DESIGN CRITERIA for PURPOSEFULLY AMBIGUOUS EXPRESSION:

PROPOSAL FOR A THEATER / PERFORMING ARTS SCHOOL IN KENMORE SQUARE

by

Catharina A. Verhulst

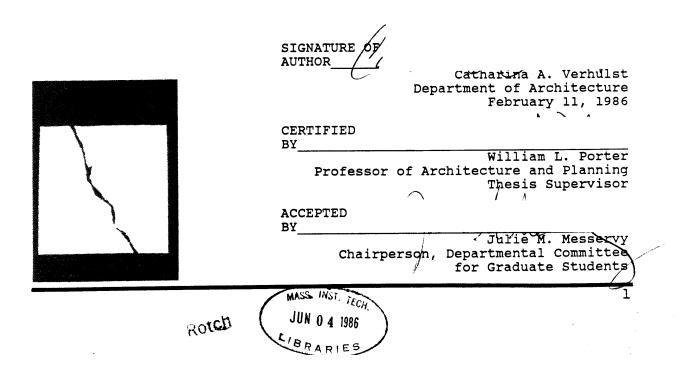
B.S. University of Colorado, Boulder, Colorado 1982

SUBMITTED TO THE DEPARTMENT OF ARCHITECTURE IN PARTIAL FULFILLMENT OF THE REQUIREMENTS OF THE DEGREE OF MASTER OF ARCHITECTURE AT THE MASSACHUSETTS INSTITUTE OF TECHNOLOGY

JUNE, 1986

© Catharina A. Verhulst 1986

The author hereby grants to M.I.T. permission to reproduce and to distribute publicly copies of this thesis document in whole or in part.



. .

·

`

DESIGN CRITERIA FOR PURPOSEFULLY AMBIGUOUS EXPRESSION: Proposal for a Theater / Performing Arts School in Kenmore Square

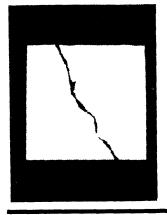
by Catharina A. Verhulst

Submitted to the Department of Architecture on February 11, 1986, in partial fulfillment of the requirements for the degree of Master of Architecture

ABSTRACT

Inclusion of zones which possess sufficient ambiguity to provide multiple use, character and meaning, generating an environment supporting freedom of interpretation and expression, is explored in this thesis. Conceptually, examples are borrowed from ecology, Futurist painting, and humor. A new theater / performing arts school complex is designed for Kenmore Square in Boston, Massachusetts, to interpret and communicate ideas.

Creating forms which have the character of overlap, lack of fit, and incompleteness allow for physical architectural expression which may be purposefully ambiguous. To be purposefully ambiguous presupposes an underlying, and often subtle, level of conflict. The potency of architectural ambiguity is suggested by the amount of humor or surprise generated. This thesis explores the nature and character of regions of overlap. Such regions can be generated by introducing design elements which suggest their opposites and lead to confrontation. Disturbance can be both external to the design (allogenic) and internal (autogenic). It is my contention that this condition of dissonance is as beneficial in the architectural world, as it has been to the growth of artistic expression in painting. Rather than primarily relying on historical precedence, the principles of hierarchy, subordination, proportion and inflection are used within an environment of instability to generate relationships for the design of a theater school complex.



Architectural comparables and conceptual models have been utilized to illustrate design intentions.

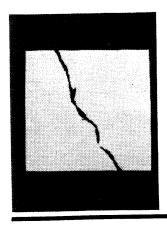
Thesis Supervisor:

William L. Porter Professor of Architecture and Planning

3



For Jim and Cairn



.

.

ACKNOWLEDGEMENTS

Foremost, I would like to thank Professor William Porter for his assistance during the preparation of this thesis. Bill was involved in this project from the beginning and has given me constant feedback and encouragement at every stage of its development. He was an enthusiastic supporter of whatever good ideas are contained, and candid enough to tell me when I was going astray. I greatly appreciate his keen sense of humor and the time he has shared with me both as an advisor and a friend.

I would also like to thank Professor Imre Halasz for guidance and a push now and then to keep on when I thought perhaps I was getting a little far afield. I remember fondly his memorable quote "Do it!" as being a turning point in the design process.

A number of people have been instrumental in the development I my basic theory. Professors Maurice Smith, Wawclaw Zalewski, Doris and Ralph Thut, and Paul Earls have all helped immensely during periodic reviews and critiques. I am especially indebted to Kyu Sung Woo for his input and patient guidance over the last 2 1/2 years, first as a design studio professor and later as a critical reviewer.

One of the more important formative experiences for me at MIT was participation in the the ILAUD seminar in Siena Italy. Many of the concepts shared at the seminar are now visible in my architectural design. The language of multiplicity and complexity are valuable tools in the explanation of ambiguity. I am indebted to MIT and the people of the selection committee, Jack Myer and Julian Beinart, without whose consideration I would not have been able to attend.

This thesis would never have gotten anywhere without the support of a group of 10-485 fellow students off whom I bounced many of my ideas. Their feedback has helped me to define and refine and give perspective to the whole project. I am especially grateful to Sandy, Louise, Margaret, Billy, Victor, Susan and Sally for just being friends and colleages when I needed them most.





PREFACE

Much has been written about the creative process and its relationship to that most human of human characteristics, intuition -- the ability to function and even thrive in the midst of an uncertain environment. Drawing on rough parallels in the ecotone zone of plant ecology, humor, and Futurist thought, I have explored the nature of overlap in design. I have attempted to use "4-dimensional" collage as a way of thinking about design and the design process. Overlap invariably produces an ambiguity which can have surprising and sometimes unpredictably humourous results.

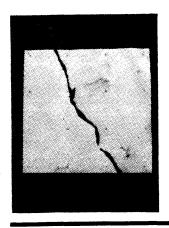
I have tried to communicate my contribution to the theoretical basics by proposing a buildable design of a theator / performing arts school for a site in Kenmore Square. The hidden agenda I suppose was to try to stimulate an awareness of the need and open the way for more artistic expression in current architecture.





TABLE OF CONTENTS

ABSTRACT	•	3
PREFACE	•	9
INTRODUCTION	•	13
THE SITE: KENMORE SQUARE	•	65
THE BUILDING CONCEPT		87
KENMORE SQUARE THEATER / PERFORMING ARTS SCHOOL 1. Elements of the Building Design 2. Overall Image and Perspective	• •	99
<pre>PERSPECTIVE / RETROSPECTIVE</pre>	•	129
BIBLIOGRAPHY	•	137



(

"Now the earth was formless and empty, darkness was over the surface of the deep, and the spirit of God has hovering over the waters. In the beginning God created the heavens and the earth....and God said: It is good."

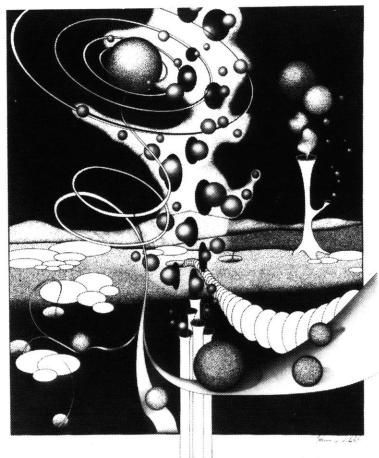
Genesis 1:1,2

"He has a certain knowledge of the first action, can move things into being and make even their motion visible. His motion leaves traces in them and there you have the magic of life. And for the rest there is the magic of experience."

Paul Klee, <u>Notebooks</u>, <u>Volume 1: The</u> <u>Thinking Eye</u>, pp.1,168.



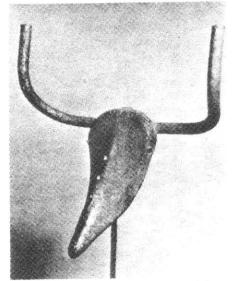
INTRODUCTION





1. Conceptual Models

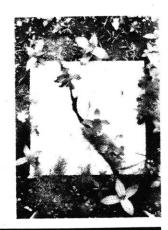
In his analysis of urban form, Colin Rowe uses collage as a descriptive model to explain the patterns of organization in the urban environment. "Collage is a state of mind. It uses things, and simultaneously disbelieves them."¹ Disparate cbjects are held together by 'physical, optical, psychological'² means. "Objects and episodes are obstrusively imported and, while they retain the overtones of their source and origin, they gain also a wholly new impact from their changed context."³ This method



Picasso: Bull's Head, 1944

of thinking provides us with "a strategy that allows utopia to be dealt with as an image, to be dealt with in *fragments*⁴ without our having to accept it in toto."

In a critique of Le Corbussier's "City for Three Million Inhabitants," which he interprets as "clean form", Rowe wrote the following:



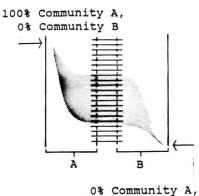
Perhaps, while claiming to be scientific, the architect had never previously operated within quite so fantastic a psycho- 'political' mileau; but, it was for such reasons....that the city became hypothesized as a condition of complete holistic and novel continuity, the result of scientific findings and completely glad, 'human', collaboration. Such became the activist utopian total design"⁵

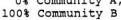
If one accepts Rowe's hypothesis, that total design is deleterious to the life of an urban environment and that "collision of physical constructs" is essential for the vitality of a city, it is found that some inherent lack of resolution must also be accepted. These conditions are key to the ideas presented in this thesis and will be communicated through the presentation of a design and related The confrontation of distinct examples. spheres, a result of overlap of interests, provides energy for new possibilities and sustenance for growth, evolution, expression, and meaning. As such, overlap is a dynamic situation, an insurance for change.



The role and nature of the properties of overlap, lack of fit, confrontation, and incomplete resolution in architectural design will be examined and emphasized in this thesis.

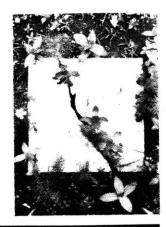
The region of overlap in the built environment, which generates a kind of edge zone, has its corollary in the ecotone zone of plant ecology. Scientists describe this as a zone of transition or tension between differing communities. In this region there exist the most tolerant species of the bordering communities and unique "edge zone" species, those that are characteristic of the ecotone zone and not indigenous to either of the bordering communities. This region of the natural environment has potential for rapid growth and, consequentially, accepts a higher number of plant species, generates diversity, and contains the potential energy to develop new forms of life.



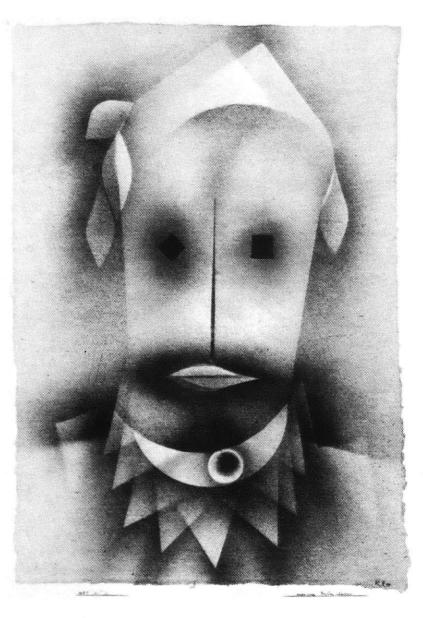


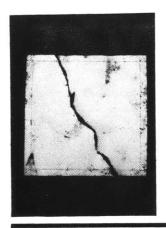
Graphical Representation

There seems to be a strong conceptual link between areas of overlap and humor. The nature of the edge zone makes simultaneous perception of two or more different frames of reference possible. Humor derives from unexpected change in frames of reference caused by use of multiple intentions. Being unable to resolve ambiguous or impossible things is acceptable. A humorous situation allows the suspension of judgment. To borrow Colin Rowe's term, one becomes a "bricoleur".⁶



Paul Klee, Monsieur Perlenschwein (Monsieur Pearly-Pig), 1925





"Alice laughed, 'There's no use trying,' she said: 'One can't believe impossible things.' I daresay you haven't had much practice,' said the queen. 'When I was your age, I always did it for half-an-hour a day. Why, sometimes I've believed as many as six impossible things before breakfast."7

The "delightful jolt", often expressed through laughter, is experienced because a situation is "perceived in at least two



self-consistent but incompatible frames of reference or association at the same time".⁸ Humor, which Henri Bergson defines as a process of "bisociation", is the "result of a crossing of two independent causal chains through

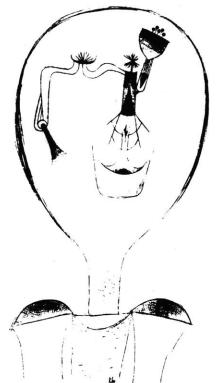


coincidence, mistakes, identity, confusion of time and occasion."⁹ Minsky defines humor's form and alludes to the aggressive quality of humor. "Humor lacks sharp, natural boundaries because those underlying things themselves overlap and exploit one another."10 Collage, as art, has been criticized to be the celebration of the mundane due to this exploitive nature. Similarly, competition in the plant world exhibits this quality. The edge zone as an arena for connection, and sometimes, a cross-over region, is inherently muddy. But flowers of unique species can grow there.

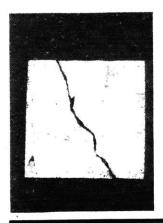


Now, comic fancy is indeed a living energy, a strange plant that has flourished on the stony portions of the social soil, until such time as culture should allow it to vie with the most refined products of art.¹¹

Though there is nothing new under the sun, combinations can be.¹² Cross-overs can sometimes produce genetic mutants which are useful.



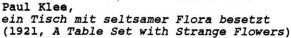
Paul Klee, Die Knospe des Lacheins (The Bud of Smile), 1921



The drawing entitled: A table set with strange flowers (PI. 33) is even closer to the sense of Strange Garden: in the midst of phallic-like plants a growth comes forth decorated underneath with a row of breasts. This reminds one of the statues of Artemis of Ephesus, Diana of the Ephesians, the Asiatic Nature and Mother-goddess mentioned in the nineteenth chapter of the Acts of the Apostles. Hence the table with its obliquely-running groove is to be understood as an altar to nature and fertility.

Fruitfulness and the secret of growth is also touched on in *Strange Garden;* it must be interpreted as the realm of type and archetype, so often discussed by Klee, that 'secret source, where the primal law feeds the forces of development.'





Further parallel can be drawn from the Futurist movement of 1918 to describe the character of regions of overlap. Filippo Tommaso Marinetti, an Italian poet, wrote that the arts should demolish the past and celebrate the delights of speed and mechanical energy. Movement and noise and urban pleasure seeking are all fused into one visual experience.¹³

Umberti Boccioni's paintings interpret and exaggerate the dynamic qualities of the street edge. Giacomo Balla, in his painting, "The Street Light", 1907, also communicates conditions of overlap. Balilla Pratella describes Futurist thinking as follows:

"Let's turn everything upside down and proclaim the absolute and complete abolition of finite lines and contained statue. Let's split open our figures and place the environment inside them. We declare that the environment must form part of the plastic whole, a world of its own, with its own laws; so that the pavement can jump up on to your table, or your head can cross a street, while your lamp twines a web of plastic rays from one house to the next."¹⁴

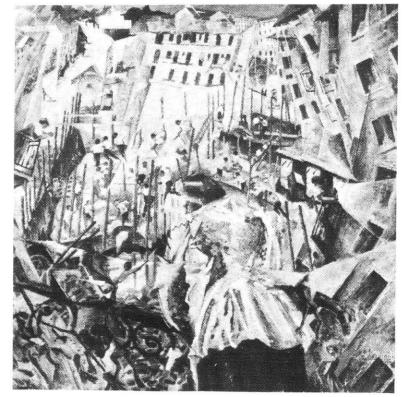
"The general lines of cubes, pyrimids and rectangles, and this would include building, should be done away with, for they describe immobile architectural lines. All lines ought to be usable at





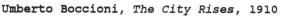
Fine a un la costra Let. LT.A 4 4 fond to a to at to plan . the two to 1. for pa ŧ 1. 1 4 -- Jup dia two ashitettown h

Page 8 of Boccioni's Manifesto



Umberto Boccioni, Der Larm der Strasse dringt ins Haus The Street Enters the House, 1911





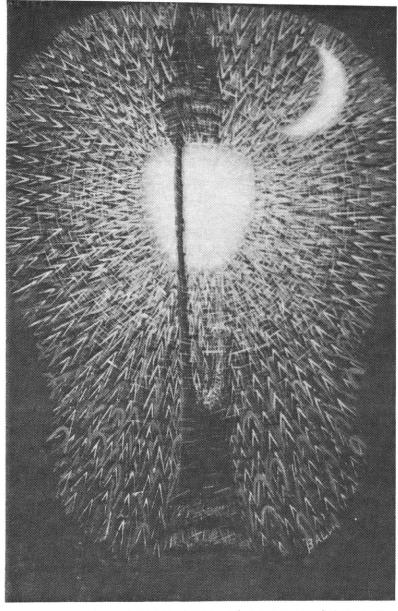


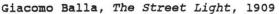
any point and in any way. Through an autonomy of component parts buildings will stop being so uniform... In fact, old and useless symmetry, always achieved at the expense of utility, will be destroyed. Just as in motors, a building's environment should perform to the maximum...even a building's facade should descend, ascend, dissolve, penetrate, protrude as dictated by the needs of space surrounding it. Architects must sacrifice the exterior to the interior, just as is done in painting or sculpture. And since exteriors are still traditional, the new exterior will inevitably create a new architectural line... Today our architectural environment is beginning to play upon all our senses: from the lightfilled underground chambers of department stores, from the multi-leveled metropolitan railway tunnels, to the immense soaring of American skyscrapers... The future is preparing a sky for us that will be unbridled by architectural armour."15

The Futurist movement introduces the concept of "dynamic continuity". The definition of the edge becomes limitless. Simultaneously, this introduces the underlying weakness of Futurist thought. Loss of all definition in and of itself may not be useful. Bruno Zevi writes that



Futurist writings were therefore insufficient to nourish an architectural poetry. However, they did embody an important linguistic need: they wanted to shake up our way of seeing by representing reality as it was taking place. Cubism and its derivatives were concerned only with the decomposition of volumes.¹⁶







"Antiperspective three-dimensionality developed alongside Expressionism and especially with Cubism, when the object was no longer observed from a privileged viewing point but dynamically, from innumerable points of view. The result was four-dimensional decomposition, the analytical syntax of the De Stijl group. How could De Stijl precede Cubism, when it is one of Cubism's applications? Perhaps the fifth invariable, that is, the involvement of every architectural element in the structural play, could be moved, since it derives from all of modern engineering. But Wright correlates it with the poetics of projecting structures and with the dismembering of the box into dissonant panels. As for infusing space with time, this occupies the sixth place, and it could not be otherwise. In effect, this invariable applies the volumetric techniques of Cubism to the cavities, the vital hollow spaces, the special places of architecture. Finally, it is superfluous to repeat that one cannot reintegrate what has not been separated. Otherwise it would be a question of a priori integration and a retreat to classicism. 17

How many years, how many decades will it take to convince architects of what music has long since mastered? Freedom frightens them, and they demand harmonic consistency at all costs. Since life is packed with dissonance, they prefer to take it in at second hand by way of an a priori order.18



It would be necessary for Futurism to join forces with cubism and expressionism to become viable.



