# Perception of Green Space as Element of Architecture Composition of Solomon Lar Amusement Park Jos, Nigeria.

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## ABSTRACT

This study examined the perception of green space (Solomon Lar Amusement Park) and how it have affected the architectural composition of Tudun Wada ward of Jos metropolis with the view to develop a green space intervention strategy that will assist policy makers, architects and planners in evolving the necessary policies on urban planning and design. The study was premised on the notion that the pleasant appearance of building forms and images and the visual quality of metropolitan areas are dependent on the quality and quantity of green spaces. This notion was one of the key problems the study sought to investigate scientifically. Employing the simple random sampling, the study selected one neighbourhood out of the existing eight neighbourhoods namely; Anglo-Jos ward, Tudun Wada ward, Tafawa Balewa ward, Vander Puye ward and Zaria Crescent ward. From the selected ward a total sample of 97 respondents was determined as the sample size for the investigation. The Likert attitudinal scaling technique was deployed in the examination of users' perception of green spaces vis-à-vis its effect on architectural composition. Structured questionnaires and interview were employed in obtaining the required data of the use of the green spaces around the neighbourhood. Perception of green space in the context of architectural composition of the study area generally revealed that the green space make the quality of the neighbourhood better. It was indeed found that the overall perception of green space was positive. By implication, the study has found that a greater number of users of the green space within the selected neighbourhood, perceive green space as being an intrinsic component of architectural composition. The study therefore, proposed that a strategic policy plan and a more detailed and long term vision for green spaces be established. A comprehensive policy framework for protecting, enhancing, initiating and implementation of more regulations and changes that should integrate more green spaces into the planning and design of cities or metropolitan areas be made a necessary part of urban planning and upgrading schemes.

**Keywords:** Perception, Greenspace, Architecture Composition and Neighbourhood

## INTRODUCTION

Green spaces both organised and natural or informal are integral part of any urban area and are essential for maintaining their environmental quality and sustainability. Green spaces can be categorised as formal referring to parks, gardens and recreation venues and the informal such as rivers or sea fronts, etcetera. Green spaces may include and become an integral part of buildings and hard surfaces like pavements and courts. Urban habitats such as derelict industrial sites and overgrown gardens are also considered as green spaces (Venn & Niemela, 2004).

Green spaces are essential parts of any environment which constitute a determining element of the character, quality and functional value of metropolitan areas (Glasgow & Clyde 2006). According to Falade, (1988a) the importance of green spaces in any built environment are important, because the beauty of building forms and images and the visual quality of metropolitan areas are dependent on the quality and quantity of green spaces. When harmony exists between green spaces and buildings in neighbourhood areas, it is simply functional, liveable, amenable and enjoyable.

The visual appearance and attractiveness of towns and cities are strongly influenced by their green spaces. A high quality built environment consisting of buildings, access roads and public spaces cannot alone ensure that a town or city is an attractive and appealing place to live and work but that the landscape of green spaces contribute as much to the quality of the urban environment as good

architecture. Green space is the meeting place of culture and environment, the places where what users see is infused with meanings of past and present, engendering memories and feelings (Matsuoka & Kaplan 2008).

Matsuoka and Kaplan(2008) assert that green spaces perform important functions for people's needs in the built environments both in a natural way by providing contact with nature, aesthetic functions, recreation and socially by providing a place for social interaction, privacy and creating a sense of community identity.

Nigel, Carys and Helen (2002) point out that the perception that someone has of green space can significantly affect the person's use of it. Girhing (1975) cited in Bell (2008) shows that urban designers are beginning to recognize the role of metropolitan inhabitants to include providing useful knowledge that helps architects, planners and urban designers with decision tools that is, providing them with a composite of individual intellectual pictures emerging from their daily perceptual experience with elements of the urban environment (such as green spaces) in organising a space.

The image and attractiveness of towns and cities strongly influence people's perceptions of a place. A lack of well- managed and cared- for vibrant, healthy, green spaces can undermine a town or city's appearance and discourage a positive impression of it as a good place to live, work and do business; implying that the cityscape can appear impoverished.

Perceptive image is a tradition of the perceiver while the physical form is the characteristic of the architectural composition which refers to the human- made surroundings that provide the setting for human activity ranging in scale from buildings, green spaces and their infrastructure (Antoniades, 1980). The particular way, in which an inhabitant views the urban area through personal experiences, the city of the mind is the real world as far as the individual is concerned. Furthermore, different people's visits to the same green space within the same neighbourhood may not necessarily result in common experiences and knowledge about all its physical and non-physical features.

