Working Within the Traditions of a Building Culture

David Powell
Masters of Architecture
The University of Detroit Mercy
School of Architecture
AR 510 & AR 520
Will Wittig, Associate Professor
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Abstract

"Architecture is not so much like a language as it is like the poetic use of a language", which, "requires that attention be paid to sounds, to accidental similarities in words, to the rhythms and cadences of speech. Poetry, in other words, makes use of the materiality of language"
         -Daniel Willis

What are the potentials of an architecture that strives for an earnest and truthful expression? What relationship do architecture and language share? What is the line between the physical and the meta-physical?

This thesis is a pursuit into the metaphysical realm, but such an attempt may only be successful if it begins with an attentive fidelity to our shared physical reality. For architectural purposes, this primarily refers to site, material, and method. Peter Zumthor writes that "Richness and multiplicity emanate from the things themselves if we observe them and give them their due."[1] This pattern of observation (exploration into the "hard core"[2] of architecture's tangible qualities) and subsequent appropriation (a sort of [re]presentation of the discoveries made) is at the heart of the tectonic method. To clarify the significance of tectonics within building culture, it may be understood as the architectural result/response to the poetic event that occurs upon the confluence of site, material, method, activity, and imagination.

The tectonic approach establishes architecture as a communicative practice, concerned with expressing its components in a meaningful way. This is not a ground-breaking notion by any means, (although it may sometimes be forgotten) for like all art, "architecture may be considered an attempt to make the immaterial, material."[3]

An interesting relationship between architecture and language, and architecture as language emerges. A commitment to the value of words and a clarity of meaning may be analogous to an understanding of the essential nature of one's media. Likewise, the bankruptcy of either is symptomatic of an inattention to quality. The import of expression here does not require that a successful architect must be a skillful writer or speaker. For example, where a poet manipulates his/her catalogue of words to express a story or idea, the architect may look to a rich material palette. Language here must be understood as Walter Benjamin refers to it, as a "communication of mental meanings."[4] To deny the expressive potential of the place, substance, and making of architecture is to miss out on an opportunity for a truly significant circumstance. When these elements are paid their respect and duly incorporated in the tectonic method, we may see the physical tending towards the metaphysical and vice-versa.

These conditions are essential to a rich building culture, and they are mutually inclusive in and of each other. When the symbiotic complexities of this relationship are expressed, a truly poetic event occurs. That is this thesis' objective: an architecture of qualitative substance, one that has an evident and significant presence in the world, that communicates with its user and enriches the human condition… an architecture that speaks for itself.

Circumstance

In order that the selected site and program might attend to the aspirations of the thesis, several criteria were developed as a foundation...

Site:

This thesis maintains that there is a unique character intrinsic to any given site. Historical precedence, cultural significance, and ecological conditions are a few contributing components to the site's spirit/essence/vernacular. Therefore, if one is to consider altering any given site by the means of an architectural intervention, it should first be apportioned a reasonable, genuine attempt at researching and understanding its qualities. In order to underline the specific intentions of this thesis, there are some conditions that a potential site should ideally meet. They are as follows:

-A potential site should contain a set of ecological and geological conditions that might be exploited and showcased in the architectural circumstance. These conditions may set the stage for investigations into a reasonable tectonic response.

-A potential site should be found in need. This criterion requires that a proposed program be a legitimate contribution to the landscape, and that all parts of the architectural circumstance, from program to detail, should emanate from the physical/metaphysical character of the site -its essential nature.

Research and architectural investigations into Site will vary in both mode and scale, but their ultimate goal will be the relative understanding of the site's qualitative character and various cultural complexities. These complexities may inform the architectural intervention in an imaginative and meaningful way.

VERNACULAR

Program:

       As with the other elements of the architectural response, the poetic/tectonic approach implies that the activities to take place here are appropriate to their location and have a good sense of their place within the ecological and cultural milieu.

-The program should fit within the context of both the site and the tectonic concerns being discussed.

-The organization of the program should lend itself to tectonic and material investigations. It will be small in scale and probably consist of a variety of small structures.

-It should maintain some spiritual capacity, insofar as a noble activity, craftwork for example, may be considered spiritual.

EDIFY

Thesis

It is a mistake to see the project as an illustration of or graphic equivalent to a 'theory' worked out in advance, but it is not wrong to say that theory prepares the ground for project development. This preparation is far from a settling of the ground (reaffirming the status quo); rather, it is a kind of overturning, upsetting, or shaking. It establishes a place for an 'I wonder'
        -David Leatherbarrow

There is a relationship that exists in architecture, as with all art, between its metaphysical qualities and its physical manifestation. The metaphysical component provides a spiritual and intellectual depth, a source of meaning and richness to what would otherwise be a merely functional endeavor. The physical presence of building and all of its inherent elements (place, substance, construction) provides a threshold by which humans may access this spiritual realm. This materialization is of prime concern to the practical art of architecture, for it acts as the vehicle for a meaningful expression, but simultaneously stands as a vulnerability to the integrity of the architectural circumstance.

The dichotomy between physical and metaphysical content is of such pertinence to this time because it has never before been so profoundly misunderstood and overlooked. Current capitalist competition, market forces, and widespread commodification threaten the meaningful architectural experience at every turn. It is no stretch to say that the profession may well be in a state of crisis, one with historical roots dating back several centuries.

Beginning with trends in the Western European Renaissance, continuing through the 17th, century the occidental world turned its focus towards the philosophy of reason and scientific discovery. The movement took off unabated, and during the Enlightenment it inundated all areas of human activity and thought. The hallmarks in this quest for understanding the universe were processes of reductivism, classification, quantification, and secularization. For architecture, this meant the reduction of architectonic complexity and nuance down to the most readily quantified and standardized condition: architectural form.

Formal emphasis experienced its height of popularity with the onset of the modern movement, in which form-based design and the International Style denied any concern for site context, material issues or other quality-based questions. While this style saw its eventual failure and replacement, the traditions of a reductive, quantity-oriented mentality can be seen everywhere. Architectural 'production', expedient technologies, and a competitive marketplace only exacerbate the problem.

This thesis proposes that a suitable response to this overwhelming issue lies in the traditions of the tectonic culture. In order to retrieve the wealth of spirituality and meaning that architecture may provide, this thesis suggests that the architect must once again turn his attention to the material universe, the real world of making. This is where architecture resides, and it is only by a deep exploration into the tectonic elements of architecture that one might access the metaphysical realm.

The elements that constitute the 'tectonic' for the purposes of this discussion are site, program, material, method, and imagination. The profession must once again turn its attention to the place, stuff, and means of building; it must forget the industrial secularization of architectural production. In doing so, it may return to a quality-oriented practice imagining buildings that find their legitimate place in the real world of things, resonate with the human experience, and add something to people's lives.

Timeline

The previously mentioned artistic paradigm, a duality between spiritual content and material manifestation, is worthy of further exploration as it will serve as the primary foundation for this thesis. It has been explored and remarked upon throughout philosophy and cultural theory. Anthony Ashley Cooper, the third Earl of Shaftesbury, referred to a sort of surface versus hidden beauty to distinguish "natural figure and form; figure was the material object available to the senses (a particular shape, weight, color, and so on), and form was the inner, hidden, or native character available to thought in intuition and imagination."[1] Similarly, this relationship is primary in Hegel's scheme, by which "beauty in art, as opposed to natural beauty, derives from the extent to which the evolving spirit and its corresponding form are related... art comprises a dichotomy consisting of the idea and its material embodiment".[2] Later on, in the nineteenth century, German architect and academic Karl Bötticher came to coin the terms Kernform (core form) and Kunstform (art form). In this relationship, the Kernform stands for an ontological status while the Kunstform took on a representational role. The art form, by methods of construction and articulation, reveals the essential idea of building. For Bötticher and his colleague Karl Friedrich Schinkel, this meant the expression of a building's essential construction and institutional status.[3]

All of these models discuss the same struggle for union between an essential idea and its material manifestation: figure and form, ontology and representation, metaphysical and physical. Within this system architecture holds a special position. The most practical of all art, it is inevitably concerned with its own physical embodiment. It carries with it a unique set of worldly parameters that restrict and limit the processes of its creation. While other disciplines also have a particular set of rules and limitations, they are not to the same degree as those of architectural practice. The architect must meet requirements for structural stability, economy, and building codes just to name a few. This need not be a hindrance, however, for limitations can create a greater capacity for richness in meaning.

The idea that architecture, as an artistic discipline, has a sort of onto-logical spirituality associated with it is not necessarily groundbreaking to the academic community where this thesis has been conceived and developed. It is, however, often a challenge to the professional realm, where it may be overlooked in favor of efficiency or cost-effec-tiveness. The discipline's status as a practical art makes it all the more susceptible to compromise, and the architect of meaning struggles against the pressures of the modern value system.

These pressures are nothing new to the profession. Rather, they date back as far as the Western European Renaissance where western philosophy turned away from the medieval model to the Age of Rea-son; a new secularism attempting to understand the universe through science and abstraction. Old institutions were being uprooted and replaced by new democracies, and reason and understanding be-came the rallying call of freedom and progress. By the height of the Enlightenment, there was little contradiction. The universe was viewed as a grand mechanism, like an equation that may be broken down and reduced to the point of understanding. The methods of this math-ematical understanding were quantification, classification, reduction and further scientific tools of the same thread.

Ultimately, egotism became the driving force behind this reductivism, that one might reduce phenomena down to incontrovertible law in order to understand and control it. Virtually every field of human en-deavor was affected. Willis writes, "this had the effect of removing the essence of architecture from its material existence and placing it in an abstract, ideal realm where theory, through its uncovering of universal laws, could dictate proper practice."[4] He goes on to explain that "the aspect of architecture that could most easily be represented mathe-matically was the shape of buildings… visual 'form' was the fundamen-tal quality of architecture."[5] Form, or the image quality of a building became the primary basis for both its creation and judgment. Dalibor Vesely writes about the approach, that this particular understanding of form is only as old as the late eighteenth century. He writes, "until then, a whole spectrum of terms such as paradigma, typos, symbol, alle-gory, emblem, impresa, schema, figura were used to grasp the mean-ing that was later given to 'form' itself."[6] Bit by bit material concerns, craftsmanship, vernacular, culture, context, and history all took a back-seat as superfluous, 'aesthetic' and even detracting.

This mode of thought was sustained throughout the nineteenth cen-tury, where it would meet only pockets of objection, and into the twen-tieth century, where it would find its apotheosis in the modern move-ment. During this period the respect for straightforward geometry and

uncompromised functionalism reached the heights of a canon. The white box was venerated as an ideal form and it would be sinful to entertain thoughts of ornament or complexity. The International Style took design to the point of complete abstraction. The regional context or the inhabiting culture was no longer of any significance; architecture lost site, and buildings lost any connection to their place in the cosmos.

This banal style and egotistical abstraction is not a sustainable condition, and the architectural community came to notice the complete deprivation of meaningful constructions, but post-modernism's response was, once again, an image-based superficiality. One cannot blame the post-modernist's desperate attempts at filling up the void that modernism, with its enlightenment traditions, created. But the style (and it was certainly crippled by its dependency on stylization) grasped ineffectively at historical reproduction. This sort of mindless, arrogant aping of symbolic precedents without any attempt at critical adaptation was little more than the modernist's mode of operation Symbol does not necessarily make for significance. The displaced motives and ironic images of the post-modern style, though a direct reaction to modernism, did nothing more to return architecture back to its place in the material world.

In the current state of affairs, architectural ontology is as much at risk as ever. Architectural production is still largely focused on the image-quality of a building. The world's ever increasing pace causes building's to frequently be thought of as machines or organizations that maximize efficient functionalism. Not everything can be reduced to charts and graphs, but it does not stop the corporation from trying. Building's can be designed and reproduced from anywhere in the world for anywhere in the world. Advancement in the technological fields not only facilitates this rapid process, it practically demands that architecture engages in this production mode in order to stay competitive and cost-effective. When progress is seen as the optimum, the lived past is made obsolete. In architecture and elsewhere, quality is evidently lacking. This is the 'they don't make 'em like they used to' syndrome on a grand scale, what Kenneth Frampton refers to as the "spontaneous megalopolitan proliferation of our times,"[7] and architecture is struggling to keep up. While the whole quagmire is chalked up to progress, there appears a disparity, in that the quality of life does not seem to increase proportionally. This thesis is a proposed response to the critical situation.

Tectonic Traditions of the Building Culture

This thesis and its corresponding project are ultimately concerned with an architectural pursuit into the metaphysical realm, in order that a building might be developed that resonates with its users physical and cognitive experience. The characterization of this experience, given the material nature of architecture and the tangible mode of human access, must be a physical manifestation. In other words, while the main goal remains an ontological experience that will benefit the human condition, the only means of creating a metaphysical connection is through direct physical manipulation. While this appears to be a contradiction, an attentive look at the history and nature of architectural invention shows that it is the most appropriate, and perhaps only successful, approach. In Thinking Architecture, Peter Zumthor quotes Calvino as saying "the poet of the vague can only be the poet of precision!"[8]

This paradoxical relationship in poetry relates directly to the ideas being discussed here. Without diving too deeply into the similarities between architecture and language, one might argue that there is a certain materiality of words, as there exists a materiality of site or building, which the poet must become a master of. Daniel Willis writes that "Architecture is not so much like language as it is like the poetic use of language," which "requires that attention be paid to sounds, to accidental similarities in words, to the rhythms and cadences of speech. Poetry, in other words, makes use of the materiality of language."[9] In order to create a meaningful expression or transcend to a higher level of metaphysical connection, what Hegel refers to as the 'evolving spirit', the poet and similarly the architect must make use of the materials and methods of their craft. A fidelity to the physical environment has an inevitable meaningful effect.

This is not a necessarily new or groundbreaking idea. The tectonic culture within architecture has long been promoted by theorists and practitioners in the face of widespread abstraction, and it is as important as ever that the profession remind itself of its own tectonic concerns. It is now appropriate to speak more specifically about the various components of the tectonic method, and after analyzing the practices of historically successful architects, this thesis proposes five topics that make up the tectonic approach. They are: site, program, material, method, and imagination.

A discussion of these topics introduces a few difficulties. For one thing, they have been explored and written about by far greater minds, and the articulation of these components is better left to the architectural

circumstance than written theorization. Furthermore, isolating any one topic for elaboration makes for some challenge, given that they form a symbiotic approach to design and there is a great deal of overlap between each. As in the architectural project, consideration of one affects and is affected by the consideration of another, so they cannot be treated as a step-by-step checklist. Regardless, it will be a valuable exercise to expound on each of these topics with some degree of brevity.

Site

David Leatherbarrow provides some insight to a modern conception of the site that has very little to do with its essential character. He writes that "because of our dependence on site plans and other [abstractions] we have largely missed the creative aspect of site definition and the architect's responsibility to 'invent' the site of any design project."[10] Leatherbarrow outlines three particular lenses through which people commonly value a site: the site as an area of measurement, the site as a space in context, and the site as a parcel of land with ownership. The first case deals specifically with an abstract method that distances the architect from essential knowledge of the site. This relies on the quantification of its parameters, topography and distances. The second instance, site as context, seems to come closer to an understanding of core properties along with external factors that influence site definition, but this practice still tends to stop at surface-value. Particularly in an infill situation, this approach analyzes the image-quality of the surroundings, and seeks to extend and imitate style and geometry in a superficial way. Context is certainly important, but it needs to be considered more thoroughly and with greater sensitivity to hidden relationships. Finally, in the last view, site as capital, land is seen as a commodity with attached value. The problem here lies in a general attitude toward the site as an abstracted number with a fluctuating value. None of these views are unimportant or inapplicable. It is in their privileged status, however, that they become inadequate in determining a lasting site definition. Any one of these approaches does not adequately prepare the architect to "understand what identifies the enduring qualities of a specific place."[11] A more in depth investigation of a site's essential character is required.

The ancient Greeks recognized the importance of careful site selection and investigation. They understood that a particular function must find its appropriate place within the built landscape and the world. Site investigation, for them, demanded special attention to the water and air quality of a place and went as far as to study the bend of trees and the contents of animal's entrails. While these extents might seem ex-

cessive or mystical to this time, they are indicative of an unfailing concern over the compatibility between a site and its construction. More recent architects exhibit a similar concern.

For Schinkel, "the land itself was seen as a repository of a primitive identity, and the task of the architect was to adapt his normative typology to the idiosyncrasies of a specific topos... this synthesis could only be achieved though a fundamental respect for the character of a place and its people."[12] The success of his approach is evident in his adaptation and transformation of Berlin's urban landscape. In a similar yet rural vein, Frank Lloyd Wright took the stance that any design should derive from and complete the landscape.[13] His architecture often drew from the concept of the 'good ground', paying great attention to the essential character of the site and inspiring designs that truly communicated with their surroundings. Most recently, Glenn Murcutt's work shows how faith in the cultural and environmental vernacular of a place can produce outstanding constructions that identify with an entire continent. These architect's work illustrates that site understanding cannot come from abstraction or quantity. Though intellectual, site definition is also tactile, historical and experiential. Leatherbarrow writes, "when sites are seen as places of typical events, as the concrete embodiment of those events, according to the analogy between bodies and places, then site definition can be seen as a topic experienced as reciprocal reach, where opposites come face to face, as a matter of decorum, aptitude, or fit...not division of space, physical context, or ownership."[14] This serves as both a great summation and a timely reminder of the all important human factor.

Program

Of all the tectonic elements being discussed, program, or the area of human activity, may appear to be the least threatened. After all, a building's functions are the primary reason for any construction, and the client and architect should therefore have this concern at the forefront of his or her mind. There remains, however, an attitude towards program that is not inline with the tectonic method.

It can be very tempting to think of program as something deterministic, that one might predict human behavior and manipulate space in such a way as to control an anticipated response. This idea of architectural determinism is a fallacious remnant of the enlightenment-modern egoist mentality. It is another attempt to understand and dominate architecture, and it diminishes a building's value. Determinism's counterpart is architectural emptiness, a tectonic consideration that really applies

to every condition, but fits in well with the topic of imagined human activity.

Michael Benedikt writes that "Architecture with emptiness is thus always unfinished: if not literally then by the space it makes and the potential it shows... the urge is strong to make a building complete in itself and finished... but totality and completeness are too often achieved at the expense of realness."[15] Emptiness, here, does not refer to an emptiness of meaning as was the case with modernism. That emptiness was something hollow and deafening, and the reaction was to fill it in with displaced symbol and meaning. As has already been mentioned, this approach proved to be artificial at its core and not really sensitive to the nuance of human behavior.

Instead, this architectural emptiness draws one in, and refers to the space for potential. This emptiness is serene rather than forceful and leaves room for a potentially poetic event. In Leatherbarrow's words, "the situation not the setting is the constant human possibility."[16] The addition of human presence adds weight and gives life to the architectural condition. This situational thinking requires an amount of humility, sensitivity, and imagination not common to the enlightenment tradition. A creative imagination must anticipate and provide for the needs of any given activity while letting the space become what it may, thereby transcending its intention.

The ultimate goal is a tenuous balance between determinism and emptiness. The architect must not discount the weight of his own decisions nor the effect they may have on human activity. Simultaneously, one must understand that users will engage their environment in unique and often unforeseen ways. This should not be seen as a threat to the formal perfection of a design. Rather like the weathering of a building over time, architectural emptiness and human potential may add weight, character, and realness to a construction in a way that no design step ever could. A building is without its spirit, never really alive, until it is engaged by a user. This interaction grants authenticity to the substance of a piece of architecture physical

Material

This thesis and all its underlying topics fall under the umbrella of materiality, insofar as meaningful real-world architecture must be obsessed with physicality. This topic focuses on tangible substance, the 'stuff' with which a building will be made, recognizing that a material, as soon as it is first extracted from its place in the world, is altered and then re-presented with a new role and constitution. Materials are

undoubtedly one of the most poignant and expressive elements in this tectonic culture. "Because it only appears indirectly," Daniel Willis writes, "architecture is not contained in objects or things, although it depends on them."[17]

Architects must fall in love with materials, dive into their world, explore their mythology, learn their idiosyncrasies, and determine, to the greatest level of suitability, how their application might best be utilized to the benefit and enrichment of the architectural condition.

There is a great history of efforts in this area, particularly within the vernacular tradition. Architects have taken such strong positions on the virtue of materials, that any aberration in one's use and authenticity has been seen as inappropriate and even, as John Ruskin and others have claimed, immoral. While morality may be in question, for the purpose of this thesis, the integrity and just use of a material has a definite poetic and ontological effect on a building.

Method

There is such a link between a material and the methods of its use in construction that much of what was said previously applies here as well. Observation of material characteristics predicates ideas about how different members should be joined and built up. In some cases a chosen material suggests a particular means of connection or a certain role in a construction, in other cases it may demand them. Around the world, changing environmental conditions and different cultural values result in a rich variety of construction methods for any given situation. Human ingenuity, sometimes by choice but often by necessity, provides a great wealth of construction techniques. At times they are mundane and repetitive, other times undeniably exquisite, but in any case, it is the thoughtful expression of these building's material elements and the methods of their assembly that constitutes a poetics of construction. This is at the heart of the tectonic culture and ought to be inherent in any architectural creation. Otto Wagner corroborated this point when he wrote, "Without the knowledge and experience of construction, the concept 'architect' is unthinkable."[18]

An etymological exploration uncovers a relationship between intellectual conception and expressive construction. The Latin word construere, meaning to pile up, build, or arrange, serves as a common root word shared by the terms construe and construct.[19] While these words differentiate between intangible and tangible conditions, their commonality points towards a reciprocity between mental constructions and physical artifacts. In the primary act of construing, an architect

imagines, designs, creates a work of architectural that hopefully possesses some depth and metaphysical import. The physical manifestation of the architect's mental constructs may occur in such a way as to express both the physical and cognitive aspects of this work, a building that speaks to its users. In the third phase, the ontology behind this process may be perceived and translated by humans, with their own existential background, into something meaningful. The work of Carlo Scarpa can be particularly helpful in this example.

The Italian architect, widely acknowledged for his grasp of tectonic expression, employed an interesting method of drafting and production that involved the use of montage, whereby an initial idea would be traced over, grown, altered, and developed into its final version for construction. The process included special attention to the design's tectonic concerns, which, when constructed, pointed back to their own conception. In particular, Scarpa's care and articulation of the architectural joint, a traditional hallmark of the tectonic building culture, became his buildings' most expressive and meaningful elements.

As in Gottfried Semper's paradigm, the joint has always held a special place in a building's construction; it is the greatest example of physical conditions arriving at a metaphysical ontology. It is one of the most primitive forms of architectural expression, as the first architectural act required the joining together of different members. Fighting against the modern/imperialist call for homogeneity, it also marks the diversity of materials within a building, showing that architecture is more than just a mental abstraction consisting of ephemeral substance. It is a real-world condition, constructed from a rich variety of materials and different methods of joining them. Simultaneously, the joint embodies human intention within the architectural circumstance, the deliberate construing of a design to fulfill a specific purpose. The joint's weight as such an essential and symbolic construction element lends meaning to its expressive potential.

Imagination

At its conception, this thesis did not include any regard for the human imagination, however, following the previous explorations, exclusion of the imaginative influences seems entirely inappropriate. The other four tectonic components (site, program, material, and method), while being essential to the development of a rich, meaningful architecture, may only amount to a recipe for building. If these are to be viable modes of operation for architectural invention, they must be thought of as something more than items on a checklist or variables in an equation. There is a danger in treating each component as deterministic.

A particular site, for example, should not preordain a certain building without surprise or variation. This would be no different from the mechanization of form-privileged architectural production.

Instead, one must consider the creative capacity for human imagination. Architectural image-creation surpasses two-dimensional thought. Willis writes, "The poetic image is a 'sudden salience' of the psyche, an ecstatic condition of mental reverberation that produces imaginative weight and depth."[20] The physical object and its image are inextricably linked. The consideration of site, program, material, and method each add another dimension to a building, granting it the 'weight and depth' that a meaningful architecture seeks. The architect must understand these elements as essential tools, but without imagination they may be lifeless. The spirituality of their confluence is made possible by human cognition.

Imagination is more important now than ever, because it is the most at risk. While the other components may be abused, they are ultimately necessary for the building of a structure. A building cannot exist without a place, a function, or a specific assembly of its parts, but it may come into existence without any of the dynamic processes of imaginative creation. The human intellect, though resilient, can still be a fragile thing. It has been the object of much abuse; "One defining characteristic of modernity has been our cultural de-emphasis on the material imagination."[21]

Imagination, the bringer of spirituality to a work of art, is not always cost-effective. It cannot be understood mathematically, or abstracted to the level of charts and graphs. In a capitalist culture that values reductive understanding, there is little room left for imagination. In our society, "the objective standard of truth relegates all concerns not readily quantified into unambiguous measures to the realm of the subjective, where they may be dismissed as mere caprice or personal preference."[22]

It is tragically ironic that the initial wonder and awe for the universe's inner workings has led to a devaluation of creative imagining. This unfortunate consequence of the last 600 years' worth of intellectual progress dismisses imaginative efforts as unrealistic and largely irrelevant. The tectonic imagination, however, need not withdraw from reality. Instead, it may emanate from it, elevating the architectural circumstance to a poetic plateau.

The particulars of site, program, material and method must no lon-

ger be overlooked. When perceived imaginatively they provide for architecture, in association with human engagement, all of which is meaningful, spiritual, and uplifting. The hope for this project is that in proceeding with great sensitivity to these topics, the architect may take part in a divine activity that results in the improvement of the human condition for those who may interact with the site of intervention in question.

Precedent

Project Title: The Marika-Alderton House
Architect: Glenn Murcutt
Client: Mamburra Banduk Marika and Mark Alderton
Site: Yirrkala Community,
          Eastern Arnhem Land,
          Northern Territory, Australia
Date: 1991-1994

Glenn Murcutt

The 2002 Pritzker Laureate employs a one-man approach at his architecture firm in Sydney. Without partners or assistant, everything in his office is done his way, by hand. "The slowness this imposes in itself" suggests David Malouf, "echoes the timelessness of nature, a conscious rejection of machine time."[1] Murcutt's approach is reflected in the architectonics of his constructed work. The thorough attention paid to material quality, expressive construction, and environmental harmony results in a catalogue of poetics that has been founded in and come to stand for Australian regionalism and culture.

SITE

The Yirrkala Community is sited in a tropical northern region of Australia that is severely hot and prone to flooding and high speed cyclonic winds. The remote character of the site puts the project at a loss for local skilled craftsmen. Furthermore, Murcutt was met with the challenge of finding balance within the Aboriginal culture, which has its own customs and construction heritage but historically, has never built permanent structures. The Marika-Alderton House developed into a prototype housing concept for Aboriginal peoples in this region. The house's sections, prefabricated by Sydney carpenters, were assembled on site by two craftsmen in just a few weeks.
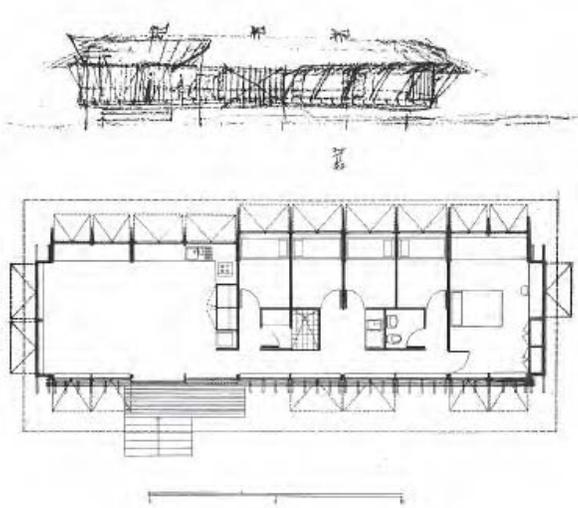
CLIENT

Aboriginal artist Marmburra Banduk Marika, her husband Mark Alderton, and their family. Aboriginal cultural values have long been at the heart of Murcutt's design practice. He has held the Aboriginal proverb "Touch this earth lightly" as his mantra, and it translates legibly into this house, which is frequently characterized as a bridge between cultures.

APPROACH

Murcutt's design repertoire exhibits a great deal of care and attention paid to site conditions, materiality, and ecological issues. The common result is a well-crafted and expressive building that contributes to a regionally appropriate Australian style. The Marika-Alderton house is no different. It exemplifies its architect's approach to challenging conditions introduced by site, client, and culture, his sensitivity to a regional ecology, and his adept sense of material and tectonic expression. All of these are central to this thesis.

Process

It will be helpful to look specifically at some of the design tools used in Murcutt's process. In order to keep safe from natural disaster, the house is raised on stilts, contains no glass and is given generous column thicknesses. This raised platform also facilitates air circulation under the house, which is only one aspect of the structure's complex ventilation system. The building is characterized by its openness. Multiple large sections of the exterior walls contain regular 8 mm. openings and are equipped with hydraulic jacks to open and close as the user prefers. Furthermore, fins redirect cool air high into living spaces while hot air is exhausted via tubes on the roof's ridge. The roof's eaves extend far beyond the interior structure to provide ample shade and an elegant aesthetic feature. The resulting forms, along with the color and material qualities of the structure, fit into their context comfortably. Although the house hovers slightly above the terrain and its presence its sharply pronounced by its stark red rendering, it simultaneously seems completely at home in its environment. Complete with solar collection, this house is a prime example of a regionally aware structure, in touch with its surroundings, but there are equally important cultural contributions from these sustainable strategies as well.

There is the primary relationship between the aboriginal ideal of harmony with the land and this design's sustainable approach. Digging deeper, one finds that it is culturally important to signify to one's neighbors if a home is open or closed to visitors. In addition, aboriginal peoples are not well-accustomed to permanent structures, and to this Murcutt adds that "there's the whole spirit of being within the building and yet outside the building, and the building could be modified so that you could feel it was just a platform outside."[2] The systems within this house allow for communion with the character of its owner and with that of the land; they form a new step in delineating the boundary between inside

and out. Its technical features converge to form a spiritual experience that transcends its mechanistic or tectonic features. Murcutt's rigorous and detailed approach to the minutia of one's cultural and ecological surroundings underlines the relationship that exists between physical and metaphysical.

