Chapter 5.3

INTRODUCTION

Public space includes almost all land that does not belong to private institutions or individuals. Soft open space (addressed in Sub-chapter 5.4) is the unbuilt or “green space” flowing almost in natural lines through the settlement. Hard open space, on the other hand, is accessible and built public space within the built environment and can be viewed as either semi-public or public hard open space.

Within existing developments, open spaces are usually the result of space-left-over-after-planning. They should, however, be effectively designed from the outset in order to serve as purposeful public spaces. A greenfields development thus poses the opportunity for hard open space to be designed with a purpose in itself. Purposeful spaces should respond to user need, be carefully accommodated and sensitively designed. Then only can they be sustainable spaces that can be effectively used by future generations.

With the renewal or upgrading of existing areas, hard open spaces should be redesigned to better fulfil the public’s demand for a quality environment with aesthetic appeal and a functional purpose. During the renewal/upgrading process, existing left-over-spaces between buildings can be redesigned to serve as effective public spaces that only serve as walkthroughs. Through renewal programmes these spaces and their directly linked areas could be given a new lease on life.

AIM OF THIS CHAPTER

In encouraging the effective functioning and urbanity of cities and thus also hard open space, it is important to provide guidelines for development, which is the aim of this chapter. These guidelines illustrate how certain generic forms of public space should be planned to avoid being merely meaningless leftover space.

In using these guidelines it is important to note that the specifics of a situation (the contextual determinants, such as context, site, climate, function and cultural determinants, and the symbolic aspects, such as culture, identity of place, user characteristics) should be considered in the planning and design process. Even though this chapter focuses on a neighbourhood/sub-metropolitan level, the guidelines have to be applied in a broader context within a hierarchy of hard open spaces. Through the interpretation of contextual and cultural determinants, certain distinctive elements of hard open spaces can be derived, evolving towards a unique relationship between the place and the contextual environment in which it functions. It is vital for the reader to bear in mind that the guidelines should merely serve as tools. They provide a means to an end and, to produce successful hard open spaces, they should be combined with the designer’s own creativity and ingenuity.

THE ROLE OF HARD OPEN SPACE

In terms of settlement systems, hard open spaces fulfil a crucial role in providing continuity through various other elements of settlements. The public space (hard and soft) between buildings is the heart of the built environment and one of the fundamental form-giving elements of settlements. Through the integration of both the soft and hard open space systems with the built environment, a certain urban structure is created. The quality of public spaces is the result of the planning and development of a settlement. Densification and the reduction in the size of private space make the availability and quality of the public space system of utmost importance to the public realm.

A vital relationship exists between movement networks and hard open space, as the movement network is mostly encompassed by, or accommodated within, public hard open spaces.

According to Rapoport (1977) the relationship between different spaces is as important as the space itself. This relationship is twofold as, on the one hand, it has to do with the continuity and flow of space between different scales or levels of spaces and, on the other, it has to do with flow of space from private to public domains.

This continuity between hard open spaces and soft open spaces is very necessary if the different settings for social, economic and environmental development are to be integrated.

FUNCTIONS OF HARD OPEN SPACE

In order to effectively derive and utilise guidelines for the planning and design of hard open spaces, the point of departure should be the functions taking place, or which ought to be taking place, within hard open spaces. Function should altogether relate to the ability of the open space to foster healthy public living. It has to promote activities as diverse as possible in a multifunctional manner, in order to produce a vibrant environment for people.

In terms of structure there exists a continuum of hard open spaces with different degrees of publicness. These vary from semi-public hard open spaces to public hard open spaces. Based on the degree of publicness, function will vary between these spaces.

For discussion purposes the functions of hard open spaces can be broadly classified on the basis of either active or passive use, encompassing social functions, movement functions, economic functions and political or symbolic functions.

Social functions

• Social functions include activities such as play, sport and recreation. Open spaces are especially used by children for play and recreation. A possibility which has not been adequately capitalised on, yet, is the conversion of open spaces to hard surface playgrounds for games like basketball, etc.
• Cultural entertainment (Moughtin 1992, p 89), such as performing musicians and artists, also forms part of social functions taking place on hard open spaces.

• Another important social activity of hard open spaces is lingering or resting. Public places should function as magnets which draw people to themselves or to the associated public facilities. With the correct mix of surrounding land uses these spaces could become attractions and visitors' destinations.

• Hard open spaces, due to their locality between private spaces and public spaces, are very functional meeting and socialising places (Moughtin 1992, p 89) for business people, shoppers, the unemployed, friends and the elderly during the day, and largely for the young at night. The spaces are particularly important to the least mobile sections of the population as very visible places to meet and enjoy conversation with others.

**Economic functions**

• The function of street vendors (trading) is an economic activity taking place on hard open spaces that has become a vital part of the South African urban experience. Street vendors are dependent on open spaces such as streets or public transport facilities where there is a flow of pedestrians, and they are in direct contact with their customers.

• Hard open spaces also cater for outdoor markets in designated areas, as well as through the multifunctional and temporary use of parking areas, streets and sidewalks (Rapoport 1977, p 100).

