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Typological Analysis of Gated Communities Characteristics in Ibadan, Nigeria

Olusola Oladapo Makinde

Abstract

Given the fact that the fear of crime is growing in Ibadan, and the number of gated communities or enclosed neighbourhoods is growing daily, need for an in-depth study of this phenomenon is essential to make available understanding into the architect's thought procedures, design values and establish a typological dimension of the prevailing enclosed neighbourhood. The aim of the study is to examine the types and characteristics of gated communities in Ibadan, with a view to informing policy on neighbourhood design and gated community development. This study identifies and assesses the types and characteristics of gated communities in Ibadan; this was assessed using field survey through direct observation check and structured questionnaire methods. The result of the typological classification of gated communities through a variety of enclosure in Ibadan shows nine deferent types of gated communities, this include type A (Ornamental gating), type B (Walled subdivisions, type C (Faux-gated entries), type D (Barricaded streets), type E (partially gated roads), type F (Full gated roads), type G (Restricted entry, bounded area), type H (Restricted entry, guarded area), type I (Condominiums). The result of the defensive physical characteristics of the gated communities shows that Old Bodija Scheme has the strongest characteristics with an average index of 3.58 DPC while Agodi GRA appears weakest with an index of 2.63 DPC. The eight typologies, which were identified, gave understanding to the design philosophy of the architects by showing the elements which they manipulated in the design of gated communities. Finally, the paper examined the level of importance of defensive physical characteristics that include Territoriality, Surveillance, Milieu and Image in the development and design of gated communities.

Keywords: Gated Communities, Typology, Characteristics, Architecture, Design

1. Introduction

The study of the types and characteristics of Gated communities (GCs) in Ibadan is very significant in housing development. Several problems, as well as advantages regarding GCs have been acknowledged in the literature, these include: reducing crime temporarily or permanently; decreasing the fear of crime or make available psychological respite; which can lead to an improved sense of community; which enhanced a sense of ownership and obligation [1]. The undesirable aspects are: generating a false sense of privacy and safety; relocating crime; segregating

communities; decreasing response times of emergency vehicles; causing tension and conflict between urban residents; enhancing the fear of crime; triggering social segregation; increasing urban separation and fragmentation; causing problems with regards to services and maintenance [2].

A GC is a housing community that has a security gate situated at the front entrance. Occasionally the whole neighbourhood is fenced inside a perimeter of gates. It is a housing development with controlled access and exit [3]. These physical developments, in combination with security guards, substitute the older social control devices, which are centred on social unity within the community concerned. In its current form, a GC is a form of a housing estate or residential community comprising strictly-controlled entries for walkers, bicycles, and cars, and regularly branded and characterised by a closed perimeter of fences and walls [4]. GCs typically consist of minor residential roads and comprise numerous shared facilities. For smaller communities, this might be only a garden or other common area. For larger communities, it might be likely for inhabitants to stay inside the community for most day-to-day doings. GCs are a kind of communal interest development but are different from deliberate communities [5].

Enclosed neighbourhoods denote existing neighbourhoods that ensure controlled access through booms or gates across main roads. Many are enclosed with fence or wall as well, with a limited number of controlled entrances and exits with security guards at each point in some circumstances [6]. In certain cases the streets within these neighbourhoods were before, or still is public assets and in several cases, the local council is still accountable for public amenities to the community within. The roads in these areas are private, and most of the time, the maintenance and management are carried out by a private management organisation [7]. Enclosed neighbourhoods have become an occurrence to be taken earnestly in Nigeria; not only those who desire to live in such development but also those who are concerned with urban management and planning, in addition to the social tendencies that determine human social relations and social dynamics within urban areas in Nigeria [8].

The important issues arising from the study will make known the true image of these gated housing designs in term of their spatial organisation of spaces and level of safety. It will help in making urgent and necessary changes in the current system in prevailing gated communities and also aid in evading these challenges and problems for gated estate developers and government on policies implementation. Combined with an understanding of the characteristics identified, a study of the types of GC in Ibadan can go a long way to assist policymaker and role players, especially local governments, to make more informed decisions. It will be important for future policy decision making in Ibadan to understand the types and characteristics of GCs have on the urban environment and the implications for urban management and maintenance. This study will pave the way for future research in terms of neighbourhood safety development and sustainability of the neighbourhood system. It is now up to policymaker to interpret this information that had been gathered to investigate the local situation.

2. Literature review

The concept of GCs is a fast-growing one especially in response to safety and security all over the country. Equally one can found the road and street closures in major cities of Nigeria. They came up in response to the fear of crime and insecurity within the non-GCs. One of the concerns is the government's inability to protect the property and the life of all its citizens especially in developing countries like Nigeria

[8]. This necessitated the formation of private alternatives to crime control and prevention. A relatively innovative trend as an architectural conception is that of the GC. The growth and development of GCs in Nigeria is more of a reaction to the high level of fear of crime and insecurity in the nation's city centres. It is common these days to see many important streets close up with gates and booms all in the bid for a secure and safe environment [9]. The need for enhanced property value, privacy, safety and security resulted in an enclosed area, including the need to feel safer. Security, social connectivity and safety are also linked to a greater sense of identity and community, the necessity to bring the entire community together to enhanced common ideals and values [5, 10].

The notion of GC is a complex issue that can be described by sets of cultural, architectural, economic, demographic, societal, political and psychological factors that are unpredictable. GCs are defined, according to Low, [11] as a residential neighbourhood with gates and walls enclosing the development, which excludes non-residents access to all inside amenities plus residences, activities and open space. As crime turn out to be more of a threat to that feeling of security, privacy and safety, inhabitants are, in line with Blakely and Snyder, [12] turning to high walls and gates enclosing residential areas, thereby privatising and segregating parts of the urban area. The growth of safety enclaves is a global phenomenon [13].

Landman, [14] described a GC as a physical area that is fenced or walled off from its environments, elimination or controlling entrance to these areas employing booms or gates. In numerous cases, the concept can refer to as a residential area with controlled access, so that common public spaces have their uses restricted and privatised (García de Alba, [15]). In the area were the crime rates is high, enclosed neighbourhoods are perceived by many as the only alternative for crime deterrence [7]. It takes place in many forms in a large number of countries. Within a short period, GCs have rapidly increased in Nigeria. This has been the case for several different types of GC. Even though the major evolution of enclosed neighbourhoods has happened in city areas, especially in Oshogbo, Kaduna, Kano, Lagos, Port Harcourt and Ibadan among others, the occurrence has not been restricted to these cities. Several applications for neighbourhood enclosures have also been received in municipalities [5]. In the context of high crime rates, many people consider security villages or enclosed neighbourhoods the only choice for safety living in metropolises. Nevertheless, not all people come to an understanding that this is the best or only solution to crime prevention in the country [9].

