

**THE FARM AND ART MARKET PLAZA IN WICHITA, KANSAS:  
AN EVALUATION OF A SOCIAL ENVIRONMENT AND A PROPOSAL  
FOR A MORE SOCIABLE DESIGN**

by

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A THESIS

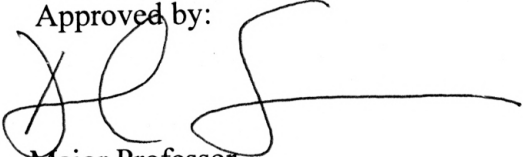
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## ABSTRACT

In this thesis, the Farm and Art Market Plaza in Wichita, Kansas, is examined for urban sociability, which is defined as the built and human qualities of a plaza that gather people for various formal and informal social activities and interactions. The “Market Plaza,” as it will be called here, is located in Wichita’s Old Town District—a downtown neighborhood of nineteenth-century warehouses which is being regenerated today through public and private mixed-use development.

The thesis examines the Farm and Art Market Plaza in terms of three levels, making use methodologically of photographs, behavioral mapping, and drawings. These three levels are: (1) The plaza itself; (2) The plaza and its immediate surroundings; and (3) The larger urban district of which the plaza is a part.

The thesis begins by analyzing the literature on plazas and urban sociability as discussed in *The Social Life of Small Urban Spaces* by William Whyte (Whyte, 1980), *The Death and Life of Great American Cities* by Jane Jacobs (Jacobs, 1961), *Responsive Environments* by Ian Bentley, Alan Alcock, Paul Murrain, Sue McGlynn and Graham Smith (Bentley et al., 1985), and *People Places* by Clare Cooper Marcus and Carolyn Francis (Marcus and Francis, 1989). Next, the thesis presents a behavioral analysis of the plaza in terms of: (1) a typical week; (2) the weekly farmers’ market held in the plaza each Saturday; and (3) the Oktoberfest, a celebration of German culture held in the plaza each fall.

Last, this thesis suggests ways to improve the sociability of Market Plaza through improved physical and social design. In this regard, the thesis gathers the findings from the literature review and from the behavioral analysis. These conclusions are used to formulate a master design that might potentially enhance the sociability of the Farm and Art Market Plaza.

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# CHAPTER 1

## INTRODUCTION

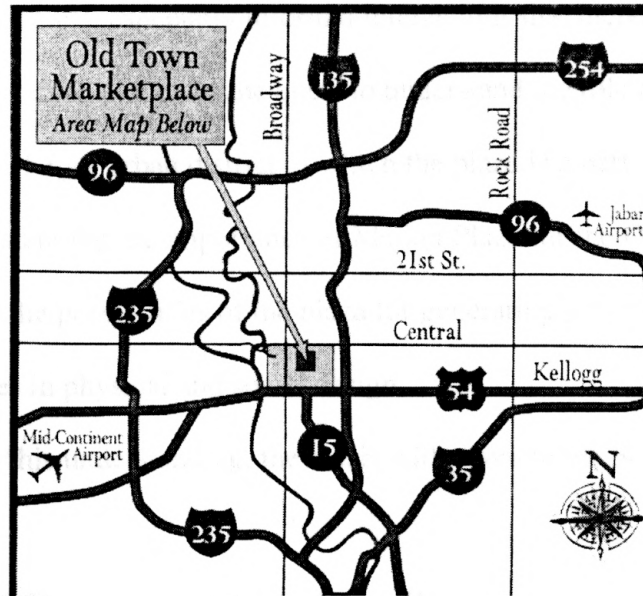
Sociability in the city often occurs in the spaces between and within buildings – i.e., public spaces where different kinds of people gather, giving character and identity to the city (William Whyte, 1980). In these public spaces there ideally should exist a sense of place and a sense of belonging. This concept of belonging deals with qualities like mood, character and atmosphere, qualities which make certain places special and worth defending (Lewis, cited in Relph, 1976) and a place where we experience the meaningful events of our lives (Relph, 1976). Considerable research has been done in the field of environmental behavior and sociability, where researchers have studied various urban environments and provided theoretical, conceptual and practical information on the use and meaning of different urban environments such as parks, streets, plazas, playgrounds and so on (e.g., Marcus and Francis 1990; William Whyte 1980; Jane Jacobs 1961).

Urban open spaces play a crucial role in people-environment interaction. These places are often the setting for collective activities, which have an overall cumulative effect on the society, in the sense that people are drawn together informally and formally. A plaza is one such area. Marcus and Francis (1990, p.12) define a plaza as a “hard surfaced, outdoor public space from which cars are excluded. Its main function is a place for strolling, sitting, eating and watching the world go by. Unlike a sidewalk, it is a place in its own right rather than a space to

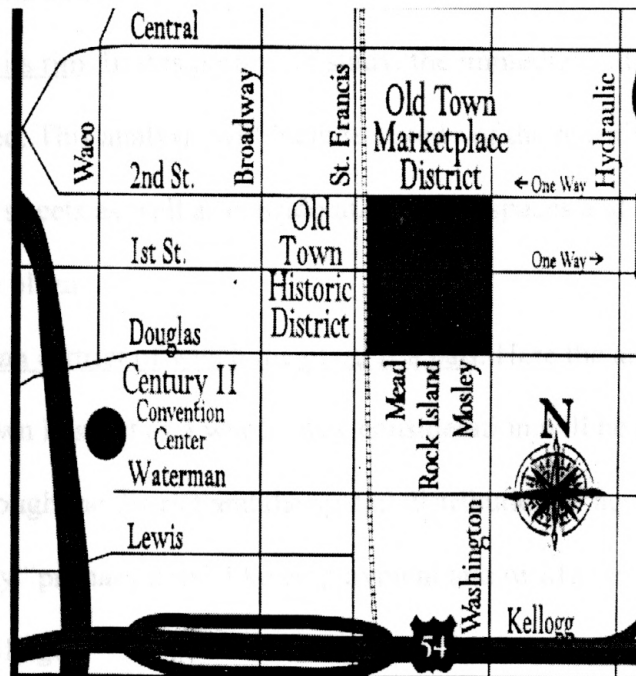
pass through”. Lynch (1981, p.443) suggests that “the plaza is intended as an activity focus at the heart of some intensive urban area”. In this sense, a plaza is capable of drawing people together for active and passive enjoyment. The variety of experiences offered by a plaza allows users to play multiple roles. People can decide whether to participate as an observer, be involved in casual conversations, or be observed by others. Thus people can manipulate different identities beyond their own usual role and this interaction enhances sociability.

This thesis examines the “Wichita Farm and Art Market Plaza,” a gathering place located in the center of the Old Town District, Wichita, for vendors to sell their wares and a place where people can have their lunch and gather in other informal ways (fig. 1.1 & 1.2). In addition this plaza serves as an area for special events such as Oktoberfest, St. Patrick’s Day, Scoops Festival, Friday Night Blues and the Mexican Fiesta. This “Market Plaza,” as it will be called here, is located in Wichita’s Old Town District--a downtown area of public and private mixed-use development created in a public--private collaboration between the City of Wichita and Marketplace Properties, a development firm working on the restoration and revitalization of the Old Town District. The buildings in this area were originally warehouses till the beginning of this century. Now, approximately seventy percent of the buildings have been renovated as new uses that include restaurants, office space, loft apartments, a hotel, and so forth.

As indicated above, the central focus of this study is urban sociability, which is the quality of the urban district that gathers people for various forms of social



**Figure 1.1: The Old Town Marketplace, Wichita, Kansas – Location Plan (Source: ‘The Old Town Market’ Newsletter)**



**Figure 1.2: The Old Town Marketplace bounded by Washington Street, 2<sup>nd</sup> Street, the Santa Fe Railroad tracks and Douglas Street (Source: ‘The Old Town Market’ Newsletter)**

activities and contacts, especially informal interactions that increase the everyday liveliness of the urban place. In the quest to understand the role of the plaza in the urban life of the larger urban district of which the plaza is a part, this thesis will focus on understanding the importance of Market Plaza for the Old Town District of Wichita and the possibilities of the plaza for generating greater sociability through changes in physical and social design.

To accomplish this understanding, the thesis will examine the plaza in terms of three levels:

1. The plaza itself. This portion of the analysis will consider issues such as plaza sitting, pedestrian flows, range of activities, presence of food, aesthetics of the plaza design, and so forth.
2. The plaza and its rim. In this portion of study, the immediate edge of the plaza will be assessed. This analysis will include a study of the plaza's relationship to sidewalks and streets as well as consideration of the spaces and uses immediately adjacent to the plaza.
3. The larger urban district of which the plaza is a part. Here the analysis will focus on the Old Town District as a whole. Key consideration will be pedestrian and auto flows through the district and the spatial distribution of activities and land uses, especially "primary uses" like employment and residences to which users must necessarily go.

Once this analysis of the plaza and its district is completed, the thesis will next attempt to suggest ways to strengthen the plaza's sociability of Market Plaza. In this



regard, the thesis will bring together the findings from the literature study and the empirical analysis of the Market Plaza. The research findings will be utilized to formulate design and policy guidelines to generate a modified master design that will potentially enhance the sociability of the plaza and its larger district.

## **Historical and Geographical Background**

Wichita's Old Town District is bound by Douglas Street on the south, Washington Street on the east, Second Street on the north and a railroad overpass on the west (see fig. 1.2 & 1.3). A century ago, the area east of downtown Wichita was alive with businesses that had clustered around the railroad tracks. By the mid 1900s, however, the core of the city had started to deteriorate, a process that continued until the late 1980s when a movement started by Wichita architects Rich Vliet and David Burk began to bring life back to the historic area. This area today includes approximately 660,000 square feet of interior space, located in sixty buildings on thirty-three acres.

Today, as fig.1.3 illustrates, the Old Town District includes businesses large and small, old and new that continue to feed the district's growth. These activities include restaurants, retail shops, businesses and residential buildings. The brick structures that comprise the Old Town District reflect the rich past of Wichita and showcase a revitalization that includes a mixed-use development between the City of Wichita and private developers in this area. The purpose of this development is to create "Old Brick Town," which eventually will be a mixed-use redevelopment that

# OLD TOWN MARKETPLACE

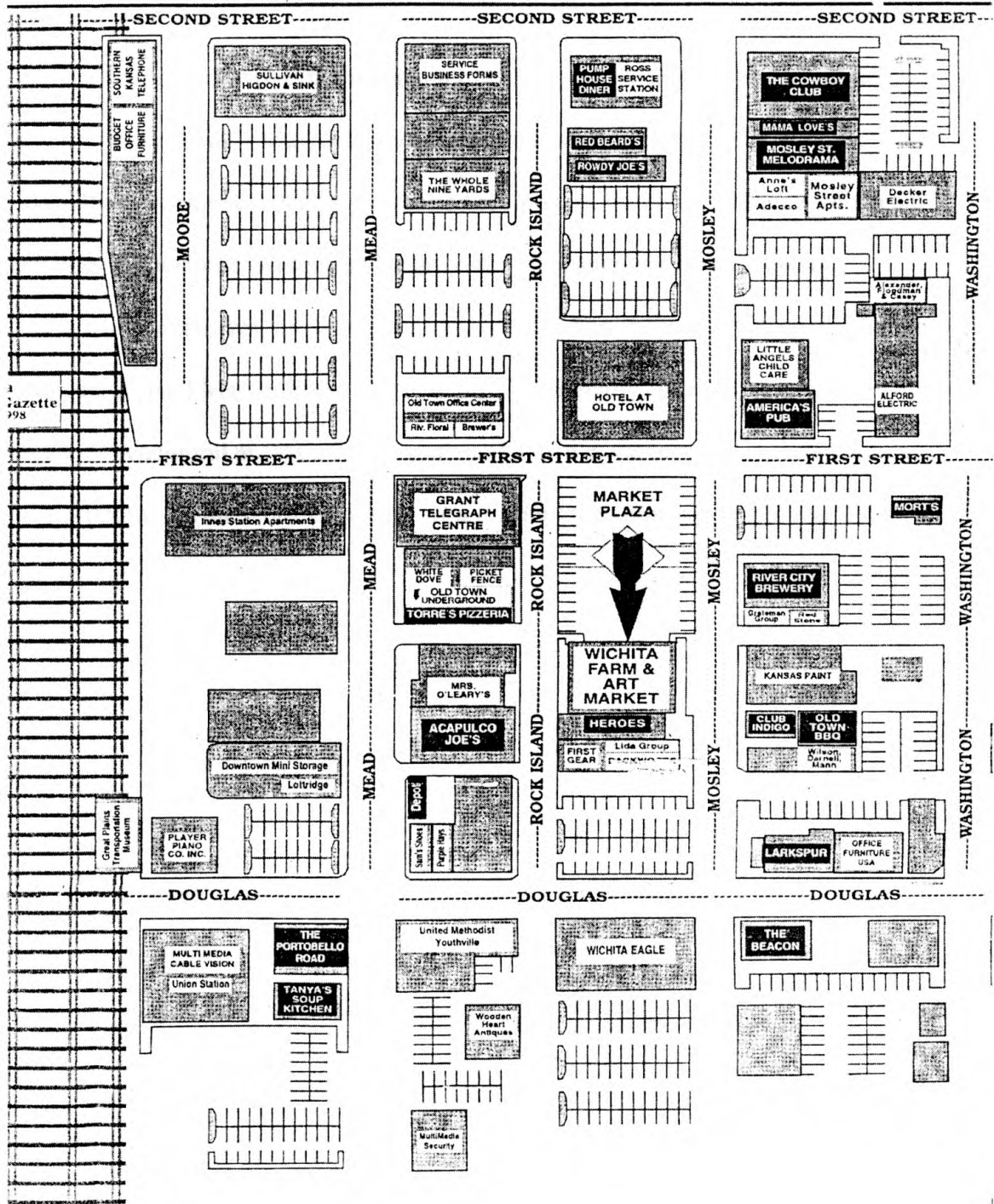


Figure 1.3: The Old Town Map (Source: The Wichita Old Town Gazette)

contains restaurants, a public market, office space, loft apartments, a banquet hall and specialty retail shops.

As explained above, the main aim of the thesis is to analyze the sociability present in this district's Market Plaza and then propose ways to strengthen this sociability. To achieve this aim, the thesis first looks at the research literature already available on sociability and plaza design. After a presentation of this research literature in chapter two, the thesis then presents in chapter three a history of Wichita and an analysis of Market Plaza as it is today. In following chapters, the thesis presents a behavioral analysis of the Market and then considers design implications and a proposal for the redesign of the plaza to strengthen it as a place of sociability.

## CHAPTER 2

### LITERATURE REVIEW

This chapter reviews the research and design literature relating to the conceptual basis for sociability in urban spaces. Research material available on the people-environment relationship at the urban scale extends from the study of the psychological aspects of spatial behavior to research on the environmental design of public spaces. Most of these studies, such as Jan Gehl's *Life Between Buildings-using Public Space* (Gehl, 1987) and *Public Places and Spaces* edited by Altman and Zube (1989) stress psychological aspects of urban human behavior and consider the effects of individual and cultural differences on environmental perception and ways to determine limiting factors of urban environmental comfort or stress.

Other relevant research—for example, *Plazas for People* by Don C. Miles (1978)—deals with governmental regulation and economic considerations along with a few design guidelines. Similarly, creative zoning methods for urban design projects are included in *How to Save Your Own Street* by Raquel Ramati (1981). This book includes insights into urban life and provides suggestions on practical zoning and techniques to improve the physical quality of cities. The book also includes inventive ways to achieve not only better aesthetics in architecture but also to provide public amenities for new development. Yet again, *City Square* by Michael Webb (1989), explores the ways people have shaped squares and used them. Similarly, *Life for Dead Spaces* by Wolf Von Eckardt (1987) deals with empty spaces between buildings and approaches for converting them into useful and pleasing areas.

In addition, aspects of zoning, funding, governmental regulations and policies are important when designing public spaces. But information on these regulations is useful only if the space is successful in attracting people, which in turn relates to issues of design. Practical sources for design guidelines at different urban scales are included in *The Death and Life of Great American Cities* by Jane Jacobs (1961), *Responsive Environment* by Ian Bentley, Alan Alcock, Paul Murrain, Sue McGlynn and Graham Smith (1985), *The Social Life of Small Urban Spaces* by William Whyte (1980), and *People Places* by Clare Cooper Marcus and Carolyn Francis (1989). These four books will be discussed in detail in this literature review because they form the basis for the analysis and redesign of the Farm and Art Market Plaza in this thesis. This review is presented by the environmental scale, beginning with issues relating to the plaza's larger surroundings as discussed by Jane Jacobs and Ian Bentley and others and then proceeding to the immediate surrounding of the plaza—its rim—and, last, to the design of the plaza itself, as discussed by William Whyte and Clare Cooper Marcus and Carolyn Francis.

### **The Death and Life of Great American Cities ( 1961)**

*The Death and Life of Great American Cities* by Jane Jacobs (1961) throws light on the ordinary aspects that make a city, based on the author's personal experience. Jacobs provides a critical outlook on conventional city planning and rebuilding principles by examining ordinary events taking place in cities. Jacobs identifies one principal thread that reflects this vitality—"the need of cities for a most intricate and close-grained diversity of uses" (p. 14), which should constantly support each other economically and

socially. Jacobs argues that some urban areas are a failure because they lack this mutually supporting diversity.

Jacobs begins by analyzing streets and sidewalks, which she describes as the most 'vital organs' of the city. A city is free from violence and fear if the streets are free from violence and fear. Hence if the city is to be safe, the streets, the sidewalks, the bordering uses and the users will more than likely be safe. According to Jacobs, it is not the police who first of all keep the cities safe; rather it is the people who keep them safe. Thus, a well-used street, is a safe street and an unused, deserted one has a possibility of being unsafe. Also 'eyes on streets' belonging to 'natural proprietors' of the streets like shoppers and residents should be present to ensure safety. The best way to ensure street use and safety is to include retail and other public uses on these streets.

Neighborhood parks, plazas or streets also depend on one key principle – diversity—a variety of uses, functions, building types, and users. A mixture of such uses and users at the plaza's rim, says Jacobs, provide people who will potentially leave and enter a plaza at different times. Further, for the success of such plazas, Jacobs proposes four basic design elements: *intricacy*, *centering*, *sun* and *enclosure*.

Intricacy refers to the elaborateness of the plaza design in creating curiosity to discover the space, which encourages people to come to the plaza—to read, to meet or just to watch. The next element, centering, is the need for a focal point in the space to attract the attention of people in the space. Sun is another important factor necessary to attract people on cooler days and shade in summers, depending on the situation. The last element, enclosure, defining the extent of clear plaza boundary, can contribute a sense of security and place identity.

According to Jacobs, it is essential to look at an urban space in its totality rather than in isolation. It is not designing of a particular space with respect to landscaping and other design elements that is necessary to make an urban space successful but it is the site considered and space around it which is also important. As mentioned earlier, *diversity* is the key word here. Diversity can be achieved only if there is a sufficient mixture of uses and users. Jacobs identifies four conditions that would contribute to diversity—presence of more than one primary function, small sized blocks, mixture of old and contemporary buildings and dense concentrations of people.

Mixed uses include *primary* and *secondary* uses. Primary uses are those to which users are drawn—for example, offices, factories, residences and educational institutions. *Secondary* uses arise with the support of the primary uses and include other functions as restaurants, bars and shops. Jacobs' second condition is the presence of small blocks, which increases the number of streets and hence junctions. Small blocks offer alternative routes, reducing monotony and routinely used paths. The scale of the blocks brings out personal safety and security in the people using them. This ensures the presence of people on the streets and opportunity and feasible locations for commercial spots.

Third, Jacobs recommends diversity in the age and types of buildings in a district. These different buildings allow businesses with lower profit margins in the buildings that are older and have lower rent and the more expensive newer establishments for uses with a higher profit margin. Jacobs' fourth condition relates to sustenance of high densities of people in urban districts. Thus, Jacobs emphasizes primary uses that draw people into a district whereas, density keeps people within the district. Jacobs contends that high densities of people play an important role in the sociability of urban spaces.

## **Responsive Environments (1985)**

*Responsive Environments* provides practical details in regard to urban design (Bentley et al, 1985). It is written by five British designers: Ian Bentley, Alan Alcock, Paul Murrain, Sue McGlynn and Graham Smith. The main aim of this book is to find out why modern architecture and urban design is often “inhuman and repressive” (ibid., p. 9). The authors suggest practical ways to allow users to respond positively to their built environment—in other words, to provide them with “an essentially democratic setting, enriching their opportunities by maximizing the degree of choice available to them” (ibid.). Such places of human and functional variety are termed “responsive”. For this purpose, seven design qualities that will increase the degree of choice people have in regard to their environments are identified and discussed. These qualities are:

1. *Permeability*, which is one of the most important qualities in designing an urban district because places that are accessible offer users a choice in terms of potential pathways and routes. Permeability is of no use unless the users are physically and visually aware of the choices offered—the access points and destinations. This relates to block size. Small blocks increase pathway choice and thus increase physical permeability. Also in smaller blocks it is easier to see from one junction to another, thus increasing visual permeability.
2. *Variety* includes a mixture of uses, building types, and activities. In modern urban design, developers and planners are too often interested in the economic performance and efficiency of an urban place. They want zones that are specialized with single uses and thus easy to manage. This has a detrimental effect due to lack of variety. Important factors that affect the variety of uses a place can support are the demand or the range of



activities located there and affordable space to house these activities to increase a positive interaction. These varied uses should support each other. This means there should be a positive interaction between Jane Jacobs' primary and secondary uses. Primary uses, as explained above in the discussion on Jacobs, are the magnets that attract the bulk of the users and secondary uses depend on these to attract people.

3. *Legibility* relates to how easily the environment can be read by the user—how easily it is to grasp the place in the mind. The spatial layout as well as the uses offered should be easily read. For a richer level of experience, the physical form and activity patterns should complement each other.

4. *Robustness* refers to qualities of a place that can be used for a variety of purposes.

For public spaces, the authors of *Responsive Environments* believe that the design of the edge of the space is important to gain the quality of robustness. Active building fronts support pedestrian use against the inhibiting affects of vehicular traffic and create a pleasant microclimate. The location of many entrances along this edge may increase the activity level. Even if some shops along the edge do not contribute to public life, watching the activity that goes on within and around the entrances adds interest to the street.

5. *Visual Appropriateness* deals with shaping the visual appearance of

the place so that the user can correctly interpret the place. This is an important quality because people from different backgrounds will interpret a place differently. The relationship of the built space or object to its context supports variety and robustness. The first step in achieving this quality is to design the publicly visible surfaces so they will communicate the projects' legibility, variety and robustness to a wide range of

users. When people positively interpret a place, it helps to strengthen the responsiveness at three other levels – legibility in terms of form and use, variety, and robustness. Also a building should reflect the internal use of the building. Thus, to check for visual appropriateness, architectural elements like vertical rhythms, horizontal rhythms, skylines, wall details, window and door details should be carefully considered and related to functional use.

6. *Richness* deals with the ways to increase the sensual experiences of the users. It is not only concerned with sight but also with motion, smell, hearing and touch. Most of the built environment is fixed. Additions and modifications to the built environment should be designed to give people choices of sense experiences. Visual richness comes as a result of providing visual contrasts, which in turn depend on orientation, varying viewing positions, and length of viewing time.

7. *Personalization* relates to the quality of a place that allows users to shape their own environmental identity. Personalization can be realized through architectural elements such as façade treatment, window sills, flower beds and so forth which allow the place or person to express their individual identities.

### **The Social Life of Small Urban Spaces (1980)**

This book by William Whyte describes the reasons for the success or failure of urban spaces, especially plazas. It is one of the most important studies done on the topic of “sociability” of urban open spaces. According to Whyte, the best-used plazas are sociable places—places for people to meet other people, converse, eat, and exchange ideas and so forth. He believes that a good plaza design can contribute to the lifestyle of

its users. Zoning is not an ideal way to achieve sociability. Location is what matters. Plazas should be sited near office blocks and commercial centers where the possibility of people visiting the plaza is high. Research carried out by Whyte showed that plazas with the highest use were the most sociable places with a higher proportion of women, couples, small groups and young office workers from nearby areas. These places also attracted more individuals because such lively places seemed the best place to be in when alone.

Whyte found a rhythm in plaza activity with respect to daily and weekly use. Whyte suggests that much plaza activity follows a regular pattern, usually increasing during the peak hours and varying according to weather and seasons. He also observed a consistency in the distribution of people. Men typically chose the front rows where they could watch and be watched. Women typically preferred the more secluded spots. According to Whyte, most activities happen right in the center of the plaza. People have more choices and can continue conversing and discontinue when they want to when attention is drawn to activities within the plaza.

People were observed to be consistent in their use of plazas. Of the plazas that Whyte observed, most had similar characteristics but some were used more than others. One important factor that made plazas successful was the street-plaza relationship. The key space for the plaza is the street and its pedestrian traffic. Another major factor in the success of plazas was the effect of seating patterns on the behavior of plaza users and the way they responded to the various choices. Yet again, sight lines were another important factor. Excellent sight lines make virtually all the seating effective for watching the “theater” of the street. Hence comfort of vision and comfort of feel are important. Sunken

plazas do not typically work well because they are separated from the street. The easier the flow between the street and the plaza, the more likely people are to move between the two.

### **People Places (1984)**

Clare Cooper Marcus and Carolyn Francis, in *People Places* (Marcus and Francis, 1984), define urban plazas as “predominantly hard surfaced outdoor space in a downtown area” which are often, “privately owned and managed but generally accessible to the public” (Marcus and Francis, p. 4) and from which traffic is excluded. The main function of these spaces is strolling, sitting, eating and watching the world go by. The authors draw a comparison of the modern American plaza with the older European piazza. The authors argue that the modern plaza has a limited use compared to the old piazzas because “part of the attraction is that the heart of many European cities is dedicated to pedestrian movement” (ibid., p. 9). Although strolling, promenading, outdoor cafes are not part of the American culture, the authors emphasize that nowadays more and more Americans are using outdoor space for recreating, including downtown urban spaces.

The authors also identify the different types of plazas that can transform an empty space into a stage of activity. These plaza types include:

1. *The street plaza, which is* “A street plaza is a small portion of public open space immediately adjacent to the sidewalk and closely connected to the street” (ibid., p. 15). This plaza type may be in the form of a seating edge, widened sidewalk, bus-waiting place, the corner sun pockets or an arcade plaza.
2. *The corporate foyer*, which is usually privately owned but is accessible to the public

and “is part of a new, generally high-rise building complex.” Its main function “ is to provide an elegant entry and image” (ibid., p. 16). Such foyers could take the form of an impressive forecourt, decorative entry, or stage set.

3. *The urban oasis*, which is a space often heavily planted to give a park like image and set aside from the noise of the downtown in a secluded area. Popular for lunchtime eating, it takes the form of an outdoor lunch plaza, garden oasis or roof garden.

4. *The transit foyer*, which is a type of plaza created for easy access in and out of heavily used public transit terminals. This is a space, which has the subway entry place, the bus terminal and other points of circulation exchange and interaction.

5. *The grand public place*, which is like an Italian piazza or an old town square. It is located in a diverse-use zone and attracts people from greater distances and in greater variety (by age, gender, and ethnicity). Such a place is often big and flexible enough for outdoor cafes, occasional concerts, art shows, exhibits and rallies. Usually considered the heart of the city, this kind of urban space may take the form of the city plaza or a city square.

Thus, the researched literature available on sociability and plaza design emphasizes the need for mixed uses in the district around the plaza, active building fronts to support pedestrian use, and, with regard to the plaza itself, emphasizes the location of the plaza along with the subspaces within the plaza to encourage their use, and the presence of seating, planting and food. Having reviewed the literature on plazas, the researcher, in the following chapter, presents the historic background of Wichita and the physical setting of the plaza and its surroundings as they are today.

## CHAPTER 3

### HISTORY OF WICHITA AND THE FARM AND ART MARKET PLAZA

Having reviewed literature on plaza design, the researcher now discusses the history of Wichita, Kansas, and then presents a physical description of the Farm and Art Market Plaza as it is today. Every place has a history—a result of age and the events that took place there. For every new design, it helps to understand the history of the place both at the smaller, more immediate scale and at a wider, more contextual scale. This chapter therefore delves into the history of Wichita at two levels – the broader aspect dealing with the growth of the city as a whole and the site of the Farm and Art Market Plaza.

#### **The Growth of the City**

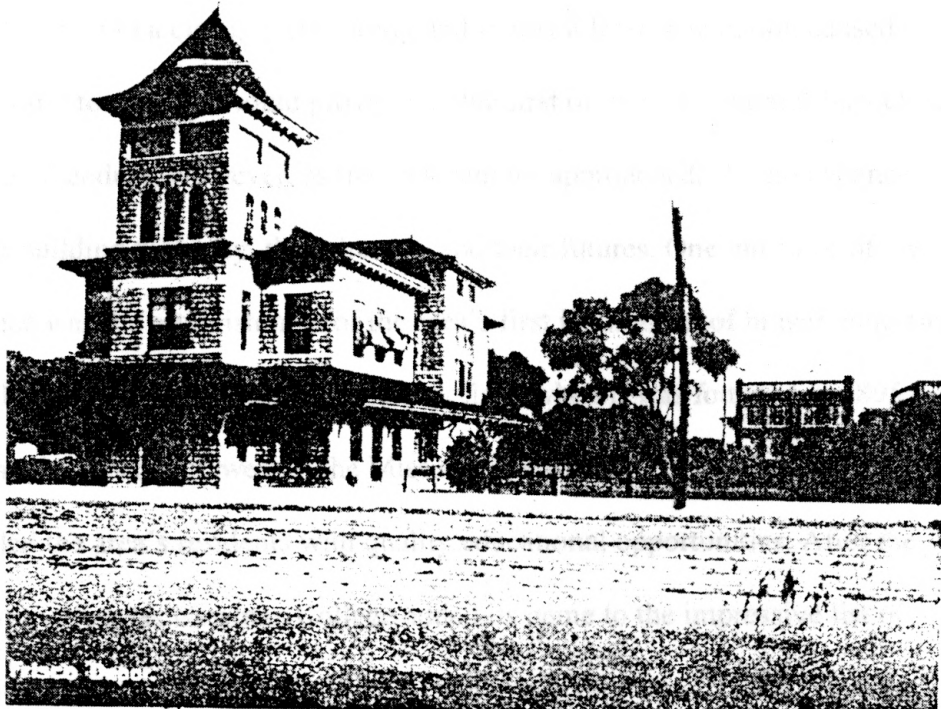
For centuries, Native American tribes roamed the Kansas Plains hunting buffaloes. After a hunt, many tribes rested in the area where the two rivers, the Arkansas and the Little Arkansas, meet, and some established temporary camps for the summer. Later, James Richard Mead was one of the pioneers to come to Wichita, then still a rich hunting ground. In 1850's, he built a large commercial hunting and trading business in eastern Kansas through merchant and banking contacts. In 1863, Mead established a trading post on the banks of the Arkansas River, and eventually this site would become the city of Wichita (Craig Miner, 1988).

The topography of this area was marked by the two rivers of Arkansas and Little Arkansas, which formed a sloping valley in the center of the territory that would later

become Kansas. There were hills to the east and vast plains to the west and north. Despite the formidable challenges of the physical environment, Mead and a few other pioneers started work to make a community, and within a year, the first church and school were organized. In 1870, Wichita – named after the Wichita Indian tribe – was formed as a city. Two years later, Colonel Marsh Murdock founded *The Wichita Eagle*, the state’s largest newspaper.

Spurred by the influx of cowboys driving hundreds of thousands of cattle from Texas north along the Chisholm Trail, early Wichita was a primitive cowtown where Wyatt Earp, William “Buffalo Bill” Cody, and Bat Masterson enforced their own brand of law and order. By the 1870’s, however, Wichita began to transform itself into the commercial center of Kansas. The decade brought electricity to the homes in the city’s Riverside neighborhood and the first electric trolleys to the bustling downtown streets. Successful businessmen built expensive two-and three-story homes in the Riverside and Midtown neighborhoods (R. M. Dick Long, 1969).

The network of railroads that was built in Wichita brought prosperity, with business increasing considerably. The first railroad joining Newton and Wichita was laid in 1871. Traders from as far as Texas would come to Wichita, as they could travel North to Newton from Wichita for more trade. Newton farmers, in turn, sought this opportunity to help sell their produce to places as far as Wichita. A second railroad to Wichita opened on May 20, 1880 and linked the city with St. Louis. The main depot of this railroad, the Frisco Depot, illustrated in figure 3.1, was located on the southwest corner of Mosley Street (adjacent to the eastern edge of the Farm and Art Market Plaza) and Douglas



**Figure 3.1: Wichita's Frisco Railroad Depot, located on the southwest  
Corner of Mosley and Douglas Streets**



Street, the spine of downtown Wichita. Much later the depot was demolished, and the Eagle-Beacon Building now occupies the site (Kay Kirkman, 1981).

During the 1880s, speculators from as far away as England were buying land in Wichita based on reports of the city's explosive growth, and it was not long before Wichita trailed only New York and Kansas City in numbers of real estate transactions. But as the 1880s came to a close, overbuilding and rampant land speculation caused Wichita's economy to crash. It would prove to be the first of many boom-and-bust cycles that the city would endure. However, as the new century approached, Wichitans once again set about building their city, their dreams, and their futures. One indicator of the city's resurgence was the establishment of the area's first institutions of higher education. Wichita State University – originally Fairmont College when it was founded in 1895 – was the first municipal college west of the Mississippi River. Friends University founded in 1896 provided the area's residents with quality educational opportunities. After the turn of the century, Kansas Newman College added its name to the impressive list of academic institutions in the city (Craig Miner, 1988).

Wichita's long aviation heritage began in the 1910s when air industry pioneers Clyde Cessna, Lloyd Stearman, and Walter Beech began manufacturing airplanes. Since that time, Wichita and aviation have been synonymous. The manufacture of commercial aircraft became important in the United States in the early 1900s. Just before the Great Depression, Wichita had sixteen companies producing one-fourth of all the nation's commercial airplanes. World War II especially brought another expansion to Wichita's aircraft manufacturing industry. Today, leading aviation employers in the Wichita area include Boeing, Cessna Aircraft, Beech Aircraft Company, and Learjet.

But it was not only aviation that established Wichita as a center of industry; many other Wichita businesses have also made their mark including the Coleman Company, which, since 1914, has manufactured lanterns and camping and outdoor recreational equipment. Also, in 1921, two enterprising Wichitans established the prototype for quick-service restaurants when they launched the White Castle hamburger chain in the city. Nearly forty years later, in 1958, Frank and Dan Carney established their first Pizza Hut, a company that is now internationally known. This company still maintains its international headquarters in Wichita.

A strong economy has contributed to the rise of several other local companies such as Chance Manufacturing, the nation's largest designer and manufacturer of amusement rides; Koch Industries, the nation's second largest privately held company, with oil and gas holdings throughout the world; and Sheplers, the world's largest Western wear store. In the area of financial services, Wichita's Fourth Financial Corporation, with large holdings in Kansas and Oklahoma, is one of the Midwest's largest bank holding companies.

In the 1990 census, the population of Wichita surpassed the 300,000 mark, while the population for the metropolitan area reached half a million. Wichita is now the largest city between Kansas City and Denver (Craig Miner, 1988).

### **Recreation Facilities in Wichita**

After World War II, Wichita was a city trying to improve in services and cultural amenities for a population attracted by the city's business and trade. Recreation was given prime importance among other amenities. Recreation meant a greater load on the

park system and demand for improved facilities. Several large tracts of land were purchased by the city for this purpose in the 1940s. Legislation was laid for these areas—for example, was a park speed limit of six miles per hour, no bills could be posted, and gambling was prohibited (R. M. Dick Long, 1969).

It was not enough that these areas of open land simply exist. Efforts to beautify and make parks more useful began. City parks were becoming increasingly diversified, striving to meet urbanite needs. A zoo at the Riverside Park was established in 1949. Commercial parks were developed, the most notable was Wonderland, started in November 1945 and noted for its huge roller coaster. Urban Renewal, a concept begun by federal housing legislation in 1949, came to Wichita in 1958 and provided federally funded urban revitalization. During the height of its influence, in 1960s, the Urban Renewal Agency was utilized by the city to accomplish a perennial local goal—to create a larger auditorium and convention center (Craig Miner, 1988).

### **The Old Town District and the Farm and Art Market Plaza Today**

The researcher next presents a description of the Market Plaza and the Old Town District in which the plaza is located. This Old Town District has a combination of traditional warehouses and industrial buildings that convey a sense of the historic character of the warehousing and commercial activities that have been a part of the transportation and wholesale of goods in Wichita for the past one hundred years. Most of the district's buildings had loading docks for handling goods, which are present even today. Virtually all buildings had brick facades aligned to the sidewalk edge. Building ornamentation was almost always modest and appeared in a variety of forms, from

stamped metal cornices to inlaid brick patterns to carved wood and terracotta details. While variations in scale and building period were reflected in details of the individual building designs, an overall sense of visual continuity existed. (City of Wichita, Kansas, 1998). Today, most of these old warehouses are still present in the district and thus help to maintain the character of the district as it existed in the nineteenth century. Though many building exteriors have been carefully preserved, the interiors have been regularly renovated and uses modified to suit present-day needs. Figure 3.2 illustrates a portion of the district as it surrounds the Market Plaza.

We next turn to the Farm and Art Market Plaza, which is located centrally in the Old Town District. A warehouse originally occupied the site of the plaza but it was eventually declared structurally unsound and demolished in the 1960s. From then on until the construction of the present plaza in 1989, this lot was used as a parking lot. For the analysis and redesign of the plaza (which follows in chapters 4—9), it is important to provide a clear picture of the Farm and Art Market Building and its surrounding. In the next section, therefore, the researcher describes the plaza physically at three levels: (1) the plaza itself; (2) the immediate surroundings of the plaza or the rim and; (3) the surroundings. Each of these topics is covered in turn.

#### (1) The Plaza Itself

Figure 3.3 provides a detailed plan of the Farm and Art Market Plaza, which measures 240' X 140' in plan. . It has very few landscape features and furniture. As illustrated in figure 3.4, there is no provision of seating in the plaza. As shown in figures 3.3 and 3.4 trees are present in two rows of three groups each. Figures 3.3 and 3.4 also



Figure 3.2: View of Plaza and District Surroundings



Figure 3.4: Street Furniture in Farm and Art Market Plaza

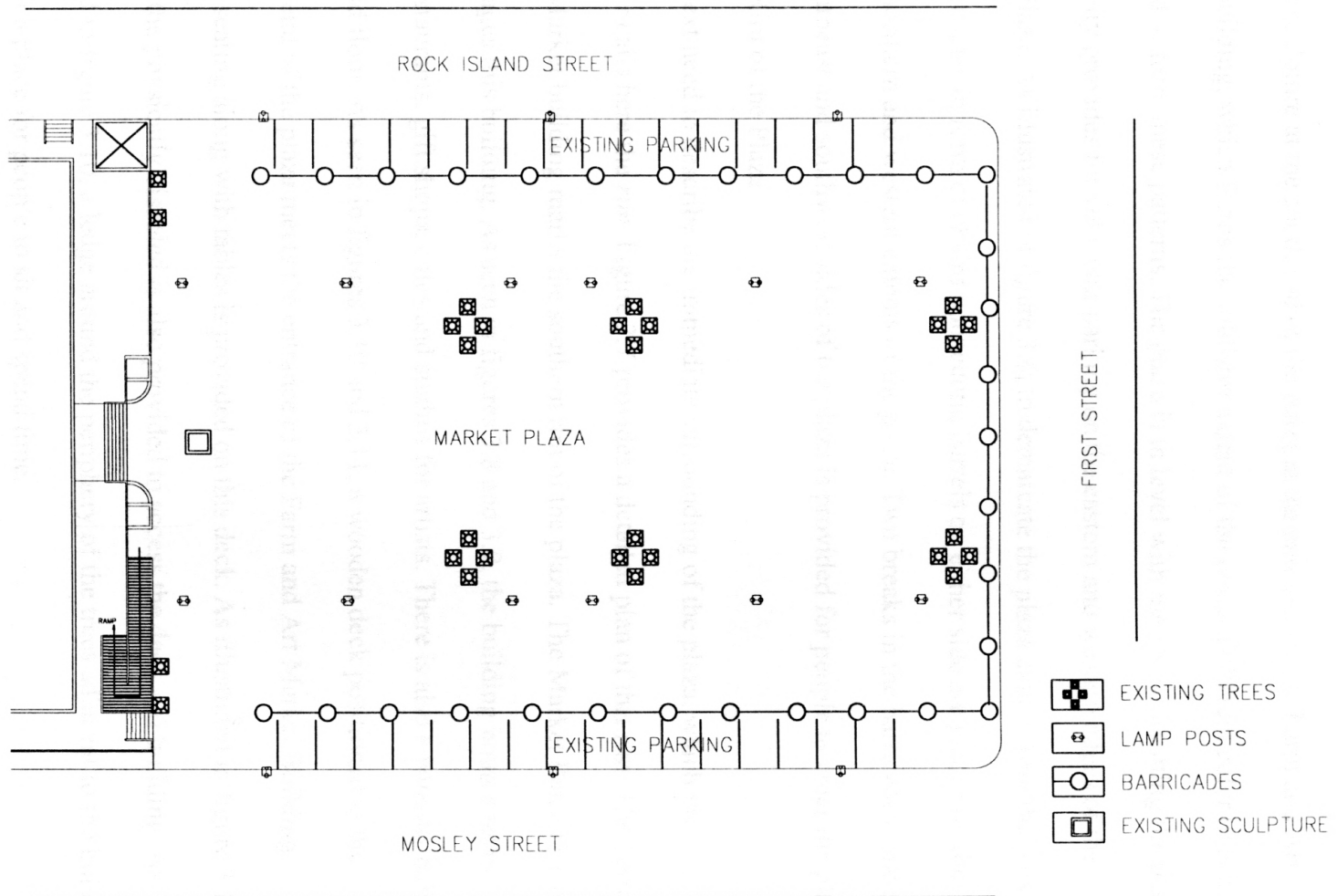
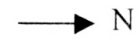


Figure 3.3: Detailed Plan of Existing Farm and Art Market Plaza



show lampposts that are provided at intervals parallel to these trees. Seen also in figure 3.4 is the floor tiling of the plaza, which forms a grid pattern. As illustrated in figure 3.5, there is a sculpture at the south end of the plaza at the entrance of the Farm and Art Market building, which forms the southern extent of the plaza. Different color tiles have been used to form these patterns. The plaza is in level with the streets abutting the plaza.

