

**EVALUATING THE SOCIABILITY OF OUTDOOR OPEN SPACES:  
A DESCRIPTIVE ANALYSIS OF TWO PIAZZAS IN FLORENCE, ITALY**

by

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## ABSTRACT

Sociability in the city often occurs in the spaces between and within buildings—i.e., public places in which different kinds of people gather and give character and identity to the city (Whyte, 1980). This thesis presents a study of sociability in the city through an analysis of two important piazzas in the city of Florence, Italy—the Piazza della Repubblica and the Piazza della Signoria.

A successful social place is one that has different people at different times—a condition that is more than likely true for almost any open space that works well. What this thesis argues is that there are different types of open spaces that serve different types of public uses. Drawing on a case study of the two Florentine piazzas, the author identifies the differences in the ways the two piazzas work as a means to better describe their particular personalities and senses of place.

To guide this analysis, the author develops a set of premises based on the discussion of the personality and sense of place developed by Yi-Fu Tuan (1974), who speaks of two kinds of places—what he calls “public symbols” and “fields of care.” Public symbols have high imageability because they typically cater to the eye and command attention and even awe. On the other hand, fields of care do not seek to project an image to outsiders; they are inconspicuous visually and experientially evoke affection.

This thesis argues that Tuan’s designations provide a useful way to distinguish differences in the sense of place for the two Florentine piazzas, which are described by the terms “extroverted” and “introverted”. The former is an open space distinguished by its location, which acquires high visibility and meaning by harboring a significant meaning of the community at large. In contrast, the latter is not as conspicuous visually, and the emphasis is on an ordinary place important in the everyday lives of ordinary people, mostly locals.

The thesis also provides research insights that future studies might use to evaluate other urban spaces so that they become positive environments for social interaction.



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## CHAPTER 1

### THE PERSONALITY OF OUTDOOR OPEN SPACES:

#### INTRODUCTION AND EMPIRICAL FOCUS

This thesis studies two of the most important piazzas in the city of Florence, Italy—Piazza della Repubblica, the original site of the Forum of Roman Florence and Piazza della Signoria, the civic center since the 13<sup>th</sup> century. The distinct characteristics of Piazza della Repubblica and Piazza della Signoria are studied in relation to William Whyte's concept of sociability – i.e., the ability of an open space to bring people together in an informal manner, and thereby generate human activity and a sense of place. (Whyte 1980)

To guide this analysis, I developed a set of premises based on a discussion of the personality and sense of place by Yi-Fu Tuan (1974), who speaks of two kinds of places—what he calls “public symbols” and “fields of care.” I also draw on scholarly literature pertaining to urban open spaces, particularly the works of William Whyte (1980), Jane Jacobs (1961), Clare Cooper Marcus (1990) and Bentley et al (1985). The intent is to distinguish between open spaces that are different in their sociability because of their physical and behavioral qualities. The methodology for testing these ideas about plazas includes direct observation of the people in the two piazzas. On the basis of these observations, the thesis summarizes the “personalities” of Piazza della Repubblica and Piazza della Signoria in terms of character and functioning, and then presents a framework for defining two characteristic types of piazzas--what I call “introverted” and

“extroverted” open spaces. I introduce these terms more fully in the next section of this chapter.

## **Types of Urban Open Spaces**

In his discussion of the personality and sense of place, Yi-Fu Tuan (1974) distinguishes between places that yield meaning to the eye and places that are known only after prolonged experience. He calls the first kind of place *public symbols* and the second kind *fields of care*. In his discussion, Tuan explains that public symbols tend to project an immediate image in the mind because they are often striking visually. On the other hand, fields of care do not project an image to outsiders because they are not visually conspicuous. Public symbols often command attention and even awe whereas fields of care evoke a quiet affection. It is relatively easy to identify places that are public symbols because they are usually significant architecturally. In contrast, it is difficult to identify fields of care because usually they are only known to their everyday users and not easily identifiable by external qualities.

Later in the thesis, we will find that Tuan’s discussion provides an important foundation for identifying major differences between the Piazza della Signoria and the Piazza della Repubblica. In other words, Tuan’s designations suggested to me that one could speak broadly of two contrasting kinds of urban open spaces which I call *extroverted* and *introverted*. I will argue that the extroverted type of open space is usually characterized by one individual structure or group of buildings and its essential quality is location, which, although not necessarily remarkable in itself, acquires high visibility and meaning because it harbors and embodies some significant meaning of the community at

large. In contrast, the introverted type of open spaces lack striking visual identity and carry few signs that declare their nature to the outsider. In this sense, they are best known from within through prolonged regular experience.

At the start, however, it is important to emphasize that many--perhaps most--open spaces can have both extroverted and introverted aspects. St. Peter's Square in Rome, for example, is first of all a public space that introduces the Christian pilgrim to the majesty and power of the Church. But, it is also true that St. Peter's square is an important local place where children play and old people walk. Thus, in this sense it is also a field of care. Similarly, a square in an urban downtown may have a monument that attracts visitors from beyond the city, but it can also be a very important everyday space for the local people who go there to smoke or to have lunch on a regular basis. In this thesis, I will argue that the Piazza della Signoria is more an extroverted type of open space and that Piazza della Repubblica, a more introverted type of open space. As I proceed, I will present behavioral descriptions of each piazza and then consider how these descriptions substantiate my extroverted-introverted designations.

### **Justification of Study**

People from many fields have studied the question of improving the quality of city life. I too, have been intrigued by the answers to this crucial question because the success of a city plays a major role in our world today. *vision on how can a city be designed on* One objective of this thesis is to offer some solutions for making the city a better place to live. I have thought of sociability as a major element in the successful city, and this thesis proposes to understand sociability more clearly.

One reason that people live in a city is to have a variety of opportunities for easily accessible work and leisure. In addition, there are economic reasons as well as the benefits of living in a community. All these reasons are nothing until people realize these values as good values: “What happens in the city is usually what people want, or better, what people deserve.” (French, 1983). Sociability has been, even in the most primitive society, one of the most important human needs. Here, I argue that sociability is one of the most important elements in the city, since in many ways public life affects the life of the city. Besides, when one thinks of the city, the first thing that comes to mind is human activity and movement, which give civic and social meaning to the city. Thus, in one sense, the meaning of the city is composed of the different components of social public life.

Sociability in the city often occurs in the spaces between and within the buildings – i.e., public spaces in which different kinds of people can gather giving character to the city. These successful public spaces are one of the major reasons why some cities are more popular than others. Successful public spaces gather, in different ways, people and people’s attention. Successful open public spaces are one reason why European cities have a greater public vitality than American cities.

At least in one sense, “open space” is the soul of the city. A good open space is one that has the presence of many people informally interacting at any time of the day, on any day of the week. Italy, because of its social history, climatic conditions and other factors, has a great acceptance of good open spaces. These urban spaces mean much to Italians because they still have the need and enjoy the pleasure of gathering in public for social interaction. In one sense, plazas can be said to be the hallmark of Italian cities

because these places exemplify how friendly and amicable their men and women are. Their continuing success in a changing world is due to the foresight of the designers and the flexibility of their designs.

A successful social place is one that has different people at different times--a condition that I believe is true for almost any open space. What this thesis argues is that there are different types of open spaces that serve different people, and the key element to their success is based on their existential and physical qualities which determines the quality of human interaction within these plazas. Using Piazza della Repubblica and Piazza della Signoria, I try to identify differences, if any, in their ways of working as a way to better define their personalities and particular sense of place.

### **Background to the Study**

It was sometime during a course that I was taking on Place Theory, that I started thinking about "places" where people spend their time other than home and work place. The obvious answer was – plazas, squares and the like. In my short time in the United States, I was not able to find any such working plazas or squares. Though I have not traveled extensively, what I learned from talking to various people and from readings, suggested that for some reason in the United States these open spaces did not exist or did not work as they were supposed to in the sense of providing a stage for people to socialize.

I knew that this was not a new problem and that many researchers had done extensive work in this area of sociability of open spaces. However, in order to get a better understanding, I wanted to further examine the subject and understand the character and the functioning of these so called plazas or squares. It was then that I was reminded of

one course I had taken on Italian planning principles. In this class, I was introduced to the open spaces of Italy--the piazzas--which I understood as being very successful. Also because of the fact that I come from India, where the concept of outdoor sociability is prevalent, I felt that I could contribute in this field of open spaces and sociability.

I gathered information from different guidebooks and other resources about the piazzas in Italy and found that the Florentine piazzas were said to be some of the most active and sociable. Without delay, I booked my tickets to Florence and planned my trip during winter vacation. Meanwhile, I did further research and tried to get an idea of the piazzas in Florence, of which there were more than a dozen. Being aware of the fact that it would be a difficult task to study so many piazzas, I tried to narrow down my research by trying to compare two contrasting piazzas. At this point however, not having seen any of the piazzas in person, I decided to make the decision of selecting specific piazzas once I had reached Florence.

I arrived in Florence a day after Christmas and took time to walk through the streets and blocks to get a feel and orientation of the city. In addition, I tried to spend time observing people and their activities in the few piazzas that I had listed.<sup>1</sup> I worked to identify existential and physical qualities, so that I could select two contrasting piazzas for study. At this point, after about three days of broad observations, I believed that I could classify piazzas into two broad categories—what I would eventually term “extroverted” and “introverted”. An extroverted open space tends to have high

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<sup>1</sup> Piazza della Signoria  
Piazza della Repubblica  
Piazza Santa Croce  
Piazza San Giovanni  
Piazza Santa Maria Novella  
Piazza S.S. Annunziata

imageability because its architectural and spatial elements are strongly visible and cater to the eye. These spaces are easily recognizable because they are striking formally. On the other hand, an introverted open space is less conspicuous visually and is first of all a place for everyday life and ordinary events. They are more utilitarian and can sustain cohesive meaning to the piazza without depending on any conspicuous visual symbols. Ultimately, one can argue that any urban space may share both extroverted and introverted qualities. However, I will argue that Piazza della Signoria works more as an extroverted open space, while Piazza della Repubblica works more as an introverted open space.

In my efforts to understand and clarify this distinction, between extroverted and introverted open spaces, I began to study Piazza della Signoria and Piazza della Repubblica in more depth by photographing, drawing, collecting historical documents, and conducting behavioral mapping in the two piazzas. Before delving deeply into the results of my research, I want to briefly introduce the two piazzas based on the knowledge gathered from a few guide books and literature on the history of Florence. Further, the two piazzas will be described in full in Chapter 3.

### **Piazza della Repubblica**

Piazza della Repubblica, the site of the Forum from the founding of the Roman city in the 1<sup>st</sup> century B.C, is the oldest bit of land in Florence that has been continuously reserved for public use, whether for medieval trade and fortune telling, the parking of cars or lining up for the film at the Cinema Edison. On a warm sunny day one may want to position himself/herself under the shade of the arcaded sidewalk on the corner of via

degli Strozzi and via Pellicceria and read ahead the history of the Old Market (Hibbert, 1993, p. 57).

If there is one spot in all of Florence that could best represent the cultivation and courting capital in the Middle Ages and the inevitable need to display the money in the form of vast churches and artworks of the Renaissance, this is it. The Old Market was the nucleus of the business world and center for the growing number of powerful associations among merchants and craftsmen, the guilds (ibid.). The history of Florence took an important turn with the formation of the guilds in the eleventh and twelfth centuries. They changed Florence from a sleepy inland river town into a medieval urban corporation, a “commune,” and then to a famed, resplendent city of Western Europe. The Old Market, through out its nine hundred years, always held its medieval character and appearance but took on the burdens of over crowding, over building, and pollution. Four ancient churches graced the corners of the square and bestowed their blessings on the crowds of barterers and bargain hunters. Dozens of towers – some 80 ft high – belonging to the old families loomed along the sides of the piazza and over the stalls and the pavilions, the benches and the carts and stands of merchants. The arches of shops on the street below were rented out to the wealthiest merchants. As space became costly, small alleys between the houses and towers were filled in with vaulted corridors where merchants kept their extra wares or opened smaller “showrooms” and offices.

The present day Piazza della Republicca, a vast open space, almost four times as big as it originally was as a market, is flanked by a long, dark loggia, serving no obvious purpose, and a huge, gloomy archway, quite out of keeping with the visible architectural traditions of Florence, and opening onto nothing but the city’s biggest cabstand. Inscribed



above the archway is the epigraph (in translation): “The ancient center of the city restored from centuries of squalor to a new life. 1895”. Other installations include two ground level cafes, a major bank, a big insurance company, a movie theatre, and a hotel; and up above, large worded advertisements for Campari, Fernet Branca, and the newspaper La Repubblica. Despite this urbanistic mishmash, frequent foreign visitors to Florence, even while comprehending the critical reasoning advanced against the piazza, may confess to a certain tolerant affection for it. The piazza embodies something of that civic friendliness as detected elsewhere in the city – an air of hospitality, as it were of ungainly cordialness. In one corner is the café Guibbe Rosse, far from being the meeting place of literati that it once was, but a likable spot for a cappuccino in the morning (Fodor’s, 1995, p. 123).

### **Piazza della Signoria**

Piazza della Signoria, often hailed as one of Italy’s most harmonious squares, is an allegorical sculpture garden fraught with the symbols of power, defeat, justice, and violence. A panoply of pagan Gods and biblical heroes are scattered around the piazza and inside the deep-set arcade of the Loggia dei Lanza, to the right of the Palazzo Vecchio. The steps of the loggia was once a reception area for visiting ambassadors and princes and the spot from which the elected heads of the republic were announced to the people. The piazza was much smaller when it was a strong hold of the Ghibelline faction. In the fourteenth century their towers were torn down and the piazza became the political center of Florence. Walking across the piazza to the extreme left of the Palazzo Vecchio is the mighty Neptune, the statue that dwarfs all others. The free spirit of the Commune has its echo in the breadth and irregularity of its Piazza. Each building has something of

stubborn self-sufficiency. Not a façade resembles its neighbor. In Florence each façade is sharp and clear – oblivious of any master plan. Yet the marvel is that there is no cowering confusion, no medieval huddling together. The harmony lies in the material – undressed stone of gold or golden-grey; and in the character – solid, severe, economical – but bold (ibid., p. 127). The piazza itself offers a variety of focal points: statues, a fountain, restaurants and cafes, and museums at the edges.

I proceed ahead by preparing a conceptual and historical grounding for my study of the two Florentine piazzas. I first review the literature on plaza and open space design in Chapter 2. Then in Chapter 3, I present the history of Florence and the two piazzas.

## CHAPTER 2

### Literature Review of Urban Open Space and Sociability

The literature that deals with urban open spaces is vast, although sources dealing explicitly with sociability are fewer. In most works dealing with urban open spaces, sociability has been addressed as a subordinate theme that is used to support some broader urban issue. Designer Nan Fairbrother wrote that, “Man is gregarious... we congregate from choice, and do not even spend our leisure recovering in solitude as we could, but gregariously with friends and at clubs and pubs and parties and meetings and celebrations and demonstrations and every kind of communal gathering” (Fairbrother, 1970, p.194). This statement corroborates with Mumford, who states that “an historical antecedent of cities has been the need for people to be with other people” (Mumford, 1961). This need creates the diversity of the city, as well as the services, entertainment, and its livelihoods. The success of the city is in its use and as Frank Hosken says, “a city well used is the happy sight of people enjoying themselves” (Hosken, 1972).

A review of the literature dealing with urban open spaces reveals a closer understanding of a successful city. This literature must be related to issues of design and sociability and can be grouped into three major study dimensions, all of which are important in bringing more people into the piazzas. First, one must study what gives life and spirit to the city as a larger whole in order to support the argument about sociability. Here, Jane Jacobs’ The Death and Life of Great American Cities (Jacobs, 1961) is one important work. Second, there needs to be an understanding of what makes the open space and gives it the spatial form and character. Here I draw on Ian Bentley’s

Responsive Environments: A Manual for Designers (Bentley et al, 1985), which postulates seven key design characteristics that contribute to the effectiveness of spaces within a city. Third, there is a need to study the constituents who use the open space. Here, I draw on William Whyte's The Social Life of Small Urban Open Spaces (Whyte, 1980), and Clare Cooper Marcus and Carolyn Francis' People Places, Design Guidelines for Urban Open Space (Marcus and Francis, 1990). These three studies deal with the broad issue of sociability, in which the physical design of a plaza must be accomplished with people's needs in mind (Whyte 1980).

This thesis will use aspects of these various studies to better understand the Piazza della Repubblica and the Piazza della Signoria. In thinking about the relationship between people and plazas, it is useful to focus on three crucial concepts which I use to clarify the literature on people and plazas: (1) open space in the city; (2) sociability; and (3) sociable open space.

## **1. Open Space in the City**

First, I consider open space in the city. The soul of a city is mirrored not only in the character of its buildings but also in the relationship of these buildings to each other and the spaces created around them. Open spaces in the city are generally represented by three broad categories: the street, the park and the square (Marcus, 1984, p.9). There are, of course, other kinds of open spaces—e.g., like school grounds, college campuses, incidental public spaces associated with libraries, court houses, sports parks, theaters, and the like. These spaces, however, are often secondary to other activities, or their usage is limited and not always accessible to the general public. The difference between a street

and a square may seem obvious, but this obviousness was not always the case. Streets and squares have quite opposite functions: the square as a gathering place, a coming together and stopping; the street as a system of traffic and movement (French, 1983, p.11). Squares are a “central formative element, which makes the community and not merely an aggregate of individuals,” as generally happens in the street. (Zucker, 1959, p.1). The street is first of all a transportation channel in which people do not interrelate in a social way as so often happens in the square.

Parks and squares have the same qualities as gathering places that can be seen to augment a host of urban activities, such as trade, information, recreation, protection, sociability, and worship. Parks are different from squares in many ways that are obvious: they are “a respite from the city, with its attendant complexities of sight and sound. An escape into green oasis, away from hard edged gray geometry and congestion” (French, 1983, p. 11). The square, in contrast, “thrives on the rich tapestry of civic chaos” (ibid., pp. 11-12). In this sense, the square is the heart of the city, and therefore the principal element in urbanism. The importance of the square is that it has the potential to contribute to the social and civic vitality of the city. These places form urban space. Open spaces--both parks and plazas--provide more freedom of access to the city than any other kind of space, giving an experience of the different and the strange, making a positive contribution to the sociability of the cities and towns.

In ancient times, public squares were theaters for the principal scenes of public life, depicting the dramas of daily life (Hiorns, 1958). Public squares enhance the value to the public of adjoining or neighboring nature reserves, sanctuaries, or other open areas (French, 1983, p. 13). Squares provide for a physical and emotional outlet important to

the urban system in the city and its community. Even more, squares can give form and shape to cities and identities to individual communities. They are places which can give recreation to a person's mind. This space may refresh because it is the city, becoming a visual relief from the continued expanse of urban development. In any case, open spaces seem to be places that attract people and help relieve them from their problems (Lennard and Lennard, 1984). In Italy, there is still a tendency to identify these places by the behavior of each neighborhood surrounding the area. But most Italian squares have one important activity in common – providing places to meet people. This provides an important sense of personal and group identity that architects and planners should support and strengthen.

## **2. Sociability**

The need for a more precise definition of public sociability is required at this point. People live together with other people by human association. Human beings are “social animals and not isolated creatures” (Chinoy, 1967, p. 9). If all individuals were isolated, there would be no society. When a man interacts either with other individuals or within a group of individuals, a social relationship may be said to exist (ibid, p. 20). This relationship consists of a pattern of interaction, the pattern being the medium in which all social systems perform and carry out their purposes. The medium of human interaction, without which society would not be able to survive, must include the “interchange of ideas, feelings, information, and other behavioral performances” (Bernstein and Lennard, 1969).

Sociability, therefore, can be defined as living or being disposed to live in companionship with others or in a community, rather than isolation (Dictionary, 1973, p. 151). Man must have, at the very least, the opportunity, or choice, to interact, since human interaction is one of the basic needs which effect built form. The meeting of people is a basic need, since man has been defined as a social animal: "we very badly need natural physical contact between people and the benefits from it" (Douglas and Costantinos, 1966, p. 69).

Each individual must define and recognize the amount of human interaction right for him or her. People must be able to define the situation in which they find themselves and in which these interactions take place. In addition, people need to recognize the relationship of others with whom they interact. Then, they must be able to define their own position or role within the interaction and, finally, they must be able to define the role played by any non-human objects involved in the interaction (Vernon, 1970, p. 92). One should keep in mind that all these responses by people largely happen unconsciously. An unconscious sense of place arises in which person and place are wholly replaced by the relationship itself; in other words, the person is inside and belonging to his place both as an individual and as a community (Relph, 1976, p. 65). Most of these responses have to do with the culture to which the person or group belongs. The culture provides "a foundation from which interactions emerge" (Vernon, 1970, p. 92).

Jane Jacobs suggests that public contact is found on city sidewalks and in open spaces (Jacobs, 1961, p.89). She feels that city sidewalks, by providing the opportunity for public interaction, bring together informally people who do not know each other in

such ways (ibid. p. 57). A society can only be healthy if each single person has some intimate contact at every stage of his existence. On the other hand, "the pleasure of each is contingent upon the pleasure all feel; no one may find their satisfaction at the expense or feeling of others" (Lennard and Lennard, 1984, p. 14).

### 3. Sociable Open Space

These definitions of open space and sociability can be drawn together to indicate a third concept--sociable open space. Whyte (1980, p.17) describes a good open space as one "with the higher proportion of couples in groups, more people meeting people, or exchanging good-byes". He also says that successful social space means a place full of people who will attract other people who would in turn bring others and so on (ibid).

Again we see that sociability contributes greatly to the success of an open urban space.

In Jacobs' terms, social spaces are a volatile element of the city that stabilizes the values of urban neighborhood and districts (Jacobs 1961, p. 89). She also points out that a social space is one that has the ability to attract many different kinds of people, with as many different schedules, interests, and purposes as possible (ibid., p.103). She ends up saying that sociable space is one that makes people feel personally secure among all the strangers of the city (ibid., p. 130).

Similarly, the Lennards point out that a genuine social space has all sorts of users ranging from children to old people (Lennard and Lennard, 1984, p.8). They also say that a sociable place is the one that brings people together to enjoy weather, food and drink, resting, meeting relatives and friends, or participating in political activities, celebrating, or enjoying any variety of ceremonial occasions (ibid., p.9). The Lennards' favorite



examples are European plazas because such places permit changes in level of involvement and offer easy transition for people to change from spectator to participant and back again (ibid., p.11). Finally, sociable open space promotes a wide range of encounters and relationships, of short and long duration, planned and unplanned, mostly without specific goals other than to be sociable (ibid., p. 18).

If the above points are brought together, one arrives at a conceptual picture of urban sociability, which involves the subject matter of this thesis. In my research, I came to realize that an open space is one of the manifestations of the productive forces of society and that sociability is a crucial reason for open spaces to exist.

### **Urban Design and Sociability**

Having reviewed the definitions of open space and sociability, it is next important to understand the conceptual basis of urban open spaces with respect to their design and sociability. As William Whyte demonstrates, sociability in the city often occurs in the spaces between and within buildings--i.e., public spaces in which different kinds of people gather, giving character to the city (Whyte, 1980). The interpretation of sociability in this thesis is crucial to determine the rationale for behavior patterns in the two piazzas which will be described later in chapter four.

By sociability, as explained earlier, is meant the ability of an open space to informally bring people together in a place, generate human activity and a sense of place. In most general terms, this study analyses the piazza in terms of environmental attributes that are conducive to social interaction in public open spaces. This analysis is most indebted to the works of four researchers and group of researchers: Jane Jacobs; Clare

Cooper Marcus and Carolyn Francis; William Whyte, and the urban-design research team of Ian Bentley, Alan Alcock, Paul Murrain, Sue McGlynn and Graham Smith. In the following sections of this chapter, I review the works of these researchers.

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

Some clues to the contextual success of an open space are provided by Jane Jacobs in her The Death and Life of Great American Cities (Jacobs, 1961). She contends that small urban spaces such as parks and plazas are creatures of their surroundings and the way these surroundings generate mutual support from diverse uses. She believes that places are directly and drastically affected by the way their neighborhood acts upon them, and those surroundings should generate diversity—i.e., a varied mixture of functions, users, land uses, and activities.

To generate diversity, Jacobs presents four conditions which, she says, are indispensable. First she argues that urban districts should have a good mixture of activities--that is that there should be several primary uses, which are establishments that draw people necessarily to themselves—for example, offices, factories, and educational institutions. She asserts, in addition to these primary uses, there should also be secondary uses, by which she means uses which arise in response to primary uses, such as restaurants, bars and shops. The primary uses must be effective to ensure the presence of people who go outdoors on different schedules and are in the place for different purposes, but who are able to use many facilities in common.

Second, she criticizes long blocks for not providing enough turnings, thus minimizing chances for social encounters. The bedrock attribute of a successful city

district is that a person must feel personally safe and secure on the street amongst all strangers. In view of this Jacobs recommends short city blocks. She emphasizes the need for the continuous presence of people on the streets and the need for the entrance on a block to face the streets to ensure safety of both residents and strangers.

Third, Jacobs recommends diversity in the ages of the buildings in a district. In other words she emphasizes the need for both new construction or costly renovation that attracts well established enterprises, as well as lower-rent facilities that can house businesses with lower profit margins, in order to maintain varying economic yields. It is also the richness of human variation that gives vitality and color of the human setting. A good plaza location should offer a multiplicity of choice, intensive city trading, dense concentrations of people, intricate mingling of uses and complex interweaving of paths.

Jacobs' fourth condition relates to the sustenance of high human density in urban districts. In condition one, Jacobs emphasizes the primary uses that draw people into a district whereas, in the fourth condition the emphasis is on large numbers of people in the district who will provide its users and fuel its activities. Jacobs contends that high densities play an important role in healthy street life and sociable urban spaces.

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

According to Clare Cooper Marcus and Carolyn Francis in People Places (Marcus and Francis, 1984), a plaza can be defined as a mostly hard-surfaced, outdoor public space from which cars are excluded. Its main function is as a place for strolling, sitting, eating, and watching the world go by. Unlike a sidewalk, a plaza is a place in its own right rather than a space to pass through. Although there may be trees or other plantings

in evidence, the predominant ground cover is hard. The activities in the plaza largely depend on the function of the adjacent buildings to the plaza. According to Marcus and Francis, the one activity most observed is “sitting” in plazas. Also, there is an increase in public display of affection, smiling, street entertainment, groups engaged in sidewalk gossiping and impromptu sidewalk conferences among businesspersons.

Marcus and Francis illustrate that variation in detailing of plaza form can also transform an empty stage set into animated outdoor lunchrooms. According to them, the main plaza users are people living alone, who may seek relaxed conversations and companionship during lunch hour, and to escape the stress of the office environments. Most plazas they say, should be able to accommodate peak rush hour flows to and from the building entries, people passing through, people using the plaza as a short cut or a pleasant walking through space, access to a café, bank or other retail use peripheral to the plaza, access to seating or viewing areas, people entering the plaza in order to sit in the sun, eating a bag of lunch, viewing an exhibit, or listen to concert.

People Places is a practical book that offers guidelines and recommendations for creating humane open spaces of all kinds in cities. In my study of the two piazzas the book has helped me to qualitatively analyze the criteria for identifying a sense of place which is crucial in the design process and can contribute to protecting and enhancing existing environments or designing new places with greater human significance.

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

Whyte (1980) conducted a study entitled “The Street Life Project” where he observed people’s behavior in downtown space of New York. The results from this study

were published in The Social Life of Small Urban Spaces (Whyte, 1980). This book describes the reasons for the success or failure of urban spaces, especially plazas.

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.

Whyte lays out an argument for designing parks and plazas as sociable places. He says that people attract people, therefore the need is for a design that attracts people so that yet other people are attracted. Hence, Whyte suggests three key design factors that facilitate a sociable plaza. First, the plaza's location is important in that it should be near large populations where there are mixed uses, especially employment and residential. Next, Whyte mentions the need for a good street-plaza relationship which means that the plaza should be designed as an extension of the street so that the people are drawn in without realizing it—what Whyte calls “impulse use”.

The third important feature discussed by Whyte is sittability. Whyte says that once the design has enticed people into the plaza, then the people can be held by seating. Therefore, he recommends several guidelines which make seating both physically and socially comfortable. Finally, Whyte emphasizes other elements that might bring life to the plaza. Trees, water (and access to the water), food (food attracts people who attract more people), vendors, art and sculpture, street artists and so forth, have a major role in good plaza design.

In the study of the two piazzas, The Social Life of Small Urban Spaces has helped me in the analysis based on the techniques used by Whyte. Also, I was able to broaden my understanding of the piazzas with respect to sociability.

## **Responsive Environments (1985)**

Responsive Environments is a manual of urban design written by five British designers: Ian Bentley, Alan Alcock, Paul Murrain, Sue McGlynn and Graham Smith. This book suggests that the success of an urban district depends on the number of choices that it offers. The authors argue that “a responsive environment should provide its users with an essentially democratic setting, enriching their opportunities by maximizing the degree of choice available to them” (Bentley et al., 1985, p. 9). The authors identify seven central qualities which are said to influence the choices people can make in a designed place: permeability, variety, legibility, robustness, richness, visual appropriateness, and personalization. Each of these qualities are described in turn.

1. Permeability is closely related to the physical form of a place and refers to the degree of movement and access within and through a portion of the urban district. It is the key measure of a place’s responsiveness: “Only places which are *accessible* to people can offer them choice” (Bentley et al., 1985, p. 28). In terms of public space, permeability refers to the number of alternative routes it offers from one destination to another within a city district.
2. Variety refers to a mixture of uses and users activities. Responsive Environments shows that the underlying factors for variety are neither spatial nor purely architectural; they are more a function of supply and demand (ibid., p. 28). The authors identify three main factors which reflect the variety of uses a place can support: (a) demand for the range of activities to be located there; (b) the possibility of supplying affordable space to house these activities; and (c) the extent to which the design encourages positive interactions among the activities. (ibid., p. 28)

3. Legibility is the quality which makes a place coherent cognitively. Legibility relates to how easily an environment can be read by the user or how easy it is to grasp the place in the mind. The spatial layout as well as the uses offered should be easily cognized. For a richer level of experience, the physical form of an urban district and its activity patterns should complement each other.
4. Robustness refers to qualities of a place that can be used for a variety of purposes. In the quality of robustness, the argument centers around specialized versus multi-use spaces. Responsive Environments defines robustness as the quality of a place which can be used for many different purposes thus offering its users more choice than places whose design limits them to a single fixed use. Therefore, in respect to public spaces, the authors discuss the implications of designing the edges between buildings and public space to support as wide a range of likely uses. 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. For Responsive Environments, people's interpretation of the appearance of a place affects its responsiveness because people interpret places as having meanings. When these meanings support responsiveness, the place has a quality of "visual appropriateness" which is said to be more important in the public spaces of a scheme, particularly in places which are most likely to be

frequented by people from a wide variety of backgrounds. Therefore, the first step in achieving this quality is to design the publicly visible surfaces so they 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 exploring the design implications of sensory experience—the sense of sight, motion, smell, hearing and touch. As the authors of Responsive Environments emphasize, most of the built environment is fixed, therefore, it becomes apparent that designing for sensory experience is limited in scope. However, additions and modifications to the built environment can 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. It is important and appreciated because it helps people relate to their surroundings where they spend most of their time. 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.



Responsive Environments is a comprehensive process for designing urban districts in a way that enhances experience of the environment. The seven qualities together furnish an organizational framework to direct the urban design process from conception to implementation. In terms of my piazza study, Responsive Environments was an important source for identifying key aspects of the two piazzas that contributed to their functioning and sociability.

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 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, I next present the history of the two piazzas and then describe them in greater detail as they exist today.

## CHAPTER 3

### **The History of Florence and the Italian Piazzas**

One way to present the literature on any urban concern, such as sociability, is to overview the history of the particular place; in this case Florence, Italy, especially as this literature relates to the open spaces. By studying the history we can become acquainted with the successful solutions of the past – those that have stood the test of time. And in doing so we can learn how designers met the problems of defining public open space, within the limitations and according to the dictates of their times. We can understand the degree to which they succeeded in their efforts only by understanding first the problems they faced and the methods at their disposal. There is an enormous literature on the history of Florence, however, I have used references from a few books to authenticate the description.

History never pauses in its reminder to us that “change” is the most significant and most constant factor in urban space. Political and social changes have an effect, and age itself is a process of change, but unlike other graphic arts – even architecture – the form and quality of external space is always in the process of movement. The shadows creep along the opposite façade, air currents blow against our face and stir the leaves, light varies with the sun and cloud cover, and we are warm then cold. Our senses record a multitude of conscious and subconscious stimuli and we experience the space as a composite of all things present therein. We become familiar with the patterns of regular change – be it daily or seasonal, but in the end it is the passing of time that renders the open space obsolete or force changes in order to keep up with the changing needs and uses.

Urban spaces, from any time in history or any society on earth can tell us much about the quality of life enjoyed by its people. Some spaces are clearly the result of democratic usage, others suggest military purpose, pomp, and the monumentality of government. Some civic spaces afford people an opportunity to sit and talk, others provide only for listening. For some of us the importance of urban space is found simply in the space itself – breathing room in the crowded city. For others it is the opportunity for human exchange.

People have not changed as much as cities have, and for that reason public open space remains a vital requirement of urban life. The automobile has driven man from the streets of the city, and the depersonalization of modern commerce in most cities have further reduced our willingness to penetrate the urban fabric – beyond the minimum obligations to work. What public gathering places we still hold onto are all the more important in our struggle against further de-humanization. And the measure of a city's worth – in terms of its respect for the needs of its people – ought to be gauged by the quality of public space it manages to provide.

