

	Ten Thoughts on Architecture
	John Huffman McLeod
	Thesis submitted to the faculty of Virginia Polytechnic Institute and State University in partial fulfillment of the requirements for the degree of <i>Master of Architecture</i> .
Debert I Dones Of	
Robert J. Dunay, Chair:	
Joseph L. Mashburn:	
V. Hunter Pittman:	
Pia Sarpaneva:	



In the face of technological developments, economic demands, and cultural desires that can encourage buildings devoid of character and permanence, we need to look for attributes of architecture that evoke strength and elude the undulations of time.

- v. Abstract
- vii. Contents
- 3. Introduction
- 7. Origin
- 13. Ten Thoughts
- 93. Notes
- 97. Image Credits
- 101. Sources

Note: This is an electronic copy of an originial document. The quality of the graphics may fall short of the hard copy. The original document may be found in the Art and Architecture Library at Virginia Polytechnic Institute and State University, Blacksburg, Virginia.

Juhani Pallasmaa asks, "Why do so very few modern buildings appeal to our feelings, when almost any anonymous house...or the most unpretentious farm outbuilding gives us a sense of familiarity and pleasure?" This question implies some inherent difference between 'modern' and 'traditional' architecture. It is not coincidental that architecture, and many other aspects of our culture, tend to get divided into these two categories. There exists, in fact, a discernible point in history where this fracture appeared. Marcus Borg, a contemporary theologian, explains that "the Enlightenment is the 'great divide' in Western intellectual history that separates the modern period from all that went before it." Likewise, Vincent Scully, Jr. conveys the same notion relative to the specific context of architecture:

Modern architecture is a product of Western civilization. It began to take shape during the later eighteenth century, with the democratic and industrial revolutions that formed the modern age.³

Borg states further that "[t]he modern worldview, derived from the Enlightenment, sees reality in material terms, as constituted by the world of matter and energy within the space-time continuum." Similarly, in his essay "Six Themes for the Next Millenium," Pallasmaa echoes this stance almost to the point of paraphrase:

The central theme in the Modernist architectural theory was the representation of the space-time continuum. Architecture was seen as a representation of the worldview and an expression of the space-time structure of the physical and experiential reality.⁵



outbuilding, Montgomery County, Virginia

So it becomes clear that a historical distinction between 'modern' and 'traditional' holds water. One may even say more specifically that the Industrial Revolution, with its introduction of mass production and modern materials, dehumanized our culture in many respects, and, in terms of architecture, enabled us to build in ways that lack humanness. However, the answer to the enigma of why so few modern buildings appeal to our feelings lies not so much in the distinction between traditional versus modern, as it does, simply, in the nature of architecture itself.

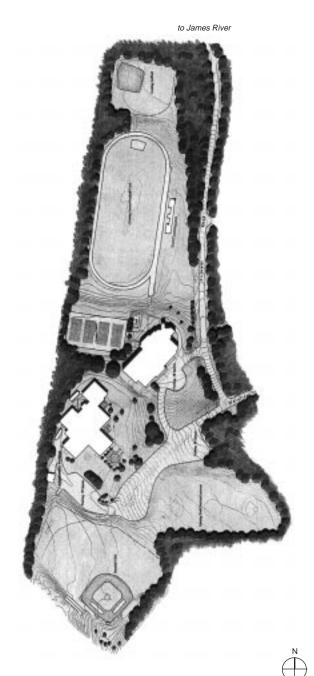
Architecture has existed across time. Le Corbusier's Ronchamp *is* architecture every bit as much as Chartres Cathedral is. Works of architecture, regardless of their era, 'belong to Architecture,' as Louis Kahn would say,⁶ rather than to a particular time or style. They embody qualities that exist before, beneath, behind, beyond time. Therefore, while it may be true that fewer buildings of the modern period seem to 'belong to Architecture,' the real question becomes 'What are the qualities of architecture that endure?' or, simply, 'What is architecture?'



Le Corbusier, Notre Dame du Haut Ronchamp, France

The project presented in this book generated the ten thoughts about architecture that follow. The image of the project at the beginning of each 'Thought' provided a starting point for the ideas explored within that section. In some cases, the Thought offers reflection on an architectural aspect that comes through fairly clearly in the work; in others, the project itself offered a glimmer of the idea, but falls short of actually achieving it architecturally. Regardless, the work provided an inroad to the realm of architecture, and this book focuses on taking the step into that larger context.

Trinity Episcopal School Richmond, Virginia



theater and gymnasium

classroom and administration building

existing conditions

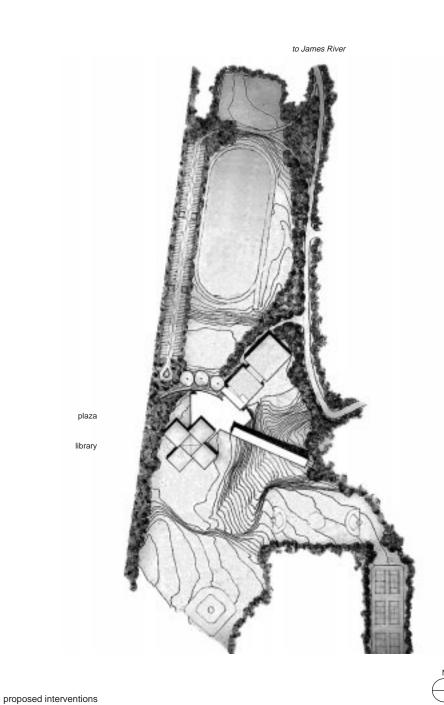


existing buildings, from the southeast

The project proposes a new library for a small high school in Richmond, Virginia. The school is young and its modest existing facilities indicate the hurried and financially lean conditions under which it came into being; however, a palpable spirit pervades the place. In the absence of staunch physical symbols to define the institution and those who participate in it, the aura of the community itself emerges instead to craft the identity of the school. Further, the spartan existing structures sit juxtaposed to expanses of open space which meet the sky in long, low horizons of deeply wooded edges. The James River, a quarter of a mile to the north, exerts a subtle but keen influence on the campus as well. In short, the context is ripe for an act that brings physical expression to the essence of the place. It is ripe, that is, for architecture.