Relevance

Murcutt's mastery of tectonic form and ecological design are of great interest to this thesis, but its relevance depends more so in its derivative, that which makes it appropriate. Whether it be intentional or not, his work serves as a polemic against the universal edicts of the modern movement. With special sensitivity to the site (macro, messo, micro) and its inherent implications, Murcutt develops and promotes a critical regionalism. This lends significance to the ingenuity of thought behind his buildings' sustainable systems.

Moreover, following in the tradition of the likes of Jørn Utzon, Alvar Aalto and others, Glenn Murcutt utilizes a unique material imagination coupled with an expressive tectonic in order to establish a dialogue between site, building, and user. It is at the moment when these things come together that the poetic of construction takes shape, meaning is pronounced, and the physical may become metaphysical.

Sun

SE WINDS
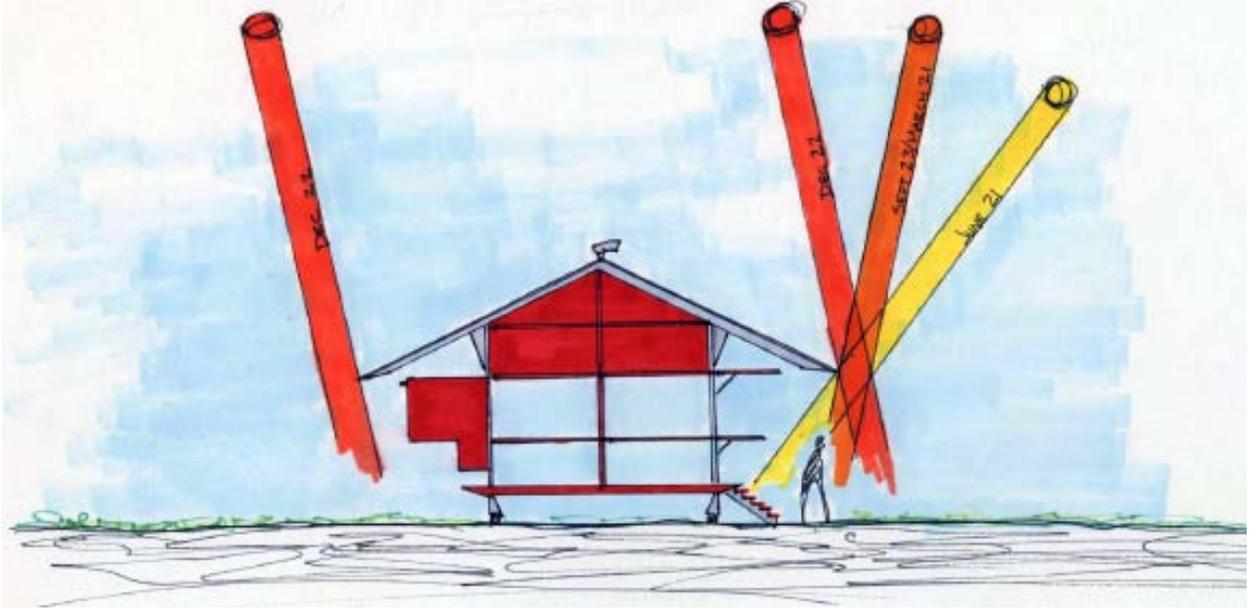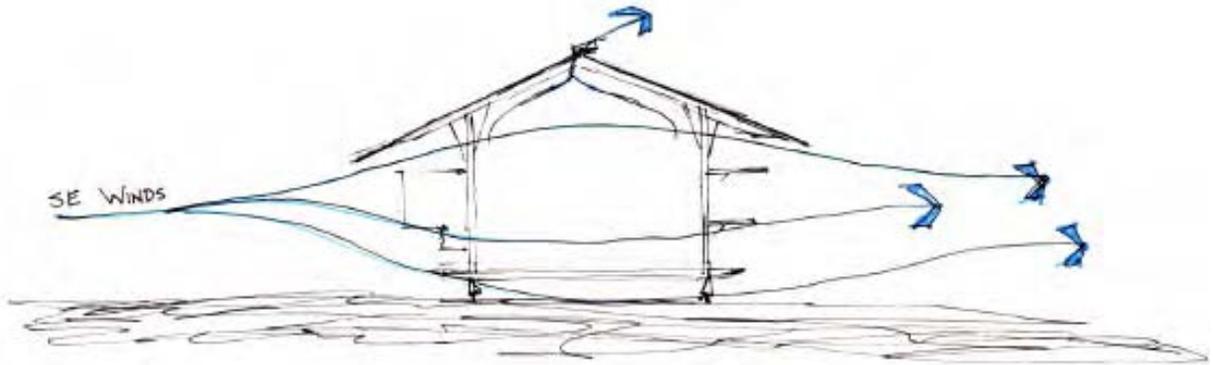
Wind

Color

Project Title: The Leeper Studio Complex
Architect: Maryann Thompson & Charles Rose
Client: The Atlantic Center for the Arts
Site: New Smyrna Beach, Florida
Date: 1994-1996
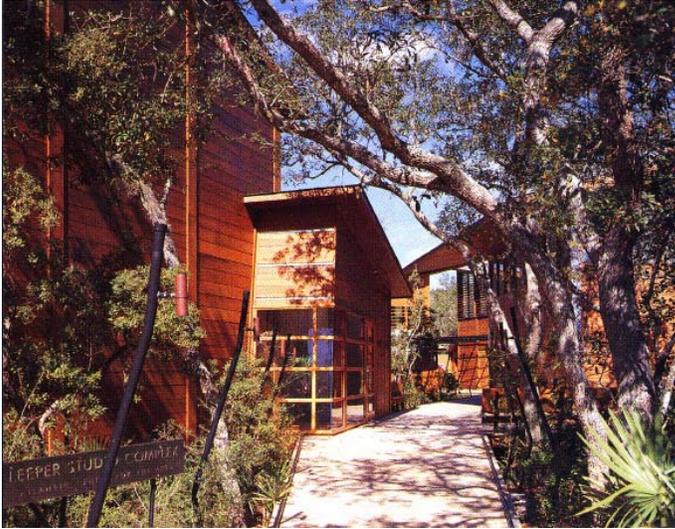
ACTIVITY

The most relevant aspect of the Leeper Studio Complex to this thesis is its program. The ACA is a center for collaboration among artists of various disciplines. For a period of 3-6 weeks, these mid-career artists may come and benefit from the experience of 'master artists' who are considered leaders in their field. The disciplines at the ACA include dance, sculpture, painting, music, composition, writing, acting, and photography. The design intent of the complex encourages cooperative encounters across these various fields. Although there are occasions for public interaction, most of the attention at the ACA is directed inward. There are, however, numerous examples of artist's communities that are oriented towards the public through youth programs, exhibitions, classes, etc.

Site

The 60 acre center is situated in what is commonly referred to as Florida jungle. The vegetation is dense but beautiful, consisting of scrub oaks, palmetto bushes, and pine trees. It was important to all parties involved that the site be disturbed as little as possible. Hurricanes prove to be the biggest structural concern for builders, complimenting torrential rainstorms and a problematic flood plain to create some challenging conditions.
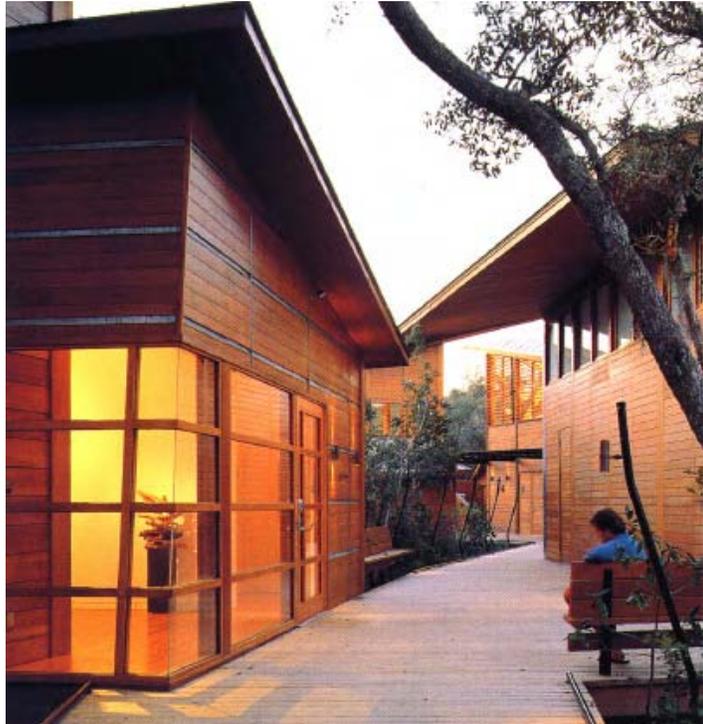
Designer

Maryann Thompson and Charles Rose are a married couple, both from the Harvard Graduate School of Design. Thompson has the added compliment of a degree in landscape architecture. Their collaborative design process focuses on the "phenomenology of the site"[3] by which they hope to heighten the user's awareness. Thompson refers to their projects as "machines for reinterpreting the landscape"[4]. An interesting step in the team's process, which may be of some aid to this thesis, involved analyzing building vernacular along similar lines of latitude throughout the world. They also met regularly with artists from the ACA to develop their understanding of programmatic needs and the spirit of work that would go on at the Leeper Studio Complex.

Process

In order to minimize site destruction, the architects were adamant that the design scheme consist of several small buildings rather than a monolithic whole. This approach also leant itself to the program's interdisciplinary nature. The dramatic roof forms, made subject to intense wind, were engineered to the highest standard and are tied down in places with steel cables. In addition each roof communicates the shedding of rainwater, with large pronounced roof drains, and the extended eaves moderate interior temperatures by accounting for solar angles.

To handle rains and heavy flooding, the structures are all lifted on pier foundations. They are connected by a winding 'boardwalk', which is also raised off the ground. This walkway unifies the disparate buildings, making spaces for socializing and collaborations. It also controls the user's progression where, in concert with the natural surroundings, elements of the complex might be experienced bit by bit.
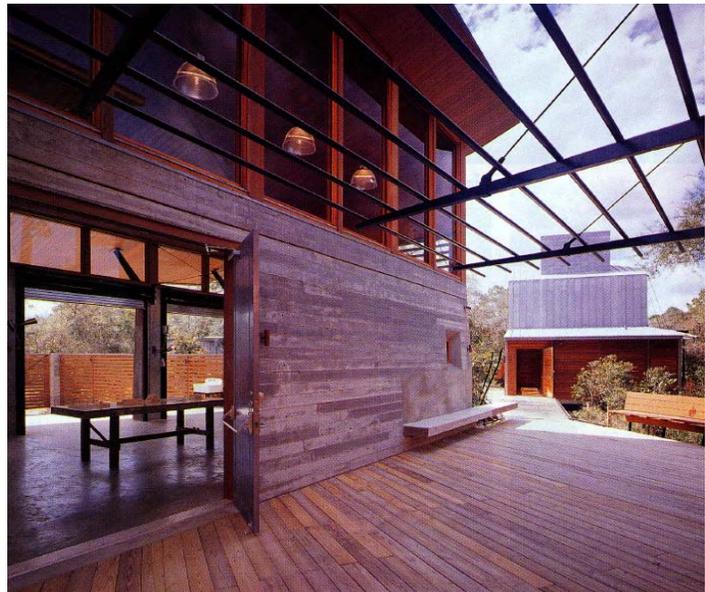
SITE: Selection

One premise of this thesis pertains to the site as a generator of meaning for the overall project. Every site contains an implicit story, comprised of its ecological conditions, cultural significance, historical precedence, etc. The consideration of these elements within the design may add richness to the architectural statement. Given that any and every site has a unique and valuable story, a degree of randomness may be justified in the selection of a building location. This condition also simulates a practical approach to architecture, where, in the professional sense, sites are typically provided without much input from the architect.

CRITERIA

While blindfolded, three different participants threw darts at a map of Southeast Michigan. This embrace of randomness led to three potential sites, which were then observed and evaluated for their relevance to this thesis next to previously determined criteria:

-Ecology
-Culture
-History
-Geopolitics

Site 1

Ray Road - The county Line between Oakland and Genesee counties. Just West of the Ortonville State Recreation Area

Conditions

The dynamism of this site stems from an examination of the whole road as a collage of parts. It is a natural area with semi-rural and residential uses. There exists a rich variety of old and new buildings and functions, and each lot contributes something to the overall character of Ray Road.

The variety present at this site is certainly colorful and intriguing. The residential nature of the area, however, could limit a wide range of programmatic possibilities.
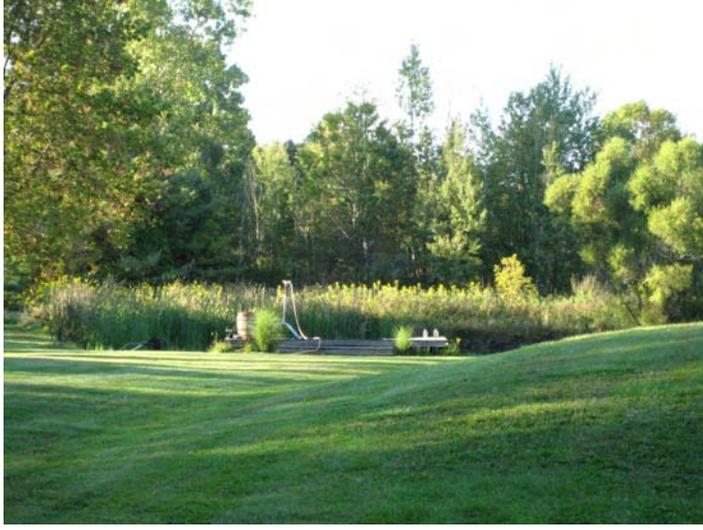
Site 2

East of Ann Arbor - North of M-14, off of Warren Road and Dixboro

Conditions

This second site is also semi-rural with adjacent residences. It is surrounded by trees within a beautiful natural context and has a stream running on its North side. There are subtl changes in topography, which, together with the vehicle-wide circulation patterns, indicate some historical usage and a possible building. The beatiful vegetation and dynamic landscape make for very intriguing possibilities.

Warren Rd

Warren Rd

Thornwood Ct

Building Culture

SITE 3

Cedar Island Lake -
Located in Pontiac, just South of the Pontiac Lk. State Recreation Area.

CONDITIONS

The third site is located in a predominately residential area, with some obvious recreational applications. This panoramic shows a clearing/beach that is accessed by a winding dirt road and is used and maintained by local residents. The site could lend itself to some interesting progammatic and structural explorations, however, the site is widely used and doesn't appear to be in need of any specific architectural intervention.

Site: Analysis

"Even, or especially, when the world is seen most sensitively, vividly and dispassionately, our humanness is already soaked into it... You cannot catch the world unaware and naked of meaning"

-Michael Benedikt

Site

Dominos
Farms

U of M
Ann Arbor

23

14

Site Analysis

Building Culture

Site Analysis

Building Culture

Site Analysis

Dec. 21

March/Sept. 21

June 21

Site Analysis

Site Analysis

Building Culture
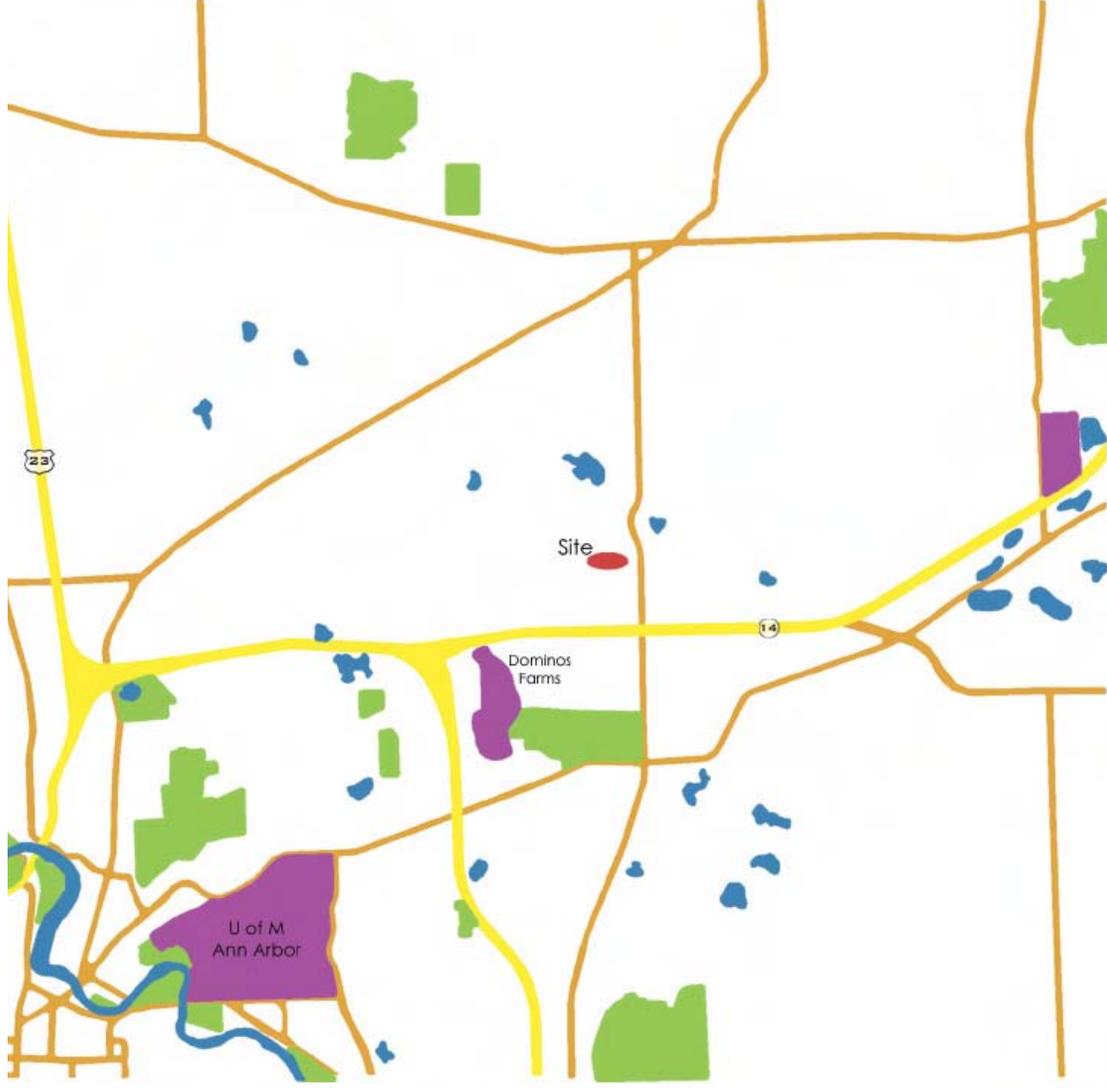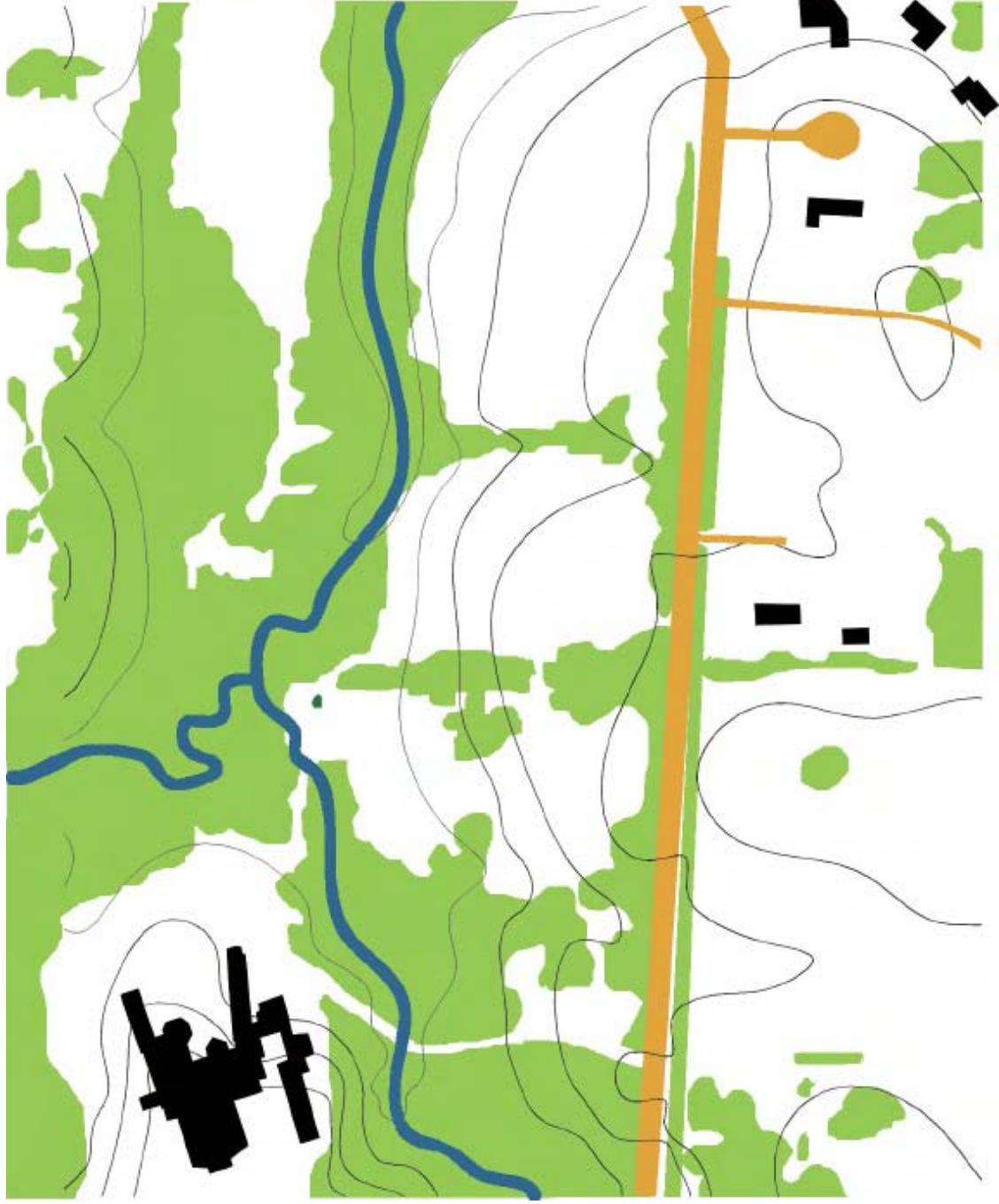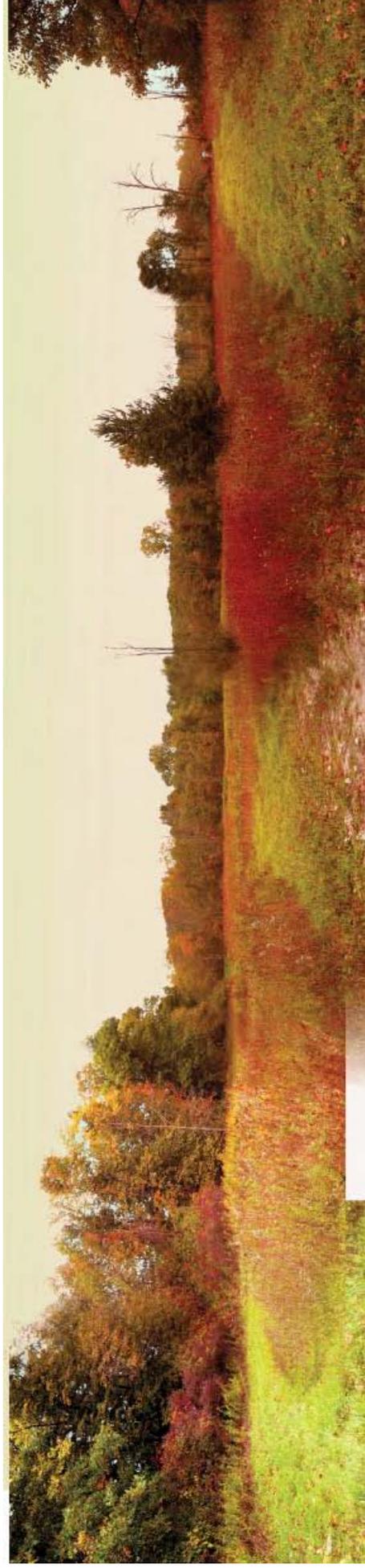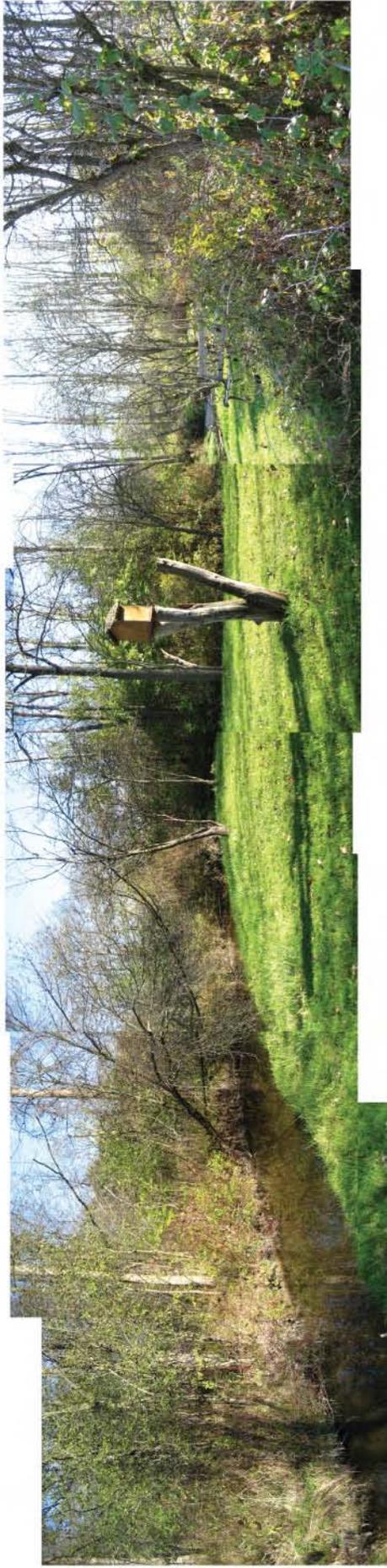
Project Summary

This aspiration is to develop an expressive architecture, rich in meaning that is grounded in the realistic realm of materials and methods of their construction. The investigation into the gray area between metaphysical concepts and their physical expression is a condition that is common to any artistic pursuit. In other words, "all art is an attempt to give form to that which is intangible."[1] This attitude towards art can be seen as essentially intuitive, but there have been periods where it has been made quite explicit. German enlightenment thinkers, for example, delineated the relationship between Kernform and Kunstform where:

    -Kernform- 'core form'- ontological/metaphysical
    -Kunstform- 'art form'- representative/physical

If these may be seen as two components to artistic production, certain tectonic methods may become the architect's mode of mediation, but what is most relevant in this portion is to recognize that their dichotomous relationship is prevalent within any artistic discipline. The artist's struggle between the physical and the metaphysical becomes a common denominator among various modes of artistic expression, and the symptoms of this linkage are evident. This calls to mind Goethe's reference to architecture as "frozen music." It is why the concept of eurythmy may apply not just to architecture, but to poetry, music and dance as well.

This condition gives rise to the program circumstance, by which these ideas will be tested. The proposed design problem is an artists' collaborative retreat, where artists of various disciplines may take some time away from everyday life, to work, live, and grow together. This proposal asserts that confinement to any single mode of artistic expression might limit the potentials for valuable learning experiences. Although most artists are likely to be cultured persons with exposure to the ideas and techniques of other disciplines, there is the possibility that in this setting, a more active kind of cross-pollination may take place early on and throughout the creative process.

It is important then for the architectural circumstance to facilitate each artist's benefit, both in the spiritual advantages of the retreat condition and the encouragement of a collaborative, creative community. While providing an infrastructure to each discipline, the architecture should also accommodate the variable and open-ended nature of artistic collaboration.

The primary pool of disciplines for this campus consists of music, writing, painting, sculpting, and dance. A small number of senior artists, respected and established leaders in a given field, may be invited to this site for a period anywhere from 2-6 months, at no cost, to serve a project-based residency. Simultaneously, they may act as mentors for the junior artists that will come for a shorter period of time (approximately 3-6 weeks). These mid-career artists may learn from their mentors and from each other in a collaborative process that will span discipline, technique, media, age and ideas.

Mentor artists will take up residence in the common building, where meetings and communal meals will also take place, while artists may reside in the three studio buildings. Additionally, a black box theater building (not designed) will serve exhibition needs for both the performing and material arts.

Quantitative Summary

Commons

Common Area		**2,000 s.f.**
Senior Artist's Residences	5 units @650 s.f./person	**3,250 s.f.**
Bedroom		200 s.f.
Bathroom		100 s.f.
Kitchenette		150 s.f.
Living Room		200 s.f.
Common Lounge for senior artists		**350 s.f.**
Administration		**650 s.f.**
Director's office		100 s.f.
Assistant director's office		100 s.f.
Conference room		300 s.f.
Reception area		150 s.f.
Restrooms		**400 s.f.**
Men's		200 s.f.
Women's		200 s.f.
Kitchen		**500 s.f.**
Laundry Room		**300 s.f.**
Electrical/Mechanical		**520 s.f.**
7% of total square footage (7,450 s.f.)		
Circulation		**1,490 s.f.**
20% of total square footage (7,450 s.f.)		
Total		**9,460 s.f.**

Painting/Sculpture

Painter's Studio   **2,000 s.f.**

Sculptor's Studio   **3,000 s.f.**
    Work Space   500 s.f.
    Wood Shop   1,000 s.f.
    Metal Shop   1,000 s.f.
    Storage   500 s.f.

