

# Sustainable Urban Landscapes: Making the Case for the Development of an Improved Management System

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## Abstract

*In order to achieve high quality urban landscapes it is essential to engage an appropriate management system. Such a system needs to be flexible enough to allow consideration of both urban change and the changing needs and demands of landscape users. Based on an investigation of the literature, this paper makes the case for the development of an effective management system and concludes that changes in urban landscape management have not kept up with urban expansion. Moreover as the trend in the objectives for urban development in Malaysia and around the world is towards achieving more sustainable development, the paper highlights the importance of establishing more appropriate landscape management systems as fundamental to the achievement of sustainability objectives.*

**Keywords:** Urban Landscape, Sustainability, Landscape Management, Sustainable Management System

## 1. Introduction

Recent research indicates that there is an increasing concern by ordinary people about issues related to their quality of life and to the quality of the environment. For example, the percentage of urban green space in nearby living environments has been shown to have a positive association with the perceived general health of the community (Maas et al., 2006). The planners and policy-makers are now more concerned on the urban environment and the value of urban landscapes (Plummer and Shewan, 1992; Woudstra and Fieldhouse, 2000; Osman, 2002; Chiesura, 2004; Countryside Agency, 2005). Concern is not based on simple issues of health and amenity but reflects more complex topics. In addition, many local landscapes are increasingly significant to urban dwellers

as they provide tangible evidence of continuity and sense of place in the rapidly changing urban environment (Cranz, 1980; McInroy, 2000).

In spite of the many values attributed to urban landscapes, the changes in urban development have also resulted in great changes in the landscapes of cities. It has been observed by Antrop (2004) that these changes can be devastating, with irreversible loss of a variety of natural and cultural resources. The speed, the frequency and the magnitude of change increased in an unprecedented manner during the second half of the 20<sup>th</sup> century (Antrop 2000). The changes also include shifting perceptions, values and behaviour of the users of the landscape. The conflicts that arise as a result of all these issues have created new challenges for those who manage urban landscapes.

## 2. Study Context

This paper identifies that a new, more effective landscape management system is badly needed for urban areas in Malaysia. In order to make the case for this, the following section provides an overview of the context of urban landscape development and management based on a literature review of the subject. The place of landscape management in the development process is discussed and the weaknesses of present systems are revealed. The more important roles and functions of urban landscape and the changing user needs and demands are also examined. Furthermore, this section highlights the potential of urban landscape management in the context of the need to achieve more sustainable environments in cities.



## 2.1 The Scope of Urban Landscape

As landscape issues have been identified as an important aspect of our daily life there is increasing interest in landscape generally in both policy and practice, as demonstrated for example in Europe by the development of the European Landscape Convention and its adoption by many EU countries (Council of Europe, 2000). Landscape research has also been expanding, as evidenced by the emergence of a number of new publications covering the area (e.g. the Journal of Landscape Architecture (JoLA) and Alam Cipta) and the increasing numbers of international papers submitted to well-established journals<sup>1</sup>. Benson and Roe (2000) summarised this interest by asserting that “landscape is an evolving cross disciplinary area, which draws contributions from art, literature, ecology, geography and much more” (Benson and Roe, 2000:1).

Urban landscape in particular is a growing area of consideration, but one which has an identifiable history. In England the importance of urban landscape dates back to the early nineteenth century when it was seen as an antidote to the harshness of city life (the first major public park was established in 1843 at Birkenhead) and as important in providing a setting for housing (e.g. Regent’s Park, London, 1838). In the United States of America, Olmsted pioneered the idea of urban landscape systems with his ‘emerald necklace’ of parks around the city of Boston. In terms of theory, Larkham and Jones (1991:78) saw urban landscape simply as “the visual appearance of a town”. Conzen (1969) described urban landscape as being a combination of three complex systematic forms which include town plan, building fabric and land use. More recent commentators have taken an increasingly wide view, developing holistic concepts of the need to establish ecologically sound approaches to urban space (Gordon, 1990) and to develop urban ‘green infrastructure’ that includes parks, green corridors, open green spaces and other space between and within urban areas (Benedict and McMahon, 2002; Roe, et al., in prep.). Green infrastructure thinking has also emerged in both North America and Europe as an important framework for the planning and delivery of a range of environmental functions and services particularly related to quality of life and the livability of cities for urban dwellers (MacFarlane, forthcoming; Handley, et al., forthcoming). Such developments in thinking, closely related to the global sustainability agenda, are important considerations for policy-makers concerned with urban development.