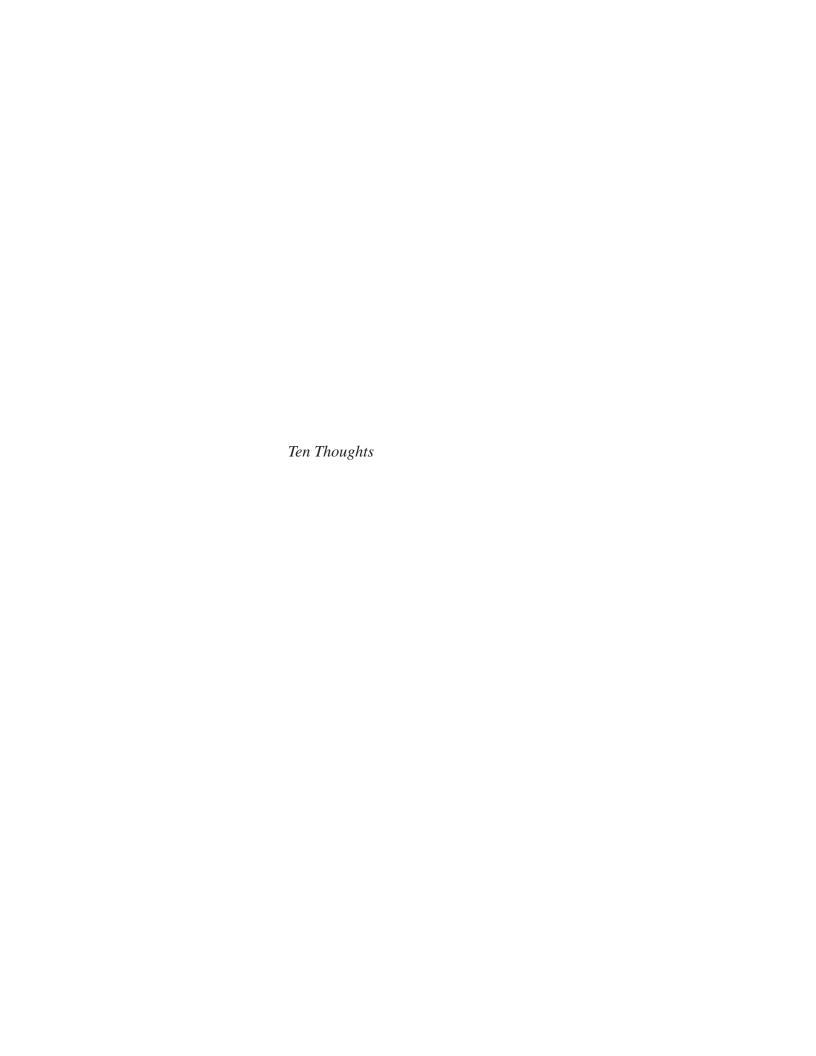
James River, Richmond, Virginia

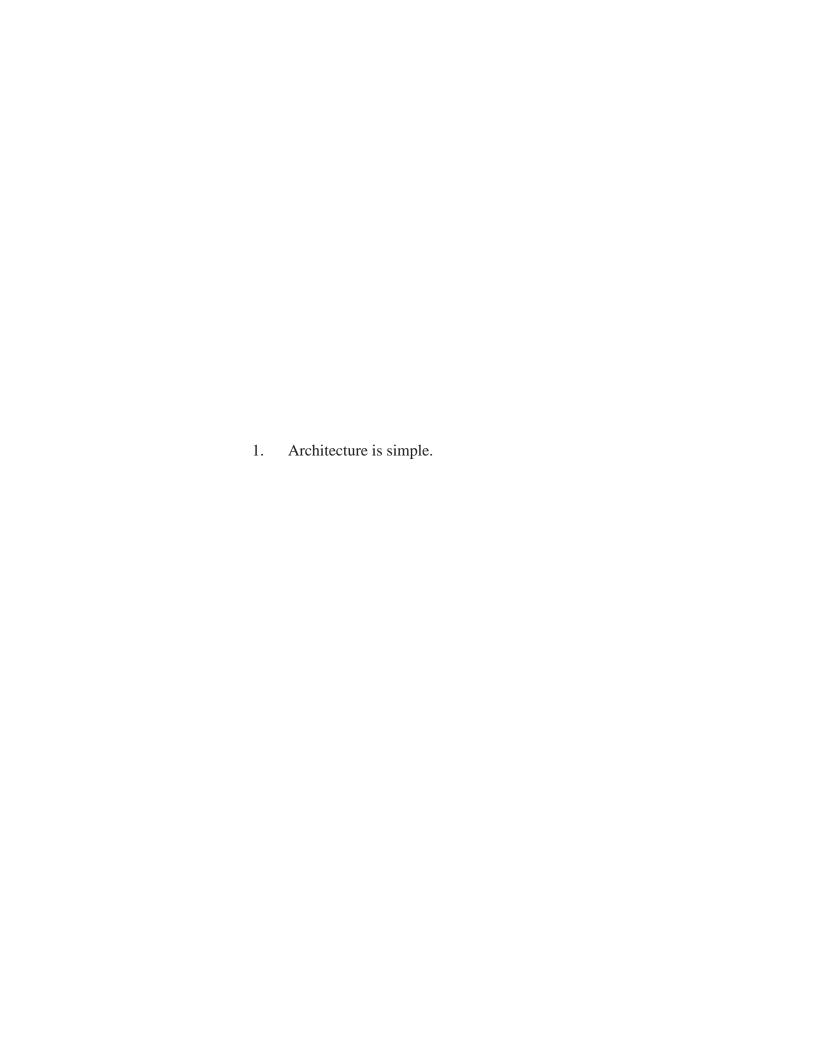


Two gestures harness the essence of the site and re-present it in a clear, ordered statement. First, the library element becomes a linear form that reaches from the center of the campus toward the wooded periphery to the east; second, a plaza inlaid at this center receives the energy flowing from the river and the campus entrance to the north, and then disseminates it through the library and the two existing structures gathered round the plaza like three parties in dialogue around a table. Together these elements of intervention make a rational, intelligible composition of the site while absorbing and reflecting the inherent nature of the place.

In the process of finding 'solutions' to the specific conditions posed by the project, however, this undertaking ultimately illuminated fundamental questions about architecture itself. And in time, those questions revealed themselves to be the same question, only in different guises: namely, "What is architecture?" Perhaps this question haunts all projects and their designers. To answer it seems to be the hardest thing of all to do in architecture, but in trying to do so we begin to find the way into the realm of that which escapes measure and eludes time.









Architecture is simple. Not simplistic, or easy, but simple. It may actually be complex in origin,⁷ but ultimately it is simple in the sense of 'inevitable'...as if it always were.

It seems that too often--especially, perhaps in academia--we try to make architecture more convoluted than it really wants to be. We try to reinvent architecture. Is this because we feel the need to justify or legitimize our field--reinforce it against the compacting forces of engineering and development that sometimes seem to all but squeeze out architecture in our society? There is a sense of urgency in some of the architectural theory and writing of today: architecture is adrift and we must rescue it soon. But is the answer to retreat up another flight in the proverbial 'ivory tower'? Should it not be to design and build well?

And building well does not necessarily mean building perfectly. It means making something so graspable and so true that it could not be any other way. That may appear with the pure, clear lines of a Shaker box, or it may occur in the crude, brutal concrete of La Tourette. Regardless, architecture is not another clever twist in an ephemeral debate, nor is it another theory, one degree more veiled and cryptic--it is space and light and material in an honest, simple composition that, by its very being, stirs up something in our souls.



Shaker oval box



Tadao Ando, Sumiyoshi row house Osaka, Japan



Luis Barragán, Barragán house Tacubaya, Mexico City

We love an old barn because it is simple. Never mind the complexity of the physics underlying its structure, the ecological history behind its timber frame and wood sheathing, or the chemical processes that generated its metal roof--its essence is simple. It expresses clarity and purity while accommodating the elegant imperfections of the materials and the hands that put them together. It works. Like the Shaker box, it embodies the Greek notion of 'neither more nor less than what is due'. In Eastern thought, the concept of P'u--literally, "tree in a thicket"--connotes this 'original simplicity' that seems to underlie truly simple works. A poem, for example, whether an eighteenth-century Eastern haiku or twentieth-century lines penned in the West, can elicit a potent understanding despite a spartan palette.

Deep in the temple.

The sounds of bamboo cutting:
Cold evening shower.

Kuroyanagi Shoha (d. 1771)⁸

THE RED WHEELBARROW

so much depends upon

a red wheel barrow

glazed with rain water

beside the white chickens.

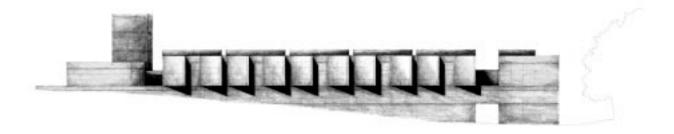
William Carlos Williams 1923⁹

Louis Kahn said of the poet:

As he travels towards the measurable, he almost disdains to write a word. Although he desires not to say anything and still convey his poetry, at the last moment he must succumb to the word after all. But he has traveled a great distance before he uses any of the means, and when he does, it is just a smidgen and it is enough.¹⁰

When we refine and distill and rework until we can say what we have to say with "just a smidgen," then we can make lucid, simple architecture that is worthy of the great cathedrals of the Middle Ages or the honest sheds of the Shenandoah Valley.







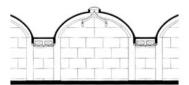
Architecture is material in two senses. First, whether a work ultimately gets built or not, architecture is necessarily bound up in questions of the materials with which it will be constructed. These materials convey ideas about everything from weather to cultural values. Architecture is also material in the sense that it is fundamental--it has to do with the essence of a thing. This essence finds expression through form; materials enable form to take on physical presence.

