

FITTING INTO BOSTON'S BACK BAY

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F I T T I N G I N T O B O S T O N ' S B A C K B A Y

by

Erich G. Theophile

Submitted to the Department of Architecture on January 16,
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degree of Master of Architecture

A B S T R A C T

This thesis explores alternative facade system for a recent office building in an historic district, focusing on how the facade--through rhythm, organization, scale, color, and texture--can relate to and enhance its context. The project is inspired by Brent Brolin's work on fitting new buildings in with old. His Architecture in Context documents how architectural means can create visual continuity in addition and infill building projects. This thesis develops Brolin's approach through (1) identifying and describing four components of visual continuity in the urban landscape: rhythm, organization, scale, and color/texture (2) focusing on the problem of fitting in a new building much taller and longer than its neighbors and (3) limiting design work to the facade system to understand its particular role in negotiating contextual relationships.

Thesis Supervisor: John R. Myer

Title: Professor of Architecture, Head of the Department

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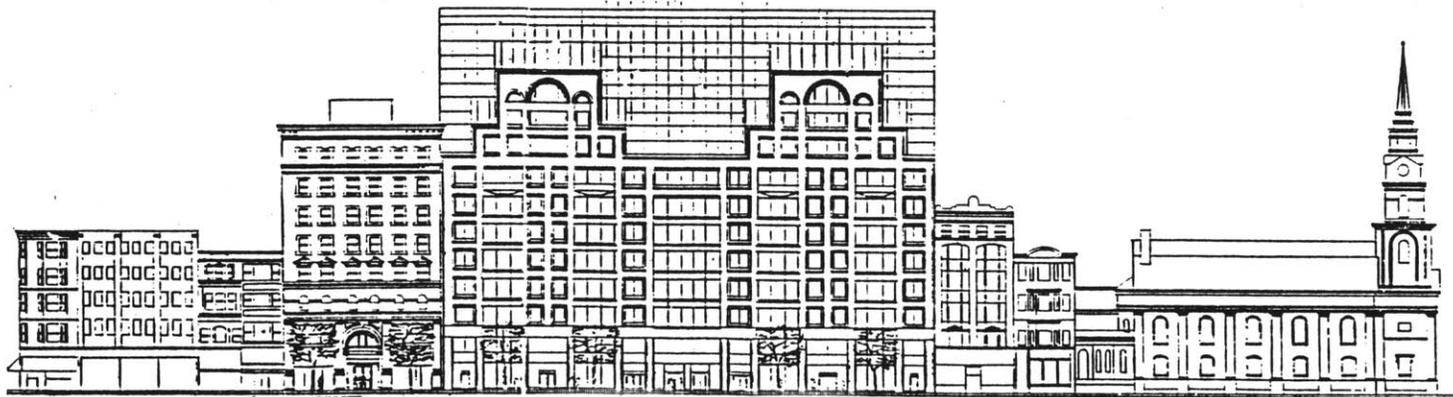
I N T E N T I O N S

Brent Brolin describes visual continuity as a quality of the architecture surrounding every urban place he has loved. In contrast to the majority of historic district regulations which rely on rules, Architecture in Context suggests that for every rule one can make to maintain visual continuity, there is a successful building that breaks it. Christian Norberg-Schulz has developed a model for understanding the "spirit" of a place which supports Brolin's anti-rule philosophy. Place character is a complex psychic and psychological interpretation which can arise from many environmental cues. Regulating the number of muntins in a window cannot guarantee a continuity in the spirit of place. This thesis attempts to generate and describe architectural solutions to fitting a facade into the Back Bay, thereby contributing to the literature on intelligent and diverse approaches to increasing urban continuity.

I N T R O D U C T I O N

This thesis explores the idea of "fitting in" through the redesign of facade for 399 Boylston Street, a recent office building with street level shops designed by Childs, Bertman, and Tseckares. The 250,000 square foot building is thirteen stories tall and two hundred feet long; the norm on Boylston Street is four to six stories and twenty to sixty feet long. Boylston Street, one of the four main streets which make up the Back Bay, is primarily commercial (along with Newbury Street), while the rest of the area is almost exclusively residential.

This building is chosen for several reasons. It stands in a designated historic district, the Back Bay which provides a positive neighborhood image. The building, although a good deal larger than most of the Back Bay fabric, is dwarfed by several projects on the drawing boards for Boylston Street. Thus, the problem of fitting in bigger buildings is timely. Lastly, 399 has been lauded by local architectural critics for its specific ability to fit into Back Bay. This project seeks to expand the range of architectural solutions to contextually sensitivity by understanding one successful solution and generating and evaluating alternatives.



399 BOYLSTON STREET

I N T R O D U C T I O N continued

The project focuses on the facade as an independent design problem because: (1) a building in the middle of a typical city block is perceived almost exclusively through the principal facade and (2) through working with the existing building's structure, size, and uses, the designer demonstrates a range of facade possibilities within the constraints of a viable building program.

The architectural means by which 399 Boylston Street does fit in are (1) its suggestion of several buildings rather than one (2) use of setbacks to diminish the effect of the height of the building (3) use of several contrasting materials (brick, limestone, and black metal and glass framing) to continue the colorful effect of commercial Back Bay facades. Problems include: (1) the lack of connection between the lower and upper portions of the building (2) the inappropriateness of the building's large scale symmetry to a street's serial nature and (3) lack of articulation on the smaller scales which gives a stark and uniform impression despite the diversity of its fenestration patterns and materials. This project attempts to reconcile these problems.

WORKING METHOD

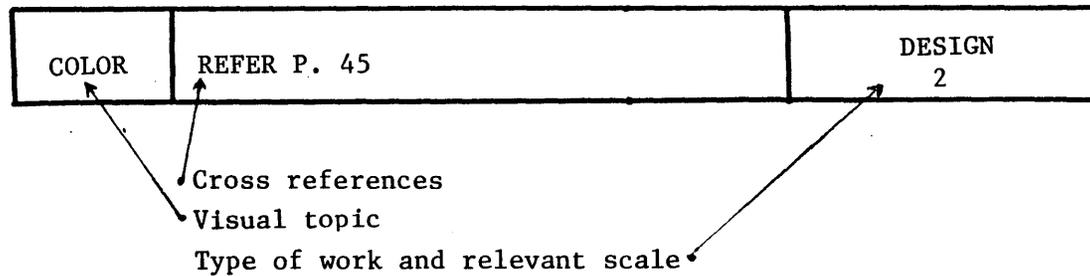
This project has involved parallel work in (1) understanding the Back Bay and Boylston Street--what formal characteristics make the Back Bay feel like the Back Bay? (2) generating design alternatives for the facade and (3) developing a matrix to discuss and organize observations, ideas, designs, and evaluations. This matrix has directed much of the work this semester and structures the thesis booklet. It organizes materials in three ways: (1) by four components I have chosen to try to describe visual continuity--rhythm, organization, scale, and color/texture (2) by the type of work--context analysis, reference gathering (strategies), and design and (3) by scale--district, block, building, and building element. The thesis generates written and primarily visual materials relevant to the discussion of "fitting buildings in". Design work includes a number of solutions developed in different media and to different degrees of specificity. The structure of the matrix organizes the presentation of the work, supplemented by summaries of each section and references on each page to pertinent material in other sections.

	RHYTHM	ORGANI- SATION	SCALE	COLOR TEXTURE
CONTEXT				
REFERENCES (STRATEGIES)		AT THE DIFF'T SCALES		
DESIGN				

WORK PRODUCTS

The thesis is structured so that it is accessible without having to be read in its entirety. Each page is identified first by the component of visual continuity under discussion and then by the type of work and the relevant scale. (District, block, building, and building element scales are represented by the numbers one through four, respectively.) Each section of the booklet focuses on one of the components of visual continuity and goes through context and reference work in all scales before introducing design work. Summaries at the beginning of each section describe the direction of the work; conclusions relating the different sections and suggesting directions for future work close the thesis.

Typical page label



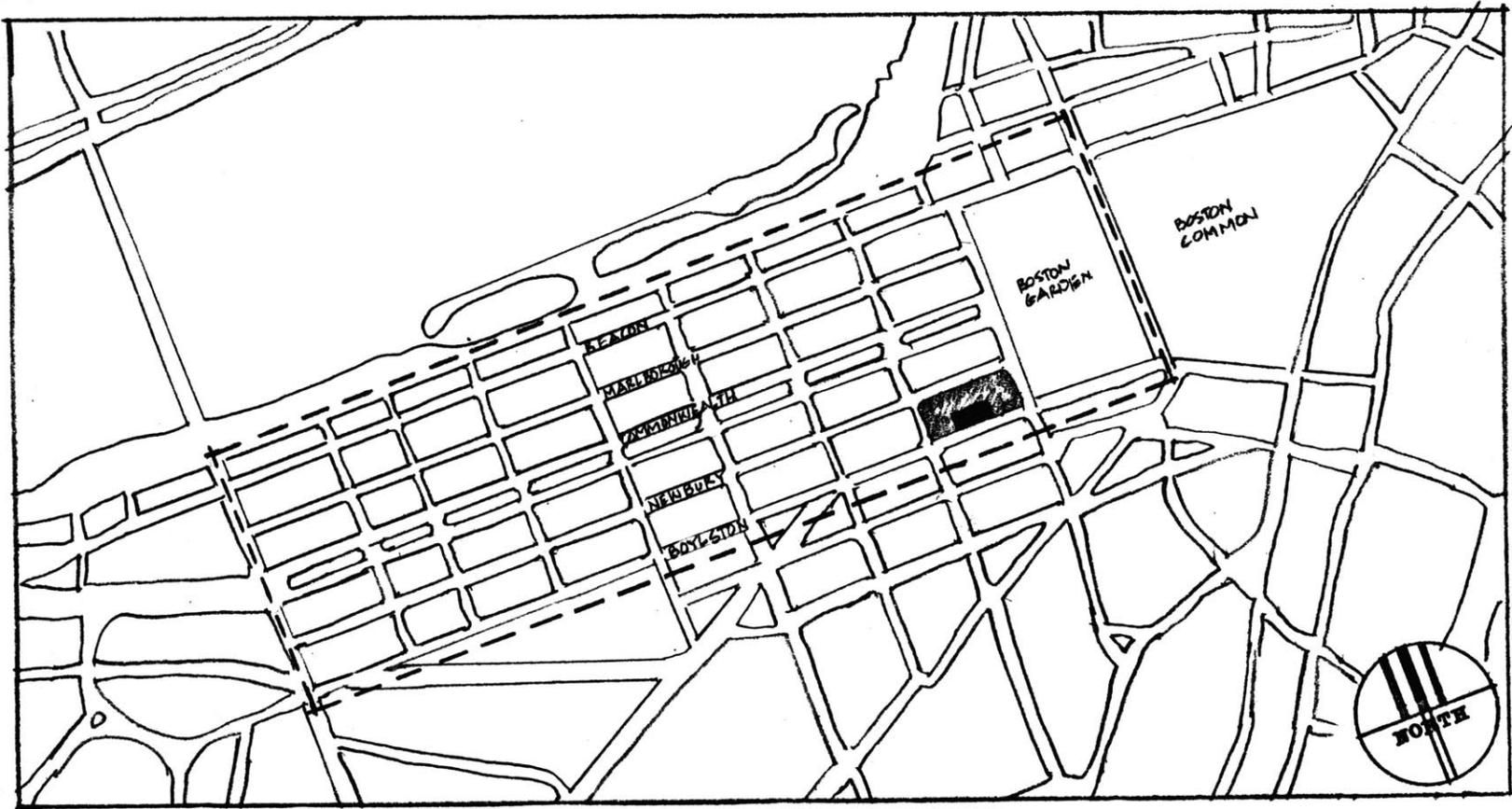
R H Y T H M S U M M A R Y

Rhythm is perhaps the most important of the four components discussed for a project of this size because one has to explore the limits of repetition to suggest both one building and the sense of a "gathering" of buildings.

Contextual analyses identify the block rhythms particular to the commercial areas of Back Bay which constitute a sub-district. Two key features to this rhythm are (1) the undulating quality of the skyline and (2) the Morse Code-like rhythm of small and large buildings (i.e. -- . . --- . . .large-small small-large-small-small-small et cetera). The complex rhythms of the individual buildings and building elements are discussed. Most of the contextual work focuses on the opposite block because (1) it is part of the immediate visual field into which 399 must fit and (2) it seems an exemplary block of the Back Bay commercial "type".

Strategies document buildings which are articulated to suggest a "gathering" of buildings. The rhythmic qualities of these buildings in overall organization and articulation of the bay are discussed.

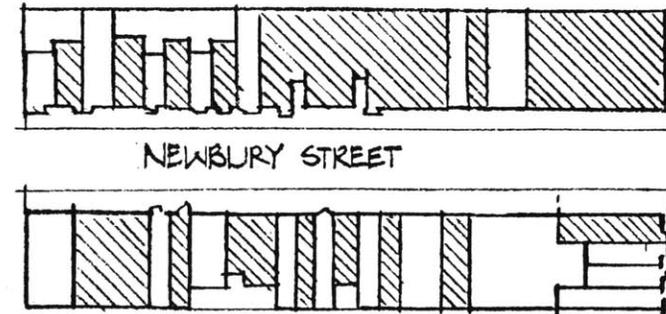
Design work attempts first to generate rhythmic strings that will not break the surrounding rhythms and then to reconcile these rhythms with a sense of the building as a whole. A range of diagrammatic alternatives are introduced, four of which are developed to varying degrees of specificity through clay and cardboard models, elevations, and perspectives.



The Back Bay is one of several identifiable districts on the Boston peninsula. Rhythm on the district scale is suggested by the regular block

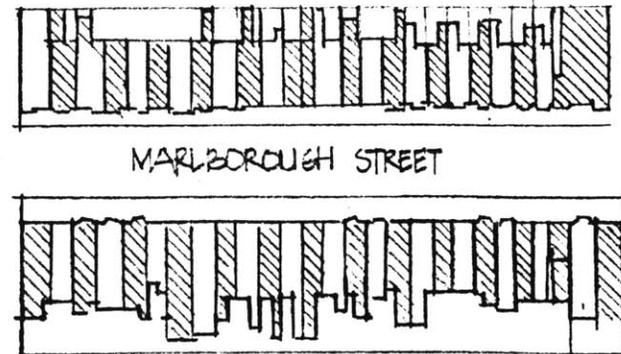
size—longer on main streets, shorter on the side streets. The site block is shaded. Commercial street blocks

RHYTHM		CONTEXT 1
---------------	--	----------------------------



Rhythm on the block scale is determined by the grain of defining buildings. Boylston and Newbury Streets differ from the residential streets in their composition of a range of building sizes. Street plan with alternating buildings shaded describe the complex rhythm.

RHYTHM		CONTEXT 1
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Note the very consistent grain and regular rhythm of the residential streets.

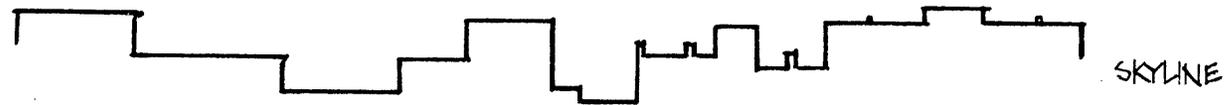
RHYTHM		CONTEXT 1
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The south side of Boylston Street opposite the block of the site will be focused on in context analyses because: (1) it is part of the visual field seen with the design site and (2) it is

not only typical but exemplary in representing the flavor of commercial Back Bay, relatively free from insensitive alterations or additions.

RHYTHM		CONTEXT 2
---------------	--	----------------------



SKYLINE



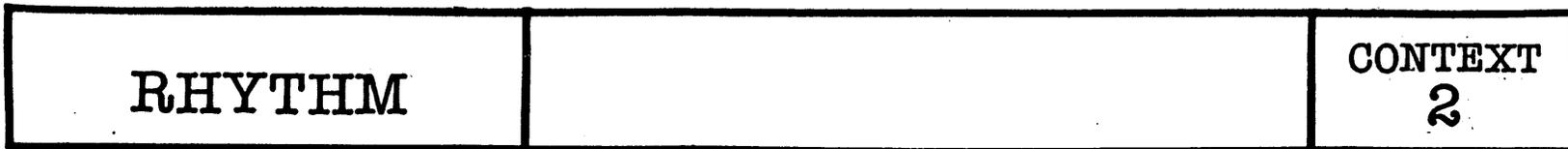
BUILDING

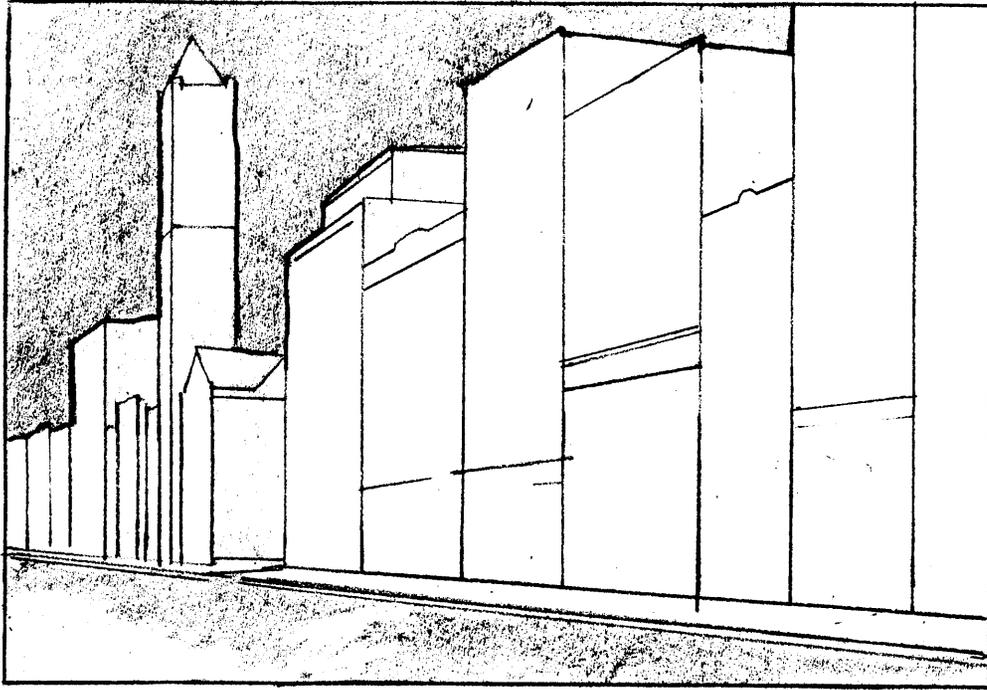


SENSE OF BUILDING



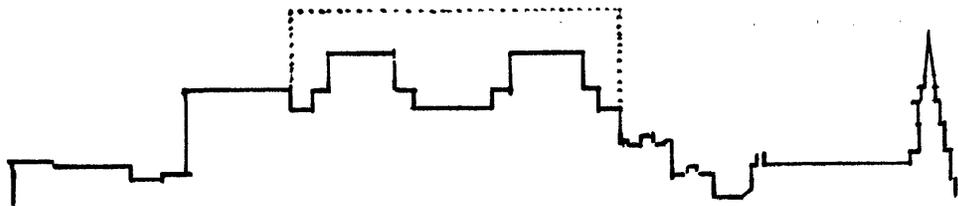
The opposite block is diagrammed by (1) skyline (2) building & (3) "sense" of building. Facade articulation, proportion, and changes in skyline suggest these readings of buildings within buildings. The diagrams suggest (1) a waltz rhythm with short beats dividing longer ones and (2) a sine curve which modulates up and down with varying frequencies and ranges. The large building on the right end breaks the flow a bit with its length and almost unrelieved skyline.



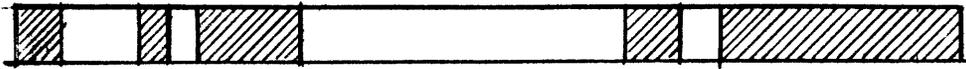


Seen in perspective the up and down rhythm is given a sense of mass by the masonry fire walls. Boylston Street opposite Copley Square is shown.

RHYTHM		CONTEXT 2
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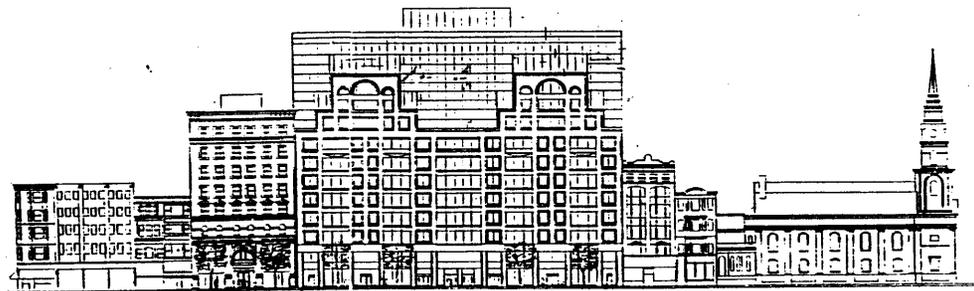
SKYLINE



BLDG.



SENSE OF BLDG.



The setback of the upper portion keeps it out of view from sidewalk--hence dotted line.

Gable profile of 399 reinforces up-down rhythm effectively, but doesn't seem to go down enough in the middle. Similarly a lack of readings of smaller buildings in the middle of the building destroys the rhythm of smaller buildings weaving together larger ones, as described by a waltz rhythm.

RHYTHM

pp. 32-5

CONTEXT

2



Perspective view: from across the street the effectiveness of the skyline rhythm is reduced by a two-dimensional reading. A glass curtain wall cloud hangs over--sometimes receding, other times advancing depending on the light.

RHYTHM

p.43

CONTEXT

2



NEW ENGLAND LIFE BLDG.

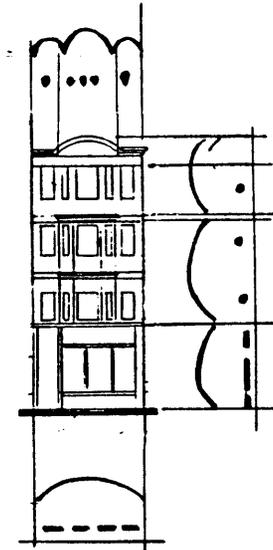
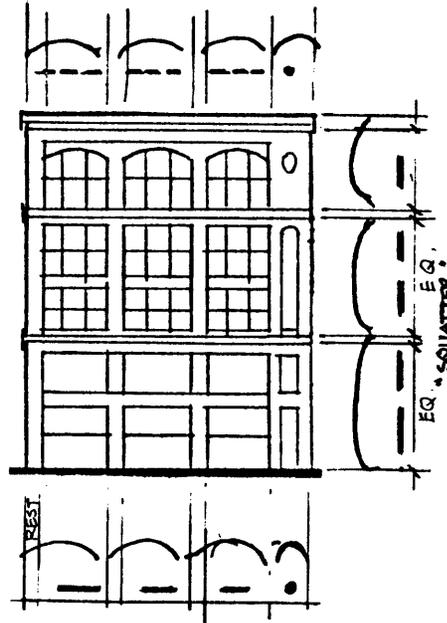
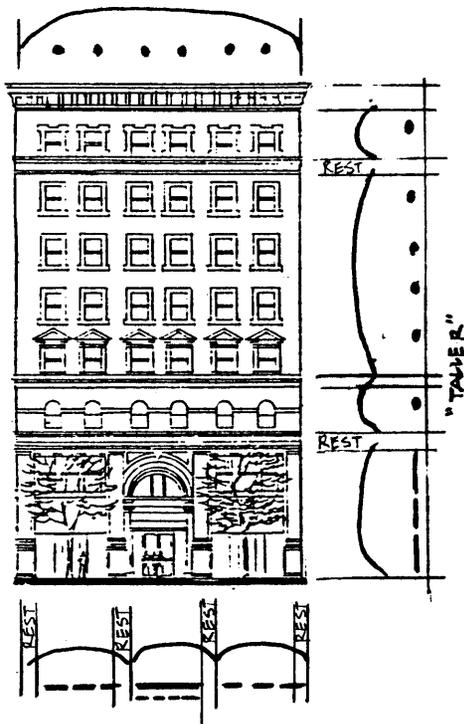


THEATER DISTRICT

The New England Life Building , one block west of 399 on Boylston Street, is also much bigger in length and height from the Back Bay fabric. Its repetitive facade articulation in both directions associates it with parts of the Theatre District a few blocks away, not at all with its surrounding streetscape.

