EISENSTEIN'S FILM THEORY OF MONTAGE AND ARCHITECTURE

A THESIS

Presented to

The Faculty of the Division of Graduate Studies

By

Jeffrey M. Todd

In Partial Fulfillment

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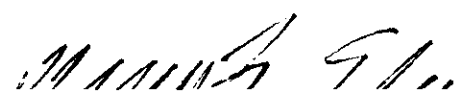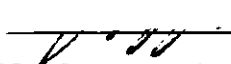
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EISENSTEIN'S FILM THEORY OF MONTAGE AND ARCHITECTURE

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I wish to express my sincere gratitude to all those who have supported me in the accomplishment of this goal, thank you for not giving up, you know who you are. A special note of appreciation must be extended to my final advisor, Doug Allen, who gave me the needed understanding and incentive to bring the thesis to fruition. I must also give thanks to my parents for their relentless support through this trying time; Merrill Elam the sole survivor of my original thesis committee and Sherrie Ward for transcribing my scribbles into text.

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CHAPTER I

INTRODUCTION

The modern urban environment is composed of numerous series of complex sequences which determine an individual's experiences. These sequences do not follow any logical pattern for they are as discontinuous, as fragmented as modern society is. Experiences are assembled in the mind of the individual in order to establish a personal sense of memory and meaning. This assemblage of individual experience is the essence of montage.

The word montage has its roots in the French verb "monter" which means to assemble.[1] It is characterized by the combination of heterogeneous elements in an artistic composition. In filmmaking, montage is a style of editing in which contrasting shots or sequences are juxtaposed for the purpose of suggesting a total idea or impression.[2] Montage, then, deals directly with the combination of several dissimilar elements which, through their assemblage, establish new meaning. However, these juxtapositions are not purely arbitrary, they are carefully selected by the filmmaker in order to establish a specific meaning or to have a specific effect on the viewer. The overall image is planned and concretized in separate representational elements which are ultimately assembled in the spectators' mind.[3]

For example:

> A lonely crow
>
> On leafless bough
>
> One Autumn eve

Each sentence in this poem can be seen as a separate element with a specific meaning. When the separate elements are brought together, line to line, a new meaning is established which is greater than the meaning of each separate element. It is this unified psychological effect which is the hallmark of montage.[4] It is the unification of individual elements into a new compositional whole which is the critical characteristic of montage. The composition is not only the sum of its individual elements, it is the unification of the elements into a new whole.

Through this compositional unification, empirically dissimilar images are linked together synthetically to produce metaphors.[5] These metaphors suggest a new meaning which is different from and greater than the individual elements alone.[6] The literal meaning inherent in the individual elements has been subordinated to the resultant metaphors of the montage composition.

The Thesis

The purpose of the thesis is to explore how the theory of montage as developed by Russian filmmaker Sergei Eisenstein (1898 - 1948) can be used to develop architectural concepts. The text shall define Eisenstein's basic principles of montage by examining how they are demonstrated in the structure of his 1925 film <u>Battleship Potemkin</u>. These principals shall be presented as independent ideas separated from the socio-political condition by which they were greatly influenced, specifically the political theories of Karl Marx and the atmosphere which prevailed throughout Russia following the 1917 Bolshevik Revolution. These montage principles shall be elaborated via their relationship to the architectural theories of Bernard Tschumi to produce specific architectural concepts which will be exercised in an urban redesign of the northeast corner of Central Park in New York City.

Sergei Mikhailovich Eisenstein (1898–1948)

CHAPTER II

EISENSTEIN'S ESTHETICS

The Dialectic Mode of Thought

Eisenstein believed that montage was a theory which operated dialectically.[7] The dialectic is a mode of thinking in which the entire realm of human experience is perceived as being in perpetual conflict whereby a force (thesis) collides with a counterforce (antithesis) the resultant being an entirely new phenomenon (synthesis). The synthesis is not the sum of the two forces but something different from and greater than them both. The Synthesis, in turn, becomes the thesis in the establishment of a new dialectic.[8] For example:

Synthesis

Synthesis   Thesis   Antithesis

Thesis   Antithesis
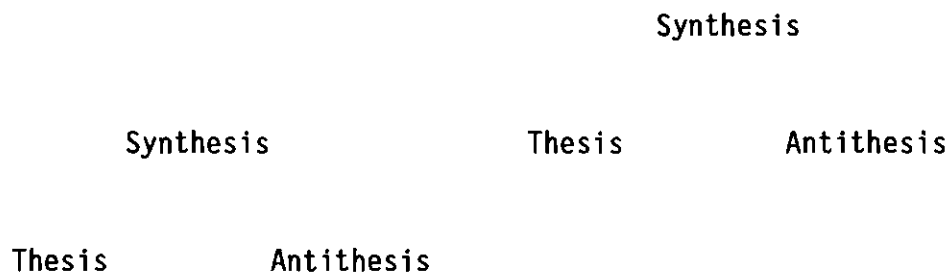
Eisenstein believed that within the realm of art, the dialectic principle is embodied in conflict as the fundamental principle for the existence of every art work and every art form.[9]

Principals of Montage

Eisenstein's theory of montage is characterized by conflict and a belief that a concept arises from the collision of two given factors in opposition to one another.[10] Montage can be seen as the creation of a central or narrative theme from the juxtaposition of specific, and often unrelated details.[11] In this sense, each spectator in correspondence with their own experience is obligated to an image in accordance with the representational guidance suggested by the author, leading the spectator to an understanding and experience of the author's theme. In this way, the author and the spectator are co-creators of the films narrative structure.[12] Understood as a dynamic process the actual work of art comes into being through the arrangement of images in the mind's eye of the spectator. This constitutes the perculiarity of a truly vital work of art and distinguishes it from a lifeless one, in which the spectator receives the represented result of a given consummated process of creation, instead of being drawn into the process as it occurs.[13]