• Hard open spaces are the ideal setting for gatherings like festivals or market places (Moughtin 1992, p 89), which function in parallel with the space as an agent for social interaction.

• Access to facilities such as public services, civic buildings (clinics, libraries, etc.) and shopping spaces are an important function of hard open space (Moughtin 1992, p 89).

**Movement functions**

• Hard open spaces provide access to public facilities and transport, not only via walkways and sidewalks, but also to places for waiting and intermodal transfer at stops or stations.

• In terms of movement or access, hard open spaces are usually located at points of relatively high accessibility.

• Hard open spaces also encompass spaces such as intersections and traffic junctions.

• Parking is an important activity that takes place in hard open space.

**Political or symbolic functions**

• Hard open space can provide a venue for ceremonial occasions and parades.

• An important symbolic function of hard open spaces is the provision of suitable, identifiable and accessible settings for civic buildings.

**DIFFERENT GENERIC FORMS OF HARD OPEN SPACES**

Most of these briefly discussed generic forms of hard open space can and should be used and managed as multifunctionally as possible.

**Mixed-mode streets**

Mixed-mode streets are streets that contain a mix of motorised and non-motorised users. Although these streets are in part dominated by vehicular movement, they include the hard open space components of sidewalks, bicycle paths and space for the provision of engineering services. Variations and uses of sidewalks and road reserves can be exploited. Road reserves can, for example, be applied to better locate informal traders by making sidewalks wider and catering for sidewalk parking.

**Pedestrian-orientated streets**

Pedestrian-orientated streets can be regarded as streets set out for the main purpose of pedestrian use, such as the “woonerf” concept and arcades. Variations on use and function are available, including play streets, streets closed (temporarily or permanently) and alleys used for trading, markets, recreation and entertainment.

**Squares/plazas**

Various forms and uses for squares and plazas exist. The most common uses are as atriums, courtyards, intimate inner-city parks, markets, meeting places, and spaces for entertainment, sport and recreation.

**Markets**

It is impossible to distinguish between permanent and informal markets, such as informal trading on sidewalks or markets in parking areas or streets. Retailing forms an important part of hard open spaces, and includes convenience and specialist markets.
Parking areas

Parking areas are also considered hard open spaces, but their present use leaves much to be desired. Parking in the street and in front of shopping centres, office blocks, churches and public buildings is most common. Opportunities exist for a variety of uses; especially with regard to different times of night and day and different days of the week.

Public transport stops and stations

Various forms of hard open space relate to stops and stations for public transport, such as bus stops, taxi ranks and bus depots. These spaces can also be used multifunctionally for informal markets and meeting places.

THE INFLUENCE OF USER GROUPS ON THE PLANNING AND DESIGN OF HARD OPEN SPACE

In order to identify various user groups, a hierarchy of activities could be set out (Van Zyl 1997). The first of these sets of activities is “necessary activities”. These activities include those that are more or less essential aspects of living - shopping, waiting for a person, running errands. A second category of activities is “optional activities”. These are activities participated in if there is opportunity and if time and place make it possible.

Users can be identified by the level of their participation in necessary or voluntary functions, whether static or dynamic. Users can also be identified in terms of their demographic characteristics (age, gender, race, income group, culture, ethnic group, children, teenagers) or in terms of their location-specific activity, in which case activity equals the user, such as the selling of vegetables.

Some of the various user groups that need special mention and attention in the design of hard open spaces, as well as some of their specific needs, are:

- children need formal and informal play areas, and safety;
- elderly people need convenient access, seating, safety and shelter;
- youth need space for activity, safety, multifunctional uses, socialising and lingering;
- disabled people need adequate ramps and access as well as safety;
- traders need public facilities, shelter and public amenities;
- shoppers need public facilities, convenience and access;
- higher income groups need hard open space that provides the setting for private space; and
- lower income groups need to utilise hard open spaces, such as streets, as part of the urban room; incorporating socialising and playing space.

It should, however, be borne in mind that the time at which activities take place can vary between day and night, as well as between weekdays and weekends, and this will influence the user group involved. So a specific hard open space can cater for different groups at different times or simultaneously.

Various cultural and income groups also use hard open spaces differently and have different perceptions regarding open space, urban qualities, environmental quality and cognitive domains of space (Rapoport 1977, pp 24-5).

GUIDELINES FOR THE PLANNING AND DESIGN OF CERTAIN GENERIC FORMS OF HARD OPEN SPACE

General guidelines applicable to hard open space in general are set out first. These are followed by guidelines specific to the following generic forms of hard open space:

- mixed-mode streets;
- pedestrian-orientated streets;
- squares;
- markets;
- parking areas; and
- public transport stops and stations.

For both general and specific categories, qualitative guidelines are defined first, after which quantitative guidelines for each generic form follow. In the case of the specific category, qualitative guidelines refer to:

- location and typologies;
- vertical edges;
- horizontal surfaces;
- public furniture; and
- signage.

Quantitative guidelines for the specific category refer to:

- ratios and thresholds; and
- dimensions and distances.

The guidelines are provided in tabular form and, where applicable, illustrated diagrammatically.