

THE VISUAL ASPECTS OF SHOPPING CENTERS
IN THE BOSTON METROPOLITAN AREA

by

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May 24, 1954

Professor Frederick J. Adams
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Dear Professor Adams:

In partial fulfillment of the requirements for the degree of Master of City Planning, we herewith submit our thesis entitled "The Visual Aspects of Shopping Centers in the Boston Metropolitan Area".

Sincerely yours,

Stuart W. Stein

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ms. - 100 100

ABSTRACT

TITLE: THE VISUAL ASPECTS OF SHOPPING CENTERS
IN THE BOSTON METROPOLITAN AREA

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The poor physical condition of existing cities indicates a great need for visual planning. Any study of the visual aspects cannot ignore the larger framework of sensory perception, but for this study we have limited our exploration to the field of vision. Eventually others besides designers will have to contribute to a fuller understanding of the entire field. However, at no stage are we looking for finished designs, but for methods and tools that will aid in surveying and analyzing the visual city. Our particular concern is with the most important visual elements and the details that pertain to them.

Our study has been made in the role of pedestrians. We further concentrated on shopping areas alone, although our method can be applied to all land use areas. The particular centers we studied were: Shoppers' World - Framingham, Washington Street - Boston, Medford Square - Medford, East Watertown - Watertown, and the Subway Arcade - Washington Street. We divided the field work into the following steps and applied them in each of the centers: inspection, immediate impressions of important elements, classification of visual elements, photographic recording, and subjective recording of impressions.

We used this procedure to analyze the visual aspects of the five areas.

A reappraisal of our method shows that insufficient time was spent for inspection, too much time was spent with our classification system, and our analyses suffer as a result. Any subsequent study should be divided into three parts, familiarization, data collection, and analysis, and the whole should be carefully organized. A revised procedure would require a great deal more time in all steps, and thus would not allow for a complete evaluation of the entire city. Priority areas would be selected and the results would be applicable to similar areas in the same city.

Comparison of the five areas shows that the largest number of important elements are permanent, masses, and inside the areas. Similarly, too few or too many stimuli can be harmful, as can an overdose or lack of rhythm. In the areas we studied, street furniture was unimportant

and danger elements were important. However, no element was important per se, but rather it is the state of each and its relations to others that governs the role that each shall play. The significant factors governing this relationship are : size, location, position, lighting, color, reflectivity, motion, surprise, time, and weather.

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Introduction

In the past few years an increasing awareness of the visual design of cities has been shown by architects and planners. As yet this interest has not become universal, but there is evidence of growing attention by professionals as well as the schools. Because of the adventure of study in unexplored fields and our preparation as architect-planners, this area holds a special fascination for us.

We are convinced that our cities are very often unpleasant and unsatisfying visually, and that there is a great need for improvement of our environments. Today, more of us are conscious of our urban areas as wholes rather than isolated pieces of architecture, parks, monuments, and fountains; we are not abandoning individual design, but are striving for organization on a larger scale. To be sure, the art of town planning is not a new one, but the particular difficulty of our task lies in the fact that most of our work must be a reorganization of existing visual forms, and the necessity to proceed along democratic lines makes the work of Haussmann seem like child's play.

The technical and economic advancements of our modern society, embodied in our dynamic cities, increase the opportunities to improve the visual aspects of our environments. With every building that is designed, every sign that is lettered, every tree that is

planted, there is a chance for such improvements.

The number of people living in metropolitan areas is greatly increasing, but these complex structures have not yet been successfully organized for the satisfaction of their residents. This satisfaction, or lack of it, may be observed in the psychological and emotional reactions to the different parts of the city, which in turn are composed of existing visual stimuli. When we attempt to reduce the conflicts, increase the harmony, break the monotony, humanize the scale, and otherwise redesign the visual features of our cities, we do so in order to adjust our environs to meet the needs of their inhabitants. The increasing complexity of our lives may make neurotics out of all of us. A few have gone so far as to say that the main avenues for man's salvation lie in the fields of design. We may not as yet be ready to go as far as Richard Neutra, who believes that Survival Through Design is man's only hope, but we are convinced that a fuller understanding of our visual environment will lead towards a reduction of many of the conflicts of our lives.

The Problem

Any study of the visual aspect of our cities cannot ignore the larger framework of sensory perception. In this study we are not going to explore the field of perception, but we readily acknowledge that what we are undertaking is only a small part of this larger field.

When we speak of 'seeing' a shopping center there is a particular difficulty in isolating visual elements, as we not only see the same things differently, but each of us picks out different things to see. Vision is further complicated when we recognize another dimension, motion. Not only is what we see moving, but we are also moving as we see it, and the two movements are acting independently of each other. Obviously the vast amount of work to be done in this field cannot be accomplished by designers alone. The resources and disciplines of other specialists are essential to a fuller understanding that will eventually produce results, not in the shape of finished designs, but in terms of guides and criteria for a better organization of our physical world.

For each specialist to contribute to such a research undertaking, he will need to be grounded in the basic lessons of his discipline, and in this respect the designers are far behind others. To begin to suggest cures for our ailing cities, we must know what elements and

features comprise the existing visual scene. Our environment consists of an infinite number of variables, and to try to record all of them would be impossible. However, admitting the futility of a complete vocabulary, and agreeing on the subjective nature of a partial record, does not invalidate such a task. Our job is to develop some successful method of surveying and recording visual elements, and then to analyze the interactions of these elements. The method and tools must be geared towards a selective process of data collection, and the data will be that which is most pertinent : that which has the greatest effect on the emotional state and the decisions of people.

In making a survey of the most important visual elements we are relying on our own judgment as a valid exercise of our abilities. These conclusions are not based on a scientific application of the theory of perception, nor do they involve any psychological, psychiatric, sociological, or other scientific principles. Unless we accept personal evaluations we are unable to proceed, but accepting them as we do puts a greater burden upon us to use all of our ability in devising methods that will aid us in eliminating arbitrary decisions and in sharpening our own powers of observation and analysis. By concentrating on the most important elements, the limited resources of time and money for visual improvements will produce the greatest relative returns. It is further necessary to recognize that a simple listing of elements is insufficient, and that certain data regarding details must be collected. Every detail in each visual picture has some effect on every other detail of the same picture, but just as we have limited the survey to pertinent elements, we further limit it to

details that have the greatest effect on the elements that we have already chosen.

Our particular problem is to develop a method for surveying and analysing the visual city, a method for the collection of visual data. With the specific methods and tools that we devise we will isolate elements and subject them to analysis. At the conclusion we will re-evaluate our procedure to determine its success, and we will further state any observations that may have been reached about the visual aspects of the city.

The Method

Before proceeding with a description of our field work, it is necessary to define more accurately our role as observers. It is quite obvious that there are many ways of viewing our surroundings, each quite different from the others, but the majority of people who are actively engaged in city life are either pedestrians or motorists. Our studies are made as pedestrians who arrive in an area by normal means, by car, on foot, in the subway, etc., and who see the area as they carry out their functions in that particular place. The motorist in most cases is interested in getting through parts of the city as quickly as he can, and he will see an entirely different series of things. For any observations that we may make in terms of pedestrians alone, we recognize that, before total visual satisfaction can be effected, the motorist's viewpoint as well as others must be thoroughly considered.

Although we feel that our method can be applied to all land use categories, we decided to concentrate on shopping areas alone. There were several reasons for this decision. Within the limitations of time, it was necessary to narrow the scope of the exploration. The very nature of the activity that takes place in shopping centers causes them to have more visual excitement than any other land use category. The methods that shopkeepers use to attract buyers are

primarily visual ones and the resulting intensity of visual stimuli will far outweigh any scene that may be found in a residential or industrial area. Furthermore, shopping centers are public places, and consequently areas that almost anyone is apt to visit at one time or another. Residential or industrial developments often are not seen by great numbers of people, whereas Washington Street will eventually be visited by almost everyone in Boston. Thus, any benefits that may result from the alteration of the visual environment of a shopping area will affect a larger segment of the population.

The number of areas studied was finally limited to five. However, we feel that these represent an adequate sampling of visual elements. Rather than choose several areas arbitrarily, we sought some basis for selection. They should be varied enough to present a wide range of elements, and yet they should also fit into some more specific category. We considered a number of ways of grading shopping centers in relation to visual aspects and listed the classes that would be useful to our study. We then visited many of the areas in the region, studied land use maps, and consulted several people who know Boston particularly well. The result is a group that combines several categories but still retains some semblance of unity. Basically, it is one of service areas - the relative magnitude of the physical area from which the shopping center draws its trade, but for each example other significant aspects helped dictate the choice. Our study sites were as follows:

1. A regional shopping center - Shoppers' World, Framingham, Massachusetts.
2. A 'downtown' shopping center - Washington Street, Boston, Massachusetts

3. A major subcenter - Medford Square, Medford, Massachusetts.
4. A minor linear development - East Watertown at Coolidge Square, Watertown, Massachusetts.
5. A small group of stores - Washington Street subway arcade, Boston, Massachusetts.

Shoppers' World was chosen not only because it is one of the few regional centers around Boston, but because it was also designed and built as a unit. We hoped that it might point up some interesting contrasts to other examples.

Washington Street is the natural selection for a 'downtown' site, and it also is an area that is built of a variety of styles over a long period of time. The actual location picked is that section in proximity to Summer and Winter Streets. Washington Street itself is composed of a number of smaller subdivisions that differ in character from block to block. We felt that this corner, between Filene's and Jordan's, most typified the whole area.

Sites 3 and 4 are further based on the category of physical form. Medford Square has a focal point with five streets radiating out from the center. Contrasted to this is the site in East Watertown on Mt. Auburn Street near Arlington Street. It is very typically linear, three to four blocks long, built up on both sides of the street, and includes the typical grocery stores, pharmacies, hardware stores, bars, etc.

The Washington Street Subway Arcade is probably the most peculiar of all the areas, and we made this choice specifically because of its unusual aspects. We wanted an example of a roofed-over shopping area,

and this, together with the fact that it is composed of a small group of stores, filled the requirements. It also attracted us because of its singular locality, which dictates quite different types of merchandising, and perhaps quite different types of visual elements.

The procedure for field work has been divided into the following steps:

1. Inspection.
2. Immediate impressions of important visual elements.
3. Classification of visual elements.
4. Photographic recording.
5. Subjective recording of impressions.

The first step in our procedure is to go to each area for inspection, primarily to become acquainted with it. This familiarization process is carried out merely by walking through the area in both directions on every street. We also approach the area and walk out of it along all major avenues. Becoming acquainted serves a twofold purpose. The first is to grasp the major form of the area so that a critical viewing position may be located from which our classification system, step 3, may be applied. The second purpose for this inspection is to allow us initially to record the first impressions of what we feel to be the most important visual elements. This prevents us from including irrelevant data in our classification system. Since the goals of this thesis are to develop methods for a collection of the most important visual elements, a complete listing of all there is to see is of little value to us. A great majority of visual elements

are discarded as unimportant at the outset by this preliminary recording.

Step 3, the classification system, is our major written recording device. The system we have employed has been designed primarily for our own personal use, rather than to give an unacquainted reader a complete visual description of any area. Its specific use is to help uncover as many additional important visual elements as possible. It is guided by the previous stages so that our attention will be focused upon the important elements already identified; however, we expect other significant features to turn up as a result of a disciplined method of viewing the area. It is true that we have evolved a classification of elements specifically for this step, but this particular one acts primarily as an aid in forcing us to scan all parts of the scene.

Our field work sheets (see page 13 and the appendix) show that we have divided the visual scene into three basic categories listed as follows:

INSIDE		OUTSIDE		
FP	WP	RP	M	V
P	T	M		

In the first category (INSIDE - OUTSIDE), INSIDE refers to those elements that are physically within the area and can be seen by a viewer who is standing in the area. OUTSIDE refers to those elements that are physically outside the area, but can also be seen by a viewer who is standing within the area. The first group generally includes the majority of elements; however, there are a few very important

ones that may fall within the second. An example is the John Hancock building which appears as a dominant visual feature when one is standing in Copley Square, and yet it is not physically located within the square.