RHYTHM

CONTEXT
2



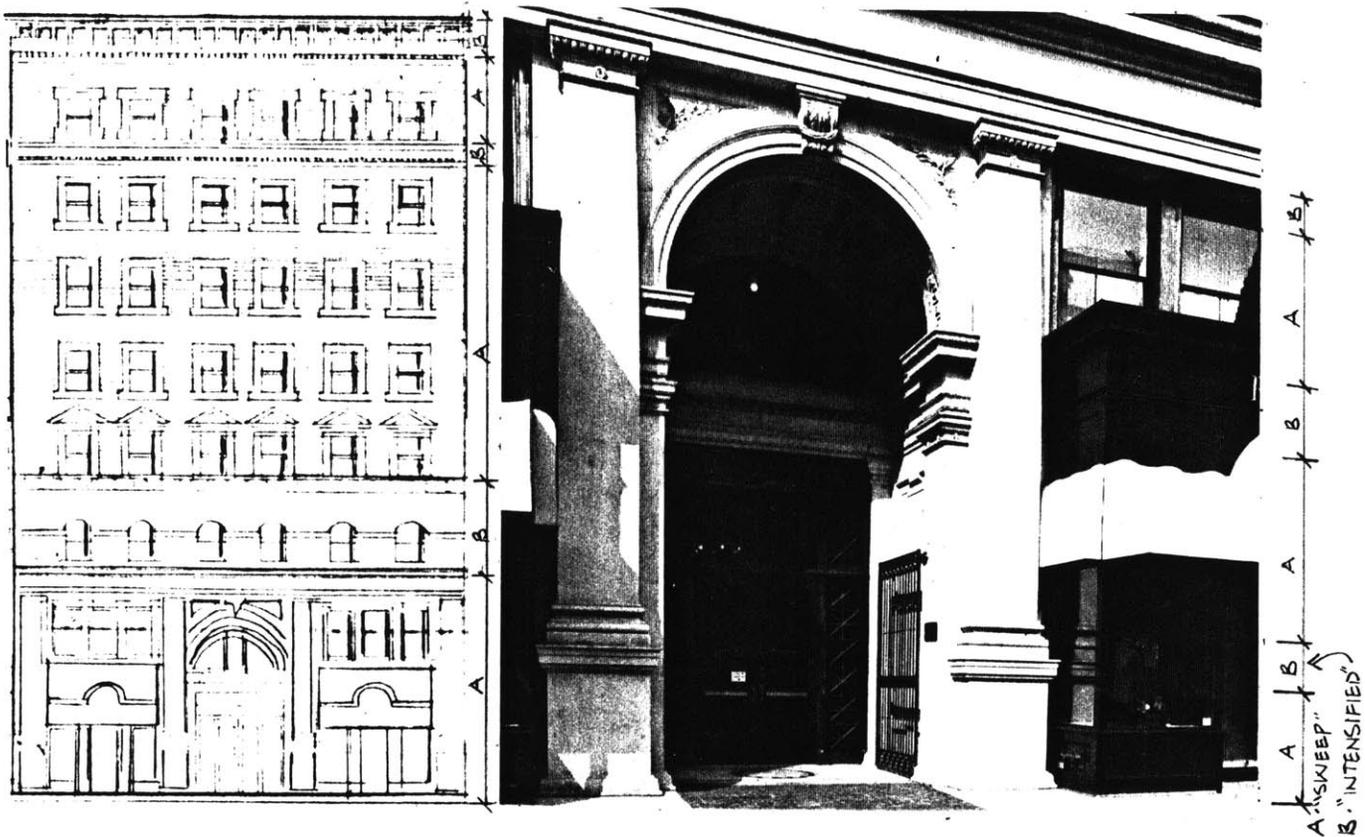
The rhythmic measures of individual buildings often have "rests". Individual elements (dots) create staccato rhythms; framework elements (dashes) create smoother rhythms. Rhythms across

a building change in the different zones going up with faster rhythms (more smaller beats) at the top. Vertical rhythms are broken down to phrases of varying lengths, a big range in variation suggests tallness, more equal phrases stacked suggest a rooted in the earth quality.

RHYTHM

p.40

**CONTEXT
3**



At the smallest scale, the building elements are composed of longer sweeps of similar rhythm or lack of rhythm, punctuated by intensifications. Pilasters at the entrance are microcosms of the rhythms of the overall facade as labelled.

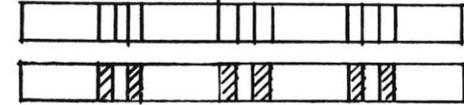
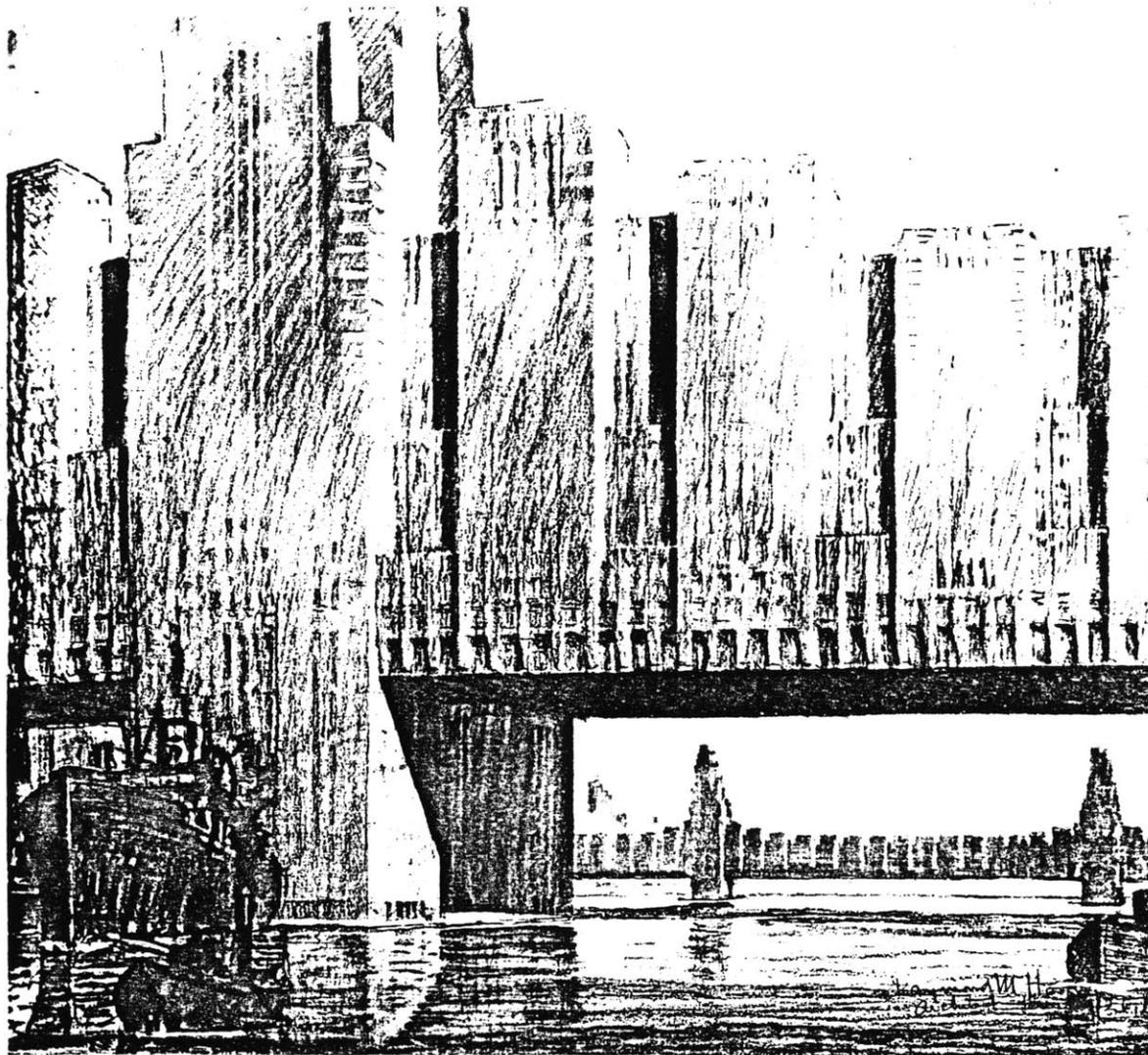
RHYTHM		CONTEXT 4
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The sweep upwards of windows in the brick wall is terminated by a big beat, the tall arched window. This big beat lacks the intensity or rhythms on a smaller scale. The limestone coping on the skyline lacks the rhythmic intensification which the dentils of the neoclassical cornices provide. It acts as a rhythmic element vertically (a white stripe of demarcation) but lacks articulation horizontally (along its length).

RHYTHM

CONTEXT
34



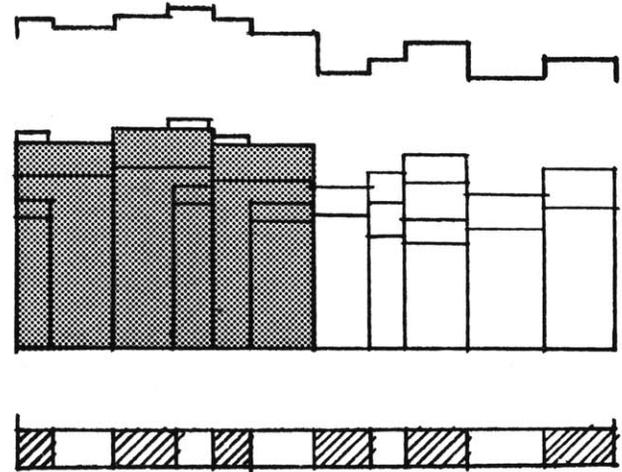
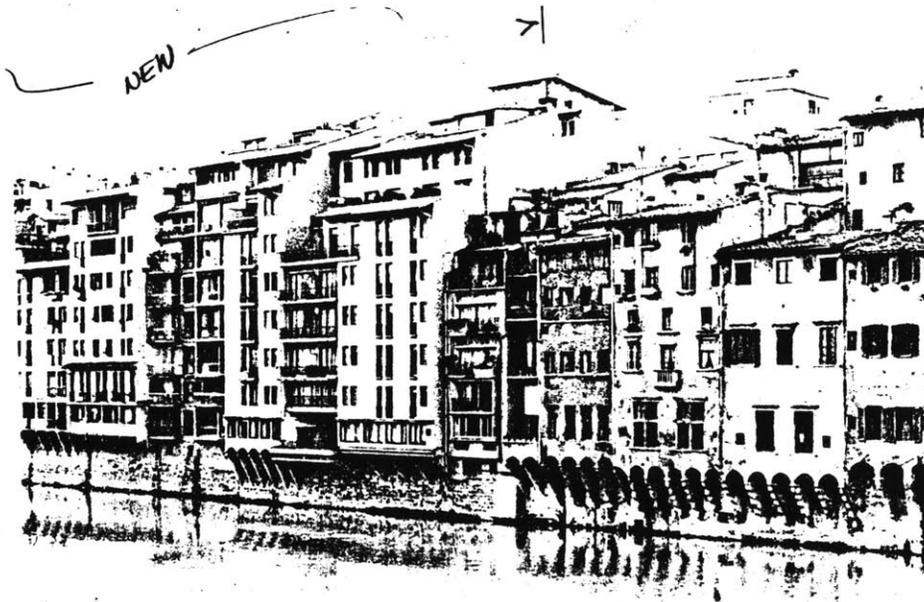
Raymond Hood's proposal for a bridge depicts the "up and down" skyline quality and the uneven beat of larger buildings woven together by smaller ones. It is achieved through a system of setbacks and articulation of sub-buildings of different lengths and heights.

RHYTHM	p.34	STRATEGY 2
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The Openbar Library in Amsterdam employs alternating brick and glass bays of different sizes to suggest the rhythm of a gathering of buildings close to the size of their neighbors. The framework rhythm of the glass contrasts the rhythm of separate elements on the brick, reinforcing the rhythm of buildings.

<p>RHYTHM</p>	<p>p.34</p>	<p>STRATEGY 2</p>
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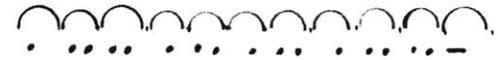
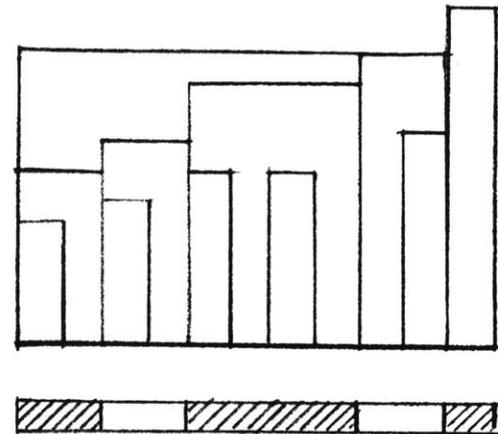


Whereas the Openbar Library on the previous page used slightly smaller "sub-buildings" separated by differently articulated bays, this housing project in Florence uses larger "sub-buildings" each with its own bay and dormer in different materials to continue the urban rhythm. This is perhaps more successful because there isn't a sense of gaps--the the Openbar glass bays suggest gaps: this project continues the crowded feeling of the riverscape.

RHYTHM

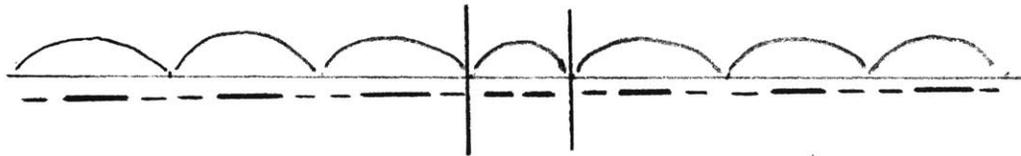
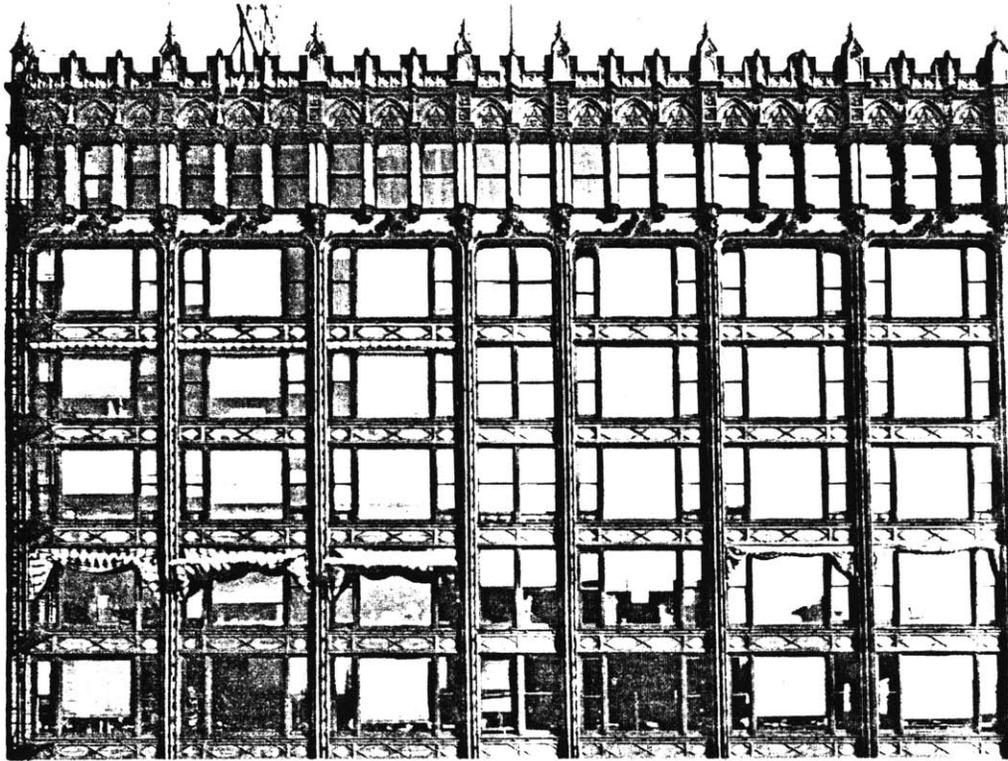
p.35

STRATEGY
2



Exeter Place on Newbury Street in the Back Bay was also designed by Childs, Bertman, and Tseckares. The directionality of the skyline contradicts the up and down quality of the area. Similar articulation of sub-building and bay destroys the effect of a grouping of smaller buildings.

RHYTHM		STRATEGY 2
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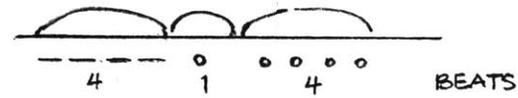
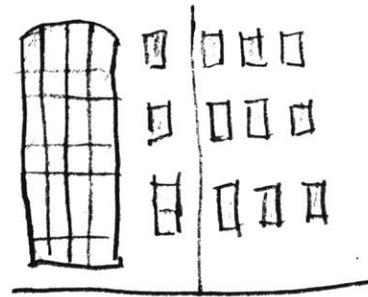


An early skyscraper in Chicago provides an example of a subtle change in rhythm along its length. Like the Back Bay buildings, its top has a faster and more intense rhythm than the lower portions.

RHYTHM

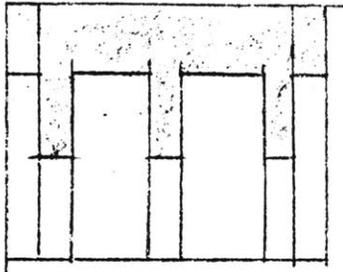
pp. 40,99

STRATEGY
3

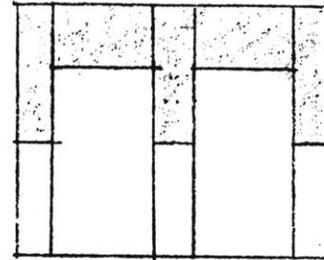
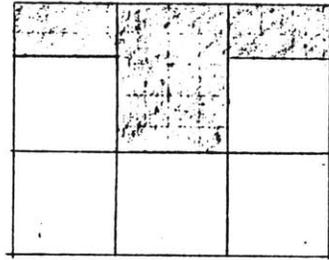


A building in the Back Bay uses three different systems of wall openings each with its own distinct rhythm. Dashes depict the more continuous beats of framework elements, dots the more staccato beats of objects.

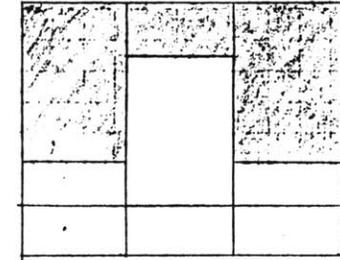
RHYTHM	p.43	STRATEGY 4
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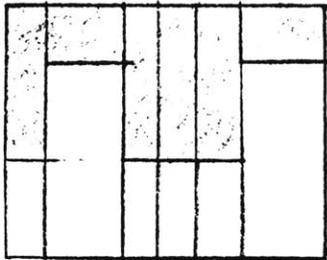
Symmetrical organizations



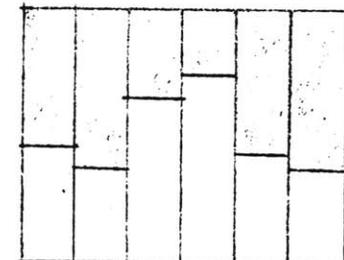
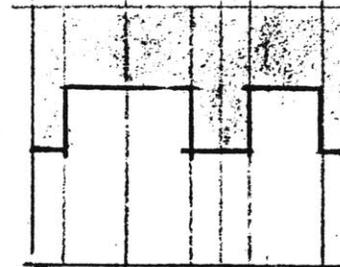
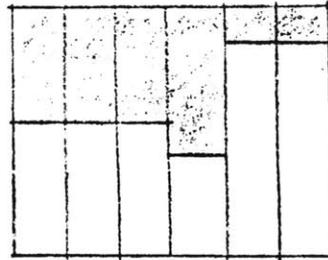
Most similar to existing building.



Scheme 1
Developed further for its simplicity.



Asymmetrical, non-serial organizations



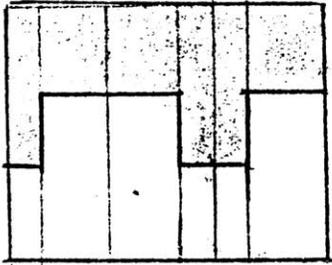
These schemes, although suggestive of Back Bay rhythms, are not developed because their lack of

ordering system does not mesh with the project's goal to develop facade systems.

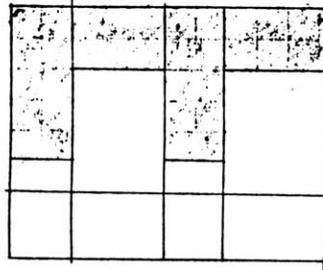
RHYTHM

These diagrams take the existing length and height of 399 and generate alternative schemes for suggestion of "sub-buildings" and setbacks.

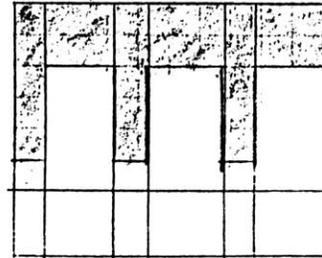
**DESIGN
2.3**



Scheme 4



Scheme 2

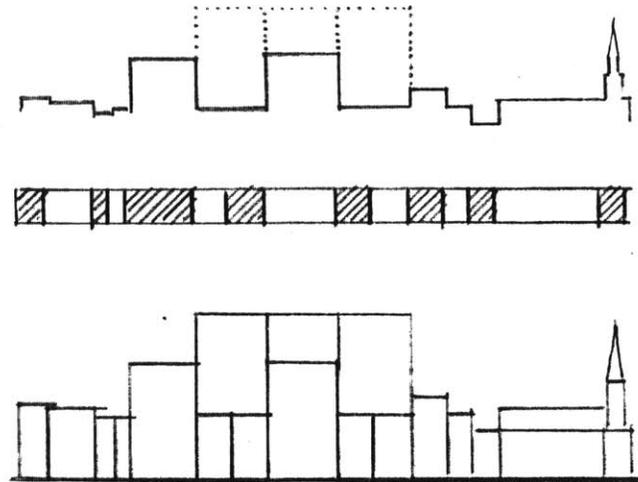
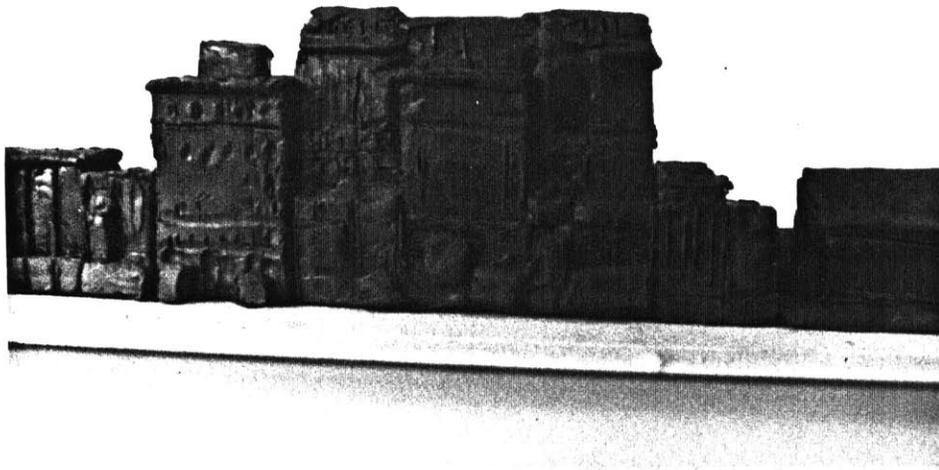


Scheme 3

Serial organizations

These three schemes are developed further in clay models and commented on in the following pages.

<p>RHYTHM</p>		<p>DESIGN 2:3</p>
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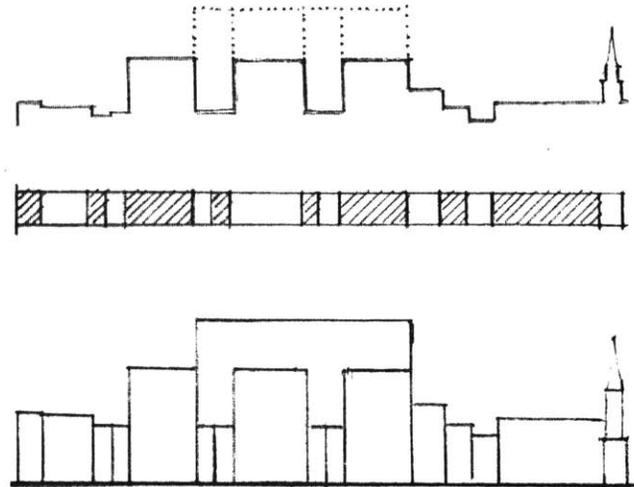
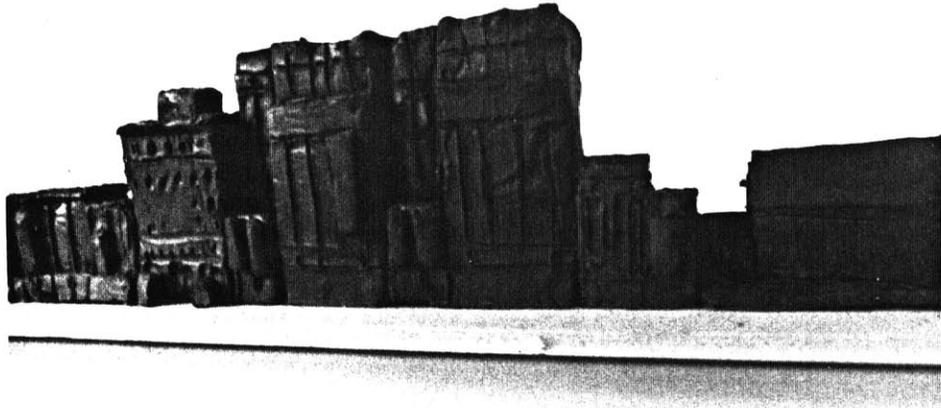
Scheme 1:

Maintains both the up and down skyline pattern and the irregular repeating rhythm of small buildings separating the large.