## 2.2 The Urban Landscape Development Processes

The typical process of urban landscape development starts at a planning stage, passes through a design stage and culminates in implementation (see Figure 1). Following the development and implementation period, there will usually be a maintenance period undertaken by contractors. The duration of this will depend on the agreement in the contract and the size of the scheme, but is often short in landscape development terms - from a few months to a few years. In normal circumstances, after this maintenance period the landscape project will be handed over to the local authority for long-term maintenance and management. This system, whereby local government has been the custodian of the urban landscape, has been in place for some considerable time in the UK and a number of other countries (Greenhalgh and Worpole, 1996; Morgan, 1996).

However, the range of different types of parks and landscape areas for which local authorities are responsible has expanded over the years and varied according to the uses, functions and roles. The management of these areas has been affected by changes in the structure of cities and in the patterns of urban living (Greenhalgh and Worpole, 1996; Morgan, 1996). Managers have found themselves embroiled in debates over how urban landscape - especially areas of public space - should be used, whilst at the same time being engaged in protecting the spirit of public parks as places embodying significant public values, such as place of freedom and places of historic importance.

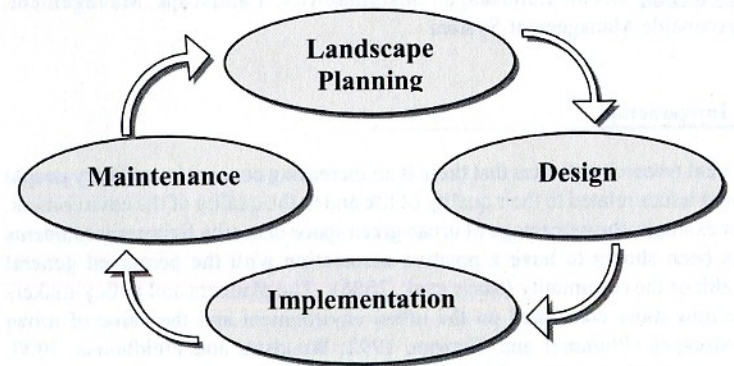


Figure 1. Typical landscape development process.



### 2.3 Urban Landscape Management Systems

The evolution of urban landscape management systems have not kept pace with urban landscape development (Clouston, 1984; Holden, 1988; Greenhalgh and Worpole, 1995; Reeves, 2000; Osman, 2004). While some attention has been devoted to the urban landscape development process rather less attention has been given to management and the lack of research into management and maintenance issues has been identified as a particular issue (Bell et al, 2006). The management of urban landscape seems to concentrate on day-to-day maintenance rather than long-term strategic thinking. In many cases this has resulted not only in the decline in the physical landscape, but a deterioration in the relationship between users and the landscape (More et al. 1988). Communication and information provision in relation to users as well as the maintenance of informal green spaces is a problem, as is the imperative to understand the skills needed by staff to prepare for current and future demands of management and maintenance (Bell et al., 2006). These problems may help prompt decision-makers to consider a change of use of green areas into some non-park function. This uncertainty is not a new phenomenon; Laurie (1986) suggested that the landscape profession should be more proactive in demonstrating and advocating alternative strategies when such threats to the sustainability of urban landscapes arise.