The major motivating and determining factors behind enclosure and gating, according to Low [11], are fear of crime, property values, and nice environments, the search for safety, privacy, security, prestige, lifestyle, control, exclusivity and community attachment as driving factors to GC developments. Residing in segregated housing spaces in the city is a multifaceted social process that is not only the consequence of the fear of crime also is a way to relocate from urban disorder, to establish seclusion of social homogeneity and to establish new forms of local government [12].

Grant and Mittelsteadt, [16] acknowledged eight factors that distinguish GCs from their neighbourhood to include safety features and barriers, functions of the enclosure, facilities and amenities included, tenure, type of residents, location, policy context and size. Several authors agreed that gated developments reveal a rising trend to private governance and private communities [17]. GCs are believed to have characteristics of social interaction, safety, good life, privacy, freedom from maintenance, exclusivity and homogeneity [18]. Residents choose to move into CGs for reasons such as increased privacy and safety, traffic and noise reduction, yard maintenance and aesthetics, prestige, exclusivity, control, and the increase in property values. By their implication, GCs isolated residents from the larger urban

environment [14]. Planners encourage GCs because they lack mixed uses, diversity, connected street systems and public open space. Planners can make alternatives against the appeal of GCs development by providing local community meeting places and better public safety [19].

GCs, which are dispersed all around the world, vary from country to country, with reverence to their characteristics and in specific to different motives for development viz. safety, privacy, security, prestige and ethnicity [20]. These GCs are way out for everyday problems of ethnic conflicts and high crime rate. They intensely restructured the urban forms of many cities. GCs signify the hope of privacy, safety, offer an important position to marketing strategy for developers in a competitive environment, attractive to consumers looking for identity and a sense of community, increase property values and exclude none resident, from attractive amenities (Blakely and Snyder 1998; [21]).

According to Górczyńska [22] there exist various classifications of GCs that relate to their organisational, functional, and morphological parameters. The classification explained by Blakely and Snyder, (1998) presents three key types of GCs to inhabitants' motivations and characteristics: GCs is inhabited by those searching for safety and by people with the same lifestyles and by elites. From this study, the typologies of GCs vary slightly from those offered for Western countries. Brabec and Sýkora [23] have categorised three main categories of GCs: (1) guarded, (2) guarded and walled, and (3) walled communities that relate to the level of luxury of each type of community and the first type are the most luxurious. Another classification identified by Hegedűs, [24] was established on the supplementary functions of GCs (facilities for inhabitants such as swimming pools and playgrounds) and the existence of particular fences and gates. With these features, three types of GCs were identified: (1) GCs with incomplete functions (2) GCs with complete functions, and (3) lacking any physical separation but delivering amenities.

The prevailing typologies of gated neighbourhoods are mostly grounded on the morphological features of estates [25, 26] or the types of protection used [27]. In line with Glasze [25], there exist two main types of GCs: condominiums (usually luxurious buildings in the central districts) and gated estates composed of multi-family houses, single-family houses and terraced houses [25]. Hence, this type agrees to the elite type identified by Blakely and Snyder (1998). Regarding gated estates composed of numerous buildings, their diversity in terms of standard, size, and quality is tremendously large, and their inhabitants signify both middle and upper classes [22].

A more multifaceted typology of gated estates was suggested by Chabowski [28], who concentrated on eight features: (1) the period of construction, (2) the extent of closed space, (3) the scale of closure, (4) the number of storeys, (5) the period of closure, (6) characteristics of surrounding areas, (7) architectural types and (8) quality and price of dwellings. This typology matches up to the great diversity of GCs. Within those categories of functions and other factors the typology add considerations of the character of facilities and amenities, spatial patterns, level of affluent and the type of security features. Each of these physical characteristics relates to a single function. For example, Blakely and Snyder, [12] discuss the level of affluence as the main factor in prestige communities but give it lesser important in lifestyle and security zone communities. Aulia and Suryani, (2020) identified the typology of gated housing based on the development and growth in the city of Medan which were classified into three sets, specifically large-scale gated housing, medium-scale gated housing and small-scale gated housing. Given the limited study on typological analysis of GCs and little attention been paid to the defensive physical characteristics in the context of gated communities holistically in a developing country like Nigeria; hence, the need to exploit and look critically at

these issues in Ibadan. This study attempted to fill the gap with a particular interest in a quantitative study which is relevant and important in housing.

3. Research method

There are 30 residential areas with Gated Communities (GCs) in Ibadan. Five (5) residential areas consisting of fifty-seven (57) GCs were purposively selected for demonstrating typical GCs characteristics (see **Table 1**). These include Agodi Government Reservation Area (AGRA), with ten (10) GCs; New Bodija Scheme (NBS) with fifteen (15) GCs; Old Bodija Scheme (OBS) with thirty (30) GCs; Kolapo Ishola Scheme (KIS) with one (1) GC and Alalubosa Government Reservation Area (ALGRA), with one (1) GC. Thirty GCs representing 52.6% of the 57 GCs were sampled from the five residential areas. There are a total of four thousand, nine hundred and twenty-two (4,922) residential buildings in the selected GCs. Four

S/NO	Local Government Area	Government Reservation Area	Local Govt. Scheme	Property Dev. Corp Scheme	Total GCs Areas
1	IBADAN NORTH	Agodi GRA Mokola Low-Cost Housing Scheme Samonda Scheme (Old-Airport) Oke-Aremo Housing Scheme	Sabo Housing scheme Mokola Layout	Old Bodija Scheme New Bodija Scheme	8
2	IBADAN NORTHWEST	Jericho GRA Onireke Comm. & Links Reservation Onireke Housing Estate	None	None	3
3	IBADAN SOUTHWEST	Iyaganku GRA Alesinloye GRA Alalubosa GRA Ring Road HOP. GRA	Ring Road Layout Liberty Layout Oluyole Scheme Lagos Bye Pass Layout (Mixed Dev.)	Owode Housing Scheme now in Ido Local Government Area	10
4	IBADAN SOUTHEAST	None	Lagelu Residential Scheme, Felele Express	None	1
5	AKINYELE	None	Idi-Ose Layout	None	1
6	EGBEDA	Ife Road Scheme	None	Olubadan Scheme, AJODA	2
7	ONA ARA	Ogbere Housing Scheme	*Local Government Residential Layout	None	2
8	LAGELU	Kolapo Ishola (Old Dairy Farm) Scheme	Okebadan Scheme –Akobo/Alegongo	Akobo Scheme Iwo Road (Lalupon)	3
				Total	30

Table 1.
Locations of residential areas with gated communities (GCs) in Ibadan metropolitan area.

hundred and ninety-three (493) representing 10% of the residential buildings were selected and from which each household head was sampled using a systematic sampling technique. The data collected were analysed using descriptive and inferential statistics. **Table 1** shows the locations of residential areas with Gated Communities (GCs) in Ibadan metropolitan area and **Table 2** shows the target population for the study while **Table 3** shows the distribution of administered and returned questionnaires.

About 493 questionnaires were distributed out of which 396 (80.4%) were returned. **Table 3** shows the distribution of returned questionnaires across the GCs selected for the study.

