

# **The Characteristics and Functions of Public Spaces in Gated Communities: Learning from Irene Farm Villages Estate Gated Community**

**Silindile Zulu**

Department of Urban and Regional Planning  
University of Johannesburg  
Johannesburg, South Africa  
[snwzulu@gmail.com](mailto:snwzulu@gmail.com)

**Trynos Gumbo**

Head of Department and Associate Professor  
University of Johannesburg, Department of Urban and Regional planning, Office 6062, Sixth  
Floor, John Orr Building, Beit and Siemert Street, 2028. Johannesburg, South Africa  
[tgumbo@uj.ac.za](mailto:tgumbo@uj.ac.za)

**Walter Musakwa**

Associate Professor  
Department of Urban and Regional planning  
University of Johannesburg  
Johannesburg, South Africa  
[wmusakwa@uj.ac.za](mailto:wmusakwa@uj.ac.za)

## **Abstract**

Public spaces have played a huge role in the spatial transformation of South African cities over the past decades. On the other hand, gated communities have emerged due to the increase in the level of crime in cities in general, including those in South Africa. Their growth has been largely motivated by people's longing for safety and security, especially when in public spaces. This paper investigates the characteristics and functions of public spaces in gated communities, learning from the Irene Farm Villages Estate gated community. A mixed-method research design is adopted for this paper, which implies the use of both qualitative and quantitative methods to gather information. This is an explanatory and descriptive research study, as it provides documentary information on how the concept of public space has been applied to the Irene Farm Villages Estate gated community. The results of this study reveal that further research is imperative to gain more users' perceptions regarding public spaces in gated communities. This paper recommends that there be more research conducted, specifically by the local government agencies, to enable a review of the long-term implications of gated communities, particularly on the integrated development aspect.

## **Keywords**

Gated communities, public spaces, urban public open spaces, public space characteristics and functions, Irene Farm Villages Estate

## **1. Introduction**

Public space is open for use by people and is meant to bring about freedom of movement, peace, and freedom of relaxation. "The term public space is generally accepted to refer to the streets, sidewalks, parks, and plazas that are accessible and open to all people in a particular area" (Lemanski et al. 2008:5). Most scholars have argued that these public spaces continue to be poorly managed or are being overly managed and are becoming more private. Privatization of public spaces has become a globally recognized phenomenon characterized by all the inclusion of

so-called secure neighbourhoods and privately governed spaces which are commonly known as gated communities (Lemanski et al. 2008). However, according to Francis et al. (2012:6), “One important finding is that privatization of UPS (Urban Privatisation Space) does not integrate the urban poor”. This paper focuses on the characteristics and functions of public space in the gated communities, with specific reference to Irene Farm Villages Estate gated community. It is a response to the recent, growing, and popular developments of gated communities in South African cities. Reviewed literature reveals that a gap exists in research done on gated communities, with a specific focus on public open spaces, which currently operate like traditional public spaces. This, therefore, raises research questions about the characteristics and functions of these public spaces existing in different types of gated communities of the City of Tshwane. The research study aims to address the following research questions: What are the policy and legislative frameworks on public spaces within gated communities in South Africa? What are the physical characteristics of public spaces in the Irene Farm Villages Estate gated community of Tshwane? What are the functions of public spaces and users’ perceptions in the Irene Farm Villages Estate gated community of Tshwane? And Is there a possibility of formulating a framework or model on designing, functions, and usage of public spaces within Irene Farm Villages Estate gated community?

### **1.1 Objectives**

The objectives of this study were to review policy and legislative frameworks associated with public spaces in gated communities in South Africa. The paper assesses the physical characteristics of public spaces in the Irene Estate gated community. It examines the functions of public spaces and users’ perceptions in the Irene Estate and formulates a framework or model on designing, functions, and usage of public spaces within the community. The paper presents the background and rationale for the study. It goes on to highlight the literature review, data collection and analysis methods and further discusses the results of the study. Lastly, it ends with the lessons learned and conclusions.