The second basic category divides the scene into five parts. FP, WP, RP, M, and V respectively stand for Floor Plane, Wall Plane, Roof Plane, Masses, and Voids. The floor plane is that surface acting as the lower limit to the scene. The wall planes are the vertical limiting surfaces, and the roof plane is the upper one. Masses are the solid forms within the enclosing planes. Voids are the negative forms or spaces.

The third category places all elements within a framework of time. P, T, and M respectively refer to elements that are Permanent, Transitory, or Moving. Permanent elements are those we normally expect to remain on the scene for a number of years - a building, telephone pole, store sign, etc. The actual length of time is not critical, but what is significant is that should the observer return to the scene the next year, the same sign or building will still be there. This differs from a transitory element which is stationary, but does not give an impression of permanence. Should you return the next year you would expect to find the scene changed. A good example is a paper 'sale' sign in a store window, or chalk writing on the sidewalk. It is the time factor that is important in differentiating between these two groups as well as in the last, motion. This division obviously refers to those elements that are actually in motion as the viewer is looking at them - a moving automobile, or a waving flag.

No elements must necessarily fall within only one of these three time-factor groups. In actuality most do lie in but one; however, traffic can fall within all three. On Washington Street the roadway will always be occupied by a mass of traffic, placing this mass in the permanent class. Yet this traffic is also in motion, putting it into the third division as well. As a mass, it is composed of many vehicles of various sizes and colors. Should a bright yellow convertible be a part of this permanent moving stream at any one instant, it may make a great impression on the viewer. However, the convertible will be out of sight in a moment, and is thus considered transitory. Similarly, the merry-go-round at Shoppers' World is placed within two groups; it is permanently at the same spot while its parts move.

Every possible element can be recorded within a framework of these three basic categories. It is either INSIDE or OUTSIDE, either FP, WP, RP, M, or V, and either P, T, or M. Each sheet of our survey represents a combination of one item of each of these three categories. For example, the sheet representing INSIDE, FP, P would include elements such as the street, sidewalk, and manhole covers. OUTSIDE, M, P includes distant buildings and church steeples.

The remainder of the classification represents an attempt to tell more about the elements. When a pilot flies a plane he can observe the ground from a great height. From the air he will also notice the form and shape of its surface. As he comes in for a landing he is able to discern the components of the ground : fields, roads, sidewalks, landing strips, etc. When he brings the plane down he will note that the landing strip is not a uniform surface, but also has cracks, painted

CLASSIFICATION SYSTEM FOR OBJECTS WHICH ARE WITHIN THE FIELD OF VISION

STUDY AREA:

INSIDE		OUTSIDE		
FP	WP	RP	M	V
P	T	M		

CONFIGURATION:

COMPONENTS:

DETAILS:

MATERIALS:

QUALITIES:

TEXTURE:

COLOR:

BRIGHTNESS:

TRANSPARENCY:

lines, and expansion joints. Walking from the plane he sees the actual materials and their qualities : how bright it is, its texture, its color. Our method of recording the basic attributes of the elements follows this example. The separate stages are identified as:

1. Configuration
2. Components
3. Details
4. Materials
5. Qualities

Configuration refers to the shape or form of the planes, masses, and voids. The floor plane may slope or be crowned in the center; the void may be enclosed on four sides and unbounded on two. Components divide the floor into sidewalk, street, grass plot, etc. Details refer to these components : the street may have many cracks, a white line down the center; the grass plot may have a flower border around it. The materials also concern these components : the sidewalk may be of concrete, the street of asphalt and cobblestones. And finally, the qualities of the concrete sidewalk may be grey, green, or red, of a fairly smooth texture, and quite bright. We have not tried to measure these qualities in an objective manner, but have relied upon verbal descriptions. When more accurate data is required for comparison purposes, our photographs are useful.

The next part of our method is a photographic record of the area. First we take a set of panoramic photographs, in both black-and-white and color, standing at the same spot we used for classifying. Subsequently we take pictures of the important elements that we have

previously identified. On occasion when one element dominates, or seems unusual in other respects, a number of pictures are taken to emphasize its significance. Should the particular position of the observer affect the importance of some feature, this phenomenon is recorded. Photography is our basic graphic recording device. With it we gather visual data to retain impressions of different areas, to refresh our memories for later records, to record the important visual aspects, and to emphasize special visual phenomena. The pictures also serve as a means of orienting others to each area.

The last step is the subjective recording of the impressions that are relayed to us by each shopping center. Its purpose is to enable us to keep the area fresh in mind once we leave it by capturing the many thoughts, impressions, and feelings we had while we were there. This step is of great value in conveying our emotions to other readers, and it also proves very useful in subjecting our data to further analysis. Very often the whole will equal more than the sum of its parts. These recordings of impressions are our thoughts in terms of 'wholes' that give a meaning to the parts which are the important visual elements.

Application of the Method

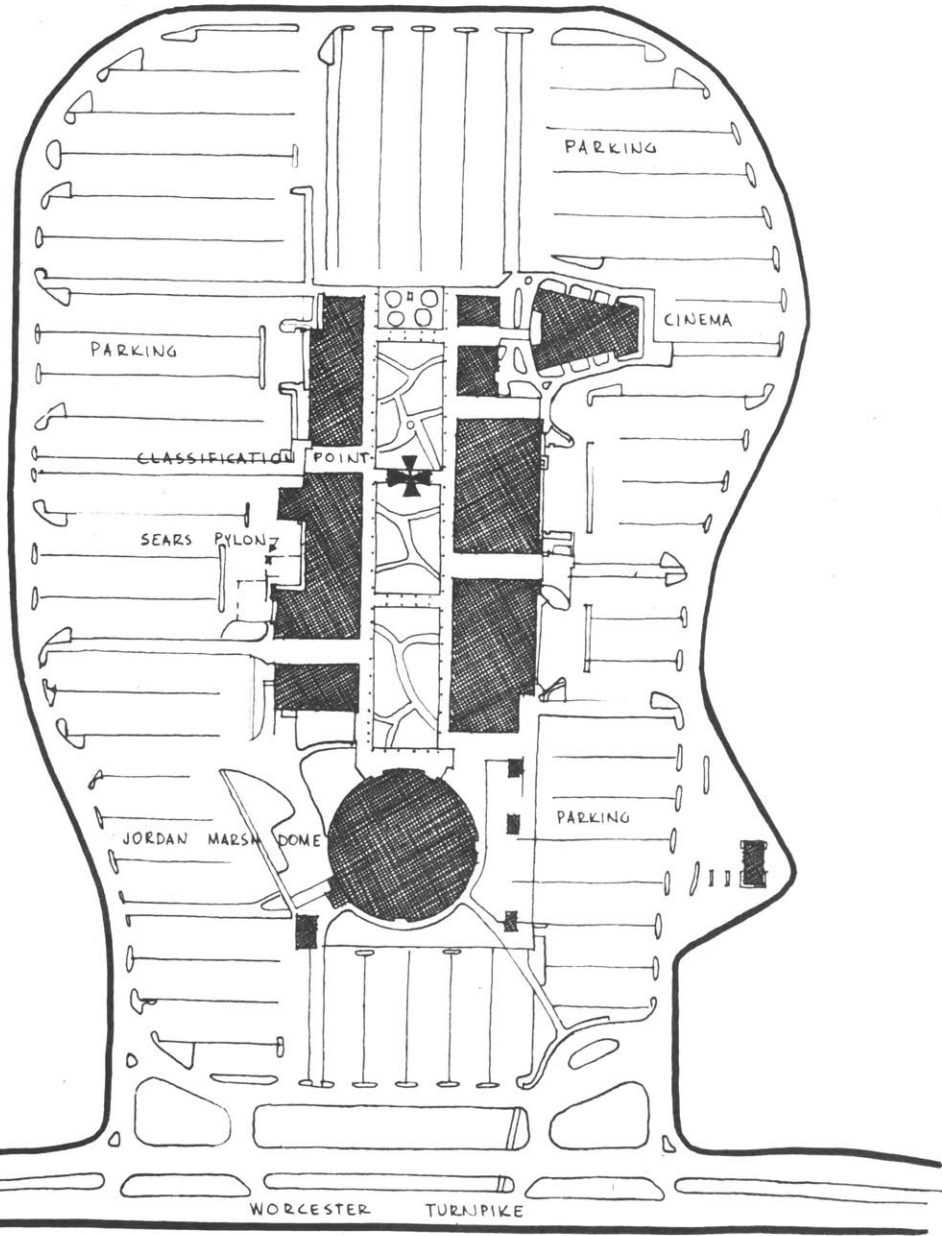
Our method has now been stated and described, and the next step is to apply it to each shopping area. We have said that our interests lie primarily in the formulation of a method. However, we are interested in results to the extent that we wish to isolate and analyze the important elements of each study area. Thus the following discussion will deal with those results obtained through our method, which we feel to be the most significant.

The study areas will be handled separately, and each step of the method will be expanded. In describing the inspection process, our means of arrival and our circulation through the area will be discussed; in addition, the reader will be referred to maps. Weather, and other conditions that have a bearing on our observations, will be noted, and our position for the classification process will be stated. Although two lists of first impressions were made originally, one by each viewer, only one will be included owing to the high degree of agreement between them. For the classification, a few sample sheets are included in this part : those that are most typical of the particular area. Similarly, the photographic step will include only a few examples of the pictures taken in each area.

After this brief resumé of the field work, observations about the specific areas will be made. A list of the important elements will be



ILLUSTRATION 1



SHOPPERS' WORLD

restated, and each one will be discussed. General observations about the visual aspects of shopping areas will follow in the next section.

Shoppers' World - Framingham

We visited Shoppers' World on March 27th, a Saturday and the busiest shopping day of the week. It was a clear, bright but cool day, with the temperature estimated at about 45°F. This area was the most familiar to us before we began our study and, as a result, required less time for the inspection procedure. We entered the area by one of the several ramps leading from the parking lot, and walked on the inside peripheral walks of both levels, and on each bridge and crosswalk. There was more activity that day than usual, as several automobiles given away later in the afternoon were displayed in the central court. (See illustration # 3)

The main spot chosen to view the area was on one of the upper-level bridges, almost at the geometric center of the area. The entire interior of Shoppers' World can be seen from here.

The important elements listed that afternoon were as follows:

1. Automobiles
2. Yellow poles
3. White fences
4. Void enclosed by building masses
5. Signs
6. People
7. Merchandise

8. Sears Pylon
9. Jordan Marsh dome
10. Numbers on parking lot poles
11. Floor
12. Roof
13. Reflections on store windows
14. Merry-go-round
15. Flags
16. Railings

Enclosed in this section are two sheets from our classification system. They are typical of this area, and represent the permanent floor plane both inside and outside. In both cases the classification was easily accomplished, a fact which is apparent in these recordings. Shoppers' World reflects this ease of analysis as it is orderly and simple; there are a small number of components, a limited variety of materials, and few colors.

A panorama was taken from the bridge, and subsequently the important elements throughout the area were photographed. A picture of the signs is included here which also shows portions of other important elements : the railing, floor, white fences, and yellow columns. (See illustration # 4)

Shoppers' World is a very pleasant place in which to shop, but is generally unexciting. Its atmosphere is sedate and unhurried, and conducive to strolling, sitting, or window shopping. However, there is a sense of loneliness due to the lack of crowds and noise. The visual and aural senses are never offended. Everything is clean and

CLASSIFICATION SYSTEM FOR OBJECTS WHICH ARE WITHIN THE FIELD OF VISION

STUDY AREA: **Shoppers' World**

INSIDE OUTSIDE

FP WP RP M V

P T M

CONFIGURATION: **parking area flat**
hilly grassy area at far end and near Jordan dome

COMPONENTS: **parking area**
grass plots
walks
roadways

DETAILS: **white lines delineating parking areas**

MATERIALS: **asphalt**
grass
concrete

QUALITIES:

TEXTURE: **smooth from the distance**

COLOR: **grays**
green grass
white lines

BRIGHTNESS: **generally dull**

TRANSPARENCY:

CLASSIFICATION SYSTEM FOR OBJECTS WHICH ARE WITHIN THE FIELD OF VISION

STUDY AREA: **Shoppers' World**

<u>INSIDE</u>	OUTSIDE			
<u>FP</u>	WP	RP	M	V
<u>P</u>	T	M		

CONFIGURATION: **flat and in two levels**

COMPONENTS: **walk-ways** **grass plots**
 bridges **plots of flowers**
 paths
 ramps

DETAILS: **uniform lines on walkways**
 flower plots of various planting areas

MATERIALS: **concrete walks** **dirt plots (flower areas)**
 asphalt paths **asphalt ramps**
 asphalt bridges
 grass plots

QUALITIES: **generally very clean and neat**
 well maintained

TEXTURE: **smooth concrete**
 rough asphalt paths
 rough grass areas

COLOR: **various grays**
 green
 browns

BRIGHTNESS: **generally dull**
 concrete bright when sun shining on it

TRANSPARENCY:



ILLUSTRATION 3



uncluttered and there is complete order in the scene. The viewer sees every shape and form with a minimum of distraction, and elements are repeated interminably. However, there are a few places that do excite some interest. The novelty of walking over bridges and shopping on the second floor, under a broad canopy, is not often experienced elsewhere. The sudden views into the parking lots and the variation of light and shadow within these spaces is exciting. To be able to sit amid some greenery for a moment while shopping is exceptionally pleasant. Yet these credits do not overbalance the dullness of excessive repetition.