Our perception of the world is constantly being changed through scientific discovery and the parallel advancement of human thought.

"Creativity in science could be described as the art of putting two and two together to make five. In other words, it consists in combining previously unrelated domains of knowledge in such a way that you get more out the emergent whole than you have put in. This apparent bit of magic derives from the fact that the whole is not merely the sum of its parts, but an *expression of the relations* between its parts; and that each new synthesis leads to the emergence of new patterns of relations - more complex cognitive structures on higher levels of the mental hierarchy."

These patterns of relationships are continually evolving. The following quote from Benvenuto elaborates on the property of "complex cognitive structures":

"Today the view is deeply changed: the plurality of the languages and of the games emerging also within the most traditionally compact and unitary sciences; the new prospect offered by the historical sciences which are more and more attentive to the intervention of discontinuity and of epistemological "breaks"; the careful examination of those paths where rational thinking is interlaced with mythical premises



according to the hidden but incumbent "genealogies"; the recognition of the authentic value that pointwise and partial projects hold, though they don't claim to attain the meaning of their total mosaic, but don't disdain to dwell upon the inexhaustible richness of now-here; the opening towards more evocative aspects of verity; well, all this complies us on new, exciting, perhaps upsetting, speculative pathways, so that we may overcome the previous consolatory enticements of a "strong thinking" without giving it up, however, a rigorously rational care."²⁰

Changes in scientific knowledge result in new ways of framing our perception of the world. Newly established information which overlaps the old leads to consequences which are similar to the edge zone properties of ecology, humor, and Futurist painting. One of the more significant contributions in every case is the property of "spacial freedom". This can best be communicated through example.



When the world was perceived by most people as flat, new scientific knowledge of a spherical world stretched and expanded our conceptual capabilities. Einstein's theory of relativity moves us to a more rigorous recognition of meaning within solutions already known. It is helpful to keep in mind that such discoveries do not automatically lead to further resolution to some all encompassing end point, but rather

....it rests here in the realization that one man's 'now' is another man's 'then'; that 'now' itself is a subjective conception, valid only for an observer within one specific frame of reference.²¹

The linking of two areas of knowledge, "electrodynamics and mechanics, was the crux of the matter" for Einstein's discovery.²²

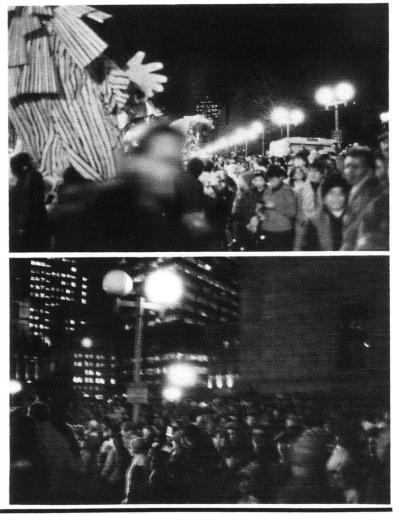
This discovery of

the connection between space and time led to the scientist's exploration of the time space continuum. Though not perceived in normal experience, this discovery also provides a model for describing a loss of connection in the social and physical relationships of our urban environment. Ronald Clark writes that the theory of relativity led to the intense interest in the discovery of microscopically small and macroscopically large particles.²³

At this point our perception / conception due to instrument extension scales from a largest dimension of one billion light years (10 to the 25th meters) to a smallest of 10 to the -16 meters."²⁴



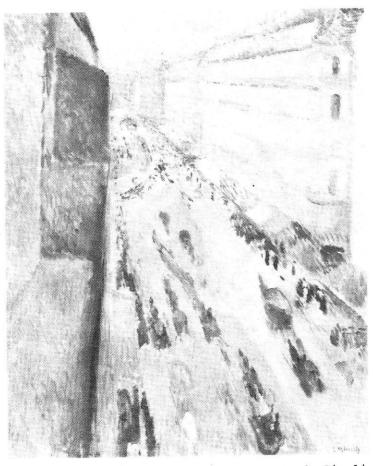
One could argue that a similar polarity exists in the organization of the built environment. The trends seem to point to greater contrast: isolated and fragmented family units and powerful corporate headquarters; emphasis on individual freedom and large collective gatherings (Boston Marathon, Boston's First Night, Super Bowl playoffs); and, increasingly unequal distribution of wealth and power between the rich and the poor. Less overlap and loss of connection characterizes an edge zone which has lost its potential energy for growth and newness.



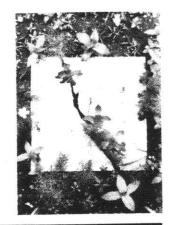
Participatory Parade, Boston's "First Night" celebration, Dec. 31



Thus Haussman's first precept, that the changes in one urban sphere of activity should change other spheres of activity, becomes transmuted into the concept that the significant functioning of the city itself is found in the links between activities in the city."²⁵



Edvard Munch, (1863-1944), Rue de Rivoli



Kenmore Square could be such a link. "Nearby residents would like to see it leveled, Boston University would love another Harvard Square, but Kenmore defies gentrification, persisting as a center of action, excitement, and instability."²⁶ Will a new theater / performing arts school serve as a unifying factor in Kenmore Square?



Brookline Avenue

Massachusetts Turnpike Overpass



Kenmore Square: Beacon Street



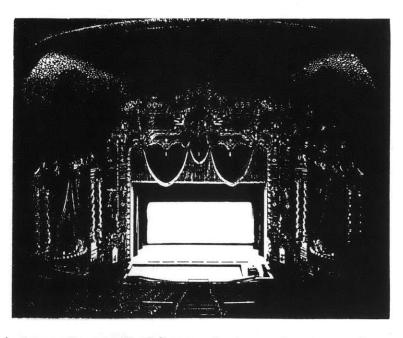
Physically and conceptually, the theory of relativity has given us more room to operate and dream. This connection between time and space has given a gift which is consistent with the character of edge zones which link previously unrelated communities. It gives us a cognitive link with the future.

Consider the following examples in which the properties of time are explored. Hiroshi Sugimoto's photographic work portrays timelessness. A short story by Jorge Luis Borges, "Funes the Memorious", portrays the opposite, the imprisonment of being unable to forget.

"Sigimoto knows that the way we understand our experience is to organize it, that all sight is tainted by culture, with the stress on artifice. Like a camera, memory is a device. We must frame an event in order to tell it. Yet in these photographs the detail of memory has erased itself. Only the device is visible, and the feeling remembered. The bounded space of the movie screen is the site of memory."²⁷

"Sugimoto's examples allude to history, loss, and endangered species, whether fabulous theaters, eagles, or ocean. Yet Sigimoto is documenting something more than relics. Not only is each series characterized by the lucidity of its





Hiroshi Sugimoto, Ohio Theater, Columbus, Ohio, 1980

> internal resolutions, but each seems to have dared photography a further step. In order to convey the sense of imminence Sugimoto must be in touch with the oldest and perhaps most remote of our emotions: awe."²⁸

> "Locke in the seventeenth century, postulated (and rejected) an impossible language in which each individual thing, each stone, each bird and each branch, would have its own name; Funes once projected and analogous language, but discarded it because it seemed too general to him, too ambiguous.... The two projects I have indicated (an infinite vocabulary for the natural series of numbers, a useless mental catalogue of all the images of his memory) are senseless, but they betray a certain stammering grandeur. They permit us to glimpse or infer the nature of Funes' vertiginous world. He was, let us not forget, almost incapable



33

of ideas of a general, Platonic sort. Not only was it difficult for him to comprehend that the generic symbol "dog" embraces so many unlike individuals of diverse size and form; it bothered him that the dog at three fourteen (seen from the side should have the same name as the dog at three fifteen (seen from the front)....he was not very capable of thought. To think is to forget differences, generalize, make abstractions. In the teeming world of Funes, there were only details, almost immediate in their presence.²⁹

Further parallel comparisons can be found in the work of Piranesi and Le Corbusier in their interpretation of the built environment. They present two ways of confronting reality, one in association with the past, in the other with the future. Thus, two forms of representation appear, the representation of the existing real and the representation of fantasy. The two forms of representing and confronting the fantasy with the existent city are based in each case on the notion of destruction, with ruin in one instance, *tabula rasa* in the other. One is founded in remembering, the other in forgetting.³⁰





Piranesi Drawing



Le Corbusier, Floor Plan of Ronchamp

"To oversimplify somewhat, the basic theme of its design plays on the structural ambiguity of a rectangle that requires a kind of additional symmetry around one of its diagonals."

Rudolf Arnheim, The Dynamics of Architectural Form, p.107



Robert Wilson's plays for theater stretch time to allow for multiple interpretation. His method involves the pulling apart of ideas. It is the responsibility of the audience to hold the pieces together, partially through their own imagination (structured silence).

It is commonplace that the artist works by his imagination; but ever since the problem of mimesis arose, more than two thousand years ago, the idea that art stimulates something tangible has been lurking in men's' minds. This has never in fact been the case, but only modern art has made it clear that what art does is to create facts of our imagination. ³¹

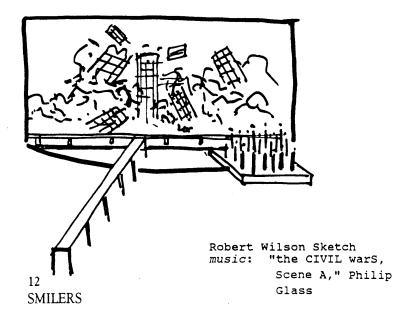
"A creative development so released could then be evoked, and so also controlled, but never fully determined by its accessible meaning potentialities and/or by its releasing agent. Such developments may also, like the thrusts at discovery, succeed or fail to reach a stabler meaning, i.e., a meaning more whole and complete in terms of meaning. The dimension of success or failure is, of course, an emergent feature added to the framework of what goes on at the physical level. A stabler configuration of forces is not something these forces strive to achieve and may fail to attain. It is simply the terminal point understood by us to be reached in fact by physical processes."32



"Well, if we take more time to do something, then our awareness is different. If I take one minute to pick up this pencil, my awareness is different than if I do it in two seconds. There's more space, there's more time to think about things."

Wilson's plays have been criticized as being cold emotionally.

"Yeah. I think it has to be cold before it can be warm, and it has to have distance from the emotions in order for us to feel it. If we press the emotions on the audience then we're forcing the situation."





Incompatibility between form and content is dissolved by the loosening of the discipline of rhyme and rhythm, in the one case, and the destruction of a meaningful prose content in the other. All visionary art requires the sort of integration which places them directly within a field of the imagination wholly detached from the personal concerns of both painter and public.³³

all right all right 8 may I help you 6 hunh 8 I should be dead 3 did you hear anything 2 check him 4Eall three of us are blind 6 I especially like the red ones 4 1 here it is 2 OK that's what it looks like 6 ok guys backwards 4 3 forget it I'm not interested...will you need me for any more questioning this is this and this is insane 7 absolutely insane 34

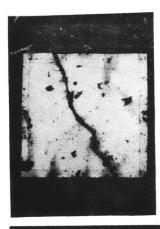
Operating in this mode necessitates being both cold and warm, with enough distance to allow a sort of shiver to be built into it.

"I believe we must trust human intention more than human instinct, since intention evolved out of and is an improvement upon instinct. But if intention is to be thus trusted, it must be fully instructed in the instincts that are its springboard and raw material; otherwise, intention may do more harm than good. For this instruction we must turn not only to the human sciences but also to the species' ancient Wisdom as it is preserved in myths, rituals, fairy tales, and the traditions of the performing arts. Perhaps our soundest model will be in the art of gardening.



This American garden will not only grow, but evolve; and that means it must encompass change and death and selfawareness (which is the awareness of death). This is why water, which flows, shatters itself, and reflects, is so important in a garden. The true artists of Eden have always built into it a sort of shiver, the possibility of a cloud passing over the sun and transforming the





glowing landscape into a tragic or heroic mode. Coleridge's Xanadu has its terrifying chasm, its caverns measureless to man, its sunless sea. "Is there no change of death in paradise?" asks Wallace Stevens, and answers: "Death is the mother of beauty." He is echoing that artist who painted a skull in his pastoral landscape and inscribed next to it, in a mossy stone, the words *et in Arcadia ego*: yes, I too am in Arcadia."³⁵

It seems then that one must accept some degree of instability to achieve an optimum level of freedom.

Thoureau had to leave his bean field and move back to the city.

Charles Baudelaire suggests that the individual artist loses his halo in the mud while crossing over to become part of the common collective and public environment.

The contemporary desire for a city that is openly troubled but intensely alive is a desire to open up old but distinctively modern wounds once more. It is a desire to live openly with the split, an unreconciled character of our lives, and to draw energy from inner struggles.36

The existence of a link between time and space suggests resolution in the edge zone will never occur because the region of overlap will always contain an element of the future. These concepts will be considered further in a design proposal for a theater school complex for Kenmore Square.



1 Colin Rowe, Collage City, p.139

- 2 Ibid., p.140
- 3 Ibid., p.140
- 4 Ibid., p.149
- 5 Ibid., p.95
- 6 Bricoleur: Adept at performing a large number of diverse tasks; but unlike the engineer, he does not subordinate each of them to the availability of raw materials and tools conceived and procured for the purpose of the project. Ibid., p.102
- 7 Lewis Carrol, Alice in Wonderland.
- 8 Arthur Koestler, Bricks to Babel, p.328
- 9 Henri Bergson, Laughter, p.78
- 10 Marvin Minski, <u>Methods of Heuristics</u>, p.186
- 11 Henri Bergson, Laughter, p.103
- 12 Paul Klee, <u>Notebooks</u>, p.63
- 13 Umbrio Apollonio, Ed., <u>The Documents of</u> <u>the 20th Century, Futurist Manifestos</u>, p.36
- 14 Ibid., p.36
- 15 Bruno Zevi, "Lines of Futurism", <u>Architectural Design</u>, Vol 51, 1/2, 1981, pp.24-25
- 16 Ibid., pp.24-25
- 17 Bruno Zevi, <u>The Modern Language of</u> <u>Architecture</u>, pp.71-72
- 18 Ibid., p.75
- 19 Arthur Koestler, Bricks to Babel, p.344
- 20 Edoardo Benvenuto, "Pluralism in Science", <u>ARCHITECTURE, MULTIPLE AND</u> <u>COMPLEX</u>, p 84.



