

**A SEARCH FOR TRUTH:
*Investigating the Connection Between Man, Architecture and the Universe***

*By John Austin Sullivan
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in Architecture

Approved:

Susan Piedmont-Palladino, Chairperson

Marco Frascari, Committee Member

Joseph Wheeler, Committee Member

Jaan Holt, Director

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In loving memory of....

....John L. Sullivan (1917 - 2002), a true hero.

Special thanks to....

...my family for teaching me the value of hard work, determination and perseverance. Thank you for your unyielding love, encouragement and support, which made this possible.

...the faculty of the Washington-Alexandria Architecture Consortium for lending inspiration and sharing wisdom. Thank you for patiently guiding me through this journey.

CONTENTS.

| | | |
|----------------------|---------------------|------------|
| <i>section one</i> | INTRODUCTION | 1 |
| <i>section two</i> | THESIS | 3 |
| <i>section three</i> | PROJECT | 9 |
| <i>section four</i> | SITE | 17 |
| <i>section five</i> | PROCESS | |
| | TRANSITION | 29 |
| | ELEMENTS | 35 |
| | PROGRESSION | 41 |
| | LIGHT | 51 |
| | DIALOGUE | 57 |
| | ORIENTATION | 65 |
| | PLAN | 69 |
| | BOUNDARY | 73 |
| | CITY | 79 |
| | PLACE | 85 |
| | PATINA | 91 |
| | MEMORY | 99 |
| | CONNECTION | 109 |
| | BODY | 117 |
| | ENCLOSURE | 123 |
| | TRUTH | 129 |
| | ABSTRACTION | 135 |
| <i>section six</i> | CONCLUSION | 143 |
| <i>section seven</i> | APPENDIX | 145 |
| <i>section eight</i> | REFERENCES | 157 |

INTRODUCTION.

The study of architecture is a search for the truth, conceived from a desire to understand the nature of life. Through the process of investigation, discoveries bring us closer to this understanding. Universal truths discovered within the discipline of architecture teach of the universal truths of life itself.

Architecture is eternally bound to the universe. It exists as a physical reality, ultimately defined by a specific moment and position within the infinite continuum of time and space. Yet, what creates this inseparable connection between architecture and the universe?

Man.

Architecture exists as an offering to man. It serves as a stage on which the life of man unfolds; it is the backdrop of the human drama. It is the interaction between man and the physical environment that defines this connection between architecture and the universe. The instant that the hand of man touches the surface of a brick wall, a moment is created,

eternally linking the wall to the universe. Thus, a constant dialogue exists between man and architecture. The nature of this dialogue must be explored, as it offers man the opportunity to understand his relationship with architecture on all scales (individual, community, universe).

In order for this dialogue to be understood, the relationships which exist within architecture itself must be examined. These relationships exist on many scales, ranging from the connection between the column and the beam, to the relationship between a building and its city. These relationships dictate architecture's meaning. By being sensitive and perceptive of the nature of these relationships, we become closer to understanding the nature of life.

Explorations of architecture allow us to question the nature of life. The search for the connection between architecture and the human condition, allows us to understand the eternal connection between architecture and the universe. The search allows us to find the truth.

THESIS.

A thesis is born from a question. It is a search for the truth; a desire to understand life. It is a journey of discovery whose intent is to find clarity and wisdom. This question transforms itself into a series of questions, each one connecting to the next, pushing forward to find the ultimate truth. Its beauty lies within the exploration itself. A thesis is a quest for knowledge and understanding of our surroundings as humans. This quest must be taken within a certain discipline of study and all discoveries must be understood in these terms. The truth found within the discipline reveals itself as a microcosm of this truth on the larger scale.

In this case, the discipline of study is architecture. Thus, all questions about life must be posed in architectural terms. The questions which build the thesis must explore the relationships which exist within architecture. These relationships exist on many scales, whether it is the connection between two materials, the interaction between a person and a space, or a building's role within the framework of its site. It is essential to study these relationships on all scales, as the meaning forms from the reoccurring truths and the overlap of discoveries. By being sensitive and perceptive to the nature of these relationships, one becomes closer to understanding what is true of man. Explorations of architecture allow one to question the nature of life itself, and as one searches for the connection between building and the human condition, architectural lessons become lessons of life.

This thesis results from the desire to celebrate and mark man's moment of existence in the eternal order of the universe. It explores man's relationship to the universe through an understanding of architecture. This thesis establishes man as the measure of the universe, as it attempts to understand this relationship on all scales. In order to celebrate man's presence, architecture must receive man. Architecture must allow man to act in a manner that is true to his nature and provide an awareness of his relationship to the world beyond. Man is the intermediary between the architecture and natural order of time and space. Without man, the architecture would exist in a void; it would have no life of its own. It is only through interaction with man that architecture can achieve this life and establish a connection to the world beyond. Thus, man and architecture are co-dependent. Whereas man depends on architecture for such primary needs as shelter and protection, architecture depends on man to give it a presence. While its physical presence is undeniable, architecture has no meaning without its connection to man. Here lies the beauty of the railing that receives the grip of man, hands wearing down on the wood, fading its sheen. The precise moment when the hand connects with the wood is when the railing transforms from a mere object, a crafted piece of wood, to something much larger, having its own life and meaning. This interaction locks the object into a specific moment in time, allowing it to become part of the continuum, and providing a lasting

THESIS. *(continued)*

connection to all that is true within the world that it exists. The rail becomes the stage that accepts human experience. By doing so, it is given presence. This thesis searches for the truest nature of the stage.

While man and architecture are both dependent on one another to relate to the universe, this thesis also examines how man relates to himself through his interaction with architecture. Architectural elements and their characteristics create a specific relationship which provides an awareness between the public and the private realms, between the universe and the individual. As a result, spaces are created which allow man to interact with his universe on many scales. The nature of this relationship between the universal and the individual depends on the nature of the architectural elements. A man sits on the front porch of his home and reads a book. His relationship with the porch is that of an individual, as he is alone. His neighbors pass by and he waves. As he sits and reads, he hears the sounds of the city beyond, and he is connected to the universal. The nature of the architectural element provides an opportunity for the man to realize his relationships on many different scales, from being an individual, to interacting with other individuals, to interacting with the world beyond.

In addition to exploring the relationship between man and the universe, this thesis searches for the meaning of the connection between architecture and the

universe. Architecture digs its roots deep into the earth to mark its presence. The permanent elements of architecture allow it to mark its position in the world. A brick wall stands as a unified whole. It has strength and mass, each brick joining one another to fulfill its mission. As it becomes part of the environment, the brick wall rises to face the wind and the rain with the understanding that it will someday crumble back into the ground in which it so firmly stands. Architecture establishes its position in the universe by accepting the reality of nature. Architecture can be permanent within the limits of man's understanding. It can outlive generations, giving it a relative sense of permanence, as it will seem timeless to those who measure time. People will be able to see a building's age through its patina. The physical markings of a building are similar to the lines on an old man's face as it tells of its existence and confirms its presence. As a building lies in ruin, it speaks of its past life. It tells its story. Man has fragmented time, creating minutes and seconds. This arbitrary division allows man to understand time in terms which he is able to comprehend. This moves further away from a holistic understanding of life, as it attempts to measure the unmeasurable through interpretation and division. As architecture seems permanent within the scope of this limited understanding, it proves to be just a spec within the wonderful continuum of life, for how can anything be measured against eternity? Thus, the idea of permanence can only be measured through a

THESIS. *(continued)*

relative medium: Man. The building can be understood in terms dictated by man, and in doing so it can begin to speak of its life on a larger scale. Through its connection to man, a building can mark its place in time and its position in the world. The relationship between architecture and the universe depends on man to give it meaning. This thesis questions the nature of that relationship.

PROJECT.

A thesis questions the nature of life. Within the discipline of architecture, these questions are posed through the process of design. As a project begins to unfold, the evolving nature of the design process will allow our discoveries to guide the direction of our work. A hierarchy of values must be established to insure that fundamental truths of architecture never become compromised. This hierarchy must influence every design decision. The discoveries revealed through the process of design allow us to come closer to gaining a holistic understanding of the nature of life.

The process of design can only be revealed through an individual project. A project is born to meet the needs of man by fulfilling a specific program. The program forces us to make pragmatic decisions about the organization of space. However, the true seed of design is conceived through intellectual exploration and discovery. Thus, the program is the absolute minimum requirement of architecture. It is described in fragmented terms that man is able to comprehend. The program speaks of organization and requirements, while failing to acknowledge the human condition and its relationship to architecture. It neglects the sensory and experiential needs of man. It is only the project's connection to the universal realm which can give it meaning and presence. While a project must fulfill a program, true architecture is born from the struggle to understand the nature of man's existence.

The intention of this project was to fulfill the program of housing in an urban environment. In order to create a dwelling which is conducive to human nature, we must study the manner in which man exists. This process goes beyond the fulfillment of the program, as it searches for an understanding of man's position within the realm of the universe. Architecture can provide the opportunity for this awareness, as the relationship between man and architecture speaks about the nature of life itself.

dialogue, moment, place....

This project explores the ways in which architecture allows man to realize his position within the universe. Architecture serves as a conduit between man and the universe, the characteristics of its elements defining the nature of this relationship. This project questions the role of architecture as the intermediary between man and the universe. Individual architectural elements have the ability to work together to create space. However, when in connection to man, these elements are given meaning. The moment when the hand of man presses against the course surface of the brick wall establishes a direct dialogue between man and architecture. This dialogue transforms space, defined solely by its physical boundaries, into a place, defined by the relationship between its physical presence and its connection to man. Architecture becomes a stage on which life unfolds. The physical

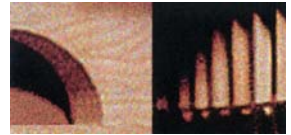
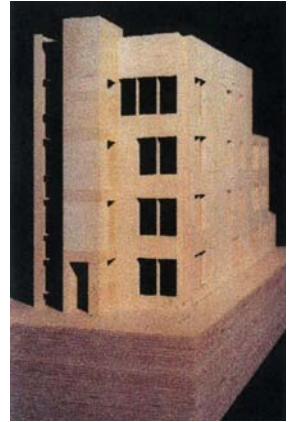
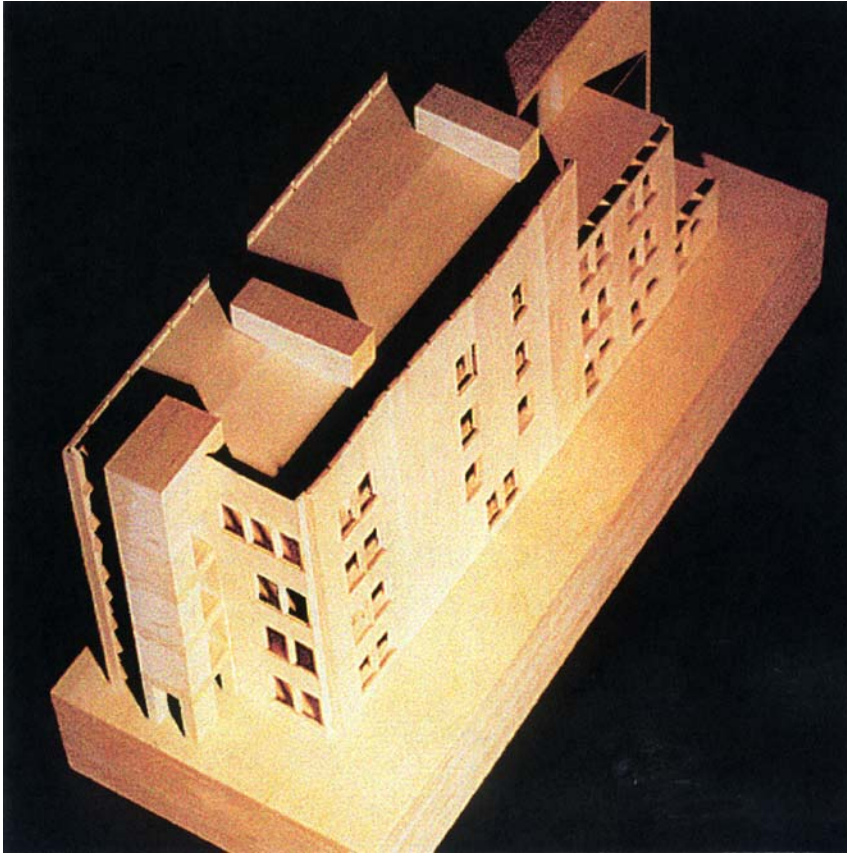


image i, ii, iii, iv (clockwise from top right)

PROJECT. *(continued)*

environment becomes the backdrop for the human drama. The intent of this project is to transform a structure of brick and wood, glass and concrete, into a place where events are celebrated, where lives are led; to construct a stage which would accept the human condition. While man relies on architecture to provide shelter and strength, architecture depends on its interaction with man to give it presence and meaning. This relationship is co-dependent. This project explores the way in which architectural elements (wall, opening, threshold, hearth, column, beam) can receive and accept man's presence. As architecture serves as a bridge between man and the universe, this project establishes a direct dialogue between the physical environment and the human condition. This dialogue allows architecture to offer man understanding of his position in the universe.

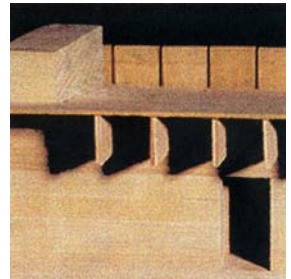
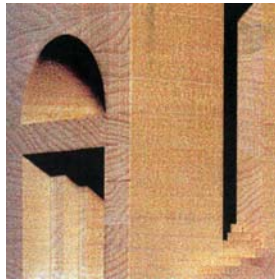
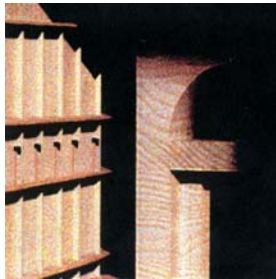
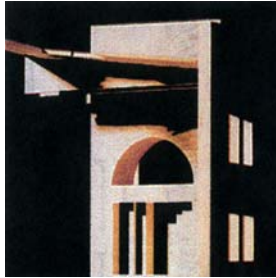
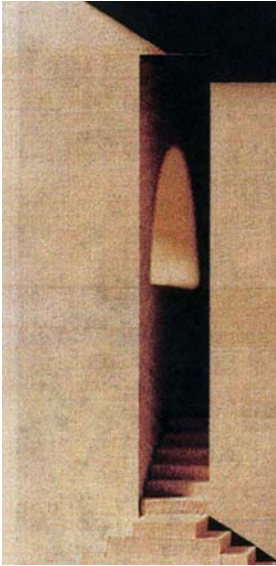
memory and patina...

A building's patina speaks directly of man's position within the universe. The goal of this project is to construct an architecture that is receptive to man's presence. The palette of materials (brick, wood, glass, copper, steel, concrete) is meant to receive the grip of man. As these materials experience man's presence, they begin to gather evidence of the human condition. The moment when man interacts with the physical environment is when architecture is born. As man's hand scratches the surface of a wooden shelf, the

indentation forever marks that specific moment in time. Scratched wood, chipped paint and faded bricks are beautiful because they celebrate the human experiences which shape them. A building lying in ruin speaks of its life. Crumbled brick walls and fallen wooden beams provide evidence of this life. The physical realities of the ruin (scratches, indentations, imperfections) celebrate man's presence. Memory acknowledges the dialogue between man and architecture, as each mark represents a specific moment in which the physical environment was shaped by the actions of man. This patina connects the building to the universal realm while marking its position within the eternal continuum of time. The intent of this project is to provide a built canvas which can be etched with the history of man; to construct a physical container of memories which celebrates the human condition. The goal of this project is to offer an architecture that is receptive to man, that will receive man's existence while marking his actions. In doing so, man becomes the intermediary which gives architecture a place within the universal realm.

connection, material, truth...

The building's materials proudly receive the grip of man, truthfully revealing the nature of the relationship between man and the physical environment. However, the role of the materials cannot only be defined by their ability to interact with man. The materials have a



images v, vi, vii, viii, ix, x, xi, xii (clockwise from top right)

PROJECT. *(continued)*

direct responsibility to one another as they must work together to create a larger whole. The moment when two materials connect to one another speaks of the relationship between the building's components. This moment of connection, the joint, must be celebrated for it is the seed of the entire structure. It serves as a microcosm reflecting on the nature of the building as a whole. Thus, the joint must always be treated honestly. All physical elements have individual characteristics which define them. This is what makes different materials unique. Each material must be allowed to express its true self. It should not be hidden, or forced to act in a way which is contradictory to its true characteristics. The individual qualities of each material must be respected, and the connections between the two varying materials must always be honest. The joint must allow the material to act in a way which is natural to its being. Each individual component, when allowed to retain its true identity, contributes to the integrity and meaning of the whole. In a single moment, wood, concrete, steel, and brick all work together to link the building's two structural systems. The laminated wood beam stretches towards the brick wall, resting on the formed concrete shelf. The concrete sits within the brick wall, held firmly in place by many individual bricks, each one sharing the responsibility of supporting the building. A steel fin is set into the concrete, rising up to catch the end of the beam, using a bolt to hold it strongly in place. Nothing is hidden as each material outwardly displays

its duty. By honestly presenting the individual characteristics of each component, the joint is able to celebrate the creation of the larger whole. The aim of this project is to celebrate the natural characteristics of each element by clearly defining the moments when two materials are connected. By doing so, the building speaks truthfully of how it is constructed. It allows one to learn from the structure while offering the opportunity for one to understand his relationship with the building on all scales.

light, orientation, permanence....

This project also examines the nature of architecture's relationship with the universe. This relationship defines the relationship between man and architecture. In order for man to be aware of his position, architecture must mark its place within the universal realm. The brick wall serves as this project's central architectural element. It is the element around which the entire structure is formed: the spine. Its permanent nature speaks of the relationship between the built environment and the universe. This is indicated by its placement on the site, as the wall's position exists in accordance to its relationship to the sun. It marks its position within the universe by digging its roots deep into the ground. The wall bridges the sun and earth, providing a connection between man and nature. By achieving this connection, the wall serves as a natural clock, casting shadows long and short, tracking the

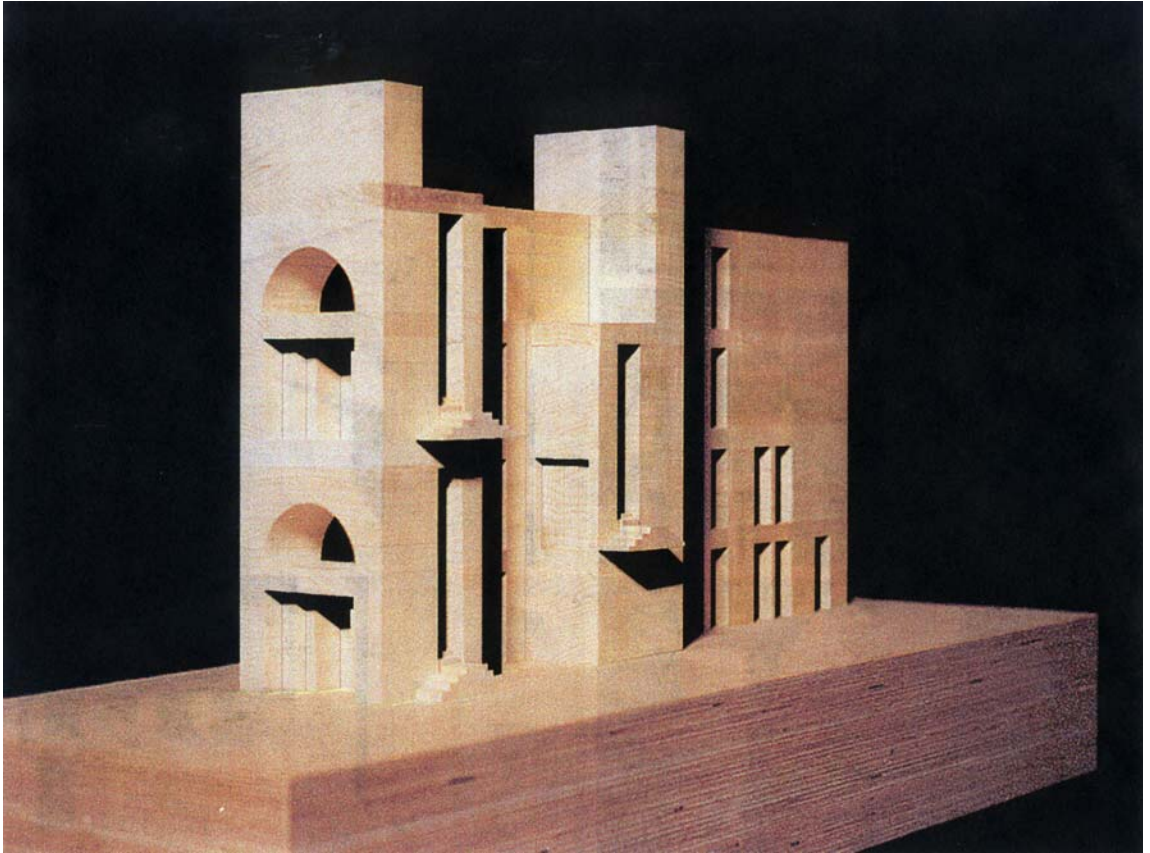


image xiii

PROJECT. *(continued)*

journey of the sun throughout the day. This heightens man's awareness of his position within the eternal continuum of time. In a single moment, the light from the sun shines on the wall, warming its face, casting a shadow which exists in constant motion, caught in the eternal ebb and flow of nature. This shadow speaks of the wall's connection to the universe, as the absence of light emphasizes its presence. The wall is subjected to the rules of the universe while offering itself to man. It stands silently through the wind, rain, snow, and sun, strong and proud and unwilling to compromise. The wall can only change as nature allows it to, like a rocky shore which eventually erodes under nature's persistent pressure. As the building lays in ruin, its wooden walls a memory, its concrete foundation cracked and overgrown with weeds, the wall stands tall, though a shadow of its former self, still firmly marking its place within the universe. The wall, consisting of crumbled bricks and collapsed arches, still casts a shadow which tracks the path of the sun. The intent of this project is to establish architecture as the intermediary which connects the realm of man to that of the universe.

flexibility and adaptability...

Just as the wall connects to the universal, the surrounding structure is tied to the realm of man. Materials tightly fastened together work as a flexible system, allowing itself to adapt to meet the needs of

man. Rotating wood panels have the ability to change their position, redefining themselves and setting ever-changing boundaries. The spaces which they create are temporary, their boundaries in flux, changing with the whimsical desire of man. The adaptability of the partitions, which fluctuate with the ebb and flow of the human condition, emphasizes, by contrast, the permanent nature of the wall. The relationship between the two elements is co-dependent, as is the relationship between human nature and the order of the universe. Both elements depend on one another's presence to strengthen their own. The differences between the wood panel and the brick wall speak of their true identities. While the wood panel demonstrates its ability to adapt, the brick wall displays its unwillingness to change. The temporary elements of architecture belong to the realm of man, as they adapt to their immediate surroundings, changing their nature as a response to the needs of the human condition. These elements are engulfed in a constant state of motion. These systems (permanent and temporary), although different in nature, work harmoniously to create a whole. They retain their individual characteristics and integrity, while gaining true meaning through the creation of a unified whole.

SITE.

The site exists as an island within the city. Despite its location, it has separated itself from its surrounding neighborhood. The site was historically the center of this once thriving neighborhood, known in Boston as Mission Hill. It existed as an area where people lived and worked, where children went to school and families went to church. Its streets were filled with people. It was the center of this bustling neighborhood, a destination for many. To support the many residents of this neighborhood, many institutions were established. Many of these institutions remain today, creating nodes of activity around the edges of the now desolate site. Its blocks were once small and manageable, in accordance with the true scale of the city, creating an urban fabric was tightly woven and true to Boston as a whole.

As the housing needs of the city grew in the middle of last century, this neighborhood drastically transformed. The original twelve block site was reinvented as one giant city block. It was reborn as a housing development, turning its focus inward while turning its back on the city. While most of its streets were removed, the few that remained were widened. Even though each of these roads signified the entrance to the development, all of the old streets which lead to this site's boundaries, became dead ends, reminding the surrounding neighborhood that it now stood alone. The nature of the remaining roads was dramatically different than that of the typical urban

street. These widened streets only provide access for the development itself, and could not longer support the institutions and businesses which brought the neighborhood life. While its tightly woven urban fabric once existed as the threads which sewed the city together, it now represents a missing piece of patchwork in an intricate quilt. The scale of the site had changed dramatically, separating it from the surrounding neighborhood. The site's density was restructured, as its buildings were grouped in a way which left large areas of green space in between. They were pulled toward the middle of this giant block, ignoring its borders and lacking a presence on the street. These buildings were set back into the middle of this "island", creating a vacuum which sucked the life out of the street. The site now exists as a rift within the city.

Many nodes of activity surround the site. A large Catholic basilica sits on top of the hill, overlooking the site and providing a constant point of reference within the neighborhood. It is the neighborhood's most memorable landmark. Its spires extend up into the urban skyline, proclaiming its position within the city. The ringing of its bells fills the air, pronouncing its presence to all those that can hear. It can be seen from all corners of the site, not only providing a point of reference, but also providing a symbol of meaning. On the opposite edge of the site sits a university. Its buildings line the surrounding streets; its students

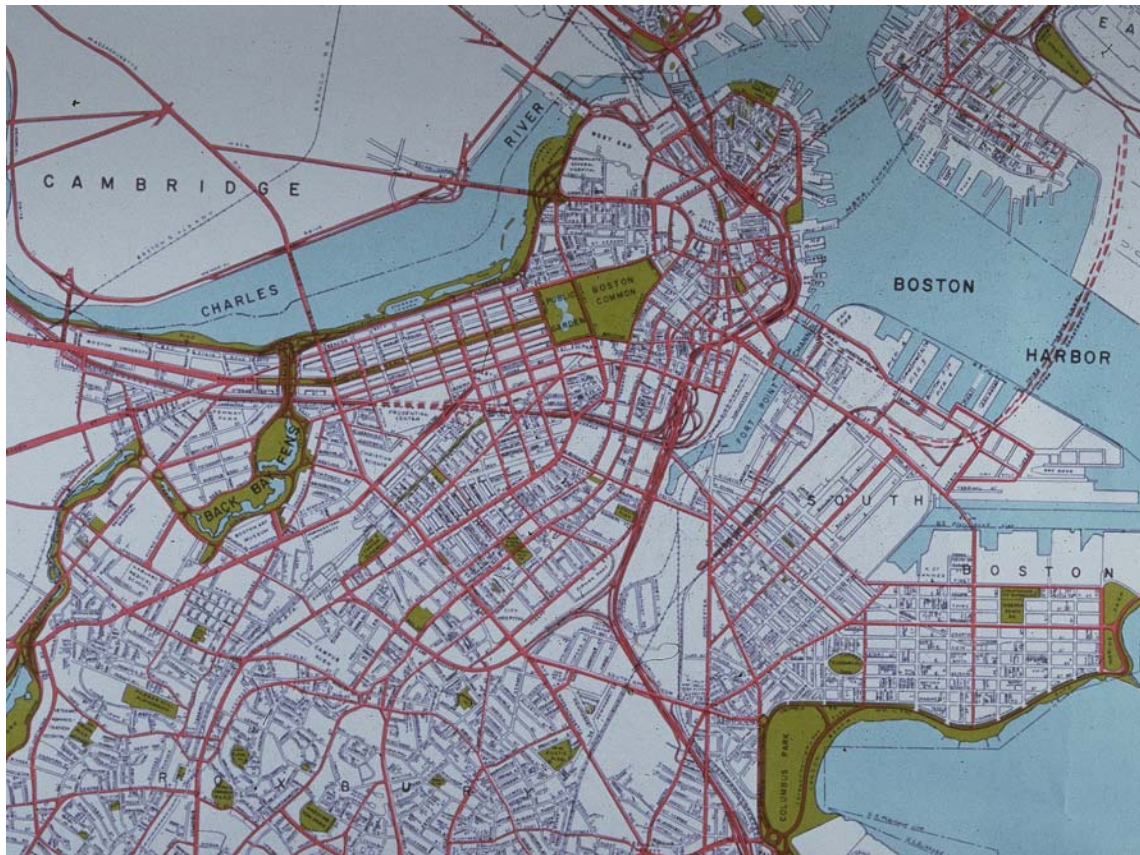


image 001

SITE. *(continued)*

giving these streets life, sparking activity, and creating a high level of density. An elementary school shares the opposite border of the site, yellow school buses filling its parking lot. Next to the school sits a playground, a place where children's laughter fills the air. The school also shares the street with a branch public library and a post office, two daily destinations for the residents of the neighborhood. Train stations sit just blocks away, the orange line in one direction and the green line in the opposite, connecting the neighborhood to the city beyond. The green line train is a trolley which shares Huntington Avenue with taxi cabs, city buses, and pedestrians. All of these institutions exist as a destination, a landmark, which provide orientation to the neighborhood. They co-exist with the neighborhood itself, the gaps in between being filled with corner stores and barber shops, restaurants and pubs, coffee shops and news stands, bus stops and train stations. While nodes of activity bring the site's edges activity, the site itself exists as a void.

The intent of this project was to restore the site to its original state. By establishing a higher level of density, allowing for varying functions to occur, and dividing the site into a reasonable scale, the site is permitted to re-establish itself as part of the neighborhood. By changing its urban fabric, it will be tied back into the surrounding neighborhood from which it once was born. While the site previously existed as a rift, it

now serves as a link between the nodes of activity. It allows for the opportunity of human experience. The intent of this project is for the site to return to its previous life as a dense urban neighborhood.

This project creates a strong relationship between occupied and unoccupied space, between the building and the alley, between the street and the block. The map of the neighborhood is to look as it did a hundred years ago, as a strong overlap between public and private space existed. The mixture of programs in a neighborhood should always remain balanced and should not be dominated by just one function. There needs to be an overlap of uses in order for the site to be a lively area over the course of the entire day, not just during given times. If the site is dominated by a sole function, then it becomes useless when that function is not in existence. The elementary school is only alive during its hours of operation, and contains no activity at other times of the day. The same can be said of the church, as most of its activity occurs on Sunday mornings. However, if the site itself had enough reasons to establish activity throughout the entire day, then these institutions would not be depended on to bring life to the site, but would instead compliment the nature of the neighborhood. At six o'clock on a Tuesday, the shops close, and people fill the restaurants. At ten o'clock on a Thursday, classes end, and the university students fill the pubs. At eleven o'clock on a Sunday morning, mass ends



20

image 002, 003, 004 (clockwise from top)

SITE. *(continued)*

and parishoners congregate at the coffee shops and news stands. During the day, people fill the sidewalks as they head to their destinations throughout the neighborhood. Many different uses allow the site to attract many different people, providing it with the density and activity that it needs to survive as typical urban neighborhood.

Housing would not be removed from the site. It would instead co-exist along with other programs to bring a strong sense of activity to the site. The configuration of the buildings on the site allows the site's scale to return to what it once was: true to that of the city. By bridging the edges of the site, and creating a dense enclave of houses and shops, the neighborhood gains a sense of identity. It is given meaning and presence. The intent of this project is to bring the energy which exists on the edges of the site to its center. It provides a uniform level of density, so that the borders of the neighborhood are not pronounced. They are instead intertwined into the complex fabric of the city beyond. The element that achieves this connection is density. However, with the existence of this density, the site must also offer a relief from the city. These are found in its parks, alleys, and back yards. These spaces provide a relief from the density of the built environment by offering a contained void within the whole. Lined by houses, streets and trees, these grassy areas serve as parks for the residents of the neighborhood. Kids play baseball and parents walk

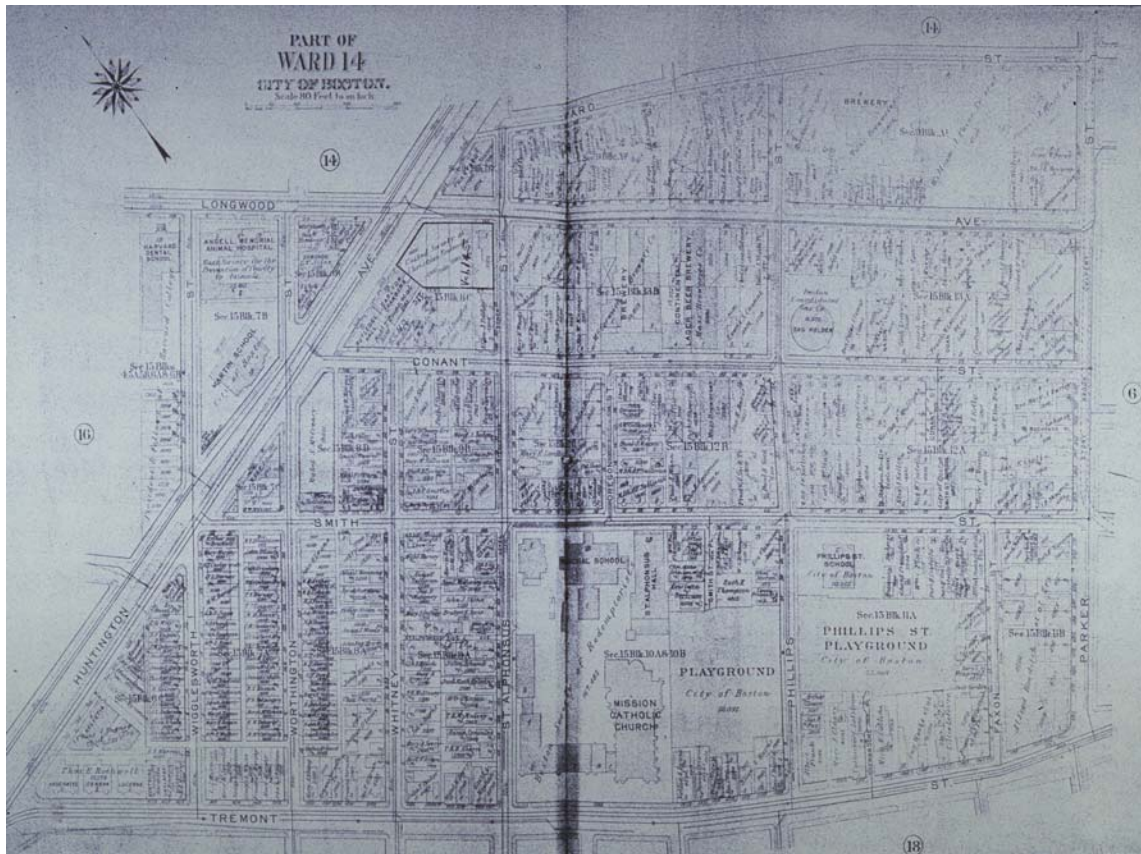
their dogs. It is a shared space, belonging to the neighborhood, belonging to the city itself.