RHYTHM

p. 85

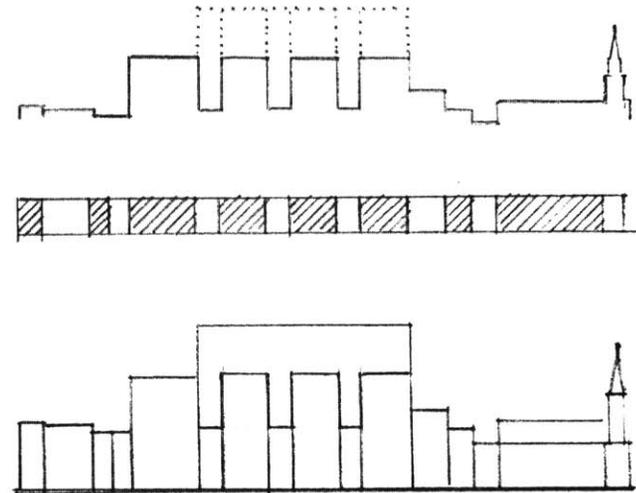
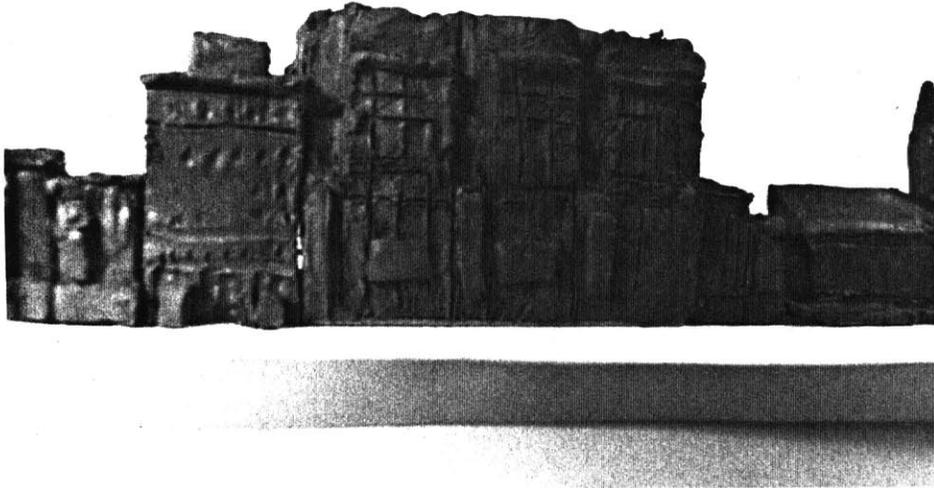
DESIGN
2



Scheme 2:

Like scheme one, maintains up-down rhythm and building size rhythm. The small beats of the lower buildings match those of other buildings in the block.

RHYTHM		DESIGN 2
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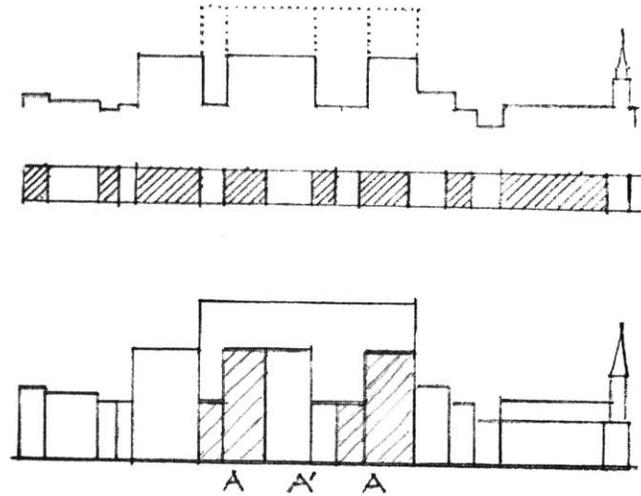
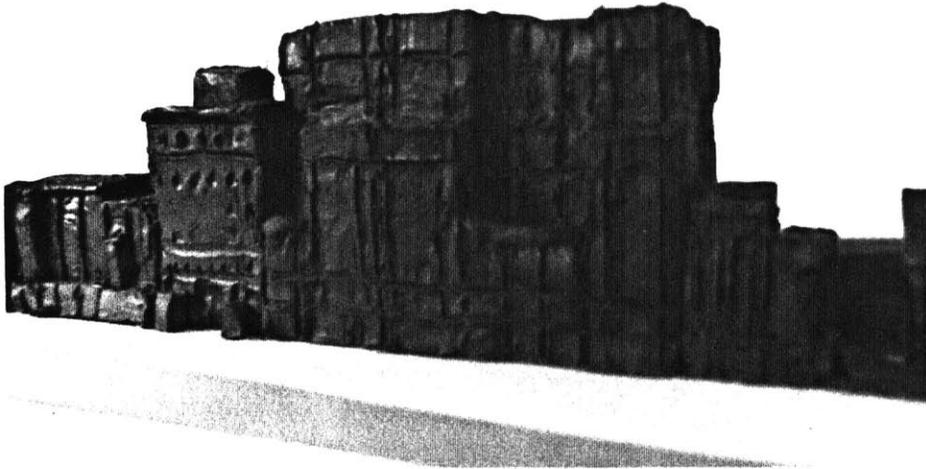
Scheme 3:

The up and down rhythm is too intense for the Back Bay--feels more like Manhattan.

RHYTHM

p.24

DESIGN
2



Scheme 4:

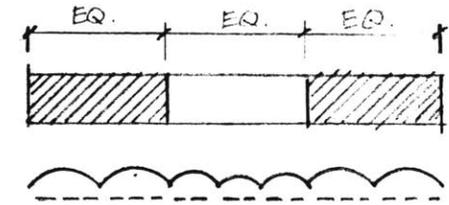
Rhythm of building sizes and skyline are maintain Back Bay patterns. Irregularity of skyline is especially intriguing.

This scheme uses the same system of repeated elements as the Florence housing strategy: two repeated elements separated by the same element in reverse, A and A' respectively.

RHYTHM

p.26

DESIGN
2

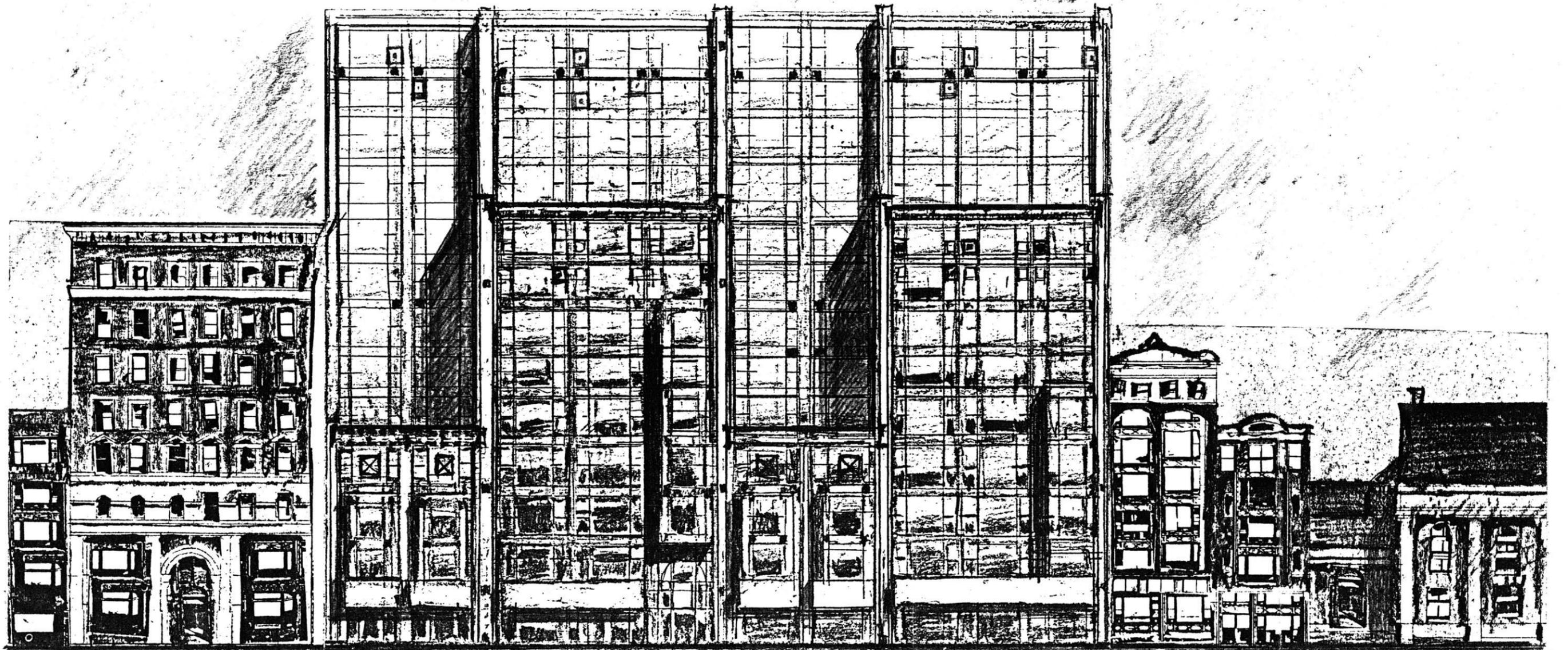


This perspective collage of scheme one suggests: (1) more varied rhythms of bay articulation & (2) less symmetry on a large scale are necessary to reading of a gathering of buildings.

RHYTHM

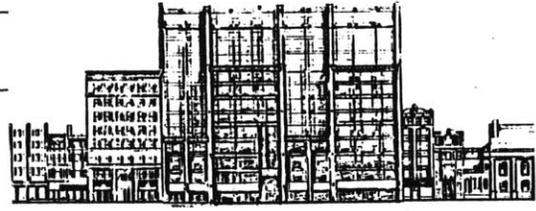
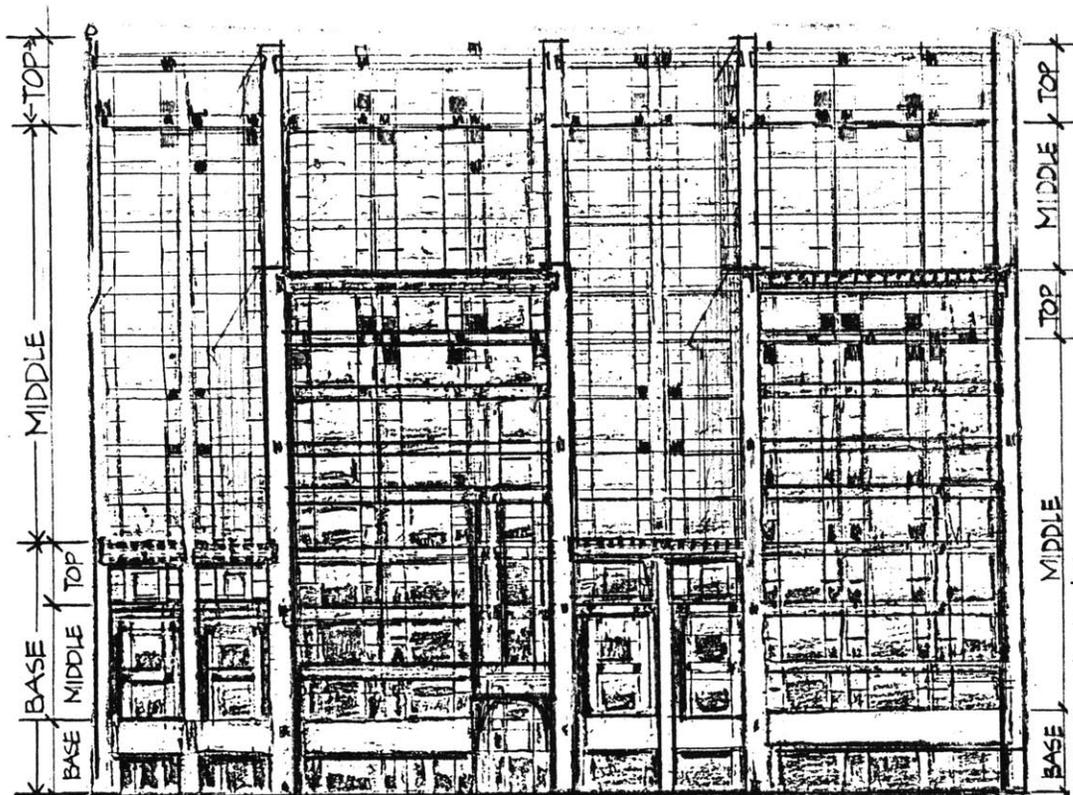
p. 48

DESIGN
2



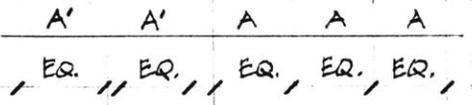
ELEVATION: 399 BOYLSTON STREET

Discussion on
following pages

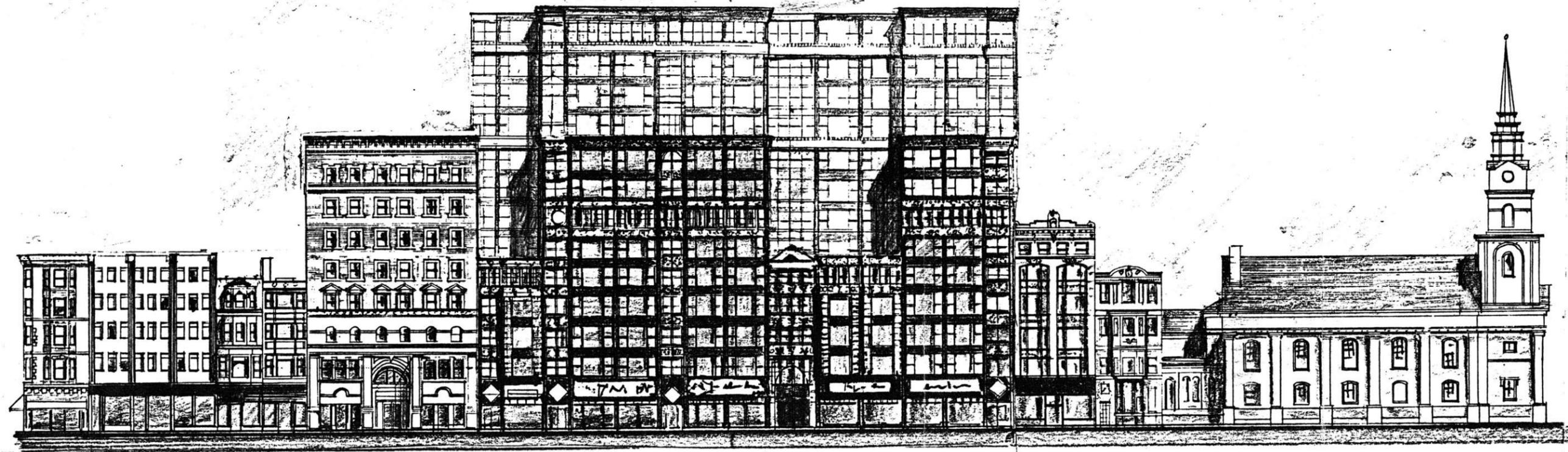


Development of scheme 2

Although the rhythm of the individual bay given by the Chicago school window fits in well, repetition of the same bay rhythm for the entire length breaks the variety of rhythms found in the rest of the block and across the street. Recessed areas between sub-buildings attempt to introduce rhythmic pauses.

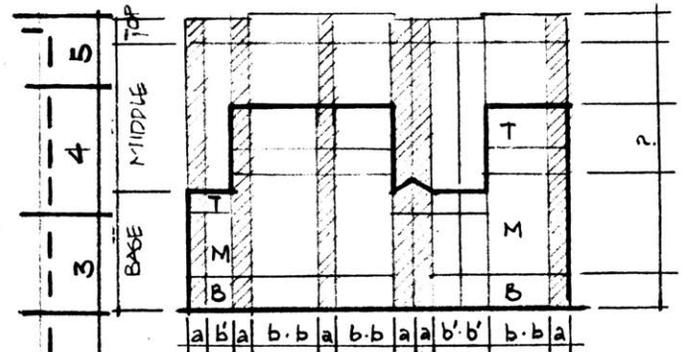
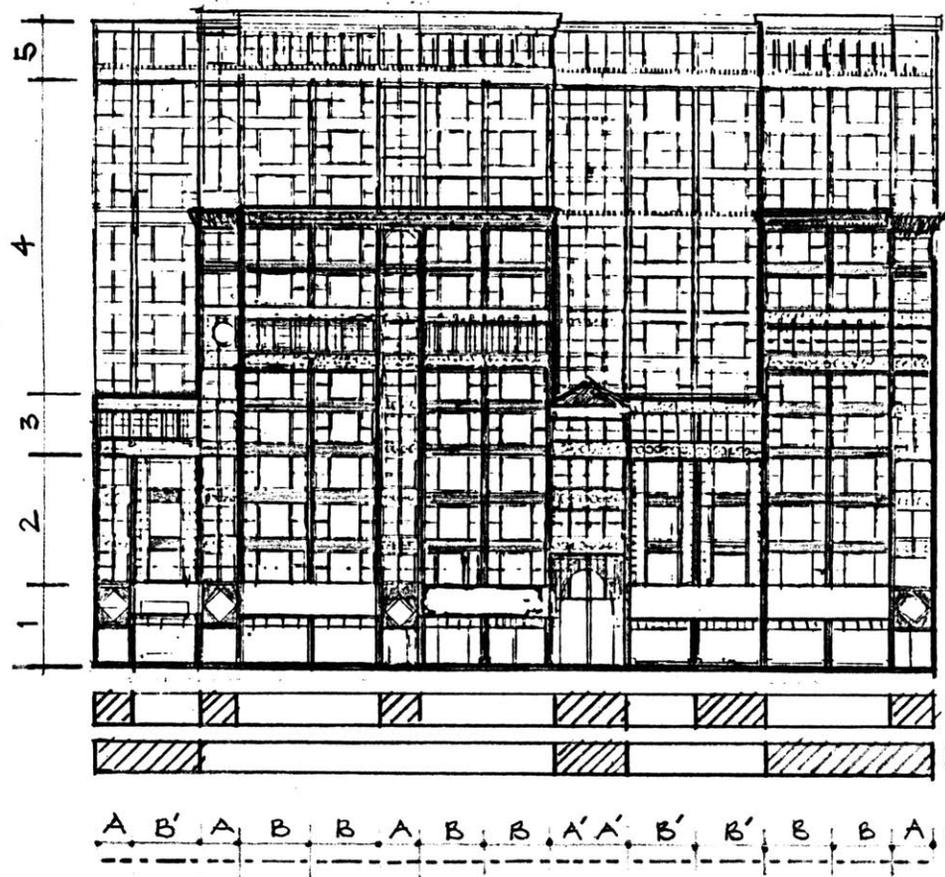


<p>RHYTHM</p>	<p>p.21.</p>	<p>DESIGN 2.3</p>
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ELEVATION: 399 BOYLSTON STREET

Discussion
on following
pages



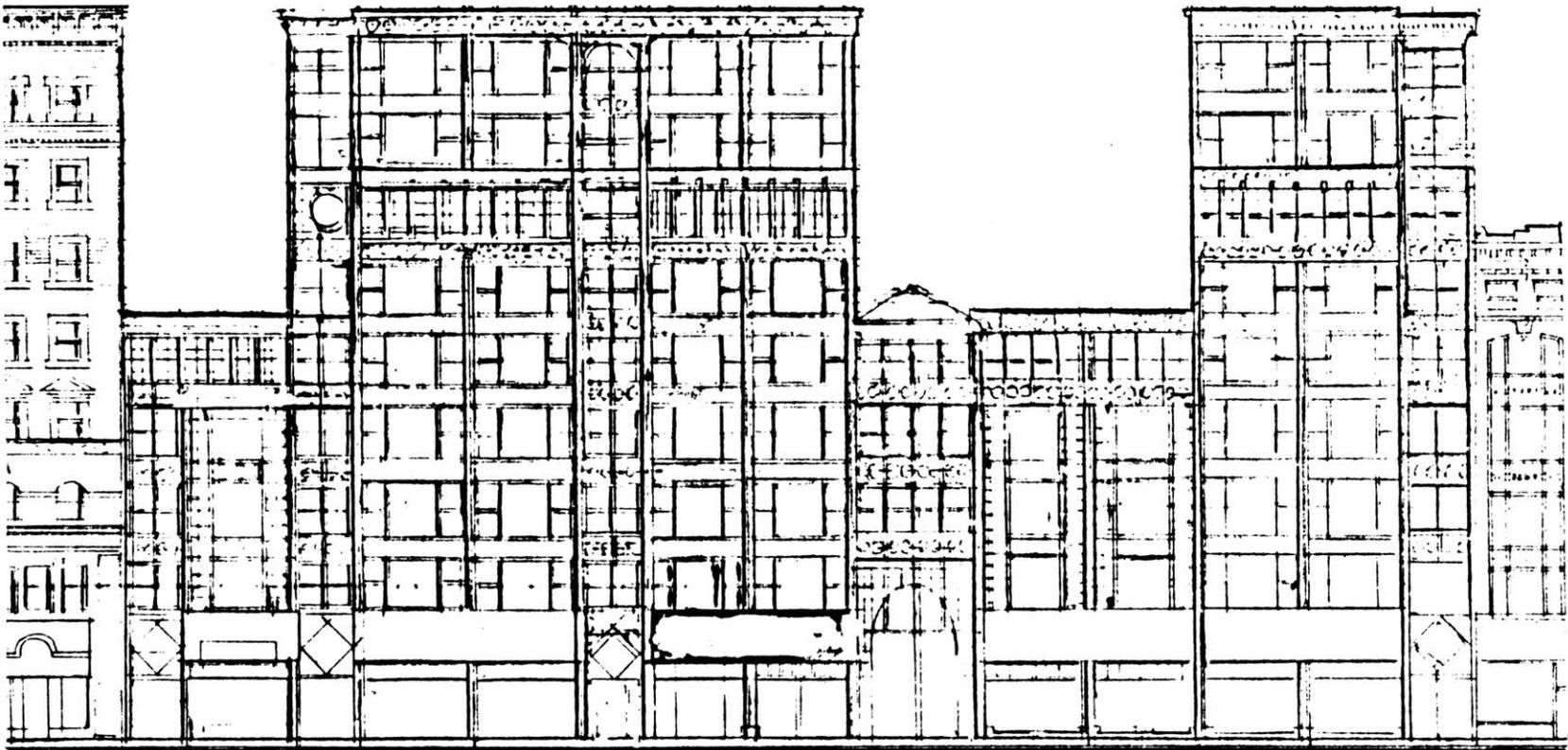
Development of scheme 4

2 Different bay rhythms are introduced by having two bay sizes, each with two variations. Different articulation of windows on certain floors suggest tops and bottoms. There still doesn't seem to be enough differences in rhythmic articulation to override the perception of one big building with a lot of little articulations.

RHYTHM

p.45

DESIGN
23



Development of scheme 4:

Looking just at the lower portions of the building the rhythmic differences seem sufficient.

