

BOSTON'S SOUTH STATION: The Process and Consequences of Preservation and Reuse

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Yale University 1980

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Abstract

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Submitted to the Department of Architecture on May 10, 1984, in partial fulfillment of the requirements for the Degree of Master of Architecture.

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Abstract

This thesis examines some of the basic issues involved in the preservation and reuse of old buildings.

In particular, the work is an exploration in three parts of the ways in which people perceive and respond to the general context of existing buildings and larger environments. This context is understood to comprise not only the physical aspects of buildings and their surroundings but also their identity as artifacts of the past.

The first part considers two preliminary examples as contrasting types of reuse projects, and examines the issues of process, intent, and meaning which arise. The second part consists of a number of case studies of actual reuse projects, divided into six categories, which are evaluated on the basis of their responses to both their physical, symbolic, and temporal context. The third part is a design project involving the reuse of Boston's South Station railway terminal. The design attempts to achieve a balanced and interactive relationship between the existing building and the new construction.

I conclude that the relationship between old and new in architecture must be based on a careful understanding of the existing context in both its physical and symbolic dimensions in order to avoid conflict and discontinuity.

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i know that i am bound
for a journey down the sound
in the midst of a refuse mound
but wotthell wotthell
oh i should worry and fret

death and i will coquette
theres a dance in the old dame yet
toujours gai toujours gai

my youth i shall never forget
but theres nothing i really regret
wotthell wotthell
theres a dance in the old dame yet
toujours gai toujours gai

I. INTRODUCTION



This paper examines some of the basic issues involved in the preservation and reuse of old buildings. It includes a design exercise which takes as its subject a new inter-modal transportation center in Boston, on the site of the old South Station and incorporating the surviving structure of 1898.

In addition to the design exercise are a number of case studies of reuse projects, in the Boston area and elsewhere, which serve to identify and illustrate some of the issues and concerns involved in this sort of work.

While the reuse of old structures, recycling them for new uses or refurbishing to extend their usefulness, is nearly as old as the art of building itself, the notion of reuse as a distinct field of architectural activity is a relatively recent phenomenon. Some of the reasons for this distinction will be discussed further on. It is important to note at this point that a great deal of activity is now taking place involving the renovation, adaptation, and reuse of old buildings in the United States, and in other parts of the world. In 1980, about 33% of

architectural practice in the U. S. was in reuse. [ref. 11] Although at first limited largely to historic and significant institutional buildings, the reuse field has grown to include virtually all building types in both urban and rural settings.

The vitality of this field speaks well of our maturing concern for the quality of our cities and the importance of our architectural and symbolic heritage, yet it is clear that all is not well. A subjective assessment of any number of reuse projects suggests that in many cases architects (and their clients) do not adequately understand the context and consequences of their actions. The fitting together of old and new is a sensitive process requiring perhaps greater skill and care than is commonly required for an all new design.

Some clarification of terms is in order at this point. I am generally concerned with projects in which existing buildings are in some way "re-used" and form a significant part of a new project. The terms reuse, recycle, and renovate are used almost interchangeably and, unless otherwise noted, "preserve" is used in its

broadest sense to indicate that an existing building is retained in some clearly recognizable form (as opposed to being covered up or carted away as landfill).

I originally set out to investigate what I called "reuse and the dimensions of meaning", which concerned the rather broad and metaphysically treacherous territory of meaning in architecture. I assumed that it would be possible to objectively identify some clear and universally applicable ways in which buildings contained and conveyed meaning to their occupants or observers, categories which would then be useful as yardsticks for the evaluation of specific renovation projects as well as new buildings. However, this approach turned out to have a number of problems. The establishment of a priori criteria tends to limit one's vision and options in a given circumstance, and it quickly became clear that in order to adequately deal with the understanding and transformation of old buildings open-mindedness and flexibility were of the utmost importance. Furthermore, the question of just what constitutes

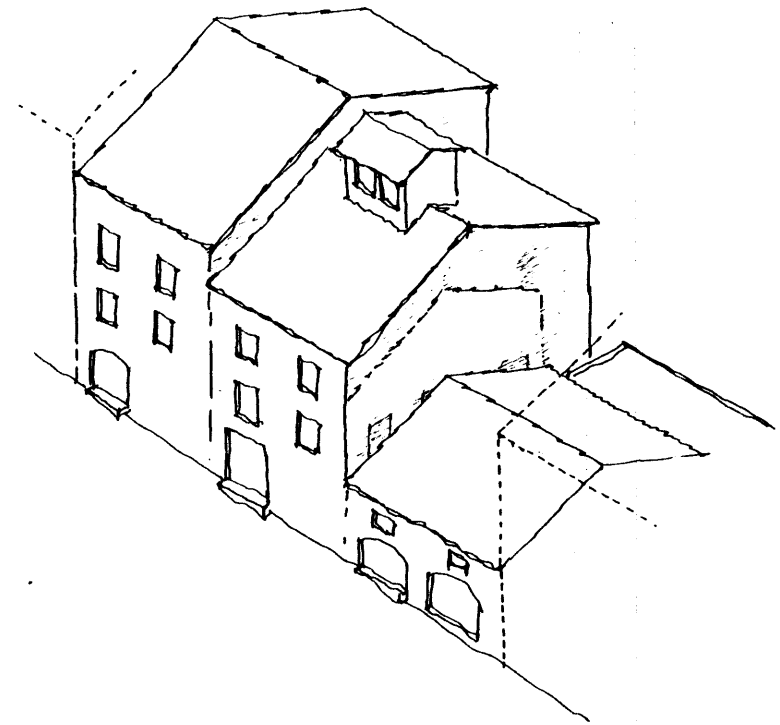
"meaning" in architecture is far from simple; built environments mean many different things to many different people, on a multiplicity of levels; to reduce this complexity to any manageable set of common denominators is to be left with propositions so general as to be useless.

My chief interest has been to develop a framework for the evaluation of renovation projects with particular emphasis on those which involve significant additions to existing structures. It thus seemed that the best way to proceed was with a series of case studies of existing or proposed projects in Boston and elsewhere. The initial selection of these projects was based on some general typological categories and on a preliminary and somewhat personal and subjective assessment of the success or failure of their architectural resolution. The relationship between old and new in these projects promised to give specific insight into the general questions of architectural meaning and the interactive nature of built environments.

The course of this research grew out of an initial interest in the contrasts between what I saw to be two very distinct patterns of change in the fabric and character of buildings. The first may be termed evolutionary or perhaps "incremental-vernacular" and refers to that sort of change which one sees in older buildings which have undergone generations of habitation and gradually changing uses. Each successive layer of occupation in some way leaves its mark upon the appearance of the building; doorways added or removed, windows altered, additions built, styles updated. Such changes tend to be modest when taken singly, but their cumulative effect is to transform the building into a rich collage marking the passage of time and recording the stages of its history. At times this record can be quite explicit, especially to the trained observer, but as a part of that special patina of age and wear it always conveys a strong sense of continuity with the past.

Consider as example a town house in Siena, Italy, which may typically have been in continuous use for three centuries or more.

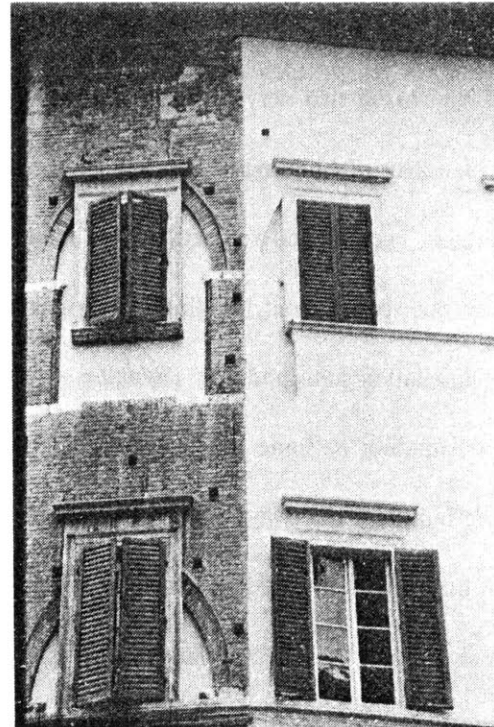
The exposed stone and brickwork of its walls clearly shows the changes made over the years. New brick contrasts with old where windows or doorways have been sealed or opened up, where where deteriorating sections have been replaced or new storeys added. Old walls are freshly exposed to view where abutting structures have



Siena, Houses

disappeared. It is often possible to see where successive alterations have layered over previous changes to such an extent that a sixty-foot high wall, although never demolished, contains few of its original pieces. The texture of such walls is quite remarkable; they are a patchwork quilt of history. In some cases, such as the Logge del Papa whose pointed Gothic windows were remodelled to a more fashionable Renaissance style with no effort made to conceal the change, there is specific historic or stylistic significance to these visual records; more commonly they simply bear witness to a continuing process of change and transformation. We read them as we do the lines on a grandparent's face.

This archetypical Senese (Sienese) building may also have housed a variety of different functions over time, especially at the ground floor. The original pattern was commonly a large vaulted space opening directly onto the street which served as a workshop for the craftsman whose family occupied the floors above. This arrangement can still be observed, although the clustering of specific



Siena, Logge del Papa, east wall

trades in particular areas of the city is disappearing. As the economic base of the city and the structure of industries has evolved, the large workshop spaces have passed to different uses. Most are not elevated above the street and as such are rarely suitable for use as living quarters. They are commonly used as stores of all sorts, cafes

and restaurants, and occasionally offices. Consisting of one or more 10 to 30 foot bays vaulted perpendicular to the street, these spaces are remarkable in their ability to comfortably accommodate a wide range of activities. While a picture window might occasionally be cut into a solid wall to display merchandise or light a restaurant, it is uncommon to see any major alterations made in the basic fabric of the building. There is thus a transient and ephemeral quality to whatever occupies the ground floor which contrasts with the time worn, enduring character of the walls which contain it. As Kevin Lynch observes, "longevity and evanesance gain savor in each other's presence..." [ref. 21, p. 38-39]

The second category of change might be termed "traumatic". It refers to the sort of intervention in which a building is significantly altered or added to in a single undertaking, usually over a fairly short span of time. As contrasted with the gradual, evolutionary character of the Siena townhouse model, the "traumatic" intervention happens all at once and as a result of a single conception on the part of an

owner or an architect as to the desired final character of the building, whether in an isolated setting or as part of a larger new architectural composition. Most contemporary American reuse projects as we know them, fall into this category; the term "traumatic" should not be construed in a negative sense but understood to indicate the degree to which old buildings are manipulated and the sudden manner in which the manipulation occurs.

Over centuries of alteration and repair, the Siense house will have undergone what amounts to near total reconstruction. It may have grown considerably in size and been internally reorganized, although this may not be evident from the appearance of the street facade alone since this seems to be the least changeable aspect of these buildings. It is illuminating to compare this with a particular sort of "traumatic" renovation whic has occurred in Georgetown, Washington, D. C.. High land values and relatively low density are characteristic of the area, and height restrictions and other strict zoning controls are in effect. In a number of instances along the

south side of M Street, Georgetown's main thoroughfare, the existing 19th or early 20th century commercial buildings have been renovated or recycled in an unusually drastic manner. A typical example is Georgetown Place, originally a two storey, Italianate structure in the usual pattern of rental offices above ground floor retail space. In the late-1970's the building was entirely demolished from the street wall back, its brick facade temporarily propped up by a framework of timbers and steel beams. In its place was built a structure several times larger than the original, longer, taller, and deeper underground. The site, sloping steeply down towards the Ohio and Chesapeake barge canal and the Potomac, allowed access from the rear to new basement floors well below street level. Additional stories above the street brought the building up to the maximum height permitted by zoning but were stepped back from the cornice line of the old facade in such a way as to be practically invisible from the sidewalk. The new exterior walls are of brick, as are most of the neighboring buildings. The immediate environment

of M Street is thus essentially unaffected; there is no disruption of the streetscape although from a block or two up or down the street, from the nearby Key Bridge, or the back streets nearer the river, the vast bulk of the new addition is unmistakable. The facade wall is functional, retaining the traditional character of its entrance and fenestration. New floor levels correspond to the old ones. Automobile access to the new structure, however, is from behind and below, while the street facade is more of a ceremonial entrance for pedestrians - a quaint set-piece used deliberately to conceal what occurs behind.

It might be argued that such a radical transformation might equally be the end result (or at least the present incarnation) of generations of incremental change of the sort seen in Siena, and that the only difference between the two is the span of time involved. It is intuitively clear, however, that the two examples are profoundly different despite these superficial similarities. Had the Georgetown building evolved to something like its present form over the course

of say, a half-dozen generations of more modest changes - a new storey here, a larger basement there, some new side windows after a neighboring structure burned down, perhaps growing so deep that the back door became a principal entrance - it would now be something of quite different character. In place of the large, almost monolithic brick box would be an accumulation of overlapping changes and additions, probably mismatched and certainly inefficient. As a whole it might have achieved some accidental or intentional harmony among its various parts, perhaps not. Its street facade would be unlikely to have survived unaltered - at the very least any new stories would have been stacked right on top of the old ones, perhaps as a mansard, or blended in to match the existing style of the wall below, or as a part of a new applied decorative order altogether. This is a pattern quite characteristic of detached private houses in this country, but not often of commercial structures which are likely to be demolished and replaced with something larger.

As it now stands, Georgetown Place is confusing and ultimately

leaves its observer feeling vaguely uncomfortable. It has been so profoundly and so suddenly changed that we are left with no references by which to measure or understand its transformation. The thin slice of wall which remains cannot provide an adequate framework, either physically or symbolically, by which we may comprehend what has gone on behind. All at once it has become something quite unlike its neighbors, unfamiliar and without precedent. The deceptive character of the now-false front is only part of the problem; it is simply the opposite of the archtypical Wild West saloon whose oversized billboard facade promised more than it delivered - in Georgetown we get a good deal more than we expect. Its designers seem to have proceeded on the assumption that a single, two dimensional acknowledgement of local patterns and tradition was sufficient to integrate the new building into its environment. In certain ways they succeeded: from a pedestrian's point of view the street is unchanged, retaining its 19th century scale, rhythm, and intervals. A facade of some architectural, and perhaps

historic, interest has been preserved. Automobile access to the neo-Victorian shopping mall within is at the rear, so the restaurant-and-boutique trade of M Street is not subjected to excessive new crowds of people or cars. Yet from any distance away, the deception is obvious, and once it is revealed we can no longer pass by the place without feeling that it would be morw at home on the back lot at Universal Studios than as a real part of a coherent urban environment.

The failure of this renovation lies in the specific nature of the relationship between its old parts and its new self, or more accurately, the lack of any substantive relationship.

It is useful to again compare this "traumatic" Georgetown renovation with the evolutionary Siense example. It is important to note that the differences between the two are not necessarily a direct function of the span of time or the number of independent actors involved in their transformations. We must not jump to the conclusion that old buildings are categorically good and that new

interventions in established environments are necessarily bad; there are plenty of much-used old buildings which offer neither commodity, firmness, nor delight of any sort, and a hopeful number of recyclings which respond to their surroundings in a sensitive and creative manner.

The evolutionary model is nonetheless helpful. Careful examination of the nature of incremental change in a relatively stable environment, such as Siena, can provide important clues towards the development of a successful strategy for understanding and evaluating renovation projects of any sort.

When considering a renovation most attention is understandably paid to the specific building involved. It is critical, however, that the building be considered not only as an isolated entity but as a functioning part of its larger environment; whether it is a rowhouse in a dense city or a freestanding structure out in the countryside. This larger environment is the framework upon which and within which any change in the fabric or character of a building must occur.

It is a set of conditions which are dynamic and multi-dimensional, ranging from the most basic levels of materials and construction techniques to patterns of use and habitation, climate, and the less tangible but equally important dimensions of historical and symbolic associations and cultural memory.

Every renovation, whether "evolutionary" or "traumatic" in some way addresses the context in which it occurs. Physical change may extend and enhance established traditions of building and use, or it may be violently disruptive of established patterns, but it must always be seen in reference to the particular character of the building and its surroundings.

On a typical steep, narrow street in the old section of Siena, no two houses will be exactly alike, yet they almost all share certain important characteristics which allows the diversity of the individual houses to add up to a strong, coherent whole. The differences between one building and the next may be quite substantial. A house at the bottom of Via Santa Caterina in the old leatherworking



Siena, Via Santa Caterina

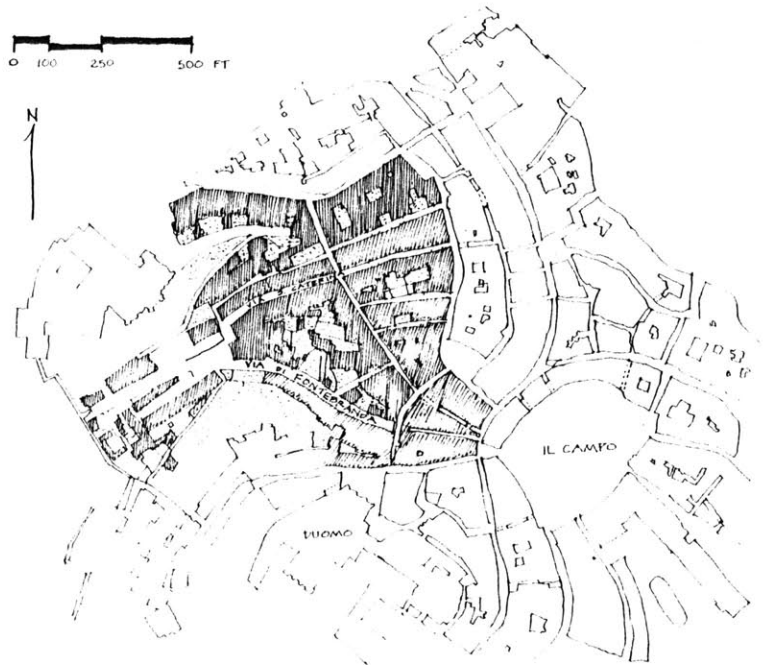
district of the Fontebranda still has its open loggia at the top floor, now used for drying laundry instead of hides; on a nearby house newer brickwork shows where its loggia has been closed up to provide more interior space. Some houses are two or even three stories taller than the one next to them; telltale diagonal scars on the

exposed side wall may show that the neighbor was once taller and somehow lost a few floors. An abutting structure may partially eclipse the bricked-up openings of windows which once faced a garden or an empty lot. The houses vary considerably in width and depth, depending on topography and the layout of adjacent streets; they are often, although not always, narrower where the street is steeper. Where the backsides of the houses abut open land, as occurs around most of the edges of the city within the old wall, the ground plan of a row of houses resembles the Manhattan skyline turned on its side - some houses very shallow, others extending well back from the street line. The physical condition of buildings may vary considerably, although this tends to occur more gradually, with major differences more apparent between the neighborhoods, or between the "good" and "bad" ends of the street (often "uphill" and "downhill" in Siena) than between one house and the next. The typical condition of walls along Via Santa Caterina might be called "half-stuccoed" although many have lost their stucco veneer

altogether. In a few places the old walls have been repaired and recoated and are only beginning to show the first traces of the inevitable process of aging and deterioration. Roofs are invariably made of brown-orange tile and often seem to be the most timeworn parts of these houses. While the materials, color and gable or hip configuration is consistent throughout, the condition of these roofs varies as much as that of the walls which support them. The tiling on the better ones are relatively neat and orderly, while most roofs have been maintained in a rather ad hoc manner and resemble random piles of terra-cotta debris.

Yet despite all these differences there is a tremendous sense of unity in the overall streetscape. Each part is unique in its history, form, and condition, but is nonetheless an understandable part of the overall order.

The Siennese street is narrow and tightly closed on both sides. The building line follows the street exactly with no sidewalks and generally no setbacks. Ground floors are generally not elevated



Siena, Partial street map

above the street. Gardens and the rare empty lot are walled off, and the alleys which occasionally penetrate through the blocks are entered through archways rather than vertical breaks between buildings.

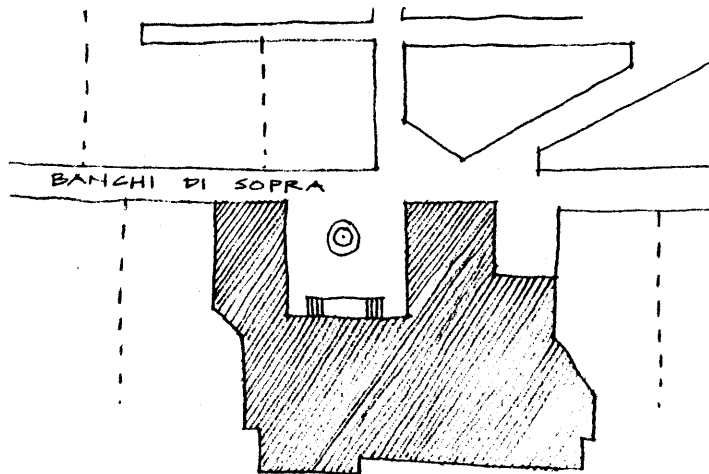
Although individual houses may differ somewhat in style and

degree of ornamentation, their street facades, especially at the lower levels, are characteristically simple and flat; no porches or stoops, rarely a base course or water table, most often just a plain masonry wall with simple arched or rectangular openings. On steep streets a single stone step may intrude into the street to provide a level platform, but in general the overall effect is of a smooth continuity of wall which encloses and defines the street. At night this is even more pronounced; windows are tightly shuttered, potted plants taken in, the splash of contrasting color provided by food shops, restaurants, or laundry hidden behind doors or metal gratings.

There are infrequent exceptions to the rule of the smoothly-walled street. Where buildings of public significance such as churches and palaces occur along the street (rather than on a larger piazza), they are typically set back from the overall street line. Where space is at a premium, the reverse may be true - the facade and steps of a church, for example, extending out into the street. In either case, the break in the continuity of the building wall clearly

signals that something unusual and important is there. The ground floors of public buildings also tend to be several steps above the pavement, unlike the houses.

While the absolute sizes of the buildings may vary, there are few very large or small ones. In any case, the overall streetscape is united by similarities in scale, form, and materials which tend to mitigate any disparities in size. The setback configuration of the large Palazzo Salimbeni, for example, enables it to echo the scale of the smaller houses around it.



Siena, Palazzo Salimbeni

The proportion of window to wall area in street facades and side (bearing) walls is fairly invariable; is the range of sizes and shapes of the openings themselves. The relationship of private space to the public street is consistent throughout; ground floors of houses may be semi-public stores or workshops, but the upper floors are strictly private and cannot be seen into from the narrow street.

This limited palette of materials, forms, and spatial relationships is a product not only of practicalities such as the availability of materials and technology, but also of the particular social and cultural context of the city. The physical framework of house and street is part of a larger cultural tradition in which a common history and shared understandings of the relationship between public and private space tend to stabilize and perpetuate the physical and symbolic environment. The environment continues to evolve, but slowly; changes that occur in the physical fabric tend to be gradual and evolutionary rather than radical and disruptive.

The Georgetown renovation attempts to preserve some of the

correspondences which existed between the original building and its surroundings, and to a limited degree has succeeded. But its beauty is only skin-deep, and the project is ultimately deceptive and quite out of place. It has retained the old facade and surfaced its new walls in the common Georgetown brick, but these gestures are not enough to integrate the building into its context; instead they tend to make its formal and symbolic incompatibility all the more obvious.

The structure was typical of the commercial structures on M Street. The size, scale, and style of its Italianate facade, existing as it did in company with other buildings of similar configuration, implied certain things about the size and character of the interior spaces. The frontality of the facade acknowledged the importance of the street and suggested the organization and hierarchy of interior functions. The overall effect was perhaps unexceptional, but it constituted a clear and understandable part of the streetscape.

Apart from its brick sidewalls, the 1981 addition does little to relate to its surroundings. Its large, bulky mass is way out of scale

with its neighbors and far too big for its tiny facade. The long side walls are flat and unrelieved; flush strip windows of smoked glass, lacking sills, lintels, or visible frame are anomalous in a district of structures which, although generally simple and restrained, nonetheless express their parts with ornament and clear articulation of structure. The overall effort has been to conceal and deny the extent of the new building; unlike the Sieneze palazzo, it has not broken down into elements more compatible with the sizes and scale of the street.

II. IMAGE AND SYMBOL



Every architectural act, however large or small, evolutionary or traumatic, occurs within a framework of physical and psychological conditions collectively referred to as context. Context must be seen as a complex, dynamic system which involves the continuing interaction of forms and human perceptions. Any environment, whether natural or man-made, is ultimately a product not only of the composition of its physical pieces but also of the cultural patterns of symbolism and belief with which they are associated. Any change which occurs in an environment is, consciously or uncsciously, a response to the existing context. Disruptive change tends to be the result of incomplete or incorrect understanding of one or more aspects of that context.

Most reuse projects are initially concerned with the specific physical context of the building in question; all subsequent decisions are in some way based on the architectural armature of the original structure. The analysis of this immediate physical context is perhaps the simplest part of the reuse process, yet any number of awkward

projects indicate that it is not always properly carried out. Any building is a collection of various pieces assembled in a certain way. The overall configuration can be described in plan, section, orientation, sizes, materials, method of construction, age, and condition. The composition of parts produces particular qualities of scale, proportion, rythm, massing, color, texture, and formal orientation and organization, which constitute the style and identity of the building. All of this, except perhaps style, can be precisely measured and quantified. Certain special attributes are also part of the immediate physical context; qualities of light and sound, perhaps smell, touch and characteristic temperature.

Beyond the confines of the individual building is the larger physical context; locally this includes the patterns of neighboring buildings, streets, and topography. On a broader scale it includes the characteristics and overall form of a city or a region; materials, forms, uses, circulation, climate, and sun. The physical composition of the streetscape is analogous to that of the individual building in

that it is the product of a range of identifiable characteristics, although it is more complex and likely to be less disciplined in its interrelationships. An assemblage of buildings will exhibit both individual differences and unifying communalities in greater or lesser proportion depending on the case; some environments are highly coherent while others are random and disconnected. It is of considerable importance to identify the common characteristics of buildings in urban settings if existing structures are to be altered or new ones built.

The symbolic or psychological components of context are more complex and more problematic. Physical conditions, however subtle, are essentially concrete realities which can be perceived, recorded, and analyzed, although this can require substantial effort and is not often done thoroughly. Symbolic context, on the other hand, is essentially subjective, multidimensional, and even quite personal in a way that makes it difficult to fully comprehend. The problem is that no two people will ever feel exactly the same way

about a building, a city, or a natural landscape, regardless of how similar the two individuals may seem to be. Their perceptions are affected by personal experience, learning, intuition, and emotion, as well as by more general but equally variable cultural and societal conditions. It is impossible, therefore, to precisely define the symbolic context in any given case. We can only address it in general terms and propose a means of understanding how alterations in a physical environment can effect its symbolic content, and vice versa.

Consider first a simple, specific building. It may contain symbolic meaning on any one of several levels. If it is Paul Revere's North End house, for instance, it has the traditional sort of historic meaning, having figured in historically significant lives or events. We remember the famous midnight ride and here is the guy's house, like a lock of hair or one of his boots. Such places are often kept as museums, frozen bits of time which serve as patriotic pilgrimages; this is a special sort of symbolism which is in fact quite rare but

nonetheless figures heavily in our attitudes towards less distinguished survivors.

Somewhat more commonly, the building may be of some historical importance, not witness to any great event or personage but of some architectural interest, perhaps the precursor or culmination of a style or technology, or the work of a significant architect (all, of course, as determined by contemporary critical taste). The historical building may be a particularly good (or the last surviving) example of its type, or as a landmark, important as a special piece of the streetscape or landscape but without particular historic significance. Such a landmark may function almost as a topographical feature, suggesting a familiar permanence against which the changes going on around it may be measured.

Similarly, individual parts of buildings can contain and convey meaning on historic, historical, and personal levels, although it is rare that such parts can retain their specific meaning beyond the context of the building in which they are found. Certain pieces may

have intrinsic value as historic artifacts - a molding carved by Bulfinch himself or a colonial door with the hatchet marks of a famous Indian raid - but these are rare and important only in a narrow documentary sense once they are removed from their original surroundings. The same is true of less illustrious pieces; panes of bullseye glass or hand-hewn beams may be of general historical interest in situ, but taken out of context they have specific meaning only in an archeological or highly personal sense.