It seems appropriate for the materials and the form--the 'language'--of an architect's work to vary with the scale and the context of each project. We do not necessarily need to approach each design situation with the exact same set of ideas or arsenal of parts. For example, a house or shelter represents one of the earliest and most fundamental building types to embody an institution of humanity, yet dwelling is perhaps the most intimate and personal of our customs; therefore, the structure that embodies it remains closely tied to the history, the people, the time, the way of life, and the materials of the specific land upon which it stands. Conversely, a public, civic institution such as a museum or a library or a government building belongs more to society and to civilization as a whole and caretakes the endeavors and offerings and artifacts that we value collectively; as a result, it accommodates a more monumental expression.

The sphere of influence of the institution determines the context and the scale, which in turn suggest the language. The house may be a large house and the library a puny collection in a rural township, but the house's sphere of influence encompasses an immediate collection of individuals, perhaps a family and a few neighbors, while the library's extends to all of society, because the resources and ideas within belong to humanity. Thus, every building necessarily germinates from a specific site, but as its sphere of influence broadens, its implications likewise extend further and a larger context influences its form and materials.

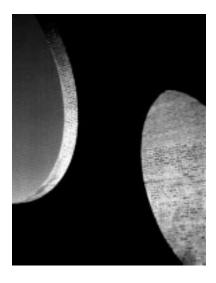


sauna/cottage, Otava, Finland



Louis Kahn, section, Kimbell Art Museum Fort Worth, Texas

Neither form nor material can evolve to fruition without the other. Form and material interrogate one another from the beginning and nurture one another into being. In this way, Louis Kahn can ask brick 'what it wants to be', to which, he assures us, brick responds "I like an arch." Likewise, Kahn could carry with him for years a notion about a space in which to view artwork, and when the opportunity arose in Fort Worth, Texas, he employed the material that could realize his formal idea. Post-tensioned, reinforced concrete enabled him to achieve the barrel-vaulted ceiling with a slot of light traversing its spine that he envisioned; the element becomes two 'beams' that arch towards one another but do not quite touch. So in the end, a third thing emerges from the banter between form and material: the product of their intercourse, yet something more than simply the sum of their parts.



Louis Kahn, Indian Institute of Management Ahmedabad, India



Carlo Scarpa column detail, Olivetti showroom Piazza San Marco, Venice, Italy

Further, the materiality of architecture--both its materials and its form--should be 'transparent' and didactic. However, this criterion does not demand that all material be used in its most elementary or primitive expression. Stone, for example, need not be used strictly in compressive applications, where every span is achieved by way of the arch and every wall is monolithic; rather, it only asks that stone applied as a veneer or a skin reveal itself as such. Similarly, form certainly must not spring from a preconceived image of the way a thing 'ought to look'. Instead, form embodies a thought about the nature of that thing, whether it be a chair or a library. So while we would do well to heed Pallasmaa's reminder that "there is a tacit wisdom of architecture that has accumulated in history and tradition,"12 and while we should certainly embrace ideas from the past and build upon them, we absolutely must not mimic the past with flimsy symbols and cheap imitations. "A thing is better quite smooth than badly decorated" goes a Finnish proverb;13 likewise, it is far better to build honestly and sincerely with the sometimes cold or impersonal materials of our time, than to disgrace those materials by asking them to pretend to be something they are not. Unfortunately, we do not hesitate to wrap a light frame box with vinyl pressed into moulds of wood clapboards, and then stuff the whole thing with electrical conduit, heating and cooling equipment, and indoor plumbing, in an ironic attempt to recollect a romanticized (but more comfortable) notion of the past.

Instead, we need the courage and the confidence to recognize and respect the materials and the forms that have logically--even inevitably--evolved over time, but to integrate them with propositions that reflect our present situation. Architecture is a continuum, and a work takes its place along that continuum. At the very least a work should step to the front of the line, and occasionally it might even bend the continuum in a new direction.



storage shed Price's Fork, Virginia



Mashburn + Mashburn, Mashburn house Ellett Valley, Virginia

3.	Architecture is the right proportion of complements.



model from the southeast

As form and material engage one another in a search for architecture that is simple, they must find expression through a proportional and balanced arrangement of 'complements': dark and light, high and low, orthagonal and nonorthagonal, solid and void, sturdy and delicate, monumental and intimate. The juxtaposition of these qualities heightens our understanding of each of them, and thereby makes our experience of the architecture more rich. We know black more fully when it stands next to white. Further, just as swatches of complementary colors placed side-by-side create a seam that vibrates with visual energy, the thresholds between these architectural dualities likewise become potent.

We find these fertile 'in-between spaces' in almost every aspect of life, as a matter of fact. Tom Horton notes in his book about the Chesapeake Bay that "it is common in nature to find exceptional richness and diversity of life where two different natural regimes, like field and forest, or land and water, form an edge."14 The Japanese concept of Ma describes "a place or presence that lies cradled in the gap between two attributes...or presences."15 The composer Claude Débussy goes so far as to say that 'music is the space between the notes.' 16 But it is important to recognize that the 'music' emerges from the composition of the notes themselves. Just as the composer combines different tones to achieve melody, harmony, or even dissonance, or the artist manipulates diverse qualities of color to evoke an interpretation, or the poet plays a variety of sounds and rhythms off of one another to present a particular subject, much of our design work becomes an experimentation with proportions and arrangements of different elements, particularly those that counter and balance one another. Louis Kahn explains, "[w]hen I choose an order of structure that calls for column alongside of column, it presents a rhythm of no light, light, no light, light, no light, light."17 Much of this search for proportion of complements tends to follow a fine line between harmony and cacophony, between order and confusion, between balance and disarray. Oftentimes we call that line 'tension'.

high and low curved and straight light and dark



Tadao Ando, Tea House Osaka, Japan

...the beauty of a Japanese room depends on a variation of shadows, heavy shadows against light shadows...it has nothing else.

Jun'ichiro Tanizaki $In'ei\ Raisan$ (In Praise of Shadows) 18

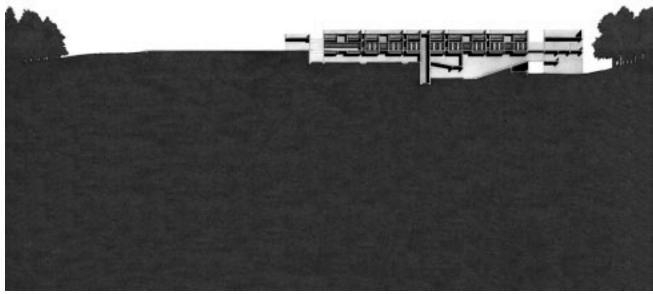
Tension, then, becomes the vibration or the 'music' that emanates from the realm between complementary elements poised in proportion. Dimitris Pikionis says, for example, that "[i]n breaking up lifeless rectilinearity with the 'tension' of the curve, delicately and judiciously balanced, art carries and embodies in its works the plasticity of nature." In other words, the tension of the curve is the thing that injects energy and life into an otherwise stagnant or 'two-dimensional' world. It is nothing about the curve itself that does it--instead, the contrast between the curvature and the rectilinear language charges and activates the composition and its experiential qualities. This potency that hovers between the juxtaposed elements--the richness of the dichotomy itself, rather than the objects opposite one another--is what Débussy is talking about when he claims that music resides between the notes. And here we may experience architecture most profoundly as well, in the subtle seam between light and dark or high and low, where we most strongly sense the meaning of the work and see its depth and understand its being. In the warm slant of sunlight through a cool shadowed space, or dry under the low eave of a porch in the rain, we come to know a building.





