



On Two Hands and Ten Digits

Catharine Killien

INTRODUCTION

This essay (lecture) concerns the human scale in architecture. By human scale, I do not simply mean that which is the same size as the human body. I refer to that which engages the human experience. Thus, this essay (lecture) explores the complex and intertwined relationship between material, space, and the human body.

All the senses; expand the notion of the human scale beyond the visual alone. The hand is both agent and collaborator with tools in haptic engagements. Digits have touched a wall in Pragpur/ cobblestones in Rome: digits as tools

This thinking requires a re-definition of what we consider to be the human scale.

In a critique of the role of the primacy of the visual Image of Architecture, which you have addressed in the first images of the accountable Pyramid and enigmatic Sphinx, the architectural theorist Juhani Pallasmaa writes:

"It is evident that the architecture of traditional cultures is essentially connected with the tacit wisdom of the body, instead of being visually and conceptually dominated. Construction in traditional cultures is guided by the body in the same way that a bird shapes its nest by movements of its body. Indigenous clay and mud structures seem to be born of the muscular and haptic senses more than the eye."

He continues, saying: "As buildings lose their plasticity and their connection with the language and wisdom of the body, they become isolated in the cool and distant realm of vision. With the loss of tactility and measures and details crafted for the human body – and particularly for the hand – architectural structures become repulsively flat, sharp-edged, immaterial and unreal."

In an attempt to recover the sense of the human hand and body as it relates to the making and experience of architectural space my intention here is to explore works of architecture – both historic and contemporary, near and far, which have maintained a connection to the language and wisdom of the body.

Several of the works I will present to you today are places I visited in India this past summer where I studied and traveled as part of the first UVA India Initiative summer studio. Though materiality and shaping of materials by the human hand have long since been an interest of mine, it was in India that I rediscovered the connection one can have with a work of architecture that engages the human body. I will also present several works from other periods of time in other parts of the world, to show that a sensibility about the human body is present in both contemporary and historic works of architecture, and in societies with and without high-tech (mechanized) construction industries.

A trap one can fall into is becoming nostalgic about architecture built by the human hand. The cost of labor in the United States makes this uneconomic in comparison to the majority of highly skilled laborers with an inheritance of generational craft.

While moments discovered in India of architecture so clearly built by the human hand certainly did delight, my aim here is not only to celebrate these works, but also to understand how such careful attention to the body is possible in a mechanized contemporary culture. It would be easy to critique contemporary "image" architecture as Pallasmaa does in his article. I prefer to argue that sensibility of the human body and hand is still possible even in an architecture driven by the image and highly mechanized construction techniques.

Because there are ten digits, I present ten projects for ten lessons:

1. TECTONICS: Ching Cabin, Maury Island, WA
2. WEATHERING: St. Ignatius: Seattle, WA
3. LAYERING: Mass MOCA, North Adams, MA
4. SCALE: Santa Maria della Pace, Rome, Italy
5. MOVEMENT: Campo de Fiori, Rome, Italy
6. MATERIALITY: Thermal Baths, Vals, Switzerland
7. MAINTENANCE: Ashram Golconde, Pondicherry, India
8. JUXTAPOSITION: Millowner's Association, Ahmedabad, India
9. SECTION: Fatepur Sikri, Agra, India
10. PROCESS: Water Channels, Pragpur, India

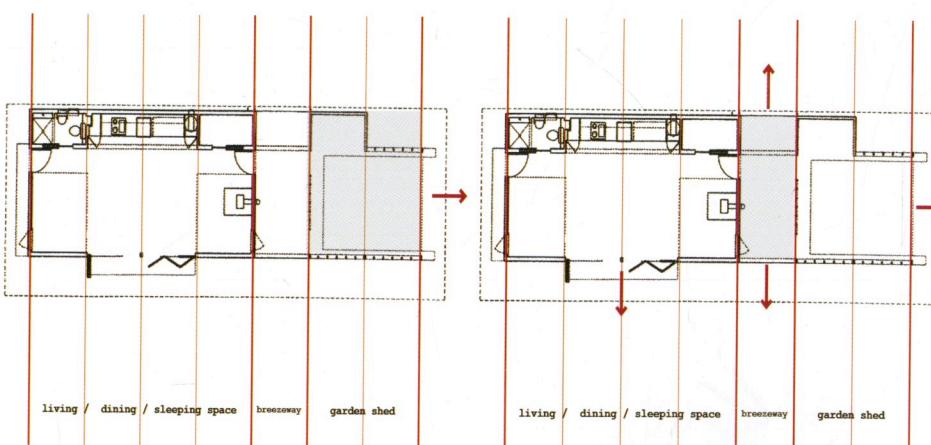
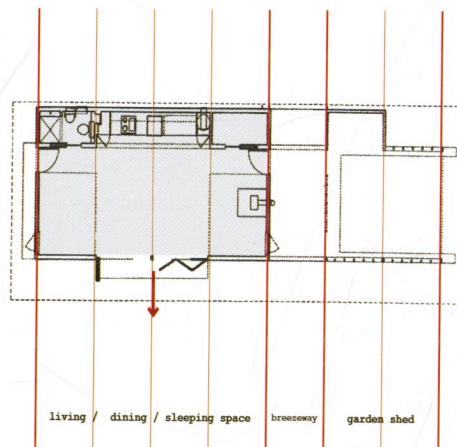
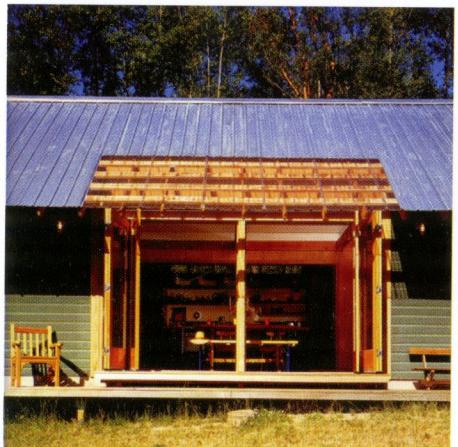
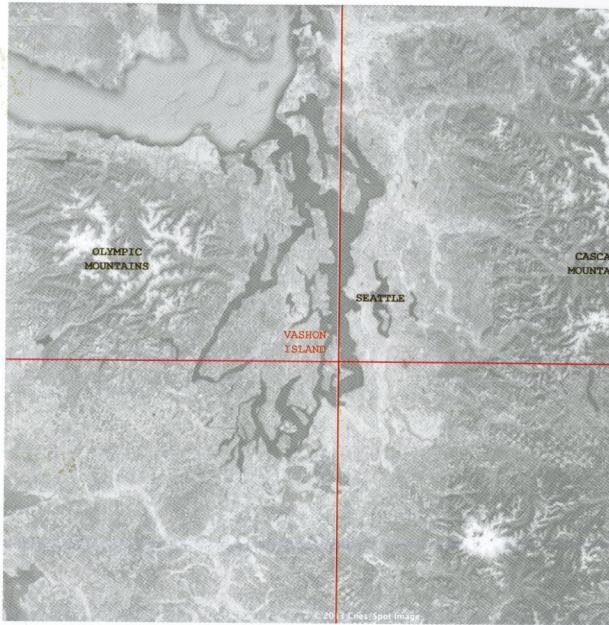
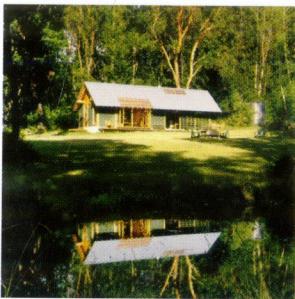
I will discuss seemingly disparate works of architecture that are connected throughout by the common thread of their sensitivity to the human body. We as students of architecture have a vast knowledge of paradigms we have never visited. I will only discuss works I have visited. Visiting a work of architecture is far different than seeing an image of it (In this regard I will accept Pallasmaa's critique). While I am only discussing works that I have visited, these themes run as recurrent dualities across time and context. To visit means to see and to reconfirm by touch in the flesh.

The idea that links all of the above lessons together is an appreciation of linking the parts and whole; the materials and processes that make the architecture. Material constructs and delimits space with our digital hands as maker and feet as we invent the choreography of human scapes; therefore, tracing an architectural promenade which in turn makes the conjunctive experience of well-being with the world.

Materials are used to construct dialectical structure found in caves and tents.; These structures define specific spaces of retreat and engagement; perform to warm and to cool in dialogue with environmental conditions, and create magical transformative atmospheres by engaging the senses specifically through our manipulation of distinct materials by distinct tools as referenced in Dani Alexander's Kenan essay, On Tools.

I will begin to form this connective tissue through a quote by David Pye, from his book Nature and the Art of Workmanship: "In nature, and in all good design, the diversity in scale of the formal elements is such that at any range, in any light, some elements are on or very near the threshold of visibility... as the observer approaches the object, new elements, previously indistinguishable, successively appear and come into play aesthetically."

1.



1. TECTONICS

Ching Cabin, Maury Island, WA (Miller Hull Partnership, 1997)

We begin with the simple notion that materials and meters create space.