Yet beyond the narrow limits of specific historic or personal identity, architectural pieces have tremendous power and significance as symbols and archetypes; their specific origins are unimportant compared to the roles they play as cultural images in the composition of buildings and cities. (The same is true of buildings themselves; as a house is composed of identifiable architectural elements, so is a city composed of houses and other types of structures.) The range of these pieces or images is vast; some are clearly identified with a particular culture and time, others

seem to be almost universal. Doors and windows in their simplest forms are basically anthropomorphic and connote dwelling at a most general level. While doors and windows in certain styles and sizes can quite precisely express a particular kind of dwelling or habitation. Likewise, the configuration of other basic architectural elements can have very general or very specific meanings. A gable roof is a ubiquitous indication of enclosure or shelter; that same roof with broad overhanging eaves on a simple, freestanding building may symbolize a railway station. Other specific elements may symbolize particular buildings or building types, but it is more common that arrangements of several individual elements together constitute the image and identity of a building. However, the physical parts alone do not "make" a church or a house or a factory; the image or symbol of a particular type of building is based entirely on the perceptions of the observer, and those perceptions are a complex function of historical, cultural, social, and personal conditions. These conditions may be a very general or very specific;

it is arguable that certain perceptions of dwelling and enclosure, such as suggested by the archetypical anthropomorphic houses, are universal among human beings, but it is clear that as that archetype becomes more and more elaborated its full meaning becomes accessible to fewer and fewer people. Even as they can be seen to be the common underpinnings of all architecture, such archetypes are so basic and so remote as to be of little use in the understanding of complex contextual issues.

We are accustomed to associating certain arrangements of forms with certain building types and the implied meanings or values which go along with them. In some cases, individual forms may independently carry significant meaning: a prominent gilded dome usually connotes an important public building; a large round window with stained glass and gothic tracery indicates a church. Yet even highly suggestive forms such as these are infinitely more meaningful when they are seen in the fuller context of building and site, as we expect to find them. The dome belongs on a symmetrical,

porticoed structure in a commanding location, there the image is more complete and comprehensible. More commonly, specific forms have meanings which are much more general and difficult to define - they must be considered primarily as parts of a larger whole, be it a single building or an entire city. Incorrect assumptions are often made about the capacity of disembodied or "borrowed" parts or gestures to convey the meaning of their original context.

We are accustomed to perceiving particular arrangements of physical pieces as building types; these may be very specific or quite general. A building may be clearly recognizable as a church or may simply be perceived as old and otherwise nondescript; in either case it possesses a unique image which is the product of its physical pieces, their interrelationships, and the ways in which we perceive them.

Our perception of form and the values we assign to it are affected by a very wide range of attitudes and beliefs, some based only on personal experience and others part of larger historical, cultural, and social conditions. These attitudes may be general or specific,

constant over time, or part of rapidly changing fashions and economic conditions. Some are essentially matters of individual or collective choice while others, more importantly, are based on deeper cognitive structures with their own historical and cultural bases.

It is a universal characteristic of human societies to believe in the capacity of objects to contain and convey meaning, values, and power. Totems and symbols play important roles in reinforcing and reconfirming social, political, and religious structures. Such objects as the bones of a saint or a fragment of the True Cross are commonly held to have intrinsic curative or protective powers as well as to symbolize the continuity and stability of the tradition over long periods of time. Specific individual buildings of historic and cultural importance can also function in a similar manner, although their roles are rarely so clear or uncomplicated as those of religious icons. Most buildings, historic or simply old, are not such specific or unambiguous symbols of faith; they are meaningful on many levels

simultaneously. And while a building may remain physically unchanged for generations, its symbolic content will remain constant only in the most static and traditional societies.

Any old artifacts, buildings, and cities included, have a fundamental power to indicate the depth and remoteness of the past; this power may contribute to the strength and respectability of the belief system they represent. A building constructed 200 years ago is in a very real sense a piece of the past, but this reality is generally overshadowed by the more transitory values which we assign to it. For various reasons this essential quality of age is characteristically trivialized, subordinated to a more manageable and convenient understanding.

We believe that buildings have not only symbolic meaning based on history, style, and form, but also intrinsic meaning, a capacity to contain and convey cultural, political, or social values. What we generally overlook is the fact that it is we ourselves who project these values onto our buildings and artifacts. This value projection is a

mechanism with which we attempt to domesticate the past and give sense and leaning to our present. The values which we deliberately or unconsciously assign to the objects around us are by no means as constant and enduring as we like to think; they are mostly a reflection of the psychological needs of our own time. We have a powerful need to anchor ourselves to the past in order to cope with the present, but it should be remembered that "...there is no objective past, constant over time, but only a continual refraction of the absent in the memory of the present." [12, p. 15] Yet each time we redefine our history and reevaluate its artifacts we are convinced that we've gotten it right.

It is characteristic of modern western cultures to feel the need to define and give explicit meaning to experience. Ours is a world which values precise definitions and moral certainty and has few means for the expression or appreciation of intuitive understanding. Our sense of the past is composed of fixed points by which we subdivide and make familiar its fathomable distance; we relate to its

artifacts by assigning to them values directly related to our own condition.

With the caveat that history, too, is a product of current needs and beliefs, it is nonetheless useful to consider the general cultural background of our current needs and attitudes.

The past 200 years or thereabouts, depending on how one chooses to define things, have been marked by significant and accelerating changes in social, economic, and political structures. This has been perhaps most notable in the years since about 1870 [5, p. xx], although the basic structural changes had begun well before then. We are still riding the crest of this wave, and although its exact character and directions are a source of endless debate it is likely to continue into the foreseeable future. Many generations have grown up in this period and thus we cannot really consider its dominant theme to be, as is commonly supposed, a dislocation between traditional beliefs and modern realities, although this is part of it. Rather, the fundamental issue is the speed with which change has

taken place; this has had tremendous impact on the ways in which we perceive and deal with our physical as well as our psychological environment.

Only in very rare cases are social and cognitive structures stable over time; they tend to be elaborated, altered, and adapted to meet new needs and situations. Traditionally, however, the external forces acting on a given society have themselves evolved slowly enough to allow a rough sort of equilibrium to exist, punctuated of course by the occasional war, plague, or other traumatic episode. It is tempting to contrast contemporary western society with stable, traditional cultures and to conclude that ours is a basically unnatural condition and that our cultural neuroses and compensating mechanisms merely pay the price, but this is an essentially negative point of view. What has happened, and continues to happen, is that the external conditions affecting our individual and collective lives have changed faster than we can really comprehend. We have not evolved cognitive structures able to keep up and to a certain extent

we look backwards in our search for stability and meaning.

The broad historical trends which have led up to our present situation are well known, although subject to endless reinterpretation. Few corners of the globe are unaffected, although the specific history of Western Europe and North America are of the most immediate interest here. The Industrial Revolution is generally accepted as the major dynamic force behind the fundamental changes of this period, although it may be argued that certain political and social developments were in fact independent of it. In any case, technological advances, beginning in England in the early eighteenth century and in the U. S. nearly a century later, made possible a multiplication of wealth and a concentration of power that was without precedent. The ever-increasing speed and expanding scope of industrial growth had profound effects on political and social structures. The result, ultimately, has been a continual disruption and reconstruction of the ways in which people perceive the world in both its physical and psychic dimensions, and how

they relate themselves and their beliefs to the overall order of things.

It is a common characteristic of individuals and groups to respond to stress or uncertainty by looking back to a stable tradition, be it religious, political, or social, in order to escape the troublesome complexity of current reality. This backward-looking does not necessarily imply a denial or rejection of the present; it is simply a means of putting things into a manageable perspective. By their very nature, however, such traditions are relatively static and evolve slowly; indeed their power in part derives from their apparent changelessness. The reality is that, from at least the eighteenth century, social, economic, and political structures have been evolving with ever-increasing speed, leaving established belief systems farther and farther behind, scrambling or unable to give sense to new circumstances. Since continuous traditions were of little help, people began to create illusions, of idealized pasts and promising futures, to help them cope with the dislocations and alienation of the present. Academic and scientific disciplines were evolving which

provided these illusions with form, substance, and some degree of intellectual integrity.

Art and architectural history was nothing new, having been around in its modern form since the work of Alberti in the fifteenth century. As time went on, however, it paralleled the sciences in becoming more rational, more specific in its scope, more positivistic, and more dependent on empirical knowledge than an intuitive or culturally implicit understanding. From about the mid-eighteenth century architectural history began to play a clearly ideological role. Styles, periods, schools, and influences were all identified, defined, and evaluated. The past began to change.

When James Wyatt restored Salisbury Cathedral in 1750, his was an act of archeological revisionism; he removed and replaced a great deal of stonework which did not conform to his idea of the ideal English Gothic style and produced something quite un-Gothic in its purity and stylistic consistency. Yet this is considered more an expression of Wyatt's academic rigor than an ideological statement;

the characteristic "indiscipline" resulting from evolutions in style and technology over the typically long construction histories of the great cathedrals simply did not fit with his idea of how it ought to be. This sort of academic interest persisted in architectural restorations and reproductions, but was soon joined by specific ideological motivations.

In general, architectural historicism and stylistic revivals were essentially forward-looking until the mid-to-late 19th century. The principal desire was to borrow from the past those major images and values which seemed to best complement the aspirations and beliefs of the present. Perhaps the best example of this was the Greek Revival in the United States. The "rediscovery" of Greek architecture in the 1700's and its subsequent revival and acceptance in Europe provided a timely style to symbolize the free democratic ideals of the new American republic. This was a deliberate, considered symbolism, not nostalgia. It may have gotten a bit out of hand at times, as with Greenough's bare-torsoed sculpture of George

Washington, but never incorporated any real desire to step backward in time. There was faith in the present and the future, with the past serving as guide and inspiration.

By about 1870 in England, and to a lesser extent in the United States, the social and cultural context had evolved considerably, and the primary motivation behind historic revivals can be seen to have become quite different. The Arts and Crafts movement under the guidance of William Morris is a clear example. Morris explicitly rejected industrialization and its attendant loss of craftsmanship, beauty, and fragmentation of social structure. He advocated a return to handiwork, craft guilds, and small communities modeled on his vision of the late middle ages in England and northern Europe. His ideas were popular and influential, and gave new life and new meaning to the Gothic revival which had in fact begun a century before. Ironically, Morris' handicrafts and workshops were possible only because of the excess wealth generated by the very industrial economy he rejected; this sort of ideological myopia tends to be an

integral part of romantic and nostalgic movements.

The positive contributions and lasting influences of the Arts and Crafts and other contemporary movements should not be overlooked; the emphasis on craft and the appreciation of indigenous or "vernacular" forms instead of the academically accepted Classical prototypes were critical steps along the road to true modernism. These influences are clearly visible in the work of such "early modern" architects as C. R. Mackintosh, Edwin Lutyens, H. H. Richardson, Louis Sullivan, Bernard Maybeck, Greene and Greene, and Frank Lloyd Wright. The other visual arts, as well as music and literature, were similarly influenced.

The drawback, however, of the Arts and Crafts and similar movements, was in their explicit rejection of the present in favor of a very particular vision of the past. It was one thing to look back to ancient Greece in search of appropriate symbols for a new future, but quite another to deny the present altogether by seeking to step backwards in time. Doing so not only abdicates the responsibility of

coping with the challenges of today but also drastically alters the necessary identity and role of history. If we are to find our utopia in the past and be able to furnish and inhabit it in the present, it must by definition be simple, benign, flawless, and transportable. We thus require a very particular sort of history which cannot help but further inhibit our ability to comprehend the real present.

It is not surprising that the late-19th century saw a change in the very notion of history and the way in which it was studied. Like the sciences it became categorical and logical, but most importantly lost its connections to the present in all but the most mechanical sense; for the first time history became an "...objective and scientific study of the past for its own sake." [ref. 5, p. 15] The past, near or distant, became something to be studied at arm's length, like a captured insect. The chronicler of ancient and medieval times who drew no distinct line between "then" and "now" was supplanted by the expert trained to analyse discrete events and formal interrelationships. The scientific approach to history permitted a

more detailed understanding of phenomena, but tended to isolate events and individuals at fixed points in time rather than within a continuity of evolution and change. The separation of "then" and "now" blurs our appreciation of the real passage of time, rendering the past once impossibly distant and as close and cozy as we care to make it. Our tendency has been to adjust our perception of the past to fit the conditions and needs of the present. Indeed, much deliberate effort has gone towards altering the physical remnants of the past to better conform to our particular visions of the way things were. This kind of transformation occurs constantly and on many levels, from basic kitsch to serious historical reconstructions, but has rarely been done with the thoroughness and determination of Villet-le-Duc and others in the latter part of the 19th century. Their work on many great monuments of the medieval period often went well beyond mere restoration; they were in fact architectural revisionists who produced buildings of a stylistic purity unknown in the Middle Ages. The walled city of Carcassonne was rebuilt and

reinterpreted into a postcard vision of the twelfth century, with everything in its place and a questionable archeological pedigree. Viollet-le-Duc and the other medievalists believed that they were merely clarifying and presenting the virtues of the past, yet they single-mindedly imposed their own architectural and ideological agenda on the structures which they were "restoring". The past, typically, was made to conform to the needs of the present. The Middle Ages became familiar and accessible, no longer a distant spot in a dark past inhabited by unknowable strangers.

While the resurrection of Carcassonne and other medieval monuments may have functioned as affirmations of a common cultural heritage, they are also temporal short-circuits which presented the past as much closer, simpler, and more accessible than it really was. The present was thus deprived of true historical perspective and tended to become less comprehensible and increasingly alienating.

Attitudes in America typically followed European trends, but

developed in unique ways which reflected the particular physical and cultural environment of the new world. The anti-industrial, romantic movements of the late 19th century in England had their parallels here, but it can be seen that the underlying needs and motivations were somewhat different. The tendency to regard the past as simple, familiar, and accessible may be stronger and more enduring than in Europe. Many of the overall cultural conditions in the 19th century were analogous to those in Europe and produced the same sorts of alienation and discontent. There were similar fears of an uncontrollable future and similar needs for simple visions of a soothing, bucolic, and transitive past as a means of coping with the bewildering present.

The absence of any continuity of cultural and architectural heritage in this nation of immigrants led to a greater desire for an identifiable "past" which might exemplify the values which people found to be lacking in the present. This need for stable and identifiable belief has classically been projected onto the American

landscape; the archetypal frontier, initially quite real and later imagined, accommodated powerful images of freedom, challenge, and limitless opportunities. It remains a key part of our cultural mythology, but we have also developed a need for more specific pasts which might be more easily turned to the needs of the present. Representative icons of the nation's revolutionary past began to attract renewed interest by the mid-19th century. The first major example being the acquisition and restoration of George Washington's home at Mount Vernon. The preservation movement in this country from the start had explicit educational, inspirational, and especially nationalistic motivations. "The use of patriotic criteria generally took one of two forms; either the house to be preserved was a reminder of the hardships suffered by revered ancestors, or it was a beautiful exemplification of the peace and harmony of the uncomplicated past." [ref. 17, p. 264]

Preservation efforts were often in direct response to the unhappy conditions of the day: "The people who wanted to save the old

Bulfinch State House in Hartford were especially concerned lest future generations should look back on Hartford's citizens as 'completely obsessed by...frantic commercialism.'" [ref. 17, p. 265]

This concern for the future is, paradoxically, the most striking characteristic of the American obsession with the past. William Gass suggests that this distinguishes us from the Europeans; "Our monuments have a forward face." We look back not as if to step backwards in time but to find a clearer and less complicated vision of the future. [Wm. H. Gass, ref. 12, p. 141] Rarely do our historic sites, old as they may be, show the signs of age and wear; we like to keep them looking, like Williamsburg, "...just out of the box and fresh as a daisy." [Ibid.] ne 2

Yet like all romantics we prefer our pasts to be simple, uncompromised, and unambiguous. We are thus able to imagine that our ancestors were simply more innocent versions of ourselves and that the world they inhabited was a direct, earlier edition of our own. Instead of attempting to fathom the differences between

yesterday and today we marvel at the similarities. The historical short-circuit continues as the past is stereotyped, categorized, and ultimately stripped of the real meaning which might help us to better understand our own time.

These attitudes significantly affect the ways in which we perceive and manipulate the physical artifacts of the past. Consciously or otherwise, we tend to evaluate buildings on the basis of what they "mean" as part of a specific historical image. This image is usually a reflection of present needs or aspirations which are thus projected onto the object. It therefore becomes more difficult to objectively assess their architectural or practical value, and nearly impossible to understand them as links with a real and very distant past. As Lynch points out, "one danger in the preservation of environment lies in its very power to encapsulate some image of the past, an image that may in time prove to be mythical or irrelevant." [ref. 21, p. 53]

The tendency to have a favorable bias towards old buildings and established environments is exacerbated by a number of factors.

Jonathan Barrett has referred to the "...re-use of old buildings as a form of architectural criticism; people reject many of the new buildings they see, preferring what they have to what they expect to get instead." [ref. 4, p. 51] Certainly the experience of Urban Renewal in the 1950s and 1960s and the general aesthetic and environmental failure of much of International-style-derived architecture contributes to this point of view. Urban architecture since World War II has tended to disrupt rather than enhance established environmental traditions and has only rarely created new environments of outstanding quality. As a result the old stuff looks better and better; often it is good but we seem to have lost confidence in our ability to create good places to live, work, and play. We rely on images to provide us with what we need. The modern world is a place of tremendous freedom and possibility, yet the challenge of dealing with that freedom is so great that we often shrink from it, retreating into the more manageable parameters of doctrine and style. Automatic deference to architectural relics and

the values with which we imbue them may allow us to preserve certain aspects of our world, but taken too far may seriously interfere with our ability to deal positively and creatively with the present and with the inevitable future.

We should strive to acknowledge in our built environment the essential continuity of growth and change. Buildings and our images of them must be allowed to evolve, to grow, or to decay. Some buildings and larger environments are worthy of preserving in something close to their original states (if, in fact, it is possible to determine what constitutes "original"). They can be an instructive and useful window into the past, a piece of physical history, but their limitations must be understood. Such cases are relatively rare and do not fundamentally involve the issue of the relationship between old and new, between past and present, which is so critical in reuse projects which significantly transform or add to the existing framework.



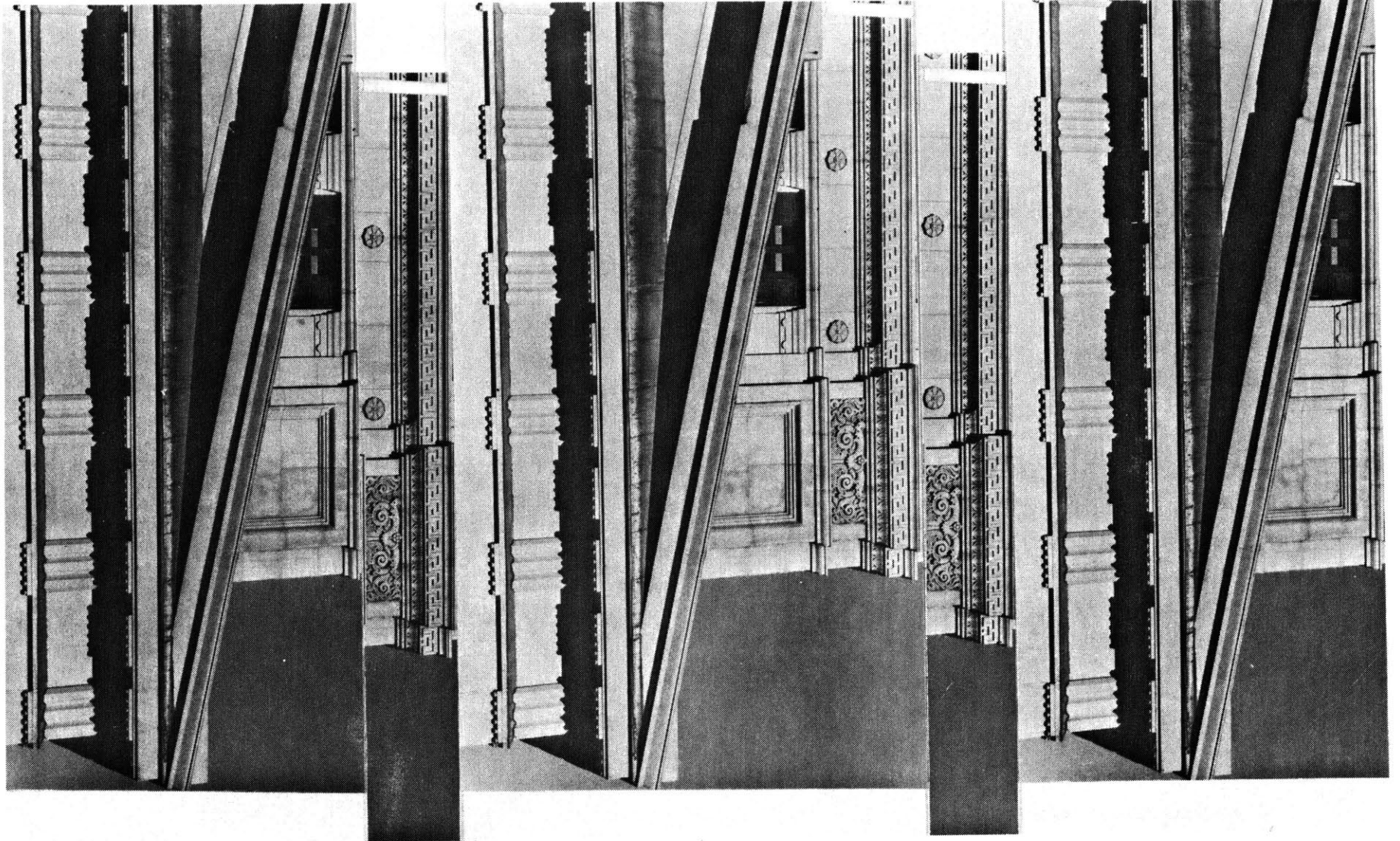
Bensberg, West Germany, Rathaus Tower, G. Bohm 1962-64 [ref. 28, p. 67]

The great challenge in any reuse project -- altering a building or adding to a city -- is the successful integration of old and new in a manner not based on fixed ideas or romantic attitudes towards the past. The physical and temporal context of building, street, city, and culture must be neither worshipped or denied but combined with

the present in a synthesis which reflects the continuity of tradition and change.

A complete understanding of the existing image in all its dimensions should be the starting point of any work. The image may subsequently be preserved, extended or transformed, but there is little chance of success if the process is based on an incomplete or erroneous assessment of what is there to begin with.

III. CASE STUDIES



The following is a collection of case studies of a number of reuse projects. The possibilities of this sort of work are practically infinite, and the small number of examples here cannot adequately represent the full range; rather they have been chosen to illustrate certain basic attitudes and responses to existing context. The projects have been grouped into six categories which are by no means definite but which do permit certain comparisons to be made on the basis of similar formal and/or contextual issues.

The category of "pure" historic preservation is not considered here. Its particular issues of historicism and archaeological accuracy are beyond the scope of this work.

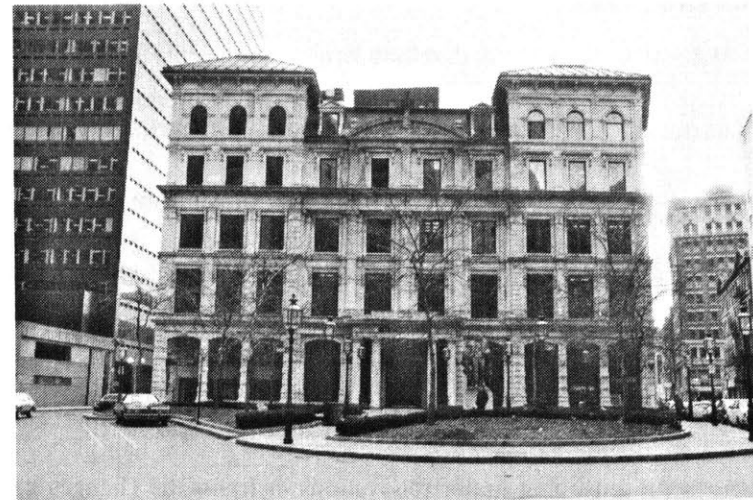
1. Discreet Reuse

One Winthrop Square, Boston, Massachusetts
 Built as newspaper offices and a publishing plant by W. R. Emerson and Carl Fehmer, Architects, 1873
 Renovated to office and ground-floor retail uses by Childs, Bertman, Tseckares Associates, 1974

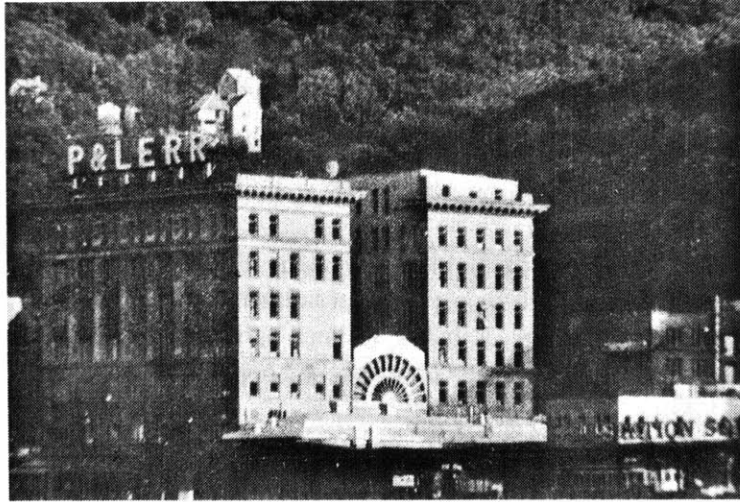
Significant external changes include tinted, fixed single-pane windows, HVAC louvers in spandrel panels below ground floor openings, new corner entrance porches cut through existing stonework for access to basement-level stores.

Station Square, Pittsburgh, Pennsylvania
 Pittsburgh and Lake Erie Railroad Station, William George Burns, 1898 - 1901
 Reuse as restaurant, Pittsburgh History and Landmarks Foundation, Roger Sherman Associates, late 1970's

Significant changes from original include disappearance of tracks, platforms, and trains; reuse of adjacent freight houses and new construction as boutiques and bars in the Quincy Market mold. Main waiting room is now a popular restaurant.



One Winthrop Square. Main facade



Station Square, View

Both of these projects carefully respect and defer to the existing character and context of the old building. Changes are generally minor and discreet, remaining as close as possible to the original spirit of the place. The new windows at One Winthrop Square are clearly not original, but they are deliberately neutral, set well back in their richly modelled stone openings. Here and at Station Square there is no sense that major renovations or traumatic changes have taken place - instead these places feel like old buildings which have been well maintained and updated with new fittings or new uses as

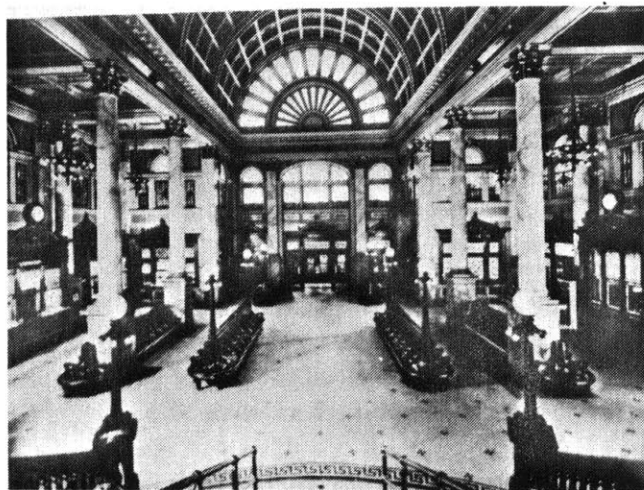


One Winthrop Square, Window detail

they became necessary.

Understandably this gentle, limited approach only works when new program demands can be comfortably accommodated within the old structure without resorting to significant alterations or additions, and it is not entirely without drawbacks.

Changing the use of the building can be somewhat problematic, depending on the strength and specificity of the original image. The identification of One Winthrop Square as a newspaper building was based more on history and personal memory than on any particular formal or symbolic associations of the building type, so its transformation to shops, offices, and urban gentility involved no real conflict or disruption of image. The case of Station Square is somewhat different. Its image as a railroad station is based not only



Station Square, Waiting room, before

in history and memory but on geographic and formal levels as well. It is located across the Manongahela River from downtown Pittsburgh in a typical railroad landscape (although this is changing). And while urban railroad stations vary tremendously (there is no clear archetype as there is for small town and rural depots), they



Station Square, Waiting room, after

usually feature a grand central concourse or waiting room similar to the one in Pittsburgh. This large, open circulation space inevitably suggests and encourages movement and interconnections: street to ticket window to benches to lunch counter to trains. Its use as a restaurant it can be slightly incongruous: the static, introspective atmosphere of dining contrasts with the grand space and the carefully preserved "TO TRAINS" inscriptions over ceremonial portals. We are tempted to ask, "where's the trains?", but they are gone, along with the travelers, porters, and that special aura of strangers and steam engines. Most people, however, probably don't notice, and that grand hall is certainly strong enough to accommodate some inconsistency.

