# CHAPTER 1: INTRODUCTION

From 'Pensioners Paradise' to 'Silicon Valley' or from 'Garden City' to 'Garbage City', the city of Bangalore, India has evolved considerably. Having its origin in a medieval mud fort (built in 1537 AD) it soon became Tipu Sultan's strong hold in the Deccan by the late 1700's. Located strategically in the middle of the Deccan Plateau and peninsular India at 900 meters above sea level, it has a salubrious climate and has attracted people from all over the country and now the world. From Tipu Sultan's silk industry, to post independence aircraft industry, to today's Information Technology industry, Bangalore has been rich intellectually and economically. In short Bangalore has been fertile ground for trade and industry, research and educational institutions, floriculture and biotechnology, and as a destination for tourists and retirees. Add to this Bangalore's colonial past, which saw the establishment of a cantonment (a colonial military settlement) next to the historic city (Indian city) and you get an interesting blend of east and west, which even today is reflected among the older citizens of the city and some of the older neighbourhoods.

Though rapid urbanization has led to these 'two cities' blending into one, the urban fabric or structure of each is still perceivably different. Hence the volumetric perception of the public spaces, apart from the architecture is different. The so-called 'native town' (Indian city) or *Pete* (or other wise simply known as 'city' or 'city area') is very organic in structure with narrow winding streets dating from a time before the automobile. The neighbourhoods were organized according to the trade being carried out, hence the weavers had their quarters the ironsmiths their own and likewise the other trades. This can still be seen in some areas. A mixed-use development took place with shops and small workshops on the ground floor and houses on the upper floor. The 'colonial city' or cantonment (otherwise also know as the Civil and Military station, CMS) on the other hand was made up primarily of the cantonment proper, a main street and residential suburbs. The town had a loosely knit structure with large bungalows and parks. Over the years many of these bungalows were subdivided and new houses were built. Some of the larger properties were bought by developers, who built high-rise apartments and office buildings. Hence the historic colonial city has been lost and replaced by a Central Business District (CBD). Some bungalows still remain in parts of the old 'colonial city', dwarfed by near by high-rise buildings.

One of the interesting aspects of Bangalore is its public life and the use of public space. Though having a pleasant year round climate and certain socio-cultural aspects (for example the desire to promenade and the love for open spaces that Bangaloreans have), which could have contributed to a plaza type public space, such a space did not evolve. The *maidan* (an open ground similar to the commons) is the closest such space and it is still used in the same way as 100 years ago as well as the age-old street market/mall and public garden/park. These were prevalent both in the colonial city as well as the native town and continue to be used in the same way today. Another public space type common to both the CMS and the *Pete* was the market or bazaar. This was usually a large building surrounded by streets on all four sides over looking a square and having a large central courtyard. Many of Bangalore's markets still function in the same way and are important public spaces.

The Indian city had temples and parks and lakes (man-made lakes, although some are natural lakes). Also ponds associated with the temple or other communal buildings existed in the Indian city. These continue to serve as public spaces though they are slowly loosing relevance as public spaces especially for teenagers. The colonial town on the other hand had the main street with shops and restaurants and gardens. Many of the larger streets developed into major commercial and entertainment areas. B.V.K. Iyengar Road and Chickpete Road became the retail hub of the native town. Like wise M.G. Road, Brigade Road and Commercial Street in the colonial town evolved into important shopping, recreation and office areas. Over time Bangalore's streets

developed into primary public spaces accommodating businesses, shops and entertainment uses. Mahatma Gandhi Road (M.G. Road) became the centre of commercial and entertainment activity and the heart of Bangalore. It continues to serve the city as a space to stroll in the evenings, to see and be seen.

However the quality of public spaces in Bangalore has deteriorated over the years due to several reasons. Rapid development, increase in traffic, encroachment into public spaces and lack of management of public spaces have all contributed to this. The increase in population of Bangalore has resulted in increased demands for public space. The CBD area, especially M.G. Road being the heart of retail and recreation space of Bangalore, attracts people from the suburbs. Hence a space that used to cater to a city of 2 million in 1980 has to now cater to a city of 5 million. This has led to congestion on M.G. Road, especially along the sidewalk, where people jostle each other to get to their destinations and one can no longer take a leisure stroll or promenade in comfort.

Change in land use has also impacted the use of public space. The CBD area once had a strong cantonment character. Except for M.G. Road, which was the main street facing the Parade Ground, the rest of the area had narrow winding streets with bungalows on 1 to 4 acre lots. Developers have replaced them with office buildings and high-rise apartment blocks. Hence an essentially small town fabric has been burdened by dense urban development. As a result the tree-lined avenues, which provided adequate public space, have become congested physically as well as visually because of the high-rise buildings. This change in land use has resulted in higher density in the CBD area and hence greater pressure on the infrastructure. The increase in population and the change in land use have resulted in a tremendous increase in vehicular and pedestrian traffic in the CBD area, especially M.G. Road, Brigade Road and Commercial Street. The increase in vehicular traffic has led to road widening at the expense of the sidewalk. Also some buildings have encroached into the sidewalk. Hence the space available to the pedestrian is shrinking. Although the sidewalk has been historically an important public space, it is now slowly being reduced to the function of circulation.

The increase in population has also altered the demands on public space in Bangalore. The city has always attracted people from various parts of the world. The Information Technology boom today has seen people migrating to Bangalore not only from all over India, but also from around the world. The cosmopolitan image that Bangalore has acquired has resulted in the creation of many eclectic spaces such as pubs, open-air cafés, and food courts. The young and globalised citizens of Bangalore crave spaces to 'hangout', to shop, to meet friends, to recreate, and to see and be seen. Thus far a private services industry and the public streets have catered to these urges, though in a haphazard way. The common man is being left out of this semi-public realm because of affordability, causing a social rift. Also with pressure increasing on the streets it is becoming difficult to cater to these needs in an appropriate manner. Hence the street, which used to be a democratic public space, is being reduced to the function of circulation. The public realm is slowly diminishing and the semi-private realm is filling the void. This calls for a re-evaluation of the role of a street and how it is functioning in Bangalore and exploration of new spatial types of public spaces, which can be introduced in the public realm.

The purpose of this study is to examine public space usage in Bangalore. The study focuses on Mahatma Gandhi Road to examine future trends in public space usage and suggest ways of meeting those needs.

The objectives of this study are:
- To explore public space theory with respect to the use of public space and what makes a good public space.
- To trace the evolution and history of Bangalore, with regard to public spaces in the city.

- To trace how public spaces have been used in the CBD area in the past and how they are being used today, with a focus on the role of street as a primary public space.
- To describe how changing uses of public spaces in Bangalore have resulted in change in their physical forms over time.
- To explore the implications of current trends in public space usage in Bangalore for the form of future public spaces, particularly M.G. Road.

The paper addresses the questions, what would make a good public space on M.G. Road, Bangalore? What would determine its form? Is there scope for a new type of public space to be introduced? If so, what should the resultant form be? The study concentrates on the CBD area and more specifically on streets as public spaces.

Bangalore today confronts several problems with respect to its public spaces – lack of an imageable city centre; contest for urban and public space based on class and caste; privatisation / corporatisation of public space. To curtail violent and disruptive demonstration of ideas and aspirations by various interest groups especially those of the suppressed, the city needs a democratic, civic space in the perceived/evolving heart of the city – M.G. Road. Such a space would attempt to bridge the zoning of Bangalore and the lack of imageability of the city; providing its citizens a space to speak their minds, to protest, to celebrate, to mourn, to recreate and most importantly to unite.

The paper comprises three sections. The first section deals with theory pertaining to the design of public spaces that provides a basis to evaluate public spaces in Bangalore, and draw conclusions, which can be applied in the design project. It draws from public space theory pertaining to the issues identified earlier. The second section provides a brief history of urbanisation of Bangalore. It describes the use of public space from colonial times to the present and draws conclusions for future development of public spaces in Bangalore. The last section applies and tests the conclusions arrived at in the previous two chapters through a design project for a site on Mahatma Gandhi Road. The design process and final product comprises the third section.

# SECTION I

# PUBLIC SPACE THEORY

In order to assess the status of public space use in Bangalore, it is important to have a good understanding of public space theory. The public space theory in this section will provide the basis for the evaluation of public space use in Bangalore today and draw conclusions for future trends in public space use. Two public space types – the street and square are discussed in detail, with respect to their morphological qualities and how they are used. Also the last chapter in this section deals with public space in the context of India.

Chapter 2 examines the meaning of public space and its importance in today's context. It looks at the nature of public life in Bangalore and the forces influencing it. This chapter looks at theory, which addresses issues concerning the interaction that should be encouraged in Bangalore's public spaces to promote reconciliation among various groups, the rights that people should have in a public space to counter privatisation, and the way public space can become more meaningful for people. Chapter 3 looks at public space within the larger context of a city or urban space. The street and square emerge as two very important urban public space types in Bangalore and these are studied in detail. The street is examined from a morphological and user standpoint, and a typological study of squares is documented. Chapter 4 examines public space in the Indian context. Basic city types and public space types are studied to draw conclusions regarding Bangalore's urban form and the types of public spaces found in the city. It also provides a background to a later discussion in Section II about public space in Bangalore, India. This section concludes with description of a theoretical framework, which is applied to the analysis of public space and its future in Bangalore.

# CHAPTER 2: PUBLIC SPACE

Public spaces in Bangalore face two issues today. One is the competition for public space among various groups and the other is the privatisation of public space. This chapter looks at theory, which addresses issues concerning the interaction that should be encouraged in Bangalore's public spaces to promote reconciliation among various groups, the rights that people should have in a public space to counter privatisation, and the way public space can become more meaningful for people.

Public spaces have been developed by different societies since ancient times. The *ghats* (river bank) of Benaras, the *chowks* (square) of Jaipur, have been important public spaces for centuries. Every community needs a symbol of its existence, a centre on which to focus life. Public spaces can be such a symbol and are the 'pulse' of a city. They form nodes or focal points, symbolizing shared identity and culture. A city is made up of many urban spaces. Public spaces are among the most important of these. These are tangible spaces with some intangible qualities where friends and strangers alike can come together, communicate, recreate, transact business, work, stroll, promenade, relax, sit, or just enjoy the sights and sounds of each other. Over the ages, the nature of public spaces and people's preference for one kind over another has changed. Urban public spaces are living organisms, which respond to the varying socio-economic conditions and cultural patterns of cities. The meanings of public spaces have varied with time, culture and context. Aristotle believed that an ideal square was one where nothing was bought or sold, instead ideas were exchanged and debates took place. Shakespeare said all the world is a stage. That stage is public space where the drama of public life is played out. Today's fast pace of life, the Internet revolution and the rupture in traditional value systems has given a new meaning to public spaces. They are expressions of our daily rituals and reflect our way of life. "As public life evolves with the culture, new types of spaces may be needed and old ones discarded or revived"[1].

Urban public spaces can be defined as elements within an urban fabric, which bind the different components of a city together, reinforcing the urban fabric. Defining public spaces Paul D. Spreiregen says they are "… buffer space(s) in a city. They create a gathering place for the people, humanizing them by mutual contact, providing them with shelter against the haphazard traffic and freeing them from the tension of bustling through the web of streets"[2]. Urban public spaces are essentially open spaces and could be public parks, gardens, *maidans*, *chowks* or squares, plazas, lakes, streets, and boulevards. Public spaces may be planned and designed or may have naturally evolved over time. Public spaces may be either owned and managed publicly, or owned privately but open to the public.