The strength of montage resides in the creative process which includes the emotions and intellect of the spectator, who is compelled to proceed along that selfsame creative road traveled by the author in creating the image. The spectator not only sees the represented elements of the finished work, but also experiences the

dynamic process of the emergence and assembly of the image just as it was experienced by the author.[14] The realistic significance of montage is found in the synthesis of an image through the juxtaposition of separate thematic pieces.[15] Therefore, in the actual method of creating images, a work of art must reproduce that process whereby, as in life itself, new images are built up in the human consciousness and feelings.[16]
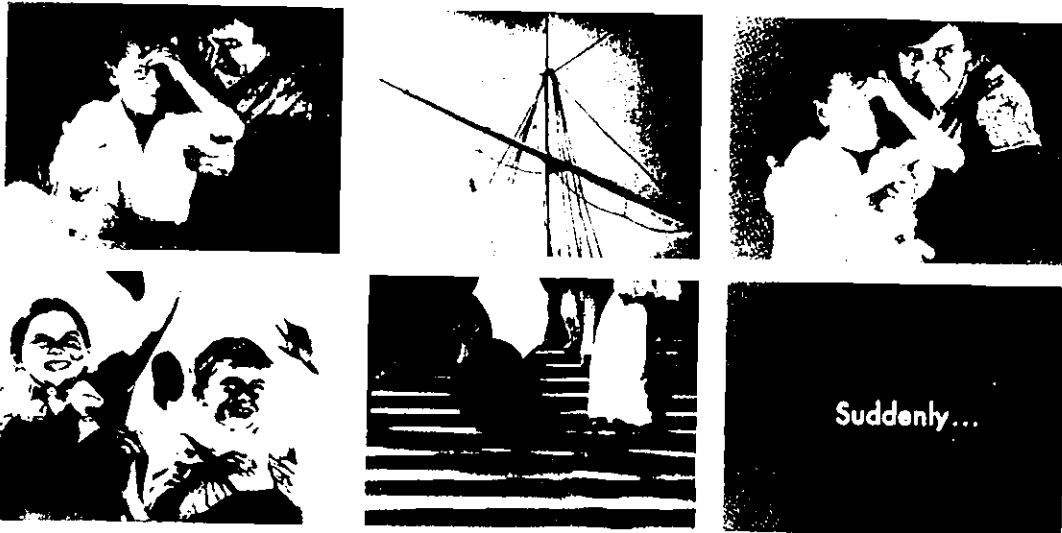
Film Sequence <u>Battleship Potemkin</u>

The Methods of Montage and Their Use in the Film "Battleship Potemkin"

Having developed the theory of montage, which is characterized as a process of assembling words and images in order to establish specific meanings, Eisenstein was now confronted with the problem of precisely conveying these new concepts.[17] Five specific categorized levels of montage were developed by Eisenstein; four of which (metric, rhythmic, tonal, and overtonal) could be described as purely physiological, while the fifth (intellectual) was to direct not only emotions but the whole thought process.[18] These five categorized levels of montage establish relationships between separate film fragments which, through their juxtaposition, create meaning in the mind of the viewer. However, meaning is also established by the composition within the frame of each film fragment as well. Through this composition of the individual elements within the frame, the dominant meaning of each film fragment is established. In order to convey the nature by which these methods of montage and cinematographic conflicts within the frame are used, the structure of a particular film, by Eisenstein, Battleship Potemkin, will be examined.

Battleship Potemkin, was a 1925 film commemorating the twentieth anniversary of the abortive 1905 Revolution against tsarism. Originally intended to be a segment in the film, Year 1905, which was to provide a complete overview of the historic events of the entire uprising, Eisenstein decided to limit his treatment of the Revolution to a single representative episode concerning the events of the Potemkin mutiny and the massacre of citizens supporting the mutineers by tsarist troops and Cossacks.[19] The film and its concise structure clearly convey Eisensteins' theories of montage as an editing technique based upon psychological stimulation which communicated physical and emotional sensations directly to the audience rather than by a narrative logic.[20]

Potemkin is divided into five structurally symmetrical movements or acts, each of which was broken into two halves by a strong medial pause in action. Operating dialectically each act is characterized by mounting tension followed by a resolution or exploding tension which together produces a synthesis that becomes the thesis of the next act.[21]

This can be summarized diagrammatically:

I.   "Men and Maggots"

            The rotten meat---------------smashing plates

II   "Drama on the Quarter Deck"

            Scene with the tarpaulin-------Mutiny

III   "An Appeal from the Dead"

            Mourning for Vakulinchuk------angry demonstration

IV   "The Odessa Steps"

            Lyrical fraternization--------shooting

V   "Meeting the Squadron"

            Anxiously awaiting the fleet---triumph [22]

These five acts establish the autonomous structure of the film
in which the various methods of montage operate independently. The
following is a description of each method of montage (metric,
rhythmic, tonal, overtonal and intellectual) and an example of it's
use in the film Battleship Potemkin.

1. Metric Montage

Metric Montage is characterized by the juxtaposition of film
fragments in which the fundamental criterion for construction is the
absolute lengths of the film fragments.[23] The fragments are joined
together by their actual length corresponding to the mathematically
calculated length of the fragment according to a metric formula.[24]
Varying the specific length of fragments, while still maintaining the

original proportions of the formula, can obtain varying degrees of tension from serene to chaotic. "In this type of metric montage the content within the frame of the (film fragment) is subordinated to the absolute length of the (film fragment)."[25] Within the structure of Potemkin this method of metric montage is particularly evident in the final act "Meeting the squadron." Here, at an ever increasing tempo, shots of rotating cam shafts and the plunging pistons of the ships engines are intercut with shots of orders being given from the bridge, smoke billowing from the ships' stacks and the bow of the Potemkin slicing through the waves. By accelerating this cutting rate to a feverish pitch, Eisenstein increases tension as the Potemkin moves closer and closer to the squadron.[26]

METRIC MONTAGE   The Potemkin meets the squadron

Battleship Potemkin

2. Rhythmic Montage

The content within the frame of the film fragment is a factor which possess equal importance in the determination of the actual length of the fragment with the technique of rhythmic montage. The length of the film fragment is not determined by an absolute formula, rather "...(the fragments') practical length derives from the specifics of the piece, and from its planned length according to the structure of the sequence."[27]

Tension can be obtained by the conflict between the length of the film fragment and the movement within the frame. The introduction of a conflicting tempo within the frames themselves impels the montage movement from frame to frame. "Such movements within the frame may be of objects in motion, or of the spectator's eye directed along the lines of some immobile object."[28]

In the "Odessa Steps" sequence the steady rhythm of the jackbooted soldiers feet as they descend the stairs acts as a counterpoint to the metric tempo of the actual film cutting.[29] As the scene progresses the troops continue their orderly march down the steps firing their rifles into the crowd, which in complete contrast, chaotically disperse.
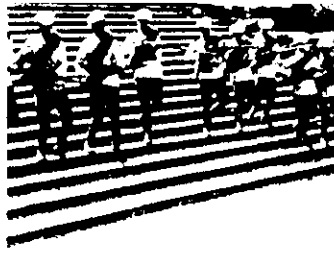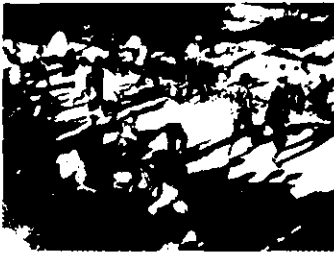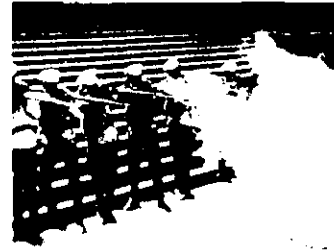
RHYTHMIC MONTAGE   Attack on the Odessa Steps

