Visual Preferences For The Development of A Malaysian Garden Identity

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Abstract: Malaysia is a developing country that has been experiencing rapid development since its independence in 1957. The country-with its unique natural and cultural heritage-is in need of projecting its own landscape identity through the development of a distinct national garden identity. This paper discusses a study that used Content Identifying Methodology to determine Malaysian public preferences among the iconographies of four selected well-established gardens, with the purpose of determining visual preferences of Malaysians for their own developing gardens. The results of the study found that plants, water, and traditional architectural features imbued with meaning were the preferred elements for a Malaysian garden. Respondents also indicated preferences for garden layouts that possessed legibility and mysterious qualities. These findings are useful for policy makers and landscape professionals with an interest in developing gardens with a Malaysian identity. These findings could also throw some light on other developing gardens, especially those in newly developed countries.

Key words: garden identity, Malaysian gardens, iconography, preferences.

INTRODUCTION

Malaysia has great potential to develop gardens and landscapes with a unique identity that reflects her natural and cultural heritage (Bunnell, 2004; Osman and Suhardi, 2007). Malaysia’s population is largely composed of three ethnic groups (Malay, Chinese, Indian) with different religious backgrounds, predominantly Islam, Buddhism, Hinduism and Christianity (Jamil, 2002; Bunnell, 2004; Richmond, Cambon and Harper, 2004; DiPiazza, 2006). Given such a diverse cultural background, developing an identity that represents Malaysia seems challenging. Nevertheless, it is very important to adopt public opinion and preferences regarding the visual quality and appearance of Malaysia’s emerging gardens. This paper begins by exploring Malaysian preferences amongst the iconography of selected well-established gardens. These gardens are the Persian, English, Chinese and Japanese gardens. This is followed by a discussion on the results of a survey that was conducted, which focused on preferences for visual garden scenes and elements. And ultimately, this study suggests that garden iconography should be understood as a collection of stimuli that is open to perception, interpretation and judgment.

Review of Literature:
The Garden As A Work of Art:

According to the history of garden design, aesthetic considerations have been the basis for the development of all garden types (Miller, 1993). Similar to other artistic works, gardens reflect different moods and images, specific meanings and symbolic messages (Hunt, 2000; Helmreich, 2002; McIntosh, 2005). They stand at the crossroads of nature and culture, and present natural form and human art (Nakagawara, 2004). Gilbert (2005) claimed that gardens are made to exhibit both the aesthetic and the material in landscape.

The garden is recognized as an artistic-natural phenomenon, and the aesthetic qualities of a garden fuel its consideration as an aspect of human art (Thacker, 1979; Miller, 1993; Ross, 1998; Brace, 1999; Nakagawara, 2004; Connell, 2005; Turner, 2005; McIntosh, 2005; Clayton, 2007; Gross and Lane, 2007). For Tschumi (2005), the garden is an artistic phenomenon that reflects a specific place and time. Furthermore, Albers (1991), Ross (1998) and Waymark (2003) suggested studying the garden as a work of art because of its symbolic significance and the close association of its design with the art of painting, poetry, architecture and calligraphy. Consequently, it can be concluded that the garden is an artistic, physical and visual representation of a culture. Indeed, the garden is a work of art with symbolic and cultural value.

Iconography of Gardens:

Iconography can be defined as a visual expression of an idea, and it expresses particular ideas through visual images (Wages, 1999). American Heritage Dictionary (2003) defined iconography as images and symbolic representations that are traditionally associated with a person or a subject. Through iconography, we seek to understand the underlying meaning of a work of art by studying its historical context (Daniels and Cosgrove, 2007). Straten (1994) argued that the concept of iconography or “image reading” is a creative method
to historically analyze artistic works. Indeed, Daniels and Cosgrove (2007) considered gardens as an artistic work with cultural values that represent, structure and symbolize the environment. According to Wages (1999), iconographies express the variety of ideas associated with gardens in historical paintings or images.

