A GUIDELINE FOR MAKING SPACE

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UrbSpace
Urban spaces – enhancing the attractiveness and quality of the urban environment

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Executive Summary

National and international environmental policy, above all the European Landscape Convention, increasingly recognises the critical importance of attractive urban and peri-urban spaces for attracting jobs and investment, as well as improving the quality of life for Europe's citizens, most of whom live in an increasingly urban world. The Landscape Convention is already in force and being implemented in some 30 European countries.

This document provides guidance on the planning and design of good urban spaces, as an indispensible contribution towards meeting the Convention's aims of raising the awareness of and enhancing the urban landscape. It deals with both the process of creating good urban spaces as well as the criteria by which they can be defined and recognised. Urban open space includes not just parks and gardens, urban squares and housing open spaces, but encompasses the whole continuous matrix of un-built land within towns and cities. It forms the settings for all buildings and structures as well as linking inner urban areas with the surrounding landscape.

As part of a planned strategic network of open space running through the whole urban area, well designed urban spaces can contribute to ameliorating the impacts of the urban heat island effect through the cooling effects of vegetation; they can help regulate the water balance and reduce loads on the drainage system by allowing for the infiltration of more rainwater; they can moderate the impacts of noise and pollution and provide habitats for native plants and animals.

At least as important as these environmental and ecological effects, which also help to provide urban residents with a first-hand experience of nature and natural processes, are the many other ways in which urban open spaces benefit people directly. As well as making available physical spaces and facilities for people of all ages and interests to spend their leisure time, to play and engage in both formal and informal sporting activities, they act as an important forum for contact and communication, thereby helping to cement the fabric of society and promote social cohesion by furthering mutual understanding between the increasingly diverse groups which go to make up today's urban society. Green and open spaces are also being increasingly recognised as having a measurable positive impact on the health, both physical and psychological, and well-being of urban residents.

Last but not least, are the less tangible, but by no means less important, benefits which urban open spaces can have in influencing the way in which we perceive and identify with their environment. Apart from helping to structure the urban fabric and making it easier to read and therefore easier to navigate, urban spaces are vital in creating a sense of identity within our towns and cities, and acting as important carriers of meanings and values at a wide range of scales.

Before any, let alone all, of these urban space functions can be fulfilled, one essential precondition must be met: the necessary un-built urban land must be available in the first place. While most towns and cities have inherited an historical legacy of parks and open spaces, where the value of these has not been fully recognised and they have not been properly protected, these spaces are frequently under threat, both from development pressures and the growing demands to accommodate the increasing requirements of motor traffic. The protection of the existing urban open space resource and the provision of new open spaces to respond to the demands created by new development must be a vital part of any strategic approach to urban space.

Of course not all urban spaces are in a position to fulfil all these functions, however, none of them can be assumed to happen automatically. To be successful and to live up to their full and varied potentials, all urban open spaces need to be properly planned and designed. Similarly it is not automatic that the needs of all stakeholders will be met in all open spaces – that is why there is a need to take these into account in a structured manner, and to involve them actively in the planning process. Users of all ages will have different needs and aspirations regarding open space, and so the requirements of all demographic groups, from pre-school children to pensioners will of course need to be catered for.

Experience has shown that there is also a need to pay particular attention to planning and design aspects affecting the interests of certain user groups which have tended to be neglected in the past. Gender sensitive design aims to take a systematic approach to ensuring that the needs of women and men are given equal consideration, but also tries to take into account the expectations of other minority groups in the design process. 'Design for All' focuses on the special requirements of people with disabilities, and it aims to see that they are able to access and use urban open spaces. This

involves ensuring that all barriers to the equal use of urban spaces are removed or avoided, including invisible or psychological ones.

The third special aspect, which is also highly relevant for both the above two groups as well as to other users in general, involves focussing specially on the safety and security aspects in the process of the planning and design of urban open spaces. Design to minimise, not just the potential for crime, but also to maximise the sense of safety and security for all users of open spaces is a key issue here. It is important not to forget that gender sensitive design, 'Design for All' and giving special consideration to the safety and security aspects in the creation of urban open spaces in fact benefits all users, and therefore society as a whole, and not just the groups concerned.

Good urban spaces can and should, therefore, perform a multitude of important functions for as wide a range of the community as possible, and this guidance document outlines both these functions as well as the requirements of the main user groups in detail. To ensure that all these factors are sufficiently taken into account in the planning and design process for the creation of a new urban space or the re-design of an existing one, it is essential that proper attention is given to structuring the planning the design process and to involving all the necessary groups.

The participation of the public is a key part of this, as all stakeholders who will be affected by a planning and design project should also have the opportunity to become actors in the planning and design process. Four main stages of the planning and design process are identified and outlined in detail. These are preparation; design; implementation and finally maintenance and monitoring. It is important that local people and other users, as well as other stakeholders, should be involved in the process from the beginning of the first stage.

Last but by no means least, the final challenge to be met in creating good urban open spaces lies in putting together all the requirements of ecology and the environment, the needs of the varied user groups and the demands of a well structured and participatory planning process in order to create well organised and structured urban spaces. Most importantly, these must not be just anonymous 'spaces' but living 'places' with their own particular identity; they must not be just functional areas, but carriers of meaning and reflective of the values of all groups of users. To achieve this, professional design competence is essential, and suitably qualified specialists in the planning and design of urban landscapes and open spaces should be part of the team from the start.

CHAPTER 1

Introduction: Placing urban open space in a wider context

Summary

This strategy considers urban space to be a fundamental part of the infrastructure of towns and cities; a resource which is much more all-encompassing than traditional view that it simply comprises a limited typology of discrete sites such as parks, sports grounds and city squares. Urban space is understood here to include all the non-built up land within and around urban areas, forming a matrix of space which connects inner urban areas with the surrounding landscape.

Within this wider open space matrix, what are more traditionally recognised as individual open spaces – such as parks or squares, are embedded and form important nodes. This wider view of open space is significant, not least because the way in which such individual open spaces react to their surroundings and their position in the overall open space network should have an important influence on the way in which they are designed.

While it is important to take this strategic view of urban open space as something which is continuous and indivisible, it can be classified according to ownership into public and private space. While this distinction is important in the context of this project, because public open space can be much more easily influenced directly by public policy, it is important not to forget that the open space matrix is not complete without privately owned open spaces, nor that it is frequently possible to influence private space through public policy, including offering grants, providing guidance and imposing planning conditions.

Public policy is indeed increasingly recognising the importance of urban space. Perhaps the most significant recent development is the coming into force of the European Landscape Convention, whose provisions have to be implemented in national legislation in some 30 countries. One of the most innovative developments contained in the Convention is the recognition that landscape covers the whole territory of a member state, and that urban and peri-urban landscapes, where the overwhelming majority of Europe's population lives and works, are at least as important as rural and natural landscapes.

One of the main goals of the European Landscape Convention is to promote a strategic approach, involving landscape protection, management and planning – also in urban and peri-urban areas – and this strategy aims to provide guidance on how this can be achieved.

1.1 Aims and objectives

The project will address the issue of the improvement of environmental quality in smaller urban centres. The project seeks to address the issue of urban planning by focussing specifically on urban landscapes and open spaces in small towns. The European Landscape Convention specifically recognises the value of urban and peri-urban landscapes for the quality of life of the urban population which require a mix of larger and smaller urban areas to operate. The project will take a strategic approach to the promotion of active and informed involvement of a range of stakeholders - local authorities, urban planning experts and local businesses - in the process of shaping and revitalization of urban open spaces important for public life of communities from an early stage in the process. In this way UrbSpace will also address the prevention of socio-pathogenic phenomenon and criminality issues in urban open spaces.[1]

It is the overall objective of the 'UrbSpace' project to provide guidance on how urban spaces can contribute to enhancing the attractiveness and quality of the urban environment in smaller urban centres. This joint strategy focuses on providing recommendations on how to create the necessary attractive and high quality urban landscapes and open spaces which are the precondition for achieving this goal.

In doing so, it builds on the findings of the six working papers dealing with specific aspects of open space design and planning prepared in the previous stage of the project. These covered environmental, participation, gender, security, accessibility and design aspects of the treatment of open spaces.

This document is aimed at those responsible for and concerned with the quality of the urban environment in small towns and cities, and more specifically those involved in the planning, design and management of their outdoor spaces.

For **politicians** and local decision makers it provides insight into:

way of looking at the types and functions of urban open space and the needs of users
ways to achieve the goal of vital urban open spaces
checklists for concrete steps to be taken as part of the planning, implementation and management processes

For **planners** and **designers** it provides:

information on what fundamental documents and decisions should be provided through the local administration / the client before a responsible design process can start
a catalogue of what is considered to be part of an urban open space network
a validation of common patterns for design based on the six foci elaborated in the six proceeding working papers

For **concerned citizens** and **community groups** it gives

the necessary understanding of the issues to be able to take an active and informed part in the planning and design of urban spaces
criteria with which to assess the qualities of both existing urban spaces and the design proposals for new ones

To meet the needs of all these groups, the document aims to address four important questions:

Why do we need urban open spaces in the first place? (Policy context)
What are the characteristics of good urban spaces? (Places + Programme)
Who should we be planning for? (People)
How should we organise the planning process (Process)

The issues of when and where to create urban spaces are ones about which it is less easy to generalise.

1.2 Defining urban open space

Commonly, open spaces in urban areas are seen as individual 'sites' such as parks or squares, and looked at from this point of view they can take a wide variety of forms (see Appendix 1: Catalogue of main types and categories of urban open space). In a broader sense, however, open space can also be considered as something wider and more all-encompassing, namely as the continuous matrix of all un-built land in urban areas – public parks as well as private gardens; urban streets as well as city squares. In this way it both links together individual spaces and flows around and between every building and structure, forming the context and surroundings of each one and connecting the inner city to the surrounding landscape. Indeed, urban space can even be thought of as extending to include all significant outdoor spaces which fall within the influence of the urban area, for example local recreation areas outside the city boundaries.

Although this broader perception of urban open space as an undivided resource is a vital basis for its strategic planning, design and management, for practical purposes it is also necessary to differentiate it into its component parts. There are various ways in which this can be done, including ownership, management responsibility, accessibility, structure and use. One major distinction can be made between public and private space. It is important to remember, however, that it is not only public spaces that can be shaped by public policy. There are numerous ways in which privately owned open spaces can be influenced through public policy. These include planning regulations and conditions placed upon the granting of building permits, as well as the use of public funding in the form of grants made to owners conditional upon the implementation of measures defined by public policy objectives, as well as simply providing public information and recommendations to private land owners on good practice.

While there are cases where the distinction between urban open space in the wider sense and 'public space' is a sensible one, there are also many situations where the issue of ownership is less significant. Public access or use rights can, for example, be granted over private open spaces; conversely privately owned open spaces can play in important role in providing habitats for urban wildlife as well as contributing to the amelioration of the urban climate. Investment in improving the quality of publicly owned open spaces may also be undertaken by private organisations if they perceive it to be in their interests to upgrade the surroundings of their premises and with them their public image. Furthermore, public investment in open space can help to stimulate corresponding investments in neighbouring privately owned spaces.

In terms of management responsibility too, there may be opportunities to transfer at least some management duties and responsibilities to the users. The role of social control is one which can usually only be undertaken collectively by the broad user group. For all these reasons it makes sense to start by taking a comprehensive view of urban open space before going on to look at questions of ownership and agency in relation to the initiation of change. This strategy therefore addresses all open space in urban areas, irrespective of its current ownership status.

1.3 Open space systems, hierarchies and connectivity

Despite the importance of considering individual open spaces, and the fact that they are also to be seen as lying within the continuous matrix of all un-built land which flows between the buildings and structures of all towns and cities, it is also important to think of them as nodes within a wider open space system in the form of a network of inter-connected spaces.

It is being increasingly appreciated that an open space system is a critical part of the infrastructure of towns and cities. Green infrastructure is the term being used to describe the totality of the open space resources – especially those where vegetation has a dominant role to play – of an urban area. The organisation of the resources which go to make up the green infrastructure into a connected system of parks, green wedges and corridors usually takes place according to simple generic patterns which may consist of concentric rings running around the different historic layers of the city, radiating green wedges connecting the inner city with the urban fringe, grids or networks of green corridors or greenways following natural features such as rivers or topographic characteristics, such as hillsides or ridges, or of course combinations of these. But it is important not to forget that other (non green) open spaces also play an equally important role in the urban open space system. Streets, pedestrian zones, incidental urban places and even car park should form part of the strategic view of urban open space. Streets are particularly important element of the urban space matrix as they have a vital function in providing connectivity and linking together different open spaces.

Individual open spaces should be integrated into such an overall system and depending on where they are located in relation to each other, and to the system as a whole, they can play different roles and can be expected to fulfil different functions. The concept of hierarchies of open spaces is connected to the idea of catchment areas: depending on the size of an open space and the facilities it provides, different groups of people are willing to travel different distances to visit it. On this basis open spaces of different sizes and providing functions of either a local, district or metropolitan significance should be distributed throughout the city. How these can be located on the basis of the idea of catchment areas is described in Chapter 3.

The connectivity of urban spaces is important for a number of reasons, all associated with the functions of urban open spaces as outlined in Chapter 2. From the point of view of the urban climate and the encouragement of flora and fauna in urban areas, spaces which are linked to form larger corridors allow for movement of both air masses and species. Similarly from the point of view of the human users of urban spaces, linked and networked spaces make movement safer and easier access to individual open spaces is made possible through their being all connected to an overall network. According to structural considerations too, linked spaces are more effective in articulating the urban fabric and facilitating orientation. Even the potential of urban spaces to reflect meanings and values is improved if these are connected into their wider landscape context.

1.4 The policy context of urban open space

Urban open spaces can contribute to a wide range of ecosystem services and other functions in urban areas. As outlined in Chapter 2, they can play a significant part in reducing the negative impacts of urbanisation on the surrounding environment; they can help ameliorate the climate of urban areas; provide habitats for wild plants and animals and they can also be influential in attracting outside investment. These important benefits are borne witness to by the way in which they can be shown to have a positive impact on urban land prices, which can be itself seen as another benefit in its own right. But perhaps most importantly, they play a vital role in maintaining and improving the quality of life and the health and well-being of their citizens.

Attractive urban spaces of all kinds – from extensive parks dominated by semi-natural vegetation to tight inner urban paved spaces – contribute significantly to the quality of life in urban areas. This fact plays an important part in both attracting investment and jobs, as well as persuading urban residents to spend their leisure time in city, reducing commuter traffic, and the urban sprawl generated by the insatiable demand for homes in the rural green environment, which is destroyed by the very attempt to satisfy this need.

Planners have long been generally aware of these positive benefits, but more recently they have become the subject of policy at both the national and European levels. Key drivers of this development have been changing environmental and social conditions. These mean that urban open spaces are likely to become more rather than less important over the coming years and decades. The need to respond to the impact of climate change and the effects of demographic trends both suggest that they will grow in importance.