I will begin with a very modest work, very close to where I grew up, and the smallest I will discuss today. At only 650 square feet, the Ching Cabin, built by the Miller Hull Partnership, is a weekend retreat (for an architect) on Maury Island, Washington, about 15 minutes from Seattle via ferry. The cabin is a simple wood frame built atop a raised concrete slab, with a corrugated metal roof containing carefully selected translucent apertures.

What is spectacular about this seemingly simple work of architecture is both the careful proportioning of the structural system and the way in which the scale of structure is used to create spatial distinctions off large collective spaces and small retreats as well as the in-between. These juxtapositions made to the simple form engage both the movement of the body, the organization of social space, and the relationship of the body to indoor and outdoor space. The changes in level not only allow one to move to the exterior ground plane, but become a place to sit. In a liminal threshold space.

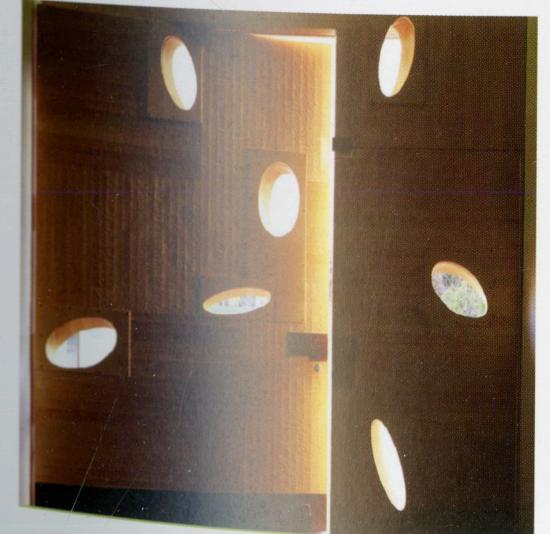
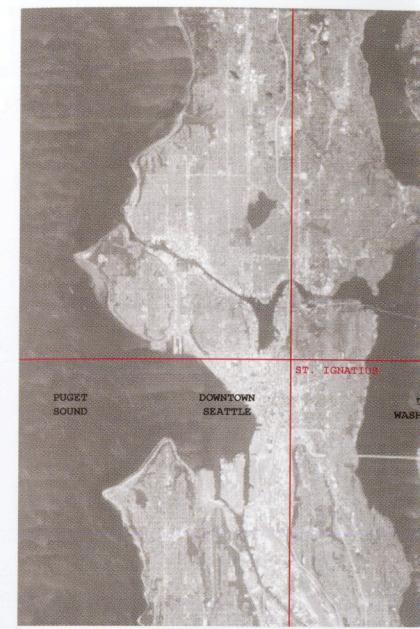
"The tectonic language of architecture, the inner logic of construction itself, expresses gravity and structure, the language of materials as well as processes of construction and details of joining units and materials to one another. In my view, architecture arises from the identification and articulation of the realities of the task in question, rather than from individual fantasy... A great building enhances and articulates our understanding of gravity and materiality, horizontality and verticality, the dimensions of above and below, as well as the eternal enigmas of existence, light and silence." (Pallasmaa 2009)

Construction is the art of making a meaningful whole out of many parts. Buildings are witnesses to the human ability to construct concrete things. I believe that the real core of all architectural work lies in the act of construction. At the point in time when concrete materials are assembled and erected the architecture, we have been looking for, becomes part of the real world. (Zumthor 1999)

Tectonics are the constructive language of architecture – the syntax of structure that determine not only the physical characteristics of the space, but also its experiential qualities. Tectonics govern spatial volume, surface quality, movement through space, structural metering, material laying, light penetration and air flow, the relationship between parts of buildings, floor areas, ceiling heights, and the sense of expansiveness or compression of space. The tectonic language of space is determined primarily by the constructive nature of the materials employed as materials have "innate" properties that forms that they can take.

Count them, ten digital moves: A singular columnar framing element in all its humility defines the threshold on the north south axis. Second, a hearth defines the east west axis and eight requisite bays 16' o.c. complete the requisite count.

2.



A (Miller Hull Partnership, 1997)

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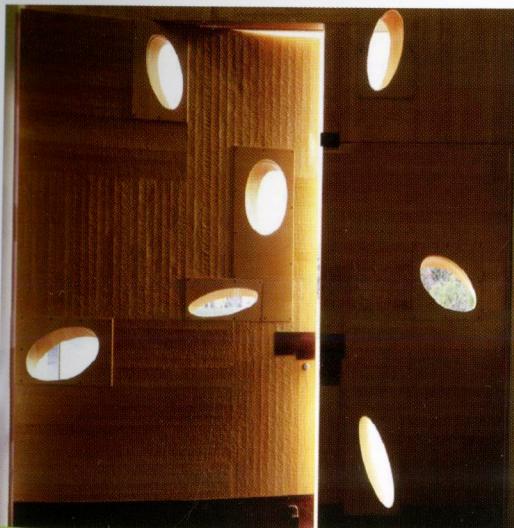
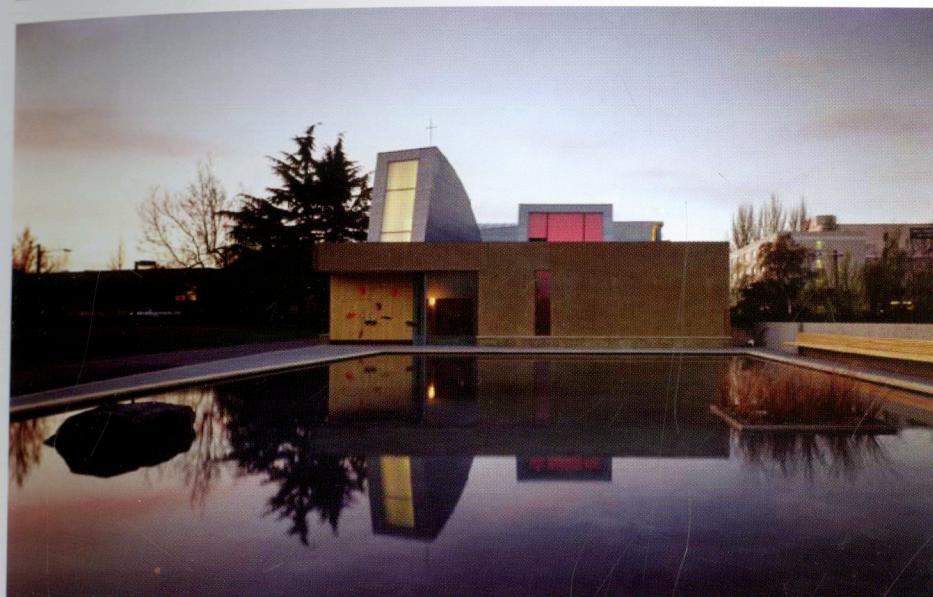
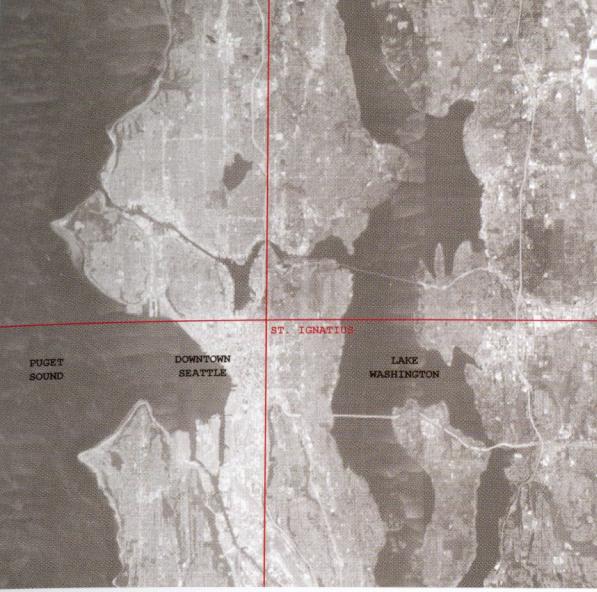
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language of architecture – the syntax of structure and the characteristics of the space, but also its own spatial volume, surface quality, movement patterns, material laying, light penetration and air flow, buildings, floor areas, ceiling heights, and the perception of space. The tectonic language of space is the protective nature of the materials employed as what forms that they can take.

Singular columnar framing element in all its bays along the north south axis. Second, a hearth defines the bays 16' o.c. complete the requisite count.

2.



2. WEATHERING

St. Ignatius: Seattle, WA (Steven Holl, 1997)

Nearby, in Seattle, is a more widely recognized work, the St. Ignatius Chapel on the Seattle University Campus, designed by Steven Holl. The project is highly sculptural, using apertures to the sky to manipulate light on the interior. While the project is praised for its sculpting of both natural and artificial lights (as this is what captures one's attention immediately upon entering the space), the subtle details of the project to me are the spectacular. These are the details one discovers not at first glance, but upon experiencing the space, time and time again. Concrete plug covers the scale of fingerprints, hand formed bronze door handles upon entry and wall textures within engage our bodies and minds.

