A REDEVELOPMENT OF THE BOSTON AND ALBANY RAILROAD YARDS

submitted in partial fulfillment of requirements for the degree of
Master of Architecture

Barnett Bernard Berliner
Bachelor of Architecture, Graduate School of Design, Harvard University, September, 1951.
Done in collaboration with Wallace Berger, Graduate School of Design, Harvard University.

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Date: August 25, 1952
Pietro Belluschi, Dean  
School of Architecture and Planning  
Massachusetts Institute of Technology  
Cambridge 39, Massachusetts  

Dear Dean Belluschi:  

In partial fulfillment of the requirements for the degree of Master in Architecture, may I submit this thesis, entitled "A Redevelopment of the Boston and Albany Railroad Yards."

Respectfully yours,  

Barnett B. Berliner
A REDEVELOPMENT OF THE
B. & A. RR. YARDS

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A REDEVELOPMENT OF THE BOSTON AND ALBANY RAILROAD YARDS
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Table of Contents

Title Page
Letter of Submittal
Acknowledgements
Abstract .................................................. 1
Forward ...................................................... 2
Presenting the Problem ...................................... 6
The Site ..................................................... 8
Soil Conditions ............................................... 9
Introduction .................................................. 10
Recommended Projects for area .......................... 11
Boston's Mercantile Movement ............................ 12
Social aspects ............................................... 13
The Need for the City ...................................... 15
Approach ..................................................... 16
Painting, Sculpture, and Architecture .................. 19
Texture ...................................................... 21
The Square .................................................. 22
Education ................................................... 24
Color ........................................................ 26
City Planning Steps ......................................... 27
Transportation ............................................... 28
Taxes ........................................................ 30
Bibliography ............................................... 33
Abstract

A Redevelopment of the Boston and Albany Railroad Yards

by

Barnett Bernard Berliner - M.I.T.

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Submitted for the degree of Master of Architecture in the Department of Architecture, on August 25, 1952, Massachusetts Institute of Technology.

Submitted for the degree of Bachelor of Architecture, Graduate School of Design, Harvard University, on October 12, 1952.

The aim of this thesis is to present a possible solution to the redevelopment of the Boston and Albany Railroad Yards. This is the last large piece of property left in Boston of commercial value. There has been a constant trend of the loss of business from Boston. This site offers an opportunity for Boston to regain this business. Since the advent of the automobile there has been no basic change in the pattern of transportation in Boston. Starting from scratch with a site of this size, we can completely separate the pedestrian from the other means of transportation. We can create a new pattern that can both satisfy the needs of the pedestrian and the requirements of the mechanical means of transportation. We will also be able to integrate the plastic arts with the psychological needs of the individual, the family, the neighborhood, and the city.
PRELIMINARY GENERAL PLAN FOR BOSTON
AREAS FOR DEVELOPMENT

DEVELOPMENT AREAS *
(NOW VACANT)
FOR RESIDENTIAL USE
FOR NON-RESIDENTIAL USE
INDETERMINATE

REDEVELOPMENT AREAS
FOR RESIDENTIAL USE
MOST IN NEED OF REDEVELOPMENT
IN NEED OF REDEVELOPMENT
NOW PARTLY DEVELOPED, BUT IN A
STATE OF ARRESTED DEVELOPMENT
FOR NON-RESIDENTIAL USE

CITY PLANNING BOARD
Forward

There have been more than 30 articles that have been published on the redevelopment of this area, with the last year. Practically all agree that we are in a crucial period in the urban way of life. The development of this site will be a test case to see whether or not we can control congestion right from the start. Under present laws if the site is taken over by private enterprise the city of Boston has no say as to street layout within the 28 acres or off street parking. Legislation for control of these factors has been defeated many times. Trade and exchange are what have formed cities. They have been located wherever strategic strong points have been available. It is for this reason that an International Trade Building has been proposed for the site. But it is questionable that this will help business in Boston as it has in New Orleans.

The city insists that no civic buildings be put on the site, or any building that would not be a means of tax income. This may produce high density and create the same problems of congestion as in central Boston. Market Analysts say that Boston loses millions of dollars of business each year as a result of the congestion that already exists, and that this is influencing people to build and shop on the outskirts of town. It might therefore be wise for the city to set aside a considerable amount of the site for green park area.