Architectural composition is the man- made environs that provide the habitation for human activity ranging in scale from buildings, green spaces and their infrastructure, access roads to neighbourhoods and cities that include their supporting infrastructure. It is a material, spatial and cultural product of human labour that combines physical elements and energy in forms for living, working and playing. It has been defined as the human-made space in which people live, work and recreate on a day-to-day basis. It also encompasses places and spaces created or modified by people including buildings, parks, and transportation systems (Antoniades, 1980).

Gerhard (2012) averred that green spaces and architecture composition display a synergetic interaction in the synectics of perception process that intensifies the creative symbiosis of architecture composition.

Green space is an integral part of the architectural composition as it is a prelude to the architectural form that is to follow or a complement thereto after the architectural composition would have been made manifest (Alagesan, 2008).

Paul and Jeanne (2002) noted that beauty in architecture rest largely on the harmony between buildings and nature such as green space and that throughout history. This relationship has been one of architecture's major goal. In the Renaissance period, the garden was an extension of the main design. It was a middle term between architecture and nature. The transition from house to landscape was logically effected by combining at this point formality of design with naturalness of material. The garden was thus an integral part of architectural composition in the art.

Green space therefore, is the feeling of being in a garden, park or forest, which has no boundaries (Kaplan, 1991; Berggren-Barring and Grahn, 1995). As a main criterion it could be proposed that the space must be perceived in a way that one can move freely without being aware of the limited dimensions of the green space. Grahn (2011) asserts that in large parks with fully grown stands of trees people can experience being away from all rules of the town and forget about limits, time, and space.

## THEORETICAL FRAMEWORK

Green space is an element of architectural composition that makes up an integrated urban space. The landscape function of green spaces mainly reflects on space, time and location. Green vegetation can

enrich the urban architecture complex skyline and intenerate, the hard space through their different forms, colours and styles. Green spaces do not only beautify the urban features and set off architecture, but also improve aesthetic effect which makes the urban environment more uniform and more diverse. Meanwhile, in order to embody the landscape value of symbolic aesthetics, it can combine different kinds of green spaces to enclose and create a good urban space image (Huang and Cheng, 2002).

Architecture defined itself in opposition to Nature. Architecture can be devised ex negativo from Wilderness ever since Vitruvius wrote:

The men of old were born like the wild beasts, in woods, caves, and groves, and lived on savage fare. Later they began ... to construct shelters and so passed from a rude and barbarous mode of life to civilization and refinement. (Vitruvius 2 1)

Since Plinius, the Villa was seen as ideal architecture placed in a tranquil landscape in opposition to the busy *urbs* of Rome (Plinius). Many elements in the villa and garden, like a parterre, a loggia, or a grotto are negotiating between hearth and horizon (van der Zwart 2004); but the classical villa does not break open the positioning of Landscape versus Architecture in distinct opposition - rather the play of opposites were emphasized.

The history both of architecture and urban green space seems to have set the rules for understanding the two sides as opposites; this tradition has been established since antiquity and started to change only very recently. Landscape architects define their own expertise as a designer of outdoor space, anything in the human environment which is not a building (Vroom 1995).

Green space and Architecture are in intensified interaction in the later phases of Modernism. The freedom of Modernism from classical conventions encourages an even more intense exchange between villa and domain. Ornate and formal rules are left behind for the pure form that communicates between inside and outside. In Frank Lloyd Wright's Fallingwater (1935-39), the heart seems to have returned the house to the landscape. In La Tourette (1957-60), Le Corbusier plays on elaborate reactions of architecture to the surrounding landscape, terrain, and views. At the iconic Farnsworth House (1951), Mies Van der Rohe reduces architecture with the goal of merging the perfectly designed piece with the landscape of the site. These represent intense exercises, but they still qualify as Architecture that is mainly preoccupied with breaking or bending its own rules. Formative entries to the site occur more and more often throughout architecture's development at the end of the 20th century, but still the modernists are using a language, however reduced that they want to overcome at least regarding green spaces (Jauslin, 2010).