Battleship Potemkin

3. Tonal Montage

The overall tone in which the concept of movement embraces all affects of the montage piece; the characteristic "emotional sound" of the film fragment is the basis of tonal montage.[30] The term "emotional sound" is not to imply a solely impressionistic quality, as the film fragments' characteristics can be measured. "But the units of measurement differ. And the amounts to be measured are different."[31] The use of varying degrees of illumination to effect the overall mood of a particular film fragment would be an example of "light tonality." Similarly a film fragment characterized by many acutely angled elements in juxtaposition within the frame could constitute a "shrill sound" which would exemplify "graphic tonality."[28]

The fog sequence at the beginning of the third act "An Appeal from the Dead" characterizes tonal montage. Here, the dominant quality of "haze" and "luminosity" of various aspects of the harbor before daylight, (Vessels at anchor, dockside cranes; the tent in which the corpse of the martyred leader of the mutiny lies) grow progressively lighter as the sun rises and gradually eradicates the thick Odessa fog.[33]

TONAL MONTAGE   "...eradicates the thick Odessa fog."

Battleship Potemkin

4. Overtonal Montage

Overtonal montage is distinguished by the collective characteristics of metric, rhythmic and tonal montage when they are brought together within the film fragment. Overtonal montage does not "...concentrate on the dominant in each (film fragment) but on the overtones."[34] The bringing together of the various methods of montage creates a level of conflict, each method developing from the other.

> Thus the transition from metrics to rhythmics
> came about in the conflict between the length
> of the shot and the movement within the frame.
>
> Tonal montage grows out of the conflict between
> the rhythmic and tonal principles of the piece.
>
> And finally - overtonal montage, from the conflict
> between the principal tone of the piece (its
> dominant) and the overtone. [35]

Overtonal montage is not an editing technique but rather emerges through the dialectical process of the projection of the film.[36] The overtone of the fog sequence would be somberness, that of the Odessa steps terror and the final scene when the Potemkin passes by the squadron carrying its' crew to freedom and safety brings a sense of cathartic victory.

OVERTONAL MONTAGE   Terror on the Odessa steps
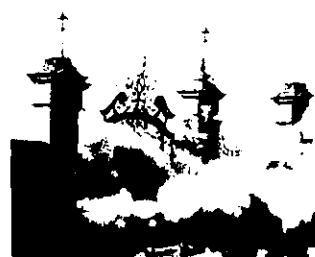

Battleship Potemkin

OVERTONAL MONTAGE   "Brothers!"

Battleship Potemkin

5. Intellectual Montage

The final level of montage, intellectual, does not involve a generally physiological effect, but rather a psychological effect upon the viewer. It would be characterized by the conflict and juxtaposition of the accompanying intellectual affects of the generally physiological overtones.[37] In this sense, intellectual montage can be characterized as an activity of mental fusion or synthesis, through which particular details are united at a higher level of thought. The emphasis is not upon particular characteristics within the film fragment, but the intellectual process which occurs within the mind and thought process of the viewer. Therefore, the meaning of the film fragment is dependent upon the viewers particular experiences.

This intellectual synthesis is found throughout the structure of Potemkin and is perhaps best exemplified at the conclusion of the "Odessa Steps" segment. Here, as the headquarters of the tsarists generals is destroyed by the huge turret guns of the Potemkin, Eisenstein uses a three shot montage sequence in which a sculptured stone lion rises from his sleep and roars. This is a symbolic metaphor of the outrage of the Russian people over the atrocity which had just been committed on the steps as well as their collective awakening anger against the regime which perpertrated the massacre.[38]

INTELLECTUAL MONTAGE   The lion awakens

<u>Battleship Potemkin</u>

CHAPTER III

FILM THEORY AND ARCHITECTURAL CONCEPT

Having examined the five levels of montage developed by
Eisenstein and their use in the film Battleship Potemkin, it is
necessary to apply these filmatic principles in the determination of
specific architectural concepts. To accomplish this task, the
theoretical work of architect Bernard Tschumi shall serve as the
antithesis to film theory and dialectically establish specific
architectural concepts as the synthesis. These concepts will be
documented and presented as a series of structures which will build
upon and reinforce one another.

Architectural Concept

Film Theory   Architectural Theory

The examination of the theoretical writings of Bernard Tschumi
reveals several distinct concepts which relate to the montage theories
developed by Eisenstein. These concepts were organized into a series
of three identifiable structures (Programmatic, Operative, Formal)
each structure relating to one, or more, of the five methods of
montage. The following is a description of those structures, each
with its particular set of conceptual elements.

I.   Programmatic Structures (Metric Devices):

Quantifiable elements or devices which
establish specific criteria for architectural
design.

1. Grid   The use of a cartesian coordinate system as a
               device of organization and reference. The
               grid by its nature, implies a neutral
               non-directional field. In opposition to the
               grid, axial relationships between specific points
               function directionally both horizontally
               (plan) and vertically (section).

2. Frame   The frame is not characterized solely by
               the framing device; that which acts to regulate
               or contain; for the frame is also distinguished
               by the framed material which it distorts and
               brings into questions.[39]

3. Border   Borders establish limits, definitive boundaries
               within which events occur. The significance of
               a border is further established by its
               transgression at a specific point (gate) which
               defines the journey.[40]

II.   Operative Structures (Rhythmic; Tonal Devices)

The means by which programmatic structures can
be logically translated into form.

1. Movement   The violation of architectural space by the
disruptive action of the body. Bodies which,
through their movement, not only react to
(conditioned) but also generate (dynamic)
space.[41] The intrusion of one order into the
established architectural order.

2. Notation   Notation refers to a particular series of
specific modes of demarcation or representation
which convey meaning. Words are the notational
device of the written text, while traditional
architectural notation includes; but is not
limited to; plan, elevation, section and
axonometric.[42]

3. Fragmentation/Combination

Fragmentation infers the reduction of a theory
or object to a set of particular formal
elements (De-construction). Combination, in
turn, implies the interrelationship of those
formal elements which may be conflicting
(oppose) reciprocating (reinforce) or
indifferent (neutral)[43] in their juxtaposition
(Construction).

III. Formal Structures (Overtonal; Intellectual devices)

Those qualities which determine the nature
of architecture and its relationship to the
individual.