According to Greenhalgh and Worpole (1995) there is as yet no general model that can be applied to the management of urban landscapes. However they suggest that there is a need for landscape or park managers to understand the distinctive qualities of an urban landscape area and its locality before developing their management strategies and procedures. Management methods and practices may be very different in each location, but there should be a general system and strategy which should look across all these different types of space, and help develop ways of improving the management system as well as the quality and standard of the landscapes overall. This will help to develop a best practice framework to which managers and others concerned in urban landscapes can refer.

### 2.4 Justification for the Development of a More Appropriate Management System

The quality of urban landscape may be judged by its ability to meet the needs of its users. Taylor (1989) suggested that to have quality means it should have all of those characteristics and features that satisfy the customers' perceived

desires. A quality urban landscape requires those responsible for planning, management and maintenance of such areas to understand the users' wishes, and translate them into characteristics and features. Management strategies should therefore take into consideration the purpose of the area, the users and their objectives (Greenhalgh and Worpole, 1995).

According to Reeves (2000), high quality urban landscape will eventually help to create a more civilised urban environment. Arler (2000) added that without these qualities the important opportunities that urban living can provide might not be fulfilled. Indeed, as opportunities disappear, future generations will live a poorer life in cities. True respect for future generations, as embedded in sustainability thinking, implies that thorough investigation and discussion with all present stakeholders as well as the consideration of future stakeholders is the only way to recognise and conserve aspects of urban landscapes that are considered important (de-Shalit, 1998). Appropriate management guidelines and standards would seem to be a way of ensuring that such forward thinking is captured.

As described earlier, the dynamic changes in cities have altered the use, role and value of urban landscape and parks; they are no longer solely places for recreation (Burgess, et al., 1988; Greenhalgh and Worpole, 1995). Urban landscapes now play important roles that contribute to the economic, environmental, social, cultural and psychological aspects of urban life. Figure 2 shows the diversification of the roles of urban landscapes and parks.

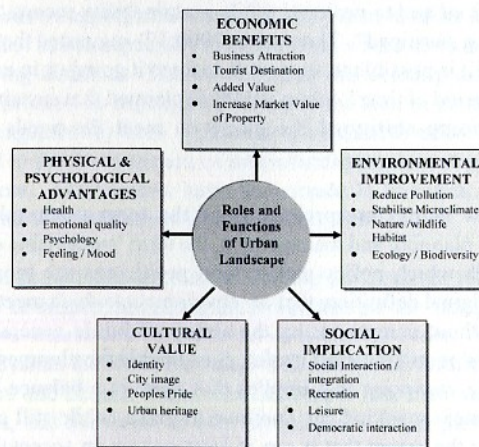


Figure 2. The important roles and functions of urban landscape.



Recent studies have shown that urban parks and open spaces are used in a variety of ways, from providing opportunities to escape the urban environment, opportunities for socializing, to learn about nature and the environment, self-awareness, places to relax, to keep fit and to play (Morgan, 1996). As government policies change in line with the emergence of new theory relating to the widening role of urban green infrastructure, the demands by users upon the urban landscape are expected to increase.

The quality of the urban landscape management will, directly or indirectly, depend upon the good stewardship of the planners, implementers and managers, and other professionals involved. It is only through the adoption of a strategic approach to planning and management that urban landscape can be adequately provided, protected, and managed, to carry out its functions and roles (Morgan, 1996). Planning for this should reflect the more recent concerns about sustainable development, and the growing emphasis on the need to develop more liveable cities. Quality of life and quality of environment are key concepts in creating more sustainable cities.

## **2.5 Sustainability Issues and Their Influence Upon Urban Landscape Development Processes**

Benson and Roe (2000:5) pointed out that according to the Chambers Dictionary (1993), to sustain means “to hold up, to bear, to support, to keep going, to support the life of and to prolong” while sustainability means “that which is capable of being sustained”. Thompson (2000:17) suggested that something is sustainable “if it is possible to support it, to keep it going or in existence, over a significant period of time”. Sibley (1998:6) claimed that sustainability refers to “the continuing ability of the planet to meet the needs of its living inhabitants”.