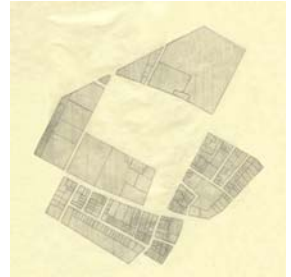
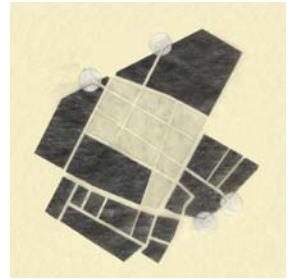
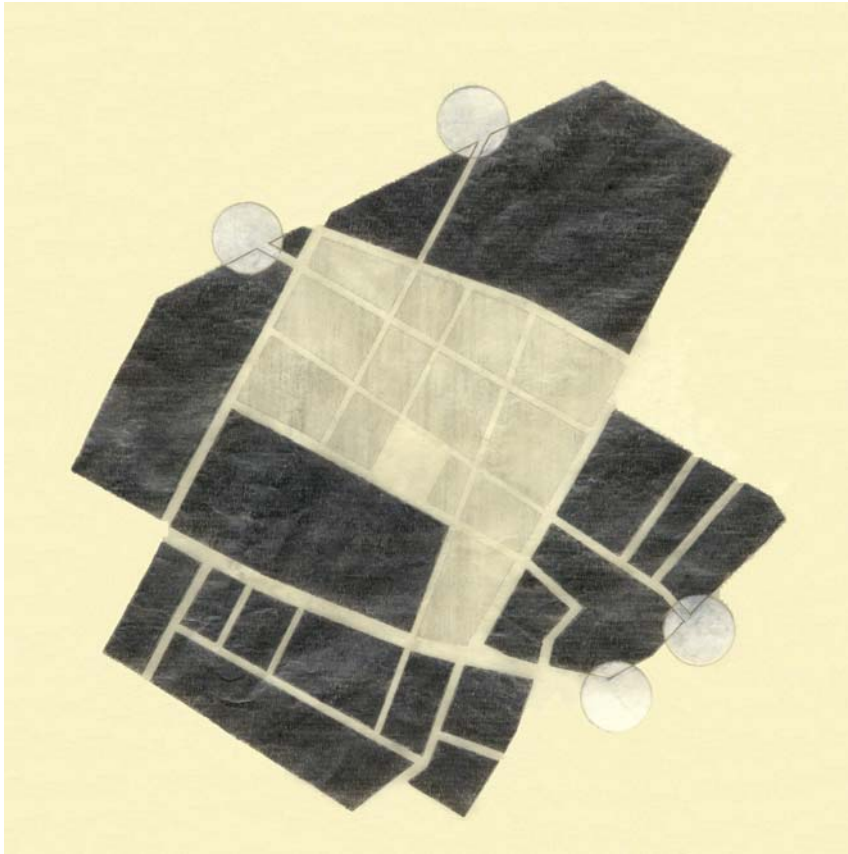
The overlap in public and private space creates many shared areas of the site. The units share the street, their porches and stoops simultaneously belonging to the city and the individual. The characteristics of their elements define the street. Texture, material, and surface defines the journey from the street to the innards of the block. Here, a framework exists of pathways, alleys, and courtyards, which connect one street to another, existing in both the private and public realms. These streets vary in size and significance. A boulevard runs through the center of the site. The scale of these units which line it is much larger, as the street itself is wider. This boulevard has many responsibilities as it connects two of the surrounding major intersections. While having a responsibility to the vehicle, the street must be primarily concerned with the pedestrian. Coffee shops, restaurants, pubs, shops, and businesses all line the streets. People sit at the sidewalk cafes watching the street's activity, as passersby peer in the windows of the shops. This street contains a dramatic overlap between public and private. The site as a whole has the pulse of the city, from the quiet residential streets, to the busy urban centers, it is no longer separated from the city beyond. It has returned to the scale and density which it was raised from, and has reclaimed its slice of the city. It has an identity, a sense of place.











images 013, 014, 015, 016 (clockwise from top right)



TRANSITION.

The long summer afternoon progressed lazily, and the old man watched the shadows as they dragged themselves across the wooden planks of the porch. The sun highlighted the intense texture of the chipped paint and weathered wood before disappearing into the realm of shadow. This marked the day's journey towards sunset, as the sky transformed from a bright blue to a tired pink, whose soft glow gently framed the silhouettes of the skyscrapers beyond, warning the city that night was near. The hum of the city beyond gave the man a tremendous feeling of calmness and clarity. These sounds provided a constant in his life, as everyday he could count on hearing the rumble of the train as it passed and the roar of the whistle as it faded into the evening air. The ebb and flow of honking horns and running engines overtook the murmur of people's voices, leaving a moment of quiet to discern a small bit of passing conversation, only to fade away once more. Leaves rustled in the afternoon breeze as the old man sat quietly, his senses reeling, experiencing the city as he had done so many times before. From his porch he felt a great connection with his surroundings; he felt at one with the city beyond.

The porch is a very unique element of a building, as it belongs not only to the building's inhabitant, but also to the street, and in a larger sense, to the world beyond. It is a key element in the transition between street and home, and thus has a responsibility to both. The porch provides a strong connection between the city and the individual. The distant sound of a siren penetrating through a closed window is obtrusive to the inhabitant of that room. This person expects shelter and protection and longs for the room to provide a necessary separation from the world beyond. However, the porch is much more vulnerable, as it does not share these expectations. The porch, although still private, proclaims that it is a much more public space, as it extends out to greet the street. The porch provides a physical and visual overlap between the private nature of the residence and the public nature of the street. While it is clear that this space belongs to someone, it is also clear that it is not meant to be a space which is considered private. It treads between both of these realms, constantly adapting its nature to provide both separation and connection. From the chaos of the street to the solitude of the living room, the porch provides a necessary transition.

“In a city, the street must be supreme. It is the first institution of the city. The street is a room by agreement, a community room, the walls of which belong to its donors, dedicated to the city for common use. Its ceiling is the sky.” Louis Kahn.

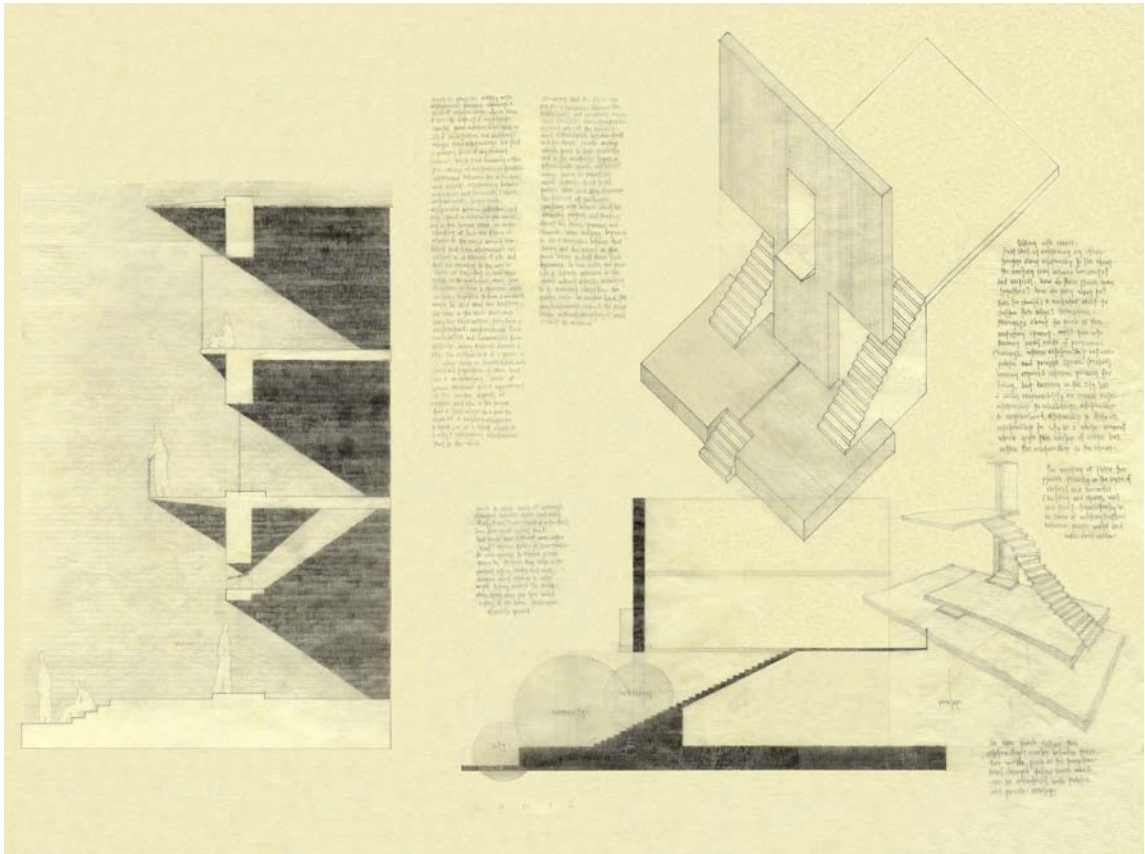
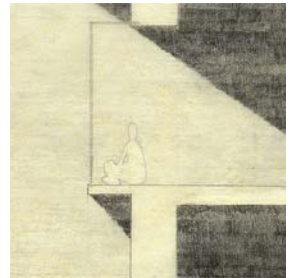
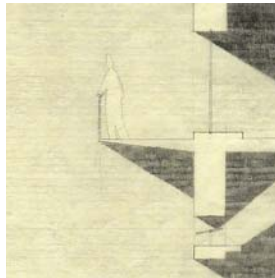
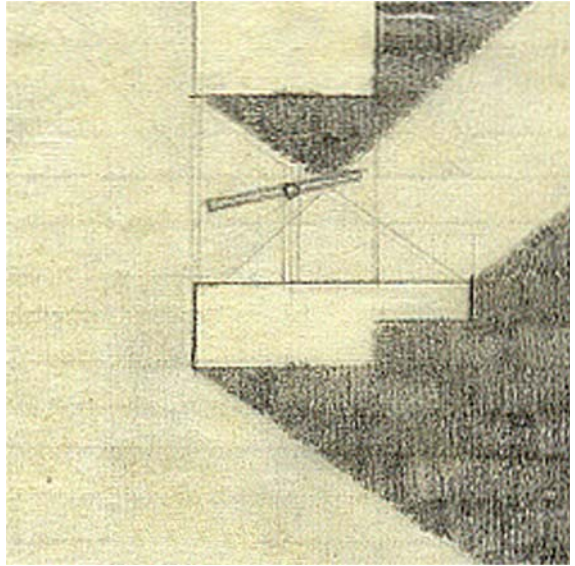


image 018





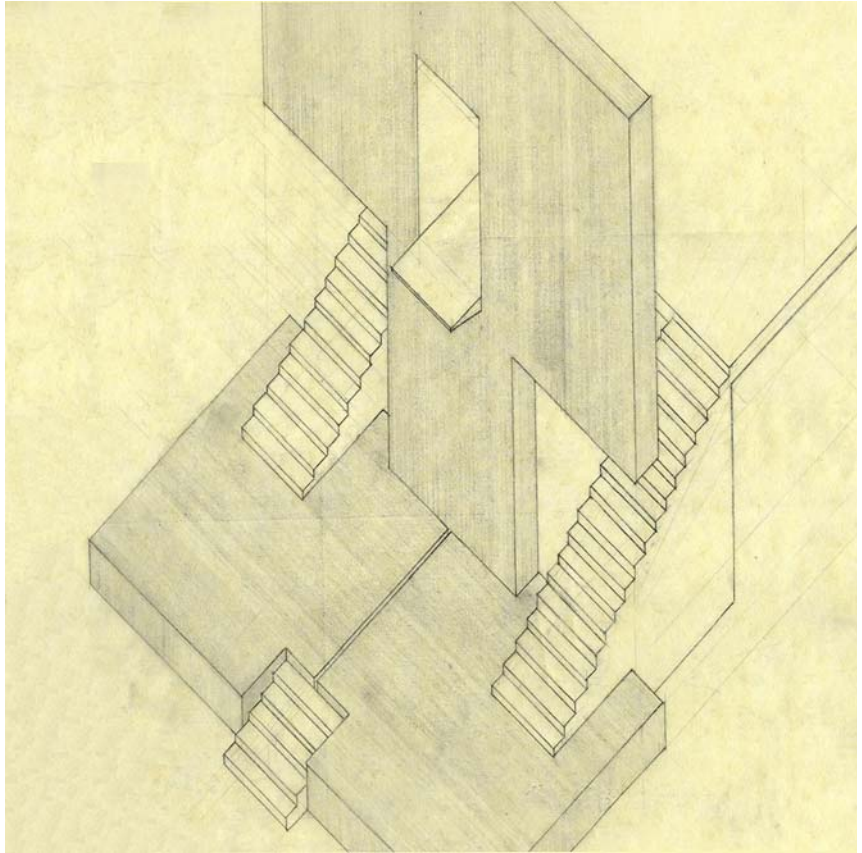
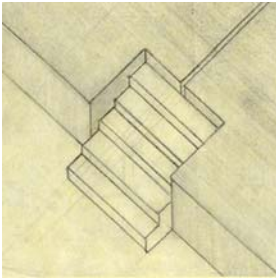
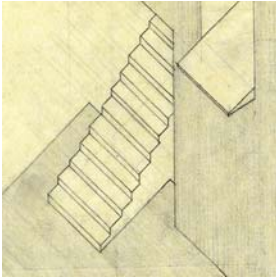
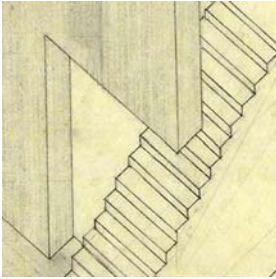


image 022 (opposite, from left to right), images 023, 024, 025, 026 (clockwise from top right)

ELEMENTS.

The progression from the street to the entrance is very rich, as it involves many different architectural elements. Each element has its own function and defines its own boundaries, having physical realities as well as figurative implications. For instance, the stoop physically connects the sidewalk to the entrance of the house. Its physical nature, as it literally forms a bridge between the sidewalk and the threshold of the house, suggests an invitation, a sense of welcome. Its physical nature combined with its figurative meaning allows it to achieve its overall goal: transition. Each element plays its own role in the process of bridging the gap between outside and inside, between public and private, between the city and the individual. These elements create varying layers of transition. For instance, the stoop which lays before the doorway is much more private than the stoop which extends out onto the sidewalk. Yet, despite the differences in their nature, they both play

an important role in this transition, as they signify different zones between the public realm and the private. The nature of this transition between public and private, between city and individual, depends on the relationships which form between these elements. As one walks down the sidewalk, they notice that the concrete surface changes to brick when they turn toward the house. This signifies a change of space, the entrance into a new zone. This area belongs to someone as it is different from the collective nature of the sidewalk. The materials represent the change, as when the brick meets the wooden planks of the porch, the relationship transforms once again into something else. The elements (porch, stoop, steps, sidewalk) and their characteristics (material, configuration, form) create a specific relationship which provides an awareness between the public and the private realms, between the universe and the individual.

“We must consider the quality of street-space and of buildings in relation to each other. A mosaic of interrelationships - as we imagine urban life to be - calls for a special organization in which built form and exterior space (which we call street) are not only complementary in the spatial sense and therefore reciprocate in forming each other, but also....in which built form and exterior space offer maximal accessibility to penetrate each other in such a way that not only the borderlines between outside and inside become less explicit, but also that the sharp division between private and public domain is softened. If you enter a space gradually, the front door is extended, as it were, to form a step-by-step sequence of areas which are not yet explicitly inside but also less explicitly public.” Herman Hertzberger.

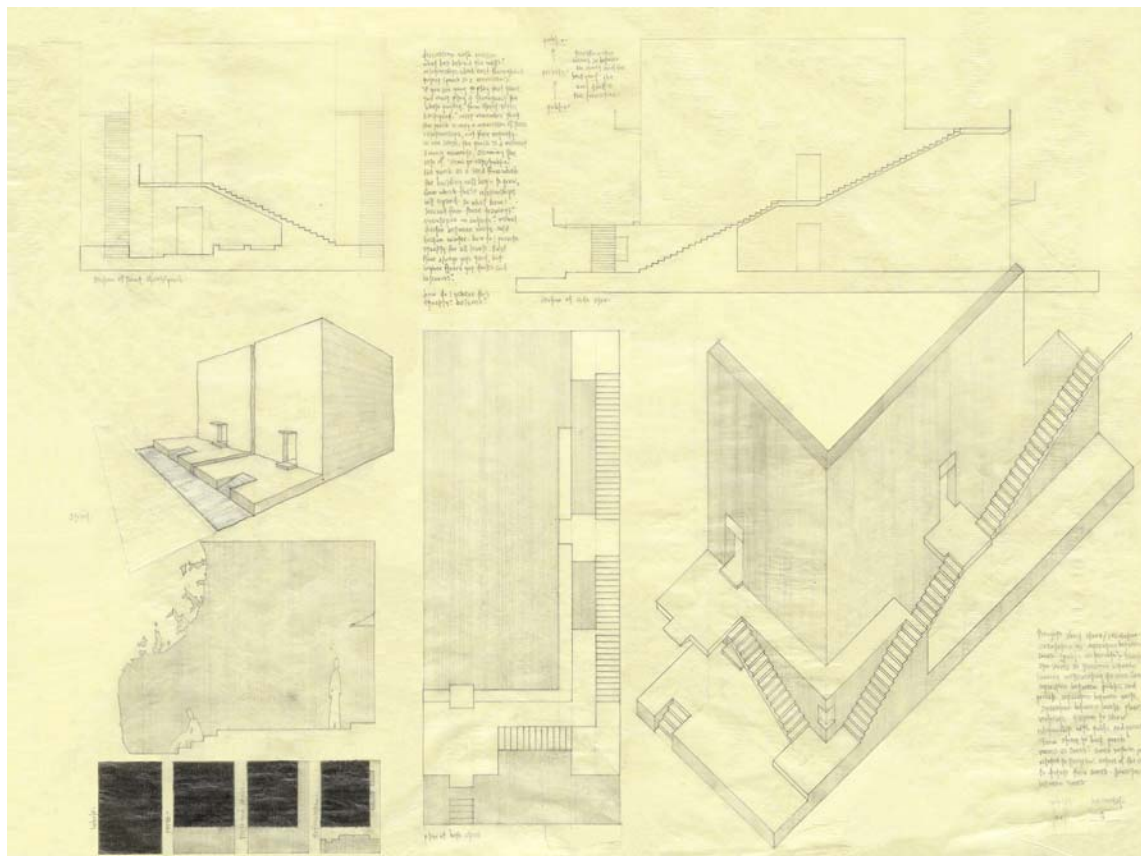
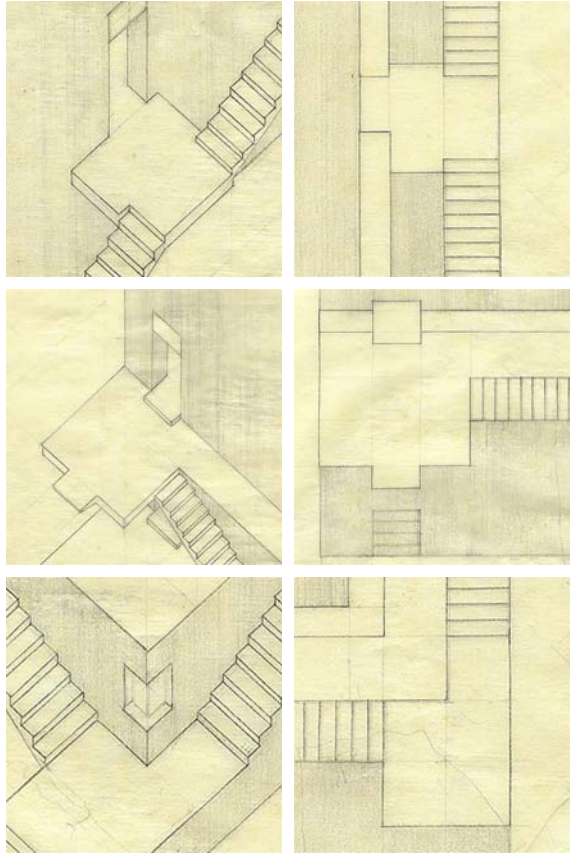
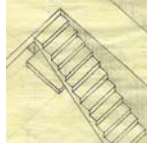
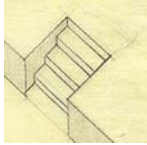
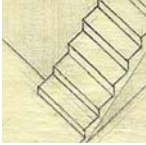
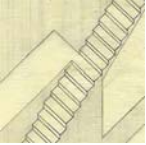
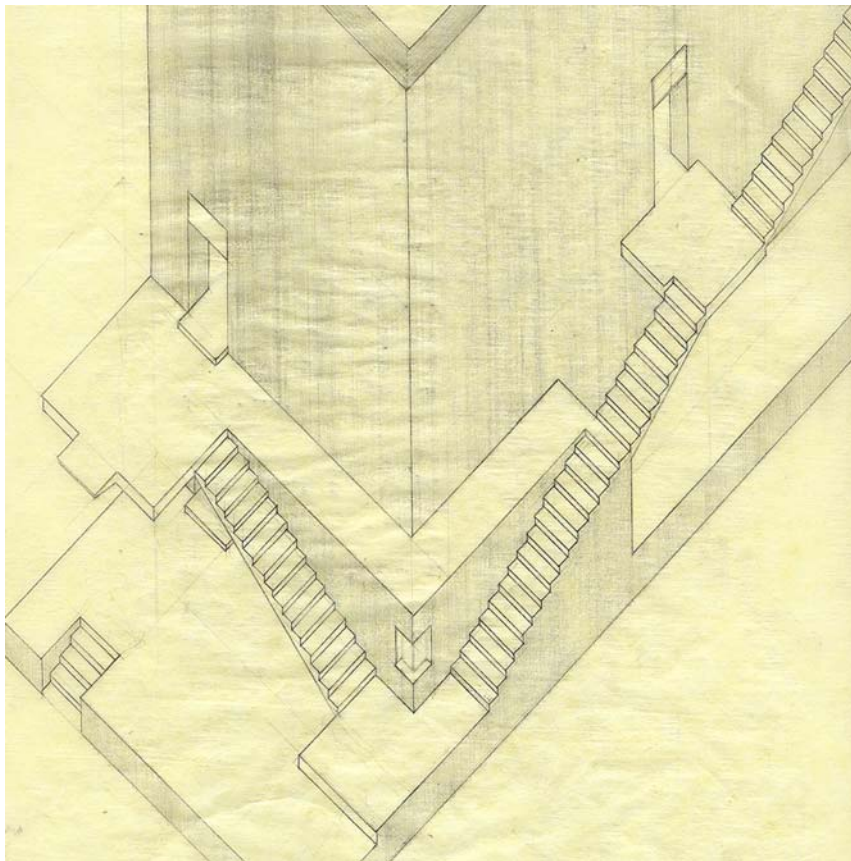
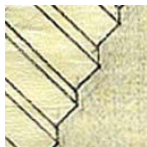


image 027







PROGRESSION.

As one embarks on the journey from the street to the alley, one travels through several different zones of intimacy. These zones, ranging from public to private, are defined by architectural elements. The unit shares its exterior spaces with the city. As the stoop belongs to the city and has a definite responsibility to the street, the front porch serves as an element of transition. Its wood railing and concrete steps create a more private zone which announces that while it belongs to the unit itself, it can also be shared by city. The porch is connected to the threshold, which is a major boundary between the public and private zones. Every space beyond the threshold belongs to the private realm, which exists exclusively between the front and back entrances. Within this realm these spaces provide for varying degrees of privacy. The living room lies directly beyond the threshold and, while being primarily private, exists as the unit's most

public area. This is where visitors sit and chat with the inhabitants of the unit. It has clear views to beyond, maintaining a strong visual connection with the city. As one moves deeper through the unit, certain elements provide an awareness that one has entered into a different zone of privacy. Level changes and the introduction of new materials mark the boundaries of these zones. Brick arches are carved out of the thick wall providing thresholds into the most private spaces. Passing through this massive wall announces the transition into a different type of space. This marks the entrance into the individual rooms, the most sacred space within the unit, offering complete shelter and protection from the world beyond. The connection of the architectural elements, both visual and physical, provides a common thread which ties the spaces together in sequence, providing distinct transitions between different zones of privacy.

“Using elementary principles of spatial organization it is possible to introduce a great many gradations of seclusion and openness. The degree of seclusion, like the degree of openness, must be very carefully dosed, so that the conditions are created for a great variety of contacts ranging from ignoring those around you to wanting to be together, so that people can, in spatial terms anyway, place themselves vis a vis others as they choose. Also, the individuality of all must of course be respected as much as possible, and we must indeed see to it that the constructed environment never imposes social contact, but at the same time we must never impose the absence of social contact either. The architect is not only the builder of walls, he is also and equally a builder of openings that offer views. Both - walls and openings - are crucial.” Herman Hertzberger.

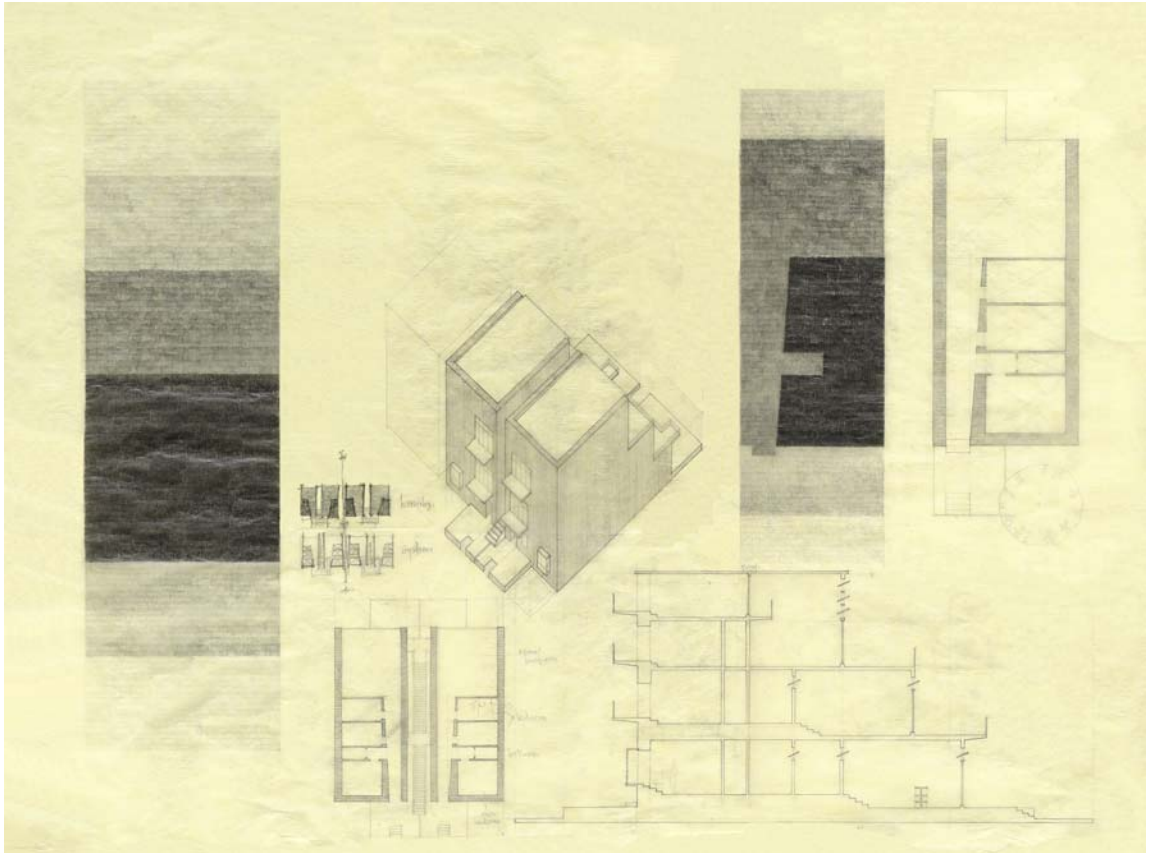
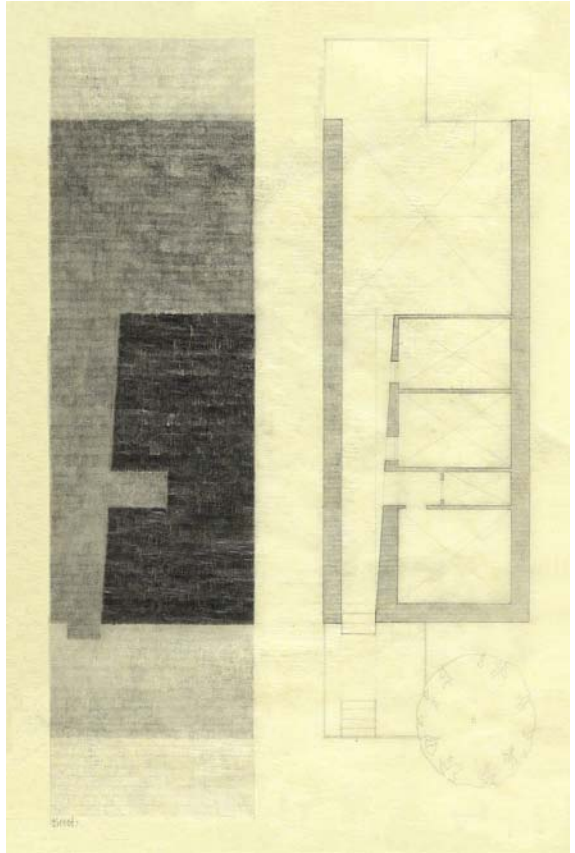


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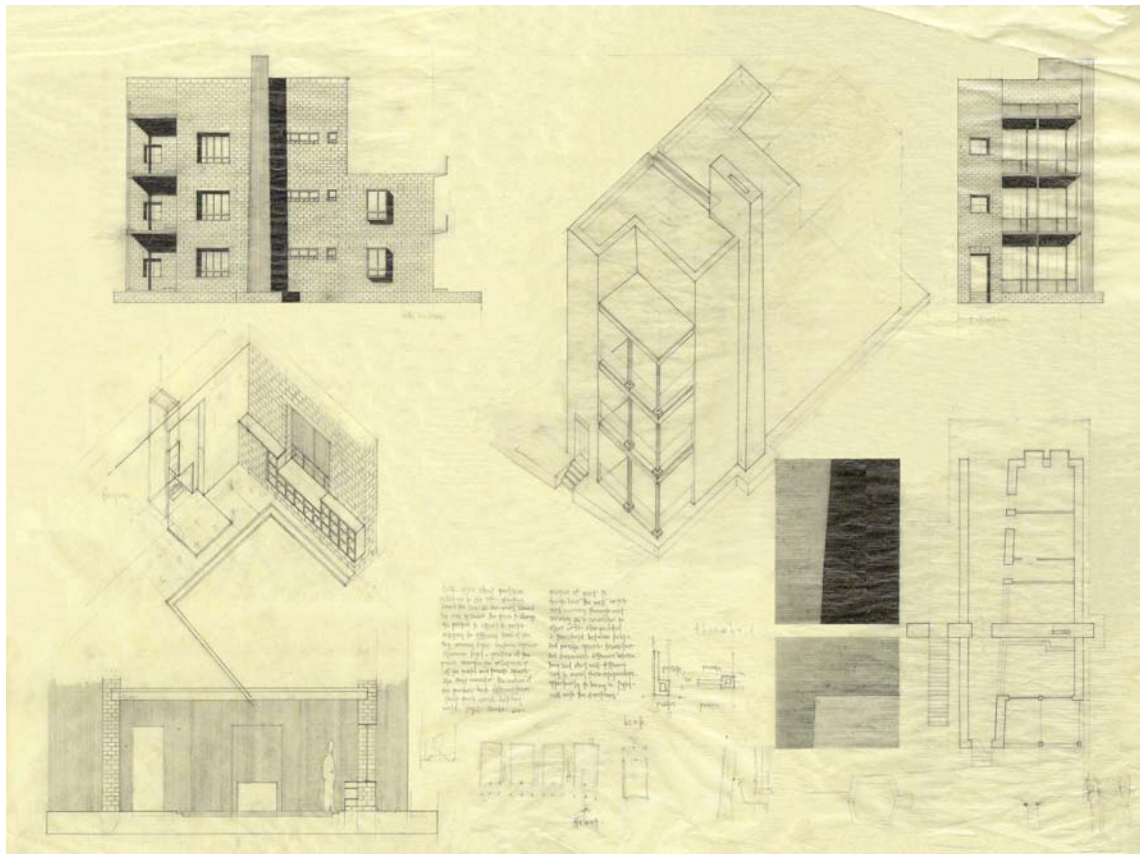
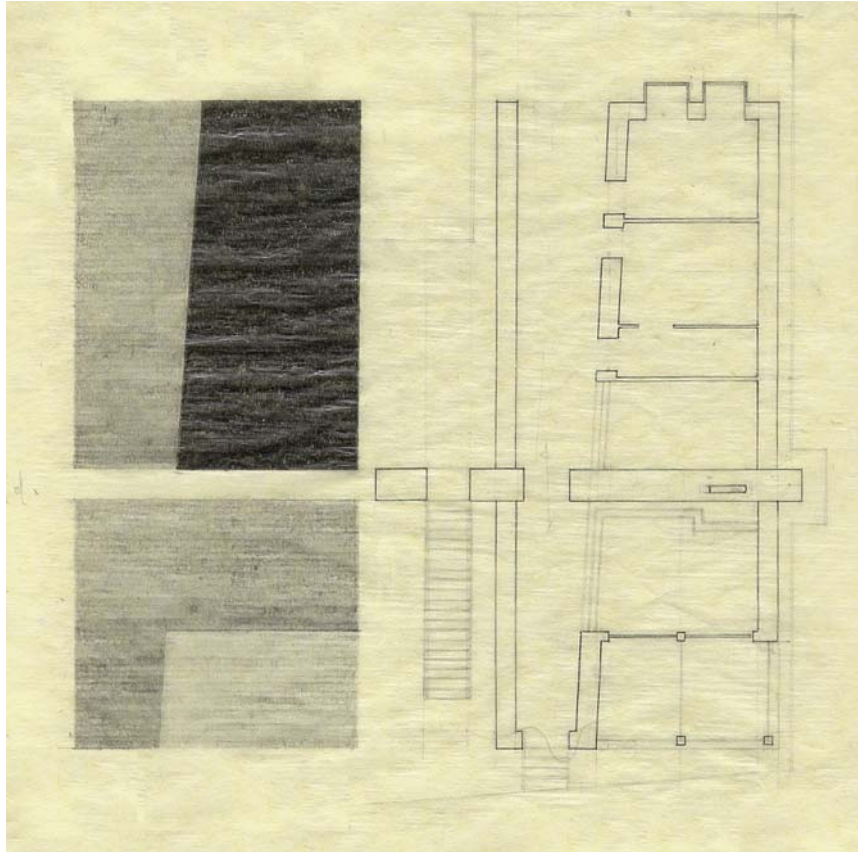
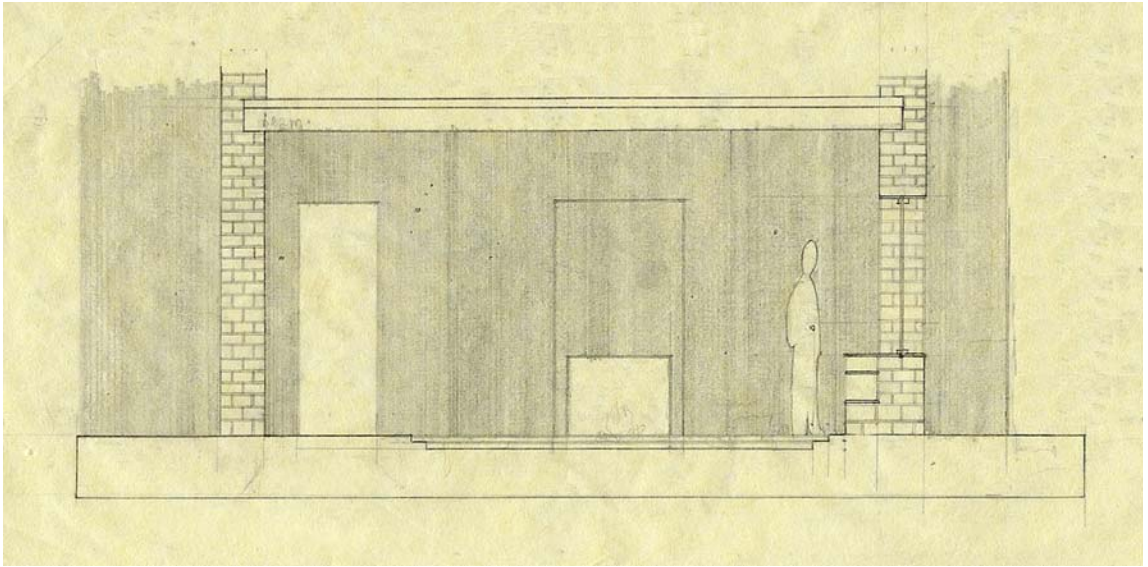
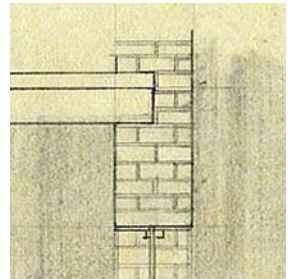
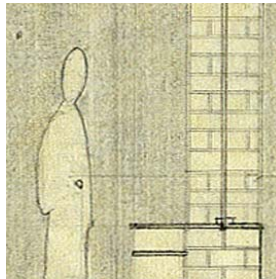
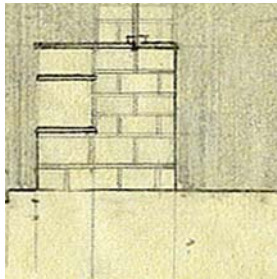
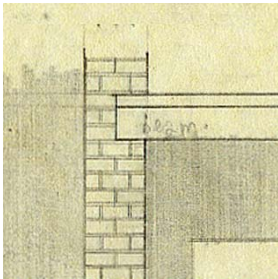