1. Objects/Spaces

    The three dimensional reality of architecture which both defines and occupies space. The materiality of architecture which can be discovered in its solids and voids, spatial sequences,[44] collisions and articulations. Space which qualifies action as well as those actions which qualify space.[45]
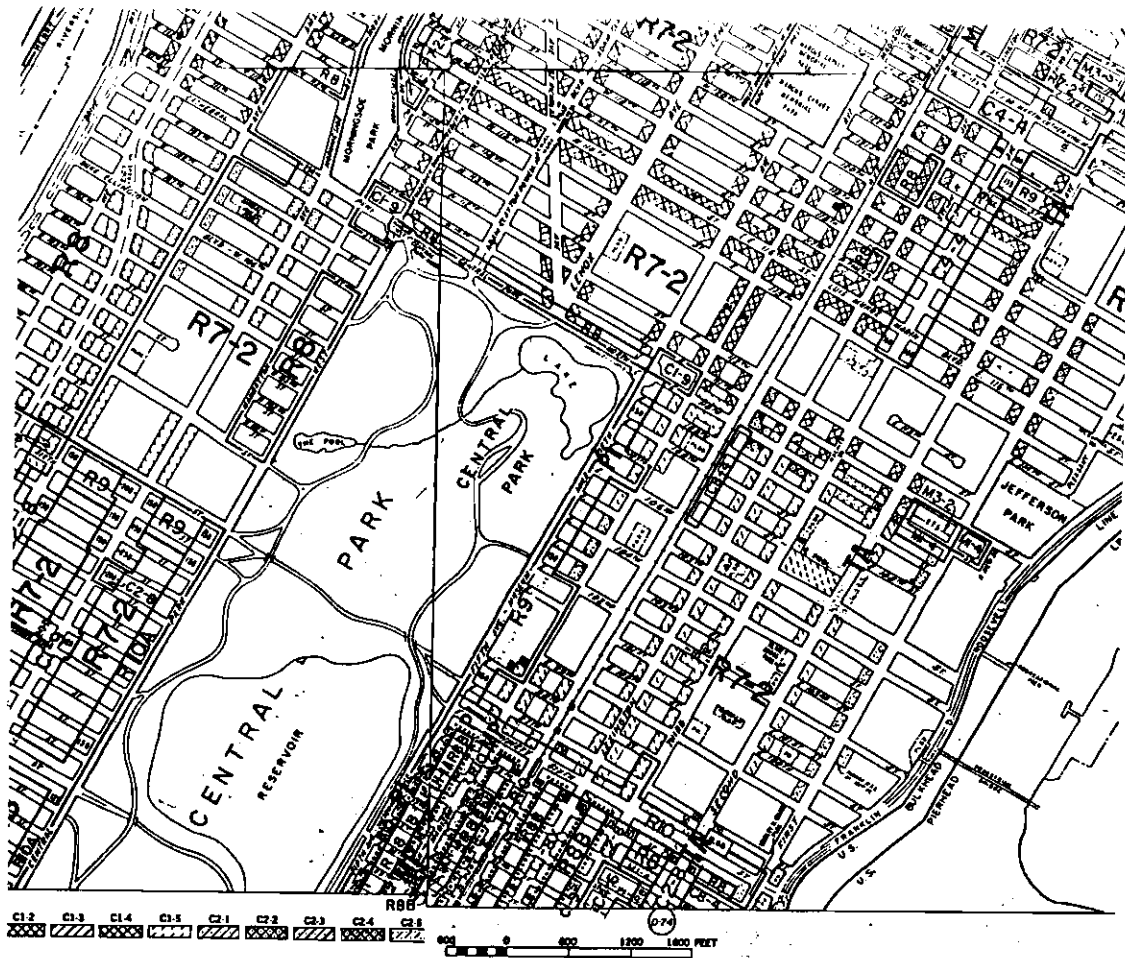
2. Sequence