21	Ronald C. Clark, <u>Einstein, The Life and</u> Times, p.88
22	<u>Ilmes</u> , p.88 Ibid., p.88
	Ibid., p.102
24	Eames, Ray and Charles, Morrison,
	Philip and Phylis, <u>Powers of Ten, About</u>
	the Relative Size of Things in the
	<u>Universe</u> , p.12
25	Richard Sennett, "Disorder and the
25	
	Public Life", The Uses of Disorder:
	Personal Identity and the Public Life,
~ ~	p.95
	"Urban Design Studio: Kenmore Square"
27	John Yau, <u>Hiroshi Sugimoto: No Such</u>
	<u>Thing as Time</u> , p.50
~ ~	Thid n 50
	Ibid., p.52
29	Jorge Luis Borges, "Funes the
~ ~	Memorious", Labyrinths, pp.65-66
30	Design Quarterly 1980, [City
	Segments], p.9
	Michael Polanyi, <u>Meaning</u> , pp.114-115
	Ibid., p.177
	Ibid., p.115
34	Robert Wilson, "the CIVIL WarS", p.31
35	Frederick Turner, "Cultivating the
	American Garden", <u>Harpers</u> , p.52
20	Charles Devileleine UMedenniem in the

36 Charles Baudelaire, "Modernism in the Streets"





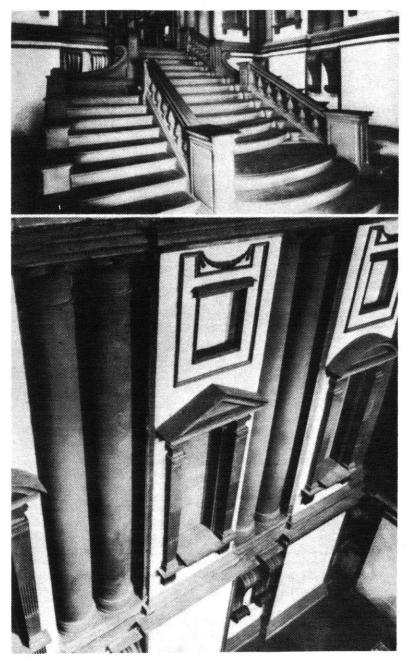


2. Architectural Comparables

Laurentian Library

Here, genuine structural columns, set in niches and supporting a broken entablature, are made to appear eminently nonstructural - as almost free-standing pieces of detachable sculpture. By way of this oft-noted contrivance, Michelangelo was perhaps saying something about the nature of assumed absolutes...that gravity itself is not beyond speculative interpretation. Likewise, the overall effect of the vestible wall is one of serious disjunction - of a colossally scaled public wall deployed to define a physically small, intimate interior space. The effect is not only overwhelming, but fundamentally inexplicable.¹





Michelangelo's Laurentian Library, Florence (1524-68)



Speaking of Michelangelo,s design for the Porta Pia in Rome, an experienced observer, S. E. Rasmussen, asserts that "the spectator who tries to take in every detail of this gateway will feel no sense of the harmony or balance. It is impossible to choose any one form and attempt to get a lucid picture of it without having its antithesis force its way into the picture demanding to be noticed". Rasmussen's description continues in some detail and concludes that Michelangelo achieves a deliberately restless design by drawing together "an unbelievable number of Baroque details...from the large flat wall to the center, where they clash in mighty conflict. A more balanced and perceptive judgment comes from Jakob Burckhardt, who, in the Cicerone, calls the Porta Pia

an ill-famed building, seemingly a mere caprice; but an intrinsic law, which the master creates for himself, lives in the proportions and in the local effect of the particular shapes, totally arbitrary though they are in themselves. Those windows, that pediment with its strong shadows, etc., together with the main lines, form a whole that even at first glance one will attribute to none other than a great, though misguided artist. The arbitrariness is governed by a determination that appears almost as a necessity.

The design of the Porta Pia comprises mainly simple geometric shapes: rectangles, triangles, circles, segments. But there are also more complex shapes, for example in the frame of the opening, which is a hybrid between an arch and a rectangular combination of post and lintel. Much tension is created between the parent shapes: the arch tries to eliminate the angular breaks and to press the flat horizontal into a curve; lintel and post try to complete their rectangular pattern by freeing the corners of their truncation. These antagonistic forces hold each other in an orderly balance. Further tension is introduced by the





Michelangelo's Porta Pia, Rome

voussoirs, which have lost the symmetry they each would posses in an undisturbed arch. They appear as deformations of the norm shape displayed in the keystone.

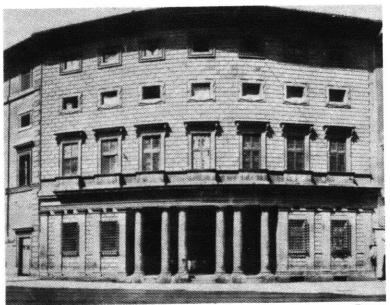
....All in summation of simple shapes, each complete in itself, and the mutual impingement of shapes that complete one another within a larger whole. By combining the simpler with the more complex organization of shapes, the Porta Pia exemplifies the transition between an earlier and a later architectural style, representing two levels of order. 2



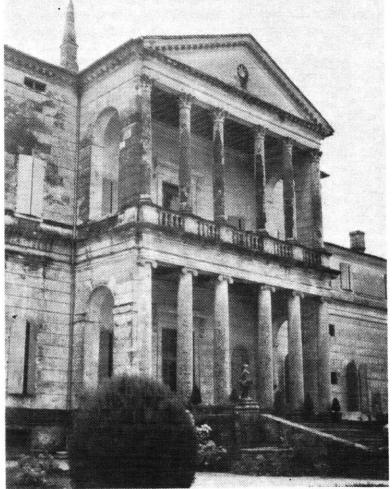
Consider the ambiguous arrangement of columns employed by Peruzzi in the entrance loggia to the Palazzo Massimi. This ambiguity -- caused by the classically accepted widening of the intercolumniation to mark the door -- is made apparent by the bold curve of Peruzzi's facade. We find that there are two ways of seeing the six columns, both equally stable. We may see them as four pairs, taken together with the two pilasters contiguous to them, or as three pairs, one framing the door and the others supporting(by unseen connecting lines) the outer frames of the windows on the floor above. The ambiguity might be immediately removed in another context, say by placing pilasters in the upper wall, so that the columns follow their rhythms, or by approaching the loggia from the side. More subtle rhythms are achieved by lessening the disparity between central and peripheral spaces, and by counterpointing the emphasis with a cornice, the modillions of which fail to correspond to the centres of the columns, as in Palladio's hexastyle pronaos to the Villa Cornaro.

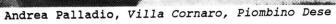
I add the example from Palladio partly in order to show that this ambiguity is not a rare phenomenon; in fact it is of the essence of Mannerist architecture and indispensable to some of the finest effects of the baroque. Moreover, it is through understanding this kind of example that we are able to form a proper conception of the normal case. The 'ambiguity' of Peruzzi's arrangement comes about partly through the absence of 'interpretation'. It therefore indicates a basic truth about architectural experience, about how we are constrained to see the buildings at which we look when we study them as architecture. It is this way of seeing buildings that reflects the act of attention of which they are the proper object. We have then, in this example, a paradigm of architectural experience: the experience can never be 'purer', less interpreted, than this.³





Baldassare Peruzzi: Palazzo Massimi alle Colonne, Rome

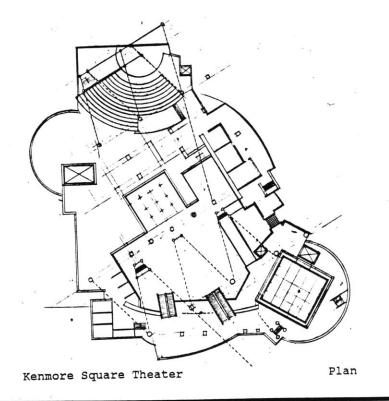




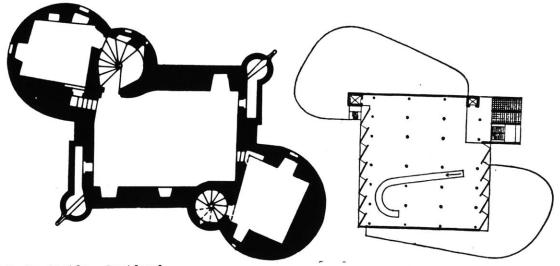


Le Corbusier, despite his public proclamations of rational precision and Cartesian clarity, was in practice likely to confuse the very categories which, as a polemicist, he had gone to such pains to establish.....

Likewise, on a more detailed or directly pictoral level, Le Corbusier could not disguise his delight in the promotion of confused categories. The roofscapes of Poissy or Marseille, the living room at the Villa d'Avray and particularly, one curious view of walls, windows, mirrors and light source at Porte Molitor reveal that enigmatic mind in full bloom.⁴

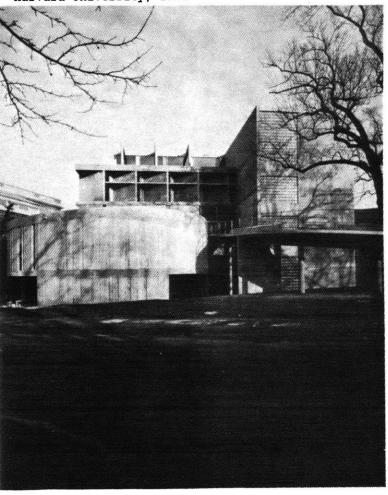






Claypots Castle, Scotland

Le Corbusier, Carpenter Center for the Visual Arts, Harvard University, 1964





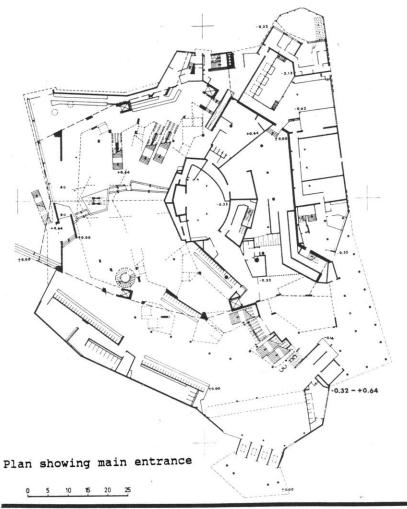


"The profusion of staircases and variety of levels is intended to conjure up an atmosphere appropriate of a theatrical 5 performance."

p 27, Kassel theater project 52

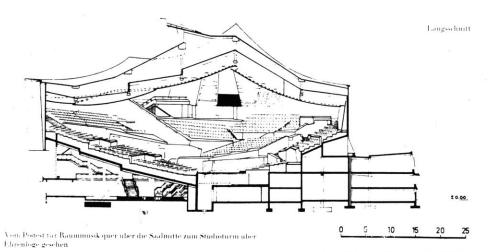
"a highly ordered theater is a disadvantage because it constantly brings the spectator back to finite reality."⁶

p 29

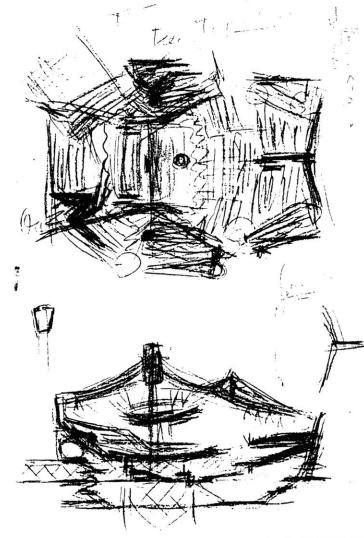


Hans Scharoun, Berlin Philharmonic Concert Hall (1956)



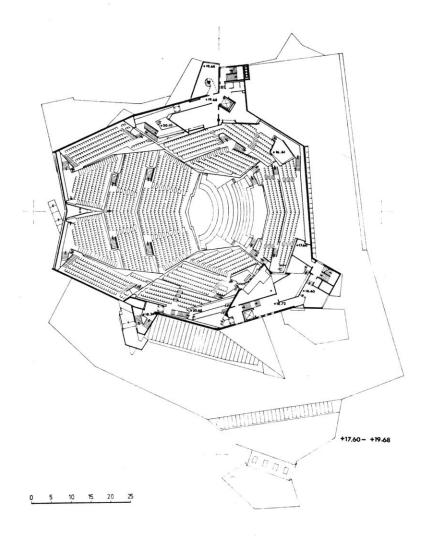


Section through stage



Early sketches

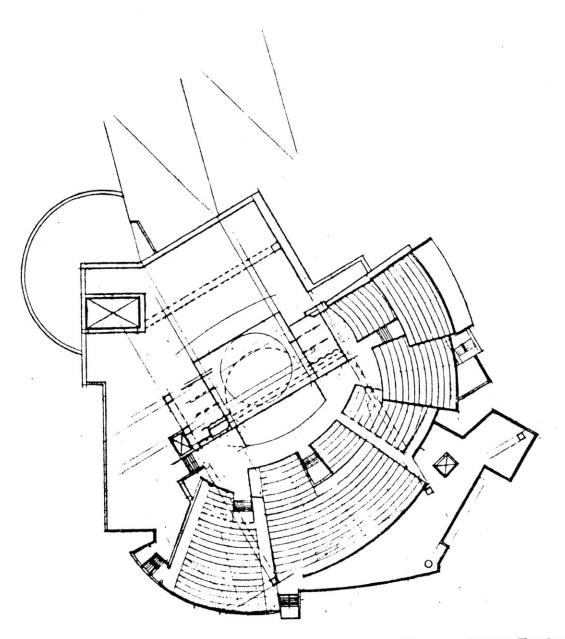




Berlin Philharmonic Concert Hall Auditorium, 2200 seats

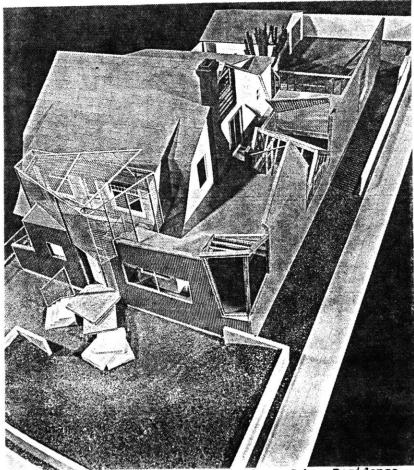


.....



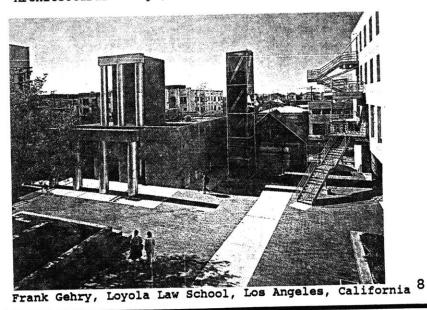
Kenmore Square Theater Auditorium, 1200 seats

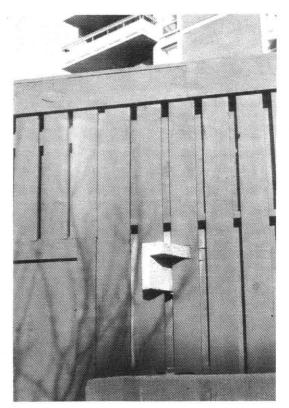




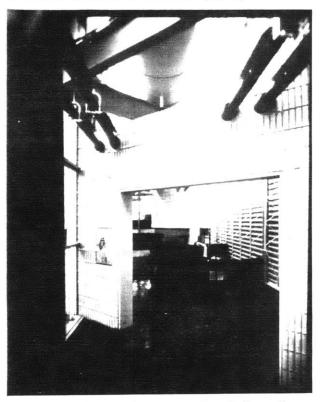
Frank Gehry, Gehry Residence, Santa Monica, California, 1979

"It was very much Gehry's deliberate decision to make the house still appear to be under construction even when complete".... p.20 Architectural Design, Dec., 1985. 7





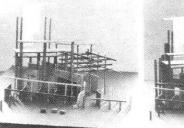
Occupational Health Center Hardy, Holzmann, Pfeiffer, Columbus, Indiana (1973)



Frank Lloyd Wright's graients of slabs for roof edges: "Although such a subdivision splinters the compact push, it also makes the gradient more explicit, and more visible....When all the compnents of such a concerted effort perform the same function with the same strength, the result is not an echo but a chorus of voices in unison, confirming one another without losing their separate existence.⁹

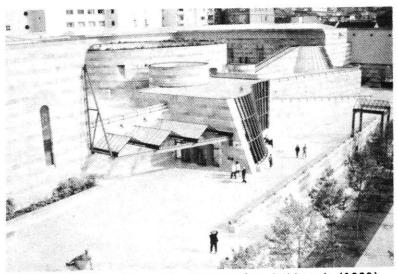


Relationship of building systems Kenmore Theater/ School Complex



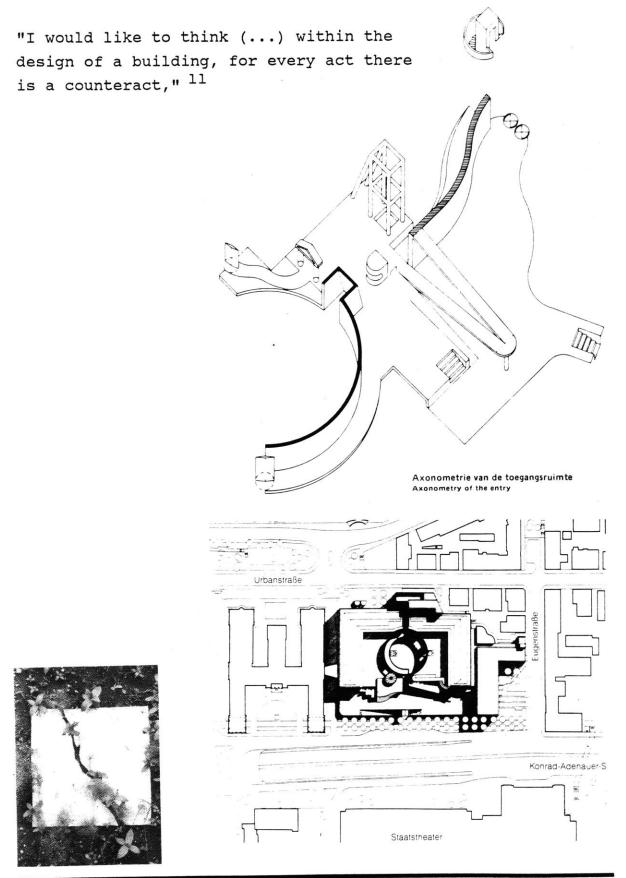


Humor investigates our comprehension of a specific reality by deliberately but unexpectedly deviating from the expected pattern which has been developed. This is tantamount to an investigation of our individual perceptions of reality. Humor ridicules the naive belief that there is a perfect explanation for everything. It is precisely because humor does not pretend to be moralistic that it offers us the opportunity of growing out of our normal habits and preoccupations by selfinvestigation. ¹⁰



James Stirling, Neue Staatsgalerie Stuttgart (1983) Entrance





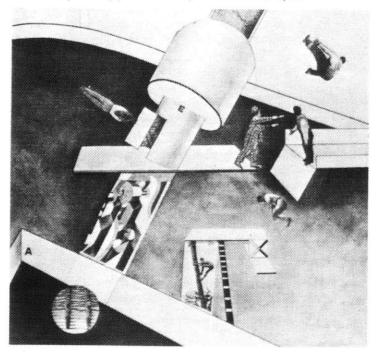
The tie to the future is difficult to establish. How will a building be used in even twenty years? Over its entire useful life the structure may undergo many changes. What will it look like in a century? Although future predictions sometimes sound like science fiction, there seem to be hints that the third dimension will be increasingly emphasized with the possibility of ever taller structures or even some form of levitation. Every year it seems, the unraveling of some new scientific mystery shifts our perception of reality and broadens our views. Recent scientific discoveries have indicated the existence of a fifth fundamental force of nature, the hypercharge. This newly discovered force was unknown to the great minds of only a generation ago.