Outdoor Gallery   **800 s.f.**

Shared Cleaning Facilities   **150 s.f.**

Darkroom   **60 s.f.**

Living Quarters   8 units @250 s.f.   **2,350 s.f.**
    Bedroom   200 s.f.
    Bathroom   50 s.f.

Lounge   **350 s.f.**

Entry   **100 s.f.**

Electrical/Mechanical   **653 s.f.**
    7% of total square footage (9,330 s.f.)

Circulation   **1,866 s.f.**
    20% of total square footage (9,330 s.f.)

Total   **11,849 s.f.**

Dance/Music

Dance Studio		**1,500 s.f.**
Dressing Rooms	M + W @300 s.f.	**600 s.f.**
Toilets		150 s.f.
Dressing Space		150 s.f.
Music Studio		**1,000 s.f.**
Practice Studios	2 rooms @150 s.f.	**300 s.f.**
Recording/Mixing		**200 s.f.**
Lounge		**300 s.f.**
Living Quarters	8 units @250 s.f.	**2,350 s.f.**
Bedroom		200 s.f.
Bathroom		50 s.f.
Entry		**100 s.f.**
Electrical/Mechanical		**445 s.f.**
7% of total square footage (6,350 s.f.)		
Circulation		*1,270 s.f.*
20% of total square footage (6,350 s.f.)		
Total		**8,065 s.f.**

Writer's Tower

Library/Archives		**1,000 s.f.**
Live/Work Units	4 units @450 s.f.	**1,800 s.f.**
Bedroom		150 s.f.
Study		150 s.f.
Balcony		80 s.f.
Bathroom		70 s.f.
Lounge		**300 s.f.**
Kitchenette		**100 s.f.**
Maintenance Garage		**500 s.f.**
Electrical/Mechanical		**260 s.f.**
7% of total square footage (3,700 s.f.)		
Circulation		**740 s.f.**
20% of total square footage (3,700 s.f.)		
Total		**4,700 s.f.**

Black Box Theater

Performance Space		**1,125 s.f.**
Seating (capacity: 100)	@7.5 s.f./person	750 s.f.
Stage	@50% of seating	375 s.f.
Support Space		**975 s.f.**
Storage		300 s.f.
Dressing	10 @30 s.f.	300 s.f.
Backstage	@50% of seating	**375 s.f.**
Vestibule		**300 s.f.**
Restrooms		**400 s.f.**
Electrical/Mechanical		**196 s.f.**
7% of total square footage (2,800 s.f.)		
Circulation		**560 s.f.**
20% of total square footage (2,800 s.f.)		
Total		**3,556 s.f.**

Outdoor Spaces

Roof Garden	above dance studio	**2,000 s.f.**
Courtyard		**1,000 s.f.**
Parking Lot	40 spots @300 s.f.	**12,000 s.f.**
Sculpture Field	North of Commons	**N/A**
Total		**N/A**

Programmatic Diagrams

ARTISTS' RESIDENCE

PAINTERS' STUDIOS

SCULPTING STUDIO

LIBRARY

KITCHEN

LIVE/WRITE SPACES

ARTISTS' RESIDENCES

DANCE STUDIO

MUSIC STUDIO

COMMUNITY EATING/GATHERING

PERMANENT RESIDENCES

ADMINISTRATION

SENIOR ARTISTS' RESIDENCES

Building Culture
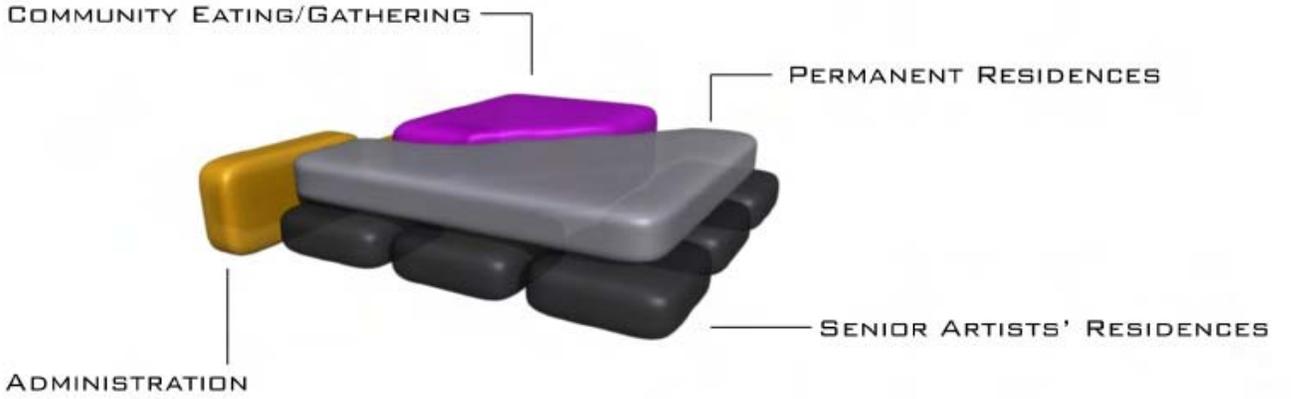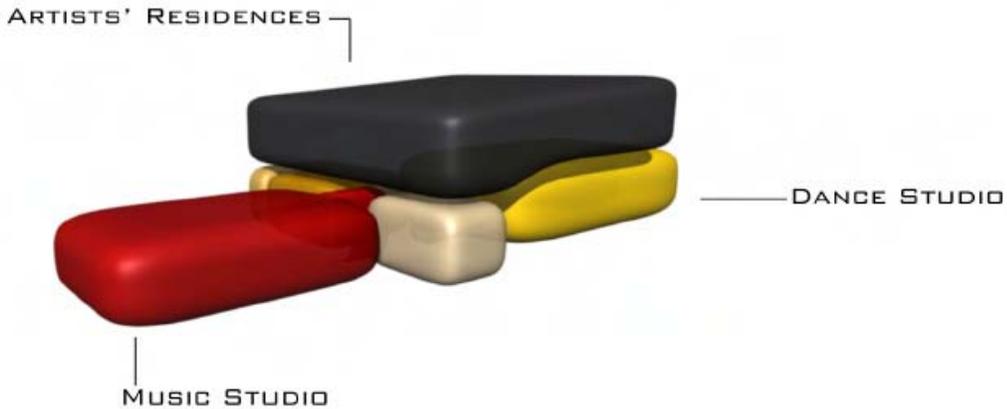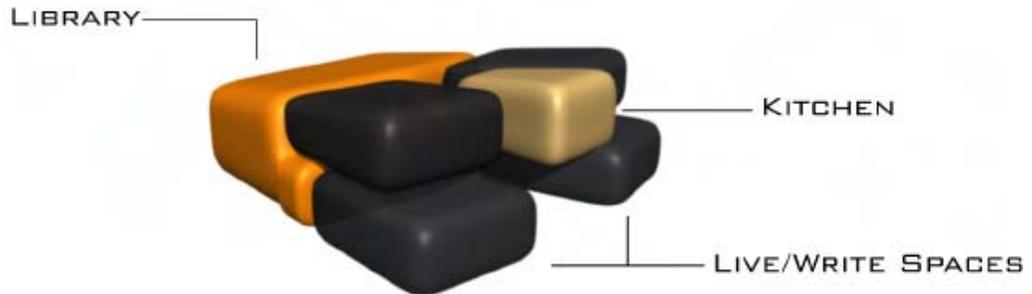
The diagrammatic models to the left were completed during the schematic design phase to indicate progam layout. The layout below shows the final iteration

DESIGN: SPRINGBOARD

Springboard

Building Culture
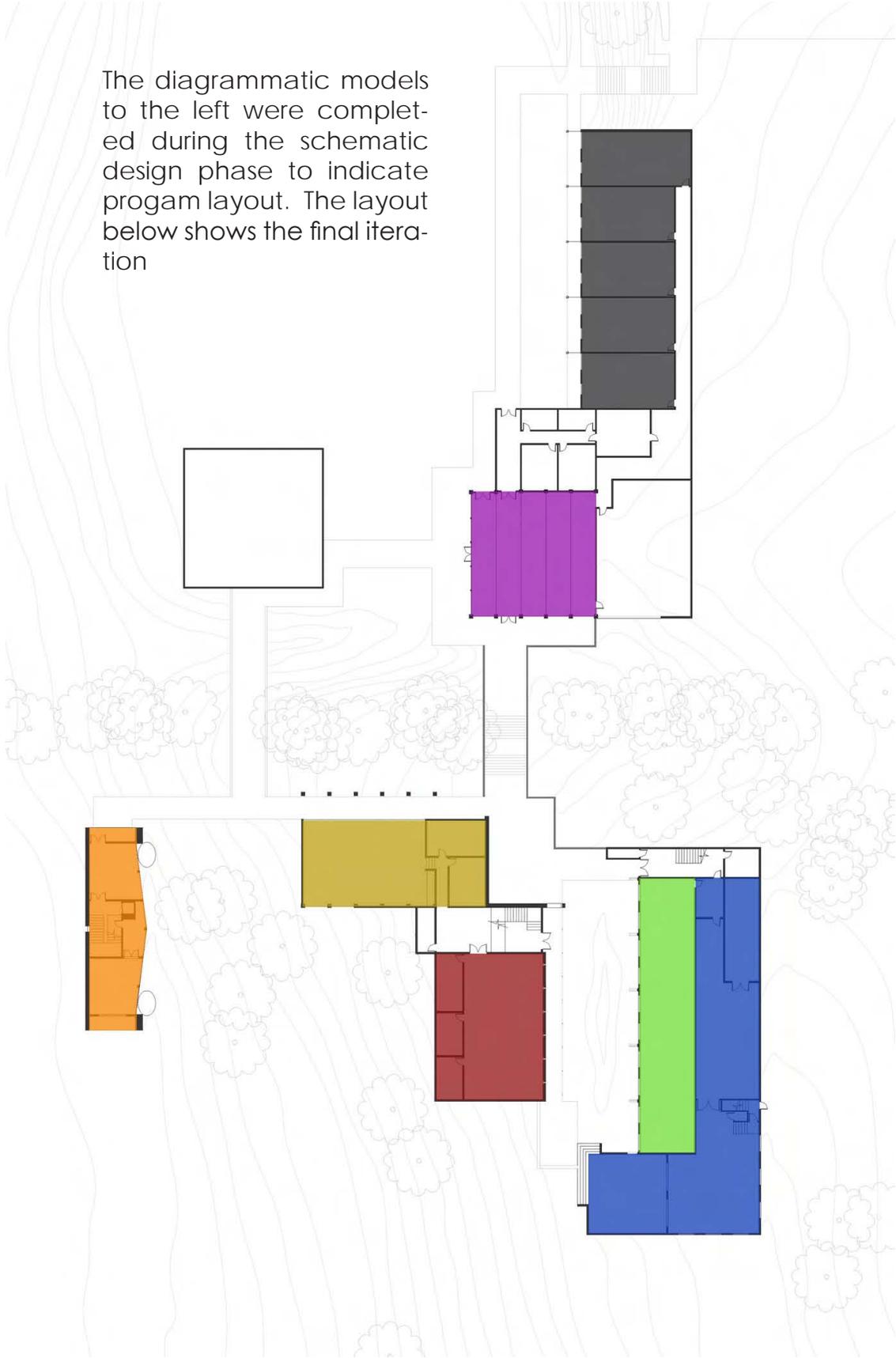
These two stone tab-
lets began a process
that explored the ex-
pressive capacity of
construction materials
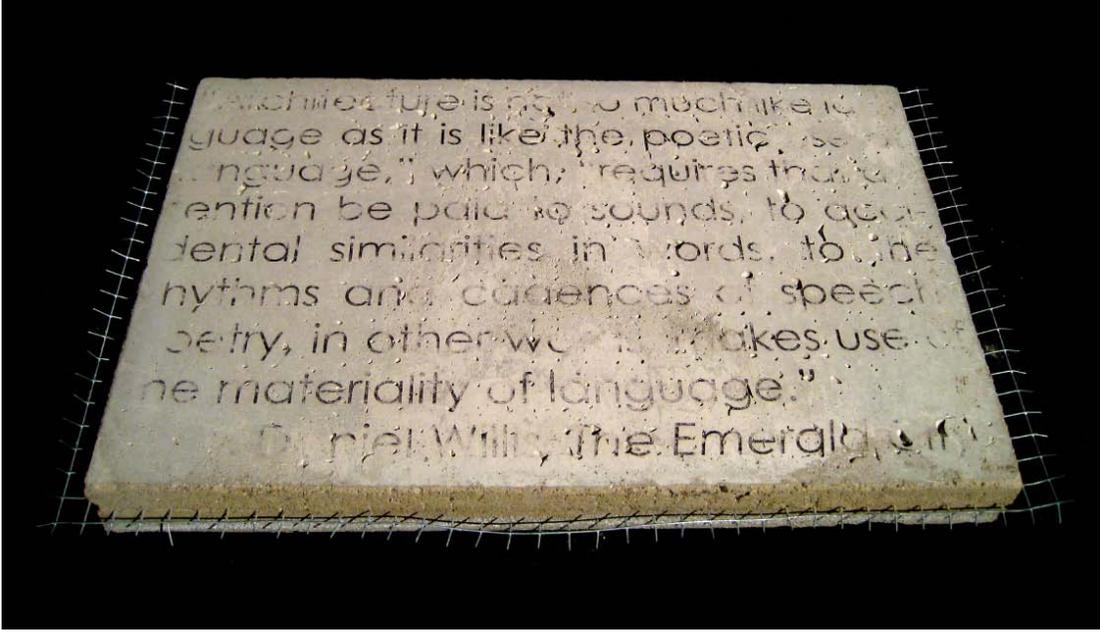
The construction of a conceptual wall section for a music studio incorporated both material concepts and programmatic influence

Concial impressions send sound in one direction to the exterior of the building
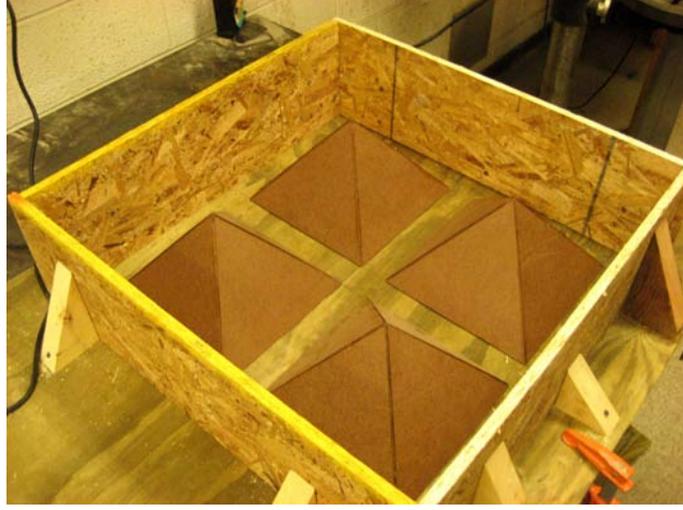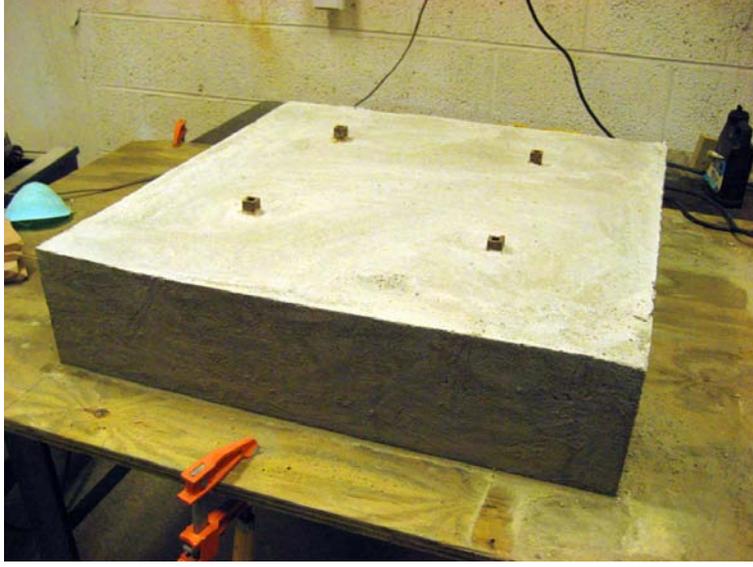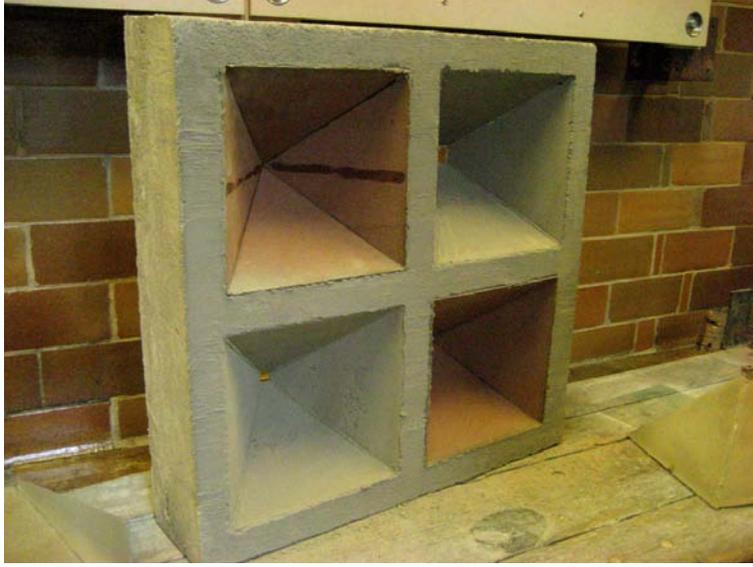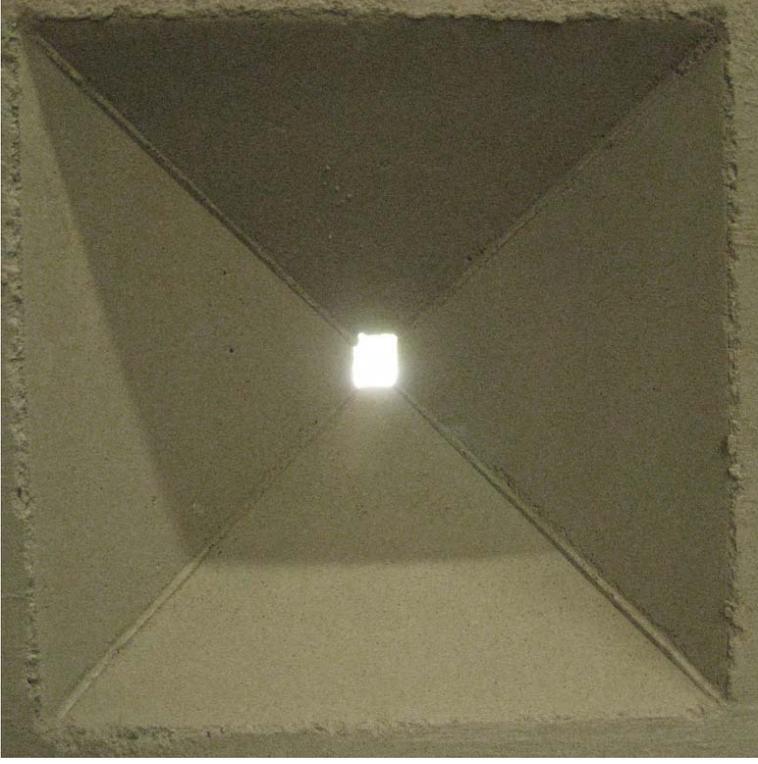
These pastel drawings attempted to isolate a particular tectonic condition for each building
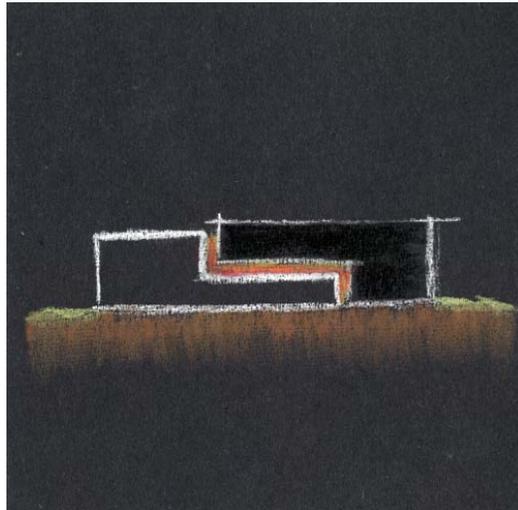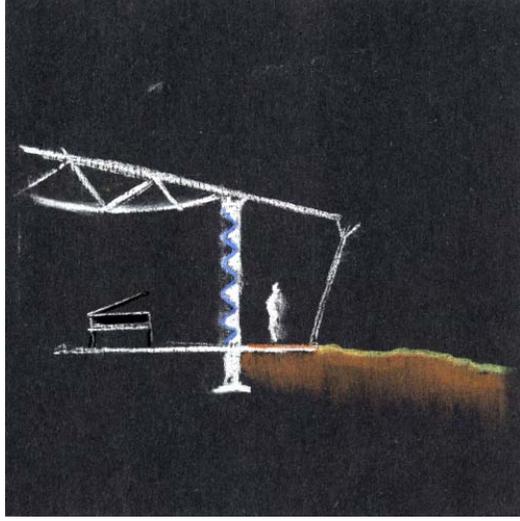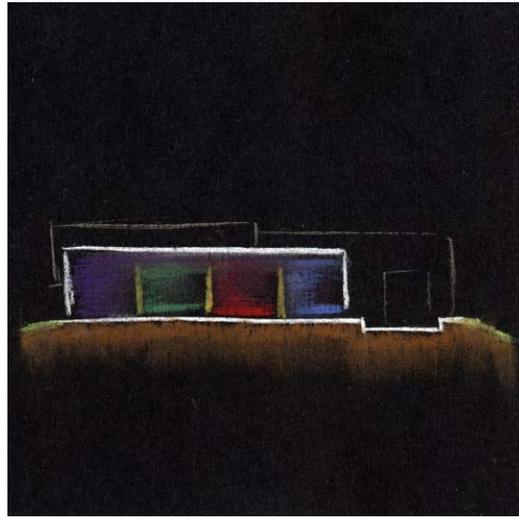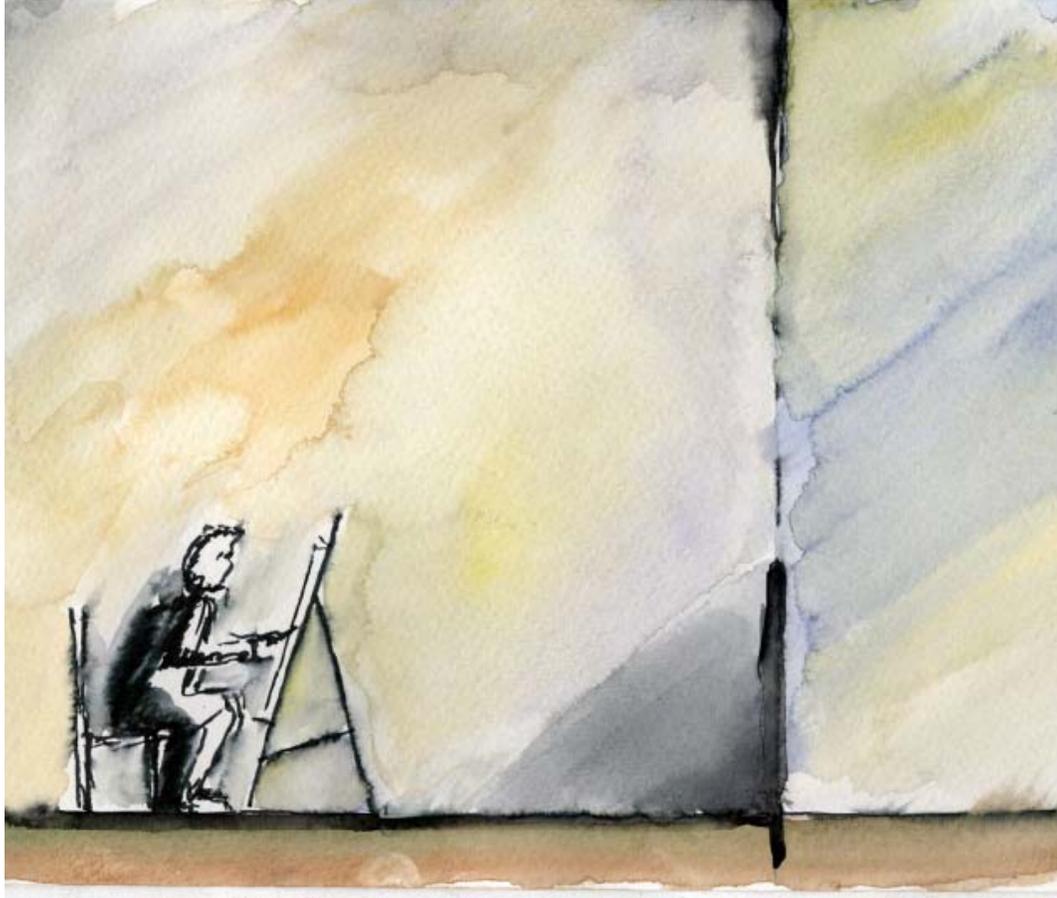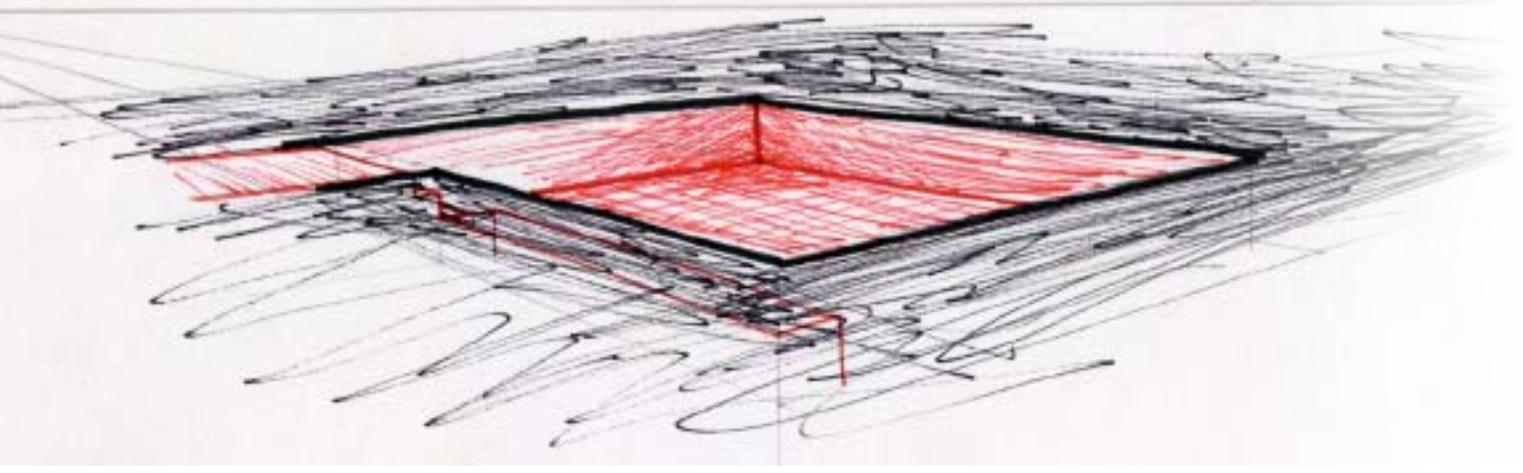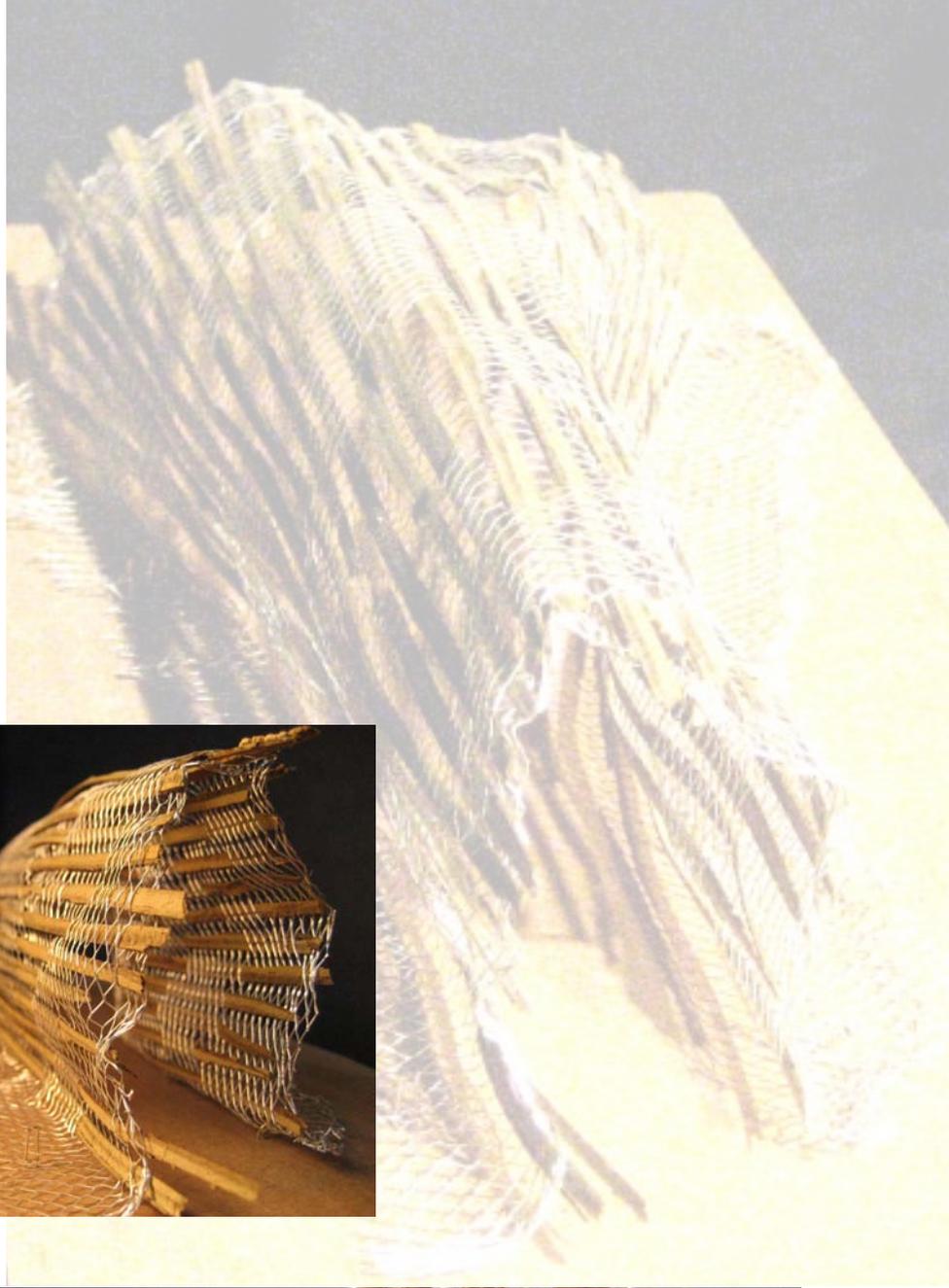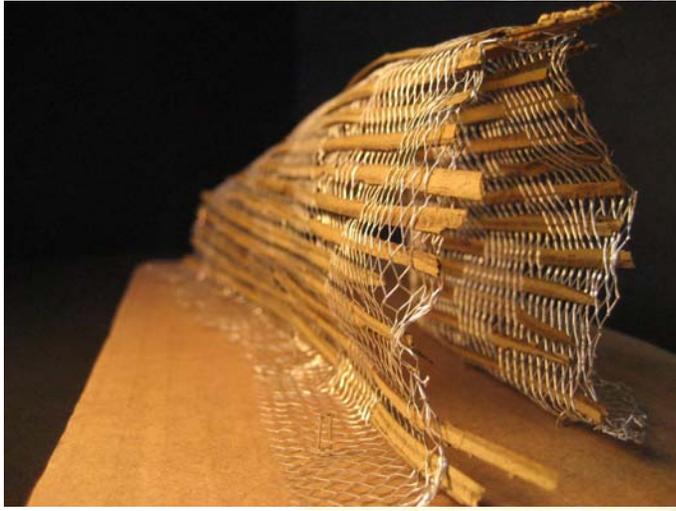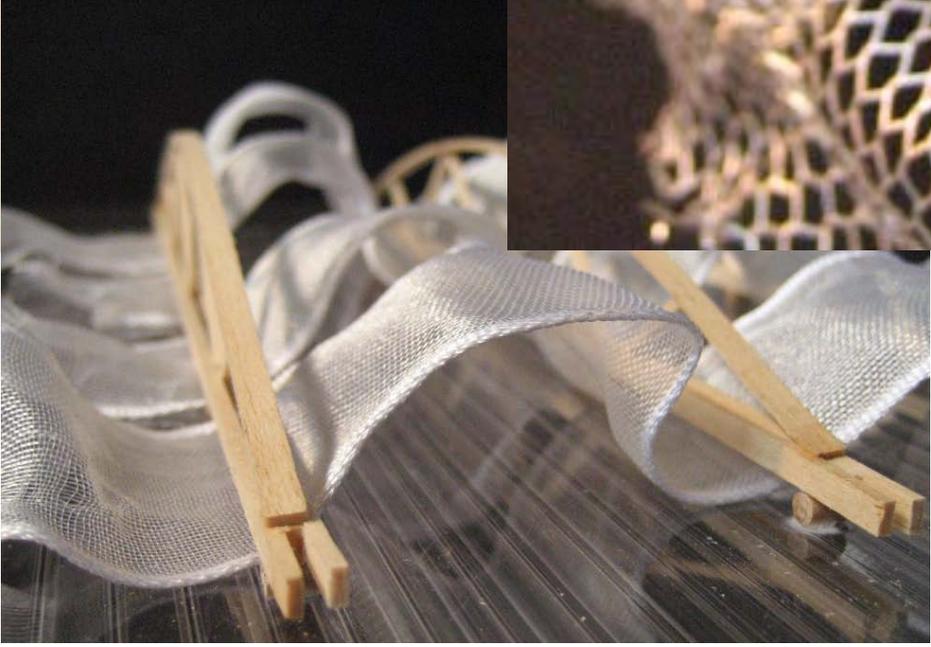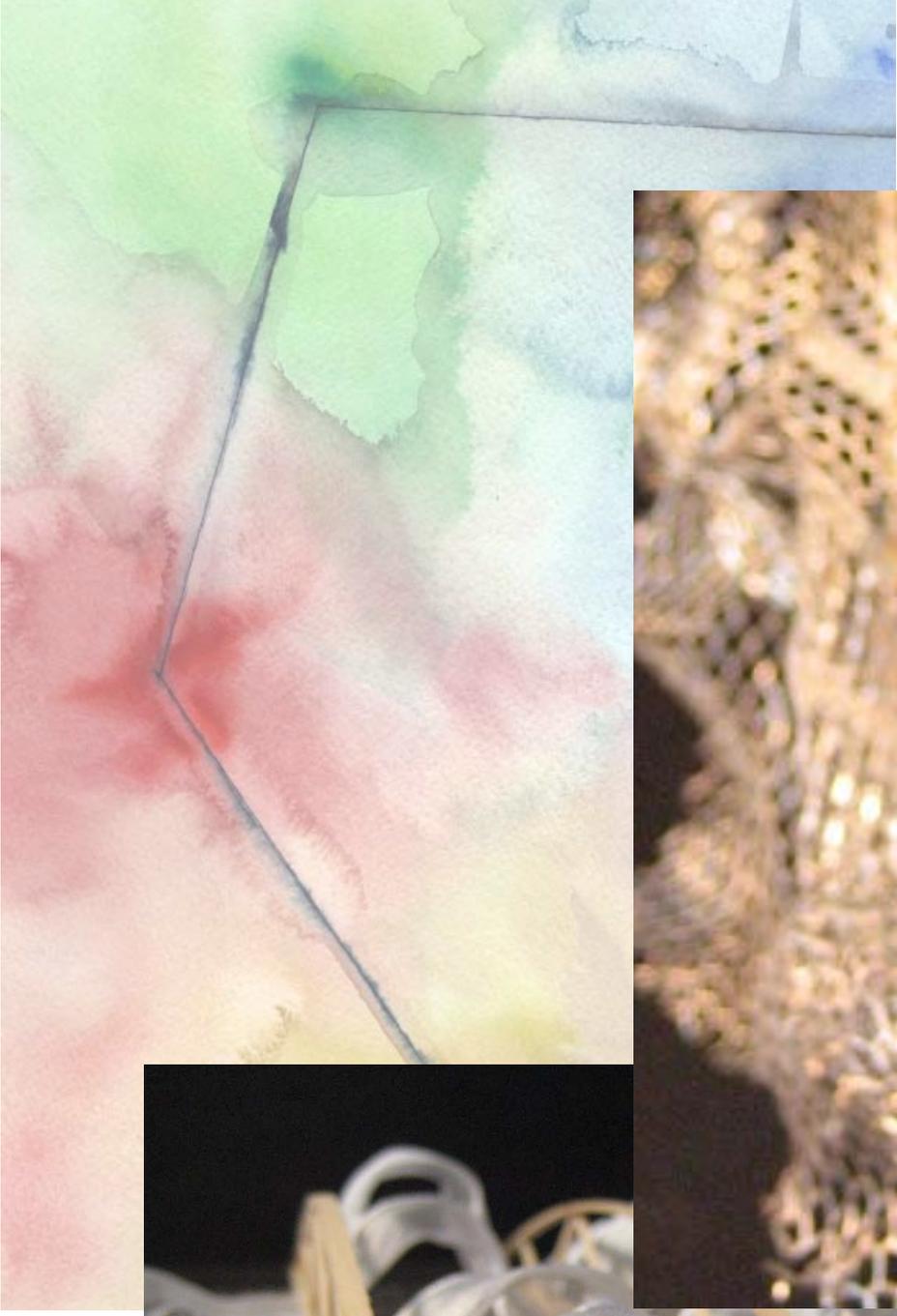
DESIGN: Schematic
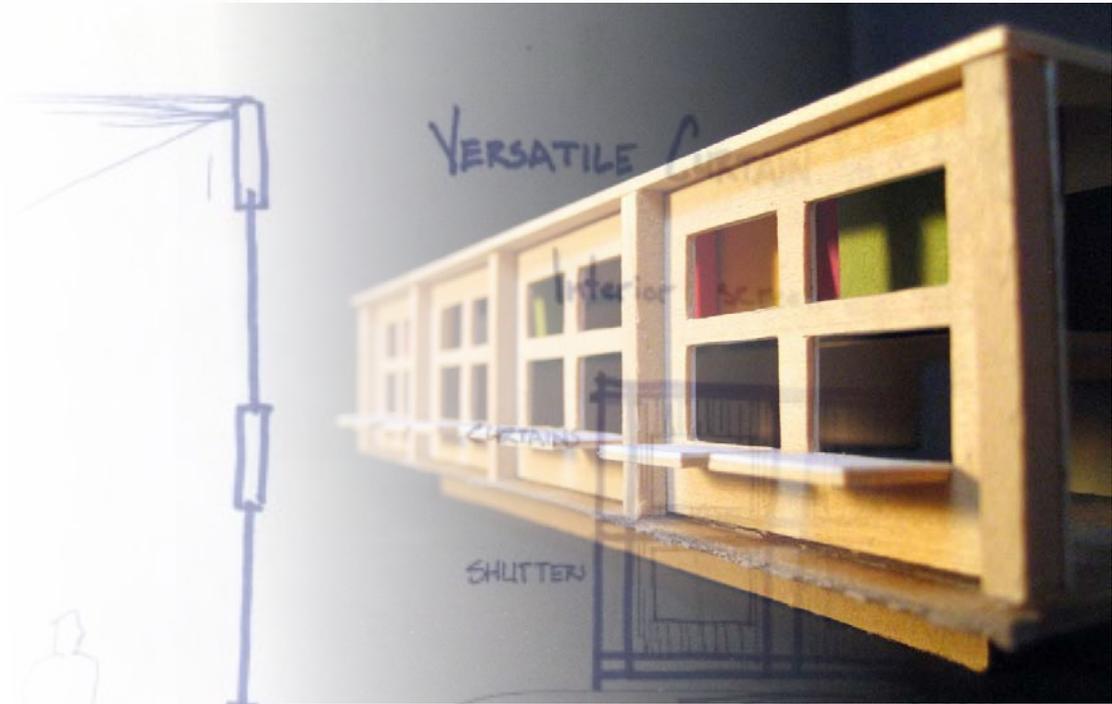
VERSATILE CURTAIN