The city provides for vehicular parking on the eastern and western edges of the Market Plaza. As illustrated in figure 3.6, to demarcate the plaza extent from the parking area, barricades in form of chains connecting barrels on either side are placed on the eastern, northern and western extents of the plaza. Two breaks in the barricades, one each at the southeast and southwest sides of the plaza is provided for people to enter the plaza.

## (2) The Rim of the Plaza

We next need to describe the immediate surrounding of the plaza, which the researcher calls here the *rim*. Figure 3.7 provides a detailed plan of this rim. The Farm and Art Market building marks the southern rim of the plaza. The Market Place Property Inc. manages this building. As seen in figures 3.8 and 3.9, the building houses retail shops, restaurants, gift shops, cafes and studios for artists. There is also a banquet hall on the second floor. As seen in figures 3.10 and 3.11, a wooden deck positioned at the southern end of the plaza meets the entrance of the Farm and Art Market Building. Movable seating along with tables is provided on this deck. As illustrated in figure 3.10, a ramp for the physically disabled is also provided to access the deck and building. As illustrated in figure 3.10, a ledge around the periphery of the trees adjacent to the building allows for a place for people to sit and spend time.



Figure 3.5: "Mother and Child Sculpture" in Farm and Art Market Plaza

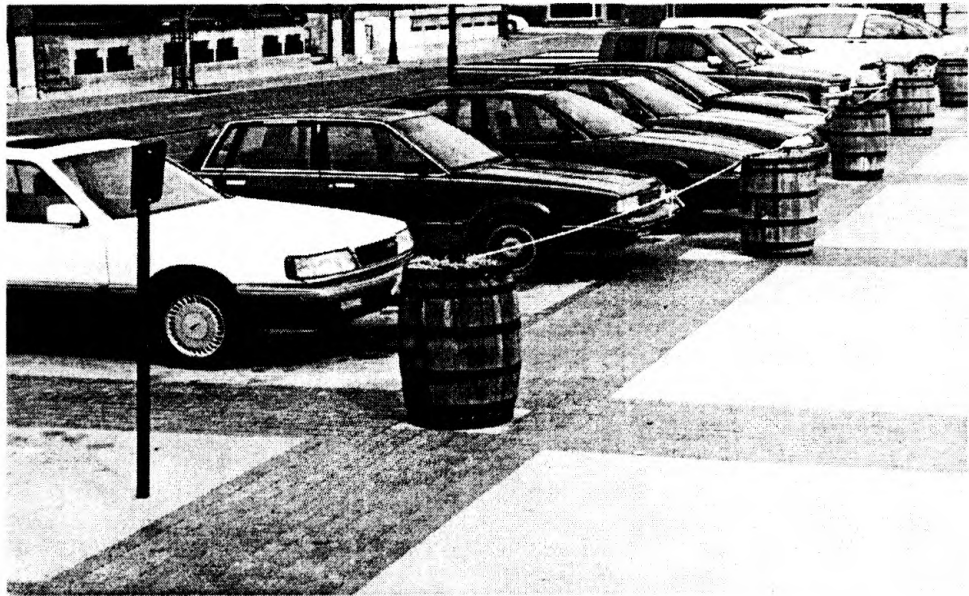


Figure 3.6: Vehicular Barricade Present in Farm and Art Market Plaza



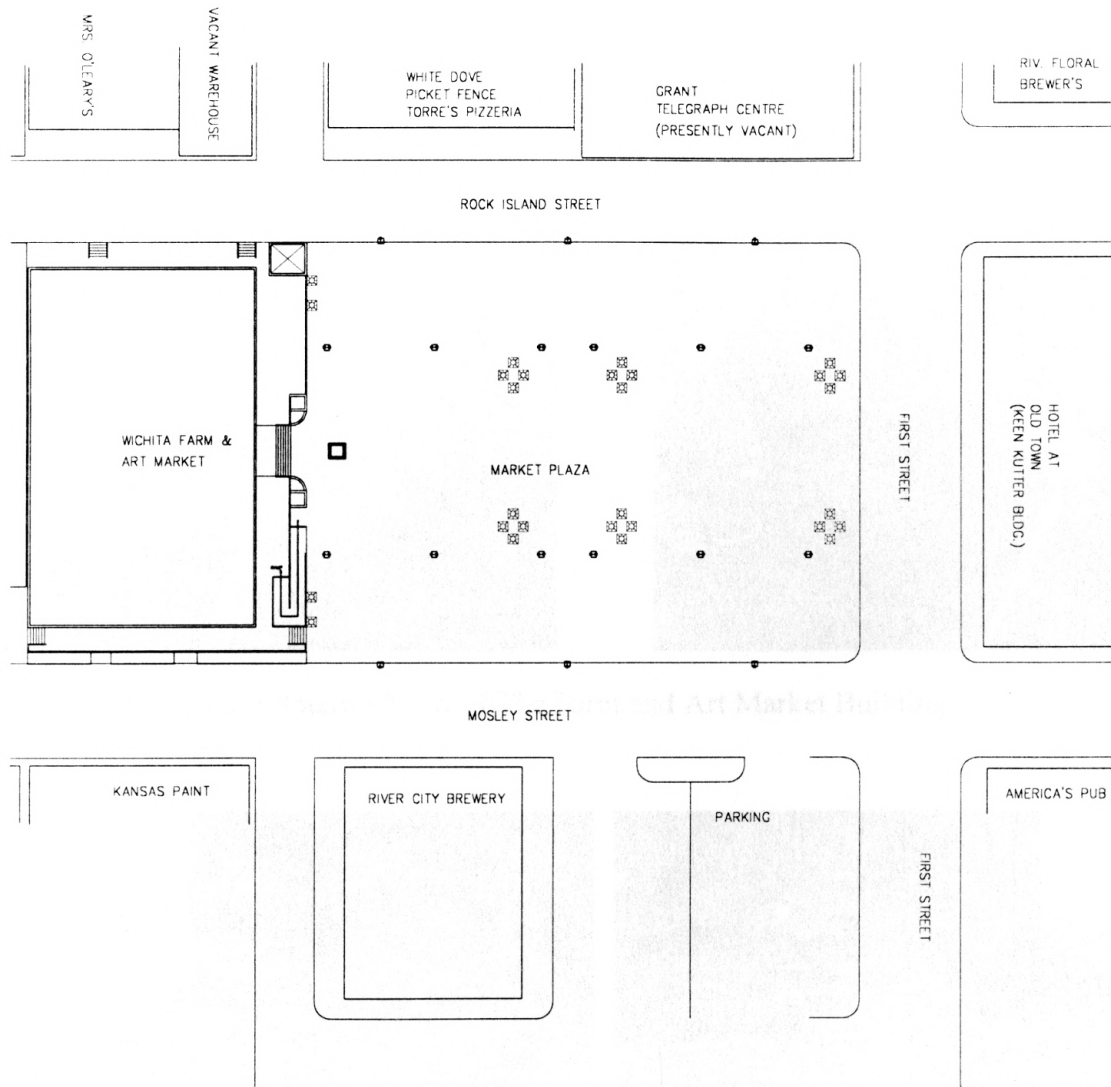
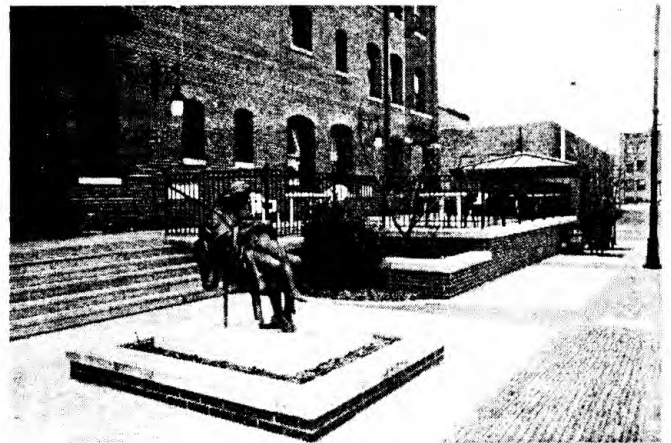


Figure 3.7: Plan of Farm and Art Market Plaza's Rim





Figure 3.8 & 3.9: Interior View of The Farm and Art Market Building



Figures 3.10 & 3.11: The Wooden Deck and Ramp Positioned at the South End of the Plaza Meeting the Entrance of Farm and Art Market Plaza

As illustrated in figures 3.12 and 3.13, on the eastern rim of the plaza lies Mosley Street, which is surfaced with bricks. This street joins First Street to Douglas Street, the spine of downtown Wichita. There is very little traffic on this street, and hence it is used more as a pedestrian pathway. As illustrated in figure 3.14, adjoining Mosley Street is River City Brewery of which the ground floor forms a perimeter colonnade which can be used for seating. The deck on the upper floor of the building is open to the public in the evenings and shelters the colonnade. As illustrated in figure 3.7, adjacent to River City Brewery, to the northeast of the plaza, lies a parking lot which provides for free parking in the whole of the downtown area.

As illustrated in figure 3.7, on the northern rim of the plaza lies First Street, which is a one way street with fast moving traffic going west to east. Though a narrow street of about 25 feet, First Street is busy with traffic nearly all times of the day. As illustrated in figure 3.15, adjoining First Street is the Keen Kutter building. With its distinctive 40-foot cupola, round windows and massive presence, the Keen Kutter building has been a major part of Wichita's skyline for more than nine decades. This four-story building, completed in 1906, was an ornamental showpiece in a sea of more mundane buildings. It boasted the most floor space of any building in Wichita until the early 1930's with 80,000 square feet and a sprinkler system that included a 20,000- gallon water tank located 20 feet above the sprinklers and hidden in the cupola. In 1997, the Wichita Historic Preservation Board nominated this building for the Wichita Register of Historic Places because members feared that the building would soon collapse. The preservation board approved a



Figure 3.12: North End of Mosley Street



Figure 3.13: South End of Mosley Street



Figure 3.14: River City Brewery Adjoining Mosley Street

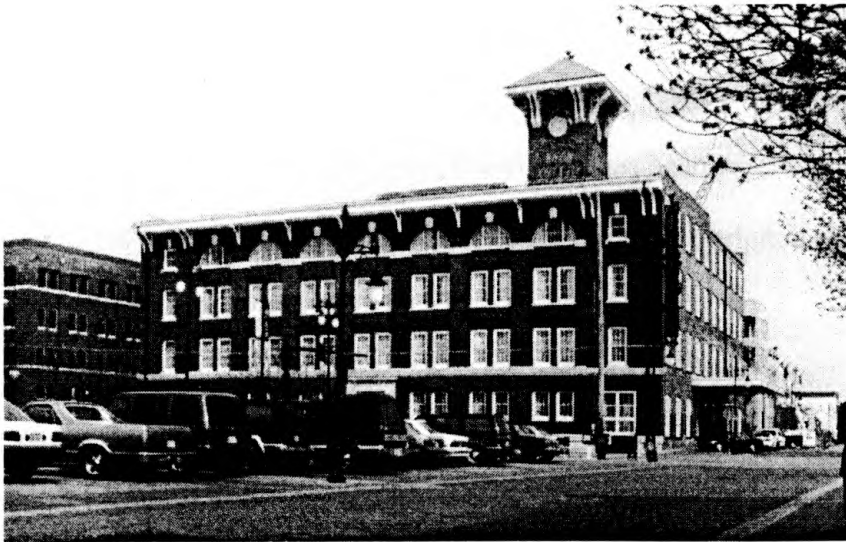


Figure 3.15:  
The Keen  
Kutter  
Building on  
Rock Island  
Street



Figure 3.16:  
South End of  
Rock Island  
Street



Figure 3.17:  
North End of  
Rock Island  
Street

\$150,000 loan to David Burk, an Architect and Keen Kutter, LLC, a corporation he formed to renovate the building. Today, this building is being converted to a hotel and will be open for business in April, 1999. The cupola has been carefully restored after it had been partially destroyed, and a staircase block has been designed within to keep the cupola structurally sound.

As illustrated in figures 3.16 and 3.17, on the western rim of the plaza is Rock Island Street. This street, like, Mosley, is surfaced in brick and has a very light traffic flow. As seen in figure 3.16—3.17, adjacent to this street are nineteenth century warehouses which have been renovated as restaurants and fast food joints. The ground floor of these warehouses forms a colonnade, which can be used for seating. The basements have a variety of small shops, and their second floors house studios for artists. As seen in figures 3.16, most of these warehouses were used as loading docks and hence their first stories are three feet above ground level. The warehouses on the northwest and northeast of the plaza are vacant.

### (3) The Plaza and its District

We next need to describe the surrounding district of the plaza, and the map in figure 3.18 illustrates the existing land uses for the district. The researcher prepared this map with the help of aerial photographs from the City of Wichita, Planning Department, and the researcher's field description. Land uses were recorded as follows:

- Offices/ Non-Industrial Employment
- Retail/ Restaurants
- Parking

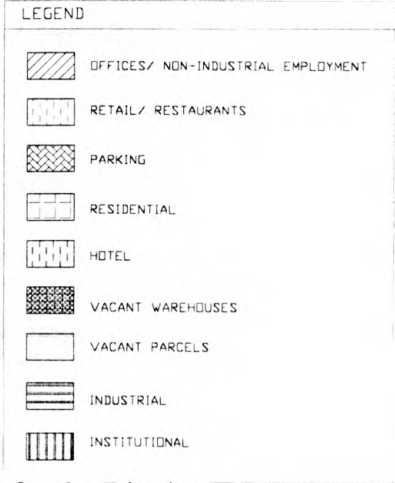
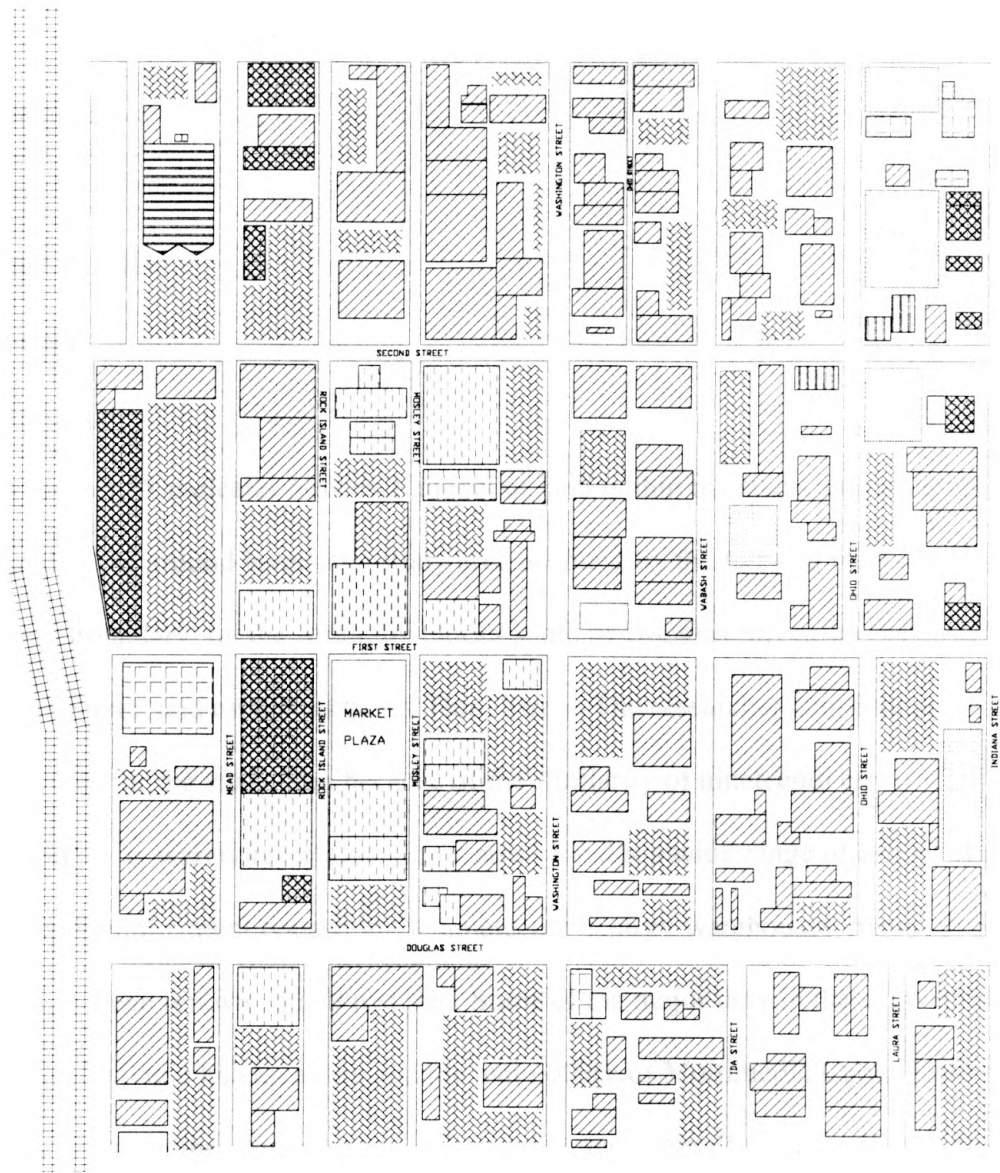


Figure 3.18: Existing Land-Use Plan for the District

- Residential
- Hotels
- Vacant Parcels
- Industrial
- Institutional

Figure 3.18 indicates how each parcel of land within the study area is currently utilized at the ground level. The study area is bound by the railroad tracks on its western boundary; on the south, by blocks south of Douglas Street; on the east, by Indiana Street; and on the north, by Third Street. The researcher chose these boundaries for the study area because of the similarity of nineteenth century building function—i. e. warehouses. Today, this area includes a wide range of offices and non-industrial employment housed in the nineteenth century warehouses, many of which have now been renovated and restored. Some of the major uses in the study area are the Wichita Eagle headquarters and the main office of Multimedia Cable Vision. The blocks in the southeastern portion of the study area, generally south of First Street and east of Washington, have a number of auto-related commercial services and car dealers. The rest are generally smaller offices like advertising agencies, architectural firm and consulting firms.

As illustrated in figure 3.18, parking is the next major land-use in the study-area. This amount of parking far exceeds the needs in the study area. In fact, much of the time many of the parking lots go unused. Retail businesses and restaurants, the next major land-use, are concentrated within the two-block portion of Douglas Street and



Second Street, around the plaza. As we shall see in chapter five, office employees come to this area during their lunch break. On the other hand, we shall find that the retail uses do not attract these office-workers and hence these businesses are weaker than they would be otherwise. Instead, it is mostly the few tourists in this area that are seen frequenting these businesses, which include a number of gift shops.

Empty parcels of land and empty warehouses are found in the eastern and western portions of the study area. In addition, in the eastern portion, there are dilapidated residences mostly to the east of Ohio Street. Along North Ohio Street are presently two churches around which are a few residences. There are also three residential complexes near Market Plaza.

Next, the researcher discusses the study area's block size, which on the average range from 300 feet X 600 feet and thus ranges from 120,000 square feet to 240,000 square feet. On an average, the block size is approximately 180,000 square feet. Figure 3.19 illustrates the building heights of buildings within the study-area, which the researcher categorized in four categories: (1) one-story; (2) Two-story; (3) three and four-story and; (4) five or more stories. It must be noted here that a single-story nineteenth-century warehouse is typically twice as high as a single-story of a contemporary one-story building. From figure 3.19, it is clear that low-rise buildings mainly with one and two stories dominate the study-area. Buildings with three and four stories are concentrated between the railroad tracks on the west and Washington Street on the east. There are also two taller buildings, with five or more stories—the *Wichita Eagle* Headquarters and Multimedia Cable Vision Building.

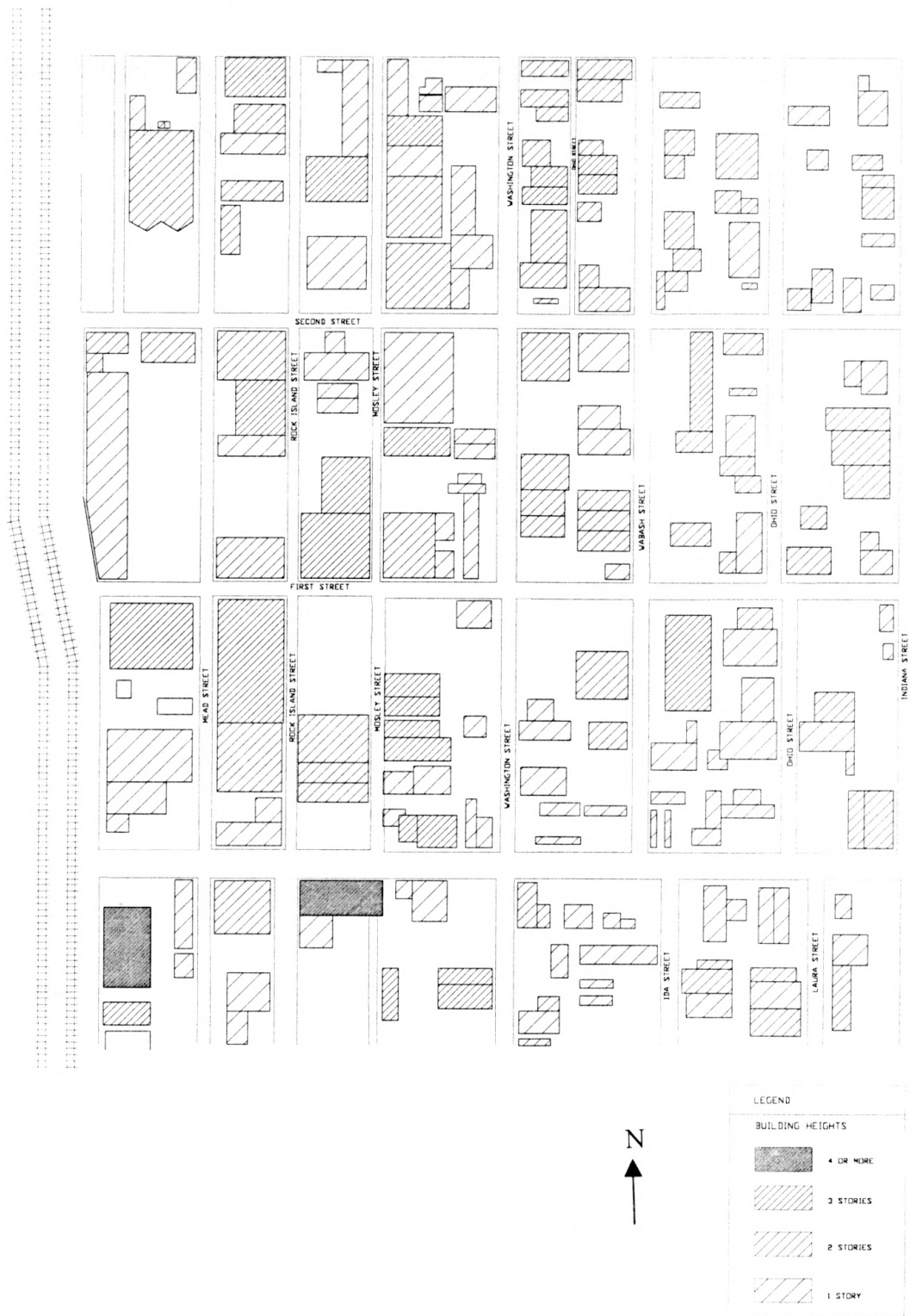


Figure 3.19: Heights of Existing Buildings in the District



## CHAPTER 4

### METHODOLOGY FOR OBSERVING THE MARKET PLAZA DURING A TYPICAL WEEK AND TWO SPECIAL EVENTS

Besides gathering information from the literature review in Chapter 2, the researcher also conducted behavior mapping to analyze the Farm and Art Market Plaza on ordinary days and during two special events that were the weekly Farmers' Market held on Saturdays and the Oktoberfest held during the first weekend in the month of October. The researcher conducted behavioral mapping to get a clearer picture of how the plaza works when the plaza is left to its own devices to attract people during ordinary days and how the dynamics of the plaza change during special events. This research can reveal important implications for the redesign of the plaza. Overall, the aims of the behavior analysis were:

1. To gain a clear picture of the plaza's activities during ordinary weekdays;
2. To understand the behavior patterns of people using the plaza on ordinary days;
3. With respect to the special events, to understand the activities and needs of the people on such occasions, so as to incorporate a better use of design elements necessary to facilitate such events.

#### **The Pilot Study**

To prepare for an extended behavioral mapping study of the plaza, the researcher first conducted a pilot study of the plaza during three days in September, 1998. This pilot study included: (a) construction of a plaza base map; (b) determination of positions in the plaza

for observing plaza activity; (c) determination of major paths of movement, both pedestrian and automobile; (d) establishment of time periods for observation of plaza activity; and (e) determination of potential user groups with respect to age and gender.

To prepare a recording base for actual mapping, the researcher constructed a base map using a blue print of the plaza and its surroundings as acquired from the Wichita's City Hall Proposals Department. As illustrated in figure 4.1, the base map included such existing landscape features as lights, trees, sculpture as well as entry steps and the wooden deck of the Wichita Farm and Art Market building. Also included in the base map were the surrounding structures that enclose the plaza--the River City Brewery, Torre's Pizzeria, The Wichita Farm and Art Market building and the parking areas. Copies of this base map were made on A4 size sheets and taken to the plaza for mapping.

Once the base map was constructed, the next step was to determine viewing positions from which the researcher could make observations of plaza activities. To accomplish this aim, the researcher informally observed the plaza for three consecutive days, Monday, September 21-Wednesday, September 23,1998. Keeping in mind the layout of the plaza, the researcher chose observation points that would offer clear sight lines to all parts of the plaza space and its immediate surroundings. Figure 4.2 illustrates the three observation points that the researcher selected for watching plaza activity. As this figure indicates, observation position 1 was on the wooden deck of the Farm and Art Market Building. This deck is positioned at the south end of the plaza, meets the entrance deck to the Farm and Art Market building, and gives a clear and unobstructed view of the southeastern portion of the plaza and Mosley Street, which marks the plaza's eastern

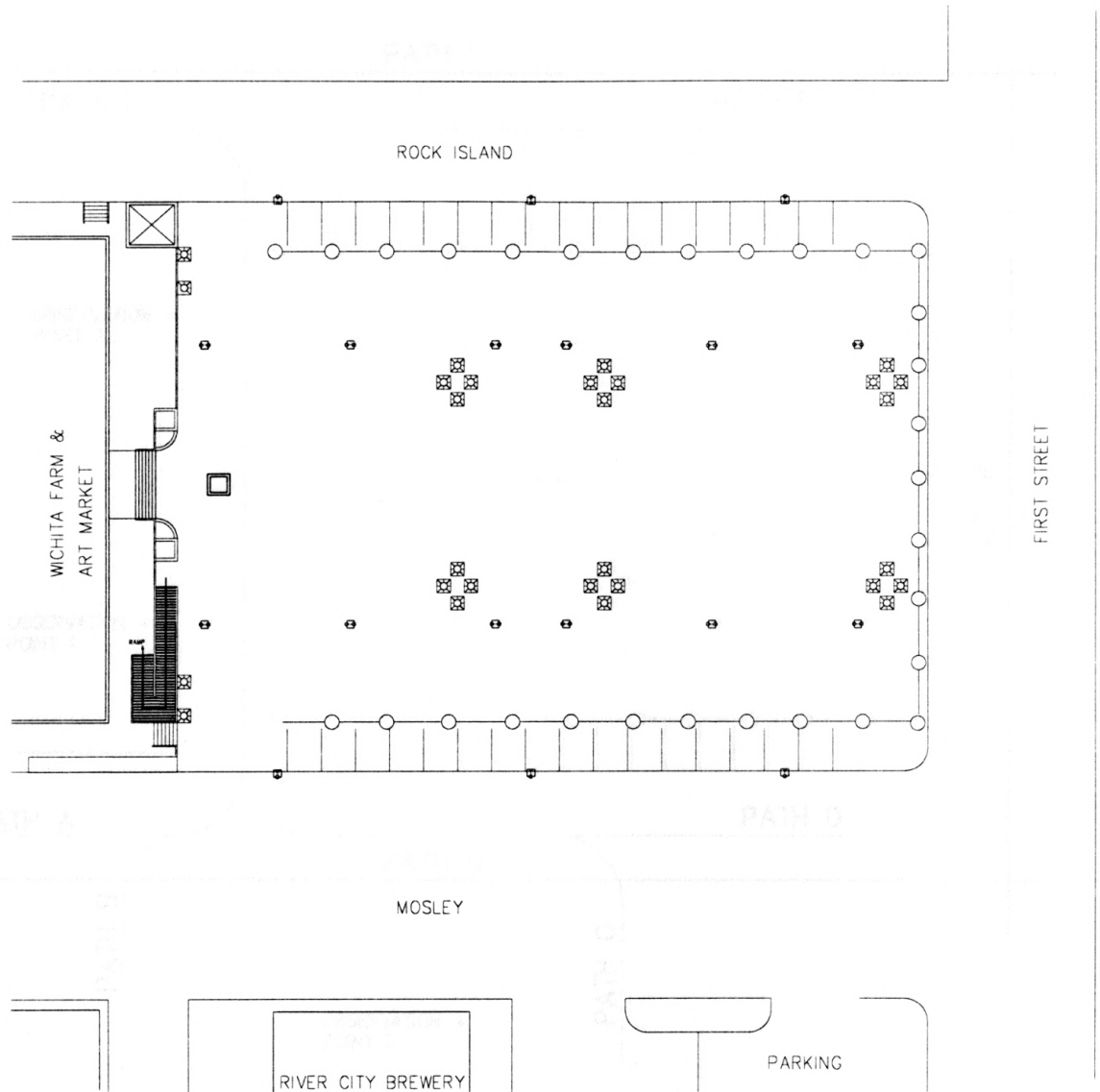
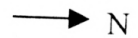


Figure 4.1: Base Map of Farm and Art Market Plaza



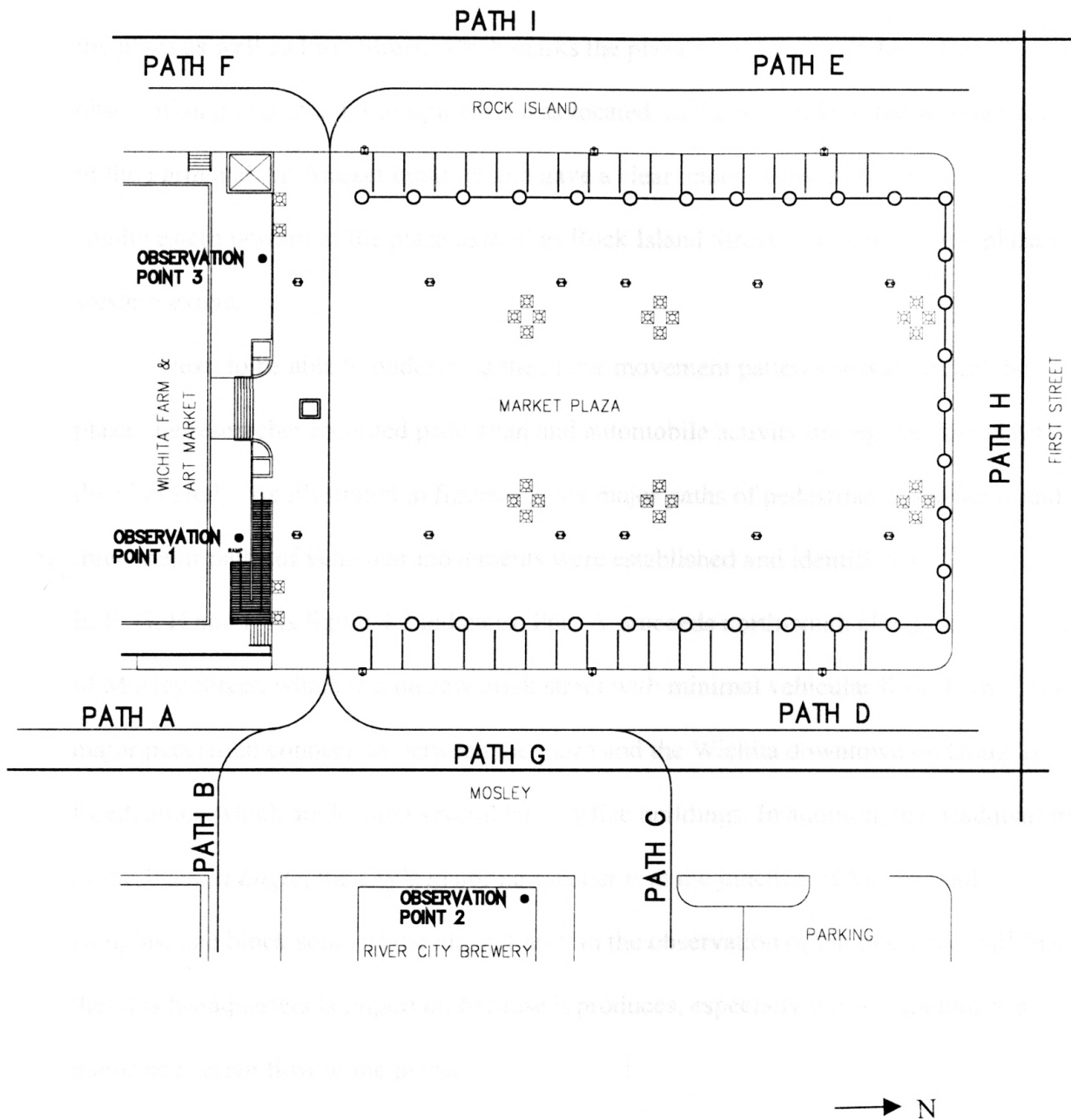


Figure 4.2: Base Plan Illustrating the Three Observation Points—1, 2, and 3 and Paths of Movement A, B, C, D, E, F, G, H, and I

boundary. The second position, observation point 2 in figure 4.2, was located on the first story deck of the 'River City Brewery'. This 2<sup>nd</sup> position was chosen because it is elevated and therefore gave clear sight lines to record observations of the northern side of the plaza as well as First Street, which marks the plaza's northern boundary. The 3<sup>rd</sup> observation point--Point 3 in figure 4.2 was located on the west side of the wooden deck of the Farm and Art Market building and gave a clear unobstructed view of the southwestern portion of the plaza as well as Rock Island Street, which marks the plaza's western extent.

Next, to be able to understand the major movement patterns in and around the plaza, the researcher recorded pedestrian and automobile activity during the three days of the pilot study. As illustrated in figure 4.2, six major paths of pedestrian movements and three major paths of vehicular movements were established and identified as A, B, C, D, E, F, G, H and I. As figure 4.2 indicates, Path A proceeds north-south along the west side of Mosley Street, which is a narrow brick street with minimal vehicular flow. Path A is a major pedestrian connection between the plaza and the Wichita downtown on Douglas Road, along which are located several large office buildings. In addition, the headquarters of the *Wichita Eagle*, the city's major newspaper is at the junction of Mosley and Douglas, one block south of the plaza. Later, in the observation of the plaza, we will find that this headquarters is important because it produces, especially during lunchtime, a major pedestrian flow to the plaza.

Next we turn to path B, which is a narrow alley joining the plaza with Washington Street, located a block away to the east of the plaza. Though this path usually has few pedestrians, it is important as it brings some users to the plaza. Path C is more important



because it leads from the plaza to a parking lot at the northeastern side, which is a key use in the district because parking is free. People often leave this parking lot and enter the plaza to go to the Wichita Farm and Art Market building or use the plaza as a shortcut to get to the restaurants and other buildings on the plaza's west side. Yet again, path D leads people into the plaza from First Street on the eastern side of the plaza while path E is located along northern Rock Island Street, along which is located several restaurants. Finally, path F, leads from the plaza to a loading / unloading area used by businessmen on Rock Island Street.

Next we need to identify major paths of automobile movement, which are shown in figure 4.2 as paths G, H and I. These three vehicular paths form the eastern, northern and western boundaries of the plaza. First, vehicular path G accounts for the automobile movement on Mosley Street, which, as already said, is important because it links Douglas Road, the spine of downtown Wichita, to First Street, which bounds the plaza on its eastern side. Forming the northern edge of the plaza, vehicular path H is First Street, which is one-way and has very busy, fast-moving traffic. Finally, vehicular path I is Rock Island Street, which forms the western boundary of the plaza. Though narrow, this street serves the loading/ unloading areas of businesses on South Rock Island Street.

Once the observation points and the flows of movement, both pedestrian and vehicular, were determined, the next step was to establish time periods during which the researcher would record observations for behavioral mapping. To understand the variations in the activities in the plaza with respect to time periods, the researcher first noted that most of the activity in the plaza takes place during three key periods: (1) the early hours of the morning when workers are on their way to their respective offices;

(2) during lunchtime; and (3) during the afternoons after 4.30 p.m. when workers are leaving to return home. These three periods therefore were chosen as the most important times for observing the plaza.

Observations for the typical week were done for every fifteen minutes at each of the three observation points with a five-minute break in between to change the observation position. Thus, three mappings of fifteen minutes each at each of the three observation points resulted in a total mapping of fifty-five minutes. Thus, morning readings at observation point 1 would extend from 8.00 a.m. to 8.15 a.m. A break of five minutes from 8.15 a.m. to 8.20 a.m. would give the researcher time to change her position from observation point 1 to observation point 2. At observation point 2, the researcher then conduct mapping from 8.20 a.m. to 8.35 a.m. and so on. In addition, it is important to emphasize that it was physically impossible for the researcher to observe all nine movement paths at once at each observation point. Therefore, when at observation point 1, the researcher recorded the aggregate count of pedestrians on paths A and B as well as vehicular path G. Similarly at observation point 2, the researcher recorded the pedestrian count on paths C and D as well as vehicular path H; and from observation point 3, pedestrian count of paths E, F and vehicular path I.

To make sure that each time period was equally represented in the observation during the typical week observation, the researcher rotated the starting point for each of the five days of observation. For example, on Monday, the researcher started the observations from point 1 for the first fifteen minutes (i.e., 8.00a.m.--8.15 a.m.) and then moved to point 2 for the next fifteen minutes (i.e., 8.20 a.m.—8.35 a.m.) and so on. But on the following day (Tuesday), the researcher started the mapping from observation

point 2 then proceeded to point 3 and then to 1. This variation ensured that the researcher obtained a more representative picture of all movements during all time periods of observation.

