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Rajeev Thakker

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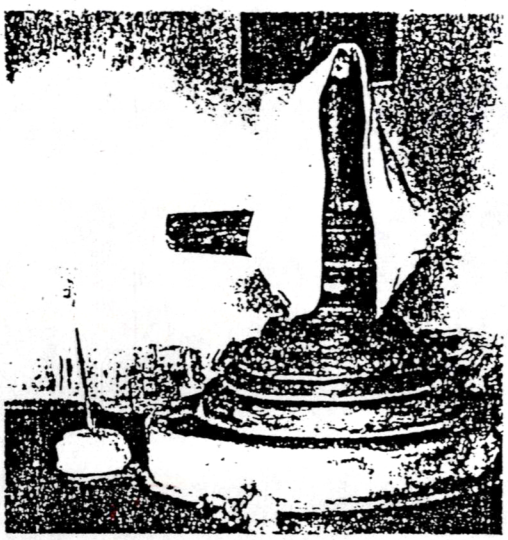

Thesis Preparatory Booklet

Rajeev Thakker

December 10,1993

Advisor:Christopher Gray

Committee members:

Tom Davis

Susan Henderson

[1] Soundara Rajan say's of Indian religious architecture, "Its objective was a quest after a rhythmic model which can be expanded and contracted, abstracted and concretised, articulated and sublimated...the definition of the infinite in finite terms."

Thesis Statement:

The investigation of a universal archetype, in terms of the religious building, to represent the Hindu religion. The architectural re-representation of its most eternal values and ideals as seen through my own investigations and interpretations.

Although the mythological structure of religion does not change, I believe its relationship to culture and society , in reference to time and place, is constantly changing. Values and ideals, in terms of architecture, are not redefined but re-represented. The structural aspects, one of which is architecture, of its practice are those I consider adaptive qualities of the religions expression. This search for a 'universal' character relies greatly on the architecture's ability to adapt and be abstracted. Its re-representation is expected.

Topic of Project:

"... the essential shrine...". The investigation of the temple becomes a clear vehicle for the thesis. It has a clear historical background in terms of the symbols, images and metaphors that represent it. This leaves considerable room for an architectural interpretation that begins to reorganize the placement of certain programmatic elements within the context of contemporary society. In terms of sculpture and other elements thought to be inexcuseable of any Hindu temple, abstraction among Indian architects has become prevalent in terms of secular

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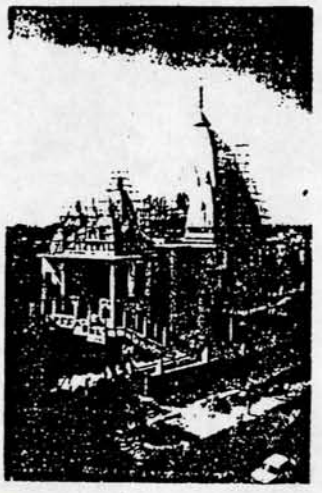
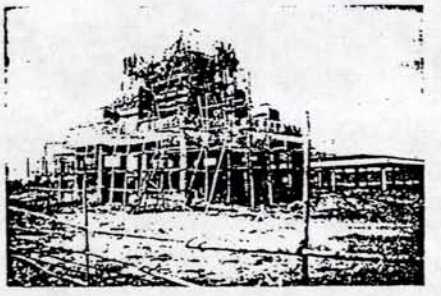
[1]Soundara Rajan p.10

building within India. They seem no longer too happy to deal with the remnants of Corbu and Louis Kahn. They have developed their own pride in India and its tradition and future. Although their theories on religious architecture are somewhat unresolved ,because of the complacency of the context to the old, religious architecture on a more local scale is undergoing a certain amount of abstraction and change.

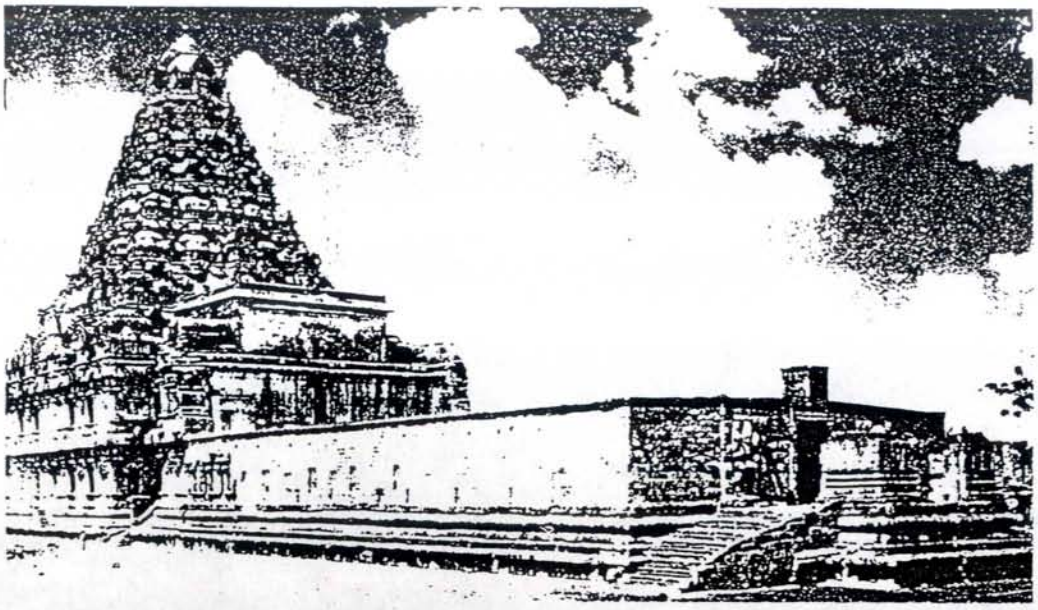
2 " They invoke authenticity with the objective of drawing worshippers. The historical forms are easily played around with and invention has taken the upper hand in creating contemporary spaces within. The materials of construction are, of course, cement and concrete. The designs have evolved out of a discussion between priests, craftsmen, and structural engineers, all of whom have banded together to invent a new authenticity and to suspend modernism."

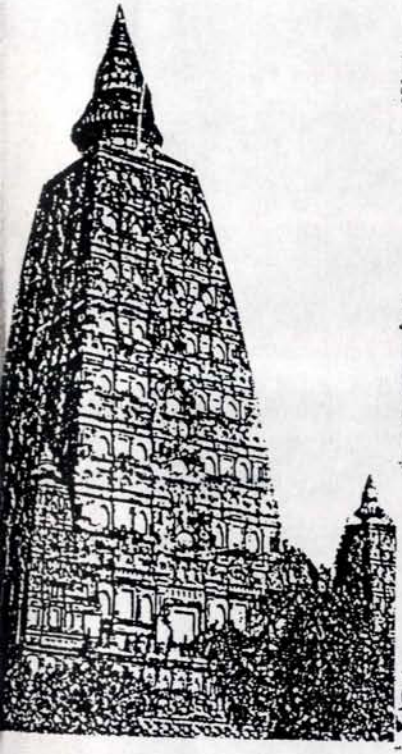
The evidence is little but slowly it is growing. The contexts of other countries are not constricted by these complacencies and thus are more free to work with aspects of the religion and culture found somewhat more difficult to deal with in India itself.

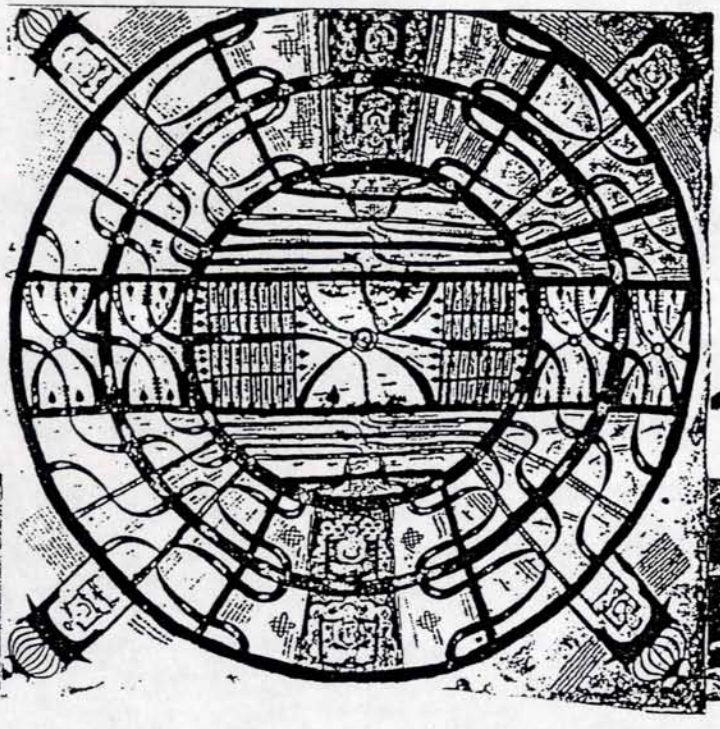


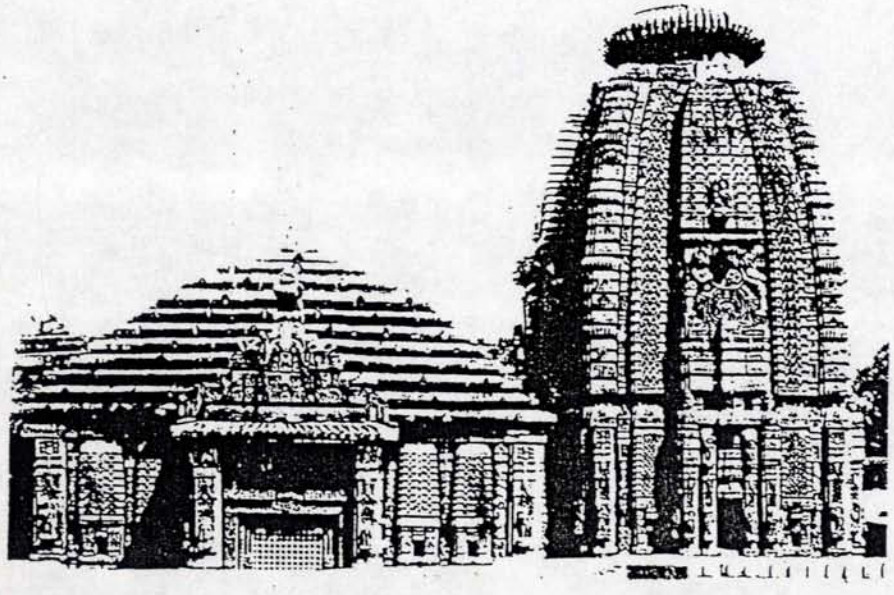


[2]Khosla p.25









First phase: Reverential opening of sanctuary doors(symbolically opening to heaven). Morning worship(sunrise), midday worship(before noon), evening worship(sunset). Physical participatory acts include bathing(purification), clothing(no upper garment[men] or shoes worn), seating(cross-legged on sacred ground), and circulation(counterclockwise with deity always on right).

Can it be that the building completes a transformation simply through a re-representation of *language*? This is one possibility in which I believe a *universality of language* and form was achieved by architects like Kahn, Ando and Le Corbusier. Do traditional or ancient forms survive the contemporary condition? Do these forms as traditionally presented express the spirituality of a religion, without being overbearing, when displaced into a culture inherently disconnected from its own?

Can it be achieved through defining the complex relationship between *icon and building*? The icon represents the ideals of the building itself. The forms can we say are rooted within an artistic expression of what those ideals meant to a society during a specific time and place(based off of symbolism, imagery, metaphor and belief). We can then interpret meaning within our own context and thus lead ourselves to a distinct representation of form.

Can the use of *symbolism, metaphor and imagery* begin to generate formal and theoretical strategies? Symbols and Images are imbedded within the Hindu religion and are often integral to the understanding of the religion as a whole. In several historical precedents they begin to 'tell a story' which in most cases translates directly into the physical forms of the temple. Certain metaphors, symbols and images:

1.*Moksha* - Release from the illusory world to being re-born.(re-incarnation)

a. cyclical or circular motion vs. a definite beginning and end.

2. Representing the ambiguous boundaries that result from the dialogue between god and man through the manipulation of architectural elements. In other words, the form of the universe can become a metaphor for the form of the temple. Form and meaning and architectural properties associated with them.

-Site of temple: imagery of mountain, cave and cosmic axis

-Ground plan and elevation (*mandala*)

3. The temporal nature of the temple-Impermanence

-it transcends time yet exists as the temporary abode of the divine being.

* 4. Temple as Place of worship and Object of worship.

-its ability to transcend scale in terms of containing the icon and becoming the icon.

5. Passage

-progression upwards through the stages of consciousness

-" a place of transit "

-"law of kharma" movement through stages to liberation.

-from temporal to eternal

-circumambulation-the rite of constituting a body's participation in movements and prayer.

6. Sanctuary as "womb"

-its possible expansion and creation understood as the sanctuary being the central radiating force of the composition.

The analysis of typology and how it has based itself in the explanation of the Hindu temple. It is indeed a typology yet it does have the ability, through interpretation, to redefine its parameters.

The site and the certain pre-determined criteria pertaining to the religion evoke specific issues which in the end have great influence in creating the built form. The issue of specific boundaries and orientations as they correlate to the idea of gate, the eight directions of space, the east(sanctuary entry)to west(image of icon) orientation and the necessary presence of certain natural elements bring conditions of relative permanence to pieces of the program.

Statement of Expectation:

Although I state the vehicle as a Hindu temple, I believe the process of understanding certain needs and thus trying to resolve them in terms of an architectural representation presents to us a larger goal. I have only begun to raise questions concerning one culture and its, in this case, religious needs but we may also be able to apply the process to other cultures. In today's multicultural environment(vs. the more or less isolationist environments of the past) one may say that we do not only search for a strong cultural identity, and a strong universal identity as people living on a common earth, but a identity or representation engaging the characteristics of both. This is a search for a commonground.

Site Selection and Analysis:

The choice of site must reflect certain dogmatic elements of the religion in terms of ritual, physical orientations and traditions held sacred to its practice. These brief studies will hopefully in the end determine the most suitable site condition for the temple to be placed within.

The conditions of the site contain a direct correlation to the ritual of the place. The essential elements of the site are water, shade an seclusion. These elements form their meaning through representing images of the divine and through their roles as functionaries within the ritual actions of the temple.

Water:

[3] "Water is full of life immortal, water preserves the body...we should remember this grandeur of water at all times. In short, water is the medicine for the body and the worldly mind."

It's association with the sacred and it's use in ritual ablutions give it great importance- it's presence in many forms is necessary.

Shade:

The sacred tree or grove play's it's role as a place for meditation and the ideal location for spiritual contact with the divine- the garden.

Seclusion:

To be uninterrupted. I may interpret it as defining a set limits or physical boundaries in which the institution may exist- engagement or disengagement of building and site.

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[3]Mitchell pp 50 -75

Issues of Site and Religious institution:

1.city vs. suburbia

:temple placed w/in city of non-specific religious background

:cultural diversity of population

:density of population and need for institution

:retreat w/in the city

:degree of engagement or disengagement of site and institution

:inward or outward orientation

:layers of access-gate

:sequence-vertical/horizontal

:enclosure

:materials

:orientation

:structure

The city

The city and the limits it places on the religious building become obvious when first realizing the foreign nature of the temple to the city. Unlike the traditional or mythological Indian city in which the basis for formation was the religious institution and its worship, the American city (the context I am working within) has formed upon its own culture and history and not upon those of the Hindu religion. By stating this disassociation to the origin of the city the temple represents only a mere facet and begins to refer itself to a specific denomination of people. Its role, in its more primitive state, as a reference point in which followers are re-associated to a certain belief system becomes evident. Although it must function in this way, in its more evolved state it cannot disregard the context of the city foreign to its nature and the cultures and traditions inherent within it. The so-called "congregation" is related to both the American city and its proposed way of life as well as a tradition based on the religion itself. The question in the end is how and to what degree do both of these represent themselves?

Site: 42nd st. and 1st ave., Manhattan, New York City.

Proximity: The United Nations.

The choice of Manhattan as a location for the temple is based on several factors .

The first is that which I have already mentioned concerning the condition of the city being that of the ideal within a contemporary society.

The second concerns the ideas of collectivity and the individual. As I have mentioned before, the individual is the most important element when discussing the ritual of worship yet collective thought becomes the path to transcendence. Unity within diversity. Manhattan in a similar way presents these same ideas. It is about the collective and the individual. Formally, the forms and shapes of Manhattans skyline epitomize this individualistic urge. Culturally, the strive for the expression of the individual within the collective whole again supports the idea of the fight for a strong cultural identity among its several ethnic structures.

The third places itself upon the need for a religious institution and cultural center of significant size and stature within the tri-state area. Manhattan, almost a converging point for these specific regions, places itself in a critical geographic location.

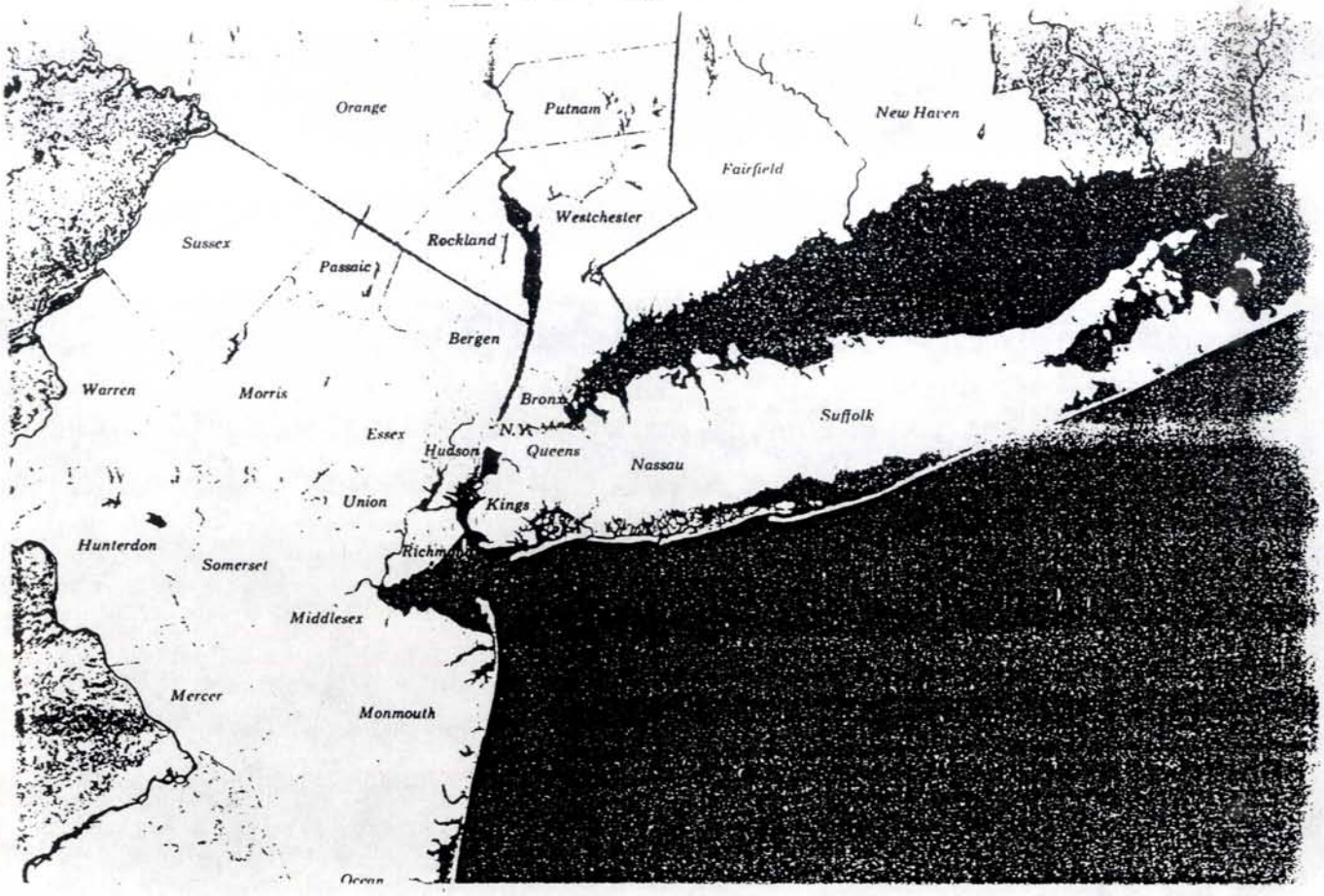
The existing site is occupied by a ventilation tower which services the Midtown tunnel which runs underneath the site. I propose to move the tower or at least attempt to find another possible location for its placement.

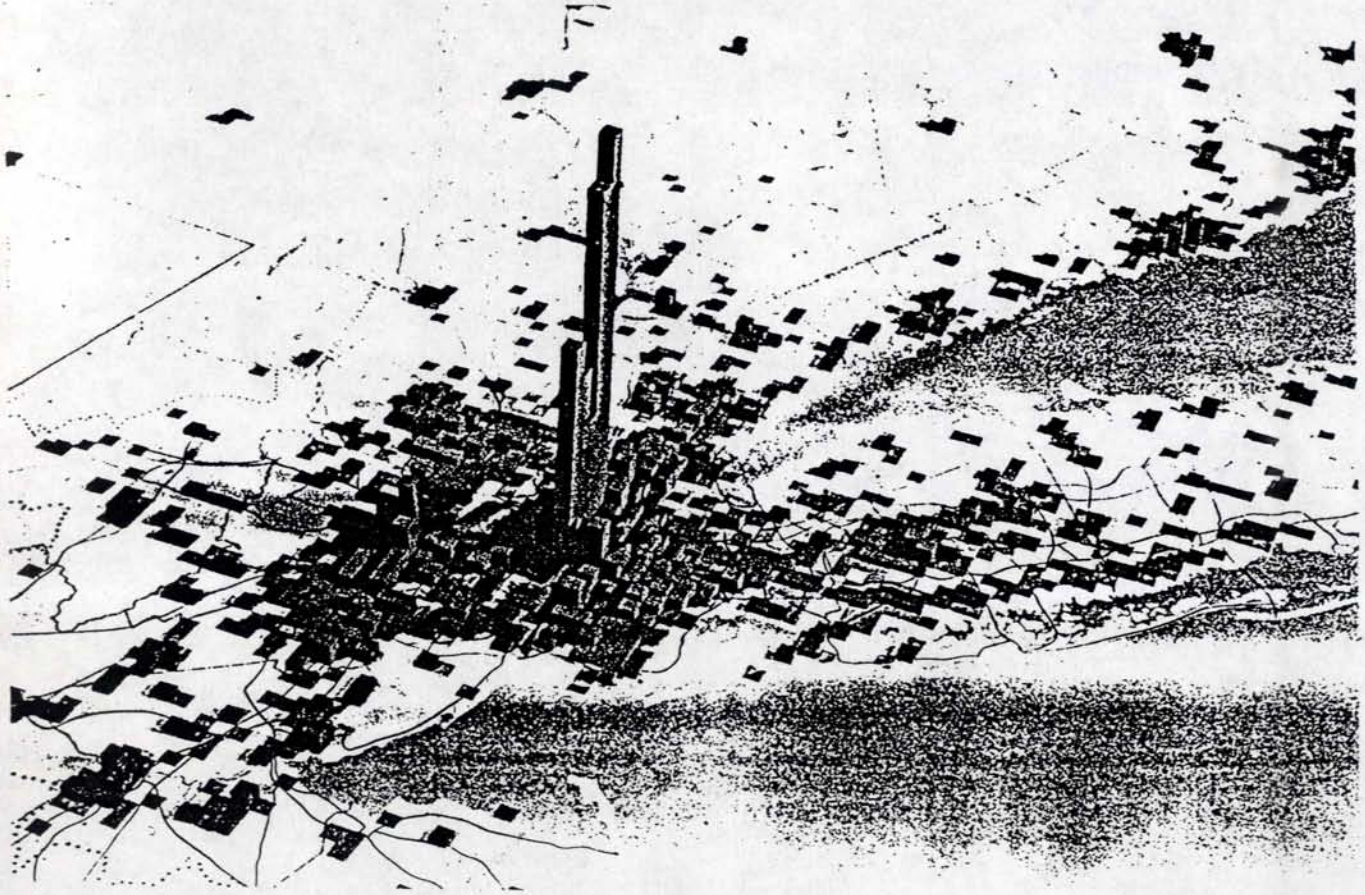
The proximity of the site to the United Nations begins to symbolize its ability to act as a multi-cultural reference point. The temple will add to the already existing collection of buildings which place themselves like satellites around the U.N.. The community around the area is also highly residential. This lends itself to the idea of community surrounding the religious building. Whether or not they are the actual

participants in the ritual of the temple is irrelevant. The temple will be able to operate on a larger regional, national and international scale.

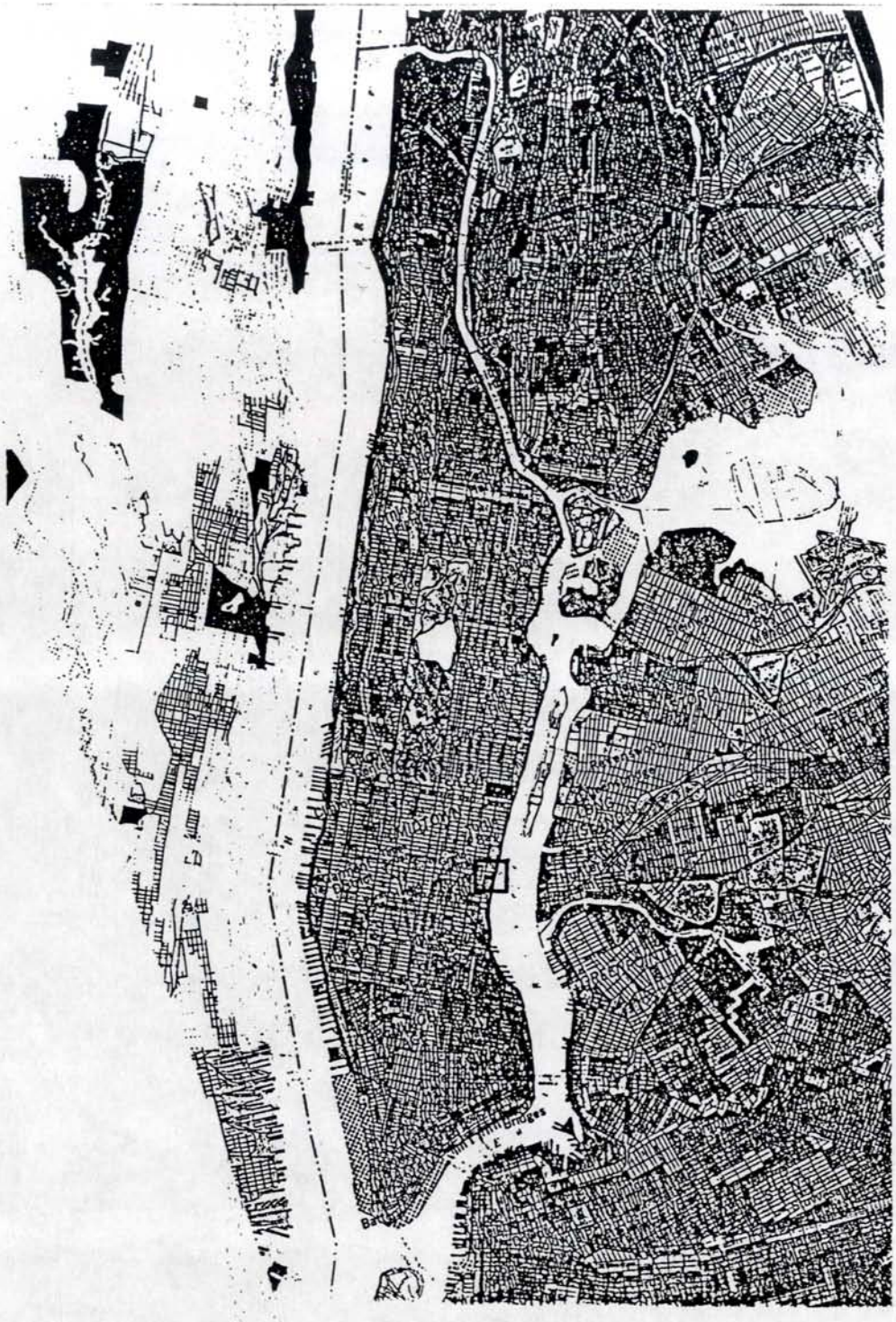
Its location along the waters edge is clear reference to the need for a water element in the vicinity of the temple. The blocks orientation is along the east-west axis of Manhattans grid and is neighbored by buildings on its north, west and south sides thus giving it a certain directionality towards the waters edge. The F.D.R. drive runs along its east edge. The site slopes down towards the water possibly lending to the idea of a raised plinth which is common in the area.