The City Planning Commission is at present working on the problem of
developing this site. It does not have any power for any real control of the development of the site.

Speaking with four of the officers of the Chamber of Commerce, we have been told that though they are sitting on two committees for the development of this area, no real work is being done to carry out the actual possibility of the development. The reason for this is that they do not honestly believe that they can attract people to build in this site, because of the high taxes in Boston. They also said that if they knew of anybody that was interested in building on the site, this information would not be made available to anyone, for its knowledge would drive up the price and the competition.

As a result of eight 2-hour conferences with the City Planning Commission, which has compiled more information on the site than all other sources put together in Boston, we have learned that they will not really know what is appropriate for the site until they have made a complete study of the whole of Boston. This will take about 2 years. They do not believe that the site would be appropriate for building department stores and offices, since they fear that this may start a shift from their present locations in the center of Boston. This might be a good idea, but would probably cause a great deal of chaos. They hope that a syndicate will be able to buy the entire site and hire good architects and planners to develop it as a whole, and not split it up into small parts.

In visiting insurance companies and businesses, particularly the rail-
road and Chamber of Commerce, we found it the general attitude that if they had information of anyone interested in building on the site, they refused to talk about it, with the fear that it might drive up the price. It is this lack of cooperation among businessmen or societies that may prevent the final development of this site into a symbol of contemporary planning.
"It appears that the development of the Boston and Albany site is a matter of years and not months, as predicted by the daily papers. The visions and imaginations of politicians of waiting until spring to see the railroad yards converted into another Rockefeller Center, is far from reality in the near future.

"The mayor's 13 man committee suggests perhaps that the entire problem be handed over to the Urban Land Institute. Mayor Hynes who has continuously pointed to the development of the Boston and Albany yards as the key to Boston's future, would be glad to have the City Planning Board study the possibilities but not the development. The main object in the development would be taxes as a means of more revenue.

"Of the greatest concern to the city is that the site might be split up into small parcels by the railroad and developed through a hit or miss plan with no over-all guidance. Mayor Hynes has a gentlemen's agreement with the Boston and Albany that they will notify the city of any future decisions that they might make regarding the yards.

"The city Planning Board is making a study of the effects of the development in a 1 1/2 mile radius.

"Major project of moving market district from Haymarket Square from South End, off Southampton Street, will have a great effect on what will be done. Question whether the city will build a civic auditorium on the site, as proposed by Mayor Hynes or a convention hall for 22,000 people. It has been proposed that the city turn the site into a parking area rather than their present plans of putting a garage beneath the Commons. Critical materials and private financing is holding up both plans."

*The Christian Science Monitor, December 17, 1951*
GENERAL PLAN for BOSTON

Preliminary Report - 1950
Presenting the Problem

The gridiron of streets, the hodge-podge of land uses, and the maze of railroad lines are primary sources of Boston's most acute problems. The City Planning Commission's ability to zone the use and coverage of sites is not sufficient, if as in the past politicians keep changing these plans by putting pressure to bear in order to achieve their own political and economic desires. All the research by competent city planners will be of no avail, if the City Planning Commission is not given authority to carry through their ideas and to maintain their restrictions on height and coverage of site.

At present the City Planning Commission advises the mayor and the City Council on the physical development of the city. It also carries out basic research, acting as a coordinating agency encouraging citizen participation and cooperation in the planning of specific projects.

The Railroad Problem:

Present site and uncovered route is a major problem that will have to be dealt with. Maladjustment between home neighborhoods and factory area, circulation routes in and through the city.

The Metro:

The metro must become part of an overall pattern of efficient transportation of people in Boston and the surrounding metropolitan area. Transportation must be extended further and cost distributed so that people will not bring as many cars into the city.
Everyone hopes that the city will undertake the project under the Urban Redevelopment Program with federal aid. It is believed, however, that it will be possible to carry through the program without government assistance.

1. Through revenue from parking.
2. By giving tax exemptions to those people that build on the property, for a few years.
3. For the city to purchase the land and to give the land free to those people interested in building on the site.