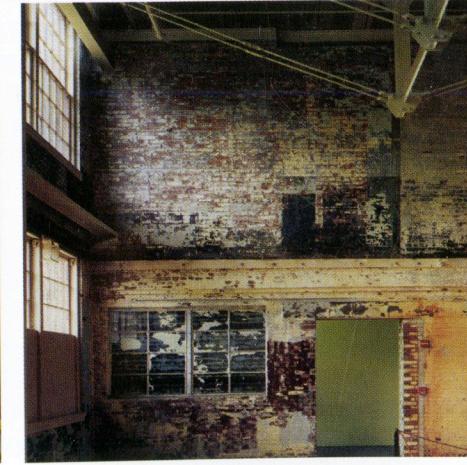
Materiality refers to the perceptual and experiential qualities of a material. While materiality pertains to objective, physical characteristics, materiality is a subjective consideration.

Materiality "reflects our intuition that for something to be real it ought to be [...] made of] 'stuff,' material having palpability, a temperature, a weight and inertia, an inherent strength." Materiality lends a building a sense of "presence" when "every material and texture is fully itself and revealed" (Benedikt 1987).

"On Weathering," by David Leatherbarrow and Mohsen Mostafavi explores the ethical implications of materiality and temporality, defining the idea of weathering as the process that allows materials to reveal their sense of time while heightening the sense of materiality in architecture.

While the Ching Cabin uses a dialectic of tectonics, the singular column at entry and the serial frame in contrast to the cave like hearth, it engages us to the memorable horizons of land and water, the St. Ignatius Chapel engages us from the earth as primal cave to the cosmic apertures of the sky. Ten distinctly scaled skylights raise themselves as two hands in prayer as two hands are required to open the entry doors of folded angel wings. Weathering ennobles the constructions of humankind, such as the polychromatic friezes of the Parthenon, by bleaching of the sun and the rain, demanding maintenance of future generations to maintain the works of their ancestors or suffer the isolation of the non-attentive in face of natural conditions stronger than the willful constructions of humankind. Holl commences with a water color of vessels of space, a choreography of luminescences as he then assigns these colors initially on the exterior and interior to transform light from natural and artificial sources. In contrast to the Ching cabin which is elevated above the ground on a clear articulated plinth, set back from the water's edge St. Ignatius sits at the this edge of the reflecting pool doubling itself as narcissus. The Ching cabin blue tone roof alone is reflected in the water beyond perhaps forming in combination two angel wings. On the other hand the roof top skylights of St. Ignatius are a handful of apertures breaking the singularity of a protective roof into the cacophony of spirits, not a singular voice such as an hierarchical dome containing canonical prayer. Multiplicities are the characteristics of circumstantial forces of weathering, leaving, fading/blistering, and scars of forces beyond the intentions of humankind. These two projects juxtapose tectonics, the first (Ching) favors lightness in materials of frames and modular skins, the second project (Holl) of massive heavy pre-cast concrete panels and volumetric containers versus the thin planes of the first.

3.



3. LAYERING MASS MoCA, North Adams, MA (1992)

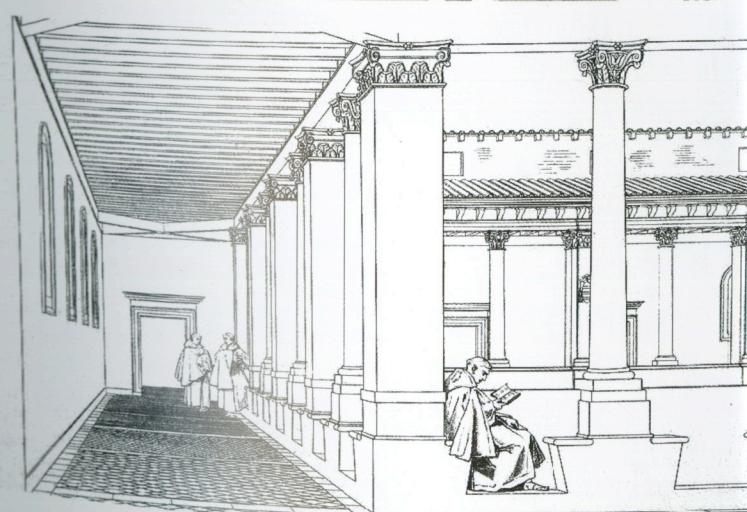
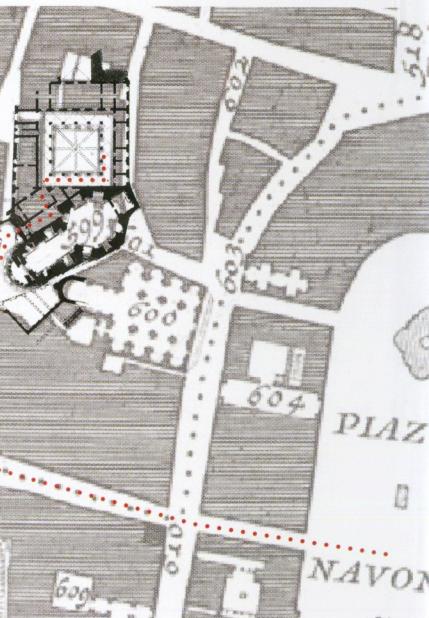
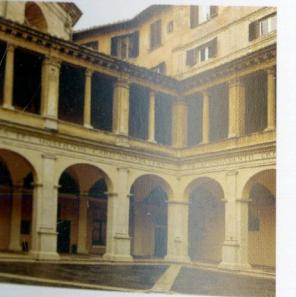
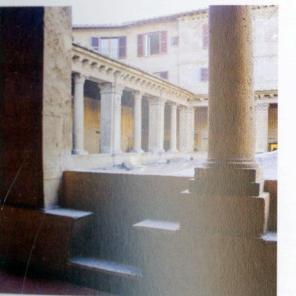
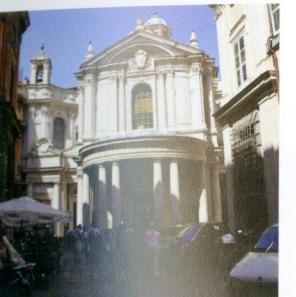
An abandoned industrial complex of buildings was renovated to provide a new context to appreciate contemporary art for the Massachusetts Museum of Contemporary Art. As the layers of the thematic tectonics of juxtaposed masonry walls and structural steel frames were wedged to the processes of weathering on the interior as well as exterior, a dialectical strategy of multiple layers sensed by the scales of digits and hands is orchestrated in contrast to the vastness of the vacated space to be filled by the imaginations of artists in response to the meters of structure and the palimpsest of mark and erasure.

The existing masonry walls were left exposed in most parts of the building. In contrast to the typical white-washed walls of contemporary art museums, the architects "retained signs of physical weathering and traces left behind by previous inhabitants both inside and outside the buildings," enabling the artists to engage with their context.

The design process was opportunistic and highly dependent on local conditions as the architects "left open room for revelations along the way rather than letting one big idea control project development" as "site conditions and discoveries during the demolition and construction significantly affected the aesthetic outcome. The process of design focused on the experience of making and ultimately inhabiting the space, rather than on creating a preconceived architectural object."

The new museum program required larger floor to ceiling heights that existed in the original building. Large floor areas were subtracted within existing mill buildings. The removal of floors uncovered and intentionally revealed the layers of building construction. We don't just build cabins and cathedrals from scratch. The Tectonics of the Ching Cabin offers us a modular accountable coordination of systems of complementary structure and skin. The Tectonics of St. Ignatius juxtaposed the singular heaviness of concrete jigsaw puzzle panels with the contrasting multitude of light catching apertures of distinct meters. Here in MASS MoCA large structural steel bays are contrasted to the seriality of small steel studs, bar joists are exposed on the ceiling plane, masonry walls thicken as need to be pilasters at the monumental scale of medieval cathedrals, the interior is striped bare to reveal that which is essential. This project does not promote singularity as the first, juxtaposition as in the second, but in celebrating all the scales, meters and materiality to enhance a place of production and the humble dignity of work for those with ditty hands which may be the needed ethical condition of art in this new Millennium.

4.



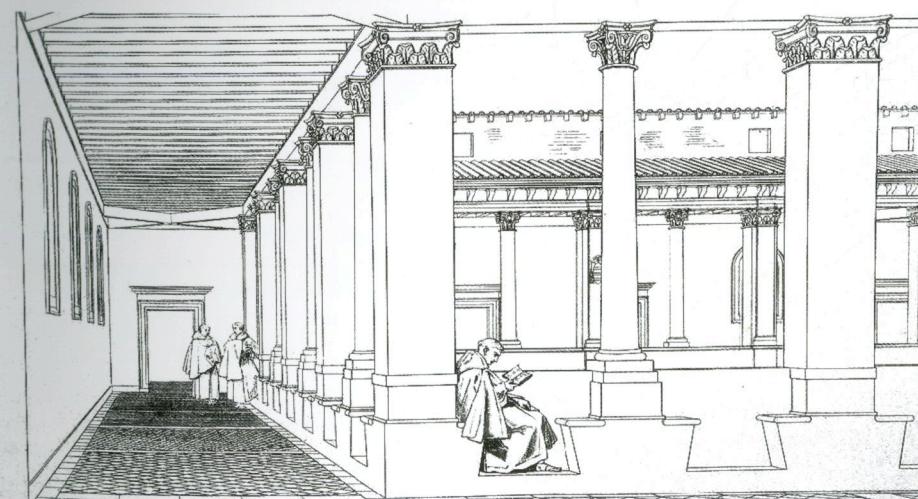
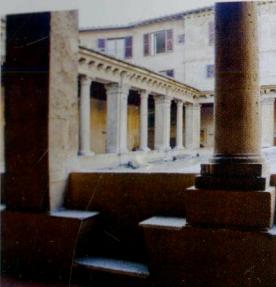
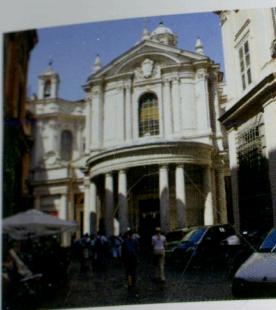
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4. CHOREOGRAPHY OF SCALE SANTA MARIA DELLA PACE, ROME, ITALY

I move now to a project across the Atlantic Ocean built five hundred years before. The cloister of Santa Maria Della Pace, a small church built in Rome is a place one has to discover. There is no clear entrance, no sign marking where tourists ought to go. On my last day in Rome after spending nearly four months in the city, I finally went out to find the place I had heard so many people admire. One thing the Romans do exceptionally well is that they don't give it all away at the beginning. It is a carefully choreographed sequence, moving between hierarchies. This is something you understand through the body.