Site: Manhattan:regional characteristics

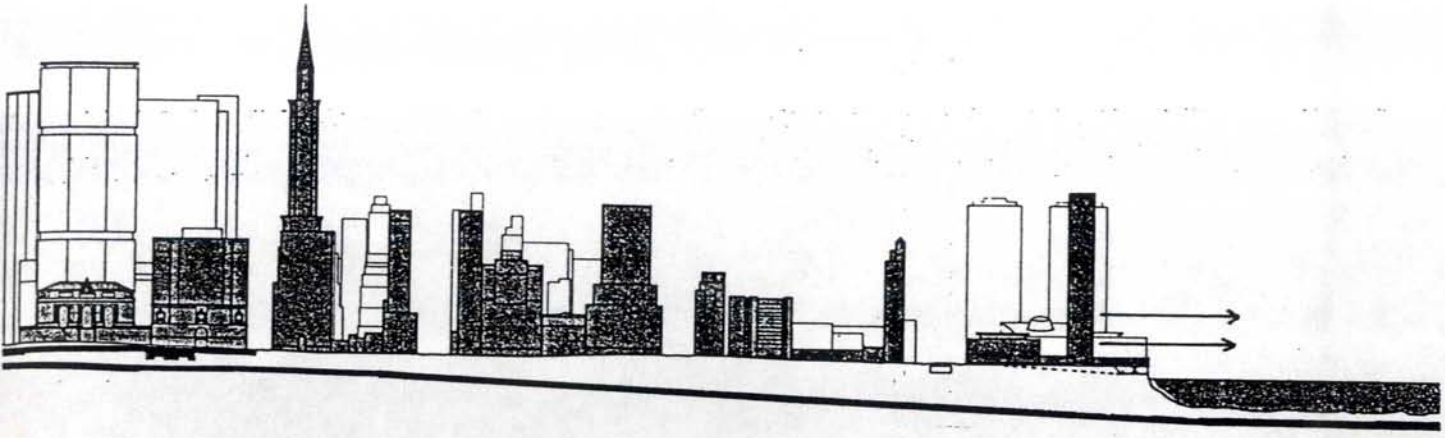




Site: Manhattan:island of Manhattan

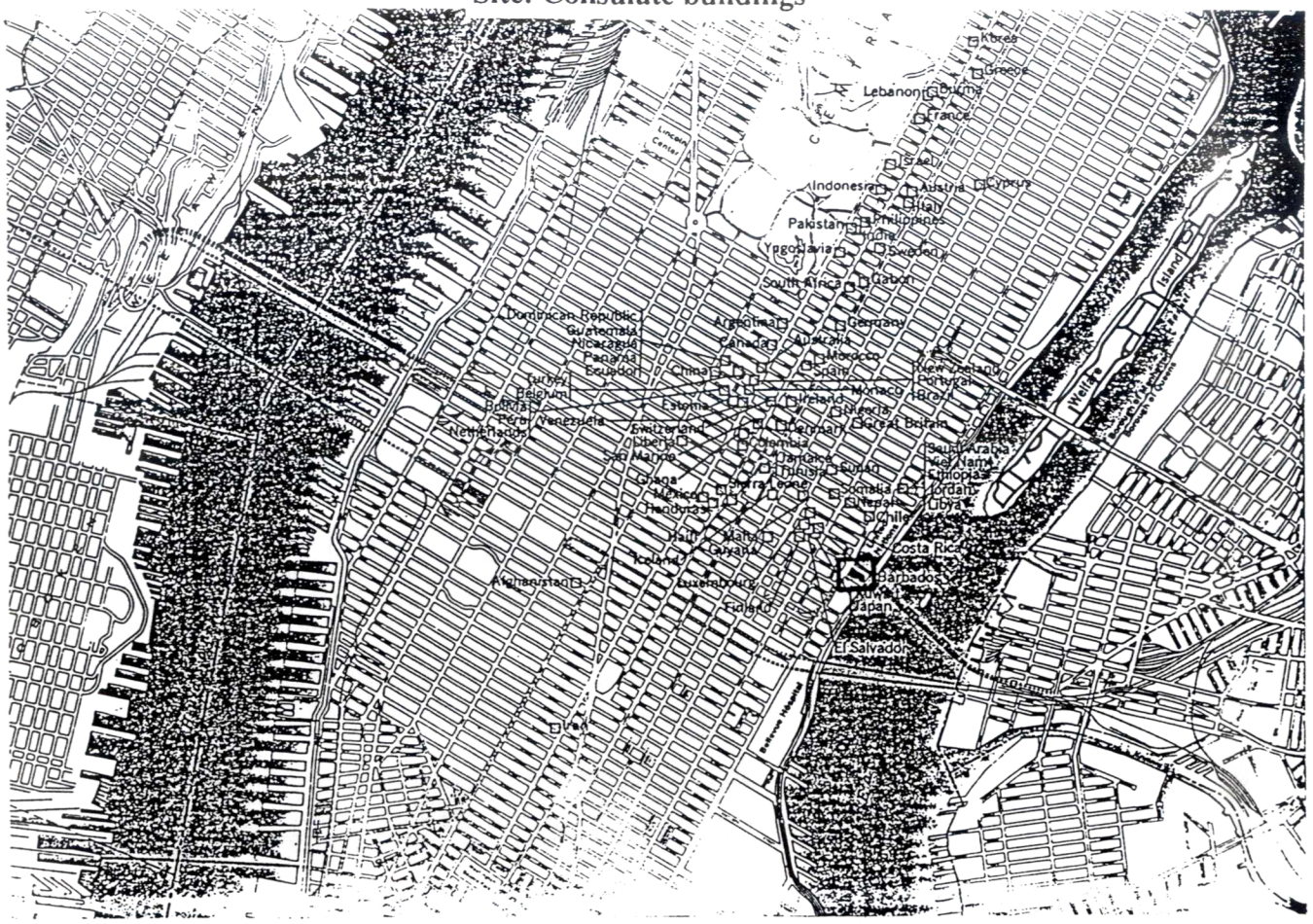


Section:East Manhattan



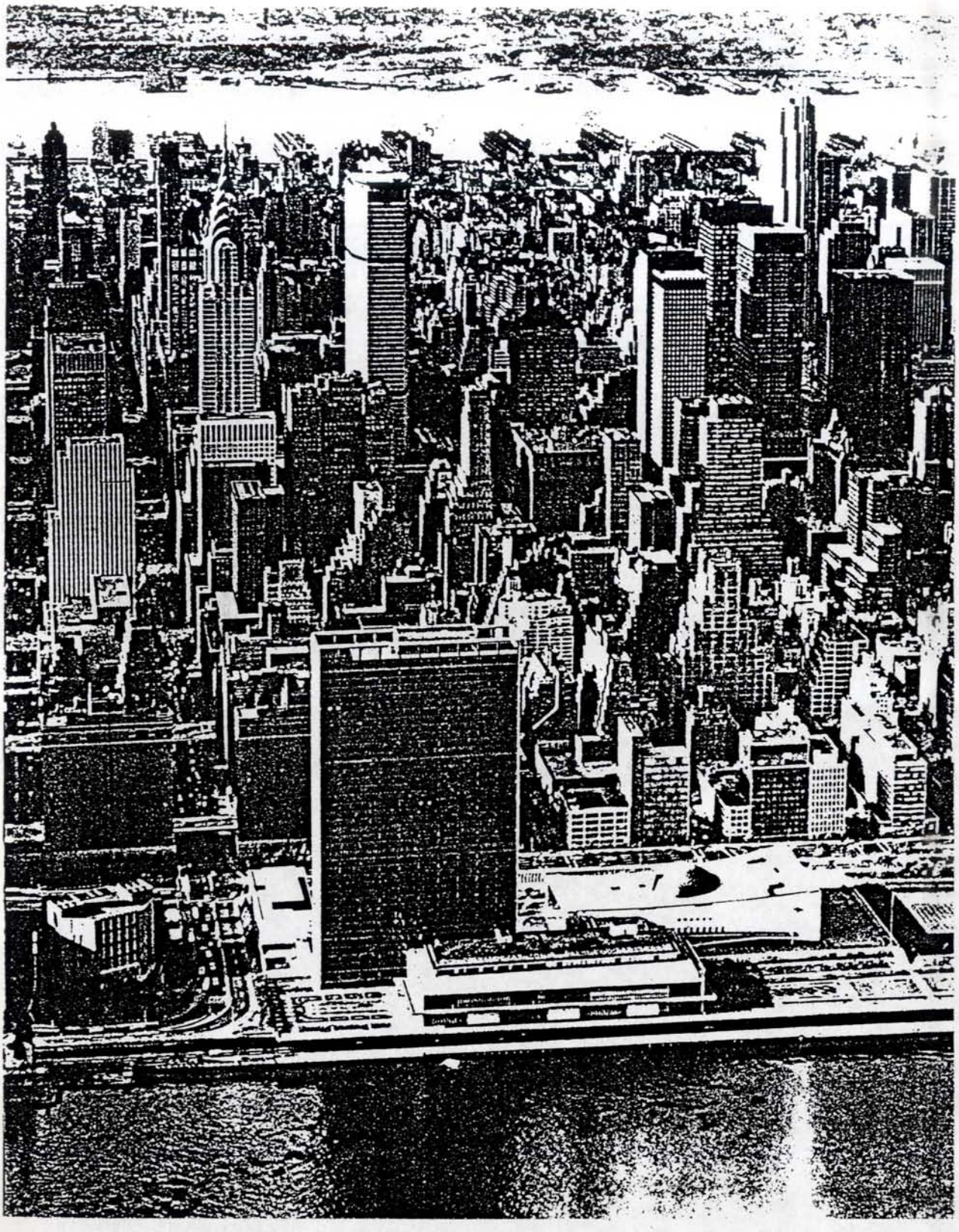
Section:Site

Site: Consulate buildings



Site:Aerial

Site:Aerial



Site: Diagrams

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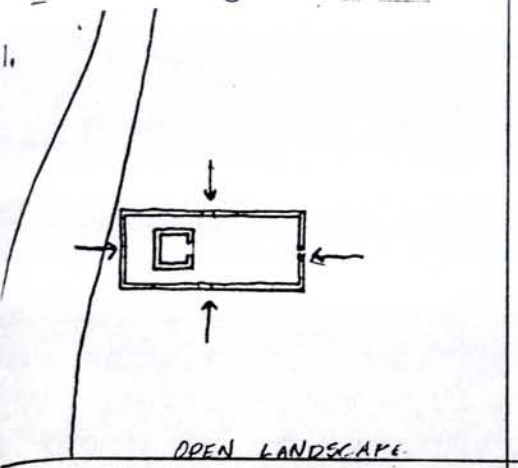
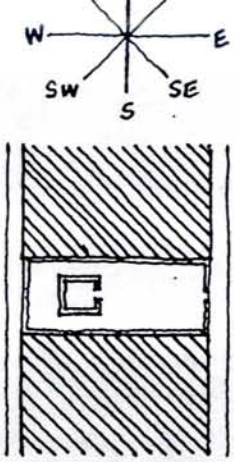


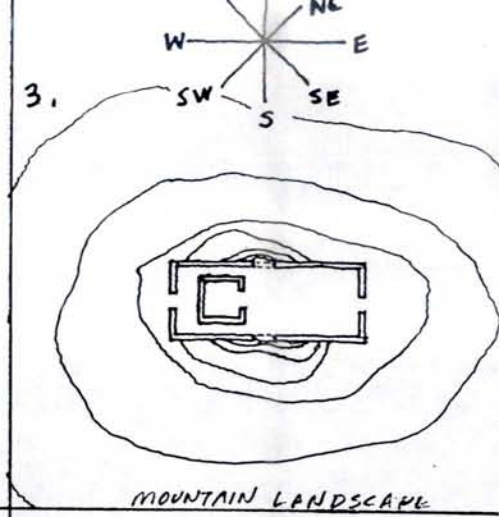
OPEN LANDSCAPE

2.

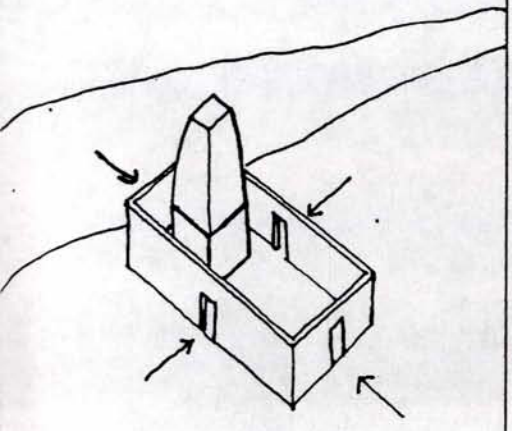


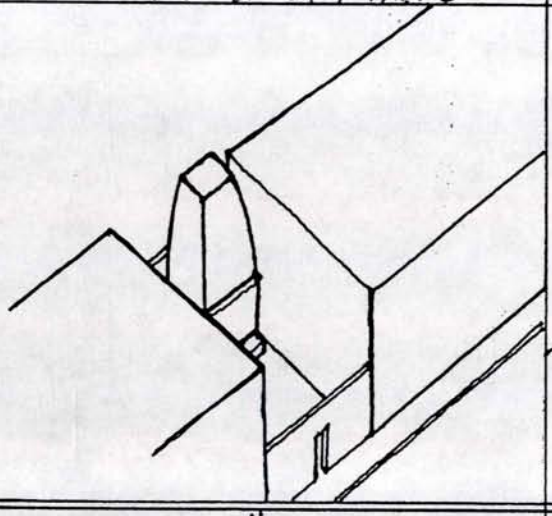
PIECE OF CITY FABRIC

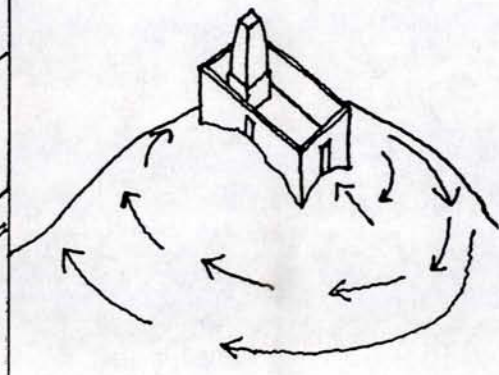
3.



MOUNTAIN LANDSCAPE







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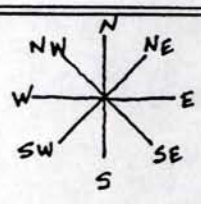
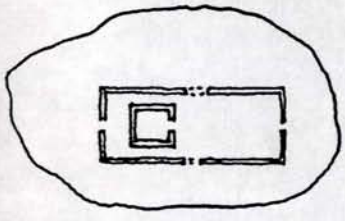
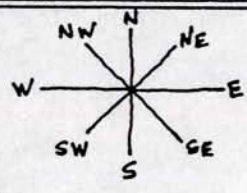
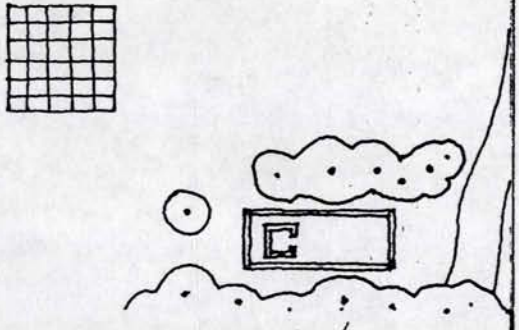




ISOLATED RETREAT

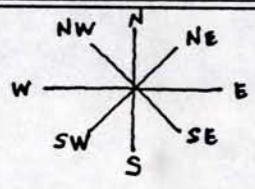
5.

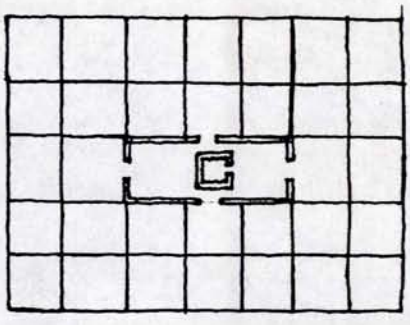




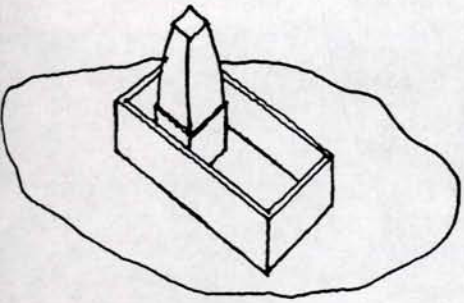
PROXIMITY OF TOWN/CITY

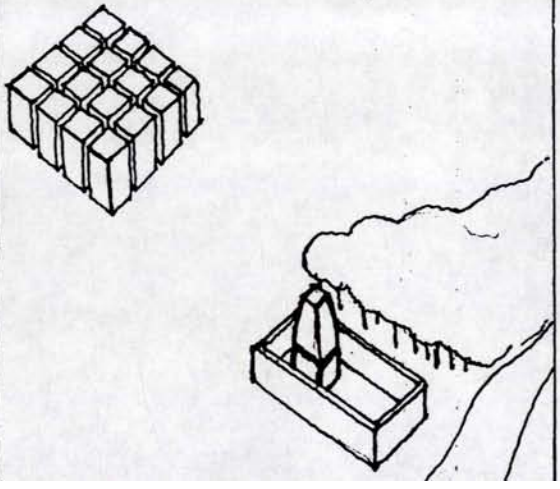
6.