Louis Kahn Library Phillip's Exeter Exeter, NH





longitudinal section



Carlo Scarpa, entrance bridge Fondazione Querini Stampalia Venice, Italy

A joint brings two realms together. Those realms, and consequently the joint, may vary in scale from a construction detail to the horizon between the earth and the sky. Further, a joint may be a literal, physical connection--a "material joint," as Marco Frascari calls it--or an experiential, perceptual, conceptual threshold--a "formal" joint.²⁰

We find the elements of joining and transition in the swallowtail connection of a Shaker box, in Carlo Scarpa's bridge at the Fondazione Querini Stampalia in Venice, in the porch of an Appalachian farmhouse, at the Parthenon, which "rises out of the rock," as Dimitris Pikionis describes it. He explains further that "the first step of its stylobate is hewn directly into the rock. This is how the 'passage' from nature into art is effected." In each of these cases, the joint becomes a microcosm of the architecture, much as a Zen garden aims to capture and reflect the order and the harmony of the cosmos: the spirit of the whole is bound up in the part.



storage shed Montgomery County, Virginia



Aarno Ruusuvuori, sauna Bokars, Finland

Just as a joint connects elements, so too does architecture mediate between things--between the natural world of sailing clouds and crawling shadows, and the bustling buzz of our daily lives; between the past and the present, in that it endures and spans time; between the pragmatic and functional, and the aesthetic and spiritual. In short, architecture mediates between the "measurable" and the "immeasurable."

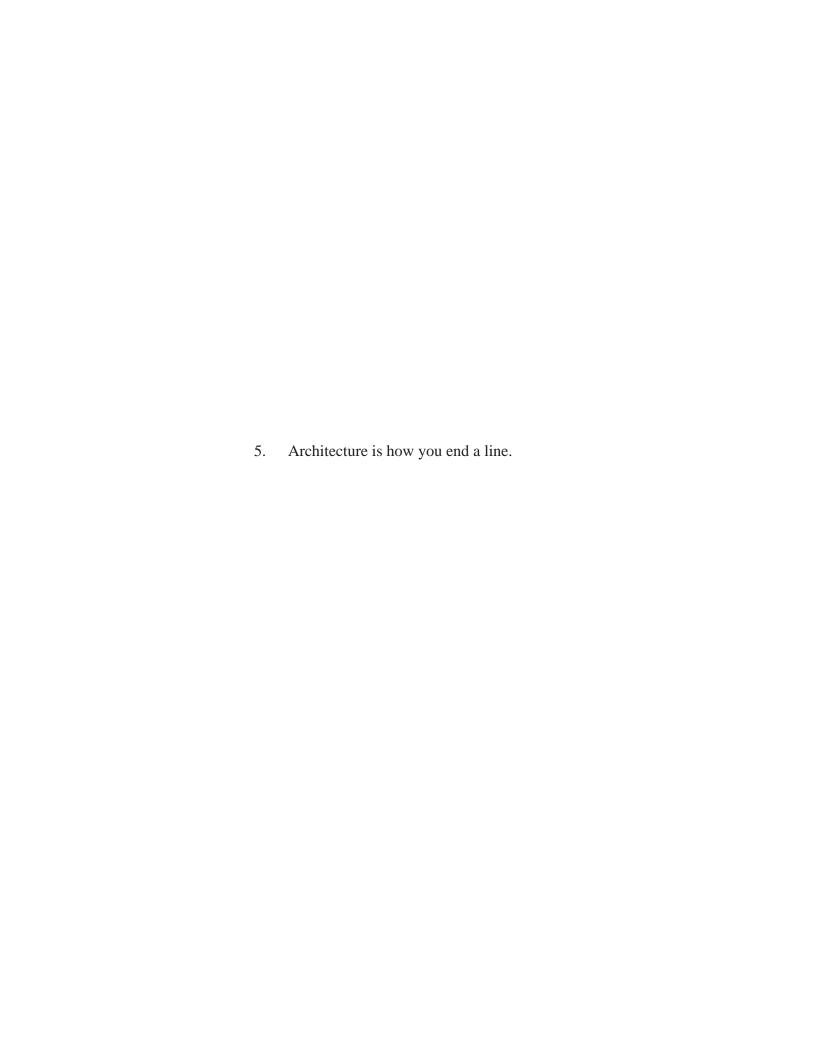
Tadao Ando observes:

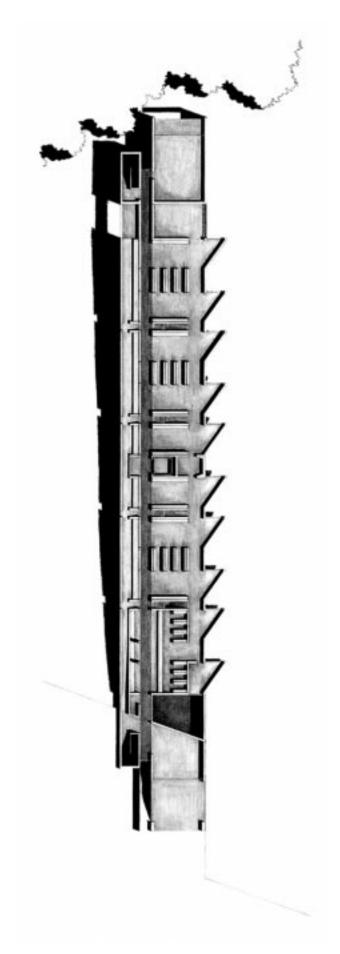
within [Japanese architecture], there is gentleness in the meeting of parts, in the merging of orchestrated views, and the transition between inside and outside flows. The resulting space attains the fineness of silk cloth.²³

All architecture, regardless of cultural origin or designation, includes the need to make physical connections between material elements--a necessity that carries with it the benefit of rich opportunity for design. Further, it may also join broader entities such as indoors and out, public and private, manmade and natural. But in addition, a work of architecture bears the capacity to become a conduit between the more material, physical dimension of the world and the less tangible but potentially palpable universal realm. It becomes a funnel through which time and light and even the timeless and the infinite may enter our ordinary lives. While the material joint can be perceived by the mind, we experience this "formal" connection through our souls.



Aurelio Galfetti, ground surfaces Castelgrande Bellinzona, Switzerland





plan main level

In design, regardless of the ultimate shape of a thing, its form will always be 'linear' to some extent, because we grasp and understand its meaning in a narrative way. Whether exploring an object with our eyes, or entering and moving through a building, the experience is one of embarking and seeking out. There is necessarily a point of beginning to this process, but is there really a conclusion? Even though the poem 'ends' or the building has no more rooms to offer, does the experience not continue? The poet's words now belong to us and bounce around within us; we arrive at the top or the end of the building, but there we peer out over the rooftops or capture an elusive horizon. Perhaps it is here that the experience really begins. In that case, how do we 'end a line'? The question becomes both literal and metaphorical.

A line of any scale or form is really another sort of joint--a threshold between one 'place' and another. A literal line is the fundamental component of architecture, just as the word generates the poem. Beginning with how we draw a line on the page, we start to give direction to the line, to make it a vector, and thereby give significance to what lies at either end. Further, the way we order and compose the linear progression of spaces within a work of architecture likewise structures the experience of the work. Even in a literally linear building, the effect is one thing moving in one direction and something else moving in the other, for even if the building were perfectly symmetrical, the variations in natural light, the changes in views, and the subtle differences of sounds, smells, and 'moods' would distinguish one path from the other. So we can say that architecture always involves some aspect of progression or narration, regardless of the geometric configuration of the work.

The notion of progressing or moving continually forward from a beginning point is bound up in our culture and in our being. One of our prevailing questions remains 'What happens to us next?' We have a theory of the universe that places all matter at a specific starting point within time and space, but it moves farther and farther from that point, towards the infinite. We see cyclical, regenerative processes in nature, and some cultures attribute these reincarnations to the human life cycle as well. Our religions talk of things like the Judeo-Christian notions of "In the beginning" but a "world without end," or Lao Tzu's statement that "The Tao begot one. One begot two. Two begot three. And three begot the ten thousand things." Apparently we are biased in favor of a continuous unfolding from a beginning, a spilling forth towards a limitless unknown. We see life like the "outbranching image of a Japanese garden, where an underlying primal root informs an infinite whole."