Michael Forsyth, writing about music halls of the future may be pointing the way for structures which serve as an environment for the performing arts,

Assuming that there will eventually be a general public demand for today's music, there will be a need for increasingly flexible or varied buildings for music, to accommodate composers' highly individual scoring techniques and greater use of choreography. As the composer increasingly specifies a context for his work, from the enclosed room, to the city streets, to nature itself, the traditional concert hall may become a museum for old masters.¹²



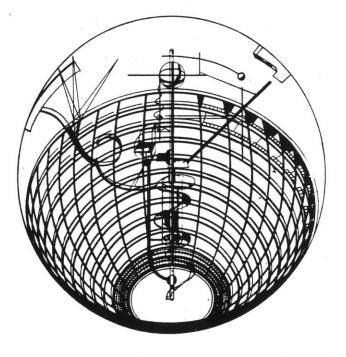
Farkas Molnár's U-theater in operation. (From Gropius and Schlemmer, Theater of the Bauhaus, p. 72. By permission of Mrs. Walter Gropius.)



Instead of the customary cubical structure, Weininger used a sphere as the architectural shell, and, by placing the spectators on the inner wall of the sphere, he gave them a new relation to space. The entire structure revolves around an axis supporting the stage, which is free in space. Because of the centripetal force that rotates the structure and because of the all-encompassing view afforded by the ample spherical curvature, the spectators enjoy new experiences and find themselves in a new optical, acoustical, and physical relationship. The static synthesis of architecture disappears: Space, the body, the line, the point, color, light, and sound-all primary media of motion-are brought together in a new mechanical synthesis. The space stage and the space theater become the home of the mechanical play.



"Spherical theatre". Designed by Andreas Weininger, 1924. (From Gropius and Schlemmer, Theater of the Bauhaus, p. 89. By permission of Mrs. Walter Gropius.)



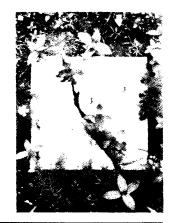


- 1 Fred Koetter, "Notes on the In-Between", <u>The Harvard Architecture</u> <u>Review</u>, [Beyond the Modern Movement], Volume 1, Spring, 1980, MIT Press, p.66
- 2 Rudolf Arnheim, <u>The Dynamics of</u> <u>Architectural Form</u>, pp.183-185
- 3 Roger Scruton, <u>The Aesthetics of</u> <u>Architecture</u>, Princeton University Press, Princeton, New Jersey, p.87-89.
- 4 Fred Koetter, "Notes on the In-Between", <u>The Harvard Architecture</u> <u>Review</u>, [Beyond the Modern Movement], Volume 1, Spring, 1980, MIT Press, p.72
- 5 Hans Schraroun, <u>Kassel Theater Project</u> 52, p.27
- 6 Ibid., p.29
- 7 <u>Architectural Design</u>, "Frank Gehry", Vol. 55, 7/8, pp.20
- 8 John Pastier, "Distillation of a Paradoxical City", <u>Architecture</u>, May 1985, p.204
- 9 Rudolf Arnheim, <u>The Dynamics of</u> <u>Architectural Form</u>, pp.236-238
- 10 Ton Salman, "The Art of Relativity", Forum, Vol. 29, No. 4, p.176
- 11 Ibid., p.178
- 12 Michael Forsyth, <u>Buildings for Music</u>, p.327



·

. .





David Haxton, Untitled (1981) "By shining lights through compositions of cut and torn no-seam paper, Haxton creates plays of form, light, shadow, and texture that suggest "real" and infinite, architectural space."



Kenmore Square

History

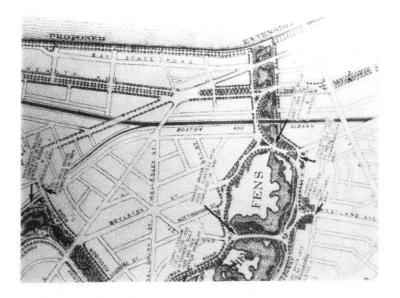
Originally a peninsula jutting onto Back Bay, the pattern of streets and public spaces in the area of Kenmore Square can be traced to a plan developed by Frederick Law Olmsted in 1880. Olmsted visualized Kenmore Square as a terminus for the Back Bay, then in the process of being filled and developed. This plan called for a shift in the axis of Commonwealth Avenue to align it with preexisting rail lines and the Charles River. At the same time Olmstead proposed to convert the Back Bay Fens, a notorious collection of sewage, swamp water, and flood run-off, into a public park by constructing flood gates at its intersection with the river.



Esplanade on the Charles River Courtesy of the Bostonian Society

By 1920, the former mud flats were completely filled and Kenmore became a key link in Boston's "Emerald Necklace," joining Commonwealth Avenue mall with the Fenway park system. It was during this period that Kenmore was a location for fine hotels, professional offices, institutions, and wealthy residents. These uses were drawn by a gracious environment and the area's outstanding accessibility - then served by three trolley lines and a network of newly constructed streets and bridges.





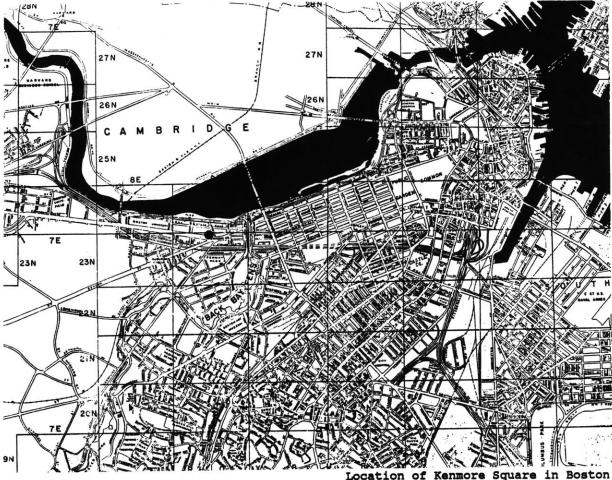
The area's physical integrity was severely affected by the building of Storrow Drive along the Charles River in 1951. The Charlesgate Crossing expressway visually and physically cut off the Square from the city in 1955. And this process of separation from the city was concluded in 1964 with the building of the Massachusetts Turnpike which divided the north and south areas of Kenmore Square area.

Urban Design Studio Report, Spring 1985





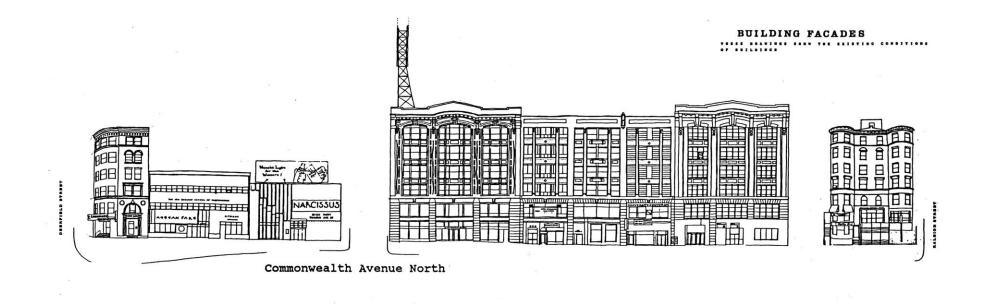
Commonwealth Avenue Mall (1925) American Art Post Card Company

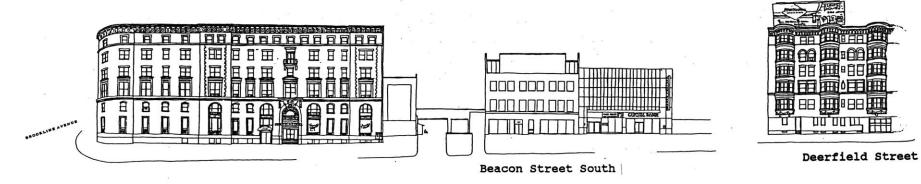


Kenmore today can be viewed largely as a victim of its earlier success. Road improvements have cut the area off from the river, destroyed its connection to the Emerald Necklaces, and separated it from adjacent neighborhoods. The area's transient quality is reinforced by Fenway Park which floods the streets with traffic and sports fans during the summer months. Parking occupies large tracts in the heart of the district. Characterized by movement, excitement, and instability, Kenmore has emerged as a major entertainment center, dominated by the huge Citgo Sign which may best symbolize its current function in the city.









Building Facades of Kenmore Square





BUILDING FACADES



Commonwealth Avenue South



Commonwealth Avenue South







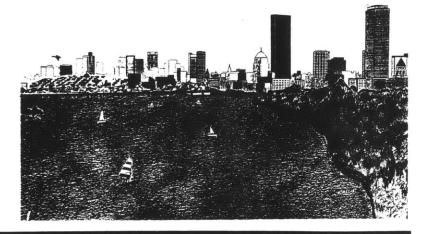
Site Character

Kenmore is in the desirable position of being the western gateway to Boston. It is here that Beacon Street and Commonwealth Avenue two major traffic arteries of the city, intersect in the Square. The Square is also a major public transportation center, bounded by the Charles River to the north and by the Fens to the South. Within or nearby the Square are several important educational, cultural and medical institutions.



Aerial View of Kenmore Square Courtesy of the Rotch Visual Aids Library







The physical image of Kenmore Square is characterized by an unusual visual mix which creates an impression of both confusion and dynamism. Proliferating signs, jarring architectural scale, and conflicting pedestrian and vehicular traffic contribute to a sense of fragmentation and disorder. The daytime image contrasts sharply with the glittering nighttime image produced by neon signs, crowds and the throbbing sounds of discotheques.











"A construction worker with hair dyed pink and peace-sign earrings sets his motorcycle helmet down in the Rathskeller. A Boston University sophomore with spiked hair dyed black drifts in. Punk rock music of "Suicidal Tendencies" and "Gang Green" is a big hit, pulling an \$8 cover charge on a Monday.

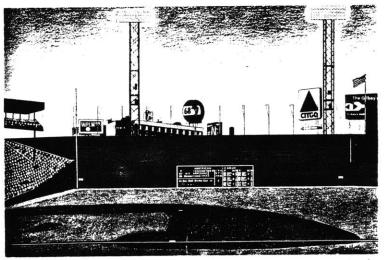
This is Kenmore Square - by night.

By day, the finishing touches of mauve paint and fancy black glass have been added to the renovated office building One Kenmore Centre and its lobby directory spells establishment: plastics, chemical and publishing companies.

Kenmore merchants say this building, in addition to the hugely successful Boston University Bookstore and other trendy new shops, are signs Kenmore Square is being pushed over the threshold of conventionality.

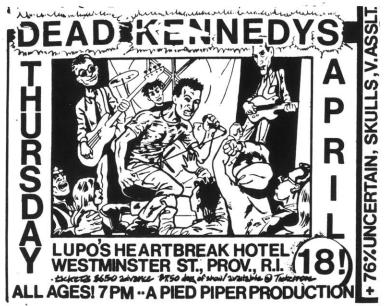
Not so, say many of the students, music lovers, bartenders and assorted Kenmore devotees interviewed there recently. No amount of attempted gentrifying, they say, is going to take the funk out of Kenmore Square."

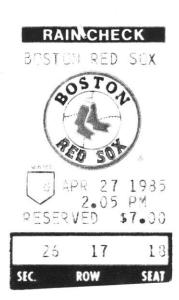
Boston Globe, May, 1985



Fenway Park



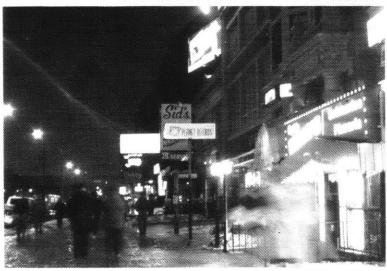




Poster in Kenmore Square

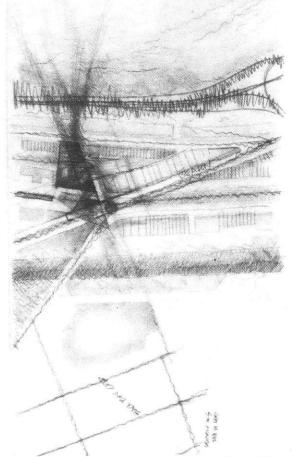
Kenmore Square at night



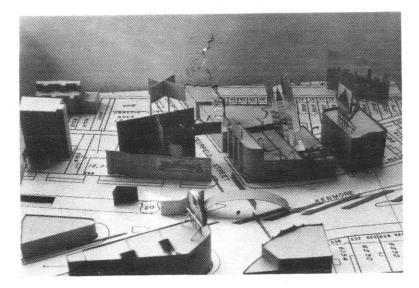


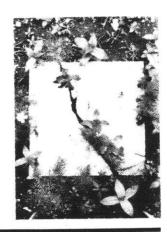


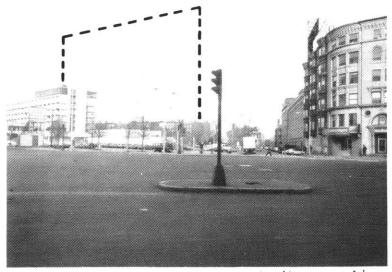
Site Analysis



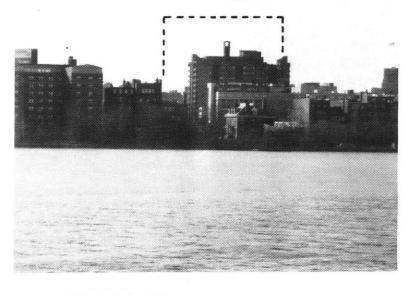
Site views to the Charles River and directional grids







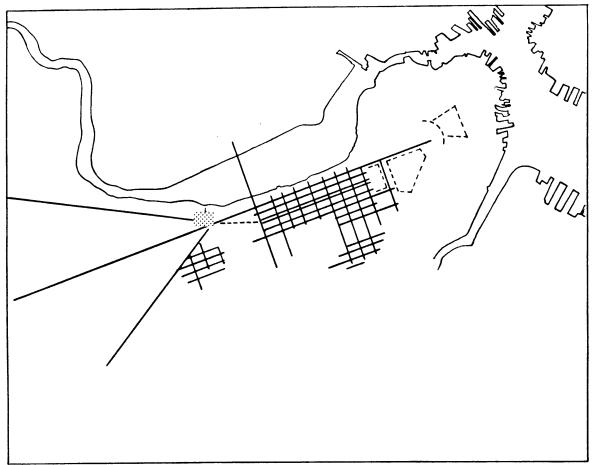
Present site as parking





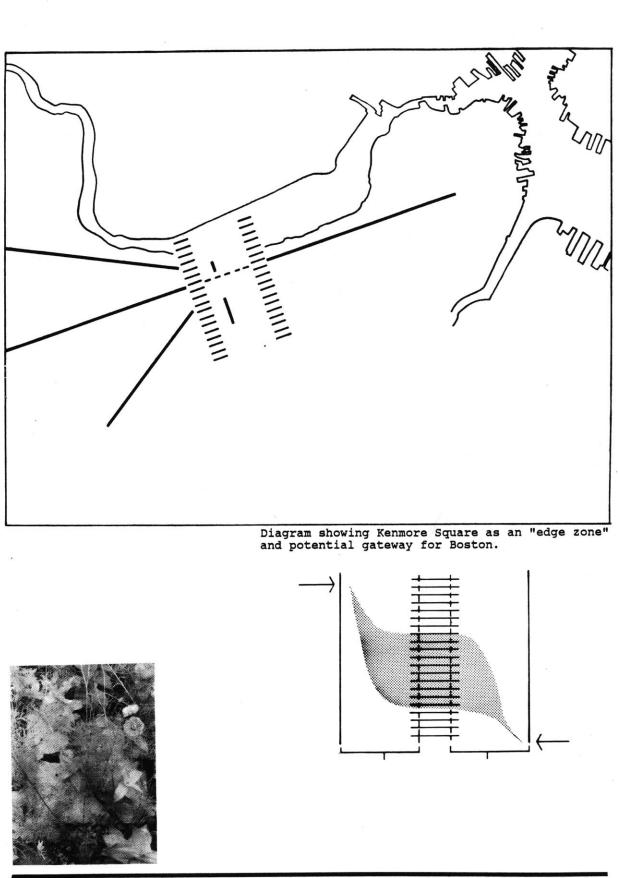




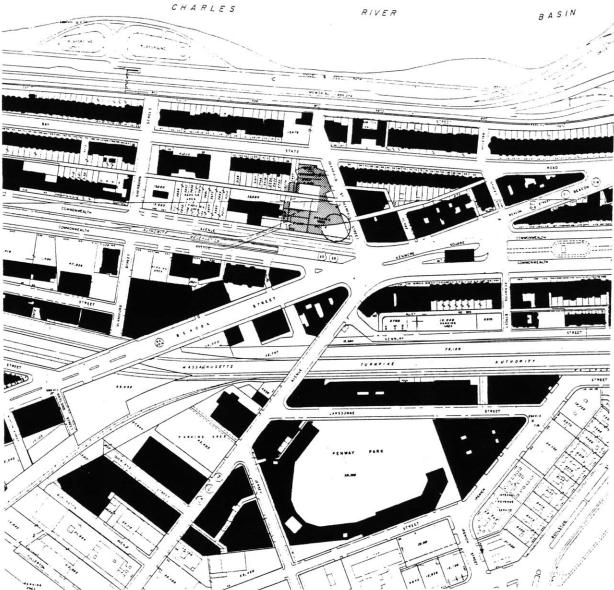


Position of Kenmore Square in the larger urban street pattern of Boston



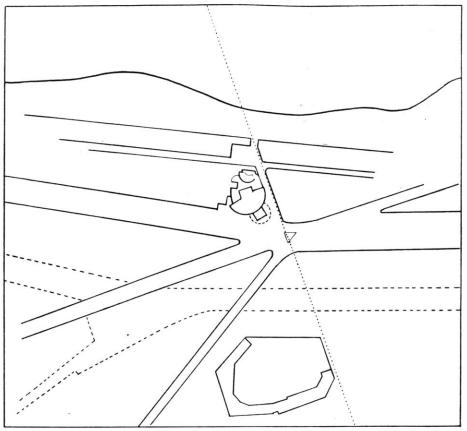


Building Mass

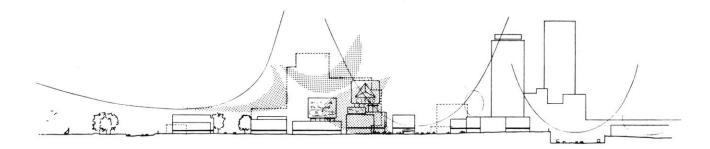


Footprint of the building with surrounding urban fabric



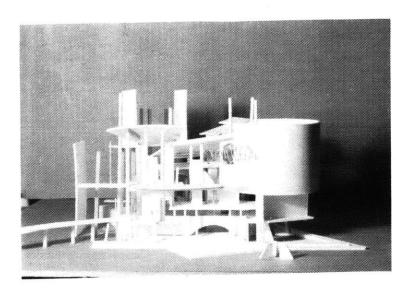


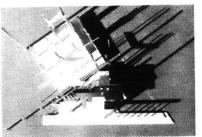
Public space relationships: Charles River, theater/School, street space, Fenway Park

