The Principles Of Sustainable Urban Landscape Architecture

Introduction

Landscape is widely known as the integrated perception of the outdoors environment, the awareness of the daily habitat, or the result of the interaction between natural forces and human activity. The purpose here is to point out how a wise understanding and managing of the landscape phenomena largely contributes to a sustainable city. An attitude towards nature that reduces it to grab the goodness of immediate material resources and waste disposal facilities has led to a divorce between urban inhabitants and natural local processes and expressions. .Since the progressive transformation of landscape may be perceived, lived and breathed by residents in urban settlements it might be valued, regulated and planned by them as well, providing a solid and practical meaning of sustainability based on a sense of place.

Interest in urban sustainability has grown in landscape ecology. More than 50% population lives in cities and by 2050 more than 70% will live in cities as cities are expected to grow on its own. Urban landscape will be a major issue in next few years. Landscape ecologists are important for urban planning and urban design. Architects and planners are challenges through visioning, competitions, pilot projects, and certification programs (i.e. LEED and BREEAM). Designers are attempting to apply landscape ecology to urban projects but lacks of culture, research skills and resources. Cities need to resilience rather than design.

The landscape architecture is different from other type of construction; it should not only satisfy certain functional requirements, and requirements of artistic, ornamental strong. Not only to meet the needs of tourists in the scenic, but also pay attention to use of the outdoor space and the room inside and outside space of harmony and unity. Due to the Negligence of the natural resources carrying capacity of the ecosystem, without considering the coordinated development of culture, economy, environment and nature, human beings have entered the ecological crisis. We rely on the survival of the earth, and not too many resources can be disorderly exploitation and unlimited use. The concept of sustainable development thought is to consider the issue of the development of human society, economic value, natural protection, resource utilization, ecological environment construction and sustainable development from a global perspective.

The socio-ecological and perceptual approach in urban landscape projects is proposed rehabilitation of the modern city’s environment the proposal is documented by the results of a research upon applied urban landscape projects leading to a sustainable city perspective. The term of urban sustainability becomes more and more topical, in the search of the urban conditions that can ensure a high standard of living without compromising the living These concepts interpreted in terms of ecology, urban planning, design and architecture, social and economic sciences and human geography, reveal the continuous need not only for an efficient use of natural resources but also for quality standards of life conditions in the cities, for the present, for the future and for all. From the start of Industrial Revolution the reforming movement started in order to reinstate the ecological balance between built-scape and open spaces quality of the future generations. The improvement of landscape and achieve the quality landscape design according to sustainable objectives the planners and policy makers are now

more concern about urban planning. The contemporary urban landscape is the image of dynamic social, economic and ecological changes. It constitutes the mirror of history, natural and cultural, urban processes, as well as locations of hybrid character, such as degraded and fragmented spaces within the urban fabric or in the city boundaries - areas in between, infrastructures, post-industrial and waterfront sites, but also potential grounds for urban development. We have read aspects of urban landscape in China. Due to lack of green space in China, they are suffering from serious health condition but now they are quite aware about theirs problems and they are working in landscape design considering the principle of aesthetics. Apart from the educational value, urban systems also provide their inhabitants with a number of ecosystem services, some recognized and others unacknowledged. These ecosystem services are products of ecosystem processes and functions, cultural, provisioning and regulating services. Many of these services are essential for human well-being and thus an important aspect of livable cities. The capacity, however, of a city to provide these services depends on the configuration of its ecosystems, and cannot be taken for granted. Ecological research targeting sustainable management of urban environments should include findings and methods from many lines of ecological research, such as the link between biodiversity and ecosystem function, the role of humans in ecosystems, landscape ecology, and resilience.

Objective

The aim of our research describe in this paper was to study the effect of sustainable urban landscape on environment and to study the problems regarding this and the aspects and strategies to resolve these issues. Problem is about indicators and parameters of sustainability. We take a look at nature of measurements of sustainable urban landscape.

This research also includes International case studies of China, Malaysia, The Thessaloniki Strategic Green Plan, The Serres urban landscape project, the Boston reclamation landscape project and the Ayia-Varvara Drama landscape project. The importance of the issues for sustainable use of ecosystem services, which is argued to be one aspect of sustainable cities. This paper considers the issues of enhancing the level of the environmental comfort of the urban development in the Volgograd agglomeration through the arrangement of new urban parks applying innovative urban planning methods for the urban landscape design. Also, there is a brief review of the global experience in the use of new technologies for the landscape ecological reconstruction and regeneration of urban areas.

Issues in Urban Ecology

Biological Diversity and Ecosystem Functions: Changing the species diversity, abundance, and community composition may have functional consequences because the number and kinds of species present determine the efficacy of many ecological functions. High numbers of species with similar ecological roles increase the number of potential community organizations that can uphold similar ecosystem functions, which makes the system resilient. Which species are found in urban green areas has to do with both internal factors and landscape context.