After field exploration and further study of this area, the following revised list of important elements is presented in approximate order of importance:

1. Void enclosed by shopping area
2. Parked cars
3. Large masses
4. Sky
5. Floor
6. Wall planes - glass store fronts
7. People
8. Signs
9. Amusement area
10. Lally columns
11. Fences
12. Railing round second floor

It is interesting to note that this list is somewhat shorter than the

than the first, and that some elements such as flags, merchandise and numbers were dropped completely. Others were combined (Sears pylon, cinema, Jordan's dome) in a more general group. This tendency to generalize reflects the significant feature of Shoppers' World. Here, not the details, but the primary, large, and undifferentiated elements are what count. The area is a vast one and nothing about it reduces its apparent size. Even the minor items that proved interesting, such as the yellow poles and the fences, existed in great numbers, although each individual form was relatively small. It is this precision of design that makes the void the most important aspect of Shoppers' World. Unfortunately, there is too much order and too little surprise. The few elements that are out of the ordinary are important for that very reason. They are big, bold elements that contradict the uniformity. (See illustration # 5) The amusement area is even more pronounced in this respect. It seems out of place; its form is opposed to the clean façades, and its riotous colors are not found elsewhere. Furthermore, the merry-go-rounds, with the exception of the people, are the only elements that are in motion. If it were not for the relatively small size and particular location, they would undoubtedly assume much greater importance.

One cannot help but be conscious of the parked cars, although they are hidden from most points within the void. The first and last contact one gets is in the parking areas, and the sheer number of vehicles, with their varying colors and reflections, makes a lasting impression. It might be fair to say that this element does not have the same impact on weekdays. We visited Framingham first on a Saturday





and later on a Friday. On the second trip, it was not the cars but the broad expanse of paved area that caught our attention.

The lack of real excitement at eye level allows one to look both up and down and thus to become conscious of the sky and floor. The wide space between the two parallel groups of stores is not roofed, nor is there anything between the two that might be stimulating. As the shopper walks from one side to the other, the distance is so great that he is unable to distinguish details of the merchandise in the opposite stores. His eye wanders to take in the great open expanse of the sky and grass floor below, and as he crosses the void on the second level, he becomes even more aware of the sky.

In this area, the sun plays a minor role as all the stores have their façades shielded by covered walkways. Only at certain times of the day can direct light be cast on the glass fronts, and when this occurs, the reflection and glare is apparent, from all parts. At other times, the same building faces are visually important because of a uniform horizontality emphasized by the repetition of fenestration and details.

We have suggested that the signs and the people are important to the area, but this is true only from special vantage points. Generally, none of the signs attracts great attention. It is only when one stands at the end of one of the main walkways and looks towards the other end of the complex, that the overhead signs stand out. (See illustration # 6) The vista is quite limited, framed by the wall plane, the row of columns (and the railing on the second floor), the pavement, and the roof. Within this frame, signs project from the

roof and people seem to grow out of the floor. If the day is a busy one for shoppers, these two elements will play a rather important visual role. It should be mentioned that people and signs are not at all important when seen from some other point.

The yellow columns, white fences, and the railing around the second floor, all contribute to the sense of order and repetition. They are unbroken and uninterrupted throughout the area, and the colors of the poles and fences add to their emphasis.

Washington Street - Boston

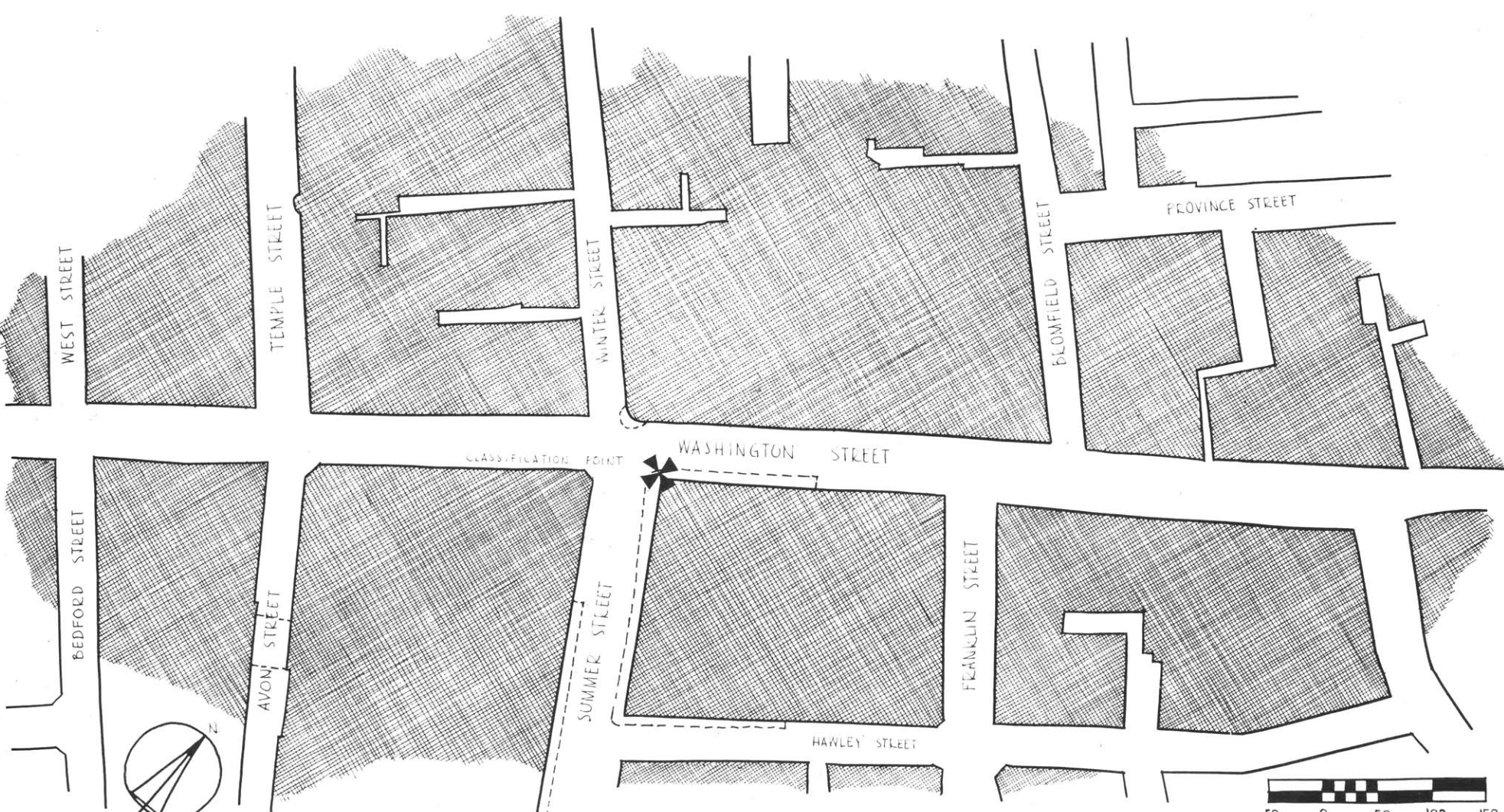
Washington Street was also familiar to us, and over the past few years we have probably entered the area from every conceivable direction. Yet the fact that it is not a street with a uniform character, required more careful inspection and analysis. As we mentioned earlier, the area in proximity to Summer and Winter Streets was chosen as the most typical of the 'downtown' aspect of Washington Street.

For our survey we came to Washington Street by automobile on all occasions, but were forced to park many blocks away. Thus we entered as pedestrians. We walked along Washington, Summer, Winter, and Franklin Streets many times, and finally located our viewing point on the corner of Summer and Washington, in front of Filene's.

Although our first impressions were made on March 17th, St. Patrick's Day, the size of the crowds did not appear to be greater than usual. One condition that did affect the visual scene was the fact



ILLUSTRATION 7



WASHINGTON STREET

that March is Red Cross month and an abundance of flags were to be seen. (See illustration # 9) The weather was cool and clear, with an estimated temperature of 45°F. The list of first impressions made that day was as follows:

1. People
2. Traffic
3. Flags
4. Signs
5. Store windows
6. Wall planes
7. Traffic lights
8. Policeman
9. Newsstands

Included in this section is the classification sheet for the permanent wall planes inside the area. This particular selection forced us to observe certain aspects about Washington Street that might otherwise have gone unnoticed. The upper parts of the buildings are very rarely seen, not because they are obscured, but because it is dangerous to raise one's eyes from the people and traffic. We noticed an amazing difference in character between the upper and lower parts of the buildings, which is described by this sheet.

The panorama was taken at the same spot in front of Filene's. From these photographs the intensity of visual elements is extremely evident. The high buildings allowed for an interesting set of pictures not possible in other areas. Here a vertical panorama shows the difference in character from the bottom to the top of the façades.

CLASSIFICATION SYSTEM FOR OBJECTS WHICH ARE WITHIN THE FIELD OF VISION

STUDY AREA: **Washington Street**

INSIDE OUTSIDE

FP WP RP M V

P T M

CONFIGURATION: **Vertical, broken surface of varying heights
range of height 40 to 100 ft.**

COMPONENTS: **vertically** **horizontally**
 store windows separate buildings
 signs separate stores
 rest of façade

DETAILS: **stores - entry ways, show windows**
 signs - raised lettering, canopies
 façade - windows and wall surfaces

MATERIALS: **glass** **stone**
 metal **concrete**
 neon tubing **marble**
 brick **canvas**

QUALITIES:

TEXTURE: **at eye level - generally uneven planes but each
individual plane smooth**

**above - mixture of smooth glass planes and
rusticated cornices and muntins**

COLOR: **at eye level - great variety and mixture of
colors (red, yellow, green, blue)**

above - dull colors (brown, brick-red, white)

BRIGHTNESS: **range - 3.2 to 175**

TRANSPARENCY: **store windows and windows above
range of transparency according to amount of
reflection and inside lighting
some become opaque due to reflections**



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Products to

Do It
YOURSELF

FIX UP YOUR HOME

Sold at HARDWARE and PAINT STORES EVERYWHERE FRUEHAUF

JEWELERS
BUILDING

Earlier we mentioned the transitory aspect of traffic; that is, various vehicles are on the scene only momentarily. The truck shown in illustration # 10 is an outstanding example of such an element.

Washington Street is primarily characterized by its big scale. It has all the attributes of the 'big city' : pushing, movement, activity, and excitement. Visually, the area relays a terrific impact; within this space there are innumerable stimuli that leave strong impressions with the viewer. There is no single element that tells a complete story, but the relatively few ones mentioned below, taken together as they actually act, give the area its unique character.

Our final list of important elements is as follows:

1. People
2. Traffic
3. Void
4. Signs
5. Flags
6. Store windows - merchandise
7. Traffic lights
8. Policeman

A comparison with the earlier list shows startling similarity. Only one item - newsstands, is not included on the second. Further analysis reduced their prominence, which had originally been influenced by the noise of the newsboys, an aural emphasis of a visual element. We attribute this similarity to our previous familiarity with the area. Undoubtedly, any reader of this thesis has by now made his own subconscious list for Washington Street, and the result is probably quite

close to ours. However, due to the character of a 'downtown' shopping center, the reader must remember that, just as we were familiar with the area, so is he, and actually he has now gone through our first and second steps.