For public space to develop it is a prerequisite to have some form of public life. "Although every society has some mixture of public and private, the emphasis given to each one and the values they express help to explain the differences across settings, across cultures, and across times"[3]. Most people spend their day either in the private or public realm. The growth of domesticity by the 17th century led to the segregation of land use and thus the creation of a strong private realm in western society[4]. Initiated by the British, this trend has also proliferated over the last century in India. In addition the migration of people to the suburbs in Bangalore has changed their life styles and the way they use public space. Over the years the growth of Bangalore has led to the consumption of public spaces for development, thus hindering the city's "communication system". Public space facilitates the transmission of public messages and ideas and helps to bring a community together. The loss of such spaces isolates people, making them less helpful to others[4]. This can be seen in Bangalore where loss of public space is leading to competition among various groups. "Contemporary social and political systems, especially as they affect cities, tend to encourage privatisation as people are drawn inward by their work, their personal lives, and their political activities, if these exist at all"[4].

In India in the 1980's and 1990's, sub-urbanisation and the proliferation of televisions, videos and the personal computer changed people's priorities - from public life towards the 'pleasures' of private life and security. This phenomenon has been showcased by the fall and rise in the fortune of movie theatres in many cities in India. During the 1980's people preferred renting a movie cassette and watching it in the comfort and security of their home. As a result many movie theatres either shut down or became dilapidated. But in the late 1990's going to the movies became a 'fun family outing' again (as the novelty of the video diminished); and many of the theatres got a face lift, and some were converted into multiplex cinemas with bowling alleys and video game arcades (example: Anupam theatre, New Delhi). "At least for the middle classes of our society, nearby public space is no longer so necessary as a relief from crowded living and working environments nor as an essential setting for the social exchange that helped to hold together the old 'urban villages' with their social support systems"[5]. This is true of Bangalore's middle class suburban population. Different people and user groups use public space differently, based on regional, ethnic and life-cycle stage differences as identified by Hester[6]. Class is an important indicator of how users use a space. Lower income groups use space more intensely and often prefer the street as public space in Bangalore. Public space is extremely important for the lower income groups in Bangalore, especially those living in traditional neighbourhoods who need open space as a respite from crowded living conditions, and for fresh air and recreation. Also the age of a person or life-cycle stage determines their priorities and the level of mobility they have[6]. For example senior citizens are less mobile than teenagers and hence need spaces that are easily accessible. The "size and heterogeneity, also affects the balance between the public and private … Heterogeneity can lead to withdrawal to the private realm"[7]. Also the size of cities and neighbourhoods makes people anonymous and encourages people to retreat into their private spaces. As a city of five million Bangalore is especially susceptible to this. One of the reasons for this according to Stanley Milgram is "overload", or information overload, where a person has too much stimulation and has to prioritise[7]. He suggests that this makes people disregard this external stimulation and turn inward towards their own concerns. As a result people get isolated, which in turn leads to various psychological and social problems, and public life suffers[7].

According to Carr, Francis, Rivlin, Stone, public welfare is the primary motivation for creating or improving public space. Good streets provide for convenient and safe movement, squares provide space for social interaction, and parks are the "lungs of a city", a substitute countryside which provides fresh air and sunlight and "the opportunity to stroll freely and relax"[8]. Visual and environmental enhancement and prestige of the producers are also some of the goals of creating quality public spaces, as in Chandni Chowk in Shahjahanabad (for its visual qualities and grandeur) and the parks of Bangalore. Economic development is another reason for the creation of open spaces such as Dilli Haat in south Delhi. Spaces, which are attractive and invite people to relax, have economic benefits for retail business as a resultant spin off. Public spaces also serve as social binders, allowing people to gather to form a sense of unity, power and belonging, which is lacking in Bangalore[9]. According to Jon Lang urban designers have relied on creating public spaces to bring people together[10]. He adds that the goal of design should be to encourage all types of "positive human contacts". For this to happen he says an environment has to be "rich in behaviour settings". He says that research has shown that participation has increased when there are many settings and these settings are relatively small in size[10].

Public spaces, their origin and how they have evolved over time are influenced by physical, cultural and political factors[11]. The physical factors are climate and topography. Cultural factors are – social public life: catering to the urge to meet, interact and socialise; functional public life: catering to people's everyday needs like buying groceries etc.; symbolic public life: catering to the need of people to feel a sense of belonging and being a part of a larger group[11]. It is the social public life and symbolic public life, which is particularly missing in Bangalore. Besides the above three, technology and economics are two other factors influencing public spaces. Technology determines what can be accomplished by a society in terms of the construction of a physical setting[11]. In addition electronic devices like the personal computer and the television are changing the way the middle-classes live and work and the balance between private and public life in Bangalore. Modern technology like computers, telephones and fax machines is allowing people to work at home in

isolation. Likewise television provides entertainment for the family in the comfort and security of their home. But to date the automobile is the single greatest threat to quality of public life especially street life, as seen on M.G. Road[11].

Public spaces need economic commitment for their creation and maintenance. As cities grow, open spaces are used up for short-term economic gains, such as the filling up of lakes for development in Bangalore, and the city slowly loses its public life. Economics also has a positive effect on public life. For example the presence of certain stores encourages pedestrianisation of streets[12]. Political factors also influence public life. For example the city government of Bangalore prohibited demonstrations in Cubbon Park. This stifles the political public life of Bangalore's citizens. Public spaces facilitate people gathering and sharing a sense of unity "that can give expression to communal feelings and an exercise of rights, sometimes leading to political action"[12]. Such a space is lacking in Bangalore today, which has contributed to polarisation of the city into various interest groups. According to Carr, it is impossible to understand public life and space without recognizing their political nature[12]. Hence public life is one of the most democratic rights. "A public life has the potential of bringing diverse groups together so that they learn from each other, perhaps the richest quality of a multi-class, multicultural, heterogeneous society"[9].

According to Hester, for a public space to be usable it has to first have certain basic physical attributes such as size, slope, enclosure, openness, orientation (with respect to sun and wind) and compatibility with adjacent spaces[6]. Bad design is a major factor in the failure of public spaces in Bangalore. Designs which are inflexible and in some cases try to incorporate all uses fail due to poor management. Also designs, which don't acknowledge the context, public lifestyle of a region and local ecologies, often fail. " When designs are not grounded in social understanding, they may fall back on the relative certainties of geometry, in preference to the apparent vagaries of use and meaning"[13]. The main failures in the provision of quality public spaces in Bangalore have been on the part of private developers and corporations. Most of these developments are blocked from the street by compound walls and grade separation. The few that have developed plazas are not designed for public use, but rather to make a statement or portray a corporate image. Some of the spaces such as the outdoor cafés at The Bombay Store and Barton Centre are beyond the reach of the working class (will be discussed in detail in Section II).

Carr, Francis, Rivlin, Stone believe that
> "public spaces should be responsive, democratic, and meaningful … Responsive spaces are those that are designed and managed to serve the needs of their users. The primary needs … in public space are those for comfort, relaxation, active and passive engagement, and discovery … Democratic spaces protect the rights of user groups. They are accessible to all groups and provide for freedom of action but also for temporary claim and ownership … ultimately, public space can be changed by public action, because it is owned by all. It can offer a sense of power and control limited only by the rights of others … Meaningful spaces are those that allow people to make strong connections between the place, their personal lives, and the larger world. They relate to their physical and social context … A continuously used public space with its many memories can help anchor one's sense of personal continuity in a rapidly changing world. By the build-up of overlapping memories of individual and shared experience, a place becomes sacred to a community"[14].

According to Carr, Francis, Rivlin, Stone, "three critical human dimensions should guide the process of design and management of public space: the users' essential needs, their spatial rights, and the meanings they seek"[1].

As discussed earlier public spaces in Bangalore have become congested and are not satisfying people's basic needs. Congestion and loss of public space has resulted in competition for public space and privatisation of public space. Also public spaces in Bangalore are slowly losing their meaning and are being reduced to functional spaces. This is adding to the problem of lack of imageability of the city. The following discussion looks at the types of interaction that

public spaces should facilitate to encourage reconciliation, the rights that people should have in a public space to counter privatisation, and the ways by which public spaces can become more meaningful to the people of Bangalore and provide a sense of unity and belonging among its citizens.

## 2.1. NEEDS

When designing public spaces, designers often do not understand users' needs and hence design spaces to fulfil their own or a developer's goals. Undue importance is paid to the physical attributes of a site and the way it is used is often overlooked[15]. People have needs, which public spaces should cater to, namely: security, comfort, relaxation, passive and active engagement with the environment, cognitive needs, and aesthetic needs[16]. Often if a space caters to people's needs they will use it, and this determines the success of a public space. According to Jon Lang there exists a hierarchy of basic human needs, physiological needs being the most basic, which may vary from need to survive to need for comfort[17]. The need to survive is closely related to that of security, which should be met in a public space. After survival comes comfort in the hierarchy of human needs. At the basic level it means "freedom from pain on all dimensions of environmental experience"[17]. Comfort is subjective and varies from person to person and between cultures. Also a place to exercise and test their abilities is important to fulfil people's development needs. Besides testing their physical abilities a space ought to be educative. Of these the most important for our discussion is the need for interaction or engagement.

**ENGAGEMENT (INTERACTION/ ACTIVITY) NEEDS**
There are two basic types of activities or engagements that people indulge in, in a public space: passive engagement and active engagement. Passive engagement involves looking and observing. It is different from relaxation in that it involves engaging with the environment[18]. People-watching is a popular passive engagement activity in many public spaces such as M.G. Road in Bangalore. Performers, open-air concerts and festivals provide ample opportunity for passive recreation. Watching games and sporting events also provide passive engagement, as in the basketball courts and skating rink in Madhavan Park, Bangalore. Special features such as fountains, waterfalls, public art or artistic or scenic landscapes also attract people. Many researchers have found that "there is a public appetite for outdoor art", even though many public art projects become controversial[19]. Art provides interest and excitement to a space and sometimes may spark off interesting debates. "Active engagement represents a more direct experience with a place and the people within it"[20]. Though people-watching is very popular, many people like direct interaction with others. One of the elements which provide for such interaction are sculptures which facilitate "triangulation" and prompt two people viewing a sculpture to talk to each other[20].

Often space is limited, leading to conflict between various uses and user groups, as has happened in Bangalore. The way around this according to Hester is to design a compromise plan, which segregates different users to separate spaces, which support their respective activities[21]. Besides reducing conflict he suggests that a space should encourage different types of interaction. According to him a space should encourage the following types of interaction[21] –

- **Inclusive interaction** is encouraged in spaces where a small number of people can form a group to interact.
- **Face to face interaction** is encouraged by spaces that allow two people to have a "face-to-face" dialogue.
- **Exclusive interaction** takes place in spaces that are left over by the above two 'co-operative spaces', and is usually conflictive in nature.
- **Parallel interaction** does not encourage "co-operative face-to-face interaction" [21]. For example park benches along the promenade on M.G. Road, arranged in a row discourages social interaction while promoting people-watching.
- **Congruent and Incongruent interaction** spaces are those, which facilitate the "observation of a role model and either the acceptance or rejection of that behaviour" [21].