### **1.2 Rationale and scope of the study**

According to the City of Tshwane (TMSDF, 2018), the spatial characteristic problems encountered by the city of Tshwane include fragmentation, low-density sprawl, and separation of functions of activities (public facilities, land uses, etc.). Despite this, there are no clear studies which document the impact of public space in the Irene Emerging Node (Precinct) area gated communities in Tshwane City. Furthermore, there is limited study focusing on the characteristics and functions of public spaces in the Irene gated community and the changes that were made over the past 10 years. This study investigates the changes made in Irene’s Emerging Node (Precinct) public open spaces and discusses their impact. Privatized public space is very problematic and is regarded as the poorest substitute for traditional public space. This kind of space is exclusionary, sterile, segregated, and diminishes opportunities for free speech. Privatized public space is a barrier as it prevents people or societies coming from all walks of life from interacting with one another (Schindler, 2018). Some scholars have argued that public open areas controlled by private individuals might also be considered as a type of privatized public space (Schindler, 2018). It appears that the topic of public spaces is well researched, with some international studies related mostly to the privatization of public space. “Few studies have investigated the extent to which the association between public space and sense of community is also influenced by the frequency of public space use” (Francis et al. 2012:402). This research therefore investigates the key factors influencing the characteristics and functions of these spaces so as to enable the report to conclude with the implications the findings have on future planning for public open spaces in Tshwane.

## **2. Literature Review**

This part of the document discusses the main concepts of the study.

### **2.1 Gated communities**

Gated communities exist in so many different forms in so many different nations and are considered as a global phenomenon. Other countries have used different names such as ‘enclosed neighbourhoods, ‘closed condominiums, ‘gated enclaves, ‘fortified enclaves, or ‘fenced-up areas to refer to gated communities (Jürgens and Landman, 2006). Authors such Ramoroka and Tsheola (2014) indicate that gated communities are private holdings characterized by the usage of private security in addition to the state policing of crime; however, this leaves the safety of the urban poor neglected.

## 2.2 Public space

The term "public" denotes an area that is owned by the community or the government and used by the general public. In other words, regardless of gender, socio-economic rank, or regime, everyone has the right to enter a public area. Individuals can meet other people in a public location, and public opinions can be expressed there. The park, the plaza, and the street, for example, are all examples of public places in the city, and such spaces function as public life stadiums. Meeting, or being in the same place, is a pre-condition for all actions involving people, and public space is a location where individuals may interact with one another and exchange information such as job experience or economic progress (Jia, 2008). Stanley et al. (2012:1091) define public space as "open, publicly accessible places that facilitate the popular activities necessary for community building". According to Ramoroka and Tsheola (2014), public open spaces in urban areas reflect the socio-economic status of the community and they do not necessarily represent a sense of community.

## 2.3 Policy and legislative frame works on public spaces within gated communities in South Africa

According to SPLUMA (2016) "open space(s)" in the opinion and to the satisfaction of the Municipality, refers to an area of land set aside and required to be legally protected from development over and above the assignment of land use rights, which shall be for the use and benefit of a community, irrespective of ownership of such land, and may include, in the opinion of the Municipality, recreational areas, natural areas, parks, public and private open spaces. Furthermore, determining an open space network that incorporates natural processes and systems is thus a crucial step in defining urban design (MSDF, 2021). "The SDF is considered to be the implementation mechanism of the spatial component for the Roadmap Towards Tshwane 2030, Municipal Spatial Development Framework, as well as other strategic policies with a spatial emphasis, such as but not limited to the Council approved Densification and Compaction Strategy, Retail Strategy, Rural Strategy, Tshwane Integrated Transport Plan, the Tshwane Open Space Framework, etc." (RSDF, 2018:407).

## 2.4 Characteristics and functions of public spaces

Physical and non-physical elements are criteria used to evaluate the success of public space (Nasution and Zahrah 2015). Below is the figure that depicts typical characteristics of successful public spaces:

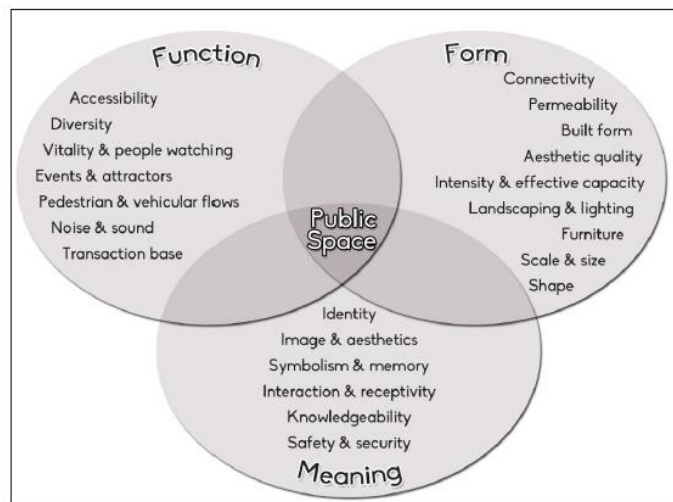


Figure 1: Characteristics of successful public spaces (Landman, 2016:27)