In order to follow easily the history, I will start with an outline of the history of Florence from its inception to the modern times and then follow it up with an overview of the Italian Piazza. I will conclude the chapter with a brief historical description of Piazza della Repubblica and Piazza della Signoria

### **Florence – Historic Background**

The origins of Florence go back to the period of the Etruscans when Fiesole, an important city of Etruria built on top of a hill, dominated the valley. A group of its

inhabitants went down the banks of the river to give life to a village, even if a modest one, but destined to develop because of a favorable position. This position was, however, an easy prey for enemies and invaders. As a matter of fact the Romans themselves put their tents there and founded a colony with the name of Florentia, which means, “destined to flourish” (Hibbert, 1995, p. 2). Figure 3.1 shows the location where the Roman colony was founded in 59 B.C., at the intersection of the cardinal axes, the *Cardo* and the *Decumanus*.

During this period, the Forum, the Capitolium, a theater, an amphitheater and walls were found around the two main streets of the Roman colony (the present day via Roma – via Calimala and via Strozzi – via del Corso). The town, even though small and self-contained, served as an intermediate stopping point which controlled the important trade routes between north and south and the coast and the hinterland that had already existed in Etruscan times.

Since the first century A.D this Roman municipality affirmed itself acquiring later a pre-eminent position among the cities of Tuscany, especially beginning from the 3rd century A.D. It survived the most obscure periods of the middle ages to resurrect slowly during the period of Carolingian emperors, and becoming one of the most important centers in the peninsula, from a cultural point of view also. Florence then gained from the 11th century an increasing autonomy in 1115 A.D. Soon in the interior of the city, surrounded with new walls, appear the first conflicts between the owners of the fiefs and the working classes, organized in Corporations.



The conflicts took the form of two factions: the Guelfs and the Ghibellines. The former were partisans of the Pope, the later of the Emperor. In the meantime Florence increased its power by fighting its rivals: Pistoia, Arezzo, and Volterra. Culturally and economically also between the 13<sup>th</sup> and the 14<sup>th</sup> century Florence was becoming one of Italy's most important centers. It was the age of Dante and Giotto, of great companies of bankers and merchants, of the great industries of wool and silk. In the first decade of the 14th century, Florence went through several political and economic experiences. The year 1348 marks the period of plague. The last decade of the 14<sup>th</sup> century saw ever growing contrasts between the "fat people", i.e. the rich bourgeoisie which lead the state through the Major Arts ( or guilds) and the "minor people." The fight reached its climax in the tumult of the Ciompi (1378), the humble workers of the Arte della Lana, through which the lower stratum of the population obtained representation. Soon enough, however, the oligarchy, led by the Albizzi, had the best of the situation. In the mean time the Medici family, leaning on the people, was gaining more and more political influence.

Meanwhile, as shown in Figure 3.2, the circuit of walls were extended to include the left bank of the river and the baptistry is built. The affirmation of the communal life led to a more active economy and resulted in increase of population. By the 13<sup>th</sup> century the city consisted of tower houses, easy to defend in case of attacks by other Florentine factions. The network of city streets became complicated. In this century the Palazzo Vecchio and the Duomo were built in the new Gothic style, together with thBargello.

The Medici family under such well known figures as Cosimo the Elder and Lorenzo the Magnificent, gained control of the government through the position known as Signoria. The Medicis, however, supported by the Emperor and the Pope came back

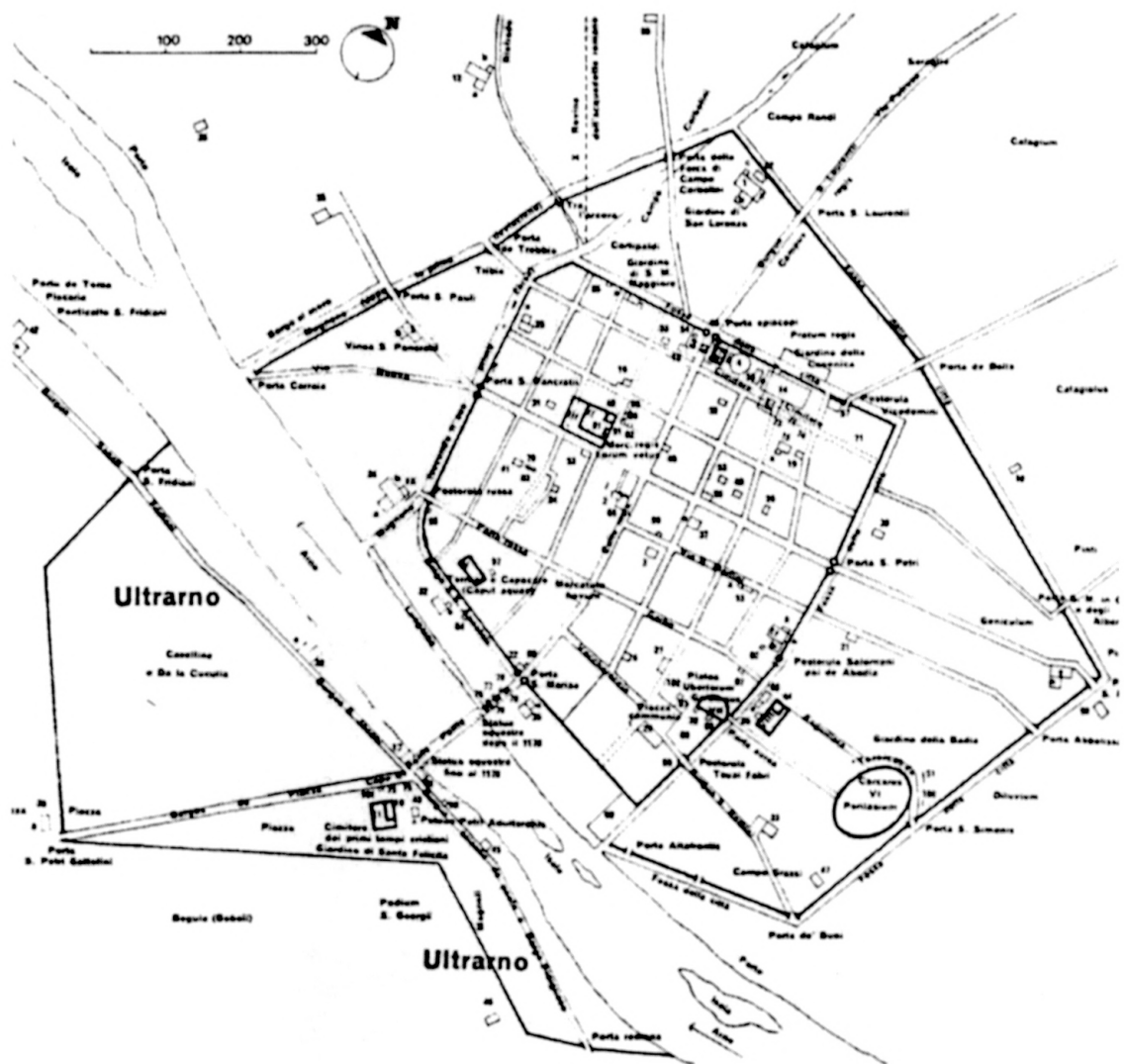


Figure 3.2: Florence at the beginning of the thirteenth century (Source: Fanelli, Giovanni., Firenze : Architettura e città, Florence: Vallecchi Editore, 1773.)

after a very long siege (1530). Even during the restless political life, the years between the end of the 15<sup>th</sup> century and the first decade of the 16<sup>th</sup> century were rich with the greatest personalities in the artistic and literary fields-- Michelangelo, Machiavelli, Guicciardini and more. In 1569 Cosimo de' Medici, the head of the city, was given the title of Grand Duke which he passed to his successors until the extinction of the Giangastone dynasty, (1737). The successors were the Lorraine who made the Grand Duchy, except for the period of the domination of Napoleon (1799-1814), until the reunion of Florence and Tuscany with Italy (1859). Finally Florence was the capital of Italy from 1865 to 1871.

In considering developments in architecture and town planning, in the 15<sup>th</sup> century numerous palaces were built for the wealthiest families (Pitti, Medici) and other monuments inspired by the geometric laws of antiquity. During this period Brunelleschi, with his genius mind designed Santo Spirito, San Lorenzo, and the Dome for the Duomo. The 16<sup>th</sup> century is enriched by the Uffizi, the Bobili gardens and the bridge of Santa Trinita. As regards town planning in the 18<sup>th</sup> century, unhealthy dwellings for the poor took over the center, while the middle classes built up their own distinctive residential districts. The second half of the 19<sup>th</sup> century was very important. When, in 1865, Florence unwillingly became the provisional capital of the new united Italy, she disguised with seemingly skeptical indifference the obscure presentiment of the upheaval that this new status would mean for her, representing as it did a violation of her centuries long equilibrium and her old, simple, parsimonious and somewhat detached way of life.

Many problems, especially in connection with town planning, had remained unsolved for centuries and even after the upheavals of the French revolution, except for



some limited and misguided attempts to widen streets in the center such as Via Cerretani and Via Calzaioli. These problems now suddenly came to the fore, together with new ones of unpredictable magnitude: the provision and regulation of the city's inevitable and immediate expansion; the adaptation of structures, services and communications to meet the new situation; slum clearance in the center of the town; and defense of the inhabitants against recurrent floods.

The task of planning and carrying out the expansion of Florence as capital was entrusted to the architect Giuseppe Poggi. The outer areas were tackled intelligently and in the course of a few years the surroundings of the historic center was completely changed. The hitherto intact walls marking the boundary between the town nucleus and the countryside were demolished and in their place broad surrounding avenues were constructed from gate to gate and providing ample arteries for traffic and expanded communications.

After Poggi's efforts two further matters of concern to the city were tackled: the façade of the Duomo and the slum clearance in the historic center. The latter issue which is of concern to us is the creation of the present Piazza della Repubblica. Its great open space surrounded by pallid examples of eclectic architecture has made great effort in healing the violent onslaught dealt to the exhausted but still living body of the medieval city. The column with the statue of *Abundance* which marked the exact center of the city amid an intricate network of alleyways and crowded slums, is now collected in the Museum of Firenze Com'era.

Soon afterwards another important event was the opening, in 1935, of the new railway station of S. Maria Novella. Its plan, conceived, in a rational and anti decorative

style which aroused bitter arguments, represented a contrast and break with the then current and often confused architectural ideas and also of great significance was the physical impact of World War II on the city.. On 4<sup>th</sup> August 1944, the retreating German army devastated the center of the town. All the bridges were blown up except the Ponte Vecchio, and the streets leading to it were reduced to a heap of rubble, from which some of the medieval towers incorporated in the old blocks of the houses emerged miraculously spared.

The problem of reconstruction brought with it a revival of the passionate disputes and division of views. Opinions fell into two opposite camps, one side advocating faithful restoration while the other asserted the claims of modernity. The outcome was substantially negative, as usual in such compromises, especially when hastened, as in this case, by the obvious pressure of economic interests concerned (Pauli, 1995, p. 21).

Today Florence has a population of half a million people. The built up area amounts to approximately 15 million square meters, i.e. nine square miles. There has been a post war development of roughly 20% increase in area. A recent overall plan tends to put a check to private initiative, which has often been harmful to Florentine community and to the spirit of the city. Tourism has become a important revenue for the city and this is evident with the large number of people who are found here during all the seasons of the year. In a way tourism has helped authorities to realize the importance of the historical structures and thus there are efforts to preserve most buildings (see Figure 3.3). However, the fact that there are so many tourists in the city makes things difficult in trying to manage important matters, such as transportation, housing and other planning issues.



Figure 3.3: Florence Today (Source: Pauli, Erika., Art and History of Florence, Florence: Casa Editrice Bonechi, 1995, p. 51).

## **The Italian Piazza**

The Italian Piazza, the “living room” of the Italian people, is widely considered the most beautiful and distinctive of urban open spaces. Most are uniquely shaped, sized, and oriented in relationship to the terrain, the town’s form and size, and the natural elements, the sun, the wind, and the rain. Their continuing success in a changing world is due to the foresight of their designers and the flexibility of their designs.

The first piazza may have been the meadow. Wherever people settled, whether on hillsides or at the springs, they left a large opening enough for gatherings. A small circle formed for socializing and survival eventually evolved into groupings of built forms, the Village Square, the Agora, the Forum, and eventually the Piazza. Daniel Waley once said, “One of the chief beauties of a pleasant city is the possession of a meadow or open place for delight and joy of both citizens and strangers, and the cities and some towns of Tuscany... are honorably supplied with such meadows and open places.”(Waley, 1988, p. 107). Public spaces have historically been the focus of civic life, the stage for every kind of human interaction, from the celebrations to safe havens during wars, to the casual meetings between friends. With the Greek agora, the public gathering place, architecture for the first time was used in consideration for the common people, not the aristocracy. In the words of Lewis Mumford, “its aesthetic order rested on a practical base...the formally enclosed agora, with its continuous structure, the broad unbroken street lined with buildings, and the theater.”(Mumford, 1961).

Most existing Italian piazzas were formed in the Gothic period, from the 11<sup>th</sup> century through the 14<sup>th</sup> centuries. These urban open places responded to a much faceted social system composed of a secular administration, working class companies and guilds,

urban nobility, and the church. In some cases, separate spaces were developed for different functions. The piazzas were sometimes a series of linked spaces, possibly reflecting the lines of vendor stalls. Street like spaces widened and straightened; structures were removed to construct an area along a street; cemeteries were paved to provide forecourts for churches; streams were covered to claim more land; raised constructions claimed new level spaces in a hill town; natural theaters provided remarkable spaces that defined the city's character. By the end of the 14<sup>th</sup> century, all European cities claimed public open spaces.

Florence is no exception, because the city is but a collection of neighborhoods, each very much like a town, and each with its square. The heart of Florence consists of more than one great piazza. Of them, the two piazzas being studied are Piazza della Repubblica and Piazza della Signoria, which will be examined now in the historical perspective.

## **The Two Study Sites**

A descriptive study of the historic backgrounds of the two piazzas will provide a base for further analysis to evaluate the factors due to which the piazzas can be compared and contrasted in terms of sociability.

### **1. Piazza della Repubblica**

The site of the present Piazza della Repubblica began as the main open space of the Romans, the Forum, and its surrounding areas. In this small city, its streets neatly laid out at right angles to each other in the customary Roman way, there were, as in other towns of the Empire, baths and temples, a theatre, a Capitol and a Forum which occupied part of

the present Piazza della Repubblica. Most of the buildings were built of brick; some had marble facings and, in imperial times, were decorated with polychrome ornamentation.

In the early 1430's the Commune commissioned Donatello to sculpt the market's symbol: Dovizia, or Abundance. Holding a cornucopia and a basket of fruit, she stood on an ancient Roman column, which towered over the market. She was a nymph in the guise of Flora, with fluttering garments. It was the first time since antiquity that a profane figure instead of the usual saint or Madonna guarded an Italian market place. The Florentines must have known that a Roman deity occupied the very same spot and been proud of it. The ancient base lay beneath the Dovizia and now rests in the Museo Archeologico.

Mercato Vecchio was the city's chief food and produce market. "Never was there a nobler garden," wrote the fourteenth century poet and town crier, Antonio Pucci (Borsock, 1983, p.176). During carnival there were hens and capons, and for the Lent there were mountains of onions, garlic, shallot tarts and spicy herbs fried in batter. Good meat was expensive, which means why the most substantial part of meal was and still is soup and pasta. Spices not only outshoot high meat, they also provided the necessary stimulant in the diet when coffee and tea in Europe were still unknown. All kinds of comestibles were sold here, and there was lively trade in wool as well as in the wares of the local artisans.

Travelers arriving in Florence in the fourteenth century could not fail to be struck by the evident prosperity of the city: the dealers and traders hurrying in and out of the banks, the bustle of the wool industry that produced every year some 80,000 rolls of cloth

worth almost a million and a quarter gold florins. There was a teeming market in the Mercato Vecchio where cloth dealers and cloth merchants put their wares on show besides the apothecaries and grocers, the traders in kitchenware and jugs, the money-changers, the sellers of hawks and falcons, partridges and pheasants, wild boars and goats, the market gardeners, the vendors of corn and macaroni, of dried fruit and chestnuts.

The city's bell ringer and town-crier, Antonio Pucci, in one of his poems described the noise and bustle of the fourteenth century market, "our chief source of life – no other square gives such delight" (Hibbert, 1993, p. 57). Everyone came to the Mercato Vecchio: merchants, housewives, farmers, beggars, and pickpockets. Women and girls of good family were carried about in closed litters. Vegetable sellers and vendors of junk of all kinds threaded their way through the loggias and stalls shouting (see Figure 3.4). Other criers were hired to call out lost property or help wanted. Near what was once the southeastern corner of the Mercato Vecchio is the Tabernacolo della Tromba. Condemned criminals were obliged to kneel before it on their way to execution. At some time between 1686 and 1859 the picture was moved to the nearby church of St. Tommaso so that a vendor could set up his shop inside the niche.

Only in 1905 was it brought back again. The Mercato Vecchio, the church of San Tommaso, and the neighboring Ghetto were all demolished in the nineteenth century to make way for the Piazza della Repubblica (see Figure 3.5). The historical city center underwent intensive urban renovation, which the middle classes deemed not only necessary for prestige, but also for speculation, disguised beneath a humanistic and historical formula. The Old Market, together with its Jewish quarter, was completely





Figure 3.4: An old picture showing the Mercato Vecchio and the Column of Plenty before the opening up of the Piazza della Repubblica (Source: Pauli, Erika., Art and History of Florence, Florence: Casa Editrice Bonechi, 1995, p. 13).



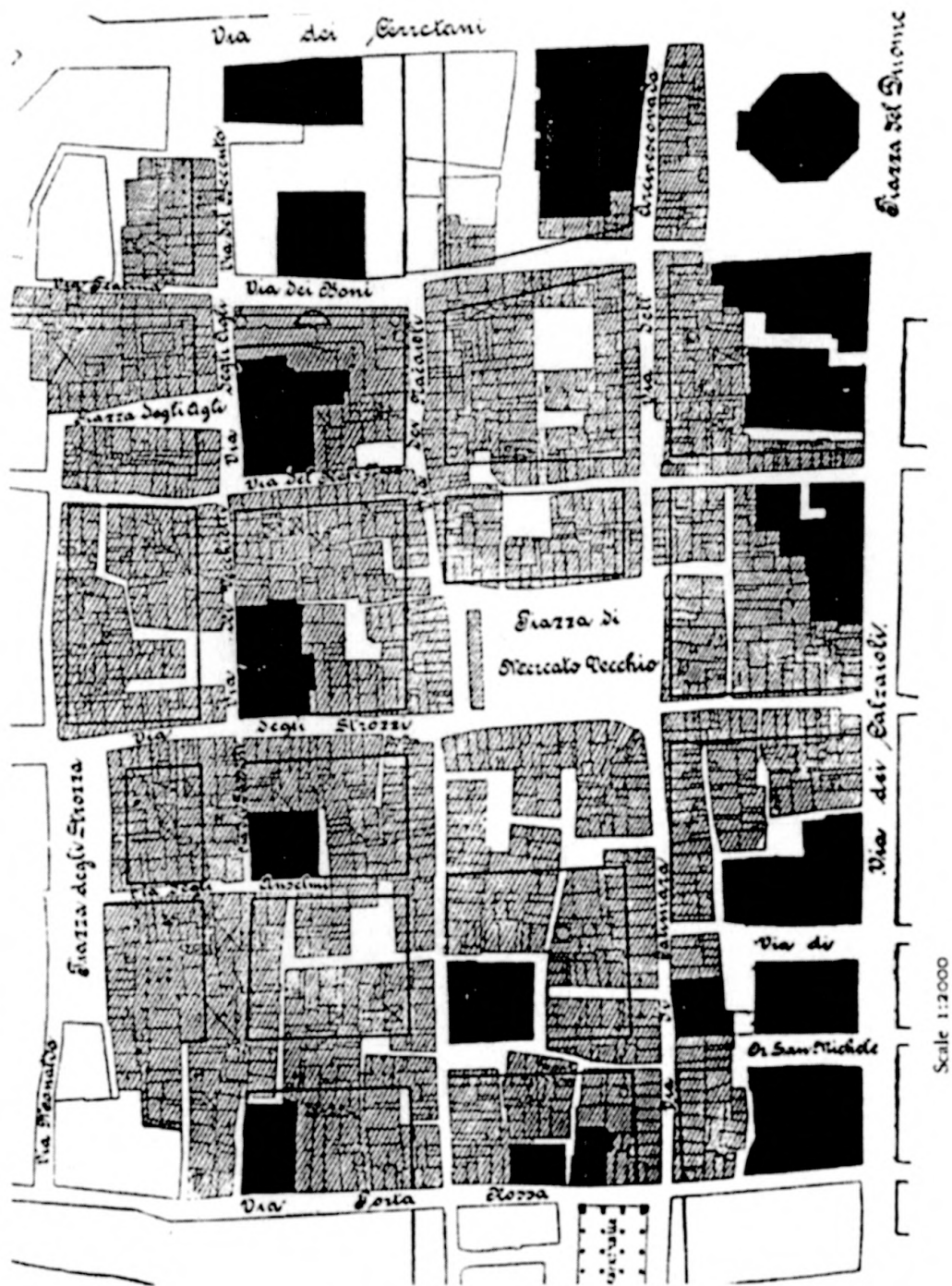


Figure 3.5: The old market area, demolished at the end of the nineteenth century to make way for the Piazza della Repubblica. All the shaded buildings have been destroyed; the ones in black, considered to be monuments have been preserved (Source: Farelli, Giovanni., Firenze : Architettura e città, Florence: Vallecchi Editore, 1773.)

destroyed. The present day Piazza della Repubblica, rebuilt on this site, twice the original size, marks the destruction of the organic connection of a thousand years of urbanistic stratification, substituted with an anonymous geometrical layout of buildings, amongst which some monuments have been left intact, emerging with no connection to the buildings around them. After the second War of Independence and after Tuscany joined the Savoy Reign of Unified Italy, Florence was the capital of Italy for five years (1865 – 70).

Piazza della Repubblica was first the site of the Roman forum, then the Mercato Vecchio, the principal market, founded in the fourteenth century. However, the Piazza itself was a nineteenth century creation and remains to be a gathering place for many people, although there are no signs of this place being a market (see Figure 3.6).

## 2. Piazza della Signoria

The original town hall or Palazzo della Signoria, was designed by Arnolfo di Cambio. It was completed in 1302, its tower, the tallest in the city, in 1310. It has had many names. First known as the Palazzo del Priori, it was later called the Palazzo del Popolo, then in the fourteenth century, the Palazzo della Signoria and now as the Palazzo Vecchio. The adjacent piazza, center of the political and social life of the city for centuries, it is without doubt one of most used square of Florence, built upon the ruins of the Ghibelline homes of the 13<sup>th</sup> century. The piazza and the town hall were not planned together. The first ground was the cursed land of the degli Uberti family, whose property was confiscated in 1268 and deliberately left in ruins as a public reminder of Ghibelline



Figure 3.6: Piazza della Repubblica (Source: Pauli, Erika., Art and History of Florence, Florence: Casa Editrice Bonechi, 1995, p. 141).

perfidy and defeat. In order to build the Palazzo Vecchio, property was purchased from other Florentine families. Subsequently, the degli Uberti land was turned into a paved piazza so that any hope that the exiled family might have had of rebuilding there was eliminated forever. The space to the south of the Palazzo was occupied by the church of St. Pier Scheraggio, which was left intact until it was absorbed into the fabric of the Uffizi in the sixteenth century. This accounts for the curious angle at which the town hall was built and why it proved impossible to accord it either an axial or a centralized position in the Piazza. Throughout the fourteenth century efforts were made to expand the Piazza. But for many decades whatever space was cleared served only as an unsightly building yard. The widening and paving of the Piazza was left to the Opera del Duomo – the largest Construction Company in the city. Ripped up house foundations of broken masonry and piles of broken masonry completed Palazzo Vecchio. This piazza had more or less assumed its present dimensions by the end of the fourteenth century, when it was paved and heavy traffic was prohibited (see Figure 3.7).

To have the Piazza seemly and regular, still nagged Duke Cosimo I de' Medici, two hundred years later. It was characteristic of the age of absolutism that Cosimo tried to impose some sort of comprehensive scheme on the Piazza. The statuary and the works subsequently commissioned by Cosimo and his heirs were marshalled into military order in front of the palace, which by then had become the ducal residence. A *Marzocco*, Michelangelo's *David*, and Bandinelli's *Hercules* were already there. The rest of the statuary, the *Neptune fountain* and the monument to Cosimo I, were aligned along an axis, which cut across the Piazza. The public was confronted with a parade of civic symbols and political propaganda. The equestrian monument of Duke Cosimo I by

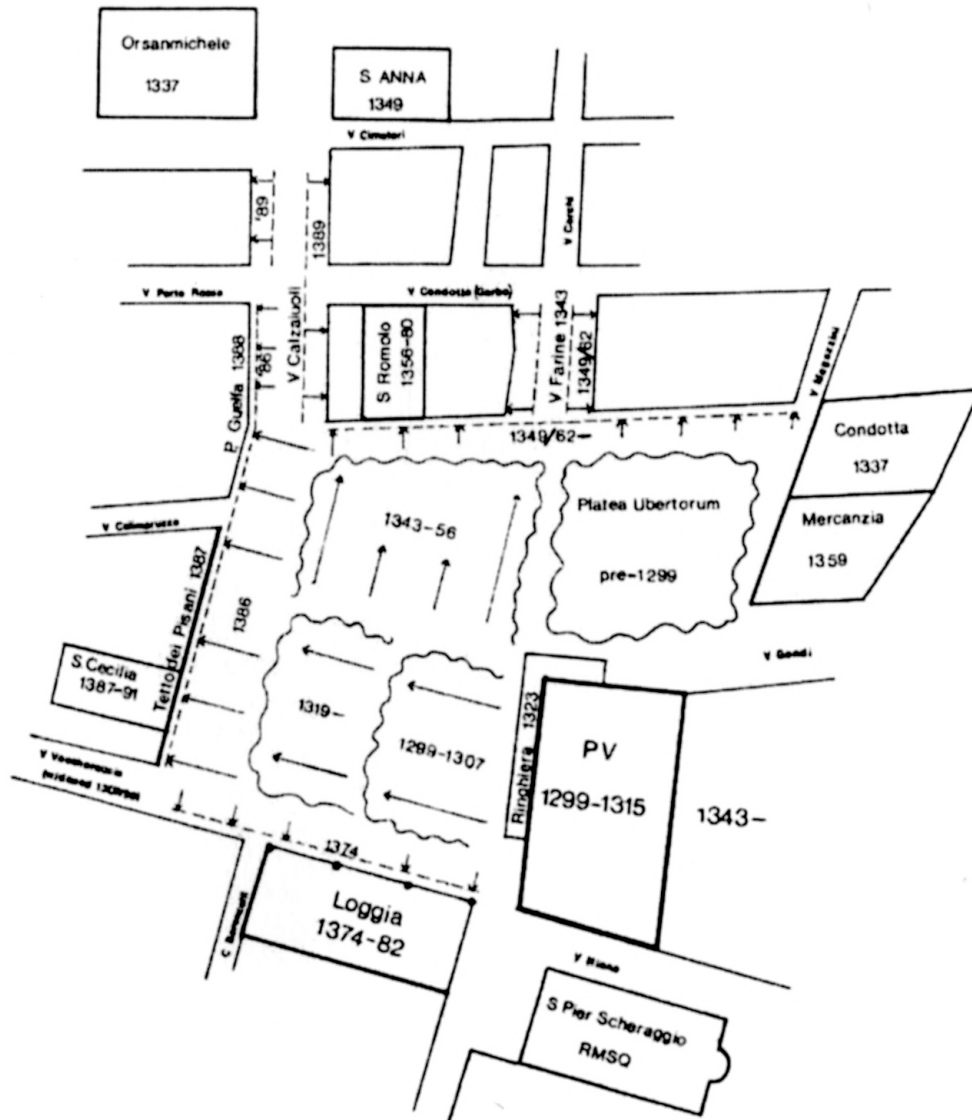


Figure 3.7: Piazza della Signoria and surrounding area, schematic plan of chronological development (Source: Trachtenberg, Marvin., Dominion of the Eye, New York: Cambridge University Press, 1997).

Giambologna (1594) is the last in line and stands in the middle of the Piazza (see Figure 3.8). It seems to be a replica of the Marcus Aurelius monument in Rome, which had but a few decades earlier been transferred from the Lateran to the center of Rome's public square – Capitoline Hill. The present day Piazza della Signoria has Michelangelo's David outside the door of the Piazza which is a replica and the original is in the Galleria dell'Accademia. The Hercules by Bandinelli is the original work of art.

The Piazza functions on St. John's Day (June 24<sup>th</sup>) as a soccer field in which the teams of competing districts of the city play in costume for the benefit of visiting hordes of foreigners. But during autumn and winter, Florence belongs to its citizens and the Piazza returns to the life of the Commune. The Florentine beast of burden also has his day on the Piazza. On the last day of the year the Commune offers oats to the entire city's horses, donkeys and asses which are brought here. A political rally in the Piazza is a kind of entertainment. The event is announced as a great *fiesta* with gaily-colored broadsides plastering the walls of the city. Besides the singing and shouting, these gatherings are usually well-staged affairs (see Figure 3.9).

The square's name actually derives from the palace where already in the 14<sup>th</sup> century the government of the Republic, called the Signoria, resided. The piazza has been the stage of innumerable historic events: from the riots of the 1300's to the solemn ceremonies and proclamations of the Medici. One can read about the dramatic events that took place here in the round marble plaque on the pavement, in front of the Neptune fountain. The nearness of this square to the museums and principal monuments of the city have made it an attraction for tourists.



Figure 3.8: The imposing mass of the Palazzo Vecchio in front of the Piazza della Signoria (Source: Pauli, Erika., Art and History of Florence, Florence: Casa Editrice Bonechi, 1995, p. 29).





Figure 3.9: One of the numerous festivals held in the Piazza della Signoria in Florence in the time of the Dukes (Source: Pauli, Erika., Art and History of Florence, Florence: Casa Editrice Bonechi, 1995).



I would like to now describe the two piazzas in their physical and existential qualities as I had seen them when I was in Florence for the observations. This will help me get a grasp of the over all sense of the two piazzas and then I will proceed with the analysis.

## CHAPTER 4

### DESCRIPTIVE STUDY OF THE TWO PIAZZAS

After the previous brief historical background, I will make a descriptive study of the two piazzas, which would provide a base for further analysis to evaluate their characteristics. I describe the two piazzas and their surroundings to get one acquainted with the settings. I do this in terms of three levels of scale: (1) the stage--that is, the piazza itself, (2) the rim--in other words, the immediate perimeter, and (3) the surroundings--that is the several blocks around each piazza.

#### **The Piazza della Signoria**

The Piazza della Signoria, center of the political and social life of the city for centuries, is without doubt one of the most used piazzas of Florence, built upon the ruins of the Ghibelline homes of the thirteenth century. As illustrated in Figure 4.1 this 'L' shaped piazza is a flat open space floored with dark gray stone paves and blocks. This piazza has acclaimed wide popularity and is the center stage for many political and civic functions. This piazza adjoins the Palazzo Vecchio, which has been a public symbol since its inception. It yields meaning to the visitors' experience, evoking awe and affection for its beauty of design.

The Palazzo Vecchio occupies the southeast corner of this piazza, drawing people from the vast open space lying open before it. A well-designed array of a few steps compliments the transition between this wide-open space and the town hall. Right at the north west corner, adjacent to the steps, is the massive white statue of Neptune. The

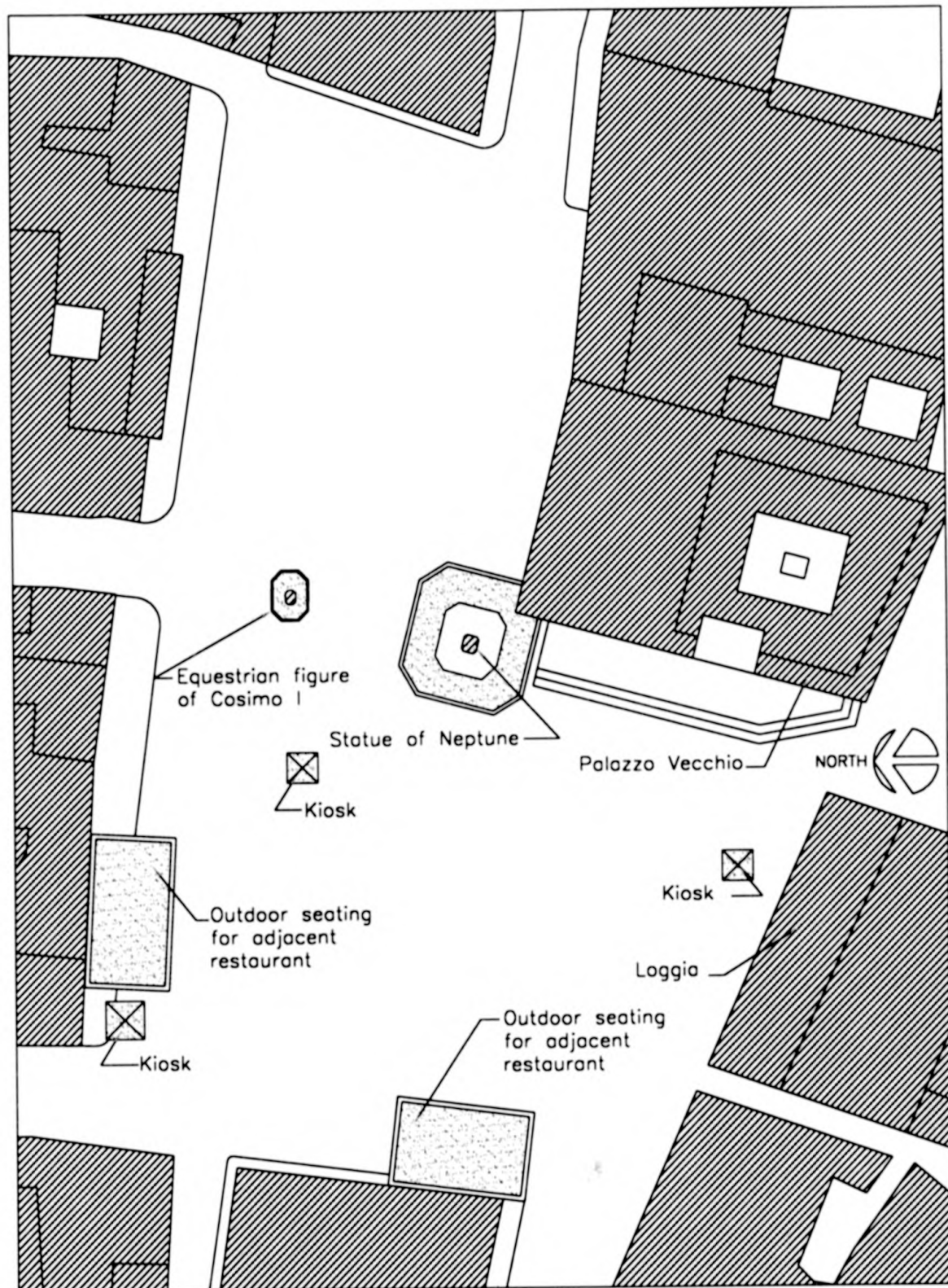


Figure 4.1: Plan of Piazza della Signoria

position of this piece of art has much to do with the architecture of the space. What adds to the character of the piazza is the fountain that has water gushing all the time, providing a sense of vigor and energetic life to the whole surrounding (see Figure 4.2). Pigeons twitter, once in a while quench their thirst and people of all ages surround the sculpture, from children to the elderly. A strong intentional design feature, is the equestrian statue of Cosimo I, who stands on a high pedestal. Bird droppings on the statue show the neglect, but little is realized by the ordinary man of the importance of its location in the piazza. The composition of the statues to their backgrounds and the axial views that they provide, add to a great extent to the whole ambience of the piazza.