The one indispensable element is the people, for should you visit this area early on a Sunday morning, it would seem like a different place. There are a number of reasons why the people are so important. For one, during any shopping day, the sheer numbers cannot be ignored. Secondly, you must look at the people or your well-being will be endangered. If you don't watch where you are going, or if you just try to stand still, you will be bumped and pushed from all sides by this human sea. This necessity to watch the people directs the eye away from things that might otherwise receive attention, such as the sky or the floor. Finally, not only are the crowds always moving, but each and every person is different. This is the transitory aspect of people as a permanent group : a smiling face, a great big hat, a bright red coat, a loud voice, a strong perfume. Their significance is further heightened by the very narrow sidewalks. If we had more places to walk, and there were the same number of people, undoubtedly their importance would be greatly reduced.

The traffic assumes importance for much the same reasons that people do. The street is relatively narrow, and is filled with great numbers of vehicles. At times, this flow stops and pedestrians swarm into the street, but as soon as the light changes, the flow begins again. Like the people, the cars are all different and in motion. Again as with the people, the safety factor plays a large role in visual

importance. The conflict between pedestrians and traffic was never so evident as in this area. Pedestrians use the street, and the vehicles, although they never quite do so, often threaten to use the sidewalks.

Buildings are very high and close together and no one can avoid being conscious of the space that they enclose. The shopper has the feeling that he is walking on the floor of a deep canyon. The sense of three-point perspective is quite apparent as the buildings close in above you, giving the feeling that the street is roofed over. Because of the slit opening, little direct sunlight gets down to the street.

The signs were successful in catching our attention. They commanded prominent positions all through the area, and again great numbers and varieties were observed. Some were very large, others brightly colored, and some moving. Even at midday some neons were fully lit; the marquee of the movie theatre on the shady side of the street sparkled with light and color. Although most of the signs seemed permanent and expensive, there was little agreement as to size, placement, direction, and color; each one had a different story to tell and each told it in its own individual way.

A very strong contrast item is the flags, particularly the Red Cross flags that were displayed during March. Contrasts here are with color : on the flags themselves, and the overall drabness of the buildings that form their backdrop. Again we noticed great numbers of a particular item. On a windy day, such as the one on which we visited Washington Street, the movement of the flags added to their visual

appeal. Their position, hanging from the buildings out over the roadway, makes them more of a dominant feature as we are not accustomed to seeing many things in this location.

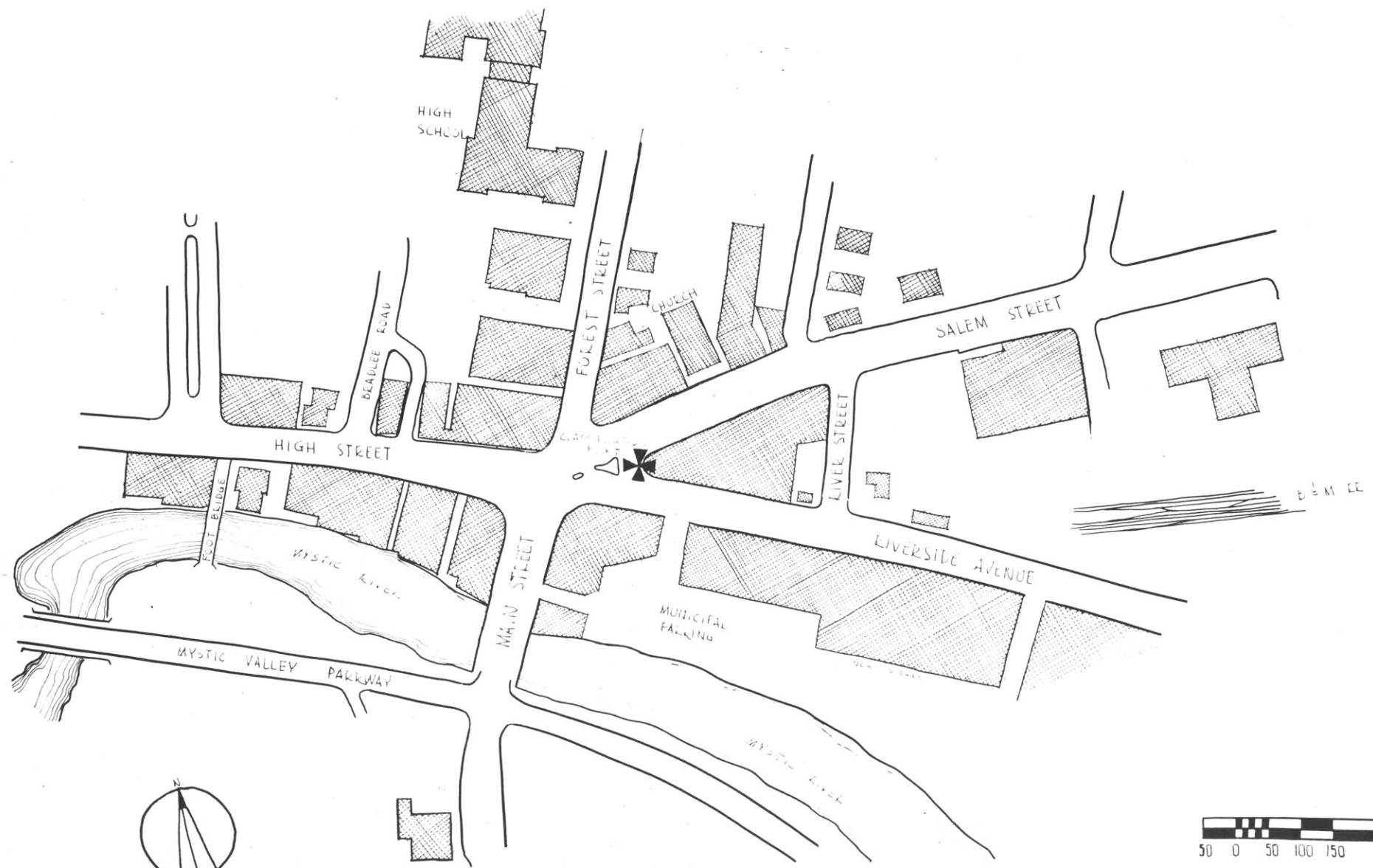
Generally speaking, the store fronts on the lower floors were newer than the upper parts of the buildings, and this contrast, heightened by the use of shiny and colorful materials, made the lower parts count heavily. The merchandise in the windows was equally important, but only when viewed from close up. At a distance, the people and vehicles obstruct the view and what little light there is reflects strongly from the large glass areas. Since the items for sale can only be seen briefly by the shoppers, they have to be displayed for immediate visual impact. In Gilchrist's, for example, a large Easter bunny was rocking back and forth, and in the jewelry store next to it the window was filled with an overwhelming display of glittering stones and price tags.

Traffic lights were important for two reasons : first, the pure visual impact of their bright colors against a dull background, and second, the safety role. Pedestrians must look at them to know when it is safe to cross. The policeman plays much the same sort of role. He is watched to get a signal to move, although at other times it is his shrill whistle that attracts our eyes.

Washington Street is truly a visual spectacle as well as a chaotic hodge-podge. It is the intensity of details rather than the individual items that predominate, and the mixture of this intensity of visual stimuli together with the great size and motion most successfully characterizes the area.



ILLUSTRATION 11



MEDFORD SQUARE

Medford Square - Medford

There are several areas around Boston that could satisfactorily be compared with Medford in the category of major sub-centers; however, this one has a number of interesting visual features.

The map of the area (illustration # 12) shows its form and its position in relation to the Mystic River. It also shows the huge municipal parking lot which we, as well as most of the shoppers, used. We entered the square, after examining the parking lot, and then proceeded to walk from corner to corner around the center of the square. Next we walked up and down High Street, taking several detours to look at the river from various points. Finally, we roamed through the other streets, going through the new area several times. Because we were relatively unfamiliar with Medford, and because it covers a large area, the inspection procedure required a great deal more time than in the other centers.

Our first impressions were recorded on March 24th, a Wednesday. The weather was clear and sunny, and the temperature slightly warmer than usual, 50°F. The time, between 3 and 4 P.M., had more significance in this area than in others because of the increase in rush hour traffic late in the afternoon and also because of the gatherings of school children.

Our list of first impressions of important elements is as follows:

1. Policeman
2. Church steeple
3. Void between the building masses
4. River

5. Separate building masses
6. Bank clock
7. Sky
8. Floor
9. People - mostly teen-agers
10. Traffic signs
11. Shop signs
12. Fruit display on sidewalk
13. Traffic
14. Industrial skyline in distance
15. Overhead wires
16. Vertical elements

Medford Square gave us the best opportunity to apply our photographic recording step. The usual panorama was taken from the corner of Salem Street and Riverside Avenue. Another series of pictures was taken of the white church steeple that dominates the square. (Illustrations # 13 and # 14) In relation to the area, this steeple is outstanding in color and height. It can be seen from almost any point, giving a great sense of orientation to the center.

A transitory element was also significant at the time we were making the photographic record. The large clock on one of the banks was out of order and a repairman was working on a ladder in the middle of the sidewalk. (Illustration # 15)

Another photograph, showing the forest of signs, is included here. This "family-group picture" is just off the center of the square, in a very prominent spot. This element is predominant primarily for

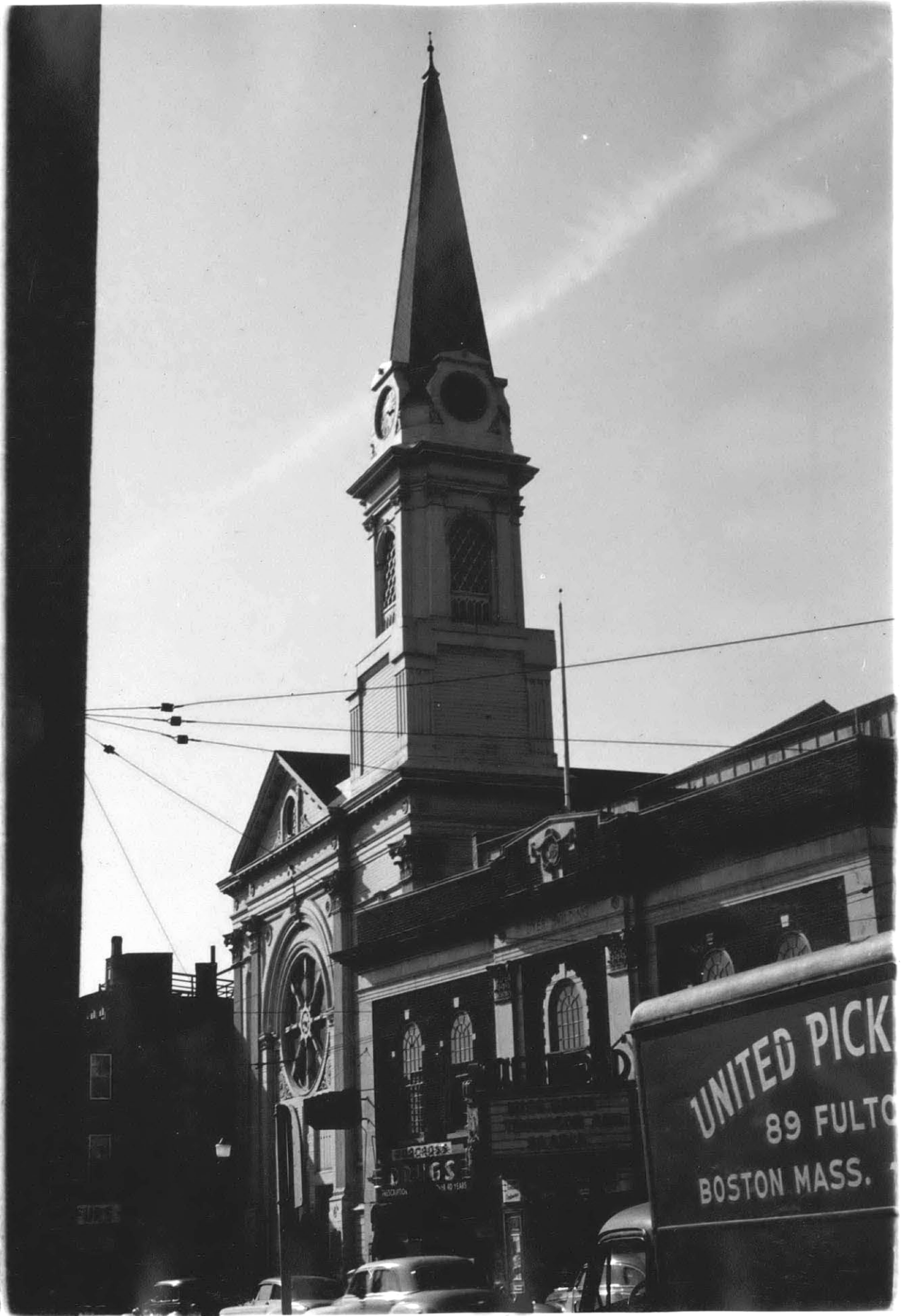




ILLUSTRATION 14



WALK-UP BANKING

COUNTY NATIONAL BANK
BEDFORD OFFICE

ALBERT
BEAUTY SALON
ENTER 5 HIGH



ILLUSTRATION 16

motorists, but is also important for almost everyone in the area.