As illustrated in Figure 1, a successful public place may be conceptualised as three interconnected categories namely, form, function, and meaning (Landman 2016). Function, in this case, is concerned with the uses and activities that happen in a public space, whereas form is concerned with the physical elements' organization. The interpretation of space based on function and form is reflected in meaning. However, due to conflicting ideologies, diverse values, and opposing political or economic factors that impact the behaviour and usage of space, the meaning of public space is continually evolving. As a result, changing social and physical constructions alter the meaning of public space.

## 2.5 Usage of public spaces and user's perceptions

There needs to be a clearer understanding of how public areas should be utilized. Effective public places should be created and structured to support a variety of activities. To suit the preferences and demands of their users, they should be planned and constructed to impact or support a variety of diverse activities and purposes. Furthermore, the use of public spaces and participation in a wide range of activities has a multiplier effect. Public consultation with public space users is seen as the most important aspect of the entire process during the development of public spaces. This is because public space users' practical knowledge is one of the main inputs required to understand what people's experiences are in this regard (Hutu, 2018). Knowing how people utilize public spaces may help with examining the characteristics and functions of public spaces, as well as users' perceptions, preferences, and experiences with existing public places. Moreover, understanding such knowledge is essential for the development and enhancement of public spaces in every community. It would provide an indicator of public space users' experiences, perceptions, requirements, and preferences in relation to their current types of public spaces.

The study's main focus is on how public space users perceive existing public spaces. It explores what types of public spaces are preferred by the local community and the types of activities/uses which should be provided. It identifies the factors that affect public space functionality and in which areas public space users see and identify opportunities for improvement (Hutu, 2018). Authors such as Hutu (2018) have further noted that knowing who uses public spaces is important, especially when planning and creating various places that can benefit the entire society.

## 2.6 A possibility of formulating a framework or model on designing, functions, and usage of public spaces

One of the models that can be adopted in order to assess whether the recommendations made by the residents of gated communities are ideal is a Star Model. The model makes use of basic and quantifiable techniques to provide a simple and reliable approach for evaluating the liveability of open public spaces, as can be seen on the diagram below:

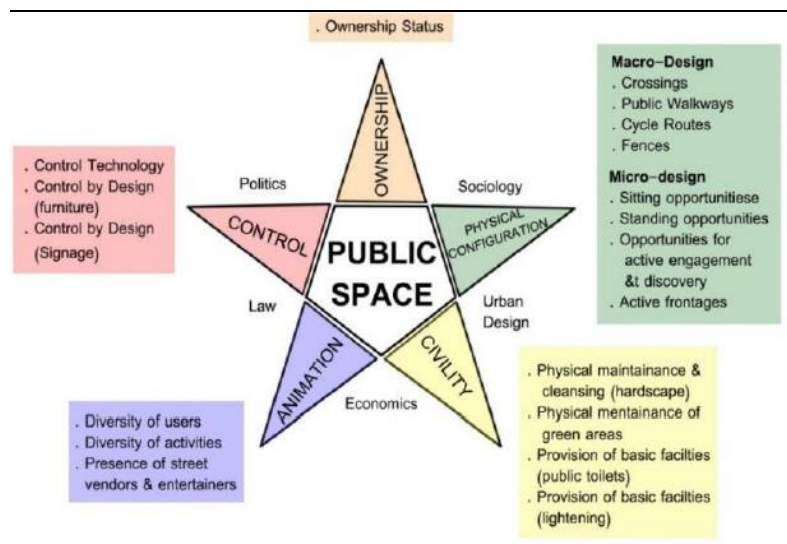


Figure 2: A Star Model (Aboubakr et al., 2020:608)

The researcher believes that the framework above will also assist with the planning and design of public spaces within gated communities, not only in the City of Tshwane but in cities in general. However, it is important to note that the residents' perceptions of public spaces in Irene Farm Villages Estate should not be a benchmark for all gated communities, because different residents have different user perceptions about public spaces. This model or framework can however be used as a guide in the planning and design of public spaces in gated communities.