Hence, garden iconography must include garden images due to its scenic manifestations of certain icons, figures and symbolic objects. Accordingly, garden iconography can be defined as a tool associated with art, history and philosophy. It also encompasses a collection of garden images that project garden identity. As such, it contributes to the formation and creation of a visual language that can be employed in the identification of gardens.

The identities of well-established historical gardens are already widely known, allowing swift and easy recognition via imagery and visual documentation that represent their identities. These representational images can be referred to as iconographies. Thus, an understanding of the components of garden iconography can be helpful to identify and explain the meaning of a particular established garden. However, the iconography of new developing gardens is still unclear, and information on what the iconography of new developing gardens should be is lacking. To build and develop the iconography of these new gardens, a study of specific images is required.

**Iconography Preferences and Development of a New Garden Identity:**

The formation of gardens has been influenced by traditions and culture (Lehrman, 1980). Hunt (2000) referred to historical gardens as sites of iconography and philosophy, and considered them as texts with deep meaning and importance. According to Carroll (2003), gardens have been shaped throughout history by people’s needs and preferences. In summary, it has been argued that gardens were designed based on different preferences, needs, purposes and activities (King, 1979; Hunt, 2000; Hobhouse, 2002; McIntosh, 2005; Clayton, 2007). Hence, new developing gardens have to be accepted, valued and appreciated by the people who will become its active users.

According to previous studies by S. Kaplan and R. Kaplan (1989), cultural backgrounds have a great influence on people’s preferences of natural settings and designed landscapes. In addition, based on Kaplans’ (1989) Informational Processing Model, component and spatial qualities have an effect on people’s environmental preferences. Hence, to create a new setting, focus should be on people’s preferences for both garden components and spatial qualities. This is because people with different cultural backgrounds will have different preferences for garden elements and layouts. Therefore, user preferences for content and spatial layout play an important role in forming garden iconography.

**Methodology:**

**Preference For Garden Scenes:**

Public participation in aspects like human preferences, needs and activities is important in decision-making and can secure the success of a research (Yuen, 2005; Laforteza, Corryb, Sanesia, & Brown, 2008). Accordingly, Kaplan (1985), S. Kaplan, and R. Kaplan (1989) employed visual preferences to determine preferences via photo questionnaires, surveys and interviews. This approach is a reasonable and easy method, and has been used in many studies. As Strumse (1996) suggested, classifying similarities in landscape preferences across groups can help the development of general guidelines for landscape design. In addition, visual quality is a communal experience that depends on people, who are therefore vital in its assessment (Hull and Revel, 1989).

Pavlikakis and Tsihrintzis (2006) argued that a study on preferences is very important to acquire the social support and acceptance of a plan. Moreover, understanding visual preferences can have a remarkable effect on the design of landscape elements, and such preference studies have been widely used in decision-makings on landscape (Lafortezza, Corryb, Sanesia and Brown, 2008). Furthermore, previous studies exploring people’s preferences for natural environments have already used visual images to present different subjects in terms of a setting’s social and environmental situation (Kyle, Graefe, Manning and Bacon, 2004).

Kaplan (1985) proved that the use of photographic material is a useful method for developing perceptual categories. In addition, photographs in preference surveys are well-known surrogates for real landscapes (e.g. Hull and Stewart, 1992; in Ode, Fry, Tveit, Messager and Miller, 2009). They can represent both current landscapes without any elaborate changes, as well as provide visual simulations of a landscape (Lafortezza, Corryb, Sanesia, and Brown, 2008).

**Content Identifying Methodology:**

This study employed the Content Identifying Method (CIM) introduced by Kaplan and Kaplan (1989). In this study’s survey, respondents were asked to rate scenes based on the question posed “How much do you prefer this scene?” using a 5-point Likert-like scale (1= least preferred and 5= most preferred). A number of preference studies have proved that color photographs of landscape scenes do not influence judgment (Kohsaka & Flitner, 2004; Rogge, Nevens and Gulinck, 2007). Thus, in some cases landscape photographs were obtained
from available websites. And altogether, this study employed more than 400 colored photographs of selected gardens (Persian, English, Japanese and Chinese gardens) collected from e-books and related websites.