A good amount of research has been done on the shape of this piazza. One finds that the present layout was not by chance but instead a deliberate design solution to celebrate the Palazzo Vecchio and the tower rising over fifty feet from the ground. The present day extents of the piazza were determined after a series of changes that it underwent over time keeping with the various principles of urban design of the trecento piazza (Trachtenberg, 1998, p. 6).

This vast space is largely open with almost no furniture except for a few planters and lampposts, which surround a few tables and chairs that serve as outdoor seating for some restaurants. Being movable furniture they can be cleared for any civic functions and also most restaurants close their outdoor eating mainly during winter season. There are a few kiosks selling postcards and other items for the tourists. They are usually temporary structures that are set up in the morning and removed in the evening. Small trucks/three wheelers help in the transportation.



Figure 4.2: Images of Piazza della Signoria

The Palazzo Vecchio on the southeast corner slices a quarter to give a 'L' shape to the piazza. This massive building houses the municipal offices and also a museum, gift shop and a restaurant. The building is accessible through one main entrance in the west and a subsidiary entrance in the north. There are other secondary doors, which are not open for the public and are probably emergency doors.

On the south side lies the loggia with different statues commemorating the high artistic skill that the Florentines possess. The recent years have seen this area caged behind a mesh for reasons of maintaining security. Following along to meet with Via Veccheria are a few residences with restaurants on the ground level which open out into the piazza during summer time when there is good tourist flow. The edge on the west end corner with Via Veccheria is the Generali, an insurance company, with a restaurant and a photo developing studio on the ground floor. Following in the same edge line on the west to form Via Calzaioli, there are a few more ice-cream shops and bakeries on the ground floor and offices on the upper floors. On the west side we have again a few restaurants, banks and retail shops on the ground floor with a mixture of residences, offices and museums on the upper floors. This edge is intercepted by a street, Via De Corchi, in the middle, which is one of the interesting viewing points for the town hall and the two statues in an axial line. On the far east are again residences from the medieval times, still intact in their original state.

As illustrated in figure 4.3, the piazza is fed by eight streets, of which Via dei Calzaiouli seems to be the most prominent one as it feeds more people than from any other street. I will discuss the reasons in the later chapters. Also the inlet from the Uffizi



is also a very busy one which is often thronged by tourists to see the invaluable paintings in the museum. The two streets, Via Veccheria and Via Gondi, on the far west and east side of the piazza attract people from the neighboring streets on the block with the perspective view that these streets provide of the active open space inside. Via Cherchi and Via Calimaruzza are the other two streets which are not too busy but offer a welcome break in the building façade and also once in a while have people come through them offering a vista for the Palazzo Vecchio. Finally, the two streets Via dei Magazzini and Ciasro dei Baroncelli are very silent as they lead into the residential cluster and are mostly used by the residents.

### **The Piazza della Repubblica**

The Piazza della Repubblica, once the site of the Roman Forum, then the Mercato Vecchio, the principal market, was a nineteenth century creation, and involved the demolition of several medieval buildings and much of the Ghetto. It is a very significant place, which marks the center of the Roman colony where the two cardinal axes intersect. As illustrated in Figure 4.4, it is a fairly large rectangular flat open space for the most part with a few undulations to the general piazza, and is paved with stone blocks. However, it is not very conspicuous to tourists and draws little attention from outsiders, maybe because it does not offer any special attraction worth seeing. It also may be because the old part of the town does not exist anymore and thus this area is of no interest. With the little observation that I made during my initial three days, I found that there were enough people to call this place a social stage – a place where people met, conversed, exchanged ideas or just watched other people. It had the rhythm and the pulse of a living piazza with



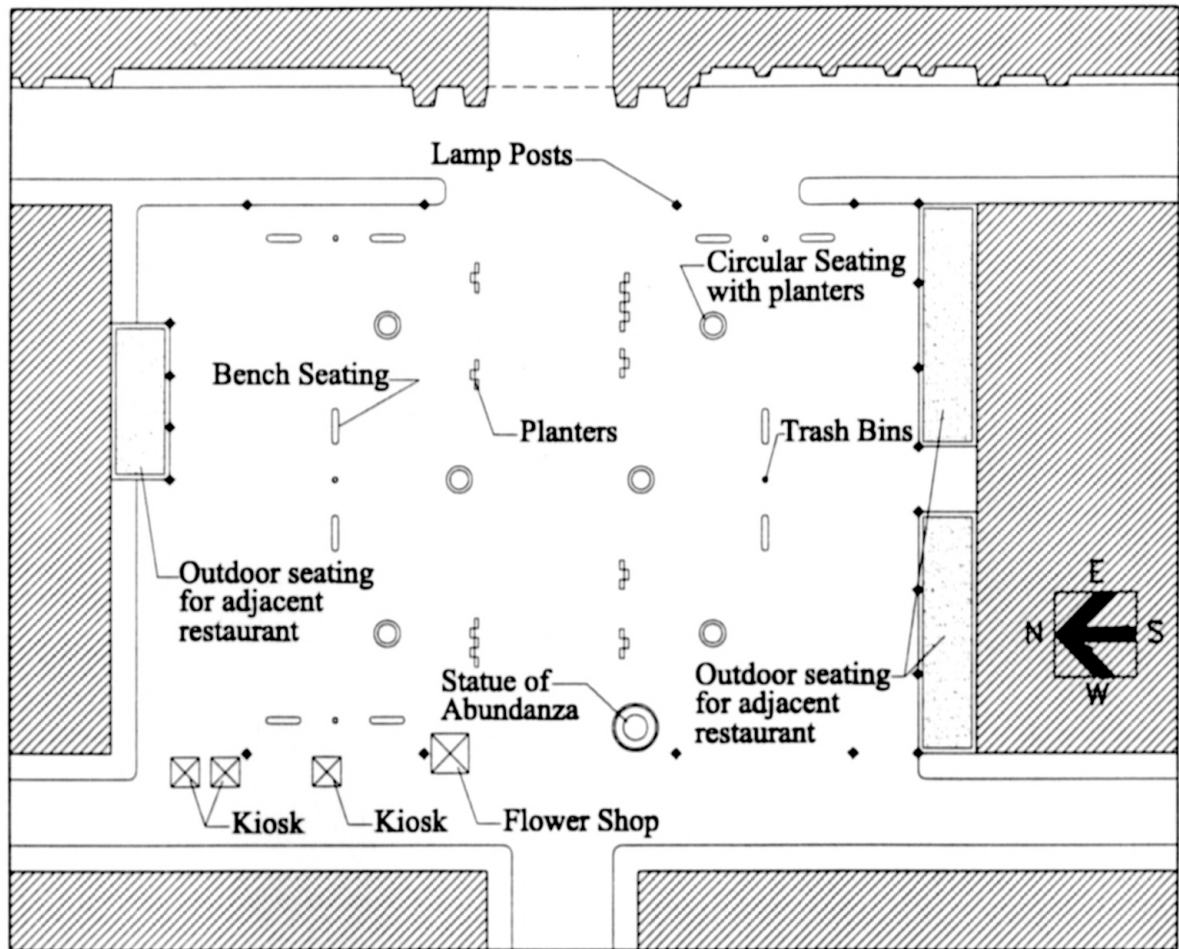


Figure 4.4: Plan of Piazza della Repubblica

a statue, a few public seats and planters making their statement in rendering to the functioning of the piazza.

Although laid symmetrically, most of the street furniture except for the statue of Abundanza is movable and relocated for festivals and other special occasions. This statue is positioned on the center of the east end, clearing way for Via Degli Speciali. There are a row of four lampposts on either side on the east and west end defining the boundary of the piazza space with the adjacent streets Via Calimala/ Via Roma on the east and Via Pellicceria /Via Brunelleschi on the west. However, the transparency of the piazza beyond, onto the streets adds to the volume and spaciousness.

In the middle along the north south axis, are two lampposts, which are different in their design, yet, matched with the rest to an extent. In addition, there are lampposts on the outside of the restaurants which not only light up the space during evenings and nights, but they also add to the façade, drawing people to dine. Also, arranged in an order are two types of seating in addition to the base of the statue, which has special preference over the others for the backrest that it provides. Sometimes, people would step up a level to have a better view of the whole piazza (see Figure 4.5).

Of the two types of general seating, one is the flat concrete base seat 12'-0" long and 2'-0" wide, and the other is a round one about 6'-6" in diameter, with flower plants and shrubs in the middle. These seats are arranged evenly all over the piazza, (ten of the flat type and six of the round type), far enough for individual privacy as well as close enough to promote togetherness and a triangulative relation. There are also a few planters along the east – west orientation to make a deliberate path joining Via Degli Speciali and Via Strozzi in a line. These planters enliven the space with the greenery and seasonal



Figure 4.5: Images of Piazza della Repubblica

flowers and also function as barriers for people to avoid any pedestrian traffic interceptions. Their arrangement has a very subtle impact on the movement of the people, channeling their pathway and thus making way for an ordered pedestrian flow. However, by all means they are very temporary and can be moved from one place to the other, as and when required. There are also a few garbage bins lying around. In addition to this loose furniture there are a few kiosks that sell anything from leather goods to cards and momentos. The one right against a lamppost and next to the statue is a flower vendor.

Much of the surrounding buildings in this piazza were built in the nineteenth century. Although, the buildings surrounding this piazza were not architecturally significant, they do offer the required primary uses for the people to come to them. Some of the fine restaurants flanked the north and south sides of the piazza. These occupy the ground levels and the upper floors are occupied by some offices. On the northeast is one Hotel Savoy with some very fine retail shops on the ground and first floors. Intercepted by Via degli Speziali, these shops continued onto the southeast sector with the offices on the upper floors. On the south side is a photo studio that opens out onto the piazza with a large shopfront adjacent to it, with displays.

On the west end is the galleried archway building that runs across a long stretch of over 100 meters. This building opens under way to form the Via degli Strozzi to meet in axis with Via degli Speziali cutting across half way through this piazza. The arcade on the ground level of this building is more than just a walkway. It has a few Tabaccaio's and a few vendors selling mementoes, cards and T-shirts which slows down the pace of the people, yet offers a good life to the whole setting. It is often busy once the day has started and the echo of the people in the arcade makes it more bustling. On the north end

of this building on the ground floor is a bookshop and on the upper floors there are offices. On the south end of this same building is the National Bank of Lavoro, and the telecommunications office. The west end turns further busy because of the taxi stand that allows taxis to come all the way up to the end of Via de Brunelleschi which is also the entrance to the archway of the building in the west. Altogether, these buildings that envelop the piazza define the volume and enclose a very fluid space yet a very defined one in terms of its function.

As illustrated in Figure 4.6, feeding into Piazza della Repubblica are six streets running mostly in straight linear directions in line with the orientation of the city. Via Degli Speciali on the east end that branches off from Via Calzaiuoli, is a very busy street flanked by large showrooms which have display windows all along, attracting the pedestrian towards it. This street turns at right angles to Via Roma in the north end and Via Calimala in the south. Once again these two streets have exquisite showrooms that draw people towards them. The wide expanse of space that open onto these streets is a good place to rest the tired legs of the people who have been tempted all day to shop. On nice evenings, there would be jugglers and other street performers on Via degli Speciali which builds the spirit of this street.

Right at the corner of this street and the piazza is a vendor of leather belts and purses. There are also public telephones, which are places where people stop and thus the activity builds up. Drawing people from Piazza di S. Giovanni through Via Roma are again mostly people who walk by the street following the shops and then, they are here – into this open space which is certainly a relief and a breathing space for the tired passerby. On the other end, on the west face is Via degli Strozzi which branches off Via

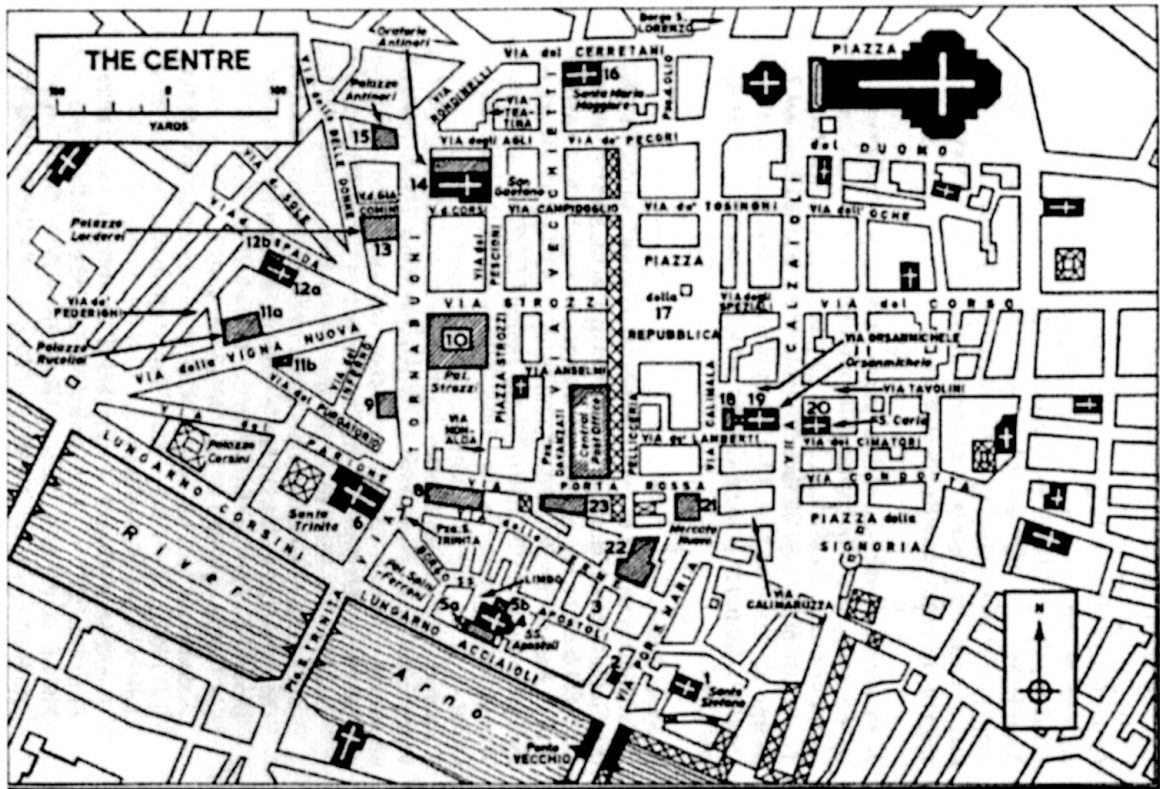


Figure 4.6: Location map of Piazza della Repubblica

de Tournabuoni, is again led into the piazza by a series of retail shops lined all across, ranging from bookstores, to bakeries, to pharmacists and clothes showrooms. The other two streets, Via Brunelleschi and Via Pellicceria draw relatively fewer people by foot into the piazza. The former one is more vehicular and thus fewer pedestrians use it as an access route. The later one is less used because there are more offices and commercial establishments that flank this street thus being of no attraction to the common man.

There is a bus route that runs every half hour coming from Via degli Strozzi, passing through from the west to the east and making a right angle turn at Via Calimala to continue to run in the southern direction. This bus route is not seen as a hindrance and people make way for the bus quite naturally, stepping aside, and wait for the bus next to the planters.

The block surrounding the piazza has a few hotels and offices. But for the rest, largely it is residences on the upper floors with some retail shops on the lower levels. There are other small piazzas, formed at the intersection of two or more streets, but they do not provide any formal seating or a stage for people of all ages to see the world go by. Having been constructed in the nineteenth century, the streets are wider and have sidewalks, for pedestrian traffic to flow. This ease of allowing people to walk safely around the block as well as being offered with most of the primary uses, the Piazza della Repubblica that lays within offers a good recreation space for people to extend themselves, into this piazza.



## CHAPTER 5

### Empirical Research of Urban Open Spaces:

#### Conceptual Framework and Methodology

In considering how to test the argument presented earlier to differentiate between extroverted and introverted open spaces, I found the need of methods that would integrate the knowledge of social scientists with the knowledge of designers. The methodology used in this thesis is based on the methodological overview of research done by John Ziesel – specifically his book, Inquiry by Design, which describes several different methods of studying environment and behavior (Ziesel, 1984). One significant research strategy described by Ziesel is the “case study,” in which the researcher is interested in a particular object or area. This thesis uses the case-study method, since it investigates the two Florentine piazzas, specifically, elements in and around these piazzas which effect their sociability. As Ziesel says, “The case study focuses on such things as the elements, which comprise the piazza, relations among elements, the development of the sociability and contextual influences” (ibid., p.65). This research strategy can be developed especially with participant observation, which is an approach that helps the researcher see the world more clearly and thoroughly. Here, observation means looking at sociability as it happens in the two piazzas. Participant observation is particularly appropriate for diagnostic studies in which “the investigator wants to find out what is actually going on – what elements, relationships, and dynamics are salient” (ibid., p.72).

In relation to the two piazzas, this method helped me keep my mind open to commonplace facts and see them as raising questions and issues of study. By observing



what people did in the piazzas, doing drawings, taking photographs and so forth, I tried to identify the piazzas' qualities and functionings.

Especially useful was participant observation, which has been used in the plaza research of William Whyte (1980) and Clare Cooper Marcus (1990). Here, by observation, I mean looking at sociability as it happens in the two piazzas by observing peoples' behaviors and interactions in these spaces. Specifically, the aims of my research method were:

1. to gain an accurate picture of the aggregate number of people using the two piazzas on observation days;
2. to understand the movement patterns of people entering, passing through and leaving the piazzas;
3. to note different activities and types of users in the two piazzas.

### **Specific Methods**

To focus my case studies more precisely, I used specific research techniques: mapping, documentation, photographing, and notation. A good way to begin almost any environmental – behavioral research project is to walk around the site looking for physical traces of behavior and recording these indications. In this research, the most important point is to see how people use the piazzas. This technique is behavior mapping, which helps understand the piazzas' circulation, orientation, where the people are, and how many people use the piazza. These factors give a clearer idea of the piazzas' sociability. One can record the sequences of peoples' behaviors as well as observations that establish where people are and how they group themselves.

Detailed observation of the two piazzas was done for short intervals three times a day for each piazza between 9:00 a.m. and 7:00 p.m. for six days between January 3, 1998 and January 9, 1998, except for January 7, 1998. These time periods were used to accommodate the piazzas' peak usage as related to business hours, lunch hour, and evening entertainment hours. On each of the six days, I spent three hours in each piazza—one each in the morning (9:00 a.m. to 11:15 a.m.), afternoon (12:30 p.m. to 2:45 p.m.) and evening (4:45 p.m. to 7:00 p.m.). I took a fifteen minute break between each observation time so that I had time to walk from one piazza to the other and settle down to start with the next period of observations.

Of the one-hour period spent in each piazza each time period, the first 20 minutes were allocated for observing people involved in activities at rest (e.g., sitting, eating, and conversing). The next 40 minutes were allocated for observing people involved in movement activities (e.g., entering into the piazza and walking through the piazza). To make sure that each time period was equally represented in the observations, I rotated the starting point for each of the six days of observation. For example, I started with the observation of activities at rest in Piazza della Repubblica on January 3, and the following day I started at Piazza della Signoria. This variation ensured a more representative picture of all movements during all time periods of observation.

As already explained, the six observation days were Saturday 3, January 1998, Sunday 4, January 1998, Monday 5, January 1998, Tuesday 6, January 1998, Thursday 8, January 1998, and Friday 9, January 1998. Of these days the first two, Saturday and Sunday were the weekend days, which are a holiday for most offices and institutions. In addition, Tuesday was a holiday for a local festival, and once again most of the offices

and educational institutions were closed on this day. The rest of the days were ordinary working days with all offices and most institutions open. However, because of the winter break, the schools and colleges were closed during this time. Also, Monday happened to be a holiday at the Museum in Palazzo Vecchio and the Uffizi gallery was also closed on this day. The commercial establishments were open on all the days except during the second half of Sunday.

It was winter in Florence during this time of the year and the weather was moderately cold with a few clouds and little wind. The complete weather report for the six observation days is in Table 5.1, which lists the maximum and minimum temperatures of each day in addition to the temperature readings at the three different time periods—8:00 a.m., 2:00 p.m. and 7:00 p.m. Having discussed the days, time period and general conditions for the six observation days, I will now proceed to discuss in detail the method for recording the activities and types of user groups at rest and in movement.

### **Recording Piazza Users at Rest**

In trying to record the people at rest in the two piazzas, the first task was to prepare base maps for the two piazzas. I procured scaled drawings of the central district from the municipality of Florence that were documented in the year 1992. I enlarged the relevant sections of these drawings to scale the portion of these drawings, so that each of the two would fit on an A4 size sheet. Figures 5.1 and 5.2 illustrate the base maps of Piazza della Signoria and Piazza della Repubblica, as used for the observations. I had to make a few changes to these maps to reflect the present day landscape. In addition, I added the

**Table 5.1:** Weather Records of Florence, Italy during the six days of Observation.  
(Source: Osservatorio Ximeniano - Florence)

|                 | TEMPERATURE - Centigrade |                       |                       |      |      | WIND      |                   |
|-----------------|--------------------------|-----------------------|-----------------------|------|------|-----------|-------------------|
|                 | 8 <sup>th</sup> Hour     | 14 <sup>th</sup> Hour | 19 <sup>th</sup> Hour | Max. | Min. | Direction | Velocity (km/hr.) |
| Sat. 3, Jan'98  | 10.3                     | 13.5                  | 11.7                  | 13.7 | 10.0 | SW        | 18                |
| Sun. 4, Jan'98  | 10.4                     | 13.9                  | 12.0                  | 14.0 | 9.4  | S         | 17                |
| Mon. 5, Jan'98  | 11.4                     | 15.0                  | 12.4                  | 15.2 | 10.4 | WSW       | 24                |
| Tue. 6, Jan'98  | 12.7                     | 14.1                  | 13.1                  | 14.4 | 9.7  | WSW       | 39                |
| Thur. 8, Jan'98 | 6.3                      | 13.0                  | 10.5                  | 13.5 | 6.0  | SE        | 22                |
| Fri. 9, Jan'98  | 5.4                      | 10.4                  | 9.6                   | 11.2 | 3.8  | SE        | 23                |

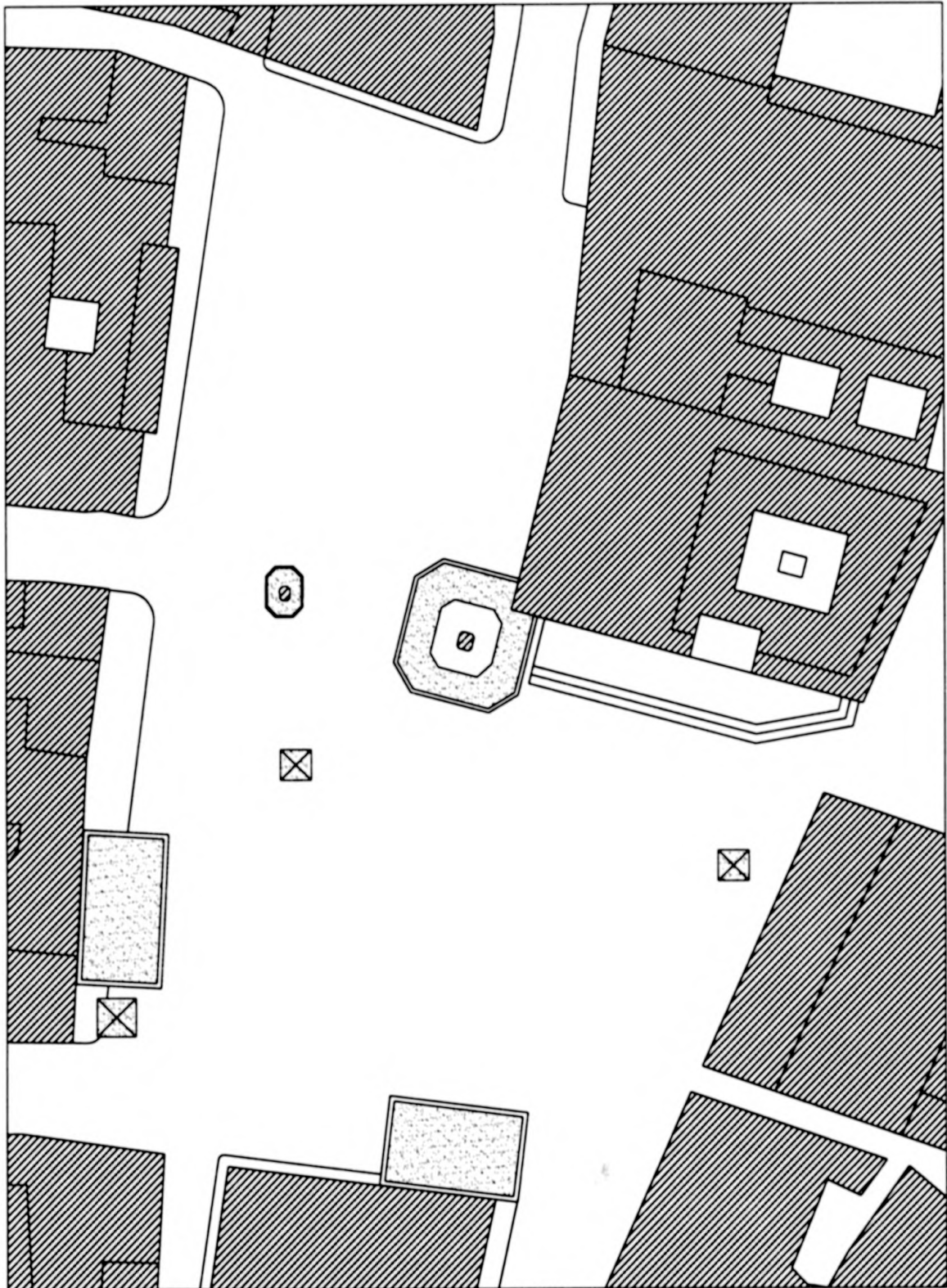


Figure 5.1: Base Map of piazza della Signoria

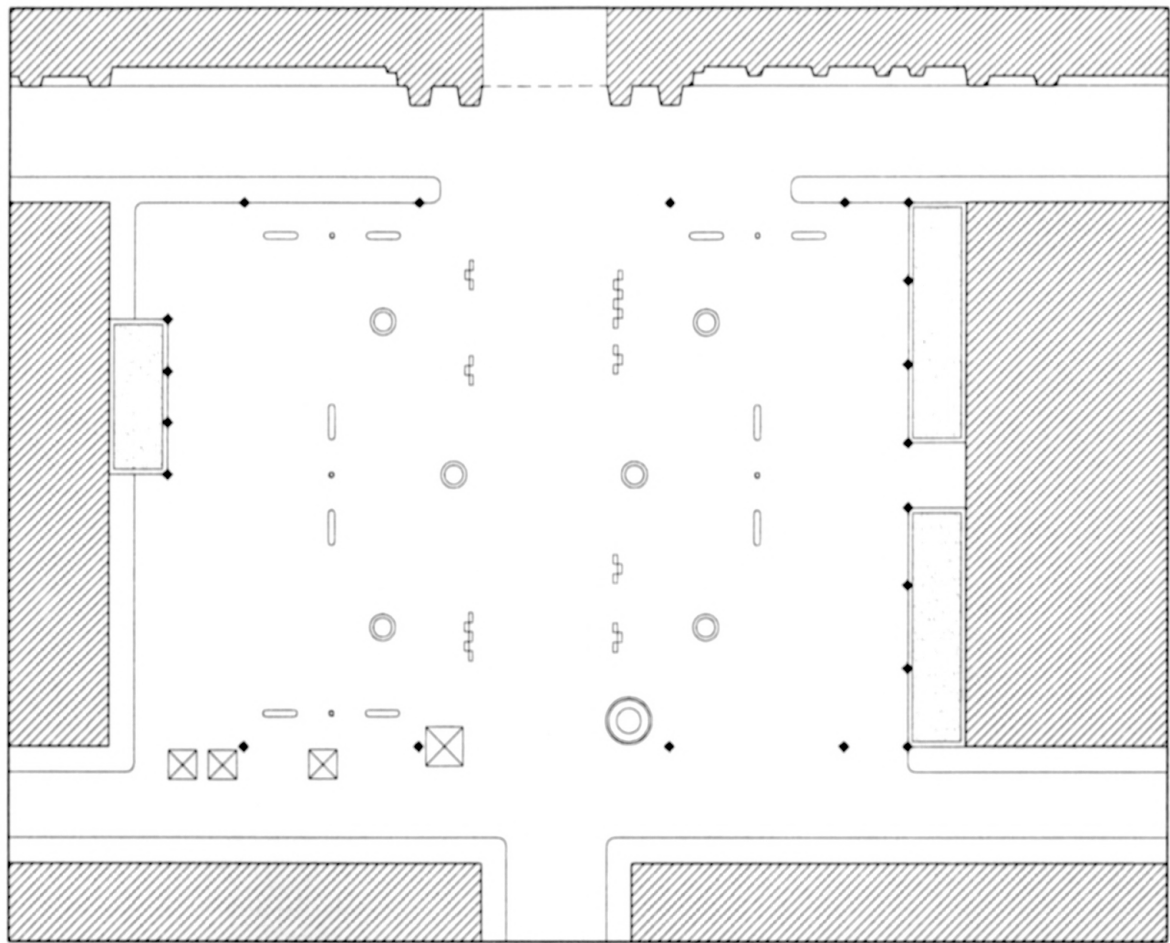


Figure 5.2: Base Map of Piazza della Repubblica

locations of kiosks, seating places, lampposts, statues, and the boundaries of outdoor eating places.

To prepare for my extended mapping of the two piazzas, I first conducted a pilot study, which included: (a) determination of positions in the piazzas for observing their activities; and (b) determination of potential user groups with respect to age, type of grouping and activity. In addition to the aims of the pilot study, I had to establish a way by which I could record all the observations such as, aggregate numbers of people engaged in specific activities, whether people were sitting or standing, type of group in which they were, and their age.

As part of the pilot study, I informally observed both piazzas for two days, Wednesday, December 31, 1997 and January 2, 1998. I started with the task of determining viewing positions from where I could make observations of the activities in each piazza. Keeping in mind the layout of the piazzas, I chose observation points that would offer clear sight lines to all parts of the piazza space and its immediate surroundings. Figure 5.3 illustrates the observation points that I selected for the two piazzas. As the figure indicates, in Piazza della Repubblica, I selected a place for observation at the statue of Abundanza, which has a raised concrete base that serves as a sitting spot. In the Piazza della Signoria, the most appropriate place for observations was a location in the middle of the northern face of this open space.

Once I established observation points, I had to develop a procedure for making observations. Figure 5.4 shows for both piazzas the order in which I made these observations of activities at rest. In Piazza della Repubblica, I began with people at the statue of Abundanza and then recorded people on the right side, then moved on to the

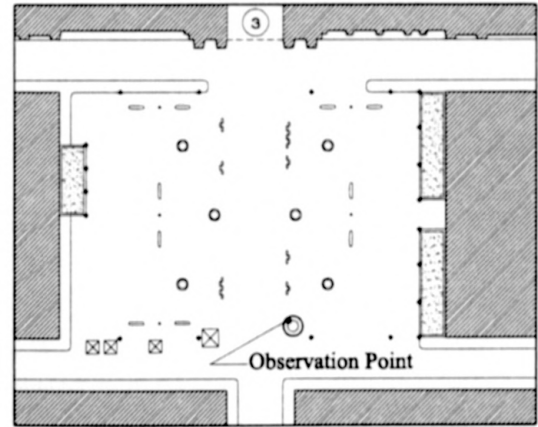
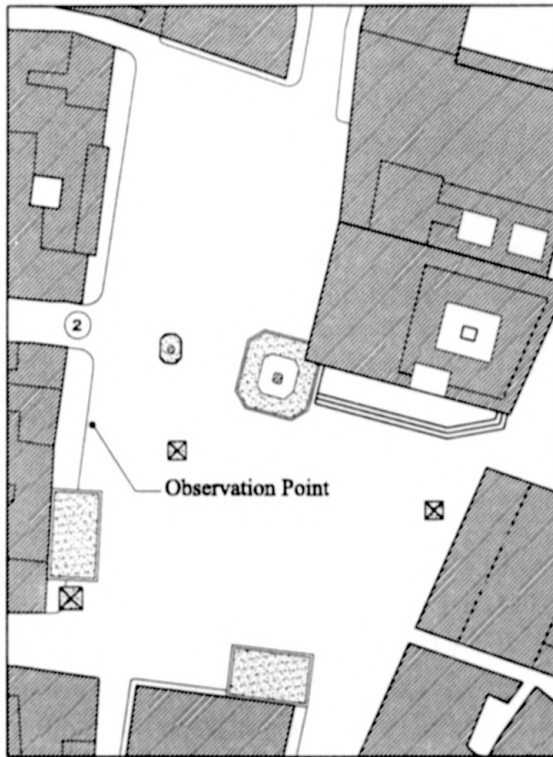


Figure 5.3: Base Map of Piazza della Signoria and Piazza della Repubblica showing the observation points.