The promenade, small piazza or the *chowk* (square) are types of public spaces, which encourage interaction between strangers. The street is also a very important space for interaction especially in traditional and poorer neighbourhoods of Bangalore. Sidewalk width, traffic volume, attitude of shopkeepers and residents, all affect the quality of public life of a street. Good gauges to the success of a public space are the vendors who depend on the public life of the space[20]. Parks, gardens and children's play areas also provide spaces for parents and children to interact with others and also for senior citizens to socialise and take their morning and evening walks. "Providing for active recreational needs is a predominant aspect of public place design"[20]. Regional, geographical, cultural and age factors influence the types of active recreation and choice of different public spaces based on these needs. Interactive sculptures and moveable furniture encourages more active engagement by the users[20]. Public spaces also need to be challenging, especially for children, in order to engage the user and retain his or her interest[20].

People also look for festivals, ceremonies and celebrations in their public spaces. People take pleasure in socialising, eating, drinking and being entertained. This festive atmosphere is important to rejuvenate their lives[22]. Public spaces in Bangalore can provide a place for market festivals, carnivals, performances and concerts, parades and other forms of celebrations. Farmers markets are still an integral part of many Indian cities and are very popular in Bangalore. The groundnut festival and flower festival are examples of farmer's market festivals in Bangalore. Public markets are also popular and widespread in Bangalore, which provide people with active engagement with vendors and shopkeepers. As in the west the in-town shopping mall has become an important space for Bangaloreans and provides an important public/semi-public space for active engagement. This will be discussed in detail in Section II. Another type of festivity, which can be called "ritual celebration", is New Year's Eve on M.G. Road or the Karaga festival in Bangalore.

Therefore passive and active interaction is important for people to familiarise themselves with the setting and other users, and to eventually socialise and make friends. Public spaces in Bangalore ought to facilitate this interaction and try to bring together the various groups in the city. Festivals and performances are important events that can facilitate interaction at a large scale and bring a city together. This aspect of the use of public space has great potential to bring about reconciliation among the different groups in Bangalore.

## 2.2. RIGHTS

Free access and a sense of control and temporary ownership are important in a public space for it to be truly public and to be a success, especially for the lower income groups in Bangalore[23]. Different public spaces have varying degrees of freedom and control, which are dependent on a number of factors. Carr, Francis, Rivlin, Stone adapted Kevin Lynch's five aspects of spatial rights and identified them as access, freedom of action, claim, change, and ownership and disposition[23]. These five qualities can help assess and guide the degree of freedom of use of a public space in Bangalore.

### ACCESS
The most basic quality of a public space is the freedom for anyone to enter it. There are three major types of access[24] –
- **Physical access** – A public space should be physically accessible to the general public. Any sort of physical barrier such as gates, fences, hedges or guards as in the outdoor cafes on M.G. Road, makes the space inaccessible, hence not truly public. Special care needs to be taken to provide easy access to the physically disabled or mothers pushing carriages.

- **Visual access** – Clear visibility of a public space is important for people to feel free to enter a space and helps a user ascertain if it is safe and inviting. While providing free visibility one needs to keep in mind people's need for relaxation and privacy. Hence a balance needs to be struck between security by way of clear visibility and retreat by way of shelter from direct observation.
- **Symbolic access** – presence of certain people or design elements often suggests symbolic access to a public space; who is welcome or not welcome. The presence of guards, a homeless person, teenagers, the elderly or others provides either a threatening or inviting feel to a public space. Also the presence of shops and vendors indicates the publicness of a space. Again the outdoor cafes on M.G. Road deny symbolic access to lower income groups.

"These three types of access – physical, visual, and symbolic – frequently interact and can present a strong or ambiguous picture of who is free to enter a space and who has control over 'the right of access'"[24].

## FREEDOM OF ACTION

Freedom of action " involves the ability to carry out the activities that one desires, to use a place as one wishes but with the recognition that a public space is a shared space"[25]. This can sometimes be a problem because in a heterogeneous society such as Bangalore's, the freedom of action for one group or individual could be a potential threat to others. For example the vendors on M.G. Road cater to the lower income group's needs but are seen as a hindrance to smooth pedestrian circulation by the middle class. Rules and regulations are important controls, which restrict the freedom of use of a public space[25]. The ban on street demonstrations and the threat to ban vendors on M.G. Road seriously restricts the freedom of people. Also the physical design of a public space may facilitate or restrict freedom of action. Spaces, which are divided into subspaces, facilitate a greater choice for the user to participate in a variety of activities[25]. Psychological comfort is also important for people to use a space as they wish. Often, public spaces in Bangalore restrict the freedom of action to three vulnerable groups namely – women, elderly and the physically disabled, due to lack of psychological comfort, sense of security and easy accessibility[25]. A balance of users and activities is desirable in public spaces in Bangalore. While encouraging diverse activities one needs to make sure that no one group dominates at the expense of others.

## CLAIM & TERRITORIALITY

A major issue in public spaces in Bangalore is claim over it by a user group at the expense of others. By claiming a space one group may enjoy the space better but it restricts the freedom and rights of other groups[26]. For example the nationalists used to take over parts of Cubbon Park during protests, effectively restricting its use by others. One advantage of claim over public space is the effective control of the space so that people see it as a space that is cared for and belonging to a certain community, and thus treat it with respect. However control of a space brings up the issue of the fine line between territorial rights of a community and the denial of rights of others to use and enjoy a space[26]. Individuals and small groups of friends or family often claim small portions of public spaces and do not pose a serious threat to other users. It is the larger groups that may occupy an entire public space or a large section of it, effectively keeping others out[27]. Neighbourhood associations in Bangalore have started staking their claim on neighbourhood parks and are becoming more active in managing and planning the welfare of these parks and their neighbourhoods as a whole. Based on their ability to pay, middle-income groups in Bangalore have a greater choice of recreation than the lower-income groups[28]. Also many are homeowners and so have a sense of security and ownership. Lower-income groups usually have lower affordability and are unable to own property and therefore rely on public space for recreation, socialising and symbolically staking their claim over a piece of the city. As a result working class people in Bangalore use public space more extensively and for longer hours than the middle class[28]. It is therefore important to recognise where formal control is necessary and desirable and where it restricts the freedom of users. Organising special events and performances at regular intervals helps bring in other users, mitigating the monopoly of one group[28]. Also designing and planning of

public space can incorporate the claims of various groups. Hester again proposes a compromise design, which will help different groups stake their claim on different subspaces if their needs are carefully understood and segregated[29].

## OWNERSHIP & DISPOSITION

While a true public space is owned by the public, the disposition of a site may be the ultimate right of possession[30]. Though many public spaces in Bangalore may be owned publicly, many of them are in fact owned and controlled by certain groups, such as the city authorities, park authorities, private owners, the military, and resident organisations. The control they exert on spaces such as Cariappa Memorial Park, determines how public these spaces actually are. This is important in Bangalore where the poor need to feel a sense of ownership over the city's public spaces. "Understanding how and why people are excluded and the conditions under which public space users assume control is an important first step toward facilitating public space rights"[31]. Sommer believes public spaces should be designed so that the users and the community could symbolically own them[32]. According to Hester symbolic ownership increases[32] –

1. As the space becomes less private and more public;
2. As the residents' use of the space increases;
3. As real ownership becomes less clear;
4. As the residents collective involvement in acquiring the space or manipulating the space increases;
5. As the users perceive that the space meets their special needs;
6. As the space increases in value as a status object to outsiders, especially outsiders of high status;
7. And as the space increases in value to one's peer group;

Besides being symbolically owned by a community a public space can be a status symbol, an object in which they can take pride, which is especially relevant to the middle-class and the corporates in Bangalore today. Another aspect of symbolic ownership is meaning. A public space over time becomes "meaningful symbolically"[32].


## 2.3. MEANINGS AND CONNECTIONS

According to Jon Lang once people's basic needs are fulfilled they look for affiliation with groups for affection, support and identity[33]. Hence public space design should facilitate the fulfilment of people's affiliation needs. Besides the need to belong to a group, people also feel the need to belong to a place. Belonging to a people is an affiliation need that is very strong among the Kannada nationalists in Bangalore. Affiliation needs means belonging to an ethnic group and sharing a language, customs, symbols and aesthetic values. The communal symbols, such as the Karnataka flags that have proliferated in Bangalore, are important for people who are trying to maintain territorial control and self-identity. They tend to personalize public space over time in order to define their territory. Jon Lang believes that, "the design of any urban environment implicitly, if not explicitly, is an act of symbol creation"[34]. Since it communicates a meaning, the "symbolic aesthetic" of an environment provides a sense of identity[34]. Public art is often used to convey a symbolic meaning or lay claim over an area in the city, such as the Ambedkar statues in Bangalore. "Public space experiences yield meanings that accrue over time, and if these are positive meanings they will lead to connections that go beyond the immediate experience of a setting. Links are established between that place and the life of an individual, links to a valued group, to a whole culture and its history, economics and politics, or symbolically to the universe or other worlds through a person's biological and psychological reality, through nature, through growth, through sexuality"[31].

A public space needs to have several qualities for it to have meaning for people and form connections. Firstly the site must be "legible". That is, it must be recognisable as a public space and should communicate who uses the space and how[31]. Secondly, the space must indicate possibilities of use to people and must "resonate with their lives"[31]. A space that "resounds with the memories and experiences" of an individual or a group helps form a connection between them and the site, becoming a part of their collective memory[31]. A site must also have relevance to its users for connections to take place. Relevance may be at an individual level (must satisfy the user's needs) and at a cultural level, where a site must respect its cultural context[31]. "One way to achieve a deeper and more lasting meaning is to emphasise the connections between a place and its context"[31]. Connections exist at various levels and are of different types such as individual connections, group connections, connections to larger society, biological and psychological connections, and connections to other worlds. The most relevant in the context of Bangalore are group connections and connection to larger society:

**Group connections** - Like individuals, the repeated use of a public space by a group helps form strong connections to it. Connections may "stem from the history of a group in an area where connections to other members enhance and shape the experience of a place". Public spaces which over the years have supported certain activities or have symbolised a way of life or belief become very dear to the community and are preserved for the benefit of their collective memory such as Lalbag Garden in Bangalore[35].

**Connection to larger society** - Public spaces also facilitate connections at a larger scale among members of a culture or subculture[36]. Common examples are sacred places such as the Gavi Gangadheshwara temple or ceremonial spaces such as the Parade Ground in Bangalore. These spaces hold strong meaning and connections for believers of a faith or system[36]. Historic sites and public monuments are other spaces, which have national or local meaning. Some monuments are intentionally built to propagate a particular idea or system of beliefs. Other spaces take on symbolic meaning over a period of time in an unplanned spontaneous way due to repeated use[36]. According to Carr, Francis, Rivlin, Stone, spaces that depend on civic or national meaning often fade over time, whereas spaces which provide natural, biological, evolutionary or cosmic connections are more powerful and longer lasting[36]. It is no surprise then that Bangalore's 'Garden City' image has been the most enduring of its many images. In a heterogeneous community such as Bangalore different spaces with their meanings and functions are experienced and valued differently and hence different groups will form varying connections with the site[36]. "Sensitive public space design and management requires an ability to discern the existence and extent of symbolic links between people and places"[36]. While presenting spaces with strong connections and meaning to a society is important, it is also important that these spaces evolve to remain relevant to the present users, so that they can "leave a personal mark on a site, one that can rest within the marks of history"[36].