(Illustration # 16)

The Medford area has a very pleasing balance of order and cleanliness with individuality and excitement. There is a sense of the old combined with a feeling of the new. Along the edge of the river are some old buildings, still in good condition, and a short distance away are some modern shops. The place is kept in an excellent state of repair, and the streets are free of unsightly litter. The form of the area and the inter-relations of land uses are quite satisfying. The residences are perched on a hill behind the square, the river and highway bounds the other side, and schools, churches, fire houses, and other large buildings are visible from most places.

After analysis and restudy, the following list of important elements are presented in a general order of priority:

1. Void
2. Vertical elements
3. Horizontal elements
4. Outside elements
5. Policeman
6. Traffic
7. Parked cars
8. People - mostly teen-agers
9. Sky
10. Forest of signs
11. Overhead wires
12. Transitory elements

A comparison of the two lists for this area shows that several items have been dropped in the re-evaluation, and the priority has been greatly altered. Some elements have been replaced by a single grouping : outside elements include river and skyline, and transitory elements include the clock and fruit display. It is significant that the item parked cars has been added to the list, for when we revisited the area we became more aware of their prominence.

The important visual elements in this area include items of all sizes and for many differing reasons. The result of such a mixture is an adequate contrast of exciting visual stimuli, with an overall sense of order and harmony. Some of the elements are what might be termed basic, or fundamental, divisions of space, while others are small details outstanding for their individuality. The central void is not only one of the important aspects of Medford, but it also serves as the focus for most of the other elements. If you were to stand at the center of the square, where the policeman is stationed, you would feel that you were in a position around which all activity was taking place. It is also generally true that the intensity of detail lessens in all directions, the further one is removed from that center.

The vertical and horizontal masses seem to complement each other, and they read strongly against one another. The buildings are all about the same height on each street and the vertical elements play against what otherwise might be a monotonous scene. The church steeple, armory, tower, city hall dome, and street poles can be seen down different avenues.

Depending upon weather conditions, and the quantity of smoke issuing from the huge chimneys, the view across the swamp towards the Boston skyline and Everett industrial complex can be a very important one. The Mystic River, which flows past the parking lot, is a striking example of a visual element outside the area. In other directions, the masses of trees are evident, and in late spring, when they are in bloom, they should assume even greater importance.

The policeman and the central void act together. As was mentioned earlier, this void is the center of activity and its shape gives a strong feeling to the area. The policeman, situated at its center, is almost always in view from along any of the five intersecting streets. His whistle reminds us that he is ever more present as the day wears on.

The traffic is emphasized by the many streets that intersect at one point. The resulting congestion, honking of horns, stopping and starting, all increase the stimulus. In this area, one is conscious of the increased volume of traffic about 4 P.M. As the rush hour approaches, the tempo of the area picks up considerably and the visual stimuli increase as a greater number of objects command one's attention.

People again occupy a predominant role in a recording of visual elements. We observed that most of them were teen-agers, or actually, most of those that we observed were teen-agers. Although there were more present than one might expect to find in a shopping center on a weekday afternoon (we later discovered the high school to be less than two blocks away), it was their clothes rather than their numbers that made them obvious. The teen-agers have little inhibition about calling

to one another from across streets and passing convertibles, and thus further make their presence known.

Several of the main streets had trolley wires overhead, but only at the focal point was this element particularly noticeable. The network here was much more intricate because it was a turning place for trolleys. Furthermore, the openness of this section allowed for a better view of the black wires against the bright sky.

East Watertown

We entered this development by automobile for all of our visits. The East Watertown shopping center is located along both sides of Mt. Auburn Street (See illustration # 18), and our inspection took us up and down the street and also into the area along Bigelow Avenue. There is a small traffic island at the intersection of Bigelow and Mt. Auburn which is an ideal spot for viewing.

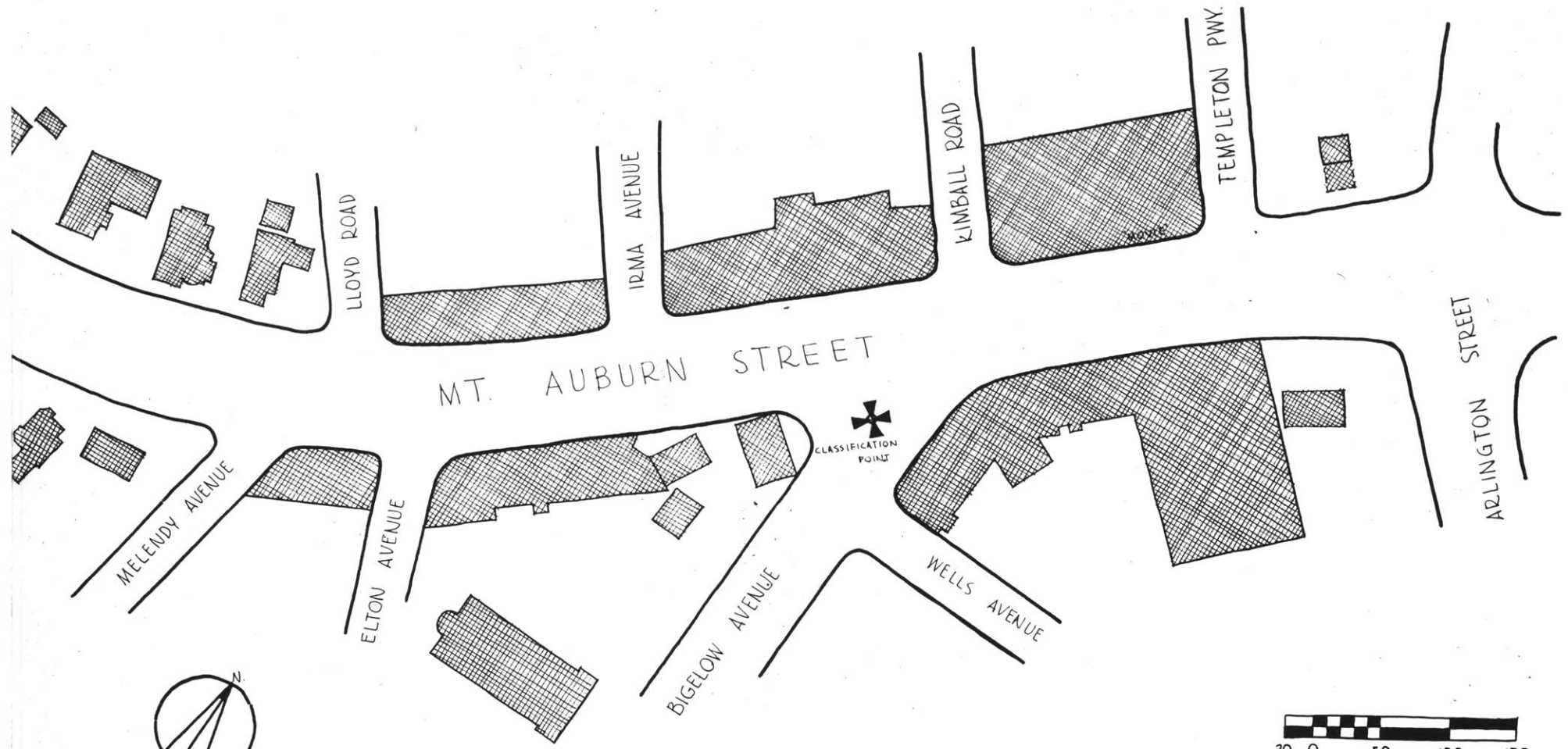
Our first impressions were made on March 10th, a Wednesday. The weather was fair, but partly cloudy, and the temperature was a cool 40°F. The time of day was significant, 2 to 3 P.M., as the area experiences greater activity during rush hours in the morning and late afternoon.

The list of important elements made at that time was as follows:

1. Signs
2. Overhead wires
3. Floor
4. Sky



ILLUSTRATION 17



EAST WATERTOWN

5. Traffic
6. Street cars
7. Store-fronts
8. Merchandise
9. Bank clock
10. Distant factories
11. Movie Theatre

We include a classification sheet of the permanent wall planes inside the area. The records from East Watertown are interesting as they represent the first attempt to use our system. At the start, we had hoped we could be somewhat more objective, and employed a light meter to measure relative brightness, and a color chart to record the outstanding colors. The value of these was soon found to be negligible and we discarded these tools by the time we studied the second area.

The photographic procedure was very interesting in this area. The usual panorama was taken from the traffic island in both black and white and color. There was no unusual phenomenon that required a series of pictures, and the several elements that we believed to be important were recorded. However, the picture taking process as well as the actual photos themselves, showed us many new things about the area. Many pictures of the important visual elements of the area might be included; four outstanding ones are shown here. (Illustrations # 19 to 22)

The first picture clearly showed us the importance of the overhead wires. While we listed them initially as significant, we did not fully

CLASSIFICATION SYSTEM FOR OBJECTS WHICH ARE WITHIN THE FIELD OF VISION

STUDY AREA: East Watertown

INSIDE OUTSIDEFP WP RP M VP T MCONFIGURATION: flat and vertical
curving away in all directions

COMPONENTS: individual stores and signs

DETAILS: store windows and items in them
lettering on signs
doorway recesses
one storyMATERIALS: glass wood
stone paper
brickQUALITIES: bright, gaudy and varied color
dull in regard to dirtTEXTURE: rough, uneven yet each individual element
is fairly smoothCOLOR: OYO-T-1 (Coolidge Cleaners)
Red Hue (Dines)
White (Coolidge Paint)
BG-T-1 (Town Diner)BRIGHTNESS: range of brightness
25-100 - variedTRANSPARENCY: glass shop windows transparent
otherwise opaque