Mario Botta, middle school Morbio Inferiore, Switzerland

T. S. Eliot began his quartet "East Coker" by stating, "In my beginning is my end"; the last stanza concludes "In my end is my beginning." Rainer Maria Rilke wrote, "...everything that happens keeps on being a beginning...beginning is in itself always so beautiful." Louis Kahn stated, "Of all things, I honor beginnings," and told us that "Everything turns into itself, you know. There is no sort of ending." Even the less lofty laureate, Winnie the Pooh, once observed, "The more it snows/The more it goes,/The more it goes/On snowing." Likewise, architecture becomes a line of progression, a matter of moving forth--sometimes literally, but always experientially--from the first stroke of ink on the paper to the linear, narrative understanding of the built work itself.

So how do we end a line? The ancient Greeks held a notion of a boundary as a place of beginning rather than an end. Likewise, we "end a line" by making a place of beginning.

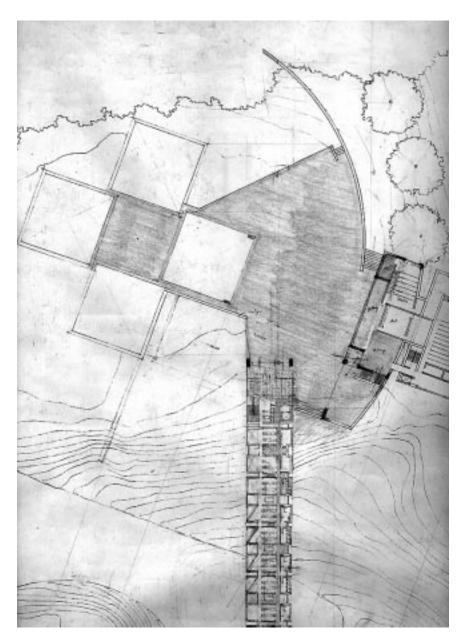


Louis Kahn, Salk Institute La Jolla, California





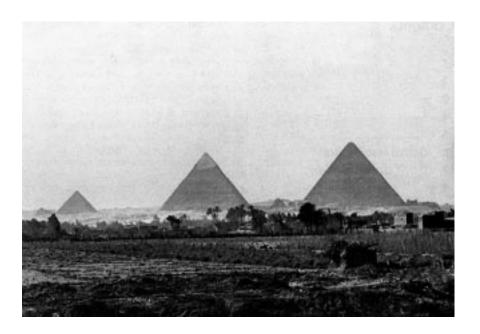
site survey



Architecture is laden with the capacity to render the ordinary extraordinary. Like poetry, architecture harnesses common elements and passes them through a crucible of sorts, in which it wrenches, moulds, forms, sculpts, kneads the mundane into the singular. As the poem presents us with a salt shaker or an old suitcase or a woodpile in a way that we may not have considered, so too does architecture extrude the acquaintances of our everyday lives--sun, food, time, sleep--through a scrim that re-presents them and can cause us to pause and contemplate these markers in the landscape of our day-to-day existence. Architecture asks us to look again at the things that we may have dismissed as commonplace and to see the remarkable in them. In truth, even the most noteworthy architecture probably cannot rival the elegance and strength of something so 'ordinary' as a tree or a puddle of rainwater. However, architecture can ennoble our fundamental experience of the world by reacquainting us with such familiar faces and by artfully infusing our daily lives with their inherent simplicity. In this sense, architecture goes beyond merely introducing the realms of the ordinary and the extraordinary to one another: it prods the ordinary across the threshold of the extraordinary, and knits them together for a bit.



Ryoan-ji, Kyoto City, Japan



Giza, Egypt, third century BC

In his well-known essay "Replacement", W. G. Clark describes a mill he knew as a child:

It was not a building simply imposed on a place; it became the place, and thereby derived its being, an elegant offering paid for the use of a stream.³³

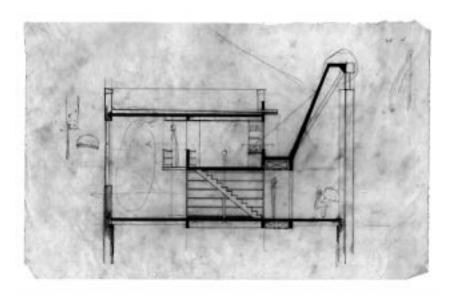
The mill of Clark's childhood "became the place" by re-presenting the place. The original site became so much more for the addition of the mill that it came to be defined by the presence of the mill. Sometimes simply the poetry of a thing itself within the landscape can define an altogether new place, other times it might be a new way in which an intervention perceives and presents the existing. In either case, we come to see the place in a new way--differently, more clearly, with a better understanding. We come to know it. And when this transformation or offering anew occurs, it can no longer be any other way. It is almost as if the dormant power of the place has finally been tapped and the latent truth has finally been evoked...although, like so many things, we probably never noticed the absence until it was 'replaced' by the extraordinary.

As idyllic as an unspoiled site may be, architecture can make it better. In short, architecture becomes 'Architecture' when it can be said that it is better than not architecture.



summer kitchen, eastern Pennsylvania







Como, Italy

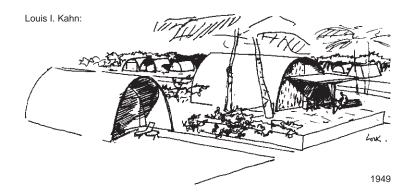
While architecture may be extraordinary, it can also be 'ugly'. Ugly is not the same as poor: ugly still has character. It teaches us something. Strip malls are not ugly, for example, they just tend to be badly done. Architecture can be ugly like a newborn is 'ugly'--it may be bruised and discolored, yet filled with potential and radiant with life. Further, the "crude," "awkward," "harsh," or "dumb" of ugly can also be brutally true, and therefore *beautiful*. And beautiful is not the opposite of ugly, but the opposite of false.

Sometimes the process of making architecture generates stuff which we can barely look at--if we did not recognize it as part of the work, it could cause us to cringe or it could cripple us with embarassment. Yet we know that the idea is more powerful than the first feeble words that try to utter it. And at the end, a work still may 'fail', but if it contributes one shard of truth to our understanding of architecture, then perhaps it really succeeds.

Rilke tells the young poet:

Being an artist means...ripening like the tree which...stands confident in the storms of spring without the fear that after them may come no summer. It does come. But it comes only to the patient...be patient toward all that is unresolved in your heart and try to love the questions themselves....³⁴

And so, though architecture can be terribly frustrating--plodding through an ugly muck of questions, doubt, perhaps even despair--the stumbling about and the searching are an inherent part of the process...and like all things, make the end worthwhile. Kahn reminds us that "there are miserable moments that you've got to live through, but really, joy will prevail."³⁵



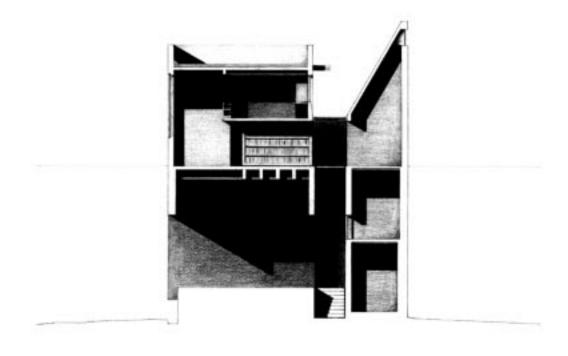
Getting there is half the fun!

George O. Squires, teacher³⁶

1966-1972









Le Corbusier, Notre Dame du Haut Ronchamp, France

You could almost say that light is the first thing to which architecture is responsible, because if architecture praises light and honors light and seeks light, it will satisfy our souls as well. Light is what remains when you take away all that we have added. It preceded us and all of this, and when we pause for a minute and be still and shut out the distractions and distortions of our life, we see that light is there, as it always has been, burning silently on.

