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User Perception of Green Spaces in the Context of Architectural Composition of Jos Metropolis, Nigeria

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Abstract
This study investigated user perception of green spaces and in what way they have affected the architectural composition of selected environs of Jos metropolis in order to establish a green space intervention stratagem that will support policy makers, architects and planners in developing the required guidelines on urban planning and design. Using the simple random sampling, the investigation selected five neighbourhoods out of the existing eight namely; Anglo-Jos ward, Tudun Wada ward, Tafawa Balewa ward, Vander Puye ward and Zaria Crescent ward. Out of the five selected wards a total sample of 365 respondents was determined as the sample size for the investigation. The Likert attitudinal scaling technique was employed in the examination of users' perception of green spaces regarding its effect on architectural composition. Structured questionnaires and interview were used in obtaining the required data of the use of the green spaces around the neighbourhoods. User perception of green spaces in the context of architectural composition of Jos metropolis generally revealed that green spaces make the quality of neighbourhood areas healthier. It was certainly found that the general perception of green spaces was affirmative. Respondents in general agreed that perceived deficiencies or absence of green spaces did affect the architectural composition of the built form of Jos metropolis. Consequently, the study found that a larger size of users of green spaces within the carefully chosen neighbourhoods of Jos metropolis perceive green spaces as being an inherent 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
Keywords: User, Perception, Green spaces, Architecture Composition, Neighbourhood and Inhabitants

1. Introduction

Green spaces both organised and natural or informal are vital part of any urban area and are important for upholding 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 cited in Sati 2015).

Green spaces are necessary parts of any environment which establish a determining element of the character, quality and functional value of metropolitan areas (Glasgow & Clyde 2006). According to Falade, (1988a) the significance of green spaces in any built environment are important, because the attractiveness of building forms and images and the visual quality of metropolitan areas are supported 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 pleasurable.

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 cited in Sati 2015).

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 (cited in Sati 2014).

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).

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). 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 development had been applied to promote towns and metropolitan areas in countries like Britain, Singapore and Malaysia, with attempts made in Abuja-Nigeria's capital city suggesting the more holistic response to green areas to city planning. Green area provision has made metropolitan areas more functional, welcoming and aesthetically pleasing to their inhabitants (Abegunde et'al 2009 cited in Sati 2014)

Jos metropolis has an alluring spatial formation with a section of it made up of highland plateaus, rocky and hilly ranges and the other section characterised by lower plateau - sandy land. (Greater Jos Draft master plan 2011).

During the Colonial era, planning of the built environment has recognised the importance of green space in enhancing environmental quality and aesthetics of Jos metropolis. Streets were lined with trees; government reserved and public areas were planned with lawns, parks and gardens. But many of these parks and green spaces are not welcoming, **because most of the beautiful sights have disappeared; leaving mostly deteriorated green spaces (Sati, Lekjep and Dakkas 2006).**

Several studies reveal that inhabitants' perception of green spaces influence the organisation and image-ability of architectural composition of the built environments (Daily & Steiner, 2001; Perron, Côte and Duffy, 2006). But many of the studies have examined inhabitants' perception of green spaces from the point of view of benefits (Goldstein et al., 2008; Manaktola & Jauhari, 2007); and attitudes (Bohdanowicz, 2005; 2006; Claver-Cortés et al., 2007 cited in Sati 2014). In the case of Jos metropolis, such study has not been carried out as noted by Bingel, (1990). Therefore, understanding how inhabitants' of Jos metropolis perceive green spaces is essential in implementing successful green space programmes and developing appropriate green space plans that will influence the organisation and image-ability of architectural composition of Jos metropolis.

The aim of this research is to **examine user perception green spaces as elements of architectural composition of selected neighbourhoods of Jos metropolis** with the view to determine shortcomings and suggests intervention strategy.

The objectives of the study are:

1. To determine users perception of green spaces as elements of architectural composition of Jos metropolis.
2. To determine the perceived deficiencies of architectural composition of the study areas with particular reference to green areas.

2. Theoretical Framework

2.1 Green Space and Architectural Composition.

Architecture defines contemporariness, which has always been a spatial expression of time of its transformation (Gerhard, 2012). Green space is one of the forms of emergence which is a common way of creating architecture and cities. Green space synergetic interaction in the synectics of perception process intensifies the creative symbiosis of various layers of environmental elements. The elements of green space play the generative role in this process expressed by the synergy of the aesthetics of the built form with green space that is perceived. However, green space development has emerged as one of the most influential in the architecture of present times (Sang, 2012).

The study explores the influence of green space on the architecture composition as a result of the aesthetics of architecture which refers to the expressions in the built form that relate to the way in which the form is not only perceived but also appreciated in relation to a certain purpose and its context which a built form informs and expresses the principles of its programmatic, structural, material and spatial qualities which is perceivable, understandable that it fits and serve such purpose. Also the aesthetic dimension is intrinsic to any impetus that brings about great transformation of built environment in any substantive way through rapid commodification of greening which may be incongruous to, and to be agreed to the aesthetic apparatus of architecture.

2.2 Neighbourhood Green Spaces

The important component of a neighbourhood according to Hester (1984) is a focal point, where each house is adjoined to a planned green space and that it is an outdoor territory close to home. Neighbourhood green spaces according to Chapman (2001) are places where diverse needs are met without the necessity of travelling a long distance, providing basic recreational amenities for all users and inhabitants.

3. Research Methodology

Research methodology is the principle, methods and ways through which a research process is going to be measured (McClain, 2012). The collection of appropriate data that assess a core research issue is essential in the development of academic understanding that follows the principles of social constructivism, which viewed the real world as a construction of human-nature interactivity. It is acknowledged that attributed knowledge is a process of interpretation and perception based upon experience and learning. User perception of green space research therefore, sits well with this reason and a search for objectivity in its development and can be achieved through a methodological structure (Philips and Burbules, 2005).

According to Svetlana and Nadja, (2012), research methodology that is centred 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, surveys, interviews and observational methods.

3.1 Jos the Study Area

Jos is situated in the North Central part of Nigeria (figure 1). It has a cool climate with its average monthly temperatures ranging between 21^0 and 25^0 C, average humidity of 60% and average rainfall of 1,400mm. It is characterized by impressive ridges and isolated rocky hills separated by extensive plains. The Jos Plateau exhibits a rich variety of land forms which provide excellent picnic resorts. Several rivers and hillocks are interspersed among the highlands giving the landscape striking scenery. The unique and near-temperate climate makes the thriving of exotic vegetation cover of both temperate and tropical stock, such combination make a breath-taking green spaces be they public or private. These are to be added to already existing natural green spaces. The choice of Jos for the reclamation aimed at rectifying past mining debris is heating up. Thus the green space initiative may complement the on-going reclamation drive to restore ecological balance within and around the city that was once beauty personified.

Jos metropolis was considered for the study in consonance with the existence of natural indices that are both enabling to green spaces or in their rights are green spaces of natural kind that makes the metropolis attractive for such a study. Furthermore, the development of green spaces is guaranteed by the climate or at least many of its elements with the potentials to develop such green spaces into ecotourism.

Although a number of factors including urbanization, population explosion, environmental degradation owning to mining and of course climate change might have altered the scenic beauty and friendly climate of Jos in ways not yet clear, a committed green space development initiative or its recommendation may serve as a veritable guide to state actors and to any environmental policy of national scale that is geared towards consolidating on natural potentials in line with principle of comparative advantage to put in place a model green space destination in Nigeria. Moreover, the relationship between green spaces and tourism is not only complementary and reinforcing but mutually productive.

The government of the day seems to be resolute in transforming the metropolitan areas and its environs to an enviable one. This is expressed in the political will, aimed at decongesting the Central Business District, some neighbourhoods and extending infrastructural development to its periphery so that the Greater Jos being expected is to have a sound Lung to breathe as well as satisfy the demands of environmental aesthetics in line with best practices (Draft Jos Master Plan 2011). This study which coincided with the implementation phases of greater Jos Master Plan is expected to compliment such drive and serve as an academic component to give it a direction of any form of omission especially of green spaces as is required in the plan.

