

THE AESTHETIC OF THE OFFICE BUILDING
A Study of Perception and the Built Environment

The Aesthetic of the Office Building:
A Study of Perception and the Built Environment

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CONTENTS		
Abstract		1
Premises		3
Study		5
Thesis Position		7
Concepts and Design		9
APPENDICES		
Appendix A	Economics	37
Appendix B	Aesthetics	41
Appendix C	Perception	45
Appendix D	Commonalities Possibilities Realities	49
Appendix E	Context	95
Appendix F	Site Analysis	99
Appendix G	Schematic Design	105
Appendix H	Design Development	115
DEDICATION		121
BIBLIOGRAPHY		123

This study began with an analysis of buildings that are "memorable", reasoning that there must be something more than function involved in the imageability of these buildings. This study generated a list of Elements common to the building type. In order to comprehend the function of these Elements, a grouping into experiential distances occurred (Distance, Middle Distance, and Street). This helped to clarify the role of the Elements, along with the possibilities for their expression, which influence what is perceived at the different physical and visual interactive levels. Form is a result of the Distances, with interest in detail, scale and articulation, varying inversely with the Distance, or duration and type of experience.

This method for determining building form, based on site and contextual influences, and an understanding of the potential of the experiential distances, results in a solution unique to each project. The medium and expression of style can be determined by a variety of influences: climate, economics, familiarity . . . The ultimate result is intended to be an stylistic expression of functional and experiential requirements.

The bulk of this study is an attempt to approach the design of large-scale office buildings from an experiential aspect, especially visually, as opposed to the more functional aspect typically sought by developers and financiers of these projects. From my limited experience in working on and studying this building type, I have discovered that the design of these buildings is less of an art, and more of a science, regulated by building codes, function, and economics.

My goal is to address the need for perceptual stimulation at all levels of visual interaction with a building, through sensitive and creative manipulation of the functional, efficient and commonly available technology of modular building units. The possibility of pattern could promote interest, and a renewed interactive relationship with the built environment.

The first area of research involved looking at buildings from the functional side, the side that believes that buildings are an economic investment rather than a container for human activity. Current thought contends that the architect is underpaid, and unwanted for his design talents, and wanted more for the technical and organizational abilities. The developer is concerned mainly with the economics and efficiency in all aspects, with image only recently becoming an issue. Architects, by the same token, are willing, or are forced, because of the reality of existing in the world of business, to design buildings by formula and reference to precedents as quickly as possible. Other negative aspects of this situation include deferring to the client, in order to ensure repeat business, regardless of the appropriateness of this occurrence. The architect is either not aware or ignoring the responsibility toward the user and the built environment. (Appendix A)

A third area of study was that of cognitive processes and visual perception. Some research has been done into perceptual requirements of humans, but no concrete conclusions have been reached. Most studies suggest that there is a deficiency of perceptual stimuli in the built environment, although there is no definite information as to how much stimulation is required or can be tolerated. The human brain is capable of processing more complex patterns than the ones being provided by the textureless and uniform patterns of the glass curtain wall. The ease of comprehending these redundant patterns leads to boredom (which can occur through the incomprehensibility of overly complex compositions) which leads to sensory deprivation and can result in apathy and a stunting of intellectual growth and a diminished human spirit. (Appendix C)

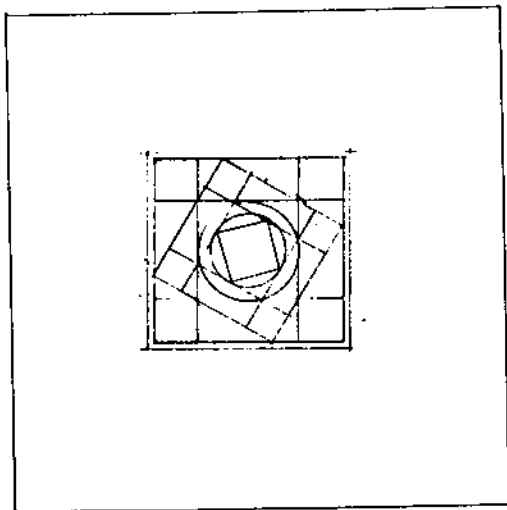
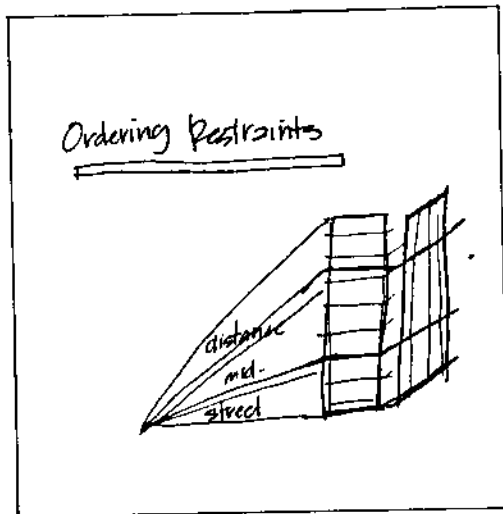
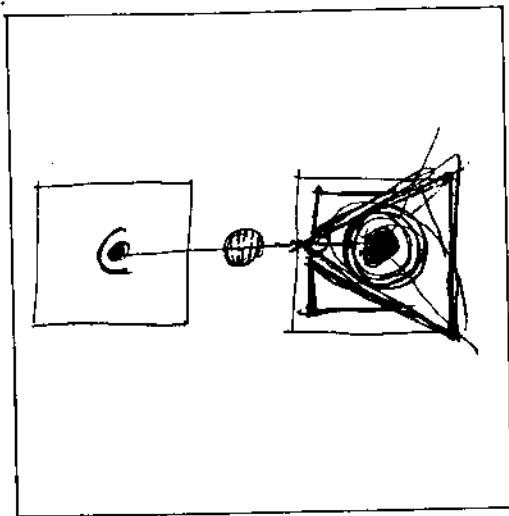
The second area of inquiry was Aesthetics, the focus being whether architecture, as a functional object, can be considered art. Art, in one school of thought, can be defined as a man-made object having no purpose but to be experienced. My argument is that architecture is not Art because its intention is to protect and be inhabited. Because of this difference, it seems that architecture should not be approached as art. That does not mean that it should not be approached from the experiential aspect, nor that it is incapable of being aesthetically appreciated. Anything can be appreciated for its aesthetic qualities—it is a matter of point of view. (Appendix B)

The fourth area of research involves several levels of building analysis in order to determine what the components of a building are, how they can be expressed, and how they are utilized in several buildings that are fairly imageable in their respective contexts. The division of the components, or Elements, into experiential distances, allows for the manipulation of any element in a direct response to the way it will be perceived. (Appendix D)

It has been said that the issue of form can be approached intellectually or sensually. As it is the artistically unenlightened who is the typical inhabitant of office buildings, it seems a wasted effort to approach a building intellectually, when the highest impact would be an experiential approach. By integrating the four areas of study in an attempt to define form, my intent is to help designers to be aware of the potential for creating interesting architecture with no more than the methods and materials commonly available.

What I have attempted to do in my project is to create a visually stimulating building that reinforces the notion of movement through space, and the experience of the built environment. This is accomplished by taking cues from the site analysis for functional purposes, and from the Distance analysis for perceptual purposes, both as determinants of form.

This is not to say that the conceptual or intellectual approach is not valid. I believe that its importance is secondary to the functional and compositional aspects. In either aspect, it indicates that the designer must be certain of all the issues involved in the creation of the built environment.



The initial design of the two office towers confronted several issues, with the intent to resolve. These issues included verticality vs. horizontality, scale vs. detail, the perceptual vs. the physical, and proportional organization.

Using the juxtaposition of the physical to the perceptual resulted in circulation based parts that were expressed vertically to indicate the physical identity of each building.

The perceptual aspect indicated a tripartite approach, based on the way a building is viewed: in parts, dependent on distance. The buildings are organized on a geometric plan grid that pays respect to the two city grids. The complexity of the grid allows for a greater potential for dynamic space. The volumetric projections of space created by the grid allow the building to be multi-directional, and permits viewing in a Cubist manner: simultaneously as a planar and three-dimensional object.