ILLUSTRATION 19



TOILET TISSUES
1000 SHEET ROLLS
\$1.00

\$ DOLLAR DAYS \$
PURE RASPBERRY JAM
4 ^{12oz. Tumb.} **\$1.00**

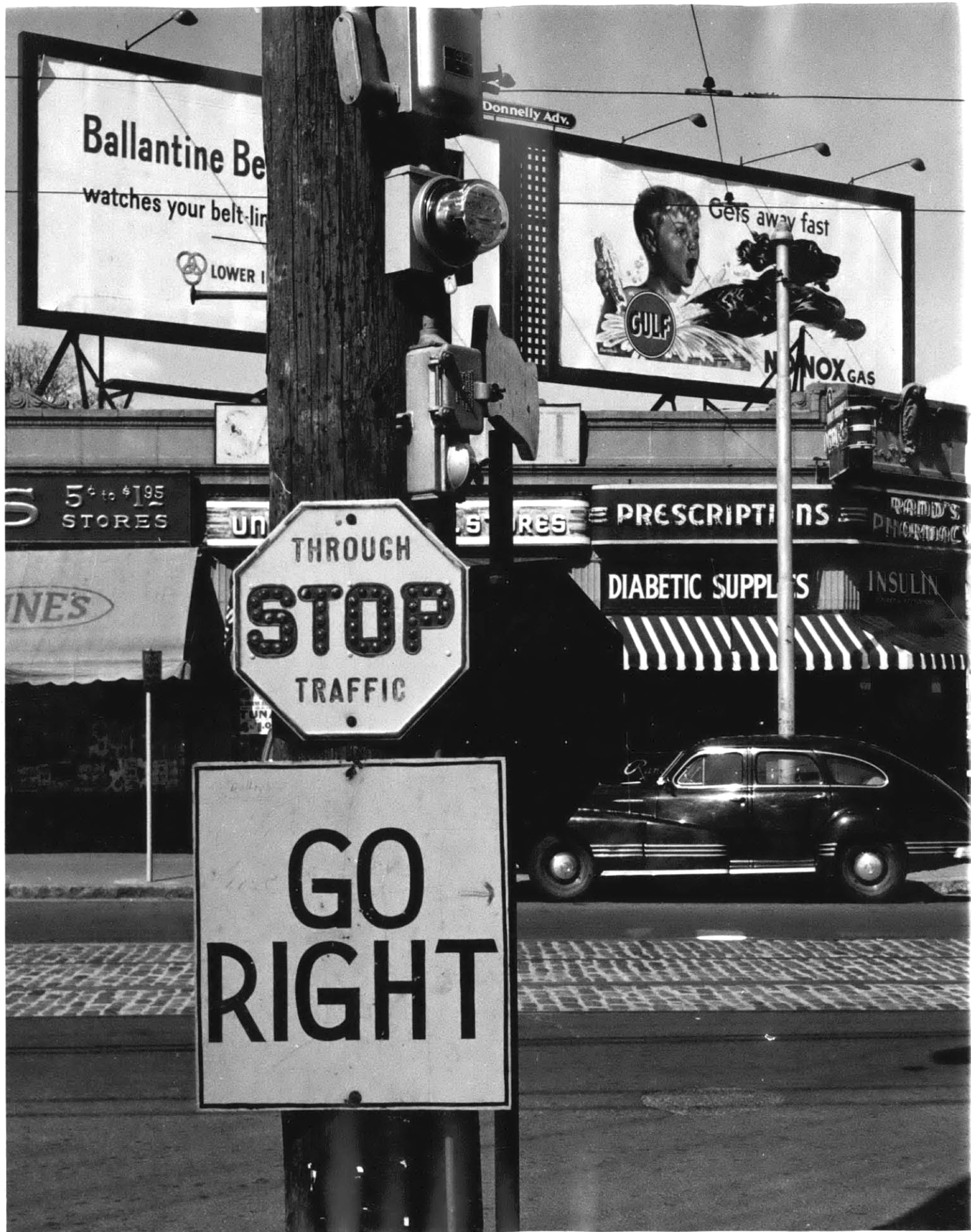
\$ DOLLAR DAYS \$
FANCY SOLID PACK TUNA
LIGHT MEAT IN BRINE
4 ^{No. 1 CANS} **\$1.00**

UNITED NATIONAL
DOLLAR DAYS!

\$ DOLLAR DAYS \$
ELMDALE CREAM STYLE CORN TOMATOES
8 ^{16oz. CANS} **\$1.00**

\$
\$
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\$





realize the actual maze that criss-crossed above us until we examined this picture. The Amoco sign in this picture had been almost unnoticeable coming from the other direction of Mt. Auburn Street. The next photograph was taken to show the composition of the floor, and it further gives an excellent idea of what the motorist sees of East Watertown. The third picture shows a typical shop window in the area. Most of them are cluttered with similar transitory paper signs, and the merchandise further obscures the interior of the store. This recording also shows the intensity of visual activity within the frame of one single shop window. The last picture shows the peculiar 'tree' growing out of Bigelow Avenue. Its impact is quite similar to the 'forest' of street signs in Medford.

Although the photographs seem to indicate a very strong visual effect of individual elements in the area, this is not actually the condition. Here is an example where the photographs seem to distort the scene. Our subjective impressions of this center helped to balance our final analysis, and we recorded this shopping group as an extremely dull, dirty, and generally nondescript one. There is evidence that at one time the colors were brighter, but with the passage of time, a layer of dirt has settled on them and today they are all of the same dulled intensity and value.

After analysis and restudy, the following list of important elements are presented in a general order of priority:

1. Sky
2. Floor
3. Signs

4. Wires
5. Traffic
6. Movie theatre mass
7. Poles
8. Merchandise
9. Factories outside the area
10. Brightly colored trucks

In East Watertown we were particularly struck by the complete lack of order, activity, and interest. The visual elements that we have labeled as important were harder to isolate than in any other place we visited. Here our list is much more like a record of the items that occupy the major parts of the visual scene rather than the ones that typify or highlight a strong visual impact.

The lack of interest at eye level emphasized the role of the sky, which was visible and unshielded from all parts of the shopping center. Here the weather conditions were more apparent : wind, clouds, etc. The sun was the most significant aspect of the sky, for not only was it prominent by itself, but it had a tremendous effect on all the other parts of the scene. With the sun shining behind you all the colors and details do assume some importance, while when you face the sun everything but the main masses becomes insignificant. The sun sets along the main axis of Mt. Auburn Street and during the afternoon anyone walking on the sidewalk towards the west is facing the glare and is conscious of only overall shapes and main outlines. In the morning when you approach the shops from the secondary axis, the sun is just about behind you, and you notice that some bright awnings are open over the

fronts of the buildings.

During the afternoons the floor is one of the few places at which you can look; you cannot look into the glare of the sun very long and as a visual protection you look to the floor. Unfortunately, this choice does not relieve much of the unpleasantness because the surface reflects a great deal of light. However, it is the only one that offers any refuge. At other times of the day attention is also drawn to the treatment of the floor : the trolley tracks, cobble stones, paved street and sidewalk, a solitary green area, and the little that often lies on these surfaces.

Signs and merchandise in some instances act together, for the way in which many of the windows are filled with displays up to the face of the glass makes them act as signs. In other places we were conscious of a tremendous variety of signs : large billboards overhead, paper displays announcing particular sales (dollar day sign), projecting metal masses at right angles to the buildings, lettering on the awnings, and panels framing the entrances to the stores. So little of the actual façades of the buildings was left uncovered that they ceased to have any visual interest, and you felt that there was no depth behind the store-fronts; they appeared as a series of metal and wooden signs, broken by an occasional window or door.

Telephone wires are not underground here, and the large numbers that drape over the road are visually important. Again there is no real order to them; they seem to come and go as they please. They hang in great masses with frayed black insulation and read very strongly against the contrasting color of the sky.

The traffic varies greatly with the passage of the day. The large factories around Watertown exchange shifts late in the afternoon, and at this time the people and cars speed up the visual impacts. During most of the day there is little noticeable movement in the street because the motion is fairly slow and steady. The only exception is the occasional trolley car that stops near the center and attracts some attention because of its noise, motion, and bright yellow and orange color.

Behind one group of stores is the bare brick mass of a large movie theatre. Of all the elements this one is the most clearly defined. But its size is out of scale with that of its neighbors.

The light poles, street poles, and particularly the telephone poles are numerous in East Watertown. We were very conscious of the effect that a clean coat of paint can have on a particular detail because, between our first and second visits to the area, the poles that hold up the parking signs were painted. Formerly, these poles blended into the background of stores, but once painted they became more prominent.

The telephone poles are one of the few visual surprises in the area. They noticeably tilt out away from the building façades.

We have already mentioned one aspect of the merchandise, their "sign" effect. Another aspect is their bright colors observed when placed on the sidewalk, for numerous shopkeepers chose this method of attracting customers.

The lack of visual interest within the area accounts for the importance of the factories. Furthermore, their size emphasizes their prominence.

During one of our visits billows of black smoke were coming from one of the factories and acted as an additional attraction.

The brightly colored trucks are another fine example of transitory elements, particularly a large yellow banana truck and a white delivery truck that we observed in the area many times.

The Subway Arcade - Washington Street

There are only a limited number of ways to enter this area : either one comes from the street above down one of the two stairways and through the turnstiles, directly from the basements of Jordan Marsh or Filene's, or from one of the subway trains on either end of the concourse. We always entered from the street above and came through the main battery of turnstiles almost directly into the heart of the business activity. One can hear and smell this center before actually entering it. The trains, the barkers, and the foul air are the visitor's first impressions. Similar to East Watertown, inspection was a simple procedure here, yet one glance is not sufficient as there are many ramps, stairs, and hidden corners to be explored. We walked back and forth on the concourse a number of times, examining the subway platforms and visiting each store. A second visit was needed before we could choose our viewpoint, for this area was comparatively new and unusual to us. The spot we chose was along one wall at the upper end of the sloping floor, opposite the novelty-joke shop. The map shows this location in relation to the rest of the area.

We visited the arcade on Saturday, March 20th. This is the busiest

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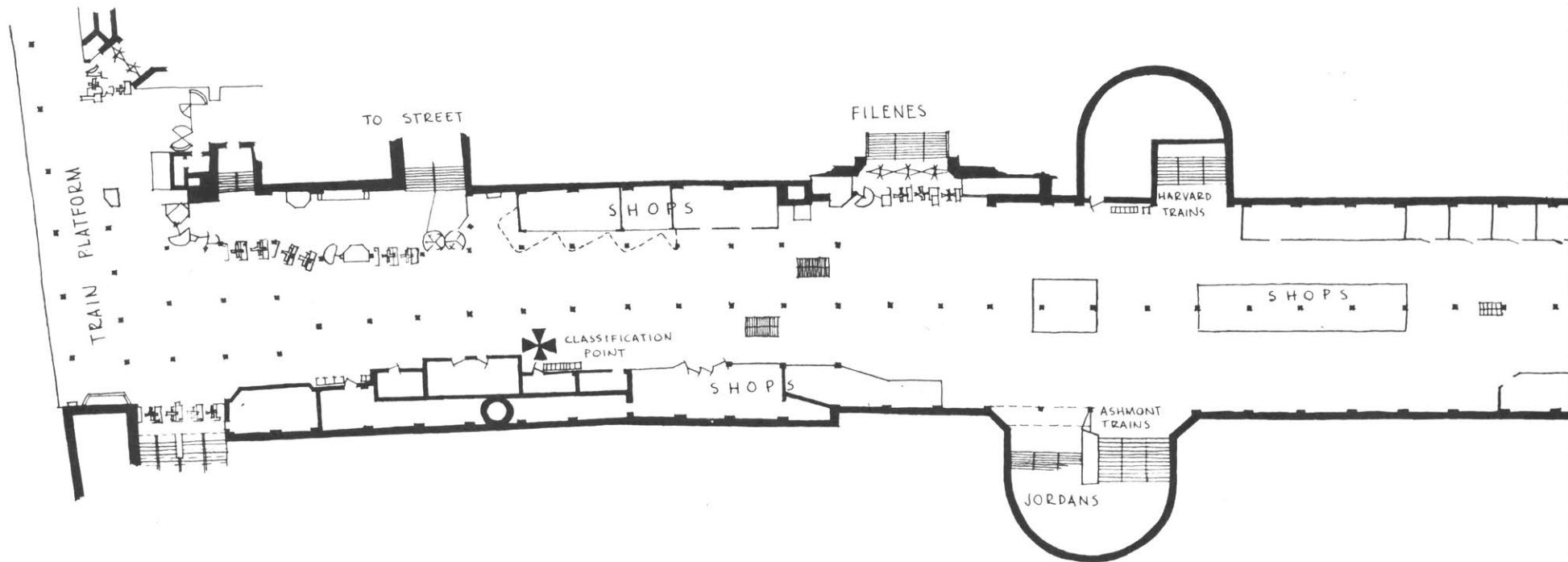
TURNSTILES TO

FILMS & DEBEME

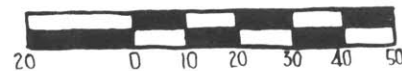
PRODUCTION
SETS



ILLUSTRATION 23



SUBWAY ARCADE



day of the week, but it is hardly conceivable that our results would be different if we had come on another day. The same is true of the actual time of day of our visit, between 1 and 4 P.M., probably the busiest period of all. The weather conditions are obviously artificial here, but outside it was sunny and cool.