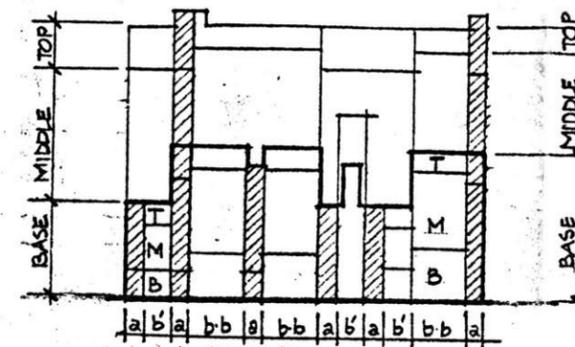
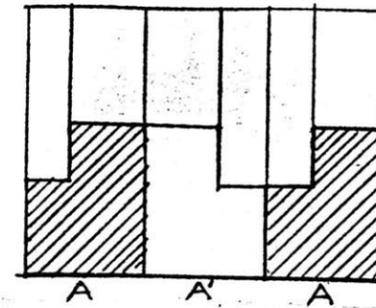
RHYTHM

**DESIGN
23**



ELEVATION: 399 BOYLSTON STREET

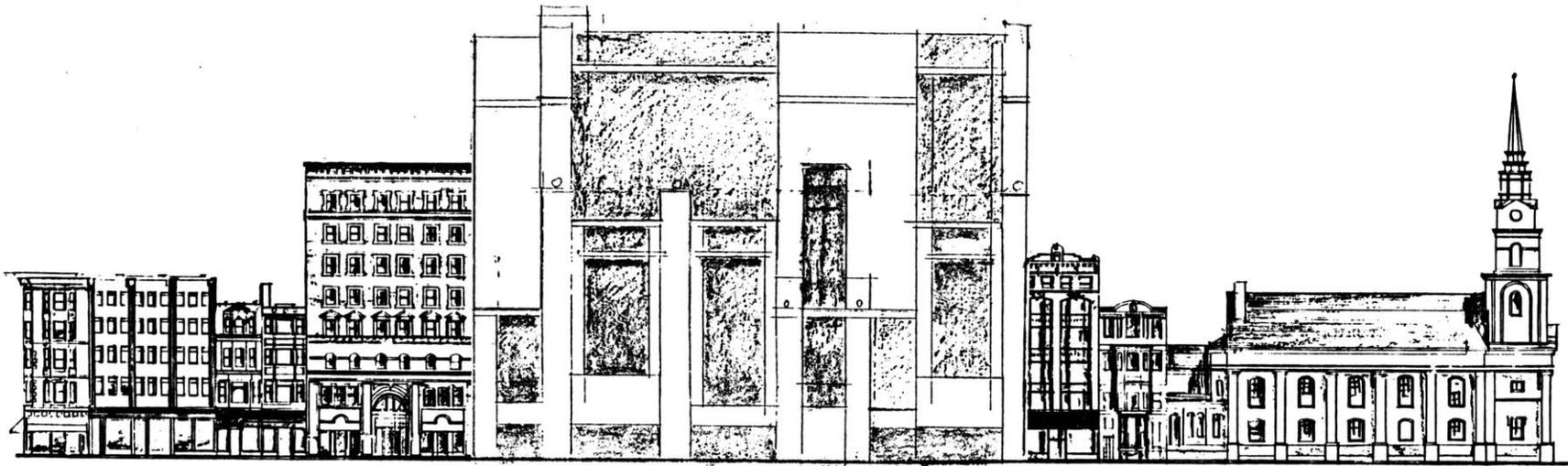
Discussion
on following
pages



Development of scheme 4

Using the same bay sizes and bay sequence along the length of the building, but making bigger differences between the two bay types has helped the reading of sub-buildings.

RHYTHM	p. 29	DESIGN 4
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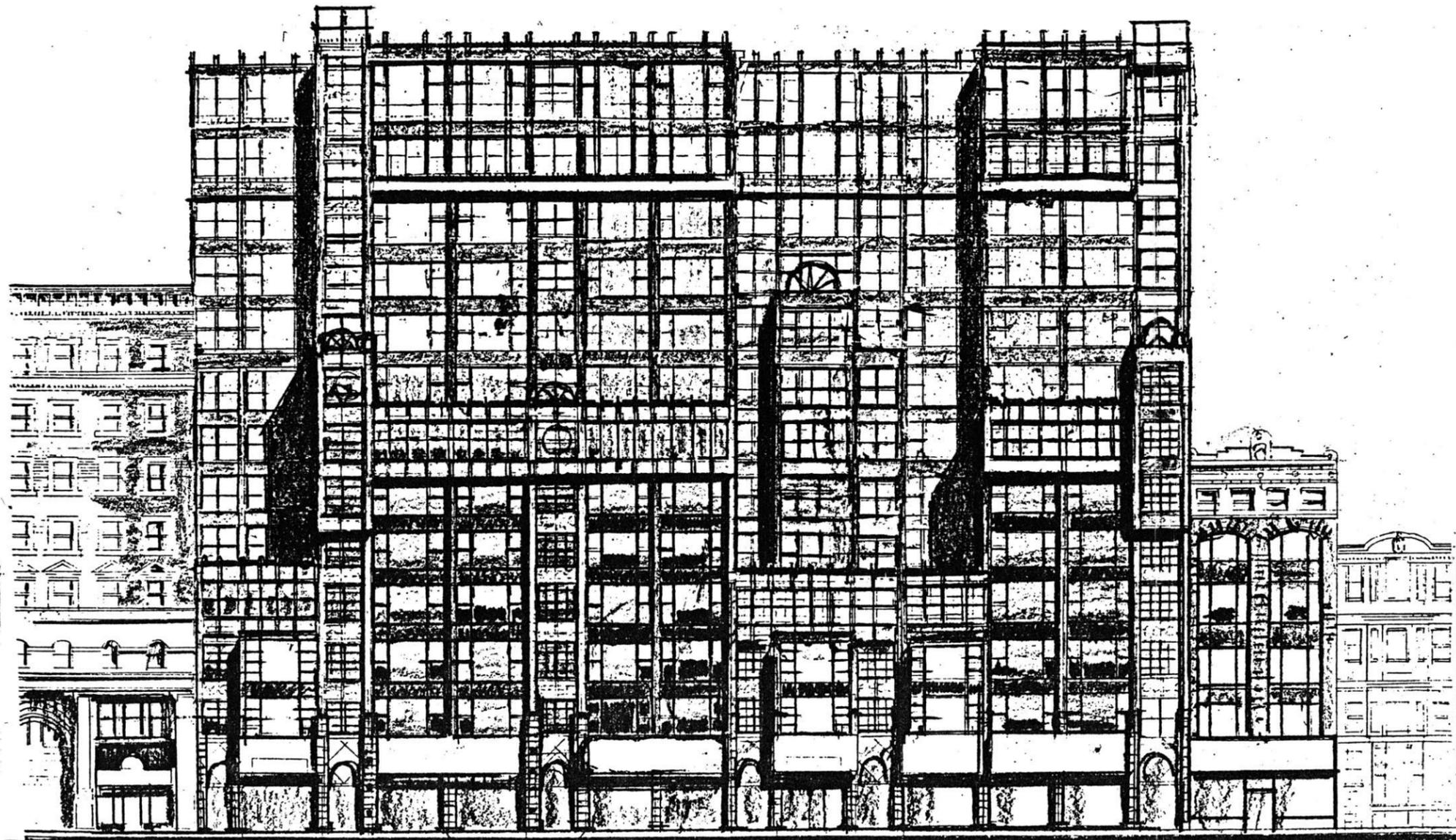
Development of scheme 4

Shaded area indicates steel and glass framework, unshaded indicates continuous cladding with punched holes. Varying the articulation of the bays in the upper building to demarcate fewer, bigger zones helps in the overall composition of the building. The upper portions are connected to the base but also have the sense of being "background" buildings. This scheme seems to reinforce street rhythms and propose a new rhythm for the setback areas.

RHYTHM

p.52

**DESIGN
3**



This variation on the previous scheme uses the same skin for the entire facade with variations in spandrel color and mullion patterns to organize the overall rhythmic composition. Extensions of the mullions over the "attic" spandrels suggest dentils. Whereas the bay system with two skin types is like a romantic symphony with easily recognizable differences in rhythms and voicings, this has the feel of Baroque polyphony in which more similar movements woven of the same materials suggest more subtle contrasts.

RHYTHM

DESIGN
23

ORGANIZATION SUMMARY

Based on analyses in the various scales of the immediate context, design goals are identified: (1) achieving a spirit of multiplicity within unity (2) articulating the facade to "rise and stand" like its neighbors, that is, with senses of base, middle, and top and (3) repeating and transforming building elements of its own and of its neighbors—the biggest challenge being to develop fresh interpretations of neighborhood forms related to the facade system.

Strategies document both streetscapes and individual buildings for clues to the problems outlined above.

Design work develops the sub-building schemes discussed in the rhythm section focusing on how bay types and their organization can integrate the building, while at the same time relate to the context. Different fenestration, bay, and spandrel articulations are explored as means to suggest base, middle and top zones of the building, sub-building, and building elements.



Alignment:

The most striking aspect of the organization of buildings on the block scale is that they are independent entities. One formal manifestation of this is the non-alignment of horizontals: even when adjoining buildings are composed of similar elements, there are slight shifts in registration.

ORGANIZATION

pp. 53, 73

**CONTEXT
1**

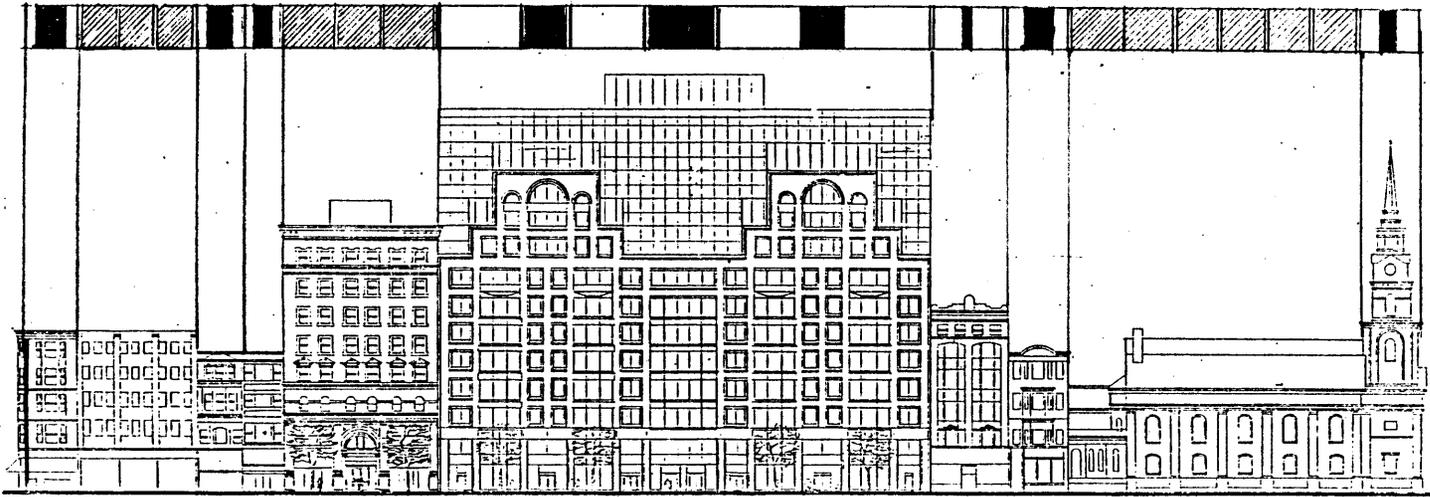


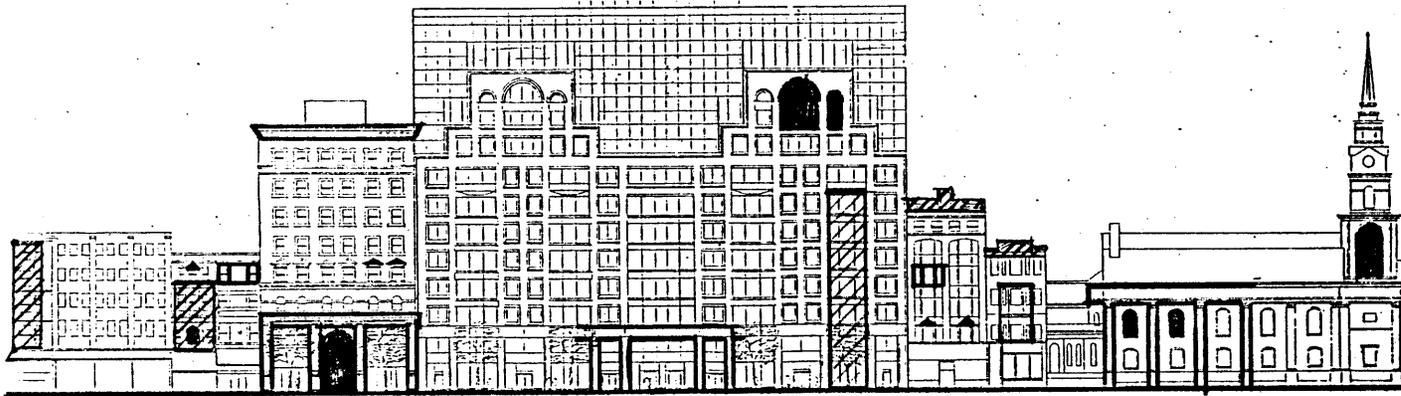
Diagram of symmetries established by hierarchical elements: cross-hatched bars represent bays and buildings not organized by lateral symmetry; black bars represent hierarchical elements around which

subordinate bays (white) are symmetrically placed. The two large scale symmetrical organizations contradict the serial nature of the street, suggesting monumental assembly rather than gathering.

ORGANIZATION

p.65

**CONTEXT
2**



Notice the ubiquity of the round top in many locations and proportions.



Diagram of the repetition and transformation of elements on the block scale:

Notice repetition of multistory bay windows, plain and gable-type cornices, pediment-like window tops, ground floor pilasters with entablatures, and storefront glass and metal frameworks. Window types and the numbers they occur in are repeated: there are many double hung and Chicago school windows which are

usually found in sets of two and especially of three. 399 has a sufficient range of window sets (twos, threes, and fives), but their spacing does not reinforce the different patterns. In addition the different mullion patterns make association difficult.

ORGANIZATION

pp.68,73

**CONTEXT
2**

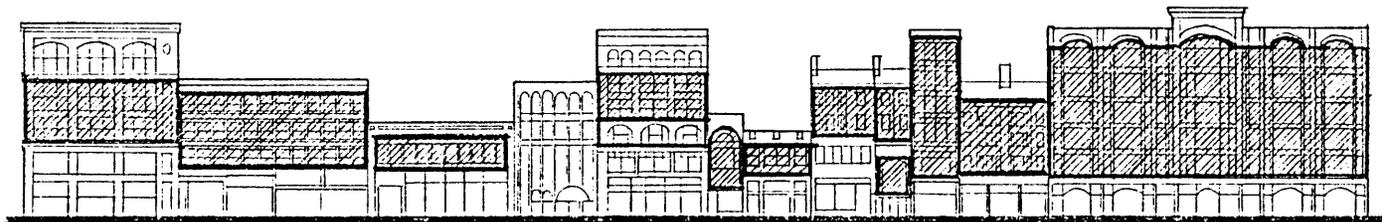
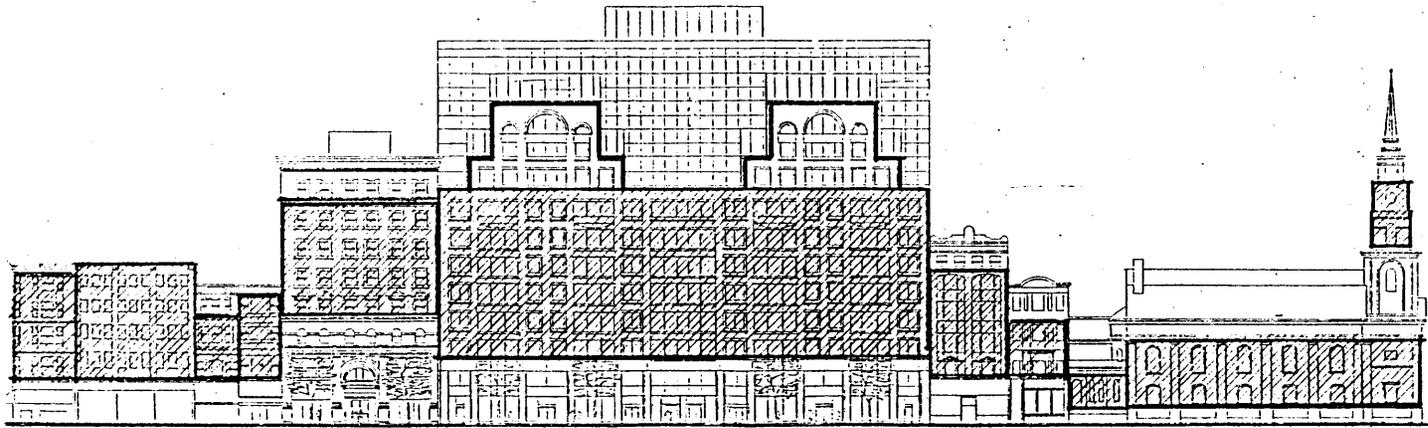


Diagram of tops, middles and bottoms: (Middles are cross-hatched.) Notice how the majority of buildings have a middle easily identified by a wall articulation different from a base and top. (See following page also.) One isn't sure whether the upper portions of 399's brick facade are tops or

part of the middle. The glass curtain wall above has no sense of different zones. The steeple provides an instructive example: the spire has its own base, middle, and top. Thus, there are two sets of base, middle, and top zones, lower and upper.

ORGANIZATION

p.66

**CONTEXT
2**

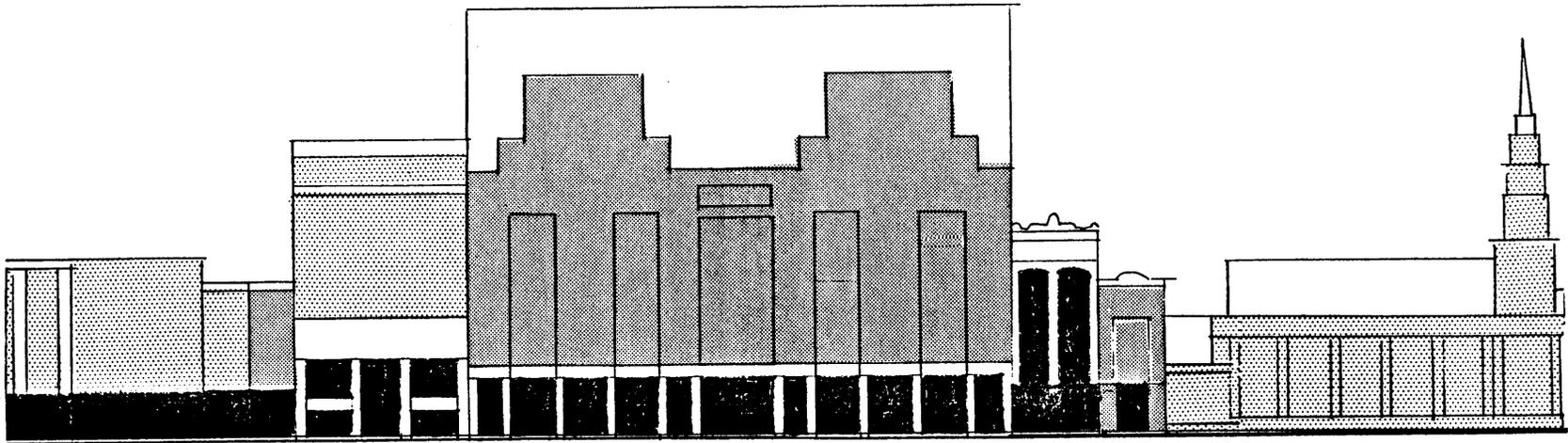


Diagram of different wall types: (Black denotes metal and glass framework, light shading--masonry wall with punched openings, darker shading--masonry wall with too many openings for it to read as a bearing wall) Notice how different wall systems are used to define base, middle, and top zones. The cladding of 399's vertical bays in limestone panels disappointingly blends them into the rest of the facade, missing the opportunity to match the rhythm of changing facade materials found in the rest of the block in the horizontal direction.

<p>ORGANIZATION</p>	<p>p.72</p>	<p>CONTEXT 2</p>
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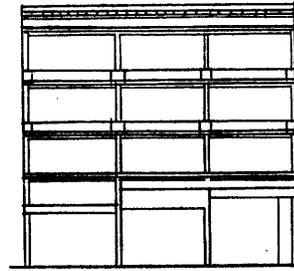
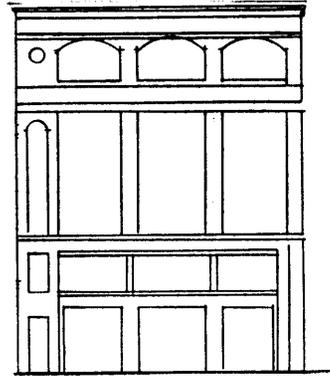
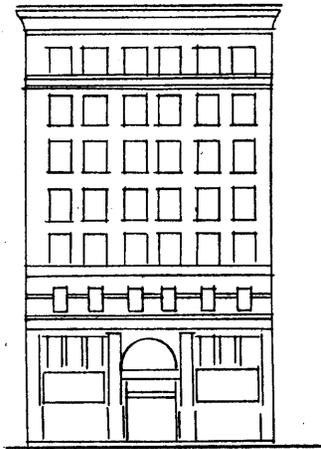


Disconnectedness of glass curtain wall from building below at times fools the eye, suggesting there is no building up there. At other times, for example with the strong glow of sunset, the reflective glass has a strong identity of its own and seems to be an "otherworldly" cloud. In sum, it is not an altogether unsuccessful solution, but this project will attempt to find alternatives which allow the upper regions of the building to have a more positive connection with the street.

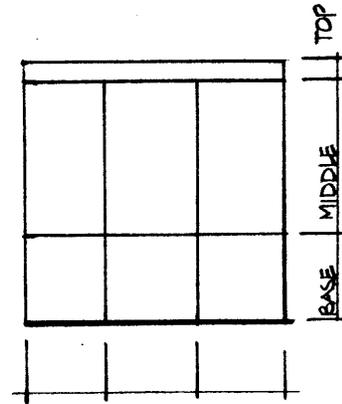
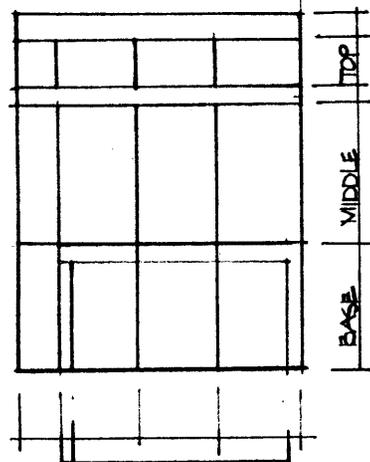
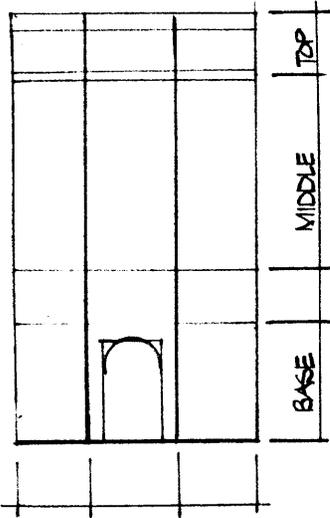
ORGANIZATION

p.72

**CONTEXT
3**

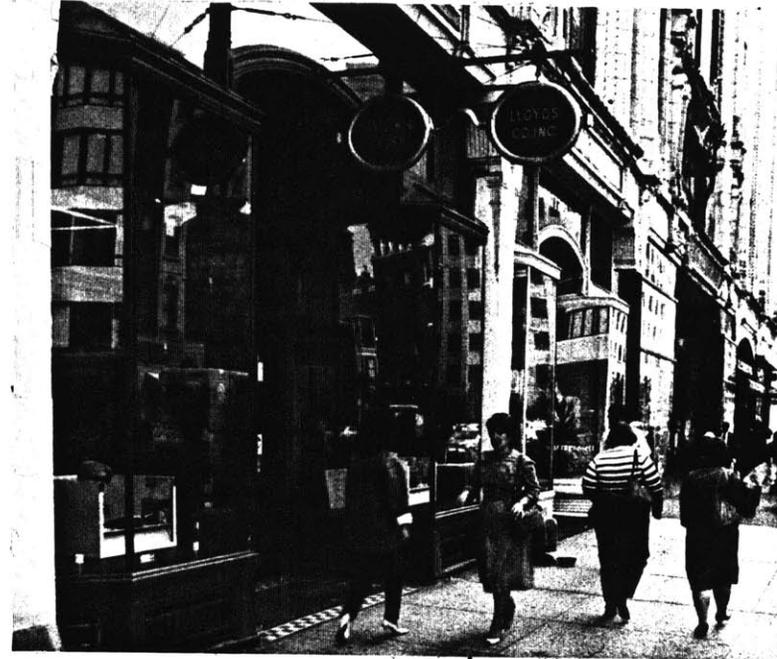


Examples of buildings on the site block and opposite with clear zones. Horizontal banding of different colors and textures plan an important role.