There are now many interpretations of the term sustainability, but in environmental planning and management, the term ‘sustainable development’ is the one with which policy-makers and politicians are most concerned. Bruntland’s original definition, that of ‘development which meets the needs of the present without compromising the ability of future generations to meet their own needs’ is still the most useful. Sustainable development indicates an anthropocentric viewpoint that implies that there is a balance between how much development mankind can continue to make, while still preserving the environment to the extent that it can at least sustain an acceptable quality of human life (McDonach and Yaneske, 2002). Moreover Sibley (1998) adds

that to achieve global sustainability, we need to keep our demands within the capacity of the world to supply them.

The core requirement for a focus on an inter-generational time period is of particular relevance to the development of targets in urban landscape management systems. Beck (1992), Sachs (1995) and Ferris, et al. (2001) claimed that urban landscape can be very positively linked to sustainability policies as urban areas around the world become the focus for population migration, for changes in technological capacity and as the major source of demand on the environment. This increasing drain has been conceptualised as the increasing ‘ecological footprint’ that urban areas now have (Rees and Wackernagel, 1996).

Thompson (2000) indicates that sustainable development seems to offer “landscape architects a tangible way of relating their aesthetic, social and ecological values” (p. 12). He adds that landscape architects have demonstrated their concern for conservation, enhancement and creation of biodiversity habitats, and a commitment to working with communities and they would thus seem to be in a particularly good position to advise on the establishment of sustainable management systems for urban landscapes.

It is possible that the new, and increasingly diverse roles played by urban landscape will establish its future development. Similarly, the influence of sustainability may help to ensure that the environment, natural resources and human needs and demands are taken into consideration during the development and management of urban landscape. Sustainability concerns are likely to drive those responsible for urban landscape development and management to become more creative and diverse. At the same time such concerns may help instigate actions to preserve and protect the balance of nature while providing aesthetic pleasure (Thompson and Sorvig, 2000; Krischik and Bevacqua, 2004).

There are many challenges for landscape planning and development in the 21<sup>st</sup> century (Linehan and Gross, 1998). There is a need to examine the ecological, economic and cultural dimensions of landscape as the basis for more sustainable urban development and management. Nevertheless according to Benson and Roe (2000:1) “landscape architects cannot save the world (at least by themselves), but they do, we believe, regard themselves as important players or potential players in the local, regional, national and even international efforts to protect the environment, to promote sound development and to improve the quality of life for people now and in the future”. The key to sustainable management at all levels and in all spheres is always to consider the long-term



effects of decisions and actions and to value long-term benefits over short-term advantages (Sibley, 1998).

### **2.6 Developing a Sustainable Urban Landscape Management System - the case of Malaysia**

Malaysia is a developing country with a vision to become a Garden Nation. However Osman's (2005) study reveals that the problems of urban landscape development and management are not peculiar to Malaysia: the study indicates that they are consistent with those that have been and are still being experienced by more developed countries. The study reveals that there is presently no standard system for urban landscape management being practiced in Malaysia. It also indicates that existing management practices in the country may have been developed in response to a problem-solving approach based on the experience and knowledge of the managing organisations rather than on a coherent and comprehensive strategy to achieve sustainability aims.

With the emphasis on a Garden Nation vision, it is natural that Malaysia should highlight the management aspects of urban landscape. Such a focus is required to ensure that the development of the landscape will continue to contribute to sustainability aims. In addition, there is considerable support amongst stakeholders for such an approach. All the respondents interviewed in Osman's (2005) study believed that a more sustainable management system is important and very much needed, especially to help develop a better environment by reducing the degradation of the urban landscape. This provides decision-makers and managers with a clear indication that greater sustainability should be the core target for a new urban landscape management system.