Collection and Selection of Garden Scenes:
According to Kaplan (1985), an appropriate selection of scenes is one of the important stages of the CIM method, and preference measurement depends on key elements that appear in scenes. In addition, previous research has proved that the content of a scene has influence on the preferences of all groups of respondents. In fact, selected scenes should reflect the specific qualities of the landscape, alongside cultural features and vegetation (Kaplan, 1985; Hull and Revel, 1989; Herzog and Bosley, 1992; Strumse, 1996; Rogge, Nevens and Gulinck, 2007; Ode, Fry, Tveit, Messager and Miller, 2009).

Selected scenes have to represent the environmental characteristics chosen, and landscape elements and styles should appear clearly in these scenes (Hull and Revel, 1989; Yang and Kaplan, 1990; Kaplan, Kaplan and Ryan, 1998). Moreover, spatial quality, manmade structures, degree of maintenance, and scene contents such as water and rock are mentioned as predictors that strongly affect visual preferences (R. Kaplan and S. Kaplan, 1989; Yang and Kaplan, 1990; Dramstad, Tveit and Fjellstad, 2006; Rogge, Nevens and Gulinck, 2007; Ivarssona and Hagerhall, 2008).

Based on the above, this study selected scenes that included certain garden elements and layouts. As a point of comparison, previous studies were considered. In a study by Hull and Revel (1989), and then Yang and Kaplan (1990) for example, scenes were selected with the collaboration of landscape experts. These scenes included specific landscape layouts, elements, water and vegetation.

In this study, garden scene selection, to display garden iconographies, was conducted in several stages. First, a pool of 360 images of Persian Islamic, English, Japanese and Chinese gardens (90 scenes from each garden type) were shown to 20 volunteers selected at random. This was done by employing 13 cm x 18 cm colored photographs of the scenes mounted on 15 cm x 20 cm boards. These volunteers were picked randomly from students at Universiti Putra Malaysia. The volunteers were asked to categorize the photographs according to 4 garden type categories – Persian, English, Japanese and Chinese gardens.

Next, 120 images were selected by the volunteers based on 4 categories. These photographs were then shown to 3 landscape architecture academicians from the Faculty of Design and Architecture, Universiti Putra Malaysia. They were instructed to pick 10 images that represented each category of gardens according to their specific elements and spatial organizations.

In the next stage, 5 images of each garden category were randomly picked from the original 10 images. These were images that clearly displayed garden elements and spatial organizations of the gardens that they represented. Later, 5 additional scenes were randomly selected from a pool of rural Malaysian landscapes scenes. These were added to represent potential Malaysian garden scenes. All scenes were then converted into computer slides using Microsoft PowerPoint 2007.

Selection of Respondents:
Previous studies have proved that education in environmental fields leads to a better understanding of landscape views. Moreover, it is assumed that people with a higher level of education have a higher interest for nature because they are more familiar with issues on nature, and have more knowledge on the subject (Kaplan & Herbert, 1986; Kaplan, Kaplan and Ryan, 1998; Strumse, 1996; Regan and Horn, 2005; Dramstad, Tveit and Fjellstad, 2006; Ivarssona and Hagerhall, 2008). According to Yu (1995), a general education level instead of landscape expertise and environmental experience can considerably influence landscape preference. However, it is also important to select a group of respondents who are more aware of the subject, particularly when it has a great influence on landscape policy (Rogge, Nevens and Gulinck, 2007).

Kaplan and Herbert (1986) selected students as their respondents in preferences studies. Another study by Ivarssona and Hagerhall (2008) noted that landscape architecture students are more conscious about detecting visual differences in environments. However, ordinary people perceive the landscape as a whole and are attracted by specific features. They do not narrow their observations down to the specific qualities of a scene (Hull and Revel, 1989; Strumse, 1996; Rogge, Nevens and Gulinck, 2007).