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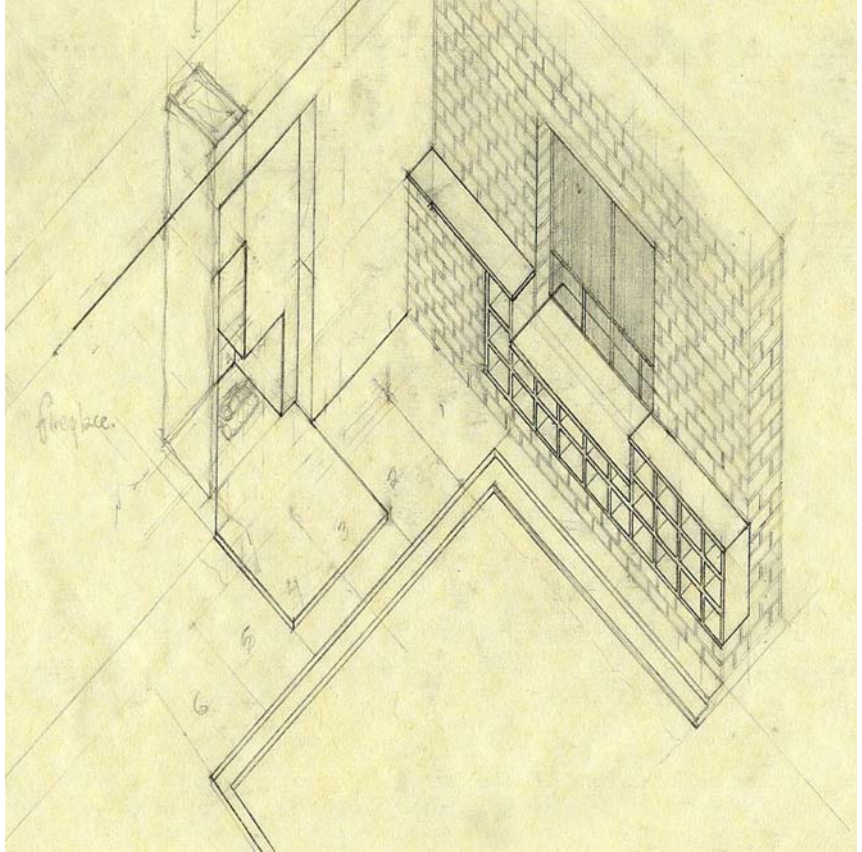
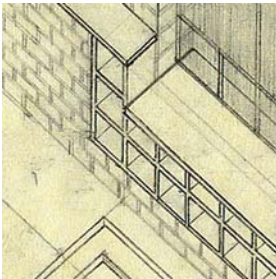
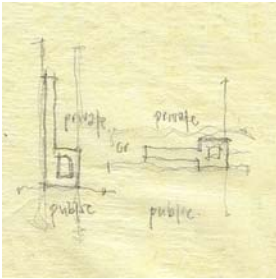
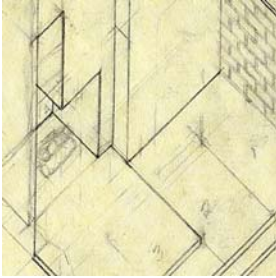


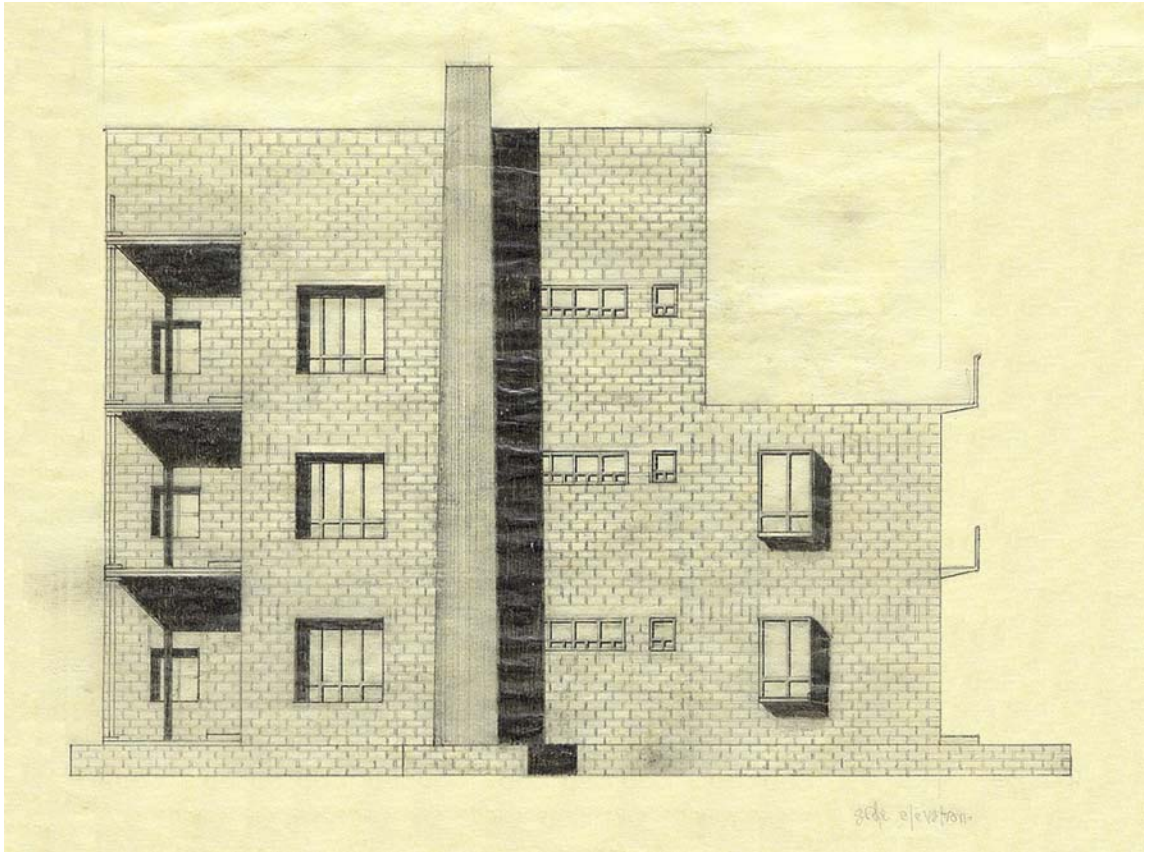


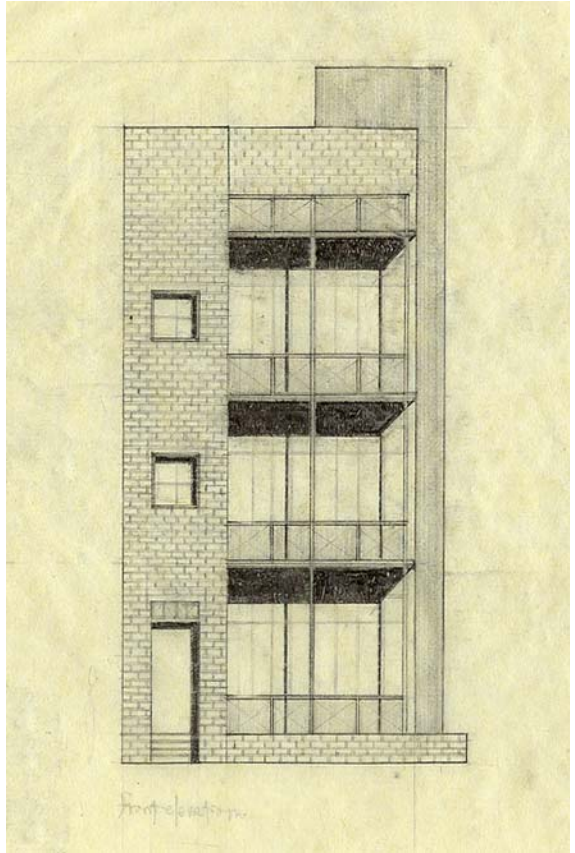
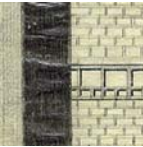
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images 042, 043, 044, 045, 046 (clockwise from top)







LIGHT.

The man felt the comfort of the morning sun as it washed down the brick wall, catching each brick and warming its face. He enjoyed looking at the bricks closely and noticing the differences in their colors. During every other time of the day, they appeared to be a uniform balance of red and gray. Yet, before the sun climbed too high in the cloudless sky, each brick was illuminated by intense light, creating a collage of reds, oranges, yellows and browns. The sun highlighted every scrape and scratch on the surface of the bricks, creating very fine shadows underscoring the uniqueness of each individual brick. Each mark tells a story, a story which can only be revealed by the power of light. He would sit with his back against the wall and absorb its warmth. He would sit still as if to catch his shadow as it slowly trudged across the wooden floor, hoping to see the exact line where darkness turned to light. The light would spread across the floor, illuminating everything in its path, stopping only for the boundaries of the room. The

man was mesmerized by the progression of the day and how he had the power to track it. The room was his container in which to trap the light, the room giving the light a surface to shine upon, and the light bringing the surfaces of the room to life. Would light exist if there were no surfaces on which to shine? Can space exist in the absence of light, in darkness? The existence of each phenomenon is dependent on the presence of the other. This relationship creates a constant interplay between light and shadow. The light magnifies the smallest detail and reveals the true nature of an object. The shadow denies this object the right of expression. The light can create a special moment of awareness, as it illuminates the face of an old man, bringing with it warmth and vitality. The light provided a necessary connection between the old man and the world beyond, between the individual and the universe. The room pays homage to the natural order of the universe by allowing light to enter its realm.

“The large room and the small room, the tall room and the low room, the room with the fireplace and the room without, all become great events in your mind. You begin to think, not what are the requirements, but rather what are the elements of architecture that you can employ to make an environment in which it is good to learn, good to live, or good to work. Also marvelous in a room is the light that comes through the windows of that room and that belongs to that room. The sun does not realize how wonderful it is until a room is made. A man’s creation, the making of a room, is nothing short of a miracle. Just think, that a man can claim a slice of the sun.” Louis Kahn.

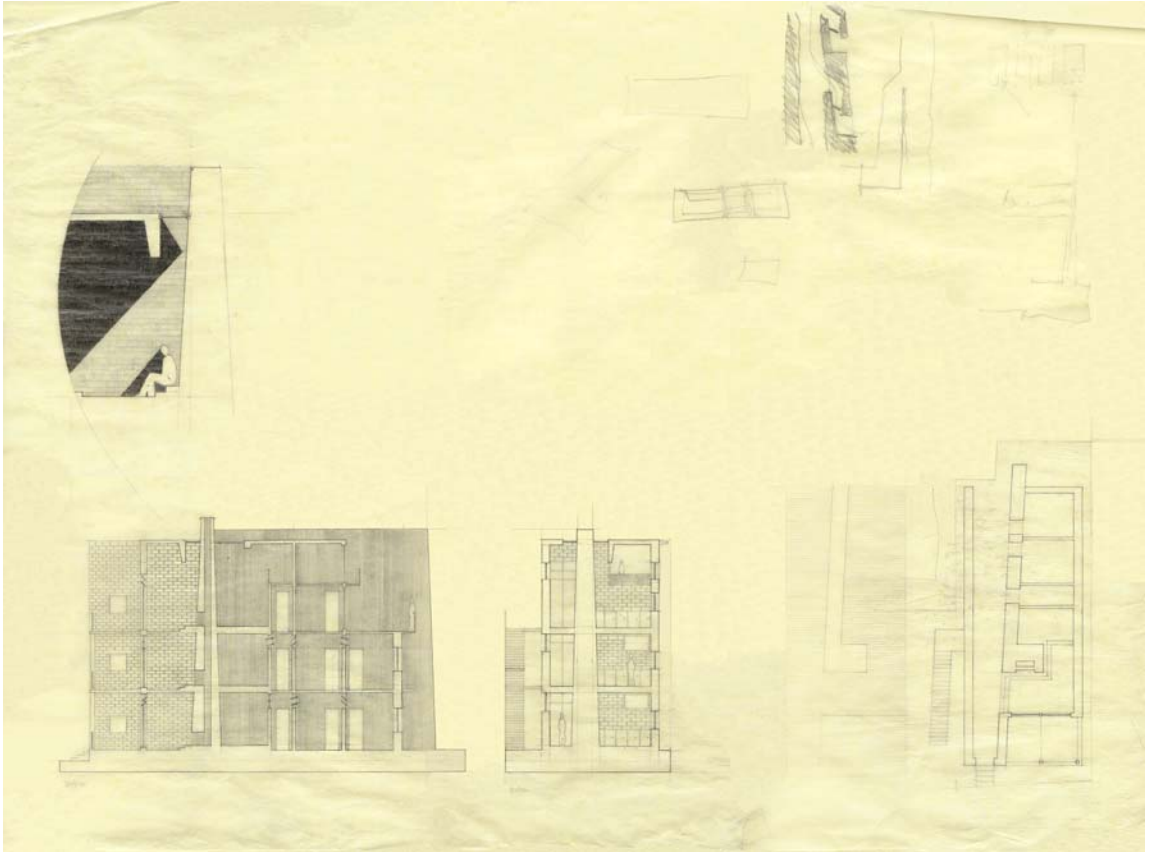
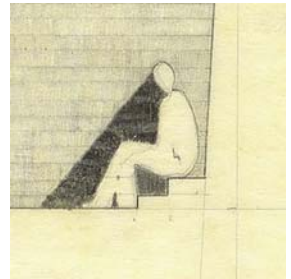
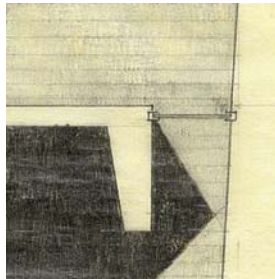
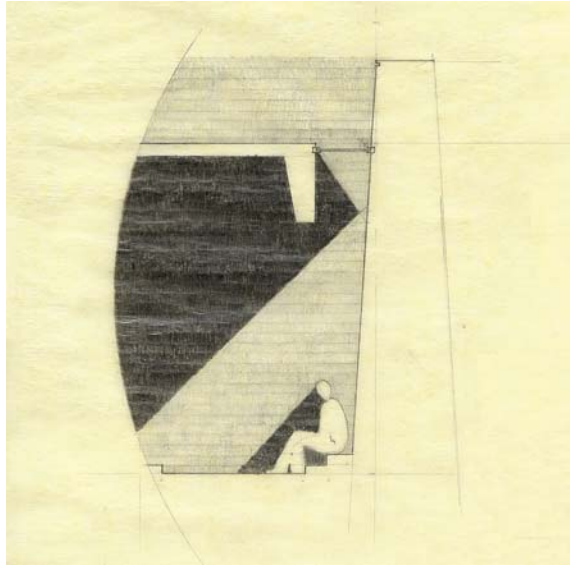
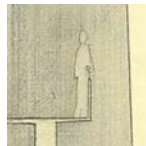
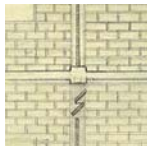
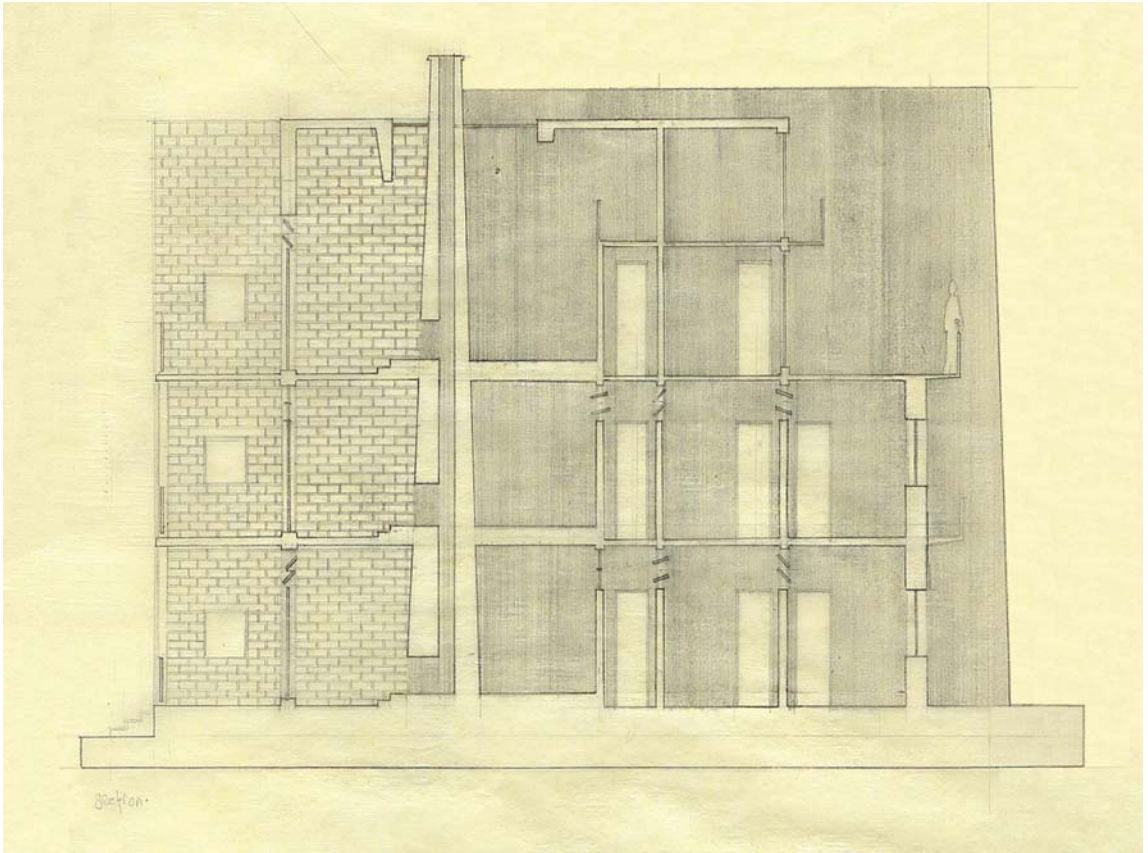


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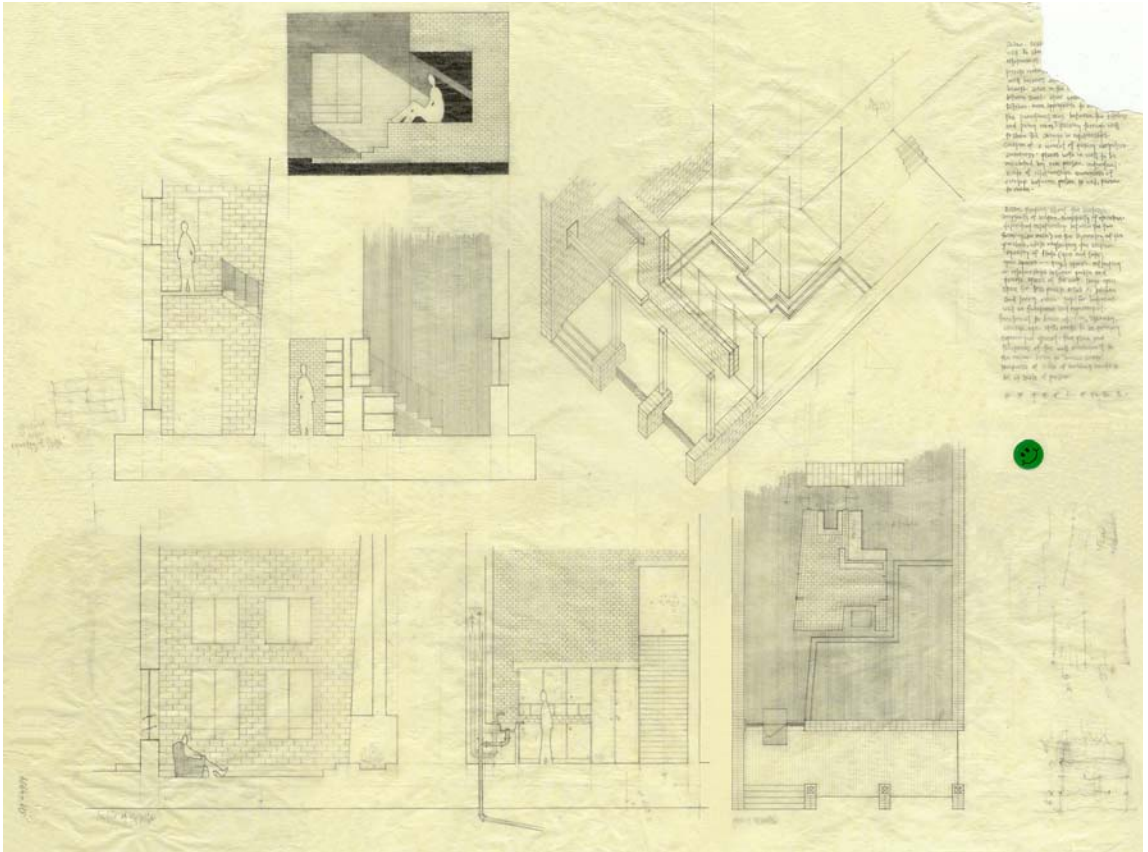


DIALOGUE.

Architecture is a backdrop for the human condition. It is a stage on which the play of life unfolds. A constant dialogue exists between the physical environment and the people who interact with it. This dialogue encourages a series of relationships to be realized. Architecture provides an opportunity for man to understand his relationship with himself, his community, and ultimately, the universe. It cannot dictate the nature of these relationships, for its role is to act as a conduit through which discoveries can be made. A man sitting alone in a dark room may be filled with sadness and despair, while another man may be filled with peace and clarity in the same situation. This is not due to a direct relationship between a certain physical attribute of that space and a certain human response, but due to the nature of the individual himself. A dark room provides the opportunity for an individual to be aware of what feelings darkness evokes from him. The attributes of this room do not change, but the human response differs depending on the individual. The dialogue between the physical and metaphysical, between reality and feeling, allows architecture to offer an understanding of the human condition.

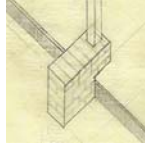
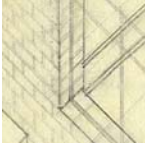
The city consists of an amazing collage of spaces. The physical nature of these spaces are meaningless without human interaction. This is what transforms “spaces” into “places”. It is through human emotion and experience that places gain their true meaning. A fountain sits in the center of a city square. Sunlight slices through the drops of water as they fall to the gleaming pool below. Its splashing sound drowns out the ever present hum of the city beyond. Carved marble and polished stone create this fountain, but do not lend it meaning. Its true definition comes from the people who have interacted with this element. Instead of having one meaning, it is defined differently by all who have encountered it. It is not just a fountain, but the place where two lovers met every summer afternoon, wasting time and falling in love. It is the place where a down trodden man, beaten up by time and tragedy, would sit and drink his days away. It is a place where children would throw shiny nickles into the water and dream of all their wishes coming true. It is more than a fountain; it is a place of love, luck and tragedy. The human element of a space is what brings it to life, what gives it its true meaning, and what allows it to exist as a “place.”

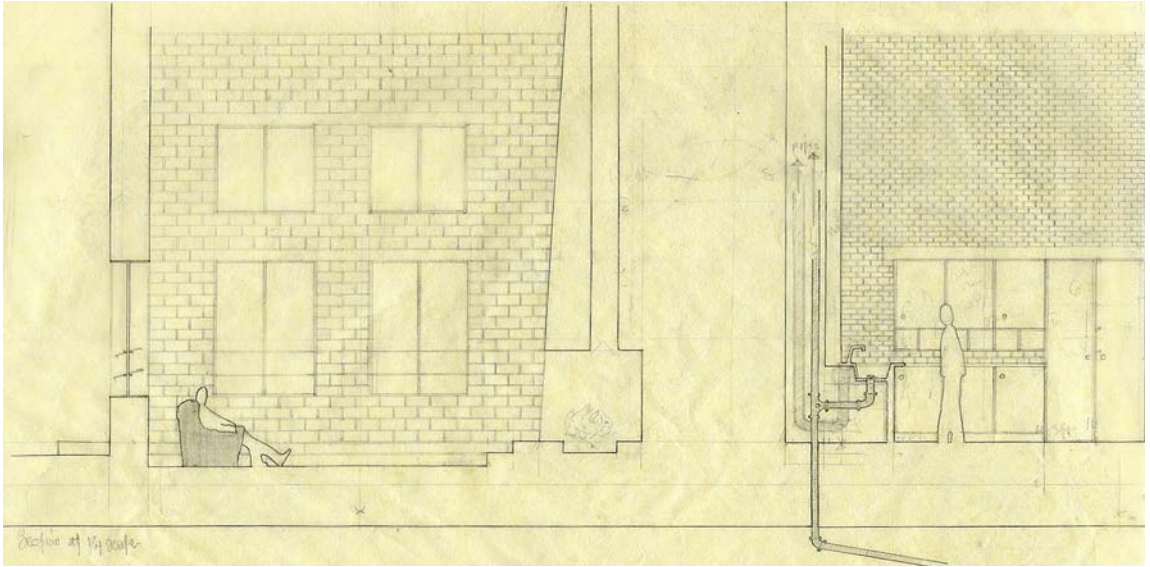
“In my projects I try to create public spaces that will encourage dialogue. This might be an individual’s dialogue between himself, nature, and time - or it might be a dialogue between people. I can’t dictate how people will use these spaces, but I want them to be aware of the possibility of dialogue. Space cannot dictate to people, but it can guide people.” Tadao Ando.



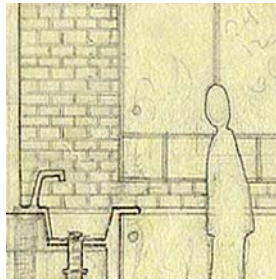
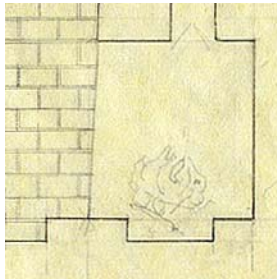
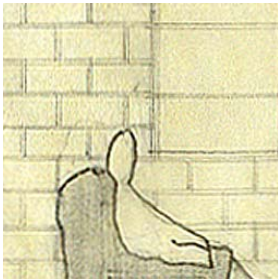
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image 060 (above), image 061 (opposite, from left to right)

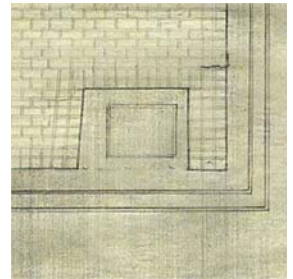
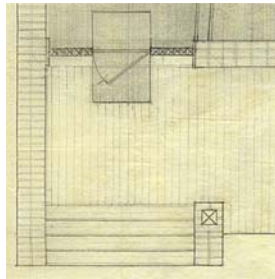
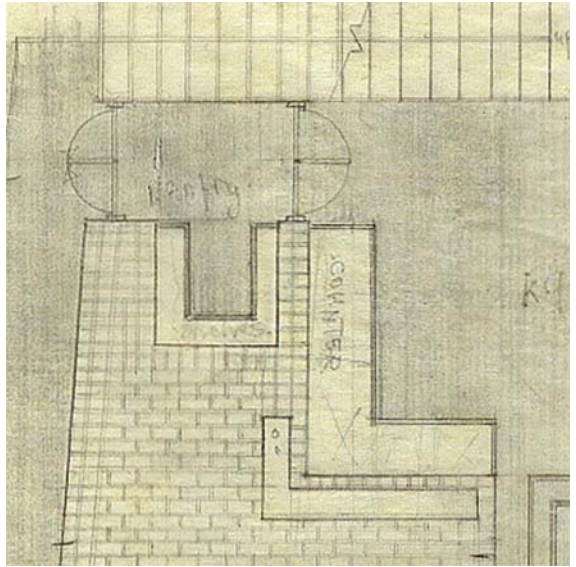
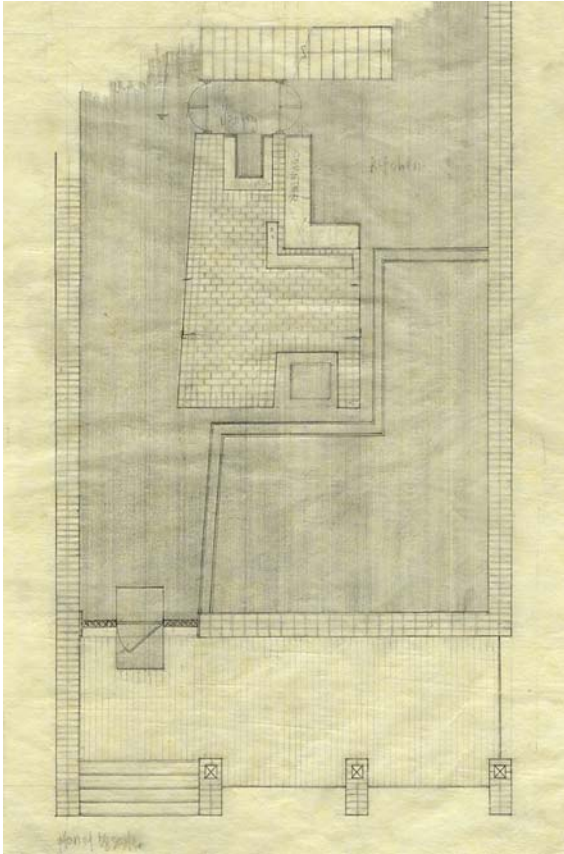




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images 062, 063, 064, 065, 066 (clockwise from top)



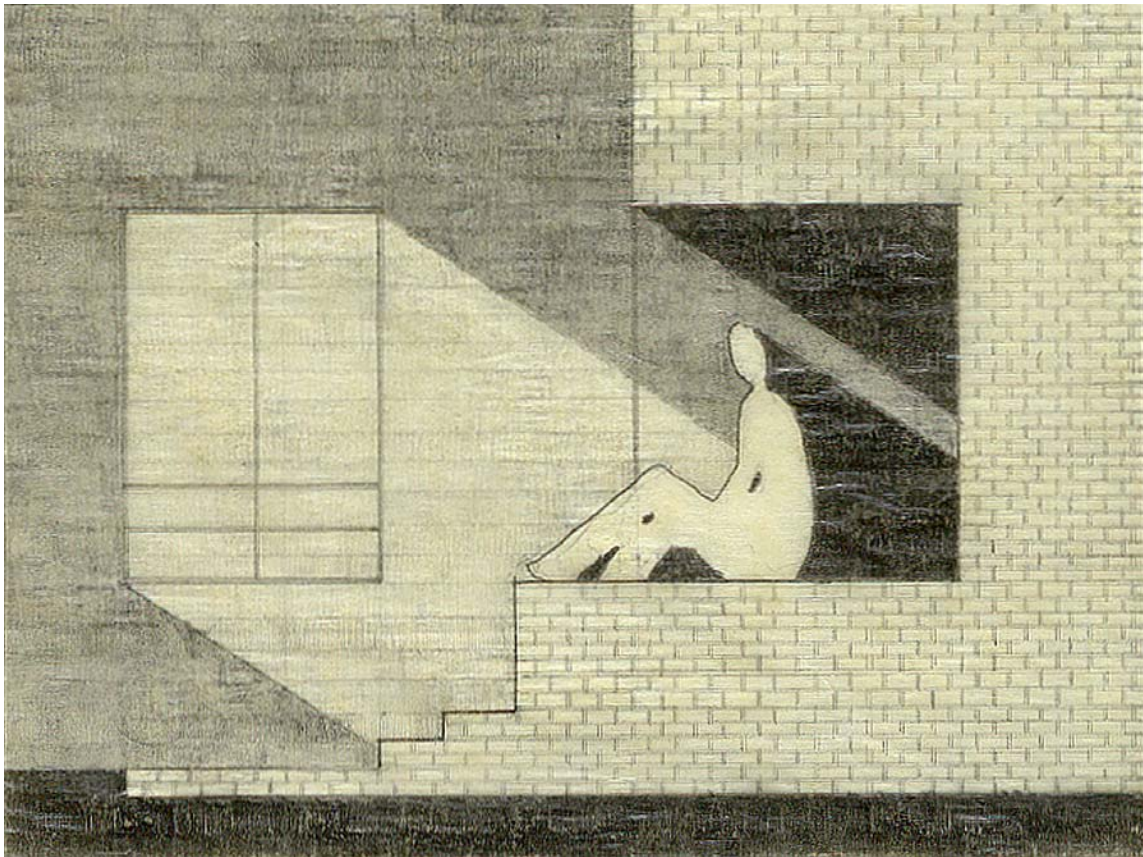
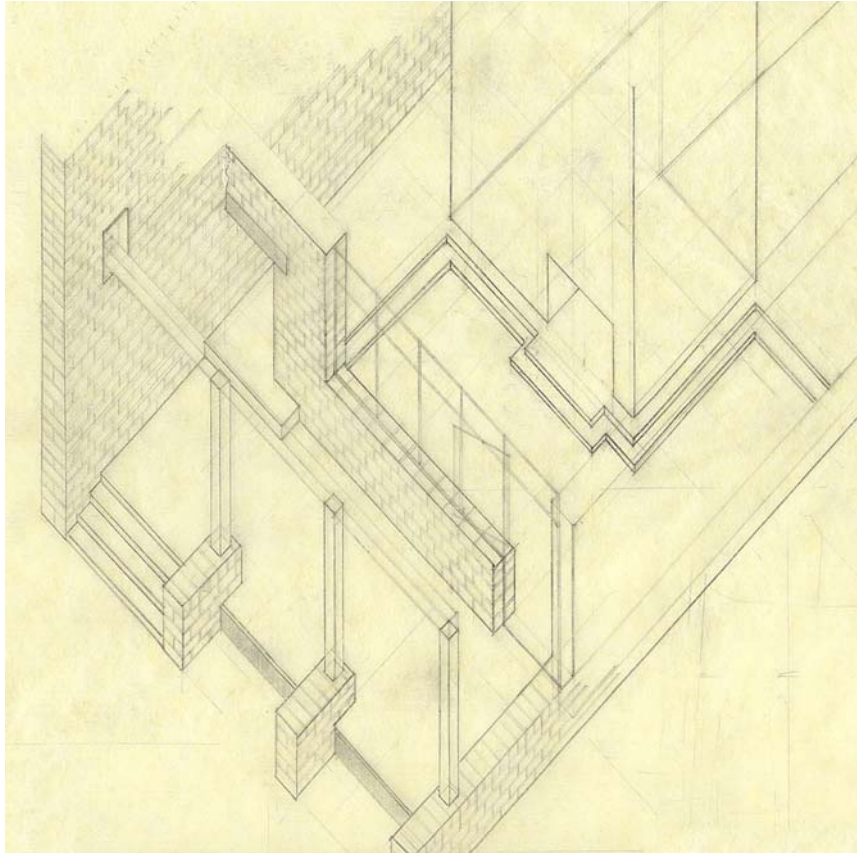
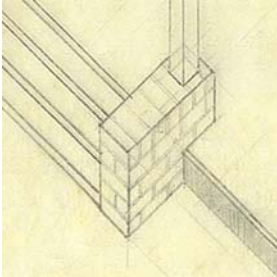
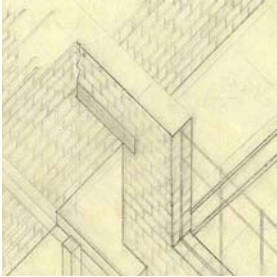
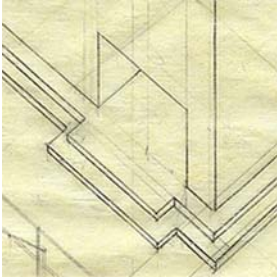


image 071



ORIENTATION.