The Need for Planning

Congestion in Boston is driving people and business to the outskirts of town, and taxes are driving industry out of Massachusetts. Through sound city planning an environment can be created where people can live, grow, work and play, in safety and in comfort.

The Boston and Albany site now borders a densely residential area and this will have to be considered and dealt with in terms of whatever scheme is used to develop the site.
The Site


**Bounds**

Huntington Ave.
Exeter St.
Boyiston St.
W. Newton St.
Dalton St.

**Size**

28 acres

**Taxes**

$500,000 per annum

**Selling Price**

$8,000,000

13 man committee appointed by Mayor Hynes to develop area
Soil Condition *

Borings at Lenox Hotel:

20 ft. fill
20 ft. silt
20 ft. clay crust
approximately 30-40 ft. clay
rock

1. Up to 6 stories - full basement - gow caissons (concrete piers)
2. 6-12 stories - double basement - floating foundation
3. Any higher buildings will require steel piles going down to rock.

If the foundation goes down to rock the building might as well go very much higher, since the cost is so great, getting down to the rock. Unless cost is no object, this is very uneconomical.

*Casagrande - personal interview
The Site -- Introduction

This is the last piece of property left in Boston which has not been built up. As such, the site offers an invaluable opportunity to implement the City Plan -- if it is designed within the context of the city as a whole, taking the long-range view rather than the short one, which, if left in the hands of commercial developers, would result in an over-built, congested area, the likes of which exist in Boston and every other American city. The short-range view considers only immediate tax returns and rental profit, but all too often remains as a liability for future generations to live with and to eventually replan. In time, too, the area becomes a financial liability to the city as well, since the very congestion it creates must eventually depress tax rates. On the other hand, the long range view of not "milking" the land beyond its capacity, and establishing a high standard of services to the city and its people, will raise tax evaluation in peripheral areas, as well as maintaining a consistent level within the site itself.
Recommended Projects for Area

Department stores
Railroad stations
Shops
10,000 square feet of industrial display space
Wholesale produce market
Publishers' building
Architects' building
Medical center
Office building
Insurance building
Merchandise mart
Convention hall and plaza
Hotels
Apartment houses
Playground
International house
(for the promotion of trade)
Horticultural hall
(for music and cultural features)
LAND VALUATIONS IN THE RETAIL DISTRICT
1950 vs 1930

<table>
<thead>
<tr>
<th>VALUATION CHANGE</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>INCREASE</td>
<td>THEREFORE, PAYING MORE IN TAXES, AND A GREATER SHARE OF THE TOTAL TAX THAN IN 1930.</td>
</tr>
<tr>
<td>DECREASE 0% TO 21.6%</td>
<td>NEVERTHELESS, PAYING MORE IN TAXES, AND A GREATER SHARE OF THE TOTAL TAX THAN IN 1930.</td>
</tr>
<tr>
<td>DECREASE 21.6% TO 51%</td>
<td>PAYING MORE IN TAXES, BUT A SMALLER SHARE OF THE TOTAL TAX THAN IN 1930.</td>
</tr>
<tr>
<td>DECREASE MORE THAN 51%</td>
<td>PAYING LESS IN TAXES, AND A SMALLER SHARE OF THE TOTAL TAX THAN IN 1930.</td>
</tr>
<tr>
<td>TAX EXEMPT</td>
<td></td>
</tr>
</tbody>
</table>

PAYING MORE IN TAXES, AND A GREATER SHARE OF THE TOTAL TAX THAN IN 1930.
PAYING MORE IN TAXES, BUT A SMALLER SHARE OF THE TOTAL TAX THAN IN 1930.
PAYING LESS IN TAXES, AND A SMALLER SHARE OF THE TOTAL TAX THAN IN 1930.
Scale (per capita sales in dollars)

AVERAGE (METROPOLITAN AREA)

BOSTON
WELLESLEY
QUINCY
NORWOOD
LYNN
WALTHAM
CAMBRIDGE
CHELSEA
WATER TOWN
BROOKLINE
MALDEN
WO BURN
WAKEFIELD
NEW TON
NEEDHAM
STONE HAM
SOMERVILLE
READING
WA LPOLE
HINGHAM
WINCHESTER
CANTON
REVERE
STOUGH TON
MEDFORD
BELMONT
DEDHAM
EVERETT
ARLINGTON
LEXINGTON
MELROSE
SWAMPS COTT
WEYMOUTH
BR Aintree
SAUGUS
WIN THROP
MILTON

