The Role of Culture in Greenway Planning: Focus on Islamic-Persian Garden Characteristics in the UK and the USA

Fatemeh Shahani, Julie Rudner

La Trobe University, Department of Social Inquiry, Community Planning and

Development- Melbourne, Australia

Introduction

For more than a decade, planners have been concerned about green spaces to achieve sustainability in both environmental/ecological and cultural/social issues. Urban planning processes provide methods of consultation that incorporate community views to create complex built forms in urban environment for diverse cultures, needs and values. The use of multicultural ideas in planning or decision-making can change the nature of city life (Fincher, Iveson, Leitner, & Preston, 2014). In a multicultural society, greenways have great potential for providing a social and cultural network, which integrate people with diverse ethnics and perspectives when they are developed in partnership with different groups to meet the needs of communities. Thus, the interaction and communication between different cultures provide opportunities to create new spaces. This paper focuses on greenways planning in two multicultural countries (the UK and the USA). where they have public gardens that incorporate Islamic design. Specifically, design principles associated with "Islamic - Persian Garden (IPG)" has been chosen to discuss cultural aspects of green spaces.

Both "Islamic- Persian Garden (IPG), and "Greenway Planning" seek to achieve sustainability goals by combining function and design elements. IPGs combine geometrical form with light, water and shade to achieve particular aesthetic and environmental outcomes. At a different scale, Ahern and Fabos define greenways as "networks of land that are planned, designed and managed for ecological, recreational, cultural and aesthetic purposes" (Fabos & Ahern, 1996). Greenways have evolved into the flexible multi-purpose model for landscape planning and strategies (Ahern, 2004). In Muslim countries like Iran, IPG are integrated into urban greenspaces. In western countries, greenway planning has grown steadily in popularity in the planning and design professions as an efficient and socially desirable approach to open space planning. Although, in the western context, greenways planning does not necessarily include specific design principles that are reflective of their diverse populations and cultures.

In this paper, IPGs and greenways are explained regarding the key policies, processes and designs. Then, justification for designing IPGs within greenway

planning is discussed by highlighting case studies from the UK and the USA. Finally, similarities and difference between function and design will be explored; other issues regarding the history, key actions and design elements will be identified

Comparing IPG & Western Greenway

The importance of green infrastructure, particularly parks and greenways, is demonstrated through the environmental, economic, and social benefits they create. For example, greenways provide environmental services such as water filtering, infiltration and retention; proximity to green spaces can increase land values, and the status of cities (liveability indices); health and wellbeing is supported by therapeutic access to green spaces, as well as the opportunities they provide for relaxation, leisure and exercise as cultural and spiritual benefits. Ahern and Fabos (1996) emphasize that greenways assumes these values are intrinsic, so they are designed to express social and cultural values and attract local residents as well as tourists because they provide high quality environments in space (Fabos & Ahern, 1996). This paper extends the role of greenways by focusing cultural matters - specifically the application of Islamic ideas in landscape and gardening in the UK and the USA. This aligns with other practices in greenway design that include garden designs representing historical, social and aesthetic elements of different ethnic groups such as: the English garden, the Japanese garden and the Chinese garden.

One of the best images of Islamic design ideas in gardening and landscape is the Islamic-Persian garden (IPG) (Ruggles, 2008). After Islam came to Iran, the concept of Persian gardens developed from a combination of the Islamic prototype and the gardens of paradise described in the Quran (Clark, 2004). The Persian garden has come to symbolise Islamic design across cultures/forms of Islam and has dramatically changed the way in which landscape is conceived. Generally, two knowledge attitudes regarding the IPG can be observed in relation to the design, construction and preservation (Amir Moradi et al., 2012): Climate Ecology (natural condition, climate condition, weather condition) and Commitment to ecology (culture, religion, custom). The principle elements of all IPGs, are water and shade; after the two initial elements, the third element is the geometric layout (Chahar Bagh) - that is the four-fold garden constructed around the central pool or foundation- and the fourth element is the linking of elements in the garden (Clark, 2004). The IPG with the Chahar Bagh pattern (Fig.1) is one of the greatest landscaping concepts with a long history and the interaction with nature.

Culture and Sustainability

The role of culture as a part of sustainability is not addressed appropriately in greenway design. It is an important subject, because gardens help people express their culture, who they are and engage in meaningful ideas. Greenways in multicultural societies need to support different needs. Western landscape planners assert that "greenways" can provide balance between sustaining cultural identities and maintain open spaces. Greenway planning is a desirable planning process for sustaining cultural, historical and natural places, since it gives opportunities to people to integrate with diverse ethnic groups and perspectives. According to Hosgor and Yigiter, there is not one universal best culture, but there is a best culture for each individual (Hosgor & Yigiter, 2006). People create meaning about their urban spaces through their values, traditions, customs and beliefs, including religious beliefs. It means communities, through their everyday practices in physical spaces can help sustain cultural and urban continuity (Hosgor & Yigiter, 2006).