    A sequence is the composite succession of juxtaposed frames which determine meaning and memory. The confrontational nature of the sequence can repeat, distort, disjunct or insert formal structures within the frame in the establishment of successive wholes.[46] These confrontations can be internal or external relationships inferring the temporality of both film and architecture.
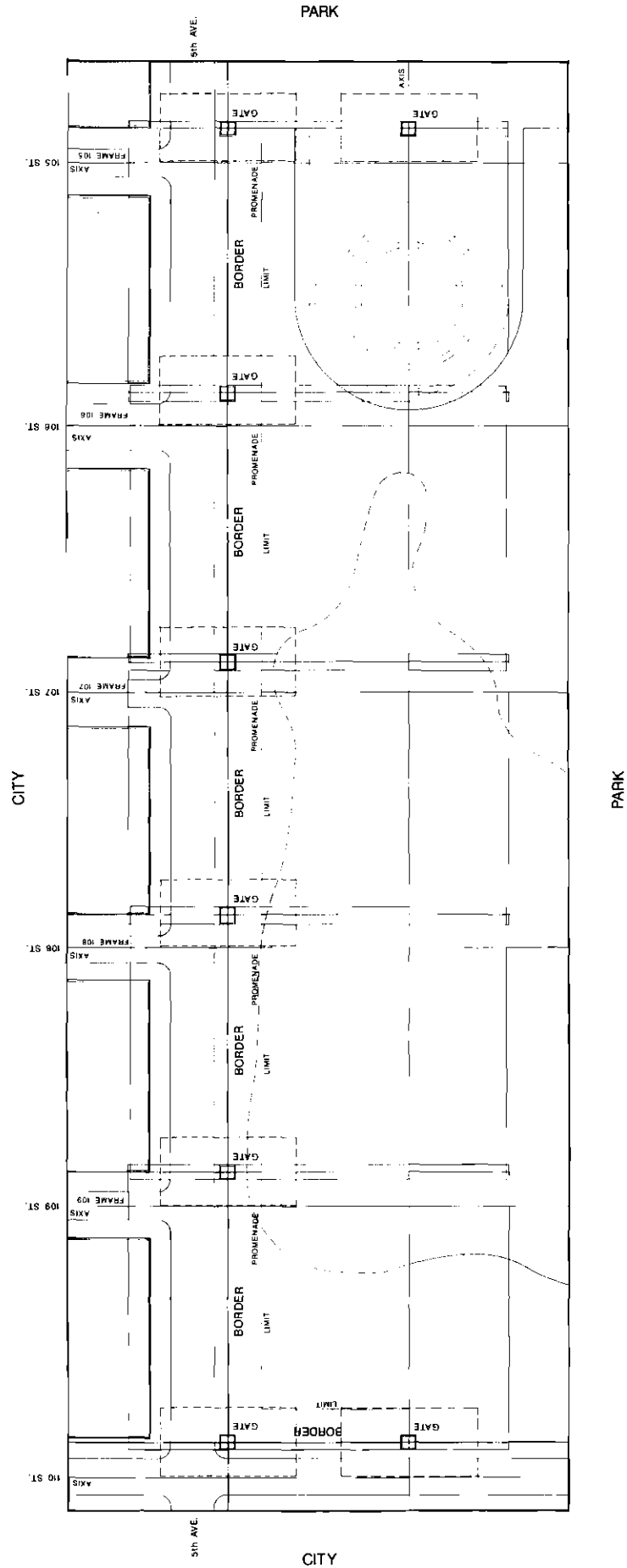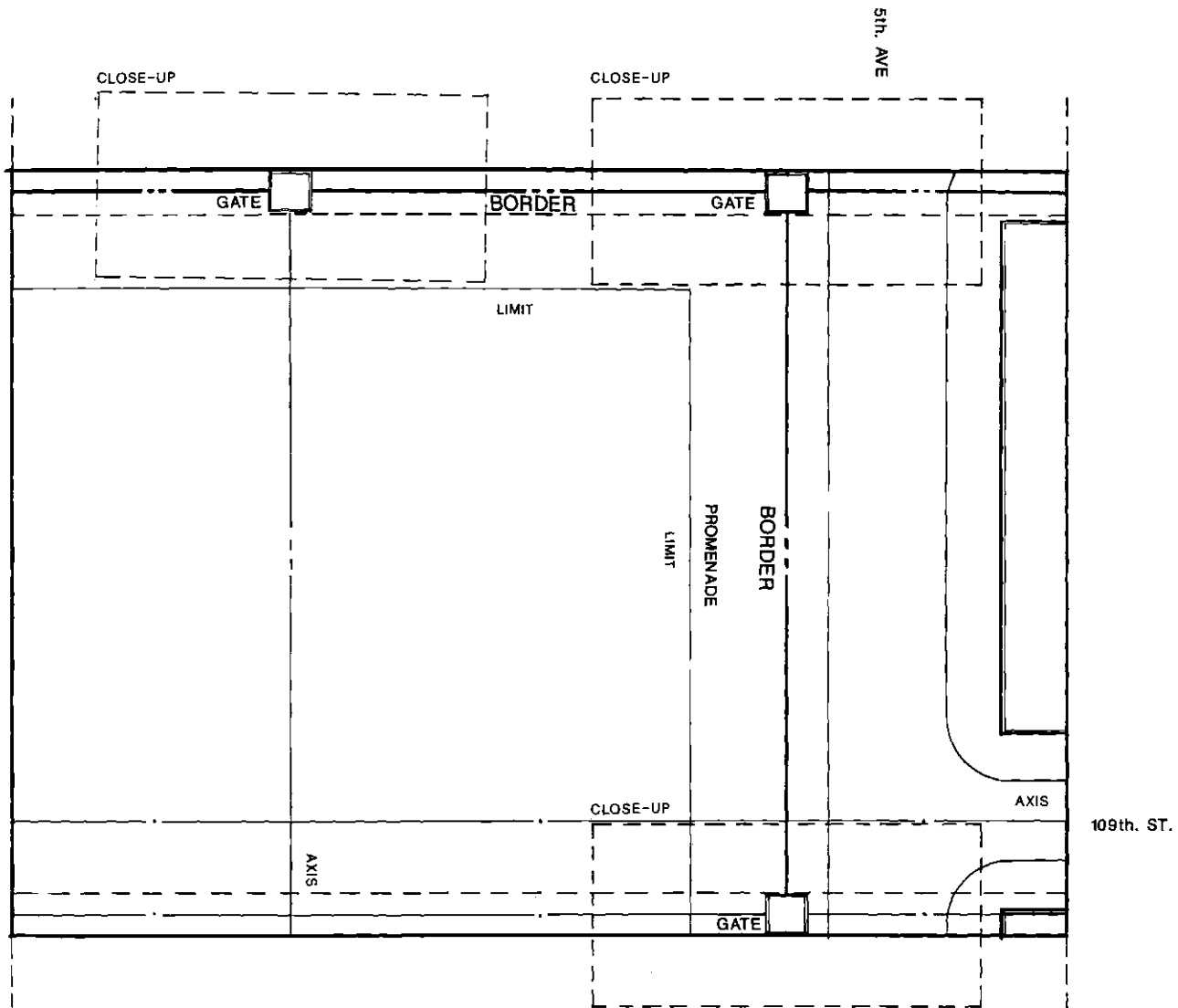
3. Events

    Those actions which are determined by the violation of space (movement) and time. The relationship of architecture and the organized repetition of predetermined events and their duration (use) determine the nature of space. Space and event effect one another transgressing each others rules.

CHAPTER IV

REDESIGN OF THE NORTHEAST CORNER

CENTRAL PARK

NEW YORK CITY, NY

Fragment of Zoning Map

New York City, NY

PARK

PARK

CITY

CITY

BORDER

BORDER

BORDER

BORDER

BORDER

BORDER

PROMENADE

LIMIT

GATE

GATE

GATE

GATE

GATE

GATE

GATE

GATE

GATE

FRAME 105

FRAME 106

FRAME 107

FRAME 108

FRAME 109

105 ST.

106 ST.

107 ST.

108 ST.

109 ST.

110 ST.

AXIS

AXIS

AXIS

AXIS

AXIS

AXIS

5th AVE.

5th AVE.

LIMIT

LIMIT

LIMIT

LIMIT

LIMIT

PROMENADE

PROMENADE

PROMENADE

PROMENADE

CLOSE-UP   CLOSE-UP   5th. AVE

GATE   BORDER   GATE

LIMIT

PROMENADE   BORDER

LIMIT

CLOSE-UP   AXIS

109th. ST.