Interior Screen

CURTAINS

SHUTTER

ternate sou
the resu
all in sam

colored curtains

wood

heavy

cord hook

pivot point

white

"shutter"

wood

unter
eight

wood

heavy
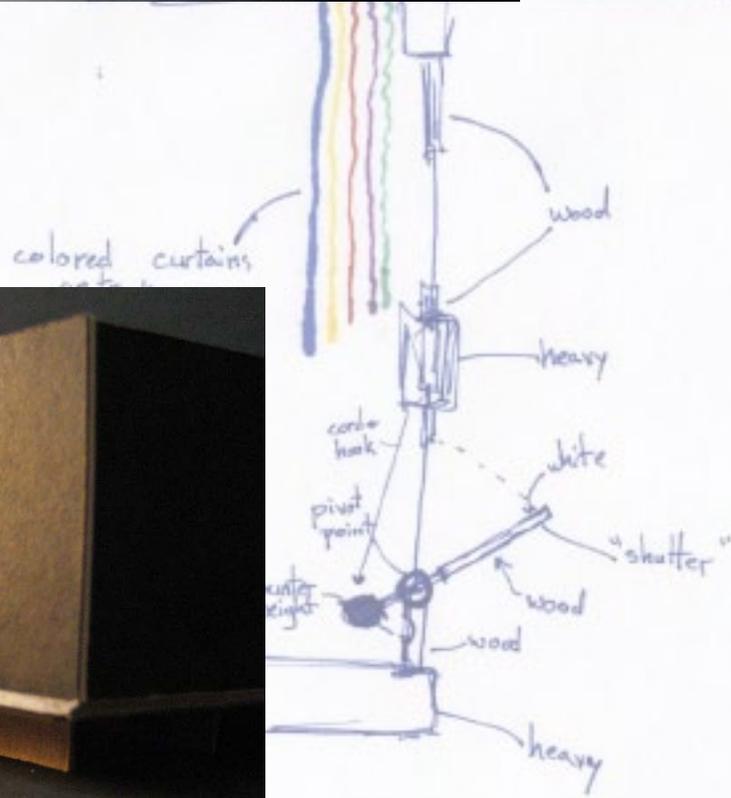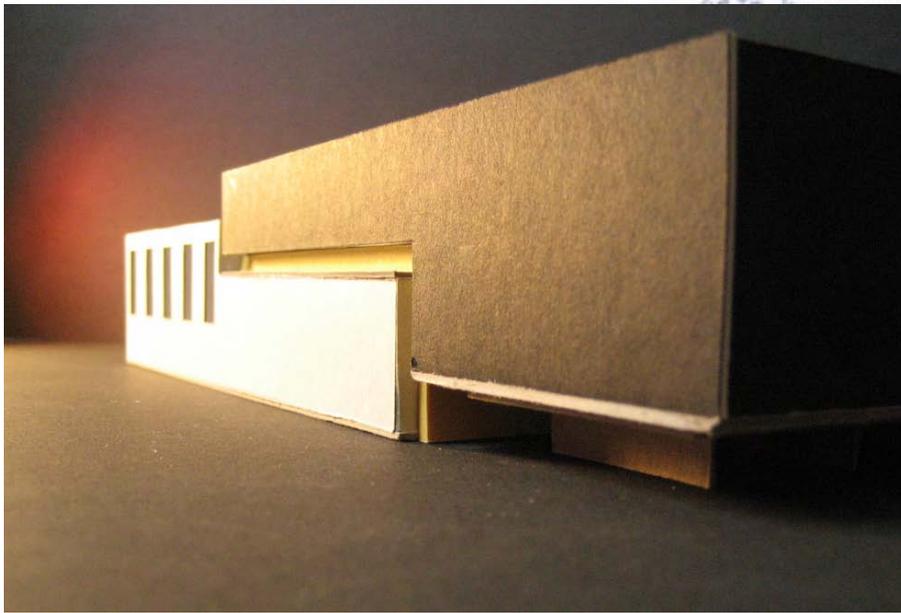
rce for structure +
ulting dichotomy
e line .

SOUTH
FAÇADE

1 BAY per ARTISTS

Dancer's studio - many details need to be

opportunity for green

filtered l... + views for interesting b... semi pr...

Maximum l... at foo... steel structur...

maybe grade

the spray floor

-4?

steel continued w/ p...