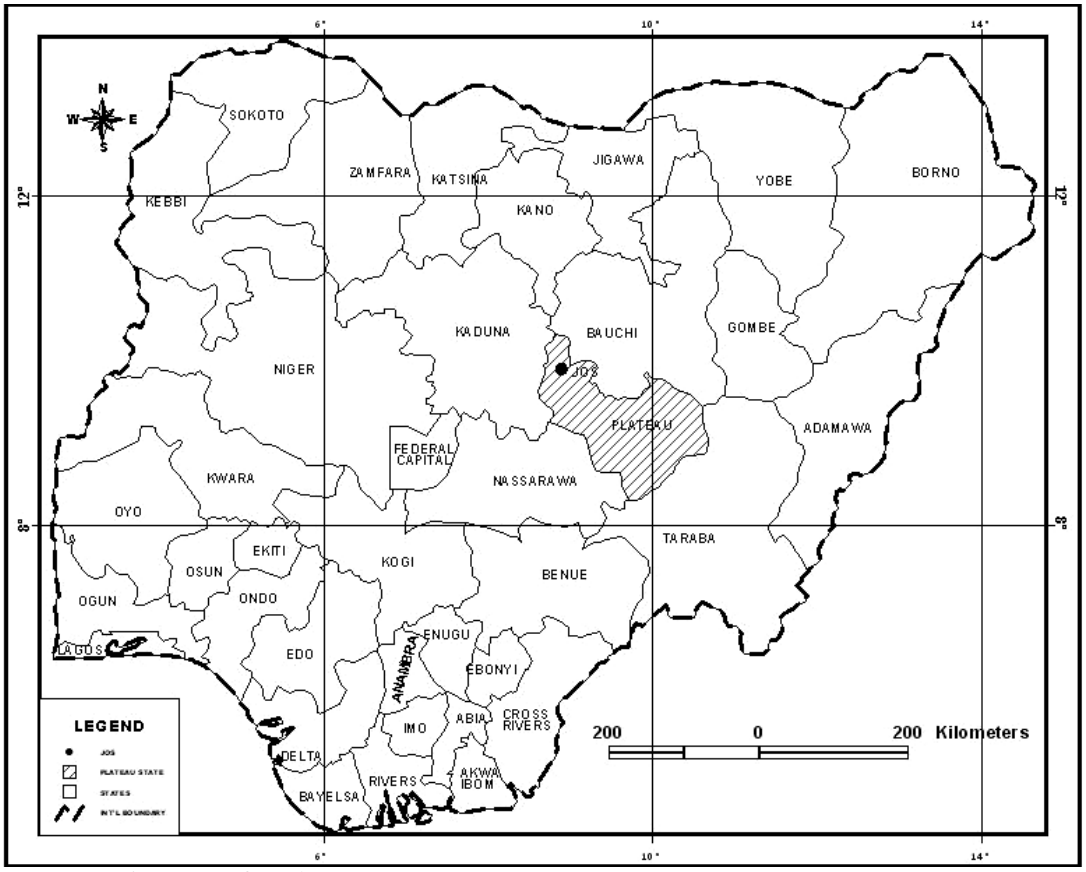


Figure 1 Location Map of Study Area
Source: GIS Laboratory Unijos 2008

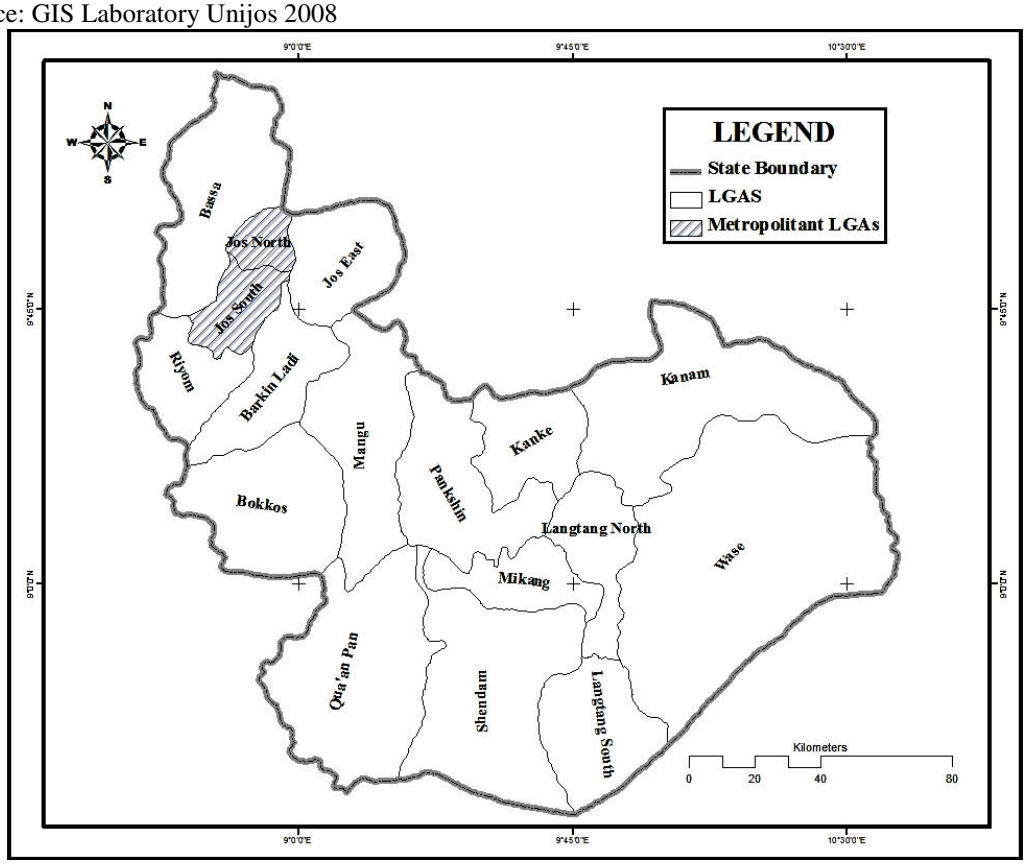


Figure 2 Jos Metropolitan Local Government areas
Source: GIS Laboratory Unijos 2008

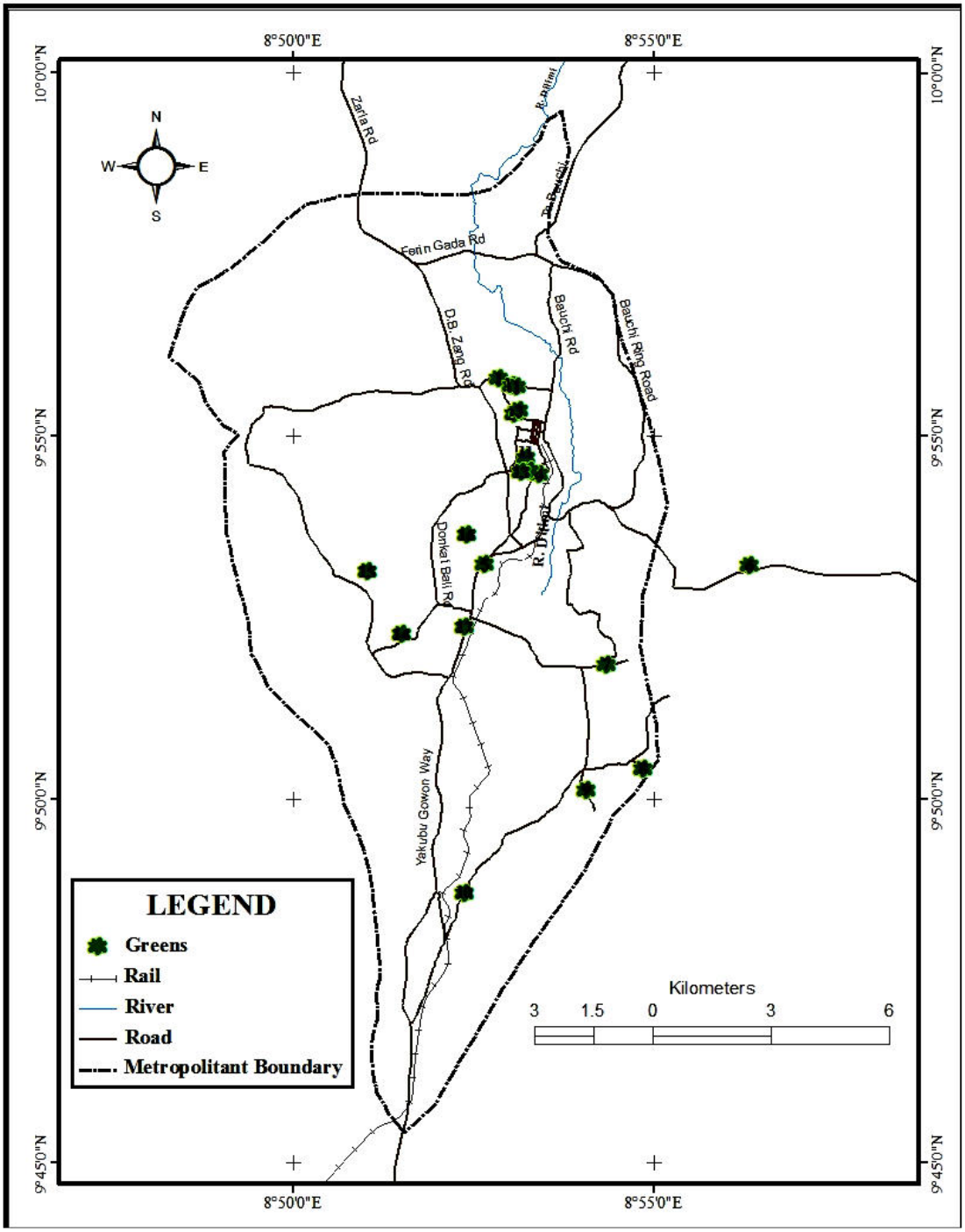


Figure 3 Distribution of organised Green Spaces in Jos metropolis
Source: GIS Laboratory, Unijos 2012

Table 1 Amenity green spaces identified in Jos metropolis

S/N	**Neighbourhoods with amenity green spaces.**	**Amenity green spaces identified**
1	Anglo Jos	NASCO Green Park NTC Garden
2	Dalhatu Ward (Government Reserved Area)	CBN Park Eslie Garden Luji Garden Jos Zoo Noad Avenue Garden
3	Jenta Adamu	Polo Green Field
4	Ray Field	Gold and Base Garden Langsfield Park Rayfield Gulf Course Rayfield Resort
5	Tafawa Balewa	Grey Garden
6	Tudun Wada	Baxter's Garden Jos Wild Life Park Solomon Lar Amusement Park
7	Vander Puye	Suzi Garden
8	Zaria Crescent	Candy Park (I) Candy Park (II) Candy Park (III)

Source: field survey, 2013.

Jos Metropolis covers Jos North and Jos South Local Government Areas (figure 2) (the Jos Metropolitan Development Board Edict No. 5 of 1974). There are two basic groups of green spaces, the natural habitats and amenity green spaces. The study focused on amenity green spaces. The study areas covered five neighbourhoods identified from a total of eight selected neighbourhoods within Jos metropolis designed with amenity green spaces. They include Anglo Jos, Tudun Wada, Tafawa Balewa, Vander Puye and Zaria Crescent. These neighbourhoods are organised with amenity green spaces to enhance the characteristic of architectural composition in the neighbourhoods. The areas comprise a number of standard designed buildings and the users of these green spaces are the inhabitants found within the study areas.