One is instructed to go first to the vast spatial landmark of Piazza Navonna, once an ancient chariot race stadium, transformed in the middle ages and Renaissance as the premier location of Palazzi, Churches and in the Baroque period of amazing fountains and statues to mythological figures. The facade of Sant' Agnese is clearly monumental and one is instructed to find a small via going west to come upon the flank of S.M. della Pace. One encounters a small piazza and a semi-circular porch, Bramante's proto Tempietto of sorts, as one may on rare occasion enter the church when rarely open for masses. Rather, often one meanders around from west to north and finds a small door to enter from the street to the remarkably accountable cloister of two orders of arches below making a cave like enclosure and a syncopated upper cloister for solo mediation above. Here, one is invited to pause to change posture as one sits down alone with a good book to meditate in the enclosure cave-like seats between massive rectangular piers and slender round human scaled columns in between. There is thus a juxtaposition of the cloister spatial type of first caves then tents, in contrast to the singular volumetric cave-like void of the figural church interior itself. Note, that S.M. della Pace references the same language of volumetric skins and juxtaposed frames as MASS MOCA using layering of accountable elements of two scales as a recurrent duality of a series of columns seen previously suggesting a frame-like, tent-like syntax of structure above and below. At his point, we might recall the early projects of first the Ching framed cabin which was followed by Holl's Chapel combining the juxtaposed utility of the tent-like frame, first as a threshold encounter between exterior and interior, followed by Holl's example of a predominately massive enclosed volume. All these projects are in dialogue with one another across time and place, some call, in this course, enduring truths. It is a good place to be engaged with the earth and to reconsider the spirituality of the clearly framed celestial soffit. One pauses here and is invited to take a rest, along with other monks in the study spaces of cave-like if not meditative seats between massive piers syncopated with slender human-scaled columns. The choreography comes from the architect's communal scale rising in section through this architectural scale of an architectural promenade as a processional group, and then the more solo meditative pause in the study carrels which invite you to humble one's posture and to sit alone. A place to pause is perhaps a requisite consideration as we attempt to read Architecture as a Covenant with the World. Again, as we measure shadows and sunlight and trace their dynamic vitality as we witness them both for a stationary investment in the preciousness of fleeting time.

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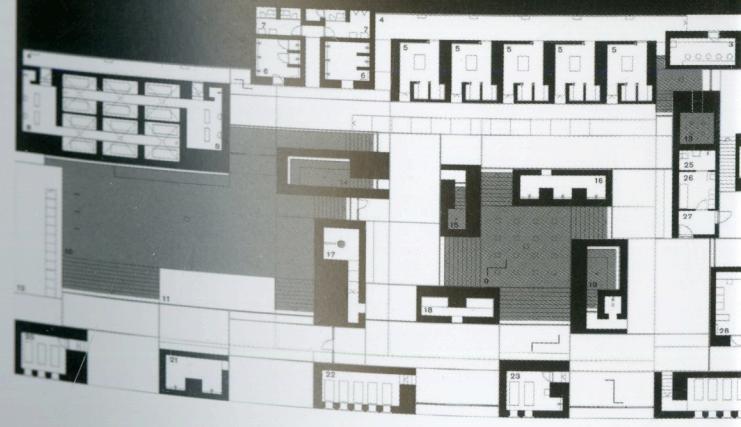
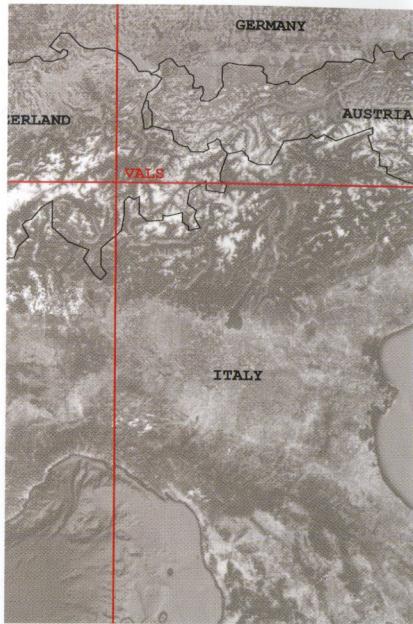
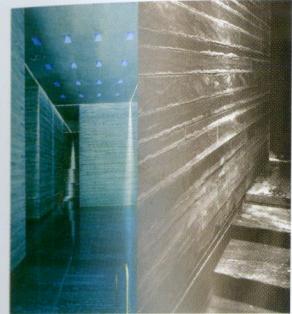


5. CHOREOGRAPHY OF MOVEMENT
Campo di Fiori, Rome, (Paved 1456)

While I visited S.M. della Pace only once in my many travels to Rome, a place I am intimately familiar with is the Campo di Fiori, one of the main public squares within the center of Rome. There one finds the daily routine of people manifested as a manifestation of movement much akin to a sequences of stage-sets documenting a long day's journey into night. This is a civic space, one large outdoor room filled up with people of distinct ages and occupations sustaining the necessities of a market place by day, and the contemporary locus of the magical hallucinations of night-life in contemporary Rome. There is the tactility of fruits and vegetables displayed on small mobile tent-like structures brought in at sun-rise after the streets and campo have been scrubbed by a night crew of bright yellow uniformed sanitation workers. Crowds assemble from all corners and meander through labyrinths of vendors, cafes and then restaurants open in the morning and later afternoon, and the edges become increasingly animated as the fruit and vegetable vendors sell out by high noon; people then move to the edges and several hours are spent demounting the temporal stage sets of the vendor stands. Another crew comes in in the late afternoon to scrub the market square again and for a few minutes at sunset the statue of heretic Giordano Bruno stands alone as the sustaining sun sets and correspondent fires roar for some recalling his moment of heresy, inquisition and burning finality in this very spot.

The sun sets, restaurants are packed first to be followed by the opening of bars and nightclubs. A more youthful crowd arrives and populates this campo with sound and light until the early hours of the next morning. The campo cobblestones are littered with evidence of festive excess and yet another sanitation crew arrives to prepare for the vendors who sustain life of this public space of many characters. But, is this not another lesson derived from the Genesis cycle of regenerative darkness yielding to light, of the earth serially dividing water from land, only to return again and again in Noah's flood of the birth of a garden of Eden for plants and animals and the short term presence of humans and the evil nature of snakes who cast them out, it seems by plagues and conflicts again and again? Thus, the Campo di Fiori may be Tschumi's theater of human events again and again as a Covenant with the World, Again. Where S.M. della Pace is only minutes away tucked behind another impressively large civic space of the Piazza Navonna, this campo is one of the most pivotal and diverse in Rome with a vital 24/7 agenda, where the cloister of S.M. della Pace is peaceful in its enduring accountability and relative silence.