S/NO	The Study Population (20% of the target population selected purposively)	The number of Gated Communities (GC) Identified in the Study Population.	The number of Gated Communities (GC) selected for the study. According to proportion	Sampling Frame (No of houses)	Sampling Size (10% of the household head selected using systematic sampling)
1	Old Bodija Scheme	30	15	2,495	250
2	Agodi GRA	10	5	492	49
3	New Bodija scheme	15	8	800	80
4	Kolapo Ishola Scheme	1	1	300	30
5	Alalubosa GRA	1	1	835	84
	Total	57	30	4,922	493

Table 2.
Target population for the study.

S/no	The Study Population	The number of Gated Communities (GC) selected for the study.	Number of Administered Questionnaires	Percentage of Questionnaires Administered	Number of Questionnaires Returned	Percentage of Questionnaires Returned
1	Old Bodija Scheme	15	250	50.7	202	41.0
2	Agodi GRA	5	49	9.9	39	7.9
3	New Bodija scheme	8	80	16.2	64	13.0
4	Kolapo Ishola Scheme	1	30	6.1	24	4.9
5	Alalubosa GRA	1	84	17.0	67	13.6
	Total	30	493	100	396	80.4

Table 3.
Distribution of administered and returned questionnaires.

4. Data analysis and results findings

4.1 Physical characteristics of GCs in Ibadan

This section aims to describe the physical characteristics of GCs in the study areas. In other to achieve this, 10 randomly selected experts from academia and practising firms who are members of Nigeria Institute of Architects and who are conversant with the study areas were selected for the study. The selection requirements for the panel are that such personality must be a design expert and urban planner from academia in addition to professional practice based on their technical know-how and proficiency. These were selected from catalogue of Architect Registration Council of Nigeria (ARCON). These experts comprehensively and objectively measured the subjective physical characteristics of the neighbourhood using ratings from an expert panel from the variables that comprised: the four (4) key elements of physical characteristics which are territoriality, surveillance, milieu and image. These were used as parameters in describing the characteristics of the study areas. This means that the study measured these elements in the areas to be able to describe the characteristics of each area.

4.2. Defensive physical characteristics of the Neighbourhoods

The results of the observation of the neighbourhoods that constitutes the communities are discussed under the four (4) elements using the indicators earlier enumerated.

4.2.1. Territoriality of the neighbourhoods

Looking at the first indicator to measure territoriality of the study areas which is the use of landscape to create clear boundaries (see **Table 4**) it seems that KIS has the highest index at 2.8 while NBS has the least with 1.6. However, having the highest index at 2.8 out of a possible 5.0 seems to means that all the study area did not make much use of landscape as a good tool to create clear boundaries between the respective units. In terms of maintenance and cleanliness of the neighbourhood in the study area, KIS (again) seems to be the area that takes a keen interest in keeping highly maintained neighbourhood given its index of 4.4 while NBS neighbourhood appears not to take good care of its unit with an index of 2.4.

Also, there appears to be a wide gap in maintenance culture that include roads maintenance and building maintenance and landscape maintenance among others between the best-maintained areas and the least maintained. **Figure 1** above shows an example of overgrown grass in the open spaces of the Old Bodija area. Also, as shown in **Table 4** OBS and ALGRA seems to have the clearest definition of territories as evidence by its index of 3.0 each while Agodi GRA New and Bodija Scheme seems to have a relatively weak definition of its territories given an index of 2.2 the result also goes to show that it seems that all the areas do not have their territories clearly defined given a 3.0 index as the highest. In terms of elements used to define those territories, ALGRA & KIS seems to have an excellent return, this is manifested by an index of 5.0, while on the other end, Agodi GRA did not seem to care about the use element to define their territories. This can be seen in their index of 1.0. The wide gap between these areas underlines the ease with which areas seem to use simple elements to define their territories in their neighbourhoods, in the case of signs to define ownership; ALGRA seems to make the best effort at an index of 1.8 while all others areas have lower than this. However, the highest index of 1.8

Indicator	Neighbourhood									
	Old Bodija Scheme		Agodi GRA		New Bodija Scheme		Kolapo Ishola Scheme		Alalubosa GRA	
	Count	Index	Count	Index	Count	Index	Count	Index	Count	Index
Use of landscape to create clear boundaries	12	2.4	10	2.0	8	1.6	14	2.8	10	2.0
Maintenance and cleanliness of the premises	17	3.4	17	3.4	12	2.4	22	4.4	15	3.0
Clear definition of territories	15	3.0	11	2.2	11	2.2	12	2.4	15	3.0
Elements used to define territories (such as walls, furniture and paving stones)	25	5.0	5	1.0	13	2.6	25	5.0	25	5.0
Definition of ownership	5	1.0	5	1.0	5	1.0	5	1.0	7	1.8
Security sings at the entrance	20	4.0	5	1.0	10	2.0	20	4.0	25	5.0
Elements to restrict access	20	4	16	3.2	8	1.6	17	3.4	20	4.0
Total		3.50		1.97		1.91		3.29		3.40

Table 4.
Territoriality of the Neighbourhood.

Figure 1.
Picture showing the low level of maintenance in the neighbourhood.

shows that perhaps not much effort is invested by the residents in putting signs that define ownership. **Figures 2–4**, below show evidence of ownership in ALGRA.

As for security signage at the entrance to the areas and neighbourhoods in the study areas, ALGRA seems to be in the forefront with an index of 5.0 while lowest is Agodi GRA with an index of 1.0. For Elements to restrict access ALGRA & KIS seems to have a better usage with an index of 4.0 and the lowest was New Bodija with an index of 1.6.

Figure 2.
Demonstration of ownership in ALGRA.

Figure 3.
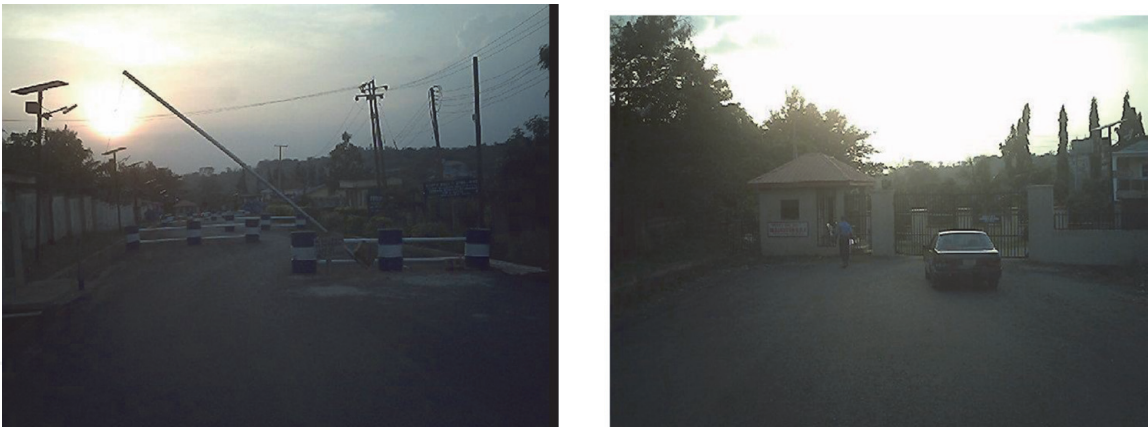*Wall around the GC and the security gate in ALGRA.*

Figure 4.
Street and entrance to ALGRA.