AXIS

GATE

FRAME 109

28

PROGRAMATIC SYSTEMS

GRID   FRAME   BORDER

MOVEMENT   NOTATION   FRAGMENTATION/
                                                            COMBINATION

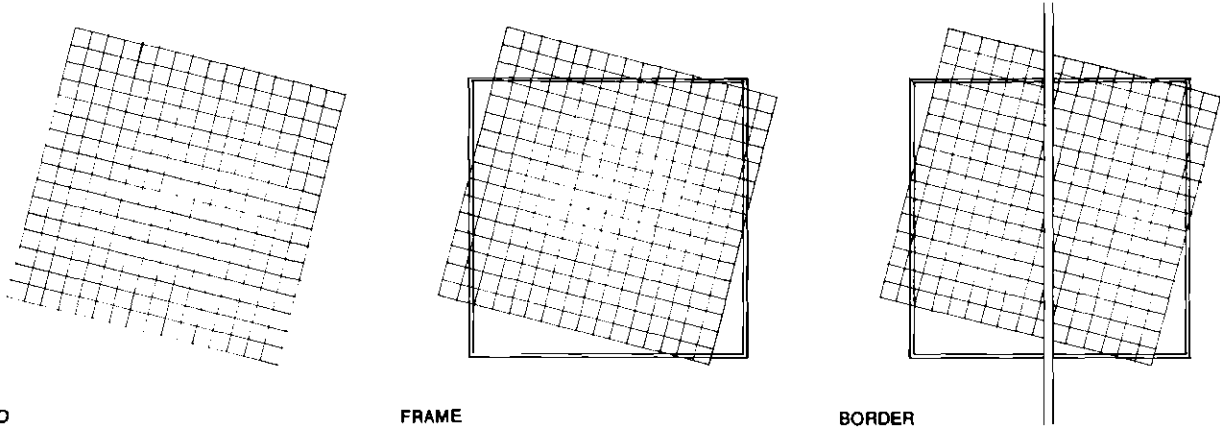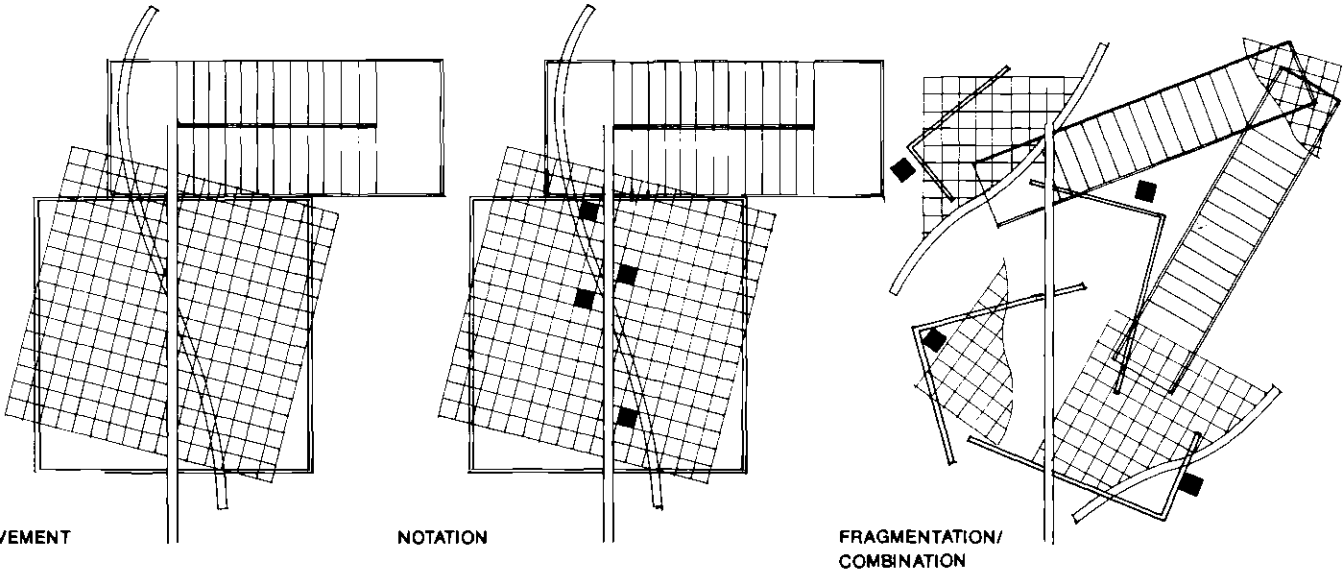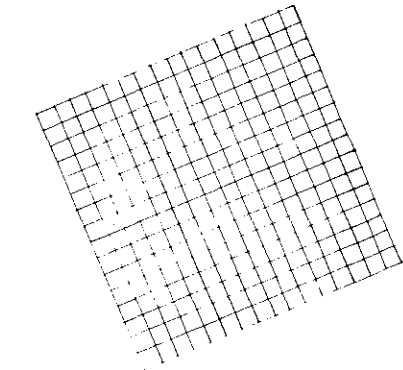OPERATIVE SYSTEMS   FRAME 109