3.2 Architectural Composition of the Study Areas

The issues according to Omokhodion, (1978) that are found to affect the perception of green spaces of neighbourhoods in urban areas of Jos metropolis 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 all the neighbourhoods of Jos metropolis. They appeared to be largely necessitated or influenced by the topography, poor state of roads and access to transportation and the distance of residential dwellings to the residents' source of income.

In Anglo-Jos ward, mixed residential and commercial dwellings take part of the buildings. Tudun Wada ward is dominated with residential buildings which constituted most of the buildings in the area. In the inner urban areas such as Tafawa Balewa, Vander Puye and Zaria Crescent, almost all buildings have mixed residential and commercial functions. Although the reasons for mixed-use in buildings has been identified to include poor access to transportation experienced by the people if they are to live in wholly residential dwellings and will continue to commute to distant locations, markets, schools and other places necessary for the sustenance of their families. The building types in all the neighbourhood areas are mostly tenement houses, fronting the streets are shops use for commercial activities (Omokhodion, 1978).

(i). *Anglo Jos neighbourhood*

It has a hierarchy of plaza with a green space such as the Nigerian Tobacco Company (NTC) Garden located at the thoroughfare along Yakubu Gowon Way with residential buildings lined along one side and corporate buildings along the other as see figures 3.2 and 3.3 and plates I, II and III.

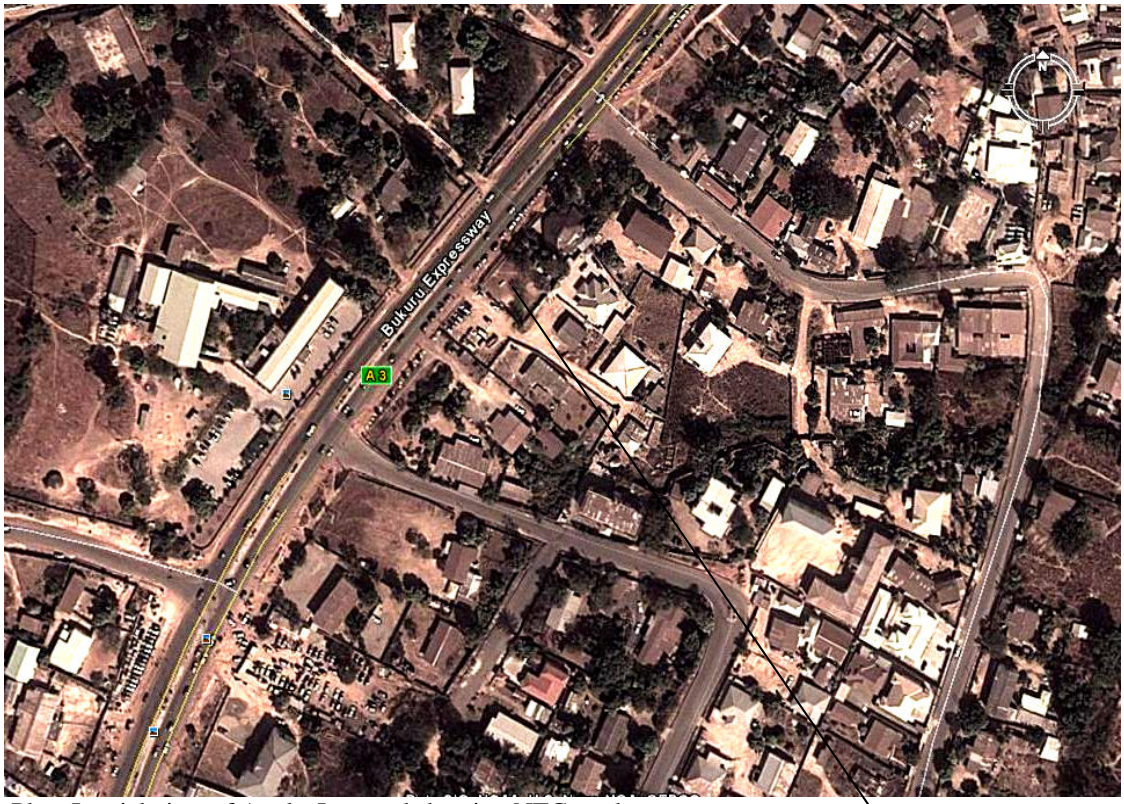


Plate I aerial view of Anglo-Jos ward showing NTC garden.
Source: Google earth image, 2013.

Figure 4 Nigerian Tobacco Company (NTC) garden located at Anglo Jos.
Source: Field Survey, 2012

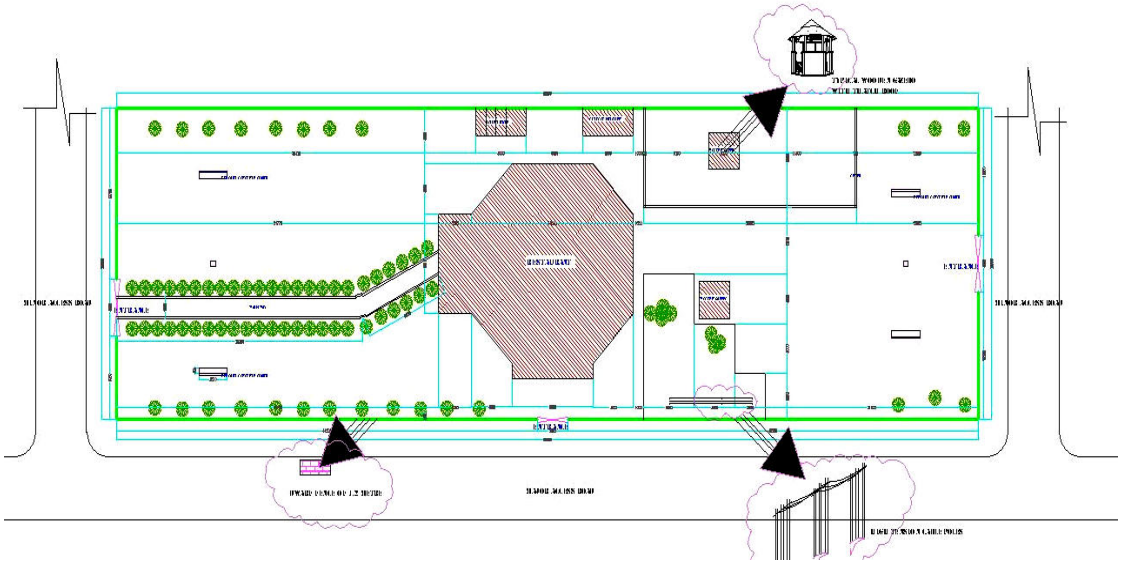


Figure 5 Site Plan of Nigerian Tobacco Company Garden located at Anglo-Jos

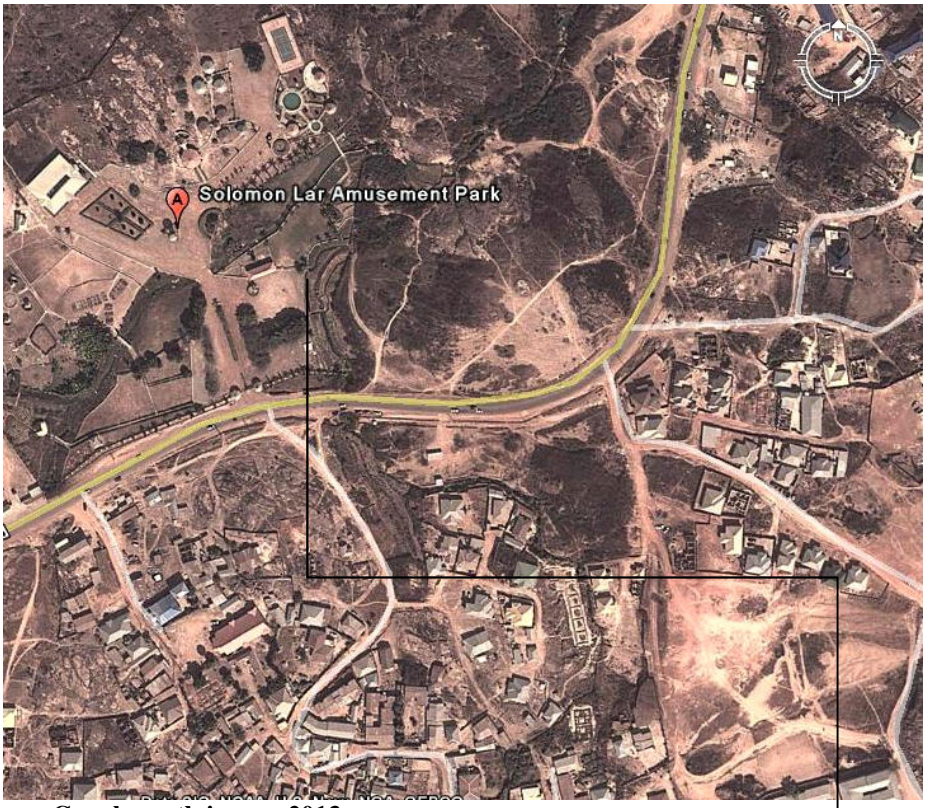
Plate II

Plate III

Views of NTC garden located at Anglo-Jos Ward neighbourhood

(ii) *Tudun Wada Ward neighbourhood*

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.