A space usually becomes meaningful when it truly meets people's needs. On the other hand a monumental public space not catering to people's basic needs and contriving a meaning does not facilitate any connections. Ensuring basic needs and rights of users in a public space "creates the fundamental level of civility that prepares the way for the expression of cultural meanings"[37]. Meanings change as spaces and functions change, as has happened with the Parade Ground in Bangalore. For a space to have a deeper and long lasting meaning it needs to be "richly embedded in its context"[37]. The site's natural setting is its primary context[37]. The history of the site and the region forms a secondary context, which can lend a site deep meaning[37]. According to the authors of *Public Space* the "most difficult, least developed, and potentially most rewarding would be the development of qualities and associative meanings that are special to our own time and place and the experience of our emerging culture"[37]. Also the democratic management of a space goes a long way in making people feel a sense of belonging, ownership and pride in a space, and thus forging a connection with it. Meaningful elements and events in public spaces should be introduced to retain users' interest "and commitment to the place, qualities that are the foundation of meaning"[37].

People's "esteem needs" and meaning are closely related. Achieving esteem or prestige through architecture, landscape architecture and urban design has been attempted throughout history[38]. The design of a public space should convey the achievements of people and their status. One of the goals of public

space design is to "communicate meaning of importance" for a sense of self-esteem for groups in a city[39]. This is especially relevant for the nationalists in Bangalore.


## 2.4. CONCLUSION

Public welfare should be the primary motivation for creating or improving public spaces in Bangalore. Public space is extremely important for the lower income groups in Bangalore, especially those living in crowded traditional neighbourhoods who need open space as a respite from crowded living conditions, and for fresh air and recreation. Public spaces should provide recreation space for lower income groups and give them a sense of belonging and ownership. The rights of the lower income groups in Bangalore need to be enshrined, making sure that they have right of access, freedom of action and temperory claim and ownership over public spaces in Bangalore. A participatory public space design process is an important aspect of ownership and territoriality. The human dimensions discussed earlier can be used to observe analyse and understand existing spaces in Bangalore so that they can be adopted in future projects[40]. Besides this a discussion with potential users or a representative cross section of users will complement the knowledge derived through analysis because often they understand their needs and the subtleties of a site best[40]. The challenge for the designer is balancing knowledge of the 'human dimensions' with input received from the potential users.

For a participatory design process, which is key to the creation of a good public space, Carr, Francis, Rivlin, Stone suggest a generic process with nine guiding principles, which can be tailored to specific situations[41]. The basic principle according to them is that of *inclusiveness*. The process should include the potential users, representatives of the sponsors, founders, regulators, and administrators of the project, besides the designer. The second principle is that of *representation*. In large projects all the potential users cannot be meaningfully included in the process and hence a representative cross section of users should be selected and organised into a manageable group. The third principle is *discretion*, which means that each of the individuals or groups involved in the process need to be engaged in an appropriate manner to achieve optimum benefit from the interaction by understanding their true feelings and best ideas. The fourth principle is to encourage people to be *proactive*. The fifth principle is *mutuality*. "Although designers should hold back on voicing their own convictions and preconceptions about the project in the beginning, in order to encourage others to come forth with their ideas the designers must also reveal their own views". This dialogue will encourage mutual learning. The sixth principle is to come up with a well thought out and structured *program*, which identifies the desired qualities and quantities of the space. The next step or key is to discuss *alternatives*, since there is rarely one good solution. Alternatives will provide further understanding of the issues. The eighth step is to *review* and continue discussing a preferred alternative. The final principle is a process of continuing *adjustment*, which should happen as the project goes into construction[41]. Carr, Francis, Rivlin, Stone believe that this generic process is better than the "standard" non-participatory approach to designing public spaces. They indicate that the participatory process for a large public space project takes only a month or two longer than the "standard" process and costs less than 2% of the construction budget[41].

Public life is one of the most democratic rights; therefore public spaces are also political in nature. Public space facilitates the transmission of public messages and ideas and helps to bring a community together. Public space in Bangalore has the potential of bringing diverse groups together so that they learn from each other. Often times space is limited, which leads to conflict between various uses and user groups, as has happened in Bangalore. The solution to this is a compromise plan, which segregates different users to separate spaces, which support their respective activities. Besides reducing conflict a public space should encourage different types of interaction. The promenade, street and the *chowk* (square) are types of public spaces, which encourage interaction between strangers. Parks, gardens and children's play areas also provide spaces for parents and children to interact. Festivals and performances

are important events that can facilitate interaction at a large scale and bring a city together. This aspect of the use of public space has great potential to bring about reconciliation in Bangalore.

A major issue in public spaces in Bangalore is claim over it by one user group at the expense of others. A balance of users and activities is desirable in public spaces in Bangalore. Organising special events and performances at regular intervals helps bring in other users, mitigating the monopoly of one group. Also the design and planning of public spaces in Bangalore can incorporate the claims of various groups. One way of dealing with this is by designing subspaces within the public space for various user groups.

Every community needs a symbol of its existence, a centre on which to focus life. This is important in Bangalore where the poor and the nationalists need to feel a sense of ownership over the city's public spaces. Besides being symbolically owned by a community, a public space can be a status symbol, an object in which they can take pride, which is important for Bangalore's middle-class. Another aspect of symbolic ownership is meaning. A public space over time becomes "meaningful symbolically". Since it communicates a meaning, the "symbolic aesthetic" of an environment provides a sense of identity. While public spaces should have strong connections and meaning to a society it is also important that these spaces evolve to remain relevant to the present users.

Public space design should also facilitate the fulfilment of people's affiliation needs. Belonging to a people is an affiliation need that is very strong among the Kannada nationalists in Bangalore. One of the goals of public space design is to "communicate meaning of importance" for a sense of self-esteem for groups in a city[39]. This is especially relevant for the nationalists in Bangalore.

In conclusion, according to Carr, Francis, Rivlin, Stone, spaces that depend on civic or national meaning often fade over time, whereas spaces which provide natural, biological, evolutionary or cosmic connections are more powerful and longer lasting[36]. It is no surprise then that Bangalore's 'Garden City' image has been the most enduring of its many images.

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# CHAPTER 3: STREET AND SQUARE

*"The city, as one finds it in history, is the point of maximum concentration for the power and culture of a community. The city is the form and symbol of an integrated social relationship: it is the seat of the temple, the market, the hall of justice, the academy of learning. Here in the city the goods of civilization are multiplied and manifold; here is where human experience is transformed into viable signs, symbols, patterns of conduct, system of order. Here is where the issues of civilization are focused; here too, ritual passes on occasion into the active drama of a fully differentiated and self conscious society". – Lewis Mumford, The Culture of Cities, Harcourt Brace and Co., New York, 1938.*

This chapter examines the street and square as two primary public spaces. In Bangalore too the street is the primary public space, which opens up into a square at regular intervals, especially in the traditional city. Therefore an understanding of the theory pertaining to street and square is important to evaluate the status of Bangalore's primary public spaces.

## 3.1. TYPOLOGY OF URBAN SPACE

Cities have always epitomized civilization, monuments to man's needs and aspirations as a social animal. A city has two main functions – providing a place to work and live and a place to recreate. William C. Ellis classifies cities into two broad categories – traditional and modern[1]. In the traditional city he says the street and open spaces appears to have been carved out of a solid mass of buildings, forming a 'structure of spaces' such as the *pete* in Bangalore. The modern city he says is an open land – a park or meadow – in which buildings are placed, forming a 'structure of solids' such as the colonial city in Bangalore. Ellis says our present day cities fall under one of the above two categories or combination of both[1]. Bangalore is an example of a city that is a combination of both.

Cities are made up of urban spaces. Urban is defined as "pertaining to characteristic of, including or constituting a city"[2]. In defining 'urban space' Rob Krier says that all sorts of external space can be called urban spaces if they are not judged aesthetically. He says, "This space is geometrically bounded by a variety of elevations. It is only the clear legibility of its geometrical characteristics and aesthetic qualities, which allows us consciously to perceive external space as urban space"[3]. "An urban space should be ideally enclosed by surrounding walls, have a floor which suits its purpose and have a distinct purpose to serve. If however, anyone of these qualities is sufficiently strong, it alone may establish a sense of urban space"[4].

Rob Krier breaks down urban space into two basic elements – the street and the square. According to Krier man first discovered urban space in a square which he developed by grouping houses around a courtyard for security reasons[3]. He feels this was the form adopted for several holy places like the Agora, Forum, cloister and mosque courtyard and became a model for future development[3]. Chandni Chowk in Russel Market is an example of this. Streets developed once space to build ran out around the square, as a way to facilitate the spread of the settlement. Hence due to the very nature of these spaces he feels that the square is a more attractive place to spend time than the street, which is purely functional in nature.

## 3.2. THE STREET

Street and road are the two most commonly used words to describe this particular type of urban space. Alley, avenue, boulevard describe particular types of streets or roads. The word street is derived from the Latin *sternere*, which means to pave. Road is derived from the Anglo-Saxon root 'ride' and suggests movement or transport of people and goods. Joseph Rykwert says that 'street' differs from 'road' in definition in that it does not suggest direction or movement. Road suggests a purely functional space for transportation whereas street suggests a place to linger and enjoy[5]. From this understanding we can say that M.G. Road has gone from being a 'street' to a 'road'. According to Joseph Rykwert, "An individual may clear or mark out a path in a wilderness: but unless he is followed by others, his path never becomes a road or street, because the road and the street are social institutions and it is their acceptance by the community that gives them the name and the function..."[5].

**SPATIAL STRUCTURE OF STREETS**
As mentioned earlier, William C. Ellis classifies cities into two broad categories – traditional and modern[6]. According to Ellis,
> "*The traditional city, a structure of spaces, produces an elemental street whose basic spatial characteristics is felt volume. It is generated by and responds to the characteristics of the vertical wall planes that bound it on either side … Because of their well defined characteristics of felt volume and their interdependent mix of elements and functions, these streets tend to act both literally and metaphorically as exterior rooms in the city. They function as places as well as links; they incorporate various social and operational activities into an integrated and somewhat unspecified mix, much as do the volumes interior to buildings*"[1].

They can be viewed both as object as well as residue. The modern city, a structure of solids on the other hand produces an elemental street, which is neither an object nor residue. It does not have characteristics of felt volume and is part of the continuous space. The buildings do not generate the streets and they exist independent of each other. The street no longer exists as a space but merely as a link – a road. Chickpet Street and Hosur Road represent these two types of streets respectively. One is an external room the other is part of the surrounding land. Ellis believes that as a product of "this schism", public space has moved into the interior of buildings, driving people off the street due to increase in vehicular traffic[1]. This is slowly happening in Bangalore too, where the streets are being taken over by vehicular traffic. Also in traditional cities such as *pete* in Bangalore, the fronts of buildings face the streets, while their backs overlook a courtyard, thus creating a variety of open spaces. Buildings in modern cities on the other hand, do not create such variety of spaces due to the 'point tower' building type, which doesn't have a front or back. It is a point in space; hence one cannot articulate open spaces from the surrounding continuum[7]. The bungalow type buildings represent this 'tower in space' type development. These have been criticised as "anti-urban" by many architects in Bangalore.