boardwalk

DESIGN: DEVELOPMENT

Design Development

Building Culture

Design Development

Building Culture

Design Development

Building Culture

Design Development

Building Culture

Final Project

Final Project

Final Project

Building Culture
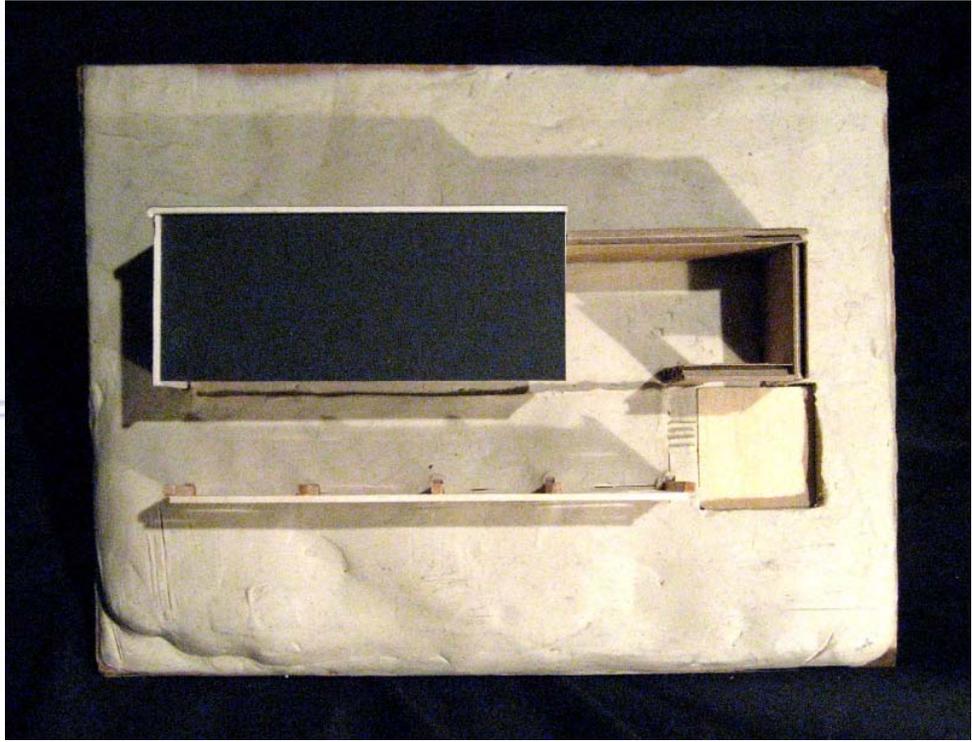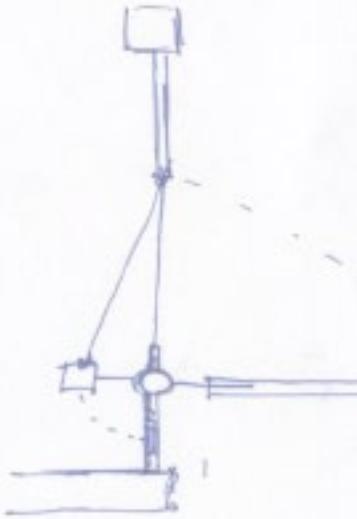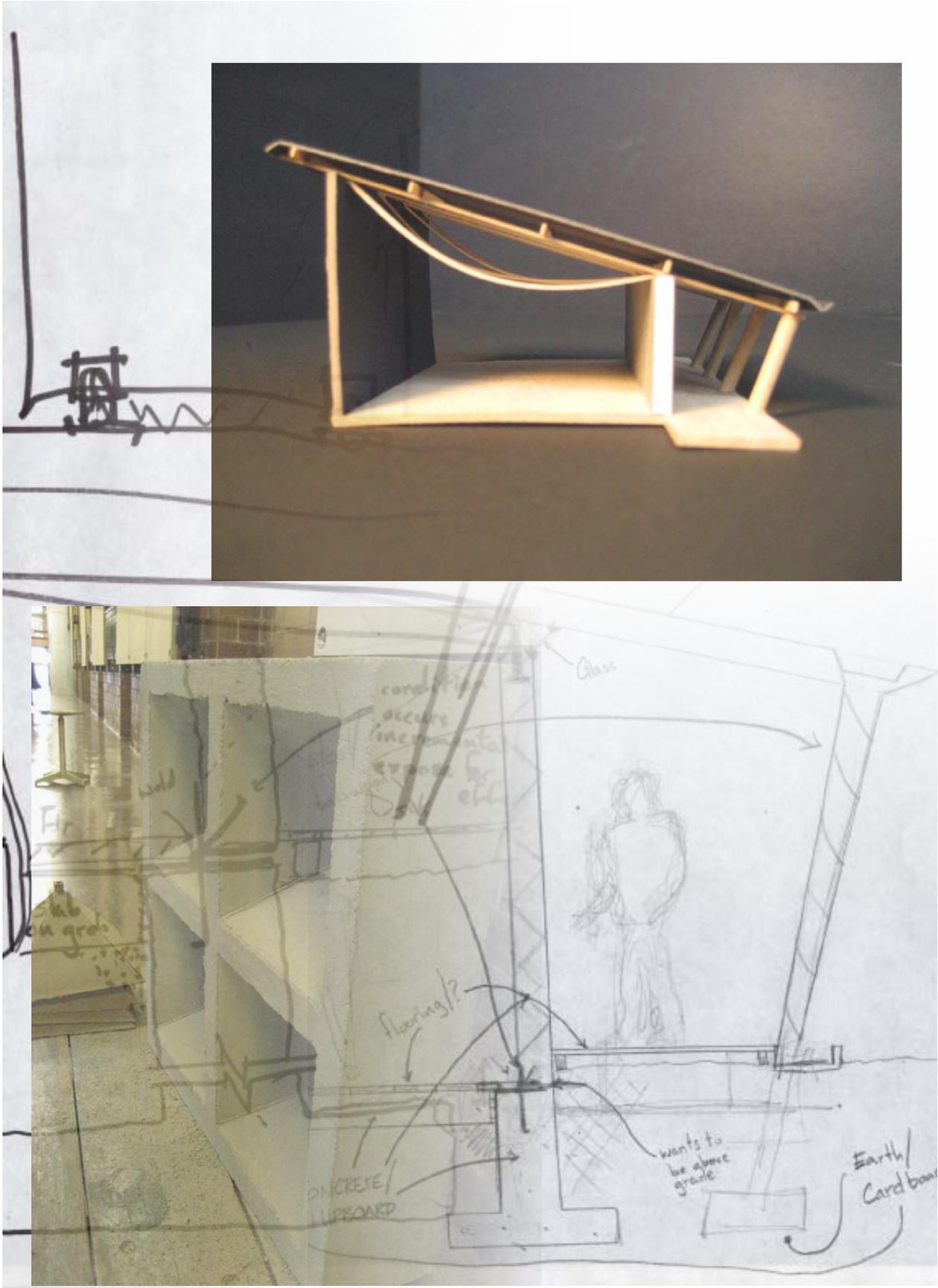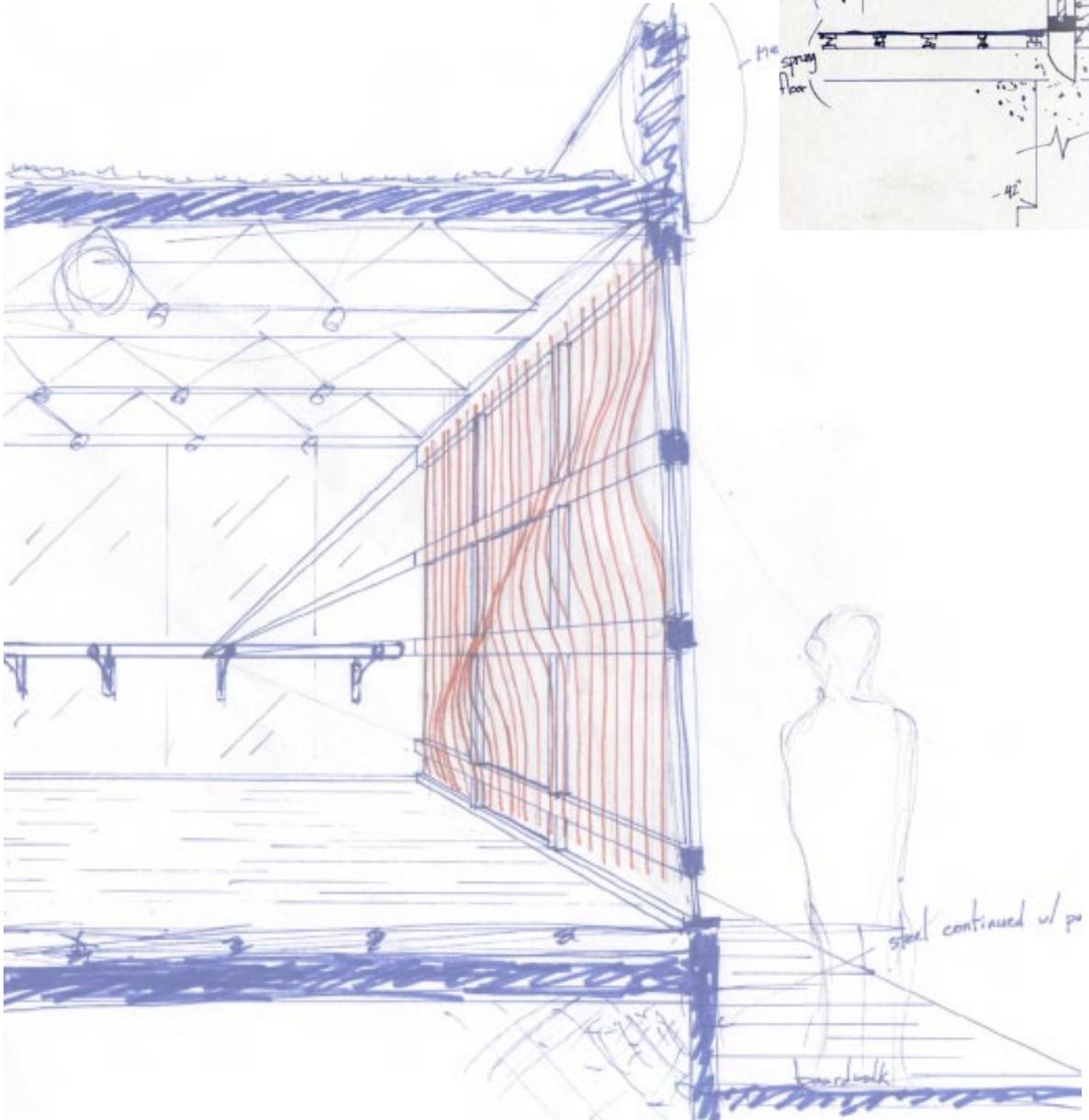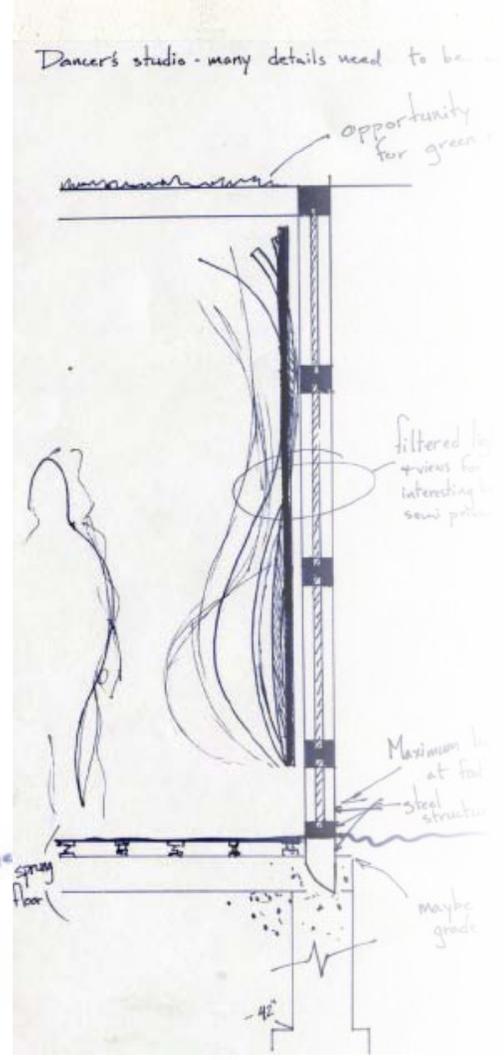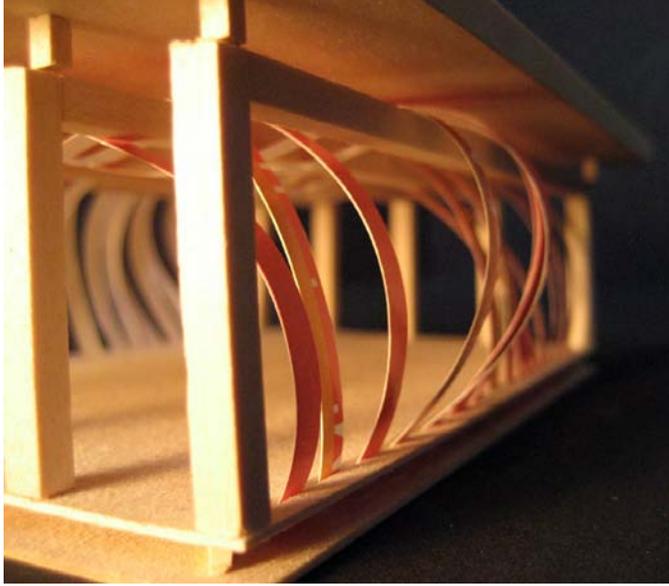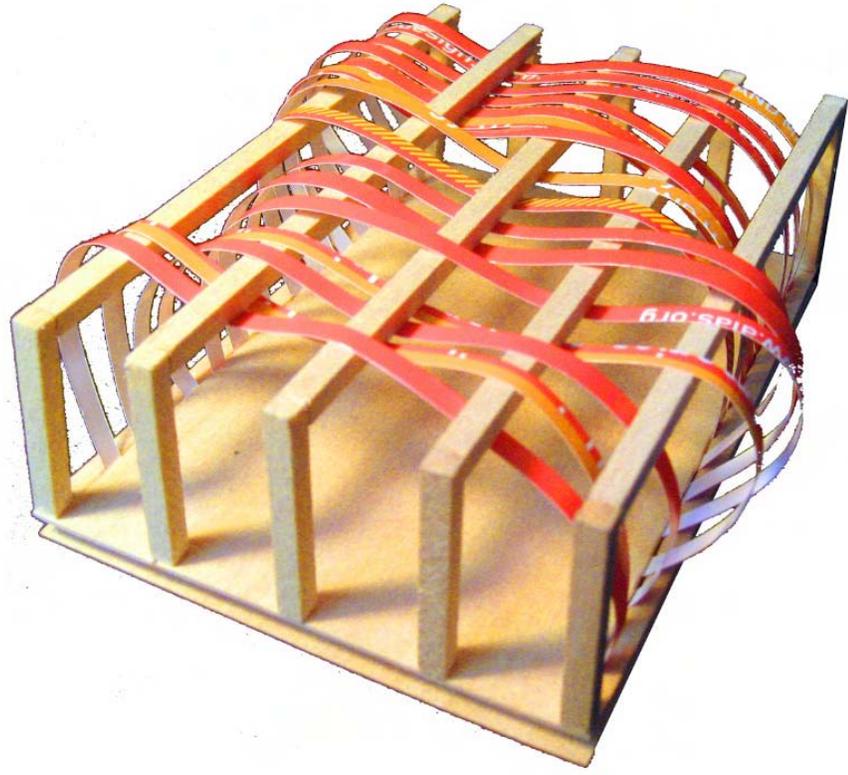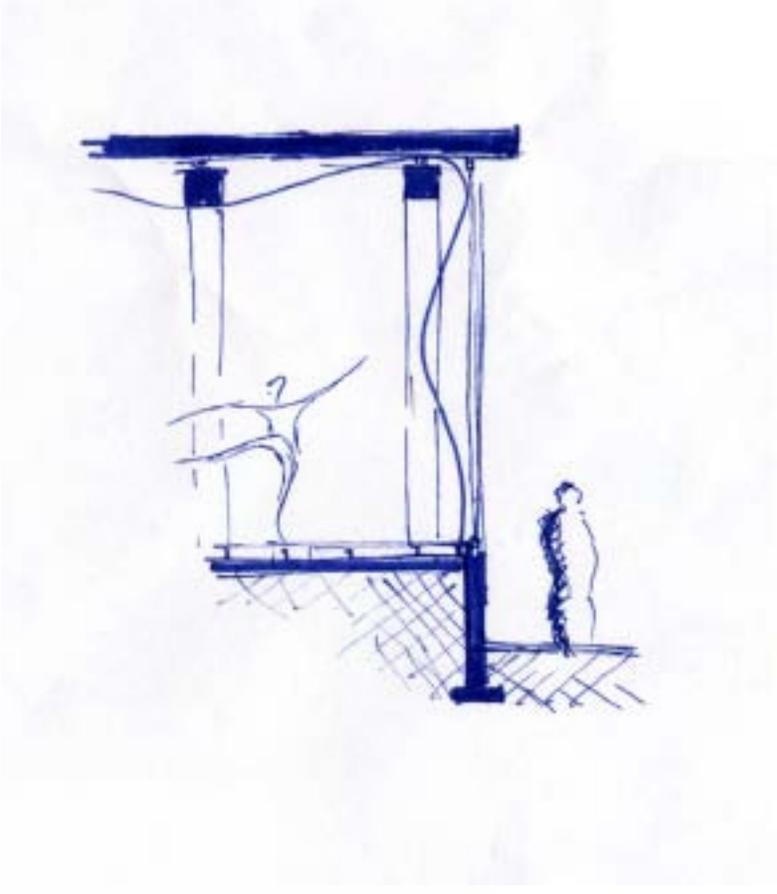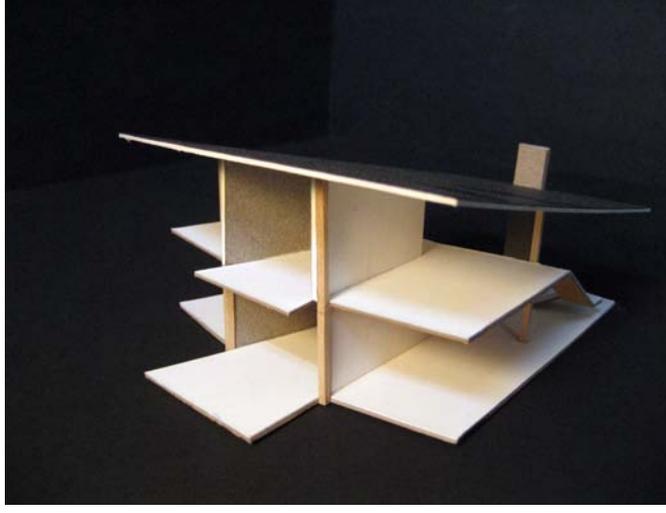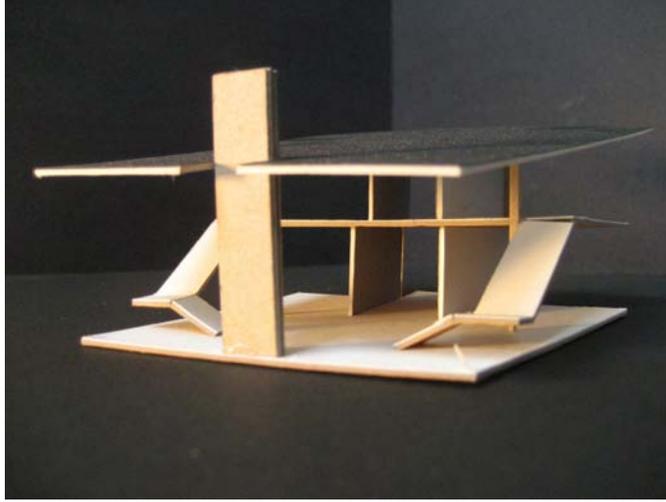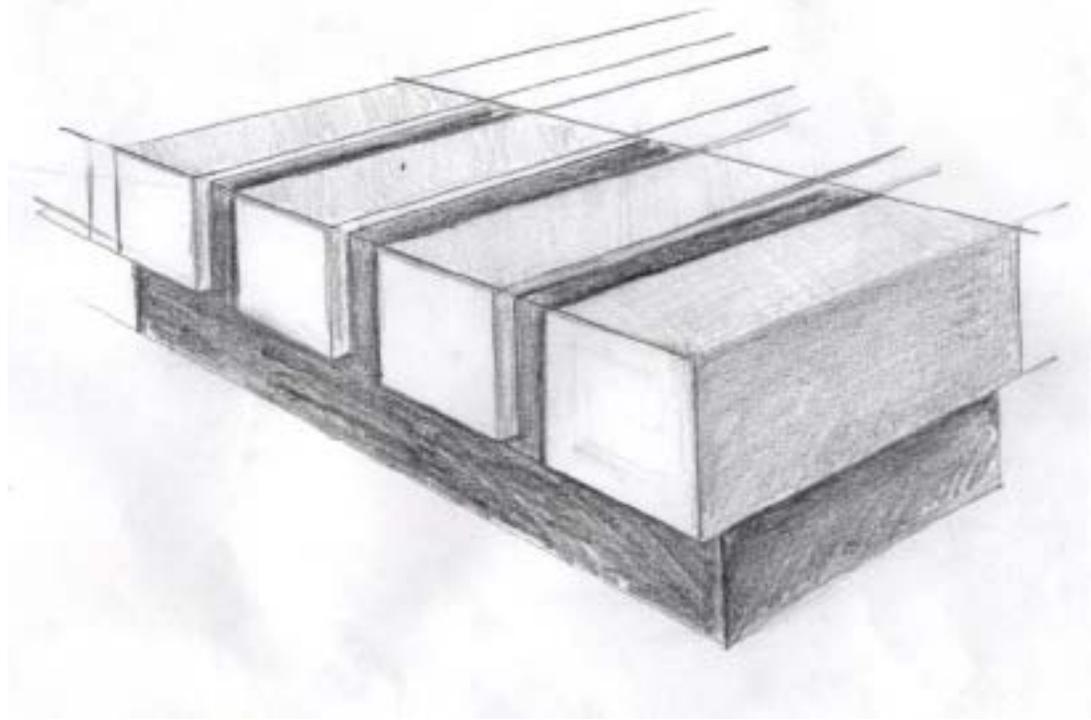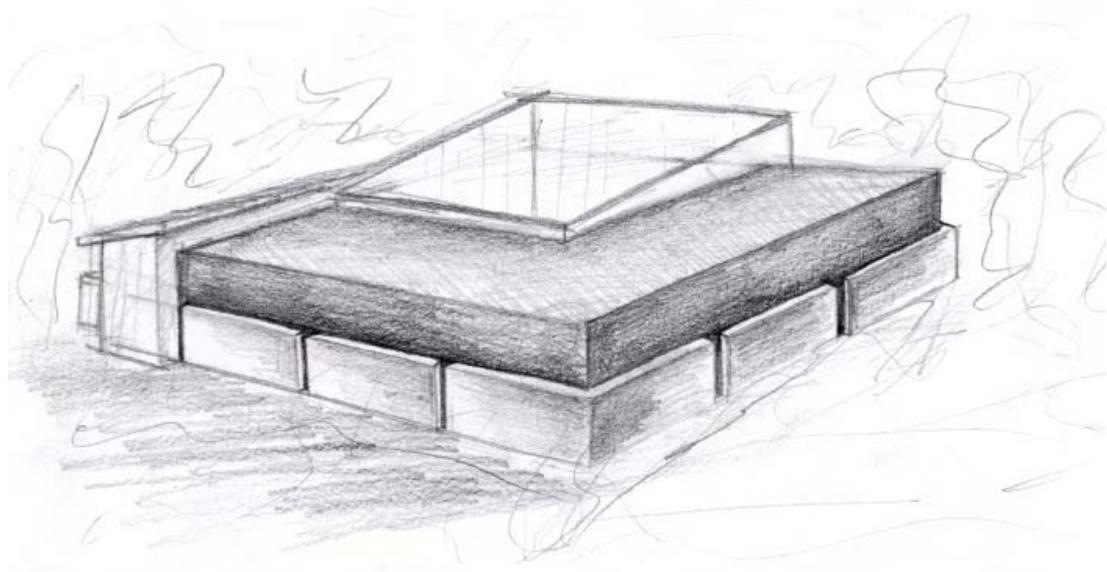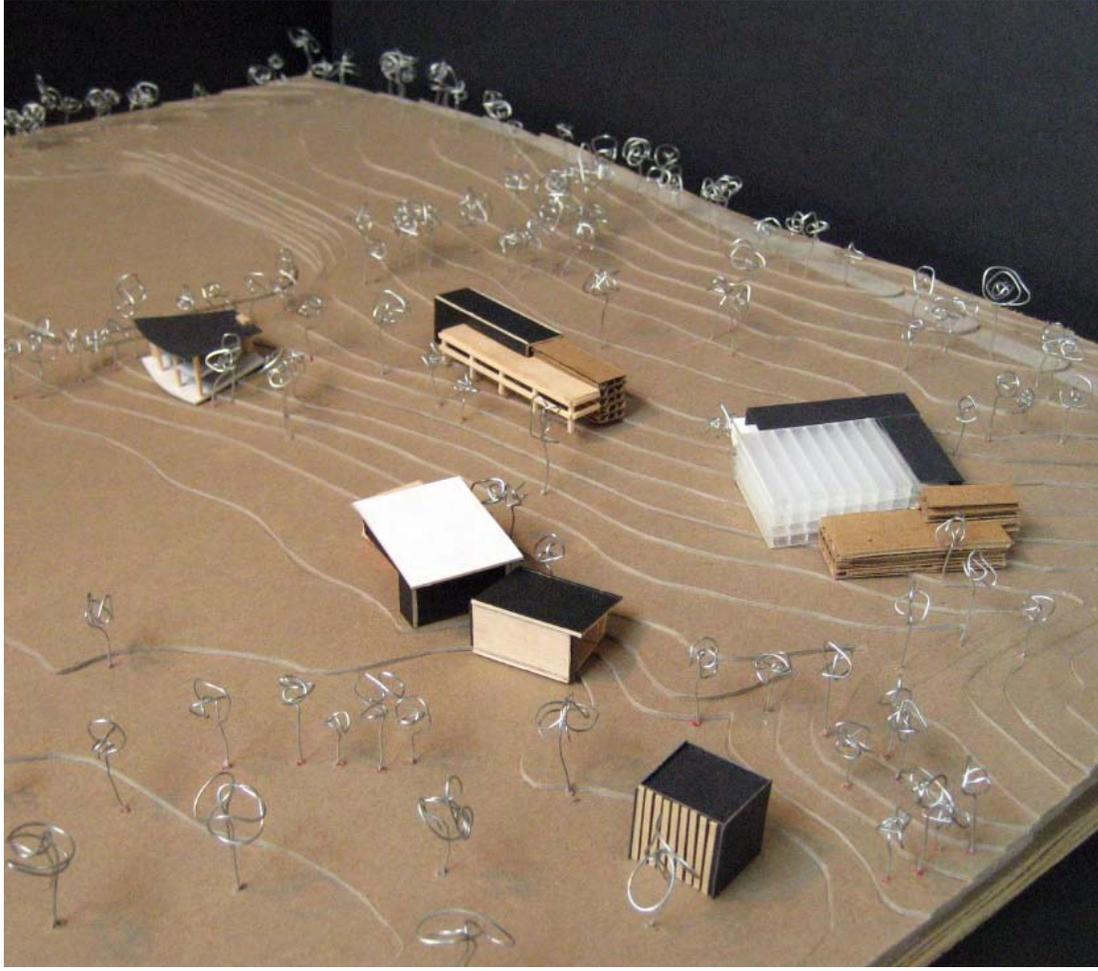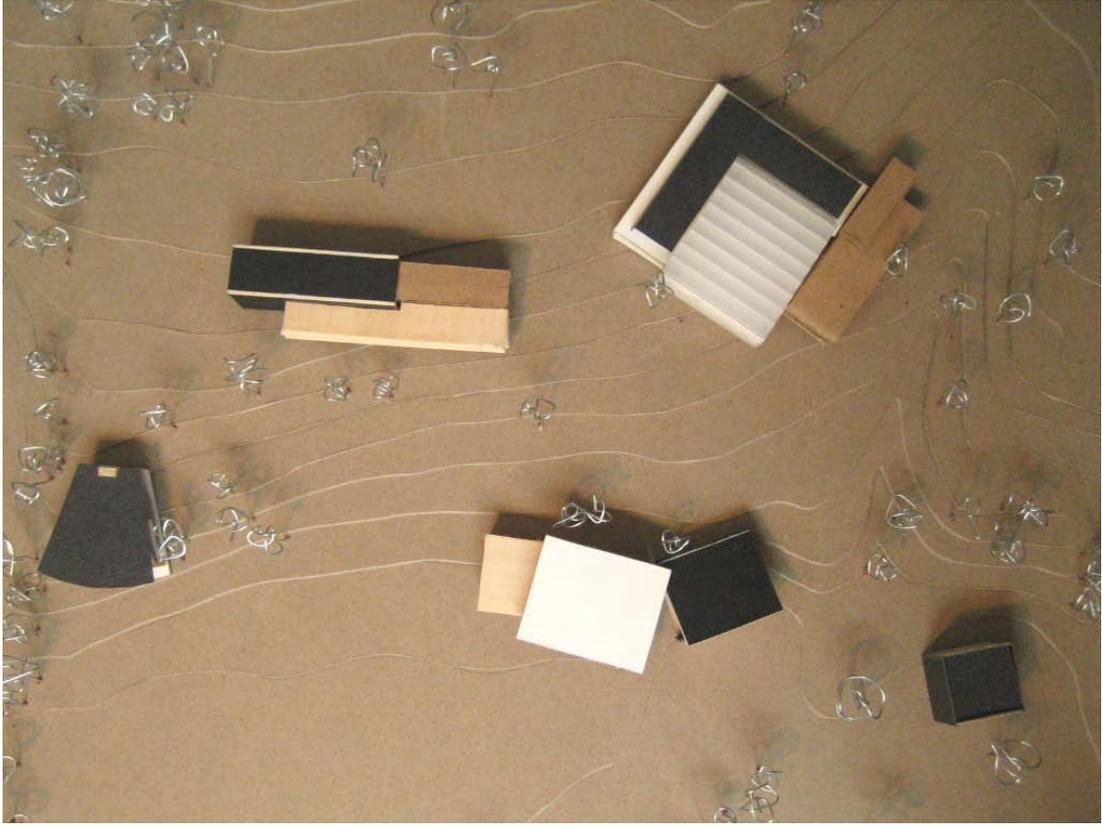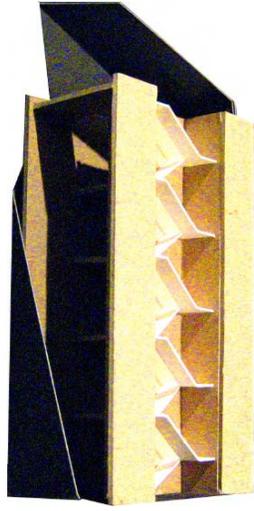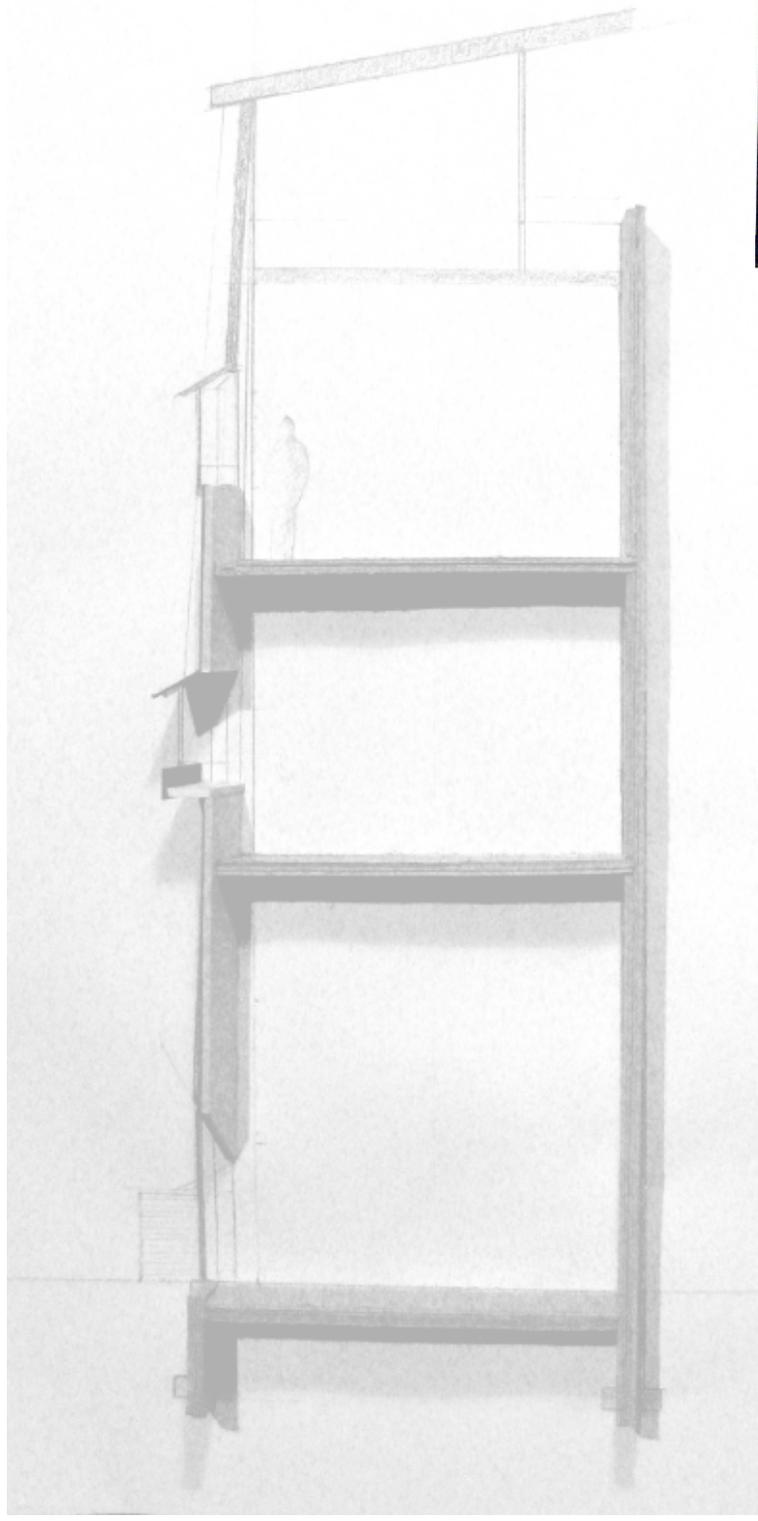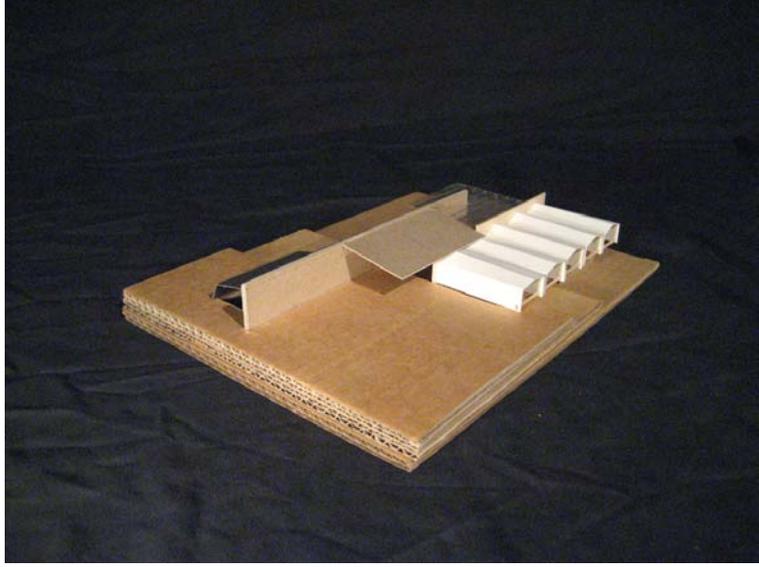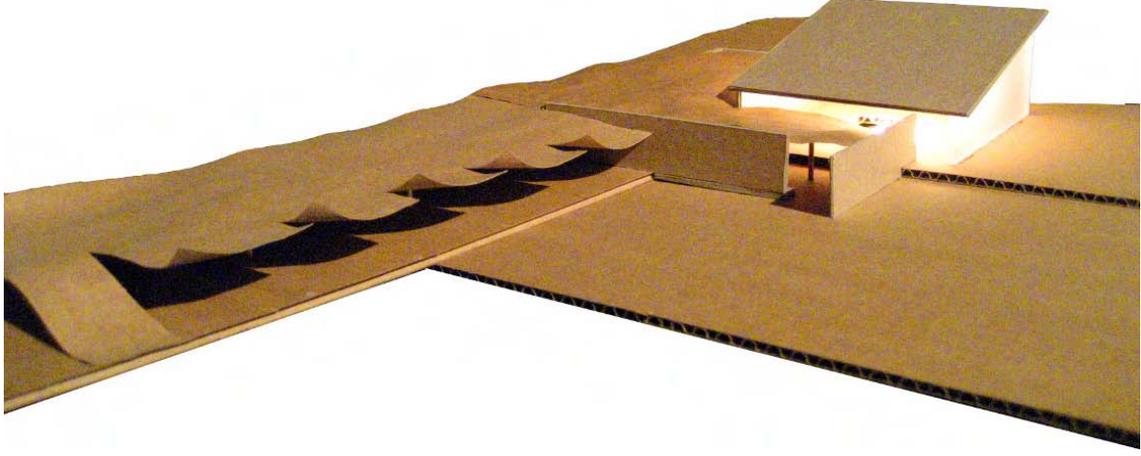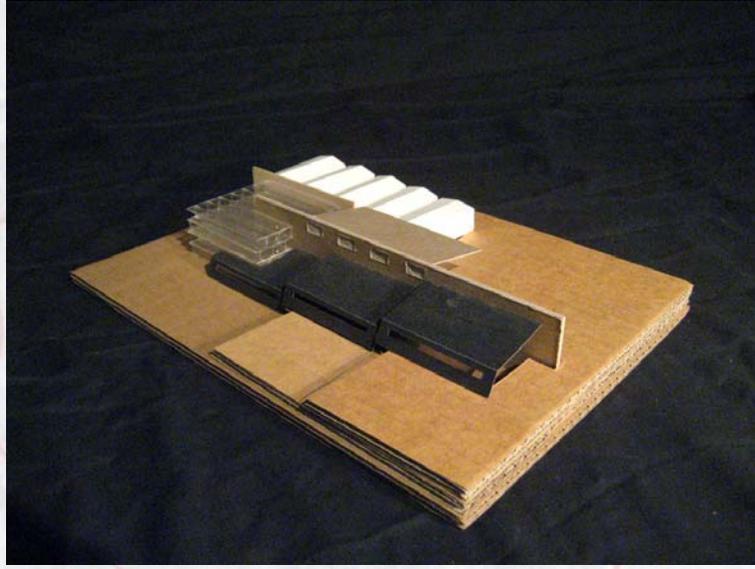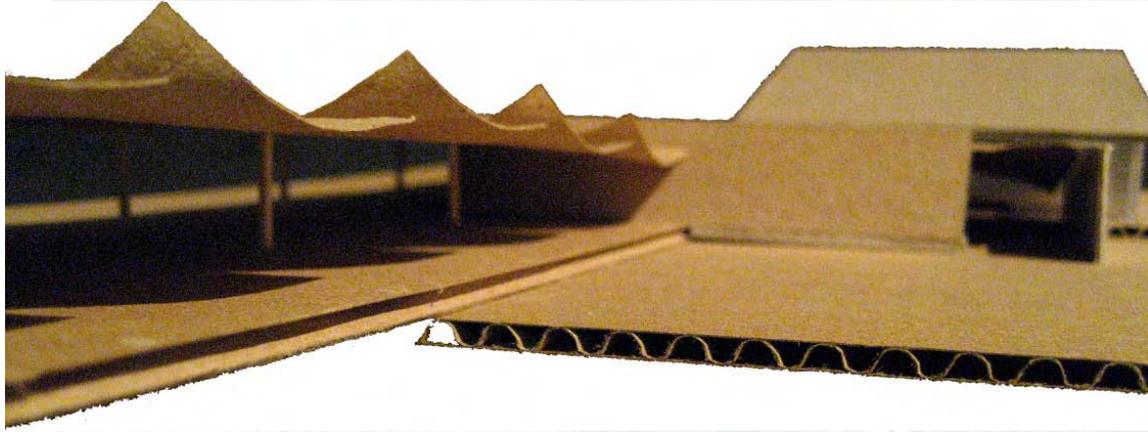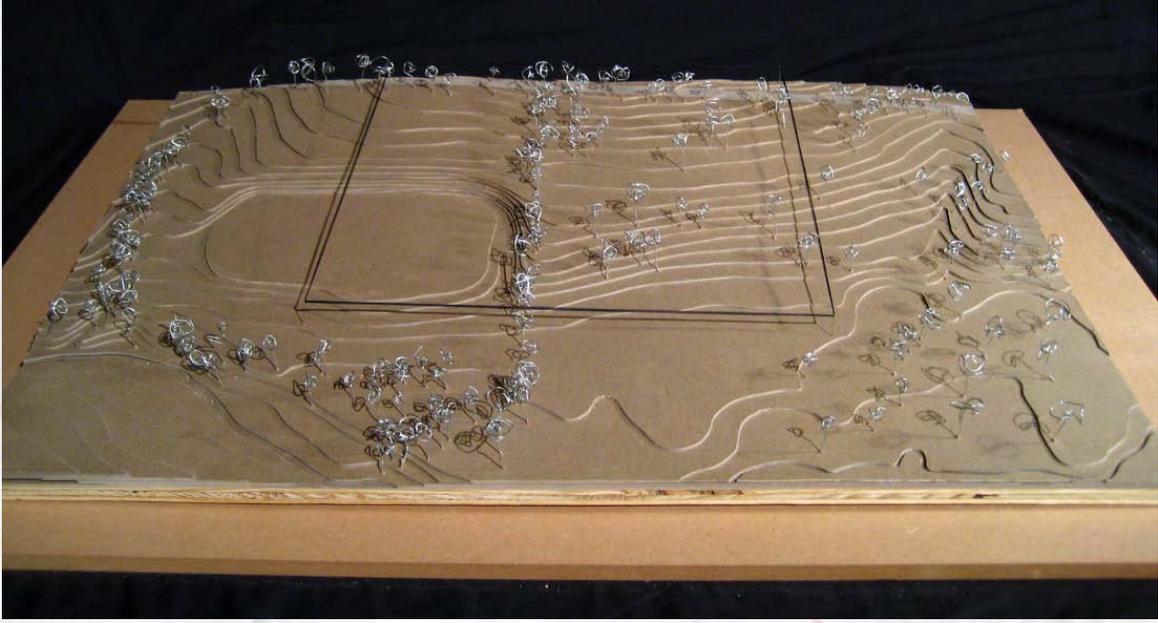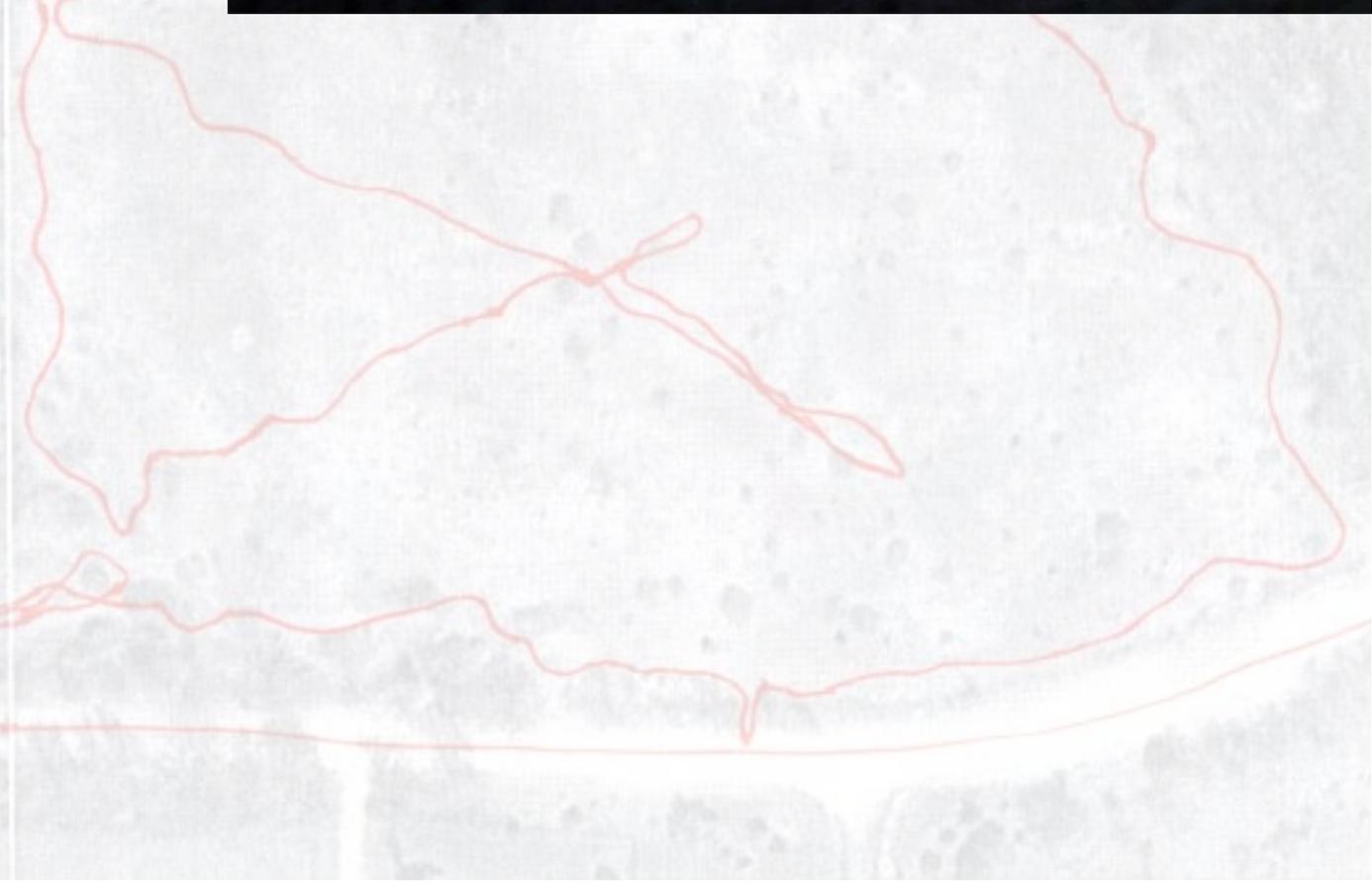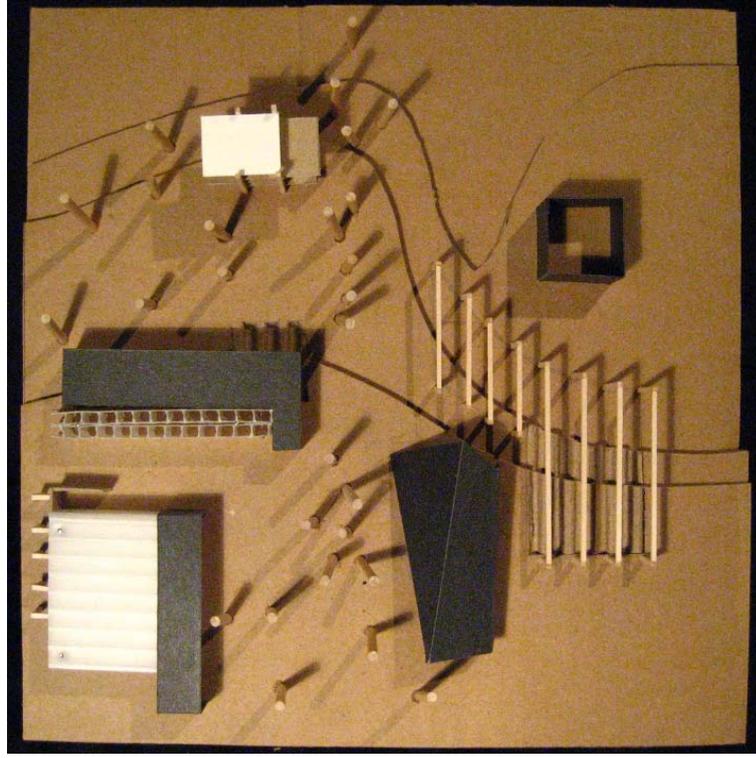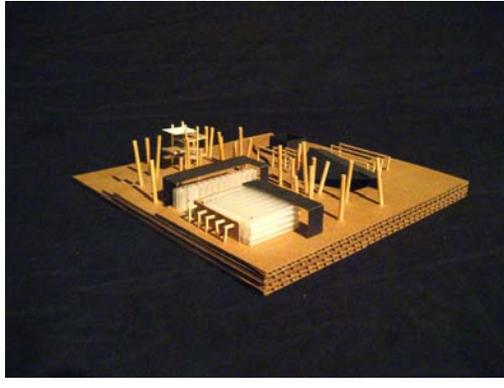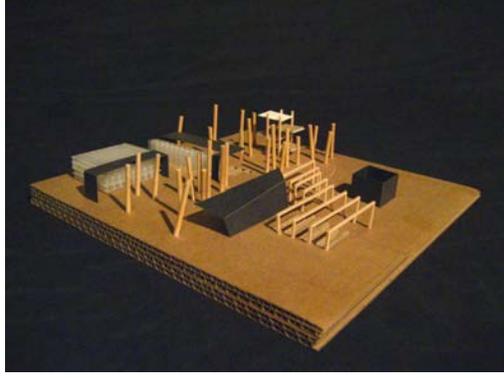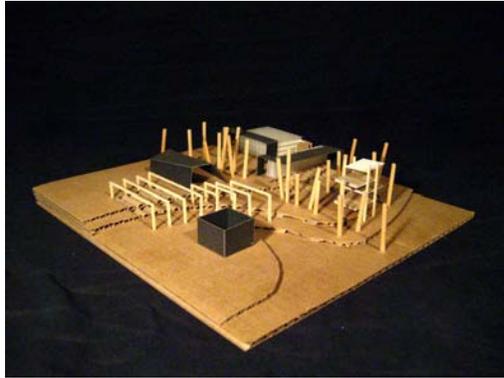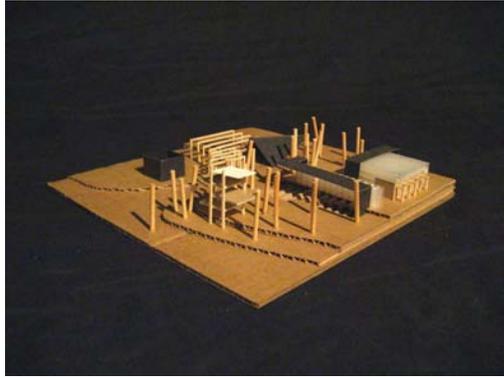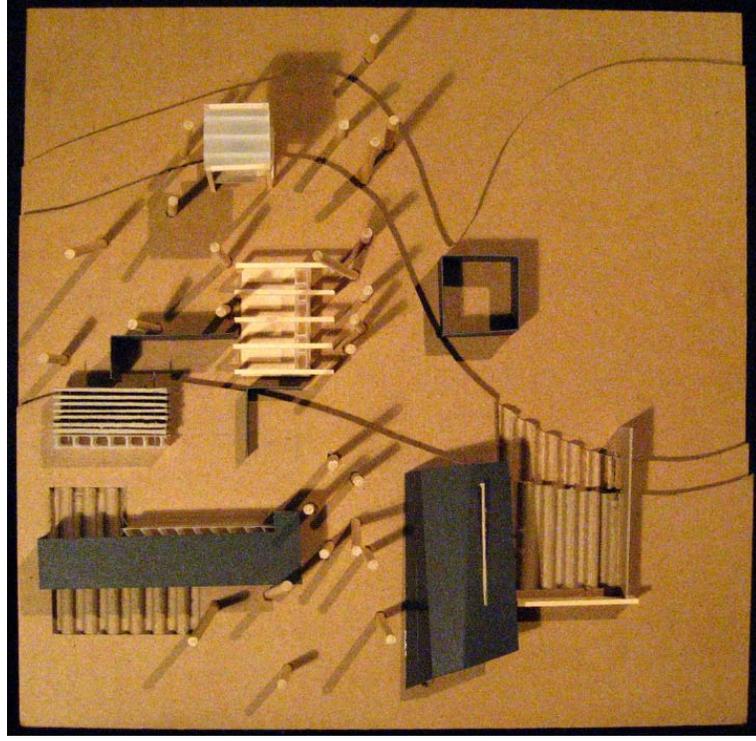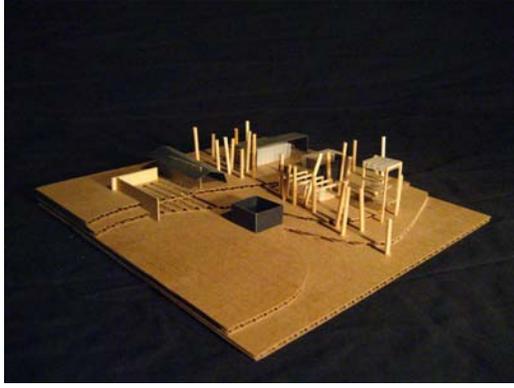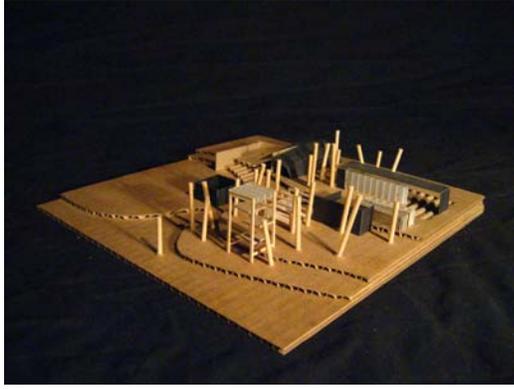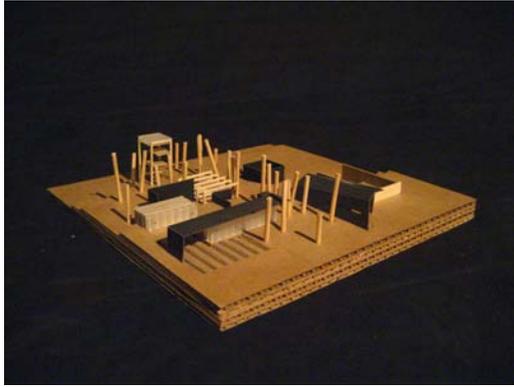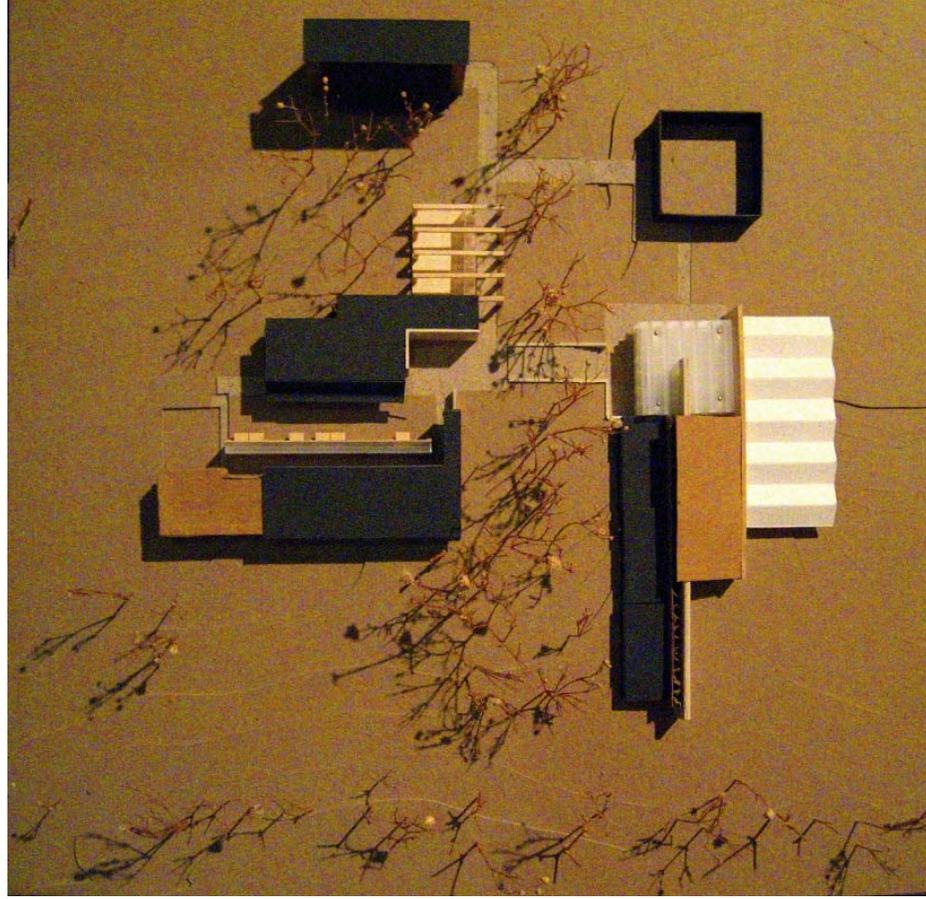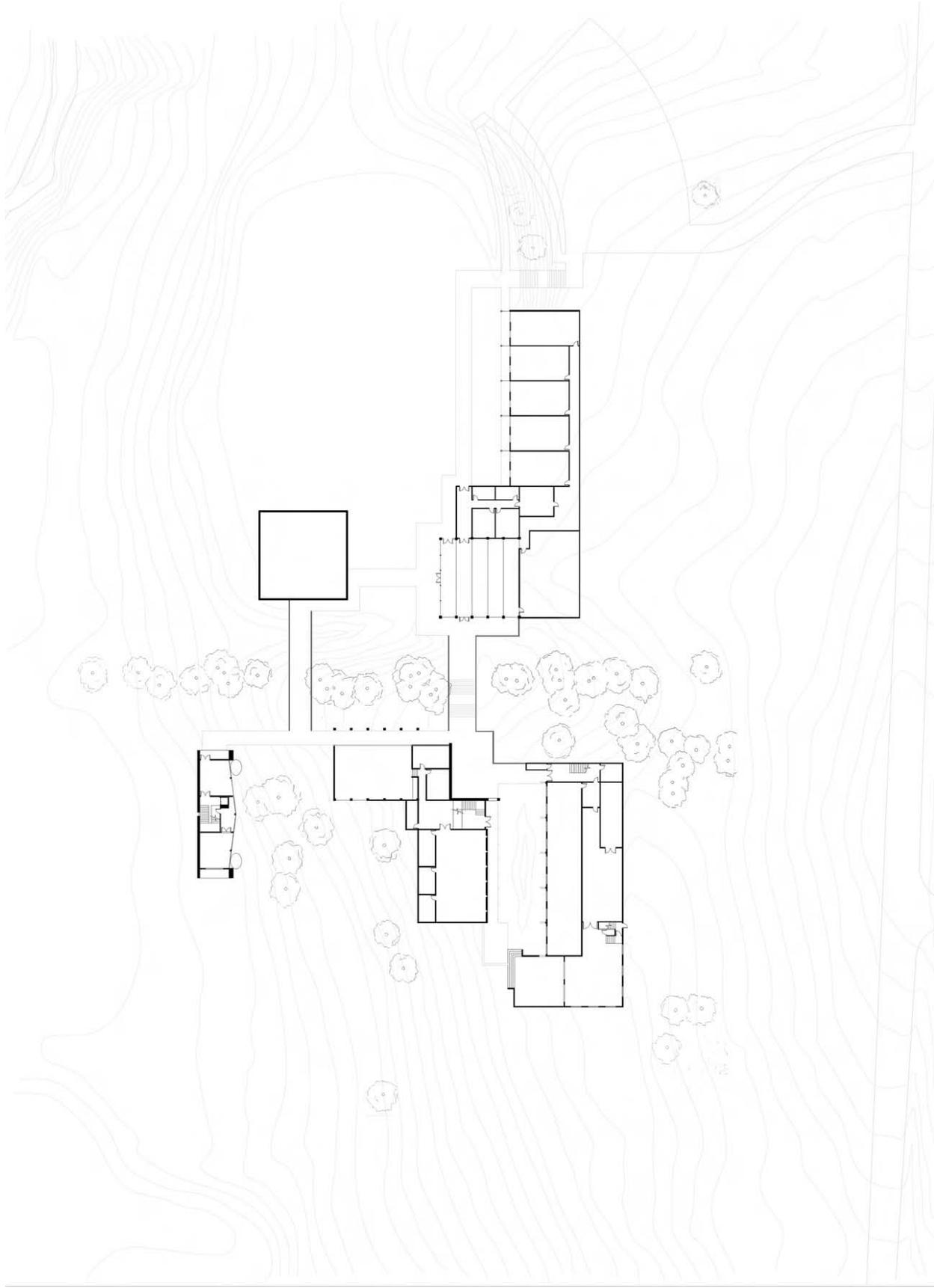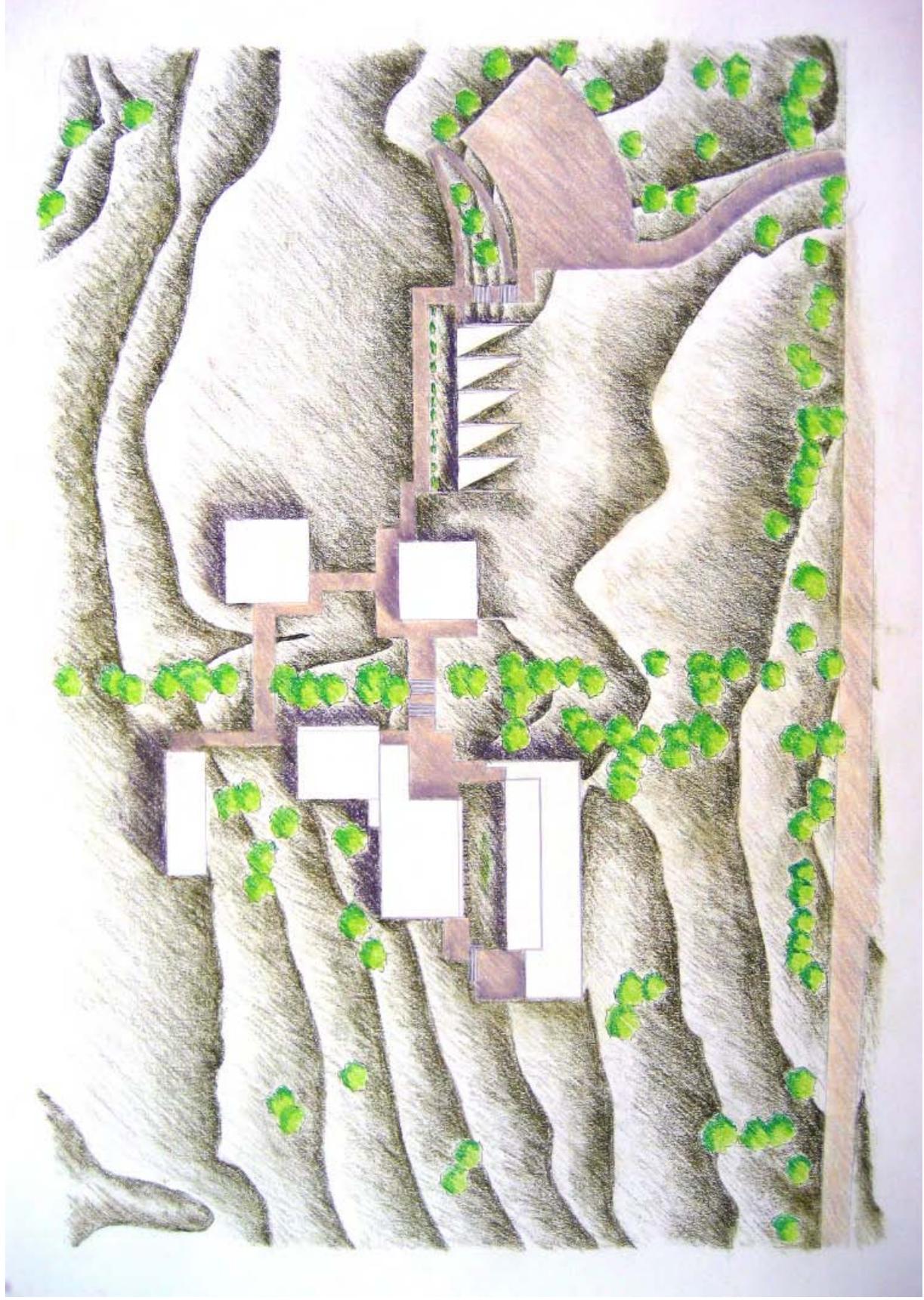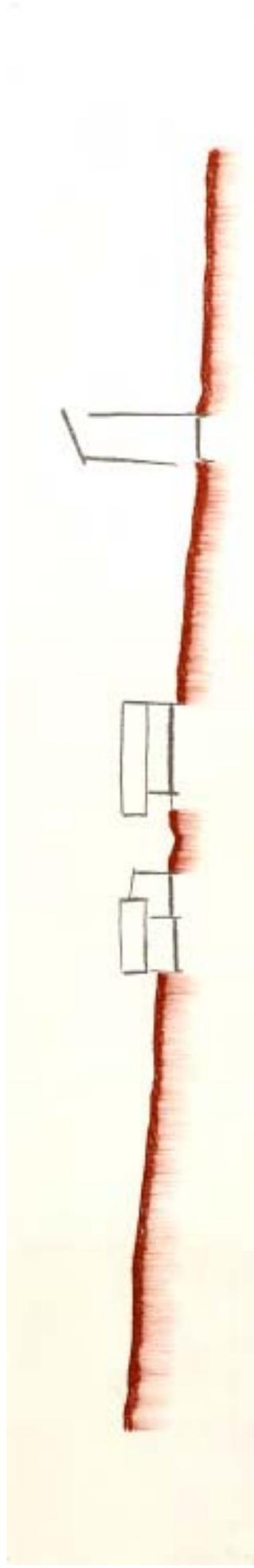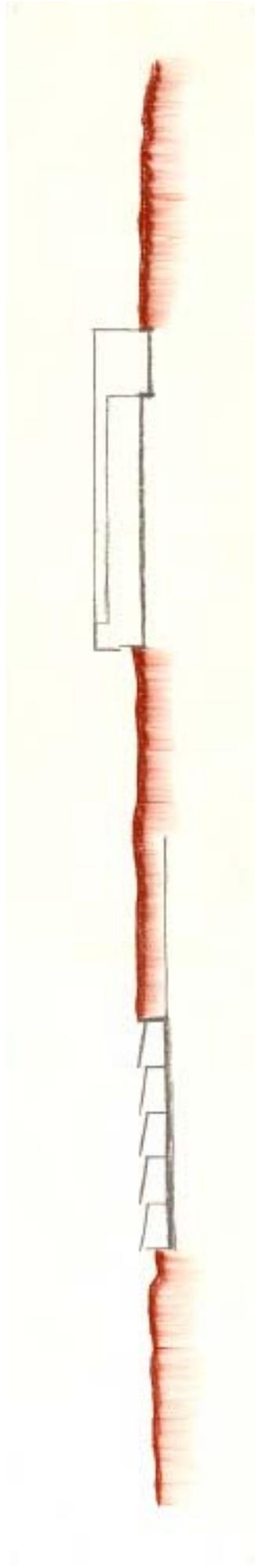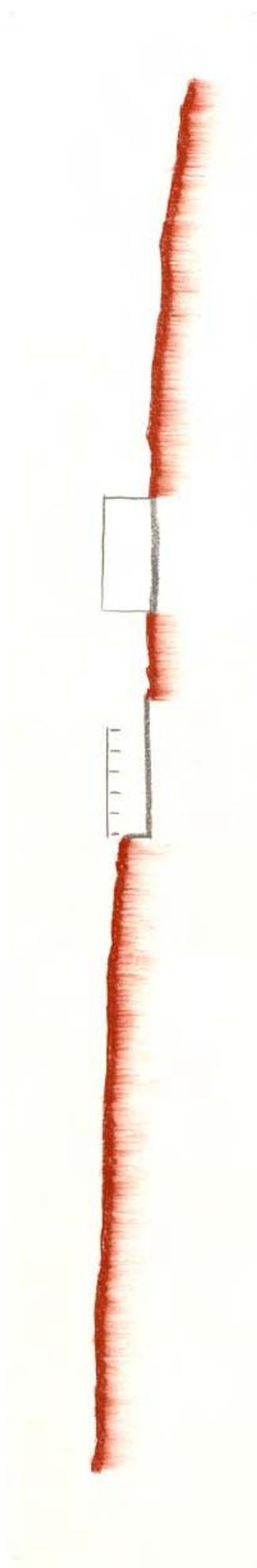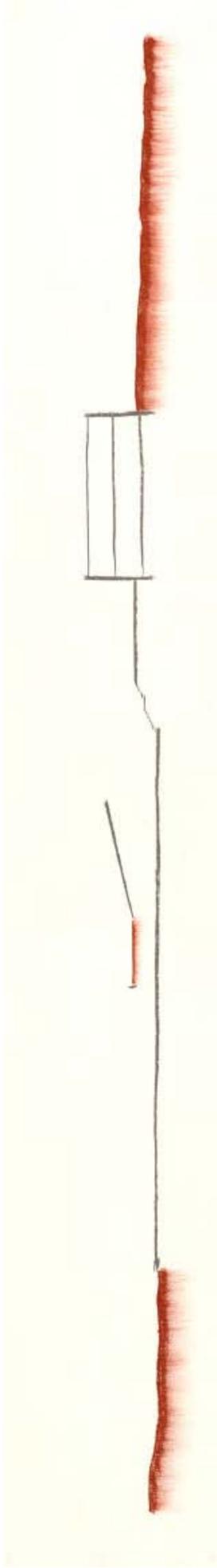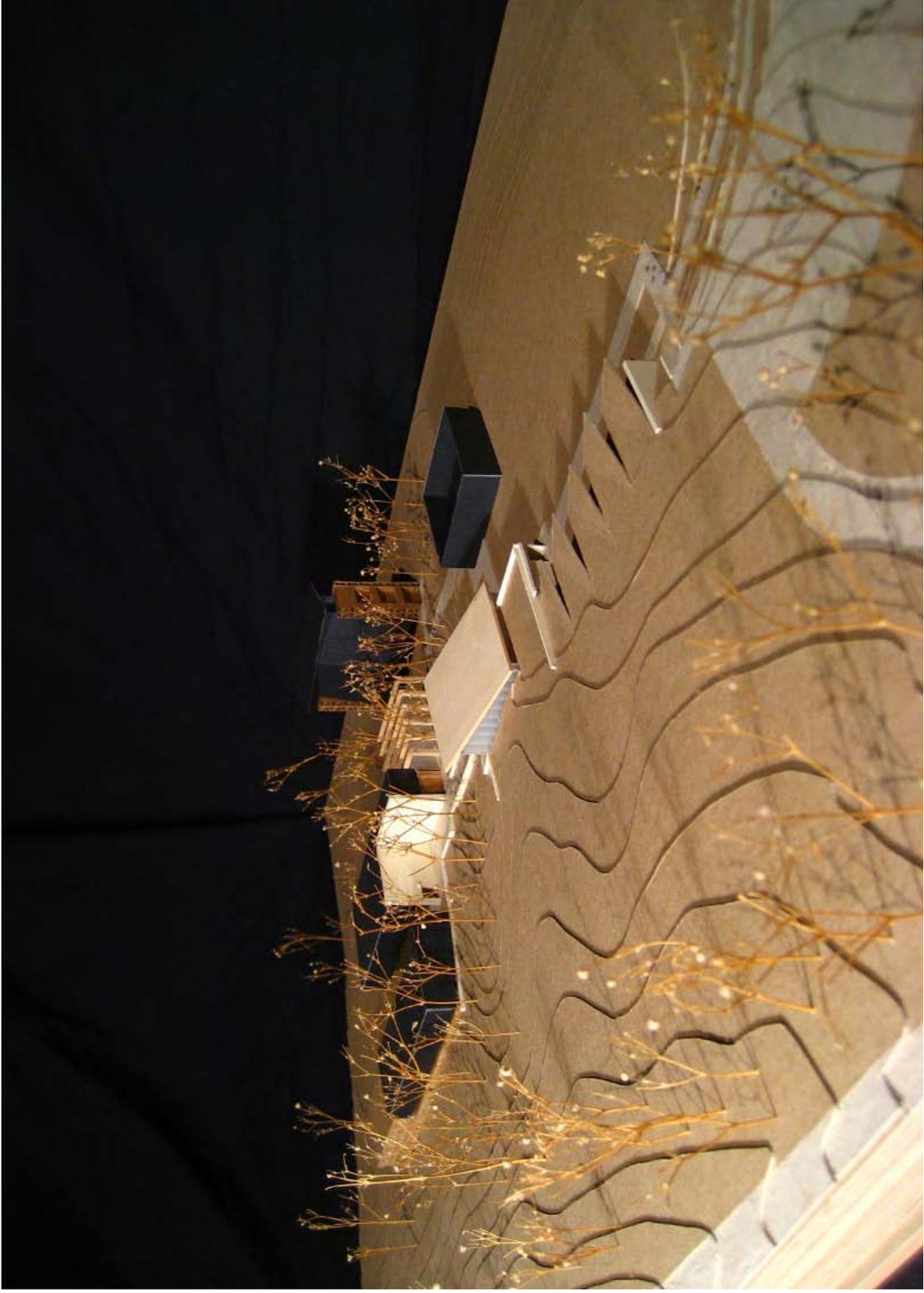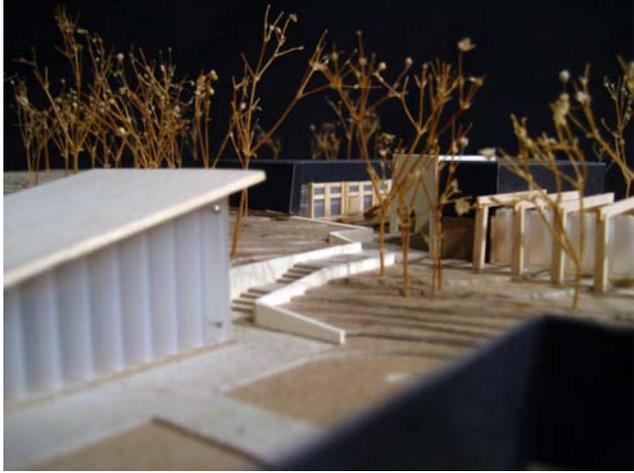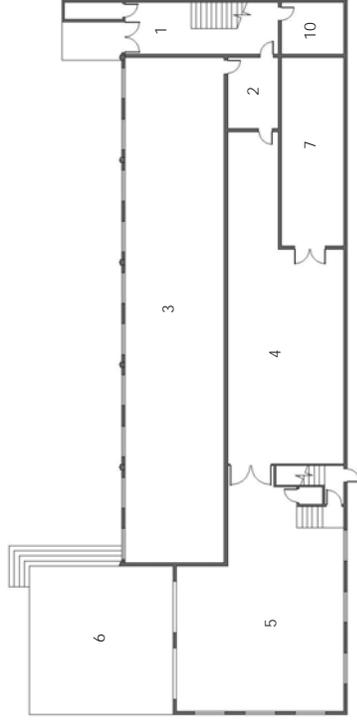
Painting/Sculpture