Ecological Processes and Social Drivers: Cities are subjected to a strong human influence, and management decisions have profound implications for ecosystem function. One of the central tenets in landscape ecology is that processes can be inferred from geographical patterns, but it may not be that straightforward in urban landscapes where human activities both transcend

habitat boundaries and differ between patches of the same habitat.

Connectivity and Spatial Resilience: No landscape is inherently fragmented or connected, and can only be assessed in the context of an organism's ability or willingness to move between patches and the scale at which the organism interacts with the landscape. There are two aspects of connectivity, the continuity of a certain habitat (structural connectivity) and the possibility for organisms to move within or between patches (functional connectivity). Landscapes are often described as consisting of patch and matrix habitat, the latter defined as the most extensive and connected habitat of a landscape.

Parameters to design Sustainable Urban Landscape

- Discourse and dimension: That provide environmental quality.
- Aesthetics: We should use natural and basic principles to make it look natural and aesthetically appealing.
- Functional: It tells us if design is healthy and safe if design is healthy and safe and cost effective material selection.
- Environmental: It focus on reuse resources, choice of plants, location, materials and their effect on environment.

It is provided for additional artificial terracing of the valley slopes, for the planting of zoned alien forms of trees and shrubs resistant to recreational load, for the design of various pavilions and open grounds for passive and active leisure as well as of an advanced network of pedestrian paths and game-like tracking routs for sportsmen.

Aesthetic Principles

- Harmonization: The modern urban landscape is artificial design, and landscape planning of construction. Some designers do not notice the original natural landscape, and modernist influences the design of modern cities. Urban landscape and buildings designed and constructed according to the aesthetic principle are in harmony with nature. So if the urban landscape construction returns to nature, designers and implementers should pay attention to nature, which will harmonize urban buildings and nature, in order to promote harmony between human and nature, human and the city.
- Inheritance: Culture is the soul of a city. In recent years, the city receives visits from other countries all the time, so the city's geographical location is far less important than the spirit and culture. The cultural spirit of the city can better transform and improve spirit of residents and also has influence on the development of the city, so urban landscape designers need to join cultural heritage of the city in the landscape design.
- Natural extension: Natural extension principle of urban landscape design is extending the aesthetic principle to nature. Human is part of nature, but natural extension principle is not for protection of human life and survival by landscape design, but making human better adapt to their surroundings, able to be mutually harmonious and co-exist with the world and able to reflect their own values in their living environment.
- Greening urban space: Urban landscape design should expand urban green space, and increase the green area in the city. Landscape designer can design green roofs, actively promote green roofs and build eco-roof garden which can effectively regulate climate change, and improve natural ecology in the city.

Conclusions

The ecosystem service concept provides useful benchmarks and performance indicators to link science with planning. Research need and foci are emergency and offer cause for optimism for those who are prepare to practice trans disciplinary research on cities of future.

The sustainable development of ecological design has a certain independence and integrity. Ecological design is not just a slogan, but also put into action, it is necessary to consider the current needs of people's life. At the same time, people also need to consider the potential future needs.

Among the fields related with the issue of urban sustainability, urban landscape architecture’s contribution is broad and overall. In fact, the word sustainability doesn’t mean anything more than the capacity of duration in time, notion closely related with the nature of landscape; a flexible, adaptable, continuously mutable infrastructure. The urban landscape is regarded socio-ecologically and perceptually “legible” through the spherical approach and landscape architecture designates the complex organism of the city transforming, activating and managing the ecological balance, focusing on the human experience of the space, on the space quality for a contemporary society.

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.

The field of landscape architecture or urban landscape architecture is highlighted; along with its distinctive character, in relation to the fields of architecture and urban design and within a creative dialogue, urban landscape architecture emerges as a constructive field of theory and practice, contributing significantly to the cityscape reshaping. Finally, throughout the implemented and ongoing urban projects, it becomes evident that the encouragement of a prompt and accurately programmed cooperative scheme is crucial for a sustainable and resilient city future.

Urban landscape can exhibit external beauty of the city. Urban landscape designers use urban culture for urban landscape design, which can effectively inherit urban culture. Urban green land design should be scientific and aesthetic. During urban landscape design in accordance with the aesthetic principle, the original cultural heritage should be maintained, and only in this way urban landscape design can be more meaningful.

The combination of ecological and social information should be able to capture important processes in the landscape and determine their origin and implications for sustainability, e.g., how citizens’ access to different ecosystem services affects their choices and actions.

Aspects that are differentiated are aesthetic, functional, environmental, cost, quality of sustainability. Index of any system depends upon the accuracy and comprehensiveness of mentioned figures and indicators.