Architectural elements serve different roles on many scales. On the scale of the individual, architectural elements offer orientation within the spaces which they form. On a larger scale, these elements speak to their position within the realm of the universe. The most permanent of these elements, the massive brick wall, exists in accordance to its relationship with the sun. This connection to nature dictates its placement on the site, as the walls are placed in varying directions, accepting the sun and tracking light and shadow over the course of nature's cycle. The wall serves as a natural clock, casting shadows long and short, according to the ebb and flow of the day. The protection of the shade is offered by the wall when the sun sinks low in the sky. The wall measures the light by providing contrast: the absence of light. The wall, with its roots dug deep into the earth, and with

its face reaching up to catch the sun, serves as an intermediary between sun and earth, sky and land, man and nature. It acts as a canvas which is painted by the sun, the light washing its face and bringing it life. The sun divides areas of light and darkness setting a definite edge of shadow, constantly moving, as the sun progresses around the earth in its eternal continuum. The line of shadow could not exist without the presence of the wall, and it is in those terms that architectural elements can provide an opportunity of awareness of man's connection to the universe. The sensitivity of the wall to the site provides an opportunity for an individual to become aware of the order of nature. The wonder of the wall lies within its permanent nature, constant and fixed in its position in relation to the sun. By establishing this orientation, the wall connects the realm of man to the realm of the universe.

“Construct an architecture of shadows. The shadows mark the time and the passing of the seasons.” Aldo Rossi.

65

“All materials in nature, the mountains and the streams and the air and we, are made of Light which has been spent, and this crumpled mass called material casts a shadow, and the shadow belongs to Light.” Luis Kahn.

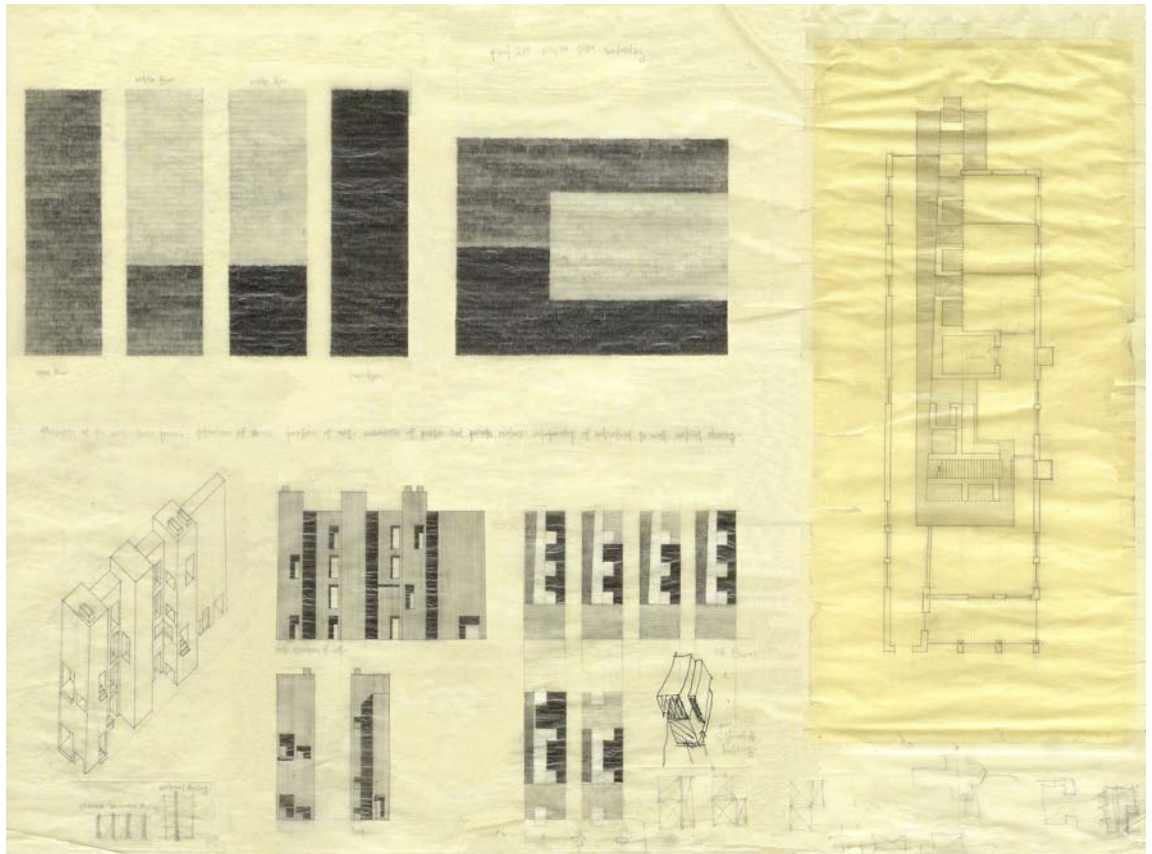
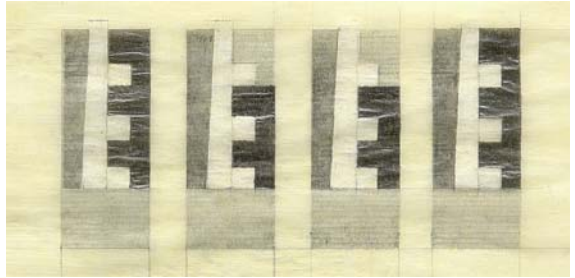
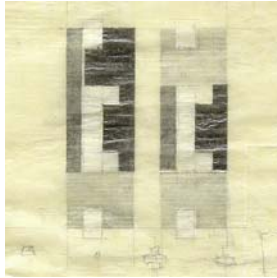
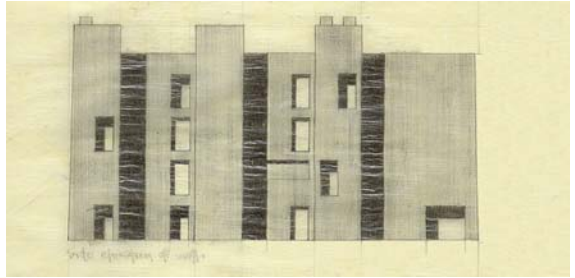
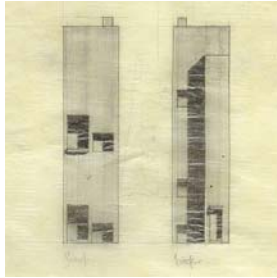
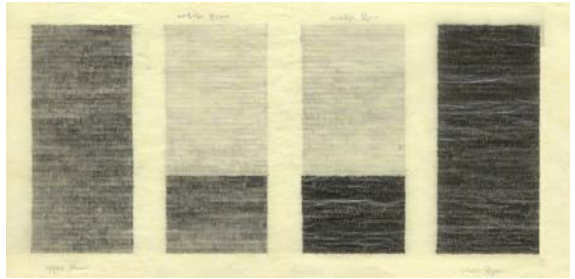
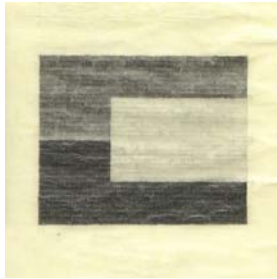


image 076



PLAN.

The idea at the very center of this project was born from the wall. A thick, massive collection of brick, the wall digs itself deep into the earth below, bringing structure to the unit and marking its position in the universe. The wall becomes the seed from which all else can grow. Its nature defines it as the project's most permanent element, firmly connecting itself to the earth, and orientating itself according to the progression of the sun. Its existence accepts the nature of the universe, allowing it to absorb the driving rain and snow, to turn its face into the wind, to be warmed by the sun. The dwelling could not be formed without this connection to nature. The wall itself is very definitive, offering mass and strength, while also providing areas of penetration, allowing one to pass from one side to the other. Its permanent nature allows the rest of the unit to be flexible and adaptable to the needs of man. While the wall belongs to the universal realm, the rest of the unit belongs to the realm of man. The wall establishes the rules by which the dwelling

can be designed. It establishes order. It creates structure. While the realm of man is constantly in flux, the nature of the universe is completely definitive. These two forces establish a balance which speaks of the relationship between man and the built environment. The moment when these forces begin to accept each other is the moment when the plan is born. A plan exists as a series of relationships between spaces. The nature of the individual spaces cannot be defined or given meaning without the connection to other spaces. The plan speaks of these connections on many scales. The construction detail, explaining the connection between the permanent brick wall, and the adaptive wood panel, is a microcosm of this plan as a whole. By being sensitive to the nature of the spaces which are connected, the plan dictates the relationships which are formed between these spaces. It establishes order. The plan is the vehicle which connects the ideas from which the project was born.

“The wall did well for man. In its thickness and its strength, it protected man against destruction. But soon, the will to look out made man make a hole in the wall, and the wall was pained, and said, ‘What are you doing to me? I protected you; I made you feel secure - and now you put a hole through me!’ And man said, ‘ But I see wonderful things, and I want to look out.’ And the wall felt very sad. Later man didn’t just hack a hole through the wall, but made a discerning opening, one trimmed with fine stone, and he put a lintel over the opening. And soon the wall felt pretty well. Consider also the momentous event in architecture when the wall parted and the column became.” Louis Kahn.

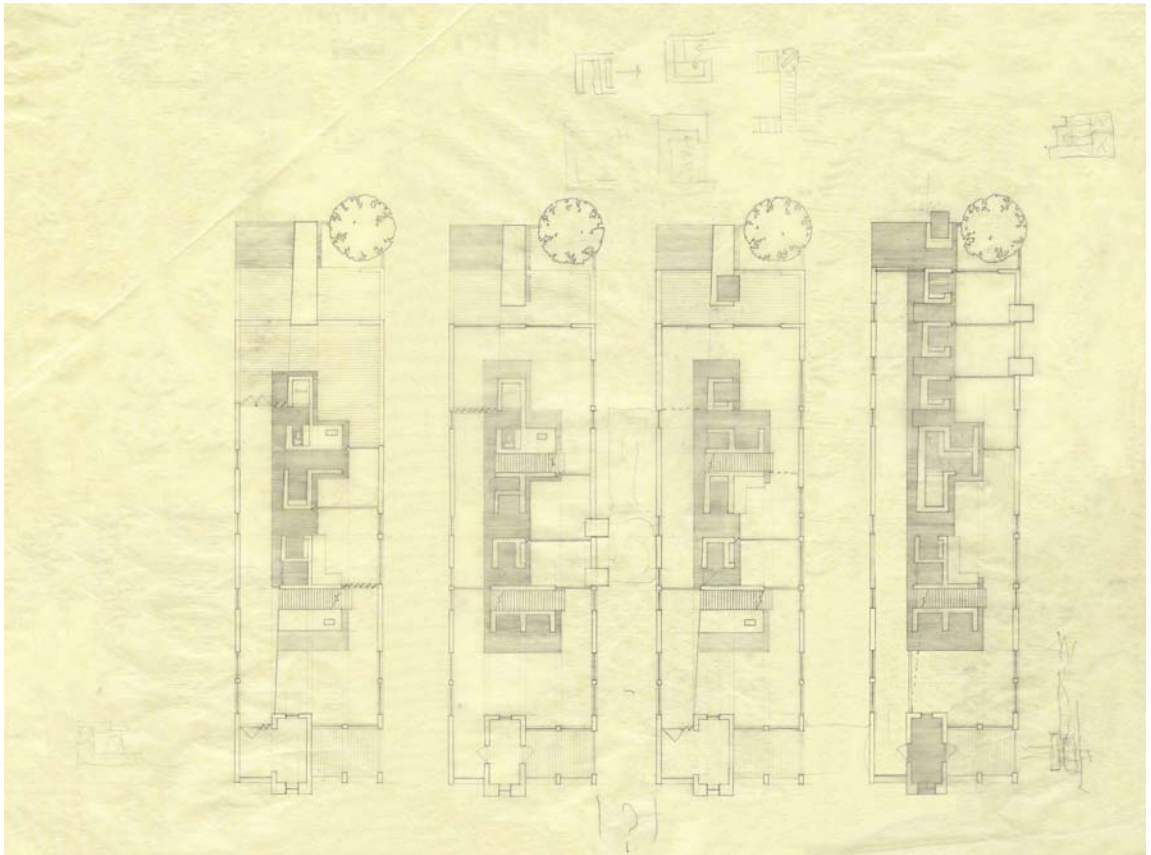


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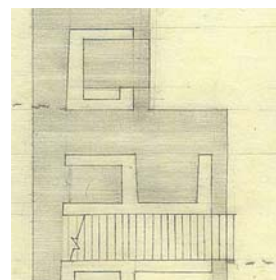
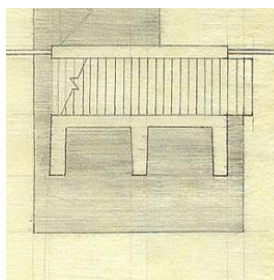
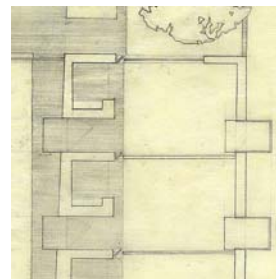
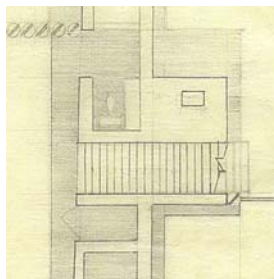
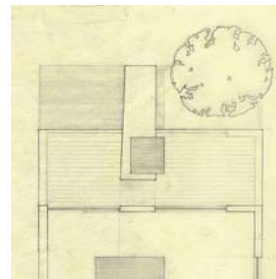
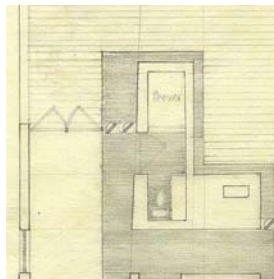
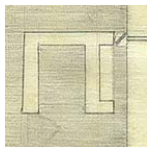
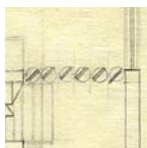
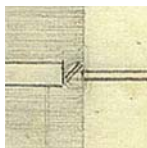


image 084 (left, from top to bottom), images 085, 086, 087, 088, 089, 090 (right, clockwise from top right)

BOUNDARY.

The common area in the center of the city block is framed by the textured facades of the surrounding buildings. Brick, wood and glass surfaces form the enclosure, which belongs to the city's inhabitants. On a spring afternoon, as the scent of cut grass fills the air, these spaces are transformed from peaceful retreats into vibrant hubs of energy and activity. The shouting voices of children spill through the alleys into the streets beyond, ultimately merging with the city's collection of honking horns and whistling sirens. These shared spaces belong to the city for this is where its residents congregate. Architectural elements define these spaces by creating distinct boundaries. The materials which form the city's floor provide an example. Round cobble stones separate the smooth

surface of the grass from the rough texture of the brick alley, providing a field for activity with definitive edges. Massive brick walls extend past the weather wood surfaces, framing the field and protecting it from the city beyond. As these shared spaces sit within the middle of the city block, their alleys extend in all directions, connecting them to the streets beyond. Like a spider's web, this network lays over the city's floor, creating a dialogue between solid and void. These spaces exist as a relief from the density of the city and offer sanctuary to all. The boundaries which are created by the elements of architecture define these spaces. Yet, it is the nature of these spaces which allows them to form their own life, simultaneously independent of and reliant on the city beyond.

“The concepts ‘public’ and ‘private’ can be interpreted as the translation into spatial terms of ‘collective’ and ‘individual’....The concepts ‘public’ and ‘private’ may be seen and understood in relative terms as a series of spatial qualities which, differing gradually, refer to accessibility, responsibility, the relation between private property and supervision of specific spatial units.” Herman Hertzberger.

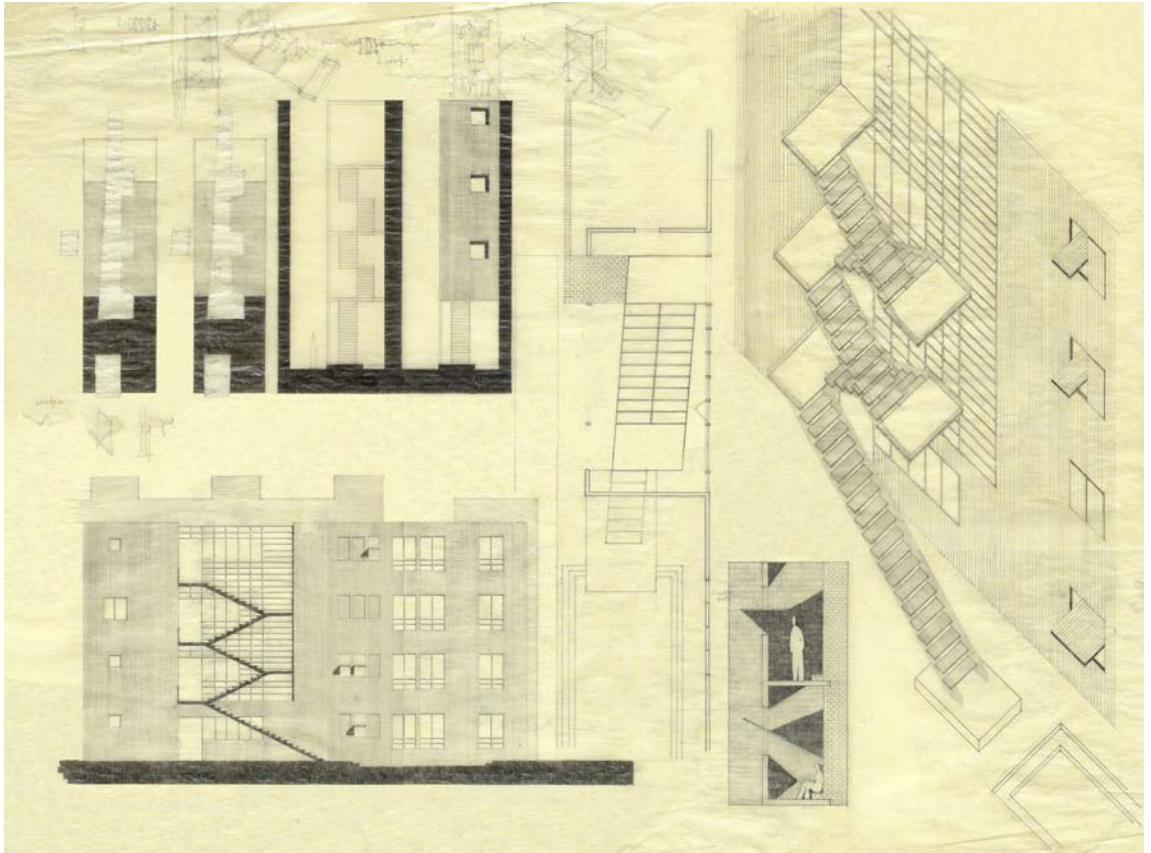
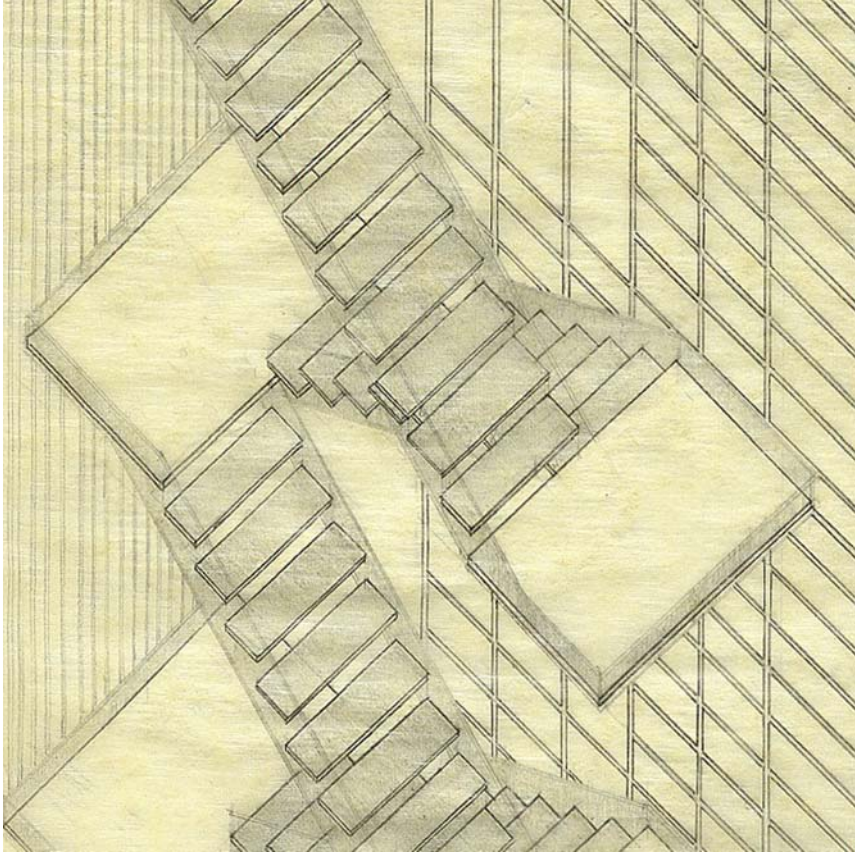
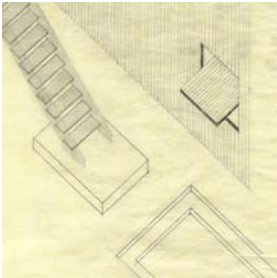
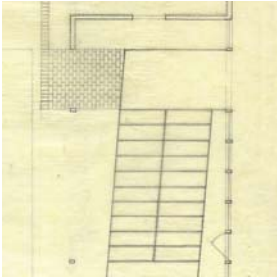
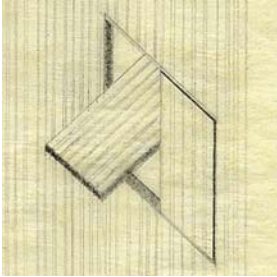
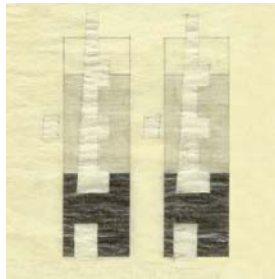
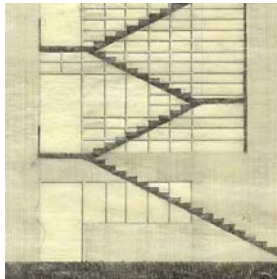
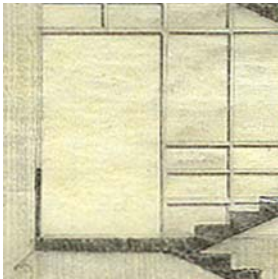
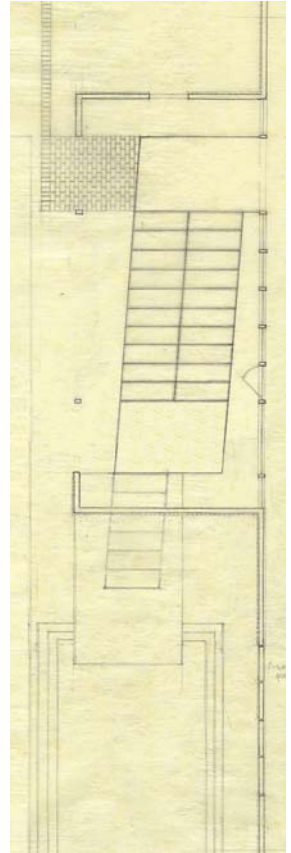
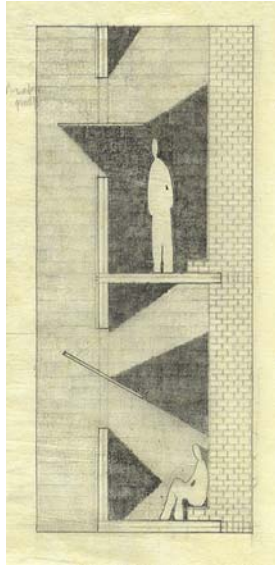
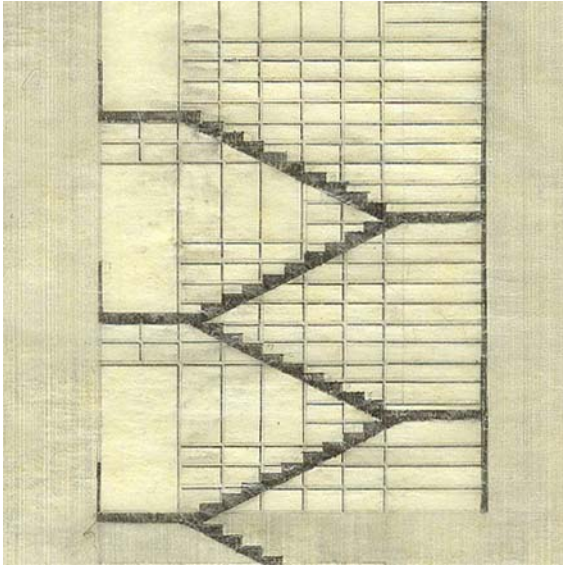
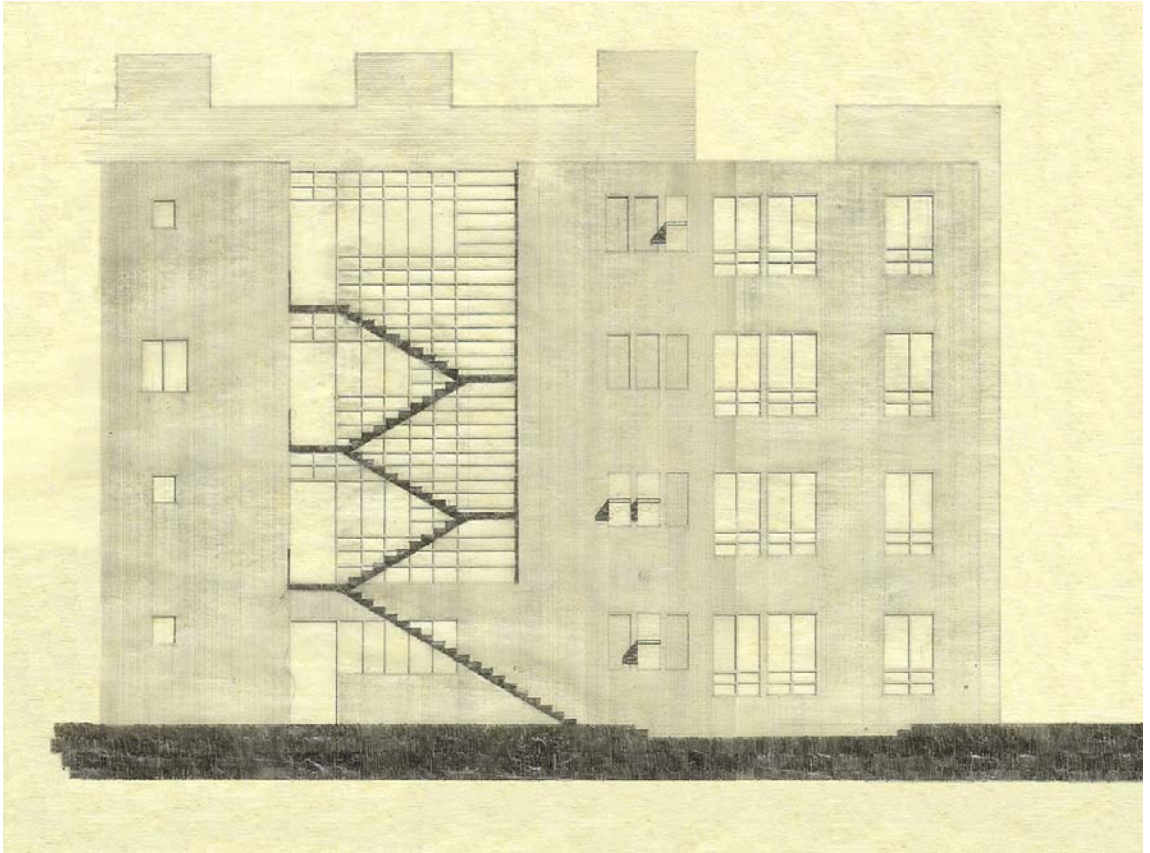


image 091







CITY.

The old man sat outside the barber shop and slowly sipped his coffee. Every Saturday afternoon in the summer, he'd sit here with the other men and pass the time. The crackle of the transistor radio would fill the air as they'd read the newspaper and discuss daily news. They'd talk and laugh and smile at the familiar faces as they passed by. Mostly they'd reminisce. The man would sometimes shut his eyes and listen to the hum of the city beyond. Its constant noise would fill his imagination and send his mind back to when he was just a child. He remembered how safe he felt as he walked down the avenue, reaching up to hold his father's hand. They'd stroll down the busy street, waving to neighbors and friends, looking in the windows of the shops. They'd walk to the hardware store. The man remembered the smell of sawdust and how the tools glistened as they hung from the walls. He could still hear the raspy voice of the shopkeeper as he'd argue about politics with his father. Their voices would rise, but it would always result in an eruption of heavy laughter, followed by a handshake and a smile. Down the avenue they'd walk to the bakery, always enticed by the aroma of freshly baked bread. The old man remembered the warmth of the shop when they'd step inside to get rolls and coffee. Light poured through the window, splashing the counter and highlighting the edges of the stools, making everything in the shop seem to glow. They'd eat rolls and the boy's father would buy a newspaper.

They'd chat with neighbors and pass the time before running their next errand. The avenue was filled with people on Saturday afternoons. The people of the neighborhood would be glancing in the windows of the shops, holding bags and packages, exchanging greetings, engrossed in their weekend routines. The boy was amazed by the collage of sounds and sights as they walked down the busy street. He felt the excitement of the city as he heard the distant sounds of the passing train and the church bells as they announced the time. Closer he heard the voices of the vendors at the market shouting prices over the murmur of the crowd. Fruits and vegetables filled the carts, creating a visual collage of color: orange, green, red and yellow. The aromas of meat and cheese filled the air as they exited the tent and headed for the square. The sound of the fountain splashing drew them closer, as it was their tradition to throw a penny into the water to make a wish. They had a quick laugh and headed home with all of their packages, the crowd thinning as they moved deeper into the neighborhood. The boy could still hear the sounds of the avenue, of the action and excitement of the market, filtering through the neighborhood as he approached the house. It made him smile. As the old man's eyes slowly opened, the same grin covered his face. Before he returned to his coffee and newspaper, he looked out over the street and felt the same amazement that he did when he was a boy. Sixty years later he was still in awe of the city.

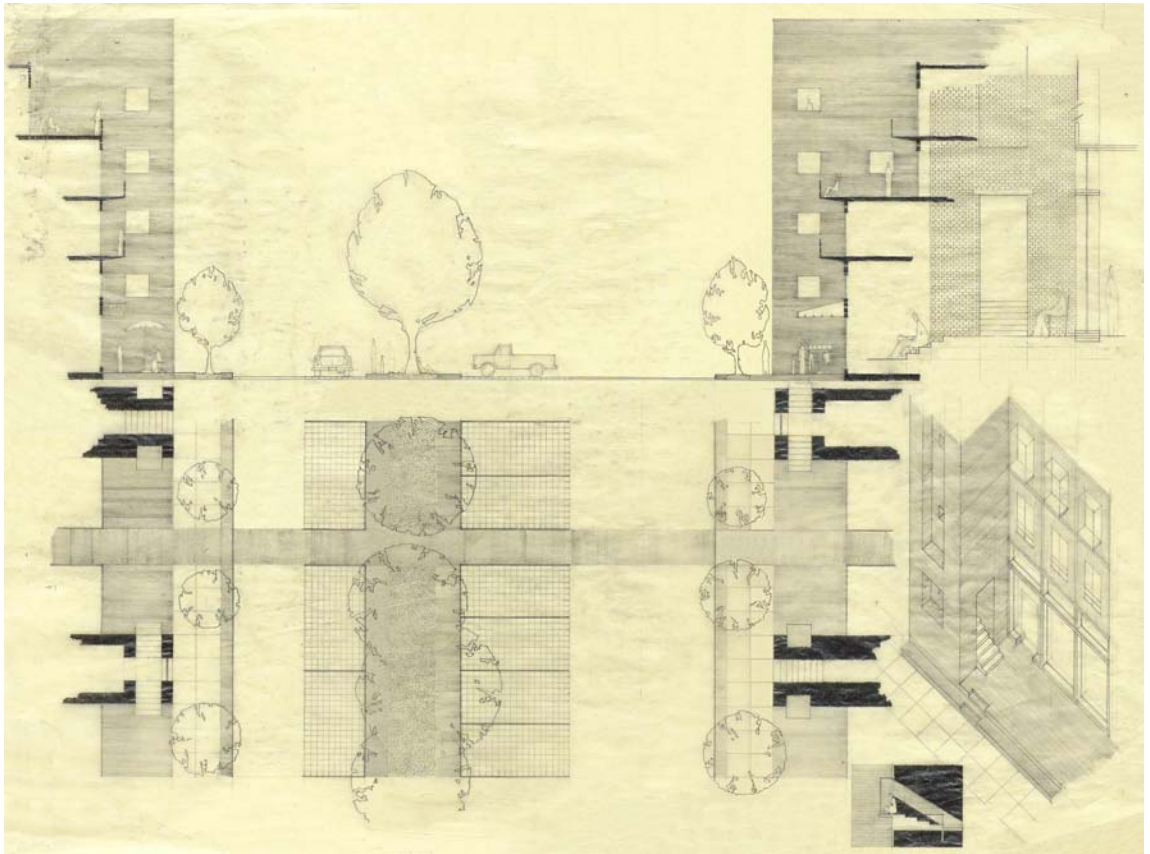
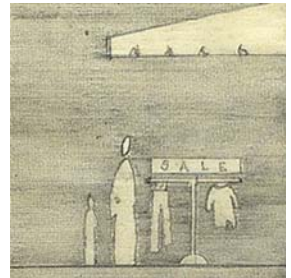
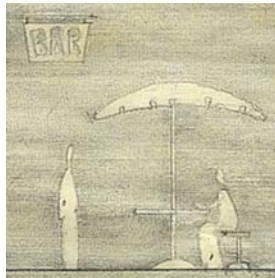
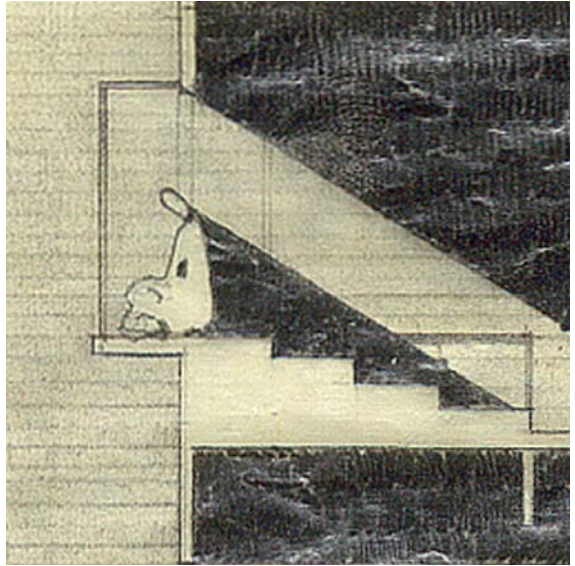
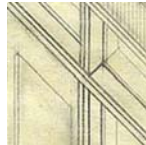
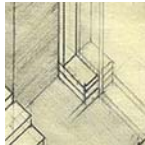
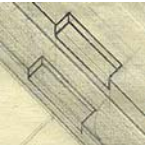
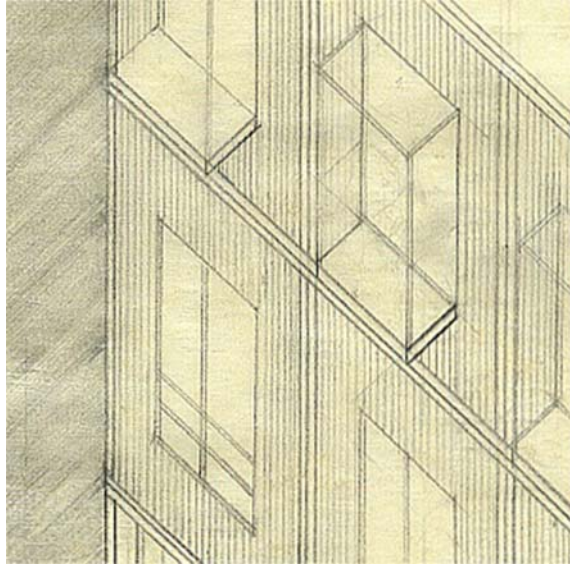
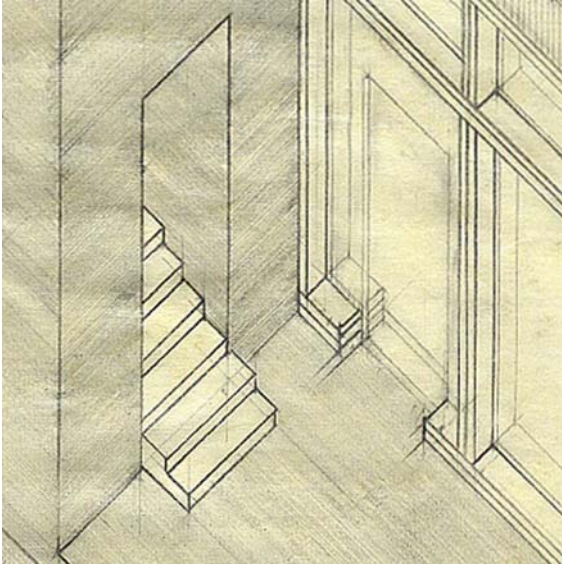
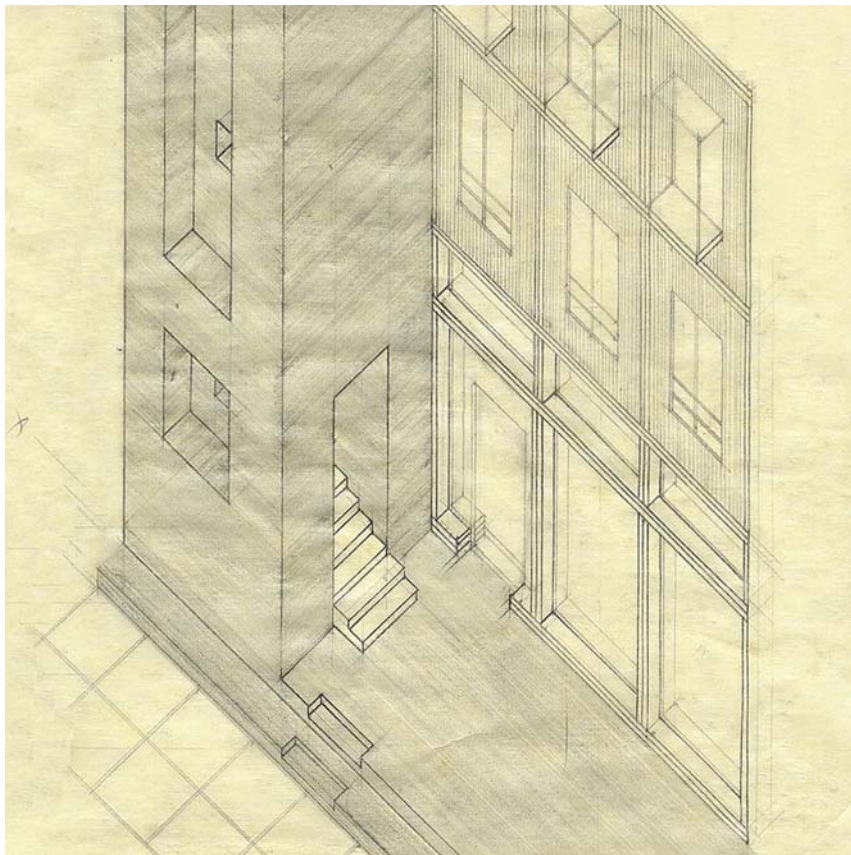
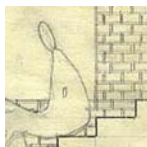