The building inside and landscape outside do not merely interact, but the building is designed as an artificial landscape on its own. Landscape constitutes the inside. The landscape to architecture relation is turned inside-out. In some cases, this artificial landscape is related to the site through its shape. In others it is rather independent or even opposed to the surroundings. The unifying factor for this category is defining a completely new order. The common feature of the selected designs is not about a new intensive relation to the landscape but about the fact that each design is making its own landscaped interior. The beginning of an architect's work on the other hand is still where the landscape ends. Even after architects of the 20th century first proclaimed the end of historic continuity and the pure creation from the 'esprit nouveau' of Le Corbusier in 1922, and later the end of beginnings and the end of the end itself, the definitions seemed to be set. Also architecture is about defining the inside space and its outside shell and in an architect's view landscape is the surroundings, anything around it, eventually reaching out to nature. While architecture would be about human construction, landscape would be about human cultivation, both construction and cultivation need a prior design or strategy seems to be a pure coincidence (Leatherbarrow, 2004).

The evolution of landscape and garden design is one from architecture related geometry and elements in the renaissance to a romantic imitation of nature in the late 18th century. The development of this art is closely related to the development of the term landscape. The word landscape was first used to describe a type of painting and only later for a designed or natural landform. Thus landscape always involves a pictorial quality – the picturesque. The landscape garden is the imitation of nature with the ingenious artistic intervention (nowadays we would call it design) that not only simulates but frames, relates and intensifies the natural experience of man. The romantic perception of nature and the establishment of the picturesque are key elements to the development of the landscape garden. Whilst

in landscape architecture the actual design of the natural landform is essential it is only a very select number of historical buildings that actually fully integrate landscapes (Daniel, 2010).

Architecture up to modernism and beyond, in fact, has even intensified the opposition between landscape and the architectural object. Even many of the most important works of modern architecture express a very significant distinction between it, being an object and the landscape. In the history of famous architecture-landscape relations the presupposed opposition – despite all the correspondences and interactions - would remain predominant. This opposition would count for the main periods. The opposition can be seen as predominant despite some convergence in examples of the three periods: at Villa Emo, Versailles or Castle Howard (Jauslin, 2010).

The study therefore, is expected to provide stratagem that will enhance the planning and design of green spaces which will improve the environmental quality and human regeneration Tudun Wada ward of Jos metropolis.

## DATA AND METHOD

According to Svetlana and Nadja, (2012), research methodology that is centered on user perception of green spaces examination is based on the principles that have been developed by the Gestalt psychology. The design and methods applied in this study was applied in the studies of user perception of green spaces by Mambretti, 2011; Do & Gross, 1997; with methods such as Likert attitudinal scaling or semantic differential and interviews.

The data was obtained from both primary and secondary sources. The secondary data was obtained from published and unpublished works. The primary sources comprised field surveys carried out using the obtained population sample and administration of structured questionnaires and interviews.

## Architectural Composition of Study Area

The issues according to Omokhodion, (1978) that are found to affect the perception of green spaces of neighbourhoods in urban areas include landuse, housing densities, building structures, basic services and infrastructure. Landuse mix was found in varying degrees of intensity of one form or the other in the neighbourhood of Tudun Wada where Solomon Lar Amusement Park is located. It appeared to be largely necessitated or influenced by the topography. Tudun Wada ward is dominated with residential buildings which constituted most of the buildings in the area.
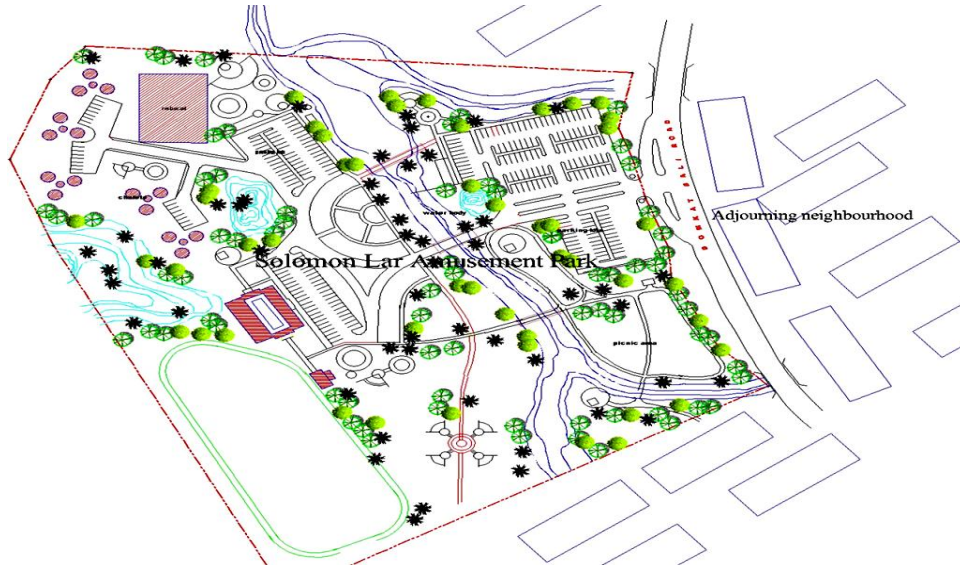
## Solomon Lar Amusement Park