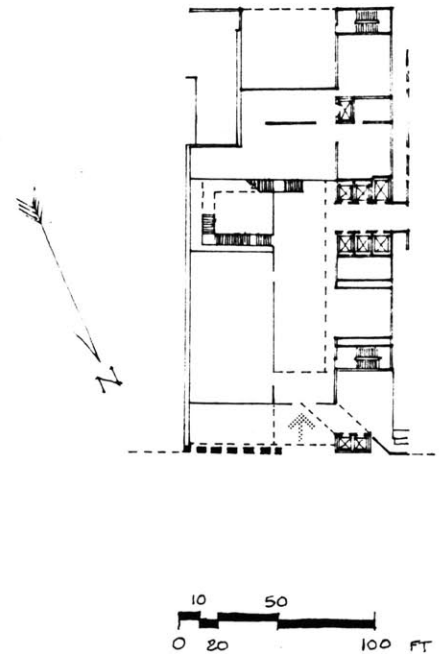
2. Fragments; Use of Facades and Other Remains

Georgetown Place, Washington, D.C.

2 Story retail and office building, mid 19th century

Facade retained; shopping and office complex constructed behind
Courtney Lord Associates, 1981

Existing street facade retained as entrance to new complex.
(see discussion in introduction)



Penn-Mutual; plan

Penn-Mutual Life Insurance Company Headquarters, Philadelphia, Pennsylvania Original 4 story Egyptian Revival building, John Haviland, Architect 1835 Facade retained as entrance screen for new 21 story tower, Mitchell/Giurgola, Architects, 1975

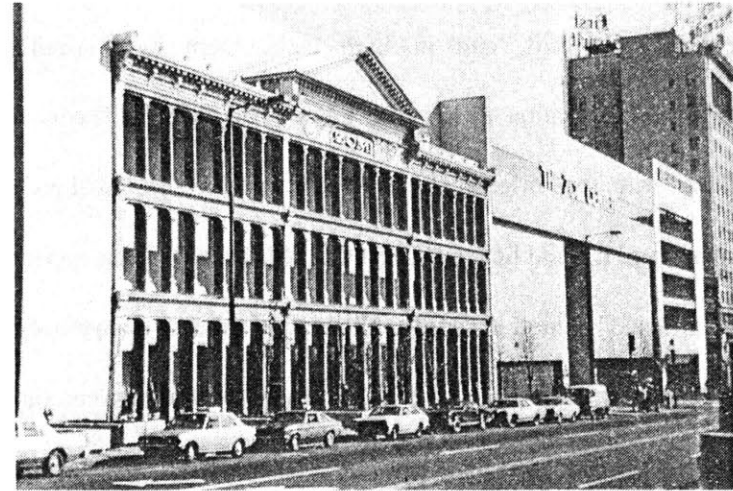
Old facade was dismantled and replaced after completion of new tower. Windowless and inactive, it acts as a freestanding screen to the new recessed entrance plaza.

ZCMI Center, Salt Lake City, Utah
 4 Story cast iron department store for the Zion Cooperative
 Mercantile Institution, late 19th century, Facade retained as
 decorative screen on new shopping mall, 1970's

As with the Penn-Mutual building the old facade is not an
 integral part of the new structure and is retained as a
 decorative open framework. The new ZCMI Center forms a
 very shallow "U" to enclose the old wall.



Penn-Mutual [ref. 26]



ZCMI [ref.19]

Each of these projects use only a fragment of the original buildings, either as a semi-independent element or functionally integrated into the new, larger composition. The important point is that these old facades have very little architectural connection with the new structures and act primarily as symbolic signboards which proclaim some general connection with the past. Georgetown Place, as discussed previously, uses its old facade to conceal what goes on behind rather than to express and clarify it. Penn-Mutual and the

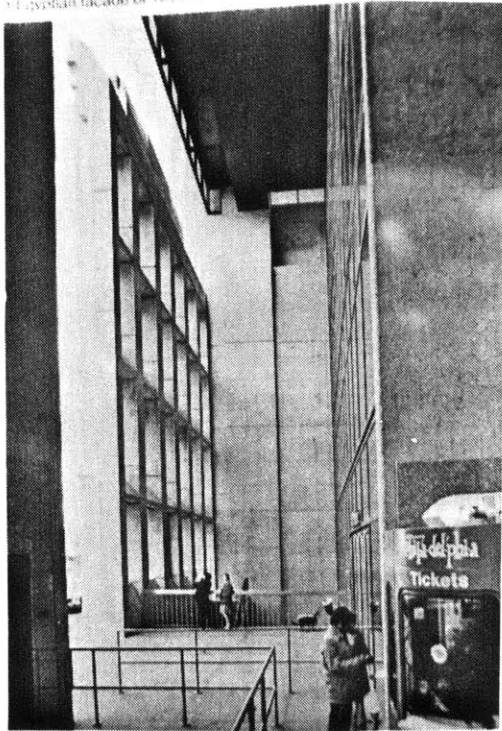
ZCMI Center use their old facades as more independent, almost free-standing screens, and in both cases there is a specific institutional motivation to preserve them. The 1835 de Haviland building was the original headquarters of the life insurance company, and it could be argued that the ZCMI building has merely been "updated" behind its facade. Yet beyond this narrow symbolic level there isn't really any architectural or relationship between old and new. The old facades suggest buildings which no longer exist; creating a conflict between image and reality which is ultimately unsettling.

On a certain level these projects are novel and appealing. We are entertained by the contrast and are thankful that something at least has survived, but there is something wrong with the image. These old walls are ruins, not living buildings anymore, and that reality is not made clear. They initially suggest completeness, but experience reveals them to be only shallow symbols of what once was. In projects such as these where old and new coexist but do not interact,

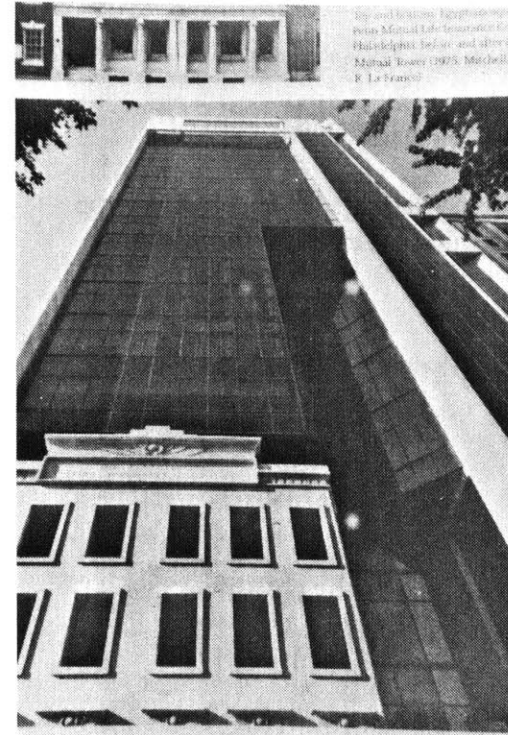
Georgetown Place

both suffer. Each assumes completion in the other but does not find it.

When parts of old structures are preserved as these facades have been, not integrated into the fabric and image of the new building, we must contend not only with the resulting confusion of symbols but also with the fact that they become, more generally, artifacts of



Penn-Mutual, Entrance court [ref. 26]



Penn-Mutual [ref. 26]

the past with their own powerful set of values and implications. They come to suggest age, permanence, and the vague, romantic values which we chose to attribute to the past. No new building, however good, can hope to compete.

3. Inhabiting the Ruins

Bad Kreuznach, near Wiesbaden, West Germany

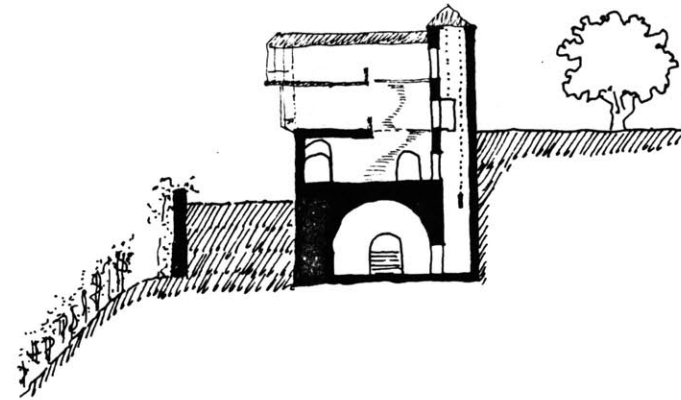
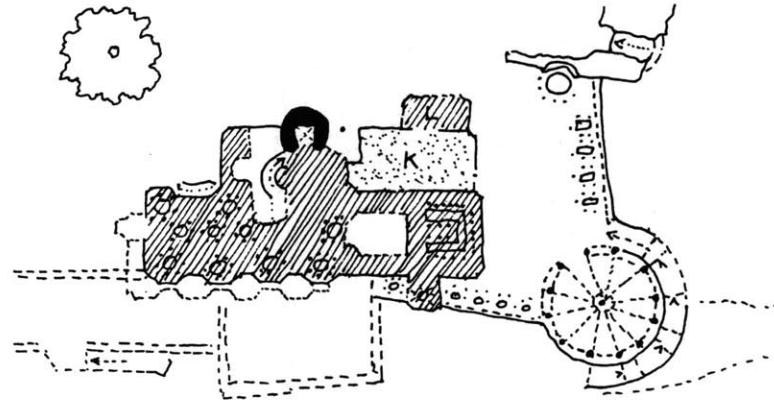
Medieval hilltop fortifications

Restaurant added. Gottfried Bohm, Architect, 1969-76

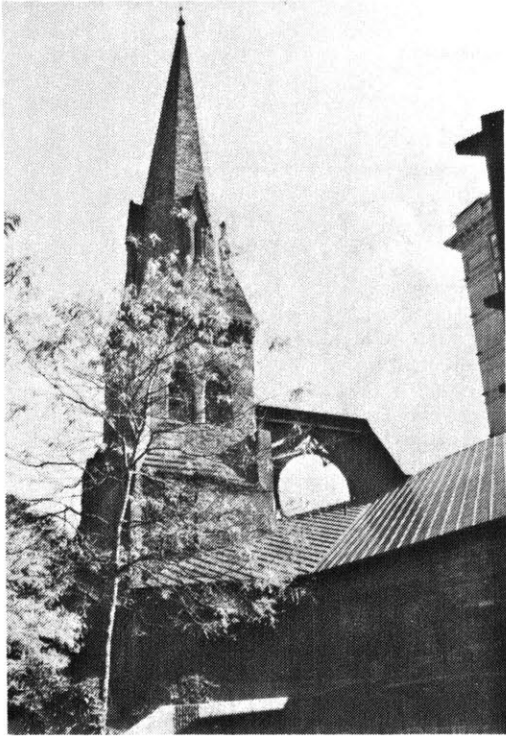
Old stone walls essentially unchanged, new restaurant sits atop the wall and uses existing vaulted chambers and terrace below.



Bad Kreuznach [ref. 28, p. 97]



Bad Kreuznach; plan and section [ref. 28, p. 96,97]

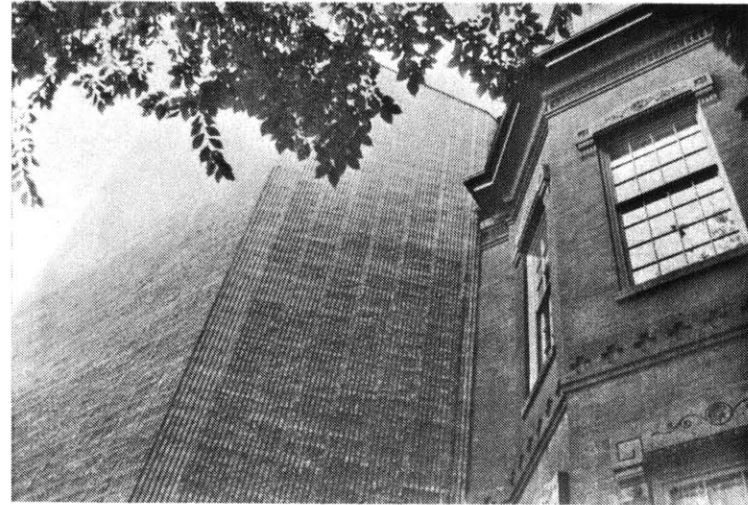


First and Second Church, Existing tower and gable

church. His response is more to the site itself and the patterns of neighboring buildings. There is no attempt at a formal or symbolic accomodation of the Gothic Revival remnants. Their ecclesiastic symbolism, however, remains appropriate to the new structure within.



First and Second Church, Entry at tower



First and Second Church, Sanctuary volume and existing townhouse

First and Second Church of Boston

Original stone Gothic Revival church by Ware and Van Brunt, 1867

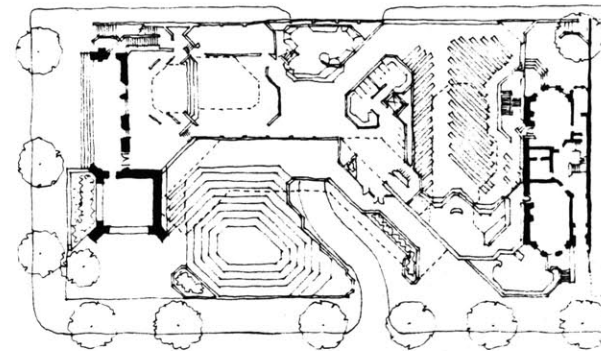
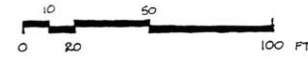
Burned in 1968, the East tower and gable remain.

New church built between east wall and abutting townhouse. Paul Rudolph, Architect, 1968-72

The old corner tower, entrance porch, and gable wall remain. Plan of new church based on changed needs of ministry and community. Formal vocabulary of new church mostly independent of old.

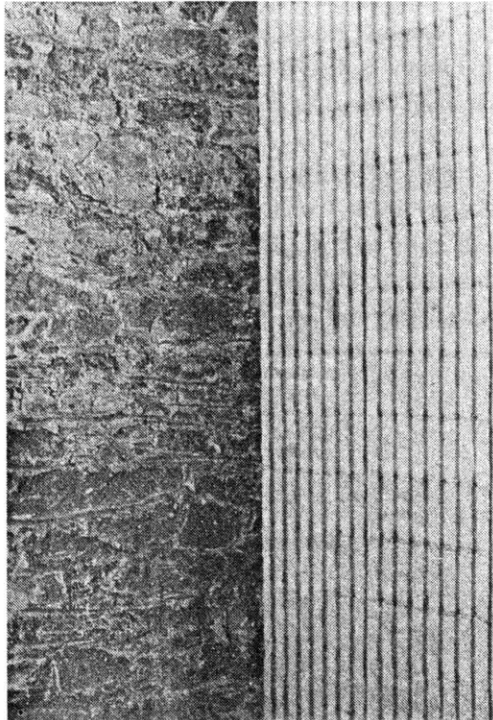


First and Second Church. View across amphitheatre



First and Second Church; plan

In these two examples the existing building context is treated more as landscape than as symbolic artifact or transformable framework. Both projects are based on a realization that the existing image, however partial, is too strong or too singular to be extended or interpreted. So the context of the building is thus left essentially alone; in the First and Second Church, Rudolph has left the steeple and damaged gable as a clear symbol of what once was, and has built behind it with a new vocabulary quite independent of the old.



First and Second Church, Old and new materials

The Bad Kreuznach restaurant was built upon and within the parapets of an old fortress. The superstructure is analogous to a sightseer peering out over the wall to admire the view - there is no formal interplay between old and new. The image of wall remains as the new, contrasting image of the restaurant is introduced, but there is no conflict and hence no confusion of symbol and meaning.

Rudolph's church is similar in that there is no attempt to create a single formal or symbolic image out of old and new. The basic independence of new and old allows each to exist without confounding the other. New forms become part of the overall local context but do not necessarily require that old forms be transformed to accommodate them.

This does not imply that new, independent pieces can be freely inserted into existing environments without disrupting them. Certain places, such as the Back Bay, are very high-context and local patterns of size, scale, form, materials, and use must be carefully respected. Rudolph's First and Second Church is based on a fine

appreciation of the qualities of its surroundings and a perceptive vision of the spatial possibilities of the site. Others have not been so sensitive: tall apartment towers and a short International Style insert between two bow-front, brick townhouses along Beacon Street disrupt rather than extend the context of the Back Bay. The stone ramparts at Bad Kreuznach are of a more general and topographical nature and thus can comfortably accommodate the new restaurant.

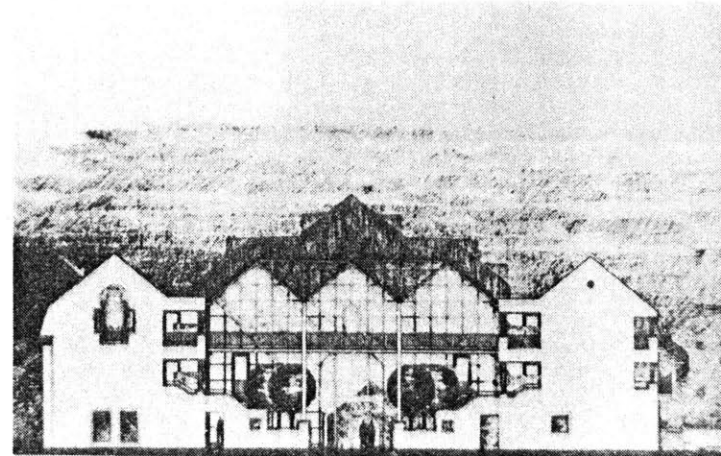
4. Extension and Transformation

Rheinberg Stadthaus, near Dusseldorf, West Germany Existing 3 story gambrel-roofed townhouses containing municipal offices. Renovation and extension to town hall including auditorium, chapel, additional administrative spaces; by Gottfried Bohm, Architect, 1981

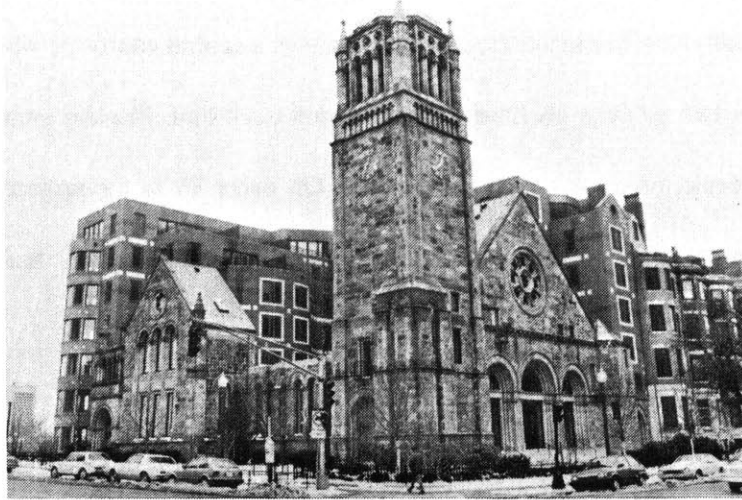
Existing buildings extended physically and symbolically, remaining clearly visible as the generating form for the new structure.

Church Court, Beacon Street and Massachusetts Avenue, Boston, Massachusetts, Original Mt. Vernon Church, Romanesque Revival, Ware and Van Brunt, 1876 Guttled by fire. Conversion to 43-unit condominium complex, Graham Gund Associates, 1982-84

The existing church was largely demolished, leaving only its outer shell, Beacon Street gable wall, corner tower; Massachusetts Avenue wall and crossing gable retained. All new construction is clad in brick, formally related to town houses and apartment blocks in the vicinity.



Rheinberg Stadthaus, South Elevation [ref. 28, p. 203]



Church Court

These two projects begin with similar intentions. Both attempt to extend or transform the context of their original structures in order to create a new image based on the interaction of new forms and the existing framework. Unlike the two preceding categories in which no real formal synthesis is attempted, these projects show deliberate efforts to combine old and new into a new whole, with varying degrees of success.

Extending an existing building through duplication or mimicry is

a fairly straightforward task, provided one has the necessary resources and skills to reproduce materials and craftsmanship. However, combining new and old into a comfortable and meaningful new image is conceptually a much more difficult process. There are many places to go wrong, but the central issue is always the manner in which one understands and manipulates the image and symbolism of the existing context. If one goes wrong at this stage there is little chance of success. Incorporating the old into the new involves a process, always individual but similar to deCarlo's "deconstruction", not necessarily implying a physical disassembly (although it may be) but rather an analysis of all the components of the existing image which will permit its extension or transformation. [ref. 2a, p. 47]

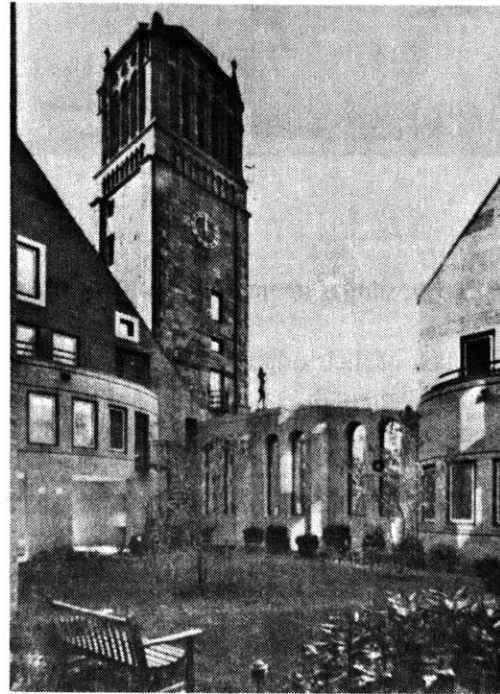
Church Court, like the First and Second Church a few blocks away, is built within the remains of a burnt-out church on a corner site, in an area of fairly consistent patterns of form and use. The massing and style of the new construction attempts to relate to its

immediate and local context in a number of ways. The bays and towers of the new condominium units recall the characteristic sizes and forms of the neighboring rowhouses. Its brick echoes the predominant local material and its ornamental scheme, although quite personal, is reminiscent of the generally eclectic decoration in



Church Court

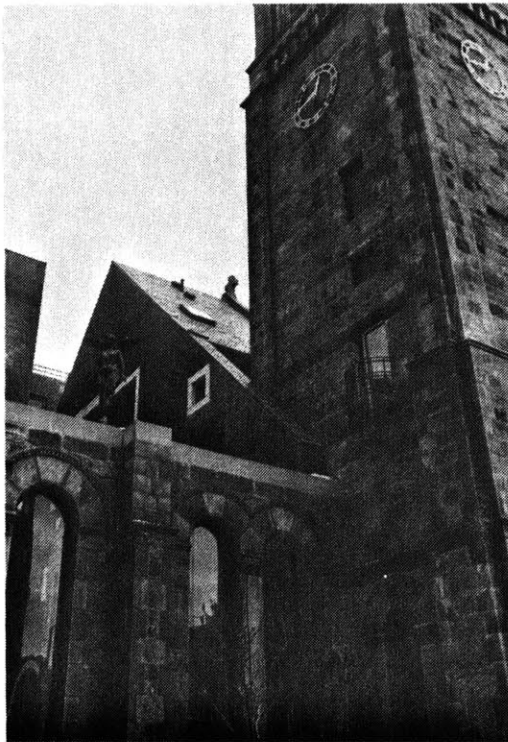
the area. The old church is incorporated into the scheme; its side wall along Massachusetts Avenue encloses a central courtyard while its two gable walls have been extended back and, like the corner steeple, now contain dwelling units. On many levels the project is sympathetic to its surroundings, particularly in its size, scale,



Church Court, Interior courtyard [ref. 4, p. 9]

materials, and massing. However, there are some very basic conflicts of image going on which makes the overall effect, although novel and entertaining, ultimately discomfoting. The exterior walls of the church are left essentially unchanged, with the bulk of the new construction responding not to those forms but rather to the idiom

of the surrounding buildings. So although the old church is an integral part of the composition there is little other than proximity to unite it with the new. The juxtaposition of forms and materials produces only contrast, not clarification.



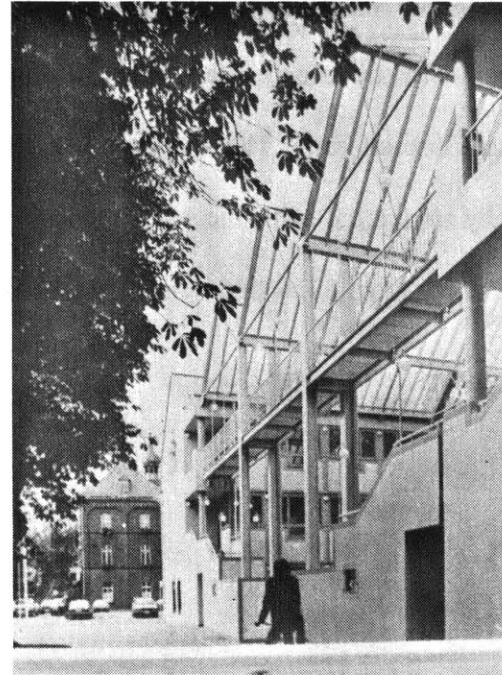
Church Court



Church Court

The problem is also one of image. All of the pieces which singly or together symbolize "church" - the gables and steeple, rose windows, arched openings, and other motifs - have been left unchanged or in some cases deliberately elaborated. That image of church is powerful and specific, implying not only sacred use, but also a singularity and consistency of form and materials enclosing and expressing a large, focused central volume. The old walls and tower at Church Court continue to suggest this, but the spaces behind are now quite different. This clash of expectation and reality gives the complex an unreal, fairy-tale quality which may be appealing but is more cute than meaningful. No "deconstruction" took place which might have permitted the creation of a coherent, new image.

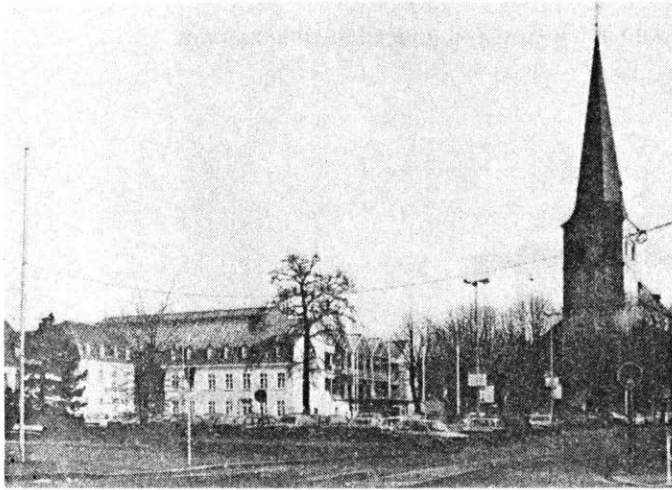
Bohm's Rhienberg Stadthaus is a more successful integration of old and new. The addition to the old town hall takes its initial inspiration from the existing gambrel-roofed building, and develops and expands this initial generating idea into a new context which incorporates and enhances the old. There is a visible dialogue



Rheinberg Stadthaus, South Elevation [ref. 28, p. 203]

between old and new materials and forms which makes for an especially rich environment. The relationship between old and new is clear and comprehensible even though there is no distinct point at which one ends and the other begins.