ORGANIZATION

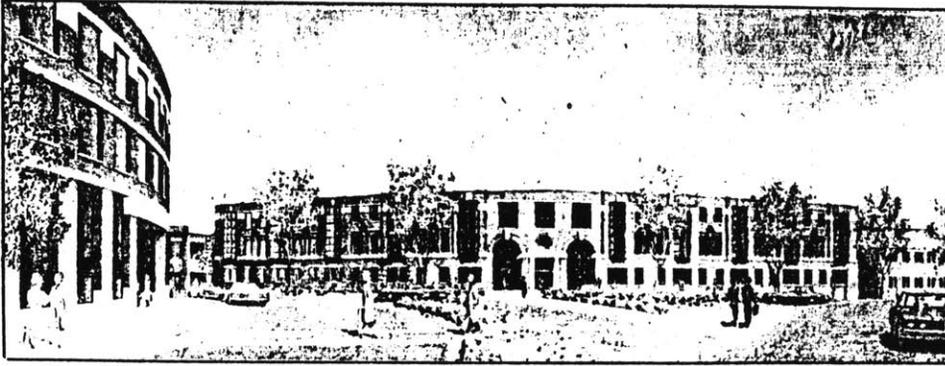
**CONTEXT
3**



Architectural elements like windows, doors, and bays also have bottoms, middles, and tops. A sense of anthropomorphic identity is given to the cast of facade details.

ORGANIZATION

CONTEXT
4



Newton Place development (above)

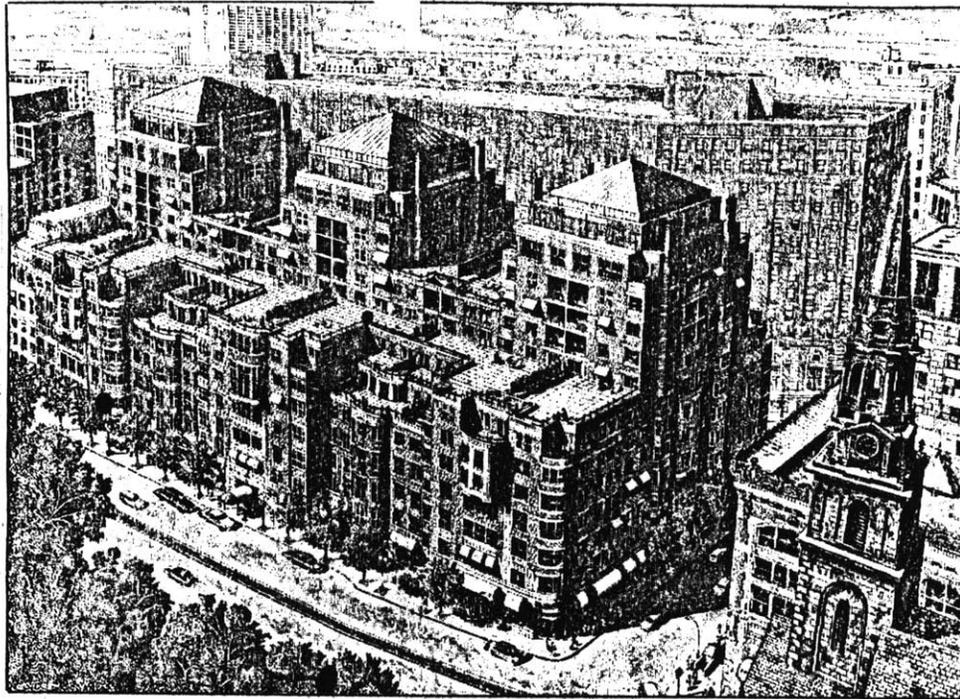
Above: Newton Place, Newton Massachusetts

Below: block of Philadelphia commercial buildings

Notice how the slight shifts in horizontal registration in the Philadelphia block give a sense of independence to a fairly repetitive series of buildings. In contrast, Newton Place feels monotonous despite of the range of facade elements.

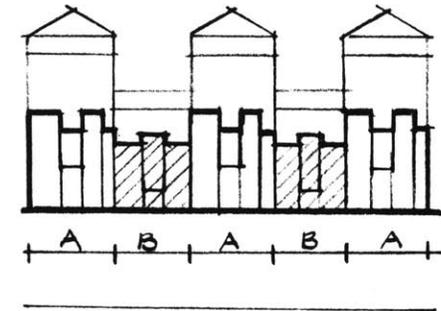
ORGANIZATION

**STRATEGY
2**



Proposed condominium development on Boylston Street opposite
Public Garden

With the same sort of setback scheme as 399, this project addresses the problems of large scale symmetry and connections between lower and upper facade. Although subbuildings are arranged symmetrically (ABABA), asymmetrical organization of

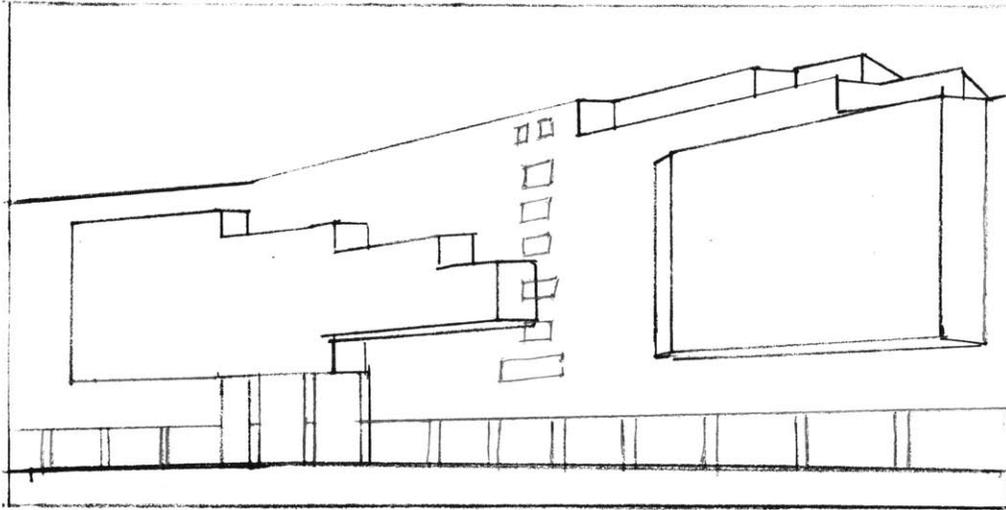


each subbuilding creates a complex serial reading of the building. Interlock between lower and upper facades together with continuous materials begin to relate the two tiers.

ORGANIZATION

p.72

**STRATEGY
2**



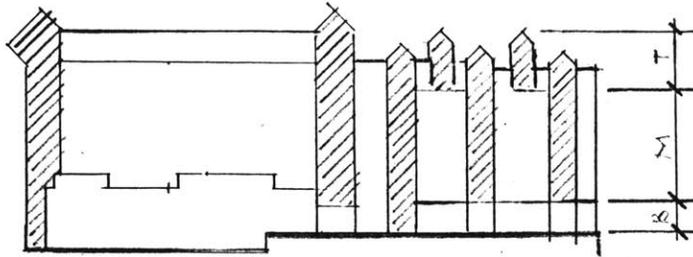
Transportation Building, Boston

The horizontality of protruding volumes reduces the effect of base, middle, and top suggested by different window types. The lack of articulation of vertical elements together with the tremendous horizontal continuity disassociate the building from nearby buildings. It is an "object" in the urban landscape, perhaps appropriate given the discontinuity of the blocks surrounding it.

ORGANIZATION

STRATEGY

2



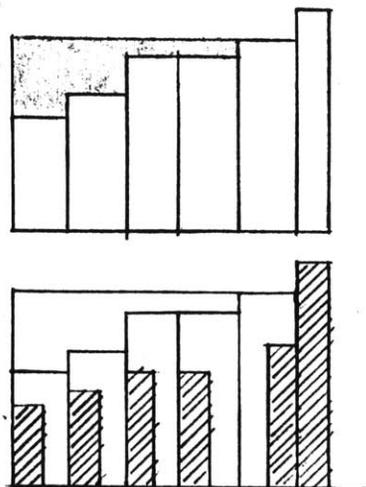
Warehouses, Boston

(1) Repetitions and transformations of a vertical bay and (2) comparable articulations of base, middle, and top serve to integrate adjoining warehouses. Notice how interlock of vertical bays with top, middle, and bottom zones gives a sense of unity and verticality to the long complex buildings.

ORGANIZATION

p. 70

**STRATEGY
2·3**



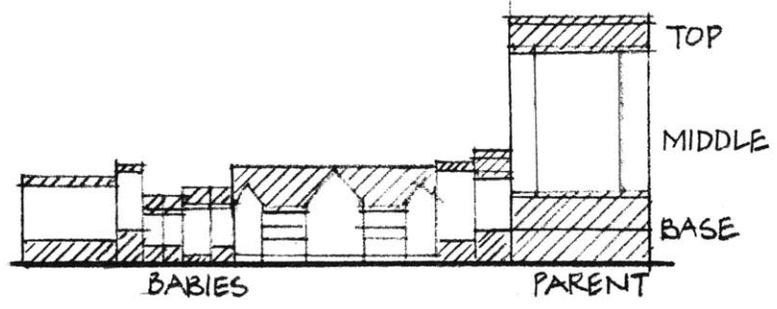
Exeter Place, Newbury Street, Boston

Strip windows and different materials disassociate the upper facade from the lower. Repeated vertical bays might integrate the whole if they interlocked with the upper facade. Canopies offer a weak suggestion of base.

ORGANIZATION

p.52

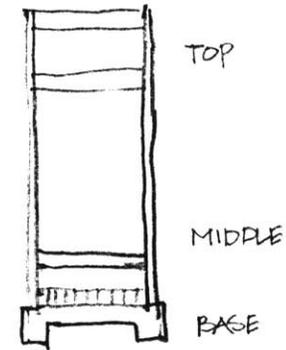
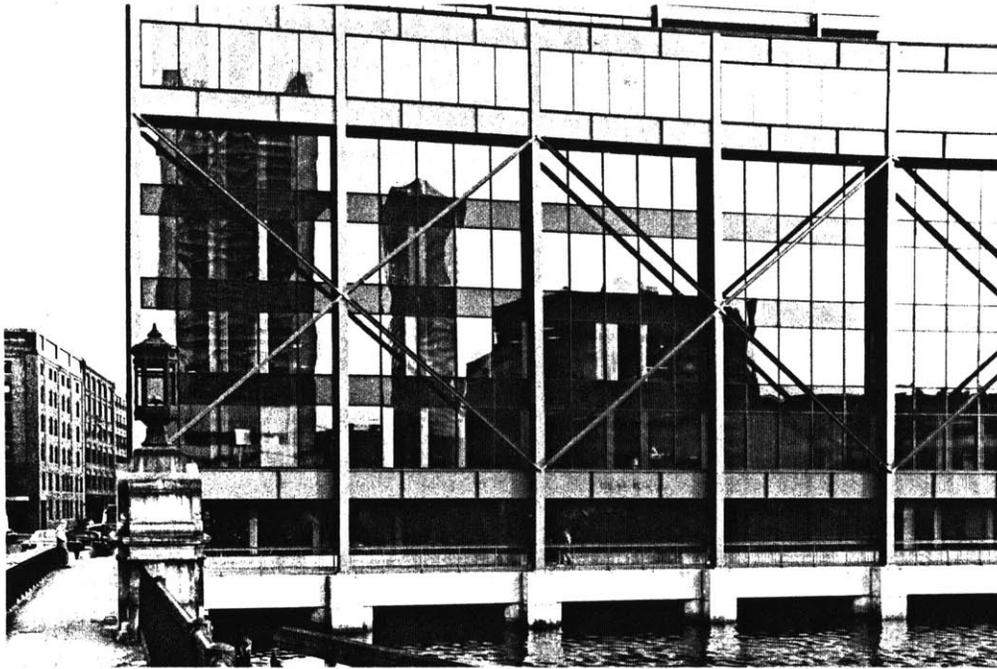
**STRATEGY
3**



Ritz Carlton Hotel, Back Bay

Organization of base, middle and top similar to that of its neighbors helps a tall building fit in. A familial relationship is suggested: parents and babies-variations on a theme.

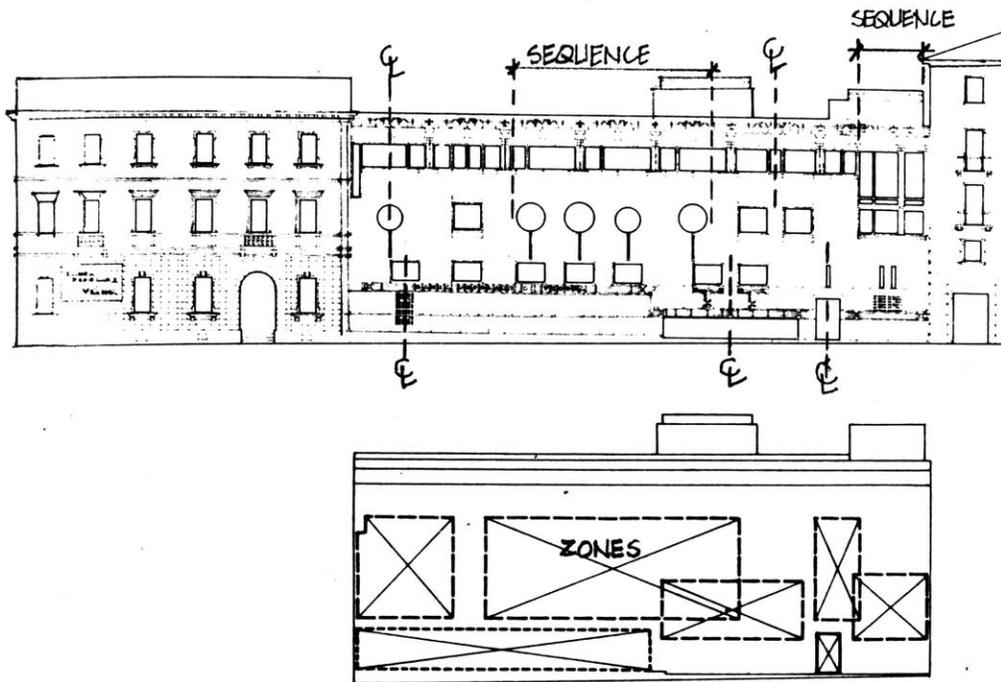
ORGANIZATION		STRATEGY 3
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Fort Point Channel offices

Simple but clear articulation of base, middle, and top gives this building an anthropomorphic identity and helps relate it to the adjacent turn-of-the-century commercial buildings.

ORGANIZATION		STRATEGY 3
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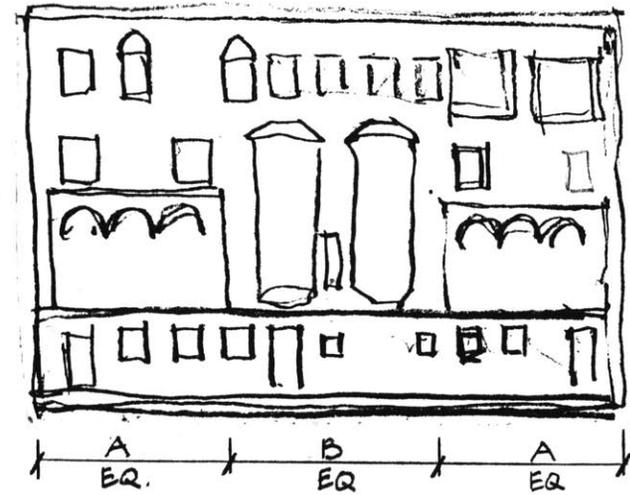


Carlo Scarpa: Banco Popolare

σ denotes symmetrical axis.

A useful model for block scale organization: symmetries on the bay scale are "found" within a large scale serial organization. Complex and overlapping zones and symmetries give local foci to the composition, much like the symmetries of individual bays and buildings do to the blocks of the Back Bay.

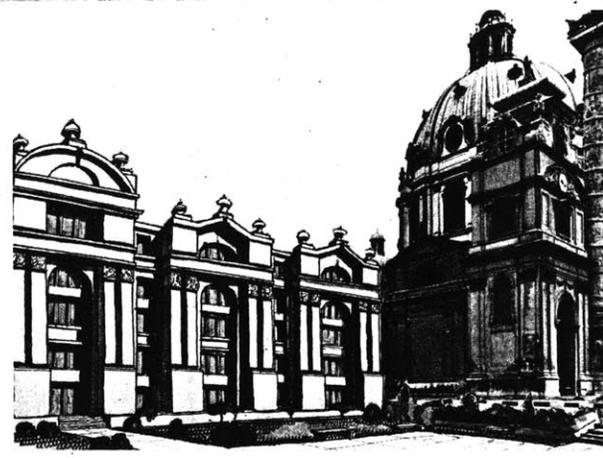
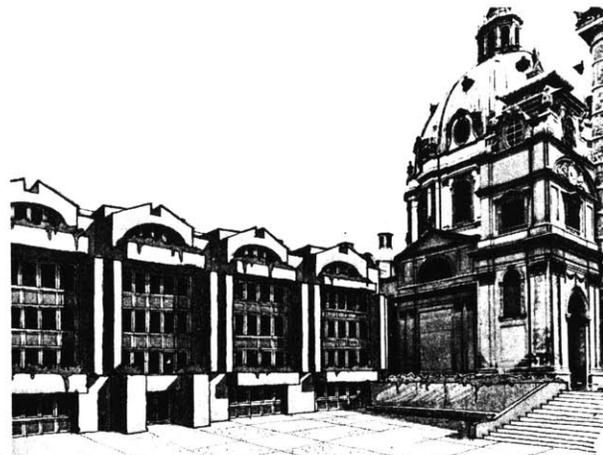
<p>ORGANIZATION</p>	<p>pp. 72, 74</p>	<p>STRATEGY 3</p>
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Beacon Hill rowhouses

Remarkable complexity is achieved through variation of facade elements and spacing. Large scale symmetry (A B A) is overridden by asymmetry of sub-buildings. Limestone base and faceted cornice with pitched roof unify and relate to older Beacon Hill row houses.

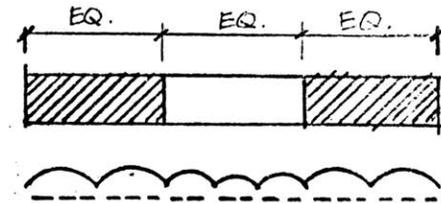
<p>ORGANIZATION</p>	<p>p.85</p>	<p>STRATEGY 3</p>
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From Architecture in Context: These variations on a church addition suggest: (1) how reading of vertical bays and base, middle, and top relate dissimilar buildings and (2) how closely connected discussions of organization and rhythm are. One could abstract the organizational features into rhythmic progressions.

ORGANIZATION

STRATEGY
3-4

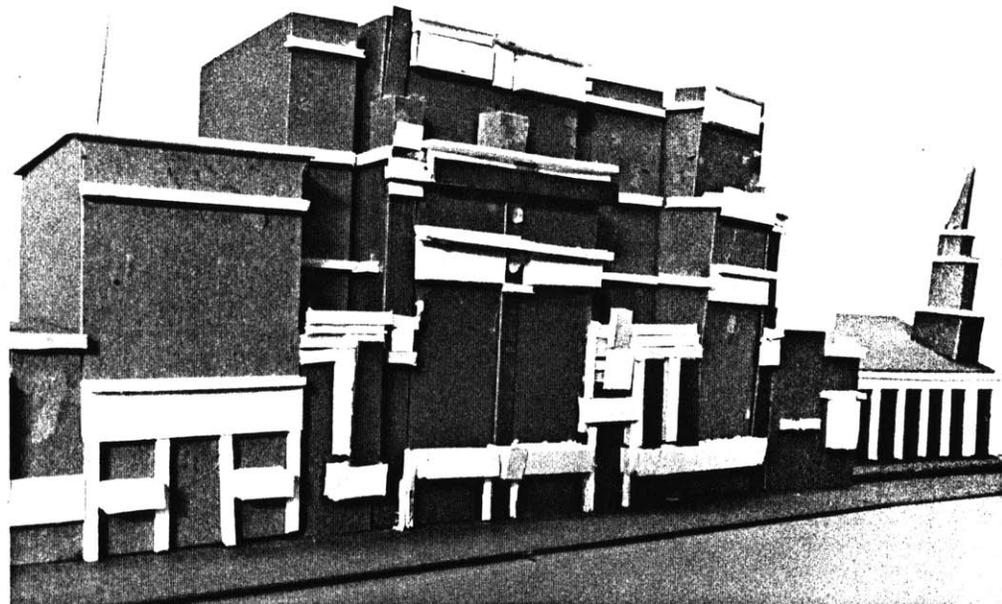
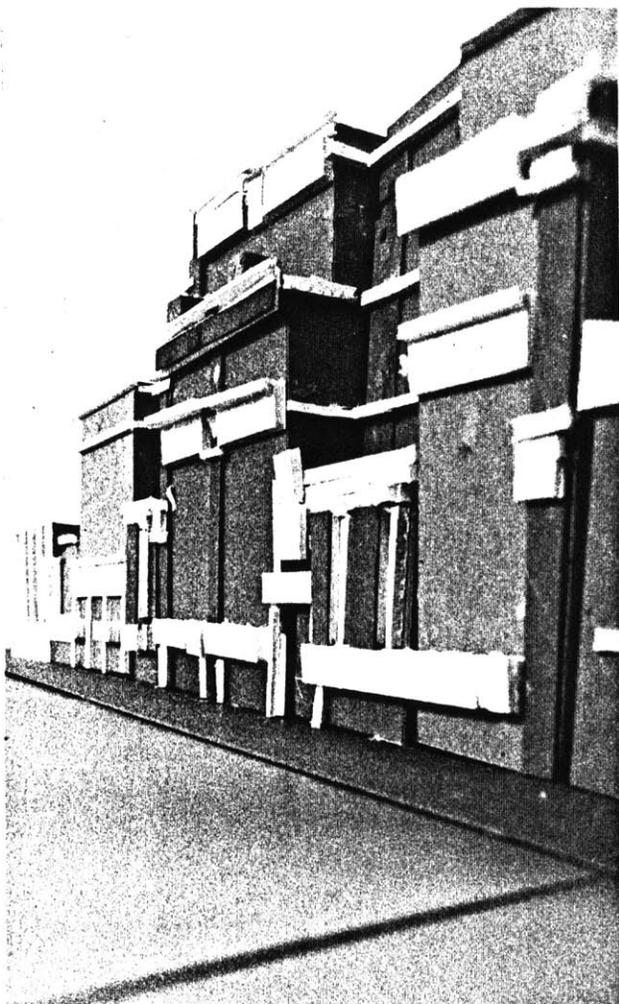


Development of scheme 1

There are clear building zones, but the large scale symmetry like that of the existing building gives a sense of monumental assembly rather than of "gathering".

ORGANIZATION

DESIGN
2

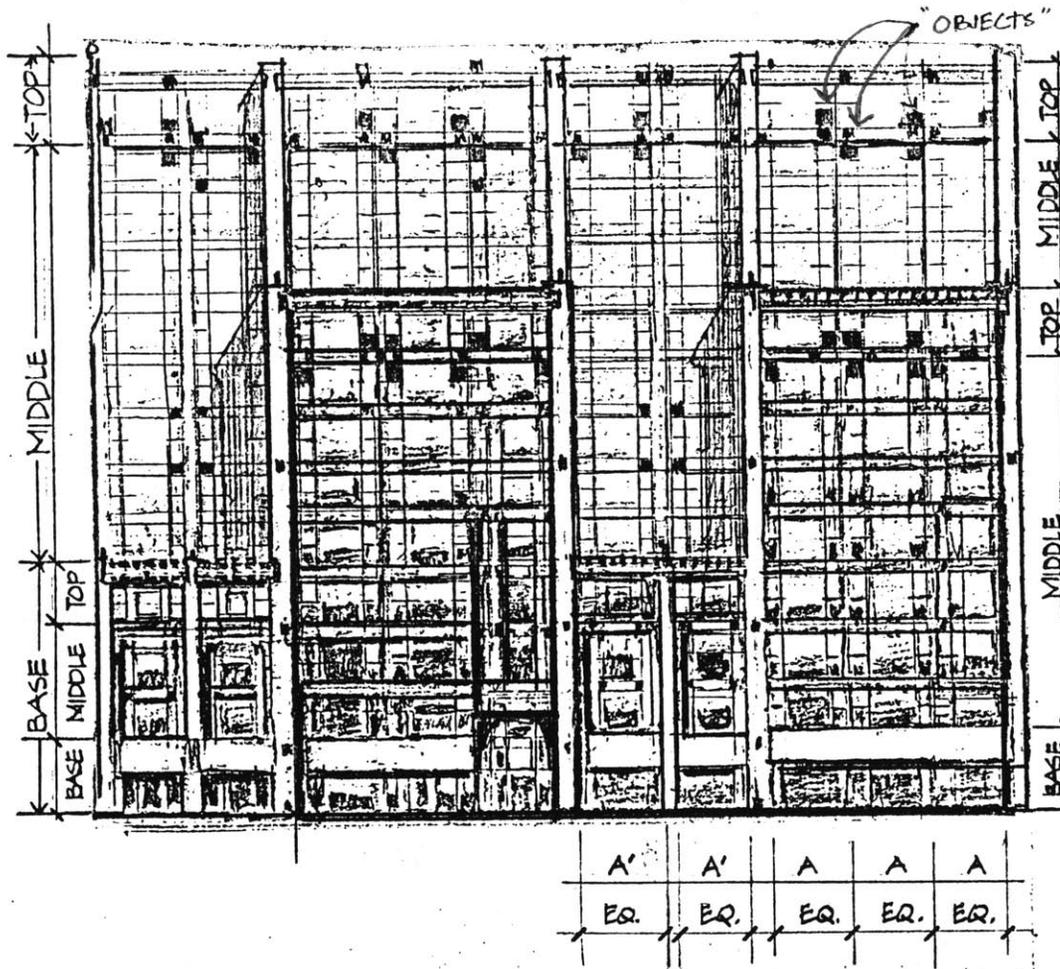


Development of scheme 4

Using the repeated elements of string course and limestone attic floors, tops, middles, and bottoms of the upper and lower sub-buildings are articulated. The treatment only works on the scale of the sub-building--order on the large scale seems rather chaotic.