GASOLINE STATIONS
DRUG STORES
LUMBER
FURNITURE
AUTOMOBILES
FOOD
EATING & DRINKING
APPAREL
GENERAL MERCHANDISE
OTHER

SOURCE: U.S. CENSUS OF BUSINESS - 1948

NOTE: Values were obtained by dividing the gross sales for each store classification in each community by the respective resident population. Such values are not, of course, intended to represent the average annual expenditures by residents.

PER CAPITA RETAIL SALES IN BOSTON AREA COMMUNITIES

Figure 3

19
Boston's Mercantile Movement

The retail center of Boston is now located in an area of 70 acres, 1/4 of 1% of the total land area in the crowded downtown area, using Washington Street, as its backbone. Because it is surrounded by the financial district, well-consolidated office and publishing districts, the Boston Common etc., there has been no outlet for the natural expansion required over the years. As a result, the "normal" Boston shopping day is one of extreme congestion, with shoppers pouring over into streets, which are barely wide enough for the cars alone, non-existence of adjacent parking facilities, and, in general, chaotic conditions which have been instrumental at least in part, in the trend toward suburban shopping centers. Expansion within the area being impossible, the retail district has already begun the movement west, leaping the Common, along Boylston and Newbury Streets, in the direction of Massachusetts Avenue. At present these stores are comprised mostly of exclusive shops and high-fashion services, but eventually this must become a broader, more comprehensive type of shopping area.
Social Aspects

New England towns were, for the most part, designed around town greens. Boston, Cambridge, Salem, Lynn, etc., all have "common land", which at one time formed the nuclei of social intercourse. Early in Boston's history the Common was set aside for this purpose, with land also provided for a drill field and the town stud bull.

A vital aspect of the concept of the redevelopment of the Boston and Albany site embraces the philosophy that the need which the town commons satisfied still exists, and in fact has probably increased. Within the rapid dehumanizing of the scale of modern cities, no provision has been made for inter-personal meeting and relationships outdoors. It is felt that the shopping activity provides a natural opportunity for this type of communication, where people, being in an open, pleasant area, can pause, chat, leisurely stroll, and reestablish a lost way of life. For the fortunate office workers who occupy the buildings on the site, the lunch hour becomes an opportunity for shopping, relaxation, and creative activity within the new community, possibly even adding to the life of the working person and undoubtedly contributing to his intestinal good health, since, with adequate restaurant facilities, the hurried "sandwich and...", gobbled in a hurried lunch counter becomes a thing of the past. Perhaps this new way of living will reawaken in people the ability to express themselves and participate creatively, orally, physically, and spiritually, in community activities, such as folk dances, craft
projects, group singing, discussion groups, etc.

"Man needs leisure and the recreative capacities of his leisure hours. More and more the inhabitants of densely populated metropolitan centers lose contact with nature as it is crowded out of cities. Today the need is urgent to renew this contact--man's communion with sunlight, open spaces, and the green of nature. This need on the human side is the same as the need in city planning for space for recreation. Large cities are deserted on holidays and weekends--the most eloquent proof of man's revolt against the chaotic structure of the city and its lack of facilities for recreation." *

The location of this new center, with adequate transportation and easy access to most of the people of Boston and its suburbs makes possible the realization of the rebirth in a completely contemporary scene, of the community center.

"The central purpose of the work is to liberate the mind from serfdom to tradition, and to exhibit man's natural powers in their creative capabilities when expanding in the open-air-of-the-spirit-of-responsible-freedom; in other words, in the true spirit of democracy. From which it follows that the operation of the historic feudal mind and the advancing democratic mind are placed in sharp contrast. The appeal therefore is to the broad intelligence of the public mind seeking not only a knowledge and understanding of architecture as a plastic art, but, as well, a clear view of its social basis as an art of expression." **

* Sert, Jose Luis, Can Our Cities Survive?, p.78.
** Sullivan, Louis, Kindergarten Chats, p.15
The Need for the City

Shall our cities be abandoned? Shall the current movement to the suburbs, as personified by the Levittowns, the Framinghams, and the general emphasis on escape, eventually result in our great centers being relegated to working places, devoid of cultural activity, deserted at night? Are the problems of the city dweller solved by removal to satellite communities? How much of his sacred plot of green does the commuter see after travelling hours from his center of work? The commuter pays a tremendous price in physical and psychic energy to achieve the amenities of sunlight, greenery, and space.