In summary, ALGRA has the highest Territoriality index with 3.4 this was as a result of Elements used to define territory and Security sings at the entrance while NBS has the lowest index of 1.91.

4.2.2 Surveillance of the neighbourhood

The study shows that looking at the first indicator of this element, which has to do with the placement of windows to overlook sidewalks; Agodi GRA had highest with an index of 3.4 while KIS and ALGRA do not seem to have their windows

placed in such a way as to overlook sidewalks with an index of 2.6. The average values of this index also seem to confirm the fact that the ability to overlook sidewalks may not be a primary consideration during the design and construction of most of the units in the study areas. Considering the height of the fence to permit surveillance in the neighbourhoods, Agodi GRA and NBS has the highest index of 4.2 while KIS is the least at 2.6. **Figures 5** and **6** shows pictures of security gate and guardhouse, exits gate under lock and key. In the case of external light to eliminate blind spots, OBS seems to fare better than all the other neighbourhoods with an index of 3.6 while NBS does not seem to enjoy much of external lighting and thus the least index of 1.8 (see **Table 5**) But for vehicular traffic, OBS seems to enjoy a sizable amount over and above the others with an index of 3.8 while NBS seems to have the least with an index of 2.2. This may be explained by the fact that OBS is surrounded by an impressive network of important roads, signage, derelict gate, school, abandon building and street view and an enclosed street and view of exits gate and security guide house and avenues in the area as evidence in **Figures 7–15**.

In the case of surveillance potential of land use, **Table 5** shows that NBS seems to have the advantage with an index of 3.6 while OBS and ALGRA did not seem to do well at an index of 3.0. However, the proximity of the indices around an average 3.0 shows that the study areas are not far apart from each other and that they did not do too badly especially as the least is 3.0. Considering the level of commercial activities in or near a neighbourhood in the study areas, OBS and NBS seem to take the upper

Figure 5.
The exits gate under lock and key in Kolapo Ishola GC.

Figure 6.
Security gate and guardhouse in kolapo Ishola GRA.

Indicator	Neighbourhood									
	Old Bodija Scheme		Agodi GRA		New Bodija Scheme		Kolapo Ishola Scheme		Alalubosa GRA	
	Count	Index	Count	Index	Count	Index	Count	Index	Count	Index
Placement of windows	14	2.8	17	3.4	16	3.2	13	2.6	13	2.6
Height of fence to permit surveillance	17	3.4	21	4.2	21	4.2	13	2.6	20	4.0
External Light to eliminate blind spots	18	3.6	13	2.6	1.2	2.4	15	3.0	9	1.8
Type of vehicular traffic	15	3.0	17	3.4	19	3.8	16	3.2	19	3.8
Surveillance potential of land use	15	3.0	17	3.4	18	3.6	17	3.4	15	3.0
Level of commercial activities in or near the neighbourhood	25	5.0	15	3.0	25	5.0	14	2.8	20	4.0
Quality of surveillance	20	4.0	16	3.2	20	4.0	10	2.0	15	3.0
Total		3.54		3.31		3.74		2.80		3.17

Table 5.
Surveillance potential of the Neighbourhood.

Figure 7.
Picture showing Oba Olagbegi Neighbourhood in OBS.

Figure 8.
Picture showing derelict gate at Oshuntokun road, old Bodija.

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Figure 9.
Picture showing gating and security guard at Awogboro Neighbourhood in OBS.

Figure 10.
Picture: A view of a school and an enclosed street in OBS.

Figure 11.
showing an example of signage informing of the closure time. Security levy payment directed by the neighbourhood executive committee and house number.

Figure 12.
View of the entrance gate and signage in Awosika neighbourhood.

Figure 13.
View of exits gate and security guide house in Awosika neighbourhood.

Figure 14.
View of streets in Awosika that shows an example of well maintains neighbourhood.

hand with an index of 5.0 each while KIS takes the rear with an index of 2.8. This shows that even though all the study areas enjoyed some level of commercial activities, OBS and NBS are exceptional. In terms of quality of surveillance, which is exemplified by the number of eyes on the street OBS and NBS again take the lead with an index of 4.0 while KIS again brings up the rear at 2.0. In summary, NBS seems to have the highest index of surveillance with a value of 3.74. The highest contributor to this being the type of Level of commercial activities in or near neighbourhood at a value of 5.0 while KIS seems to have the least index of surveillance at 2.80, the biggest contributor to this being the level of Surveillance potential of land use in or around the units with a value of 3.4 OBS, Agodi GRA and ALGRA seems to be strong on surveillance in their units.

Figure 15.
A road closure using a palisade gate at Adeyi neighbourhood, old Bodija.

Indicator	Neighbourhood									
	Old Bodija Scheme		Agodi GRA		New Bodija Scheme		Kolapo Ishola Scheme		Alalubosa GRA	
	Count	Index	Count	Index	Count	Index	Count	Index	Count	Index
Presence of 'safe' properties	20	4.0	15	3.0	20	4.0	14	2.8	6	1.2
Presence of undesirable properties	10	2.0	8	1.6	11	2.2	10	2.0	6	1.2
Total		3.0		2.3		3.1		2.4		1.2

Table 6.
Milieu of the Neighbourhood in the study areas.

Indicator	Neighbourhood									
	Old Bodija Scheme		Agodi GRA		New Bodija Scheme		Kolapo Ishola Scheme		Alalubosa GRA	
	Count	Index	Count	Index	Count	Index	Count	Index	Count	Index
Physical condition of neighbourhood	20	4.0	20	4.0	16	3.2	21	4.2	23	4.6
The physical condition of the adjoining neighbourhood	19	3.8	18	3.6	14	2.8	22	4.4	25	5.0
Total		3.9		3.8		3.0		4.3		4.8

Table 7.
Image of the Neighbourhoods.

4.2.3 Milieu of the Neighbourhood

Under the indicator labelled 'presence of properties believed to be safe' as shown in **Table 6**, OBS and NBS seemingly enjoyed a preponderance of such properties, this is reflected in its index of 4.0 each while the neighbourhood that seems to have

the least of such properties is ALGRA with an index of 1.2. This is evidenced by the presence of such properties as divisional/area Policy command headquarters in OBS and NBS schools churches and mosques. As for the neighbourhood whose units have the highest number of undesirable properties NBS seems to have the highest incidence of such as can be seen in the index of 2.2 while ALGRA seems to have the least at 1.2. In summary, NBS outshone the other neighbourhoods in a milieu with an overall index of 3.1 while ALGRA has the least at an index at 1.2. The implication of this is that there is a need to incorporate the presence of safe properties toward planning neighbourhood environment and having in mind to eliminate undesirable properties in developed areas.