With the parts and general zoning in place, the the issues of scale, detail and directionality could be addressed. At this point there were no limits to the form or manner of expression.

Further development of the buildings involved strengthening the identity of each tower while maintaining a similar building type identity. The major issues explored here include directionality, scale, detail, and implied geometries and patterns.

The issue of directionality involved expression of the vertical created by the horizontal reality of skyscrapers on the interior, as well as the exterior.

Scale and detail were approached from the notion that they vary inversely according to distance: the farther away something is, the less detail is perceived. Consequently, larger scale articulation occurs in the distance range, while detail occurs at the street level.

A layering of information occurs throughout the towers, from the overall form, to the smaller blocks within the tower, to the detailing and patterning of the cladding.

The form manipulations resulted in two different base concepts with identical office towers, and tops reflective of the circulation part upon which the forms are based.

The base in Building A is conceived as a scaffold containing the physical and perceptual activities within. In Building B, the base is more of a traditional pedestal. Both are oriented to the immediate city grid to allow greater interaction between the building and the street. They also want to be a more sympathetic joint between the building and the ground.

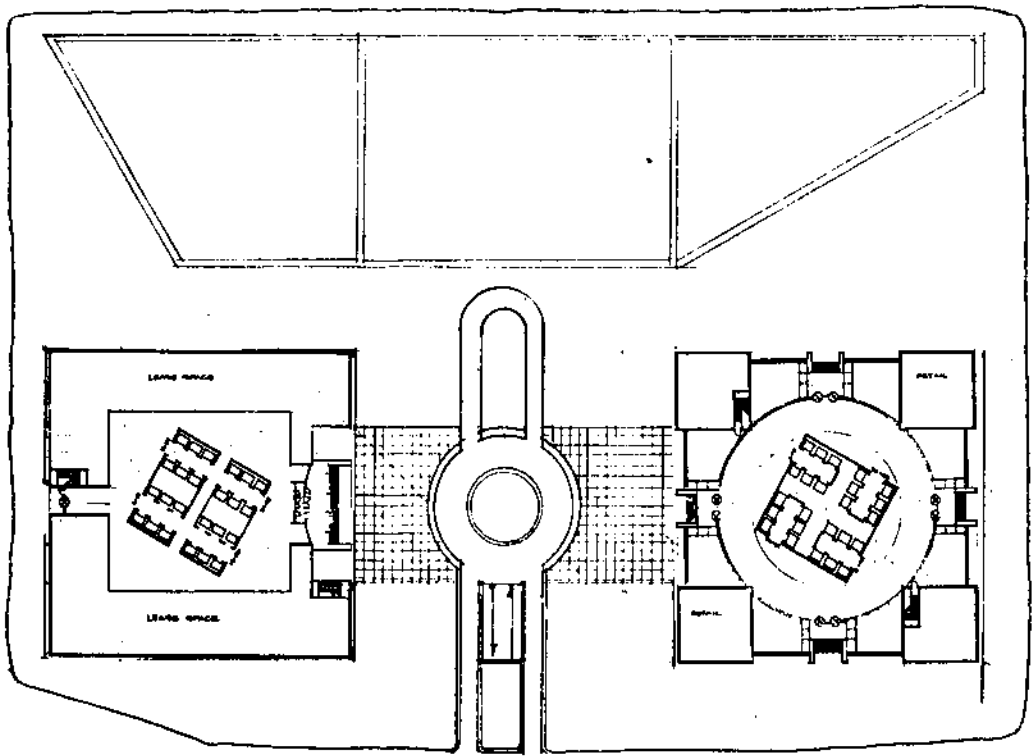
The contextual influence supports the appropriateness of a slick glass skin and a prismatic form oriented to the city created by other towers. This expression is used for the bulk of the office space in both towers to relate them to each other, and strengthen the building typology.

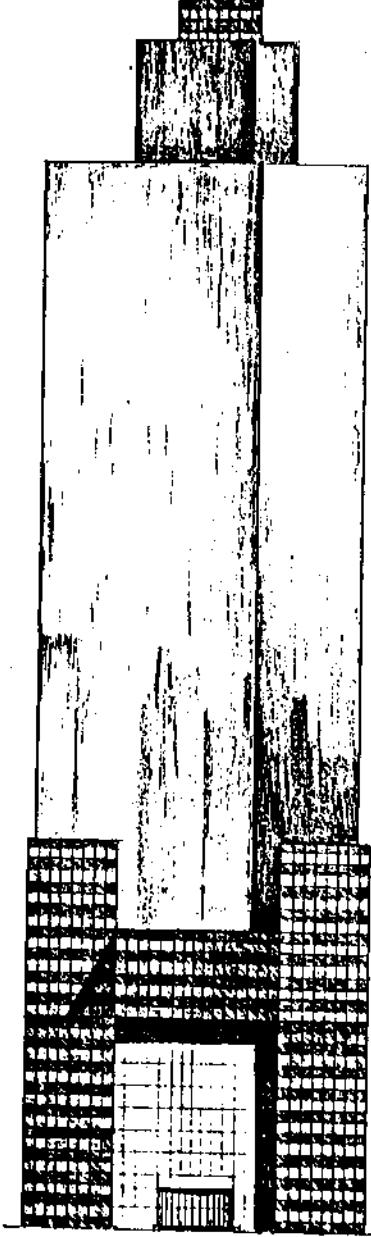
The tops of the towers act singly and in tandem to reinforce the identity of each building and to create visual variety in the skyline. The tops also act as both terminus and continuation. Both appear to grow out to the center as layers of the building are eroded. They tie together the three perceptual zones (base, middle, top) through materials or form.

The development of texture and movement in the building cladding occurs by using commonly available building materials. Layers of information are applied, allowing perception of the building in a variety of ways, depending on the viewpoint.

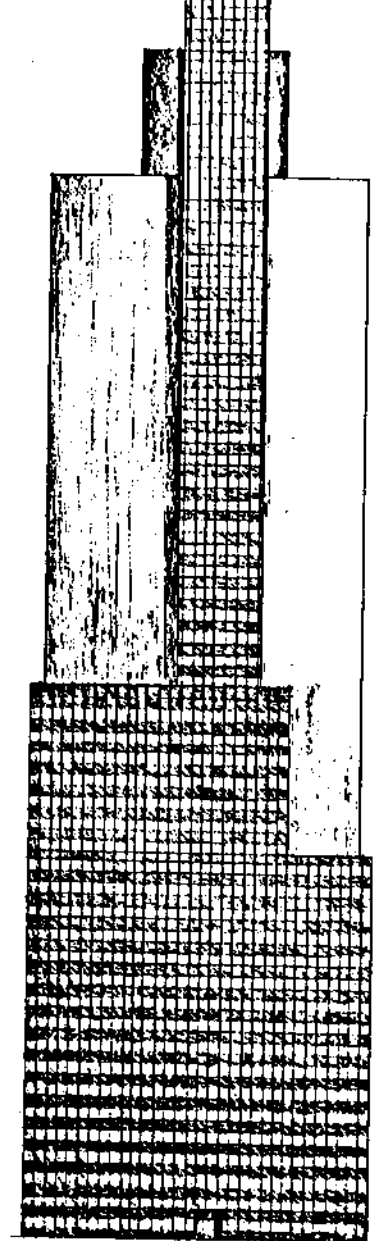
The basic module is a six foot square, which is compatible with both human scale and building requirements. This module creates a non-directional base grid that has applied to it another non-directional grid of a contrasting reveal-type mullion system. This mullion system creates texture and relief at the street level. A third layer of information is the horizontal layering of vision and opaque glass. A fourth layer is the patterning created by the addition of colored glass to imply movement.

In reality, this building is little different from any other similar building. The difference lies in the attention to composition, integration of part to whole, and the potential for heightened experiential interaction between the user and the architecture through visual interest and implied or real movement.