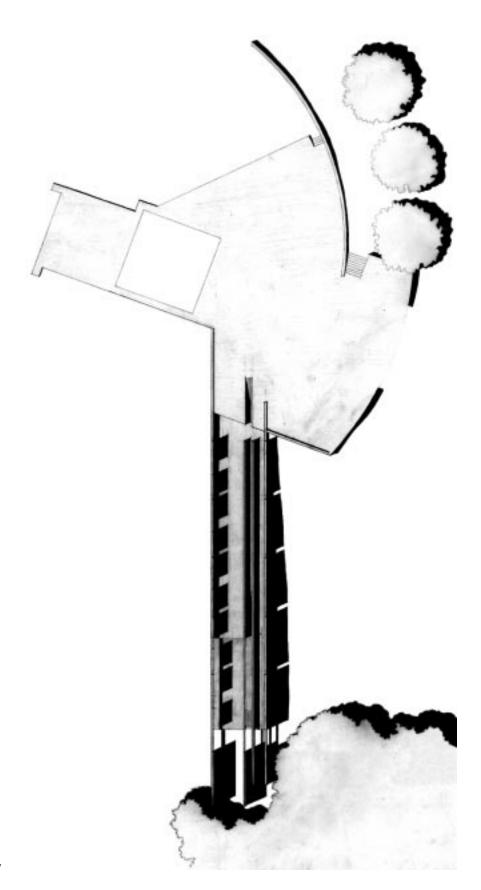


Tadao Ando, Horiuchi house Osaka, Japan

Architecture recognizes this about light and tries to respond to it. Architecture proposes to borrow a bit of the ceaseless flow of light and escort it into a forum where it may explore its myriad qualities. Even on a dreary, rainy day there is a tremendous amount of light, just a different kind; and even a shadow is really just less light. Light accepts the invitation and filters in, gets bounced around, reflected back, seeps under a door, slants around a corner. It reaches in and tickles the space inside, or perhaps it caresses it or snaps its fingers or holds up a halting hand or offers a beckoning one. Regardless, light ultimately realizes itself in architecture. It comes to fruition.

So we erect architecture as a *call to light*, like message-bearing smoke signals wafting up from behind a distant ridge or the surreal silhouettes of satellite dishes in a desert landscape, patiently searching the silence of space and waiting. And when light and architecture meet, light becomes a material, which architecture distills and sculpts and carves. Kahn talked of light as "a wild dance of flame that settles and spends itself into material."³⁷ But the light itself is material; it is perhaps the greatest of materials. It constructs form and composes space, without labor and without cost. And on these forms and in these spaces, we begin to see light as visible time. And as Dimitris Pikionis says, "the soul meditates upon the hours, upon the angle of the sun's rays, the length of the shadows, the disposition of rain and drought, hot and cold, the configuration of the clouds."³⁸ And light nourishes the body, and bathes the mind, and "delights the soul."³⁹







collapsed house Montgomery County, Virginia

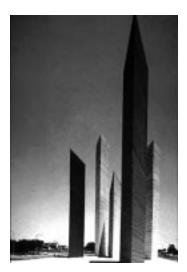
Architecture is spiritual in that it addresses our spirit. It calls to something in our souls. It satisfies some yearning or desire that we have, a thirst that we may not even realize exists before it is quenched. In short, it both guides us to and beckons to us from a place of 'otherness'.

The theologian Marcus Borg discusses the possibility of "seeing into another layer of reality"--a concept he first encountered in non-Western religions and cultural anthropology. He observes first the role of a universal spirit throughout eras and societies, whether addressed as God, the Great Spirit, the Tao, Allah, and also "spirit persons"--shaman, saviour, healer, rainmaker--who have "experiences of another level or dimension of reality." These figures share a "strong sense of there being more to reality than the tangible world of our ordinary experience," and they become mediators between the present and the universal. More important, "[t]heir experiences are noetic, involving not simply a feeling...but a knowing."⁴⁰

Likewise, architecture becomes spiritual when it offers a conduit between the ordinary and the extraordinary. For example, Japanese architecture employs a method called oku, "whereby a series of auspicious sites may be conceptually linked over great distances," as Kenneth Frampton describes it.41 This technique is similar to the strategy in Zen gardens of 'borrowing views', where a physically finite space may escape the clutches of its own limits and establish a communion with that which lies beyond, literally or metaphorically. Both procedures call on the idea of surpassing the physical limitations of a place by tapping the cadences of another realm. In other words, architecture can metamorphose our understanding of our world, and let us experience it in a clearer, fuller way. A work of architecture can enable us to pry apart the layers of the everyday and peer into a different dimension of reality. Here we find that which stimulates our souls and speaks to our spirits. But it is important to note that this is not an idea about fairytales or fantasies. It is not a foray into a dreamland of the unrealistic, but rather quite the opposite: it involves the exploration and the penetration of reality and its various manifestations.



vents Barcelona, Spain



Luis Barragán, towers Queretaro Highway, Mexico City, Mexico

So how do we pursue the spiritual? In his acceptance speech for the 1980 Pritzker Prize, Luis Barragán addressed the foundations that underpin his architecture: "religion and myth, beauty, inspiration, magic, serenity, silence, and intimacy."42 These are all hard words, naturally. They have to do with the spirituality of architecture. But we need to address them. We should not be afraid to discuss these ideas and to use these words in architecture. They are not quantifiable, provable, even defineable--it is a risk to use them and difficult to defend them--but they are what distinguishes architecture from simply building. Architecture and art are not just about reflecting the 'human condition' or expressing the 'human predicament', as some propose. We have enough reminders of the shortcomings of our world, we do not need one of the few venues for celebrating and ennobling the human spirit to take up the chore of lamenting the mundanity and monotony of our lives. Architecture is ultimately about the people who experience it, and about bringing some element or dimension of beauty and spirituality to their lives. Why should we shy away from words like "beauty"? Are we worried we cannot realize them? It is doubtful we can, fully, but we will certainly come closer by trying than by retreating. We have a responsibility to make architecture that inspires us and lifts up our spirits. You might say architecture is a psalm -- 'a sacred song or poem'--where the music is visible and the poetry is touchable.



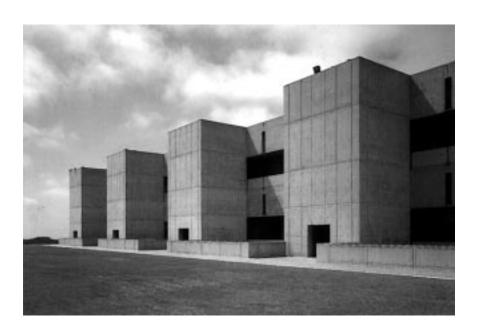


'the essentials'

In the end, all you can really say is that 'architecture is', to borrow some syntax from Louis Kahn.⁴³ It is so many things at once, and yet it is somehow more than all of them. You can try to say what it is, you can say ten things that it is, but you will never really catch it. It eludes our grasp, yet we can sense it. We know it when we see it.

Right now, however, there seems to be something missing in much of our architecture, a sort of void left by the rigid, proletarian ideals of Modernism and its peaked "International Style," the tongue-in-cheek, rib-nudging sarcasms of Post-Modernism, equally devoid of any dignity or humanity, and the mental and formal gymnastics of Deconstruction.... However, a number of architects have emerged from this century who have pushed architecture beyond these classifications. Kahn, Barragán, Le Corbusier, Scarpa, Pallasmaa, and others have retained the rational order of Modernism but reintroduced the heirarchical yet balanced arrangement of parts within the whole that we find in the natural world; they have embraced ideas from the past, as Post-Modernism claims to do, but have not cheapened those ideas through sly or frivolous mimicry; they have deconstructed architecture but put it back together in a way that expresses its tectonic logic, the materials of which it is made, and the mark of the tools that formed and joined them. In pushing architecture forward, they have come upon its origins and its essence.

It is tempting to invent a new '-ism' into which we can lump and contain these architects and their contributions. It is true that we need to marshal the forces of their ideas, but not under some convenient new moniker. We do not need any more -isms, eras, styles, or schools...rather, we simply need Architecture.