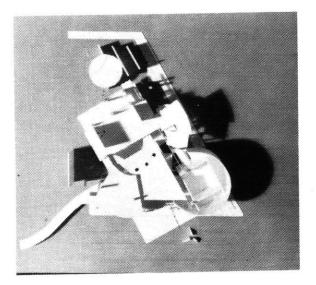




Section showing public areas of theater/performing arts school in relationship to open space in the Kenmore Square area

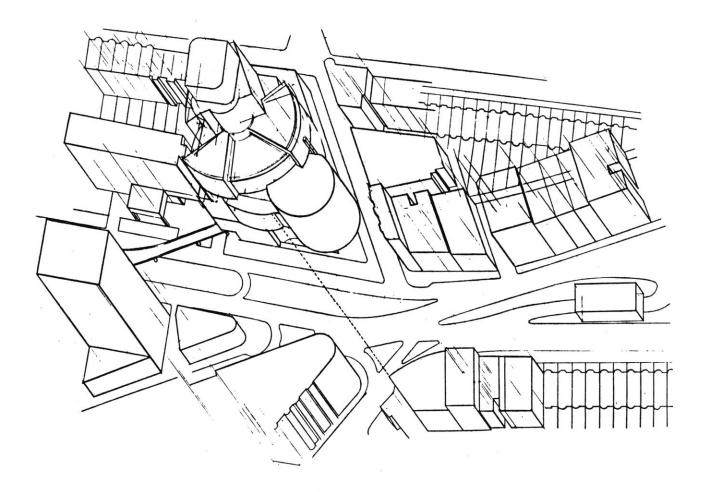






Kenmore theater/performing arts school building as a formal response to urban forces



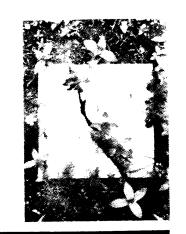




.

.

. .



BUILDING CONCEPTS

Woody IK HEB HET! IK CA EEN WOLKEN-KRABBER ONTWERPEN, HOGER DAN HET " MIJN Allen DOM FRANK EMPIRE STATE BUILDING. LLOYD ALLEN WAS EEN GEWELDIG ARCHITECT DIE BIJNA WERELD-BERDEMD WAS GEWORDEN door Woody Allen 1236 HET ZAL DE DIEPSTE MAAR IN PLAATS VAN WOLKENKRABBER TER OMHOOD, BOUW IK HEM DE GRUND IN. WERELD WORDEN!

My uncle Frank Lloyd Allen was a famous architect and beside himself with worry.

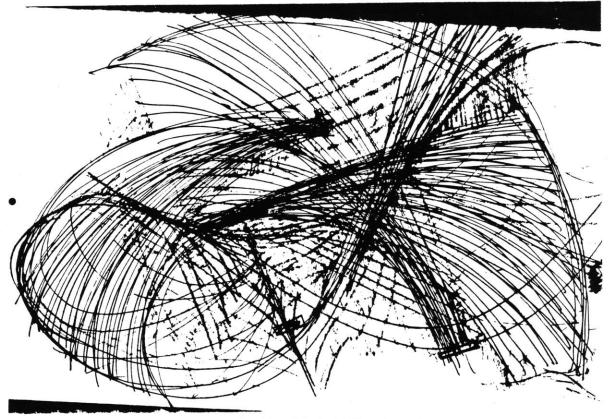
I Have it! I will design a skyscraper higher than the Empire State Building.

But, instead of up high, I will build it down into the ground.

It will be the deepest skyscraper in the world.



Overlap

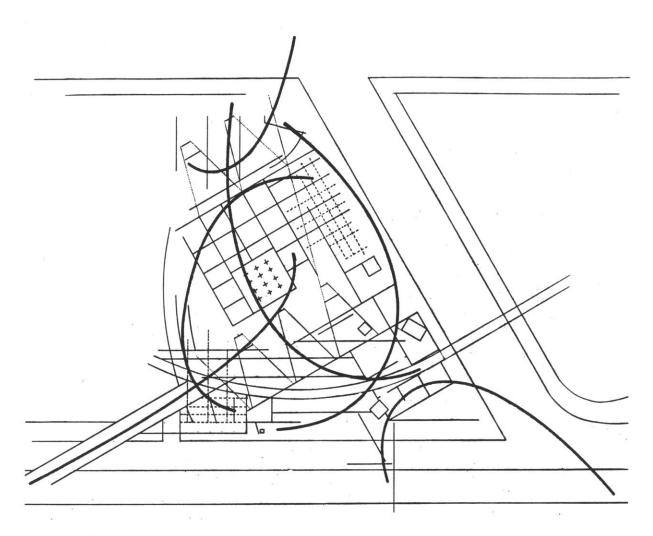


- To tie the building together To encourage interaction of the component systems To create "edge zones" and "zones of conflict"



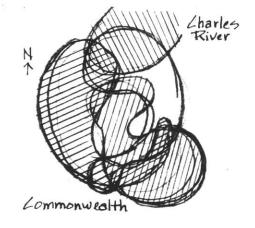
 $[2] = A^{*}$





Kenmore Theater/School pattern of overlapping systems



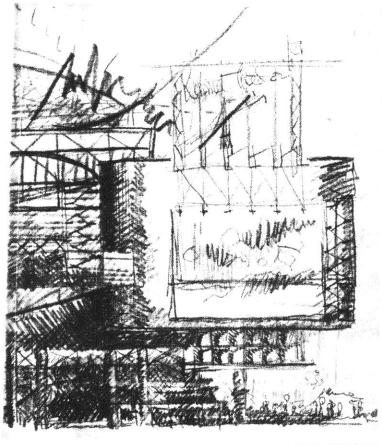


89

Sign



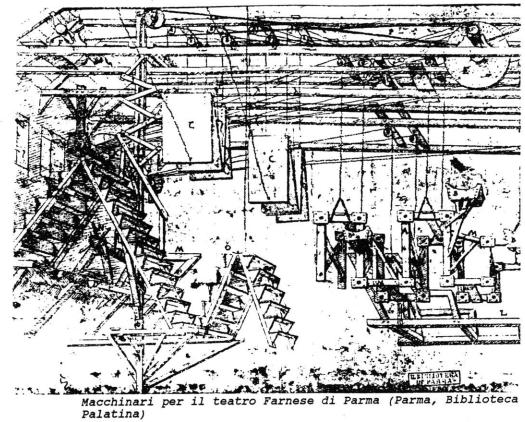
Howard Johnson's, adjacent to site

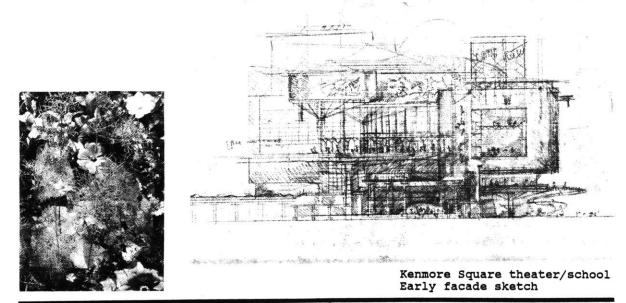


Facade of experimental theater

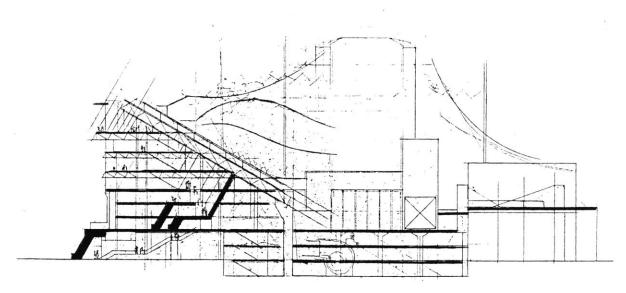


Machine

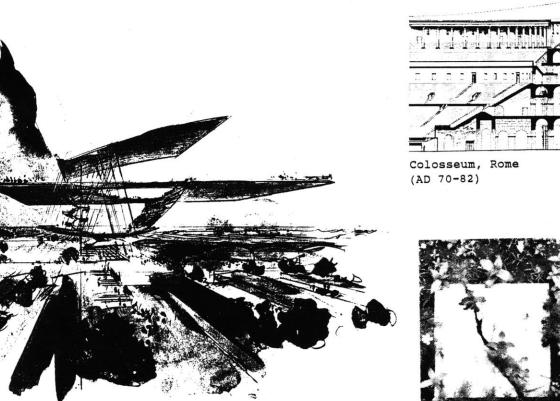




Series of Platforms

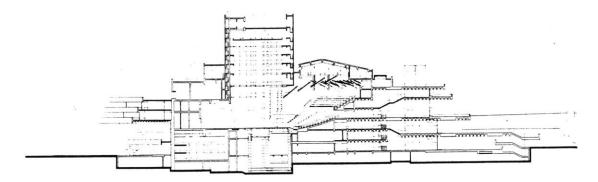


Early sketch showing public space in relationship to theaters and parking

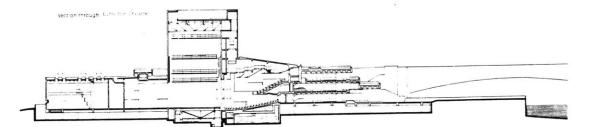


Hans Scharoun, sketch

National Theater in London by Denys Lasdun (1964-1975)



"I call these terraces which are very horizontal in emphasis. "strata" -it's a geological term which goes rather well with concrete -and these strata are available to the public to just mill around in. They are public places, public domains -an extension of the city."



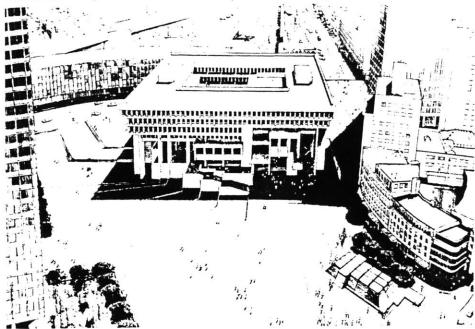


Always intrigued by Le Corbusier's notion of an artificial, raised floor for the city, with traffic and services beneath it, he nonetheless rejected utopian, clean-sweep planning. ...Stepped sections, when sensitively controlled, created an ambiguous edge to individual buildings, allowing links and transitions to be made.

- 1 Colin Amery, <u>The National Theatre: 'The</u> <u>Architectural Review' Guide</u>, p.25
- 2 Ibid., p.77

Boston City Hall

The Boston City Hall by Kallmann, McKinnell, and Knowles (1962-1967)



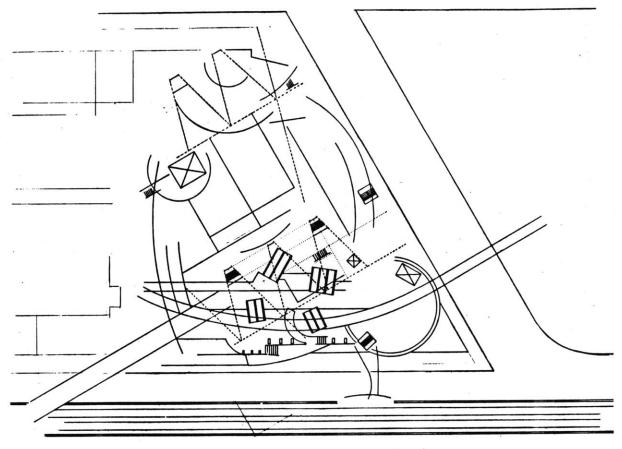
The main forms of the building expressed the hierarchy of interior functions quite clearly and allowed the public space of the red-brick plaza to invade the structure at the lower level by means of stairs and ramps.

"A platform or series of horizontal platforms has more than a merely practical significance in an architectural arrangement....It is the first essential in any order designed to support the ceremonials and activities of collective life."

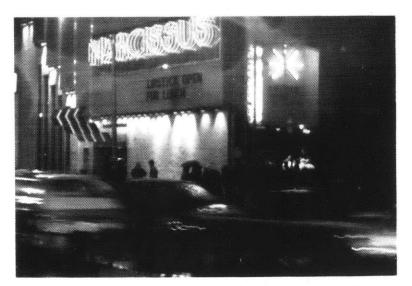
3 J. R. Curtis, "Modern Architecture, Monumentality, and the Meaning of Institutions: A Reflection on Authenticity", <u>The Harvard Architecture</u> <u>Review IV</u>, [Monumentality and the City], Spring 1984, p.75.



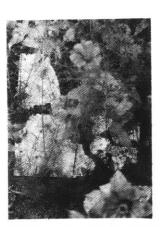
Inverse of Shopping Mall



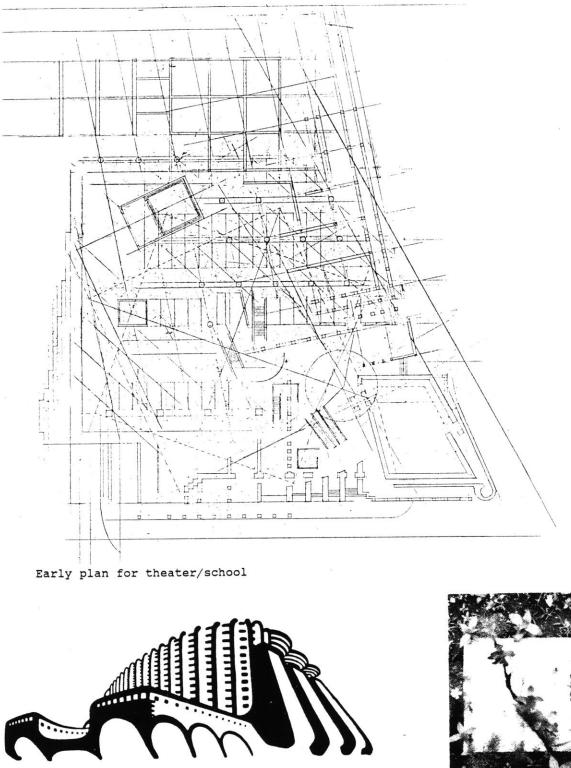
A PLACE TO MOVE AROUND RATHER THAN THROUGH



Movement of traffic through Kenmore Square



Motion / Movement

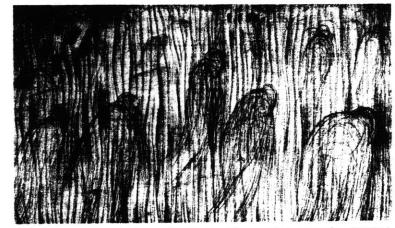


Erich Mendelsohn's sketch for a movie industry (1917)





States of Mind: Those Who Go (1911)



States of Mind: Those Who Remain (1911)



The City Rises (study sketch), 1910

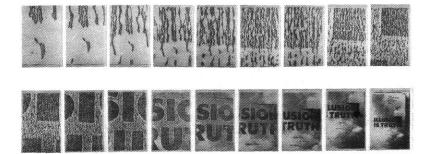




Study sketch for building



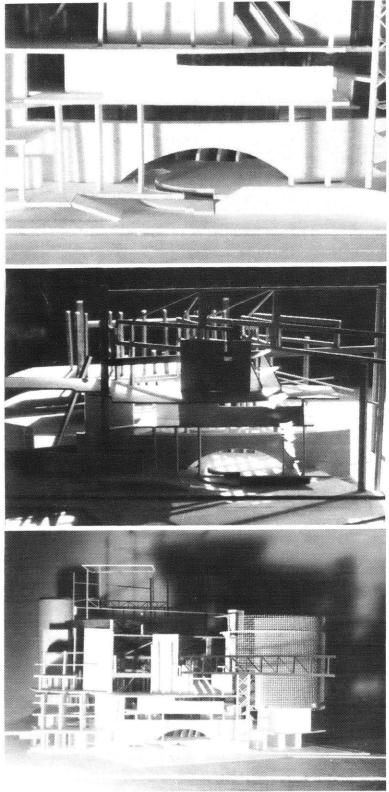
Kenmore Square Theater /Performing Arts School





1. Building Elements





Curved opening and wall at main entrance



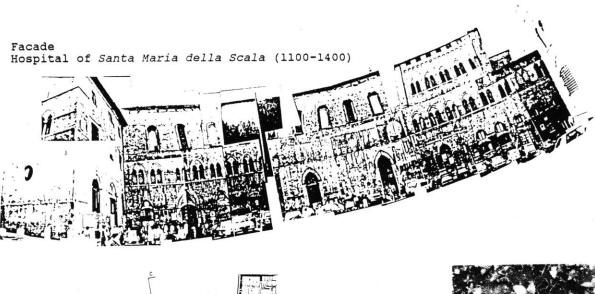
In a segmental arch the curved top, framed by the vertical supports, tends to lose the constancy of its curvature and to look instead as though it had its maximum bend at the center and straightened towards the sides. This means that the circular curve relinquishes its own centric symmetry and conforms instead to the vertical symmetry axis of the structure it is part of. Its central voussoir is redefined as a peak, and the whole curve adapts itself to this reading.