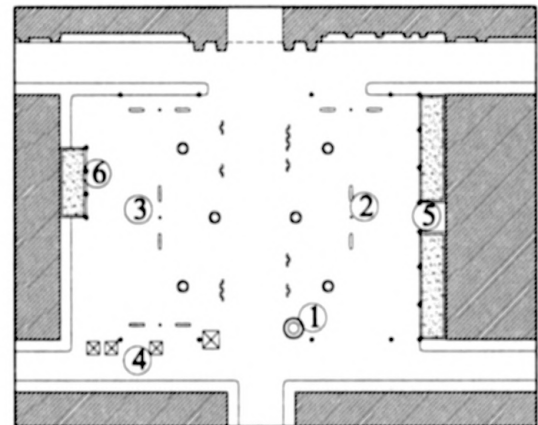
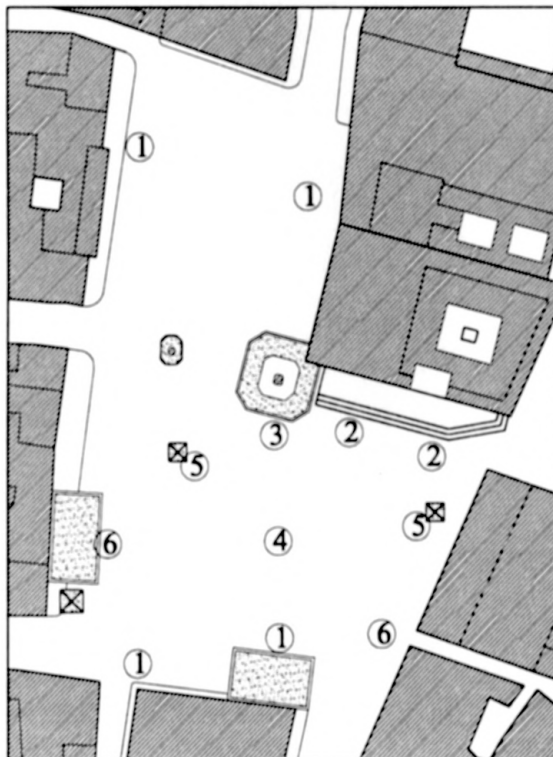


Figure 5.4: Base Map of Piazza della Signoria and Piazza della Repubblica showing the sequential order of observations from 1 through 6



piazza's left side including kiosks and finally ended with the patrons in the restaurants. In Piazza della Signoria, I began by recording people along the piazza's periphery, and then concentrated on people in front of the fountain, statues and the Pallazo Vecchio; I ended with buyers/sellers at the kiosks. From my earlier pilot study, I realized that there would be just enough time to make one round of observations for each piazza based on the above order in each of the twenty-minute time periods.

Based on the preliminary observations of the two piazzas during the pilot study, I identified major differences of piazza users in terms of age, types of groupings, whether sitting or standing, and activities. In terms of observation of age, I classified users on the basis of three categories: (1) young (1-19 years); (2) middle aged (20-50 years), and; (3) the elderly (50 years and above).

As for the types of groupings, I identified users to be in four broad types: (1) single; (2) a pair; (3) a cluster (3-8 people), and; (4) a group (more than 8 people). It was fairly easy to identify the people who were alone or in pairs. However, for the convenience of being able to record more observations in the said time of twenty minutes, I had to combine more than one recording into a single observation. For example, if there were four smaller individual units found to be eating in a restaurant at the same time, then I combined all four into one recording, identifying them as one cluster or group.

Next, I needed to record whether people were sitting or standing, for which I used a code--i.e. X (sitting) and Y (standing). I also had to categorize the different activities for people at rest in the two piazzas; these categories were: (1) watching; (2) conversing; (3) eating; (4) reading; (5) smoking; (6) photographing; (7) buying/selling, and; (8)

feeding pigeons. Occasionally there were people engaged in other activities, of which I made a note in the observation maps. Each activity was identified by a number preceded by an X or a Y, which as explained above referred to whether the person was sitting or standing. Thus for example, X2 represented a person who was sitting and conversing, while Y4 represented a person who is standing and smoking.

Finally, in order to record the above observations, I developed the chart shown in Figure 5.5. I indexed this chart to simplify the task of recording all the categories described above. Each observation was marked according to a recording number with a letter code. For example, “9, X5, T, M, m1/f1” would mean that the 9<sup>th</sup> observation for the time period was a paired group with a male and a female sitting and eating.

However, as I was the only person recording all the observations, it was difficult to register all information about every individual. Since my intent was to gather as much information as possible, I made some assumptions before I finally started with the observations. One central assumption related to recording peoples’ activities at rest. In a situation where there were different people engaged in different activities, I recorded this situation in terms of the activity which was performed by the majority of people in that group.

### **Recording Piazza Users in Movement**

To record movement activities in the two piazzas, I divided the remaining forty minutes of my observation period into two portions: the first, registering the number of people entering the piazza; and, the second, registering the number of people passing through the piazza. Each piazza has six streets leading into it and each inlet/outlet—what

**DATE:**

**TIME:**

**PLACE:**

**ACTIVITY:**

**SITTING**

**X1** - Watching

**X2** - Conversing

**X3** - Eating

**X4** - Reading

**X5** - Smoking

**STANDING**

**Y1** - Watching

**Y2** - Conversing

**Y3** - Eating

**Y4** - Reading

**Y5** - Smoking

**Y6** - Photographing

**Y7** - Buying/Selling

**Y8** - Feeding Pigeons

**TYPE:**

**G** - Grouping ( 8 + )

**C** - Cluster ( 3 - 8 )

**T** - Twin

**S** - Single

**AGE:**

**O** - Elderly ( 50 + )

**M** - Middle Aged

**T** - Teenager

\* The author has used his discretion in  
deciding the age of the people

| Serial<br>Number | Activity | Type | Age | Number<br>of People |  | Remarks |
|------------------|----------|------|-----|---------------------|--|---------|
|                  |          |      |     | Male / Female       |  |         |
| 1                |          |      |     |                     |  |         |
| 2                |          |      |     |                     |  |         |
| 3                |          |      |     |                     |  |         |
| 4                |          |      |     |                     |  |         |
| 5                |          |      |     |                     |  |         |
| 6                |          |      |     |                     |  |         |
| 7                |          |      |     |                     |  |         |
| 8                |          |      |     |                     |  |         |
| 9                |          |      |     |                     |  |         |
| 10               |          |      |     |                     |  |         |
| 11               |          |      |     |                     |  |         |
| 12               |          |      |     |                     |  |         |
| 13               |          |      |     |                     |  |         |
| 14               |          |      |     |                     |  |         |
| 15               |          |      |     |                     |  |         |
| 16               |          |      |     |                     |  |         |
| 17               |          |      |     |                     |  |         |
| 18               |          |      |     |                     |  |         |
| 19               |          |      |     |                     |  |         |
| 20               |          |      |     |                     |  |         |
| 21               |          |      |     |                     |  |         |
| 22               |          |      |     |                     |  |         |
| 23               |          |      |     |                     |  |         |

**Figure 5.5:** Format of Observation Table Used for Behavioral Mapping

I call here a *node*--was indexed 1,2,3,4,5, and 6 for the convenience of recording the people's entries and movements through the piazzas. These nodes are shown in Figure 5.6. I used two-minute time intervals to record the pedestrian movements from each node.

During the first twenty minutes of the observation periods devoted to movement, I counted the aggregate number of people entering from each node and recorded this information on a chart as in Figures 5.7a and 5.7b. The figures also show the division of time when these observations were made for each node for the two sets of observation for each day. In the case of recording people passing through the piazza, three specific paths from each node were established to identify the possible ways of passing through the piazza; each of these paths are labeled as A, B and C. Thus Figures 5.8 - 5.13 illustrate the eighteen paths that were considered in each piazza during each observation time. Initially I counted the number of people traversing each path, and later I classified the counts into four categories: (1) low pedestrian flow (1-10); (2) medium pedestrian flow (11-20); (3) Fairly high pedestrian flow (21-30), and; (4) high pedestrian flow (more than 40). For the purpose of mapping, I denoted the above categories with varying thickness of lines as is in the example shown in Figure 5.14. This procedure helped to quantitatively register how many people use the piazza, and to identify the nodes of greater and lesser flow.

In addition to behavioral mapping, another technique used in this research was documentation of maps and layouts of the surrounding areas of the respective piazzas. These maps were obtained from published guides and from local municipal authorities. Apart from serving as base maps for my observations, these were materials useful in

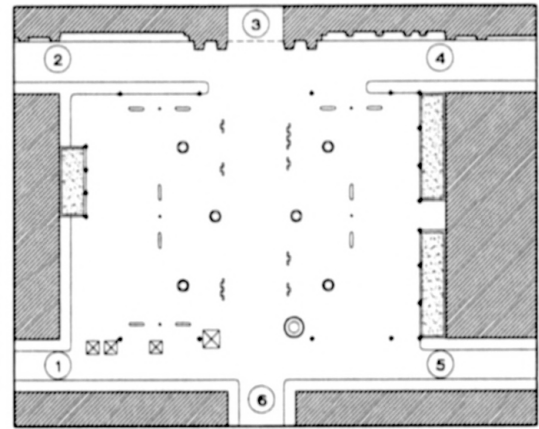
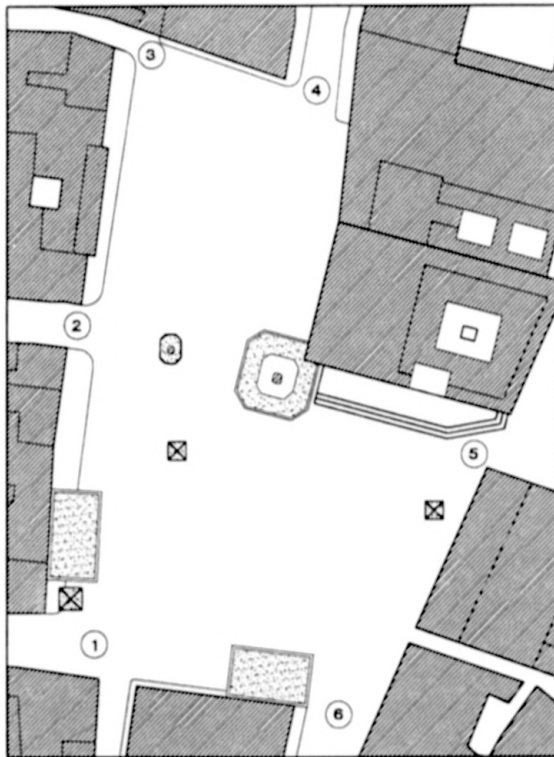


Figure 5.6: Base Map of Piazza della Signoria and Piazza della Repubblica showing six designated nodes for each piazza.

| TIME: | 1     |   | 2 |   | 3 |   | 4 |   | 5 |   | 6 |   |   |
|-------|-------|---|---|---|---|---|---|---|---|---|---|---|---|
| Hr.   | Min.  | M | F | M | F | M | F | M | F | M | F | M | F |
| 09    | 24/25 |   |   |   |   |   |   |   |   |   |   |   |   |
| 09    | 27/28 |   |   |   |   |   |   |   |   |   |   |   |   |
| 09    | 30/31 |   |   |   |   |   |   |   |   |   |   |   |   |
| 09    | 33/34 |   |   |   |   |   |   |   |   |   |   |   |   |
| 09    | 36/37 |   |   |   |   |   |   |   |   |   |   |   |   |
| 09    | 39/40 |   |   |   |   |   |   |   |   |   |   |   |   |

| TIME: | 1     |   | 2 |   | 3 |   | 4 |   | 5 |   | 6 |   |   |
|-------|-------|---|---|---|---|---|---|---|---|---|---|---|---|
| Hr.   | Min.  | M | F | M | F | M | F | M | F | M | F | M | F |
| 12    | 54/55 |   |   |   |   |   |   |   |   |   |   |   |   |
| 12    | 57/58 |   |   |   |   |   |   |   |   |   |   |   |   |
| 13    | 00/01 |   |   |   |   |   |   |   |   |   |   |   |   |
| 13    | 03/04 |   |   |   |   |   |   |   |   |   |   |   |   |
| 13    | 06/07 |   |   |   |   |   |   |   |   |   |   |   |   |
| 13    | 09/10 |   |   |   |   |   |   |   |   |   |   |   |   |

| TIME: |       | 1 |   | 2 |   | 3 |   | 4 |   | 5 |   | 6 |   |
|-------|-------|---|---|---|---|---|---|---|---|---|---|---|---|
| Hr.   | Min.  |   |   |   |   |   |   |   |   |   |   |   |   |
|       |       | M | F | M | F | M | F | M | F | M | F | M | F |
| 17    | 09/10 |   |   |   |   |   |   |   |   |   |   |   |   |
| 17    | 12/13 |   |   |   |   |   |   |   |   |   |   |   |   |
| 17    | 15/16 |   |   |   |   |   |   |   |   |   |   |   |   |
| 17    | 18/19 |   |   |   |   |   |   |   |   |   |   |   |   |
| 17    | 21/22 |   |   |   |   |   |   |   |   |   |   |   |   |
| 17    | 24/25 |   |   |   |   |   |   |   |   |   |   |   |   |

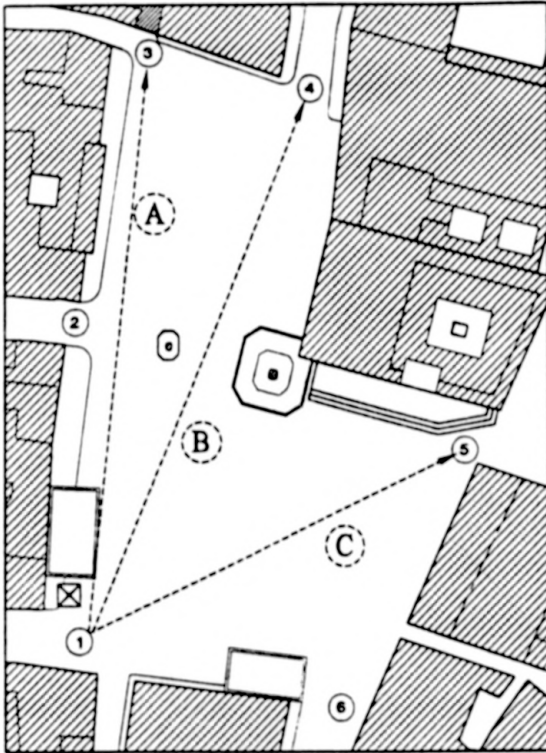
Figure 5.7a: Table format for recording people entering the piazzas during the three periods--morning, afternoon and evening as used for the first set of observations

| TIME: | 1     |   | 2 |   | 3 |   | 4 |   | 5 |   | 6 |   |   |
|-------|-------|---|---|---|---|---|---|---|---|---|---|---|---|
| Hr.   | Min.  | M | F | M | F | M | F | M | F | M | F | M | F |
|       |       |   |   |   |   |   |   |   |   |   |   |   |   |
| 10    | 39/40 |   |   |   |   |   |   |   |   |   |   |   |   |
| 10    | 42/43 |   |   |   |   |   |   |   |   |   |   |   |   |
| 10    | 45/46 |   |   |   |   |   |   |   |   |   |   |   |   |
| 10    | 48/49 |   |   |   |   |   |   |   |   |   |   |   |   |
| 10    | 51/52 |   |   |   |   |   |   |   |   |   |   |   |   |
| 10    | 54/55 |   |   |   |   |   |   |   |   |   |   |   |   |

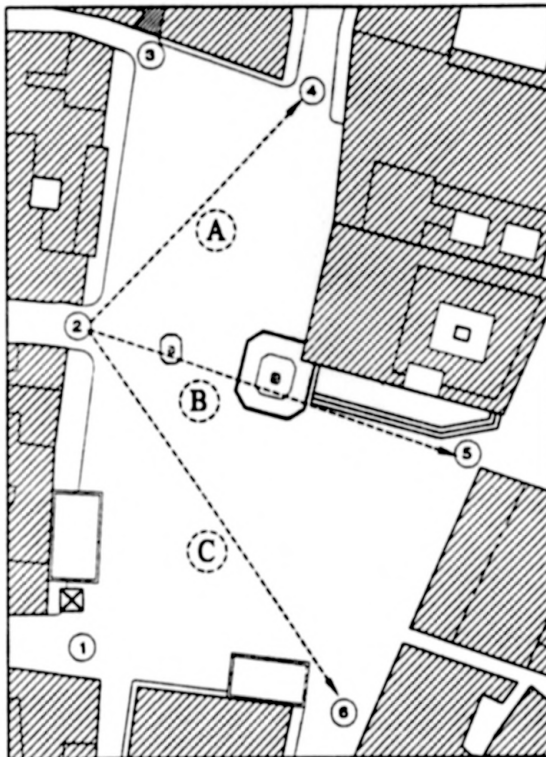
| TIME: | 1     |   | 2 |   | 3 |   | 4 |   | 5 |   | 6 |   |   |
|-------|-------|---|---|---|---|---|---|---|---|---|---|---|---|
| Hr.   | Min.  | M | F | M | F | M | F | M | F | M | F | M | F |
|       |       |   |   |   |   |   |   |   |   |   |   |   |   |
| 14    | 09/10 |   |   |   |   |   |   |   |   |   |   |   |   |
| 14    | 12/13 |   |   |   |   |   |   |   |   |   |   |   |   |
| 14    | 15/16 |   |   |   |   |   |   |   |   |   |   |   |   |
| 14    | 18/19 |   |   |   |   |   |   |   |   |   |   |   |   |
| 14    | 21/22 |   |   |   |   |   |   |   |   |   |   |   |   |
| 14    | 24/25 |   |   |   |   |   |   |   |   |   |   |   |   |

| TIME: | 1     |   | 2 |   | 3 |   | 4 |   | 5 |   | 6 |   |   |
|-------|-------|---|---|---|---|---|---|---|---|---|---|---|---|
| Hr.   | Min.  | M | F | M | F | M | F | M | F | M | F | M | F |
| 18    | 24/25 |   |   |   |   |   |   |   |   |   |   |   |   |
| 18    | 27/28 |   |   |   |   |   |   |   |   |   |   |   |   |
| 18    | 30/31 |   |   |   |   |   |   |   |   |   |   |   |   |
| 18    | 33/34 |   |   |   |   |   |   |   |   |   |   |   |   |
| 18    | 36/37 |   |   |   |   |   |   |   |   |   |   |   |   |
| 18    | 39/40 |   |   |   |   |   |   |   |   |   |   |   |   |

Figure 5.7b: Table format for recording people entering the piazzas during the three periods--morning, afternoon and evening as used for the second set of observations



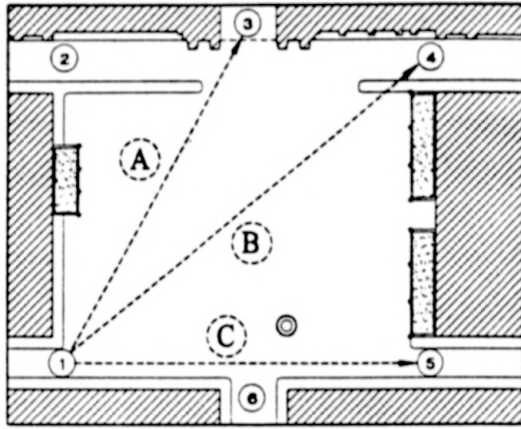
| Observation Times for Pedestrian Movement through the Piazza della Signoria |   |                                      |
|---|---|--------------------------------------|
| NODE ①  | Saturday, 3<br>Monday, 5<br>Thursday, 8 | Sunday, 4<br>Tuesday, 6<br>Friday, 9 |
| Morning   | 9: 44/45                                | 10: 59/00                            |
| Afternoon   | 13: 14/15                               | 2: 29/30                             |
| Evening   | 5: 29/30                                | 6: 44/45                             |



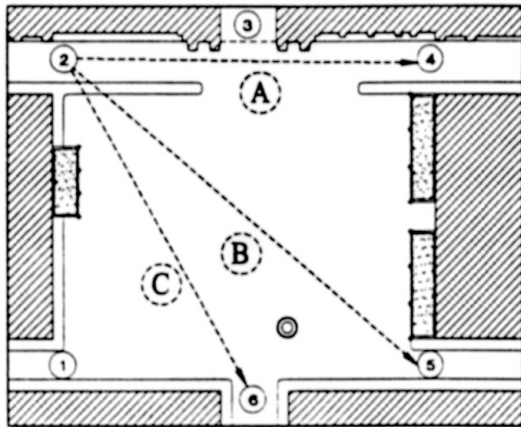
| Observation Times for Pedestrian Movement through the Piazza della Signoria |   |                                      |
|---|---|--------------------------------------|
| NODE ②  | Saturday, 3<br>Monday, 5<br>Thursday, 8 | Sunday, 4<br>Tuesday, 6<br>Friday, 9 |
| Morning   | 9: 47/48                                | 11: 02/03                            |
| Afternoon   | 13: 17/18                               | 2: 32/33                             |
| Evening   | 5: 32/33                                | 6: 47/48                             |

Figure 5.8: Designated pedestrian paths for nodes 1 and 2 for the Piazza della Signoria



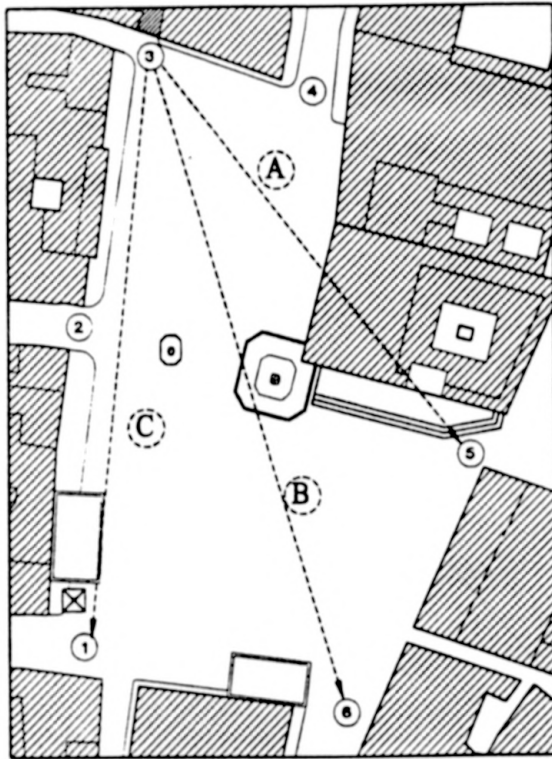


| Observation Times for Pedestrian Movement through the Piazza della Repubblica |   |                                      |
|---|---|--------------------------------------|
| NODE ①  | Saturday, 3<br>Monday, 5<br>Thursday, 8 | Sunday, 4<br>Tuesday, 6<br>Friday, 9 |
| Morning   | 9: 44/45                                | 10: 59/00                            |
| Afternoon   | 13: 14/15                               | 2: 29/30                             |
| Evening   | 5: 29/30                                | 6: 44/45                             |

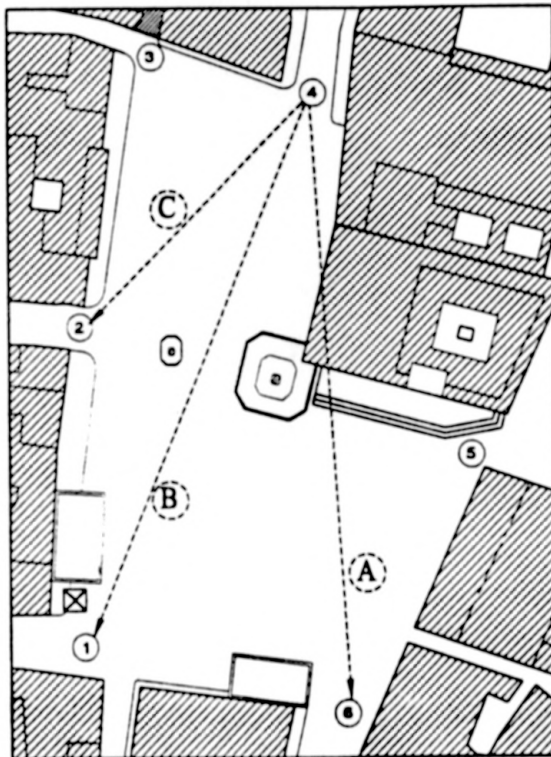


| Observation Times for Pedestrian Movement through the Piazza della Repubblica |   |                                      |
|---|---|--------------------------------------|
| NODE ②  | Saturday, 3<br>Monday, 5<br>Thursday, 8 | Sunday, 4<br>Tuesday, 6<br>Friday, 9 |
| Morning   | 9: 47/48                                | 11: 02/03                            |
| Afternoon   | 13: 17/18                               | 2: 32/33                             |
| Evening   | 5: 32/33                                | 6: 47/48                             |

Figure 5.9: Designated pedestrian paths for the nodes 1 and 2 for the Piazza della Repubblica

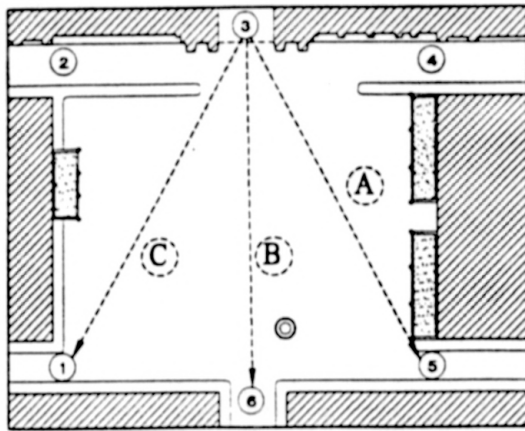


| Observation Times for Pedestrian Movement through the Piazza della Signoria |   |                                      |
|---|---|--------------------------------------|
| NODE ③  | Saturday, 3<br>Monday, 5<br>Thursday, 8 | Sunday, 4<br>Tuesday, 6<br>Friday, 9 |
| Morning   | 9: 50/51                                | 11: 05/06                            |
| Afternoon   | 13: 20/21                               | 2: 35/36                             |
| Evening   | 5: 35/36                                | 6: 50/51                             |

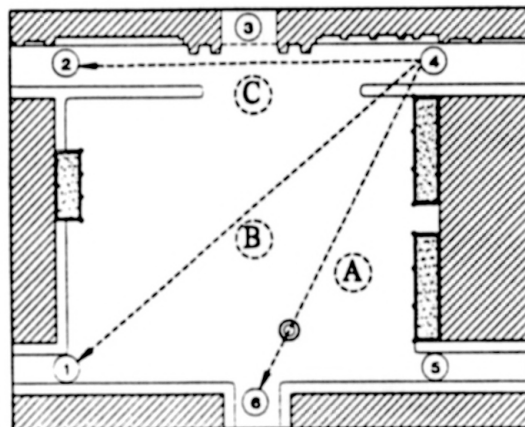


| Observation Times for Pedestrian Movement through the Piazza della Signoria |   |                                      |
|---|---|--------------------------------------|
| NODE ④  | Saturday, 3<br>Monday, 5<br>Thursday, 8 | Sunday, 4<br>Tuesday, 6<br>Friday, 9 |
| Morning   | 9: 53/54                                | 11: 08/09                            |
| Afternoon   | 13: 23/24                               | 2: 41/42                             |
| Evening   | 5: 38/39                                | 6: 53/54                             |

Figure 5.10: Designated pedestrian paths for the Nodes 3 and 4 for the Piazza della Signoria

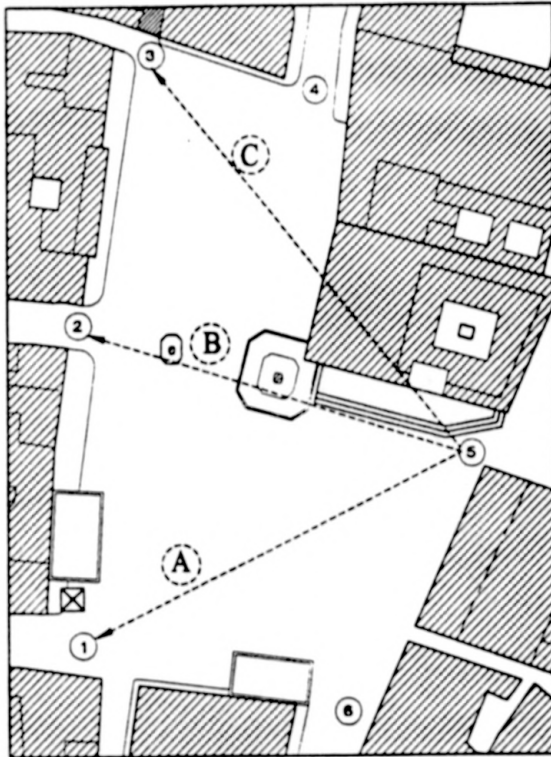


| Observation Times for Pedestrian Movement through the Piazza della Repubblica |   |                                      |
|---|---|--------------------------------------|
| NODE ③  | Saturday, 3<br>Monday, 5<br>Thursday, 8 | Sunday, 4<br>Tuesday, 6<br>Friday, 9 |
| Morning   | 9: 50/51                                | 11: 05/06                            |
| Afternoon   | 13: 20/21                               | 2: 35/36                             |
| Evening   | 5: 35/36                                | 6: 50/51                             |

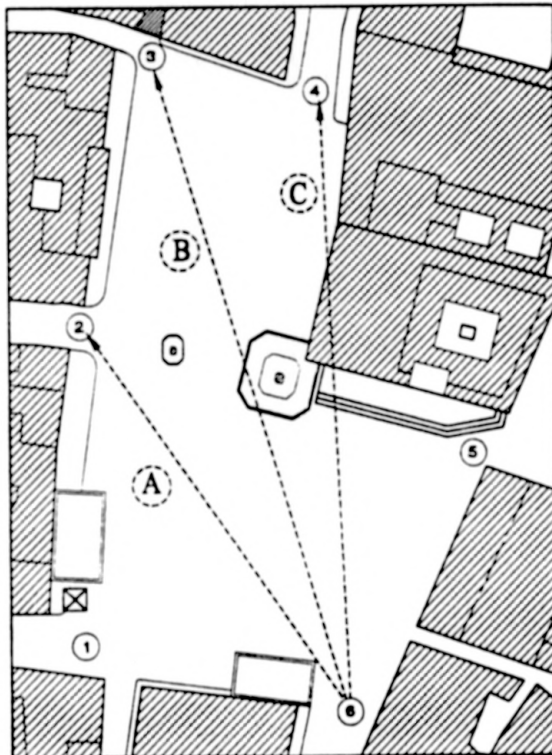


| Observation Times for Pedestrian Movement through the Piazza della Repubblica |   |                                      |
|---|---|--------------------------------------|
| NODE ④  | Saturday, 3<br>Monday, 5<br>Thursday, 8 | Sunday, 4<br>Tuesday, 6<br>Friday, 9 |
| Morning   | 9: 53/54                                | 11: 08/09                            |
| Afternoon   | 13: 23/24                               | 2: 41/42                             |
| Evening   | 5: 38/39                                | 6: 53/54                             |

Figure 5.11: Designated pedestrian paths for nodes 3 and 4 for the Piazza della Repubblica.