### **3. Discussion and Recommendations**

As argued earlier, those developing and managing urban landscapes need to base plans for future change on sustainability principles. Sustainability has become a global concept that now extends to all spheres of human activity. Figure 2 reveals that the economic, environmental, social and cultural roles and functions played by urban landscape have changed as a result of changing user needs and demands. Hence the requirement for a comprehensive management system to maintain the sustainability of urban landscapes is urgently needed. Sibley (1998) suggested that if the world is to be managed sustainably then its individual parts and systems must also be managed sustainably.

Those developing urban landscape should consider the failings of existing management approaches and ideas and should look at the potential of management systems from other fields that are closely related to landscape and that have been widely recognised and implemented. An example of such a system is the Environmental Management System (EMS) which is globally recognised, and which allows effective management of the environment with the fundamental aims of achieving greater global sustainability. Recognised standards are the 'Europe's Eco-Management and Audit Scheme Regulation' (EMAS) and ISO 14001 (EMS). Endorsement of the latter standard in Europe automatically serves as EMAS certification (Johnson, 1997).

A better management system will ensure there is a link between the urban landscape planning and development with landscape maintenance on the ground. A clear and standard comprehensive management system will ensure that the objectives and targets of the landscape development are followed through into the maintenance activities. Issues of sustainability will be emphasised, and appropriate programmes, manuals and maintenance activities will be developed. An improved management system needs to include provision for a continuous feedback system to ensure that the system is accountable and improvements are constantly being fed back into the system (see Figure 3).

### **4.0 Conclusions**

Landscape needs an appropriate management system in order to keep up with changing human needs, especially in urban areas where there is great pressure from competing demands. The key issue in the existing urban landscape development process, as highlighted earlier is the lack of an appropriate and effective management system. Although considerable effort and finance is often devoted to the development of urban landscape, less attention is paid to its management. Few studies have been made in this area, and hence an appropriate and well-structured system is still to be found.

A new system should take account of shifting perspectives relating to urban environments to ensure that it can accommodate all the changes that occur, including users' needs, and the potential roles and functions. Without such a management system the urban landscape will deteriorate further and decline in amenity, social and cultural value. As landscapes lose their value, users will abandon them, and the threat to turn landscapes to other purposes becomes more real.



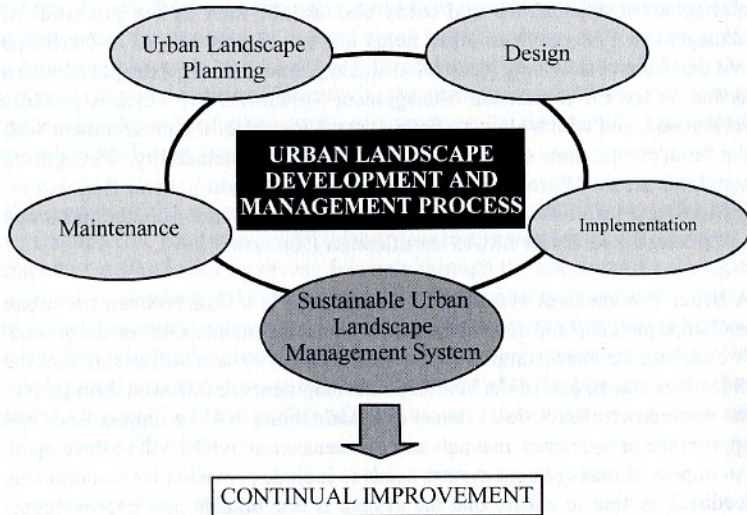


Figure 3. A proposed complete urban landscape development process with a sustainable urban landscape management system in place (Adapted from Osman, 2005).

The growing emphasis on developing better quality landscapes for a better urban environment and improved quality of life indicates that further research is required to develop new perspectives for urban landscape management. The growing concern for sustainable development indicates that management which encourages sustainability is becoming ever more important. Urban landscapes must be managed so as to achieve the primary aims to be of benefit to its present users and future generations.

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