Solomon Lar Amusement Park in Tudun Wada ward follows a natural trait of a stream valley. It follows a path of an abandoned water dam. It extends between villages and neighbourhood of Sabon Gari in Tudun Wada Ward along Domkat Bali road as shown in figures 1 and 2,      plates I, II and III respectively.
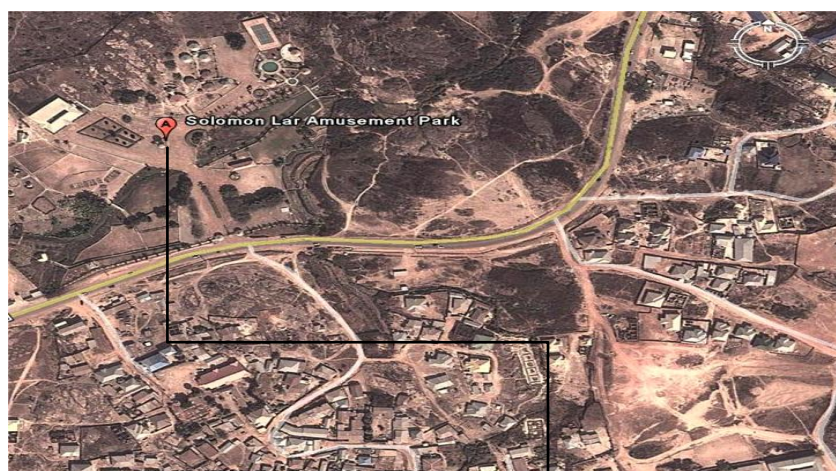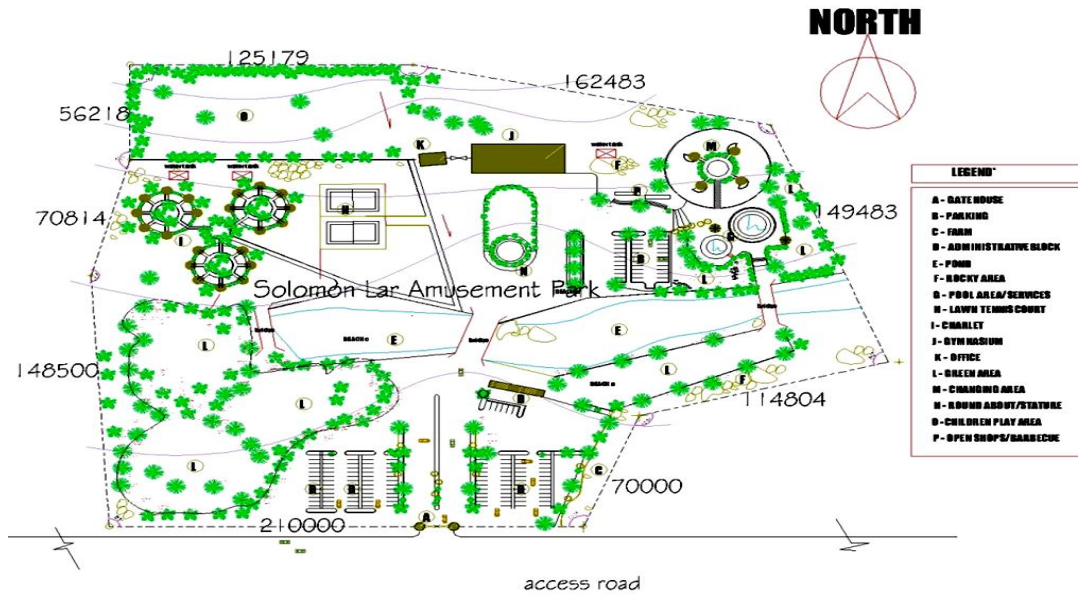