Based on her preliminary observations of the plaza during the pilot study, the researcher also identified major differences in terms of age and gender among the users. In terms of observation of age, the researcher decided to identify users' age on the basis of five categories: (1) children (1-10years); (2) teenagers (10-20 years); (3) young adults (20-35 years); (4) middle aged (35-55 years), and; (5) the elderly (55 years and above). This assessment of age was based purely on the researcher's own subjective determination as based on clothing styles, activities, and visible signs of age.

Also during the pilot study, the researcher observed that, during the three days of preliminary observations, very few people lingered or rested in the plaza itself. Since this number was so low, the researcher, in her full-length behavioral study of a typical week, observed pedestrian and automobile movement but she did not include observations of plaza users at rest. As we shall see below, however, observations of people at rest became important during special events.

### **Methodological Procedures for the Farmers' Market**

As already mentioned above, the researcher also observed two of the plaza's special events—the Farmers' Market, held every Saturday from May to October; and the Oktoberfest, which in 1998 was held on October 3–4. Observation procedures for the two special events were somewhat different from the procedure used for the observations of the typical week at the plaza, therefore, the researcher discusses each event in turn.

Through informal observations of the farmers' market, the researcher noticed that there were more activities within the plaza than during the weekdays. To record all the market activities, therefore, the researcher needed a base map at larger scale. This map was developed by dividing the plaza into four quadrants--I, II, III, and IV as shown in figure 4.3. Each quadrant formed one partial base map for behavioral recordings. The southeastern portion of the plaza formed quadrant I; the southwestern portion formed quadrant II; the northwestern portion formed quadrant III; and the northeastern portion formed quadrant IV. Copies of the enlarged base maps were made on A4 size sheets and taken to the plaza for mapping.

With regard to observation procedure, due to an increase in activities within the plaza, the researcher had to increase the number of observation points from three to four. These four positions are shown in figure 4.3, in which, the first position--observation point 1--was on the east side of the wooden deck of the Farm and Art Market building. The second position--observation point 2--was located on the west side of the deck. The third position--observation point 3--was located in quadrant III at the break provided on the western side of an automobile barricade, while the fourth position--observation point 4--was in quadrant IV at the eastern side of the same barricade. As with the observation procedure for the plaza during the typical week, these observation points were selected because they offered clear sight lines to all parts of the plaza and its Saturday market.

Next, to be able to understand the Saturday market's movement patterns, the researcher worked out a procedure for recording pedestrian activity. As illustrated in figure 4.4, she recorded four major paths identifying pedestrian movements of people

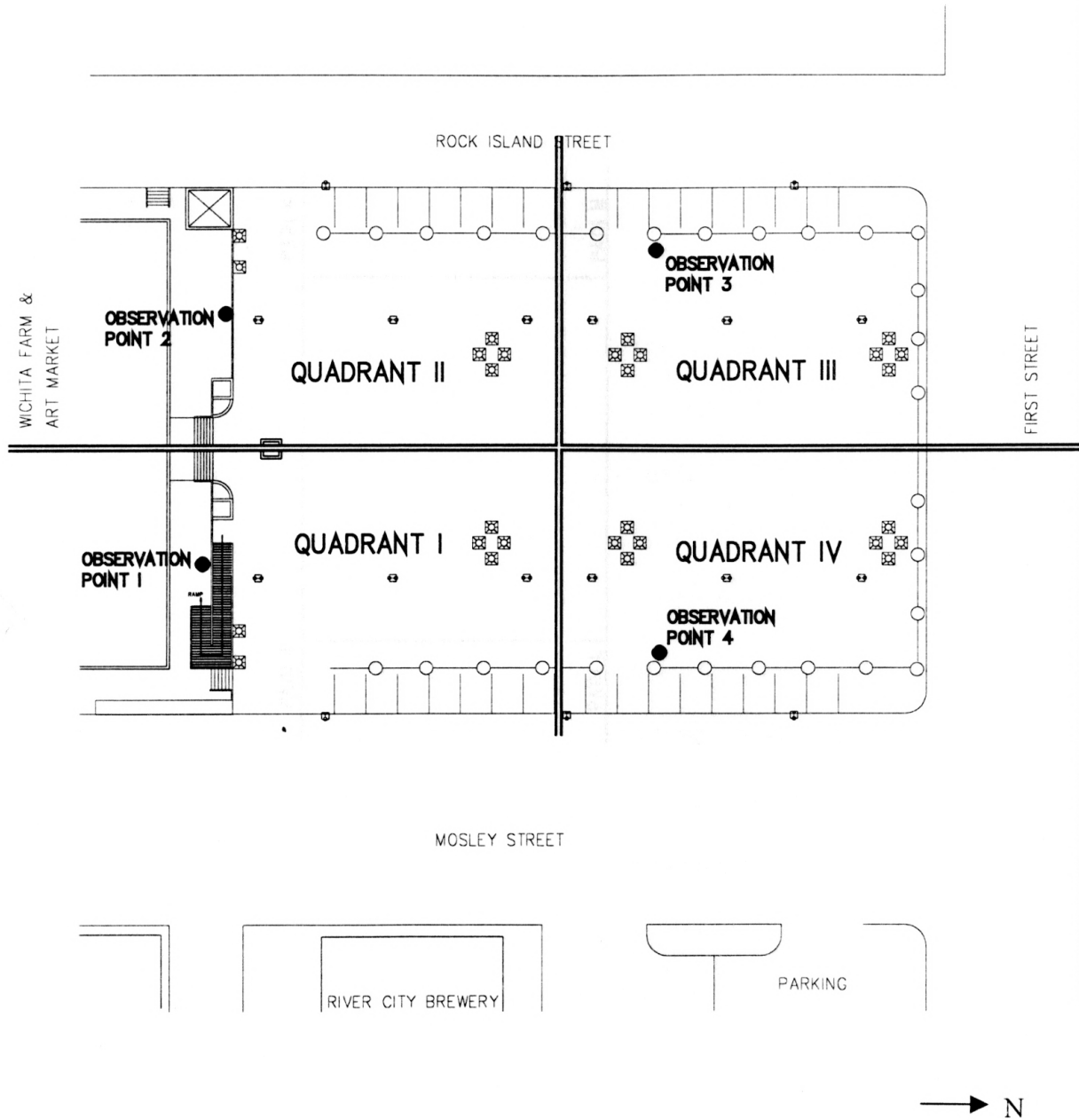


Figure 4.3: Plan of Farm and Art Market Plaza Illustrating Observation Points and the Four Quadrants for the Farmers' Market Observation

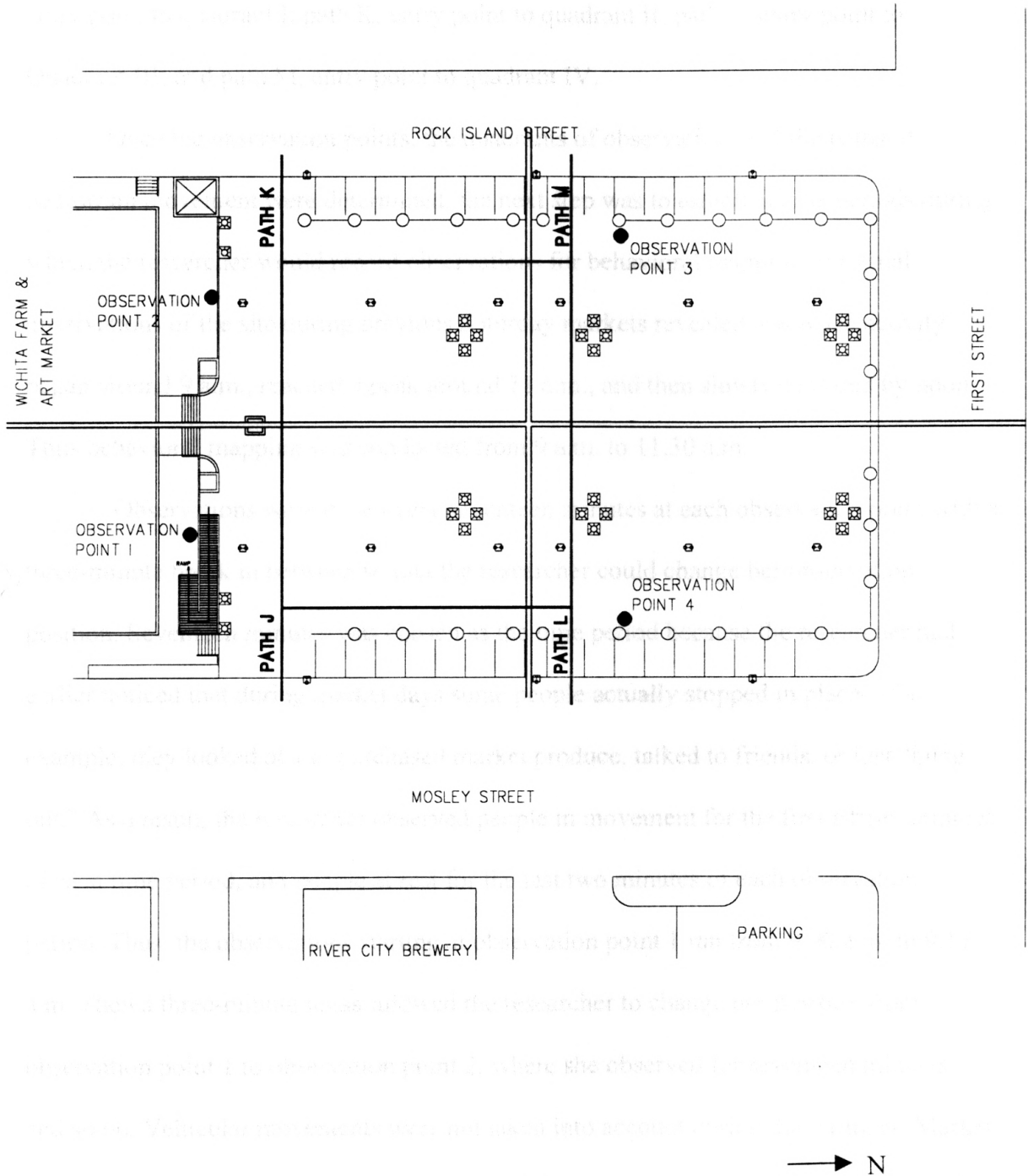


Figure 4.4: Plan of Farm and Art Market Plaza Illustrating the Four Observation Paths Identified for Farmers' Market

entering the plaza at the four entrances where breaks in the automobile barricade are provided. These paths of movement were identified as J, K, L, and M. Path J was the entry point to quadrant I; path K, entry point to quadrant II; path L, entry point to Quadrant III; and path M, entry point to quadrant IV.

Once the observation points, the quadrants of observation, and the paths of pedestrian movement were determined, the next step was to establish time periods during which the researcher would record observations for behavioral mapping. Informal observations of the site during previous Saturday markets revealed that plaza activity began around 9 a.m., reached a peak around 11 a.m., and then slowly subsided by noon. Thus behavioral mapping was conducted from 9 a.m. to 11.30 a.m.

Observations were done every seventeen minutes at each observation point with a three-minute break in between so that the researcher could change her observation position. Seventeen minutes was chosen as the time period because the researcher had earlier noticed that during market days some people actually stopped in place—for example, they looked at and purchased market produce, talked to friends, or just “hung out.” As a result, the researcher observed people in movement for the first fifteen minutes of each time period, and people at rest for the last two minutes of each observation period. Thus, the observations starting at observation point 1 ran from 9.00 a.m. to 9.17 a.m. Then a three-minute break allowed the researcher to change her position from observation point 1 to observation point 2, where she observed for seventeen minutes, and so on. Vehicular movements were not taken into account during the Farmers’ Market because the researcher only had time to record the considerable pedestrian activity in the plaza.

Informal observations of earlier Saturday markets revealed differences in the age, gender and activities of people at the market. People's ages were defined according to the same categories used in typical weekday observation—that is (1) children (1-10years); (2) teenagers (10-20 years); (3) young adults (20-35 years); (4) middle aged (35-55 years), and; (5) the elderly (55 years and above). In turn, market activities in the plaza were categorized as: (1) sitting and conversing; (2) sitting and observing; (3) standing and observing; and (4) standing and conversing. Thus, though the basis for the observations for the Farmers' Market was similar to the pilot study of the plaza during weekdays, some changes were incorporated, keeping in mind the changes in user behaviors and activities during the Saturday market.

### **Methodological Procedures for Oktoberfest**

Next, it is important to discuss methodology for the Oktoberfest held in the market plaza on October 3—4, 1998. As in the Saturday market, alterations for behavioral mapping had to be made, particularly because of the large two-day attendance at the event. Starting with the base map, due again to increased activities, the researcher produced larger-scaled base maps that divided the plaza into six sectors, as shown in figure 4.5. Sectors III and IV in this base map are the same as quadrants III and IV in the base map for the Saturday market. On the other hand, the researcher divided quadrants I and II of the Saturday market into sectors I, II, V, and VI. This particular division was established because the southern side of the plaza was most heavily used during the Oktoberfest and could only be observed by dividing the space into smaller



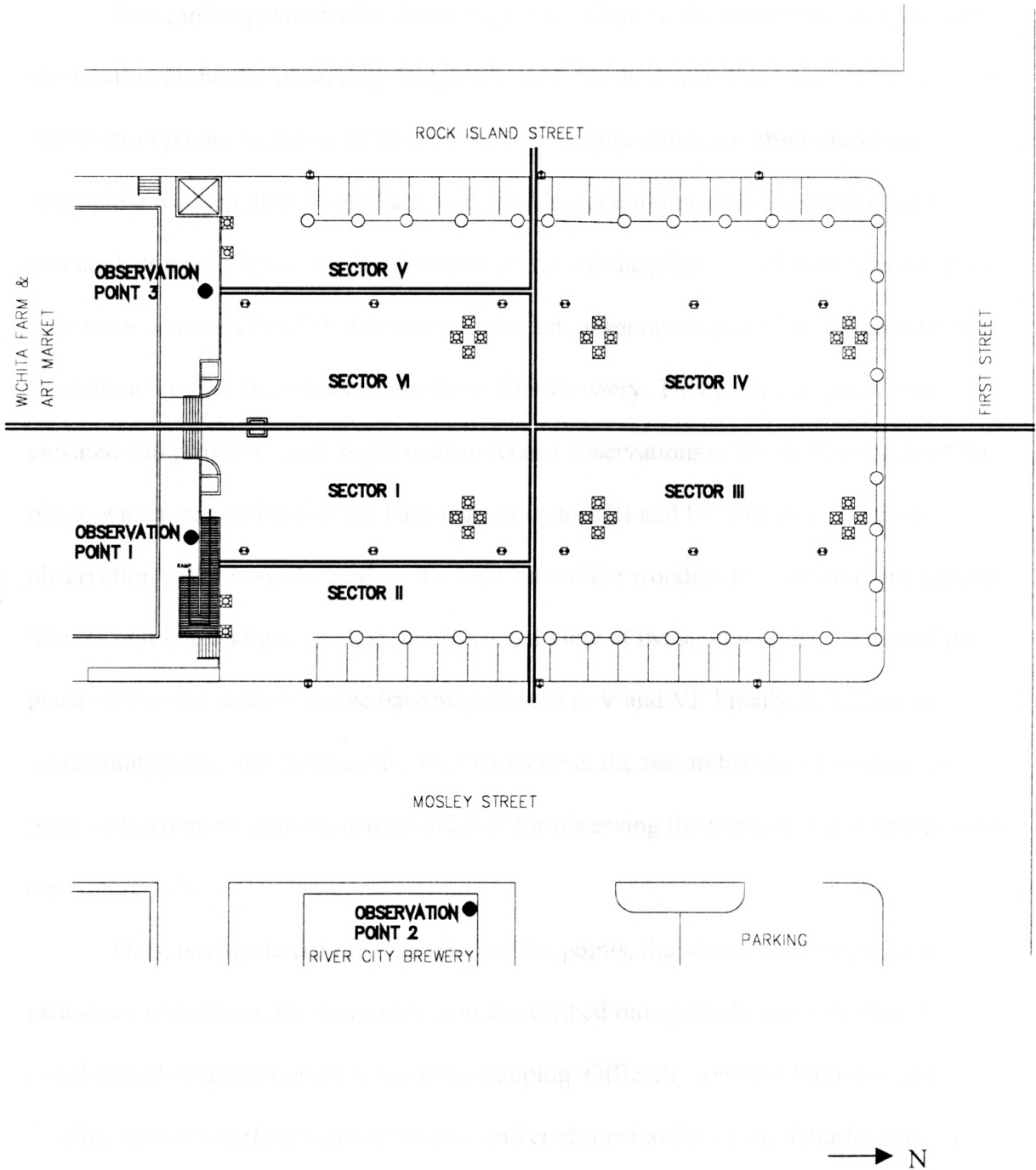


Figure 4.5: Plan of Farm and Art Market Plaza Illustrating the Six Sectors and Three Observation Paths Identified for Oktoberfest

portions. Copies of the enlarged base maps were made on A4 size sheets and taken to the plaza for mapping.

In regard to positions for observing plaza activities, the researcher used the same observation points for observing the typical week for the plaza. Thus there were the three observation points as shown in figure 4.5. As the figure indicates, observation point 1 was on the wooden deck of the Farm and Art Market building. This position gave a clear and unobstructed view of the southeastern portion of the plaza, which was defined on the base map as sectors I and II. The second position, observation point 2 in figure 4.11, was located on the first story deck of the River City Brewery. This second position was elevated and provided clear sight lines to record observations of the northern side of the plaza, which was defined on the base map as sectors III and IV. The third position, observation point 3 was located on the west side of the wooden deck of the Farm and Art Market building and gave a clear, unobstructed view of the southwestern portion of the plaza which was defined on the base map as sectors V and VI. Finally, in regard to establishing paths of movement for the Oktoberfest, the researcher used the same six paths of movement, that she had established for observing the plaza during a typical week (see figure 4.2).

Thus, having determined the observation points, the sectors and the paths of pedestrian movement, the researcher next established time periods during which she could record observations for behavioral mapping. Officially, on both Saturday and Sunday, the Oktoberfest began at 10 a.m. and continued to 8 p.m. on Saturday and 7 p.m. on Sunday. Thus, the researcher conducted behavioral mapping from 11.30 a.m. to 6.35 p.m. on both days. Observations were done every seven minutes for each sector with a

three-minute break in between so that the researcher could change observation position. In the seven minute observation period, the researcher devoted the first five minutes to recording the paths of movement and the last two minutes to recording the people at rest. Thus, the first reading at observation position 1 ran from 11.30 a.m. to 11.37 a.m., and included the aggregate count of pedestrians on path A for the first five minutes followed by the recording of aggregate count of people at rest in sector I for the last two minutes. The next set of readings after a three minute break to change observation position focussed on a five minute count of pedestrian movement at path B followed by two minute recording of people at rest in sector II. Vehicular movements were not taken into account during the Oktoberfest because the researcher only had time to record the considerable pedestrian activity in the plaza.

Informal observations during the first hour of the Oktoberfest revealed differences in age, gender and activities. People's ages were again defined by the same categories used in the typical week readings, thus, the categories were: (1) children (1-10years); (2) teenagers (10-20 years); (3) young adults (20-35 years); (4) middle aged (35-55 years), and; (5) the elderly (55 years and above). In regard to activities, the following categories were used: (1) sitting and conversing; (2) sitting and observing; (3) sitting and eating; (4) standing and observing; (5) standing and conversing; (6) standing and eating; (7) playing; (8) dancing; and (9) singing.

Having discussed the methodological procedures for observing the typical week, farmers' market and Oktoberfest, the researcher in the next chapter presents her behavioral analysis of the plaza's typical week. Then in chapters 6 and 7 she presents her behavioral analysis for the weekly farmers' market and the Oktoberfest respectively.

## CHAPTER 5

### BEHAVIORAL MAPPING ANALYSIS OF THE MARKET PLAZA DURING A TYPICAL WEEK

Having discussed the methodology for observing Market Plaza in chapter 4, the researcher now presents an analysis of her observations for a typical week. The week recorded was Monday, November 23—Friday, November 27, 1998. This week included the Thanksgiving break and was chosen because it was the only week the researcher had available for mapping all five weekdays. Thus, the observations included three work days and two holiday weekdays. Clearly, this observation period is unrepresentative in that a full everyday work week is not portrayed. On the other hand, this combination of working and non-working days can be seen as an advantage in that the selection was a way to compare the activities of plaza users on more active work days and less active holidays. During the observation period, the weather was, overall, mild and sunny, as indicated in the weather data of table 5.1. Note that during the five days, temperatures for Monday, Tuesday, Wednesday and Thursday were in the sixties; and on Friday, the temperatures ranged in the fifties.

In presenting this analysis of the plaza's typical week, this chapter begins with an analysis of pedestrian movement patterns, followed by an analysis of users in terms of age and gender and then the analysis of vehicular flows. The movement patterns, both pedestrian and vehicular were observed in three sets of fifty-five minutes readings each, taken in the morning (8 a.m.—8.55 a.m.), afternoon (12—12.55 p.m.) and evening (4.30 p.m.—5.25 p.m.). From her pilot study observations described in chapter 4, the

**Table 5.1**  
**Weather Conditions for the Observation Week**  
**(Source: KSN Weather Lab)**  
**23-27 November, 1998**

Dates	Minimum Temperature (in degrees Farenheit)	Maximum Temperature (in degrees Farenheit)
Monday, 23rd November	42	61
Tuesday, 24th November	47	68
Wednesday, 25th November	39	64
Thursday, 26th November	41	69
Friday, 27th November	34	57

researcher assumed that these three observation periods would provide a representative picture of the plaza's movement activities during daytime hours.

### **Analysis of Pedestrian Movements**

In analyzing the results of her behavior mapping, the researcher first examined pedestrian path movements for the week as a whole. These aggregate counts are presented in tables 5.2—5.4 and figures 5.1—5.2. In addition, Tables 1—5 in appendix A present the day-to-day aggregate pedestrian movement counts.

Overall, these various tables, graphs and flow map demonstrate that the plaza is not currently effective with respect to pedestrian users, a fact that is first indicated in table 5.2, which summarizes aggregate pedestrian counts for the week as a whole. From table 5.2, it can be seen that the total count of people for the five observation days was only 218. Also from this table, one sees larger user turnout for the work days of Monday, Tuesday and Wednesday. For these three days, the average number of users was fifty-seven. On the other hand, the table also shows that for the holidays—Thursday and Friday—the average number of users was twenty-four. This decrease was obviously due to the Thanksgiving holidays when most of the offices and commercial functions in the surrounding downtown area remained closed.

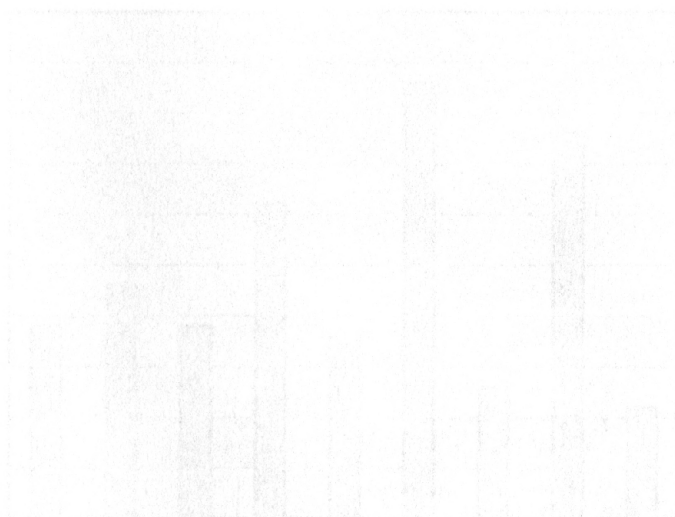
Next, the researcher sought to determine the variations over each day in plaza use. Table 5.3 shows the aggregate counts of users for the times of daily observations in the plaza (e.g. 8 a.m.—8.15 a.m., 8.20 a.m.—8.35 a.m., and so forth). Figure 5.1 and Table 5.3 summarize aggregate pedestrian counts for the time periods for the week as a whole. In looking at these figures, we find that the lunch recordings show more people as

**Table 5.2**  
**Flow Variations for the Week**  
 23-27 November, 1998

Day	Number of People
Monday	59
Tuesday	58
Wednesday	54
Thursday	28
Friday	17
Total of five days	218

Figure 5.2  
 Flow Variations for the 23-hour Time Period of the Week  
 23-27 November, 1998

Time Period and Number of People



**Table 5.3**

**Flow Variations for the Different Time Periods of the Week**

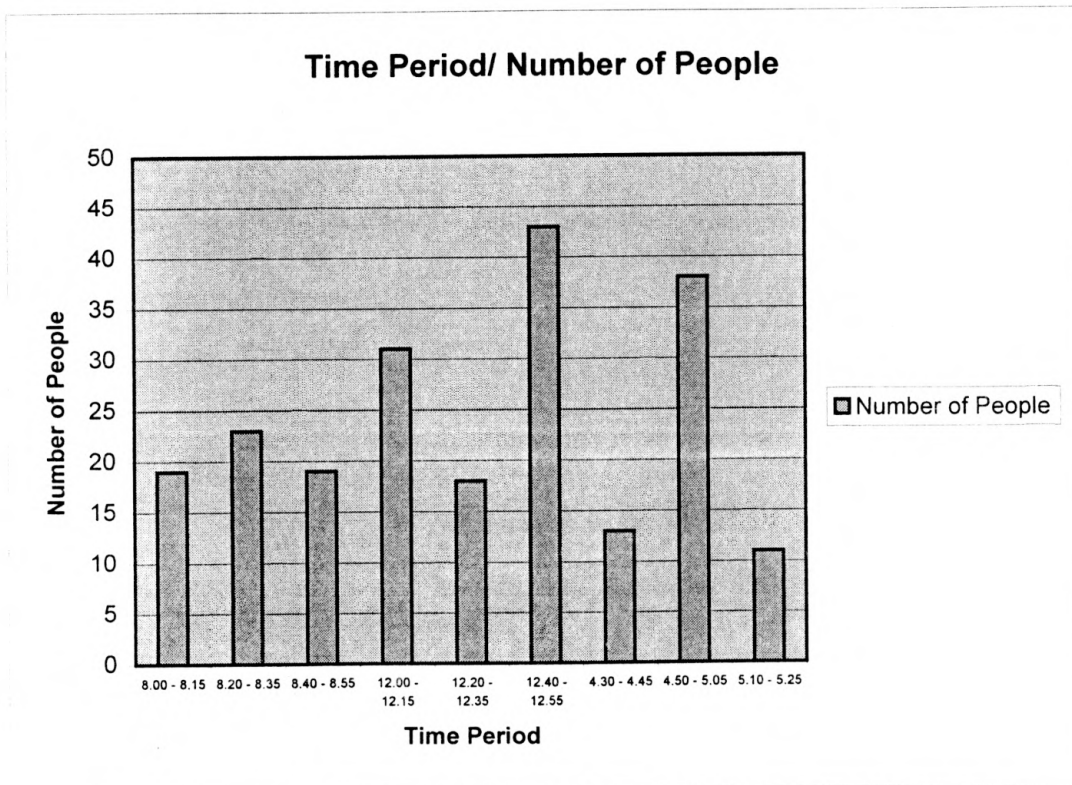
23-27 November, 1998

Time Period	Number of People
8.00 - 8.15	19
8.20 - 8.35	23
8.40 - 8.55	19
12.00 -12.15	31
12.20 -12.35	18
12.40 - 12.55	43
4.30 - 4.45	13
4.50 - 5.05	38
5.10 - 5.25	11

**Figure 5.1**

**Flow Variations for the Different Time Periods of the Week**

23-27 November, 1998





**Table 5.4**  
**Flow Variations at Different Paths**  
 23-27 November, 1998

Paths	Number of People
A	68
B	22
C	62
D	30
E	31
F	10



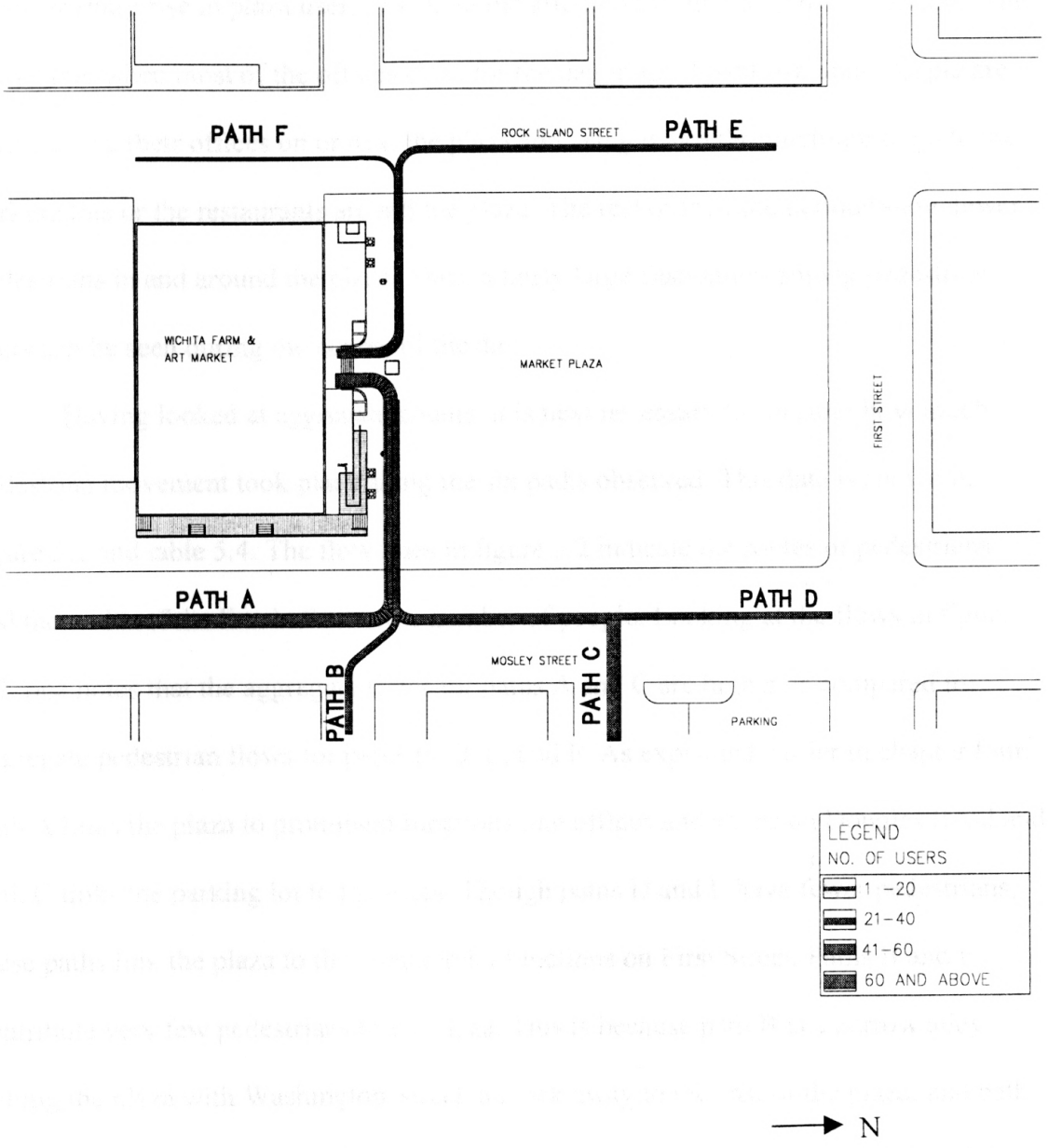


Figure 5.2: Flow Variations at Different Paths during the Typical Week

compared to morning and afternoon. Within this lunch hour, the first and the last fifteen minutes (12—12.15 p.m. and 12.40 p.m.—12.55p.m.) show a sharp rise in the aggregate counts of plaza users. This pattern of movement indicates office workers who come to the restaurants around the plaza at the beginning of the lunch hour and then leave at its end. Another sharp rise in plaza users is seen in the afternoon from 4.50 p.m.—5.05 p.m. This is the time when most of the offices close for the day in the downtown area. People are seen leaving their offices on or near the plaza and using it as a thoroughfare to go to the parking lots or the restaurants around the plaza. The rest of the time periods show fewer pedestrians in and around the plaza. Thus, a fairly large fluctuation among pedestrian users can be seen during the course of the day.

Having looked at aggregate counts, it is next necessary to consider how much pedestrian movement took place along the six paths observed. This data is shown in figure 5.2 and table 5.4. The flow lines in figure 5.2 indicate the routes of pedestrians, and the width of the line indicates the number of people. Looking at the flows in figure 5.2, one notes that the aggregate flows for paths A and C are higher as compared to aggregate pedestrian flows for paths B, D, E, and F. As explained earlier in chapter four, path A links the plaza to prominent functions like offices and shops on Douglas Road and path C links the parking lot to the plaza. Though paths D and E have fewer pedestrians, these paths link the plaza to the commercial functions on First Street. Paths B and F contribute very few pedestrians to the plaza. This is because path B is a narrow alley joining the plaza with Washington Street, a block away to the east of the plaza; and path F leads from the plaza to a loading/unloading area used by the businesses on Rock Island Street.

## **Analysis of Pedestrians in terms of Age and Gender**

Having looked at the analysis of pedestrian movements, the researcher now analyzes these users with respect to their age and gender. In analyzing the results of her behavior mapping for the types of user groups, the researcher first examined variations in users' ages. These aggregate counts are presented in table 5.5 and figure 5.3. In addition, tables 6—10 in appendix A present the day-to-day aggregate age counts of plaza users.

From table 5.5, one sees a greater number of users among young adult and middle aged categories, averaging eighty-six users for these two categories. On the other hand, the table also shows that for the other three categories (children, teenagers and elderly), the average number of users is only eighteen. Next, the researcher analyzed the types of user groups with respect to gender. Table 5.6 illustrates the gender composition of plaza users and shows more male users than females. This difference is relatively small—128 males vs. 99 females—and little inference can be made as to whether the plaza use is significantly different based on gender.

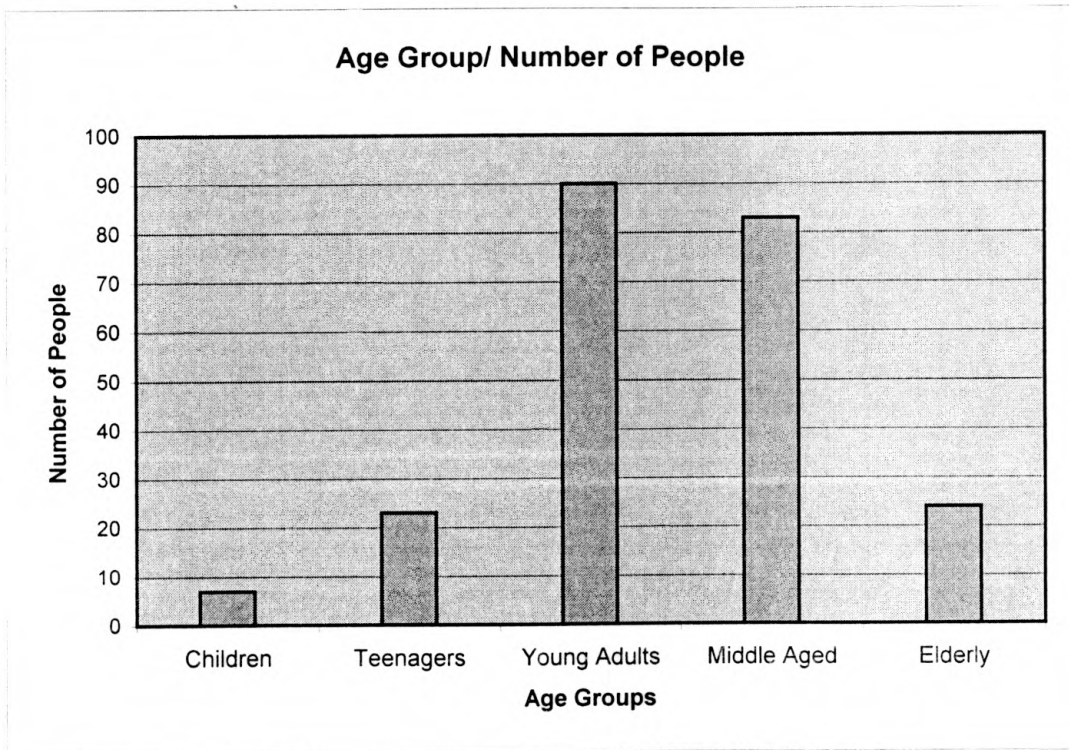
## **Analysis of Vehicular Movements**

Having assessed the user groups at the plaza, the researcher now looks at vehicular flow patterns, which are summarized in tables 5.7—5.9 and figures 5.4—5.5. Tables 5.7—5.8 and figure 5.4 summarize aggregate automobile counts for the week as a whole, while table 5.9 and figure 5.5 summarize the major automobile flows around the plaza. In addition, tables 11—15 in appendix A present the day-to-day aggregate vehicular movement counts.