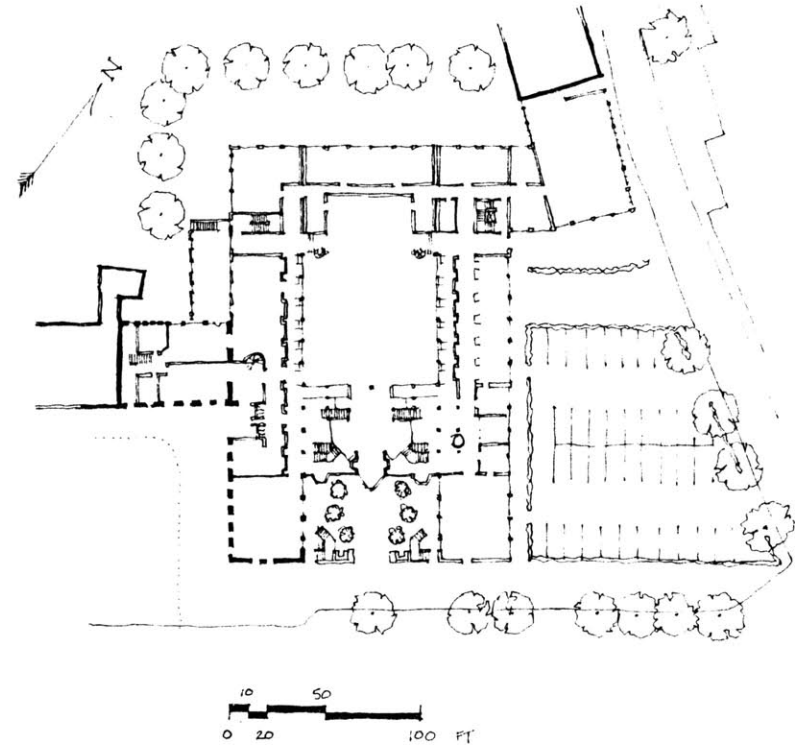
In some ways, Bohm's task was perhaps easier than was Graham Gund's at Church Court. The Rhienberg project involved extending



Rheinberg Stadthaus, View across plaza [ref. 28, p. 202]

and amplifying the existing use of the town hall, so there was no need to "deconstruct" its identity in order to make it comfortable or recognizable as something else. The old forms were general enough that they could be eroded, abstracted, and repeated without losing their familiarity, and thus permitted a fairly radical new composition to fit comfortably within the local context.

The east wing of the old town hall is left unchanged on its west side, preserving the character of the enclosure of Rhenberg's central



Rheinberg Stadthaus; plan [ref. 28, p. 203]

plaza. Once around the corner, however, things begin to change. The south wall has been cut into and extended as stairs, balconies, and a section of flat roof. The triangular section of the upper gable

roof is repeated three times in a metal and glass framework which covers the main entrance and circulation spaces. Set behind and above this layer is the larger gable of the auditorium. At the east side the transformed existing building is mirrored to complete the "U" form of the new plan.

Bohm has developed a whole new formal vocabulary here, but it is clearly inspired by the existing one and indeed incorporates the old building's form, materials, and shapes. The steel and glass framework of the new entrance springs out of stair masses which are extensions of the old stucco walls, as are the upper balcony and roof soffit which are themselves anchoring points for the floors and horizontal ties of the new superstructure. A large new window to the council chamber is cut into the center of the existing gable; its prominent vertical mullions and regular tracery foreshadow the new forms to be found further along.

The old image has been preserved, extended, and finally transformed. Unlike Church Court, the overall effect is one of unity

rather than contrast. The Stadthaus seems to have evolved to its present state in a logical and understandable manner.

5. Big Feet in Little Shoes

The Henry Villard Houses, Madison Avenue between 50th and 51st Streets, New York, New York. Six Neo-Renaissance brownstone townhouses in a west-facing "U" plan with an extension to the east by McKim, Mead, and White, 1882-92

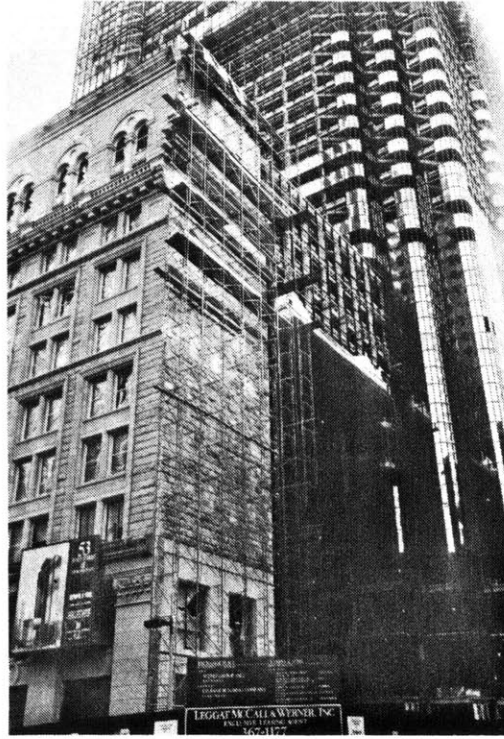
Replacement of east wing with 50 story Helmsley Palace Hotel Tower; restoration and conversion of old interiors to hotel, office, and public functions. Emery Roth and Sons (tower and south wing restoration), James Stewart Polshek (north wing restoration) 1978-80

The Old Boston Stock Exchange, Congress and State Street, Boston, Massachusetts, Peabody and Stearns, 1889-91 Partial demolition, internal reorganization, and tower adjunct (now known as 53 State Street), WZMH/Habib 1982-84

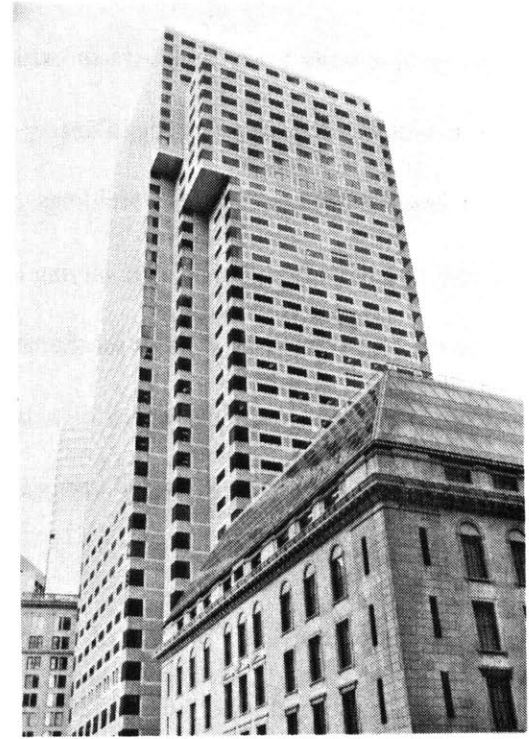
The Old Federal Reserve Bank, Post Office Square, Boston, Massachusetts R. Clipston Sturgis 1922 Conversion to hotel; mansard addition, and One Post Office Square tower adjunct, Jung/Brannen Associates, 1981



Villard Houses, View [ref. 2]



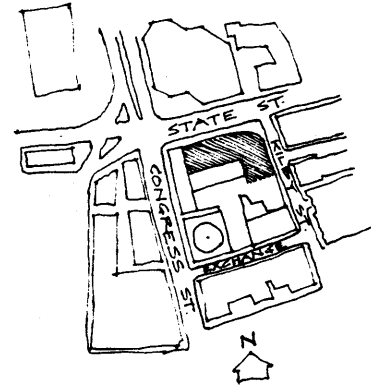
53 State Street



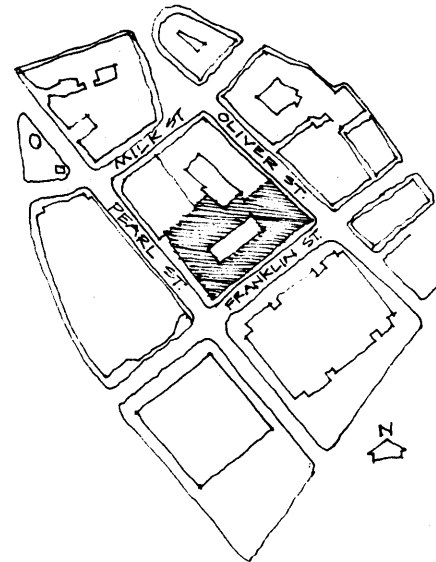
One Post Office Square

These are examples of an increasingly common sort of project which involve large tower additions to existing buildings of some historic, architectural, or urban significance. In all cases the towers are far larger than their "parent" buildings, and are generally quite different in materials and scale. To varying degrees they attempt to use the existing landmarks as bases for the new towers. They are all in dense urban environments where high land values enforce the proximity of additions, permitting expansion only in a vertical direction.

In all three cases the process of relating old and new was complicated by several basic issues: the need to reconcile the small scale and increment of the old with the inevitably large size of the new, the need to substantially preserve the character of the existing building, and the general question of formal response and correspondence.



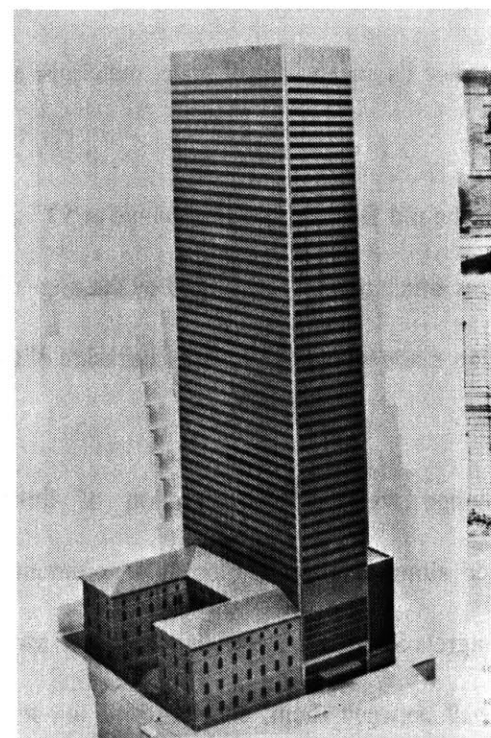
53 State Street; plan



One Post Office Square; plan

The Villard Houses/Helmsley Palace project is the most interesting of the three in that it comes closest to a successful resolution of the basic difficulties of this type of project. Nevertheless it falls short in a way which suggests that a complete integration of old and new under these circumstances may not be possible.

The location of the 50 story hotel tower directly behind the "U" of the Villard Houses allows the overall massing a symmetry which the other projects lack. In general form at least the old houses make a plausible base for the tower, which in the original conception would have been reinforced by stressing the use of the central courtyard as primary access to the hotel. As it is, however, the main lobby entrance is really around the corner on 50th Street, and the internal connections to the grand spaces of the Villard Houses are awkward in both plan and section. Thus the tower itself takes prominence instead of remaining, as advertised, a bland background to backdrop to the old



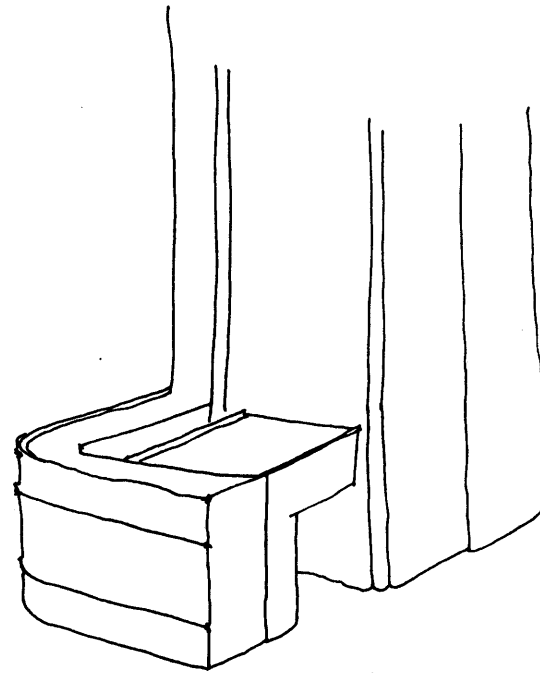
Villard Houses/Helmsley Palace Hotel, Model [ref. 11, p. 160]

Beyond the basic massing there is little or no formal or symbolic dialogue between old and new. A solid band from the 8th to the 10th floors interrupts the otherwise repetitive glass and metal curtain wall of the tower, relieving the ridge of the Villard roof on the long side and echoing their plane over the hotel entrance; other than that

there is no correspondence. The tower does not appear as an extension of the houses since its vocabulary of scale, materials, and form is quite unrelated.

The tower addition to the old Boston Stock Exchange at 53 State Street has similar problems which are only amplified by the ungainly character of the connection made between it and the backside of the stock exchange.

Originally the Exchange was an agglomeration of linked structures which occupied almost the entire block. A pedimented entrance porch along Congress Street connected two tall office wings and led to the trading hall between them, while a third ten-story office wing extended south through the center of the block. All that remains are the granite north and east wings which grandly round the corner of State and Kilby Street. The south half of the block is now occupied by a 50 story glass tower which abuts the end of the old east wing and is connected to the top of the north wing by a three story "sky bridge" in the same materials as the tower. Some



53 State Street. Connection to new tower

attempt is made to respond to the existing form of the Exchange Building: the corners and setbacks of the tower are rounded in a way which suggests the gentle granite curve at State and Kilby.



53 State Street. Kilby Street corner

Otherwise, it's just another big glass box, albeit of somewhat novel form, which has little real empathy with the building at its base. The sky bridge only emphasizes the contrast; rather than mediating between old form and new it extends the tower's glass curtain wall into a direct collision with the rough stone of the Exchange Building.

The overall effect is of a forced association which in the end benefits neither party. Neither the old Exchange nor the tower is left with a clear identity; they are unmistakably connected but not in such a way as to establish a coherent new image. While the Villard Houses were intended to read as base and entrance to the Helmsley Palace tower, at 53 State Street we are not sure whether the Stock Exchange is base, entrance, or annex. Programmatic requirements may have dictated the skybridge, but the project might have been better without it. The straightforward abutting connection at the east wing alone might have suggested an uneasy peace between neighbors instead of the shotgun marriage that exists.

The project involving the old Federal Reserve Bank at Post Office Square suggests a gentler and less dissonant approach, yet is not without drawbacks of its own. The connection between the new tower and the old bank is set back from the street line and is understated in comparison to 53 State Street's skybridge. Here is little attempt to weld the two together into a single entity - both



One Post Office Square

buildings retain their individual identities to a significant degree. The tower has its own entrance and lobby on Pearl Street, and the Hotel Meridien and its associated restaurant now occupying the Old Fed use the existing entrances on Pearl and Franklin Streets. Primary access to the hotel and secondary access to the tower is in the center of the block where the hotel driveway runs between Pearl Street and Oliver Street at the rear. This driveway and drop-off area is underneath the extension of the tower which connects it with the



One Post Office Square, Detail

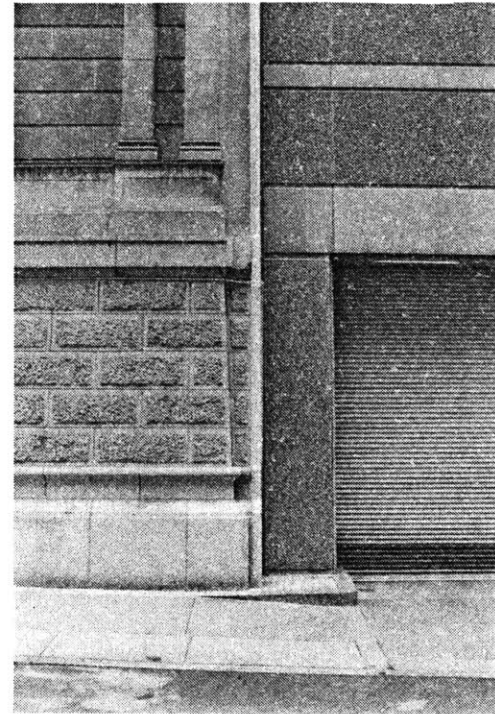
old building and the three stories of hotel rooms set atop it in the form of a dark glass mansard. There is a deliberate attempt to coordinate the scale, color, and texture of the tower's precast concrete panels with the High Renaissance style stone facade of the old Fed.

Yet despite its generally good intentions, this project exhibits some serious flaws. The articulation of the tower as a semi-independent element contributes to the preservation of the

symmetrical, self-contained character of the Old Fed, but also tends to highlight the shortcomings of the physical and symbolic connections which are attempted.

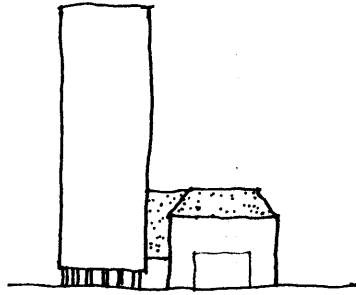
The concrete panels of the steel-framed tower are a good color match to the existing limestone. They are room-sized and so give the tower a better sense of scale than is commonly the case. But each panel, and indeed the entire solid surface of the tower, has only two textures. Smooth horizontal and vertical trim bands run over a field of exposed pebble aggregate, with dark glass window units set nearly flush with the surface. This is intended to echo the finely cut stone of the upper stories and the rough, pockmarked ashlar of the ground floor walls of the old bank, but it comes nowhere near the richness, depth, and variety of detailing in the original and thus appears shallow and cheap in comparison. The formal vocabulary of the tower is otherwise quite different in proportion, massing, fenestration, and scale.

The mansard cap on the old bank compounds the problem. Its



One Post Office Square, Detail

form is based on several questionable assumptions about the image and "extendability" of the existing building. Like the tower wall panels, it is of limited success. The original roof was flat, and the mansard was added to provide three additional floors of guest rooms. Viewed purely as an exercise in massing it works well,



One Post Office Square

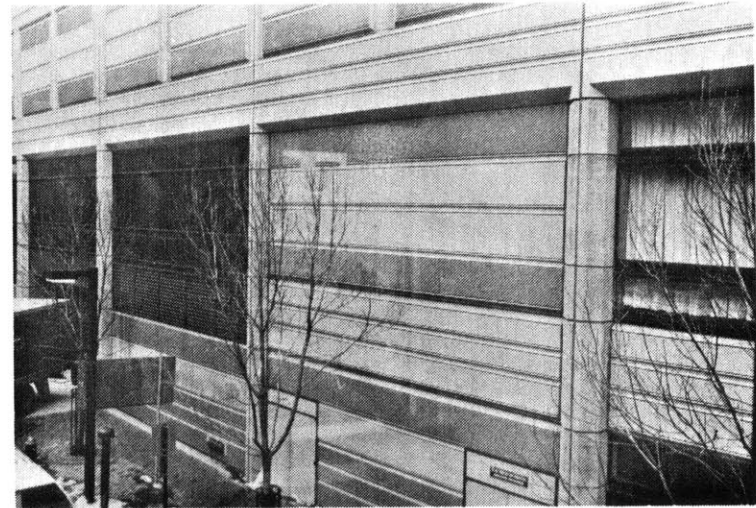
extending the low block of the Fed and giving it a verticality which enables it to better hold its own against the neighboring tower. Yet it is a smooth, featureless glass volume which has nothing in common with the building it sits on. It extends horizontally from the side of the new tower but bears no formal or symbolic relationship to that either. Additionally, mansard roofs are generally not part of the Renaissance formal vocabulary, Beaux Arts synthesis notwithstanding. This may be significant only to historians and other concerned parties, but it does suggest that the extension of this

building was based only on a very general appreciation of its form and image. The mansard is a distinctive form with general associations of implied age and formality, and thus may have appeared to be an appropriate form with which to expand this formal old building. Fair enough, but, stylistic discipline aside, there needs to be a deeper correspondence between old form and new than is apparent here. The mansard form might have been articulated as a formal and symbolic extension of the building below, incorporating some of its materials, shapes, or proportions in such a way as to produce a new, unified image. Instead it is a kind of dunce cap, featureless, abstract, and redeemed only by the fact that it leaves the old walls below completely untouched.

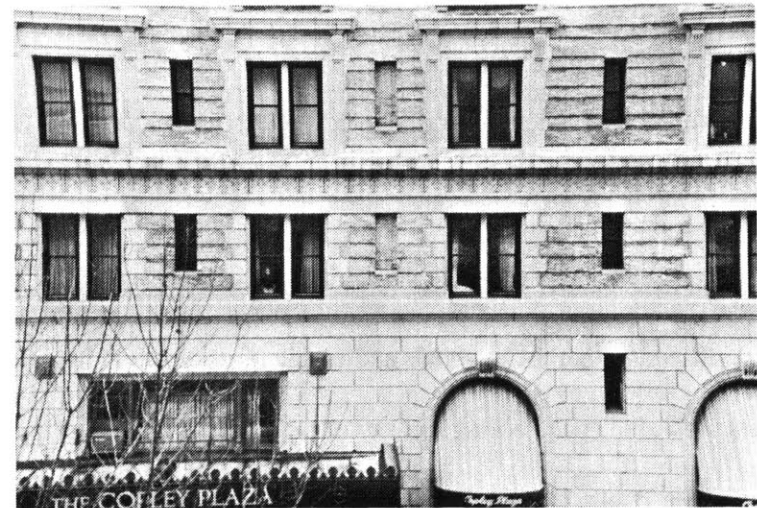
We are accustomed to hotels in an infinite range of shapes, sizes, and styles. Their specific identity as hotels is established by small cues which need not be integral to the overall architecture - a certain grandeur suffices, supplemented by signs, lighting, visible activity, and a sense of scale which suggests the increments of public

functions and private rooms. The Old Fed comfortably accommodates these needs, despite being located in a largely commercial district which currently lacks the street activity and variety usually found around city hotels. The old municipal parking garage across Pearl Street is slated to be buried and topped with a park which should make the area a bit more amenable.

The use of matching or sympathetic materials has long been a device for integrating new buildings into existing contexts. Similarities in materials, scale, and size can often accommodate considerable differences in style, use, and age. In a traditional, stable context such as Siena the limited availability of materials and technology is largely responsible for the overall coherence of the environment. The wall panels at One Post Office Square attempt to relate to the existing building but fall short. A better local example of this sort of matching can be seen at the new complex of hotels, offices, and shops at Copley Place. Without considering the larger



Copley Place

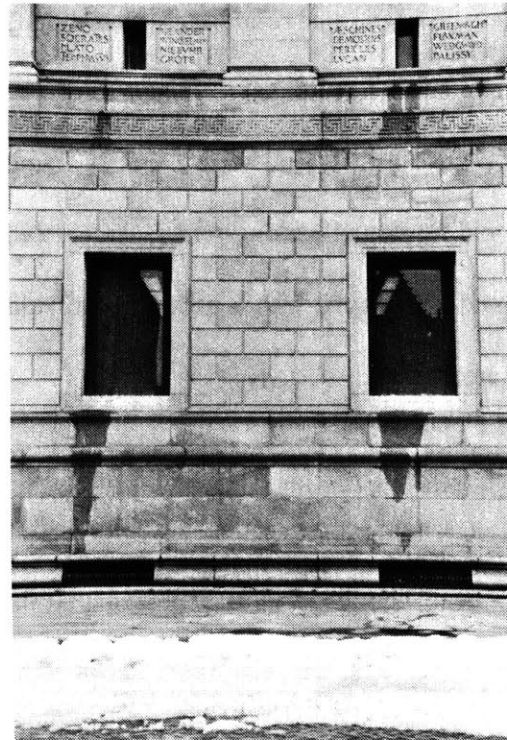


Copley Plaza Hotel, Detail



Copley Place and Copley Plaza Hotel

issues of massing, use, and urban form which concern this project, it is worth noting that the materials and design of its exterior cladding relate well to the neighboring surfaces of the Copley Plaza Hotel and the Boston Public Library. The surfaces are again precast concrete panels hung on a steel frame, but they exhibit a much greater range

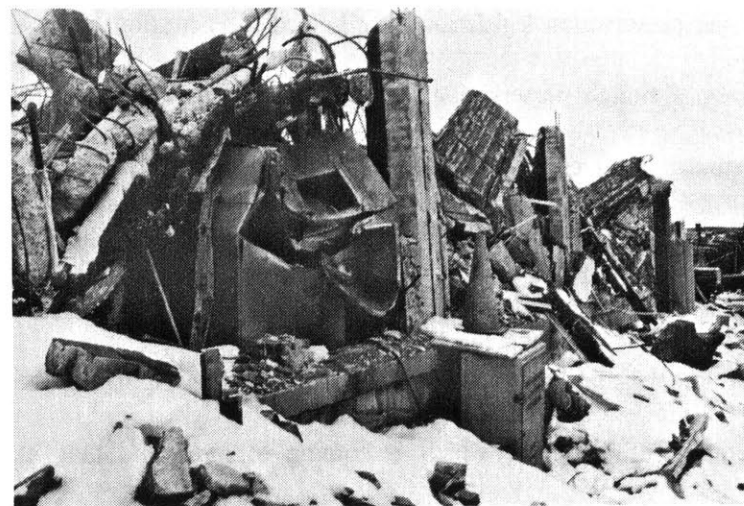


Boston Public Library, Detail

of texture, detail, and relief. The result is a rich and understandable vocabulary which is clearly related to its surroundings and does not seek to directly imitate them. The idiom of the dominant local buildings in color, texture, size, and scale is reinterpreted in a way which compliments the overall context.

6. Demolition

Until fairly recently, demolition was often the first option considered by developers and urban renewers, and the last one considered by preservationists. Happily, these extremes are no longer quite so pronounced, although both tendencies persist. Few buildings last for more than a generation or two, especially in America; our cities are still unstable, mushrooming things in which land values, economic conditions, and stylistic preferences change quite rapidly. Individual buildings or whole districts can quickly become obsolete or economically unstable. Careful evaluation of the potential utility or adaptability of existing building stock has not until recently been the rule. The pattern has been to tear down and build anew, or to move away and build elsewhere as whole sections of our cities fall into disrepair. The general absence of "rooted-ness" or respect for established environments has allowed us to be cavalier in our treatment of the large and small pieces of our urban fabric. We have a lingering faith in limitless horizons fueled by the ideals of



Coca-Cola bottling plant, Allston, Ma., January 1984

a mythic past - there is always a new house out there beyond the decay and troublesome complexity of the city, on our very own piece of the suburbann frontier. These dreams may endure, and it is arguable that we have never really believed in our cities in the first place, but for now at least the pendulum of fashion has swung back to a near-fixation with nicely-reused old buildings. This has happened to such an extent that almost any architectural transgression is forgiven if it preserves some precious bit of the past.

Tax and preservation legislation have helped to institutionalize this attitude, although preservation in its various forms almost always contributes positively to the quality and richness of the city.

We have long valued, for various reasons, the odd historic building or artifact, but this concern for more general established environments is fairly new and is perhaps an encouraging sign of the maturation of a culture which is coming to understand that its resources are limited and its physical heritage no longer quite so disposable.