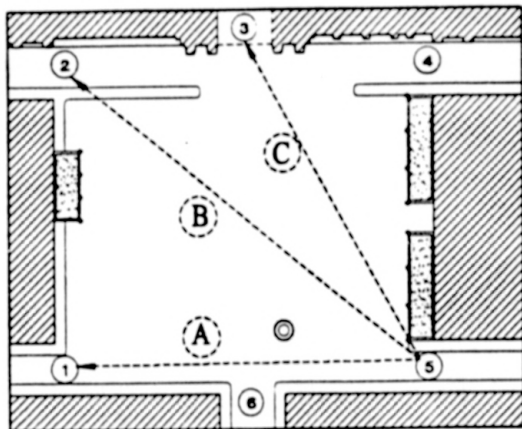


| Observation Times for Pedestrian Movement through the Piazza della Signoria |   |                                      |
|---|---|--------------------------------------|
| NODE ⑤  | Saturday, 3<br>Monday, 5<br>Thursday, 8 | Sunday, 4<br>Tuesday, 6<br>Friday, 9 |
| Morning   | 9: 56/57                                | 11: 11/12                            |
| Afternoon   | 13: 26/27                               | 2: 41/42                             |
| Evening   | 5: 41/42                                | 6: 56/57                             |



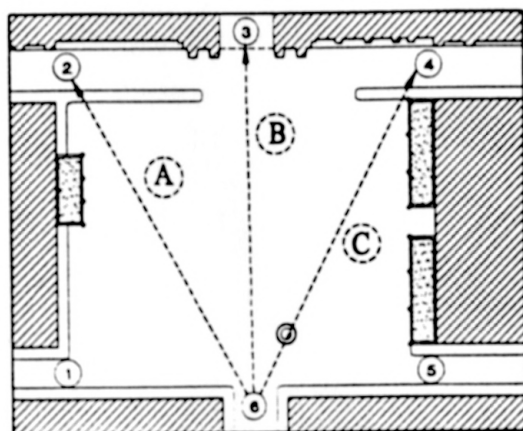
| Observation Times for Pedestrian Movement through the Piazza della Signoria |   |                                      |
|---|---|--------------------------------------|
| NODE ⑥  | Saturday, 3<br>Monday, 5<br>Thursday, 8 | Sunday, 4<br>Tuesday, 6<br>Friday, 9 |
| Morning   | 9: 59/00                                | 11: 14/15                            |
| Afternoon   | 13: 29/30                               | 2: 44/45                             |
| Evening   | 5: 44/45                                | 6: 59/00                             |

Figure 5.12: Designated pedestrian paths for nodes 5 and 6 for the Piazza della Signoria



Observation Times for Pedestrian Movement through the Piazza della Repubblica

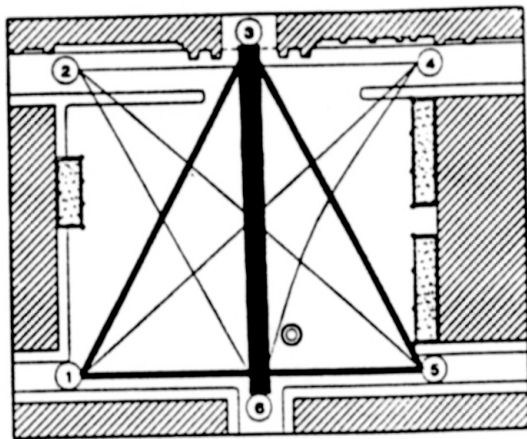
| NODE ⑤    | Saturday, 3<br>Monday, 5<br>Thursday, 8 | Sunday, 4<br>Tuesday, 6<br>Friday, 9 |
|-----------|---|--------------------------------------|
| Morning   | 9: 56/57                                | 11: 11/12                            |
| Afternoon | 13: 26/27                               | 2: 41/42                             |
| Evening   | 5: 41/42                                | 6: 56/57                             |



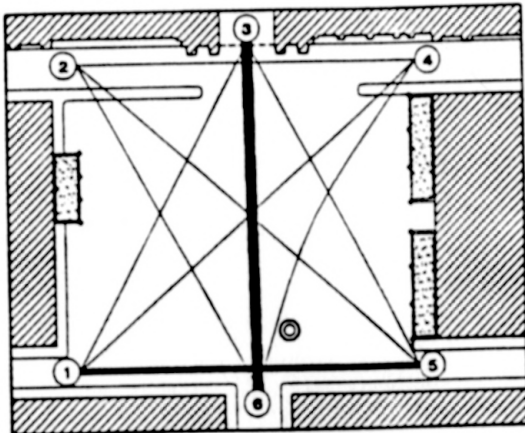
Observation Times for Pedestrian Movement through the Piazza della Repubblica

| NODE ⑥    | Saturday, 3<br>Monday, 5<br>Thursday, 8 | Sunday, 4<br>Tuesday, 6<br>Friday, 9 |
|-----------|---|--------------------------------------|
| Morning   | 9: 59/00                                | 11: 14/15                            |
| Afternoon | 13: 29/30                               | 2: 44/45                             |
| Evening   | 5: 44/45                                | 6: 59/00                             |

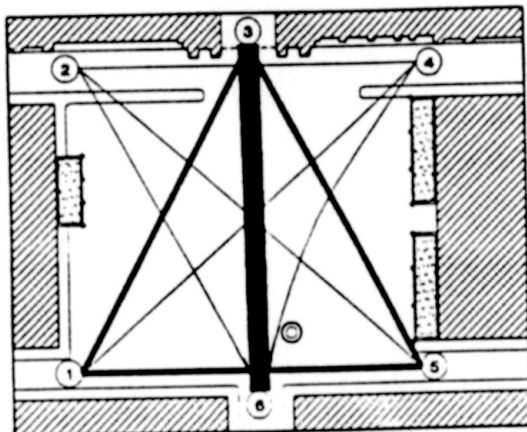
Figure 5.13: Designated pedestrian paths for the nodes 5 and 6 for the Piazza della Repubblica



MORNING



AFTERNOON



EVENING

| PEDESTRIAN FLOW INTENSITY |             |
|---------------------------|-------------|
|                           | 1 - 10      |
|                           | 11 - 20     |
|                           | 21 - 30     |
|                           | 31 and over |

Figure 5.14: Example of map showing the pedestrian flows

helping me to understand the interrelation between the open space itself and its larger surrounding.

Photographing was another technique I used to document the physical envelope, and its events and activities in order to illustrate the functioning of the two piazzas. These photographs captured what people do in the piazzas, and the way that various physical features contribute to piazzas' activities. Photography is also an effective visual device for illustrating the strengths and weaknesses of the piazzas' design features. For example photographs show clearly the different ways in which the boundaries of the two piazzas work to support a sense of enclosure. Photographing also helps to illustrate how people interact with landmarks, statues, and fountains. Of the four techniques, photography is probably the best for conveying a sense of each piazza to those not directly involved with the research, thus fostering a greater sense of empathy. With a conceptual and methodological base in place, the next three chapters of the thesis provide a behavioral analysis of the two piazzas.

## CHAPTER 6

### BEHAVIORAL ANALYSIS OF THE AGGREGATE COUNTS OF PEOPLE IN THE TWO PIAZZAS

As a first step in my analysis of the Piazza della Repubblica and the Piazza della Signoria, I consider the aggregate number of people at rest and in movement in the two piazzas. I first looked at the aggregate number of users in each of the piazzas for the six days of observation during all time periods. These aggregates have been recorded for people involved in activities in the piazza for a period of twenty minutes, while people's movements into and passing through the piazza were recorded for periods of two minutes each. As, mentioned earlier, I have made my best effort in trying to record all piazza activities, but, no doubt, there may have been some errors in recording.

#### **Aggregate Counts of People at Rest**

All people who were either sitting or standing at a place for more than one minute account for people at rest in both piazzas. Table 6.1 shows the distribution of the aggregate number of users at rest in the two piazzas for the six observation days. Notice that there were substantially more people at rest in the Piazza della Signoria than in the Piazza della Repubblica—2140 versus 1624.

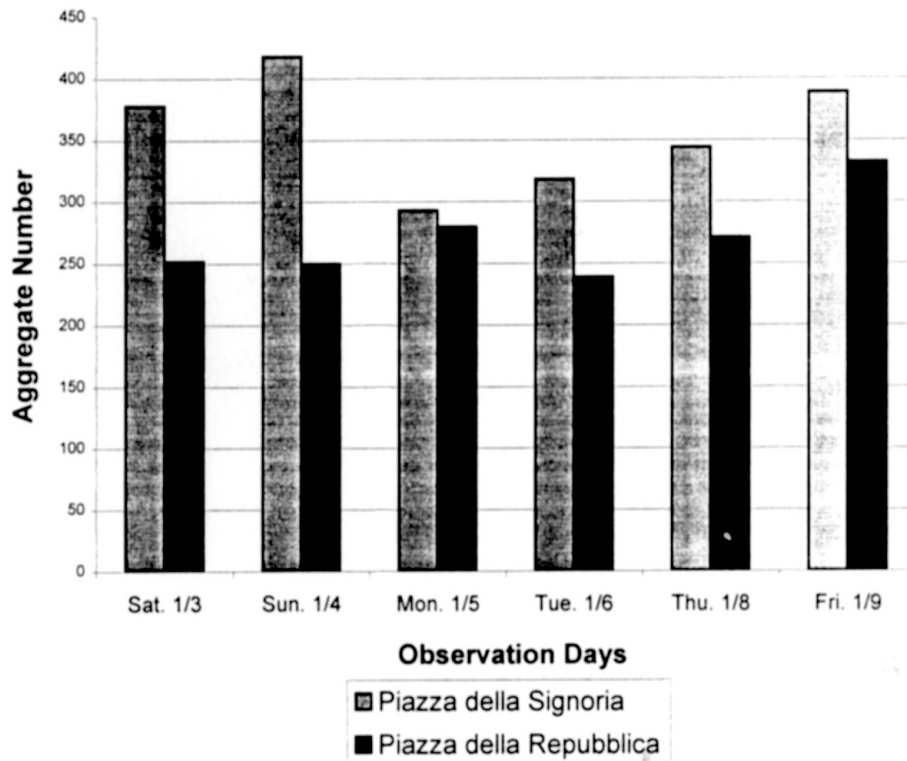
However, the concern is not only for the aggregate number of people in each piazza but the way they distribute themselves over the different days, especially holidays versus work days. Table 6.1 illustrates that the total number of people using the Piazza



Table 6.1: Aggregate Number of People at Rest in the Two Piazzas for the Six Days

|                         | Sat. 1/3 | Sun. 1/4 | Mon. 1/5 | Tue. 1/6 | Thu. 1/8 | Fri. 1/9 | Total |
|-------------------------|----------|----------|----------|----------|----------|----------|-------|
| Piazza della Signoria   | 378      | 418      | 293      | 318      | 344      | 389      | 2140  |
| Piazza della Repubblica | 252      | 250      | 280      | 239      | 271      | 332      | 1624  |

Figure 6.1: Aggregate Number of People at Rest in the Two Piazzas for the Six Days



della Repubblica was steady for most of the observation days except for Friday when there were some fifty more people than on any other ordinary day. During the weekend—i.e. on Saturday and Sunday--there were about 250 people present each day. However, there was an increase of about twenty people who used this piazza on Monday and Thursday, which both happened to be workdays. There were only 239 people recorded on Tuesday, which probably was because that day was a holiday.

Next, when I turn to the aggregate number of people at rest in the Piazza della Signoria as shown in Table 6.1, I note that there were no specific patterns in the distribution of people over the six days. A total of 418 people at rest were recorded on Sunday in this piazza, and this increase was probably because of the fact that some twenty-five people were watching a musical performance. Otherwise, there were relatively more people on Friday and Saturday than on any other workday. There were only 293 people recorded on Monday, which accounts for the smallest total during the six days, probably because the museums and art galleries around this piazza were closed on this day.

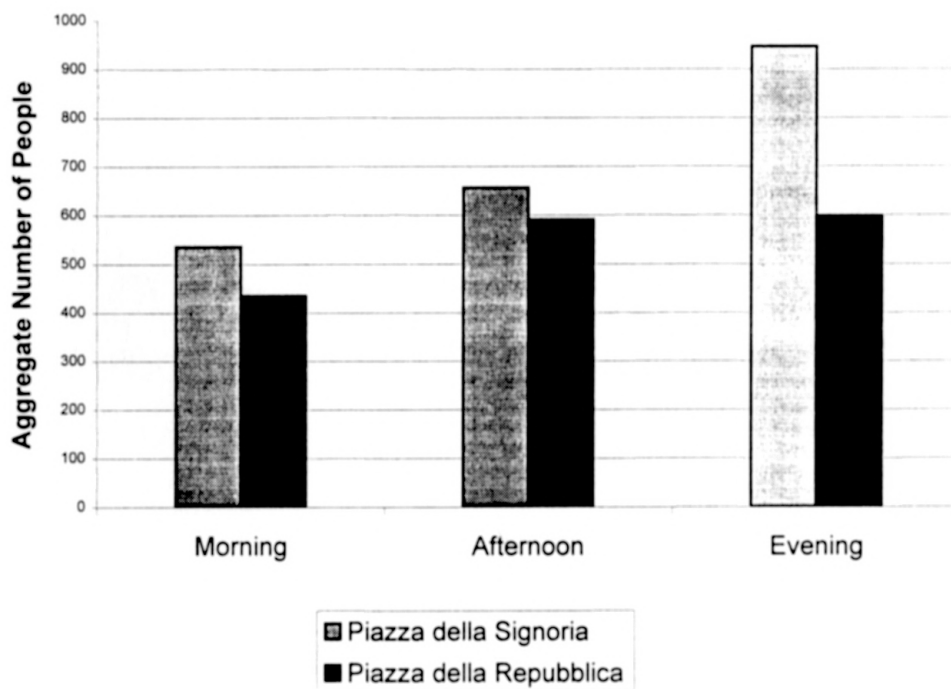
Figure 6.1 converts Table 6.1 into a bar graph which shows the comparative distribution of people at rest in the two piazzas for the six days. This graph clearly indicates that for each observation day there were more people at rest in the Piazza della Signoria than in the Piazza della Repubblica. In terms of the total users, therefore, one can conclude that the Piazza della Signoria draws more users than Piazza della Repubblica. An explanation for this difference will become more clear later in chapter 9.

Table 6.2 shows the distribution of people at rest in the two piazzas for the six

Table 6.2: Aggregate Number of People at Rest in the Two Piazzas for the Six Days by Morning, Afternoon and Evening

|                         | Morning | Afternoon | Evening | Total |
|-------------------------|---------|-----------|---------|-------|
| Piazza della Signoria   | 536     | 657       | 947     | 2140  |
| Piazza della Repubblica | 435     | 591       | 598     | 1624  |

Figure 6.2: Aggregate Number of People at Rest in the Two Piazzas for the Six Days by Morning, Afternoon and Evening



days during different time periods--morning, afternoon and evening. In the Piazza della Signoria, it was noticed that there was a steady increase in the aggregate number of users as the day progressed from morning to evening. There were close to double the number of people in the evening as compared to number of users in the morning. However, in the Piazza della Repubblica, it was noticed that there were fewer users in the morning but this number gradually increased by about 200 people in the afternoon and remained almost steady for the rest of the day. For all time periods, there were more people the Piazza della Signoria than in the Piazza della Repubblica. From the bar graph in Figure 6.2, it is noticed that the evening counts in Piazza della Signoria accounts for the major difference between the two piazzas in terms of aggregate number of people at rest.

Thus, this data on the aggregate number of people at rest leads to the conclusion that there were always more people in Piazza della Signoria than in Piazza della Repubblica during my observation days. This pattern does not mean that one piazza was more successful than the other. Rather, in terms of the overall numbers, it appears that both piazzas were successful but in different ways. As I proceed with the analysis, I shall attempt to make more clear these differences in how the two piazzas work.

### **Patterns of People Entering the Piazzas**

In order to get a complete picture of the character of any open space, it is important to also consider the people who move through that space. This section deals with the analysis of the aggregate counts of people entering the two piazzas on the six days during all the time periods. These observations recorded people entering the

respective piazzas from the six designated nodes for two minutes each for all the six days of observation times.

As shown in Table 6.3, the total number of people for the six days during all observation times entering the Piazza della Repubblica was 1577; and the Piazza della Signoria, 1839. In the Piazza della Repubblica, it can be seen that on the holidays—i.e., Saturday, Sunday and on Tuesday--there were almost equal numbers of people entering the piazza. Friday showed the maximum recording and the remaining two days--Monday and Thursday--involved the least with about 220 people.

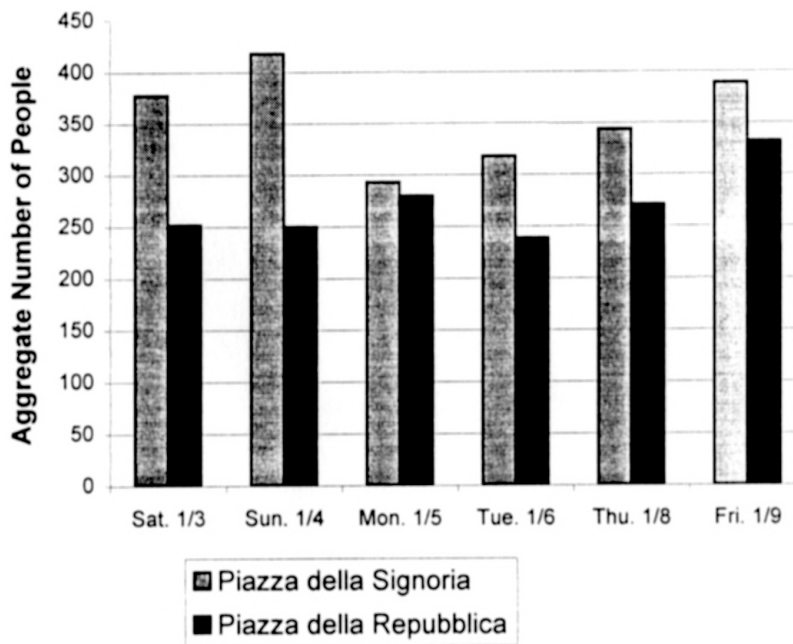
In the Piazza della Signoria, it was noticed that there were relatively more people entering the piazza on Friday, Saturday and Tuesday than on any other days. Monday recorded a low of only 211 people entering the piazza probably because the day was a holiday for the nearby museums and art galleries. The other two days--Sunday and Thursday--recorded an average of about 290 people, a figure, which approximates the average number of people entering the piazza on all six days.

Figure 6.3 illustrates the difference between the total numbers of people entering the two piazzas. As can be seen, except for Monday, there were more people entering the Piazza della Signoria than the Piazza della Repubblica. In the Piazza della Repubblica, one notes that on Saturday, Sunday, Tuesday and Friday (which were either a holiday or a weekend day), there were almost equal numbers of people entering this piazza. Similarly, the other ordinary works days--Monday and Thursday-- had an average of about 225 people entering the piazza. On the other hand, there was no specific pattern that could be established for the six days in terms of the aggregate number of people entering

Table 6.3: Aggregate Number of People Entering the Two Piazzas for the Six Days

|                         | Sat. 1/3 | Sun. 1/4 | Mon. 1/5 | Tue. 1/6 | Thu. 1/8 | Fri. 1/9 | Total |
|-------------------------|----------|----------|----------|----------|----------|----------|-------|
| Piazza della Signoria   | 378      | 418      | 293      | 318      | 344      | 389      | 2140  |
| Piazza della Repubblica | 252      | 250      | 280      | 239      | 271      | 332      | 1624  |

Figure 6.3: Aggregate Number of People Entering the Two Piazzas for the Six Days



Piazza della Signoria. Notice that there were 358 people entering the piazza on Friday, which was a weekend day. However, these counts were not as many nor were they consistent on the other weekend days—Saturday (343), Sunday (289) and Tuesday (346).

Table 6.4 shows the aggregate number of people entering the two piazzas during different time periods—i.e., morning, afternoon and evening. This table demonstrates that the number of people entering the Piazza della Repubblica gained momentum as the day progressed from morning to evening. Further, the table illustrates that the aggregate number of people entering the Piazza della Signoria in the morning was about half as many as people entering in the afternoon. Also, one notes that there were about the same number of people entering this piazza during the evening hours as in the afternoon.

Figure 6.4 shows the data of Table 6.4 converted into a bar graph for easier reading of the patterns. Here one sees clearly that there were more people entering the Piazza della Signoria than the Piazza della Repubblica. However, it is not yet clear what people do once they enter the piazza space. So, it would be difficult to make any conclusions with the information that we have so far. In the next section, when I discuss the aggregate number of people passing through the piazza, I anticipate that most of the above patterns will be explained.

### **Patterns of People Passing Through the Piazzas**

I will now consider the aggregate number of people passing through the respective piazzas for the six days during the observation times. These recordings were of the people traversing the three designated paths as associated with the six nodes already identified in

Table 6.4: Aggregate Number of People Entering the Two Piazzas for the Six Days by Morning, Afternoon and Evening

|                         | Morning | Afternoon | Evening | Total |
|-------------------------|---------|-----------|---------|-------|
| Piazza della Signoria   | 398     | 725       | 716     | 1839  |
| Piazza della Repubblica | 349     | 563       | 665     | 1577  |

Figure 6.4: Aggregate Number of People Entering the Two Piazzas for the Six Days by Morning, Afternoon and Evening

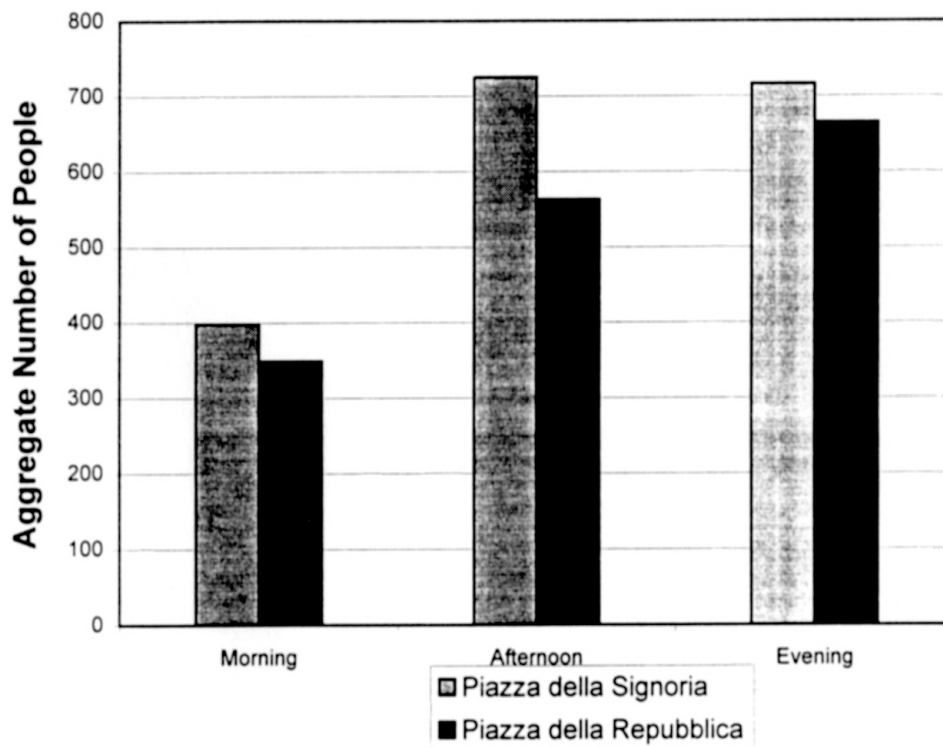




Figure 5.3 in chapter 5. As explained above, each node was observed for two minutes.

Before considering these figures in detail, it is important to emphasize that the paths designated from each node were limited to three (as against a total of five), because it was not possible for me to record all the pedestrian flows in the limited time that I had for observations.

Table 6.5 shows a total of 1510 people passing through the Piazza della Repubblica for the six observation days versus a total of 1004 people for the Piazza della Signoria. In the Piazza della Repubblica, there were 287 people passing through this piazza on Friday, which accounted for the largest share of the total counts for the six days. Otherwise, there was not much variation in the observation counts for the rest of the days, which recorded an average of about 250 people daily. In the Piazza della Signoria, there were 193 people passing through this piazza on Friday, which also accounted for the largest share of the total counts for the six days as recorded for this piazza. However, there was not much variation in the observation counts of Friday when compared to the other days, which recorded an average of about 175 people per day.

As discussed above, Figure 6.5 shows that the total number of people entering the two piazzas on all the six days was steady for most of the days in both the piazzas. Here, it is important to note the pattern of *more* people seen passing through the Piazza della Repubblica (1510) than through the Piazza della Signoria (1004), which is different from the pattern that was seen in the earlier aggregates where there were less people at rest and entering the Piazza della Repubblica than the Piazza della Signoria.

Table 6.6 shows the differences in the daily patterns of people passing through the

Table 6.5: Aggregate Number of People Passing Through the Two Piazzas for the Six Days

|                         | Sat. 1/3 | Sun. 1/4 | Mon. 1/5 | Tue. 1/6 | Thu. 1/8 | Fri. 1/9 | Total |
|-------------------------|----------|----------|----------|----------|----------|----------|-------|
| Piazza della Signoria   | 378      | 418      | 293      | 318      | 344      | 389      | 2140  |
| Piazza della Repubblica | 252      | 250      | 280      | 239      | 271      | 332      | 1624  |

Figure 6.5: Aggregate Number of People Passing Through the Two Piazzas for the Six Days

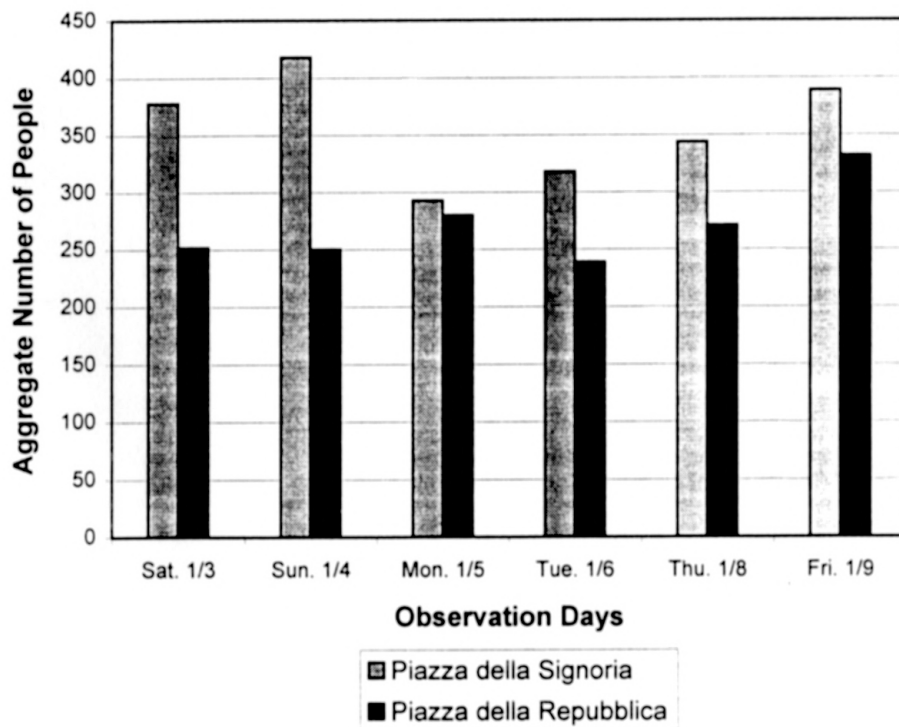
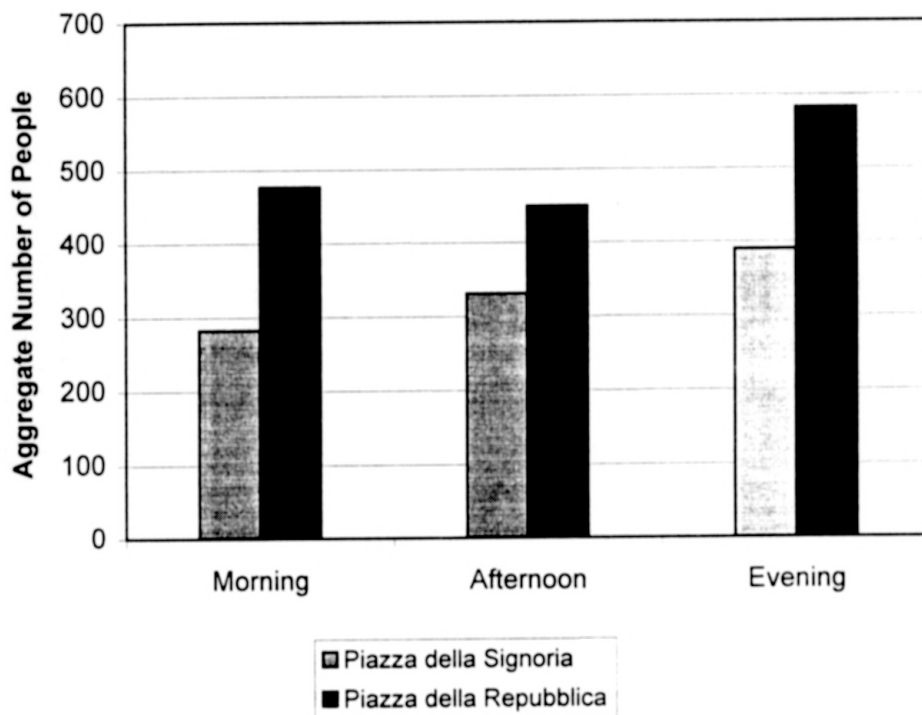


Table 6.6: Aggregate Number of People Passing Through the Two Piazza for the Six Days by Morning, Afternoon and Evening

|                         | Morning | Afternoon | Evening | Total |
|-------------------------|---------|-----------|---------|-------|
| Piazza della Signoria   | 283     | 331       | 390     | 1004  |
| Piazza della Repubblica | 477     | 450       | 583     | 1510  |

Table 6.6: Aggregate Number of People Passing Through the Two Piazza for the Six Days by Morning, Afternoon and Evening



two piazzas as observed for the six days. In the Piazza della Repubblica, it was noticed that there were always more than 400 people during different time periods as observed for the six days. The evenings had more people passing through this piazza (a total of 583) as compared to the morning (477) and afternoon counts (450). Also, note that there were a few more people passing through this piazza in the morning hours when compared to the afternoon recordings. In the morning, there were 283 people passing through the Piazza della Signoria, and this count increased steadily as the day proceeded.

Figure 6.6 converts the data of Table 6.6 into a bar graph, and illustrates that, during all the time periods, there are more people passing through the Piazza della Repubblica than through the Piazza della Signoria. Also, note that there were almost one third more people passing through the Piazza della Repubblica than through the Piazza della Signoria in the evening. In summary, I have looked at the aggregate counts of people at rest and in movement in the two piazzas for the six days. Next, I consider the spatial patterns and pedestrian flow diagrams for the two piazzas.

## CHAPTER 7

### BEHAVIORAL ANALYSIS OF SPATIAL PATTERNS AND FLOW DIAGRAMS FOR THE TWO PIAZZAS

Having studied the aggregate counts of people at rest and in movement in the two piazzas, I will now analyze their behavior maps. As Zeisel (1984, p. 123) explains, “Looking at behavior recorded on maps can give investigators a better sense of how a whole place is used at once than looking at statistical tables”. He adds, “ Maps are also useful to record sequences of behavior in settings where people have a choice of several paths: from house to bus stop, from desk to desk in an open-plan office. Analyzing map records in the light of an actual setting can give an idea of the characteristics of popular paths” (ibid.). Therefore, the aims of this chapter are to analyze: (1) the spatial patterns by which the people use the piazzas, and; (2) the pedestrian flows by which the people move within the piazzas.

An understanding of these spatial patterns will help to clarify the way people organize themselves in the two open spaces, thereby enabling me to learn more about the relationship between the users and the open spaces themselves. Further, by looking at the pedestrian flows, I will become more clear about the movement patterns within the two piazzas and be able to identify any significant differences within those paths, thereby trying to further inquire into the reason for such behaviors.

To focus my study, the discussion considers only two days of observations: Saturday 3, January 1998, and Thursday 8, January 1998. These two days have been

selected from the six observation days because Saturday was a weekend day and Thursday was an ordinary workday.

### **Spatial Patterns of People at Rest in the Two Piazzas**

I will start this analysis by first looking at the spatial distribution of people in the two piazzas. Each twenty-minute recording of people at rest for the three time periods--morning, afternoon and evening--will be considered in mapping the spatial patterns for the two days mentioned above. Figures 7.1—7.4 show the spatial distribution of people at rest in the two piazzas for the two days, respectively. Each square in the maps indicates an individual in the piazza as noticed during the observation. First, I examine Figure 7.1, which shows the spatial distribution of people at rest on Saturday in the Piazza della Signoria. Immediately, one notes that there were more people in the evening than in the morning and afternoon. Note that during all the time periods there was a distinct pattern of people gathered near the Palazzo Vecchio. Also, in front of the Statue of Neptune there is a large concentration of users, which diminishes in number as one moves west, away from the statue. In the morning there are fewer people closer to the Palazzo Vecchio, but as the day goes on, we notice that the concentration intensifies in the evening. Throughout the day, there are very few people to be found at the rim of the piazza, except for those in the restaurants and at the kiosk at the northwestern end. Also, in the eastern half of the piazza there were very few people present, especially in the morning hours.