**Table 5.5: Comparisons of Plaza Use between Various Age Groups  
23 - 28 November, 1998**

Time Period	Children	Teenagers	Young Adults	Middle Aged	Elderly
8.00 - 8.15			8	10	
8.20 - 8.35		3	9	13	
8.40 - 8.55		2	9	4	4
12.00 - 12.15		1	15	11	4
12.20 - 12.35	1	3	5	10	1
12.40 - 12.55		3	18	18	5
4.30 - 4.45		4	8	3	
4.50 - 5.05	6	5	13	8	7
5.10 - 5.25		2	6	5	3
<b>Total</b>	<b>7</b>	<b>23</b>	<b>90</b>	<b>83</b>	<b>24</b>

**Figure 5.3: Comparisons of Plaza Use between Various Age Groups**



**Table 5.6: Comparison of Plaza Use Between Males and Females**  
23--27 November, 1998

User Group	Males	Females
Children	4	3
Teenagers	12	12
Young Adults	46	37
Middle Aged	51	33
Elderly	15	14
Total	128	99

**Table 5.7**

**Automobile Flow Variations for the Week**

23-27 November, 1998

Day	Number of Automobiles
Monday	135
Tuesday	103
Wednesday	154
Thursday	61
Friday	49
<b>Total of five days</b>	<b>502</b>

**Figure 5.4**

**Flow Variations for Automobile Paths at the Different Time Periods**

23-27 November, 1998



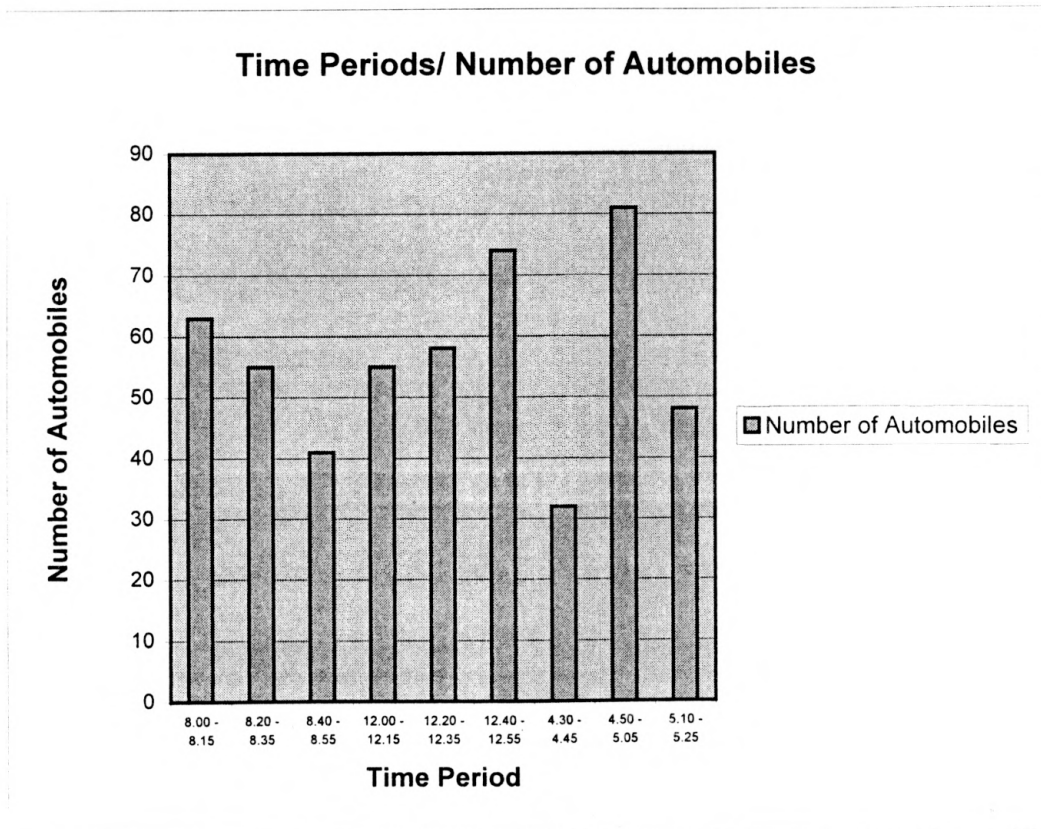
**Table 5.8**

**Flow Variations for Automobile Paths at the Different Time Periods**  
23-27 November, 1998

Time Period	Number of Automobiles
8.00 - 8.15	63
8.20 - 8.35	55
8.40 - 8.55	41
12.00 - 12.15	55
12.20 - 12.35	58
12.40 - 12.55	74
4.30 - 4.45	32
4.50 - 5.05	81
5.10 - 5.25	48

**Figure 5.4**

**Flow Variations for Automobile Paths at the Different Time Periods**  
23-27 November, 1998





**Table 5.9**

**Automobile Flow Variations at Different Paths**

23-27 November, 1998

Paths	Number of Automobiles
G	67
H	424
I	11

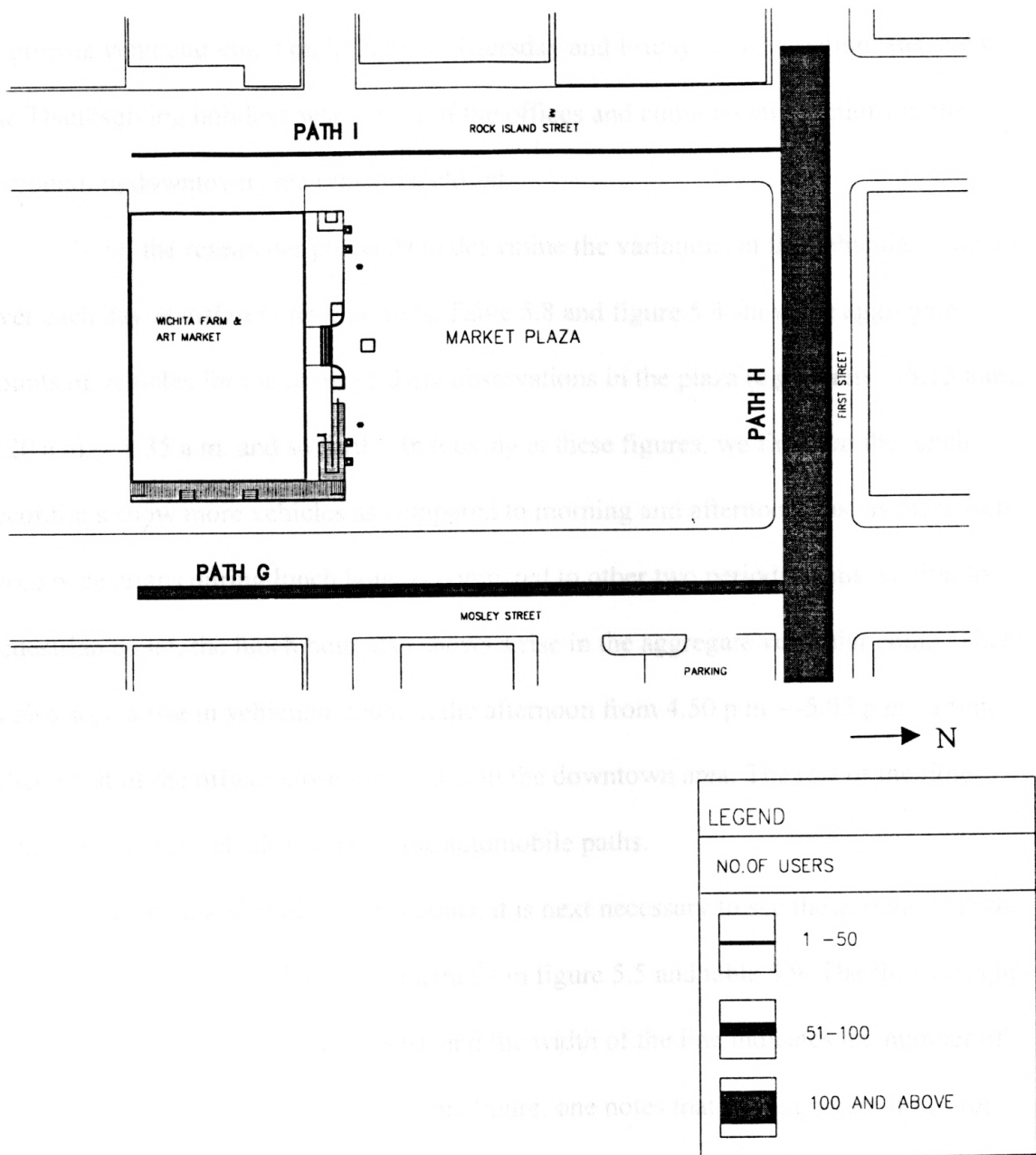


Figure 5.5: Vehicular Flow Variations at Different Paths during the Typical Week

Table 5.7 summarizes aggregate vehicular counts for the week as a whole. From this table it can be seen that the total number of vehicles passing by the plaza was a little more than 500 during five days of observation. Also from this table, one sees that the aggregate count for the work days—Monday, Tuesday and Wednesday—was more than the aggregate vehicular count on holidays—Thursday and Friday. This variation was due to the Thanksgiving holidays when most of the offices and commercial functions in the surrounding downtown area remained closed.

Next, the researcher proceeds to determine the variations in the vehicular counts over each day at different time periods. Table 5.8 and figure 5.4 show the aggregate counts of vehicles for the times of daily observations in the plaza (e.g. 8 a.m.—8.15 a.m., 8.20 a.m.—8.35 a.m. and so forth). In looking at these figures, we find that the lunch recordings show more vehicles as compared to morning and afternoon, just as there were more pedestrians during lunch hour as compared to other two periods. Thus, similar to pedestrian count, the lunch hour also shows a rise in the aggregate vehicular count. There is also seen a rise in vehicular count in the afternoon from 4.50 p.m.—5.05 p.m., a time when most of the offices close for the day in the downtown area. The rest of the time periods see fewer vehicles on the three automobile paths.

Having looked at aggregate counts, it is next necessary to see the variations in the automobile path flows, which are illustrated in figure 5.5 and table 5.9. The flow lines in figure 5.5 indicate the vehicular paths, and the width of the line indicates the number of automobiles. Looking at the flows in this figure, one notes that the aggregate flows for path H is higher as compared to aggregate vehicular flows for paths G and I. As explained earlier in chapter four, path H accounts for the automobile movement on First

Street, which bounds the plaza on its northern side. This is one of the major streets in this area with one-way, very busy, fast moving traffic. Paths G and I have fewer vehicular counts. Path G accounts for the automobile movement on Mosley Street, which bounds the plaza on its eastern side and Path I is Rock Island Street, which forms the western boundary of the plaza. Both these paths are narrow and hence account for fewer vehicles.

The first part of the study of the market was for the farmers' market. The researcher observed the market on September 10, 2008. During this observation period, the temperature was 68 degrees Fahrenheit with the wind blowing from the north at sixty-seven degrees Fahrenheit. The observation was conducted at a time of 8 a.m. In preparation for the study, the researcher had had the researcher begins with: (1) analysis of the market, (2) analysis of people at rest, and (3) analysis of people in motion and growth.

Before presenting the analysis of behavioral mapping of the market, the researcher will provide a brief general description of the plaza for the reader's information. Separated from the main market, the otherwise empty plaza was fairly deserted at 8 a.m. The plaza provided a fairly high level of security for the market itself and the plaza setting was quite informal in nature.

The plaza started getting momentum at around 8.30 a.m. when many vendors and neighboring vendors arrived at the plaza to set up their stalls. The vendors had their trucks parked and stalls at the periphery of the plaza. The vendors noticed that regular sellers at the market had a more professional setting for their stalls as compared to occasional sellers who had large, old, and unattractive stalls. As illustrated in figure 2.1, the market

## CHAPTER 6

### BEHAVIORAL MAPPING ANALYSIS OF THE MARKET PLAZA DURING FARMERS' MARKET

Having discussed the analysis of a typical week, the researcher presents in this chapter an analysis of her observations for the farmers' market, which was observed on Saturday, September 26, 1998. During this observation period, the weather was mild and sunny with the maximum temperature at sixty-seven degrees Fahrenheit at 1 p.m. and the lowest at forty-eight degrees Fahrenheit at 8 a.m. In presenting this analysis of the farmers' market, the researcher begins with: (1) analysis of user movement patterns; (2) analysis of people at rest; and (3) analysis of users in terms of age and gender.

Before presenting the analysis of behavioral mapping of the farmers' market, the researcher provides a brief physical description of the plaza for farmers' market on Saturday, September 26, 1998. During this market, the otherwise empty plaza suddenly seemed to come alive. The plaza provided a fairly high flexibility to transform itself into the market setting that was quite informal in nature.

The plaza started gaining momentum at around 8.30 a.m. when sellers Wichita and neighboring counties arrived at the plaza to set up their stalls. As seen in figure 6.1, sellers lined their trucks, vans and trailers at the periphery of the plaza. The researcher noticed that regular sellers at the market had a more permanent setting for their stalls as compared to occasional sellers who had large, colored umbrellas which were used as a kind of shelter from the sun. As illustrated in figure 6.1, the eastern



Figure 6.1: Western Portion of Farmers' Market



Figure 6.2: Eastern Portion of Farmers' Market



Figure 6.3: Central Portion of Farmers' Market

portion of the market saw these regular sellers display their produce under awnings attached to their trailers parked on the periphery of the plaza. On the other hand, the western portion of the plaza had most of the occasional sellers. As seen in figure 6.2, sellers pitched their colored umbrellas and set tables on which they displayed the produce. As illustrated in figure 6.3, plant sellers occupied the center of the plaza. The presence of chairs in the plaza brought by the sellers themselves can also be noted in this figure. Thus, sellers have to make their own arrangements for display and seating in the market, as the landscape features of the plaza provide no seating. Craftspeople and a woman who sold handmade garments occupied the southern portion of the plaza.

Thus, looking at the overall layout of the plaza during the farmers' market, as illustrated in figure 6.4, one notes sellers' vehicles parked around the periphery of the plaza (shown hatched), with produce being displayed close to the parked vehicles on tables and then in front, paths for the movements of buyers. The plants displayed by the plant sellers occupied the plaza's center portion. With the result that pedestrian flow was created around these plant stalls. As shown in figure 6.4, the breaks in the barricade as shown in figure 6.4 created the main paths of entry for buyers.

### **Analysis of User Movements**

Having looked at the brief physical description of the plaza for farmers' market on the Saturday, September 26, 1998, the researcher now proceeds to the analysis of user movements during this farmers' market. As explained in the chapter four on

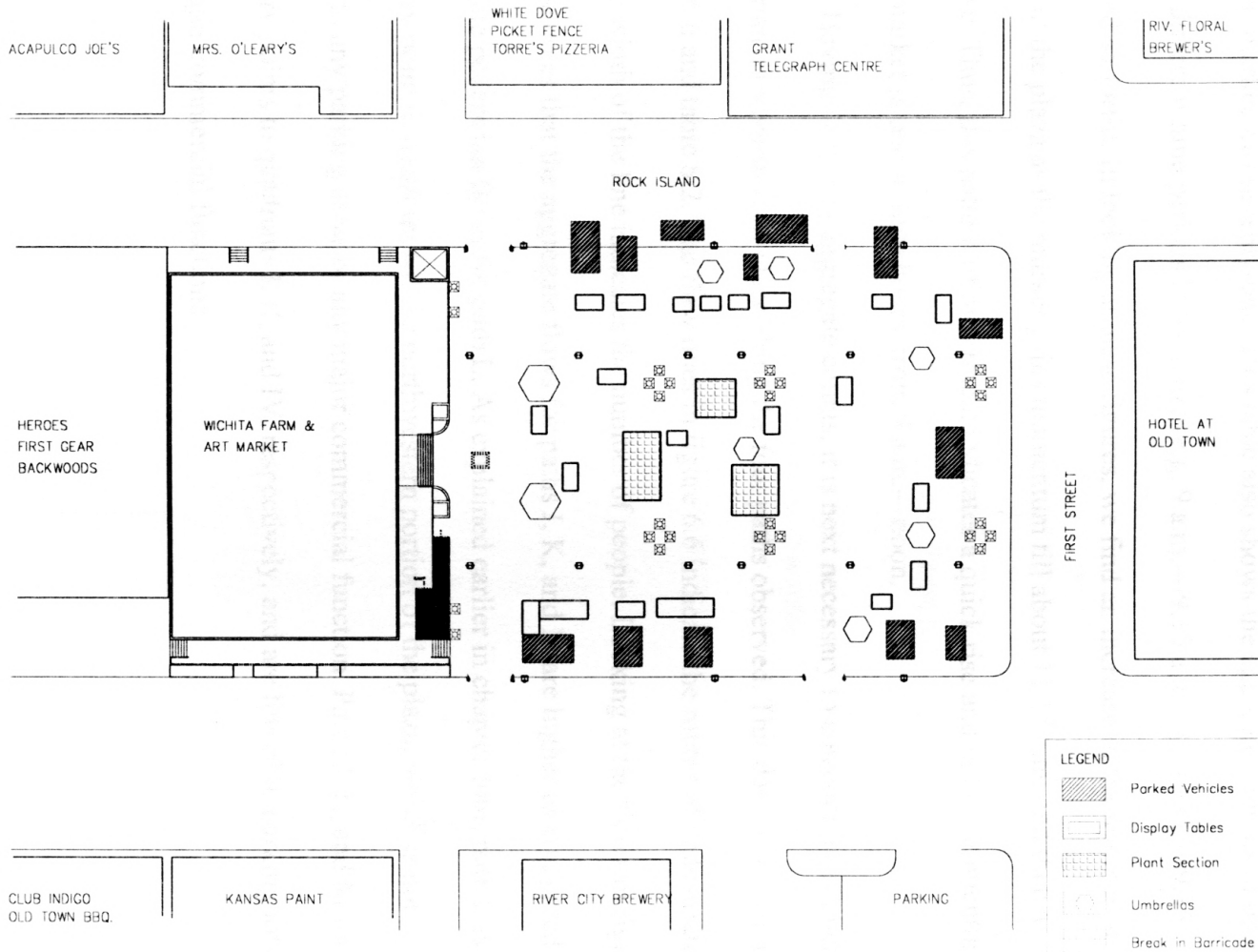
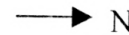


Figure 6.4: Layout of Farmers' Market





methodology, the researcher observed pedestrian path movements from 9 a.m.—11.30 p.m. The aggregate counts for market users are presented in tables 6.1—6.2 and figures 6.5—6.6. From table 6.1, it can be seen that the total count of people for the farmers' market was seventy-one. This table also shows the aggregate counts of users for the different time periods in the plaza (e.g. 9 a.m.—9.15 a.m., 9.20 a.m.—9.35 a.m., and so forth). In looking at these figures, we find an increase in the number of people at the plaza as the market gains momentum till about 11.15 a.m. and then a decrease. Thus, this pattern of movement indicates a quick rise and fall of momentum in the market in about three hours, from 9 a.m.—noon.

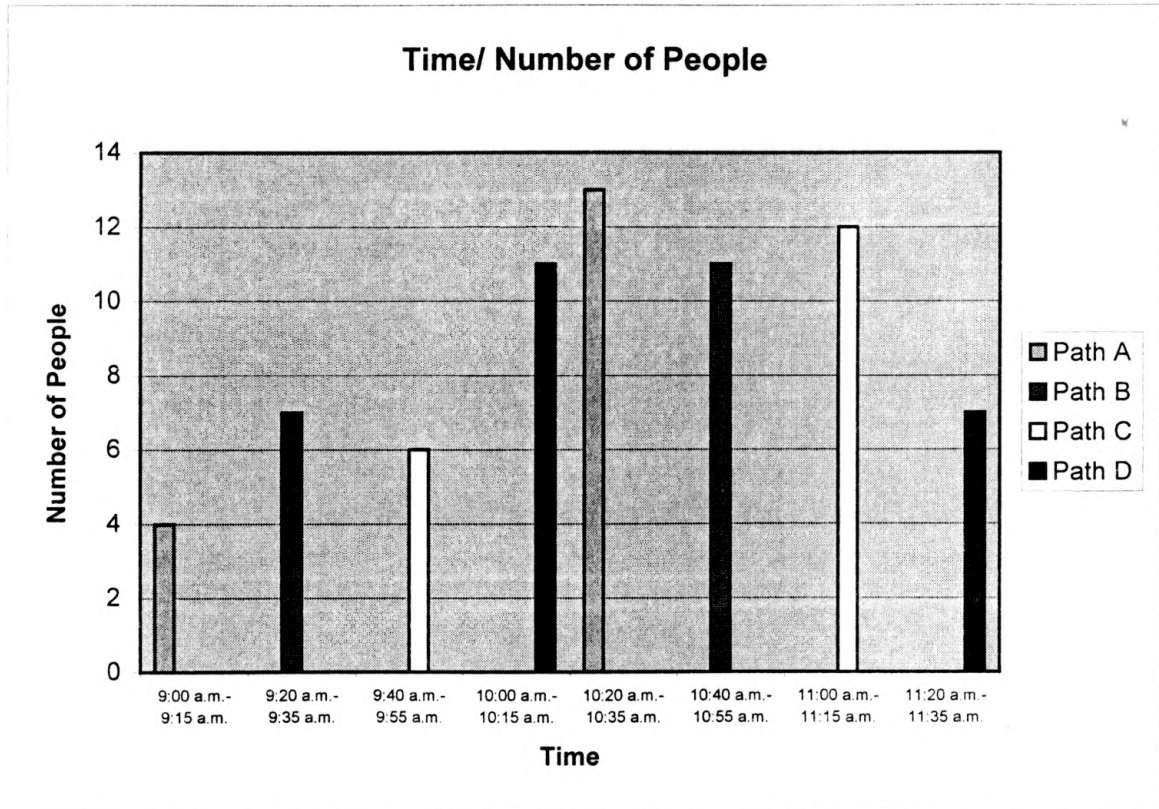
Having looked at aggregate counts, it is next necessary to consider how much pedestrian movement took place along the four paths observed. This data is shown in figure 6.6 and table 6.2. The flow lines in figure 6.6 indicate the routes of pedestrians, and the width of the line indicates the number of people. Looking at the flows in figure 6.6, one notes that the aggregate flows for paths J, K, and M are higher as compared to aggregate pedestrian flows for path L. As explained earlier in chapter four, path L is the entry point to quadrant III, the northwestern portion of the plaza, which is not linked to any parking areas or any major commercial function. Paths J, K, and M form the entry points to quadrants I, II, and IV, respectively, and are linked to parking lots and major commercial functions.

**Table 6.1 Behavior Mapping of Movement Patterns at Farmers' Market**

Saturday, September 26, 1998

Time	Path A	Path B	Path C	Path D
9:00 a.m. - 9:15 a.m.	4			
9:20 a.m. - 9:35 a.m.		7		
9:40 a.m. - 9:55 a.m.			6	
10:00 a.m. - 10:15 a.m.				11
10:20 a.m. - 10:35 a.m.	13			
10:40 a.m. - 10:55 a.m.		11		
11:00 a.m. - 11:15 a.m.			12	
11:20 a.m. - 11:35 a.m.				7
<b>Total</b>	<b>17</b>	<b>18</b>	<b>18</b>	<b>18</b>

**Figure 6.5: Behavior Mapping of Movement Patterns at Farmers' Market**



**Table 6.2: Total Number of People for the Four Paths**

Saturday, September 26, 1998

Paths	No. Of People
J	17
K	18
L	10
M	19

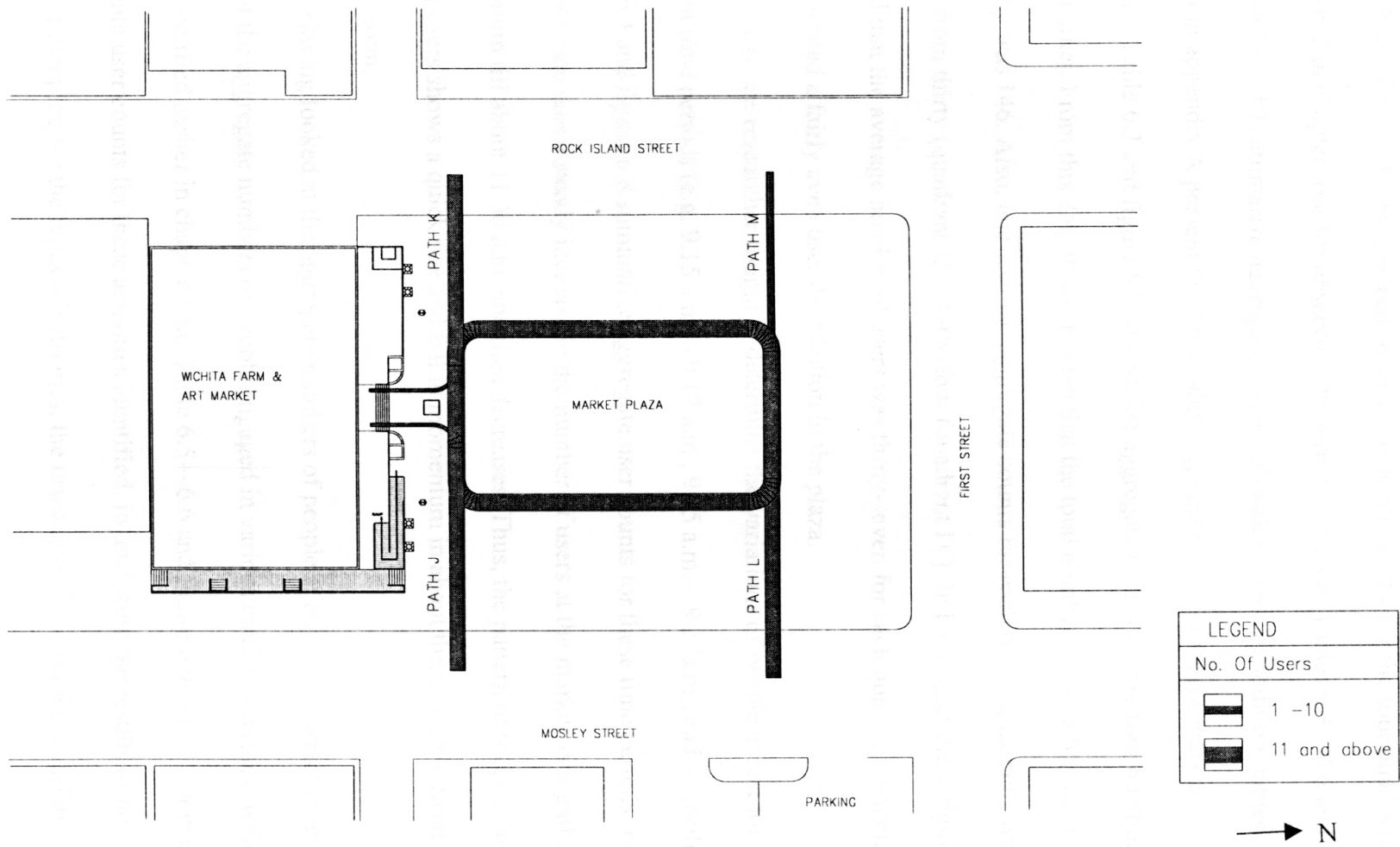


Figure 6.6: Pedestrian Flow Variations at Different Paths during Farmers' Market

## **Analysis of People at Rest**

Next, the researcher proceeds to analyze people at rest for the four quadrants established in chapter four for observing the farmers' market. Tables 6.3—6.6 and figures 6.7—6.10 summarize aggregate counts of market users. In addition, tables 11—14 in appendix A present the day-to-day aggregate user counts for market activities. Table 6.3 and figure 6.7 summarize aggregate counts for the four quadrants at the market. From this data it can be seen that the total number of users for the whole Saturday was 146. Also, one sees the aggregate counts for each of the quadrants which ranged from thirty (quadrant I) to forty-four (quadrant IV). In looking at these figures, we find that the average number of users was thirty-seven for each quadrant, which demonstrated a fairly even user distribution in the plaza.

Next, the researcher sought to determine the variations of people at rest for the different time periods (e.g. 9.15 a.m.—9.17 a.m., 9.35 a.m.—9.37a.m., and so forth). Table 6.4 and figure 6.8 summarize aggregate user counts for these time periods. From this table, one sees a steady increase in the number of users at the market as it gathers momentum till about 11.30 a.m. and then decreases. Thus, the pattern of rest of the market users shows a quick rise and fall in momentum in about three hours—from 9a.m. - noon.

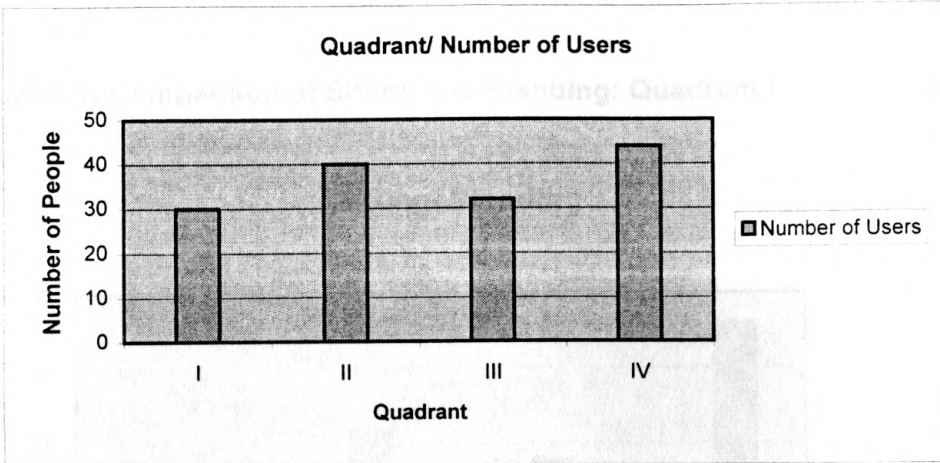
Having looked at the aggregate numbers of people at rest, the researcher now looks at the aggregate numbers of people engaged in various market activities, which were identified earlier in chapter four. Table 6.5—6.6 and figure 6.9—6.10 summarize aggregate user counts for these activities identified. In analyzing the results of her behavior mapping for the types of activities, the researcher first examined variations in

**Table 6.3: Users at Rest: Quadrants I, II, III, IV**

Saturday, September 26, 1998

Quadrant	Number of Users
I	30
II	40
III	32
IV	44
<b>Total</b>	<b>146</b>

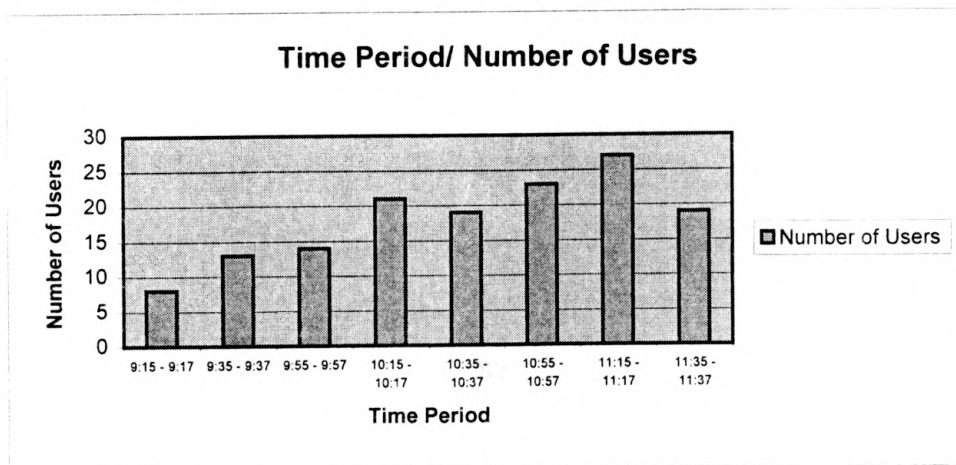
**Figure 6.7: Users at Rest at Quadrants I, II, III, and IV**



**Table 6.4: Aggregate Number of Users for Different Time Periods**

Time Period	Number of Users
9:15 - 9:17	8
9:35 - 9:37	13
9:55 - 9:57	14
10:15 - 10:17	21
10:35 - 10:37	19
10:55 - 10:57	23
11:15 - 11:17	27
11:35 - 11:37	19

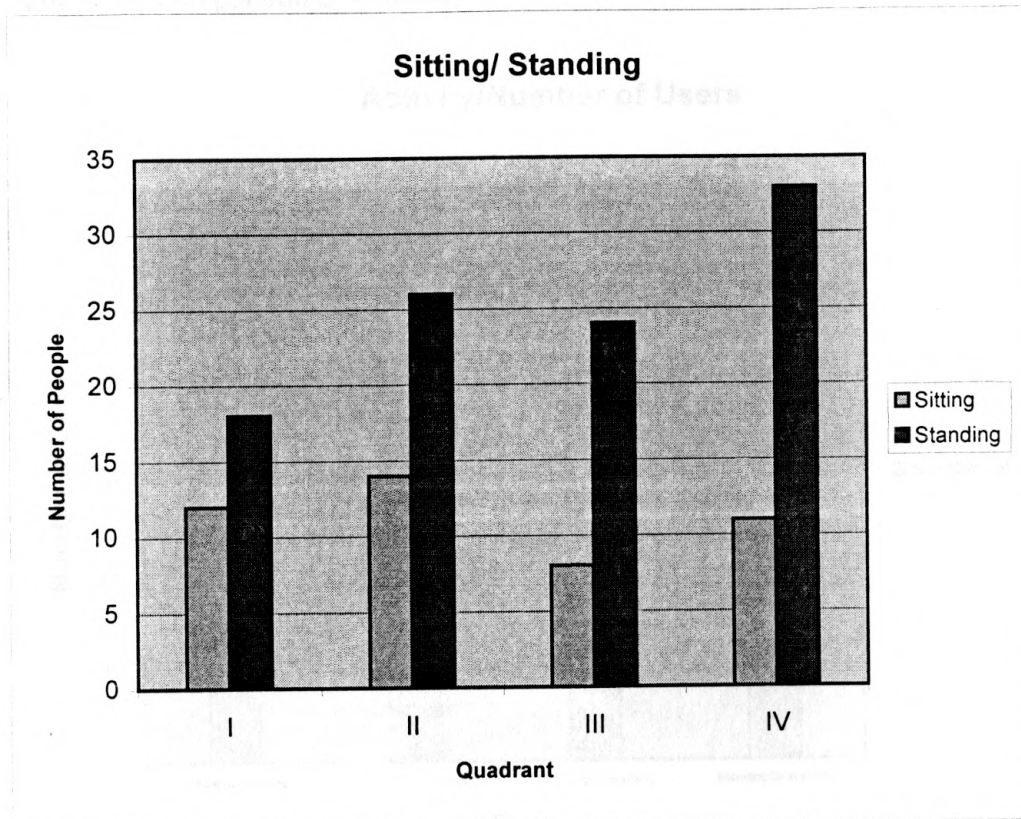
**Figure 6.8: Aggregate Number of Users for Different Time Periods**



**Table 6.5: Comparison of Sitting and Standing: Quadrant I, II, III, and IV  
Saturday, September 26, 1998**

Quadrant	Sitting	Standing
I	12	18
II	14	26
III	8	24
IV	11	33

**Figure 6.9: Comparison of Sitting and Standing: Quadrant I, II, III and IV**

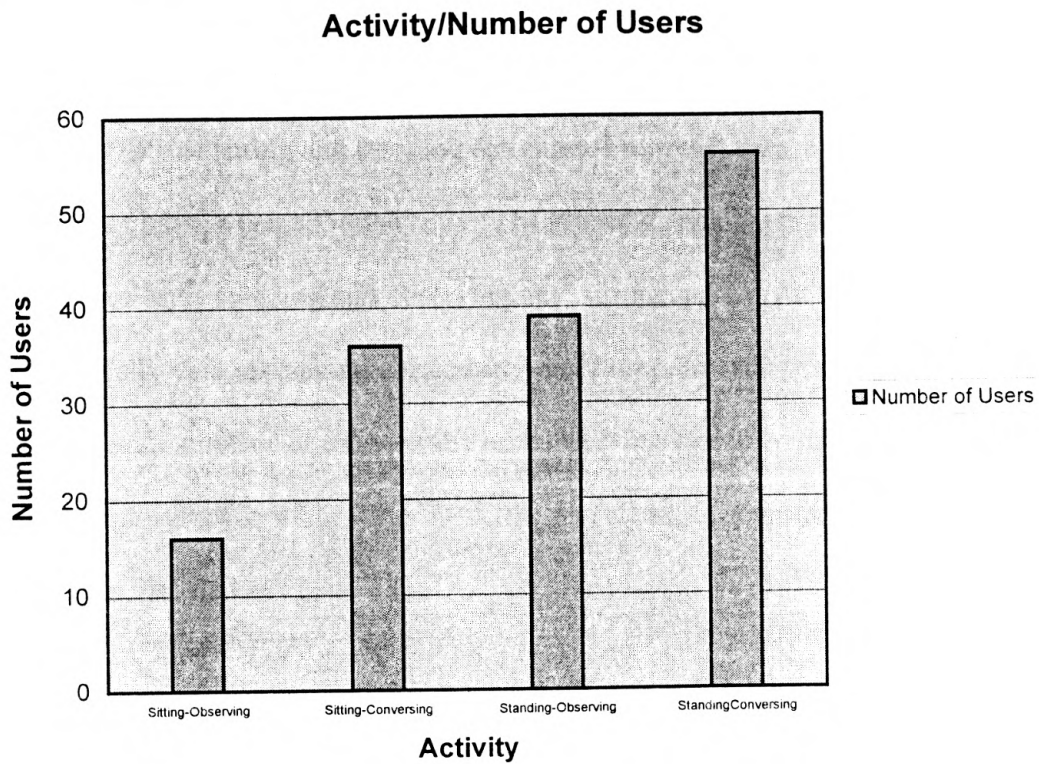


**Table 6.6: Comparison of Activities**

Staturday, September 26, 1998

Activity	Number of Users
Sitting-Observing	16
Sitting-Conversing	36
Standing-Observing	39
StandingConversing	56

**Table 6.10: Comparison of Activities**





aggregate number of users in terms of sitting/standing. Table 6.5 and figure 6.9 summarize the aggregate user numbers for sitting and standing activity. From this table, one sees a greater number of users standing, averaging twenty-five users per observation quadrant. On the other hand, the table also shows that for the users sitting, the average number is only twelve per observation quadrant. This difference in the aggregate number of people sitting and standing at the market is due to the absence of seating provision in the plaza.

Next, the researcher proceeds to the recordings of various activities performed by users at rest. Table 6.6 and figure 6.10 summarize the aggregate user counts for the various types of sitting and standing activities. From this data, one sees the greatest number of users engaged in the activity of standing and conversing. The aggregate number of users standing and observing, and sitting and conversing did not substantially vary, averaging about thirty-eight users in each category. On the other, the aggregate number of users sitting and observing was only sixteen. Thus, there is a fairly large variation in the kinds of sitting and standing activities during the farmers' market in the Market Plaza.

### **Analysis of Users in Terms of Age and Gender**

Having looked at the analysis of users at rest, the researcher now analyzes these users with respect to their age and gender. The researcher first examined variations in users' ages, which are presented in table 6.7 and figure 6.11. From table 6.7, one sees a greater number of users among young adults and middle-aged individuals, averaging forty-eight users for these two categories. On the other hand,

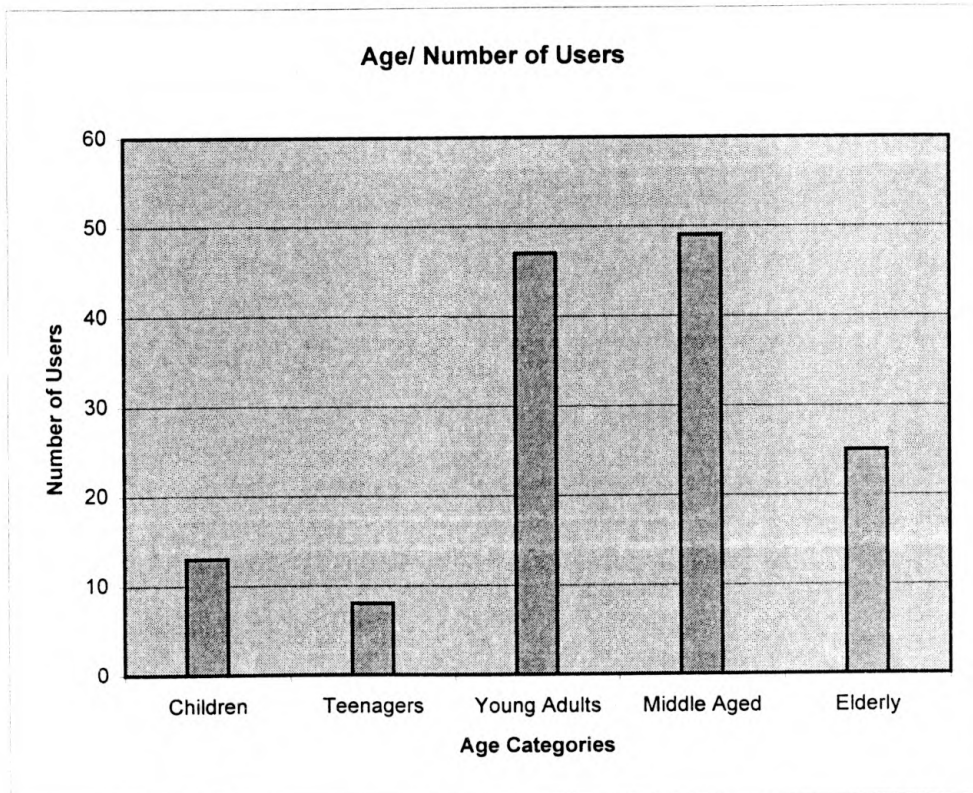
**Table 6.7: Comparisons of Plaza Use for Various Age Groups**

Saturday, September 26, 1998

Location	Children	Teenagers	Young Adults	Middle Aged	Elderly
9:15 - 9:17			3	4	1
9:35 - 9:37	1		6	3	3
9:55 - 9:57			4	6	4
10:15 - 10:17	3	4	5	7	2
10:35 - 10:37	1	1	8	7	2
10:55 - 10:57	4		6	7	6
11:15 - 11:17	2	2	8	9	5
11:35 - 11:37	2	1	7	6	3

	Children	Teenagers	Young Adults	Middle Aged	Elderly
Total	13	8	47	49	25

**Figure 6.11: Comparison of Plaza Use for Various Age Groups**



the table shows that for the other three categories (children, teenagers and elderly), the average number of users is only fifteen.

Next, the researcher analyzed the types of user groups with respect to gender. Table 6.8 illustrates the gender composition of plaza users and shows more females than males. This difference is relatively small—sixty-eight males vs. seventy-eight females—and little inference can be made as to whether the plaza use is significantly different because of gender.

**Table 6.8: Comparison of Plaza Use for Males and Females**

Saturday, September 26, 1998

User Group	Males	Females
Children	8	5
Teenagers	3	5
Young Adults	26	24
Middle Aged	21	30
Elderly	10	14
Total	68	78

## CHAPTER 7

### BEHAVIORAL ANALYSIS OF THE MARKET PLAZA DURING THE OKTOBERFEST

Having presented the analysis of the farmers' market, the researcher presents in this chapter an analysis of her observations for the Oktoberfest, which was held on the October 3 and 4, 1998. During this observation period, the weather was sunny and mild with the maximum temperature at seventy-three degrees Fahrenheit and minimum at forty-eight degrees Fahrenheit. In presenting this analysis of the Oktoberfest, the researcher begins with: (1) analysis of user movement patterns; (2) analysis of people at rest; and (3) analysis of users in terms of age and gender. Before presenting the analysis of behavioral mapping of the Oktoberfest, the researcher provides a brief physical description of the plaza on Saturday and Sunday, October 3 and 4, 1998.