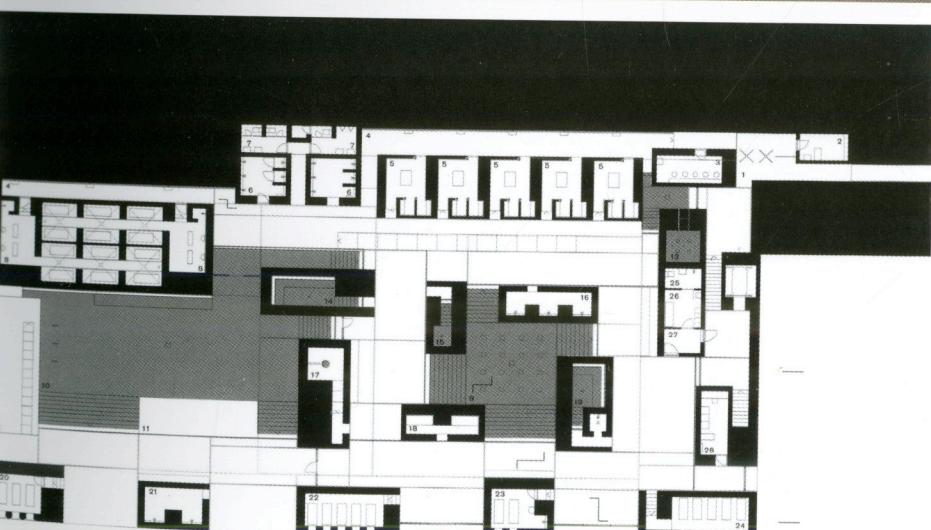
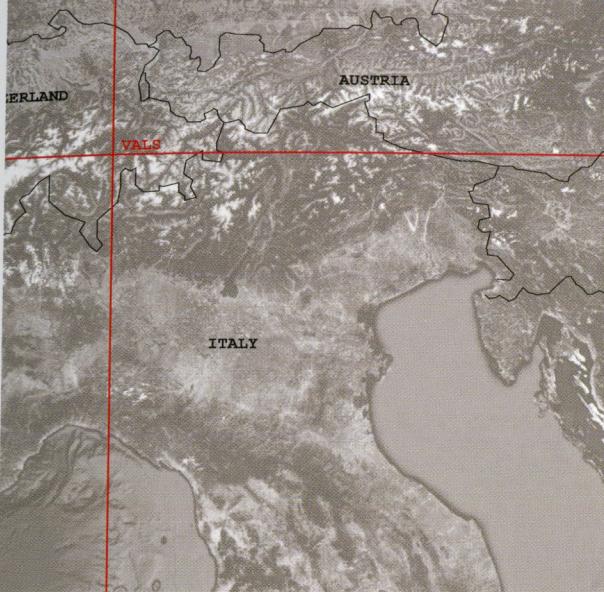
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6. MATERIALITY

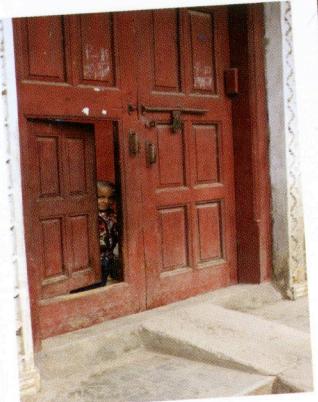
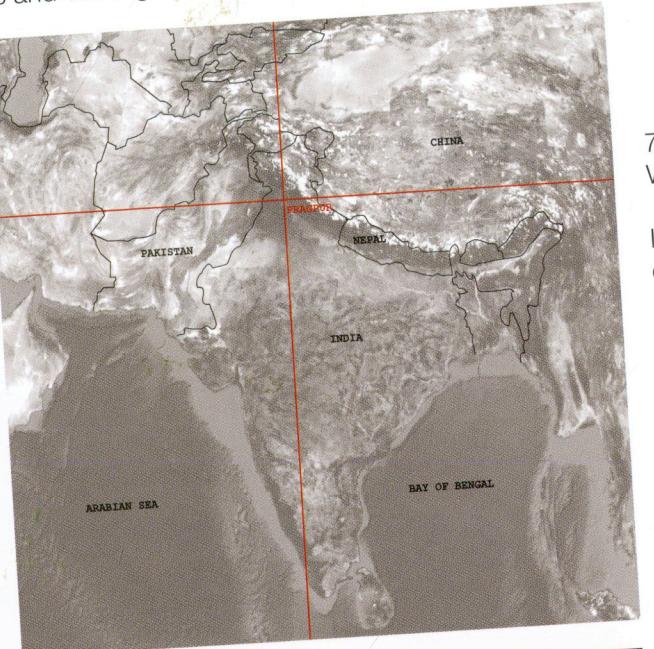
Thermal Baths, Vals, Switzerland, (Peter Zumthor, 1996)

From Mediterranean Rome, I journeyed north to Switzerland, and rediscovered the power of Le Corbusier's diagram of the mountains and the sea, to contrast the frictional juxtaposition of Swiss cultural landscapes between the Germanic and the Mediterranean. Here, I found myself immersed in the choreography of darkness, in a version of Nordic chiaroscuro now of more shadow than light ,and more in reflective glistening wet surfaces of the spirit of the Grotto than that the sun-bleached panels of Rome. Here in Vals, cut deep into a hill, was inserted a project more derived from the glacial solidity of slopes, of thickened retaining walls, of an institution to immerse the body's skin and bones to the forces of enduring rock transposed as 20th century concrete. I touch the walls to get a new sensibility after being infected by the abstract in sun-bleached Rome.

"I believe that materials can only assume a poetic quality in the context of an architectural object, although only if the architect is able to generate a meaningful situation for them since materials themselves are not poetic. The sense I try to instill into materials is beyond all rules of composition, and their tangibility, smell and their acoustical qualities are elements of the language that we are obliged to use. Sensibilities of materials emerge when I succeed in bringing out the specific marriage of certain materials in my buildings. Resultant meanings can only be perceived in just this specific way in this one building. We must constantly interrogate ourselves what the use of particular materials might mean in a specific architectural context. Good answers to these questions can throw new light on both the way in which the material found and transformed is used and its own found sensuous qualities.(Rock as fact, and concrete as transformed fiction is at the heart of the dialogue sought in this course based on the utility of recurrent dualities.) If we succeed in this contextual dialogue, architecture can be vitalized, generate light and vibrate in meter with our heartbeat." (Zumthor)

Building is about the senses, and I now introduce the idea of phenomenology to this course, a design process where experience of an architectural promenade from deep within the earth to aspirations for the sky are the driving force of material engagement as an ethical Covenant with the World again at the scale of skin and bones. There are sequences of intentional juxtapositions of heavily textured walls, and smooth glistening floors, first a red-hot dry room, and then a cool room which introduces us to darkness and then regenerative water, where we sense the raw direct sense of our bodies. These themes will be readdressed in Pragpur, India as we trace these lessons of diverse cultural landscapes introduced by Bill McClung the lushness of the generative Garden and his case for the endurance of the City of stone represented biblically by Eden and Jerusalem.

7.



7. FOOTSTEPS AND FINGERPRINTS

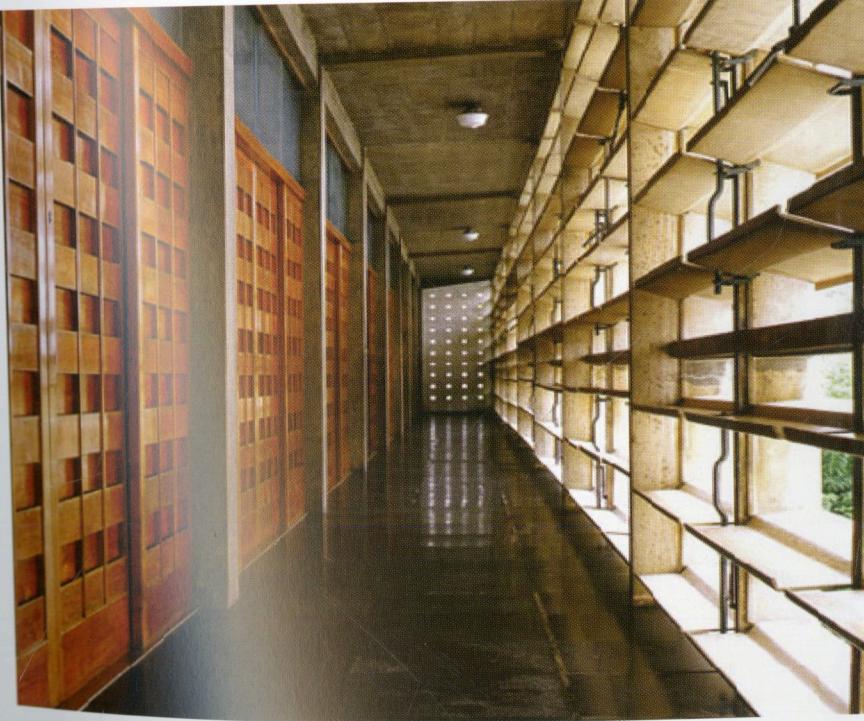
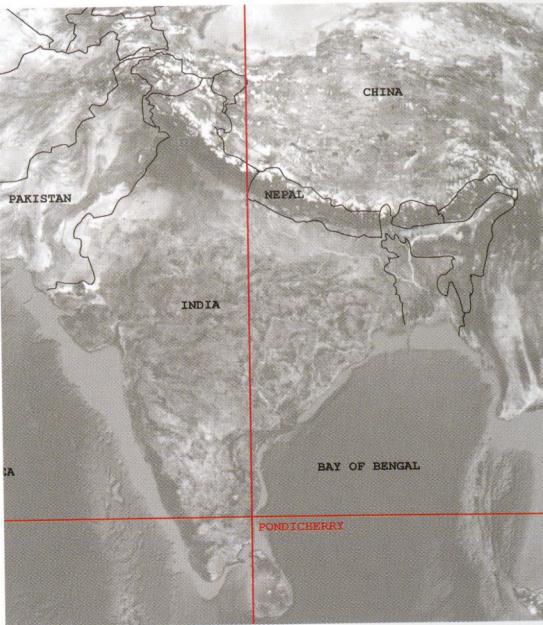
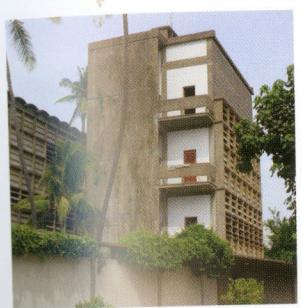
Water Channels, Pragpur, India

I move now to a place far away, a context beyond the familiar in India. I find a community's essential appreciation of water as compared with the individual, appropriation, if not self-appreciation of the tactility of moisture registered by our skin and bones often in isolation found in Vals.