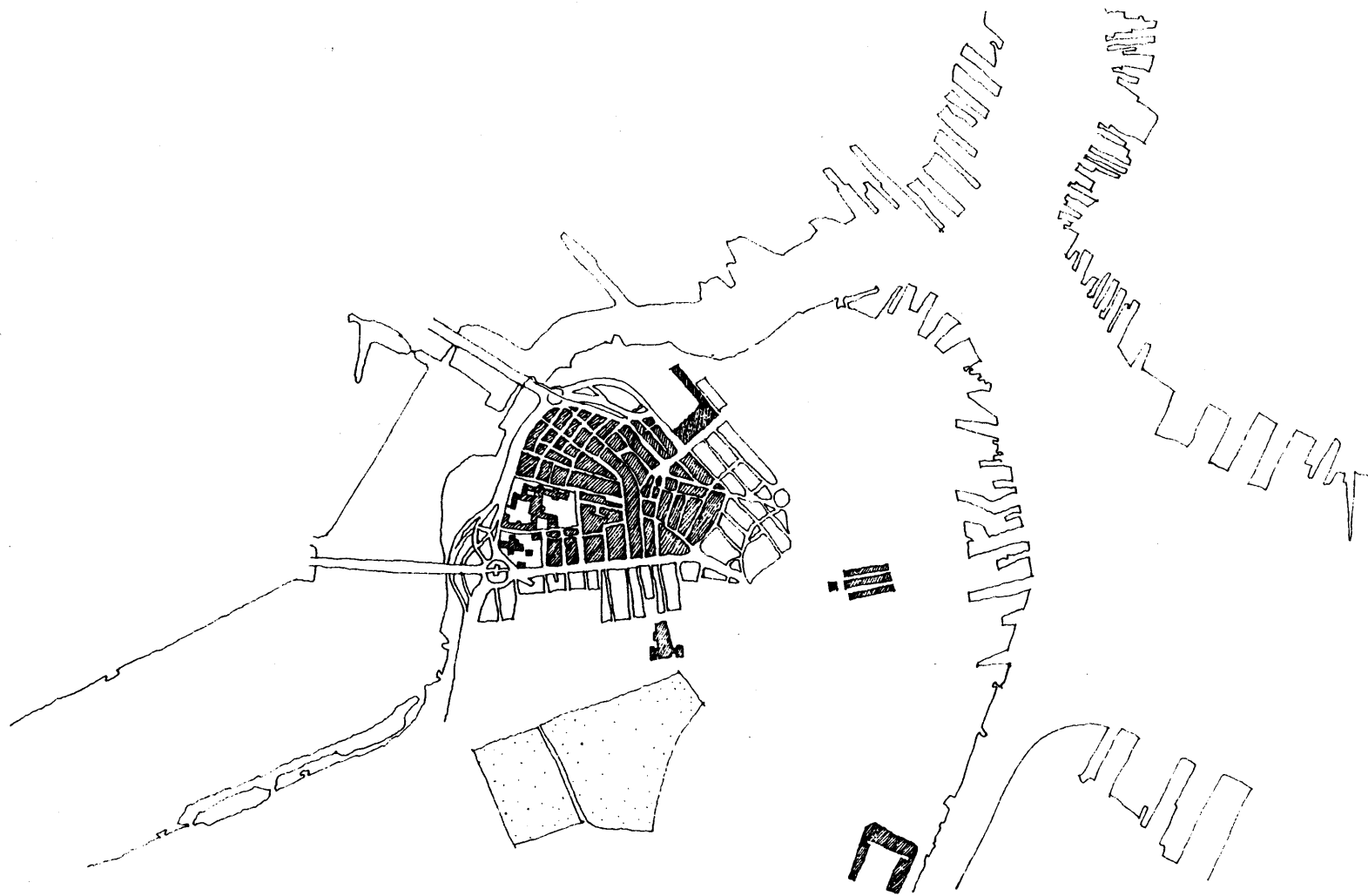
Demolition may well be a valid response if an existing building cannot be physically or economically adapted to new uses, except if it possesses overriding historic or symbolic significance which might justify extraordinary effort. The evaluation will rarely be simple or straightforward, but the ultimate goal must be to avoid creating the kinds of conflict between old and new which confuse and confound the environment. Kevin Lynch points out that we should not be so preoccupied with preserving old buildings per se as with identifying

and preserving the desirable qualities of existing environments. Carefully considered new construction is equally capable of supporting those qualities. [ref. 21]

However, the assumption which has commonly gone along with the removal of buildings has been that the cleared site is virgin territory upon which anything at all may be built, subject only to the limitations of program, budget, and imagination. This was especially characteristic of the efforts at urban renewal in the 1950's and 60's



Boston, the West End ca. 1976



Boston, the West End ca. 1958

when whole neighborhoods such as Boston's West End or the Oak Street area of New Haven were razed to make way for Interstates and later-day versions of Le Corbusier's Ville Radieuse. The intellectual legacy of Modernism and especially the International Style permitted architects and planners to presume a universality of form and context regardless of local forms, symbols, and traditions. This attitude is evident even in projects of far smaller scale; the townhouse on Beacon Street in the Back Bay by Krokyn and Krokyn in the late 1950's borders on the perverse in its deliberate reflection of strong local patterns of materials, scale, setback, enclosure, and elevation. The vacancy of the lot did not relieve the architect of the responsibility of contributing to the coherence of the larger environment.

These case studies have been considered chiefly on the basis of their architectural merit. The practical concerns and limitations which effect any project have been deliberately ignored in order to

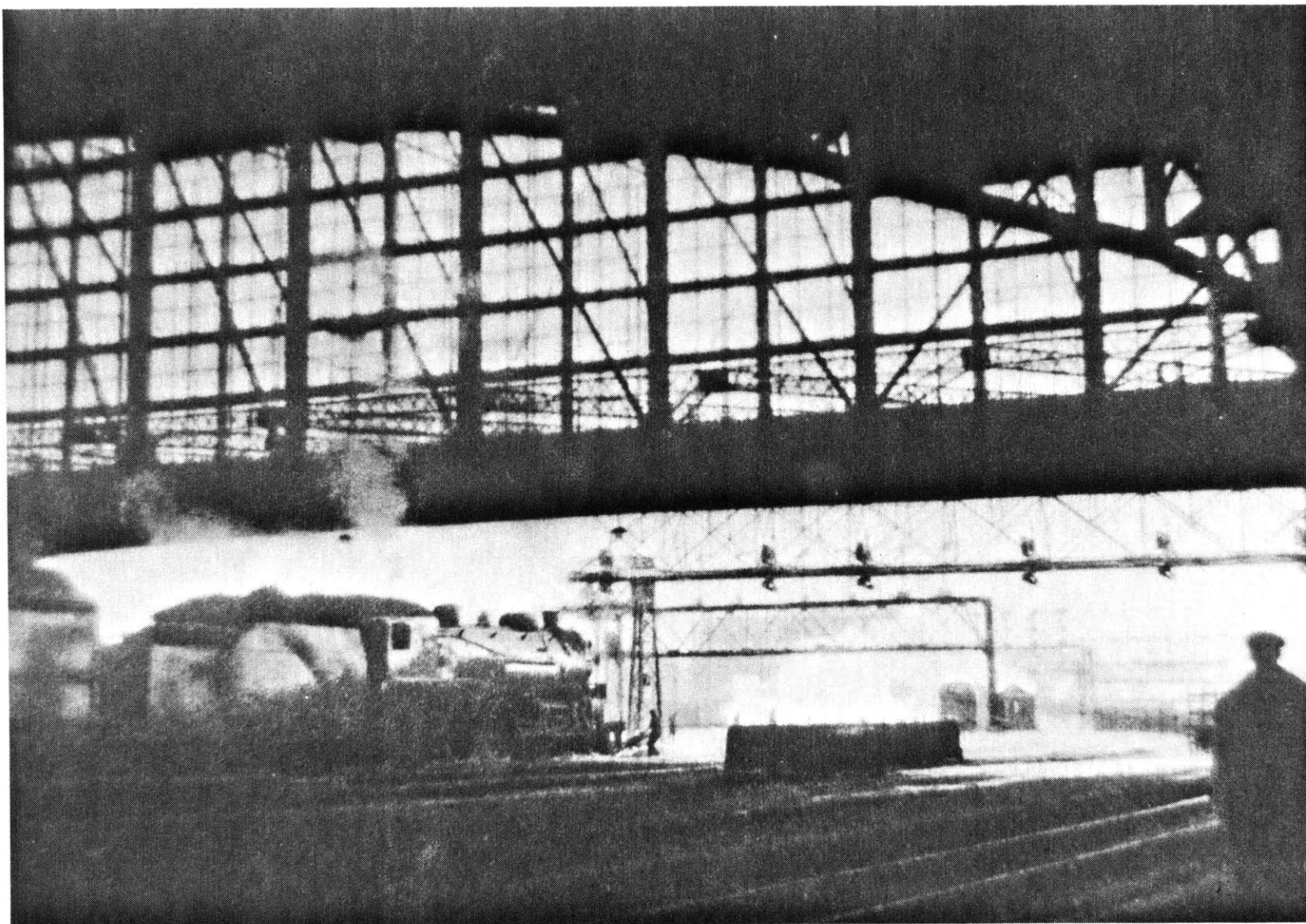
focus more specifically on the broader issues of contextual response and interpretation. Yet it should be stressed that "external" forces, those independent of architectural and symbolic issues, invariably exert considerable influence on the final form of any building or city, whether new or recycled. Buildings exist and are built within a complex "external" context of economic, social, political, and regulatory conditions which are often quite powerful as determinants of form. The practice of architecture is frequently the practice of the art of compromise, and it may be argued that it is unfair to judge the final results without taking into account the particular external forces which may have had significant bearing on the design process. However, it is all too easy to thereby excuse a less-than-ideal outcome on the grounds that conditions were difficult and "it could have been a whole lot worse." Accepting something on such a basis may require information or understanding which is not commonly available, and at any rate sidesteps around the issue of whether the work is good or bad. All things considered we must

ultimately ask if our physical and spiritual environment has been enriched or impoverished.

The common issue in these case studies is the particular attitude taken towards the old structure and its larger physical context. As discussed in Chapter II, we too often proceed on the general assumption that old things are good things which automatically deserve new or extended lives. In many instances this assessment borders on a reverence for old buildings which ensures their preservation but makes it difficult to determine their value, utility, and potential. The prospects of creative transformations are diminished when an architect, owner, or even a whole society, is motivated by the desire to freeze and perpetuate a particular vision of what a building is, was, or ought to have been.

The goal of any architecture, new or recycled, should be to creatively interpret the physical, symbolic, and temporal context in such a way as to acknowledge the past and the passage of time, to celebrate the present, and to allow hope for the future.

IV. CONTEXT - SOUTH STATION



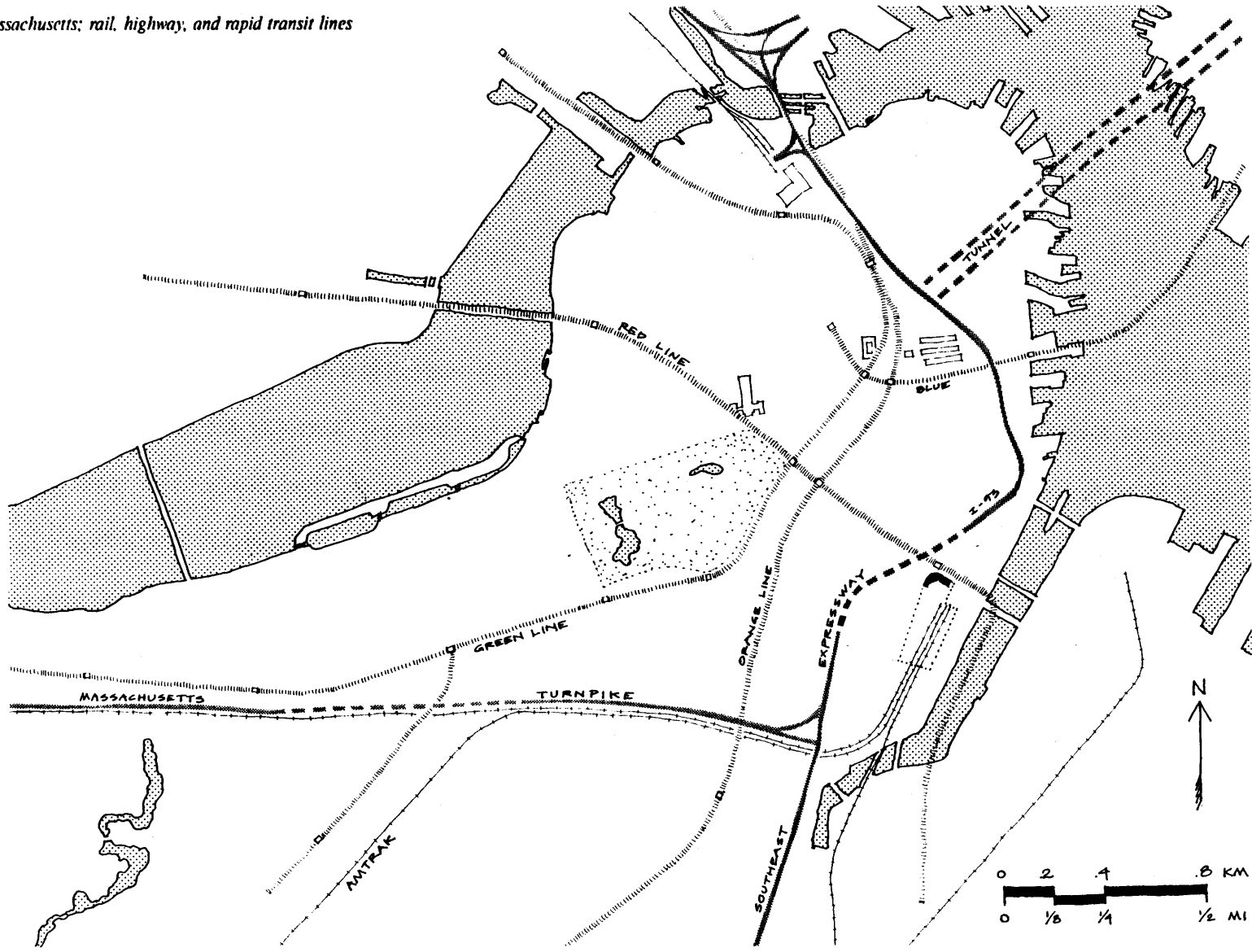
South Station is located on the south edge of Boston's central business core, close to the tall towers of the financial district. It occupies the western portion of a long block bounded by Atlantic Avenue on the west, Summer Street to the north, and Dorchester Avenue and the Fort Point Channel, an arm of the Inner Harbor, to the east. To the south the site gradually diminishes, trailing off into several bridges and the southern rail corridor. Like more than two-thirds of Boston's present area, the site was not within the original shoreline but was reclaimed from tidal mud flats. Some filling took place in the first half of the last century, but the final consolidation of the site, including the construction of the half-mile seawall along Dorchester Avenue, did not occur until the construction of South Station itself in 1887-89.

The northwest corner of the block, now occupied by the remaining corner portion of the old station headhouse, is about one half mile east of Boston Common and about 6/10 mile due south of City Hall. The eastern terminus of the Massachusetts Turnpike at its

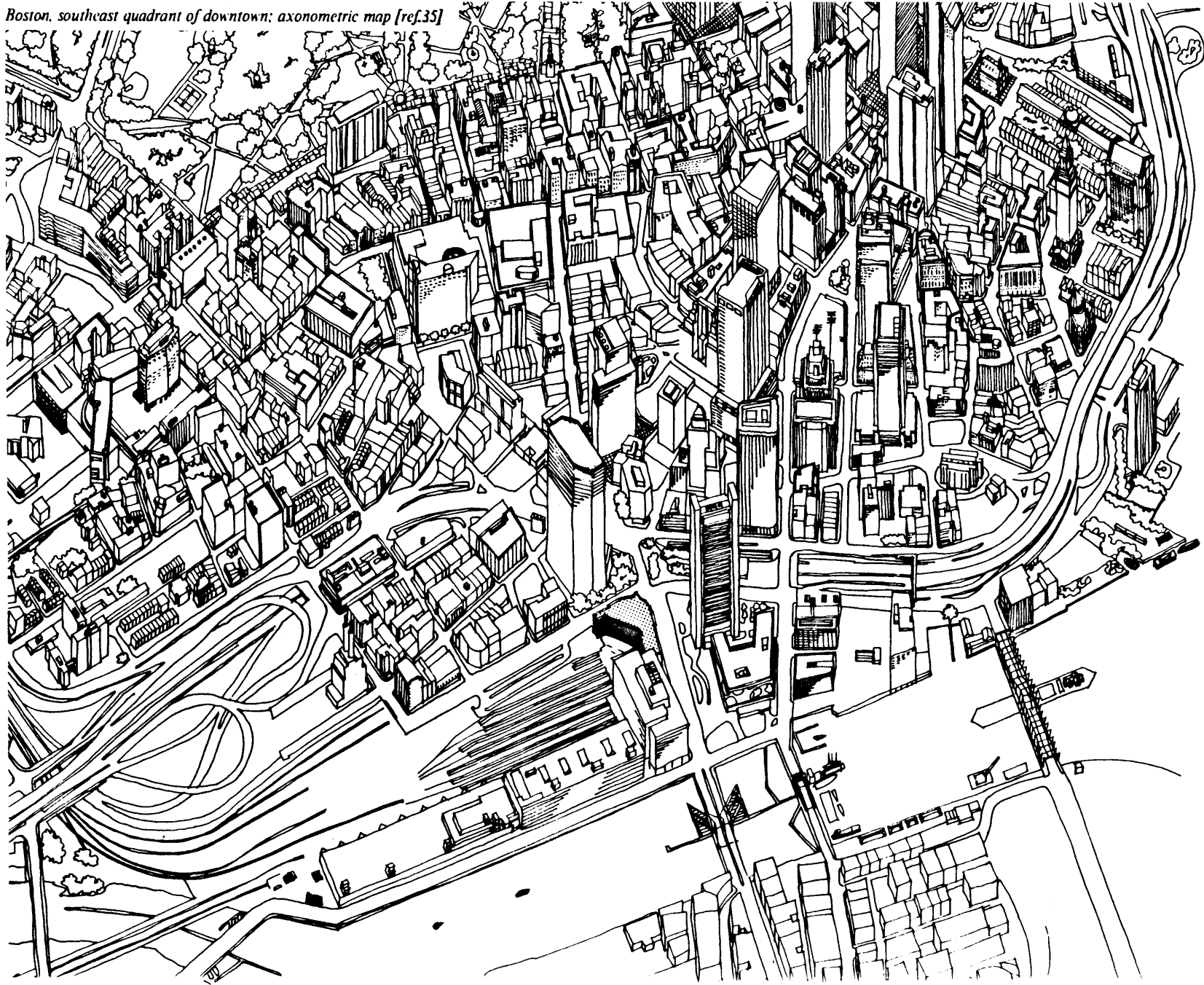
intersection with the Southeast Expressway (I-93) is 1/4 mile from the southern end of the site, and the Expressway itself passes underground about 100 yards to the west. Access ramps to both roads are within a short distance.

The east edge, along Dorchester Avenue, is occupied by two large mail-handling facilities of the U. S. Postal Service, the north one recently wrapped in a nice high-tech metal skin. At the corner of Summer Street and Dorchester Avenue is the 14-story Stone and Webster office block. Immediately to the north across Summer Street is the 40-storey aluminum-clad Federal Reserve Bank (Hugh Stubbins and Associates, 1975), diagonally across from which is the equally tall and colorless One Financial Place (Jung-Brannen Associates) just being completed in early 1984. To the west across Atlantic Avenue is a ten-block area of four to twelve story commercial and light industrial buildings dating from the late 19th and early 20th centuries, the traditional Leather District which now houses a wide variety of commercial and residential uses. The old

Boston, Massachusetts; rail, highway, and rapid transit lines



Boston, southeast quadrant of downtown; axonometric map [ref.35]

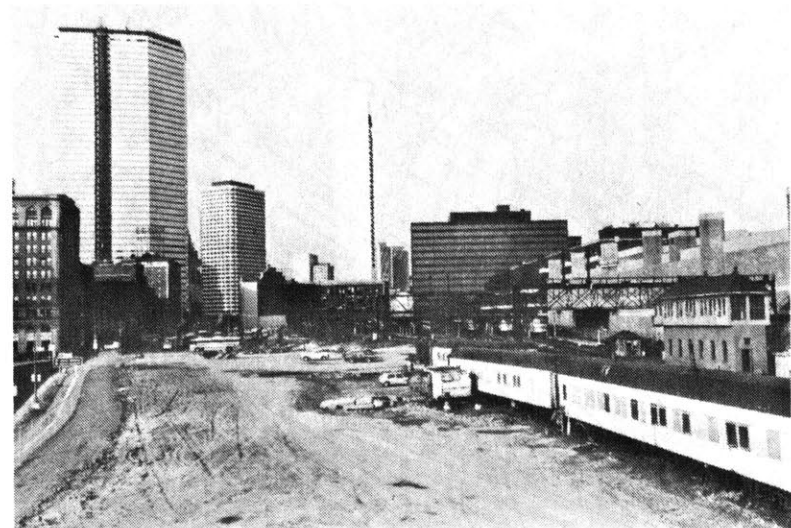


Hotel Essex (1902), a bit tattered but still in use, stands just south of One Financial Place.

Despite the name of its latest tower, the intersection in front of the old station is still known as Dewey Square. Once a major focal point of the city, it is now, as Donlyn Lyndon puts it, "...a vast desolate intersection of roads." [ref. 23, p. 243] The busy Southeast Expressway exits from its tunnel just to the north, and the local surface streets are given over to high volume automobile traffic, making Dewey Square a treacherous place for pedestrians.

North of Summer Street in the median strip between Purchase Street and Atlantic Avenue is a small park of curious landforms which provides the only tranquil spot around. Behind it is a squat brick structure which houses ventilators for the sunken highway, and beyond that is a pleasant steel truss and glass building which is the temporary home of the Trailways bus depot. There is a sizable expanse of plaza and plantings around the Federal Reserve, most of it blasted by the aerodynamic effects of the tower.

To the north is a fine view of the dense core of downtown with its abundance of office towers, while to the south the brick buildings along Atlantic Avenue give way to a flat industrial and highway landscape. Looking down Summer Street and across Fort Point Channel one can see the rejuvenated warehouse buildings of South Boston. To the west the winding curve of Summer and Federal Street disappear into the 19th century fabric of the city.



View of site, headhouse looking north, 1983

The site is essentially flat, although somewhat higher to the east. North to south it is level, with the existing railroad tracks approximately 4 to 6 feet above the level of Atlantic Avenue. It is presently the northern terminus of passenger rail traffic in Amtrack's Northeast Corridor, as well as for local commuter rail trains run by the Massachusetts Bay Transit Authority from the south, southwest, and west. The western edge of the site is used as a terminal and

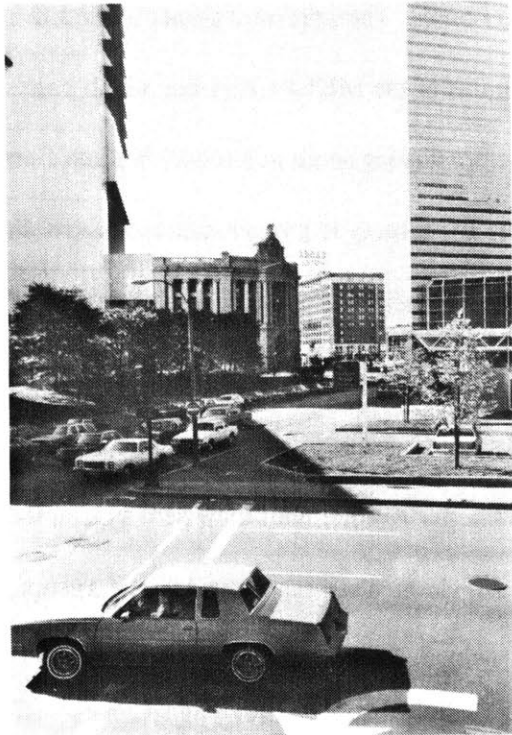


Commuter buses, Atlantic Avenue

staging area for commuter buses. The northwest corner of the site is served by rapid transit trains of the MBTA's Red line which passes below Summer Street before turning south in a tunnel beneath Fort Point Channel. Access to the subway is through sidewalk stairwells and escalators outside One Financial Place, the Federal Reserve, and South Station.

Surface trolley tracks were common along Atlantic Avenue, Summer Street, and Dorchester Avenue until they were supplanted by heavier rail systems. An elevated rail ran along Atlantic Avenue, connecting South and North Stations, until its demolition in the 1920's.

The original South Station, of which only the northwest corner now exists, was built between 1887 and 1889 to consolidate the three separate terminals which handled rail passenger traffic entering Boston from the south, southwest, and west. Designed by Shepley, Rutan, and Coolidge, successors to the firm of H. H. Richardson, it was the first of the series of grand neo-classical terminals constructed



View south along Atlantic Avenue

across the country over the next couple of decades. Grand Central and Pennsylvania Stations in New York, Union Stations in Washington, D. C., and Chicago, and others followed South Station's break from the Romanesque and Italianate styles which had previously characterized the large urban stations.

The project entered the planning stages in mid-1896, but the actual construction, including site consolidation, 2000 ft. of seawall along Dorchester Avenue, and the relocation and upgrading of sewers and other utilities, was completed in an astonishing eighteen months between April 1897 and September 1899. Absolutely up-to-date and trend-setting for its time, South Station was comparable in its complexity to anything currently projected for the site. It occupied the entire width of the block between Dorchester and Atlantic Avenues and extended south beyond the corner of Kneeland Street. Flanking the 28 tracks were inbound and outbound baggage rooms on the east and west respectively, as well as the power plant, gas plant, ice making and refrigeration facilities which serviced the complex. The tracks and platforms themselves were covered by an enormous arched train shed some 602 feet long and 570 feet wide. Underneath the main tracks was a subterranean loop of four tracks designed to accommodate fast-turnaround suburban commuter trains and ease congestion in the upper

terminal. A sophisticated new electro-pneumatic interlocking system was installed to control the movement of trains between the 28 stub tracks and the four inbound and four outbound mainline tracks. Transverse tunnels and lifts were provided to speed the handling of baggage and express cargoes below the confusion of moving trains and passengers on the surface.

All of the passenger facilities were contained within the massive headhouse, of which only the curved corner and half of the waiting room remain. A report by George B. Francis to the American Society of Civil Engineers soon after the station's opening in January 1900 describes it quite well:

The main entrance to the station is at the intersection of Federal Street*, Summer Street, and Atlantic Avenue, and it is here that the main architectural features of the station are found.

The building extends from this entrance, 792 feet along Atlantic Avenue, and along Summer Street 672 feet; then turning the corner of Dorchester Avenue, it extends 725 feet further, making the total street frontage of the headhouse 2,189 feet.** Two stories for this entire length, are

given up to station purposes, and the three upper floors of the five-storey building are used for office purposes by the operating railroad companies.

The five-story building, or main office building (in the middle of which is the main entrance), is 675 feet long, of which 228 feet, or the portion at the main entrance, is curved.

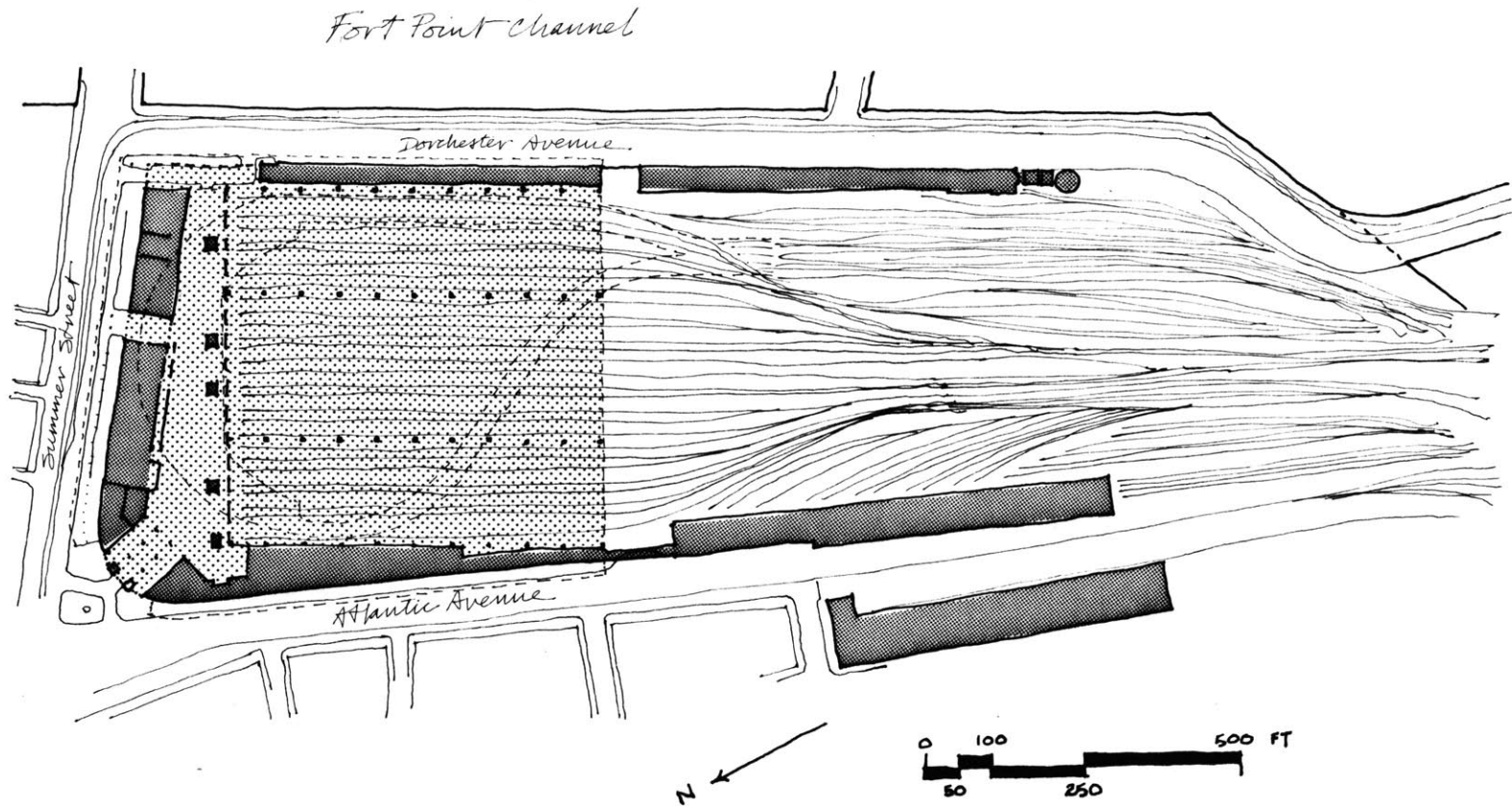
Of the curved portion, two stories form a massive base, in which are three large arches forming the entrance. The upper three stories are created as a colonnade. There are sixteen of these columns, 4 1/2 feet in diameter and 42 feet high. These columns support an entablature and parapet, with a projecting pediment over the center. Above this pediment is a clock, with a dial 12 feet in diameter, in an elaborate granite setting. Over the clock is a large granite eagle, with wings partly spread, stooping as if just ready for flight. This eagle is about 8 feet high, and the same breadth over the wings.