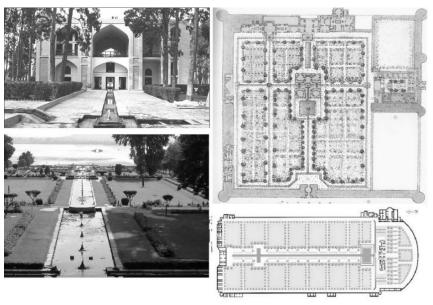


Figure 1. Islamic- Persian Garden Design and Plan (Khansari, Moghtader, & Yavari, 2004)

Therefore, environmental sustainability, in addition to cultural sustainability can be achieved by creating green spaces where diverse people can share spaces for socialising, recreation and so forth. Incorporating IPG idea in parks and greenspaces provides a link between culture and nature, and this integration is discussed in relation to some examples of IPGs in the UK and the USA. IPGs respond to people's needs in the environment and provide

structures that help create a sense of place; when enjoyed by people of various backgrounds they can make a space for dialogue among cultures and thus redefine the meaning of diversity.

Methods

The research presented in this paper is based on a literature review. The method used to analyse selected sites are developed by the data in articles, books, official reports and websites of those gardens. Since there is a large Muslim population in the UK and the USA, it is important to study the incorporating of IPG and green spaces.

Integration IPG and Greenway

IPG is a multipurpose space that gained its cultural popularity among Muslims by preparing the religious, recreational and cultural activities is green spaces. In contrast, greenways represent a multiuse planning approach by linking cultural issues with a linear spatial configuration. Indeed, one way to accomplish sustainable greenways is by extending its role to include cultural and social matters by including IPG principles in allocated spaces within the network. The review of the literatures (Ahern, 2004; Amir Moradi et al., 2012; Clark, 2004; Fabos & Ahern, 1996; Hosgor & Yigiter, 2006; Ruggles, 2008) indicates the role of "function and design" in both IPG and greenways as summarised in Table 1.

Table 1. Greenways and the IPG similarities

| Definition | The | The IPG | | Greenways | |
|-----------------------------------|----------|---------|----------|-----------|--|
| Characteristics | Function | Design | Function | Design | |
| Satisfy of users | * | * | * | * | |
| Provide peace and comfort | * | | * | | |
| Coordination with environment | * | * | * | * | |
| Linear system | | * | | * | |
| Water system | | * | | * | |
| Consistent with climate | * | * | * | * | |
| Use of renewable energies | * | | * | | |
| Use of local materials | * | * | * | * | |
| Prepare public/private space | * | * | * | * | |
| Attract tourist | * | | * | | |
| Make cultural and social effects | * | * | * | * | |
| Interaction with nature and human | * | | * | | |
| Linking of elements | | * | | * | |

Hence, in the following of this research, some gardens with IPG characteristics are explained and discussed based on Table 1 features in design and function.

Sezincote Garden, The UK

Sezincote is the most imposing example of IPG in England in style and design, as shown in Figure 2. It includes a large formal IPG style which demonstrates hybridity in English countryside with IPG elements and the symbols from the Quran. It has a golden onion dome and octagon pavilion at the end of the conservatory with a balcony. This green space was designed for the personal interest of the owner and architect of the garden who was not Muslim. Some characteristics of both Islamic design and greenway planning are seen in this garden such as: the linear system of green plants that line the constructed water streams in the centre of the photograph, and a green space to represent the cultural heritage of Islam and symbolising the interaction of nature and humans.



Figure 2. Sezincote Garden (www.sezincote.co.uk)

HRH The Prince of Wales' Carpet Garden, Highgrove, The UK

The Carpet Garden is one of the first interpretations of a traditional IPG in the UK and includes the four rivers of paradise and the formal Chahar Bagh for garden (Wales, Guinness, & Butler, 2014). This was a challenging project because of the practical application of the existing patterns and colours, as well as relating them to traditional IPG design principles and planning (Wales et al., 2014). This garden can be compared to the gardens of paradise in the Quran in some visual aspects (Clark, 2004). This garden was designed for the Prince of Wales, as he was interested about Islamic cultures in landscape. As Figure 3 demonstrates, cultural forms are seen in geometric design of fountain and also in the linear path through the Chahar Bagh plan of this garden. Moreover, the suitability regarding the IPG and greenways definitions are perceived through interaction with nature and human for achieving peace and comfort in this space.