These beneficial effects have now been recognised to the extent that the role of urban open spaces have been incorporated into a wide range of policy instruments, perhaps the foremost of which is the European Landscape Convention (1). This came into force in 2004 and has been signed by 36 European countries and ratified so far by 30 of them. The Convention is of particular importance for this study due to the fact that it, for the first time recognises the importance of urban and peri-urban landscapes as being where the majority of the European population lives and works. Urban open space is a central component of the urban landscape.

Urban open space is also acknowledged as an important aspect of the European Union's 'Thematic Strategy for the Urban Environment' (2). Other European policy documents which focus on the importance of open space as a key component of the urban environment include the Leipzig Charter (3), the Aalborg Charter for European Cities and Towns (4). A more detailed overview of the policy context relating to the planning and planning of urban open space is provided in Appendix 1 (Table 1: EU programmes and documents).

With the coming in to force of the European Landscape Convention, it can now be said to have become a matter of agreed policy in all signatory states, that a strategic approach should be taken to the conservation planning and management of all landscapes, including, if not especially, those in urban and peri-urban areas. It is the declared goal of the Landscape Convention to promote strategic approaches, such as landscape protection, management and planning (Article 3), while the whole territory of each signatory state is covered by the Convention, including urban and peri-urban areas, of which urban open spaces clearly form a significant part (Article 2). As a consequence, urban open spaces too must be seen as a strategic issue for landscape planning and management.

As well as the European Landscape Convention, there have been a number of European Union funded projects, both under the Framework Programme and through INTERREG which have also been concerned with aspects of urban open space. These are also listed in Appendix 1 (Policy context – further documents) and contain results which are in many cases highly relevant to the planning and design of urban open spaces.

The reason behind the growing policy interest in urban open space is closely connected with the growing awareness of the broad range of functions which they perform for the towns and cities in which they are found. These functions will be considered in more detail in the next chapter. Chapter 3 focuses on the open space needs of different groups within the population, and looks at how they can be involved as partners in the planning process. Chapter 4 then considers the structuring of the planning process itself and the various stages that are necessary to achieve a good result in the (re-)design of an urban open space. Finally Chapter 5 looks at how all these factors can come together to result in well-designed, functional and meaningful open spaces, which can also make a positive contribution to improving the urban environment as a whole.

CHAPTER 2

Characteristics of good urban spaces

Summary

Good design is not just a matter of personal taste; well-designed urban spaces need to meet a wide range of functional criteria too. Considering the possible functions of urban spaces is a good place to start specifying their design. The following list gives an overview of the main possible functions of urban spaces, and illustrates that urban spaces should be about much more than leisure and recreation.

Environmental and ecological functions include much of what are often described today as 'ecosystem services' and include:

- Climatic amelioration
- Noise screening
- Influencing the hydrological cycle – storm water management
- Providing habitats for wild plants and animals

Social and societal functions include are related to the direct use of urban open spaces by people and they include:

- Providing space and facilities for leisure and recreation
- Facilitating social contact and communication, including cultural and commercial activities
- Allowing access to and experience of nature
- Influencing human physical and psychological health and well-being

Structural and symbolic functions relate to both the wider functions which open spaces can play at the city and local scale, as well as their more intangible but no less important functions. These include:

- Articulating, dividing and linking areas of the urban fabric
- Improving the legibility of the city or neighbourhood
- Establishing a sense of place
- Acting as a carrier of identity, meanings and values

Generally speaking, the more of these functions an urban open space can fulfil, the better the urban space in question will be. But depending on the location, it will usually not be appropriate to give equal weight to all the functions.

This chapter goes into detail about all of these functions and explains how they are important. They can be used as a checklist for upgrading, designing and evaluating urban spaces.

Introduction

An essential pre-condition for considering how to go about creating good new urban open spaces or enhancing existing ones, is to be clear about what makes a good open space in the first place. So just what are the characteristics of a good urban space?
If one is not careful, discussions about the quality of open spaces can rapidly degenerate into subjective arguments about personal taste. While taste will always play a role in individual judgements, when dealing with spaces for communal use being paid for with public money and created by joint efforts, it is helpful to try and find as objective an approach as possible to addressing the central issue of quality.
One of the most promising is to take a functional approach. This involves considering open spaces from the point of view of the range of functions which they are capable of performing and then looking at the extent to which these are fulfilled. While this approach could be criticised as simply shifting the quality discussion to a different level, there are some reasonably well-accepted precedents from which to start (see Appendix 2). The following three main groups of open space functions can be identified:

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Social and societal functions
Structural and symbolic functions

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What it is crucial to remember is that the widespread shortage of open spaces in most towns and cities means that many, if not all, of these, sometimes conflicting, functions need to be fulfilled by the same multi-functional open spaces open spaces. This, in turn leads to the design challenge which requires all open spaces to 'work very hard' and to be tightly designed such that they are able to fulfil as many functions as well and harmoniously as possible, while at the same time remaining as 'open' and flexible as possible as far as their potential uses are concerned.

2.1 Environmental and ecological functions

Environmental and ecological functions of urban open spaces appear to take place with little human involvement or intervention, but naturally provide important benefits for the community. This heading also covers what are sometimes known as 'ecosystem services'. This is a relatively recent umbrella term which includes all four of the sub-functions referred to here. Ecosystem services have been defined as 'those goods and services which are provided by ecosystems that benefit humans' (Turner 2004). By considering these under the four separate headings here it makes it easier to look at how they can influence the design of urban open space.

2.1.1 Climatic amelioration

Open spaces can help to improve the climate of urban areas in a number of ways which are independent of the actions of people:

Open spaces dominated by vegetation convert the solar radiation they absorb into sugars (photosynthesis) and therefore heat up less than adjacent areas, thereby helping to cool the surrounding air.
The physical effect of shading by tree canopies and shrubs is also potentially a very significant one.
The presence of cooler areas caused by green open spaces within towns and cities also helps to generate air movements as heavier cool air flows from cooler to warmer, more densely built up, areas.
Evapo-transpiration from the vegetation also cools and moistens the surrounding air, something which is even effective in the case of relatively small open spaces.
Areas of open water will also have a significant effect on reducing temperature levels overall, as well as of the fluctuations between day and night. This is a scaled down version of the oceanic climate effect, which also operates at the micro-climatic level.
If open spaces are located in line with the direction of the prevailing winds this can help air circulation within the urban area – this if effective whether or not these spaces are dominated by vegetation, but with vegetation they can have additional benefits.
Vegetation, especially belts of trees and shrubs, can be effective in removing particulate pollution from the air, as it becomes deposited on the leaves as the air-flow is slowed down by the vegetation barrier.
A similar effect provides shelter from prevailing winds for people and dwellings located downwind. This can have a significant impact on the perceived climate and on the need for heating in buildings thus sheltered.

2.1.2 Noise screening

The effectiveness of open space in acting as a noise barrier is limited unless additional measures are taken. The impact of vegetation screening is in itself small, but a combination of open space, earth mounding and planting can be an ideal solution.

Green open space separating noisy land uses from ones requiring quieter conditions, can be effective in reducing noise levels in adjacent areas.
This is more effective if they are characterised by dense tree and shrub planting, which can absorb noise to a limited extent.
However, the major part of this effect is the psychological reduction of perceived noise rather than an actual lowering of physically measurable noise levels.
Optimum acoustic screening can be obtained by using earth mounds planted with vegetation, while built structures planted with vegetation can also be effective and require less space.

2.1.3 Influencing the hydrological cycle – storm water management

Well planned and designed open spaces can have a considerable beneficial impact on the hydrological cycle in urban areas.
Properly planned and designed open spaces can provide important areas for the temporary storage of surface water during storm conditions until it can enter the drainage system or percolate back into the soil replenishing the groundwater.
Open spaces with un-sealed surfaces can, in addition to storing storm water, allow it to infiltrate directly into the ground thereby reducing the need for conventional piped drainage systems.
Green open space with a significant vegetation cover can also intercept and temporarily store significant amounts of precipitation. This can either later be re-evaporated into the atmosphere, thereby contributing to maintaining atmospheric humidity, or be slowly released into the soil.

2.1.4 Providing habitats for wild plants and animals

The growing importance of urban open spaces as living space for wild flora and fauna was first remarked on in the late 1940s, in a study of the wildlife of suburban gardens in London.

With the spread of increasingly intensive and industrialised agriculture rural habitats for wild plants and animals have become increasingly eroded.
This has led to an increase awareness of the importance of the open spaces in towns and cities, both as refuges for species which would have otherwise survived in rural locations, as well as providing a range of habitat types unique to urban areas.
Urban ecology and habitat mapping have become ways in which nature conservation approaches have spread to the urban environment.
Abandoned land and derelict industrial sites also became seen as increasingly important potential habitats, initially for pioneer species and also for the development of characteristic urban plant and animal communities.
In this context the linkage and connectivity of sites, both which each other and with the wider landscape, through a system of green wedges and ecological corridors is seen as vital.

Environmental Functions	Quality Defining Parameters				
Climatic Amelioration	percentage of vegetation	ratio sealed to unsealed surface, index of impermeableness	woody plant coverage: 60% in relation to lawns	moderation of summer heats by means of shielding, bright colours, deciduous trees	
Hydrological Cycle	amount of unsealed surface for on-site percolation: eco-index	amount of vegetation cover to retain rainfall and evaporation into the atmosphere	roof and terrace water collection systems to water the nearby vegetation		
Biodiversity	spontaneously occurring plants and animals	interlinked networks with proper distribution in the territory / green belts	proper attractions territories for inhabitants	introduction of new species suitable for new / changed climatic conditions	avoid planting of invasive woody plants (e.g. Ailanthus altissima)
Sustainability	amount of open space per citizen / neighbourhood: green space factor	maintenance costs versus city significance - lower through input and support of native flora and fauna	cessation of mineral fertilizer and pesticides: use of regionally produced compost	use of local materials and characteristic vegetation, recycled / renewable materials	
Noise Screening	height and density of wood and bushes	protection against winds = importance as a sound barrier, especially evergreen trees	paving materials		

Box 1: Design implications of environmental and ecological

2.2 Social and societal functions

These are certainly the best know and arguably the most important functions of urban open space, but there is more to them that just creating usable parks and squares where people can spend their leisure time.

2.2.1 Providing space and facilities for leisure and recreation

This is perhaps the best known function of urban open space and involves its direct use for play, sport and recreation, formal and informal, active and passive.

Provision for play spaces for children of different age groups
Provision for formal team sports of different kinds
Provision for informal recreation not requiring special facilities

It is important that particular attention is devoted to making sure that all these facilities are available for and attractive to all groups in society.

2.2.2 Facilitating social contact and communication

Open spaces are a key part of the public realm and provide an essential arena in which people from different social, cultural and demographic groups meet and come into contact with each other. For this reason they must be seen as a central part of any strategy aimed at furthering social cohesion. Similar arguments were put forward for the creation of the first public parks in the early 19th century.

The Danish architect, Jan Gehl (Gehl, 1986), identifies three levels of social interaction in public spaces:

The first level of interaction results simply from the fact that people need to be in outdoor spaces
The second level involves creating open spaces in which people choose to spend some of their free time
Finally, only when people are making use of the opportunity to spend some of their free time in open spaces does the possibility of social interaction become available.

Optimum social interaction also requires a range of hierarchy of open spaces with a range of differing degrees of public through to private character. Particularly important in this context are spaces of a semi-private nature, which are accessible only to a clearly defined group e.g. the residents of a particular apartment block. The interfaces between open spaces of different degrees of accessibility also offer an important means of exerting social control and policing the use of the space.

2.2.3 Access to and experience of nature

In contrast to the function of urban open space in providing habitats for flora and fauna, here the concern relates to the benefit that human users can derive from the urban environment.

It is argued that because human beings are a part of nature, and as a result of the species having evolved in interaction with its natural environment over millions of years, we still need close and constant contact with the natural world, even though we now overwhelmingly live in urban environments. The so-called ‚Biophilia Hypothesis' as put forward by E.O. Wilson is perhaps the best articulated example of this (Wilson, 1984).

Urban nature can be passively experienced by any member of the public, but it can also form the basis for more structured environmental education within the school curriculum. Without the presence of near-natural areas in towns and cities, and the plant and animal species to which they provide habitats, it is very difficult to make the increasingly urban general public aware of the wide range of environmental issues which they will need to take into account if their behaviour is to be changed and wider environmental goals are to be reached. The presence of nature which can be experienced in the urban environment can make an important contribution to promoting this wider environmental awareness, and good planning and design or urban open spaces can contribute to this. Attempts have been made in some countries to develop standards for the provision of near-natural open spaces (see Appendix 2).

2.2.4 Influencing human physical and psychological health and well-being

Increasing evidence suggests that there are measurable health benefits which can be traced back to the presence of open spaces close to where people live and work.

Research has also indicated that there is a measurable benefit from the presence of green open space being visible through the windows of patients in hospital. Where such views exist, convalescence has been shown to be quicker.

Other studies have demonstrated that short periods spent in green open spaces can have a measurable effect on people's ability to concentrate and perform complex tasks after they return inside a building. The potential implications of this for the provision of green outdoor spaces for schools and workplaces are clear.
An increasing number of studies have also indicated that there are demonstrable health benefits from living close to green open spaces.

Social and Societal Functions	Quality Defining Parameters				
Leisure and Recreation	functional ecological network increases usability for citizens	supplementary equipment - seating, meeting and communication areas large enough and appropriate positions	overlooked places to enhance security vs. Providing of a refuge from the surrounding urban area where direct views into the surrounding urban area are not necessarily ideal	reachable and detectable, accessible sanitary installations	
Social Contact and Communication	active public participation: public meetings and consultations with key players, managed visioning of the city's future, planning meeting with organised walks	involvement of all potential target groups - accurate information of the public, openness to public participation on the decision makers side, clear public participation plan	involvement of local community will endure as a functioning team with a sense of „ownership"	appropriate level of use creates a reduced risk of crime and a sense of safety	attracting a large number of law abiding users by providing a range of complementary activities
Experience of Nature / Human Physical and Psychological Health	contact with nature promotes recovery from stress, beneficial for mental health and improves behaviour and attention in children	designing with respect to minimum spaces for turning, enough headroom and usability of ramps			
Sustainability	balanced economic, environmental and social development of an area	strengthening citizens´ ties to the town through public participation processes	places that are designed with management and maintenance in mind to discourage crime in the present and the future	Design for All preparing cities for the demographic change and the rising share of the elderly population	urban spaces will only be successful in the long term if they are accepted and used by the public

Box 2: Design implications of social and societal functions

2.3 Structural and symbolic functions

These functions are of central importance for people's perception of urban areas, but in most cases must not necessarily relate directly to the physical use of the open spaces in question.

In Article 1 of the European Landscape Convention, 'landscape' (which includes urban and peri-urban landscapes) is defined as 'an area of land as perceived by people...' According to this definition, therefore, perception is as much a part of landscape as the physical area of land itself.