image 103





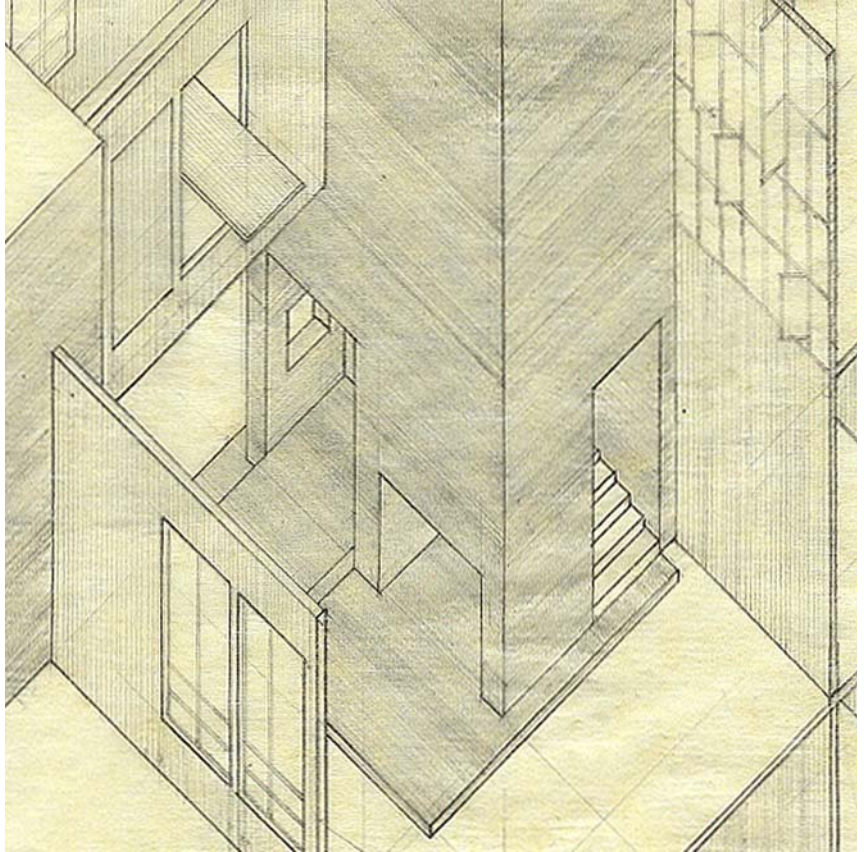
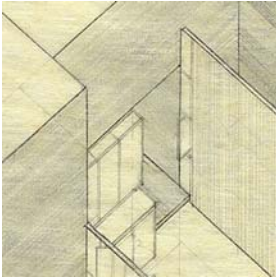
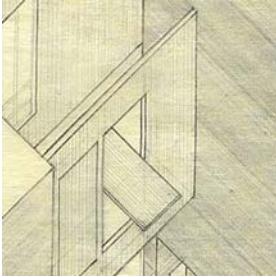
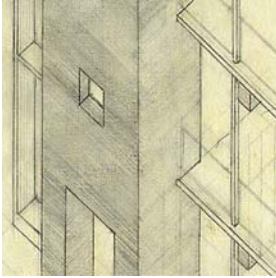


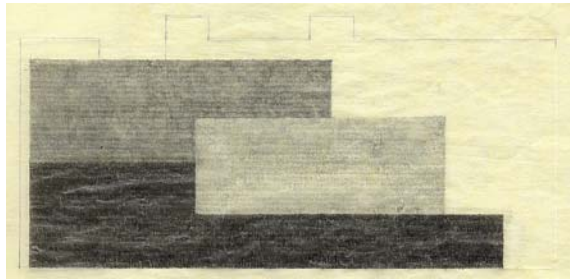
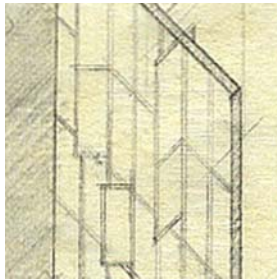
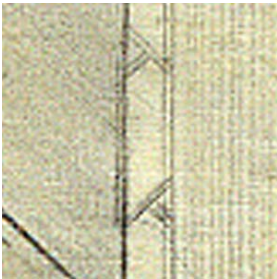
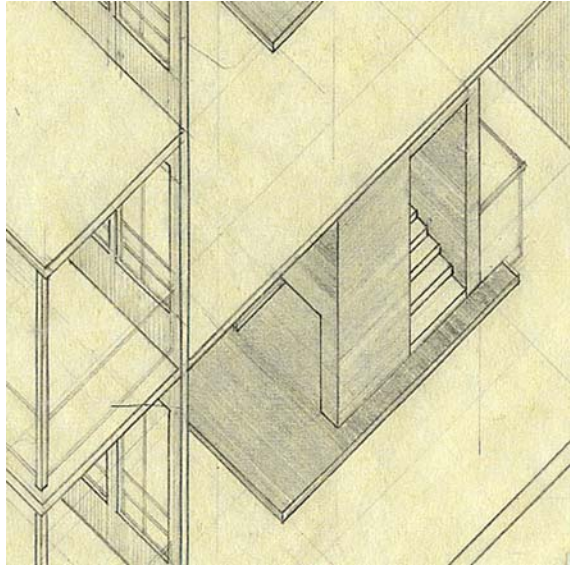
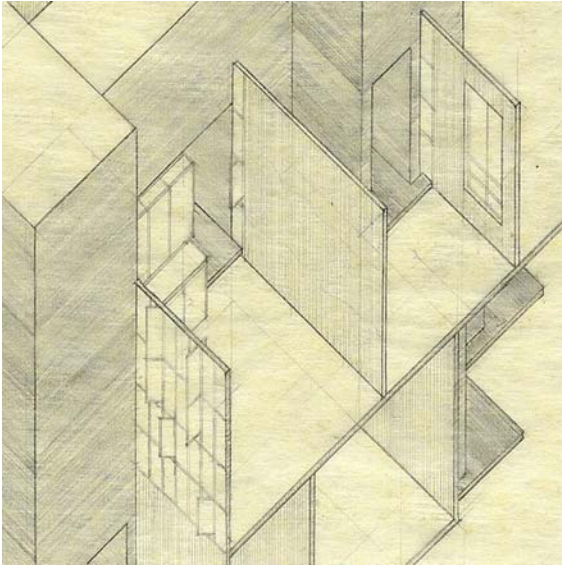
PLACE.

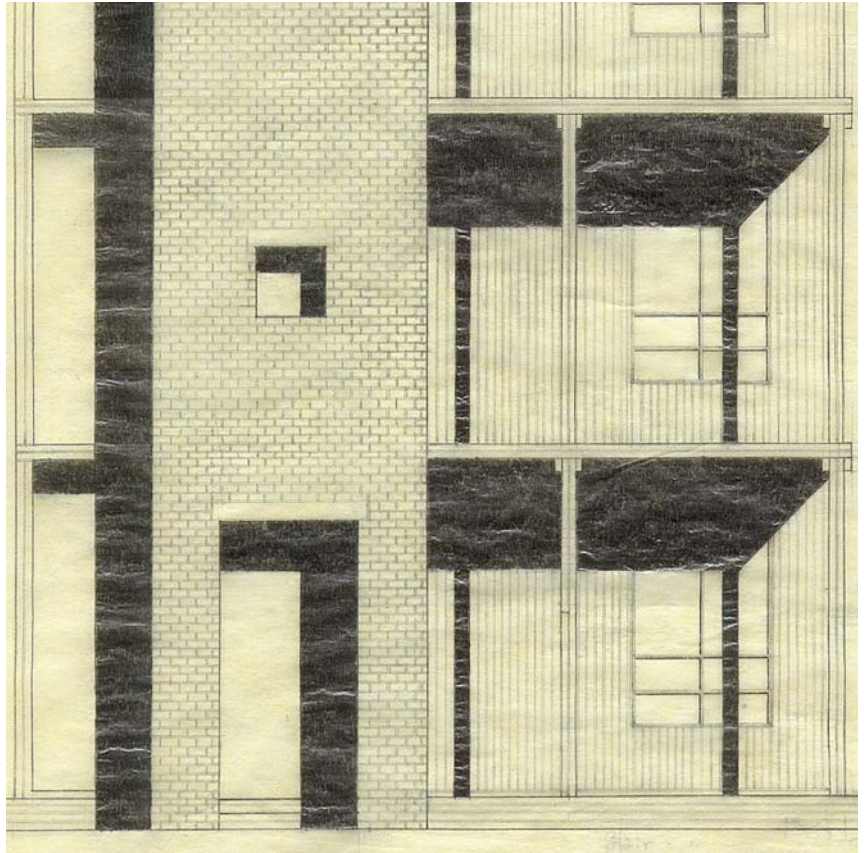
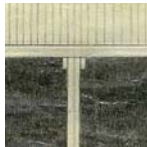
As the old man slowly entered the house, his mind was flooded with memories. Fifty years had passed since he had last stepped through this threshold. As he entered the room, vivid flashes of his life raced through his mind. He peered into the house, his senses reeling, recognizing colors, smells, and sounds, all triggering his aging memory. The scratched wood and the chipped brick knew well the story of the man's life. Each indentation and scratch spoke to the man's memory, describing the events that made up his life. As he entered the house, sun's light cut across the room from the window, warming the man's face and casting his shadow across the dusty wooden floor onto the old brick hearth. The hearth was a place that was close to the man's heart. He thought of cold nights in the winter, when he could hear the wind rattling against the window and see the snow falling outside. He remembered sitting on the hearth many nights as a child, warming himself in front of the fire, listening to his family talking and laughing. His father would read him stories as the fire's lively shadow danced across the bricks, mesmerizing to the eye and soothing to the spirit. The warmth of the fire and his father's gentle voice always made him feel calm and

safe. The old man smiled at the memory as he slowly shuffled into the kitchen. He ran his hands along the countertop, feeling each individual scratch and groove. He knew that each mark represented a meal prepared. He sat in the old wooden chair and rested his arms on the dusty table, gazing out over the room. He closed his eyes and could almost smell his mother's cooking. He thought of his mother chopping vegetables on the counter. He imagined green broccoli, red tomatoes, orange carrots, and yellow peppers. His mother would pretend to scold him as he grabbed a piece of chicken before dinner, but always let him get away with it. The man was filled with emotion, for just sitting at the table brought him back to his childhood. He proceeded down the hall to the bedrooms, laughing at the memory of playing hide and seek with his brothers. "How could I have ever fit beneath those shelves?" he thought, realizing that everything seemed much smaller to him now. He found the shelf where they each carved their initials, smiling as he ran his hand over the faded surface. He realized that the house was more than just bricks and wood, it was a special place where events were celebrated, where lives were lived. It was a collection of memories. It was a reflection of one man's life.

"Whatever space and time mean, place and occasion mean more. For space in the image of man is place, and time in the image of man is occasion....Make of each a place, a bunch of places of each house and each city, for a house is a tiny city, a city a huge house." Aldo von Eyck.







PATINA.

As his pencil touched the page, the student thought of time. His pencil was the conduit through which he expressed his ideas. He drew walls, columns, and beams, all careful representations of what he wished to transform into reality. He longed for his ideas to become physical entities which held a real presence in the world beyond. As he drew a wall, the student longed to feel its strength. He thought of a pile of bricks, finely crafted and transformed into a wall. He dreamed of pressing his hands against the bricks, of being in awe of the mass which they formed. He longed to create a built form which would mark its place in the universe and celebrate its presence throughout time. He dreamed of those bricks crumbling throughout the years, subject to nature's elements and man's actions, finally bowing in reverence to the order of the universe.

He imagined the texture of weathered wood, the tired survivor of the wind, rain, and sun. He longed to see the beautiful color of copper after gracefully aging for years, soaking in the rain and drying in the sun, placing itself at the mercy of the elements, and allowing nature to reveal its true beauty. He dreamed of an ancient ruin; of a structure which once stood tall and proud, marking its position on the earth with dignity. He thought of how time and nature had the power to humble even the mightiest of castles, reducing them to just a trace of their former selves, allowing them to only hint at the lives they've led. As his pencil glided across the page, the student dreamed of creating a building which would be the stage for human activity, grounded in the earth and subject to the natural order of the universe.

“I am convinced that a good building must be capable of absorbing the traces of human life and thus of taking on a specific richness....I think of the patina of age on materials, of innumerable small scratches on surfaces, or varnish that has grown dull and brittle, and of edges polished by use....a deeper feeling - a consciousness of time passing and an awareness of the human lives that have been acted out in these places and rooms and charged them with a special aura....Architecture is exposed to life. If its body is sensitive enough, it can assume a quality that bears witness to the reality of past life.” Peter Zumthor.

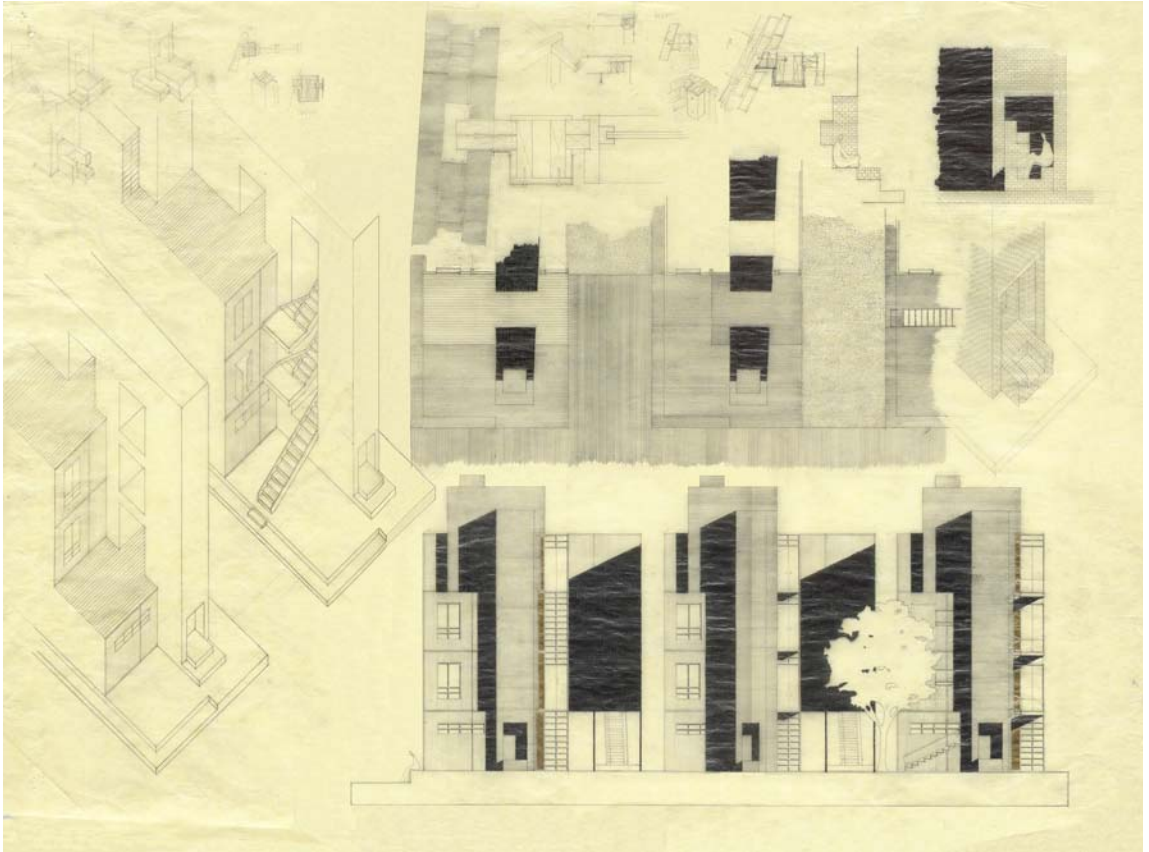
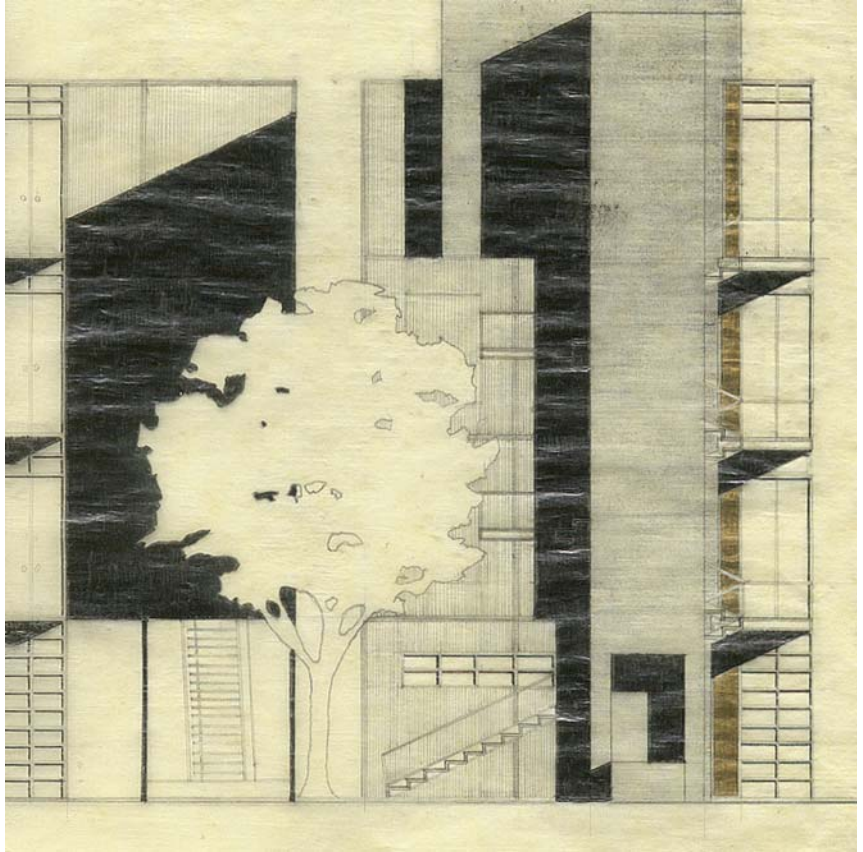
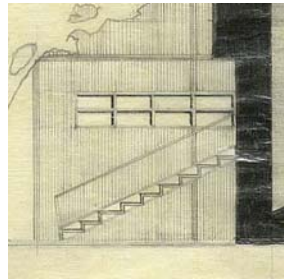
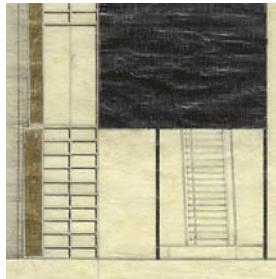
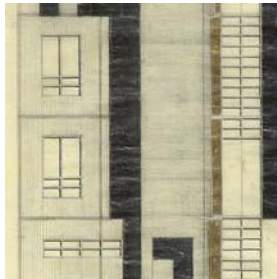
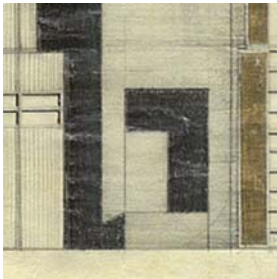
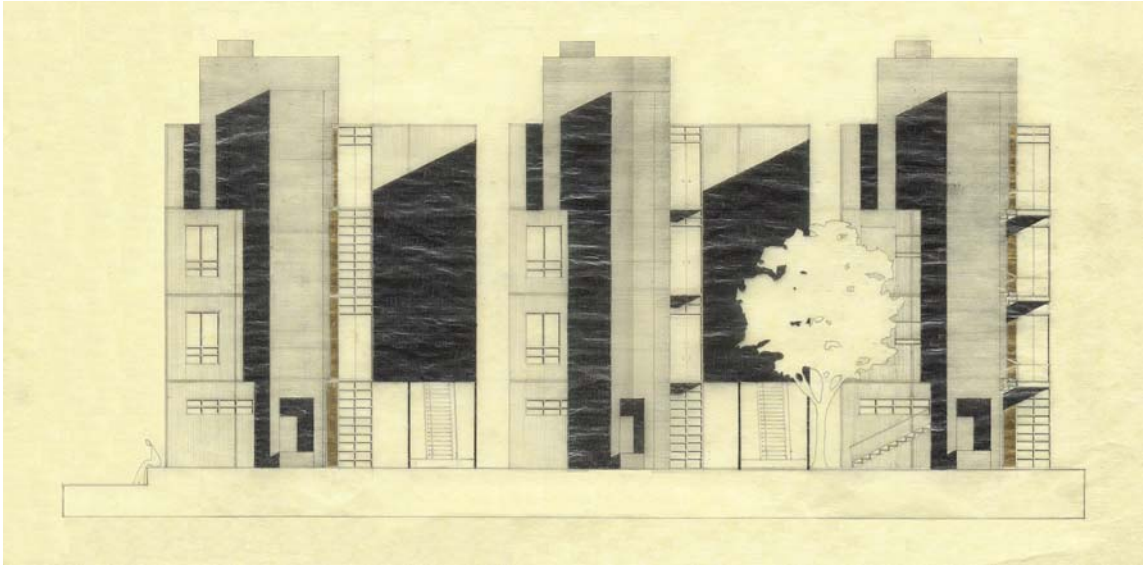
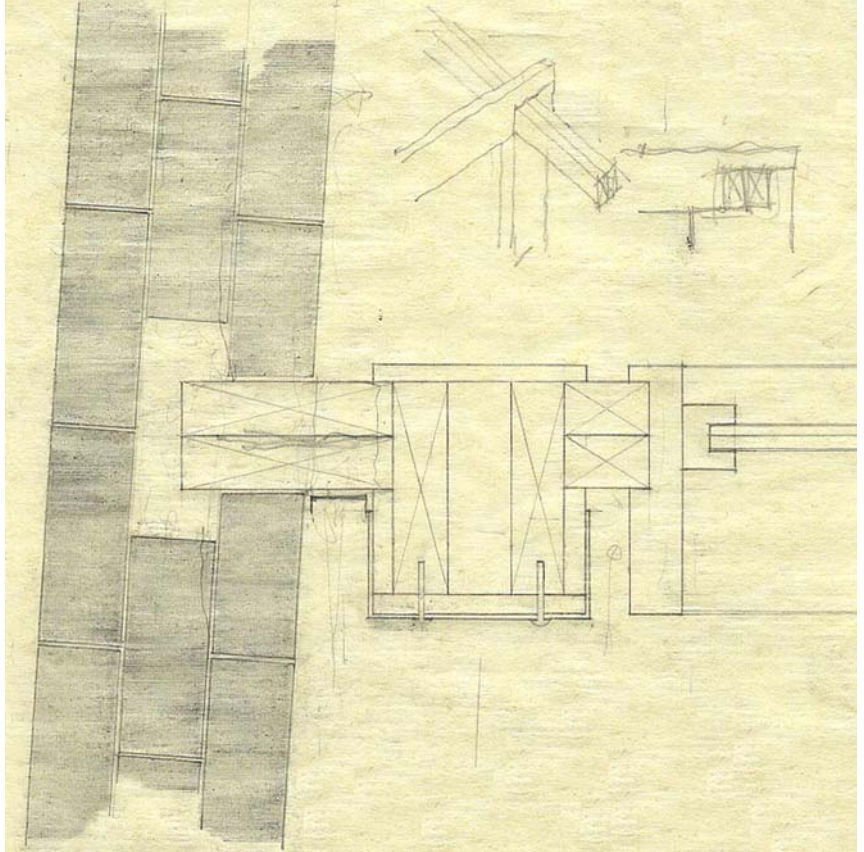
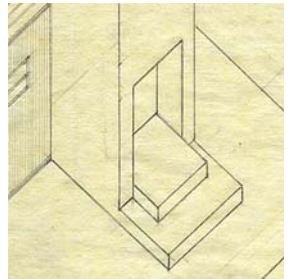
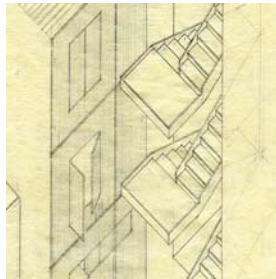
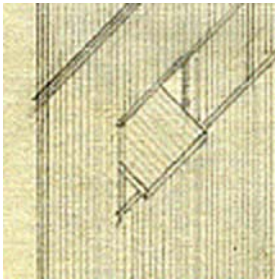
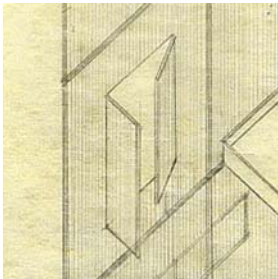
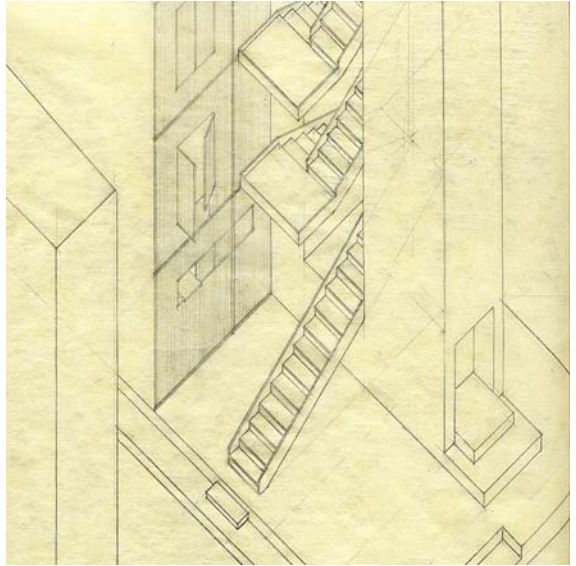
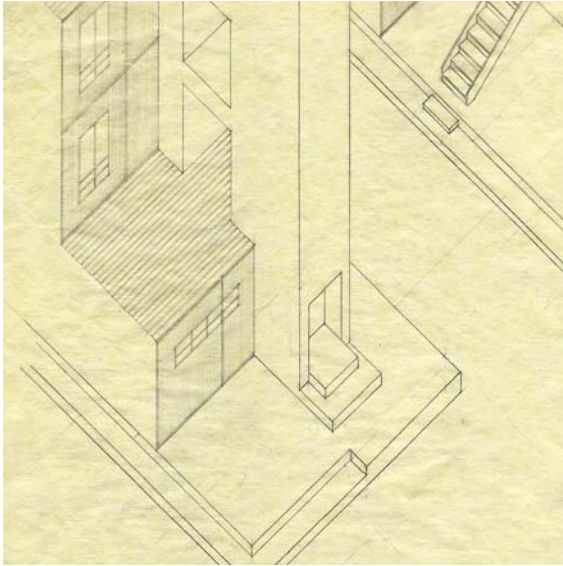


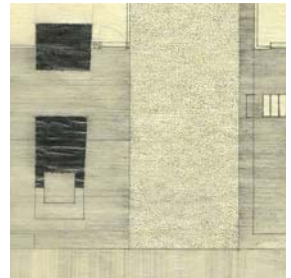
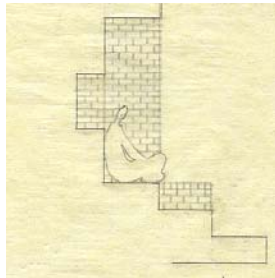
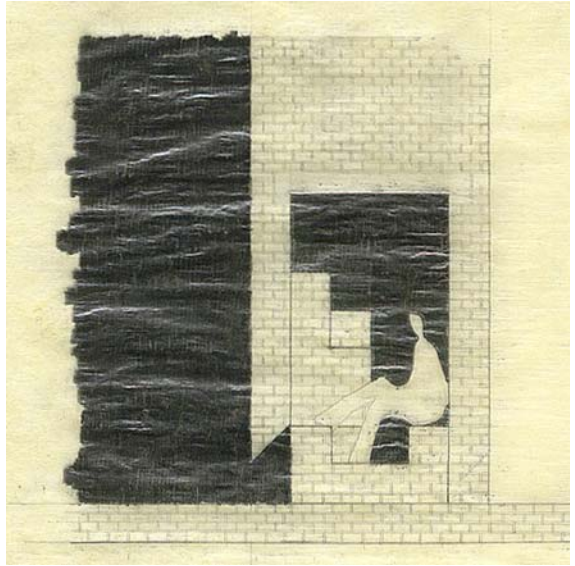
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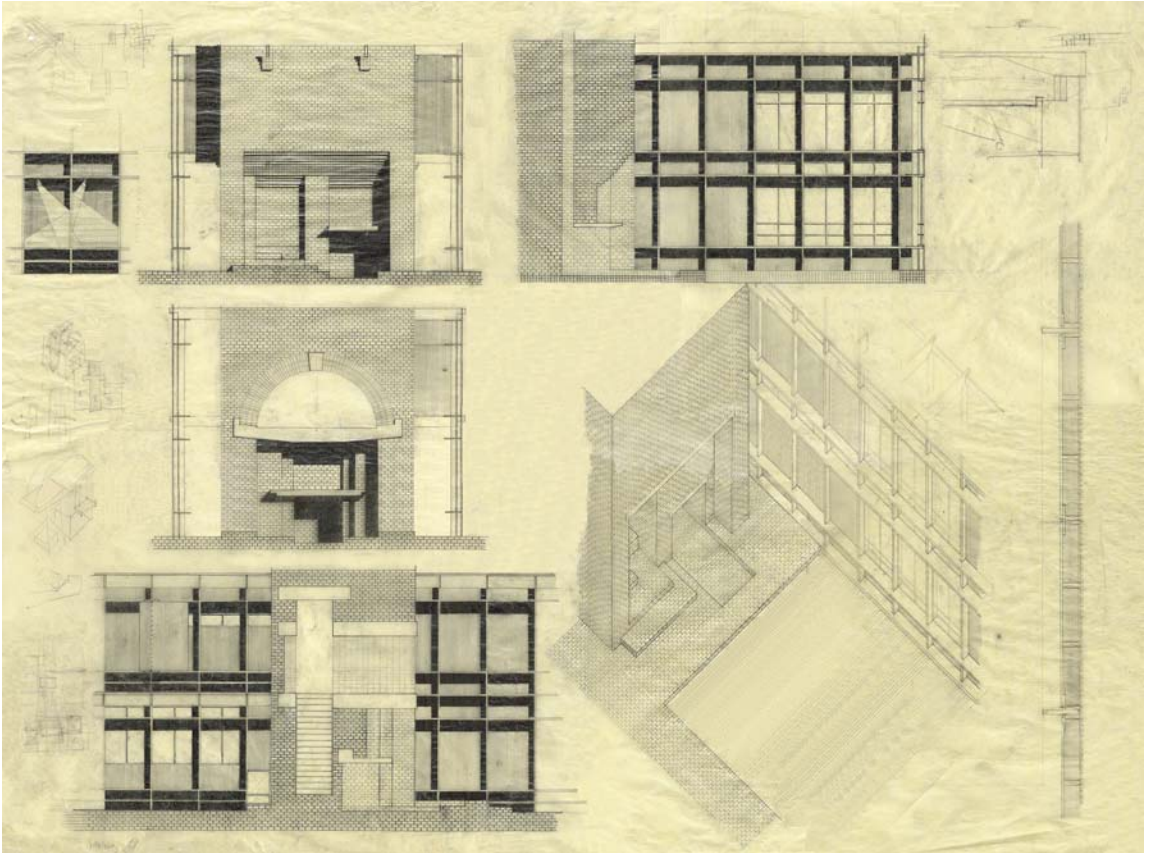
images 138, 139, 140 (clockwise from bottom right)

MEMORY.

The old man pressed his wrinkled and scarred hands against the jagged brick wall. “This wall has aged as I have,” he thought. He understood the parallel between the scratches on the bricks and the lines on his face, knowing that each mark told the story of an extraordinary life. He felt the texture of the cold brick against his hardened skin, capturing his senses and sending his mind to another time....