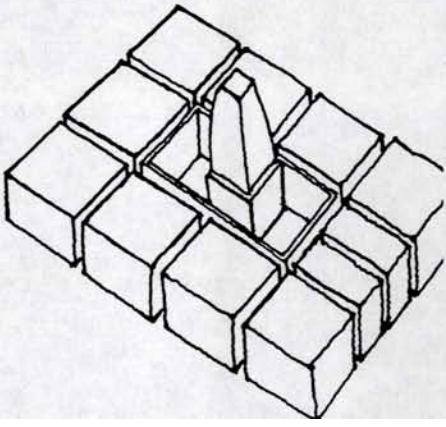




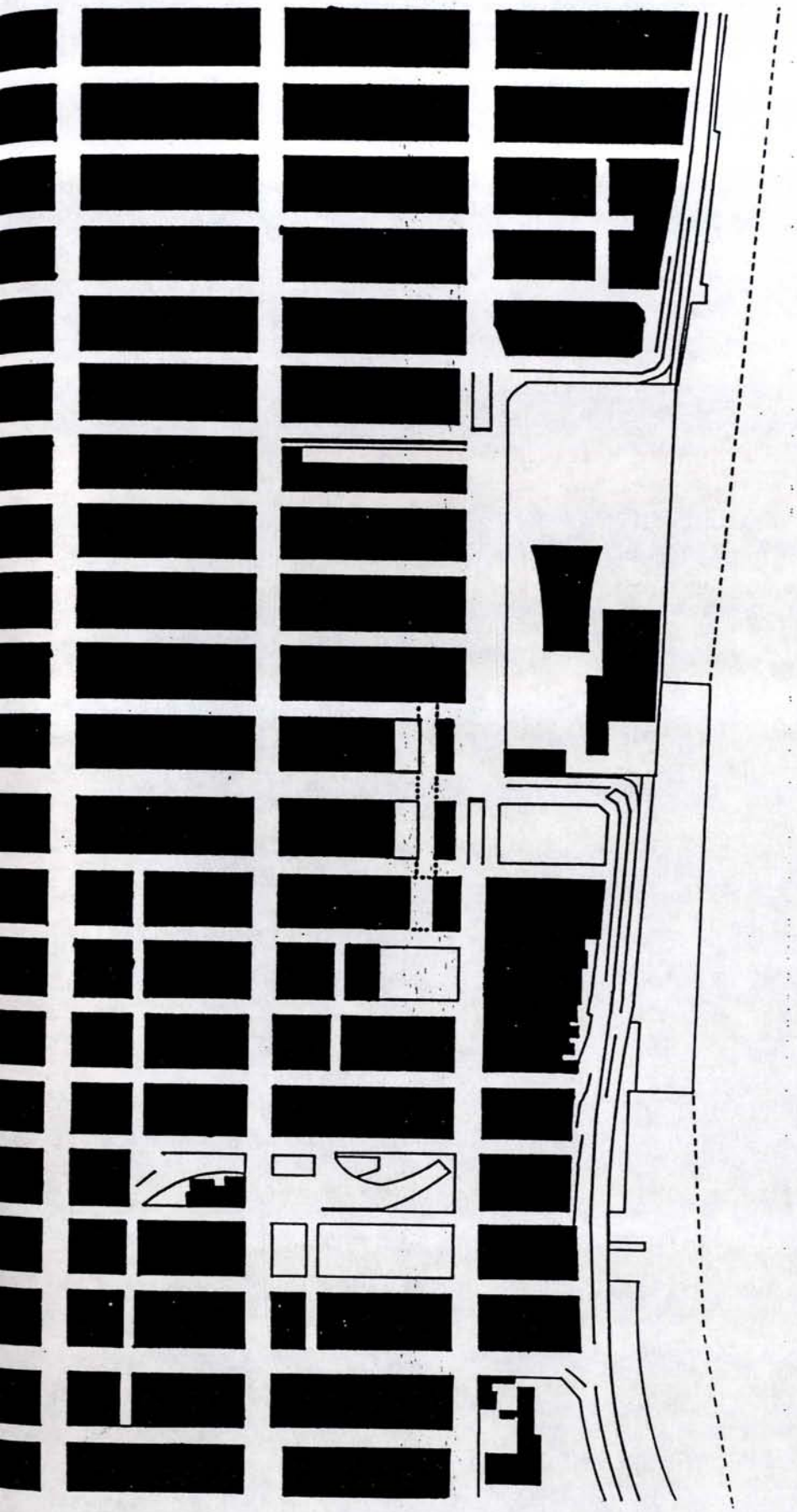
MAINTAINING URBAN FABRIC



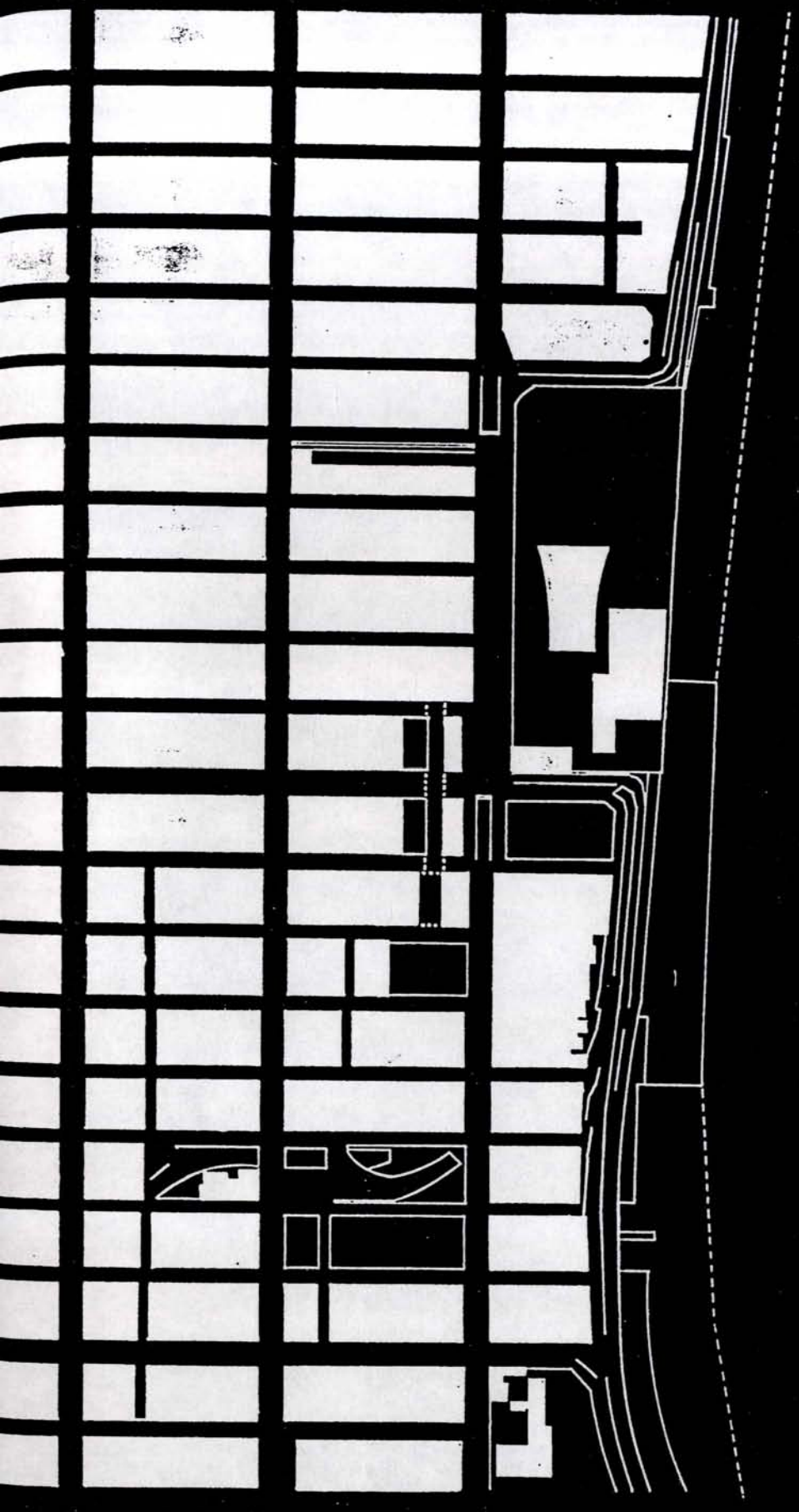




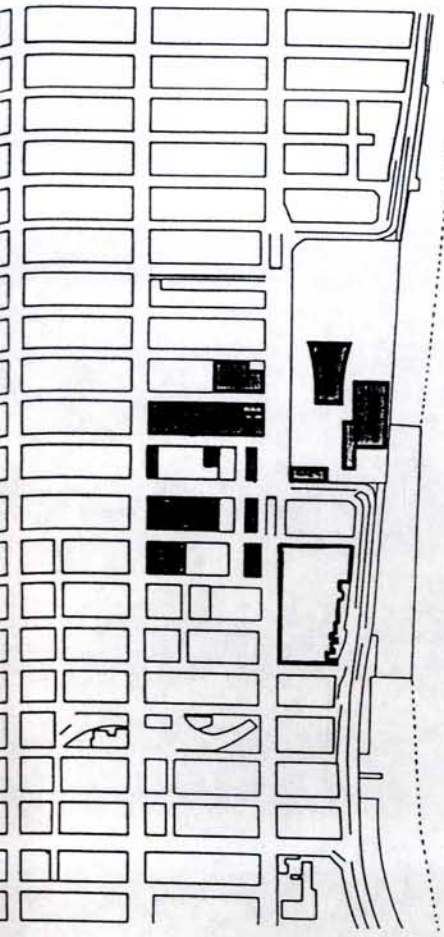
Site analysis:Figure ground



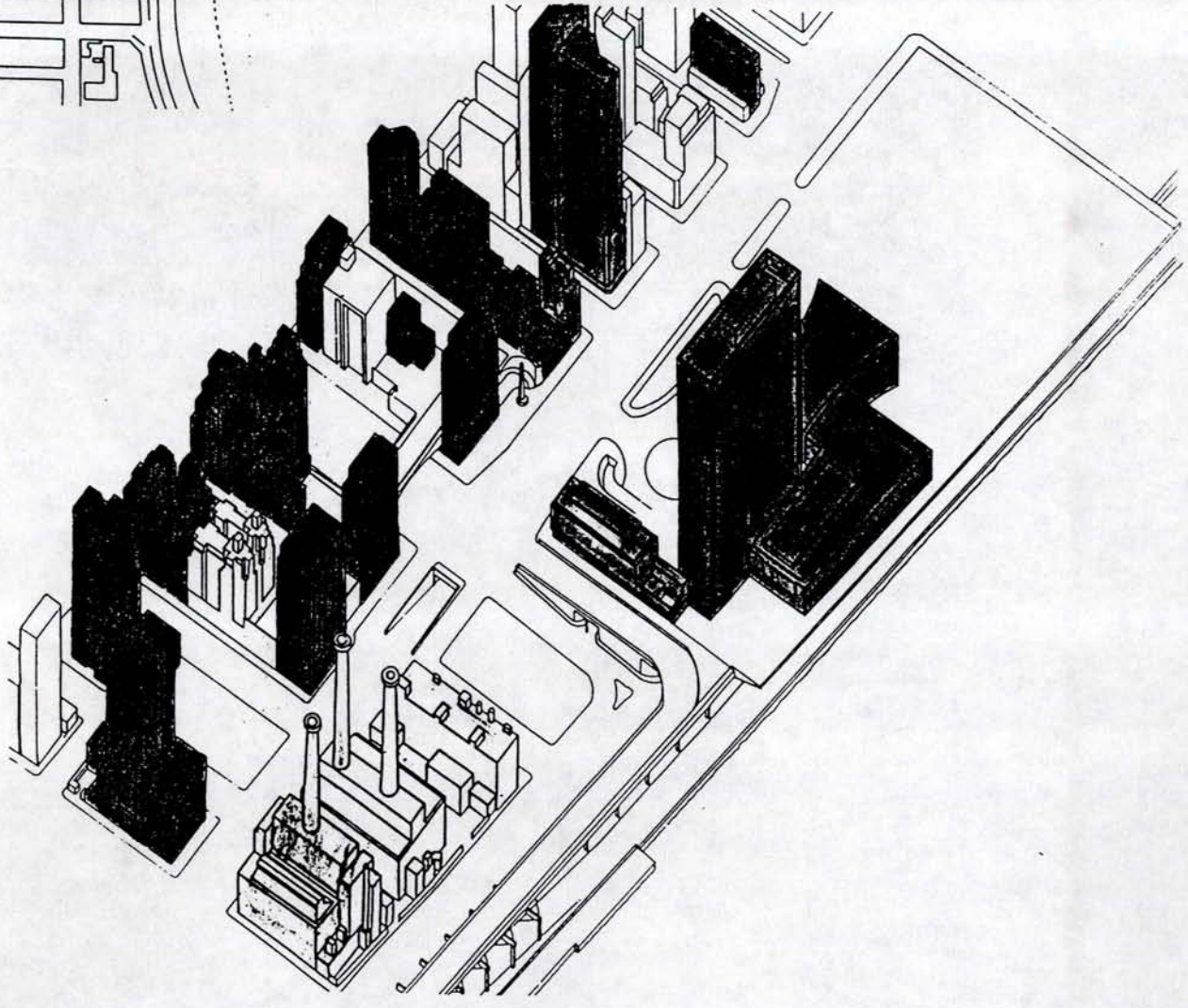
Site analysis:Reverse figure ground



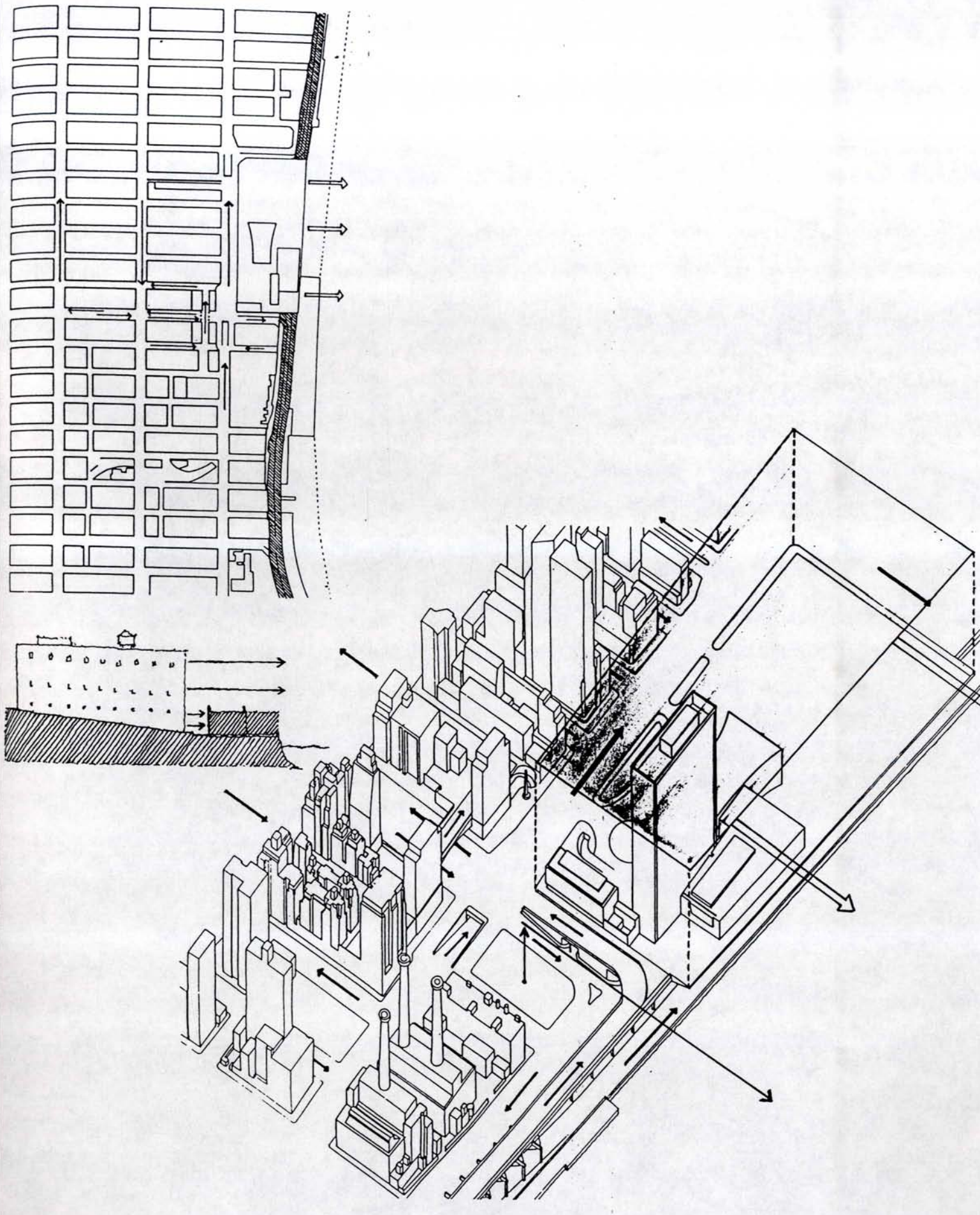
Site analysis:Building types



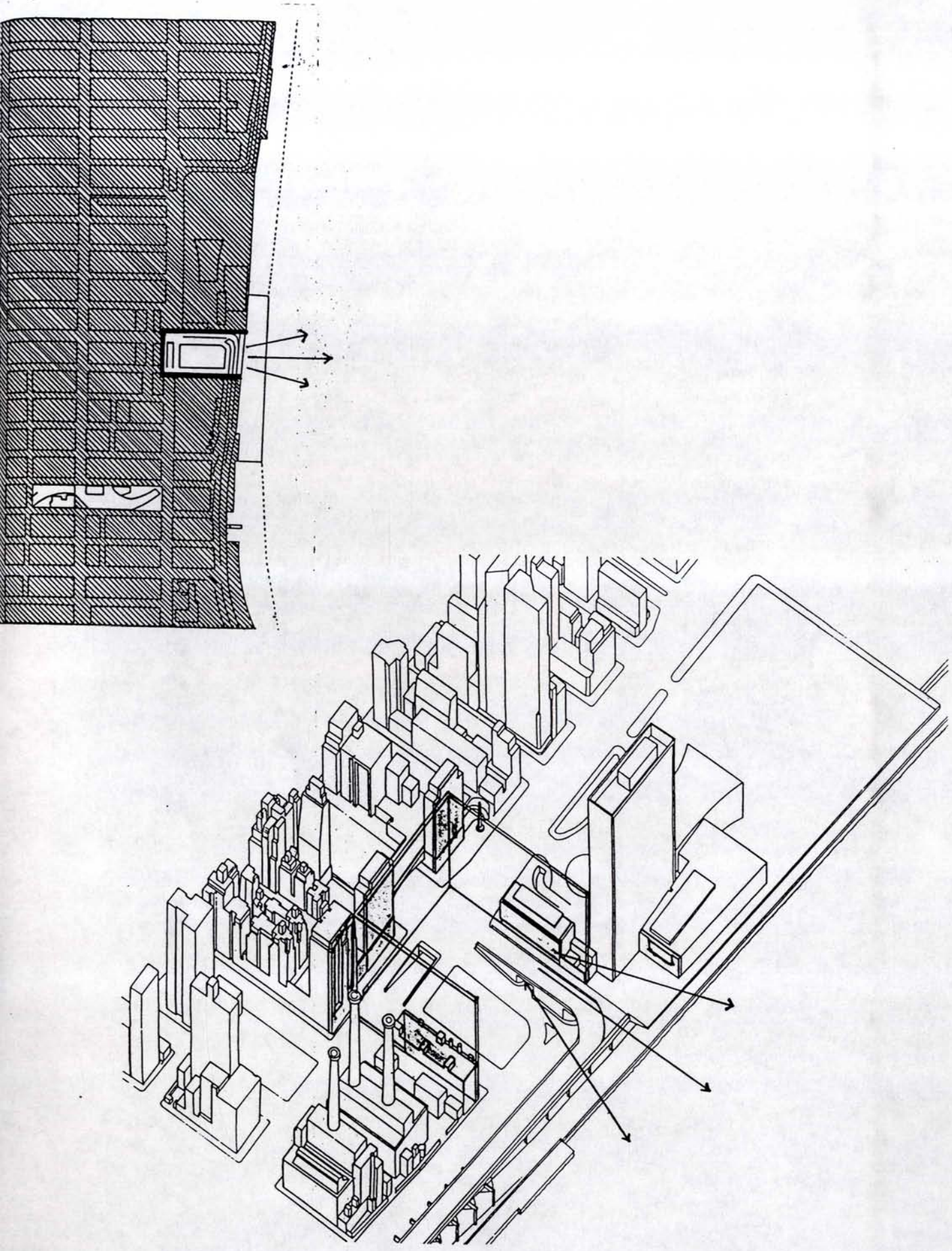
Political
Residential
Industrial



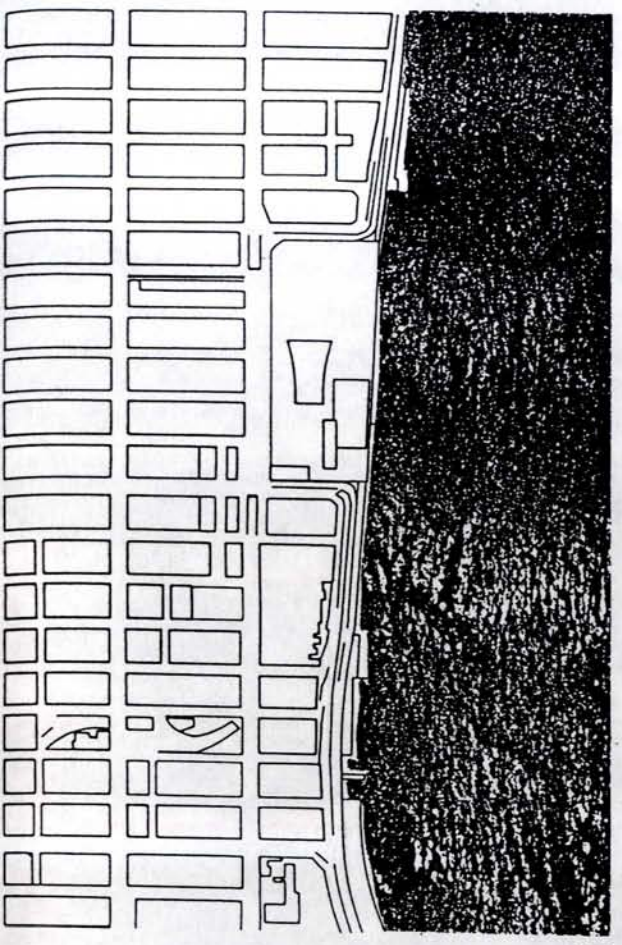
Site analysis: Traffic edges

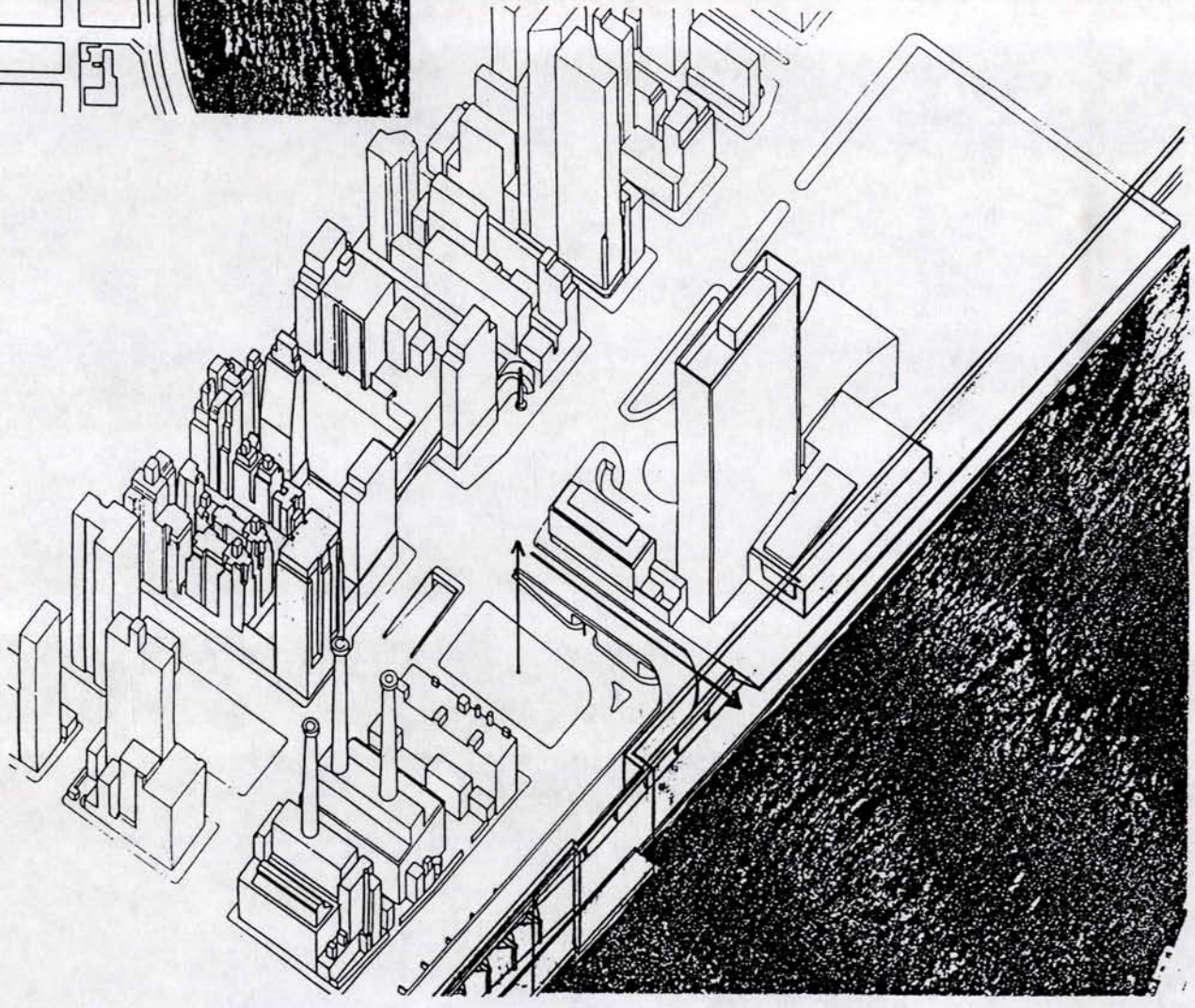


Site analysis:Orientation and dominant edges

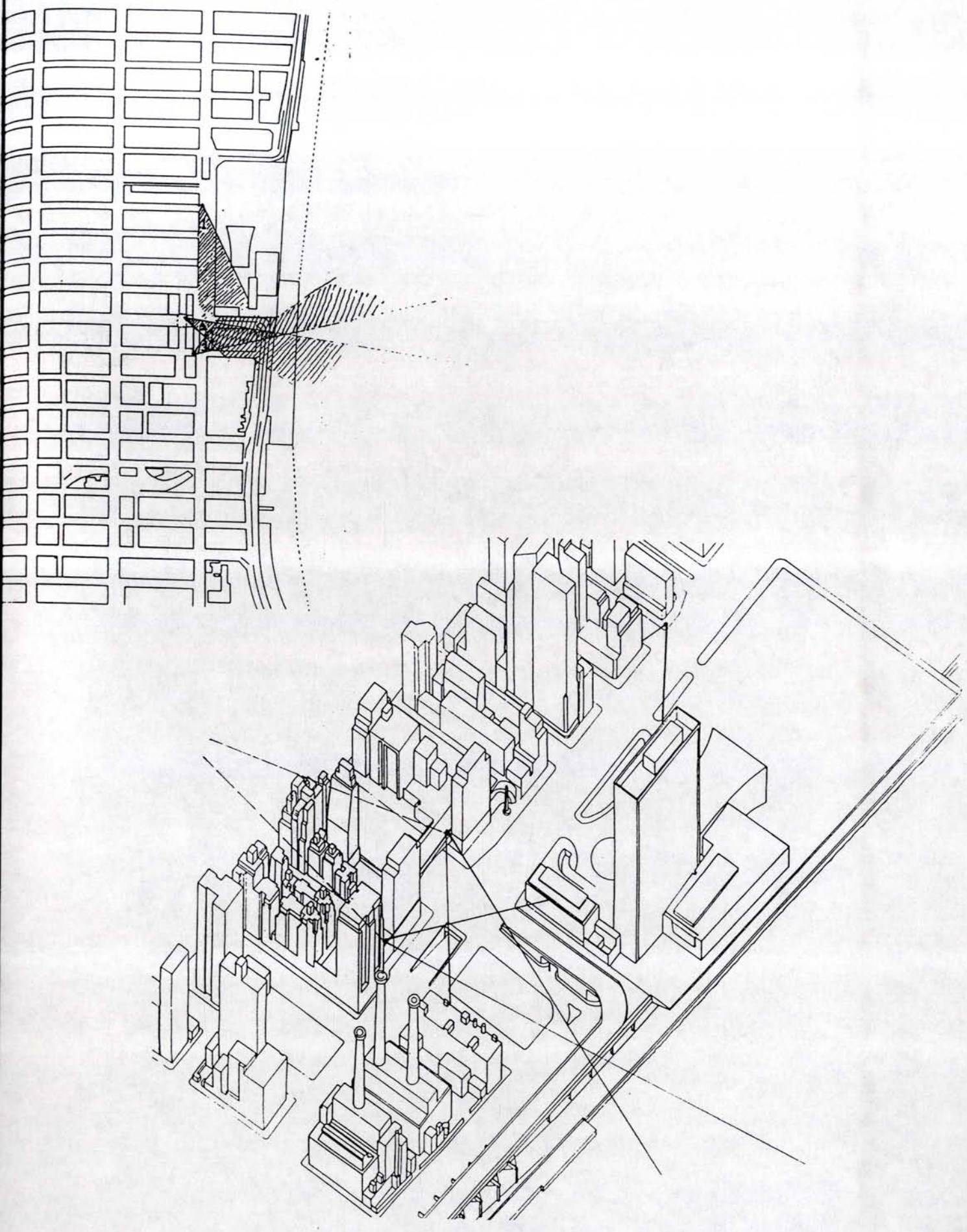


Site analysis: Water edge

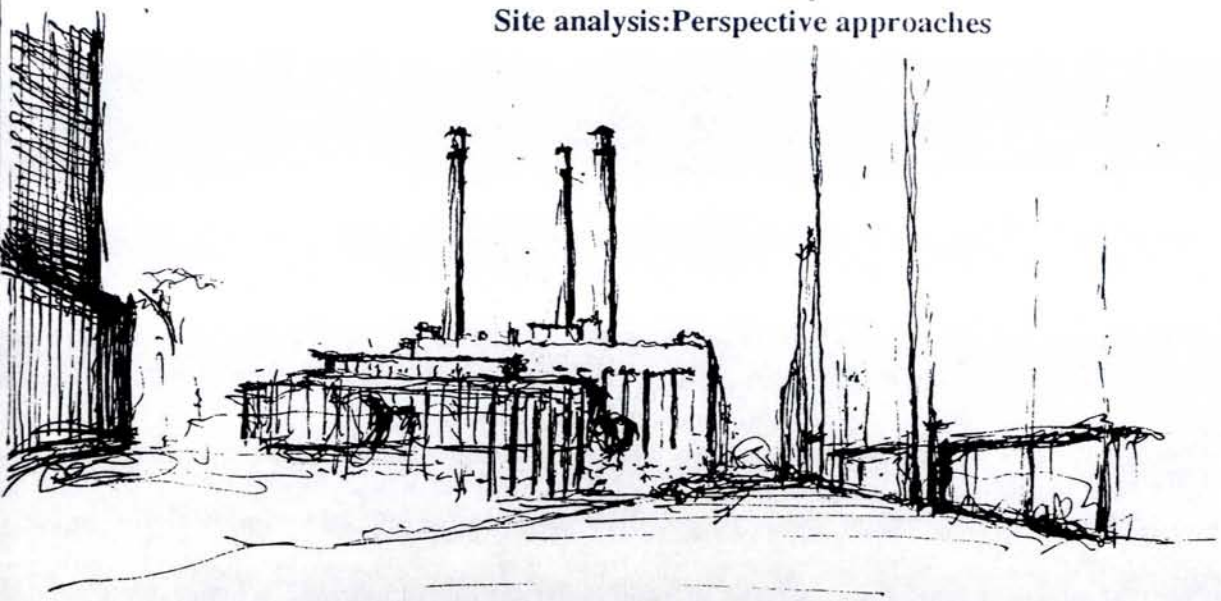


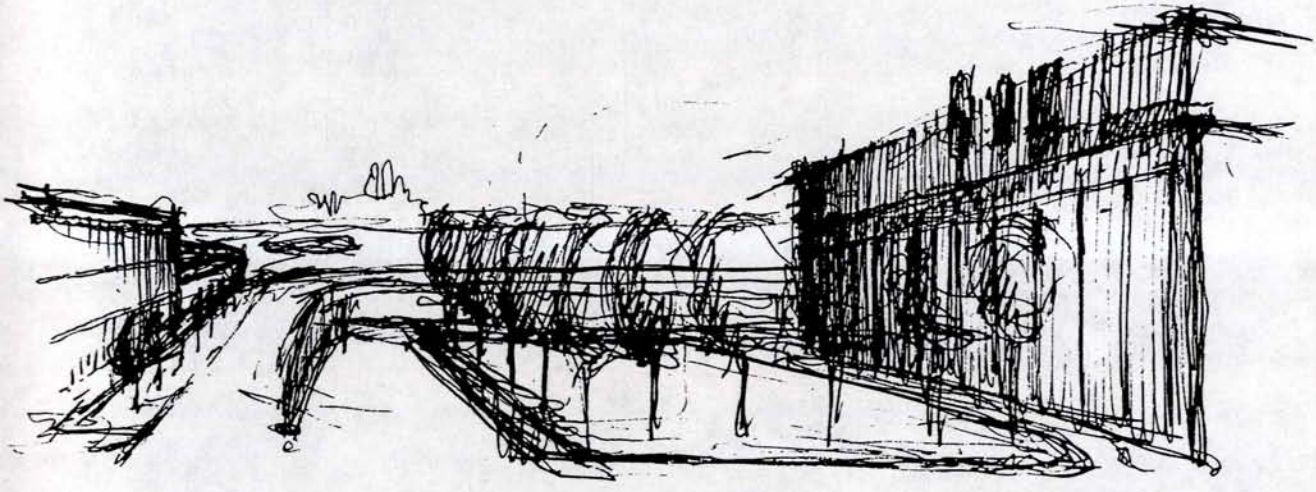


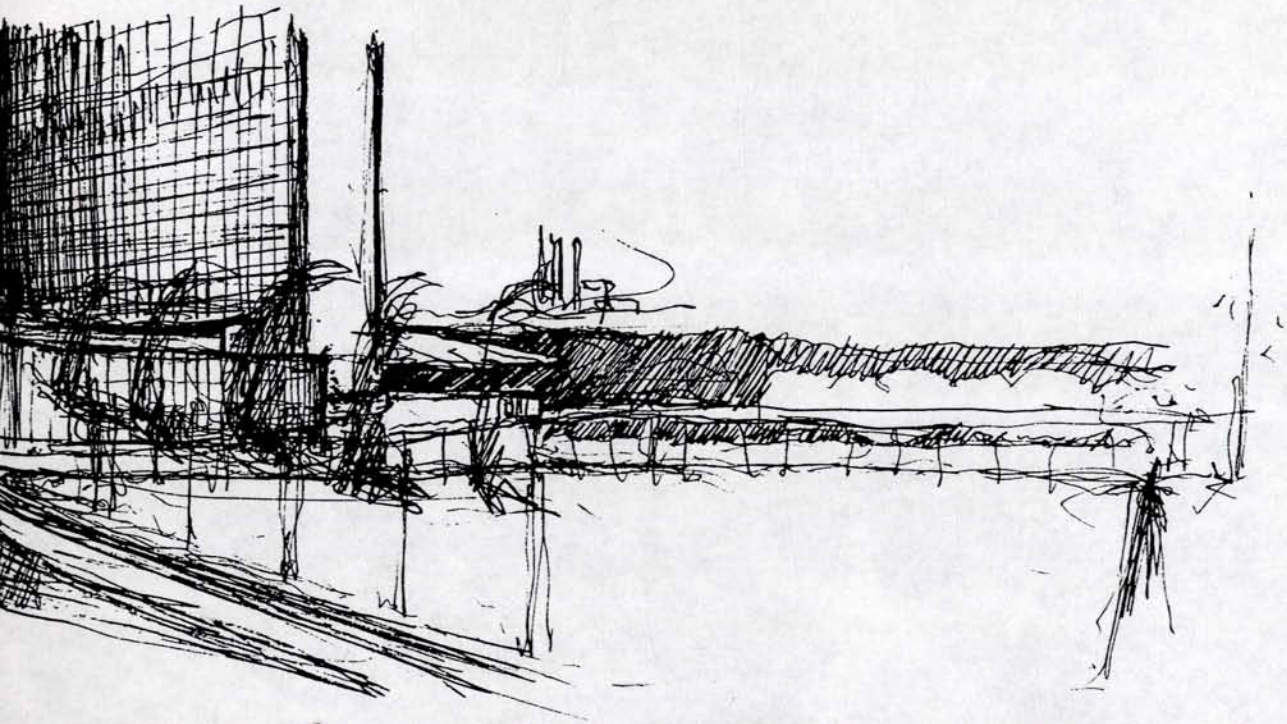
Site analysis:Perspective approaches



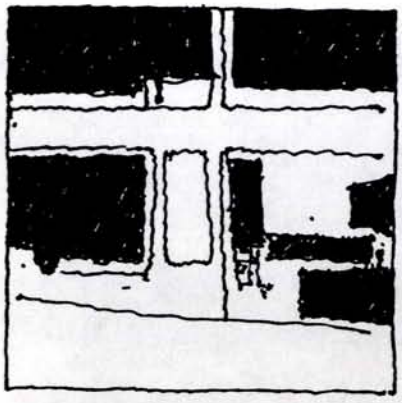
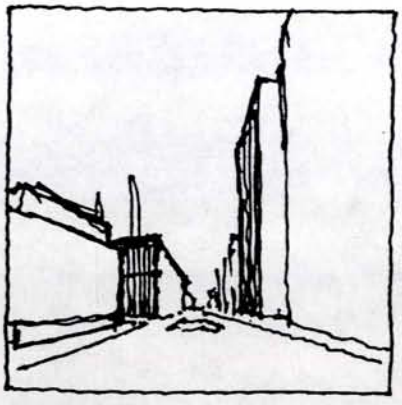
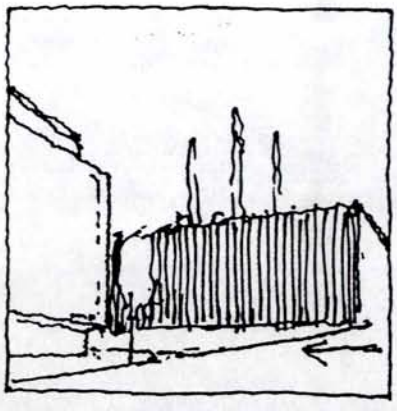
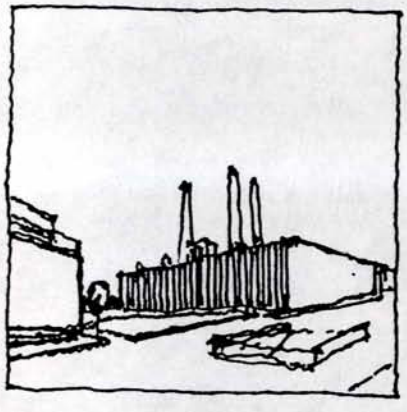
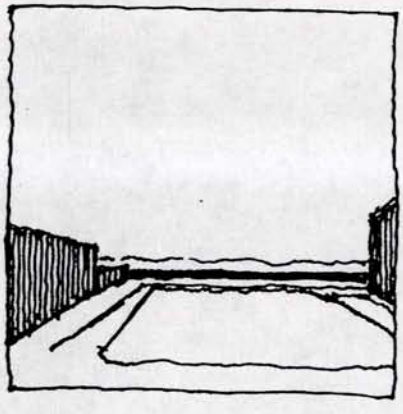
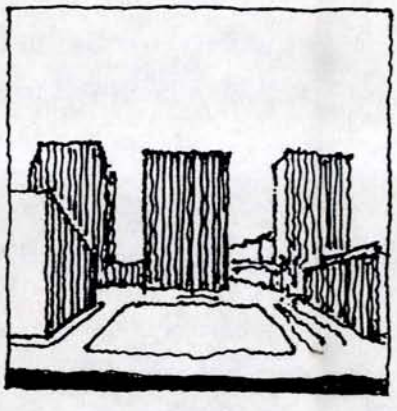
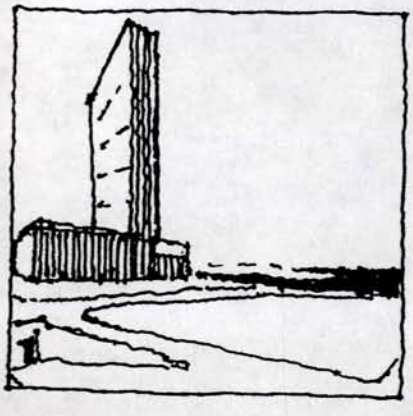
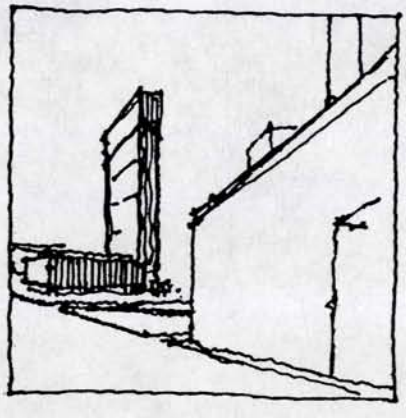
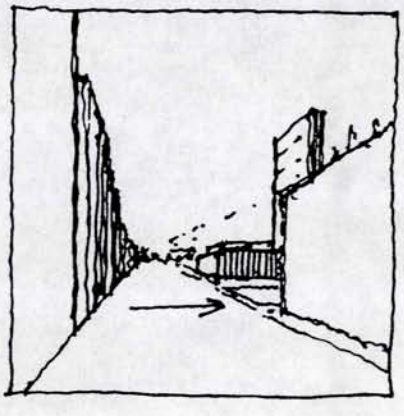
Site analysis:Perspective approaches

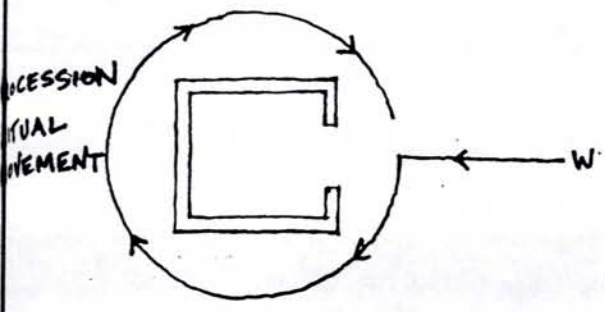


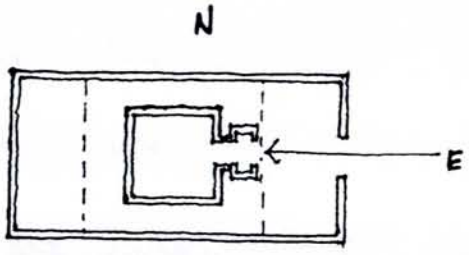


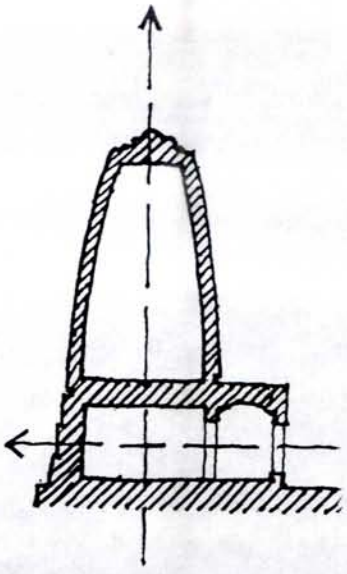


Site analysis:Perspective approaches

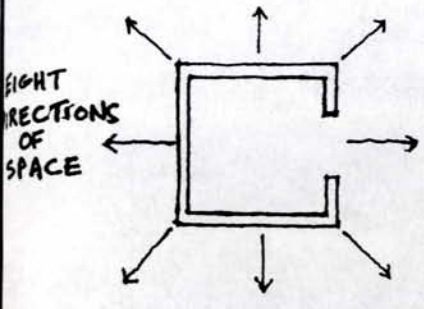


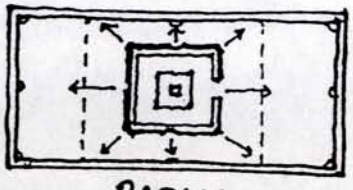


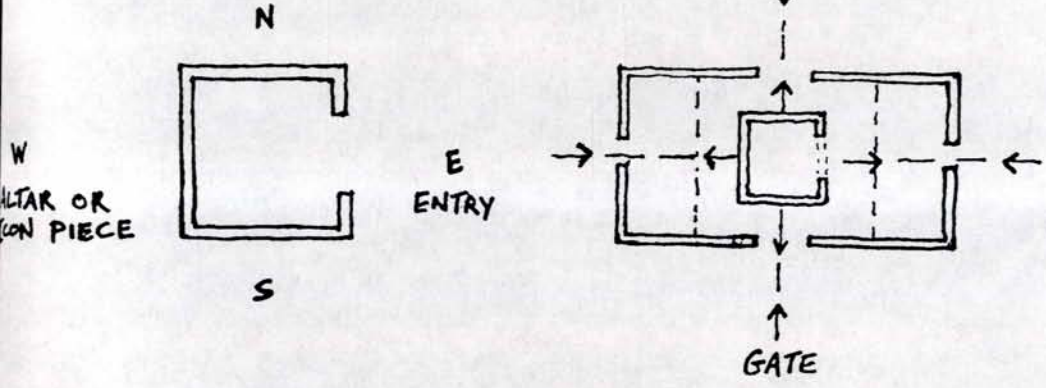


SIKHARA-

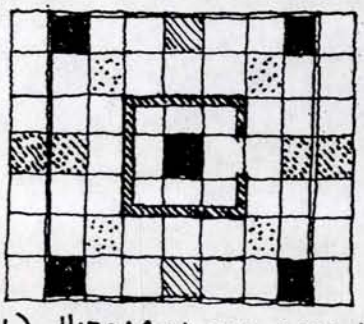
- IMAGERY OF MOUNTAIN
- VERTICAL SYMI
- POWERFUL EXTERIOR FOR



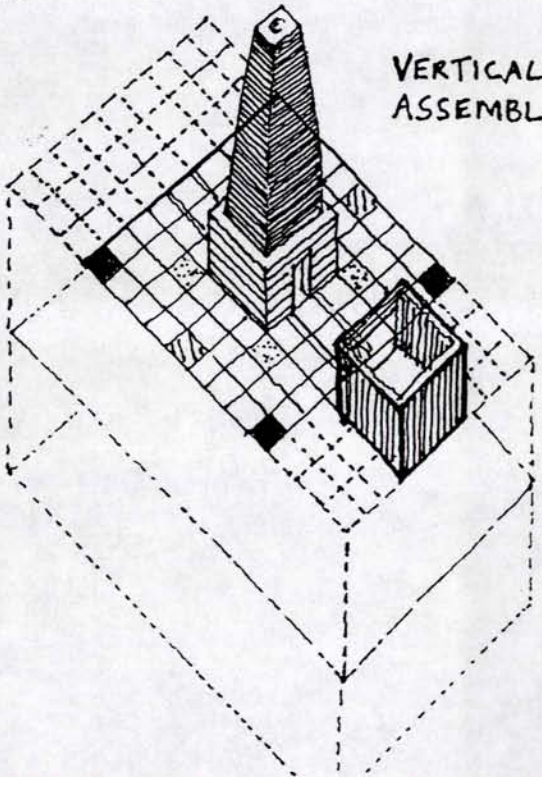




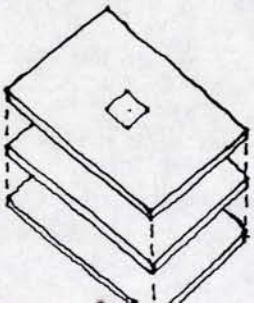
MANDALA: A REPRESENTATION OF THE COSMOS. A PRESENTATION OF A STORY. IT CAN CONVEY BASIC IDEALS.