2.3.1 Articulating, dividing and linking areas of the urban fabric

The role of urban open space in providing structure and organisation for an urban area is well established. In this way the town or city can be divided from the surrounding landscape, individual districts and land uses can be divided from one another. Such structural open spaces include green belts and concentric green rings, green wedges and green corridors as well as smaller green links, which may only take the form of boulevards or tree-lined streets with low traffic levels.
At the level of the town or city as a whole, taken together they go to make up the open space systems and green infrastructure referred to in the previous section. The concept of articulating space is, however, scalable and can of course also be applied to the structuring and organising of individual open spaces and how they relate to the surrounding urban fabric.

2.3.2 Improving the legibility of the city

Being able to find one's way around in a town or city is of great importance for a wide range of reasons. This fact motivated the research which resulted in the classic urban design publication 'The Image of the City' by Kevin Lynch (1960). Ease of navigation and a clear sense of orientation is important both for reasons efficiency and

in order to ensure a sense of well-being on the part of the population. This deep psychological need, which is borne witness to by many fairy tales in which children get lost in the woods and cannot find their way home, together with the basic principles of visual perception first elaborated by the gestalt psychologists in the 1920s and 1930s provide a basis for designing urban spaces which are both themselves legible as well as adding to the legibility of the town or city as a whole.

These broad principles can be used to organise and design the elements of urban spaces – paved surfaces,, elements of furniture and vegetation for example - in such a way that they will intuitively make sense to the observer and can be 'read' quickly and confidently. This visual clarity is the basis for legible spaces in and through which users can navigate easily. These will therefore, by analogy with Lynch's arguments be spaces in which we will feel relaxed and at home (see Apendix 2).
Because such images are in the minds of the viewer, it can also be argued that spaces which are clearly and coherently organised will also be quicker and easier to grasp for those with visual handicaps, and they will therefore also be able to find their way around them with greater ease.

2.3.3 Establishing a sense of place

This function relates to the way in which parts of the urban structure, including individual open spaces, are perceived by visitors to spaces who may not be deeply familiar with them. A sense of place, or genius loci, might therefore be seen as a certain atmosphere which can be sensed on visiting that place.
We tend to react to places on the basis of our 'hard-wired' instincts. This could be seen as part of the evolutionary heritage possessed by our entire species and relates to the advantage to be gained in being able to identify environments conducive to survival and to recognise and avoid those which may be threatening.

In classical times the 'genius loci' was personified as a guardian spirit living protecting the place in question. Chinese geomancy also responds to the idea that places have their own particular positive or negative identities in terms of the flows of invisible energies. These ideas were integrated into the landscape architecture of the English Landscape School by Alexander Pope's advice to 'Consult the genius of the place in all' and were further developed in the 18th century debates about landscape aesthetics, with its reference to landscapes of the picturesque and the sublime also made indirect reference to our inborn perception of different landscape situations. More recently other writers have re-interpreted some of these ideas in the context of contemporary evolutionary psychology .
The extent to which these ideas are directly adaptable to specific urban open space situations is one of the areas in studied by the discipline of environmental psychology[2]

2.3.4 Acting as a carrier of identity, meanings and values

Individual open spaces as well as areas of the urban landscape as a whole are important carriers of meanings and values and help to create and reinforce individual and community identity. It is, however, important to remember that different groups may value the same space in different ways. Such layers of meaning make it extremely challenging to react to this open space function in design terms.
While this function can to some degree be influenced by the design of the spaces themselves, even if considerable care is needed if clichés are to be avoided, the role of the way in which they are planned and the involvement of the various user groups in the design process is clearly of considerable importance in this context.

The potential of an open space to express meaning can be seen as being, at least to some extent, a function of the degree to which it is embedded in its context. The more aspects of the context into which a space is embedded are taken into account, the greater will be its potential meaning. It is necessary to consider its geographical and topological context; its ecological, hydrological and climatic context; its social and societal context; its cultural context and its economic context.

Values arise as a result of the interaction of people and place, and are a function of the extent to which individuals, groups or societies are able to read or interpret meaning from a place on the basis of their own personal or group experience and value systems. Making meaning and therefore context explicit is consequently an essential precondition for creating value.
Symbols are an important way of pointing to meaning, and helping to provide a project with a sense of identity, but there are different ways in which they can be reconciled with the characteristics of the site. Even without the conscious use of symbols on the part of the design, symbolism can be found in all landscapes, and we (humans) are constantly scanning the environment in a search for meaning and significance.

Cultural , Structural and Aesthetic Functions	Quality Defining Parameters				
Dividing and Linking Areas in urban fabric	places that could be vulnerable to crime should be overlooked by buildings of uses that are busy all the time	creation of interlinked networks with proper distribution in the territory and with determination of proper attractions territories for inhabitants	clear distinction between public, semi-private and private space through visually permeable physical barriers	evening economy: need of good transport links to enable users to leave for home as soon as they are ready	strictly divided, structured and user defined space reduces the range of opportunities for other groups
Accessibility	living within a distance of 300 metres from a public space (European Common Indicators, STATUS, TISSUE), biotope area factor	parks of: district importance: 1,2 km to living space / urban importance: 3.2 km to living space / regional importance: 8 km to living space (LPAC, 1992)	a good movement framework has direct routes that lead to where people want to go by whatever means - „line of least resistance"	routes for pedestrians, cyclists and vehicles should run alongside each other, but be segregated through design (e.g. surface materials)	footpaths should be as straight as possible and wide, avoiding potential hiding places, path should intersect between different routes
Improving the Legibility of the City	spaces and entrances that provide for convenient movement	well-defined routes, easy to understand, small number of principal routes	avoid subways, footbridges, underpasses and areas under viaducts - if unavoidable: as wide and as short as possible with natural light	create a good and balanced combination of ´districts´, ´edges´, ´paths´, ´nodes´, ´landmarks´ to create a good „image of the city"	independent orientation for all users - transmit clear information and distribute coherent and functional spaces
Location of Urban Space Functions	northern an southern side - sun and shade patterns	organisation of space through creation of poles, e.g. urban/rural, wet/dry, loud/quiet	turning the needs and wishes of the owner, the politics and the public into a formal layout should best be left to the designer		
Carrier of Identity	establish a sense of place by taking into account the history and geography of the place and its significance for the people who use it	the designed public space must be conceived for everyday life, useable in various types of weather and different seasons	involving various groups in the planning process from the very beginning creates a feeling of ownership of the given space	involving residents and users in the management and design creates feeling of ownership	areas with options to take a seat for protection or restoring of personal well-being, to meet and communicate
Meanings and Values	level of use - conceived for everyday life	use for all = no planning exclusively for „men who are young, rich, healthy, worker and with few familiar responsibilities"	involving various groups in the planning process from the very beginning creates a feeling of ownership of the given space	avoid „clichés" in the provision of specific facilities thought to be appropriate for specific user groups	sense of ownership and responsibility in a neighbourhood - neighbourhood watch - presence of security staff - high level of cleaning and maintenance
Cultural Heritage	feeling of ownership increases the sustainability of the public space (maintenance, surveillance, protection against vandalism)	creation of a „city for all"	security measures might be unattractive and increase the fear of crime by suggesting that an area is unsafe	aesthetic spaces make it more likely to be accepted by everybody	designing for change - hierarchy of fixed and changeable elements

Box 3: implications of structural and symbolic functions

Urban space quality: Functions and level of use

This list of open space functions and the tables presented in this chapter provides an important guide both to the assessment of the quality of existing urban open spaces as well as to the evaluation of the designs of new ones. Finally, it can also be argued that the level of use of an open space is a key indicator of how successful it is, and this is indeed an important factor. However the extent to which it fulfils a large number of the above functions will also be a key determinant in the level of use which it enjoys. Furthermore, level of use will not only depend on the attractiveness of the space in question, it will also be influenced by the numbers of people living in the immediate surroundings of the space in question as well as the number of alternative similar spaces which local residents may have to choose from. For these reasons, level of use alone is not a reliable guide to quality, important as it is.

CHAPTER 3

Planning for and with all stakeholders

Summary

Urban spaces are for people, but which particular groups should actively be considered when designing them, and who should be involved in the planning process? This chapter first considers the fundamental factors which influence people's possibilities to use urban spaces, before going on to look at user groups and their open space needs. Finally it specifies the main partners in the planning process.

Accessibility of urban space is a central factor in influencing its use by different groups within the population. Three fundamental factors, which vary between different groups within society, affect accessibility: mobility, physical activity and time budgets. Pre-school children, for example, are not very mobile, they also are less physically active than older children and teenagers, but the amount of time they have available to use open spaces is large in comparison to school children.

By combining these factors for different groups, their open space it is possible to develop a hierarchical model of open space provision. This calls for a large number of small neighbourhood open spaces with limited facilities close to home, fewer, larger spaces located at a district level containing a larger range of facilities for a wider public, and a small number of large city parks which can cater for a wide range of people and activities.

In planning to create or enhance urban open spaces, it is useful to distinguish between and plan for the needs of the following groups of users, each of which has their own particular open space requirements:

- Pre-school children
- School children
- Teenagers and young adults
- Working people
- Men and women
- Families, parents or child carers with young children
- The unemployed
- Local residents
- Commuters and incoming workers
- Businesses
- Retired people and 'senior citizens'
- The physically disabled and their carers
- Migrants and minority ethnic groups
- Tourists and visitors

N.B. Special consideration should be given to gender issues and 'design for all' – the consideration of the frequently overlooked needs of women and other minority groups as well as those of the disabled.
Direct involvement of the relevant stakeholder groups in the planning process is one of the best ways of ensuring that their needs will be met. The main actors in the planning process should include: the client; the funding body or bodies; representatives of the local community; relevant interest groups and NGOs; the municipal authority; other responsible authorities; the planner/designer; other outside specialists.

3.1 Introduction

As is clear from the previous chapter, the quality of urban spaces depends on the extent to which they can be seen to fulfil as many of their potential functions as possible, and this means for as many users as possible too. This chapter is about the needs of the users of open spaces and how these groups can and should be integrated into the planning process. The focus is therefore firmly on the social and societal functions of urban open spaces, although people also benefit of course from the optimum fulfilment of the environmental and structural and symbolic functions of urban open spaces too.

It is very easy to agree that urban open spaces ought to be designed to benefit society as a whole, but it is important to specify which groups we are concerned with in particular in order to ensure that their needs are explicitly taken into account. Not until we have done this is it possible to consider the implications this has for each of these groups with regard to their requirements in the planning and design of new urban open spaces. Historically speaking some groups have been more able to get their voices heard than others. While this chapter attempts to address the needs of all stakeholders, as well as at least the main groups within society, an important focus of attention will be on those groups whose needs have tended to be ignored in the past.

3.2 Factors influencing people's use of open space

There are many ways in which the population can be subdivided according to their demographic characteristics, but when considering them from the point of view of the provision of urban open space, there are three factors which are very important in defining how everyone uses open space as they move through different stages in their life cycle. These are:

Mobility
Physical activity
Time budget

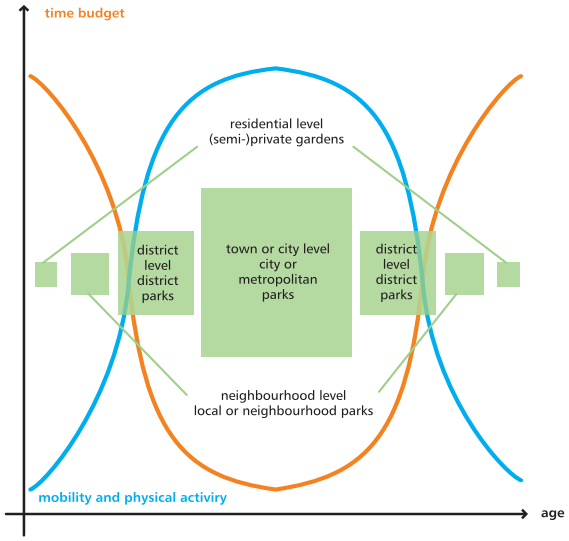


Figure 1: Different spatial demands in relation to age/physical ability, mobility and time budget

3.2.1 Mobility

The mobility of a particular user group is important because this give an indication of how far they are able to travel in order to reach an urban recreation space. Mobility tends broadly to increase with age, although the situation is more complicated in detail. Before they can walk, very young children are dependent on their parents for mobility. They are in turn likely to be restricted in their mobility by having to use prams and pushchairs with which to transport their young children. As they get older children both get more mobile as well as being 'allowed' to travel further from home to recreation areas. Older children and teenagers have few limits on their mobility, and this can be extended, for example, by using bicycles and public transport. Working adults are perhaps the most mobile group, whereby the scope for mobility on the part of the unemployed may be limited for financial reasons. As people get older and leave the workforce they may become less mobile, although the cliché of the pensioner with a walking stick is certainly one to be avoided, and in some societies they are now the most mobile and active section of the population.

One special group to be considered in terms of mobility are the physically handicapped. They will be treated separately within this chapter

3.2.2 Physical activity

Physical activity also tends first to increase with age and then decline. The logical implications of this for the planning and design of open space, are that less active groups within the population, such as 'toddlers' who are happy sitting and playing in a sandpit, should, in theory at least be able to make do with smaller spaces, while more active groups, who for example like to run around and play ball games, will require more space. Again it is important to beware of clichés here, such as the retired people sitting down to play chess or admire the flowers, but generally older people will tend to need less space as they become less active, although there are as was stressed above very active older people too.

3.2.3 Time budget

The other side of the 'mobility coin' is often time budget. Generally speaking, the more mobile we get, the less time we tend to have to make use of open spaces. Thus the most mobile and active group of young adults will have to spend much of their time either in full-time education or in paid employment, they making it harder for them to both find time to use open spaces as well as to travel to them, although there may be no other restrictions for doing this. Conversely the less mobile groups, young children and their parents or carers as well as the elderly may have much more time to visit open spaces.

3.2.4 Catchment areas and open space hierarchies

The consideration of the interaction of the different levels of mobility, levels of physical activity and time budget for different groups in the population leads to the concept of the catchment areas of different types of open spaces. There is a need for small open spaces near the home to accommodate both the needs of small children who cannot go far and who do not require large areas, as well as the needs of the adult population, who could travel further afield but usually have only limited time budgets.

In many countries recommendations have been made regarding access to urban open spaces of various types and sizes. Examples of such open space standards are included in Appendix 2.

The population can be sub-divided into different groups in various ways. Here are the main groups which need to be considered:

<table>
<tr><td>Pre-School Children</td><td>School Children</td><td>Teenagers and Young Adults</td><td>Men</td><td>Women</td></tr>
<tr><td>Tourists and Visitors</td><td colspan="3" rowspan="3">Urban Open Space</td><td>Families</td></tr>
<tr><td>Migrants and other Minority Ethnic Groups</td><td>Parents or Child Carers with Children</td></tr>
<tr><td>The Physically Disabled and their Carers</td><td>Working People</td></tr>
<tr><td>Retired People and Senior Citizens</td><td>Businesses</td><td>Commuters and Incoming Workers</td><td>Local Residents</td><td>The Unemployed</td></tr>
</table>

Figure 2: The parties sitting around the open space 'table'

As can be seen from this diagram, it is quite possible for anyone to be a member of more than one group at once, while everyone will move through many of the different groups at different times in their life.