I will now discuss the Thursday observations of people at rest in the Piazza della Signoria as illustrated in Figure 7.3. It was noticed that on this day also, there were



MORNING

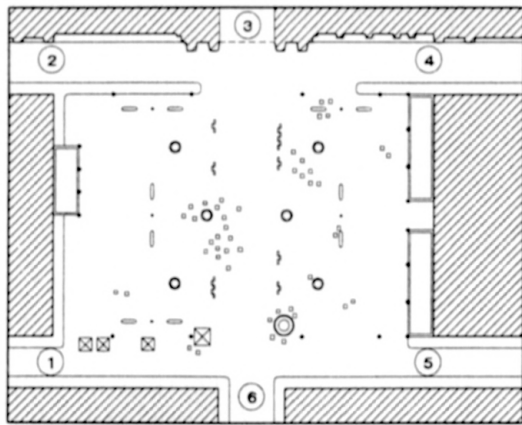


AFTERNOON

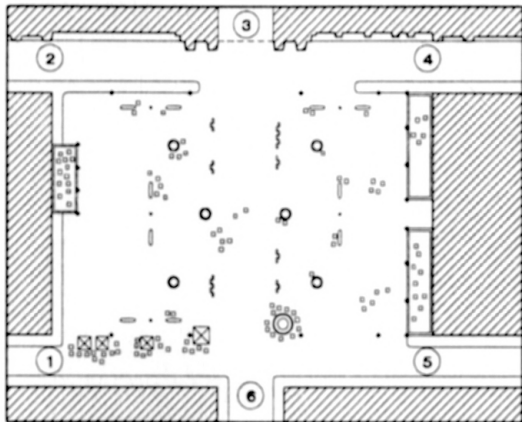


EVENING

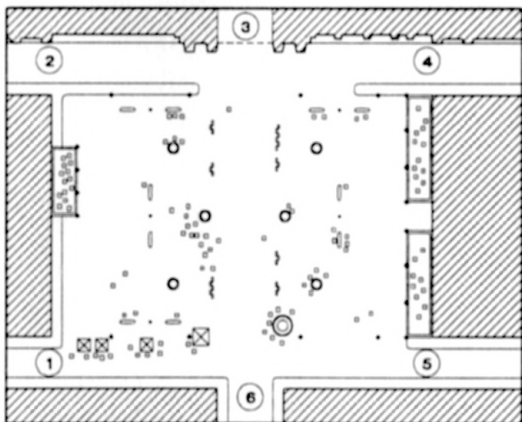
Figure 7.1: Total number of people sitting and standing in Piazza della Signoria on Saturday 3, January 1998, during the following time periods: Morning (9:00 - 9:20), afternoon (12:30 - 12:50) and evening (4:45 - 5:05)



MORNING



AFTERNOON



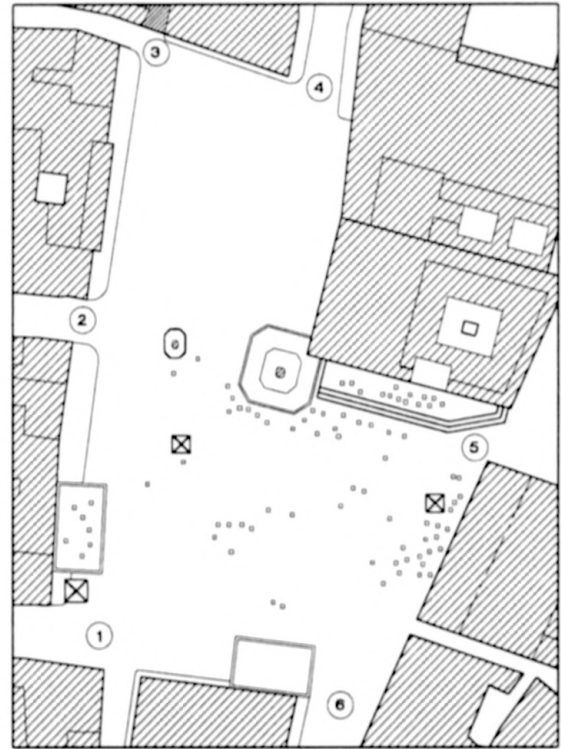
EVENING

Figure 7.2: Total number of people sitting and standing in Piazza della Repubblica on Saturday 3, January 1998, during the following time periods: Morning (9:00 - 9:20), afternoon (12:30 -12:50) and evening (4:45 - 5:05)





MORNING

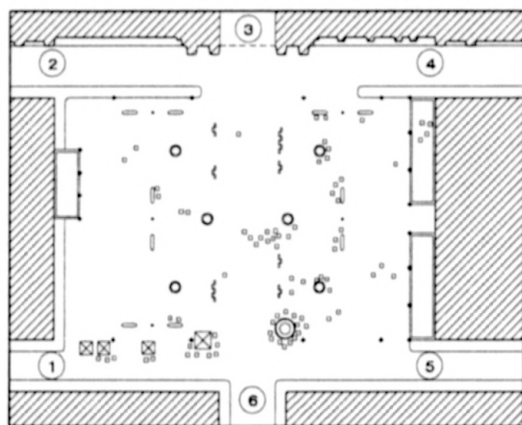


AFTERNOON

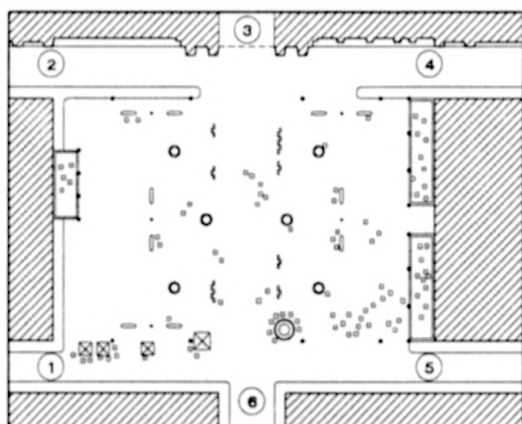


EVENING

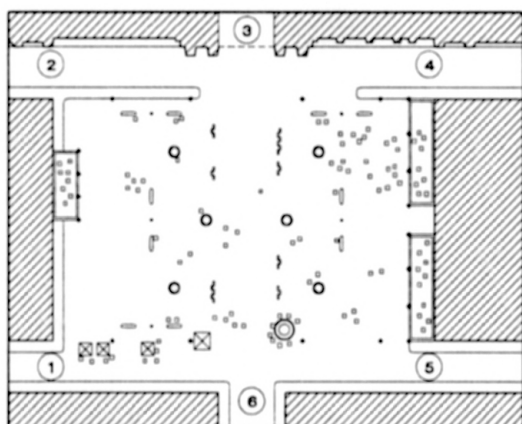
Figure 7.3: Total number of people sitting and standing in Piazza della Signoria on Thursday 8, January 1998, during the following time periods: Morning (9:00 - 9:20), afternoon (12:30 - 12:50) and evening (4:45 - 5:05)



MORNING



AFTERNOON



EVENING

Figure 7.4: Total number of people sitting and standing in Piazza della Repubblica on Thursday 8, January 1998, during the following time periods: Morning (9:00 - 9:20), afternoon (12:30 - 12:50) and evening (4:45 - 5:05)

people gathered near the Palazzo Vecchio, but the numbers were not as concentrated as seen on Saturday. Overall, on Thursday, there appeared to be relatively more people in the morning than in the afternoon. In addition, people were largely scattered in the morning and as the day proceeded there were relatively fewer people in the afternoon. In the evening there were not many people near the statue of Neptune, probably because most of them were attracted to a musical performance taking place in the lower half of the piazza.

Overall, there were some commonalities between the two days of observation for Piazza della Signoria. For example, on both days people were largely concentrated towards the Palazzo Vecchio and the statue of Neptune; in contrast there were few people along the periphery. Also, the restaurants were fairly occupied during the afternoons and the evenings on both days. However, there were also some differences for the two days. For example, it was noticed that in the morning there were less people on Saturday (68) than on Thursday (121) and, on the other hand, in the evening there were more people on Saturday (195) than on Thursday (142). In addition, there was less concentration of people on Thursday than on Saturday near the Palazzo Vecchio and the statue of Neptune.

I will now look at the observations of the Piazza della Repubblica for Saturday and Thursday to see if there were any differences in the spatial patterns of users on these two days. Figure 7.2 shows the spatial distribution of people at rest on Saturday in the piazza, which indicates that there were less than half as many people in the morning than during observations for rest of the day. For the most part, this increase was seen because of the users in the restaurants on the adjacent sides of the piazza. As the day progressed,

there was an increase in the number of people who used the piazza. However, there was no specific sub-area in the piazza where there was more concentration. There was for the most part an even distribution in the morning, except for a small gathering in the center of the piazza, which was probably because of the presence of a Christmas tree set there only for the holiday season. Later in the afternoon, there were more people found at the kiosks and as the day went by there was an even distribution of people all over the piazza.

Moving on to the Thursday observations of people at rest in the Piazza della Repubblica, as illustrated in Figure 7.4, it was noticed that there was a steady increase of people as the day proceeded from morning to evening. As seen before, there were patrons at the restaurants in the afternoon and evening as against in the morning and this eating activity was probably the reason for the increase. In the afternoon, there was a concentration of people on the northeastern corner; these people were probably a tourist group. In the evening, there were more people in the northwestern corner of the piazza, probably because people were feeding pigeons at that time. Otherwise, for the most part there was an even distribution of people all over the piazza.

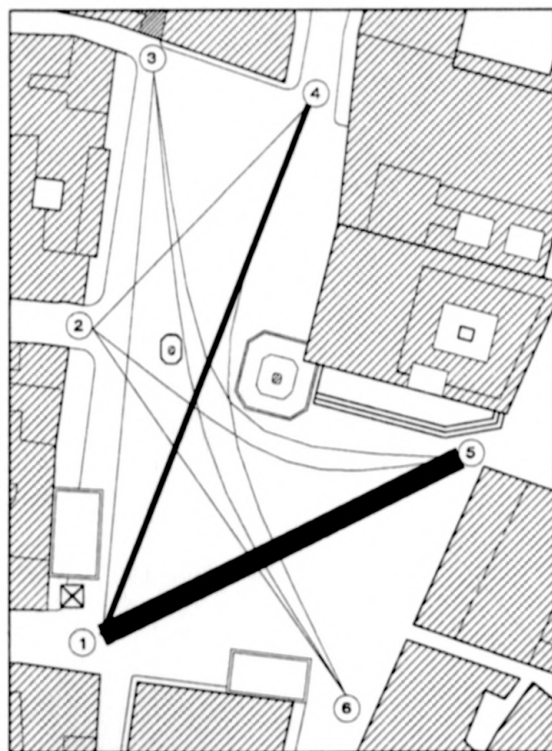
Overall, the commonalties between the Saturday observations and the Thursday observations were that the people were evenly spread over the piazza during all times and there were about the same number of people in the evening for both days. Also, the restaurants were fairly busy on both days in the afternoons and evenings. However, it was noticed that there were relatively fewer people in the morning on Saturday (46) than on Thursday (79). In contrast, there were more people in the afternoon on Saturday (104) than on Thursday (91).

In summary, it was seen that in the Piazza della Signoria there were more people concentrated toward the Palazzo Vecchio, suggesting that the architectural and historical significance of this building may contribute toward giving meaning to the Piazza more than the space itself. In contrast, in the Piazza della Repubblica, it was seen that there was a fairly balanced number of people during all observation periods. Also, these people were spread evenly over the piazza space suggesting that there were more regular users. In the next section, I will look at the pedestrian paths of people in movement in the two piazzas and examine the differences in their flow patterns.

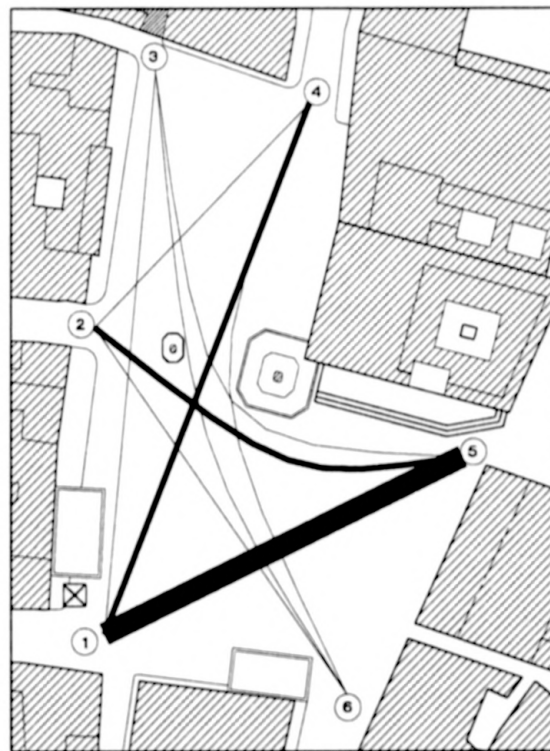
### **Spatial Patterns of Flow Diagrams in the Two Piazzas**

Having looked at the spatial distribution of people at rest, it is next necessary to consider how much pedestrian movement took place along the paths observed during the behavioral mapping. These observations as illustrated in Figure 7.4 – 7.8 are being analyzed to see if there were any clear differences between the flow patterns of the two piazzas. As discussed earlier in Chapter 5, the patterns of movement in the maps that follow were denoted by solid lines, relative to flow intensity on that path.

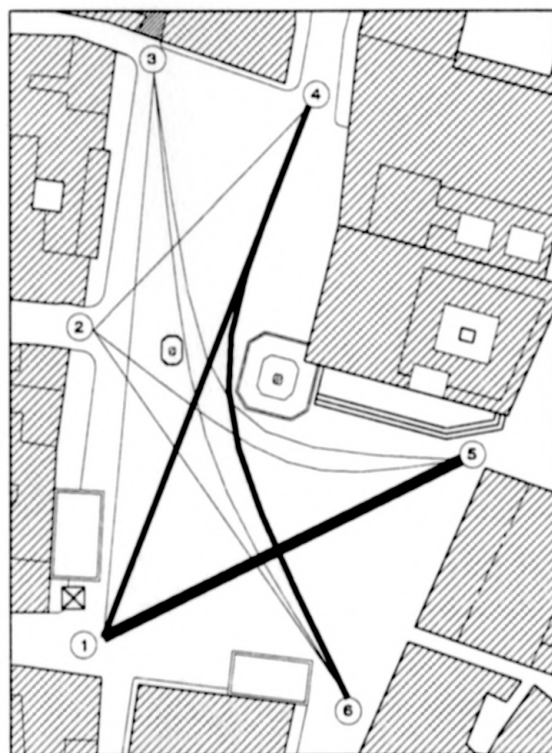
I will begin by examining Figure 7.5, which shows the pedestrian flow of people in movement on Saturday in the Piazza della Signoria. One immediately notes that there were strong pedestrian flows in relation to the Palazzo Vecchio and the Uffizi gallery. The other significant flow was between nodes 1 and 4, which was constant for all the observation periods. Further, there was a medium pedestrian flow between nodes 2 and 5 Saturday afternoon as there were about 10-19 people observed to be moving in the direction of the galleries and museum.



MORNING



AFTERNOON

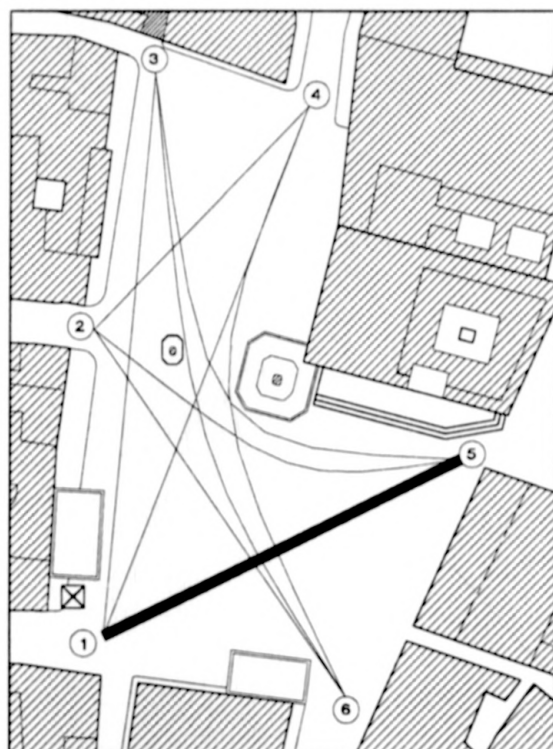


EVENING

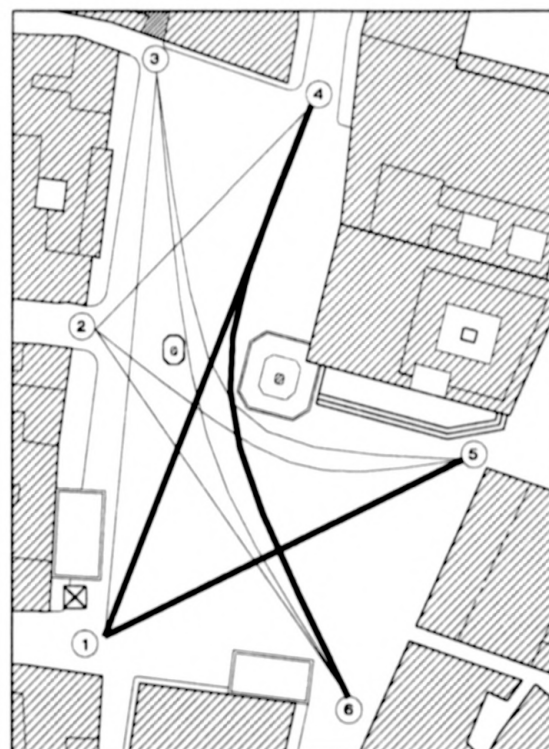
| PEDESTRIAN FLOW INTENSITY |             |
|---------------------------|-------------|
|                           | 1 - 10      |
|                           | 11 - 20     |
|                           | 21 - 30     |
|                           | 31 and over |

Figure 7.5: Pedestrian flow in the Piazza della Signoria on Saturday 3, January 1998, during the following time periods: Morning (9:00 - 9:20), afternoon (12:30 - 12:50) and evening (4:45 - 5:05)

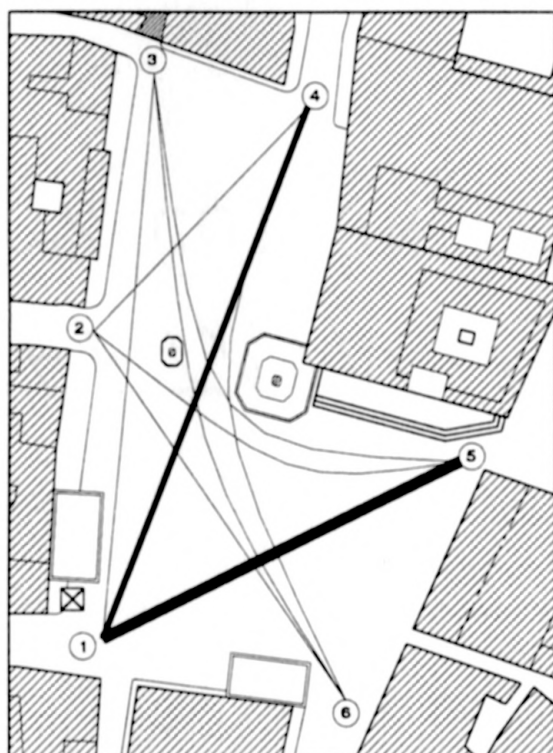




MORNING



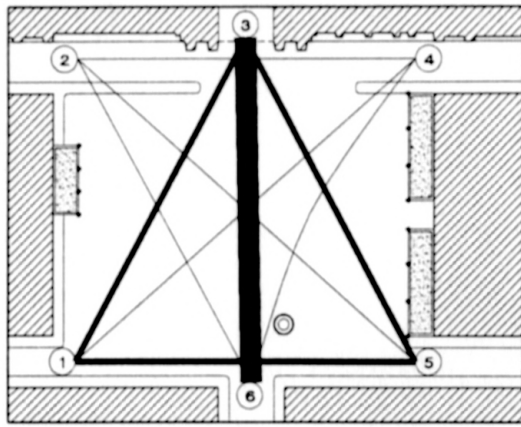
AFTERNOON



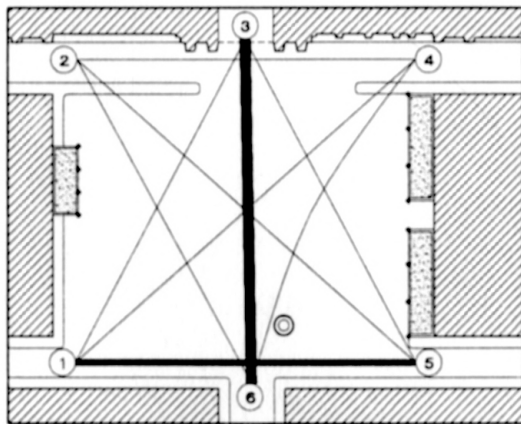
EVENING

| PEDESTRIAN FLOW INTENSITY |             |
|---------------------------|-------------|
|                           | 1 - 10      |
|                           | 11 - 20     |
|                           | 21 - 30     |
|                           | 31 and over |

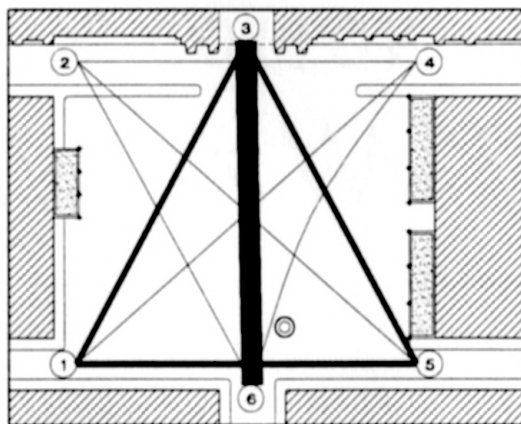
Figure 7.6: Pedestrian flow in the Piazza della Signoria on Thursday 8, January 1998, during the following time periods: Morning (9:00 - 9:20), afternoon (12:30 - 12:50) and evening (4:45 - 5:05)



MORNING



AFTERNOON



EVENING





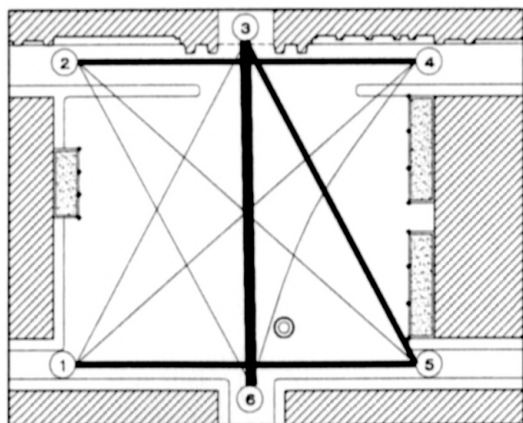
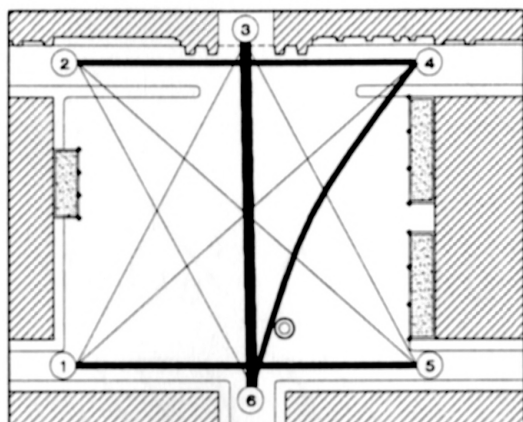
| PEDESTRIAN FLOW INTENSITY  |             |
|--|-------------|
|  | 1 - 10      |
|  | 11 - 20     |
|  | 21 - 30     |
|  | 31 and over |

Figure 7.7: Pedestrian flow in the Piazza della Repubblica on Saturday 3, January 1998, during the following time periods: Morning (9:00 - 9:20), afternoon (12:30 - 12:50) and evening (4:45 - 5:05)

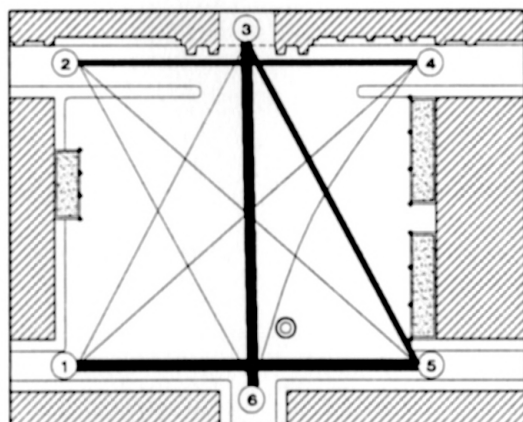




MORNING



AFTERNOON



EVENING

| PEDESTRIAN FLOW INTENSITY |             |
|---------------------------|-------------|
|                           | 1 - 10      |
|                           | 11 - 20     |
|                           | 21 - 30     |
|                           | 31 and over |

Figure 7.8: Pedestrian flow in the Piazza della Repubblica on Thursday 8, January 1998, during the following time periods: Morning (9:00 - 9:20), afternoon (12:30 - 12:50) and evening (4:45 - 5:05)

Overall, more people appear to be moving towards the Palazzo Vecchio in the morning and afternoon, while this flow becomes less in the evening. Also, the flow patterns show that the afternoons were slightly more busy than the mornings, while in the evening these flows were less. In contrast to these higher pedestrian flows, the other observed paths were much less used, typically with not more than ten people during the observation period. Also, it is important to note that practically all paths from nodes 2 and 3 had the lowest pedestrian flows.

I will now discuss the Thursday observations of the pedestrian flows in the Piazza della Signoria as illustrated in Figure 7.6. It was noticed that there were once again strong pedestrian flows in relation to the Palazzo Vecchio. Essentially, this pattern was seen stronger in the morning and evening whereas this flow was less during the afternoon. However, the afternoon saw a steady flow of not more than nineteen people on three of its paths: between the nodes 1 and 4; 1 and 5, and; 4 and 6. In the morning, there was only one strong pedestrian path between nodes 1 and 5, which was the same in the evening, in addition to a medium pedestrian flow between nodes 1 and 4.

Overall, there were relatively more people moving towards the Palazzo Vecchio in the morning and evening as compared to the afternoon. There were not many intense pedestrian flows on this day with the exception of the paths between nodes 1 and 5, 1 and 4, and 4 and 6. Once again all paths from nodes 2 and 3 had low pedestrian flows.

In summary, it was seen that there was a strong pedestrian flow towards the Palazzo Vecchio, and the paths running from the nodes 2 and 3 had low pedestrian flows of less than ten people moving through them. In addition, as is evident from the intensities of the pedestrian flows, there were more people moving through the piazza on

Saturday than on Thursday. In the evenings the flows were less compared to the flows in the afternoon. Also, there was a distinct difference in the pedestrian flows between the two days in the morning observations.

I will now look at Piazza della Repubblica for Saturday and Thursday and analyze the differences in the spatial patterns of pedestrian flows on these two days. Figure 7.7 shows the pedestrian flow of people in movement on Saturday in Piazza della Repubblica. This map indicates that there was a strong pedestrian flow between the nodes 3 and 6. This flow was fairly high in the morning and evening as compared to the flow in the afternoon. It was also seen that there was a steady medium flow between nodes 1 and 5 during all the observation periods. In addition, there was a similar medium pedestrian flow between the nodes 1 and 3 and 3 and 5 in the morning and evening observations.

Overall, there were relatively more people moving between the nodes 3 and 5. Node 3 appeared to be prominent as there were many people moving into and out of the piazza through this point. In contrast, all paths from nodes 2 and 4 had the lowest pedestrian flows. Also, relative to the higher pedestrian flows, the other paths observed were much less used, typically not more than ten people during the observation period. Further, it was noticed that there were more people moving through the piazza in the morning and evening than in the afternoon. However, in making this observation it is important to note that the pedestrian flows in the morning were practically similar to the flows in the evening.

I will now discuss the Thursday observations of the pedestrian flows in the Piazza della Repubblica as illustrated in Figure 7.8. It was noticed that there was a fairly high steady pedestrian flow of not more than thirty people between the nodes 3 and 6 during

all the observation periods. There was also a steady medium flow of not more than twenty people between nodes 2 and 4 and nodes 1 and 5 during all observation periods with the exception of the evening flow between nodes 1 and 5 which was a little higher than the other flows. There were medium flows between nodes 3 and 5 in the morning and evening in addition to a similar flow in the afternoon between nodes 6 and 4. In contrast to the relatively higher pedestrian flows, the other observed paths were less used, typically with not more than ten people during the observation period

Overall, there were steady flows between nodes 3 and 6; 2 and 4; and 1 and 5 during all observation periods. Further, it was noticed that there were always more than ten people moving through each node during any observation time. Also, there were almost the same flow patterns seen during all observation times with the exception of a few more people moving in the evening on the path between 1 and 5. Altogether, the northern sector of the piazza was more used than the southern sector as it can be seen that nodes 4 and 5 were more busy than nodes 1 and 2.

In summary, it was seen that there were strong pedestrian flows between nodes 3 and 6 on Saturday and Thursday, implying that this was a major path through the piazza. However, this path had stronger flows on Saturday than on Thursday. In contrast, nodes 2 and 4 were not as busy on Saturday as on Thursday, and it was distinctly noticed that the pedestrian flows between nodes 2 and 4 were stronger on Thursday than on Saturday. Also, intensity of pedestrian flows on Thursday during all observation periods were similar as against Saturday, which had more people moving in the morning and afternoon as compared to the evening flow.

In comparing the spatial patterns of the pedestrian flows of the two piazzas, it was noticed that the prominent flows in the Piazza della Signoria were directed towards the Palazzo Vecchio, indicating that this building probably was an important attraction for people to come into this piazza. In contrast, in the Piazza della Repubblica, it was seen that the greatest flow was between nodes 3 and 6, which probably was a connection between the two important streets, Via degli Strozzi and Via degli Speciali. On Saturday, in the Piazza della Signoria, there were major flows in the morning and afternoon compared to the lesser evening flows, whereas in the Piazza della Repubblica there were major flows in the morning and evening as compared to the lesser afternoon flows. Also, as a general observation, it was seen that in the Piazza della Signoria there was a greater pedestrian flow on Saturday than on Thursday. In contrast, in the Piazza della Repubblica, there was a greater pedestrian flow on Thursday than on Saturday. In addition, it was noticed that there were not as many daily and weekly variations in the intensities of pedestrian flows in the Piazza della Repubblica as in the Piazza della Signoria.

Thus, in summary, it was learnt that there were more regular pedestrian movements through the Piazza della Repubblica, suggesting a greater steadiness in the users of the piazza. On the other hand, in the Piazza della Signoria, except for the flow between nodes 1 and 5, the rest of the flows were mostly irregular, probably because there were more visitors as tourists coming into this piazza.

Having considered in this chapter the spatial patterns of people at rest and pedestrian flows of the two piazzas, I next consider, in chapter eight, the variations in user types in the two piazzas.

## CHAPTER 8

### BEHAVIORAL ANALYSIS OF VARIATIONS IN THE OBSERVATIONS OF THE TWO PIAZZAS

Having presented the analyses of the aggregate spatial patterns for the two piazzas, I will now examine the variations with respect to user types and activities. These variations pertaining to the people at rest were identified based on preliminary observations during the pilot study. The four major differences that I consider are: (1) age groups; (2) types of groupings; (3) whether sitting or standing; and (4) activities in which the users were engaged.

In addition to these four variables, I also recorded the gender composition of piazza users. There were 1138 males vs. 1002 females in the Piazza della Signoria; and 916 males vs. 708 females in the Piazza della Repubblica. Because the difference was relatively small—136 in the Piazza della Signoria and 208 in the Piazza della Repubblica--little inference can be made as to whether there was significant use because of gender. Therefore, I do not consider gender differences, in the following analysis.

Overall, the objective of the analysis in this chapter is to identify the differences in user types and the activities. This understanding will increase my awareness of how the two piazzas present themselves to diverse and groups as an effective stage for interacting. Hence, apart from gaining an understanding of the life of the two piazzas, I also hope to gain an understanding of the spatial relation of users and their activities with the pizzas' physical contexts.

Therefore, as I proceed, I will discuss the four variations by first looking at the aggregate counts. In considering the aggregate counts, I will take into account the

observations made during the six days. In addition, I will analyze the spatial distribution for the sitting/standing observations and for the different activities. As in chapter 6, however, I focus my analysis more precisely by considering only two days of observation: Saturday 3, January 1998; and Thursday 8, January 1998. These two days have again been selected because Saturday was a weekend day and Thursday was an ordinary workday.

### **Analysis by Age**

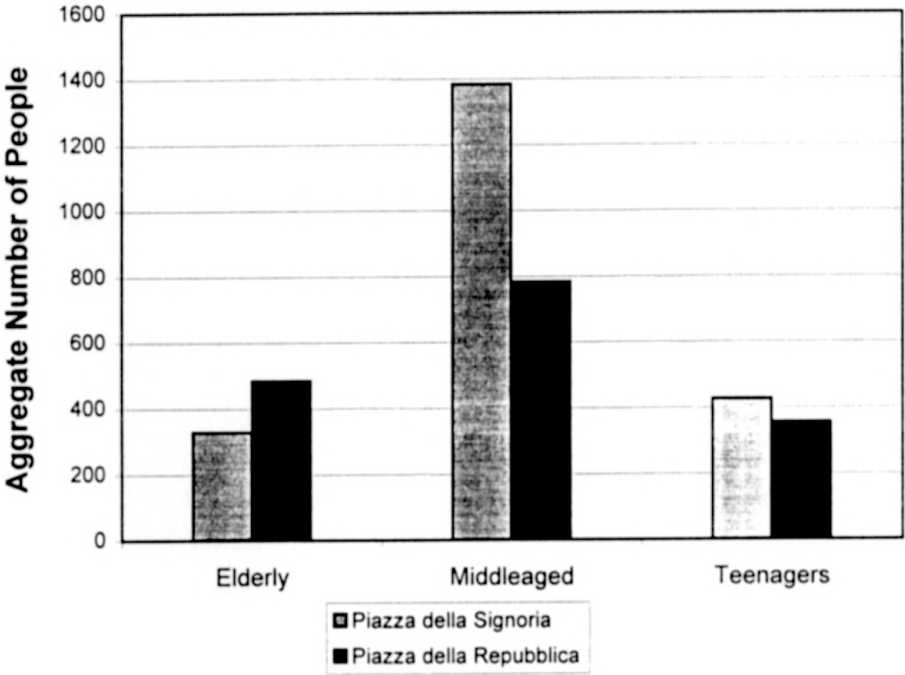
I begin the analysis by looking at the aggregate number of users in the two piazzas with respect to age. As discussed earlier, the classification is as follows: (1) young (1-19 years); (2) middle aged (20-50 years); and (3) the elderly (50 years and above). Table 8.1 and Figure 8.1 illustrate the distribution of the aggregate number of users at rest as classified by their age groups in the two piazzas for the six observation days. In the Piazza della Signoria, people of the middle aged category (1384) constituted for more than half of the total number of users (2140). Of the remaining people, there were more teenagers (427) than the elderly (329). In the Piazza della Repubblica, people of the middle aged category (783) constituted for slightly less than half of the total number of users (1624). However, there were more elderly people (484) than teenagers (357).

On examining the aggregate counts for the two piazzas, it was noticed that there were almost twice as many middle-aged people in the Piazza della Signoria (1384) as compared to the Piazza della Repubblica (783). Also, there were more elderly people in the Piazza della Repubblica (484) when compared to the Piazza della Signoria (329). On

**Table 8.1: Comparison by Age**

|                         | Elderly | Middleaged | Teenagers | Total |
|-------------------------|---------|------------|-----------|-------|
| Piazza della Signoria   | 329     | 1384       | 427       | 2140  |
| Piazza della Repubblica | 484     | 783        | 357       | 1624  |

**Figure 8.1: Comparison by Age**





the other hand, there were more teenagers in the Piazza della Signoria (427) than in the Piazza della Repubblica (357).