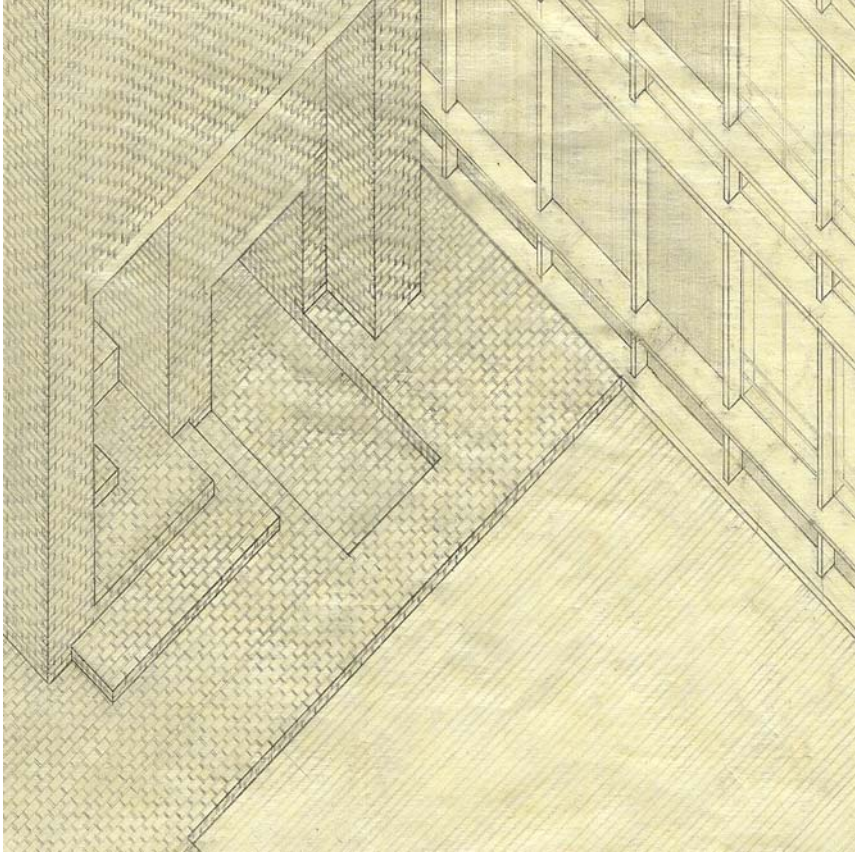
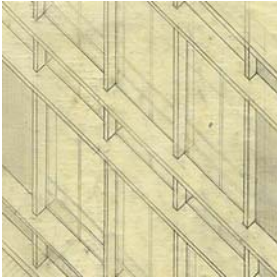
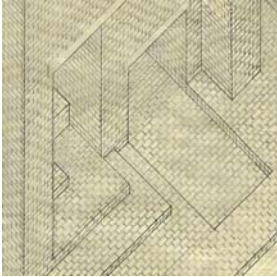
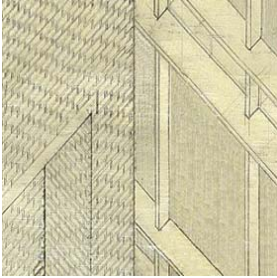
A child’s footsteps crept lightly on the hardwood floor. The floor quietly creaked as the child moved slowly down the dark hall, frightened and alone, relying on the stability of the brick wall to guide him. Rain washed down the panes of glass, blurring the image of the city beyond. Windows rattled from the wind and the sound of rain drops crashing against the roof was deafening. One by one, he ran his hand along the bricks, feeling its rough texture, noticing each imperfection as it pressed upon his skin. He felt its strength and warmth. The bricks stood silent and still, too heavy to be shaken by the storm and too solid to be moved by the boy. This made the boy feel safe. His hands moved slowly across the coarsing as he timidly crept on. The boy passed a forgotten window, slightly open and announcing its presence with a constant rattle. Through the window the child could feel the pulse of the city beyond. The sounds of sirens, horns and engines were overshadowed by the howling of the strong wind. The natural hum of the city seemed

distorted by the storm as thunder cracked and lightning struck. The lightning illuminated the hall in fragments, making every visible detail clear for a split second before disappearing under the cover of the night. He was frightened by this violent transformation and grasped for the steadiness of the wall, longing to feel its strength. He pushed on, one shaky step after another, until he finally reached the top of the stairway. The soft light which filtered down the stairs drew him closer. He entered the vaulted cavity of the wall and began to climb the stairs, still holding the wall for guidance. Slowly he climbed until he reached the stair that allowed him to enter the large arch above the fireplace. With both feet planted on the steps, he hoisted himself into the large arch, where, surrounded by bricks, he felt a relief from the reality of the storm. This was his escape. This was his fortress, impenetrable, allowing no evil or danger to reach him. He truly felt the strength of the bricks as he looked out onto the room below. The room seemed to exist in a field of darkness, holding the unknown, revealing the presence of danger. Yet he felt removed from this danger. He felt protected by the wall. There he sat, protected from the storm, hiding in his safe haven. He was one with the wall and shared its strength and stability. He felt that the whole house could crumble around him and that he could still sit within the wall, frozen in time, and for a thousand years be immune to all worldly dangers.

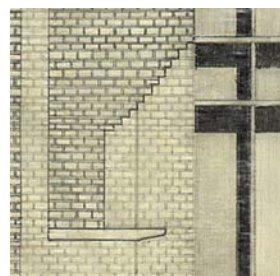
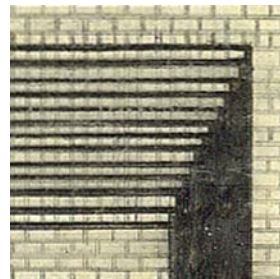
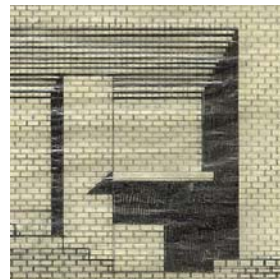
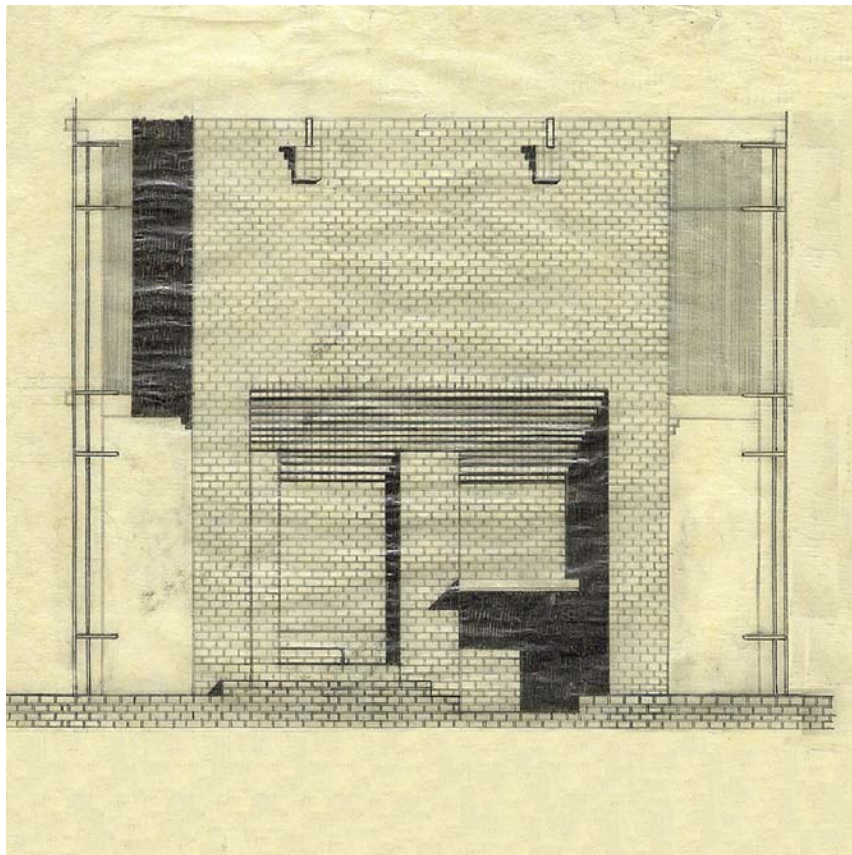


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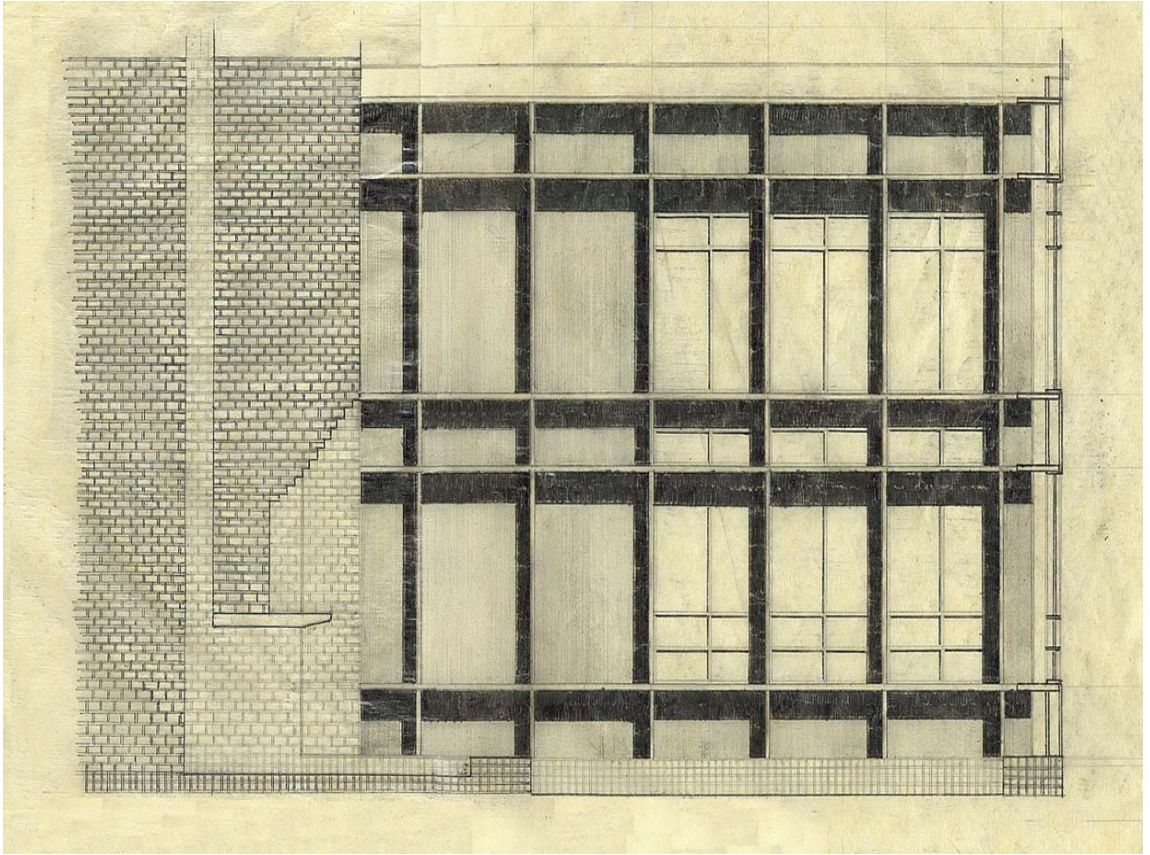
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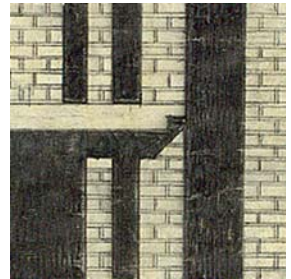
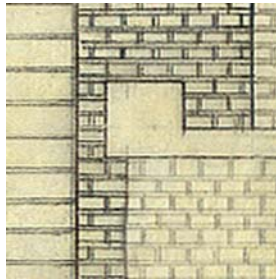
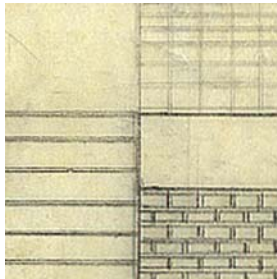
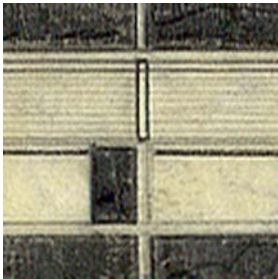
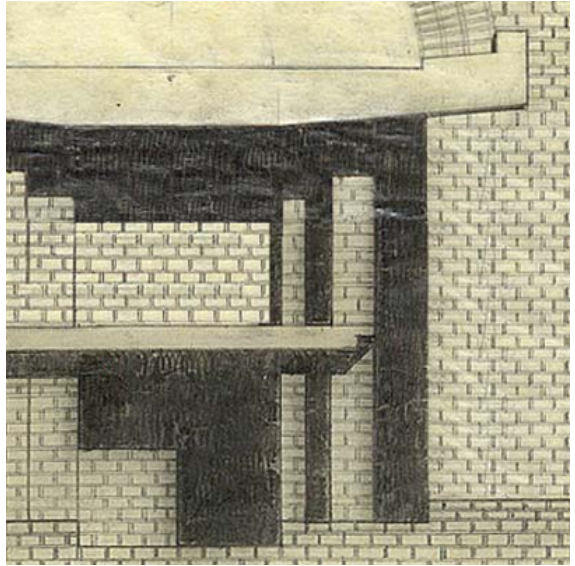
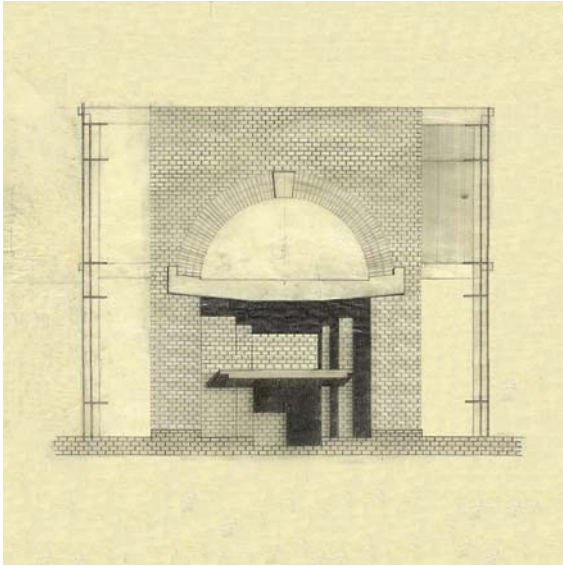


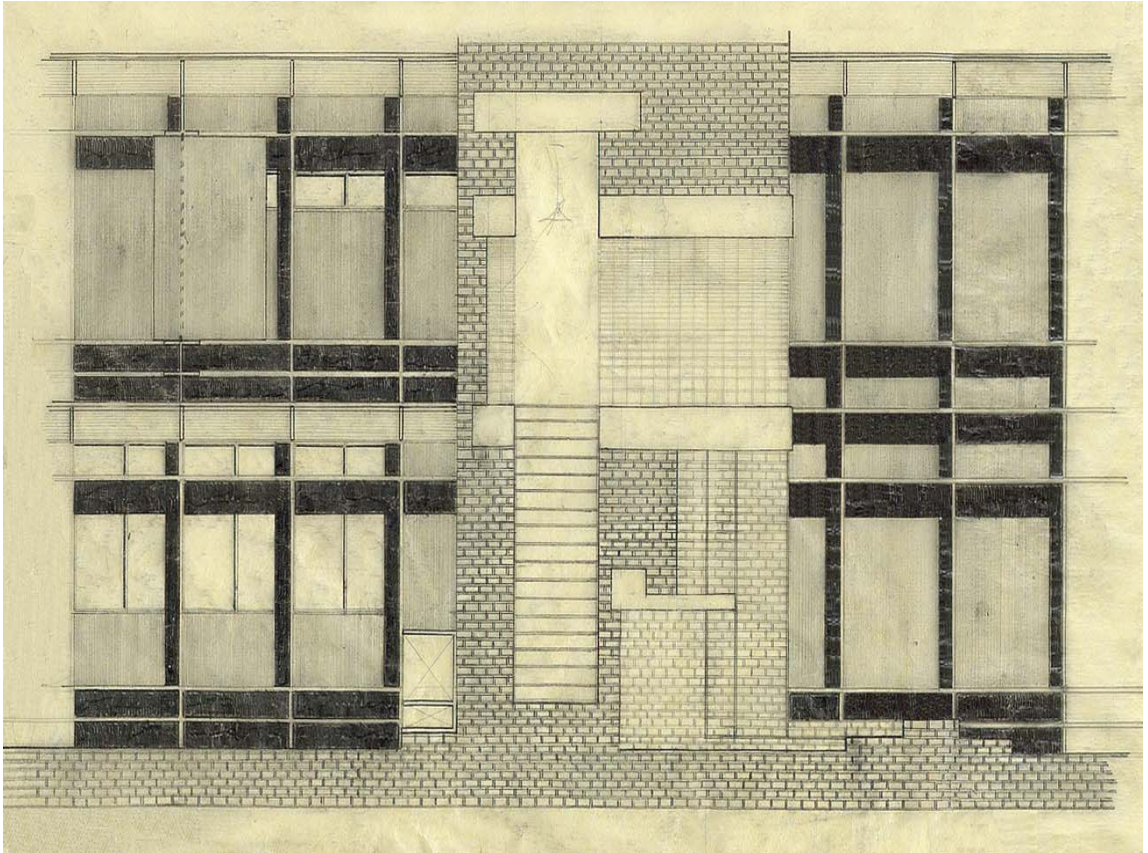
images 142, 143, 144, 145 (clockwise from bottom left)

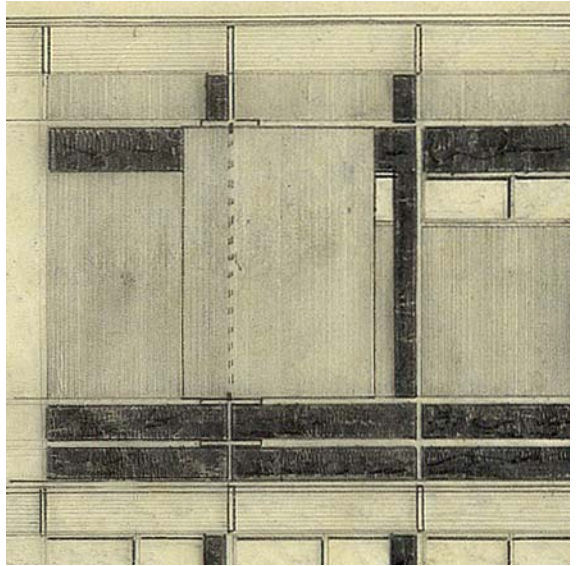
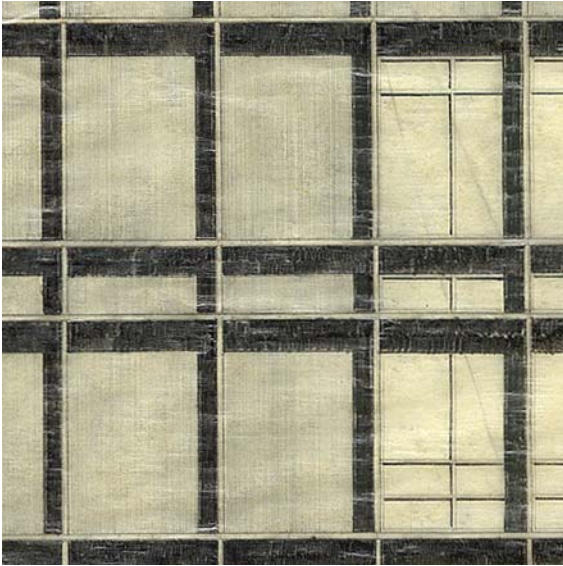


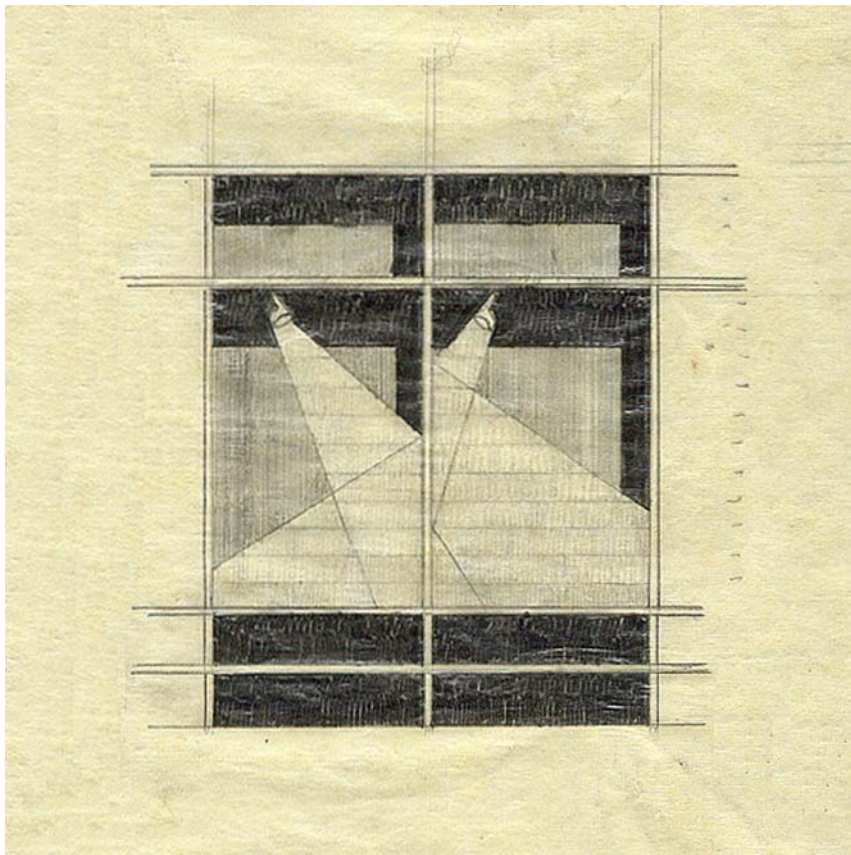
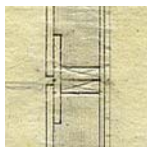
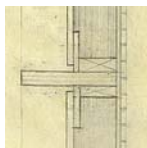
images 146, 147, 148, 149 (clockwise from top right)











CONNECTION.

Nothing should be more celebrated than the special instance in which two materials are joined together. This instance, the joint, is the opportunity for the materials to reveal their natural characteristics, simply and proudly. These characteristics speak of the material's relationship and connection to the universe. Building materials are from the earth. They possess inherent properties that make them what they are, dictated from the natural order and wonder of the universe. The moment when two of nature's materials, each possessing unique traits, receive and accept one another is beautiful. At this moment the materials learn to share each other's strengths. This dependency upon one another allows the whole to exist. For instance, one brick, lonely yet strong, longs to be part of a wall. Thus, a single brick cannot fulfill its calling without the help of other bricks. A brick's true nature is revealed through its connection to other bricks. When many bricks are joined together, they can perform in ways that would be impossible alone. This connection is truly glorious, for the joint allows for the creation of the whole. Thus, the joint must always be honest. It must reveal the truths of the materials while embodying the very idea of the whole. A building exists as a unified whole, composed of many elements. These elements are the "nouns" of the building while

the joints are its "verbs"; they give the building life. They connect the building's components to give the whole a presence, to make it a reality. This could not happen if not for the relationship between the "nouns" and "verbs." However, just as words can be powerful in their simplicity, meaning, and truth, they can also be used to deceive. Unfortunately, this is also true of the joint. The material's inherent properties dictate the way in which they can be joined together. No material wishes to be hidden. It is insulting to the materials to force them to act in a way which contradicts their true nature or to deny their presence within a building. Sad are the members of the frame hidden behind the plastered surface, carrying the load of the building, their existence unobserved. Glorious is the moment where the beam rests on the column, fully celebrating the relationship between the two. Each element stands proud, displaying its unique characteristics and complimenting the other's strengths. The beam doesn't hide the fact that it depends on the column for support and the column is equally thankful for the presence of the beam, for each element depends on the other to carry the weight of the building. It is through this connection that the whole is created. Thus, when the joint is honest, the whole represents the true nature of its components.

109

"It is better not to cover anything up but to show the full nature and relationship of part to part, including the present condition of each which is a record of how it got that way." Louis Kahn.

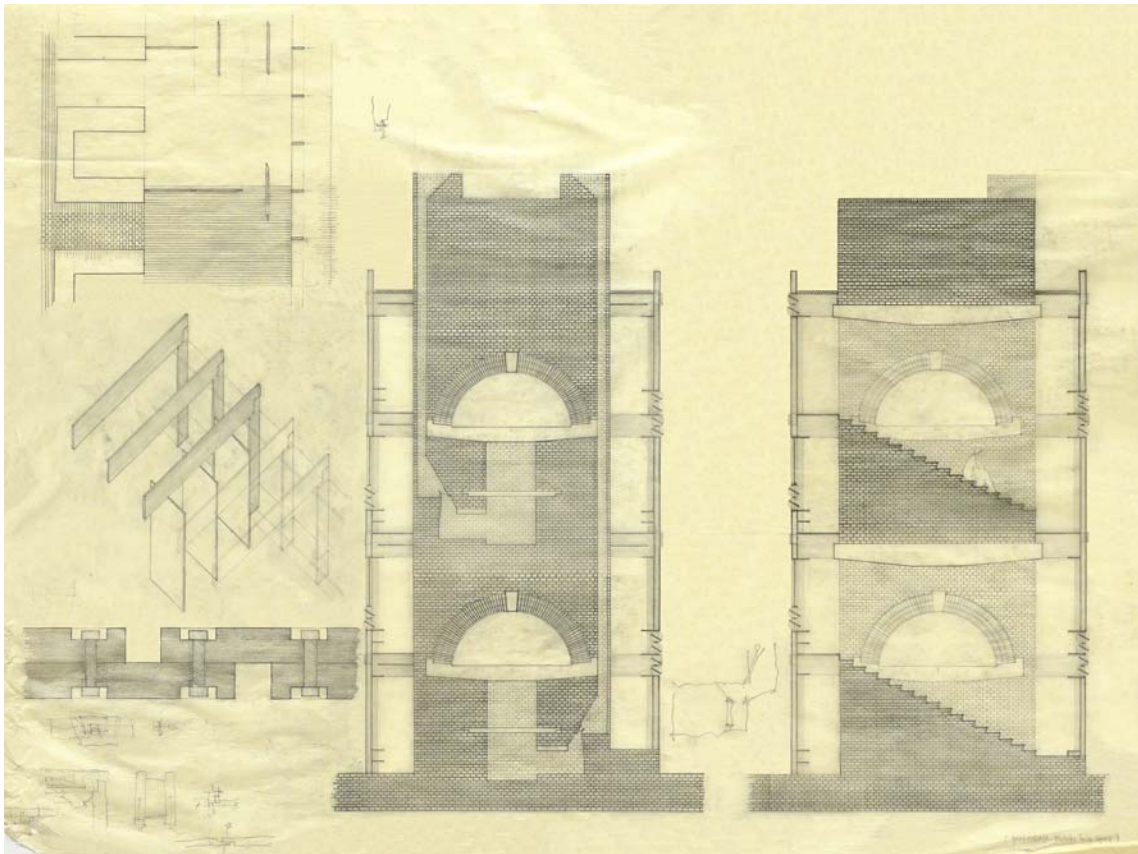
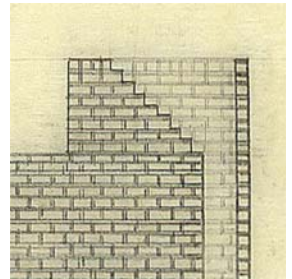
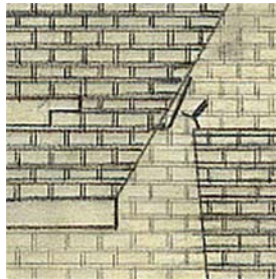
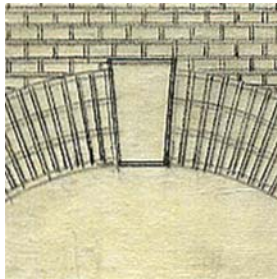
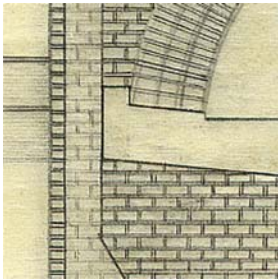
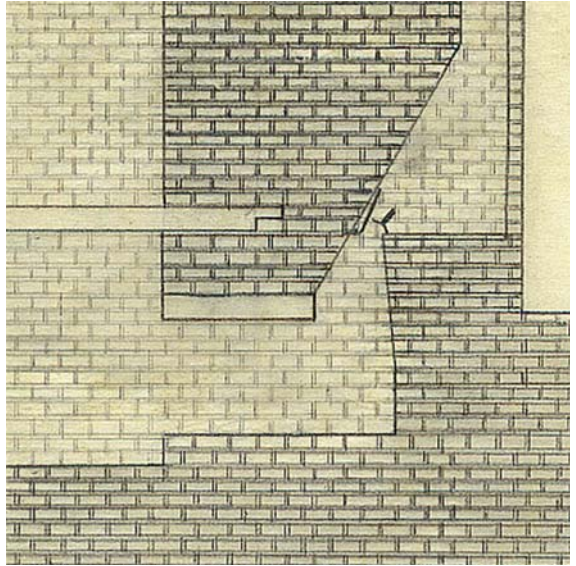
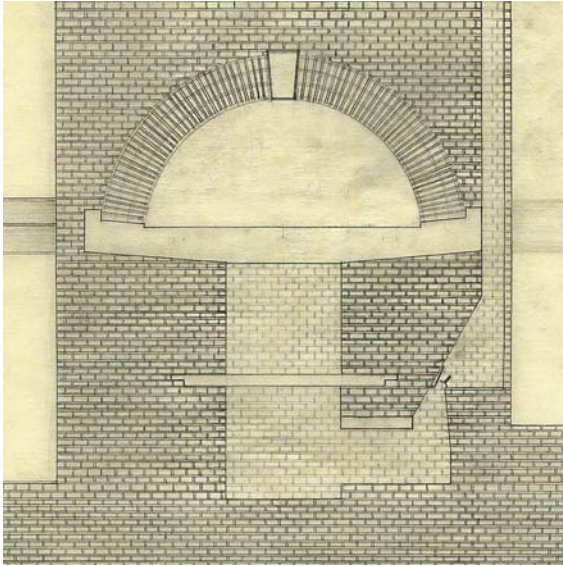
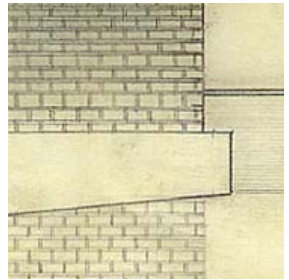
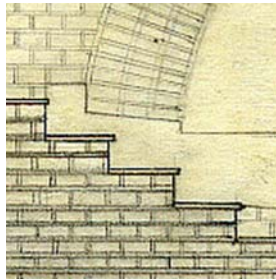
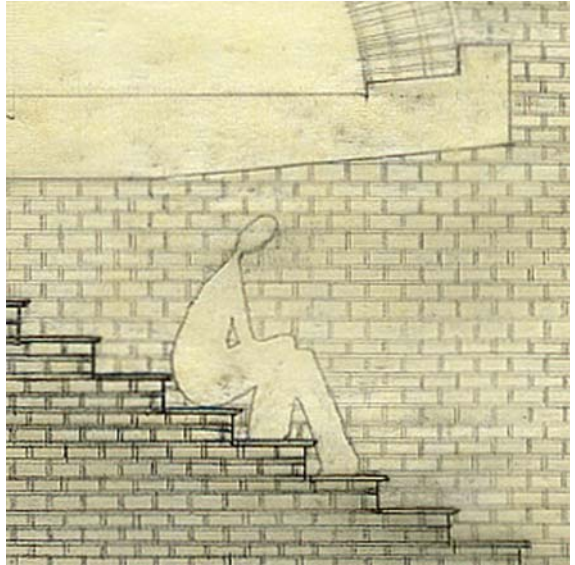
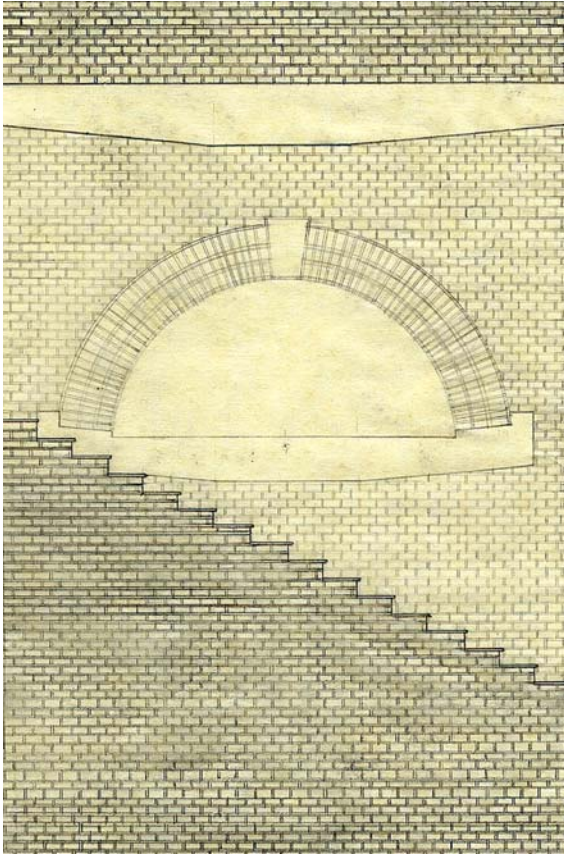


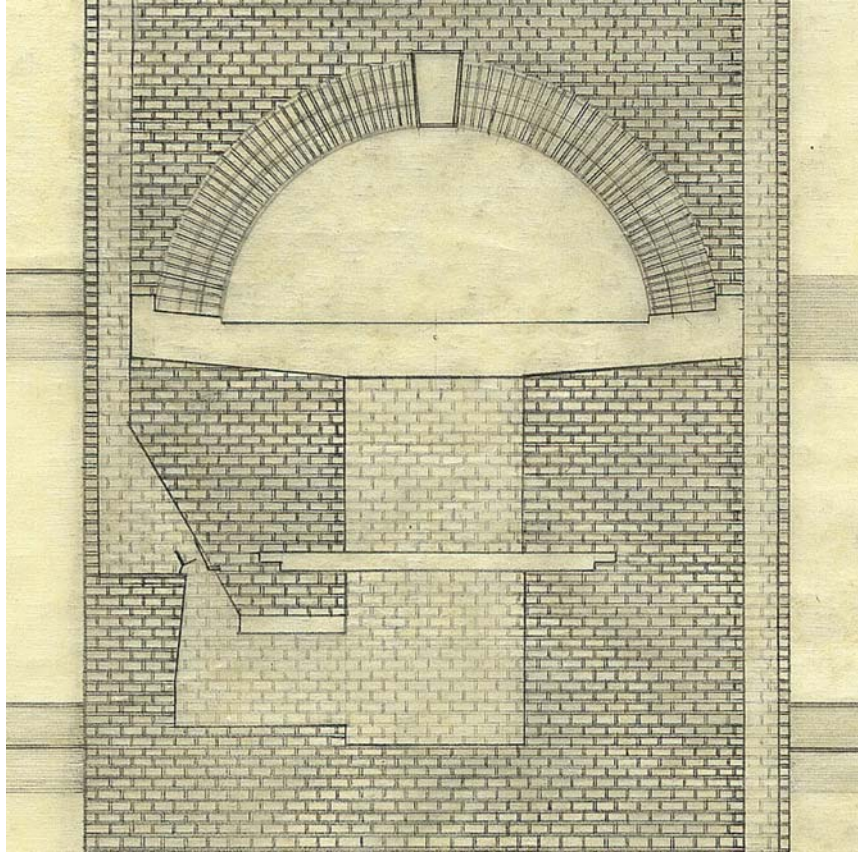
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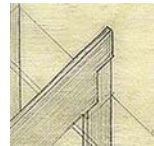
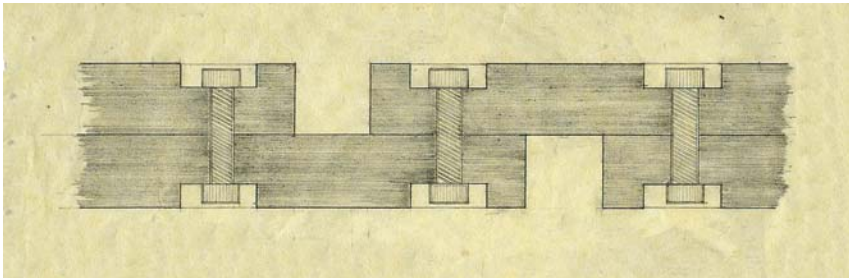
images 163, 164, 165, 166, 167, 168 (clockwise from top left)



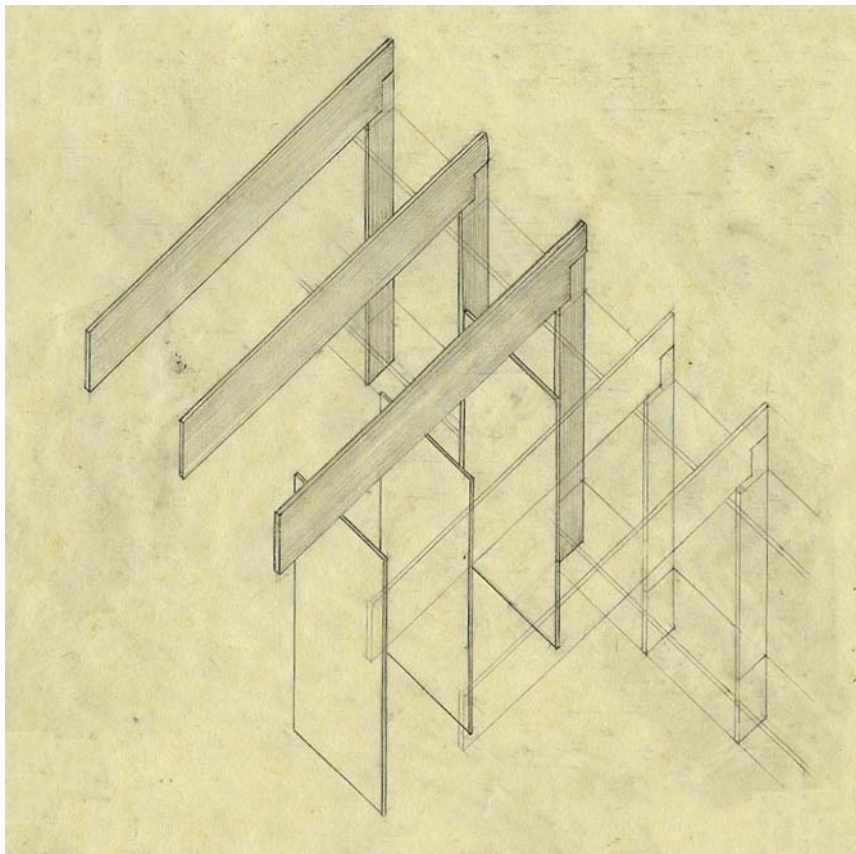
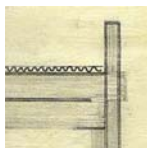
images 169, 170, 171, 172 (clockwise from top right)



114



images 174, 175 (from left to right)



BODY.