ORGANIZATION

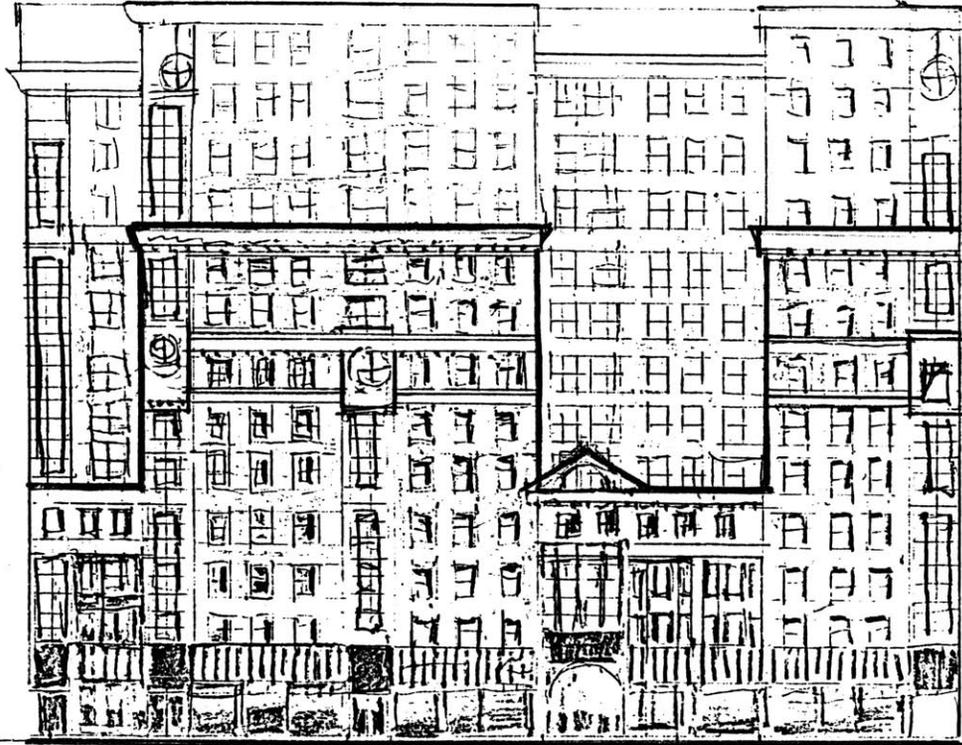
DESIGN
2



Development of scheme 2

With basically only one bay type the building feels unified but the articulation of sub-buildings seems arbitrary. The three bay width of the larger sub-buildings echoes the many three bay buildings in the area and suggests symmetry on the building scale. These symmetries are not complex enough and do not overlap: they don't seem to organize the whole. Tops are articulated through colored accents on the spandrels and selected double hung windows. This seems an interesting direction to achieve the spirit of building zones without copying forms. Nevertheless the larger sub-buildings are too tall to act as a base to the uppermost zones.

RHYTHM		DESIGN 23
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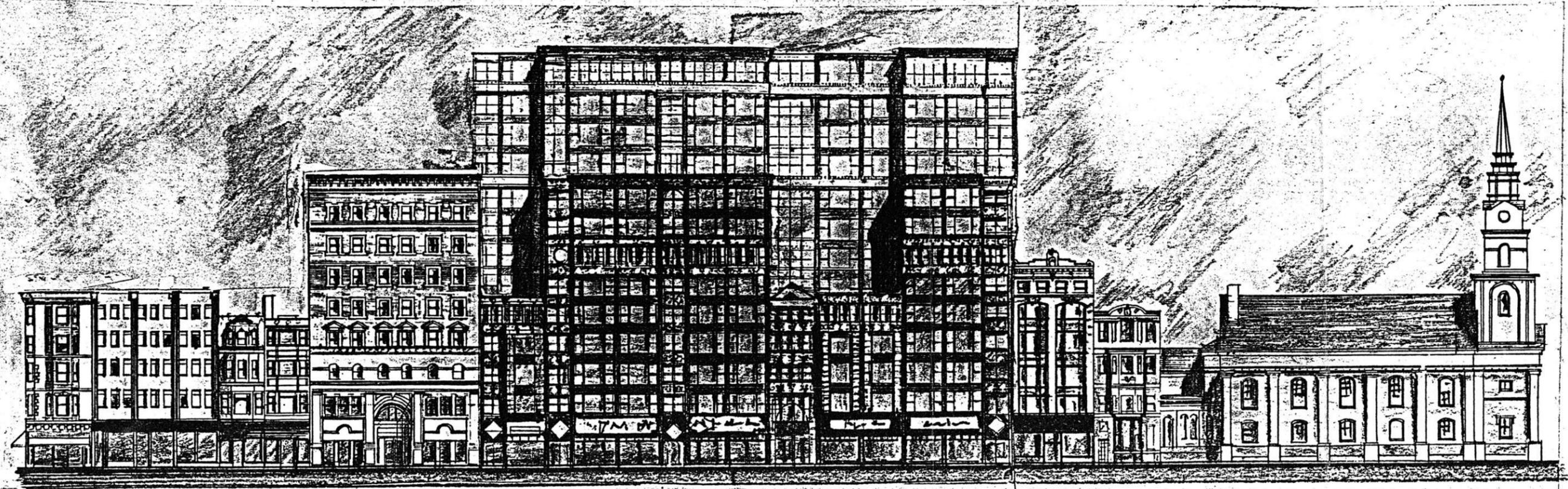
Development of scheme 4

In sharp contrast to the previous scheme, this treatment uses many elements found on the block-cornices, punched hole double hung windows, canopies, pediments, etc. The effect is rather hollow and identifies the real challenge in contextual design: to arrive at forms and organizations which have the spirit of the old, but interpreted in a fresh way.

ORGANIZATION

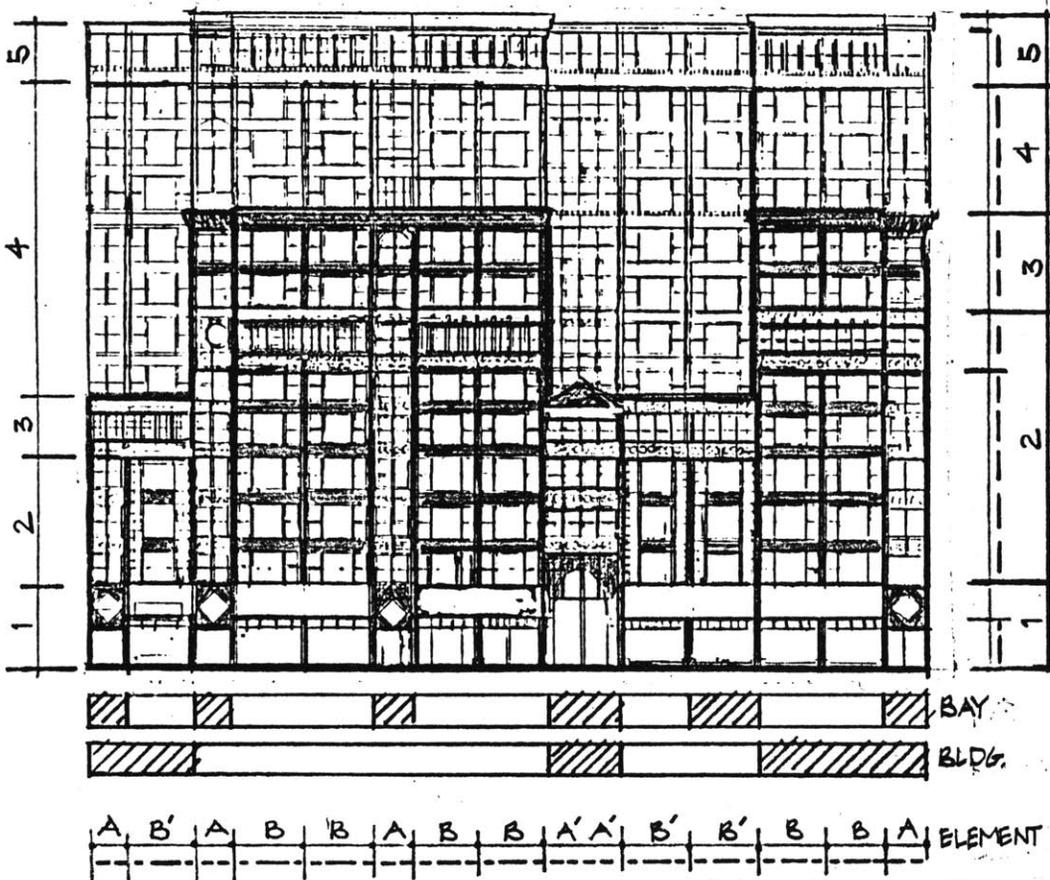
p.49

DESIGN
3

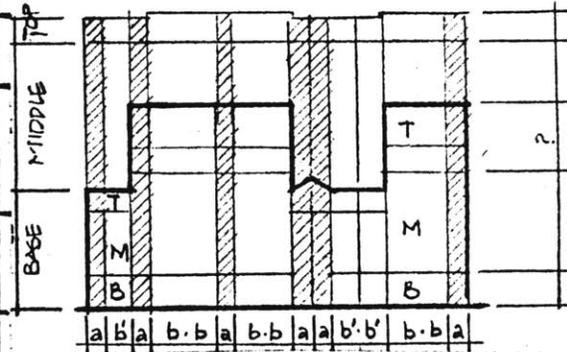


ELEVATION: 399 BOYLSTON STREET

Discussion
on following
pages

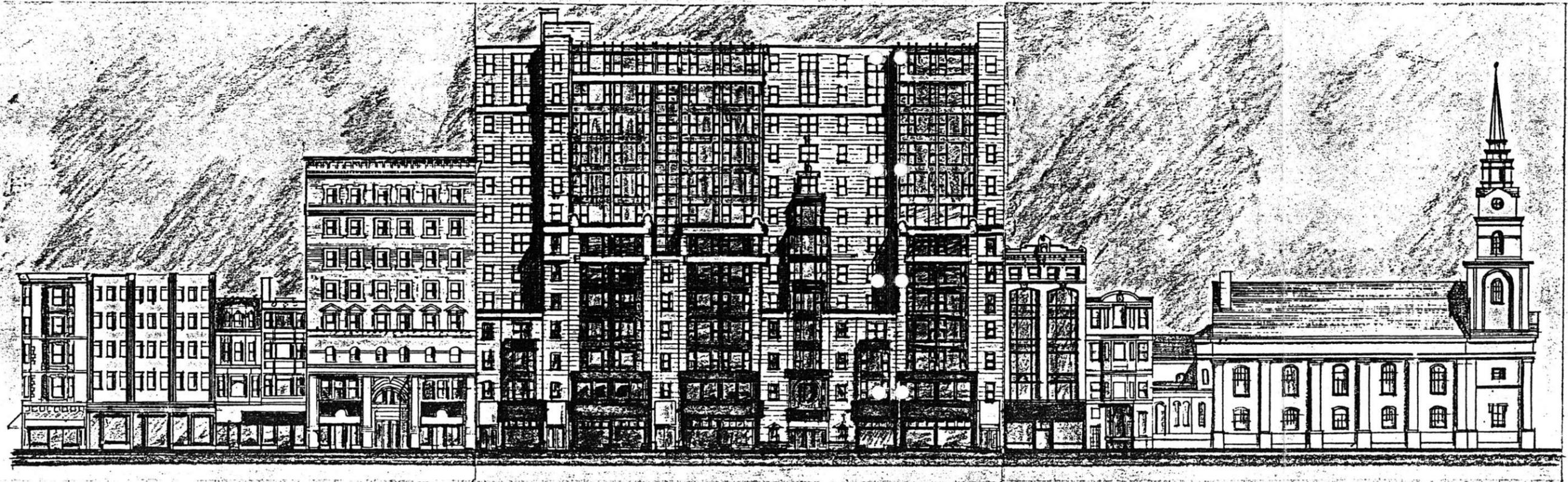


Entrance arch and pediment, round windows, and curvilinear spandrel ornamentation iterate nearby forms but seem applied.



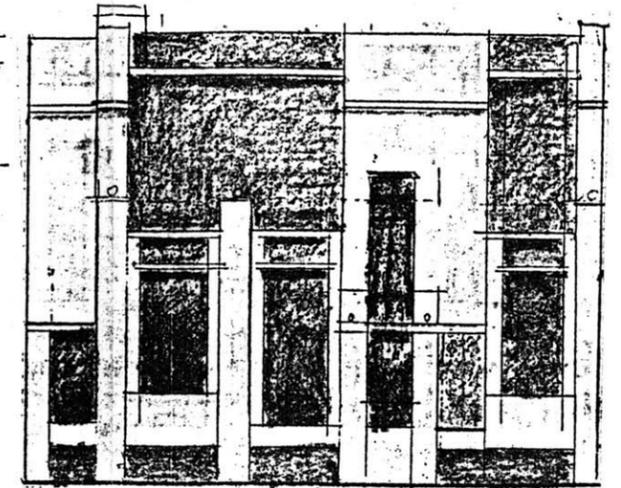
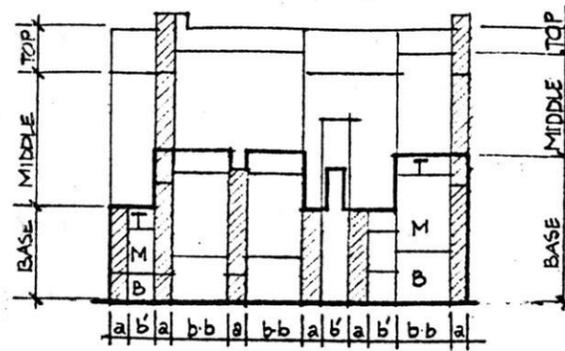
Development of scheme 4

A different bay type, "A", used on both small and large sub-buildings (1) integrates the sub-buildings & (2) suggests "special places" at intersections with the more heavily articulated windows of the 7th & 13th floors. The 8th-12th floors don't have clear identities as tops or middles—the larger sub-buildings are too tall to act as a base to uppermost areas.



ELEVATION: 399 BOYLSTON STREET

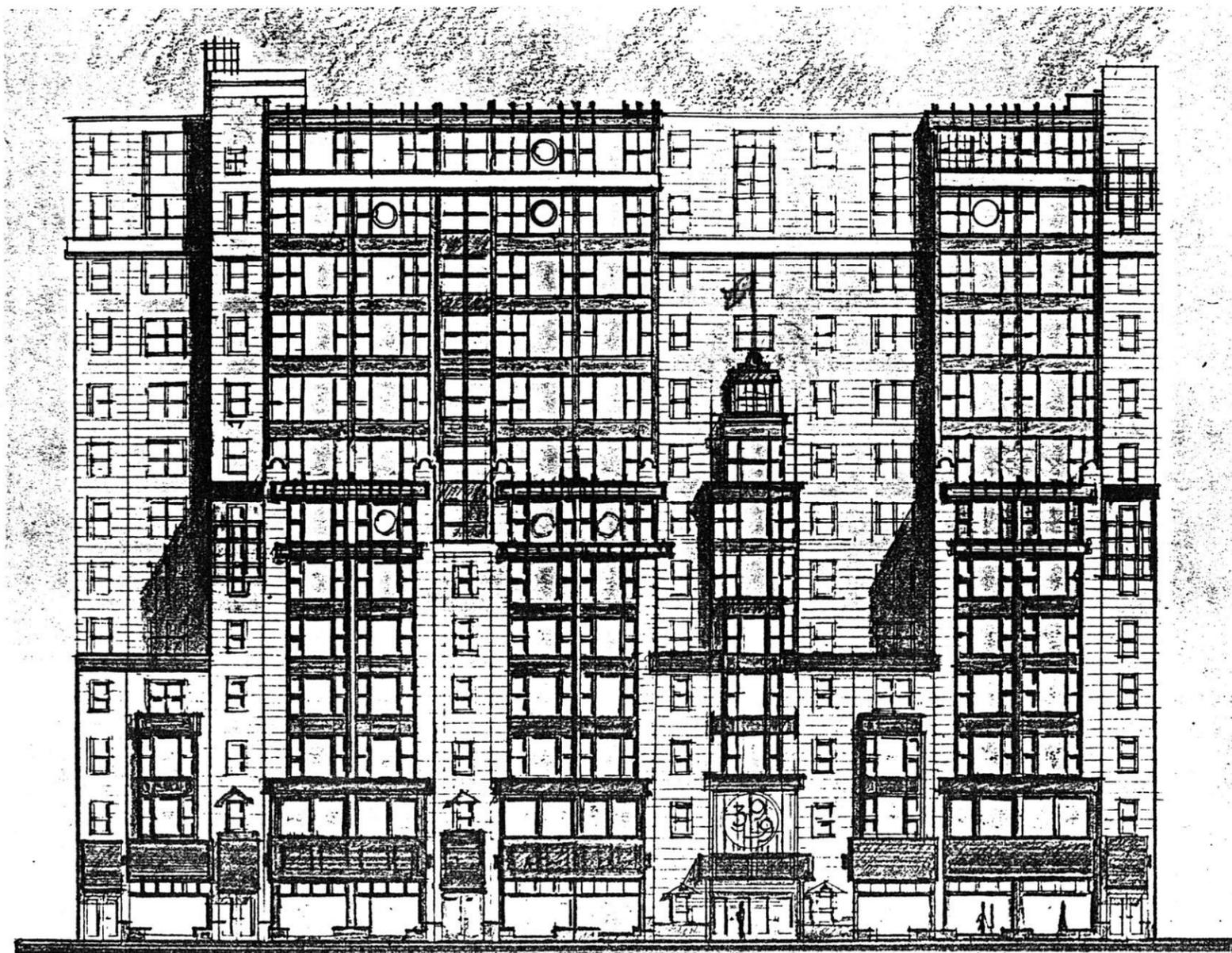
Discussion
on following
pages



Development of scheme 4:

This scheme modifies the bay rhythm of the previous scheme to create symmetry at entrance. This "found" symmetry, like the Scarpa reference, gives a focus to the building as a whole. The projecting bay over the entrance interlocks with the upper regions, which together these changes give a sense of order. For the first time have a positive sense of middle and top. Varying the bay articulation above to create larger, more neutral zones suggests background and middle. Fins on the top spandrel feel like they have grown up through the highlighted spandrel directly below to form a crown.

ORGANIZATION	DESIGN 3
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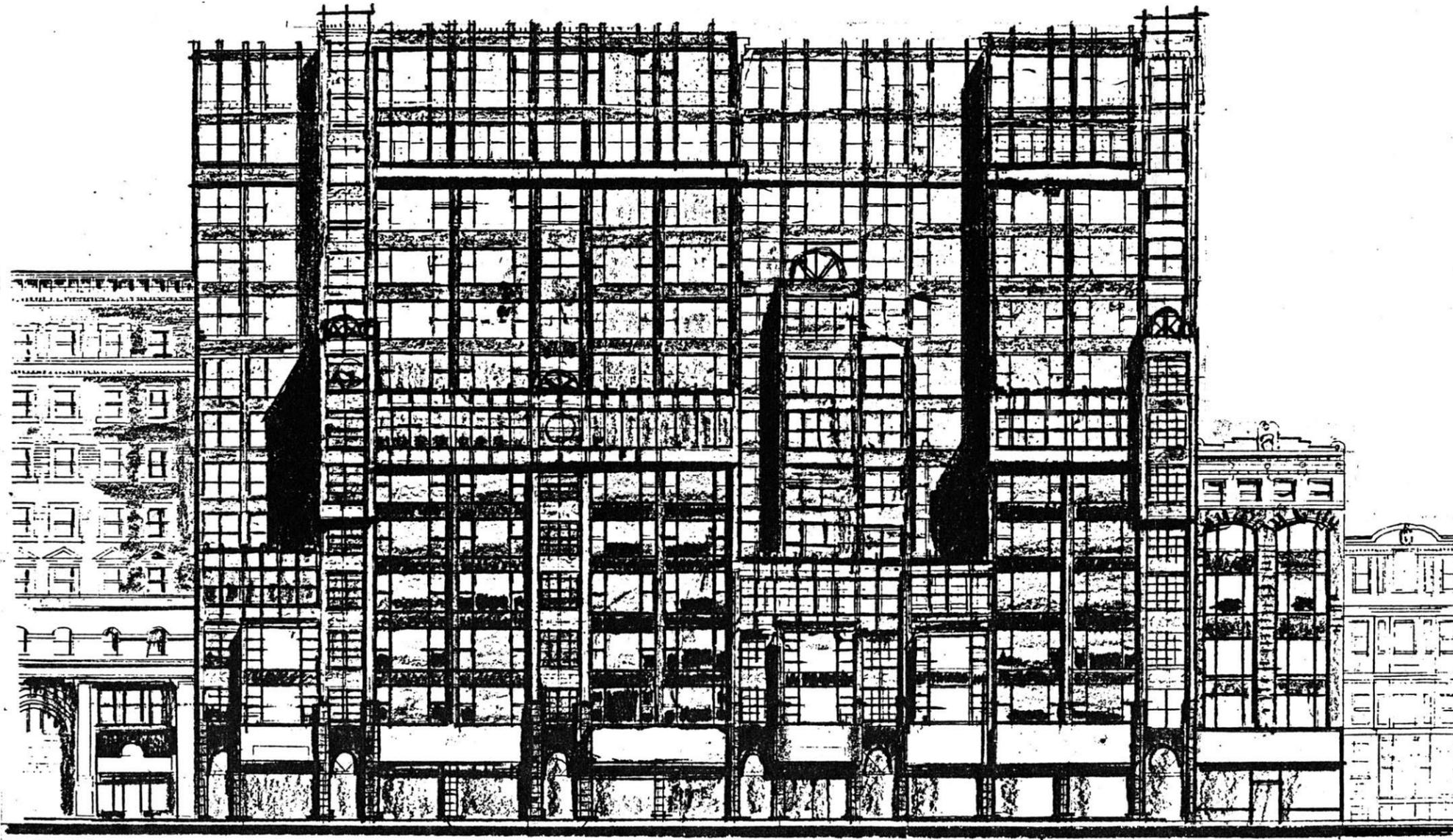


Unlike the previous development of scheme 4, the contextual motives repeated on the building are related to the building system: arched tops finish the piers & are reminiscent of the gable ornaments next door; the top fins are outgrowths of the mullion pattern. The entrance tower is the first form developed that relates to the church spire.

Slight shifts in spandrel heights attempt to suggest the non-registration found in the surrounding patchwork of buildings.

ORGANIZATION

DESIGN
4



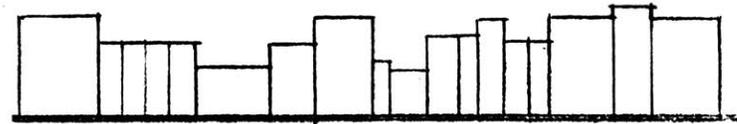
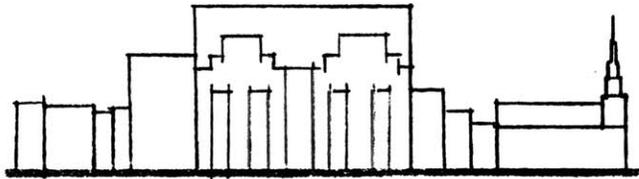
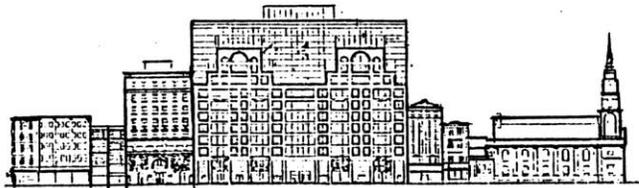
This variation on the previous scheme uses the same skin for the entire facade. The effect is not one of a "collage" of buildings or of background and foreground buildings.