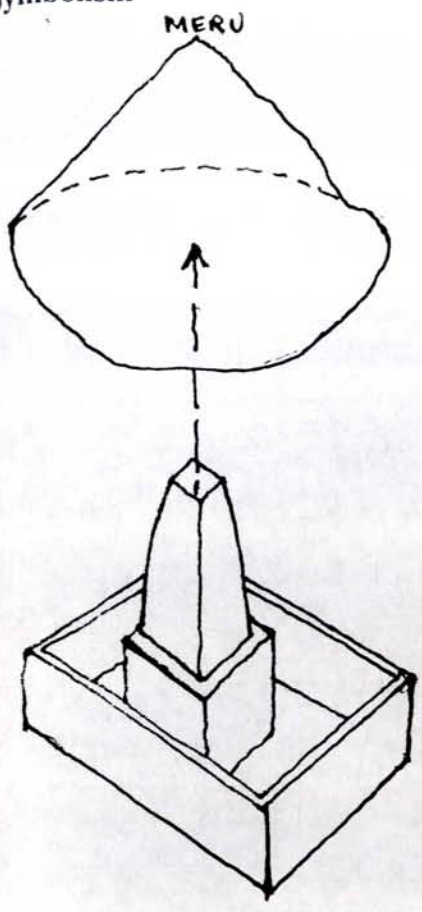
(PLAN) HIERARCHICAL ORGANIZATION



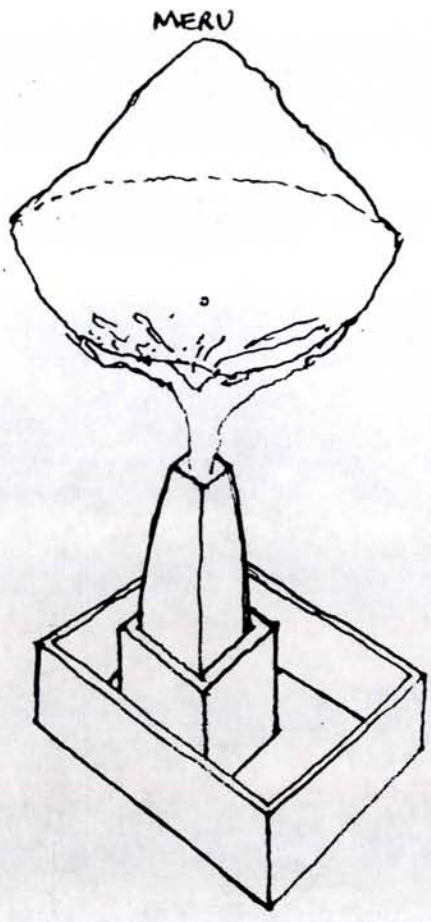
VERTICAL ASSEMBLAGE



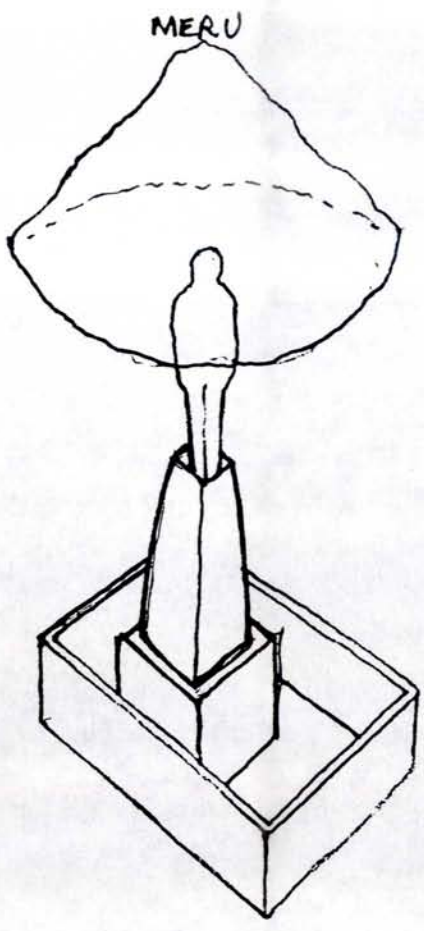
LAYERING



MECHANICAL CONCEPTION



ORGANIC COMPOSITION

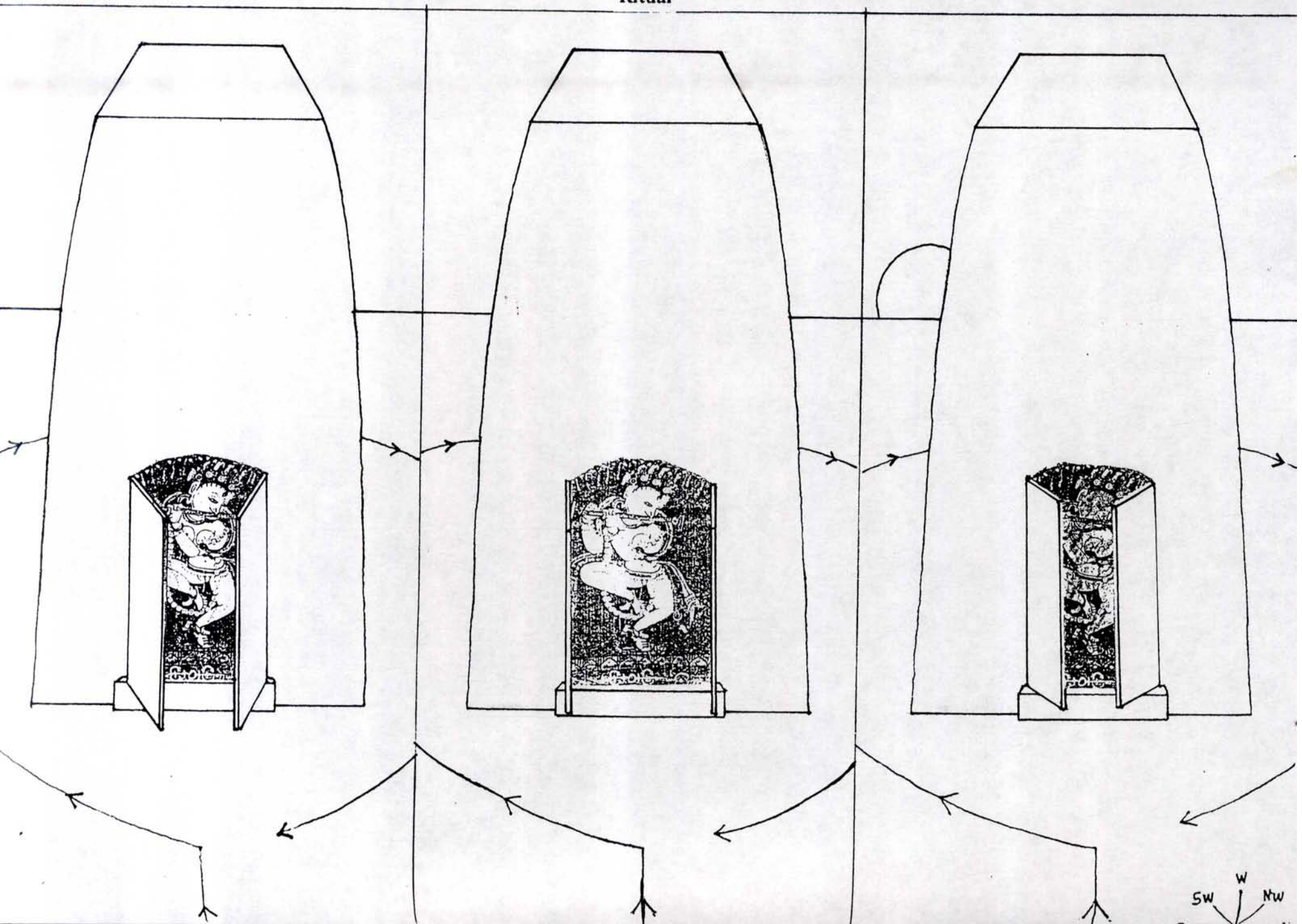


ANTHROPOMORPHIC CONCEPTION

*ALL DEAL W/ THE AXIS AS PLAYING A ROLE IN DEFINING THE COMPOSITION OF THE UNIVERSE .

IVE :

- SANCTUARY SPACE
- NO LIGHT
- PROGRESSION FROM LIGHT TO DARK


W
SW
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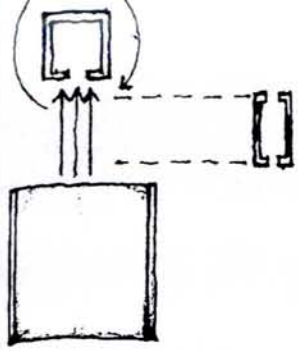
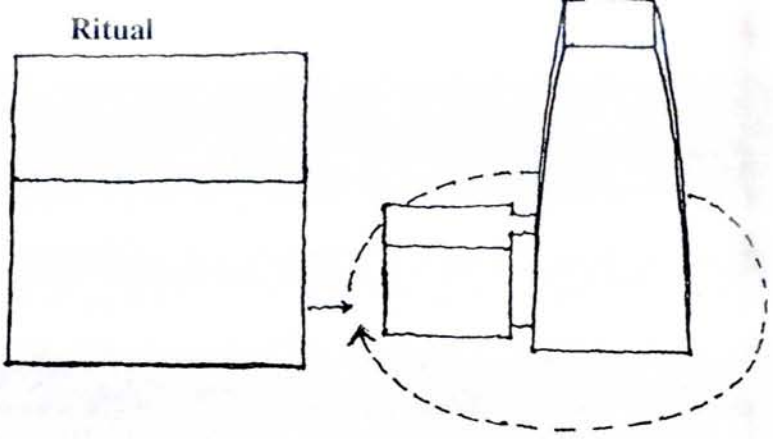
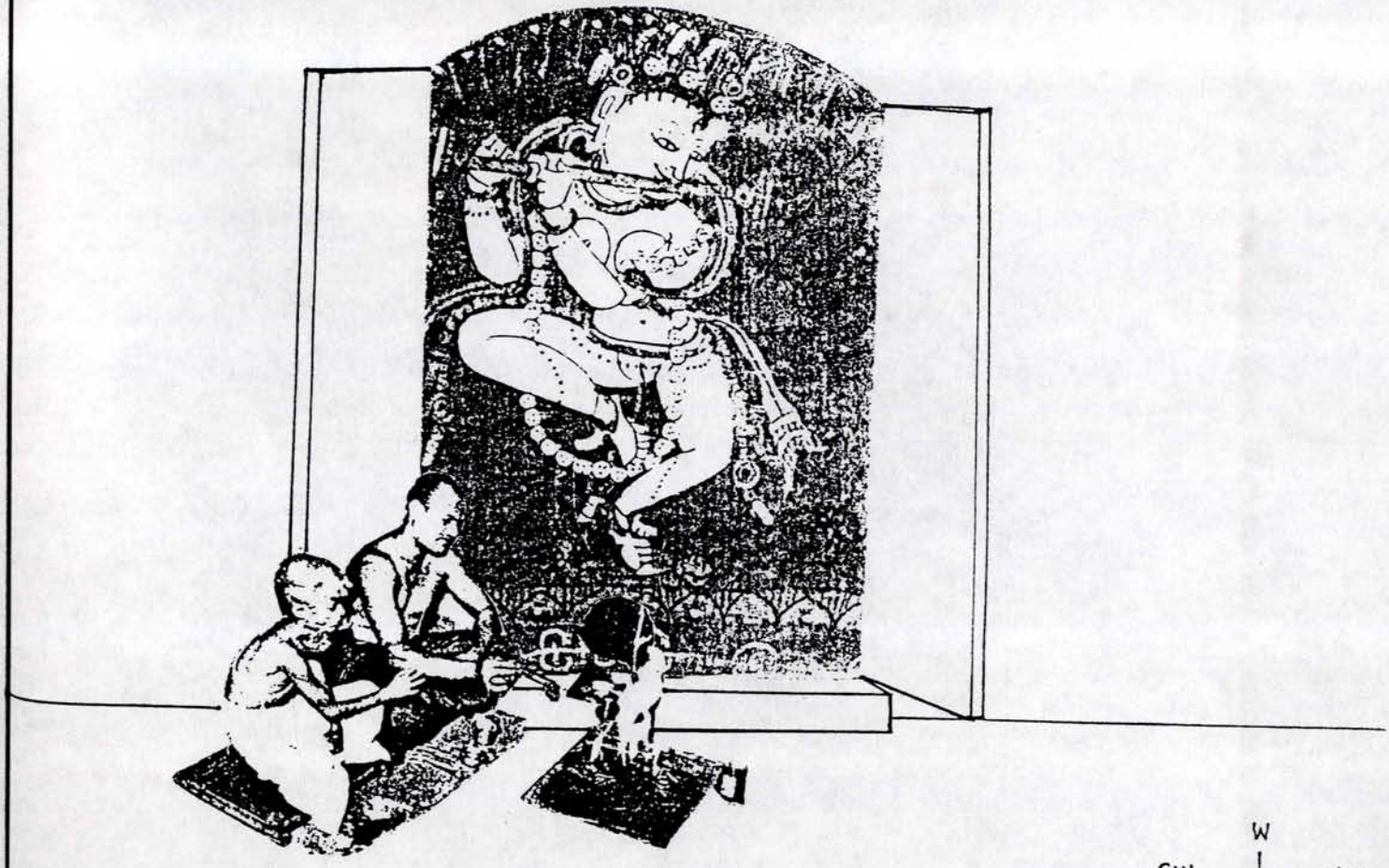
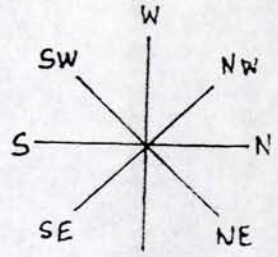


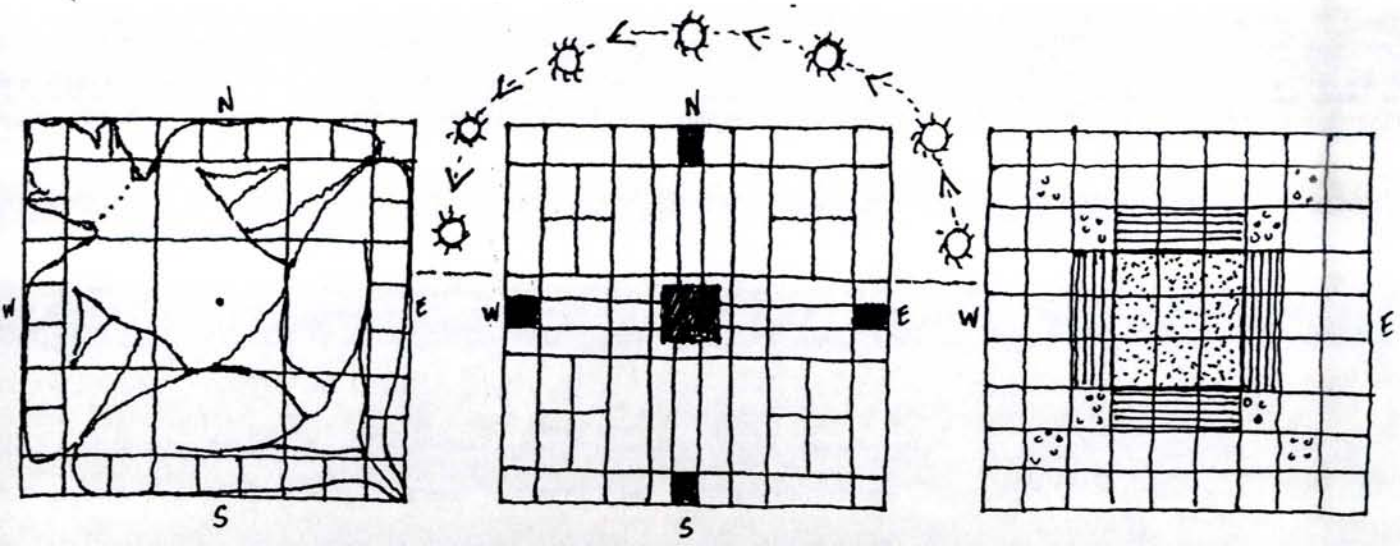


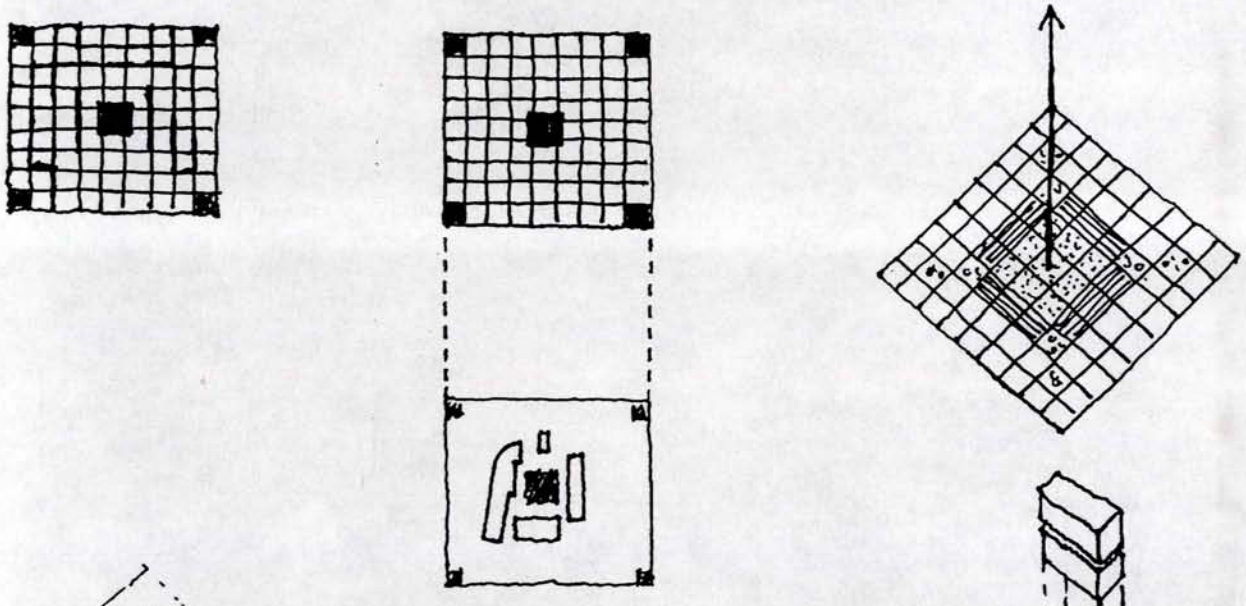


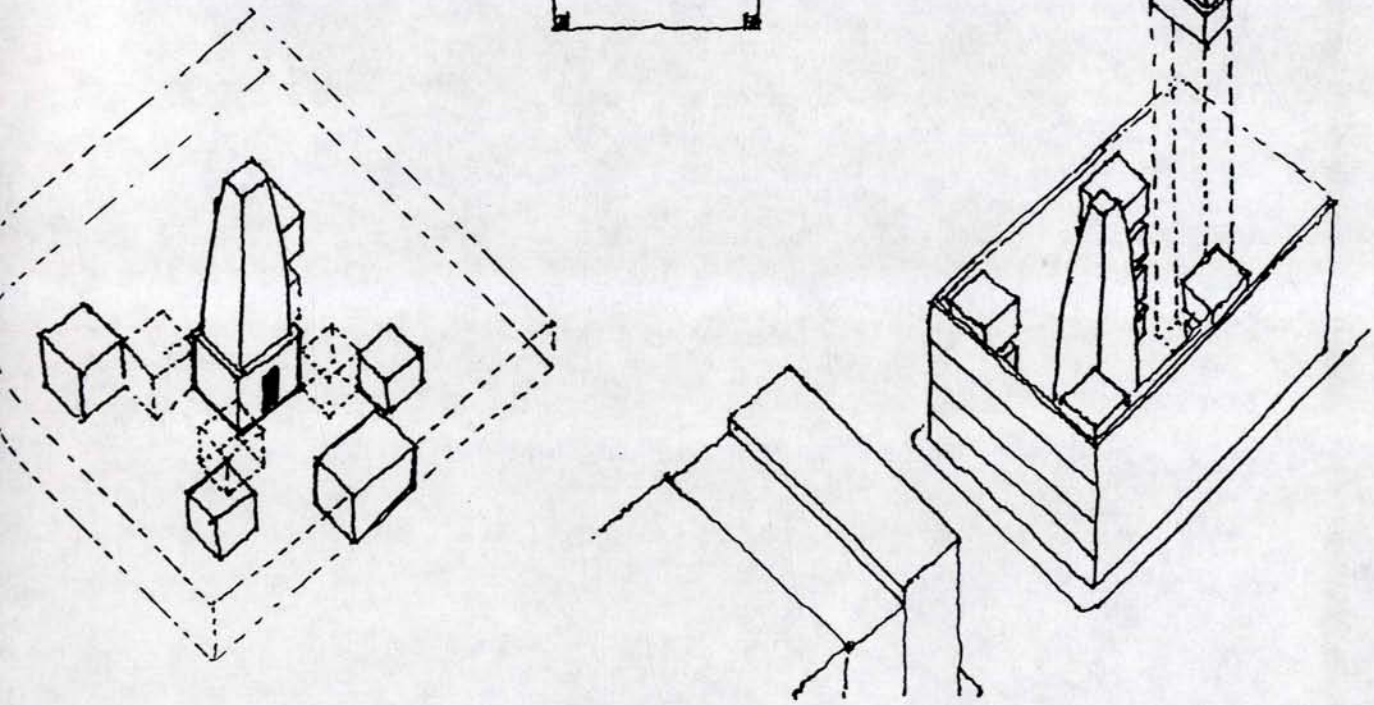


M: RITUAL

Symbolism:Mandala







Program:

Due to the location of the site in Manhattan, the traditional organization of programmatic elements shifts from that of a horizontal nature to that of a vertical one. This is also due to the fact that the actual addition of secular programmatic elements makes it almost impossible to place them on the same level as the sacred elements(sacred vs. profane). This stacking of elements allows for the ability to clearly separate certain functions of the building from others as well as realize the inherent processional sequences and hierarchies involved between them.

The program shall include elements that I have found to be essential to the function of the religious building, in its historical sense, as well as elements which become necessary to it's function in terms its present place within time and space(modern vs. traditional). The elements concerned with the contemporary condition can be considered transitional or intermediary between the public, urban levels and the private, ritualistic levels of the sanctuary and shrine.

[4]The essential pieces can be defined simply as the sanctuary (*vimana*) which surrounds the inner chamber (*garbhagriya*) which contains the image of the divine; a pavilion for the gatherers and congregation (*mandapa*); a vestibule connecting the sanctuary and the pavilion (*antarala*); and a circumambulatory passage around the sanctum (*pradakshina patha*).

The elements of the program which become somewhat external to these essential pieces are concerned with the making of a complex which can exist within the contemporary condition. The sequence unfolds beginning at the administrative level, passing through the second public level and then onto the academic and private levels finally reaching the roof where the sanctuary and pavilion are found.

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[4] Puri pp.34 -35

Sacred elements:

-Sanctuary, worshippers pavilion, ceremonial kitchen,

-Restrooms

Living Quarters:

Private: Priestess(*mana*)

-Main quarters

-bedroom

-chapel

-kitchen

-bathroom

-Assistants quarters

-bedroom's (5 to 8)

-bathrooms (2 to 3)

-kitchen

-Library (small)

-Office (small)

Public:

-Guest quarters

-bedrooms (4)

-bathrooms (2 to 3)

-Common room

Academic:

-Library (large)-for priestess/priest, patron, devotee or student.

-reading room

-Classrooms (5 to 6)

-Meditation and yoga spaces

-Common rooms

-Restrooms

Public:Function level.

-Social hall/function hall

-Auditorium

-Lobby space

-Exhibition spaces

-Restrooms

Public: Administration facilities.

-Exhibit

-Lobby

-Eating area (cafeteria)

-Administrative

-Offices (1 to 2)

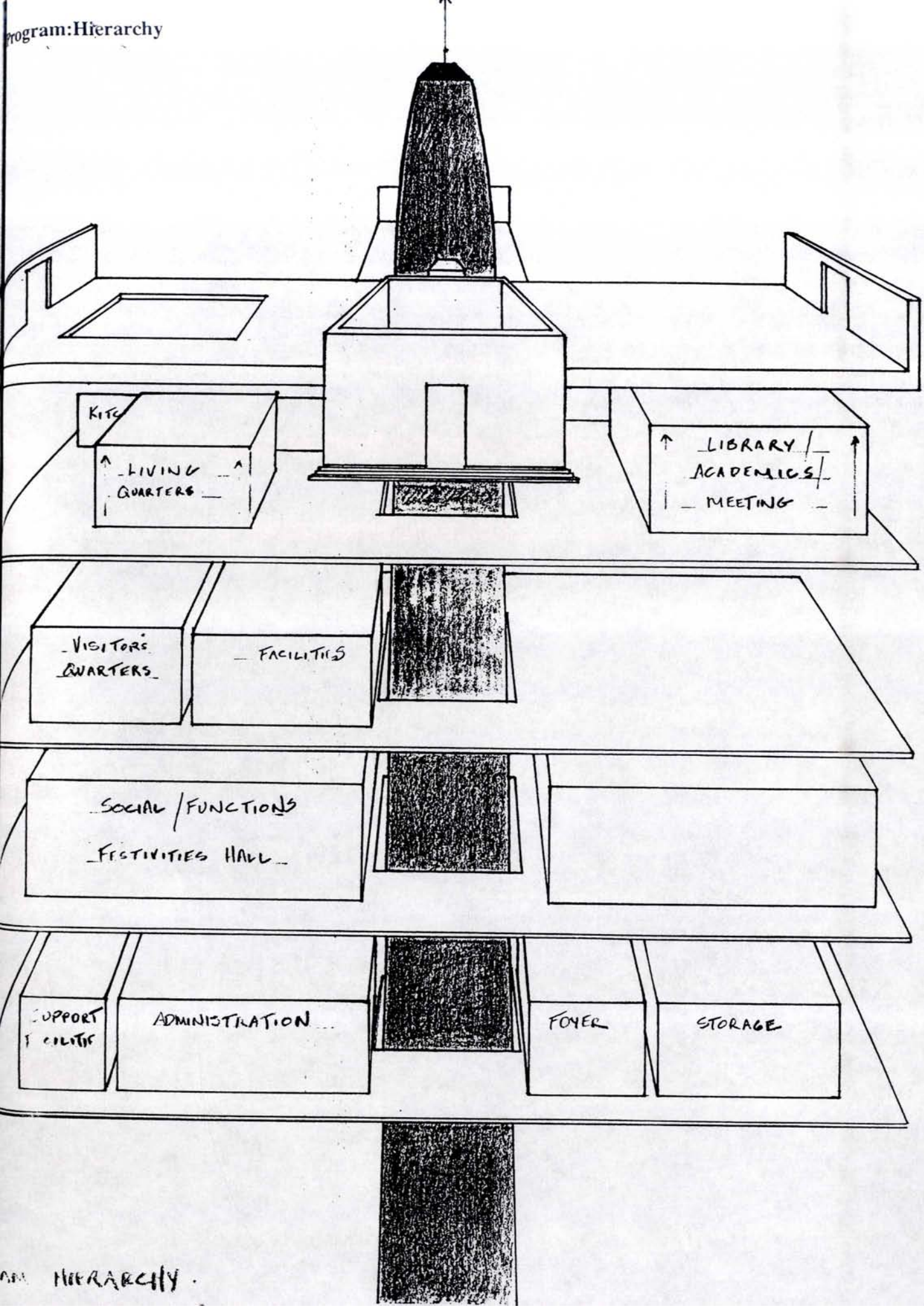
-Restrooms

-Interior and Exterior spaces as required.

-Circulation 20%-24%

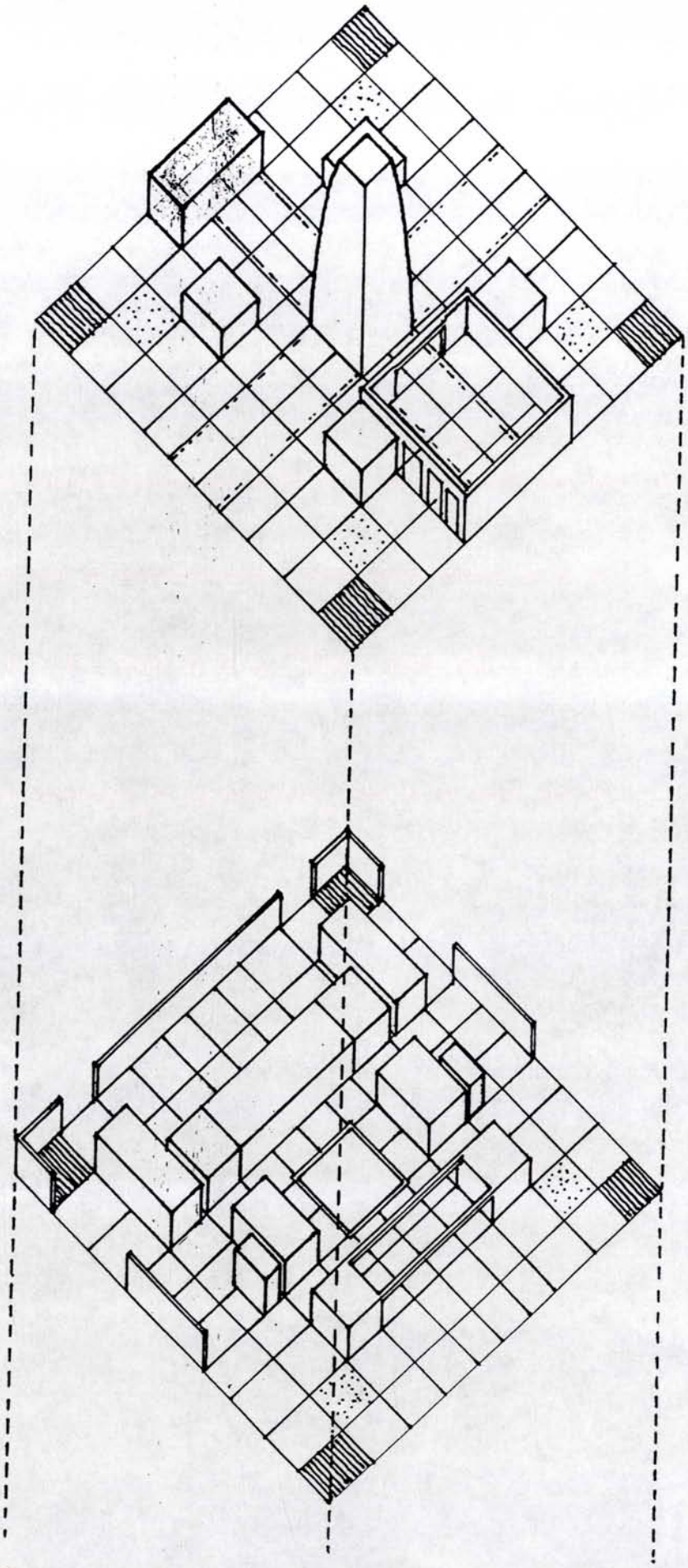
The program will allow for approximately 200-250 worshippers to attend service at one time. This will include interior and exterior spaces. The total number of people working in the institution will be approximately 15 (4-7 live-in and 5-8 part-time). The building footprint can be at its maximum approximately 200'*200'. The site is approximately 200'*390'.