4.2.4 Image of the Neighbourhood

When one looks at the physical conditions of the neighbourhood as illustrated **Table 7**, ALGRA seems to take the top spot with an index of 4.8 while NBS has the least at 3.0 as shown in **Table 7**. While in the case of the physical condition of adjoining units ALGRA takes the lead with an excellent index of 5.0 and E again the least at 2.8. This is to be expected. In summary, logically neighbourhood A is top with an aggregate index of 4.8 and NBS is the lowest at 2.8.

4.3 Summary of the physical characteristics of neighbourhoods

To summarise the physical characteristics of the neighbourhoods in all the study areas as shown in (**Table 8**), one can see that OBS seems to have the highest aggregate value of physical characteristics at 3.49 NPI while NBS has the least at 2.94 NPI. This shows that OBS has better-organised neighbourhoods which were reflected with the strong Neighbourhoods profile exhibited. The results of the Neighbourhoods Profile Indices (NPI) based on the factors of Territoriality, Surveillance, Milieu and Image in the study areas shows that OBS had the highest with (3.49), while Agodi GRA had the least with (2.85) NPI in the study area.

4.4 Physical characteristics of the GCs

The result of the observation of the GCs was discussed under three (3) of the four (4) physical elements using applicable indicators. The elements used in this case are territoriality under five (5) indicators, surveillance using four (4) indicators and milieu in which two (2) indicator were also used.

Indicator	Neighbourhood				
	Old Bodija Scheme	Agodi GRA	New Bodija Scheme	Kolapo Ishola Scheme	Alalubosa GRA
Territoriality	3.50	1.97	1.91	3.29	3.40
Surveillance	3.54	3.31	3.74	2.80	3.17
Milieu	3.00	2.30	3.10	2.40	1.20
Image	3.90	3.80	3.00	4.30	4.80
Average	3.49	2.85	2.94	3.20	3.14

Table 8.
Summary for the Neighbourhoods profile indices (NPI) in the study areas.

4.4.1 Territoriality of the GCs

The result of this study (see **Table 9**) showed that, as regards the maintenance of the GCs in the study areas ALGRA appears to be the best maintained, this is indicated by an index of 4.8 while NBS, on the other hand, appears to be the least maintained with an index of 3.0. This result indicated that, but for pockets of areas in the neighbourhoods that are not well maintained, there appears to be a generally conscious effort at maintaining the GCs. **Figure 16** shows evidence of view of a well-maintained section and in ALGRA.

Also, when discussing the clear definition of territories, ALGRA (again) appears to take top spot given its index of 3.6 while NBS (again) appears to take the rear with a value of 2.2. However, when it comes to elements used to define those territories, Agodi GRA seems to take the lead with a value of 4.0 while NBS seem to experience a near-total absence of elements to define territories as predicted with an index of 1.0 (see **Table 9**). Considering security at the entrance to the GCs, ALGRA seems to do a lot better than other GCs with an excellent index of 5.0; this implies

Indicator	Gated Communities									
	Old Bodija Scheme		Agodi GRA		New Bodija Scheme		Kolapo Ishola Scheme		Alalubosa GRA	
	Count	Index	Count	Index	Count	Index	Count	Index	Count	Index
Maintenance and cleanliness of GCs	21	4.2	18	3.6	15	3.0	20	4.0	24	4.8
Clear definition of territories	16	3.2	14	2.8	11	2.2	17	3.4	18	3.6
Elements used to define territories	13	2.6	20	4.0	5	1.0	5	1.0	15	3.0
Security signage at the entrance of the neighbourhood	21	4.2	9	1.8	9	1.8	21	4.2	25	5.0
Elements to restrict access	21	4.2	15	3.0	17	3.4	22	4.4	20	4.0
Average		3.68		3.04		2.28		3.40		4.08

Table 9.
Territoriality in the GCs.

Figure 16.
Shows a view of a well-maintained section of ALGRA.

that virtually all the constituent part of this area hosted security signage at the point of entry to them. On the other and NBS (GCs) seem to do poorly in this regard as shown in the index of 1.0. Similarly, when it comes to elements to restrict access to the GCs, KIS seems to take the top spot with an index of 4.4 while Agodi GRA brings up the rear with an index of 3.0. In summary, it seems ALGRA has the highest index on territoriality having a value of 4.08 while NBS appears to have the least at 2.28.

4.4.2 Surveillance of the GCs

The result in **Table 10** shows the first indicator for consideration is the use of external light to eliminate blind spots and in this case, KIS seems to have the best advantage as can be seen in the index at 3.6 while NBS seems to have the least at an index of 2.0. This result may signal the effect of decayed infrastructure in the area which may have manifested in the inability to service the neighbourhoods, with sufficient external lighting. In respect of vehicular traffic, Agodi GRA, KIS & ALGRA seem to experience the highest level of traffic than others with an index of 3.4 while OBS and NBS appear to have the lowest at 3.0. When it comes to the level to the level of commercial activities in or near the neighbourhood, NBS seem to take the top spot with an index of 4.6 while ALGRA is the least at 1.6. As to the quality of surveillance, OBS seems to have the advantage over others with an index of 3.8 while NBS appears to come less with an index of 2.4. Therefore, looking at the combination of all the indicators for surveillance, it then appears to be that neighbourhood OBS is in high positions with an index of 3.45 while NBS comes up at the rear with an index of 2.85.

4.4.3 Milieu of the GCs

The result as shown in **Table 11** indicated in that OBS seem to have the highest presence of properties believed to be safe having an index of 3.6 while ALGRA having the lowest at an index of 2.2. This tallies with the result of that of the neighbourhood. As for the presence of undesirable properties, OBS appears to take the lead with an index of 3.6 while Agodi GRA comes last with an index of 1.0.

Indicator	Gated Communities									
	Old Bodija Scheme		Agodi GRA		New Bodija Scheme		Kolapo Ishola Scheme		Alalubosa GRA	
	Count	Index	Count	Index	Count	Index	Count	Index	Count	Index
External light to eliminate the blind spot	15	3.0	14	2.8	10	2.0	18	3.6	20	4.0
Type of vehicular traffic	15	3.0	17	3.4	15	3.0	17	3.4	17	3.4
Level of commercial activities	20	4.0	11	2.2	23	4.6	14	2.8	8	1.6
Quality of surveillance	19	3.8	15	3.0	12	2.4	15	3.0	18	3.6
Average		3.45		2.85		3.0		3.2		3.15

Table 10.
Surveillance in the GCs.