First Floor
1. Entry
2. Shared Cleaning
3. Painter's Studio
4. Scultpture Workspace
5. Wood & Metal Shop
6. Outdoor Gallery
7. Material Storage
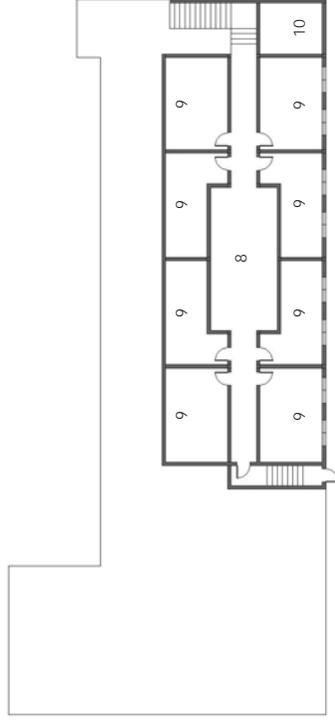
Second Floor
8. Lounge
9. Artists' Quarters
10. Mech.
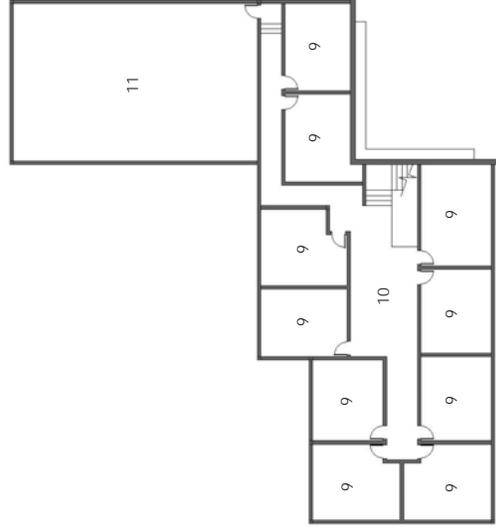
Music/Dance