We travelled first north of Delhi to Chandigarh by Train for half a day at the speed of 40 miles of hour where we spent several days surveying the vast dimensions of an expansive city at the scale of the newly emergent nation-state of India. India there seemed vast. Finally, we continued on road nested Land Rovers in caravan at about ten miles an hour wading through recently rutted rural roads, through herds of water buffalo, alternating herds of goats and sheep, Getting out often to push these sturdy vehicles up hills until we arrived water-soaked by the monsoon rains to the mountain village of Pragpur for a week of reflection. We were housed as royalty in a prince's former estate surrounded by mango groves and peacock flocks at the edge of a rural and 'preserved' heritage village sustained by a water tank, irrigation canals and two mighty rivers to the east and the west making a fortuitous junction at this point. We each had our own guest apartments in isolation, but a few steps away from one another. Along the way we encountered all manner of abundant life: fallen mangos and gigantic fruit-eating ants. One species sustained the other and life seemed a harmonious yet sweet cycle. Nothing is wasted here. After generous breakfasts and lunches of fish and fruits and what we suspected were Peacock eggs, we ventured forth, following one's own meander to discover the village, its tank breaming with fish, to be encountered in the evening meal, to the bountiful orchards everywhere making shade along the streets, and sacred cows being tended and milked late in the day to make paneer overnight for our morning's breakfast. Everything echoed the modest and consistent meter of our footsteps. We returned as indeed the prince's guests and shared tall tales of this miniature and self-sustainable world with our classmates now distinctly modest souls after absorbing the heady grandeur and monumental expansiveness of Chandigarh. One had to race across the vast dimensions of that megacity's avenues and civic plazas. Everything here in this enduring village was a few steps, a mere meter away, as the social distance of isolation currently known to us; but, then and there, an immediate community was close at hand.

Walking by footsteps we discovered a self-satisfying world, reading this village as an essential urban covenant harmonious with each step at the pace of one's heartbeat. We realized the hand, so important previously as a unit of measure and instrumentality, now possesses five fingertips, the digital was instrumental in peeling a banana, in puncturing a mango to drink its sweet pulp. We encountered villagers in a different light than Mind Craft, but here in paradise the monkeys encountered us and instructed us in the art of their digital world. We had a remarkable week as "guests" in Pragpur, and then learned to slow down, to sense the world in its fecundities, and were beginning to learn the lessons of the enduring village as an alternative to the megacity derived from the canonical lessons emerging from our Jeffersonian Enlightenment. We arrived to Pragpur perhaps infected with an uncritical belief in the advantages of progress. After a week, we were jolted again as we traveled this time by air to the site of India's paradigmatic Golconde Ashram, in the city of Pondicherry on the Bay of Bengal.

8.

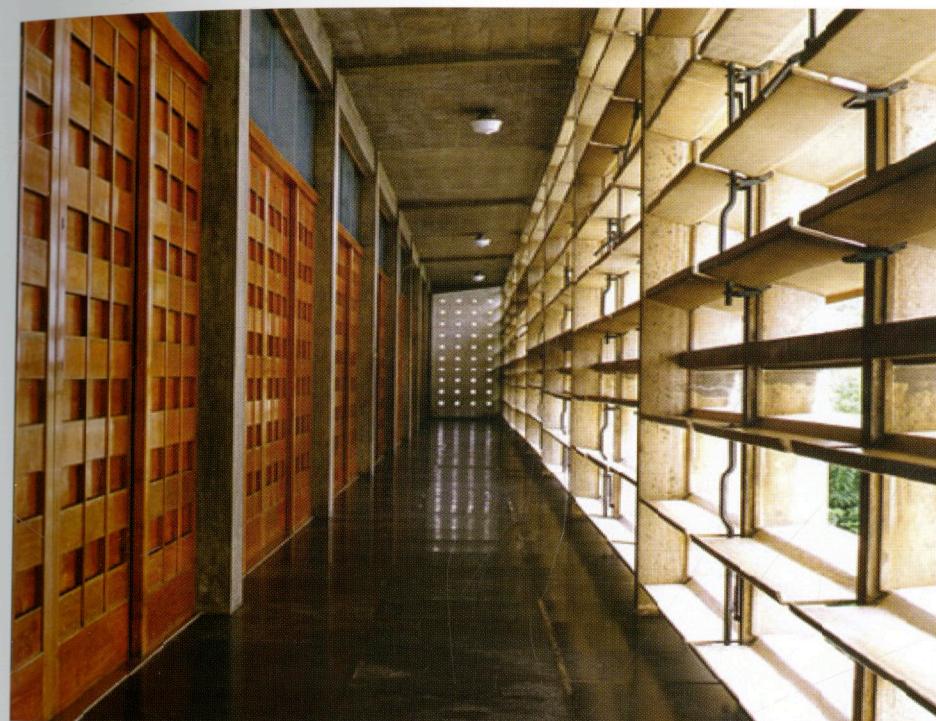


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8. MAINTENANCE

Golconde Ashram, Pondicherry, India , (George Nakashima, 1938)

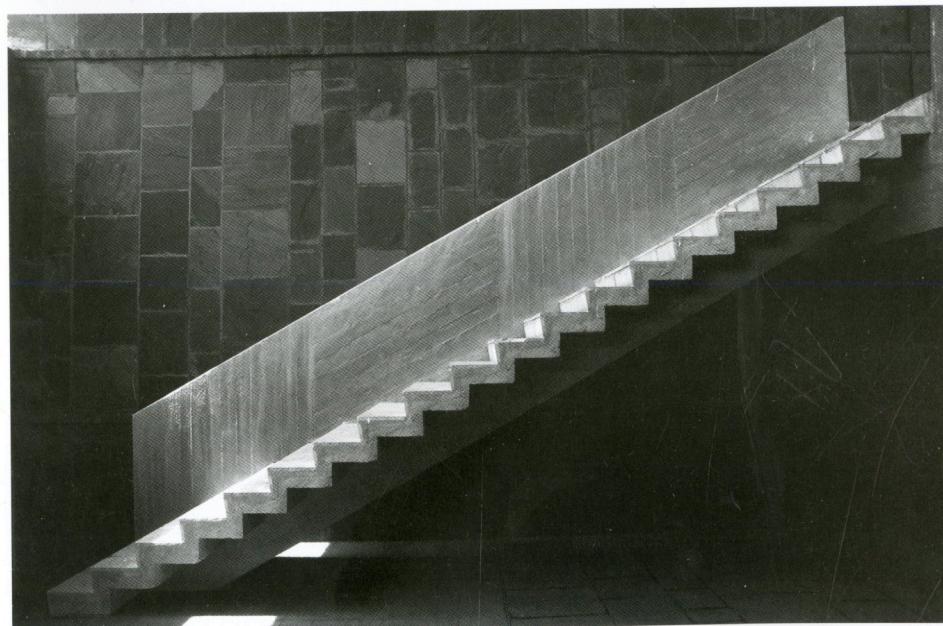
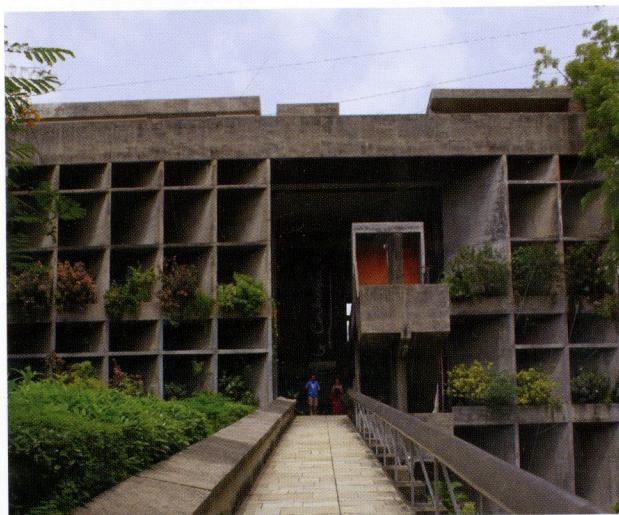
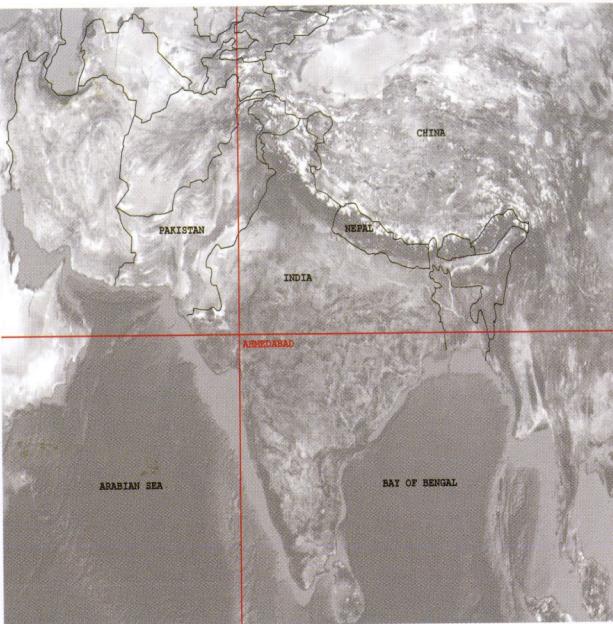
This journey from India's ancient and modern capitals, then transported rut by rut to the heritage mountain village in the north west, ended in Pondicherry a former French colonial city at the edge of the southeast Tamil region of India. It has attracted international free thinkers for millennia as a place of pause and reorientation. An ashram is not a place of retreat from the world, but rather one must manifest here the tenacious imprints of both our two hands and ten digits. Nakashima came to Pondicherry to construct wood formwork for this first reinforced concrete building in India, and stayed to influence the use of the tactility of wood on rails, movable screen louvers and stairs to reach the warmth of the sky. We were in his hands at all scales from the start as we touched and then moved the modest portal gate.