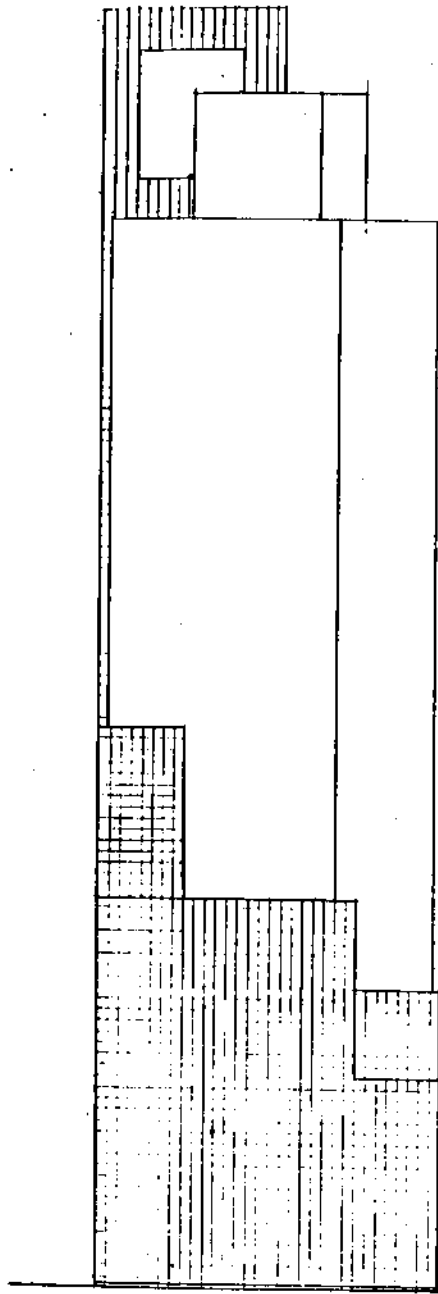




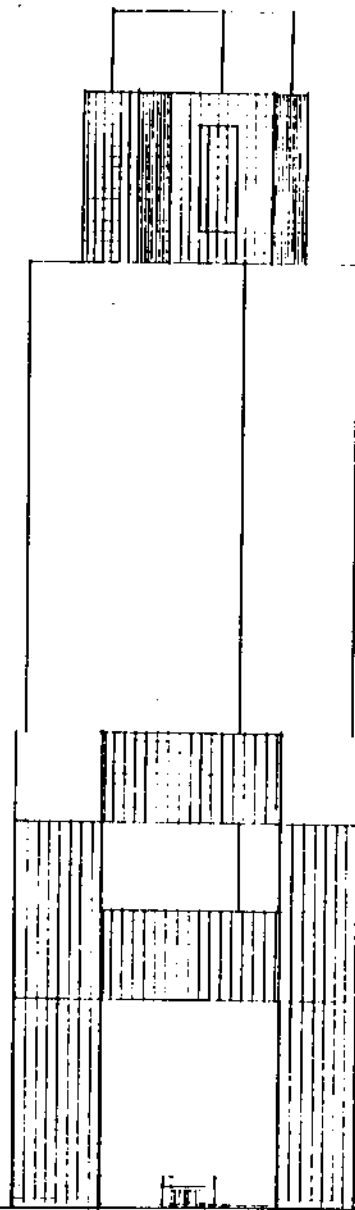
Building B
Entry Elevation



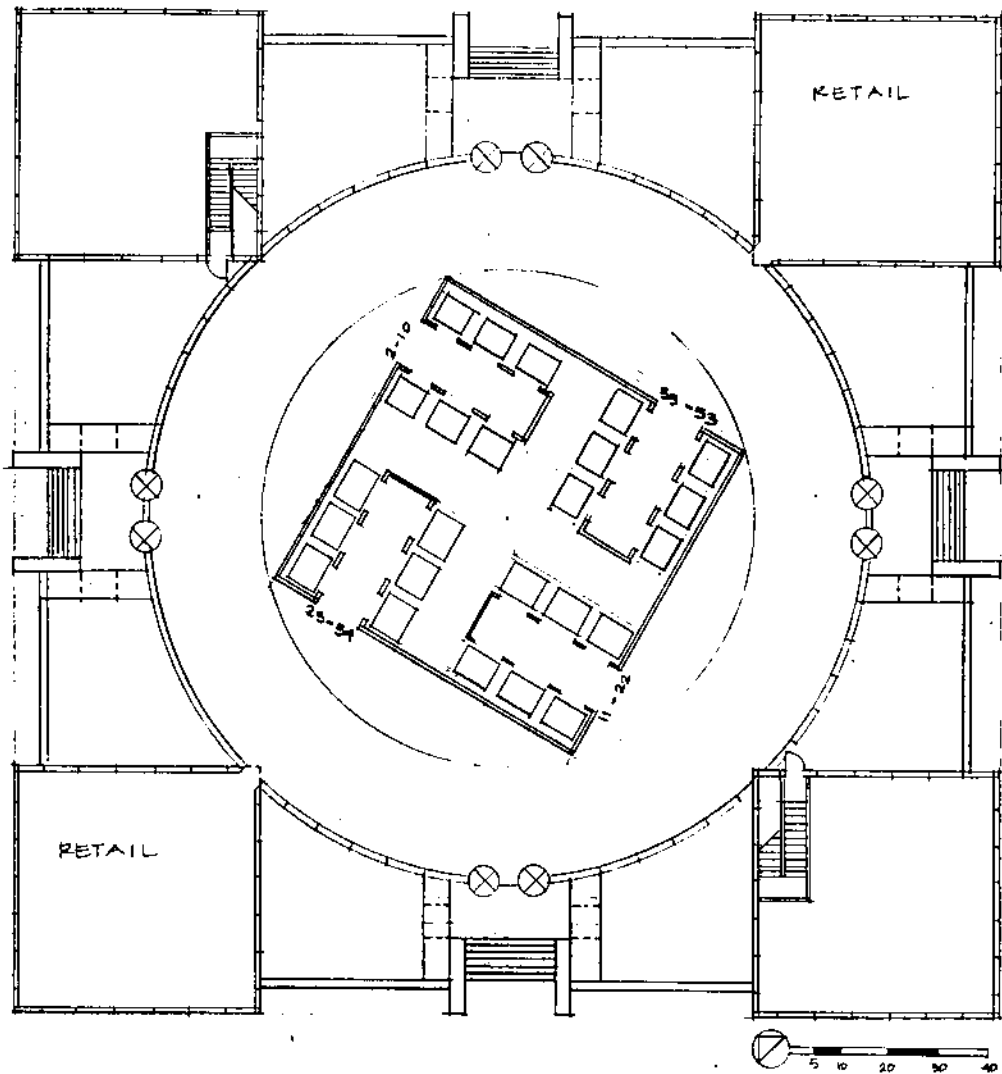
Building B
Rear Elevation



Building B
Side Elevation

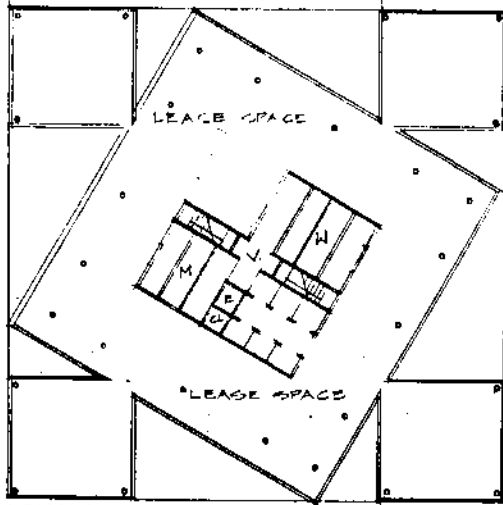


Building A
All Elevations

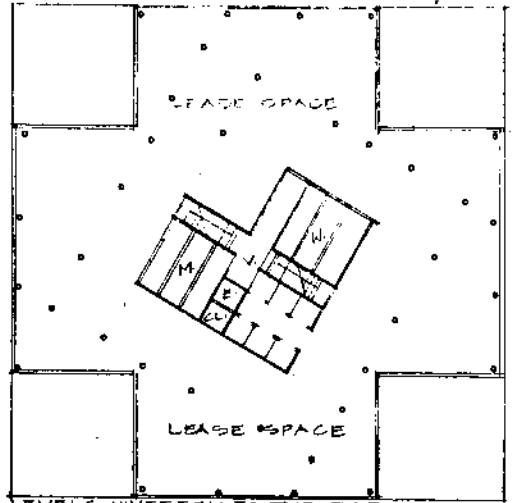


BUILDING A

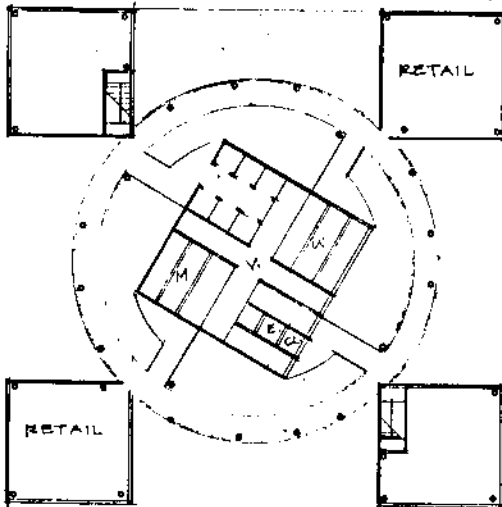
GROUND LEVEL PLAN.