ORGANIZATION

S C A L E S U M M A R Y

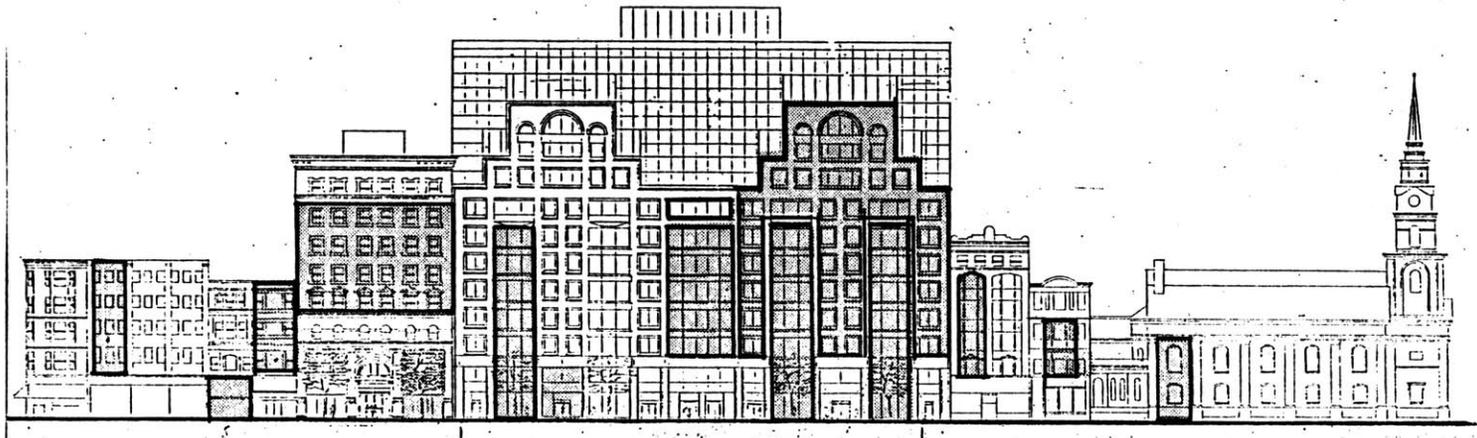
Based on an analysis of the immediate context, design goals are established: to articulate the facade in such a way that its identifiable zones resonate with the different sized buildings that compose the area and their elements. A key feature to understanding the power of many of the Back Bay facades has been analyzing how their different sized zones and elements encourage one to "inhabit" parts of the facade with the mind. On the larger buildings, bays and zones suggest "manageable" stretches of facade, pieces not so large that they only read as endless abstract patterns. Architectural elements and articulation of the depth of the facade are of the right size and proportion that one can imagine perching on the facade (like the niches and gargoyles of Gothic cathedrals suggest). And finally, articulation on the smallest scale creates a facade which one could grab onto: reveals of materials and elements even when far above the ground afford this tactile internalization of the facade.

The design work in preceding chapters (which has addressed building rhythms and organization into different vertical zones) has taken care of much of the articulation of zones of different sizes to associate with the context. Work in this section adds to this a focus on design and articulation of the small "objects" which attempt to act as anthropomorphic reflections.



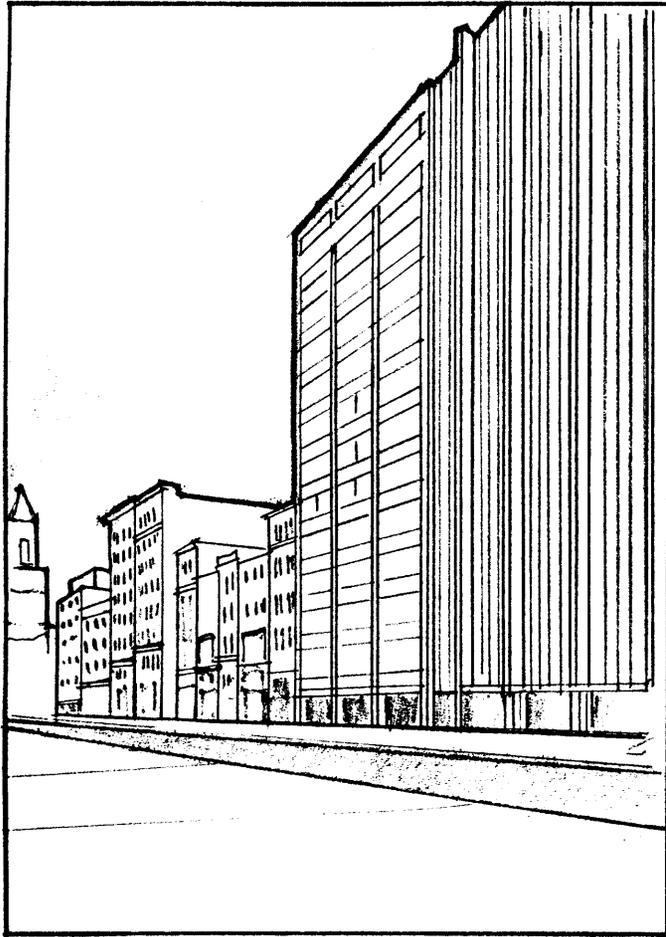
As in the analysis of rhythms of the blocks, the key observation is that there is a range of qualities, in this case, of buildings and sub-buildings.

SCALE		CONTEXT 1:2
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Shaded areas demonstrate the range of identifiable sizes. 399 has a good range of vertical bay widths, but lack of articulation along the heights of these bays makes them feel too skinny in relation to the neighboring bays. The stepped tops of the building with its finger-like extensions downward (shaded area) is an interesting shape inviting the mind to inhabit its different heights and widths, but due to lack of contrasting articulation of the bays, the entire facade reads as one big area. (see discussion under color/texture)

<p>SCALE</p>	<p>pp.93,94 p.86</p>	<p>CONTEXT 2</p>
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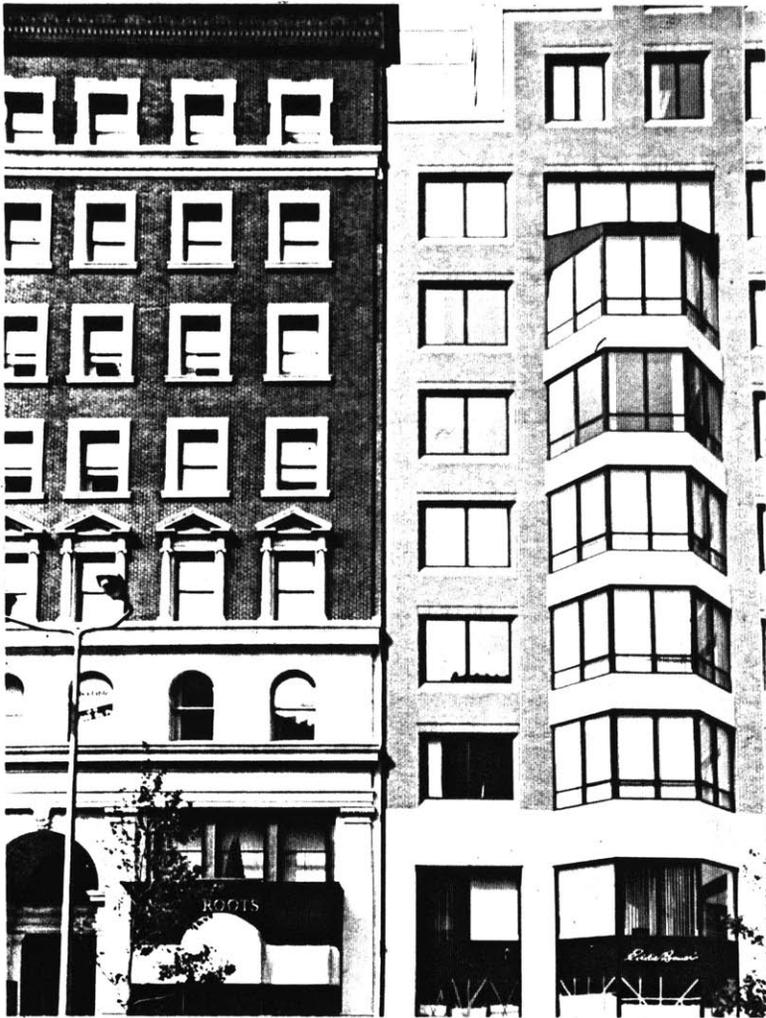


Two newer buildings on Boylston Street opposite Copley Square demonstrate how intrusive buildings can be which are not articulated in a range of different sized zones.

SCALE

CONTEXT

2



Compare the range of small dimensions in the new and old buildings. On the old building, the reveals of the window sills, the pilaster capitals, and cornice dentils read as objects one could grasp with the hand. The engaged columns and pediments of the fourth story window surrounds are deep enough and of the correct size and proportions to suggest that one could perch there. On the new building, the limestone faced spandrels, bevelled window sills, and limestone cornice do not have enough of a reveal or sufficient articulations along their length to make them "tangible". Instead they read as two-dimensional applique.

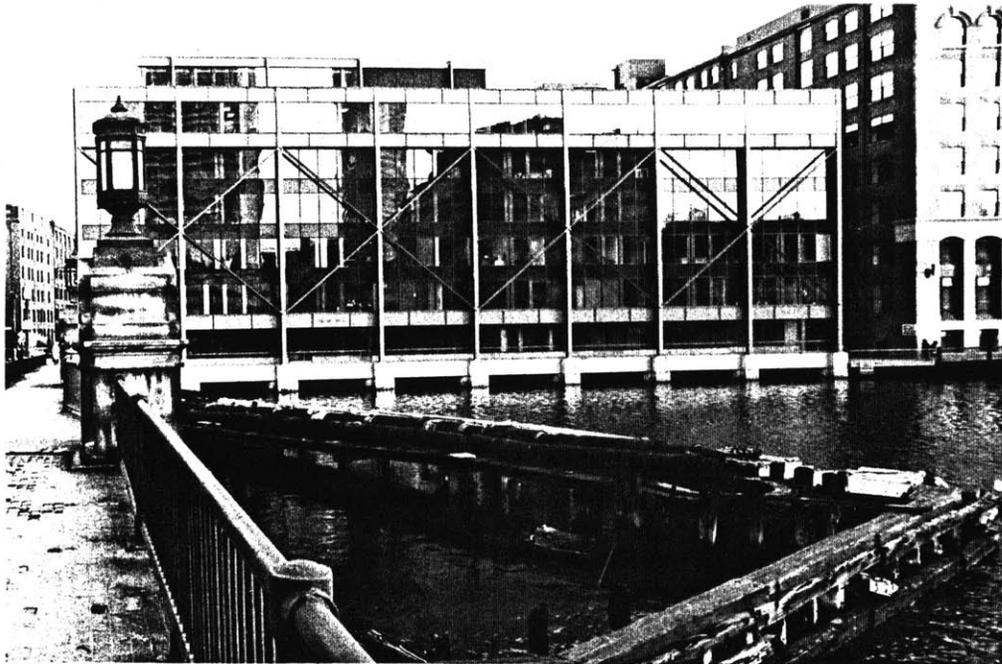
SCALE

CONTEXT
4

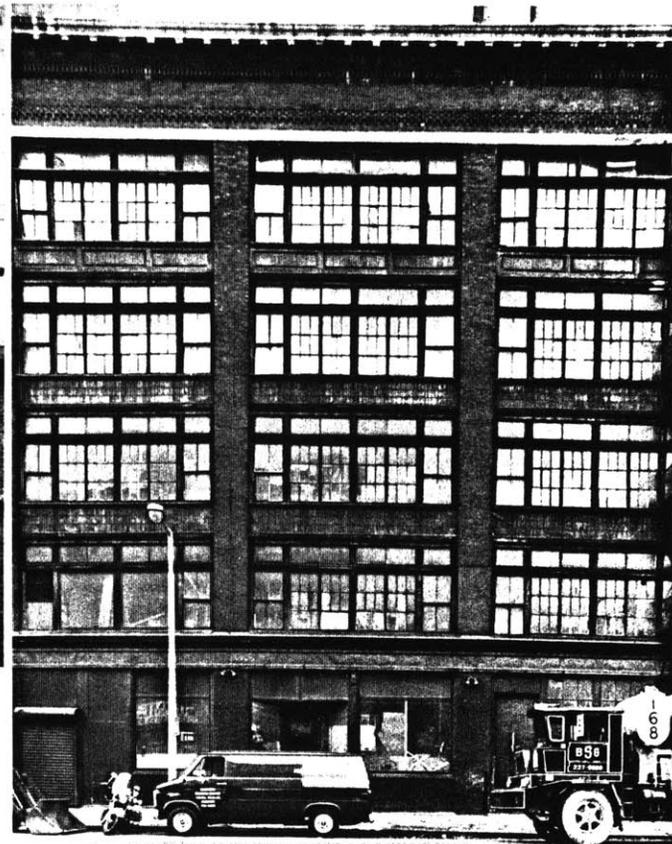


Proportions of the new bays are too tall to associate them with their neighbors.

SCALE		CONTEXT 4
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Adjacent warehouse



Fort Point Channel Office Building:

Articulation of the facade in sizes corresponding to those of neighboring buildings integrates this new neighbor. The columns and cross-bracing stand forward of the curtain wall: this depth adds the important set of small sizes.

SCALE

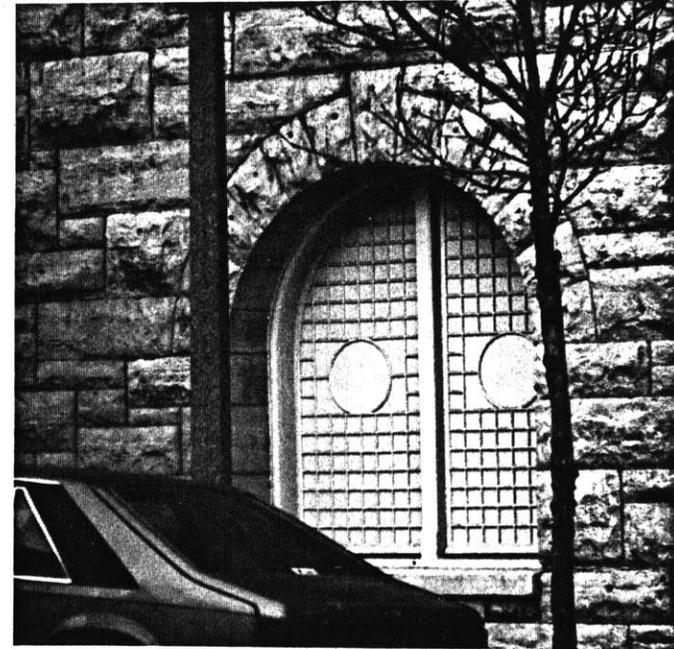
**STRATEGY
3**



Downtown Boston: Two Office Buildings:

The two-dimensionality and horizontal proportions of elements found on the left facade make it "uninhabitable" for the mind. The human proportions of individual windows and depth of the facade on the right invite one to perch on it.

SCALE		STRATEGY 4
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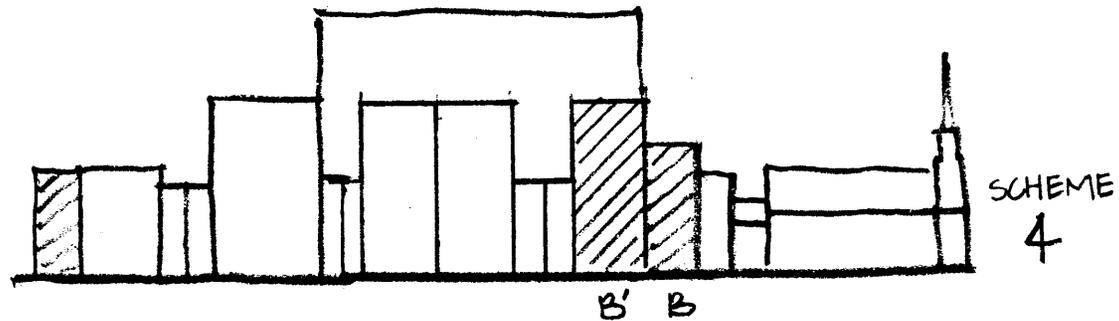
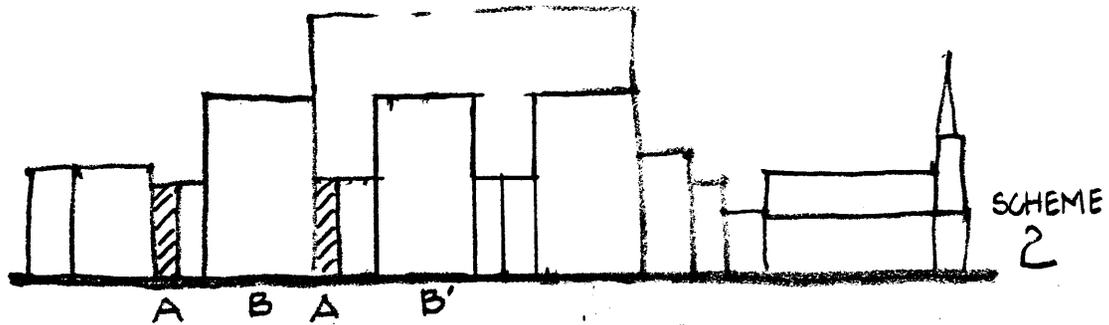
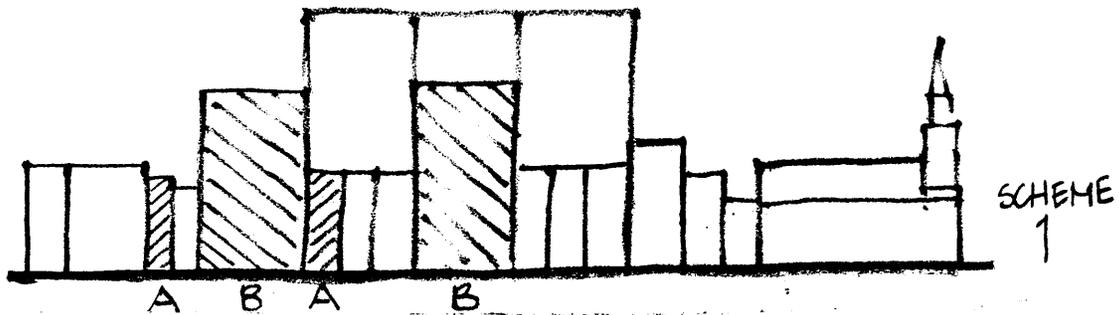


On the Bostonian Hotel (left), balconies with flower boxes read as objects within the "frame" of the window bay. Like the circular mullion pattern (right), these objects add the small scale dimensions necessary to internalize a building's size.

SCALE

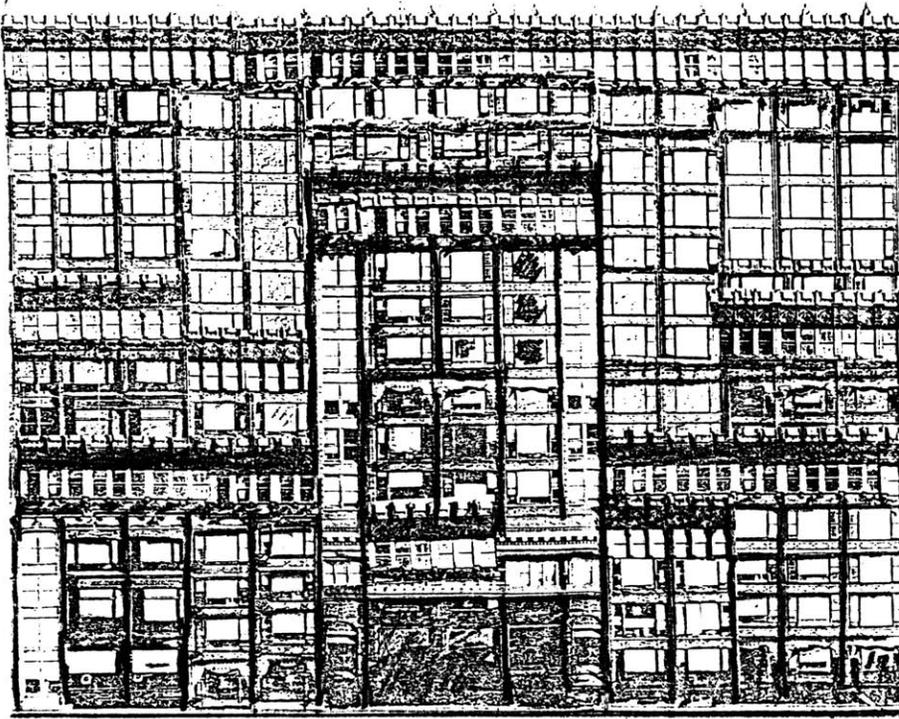
pp.67,87

**STRATEGY
4**



These diagrams make explicit size relationships considered on the block scale. In schemes 1 and 2, similarly sized buildings associate. In scheme 3, two buildings of different sizes but of similar proportions associate.

SCALE		DESIGN 2
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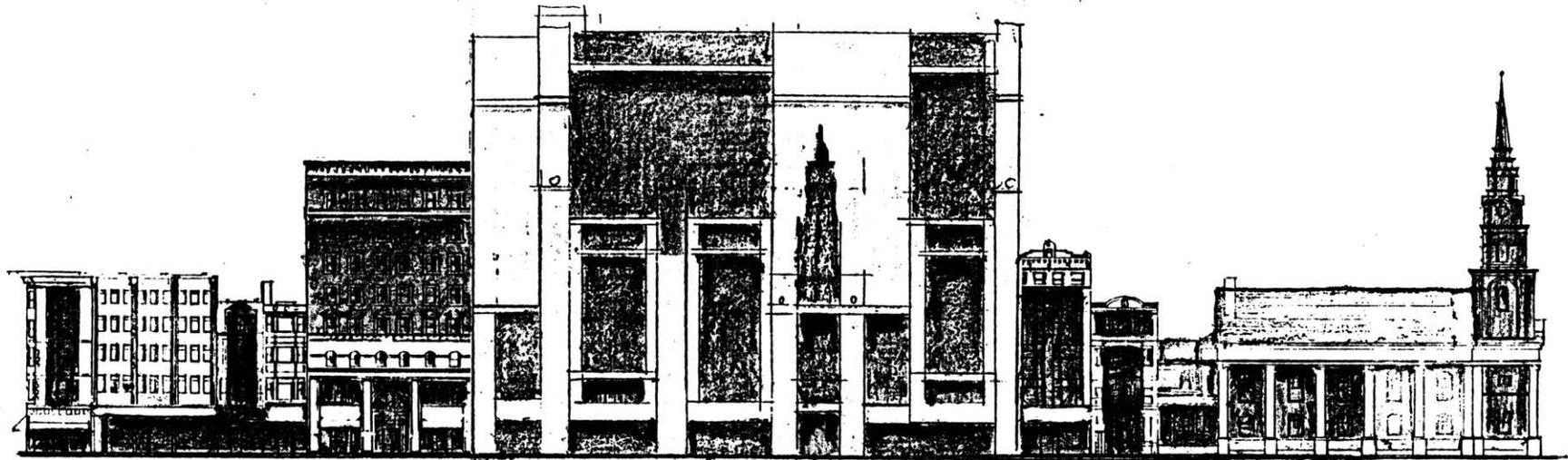
Development of scheme 1:

Like the Boston Garden Condominiums and the Beacon Hill rowhouses (discussed under organization) these elevations are symmetrically organized on the big scale, but asymmetrically on the sub-building scale. The exploration focused on creating a bay size and readings of building zones of the correct size to encourage inhabitation by the mind.