The first list of important elements was as follows:

1. Merchandise
2. Signs
3. Floor
4. Clock
5. People
6. Ceiling
7. Stairs
8. Turnstiles
9. Light bulbs
10. Store fronts
11. Columns
12. Trains
13. Variety of spaces

On the following page is the classification sheet of the permanent roof plane inside the area. One of the reasons we chose the arcade was to study the effect of a covering on a shopping center. This sheet describes the ceiling and its role as an important visual element will be discussed a little later.

We took far fewer photographs here than in any other center. The artificial lighting of the area required the use of flash bulbs for

every picture, and thus each photograph had to be carefully planned. The fact that this is a busy and narrowly constricted area also hampered our photography. The flash of light emphasized our presence, and at times we felt that we were the most important visual element in the arcade. Instead of a panorama we photographed each store individually, and other pictures, both up and down the axis, and of the ceiling and floor, completed this phase of recording.

The Washington Street Arcade is an extremely unpleasant place, but nobody, other than the shopkeepers, spends enough time here to be bothered. We observed that all sales are strictly impulse buying. Here in a very confined space are packed an exciting array of visual stimuli, and the intensity of the scene is further heightened by a restless motion. The physical condition of this interior shopping arcade is very poor and impermanent. The transitory elements play a very large role, and the harsh lighting conditions help retain the artificial atmosphere.

After further study of the area and re-analysis of the important visual elements, the following list is presented in order of priority:

1. Merchandise
2. People
3. Void
4. Signs
5. Floor
6. Ceiling
7. Hanging clock

Comparison with the first list shows that restudy has considerably

CLASSIFICATION SYSTEM FOR OBJECTS WHICH ARE WITHIN THE FIELD OF VISION

STUDY AREA: Washington Street Arcade

INSIDE OUTSIDE

FP WP RP M V

P T M

CONFIGURATION: slopes parallel to the floor
indentation between dropped beams at column lines

COMPONENTS: dropped beams
flat ceiling surface
light bulbs
wires and pipes

DETAILS: water dripping off a few places
small cracks

MATERIALS: painted concrete or plaster
metal painted pipes
glass spotlight covers

QUALITIES:

TEXTURE: as an entirety - very uneven
each separate element is smooth

COLOR: white

BRIGHTNESS: fairly bright
spots of light - very bright

TRANSPARENCY:



ILLUSTRATION 25



shortened it. Elements such as stairs, turnstiles, and light bulbs, have been dropped in deference to the overwhelming importance shown by others. The order of priority has been changed as well. Although merchandise remains at the head of the list, the void and the people have assumed much greater significance.

The merchandise is the real key to the area. (Illustrations # 25 and # 26) Generally displayed in open stalls, rather than in enclosed stores, it is very brightly colored, highly reflective, inexpensive, and some of it is very perishable. Spotlights, barkers, and 'special sale' signs highlight the intensity of this element. Each one of the little shops competes visually with its neighbors in an effort to attract trade, the result being a fantastic array of impact elements. One could go on endlessly describing the individual characteristics of the many articles displayed, but the total effect is one of confusion.

It is conceivable that you could exercise great will power and ignore the displays, but you cannot miss the people, for there is always the danger of physical contact. Certainly the confined space adds to their impact; a large number move in a small area, and voices resound from the planes. The motion of the pedestrians is accentuated by bursts when a train has just pulled into the platform. Also in this group are the shopkeepers who attract attention by calling to the passers-by.

The void, being so definitely bounded in all directions, cannot help impressing one. Not only were we conscious of the confined space, but also the many corners, the stair openings leading from the area, and the space beyond the central arcade. Furthermore, you can look

into other connected voids : the interior of Jordan's and Filene's basements, the subway cavity beyond the platform, and other spaces. As a pedestrian in this enclosure you move not towards a building or other positive masses, as you do in other shopping sections, but towards the center of the space to avoid friction with the walls.

To catch the few shoppers who might have escaped the displays and barkers, a profusion of signs adorn the area. The usual subway posters are found, as well as special signs for merchandise on sale, additional ones over and around the stalls tell other stories, and each of the columns has its own notice devoted alternately to Jordan's and Filene's. To complete the act, both of the big department stores have huge hanging signs at either end of the arcade.

The floor of the area is uniformly paved, uniformly littered with refuse, and uniformly covered with lumps of gum. The gum is one of those elements that attains visual importance by means of the sense of feel. The litter includes brightly colored wrappers as well as items big enough to trip over. The fact that the floor also slopes makes one even more aware of it.

The ceiling also has an interesting configuration. Alternating, are a series of dropped beams over each set of columns and a flat surface between these beams. From the flat surface hang a number of exposed light bulbs that are very intense visually, and which reflect their light from the whole of the ceiling. Perhaps the reason why we are so conscious of this element is that it appears very 'heavy'. It has the effect of pushing down on us, making the clearance seem a lot lower than it actually is.

The columns are important as a potential hazard. These and the ceiling beams are the only real rhythmic features of the arcade.

Near the end of the concourse hangs a clock that appears important for two reasons. For one, it is quite large, and for another, most of the people are either coming from or going to some place on a time schedule, and the clock gives them an idea of their progress.

This very tight area forces increased intensity out of elements that would be attractions even in a very open space. The impact is almost crushing visually, and the eye searches in vain for some relief from the bombardment. Every aspect of the non-visual sensations also heightens the sense of unpleasantness : the noise, feeling, and even the smell of the popcorn, flowers, and toilets. The Washington Street Arcade, as unpleasant as it may be, reaches a peak in visual intensity.

Conclusions

RE-EVALUATION OF METHOD

A vital part of this study is a re-evaluation of the method and tools that we have developed. Each step in our procedure will be examined and then criticized as a whole.

The process of familiarization, the inspection of each center, proved more helpful than we originally anticipated. By allowing us to assume many viewing points, we were able to minimize arbitrary decisions concerning important elements. Our analyses would be substantially different if they were derived from a single station in each area. Although our initial views had an effect on many subsequent decisions, and often initiated erroneous notions, repeated examination helped compensate for their unreliability. Originally we thought we could cover one area in a single day. We wanted to shorten the period of observation to eliminate the possibility of changes taking place. It was not until we actually began the survey that we saw our errors. For one thing, we found it impossible to classify visual elements until we were able to grasp the area. And secondly, we soon realized that a short period of observation would over-emphasize transitory elements. As it turned out, we were unable to complete our field work in less than two full days in any of the five centers.

The second aim of the inspection process was to enable us to choose a suitable position for classification. This appeared to be an important link in the whole operation, but in practice we stood as near the center of the area as we could, at the position where we would see the most. Any other station would have defeated the expressed purpose. Although it is essential that the proper positions be selected, a detailed examination was unnecessary for this task.

Our first record of important elements, made at the conclusion of a thorough inspection, was one of the most useful parts of the whole operation. We believed that such a record would be a guide for classifying, and a way of preventing over-concentration on unimportant details. In practice this was only one of its values. Both of us remained together during our first tour, but we did not exchange ideas about visual aspects. We then compiled our lists separately and compared them. There was a unanimity of results in every shopping center, but this can be attributed to several sources. By working together at every other stage of the thesis, we had both laid similar groundwork for appraisals; we were prepared to see scenes the same way. Furthermore, our objectives had been so firmly instilled that there was little possibility that either of us would include irrelevant material. And finally, it indicates that our method did limit arbitrary subjectivity.

The main body of our field work was devoted to filling out the classification sheets. These are a personal record describing the visual scene for us, and their main value to others is as a system for surveying visual elements and not for any particular material that they

contain. A great deal of time was spent in categorically dividing the visual surroundings into distinct parts, which we believed to be essential to any analysis of elements. In its final form the system may be valid, but it is useful only as one step in a larger method. No interest was paid to the amount of data collected, only that it be relevant to previous listings of important elements, and nowhere did we indicate the precise location of the objects we were describing. We assumed that our analyses would have to make use of the material we were collecting in order to discuss adequately the important elements, but in doing so we completely underestimated our memories and the value of other recording devices. However, this step did have certain positive usefulness. By compelling the observer to look at all parts of the scene, it insures that some basic features are not overlooked, and by requiring a full description of all the important elements we were actually analyzing them. The procedure for classifying visual elements involved a subconscious reappraisal of the role played by each. The key is in the procedure for collecting material and not in the material itself.

Photography proved to be an invaluable aid in conducting our surveys. As a recording device it preserves data in an objective manner, allowing for minor distortions. As a memory refresher it is extremely successful, particularly for detailed analyses, and as far as orienting others, they are helpful. Just as the classification procedure was vital, so was the process of taking photographs; by forcing us to be selective, it sharpened our powers of observation. The color slides are a more complete record, but their expense and the comparative ease

with which black and white enlargements can be studied, limits their usefulness.

The final part of the method was a subjective record of visual impressions, and it was supposed to keep the area 'alive' for us. Not only did it do this, but it also proved the basis for most of the subsequent analyses. As we used this tool we not only told what we felt, but we tried to answer why. The subjective discussions were directed towards 'wholes', but in practice we had difficulty in refraining from evaluating the parts.

In the beginning of our thesis we identified our particular problem as that of developing a method for surveying and analyzing the visual city. As a whole our system worked well even though individual steps can be criticized. A good deal of time now seems to have been wasted in the organization of a classification system, and it is quite obvious that any procedure that guarantees that the observers will have to scan the entire visual scene will be just as valuable. Moreover, almost any individual step could be altered as long as the overall method retains its comprehensiveness.

There seems to have been a fair balance of time between the orientation and the actual recording in the field. The actual delineation of material was most useful in photographic and subjective written forms, and not in our classification system; however, the procedure in each case was extremely productive. Should a similar project be undertaken, we would recommend the use of motion pictures as an additional photographic recording device. At present we have to rely solely on our memories to recall the motion aspect of each area. The tendency

to take pictures of everything would have to be controlled, and it would be useful to limit the role of movies to that of an orientation tool and motion recorder.

If we were now starting our study with the additional experience that we have gained, several important changes would be made in our method as well as in our tools. We now realize that the method we employ may be broken down into three distinct stages, familiarization, data collection, and analysis.

Our familiarization was actually a process of organized looking, and a strictly personal one at that. In a new study we would not restrict ourselves simply to a personal appraisal of existing visual features to the point of excluding other approaches. We avoided any study of the history of the centers, not realizing that this would help us in the appraisal of the present developments. Furthermore, we did not inquire into the present zoning ordinances and private agreements among shop owners as they relate to physical design. In talking to others to acquire this additional information we would find out how they feel about their own area and in the process broaden our own outlook. Similarly, we would not confine our role to that of a pedestrian shopper alone. With only a slight increase in field work, we would be able to drive through any area and assume the motorist's role. We would also view a center from the inside of stores and offices on both the ground level and above.

Data gathering would itself be improved by this more complete orientation. Because we were not fully acquainted with the areas even after our familiarization process, we were obliged to gather a great deal of

extraneous information. With a more thorough orientation, a significant list of important elements becomes possible earlier in the study and is the basis for the data as well as the analyses. Instead of our classification system we would record information directly pertaining to the important elements. Our sheets would each apply to a single element, rather than our complicated categories of Inside, Voids, Permanent, etc., and would allow for precise location, size, number, color, and other features of the surrounding details as well as of the element itself. The photographs would then record these elements both for the purpose of analysis and to illustrate our findings to others.

Formerly, analysis followed field work and was carried out entirely away from the site. In a subsequent study we would supplement our laboratory analysis of written and photographic data with further field trips for additional inspection and clarification. The time consumed by such studies would not permit a complete evaluation of the entire city; therefore, 'priority' areas would be selected just as important elements were chosen for emphasis. We believe that the results disclosed by these limited analyses would be generally applicable in similar land uses areas in the same city, and allow for comprehensive programs of visual improvement.