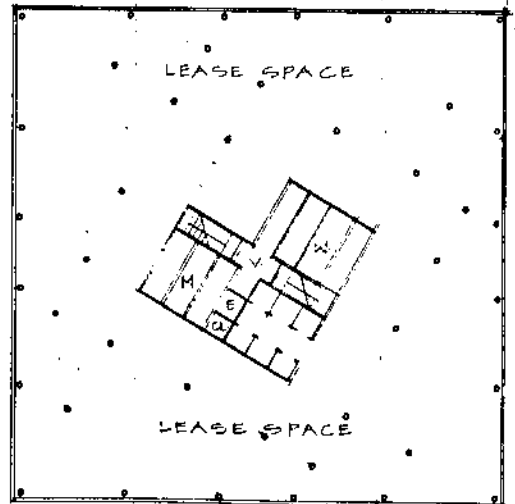
LEVELS FIFTEEN TO EIGHTEEN



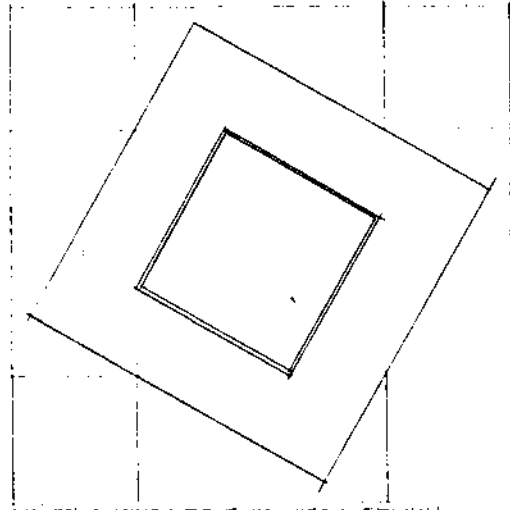
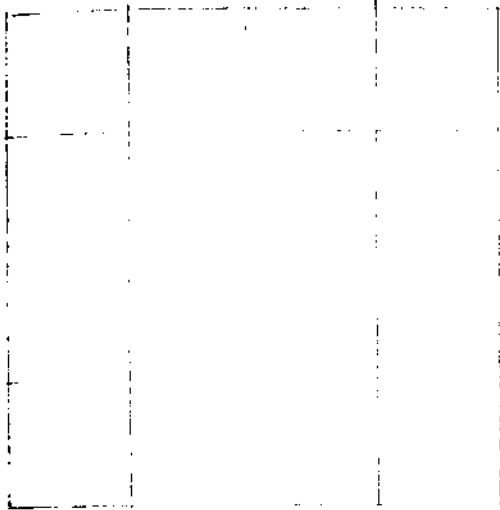
LEVELS NINETEEN TO TWENTY-TWO