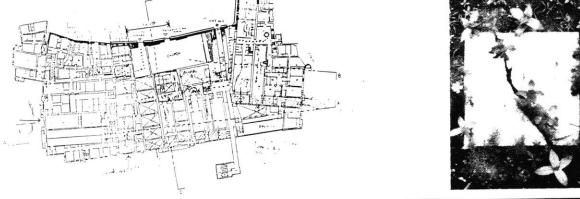
In consequence, a segmental arch hints at pointedness, although weakly. As a pointed shape it looks blunted and soft; but viewed by itself, it preserves its geometric hardness as part of a circle. There is somethings ambiguous and evasive about such a shape. It rises, but without conviction, and it attempts pointedness without breaking its circularity.

> Rudolf Arnheim, <u>The Dynamics of</u> <u>Architectural Form</u>, p.243.

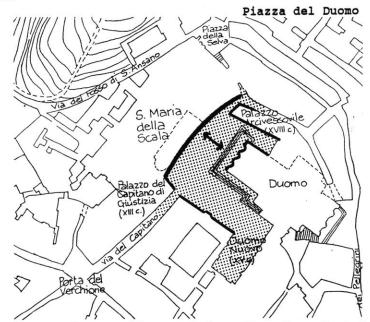


It is interesting to note the organization of the facade for the hospital, Santa Maria Della Scala. Its presence on the cathedral square in Siena is minimized in relationship to the Duomo and governmental structures. This is accomplished, partially, by a facade which is actually organized as a double wall. The walls are very heavy and hide the separate functions that exist behind it. These two walls can be seen in plan. They act together to screen the complexity of the hospital from a piazza. The space between the two walls is used as a stairway for access to some small balconies near the front of the church.





The Piazza del Duomo, in plan, is too small to accommodate both the hospital and the major cathedral of Siena. It is interesting to note the close relationship of the Duomo's facade to that of the hospital and how this problem is resolved. The inward turning curve of the hospital's facade compensates for the compressed spacial dimension's of the Piaza del Duomo.



Conversely, an outward curving wall used for the facade of the Kenmore Theater Building responds to the excess space of Kenmore Square.

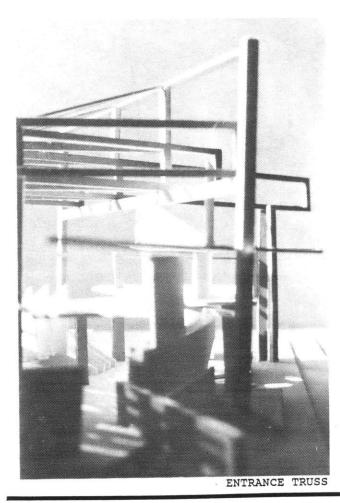
SIENA, REALITY IN HISTORY	ARCHITECTURE, LIKE A STAGE
ROOTED IN THE EARTH	BACKWARDS IN TIME
GIANCARLO DE CARLO, HARD STONE	A SET FOR ANOTHER KIND OF MEETING
	WHAT IS THE LANGUAGE OF MEANING AND VALUE?
SANTA MARIA DELLA SCALA	SECURITY IN THE WHOLE
CAN IT BE BROKEN IN THE GROUND?	TO DESTROY IS TO HURT
IT WILL NOT GIVE MUCH	BUT ALLOWING DREAMS
WE EXPERIENCE	DO NOT INTERNALIZE
UNFINISHED FRAGMENTS BURIED NOW	REUSE A FIVE WEEK ONE ACT PLAY
	0.17



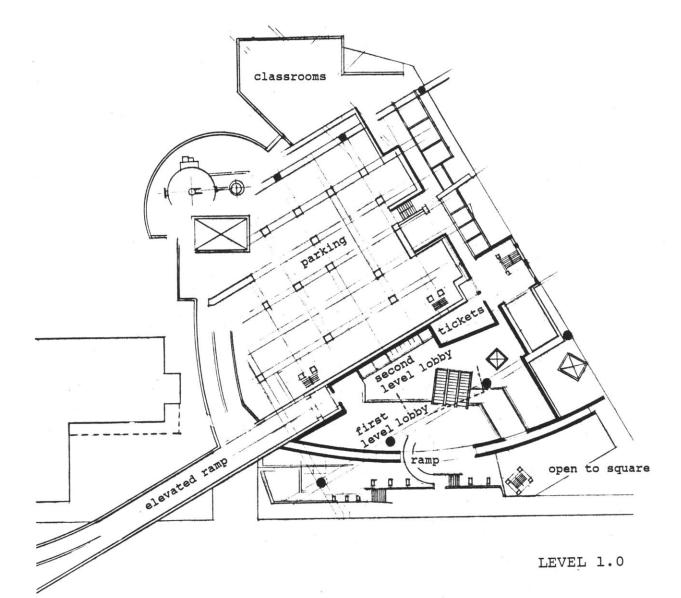
CV

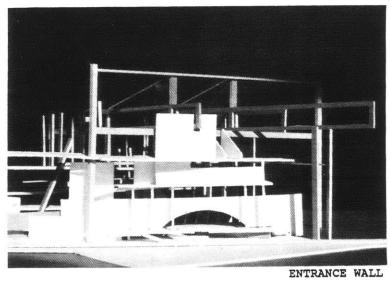
Structural Organization at Entrance

- 1. Two separate systems: curved heavy wall organizes and supports public circulation system; large truss supports theaters above and some circulation; systems are mutually dependent. The two separate systems are constructed of contrasting materials: steel - light / concrete and marble - heavy. It is not clear as to which system supports in some cases.
- 2. Circle segment form can be interpreted as ambiguous

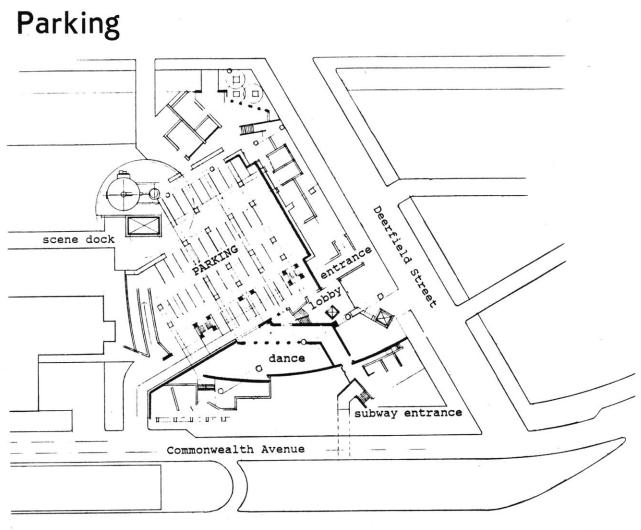








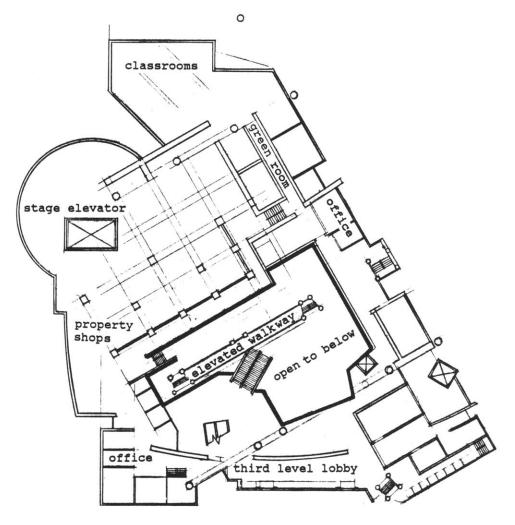




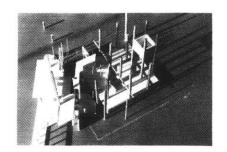


- Brings a piece of Kenmore Square inside which becomes stage or performance space
- Provides platform for support functions for theaters: the engine/power plant for the building
- Service elevators provide vertical connection: connection between ground and air





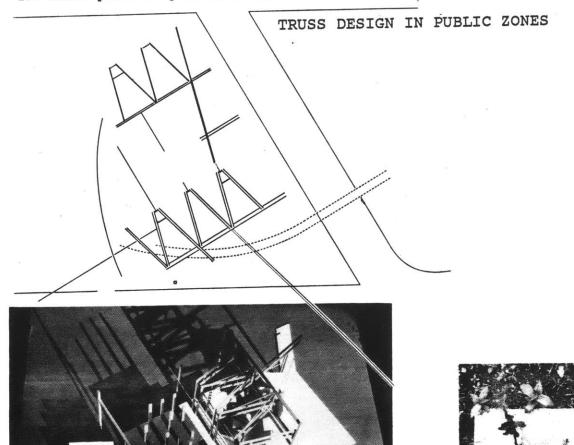
LEVEL 4.0





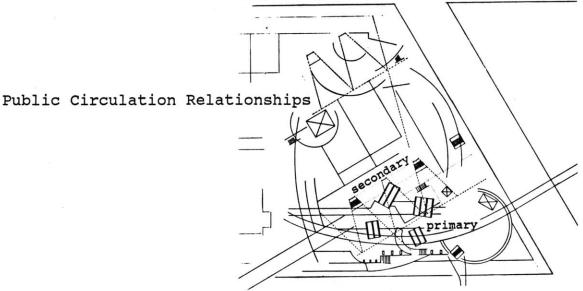
Truss Design

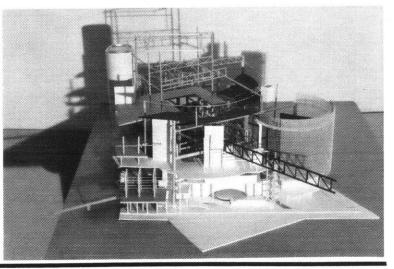
- Resolves directional change within building and gives directional freedom
- 2. Defines public spaces
- 3. Provides platform for multiple theaters
- 4. Accommodates circulation into theaters
- 5. Form is ambiguous and incomplete
- 6. Provides system for bridge-like secondary circulation
- 7. Allows for addition of props, stage sets, banners, signs, lights
- 8. Allows for roof covering for outdoor theater
- 9. Memorable form for users
- 10. Allows place for performance by public



Primary and Secondary Circulation

- 1. Alternative routes to theater entrance
- 2. Both systems can be interpreted as stage or seating
- 3. Primary system crosses back stage activities and ends with view across river which becomes stage for viewer
- Main entrance: user goes under to go up; the theater entrance experience is similar
- 5. Width of main entrance is the same dimension as the proscenium stage width and they line up exactly with each other in plan view

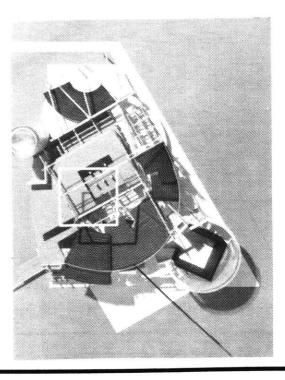




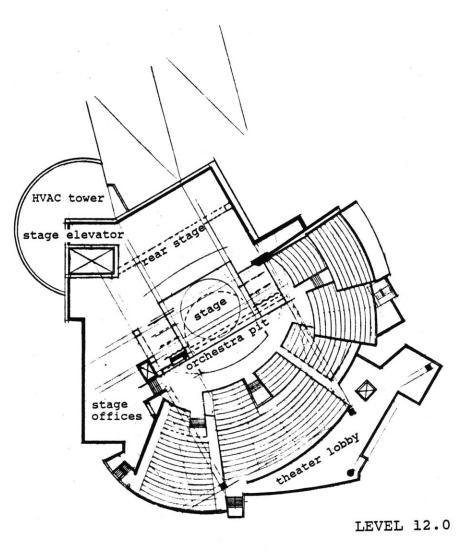


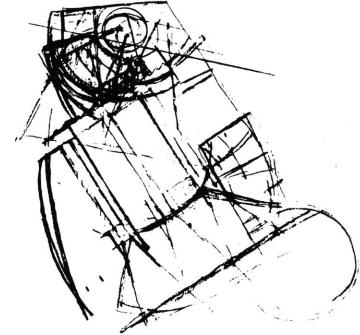
Indoor Theater

- Can be used as one, or up to three separate theaters, through use of physical and artificial sound barriers
- 2. Its complete form is a theater in the round, and therefore suggests an idealized form of public space for Kenmore Square. The existing function of Kenmore Square, in contrast, would suggest the form of a Haussman Blvd.
- 3. Elevated theater allows for a variety of theater-like experiences for the user before arrival: completed arrival does not occur ever
- 4. Exterior surface of indoor theater is graffiti-like cladding which can evolve slowly in terms of its pattern

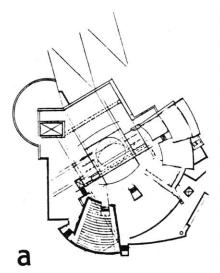


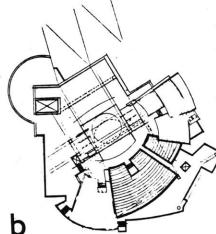




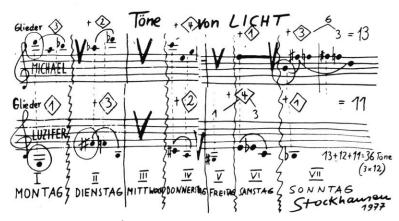








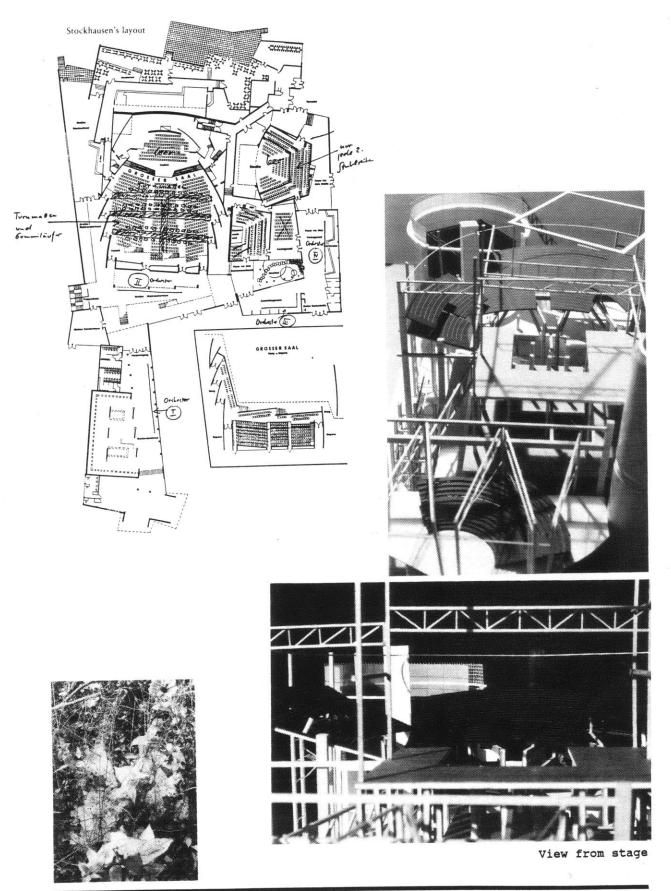
The use by twentieth-century composers and visual artists of the multiple view and the changing perspective corresponds with contemporary philosophical developments. Traditionally, events were considered to occur in ome time only -the fixed viewpoint and the musical performance in a single, static space. In the twentieth century, composers and artists have responded to the idea of relative time, so that several events can be depicted simultaneously. Using the concept of "musicians deployed in space," Stockhausen wrote a work called Musik Fur ein Hause, which was first performed in four rooms situated on two floors; visitors could walk from room to room.