Accordingly, the respondents in this study were 400 undergraduate students studying at Universiti Putra Malaysia (UPM) in Serdang, Selangor, Malaysia. The respondents were students of landscape architecture, architecture, industrial design, forestry, agriculture and environmental studies.

Procedure For Conducting The Survey:
A total of 31 colored slides were prepared and shown to the respondents. These consisted of 25 slides of garden and rural scenes and 6 filler slides were placed at the beginning and end. The latter were added to eliminate the beginning and end effect and they were not included in the data analysis. (Rogge, Nevens and Gulinck, 2007).
The images were then projected onto a screen in a fully air-conditioned room with the temperature set at 24 degree Celsius. The respondents were asked to sit comfortably and they were briefed on the study and the procedure that was to follow. Prior to starting the procedure, they were asked to read and agree with the consent guideline provided. Each photograph was then projected onto the screen for 30 seconds. Respondents were asked to answer questions for each scene on a 5-point Likert-like scale (1= least preferred and 5= most preferred). They were asked to imagine themselves as garden users and to state their preferences for garden scenes and the elements that they would like to see in Malaysian gardens. The procedure was administered in several sessions with 20 to 30 respondents each time. Data collected from the survey was then analyzed for descriptive and inferential statistics using SPSS Version 16.

**Results of Data Analysis:**

**Preferences of Garden Scenes:**

When respondents were asked to imagine themselves as garden enthusiasts and give ratings for garden scenes that they would like to see in Malaysian gardens, scenes 5, 9, 18, 8, and 14 received the highest mean preference scores, ranging from 3.81 to 4.10 (See Figure 1). The least preferred scenes were scenes 22, 15, 10, 12 and 4 (See Figure 2).

![Fig. 1: The Most Preferred Garden Scenes by Overall Respondents.](image1)

![Fig. 2: The Least Preferred Scenes by Overall Respondents.](image2)

According to the reviewed literature of this study, content and spatial organizations of scenes can influence preferences (Kaplan and Kaplan, 1982; Kaplan, 1985). Hence, it was important to consider the most and least
preferred garden scenes in terms of their contents (garden elements) and their spatial organizations (arrangement).

This survey’s results indicated that the presence of water and plants features strongly in the most preferred scenes. In fact, respondents preferred water in both the form of lakes and geometrical basins. The most preferred scenes included clear and clean water with soft water edges made up of marginal plants and grasses. These scenes may have invoked a sense of tranquility and relaxation for the respondents, who liked them very much. In addition, the most preferred scenes included features that provide specific symbolism, such as the geometrical basins, which evoke a sense of spirituality. Order and balance seem to be other common qualities in the content of the most preferred scenes. Hence, it can be concluded that the most preferred scenes included large expanses of water (mainly presented in the form of a lake or geometrical basins) and abundant plants in combination with architectural features.

However, the least preferred scenes appeared to have more architectural features and hard natural features such as rocks. The findings are supported by the Kaplans’ Information Processing Theory (1989), which suggested that humans seem to have an innate preference for natural scenes with plants and certain elements such as water.

In terms of the spatial organizations of the garden scenes, the most preferred scenes were the scenes that evoked a sense of curiosity and mystery. These scenes were also less complex and more easily understood, thereby contributing to a sense of relaxation. However, the least preferred scenes conjured a sense of fear and were rather complex in their organizations of elements. These findings are supported by Kohsaka and Flitner (2004) and Ode et al., (2009), who argued on lower preferences for complex settings and higher preferences for scenes providing relaxation and tranquility that encourage recreation and leisure.

In summary, the most preferred scenes for Malaysian gardens were the scenes comprising mystery and legibility. Malaysian gardens should therefore provide a sense of curiosity, and not evoke fear or involve complexity. In short, Malaysians prefer well-organized settings that are legible, but still encourage a sense of with their mysteriousness.