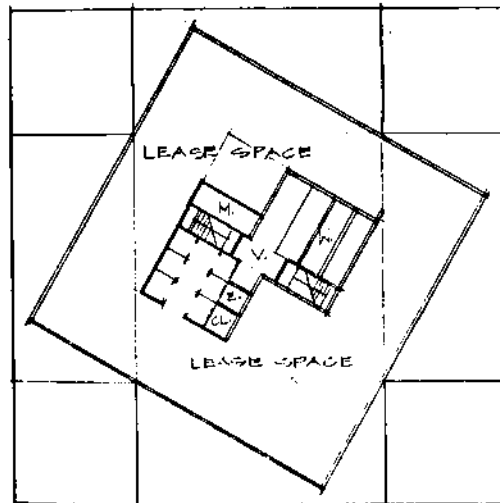
LEVELS TWO TO TEN



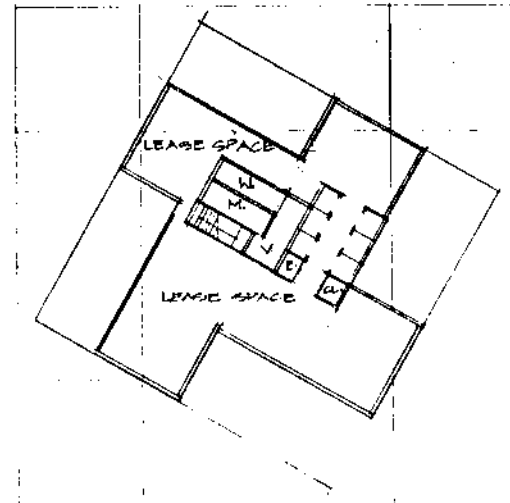
LEVELS ELEVEN TO FOURTEEN



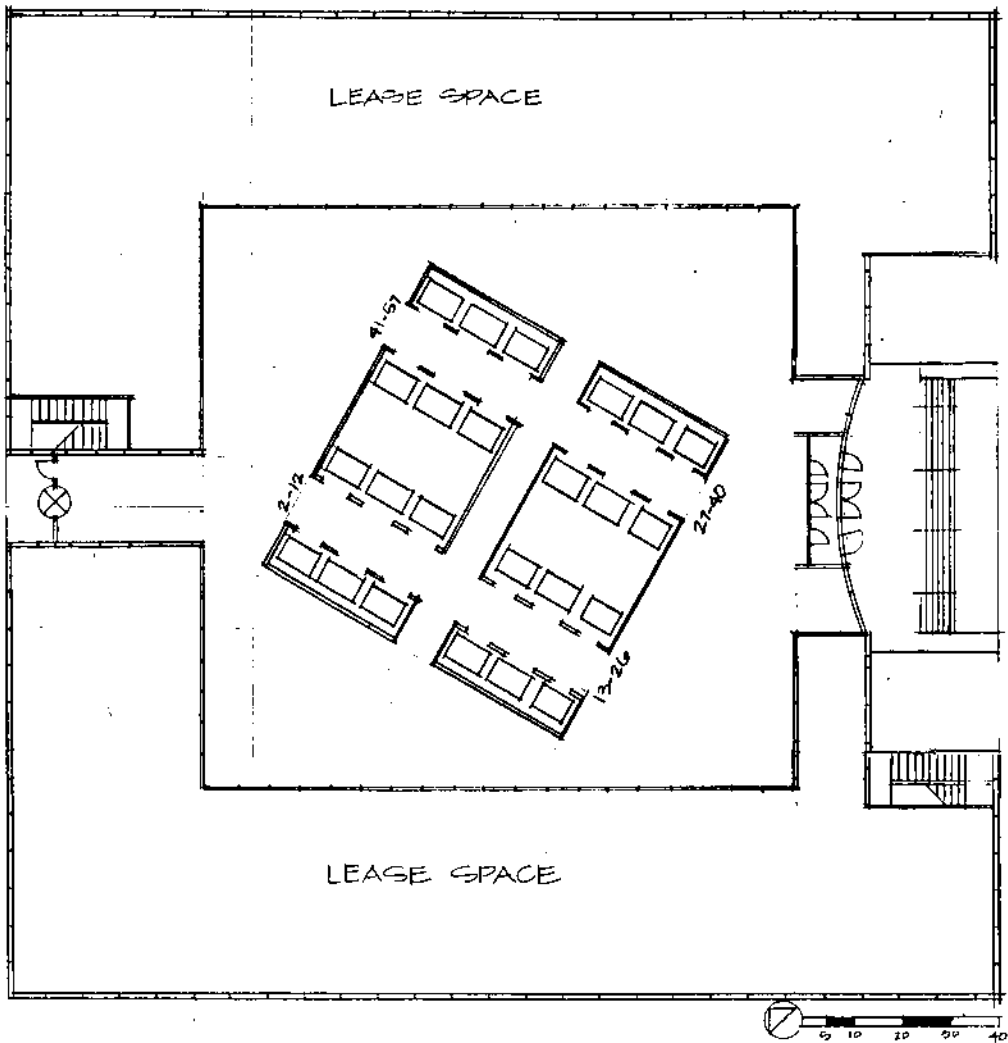
LEVELS FIFTY-FOUR TO FIFTY-SEVEN



LEVELS TWENTY-THREE TO FORTY-FIVE

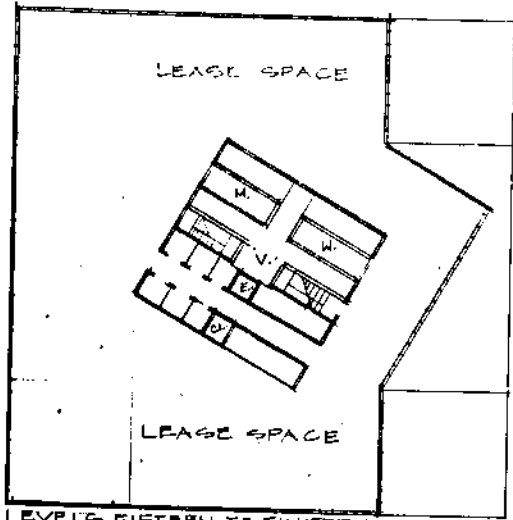


LEVELS FORTY-SIX TO FIFTY-THREE

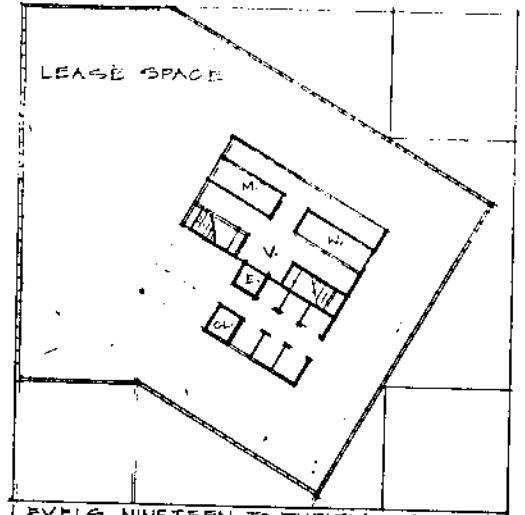


BUILDING B

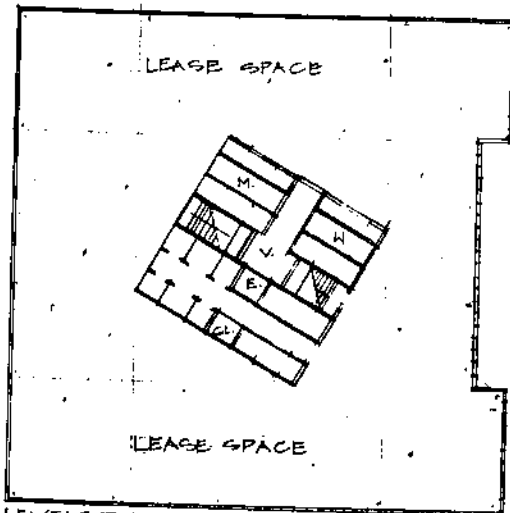
GROUND LEVEL PLAN



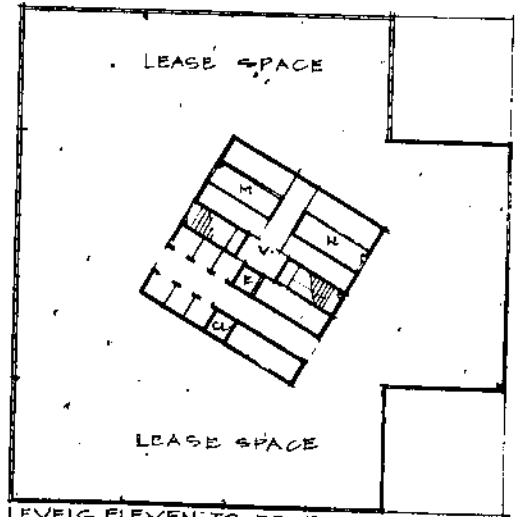
LEVELS FIFTEEN TO EIGHTEEN



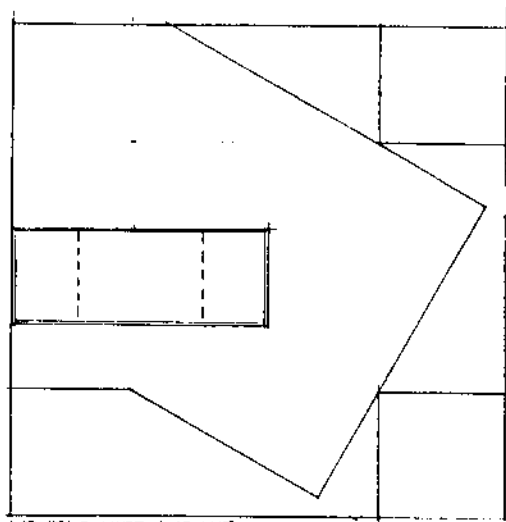
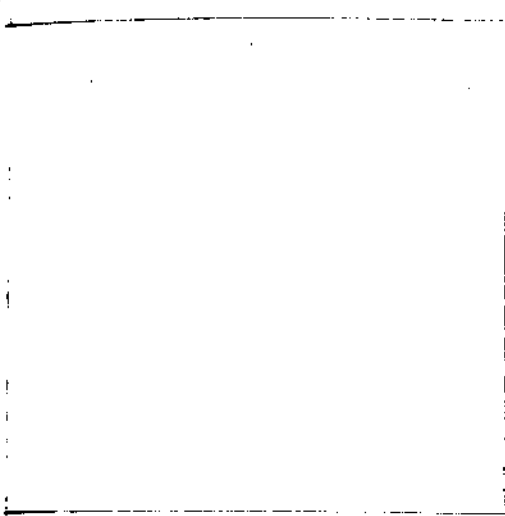
LEVELS NINETEEN TO TWENTY-SIX