Source: Google earth image, 2013

Solomon Lar Amusement Park

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

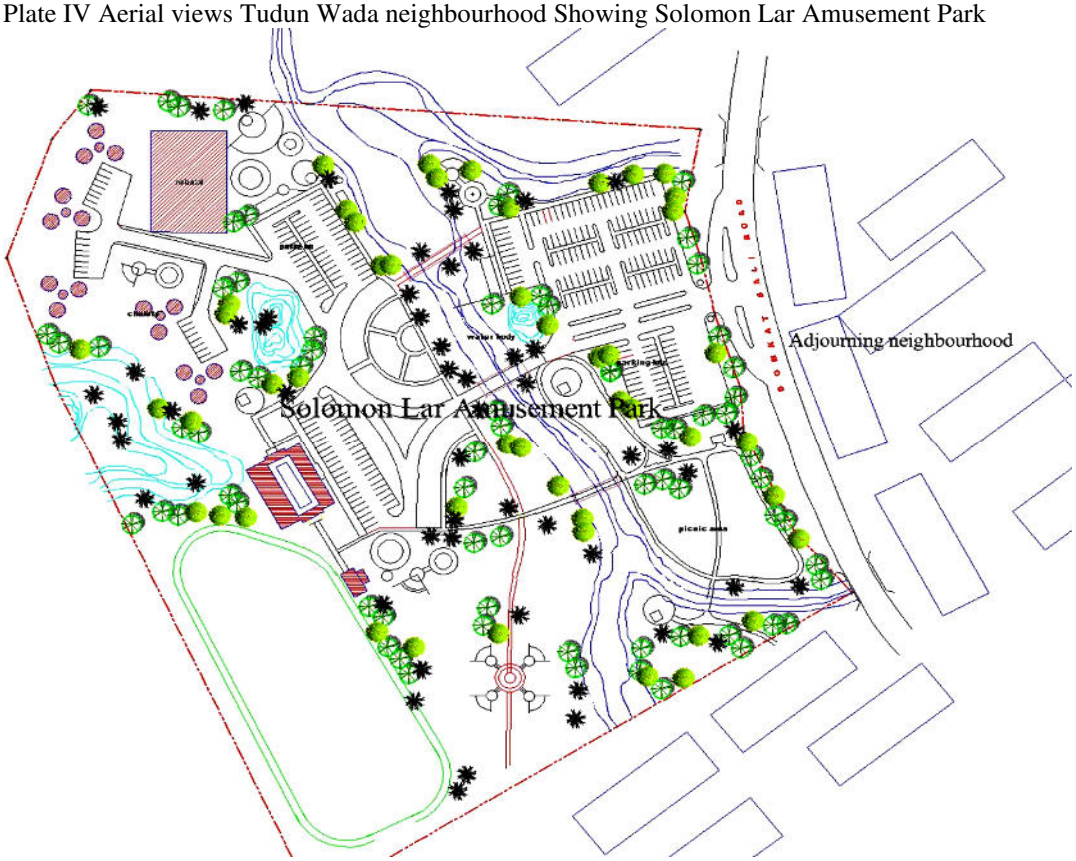
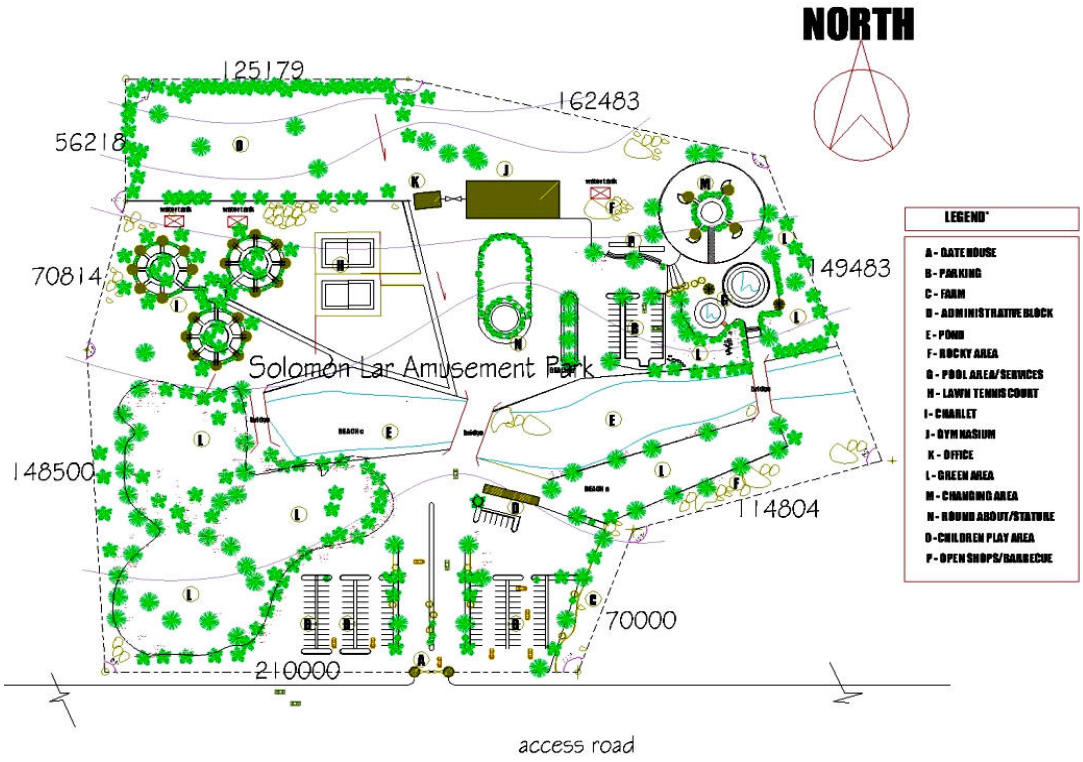


Figure 6 Solomon Lar Amusement Park located at Tudun Wada



Source: Field survey, 2012
Figure 7 Site Plan of Solomon Lar Amusement Park Located at Tudun Wada.

Source: Field Survey, 2012.
Plate V

Source: field survey, 2012
Plate VI

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

(iii) and (iv) Tafawa Balewa and Vander Puye Wards

Grey Garden and Suzi Garden are located at Tafawa Balewa and Vander Puye Wards. The green spaces are surrounded by hierarchy of residential, commercial and civic buildings clustered around them with access roads to different buildings.

Source: GIS Laboratory, Unijos 2008

Grey garden *Suzi garden*

Plate VII Quickbird Images of Tafawa Balewa and Vander Puye Ward neighbourhood showing Grey and Suzi Gardens