Members of these different groups have different needs and requirements with regard to urban open spaces, and it is important that they are considered thoroughly at the planning and design stage to make sure they can be properly accommodated.

3.3 Users in urban open space areas

Pre-school children

Pre-school children will not use open spaces unsupervised by their parents, older relatives or other carers. Generally they will also not use spaces which are very far from home. Usually some direct visual contact is to be recommended between play areas for these groups and the home. Generally younger children will also tend to focus more closely on their immediate carers and will benefit from having more enclosed and introverted outdoor spaces in which to play.

School children

Children of primary school age will be used to travelling some distance from the home to go to school and therefore visiting urban spaces as recreation areas will also be possible within a similar radius. For this age group it will be important that the spaces provide the necessary stimulus for the imagination.

Teenagers and young adults – girls and boys

Here the limitations on mobility are relatively low and recreation open spaces can be located at a significant distance from the home. Indeed here the opposite rules apply to the case of pre-school children, where visual contact and supervision are essential. In the case of teenagers and young adults, locations well away from visual contact with other groups in society are likely to be sought out as places to meet and spend time.

This group is generally physically active, but the provision of informal sports facilities, such as kick-about areas tends to favour use by boys, while studies have shown that girls tend to use open spaces in a more passive manner. Generally far too little attention has been paid to the differing open space requirements of the different genders in this social group.

In this context open spaces in relation to secondary schools are of considerable importance and need to be given more attention, also with regard to the possibilities for their use during out of school hours.

Working people

Economically active members of society have few theoretical restrictions on their abilities to use open spaces (but seen the discussion of 'design for all'), however they face significant limitations on their time. This means that apart from the weekends and during holiday periods, open spaces close to the home are of equal importance to this group, for the simple reason that they need to be able to use these spaces in the small amounts of time they have available.
This also makes it important to consider the provision of good quality recreation spaces close to people's places of work, especially bearing in mind the evidence that spending short periods in green spaces can significantly improve concentration and productivity.

Men and Women

Here is it necessary to consider gender differences and in particular the questions of accessibility to open spaces and the security, both actual and perceived that they offer to women users. Gender issues are outlined in more detail below.

Families, parents or child carers with young children
Adults looking after young children will, in the first instance, be limited to using the types of open space which are attractive to the children. As parallel users of these spaces, it is therefore important that the facilities provided in association with open spaces for young children also cater for the needs and interests of their carers, even if this only means providing seating and an appropriately attractive context for this.

The unemployed

The unemployed differ in their open space needs from people in employment for two important ways: firstly they are likely to have less money at their disposal with which to travel to open spaces at a distance from their homes. This suggests the need to provide appropriate spaces in the immediate residential environment; secondly they will, by definition have a considerably large time budget to spend in open spaces, something which usually can also be attractive in that it does not cost money.

Local residents
This is the main group that needs to be catered for in open spaces within housing areas. Clearly this includes a cross section of ages and social groups, and the neighbourhood open spaces to be created will need to cater for all of their needs.

Commuters and incoming workers
This group by comparison, represents people employment away from their residential environment. They will also have limited time budgets, being only able to make use of open spaces during their lunch and coffee breaks. However the importance of having attractive open spaces where this time can be spent is not to be underestimated, and as the studies on the positive effects of spending time in green spaces demonstrate, the benefits are not solely for the workers themselves, but also for their employers.

Businesses
These are the employers of the workers referred to above. They benefit from having a healthy and alert workforce by providing high quality urban spaces for their workers to spend their breaks. There are certainly also positive benefits to be gained for the external image of the business concerned by providing high quality open spaces which are also a visual setting for their buildings.

Retired people and 'senior citizens'
Retired people will generally tend to have more free time at their disposal and thus be able to travel further to open spaces. Their mobility may be restricted in comparison with younger people, but it is important not to fall into the trap of regarding them as being in the proverbial 'second childhood'. As has been mentioned elsewhere, the majority of retired people remain physically active for a long period and, while they may spend a significant period of time undertaking childcare duties for social reasons, they are otherwise as easily able to seek out open spaces well away from their places of residence as are people who are still in the work force.

People with disabilities and their carers
From the point of view of planning and designing urban open spaces, people with physical disabilities fall into two main groups: those with disabilities affecting their mobility and those with sight impairments (although this can also seriously affect mobility too). In very simple terms where mobility is the problem, the aim should be able to create 'barrier-free' spaces without steps or other steep changes of level (e.g. ramps steeper than 6%) which can impair the movement of wheelchairs. For the visually handicapped open spaces which are easy to navigate and contain no dangerous obstructions to safe movement are important.

Migrants and other minority ethnic groups
People from different cultural backgrounds may have different traditions with regard to the way in which they use open space. This needs to be taken into account within the design process. While these traditions and their implications for design can vary, one common factor may be that migrant groups can have restricted housing conditions which mean that for them open spaces take on a relatively greater significance as places to make up for the shortage of living space in their homes.

Tourists and visitors
Finally it should not be forgotten that it is not only local residents who use urban open spaces. Given the fact that the quality of the outdoor environment has a great influence on the quality of life of a town or city, their potential to attract facilities for provide tourists and visitors should also be considered.

3.4 Gender issues: Planning for the needs of women and minority groups

The integration of gender mainstreaming into spatial urban policy-making can result in a more sustainable, equal and accessible environment not just for women but for all members of society.

Gender mainstreaming in urban planning focuses on the integration of gender equality in all stages of the planning process: from formulating the objectives to planning the measures and to implementing and evaluating them. It is about re-thinking the planning process as a whole and not just modifying its outcomes.

Applying a gender point of view at urban environment means first of all to understand if cities are planned for women and man of every age, salary and race. In the most cases the total absence of attention towards the problem hasn't generated gender-neutral cities, but cities planned and built for men who are young, rich, healthy, worker and with few familiar responsibilities.

To integrate gender mainstreaming in urban planning processes means promoting structures which support the equality of women and men, by accepting their differences for the purpose of equal opportunities.

In order to define public spaces with regard to gender aspects two important issues specific to urban process should be taken into consideration: one related to the problem of safety which involves women, children, the disabled and the elderly, and the other one concerning the accessibility of all public spaces.

The strategy used to achieve this goal is based upon a dual approach: gender mainstreaming and specific actions. Gender mainstreaming is the integration of the gender perspective into every stage of the policy process – design, implementation, monitoring and evaluation – with a view to promoting equality between women and men. Gender mainstreaming is not a goal in itself but a means to achieving equality. Similarly, it is not concerned only with women, but with the relationship between women and men for the benefit of both. Specific actions may be required in addition to remove those inequalities between women and men which have been identified.

A sustainable change towards gender equality in spatial planning must be rooted in the visualisation, deconstruction and redefinition of social values which create equality for men and women. These values and social norms are the very foundation for the integration of gender, group and age-specific criteria in urban planning procedures and policies.

Looking more in depth at different life styles in the cities a lot of different activities, needs, necessities come up.

The support given by a "city for all" can only be provided if the differences between men and women are acknowledged and their age, life situation, ethnic, cultural and social backgrounds, as well as the structural-spatial and socio-economic situation, are taken into account.

That's why the first approach to a gender perspective must include:

Gender differentiated statistics, analysis and utilization of sites or locations
Assessment for the utilization of areas and sites
Rules of decisions
Rules of participation
Responsibilities in planning process

Regarding **security**, it is important to notice that as far as women are concerned, not only a normal fear of violence does exist, but the specific gender violence has to be considered. The perception of places and the city itself is of basic importance.

Analysing in a systematic way the context, which is the subject of proposals for re-design, from a gender point of view is very important and represents the starting point for the integration of gender approach in policies, programmes, projects and public services, but too rarely this condition is required in committing studies or planning activities.

A **gender approach** means that women should be the centre of the action whatever strategy is considered.
A participating approach should involve specifically groups of women that reflect the different levels of the contest analysis; these groups program and measure the considered strategy in order to avoid that instruments to guarantee women's security are not seen as instruments to marginalize them. This is a problem of public participation as well.

An active participation of women at urban projects can change a diffuse attitude that constrains women to adapt their behaviours to the contest, curbing their actions and use of public services. Changing the mentality means allowing women to expect that the city will do something to guarantee their safety and easy usability of city spaces.

This new approach promotes prevention instruments rather than limitative suggestions and this means that the city is responsible to guarantee women security and therefore to all the communities and to the other vulnerable subjects. But a heightened sense of safety and security within urban open spaces will benefit all groups of users.

3.5 'Design for All': Planning for the disabled and everyone else

'Design for All' is about an inclusive approach to creating a barrier-free environment. This includes the design treatment of urban open spaces and the provision of access to them. Barrier-free environments provide the necessary precondition for independent mobility and transportation are key factors for allowing people with disabilities to participate equally in the society.

But 'Design for All' is about more than just making special provision for a small and disadvantaged segment of the population. While this is naturally an essential part of this philosophy, it is also only a small part of it, as urban open spaces which are barrier free, easy to navigate and designed for all, benefit not just the disabled but are an important asset for society as a whole, both for local residents as well as tourists and visitors.

While design for all is what it says, the philosophy behind it began with the consideration of the needs of the disabled, and it is important that these are not eclipsed by taking a broader approach. As with the needs of society in general, it is also important to remember that the disabled are also not a homogenous group, but have different needs and interests as well as different disabilities which need to be considered in the design process.

There is always a danger in simplifying these issues, but sometimes it is necessary to consider some broad categories in order to be able to better understand the main structure of the challenges involved. In this context, two main types of disability can be recognised which are important with regard to urban open space: these are disabilities which affect mobility, and those which affect vision, which can in turn also indirectly restrict mobility.

Considering these two types of disability it soon becomes clear, however, that taking them into account in the design process the result will be better urban spaces for the population as a whole.

The classic cliché relating to those with an impairment of their mobility is of people trapped in wheelchairs, and the design response is to avoid the use of steps and to replace these, where possible, with ramps of a suitable gradient (not more than 6% in the case of most recommendations and guidelines). While these design considerations are of course of great importance, it is also clear that they do not only benefit people confined to wheelchairs.

In fact the number of people using wheels to aid their mobility in the urban environment is far greater than one might initially think, and they are not all old and disabled people; the list is long:

- the very young being transported in prams and pushchairs, including those pushing these vehicles
- children using scooters, roller skates or skateboards
- adults using shopping trolleys
- tourists or business travellers with wheeled suitcases

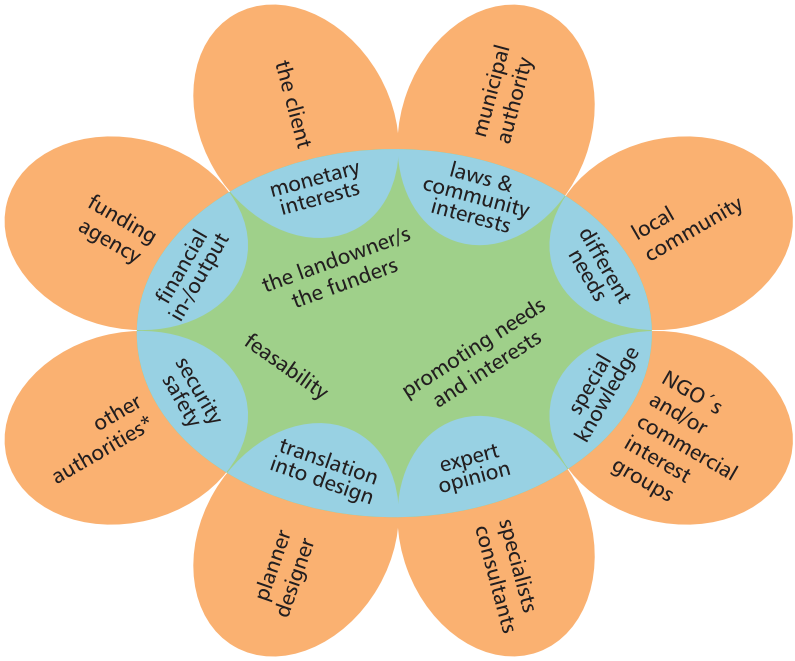
Barrier-free open spaces can help to support these. The oldest and commonest environmentally friendly means of urban transport is of course the bicycle, and this too can only operate effectively in a barrier-free environment.

From this overview it can be quickly seen that wheelchair users are certainly an important minority of those who will benefit from design for all, and that this old cliché is outdated. Everyone benefits from the 'design for all' approach in different ways and at different stages in their lives.

Design for all can also be seen as preparing our towns and cities, and the urban spaces they contain, for the changing demographics caused by the aging of Europe's population, which will in future, on average be less mobile and more susceptible to barriers in the environment than it is today.

3.6 Partners in the planning and design process

Open spaces in urban areas are planned primarily for people, and so it is essential to make sure that all the relevant stakeholders are involved as partners in the planning and design of a new open space from the start of the process to ensure that, as far as possible, all their requirements can be accommodated.
But who are the main actors in the process? The following table covers the main actors.



* such as emergency services, waste disposal management, site managers

Figure 3: main actors sitting around the green table

The client

The client can be seen as the person or body for whom the project is being carried out, but defining who this is can also be a complex issue. The organisation providing the funding is one obvious definition of the client – by being the 'paymaster' one has a certain influence on what is done with the money. But what if the land involved is owned by someone different; are they also not the client too? And what about the people who will be the future users of the space being created; after all, the project is being created for them. Then there is the organisation which will maintain the site in future, which could be a different group again.

The local community

The local community should always be seen as one of the key actors in the process, but it is important to remember that, as has been demonstrated above, this is not a single monolithic body, instead in is composed of many different social groups many different and frequently conflicting interests may be represented.
The local community are likely to have most direct and up to date knowledge of the practical nature of the space in question, as well as being the most important likely future users. This is why they should be involved in the project from the start, when they can contribute to the detailed definition of the project brief, as well as being involved in comparing and testing the proposed design alternatives later in the process.

Interest groups and NGOs
When one is dealing with wider issues and larger contexts, it may be very difficult for local residents to relate to all the themes and scales concerned. In such cases to involvement of special interest groups or NGOs can be of considerable importance. These can bring with them specialist knowledge and experience of other similar projects to the process.

The municipal authority
Whether or not the municipal authority owns the land on which the project is to be built, it is important that they are involved from the start.

As in the case of the local community, the municipality also involves many different and sometimes conflicting interests. It is important to make sure that all departments which may have an influence on the planning, design, implementation, management and use of the site are involved. These can range from those responsible for clearing snow and collecting litter, to those responsible for street lighting and the provision of children's play facilities.

The funding agency
Of course it may be the local municipality which is funding the project in full, in which case the funding agency will already be involved, however often other outside funding agencies are also involved, the European Union Regional Fund for example. They too may also need to be represented in the process.