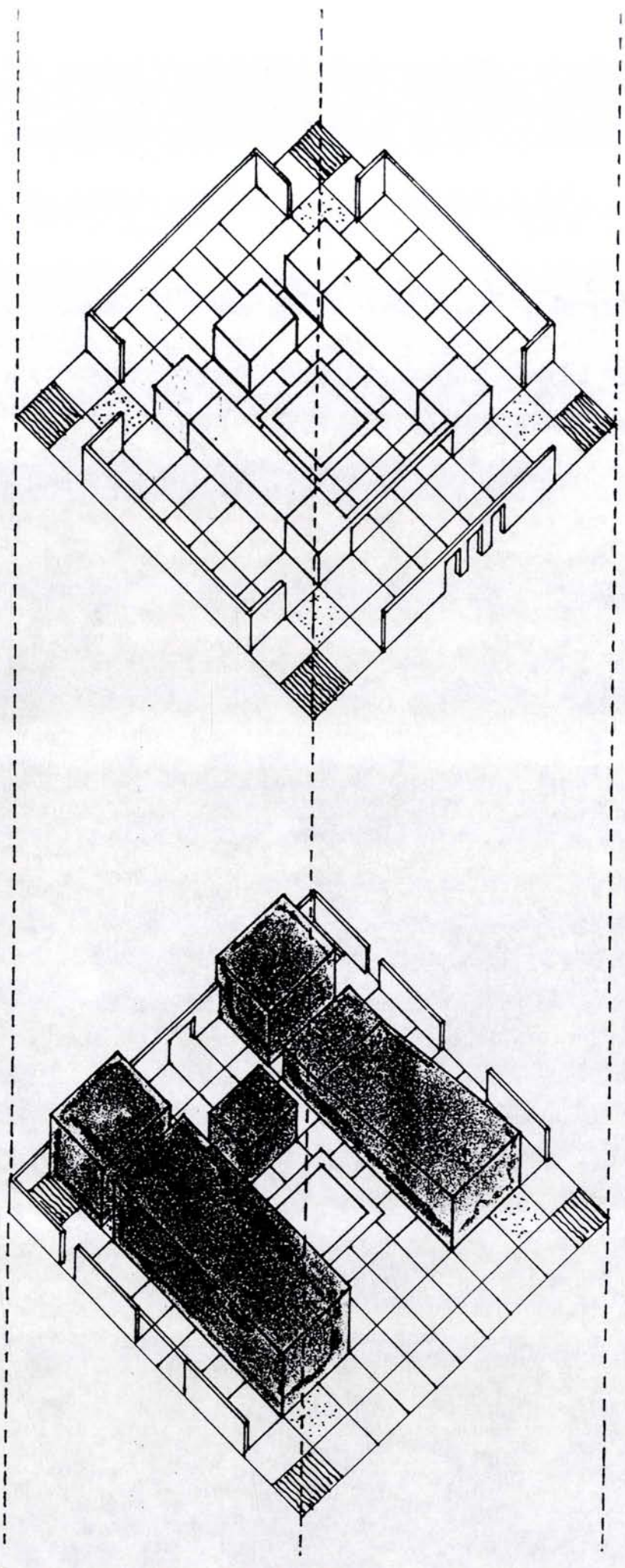
Program:Hierarchy

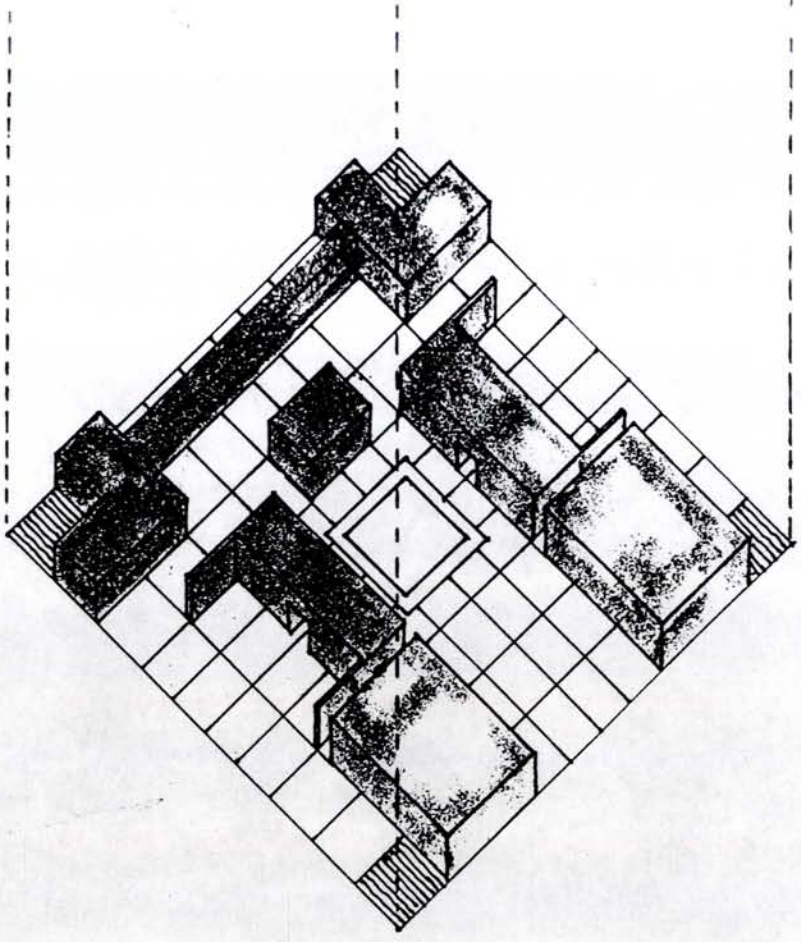


HIERARCHY.

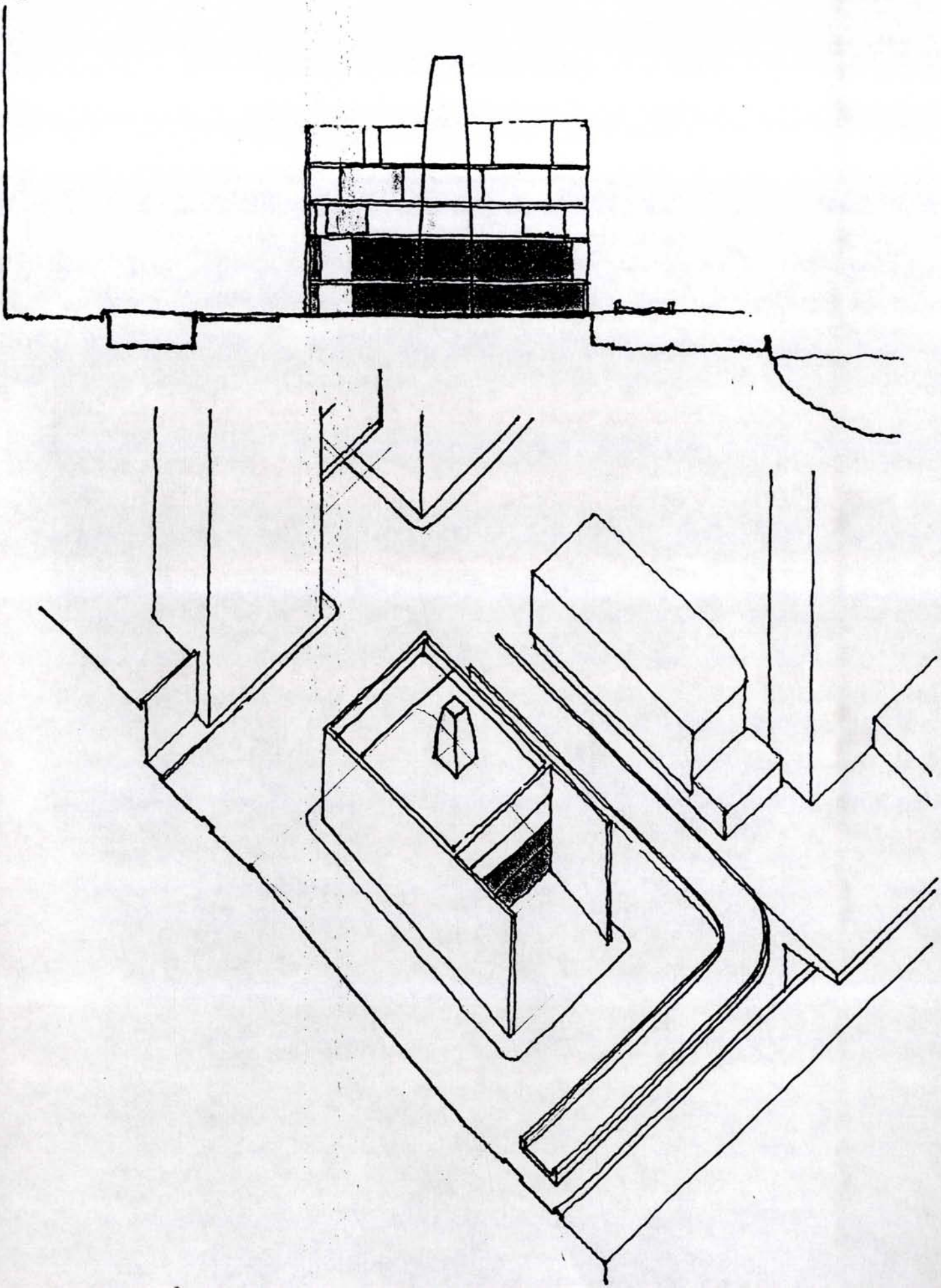
Program:Levels



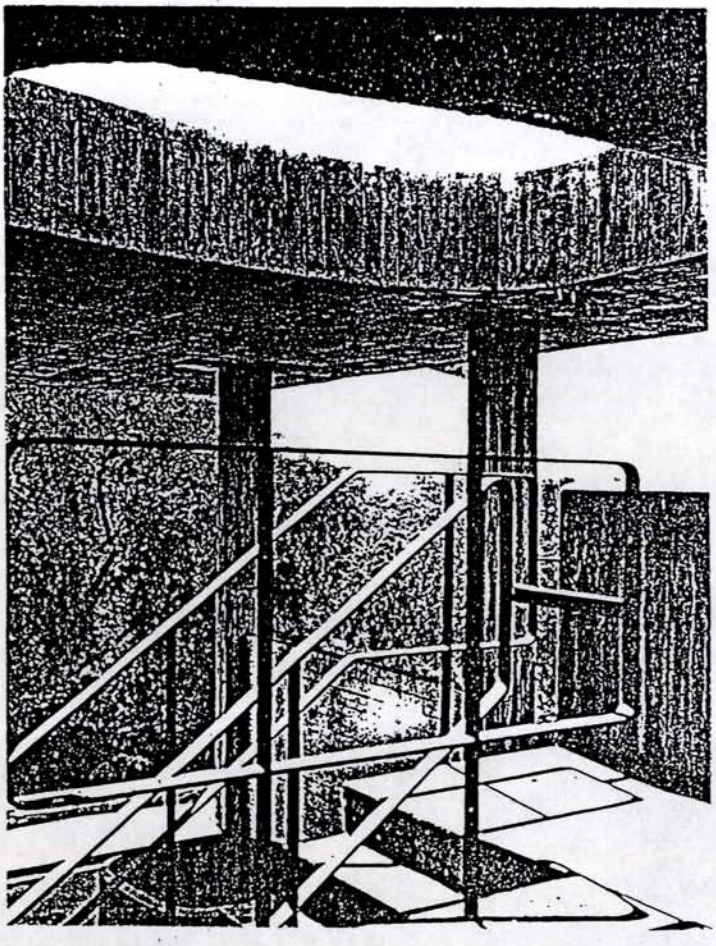




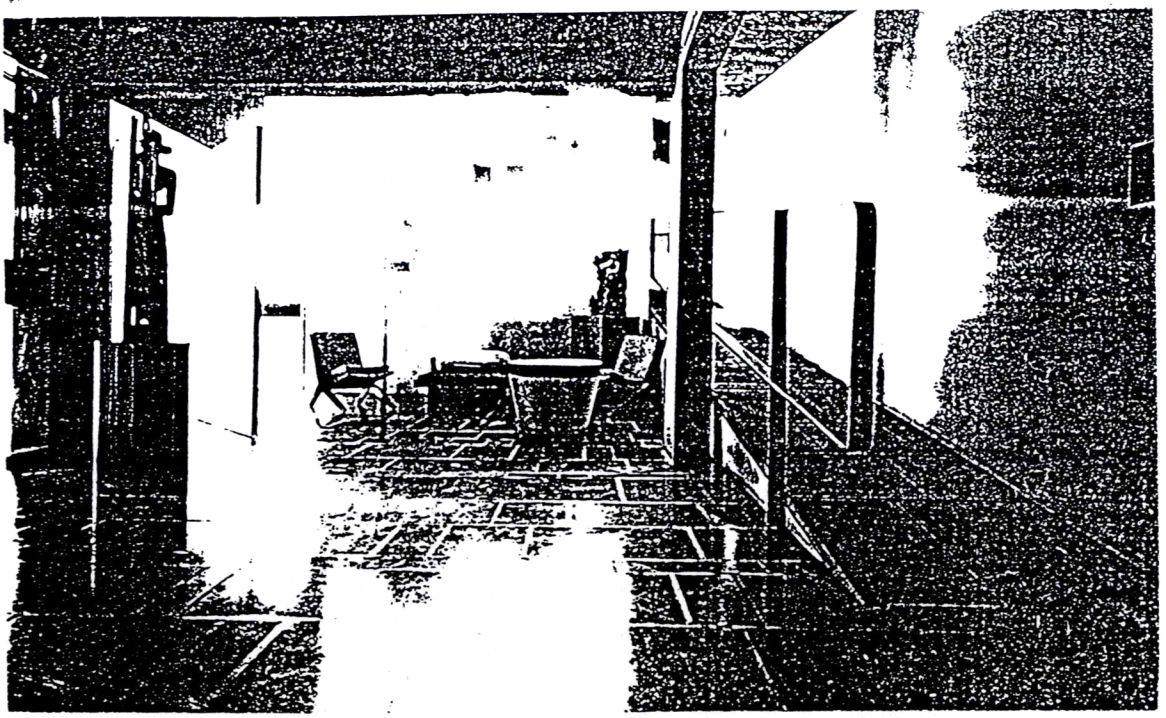
Program:Sectional characteristics

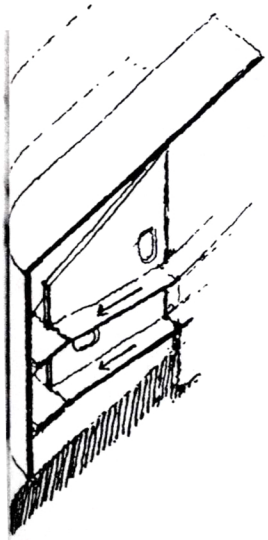


Villa Shodan
Le Corbusier
Amhemdabad, India

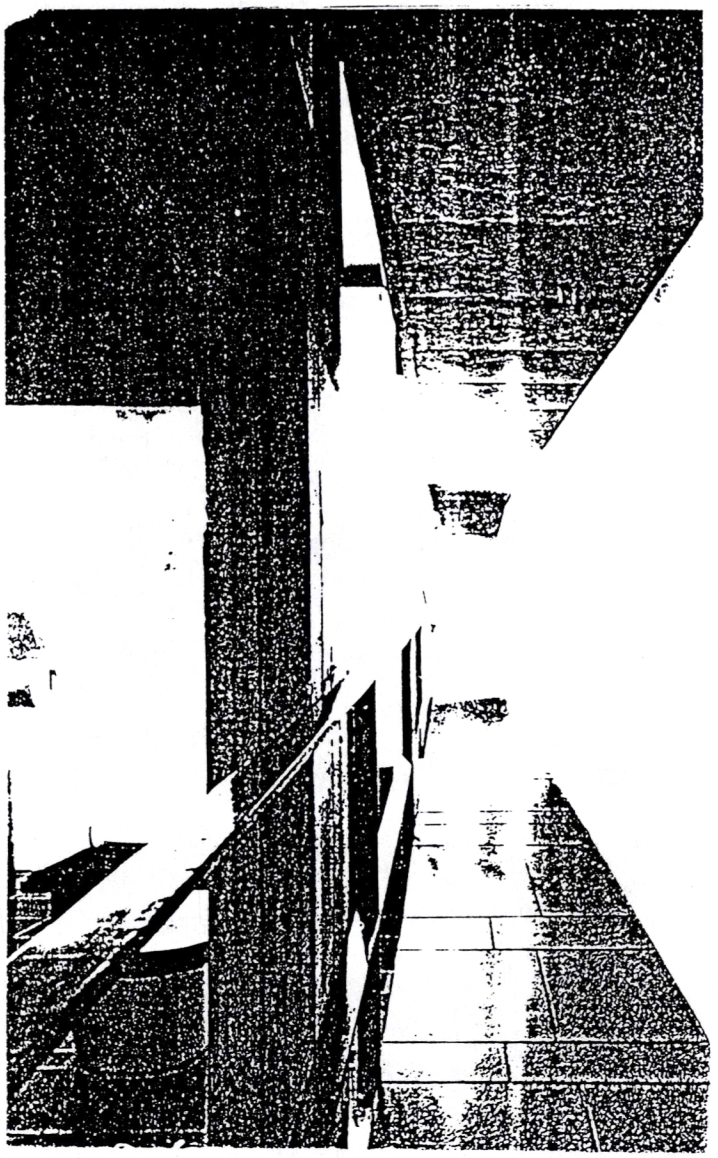


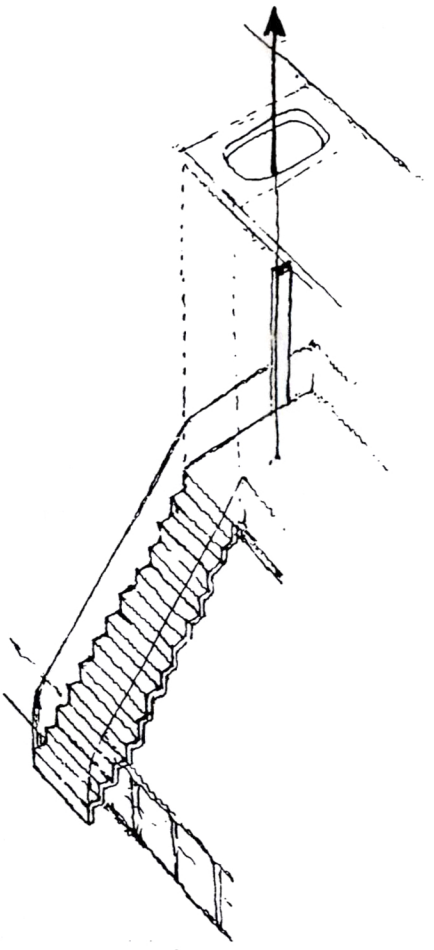
The Villa Shodan expresses clarity in its vertical sequence using the ramp element to weave through interior and exterior spaces drawing the body to its resting place and the soul beyond. Its structural grid and wall systems allow for interior/exterior overlap and its basic geometry gives strength to the overall composition.