Louis Kahn, Salk Institute La Jolla, California



Luis Barragán, Fuente de los Amantes Mexico City, Mexico

- Pallasmaa, Juhani, "The Geometry of Feeling--A Look at the Phenomenology of Architecture", *Arkkitehti*, no. 3, Marja-Ritta Norri, ed., trans. Dianna C. Tullberg, Suomen Arkkitehtilitto--Finlands Arkitektförbund, Helsinki, 1985, p. 98.
- 2. Borg, Marcus J., Meeting Jesus Again for the First Time: The Historical Jesus and the Heart of Contemporary Faith, HarperCollins Publishers, New York, 1994, p. 45.
- 3. Scully, Vincent Jr., *Modern Architecture: The Architecture of Democracy*, rev. ed., George Braziller, New York, 1974, p. 10.
- 4. Borg, p. 33.
- 5. Pallasmaa, Juhani, "Six Themes for the Next Millenium", *Architectural Review*, vol. 196, no. 1169, Peter Davey, ed., London, 1994, p. 75.
- 6. This statement is a paraphrase of several different statements by Louis I. Kahn.
- 7. Dunay, Robert J., from a talk delivered at Virginia Polytechnic Institute and State University, Blacksburg, Virginia, March 24, 1997.
- 8. Bownas, Geoffrey and Thwaite, Anthony, *Penguin Book of Japanese Verse*, Penguin Books, Harmondsworth, 1964, p. 118.
- 9. McMichael, George, ed., *Anthology of American Literature*, 3d. ed., vol. II, Macmillan Publishing Co., New York, 1985, p. 1273.
- 10. Lobell, John, *Between Silence and Light*, Shambala Publications, Inc., Boston, 1985, p. 14.
- 11. Lobell, p. 40.
- 12. Pallasmaa, "Six Themes for the Next Millenium", p. 77.
- 13. Poole, Scott, *The New Finnish Architecture*, Rizzoli International Publications, Inc., New York, 1992, p. 29.
- 14. Horton, Tom, *Water's Way: Life Along the Chesapeake*, in association with the Chesapeake Bay Foundation, Elliott & Clark Publishing, Singapore, 1992, p. 22.
- 15. Futagawa, Yukio, ed., *G.A. Architect no. 8: Tadao Ando*, from the Introduction by Kenneth Frampton, A.D.A. Edita, Tokyo, 1987, p. 15.
- 16. This statement is traditionally attributed to Claude Débussy.
- 17. Lobell, p. 34.
- Tanizaki, Jun'ichiro, *In'ei Raisan* (In Praise of Shadows), trans. Thomas J.
 Harper and Edward G. Seidensticker, Leete's Island Books, New Haven, 1977,
 p. 18.

- 19. Pikionis, Dimitris, "A Sentimental Topography", *Dimitris Pikionis, Architect* 1887-1968: A Sentimental Topography, The Architectural Association, London, 1989, p. 94.
- 20. Frascari, Marco, "The Tell-the-Tale Detail", VIA, no. 7, 1984, p. 24.
- 21. Pikionis, p. 94.
- 22. Lobell, pp. 14, 20.
- 23. Ando, Tadao, *Tadao Ando*, St. Martin's Press, New York, 1990 or Furuyama, Masao, *Tadao Ando*, Artemis, Zurïch, 1993 (source unconfirmed).
- 24. *The Holy Bible*, Revised Standard Version, Thomas Nelson, Inc., Nashville, 1972, see Genesis I:1, John I:1.
- 25. See, for example, *The Book of Common Prayer*, HarperSanFrancisco, 1984.
- 26. Tzu, Lao, *Tao Te Ching*, trans. Gia-Fu-Feng and Jane English, Alfred A. Knopf, New York, 1972, from Lobell, p. 64.
- 27. source unkown
- 28. Eliot, T. S., "East Coker", *Four Quartets*, Harcourt Brace Jovanovich, Publishers, New York, 1943, pp. 23, 32.
- 29. Rilke, Rainer-Maria, *Letters to a Young Poet*, rev. ed., trans. M. D. Herter Norton, W. W. Norton & Co., New York, 1954, p. 49.
- 30. "1973: Brooklyn, New York", transcription of a talk given by Louis I. Kahn, from *Perspecta: The Yale Architectural Journal*, vol. 19.
- 31. Wurman, Richard Saul, *What Will Be Has Always Been: The Words of Louis I. Kahn*, Rizzoli International Publications, Inc., New York, 1986, p. 185.
- 32. Hoff, Benjamin, *The Tao of Pooh*, Penguin Books, New York, 1982, p. 134.
- 33. Clark, W. G., "Replacement", *Modulus 20*, The Architectural Journal of the University of Virginia, Princeton Architectural Press, New York, 1991, p. 3.
- 34. Rilke, pp. 30, 35.
- 35. "1973: Brooklyn, New York".
- 36. Squires, George Ocran, teacher, St. Christopher's School, Richmond, Virginia, 1953-1988.
- 37. Lobell, p. 20.
- 38. Pikionis, p. 68.
- 39. Pikionis, p. 68.

- 40. Borg, pp. 32-33.
- 41. Frampton, Kenneth, *Modern Architecture: A Critical History*, 3d. ed., Thames and Hudson, Ltd., London, 1992, pp. 341-42.
- 42. Bleecker, Isabelle and Monfried, Andrea E., eds., *Armando Salas Portugal Photographs of the Architecture of Luis Barragán*, Rizzoli International Publications, Inc., New York, 1992, p. 167.
- 43. Lobell, p. 18.

p. 3, outbuilding Author p. 5, Notre Dame du Haut Author Courtesy of Higgins Associates, Inc., Richmond, Virginia. Site data provided by p. 8, existing conditions E. D. Lewis & Associates, Richmond, Virginia. p. 9, existing buildings Author p. 9, James River Koichiro Aitani p. 10, proposed interventions Author. Site data provided by E. D. Lewis & Associates, Richmond, Virginia. p. 11, untitled Koichiro Aitani p. 17, north elevation Author Larkin, David, The Essential Book of Shaker: Discovering the Design, Funcp. 19, Shaker oval box tion, and Form, Universe Publishing, Rizzoli International Publications, Inc., New York, 1995, p. 46. Futugawa, Yukio, ed., G.A. Architect no. 8: Tadao Ando, A.D.A. Edita, Tokyo, p. 20, Sumiyoshi row house 1987, p. 40. p. 20, Barragán house Bleecker, Isabelle and Monfried, Andrea E., eds., Armando Salas Portugal Photographs of the Architecture of Luis Barragán, Rizzoli International Publications, Inc., New York, 1992, p. 60. p. 25, south elevation Author p. 27, sauna/cottage (2) New Finnish Architecture: Photographed by Jussi Tiainen, The Finnish Building Centre, Helsinki, 1996, pp. 60-61. Project by Woodstudio student team, Jaakko Keppo, team leader. p. 28, Kimbell Art Museum Johnson, Nell E., ed., Light is the Theme: Louis I. Kahn and the Kimbell Art Museum, Kimbell Art Foundation, Fort Worth, 1978, p. 31. Brownlee, David B. and De Long, David G., Louis I. Kahn: In the Realm of p. 28, Indian Institute of Management Architecture, published on the occasion of the exhibition "Louis I. Kahn: In the Realm of Architecture", organized by the Museum of Contemporary Art, Los Angeles, Rizzoli International Publications, Inc., New York, 1991, p. 224. Nakamura, Toshio, ed., Architecture + Urbanism, 1985 October Extra Edition: p. 29, Olivetti showroom Carlo Scarpa, a+u Publishing Co., Ltd., Tokyo, 1985, p. 91. p. 29, storage shed Author p. 29, Mashburn house Leo Touchet p. 33, *model* Author p. 36, tea house Futugawa, p. 223.

p. 37, *Library, Phillip's Exeter* Brownlee and De Long, pp. 261, 263. (2)

p. 41, longitudinal section Author

p. 43, entrance bridge Nakamura, p. 95.

p. 44, storage shed Author

p. 44, ground surfaces Author

p. 45, sauna Poole, Scott, The New Finnish Architecture, Rizzoli International Publications,

Inc., New York, 1992, p. 31.

p. 49, plan Author

p. 52, middle school (top) Author

p. 52, middle school Pizzi, Emilio, ed., Mario Botta: The Complete Works Volume 1 1960-1985,

(bottom left) Artemis, Zurich, 1993, p. 42.