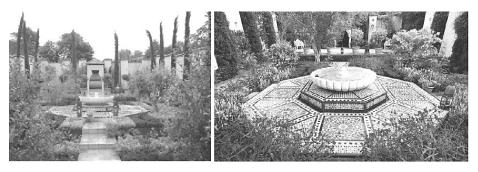


Figure 3. Carpet Garden (www.highgrovegardens.com)

Lister Park / Mughal Garden, The UK

Lister Park is a large open space with several types of parks and features that is located in Bradford; one part of this area is named the Mughal garden (a subdivision of IPG). The park appears to be very inclusive and local communities use its space for walking, school trips and entertainment. This garden has large rectangular enclosed space and a central geometric arrangement for water, canals and fountains identical to the Chahar Bagh structure (Husband, Alam, Huettermann, & Fomina, 2014). Lister Park has been at the centre of a large Asian and Muslim population, and during the design process, local communities had the chance to be involved in developing plans for the park. The most important reason for creating this garden was recognition of identity. There is a large Muslim population in that and the local government created this area to recognise the changing social and cultural nature of the area (Husband et al., 2014). This garden is a very successful example of the formal response to the physical changes and identity in society that brings new and cultural elements (IPG) for green space design. The harmony and coherence of IPG and greenway are shown in Figure 4 by preparing public linear green space for all people and making cultural and local effects in designing of this garden.



Figure 4. Lister Park / Mughal Garden (www.bradforddistrictparks.org)

Shangri La or Doris Duke, The USA

In Honolulu Hawaii, there is a significant IPG named Shangri La or Doris Duke. This Islamic Garden designed along the length of a water channel that is crisscrossed in the centre; its design suggests the Chahar Bagh scheme (Littlefield, 2002). Doris Duke was interested in Islamic garden and architecture which is why this area was designed (Ruggles, 2008). In this garden, both Western and Islamic ideas are associated with design and function such as: coordination with environment, linear system and linking of elements with local materials. As Figure 5 presents, some western features like the type of plants and flowers are used in this garden and in another hand some IPG characteristics such as geometrical pattern and Chahar Baghe plan are seen as a main scheme for this public garden.



Figure 5. Shangri La garden (www.shangrilahawaii.org)

Discussion and Conclusion

This paper has introduced IPG as a framework within greenway planning and has emphasized the possibilities of including IPG to recognise diverse communities in green spaces. The example of IPG was used to show how greenways can serve cultural functions and design for sustainable urban environments.

In terms of making space for diverse societies, social and cultural aspects of green spaces are often overlooked, yet they are just as important as their environmental functions. Including IPG in the design of greenways provides a form and function that addresses multiple goals of sustainability - such as using local materials, providing peace and comfort and connecting with the climate and environment by water and shade - while providing opportunities for cultural representation in diverse societies. Furthermore, the design is not exclusive and therefore, the greenspaces are able to be enjoyed by all people regardless of their religious, cultural or national background (Fig.6).

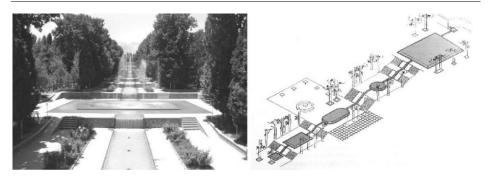


Figure 6. Combination of IPG and Greenway in design (linear system) (Ruggles, 2008)

This paper discussed examples and experiences of Islamic idea in urban green spaces in non-Muslim and multicultural societies like the UK and the USA. Three of the four examples were developed for personal interests rather than for public spaces that were designed to recognise local Muslim communities. However, the non-Muslim interest in IPGs and their garden developments, and success of the public IPG suggest many cultural groups may share enjoyment in these types of spaces.

This raises an important research question: do other multicultural countries include IPG in their greenway design? In my PhD research, I am examining planning for diversity in Australia with regard to public and semi-public spaces; designing open-green spaces in this way is a new idea. Yet, in a multicultural society, it is important that different cultural groups are represented in physical spaces. Currently, non-dominant groups, such as Muslim communities, are still invisible in Australian urban planning process. This is why I my focus is on the representation or aspiration of cultural groups, including Muslim people, to have some spaces and places in cities that symbolise their religious and/or cultural beliefs. Greenways provide excellent spaces for incorporation of new design principles such as IPG, due to their alignment with sustainability objectives, and their function to provide places of relaxation, socialisation and contemplation.

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