Indicator	Gated Communities									
	Old Bodija Scheme		Agodi GRA		New Bodija Scheme		Kolapo Ishola Scheme		Alalubosa GRA	
	Count	Index	Count	Index	Count	Index	Count	Index	Count	Index
Presence of 'safe' properties	18	3.6	15	3.0	17	3.6	15	3.0	11	2.2
Presence of 'undesirable' properties	18	3.6	5	1.0	15	3.0	11	2.2	6	1.2
Average		3.6		2.0		3.3		2.6		1.7

Table 11.
Milieu in the GCs.

Figures 17–20 above show evidence of entrance and exit gate to a closed neighbourhood, poor road, office and unoccupied building with overgrown grass in a neighbourhood in Agodi GRA. Therefore in terms of milieu, OBS seems to be the best having an aggregate index of 3.6 while ALGRA appears to be the least at an index of 1.6.

Figure 17.
View of the entrance gate and poor road in Agodi GRA CG Ibadan.

Figure 18.
View of the entrance gate to a closed neighbourhood in Agodi GRA.

Figure 19.
View of the entrance gate and gatehouse to a neighbourhood in Agodi GRA.

Figure 20.
View of one of the exit gate in Agodi GRA.

4.5 The features of gated communities in the study

The review of literature on types of GCs and experiences with enclaves lead to the suggestion of several variables and functions that differentiate kinds of gating in Ibadan; these include the function of the enclosure; security feature and barriers; amenities and facilities included; types of residents; tenure; location; size; policy context (see **Table 12**). These eight characteristics were expanded into a checklist for this study. Although the features of GCs vary, they all have gates to regulate entrance into the community. A considerable number of GCs maintain around-the-clock, on-site security, and many of these communities are walled in as well. If a GC is designed for retired residents, additional amenities were included which include: the clubhouses, recreational centres and the like. At the front entrance gate of a gated community, there is usually either a security guard, an intercom on which you punch in a private access code, or a card reader. Upon admittance, the gate will be open for you. The size of GCs varies dramatically, with small, compact communities at one extreme and large and comprehensive GC on the other extreme. The large communities include not only residential properties but also recreational and entertainment centres, dining, retail and other lifestyle opportunities.

After physical observation of the study areas, the following classification was arrived at as shown in **Table 13** and using the checklist of features defining GCs as shown in **Table 11**. Although walls and gates may look similar across the study areas

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Functions of Enclosure	Physical	Economic	Social	Psychological or Symbolic
	Secure people and property **Create an identity for the project**	**Enhance property value.** **Protect club amenities**	**Give visual or spatial privacy.** **Control those insides**	**Display status and power.** **Control those outsides**
Safety Feature	*Nature of boundary* Wall Low fence, chain or bollard Faux guard Station Hedge or vegetation Swing harm gate *Nature of security* Guard at all times Auto opener entry	Fence-opaque Fence-barbed Mirror glass on the guardhouse Topographic features Lift-arm gate Patrolling guards Surveillance cameras	Physical Fence visually opened Speed bumps or chicanes Private properties Signs Water, Ravines, Forest Slide gate Devices in the roadbed Card entry Armed guards	Symbolic Fence-electric Pavement texture or colour No parking Signs Desert Swing gate Guards at designated time Code entry House alarms
Amenities and Facilities	Private roads Open spaces Institutional facilities	Meeting place Landscape maintenance Guards	Activities centres Quality design	Recreational facilities Commercial facilities
Types of Residents	Homogeneous by age	Homogeneous by class	Homogeneous by ethnicity, race and status	Shared activities (for example, golf)
Tenure	Principal residence Fee simple ownership	Secondary residence Condominium ownership	Seasonal residence Land lease	Public housing Rental
Location	Urban Infill	Suburban Greenfield	Exurban Resort destination	Rural Inner-city
Size	Cul-de-sac pod	Neighbourhood (ten to hundreds of units)	Village (hundreds of units, some commercial)	Town (thousands of units and mix uses
Policy Context	Restricting gating	Enables gating	Growing area	Stable or declining area

Source: Adopted by the Author from Grant and Mittelsteadt [16].

Table 12.
Checklist of features defining gated communities in the study areas.

S/N	Type	Boundary	Road access	Notes
A	Ornamental gating	No mark boundary	Landmark gate at entry	Feature gates showing the subdivision name that is placed at the major entries to give identity to an area.
B	Walled subdivisions	Opaque fence or wall	Open	Full walled subdivisions that are common urban features. Cars and pedestrian may enter.
C	Faux-gated entries	Opaque wall or fence	Narrow entry, removable chains or bollard, guardhouse	Some subdivisions have physical features that look like guard houses or private entries to discourage uninvited vehicles from entering.
D	Barricaded streets	No marked boundary	Public streets closed by planters or concrete barriers	Many neighbourhoods barricade streets and creating cul-de-sac streets within the grid as a form of traffic control. Pedestrian access is open.
E	Partially gated roads	No marked boundary	Lifts or swing arm	Rural cottage subdivisions may feature gates that are only closed for part of the year. May have gates but no walls. Pedestrian access is open.
F	Full gated roads	Natural features such as water, ravines, forest and mountains	Lifts or swing arm	Prestige communities on islands, peninsular, or remote may limit access through combined natural and man-made features.
G	Restricted entry, bounded area	Fence or wall and/ or natural features that limit access	Gate with limited control access	Communities may completely restrict public access; video or telephone systems may also allow visitors to be vetted by residents.
H	Restricted entry, guarded area	Fence or wall and/ or natural features that limit access	Gate with limited control access; security guards, police or army	Communities may completely restrict public access; video or telephone systems may also allow visitors to be vetted by residents. GCs have guards at the gates or patrolling the premises. In some zones, guards may carry automatic weapons

Source: Adopted from Grant and Mittelsteadt [16] and Modified by the Author 2018.

Table 13.
Classifying gated communities through variety of enclosure in Ibadan.

they have a range of functions that include: physical, economic, social psychological or symbolic as shown in **Table 5** below. **Table 6** shows the features of GCs in the study areas which include: the functions of enclosure, safety feature, amenities and facilities, types of residents, tenure, location, and size and policy context. The gate provides the architecture of control as demonstrated from the physical characteristics of the study areas for both the insider and outsider; it reinforces the need for surveillance and importance for a social order where everybody knows his or her place. Walled and GCs are seen as synonymous but involved different levels of enclosures. This lead to the suggestion that a variety of enclosure in GCs in the study areas as outlined in **Table 13**, which shows the varieties the degree of enclosure proceeds from largely symbolic or psychological, to the full physical, as an architecture of control, became more explicit.

4.5.1 Types and frequencies of GCs

Table 14 as clearly shows that GC type H (Restricted entry, guarded area) has the highest frequency having a total of 11 GCs representing 19.3%, followed by type D (Barricaded streets) having 10 GCs representing 17.5%. 8 GCs representing 14.0% used type E (partially gated roads), while 7, 6, 5, 4 and 1 communities representing 12.3%, 10,5%, 8.8%, 7.0% and 1.8% respectively made used of type G (Restricted entry, bounded area), type A (Ornamental gating), type B (Walled subdivisions, type C (Faux-gated entries), and finally type I (Condominiums) which is the least in the logged. The implication of this is that people accept their neighbourhood to be restricted by the use of gate and wall and also to be guarded at all-time by the security agents for them to have feeling safety in their community.