If there is to be some local involvement in the implementation of the project, those giving their labour can also be considered as part funders of the project.

Other responsible authorities.
National and or region bodies may also have interests in or be affected by the planned project. Issues from nature conservation through road traffic to water management may well be dealt with at the regional or national level. Representatives of these bodies should clearly also be integrated into the design process as appropriate. The emergency services – police, fire brigade and ambulance service also need to be closely involved.

The planner / designer
In most cases it will be the job of a trained planner or designer to match the many wishes, needs and requirements articulated by the various stakeholders with the potentials of the project site to create a spatial design concept, and to develop this further into a detailed design which meets all the expressed criteria and which can be implemented.

The planner / designer may also have an important role to play in the process of teasing out and developing the design brief in more detail, as in many cases the interested stakeholders have only a very general idea of what they want from the project and may not be experienced at expressing their wishes.
It is the role of the planner / designer – ideally a qualified landscape architect – to take the many expectations and translate them into a physical form.

Other outside specialists
Depending on the exact situation in question, there may also be a need to involve other specialists in the planning process. These can range from ecologists to advise about particular nature conservation issues and civil engineers who are experts on site drainage, to sociologists who may be able to help investigate local aspirations or moderate the meetings of the stakeholders involved in the project.

Outside specialists who might be involved in the planning and design process may also include experts for the needs of particular users groups such as the disabled, women or organisations with special expertise in design for crime prevention.

CHAPTER 4

Planning the Design Process
Initiating the project - The case for change

Summary

Planning and design are processes as well as products. This chapter concentrates on the 'design of the design process'. The design process starts well before any plans begin to be drawn up for the urban space to be transformed, and should ideally continue after the transformation is complete. The integration of all relevant stakeholders is a key part of this. Four main stages in the process can be identified:

- Preparation – collecting information about the potential of the site and the needs of the users
- Design – everything involved with creating a new vision for the site taking the above facts into account
- Implementation – the task of building and planting the new urban space
- Maintenance, management and monitoring – acting on the implications of the way the new site is used

These stages are listed in chronological order, whereby the final stage of management and monitoring can also be thought of as leading back into the start of a new project preparation phase.

Each of these main stages can be broken down into a series of individual steps, but behind the process there must be an overall vision and someone with the necessary vision to drive it forward and to make sure all interested parties play their part.

The first part of the Preparation Stage should be the planning of the overall design process itself. Following this the funding situation for the project should be clarified; the key issues and main stakeholders must be identified; contact should be made with a broad cross-section of the local community; the different stakeholders in the project need to be brought together. These form the necessary preconditions for the detailed elaboration of the project brief and programme of spaces and functions to be provided.

The detailed project brief forms the starting point of the Design Stage, and is the core of the commission for the professional designers. They will then proceed to develop sketch designs and alternative proposals based on the project brief; these will need to be visualised in a form which is understandable to the local community and other non-specialists involved in the design process. The alternative proposals will need to

be assessed on the basis of the local needs expressed in the design brief. Using the list of open space functions contained in Chapter 2 can also provide a useful checklist of the evaluation of alternatives. The results of this process are fed back to the designer to be taken into account in a modified design proposal, which will need to be agreed on by all those involved in the process.

One the design has been agreed, the Implementation Stage can commence. Here the agreed design needs to be developed in detail and turned into construction drawings and instructions detailed for building the project. These also form the basis for cost estimates. Construction may be carried out by a commercial firm or by the local community or a combination of the two. Whichever solution is chosen the work must be supervised to ensure it is carried out properly. On completion it will be officially 'handed over' to the responsible client.

The Maintenance, Management and Monitoring Stage may start with the new space being 'opened and handed over to the local community in the form of a opening event. Use of the site will generate the need for regular maintenance work to be carried out to ensure that the site is kept clean, that the vegetation develops as planned and the other built elements are kept in good order. A wider management task will involve making sure that the new space is established as a centre of activity for the local community. This could entail organising events such as parties and celebrations, but also possibly some community maintenance activities too. The site should also be kept under observation from the wider perspective of the original goals behind its re-design. Are the expectation of the users and the local authority being met? Is it necessary to adapt the site to fit the way it is being used? Here too the checklist of open space functions contained in Chapter 2 may be helpful.

Finally it must be stressed that a well-design process is an essential pre-requisite to a well-designed urban space, but it is not sufficient in itself. The role of the physical design is key to this and this is discussed in Chapter 5.

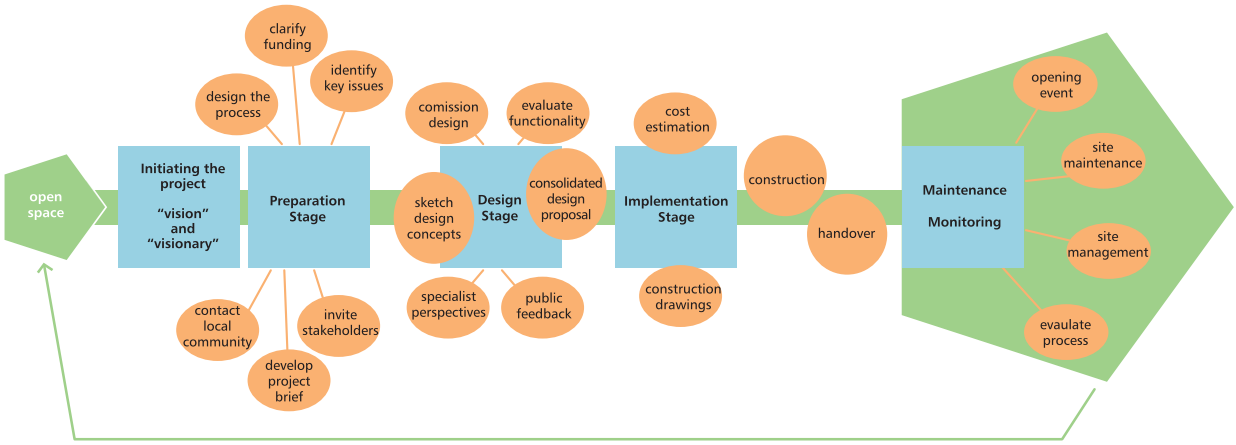


Figure 4: Urban Open Space Programming, Design and Mainentance

4.1 Introduction: Design as a noun - design as a verb

When we speak of planning and design process, it is important to be aware that both words exist both as verbs - to plan; to design - and as nouns - a plan; a design. This chapter is about the verbs - the actions which are necessary - planning and designing - to create the nouns - the plans and designs - which should emerge at the end of the process. These are considered in more detail in the following chapter.

4.2 Initiating the project - the vision and the visionary

Apart from the existence of a place in need of transformation, there are at least two other important starting points when creating a new urban space. Perhaps the most obvious one is concerned with the needs of the users, but it is important not to forget the second, namely the vision of what could be possible. This is of particular importance where a wide range of stakeholders is to be involved, something which is always desirable, as they are likely to have different levels of knowledge and experience, not to mention expectations with regard to urban spaces. Without a clear vision, or at least some more concrete idea of a goal towards which the project team is steering, expectations can remain low and possibilities can remain undiscovered, opportunities wasted.

Hand in hand with the vision, there the need for a committed person who will drive the project forwards and steer it through all the necessary stages. A vision for the new project can take the form of specific examples of contemporary projects or may involve generic ‚patterns' describing the sort of place which people would like to see.
It is vital to make sure sufficient time is devoted to planning the project process as its success will depend to a large extent of how well this process runs. Four main stages in the process can be identified, each of which can be further broken down:

Preparation
Design
Implementation
Maintenance, management and monitoring

4.3 Preparation stage

This is where the project is shaped and developed from the initial project idea through to the point where the requirements for the design of the site have been clarified in detail. Because it defines the issues which the design has to address, and because most people will be involved, this is perhaps the most critical part of the process.

4.3.1 Designing the process

This chapter aims to give an overview of the key stages in the design process in the broad chronological order in which they are likely to take place, but of course this can only provide a general guidance. Using the basic template set out here it should, however, be possible for those responsible for the overall management of the design project to shape a design process and prepare an action plan, which meets the needs of the project concerned and all its participants, however it will probably need to be adapted in a number of possible ways to meet the needs of any particular the design project.

It may be the case that not all the stages required here will be necessary. Alternatively some of them may need to be repeated for different parts of a more complicated project. Similarly the weight or importance given to each stage may vary from situation to situation depending on the circumstances. In some situations different aspects of the process may be more or less important, while the potential user groups may vary from case to case. The process of deciding on the extent of the process, which aspects are the most important ones and which groups need to be involved is sometimes known as scoping.

Finally it will be important to fit the necessary stages into the time budget which is available for the project. Developing an agreed schedule for the project will be a matter of key importance to ensure its success. This will need to take into account seasonal factors; for example: implementation cannot take place in winter; planting will have to take place during the appropriate season; involving the public will best be coordinated with the holiday times; surveys of the use of the space will need to be done at times of the year when levels of use are high; implementation cannot start until funding is available.

4.3.2 Clarifying the funding situation

While it is important on the one hand to consider the long term potentials of the site and the visions as well as the concrete needs of the users, it is also very important not to raise expectations unrealistically high or to promise something which cannot be delivered within a foreseeable timescale. For these reasons, there should be a good idea about both the level of funding likely to be available as well as when it will become available. This is also important in relation to the possibilities of supplementing this with other inputs, such as the direct involvement of local people in some of the implementation, for example.

4.3.3 Identifying the key issues and main stakeholders

At the start of the project it is vital to identify who the main actors in the process should be. As is discussed in the previous chapter, these will include the local municipal authority with responsibility for planning, other responsible authorities, the local community and interest groups or NGOs. This list must obviously also include the land owner(s) and managers, and it is important to remember that the users of the site may not just include the local people, but also 'official' users such as the emergency services, refuse collection authorities and commercial interests.

Part of the process of identifying the key stakeholders will involve deciding on what the key issues are with regard to the project in question. Depending on what these are, the list of stakeholders is likely to vary as will the degree of their involvement in the process. The process of identifying issues and stakeholders will be best tackled in an iterative manner. It will be relatively easy to identify the first few people on the list. These can then be asked for their opinion on who else should be involved or consulted and what issues they regard as important, so that the list can be extended accordingly.

A simple distinction is useful between 'official' stakeholders and the local community. The former can be reached relatively easily by sending letters to the responsible offices, the latter is a more diffuse group and special efforts will be needed to involve them.

4.3.4 Contacting the local community

A wide range of different activities may be necessary to contact an appropriate cross-section of the local community as the earliest stage possible in the process. If there are organised groups these will be an important starting point, but efforts should also be made to contact those who are not 'organised. As has already been stressed, it should also be remembered that the 'local community' is by no means a homogenous group and will often involve many conflicting views and interests. Identifying and resolving these, as far as is possible, will be an important part of the process.

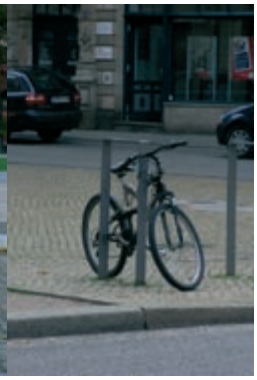
Means communication will include the traditional media such as local newspapers and radio stations, as well as through local organisations, schools, clubs and other organisations, by distributing leaflets, displaying posters and notices in local shops and other public places. These methods can be suitable to inform about the planned project, but each project and community has its own ways of communication and a good information campaign has to find out about them and use them for their interests.

Mass communication means are appropriate at the start of the project, but of course this communication is all one way and at later stages, when the stakeholder groups have been identified, other more interactive approaches, such as questionnaires, interviews, personal invitations, on-site information points, planning meetings and internet forums, will be needed to find out what people's expectations are and what they think about different issues and proposals.

4.3.5 Bringing together the different stakeholders in the project process

Once contact has been established with the local community, involving them in project meetings will be important parts of developing the project. It is likely that these will be of two types – relatively regular meetings of the core project team, which will probably involve representatives of community groups, and less frequent open meetings to which both the local community as a whole and other stakeholder organisations will be invited. The





open meetings might benefit from being moderated or facilitated by someone who is not too closely involved in the project. It is important that these meetings are organised to coincide with key milestones in the project development. A minimum of four public meetings is suggested as being necessary, although this proposed structure might have to be adapted to meet the needs of any project in question. In the case of simple projects, for example, the first two meetings may be combined, while with more complex projects the topics envisaged for the central two might require additional meetings to ensure that all issues can properly be discussed:

1. Kick-off meeting to introduce the aims of the project and discuss visions for the site, and to present and agree a timetable for the project
2. Meeting to present the results of the analysis and to discuss and evaluate perceived strengths and weaknesses of today's state of the site, develop and agree the programme
3. Presentation of and feedback on the first design ideas and alternatives and their evaluation from the point of view of different user groups
4. Presentation and explanation of the final design proposals with discussion on the timeline and budget of implementation plans for the project

Clearly there will need to be sufficient time between these meetings for the outcomes to be developed further. The development of the outcomes of the public meetings will be accompanied by a more regular schedule of more regular meetings of the core project team.

4.3.6 Programming and detailed development of the project brief

As used in this context, 'programming' is a term coined by the architectural profession in the USA for a structured process which involves ascertaining what is needed in detail from a project by ensuring that the needs and expectations of all interested parties are articulated and recorded, in order to provide a firm basis for, and in advance of, carrying out the actual project design. [3]

Programming is about analysing the needs of all the project stakeholders, collecting ideas and concepts about how these could be met, identifying the key functions which the site could and should be fulfilling and assessing the opportunities and limitations provided by the project site in order to fulfil these functions.

In parallel with this process of defining and articulating the needs and wishes of all project stakeholders, it is necessary to survey, record and analyse the problems and potentials of the project site and the ways in which this is used. As part of the process of site analysis, it is important to consider the site in the wider planning context and especially the open space structure of the town or city as a whole (see Section 1.3), in particular of the surrounding area, into which the newly designed space will need to be integrated. The ideas resulting from the programming meetings and the results of the site analysis are then organised and refined further into what will eventually become a clearly and precisely stated project brief, which also needs to, as far as possible, resolve the conflicts and contradictions between different positions and expectations. This, together with information on the budgetary framework and envisaged form of implementation, then forms an agreed basis developing the project further and for the commissioning of the project design in the narrower sense, and forms the last part of the 'preparatory' stage.