## 3. Methods

A mixed-method research design implied the use of both qualitative and quantitative methods to gather information. For the qualitative study, secondary sources were used to collect data. This research used a qualitative approach to achieve grounded theory. "Grounded theory is a type of inductive social theory often used in qualitative research

that builds towards abstract theory, often by making comparisons of empirical observations.” (Neuman, 2010:70). In the quantitative study, primary data was explained in correlation to secondary data from other studies. Different journal articles and books were used to gather information on what other scholars have written about the characteristics and functions of public open spaces in gated communities of South Africa and the City of Tshwane. The nature of this research study is exploratory, descriptive, and interpretive, as it seeks to explore participants’ perceptions of public spaces with specific reference to gated communities as well as the physical characteristics and functions of these spaces within the larger context of precinct scale.

Data were gathered through an online survey shared in the social platforms of Irene Farm Villages Estate gated community from a total sample of 25 participants during the months of September and October 2021. The small number of participants chosen for this study was due to the intensity and time-consuming data collecting and analysis procedure used. Residents from the Irene Farm Villages Estate were able to participate in the study because of the selection technique adopted, which allowed them to express their thoughts, preferences, and experiences with various types of public places. The online survey (questionnaire) had 5 questions. The questionnaires accommodated both open-ended questions and close-ended questions to get as many views about the physical characteristics and function of public spaces as possible in the Irene Farm Village Estate gated development of Tshwane and not limit the participants and gathering of depth information. The users’ perceptions together with those identified in the literature review were used to determine the characteristics and functions of public spaces in gated communities. This research study used an online survey and participants were required to answer online questions, in a form of a survey. This type of sampling is easy, cheap, and quick. Also, a theoretical method was used to get information that can assist in exposing features that are theoretically of great importance about the nature and use of public open spaces.

Lastly, a purposive sampling method was used to get all possible and crucial cases that fit the criteria of the research topic, using various methods. Irene Farm Villages Estate residents were crucial in determining how various sorts of public areas should be built and designed. Their vast expertise and skills were invaluable in supplying information on how they perceive the current public places. The study focused on new public places, attitudes, and activities that these public spaces may provide to local citizens. The results of the study reveal that Irene Farm Villages has unique characteristics and functions of public spaces that distinguish the estate. Despite this information, further research is imperative to gain more users’ perceptions regarding public spaces in gated communities in general.

#### **4. Data Collection and Analysis Methods**

Gathering data on how public spaces have been used in other countries assisted the researcher in collecting information useful for making recommendations in planning policy. The aim of the study is to investigate the Characteristics and Functions of Public Spaces in Gated Communities: Learning from Irene Farm Villages Estate gated community. The study used one (1) luxury gated estate of Irene Farm Villages in the Irene Emerging Node of Tshwane. The aim was to interview 20 participants in Irene Farm Villages Estate in order to understand the characteristics and functions of public spaces in a gated development. The online survey (questionnaire) contained 5 open-ended and close-ended questions so as to get as much depth information about the physical characteristics and function of public spaces as possible and not limit the participants. Participants were required to answer questions such as: what are your views about the functioning of the space that you are currently using? what do you think are the characteristics of public spaces? what do the residents find appealing about using this space? etc. The main idea was to gather all the information from the participants about the characteristics, function, and implementation of public spaces gated developments of Tshwane, especially in the Irene Farm Villages Estate. The interview questions were of great help in determining whether the aim of the research study was achieved which was to understand the physical characteristics and functions of these specific public spaces in a gated development.

For this research, descriptive statistics was used to analyze the data collected through participants’ responses received from the online survey. The different participants’ responses were then interpreted and recorded. The researcher made use of pie charts and bar graphs to illustrate the views of the participants. Documents and policies in relation to Irene Farm Villages Estate, such as the Irene Master Plan, Tshwane Metropolitan Spatial Development Framework, Tshwane Open Space documents, Google Earth were consulted. These and many others helped to build a more comprehensive understanding of public open spaces in the City of Tshwane and their planning implications. The purpose of the documentation review helped gain a practical understanding of the study area by looking at documents released describing the history as well as the context of the selected public open space. The

documentation review drew parallels to the existing literature in exploring the context of the public open spaces and offers support for evidence from the other sources.