A. **Ornamental Gating:** This is landmark gate features with the marketing name of the GC prominently display. Examples include the Legacy Estate Gate, the entrance gate to Carlton Gate Estate and Kolapo Ishola GRA and as shown in **Figures 21** and **22** respectively. **Figure 23** shows the street view of Carlton Gate Estate, Akobo (GRA) Ibadan.

B. **Walled subdivisions:** This is a type of neighbourhood that has a fence or wall that separated them from neighbouring suburbs. The wall runs alongside collector roads. Local streets into such developments remain open and are usually public. It makes use of private road build to narrower standards than public thoroughfares which make visitors hesitate to enter. The wall development is easily converted to fully enclosed settlements with the addition of gates or guards. **Figures 24** and **25**.

C. **Faux-gated entries:** these are GCs that are surrounded with Opaque wall or fence. The entrance into this area is narrow, and its make use of removable chains or bollard and guardhouse. Some subdivisions have physical features that look like guard houses or private entries to discourage uninvited vehicles from entering.

D. **Barricaded streets:** Generally appears in the inner city areas where existing streets are closed to reduced traffics. The pedestrian can still move through the developments as walls are seldom constructed to the barricades. In some cases, the barricades enclosed those within and seen to be controlling problems outside the neighbourhood. This type is as shown in **Figures 26–28** below.

The Study Areas	Types of GCs																		Total
	A		B		C		D		E		F		G		H		I		
	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	Freq	%	
Old Bodija Scheme	3	1.0	2	6.7	3	1.0	6	2.0	4	13.3	2	6.7	4	13.3	5	16.7	1	3.3	30
Agodi GRA	1	10	1	10	—	—	2	20	2	20	1	10	1	10	2	20	—	—	10
New Bodija Scheme	1	6.7	2	13.3	1	6.7	2	13.3	2	13.3	3	20	2	13.3	2	13.3	—	—	15
Kolapo Ishola Scheme	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	100	—	—	1
Alalubosa GRA	—	—	—	—	—	—	—	—	—	—	—	—	—	—	1	100	—	—	1
Total	6	10.5	5	8.8	4	7.0	10	17.5	8	14.0	6	10.5	7	12.3	11	19.3	1	1.8	57

Table 14.
Types and frequencies of GCs identified in the study areas.

Figure 21.
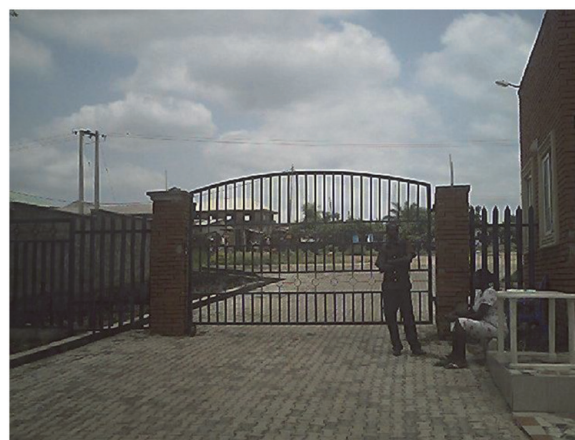*View of legacy estate gate within Kolapo Ishola GC.*

Figure 22.
Entrance gate to Carlton gate estate.

E. **Partially gated roads:** This GC has no marked boundary, and is with lifts or swing arm and may feature gates that are only closed for part of the year. It may have gates but no walls surround the area; usually, the pedestrian access is open. Such example is as shown in **Figures 29–31**.

F. **Full gated roads:** this is a GC which surrounded with natural features such as water, ravines, forest and mountains and makes use of Lifts or swing arm to control access into the community. These communities may limit access through combined natural and man-made features that eliminate the need for a full wall.

G. **Restricted entry, bounded area (with full perimeter fencing)**: Fence or wall and natural features, strictly limits access to the areas. The entrance gate is with limited control access. The communities may completely restrict public access; video or telephone systems may also allow visitors to be vetted by residents. In such an area, physical boundaries replace the psychological boundaries and strictly segregate the place. Technology devices managed by the residents control access. This type is as shown in **Figure 32** below.

H. **Restricted entry, guarded area:** Fence or wall and/ or natural features that limit access to GC. The gate is with limited control access together with security guards, police or army. In these types of communities, the residents completely restrict public access. Video or telephone systems were used to

Figure 23.
View of Carlton gate estate, Akobo (GRA) Ibadan.

Figure 24.
Wall around Gaton gate estate.

allow visitors to be vetted by residents. GCs have guards at the gates and also security agent patrolling the premises. In some areas, guards may carry automatic weapons.

I. **Condominiums:** Vertical closed condominiums can vary from one apartment block enclosed by fences, with access control, either in the form of an intercom system or manned by private security guards, to a collection of high rises in a complex; the condominiums usually include only one or two high-rise buildings with a range of security mechanisms to improve safety. Horizontal closed condominiums usually take the form of low-density developments spread over large areas of land. The size of these developments varies depending on the need and area of land available. These are very similar to typical luxury estate

Figure 25.
Wall around legacy GC.

Figure 26.
View of Oyo-state, housing corporation; Basorun estate zone 7, GATE 3.

Figure 27.
Awogbore gate, Akobo area.

developments. Such example of vertical closed condominiums is shown in **Figure 33** Wigatar Estate in Sabo Quarters area in Ibadan.

4.5.2 Summary for the types and defensive physical characteristics of GCs

Classifying GCs through a variety of enclosure in Ibadan nine deferent types of gated GCs were identified this include type A (Ornamental gating), type B (Walled subdivisions, type C (Faux-gated entries), type D (Barricaded streets), type E (partially gated roads), type F (Full gated roads), type G (Restricted entry, bounded

Figure 28.
Akala gate, Akobo Ojurin Ibadan.

Figure 29.
View of Oyo-state, housing corporation; Basorun estate zone 4, GATE 1.

Figure 30.
Ogo-Oluwa gate, Agbo area Ibadan.

area), type H (Restricted entry, guarded area), type I (Condominiums). To summarise the physical characteristics of the GCs, it appears OBS has the strongest of these characteristics with an average index of 3.58 as shown in **Table 15** while Agodi GRA appears weakest with an index of 2.63.

4.5.3 Relationship between perception of safety and physical characteristics of the study areas

To discuss the relationship between the Perception of safety and the physical characteristics of the study areas **Table 16** offers a simple way to go about this.

Figure 31.
View of Oyo-state, housing corporation; Basorun estate zone 4, GATE 2.

Figure 32.
Gate and booms across a road, marking the entrance to an exclusive neighbourhood in Ibadan.