The Annual Old Town Oktoberfest is held in the plaza during the first weekend of the month of October every year. Contests, food and entertainment involving live band and dance performances are presented to relive the spirit of German traditions. This year, the sixth "Annual Old Town Oktoberfest" was scheduled on October 3—4, the first weekend of that month. The "River City Brewing Company" sponsored this event. At the festival, food and beer were available and various bands and performers from in and around the State were invited to perform. The next section describes the physical set up of the Oktoberfest in more detail.

The Oktoberfest started gaining momentum by 10.30 a.m. on Saturday, October 3. The plaza provided a fairly high flexibility to transform itself into the informal

Oktoberfest setting. The main attractions were the beer trailer in the center of the plaza as seen in figure 7.1, along with a relatively big tent with temporary seating provision for people to eat and drink. As seen in figure 7.2, a temporary stage was erected at the northern end of the plaza for the professional performers at the Oktoberfest. As illustrated in figure 7.3, temporary seating along with tables was provided within the plaza. The southern side of the plaza, as seen in figures 7.4 and 7.5 was converted to a food court, with a few stalls with colorful tents and tables on which food was displayed. As illustrated in figure 7.6, the eastern portion of the plaza was occupied by the children's play area.

Thus, looking at the overall layout of the plaza during the Oktoberfest, as shown in figure 7.7, one notes that the trailer and beer tent physically divided the plaza into two parts—a northern and southern section. Because of the many people at the Oktoberfest, imaginary lines using the tiling pattern of the plaza as reference were used to divide the plaza into six sectors for observation as described in chapter four.

### **Analysis of User Movements**

Having looked at the brief physical description of the plaza for the Oktoberfest, the researcher now proceeds to the analysis of user movements during the Oktoberfest. As explained in chapter four on methodology, the researcher observed pedestrian movements from 11.30 a.m. to 6.35 p.m. on both days. The aggregate counts for the Oktoberfest users are presented in tables 7.1—7.2 and figures 7.7—7.8. In addition, tables 15—22 in appendix A present day-to-day aggregate user counts for the Oktoberfest. From table 7.1, it can be seen that the two-day total count of people for the

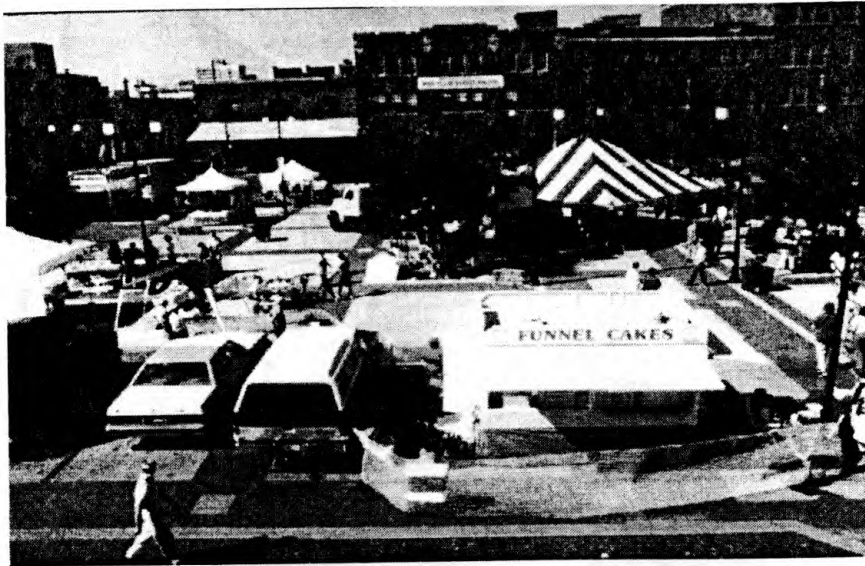


Figure 7.1: Central  
Portion of Plaza during  
Oktoberfest



Figure 7.2: Northern  
Portion of Plaza during  
Oktoberfest



Figure 7.3: Western  
Portion of Plaza during  
Oktoberfest



Figure 7.4: Southeastern Portion of Plaza—the Food Court



Figure 7.5: Southwestern Portion of Plaza—the Food Court

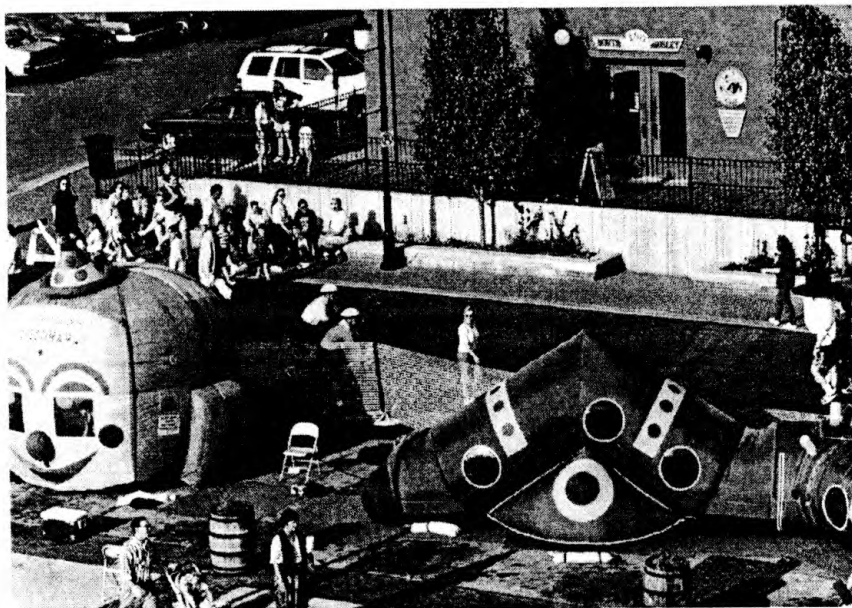


Figure 7.6: Eastern Portion of Plaza—Children's Play Area



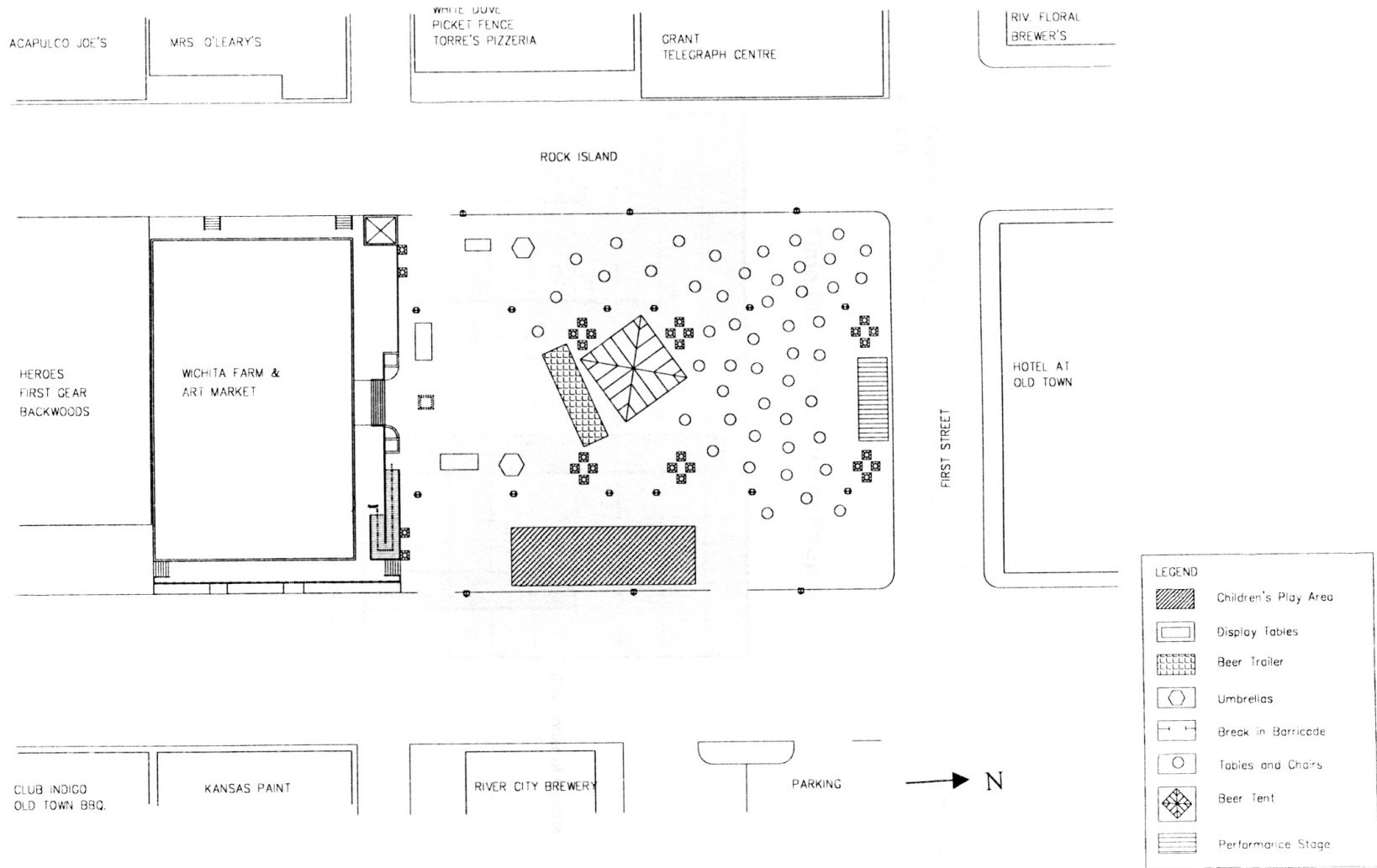


Figure 7.7: Layout of Farm and Art Market Plaza during Oktoberfest

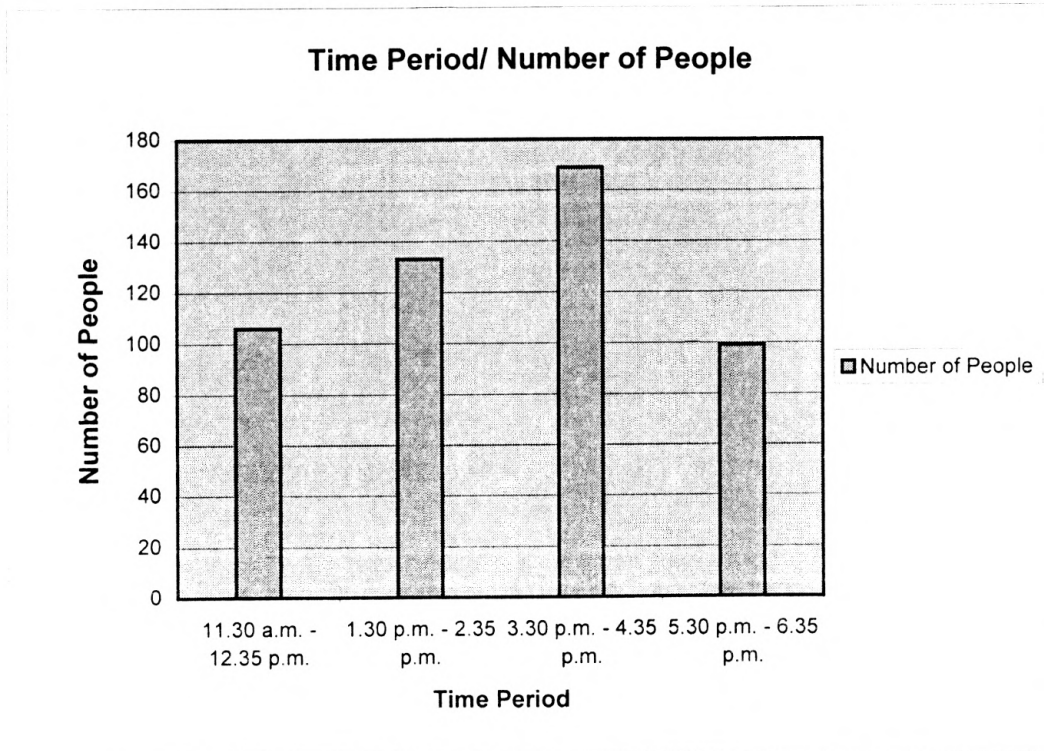
**Table 7.1: Behavior Mapping of Movement patterns at the Oktoberfest**

October 3 - 4, 1998

Time Period	Number of People
11.30 a.m. - 12.35 p.m.	106
1.30 p.m. - 2.35 p.m.	133
3.30 p.m. - 4.35 p.m.	169
5.30 p.m. - 6.35 p.m.	99
<b>Total</b>	<b>507</b>

**Figure 7.8: Behavior Mapping of Movement patterns at the Oktoberfest**

October 3 - 4, 1998



**Table 7.2: Total Number of People for the Six Paths**

October 3 - 4, 1998

Paths	No. of People
A	168
B	34
C	205
D	39
E	40
F	21
<b>Total</b>	<b>507</b>

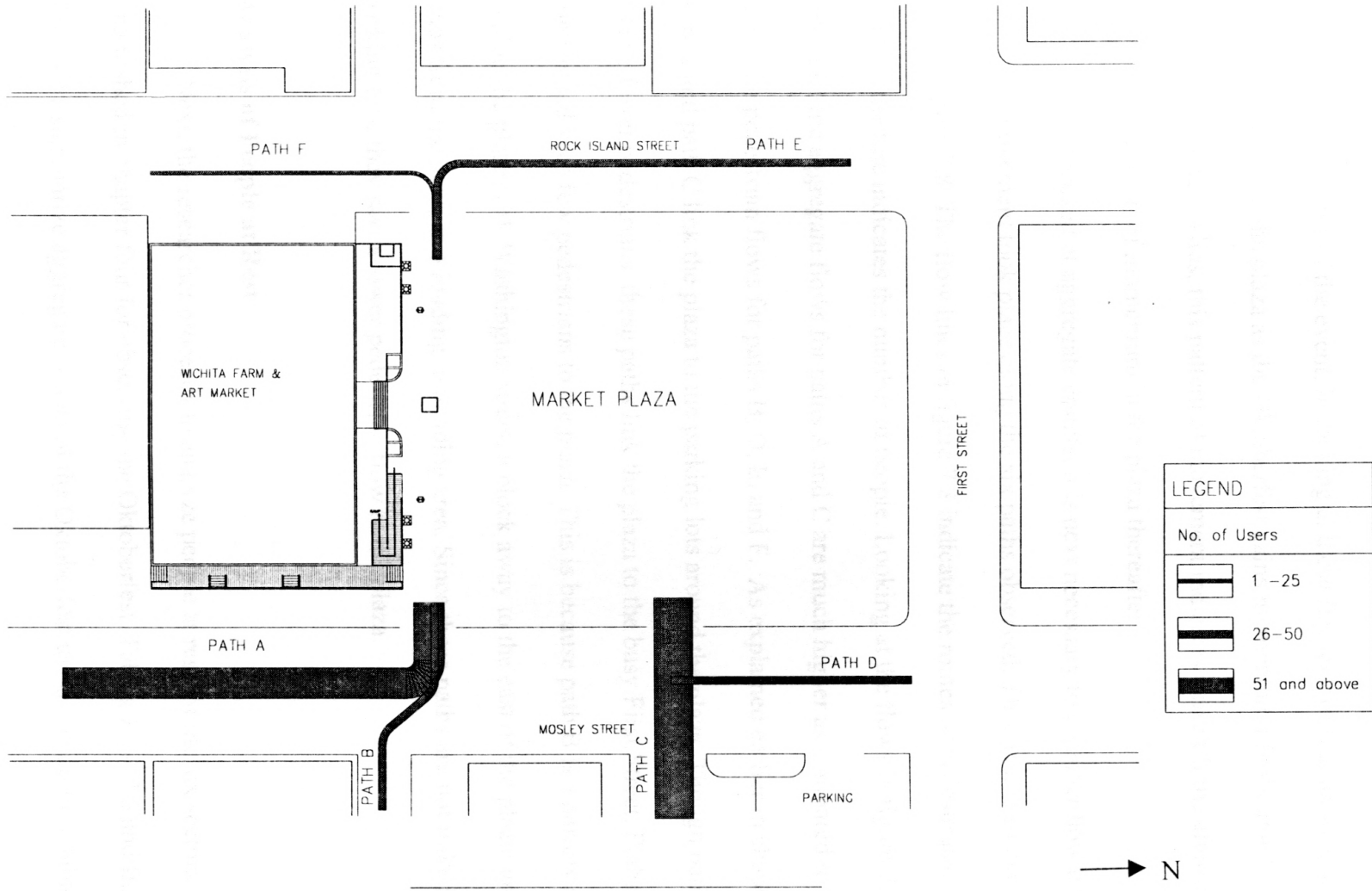


Figure 7.8: Pedestrian Flow Intensity at the Farm and Art Market Plaza during Oktoberfest

Oktoberfest was 507. This table also shows the aggregate counts of users for the different time periods in the plaza (e.g. 11.30 a.m. – 12.35 p.m., 1.30 p.m. – 2.35 p.m., and so forth) for the two days of the event. In looking at these figures, we find an increase in the number of people at the plaza as the Oktoberfest gains momentum till about 4.35 p.m. and then a decrease. Thus, this pattern of movement indicates a rise till the afternoon hours and then a fall of momentum in the plaza thereafter.

Having looked at aggregate counts, it is next necessary to consider how much pedestrian movement took place along the six paths observed. This data is shown in table 7.2 and figure 7.8. The flow lines in figure 7.8 indicate the routes of pedestrians, and the width of the line indicates the number of people. Looking at the flows in figure 7.8, one notes that the aggregate flows for paths A and C are much higher as compared to aggregate pedestrian flows for paths B, D, E, and F. As explained earlier in chapter four, path A and path C link the plaza to the parking lots around the plaza. Though paths D and E have fewer pedestrians, these paths link the plaza to the busy First Street. Paths B and F contributed very few pedestrians to the plaza. This is because path B is a narrow alley joining the plaza with Washington street, a block away to the east of the plaza; and path F leads from the plaza to a loading/ unloading area. Since these paths are not linked to any parking lots, they saw a lower pedestrian flow to the plaza.

### **Analysis of People at Rest**

Next, the researcher proceeds to analyze people at rest for the six sectors established in chapter four for observing the Oktoberfest. Tables 7.3—7.6 and figures 7.9—7.11 summarize aggregate counts of the Oktoberfest users. In addition, tables 23—

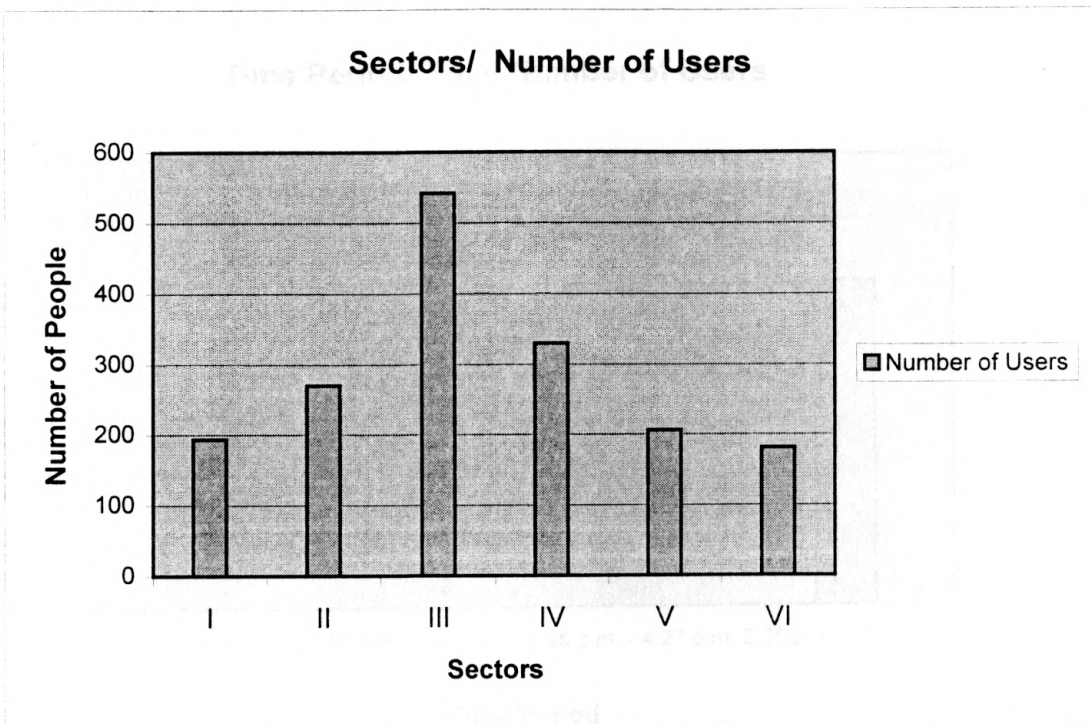
**Table 7.3: Users at Rest**

October 3 - 4, 1998

Sectors	Number of Users
I	194
II	270
III	542
IV	330
V	206
VI	181
Total	1723

**Figure 7.9: Users at Rest**

October 3 - 4, 1998



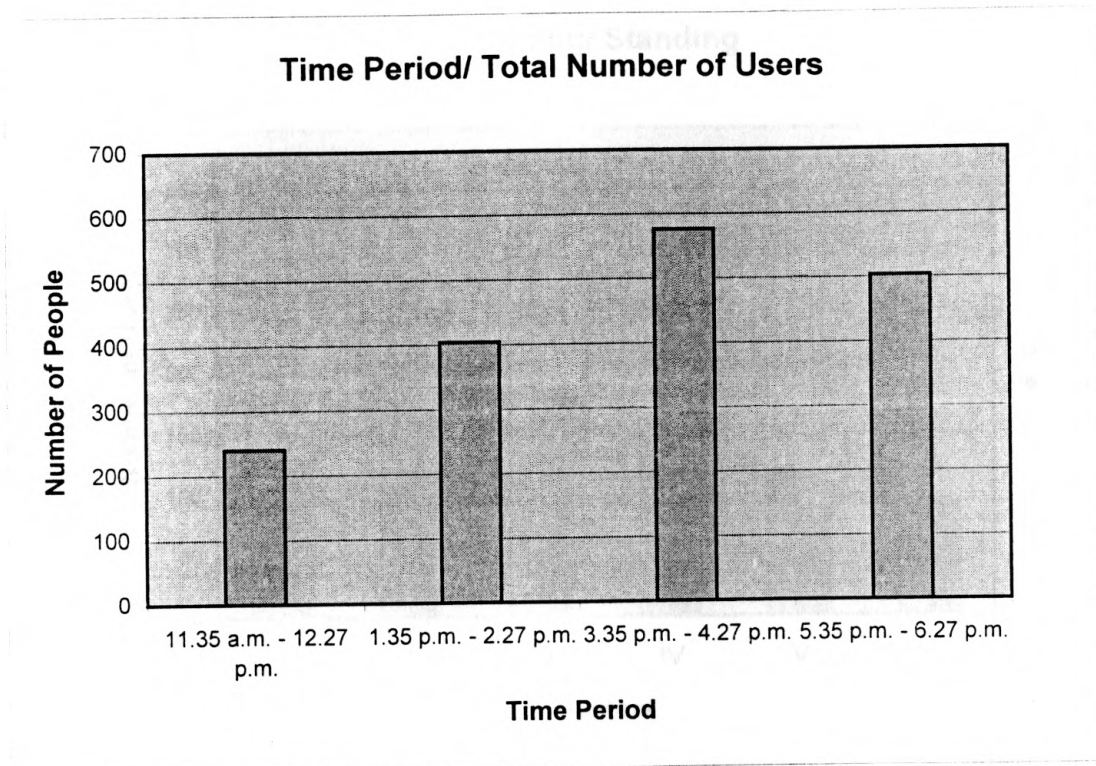
**Table 7.4: Aggregate Number of Users for Different Time Periods**

October 3 - 4, 1998

Time Period	Saturday	Sunday	Total
11.35 a.m. - 12.27 p.m.	107	133	240
1.35 p.m. - 2.27 p.m.	193	211	404
3.35 p.m. - 4.27 p.m.	295	281	576
5.35 p.m. - 6.27 p.m.	258	245	503

**Figure 7.10: Aggregate Number of Users for Different Time Periods**

October 3 - 4, 1998



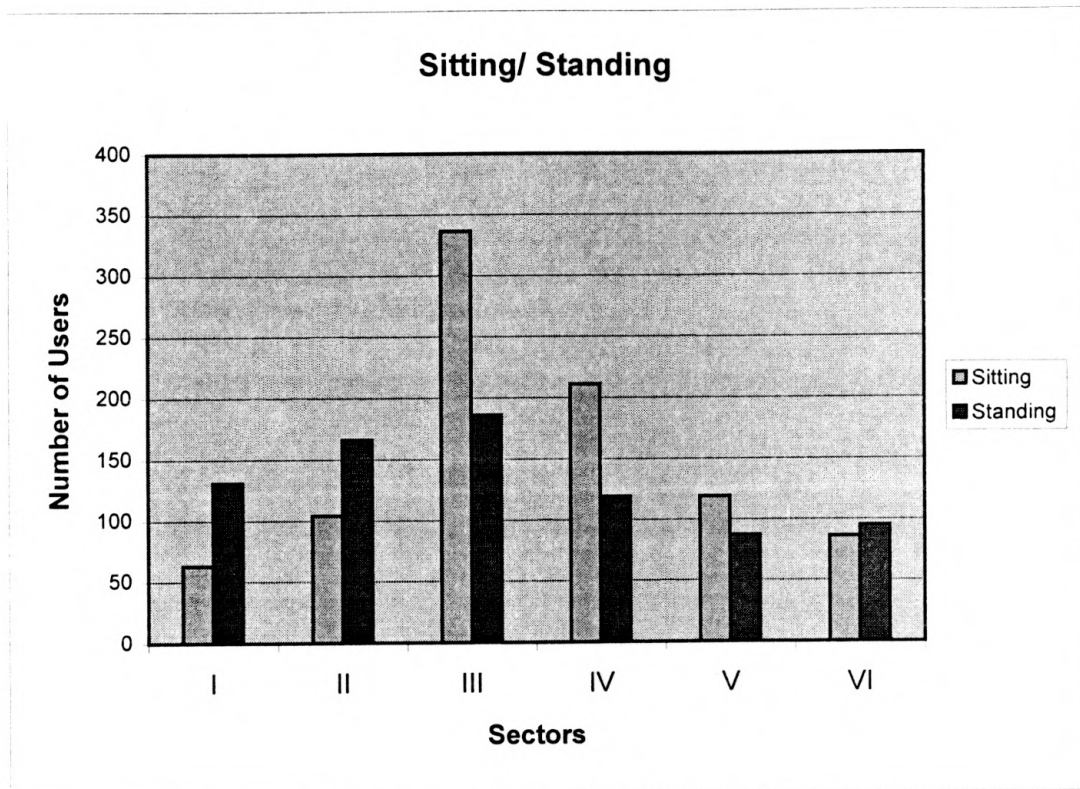
**Table 7.5: Comparison of Sitting and Standing:**

October 3 - 4, 1998

Sectors	Sitting	Standing
I	63	131
II	104	166
III	336	186
IV	211	119
V	119	87
VI	86	95

**Table 7.11: Comparison of Sitting and Standing:**

October 3 - 4, 1998





**Table 7.6: Comparison of Activities for the Oktoberfest**

October 3 - 4, 1998

Activity	Number of Users
Sitting - Observing	132
Sitting - Conversing	363
Sitting - Eating	169
Standing - Observing	168
Standing - Conversing	186
Standing - Eating	188
Playing	38
Dancing	27
Singing	15

Next, the researcher will compare the variation in the number of users at different time periods (e.g., 11:30 a.m. to 1:30 p.m., 1:30 p.m. to 3:30 p.m., and so on). Table 7.5 and figure 7.19 compare the total user count, and the number of users at rest, to the increase in the number of users at the Oktoberfest as it gets underway about 5:00 p.m. and thereafter.

Having looked at the aggregate numbers of people at rest, the researcher will look at the aggregate numbers of people engaged in various Oktoberfest activities. As was identified in chapter 4 and is summarized in table 7.6, 7.7 and figure 7.17, the researcher used the results of an activity mapping for the users at rest to identify the activities that were engaged in by the number of users at rest. In table 7.6 and figure 7.17, the researcher has aggregated the number of users at rest for each activity. Table 7.6 and figure 7.17 show that the aggregate number of users at rest for sitting and standing activities is much higher than the aggregate number of users at rest for other activities. The researcher will also look at the aggregate number of users at rest for each activity and compare it to the aggregate number of users at rest for each activity. The researcher will also look at the aggregate number of users at rest for each activity and compare it to the aggregate number of users at rest for each activity.

30 in appendix A present day-today aggregate counts for the event. Table 7.3 and figure 7.9 summarize aggregate counts for the six sectors at the Oktoberfest. From this data it can be seen that the two-day total count was 1723. Also, one sees the aggregate counts for each of the sectors, which ranged from 181 (sector VI) to 542 (sector III). In looking at these figures, we find there is a fairly even distribution in sectors I, II, V, and VI. Recognizing that sectors III and IV are larger than sectors I, II, V, and VI, we can conclude that there is a fairly even distribution of users in the plaza.

Next, the researcher sought to determine the variations of people at rest for the different time periods (e.g. 11.35 a.m.—12.27 p.m., 1.35 p.m.—2.27 p.m. and so forth). Table 7.4 and figure 7.10 summarize aggregate user counts, and one can conclude that there is a steady increase in the number of users at the Oktoberfest as it gathers momentum till about 5.00 p.m. and then decreases.

Having looked at the aggregate numbers of people at rest, the researcher now looks at the aggregate numbers of people engaged in various Oktoberfest activities, which were identified in chapter four and are summarized in tables 7.5—7.6 and figure 7.11. In analyzing the results of her behavior mapping for the types of activities, the researcher first examined variations in aggregate number of users in terms of sitting/standing. Table 7.5 and figure 7.11 summarize the aggregate number for sitting and standing activities. From this table, one sees a greater number of sitters averaging 161 per observation sector. Also, the table shows that for the users standing, the average number was 126 per observation sector. This difference in the aggregate number of people sitting and standing at the plaza is due to the presence of temporary seating provision in the plaza.

Next, the researcher analyzes the various activities performed by users at rest. Table 7.6 summarizes the aggregate counts for the various types of sitting and standing activities recorded. The aggregate number of users sitting and eating and standing and observing did not substantially vary, averaging 168 users in each category. Also, the categories of users standing and conversing and standing and eating did not see any substantial variation with an average of 187 users in each of these categories. On the other hand, the aggregate number of users sitting and conversing was high with an aggregate number of 363 users. Yet again, the categories for playing, dancing and singing had an average of only twenty-seven. Thus, there was a fairly large variation in the kinds of sitting and standing activities during the Oktoberfest in the Market Plaza.

### **Analysis of Users in Terms of Age and Gender**

Having looked at the analysis of users at rest, the researcher now analyzes these users with respect to their age and gender. The researcher first examined variations in users' ages, which are presented in table 7.7 and figure 7.12. From table 7.7, one sees a greater number of users among young adults and middle-aged individuals, averaging 433 for these two categories. Users among elderly, children and teenagers are also well represented, unlike a typical day observation, averaging 276 for these three categories.

Next, the researcher analyzed the types of user groups with respect to gender. Table 7.8 illustrates the gender composition of plaza users and shows more males than females. This difference is relatively small—880 males vs. 843 females—and little inference can be made as to whether the plaza use is significantly different because of gender during the Oktoberfest.

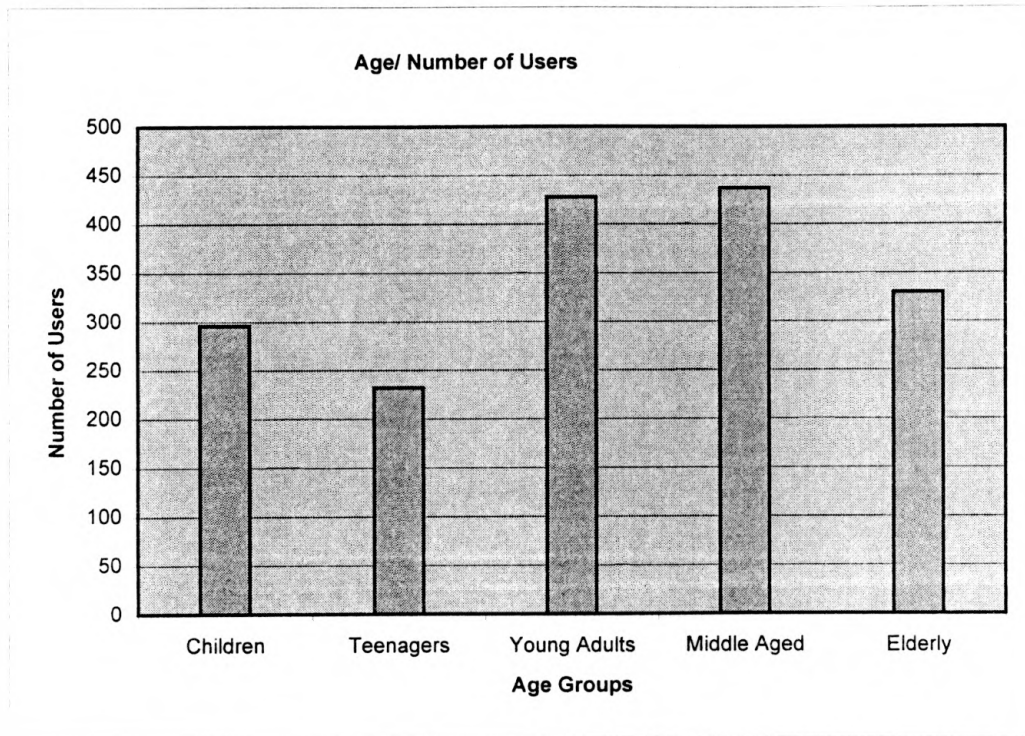
**Table 7.7: Comparisons of Plaza Use for Various Age Groups at Oktoberfest**

October 3 - 4, 1998

Time	Children	Teenagers	Young Adults	Middle Aged	Elderly
11.35 a.m. - 12.27 p.m.	35	29	68	59	49
1.35 p.m. - 2.27 p.m.	76	45	94	101	88
3.35 p.m. - 4.27 p.m.	104	74	134	154	110
5.35 p.m. - 6.27 p.m.	81	84	132	123	83

	Children	Teenagers	Young Adults	Middle Aged	Elderly
Total	296	232	428	437	330

**Figure 7.12: Comparison of Plaza Use for Various Age Groups at Oktoberfest**



**Table 7.8: Comparison of Plaza Use for Males and Females during Oktoberfest**

October 3--4, 1998

User Group	Males	Females
Children	121	175
Teenagers	143	89
Young Adults	216	212
Middle Aged	244	193
Elderly	156	174
Total	880	843

## CHAPTER 8

### DESIGN IMPLICATIONS FOR THE FARM AND ART MARKET PLAZA AND ITS SURROUNDINGS

Having presented the behavioral analysis of the Market Plaza, the researcher now discusses design and policy implications, integrating the findings from the literature review of chapter two and the empirical analysis of chapters five, six and seven. From the historical background, we know that the Market Plaza did not evolve as a plaza to be used for social interaction. Rather, it was a parcel of land that was arbitrarily converted to a plaza in the late 1980s. When proposing design guidelines, the positive features of the existing plaza and its surroundings—for example, its use for large gatherings and the historic uniqueness of the Old Town District of which it is a part—need to be retained; hence, it is crucial that the proposed design guidelines do not disrupt these functional and historical qualities. At the same time, the existence of these qualities brings up the delicate issue of retaining the plaza's positive features while making it better through changes and additions. Design implications in regard to the plaza will be discussed here in terms of three levels of scale: (1) the district; (2) the plaza's rim; and (3) the plaza itself.

#### (1) The Plaza and Its District

According to Jacobs (1961), it is essential to look at an urban space in its totality rather than in isolation. It is not designing a particular space with respect to landscaping and other design elements of the space itself but, rather, a consideration of the space as it relates to its surrounding physical context. As mentioned earlier, diversity is a key word here. Diversity can be achieved only if there is a sufficient mixture of uses and users.

Jacobs says that especially, the presence of more than one primary function is crucial in generating diversity. Primary uses are those to which users are necessarily drawn—for example, offices, factories, residences and educational institutions. Secondary uses are enterprises that develop in response to the presence of primary uses, to serve the people the primary uses draw. According to Jane Jacobs (1961), a successful district must have at least two primary uses to maintain an adequate level of street activity.

As illustrated in figure 8.1, the larger study area of which the plaza is a part consists mainly of offices and non-industrial employment firms. Due to lack of other types of uses, this area sees considerable activity mostly during the office hours of weekdays but it is largely unoccupied, when workers are not in the district during evenings and weekends. In this sense, the study area surrounding the plaza is concentrated with offices and has only a few residential complexes. A hotel to the north of the Market Plaza will be another primary use when it opens in the spring of 1999. If we trust Jane Jacobs, more concentrations of primary uses like residential complexes would help attract people to the plaza even after office hours, and thus this function needs to be incorporated in the district. In the next chapter, the researcher will present the redesign of the district where she proposes more primary uses within the district.

Another important element to consider in the redesign of the study area surrounding the Market Plaza is *permeability*. As discussed earlier in chapter two, *permeability* is another important quality in designing an urban district because places that are accessible offer users a choice in terms of potential pathways and routes. Permeability is of no use unless the users are physically and visually aware of the choices offered—the access points and destinations. This quality in turn relates to block size.

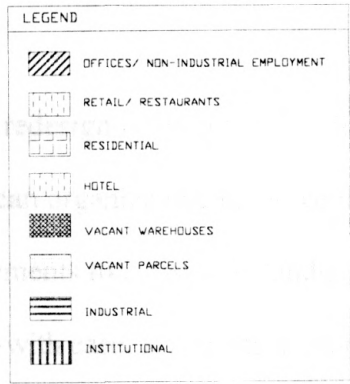
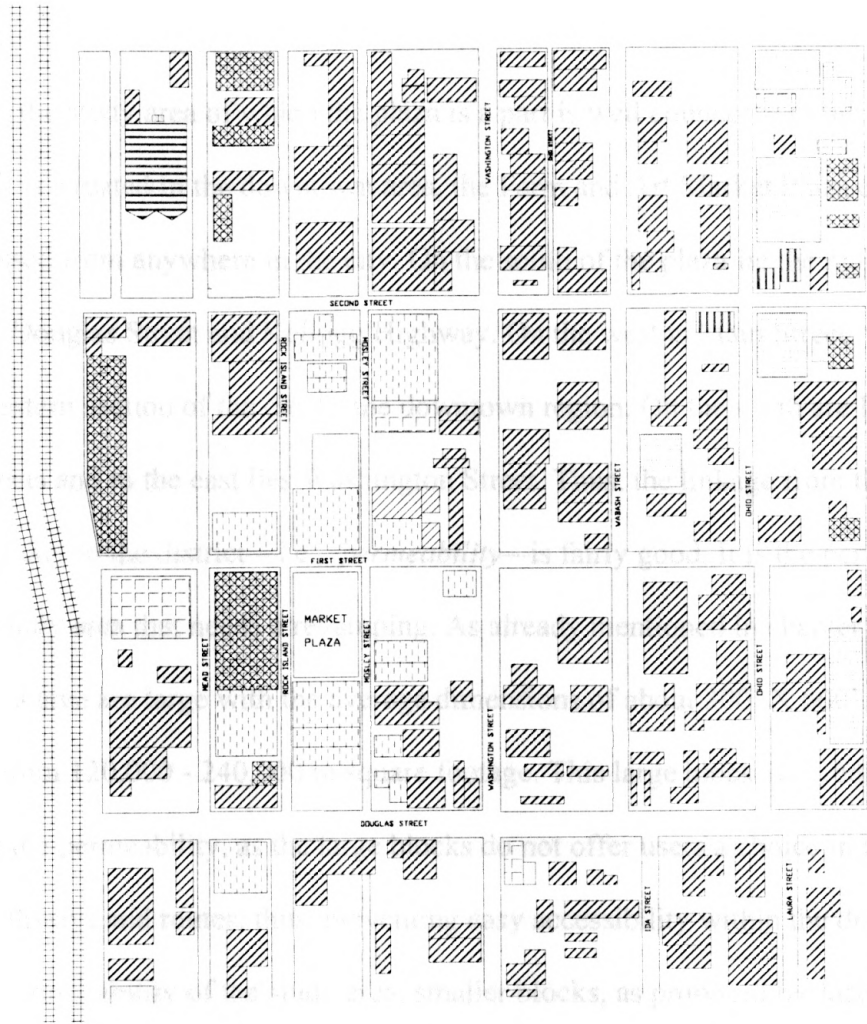


Figure 8.1: Land-use Plan of the Farm and Art Market Plaza's District



Small blocks increase pathway choice and thus increase physical permeability. Also in smaller blocks it is easier to see from one junction to another, thus increasing visual permeability.