Ellis classifies traditional streets into what Colin Rowe calls, "continuous development" and "the elongated courtyard"[8]. The first is a long route with buildings on both sides and without termini and is the most common type of street in Bangalore. It functions as both a place and a road. The nature of the street depends on the properties of the street walls that bound it. The street as elongated courtyard is almost the opposite of the above and is rarely seen in Bangalore[9]. The enclosure of such a street makes it almost unrecognisable as a street. It has the characteristics of a courtyard and hence has a strong sense of place and termini. As another layer of classification Ellis sees a street as a "unified wall" and as "a series of pavilions"[10]. The unified wall produces a positive street space, which is generated from the building facades, the street being carved out of a mass of buildings. In this case the street becomes a volumetric entity more prominent than the buildings. Hence the facades belong to the streets rather than the buildings as seen in the *pete* area in Bangalore[10]. The street as series of pavilions is a negative street the importance shifting to the buildings[10]. Buildings read as autonomous objects in space due to discontinuity of facades. Hence the facades become more part of the buildings than the streets as seen in the former colonial city. The street thus

loses its enclosure and character as a space in itself[10]. Quite often streets are ambiguous, such as M.G. Road, having attributes of both, which according to Ellis is desirable[10].

## PEDESTRIAN USE OF STREETS

According to Amos Rapoport streets can be defined in two ways – based on use, as a setting for certain activities, and a morphological definition wherein streets are linear spaces lined with buildings[11]. A composite of the two gives us the common definition of streets which are more or less narrow, linear spaces lined by buildings and used for circulation and other activities. The activities that occur on a street depend on the culture or a set of rules of the region. Culture defines the setting and activities of a street[11]. These rules lead people to give meaning to the street[11].

Pedestrian use is one of the most important aspects of a street. Rapoport lists the following as variables that affect pedestrian use of streets:

**Technology** affects pedestrian use of streets. Rapoport mentions the absence of animal or mechanical transport as primary incentives for walking in some cultures. To this variable I would like to add that - the prevalence of a sophisticated public transport system in our modern day cities encourages walking.

**Safety** from traffic or crime, especially perceived safety is important for pedestrians to use streets.

**Environmental** factors such as noise, fumes, congestion, quality of paving, all affect the quality of the pedestrian's experience of the street.

**Climate and weather** factors such as season, shade, sunlight determines the comfort level for pedestrians.

**Topography** such as slopes and hills, influences pedestrian use of streets, especially with respect to the elderly and disabled.

**Distance** to destinations is an important factor influencing pedestrian use of streets.

Presence of **services** such as shops, cafes, kiosks, toilets, benches, etc., encourage pedestrian use of streets.

**Culture** defines setting and behaviour of pedestrians.

**Physical and perceptual characteristics** such as physical setting and richness and complexity help sustain the pedestrian's interest.

According to Rapoport the last two variables influence street activities the most. Activity depends on the rules, customs, traditions, habits and lifestyle of the people[12]. Hence a street, which supports the culture of a region, will generate activity. Rapoport says that even though a street may be designed in the best possible way to support activity, it will not generate it if the society it is based in does not encourage such activities[12]. Rapoport claims, "It is culture that structures behaviour and helps explain the use or non use of streets and other urban space …"[12]. Physical environments do not generate activity, they just facilitate or inhibit it. While a physical environment cannot generate activity, it can inhibit it to such an extent so as to block it all together. Hence culture and physical environment are both important to sustain lively street activity[12]. The culture of Bangalore and the richness of traditional streets in Bangalore sustain a vibrant street life. Other factors such as pleasant climate, short distances to destinations, absence of fast vehicular traffic and presence of many shops and cafes all continue to support an active street life in the traditional city. In the colonial city though, increase in fast moving vehicular traffic and long distances to destinations are slowly discouraging an active street life and public life is slowly receding indoors into malls and super markets.

Citing the example of India to illustrate the effects of culture on street use, Rapoport says,

> "*At first sight, the streets provide a setting for what seems to be a bewildering variety of activities and correspondingly diverse sounds, smells and sights. A confusing mixture of animals, people, bicycles, rickshaws, trucks and buses moves continuously. Activities are intermingled at an extraordinary fine grain and in close juxtaposition. The streets are full of a great variety of people in all sorts of costumes, not only walking and riding but standing, sitting, squatting, and lying down; sleeping, cooking, eating, getting their haircut or getting shaved; doing laundry, fixing bicycles or tires, manufacturing things, sewing, playing, chanting, arguing, bargaining – even praying*"[12].

The use of streets in India varies in extremes from a highly public highway or major road to residential streets in *mohallas*, *pols* or *bustis* (traditional Indian residential neighbourhoods). Major roads where people live, manufacture, trade and socialise are public to the extent of being free for all. Residential streets on the other hand are semi-private, especially in small, homogeneous areas. They become extensions of people's homes.

Streets and activities on streets differ from region to region in a country and from area to area in a city. Rapoport classifies activities on streets into two categories –
  a) Non-pedestrian activity – this is mainly vehicular traffic. In the case of India it could include animals like cows and stray dogs.
  b) Pedestrian activity –
    (i)   Dynamic pedestrian activity – mainly walking and strolling. These are comparatively constant in nature; culture influences how acceptable walking is, who walks, where, when, how fast, and with whom.
    (ii)  Static pedestrian activity – sitting and standing, squatting, lying down, eating, playing, working, and sleeping. These vary greatly with culture.

Dynamic pedestrian activity is supported by dynamic environments such as streets, and static pedestrian activity is supported by static spaces such as plazas[9]. 'Interest' is the principal criterion for the former and 'liking' the principal criterion for the latter. 'Interest' is influenced by perceptual qualities, while 'liking' is influenced by meaning, hence associational qualities[13].

Pedestrians perceive space differently from motorists. Spaces for pedestrians need to be complex and interesting, whereas for motorists simple and tunnel like[13]. Speed is an important factor since it determines what one can observe in unit time. A city's image is formed by an amalgamation of partial views over time[13]. Therefore perception of a city is dynamic and sequential. Speed affects these partial views determining what one can notice per unit time, or in other words 'rate of noticeable differences'[13]. Driving involves high speeds and requires concentration so a driver cannot appreciate the environment. A pedestrian's speed is substantially lower and requires lesser concentration, providing greater opportunity to observe the environment and the subtleties and details of his surroundings. That's why says Rapoport, pedestrians are more aware of place and have "clearer ideas of the meaning and activity in the city" than motorists or users of public transport[13]. Rapoport suggests that different speeds of travel require different levels of complexity[14]. Hence an arcaded street provides pedestrians with activity and complexity while blocking the same complexity from the view of the motorist, providing him with a simple, non-distracting tunnel-like space. A pedestrian underpass with white tiled walls is too simple and tunnel-like to hold a person's interest and so the apparent travel time is extended due to low rate of noticeable differences. Likewise a roadside commercial strip, which is too complex and chaotic at driving speeds, is monotonous for a pedestrian. Therefore says Rapoport, "The perception of complexity is thus related to the number of noticeable differences per unit time and hence to speed"[14]. Motorists get distracted by pedestrians and complex environments while pedestrians need to feel safe in order to be able to appreciate finer details of their environments without being harassed by motorized traffic, hence the need to segregate pedestrians from motorists both perceptually and physically.

Rapoport contends that "pedestrian and high-speed environments are perceptually incompatible, so that the conflict is not only between cars and pedestrians, but between fast and slow speeds and also between such types of movement as smooth and jerky or straight and irregular"[14]. High speeds require designs that have distant views, gradual curves, large scale regular rhythms, wide symmetrical spaces, gradual changes and simplicity where as slow speeds require designs which have short views, sudden changes in direction, small scale, narrow asymmetrical spaces, intricacy and complexity[14]. According to Rapoport dynamic pedestrian spaces should be linear, narrow and winding with hidden views to encourage walking, strolling and sauntering; while static pedestrian spaces should be wider, calmer often green to encourage sitting, viewing other people – a stage for social behavior[14]. Sometimes

even very wide streets sustain pedestrian activity, like the Champs Elysees in Paris. Here the pavement space is divided between outdoor cafes and narrow movement corridors, the people and tables creating complexity. Hence the street becomes a dynamic as well as a static space[14]. In the case of M.G. Road the sidewalk is narrow and therefore does not provide enough space for lingering and supports only dynamic pedestrian activities. Also the pedestrian activity on the street is distracting for motorists. There is a need to widen the sidewalk and plant trees along the curb to provide visual protection from each other for the pedestrians and the motorists.

## 3.3. THE SQUARE

City squares and plazas have long been known to be a hub of social activity. At various times they functioned as market places, places for social, political and religious gathering, places where people debated and law was practiced. As a gathering place for people squares had the effect of "humanizing them by mutual contact"[15]. Michael Webb believes that "squares are microcosms of urban life, offering excitement and repose, markets and public ceremonies, a place to meet friends and watch the world go by"[16]. Akinori believes that "The square … thrives on the rich tapestry of civic chaos … the city … the square is its heart …"[17]. Paul Zucker calls a square a "psychological parking space". He goes on to add that "If one visualizes the streets as rivers, channelling the stream of human communication – which means much more than mere technical 'traffic' – then the square represents a natural or artificial lake"[15]. He believes that size and scale doesn't affect the physical and psychological function of a square. Webb describes the square as an outdoor room enclosed by walls and the sky as a ceiling with "doors to admit traffic". Zucker too has a similar description of a square according to which he defines space as a three dimensional volume dependent on "the relation between the forms of the surrounding buildings; on their uniformity or their variety;"[15] on their proportions with respect to the open area; angle of access streets and placing of fountains, and monuments. In other words three elements define a square – walls of surrounding buildings, area of the ground, and the sky over the square. When combined successfully the space "crystallizes" into a square. "The square as a living organism changes continuously with varying socio-economic conditions and altered technological possibilities"[15]. Squares are never complete, they are like a city – living organisms constantly in flux. Hence different generations experience these squares differently[15].

Bangalore has several different types of squares, namely the market square, the religious square, the *maidan* and the parade ground. Jere Stuart French classifies squares according to their function or use, into market, military, the parvis, residential, collegiate, civic centre, the mall and traffic island[18]. This classification can be applied to squares or square-like spaces in Bangalore.

French believes that the evolution of the square has been influenced by natural and behavioural factors resulting in distinction of physical form and functional purpose[18]. The **Behavioural factors** are – economic, political, social, and religious and **Natural factors** are – climatic, geographic, geologic, topographic, and vegetative. The factors that apply to Bangalore are:
- **Economic**, as mentioned earlier some of the earliest squares were market squares. Driven by the prevailing economic climate these thrived as places for trade and commerce forming the centre of the economic network, connecting the hinterland to the town or city, for example Dodpete Square in Bangalore.
- **Religious**, many towns especially during medieval times were ecclesiastical centres. As a result the cathedral or temple was the dominant structure at the heart of the city or town with its square. Kempe Gowda transformed Bangalore into a Hindu religious centre by building many temples, which often had a square at the entrance.

- **Geographic,** location dictates climate, which in turn influences the design of squares. Also the strategic location of towns and cities greatly influenced the growth of squares. For example market squares located at the intersection of major trade routes benefited greatly from this like in the case of Bangalore.

Just as villages have evolved naturally into cities or have been planned and executed in a short period of time, so the individual squares have been shaped by people's needs, ruler's will, topography, and architectural fashion, some evolving over time in a piecemeal manner, while some being designed and executed within a short span of time. Rob Krier says the appropriate functions for a square are, " commercial activities …, such as the market, but above all activities of a cultural nature. The establishment of public administrative offices, community halls, youth centres, libraries, theatres and concert halls, cafes, bars, etc. Where possible in the case of central squares, these should be functions, which generate activity twenty-four hours a day. Residential use should not be excluded in any of these cases"[19]. "Market places, parade grounds, ceremonial squares, squares in front of churches and town halls etc., all relics of the Middle Ages, have been robbed of their original functions and their symbolic content and in many places are only kept up through the activities of conservationists"[19]. This observation of Rob Krier brings to mind Parade Ground in Bangalore. A vestige of the colonial era it has lost part of its significance and meaning post independence even though it was passed on to the Indian Army.