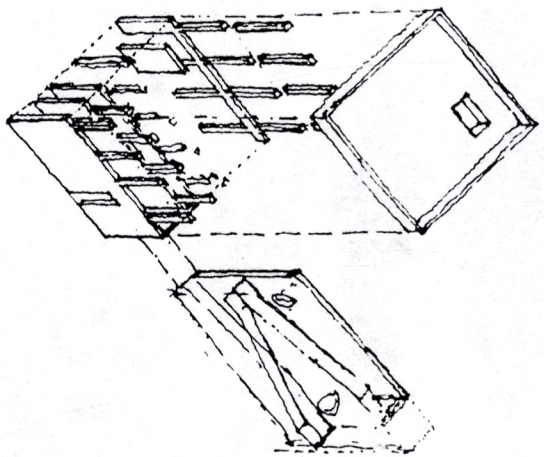


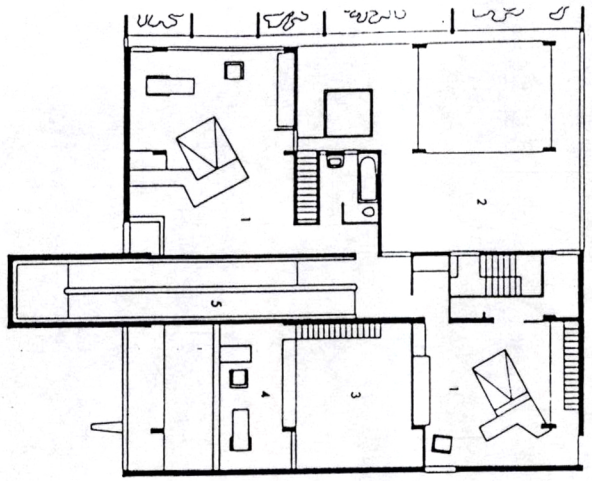
sequence

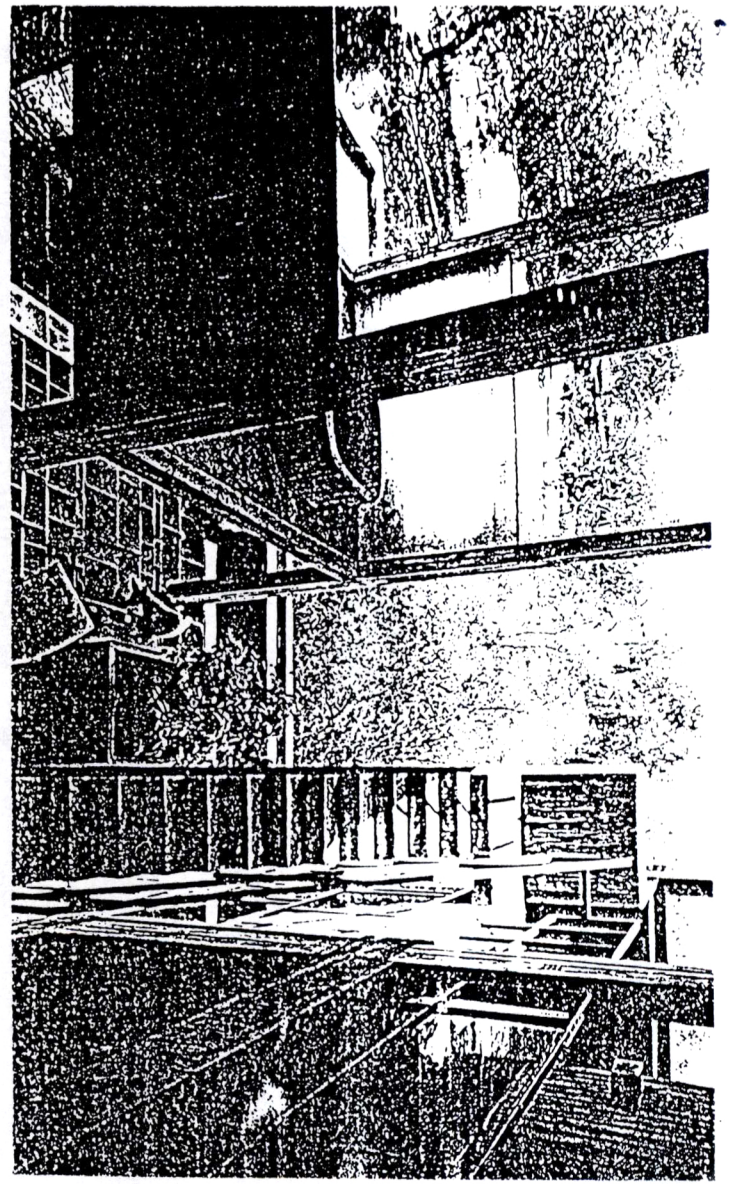


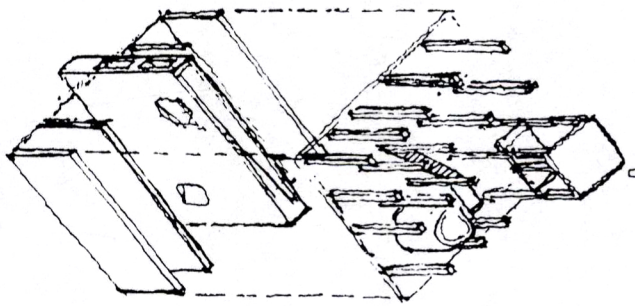


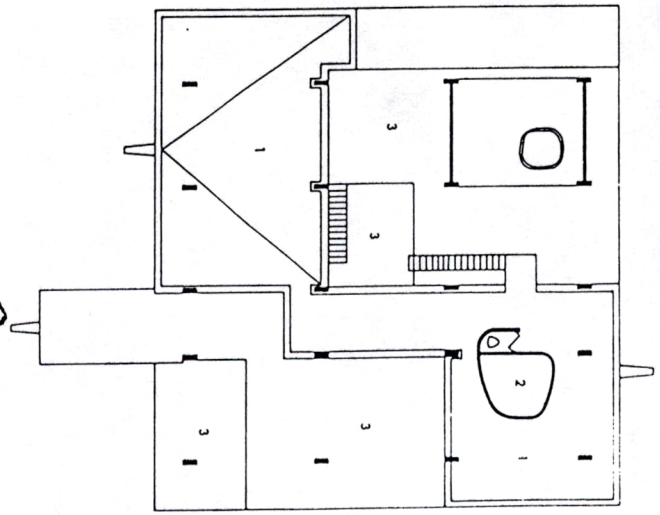
vertical axis

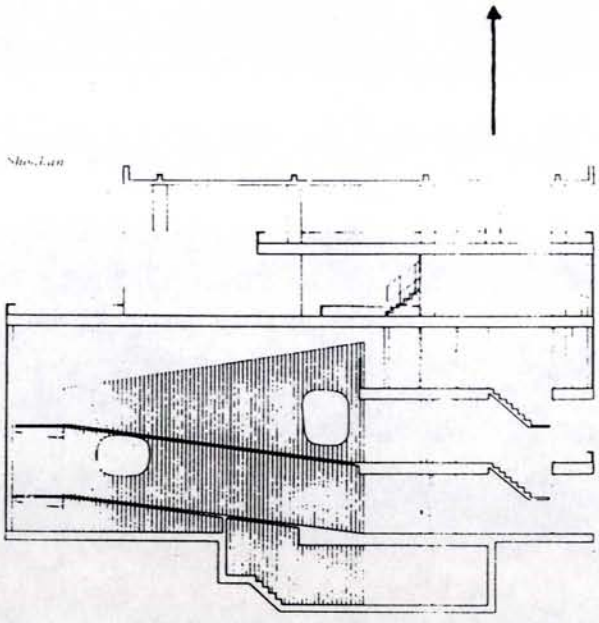


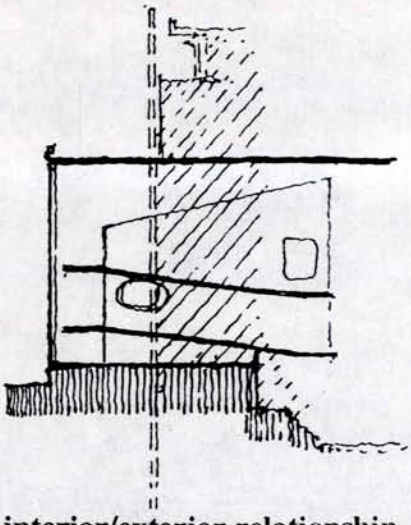




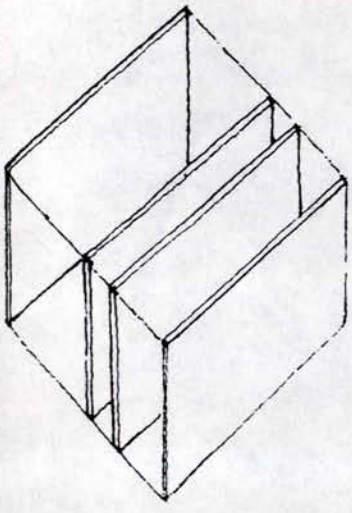




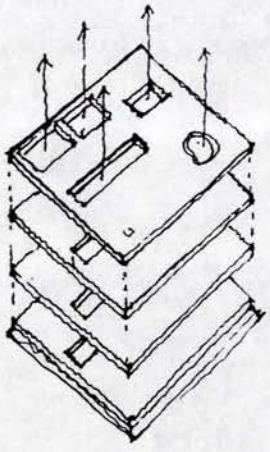




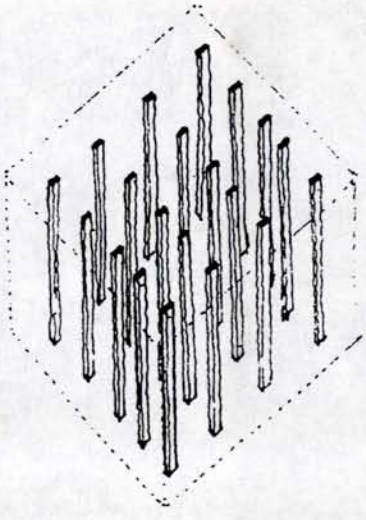
interior/exterior relationship



structural systems

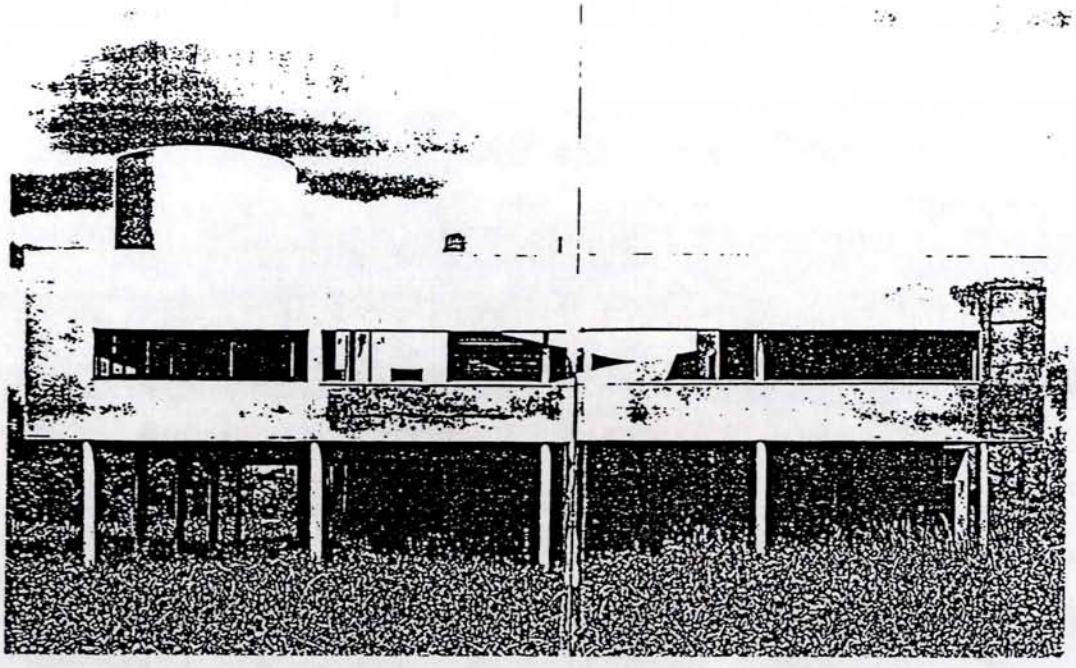


vertical penetration through layers

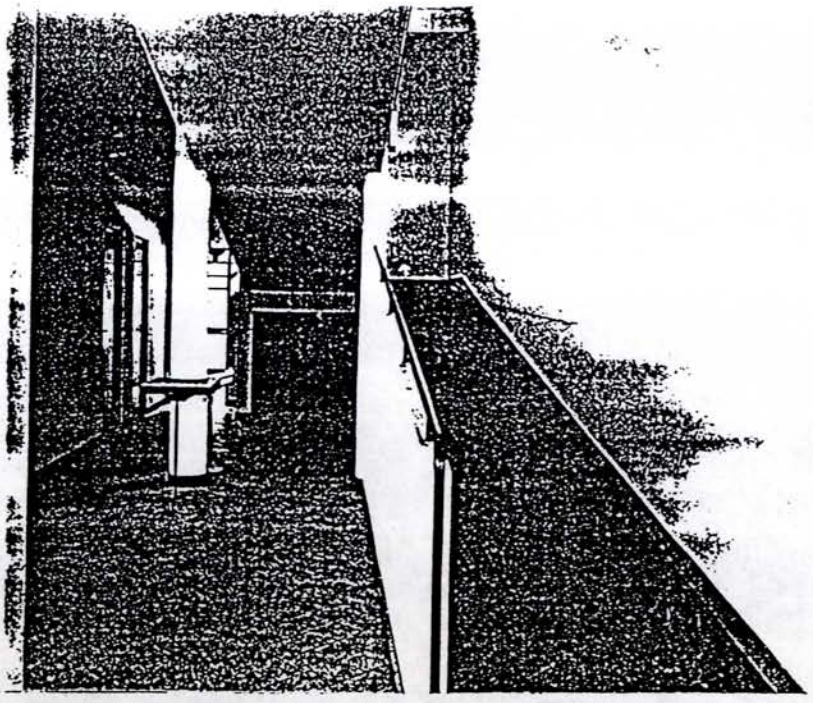


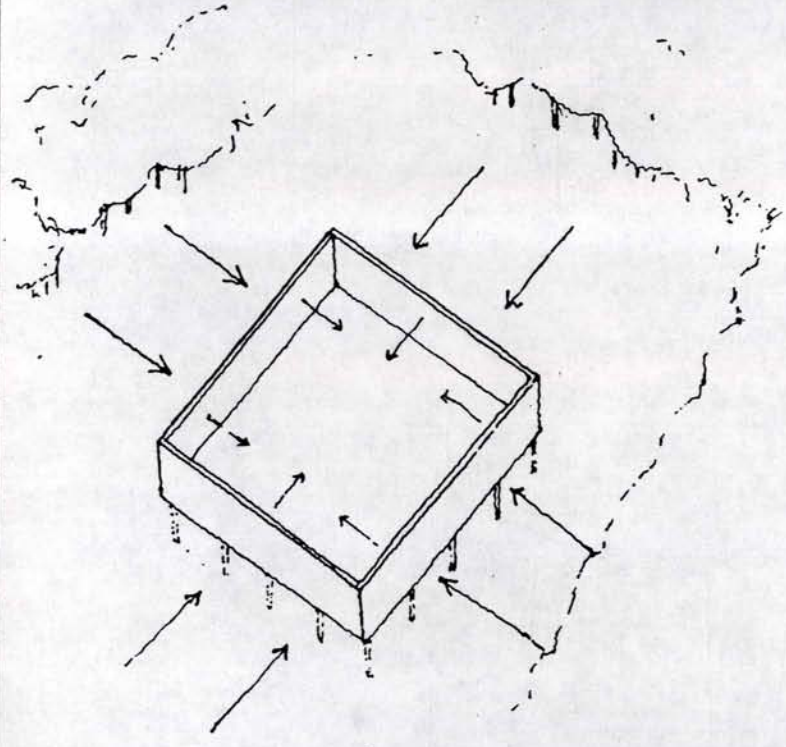
structural systems

Villa Savoye
Le Corbusier
Poisse, France

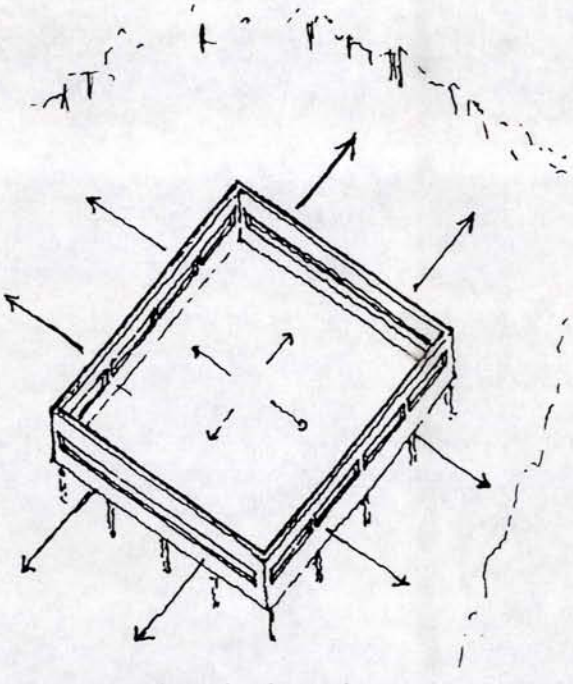


The Villa Savoye defines a vertical ascension throughout the container of the house reaching the roof terrace at which views are framed of nature and the surroundings. Public and private circulation is merely defined by the placement of two separate systems. The free forms of the roof terrace are once again enabled through the strict geometry's and structural systems used. The container while having its relationship to the surrounding area allows for the expression of the elements within.

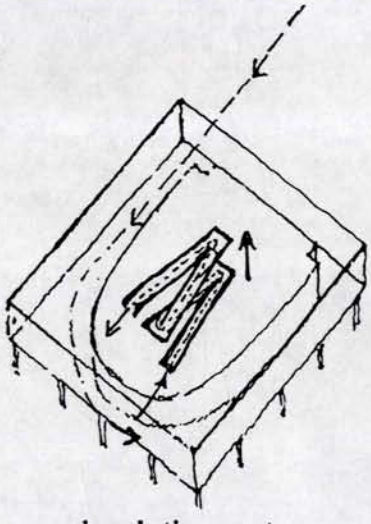




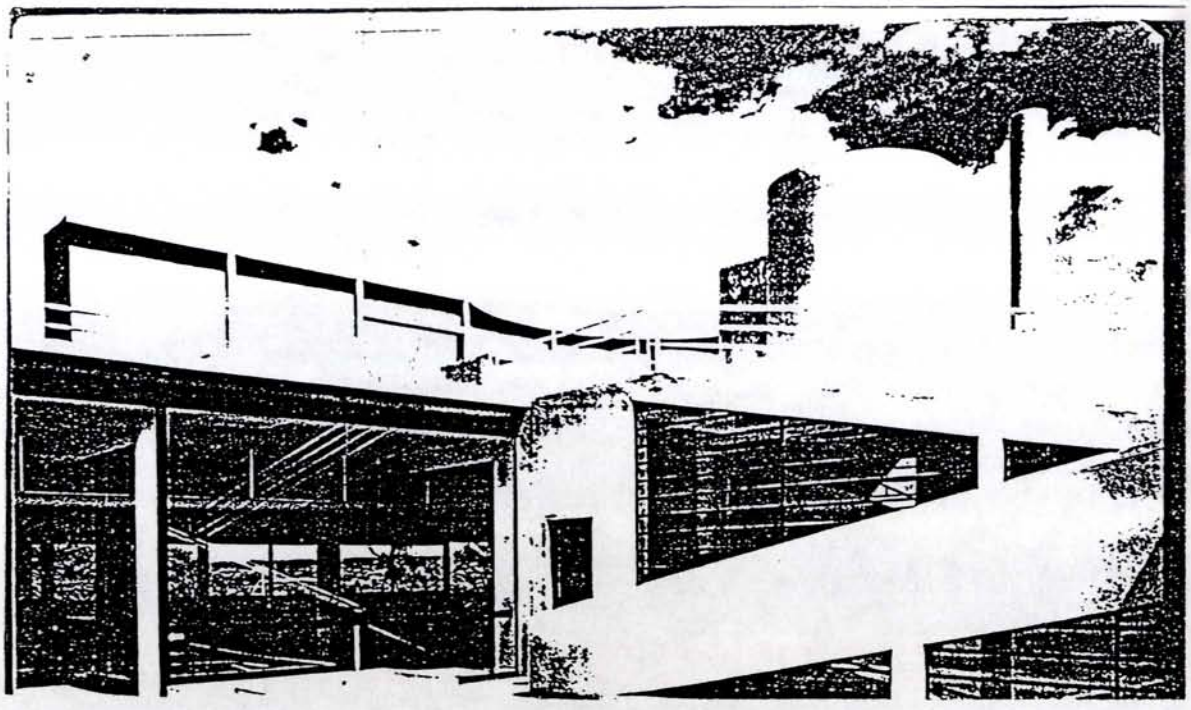
container

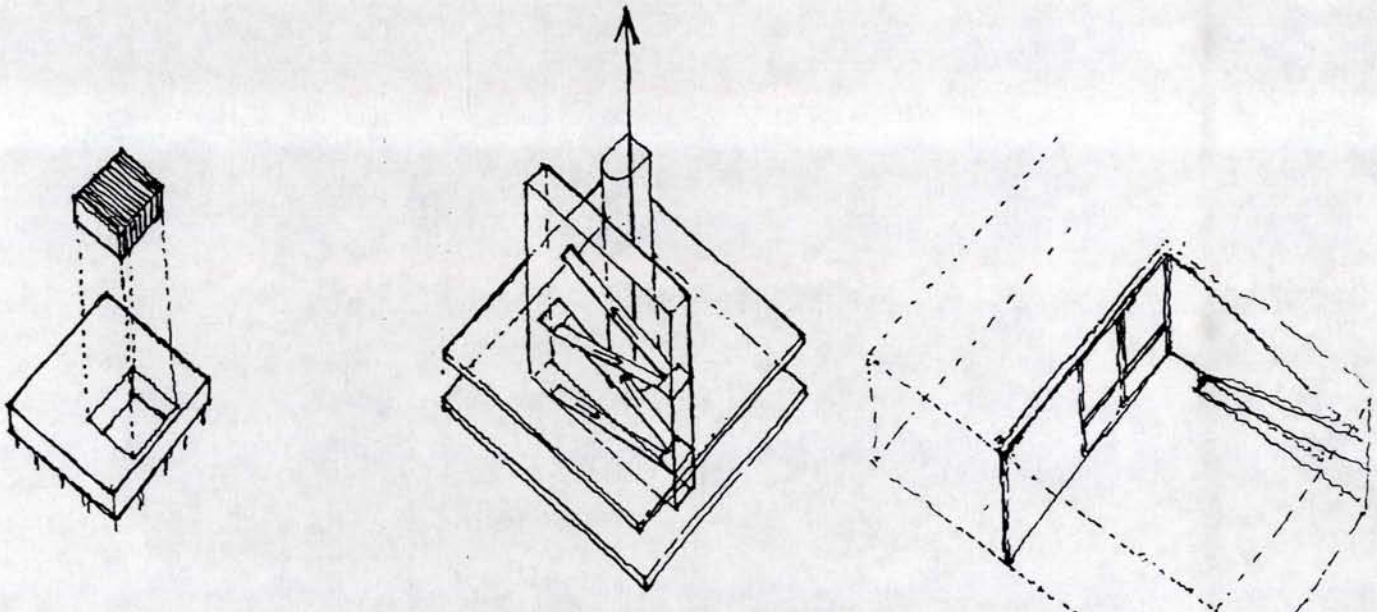


interior/exterior

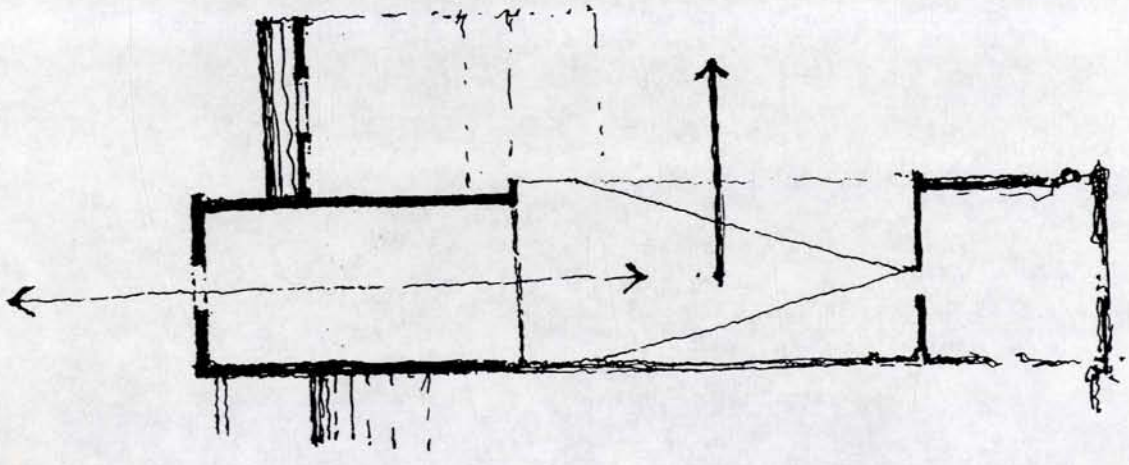


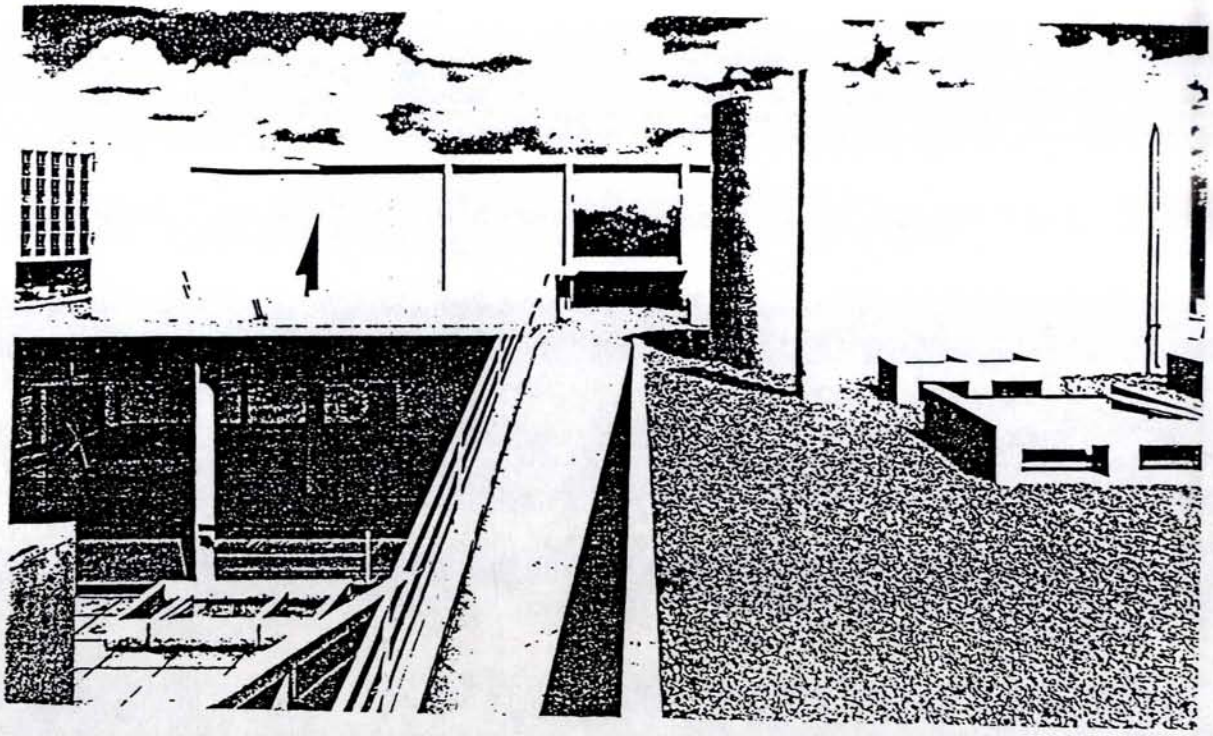
circulation systems

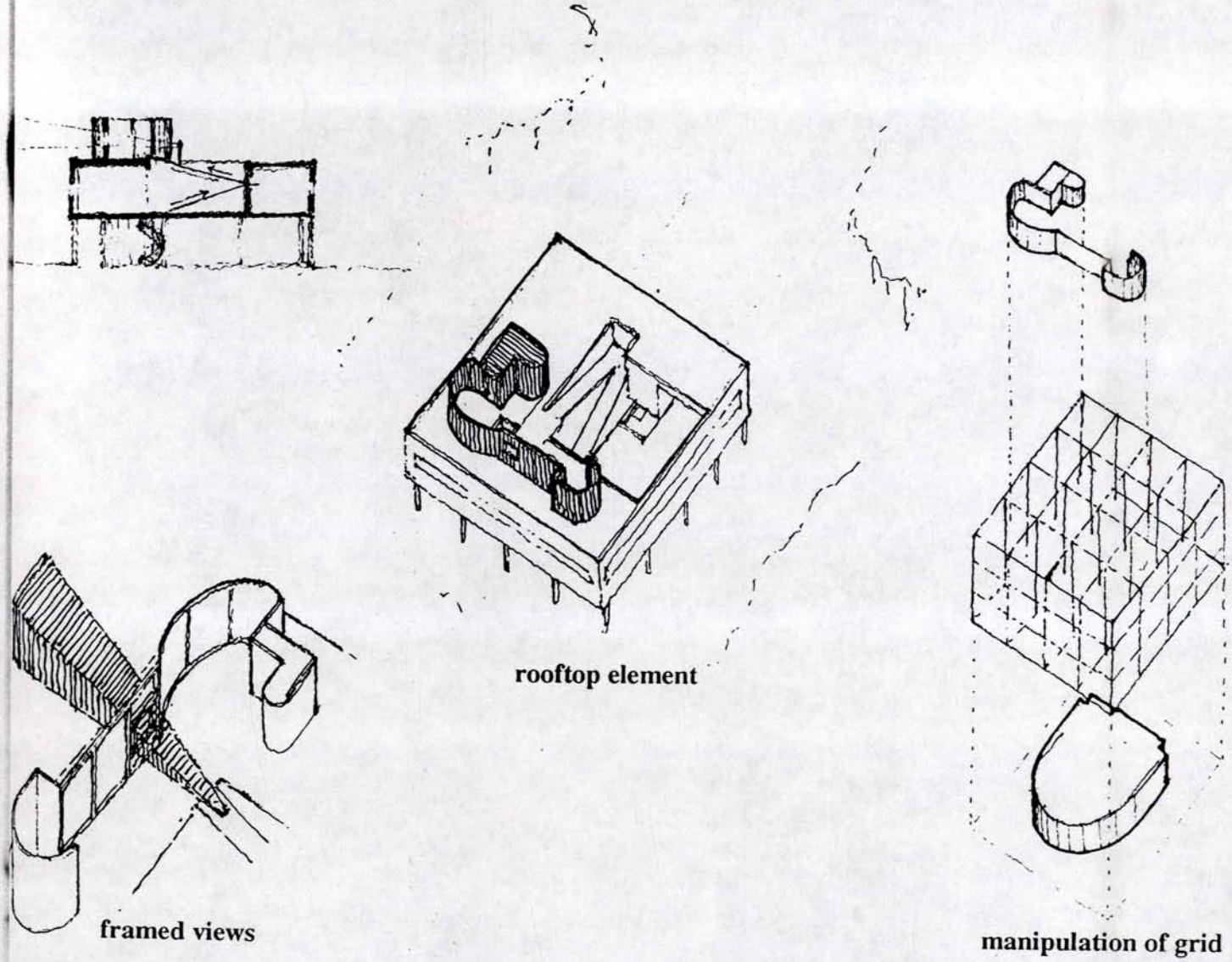




vertical sequence





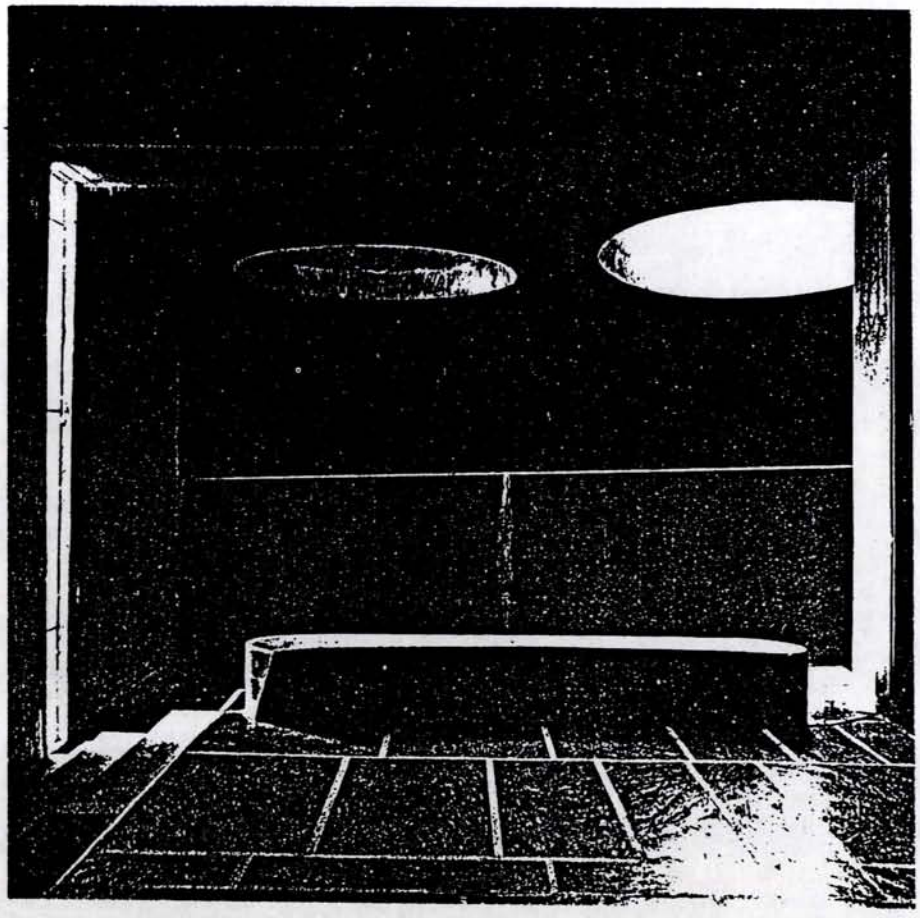


rooftop element

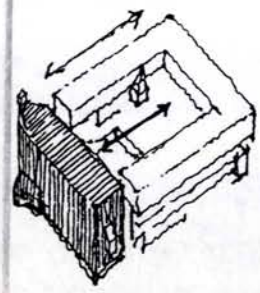
framed views

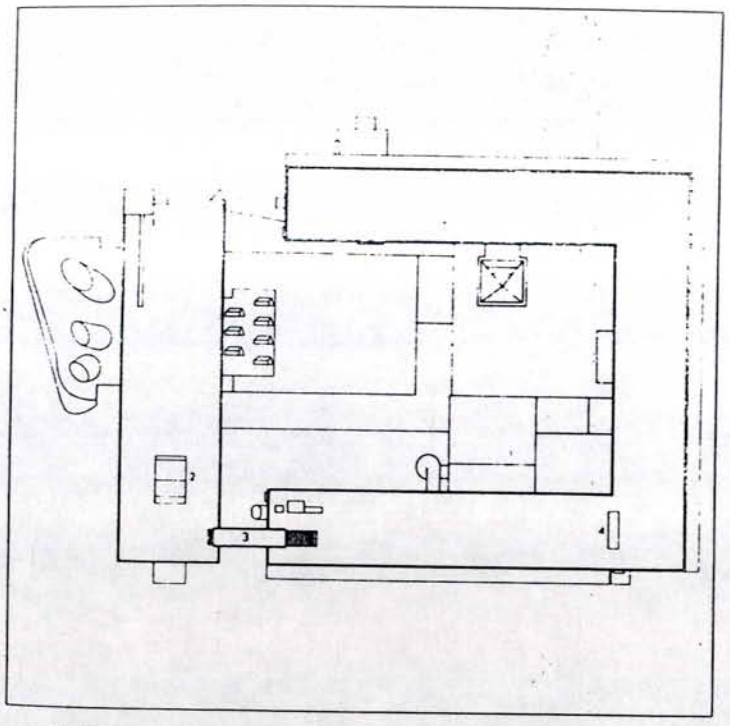
manipulation of grid

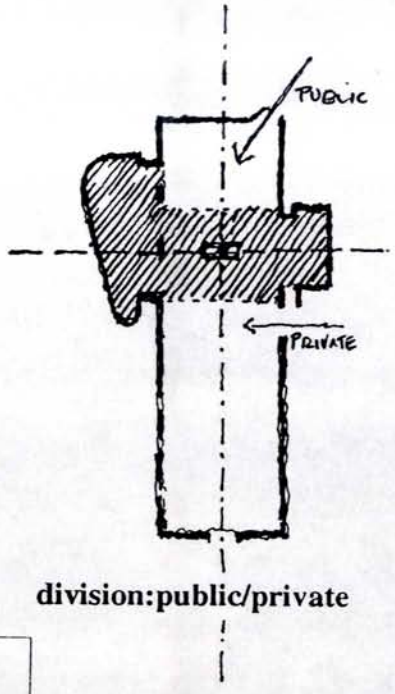
La Tourette
Le Corbusier
L'Abresle, France



La Tourette clearly divides programmatic apart dividing them both horizontally and vertically. The use of the courtyard as a common spatial element to the entire building follows the traditional plans of monastery design. The site and the buildings organization take on an opposite nature to my proposal although its depth in symbolic expression is what I have been more interested in. Again Le Corbusier redefines the ground plane this time placing nature on top and not allowing any view to the ground, only to the sky.