First Floor
1. Entry
2. Lounge
3. Music Studio
4. Practice Space
5. Mixing/Recording
6. Mech.
7. Dressing Rooms
8. Dance Studio

Second Floor
9. Artists' Quarters
10. Lounge
11. Roof Garden
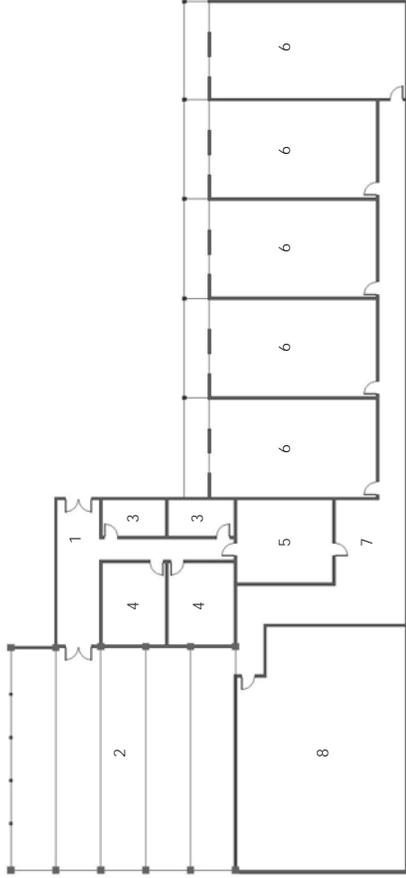
Common Building

1. Reception
2. Common Room
3. Office
4. Restroom
5. Conference Room
6. Artists' Quarters
7. Lounge
8. Kitchen/Laundry/Mech.
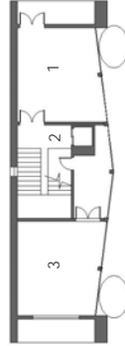
Writing