PROGRAMATIC SYSTEMS

GRID   FRAME   BORDER

MOVEMENT   NOTATION   FRAGMENTATION/
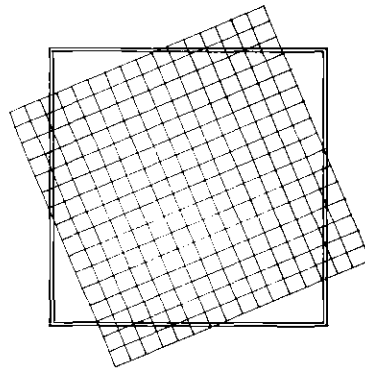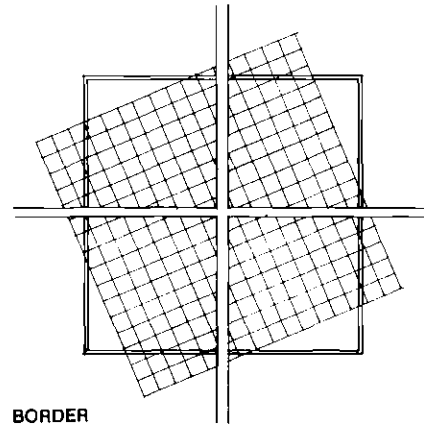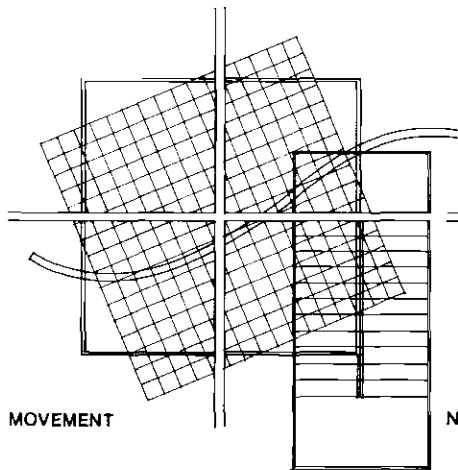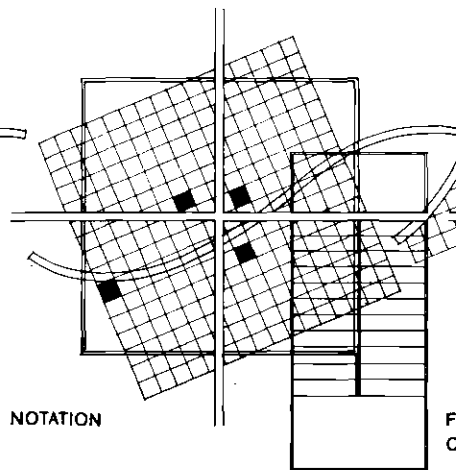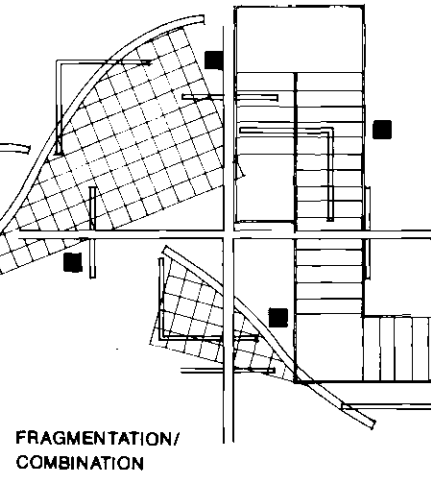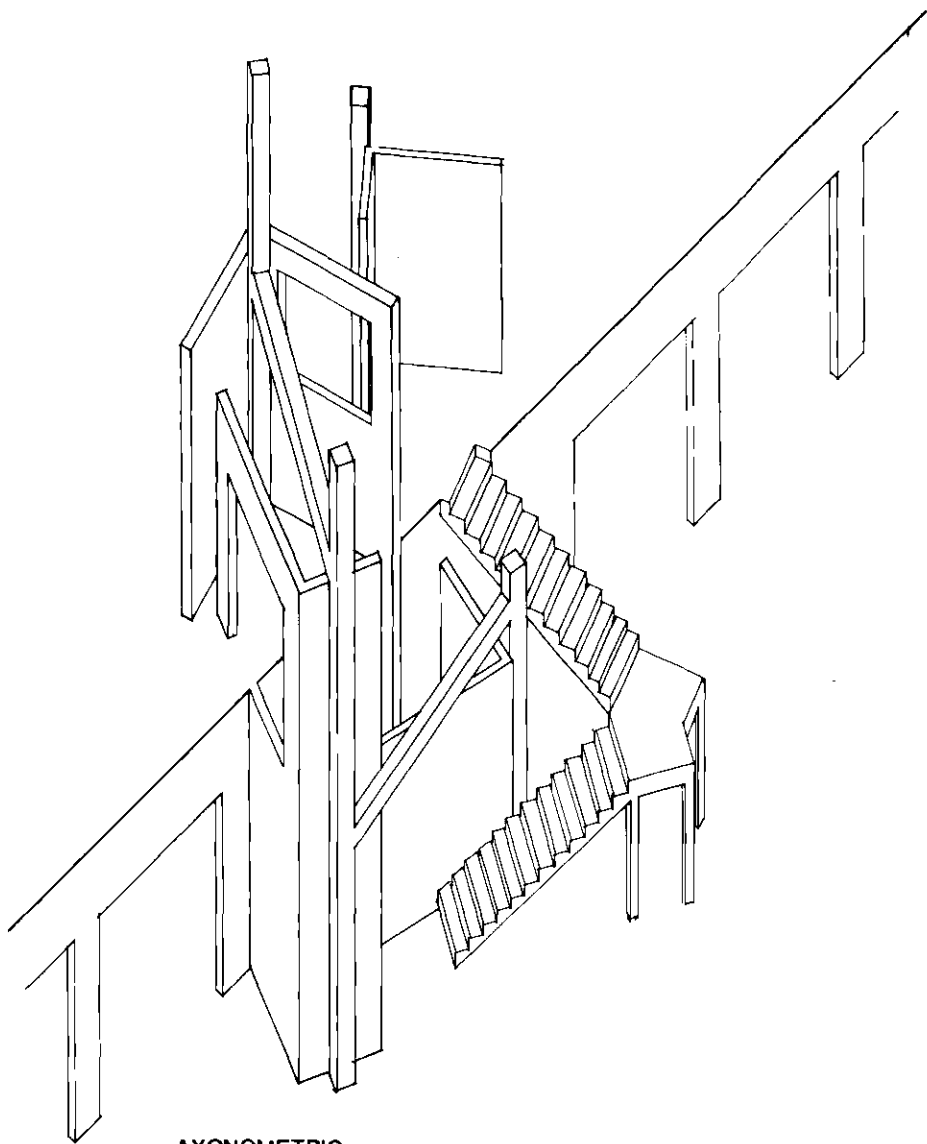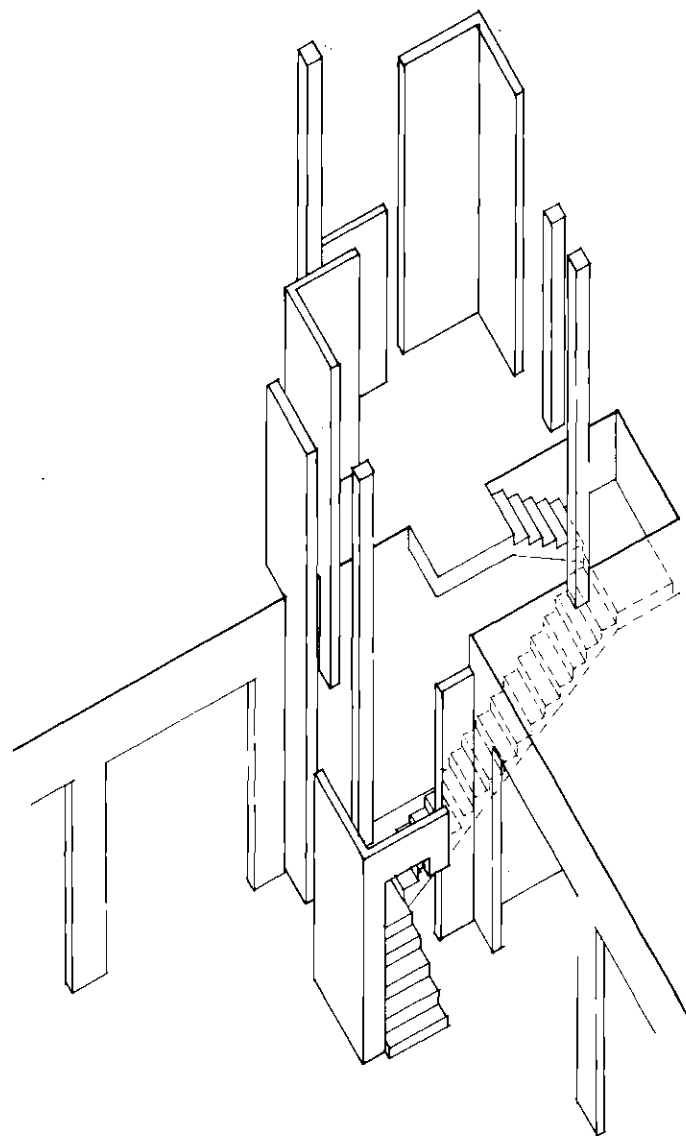   COMBINATION

OPERATIVE SYSTEMS   FRAME 109

30

AXONOMETRIC

AXONOMETRIC

FRAME 109

31

CHAPTER V

CONCLUSION

The redesign of the Northeast corner of Central Park
demonstrates the use of conceptual architectural structures at two
distinctive levels. The primary level is defined in terms of the
overall urban context in which the Northeast corner establishes the
dialectical relationship between the Park and the City. The secondary
level is found in the distinct physical architectural object of the
gate which operates within the redefined limits of the urban frame.
The analysis of the redesign will focus on both levels as well as
identify the means in which they effect one another.