In front of the building, opposite the center of the main entrance, there has been erected an ornamental polished granite column, upon a heavy polished granite base, to carry five large electric lights. This column is about 40 feet high.

The curved portion of the building is of cut granite, and nearly all the remaining front of

* Federal Street no longer extends this far east.

** This includes the baggage, express, and utility structures



South Station, As constructed ca. 1900 [ref. 1]

quarry-faced granite, laid in courses. Upon the front of each wing of the five-story building there are large panels of buff brick, which relieve the severe appearance of the granite.

There is a secondary entrance to the station from Atlantic Avenue, also an exit from the subway. The remainder of the front on this avenue is devoted to the outward baggage room, the doorways being protected by an iron and glass awning, extending out sufficiently to cover all baggage in transit from the wagons to the building.

On the Summer Street side there is a series of large arched windows to give light to the waiting room; beyond these is the main exit, a wide passageway leading directly from the midway to



South Station ca. 1910 [ref. 1]

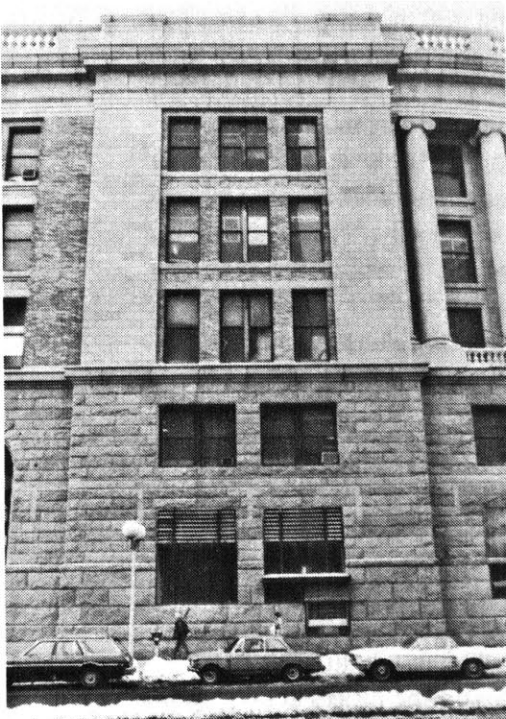
the street and passing over the subway inclines by a bridge. These inclined subway exits are below the ground-floor level, and lead up to the street from the subway platforms, avoiding the use of steps.

The carriage concourse is at the corner of Dorchester Avenue and Summer Street. Opposite the train shed, on the Dorchester Avenue side, is the inward baggage room, about 550 feet long. Here again, the doorways and teams are protected by an awning. The awning along Summer Street is about 40 feet wide and protects the subway exits as well as the sidewalk.

The sidewalks all around the station are lighted by the Terminal Company from their own electric plant.

The main entrance is a thoroughfare 90 feet wide, lined on each side with polished Stony Creek granite. Within the entrance are four large polished granite columns, about 3 1/2 feet in diameter, which support the offices above. In the polished stone walls are cut the date of the erection, the names of the constituent railroad companies, and the trustees of the terminal company, also the names of the mayor, engineer, architects, and builder. The ceiling is of white enamelled brick, and the iron beams are enclosed in white marble.

Opening from the midway, on the right, are the parcel room, entrance to elevator and stairway hall leading to the offices, and the outward baggage room. On the left are toilet rooms, telegraph, telephone, ticket offices, and information bureau, separated by openings to the waiting room. The



Facade, Detail

ticket office has eleven windows opening on the midway and sixteen on the waiting-room side.

The waiting room is 225 feet long, 65 feet wide, and 28 1/2 feet high, and out of the line of traffic. The floor is marble mosaic laid with a large and handsome pattern. The sides have a dado of enamelled brick, set on a polished granite base, and above this the walls are of plaster - tinted. There are three polished granite doorways, and two

verd - antique drinking fountains. The room is lighted during the day from windows on Summer Street and also from windows above the midway roof (which was kept low partially for this purpose), and by night from 1,200 incandescent lamps distributed along the side walls and in the deep modeled stucco coffered ceiling, giving a beautiful, unobtrusive and well diffused light. Along one side are arranged great oak settees, placed to form alcoves. On the middle axis of the room are two large ornamental kiosks for the sale of confectionary and flowers.

The women's waiting room is entered from one corner of the main waiting room. This room is 34 by 44 feet, and is furnished with rocking chairs, lounges, tables, cribs, and cradles. Adjoining are ample free and pay lavatories.

At the easterly end of the waiting room is the main exit and stairway, also an elevator to the offices and subway. Beyond the exit is the lunchroom, 67 by 73 feet, with marble mosaic floors and sidewalks similar to the waiting room. Here are about 200 stools at the lunch counters, which latter are made with Tennessee marble face and mahogany tops. Next comes the serving room, also the elevator and stairway to three large dining rooms on the second floor. Near this last elevator, on a mezzanine floor, is an emergency room, with proper instruments and attendants for giving first aid to the sick or injured. Following along the midway are the station master's office, barbershop, shoe polishing room, public lavatory, smoking room and carriage transfer office, and at the



Main entrance; interior

extreme end of the midway is a passage to the inward baggage room.

In the midway are arranged five large booths, for the sale of newspapers, fruit, tobacco, drinkables, and for the rendezvous of the baggage porters.

Below the main floor are rooms for baggage storage, emigrants and restaurant purposes.

The second floor is occupied by the administration offices of the terminal company, and the trainmen.

The third floor is occupied by the main offices of the Boston and Albany Railroad Company, and the fourth and fifth floors by the local offices of the New York, New Haven, and Hartford Railroad Company. [ref. 13, p. 985 - 988]

Francis goes on to describe many more of the wondrous fittings and features of the new terminal, but by now the contrast with its present sorry state is clear enough. In 1916 South Station was the busiest in the country, handling 38 million passengers that year alone, nearly twice as many as Grand Central. An *average* of over 100,000 passengers a day made it unquestionably the busiest place in the city. Now, although still in constant and fairly heavy use as a station and bus stop, it is nearly derelict, shabby and half-forgotten.

Although South Station was to remain in full use and reasonable repair up until the 1950's, its glamorous heyday was cut short by the Second World War and the changes that followed. Even earlier, however, it began to succumb to bad planning and decay. The underground loop track was abandoned almost as soon as it was opened- its planners had counted on the introduction of electric or some other alternative motive power which never came about. The first trials with coal-burning steam locomotives proved disastrous in the subterranean space less than 16 ft. high and not mechanically

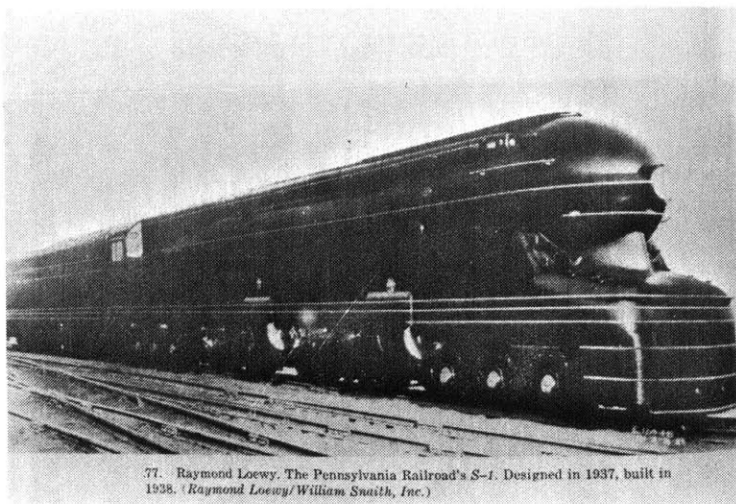
ventilated. (To this day the main Amtrak line into Boston remains unelectrified and is a major impediment to efficient rail service between here and the underground stations in New York.) Sometime later the commanding presence of the headhouse on Dewey Square was marred by the construction of the Atlantic Avenue El, although that line provided a convenient connection between South and North Stations which itself no longer exists.

The great train shed was pulled down in 1930, rendered unsafe by the corrosive combination of coal smoke and steam. It was replaced by butterfly sheds along each platform which provided none of the drama and atmosphere of the old enclosure.

As early as the 1920's the automobile began to have a significant impact on the growth of the urban and suburban environments. While highways and airlines did not begin to seriously challenge the dominance of intercity rail travel until the late '40's, the characteristic patterns of rail corridor and streetcar suburbs began changing much earlier. Improved roads and rising incomes allowed

people to make their way into the city and home again independent of timetables and crowds. The American automobile culture began to develop, and commuting to work by train began to decline in popularity and lustre. City-to-city service remained glamorous and necessary. Trains such as the Twentieth Century Limited from New York to Chicago were the Concordes of their day, symbolizing technology, progress, and the Future. They inspired film, song, and legend and filled the popular imagination.

The romance of the rails dies hard, but the grand trains themselves were no match for Interstates, airplanes, and the decaying center cities of the 1950's. Over most of the longer routes beyond the eastern seaboard the airlines rapidly took over the bulk of the first class passenger business, and a good portion of it over shorter distances as well. The automobile became the preferred, even practical, alternative for trips of up to several hundred miles. Long- and short-haul bus systems proved more flexible and much cheaper to operate than capital-intensive railroads run by large,



Pennsylvania Railroad S-1, 1937 [ref. 7, p. 88]

inefficient crews over fixed routes. Over the past thirty years passenger rail service disappeared altogether from many parts of the country. In the Boston-Washington corridor and a few other places it survived, continually imperiled by indifferent management, declining ridership, and foundering corporations unable to turn a profit.

The present state of South Station is a physical record of this decline. The train shed is gone, and the power plant, gasworks, and

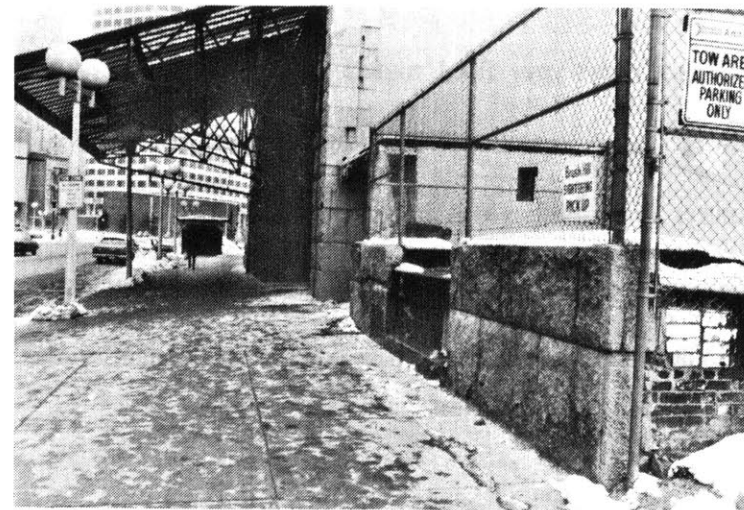
baggage houses along Dorchester Avenue have long since given way to a pair of mail-handling facilities of the U.S. Postal Service, which ironically no longer moves its mail by rail despite having located at South Station for that purpose. The five-story headhouse and ancillary structures along Atlantic Avenue remained essentially unaltered until the early 1970's, although mostly disused and in poor repair. To make way for the Stone and Webster building in the mid 1970's, most of the east wing along Summer Street was lopped off, including the old exit archway, lunchroom and restaurants, most of the midway and half of the waiting room. The gaping hole that resulted was patched with a plain brown cinderblock wall, fenestrated only at the bottom. At about the same time almost everything along the east side of Atlantic Avenue was demolished, stopping just short of the projecting double pier which anchors the graceful curve of the entry facade. That particular wound was capped off with some ill-fitting metal sheeting. A fragment of the old iron-and-glass awnings remains over the Atlantic Avenue



Facade, Detail



Headhouse, Stone and Webster building, commuter buses 1983



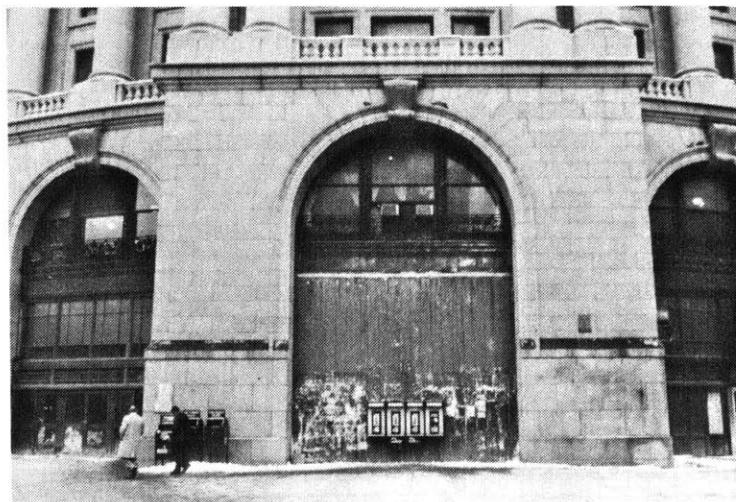
Atlantic Avenue entrance and canopy

entrance.

Only the easternmost of the three large entrance arches is currently in use. The projecting central arch now sports a brown-painted plywood wall and a bank of pay phones, while the west arch serves as the grand portal to the Side Car Lounge. What remains of the midway, never a very successful space due to its low ceiling, is cluttered with cheap plywood kiosks, a drugstore, and at least one vintage concession stand. There is little sense of organization, direction, or place.

The waiting room fares better but is still a sad shadow of what it once was. A low structure containing ticket counters has been placed against the north wall where seating alcoves used to be, and the room has lost its quality as a quiet backwater; a new entrance in the east wall brings large numbers of commuters through the space at rush hour.

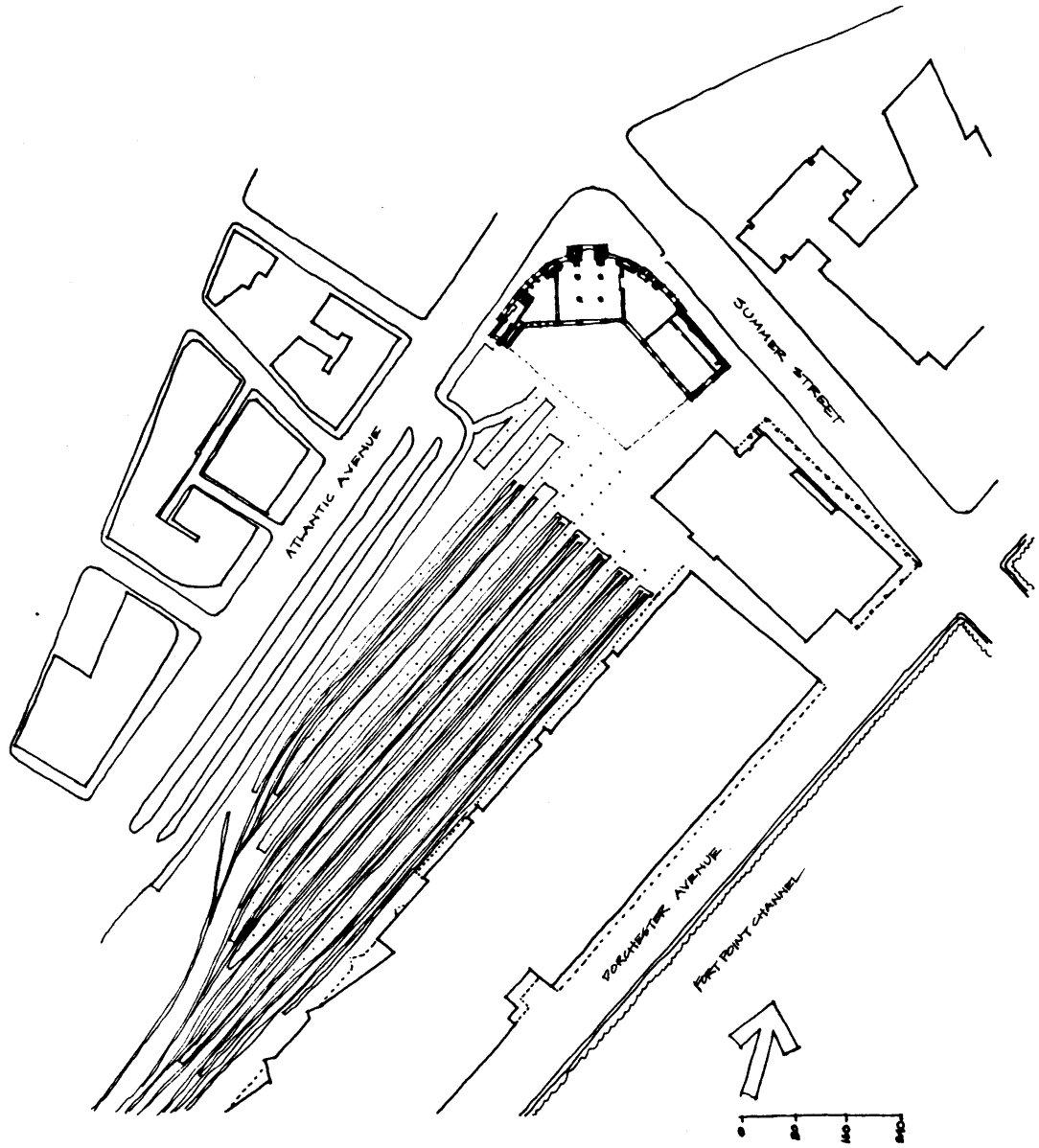
The second and third floors are now occupied by offices of Amtrak and the MBTA, while the fourth and fifth floors have been



Entrance portals

damaged by a series of fires and are deteriorating. Nonetheless the granite facade and overall structure are in good condition.

Ten of the original twenty-eight tracks remain, used by the MBTA Commuter Rail trains and Amtrak service along the shore route via Providence and New Haven to New York. The tracks, roadbed, signals, and switches are all in poor repair. While the cross-platform between the tracks and the midway has recently been prettified with some planters and benches, the finger platforms



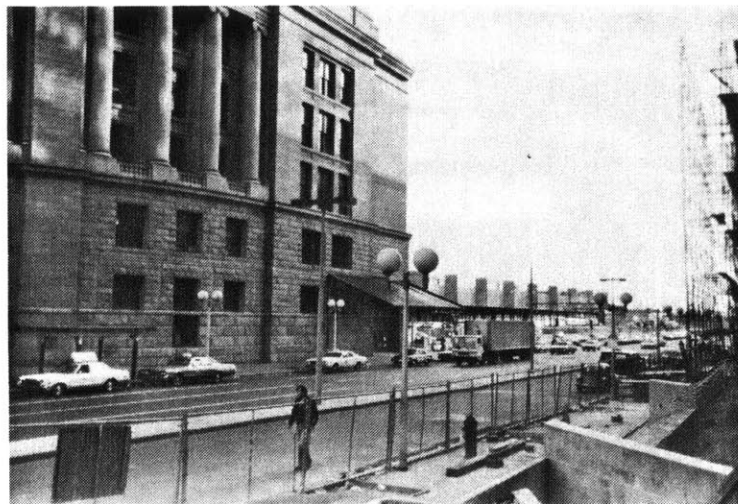
South Station, Existing conditions

themselves are still of the low type which makes access to the trains difficult for the elderly, handicapped, and those with luggage.

The apparent absence of adequate trackside power supplies makes it necessary to run the diesel locomotives at a continuous fast idle while in the station to operate heating, cooling, and lighting systems in the cars. This is no great problem with departing trains as their engines are at the far end of the platform, but the din of arriving locomotives reflects off the low canopies and makes the trackhead area extremely noisy and unpleasant.

Commuter bus platforms occupy the Atlantic Avenue frontage were the express companies and outbound baggage rooms once stood. As many as fifty or more buses may queue up along this narrow strip in preparation for the evening rush hour, but during the middle of the day and on weekends it is deserted.

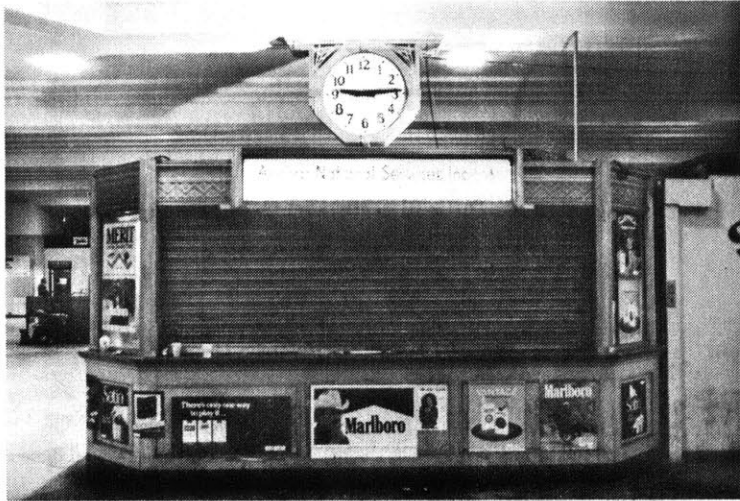
South Station is still a busy place although on nothing like the scale of sixty years ago. The trains handle perhaps 10,000 passengers



View south along Atlantic Avenue

a day at most, with several thousand more coming and going by bus, although few of the latter use any of the station facilities. As is true of stations and bus terminals in almost every American city it has become the refuge of the homeless, indigent, and alcoholic.

But there's a dance in the old dame yet. Plans for the redevelopment of South Station have been floating around in various forms since at least 1956. A half-dozen schemes by different teams of developers and architects have come and gone since then.



Concession stand and clock



Waiting Room, north (Summer Street) wall



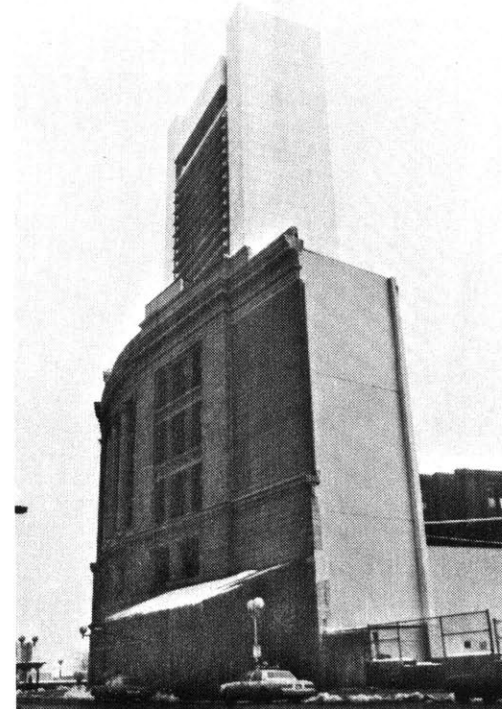
Waiting Room, south wall



South Station, 1983

Until 1975, however, none of them contemplated preserving the old headhouse, and it very nearly fell to the wrecker's ball. In 1975 it was finally placed on the National Register of Historic Places, and was thus assured some part in any future development of the site.

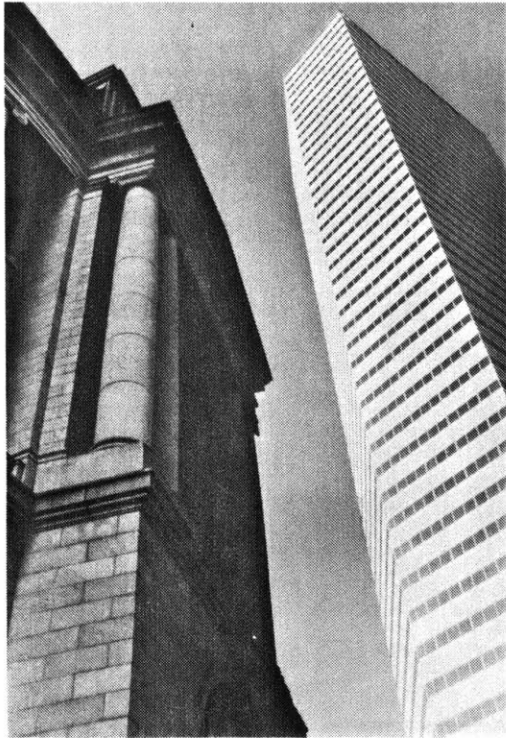
Despite its diminished state South Station is still a commanding presence on Dewey Square. While it is now framed by two towers several times higher, the bold sweep of its curve and the clarity and scale of its surface articulation make the old headhouse seem much



Headhouse and Federal Reserve Bank

more accessible and somehow more important and enduring than its newer neighbors. The building is unmistakably old and worn, but its image and function are by no means obsolete.

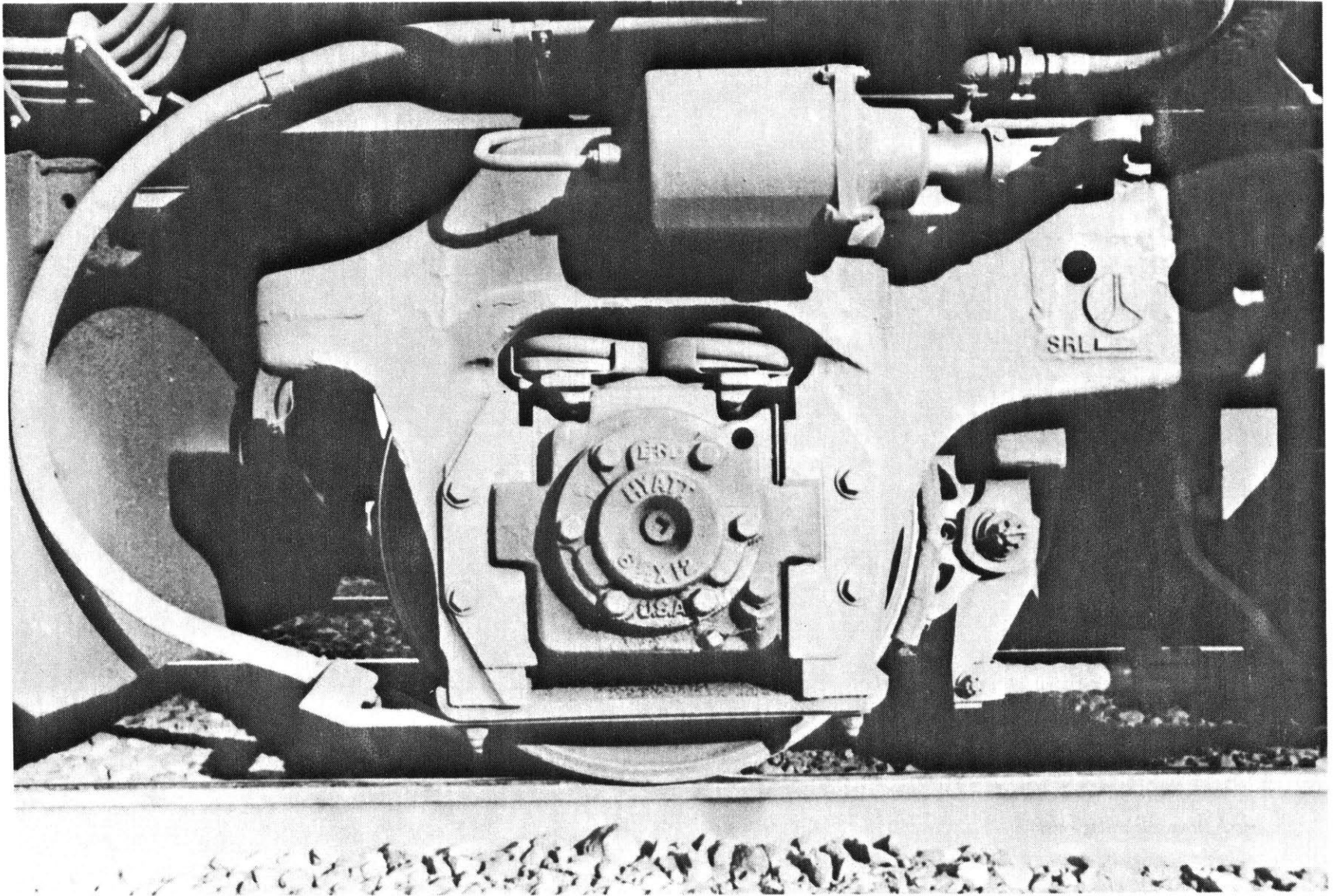
Monumental terminal stations and the trains they serve are creatures of the traditional central city. As the anti-urban impulses of



Headhouse and One Financial Place

the postwar decades diminish, the city and its stations may once again occupy a favorable place in the popular imagination. Yet the emphasis has changed, no longer reflecting a fixation with unlimited Progress but rather a nascent appreciation of tradition and common values; the past beliefs and present hopes which are embodied in the physical fabric of the city.