Overall, the study area of which the plaza is a part is well connected to the city as a whole. As it is situated in the downtown area, the Farm and Art Market Plaza can be easily accessed from anywhere in the city. On the south of the plaza lie the major arteries of Wichita, Douglas Street and Kellogg Highway. On the west is Main Street, which joins the western section of the city to the downtown region. On the north are First and Second Streets and to the east lies Washington Street. Thus, the linkage from the surrounding city to the district—i.e., *permeability*—is fairly good. It is the permeability within the study area that needs a revamping. As already mentioned in chapter three, the blocks in this area are large with the average dimensions of about 300' X 600'. Thus, they range from 120,000 - 240,000 in square footage. This large block size reduces the potential of the permeability, as the large blocks do not offer users a choice in terms of potential pathways and routes, thus, preventing easy accessibility within the district. To increase the permeability of the study area, smaller blocks, as proposed by Jacobs, need to be created. This possibility will be discussed in the redesign of the district, in the following chapter.

Yet another important element to consider in the redesign is *legibility*. As discussed in chapter two, legibility relates to how easily the user can organize and perceive the environment. Legibility can be improved through elements like districts, landmarks, and paths. Legibility helps users move within the district with ease. It imparts a strong character, easily distinguished by users.

As far as the Old Town District of which the plaza is a part is concerned, the unique character of the district with the nineteenth-century warehouses and their brick facades helps increase the legibility. Also, as illustrated in figure 8.2, the presence of three buildings, the Keen Kutter building, Lark Spur and Innes Apartments (all nominated for the Wichita Register of Historic Places) are major historic landmarks within the district. On the other hand, the legibility of streets can be improved by providing avenues of trees on certain streets, thereby imparting a unique district character. This would provide a sense of legibility not only to people in cars but also pedestrians.

## 2. The Plaza's Rim

Next, the researcher presents the design implications for the plaza's rim—i.e., the immediate surroundings of the plaza. The key words in relation to the rim are again diversity, permeability, and legibility. In regard to diversity, the plaza's rim consists presently of both primary and secondary uses. As illustrated in figure 8.2, it can be seen that to the north of the Market Plaza is the Hotel at Old Town, which will be a primary use when it opens in the spring of 1999. Also, proposed condominiums in the vacant warehouse on the western rim of the plaza will be another primary use. The rest of the establishments to the west, south and east are either restaurants or retail businesses and thus secondary uses. In the redesign of the rim, the researcher will propose more primary uses around the plaza to maintain an adequate level of plaza activity.

Another important element to be considered in the redesign of the plaza's rim is permeability. As illustrated in figure 8.3, the first stories of the buildings surrounding the

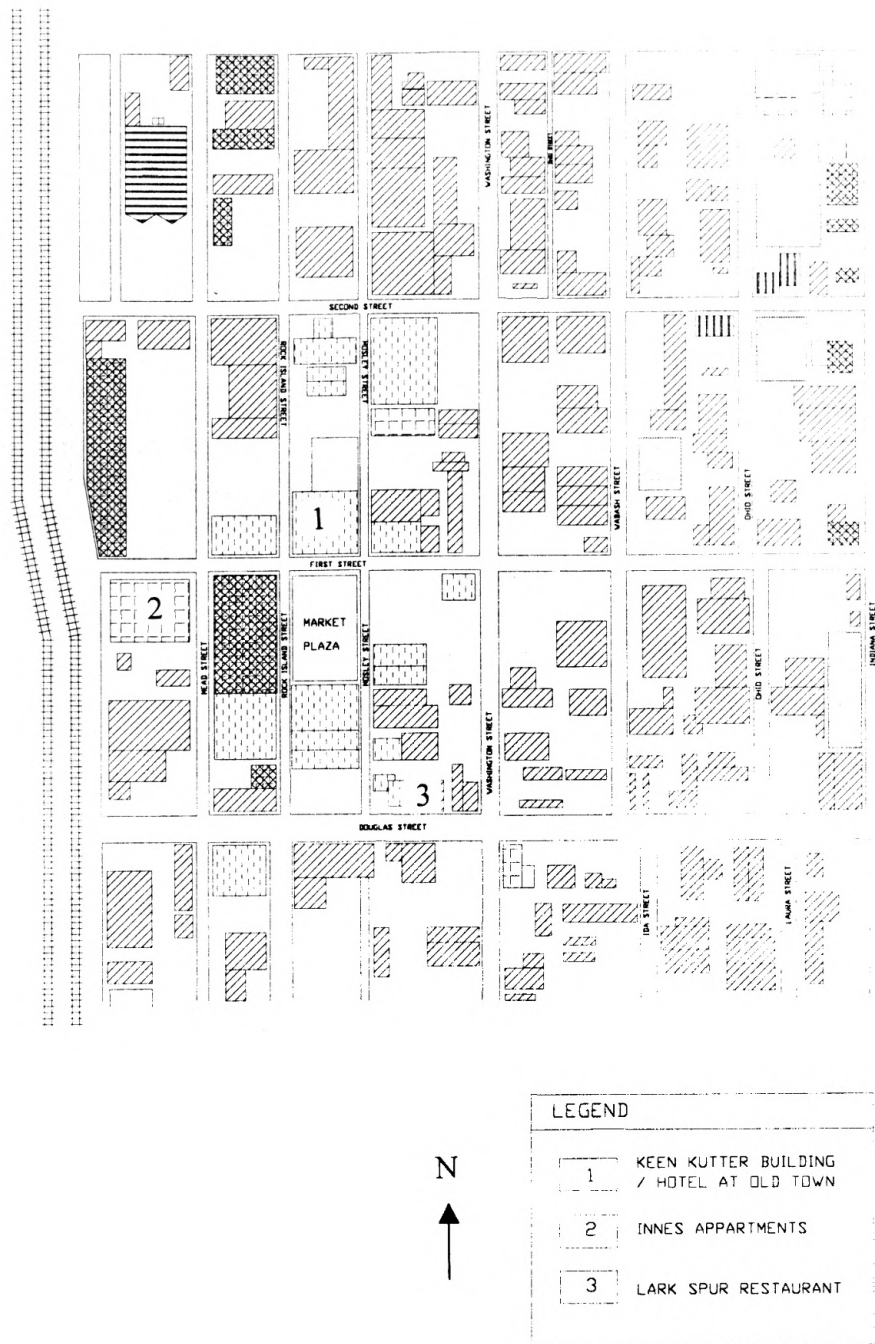


Figure 8.2: Plan of the Farm and Art Market Plaza's District Showing Landmarks

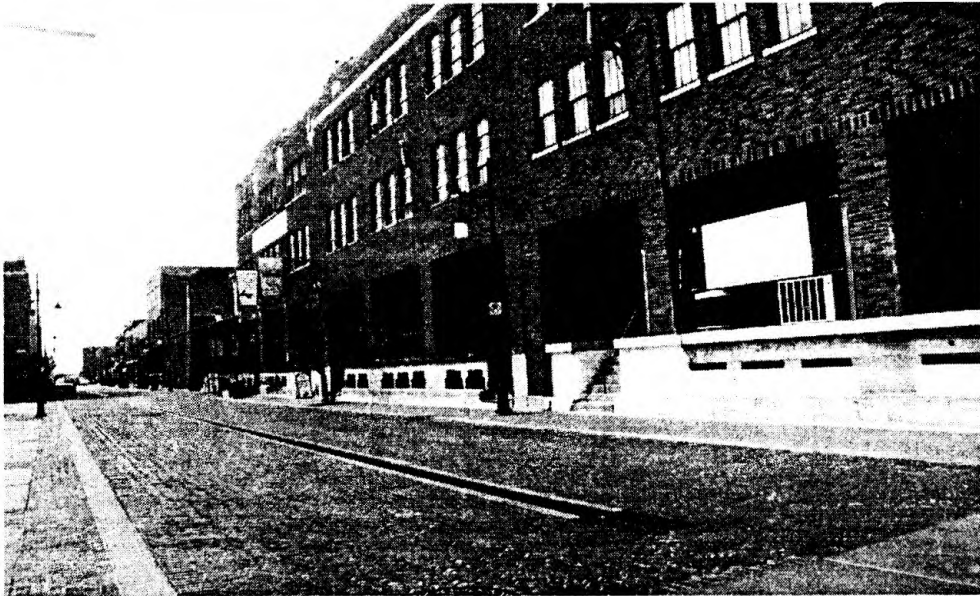
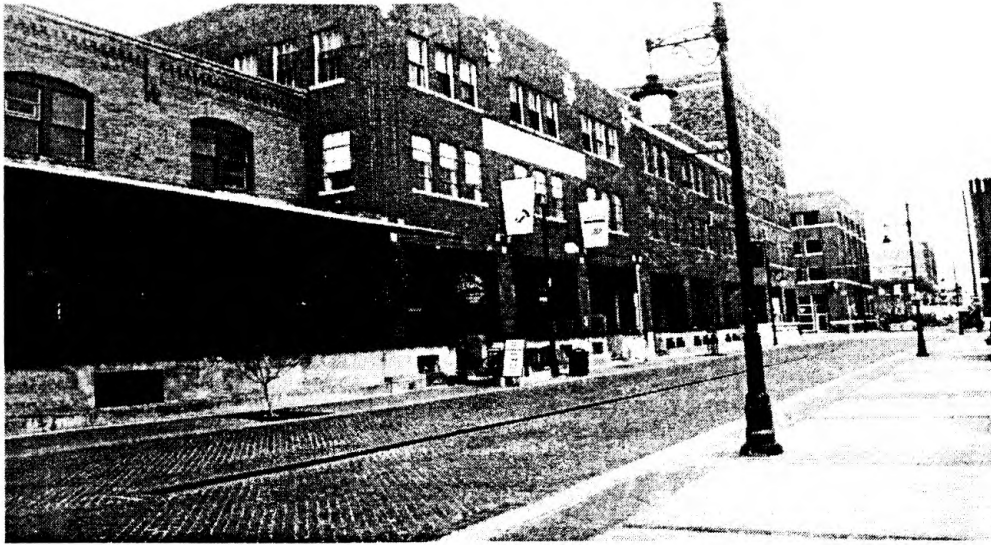


Figure 8.3: Difference in level at the Farm and Art Market Plaza's Rim

plaza are at a level of three feet above ground level. This difference in elevation forms a physical barrier between the plaza at ground level and the plaza's rim, and for stronger spatial connection, a better physical transition is needed between the two levels. This possibility will be discussed in chapter 9 in the section on redesign of the plaza's rim. Also, as illustrated in table 5.9 and figure 5.5, the traffic flows on Mosley Street (marking the eastern rim of the Market Plaza), and Rock Island Street (marking the western rim) are low. This minimal automobile flow will help promote pedestrian permeability, once the users are offered more path choices within the district. Also, a controlled traffic light at the northern rim on First Street connecting the Market Plaza to the hotel would encourage pedestrian permeability at the northern rim of plaza.

*Legibility* is the next important element to be considered in the redesign of the Farm and Art Market Plaza's rim. The Old Town District with its warehouses and red, brick facades has a distinct, homogeneous character, which contributes to the legibility of the district as a whole. On the other hand, this homogeneity makes the district less legible internally. Similar-looking facades and building types generate a certain amount of visual monotony. Hence, as discussed in chapter nine, the plaza redesign will find ways to enhance the district's character and heighten legibility.

As discussed in chapter 3, it is clear that signage is absent most of the time on the facades of the buildings along the plaza's rim. This makes the plaza less interesting visually than it might be otherwise and also minimizes the public's knowledge of the services available within the buildings. Signage would add color and vibrancy to the plaza's rim, and is incorporated in the redesign to be described in chapter 9. As Raquel Ramati (1981, p. 22) explains, "The first function of a sign is to be seen."

As the Old Town is a historic district, the redesign will attempt to integrate signs so that they add life to the façades and become an aesthetic contribution to the plaza. As will be explained in chapter 9, this signage design will follow the City of Wichita guidelines for the Old Town District (Winter & Company, Colorado, 1998).

The next important element that needs to be considered while redesigning the plaza is the *richness* of the Farm and Art Market Plaza's rim. Richness deals with the ways to increase the sensual experiences of the environment for its users. Richness is not only concerned with sight but also with motion, smell, hearing and touch. Additions and modifications to the built environment should be designed to give people choices of sense experiences. In the case of the Farm and Art Market Plaza's rim, the Keen Kutter building, to the north of the plaza and now converted to the Hotel at Old Town, contributes to the visual richness of the rim. Continuous country music played from the River City Brewery also provides a sense of richness to the rim. The fast moving traffic on First Street to a certain degree brings relatively high level of noise. As will be detailed in chapter 9, the redesign will attempt to increase elements of richness along the plaza's rim.

### 3. The Plaza Itself

Next, the researcher presents the design implications for the plaza itself. The key qualities in relation to the plaza redesign are sittable spaces, social comfort, a focal point, presence of subspaces, food, accessibility for disabled people, and integration of pedestrian movements within the plaza in relation to the wider pedestrian flows in the district as a whole.

According to Whyte's research (1980), plaza success is related directly to the amount of *sittable space* available. Marcus and Francis (1989) also emphasize the need for seating in urban plazas. It is also evident from the behavioral mapping that, during special events when temporary seating is provided in the plaza, major activities include people sitting and observing, conversing, eating and so forth. On the other hand, during typical weekdays, the Farm and Art Market Building attracts people to the plaza, but the plaza fails to sustain activity due to lack of seating. This discussion strongly suggests that the proposed redesign for the Market Plaza must provide for seating, which at present is totally absent in the plaza except for temporary seating present on the wooden deck to the south of the plaza.

Another aspect in regard to seating is social comfort, which refers to the various seating preferences people have and the role they assume in public places.

According to Whyte (1980) and Marcus and Francis(1989), there are two types of behaviors among plaza users—some people like to be actively involved in the plaza activities and seek attention, while others prefer to be observers of activities. Thus, while some people prefer sitting in prominent places where there is activity, others prefer to be distanced from activity but wish to watch. Thus, it is crucial to provide seating in appropriate places with physically and socially comfortable sitting systems. Also, the seating provided must be appropriately designed and range from formal seating options to more informal seating such as stairs. The researcher will present proposals for seating in the redesign of the plaza in the next chapter.

Another important feature for a plaza's success, according to Whyte (1980), is the *street-plaza relationship*. Streets adjacent to the plaza help draw people into the plaza

and thus play a very important role in the success of a plaza. The behavioral mapping in chapters 5, 6, and 7 show the specific paths of pedestrian flows in the plaza and its surroundings for a typical week and for special events. A number of these flows are restricted due to the physical barriers present around the edge of the plaza.

In the redesign, the researcher will try to make the plaza more permeable in terms of pedestrian access to the plaza from the surrounding district by introducing more primary uses, as already discussed above in the design implications for the plaza and its district. Major axes for pedestrian pathways through and within the plaza will be derived from these potential flows from the surrounding district to the plaza. The various cross-axes will provide for more variety and ease in entering the Market Plaza and will help make the plaza more sociable. The pedestrian paths following these cross-axes through the plaza will be designed, keeping in mind, social comfort. Thus, seating will be provided along these cross-axes to increase social comfort during social encounters. This possibility will be presented in the redesign of the plaza discussed in the following chapter.

According to Marcus and Francis (1989), large plazas which facilitate sociability should be divided into *subspaces* to encourage more intensive use: they write, “a large open space devoid of street furniture, planting, or people is intimidating to most people, who prefer to be ‘enclosed’ rather than ‘exposed’” (ibid., p. 29). The subdivision of a plaza into smaller spaces by means of level changes, seating, planting, and the like not only may create a more pleasing visual appearance but also may encourage people to find their own enclosed niche and linger for a while. Such subspaces will be incorporated in the design of the Farm and Art Market Plaza in



chapter 9. In designing these subspaces the researcher will also need to take into account the way these subspaces function during special events. Finally, clear sightlines need to be maintained in the design of subspaces so that potential users are aware of the choices offered to them. As Whyte writes, “If people do not see a space, they will not use it” (Whyte, 1980, p. 58).

Both Whyte (1980) and Marcus and Francis (1989) observed in their studies of open spaces that food is one of the major factors that attracts people to open spaces. Although the rim of the Farm and Art Market Plaza includes restaurants, they are inside the buildings and inaccessible directly from the plaza space. Also, the plaza does not have seating for people to bring food into the plaza. The redesign in chapter 9 will, therefore, include extension of the wooden deck of the Farm and Art Market Building for outdoor food service.

The Farm and Art Market Plaza is at presently level with the surroundings and hence is more or less accessible to disabled people. For example, an existing ramp from the plaza to the wooden deck forming the southern extent of the plaza helps disabled people to access the Farm and Art Market Building. The design of the plaza would involve maintaining the level of the plaza at existing level and providing handicap-accessible ramps wherever necessary.

Other redesign considerations of the plaza will include the provision of street furniture—for example, litter bins, light fixtures to encourage plaza use at night, and kiosks which can also be used as stalls during the weekly farmers’ market. Trees, plantings and flowerbeds in certain portions of the plaza will also be integrated in the redesign to provide shade during the summer and to help soften the hard ground

surface. Finally, a focal point of cascading water will act both as a magnet for users and also impart a sense of visual and auditory richness to the plaza.

Thus, the main aim of the redesign is to stimulate what Whyte calls impulse use by the pedestrians, who will more likely be drawn in from the three streets around the rim of the plaza. Having discussed the main design aims for the plaza, the researcher next interprets and integrates them into the actual redesign, which is presented in the next two chapters.

## CHAPTER 9

### THE DESIGN OF THE FARM AND ART MARKET PLAZA'S SURROUNDING AND RIM

In this chapter, the researcher presents the design for the Farm and Art Market Plaza and its district based on the design implications discussed in chapter 8. This design is organized in terms of the three levels presented in that chapter: (1) the Old Town District of which the Farm and Art market Plaza is a part; (2) the rim of the Farm and Art Market Plaza; and (3) the Farm and Art Market Plaza itself.

This design for the Farm and Art Market Plaza and its district combines the restoration of existing nineteenth-century buildings with new development, especially for the plaza. One main focus is to encourage pedestrian activity within the district to help attract more people to the plaza. The design of the plaza's rim works to blend the rim into the plaza and vice versa, thereby removing the sense of frequent separation between the two. The redesign of the plaza itself focuses on creating new pathways that generate much-needed pedestrian flow through the plaza.

#### **Redesigning the District**

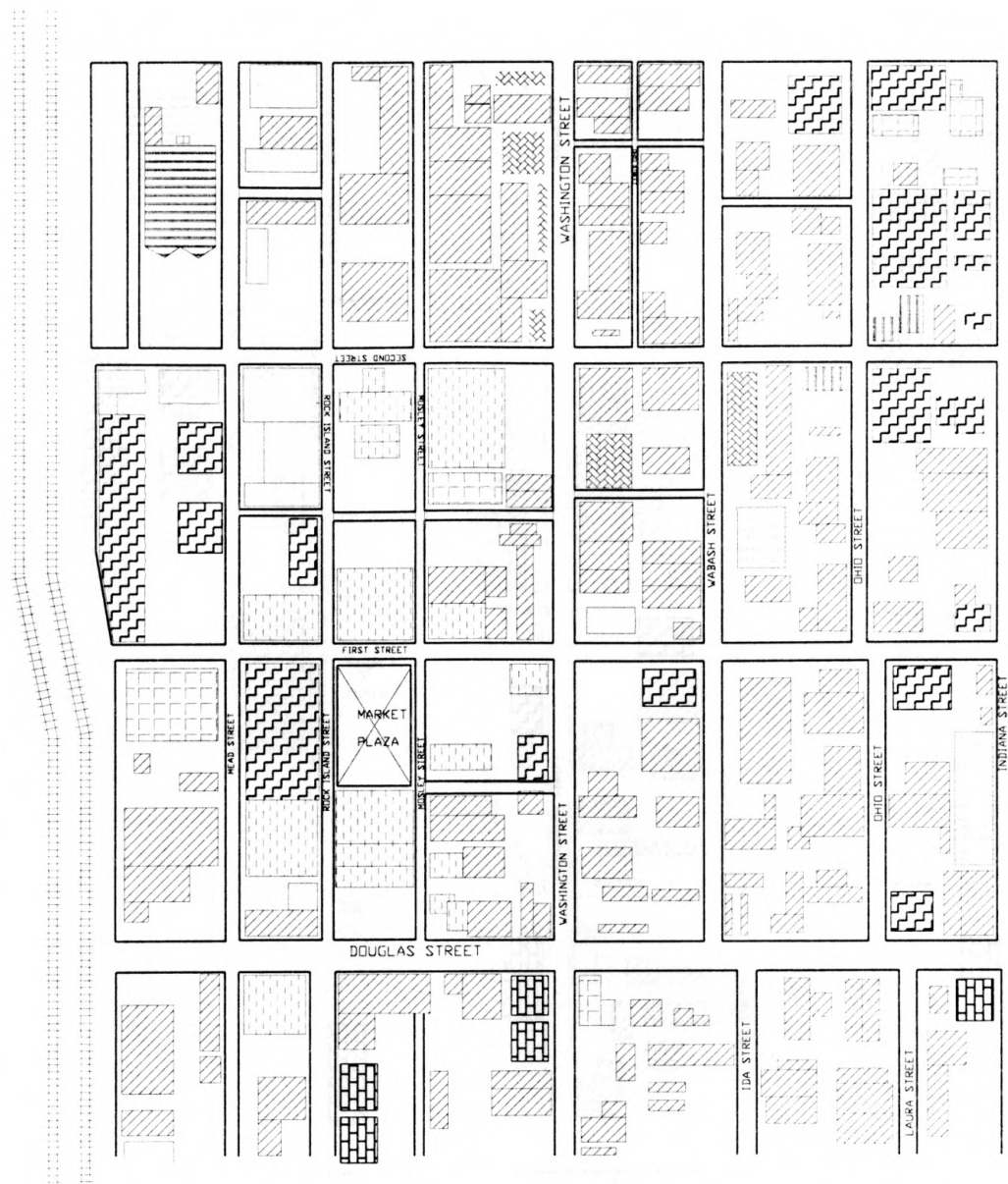
To begin discussion of the design of the plaza and its district, the researcher summarizes the existing strengths and weaknesses of the Old Town District, which are listed in table 9.1. As this table indicates, one main strength is the district's proximity to Wichita's downtown because of which the district houses a large concentration of primary uses, almost all of which are offices and non-industrial employment. The Old Town District also bears a unique character because of its nineteenth-century warehouses

and their red brick facades. Also valuable is the availability of vacant and under-used land, which gives the potential for additional development, including more primary uses.

Table 9.1: Strengths and Weaknesses of the Old Town District

<b>Strengths</b>	<b>Weaknesses</b>
<ol style="list-style-type: none"> <li>1. Proximity to downtown</li> <li>2. Large concentration of one primary use—offices and non-industrial employment</li> <li>3. Uniqueness of buildings</li> <li>4. Diversity in age of buildings</li> <li>5. Vacant or under-developed land available for development</li> </ol>	<ol style="list-style-type: none"> <li>1. Lack of mixed uses</li> <li>2. Few other primary uses other than employment</li> <li>3. Large sized blocks</li> <li>4. Many vacant older buildings due to difficulty in converting nineteenth-century structures to meet twentieth-century codes</li> <li>5. Cars emphasized at expense of pedestrians</li> </ol>

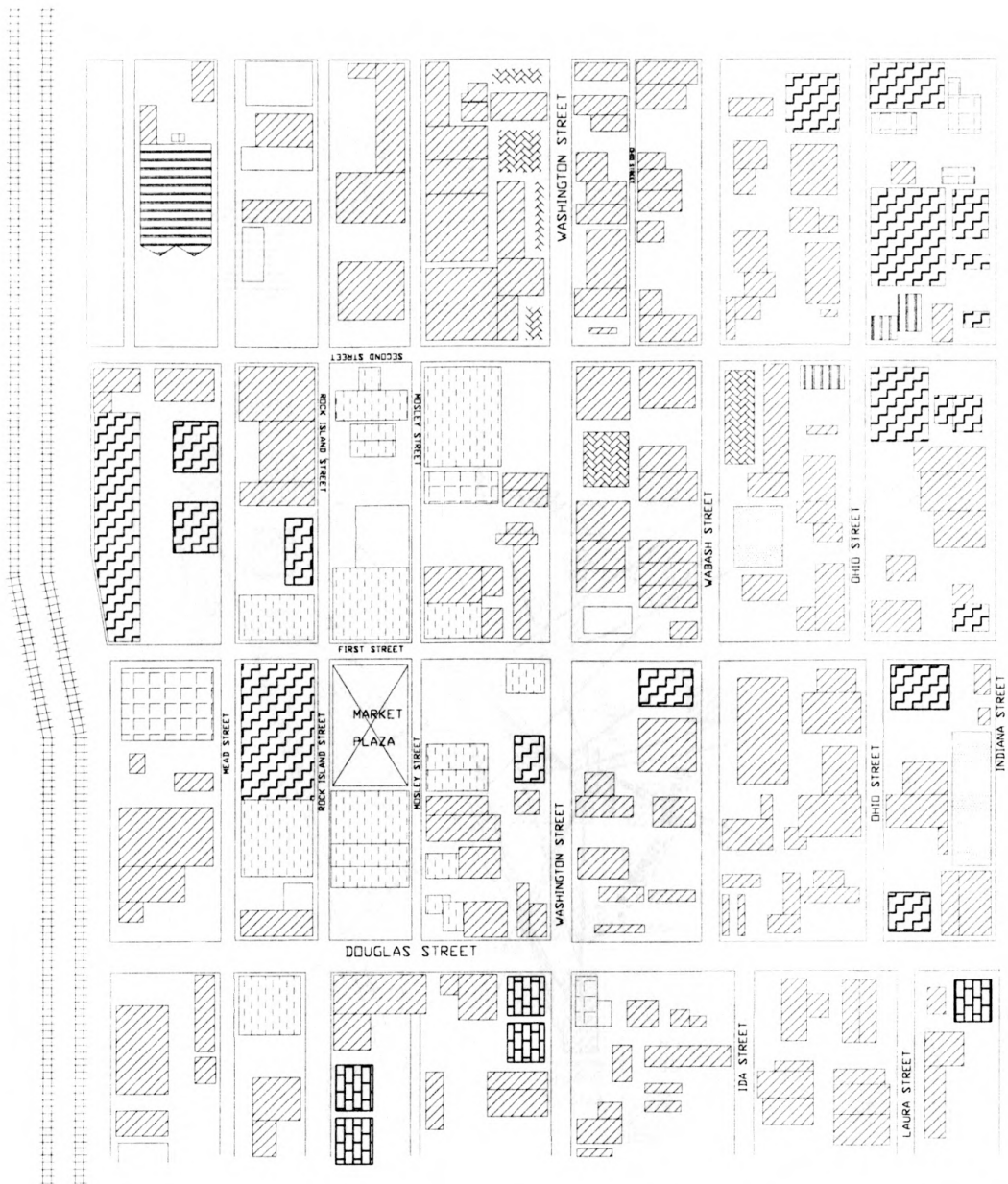
On the other hand, the Old Town District lacks a necessary amount of mixed-use development. Very few primary uses, other than employment firms, are currently present in the district. There are some secondary uses—especially the restaurants and shops surrounding the plaza—but there could be more. In addition, another weakness of the district presently is the large-sized blocks, which hamper connectivity. Also the district’s building codes, emphasizing the historic significance of the district, discourage developers from investing in the renovation of the nineteenth-century warehouses with the result that some of these buildings remain vacant. Finally, large parking lots



LEGEND	
	PROPOSED RESIDENCES
	PROPOSED OFFICES
	PROPOSED BLOCK BOUNDARY
	EXISTING PARKING
	EXISTING RESIDENTIAL
	EXISTING HOTEL
	OFFICES/ NON-INDUSTRIAL EMPLOYMENT
	EXISTING RETAIL/ RESTAURANTS
	EXISTING INDUSTRIAL
	EXISTING INSTITUTIONAL

Figure 9.1: Master Plan of District

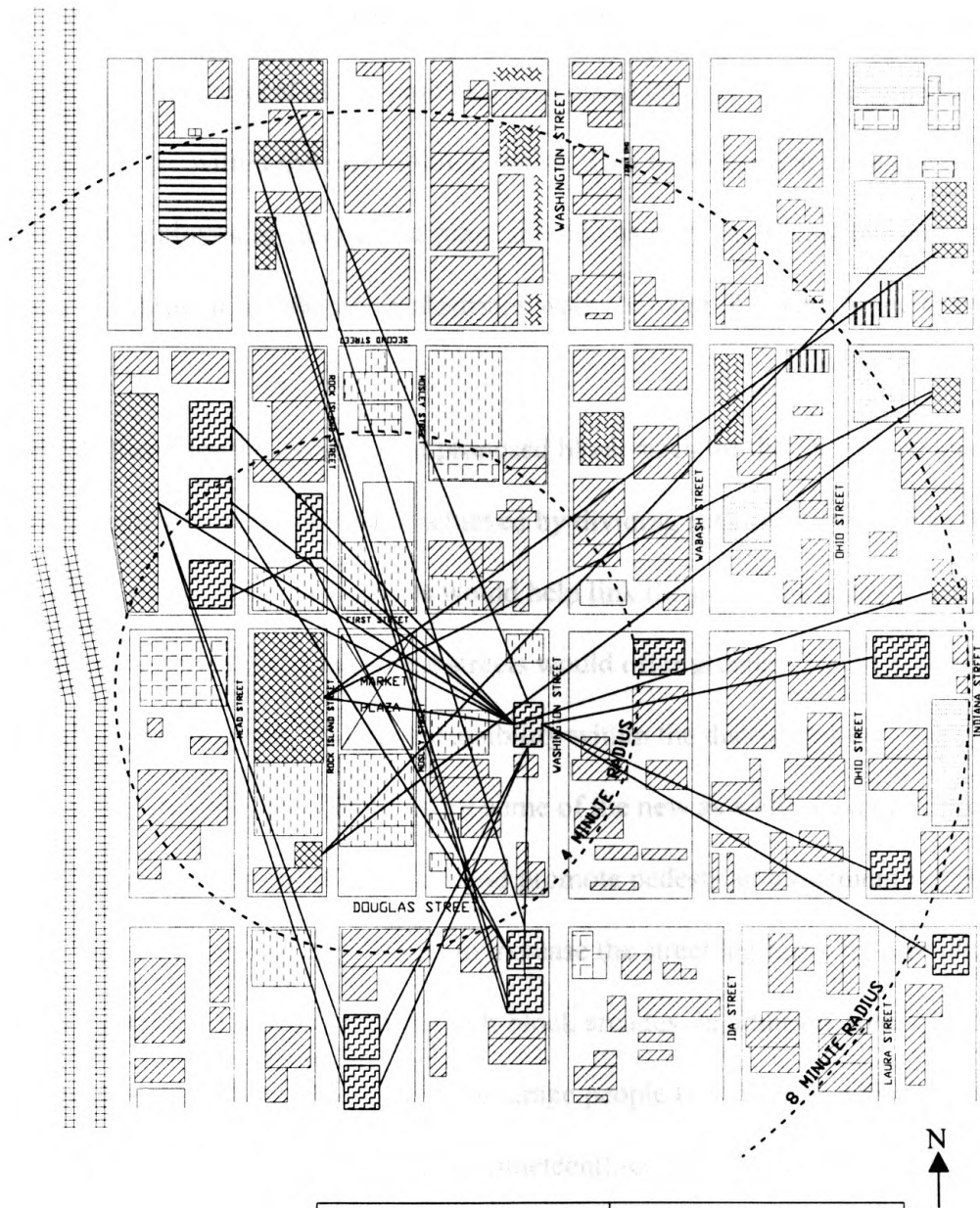




LEGEND			
	PROPOSED RESIDENCES		HOTEL
	PROPOSED OFFICES		OFFICES/ NON-INDUSTRIAL EMPLOYMENT
	RETAIL/ RESTAURANTS		INDUSTRIAL
	PARKING		INSTITUTIONAL
	RESIDENTIAL		



Figure 9.2: Proposed Primary Uses for the Farm and Art Market Plaza District



LEGEND	
	PROPOSED PRIMARY USE
	POTENTIAL FLOW LINES
	OFFICES/ NON-INDUSTRIAL EMPLOYMENT
	RETAIL/ RESTAURANTS
	PARKING
	RESIDENTIAL
	HOTEL
	VACANT WAREHOUSES
	VACANT PARCELS
	INDUSTRIAL
	INSTITUTIONAL

Figure 9.3: Proposed Primary Uses within Four- and Eight-Minute Walking Distances from the Farm and Art Market Plaza

proposed residences and eight percent of the proposed offices are within the four-minute radius and thirty-nine percent of the proposed residences and eighty-five percent of the proposed offices are within the eight-minute radius. This fairly compact placement of residences and employment close to the plaza should ensure a significant amount of pedestrian flow through the plaza as pedestrians walk for example, from home to work or vice versa.

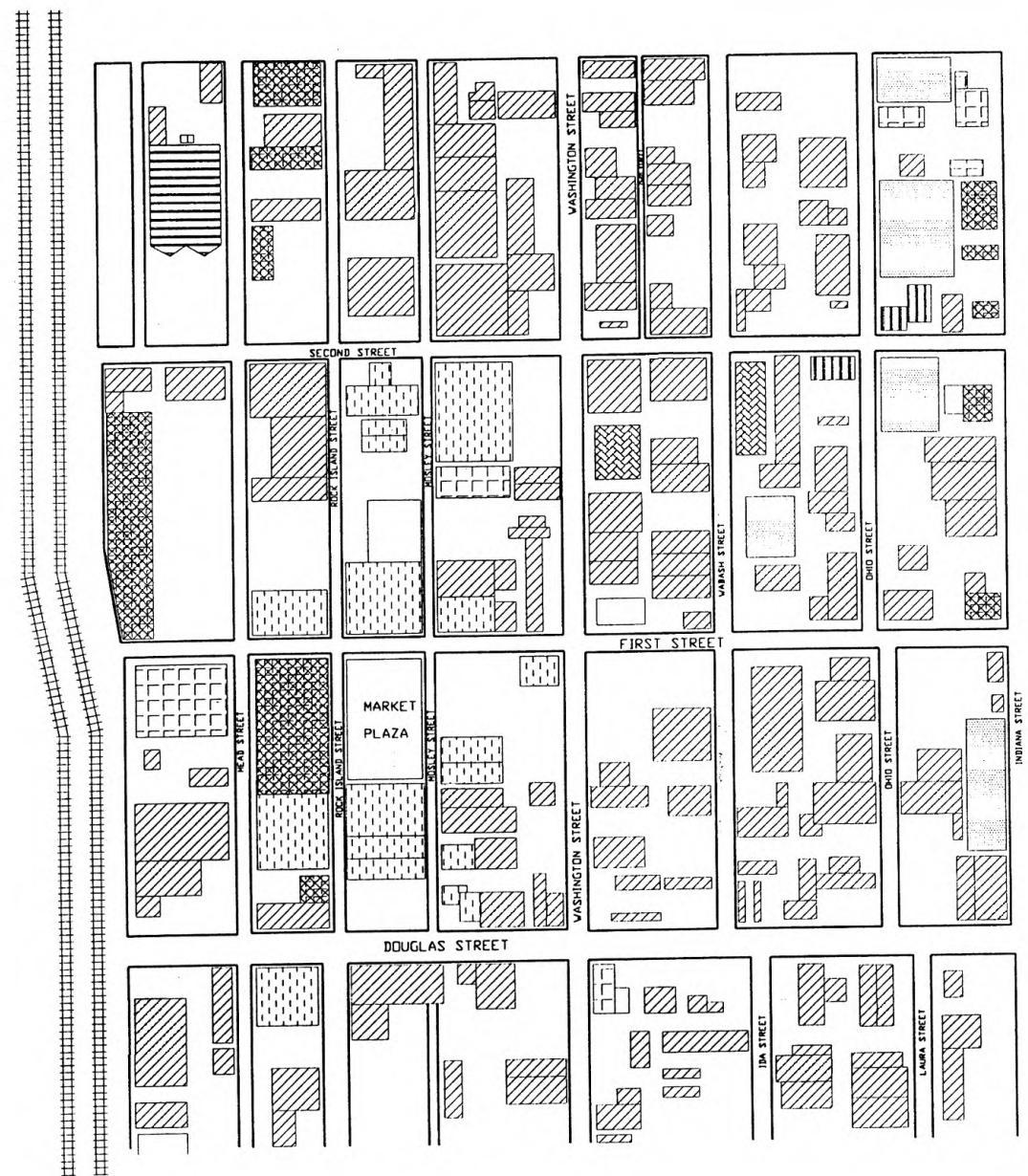
Figure 9.4 illustrates the existing and proposed block sizes for the Old Town District. The proposed reduction in block size is achieved by dividing several longer blocks on the north side of the plaza. These new streets would help link the proposed primary uses physically as well as visually. Thus, these streets would offer greater choices in terms of potential pathways and routes, making accessibility within the district easier.

Finally, the streetscape modifications for some of the new as well as existing streets would include proposals to discourage cars and promote pedestrian movement within the district, the design for the district attempts to increase the street legibility by providing some covered pedestrian spaces using through-block arcades. In addition, trees planted along the streets linked to the plaza might encourage people to walk rather than drive. Finally, restoring and renovating some of the nineteenth-century warehouses in the district should also increase legibility by increasing the number of historic landmarks in the district.