I.   Programmatic Structures

    1. Grid   The existing urban fabric of New York City
is established through the use of a grid iron
of streets and blocks. A separate axis exists
at each street centerline which establishes the
relationship between blocks. A strong axial
relationship occurs at the centerline of the
existing conservatory garden.

    2. Frame   The frame is used to isolate 105th, 106th,
107th, 108th and 109th streets which intersect
perpendicular to fifth avenue between the
corner of 110th street and the existing
conservatory garden at the park entrance at

105th street. Each frame limits a distinct area as well as overlapping the adjacent frame, the existing urban fabric of the city and the axial relationship of the conservatory garden.

3. Border   A strong border exists at the edge of the park where it meets the city. To emphasize the conflict between park and city the border becomes a physical barrier through a change in elevation. This shift in elevation separates the pedestrian promenade along the waters edge at the park level from the vehicular street traffic at the city level.

II. Operative Structures

1. Movement   Movement includes but is not restricted to the movement of bodies from the city to the park, within the park and from the park to the city. Horizontal movement along the pedestrian promenade and vertical movement between the street level and the park level.

2. Notation   Notation defines the demarcation which establishes specific points of experiential reference. These points are located along the border of the park at the intersection of the shifted axis of the street centerlines and the axis of the existing conservatory garden. The relationship between park, city and street establishes these notational structures as the

gate from city to park.

3. Fragmentation/Combination

> The northeast corner of the park is a fragment
> of the overall city. This portion of the urban
> fabric has been further fragmented into
> separate street frames, each with it's own
> identifiable borders and gates. The combination
> of the notational elements of border and frame
> allows for a reading of the entire corner, just
> as the northeast corner accommodates the
> perception of the entire city.

III. Formal Structures

1. Objects/Spaces

> Three dimensional architectural objects are
> located at the notational gates in order to
> demarcate entry and define space. Each object
> is identifiably unique, yet as part of a
> series, they each exhibit common
> characteristics.
> Spatially, the open horizontally oriented
> space of the pedestrian promenade conflicts
> with the multi-directional space of the
> entry gates and the confined regulated space
> of the framed niches along the border wall.

2. Sequence Pedestrian movement along the promenade is
> sequenced by the relationship to the notational
> gates. Similarly, the border crossing from park

to city and city to park is sequenced by the
relation of the individual's body to the
architectural objects which define the space.

3. Events   The design offers a plurality of neutral
spaces in which events can occur. Events
will determine the use of space just as the
space will determine the types of events. The
wide promenade offers a large open space to be
defined by those large public actions which it
witnesses. In contrast, the confined spaces
of the framed promenade niches, by the nature
of their restricted size, could accommodate
a few individuals.

FOOTNOTES

[1]   David A. Cook, <u>A History of Narrative Film,</u> (New York, 1981) p. 140.

[2]   Phillip Babcock Grove Phd., Editor in Chief, <u>Websters Third New International Dictionary,</u> (Springfield, Mass., 1966), p. 1465.

[3]   Sergei M. Eisenstein, <u>The Film Sense</u>, (New York, 1947), p. 31.

[4]   J. Dudley Andrew, <u>The Major Film Theories: An Introduction</u>, (London, 1976), p. 52.

[5]   Cook, <u>A History of Narrative Film</u>, p. 140.

[6]   <u>Ibid</u>, p. 147.

[7]   <u>Ibid</u>, P. 171.

[8]   <u>Ibid</u>

[9]   Sergei M. Eisenstein, <u>Film Form</u>, (New York, 1949), pp. 45-46.

[10]   <u>Ibid</u>, p. 47.

[11]   <u>Ibid</u>, p. 37.

[12]   <u>Ibid</u>, p. 49.

[13]   Sergei Eisenstein, <u>The Film Sense</u>, (New York, 1942) p. 44.

[14]   <u>Ibid</u>, p. 35.

[15]   <u>Ibid</u>, p. 33.

[16]   <u>Ibid</u>, p. 17.

[17]   <u>Ibid</u>, p. 32.

[18]   <u>Ibid</u>, p. 30.

[19]   Cook, <u>A History of Narrative Film</u>, p. 144.

[20]   <u>Ibid.</u>

[21]   <u>Ibid</u>, p. 173.

[22]   <u>Ibid.</u>

23   Eisenstein, Film Form, p. 72.

24   Ibid, p. 74.

25   Ibid, p. 73.

26   Cook, A History of Narrative Film, p. 168.

27   Eisenstein, Film Form, p. 74.

28   Ibid, p. 75.

29   Cook, A History of Narrative Film, p. 175.

30   Eisenstein, Film Form, p. 75.

31   Ibid.

32   Ibid., p. 76.

33   Cook, A History of Narrative Film, p. 154.

34   Peter Wollen, Signs and Meaning in the Cinema, (London, 1969)
        p. 53.

35   Eisenstein, Film Form, p. 79.

36   Cook, A History of Narrative Film, p. 176.

37   Eisenstein, Film Form, p. 82.

38   Cook, A History of Narrative Film, p 168.

39   Bernard Tschumi, "Illustrated Index: Themes from the
Manhattan Transcripts," AA Files, #4, (July, 1983), p. 69.

40   Bernard Tschumi, "Architecture and Transgression",
Oppositions, #7, (1976), p. 59.

41   Bernard Tschumi, "Violence of Architecture", Art Forum,
(Sept. 1981), p. 44.

42   Bernard Tschumi, The Manhattan Transcripts, (New York, 1981),
p. 9.

43   Tschumi, "Illustrated Index", p. 68.

44   Bernard Tschumi, "Architecture and Limits II", Art Forum,
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45   Tschumi, "Violence of Architecture", p. 44.

46   Tschumi, <u>Manhattan Transcripts</u>, p. 11.

47   Tschumi, "Illustrated Index", p. 67.

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