V. SOUTH STATION PROJECT

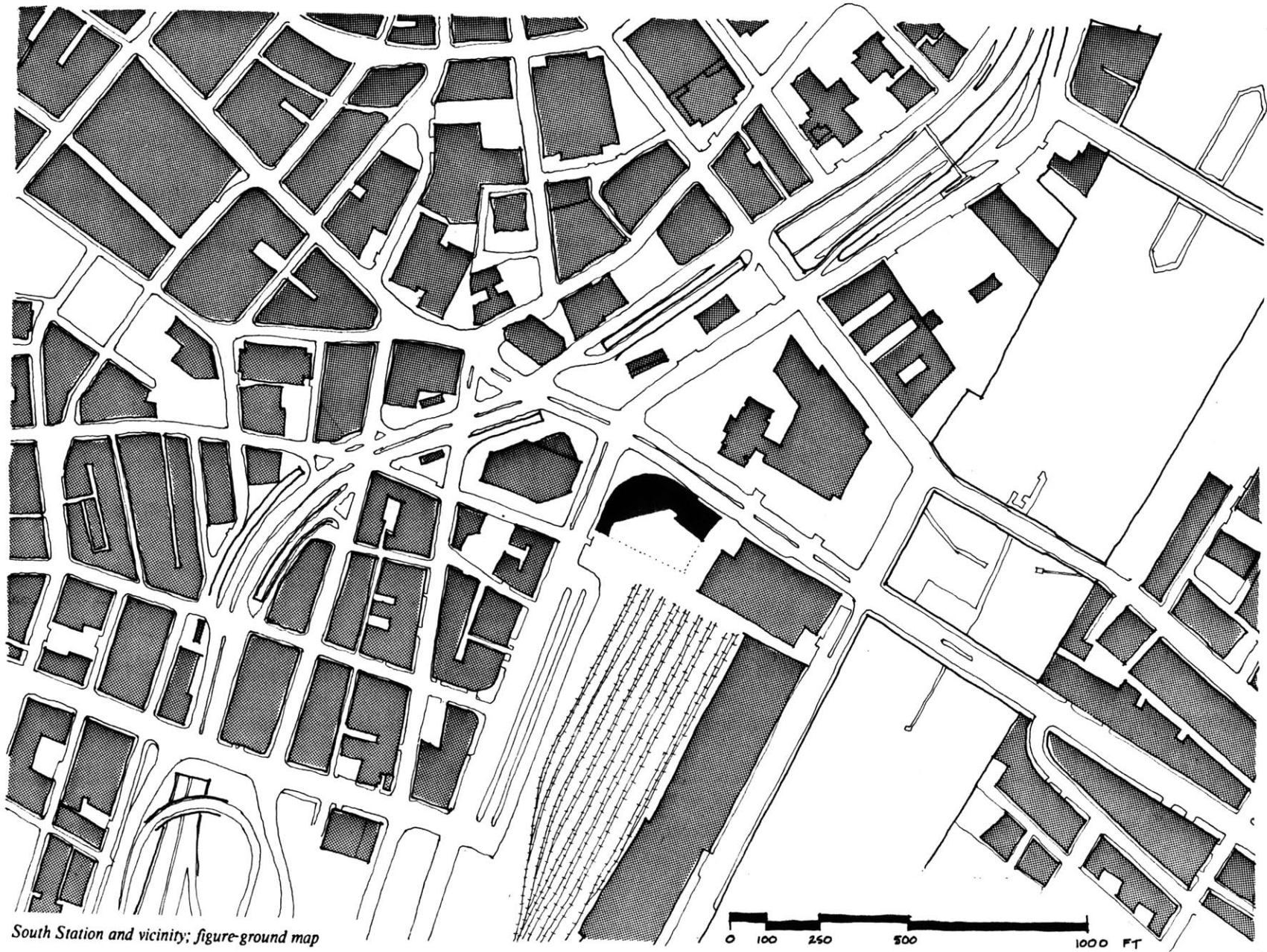


The design presented here is based on the program developed by the Boston Redevelopment Authority (BRA) for the South Station site. The BRA's expectations have evolved over time, as evident in the various proposals which they have solicited, but the major program requirements have remained relatively stable over the past decade. The major change came with the historic designation of the old headhouse in 1975, which made its reuse an explicit part of any development. The program calls for a very large "intermodal transportation center" accommodating a new mix of train, subway, bus, automobile, and pedestrian traffic, as well as supporting a variety of ancillary public and private uses; the principal goal being to better integrate these various modes of transportation which are presently dispersed and badly interconnected. South Station is a natural site for this center due the existence of rail and subway lines, its proximity to the central business core, and relative ease of access to two major highways.

Simply stated, the program calls for improved rail facilities,

covered terminals for both long-distance and commuter buses, an improved connection to the MBTA Redline station under Dewey Square, provision of from 500 to 2000 parking spaces, a 400 room convention hotel, a half-million square-foot office block, a pedestrian concourse connecting the old headhouse to the new facilities, as well as substantial amounts of retail and restaurant space, support spaces for rail and bus operations, and the like. In addition to this is a possible 250,000 sq.ft. low-rise parcel which has variously been projected as an exhibition hall, a high-tech manufacturing facility, or a new municipal arena to replace the one at North Station.

It is recognized that the overall passenger traffic will never attain the heady levels of the 1920s, and the program is designed to promote significant other uses and activities as well - the hotel and office building populations are expected to help support a Quincy Market-style complex of shops and restaurants, located primarily within the renovated headhouse. The BRA has at times required the



South Station and vicinity: figure-ground map

development of these facilities around a specified architectural layout, a central spine or an internal street along Atlantic Avenue, but I have chosen to develop my scheme independent of such limitations.

The BRA and the MBTA, presently designated as developer of the site, have made much of the idea of an "intermodal transportation center" as something radical and new when, in fact, many prototypes exist which accommodate equally complex programmatic requirements. Many of the large urban train stations in Europe and the U.S. are virtually cities unto themselves; Victoria Station in London contains a hotel, offices, bus and subway stops, shops, and restaurants forming a rough "U" shape around the railroad platforms. Admittedly, these functions have accumulated over the years in an ad hoc and inefficient manner, and the proposal for South Station is new in that it considers them all as parts of a new, carefully interrelated whole.

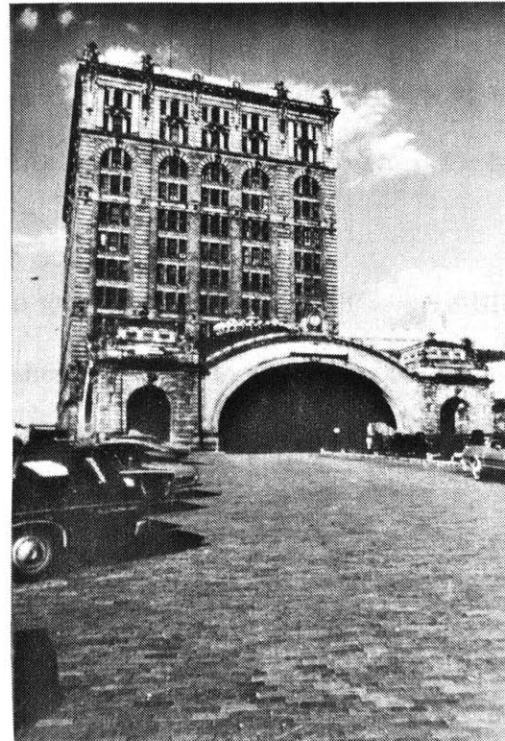
Regardless of the number of specific functions which it may

support, the urban station is primarily a gateway to and from the city. In many ways, it can also be seen as a microcosm of the city representing, either literally or metaphorically, the complex web of activities, interrelationships, and individuals which constitute the urban world.

While we may have strong images of big-city stations, there is really no clear archetype as there is for small-town or suburban depots, with their waiting-rooms, overhanging eaves, and unmistakable relationship to the tracks. The city station is characteristically grand, of a size and singularity of form which clearly expresses its public importance. Its specific function as railroad station is rarely evident from its form alone, except when tracks or train sheds are visible. Both internally and externally, however, stations are configured to accommodate large amounts of circulation; large entrances and spacious internal volumes are important parts of the image. However, we tend to know them best by experience; and the image of each station is unique and

essentially local. The main waiting room at Grand Central Station and the curve of South Station at Dewey Square are familiar, non-transferable images of New York and Boston.

The station is primarily the interface of any number of different modes of transportation. As such it must accommodate the movement of large numbers of pedestrians, each with their own needs and destinations. The station must function as a collector and organizer of this traffic, permitting easy and efficient passage but also some measure of order, tranquility, and refuge from the chaos of the city. The circulation is typically organized around a large central volume, such as the waiting room at Grand Central, which houses many of the public functions of the station and provides clear paths to the street, trains, and other services. The importance of this central organizing volume is considerable; Pennsylvania Station in New York retains the basic layout of tracks and entrances which it had before its waiting room and concourse were demolished in the 1960s, but is now a confusing and uncomfortable maze of underground



Union Station, Pittsburgh, Pa. Daniel H. Burham [ref. 36]

rooms and passageways.

South Station has always had in its curving granite facade a unique image and a commanding urban presence. Yet the clear organization of the exterior was never really equalled inside. There were good individual interior spaces, particularly the waiting room,



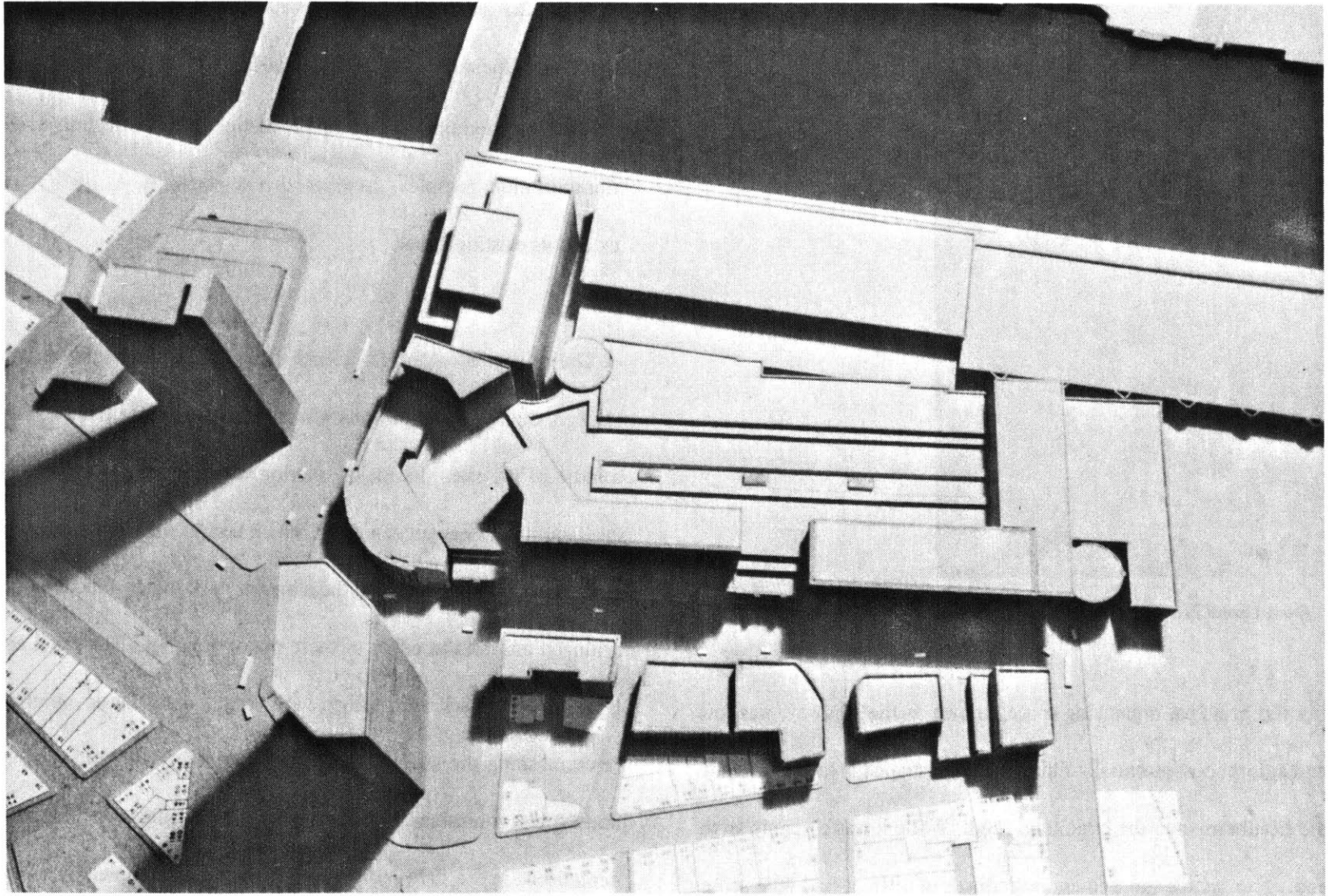
Grand Central Terminal, New York, main concourse ca. 1927 [ref. 16, p. 18]

but the principal organizing space, known as the Midway, was low and amorphous, essentially filling the edge-shaped area left between the headhouse and the large train shed. While it was certainly large enough to handle the tremendous crowds of 1916, it had little sense of grandeur or order. It did not really address the issue of formally

resolving the diagonal axis of the station's corner entrance with the direction of the railroad tracks and platforms.

The incorporation of the South Station headhouse into a new transportation complex provides the opportunity to clarify and extend its existing image.

The project is organized around the central spine of the railroad tracks and passenger platforms which run north to south through the middle of the site. Its major interior volumes are the train room itself and the passenger concourse which occupies the diagonal space directly behind the existing headhouse. All other functions are arranged around the edges of these major volumes. The hotel and large office block run along the edge of Atlantic Avenue, re-establishing the street line formerly defined by the old baggage and express rooms and the west wing of the headhouse which were demolished in the 1970s. The south of the site is occupied by a large parking structure, with access ramps for both cars and buses opposite



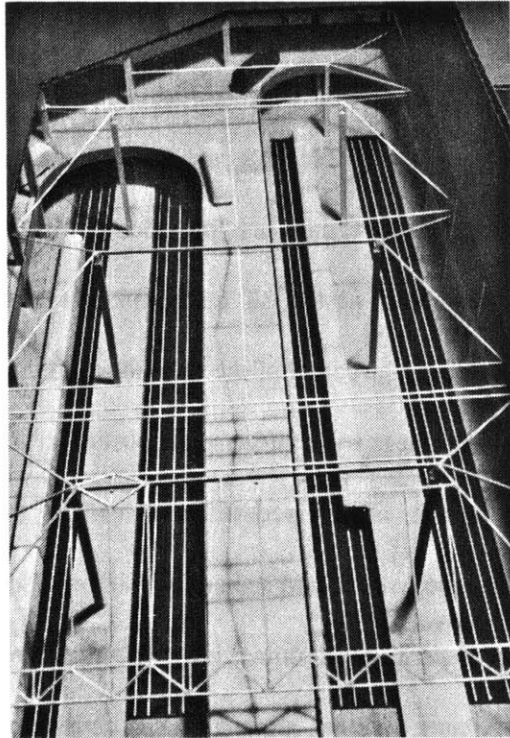
Site Model

the intersection of Atlantic Avenue and Kneeland Street. The parking structure extends north along the east edge of the train room to a secondary helical ramp which is accessible via the alley between the Stone & Webster building and the Post Office. A small office tower is added to the lopped-off east end of the Summer Street wing of the headhouse which balances mass of the hotel block to provide a symmetrical backdrop for the station's curved facade.

The 10 train tracks and passenger platforms are shifted approximately 100 feet east from their present location, with the trackheads staggered to reflect the diagonal axis of the main corner entrance. The tracks themselves are depressed four feet to allow the use of level platforms. The slight grade differences between the street, the concourse level, and the platforms are accommodated entirely by ramps. The train room is a long, linear volume approximately 50 feet high, 200 feet wide, and 700 feet long. Passenger access is from the main concourse at the north end of the tracks.

Both commuter and intercity bus terminals are located on the second floor level around the east and west edges of the train room. Island curbs along the east side accommodate the long queues of commuter buses, while intercity buses are provided with the traditional diagonal bays on the west. All buses exit along an elevated ramp which runs down the center of the train room volume above the middle platform. There is a transverse connection at the train room's midpoint which allows pedestrian access to the commuter buses from Atlantic Avenue and a shortcut exit for buses. The main entrance to the intercity bus terminal is between the hotel and office blocks along Atlantic Avenue, although it can be reached from the upper level of the main concourse. The passenger waiting areas and gates from a long, wide corridor running nearly the full length of the Atlantic Avenue frontage.

The hotel and office block have their primary entrances along Atlantic Avenue, although both can be reached from the second floor bus level. The hotel can be entered from the main concourse at



Detail model, early version; view of bus level and train room

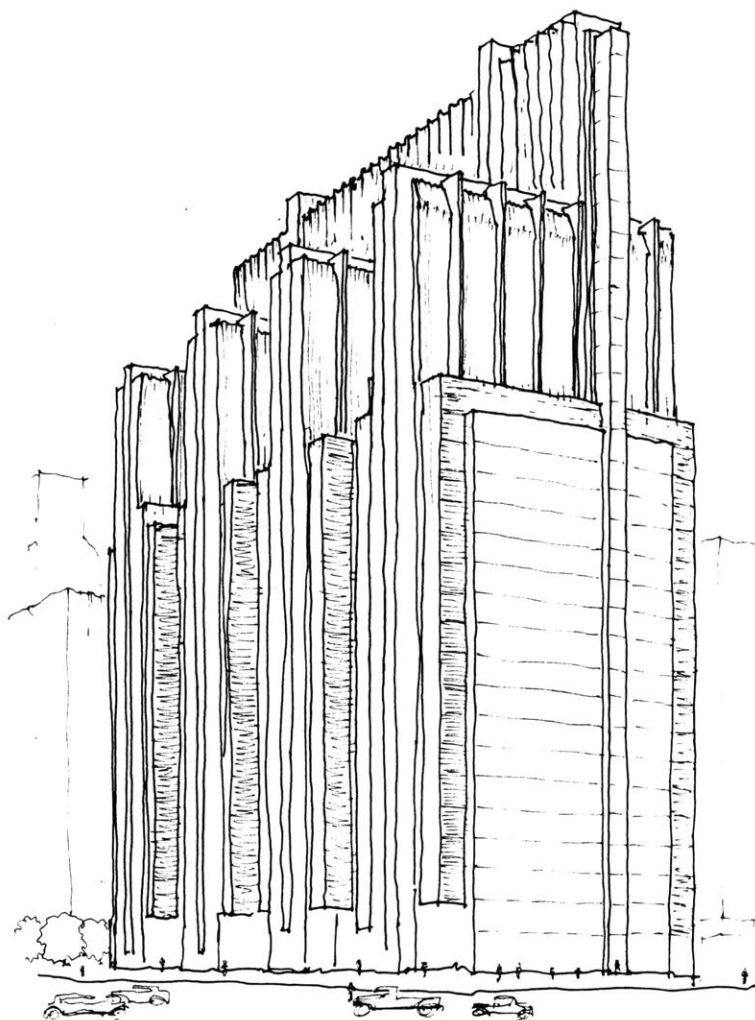
ground level, and is directly connected to the headhouse at the third and fourth floors. The large rooms in the center of the curved section of the headhouse are used as dining rooms and function rooms for the hotel.

As for the old structure itself, it is retained essentially unchanged.

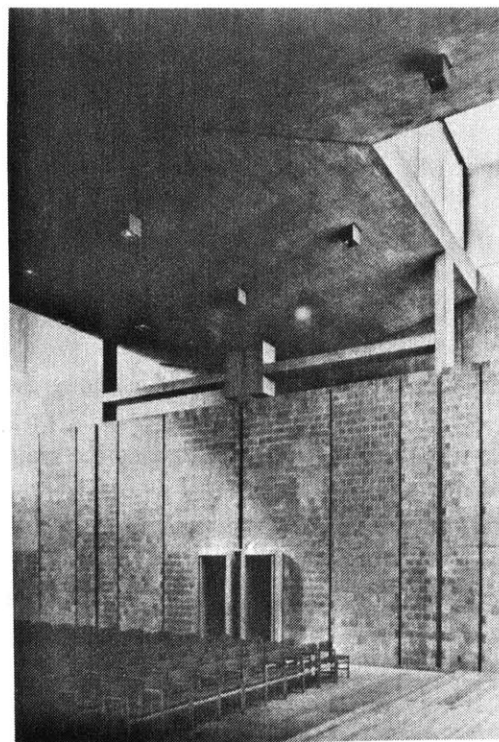
The large entry space is reopened, with the center bay now accommodating stairs and escalators connecting directly to the Red line station under Summer Street. Retail spaces flank the main entry. The second floor houses a public bar and restaurant while the fourth and fifth are given over to rental office space.

The massing and form of the structure along Atlantic Avenue is based on the extension of the size and patterns of the headhouse. The cornice line is continued south to the parking garage in an alternating sequence of single and double piers which form a continuous base from which the hotel and office towers rise. The large helical ramp at Kneeland Street punctuates the far end of this horizontal line and recalls the curved facade of the headhouse. The upper storeis of the hotel are held back from the street line in order to emphasize the extension of the headhouse volume. The piers are clad in granite to echo the color and textures of the old facade.

Light is used as an organizing and unifying element both inside and out. The structural articulation and surface relief of the new



*National Life Insurance Company building (project) Frank Lloyd Wright
1924 [ref. 15, p. 263]*

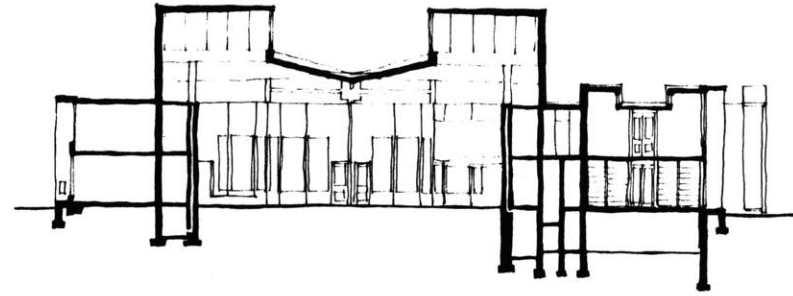


First Unitarian Church of Rochester, N. Y. , sanctuary [ref. 14, p. 14]

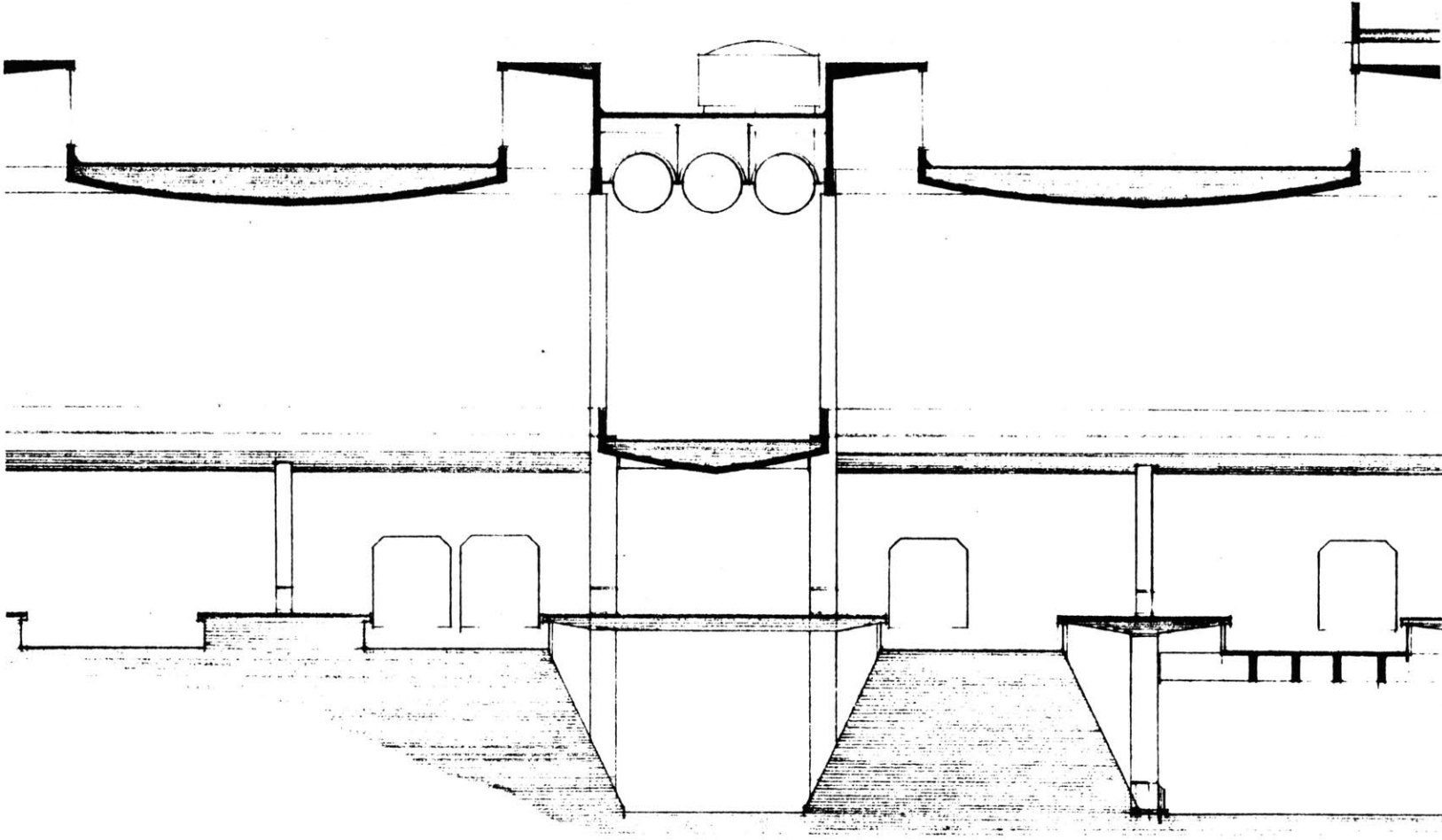
exterior walls is intended to provide shadow and highlights similar to those of the old headhouse. Internally, direction, organization, volumetric relationships, and the connection between old and new are all expressed by a single, consistent quality of daylight. This is achieved through the use linear roof monitors which reflect a diffuse

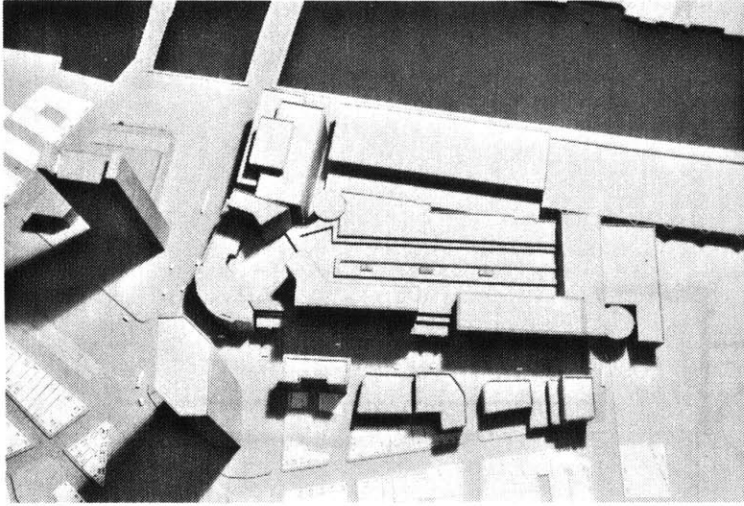
light onto the gently curved surfaces of the ceilings below. These monitors face in various directions, depending on their location, and thus the inside environment will vary with the season and time of day. In the train room the monitors and curved ceiling sections reinforce the primary direction of travel and complement the streamlined contours of modern trains. Daylight washes along the ceiling plane from the train room to light the bus areas and the main concourse. Another monitor runs against the back wall of the headhouse, expressing the connection between new and old with a bright band of sunlight.