## **5. Results and Discussion**

In this section, the research begins to take shape in addressing the research objectives and offering solutions for improvements where necessary by combining all the data obtained from the field work with documentation available on the topic.

### **5.1 Reviewing policy and legislative frameworks on public spaces within gated communities in South Africa**

Policies relevant to gated communities only include the National Crime Prevention strategy (1996), Safer by Design (2001), and White Paper on National Transport and Moving South Africa (1998) (Sosibo, 2016:46-47).

## **5.2 Assessing the physical characteristics of public spaces in Irene Farm Villages Estate gated community of Tshwane**

This section assesses the physical characteristics of public spaces in the Estate.

### **5.2.1 Comfort and image**

Soltanian and Mohammad (2015:556) argue that “image is related to the quality of space physical organization and mental comfort of the place”. According to Francis et al. (2012), public spaces are easily accessible and are connected to the surrounding communities. They consist of a variety of activities for a range of users; they feel safe, are clean, are attractive, with adequate seating arrangements, and allow people to interact socially. For this study, three (3) of the participants said that they find appealing the fact that the public spaces are kept clean, neat and the space is very peaceful. Public space is open for use by people and is meant to bring about freedom of movement, peace, and freedom of relaxation. One of the respondents said the space gives one a sense of freedom.

### **5.2.2 Uses and activities of public spaces**

According to Hutu (2018), activities and uses in public spaces are seen as essential components which allow consumers to visit various sorts of public spaces around the neighbourhood. It is said that if people have something to do in the public area, they will return to it. On the contrary, people will not attend the public place if there is nothing to do there, and as such, it will remain vacant. Hutu (2018) further stated that there are elements that may be utilized to evaluate a public space's usage and activities. For example, the more activities that the place provides for public space users to participate in the better; users of public areas of varied ages must be able to use them (children and adults). Furthermore, a public space that can be used by both individuals and groups is regarded as better than one that can only be used by individuals. There must be places for people to sit with friends, there must be a vibrant public and social life among public space users, and it must be regarded as a place that is enjoyable. Furthermore, a balanced number of females and males must be present in public settings, and critically, the public area must be well administered; the public area must be used at all times of the day. Research reveals that Irene Farm Villages Estate does provide a wide range of activities, such as the following: A walking trail; dog walking; cycling; family fun events; chess; golf; birding; and fauna and flora, and there is evidence of a vibrant public life. Users of public spaces of all ages in the estate are accommodated in these fun activities, as depicted on the images below:



Figure 3: Image showing the vibrant life of Irene Farm Villages Residents - Irene Farm Villages Estate 20th Anniversary Edition 2000 – 2020 newsletter (2020:7)

Soltanian and Mohammad (2015:555) indicate that “social events, different activities and usages inside the space and their potential to attract individuals and different groups are the most important factors in public spaces dynamics and their activity in various hours and seasons”. Retail shops, schools, and other recreational activities such as golf courses and hiking trails are common in luxury village communities (Breetzke et al. 2014). The two residents of Irene Farm Villages Estate responded with enthusiasm, stating that they enjoy spending time at the chip and golf space and that the walking trail is lovely for the Estate. Below is an image of a walking trail in Irene Farm Villages Estate:





Figure 4: Irene Farm Villages Estate 20th Anniversary Edition 2000 – 2020 newsletter (2020:6)

“As part of an environmental study that was carried out for the estate during 2016, the walking trail of 4km was developed. It covers most of the open spaces in the estate, is well-marked, and is well-supported by the residents” (Irene Farm Villages Estate 20th Anniversary Edition 2000 – 2020 newsletter, 2020:6). Play, sport, and relaxation are all examples of social functions. These open spaces are often used and enjoyed by children for play and pleasure (CSIR, 2000). However, it is important to note that these spaces do not only accommodate children but residents of all ages, as can be seen on the image below:



Figure 5: Irene Farm Villages Estate 20th Anniversary Edition 2000 – 2020 newsletter (2000-2020:7)

### 5.2.3 Access and linkages

Soltanian and Mohammad (2015:555) are of the opinion that access and linkages “...is related to the quality of circulation, space connections and access along with space visibility and accessibility to the space which Tibbalds refers to as physical and visual access that affects security and performance of the space”. According to the CSIR (2000), soft open areas should be created to allow for natural working of processes within towns in the following way: *Sufficiently large* - Soft open areas should be big enough to keep seed banks and breeding stocks to conserve flora and fauna, as well as to allow the biophysical environment to regenerate resources and absorb and recycle liquid and solid waste. To avoid overloading the system, a balance between the natural and man-made environments is required (CSIR, 2000). Three of the respondents stated that the public spaces are appealing because there is enough space for their kids to play.