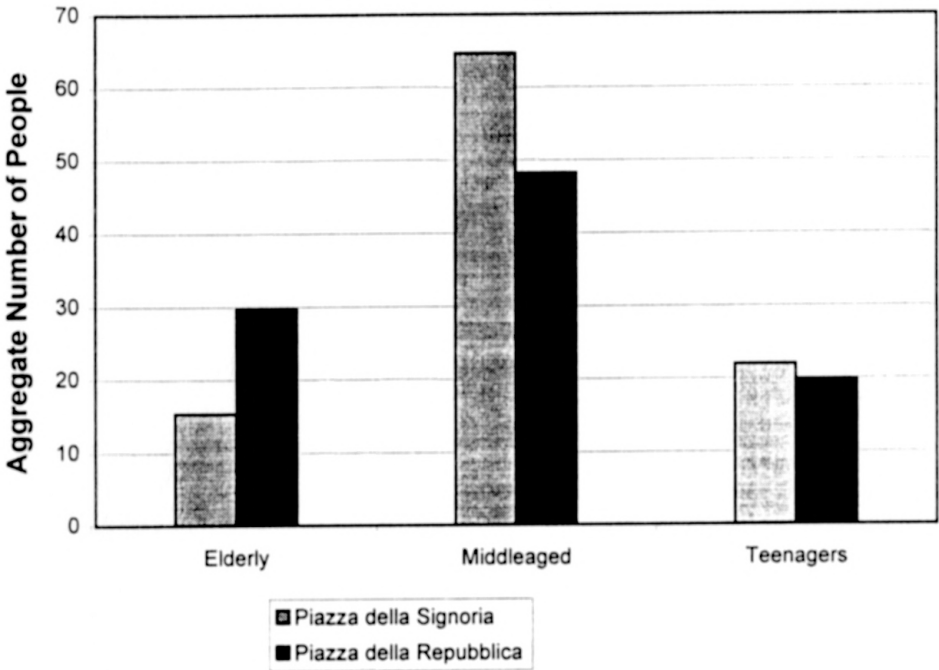
Since, however, there were more people in the Piazza della Signoria than in the Piazza della Repubblica, it would be more accurate to compare the data expressed as percentages. Table 8.2 and Figure 8.2 show the percentage distribution of aggregate number of people at rest as classified by age. There is a considerable difference from what was learnt earlier in Figure 8.1. Notice that in the middle aged group, the difference in the percentage number of users between the two piazzas is not as prominent as seen with the aggregate counts. As mentioned earlier, there were twice as many middle aged people in the Piazza della Signoria as compared to the Piazza della Repubblica. However, on seeing the percentage distribution, the difference is only a third with the Piazza della Signoria having 64.7 % of middle aged people and the Piazza della Repubblica having 48.2 % of middle aged people.

Also, notice that proportionately there were almost twice as many elderly people in the Piazza della Repubblica (29.8 %) as compared to the Piazza della Signoria (15.4 %). As for the distribution of teenagers, they were almost in the same proportion in the two piazzas with 22 % of the total aggregate in the Piazza della Signoria and 19.9 % of the total aggregate in the Piazza della Repubblica. In summary, there were more middle-aged people than any other age group in both the piazzas. However, on an overall count, there were more middle aged people in the Piazza della Signoria and more elderly people in the Piazza della Repubblica.

**Table 8.2: Comparison by Age--Percentage**

|                         | Elderly | Middleaged | Teenagers | Total |
|-------------------------|---------|------------|-----------|-------|
| Piazza della Signoria   | 15.4    | 64.7       | 22        | 100   |
| Piazza della Repubblica | 29.8    | 48.2       | 19.9      | 100   |

**Figure 8.2: Comparison by Age--Percentage**



## Analysis by Group Size

In this section, I analyze aggregate counts of people in different types of groups, which have been classified according to the gathering size of the group. As discussed earlier, the users were identified in terms of four broad categories: (1) a single; (2) a pair; (3) a cluster (3-8 people), and; (4) a grouping (more than 8 people). Table 8.3 and Figure 8.3 illustrate the distribution of the various group sizes in the two piazzas as observed for the six days.

Of the total 2140 people at rest in the Piazza della Signoria, there were more than half in groups (1234). Of the rest, the greatest number of people were found to be in clusters (686) and the rest were in pairs (156) and singles (64). In the Piazza della Repubblica, of the total number of people (1624), there were a little less than half the users in groups (703); of the remaining, there were 569 people in clusters, 262 in pairs, and 90 in singles.

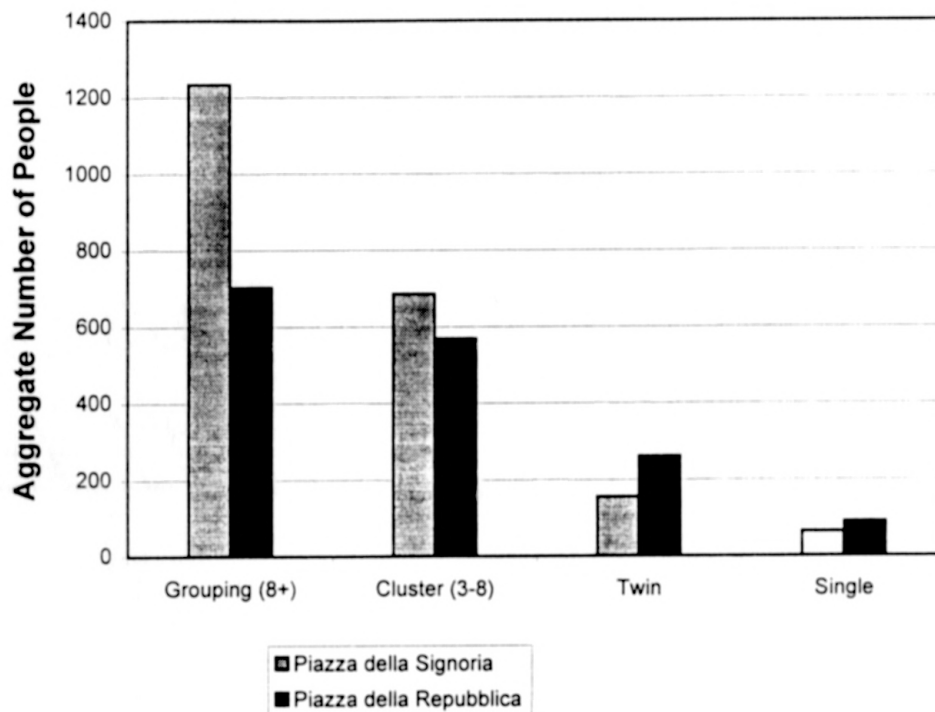
In comparing these distributions for the two piazzas, it can be noticed that there were more people in groups and clusters in the Piazza della Signoria than in the Piazza della Repubblica. In contrast, there were more people in pairs and in singles in the Piazza della Repubblica than in the Piazza della Signoria. However, we also know that there were more users in the Piazza della Signoria than in the Piazza della Repubblica. Therefore, as discussed in the previous section, in order to have an equitable comparison of the two piazzas, the data was converted into percentages.

Table 8.4 and Figure 8.4 illustrate the percentage distribution of users in the two piazzas as classified by their group sizes. Notice that once again there are more people in groups in the Piazza della Signoria (57.6 %) than in the Piazza della Repubblica (43.2 %).

**Table 8.3: Comparison by Group Size**

|                         | Grouping (8+) | Cluster (3-8) | Twin | Single | Total |
|-------------------------|---------------|---------------|------|--------|-------|
| Piazza della Signoria   | 1234          | 686           | 156  | 64     | 2140  |
| Piazza della Repubblica | 703           | 569           | 262  | 90     | 1624  |

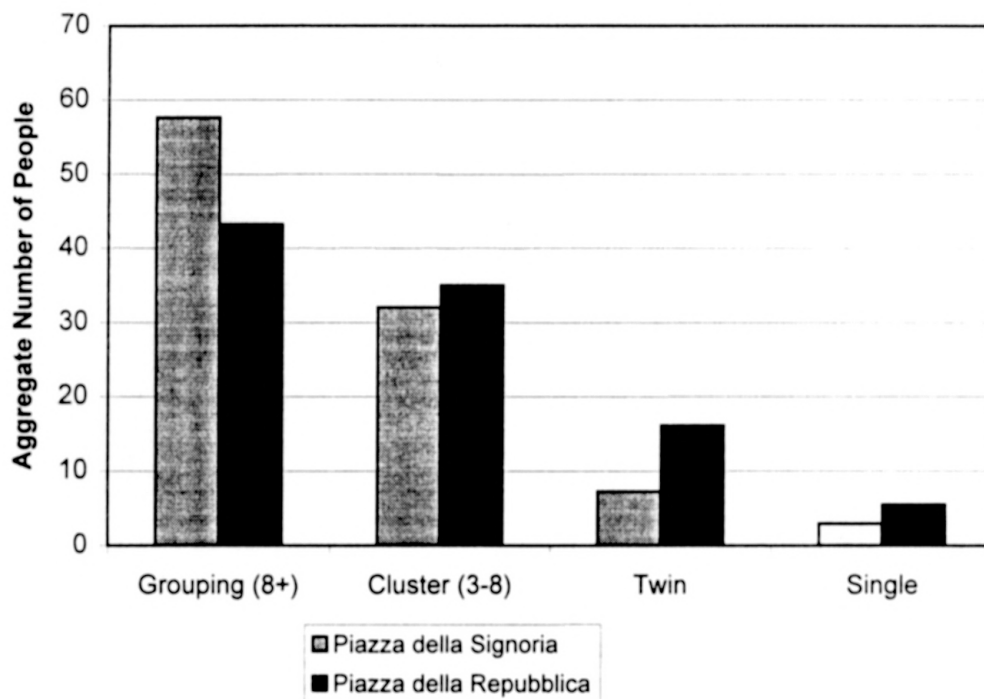
**Table 8.3: Comparison by Group Size**



**Table 8.4: Comparison by Group Size--Percentage**

|                         | Grouping (8+) | Cluster (3-8) | Twin  | Single | Total |
|-------------------------|---------------|---------------|-------|--------|-------|
| Piazza della Signoria   | 57.66         | 32.05         | 7.28  | 2.99   | 100   |
| Piazza della Repubblica | 43.28         | 35.03         | 16.13 | 5.54   | 100   |

**Table 8.4: Comparison by Group Size--Percentage**



However, there is a shift in the number of people in clusters, since one notes that there are more people in clusters in the Piazza della Repubblica (35.0 %) than in the Piazza della Signoria (32.0 %). In addition, there are almost twice as many people percentagewise in pairs and singles in the Piazza della Repubblica as compared to the Piazza della Signoria.

In summary, it can be said that overall there were more people in groups in both the piazzas, a pattern that was probably so because Florence presents itself as an attraction to many tourists who are usually in groups. However, in the Piazza della Signoria this share of people in groups (57.6 %) was more than the aggregate total of people in all other group categories (42.4 %), which means that the majority of users were in larger groups in this piazza. In contrast, in the Piazza della Repubblica, there were relatively fewer people in groups (43.2 %) as compared to other people in smaller groups (56.8 %).

### **Analysis by Sitting versus Standing**

I next consider the patterns of people who were either sitting or standing in the two piazzas during the six days of observation. “Sitting” refers to any person who sits in a place for more than one minute--for example, people sitting on benches, steps, or in restaurants--and engaged in such activities as talking, watching, reading, eating, smoking and so forth. Similarly, “standing” refers to any person standing in either of the two piazzas for more than one minute and engaged in such behaviors as watching, conversing, buying or selling, performing, smoking, waiting and so forth.

Table 8.5 and Figure 8.5 show the distribution of people sitting in the two piazzas on the six observation days during all time periods. As is clearly evident, there were more people sitting in the Piazza della Repubblica (915) than in the Piazza della Signoria (301) and this pattern was consistent for all time periods. The number of people sitting in the Piazza della Signoria increased as the day progressed from 21 in the mornings to 97 in the afternoons to a high of 183 in the evenings. On the other hand, in the Piazza della Repubblica, the number of people sitting in the mornings were 218, a number that increased to 352 people in the afternoons and 345 people in the evenings. Note that the difference between number of people sitting in the two piazzas was least in the evening (162) and maximum in the afternoon (255).

For a more accurate comparison of sitting patterns in the two piazzas, Table 8.6 and Figure 8.6 illustrate the percentage distribution of users as observed for the six days. Percentage-wise, it was seen that in the Piazza della Repubblica there were about an equal number of people sitting in the afternoons (38.46%) and evenings (37.72%) as compared to less sitters in the morning observations (23.82%). On the other hand, in the Piazza della Signoria, notice that proportionately there were twice as many people sitting in the evenings (60.79%) as compared to people sitting in the afternoons (32.2%), which was significantly more than similar observations for the mornings (7.1%). Note that the difference, when considered as a percentage between the number of people sitting in the two piazzas, was least in the afternoon (6.26) and most in the evening (23.07).

Table 8.7 and Figure 8.7 show the distribution of people standing in the two piazzas on the six observation days during all time periods. In contrast to what was seen in the earlier observations of people sitting, there were more people standing in the

Piazza della Signoria (1839) than in the Piazza della Repubblica (709), and this pattern was consistent for all time periods. The number of people standing in the Piazza della Repubblica gradually increased as the day progressed from 217 in the mornings to 239 in the afternoons to a high of 253 in the evenings. On the other hand, in the Piazza della Signoria, the number of people standing in the mornings were 515, a number that slightly increased to 560 in the afternoons and to a high of 764 in the evenings. Note that the difference between the number of people standing in the two piazzas was least in the mornings (298) and most in the evenings (511).

Table 8.8 and Figure 8.8 illustrate the percentage distribution of the people standing in the two piazzas as observed for the six days. In both piazzas, it was seen that there was a gradual increase in the percentages of standing people at rest. In the Piazza della Repubblica, there were 30.62% standing in the mornings, 33.7% in the afternoons and 35.68% in the evenings. On the other hand, in the Piazza della Signoria, there were 28.0% standing in the mornings, 30.45% in the afternoons and 41.55% in the evenings. Once again the difference, however, when considered by percentage between number of people standing in the two piazzas, was least in the mornings (2.62%) and most in the evening (5.87%).

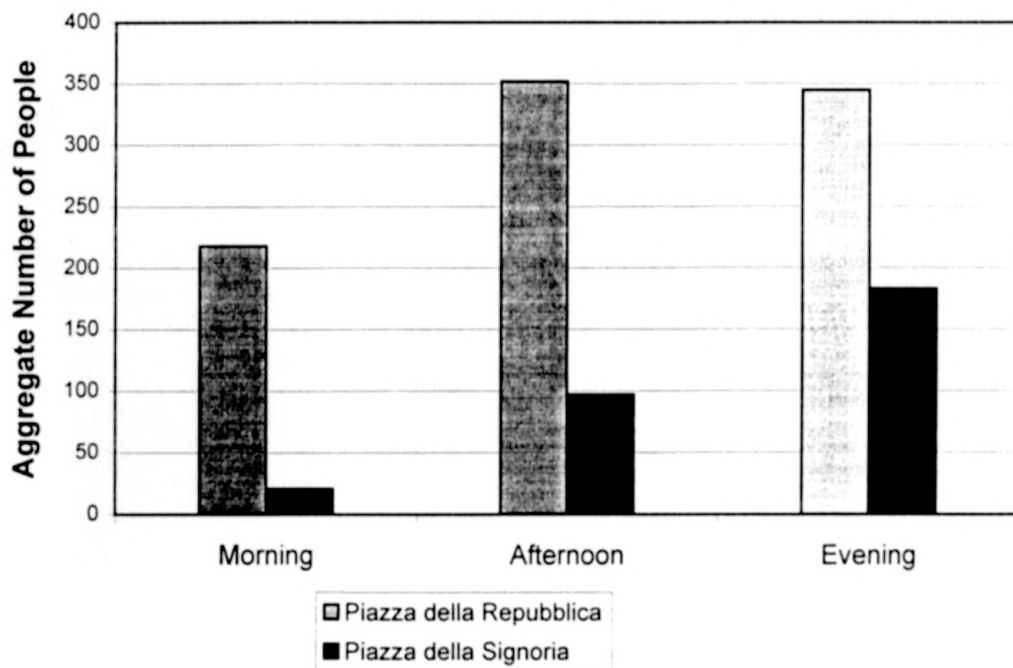
Overall, it may be said that in the Piazza della Repubblica there were fewer variations in the number of people sitting or standing during the three observation periods on each of the six days. However, in the Piazza della Signoria, there were significantly more people sitting in the evenings than in the mornings and it was the same for the number of people standing. In other words, the Piazza della Repubblica was relatively steady in use throughout the day whereas in the Piazza della Signoria it appeared that



**Table 8.5: Comparison of People Sitting in terms of Numbers**

|                         | Morning | Afternoon | Evening | Total |
|-------------------------|---------|-----------|---------|-------|
| Piazza della Repubblica | 218     | 352       | 345     | 915   |
| Piazza della Signoria   | 21      | 97        | 183     | 301   |
| Difference              | 197     | 255       | 162     | 614   |

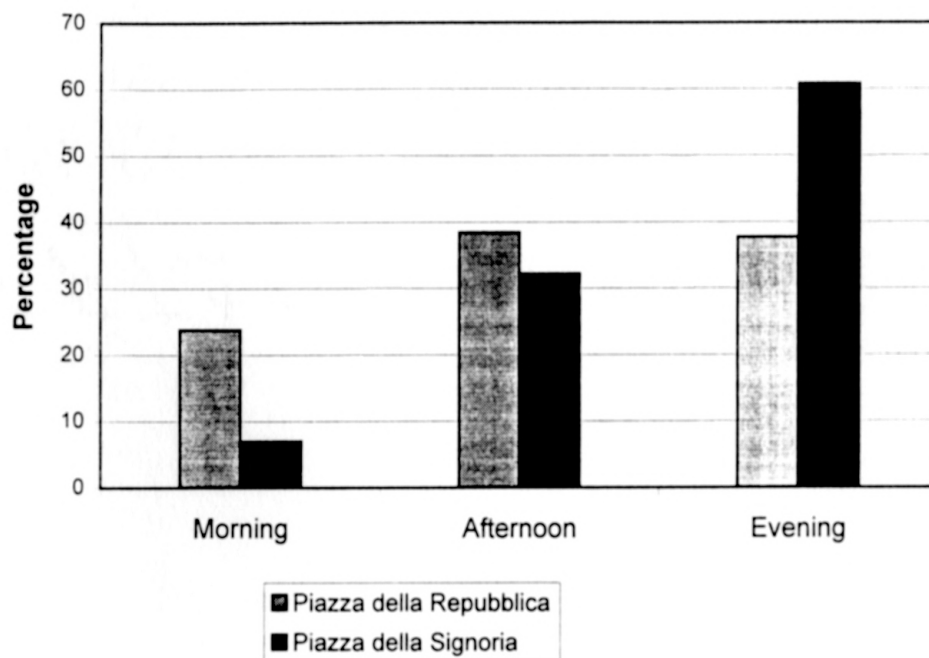
**Figure 8.5: Comparison of People Sitting in terms of Numbers**



**Table 8.6: Comparison of People Sitting in terms of Percentages**

|                         | Morning | Afternoon | Evening | Total |
|-------------------------|---------|-----------|---------|-------|
| Piazza della Repubblica | 23.82   | 38.46     | 37.72   | 100   |
| Piazza della Signoria   | 7.01    | 32.2      | 60.79   | 100   |
| Difference              | 16.81   | 6.26      | 23.07   |       |

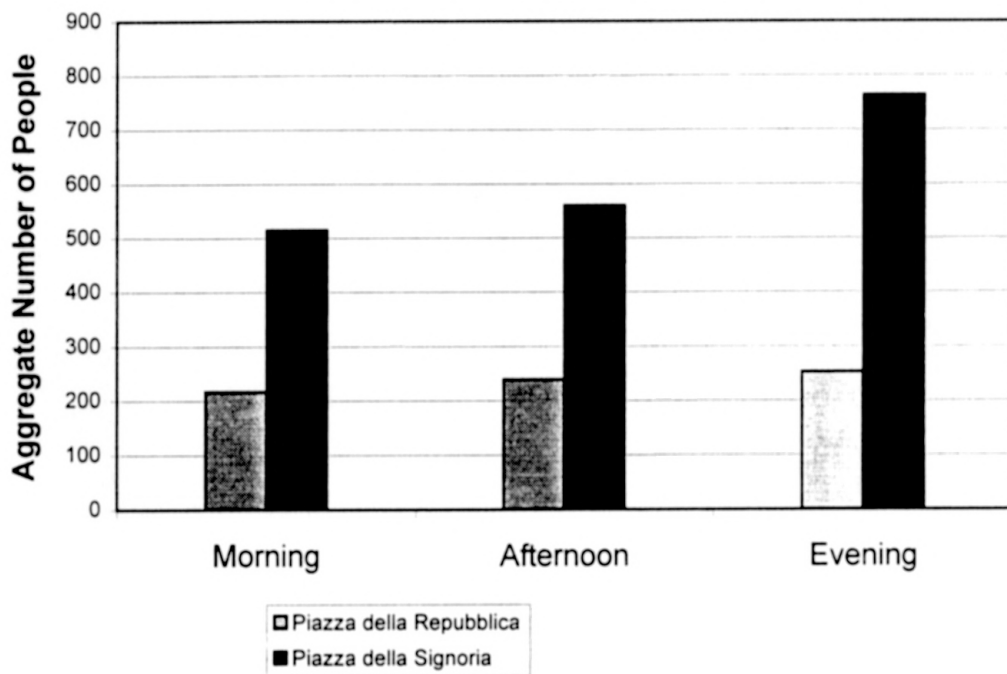
**Figure 8.6: Comparison of People Sitting in terms of Percentages**



**Table 8.7: Comparison of People Standing in terms of Numbers**

|                         | Morning | Afternoon | Evening | Total |
|-------------------------|---------|-----------|---------|-------|
| Piazza della Repubblica | 217     | 239       | 253     | 709   |
| Piazza della Signoria   | 515     | 560       | 764     | 1839  |
| Difference              | 298     | 321       | 511     | 1130  |

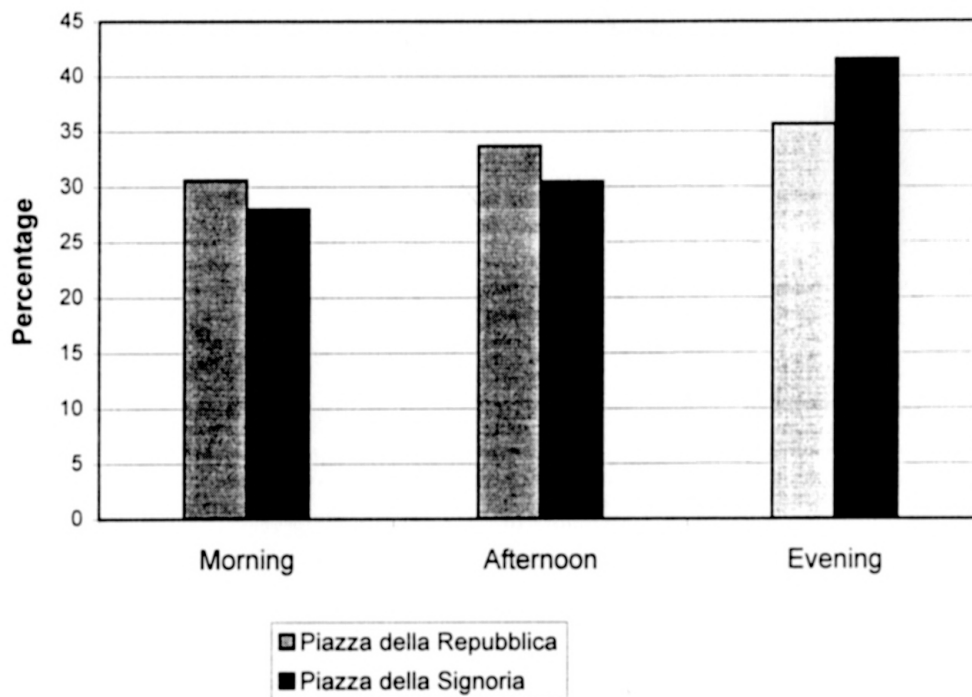
**Figure 8.7: Comparison of People Standing in terms of Numbers**



**Table 8.8: Comparison of People Standing in terms of Percentages**

|                         | Morning | Afternoon | Evening | Total |
|-------------------------|---------|-----------|---------|-------|
| Piazza della Repubblica | 30.62   | 33.7      | 35.68   | 100   |
| Piazza della Signoria   | 28      | 30.45     | 41.55   | 100   |
| Difference              | 2.62    | 3.25      | 5.87    |       |

**Figure 8.8: Comparison of People Standing in terms of Percentages**



there were more people either sitting or standing in the evenings than during mornings and afternoons.

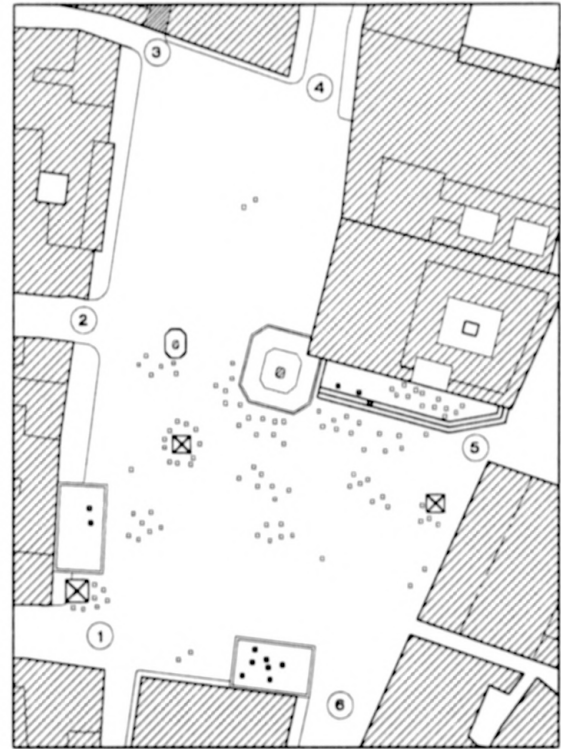
I now analyze the spatial pattern of people sitting versus people standing in the two piazzas to help me better understand the way people organize themselves in these spaces. Figures 8.9 - 8.12 illustrate the spatial pattern of people sitting and standing for Saturday and Thursday observations. Beginning with Figure 8.9, notice that in the Piazza della Signoria on Saturday, most users were standing and concentrated around the center stage of the piazza. Of the people who were sitting, most were patrons in the restaurants on the rim of the piazza and a few at the entrance steps to the Palazzo Vecchio. Note that the patrons observed as sitting in the restaurants were mostly there in the afternoon and evening.

On the other hand, as illustrated in Figure 8.10, in the Piazza della Repubblica on Saturday, there were people who were sitting and some who were standing during all observation periods. There were large concentrations of patrons sitting in the restaurants at the rim of the piazza during afternoon and evening, but there were others also who were present throughout the rest of the piazza. Also, it is worthwhile to note that throughout the observation times, users sat at the base of the statue of Abundanza.

Figure 8.11 illustrates people sitting and standing in the Piazza della Signoria on Thursday, which to a large extent had the same patterns as on Saturday, except for the fact that there were fewer people standing. On the other hand, Figure 8.12 (which illustrates people sitting and standing in the Piazza della Repubblica on Thursday), indicates almost similar patterns to those observed on Saturday. Thus, in summary, there were more people standing in the Piazza della Signoria on Saturday than on Thursday; on



MORNING



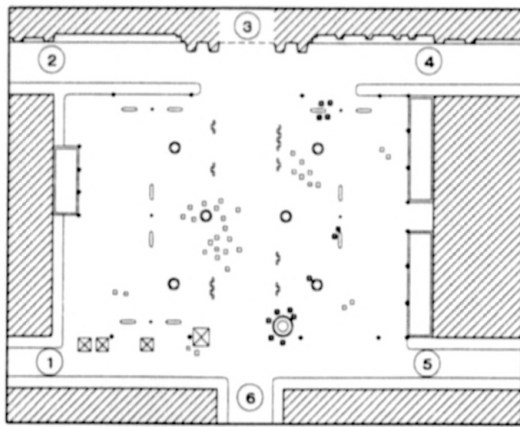
AFTERNOON



EVENING

| LEGEND |          |
|--------|----------|
| •      | SITTING  |
| ◦      | STANDING |

Figure 8.9: Total number of people sitting or standing in Piazza della Signoria on Saturday 3, January 1998, during the following time periods: Morning (9:00 - 9:20), afternoon (12:30 - 12:50) and evening (4:45 - 5:05)



MORNING



AFTERNOON



EVENING

| LEGEND |          |
|--------|----------|
| ●      | SITTING  |
| ■      | STANDING |

Figure 10: Total number of people sitting or standing in Piazza della Repubblica on Saturday 3, January 1998, during the following time periods: Morning (9:00 - 9:20), afternoon (12:30 - 12:50) and evening (4:45 - 5:05)



MORNING



AFTERNOON



EVENING

| LEGEND |          |
|--------|----------|
| •      | SITTING  |
| ○      | STANDING |

Figure 8.11: Total number of people sitting or standing in Piazza della Signoria on Thursday 8, January 1998, during the following time periods: Morning (9:00 - 9:20), afternoon (12:30 - 12:50) and evening (4:45 - 5:05)





MORNING



AFTERNOON



EVENING

| LEGEND |          |
|--------|----------|
| ■      | SITTING  |
| ●      | STANDING |

Figure 8.12: Total number of people sitting or standing in Piazza della Repubblica on Thursday 8, January 1998, during the following time periods: Morning (9:00 - 9:20), afternoon (12:30 - 12:50) and evening (4:45 - 5:05)

the other hand, in the Piazza della Repubblica there were similar distributions of people sitting and standing on both days, reinforcing the findings to this point that this piazza had steady users during all time periods and days.

### **Analysis by Activity Type**

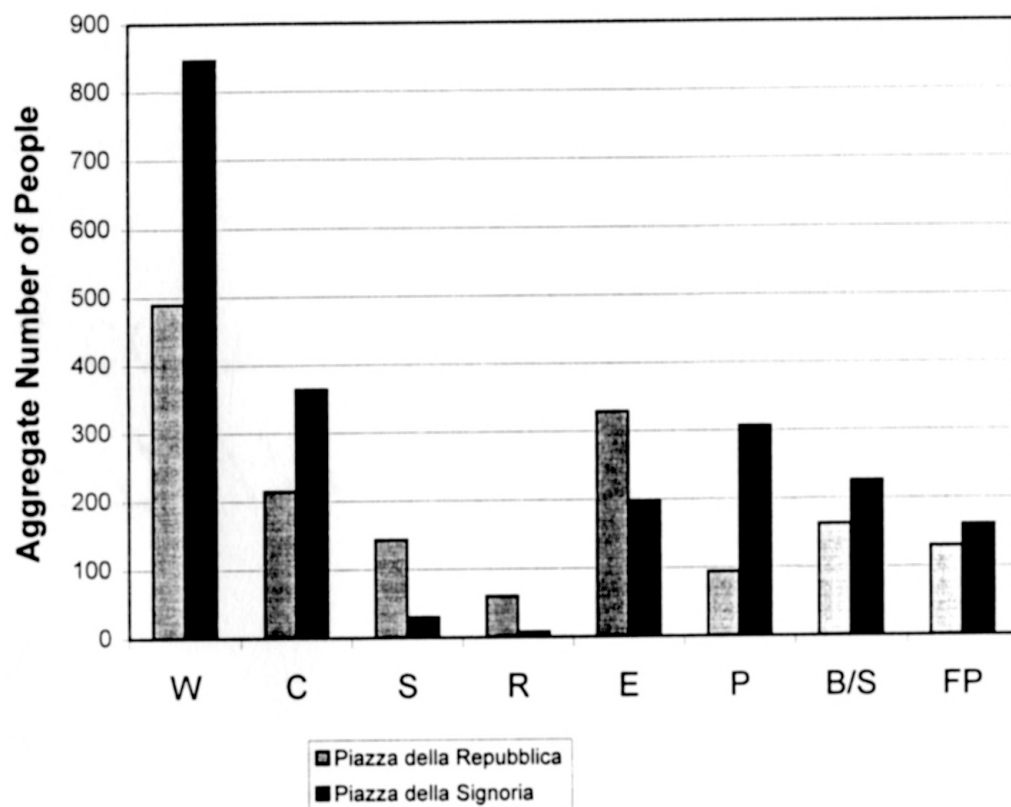
In this section, I analyze the behavioral patterns of people engaged in different activities as observed for the six days during all time periods. The intent is to gain a complete understanding of the activities and the functioning of the two piazzas. Mostly, people intentionally come into a piazza for the purpose of spending time. Sometimes there are people present by chance who just smoke or watch people. There are also people present, however, who pause as they move through the piazza and loiter for a brief time. Although these stops are brief, sometimes they are prolonged due to an encounter with another user—probably a friend or an acquaintance.

To begin this analysis of activity types, I look at the aggregate counts of people engaged in different activities. As already discussed earlier in chapter five, these activities were classified as: (1) watching; (2) conversing; (3) eating; (4) reading; (5) smoking; (6) photographing; (7) buying/selling, and; (8) feeding pigeons. Table 8.9 and Figure 8.13 illustrate the aggregate number of users at rest as classified by their activity types in the two piazzas for the six observation days. In the Piazza della Signoria, more than half of the total users were either watching or conversing (846 and 364 respectively). On the other hand, in the Piazza della Repubblica there were a little less than half of the users who were either watching or conversing (490 and 215 respectively). It is important to note that in both the piazzas there were significantly more people watching than

**Table 8.9: Comparison of People Engaged in Different Activity Types**

|                         | W   | C   | S   | R  | E   | P   | B/S | FP  | Total |
|-------------------------|-----|-----|-----|----|-----|-----|-----|-----|-------|
| Piazza della Repubblica | 490 | 215 | 143 | 60 | 329 | 94  | 163 | 130 | 1624  |
| Piazza della Signoria   | 846 | 364 | 30  | 8  | 198 | 307 | 226 | 161 | 2140  |

**Figure 8.13: Comparison of People Engaged in Different Activity Types**



| Legend |                 |
|--------|-----------------|
| W      | Watching        |
| C      | Conversing      |
| S      | Smoking         |
| R      | Reading         |
| E      | Eating          |
| P      | Photographing   |
| B/S    | Buying/ Selling |
| FP     | Feeding Pigeons |

conversing. Also, the ratio of people watching to people conversing—about 2:5--appears to be the same in both piazzas.