The primary functions of the new complex are arranged with close physical and visual connections to one another. Trains and buses are vertically separated but share a common volume of space with a clear relationship to the street. The main concourse is the central focus of circulation from which all major functions are visible and accessible.

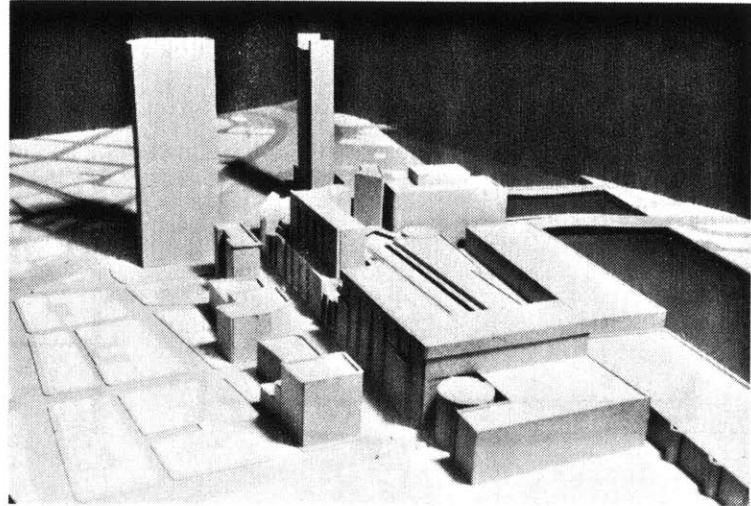


First Unitarian Church of Rochester, N. Y. Louis I. Kahn 1959-67; section

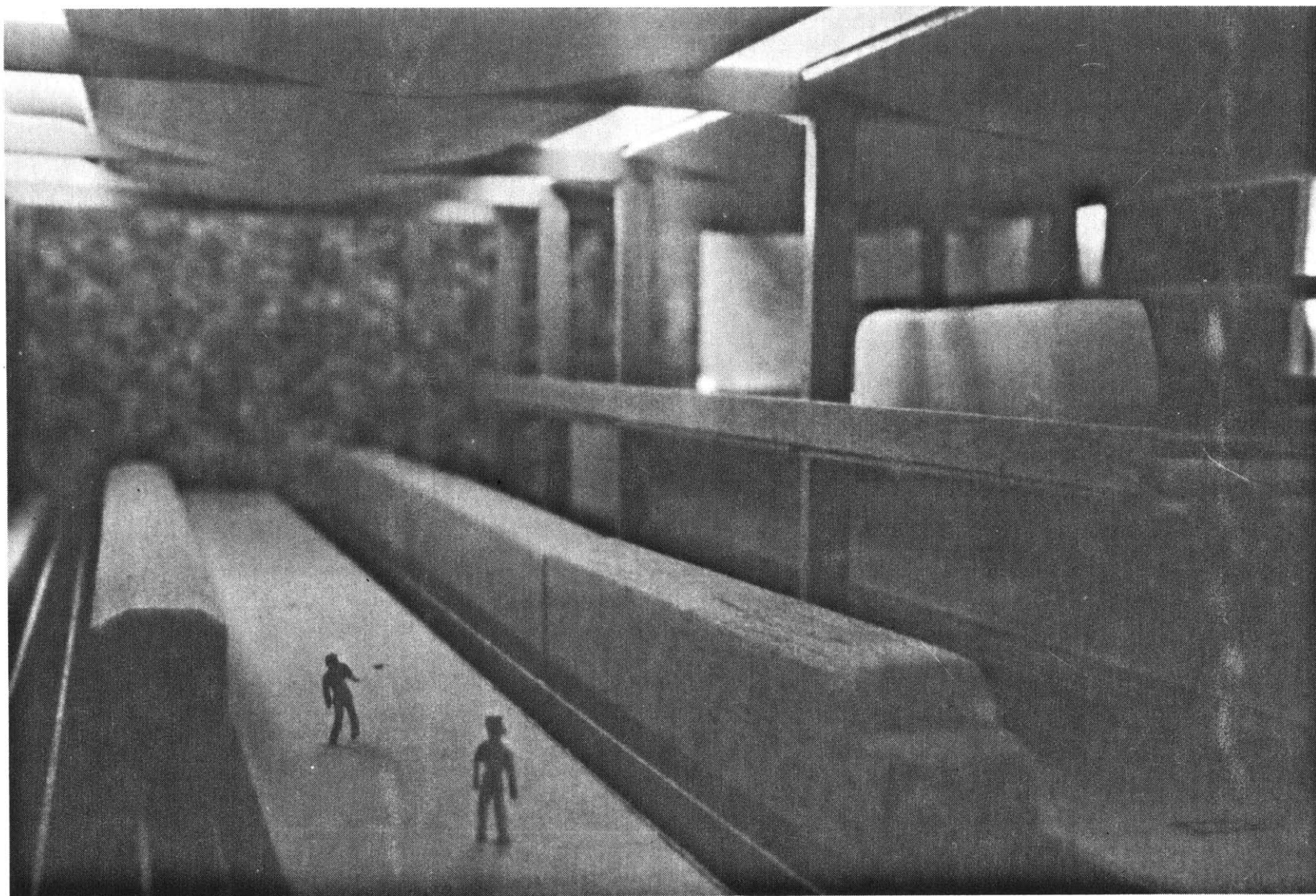




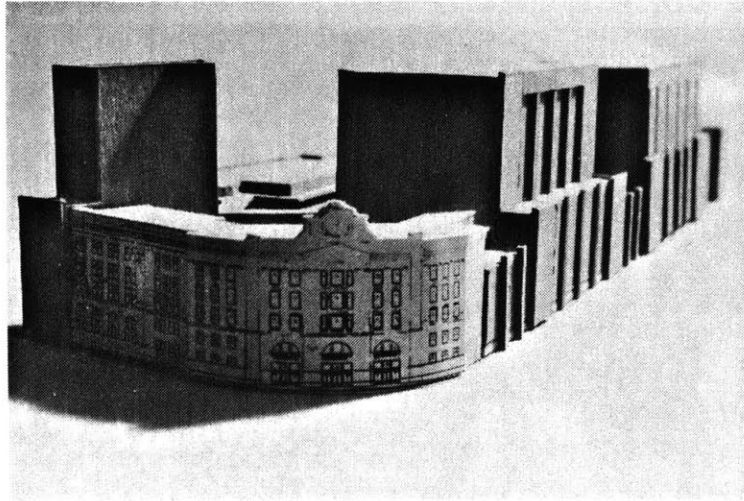
Site Model



Site Model



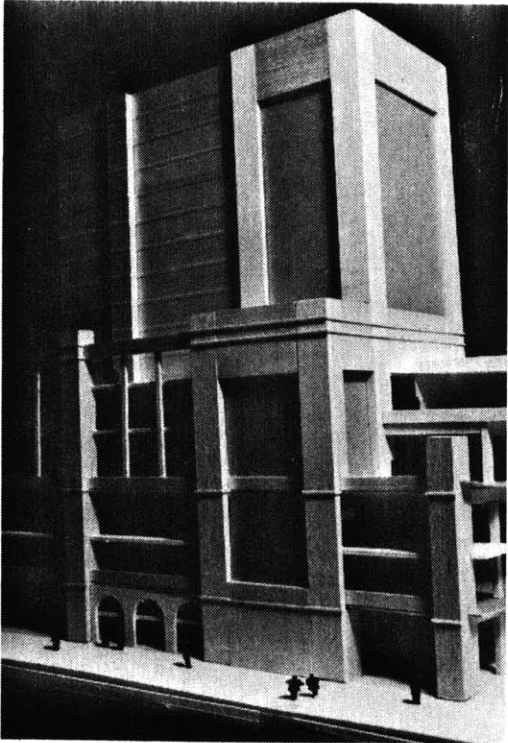
Detail model, train room



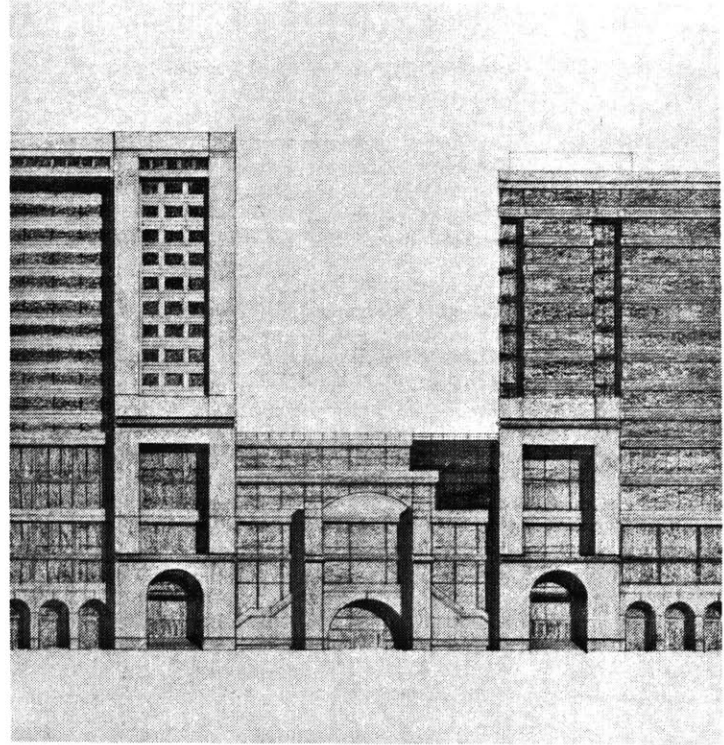
Massing model



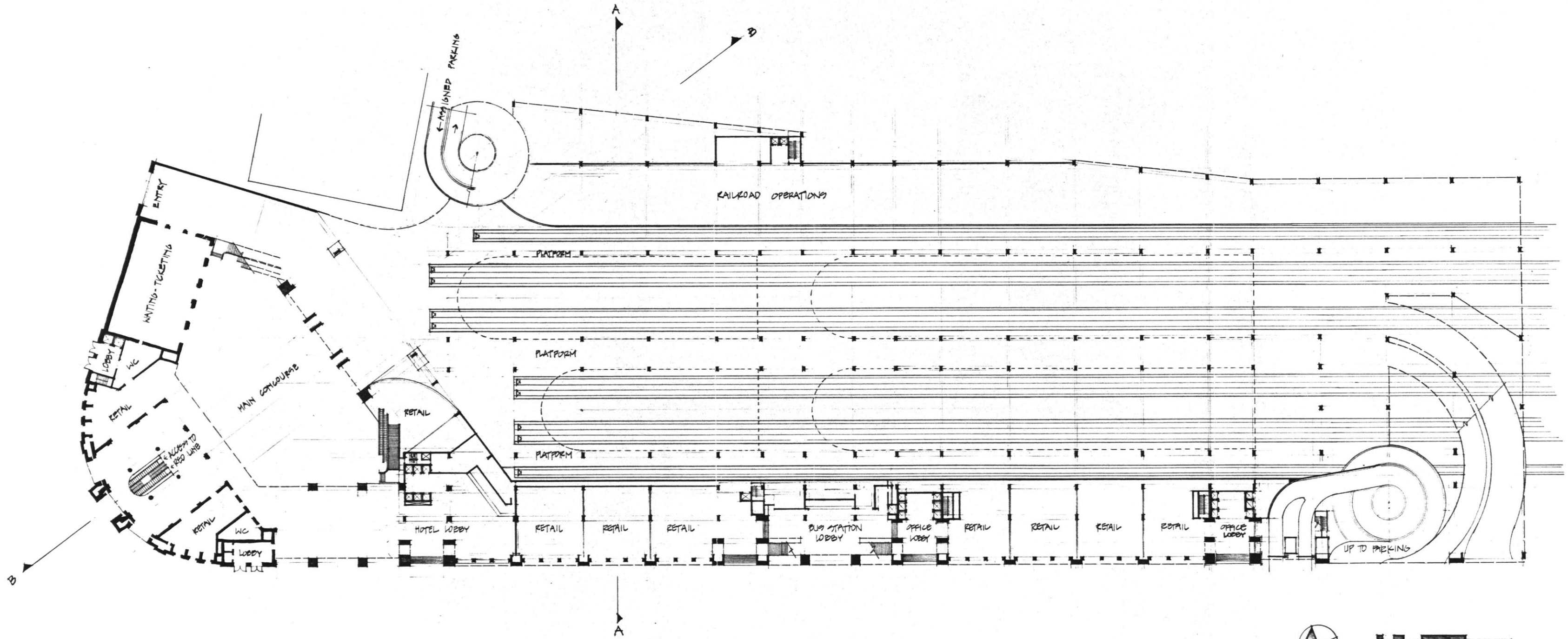
Headhouse; existing street facade



Detail model, south end of hotel

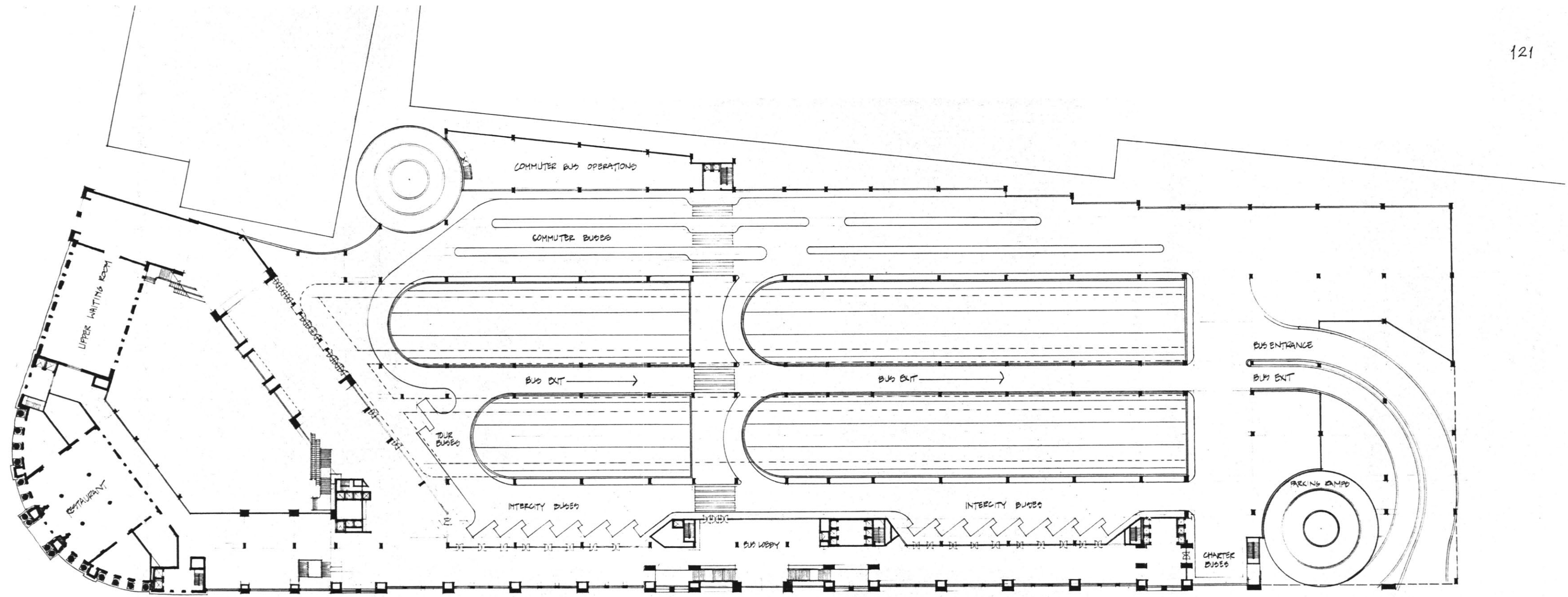


Detail



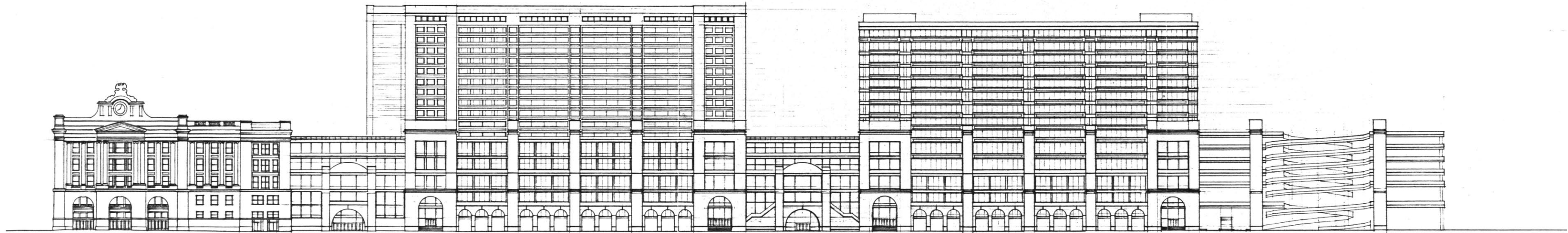
Ground Floor Plan





Second Floor Plan

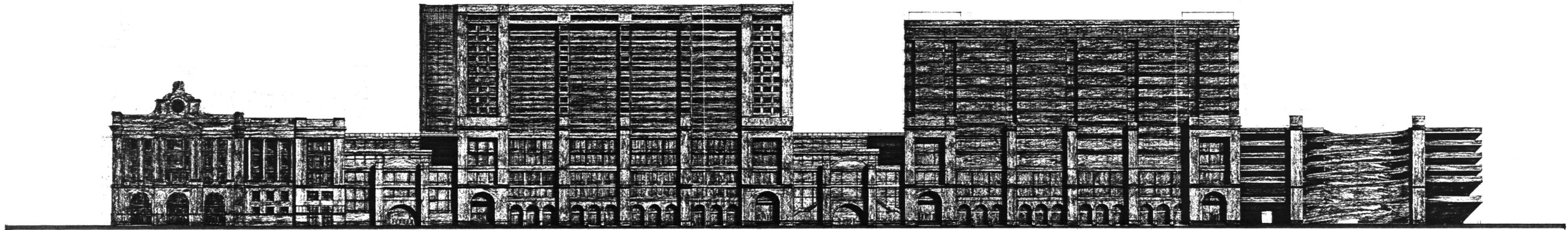




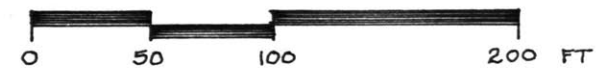
Atlantic Avenue Elevation



The following text is extremely faint and largely illegible. It appears to be a list or a series of entries, possibly related to a survey or a collection of items. The text is scattered across the lower half of the page and is difficult to decipher due to its low contrast and small size.

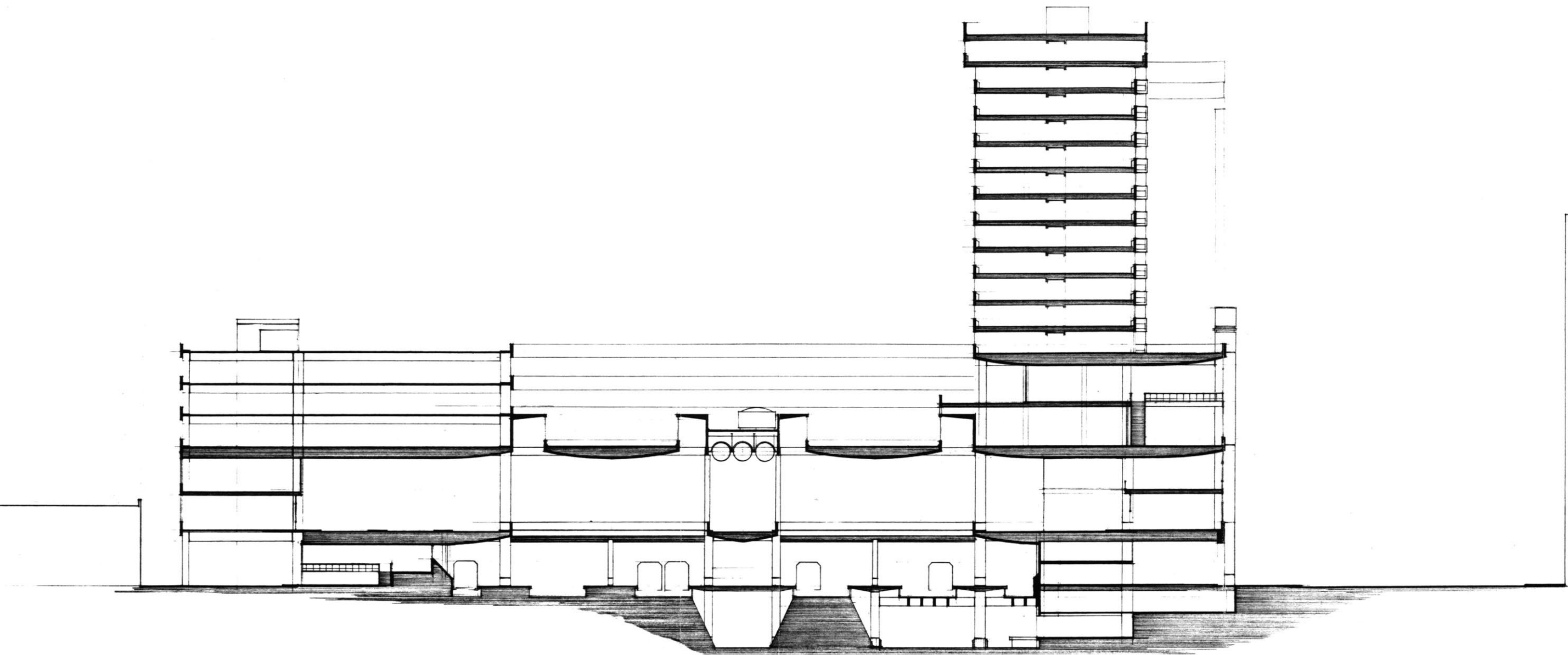


ATLANTIC AVENUE ELEVATION



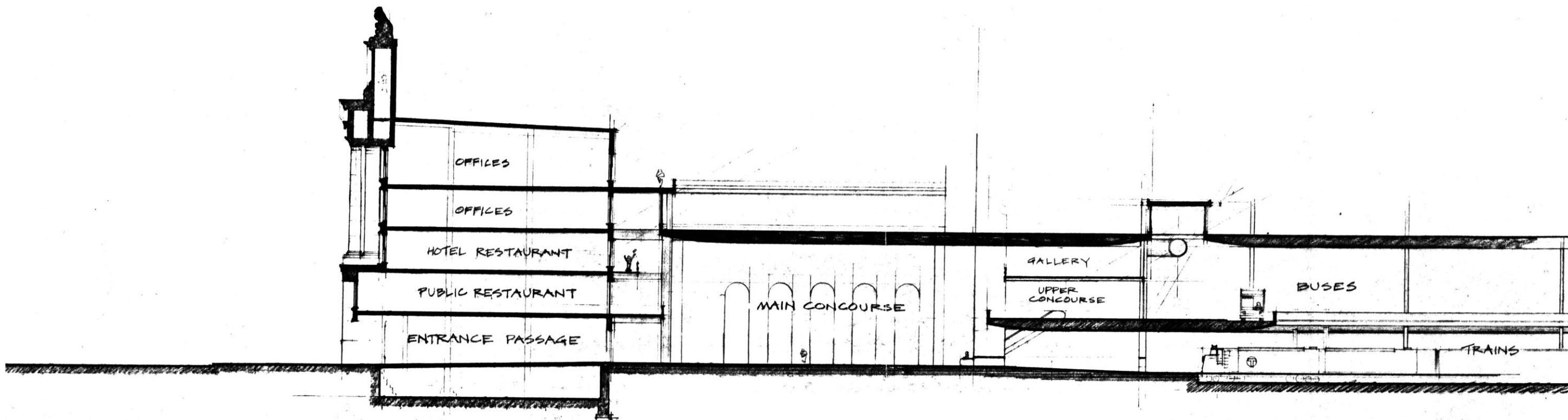


Very faint, illegible text located at the bottom left of the page, possibly a page number or reference code.

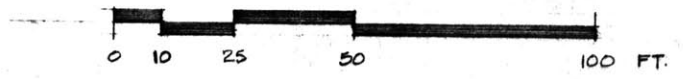


Section AA; east-west through trainroom





Section BB; north-south through concourse



References

- [1] Alexander, Edwin P., *Down at the Depot; American Railroad Stations from 1831 to 1920*, C. N. Potter, New York, N. Y., 1970
- [2] American Institute of Architects, *Journal*, February 1981
- [3] -----, *Journal*, April 1981
- [4] *Architectural Record*, Station Square, Pittsburgh, Pa., October 1983
- [5] -----, *Recycling Buildings: Renovations, Remodellings, Restorations, and Reuses*, Elizabeth K. Thompson, ed., McGraw Hill, 1977
- [6] *Art New England*, Vol 5, No. 4, March 1984
- [7] Barraclough, Geoffrey, *An Introduction to Contemporary History*, C. A. Watts, London, 1964
- [8] Boston Society of Architects, *Architecture Boston*, Barre, 1976
- [9] Bush, Donald J., *The Streamlined Decade*, Braziller, New York, N. Y., 1975
- [10] Cantacuzino, Sherban, *New Uses for Old Buildings*, Watson-Guptill, 1975
- [11] ----- and Brandt, Susan, *Saving Old Buildings*, Nichols, 1980
- [12] Cudahy, Brian, *Change at Park Street Under*, Greene Press, Brattleboro, Vt., 1982
- [13] Diamonstein, Barbaralee, *Buildings Reborn*, Harper & Row, 1978
- [14] Forster, Kurt W., editor, *Oppositions 25*, Rizzoli Press, New York, N. Y., Fall 1982
- [15] Francis, George B., *The South Terminal Station, Boston, Massachusetts*, in *Proceedings of the American Society of Civil Engineers*, Vol XXV, No. 10, December 1899
- [16] Giurgola, Romaldo, and Mehta, Jarmini, Louis I. Kahn, *Architect*, Westview Press, 1975
- [17] Goldberger, Paul, *New York; The City Observed*, Vintage Press, New York, N. Y., 1979
- [18] Hitchcock, Henry Russell, *In the Nature of Materials; The Architecture of Frank Lloyd Wright*, Da Capo Press, 1975
- [19] Hoppe, E. O., *Romantic America; Picturesque United States*, Westermann, New York, N. Y., 1927
- [20] Hosmer, Charles B., *Presence of the Past; A History of the Preservation Movement in the United States Before Williamsburg*, Putnam, New York, 1965

- [21] -----, Preservation Comes of Age: From Williamsburg to the National Trust, 1926-1949, Vols. 1 & 2, University of Virginia, 1981
- [22] Jencks, Charles. Bizarre Architecture, Rizzoli Press, New York, N. Y., 1979
- [23] Kay, Jane Holtz, Lost Boston, Houghton Mifflin Press, Boston, Ma., 1980
- [24] Lynch, Kevin, What Time is This Place?, MIT Press, Cambridge, Ma., 1979
- [25] -----, The Image of the City, MIT Press, Cambridge, Ma., 1972
- [26] Lyndon, Donlyn, Boston, The City Observed, Vintage Press, New York, N. Y., 1982
- [27] Marquis, Don, archy and mchitabel, Anchor Books, 1973
- [28] National Trust for Historic Preservation, Old and New Architecture; Design Relationships, Preservation Press, 1980
- [29] Progressive Architecture, Philadelphia Story, April 1976
- [30] Pye, David, The Nature and Art of Workmanship, Cambridge, Ma., 1968
- [31] Radv, Svetlozar, Gottfried Bohm, Bauten und Projekte 1950-1980, Walther Konig, Koln, 1982
- [32] Shlereth, Thomas J., Artifacts and the American Past, American Association for State and Local History, Nashville, Tn., 1980

[33] Stilgoe, John R., Metropolitan Corridor; Railroads and the American Scene, Yale University Press, New Haven, Conn., 1983

[34] Vanderwarker, Peter, Boston Then and Now, Dover 1982

[35] White, Norvel and Willensky, Elliot, AIA Guide to New York City, Collier, New York, 1978

[36] Wolfe, Tom, The Painted Word, Bantam, N.Y., 1976

[37] -----, From Bauhaus to Our House, Farrar, Straus, and Giroux, N.Y. 1981

Other Sources

[38] Axonometric Map of Boston, David A. Fox Studios, Narbeth, Pa., 1983

[39] Rotch Library Visual Collections, MIT