The classification system that we developed insured a complete scanning of the scene. A more thorough familiarization would have accomplished this, and at the same time would have given us greater insight into relevant material and would have saved wasted energies. We would still retain three stages for study : familiarization, data collection, and analysis. The first stage would be a comprehensive

approach designed to uncover the important elements. The second stage would be a gathering of information about these elements, and the third stage would be an analysis of the entire scene with respect to the same elements.

OBSERVATIONS ABOUT THE VISUAL ASPECTS OF SHOPPING CENTERS

Although our method has many faults, it did make us more sensitive visually. Therefore, we feel that our observations about the visual city still have a high degree of validity. First we shall compare the lists of important elements for each of the five centers, and then we shall discuss the elements in general, and the reasons for their importance.

The first observation is that the largest number of important elements are Permanent elements. However, in each area, there is at least one element that falls within the other categories of Transitory and Motion. In some cases, the transitory or moving element was the most influential; however, the disproportionate number within the Permanent category indicates that these can be considered the salient features. Fortunately, the physical designer has the greatest control over permanent elements. Motion can be regulated, but only to a limited degree, while the transitory elements are generally outside of the designer's realm.

Within the categories of our classification system, the largest number of elements falls within the Mass group. However, masses are often directly affected by the other groups. The void is listed in

four of the five areas, and it is not only an important feature in its own right, but also governs the importance of the masses. The most obvious example is Washington Street, where a large number of people and vehicles are squeezed into the narrow space between the canyon-like walls. One is quite conscious of a loose or tight void in relation to the elements within it.

Comparing the five lists in relation to the Inside-Outside category, shows that every element but two lies within the Inside group. This is not unexpected, for we are actually examining the insides of these areas, and elements from the outside intrude upon the scene only when there is a maximum of contrast. In Medford, the open marsh behind the parking lot contrasted greatly with the enclosed space of the shopping area; the factories in Watertown were much larger in scale than the buildings within the center.

The intensity of visual stimuli does not increase with respect to the size of the service area. It is the relationship of elements that seems to govern their importance at all stages of our analysis. One very definite observation that we can make is that either too many or too few visual stimuli can be harmful to the overall effect of an area: the Arcade or Shoppers' World. The sense of excitement is best satisfied by a mutual adjustment between the visual stimuli and the space within which man views them. One would suspect that there would be much more to 'see' at Framingham than in the arcade by just comparing their respective sizes, but the elements are so spread out before the viewer at Shoppers' World that the overall effect is unsatisfactory. On the other hand, the underground area is so narrow that all the details

strike the observer at the same time. At Medford a much better balance is achieved between the void within which the shoppers move and the density of visual stimuli.

We further observed that visual elements can serve two distinct purposes. For one, they help to direct us as pedestrians and can relay some messages about the area; street signs and store numbers are useful for orientation, while sidewalk displays indicate the character of merchandise we can expect to find within the shops. Stimuli are also useful in another way. As a series of impressions, they bear on our later 'feelings'. The most satisfying stimuli will serve both roles; they will make the actual experiencing of them successful, and they will make us retain pleasant memories of the area.

Just as the lack of stimuli can be cheerless, so can an overdose of rhythm, and both of these qualities pervade Shoppers' World. The few contradictions to the serenity (the dome, pylon, and cinema) play vital roles as exceptions. In East Watertown there is none of this planned order, but the passage of time has given every element the same appearance, so much so that the area also lacks excitement; everything is about the same color value, size, and scale. Medford's success is due to the introduction of exciting verticals which balance the horizontal forms, as well as give the area a sense of identity and orientation not found in any of the other centers.

In the past few years a number of architectural magazines have stressed the importance of street furniture in our cities, and after our limited study we most definitely disagree with their premise. The shopping areas are filled with lamp posts, parking meters, trash

baskets, etc., and even though we were disciplining ourselves to scan all parts of the visual scene, we were unable to remember what the majority of the furniture looked like. It is quite obvious that if these elements were better organized and properly located they would have more significance. At Shoppers' World the yellow poles are orderly and thus important, but on Washington Street the disorder does not make the furniture prominent. There is hardly a single piece of street furniture that could not use redesigning, but compared to the other visual problems we observed in the five centers this is a very minor one.

Quite to the contrary, so-called danger visual elements assumed much more importance than we originally suspected. This is the category that includes such items as policemen, traffic lights, curbs, people, and cars. We may often wish we did not have to watch these things so much, but we have little choice most of the time. When there is an absence of danger elements the area may be very pleasant, but we question if this feeling of passiveness is not somewhat alien to urban shopping areas. Even at such a suburban center as Shoppers' World, the serenity seems out of place. The sense of motion and alertness is missed and the pedestrian almost feels selfconscious. ? There are very few people who like to shop in empty stores; not that every experience must be comparable to Filene's basement, but without some sense of activity and competition any shopping trip seems hollow. In recognizing the role of these danger elements, we must admit that they have to be controlled or they will destroy any other visual experience. This was painfully evident on Washington Street, partially

true in the arcade, and, to a slight degree, the case in Medford.

People and vehicles give the strongest sense of motion to our cities, and they are without a doubt the most important visual elements we found. We further believe that they are visually as essential as they are important in other respects, but again they must play an orderly role.

There are no simple criteria that separate important from unimportant visual elements, but as we have stated previously, it is the state of each particular element and its relations to others that determines the role each shall play. In some areas we found that signs were significant, in others they were not, and yet the individual signs may have been identical in both centers. Careful analysis pointed out that such factors as location, background, and the presence of other features governed the effect of the signs. We observed colored flags at both Washington Street and Shoppers' World and yet in the latter instance they were not recorded as important. In both areas the flags were highly colored and waving in the breeze, but at the suburban center they were small, in a bad visual position, and lacked strong contrast with their surroundings. A house on the top of a hill stands out sharply, but as soon as you fill the hill with other houses it no longer is the same house, for now it either blends with or contrasts strongly against its new environment. This is true of all the visual elements we observed in our shopping centers; any one is potentially important, but once it appears on the scene the realization of this potential is wholly dependent upon its relation to other factors.

The factors governing importance may be either man-made or not.

Of the first group, size, location, position, lighting, color, reflectivity, motion, and surprise were the significant ones, and in the second, time and weather were influential.

We cannot stress too often that there are no definitive levels for any of these factors and that each is a relative term. Size, for instance, may mean a small mass in one case and a large one in another. In a crowd of children an adult is distinguished, in a group of adults a child is emphasized. Location refers to the placement of an element, whereas position refers to the vantage point of the observer, and more will be said of this later. Lighting is particularly significant with respect to signs, and the neons are an outstanding example. It also governs such features as window displays, traffic signals, and enclosed arcades. The color of any element may be its hue, value, or its intensity, and with some of the trucks we recorded these conditions were influential. Parked cars, glass store-fronts, and pavements showed how reflections can impart visual significance. The factor of surprise gave importance to the slanting telephone poles in East Watertown and to the merry-go-round at Framingham.

In some cases we can recognize that a combination of these factors imparts even more emphasis, while at other times we have indicated that the combinations involved other than the visual sense.

The agents over which man has little control likewise affected visual impressions. The time of day must be reckoned with. We remained at Shoppers' World long enough one afternoon for the sun to go down and the signs to light up. Our color pictures give a completely different impression of the same scene at night from that given in the

daytime; all of the signs now read and are of undisputed importance. Likewise, time of the year will substantially alter existing elements: leaves on trees, grass or snow on the ground, and different colors of vegetation. Weather, with its changing temperatures, moisture, and lighting, means varied conditions : a rain storm brings out colored slickers; a spring day, cotton dresses; fog, more artificial lighting. The very color of the sky and its brightness profoundly affect almost any scene.

The relevance of position can be clearly shown by the following example. If we were to ask two people to make separate appraisals of the most important visual aspects in the area of Washington and Summer Streets, one would be justified in making his survey from the top floor of Jordan Marsh and the other from street level. Their conclusions would differ in many respects and yet it would be impossible to say that one was right and the other wrong. We have limited our survey to the role of the pedestrian shopper, but even with this qualification position affects our appraisals. When we approach the shopping area in East Watertown along its main axis, Mt. Auburn Street, it appears to be a small linear shopping center without particular focus. If we approach the same group of stores from the factories on Bigelow Avenue, our impression is that of a large shopping complex built around a central open space. The Amoco billboard in East Watertown points up the hill, and a viewer travelling west is likely to miss it entirely. Even the façade signs here are not impressive to a person who passes in front of them on the same side of the street, but from the other side they count heavily. In each instance the particular position of

the viewer is vital to his appraisal.

The vantage point of the viewer in relation to the position of the sun has a pronounced effect on what he sees. With the alternative of having the sun behind or in front of you, the difference is startling; in one instance you read the details and in the other the outlines of the masses are important.

Time variations are equally salient. Just as we visit shops from different origins, we also come at different times of the day and year. We have already noted the conflicting judgments at Shoppers' World between a night and a day visit. The variations in traffic patterns at rush hour are just as significant in Medford and East Watertown. In the arcade the visual change that accompanies the discharge of passengers on the subway platform is determined purely by a time factor. Our field work was begun and completed during the month of March, but now that the trees are in bloom, several of the areas have a much different appearance. To frequent shoppers in East Watertown our description neglected to mention the profusion of sidewalk displays, but an examination of our photographs shows that this is not a spring-time phenomenon.

PROGRAMS FOR DESIGN ACTION

Our study would not be complete if we did not show how these conclusions about visual elements could be translated into programs for designers. These suggestions are not made for immediate action, but

are entered here as a preliminary appraisal of worthwhile visual improvements that may be carried out in the five centers.

Shoppers' World - Increase the number of exciting elements. Close in the end of the mall. Replace some of the façade signs with larger more attractive ones. Reduce the apparent width of the mall by introducing some intermediate features that are both gay and intricate.

Washington Street - Eliminate vehicular traffic and limit the street to pedestrians. Limit the height and control the setback of any new structures. Exercise some control over the use of signs. Encourage uniformity wherever possible (Street furniture, paving, colors, etc.).

Medford - Replan central intersection for a smoother flow of traffic (possible scheme of separation of pedestrian and vehicular traffic at this point). Open up more vistas to the river in an attempt to make it part of the area. Introduce a new vertical element at the end of the line of new shops.

East Watertown - Encourage any new structure to be more than one storey. Place telephone wire underground and remove the old poles. Repaint the old facades and replace the rotten building materials.

Remove some of the signs from the stores. Plant street trees in well-defined little plots. Replace worn-out canopies with new ones fitted to building masses rather than individual stores.

Subway Arcade - Clean up the floor. Attempt to support the roof without all the present columns. Simplify the traffic patterns to channelize pedestrians. Install new lighting system in a flat hung ceiling. Eliminate the use of large paper ads in the shopping area. Install some sound-deadening devices.

ADDITIONAL STUDIES

At this stage it seems appropriate that we suggest possible directions for additional studies in the field of the visual planning of cities, studies that designers would be competent to handle. (As we stated earlier, these projects as well as our own should be supplemented by the work of other specialists applying their particular resources and disciplines.)

1. Similar studies of the same shopping areas at different times of the day and year.
2. Similar studies in the shopping centers of other cities to test for more universal visual elements.

3. Similar studies based on other land use categories
(Compare one land use type to another.)
4. Other types of visual studies using the same areas
but employing different methods and tools.
5. Surveys of the city assuming other than the role
of an adult shopper : a motorist, a child, or a
person with an outdoor occupation.
6. A study of the sequence of visual stimuli that a
city dweller experiences on a typical day.
7. Comparison of the visual effects of design pre-
sentations and the actual projects when executed.
This might lead to the development of new graphic
techniques and aid in the appraisal of contemplat-
ed schemes.

Our aim was not so much to solve problems, but rather to point out a direction, a way in which our visual world may be surveyed and analysed. The evidence that we have collected together with the appraisals we have made strongly supports our original hypothesis, namely, that the best use of time and resources will be to concentrate on the most important aspects of the city.

Not only have we begun the process of organizing our physical surroundings, but in doing so we have uncovered more problems than

appear on the surface. The variety and complexity of visual elements make the task even more difficult than we originally assumed. However, here is a project whose ultimate results will be obvious to all, and which can contribute immeasurably to relieving much of the unpleasantness of our lives and increasing the enjoyment of our environments.

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