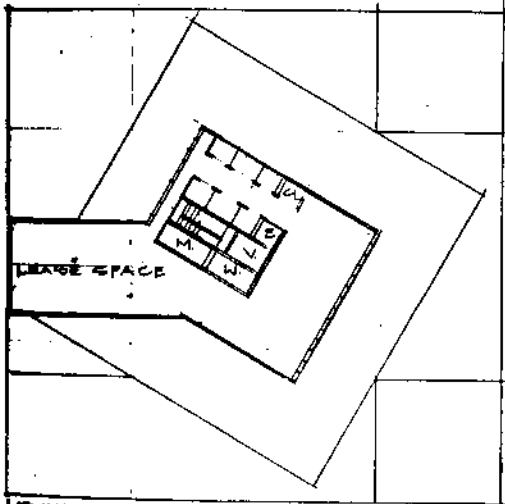
LEVELS TWO TO TEN



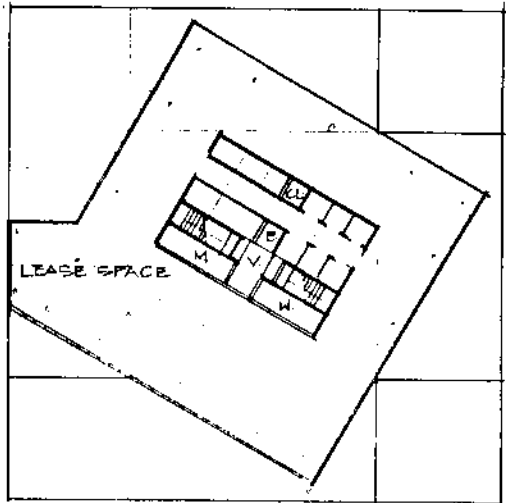
LEVELS ELEVEN TO FOURTEEN



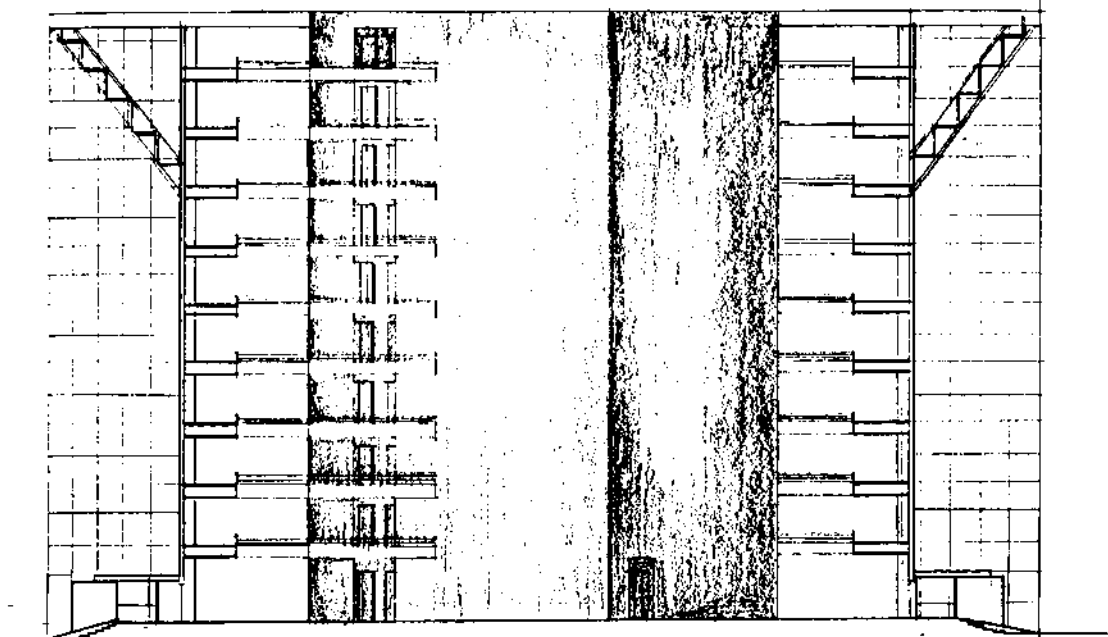
LEVELS FIFTY-EIGHT TO SIXTY-ONE



LEVELS FIFTY-FOUR TO FIFTY-SEVEN



LEVELS TWENTY-EVEN TO FIFTY-THREE



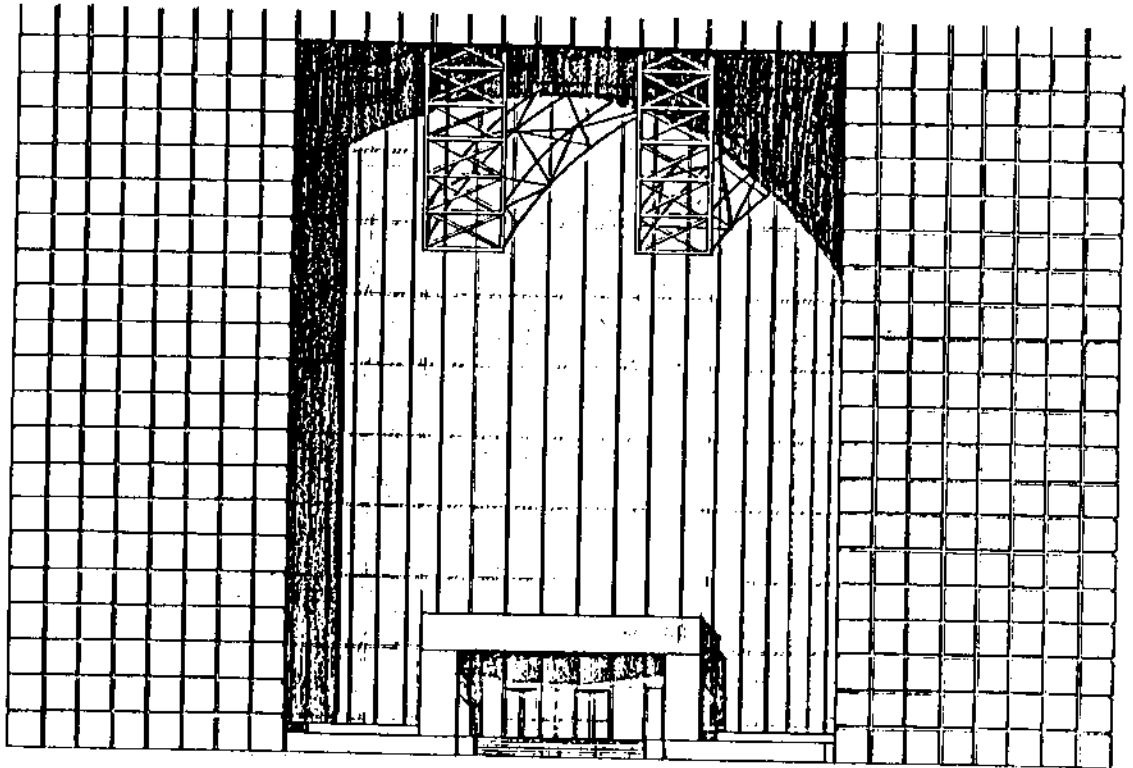
BUILDING A



BUILDING B

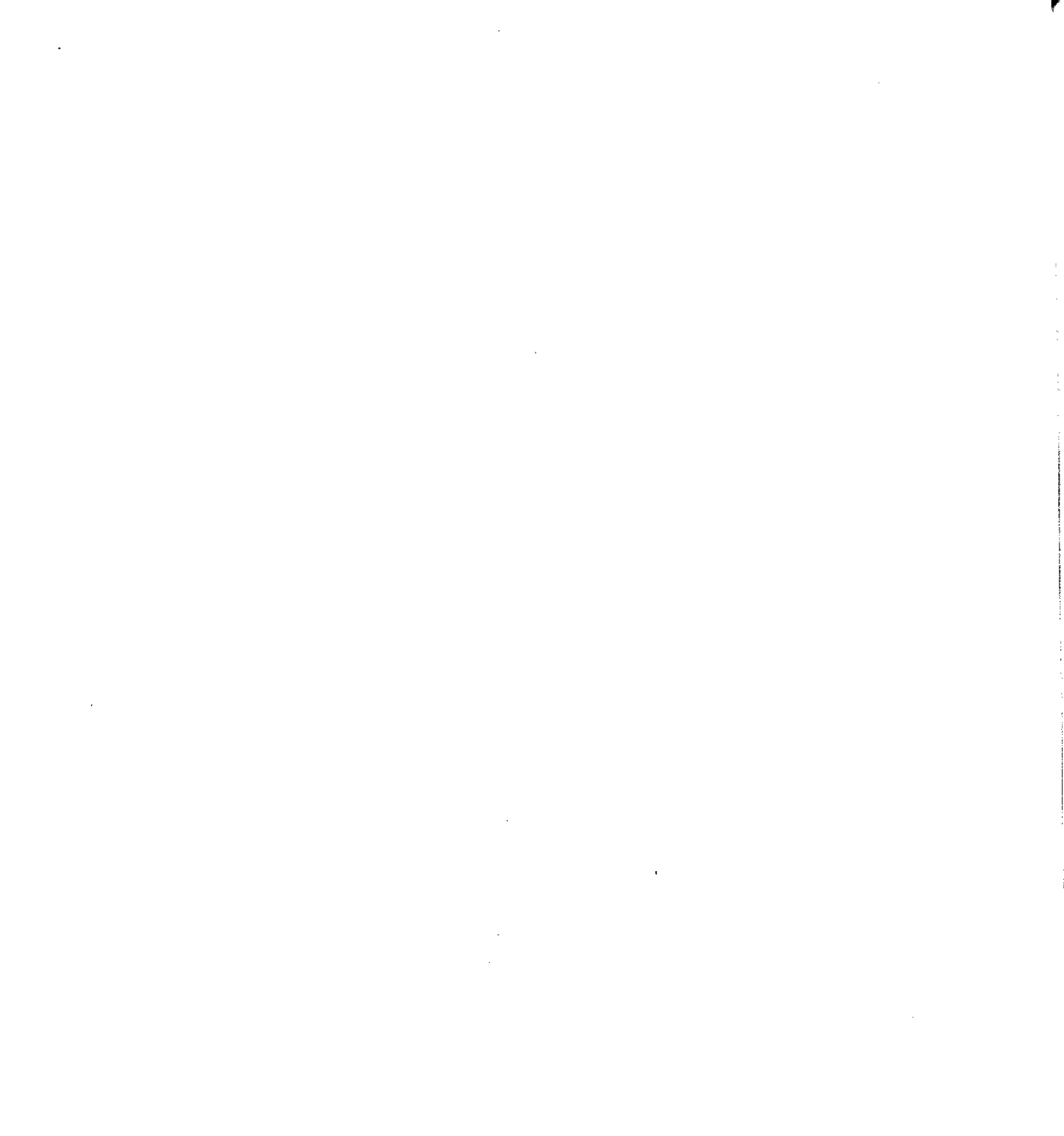
SECTION THROUGH LOBBY





Building A
Entry





Information gathered through research, interviews, and experience indicate several criteria that contribute to the success of a building form the points of view of the developer, the user and the architect. The developer and user criteria can be classified as quantitative, whereas the architect's can be classified as qualitative.

The developer concerns include the proforma, the three "E's", location and the quality level in existing projects. The location of the project is very important to its success. Proximity to the CBD, major roadways, hotels and the airport are the critical factors. The three E's are elevating, efficiency and envelope. Economy in the elevating systems allow a greater amount of rentable space. The proforma measures the efficiencies of the building. The desired level of gross building to usable area should be 84-86%, while the gross building area to rentable area should be 92-94%. As the envelope is a high percentage of total building costs, a system that is economical, easy to erect, readily available, and requires little maintenance is more viable than one that is merely expressive or intended only to convey a sense of imagery. Market tendencies in the vicinity of the project are also a determining factor in the level of quality given to a project. Competitive rental rates, amenities and conveniences are the only goals a developer must strive for in the quest for return on investment.

The user, who is the actual client, while the developer is the legal client, is similarly concerned with the quantitative aspects of the building. For the money, the user would like as many windows, views and corner offices as possible. Building finishes, internal and external, and overall visibility will command a higher dollar because of the upgraded impression the building imagery reflects on the tenants.

The architect, in his dual roles of businessman and designer, must measure his success in dollars and in aesthetic achievement. Unfortunately, the demands of making a profit causes the architect to be concerned mainly with pleasing the client (to insure repeat business) at the expense of the user and the urban fabric.

In this paper I would like to discuss whether architecture can be considered art. To begin with, the question "What is art?" is constantly being asked, and no definition of art has successfully answered that question. A useful definition is a "man-made thing with no objective or functional purpose, that is intended to have aesthetic significance or importance." (Kirby) With this definition, a traditional notion of creation and function is maintained. In a different aspect, art is being separated from beauty, by saying it should have aesthetic significance, which is not necessarily beauty, but a point of view. Aesthetic significance would seem to be a sensual satisfaction, good or bad, at a different consciousness level than previously experienced.

Satisfactions from experiencing an object can occur in many forms. These can be moral, economic, and aesthetic, among others. If a satisfaction is wholly of one type, it excludes any other type.

An aesthetic satisfaction can occur in conjunction with other satisfactions but a separation must occur to determine if an experience is actually aesthetic. It is the aesthetic experience that deals with the awareness of satisfactory qualities in an object (Urmson). Architecture can bring satisfaction that is not a result of the functional or other aspects, in which the spatial qualities, materials, form and applied embellishments begin to be considered. It also seems that in this type of analysis of aesthetic experience, terminology that is applied to art is used, which may explain how architecture became to be considered an art.