Figure 7 Grey and Suzi Garden located at Tafawa Balewa and Vander Puye Wards

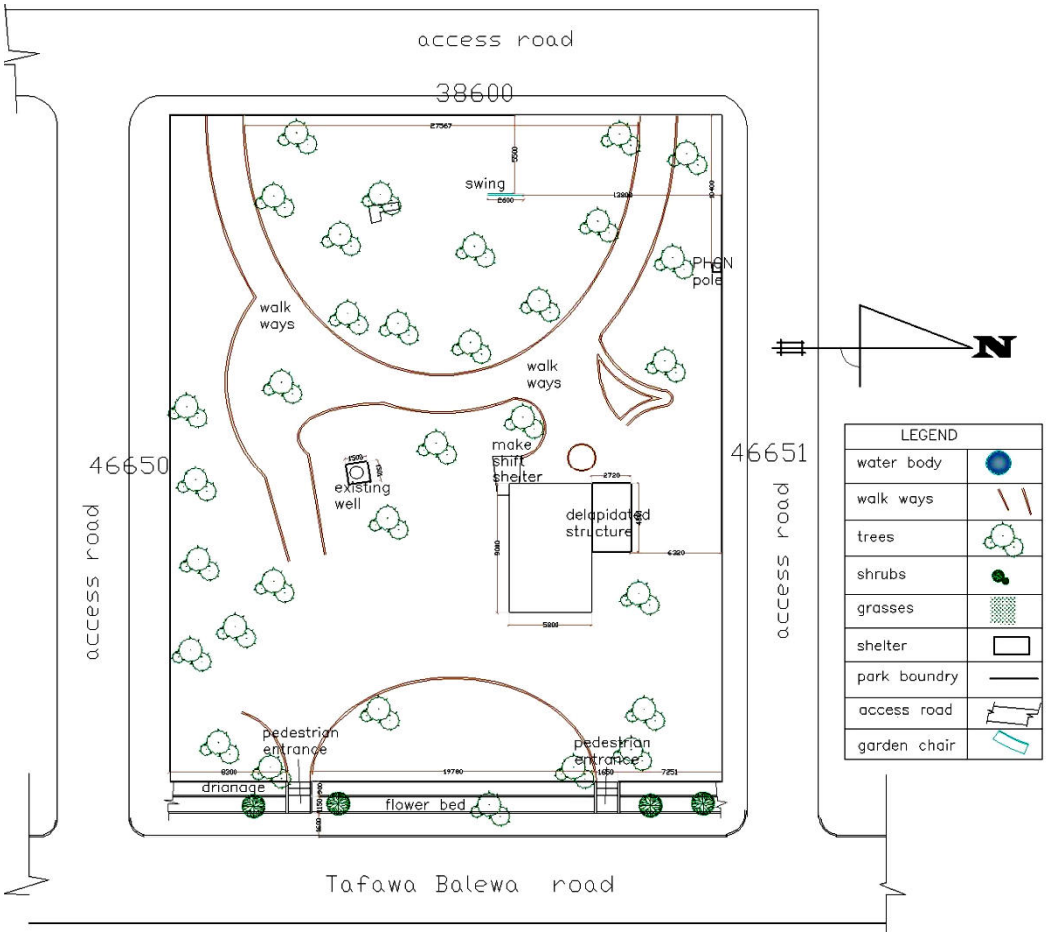


Figure 8 Site Plan of Grey garden located at Tafawa Balewa Ward neighbourhood

Plate VIII Plate IX

Views of Grey garden located at Tafawa Balewa Ward neighbourhood

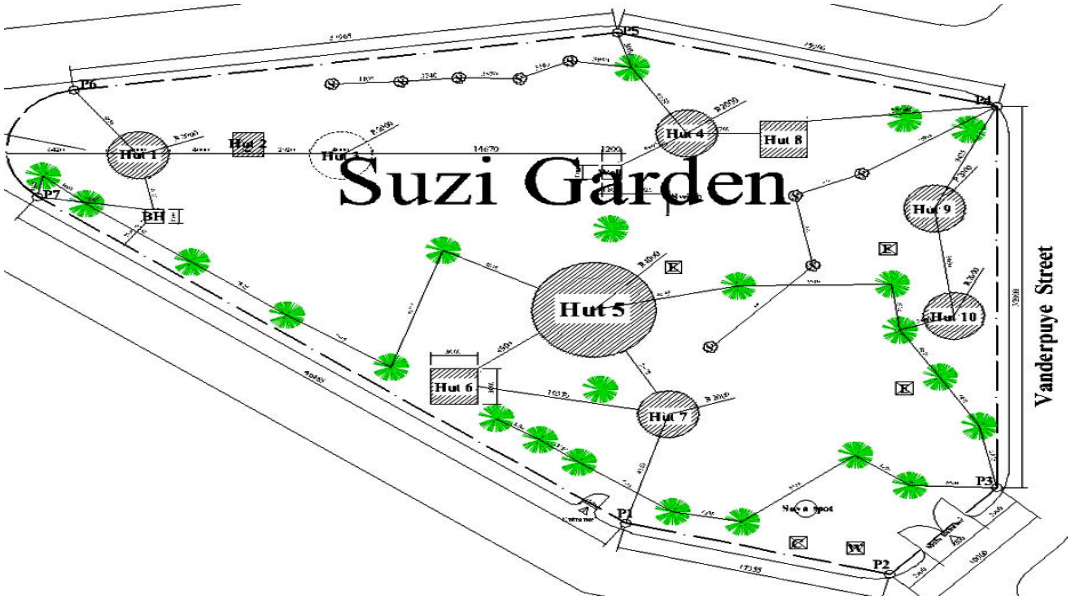


Figure 3.8 Site Plan of Suzi Garden located at Vander Puye ward neighbourhood

Plate X view of Suzi garden situated at Vander Puye ward neighbourhood.

(v). *Zaria Crescent neighbourhood*

It has a public park called Candy park, is located along Zaria Crescent mostly use for civic gatherings and recreation with a mix of residential and commercial buildings and commercial activities along the park. Its landscape consists of scanty plants with overgrown trees and unpaved walkways.

Source: GIS Laboratory, Unijos 2008

Plate XI Quickbird Image of Zaria Crescent Ward showing Candy Garden

Figure 8 Candy Park located at Zaria Crescent Ward
Source: field survey, 2012.

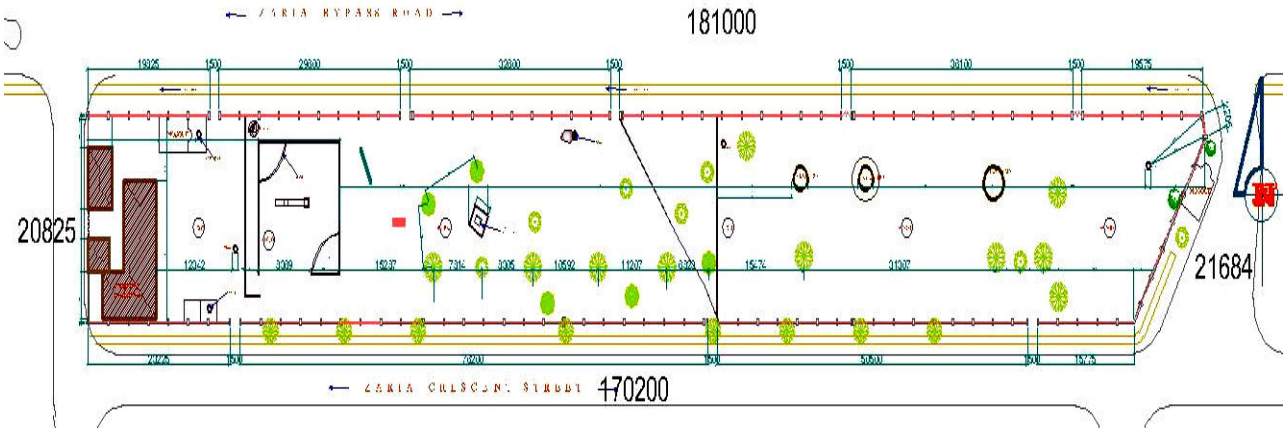


Figure 9 Site plan of Candy garden located at Zaria Crescent Ward neighbourhood

Source: field survey, 2012.
Plate XII

Source: field survey, 2012.
Plate XIII

Views of Candy garden situated at Zaria Crescent ward neighbourhood

From the overall distribution of green spaces in the areas of Jos metropolis, some of the green spaces have made positive impact, for instance the architecture of Solomon Lar Amusement Park; Eslie Gardens reflect all the components of green space within architectural composition. Most inhabitants asserted that the architecture of the Parks and gardens reflect traditional identity and the aesthetics of the environment is attractive and enjoyable. Other green spaces such as Grey, Suzi and Candy gardens made negative impact on the built environment of Jos metropolis. Plates VIII - XIII show different views of green spaces that are dilapidated with unpleasant visual quality and can be said to be one the reasons for the negative impact on the built environment.

3.3 Selection of Sample Areas of Study

The selection of green spaces and neighbourhoods for the survey was carried out using stratified random sampling technique. Stratified sampling according to Nnamdi (2006) is a method of selection where each possible sample of different population group has equal chance of being selected into the sample. In this method the population of amenity green spaces were grouped into definite characteristics viz; Excellent, good, average, poor and very poor conditions. One green space was selected by balloting from each group of definite condition or status as follows:

i. Solomon Lar Amusement Park, Tudun Wada ward (Excellent)
ii. NTC garden, Anglo-Jos ward (good)
iii. Grey Garden, Tafawa Balewa ward (average)
iv. Suzi garden, Vander Puye ward (poor)
v. Candy garden, Zaria Crescent ward (very poor)

Out of eight neighbourhoods in Jos identified to have amenity green spaces, five of these neighbourhoods under which the green spaces were selected were used as study areas for the study.

3.4 Sample Size for the Study

Sample size refers to the number of respondents in a group and making inferences about the whole. The sample size is an important feature of any empirical study in which the goal is to make inferences about a population from a sample with an established level of confidence and margin of error. (Strategic Research, 2011 Annual Report).

The sample size for the survey was determined from the required sample size table (see table 2 prepared by Cochran (1977) and Kre-jcie & Morgan (1970) with the total population of 7,500 as the total population size of the study areas in the first column and cross-referenced with 95% level of confidence and 5% margin of error.

Table 2 Required Sample size table

Population Size	Confidence = 95% Margin of Error				Confidence = 99% Margin of Error			
	5.0%	**3.5%**	**2.5%**	**1.0%**	**5.0%**	**3.5%**	**2.5%**	**1.0%**
10	10	10	10	10	10	10	10	10
20	19	20	20	20	19	20	20	20
30	28	29	29	30	29	29	30	30
50	44	47	48	50	47	48	49	50
75	63	69	72	74	67	71	73	75
100	80	89	94	99	87	93	96	99
150	108	126	137	148	122	135	142	149
200	132	160	177	196	154	174	186	198
250	152	190	215	244	182	211	229	246
300	169	217	251	291	207	246	270	295
400	196	265	318	384	250	309	348	391
500	217	306	377	475	285	365	421	485
600	234	340	432	565	315	416	490	579
700	248	370	481	653	341	462	554	672
800	260	396	526	739	363	503	615	763
1,000	278	440	606	906	399	575	727	943
1,200	291	474	674	1067	427	636	827	1119
1,500	306	515	759	1297	460	712	959	1376
2,000	322	563	869	1655	498	808	1141	1785
2,500	333	597	952	1984	524	879	1288	2173
3,500	346	641	1068	2565	558	977	1510	2890
5,000	357	678	1176	3288	586	1066	1734	3842
7,500	365	710	1275	4211	610	1147	1960	5165
10,000	370	727	1332	4899	622	1193	2098	6239
25,000	378	760	1448	6939	646	1285	2399	9972
50,000	381	772	1491	8056	655	1318	2520	12455
75,000	382	776	1506	8514	658	1330	2563	13583
100,000	383	778	1513	8762	659	1336	2585	14227
250,000	384	782	1527	9248	662	1347	2626	15555
500,000	384	783	1532	9423	663	1350	2640	16055
1,000,000	384	783	1534	9512	663	1352	2647	16317
2,500,000	384	784	1536	9567	663	1353	2651	16478
10,000,000	384	784	1536	9594	663	1354	2653	16560
100,000,000	384	784	1537	9603	663	1354	2654	16584
300,000,000	384	784	1537	9603	663	1354	2654	16586

Source: Research Advisors, 2006

The population figures of the study areas of Anglo Jos ward, Tudun Wada ward, Tafawa Balewa Ward, Vander Puye Ward and Zaria Ward show that total population figure of study areas was 7500 as shown in table 3.4. With a confidence level of 95% and a margin of error of 5%, the required sample size from table 3.2 was 365.

Table 4 Population Distributions of study Areas.

S/No.	Ward	Population
1	Anglo Jos	1,250
2	Tudun Wada	1,950
3	Tafawa Balewa	1,400
4	Vander Puye	1,200
5	Zaria Crescent	1,700
TOTAL		**7500**

Source: Independent National Electoral Commission, 2011

From table 3.3 the population figures of the study areas showed that out of the total population figure of 7500, Anglo Jos was 1,250, Tudun Wada 1,950, Tafawa Balewa, 1400, Vander Puye, 1200 and Zaria Crescent 1700.