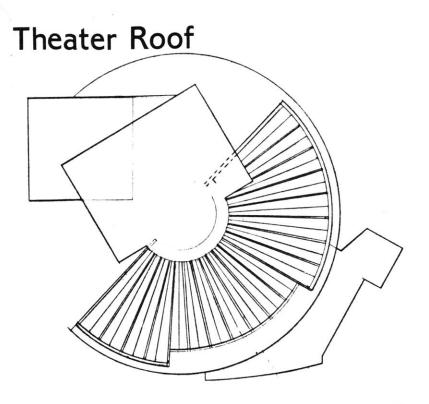


Forsyth, Michael, Buildings for Music,



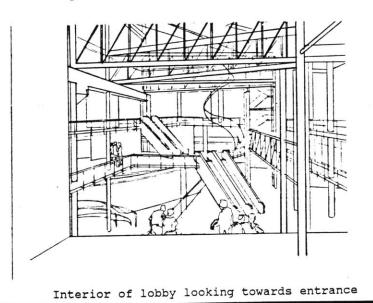
Diagrams showing flexible theater organization



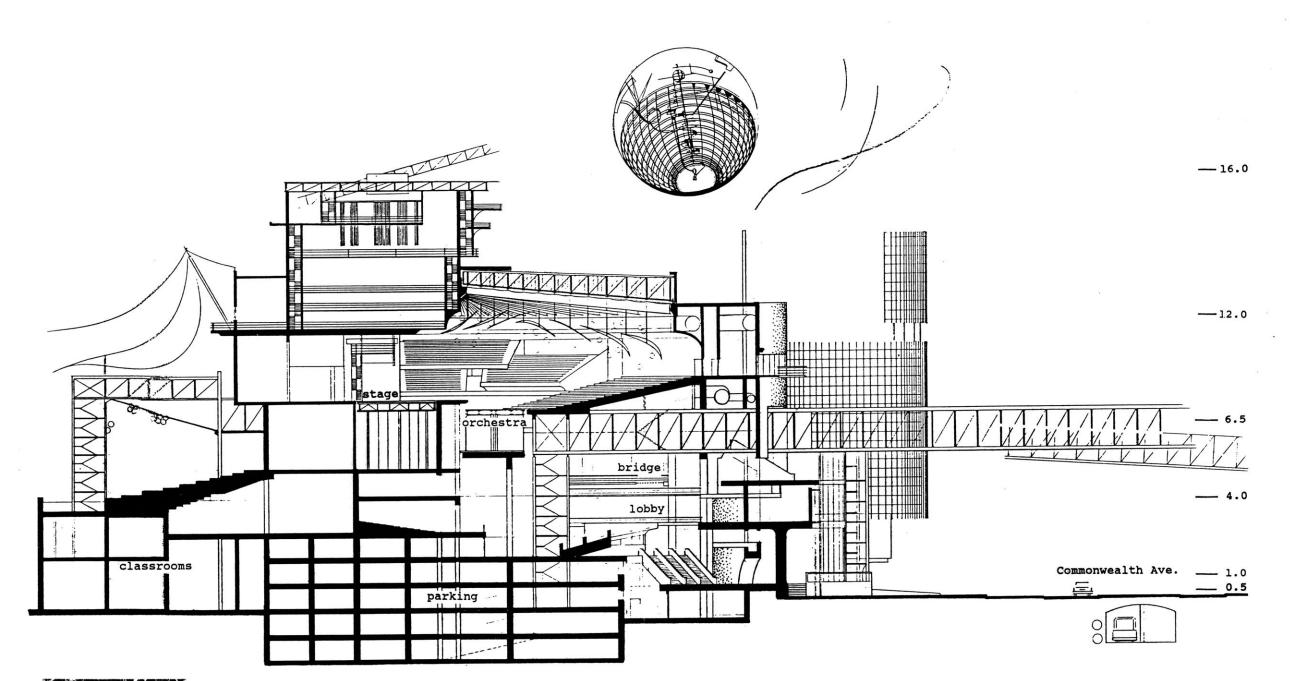


LEVEL 16.0

- Completes form of of combined theaters, but is capable of opening to the sky and allows stage props to be dropped in
- Material is of light and temporary construction (canvas hung from trusses, acoustical reflectors and lights again hang from trusses)







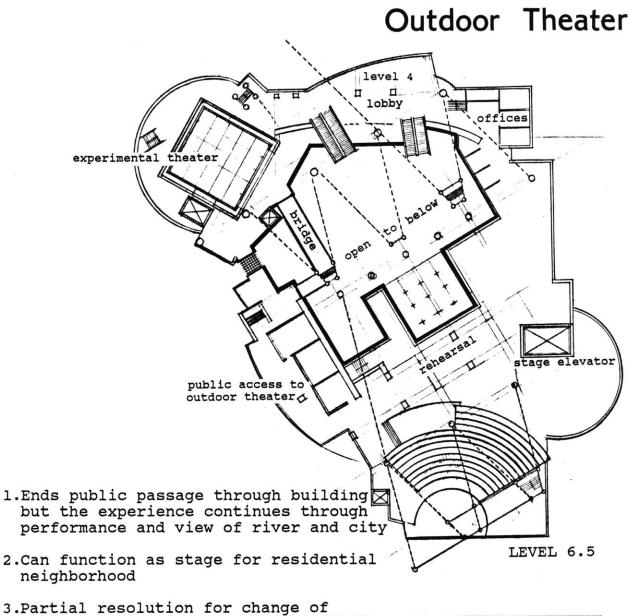


Section Through Entrance, Lobby, Stage, and Outdoor Theater

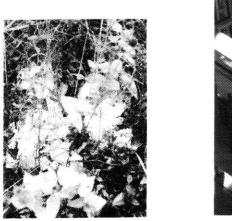
115

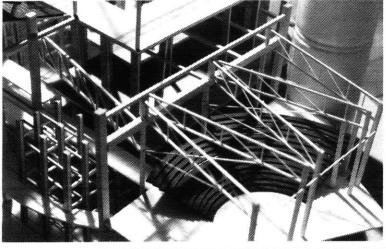


.



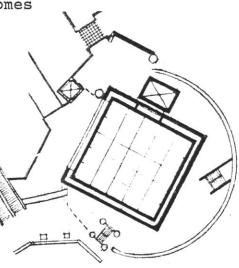
3.Partial resolution for change of direction

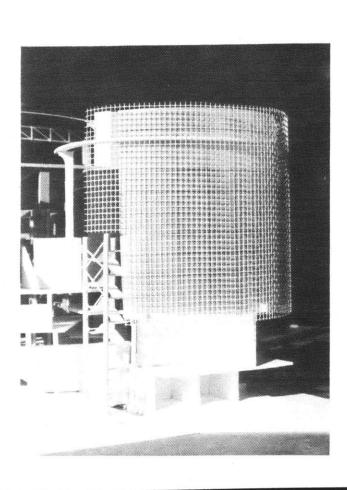




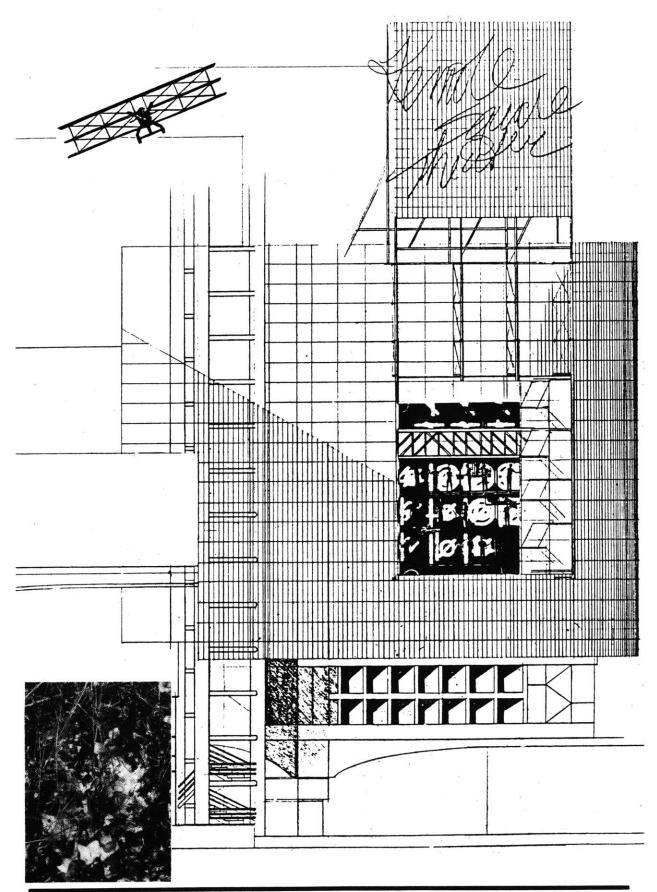
Experimental Theater

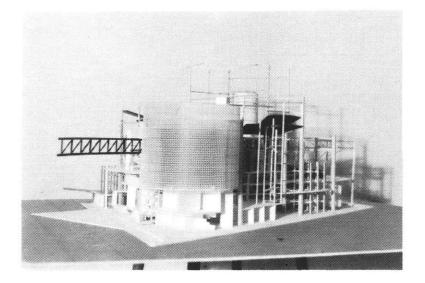
- Innovative, researching, hypothesis testing function conceptually juxtiposed with primal form
- Ambiguity arises because of contrast between the primal form and the materials of the double-walled construction on the exterior: glass and open steel grating
- 3. Interior of experimental theater opens to public circulation and then becomes part of the public domain



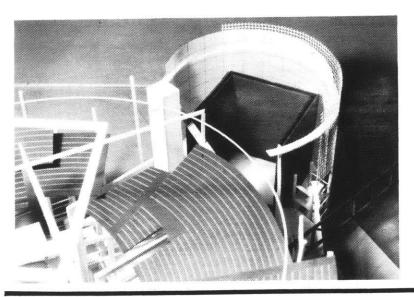








- 4. The six surfaces of the theater interior can be moved to adjust the interior volume allowing for multiple activities
- 5. Theater opens to exterior (Kenmore Square): The city becomes theater; door becomes sign
- 6. Volume is lifted above ground level opening up this space for public activity





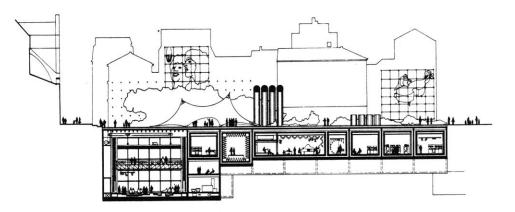
IRCAM:

Centre Georges Pompidou, Paris Piano and Rogers

Combining the fields of psychoacoustics, computer science, perception, linguistics, and sound theory, IRCAM is divided into five departments:

> -instruments and voice, electroacoustics, computer, teaching, and a coordinating department known as the department diagonal.

> > IRCAM: longitudinal section drawing through the building. (Courtesy Richard Rogers and Partners, Ltd.)



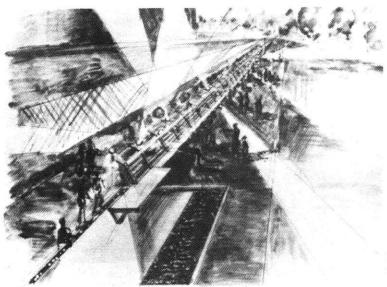
-adjustable, motorized walls and ceilings to vary acoustics

-surfaces are variable on all six sides: ceiling is in three sections, floor is modular, walls are built of 172 triangular panels capable of rotating to expose various finishes

-sound system ans provision for visual material on film and slides is installed

-possibility of spatial division by partitions on rolling beams





Lowry Burgess, Concept drawing for "Centerbeam", D.C.

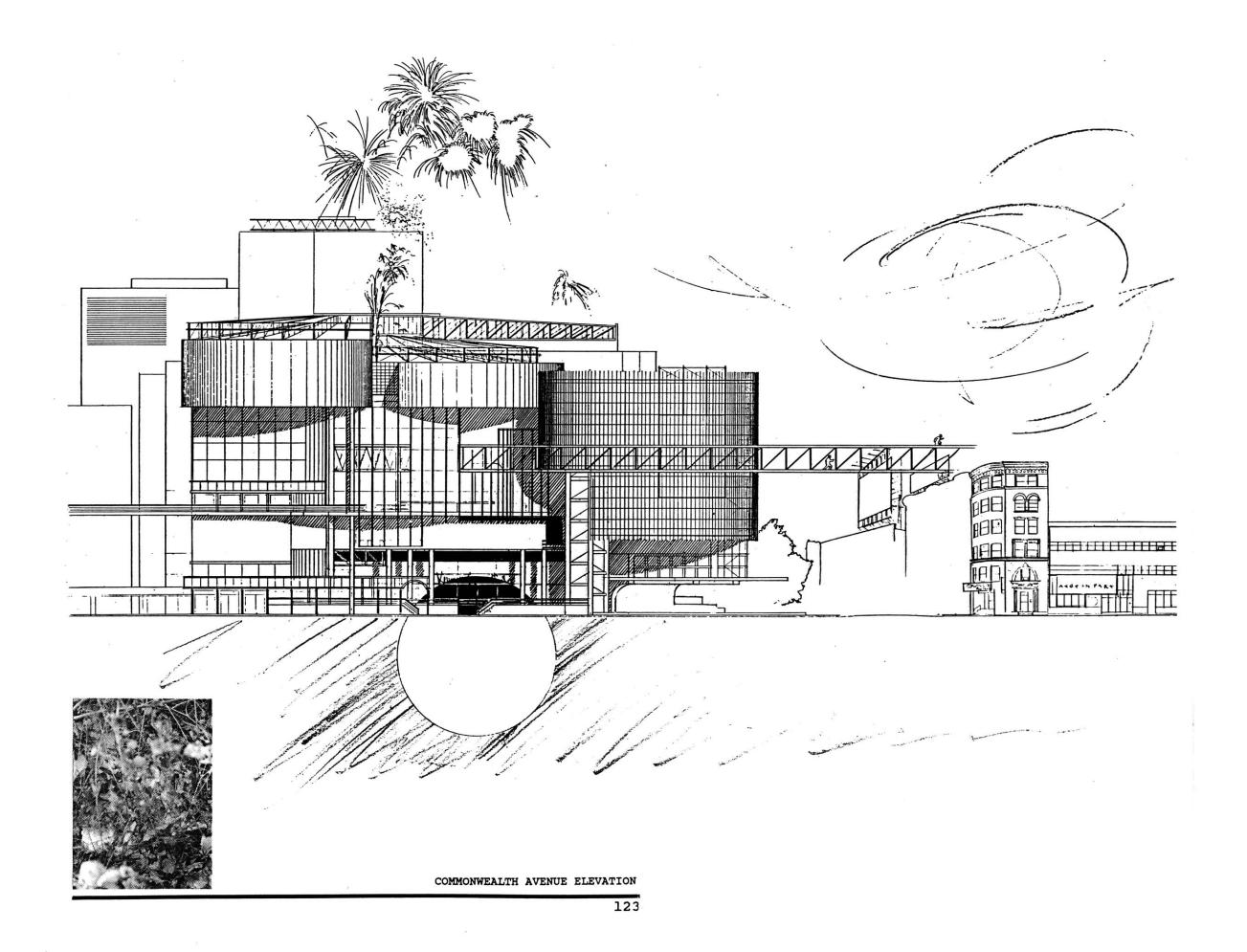




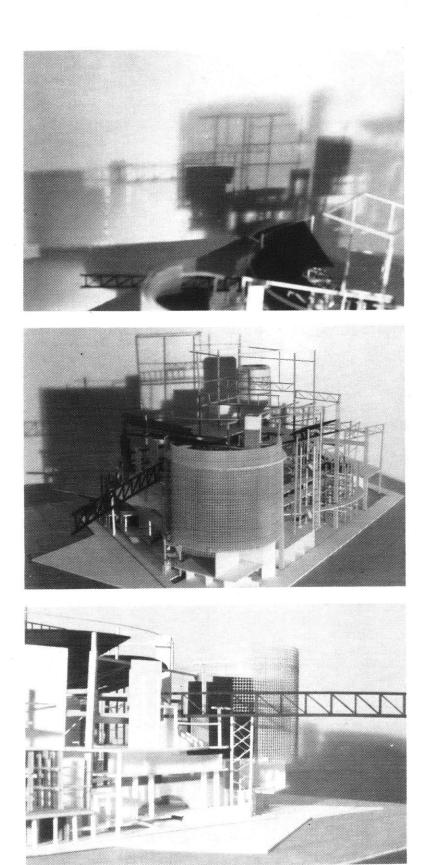
Liubov Popova, Set design for The Magnanimous Cuckoid, 1922



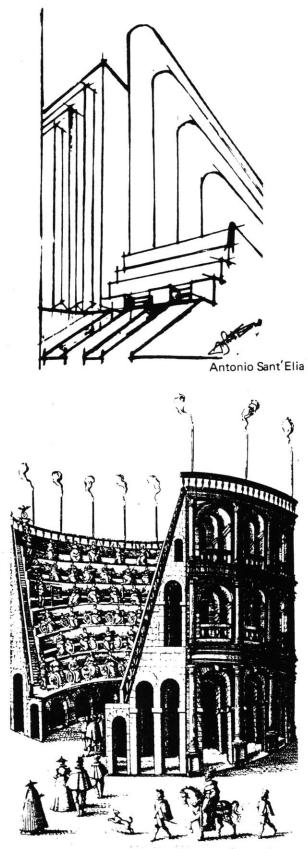








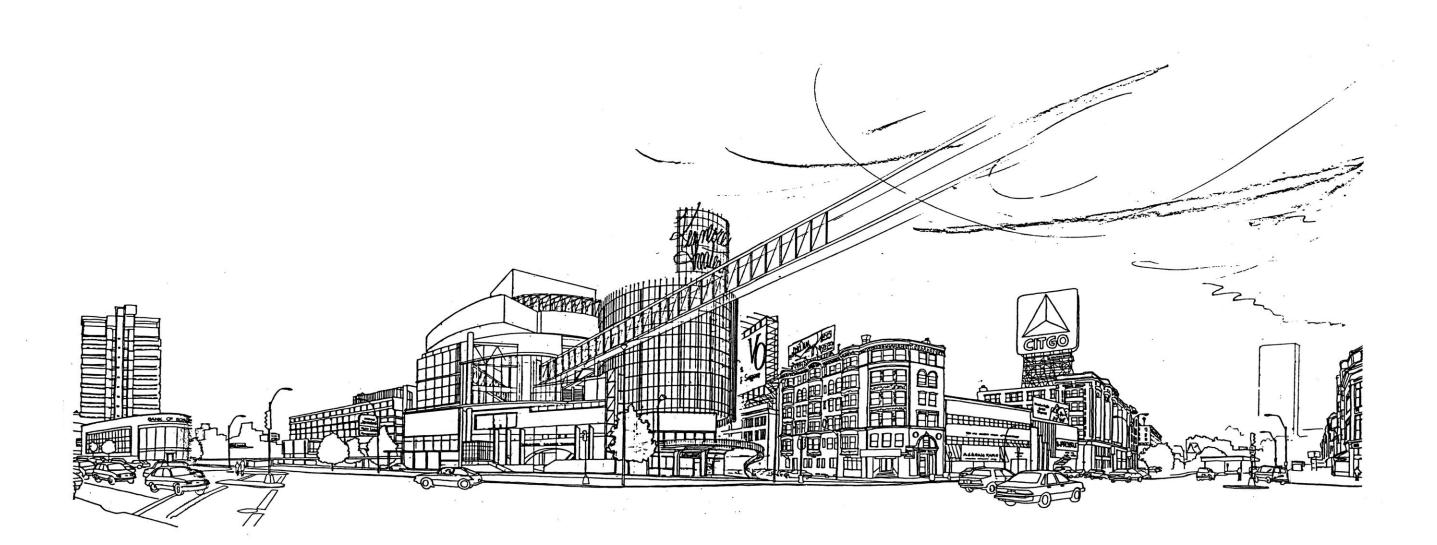


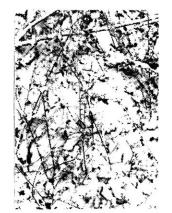


THEATRI FORMA ENTERIOR .