**Source: Google earth image, 2013**

*Solomon Lar Amusement Park*

Plate I Aerial views Tudun Wada neighbourhood Showing Solomon Lar Amusement Park

Source: Field Survey, 2014

**Figure1.** *Solomon Lar Amusement Park located at Tudun Wada*



Source: Field survey, 2014

**Figure2.** *Site Plan of Solomon Lar Amusement Park Located at Tudun Wada*.



**Source: Field Survey, 2014.**

Plate II

**Source: field survey, 2014**

Plate III

Views of Solomon Lar Amusement Park located at Tudun Wada ward as shown in plates II and III

## Procedure and Instruments for Data Collection

The field survey was carried out by administering questionnaire to respondents in the study areas using structured questionnaire. A total of 97 respondents were surveyed representing different demographic and socio-economic status. The respondents were the inhabitants within the neighbourhood. Questionnaire was administered to inhabitants on the basis of First- to- Meet or First- to- Appear as it was used by (Miyan, 2003).

Responses were obtained from a 5-point Likert Scale with stem questions from Strongly Agree (5), Agree (4), Undecided (3), Disagree (2) and Strongly Disagree (1).

## DATA PRESENTAION AND ANALYSIS

The data for the study is presented which consist of results of responses to the main questionnaire schedule and structured interviews

The data presented results and discussions of analysis from field study carried out at Tudun Wada ward. The sample size for the field study was determined from the required sample table chart. It is from the selected area that 97 respondents were surveyed for the study.

## Frequency Distributions to Determine the Perception of Green Space as Element of Architecture Composition of Solomon Lar Amusement Park.

The result showed that 67 respondents representing 69% strongly agree, while 29 respondents representing 29.9% agree and 1 respondent representing 1.1% disagree that Parks, gardens and other green areas make the quality of neighbourhood area better in table 1.The result revealed that 67 respondents are the majority that strongly agree that Parks, gardens and other green area make the quality of Tudun Wada neighbourhood areas better.

**Table1.** *Opinions on the role of green spaces in improving the quality of neighbourhoods*

|  |  | **Frequency** | **Percent** |
|---|---|---|---|
|  | **Disagree** | 01 | 1.1 |
|  | **Agree** | 29 | 29.9 |
|  | **Strongly Agree** | 67 | 69 |
|  | **Total** | 97 | 100 |

Source: Field Survey, 2014.

The result showed that 65 respondents representing 67% strongly agree, while 28 respondents representing 29% agree, 1 respondent representing 1.1% undecided, 2 respondents representing 2.8% disagree while 1 respondent representing 1.1% strongly disagree that trees, flowers, shrubs and grass contribute to the quality of neighbourhood in table 2.The result revealed that 65 respondents are the majority that strongly agree that trees, flowers, shrubs and grass contribute to the quality of neighbourhoods of Tudun Wada ward

**Table2.** *Opinions that trees, flowers, shrubs and grass Contribute to the quality of neighbourhood areas.*

|  | Frequency | Percent |
|---|---|---|
| Strongly Disagree | 01 | 1.1 |
| Disagree | 02 | 2.8 |
| Undecided | 01 | 1.1 |
| Agree | 28 | 29 |
| Strongly Agree | 65 | 67 |
| Total | 97 | 100 |

Source: Field Survey, 2014.

Respondents' data on green spaces provide opportunities for relaxation, recreation and friendship among neighbourhood members showed in table 3 that 1 respondent representing 2.8% Disagree, while 4 respondents representing 6% undecided, 32 respondents representing 28.4% Agree while 60 respondents representing 62.8% Strongly Agree that green spaces provide opportunities for relaxation, recreation and friendship among neighbourhood. The result revealed that 60 respondents are the majority that Strongly Agree that green spaces provide opportunities for relaxation, recreation and friendship among neighbourhood members of Tudun Wada

**Table3.** *Opinions that green spaces provide opportunities for relaxation, recreation and friendship among neighbourhood members.*

| Frequency |  | Percent |
|---|---|---|
| Disagree | 01 | 2.8 |
| Undecided | 04 | 6 |
| Agree | 32 | 28.4 |
| Strongly Agree | 60 | 62.8 |
| Total | 97 | 100 |

Source: Field Survey, 2014.