### 5.2.4 Sociability



Soltanian and Mohammad (2015:555) state that “one of the most important dimensions of public spaces is to create opportunities needed for social interactions”. The purpose of soft open space in settlement systems is to first allow ecological processes to continue in a sustainable and safe manner within environments that have been significantly altered by human action. Secondly, they must accommodate a wide range of socio-economic community needs, while providing barriers to contain and manage settlement growth (CSIR, 2000). Two of the participants said that they find the public space setup appealing because families of all ages get to interact and socialise with one another.

### **5.3 Examining the functions of public spaces and users’ perceptions in Irene Farm Villages Estate gated community of Tshwane**

This section highlights the functions of public spaces and user’s perceptions of the Irene Estate.

#### **5.3.1 Public space users**

Knowing who uses public spaces is important, especially when planning and creating various sorts of public places that can benefit the entire society (Hutu 2018). This is shown by the high percentage of 72 % of people who filled in the survey. Only 28% of people indicated that they do not use the public spaces. Figure 6 below indicates that most of the people who reside in Irene Farm Villages Estate do use the public spaces :

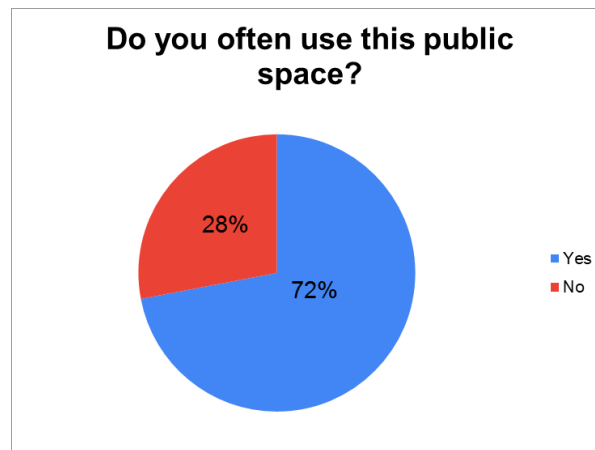


Figure 6: Do the residents use public space?

#### **5.3.2 Usage of public space**

Understanding the usage and users of public spaces is essential for the development and enhancement of such spaces in every community, therefore, consultation with users is seen as most important. This is because public space users' practical knowledge is one of the main inputs required for understanding peoples' experiences and how the spaces are used (Hutu, 2018). Most of the residents indicated that they enjoy using the public spaces of Irene Farm Village. As can be seen on the chart below, 84% indicated that they find it pleasant to use the public spaces, while only 16% indicated that they do not enjoy using the public spaces. Below is a pie chart depicting the usage of public space by the residents of Irene Farm Villages Estate:

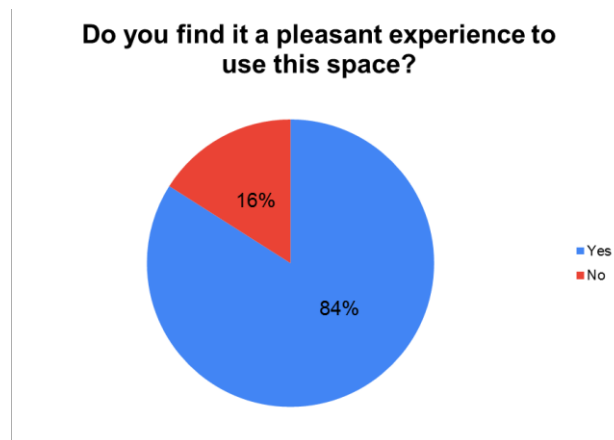


Figure 7: Residents' opinions about the use of space

### 5.3.3 Factors that affect the functionality of public spaces in Irene Farm Villages Estate

The bar graph below represents the number of participants response based on the factors that affect the functionality of public spaces in Irene Farm Villages Estate:

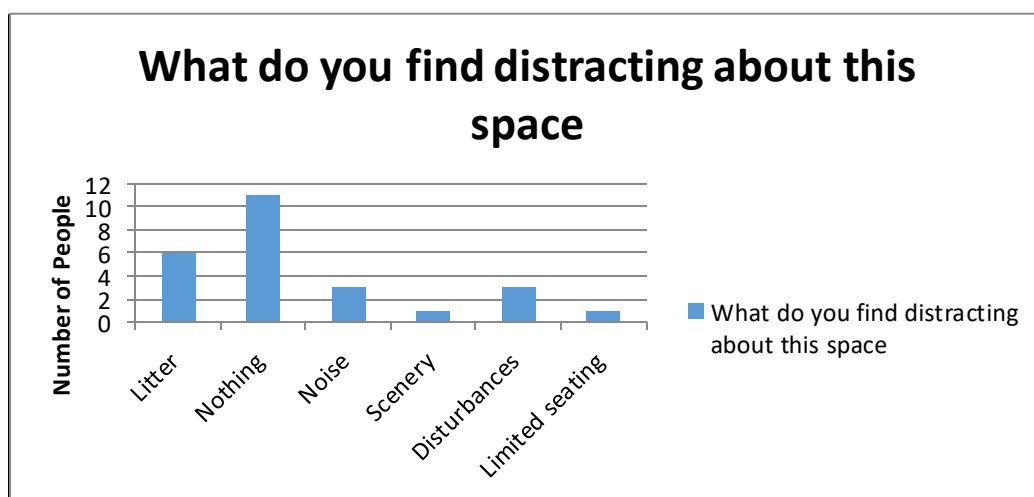


Figure 8: What do you find distracting about this space?

A total of 25 participants voiced their perceptions of what they found distracting about the public spaces of Irene Farm Villages Estate. The responses were categorised into the following (see figure 9): Litter, Nothing, Noise, the Scenery, Disturbances, and Limited seating. Most people responded as nothing, while eleven (11) said that they were happy with the public spaces of the estate and found nothing distracting. Six (6) said that the litter in these spaces was an issue for them. Regarding their perception of noise in public spaces, about three (3) respondents reported noise from trucks and cars speeding.

### 5.4 Formulating a framework or model for designing functions, and usage of public spaces within Irene Farm Villages Estate gated community

One of the most important things in the development or design of public spaces in gated communities is public participation. For this study, a total of 23 out of 25 respondents answered the question about the changes that need to happen to improve the public spaces of Irene Farm Villages Estate. The data collected was therefore considered

sufficient to meet the study's objectives, which is to design a framework or model on designing, functions, and usage of public spaces within Irene Farm Villages Estate gated community. The following diagram illustrates the recommendations made by the residents of Irene Farm Villages Estate, as can be seen on the image below:

<b>PUBLIC SPACE RECOMMENDED BY IRENE FARM VILLAGES ESTATE RESIDENTS</b>
<i>"Kept it nice and clean "</i>
<i>"Every user once in a while pick up litter"</i>
<i>"Different types of play areas in the different parks. Adult outdoor gym acceptance. A swimming pool could be nice"</i>
<i>"Cars should not drive in parks"</i>
<i>"Create an area out of the way for people to sit safely"</i>
<i>"Allow children parties or picnics (if pre booked)"</i>
<i>"Rules be followed by all"</i>
<i>"I know irrigation of the lawns are a problem. Would have preferred more pleasing bo the eyes lawns 8n the public spaces"</i>
<i>"Would love to have a ovm in the estate"</i>
<i>"Awareness"</i>
<i>"Would love to have a ovm in the estate"</i>
<i>"Less natural grass and more manicured areas"</i>
<i>"shading. as the space is out in the sun"</i>
<i>"Toilet facility will be great"</i>
<i>"More rubbish bins and more barriers"</i>
<i>"Only leave your footprints"</i>
<i>"Maybe more dustbins. And maybe the cricket green need some maintenance"</i>
<i>"A bench or two to sit at while the kids are playing"</i>
<i>"There could be more areas with benches under trees, etc. Residents should be able to have picnics under strict rules and with permission from the Office, limiting"</i>
<i>"To be developed it more by planting indigenous trees and sport facilities"</i>
<i>"N/a"</i>
<i>"Regular cleaning"</i>
<i>"I am very happy here"</i>

Figure 9: Model of the design of public spaces in Irene Farm Villages by Residents (Source: Responses from Online Surveys filled in by residents of Irene Farm Villages, 2021)

## 5.5 Validation

Validity has proven to be one of the most difficult parts of the research to measure, especially when conducting research that only requires measurement of the truth. The best way to do this research would be to compare the different parts of the data to determine which parts could be more valid. This research study made use of a mixed methodology which the researcher considered as the best in gathering data, as one did not have to rely only on one method which could fail to ensure validity. For the quantitative study, this research used predictive validity and Ordinal data to measure the views of participants about their public space in Irene Farm Villages Estate. From the qualitative viewpoint, the researcher listened to the participants' views on how they perceived space and documented their views. This assisted the researcher to gain a better understanding of what the participants understood about the spaces that they are using.