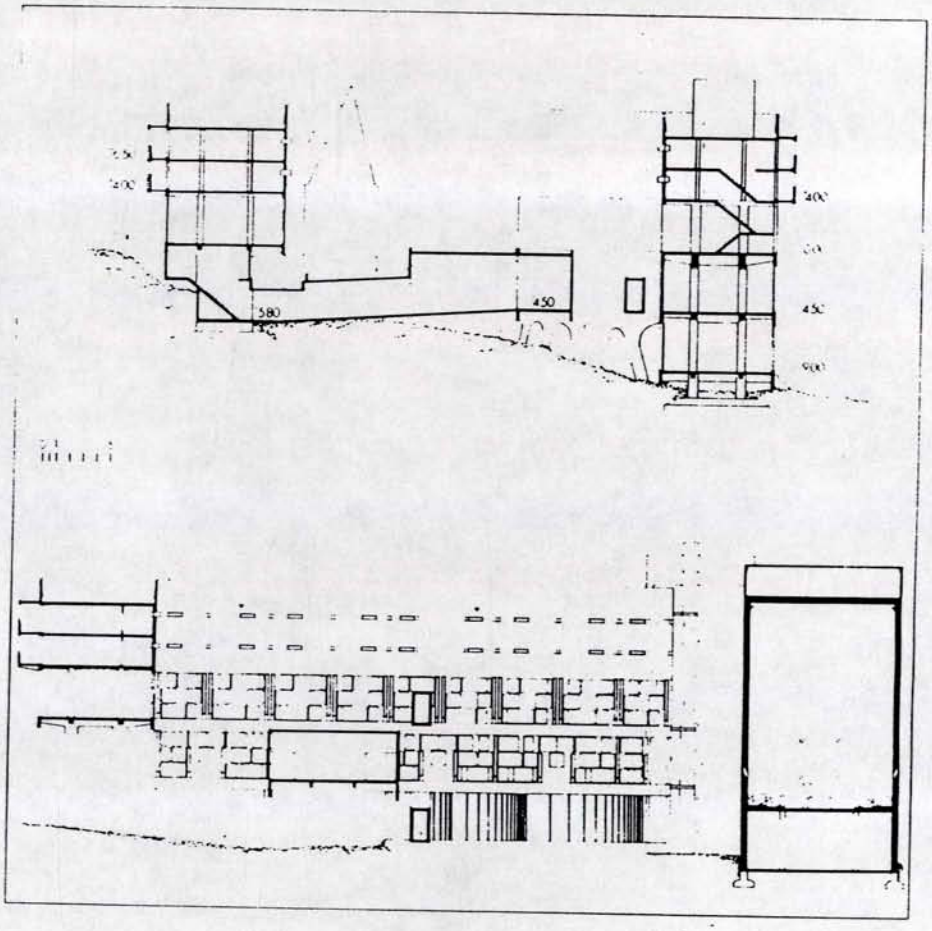


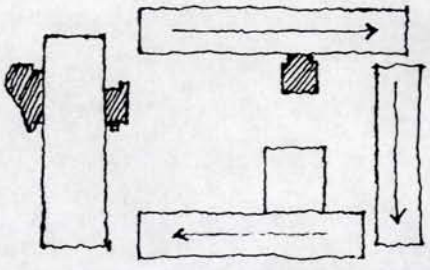


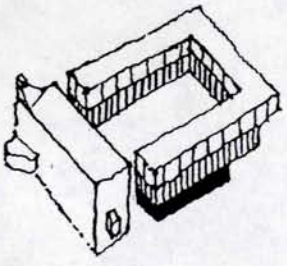


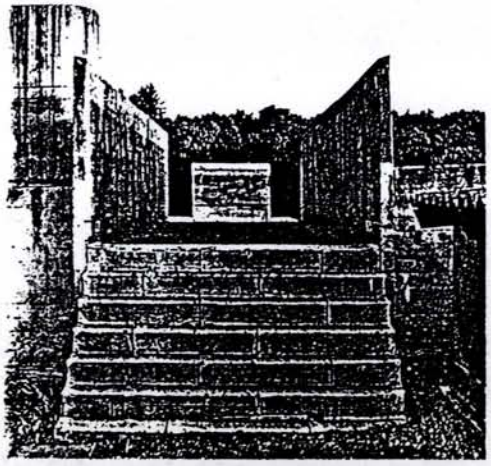
ılar/sacred organization

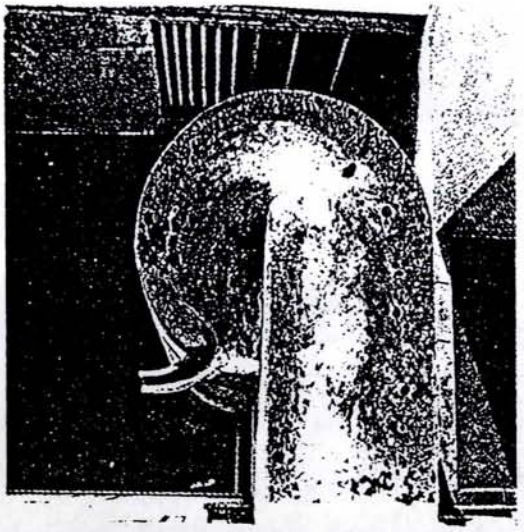
division:public/private

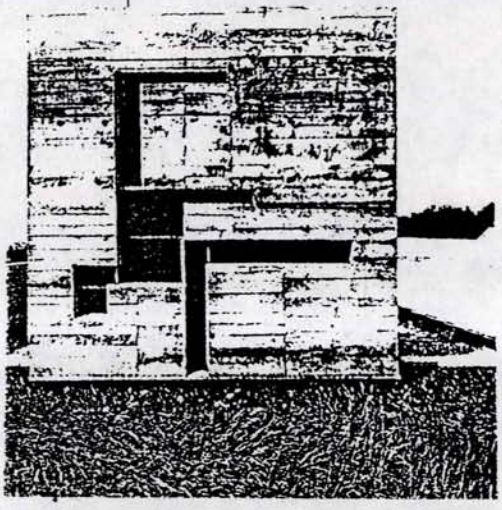


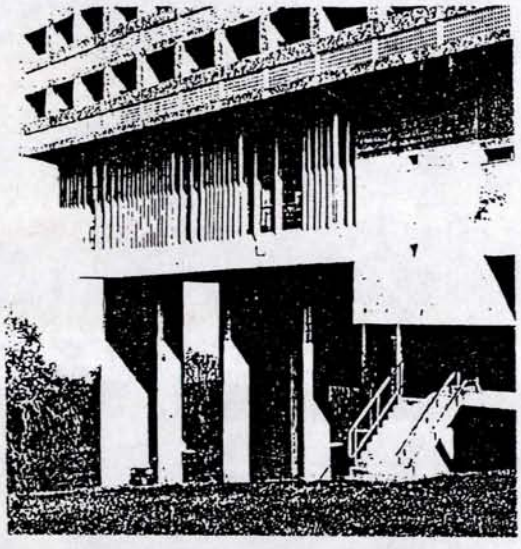


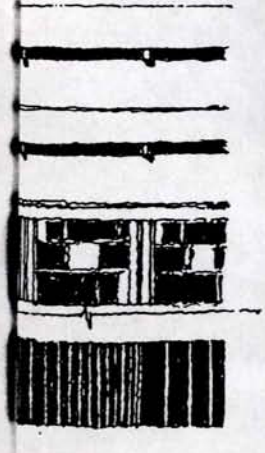


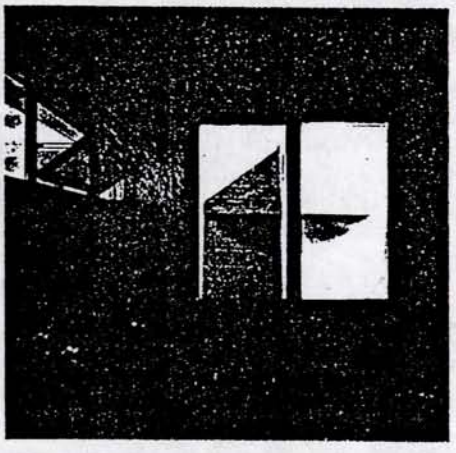


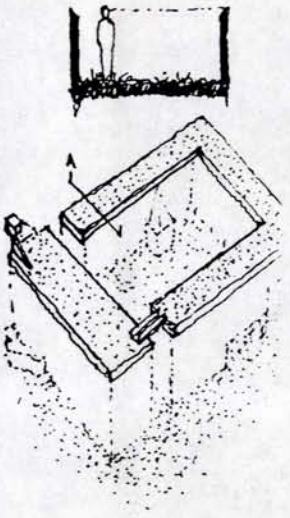




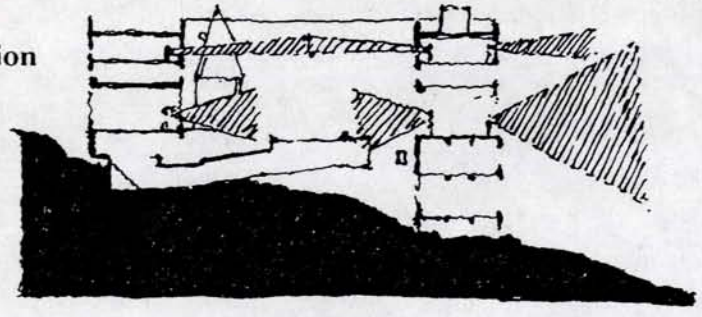


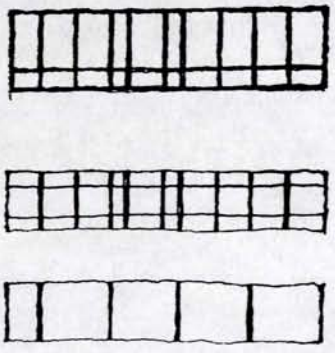






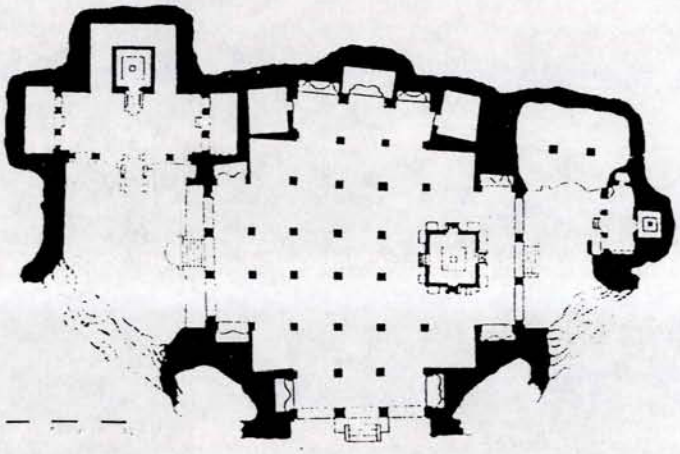
fenestration

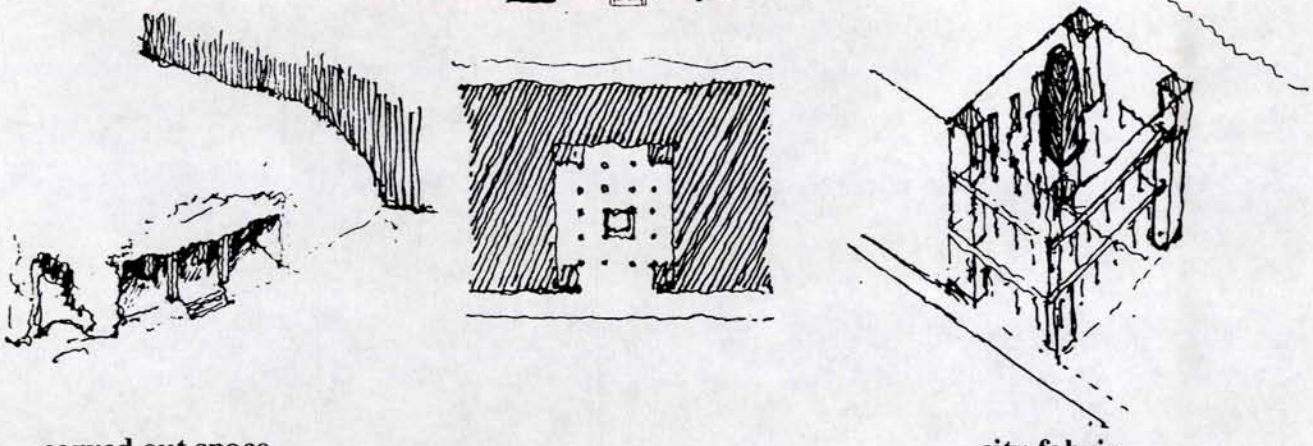




redefined ground

Cave temple



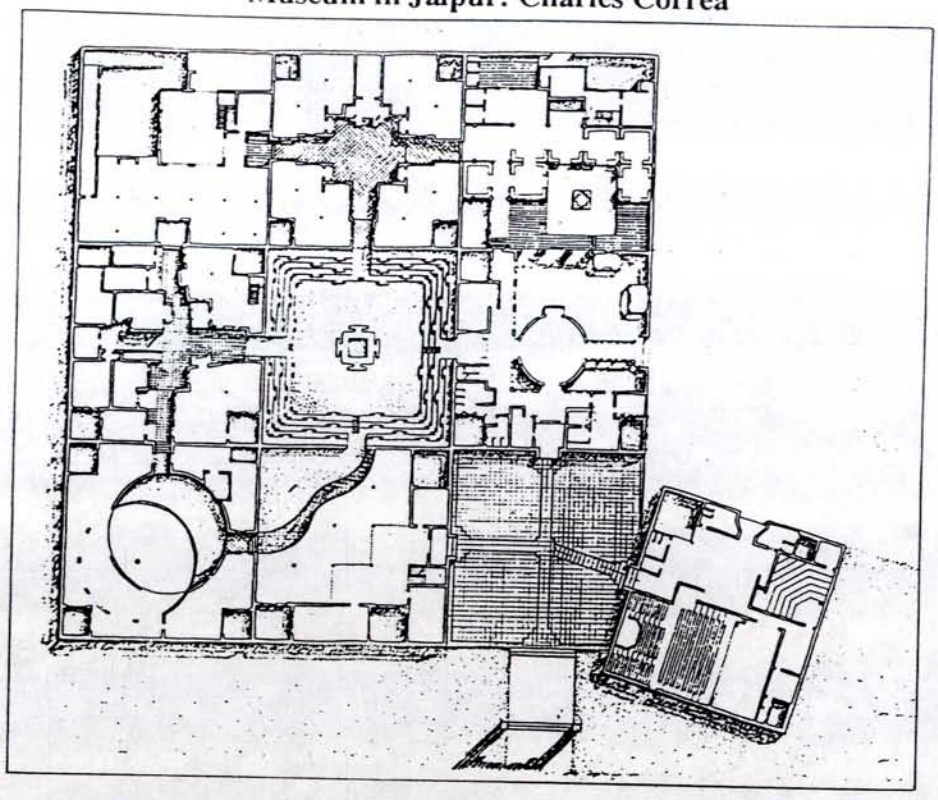


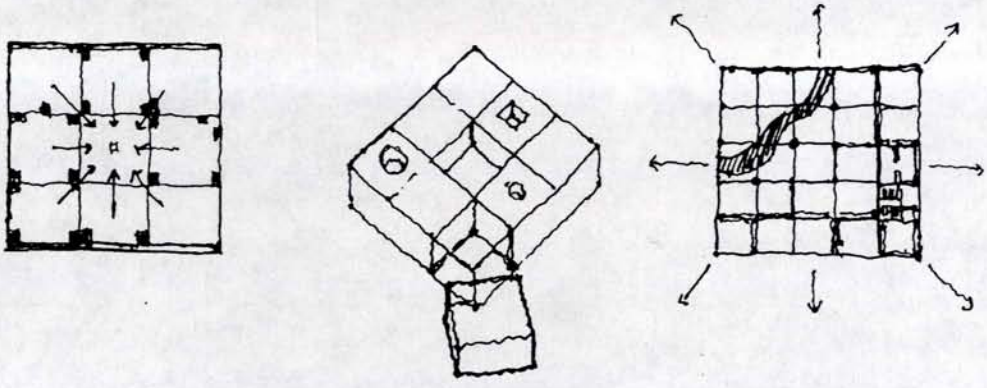
carved out space

city fabric

The analogy to the city fabric

Museum in Jaipur: Charles Correa

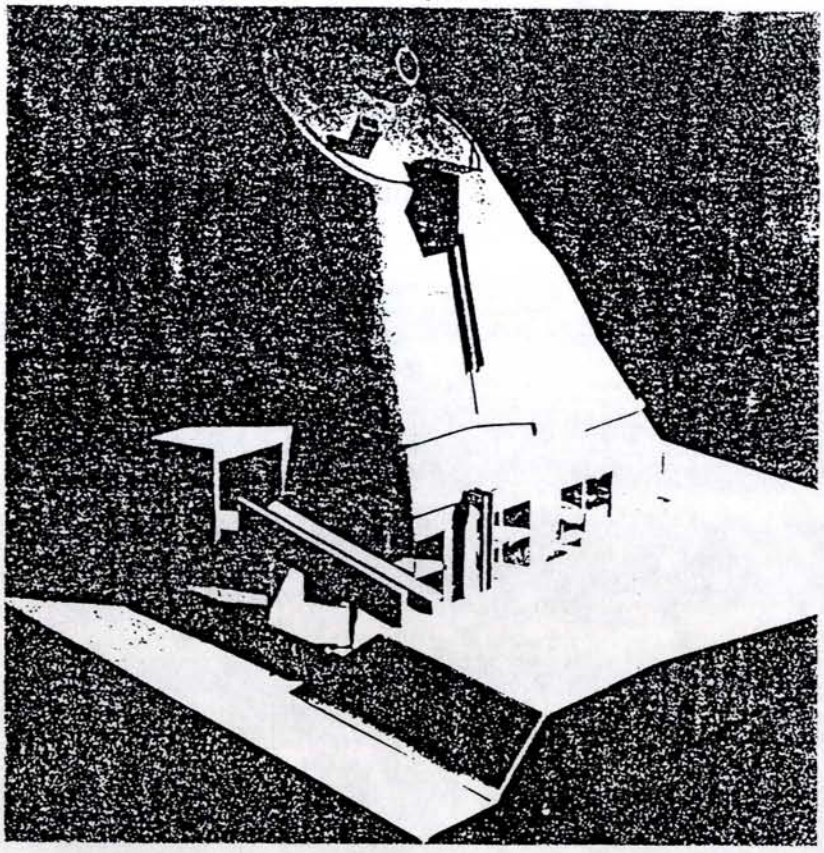


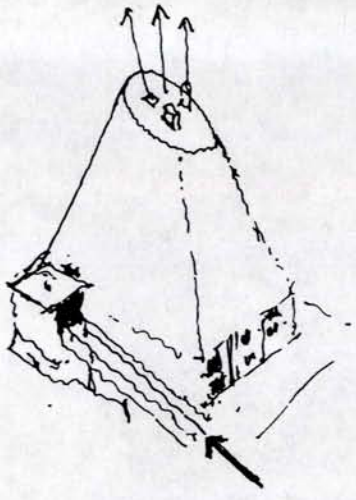


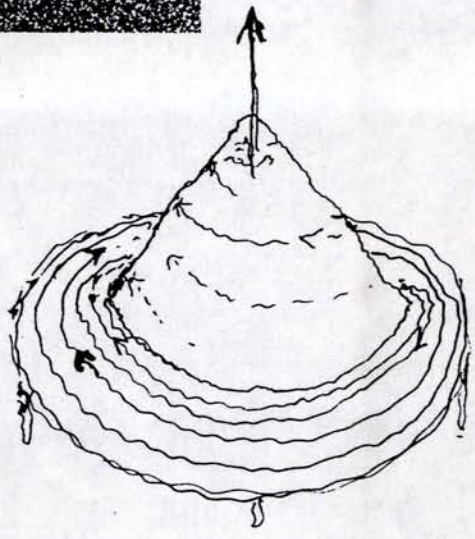
mandala organization

The use of the mandala allows Correa much freedom in the design of the museum. By analyzing the mandala he has understood the relationships of its various parts and in the end creates a highly symbolic gesture. Although the building is not one of religion it is religiously based in its symbolism and images.

Church at Firminy: Le Corbusier





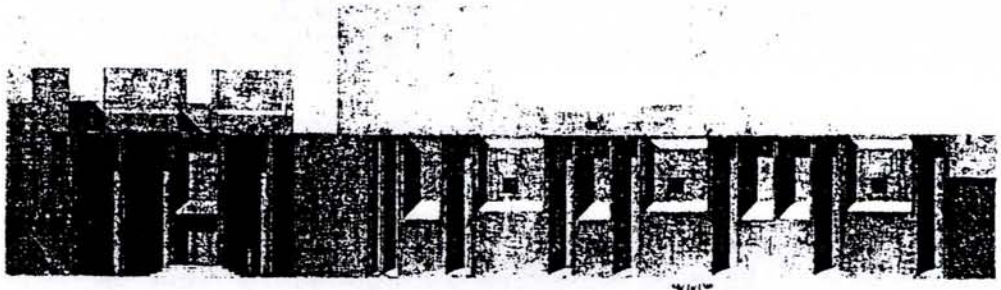


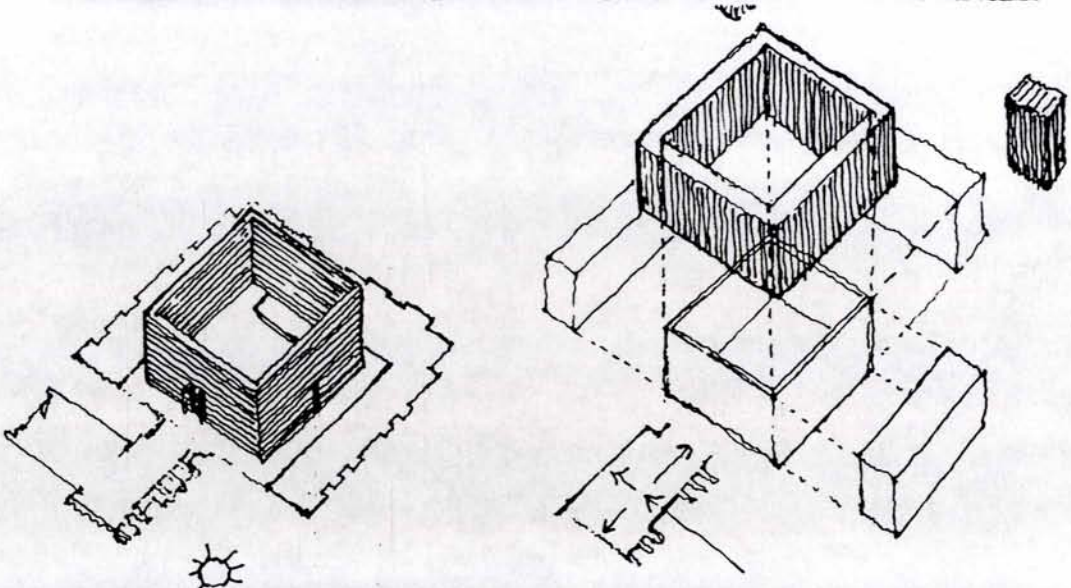
cosmic axis

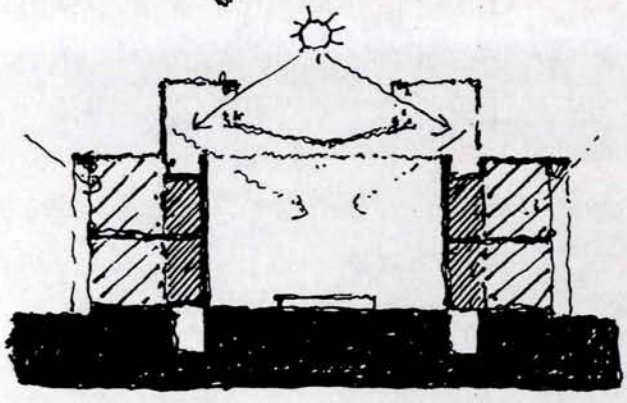
analogy to mountain

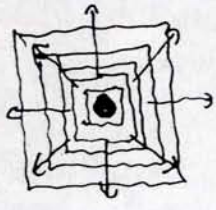
Le Corbusier's church is symbolic of the mountain of god. It plays off of ancient building images and through its use of program, essentially ritual, it defines a sequence (clockwise) into a space of spiritual ascension.

First Unitarian Church: Louis Kahn



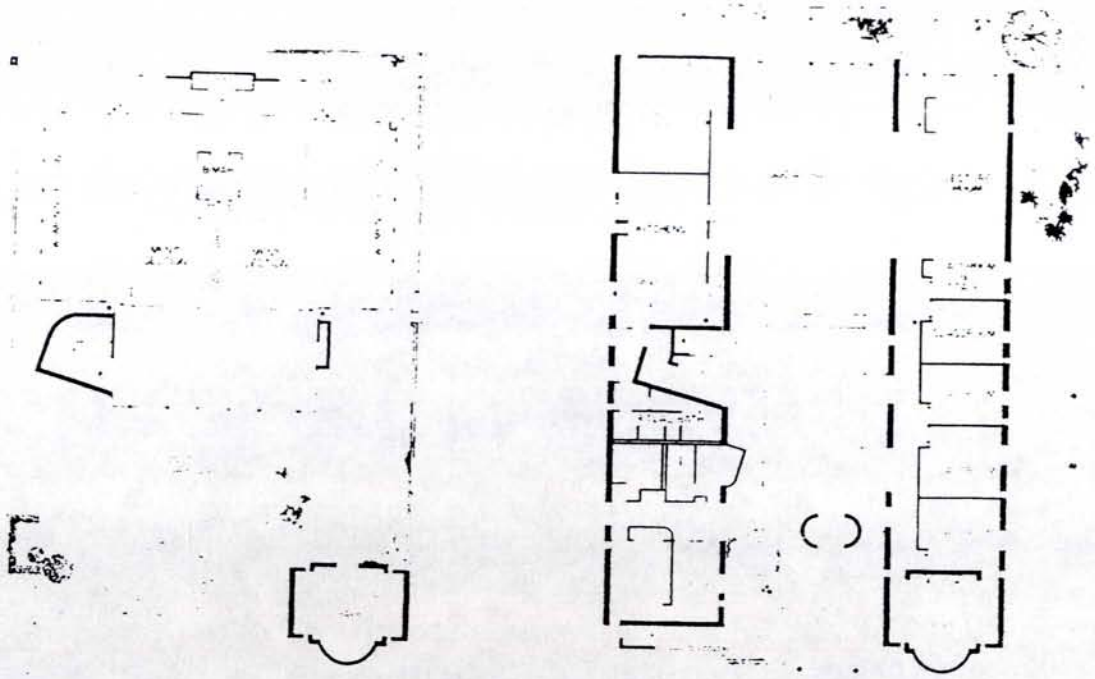


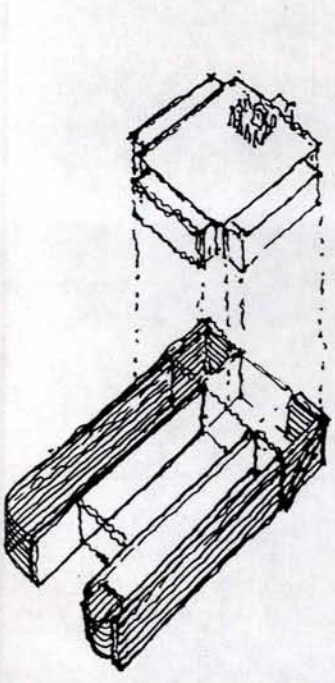


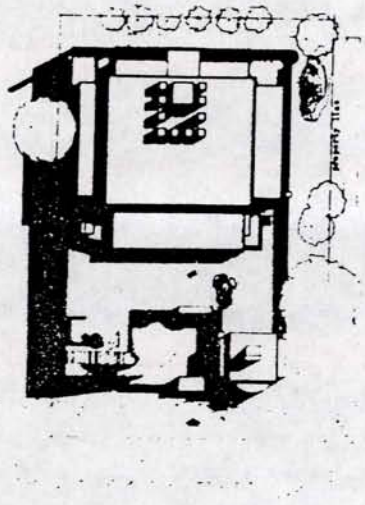


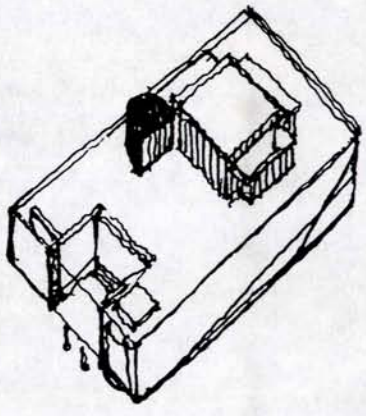
Kahn's organization of secular elements around the sanctuary space, I believe deals with education being centered on the question or more specifically the question of religion. The use of materials to clarify functions is prevalent as well. He does not use light through the direct center but reflected off the inner sanctuary walls he creates a lighter and loftier effect. The contradiction of materials from the interior to exterior also defines the image of the building and the program it houses.

Beth David Synagogue: Werner Seligmann



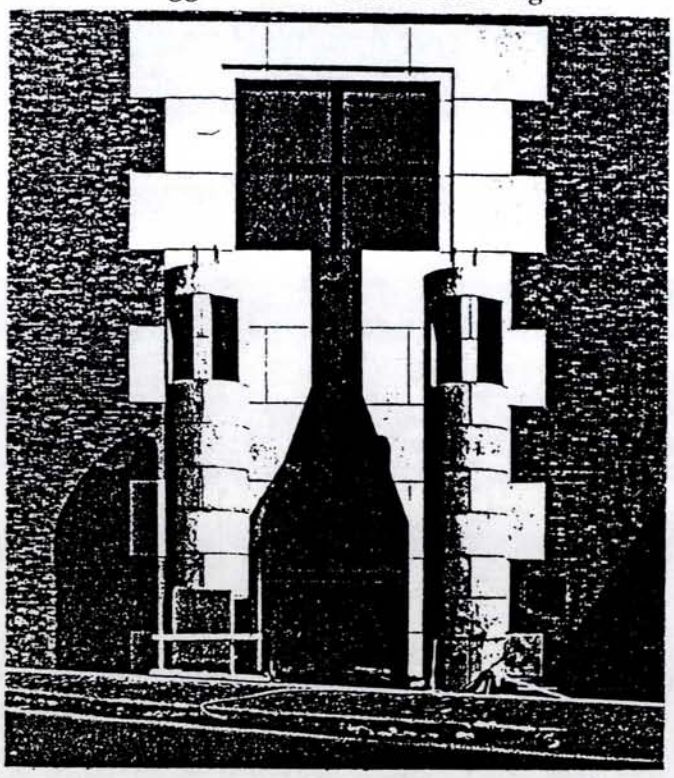


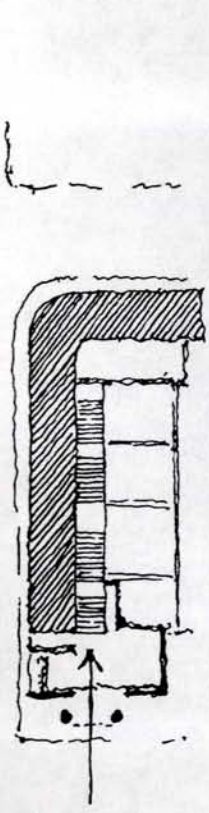




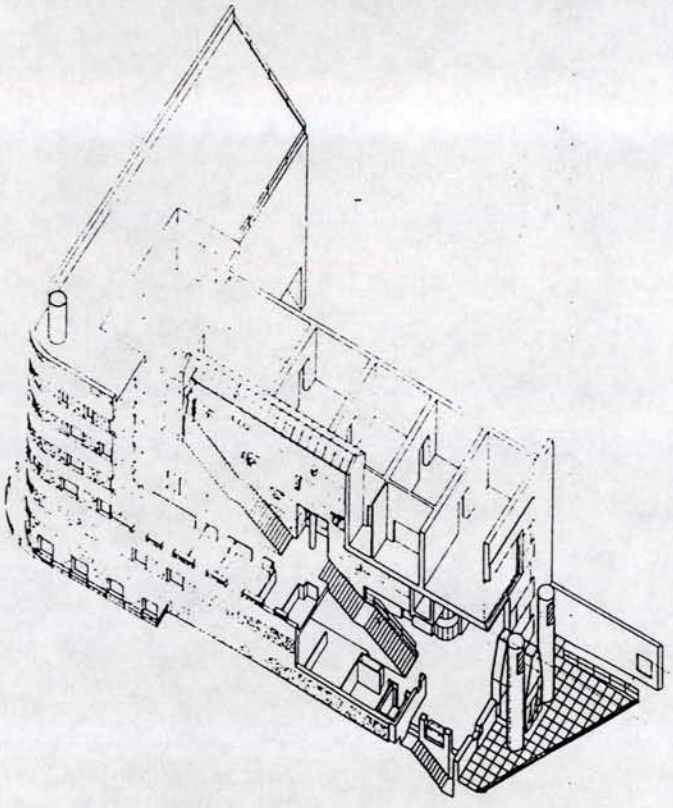
Seligmann's vertical organization of secular and religious components is interesting because of the sequences he proposes(public/private). The placement of the courtyard in the front becomes a gesture to the public realm also playing axially with the longitudinal quality of the site. He uses materials well to distinguish top and bottom, sacred and profane.

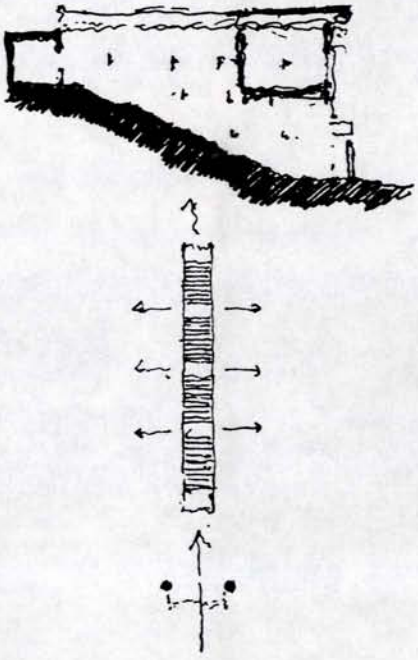
Fogg Addition: James Stirling





organization

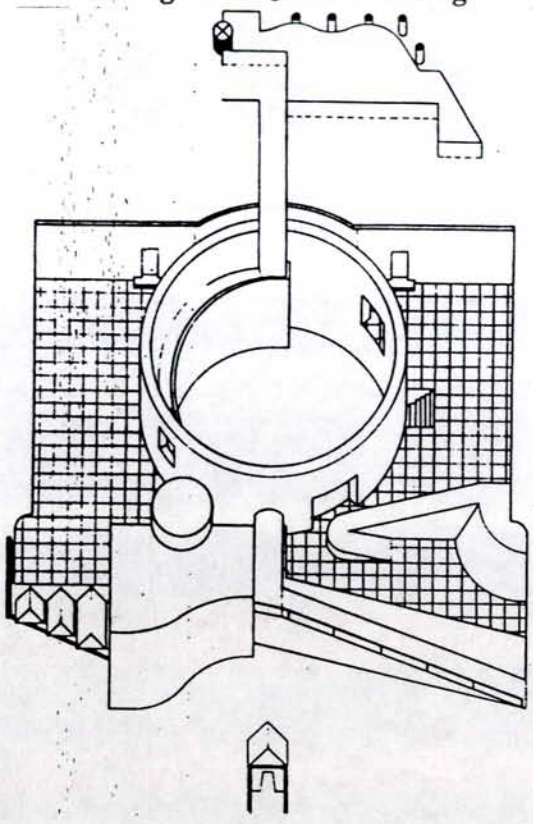




Sequence

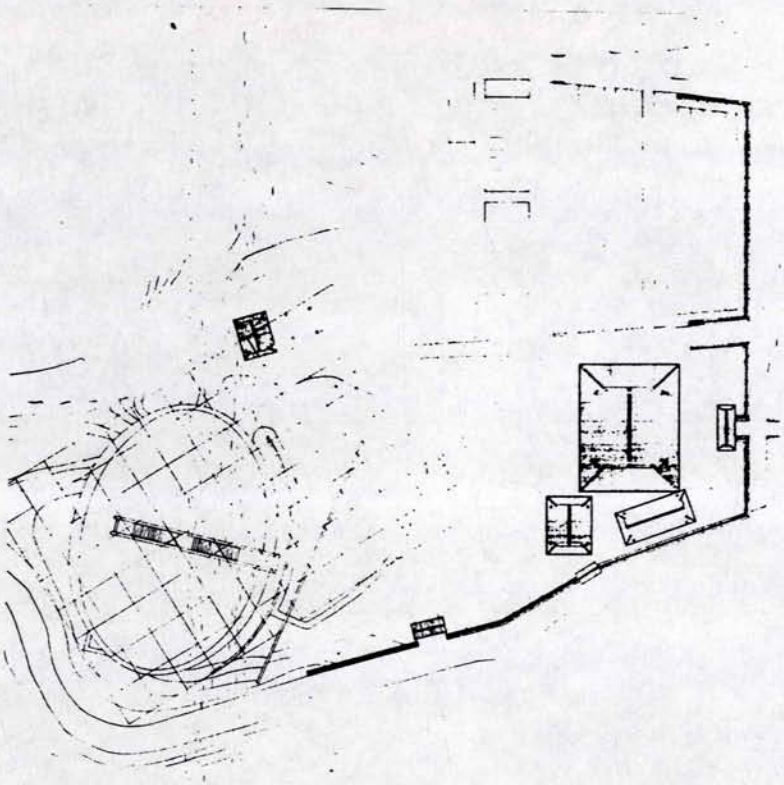
Stirling uses a central stair element to access two different programmatic requirements. He also uses the administrative element to somewhat protect the gallery element. Vertical access along a common space.