**Preferences of Garden Elements:**

Respondents were asked to rate their preferred garden elements based on what they felt was most suitable for a Malaysian garden. Figure 3 presents the results based on garden types and exhibits preference ratings for each garden element. As the figure illustrates, water features, plants and architectural features were the most preferred elements for Malaysian gardens. On the other hand, sand emerged as the least preferred element for a Malaysian garden.

![Fig. 3: Preferences of Garden Elements.](image)

Figure 4 illustrates results based on garden types. And it generally concludes that water features, plants and architectural features should be considered in the development of Malaysian garden identity.
Fig. 4: Preferred Elements Based on Garden Types.

Water Features:
The most preferred element indicated for Malaysian gardens is the water feature. Water features presented in English and Persian gardens were preferred most. While water is presented in the form of a big lake in English gardens, Persian gardens feature water in geometrical pools and basins. This seems to suggest that water features in both the forms of lake and geometrical basins are preferred.

Plants:
In addition to the local plants of Malaysia, plants presented in scenes of Japanese gardens were preferred for Malaysian gardens. Jamil (2002) referred to Malaysian local plants as a representation of a specific symbolism. Moreover, the role of specific plants for their symbolic significance and food and herb provision is confirmed in literature (MARDI, 2005). As such, local plants gain importance in providing identity, symbolism, food and herbs for Malaysian gardens, and they also play a key role in shaping garden identity.

Moreover, the combination of plants with water and architectural features was one of the common qualities of the most preferred scenes as it provides a sense of relaxation and tranquility. Thus, it can be concluded that — following in the footstep of Japanese gardens — the Malaysian garden should include many plants that possess specific symbolism. And these plants have to be combined with architectural features and water features.

Architectural Features:
Chinese gardens’ architectural features were among the most preferred. Thus, it can be concluded that architectural features of Malaysian gardens should present the same quality as those of Chinese gardens. Obviously, the architectural features of Chinese gardens have a strong identity that reflects Chinese culture and philosophy. They present forms, materials and colors that are perhaps in tune with Malaysians, who may be familiar with Chinese gardens associated with Chinese temples in Malaysia. Preference for Chinese-style garden architecture could also be due to their strong color contrast with their surroundings and traditional forms. Thus, it can be said that Malaysians seem to prefer architectural features with strong hues and traditional forms.

Jamil (2002) referred to specific architectural features in Malaysian tradition and culture. In addition, Watson and Bentley (2007) suggested that designers in Malaysia have to work with complex traditions. They argued that elements can be formed based on old patterns and traditions. Consequently, they identified historical Malay buildings, with their unique architecture that corresponds with local climate and materials, as the best pattern and source of inspiration for new designers. They mentioned two main groups of historical buildings as the best patterns for creating identity in terms of Malaysia’s architecture. Watson and Bentley (2007) noted that, “traditional rural timber framed houses, built on stilts with very characteristic roofs, and on the other, urban design traditions developed in the large urban centers such as Kuala Lumpur, Malacca and Georgetown.”

In summary, the architectural features of Malaysian gardens must be sufficiently legible and it should reflect Malaysian culture and traditions. They have to be designed based on traditional patterns, and employ specific motifs of Malaysia. In addition, they have to utilize local materials and patterns.

Conclusion:
This study explored preferences of garden scenes and elements deemed most favorable for the development of a Malaysian garden identity. The most preferred garden scenes garnered from the study included large water bodies and plants in the form of ponds and lakes. Clear, clean and reflective water presented by both lake and geometrical basins were the most preferred types of water scenes. In addition, local plants in combination with water and traditional architectural features were also highly preferred. Architectural features reflecting identity and that combined nature were preferred too. In terms of spatial organizations, the most preferred scenes
portrayed a sense of mystery and legibility, and combination of plants and water features seemed to reinforce tranquility and relaxation. It was also revealed that the scenes with dominant architectural features lacking in vegetation and water features were not much preferred. These findings can be useful in suggesting preferred elements and spatial arrangements in the iconography of Malaysia’s new developing gardens and perhaps those of other tropical countries.

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