## 3.4. CONCLUSION

In conclusion we can say that Bangalore is an example of a city that is a combination of both the city as a structure of spaces such as the *pete* and city as a structure of solids such as the colonial city. The primary urban public space in Bangalore is the street and to a lesser extent the square. The culture of Bangalore and the richness of traditional streets in Bangalore sustain a vibrant street life. Other factors such as pleasant climate, short distances to destinations, absence of fast vehicular traffic and presence of many shops and cafes all continue to support an active street life in the traditional city. In the colonial city though, increase in fast moving vehicular traffic and long distances to destinations are slowly discouraging an active street life and public life is slowly receding indoor into malls and super markets. Based on Joseph Rykwert's definition of 'street' and 'road' we can say that M.G. Road has gone from being a 'street' to a 'road'. In M.G. Road the sidewalk is narrow and therefore does not provide enough space for lingering and supports only dynamic pedestrian activities. Also the pedestrian activity on the street is distracting for motorists. There is a need to widen the sidewalk and plant trees along the curb to provide visual protection for the pedestrians and the motorists.

Squares in Bangalore can be classified based on morphology as dominated, and nuclear and based on function as: market, military, parvis, residential, civic centre, mall, and traffic island. The factors that have affected the evolution of squares in Bangalore are economic, religious, and geographic. Squares are more desirable spaces to linger than streets, which are usually reduced to their function of circulation. Squares in Bangalore haven't proliferated since independence. Most of the squares were developed in the traditional city before the British invasion. Some types of squares were introduced by the colonials, which included parade grounds and traffic islands. Some of the squares such as the Parade Ground on M.G. Road have lost their relevance and need to be redeveloped to cater to present needs so that over time they can accrue meaning and better serve the city.

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# CHAPTER 4: CITIES, STREETS AND CHOWKS (SQUARES) IN INDIA

This chapter examines cities in India with respect to public space. The basic urban forms are discussed and the resultant public spaces that were created. It draws conclusions regarding Bangalore's urban form and the types of public spaces found in the city. It also provides a background to a later discussion in Section II about public space in Bangalore, India.

## 4.1. CITIES

The earliest known cities in India dates back to the Indus Valley civilization around 2350 BC, which was replaced by the Aryan civilization in the north and the Dravidian civilization in the south around 600 BC and set the foundations of a continuous Indian civilization till today. Urbanisation in the last 2500 years in India has seen periods of growth and decline. Cities and towns were built and flourished during the Mauryan period (300 BC to AD 600) both in the north and south; the Mughal period in the north and Vijayanagar period in the south; and post independence throughout India. These were interspersed by periods of decline – post Mauryan period (AD 600-1000) in north India and British period through out the country. When the British first arrived in India it was perhaps the most urbanized nation in the world. Two hundred years of British rule reduced India into a subservient, agrarian economy. After independence urbanization received a boost and India is today poised to realize unprecedented growth. Indian cities can be broadly classified into traditional, colonial and post-independence cities.

**TRADITIONAL**
The earliest phase of the Dravidian civilization, of which Bangalore is a part, has been traced back to the 5th century BC and its origin is unclear. The earliest settlements in south India were mostly rural settlements and date back to the 2300-1800 BC. The first urban settlements started around 500 BC. Classical Tamil literature of the Sangam period gives us ample evidence of an independent urban civilization in the south[1]. Several cities like Madurai, Vanji, Urayur, Puhar and Korkai evolved serving as capital cities of the early Tamil kingdoms of the Pandyas, Cholas and Cheras. The Dravidian country was divided into 4 *mandalams* ruled by kings (similar to the *mahajanapadas* of the north). *Mandalams* were further subdivided into *nadus* and *kottams* ruled by chieftains. Thus a system of capital cities evolved. Besides the capital cities there were several port cities specialising in international trade. The distinctive feature of the Tamil kingdoms was the existence of two capitals – one an inland capital and the other a coastal/port capital[1]. The southern cities traded with the Arabs, Greeks, Romans, Sumerians and the northern kingdoms. Unlike the north, urbanization in the south remained a continuous process from the 5th century BC.

While the Mughals ruled medieval India in the north the Vijayanagar Empire took root in the south, flourishing into the last great Hindu empire from 1300 to 1600 AD. Urbanisation reached its zenith in their capital city of Hampi (now a world heritage site), which was sacked and destroyed by Muslim invaders in 1565 AD. Kempe Gowda, who was a chieftain under the Vijayanagara kings, built Bangalore to serve as his capital. Hence Bangalore developed in the tradition of the Vijayanagara cities, which were characterised by a dominant temple around which the city was ordered. The temple was the focal centre with concentric squares of streets. The inner squares were occupied by the upper castes and the lower castes lived in the periphery. Streets leading in from the four gates of the temple in four cardinal directions were mostly commercial streets. These served as arterial roads linking the inner city to the periphery, and beyond into the countryside. Besides Vijayanagar, the Marathas came to power in the west by 17th century, the Nizams in Hyderabad and the Muslim

kingdoms of Golconda, Bijapur and Aurangabad in the Deccan. Thus the two southern states of Tamil Nadu and Kerala never became part of any Muslim kingdom, Karnataka and Andhra (the Deccan) acting as buffers. Between the Muslim north and the Hindu south, central India and Deccan, where Bangalore was located, was dotted by several Hindu and Muslim kingdoms after the fall of Vijayanagar empire. Hence the urban centres of the Deccan came to be a mix of Hindu and Muslim forms. Most of the cities were well planned with neat street layouts and large central market. A temple, mosque or palace formed the focal point of the city.

## COLONIAL
Urbanization declined throughout the 19th century in spite of political stability and consolidation of India under the British crown. According to Prof R. Ramachandran this was due to 2 reasons[2] –
- Lack of interest in India's welfare and prosperity on the part of the British.
- The industrial revolution in England reduced India to a market for British goods with no industrial base of its own.

During British rule the Indian cities began to decline and only the colonial cities grew. This was because the British systematically reduced India to a subservient economy. The lack of patronage led to the decline of local industry and crafts. At the same time the industrial revolution in England led to India becoming its primary market. For example cotton grown in India was purchased for a pittance and sent to textile mills in Manchester, then the finished product was sold back in India at a huge profit. This killed the local textile industry in many cities, including Bangalore.

According to Prof. R. Ramachandran one of the main contributions of the British to urbanization in India was the creation of cantonments and civil lines (British neighbourhoods) adjacent to native towns[3]. They were created because Indian towns and cities were deemed unfit for European habitation. These exclusive townships, located a little away from native cities and towns, tried to simulate European life. A central feature of the cantonments was the central mall or main street with a parade ground, church, barracks, shops, government offices, a cemetery and bungalows, as seen in New Delhi and Bangalore. There was also improvement in urban administration and amenities. The British introduced modern urban amenities and improved civic administration. These amenities were first provided only to the civil lines and cantonments and did not reach the native towns and cities until much later. Even at the time of independence most Indian cities lacked modern urban infrastructure and town planning agencies. Bangalore was one of the few cities which benefited during the colonial times due the patronage of the Maharaja of Mysore. It was one of the first cities in India to receive metered electricity and a town planning agency. One of the important outcomes of British rule was the westernisation of Indian cities, which is evident in Bangalore. This reinforced the long tradition of urban-rural divide in India.

## POST INDEPENDENCE
Post independence saw an increase in India's urban population from 17.6% of total population in 1951 to 30.5% in 2001. Bangalore became one of the fastest growing cities in Asia and this trend continues to date. According to Prof. R. Ramachandran the major changes after independence were[4] –
- Influx of refugees from Pakistan and Bangladesh and their settlement primarily in urban areas in the north and rural areas in the east. Fourteen new towns and several townships were built to settle the refugees.
- Creation of new state capitals (administrative cities).
- Creation of industrial cities and satellite townships to existing cities.
- Rapid growth of the 'hundred thousand' and 'million' cities.
- Stagnation and in some cases decline of small towns.
- Proliferation of slums and squatter settlements in the million cities and emergence of rural-urban fringe.

- Introduction of city planning and improvement in civic amenities.

All these factors also contributed to rapid urbanisation of Bangalore and its resultant problems.
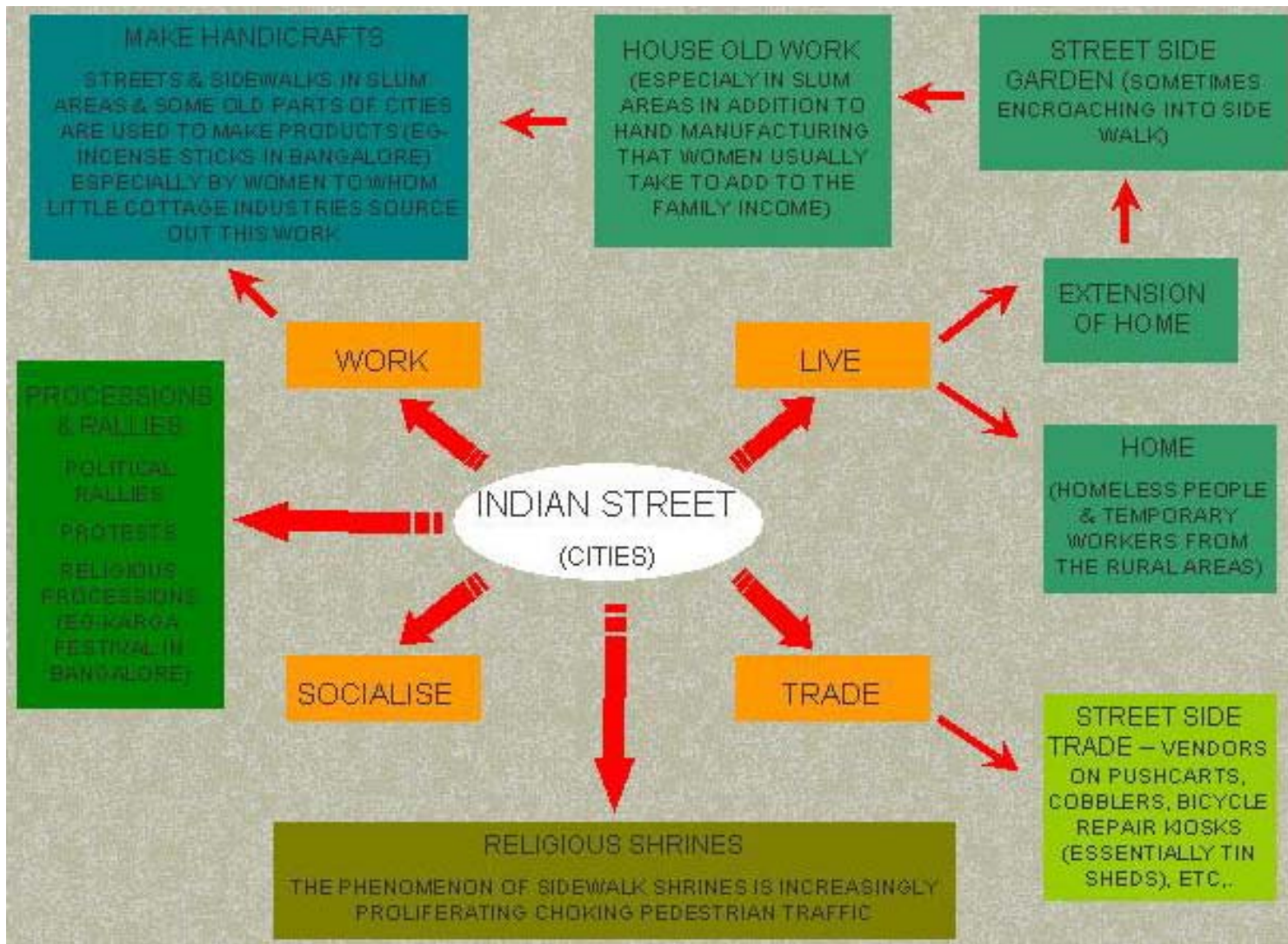
## 4.2. STREETS