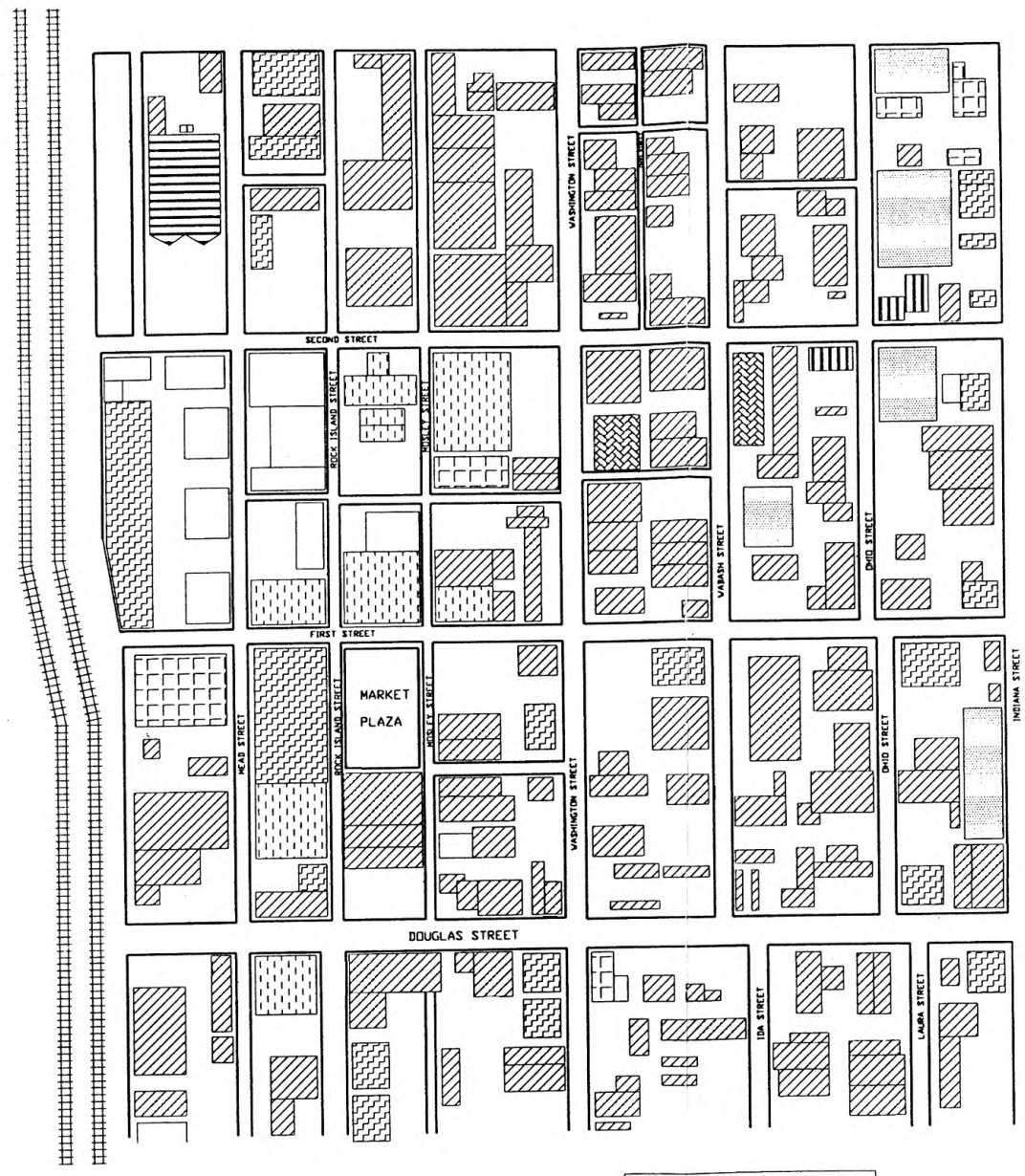
### **Redesigning the Rim**

To begin discussion of the design of the rim of the Farm and Art Market Plaza, the researcher discusses the rim's existing strengths and weaknesses, which are





Existing Blocks



Proposed Blocks

LEGEND

— BLOCK BOUNDARY



Figure 9.4: Existing and Proposed Block Sizes for the Farm and Art Market Plaza District

summarized in table 9.2. As this table indicates, one main strength of the plaza’s rim is the presence of both primary and secondary uses. Also, the building facades along the plaza’s rim form an enclosure, which provides a sense for security to plaza users. Further, the minimal traffic flow on the adjoining Mosley and Rock Island Streets encourage free pedestrian movement. Finally, the Keen Kutter building, a major Wichita landmark enhances the northern rim.

Table 9.2: Strengths and Weaknesses of the Farm and Art Market Plaza’s Rim

<b>Strengths</b>	<b>Weaknesses</b>
<ol style="list-style-type: none"> <li>1. Presence of both primary and secondary uses along the rim</li> <li>2. Enclosure of buildings along rim provides sense of security to plaza</li> <li>3. Minimal traffic on Mosley Street and Rock Island Street</li> <li>4. Presence of a landmark, the Keen Kutter building</li> </ol>	<ol style="list-style-type: none"> <li>1. Several empty warehouses along rim</li> <li>2. Physical barrier between plaza and rim because of difference in level</li> <li>3. Poor signage, which weakens legibility</li> <li>4. Many blank walls that turn themselves away from the plaza</li> </ol>

On the other hand, in terms of weaknesses, there are several empty warehouses along the western rim of the plaza. These vacant buildings reduce the potential activity level of the rim. Also the difference in the levels between the rim and the plaza create a physical barrier between the two, thus preventing the smooth flow of pedestrians from the plaza to the rim and vice versa. Poor signage weakens legibility because pedestrians are

not aware of the available services along the plaza's rim. Finally, the blank brick walls of the buildings surrounding the rim turn themselves away from the plaza, thus making the surrounding less visually interesting than they might be otherwise.

Table 9.3 and figures 9.5—9.10 present the design for the rim of the plaza. Table 9.3 and Figure 9.5 present the various uses that are presently available at the plaza's rim. Figure 9.6 presents these uses in terms of primary and secondary uses. Figure 9.7 illustrates the proposed primary uses that could be incorporated at the plaza's rim to increase activity level. Figure 9.8--9.9 involve a proposal for providing levels to bridge the physical barrier between the plaza and the plaza's rim. Finally, figure 9.10 illustrates the before and after picture of the rim facades.

As mentioned above, table 9.3 presents the various uses along the plaza's rim. These available uses are categorized as restaurants, retail, business and service, and lodging facilities. This table demonstrates that there are presently many more secondary uses along the rim than primary uses (only a hotel, bank and a financial broker). Thus, the low activity level of the plaza can be attributed in part to the few primary uses. Therefore, increasing primary uses along the rim could increase users. Figures 9.5 and 9.6 present the location of these primary and secondary uses on the rim. It is clear from this figure that the eastern, southern and western sides of the plaza have concentrations of retail stores and restaurants, whereas the northern rim across First Street has more business, service, and lodging facilities. The busy traffic on First Street forms a physical barrier for the easy flow of users to the plaza from the primary uses along the northern rim. In this

Table 9.3: Uses Presently Along the Farm and Art Market Plaza's Rim

<b>Restaurants</b>	<b>Retail</b>	<b>Business and Service</b>	<b>Lodging</b>
America's Pub River City Brewery Torre's Pizzeria Brewer's Deli and Bar	Candles from Old Town Hard Ball Awards Off the Wall Sunflower Junction The Picket Fence  <i>Farm &amp; Art Market Building</i> Aida's Andy's Woods & Crafts Dee & Company Delano Bakery & Café Flowers N' More Delano Bakery & Café Gelato Caffè Khaki Traveler Old Town Candle & Gift Old Town General Store Riverview Gifts Ruben & Anita's Tacos	Chapman Securities, Inc. Sunflower Bank	Hotel at Old Town

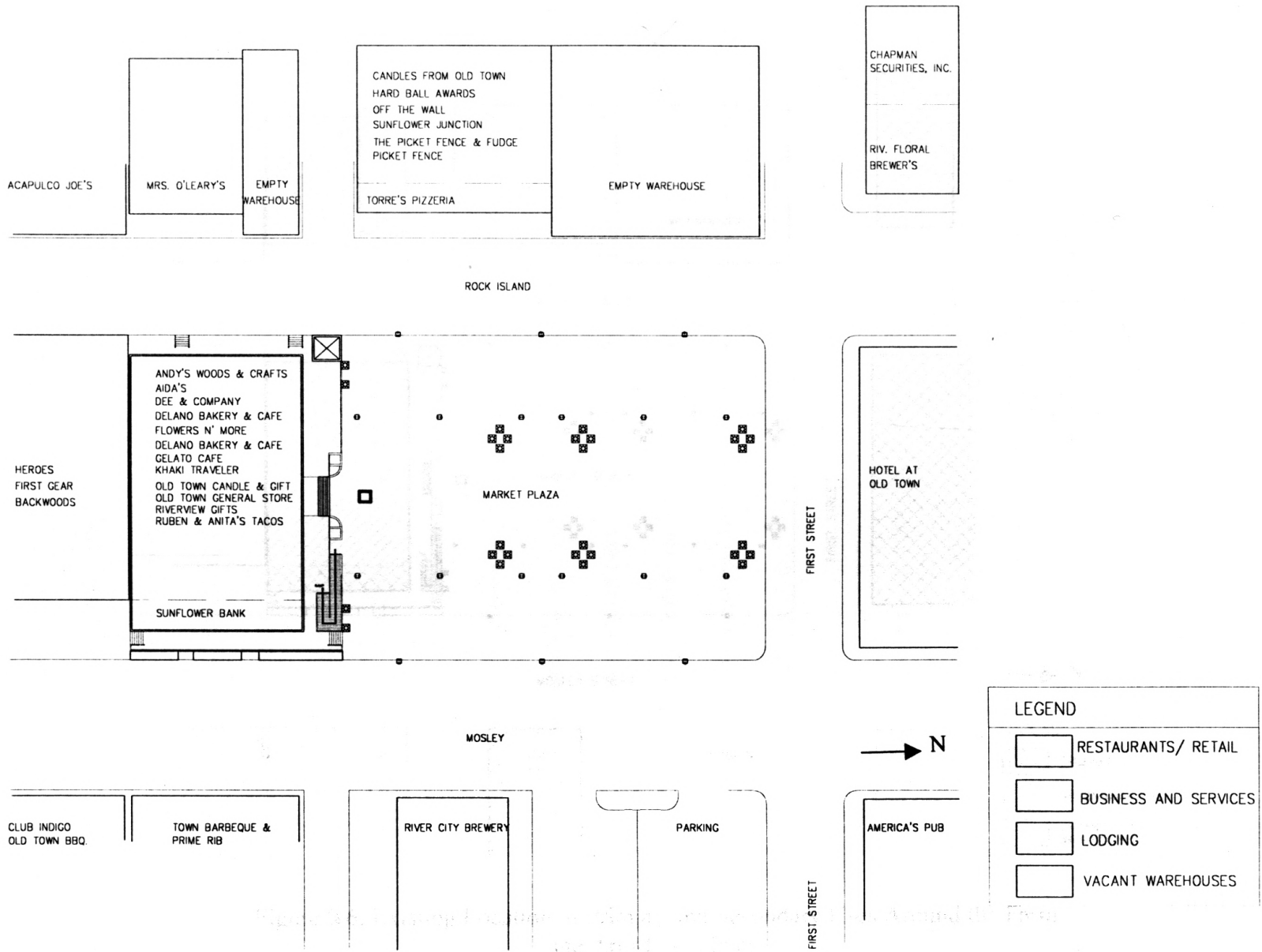


Figure 9.5: Existing Location of Different Uses Around the Farm and Art Market Plaza

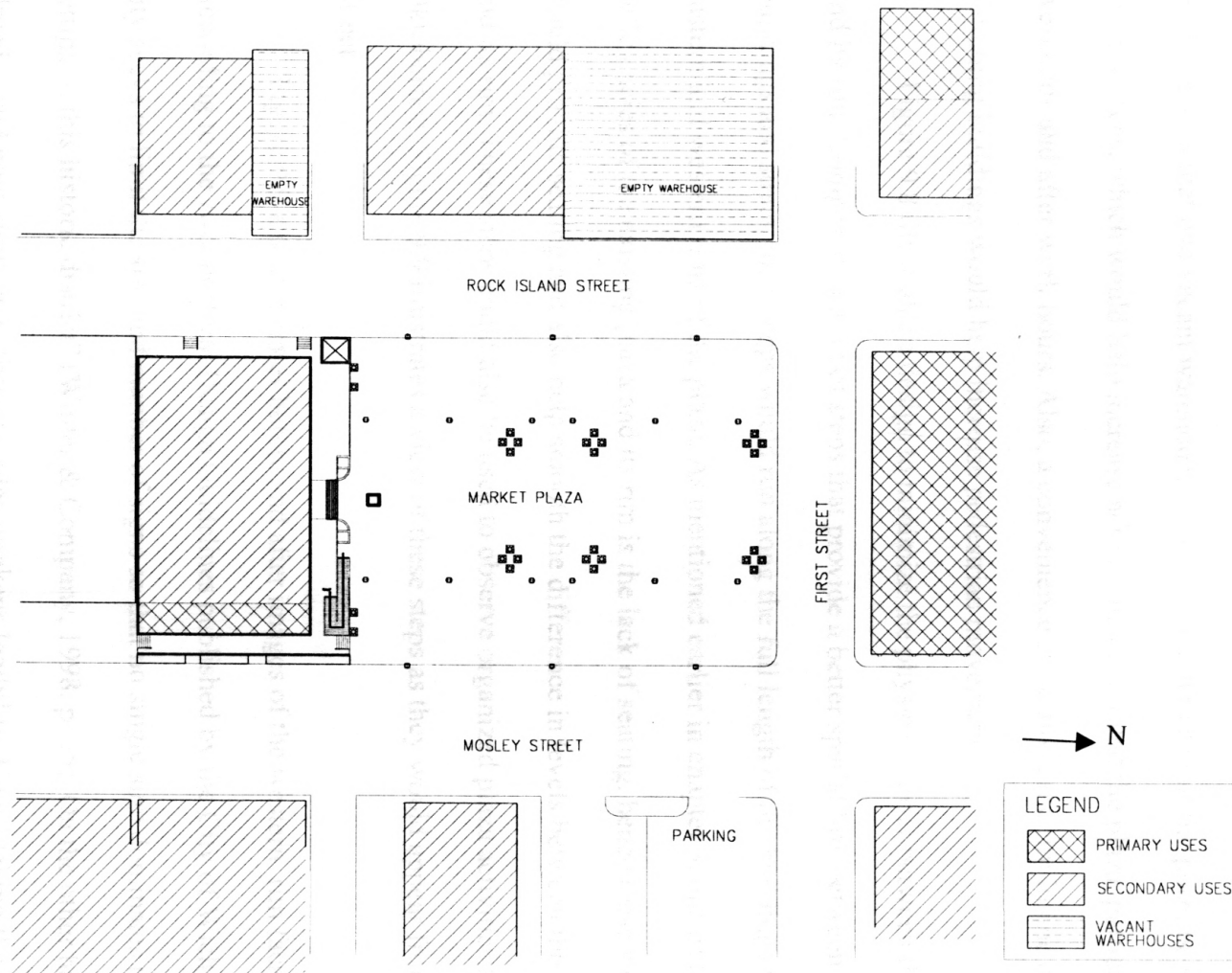


Figure 9.6: Existing Location of Primary and Secondary Uses Around the Farm and Art Market Plaza

sense, more primary uses along the eastern, western and southern sides of the plaza would help enhance activity level.

Figure 9.7 presents proposed additional primary uses along the plaza's rim. The plan suggests that two vacant warehouses along the western rim of the plaza be renovated as residences, which would help increase activity in and around the plaza, particularly on weekends and after work hours. Also, a convenience store along the rim in one of the adjoining buildings would help increase pedestrian movement.

Figure 9.8 illustrates a design to minimize the physical barrier between the plaza and its rim. Composed of a set of steps that provide a better spatial link between buildings and street, these steps would run along the full length of the buildings at the eastern and western rims of the plaza. As mentioned earlier in chapter 3, one of the major deficiencies of the existing plaza and its rim is the lack of seating, hence these steps would provide seating and also help smooth the difference in levels between the plaza and its rim. These steps could also be used to observe organized plaza activities like the Oktoberfest. Figure 9.9 illustrates a view of these steps as they would appear from First Street.

Figure 9.9 also illustrates before and after images of the western rim facade. According to the Architectural Design Guidelines published by the City of Wichita, "the city seeks to limit the size and number of signs so that no single sign dominates the setting in this historic district" (Winter & Company, 1998, p. 35). On the other hand, as already, said poor signage on these facades weakens legibility. Hence taking the guidelines set by the City of Wichita into consideration, signage should be designed keeping in mind the overall façade composition and ornamental details of the historical

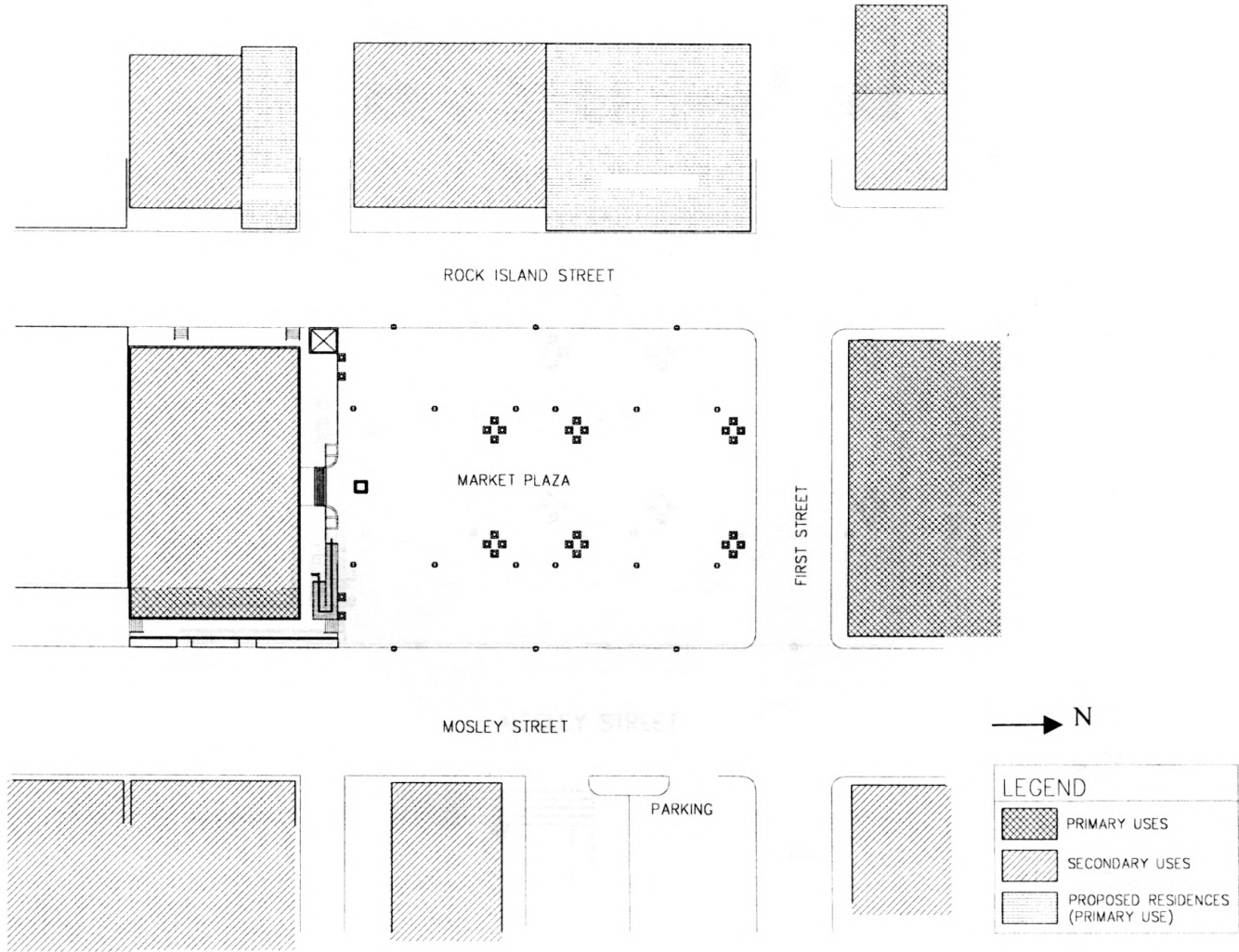


Figure 9.7: Proposed Primary Uses Around the Farm and Art Market Plaza



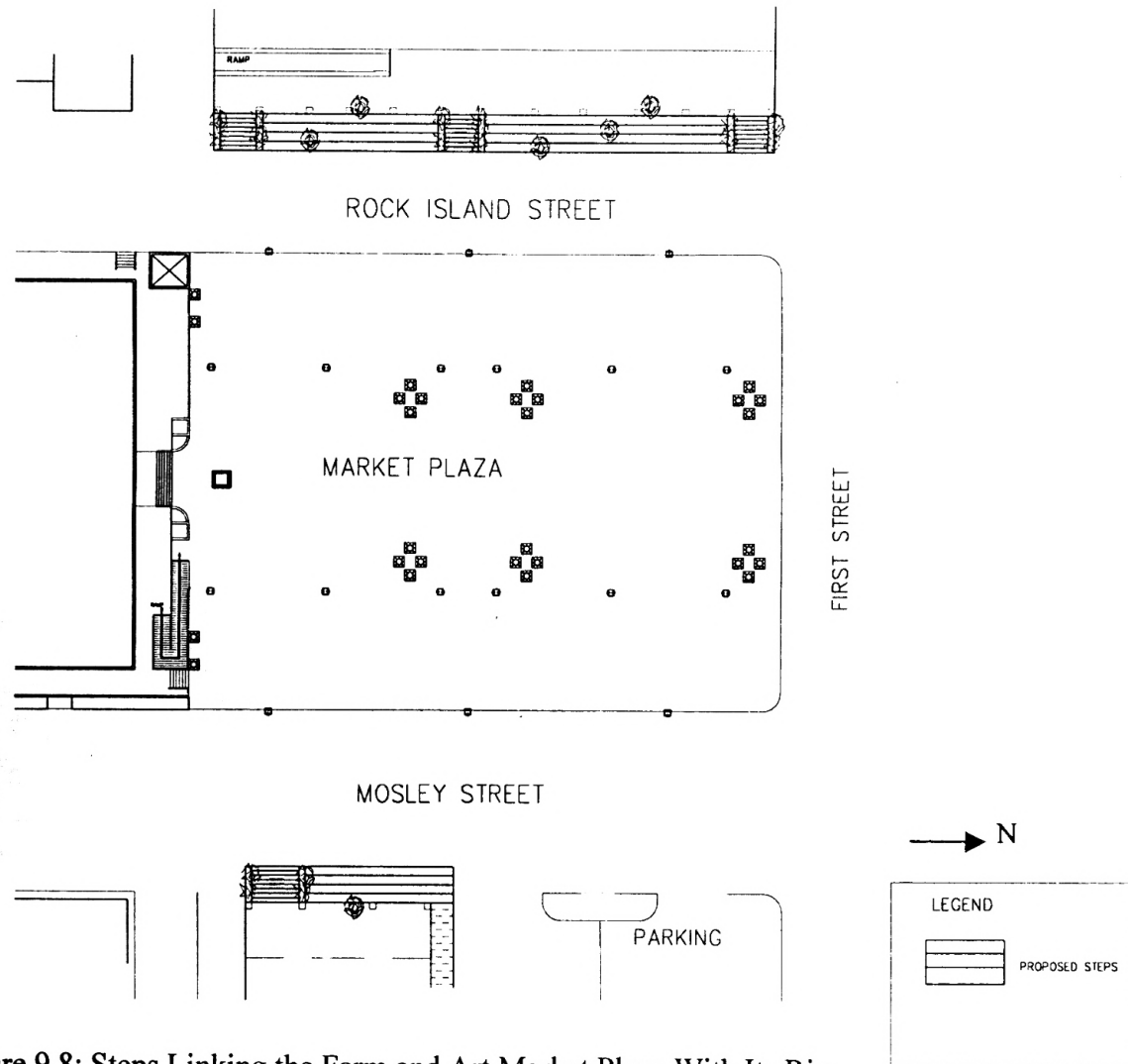


Figure 9.8: Steps Linking the Farm and Art Market Plaza With Its Rim

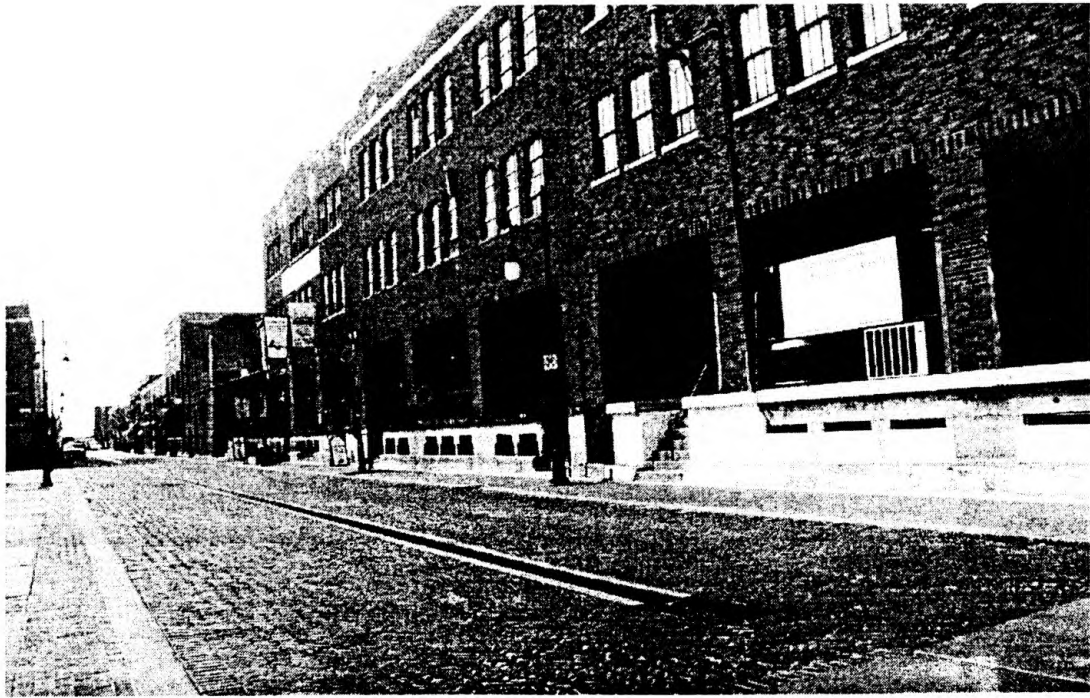


Figure 9.9: Before and After Images of Facade

buildings. Signs should be in proportion to the building, such that they do not dominate its appearance. As illustrated in figure 9.9 and as prescribed in the official design guidelines for the Old Town, flush-mounted wall signs or pole-mounted signs might be considered. Colors that are complimentary to the brick facades would be used in the signage to maintain the character of the district of which the plaza's rim is a part. To further add color to the plaza's rim, window signs would be painted on windows. Thus, better, more colorful signage would help users become more aware of facilities around the plaza.

Finally, to increase the richness of the plaza's rim by introducing outdoor restaurant seating. The eastern portion of the Farm and Art Market Building forming the southern rim of the plaza houses the "Delano Bakery and Café." The seating of this café could be extended as an open deck that would encourage users to participate in the activities of the plaza as they ate or drank. This deck extension aspect will be discussed in greater detail in the next section on plaza design.

## **CHAPTER 10**

### **THE DESIGN OF THE FARM AND ART MARKET PLAZA**

This chapter presents the design proposal for the Farm and Art Market Plaza based on the design implications for the plaza discussed in chapter 8 and the analysis done from the behavioral mapping as discussed in chapters 5,6, and 7. To begin the discussion of this design, the researcher summarizes the existing strengths and weaknesses of the plaza, which are listed in table 10.1. As this table indicates, one main strength is that the plaza is well connected to the district in the sense that passing by are major streets linking the district to the greater downtown. Also, as the plaza is a large open space, it is easily modifiable. A sculpture at the south end of the plaza encourages “triangulation” which provides a linkage between people and prompts strangers to talk to each other (Whyte, 1980, p. 94). An open-to-sky deck at the southern edge of the plaza provides an informal space with temporary seating for users.

On the other hand, presently there is a visual monotony due to the large open space of the plaza. Barricades along the perimeter of the plaza prevent the free flow of pedestrians in the plaza. In addition, the plaza has no seating provision for users along with very few trees to provide shade. Finally, there is no street furniture like litterbins nor is lighting sufficient for evening use.

Table 10.1: Strengths and Weaknesses of the Farm and Art Market Plaza

<b>Strengths</b>	<b>Weaknesses</b>
<ol style="list-style-type: none"> <li>1. Linked by major streets to district and greater surrounding</li> <li>2. Large open space at one level</li> <li>3. Easily modifiable</li> <li>4. Sculpture providing for triangulation</li> <li>5. Open-to-sky wooden deck at southern end</li> </ol>	<ol style="list-style-type: none"> <li>1. Monotony in spatial experience</li> <li>2. Barricades around plaza</li> <li>3. Very few trees</li> <li>4. Lack of seating and lack of street furniture—for example, no litter bins and minimal lighting</li> </ol>

### **The Redesign of the Plaza**

Figures 10.1—10.7 present the design proposal for the plaza, which is encompassed by Mosley, First, and Rock Island Streets and the Farm and Art Market Building. Figure 10.1 summarizes the design of the plaza, which includes plaza subspaces, pedestrian paths and other design elements like seating, trees, kiosks and a water body that provides a focus of attention. Figures 10.2 and 10.3 depict the new pedestrian axes that run through the plaza, which are derived from the design of the plaza’s district as a whole. Figures 10.4 and 10.5 present the plaza’s subspaces, which are designed to help break the single large existing space into smaller sub-areas with different possibilities of use. Figures 10.6 and 10.7 present other design considerations

like seating, the design of a focal point in the plaza, an outdoor café, and other street furniture.

As mentioned above, figure 10.1 presents the design of the plaza as a whole. As this site plan illustrates, the design is a juxtaposition of pedestrian flows and places of rest. The design incorporates subspaces with different landscaped ground cover, seating and other design elements like kiosks, lighting, and a water body. The existing deck on the southern edge of the plaza has been extended to provide for outdoor seating at the café in the Farm and Art Market Building. These design changes increase the choices offered to the plaza users. Thus, the design not only attempts to attract users but also to provide them with a much wider variety of choices for spending their time once they arrive at the plaza.

As illustrated in figures 10.2 and 10.3, the design focus for pedestrian pathways in the plaza is the creation of two new axes derived from the major pedestrian flows that will result from the redesign of the plaza's district that is presented in chapter 9 ( see figure 9.3). As figure 10.3 indicates, these axes are interpreted as pedestrian streets that should create a much-needed pedestrian flow through the plaza. As figure 10.3 also shows, the axes that pass through the plaza divide it into four portions that have been designed with different surface patterns. The intersection of the two major axes is accentuated by providing a larger paved node in the east-central portion of the plaza. These axes are maintained at ground level so that the plaza is accessible to the physically disabled. Various design elements are placed along or near these axes to stimulate impulse use—for example trees, seating, a water body, and a sculpture garden.

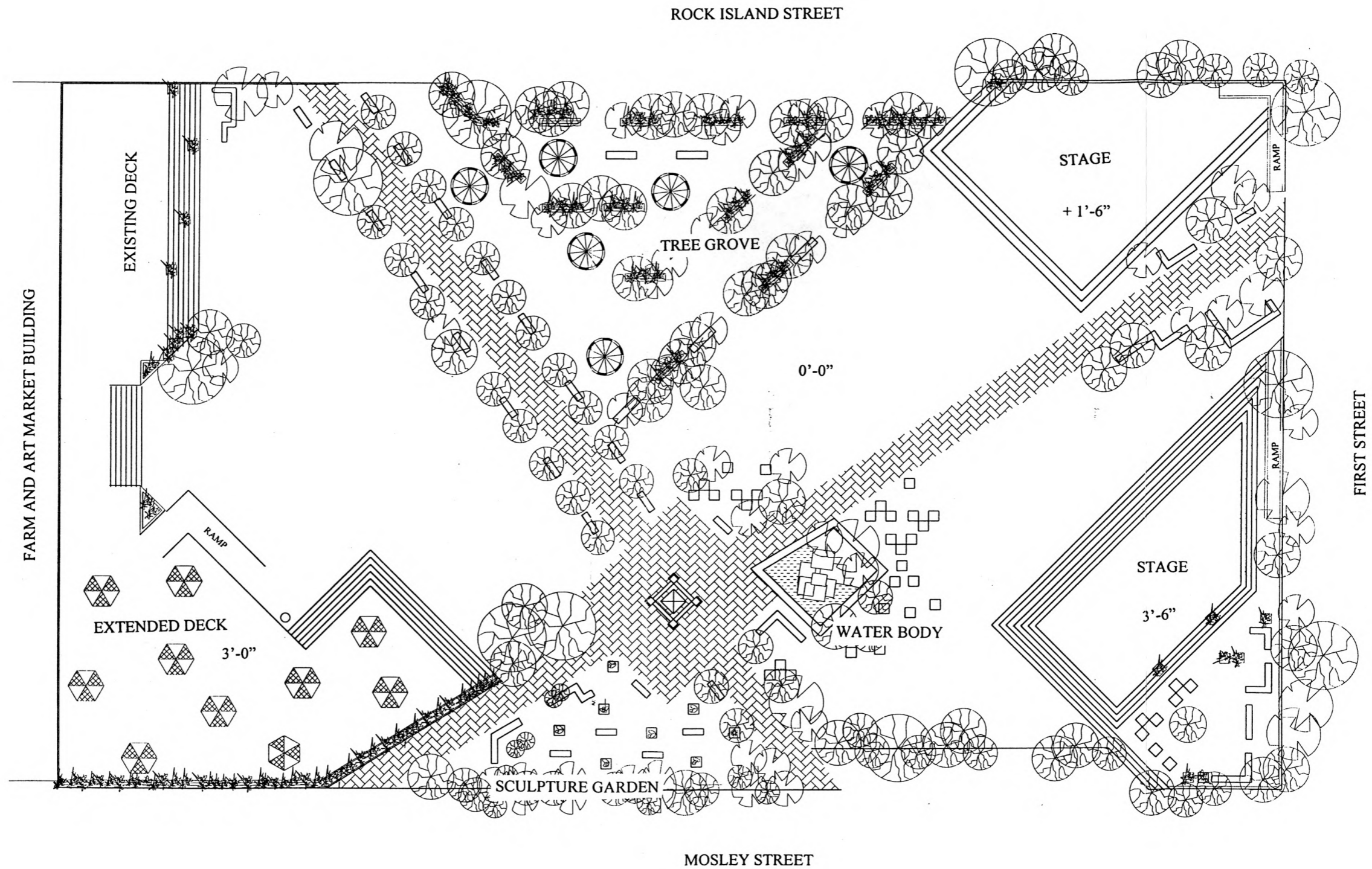


Figure 10.1: Proposed Design of Farm and Art Market Plaza

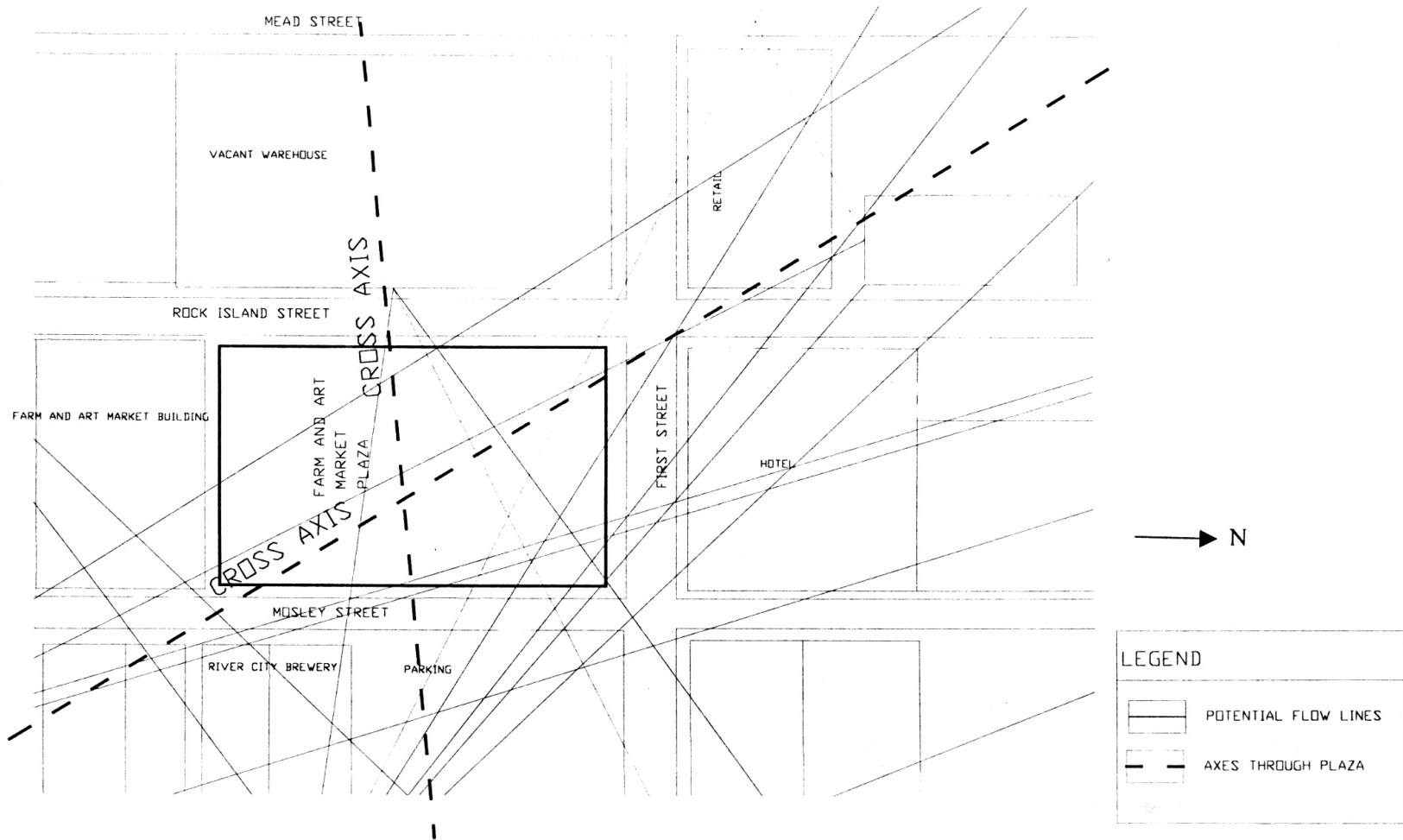


Figure 10.2: Proposed Pedestrian Axes Derived from the Design of the Farm and Art Market Plaza's District



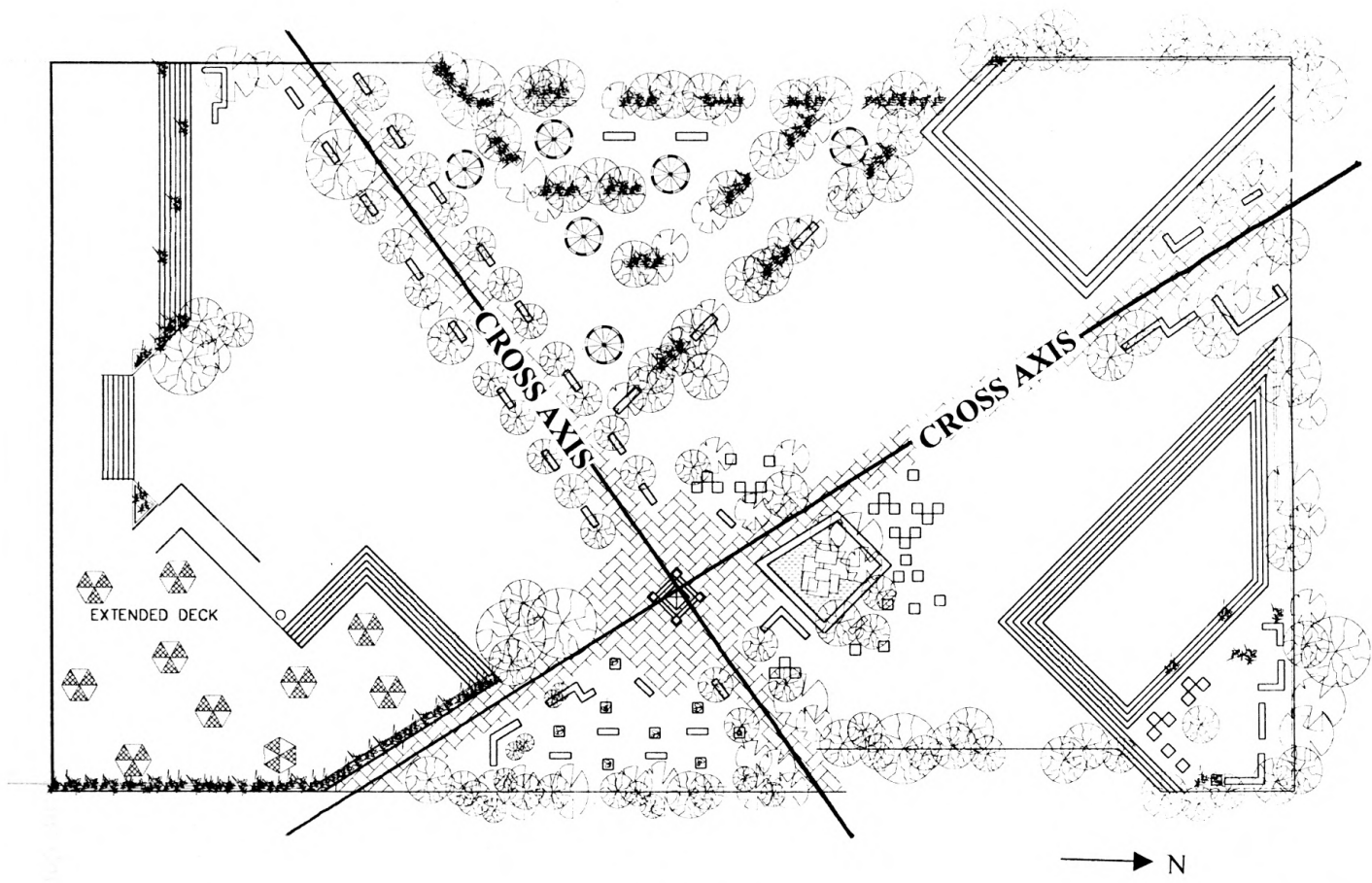


Figure 10.3: Proposed Pedestrian Axes Running Through the Farm and Art Market Plaza

The axes also provide clear sight lines to all corners of the plaza and hence offer legibility from outside in, in terms of plaza activities.