Though it is hardly assumed that this new center will solve all of the problems of the city, we feel that if this can become a prototype for more thought in design of urban spaces, our cities will become more pleasant places in which to live, providing those essentials of life-giving commodities such as light and space, within reasonable distance from the city dweller. Incorporated within a general scheme of rehabilitation, which should include adequate and well-designed housing, schools, etc., the decay of the city can be halted and the maintenance of our great cities of culture and intellectual stimulation can be furthered.

"Lewis Mumford has posed the alternatives facing us, now that the war is over, or humanizing the city or of dehumanizing the people of the city. The alternatives can no longer be avoided by flight from congested
centers to the suburbs, for we have learned that congestion follows us in our flight and that too many of us are left behind to live in various gradations of slums. The congested portions of the city must be reconstructed and the dispersal of population must be consciously directed to avoid waste of money, resources, and energy without achieving the kind of community we want to live in. Before the physical city can be rebuilt, its government must be reconstructed.*

*Jones, Victor Government in the Future City. The Annals, of the American Academy of Political and Social Science, 1945. p. 87
"There is only one real advantage of living in a city and that is to get man together with man, and to get people to exchange ideas and be able to discuss them freely. If one lives the kind of life that is dependent on good means of transportation to the suburbs and upon whatever news, or information, or vision, or images, can come through on a television game or a radio loud speaker, one no longer has initiative; one sees what one is shown and hears what one is told. That may be a terribly dangerous affair if the people who direct the speeches or the news, or show you the views on the television screen, do it according to their own views, which may be the wrong views. Then the people in the suburbs would only see and hear what those other people want them to see and hear. That would interfere very directly with our choice, and our freedom, of selecting one thing from another. Besides the more the people are kept apart, the less they can exchange ideas: the more they are influenced by what they see or what they are given."

Jose Luis Sert

The final test of an economic system is not the tons of iron, the tanks of oil, or the miles of textiles it produces; the final test lies in its ultimate products—the sort of men and women it nurtures and the order and beauty and sanity of their communities."

Louis Mumford
Approach

With a tract of land containing 28 undeveloped acres near the heart of the city, the solution must be a bold one, made in the best interests of Boston and its future, and in spite of the objections which would quickly be forthcoming from the entrenched Washington Street merchants who are so busily building vertically on their priceless property.

Even the most bold approaches may have the spirit cut out of them through economics, politics, zoning, and the narrow point of view of merchants. It is for this reason that we dare not sacrifice any compromise in the scheme from the point of view of petty businessmen. Though they may in the end control all the strings, our approach must be in terms of the greater perspective. And simultaneously, we must think in terms of the people that will use the facilities.

Henry S. Churchill, in his book, "The City is the People" says "Another reason why city planning has largely failed in accomplishment is that the planners themselves have been too preoccupied with statistics and the dry bones of their work. They have failed from lack of imagination. Their plans are soggy and lacking in fire, they have neither guts nor gusto... City planning must go beyond statistics and street systems, housing, and hooey. There is little to be gained by re-arranging discomfort, nor does it matter much what form the rearrangement takes. It hardly seems worth while to change things if they are to remain the same."
Painting, Sculpture, and Architecture

The architect creates the spaces in which we live and through the use of his imagination and his collaboration with sculptors and painters we should look forward to volumes of space that give shape to spiritual aspiration and psychological needs of man. It is in these meeting places that people can once again re-establish the sense of seeing beauty that they had lost since childhood. It is here that painting and sculpture can help humanize the urban life of people. A synthesis of the plastic arts can go far towards bringing back beauty to urban life.