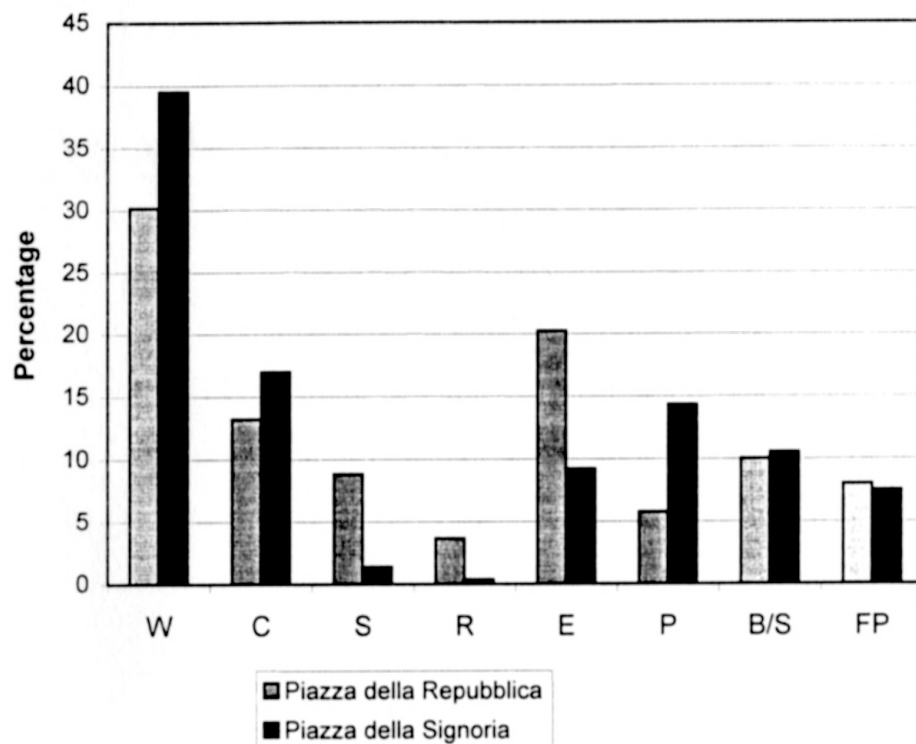
Of the other activities, it was noticed that there were more people smoking, reading and eating in the Piazza della Repubblica than in the Piazza della Signoria. On the other hand, there were more people photographing, buying/selling and feeding pigeons in the Piazza della Signoria than in the Piazza della Repubblica. For instance, there were 329 people eating in the Piazza della Repubblica as against 198 people eating in the Piazza della Signoria and, there were 307 people photographing in the Piazza della Signoria as against 94 people photographing in the Piazza della Repubblica. However, it may be noted that the activities that were dominant in the Piazza della Repubblica were more self-directed whereas the activities that were dominant in the Piazza della Signoria were more group-oriented.

Table 8.10 and Figure 8.14 show the percentage distribution of aggregate number of people at rest as classified by activity type. Overall, the percentages reflect the same patterns as seen in the aggregate numbers. Significant differences noted were that 39.53% of the users were watching in the Piazza della Signoria as compared to 30.17% of the users watching in the Piazza della Repubblica; similarly, 14.34% of the users were photographing in the Piazza della Signoria as compared to 5.78% of the users photographing in the Piazza della Repubblica. On the other hand, 20.25% of users were eating in the Piazza della Repubblica as compared to 9.25% of the users eating in the Piazza della Signoria; 3.69% of the users reading in the Piazza della Repubblica as compared to 0.37% of the users reading in the Piazza della Signoria; and 8.84% of the users were smoking in the Piazza della Repubblica as compared to 1.4% of the users

**Table 8.10: Comparison of People Engaged in Different Activity Types**

|                         | W     | C     | S    | R    | E     | P     | B/S   | FP   | Total |
|-------------------------|-------|-------|------|------|-------|-------|-------|------|-------|
| Piazza della Repubblica | 30.17 | 13.23 | 8.84 | 3.69 | 20.25 | 5.78  | 10.03 | 8.01 | 100   |
| Piazza della Signoria   | 39.53 | 17    | 1.4  | 0.37 | 9.25  | 14.34 | 10.55 | 7.53 | 100   |

**Figure 8.14: Comparison of People Engaged in Different Activity Types**



| Legend |                 |
|--------|-----------------|
| W      | Watching        |
| C      | Conversing      |
| S      | Smoking         |
| R      | Reading         |
| E      | Eating          |
| P      | Photographing   |
| B/S    | Buying/ Selling |
| FP     | Feeding Pigeons |

smoking in the Piazza della Signoria. The rest of the activities were almost similar in proportions in both the piazzas.

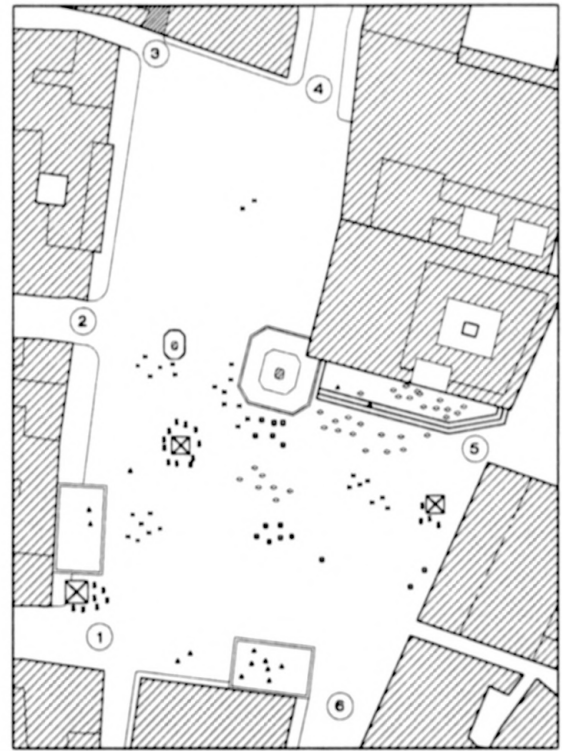
As illustrated in Figures 8.15 – 8.18, I now analyze the spatial pattern of people as delineated by their activity types in the two piazzas for the two days of observation-- Saturday and Thursday. Notice that the three self-directed activities—eating, smoking and reading—have been combined into one group, in order to simplify the representation on the maps.

Looking at Figure 8.15, in the Piazza della Signoria on Saturday, one notices that the users near the Palazzo Vecchio were mostly engaged in watching and photographing. However, on the peripheries there were some other users either standing by themselves, conversing or smoking, and there were yet others eating in the restaurants on the rim of the piazza. On the other hand, as illustrated in Figure 8.16, in the Piazza della Repubblica on Saturday, there were more users present throughout the piazza who were either reading, conversing, smoking or eating. In addition, there were a few users who were engaged in buying and selling, but this activity prevailed mostly at the four kiosks that were in the southeastern end of the piazza.

As illustrated in Figure 8.17, the pattern of users engaged in different activities in the Piazza della Signoria on Thursday was to a large extent similar to the pattern on Saturday. On the other hand, Figure 8.18 (which illustrates users engaged in different activities in the Piazza della Repubblica on Thursday), indicates that there were fewer people engaged in buying and selling as compared to people buying and selling on Saturday. However, the rest of the patterns were similar to those on Saturday. Also, the spatial relationships of the different activities with the physical setting were similar



MORNING



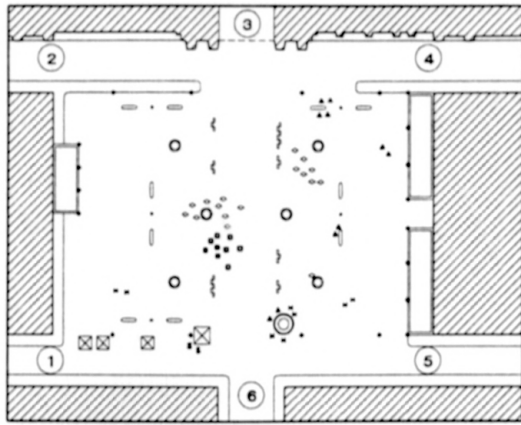
AFTERNOON



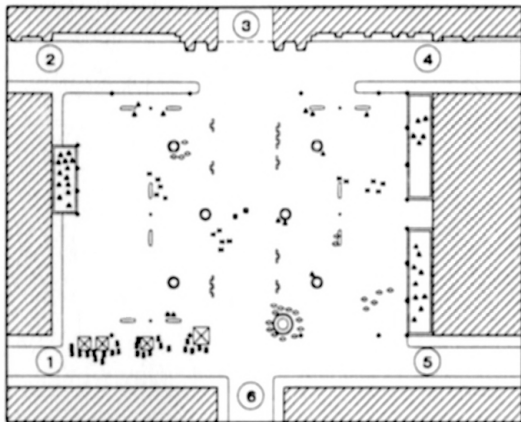
EVENING

| LEGEND |                        |
|--------|------------------------|
| •      | WATCHING               |
| •      | CONVERSING             |
| •      | EATING/SPOKING/READING |
| •      | PHOTOGRAPHY            |
| •      | FEEDING REGIONS        |
| •      | BUYING/SELLING         |

Figure 8.15: Total number of people involved in different activities in Piazza della Signoria on Saturday 3, January 1998, during the following time periods: Morning (9:00 - 9:20), afternoon (12:30 - 12:50) and evening (4:45 - 5:05)



MORNING



AFTERNOON



EVENING

| LEGEND |                        |
|--------|------------------------|
| ○      | WATCHING               |
| ×      | CONVERSING             |
| ▲      | EATING/SMOKING/READING |
| ■      | PHOTOGRAPHY            |
| ◊      | FEEDING REGION         |
| •      | BUYING/SELLING         |

Figure 8.16: Total number of people involved in different activities in Piazza della Repubblica on Saturday 3, January 1998, during the following time periods: Morning (9:00 - 9:20), afternoon (12:30 - 12:50) and evening (4:45 - 5:05)





MORNING



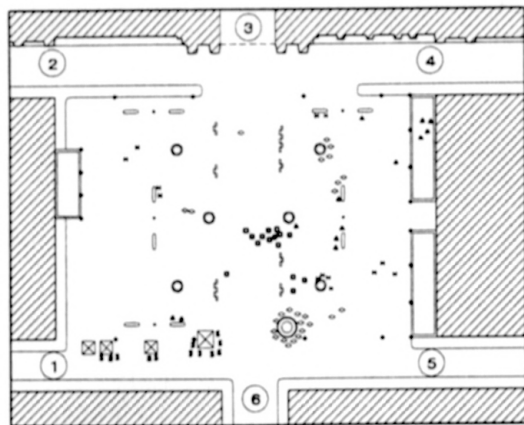
AFTERNOON



EVENING

| LEGEND |                         |
|--------|-------------------------|
| ○      | WATCHING                |
| ×      | CONVERSING              |
| △      | EATING/DRINKING/READING |
| ■      | PHOTOGRAPHY             |
| □      | FEEDING REGIONS         |
| ■      | BUYING/SELLING          |

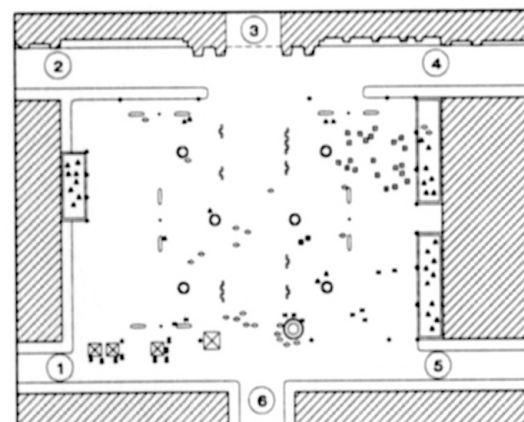
Figure 8.17: Total number of people involved in different activities in Piazza della Signoria on Thursday 8, January 1998, during the following time periods: Morning (9:00 - 9:20), afternoon (12:30 - 12:50) and evening (4:45 - 5:05)



MORNING



AFTERNOON



EVENING

| LEGEND |                        |
|--------|------------------------|
| •      | WATCHING               |
| •      | CONVERSING             |
| •      | EATING/SMOKING/READING |
| •      | PHOTOGRAPHY            |
| ○      | FEEDING REGIONS        |
| •      | BUYING/SELLING         |

Figure 8.18: Total number of people involved in different activities in Piazza della Repubblica on Thursday 8, January 1998, during the following time periods: Morning (9:00 - 9:20), afternoon (12:30 - 12:50) and evening (4:45 - 5:05)

during all observation periods in both piazzas, which means that there were no variations throughout the day.

In summary, it was found that there were more people engaged in self-directed activities such as eating, smoking and reading in the Piazza della Repubblica and there were more people watching and photographing in the Piazza della Signoria. Having looked at the variations, I will now proceed to conclusions with an attempt to explain some of the behaviors seen in the above descriptions and then interpret the two piazzas in terms of introvert and extrovert open spaces.

## **CHAPTER 9**

### **INTERPRETING THE TWO PIAZZAS: A CONCLUSION**

After exploring the two piazzas with respect to their behavior, I now discuss the similarities and differences and then explain some of the resulting discoveries based on the findings of chapters 7 – 9. Later in this chapter, I will compare the two piazzas to see if they confirm the extroverted-introverted types of open spaces as described in chapter 1. Finally, I will critique my piazza findings based on the research and design literature pertaining to “sociability” as reviewed in chapter 2.

#### **Summarizing the Aggregate Counts of the Two Piazzas**

In this section, I will present the summarized results of the analysis of the two piazzas by discussing some of their similarities and differences. Beginning with the overall aggregate counts, I found that both piazzas were well used, as there were at least 200 users on each day during each observation. However, there were always more people in the Piazza della Signoria than in the Piazza della Repubblica and this difference was the greatest on weekend days and least on Monday. In other words, in the Piazza della Signoria there were daily variations in the number of users whereas, in the Piazza della Repubblica, there was a more steady number of users on all six days. Also, use was more steady throughout the day in the Piazza della Repubblica as compared to the Piazza della Signoria, although, in both piazzas, there were always fewer people in the mornings, which might have been because of weather conditions.

On considering aggregate counts of people entering into the two piazzas, it was once again found there were fairly large numbers coming into each piazza with an average of at least 200 people entering during each observation period at all six nodes in both piazzas. Another similarity was that the greatest number of people entered both piazzas on Friday. Among differences between the two piazzas in terms of people entering, there were more users coming into the Piazza della Signoria than into the Piazza della Repubblica on all observation days except on Monday, probably because the museums and galleries around were closed on this day. Further, there was no specific pattern that could be established for the six days in terms of aggregate number of people entering Piazza della Signoria because each days' count varied. On the other hand, in the Piazza della Repubblica, there more people entering the piazza on Friday, Saturday, Sunday and Tuesday (which were either a weekend day or a holiday) and there were fewer people entering on Monday and Thursday (which were work days).

In regard to daily variations, there were fewer people entering in the mornings than afternoons and evenings in both piazzas. However, the most noticeable difference was that there were about same number of people entering into the Piazza della Signoria in the afternoon and evening after a lower count in the morning, whereas, people entering into the Piazza della Repubblica increased as the day progressed from morning to evening.

Next, in considering the aggregate counts of people passing through the piazzas, it was found that there was a reversal from the entering trends seen. Overall, there were fewer people passing through the Piazza della Signoria than through the Piazza della Repubblica. Also, the number of people passing through the Piazza della Signoria,

increased as the day progressed whereas, in the Piazza della Repubblica, there were more people in the evenings than in the mornings and afternoons. However, importantly, it was found that there were a few more people passing through the Piazza della Repubblica in the mornings than in the afternoons. Otherwise, in regard to users passing through, there were few differences for the two piazzas. Of similarities between the two piazzas in terms of people passing through, the greatest contrast was on Friday. Otherwise, there was not much variation in the patterns of people passing through the two piazzas.

In summary, in regard to the aggregate counts it may be said that, overall, there was a user regularity and thus few daily or weekly variations found in the Piazza della Repubblica. On the other hand, in the Piazza della Signoria, there were some variations between weekdays and weekend days and there were also some variations in the daily observations. It is also important to note that there were more people passing through the Piazza della Repubblica than through the Piazza della Signoria whereas, on the other hand, there were more people using and entering the Piazza della Signoria than the Piazza della Repubblica.

### **Summarizing the Spatial Patterns and Flow Diagrams of the Two Piazzas**

I now consider the analysis of spatial patterns of people at rest in the two piazzas as observed for the two featured days—Saturday and Thursday. One of the similarities between the two piazzas was that there were more users in the morning on Thursday as compared to Saturday and this may have been because Thursday was a workday and Saturday was a weekend day. However, in the Piazza della Signoria, overall, there were more people near the Palazzo Vecchio and the statue of Neptune on Saturday than on

Thursday. On the other hand, in the Piazza della Repubblica, people were evenly spread throughout the piazza on both days during most observation periods suggesting a more regular user flow into the piazza.

As regards pedestrian flows in the two piazzas, there were some patterns which were dominant at all times. In the case of Piazza della Signoria, the one path that was most dominant was in relation to the Palazzo Vecchio, and in the case of the Piazza della Repubblica the dominant path ran across the middle of the piazza, joining two busy streets. As for the differences in flow patterns, it may be said that the Piazza della Repubblica was better used than the Piazza della Signoria because at most times observed there were at least twenty people passing through all six nodes of the Piazza della Repubblica. On the other hand, in the Piazza della Signoria, it was found that there were two particular nodes that were not busy on either of the featured two days. Further, it was seen that in the Piazza della Signoria, overall, there were greater pedestrian flows on Saturday than on Thursday whereas, in the Piazza della Repubblica, there was greater pedestrian flow on Thursday than on Friday.

In summary, it can be said that people coming into the Piazza della Signoria were more concentrated and directed towards the Palazzo Vecchio and the statue of Neptune, suggesting that the architectural and historical significance of the space may contribute to this behavior. On the other hand, in the Piazza della Repubblica it was seen that there were fairly even distributions of people as well as flows throughout the piazza, suggesting that there were more regular users. These two piazzas also lent different roles as open spaces to the city—one as a prominent tourist attraction and the other as a more utilitarian space.

## **Summarizing the Variations in Activities in the Two Piazzas**

In this section, I present an overview of the findings of the analysis of user variations in the observations of the two piazzas. Beginning with the age, it was found that there were more middle-aged people in both piazzas as observed for the six days. Also, proportionately, there was a similar percentage of teenagers in both piazzas. However, by numbers there were more teenagers in the Piazza della Signoria than in the Piazza della Repubblica. In addition, both by aggregate counts and by percentage, there were more middle-aged users in the Piazza della Signoria than in the Piazza della Repubblica. On the other hand, there were more elderly users in the Piazza della Repubblica than in the Piazza della Signoria.

In considering group size, once again, there were more users in groups in both piazzas as observed for the six days during all observation times. However, overall, there were more users in groups and clusters in the Piazza della Signoria than in the Piazza della Repubblica. In contrast, there were more users in pairs and singles in the Piazza della Repubblica than in the Piazza della Signoria.

From the analysis of people sitting versus standing, it was found that there were relatively fewer people sitting in the mornings in both piazzas. Further, in both piazzas there was a significant number of patrons sitting at restaurants located along the piazzas' rims. However, overall, there were more people sitting in the Piazza della Repubblica than in the Piazza della Signoria. Considering, however, that there were very few sitting opportunities available for users in the Piazza della Signoria, it is not possible to conclude that users preferred standing over sitting in this piazza



In contrast to the findings of people sitting in the two piazzas, it was seen that there were significantly more people standing in the Piazza della Signoria than in the Piazza della Repubblica as observed for the six days during all time periods. This difference was more prominent in the evening observations and least in the mornings. As regards the spatial patterns of people sitting and standing, again, it was seen that there were more people standing near the Palazzo Vecchio and the statue of Neptune whereas the people sitting were mostly in the restaurants along the piazza's rim. In the Piazza della Repubblica, however, there were some who were sitting and some who were standing; both groups were present throughout the piazza. Further, it was noted that there were fewer people standing in the Piazza della Signoria on Thursday as compared to Saturday, whereas in the Piazza della Repubblica, there was a fairly even mixture of people sitting and standing on both days.

Finally, I now review the variation in the activity types of the two piazzas as observed for the six days during all time periods. It was found that there were significantly more people watching and conversing in both piazzas. In addition, the number of people watching was always more than the number of people conversing; for both piazzas the ratio was approximately 2:5. Taking into account all activities together, it was seen that there were more people watching and photographing in the Piazza della Signoria. On the other hand, in the Piazza della Repubblica, there were more people eating, reading and smoking as compared to other activities.

In terms of spatial patterns, the stronger activity types in the Piazza della Signoria were located nearer to the Palazzo Vecchio and the statue of Neptune. In the Piazza della Repubblica, however, the stronger activity types—eating, reading, smoking and

conversing—were present throughout the piazza. There were no noticeable differences in the spatial patterns between Saturday and Thursday in the Piazza della Signoria, but, in the Piazza della Repubblica, there were fewer people buying and selling on Thursday as compared to Saturday.

In summary, it was seen that there were more middle-aged people in the Piazza della Signoria, which had most users in groupings and clusters standing near the Palazzo Vecchio and the statue of Neptune. Of all the activities that were observed in the Piazza della Signoria, it was found that most people were either watching or photographing. On the other hand in the Piazza della Repubblica, there were more middle aged people than the other two age groups, but, there was still a fairly large number of elderly people using this piazza. Overall, in the Piazza della Repubblica there were more users in singles and pairs and there were more people sitting than standing. Of all the activities observed, there were proportionately more people engaged in the self-directed activities in the Piazza della Repubblica than in the Piazza della Signoria.

### **Similarities and Differences in the Two Piazzas**

After reviewing the results of the analysis of the two piazzas presented in chapters 6 - 8, I now summarize the two piazzas' similarities and differences, which are illustrated in Tables 8.1 and 8.2 and discussed in greater detail below. As Table 8.1 indicates, both piazzas were well used, as there were a fairly large number of people entering, passing through and using both piazzas during all six days of observation. This may have been because the observations were made during the holiday period, a time during which Florence, known for its rich social history and architectural significance, attracts many tourists. However, since it was the winter season during the observations, the

temperatures were relatively cold—a fact that may explain why there were fewer people in the mornings than during other two observation periods.

As Table 8.1 also indicates, for both piazzas, the adjacent restaurants were fairly well occupied during the afternoons and the evenings but with very few patrons in the mornings. Once again this may have been because of the weather conditions and the fact that all the restaurants opened late in the mornings with the exception of a few cafes adjacent to Piazza della Repubblica, which opened early for their morning coffee patrons. It was also observed that Friday was the busiest day for both piazzas as compared to the other days of observation, as there were significantly larger numbers of people entering, passing through and using the piazzas on this day. This partly may have been because Friday marked the beginning of a weekend, and people preferred to spend time outside their homes. There were also similarities between the two piazzas in regard to the user types and activities. First, it was found that there were more middle-aged users in both piazzas than young and older people. Also, there were more people in larger groups in both piazzas and the largest number of users in both piazzas was *watching* as compared to any other activity, again perhaps because many of the users in both piazzas were tourists.

**Table 8.1: Similarities Between the Two Piazzas**

- Both piazzas were well used
- There were fewer people in the mornings
- Restaurants were fairly occupied in the afternoons and evenings
- Greatest entry flows on Friday
- Greatest number of users were middle-aged
- Greatest number of people in groupings
- Greatest number of people watching than any other activity

**Table 8.2: Differences Between the Two Piazzas**

| Piazza della Signoria  | Piazza della Repubblica  |
|--|--|
| <ul style="list-style-type: none"><li>• Overall more people entering and using this piazza</li><li>• Overall less people passing through this piazza</li><li>• No clear user pattern for the six days of observation</li><li>• Overall, greater number of users in the afternoons and evenings</li><li>• Spatial concentration of users towards Palazzo Vecchio</li><li>• Stronger pedestrian flow in relation to Palazzo Vecchio</li><li>• Two nodes not used very frequently for passing through</li><li>• Greater pedestrian flows on Saturday than on Thursday</li><li>• More middle-aged people</li><li>• More users in groupings and clusters</li><li>• More users standing than sitting</li><li>• More users watching and photographing</li></ul> | <ul style="list-style-type: none"><li>• Overall less people entering and using this piazza</li><li>• Overall more people passing through this piazza</li><li>• Consistency among users on weekend days and weekdays</li><li>• Overall, similar number of users during all times of the day</li><li>• More or less even spatial distribution of users throughout the piazza</li><li>• Strong pedestrian flow linking two busy streets</li><li>• All nodes used fairly regularly for passing through</li><li>• Greater pedestrian flows on Thursday than on Saturday</li><li>• More or less even distribution of users of all age groups</li><li>• More users in singles and pairs</li><li>• More users sitting than standing</li><li>• More users eating, smoking and reading</li></ul> |

I next consider contrasts in the two piazzas as summarized in table 8.2. First, it was seen that overall, there were more users in the Piazza della Signoria than in the Piazza della Repubblica as observed for the six days. Similarly, there were more people

entering the Piazza della Signoria than the Piazza della Repubblica. However, in the case of people passing through the two piazzas, there was a greater flow in the Piazza della Repubblica than in the Piazza della Signoria. In regard to the aggregate counts in the Piazza della Repubblica, it was found that there was consistency among the users on weekend days and weekdays. On the other hand, in the Piazza della Signoria, there was no clear pattern for the six days of observation. Further, it was noticed that, in the Piazza della Signoria, there was for the most part a greater number of users in the afternoons and evenings as compared to more or less even distribution of users during all times of day in the Piazza della Repubblica.

In regard to the spatial distribution of users in the two piazzas, in the Piazza della Signoria, there was a concentration of users towards the Palazzo Vecchio and the statue of Neptune, whereas in the Piazza della Repubblica, there was a more or less even spacing of users throughout the piazza. Next, in regard to pedestrian flows, it was seen that in the Piazza della Signoria, there was a strongest flow in relation to the Palazzo Vecchio. On the other hand, in the Piazza della Repubblica, the strongest flow in this piazza served as a link between two busy streets. Further, in the Piazza della Signoria, there were two nodes not used frequently for passing through, whereas, in the Piazza della Repubblica, all nodes were used fairly regularly for passing through. In addition, it was found that, in the Piazza della Signoria, the greater pedestrian flows were on Saturday rather than Thursday, whereas in the Piazza della Repubblica, the greater pedestrian flows were on Thursday rather than Saturday. This difference was important because of the fact that Saturday was a weekend day and Thursday was a work day.

Finally, there were also some differences between the two piazzas in regard to user types and activities. In the Piazza della Signoria, there were significantly more users in the middle-aged group whereas, in the Piazza della Repubblica, there was more or less an even number of users in all age groups. In the Piazza della Signoria, there were more people in groupings and clusters whereas, in the Piazza della Repubblica, there were more users in pairs and singles. Also, there were more people standing than sitting in the Piazza della Signoria whereas, in the Piazza della Repubblica, there were more people sitting than standing. I regard to activity types, in the Piazza della Signoria, there were more people watching and photographing whereas, in the Piazza della Repubblica there were more people eating, smoking, and reading.

### **The Two Piazzas as Extroverted and Introverted Spaces**

From the previous section, one realizes that there were more differences than similarities between the two piazzas. In this section, I review some of the major differences identified to see if the two piazzas exemplify, respectively, the extroverted and introverted types of open space, described in chapter 1.

The reader will remember that the extroverted open space is, first of all, distinguished by its location, which acquires high visibility and meaning by harboring some significant meaning of the community at large. On the other hand, the introverted open space is not as conspicuous visually, and the emphasis is on an ordinary place important in the everyday lives of ordinary people, mostly locals. In this sense, the introverted open space is best known through prolonged, regular experience of that place.

Drawing on the summarized differences identified in the previous section, I now describe the specific qualities of the two piazzas which I hope will demonstrate that the Piazza della Signoria is an extroverted space while the Piazza della Repubblica is an introverted space. First, as Table 8.2 indicates, it was found that the Piazza della Signoria in its physical setting is very prominent visually. This is so because the Palazzo Vecchio and the statue of Neptune endow the piazza with strong architectural and historic meaning. On the other hand, in the Piazza della Repubblica, the space itself endows the piazza with meaning as there was greater regularity of uses and users in the piazza. Further, there were more elderly users and people engaged in self-directed activities, signifying that the piazza space itself was one of the important reasons for lending meaning to its users.

Similarly, it may be said that the Piazza della Signoria was more conspicuous architecturally and more historically prominent because it was seen that the number of users coming into this piazza decreased whenever the museums and galleries in the surroundings were closed. On the other hand, in the Piazza della Repubblica, even though there was no notable attraction, there were consistently large numbers of users coming into the piazza who were more regular and steady during all observation times.

It may also be said that the Piazza della Repubblica worked in a utilitarian way, as there were large number of users regularly sitting in the piazza. In the Piazza della Signoria, in contrast, there were a greater number of users coming into the piazza in spite of the fact that there were not many sitting opportunities. In other words, it may be said that the Piazza della Signoria draws users because of its public significance as an important symbol of Florence. For the same reason, it may be said that the Piazza della

Signoria is more a “space” than a “place”, whereas the Piazza della Repubblica is more a “place” than a “space”.

| <b>TYPES OF URBAN OPEN SPACES: EXTROVERTED Vs INTROVERTED</b>   |  |
|---|--|
| Extroverted Open Spaces   | Introverted Open Spaces  |
| <ul style="list-style-type: none"> <li>• More prominent visually</li> <li>• Buildings / Artworks endowing the piazza with meaning</li> <li>• More conspicuous architecturally</li> <li>• More historically prominent</li> <li>• More “monumental”</li> <li>• More “space” than a “place”</li> <li>• Broader variations in uses and users</li> </ul> | <ul style="list-style-type: none"> <li>• Less prominent visually</li> <li>• Space endowing the piazza with meaning</li> <li>• Less conspicuous architecturally</li> <li>• Less historically prominent</li> <li>• More “utilitarian”</li> <li>• More “place” than a “space”</li> <li>• More regularity of uses and users</li> </ul> |

Table 8.3: Differences between the two types of open spaces: extroverted vs. introverted.

Table 8.3 summarizes the broad qualities of the two types of open spaces, based on interpretations of my observations of the Piazza della Signoria and the Piazza della Repubblica. Overall, it can be said that the Piazza della Signoria was more of the extroverted type of open space because of its history and the presence of the Palazzo Vecchio and the statue of Neptune. There were many users in larger groups and they were observed to be watching and photographing which means that the architectural and historical significance of the place was an important motivation for the users to come to the piazza. On the other hand, the Piazza della Repubblica was more of the introverted type of open space because there were more users engaged in self directed activities—eating, smoking and reading—and there was greater regularity among aggregate counts



and pedestrian flows, into and through the piazza. In addition, there were fairly large number of young and old people using this piazza, signifying that the Piazza della Repubblica catered by far to most of the needs of its users. Also, the notion that the Piazza della Repubblica was more of the introverted open space is strengthened by the fact that there was more regularity of use and users with respect to the activity types.

## CONCLUSIONS

From the analysis above, it has been found that the Piazza della Signoria was more of the extroverted kind of urban open space and the Piazza della Repubblica was more of the introverted kind. It is important for architects and designers to recognize this difference because, conventionally, most people responsible for designing public spaces have most often emphasized a formalist approach to urban design where the concern is the physical, spatial and architectural elements of the plaza. In recent years, however, researchers like Jane Jacobs (1961), Ian Bentley (1985), William Whyte (1980), Clare Cooper Marcus and Carolyn Francis (1986) have sought to understand the behavioral and experiential dimensions of plaza design, particularly the question of how architects and landscape architects can generate sociable open spaces--i.e., spaces that become urban gathering places for a wide range of individuals and groups.

This thesis suggests that there are different subtypes of urban social spaces—what I have called introverted and extroverted. Clearly, most open spaces share both extroverted and introverted qualities. In designing a new open space, therefore, it is important to generate a plan that will evoke the quality that is intended for the open space. For example, when designing a public place which attracts people from greater

distances and in greater variety (e.g., for tourists), then a greater emphasis might be placed on conceiving a design that supports qualities of an extroverted space. On the other hand, if there is a requirement for a public space for a local neighborhood, then the emphasis should be on designable qualities that support an introverted space.

As discussed in the literature review, Whyte found a rhythm in plaza activity with respect to daily and weekly use. In the Piazza della Repubblica there was greater consistency in the distribution of people, and much of the piazza activity followed a more regular pattern than in the Piazza Della Signoria. Therefore, when designing introverted open spaces there should be more emphasis on providing better amenities in the space so that local people return more often and use the place regularly. Here, Whyte's emphasis on a variety and range of seating becomes important and applicable.

In contrast, in the Piazza della Signoria, there were a great number of users, but they were concentrated towards the Palazzo Vecchio and the statue of Neptune. This palazzo piazza experience, therefore, involved not only visual experience but also motion, smell, hearing and touch. Therefore, in designing extroverted open spaces more emphasis should be on richness—the quality described in Responsive Environments that increases the sensual experiences of the users. Further, there should be an emphasis on generating foci of interest that emphasize cultural and historical themes with which tourists can identify.

Having discussed the two piazzas as different open spaces based on their physical and behavioral qualities it would be worthwhile to extend this study for further research. In this regard, it can be said that a thorough descriptive study, which takes into consideration more parameters and their interrelationships, would provide a better ground

for a complete understanding of plaza behavior. Further, it is also important to develop design guidelines that would promote extrovert-introvert character in the piazzas based on the specific design requirements. However, while doing so, it would be meaningful to address the growing needs of a city, which would cater to larger variety of users, which would also increase the potential for use of public spaces.

In summary, our urban open spaces are the matrix of the two-fold spaces—extroverted and introverted. It is largely within them that we can find for ourselves these variegated experiences which make life in a city creative and stimulating. It is the life of the streets and the plazas, the great parks and the civic spaces and the dense activity and excitement of the shopping areas. This life is mostly out in the open, where crowds gather and people participate in the exciting urban interrelationships, which they seek as social human beings. It is the life of sidewalk cafes and museums and water front activities--the city, bustling active and exciting.

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