### **Subspaces of the Plaza Design**

In the redesign of the plaza, the first aim was to identify the use of the plaza in terms of activities, general observations and behavioral mapping. Figure 10.4 illustrates the four subspaces made by the two axes. These subspaces are designed on the basis of the various needs of the plaza users for typical days and for special events, as observed in the behavioral mapping discussed in chapters 5—7. As illustrated in figure 10. 4, these subspaces are marked as 1A, B, and C, 2A and B, 3A and B, and 4. Located immediately adjacent to the two major axes, subspaces 1A, B and C are designed to stimulate impulse use along the axes by drawing in pedestrians walking through the plaza. Subspaces 2A and B are designed mainly to cater to the weekly farmers' market and also for ordinary daily use. The grove of trees and kiosks in 2A can be used, respectively, as a display area and stalls for the farmers' market. In turn, subspaces 3A and B are designed to take into consideration user needs during special events like Oktoberfest. These two subspaces are largely open and can be used for performances and also for accommodating temporary seating during special events. Finally, subspace 4 is the extended deck of the Farm and Art Market Building. This deck can be used for outdoor seating, eating and drinking.

Next, we need to understand the design of each subspace in greater detail. As illustrated in figures 10.1 and 10.5, subspace 1A includes elements like trees and seating along the pedestrian paths. In addition, as illustrated in figure 10.6 and 10.7 there is

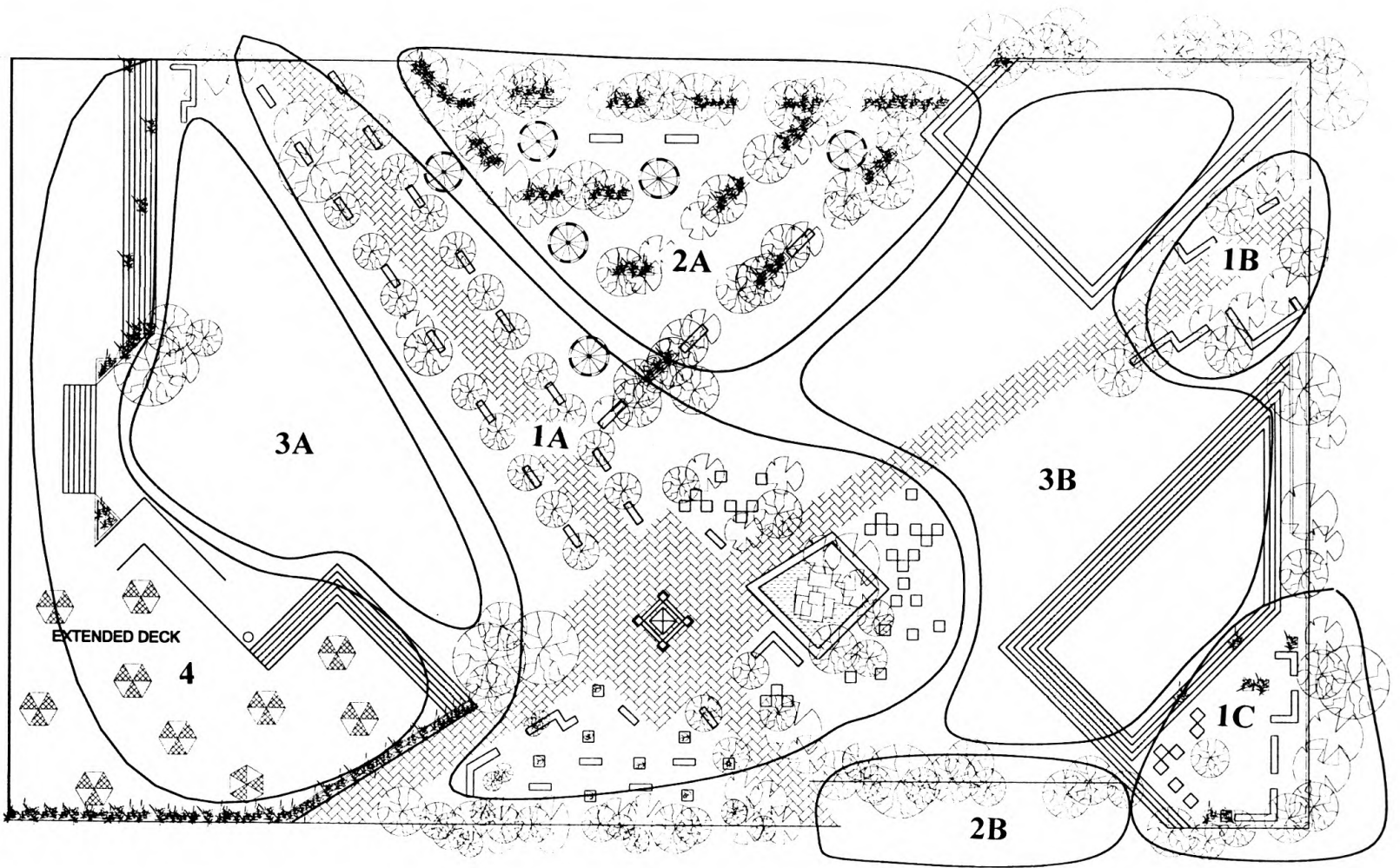
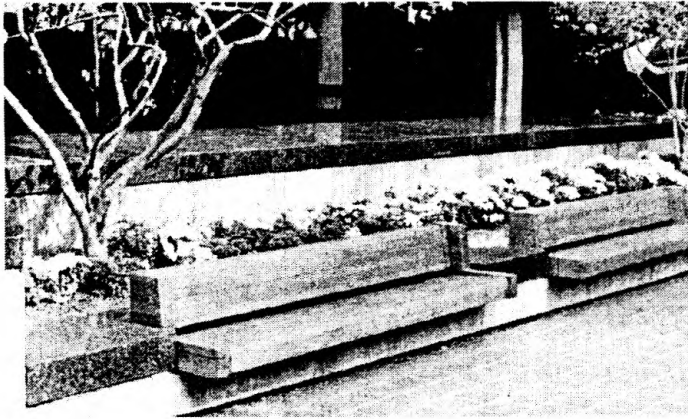


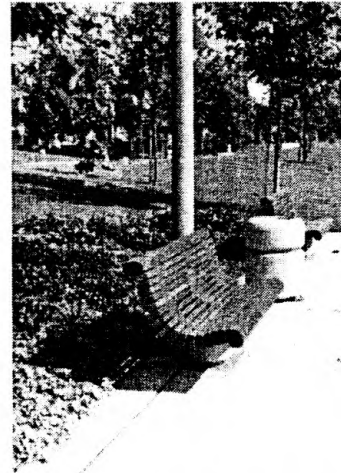
Figure 10.4: Subspaces in Farm and Art Market Plaza



- **The Cross Axes**



Halprin, 1963, p. 54



Walker, 1992, p. 352

- The Cross Axes designed for impulse use
- Seating and avenue of trees provided to attract users
- Different paving to help direct users through the plaza



Walker, 1992, p. 352



Walker, 1992, p. 349

Figure 10.5: Design Possibilities for the Farm and Art Market Plaza's Cross Axes

## Water Body

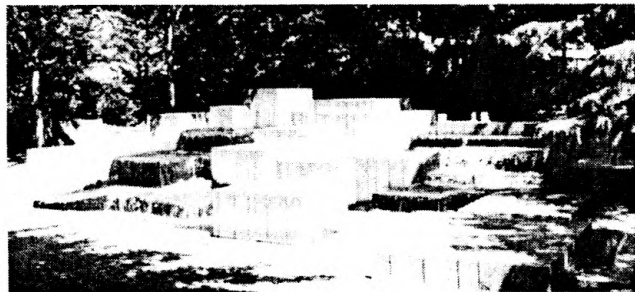


From Whyte, 1980, p. 43



From Walker, 1992, p. 431

- Cascading Water
- Visual and Aural Quality
- Cooling Effect



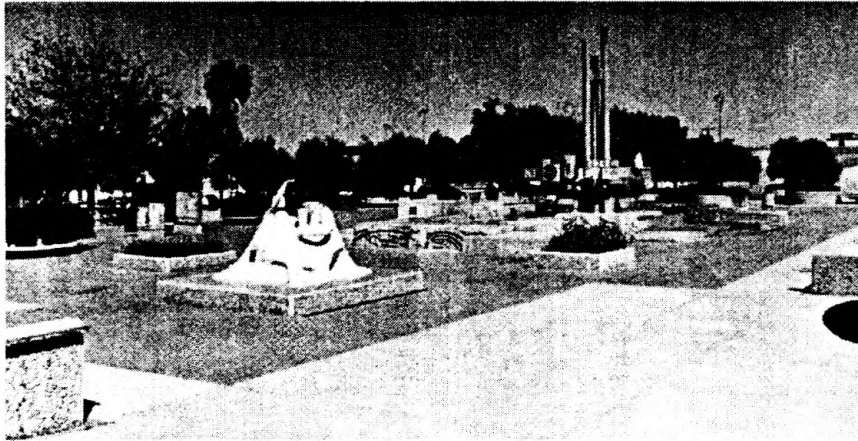
From Walker, 1992, p. 438



From Walker, 1992, p. 433

Figure 10.6: Design Possibilities for the Farm and Art Market Plaza's Water Body

## Sculpture Garden



From Walker, 1992, p. 351



From Walker, 1992, p. 361

- Sculpture garden depicting history of Wichita
- Place for people to retrospect
- Impetus to local artists



From Halprin, 1963, p. 86

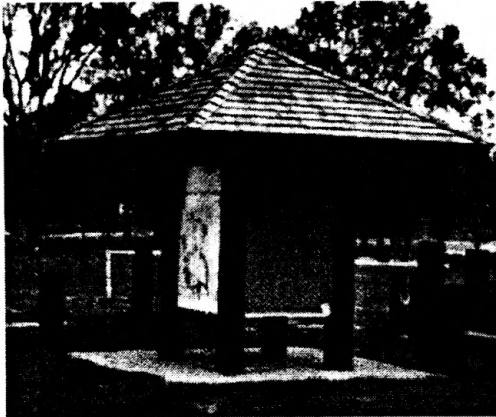
Figure 10.7: Design Possibilities for the Farm and Art Market Plaza's Proposed Sculpture Garden

provided at the intersection of the two axes a sculpture garden and a water body to encourage ‘impulse use’ among pedestrians. As illustrated in figure 10.8, a miniature clock tower, the design of which echoes the cupola over the Keen Kutter Building, is placed at the center of the axes’ intersection. Seating around this clock tower will provide places for pedestrians who happen to “bump into one another” and wish to converse. As illustrated in figure 10.4, subspace 1B, located directly at the major crossing in front of the Old Town Hotel, is also designed for impulse use with trees and seating along the pedestrian axis running from the southeastern corner of Mosley to the western corner of First Street. As illustrated in figure 10.4, subspace 1C is designed for seating where singles, couples, and small groups can find more private space on ordinary days.

As illustrated in figures 10.4 and 10.9, subspace 2A and B are designed for ordinary day use and also to cater to the weekly farmers’ market. The triangular subspace 2A has a tree grove, kiosks and seating. This area serves as a quiet place for singles and couples. The kiosks in this subspace can be used for seating during ordinary days and also used as stalls for display during the farmers’ market. The sellers here have two options in terms of parking their vehicles: they can park either in subspace 2B (which is adjacent to the northeastern end of Mosley Street); or park to the west of subspace 2A (which is adjacent to Rock Island Street).

Next, we turn to subspace 3A and B, which are designed to take into consideration user needs during special events like Oktoberfest. This subspace includes two elevated stages, which can be used for live bands and dance performances. The portions of subspace 3A and B around the stages are largely open to provide clear sight

## Miniature Clock Tower



Walker, 1992, p. 395

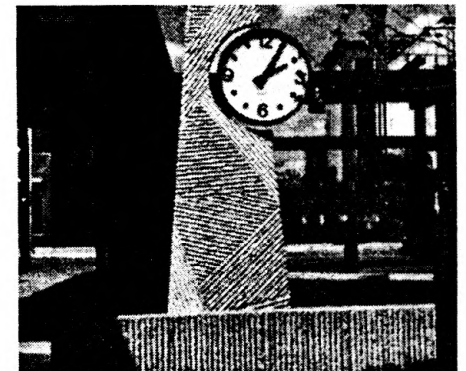


Halprin, 1963, p. 84



Walker, 1992, p. 386

- Clock Tower, design of which echoes the cupola of the Keen Kutter Building
- Seating around the clock tower
- Poster display unit around the tower would encourage users to sit, converse, and also learn of events in the Old Town district



Walker, 1992, 9. 388

Figure 10.8: Design Possibilities for the Farm and Art Market Plaza's Miniature Clock Tower



## Grove of Trees



Halprin, 1963, p. 163

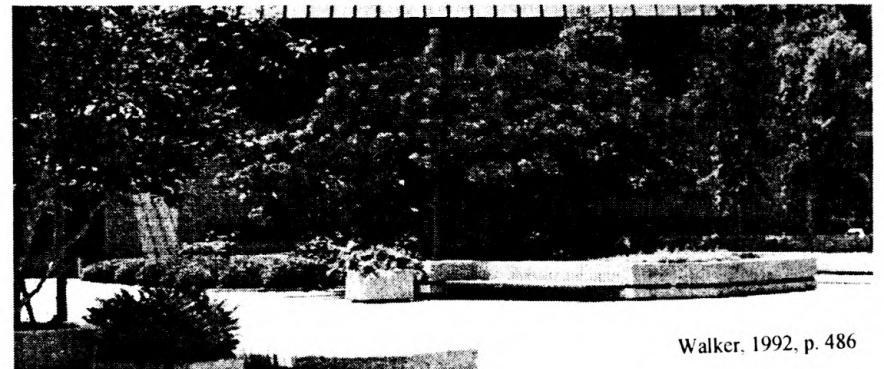


Walker, 1992, p. 488

- Overlapping foliage provides a combination of shade and sunlight
- Combined trees and seating will encourage users during summer
- Cool weather due to grove of trees
- Space enclosed as walls of green



Walker, 1992, p. 391



Walker, 1992, p. 486

Figure 10.9: Design Possibilities for the Farm and Art Market Plaza's Tree Grove

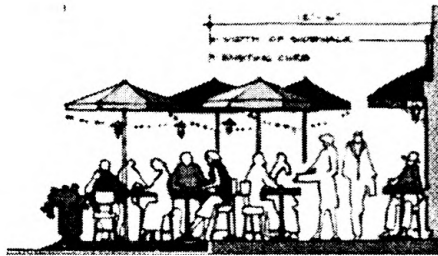
lines so that spectators can easily see the performances and the two stages, which also provide a sense of formal and aesthetic balance to the northern end of the plaza.

As illustrated in figures 10.4 and 10.10, subspace 4 consists of the extended deck to the southeast of the plaza. This deck includes outdoor seating, which can be used during ordinary days and special events for people to eat and observe the activities in the plaza. This outdoor seating is visible from Mosley Street and may potentially attract additional users into the plaza. A ramp is provided to make the deck accessible to the physically disabled.

### **Street Furniture and Plantings**

Next, we turn to the proposed seating for the plaza with the major design emphasis on providing a variety of seating options. The key issue as far as seating is concerned is social comfort—i.e., seating that works for a wide range of groups including singles, couples, and larger clusters. In this regard, as one moves north from the extended deck, one finds varying seating options with respect to privacy levels. Figure 10.11 illustrates the types of seating provided in the plaza. Block seating around the water body and at the northeastern end of the plaza is designed for individuals wanting to spend time alone. Seating along the axes and in the sculpture garden can cater to couples and groups. The outdoor seating on the deck can provide for semi-enclosed seating under umbrellas for singles and couples as well as for groups. Seating within the kiosks in the tree grove at the western side of the plaza includes semi-private and private seating areas. The steps along the two stages provide a range of grouping possibilities depending on which side of the stage the person or groups are seated. In

## Outdoor Seating (On Extended Deck)

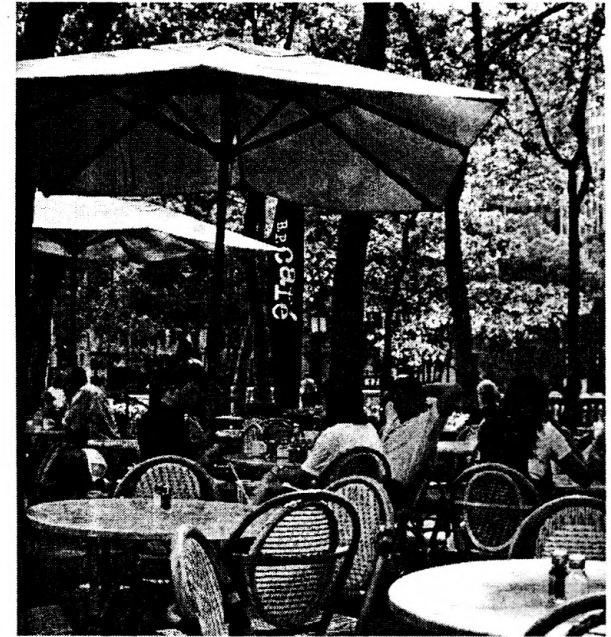


Ramati, 1981, p. 61



Walker, 1992, p. 257

- Outdoor café seating under umbrellas on extended deck
- Additional choice for users to sit
- Participate in plaza activities while eating and drinking



Thompson, 1997, p. 55

Figure 10.10: Design Possibilities for the farm and Art Market Plaza's Extended Deck

## Seating Options

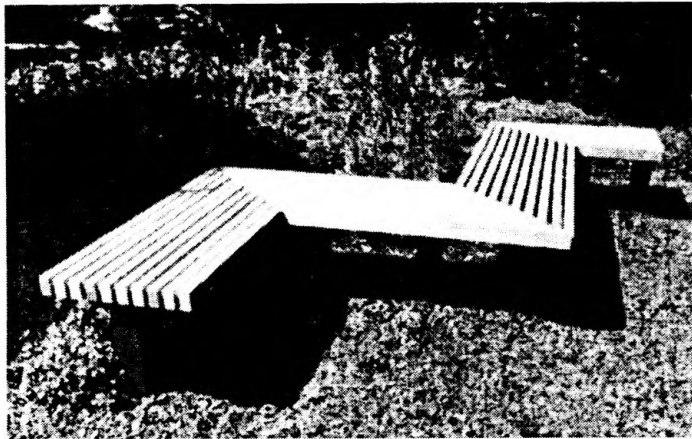


Walker, 1992, 9. 258

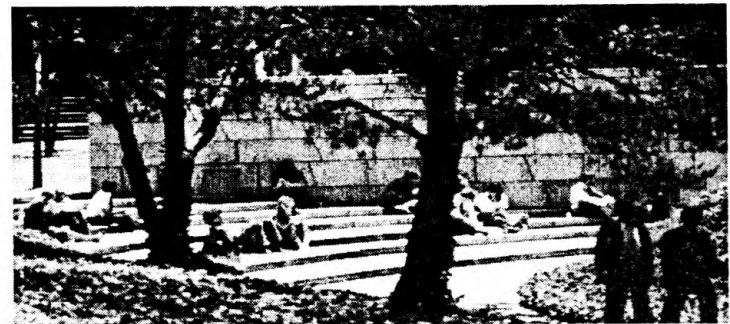
- Seating in plaza caters to different levels of privacy
- More choice given to users
- Seating that works for a wide range of groups including singles, couples, and larger clusters



Halprin, 1963, p. 51



Walker, 1992, p. 259



Halprin, 1963, p. 57

Figure 10.11: Design Possibilities for the Farm and Art Market Plaza's Seating

addition, the raised level and the trees on the north side of the two stages provide privacy to the people seated here as well as maximum visual contact with plaza activities. Thus, ample seating is provided within the plaza to help provide a wide range of social comfort to plaza users.

Next, it is important to discuss the water body, which is a visual, aural, and sensual attraction in the plaza. This structure is designed to have flowing water and would provide a sense of coolness in summer. The trees and seating around this water body would also encourage people to sit nearby during hot summer days. Nearby is the miniature clock tower, which is located at the paved intersection. As discussed earlier, the design of this tower will echo the cupola over the Keen Kutter Building. Seating along with a poster display unit around the tower would encourage users to sit, converse and also learn of events and activities in the Old Town District. Lighting within this miniature tower would help maintain it as a plaza focal point at night. Lighting in the plaza as a whole is also essential. Lights will be placed along the axes, paved node, fountain, and the sculpture garden to ensure user security and to attract users even after sunset. This lighting should neither be too bright nor too dim.

### **The Question of Policy**

Having designed the Farm and Art Market Plaza and its surroundings, the next step towards implementation of the design is to propose policy guidelines which encourage the preservation and careful treatment of the historic buildings within the district and also emphasize pedestrian use, especially for the plaza. Preserving the existing warehouses would involve adapting these large spanned structures, which

provide flexible space, for present-day uses. In Wichita, zoning has traditionally separated residential, commercial, and manufacturing uses. For the Old Town District, however mixed zoning is much more appropriate, since it would reinforce the Old Town District socially and economically, which at present is predominantly commercial. Hence, zoning regulations could encourage mixed uses by having retail on the ground level of buildings, with a mix of offices or residences above. In addition, retail uses at ground level and primary uses in upper stories would help increase pedestrian flow in the district. Incentive zoning provisions might also encourage developers to provide arcades at ground level, through-block arcades, and other covered pedestrian spaces. To encourage developers to provide amenities for pedestrians, incentives need to be granted by the city—for example, tax incentives could be given exchange for providing these public amenities.

Parking for the plaza and district should also be dealt with through zoning. Open parking lots, which face the streets, tend to disrupt the continuity of shops and pedestrian activities. One alternative might be zoning provisions that require parking to be accommodated behind buildings or in parking garages. If possible, on-the-street parking should be discouraged around the plaza. Presently parking is allowed on the eastern and western edges of the plaza. This use should be replaced with more limited parking which can be used only during weekly farmers' markets and during special events.

Also, more special events like the Oktoberfest and weekly events like the farmers' market would help popularize the plaza as well as attract more users. These additional events might be organized and funded by the retail businesses and

commercial offices around the plaza. These special events would not only ensure more users but also promote the services and goods offered or manufactured by these businesses sponsoring the events.

Next, it is important to consider whether these various design and policy changes can be phased in over time. A first phase of development should focus on the redesign of the plaza itself. The first step would involve implementing the main pedestrian axes, along with planting trees and adding seating. These changes would encourage users to enter the plaza and to linger. This first step could later be followed by adding the design elements around the intersection of the two main axes, including the sculpture garden and water body. Last, the extension of the deck for outdoor eating would lead to a plaza much more attractive than what exists presently.

In the next phase, as already proposed by Marketplace Properties Inc., the vacant warehouse to the west of the plaza could be converted to condominiums and this development might be followed by converting the other vacant warehouse along the western rim into a museum depicting the history of Wichita and the Old Town District. The last and most costly phase of the development would be the changes for the district as a whole, including the provision of more primary uses and smaller blocks.

Thus, this thesis has sought to understand the built environment and behavioral needs of users. Another aim was to integrate the physical and behavioral needs of potential plaza users. In this sense, the thesis used design as a tool to achieve a stronger sociability for the Farm and Art Market Plaza as an everyday place and at the same time provide for special events. It is essential that we remember that it is the everyday

situations that are important and that they shape a major portion of the city and its human lives. This thesis concludes that sociability is a major factor in the success of urban open spaces and that these spaces will be more successful if there are different people at different times for different reasons with the result of a liveliness of urban place.



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## Appendix A

### **Table 1: Documentation of Pedestrian Flows**

Behavior Mapping of Movement Patterns  
Monday, 23 November, 1998

Path	8.00 - 8.15		8.20 - 8.35		8.40 - 8.55		12.00 - 12.15		12.20 - 12.35	
A	4						8			
B		1						2		
C			7						3	
D				3						2
E					3					
F						0				

Path	12.40 - 12.55		4.30 - 4.45		4.50 - 5.05		5.10 - 5.25	
C			3					
D				1				
E					10			
F						2		
A	6						1	
B		3						0

### **Table 2: Documentation of Pedestrian Flows**

Behavior Mapping of Movement Patterns  
Tuesday, 24 November, 1998

Path	8.00 - 8.15		8.20 - 8.35		8.40 - 8.55		12.00 - 12.15		12.20 - 12.35	
E	2						3			
F		1						2		
A			5						5	
B				3						1
C					4					
D						1				

Path	12.40 - 12.55		4.30 - 4.45		4.50 - 5.05		5.10 - 5.25	
E			1					
F				0				
A					12			
B						3		
C	9						4	
D		3						2

**Table 3: Documentation of Pedestrian Flows**

Behavior Mapping of Movement Patterns  
 Wednesday, 25 November, 1998

Path	8.00 - 8.15	8.20 - 8.35	8.40 - 8.55	12.00 - 12.15	12.20 - 12.35
C	5			6	
D		3		5	
E		3			1
F			0		1
A			4		
B				0	

Path	12.40 - 12.55	4.30 - 4.45	4.50 - 5.05	5.10 - 5.25
C		4		
D		2		
E			3	
F			1	
A	11			3
B		2		0

**Table 4: Documentation of Pedestrian Flows**

Behavior Mapping of Movement Patterns  
 Thursday, 26 November, 1998

Path	8.00 - 8.15	8.20 - 8.35	8.40 - 8.55	12.00 - 12.15	12.20 - 12.35
A	2			3	
B		1		1	
C		2			1
D			0		2
E			3		
F				0	

Path	12.40 - 12.55	4.30 - 4.45	4.50 - 5.05	5.10 - 5.25
A		1		
B		1		
C			1	
D			3	
E	6			0
F		0		1

**Table 5: Documentation of Pedestrian Flows**  
 Behavior Mapping of Movement Patterns  
 Friday, 27 November, 1998

Path	8.00 - 8.15		8.20 - 8.35		8.40 - 8.55		12.00 - 12.15		12.20 - 12.35	
E	0						0			
F		1						1		
A			0						1	
B				2						1
C					3					
D						1				

Path	12.40 - 12.55		4.30 - 4.45		4.50 - 5.05		5.10 - 5.25	
E			0					
F				0				
A					1			
B						3		
C	2						1	
D		1						0

**Table 6: Documentation of Automobile Flows**

Behavior Mapping of Movement Patterns

Monday, 23 November, 1998

Street	8.00 - 8.15	8.20 - 8.35	8.40 - 8.55	12.00 - 12.15	12.20 - 12.35
Mosley	4			6	
1st Street		34			33
Rock Island			1		

Street	12.40 - 12.55	4.30 - 4.45	4.50 - 5.05	5.10 - 5.25
Mosley		3		
1st Street			52	
Rock Island	1			1

**Table 7: Documentation of Automobile Flows**

Behavior Mapping of Movement Patterns

Tuesday, 24 November, 1998

Street	8.00 - 8.15	8.20 - 8.35	8.40 - 8.55	12.00 - 12.15	12.20 - 12.35
Rock Island	1				
Mosley		4			6
1st Street			22		

Street	12.40 - 12.55	4.30 - 4.45	4.50 - 5.05	5.10 - 5.25
Rock Island		1		
Mosley			5	
1st Street	41			23

**Table 8: Documentation of Automobile Flows**

Behavior Mapping of Movement Patterns

Wednesday, 25 November, 1998

Street	8.00 - 8.15	8.20 - 8.35	8.40 - 8.55	12.00 - 12.15	12.20 - 12.35
1st Street	56			46	
Rock Island		1			
Mosley			5		

Street	12.40 - 12.55	4.30 - 4.45	4.50 - 5.05	5.10 - 5.25
1st Street		24		
Rock Island			1	
Mosley	12			9

**Table 9: Documentation of Automobile Flows**

Behavior Mapping of Movement Patterns

Thursday, 26 November, 1998

Street	8.00 - 8.15	8.20 - 8.35	8.40 - 8.55	12.00 - 12.15	12.20 - 12.35
Mosley	1			3	
1st Street		14			17
Rock Island					

Street	12.40 - 12.55	4.30 - 4.45	4.50 - 5.05	5.10 - 5.25
Mosley		3		
1st Street			21	
Rock Island	1			1

**Table 10: Documentation of Automobile Flows**

Behavior Mapping of Movement Patterns

Friday, 27 November, 1998

Street	8.00 - 8.15	8.20 - 8.35	8.40 - 8.55	12.00 - 12.15	12.20 - 12.35
Rock Island	1				
Mosley		2			2
1st Street			13		

Street	12.40 - 12.55	4.30 - 4.45	4.50 - 5.05	5.10 - 5.25
Rock Island		1		
Mosley			2	
1st Street	19			9

**Table 11: Behavioral Mapping of People At Rest**

Saturday, September 26, 1998

Location	A	B	C	D
Time Period	9:15 - 9:17	9:35 - 9:37	9:55 - 9:57	10:15 - 10:17
Sitting - Observing	2	1	0	3
Sitting - Conversing	4	4	1	3
Sitting - Total	6	5	1	6

**Table 12: Behavioral Mapping of People At Rest**

Saturday, September 26, 1998

Location	A	B	C	D
Time Period	10:35 - 10:37	10:55 - 10:57	11:15 - 11:17	11:35 - 11:37
Sitting - Observing	2	3	1	1
Sitting - Conversing	7	4	5	3
Sitting - Total	9	7	6	4

**Table 13: Behavioral Mapping of People At Rest**

Saturday, September 26, 1998

Location	A	B	C	D
Time Period	9:15 - 9:17	9:35 - 9:37	9:55 - 9:57	10:15 - 10:17
Standing - Observing	2	4	3	6
Standing - Conversing	3	5	4	7
Standing - Total	5	9	7	13

**Table 14: Behavioral Mapping of People At Rest**

Saturday, September 26, 1998

Location	A	B	C	D
Time Period	10:35 - 10:37	10:55 - 10:57	11:15 - 11:17	11:35 - 11:37
Standing - Observing	5	7	7	12
Standing - Conversing	6	9	12	11
Standing - Total	11	16	19	23



**Table 15: Behavior Mapping of Movement Patterns on Oktoberfest**

Saturday, 3 October, 1998

Path	11.30 - 11.3	11.40 - 11.4	11.50 - 11.5	12.00 - 12.0	12.10 - 12.1	12.20 - 12.2	12.30 - 12.35
A	18						
B		4					
C			23				
D				17			
E					5		
F						7	
G							5

**Table 16: Behavior Mapping of Movement Patterns on Oktoberfest**

Saturday, 3 October, 1998

Path	1.30 - 1.35	1.40 - 1.45	1.50 - 1.55	2.00 - 2.05	2.10 - 2.15	2.20 - 2.25	2.30 - 2.35
A	24						
B		6					
C			21				
D				14			
E					6		
F						8	
G							3

**Table 17: Behavior Mapping of Movement Patterns on Oktoberfest**

Saturday, 3 October, 1998

Path	3.30 - 3.35	3.40 - 3.45	3.50 - 3.55	4.00 - 4.05	4.10 - 4.15	4.20 - 4.25	4.30 - 4.35
A	33						
B		4					
C			14				
D				6			
E					3		
F						4	
G							2

**Table 18: Behavior Mapping of Movement Patterns on Oktoberfest**

Saturday, 3 October, 1998

Path	5.30 - 5.35	5.40 - 5.45	5.50 - 5.55	6.00 - 6.05	6.10 - 6.15	6.20 - 6.25	6.30 - 6.35
A	12						
B		3					
C			4				
D				6			
E					2		
F						3	
G							2

**Table 19: Behavior Mapping of Movement Patterns on Oktoberfest**

Sunday, 4 October, 1998

Path	11.30 - 11.3	11.40 - 11.4	11.50 - 11.5	12.00 - 12.0	12.10 - 12.1	12.20 - 12.2	12.30 - 12.35
A	13						
B		3					
C			7				
D				7			
E					3		
F						5	
G							3

**Table 20: Behavior Mapping of Movement Patterns on Oktoberfest**

Sunday, 4 October, 1998

Path	1.30 - 1.35	1.40 - 1.45	1.50 - 1.55	2.00 - 2.05	2.10 - 2.15	2.20 - 2.25	2.30 - 2.35
A	19						
B		4					
C			17				
D				14			
E					7		
F						3	
G							2

**Table 21: Behavior Mapping of Movement Patterns on Oktoberfest**

Sunday, 4 October, 1998

Path	3.30 - 3.35	3.40 - 3.45	3.50 - 3.55	4.00 - 4.05	4.10 - 4.15	4.20 - 4.25	4.30 - 4.35
A	26						
B		4					
C			11				
D				8			
E					2		
F						4	
G							2

**Table 22: Behavior Mapping of Movement Patterns on Oktoberfest**

Sunday, 4 October, 1998

Path	5.30 - 5.35	5.40 - 5.45	5.50 - 5.55	6.00 - 6.05	6.10 - 6.15	6.20 - 6.25	6.30 - 6.35
A	23						
B		6					
C			17				
D				19			
E					4		
F						6	
G							2

**Table 23: Behavior Mapping of Rest Patterns at the Oktoberfest**

Saturday, 3 , October, 1998

Location	I	II	III	IV	V	VI
Activity	11.35 - 11.37	11.45 - 11.47	11.55 - 11.57	12.05 -12.07	12.15 - 12.17	12.25 - 12.27
Sitting - Observing	1	2	4	3	1	2
Sitting - Conversing	2	3	7	4	3	1
Sitting - Eating	2	5	3	1	5	2
Sitting - Total	5	10	14	8	9	5

Standing - Observing	3	2	3	4	1	2
Standing - Conversing	4	4	3	2	3	1
Standing - Eating	2	5	4	2	4	2
Playing	0	0	3	0	0	0
Dancing	0	0	2	0	0	0
Singing	0	0	1	0	0	0
Standing - Total	9	10	16	8	8	5

**Table 24: Behavior Mapping of Rest Patterns at the Oktoberfest**

Saturday, 3 , October, 1998

Location	I	II	III	IV	V	VI
Activity	1.35 - 1.37	1.45 - 1.47	1.55 - 1.57	2.05 -2.07	2.15 - 2.17	2.25 - 2.27
Sitting - Observing	3	3	13	7	4	4
Sitting - Conversing	3	4	10	5	6	5
Sitting - Eating	2	7	7	3	8	2
Sitting - Total	8	14	30	15	18	11

Standing - Observing	5	5	4	6	1	2
Standing - Conversing	7	7	3	4	3	4
Standing - Eating	2	11	4	4	5	5
Playing	0	0	4	0	0	0
Dancing	0	0	8	0	0	0
Singing	0	0	3	0	0	0
Standing - Total	14	23	26	14	9	11

**Table 25: Behavior Mapping of Rest Patterns at Oktoberfest**

Saturday, 3 , October, 1998

Location	I	II	III	IV	V	VI
Activity	3.35 - 3.37	3.45 - 3.47	3.55 - 3.57	4.05 -4.07	4.15 - 4.17	4.25 - 4.27
Sitting - Observing	6	4	34	23	2	4
Sitting - Conversing	3	3	24	14	6	3
Sitting - Eating	1	6	9	7	7	8
Sitting - Total	10	13	67	44	15	15

Standing - Observing	8	6	4	4	1	4
Standing - Conversing	7	8	5	7	3	7
Standing - Eating	14	12	8	14	9	5
Playing	0	0	9	0	0	0
Dancing	0	0	4	0	0	0
Singing	0	0	1	0	0	0
Standing - Total	29	26	31	16	13	16

**Table 26: Behavior Mapping of Rest Patterns at Oktoberfest**

Saturday, 3 , October, 1998

Location	I	II	III	IV	V	VI
Activity	5.35 - 5.37	5.45 - 5.47	5.55 - 5.57	6.05 -6.07	6.15 - 6.17	6.25 - 6.27
Sitting - Observing	3	6	31	19	4	4
Sitting - Conversing	2	2	12	17	5	4
Sitting - Eating	2	4	14	4	9	3
Sitting - Total	7	14	57	40	18	11

Standing - Observing	4	4	3	5	2	3
Standing - Conversing	7	7	8	5	4	4
Standing - Eating	3	14	4	9	6	8
Playing	0	0	6	0	0	0
Dancing	0	0	3	0	0	0
Singing	0	0	2	0	0	0
Standing - Total	14	25	26	19	12	15

**Table 27: Behavior Mapping of Rest Patterns at Oktoberfest**

Sunday, 4 , October, 1998

Location	I	II	III	IV	V	VI
Activity	11.35 - 11.37	11.45 - 11.47	11.55 - 11.57	12.05 -12.07	12.15 - 12.17	12.25 - 12.27
Sitting - Observing	2	2	6	4	2	3
Sitting - Conversing	2	4	8	4	3	3
Sitting - Eating	2	7	4	2	6	2
Sitting - Total	8	13	18	10	11	8

Standing - Observing	3	2	3	4	1	2
Standing - Conversing	5	4	3	3	3	1
Standing - Eating	2	5	4	6	4	2
Playing	0	0	1	0	0	0
Dancing	0	0	4	0	0	0
Singing	0	0	2	0	0	0
Standing - Total	10	11	18	13	8	5

**Table 28: Behavior Mapping of Rest Patterns at Oktoberfest**

Sunday, 4 , October, 1998

Location	I	II	III	IV	V	VI
Activity	1.35 - 1.37	1.45 - 1.47	1.55 - 1.57	2.05 -2.07	2.15 - 2.17	2.25 - 2.27
Sitting - Observing	5	3	13	7	4	4
Sitting - Conversing	3	4	11	5	7	5
Sitting - Eating	2	8	7	4	8	3
Sitting - Total	10	15	31	16	19	12

Standing - Observing	5	4	6	3	2	3
Standing - Conversing	7	8	6	2	3	4
Standing - Eating	3	14	7	9	6	5
Playing	0	0	4	0	0	0
Dancing	0	0	3	0	0	0
Singing	0	0	3	0	0	0
Standing - Total	15	26	29	15	11	12

**Table 29: Behavior Mapping of Rest Patterns at Oktoberfest**

Sunday, 4 , October, 1998

Location	I	II	III	IV	V	VI
Activity	3.35 - 3.37	3.45 - 3.47	3.55 - 3.57	4.05 -4.07	4.15 - 4.17	4.25 - 4.27
Sitting - Observing	5	3	33	21	2	4
Sitting - Conversing	3	3	24	14	4	3
Sitting - Eating	1	6	7	5	7	8
Sitting - Total	9	12	64	40	13	15

Standing - Observing	8	6	4	6	1	4
Standing - Conversing	6	6	5	9	2	7
Standing - Eating	14	12	9	5	9	4
Playing	0	0	7	0	0	0
Dancing	0	0	3	0	0	0
Singing	0	0	1	0	0	0
Standing - Total	28	24	29	20	12	15

**Table 30: Behavior Mapping of Rest Patterns at Oktoberfest**

Sunday, 4 , October, 1998

Location	I	II	III	IV	V	VI
Activity	5.35 - 5.37	5.45 - 5.47	5.55 - 5.57	6.05 -6.07	6.15 - 6.17	6.25 - 6.27
Sitting - Observing	3	6	29	17	4	4
Sitting - Conversing	1	2	12	17	3	3
Sitting - Eating	2	3	14	4	9	1
Sitting - Total	6	13	55	38	16	9

Standing - Observing	2	4	4	3	2	3
Standing - Conversing	7	7	6	3	4	3
Standing - Eating	3	10	9	8	8	8
Playing	0	0	4	0	0	0
Dancing	0	0	6	0	0	0
Singing	0	0	2	0	0	0
Standing - Total	12	21	31	14	14	16

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