The number of respondents for each ward was determined by the ratio of the figure of each ward and the total population and multiplied by the required sample size of 363

$$\frac{\text{Ward population}}{\text{Total population}} \times 365$$

Therefore:

$$\frac{\text{Anglo Jos} = 1250}{\text{Total population} = 7500} \times 365$$

= 60 respondents

$$\frac{\text{Tudun Wada} = 1950}{\text{Total population} = 7500} \times 365$$

= 97 respondents

$$\frac{\text{Tafawa Balewa} = 1400}{\text{Total population} = 7500} \times 365$$

= 68 respondents

$$\frac{\text{Vander Puye} = 1200}{\text{Total population} = 7500} \times 365$$

= 57 respondents

$$\frac{\text{Zaria Crescent} = 1700}{\text{Total population} = 7500} \times 365$$

= 83 respondents

3.5 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 365 respondents were surveyed representing different demographic and socio-economic status. The respondents were the inhabitants within the neighbourhoods. The survey was carried out with research assistants who were trained in the procedures and etiquette of questionnaire Gobster, (2005) for one month, between January and February, 2013.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).

4. Data Presentation

The issue under examination in the study is the investigation of user perception as elements of architectural composition of Jos metropolis which required a form of data set. Data was required on users' perception of green spaces in relation to architectural composition and the perceived deficiencies of architectural composition with

deficiencies of green spaces. This is to obtain data for practical planning tools for decision support system of green spaces.

The data presented results and discussions of analysis from field study carried out at five selected neighbourhoods of Jos metropolis; Anglo-Jos, Tudun Wada, Tafawa Balewa, Vander Puye and Zaria Crescent.

4.1 Comparative analysis of User Perception of Green Spaces as elements of architectural composition

The role of green spaces on quality of neighbourhoods showed that in all the study areas, majority of respondents strongly agree that green spaces have vital role or influence on the quality of neighbourhood. This confirmed that Anglo-Jos, Tudun Wada, Tafawa Balewa, Vander Puye and Zaria Crescent had frequencies of 41, 67, 47, 41 and 58, respondents representing 76.8%, 69%, 76.8%, 76.8% and 76.8% of the respective sample size, as shown in table 1. This revealed a prevalence of "strongly agree" of the role of green spaces on the attraction of these areas because the landscape of green spaces contribute as much to the quality of the visual appearance , attractiveness and appealing of neighbourhoods to live and work.

Table 1 Role of Green Spaces on Quality of Neighbourhoods

	Anglo Jos Sample Size (60)		Tudun Wada Sample Size (97)		Tafawa Balewa Sample Size (68)		Vander Puye Sample Size (57)		Zaria Crescent Sample Size (83)	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly	41	76.8	67	69	47	76.8	45	76.8	58	76.8
Agree	18	22.8	29	29.9	20	22.8	11	22.8	24	22.8
Agree	01	0.4	01	1.1	01	0.4	01	0.4	01	0.4
Disagree										
Total	**60**	**100**	**97**	**100**	**68**	**100**	**57**	**100**	**83**	**100**

Source: Field Survey, 2013.

The responses of the inhabitants showed that in all the study areas, majority of respondents strongly agree that components of green spaces such as trees, flowers, shrubs and grass contribute to the quality of neighbourhood areas.Results confirmed that Anglo-Jos, Tudun Wada, Tafawa Balewa, Vander Puye and Zaria Crescent had regularities of 40, 65, 44, 39 and 55 respondents representing 66.9%, 67%, 74%, 74% and 74.8% of the respective sample size, as shown in table 2.This revealed a prevalence of "strongly agree" with regard to the fact components of green spaces such as trees, flowers, shrubs and grass contribute to the quality of neighbourhood areas. They can bring distinct beauty and pleasant attractions to the landscapes of neighbourhoods.

Table.2 Green space elements (soft elements)

	Anglo Jos Sample Size (60)		Tudun Wada Sample Size (97)		Tafawa Balewa Sample Size (68)		Vander Puye Sample Size (57)		Zaria Crescent Sample Size (83)	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly	40	66.9	65	67	44	74	43	74	55	74.8
Agree	16	26.6	28	29	20	24	10	24	25	24
Agree	01	1.6	01	1.1	01	0.4	01	0.4	01	0.4
Undecided	02	3.3	02	2.8	02	1.2	02	1.2	01	0.4
Disagree	01	1.6	01	1.1	01	0.4	01	0.4	01	0.4
Strongly Disagree										
Total	**60**	**100**	**97**	**100**	**68**	**100**	**57**	**100**	**83**	**100**

Source: Field Survey, 2013.

The responses of the inhabitants showed that in all the study areas, majority of respondents strongly agree that green spaces provide opportunities for relaxation, recreation and friendship among neighbourhood members**.** Results confirmed that Anglo-Jos, Tudun Wada, Tafawa Balewa, Vander Puye and Zaria Crescent had regularities of 37, 60, 41, 33 and 52 respondents representing 61.8%, 62.8%, 62.8%, 62.8% and 62.1% of the respective sample size, as shown in table 3.This revealed a prevalence of "strongly agree" with regard to the fact that green spaces offer prospects for respite, amusement and companionship between neighbourhood inhabitants.

Table 3 Green Space Roles

	Anglo Jos Sample Size (60)		Tudun Wada Sample Size (97)		Tafawa Balewa Sample Size (68)		Vander Puye Sample Size (57)		Zaria Crescent Sample Size (83)	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Agree	37	61.8	60	62.8	41	62.8	37	62.8	52	62.1
Agree	20	33.3	32	28.4	23	28.4	17	28.4	27	33.3
Undecided	02	3.3	04	06	03	06	02	06	02	2.3
Disagree	01	1.6	01	2.8	01	2.8	01	2.8	02	2.3
Total	**60**	**100**	**97**	**100**	**68**	**100**	**57**	**100**	**83**	**100**

Source: Field Survey, 2013.

The responses of inhabitants showed that in all the study areas, majority of respondents strongly agree that green spaces help to keep the inside and outside of buildings of neighbourhood areas cool and reduce dust and noise pollution. Findings confirmed that Anglo-Jos, Tudun Wada, Tafawa Balewa, Vander Puye and Zaria Crescent had outcome of 33, 52, 32, 33 and 46 respondents representing 51.2%, 56.5%, 55.6%, 55.6% and 55.6% of the respective sample size, as shown in table 4.This revealed a prevalence of "strongly agree" with regard to the fact that green spaces help to maintain the interior and exterior of houses of neighbourhood vicinity cool and moderate dust and clatter pollutions.

Table 4. Green Space and Buildings

	Anglo Jos Sample Size (60)		Tudun Wada Sample Size (97)		Tafawa Balewa Sample Size (68)		Vander Puye Sample Size (57)		Zaria Crescent Sample Size (83)	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Agree	33	51.2	52	56.5	32	55.6	37	55.6	46	55.6
Agree	20	33.3	33	27.6	20	27.6	13	27.6	28	27.6
Undecided	04	6.6	07	9.6	03	9.6	04	9.6	05	9.6
Disagree	02	3.3	03	4.3	02	4.4	02	04	02	4.4
Strongly Disagree	01	1.6	02	2.0	01	02	01	02	01	02
Total	**60**	**100**	**97**	**100**	**68**	**100**	**57**	**100**	**83**	**100**

Source: Field Survey, 2013.

Findings from responses of inhabitants showed that in all the study areas, preponderance of respondents agree that green spaces help neighbourhoods to shape their identity and to increase their social way of lives. Results showed that Anglo-Jos, Tudun Wada, Tafawa Balewa, Vander Puye and Zaria Crescent had regularities of 23, 37, 28, 23 and 32 respondents representing 38.5%, 38%, 45.6%, 45.6% and 45.6% of the respective sample size, as shown in table 5.This revealed a prevalence of "agree" with regard to the fact that green spaces make it easier for neighbourhoods to structure their distinctiveness and to enhance their collective way of existence. Green spaces can encourage visitors, and enhance social inclusion and cohesion.

Table 5 Green Spaces and Identity

	Anglo Jos Sample Size (60)		Tudun Wada Sample Size (97)		Tafawa Balewa Sample Size (68)		Vander Puye Sample Size (57)		Zaria Crescent Sample Size (83)	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Agree	17	28.3	28	29	19	32	10	32	23	32
Agree	23	38.5	37	38	28	45.6	27	45.6	32	45.6
Undecided	09	15	15	15.5	10	13.2	09	13.2	12	13.2
Disagree	07	11.6	11	11.3	07	7.6	07	7.6	10	7.6
Strongly Disagree	04	6.6	06	6.2	04	0.8	04	0.8	06	0.8
Total	**60**	**100**	**97**	**100**	**68**	**100**	**57**	**100**	**83**	**100**

Source: Field Survey, 2013.

Findings from responses of inhabitants showed that in all the study areas, preponderance of respondents strongly agree that green spaces increase the value of living in neighbourhood areas and can increase their attractiveness to visitors**.** Results confirmed that Anglo-Jos, Tudun Wada, Tafawa Balewa, Vander Puye and Zaria Crescent had regularities of 27, 43, 31, 29 and 37 respondents representing 45%, 44.2%, 54.5%, 60.4% and 54.4% of the respective sample size. The result is shown in table 6.This revealed a prevalence of "strongly agree" with regard to the fact that green spaces add to the value of living in neighbourhood areas and can increase their pleasant appearance to sightseers.

Table 6 Green Spaces and Visitors

	Anglo Jos Sample Size (60)		Tudun Wada Sample Size (97)		Tafawa Balewa Sample Size (68)		Vander Puye Sample Size (57)		Zaria Crescent Sample Size (83)	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Agree	27	45	43	44.2	31	54.5	33	60.4	37	54.4
Agree	19	31.8	30	31	21	35.6	10	29.6	24	35.6
Undecided	05	8.3	09	9.3	06	4.4	05	4.4	08	4.4
Disagree	05	8.3	09	9.3	06	4.4	05	4.4	08	4.4
Strongly Disagree	04	6.6	06	6.2	04	1.2	04	1.2	06	1.2
Total	**60**	**100**	**97**	**100**	**68**	**100**	**57**	**100**	**83**	**100**

Source: Field Survey, 2013.