Table 16 combines, the perception of the safety of each of the study areas, and the physical characteristics of the neighbourhoods, namely territoriality, surveillance and milieu. The section discussed the relationship between the perception of safety and the physical characteristics of the neighbourhoods.

Therefore, the result shows that ALGRA seems to have the highest perception of safety categories of 'high' (52.9%). This shows that there appears to be some element of correlation between the perception of safety categories of the neighbourhood and physical characteristics. The result shows that OBS has the highest percentage in the high perception categories (48.0%).

OBS has the highest index in territoriality at 3.50 and also has the highest percentage of the 'high' perception categories (48.0%); this suggests that a good

Figure 33.
A typical vertical closed condominiums; Wigatar Estate in Sabo Quarters.

Factors	Gated Communities				
	Old Bodija Scheme	Agodi GRA	New Bodija Scheme	Kolapo Ishola Scheme	Alalubosa GRA
Territoriality	3.68	3.04	2.28	3.40	4.08
Surveillance	3.45	2.85	3.00	3.2	3.15
Milieu	3.60	2.00	3.30	2.60	1.70
Average	3.58	2.63	2.86	3.07	2.98

Table 15.
Summary of indices for physical characteristics of GCs.

showing on territoriality may translate to a better perception of safety in a neighbourhood. This seems to be further confirmed by the fact that NBS has the lowest territorial index at 1.91 the high percentage of the medium perception categories (53.2%). OBS & NBS seems to have the highest index on surveillance with 3.54 and 3.74; this coupled with the fact that OBS has a high percentage at the 'very high' perception categories of 52.9% seems to confirm the contribution of surveillance to the perception of safety. However, this is not to suggest that surveillance alone leads to high perception as demonstrated by ALGRA which has the lowest index on surveillance 3.17 and at the same time having 4.49 the highest percentage of the 'high' perception categories (59.2%).

In the case of milieu NBS seems to have the highest index (3.10) and that it has the highest percentage at 'medium' perception categories (55.3%) but not the highest perception of safety index. It, therefore, suggests that though milieu might contribute to the perception of safety, this may not be enough to solely determine the perception of safety. In summary, OBS appears to have the highest aggregate

Indicator	Neighbourhood					Average
	Old Bodija Scheme	Agodi GRA	New Bodija Scheme	Kolapo Ishola Scheme	Alalubosa GRA	
Territoriality	3.50	1.97	1.91	3.29	3.40	2.81
Surveillance	3.54	3.31	3.74	2.80	3.17	3.31
Milieu	3.00	2.30	3.10	2.40	1.20	2.4
Image	3.90	3.80	3.00	4.30	4.80	3.96
Average (DPCI)	3.49	2.85	2.94	3.20	3.14	3.12
Low	1.4	6.6	6.5	4.0	4.0	4.5
Medium	34.3	55.3	53.2	40.0	32.0	42.96
High	52.9	35.5	35.5	54.0	59.2	47.42
Very high	11.4	2.6	4.8	2.0	4.8	5.12

Table 16.
Relationship between perception of safety and defensible physical characteristics (DPCI).

defensible physical characteristics index (3.49) further reinforced by Perception of safety index (4.08) with the high percentage of 52.9% of 'high perception categories. This suggests that this neighbourhood enjoys a sort of primacy when all these factors are considered. On the other hand, ALGRA seems to have 3.14 aggregates index of defensible physical characteristics but a relatively highest perception of safety index of 4.49 which was also further reinforced by the highest percentage at 'high' perception categories (59.2%). This suggests that the relatively weak defensible physical characteristics of the neighbourhood may not be enough to weaken the residents' perception of safety. This may mean that there are other factors which include: The physical condition /environmental design, social capital and experiences of safety indices which are at play in determining the strength of elements of physical defensible characteristics.

Table 17 clearly shows the summary of the perception of safety (PSI) and defensible physical characteristics (DPCI) in the selected GCs in Ibadan and it can

Indicator	GCs				
	Old Bodija Scheme	Agodi GRA	New Bodija Scheme	Kolapo Ishola Scheme	Alalubosa GRA
Territoriality	3.50	1.97	1.91	3.29	3.40
Surveillance	3.54	3.31	3.74	2.80	3.17
Milieu	3.00	2.30	3.10	2.40	1.20
Image	3.90	3.80	3.00	4.30	4.80
Perception of safety	4.08	3.96	3.80	4.38	4.49
physical/design condition	4.10	3.94	3.53	4.43	4.40
Social capital	3.75	3.02	3.73	2.92	2.95
Experiences of Safety	3.92	3.95	3.82	4.10	4.22
Average	3.72	3.28	3.33	3.58	3.58

Table 17.
Perception of safety PSI and defensible physical characteristics (DPCI).

be deduced from the **Table 17** that surprisingly OBS has the highest safety profile although the area has a lower perception of safety, image, physical and environmental design condition indices than KIS and ALGRA that have higher indices in these factors. From the study, it could be observed that OBS is having better social capital, territoriality, surveillance, milieu indices than these two GCs. The study has also shown that for safety to be achieved in a residential area all these factors must be followed.

5. Conclusions

Based on the physical observation carried out in the study areas, gating are widely employed in various types of housing development. After physical observation of GCs characteristics of various neighbourhood and communities in the urban area of Ibadan, this study identified a working typology of GCs in Ibadan. This was taken as a starting point for this study. This typology comprises nine main types of GC in Ibadan. These include: Type A (Ornamental gating), Type B (Walled subdivisions) Type C (Faux-gated entries) Type D (Barricaded streets) Type E (Partially gated roads) Type F (Full gated roads) Type G (Restricted entry, bounded area, Type H (Restricted entry, guarded area) and type I (Condominium). Eight (8) key elements of physical and none physical characteristics which are territoriality, surveillance, milieu and image, perception of safety, physical/design condition, social capital, experiences of safety were used as parameters in describing the characteristics of the GCs in the study areas.

The result of analysis of defensible physical characteristics of the study areas concerning safety revealed that the elements when examined at the neighbourhood level shows that OBS have good defensible physical characteristics (territoriality, surveillance, milieu image), it also has a high level of perception of safety, physical/ design condition, social capital and experiences of safety at the entire neighbourhood level. The overall picture of the study areas is strengthened by the positive value of commercial activities in and around the neighbourhood which tend to aid surveillance. Measured by the physically fortified character, the number of neighbourhoods that falls into the category of GC is huge within the study areas. The respondents generally hold a positive attitude to gating. Physical gating is frequently taken as an inherent element for residential development, and naturally a must-have item within the study areas. No resident hide his/her appreciation of living in a gated or protected residence. Whilst gating is common in the residential culture of Ibadan cities, gating bears unique characteristics in response to its urban context, which is well known for a high density and high-rise.

Author details

Olusola Oladapo Makinde
Department of Architecture, Ladoke Akintola University of Technology,
Ogbomoso, Nigeria

*Address all correspondence to: makindeolusola2012@yahoo.com

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