kahn writes that

“[f]orm has no shape or dimensions. Form what. Design how”.⁴³⁰ In an interview in the same year Kahn speaks in his usual manner of “design from form”⁴³¹ being a realisation. The concept of “form and design”, whereby a preconceived belief about the relationship between inseparable parts for any given building type precedes and has precedence over the terrestrial circumstances relating to any particular manifestation of that building type, remains a key aspect of Kahn’s design theory from 1960 onwards.

“Form and Design” advances “forms” as transcendent and autonomous entities, *beheld* by individual’s minds. In that article and most of his statements of the time, Kahn does not treat “forms” as constructs of his own imagination and he leaves little doubt as to the metaphysical status of his generative ideas. Through incantations towards divinity and by emulating Plato’s dividing line illustration, Kahn suggests that his generative ideas, which he calls “forms”, are of a transcendent realm which is metaphysically removed from the phenomenal realm of everyday experience. In this respect, his theory closely resembles the metaphysics of *The Republic*.

To some extent, Kahn’s experience with the building committee in Rochester explains why his “forms” need to be transcendent. The notion of a quasi-Platonic “form”, having no shape, allows Kahn to cling to the rudimentary aspects of his preconception. However, it is unlikely that Kahn’s espousal of apparently Platonic sentiments was simply a cynical ploy on his part adopted solely for the sake of assimilation into a culture dominated by Christians. It is more likely that Platonic notions appealed to him on multiple levels.⁴³²