SCALE

pp. 56, 63, 74

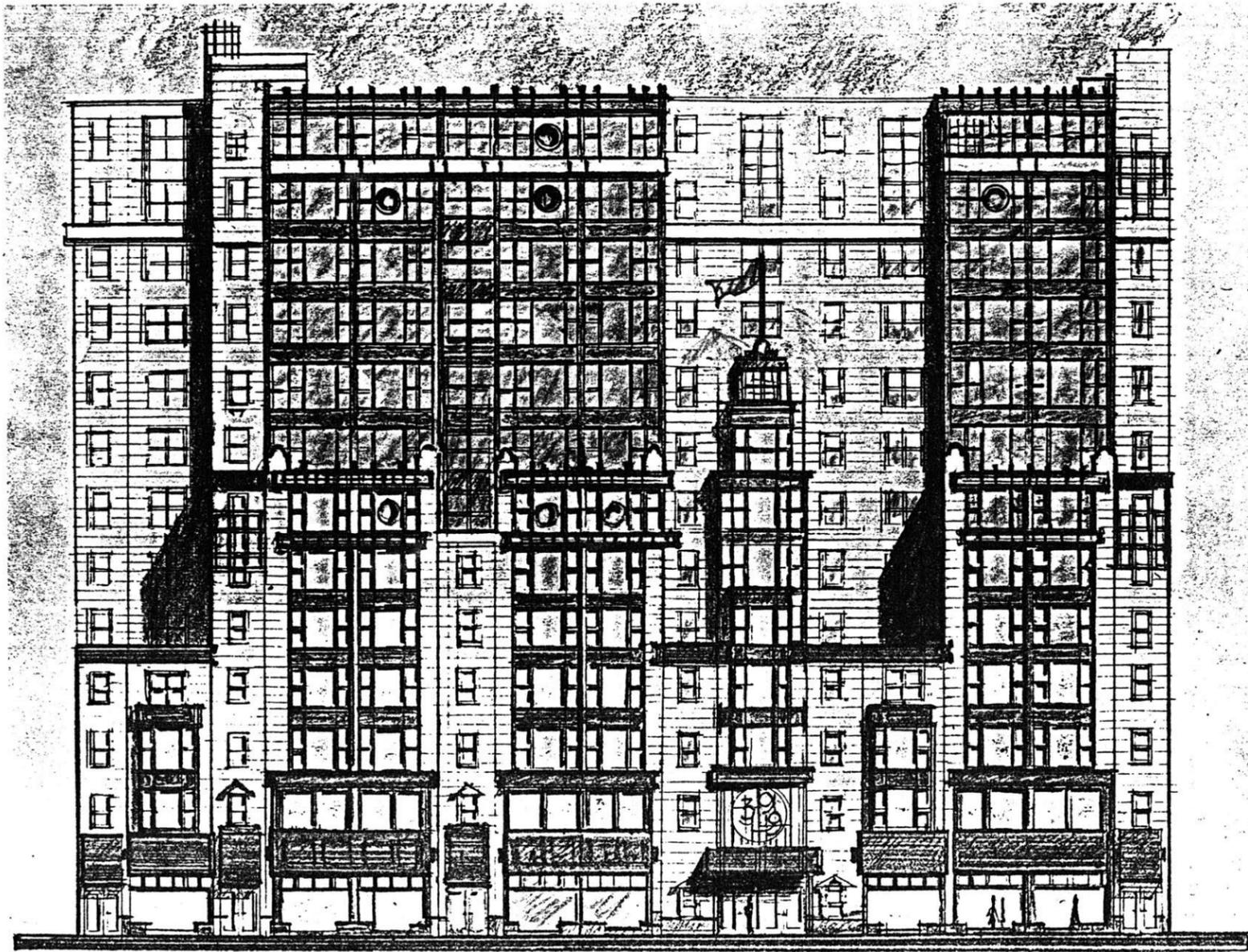
DESIGN
23



Development of scheme 4:

The different sized zones suggested by the building organization and different materials are abstracted to shaded and unshaded shapes.

SCALE	p.77	DESIGN 3
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Development of scheme 4:

A range of small sizes are introduced by: (1) setback of glass and metal framework from continuously clad surface on lower facade (2) capping elements of the suggested pilasters on the lower facade (3) metal fins on the top floor spandrels of upper and lower facades (4) different sized windows and (5) reveal of the light colored spandrel near the top of the upper facade.

SCALE

DESIGN
4

C O L O R S U M M A R Y

On the district scale one asks: what color is the neighborhood? The Back Bay commercial area is complex in that it has a consistent mix of colors. A predominance of whites and light grays (limestone, granite, painted metal) act as an integrating background against which reds and browns (masonry, painted metal) and blacks and greens (metal and glass frameworks, copper) are set. There are high levels of contrast as these colors are juxtaposed on different scales. In general, the contrasting colors seem to act as frames for each other: limestone pilasters frame dark steel and glass bays, dark brick surrounds white limestone window frames. Analysis concludes that contrasting colors (as well as textures) reinforce the buildings' organizations and zones and enhance articulation of "objects".

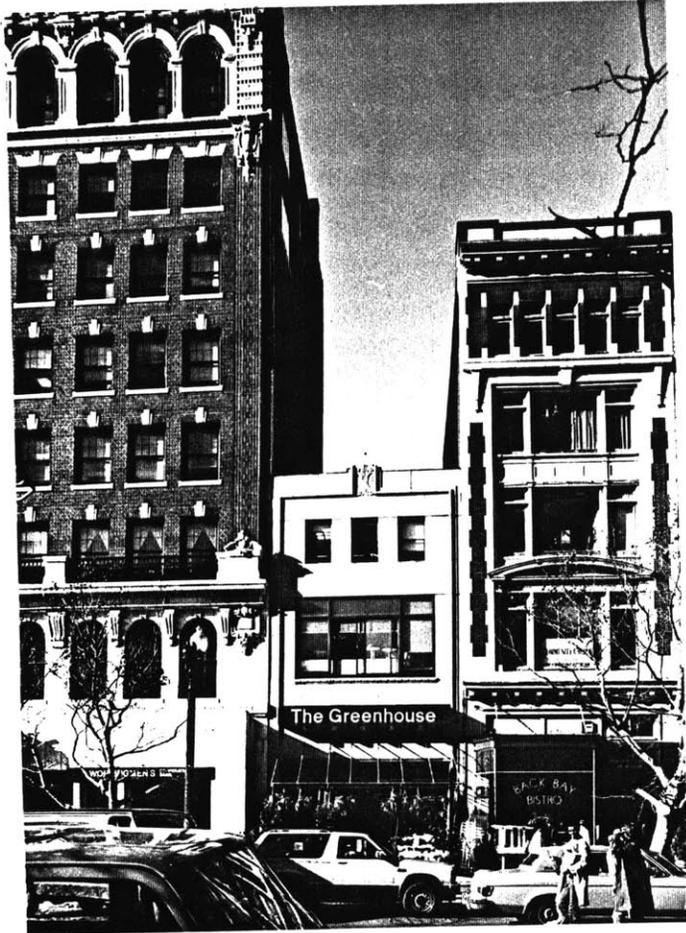
Based on observations on how well painted cast iron buildings fit into blocks of neoclassical buildings and on how modern buildings systems can be articulated similarly, design work pursues glass and steel frameworks for the facade system. Contrasting colors as well as textural ornamentation are used on specific zones and elements of the framework to suggest the variations in color and texture found on area buildings. Fi-

nally, because the stretch of the building seems too long to be effectively organized by one facade system, a combination of framework and continuous cladding systems is explored.



Left: Brick buildings together with others painted white and charcoal gray contrast each other, reinforcing the rhythm of the building grain. Right: Dark metal frames set off the windows from the white facades creating a lively and crisp composition. The building to the far right is organized into a base, middle, and top—each of which is in a different color and texture.

COLOR TEXTURE		CONTEXT 1
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Boylston Street: opposite Copley Square

On each building, each of the base, middle, and top zones is associated with its own color, mix of colors, and texture. Small scale elements rely primarily on contrast to read within the large scale organization.

COLOR
TEXTURE

CONTEXT
34



399 Boylston Street: existing and transformed:

Windows in the brick facade miss the opportunity to read as elements because the granite sill does not continue around to frame the dark metal window in white against the red brick. Similarly,



the vertical bay loses its power to organize the facade because its dark and light striped treatment denies a sense of its own completeness and blends it into the rest of the facade.

**COLOR
TEXTURE**

**CONTEXT
3·4**



Limestone facing effectively reinforces the articulation of base, although lack of textural differences or change in plane makes the difference seem superficial. Above, the facade is colorful but tends to read as a muddle of contrasting brick, limestone, and black glass.



Giving the bays a consistent and contrasting color (black) helps them to read as "whole" elements and to break up the facade into smaller pieces and more complex rhythms.

**COLOR
TEXTURE**

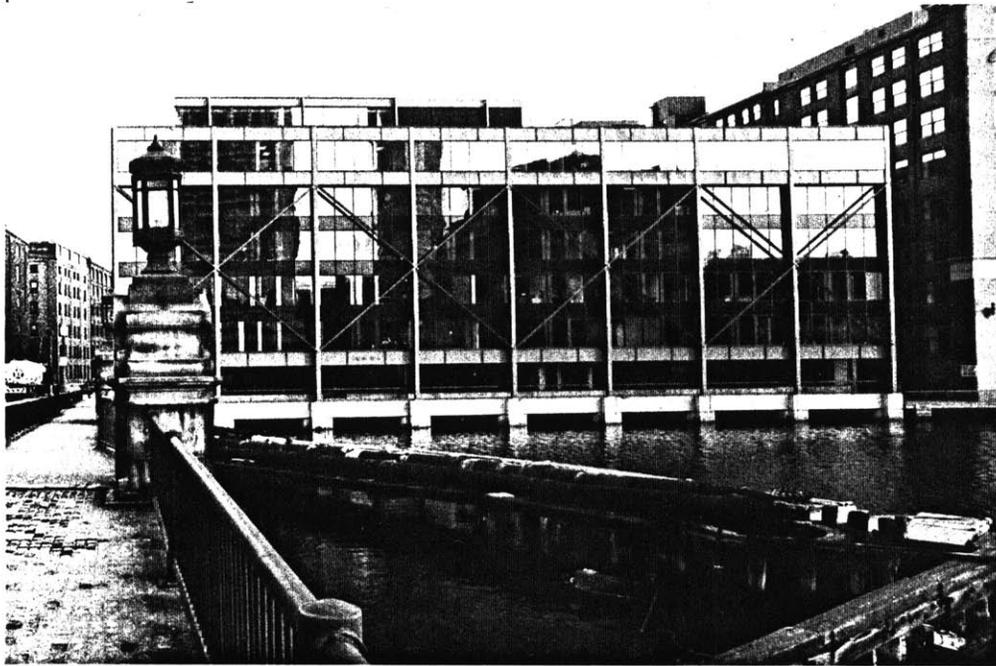
**CONTEXT
4**



The Transportation Building, Boston

The monochromatic building (not far from 399) demonstrates how lifeless large scale projects can be when variations in material color and texture are not developed.

COLOR TEXTURE		STRATEGY 2·3
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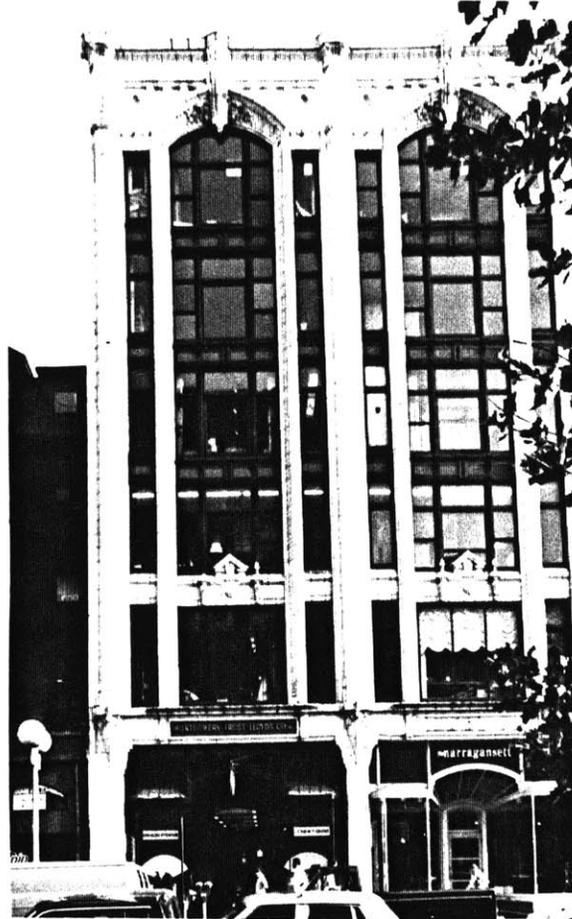
Fort Point Channel Office Building

Metal columns and selected spandrels are painted in a lighter green than the majority of spandrels to suggest base, middle, and top zones. The concrete base which contrasts in both color and texture relieves the harshness of the all metal facade. The clean lines of the steel framework go well with the spartan character of nearby warehouse. This suggests that a more textured framework would be necessary to complement the more ornamented Back Bay buildings.

**COLOR
TEXTURE**

pp. 45, 99

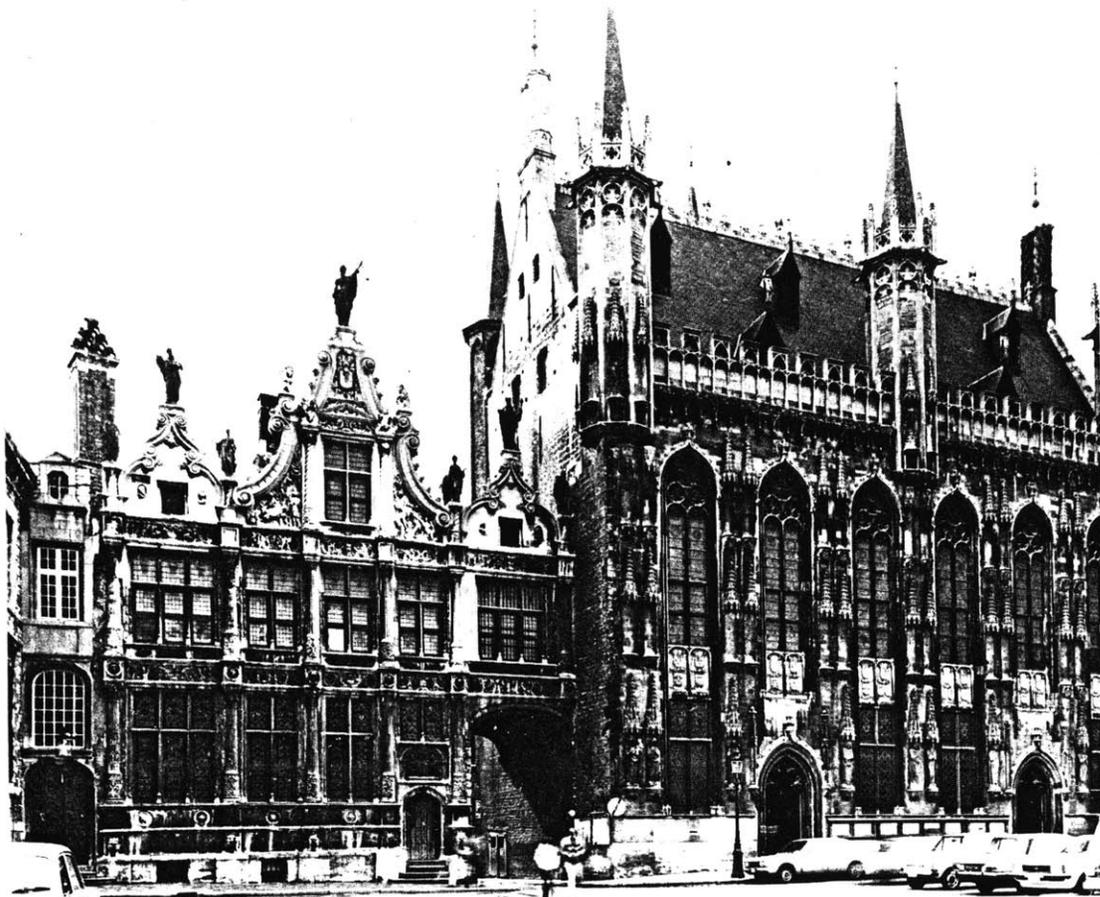
**STRATEGY
3**



This recent building by Goody, Clancy near Copley Square (left) uses vertical bays to "fit in" but the effect is lost because of the lack of reinforcement by contrasting colors and textures seen in the right photo.

COLOR
TEXTURE

STRATEGY
3

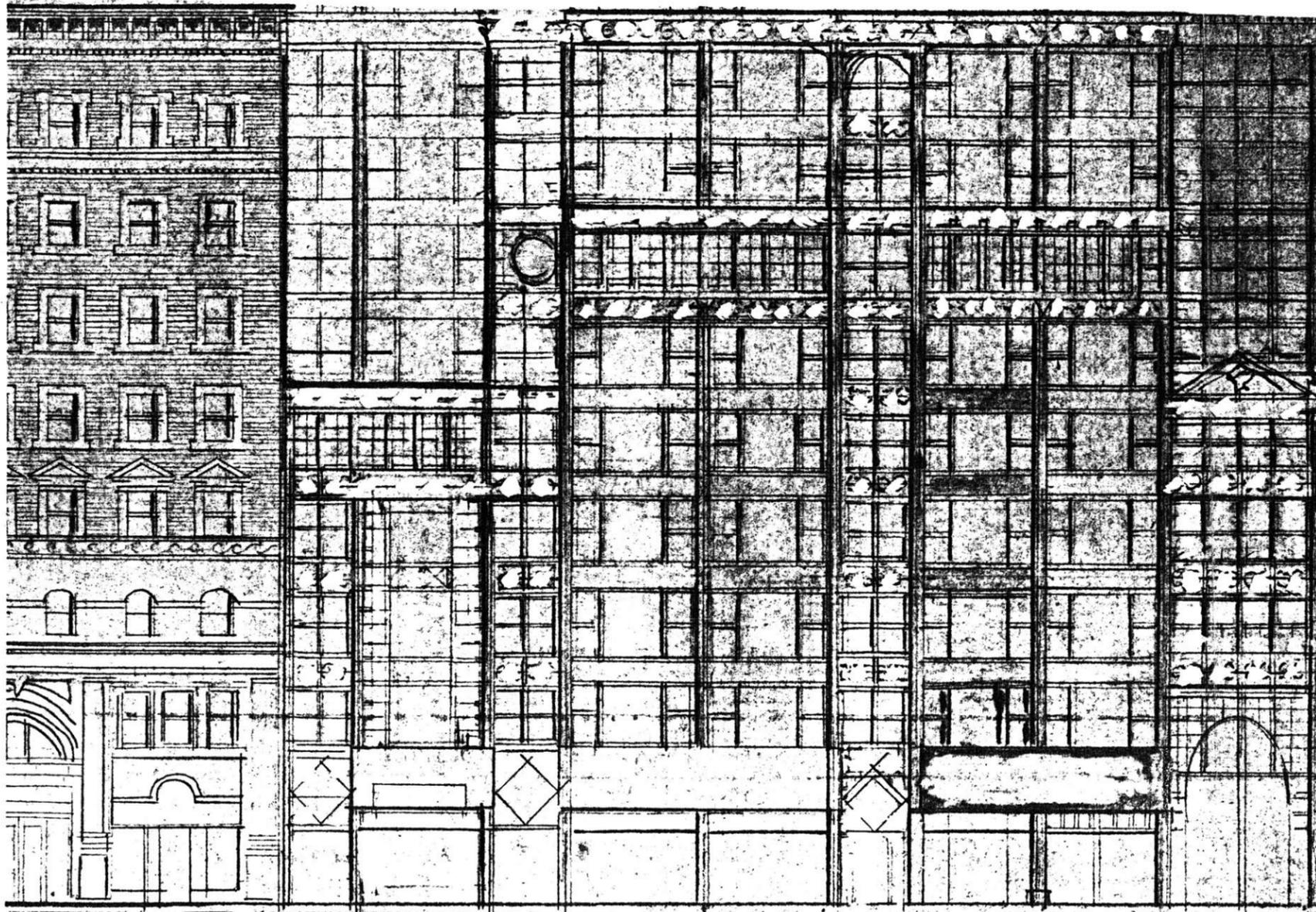


From Architecture in Context
This renaissance addition to a Gothic church demonstrates how similar coloration and textural treatment can integrate buildings of different sizes and bay proportions.

COLOR
TEXTURE

p.99

STRATEGY
3·4

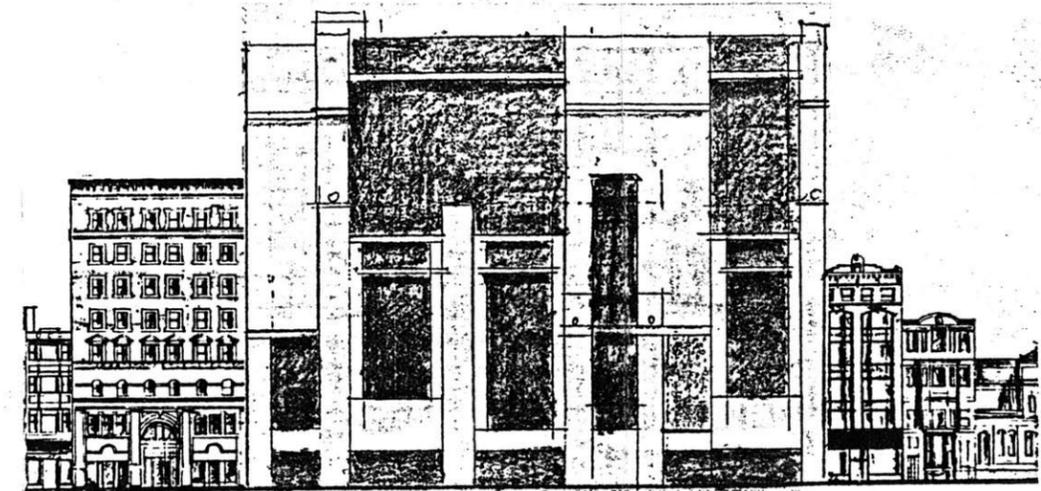


Development of Scheme 4: fragment

Ornamentation and contrasting paint color on vertical bays and "attic" floors are used to break up the the large scale framework.

COLOR
TEXTURE

DESIGN
3·4



Development of scheme 4

Light colored continuous cladding on the narrow vertical bays frames the dark green infill frameworks. Attic spandrels of the lower and upper facades are painted in contrasting colors to suggest "tops". Circular windows are painted in silver to act as contrasting objects found within the field.

The introduction of the lighter more continuous cladding attempts to weave the different zones of the building together much as the limestone, granite, and white painted brick do on the neighborhood scale.

<p>COLOR TEXTURE</p>		<p>DESIGN 4</p>
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C O N C L U S I O N S I
D E S I G N

The design work has suggested several useful directions for the design of facade system on this site:

- (1) Articulation of sub-buildings organized in a serial or non-symmetrical fashion
- (2) A system of several bay types with contrasting dimensions, rhythms, and textures
- (3) Use of setbacks
- (4) Conception and/or articulation of the facade in base, middle, and crown zones-(this organization in combination with different bay dimensions makes a wide range of building zones possible)
- (5) Use of color and texture to complement the context, but also to reinforce and enhance the building's organization, rhythm, and scale.
- (6) Conception and/or articulation of building elements to echo the proportions, scale, and rhythms of those found in the immediate context

Items 1, 2, and 3 address perhaps the most important formal attribute of the Back Bay, the rhythm on the big scale, the grain of buildings. Items 4,5, and 6 address the style and organization of the buildings without necessarily having to copy.

C O N C L U S I O N S I I
W O R K I N G P R O C E S S

Observations:

- (1) It has been useful to work with the four components of visual continuity as framework to evaluate how a facade looks-independent from the many other issues inherent to the problem of facade. Architects tend to have systematic criteria to evaluate how floor plans "work" but facades are often seen as either strict expression of the interior or subjective exercises in personal expression. Given the facade's important role in the creation of visual continuity in the streetscape, such frameworks are necessary to meaningful evaluation and the generation of alternatives.
- (2) Rhythm, organization, scale, and color/texture proved useful to me: they were the result of violent condensing, yet seemed to organize in a simple way all the thoughts that I had during the course of the semester. Given the scale of this project, rhythm was the most descriptive category and could have described almost all of the analyses. An additional category might be visual weight because understanding the spirit of a building and its suggestion of different zones is linked to internalization of its resolved and unresolved "forces".

C O N C L U S I O N S I I I

D I R E C T I O N S F O R F U T U R E W O R K

Having explored the design ideas listed at the beginning of this section in relation to how the facade "fits in", one might cycle back to understand the connections and conflicts between these design ideas and

INTERIOR USES:

Design decisions have been made with respect to "formal" considerations and could be considered "arbitrary" in the sense that they ignore interior uses and, in fact, seem to contradict the nature of large office buildings composed of identical floors of "neutral" space. Cycling back to the inside of the building (after establishing the need for different zones and types of articulation on the facade) one would explore how: (a) uses and inhabitability of the interior edge could generate different pieces of facade vocabulary (b) how differences in the facade could reinforce the sense of place without limiting flexibility or seeming arbitrary.

BUILDING TECHNOLOGY:

Systematic consideration of structural and cladding systems in light of their ability to address the following list of design considerations ought to be considered: (a) what pieces do they offer which can be used to articulate a range of sizes, different zones and rhythms? (b) How can one or several systems be articulated to suggest depth and visual weight? (c) What systems demonstrate a spirit or integrity comparable to that of the context?

USER PERCEPTIONS:

Does the designer's perception of how buildings "fit in" match those of the people on the street (whose visual pleasure he is attempting to increase)? Amos Rapoport writes in "The Perception of Urban Complexity" that ideally the designer acts as a pacer-forcing lay people to reevaluate their environment and make new connections, without "losing them". User surveys and research on the cognitive schemata used to interpret buildings and particularly the urban facade could establish the legibility of contextual architecture.

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