## 5.6 Lessons learnt and policy implications

This paper recommends that there be more research conducted, specifically by the local government agencies, so as to enable a review of the long-term implications of gated communities, particularly on the integrated development aspect.

## 6. Conclusions

The results of this study reveal that Irene Farm Villages Estate has unique characteristics and functions in public spaces that make up the estate. Even though this is the case, there needs to be further research done on the users' perceptions of public spaces in gated communities in general. This, therefore, raises questions as to whether there is enough research done to understand the different users' perceptions of public spaces in gated communities. Another important thing to take note of is that gated communities continue and have resulted in numerous problems for planners. Since planners play such a major role in the design and approval of these gated communities and their

public spaces, they carry the entire burden resulting from the development of these gated communities, including criticism from different stakeholders involved. Planners are now under considerable pressure due to the increase in these developments. They are also involved in the design of the public spaces, and this includes ensuring that there is provision of public open spaces within these gated communities. They thus need strong policy frameworks to guide them in the process of the development of these gated communities in general. Irene Farm Villages Estate can be used as a case study to plan and design public spaces in gated communities better. It is also important to note that all the objectives of this study were addressed.

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## **Biography**

**Silindile Zulu** is a registered master's student in the Department of Town and Regional Planning within the Faculty of Engineering and the Built Environment in the University of Johannesburg (UJ). She holds a Bachelor's Degree (Honors) qualification in Town and Regional Planning from Department of Town and Regional Planning within the Faculty of Engineering and Built Environment in the University of Pretoria.

**Prof Trynos Gumbo** is a professional planner and currently an Associate Professor and Head of the Department of the Urban and Regional Planning within the Faculty of Engineering and the Built Environment in the University of Johannesburg (UJ). He Holds a PhD from Stellenbosch University, South Africa as well as masters and honours degrees from the University of Zimbabwe (UZ), Zimbabwe. He has previously worked in the Africa Institute of South Africa of the Human Sciences Research Council as a research specialist and Acting Head for the sustainable development programme. Prof Gumbo has also worked as an international instructor in the urban management masters programme within the Ethiopian Civil Service University College (ECSUC) in Addis Ababa in Ethiopia. Before, Prof Gumbo had worked as lecturer and Head of Department at the National University of Science and Technology (NUST) in Zimbabwe. He has attended and presented at several national and international conferences and has published widely in a variety of research areas that include informality, housing, urban planning, development and management. His research interests include urban transportation planning and management, sustainable and smart cities development, housing and economic informality, green economy and renewable energy generation from waste and innovative building technologies and materials.

**Prof Walter Musakwa** holds a PhD in Geography and Environmental Studies from Stellenbosch University, South Africa, a Master's degree in Urban and Regional Planning from the University of Kwa Zulu-Natal, South Africa and a BSc in Rural and Urban Planning from the University of Zimbabwe. He is a former visiting research fellow of The World Academy of Sciences-German Research Foundation (TWAS-DFG), Member of The International Geographical Union (IGU) Commission on Geography for Future Earth: Coupled Human-Earth Systems for Sustainability, Member of the International Society of Photogrammetry and Remote Sensing, the African Association of Remote Sensing of the Environment and the Zimbabwe Institute of Regional and Urban Planners. He is an Editorial board member for the Geospatial Information Science Journal and Geography and Sustainability Journal. His main research focus areas are on the grand global challenges namely; global environmental change, environmental degradation, landscape change, climate change, ecosystem services, sustainable development and livelihoods. A major focus of his research is also the use of earth observation and geographic information systems in comprehending the grand global challenges. He is currently an Associate Professor in the Department of Urban and Regional Planning and Research Group Leader for the Future Earth and Ecosystems Group, University of Johannesburg, South Africa.