Responses of inhabitants showed that in all the study areas, majority of respondents strongly agree that plantings add to vista and visual quality along streets of neighbourhood areas.

Results confirmed that Anglo-Jos, Tudun Wada, Tafawa Balewa, Vander Puye and Zaria Crescent had regularities of 30, 49, 35, 30 and 33 respondents representing 50%, 51.4%, 58.8%, 60.8% and 58.8% of the respective sample size. The result is shown in table 7.

This revealed a prevalence of "strongly agree" with regard to the fact that plants as elements of green spaces add to vista and visual quality along streets of neighbourhood areas.

Table 7 Green Spaces and Streets

	Anglo Jos Sample Size (60)		Tudun Wada Sample Size (97)		Tafawa Balewa Sample Size (68)		Vander Puye Sample Size (57)		Zaria Crescent Sample Size (83)	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Agree	30	50	49	51.4	35	58.8	33	60.8	33	58.8
Agree	17	28.5	27	27	20	29.6	10	27.6	22	29.6
Undecided	07	11.6	11	11.3	07	06	07	06	10	06
Disagree	06	10	10	10.3	06	3.6	06	3.6	08	3.6
Total	**60**	**100**	**97**	**100**	**68**	**100**	**57**	**100**	**83**	**100**

Source: Field Survey, 2013.

Responses of inhabitants showed that in all the study areas, majority of respondents agree that green spaces provide privacy for houses. Results confirmed that Anglo-Jos, Tudun Wada, Tafawa Balewa, Vander Puye and Zaria Crescent had frequency of 33, 37, 28, 22 and 31 respondents representing 36.6%, 38.1%, 45.8%, 45.8% and 45.8% of the respective sample size, as shown in table 8.This revealed a consistency of "agree" with regard to the fact that green spaces endow dwellings with privacy and tranquility by screening out busy street noises and reducing glare from solar radiations.

Table 8 Green Spaces and Privacy

	Anglo Jos Sample Size (60)		Tudun Wada Sample Size (97)		Tafawa Balewa Sample Size (68)		Vander Puye Sample Size (57)		Zaria Crescent Sample Size (83)	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Agree	15	25	24	25	16	25	10	25	21	25
Agree	22	36.6	37	38.1	28	45.8	26	45.8	31	45.8
Undecided	08	13.3	12	12.2	08	10.8	06	10.8	10	10.8
Disagree	10	16.6	16	16.5	11	15.6	10	15.6	14	15.6
Strongly Disagree	05	8.3	08	8.2	05	2.8	05	2.8	07	2.8
Total	**60**	**100**	**97**	**100**	**68**	**100**	**57**	**100**	**83**	**100**

Source: Field Survey, 2013.

Responses of inhabitants showed that in all the study areas, majority of respondents strongly agree that green space brings peace, quiet and contact with nature around houses**.** Results confirmed that Anglo-Jos, Tudun Wada, Tafawa Balewa, Vander Puye and Zaria Crescent had frequencies of 26, 42, 26, 26 and 38 respondents representing 43.5%, 43.3%, 52.8%, 55.8% and 52.8% of the respective sample size. The result is shown in table 9.This revealed a consistency of "agree" with regard to the fact that green space brings tranquility, calm and connection with nature and adding value to houses.

Table 9 Green spaces around houses

	Anglo Jos Sample Size (60)		Tudun Wada Sample Size (97)		Tafawa Balewa Sample Size (68)		Vander Puye Sample Size (57)		Zaria Crescent Sample Size (83)	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Agree	26	43.5	42	43.3	17	52.8	30	55.8	38	52.8
Agree	18	30	29	30	26	33.2	11	30.2	23	33.2
Undecided	07	11.6	11	11.3	09	8.4	07	8.4	09	8.4
Disagree	05	8.3	08	8.2	11	0.4	05	04	07	04
Strongly Disagree	04	6.6	07	7.2	05	1.6	04	1.6	06	1.6
Total	**60**	**100**	**97**	**100**	**68**	**100**	**57**	**100**	**83**	**100**

Source: Field Survey, 2013.

4.2 Comparative Analysis to determine Perceived deficiencies of Architectural Composition with deficiencies of Green spaces.

The responses of inhabitants showed majority of respondents strongly agree that poor upkeep of green spaces can turn out appearances of buildings within neighbourhoods unattractive**.**

Results confirmed that Anglo-Jos, Tudun Wada, Tafawa Balewa, Vander Puye and Zaria Crescent had frequencies of 34, 56, 30, 34 and 49 respondents representing 56.7%, 58%, 58%, 60% and 58% of the respective sample size, The result is shown in table 10.This revealed a consistency of "strongly agree" with regard to the fact that poor upkeep of green spaces result into a depreciated appearance of buildings within neighbourhoods.

Table10 Green Spaces and poor upkeep

	Anglo Jos Sample Size (60)		Tudun Wada Sample Size (97)		Tafawa Balewa Sample Size (68)		Vander Puye Sample Size (57)		Zaria Crescent Sample Size (83)	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Agree	34	56.7	56	58	30	58	38	60	49	58
Agree	18	30	30	31	20	34	11	32	27	34
Undecided	03	05	05	05	03	3.6	03	3.6	03	3.6
Disagree	03	05	05	05	03	3.6	03	3.6	03	3.6
Strongly Disagree	02	3.3	01	01	02	0.8	02	0.8	0.1	0.8
Total	**60**	**100**	**97**	**100**	**68**	**100**	**57**	**100**	**83**	**100**

Source: Field Survey, 2013.

Responses of the inhabitants showed that in all the study areas, majority of respondents strongly agree that lack of care for grass, flowers, trees and shrubs in green spaces within neighbourhoods can make houses to appear sully**.** Results confirmed that Anglo-Jos, Tudun Wada, Tafawa Balewa, Vander Puye and Zaria Crescent had frequencies of 29, 48, 35, 29 and 42 respondents representing 48.5%, 61%, 61%, 55% and 61% of the respective sample size, as shown in table 11.This revealed a consistency of "strongly agree" with regard to the fact that deficient care for grass, flowers, trees and shrubs in green spaces within neighbourhoods can make houses to appear filthy.

Table 11 Green Spaces and House Perception

	Anglo Jos Sample Size (60)		Tudun Wada Sample Size (97)		Tafawa Balewa Sample Size (68)		Vander Puye Sample Size (57)		Zaria Crescent Sample Size (83)	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Agree	29	48.5	48	61	35	61	33	55	42	61
Agree	15	25	24	27.2	16	27.2	10	19	20	27.2
Undecided	04	6.6	07	1.6	05	1.6	04	7.2	06	1.6
Disagree	07	11.6	11	08	07	08	05	9.4	09	08
Strongly Disagree	05	8.3	07	2.4	05	2.4	05	9.4	06	2.4
Total	**60**	**100**	**97**	**100**	**68**	**100**	**57**	**100**	**83**	**100**

Source: Field Survey, 2013.

The responses of the inhabitants showed that in all the study areas, majority of respondents strongly agree that overgrown trees within green spaces can hinder the attractiveness of windows doors and roof of buildings. Results confirmed that Anglo-Jos, Tudun Wada, Tafawa Balewa, Vander Puye and Zaria Crescent had frequencies of 23, 37, 28, 23 and 37 respondents representing 38.4%, 44.6%, 44.6%, 44.6% and 44.6% of the respective sample size. The result is shown in table 12**.**This revealed a consistency of "strongly agree" with regard to the fact that overgrown trees within green spaces can impede the good looks of windows doors and roof of buildings.

Table 12 Green Spaces and Doors, Windows and Roof

	Anglo Jos Sample Size (60)		Tudun Wada Sample Size (97)		Tafawa Balewa Sample Size (68)		Vander Puye Sample Size (57)		Zaria Crescent Sample Size (83)	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Agree	23	38.4	37	44.6	28	44.6	27	46.6	37	44.6
Agree	18	30	32	39.6	21	38	11	36	27	38
Undecided	08	13.3	12	09	08	9.6	08	9.6	10	9.6
Disagree	06	10	09	4.4	06	4.4	06	4.4	08	4.4
Strongly Disagree	05	8.3	07	2.4	05	2.4	05	2.4	06	2.4
Total	**60**	**100**	**97**	**100**	**68**	**100**	**57**	**100**	**83**	**100**

Source: Field Survey, 2013.

Findings showed that in all the study areas, majority of respondents agree that illegal occupants like mentally disabled persons living within green spaces gives awful image to nearby structures of neighbourhood areas and generally make the surroundings look unpleasant.

Results confirmed that Anglo-Jos, Tudun Wada, Tafawa Balewa, Vander Puye and Zaria Crescent had frequencies of 19, 29, 23, 19 and 26 respondents representing 31.8%, 30%, 34%, 34% and 34% of the respective sample size, as shown in table 13**.**This revealed a consistency of "agree" with regard to the fact that prohibited persons resident within green spaces give an awful image and can make structures of neighbourhood areas look despicable.

Table 13 Green Spaces and Illegal Occupants

	Anglo Jos Sample Size (60)		Tudun Wada Sample Size (97)		Tafawa Balewa Sample Size (68)		Vander Puye Sample Size (57)		Zaria Crescent Sample Size (83)	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Agree	16	26.6	27	28	20	30.4	15	30.4	23	30.4
Agree	19	31.8	29	30	23	34	23	34	26	34
Undecided	09	15	15	15	09	13.6	07	13.6	11	13.6
Disagree	10	16.6	16	17	10	15.6	08	15.6	14	15.6
Strongly Disagree	06	10	10	10	06	6.4	04	6.4	09	6.4
Total	**60**	**100**	**97**	**100**	**68**	**100**	**57**	**100**	**83**	**100**

Source: Field Survey, 2013.