Respondents' data on green spaces help to keep the inside and outside of buildings of neighbourhoods areas cool and reduces dust and noise pollution in table 4 show that 2 respondents representing 2% Strongly Disagree, while 3 respondents representing 4.3% disagree, 7 respondents representing 9.6% undecided, 33 respondents representing 27.6% Agree while 52 respondents representing 56.5% Strongly Agree that Green spaces help to keep the inside and outside of buildings of neighbourhoods areas cool and reduces dust and noise pollution. The result revealed that 52 respondents are the majority who Strongly Agree that green spaces help to keep the inside and outside of buildings of neighbourhoods areas cool and reduces dust and noise pollution

**Table4.** *Opinions that green spaces help to keep the inside and outside of buildings of neighbourhoods areas cool and reduces dust and noise pollution*

|  | Frequency | Percent |
|---|---|---|
| Strongly Disagree | 02 | 2 |
| Disagree | 03 | 4.3 |
| Undecided | 07 | 9.6 |
| Agree | 33 | 27.6 |
| Strongly Agree | 52 | 56.5 |
| Total | 97 | 100 |

Source: Field Survey, 2014.

Respondents' data on Green spaces bring peace, quiet and contact with nature around houses in table 5 show that 7 respondents representing 7.2% Strongly Disagree, while 8 respondents representing 8.2% disagree, 11 respondents representing 11.3% undecided, 29 respondents representing 30% Agree while 42 respondents representing 43.3% Strongly Agree that Green spaces bring peace, quiet and contact with nature around houses. The result revealed that 42 respondents are the majority of respondents who strongly agree that Green spaces bring peace, quiet and contact with nature around houses.

**Table5.** *Opinions that green space brings peace, quiet and contact with nature around houses.*

|  |  | Frequency | Percent |
|---|---|---|---|
|  | Strongly Disagree | 07 | 7.2 |
|  | Disagree | 08 | 8.2 |
|  | Undecided | 11 | 11.3 |
|  | Agree | 29 | 30 |
|  | Strongly Agree | 42 | 43.3 |
|  | Total | 97 | 100 |

Source: Field Survey, 2013.

## DISCUSSION

This presents the discussions of findings obtained from the survey in Tudun Wada ward, investigating how they perceive green spaces and interpret the environments around them. The discussions outlines how perception affect the broader interpretations of green spaces within architectural composition in the study areas of Tudun Wada.

From the investigation of users' perception of green space in the context of the architectural composition of Tudun Wada, the study show that most of the respondents agree that the inhabitants have positive perception of green spaces with Parks, gardens and other green areas making the quality of neighbourhood area better. Trees, flowers, shrubs and grass as elements of green spaces contribute to the quality of neighbourhood areas. Green spaces provide opportunities for relaxation, recreation and friendship among neighbourhood members. Green spaces help to keep the inside and outside of buildings of the neighbourhood area cool and reduce dust and noise pollution. Green spaces help neighbourhood to shape their identity and to increase their social way of lives. Green space increases the value of living in neighbourhood areas and can increase their attractiveness to visitors Plantings add to vista and visual quality along streets of neighbourhood areas. Green spaces provide privacy for houses Green space brings peace, quiet and contact with nature around houses.

Perhaps, green spaces is of high importance to the majority of the inhabitants, and the few who disagree on this probably visit the green spaces for its sport and play facilities, while other users appreciate the natural environment. Some respondents agree that green spaces is highly important for their psychological health and that it improves the quality of life, others mentioned green space benefits such as visual beauty and the potential it offers for physical exercise, a place for reflection and relaxation.

Green spaces show to be of great value to the inhabitants, they provide opportunity to be outside in the green spaces away from the busy streets. Important as well is the role of the green spaces as a social meeting point and as a place where children can play.

## CONCLUSION

Perception of green space therefore, may assist in identifying and establishing the criteria for the design of attractive green spaces for the metropolitan areas in the 21st century, with emphasis on perception and visual - aesthetic dimension. Solomon Lar Amusement Park of Jos should be for visual aesthetic and functional environments, as centre for events, as a place to relax, vacation, recreation, companionship as well as for inspiration with coherent spaces that direct users to the outdoor environment and prepare users for new impressions and experiences for a collective memory. Furthermore, green spaces should be the resilient vistas that support architectural composition, promote landscape connectivity, enhance quality of the environment and can maintain the integrity of the landscape. Green spaces should be made to meet the complex needs of our ever-changing landscapes and promote a more holistic approach to its development and management.

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