Johannes Bochius 1595, engraving by Peter van der Borcht IV (1545-1608)





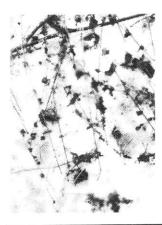




Perspective/Retrospective



Jerome Robbins, Glass Pieces Music by Philip Glass



MULTIPLE READING

RELATIONAL DESIGN

DEFINITION OF EDGE LOCATION

DESIGN RESOLUTION: INCOMPLETENESS

HUMOR / SURPRISE

We have already seen, from the example of musical understanding, that there may be objects which can only be perceived imaginatively, since the most basic experiences involved in their perception may depend upon acts of attention that transcend the aims of literal understanding. The same, I think, is true of architecture. It is not merely that architecture is the occasional object of imaginative experience, but rather that it is a proper object of that experience, and that it cannot be understood except in imaginative terms.We find that, however much we divest our experience of interpretation, it retains the character of freedom which is one of the distinguishing marks of an imaginative act.

> Roger Scruton, <u>The Aesthetics of</u> <u>Architecture</u>, p.787



MULTIPLE READING

RELATIONAL DESIGN

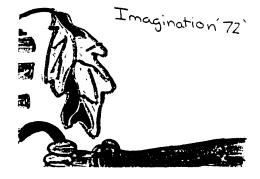
DEFINITION OF EDGE LOCATION

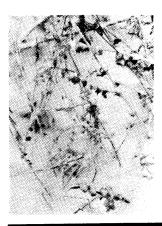
DESIGN RESOLUTION: INCOMPLETENESS

HUMOR / SURPRISE



Leftover snow is on the street old and grey, matching the newspaper lying on the front walk which my mom just picked up like a crane ready to drop it on her lap z like shes tired and ready to read like a very good bookworm with a purple sweatshirt Popping up from the ound like a piece popped corn ready to go down the shoot of





MULTIPLE READING

RELATIONAL DESIGN

DEFINITION OF EDGE LOCATION

DESIGN RESOLUTION: INCOMPLETENESS

HUMOR / SURPRISE

Paul Klee, Children's Playground (1937)

Most of the theater that the Brooklyn Academy of Music presents is concerned with looking at the world brand-new. At the core of it all is Lichtenstein's childlike faith in the enduring power of art to illuminate and enrich life

> Harvey Lichtenstein, Stephan Holden, "Impressario of the Avant-Garde", <u>Connoisseur</u>, p.103

MULTIPLE READING

RELATIONAL DESIGN

DEFINITION OF EDGE LOCATION

DESIGN RESOLUTION: INCOMPLETENESS

HUMOR / SURPRISE



Venturi's exaltation of the category of ambiguity may, at first sight, seem stimulating. Only after realizing that, in his historical analyses, tensions, contradictions and complexities become critical parameters....one sees that the adoption of the concept of "ambiguity" in the work of art, borrowed from the analytical texts of Empson and Eliot, is aimed at justifying personal planning choices rather more equivocal than ambiguous.

Venturi's book employs 'fashionable' analytical methods, turning them, without any mediation, into 'compositive' methods. In this way the values of ambiguity and of contradiction lose their historical consistency and are reproposed as 'principles' of a poetic."

Klee recognized the introduction of the unconscious, of the irrational, of ambiguity and of unsolved tension between opposite polarities, into the structures of artistic activity: Klee does not start from a priori categories (not even from historically defined categories) in order to identify the dimensions of his poetic. The high didactic content in Theory of Form and Figuation is in Klee's continuous comparison between subjective choices and formal processes in the reality of perception. For Klee, irony, complexity, and soundings on the verge of the rational are end results and not starting points.

> Manfredo Tafuri, <u>Theories and History</u> of <u>Architecture</u>, pp.213-214

> > MULTIPLE READING

RELATIONAL DESIGN

DEFINITION OF EDGE

DESIGN RESOLUTION: INCOMPLETENESS

HUMOR / SURPRISE



Building is about serving function: Architecture is about serving art. The difficulty for artists and sculptors, that is people who are not architects, is they do not have a distinction between building All of what they do is and architecture. art. But all of what architects do is not architecture, because everything that is built is not necessarily architecture -it may be only building. It only becomes architecture when it is no longer serving, when it transcends function and meaning. It becomes architecture only when it signifies its condition outside of service. A door is not an abstraction; it is not the sign of a door; it is not a piece of sculpture, nor is it architecture; it is merely a door. Architecture involves transforming a door into something beyond its capacity to be functional. That is a problem that architects deal with that scuptors and painters do not. The realm of architecture is very specific; to transcend function.

> Peter Eisenman, "The Meaning of Place in Art and Architecture", <u>Design</u> <u>Quarterly 122</u>, [Site], p.16

MULTIPLE READING

RELATIONAL DESIGN

DEFINITION OF EDGE LOCATION

DESIGN RESOLUTION: INCOMPLETENESS

HUMOR / SURPRISE

The early view of forests taken by ecologists was coloured by the concept of succession to climax. Evidence of continuing disturbance was played down. Now the emphasis has changed. Disturbance at many scales is recognized to be always present and it is generally felt unrealistic to disregard it. Instead of progression to a stable end point, disturbances, whether arising within the community (autogenic) or outside it (allogenic) are regarded as normal. Hence unambiguous generalizations about succession are difficult to make. Such a view of the forest is more consistent with the repeatedly demonstrated instability of habitat, much of it unpredictable.

[Italics my emphasis]

T. C. Whitmore, "On Pattern and Process in Forests", <u>The Plant Community as a</u> <u>Working Mechanism, Special Publication</u> <u>Series of the British Ecological</u> <u>Society, Number 1</u>, p.56



MULTIPLE READING

RELATIONAL DESIGN

DEFINITION OF EDGE LOCATION

DESIGN RESOLUTION: INCOMPLETENESS

HUMOR / SURPRISE



Bibliography

- Acoustical Society of America, <u>Halls for Music</u> <u>Performance</u>, The American Institute of Physics, New York, 1982.
- 2. Amery, Colin, <u>The National Theatre: 'The Architectural</u> <u>Review' Guide</u>, Architectural Press Ltd., London, 1977.
- Anderson, Stanford, "On Streets", MIT, Cambridge, Ma., 1978.
- Apollonio, Umbrio, Ed., <u>The Documents of 20th Century</u> <u>Art</u>, <u>Futurist Manifestos</u>, trans. Brian, Robert, Flint, R.W., Higgitt, J.C., and Cardini, Tisdall, Viking Press, New York, NY, 1973.
- 5. <u>Architectural Design</u>, "From Futurism to Rationalism", Vol 51, 1/2, 1981.
- Architectural Design, "Russian Avant-Garde", Vol 53, 5/6, 1983.
- Architectural Design, "Frank Gehry", Vol. 55, 7/8, pp.20-21, 1985.
- 8. Arnheim, Rudolf, <u>The Dynamics of Architectural Form</u>, University of California Press, Berkeley, Ca., 1977.
- 9. Athanasopulus, Christos G., <u>Contemporary Theater</u>, John Wiley and Sons, New York, 1983.
- Bacon, Edmund N., <u>Design of Cities</u>, MIT Press, Cambridge, Ma., 1982.



- 11. Benvenuto, Edoardo, "Pluralism in Science", <u>Architecture, Multiple and Complex</u>, [Yearbook], International Laboratory of Architecture and Urban Design, 1984/1985.
- 12. Baudelaire, Charles, "Modernism in the Streets".
- EI. Bergson, Henri, <u>Laughter</u>, Sypher, Wylie, Ed, Doubleday, Garden City, N. Y., 1956.
- 14. Borges, Jorge Luis, <u>Labyrinths</u>, New Directions Publishing Corporation, New York, 1964.
- 15. Carrol, Lewis, <u>Alice in Wonderland</u>.
- 16. Centre Pompidou, Rizzoli Books.
- 17. Clark, Ronald C., <u>Einstein, The Life and Times</u>, World Publishing Company, New York and Cleveland, 1971.
- 18. Curtis, J. R., "Modern Architecture, Monumentality, and the Meaning of Institutions: A Reflection on Authenticity", <u>The Harvard Architecture Review IV</u>, [Monumentality and the City], Spring 1984, MIT Press, Cambridge, Ma., 1984.
- 19. Davis, Douglas, "The Death of Semiotics (In Late Modern Architecture), The Corruption of Metaphor (In Post-Modernism), The Birth of the Punctum (In Neomania)", <u>ARTFORUM</u>, pp.56-63, May, 1984.
- 20. de Grada, Raffaele, <u>Boccioni</u>, Club del Libro, Milan, 1962.
- 21. <u>Design Quarterly 74/75</u>, [Process and Imagination], Walker Art Center, Minneapolis, 1969.
- 22. <u>Design Quarterly 1980</u>, [City Segments], Walker Art Center, Minneapolis, 1980.



- 23. <u>Design Quarterly 125</u>, [Center City Profile], Walker Art Center, Minneapolis, 1984.
- 24. di San Lazzaro, Gualtieri, <u>Klee</u>, Frederick A. Praeger, Publishers, New York, 1957.
- 25. Eames, Ray and Charles, Morrison, Philip and Phylis, <u>Powers of Ten, About the Relative Size of Things in the</u> <u>Universe</u>, W. H. Freeman and Co., New York, 1982.
- 26. Eisenman, Peter, "The Meaning of Place in Art and Architecture", <u>Design Quarterly 122</u>, [Site], Walker Art Center, Minneapolis, 1984.
- 27. Forsyth, Michael, <u>Buildings for Music</u>, MIT Press, Cambridge, Ma., 1985.
- 28. Geelhaar, Christian, <u>Paul Klee and the Bauhaus</u>, New York Graphic Society Ltd., Greenwich Conn., 1973.
- 29. Groner, Rudolf, Groner, Maria, and Bischof, Walter F., <u>Methods of Heuristics</u>, (Minski, Marvin contributor), published by Lawrence Erlbaum Associates, Hillsdale, New Jersey and London, 1983.
- 30. Haque, Reaz, <u>Copley Square: Realizing its Full</u> Potential, M. Arch Thesis, MIT Thesis, 1982.
- 31. Harris, Dale, "Robert Wilson's Epic Vision", <u>Connoisseur</u>, April 1984, Vol. 214, pp.100-104.
- 32. Hertzberger, Herman, "Houses and Streets Make Each Other", and "The Other Side of the Street", <u>Spazio e</u> <u>Societa</u>, <u>Space and Society</u>, No. 23, September 1983, Samsoni / MIT Press, Cambridge, Ma., 1983.
- 33. Holden, Stephan, "Impressario of the Avant-Garde", <u>Connoisseur</u>, May, 1985.



- 34. Klee, Paul, <u>Notebooks</u>, <u>Volume 1</u>, <u>The Thinking Eye</u>, Lund Humphries, London, 1969.
- 35. Koetter, Fred, "Notes on the In-Between", <u>The Harvard</u> <u>Architecture Review</u>, [Beyond the Modern Movement], Volume 1, Spring 1980, MIT Press, Cambridge, Ma., 1980.
- 36. Koestler, Arthur, <u>Bricks to Babel</u>, Picador, Pan Books, London, 1982.
- 37. Krier, Robert, "Elements of Architecture", <u>Architectural</u> <u>Design</u>, Vol. 53, No. 9/10, September/October, 1983.
- 38. Kroll, Lucien, "In Search for Diversity", <u>Spazio e</u> <u>Societa</u>, <u>Space and Society</u>, No. 23, September 1983, Sansoni / MIT Press, Cambridge, Ma., 1983.
- Lynch, Kevin, <u>Theory of Good City Form</u>, MIT Press, Cambridge, Ma., 1983.
- 40. Miller, Zane L., and Roth, George F., <u>Cincinnati's Music</u> <u>Hall</u>, Jordan and Company, Virginia Beach, Virginia, 1978.
- 41. Millino, Carlo, and Graffi, Carlo, "Il Nuovo Teatro Regio di Torino", <u>L'architettura</u>, Anno 20, No. 6, Ottobre, 1974, pp.356-375.
- 42. Pastier, John, "Distillation of a Paradoxical City", <u>Architecture</u>, May 1985, pp.202-207, 1985.
- 43. Pfankuch, Peter, <u>Hans Scharoun</u>, Akademie der Kunste, Berlin, Gesamtherstellung Bruder Hartmann, Pub., Berlin, 1974.
- 44. Piene, Otto and Goldring, Elizabeth, editors, <u>Centerbeam</u>, MIT Center for Advanced Visual Studies, MIT Press, Cambridge, Ma., 1980.
- 45. Polanyi, Michael, and Prosch, Harry, <u>Meaning</u>, University of Chicago Press, Chicago and London, 1975.



- 46. <u>Progressive Architecture</u>, [Portfolio], "Speaking in Metaphors", September, 1983.
- 47. Rowe, Colin, and Koetter, Fred, <u>Collage City</u>, MIT Press, Cambridge, Ma.
- 48. Saalman, Howard, and Braziller, George, <u>Haussman, Paris</u> <u>Transformed</u>, New York, NY, 1971.
- 49. Salman, Ton, "The Art of Relativity", pp.176-183, Forum, Vol. 29, No. 4, Amsterdam, 1985.
- 50. Scruton, Roger, <u>The Aesthetics of Architecture</u>, Princeton University Press, Princeton, New Jersey, 1979.
- 51. Sennett, Richard, <u>The Uses of Disorder: Personal</u> <u>Identity and City Life</u>, Vintage Books, New York, 1971.
- 52. Smithson, Alison, ed., <u>Team 10 Primer</u>, MIT Press, Cambridge, Ma., 1968.
- 53. "Society for the Preservation of New England Antiquities", historical photographs.
- 54. Stango, Nikos, editor, <u>Concepts of Modern Art</u>, Harper and Row, New York, 1974.
- 55. Stewart, H. Michael, editor, <u>American Architecture for</u> <u>the Arts Vol.1</u>, Handel and Sons Publishing, Dallas, 1978.
- 56. Tafuri, Manfredo, <u>Theories and History of Architecture</u>, Harper and Row, New York, 1976.
- 57. <u>Teatrie E Scenografie</u>, Turing Club Italiano, Milan, 1976.
- 58. Thiel, Valerie, <u>The Forgotten Facade</u>, M.Arch Thesis, MIT, 1980.



- 59. Turner, Frederick, "Cultivating the American Garden", <u>Harpers</u>, August 1985, pp.45-52, New York, 1985.
- 60. "Urban Design Studio: Kenmore Square", MIT, Spring, 1985.
- 61. Whitmore, T. C., "On Pattern and Process in Forests", <u>The Plant Community as a Working Mechanism, Special</u> <u>Publication Series of the British Ecological Society,</u> <u>Number 1</u>, E.I Newman, Ed, Blackwell Scientific Publications, Oxford, London, Edinburgh, Boston, Melbourne, 1982.
- 62. Wilson, Robert, <u>the CIVIL wars a tree is best measured</u> <u>when it is down</u>, American Repertory Theatre publication, Cambridge, Ma., 1985.
- 63. Yau, John, "Hiroshi Sugimoto: No Such Thing as Time", Art Forum, Vol. 22, April 1984, pp. 48-52.
- 64. Zevi, Bruno, <u>The Modern Language of Architecture</u>, Van Nostrand Reinhold Company, New York, Cincinnati, Toronto London, Melbourne, c 1978, paperback, 1981.





T∉3