Many open areas in India's cities and villages are bisected by 'desire lines'. These paths formed by trampled lawn or compacted earth, represent what Priyadarshi Sharma calls a 'line of least resistance' or the shortest or easiest route from point A to point B[5]. These desire lines were the genesis of many streets in India's villages and traditional cities. In some cases these streets evolved from left over spaces after building or were designed elements imposed on the landscape in a grid or other pattern. As population and densities increased the former evolved into a network of interesting streets and squares. For example in the Mughal city of Shahjahanabad only the major axes and monarchial and civic/religious complex were designed and laid out, with the rest of the city growing around it spontaneously and organically. In the case of Bangalore it was Chickpet and Dodpete streets, which intersected forming Dodpete Square. The resultant streets were narrow and winding which occasionally widened into *chowks* at important nodes. Chandni Chowk in Delhi was one of the most important streets. It was a street with a central canal lined with trees on either side and served as a processional path for the emperor and a meeting place for the people. Today it is a major commercial street. Despite being choked with traffic it is a popular place to shop and for entertainment. Avenue Road and Chickpet Street are similar streets in Bangalore. The street as part of a grid either remained a suburban type urban form or densification led to consistent street facades resulting in interesting streetscapes. Many Indian cities such as Jaipur, were also a combination of the above or existed side by side as in Bangalore.

Correa and Buch believe that, "*A component of primary importance to any city is the quality of its streets. In India, from the earliest times of Harappa and Mohenjodaro, through the Vijayanagar town of Hampi, right up to Jaisingh's Jaipur, the street as an architectonic environment has been superbly understood. Buildings are not allowed to be placed at random points on the site, but are organized to form continuous facades, thus defining the public right-of-way; hence the 'pink city' of Jaipur, a great piece of sculpture where the facades of the buildings relate to the public spaces the way walls relate to the rooms they contain*"[6].

The British cantonments on the other hand comprised mostly of spacious bungalows sited within sprawling compounds. This was done for security, to keep the natives at distance and was influenced by the idea of the 19th century English country gentelman[6]. Thus post independence, according to Correa and Buch, "India, and especially her ruling classes, inherited the idea of an elite living in large anti-urban bungalows right in the heart of huge crowded cities"[6].

As cities expanded with increased automobile traffic, fortifications and gateways of walled cities were torn down such as the fort in Bangalore; roads were widened, destroying tree cover, encroaching into open spaces, damaging the streetscape and posing a threat to pedestrian safety[7]. This was further exacerbated by planners, who implemented setback rules for new buildings, which juxtaposed with old buildings, to create a discontinuous street façade. Also road-widening schemes, which are popular in India to relieve traffic problems, are eating into sidewalk space killing street life. With sidewalk space being squeezed out into oblivion in some area, pedestrians walk on streets adding to the chaos. This problem is especially acute in Bangalore.

MAKE HANDICRAFTS

STREETS & SIDEWALKS IN SLUM AREAS & SOME OLD PARTS OF CITIES ARE USED TO MAKE PRODUCTS (EG- INCENSE STICKS IN BANGALORE) ESPECIALLY BY WOMEN TO WHOM LITTLE COTTAGE INDUSTRIES SOURCE OUT THIS WORK

HOUSE OLD WORK (ESPECIALY IN SLUM AREAS IN ADDITION TO HAND MANUFACTURING THAT WOMEN USUALLY TAKE TO ADD TO THE FAMILY INCOME)

STREET SIDE GARDEN (SOMETIMES ENCROACHING INTO SIDE WALK)

EXTENSION OF HOME

WORK

LIVE

INDIAN STREET (CITIES)

PROCESSIONS & RALLIES

POLITICAL RALLIES

PROTESTS

RELIGIOUS PROCESSIONS (EG-KARGA FESTIVAL IN BANGALORE)

HOME (HOMELESS PEOPLE & TEMPORARY WORKERS FROM THE RURAL AREAS)

SOCIALISE

TRADE

STREET SIDE TRADE – VENDORS ON PUSHCARTS, COBBLERS, BICYCLE REPAIR KIOSKS (ESSENTIALLY TIN SHEDS), ETC,.

RELIGIOUS SHRINES

THE PHENOMENON OF SIDEWALK SHRINES IS INCREASINGLY PROLIFERATING CHOKING PEDESTRIAN TRAFFIC

Priyadarshi Sharma sees streets in India as history, as mirrors of a town and as channels[5]. Streets begin to tell stories as they evolve over the years retaining vestiges of its history, "a kaleidoscope of past and present"[5]. Like wise she says the streets and buildings along the streets are just props for advertisements, posters, billboards, hoardings, political graffiti informing the observer of the goings on in the city[5]. Also the street is a channel for people and goods, pedestrians and motorists. The intensification of the street as a channel for motorists could divide a city and damage the liveliness of a street, as happened during and after colonial rule. She also adds that the shift from traditional mixed use planning to land use zoning led to the emergence of different kinds of streets – commercial, residential, ring roads, etc[5]. This is typical of Indian cities especially Bangalore. Priyadarshi Sharma believes that, "The street is the only truly public institution in the town – it is the lens through which a town is viewed and judged. Any radical changes in the town, mean changes on the street"[8].

The use of streets in India and Bangalore varies in extremes from a highly public highway or major road to residential streets in *mohallas*, *pols*, *petes* or *bustis*, which are semi-private. Major roads are public to the extent of being free for all where people live, manufacture, trade and socialise. Residential streets on the other hand are semi-private, especially in small, homogeneous areas[9]. They become extensions of people's homes. Poverty and distress

migration has resulted in the use of streets as 'home' in large metropolises like Bangalore over the last few decades. Priyadarshi Sharma says that there is a gradual shift from 'street as residence' to 'residential street' with rise in income levels[8]. Streets in Indian cities also take on different character based on the economic status of the resident community. In lower income groups (LIG) the streets (which are usually narrow whether they are traditional inner cities or LIG housing) become external rooms and community space effectively make them semi-private 'clubs' (as defined by Priyadarshi Sharma)[8]. In some traditional *mohallas* and *pols* in India and also in Bangalore these semi-private spaces are highly controlled, often forming cul-de-sacs, which are occupied, by an extended family or people from the same caste or religion. As the neighbourhood becomes more exclusive the streets become wider, houses larger forming status symbols and activity withdraws indoor away from the street. Streets in upscale suburbs and former colonial neighbourhoods are often empty and quiet compared to poorer or traditional neighbourhoods, which are congested and noisy. This distinction reflects two traditions – indigenous and colonial traditions according to A.D. King[9]. The diagram above represents the relationships and uses of a typical Indian street. Correa and Buch suggest the following to improve Indian cities' streetscapes[6] –

- Mandatory building lines to be clearly specified – along the plot line in commercial areas and 5-10 metres setback along main residential roads.
- Mandatory construction of 50%-100% of the main façade along the building lines.
- Maintaining scale by adopting stepped section where necessary.
- Mandatory arcades to be constructed where appropriate.
- Creating exclusive right of ways for different types of traffic – motorized, pedestrian and bicycle and pedestrianising some streets where appropriate.
- Incorporating space for licensed hawkers along streets where appropriate.

## 4.3. CHOWKS

The *chowk* has been an important public space in traditional Indian cities since ancient times. Often where two streets crossed they would open up to form a *chowk*. Whether as a market square or temple square or a square in front of a mosque, these spaces have been important parts of people's lives. The *chowks* were the 'pulse' of the city, acting as markets, open spaces, venues for cock fights, story telling, preaching and hookah smoking (page 21)[5]. *Chowks* can be seen in villages – the village square or in older parts of large metropolises, e.g. Hutatma Chowk (Flora Fountain) in Bombay. In Karnataka the quintessential village square usually comprises of a central peepal or banyan tree around which a raised platform or *kattee* is built. A couple of small shrines are usually incorporated into the *katte* at the base of the tree. This central space is a multipurpose square where the village *panchayat* (a form of local government) meets under the shade of the tree to discuss village matters and solve disputes. The shrines incorporated into the *kattee* serves as a place of worship. It is also a place for elders and women to relax and gossip, children to play and generally a central community place for the village where dramas are enacted and singing and story telling in the evenings mark festivals and celebrations. Correa and Buch claim that several *chowks* have been converted into "glorified parking lots" in many Indian cities. Correa and Buch suggest that *chowks* and public plazas need to be rehabilitated as important nodes in the city. Parking should be restricted and should be discreet at the edge of such square if at all allowed[10].

## 4.4. CONCLUSION

Traditional Indian cities typically were compact dense low-rise urban developments that were made up of narrow, winding streets, which occasionally widened into market streets or squares such as the *pete* in Bangalore. The houses were mostly inward looking with a central courtyard space. Martyn D believes that though the traditional towns and cities of India are diverse in form and features, the common characteristic among them is the intuitive growth pattern[11]. Martyn D classifies indigenous urban development in India broadly under the following two categories (besides the desert habitats of Rajasthan)[11]:

*Islamic – the principles which guided the structure of Islamic cities in India (Delhi, Hyderabad) have for centuries sustained a quality of life through the unique identity of neighbourhood organizations (mohallas and pols), housing typologies (havelis), an intense mix of activities and a human scale of environment. In addition, various symbolic elements such as mosques, palaces, forts, gardens, chowks and gateways served to generate a rhythmic syntax and coherent urban form. The circulation system of medieval Islamic city was of secondary significance. As a result, the intricate network of streets (galis) occupied the space left over after allocation of spaces for built environment.*

*Hindu – in the design of Hindu towns and cities on the other hand (Kancheepuram, Thanjavur, Varanasi) city structure began with road geometry. These settlements represent physical translations of Vedic principles and concepts of the cosmos. The south Indian temples at Srirangam, Chidambaram, as well as the Meenakshi Temple at Madurai are cities in microcosm. Within their concentric wall enclosures are a whole variety of gateways (gopurams), halls and water lakes, defining a hierarchy of spaces. Zones bounded by the inner walls are usually marked by strict caste sub-divisions, and an elaborate system of rituals and rules determine the direction of circumambulation during festivals and funerals. Within the outer walls there is a rich complex of dwelling units and shops.*

According to him traditional cities comprised of 'units of social identification' (neighbourhoods like *pete*, *pols*, *mohallas*) and 'units of group interaction' (streets, *galis*, *chowks*) characterising a cellular growth pattern[11]. Bangalore therefore is a blend of traditional Hindu and colonial urban forms.