The next question to be addressed is "What is Architecture?". The primary reason that architecture exists is to provide protected space. On the surface, this would seem to say that architecture has a function, and by the previous definition it could not be considered art. It does not rule out an aesthetic appreciation. Architecture is primarily concerned with form, and although art and decorative treatment may be applied, it is not architecture because it does not fulfill the functional requirements. It may be considered as a work of art apart from the architecture.

Another idea that can be explored is that what was a utilitarian item of the past is the non-utilitarian item of the present, and hence may be considered a work of art. The ruins of ancient Greece are considered to be art now, but presumably the intention at the time of their conception was religious. Although a perfection through mathematical means was an intent, it was not considered a work of art at the time.

If architecture can become a work of art in a different context, the idea that once an object has received the title "Work of Art" it will always be a work of art, must be considered. One does not commit sacrilege against a work of art because it is no longer favored, but this happens regularly to buildings through re-use or razing, especially for economic reasons. This may indicate that architecture is not considered an art by the average person.

Although architecture may not be considered art, pleasure can be derived from architecture. Psychic Distancing can allow us to be aesthetically moved by commonplace objects (Binkley). This is also asserted by Danto (ch. 4). He argues that aesthetic responses are not restricted to a work of art. This would then be an argument for architecture being aesthetic, though not necessarily a work of art.

PERCEPTION
Appendix C

45

Examination of the laws of perception will begin to explain how one codifies the relationship of elements. The mind will simplify forms, continue lines that have been started, equalize similar lengths and angles, and comprehend patterns if enough repetitions occur. Proximity of forms will also help to integrate random forms into a composition. By following laws of perception, interest in buildings and environment can occur through manipulation of the devices such as contrast, rhythm and complexity integrated with unifying elements.

Objects with too much redundancy are found boring because comprehension occurs too easily. Objects containing too much new information are similarly bound to be boring because no sense can be made of them. Because a designer is familiar with the complex forms and ideas expressed, he can more easily understand very complex relationships that cannot be comprehended by the general public. This may explain why the outcry against poor environment comes mainly from design oriented people.

Both visual and movement stimulation are necessary for sensory development. Tests on animals show that if no physical reaction occurs in response to visual stimulation, apathy and stunting of physical growth will occur. This results in an inability to react to new experiences.

The glass-skin architecture that exists consists of a large number of buildings that appear to vary in expression, but in reality conform to the same organization and expression principles (Appendix D). Most buildings have a large amount of glass varying only in the tint and degree of reflectiveness. The monotony of expression leads to boredom through easy comprehension of the articulation.

COMMONALITIES POSSIBILITIES REALITIES
Appendix D

This study dealt with what commonalities exist
in all office buildings from a functional aspect.

Entry
Circulation
Space Definition
Hierarchy
Services
Structure
Joint with Ground
Skin

Some aesthetic observations:

Entry-The greater the emphasis, the greater
the identity and clarity of the processional
aspects.

Circulation-It is generally centralized around
the core

Space Definition-This can occur through default
or design.

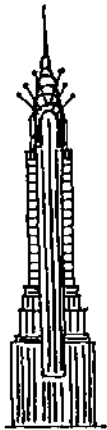
Hierarchy-The clearer the hierarchy, the more
memorable the experience

Services-This is generally centralized in the
center or to one side

Structure-It is either peripheral or regular, based
on a five foot module

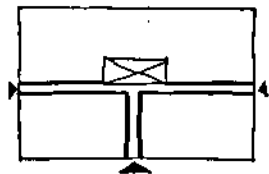
Joint with Ground-This can function as an anchor,
with one of several relationships to the street

Skin-This varies in complexity, and the identity
varies with the degree of ordered articulation



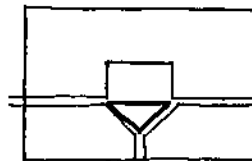
Vertical emphasis through both vertical
and horizontal elements.