"Each board, each plank can only have one clear use... the woodworker applying a thousand skills must find that clear use and then shape the wood to realize its true potential." (Nakashima, Woodworker and Architect)

This encounter with the Ashram will take us back to where we started in the modest Ching cabin framed by the enduring Forest at the edge of the Water.

Note now, the care taken to wipe down surfaces, during construction and ongoing daily ethical maintenance. Our two hands make us instruments of something between us and others who touch our imprints. How can we be simultaneously citizens and strangers and yet literally touch one another intermittently through a third haptic moment, such as a door handle? Here we learned something we did not ever consider. In this place future residents were asked to bring discarded cooking pots of their grandparents to be melted down to make the door handles used daily to open and close their bedchambers. We in the west, often assume a door handle comes from a hardware store, manufactured in an industrial setting produced by total strangers. Here at the Ashram we learned to sustain the touch of our grandparents' life-sustaining instruments so generously offered in their lifetimes to be sustained as we engage routinely our connection to the world at sunrise and sunset. We watched bricks laid up by men and boys to form garden walls during the heat of the day, while a team of women and girls washed down the efflorescent salts from these surfaces with the tenderness of washing a baby. This maintenance was repeated each morning cleaning the collected slime from the irrigation canals of glistening marbles which laced the gardens of careful fecundity. At the same time another group of more mature residents wash the daily laundry in the sunken areas of coolness below the elevated building plinth. These fortunate souls work in the bountiful shade of the morning, in which soap-laced and sun-warmed waters are then used to cleanse the cooking pots of rice and lentils, spinach and pungent peppers of all possible colors and tastes. This water is then used to refresh the gardens. Peacocks reappear in this alternative vision of paradise. We follow the laundresses as they mount the elegant stairs with their laundry baskets up several flights to the rooftop drying terraces. There we find Nakashima's elegant wooden stair to help these souls, with generous hands, to hang with individually carved clothes pins with their fingers the sheets and shirts of their hands resultant labor performed below. This daily activity took us from sunrise to sunset from the basement to the attic. We retire for the night still literally in touch with the hands of ancestors who have sustained our lives through theirs.

9.



9. MONUMENTALITY AND THE MEASURE OF MAN

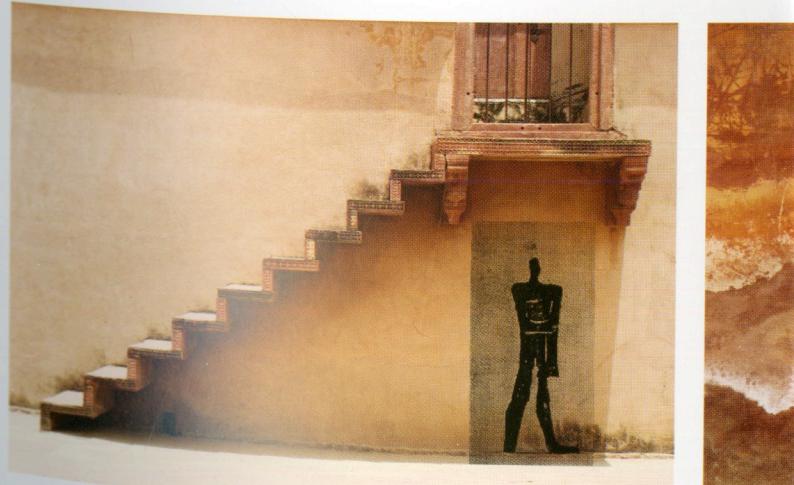
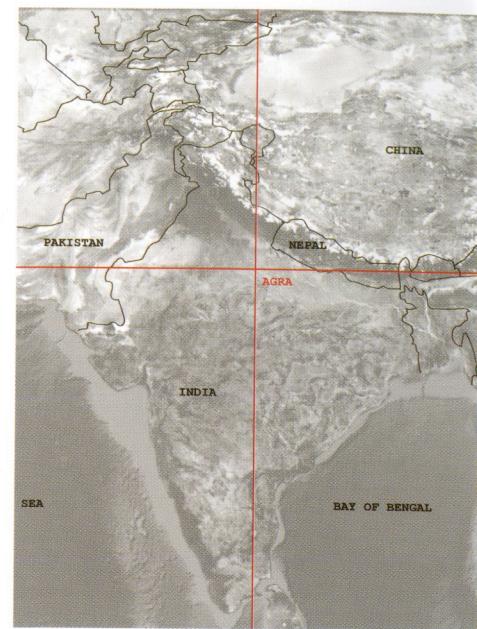
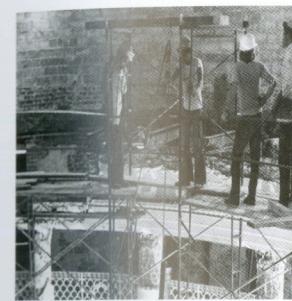
Millowner's Association Building, Ahmedabad, India (Le Corbusier, 1957)

From Pondicherry, we journeyed west again to the Arabian Sea to visit the ancient step-wells cut deep into the earth and the Jali screens which tempered life-giving sunlight in a myriad of pixelations offered daily by the sky reminding us of the multiplicities of the cosmos. Here we imagined and then longed for the deep grottos of scientific inquiry below and singular oculus above of Jefferson's Rotunda illuminating his vast collection of an Enlightenment Library.

In Ahmedabad, we saw many of Le Corbusier's monumental projects and permutations on Dwelling. All share a commitment in this extreme climatic condition to Tanazaki's ethical requisite criticism of Western Culture of progress evoked "In Praise of Shadows", published curiously in the same time of Le Corbusier's "Vers Une Architecture".

Le Corbusier had an incredible ability to create in both these monumental and modest structures a primary response to pervasive light and resultant chiaroscuro, but never losing the reference to the scale of the human hand as an instrument and active agent of change. This architect provided a seat outside the entry door of the Millowners's Association at the destination end of the ramp to pause; to change one's posture to look back from where one came. Upon entry, one finds an elongated bench within as a way to pause now as a group before entering the association hall of the association. One journeys up to a second level, by a twenty incremental digit stair to get to the piano nobile where a balcony is projected as a counterpart of the entry ramp to view the larger city extending to the western sea as another leitmotif of the Acropolis. The journey does not stop here but one mounts to the roof terrace with more benches to pause briefly to catch one's breath, and then a vast view is framed to the east where we see the Sarabhai River, however now engineered to become a lake from which this desert oasis springs. Here, we come yet again full circle to encounter the lessons of water at all scales in India from Pragpur the northern heritage village of canals and irrigation canals, to Pondicherry on the East where one sustains the soul within by dedicated daily maintenance, and now onto the 360-degree view from the roof of the Millowners Association. There are then explicit connective tissues in the watermarks that stain these surface and which nourish the genesis of our imaginative capacities. This project reminded us again that though we first sense and then read architecture primarily by hand and our ten digits there, it is also the journey, the promenade step by step at the pace of our heartbeats that takes us on a narrative passage from here to there by means of our two feet and their ten digits as well enabling our derivation from our four-limbed origins. Maybe, we now comprehend the enduring presence in myth and coincidental citizenship with the tribal monkeys of the Indian sub-continent who wisely and optimistically offer us this useful mantra "see no evil, speak no evil, think no evil".

10.