p. 52, *middle school* Pizzi, p. 44. (bottom right)

p. 53, *Salk Institute* Brownlee and De Long, pp. 180-81.

p. 57, site survey E. D. Lewis & Associates, Richmond, Virginia

p. 57, ... replacing the ordinary Author

p. 60, Ryoan-ji Wright, Tom and Katsuhiko, Mizuno, Zen Gardens, Mitsumura Suiko Shoin Co.,

Ltd., Kyoto, 1990, cover.

p. 60, Giza Norberg-Schulz, Christian, Meaning in Western Architecture, Praeger Publish-

ers, New York, 1975, p. 9.

p. 61, summer kitchen Larkin, David, Farm: The Vernacular Tradition of Working Buildings, The

Monacelli Press, New York, 1995, p. 185.

p. 65, transverse section study Author

p. 67, Como, Italy Mostafavi, Mohsen and Leatherbarrow, David, On Weathering: The Life of

Buildings in Time, MIT Press, Cambridge, 1993, p. 33.

p. 67, 1949 Brownlee and De Long, p. 35. (Jewish Agency for Palestine Emergency Housing)

p. 67, 1966-1972 Johnson, p. 29. (Kimbell Art Museum, Fort Worth)

p. 71, transverse section Author

p. 73, Notre Dame du Haut Author

p. 74, Horiuchi house Futugawa, p. 83.

p. 79, plaza and foundation Author

study

p. 81, collapsed house Author

p. 82, vents Author

p. 83, towers Bleecker and Monfried, p. 99.

p. 87, 'the essentials' Author

p. 90, Salk Institute Brownlee and De Long, p. 189.

p. 91, Fuente de los Amantes Bleecker and Monfried, p. 124.

Ando, Tadao, Tadao Ando, St. Martin's Press, New York, 1990.

Bleecker, Isabelle and Monfried, Andrea E., eds., *Armando Salas Portugal Photographs of the Architecture of Luis Barragán*, Rizzoli International Publications, Inc., New York, 1992.

The Book of Common Prayer, HarperSanFrancisco, 1984.

Borg, Marcus J., *Meeting Jesus Again for the First Time: The Historical Jesus and the Heart of Contemporary Faith*, HarperCollins Publishers, New York, 1994.

Bownas, Geoffrey and Thwaite, Anthony, *Penguin Book of Japanese Verse*, Penguin Books, Harmondsworth, 1964.

Brownlee, David B. and De Long, David G., *Louis I. Kahn: In the Realm of Architecture*, published on the occasion of the exhibition "Louis I. Kahn: In the Realm of Architecture", organized by the Museum of Contemporary Art, Los Angeles, Rizzoli International Publications, Inc., New York, 1991.

"1973: Brooklyn, New York", transcription of a talk given by Louis I. Kahn, from *Perspecta: The Yale Architectural Journal*, vol. 19.

Clark, W. G., "Replacement", *Modulus 20*, The Architectural Journal of the University of Virginia, Princeton Architectural Press, New York, 1991.

Eliot, T. S., "East Coker", *Four Quartets*, Harcourt Brace Jovanovich, Publishers, New York, 1943.

Frampton, Kenneth, *Modern Architecture: A Critical History*, 3d. ed., Thames and Hudson, Ltd., London, 1992.

Frascari, Marco, "The Tell-the-Tale Detail", VIA, no. 7, 1984.

Furuyama, Masao, Tadao Ando, Artemis, Zurïch, 1993.

Futugawa, Yukio, ed., G.A. Architect no. 8: Tadao Ando, Introduction by Kenneth Frampton, A.D.A. Edita, Tokyo, 1987.

Hoff, Benjamin, The Tao of Pooh, Penguin Books, New York, 1982.

The Holy Bible, Revised Standard Version, Thomas Nelson, Inc., Nashville, 1972.

Horton, Tom, *Water's Way: Life Along the Chesapeake*, in association with the Chesapeake Bay Foundation, Elliott & Clark Publishing, Singapore, 1992.

Johnson, Nell E., ed., *Light is the Theme: Louis I. Kahn and the Kimbell Art Museum*, Kimbell Art Foundation, Fort Worth, 1978.

Larkin, David, *The Essential Book of Shaker: Discovering the Design, Function, and Form*, Universe Publishing, Rizzoli International Publications, Inc., New York, 1995.

Larkin, David, *Farm: The Vernacular Tradition of Working Buildings*, The Monacelli Press, New York, 1995.

Lobell, John, *Between Silence and Light*, Shambala Publications, Inc., Boston, 1985.

McMichael, George, ed., *Anthology of American Literature*, 3d. ed., vol. II, Macmillan Publishing Co., New York, 1985.

Mostafavi, Mohsen and Leatherbarrow, David, *On Weathering: The Life of Buildings in Time*, MIT Press, Cambridge, 1993.

Nakamura, Toshio, ed., *Architecture + Urbanism*, 1985 October Extra Edition: Carlo Scarpa, a+u Publishing Co., Ltd., Tokyo, 1985.

New Finnish Architecture: Photographed by Jussi Tiainen, The Finnish Building Centre, Helsinki, 1996.

Norberg-Schulz, Christian, *Meaning in Western Architecture*, Praeger Publishers, New York, 1975.

Pallasmaa, Juhani, "The Geometry of Feeling--A Look at the Phenomenology of Architecture", *Arkkitehti*, no. 3, Marja-Ritta Norri, ed., trans. Dianna C. Tullberg, Suomen Arkkitehtilitto--Finlands Arkitektförbund, Helsinki, 1985.

Pallasmaa, Juhani, "Six Themes for the Next Millenium", *Architectural Review*, vol. 196, no. 1169, Peter Davey, ed., London, 1994.

Pikionis, Dimitris, "A Sentimental Topography", *Dimitris Pikionis, Architect 1887-1968: A Sentimental Topography*, The Architectural Association, London, 1989.

Pizzi, Emilio, ed., *Mario Botta: The Complete Works Volume I 1960-1985*, Artemis, Zurich, 1993.

Poole, Scott, *The New Finnish Architecture*, Rizzoli International Publications, Inc., New York, 1992.

Rilke, Rainer-Maria, *Letters to a Young Poet*, rev. ed., trans. M. D. Herter Norton, W. W. Norton & Co., New York, 1954.

Scully, Vincent Jr., *Modern Architecture: The Architecture of Democracy*, rev. ed., George Braziller, New York, 1974.

Tanizaki, Jun'ichiro, *In'ei Raisan* (In Praise of Shadows), trans. Thomas J. Harper and Edward G. Seidensticker, Leete's Island Books, New Haven, 1977.

Tzu, Lao, *Tao Te Ching*, trans. Gia-Fu-Feng and Jane English, Alfred A. Knopf, New York, 1972.

Wright, Tom and Katsuhiko, Mizuno, Zen Gardens, Mitsumura Suiko Shoin Co., Ltd., Tokyo, 1990.

Wurman, Richard Saul, *What Will Be Has Always Been: The Words of Louis I. Kahn*, Rizzoli International Publications, Inc., New York, 1986.

Acknowledgments	
	Many thanks to my committee for their guidence, to my family for their
	Many thanks to my committee for their guidance, to my family for their
	patience, and especially to Jenny for her criticism and support.

John Huffman McLeod

109 West Hillcrest Avenue Richmond, Virginia 23226 804.285.9371

February 4, 1969	Born, Richmond, Virginia
1974-1987	St. Christopher's School, Richmond, Virginia
1987-1991	University of Virginia, Charlottesville, Virginia Bachelor of Arts in English
1991	The White House, Washington, DC Press Office Intern
1991-1993	Covington & Burling, Washington, DC Legal Assistant
1993-1997	Virginia Polytechnic Institute and State University, Blacksburg, Virginia Master of Architecture
1994-1996	Virginia Polytechnic Institute and State University, Blacksburg, Virginia Graduate Teaching Assistant
1995	Semester Abroad: European Travel/Study Program
1995	Studio Architetto Hunziker, Ticino, Switzerland Designer