Findings showed that in all the study areas, majority of respondents strongly agree that commercial activities like petty trading and motor repairs around green spaces can make neighbourhood areas look unattractive.

Results confirmed that Anglo-Jos, Tudun Wada, Tafawa Balewa, Vander Puye and Zaria Crescent had frequencies of 27, 45, 30, 27 and 38 respondents representing 45%, 55.2%, 55.2%, 55.2% and 45.2% of the respective sample size. The result is shown table in 14. This revealed a consistency of "strongly agree" with regard to the fact that money-making activities like street hawking and automobile repairs around green spaces can make neighbourhood areas look horrid.

Table 14 Green Spaces and Commercial Activities

	Anglo Jos Sample Size (60)		Tudun Wada Sample Size (97)		Tafawa Balewa Sample Size (68)		Vander Puye Sample Size (57)		Zaria Crescent Sample Size (83)	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Agree	27	45	45	55.2	30	55.2	31	55.2	38	45.2
Agree	18	30	32	38.8	20	38.8	11	38.8	25	29.8
Undecided	06	10	11	4.8	07	4.8	06	4.8	08	9.5
Disagree	05	8.4	06	0.8	06	0.8	05	0.8	04	06
Strongly Disagree	04	6.6	03	04	05	0.4	04	0.4	09	9.5
Total	**60**	**100**	**97**	**100**	**68**	**100**	**57**	**100**	**83**	**100**

Source: Field Survey, 2013.

Responses of inhabitants showed that in all the study areas, majority of respondents strongly agree that green spaces with poor trees, flowers, grass, garden chairs, and children's play areas and pavements cannot add to the good quality of appearance of neighbourhood areas.Results confirmed that Anglo-Jos, Tudun Wada, Tafawa Balewa, Vander Puye and Zaria Crescent had frequencies of 23, 36, 27, 23 and 30 respondents representing 38.3%, 42.4%, 42.4%, 42.4% and 42.4% of the respective sample size. The result is shown table in 15.This revealed a consistency of "strongly agree" with regard to the fact that green spaces with impoverished trees, flowers, grass, garden chairs, children's play areas and pavements cannot add to the excellent characteristic appearance of neighbourhood areas

Table 15 Green Spaces and Playground

	Anglo Jos Sample Size (60)		Tudun Wada Sample Size (97)		Tafawa Balewa Sample Size (68)		Vander Puye Sample Size (57)		Zaria Crescent Sample Size (83)	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Strongly Agree	23	38.3	36	42.4	27	42.4	27	42.4	30	42.4
Agree	19	31.8	30	39.2	23	39.2	12	39.2	26	39.2
Undecided	06	10	10	4.8	06	4.8	06	4.8	06	4.8
Disagree	07	11.6	12	9.2	07	9.2	07	9.2	10	9.2
Strongly Disagree	05	8.3	09	4.4	05	4.4	05	4.4	08	4.4
Total	**60**	**100**	**97**	**100**	**68**	**100**	**57**	**100**	**83**	**100**

Source: Field Survey, 2013

5. Discussion

5.1 User Perception of Green Spaces as Elements of Architectural Composition of Jos Metropolis.

From the investigation of users' perception of green spaces in the context of the architectural composition of selected neighbourhoods of Jos Metropolis, the study show that most of the respondents from the five neighbourhoods of Jos metropolis agree that the inhabitants have positive perception of green spaces with Parks, gardens and other green areas making the quality of neighbourhood areas 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 neighbourhoods areas cool and reduce dust and noise pollution. Green spaces help neighbourhoods 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

5.2 The Perceived Deficiencies of Architectural Composition of Study Areas with Deficiencies of Green Spaces.

The study carried out in the selected neighbourhoods of Jos metropolis revealed that most of the inhabitants strongly agree that the deficiencies of green spaces can affect the architectural composition of the built form. Some specific points of dissatisfaction of respondents are that poor upkeep of green spaces can beget appearances of buildings within neighbourhoods to look unattractive and that deficiency in the care for the components of green spaces such as grass, flowers, trees and shrubs within neighbourhoods can cause houses to look filthy and grubby. Dense trees within green spaces can impede the beauty of windows doors and roof of buildings. Mentally disabled persons living within green spaces can give awful image to structures of neighbourhood areas. Commercial activities like petty trading and motor repairs around green spaces can make neighbourhood areas look unpleasant. Green spaces with poor trees, flowers, grass, garden chairs, children's play areas and pavements cannot add to the good quality of appearance of neighbourhood areas. 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.

By implication, this study has found that a greater number of users of green spaces within Jos metropolis perceive green spaces as being an intrinsic component of architectural composition. Therefore, a strategic action plan in developing a more detailed and long term vision for green spaces is expected by the establishment of 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 and metropolitan areas of Jos metropolis

Conclusion

Urban areas of today are with increasing urbanisations. New cities are sprouting and existing cities need to concern themselves with handling processes of urban sprawl, maintaining the historical structure and ensuring a healthy and safe living environment for their inhabitants. Urbanisation brings a long list of negative side effects with it, ranging from environmental pollution and the development of slums to an increase of 'urban diseases' and stress. With the mounting expansion and emergence of cities in the so called Global South such negative aspects are even more visible (Biljana, 2011).

Perception of green spaces 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. Green spaces of Jos metropolitan areas 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.

Therefore, it should be of necessity to protect and also create green spaces which are found to play a positive role in maintaining and enhancing the urban quality of life of Jos metropolis. Green spaces are vital metropolitan assets that can attract residents of neighbourhoods. The fact that green space is needed to shape the basic city structure, for aesthetic reasons and for fostering social interaction, outdoor mobility and an active lifestyle that make urban green space a key subject in the planning for a sustainable urban future. Inhabitants' of Jos metropolis perception and experience of green space should draw upon the conformity of architectural composition to be able to recognize specific environmental elements which have standard acreage that can excite inhabitants' sensations.

Recommendations

The perception of green space is a vital component in understanding of architectural composition. Without a thorough knowledge of how green space is perceived, architects, planners, designers, and decision-makers may be unable to, designed and manage green spaces.

The following recommendations are therefore viewed as a set of criteria that described how perception of green space affects the use and longevity of a neighbourhood:

1. With the information obtained, policy makers, architects, urban designers and planners ought to embark on a more comprehensive planning, upgrading or redevelopments of urban green spaces to make them better for human regeneration and wellbeing.
2. To achieve a richer quality of neighbourhoods in Jos metropolis, architects and planners ought to combine design tools as well as take into account the overall neighbourhood perception and use of green spaces.
3. Distance thresholds should be taken into account by planners to set out the standard distances that green space users within neighbourhoods of Jos metropolis can reasonably be expected to travel.
4. Users themselves should be sensitized and re-educated to ensure that green spaces are not misused or tempered with.

This recommendation provides an intervention strategy for enhancing existing conditions of green spaces for the five study areas of Jos metropolis.

Table 16 Intervention Schedule

Study Areas	Intervention Strategies
Anglo- Jos	-Replace planting which does not add to the aesthetics of an area with befitting planting combinations. Topography and native plants should be used to inspire the design of green spaces to give it a local character which fits into the surrounding neighbourhood. - Green spaces should be provided with basic facilities and should be well maintained regularly for neighbourhood residents to keep a positive image of green. - Provide for off-street parking, off-street loading, sidewalks and driveways -Provide green space for every 200m-400m of travel within the neighbbourhood.
Tudun Wada	-Elements such as existing trees, water, topography and native plants to be used to inspire the design and give it a local character which fits into the surrounding neighbourhood or environment. The use of historical and cultural elements also adds to the character. - Provide green space for every 200m-400m of travel within the neighbbourhood
Tafawa Balewa	-Organization of elements should be established to achieve balance of order of green space elements. -Replace planting which does not add to the aesthetics and of an area with befitting planting combinations. Topography and native plants should be used to inspire the design of green spaces to give it a local character which fits into the surrounding neighbourhood. - Use plants to beautify streets to add to the overall image of neighbourhoods. - Provide for off-street parking, off-street loading, sidewalks and driveways - Green spaces should be provided with basic facilities and should be well maintained regularly for neighbourhood residents to keep a positive image of green. - Provide green space for every 200m-400m of travel within the neighbbourhood area.
Vander Puye	-Organization of elements should be established to achieve balance of order of green space elements. -Replace planting which does not add to the aesthetics of an area with befitting planting combinations. Topography and native plants should be used to inspire the design of green spaces to give it a local character which fits into the surrounding neighbourhood. - Use plants to beautify streets to add to the overall image of neighbourhoods. -Provide for off-street parking, off-street loading, sidewalks, driveways - Green spaces should be provided with basic facilities and should be well maintained regularly for neighbourhood residents to keep a positive image of green. - Provide green space for every 200m-400m of travel within the neighbbourhood Areas.
Zaria Crescent	-Organization of elements should be established to achieve balance of order of green space elements. -Replace planting which does not add to the aesthetics of an area with befitting planting combinations. Topography and native plants should be used to inspire the design of green spaces to give it a local character which fits into the surrounding neighbourhood. - Use plants to beautify streets to add to the overall image of neighbourhoods. - Provide for off-street parking, off-street loading, sidewalks and driveways - Green spaces should be provided with basic facilities and should be well maintained regularly for neighbourhood residents to keep a positive image of green. - Provide green space for every 200m-400m of travel within the neighbbourhood areas.

When all these intervention strategies are employed, and allowed to bring out the desired results for the enhancement of environmental quality of neighbourhood areas, then the desired solutions to green spaces and architectural composition of Anglo-Jos, Tudun Wada, Tafawa Balewa, Vander Puye and Zaria Crescent may be assumed to have been arrived at.

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