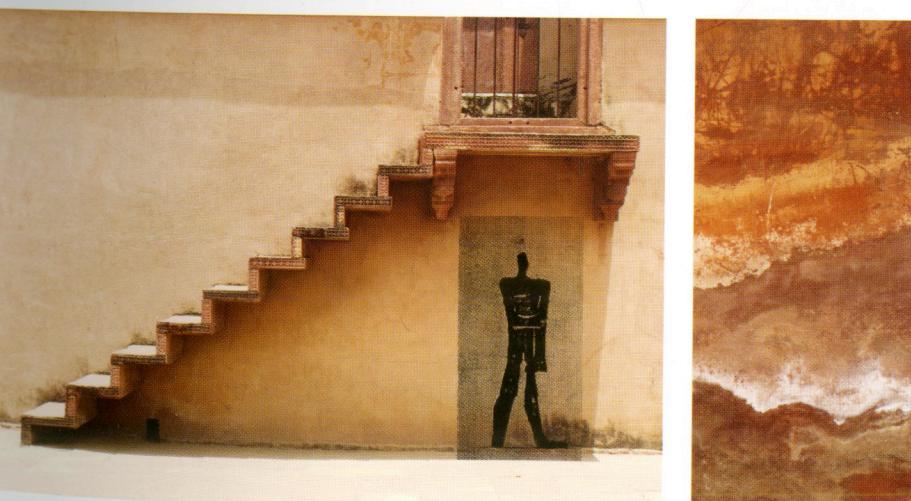
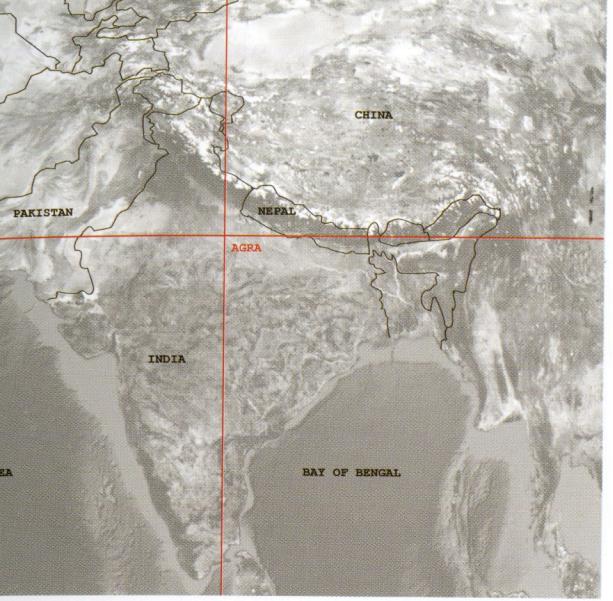
THE MEASURE OF MAN
Ahmedabad, India (Le Corbusier, 1957)

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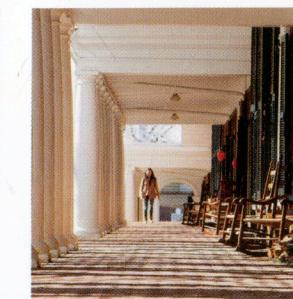
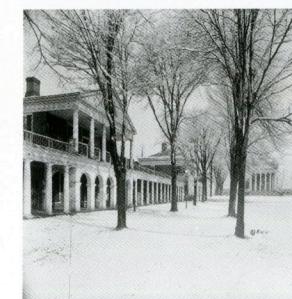
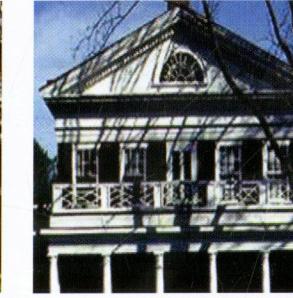
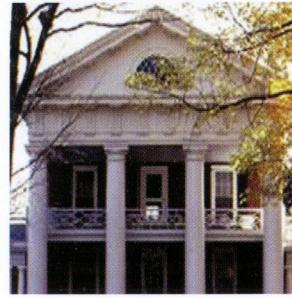
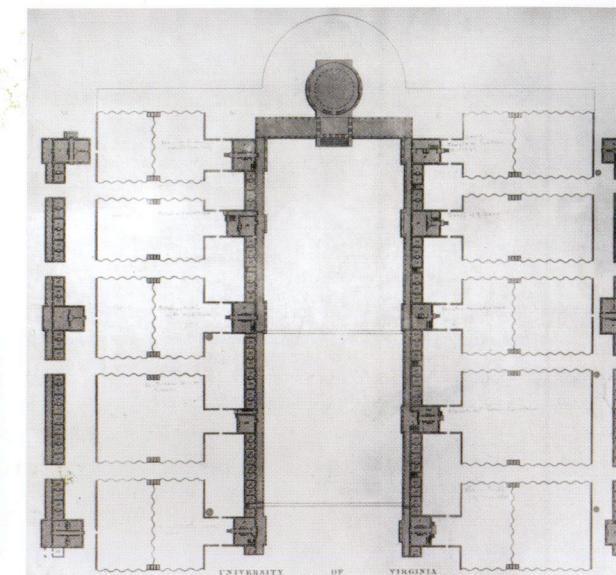
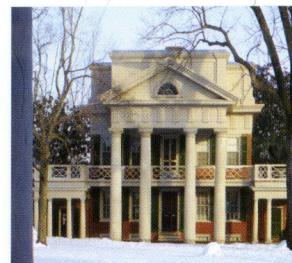


10. IMMENSITY AND PAUSE Fatepur Sikri, Agra India , (Actors and Witnesses, 1571)

Our last stop took us North and East of Delhi again to Agra and to the constructed city of Fatepur Sikri by Akbar, the visionary Mogul Emperor who provided a vision of connective tissues for the hybridized Indian sub-continent for Hindus and Muslims specifically in distinct political and religious precincts. It is a world of both vast and intimate spaces, of sunlight and shadow, of groups and individuals, pavilions and colonnades, figures and fields, all the lessons seen in our fragmentary journeys touched with our hands and digits in this seven-week odyssey in India, yet infected by the Academical Village in our initial quarantine there. This modern project of hybridity demonstrates the archaic enduring lessons we have appreciated first in Chandigarh, then Pragpur, Pondicherry, onto Ahmedabad and finally Fatepur Sikri.

The vast Lawn of the Academical Village has its counterpart in the political forecourt of Fatepur Sikri where the high court pavilion of Akbar oversees the pavilion of the chess board for human-scapes beyond, surrounded by a water parterre, frontal stability contrasted to a dynamic play of figure and fields. These two pavilions respond to the space of the vast Islamic court where a prismatic shrine serves as an extroverted oculus, a distinct realm of the religious connected to a labyrinth of courts and gardens mediating the political from the religious as the Ranges and Gardens mediate the democratic Lawn of multiple botanical hybridity from the outer world of the Americas as a new Arcadian republic. Here we overlay our footsteps of correspondent dimensions and take measure of the two similar scales, then retreat as necessary into grottos of shade and the protective edges of the Akbar colonnades. Here we encounter ten steps, recalling the ten digits on our feet which help us negotiate our humble human scale through architecture to serve as a covenant with the world, again and again. We are curiously at home with the scale of our modest limbs as well as the monumentality of these new world enterprises of Akbar and Jefferson. Against the vastness of the origins of the transposed Indian sub-continent from Africa with the resultant vast Himalaya Mountain range, we have taken measure of the Arabian Sea to the West and the Bay of Bengal to the East, as Jefferson left his project open to the South but placed the Rotunda as head to the North, clearly bounded by the water sources of Arcadia's vast rivers from the Ranges of the Appalachians and the Rockies. It is hoped that William Morris would be pleased by these geological, archaeological and topographic heuristic narratives.

Ground Rules | On Two Hands and Ten Digits



SYNTHESIS

The Academical Village, Charlottesville, Virginia (Thomas Jefferson, 1819-1826)

I return now to a place which is familiar to us all, the Lawn. How might these readings of projects from around the world be interpreted and translated to our reading of the Lawn? How can the Maverick plan be superimposed on the centers and edges of all these diverse projects close at hand and far, far away? What happens to our imaginative capacities if we imprint them true to scale on one another and then true to orientation? Does a human body appear? These works of architecture, through intense material consideration and rigor in craft, generate a greater diversity in scale of formal elements, and in the process more effectively relate to the scales of the human body, from our spine as accountable meter, onto the delicate but instrumental joints of our digits. These are structural, one might say systems within systems, while the weavings of connective tissues we associate with muscles and skins are nourished by our nervous, digestive and circulatory systems, the rivers and canals permitting the magic of our celestial soffits, and sensory aperture.

In each of these projects, the process of making architecture is integral to recovering the smallest scales of design which impact us the most at the modest sensorial oases of our digits by which we sense our world and which identifies our unique fingerprints, our visible ID, hiding our universal DNA of hybridity and connectivity.

Early in our educations, we learn to delight in combinations and permutations. The ten pavilions Jefferson projected on the Lawn is such an exercise in the delight of variations on a theme of caves and tents, the forest edge and the temple front, of the connective spaces of the accountable colonnades, the serpentine walls of Eden's gardens. Each distinct pavilion has a top, a middle and a bottom as if in decorum on the collective front Lawn, but all invest a deep basement if not grotto on their garden back sides, as if other orders of resistance assert themselves as necessary circumstance. The spatial edges of the Ranges encountered the vast topographic pre-conditions of Arcadia close by and familiar to the East, but extensive in Rebecca Solnit's prophecy of "The Blue of Distance" to the West. Look at each Pavilion, and one is not in the Hellenic Agora of serial transaction, but in the Roman Republican frictional Forum of the multiplicities of a she-wolf in dialogue with the enduring embers of the Vestal Virgins. Thomas Cole initiated a heuristic narrative for a New World cultural history; Solnit in her story continues this tale of connective tissues in praise of Lars Lerup's "Building the Incomplete". Here again Sanford Kwinter has the last word "What can be more Modern than the Archaic?"