Termination has upward, disappearing
quality, with multi-directional emphasis



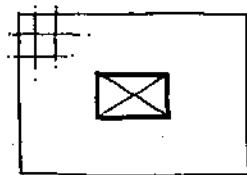
Entrance
From center of block

Circulation
To central lobby, with adjacent elevators



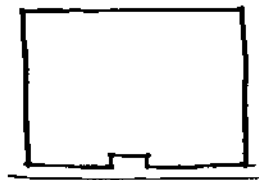
Space Definition
Central triangular lobby space with
peripheral spaces

Hierarchy
Lobby is central focus, surrounding
spaces are as elaborate, but smaller

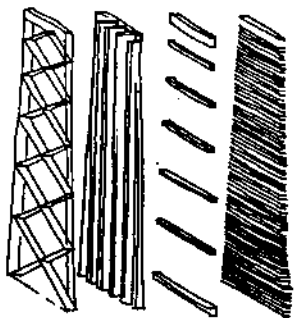


Services
Centrally located

Structure
Regular grid, orthogonal

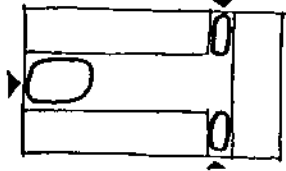


Building to Context
Oriented to existing grid



Hierarchy of structural elements
helps to reduce the scale of the
building

Expression of structure emphasizes
functional aesthetic

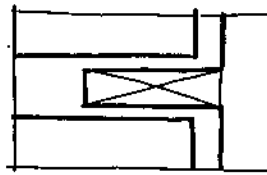


Entrance

At center of block, around depressed courtyard, into an orientation space

Circulation

From main orientation space to appropriate adjacent elevator lobby

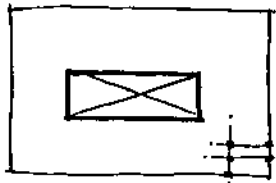


Space Definition

Circulation and lobby space defined by retail storefronts

Hierarchy

No space is emphasized more than the others

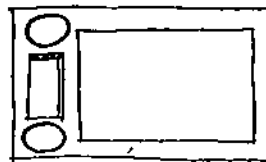


Services

Centrally located

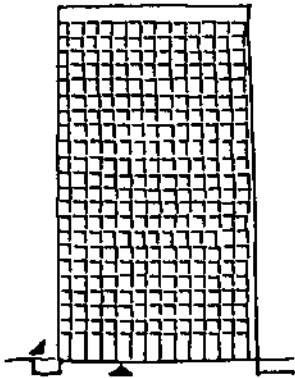
Structure

Regular orthogonal grid



Building to Context

Oriented to city grid—corners of block left open to function as gathering points. Depressed court gives focus to plaza



Uniformity in skin-as-structure tends toward
toward monotony

Deep setbacks of glass within stone
creates a sense of depth and texture

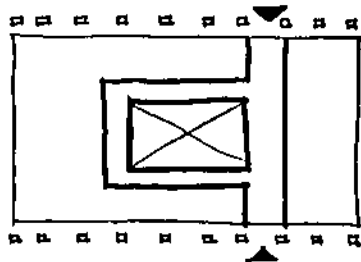
Entry is not signified

Extended grid at base gives idea
of arcade

Facade is similarly expressed on all sides

Secondary courtyard is accessible
through building only

Retail is primarily accessible
through courtyard



Entrance

Signified in depressed courtyard at end of plaza. No visible sign of entry at street level

Circulation

On interior, between commercial and service zones

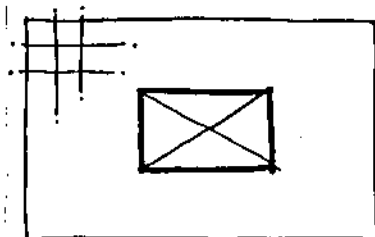


Space Definition

No spaces are defined except as boundary (wall) between zones

Hierarchy

No hierarchy of space exists, except for unused depressed courtyard

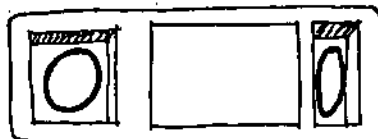


Services

Centrally located

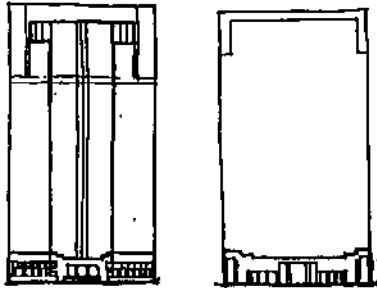
Structure

Peripheral, in conjunction with core



Building to Context

oriented to existing city grid



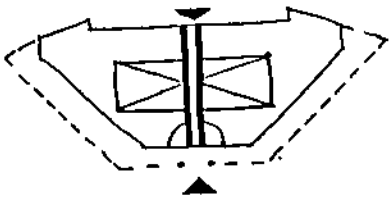
Difference in material reads as two different building expressions, but color helps to unify

Centralized facade creates formal identity

Sawtoothing as a transition in directions

Facade reads in two layers, interlocking of top to bottom occurs through stepping of materials

Strong base image signifies entry and anchors glass to ground

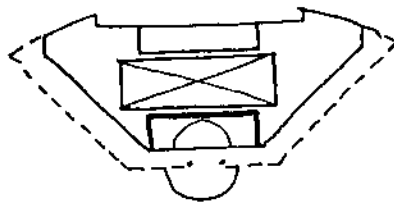


Entrance

From corner of block to center of facade on 45 degree angle

Circulation

Through center of building and elevator core

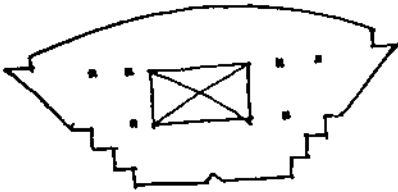


Space Definition

No completely defined space- space bleeds into the next space

Hierarchy

All circulation spaces are equally emphasized. The main entry (loop side) is more articulated than other areas

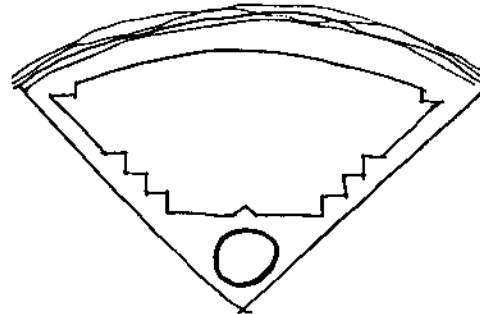


Services

Centrally located, amenities as convenience

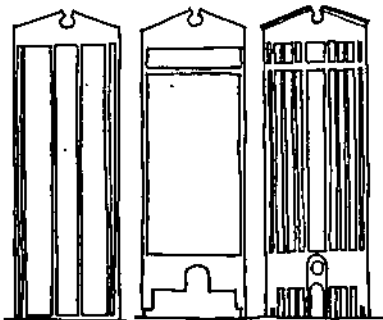
Structure

Primarily peripheral with some intermediate supports

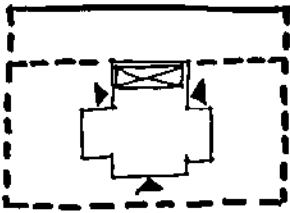


Building to Context

Faces Inner Loop and grid at an angle. Facade directed toward city is translated along sides; Direct relationship to river



The facade is divided into a symmetrical and symmetrical and complex layering of rythms. The overall organizing principles are fairly easily perceived and the less visible layers of ordering help to create an extended interest

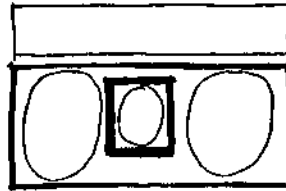


Entrance

Penetration of perimeter can occur at any point. Main entry occurs at center front.

Circulation

Movement occurs in all of street level. Entry occurs into central lobby, with elevators adjacent.

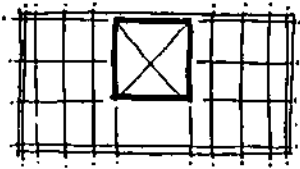


Space Definition

Entry lobby is focus, due to being the only enclosed element. Arcade is defined by vault attached to building.

Hierarchy

Relatively equal emphasis between circulation space, arcade and enclosed area.



Services

Pushed to center back.

Structure

Regular grid in short dimension; In long dimension, small bays outside, large bays in center.



Building to context

Holds to city grid but is open on most of street level.