"One way to arouse enthusiasm over the replanning and redevelopment of a city, or over plans for a new city, is to offer more than utility and facilities for physical pleasure. This can be accomplished only by means of architecture and the sister arts of landscape architecture, sculpture and painting. Nowhere can these arts be employed more effectively than in the development of groups of important public buildings and the open spaces around which these buildings are grouped.

"Architecture, landscape architecture, sculpture, and painting which fires the imagination and lifts one spiritually is rare in any age, possibly more rare today than during some periods of the past. This is no sufficient reason, however, to refuse to use the best talent that is available. Unless these arts are recognized and appreciated they will decline. In selecting talent, cost should be given little consideration. For public buildings and plazas, therefore, it may be wise to resort to
public competitions for the selection of design teams composed of architects, landscape architects, sculptors, and painters. Young architects should be encouraged to enter these competitions, on condition that if successful they may be required to form an association with an architectural firm with suitable experience. The extra expense resulting from public competitions might be immediately justified by stimulation of civic pride, but if this extra expense were distributed over the useful life of the building it would be negligible.

"Urban planning is nicely comparable with alterations and additions to buildings for, even after all justified demolition has been decided upon, much more old construction remains than new to be planned. Its preservation handicaps the design possibilities of the new and one must be satisfied with a good practical solution rather than an ideal one. This does not necessarily mean, however, that the effect cannot be inspirational."

*Cogill, Clinton H., Building for Investment, pp.199-200*
Texture

Ground surface can be varied by different means. One is change of level. This can be employed extensively on the Boston and Albany site, taking advantage of levels gained by parking sections. Another, more subtle treatment of surface is texture. Grass, cobblestones, brick, flagstone, gravel, soil, concrete.... Each has its own quality and special interest. Each can be used to advantage to make the most of a site. In our everyday life we experience texture constantly; the soft carpet of a room, the harsh concrete of sidewalks, the lush thickness of tended lawns, the audible crispness of gravel driveways....It is proposed in this site to use as fully as possible the infinite combinations and variations of texture available to the designer, to obtain the richest effects possible, for the people using it, so that the people using the area will enjoy the transition of passing from one open area to another, and not experience the usual acres of concrete. The tradition of using different types of paved areas in Boston is a good one, such as brick walks, cobble stones, gravel, grass, and perhaps Louisburg Square has the most to teach us about texture.

"Louisburg Square is an epitome of the whole section--the bricks so ruddy, the streets still cobbled, the brass so polished, cats so fat, the paint so fresh, and ladies so ladylike. Here little dogs wear little blankets in winter. And here Christmas Eve is celebrated with such joyous profusion of candles and carols that even the most skeptical can believe in Christmas cards."

*Forbes, Esther, The Boston Book, p.68
The Square

Although Boston set the Commons aside for public use very early in its organization, we cannot consider it a square, but rather a place of relaxation and physical recreation. A square must stimulate people mentally, and be aware of the human scale. It must cause people to gather for reasons other than lying in the grass. Commercial shopping centers for us today, form an appropriate means of assembling people. But we must not heed to the wishes of the businessman who wants his store on the corner because of the maximum number of people passing by, by bus and by car. We must think in terms of the people when they are trying to shop. Often, as under present conditions in Boston, they have to walk in the gutter because of lack of area on the sidewalk. In separating the circulation of the cars from the pedestrian, two greatly different means of transportation, we must provide an area where the shopper can turn away from the stores if he so desires. A place for children should also be provided, since they often become tired and irritating to everybody, when shopping. In providing areas and spaces of different size and scale and atmosphere, we will give people a choice of setting to meet their needs, and particularly a place to relax.

"I hope that the portrait of the future city in the following pages includes a great square in which to hold civic demonstrations. Tesuque pueblo has one big enough for all its 135 inhabitants, young and old, to dance in.....Then there will be no arguments between the police and
groups trying to march up the main business street, turning into charges of suppression of free speech.

'Even the humble citizen shares the pride of civic magnificence, though he may not think from day to day of the civic services that protect the food he eats, the water and milk he drinks, that have practically eliminated controllable diseases such as typhoid and diphtheria in cities and have brought the maternal death rate below that of the country. He senses the city as the market of ideas and services as well as of goods, whither come the most enterprising, alert, and energetic; he sees it not only as the place to earn a better livelihood but to enjoy a richer living.'