Parameter		Specifications
Budget related to the programming phase		
Policy background to be taken into consideration:		
Environmental aspect	Quantitative amount of open space / citizen	
	Qualitative component (percentage of vegetation/sealed surface/woody plant coverage)	
	Accessibility – Interlink within a network	
Public participation	Proper information of the public at an early stage	
	Active public participation (public input on needs, consultations with key planners etc.)	
Gender aspect	Use of gender differentiated statistics	
	Needs of specific groups such as women, children, men (young and old), singles and families	
	Clear rules of decision-making including women	
Security and social aspect	Definition of security problems and factors that may cause them	
	Precise definition of objectives being pursued as part of the project plan	
	Decision on actions by local authorities on strategies and financing	
Accessibility aspect	Gather information about connection to public transport, variety of attractions	
	Programme for inner development – slope of surfaces, width of spaces, headroom, furniture taking into account the "Use for All"-Proposal	
	Programming and definition of need of orientation system – taking into account all possible user groups	
	Design proposal for supplementary equipment (furniture, meeting points, sanitary installations)	
Urban design aspect	Condition of the site	
	Needs of users gathered through public participation	
	Contradictory and corresponding expectation of the client vs. demands of society and environment	
main success factors and bottlenecks of the programming phase		

Table 1: Questions on Programming

4.4 Design stage

4.4.1 Commissioning the design

The design process is addressed in more detail in Chapter 5 and will therefore only be considered briefly here, from the point of view of the processes involved.

The designer may or may not have been directly or indirectly involved in the preparatory phase of the project. This has advantages and disadvantages, but either case is possible. It is also theoretically possible to hold a design competition at this stage, the necessary documentation having been prepared as a result of the preparatory stage. This is one way of generating alternative design proposals; another is to make the preparation of alternatives an explicit part of the design brief.

4.4.2 Sketch designs and alternative concepts

Whether there is a competition which will result in alternative responses to the design problem, or whether one designer is commissioned with the preparation of alternative sketch proposals, it is important to see this as a first stage.

Sketch designs are concepts which set out the broad direction of a design proposal but which do not work it out in full detail. They provide an especially important part of a participatory design process, as they represent a first reaction of the designer to the project brief and the site, and allow the public to react the these ideas at a stage when the ideas are still open and developing. Furthermore it is usually easier for the lay public to express their ideas in reaction to specific proposals than the articulate them in an abstract context.

4.4.3 Visualisation of the alternative concepts and public feedback

These alternative proposals also need to be visualised in such a way as to be understandable to non-professionals. This will call for the use of 3-dimensional representations using collages, computer renderings or more conventional sections and perspective sketches. The design options can either relate to alternative treatments of the site as a whole, or only to individual parts of it. They should be presented to the public at the third of the meetings envisaged above, ideally after having been discussed at an internal project team meeting in order to ensure that all of the options are indeed technically feasible as far as the other stakeholders are concerned.

Ideally some longer term mechanism should be found to allow feedback from as wide a cross section of the public as possible, in particular those who are unable to attend the meeting. Here the same communication channels as referred to above will be relevant to publicise the alternative proposals, but broader approaches eliciting feedback will be especially important here. The process of obtaining public feedback should not just aim to select one solution, but to obtain opinions about the positive and negative points of each of the alternatives proposed.

4.4.4 Evaluation of the design in the context of the potential open space functions

As well as seeking the opinions of the wider community, it will also be advisable to make use of the checklist of potential open space functions set out in Chapter 2 in order to evaluate the relative merits of the alternative design proposals. This is something which can be carried out as a separate sub-stage but ideally the optimisation of the designs according to these functional criteria will be an integral part of the design process carried out be the designers themselves.

4.4.5 Assessment of the alternative proposals from the point of view of particular user groups

A further assessment and optimisation of the design alternatives should be carried out from a number of specialist perspectives. These include the needs of gender mainstreaming, the design for all goals and the requirements for safety and security. Relevant criteria are included in Appendix 5.

4.4.6 Feedback to the designer and integration of the comments into a revised and consolidated design proposal

Following the above stages the feedback needs to be taken into account in revision and consolidation of the selected alternatives into a final agreed concept design, which should then be worked up in more detail and visualised. This will be the subject of the final presentation to take place as part of the 4th design meeting as set out above. Once the design has been agreed on by all parties, work on the next stage can begin

4.4.7 Final agreement of the design proposals by the municipal and other authorities

Following the acceptance of the final design proposals by the wider community, these will need to be officially approved by the responsible authorities, although it is expected that they will have been kept closely informed in the context of the core team meetings accompanying the wider process.

4.5 Implementation stage

4.5.1 Preparation of detailed design and construction drawings as a basis for cost estimates and the tendering process

This lies between the design and the implementation stage, but cannot take place until the design has been approved. Detailed designs will provide the basis for reliable cost estimates and these will, in turn, help to clarify the possible division of tasks between what can best be done by a commercial contract and what can be contributed directly by members of the local community.

4.5.2 Project construction and site supervision

Following the tendering process and the letting of the contract, construction work can begin on site. This will need to be supervised on behalf of the client body, whether

Building carried out through	Preconditions	Advantages	Disadvantages	Examples
future users	the public was involved a lot in the programming process and works really good as a community	enhances a strong feeling of ownership among the future users; cheaper, because labour does not have to be paid	includes the danger of a shabby look from the beginning, which might induce vandalism and misuse	planting, painting at the end of the construction as well as digging and excavating or even building minor construction such as building wooden structures for playgrounds or pergolas
a "middle" road	in smaller projects a professional enterprise installs its products with the help of community volunteers	professional guidance by the contractor, and community involvement, may help save money	not every enterprise will be open to such an approach, because of insurance and liability issues	
professionals	bidding process is mandatory for public projects in the E.U. exceeding certain amounts of money; the designer normally has the duty to prepare the necessary facts and figures for this bidding process and also performs it	the final decision on which company gets to build the project, in any case, stays within the community; building through professionals means implied warranty	most expensive way; in case of step-by-step implementation it gets even more expensive	the constructor carries out all steps in the implementation

Box 4: Different scenarios for Implementation

4.5.3 Handover

On completion of the works, and the remedying of any defects identified, , there will be an official 'handover' of the completed project, which may possibly take place in separate phases. Following this the site can be officially opened to the public.

4.6 Maintenance, management and monitoring stage

4.6.1 Official opening event

The start of this phase may best be marked by an official opening. While many will see this as the end of the project, in fact it is the start of the 4th phase, and one which it is important not to forget.

4.6.2 Regular site maintenance

Once completed, the site will need to be regularly maintained. This will involve a number of regular tasks, such as maintaining the vegetation, cleaning litter and making minor repairs, and should be taken seriously by all concerned, as it is a further long term investment without which all the effort which has gone into designing the space can be put at risk. Here too there is an opportunity to involve the local community in at least some of the tasks, above all in exercising an ongoing and informal social policing of the site and making sure that any problems which arise are quickly brought to the attention of those responsible.

Method	Involved Groups	Benefits
post occupancy evaluation	public participation, users	professionals monitor the use to gain information about the functionality and acceptance of the open space; private / user management or public meetings to discuss future adaptations of the space, and passively through observance or structured interviews
monitoring and maintenance	public administration	If the client is a public administration, its role becomes one of management, maintenance and monitoring. If the client is a developer or non-profit organisation, it typically hands over the open space to the public administration
management	public administration	is responsible for the sustainment of the urban open space
management	users	management can partially handed over to the users, which means, they might take over responsibilities for its maintenance to a certain amount or have at least the possibility to be part of the decision process, calls for a very strong feeling of ownership among them and does not mean that the administration can totally pull out of their responsibility to maintain an urban open space – even if it just involves the monitoring of the private management

Box 5: : Monitoring and Maintenance

4.6.3 Managing the new urban space

In addition to keeping the space in good condition by regular maintenance, it is also important to establish the new space as a centre of social activity. For this reason it can be beneficial to organise regular events in the space. These may be either local festivals, parties and celebrations of some kind, but may also involve some communal maintenance activities too.

4.6.4 Monitoring use and formally evaluating the success of the design

Finally, it makes sense to evaluate how successful the design has been in terms of its original intentions and in terms of the types and level of use it is receiving. The establishment of a formal 'post occupancy evaluation' study is one way to do this, and will involve mapping the use and activity of the newly designed space in much the same way as was done as part of the preliminary site analysis, indeed comparisons between the two might be an important part of this process. Here too interviews and observations and internet forums can be of use as can be the checklist of open space functions provided by Chapter 2.
In addition to such a formal procedure, informal observations will complement this.
The implications of such post hoc studies, is that they then become the starting point for the next stage of re-design of the space. This may involve small adjustments to overcome specific local problems based on the experience of everyday use, but in time may lead to a new cycle of re-design to meet new challenges and demands on the space.

4.7 Conclusions – limitations and opportunities of a 'good process'

A good process is certainly necessary to help define the parameters and requirements for the new urban space and as such it represents an essential precondition for a good design solution. The process itself, is not however sufficient to ensure a good outcome if the design proposals themselves provide the necessary quality and reflect the meanings and values of the local community in a way that they will come to identify with the new space and treat it as their own.

CHAPTER 5

Patterns and Projects: Putting it all together

Summary

This chapter looks at ways of integrating and synthesising all the considerations raised in the previous chapters in order to create successful designs for urban open spaces. The focus is therefore on 'design' in the narrower sense – namely the process of organising and structuring all aspects of the site, creating spaces and assigning broad functions to them, selecting materials – including vegetation, paving and built structures, as well as preparing detailed proposals for lighting and furnishing the site. But it is also about creating a whole which is more than the sum of its individual components.
Three important inputs are needed to ensure the design of good urban spaces.

- First, it is necessary to understanding the potential of the site as well as its role of the site within its broader urban and landscape context, both in terms of its physical features as well as the wider meanings and values which arise from its historical and social context.
- The second input to the design process is provided by the elaborated project brief, setting out the needs and aspirations of users and local people.
- The third factor involves weaving together these two factors to create an integrated narrative tying together the history and geography of the site with its functional requirements and providing the basis for the identification of the users with the new space.

The third factor is the most difficult one to define, and it normally requires the skills and experience of a professional designer to create a coherent mix between the potentials of the site and the requirements and expectations of local people.

A useful bridge between structures, functions and meanings within a design project can be provided by the use of archetypal 'patterns', in the sense introduced by Christopher Alexander. Such patterns provide a simple way of integrating particular functions with spatial components of a design project in a recognisable way, as well as indicating something of the atmosphere with which they might be associated. Examples of possible patterns are provided to give an indication of how they might be used as one stage in developing the design for a new urban space. They include: 'A quiet place to sit and read'; 'The arena – a stage for performances'; 'Eating outdoors'; 'The promenade – somewhere to see and be seen'; 'The great meadow'. These are to be understood as a series of possible 'sub-components' which may or may not be appropriate to be selected and combined with one another for any specific site in order to create an overall design concept for a new space.

5.1 Introduction: Programming and design

The previous chapter focuses on the design process in the broader sense – design as a verb – but the process has no point if it does not lead to a satisfactory product. The 'programming approach' involves splitting the design process into two main parts: programming itself and the design process as such.

The first part is concerned with taking all the necessary measures to ensure that the design 'problem' is defined in all its facets and that the requirements which the final concept must meet are concisely recorded. The 'design' stage itself is about creating the 'solution'. This covers the formal process of organising and structuring all aspects of the site, creating and defining spaces and assigning broad functions to them, selecting materials, including both vegetation and building materials, as well as preparing detailed proposals for lighting and furnishing the site.

Between these two the 'handover' of the specification for the design has to take place between the person managing the design process and the professional designer whose job it is to turn the project requirements into spatial form.

The programming stage can be seen as being predominantly about the 'analysis' of the needs of the users and the potentials and problems of the site, as well as of examples of the ways in which they can be integrated and ideas for achieving this.

Design in the narrower sense focuses on the process of 'synthesis' – putting together all the components to create the final concept. This chapter focuses on design in the narrow sense, and looks first at the site, before going on to consider the extent to which design features in the form of archetypes or rather 'patterns' can be used as building blocks to support and inform the design process.

5.2 The site in context

The physical project site naturally provides the spatial potential for meeting the challenges of the design project, but the design of urban open spaces must always take place in a wider open space and urban landscape context too.

In order to make the most of the potential offered by the site itself, the following factors are likely to play an important part:

Topography and landform – are there changes of level which can be exploited?
Existing vegetation – what is worth retaining and what can be removed?
Views and vistas – can these be kept open or even highlighted?
Prevailing wind direction and general microclimate – how can this best be used?
Orientation with relation to the sun – which areas are attractive for sitting?
Functions and users of surrounding buildings – where are the main activity focuses?
Edges and junctions with the surrounding area, in particular other green spaces – how does the site communicate with its neighbours?
Traffic routes – where do most of the users come from and how do they cross the site?
Meanings and values – what do users and residents associate with the site; what is important in its 'past life'?

When considering urban open spaces it is important to think of them in terms of four different scales. The hierarchy of parks referred to in Chapter 1 should relate to all these levels, although the open spaces at the first level – the residential environment – are frequently private or communal in character, and therefore may not necessarily be considered under the topic of public urban open space.

The immediate residential environment
The neighbourhood (local or neighbourhood parks)
The district (district parks)
The town or city as a whole (city or metropolitan parks)

5.3 The elaborated project brief

Having been through the process of analysing the needs of local residents, there are two approaches which can be used to help integrate the results into a design concept. Either these needs can be seen as a simple compendium of largely unrelated features to be somehow taken into account, or alternatively one can try and find a series of integrated characteristics, which define the desired functions and atmosphere for the new space, rather than merely give specific structural requirements. The second approach based on defining 'patterns' is illustrated here as a possibility which can help both the design process as such, as well as aid the integration of the ideas of future users, as these patterns give them a means to express their aspirations and hopes in a more concrete manner.

5.4 Defining the elements - patterns

Modernist approaches to design taught that when a specific design brief met a unique site, the result could only ever be a 'one-off' design solution, created solely for the situation in question and suited only to its requirements. While this is true to a certain extent, it is also true that the same, or at least similar design problems have repeatedly been posed, and this on sites which often also bear a close resemblance to one another. As a result certain typologies have grown up and a certain canon of design solutions has been developed, tested and refined over time. It has therefore become possible to generalise from the particular, and to evolve a vocabulary of generic project types and even their sub-components.[4]

5.5 A pattern language for urban spaces

The following patterns provide examples of a simple vocabulary of archetypal open space elements which can be combined in various permutations to create different types of urban open spaces, they do not themselves represent open space types, but partial aspects which may or may not be combined within new or existing open spaces . Clearly not all patterns will be of relevance to all urban open space types. They have been formulated to combine aspects of structure, function and ideas of atmosphere, if not yet meaning.

It is hoped that they can be useful in stimulating discussions on the design features which might be included as part of a new or redesigned urban space, and the way in which they can be used. It is, however, important to remember that they can at most be seen as raw materials from which both to generate a discussion with the future users of the site and from which design solution can be fashioned in a flexible way which responds to the particular needs of the site and the brief in question.

5.6 Some examples of possible urban open space patterns

A quiet place to sit, to think and to read

Groups of small, introverted and sheltered and possibly also shaded sitting bays, set back from the main through routes and sources of noise. Views out of the space should be possible but not dominant.

An outdoor living room, a comfortable place to meet, talk and relax

A prominent central paved and planted space close to but not directly crossed by the main circulation routes with a range of seating possibilities for different groups to be able to meet separately or together. The space should offer a combination of openness and enclosure – prospect and refuge – and may, for example contain some focal architectural element such as a pergola or pavilion.