1. Lounge/Kitchenette
     Artists' Quarters above
2. Stairwell
   Library Above
3. Garage
     Artists' Quarters above

Final Project

Building Culture
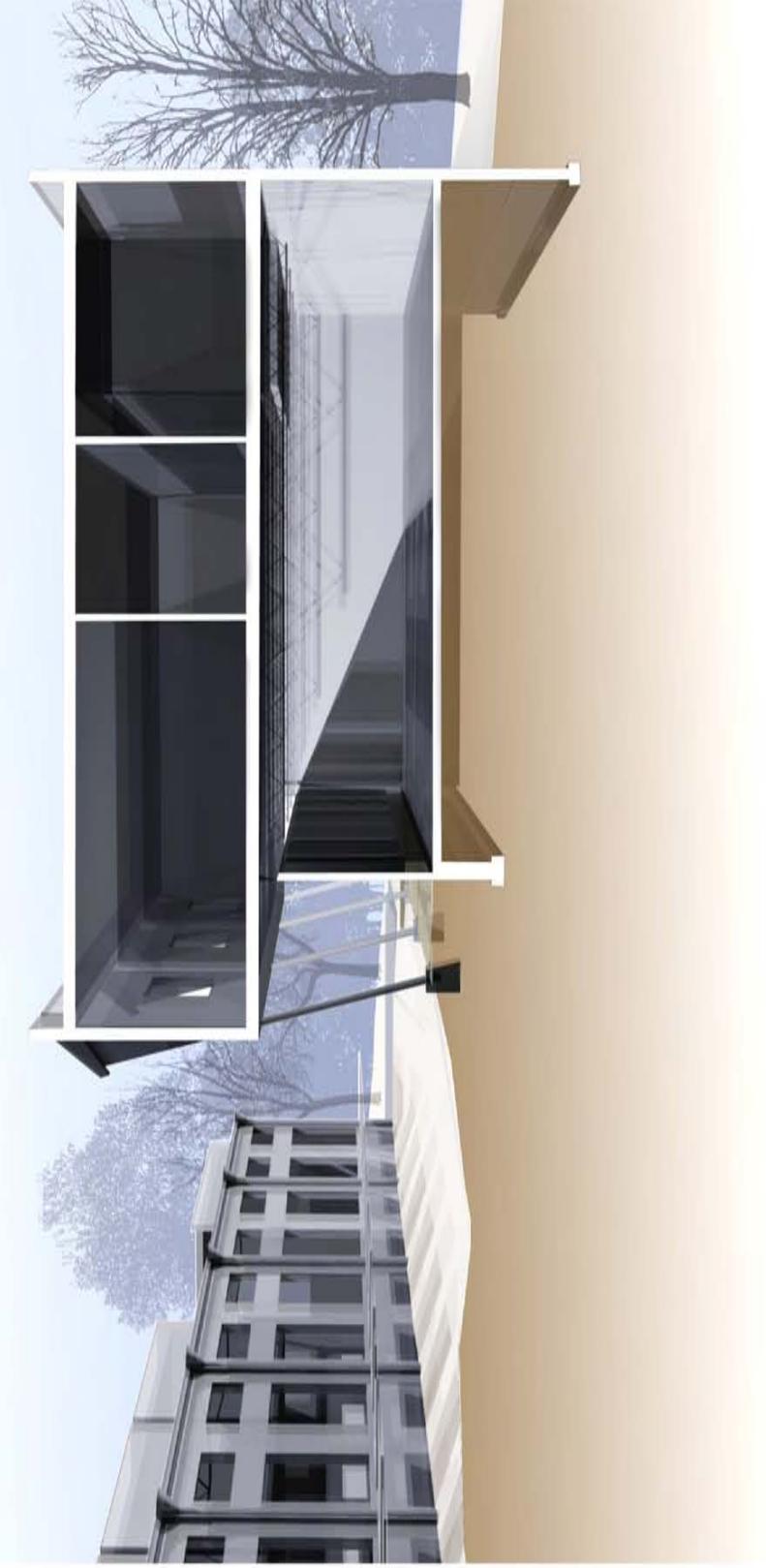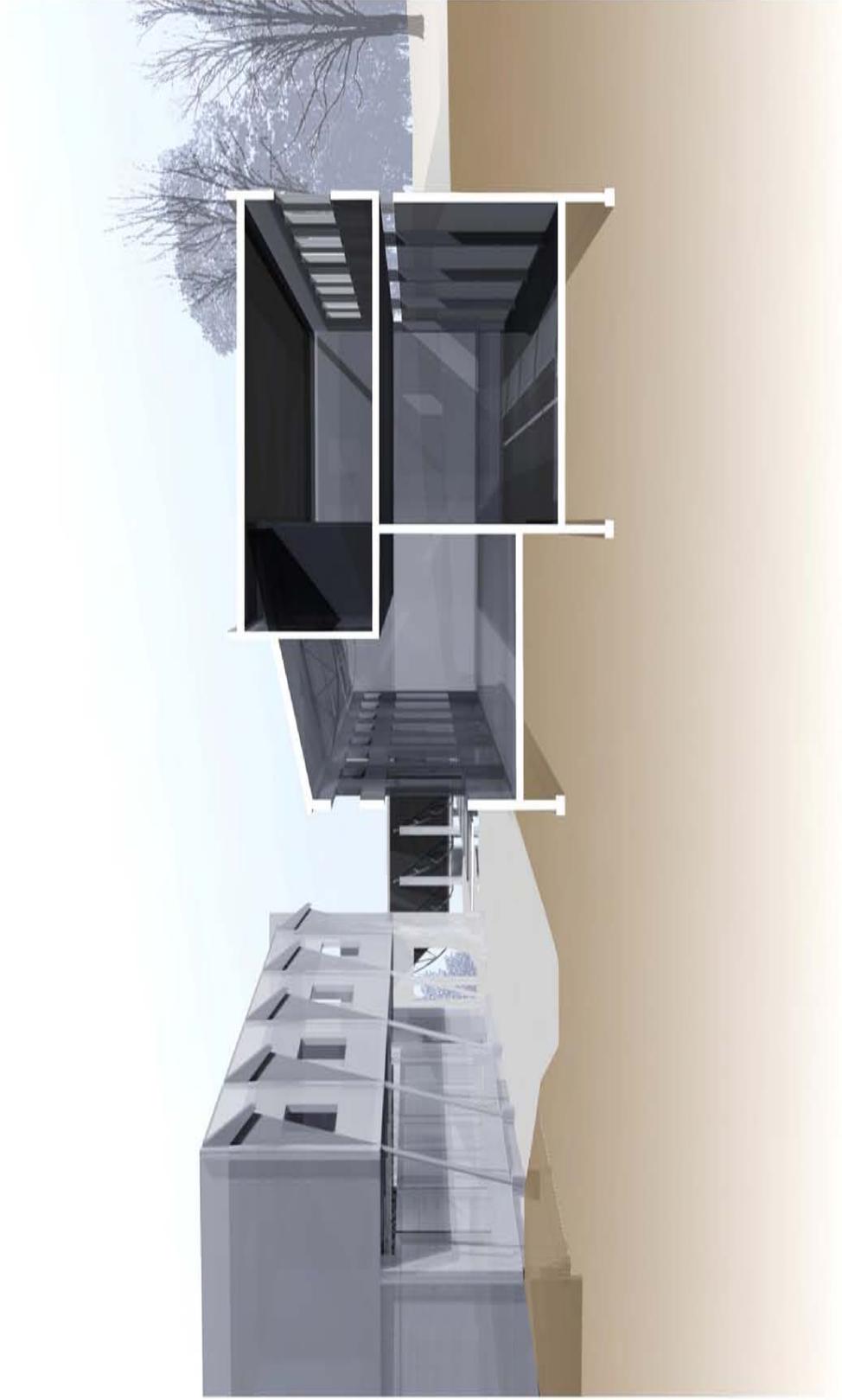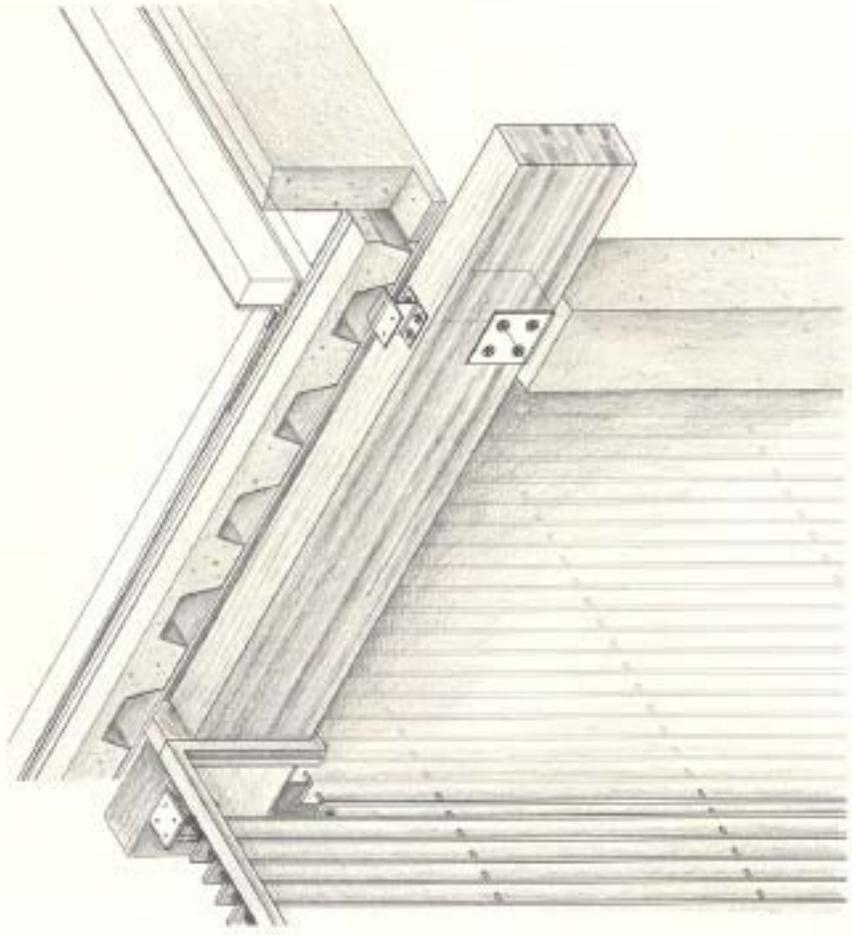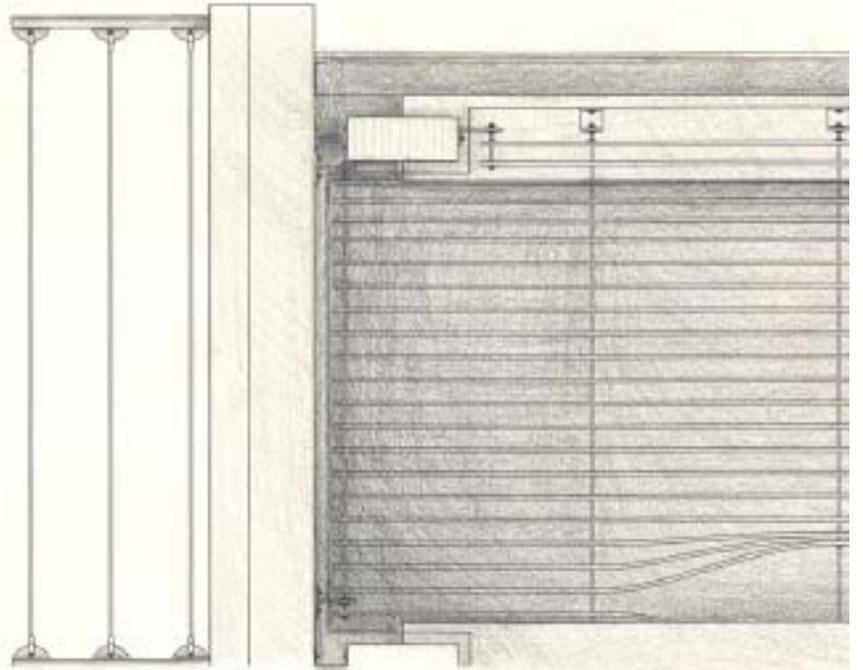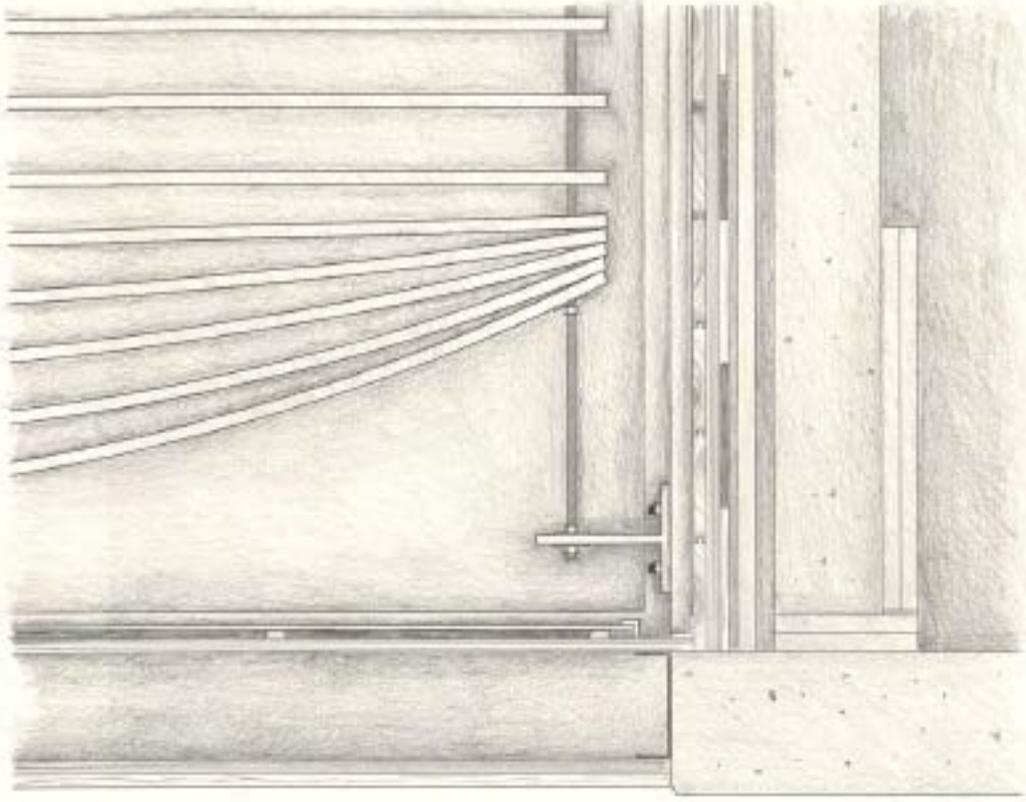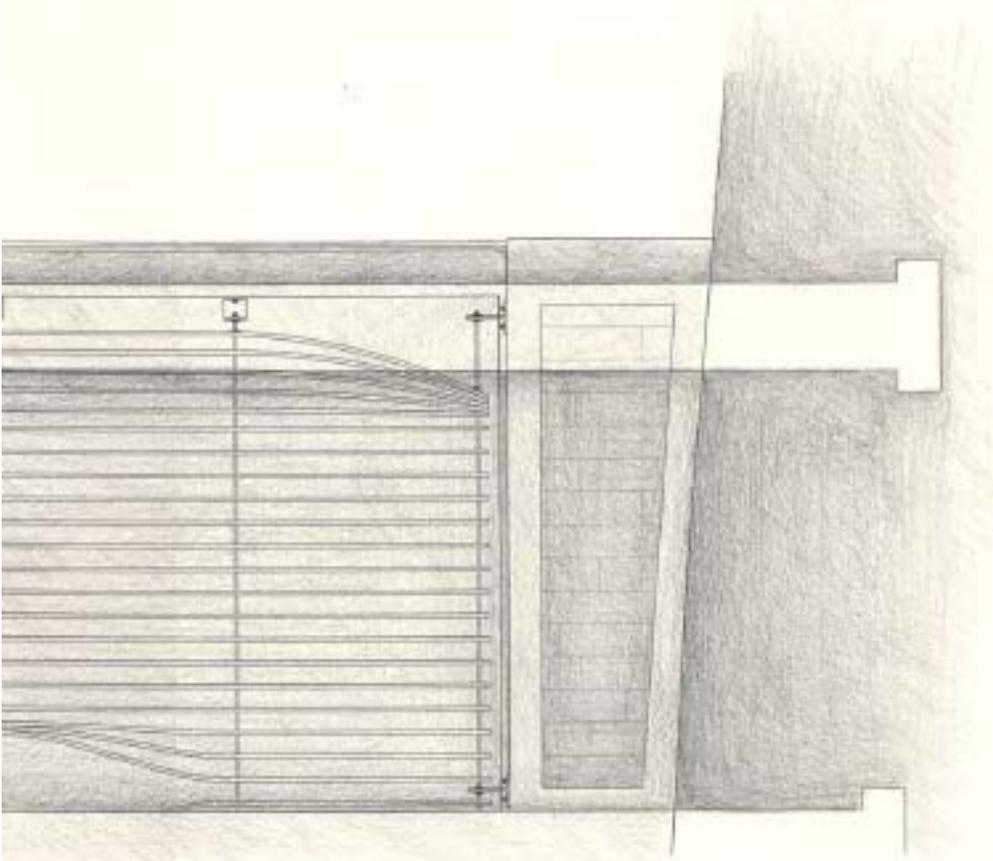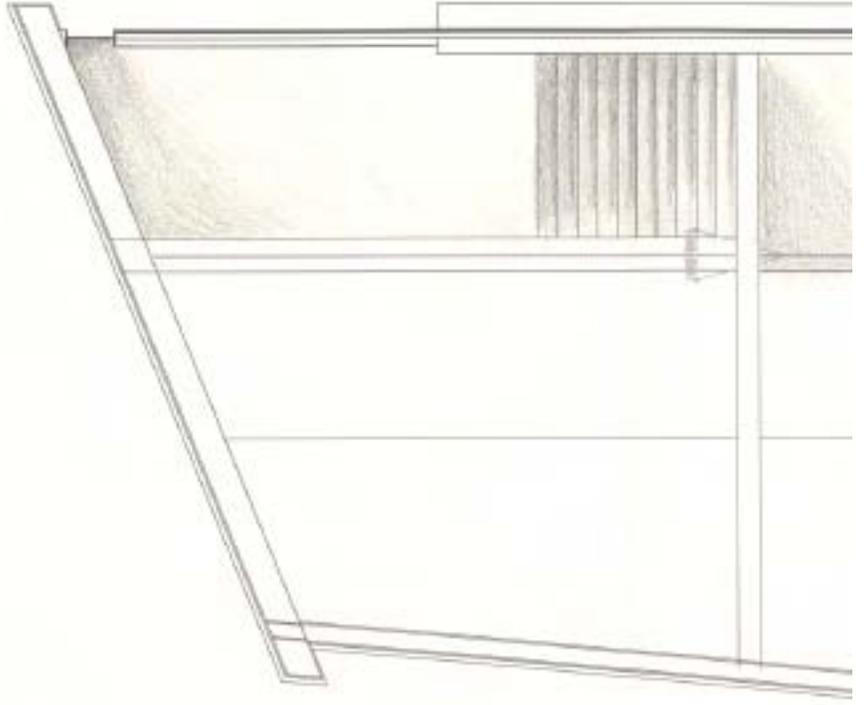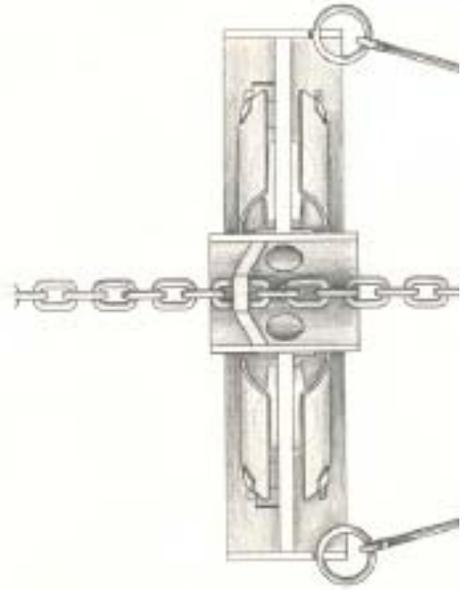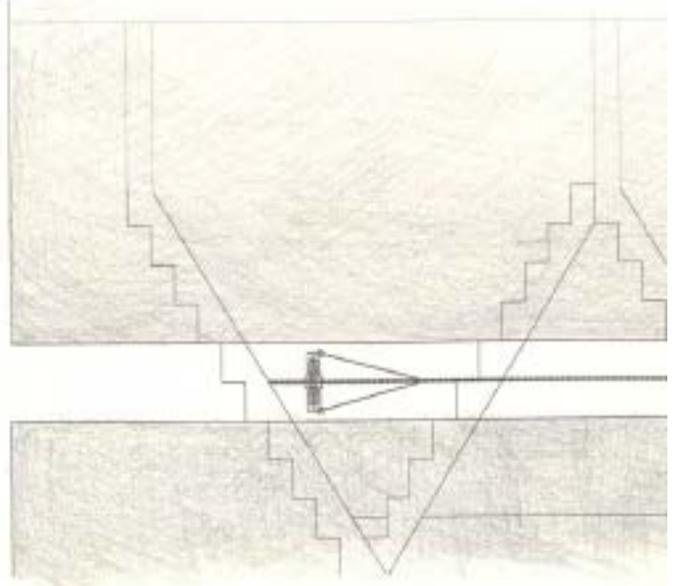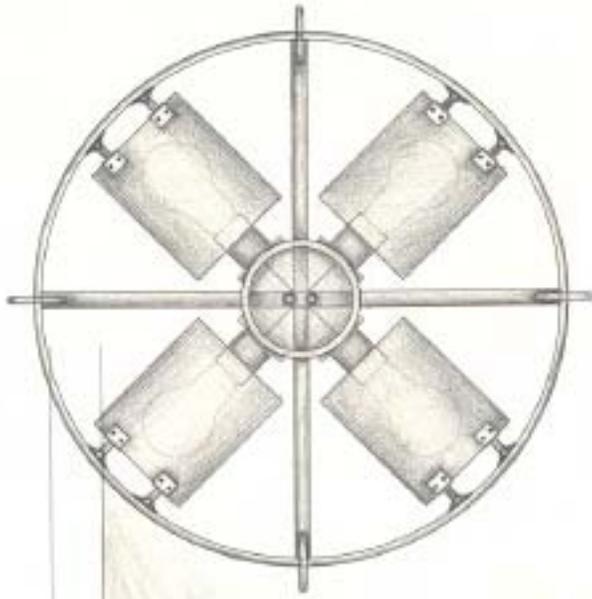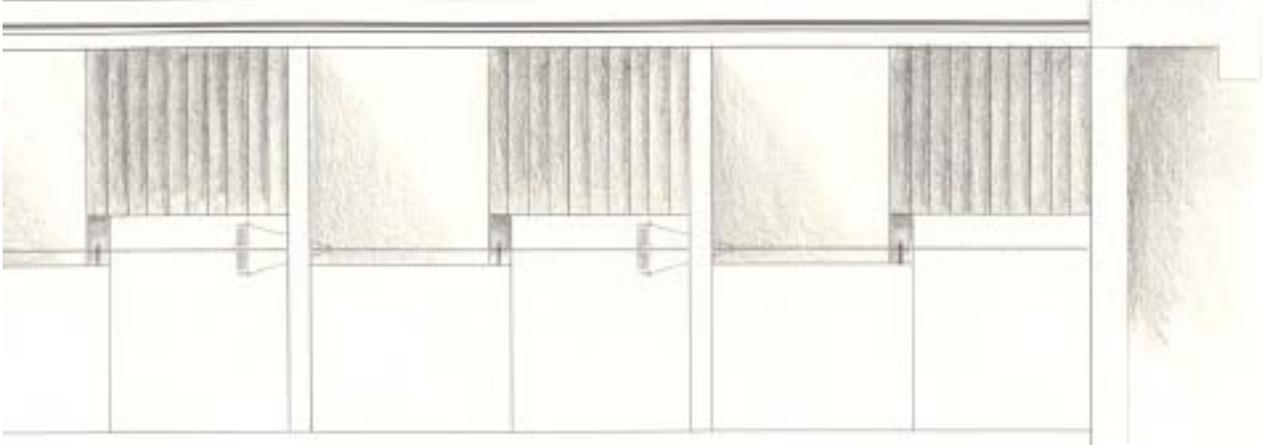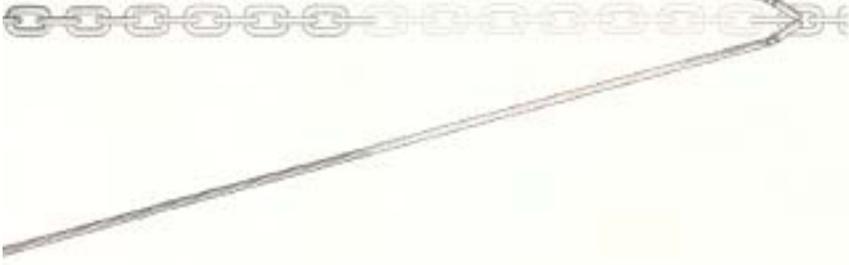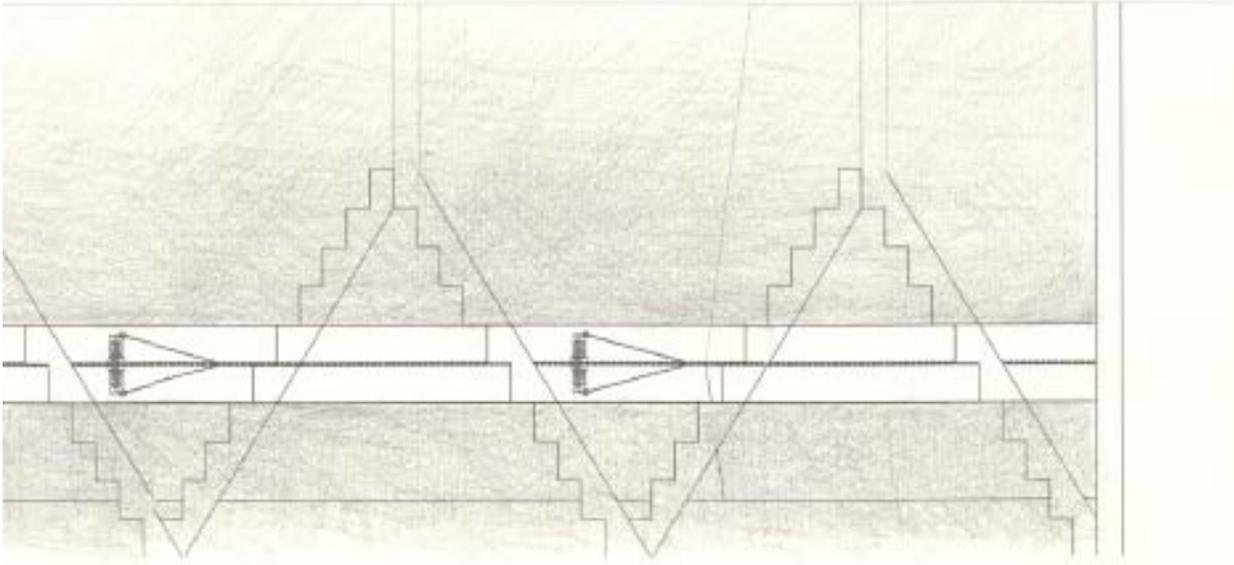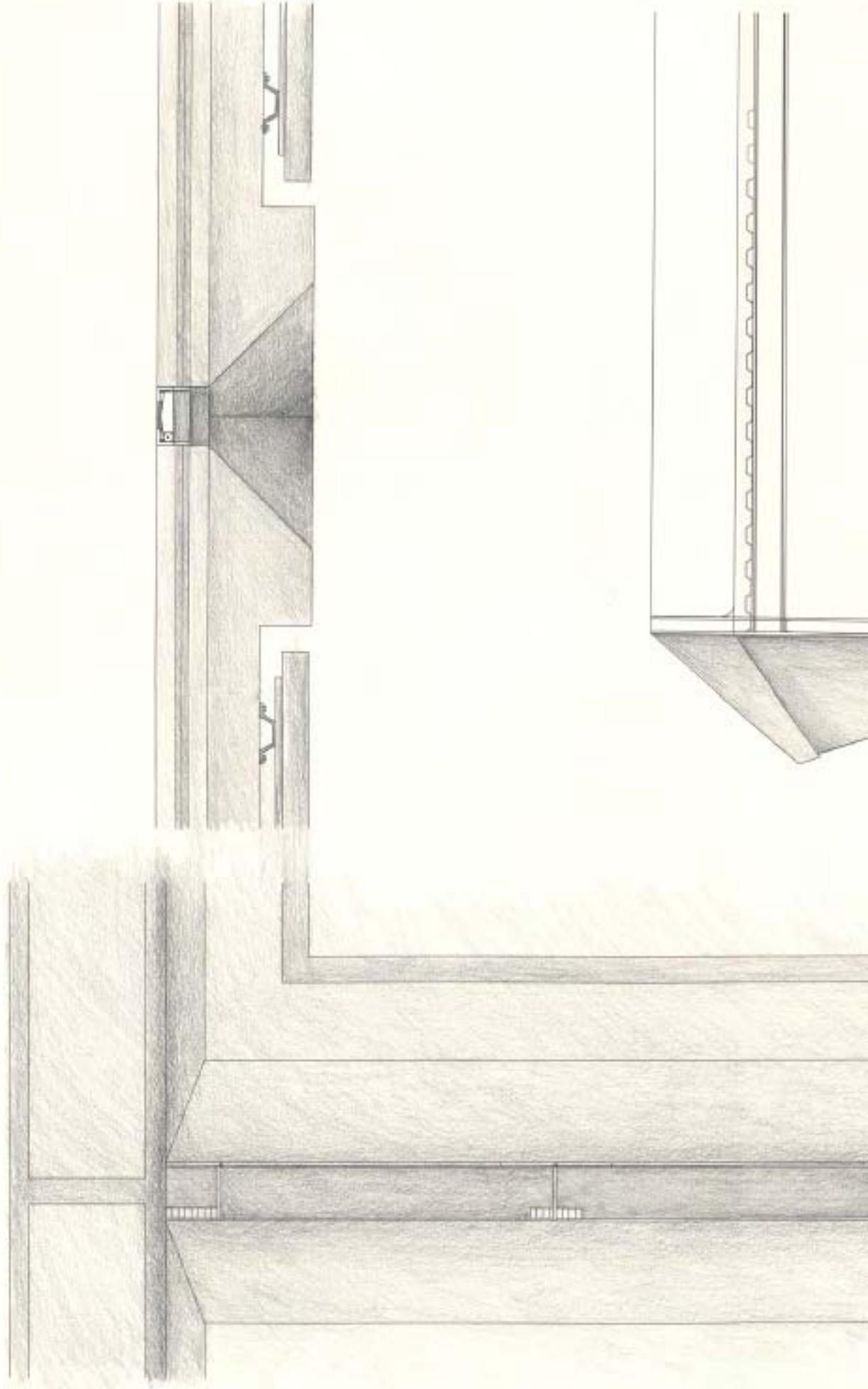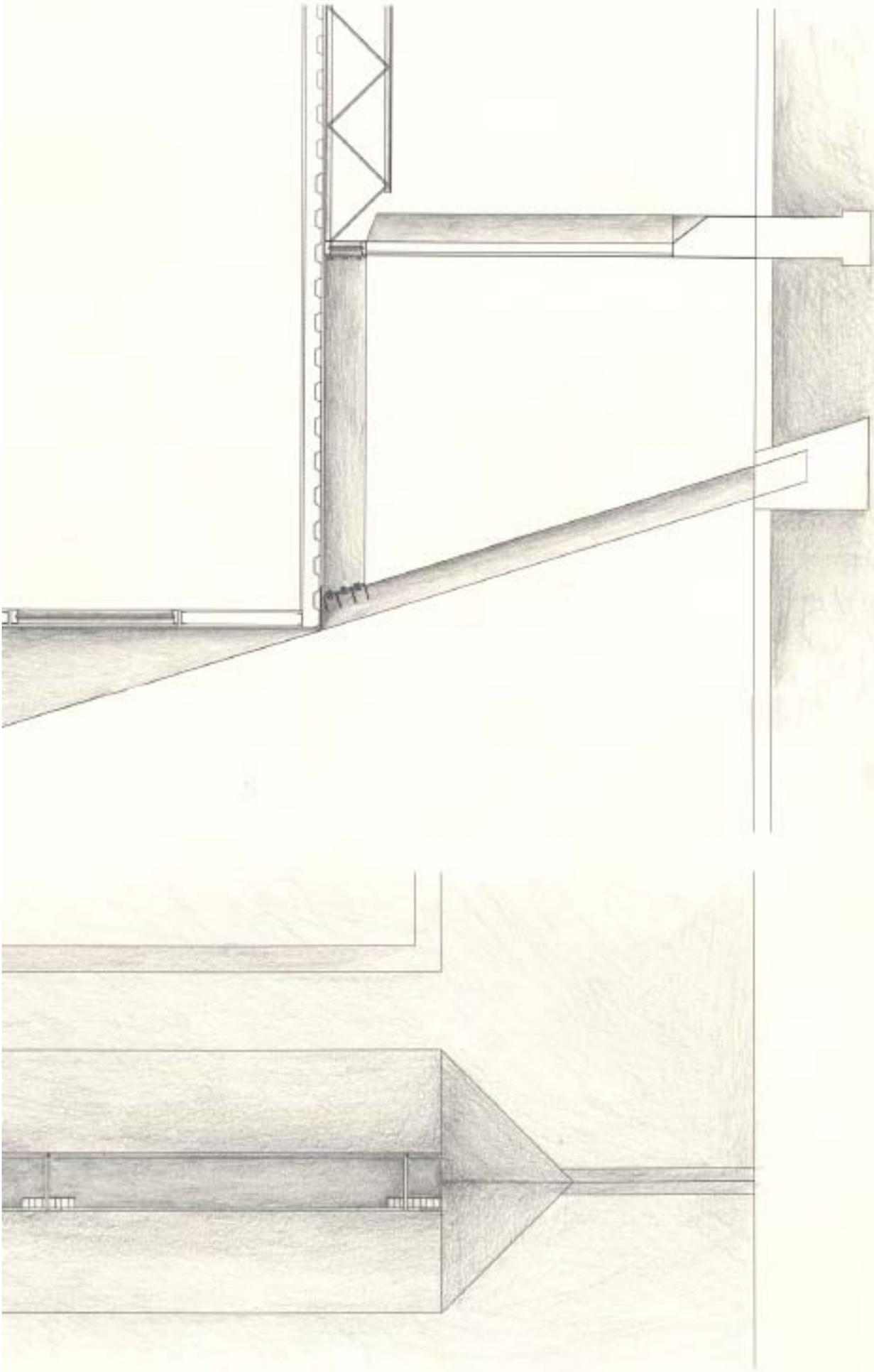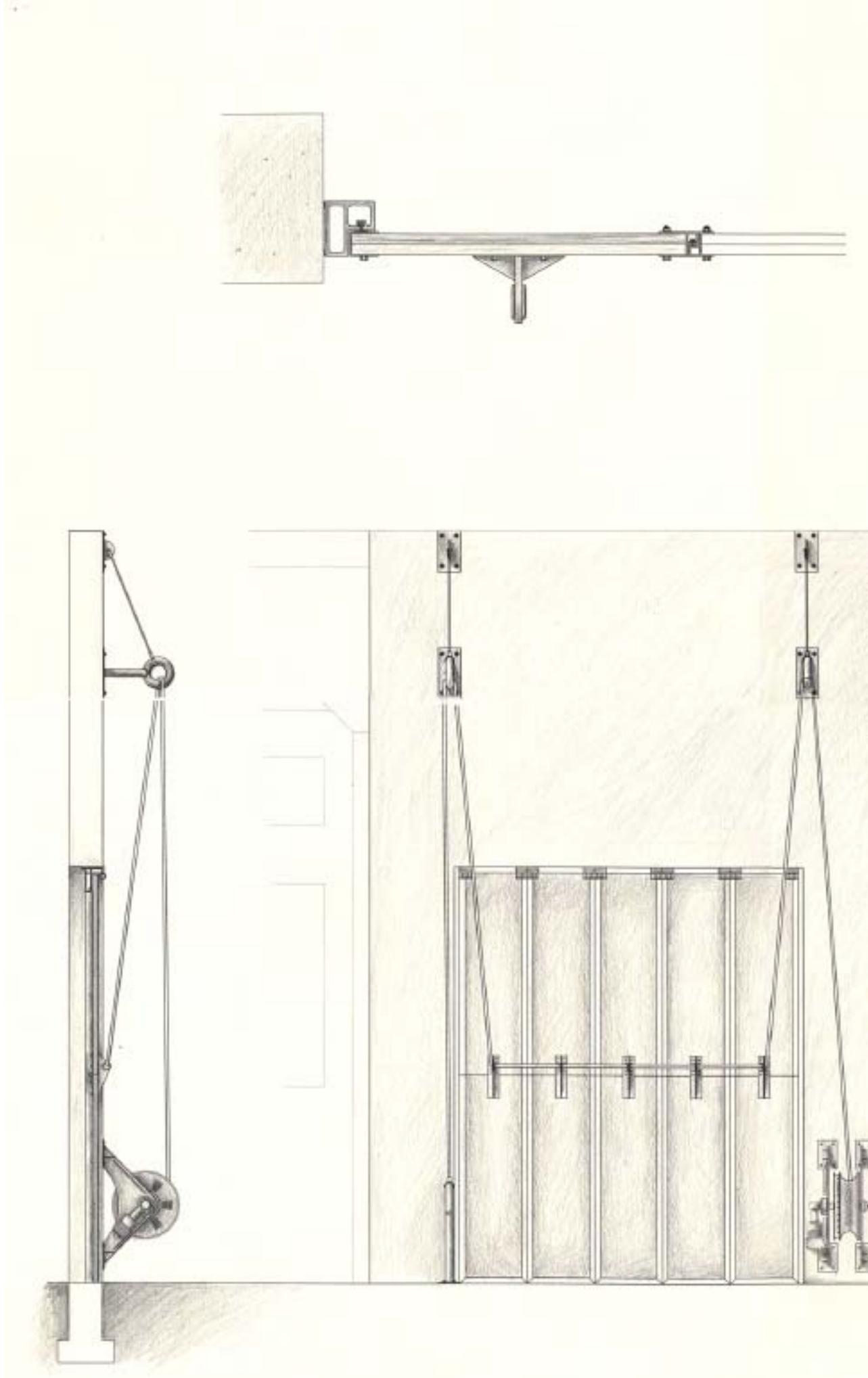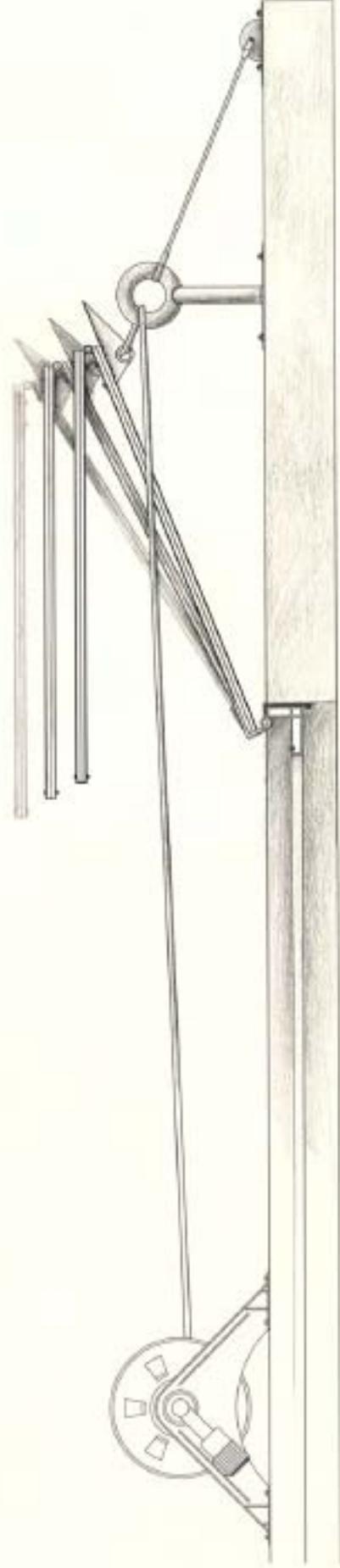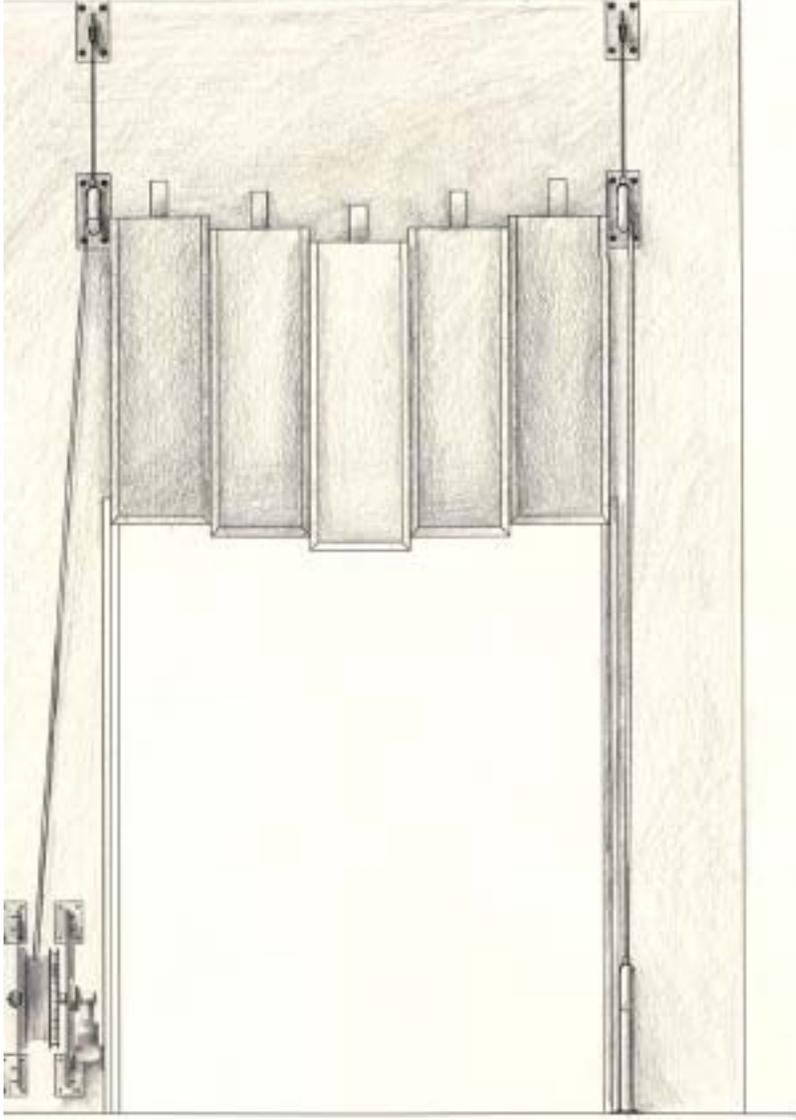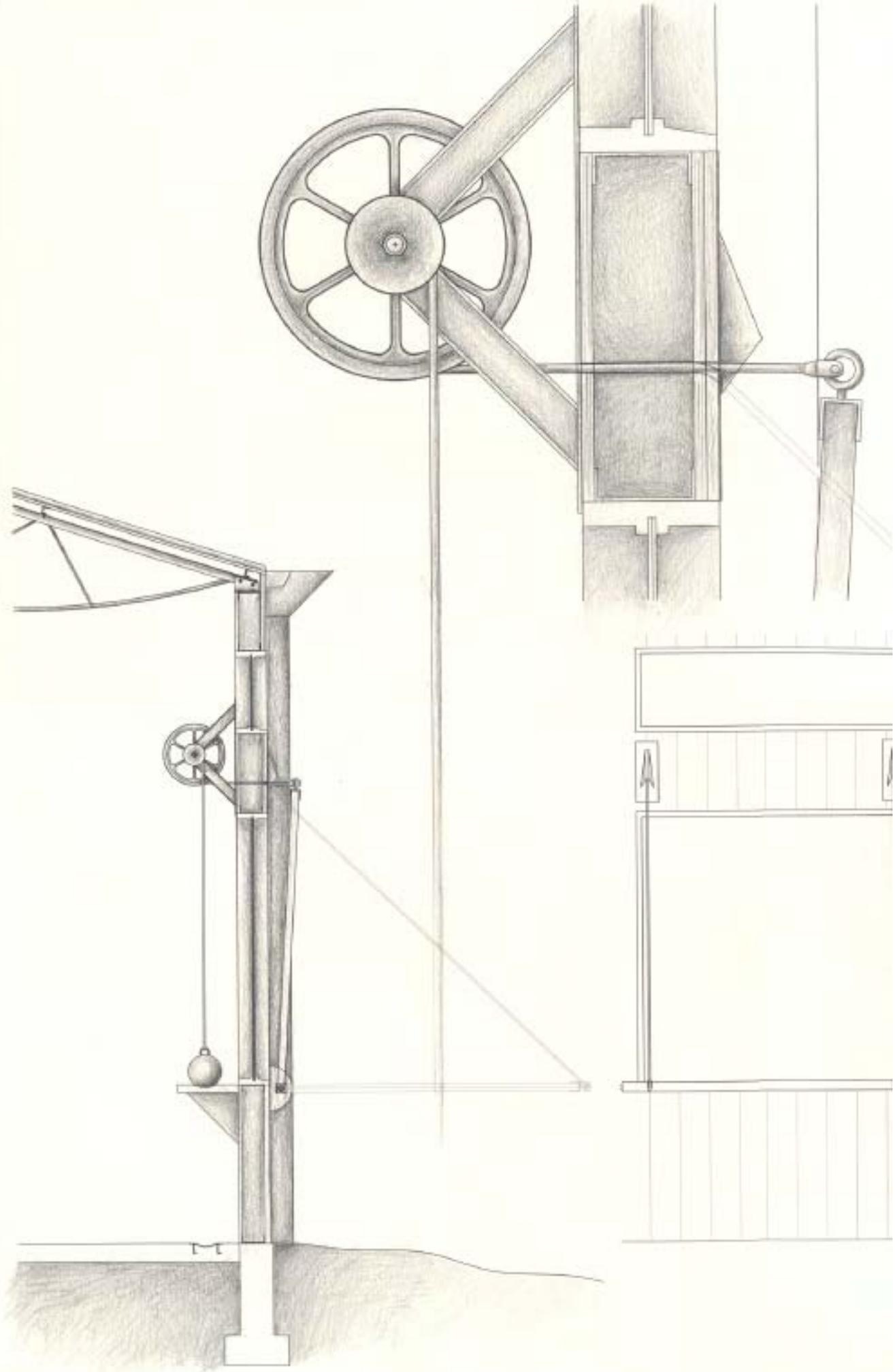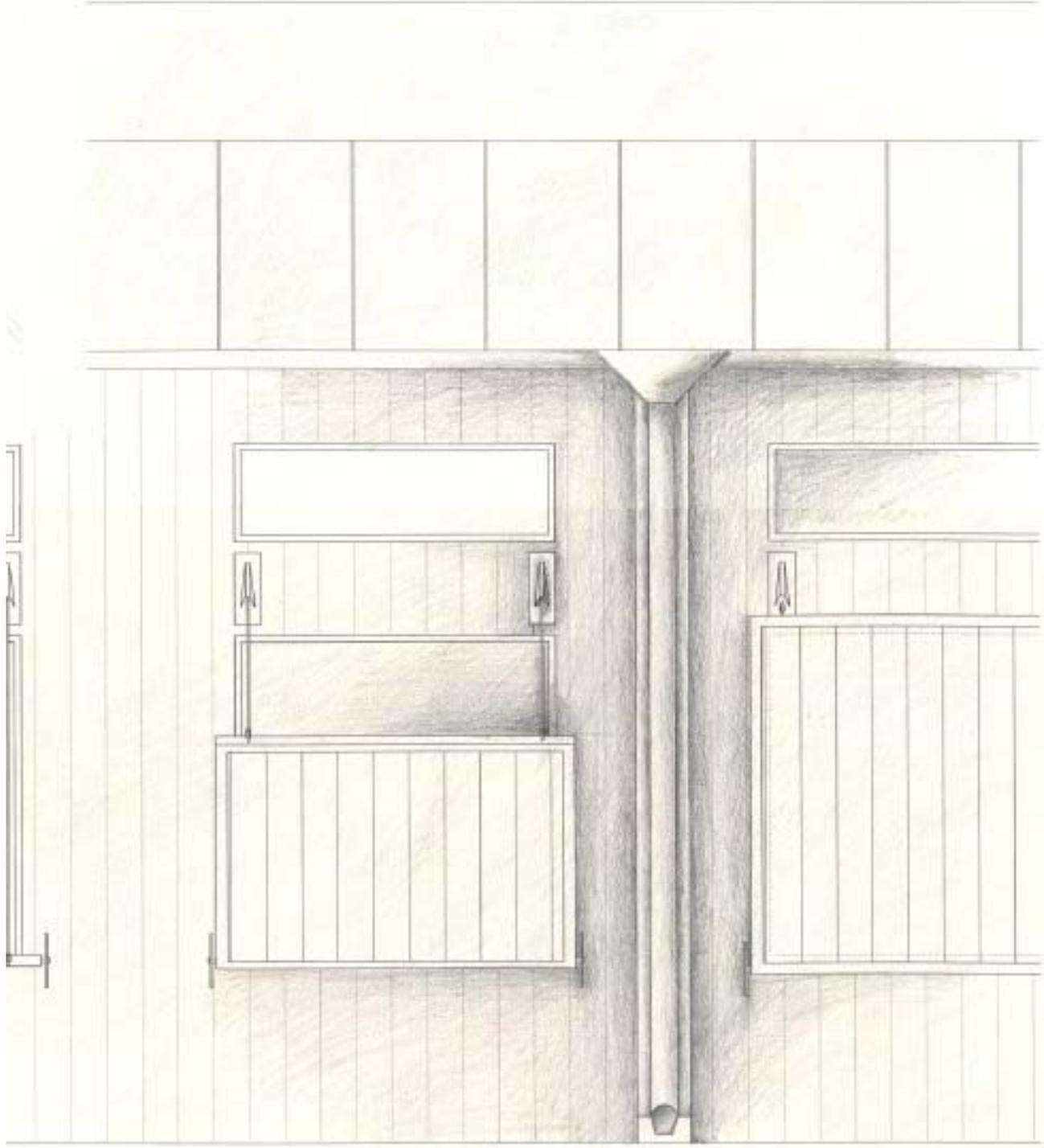
Conclusion

"Architecture with emptinessis thus always unfinished: if not literally, then by the space it makes and the potential it shows. We become engaged with the intervals and open ends"
            -Michael Benedikt

Beginning the process without any explicit intention, the underpinnings of this thesis developed in a largely intuitive manner. This intuition was accompanied by 1) personal experience and 2) reading/research, neither amount of which, I will be the first to admit, was probably large enough to proceed in the most responsible of manners. Still, those three factors led to a premise about the world that I find little need to defend, which is that it is in an accelerated state of decline. With every new amenity comes a crippling notion of comfort; each innovation brings a renewed sense of dependency. As tasks are made more efficient and profits are doubled, the quality of our spiritual and material lives, ironically, seems to go down. It is a wonderful world of vinyl in which we live…

I do not mean for this to be an entirely pessimistic world-view, however. In my own opinion, the beauty that exists in this world, whether it be in nature, art, friendship, or whatever, trumps the world's wrongs. Great Architecture lives in this category. Architecture, however, the kind with a capital 'A', seems to be as much a victim to the economy of quantifiable progress as any other noble endeavor. So how should one respond?

This project has been (rightfully) accused of an overly idealistic approach that may have led to its detriment. I will, however, attempt to defend this approach. If one is to accept the previously stated premise, then how else should one proceed? My proposed revolution is far from violent or tumultuous. Rather, it proposes a slowing down, a greater awareness and appreciation for the sincerity of one's surroundings, and a renewed focus on the meaning to be gained from the material world. This may be an idealistic and self-defeating course of action, but given the academic environment and the essential disconnect between studio-work and 'real-world' practice, this seemed like a more appropriate and defensible foundation.

For my part, I attempted to create a design that embraced the more romantic real-world conditions with which architecture is concerned, not budget or schedule, but site, material, construction and so on. Regrettably, I will admit that the project remains underdeveloped. It is missing the level of detailing that I had initially hoped for, and the each building could use more progress. I still believe, however, that a few moments have been created that correspond to my own vision and which, I believe, would make for a beautiful physical condition.

We may consciously avoid the naïve temptation to create a design that 'saves the world', but improving the world is certainly not out of the question. Besides, given one last chance to pour my efforts into

the creation of my own fantasy world, before being thrown into the jaws of professional practice, how could I resist? In the face of overwhelming odds, a 'old school' sort of idealism might not be such a bad approach.

Endnotes

Endnotes

Building Culture

Abstract
1.   Zumthor, Peter. Thinking Architecture. 28

Thesis Paper
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2.   Frampton, Kenneth. Studies in Tectonic Culture. 62
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4.   Willis, Daniel. The Emerald City. 43
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7.   Frampton. 24
8.   Zumthor. 30
9.   Willis. 57-58
10.   Leatherbarrow, David. The Roots of Architectural Invention. 7-8
11.   Leatherbarrow. 31
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14.   Leatherbarrow. 40
15.   Michael Benedikt. For an Architecture of Reality. 58-60
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18.   Frampton. 90
19.   American Heritage Dictionary
20.   Willis. 59
21.   Willis. 41
22.   Willis. 40

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1.   Malouf, David.
2.   Murcutt, Glenn. Architecture for the Aborigines
3.   Stein, Karen. "Project Diary: Leeper Studio Complex, Atlantic
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4.   Stein, Karen

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1.   Will Wittig

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    A polemic against post-modern ideas, this text was an interesting argument for a sensible approach (as the title suggests) to architecture as a real-world condition. The author defines realness as consisting of presence, significance, materiality, and emptiness.

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Willis, Daniel. The Emerald City and Other Essays on the Architectural Imagination. 1. New York: Princeton Architectural Press, 1999.

    A well-written collection of essays concerning the critical state of architectural affairs, especially in the areas of the material imagination and qualitative architecture. Particularly intriguing was the essay, "The Weight of Architecture".

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    An inspiring source for the abstract. Particularly agreeable are Zumthor's writing style and his attitude towards design.

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