"Freedom, stimulation, the sense of belonging to a larger group, sharing in the pride of civic grandeur, opportunities for creative release and participation on a great stage—these our cities afford. To balance these qualities, our cities must also provide an environment 'of a size that will not dwarf its inhabitants into anonymity, but will provide a stage of sufficiently intimate scale so that the citizen can master it and play his role with satisfaction'."*

*Annals, Ascher, Charles S., *What Are Cities For?*, pp.5-6
Consistent with the philosophy that the open air discussion area is a vital social and educational force, there will be provided displays, discussion groups, and other educational media which will help the city dweller become a more active participant in the planning of his community. We must teach him once again to see with his own eyes, untinted by prejudice, and opinions of others. It is not just imparting information that we are interested in, but the teaching of method, the awakening of intuition, and the ability to analyze and criticize. "The process of life itself is the source of all inspiration. Three dimensional space at all scale levels is the base of the architectural disciplines."*

Education has failed to adjust itself to the realities of our time and to keep pace with the sociological and technological development. Teaching should be on principal and not fact. We must each people initiative, to step out and assume their responsibilities.

Science has been overpowering, and to bring things into balance we must work harder in the creative arts. The people partaking in these areas will be exposed to these visual displays. We must think more in terms of the whole of man and no so much in specialization. It is this idea that we must convey to the people gathering in these areas.

"The most noteworthy thing about city planning today is that at long

*CIAM 8, Commission 3, Architectural Education, Gropius, Rogers, Van Eesteren; Giedion; Chermeyeff; Tyrwitt. p.1
last it is becoming popular, because it is only on a basis of popular understanding and participation that it can be a vital force in shaping the modern urban world. Historically the planning of cities was successively the province of chiefs and patriarchs, kings and colonizers, captains of industry and grandees of land speculation; of individuals whom destiny had placed temporarily in charge of the processes of city building, planning on behalf of the thousands whose destinies would be affected by their handiwork. The citizens who lived and worked in cities had little part in shaping the urban structure that they occupied. They were the recipients of planning, beneficiaries or victims as the case might be, but they were not participants."*

*Annals, Augur, Tracy B., Citizen Participation in City Planning, p.101/
To fully use the resources available to the architect, such basic media as color, texture, light, and shadow, etc., must be exploited and planned from the early stage of design.

That color can be a potent factor in sales and general psychological satisfaction has been put forward convincingly by such color experts as Howard Ketcham: "...yellow is an energizing color, conducive to conviviality and a sense of well-being....the psychological reactions to red are stimulating to the brain, pulse, and appetite....green abates excitement, makes people feel cold. Stenographers working in green offices are prey to psychosomatic chills which they readily shed when, without a change in temperature, orange slipcovers are placed on their chairs or orange curtains hung on the windows. Grays reduce emotional response, are deadening and uninteresting....a twenty-pound box painted dark blue will look heavier and seem harder to carry than the same box painted light yellow. The application of specific shades of red or orange to the walls of a restaurant induces in customers a persistent thirst rate.**

Color can make us sad or gay, and through its controlled use can make the spaces around buildings, and the buildings themselves, interesting or dreary. The emotions of color are major human needs, and they should not be considered lightly, for they give life richness.

*Ketcham, Howard: An Emolument for Heliotrope, Profiles, Geoffrey T. Hellman, New Yorker Magazine, March 8, 1952*
City Planning Steps

1. Revision of land use controls (zoning ordinance, building codes, etc.)
2. Application of redevelopment powers and resources, if possible.
3. Exceptions to the normal assessment and taxation procedures, if any (revision of taxes, temporary exemptions, etc.)
4. Demonstration of Feasibility of Recommendations Sufficient to Show:
   a. that the recommended alternatives are capable of being achieved as unified developments in themselves.
   b. that, as the recommended alternatives are achieved, the city at large will benefit, and
   c. that appropriate developers can be found.
5. Market Analysis, Legal and Municipal: To produce all necessary determinations involving the exercise of the public powers in the process of insuring that the use of this site is in the best public interest.
6. Major Considerations:
   a. Steps to be taken, if necessary, to remove this site from the market until alternative best uses have been determined.
   b. Public action to be taken to insure the unified development of this area. This may involve consideration of the possibilities of assembling a larger site than that presently owned and offered for sale by the railroad.
Transportation