Walking in the park

A relatively informal circular pathway, providing a route around a small urban green space and linking its main areas and features. This pattern makes it possible for users to 'go for a walk' together, without leaving the park. This might be associated with a fitness course as well as also provide sheltered sitting areas.

A viewing platform to overlook the action
An ideally raised paved space located near the edge of the site, perhaps bordered on one side with a balustrade or railings on which people can lean in order to be able to observe and survey what is going on in the adjoining space(s). The platform might also be aligned according to a broader or longer view out beyond the site itself.

The arena, a stage for performances
A relatively large paved space in a central position, which can be overlooked from one or more sides and can act as a place where informal sports, such as skateboarding, are carried out, ideally in front of an equally informal audience. Such an area might be flooded with water in the winter and used for ice-skating.

A promenade to see and be seen
A broad paved and well-lit pathway, possibly lined with avenue trees and benches, which allows several people to walk side by side, possibly in both directions. Walking up and down is the main function of this and it does not necessarily have to link major entry and exit points, but it should be strategically located with regard to the rest of the space.

A shady grove
A regular grid or an informal group of standard trees forming a closed canopy and an enclosed, introverted and tranquil three dimensional space beneath them, which can either be observed from the outside or experienced from within, can form a focal feature of the site as well as provide an introverted and shaded space where people can withdraw from the wider space.

The great meadow
A large central area of grass allowing for flexible uses from playing informal ball games to accommodating a large marquee to house special events in the summer. The meadow should ideally not be broken or crossed by paths to allow for a wide range of different uses. The space could also be lightly hollowed out to both to strengthen the sense of enclosure, but possibly also to function as a water retention area in cases of high rainfall.

A floral display
Carpets of flowers concentrated around the edges of and entrances to the site, or forming focal features at other points can provide local colour and detail is association with places where people sit or congregate. These can attract people to the space, but also butterflies and insects. In a space of more urban character, other forms of vegetation – trees or shrubs – may play a similar role of creating a special focus.

The boundary enclosure
This may take the form of a generous and well-structured belt of planting forming the edge to an open space, and marking the boundary between it and the rest of the city. Equally it may be a wall, fence, planted mound or combination of these, which are designed to create a clear edge to the space. This can have the important effect of blocking out the urban environment and allowing the open space to develop its own special character

The entrance court
A paved space with seats, forming the threshold to an urban open space, and acting as a gateway between the space itself and the rest of the town or city. This is a place poised between the town and the park and will have characteristics of both; ideally it might for example be located close to a stop on a public transport route. It is somewhere for people can wait for each other while viewing both what is going on in the street and in the park.

Eating outdoors
A place with facilities for cooking food, perhaps a barbecue grill and seats with tables where users can bring their food, prepare a meal and eat it in the open air. There may be need for more than one such place, depending on the type of open space involved.

Somewhere to grow flowers and vegetables
A place to experience the open space as a garden and play an active role in the use of green space by planting, tending and harvesting crops which can be eaten and displayed. This may take to form of a series of enclosed tenants gardens and/or be provided by small garden areas attached to the ground floor flats within a housing area. Alternatively these can be seen as display gardens which are integrated into the overall layout of the open space and maintained communally.

This part of the site can contain a range of functional features such as stores for garden tools, compost heaps and equipment for watering the garden plots.

A piece of nature

'Wild nature' and the 'urban environment' can be seen as a pair of apparent opposites, which as a result of their visual contrasts can create tension and excitement in formal design terms when juxtaposed. As area of near-natural vegetation and the plants and animals for which it provides a habitat suggest links with the wider landscape even if no direct physical connections are possible. 'A piece of nature' might be a meadow or other area of semi-natural grassland, a pond or area or wetland, a hedgerow composed of native species, or a small area of coppiced woodland. Such natural areas can provide an expression of the dynamics of nature, of growth and decay as the passing of the seasons, as well as being somewhere where the urban public can observe wildlife otherwise not to be seen in their everyday surroundings.

5.7 The 'creative leap' to something which is 'greater than the sum of the parts'

It must again be emphasised that the above patterns will not be relevant for, or applicable to, all types of urban or peri-urban space, however it is hoped that they can help to focus the discussion on the type of features which the new open space might contain, while leaving the exact way in which they are implemented relatively open and flexible so that it can respond to the specific needs and aspirations of the project and the potentials of the site. Perhaps they can best be thought of as being similar to the 'formwork' used when pouring concrete, which it is necessary to erect around the design process to support it while it is still fluid, but which can later be removed as soon as the ideas have satisfactorily set into a final shape.

It is important to remember that the design of a new open space or the re-design of an existing one is not just about selecting items from a menu of possible patterns and then adding them together on the site. The open space design process involves far more than just creating the 'sum of the patterns'.

Having said this it will, of course, be necessary to organise and compose the various spatial and functional components of the future site into a functional and pleasing overall concept, making sure compatible functions are close to each other and conflicting ones are as far separated as possible.

A further part of the design process will involve reviewing the various potential open space functions, as set out in Chapter 2, and seeking to maximise as many of these as possible. In doing so it is important to be aware that while some functions, such as ecological and environmental ones and to a lesser degree social and society ones can be relatively easily specified, this is not usually the case with structural and symbolic functions, which cannot be achieved directly in most cases. This issue is discussed briefly below.

In parallel with this it is essential to evaluate and modify the design from the point of view of the needs of all potential users groups, with special attention being paid to women and minority groups as well as to the requirements of 'design for all' and the need for safety and a sense of security for all users of the space.

The consideration of spatial patterns, open space functions and the needs of future users is an iterative process which cannot simply be carried out on a one-off basis, but rather requires an on-going process of checking and re-design, modification and checking again.

Perhaps the most important aspect of the whole design process is the seamless integration of all these considerations into a single spatial concept, which should above all aim to embody significance, to convey meaning and to reflect the values of the users as part of an integrated vision for the space in question.

As has already been pointed out in Chapter 2, the European Landscape Convention places equal stress on the physical and the perceptual aspects of landscape. It is therefore one of the main challenges for the designer, after the main functional needs have been fulfilled, to integrate both the materiality and the mentality of the site into a coherent and convincing narrative, which must be capable of acquiring meaning for as wide a range of interested stakeholders as possible.

However although, or perhaps because, it is the most important characteristic of a good design, creating meaning is not something which can be rationally specified and planned for. Meaning must emerge from the dialogue between the users and the site. What the designer must do is create the potential for that meaning to emerge, and perhaps the best way to achieve this is to make sure that the design of the site is deeply embedded in its various contexts.

Acknowledgements

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References, Endnotes and Appendix

CHAPTER 1

1. European Landscape Convention:
http://conventions.coe.int/Treaty/en/Treaties/Html/176.htm

2. Thematic Strategy for the Urban Environment:
http://ec.europa.eu/environment/urban/pdf/com_2005_0718_en.pdf

3. Leipzig Charter:
http://www.eu2007.de/en/News/download_docs/Mai/0524-AN/075DokumentLeipzigCharta.pdf

4. Aalborg Charter:
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ENDNOTES

[1] www.urbanspaces.eu/index.php?id=objectives-activities.php

[2] Appleton, 1975 ('Prospect-Refuge' theory), Orians, 1986 (aesthetics of acacia tree species) and Wilson, 1986 ('Longing for the Savannah') have written about this aspect of landscapes in recent times.

[3] The programming approach proposed by Peňa, for example (Peňa, 1987), envisages all stakeholders playing an equal role, with ideas, being everyone involved being encouraged to write down, not just needs and wishes but also ideas and concepts about how they could be achieved, on cards in the context of open meetings, in a process similar to a 'SWOT analysis, in which the 'strengths', 'weaknesses', 'opportunities' and 'threats' are collected in the course of open and modified 'brainstorming' process.

[4] This fact was recognised by the architect and urban designer Christopher Alexander, and elaborated in his trilogy of books based around 'A Pattern Language' (Alexander et al., 1977). These patterns, which were characterised and described by Alexander, can be considered as a basic vocabulary of vernacular design elements, which could be drawn upon and employed by anyone with a project to realise. One might perhaps also describe them as 'vernacular archetypes'. These were seen by Alexander and his co-authors as basic components which were capable of being continually combined and reinterpreted to create new, but at the same time 'timeless' designs which collectively were the expression of the 'pattern language' (Alexander, 1979). The patterns described in Alexander's books related to the whole spectrum of the built environment from the region, through the individual building down to construction methods. They include details and components as well as complete objects. Within this very broad range of patterns, only a very few are associated with urban open spaces. The question is, to what extent can this range be extended to reflect the needs of creating new urban spaces?

APPENDICES

Appendix 1

Policy context

Catalogue of main types and categories of urban open space

Parks, public gardens and green spaces

- Local
- Neighbourhood
- District
- City
- Linear

Other green spaces

- Playgrounds
- Allotment gardens
- Cemeteries
- Sports grounds
- Camp sites

Roads and other transport routes

- Urban squares and plazas
- Pedestrian streets
- Residential streets
- Other roads
- Urban motorway corridors
- Car parks
- Cycle routes
- Railway lines and embankments

Residential open space and Housing landscape

- Private gardens
- Incidental open spaces in low-rise residential areas
- Communal open space in multi-storey housing
- Children's playgrounds
- Roofs and balconies

Historic open spaces

- Formerly private parks and gardens associated with historic buildings
- Early examples of public parks and gardens which may have been restored and are protected for conservation reasons.
- Important protected view axes or corridors with historic significance

Waterbodies and water courses

- Rivers
- Canals
- Lakes
- Ponds
- Wetlands

External spaces in relation to buildings

- Schools and other educational institutions
- Offices, business parks and administrative buildings
- Hospitals and care homes
- Industrial estates and commercial buildings
- Other public buildings

Urban fringe

- Left over agricultural land
- Forests and woodlands
- Waste disposal and excavation areas
- Unplanned open spaces

Name of Document/ Programme	Main Theme	Year of Publi-cation	Thematic Focus	additional information	related websites:
European Landscape Convention	ecological factors	2000	recognizes urban and peri-urban landscapes as part of human environment	signed by 24 of 27 EU member states, by 6 of 8 participating UrbSpace countries, and 12 other European countries	http://www.coe.int/t/dg4/cultureheritage/heritage/landscape/default_EN.asp
Leipzig Charter	ecological factors	2007	agenda for a 'European large cities policy', recognizes the important social, cultural and economic role that cities play, necessity of 'integrated strategies and coordinated action'		http://www.eukn.org/eukn/themes/Urban_Policy/leipzig-charter_3334.html
Aalborg Charter	ecological factors	1994	presents sustainability as a creative, local balance-seeking process, the principle of negotiation as the method for resolving problems, addresses the issues of urban economy, social equity, sustainable land-use planning, mobility, responsibility for global warming and pollution		http://www.eukn.org/france/themes/Urban_Policy/Urban_environment/Charte-d-Aalborg_EN_3007.html
Environmental Action Programme	ecological factors	2002-2012	four priority areas: Climate change, Nature and biodiversity, Environment and health, Natural resources and waste; promotes full integration of environmental protection requirements into all Community policies and actions and provides the environmental component of the Community's strategy for sustainable development		http://ec.europa.eu/environment/newprg/index.htm
Agenda 21	public par-ticipation	1992	definition of sustainable development: balanced economic, environmental, social develo-pment; factors to consider for sustainable development, involvement of different groups into the planning process		http://www.agenda21-treffpunkt.de/archiv/ag21dok/index.htm, http://www.un.org/esa/dsd/agenda21
Aarhus Convention	public par-ticipation	1998	environmental rights are recognized as human rights; obligation to future generation was named, involvement of stakeholders; public and private interactions in a democratic context	main paper summa-rizing rules for public participation processes	http://www.unece.org/env/pp/documents/cep43e.pdf
Treaty of Amsterdam	gender equality	1997	gender equality		http://www.eurotreaties.com/amsterdamtreaty.pdf, http://europa.eu/legislation_summaries/employment_and_social_policy/equality_between_men_and_women/c10940_en.htm
Saragossa Manifesto	gender equality and safety	2006	Themes of the manifesto are: Youth facing violence, Migrations, Minorities, New conflicts, Urban planning, public spaces and insecurity; there are solution proposals on management of urban crisis, organised crime and trafficking and a list of prevention tools	issued by the Euro-pean Forum for Urban Safety	zaragoza2006.fesu.org/IMG/pdf/manifeste/Manifeste%20de%20Saragosse%20-%20ANGLAIS
CPTED - Crime prevention through environmental design	safety	2004	multi-disciplinary approach to deterring criminal behaviour through environmental design		http://www.cpted.net/)
ENV 14383	safety	since 2004	regulatory instrument for planners and architects	can be purchased through the National Standards Organi-zations	www.cen.eu
Lisbon Treaty on the European Union	gender equality	2007	gender equality, accessibility and discrimination		http://europa.eu/lisbon_treaty/index_en.htm
European Concept for Accessibility	barrier-free planning	2003	harmonized European approach to accessibility, gives names and figures of spatial and technical needs of people with special needs		http://www.eca.lu/
Build for All - Manual	barrier-free planning	2006	open space as liveable area for all citizens	issued by the European Organisation EIDD	http://www.designforalleurope.org
European Common Indicators	barrier-free planning	2003	gives proportion and accessibility guidelines for green areas within a neighbourhood		http://ec.europa.eu/environment/urban/common_indicators.htm
STATUS - Sustainability Tools and Targets for the Urban Thematic Strategy	ecological factors	2006	develop locally-relevant targets for local authorities across Europe to self-assess progress with urban sustainable development		http://www.sustainable-cities.org.uk
TISSUE - Trends and Indicators to monitor the Urban Environment Thematic Strategy	ecological factors	2005	sustainable urban design, mobilisation of common indicators and development of the feasibility of indicators, towards effective processes		http://cic.vtt.fi/projects/tissue/Deliverable4.4_final.pdf

Table 2: EU programmes and documents related to Urban Open Spaces

Policy context – further documents

In recent years the European Union has commissioned a number of projects relating to urban green and open space issues. The most important of these are listed below with links to the relevant web sites.

BUGS – Benefits of urban green space
http://www.vito.be/bugs

(EU 5th Framework Programme "City of Tomorrow")

GREENSCOM – Communicating urban growth and green: assessment of planning concepts and policy instruments for sustainable development of the urban landscape
http://www.greenscom.com

(EU 5th Framework Programme "City of Tomorrow")

RUROS – Rediscovering the Urban Realm and open Spaces
http://alpha.cres.gr/ruros

(EU 5th Framework Programme "City of Tomorrow")

GREENSPACE – The contribution of urban green space to quality of life
http://www.green-space.org

(EU 5th Framework Programme "City of Tomorrow")

URGE – Development of urban green Spaces to improve the quality of life in cities and urban regions
http://www.urge-project.ufz.de

(EU 5th Framework Programme "City of Tomorrow")

Neighbourwoods
http://www.sl.kvl.dk/euforic/nbw.htm

(EU 5th Framework Programme "City of Tomorrow")

SAUL – Sustainable and Accessible Urban Landscape
http://www.saulproject.net/

(INTERREG)

GREENKEYS – URBAN GREEN SPACES - a key for sustainable cities
http://www.greenkeys-project.net

(INTERREG)

Sustainable Open Space
http://www.sos-project.org/

(INTERREG IIIb North West Europe)

C11 Green Structure and Urban Planning
http://www.map21ltd.com/COSTC11/

COST Action

E12 Urban Forests and Trees
http://www.sl.kvl.dk/euforic/research.htm

COST Action

Appendix 2

Place and Programme

Examples of quantitative standards currently used

"Natural England's Accessible Natural Greenspace Standard (ANGSt) provides a set of benchmarks for ensuring access to places near to where people live.