From the moment that the first concrete footing is poured, a building marks its place in the universe. The concrete footing sinks its roots deep into the earth below and supports a collage of materials which make up the building. As the building lives, it is exposed to all of nature's elements. In this way, a building is similar to man. Man is made up of a complex series of internal systems which must be constantly maintained. These systems must be protected from exposure to nature's elements and as the elements change, man must adapt accordingly. His survival depends on adaptability. This is also true for a building. The structure of a building is its skeleton. It provides the order for which the building itself is based. It is strong and rigid; it is the building's backbone. The building's organs surround the skeleton, centrally located but serving the entire body. From these organs stretch the building's veins (ducts, pipes, conduit), providing the building with vital air, water and electricity. Air is distributed through the building's ducts as blood flows through man's veins. If these systems failed, the building would not function: it would die. Thus, the protection of these systems is vital to the survival of a building. Because the building exists within the realities of the physical environment,

and is at the mercy of nature's elements, it must have a strong shell in which to protect itself. This shell serves as the building's skin. It is the first line of defense against nature's elements. It is battered by the wind, saturated by the rain, and burned by the sun. Open windows and closed shutters prove that it is able to adapt to best fit its current conditions, as does human skin. Windows are the eyes and ears of the building. When they are open, they welcome light, air and sound. Every honking horn heard within the building provides an awareness of the city beyond. A view of the city below acknowledges the building's physical surroundings. Shutters are the building's eyelids, closing to provide darkness, and opening to allow light. Whether the windows are closed for protection from these elements, or open to welcome them, they are able to adapt to best meet the building's needs. A building breathes as man breathes and must inhale fresh air. Thus, vents and louvers serve as the building's nose. Both man and his physical surroundings must abide by the order of the universe. A building adopts many of man's methods to endure its conditions. It lives and breathes. It has a skeleton and skin. It endures the elements. Most importantly, it marks its place within the universe.

***“I believe that ‘architectural materials’ are not limited to wood or concrete that have tangible forms, but go beyond to include light and wind - which appeal to the senses.”
Tadao Ando.***

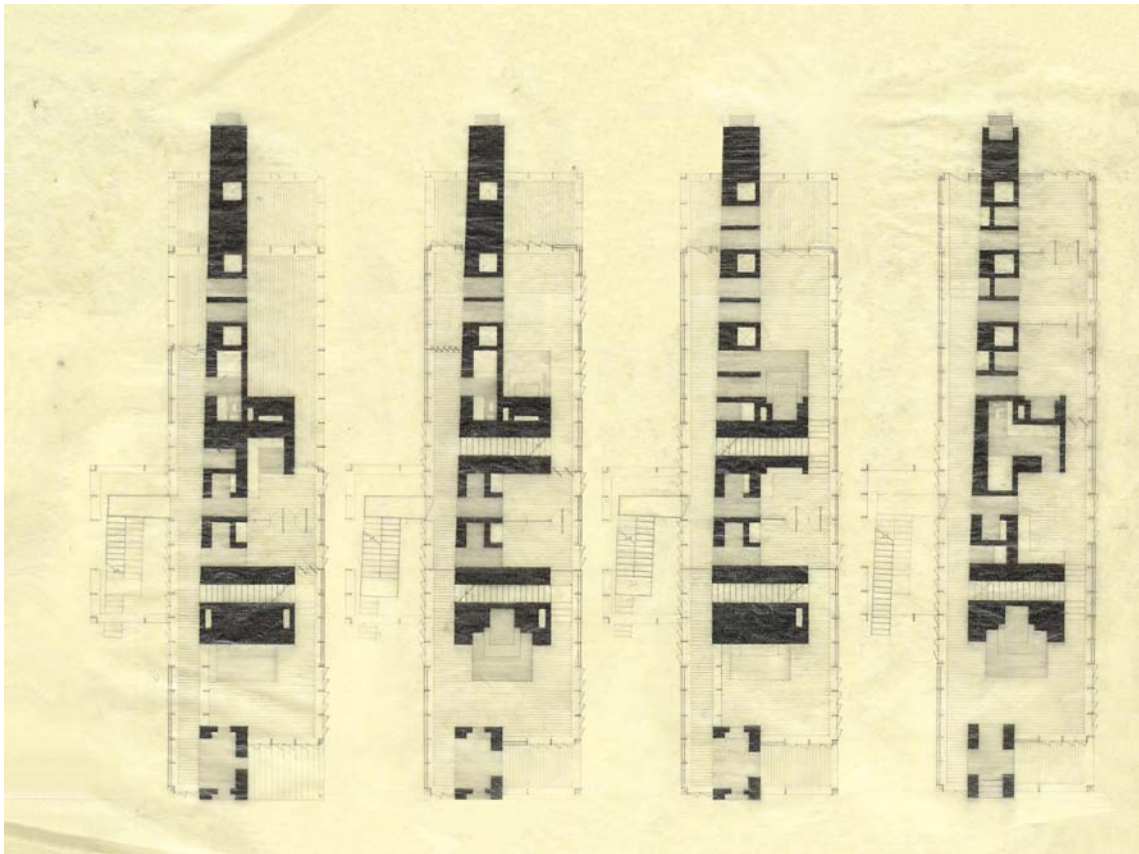
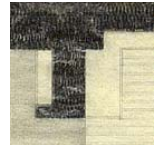
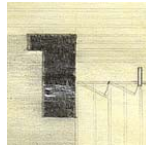
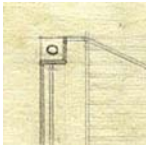
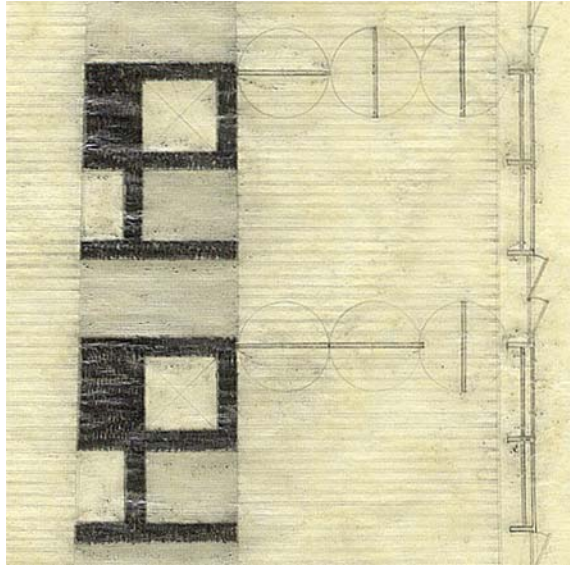
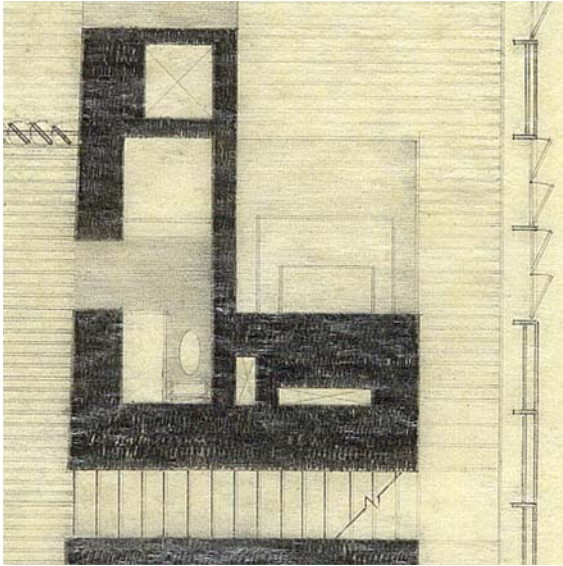
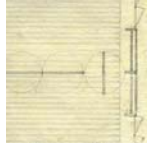
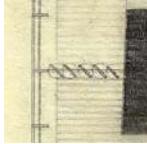
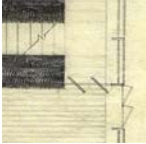


image 178





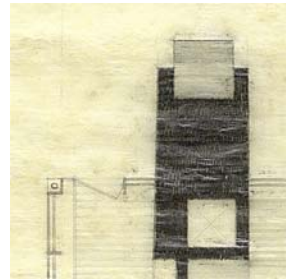
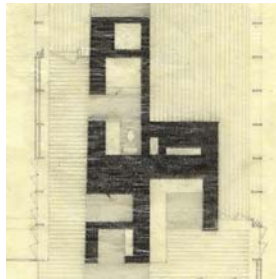
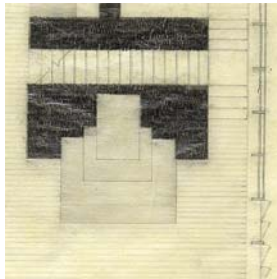
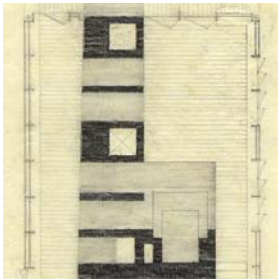
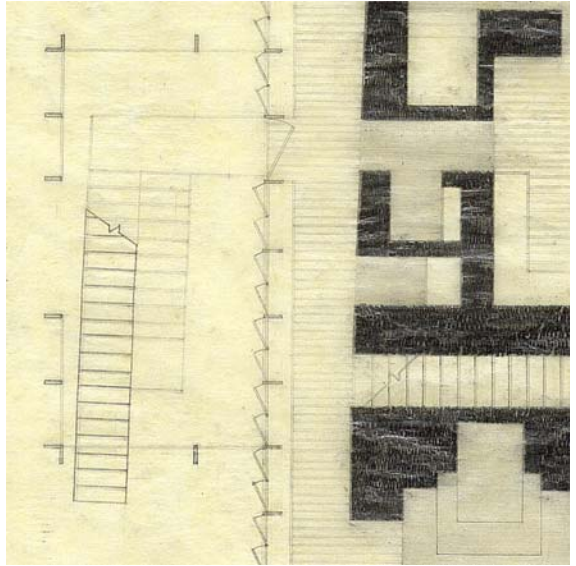
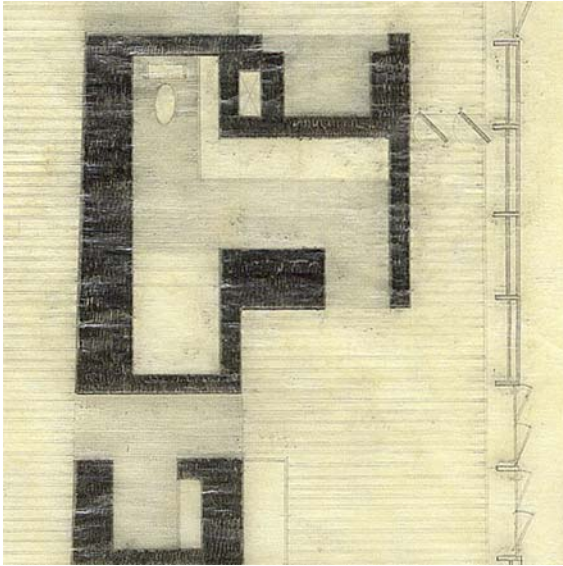


image 182 (left, from left to right), image 183, 184, 185, 186, 187, 188 (right, clockwise from top left)

ENCLOSURE.

The alley is a forgotten part of the city. It sits unnoticed, nestled tightly between two buildings, existing as a void within the density of the city block. Its weeds have grown from beyond the buildings, filling in the vacancies left by loosened bricks, creating an urban patchwork of surfaces. Jagged bricks, pointing their crumbled corners in the air, rise and fall to meet one another, creating a rich mosaic. This mosaic becomes the floor of the city, keeping an exact record of the city's life through every scratch. Each mark offers stories which time has forgotten. A rough strip of carpet composed of brick and rubble, weeds and sand, broken bottles and torn newspapers, hides between the tall buildings, absorbing their colors and distorting their forms in every forgotten puddle. A beautiful relationship exists between the walls and the floor, a smooth transition of materials which always offers a question. Do the walls rise from the strength of the floor, or does the floor only exist because of the presence of the walls? The walls depend on the floor, for they would not be walls if they could not enclose the space laid before them by the floor. Yet the same can be said about the floor, as its presence depends on the existence of the walls, for no open space can be created without boundaries. This dependence is what makes this relationship beautiful. The parts depend on one another to create a powerful whole. Together

a room is born, with walls rising to the sky, whose jagged edges create a perfect frame which allows light to radiate off of the rough surface below, illuminating every intimate detail. As a single line of light crashes against the brick walls, the space becomes magnificent. The light, existing in a constant state of motion, shines on the city's floor, giving it life. It creates a sharp boundary where darkness is broken, bringing life to everything in its path, celebrating the moment where it meets the earth. The alley is a room. It is a vault; tight and narrow, hidden and quiet. With the sky as its ceiling, it transforms into a glorious painting of light and motion. It is a void within the chaotic nature of the city; a moment of solitude and celebration, a place where people's eyes climb upward, called to this connection between sky and earth. The bright blue reflection of the sky sits in the pools of rain below. The pools provide a canvas for the clouds as they slowly pass through each puddle. Constantly in motion, the reflections disappear into the darkness of the bricks and rubble, only to reappear in the next pool, engrossed in their eternal progression. The alley comes to life through its hidden mysteries. It captures light and air, color and texture. It exists as a void which frames the sky while celebrating, by contrast, the density of the city. The alley is an enclosure which is born from a harmonious collision of man and nature.

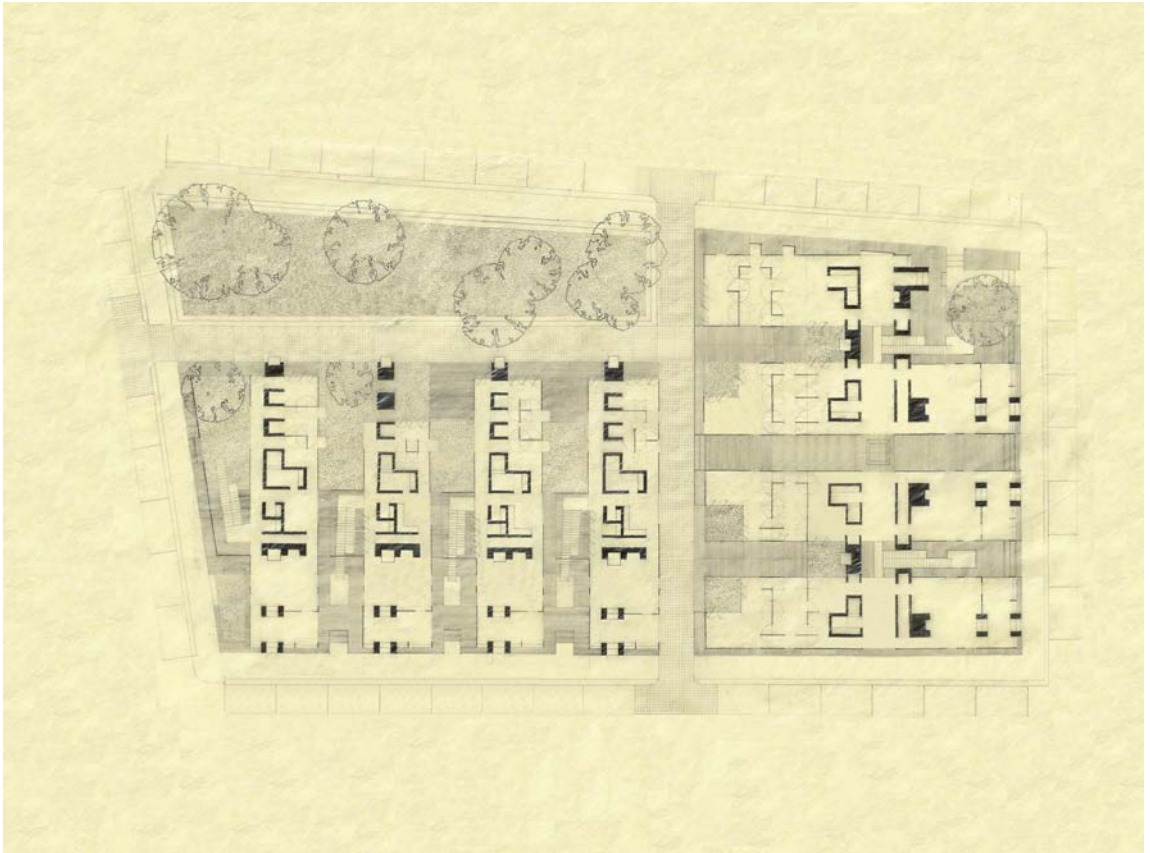
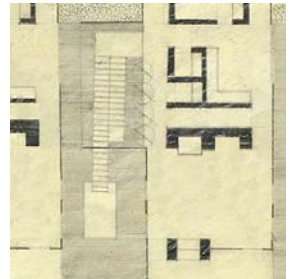
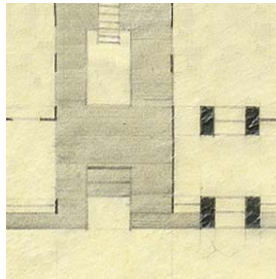
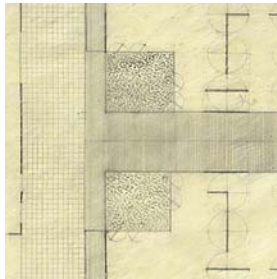
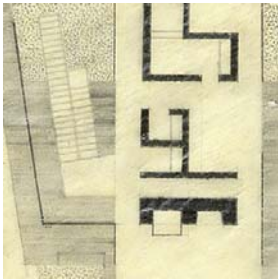
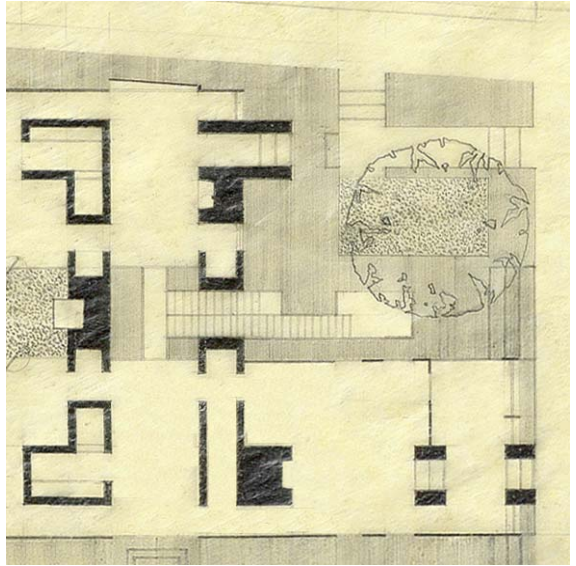
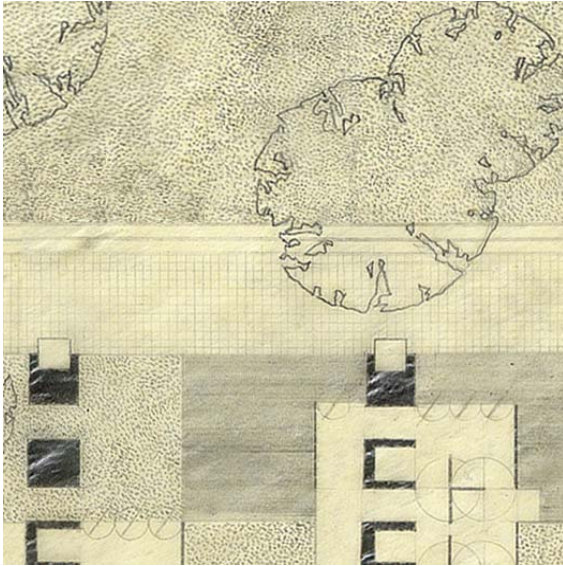
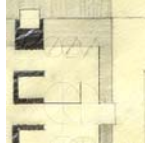
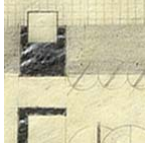
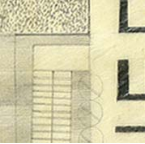


image 189



images 190, 191, 192, 193, 194, 195 (clockwise from top left)



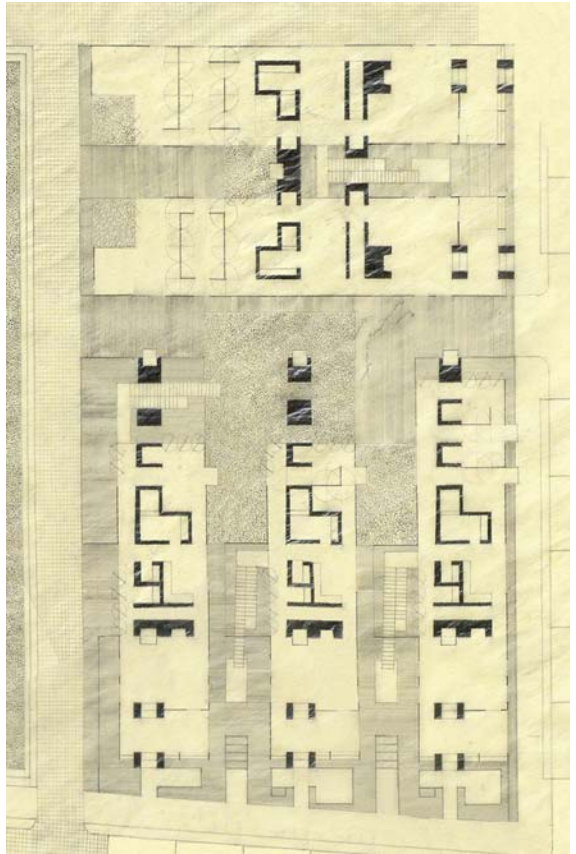
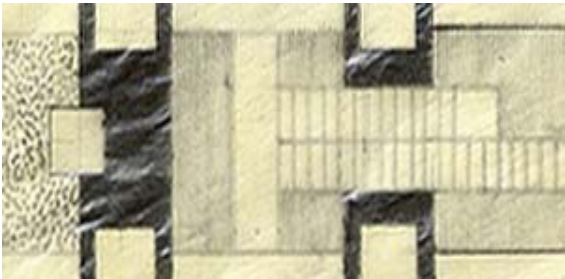
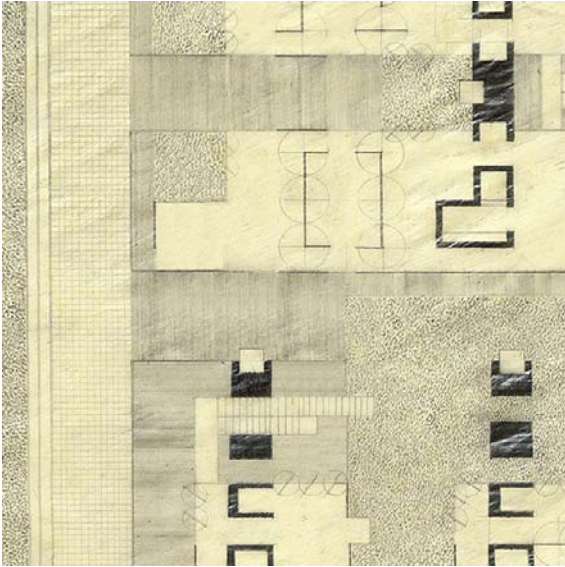


image 196 (left, from left to right), image 197, 198, 199 (right, clockwise from top left)

TRUTH.

Architecture must always be honest. All physical elements have qualities which define the nature of their existence. These characteristics are dictated by the natural order of the universe. The individual nature of a certain material must not be forgotten when thought of as part of a larger whole. When steel is connected to concrete, the nature of steel must be stand forward. It must not be hidden or presented in a false manner. If materials are forced to contradict their true meaning, then the individual strengths of an element are ignored and the overall meaning of the whole is compromised. Thus, the truth must be told at all times. A building must always proudly display its components. Through honest details, the strengths

of the individual components can be increased exponentially and bring forth the creation of the whole. Exposed elements tell the truth about a building's construction as the joint is the seed of the entire structure. When two materials are joined, their individuality is not lost but, instead, strengthened by their connections, and what is formed is much more powerful than they could ever exist alone. Thus, it is essential that the joint must be treated in an honest nature. Each element must be exposed and must reveal its individual characteristics. By doing so, the structure itself can speak truthfully of its parts. Through the integrity of the whole, the nature of the individual parts is celebrated by retaining its dignity.

“A building, but also part of a building, explains itself by showing how it works and what it’s for. We try to make each element clearly legible both independently and in its relation with the others and thus to make it not only part of a larger structure, but also a self-contained whole. Thus details can claim complete priority where it matters; in this respect there is not that much difference from the approach to the building in its entirety. The whole and the parts define each other mutually, and they require the same measure of attention....By showing how things work, and letting each element speak for itself as far as its function in the larger whole is concerned, the architecture of a building can intensify our awareness of the phenomena that make up our environment. If it is clear how a thing works, that is because it looks as if it can be taken apart....By giving independence to the component parts these do not only gain more identity thanks to their expression of their specific function within the whole, for in addition attention is drawn to the joins and encounters between the parts. A shift of emphasis occurs from the objects themselves to what connects them; to their interrelationships.” Herman Hertzberger.

130

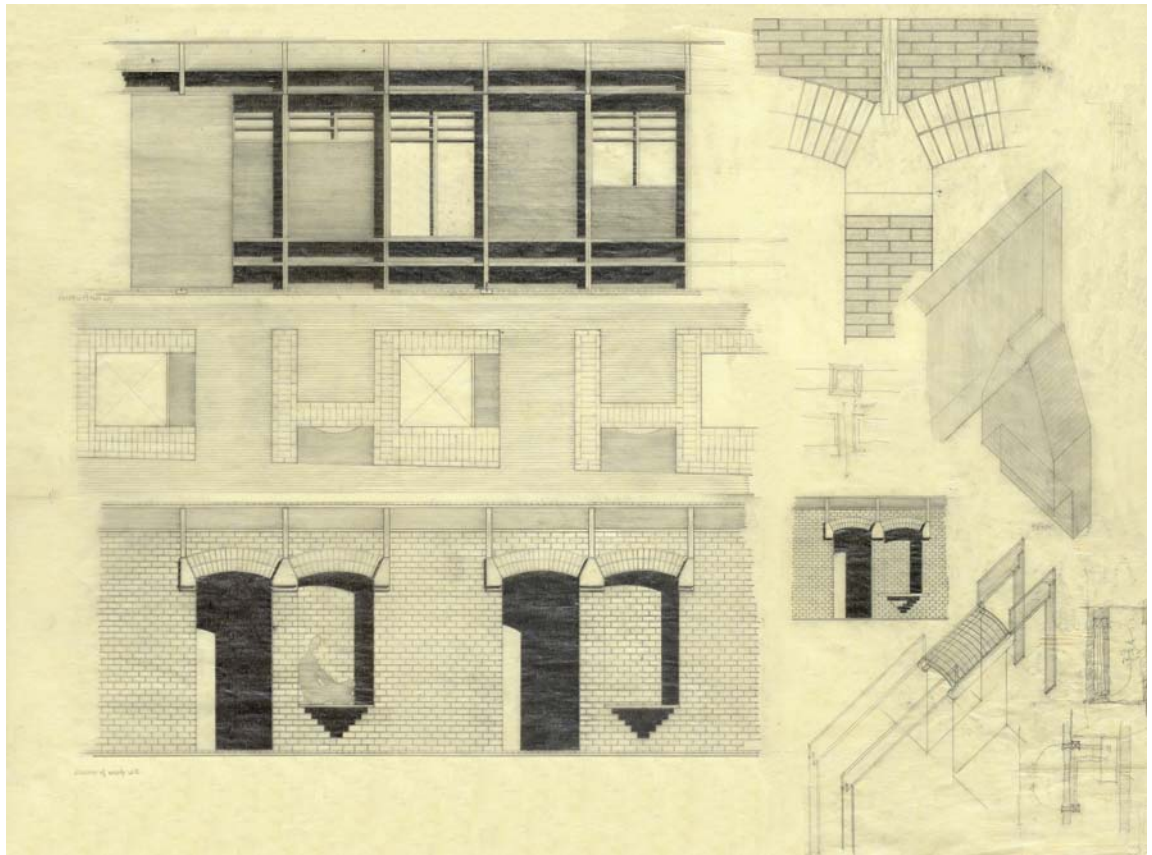
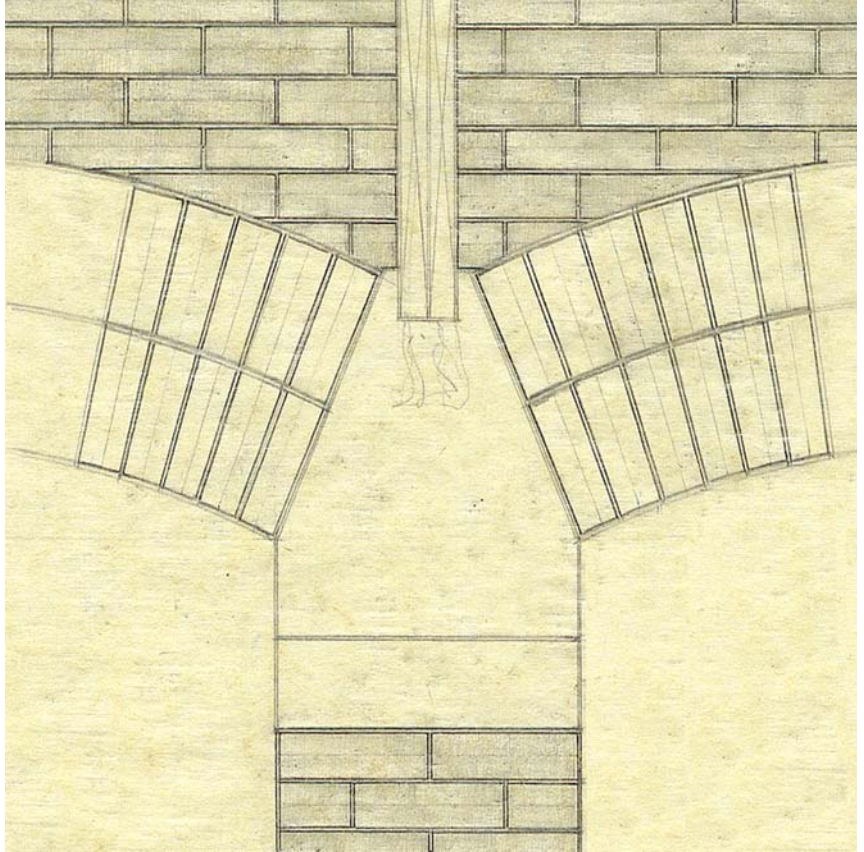
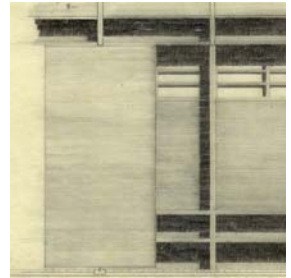
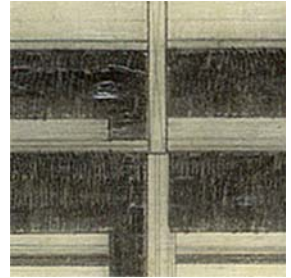
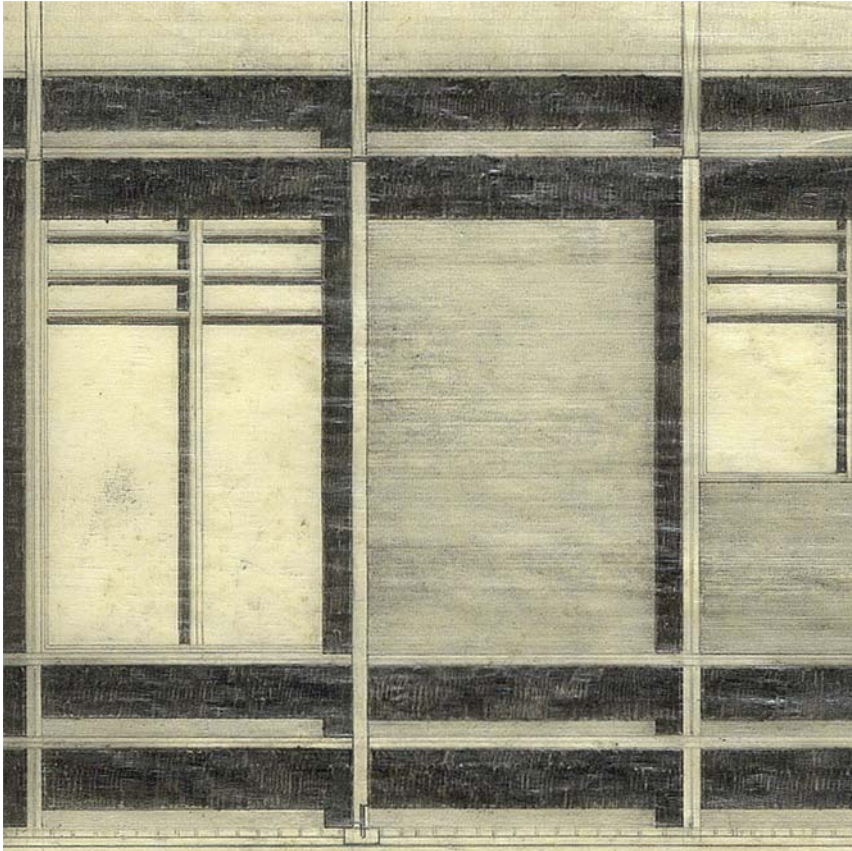