Unlike younger cities, such as Chicago, Indianapolis, etc., which imposed gridiron street patterns early in their development, Boston's street layout is based on the original cowpaths and footlanes. While admirable in its organic development, quaint to the modern tourist, and perfectly in scale to the horse carriage traffic of past generations, the modern automobile finds no sympathy within the narrow, winding, blind-turn streets. Needless to say there is a severe shortage of parking space of any kind. Obviously, a bold solution for the problem of downtown traffic is called for. Because of the advanced state of decay, it cannot be a compromise. A complete study of the requirements of the automobile must be made and applied to rehabilitate the downtown retail area.

An alternative to this almost impossible task is proposed in this thesis. The opportunity exists to design in terms of the automobile from the very beginning, and to insure the consistent growth of this new area at a pace equal to the development of the automobile itself.

Aside from the opportunity to park large numbers of cars off the streets, the Boston and Albany site is available to some of the best high-speed modern roads in the city. Boylston Street and Huntington Avenue actually bound the area, Embankment Road is five blocks to the north, Commonwealth Avenue is two blocks to the north, Columbus Avenue is two blocks to the south, Massachusetts Avenue is one block to the west, and the new expressway circling the city will be directly east and easily accessible.
Public Transportation

Already existing are rapid transit facilities one block away beneath Boylston Street to the north, and one block south beneath Huntington Avenue. A new subway line is proposed adjacent to the Boston and Albany right-of-way, which would permit a station within the site itself. Bus transportation in the vicinity is liberal.
"The tax payments in the city proper dwindled. The wealthy citizen--living in the suburb--paid his usually lower tax rates in his new community while continuing to use the conveniences of the city during his working and recreation hours. The poorer taxpayer remaining in the city had to maintain the public services."*

Needless to say, this redevelopment will give the city an opportunity to rehabilitate its tax policies because the commercial area of the city will remain rather than being dispersed to the suburbs. Today, Boston, because of inequitable tax standards, provides an income for many who do not return enough in the way of taxes to the city proper. The residents of Brookline, Cambridge, Malden, Concord, Lexington, Wakefield, Newton, Woburn, and other surrounding communities benefit from Boston's employment facilities, while paying no taxes to Boston itself. Statistics show that these communities, so much smaller than Boston, have per capita retail sales almost equal to that of Boston. A good deal of this dispersed capital must be reclaimed by Boston if the city is to maintain sound economic health.

"In the main, Boston appears to be retaining this (its economic) position in such indicators as manufacturing employment, wholesale business, service trades, and construction, but the trend in retail trade is toward relative decline, in spite of the fact that the city's actual volume of

*Moholy-Nagy, L. Vision in Motion, 1947. p.108
Retail business is greater than ever before.

"In providing employment for at least 100,000 more persons than can be found in the city's own resident labor force, Boston's business and industry provide the essential justification for maintaining the total of residence within the city at or near its present volume." *

Because of the geographic subdivision of a basically homogeneous area, Boston's tax rates are higher than those of New York and Chicago, since the load is carried for so many non-residents by a comparative minority of business and commercial establishments. Because the core of the city is contained in such a small area, the tax rate has of necessity been high. By expansion of this core, the city will be able to reduce its tax rate and attract to it more of the capital which is needed for construction and rehabilitation so that the cumulative result will be a higher income. William Zeckendorff, New York realtor, was at one time interested in buying the Boston and Albany site for development, but was dissuaded from doing so by the exhortitant tax rates. There have been similar examples on other sites over the past years.

"The importance to Boston of its economic base is further emphasized by the fact that at least 60% of the municipal revenue is derived from business and industry, while the great majority of residential properties represent a liability, tax-wise, to the city." **

By spreading out the present congested area of the business district Boston will have an opportunity to increase its economic base as derived from business.

*General Plan for Boston, City Planning Board, Lec. 1950. p.9
**Op cit p.9
'And this is good old Boston,
The home of the bean and the cod;
Where the Lowells speak only to Cabots
And the Cabots speak only to God.*

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