According to Ranjit Sabikhi, "*with the decline of Mughal rule in India, the sequential chain of indigenous town planning broke down and the pattern of planning as followed under British colonial rule took an entirely different course, turning its back on most of what had gone on before. It is the colonial inheritance that still dominates our thinking in planning and urban design*"[12]. The garrison towns, cantonments and 'civil lines' that were developed by the British, such as the one in Bangalore, were mostly expansive, suburban, grid developments, which had the tendency to sprawl. Ranjit Sabikhi says, "with such layouts there could be no sense of enclosure or urban design and the city became a sprawl blurring the hitherto sharp definition of urban space and its surroundings"[12]. This modern development was inspired by Ebenezer Howard's 'Garden City' concept, which guided development in Bangalore and reached its climax in India with Lutyen's New Delhi[12]. Hence the traditional city as a 'structure of space' was replaced by modern development, which was a 'structure of solids' (as identified by William C. Ellis).

Sabikhi claims that after independence in 1947, many architects and planners were inspired by post-war British and American development and failed to evoke a strong emotional response in ethnic terms. He says that along with the tower in space concept of the modern movement came the concept of single use zoning which was used by post-war planners in Europe and America to deal with the

"*confused conditions created in their urban areas by the pressures of the industrial revolution. In the Indian context, this had little or no validity as it merely served to cut across the existing framework of all traditional towns and cities, where a close link prevailed between dwelling units and the place of work, and invariably a mixture of use even within the same building was common. Instead of rationalizing the existing frame work recognizing its merits and disadvantages, a totally new concept of single use zone planning was introduced, which apart from being unsuitable, has*

*largely been found to be unimplementable*"[13]. He adds that, "*As space standards became more stringent, the same model was squeezed tighter and the same concept of front, rear and side set-backs was reduced to a state of meaninglessness in social and cultural terms*"[12].

Hence post independence byelaws and planning has encouraged the colonial form of development in Bangalore aspiring to provide 'a bungalow for everyone' no matter how small, leading to urban sprawl.

Sabikhi believes that, "excitement and interest in the traditional towns and cities of India was obtained by its integrated structure coupled with mixed uses and a high level of intensity"[13]. Martyn D reiterates Ranjit Sabikhi's idea in saying, "the organization of open spaces are more meaningful generators of morphological structure than the built form", in the Indian urban context[11]. Typically public spaces in Indian cities consist of streets, *chowks* or public squares, gardens and *maidans* and open spaces as adjuncts to public and religious buildings. The tendency towards more western urban forms and patterns of development in Bangalore has resulted in the loss of what Sabikhi calls "excitement and interest" in the city. This has affected the public life of streets and led to lack of imageability of the city centre. Martyn's belief that open spaces are more relevant structuring elements in the Indian context provides an important clue to the development of a more imageable city centre in Bangalore.

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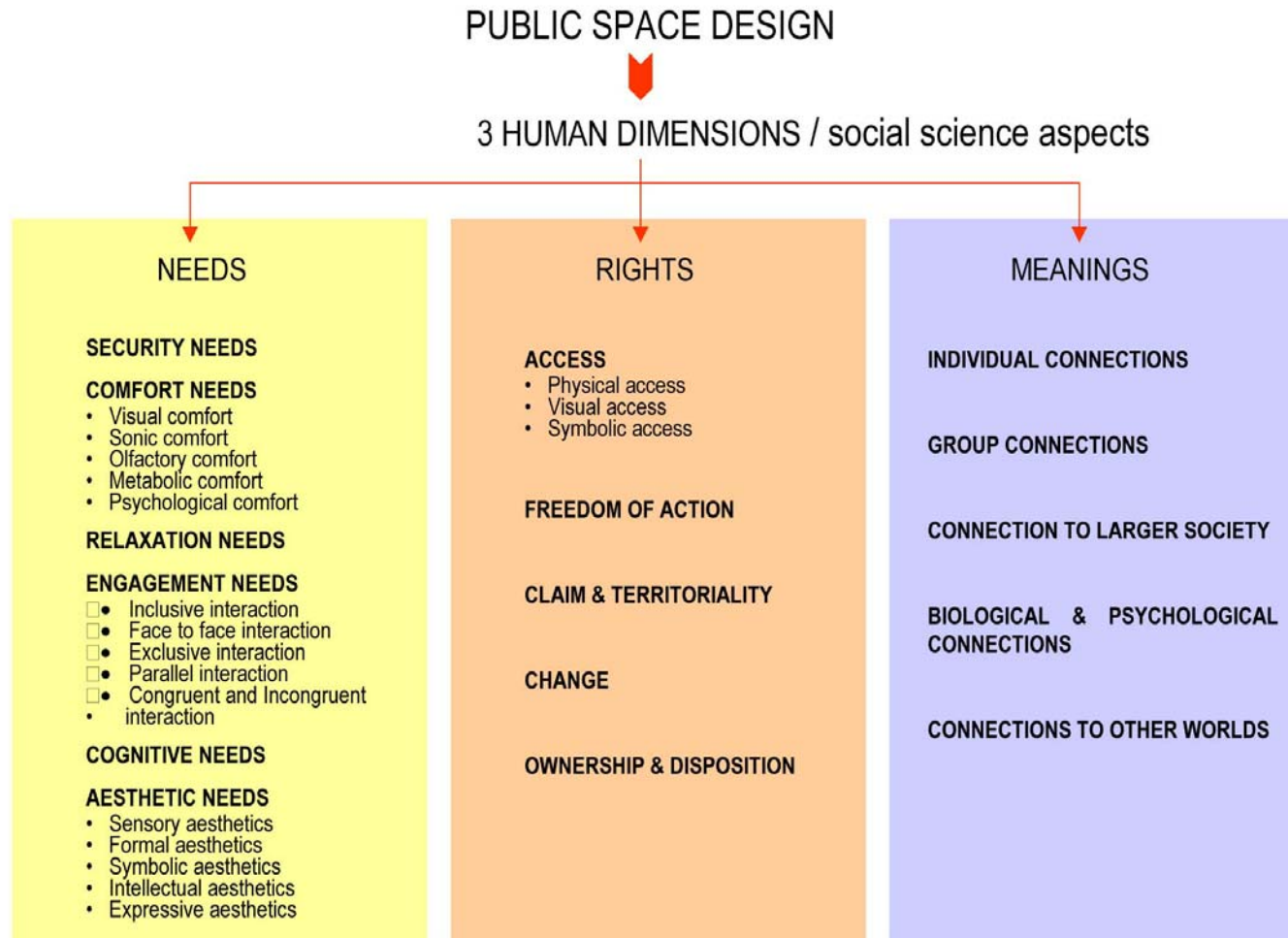13. Sabikhi, Ranjit, pg. 36.

# SECTION I – CONCLUSION

Public welfare should be the primary motivation for creating or improving public spaces in Bangalore. Public space is extremely important for the lower income groups in Bangalore, especially those living in crowded traditional neighbourhoods. Public spaces should provide recreation space for lower income groups and give them a sense of belonging and ownership. The rights of the lower income groups in Bangalore need to be enshrined making sure they have right of access, freedom of action and temporary claim and ownership over public spaces in Bangalore. The poor and the nationalists in Bangalore need to feel a sense of ownership over the city's public spaces. As discussed earlier a participatory public space design process would be a useful tool to encourage a feeling of ownership. Besides being symbolically owned by the above two groups a public space can be a status symbol, an object in which they can take pride, which is important for Bangalore's middle-class. Public space design should also facilitate the fulfilment of the Kannada nationalist's affiliation needs. One of the goals of public space design should be to convey a sense of self-esteem for the nationalists. This is especially relevant for the nationalists in Bangalore.

Limited public space in Bangalore has led to conflict between various user groups. A major issue in public spaces in Bangalore is claim over it by a user group at the expense of others. A balance of users and activities is desirable in public spaces in Bangalore. The solution to this is a compromise plan, which segregates different users to separate spaces, which support their respective activities. Organising special events and performances at regular intervals helps bring in other users, mitigating the monopoly of one group. Also designing and planning of public spaces in Bangalore can incorporate the claims of various groups. Besides reducing conflict public spaces in Bangalore should encourage different types of interaction. The promenade, street and the *chowk* (square) are types of public spaces, which encourage interaction between strangers. Parks, gardens and children's play areas also provide spaces for parents and children to interact. Festivals and performances are important events that can facilitate interaction at a large scale and bring a city together. Public spaces in Bangalore can bring diverse groups together so that they learn from each other and have great potential to bring about reconciliation among various groups in Bangalore.

A public space in Bangalore should over time become "meaningful symbolically". While public spaces should have strong connections and meaning to Bangalore it is also important that these spaces evolve to remain relevant to the present users. Bangalore's 'Garden City' image has been the most enduring of its many images and provides clues for future public spaces to be relevant and meaningful to its citizens.

The theoretical framework derives from the following diagram.

## PUBLIC SPACE DESIGN

## 3 HUMAN DIMENSIONS / social science aspects

### NEEDS

**SECURITY NEEDS**

**COMFORT NEEDS**
- Visual comfort
- Sonic comfort
- Olfactory comfort
- Metabolic comfort
- Psychological comfort

**RELAXATION NEEDS**

**ENGAGEMENT NEEDS**
- Inclusive interaction
- Face to face interaction
- Exclusive interaction
- Parallel interaction
- Congruent and Incongruent
  interaction

**COGNITIVE NEEDS**

**AESTHETIC NEEDS**
- Sensory aesthetics
- Formal aesthetics
- Symbolic aesthetics
- Intellectual aesthetics
- Expressive aesthetics

### RIGHTS

**ACCESS**
- Physical access
- Visual access
- Symbolic access

**FREEDOM OF ACTION**

**CLAIM & TERRITORIALITY**

**CHANGE**

**OWNERSHIP & DISPOSITION**

### MEANINGS

**INDIVIDUAL CONNECTIONS**

**GROUP CONNECTIONS**

**CONNECTION TO LARGER SOCIETY**

**BIOLOGICAL & PSYCHOLOGICAL CONNECTIONS**

**CONNECTIONS TO OTHER WORLDS**

The following diagram represents the theoretical framework for Bangalore.

## PUBLIC SPACE DESIGN IN BANGALORE

### social science aspects

| NEEDS | RIGHTS | MEANINGS |
|---|---|---|
| **ENGAGEMENT NEEDS**<br>• Inclusive interaction<br>• Face to face interaction<br>• Exclusive interaction<br>• Parallel interaction<br>• Congruent and Incongruent interaction | **ACCESS**<br>• Physical access<br>• Visual access<br>• Symbolic access<br><br>**FREEDOM OF ACTION**<br>• Freedom to use a space as one desires.<br>• Freedom to indulge in activities that one desires.<br><br>**CLAIM & TERRITORIALITY**<br>• Symbolic claim.<br>• Claim through repeated use.<br>• Territorial rights.<br><br>**OWNERSHIP & DISPOSITION**<br>• Ambiguity of real ownership.<br>• Symbolic ownership by users.<br>• Participatory process to enhance symbolic ownership. | **GROUP CONNECTIONS**<br>• Meaning through repeated use.<br>• Symbolic meaning of a way of life or belief of a small group.<br>• Meanings change over time.<br><br>**CONNECTION TO LARGER SOCIETY**<br>• Meaning through repeated use.<br>• Meaning for believers of a faith or system.<br>• Civic or national meaning.<br>• Natural or cosmic meaning.<br>• Meanings change over time. |