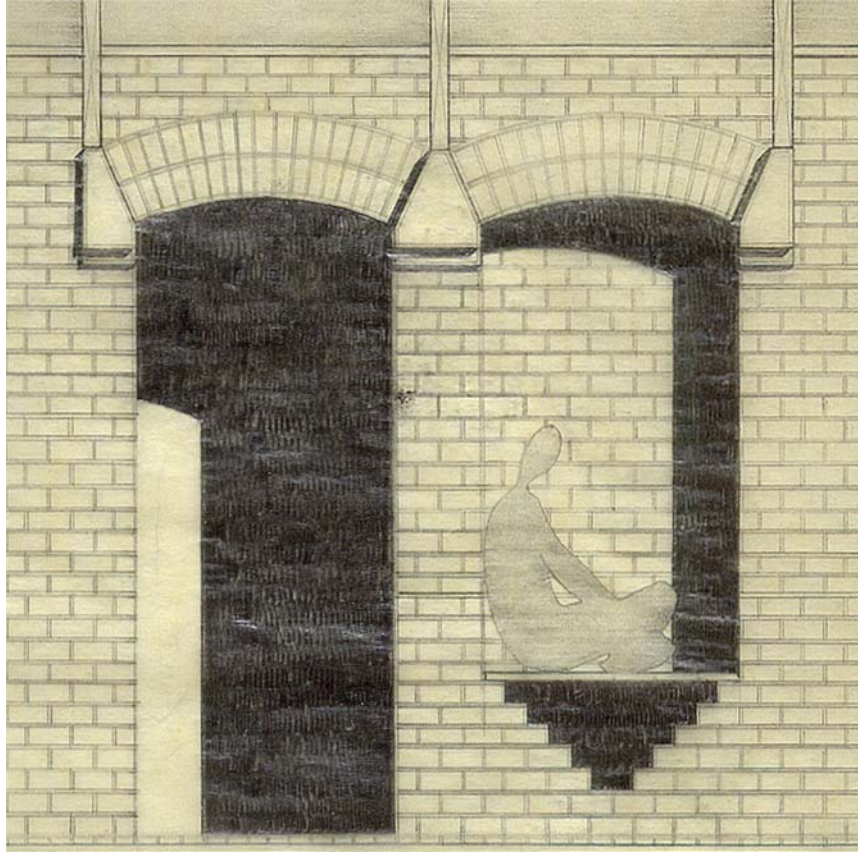
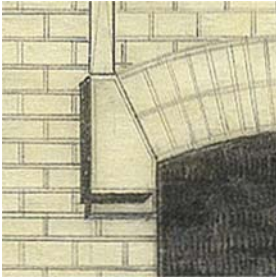
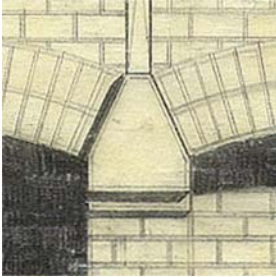
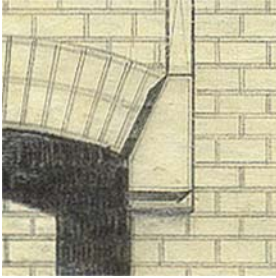
image 200





132

images 202, 203, 204, 205 (clockwise from top right)

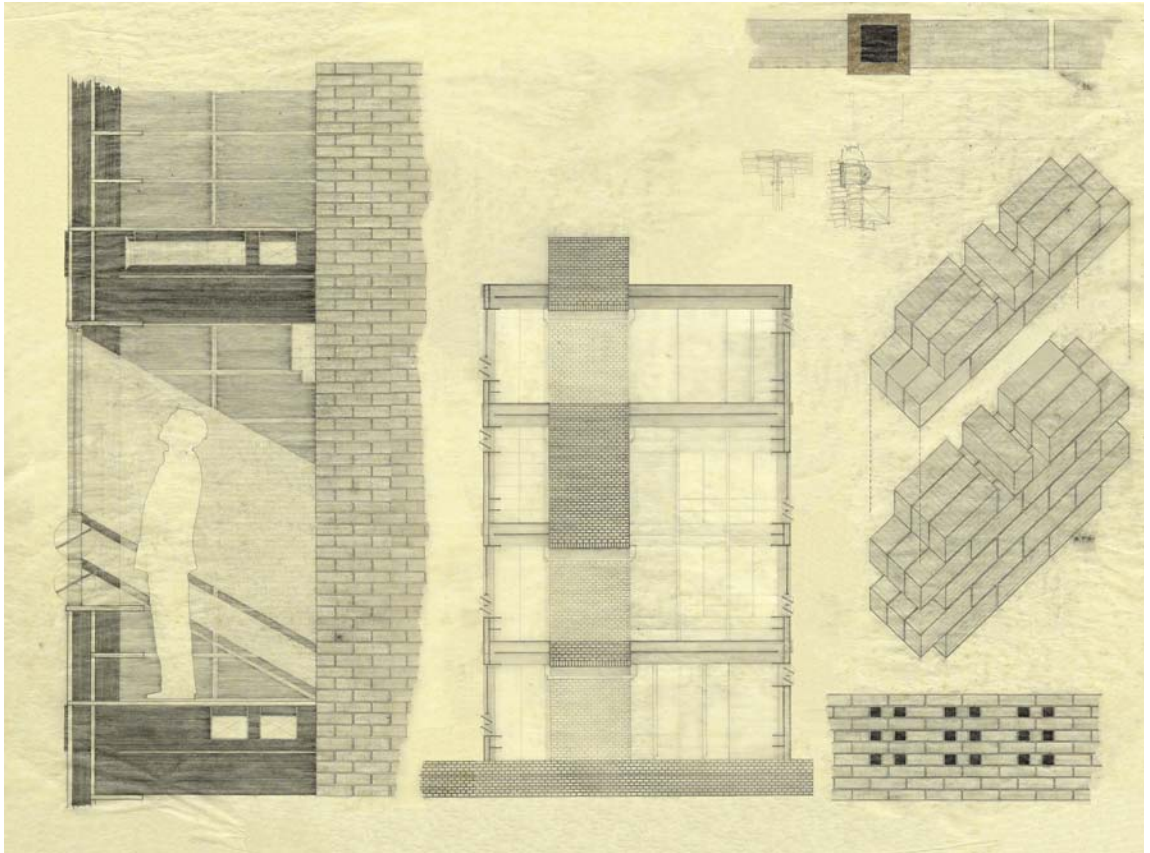


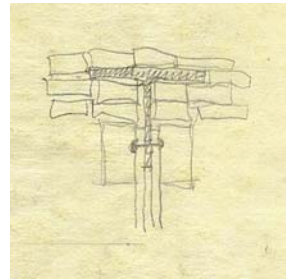
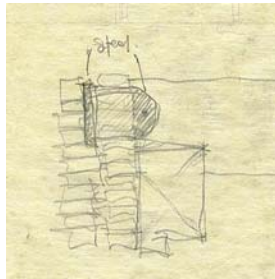
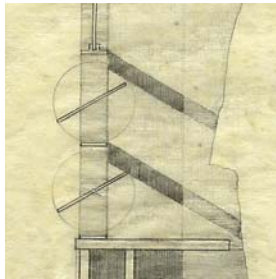
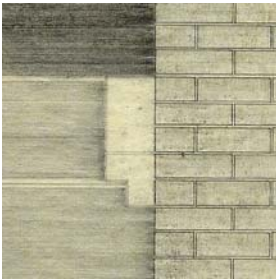
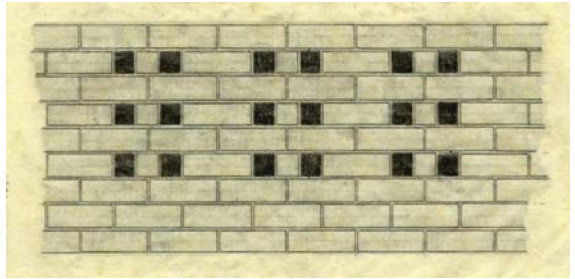
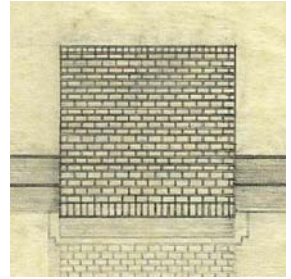
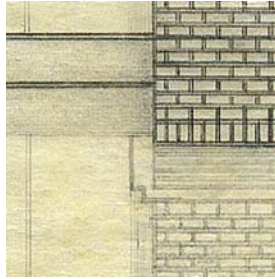
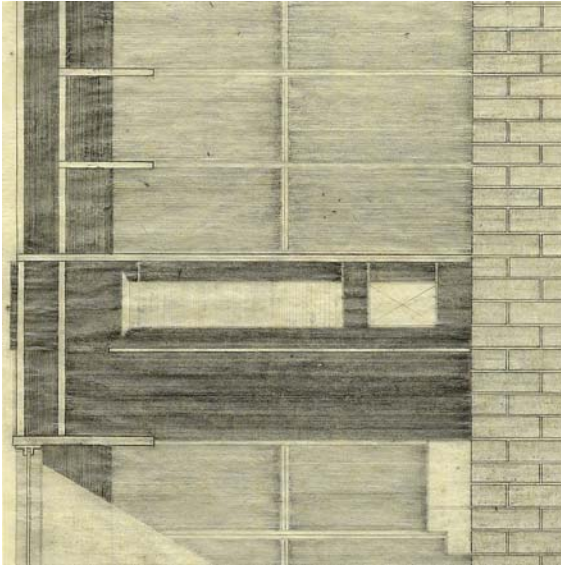
ABSTRACTION.

Drawings are inherently abstract, for they represent ideas which have yet to be realized. While their true nature lies within the fact that they are abstractions, they only begin to hint at the beauty of the idea to be realized (the building to be born). Thus, drawing is only the conception of architecture, for the building is not born until its first footprints are marked in the earth. Carefully drawn lines speak of the nature of a building's construction. Manipulated tones of graphite hint at the texture of its materials. However, the beauty of its structure cannot be fully realized until the idea adopts a physical presence. As a building marks its place in the universe, its life begins. From the first drop of rain to land on a copper roof, to the first crack in a concrete foundation, a building begins to gather evidence of its life. As it accepts life and interacts

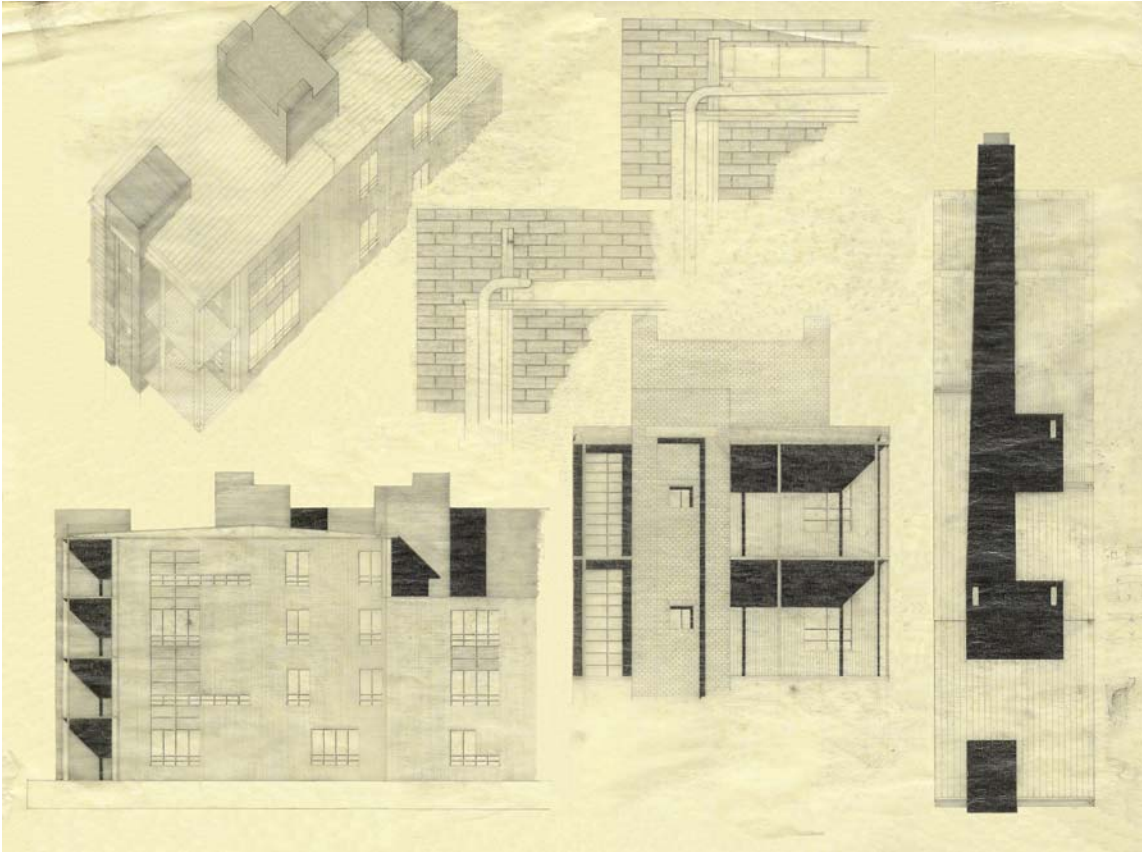
with nature, its hair slowly goes grey and wrinkles appear on its skin. Cracking wood and crumbling brick speak more of the true meaning of a building than do lines drawn to perfection on the page. The building is reality, while the drawing is just a suggestion of that reality. It is the physical presence of the building which connects it to the natural order of the universe. Scratches on its surface are like the lines on an old man's face: they prove the existence of life while hinting at the past. They offer a unique story and provide evidence of life lived. The patina of age speaks of a building's placement in the eternal continuum of time. It is this connection to the universal which lends a building its true meaning. As time marches on, bricks crumble and metal rusts, the building lives, silent, strong, and dignified.

“The city does not consist of this, but of relationships between the measurements of its space and the events of its past: the height of a lamppost and the distance from the ground of a hanged usurper’s swaying feet; the line strung from the lamppost to the railing opposite and the festoons that decorate the course of the queen’s nuptial procession; the height of that railing and the leap of the adulterer who climbed over it at dawn; the tilt of a guttering and a cat’s progress along it as he slips into the same window; the firing range of a gunboat which has suddenly appeared beyond the cape and the bomb that destroys the guttering....As this wave from memories flows in, the city soaks it up like a sponge and expands. A description of Zaira as it is today should contain all of Zaira’s past, but contains it like the lines of a hand, written in the corners of the streets, the gratings of the windows, the banisters of the steps, the antennae of the lightning rods, the poles of the flags, every segment marked in turn with scratches, indentations, scrolls.” Italo Calvino.



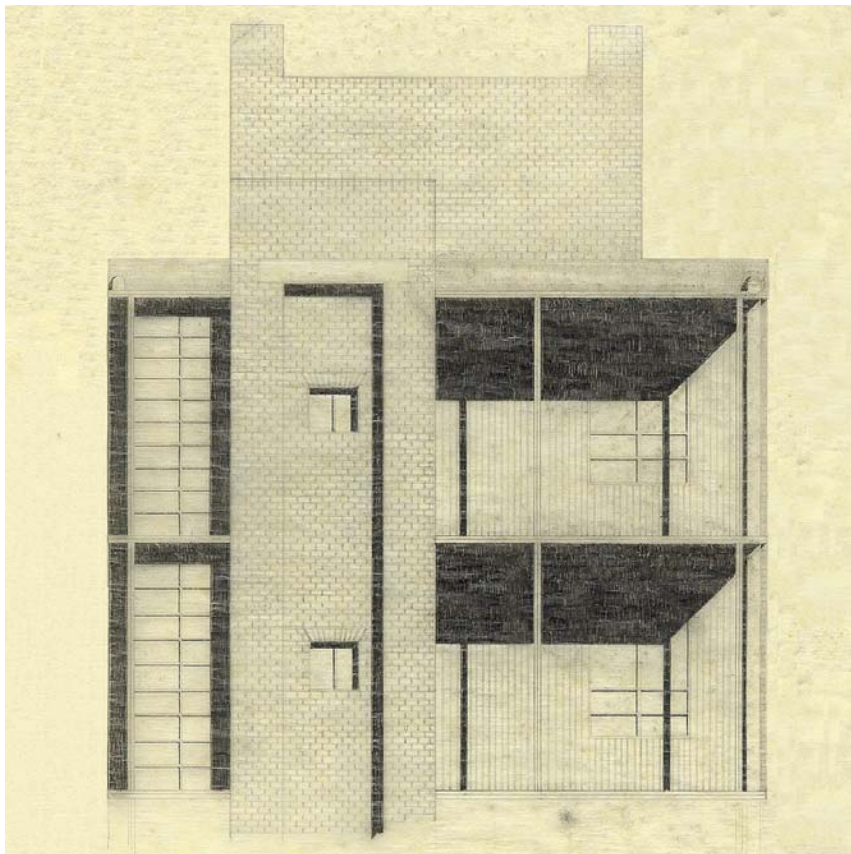


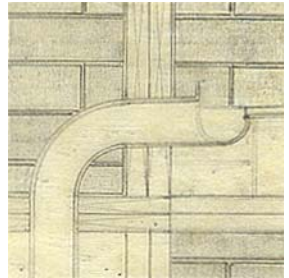
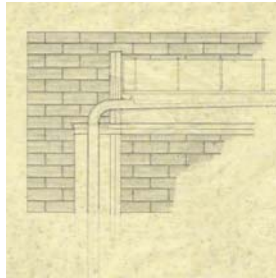
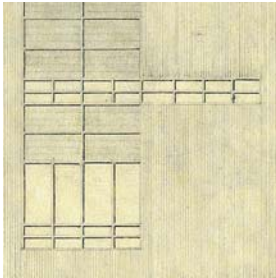
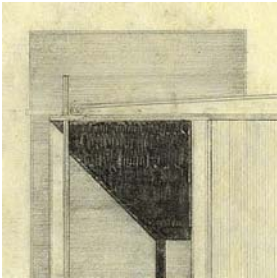
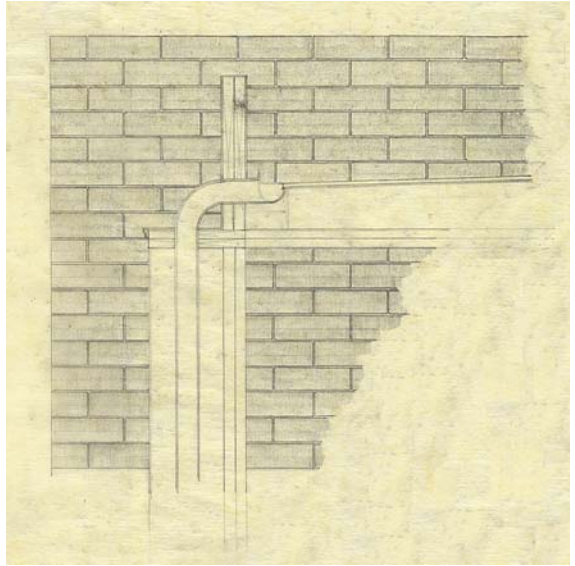
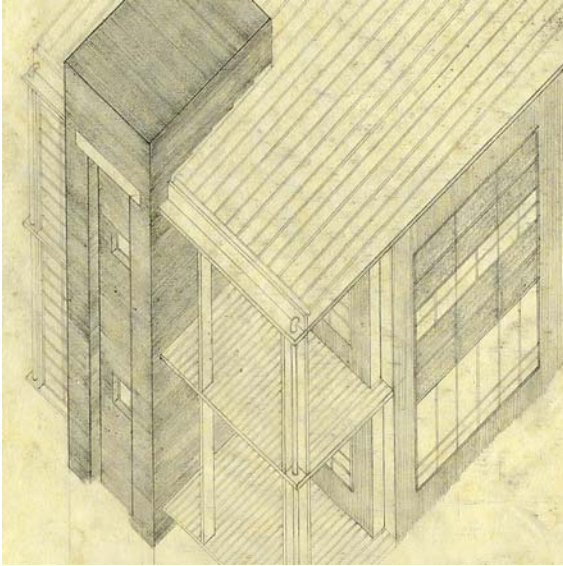
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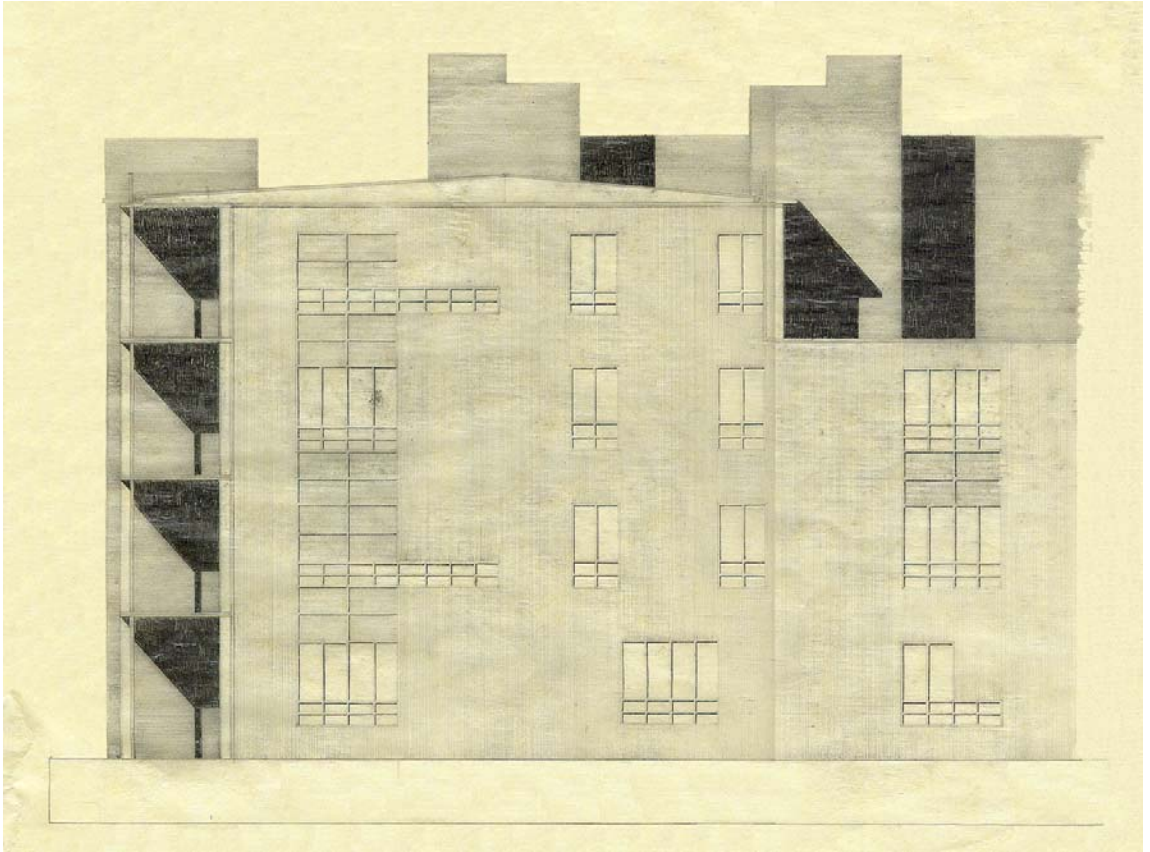


138

image 219







141

CONCLUSION.

Architecture is eternally connected to the realm of the universe. It exists as a physical reality which marks its position within the infinite continuum of time and space. The study of architecture is an ongoing search for the true nature of this connection.

The elements of architecture speak of this relationship. From the laying of the first brick, to the placement of the corner stone, the building begins to mark its position within the universe. It digs its roots deep into the earth and places itself at the mercy of nature. As the first drop of rain splashes against its copper roof, its life begins. With age, the building's elements begin to gather evidence of this life. Every scratch on the surface of the bricks tells of the true meaning of the building. The building's patina verifies its existence within the eternal continuum of time while speaking of its past. The reality of its physical presence confirms its placement within the order of the universe. An ancient brick wall, which once stood tall and proud, is crumbling under duress from the constant pressure of nature's elements. It exists as a shadow of its former self, abandoned by its once surrounding structure, its face weathered and worn. Yet it exists with dignity, for it still marks its position within the universe. It still casts a shadow from the sun's light; it still lays quietly beneath the snow; it still stands bravely against the wind. Crumbling bricks and fallen timbers bow reverently to the order of nature, speaking of a strong connection between architecture and the universe.

The interaction between man and the physical environment also defines this connection between architecture and the universe. Architecture exists as a backdrop for the human condition. It is a stage on which man performs the drama of life. Thus, a constant dialogue exists between the physical environment and those who interact with it. This dialogue offers man the opportunity to understand his relationship with his surroundings on many scales (individual, community, universe). The role of architectural elements is to act as a conduit through which these discoveries can be made. The configuration of architectural elements defines space while setting the limits of this interaction. These elements (step, wall, beam) and their characteristics (material, configuration, texture, form) create a specific relationship which offers an awareness between the universe and the individual. However, these elements are only given life through their interaction with man. It is man's interaction which strengthens this connection between architecture and the universe by offering experience. By existing as the stage on which events unfold, architecture offers man the possibility of experience. This experience transforms mere spaces into meaningful places. This transformation allows architecture to mark its position within the universe.

Physical presence combined with human interaction defines the nature of the connection between architecture and the universe.

APPENDIX.

MODEL

(model constructed of poplar, bird's eye plywood, and bass wood)

- i. **model photograph**
(highlighting wall / hearth / arches / openings)
- ii. **model photograph**
(highlighting wall / stairs / arch)
- iii. **model photograph**
(highlighting hearth / arches / exterior wall system)
- iv. **model photograph**
(highlighting hearth / arches / exterior wall system)
- v. **model photograph**
(highlighting wall / hearth / arches / openings)
- vi. **model photograph**
(highlighting roof / beams)
- vii. **model photograph**
(highlighting wall / stairs / arch)
- viii. **model photograph**
(highlighting hearth / arch / exterior wall system)
- ix. **model photograph**
(highlighting hearth / arch)
- x. **model photograph**
(highlighting entire unit)
- xi. **model photograph**
(highlighting exterior terraces)
- xii. **model photograph**
(highlighting arch / exterior wall system)
- xiii. **model photograph**
(highlighting exterior facade)

SITE

(all images are reproductions unless otherwise noted)

- 001 **map of Boston**
- 002 **aerial photograph of site**
- 003 **site diagram**
- 004 **location map of site**
- 005 **site photograph**
(highlighting neighboring basilica / elementary school)
- 006 **site photograph**
(highlighting neighboring basilica / elementary school)
- 007 **site photograph**
(highlighting neighboring elementary school)
- 008 **site photograph**
(highlighting existing housing units)
- 009 **site photograph**
(highlighting existing housing units)
- 010 **site photograph**
(highlighting existing housing units)
- 011 **historical map**
(circa mid-nineteenth century)
- 012 **historical map**
(circa late-nineteenth century)
- 013 **property line diagram**
(graphite on transparent paper)
- 014 **figure ground drawing**
(graphite on transparent paper)
- 015 **site diagram**
(graphite on transparent paper)
- 016 **site diagram**
(graphite on transparent paper)
- 017 **figure ground drawing**
(graphite on transparent paper)

APPENDIX. (continued)

PROCESS

| | | | |
|-----|---|-----|---|
| | | 042 | building section (highlighting hearth) |
| | (all images graphite on transparent paper unless otherwise noted) | 043 | section detail |
| | | 044 | section detail |
| 018 | drawing 1 of 19 | 045 | section detail |
| 019 | light diagram | 046 | section detail |
| 020 | light diagram | 047 | axonometric drawing (highlighting hearth / window) |
| 021 | light diagram | | |
| 022 | axonometric images | 048 | axonometric detail |
| 023 | axonometric drawing (highlighting entrance / stairs) | 049 | axonometric detail |
| 024 | axonometric detail | 050 | axonometric detail |
| 025 | axonometric detail | 051 | side elevation |
| 026 | axonometric detail | 052 | elevation images |
| | | 053 | front elevation |
| | | | |
| 027 | drawing 2 of 19 | 054 | drawing 5 of 19 |
| 028 | plan detail | 055 | light diagram |
| 029 | plan detail | 056 | light diagram |
| 030 | plan detail | 057 | light diagram |
| 031 | axonometric detail | 058 | section images |
| 032 | axonometric detail | 059 | building section |
| 033 | axonometric detail | | |
| 034 | axonometric images | 060 | drawing 6 of 19 |
| 035 | axonometric images | 061 | axonometric images |
| 036 | axonometric drawing (highlighting porch / stairs) | 062 | building section (highlighting public space / hearth) |
| | | 063 | section detail |
| 037 | drawing 3 of 19 | 064 | section detail |
| 038 | plan diagram (differentiating between public / private space) | 065 | section detail |
| | | 066 | section detail |
| 039 | plan diagram (highlighting public space / hearth) | 067 | plan (highlighting public space / hearth) |
| 040 | drawing 4 of 19 | 068 | plan detail |
| 041 | plan diagram (highlighting public space / hearth) | 069 | plan detail |
| | | 070 | plan detail |

APPENDIX. (continued)

| | | | |
|-----|--|-----|--|
| 071 | light diagram | 093 | axonometric detail |
| 072 | axonometric drawing (highlighting public space / hearth / porch) | | (highlighting landing of exterior stair) |
| 073 | axonometric detail | 094 | plan detail |
| 074 | axonometric detail | | (highlighting rotating window) |
| 075 | axonometric detail | 095 | axonometric drawing |
| | | | (highlighting exterior stair) |
| 076 | drawing 7 of 19 | 096 | elevation detail |
| 077 | spatial diagram | 097 | light diagram |
| 078 | side elevation of wall | | (highlighting rotating windows) |
| 079 | plan diagram of wall | 098 | plan |
| 080 | plan diagram of wall | | (highlighting exterior stair) |
| 081 | front / rear elevation of wall | 099 | plan diagram of wall |
| 082 | spatial diagram | 100 | elevation detail |
| | | 101 | elevation detail |
| 083 | drawing 8 of 19 | 102 | side elevation |
| 084 | plan images (highlighting transition between partitions / wall) | | (highlighting exterior stair) |
| 085 | plan detail (highlighting wall / deck / patio) | 103 | drawing 10 of 19 |
| 086 | plan detail (highlighting wall / individual space) | 104 | light diagram |
| 087 | plan detail (highlighting public space / wall / stair) | 105 | section detail |
| 088 | plan detail (highlighting public space / hearth / stair) | 106 | section detail |
| 089 | plan detail (highlighting public space / wall / stair) | 107 | axonometric detail |
| 090 | plan detail (highlighting individual space / wall) | 108 | (highlighting stair / wall / entrance) |
| | | 109 | axonometric detail |
| 091 | drawing 9 of 19 | | (highlighting facade / windows) |
| 092 | axonometric detail (highlighting base of exterior stair) | 110 | axonometric images |
| | | 111 | section images |
| | | 112 | axonometric drawing |
| | | 113 | (highlighting public space / entrance / facade) |
| | | 114 | drawing 11 of 19 |
| | | | axonometric detail |
| | | | (highlighting transition between partition / wall) |
| | | | axonometric detail |
| | | | (highlighting rotating windows) |

APPENDIX. (continued)

| | | | |
|-----|---|-----|--|
| 115 | axonometric detail (highlighting porch) | 137 | axonometric detail (highlighting window panels) |
| 116 | axonometric detail (highlighting public space / hearth / rotating panels) | 138 | light diagram |
| 117 | axonometric detail | 139 | plan detail |
| 118 | axonometric detail | 140 | section detail |
| 119 | section diagram (highlighting the division of units) | 141 | drawing 13 of 19 |
| 120 | axonometric detail (highlighting wall of rotating panels) | 142 | axonometric detail (highlighting exterior wall system) |
| 121 | axonometric detail (highlighting transition between partition / wall) | 143 | axonometric detail (highlighting hearth) |
| 122 | elevation images | 144 | axonometric detail (highlighting wall / exterior wall system) |
| 123 | front elevation (highlighting entrance / porch) | 145 | axonometric drawing (highlighting hearth / exterior wall system) |
| 124 | drawing 12 of 19 | 146 | elevation detail |
| 125 | rear elevation detail | 147 | elevation detail |
| 126 | rear elevation | 148 | elevation detail |
| 127 | elevation detail | 149 | elevation of hearth |
| 128 | elevation detail | 150 | section / elevation (highlighting hearth / exterior wall system) |
| 129 | elevation detail | 151 | elevation of hearth |
| 130 | elevation detail | 152 | elevation detail |
| 131 | construction detail (highlighting connection between wall / window) | 153 | elevation detail |
| 132 | axonometric drawing (highlighting base of wall) | 154 | section detail |
| 133 | axonometric drawing (highlighting wall / stair / rear facade) | 155 | section detail |
| 134 | axonometric detail (highlighting base of wall) | 156 | section detail |
| 135 | axonometric detail (highlighting exterior stair) | 157 | section / elevation (highlighting hearth / stair / exterior wall system) |
| 136 | axonometric detail (highlighting rotating window) | 158 | elevation (highlighting exterior wall system / window) |
| | | 159 | elevation (highlighting rotating partition panels) |
| | | 160 | axonometric / plan images |
| | | 161 | light diagram |

APPENDIX. (continued)

| | | | |
|-----|--|-----|--|
| 162 | drawing 14 of 19 | 187 | plan detail |
| 163 | section detail (highlighting hearth / fireplace) | 188 | plan detail |
| 164 | section detail | 189 | drawing 16 of 19 |
| 165 | section detail | 190 | plan detail (highlighting exterior public space) |
| 166 | section detail | 191 | plan detail (highlighting exterior public space) |
| 167 | section detail | 192 | plan detail |
| 168 | section detail | 193 | plan detail |
| 169 | section detail | 194 | plan detail |
| 170 | section detail | 195 | plan detail |
| 171 | section detail | 196 | plan images |
| 172 | section detail (highlighting hearth / stair) | 197 | plan detail (highlighting exterior public space) |
| 173 | section detail (highlighting hearth / fireplace / arch) | 198 | plan detail (highlighting layout of units) |
| 174 | construction detail (highlighting connections at exterior wall system) | 199 | plan detail (highlighting wall / exterior stair) |
| 175 | axonometric detail | 200 | drawing 17 of 19 |
| 176 | section images | 201 | elevation detail (highlighting connection between concrete shelf / beam) |
| 177 | axonometric drawing (highlighting rotating panel system) | 202 | elevation detail (highlighting rotating panel system) |
| 178 | drawing 15 of 19 | 203 | elevation detail (highlighting exterior wall system) |
| 179 | plan images | 204 | elevation detail (highlighting rotating panel system) |
| 180 | plan detail (highlighting wall / public space) | 205 | elevation detail (highlighting exterior wall system) |
| 181 | plan detail (highlighting wall / individual space) | 206 | elevation detail |
| 182 | plan images | 207 | elevation detail |
| 183 | plan detail | 208 | elevation detail |
| 184 | plan detail (highlighting exterior wall system / exterior stair) | 209 | elevation detail |
| 185 | plan detail | | |
| 186 | plan detail | | |

APPENDIX. (continued)

| | |
|-----|--|
| 210 | drawing 18 of 19 |
| 211 | sketch (highlighting connection between concrete shelf / beam) |
| 212 | sketch (highlighting connection between concrete shelf / beam) |
| 213 | section detail (highlighting exterior window system) |
| 214 | section detail |
| 215 | section detail |
| 216 | section detail |
| 217 | section detail |
| 218 | elevation detail (highlighting interior venting system) |
| 219 | drawing 19 of 19 |
| 220 | axonometric / elevation images |
| 221 | front elevation |
| 222 | axonometric drawing (highlighting wall / porch / facade) |
| 223 | construction detail (highlighting drainage system) |
| 224 | construction detail (highlighting drainage system) |
| 225 | construction detail (highlighting drainage system) |
| 226 | elevation detail |
| 227 | elevation detail |
| 228 | side elevation |

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VITA.

John Austin Sullivan

Born on October 14, 1975 in Boston, Massachusetts.

Received both Bachelor of Architecture and Master of Architecture degrees from the Virginia Polytechnic Institute and State University in 1998 and 2004 respectively.

Studied abroad in 1996 as part of the European Study Abroad Program. Travels included Ireland, England, France, Switzerland, Italy and Spain.

Studied at the Washington-Alexandria Architecture Consortium from 1997 to 1999. Served as a Graduate Teaching Assistant in 1999.

Currently practices for an architecture firm in Boston, Massachusetts.