Staatsgalerie: James Stirling



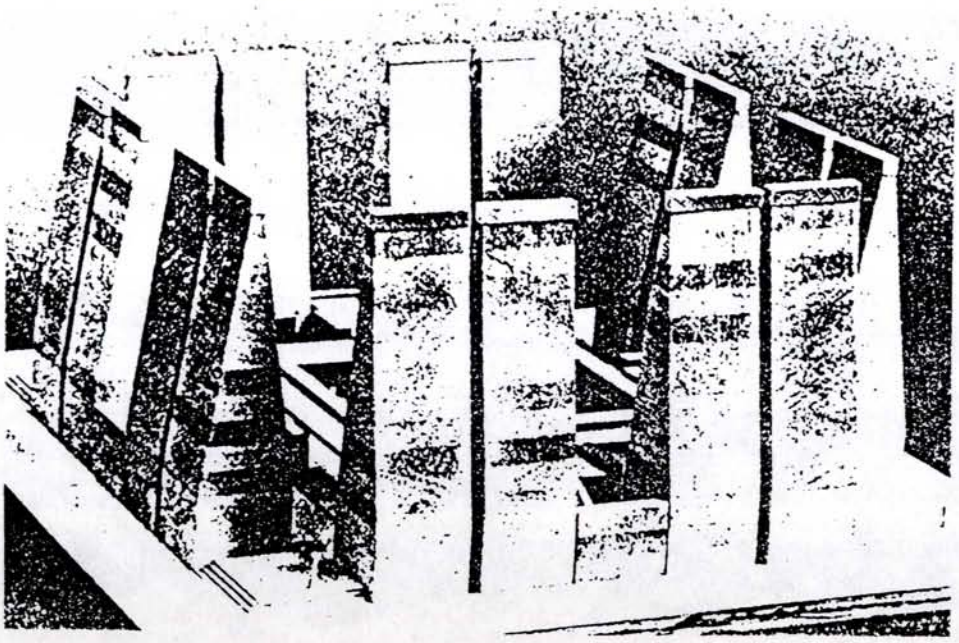
Sequence

Temple on the Water: Tadao Ando



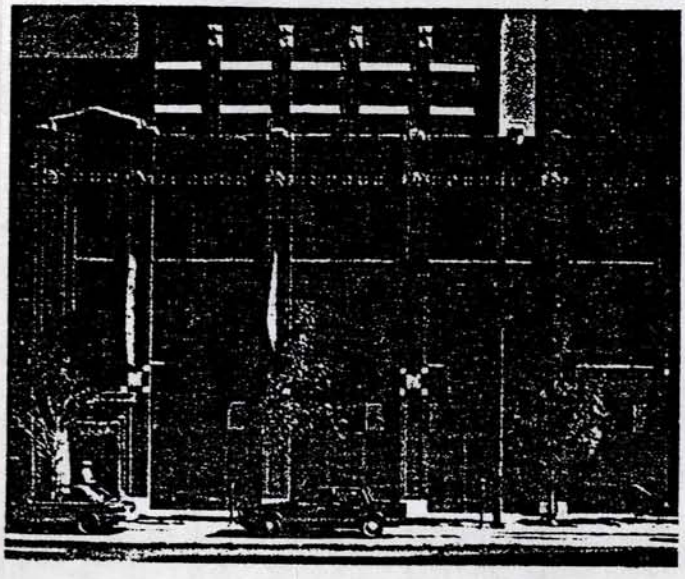
Composition of Elements and Sequence

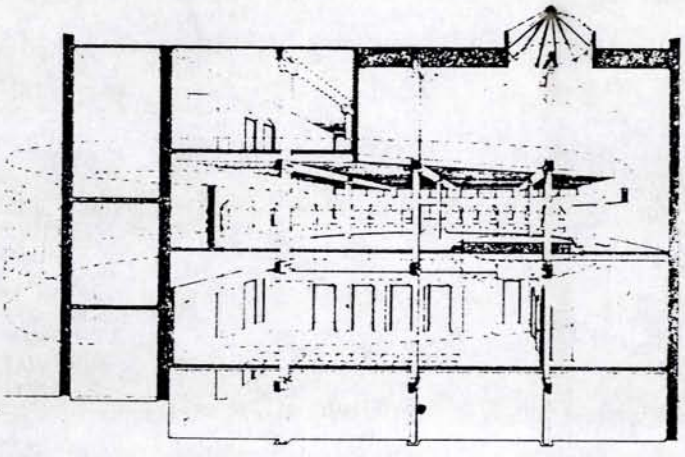
Hurva Synagogue: Louis Kahn



Power of Geometry and Symbol

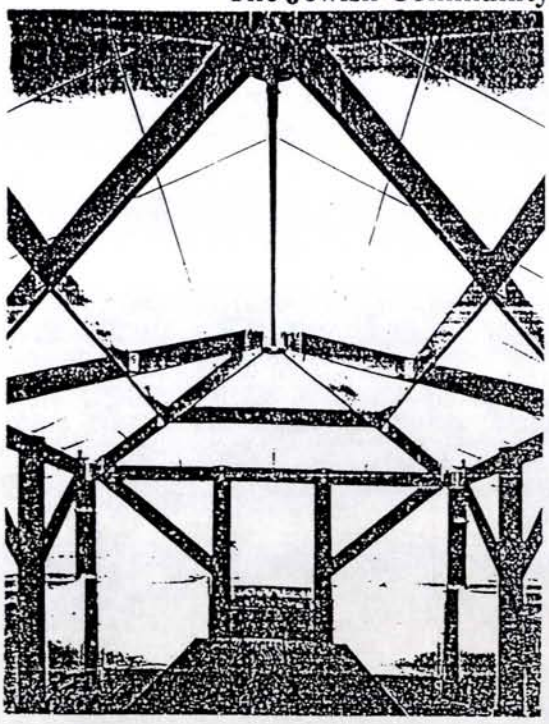
Grace Place: Booth/Hansen & Associates

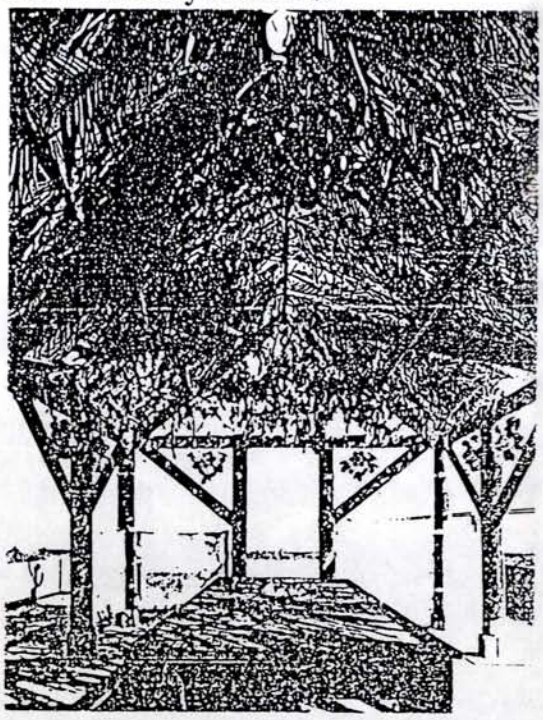


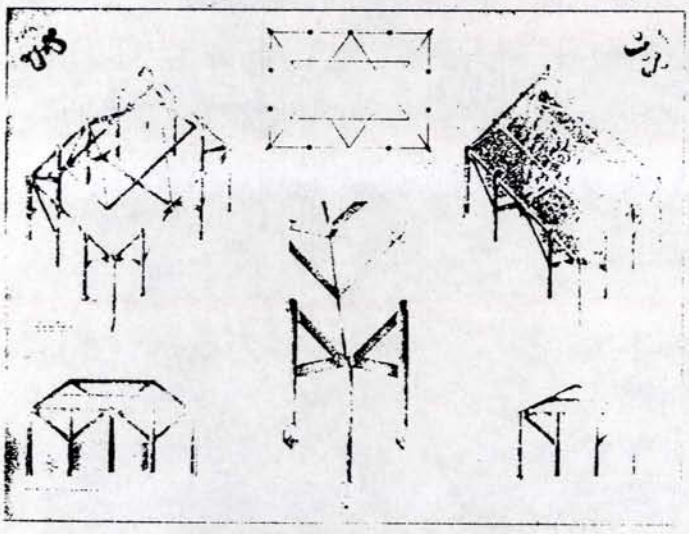


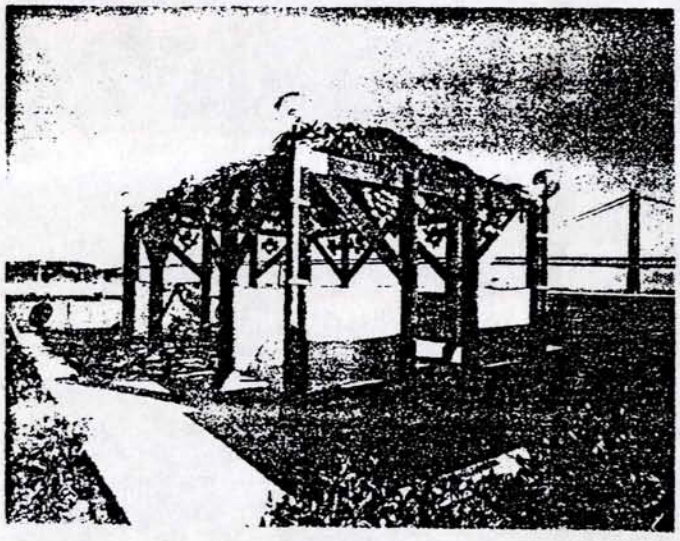
Working within the fabric of a building

The Jewish Community Museum: Stanley Saitowitz

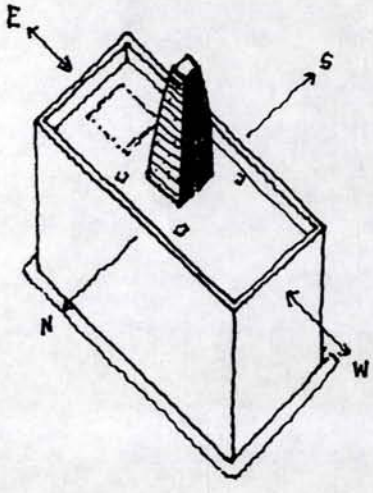








Architectural re-interpretation of ritualistic tradition Site: Rooftop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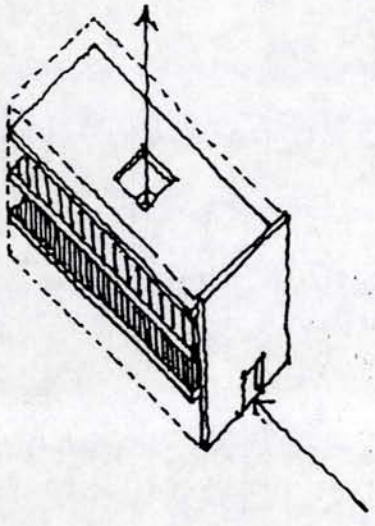
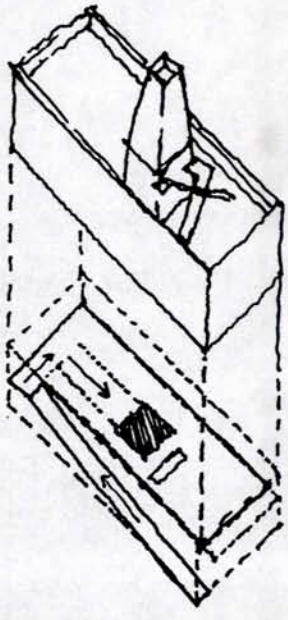
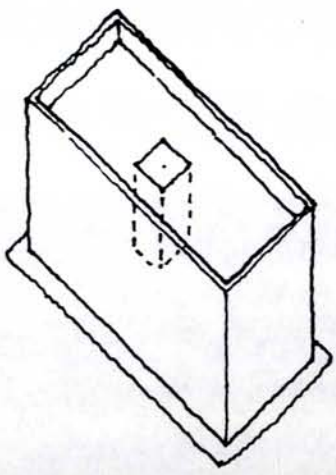
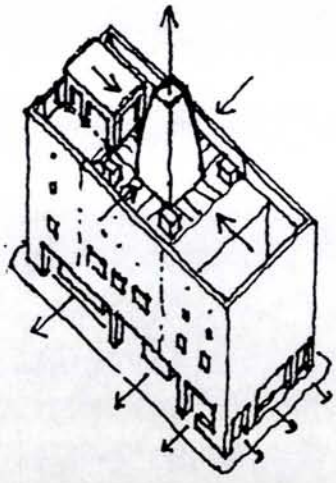
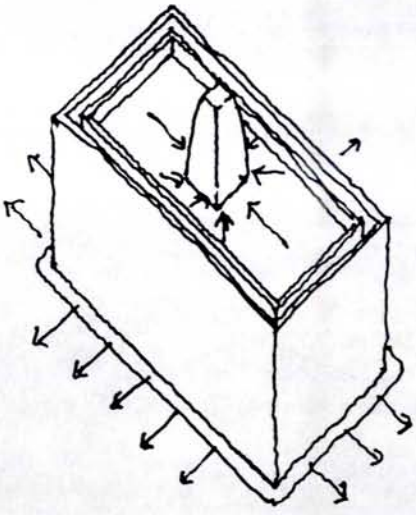


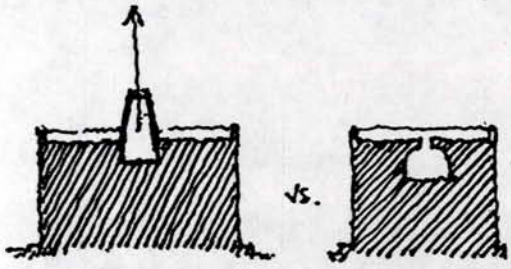


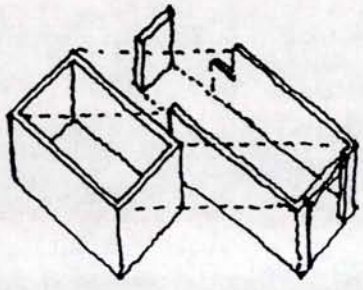
Architectural diagrams

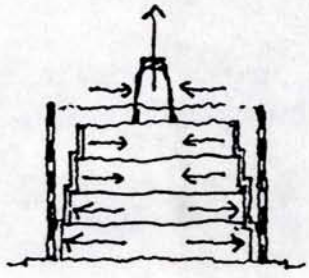


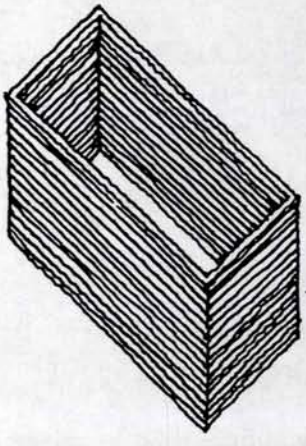


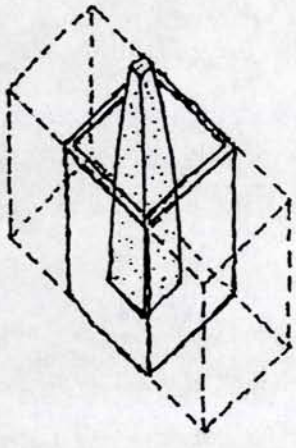


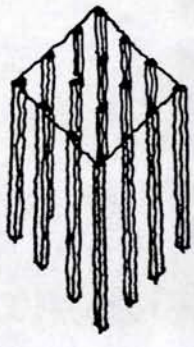


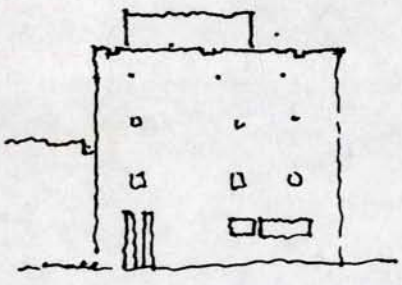


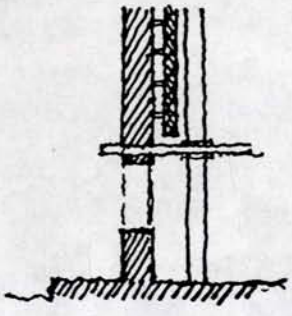


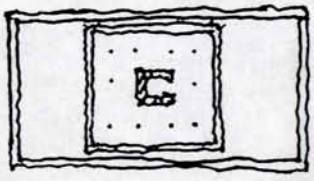












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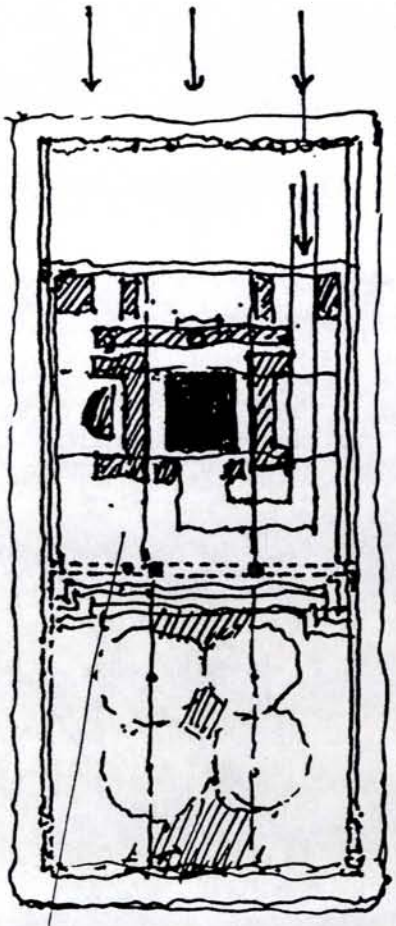
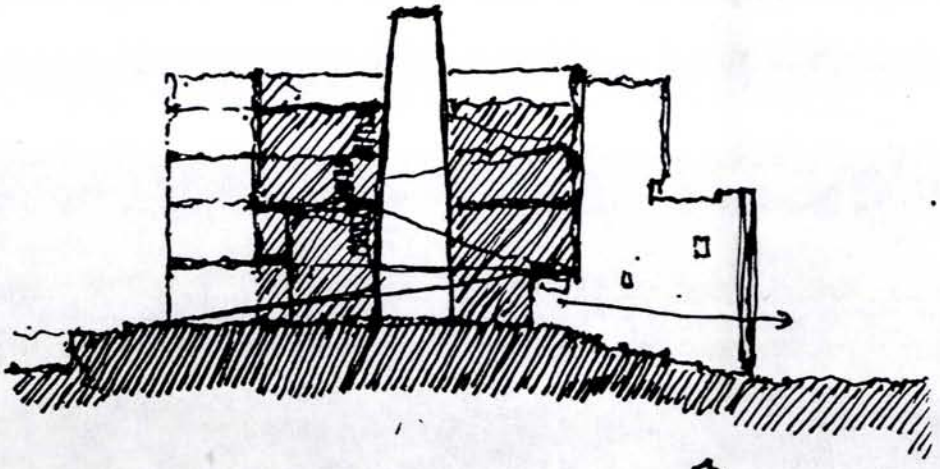
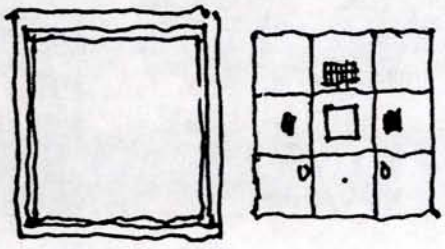
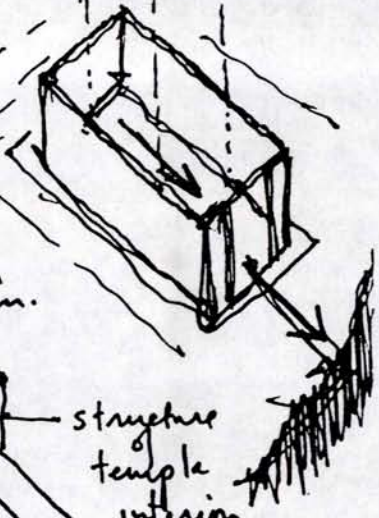
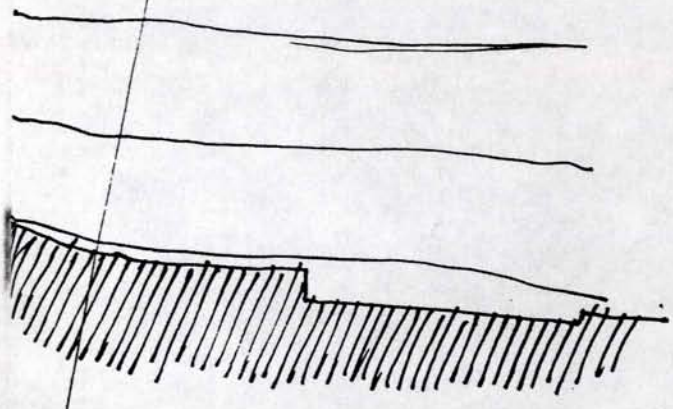








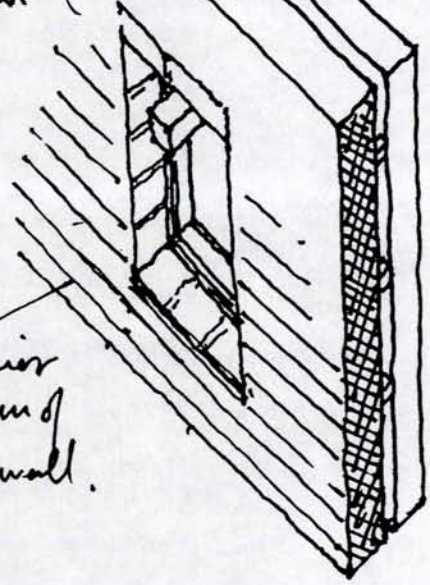


inner system.

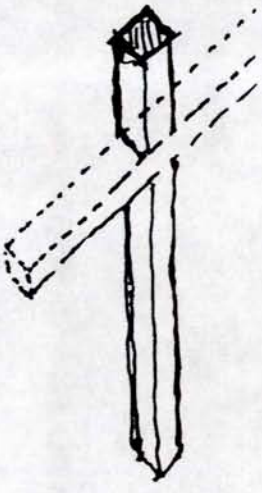
structure temple interior

Outer System

Mandala based plans.
- 5 elements.
  - Water
  - Earth
  - wind
  - Fire
  - Ether.



exterior system of urban wall.



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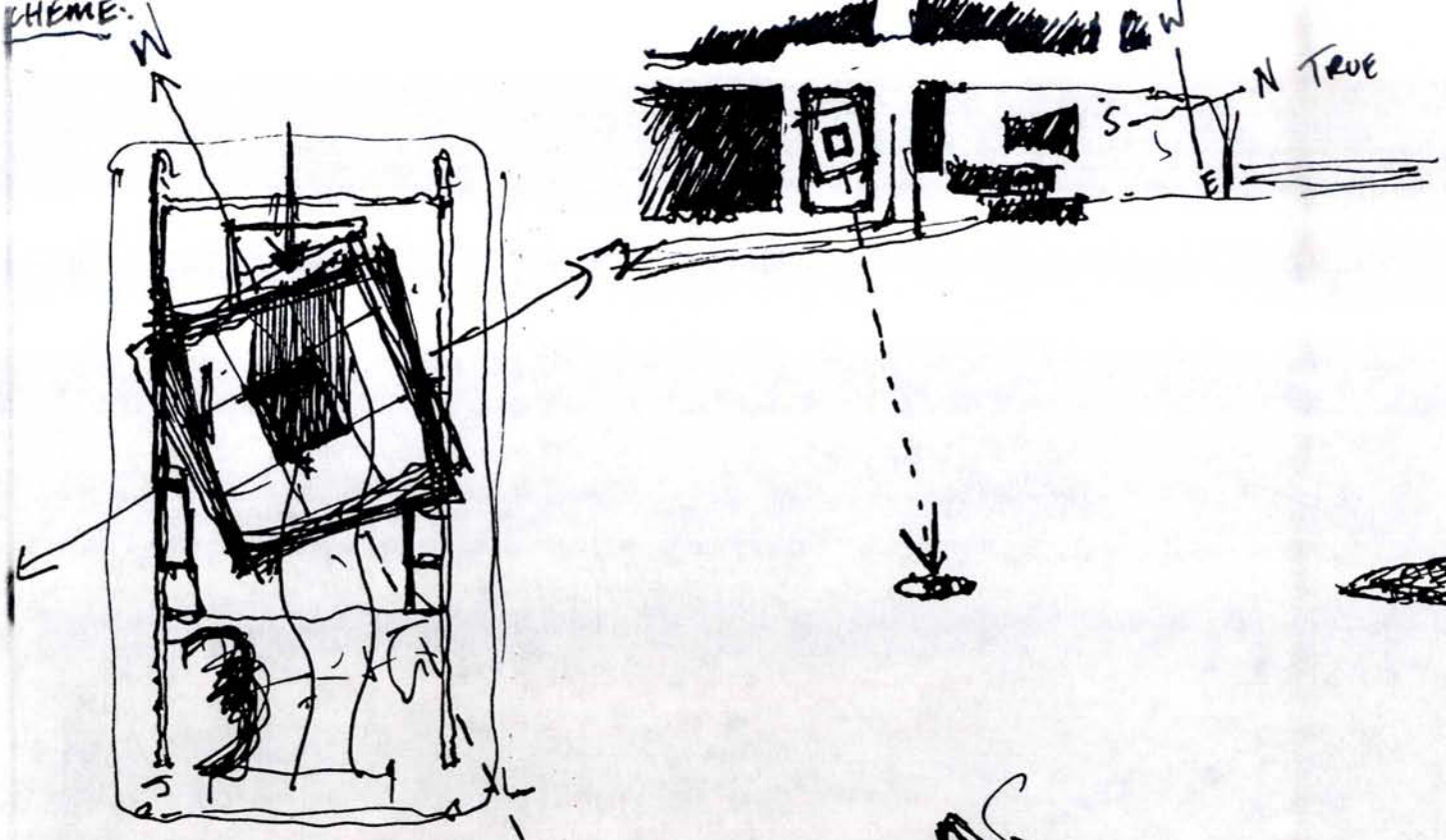
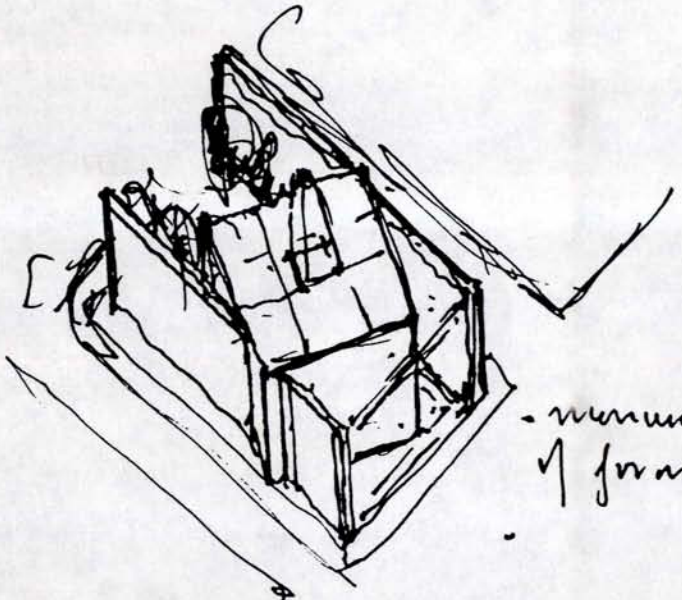
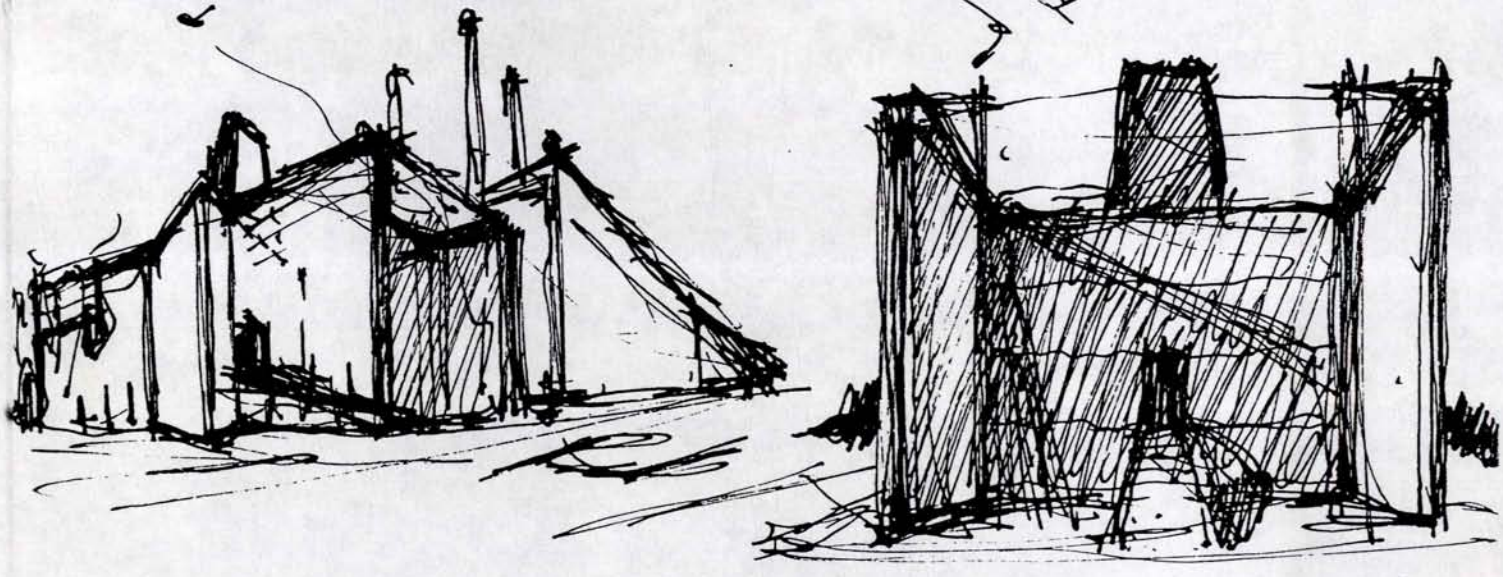


• Realigns itself w/ True East / West ..



- monumental ↑ form.



• conflict between urban wall and boundaries of temple:

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