These standards recommend that people living in towns and cities should have:

- an accessible natural greenspace of at least 2 hectares in size, no more than 300 metres (5 minutes walk) from home
- at least one accessible 20 hectare site within two kilometres of home
- one accessible 100 hectare site within five kilometres of home
- one accessible 500 hectare site within ten kilometres of home
- one hectare of statutory Local Nature Reserves per thousand population." [1]

In the UK the Government Planning Policy Guidance No. 17, named Planning Open Spaces, Surfaces for Sport and Recreation, deals not only with green areas (regardless how broadly this notion is defined) but also with open public spaces which provide space for recreation and are valuable also from visual and aesthetic points of view.

A standard of the National Playing Field Association (NPFA) lays down **2.43 ha of sporting areas and playgrounds per 1,000 inhabitants** (known as "6 acre standard"). In 2008, a revision of this standard was carried out and this standard is called now Planning and Design for Outdoor Sport and Play standard quantitatively defining 1.6 hectares of recreation green areas and 0.8 hectares of playgrounds for children per 1,000 inhabitants.

A number of British municipal councils have similarly adopted a standard of so called amenity open spaces, which represents **0.5 - 0.8 ha per 1,000 inhabitants**, to be applied in case of new construction activities[2]. From the point of view of biodiversity protection there is a known indicator of quality of life for urban inhabitants, representing **1 ha of natural components per 1,000 inhabitants**.

The CitySpace planning initiative in Chicago (USA) aims is to bring all communities up to a standard of two acres of open space per 1,000 residents by 2010.[3]

According to other approaches, it is necessary to take into account not only the size of green areas but its distribution within city as well, that means the **accessibility** of open spaces from the most distant place (zone) of a city or to be defined by the method of catchment areas.

1 http://www.naturalengland.org.uk/ourwork/enjoying/places/greenspace/greenspacestandards.aspx
2 RETHINKING OPEN SPACE OPEN SPACE PROVISION AND MANAGEMENT: AWAY FORWARD, Kit Campbell Associates, Edinburgh, The Scottish Executive Central Research Unit 2001
3 Public space lessons, Adapting public space to climate change , Cabe,p.3, www.cabe.org.uk

From the point of view of various European policies, green areas and public spaces, their proportion and **accessibility** are included among the indicators of **sustainable urban development** (e.g. the European Common Indicators, STATUS[4], TISSUE[5]). In the framework of these sets of sustainable urban development indicators the accessibility of open spaces is monitored as follows:

Open spaces are defined as:

- Public parks, gardens or open spaces serving exclusively to pedestrians and bikers, cemeteries (if the municipal self-government agrees with their recreational function or natural, historic and cultural values);
- Open sporting areas accessible for the public free of charge;
- Private areas (private parks) accessible for the public free of charge;

Accessibility is defined as living within a distance of **300 metres** from a public space.

The **UK** applies a similar approach where the accessibility of open spaces is expressed by distance or by time of pedestrian walk to a green area or to an area of short-term recreation. Typical indicators are:

- Playgrounds for small children, accessibility within 90 m
- Playgrounds for children of 10-13 years of age, accessibility within 300 m
- Playgrounds for children of 14-18 years of age, accessibility within 1,000 m
- Sporting areas, accessibility within 1,000 m
- Parks, accessibility within 400 m
- Amenity open spaces, accessibility within 400 m

Accessibility of green areas is widely used for particular categories of green areas according to **their importance for a settlement:**

- Parks and public spaces or regional importance: accessibility within 8 km (pursuant to London Planning Advisory Committee, LPAC, 1992)
- Parks of urban importance: accessibility within 3.2 km (pursuant to London Planning Advisory Committee, LPAC, 1992)
- Parks of district importance: accessibility within 1.2 km (LDPETA, 1992) or 2.5 km (Dundee City Council, 1999 and Glasgow City Council, 1997)

Examples of other standards in the area include „The Natural England Accessible Natural Greenspace Standards":

- No person should live more than 300 metres from their nearest area of natural green space of at least 2 hectares in size.
- At least 1 hectare of Local Nature Reserve should be provided per 1,000 population.
- There should be at least one accessible 20 hectare green space site within 2 kilometres from home.
- There should be one accessible 100 hectare green space site within 5 kilometres.
- There should be one accessible 500 hectare green space site within 10kilometres.

In accordance with „Standards for open spaces in build up areas" in Graz (Austria) (Freiraumplanerische standards fur die Baulandgestaltung)"[6] various qualitative standards according to territory's functionality are applied. The index of "impermeableness"[7] is especially important for rain water management in the urbanised territory. It is calculated as percentage according to surface type as follows:

No impermeableness (0 %)
- lawn, carpet lawn and other vegetation area

Semi-impermeableness (50 %):
- paving with increased interspaces
- grass concrete
- porous paving in gravel bed

Impermeableness (67 %):
- paving in sand bed

100 % impermeableness:
- Asphalt
- paving in mortar bed
- Built-up area

Result is average permeability expressed as sum of permeability according to particular surface types in the given territory.

4 Sustainability Tools and Targets for the Urban Thematic Strategy
5 Trends and indicators to monitor the Urban Environment Thematic Strategy
6 Freiraumplanische standards fur die Baulandgestaltung", Graz
7 Die Versiegelung

Along with that, the final calculation includes the area of green roofs (if vegetation roofs are located in the given territory), where the area of green roof within the total balance of areas is calculated as follows:

- Thickness of soil layer 8 – 15 cm – calculated as 60 % impermeableness
- Thickness of soil layer 15 – 30 cm – calculated as 45 % impermeableness
- Thickness of soil layer 30 – 50 cm – calculated as 20 % impermeableness

A so called "**green space factor**" was applied in the Swedish city Malmo in building a new district Vastra Hamnen. The "green space factor" ensures that each plot has a minimum amount of greenery, and on a scale of 0 to 1 the average factor must be at least 0.5. Values of "green space factor" according to particular surface types (from impervious surface rates as 0.0, a tree 0.4 and a green roof 0.8) are provided below:

Type of area
- Vegetation: area where the plant roots have direct contact with deeper soil layers, and water can freely percolate to ground water level. (1)
- Vegetation: area where the plant roots don't have direct contact with deeper soil layers, for example on top of underground car park. Soil depth less than 800mm. (0.6)
- Vegetation: area where the plant roots don't have direct contact with deeper soil layers, for example on top of underground car park. Soil depth more than 800mm (0.8)
- Green roofs, brown roofs, eco-roofs: calculated for the real area covered by plants, not the area of the roof as projected on the ground surface (0.8)
- Open water in ponds, trenches and so on: the area should be under water for at least 6 months/year (1.0)
- Non permeable areas, including the house built on the plot (0)
- Stone paved areas, with joints where water can infiltrate (0.2)
- Semi permeable areas: sand, gravel, etc. (0.4)
- Green walls: climbing plants with or without support. The area of a wall that can be expected to be covered by vegetation within five years. Maximum calculated height: 10 meters (0.7)
- Trees with a stem girth of more than 35 cm: calculated for the maximum area of 25 m2 for each tree (0,4)
- Shrubs higher than three meters: calculated for the maximum area of 5 m2 for each shrub (0.2)[8]

A similar approach has been selected also in the city of Berlin - successful and comprehensive green factor programme in place called the **Biotope Area Factor** (BAF).

Values of BAF factor for particular surface types for calculation are as follows:

Surface type		Factor value
Built-up surface		0.0
Partially built-up surface		0.3
50% built-up surface		0.5
Surface of vegetation without contact with deeper soil layers (thickness of soil layer below 80cm)		0.5
Surface of vegetation without contact with deeper soil layers (thickness of soil layer above 80 cm)		0.7
Surface of vegetation with direct contact with deeper soil layers		1.0
Polders (surface) for infiltration of rain water		0.2
Vertical greening		0.5
Green roof		0.7

8 http://www.i-sustain.com/index.php?option=com_docman&task=cat_view&gid=100&Itemid=152

The value is calculated according to the formula:

	(... m² of surface type • factor x value) + (...m² of surface type • factor x value) + ...
BAF=	----------
	... m² of total area of land

BAF value ranges from 0.6 (residential areas) to 0.3 (industrial zones) [9]

Characteristics of good urban spaces

It was Vitruvius, the architect to the Roman Caesar Augustus who was the first to write about the three main functions which a good building ought to fulfil in his 'Ten Books on Architecture. He described these as Firmitas (stability or strength) Utilitas (functionality) and Venustas (beauty).

While these three functions cannot be directly applied to open spaces, they have previously been adapted to fit a landscape architectural context. Thompson (1999) re-interprets Vitruvius to define the three properties of 'ecology, community and delight' in his book of the same name. He considers these as the three value systems driving landscape architecture, but they also can be seen in terms of functions and recast as follows:

- Environmental and ecological functions (= Firmitas)
- Social and societal functions (= Utilitas)
- Structural and symbolic functions (= Venustas)

Stability in the sense of structural strength and stability makes little sense in the context of an open space, but this can be relatively straightforwardly substituted for the equivalent concept of ecological or environmental stability. The utility value of an open space, by comparison, i.e. its fitness for purpose as far as its human users are concerned, translates more or less directly from the architectural context, whereby it is important to note that the practical functions of open spaces are usually harder to define than those of buildings, which require specific rooms of particular sizes for defined purposes and to accommodate know numbers of people. Open spaces are not just open to the sky, but usually open to different uses too. Finally, perhaps the most difficult open space function to be looked at from a functional viewpoint is that of the aesthetic dimension. It makes sense, however, to regard being aesthetically pleasing as another of the main functions of open spaces which are consciously designed, although 'venustas' is about more than just superficial aesthetics in the case of open spaces.

Another way to look at these three groups of open space functions is to consider their role in relation to people. Broadly speaking the environmental and ecological functions of open spaces can take place in the absence of people, and indeed many would argue that people can even be a hindrance to the fulfilment of these functions. This is in complete contrast to the social and societal functions, for which the use of the spaces by people form the central consideration. People are also central to the third group of functions, but structural and symbolic functions are mainly about how the spaces are perceived by people, and perception is not necessarily related to direct use: a space can, for example, have an important symbolic function for individuals or groups without them ever having to physically go there.
The three main functions for buildings defined by Vitruvius or the three value systems for designed landscapes identified by Ian Thompson represent ways of organising ideas, but as suggested above the benefits of taking a functional approach to defining the quality of urban spaces relate to the potential for operationalising these as an aid to designing new spaces and evaluating and enhancing existing ones. To do this, however, it is necessary to break these three main headings, which might also be characterised in terms of 'place, programme and perception', down into some more detailed functions which can provide some more guidance about how the functions can be promoted in practice by the way the spaces in question are designed.

9 http://www.stadtentwicklung.berlin.de/umwelt/landschaftsplanung/handbuch/de/biotopflaechenfaktor/index.shtml

Improving the legibility of the city

The five structural components of the urban environment identified by Lynch (landmarks, nodes, paths, edges and districts) are both scalable, so that they can be applied at different levels of the spatial hierarchy, site, local, district, city-wide, as well as being applicable to the planning and design of open spaces.

At a larger scale, individual open spaces of different kinds can also themselves represent different examples of Lynch's structural components. At the scale of the individual site, however, Lynch's vocabulary of elements can also be seen as design elements which can be used to compose the design of a particular park or square, and if used appropriately can ensure that the design is suitable legible and easy for the user to navigate and find their way in.

The gestalt principles of perception provide a series of rules which attempt to explain how we perceive the world around us in terms of coherent objects and forms rather than just as a series of seemingly unrelated points, lines and areas. The gestalt rules of perception were originally formulated and developed by a group of psychologists during the 1920s and 1930s firstly in Germany and then in exile in America. While these rules were originally defined to explain the way in which we perceive two dimensional visual fields, they clearly also are applicable how we read and understand three-dimensional urban spaces too.

The first principle relates to 'figure-ground' relationships. According to this a patch of one colour or texture in the middle of another colour or texture is perceived as an 'object' which is afforded greater significance than is given to ground surrounding it and is felt to stand out from it.

Further principles follow from this articulation of the simple figure against its background. The first of these relates to the juxtaposition of a series of similar figures which are arranged on a ground. Equally spaced a series of individual forms is seen, but if some are located closer to each other than the rest, those which are closer to each other are automatically seen as belonging together in groups. Elements which behave in a similar manner are also seen as belonging together, even if they are not located in close spatial proximity.

Following on from this if there are a series of different elements distributed across a visual field, the eye automatically picks out those which are similar to one another and organises them into groups. This effect can be strengthened still further if similar objects are also located in close juxtaposition with one another.
The eye will also automatically complete forms which are in fact open or only partly articulated if it results in a shape which is easier to perceive. Clearly defined shapes which seem to make coherent sense are also perceived as being integral wholes, even of the components out of which they are composed are diverse. Such shapes can also be picked out relatively easily against complex backgrounds as they are immediately identified as having a higher degree of significance.

Appendix 3

People and Partners

Gender equality is a fundamental right, a common value of the EU and a necessary condition for the achievement of the EU objectives of growth, employment, and social cohesion. In its Roadmap for equality between women and men (2006/2010), the European Commission underlined the need to achieve equal economic independence for women and men. In particular, the Commission committed itself to strengthen gender mainstreaming in the Open Method of Coordination for Social Protection and Social Inclusion and to provide a manual to actors involved in the process. The European Forum for Urban Security held in Saragossa (November 2006), adopted the Saragossa Manifesto on Urban Safety and Democracy2. This document is important because it starts considering women needs from a different point of view: legal issues concerning female participation should become the basis of modern cities shapes.

The implementation of gender mainstreaming in urban planning at local and regional level is governed by various legal sources. The European Strategy of Gender Mainstreaming, in particular, serves as a guiding principle for the implementation of gender equality in sustainable planning procedures. Policymaking processes must be reorganised, improved, developed and evaluated to ensure that the actors normally involved in policy-making will include the perspective of gender equality in all policies at all levels and in all stages (Council of Europe 1998).

Gender mainstreaming was endorsed as the official European gender equality policy and it has been legislated in the Treaty of Amsterdam of 1997.[10]

10 http://www.gutenberg.org/files/20239/20239-h/29239-h.htm

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