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Participatory Spatial Production in Informal Public Spaces: The Case of Jabi Lakefront Park, Abuja

Enformel Kamusal Alanlarda Katılımcı Mekânsal Üretim: Jabi Göl Kıyısı Parkı, Abuja Örneği

Serengül SEÇMEN[1], Munir JAAFAR[2]

ABSTRACT

In many postcolonial African cities, public spaces are largely shaped by everyday informal practices. However, studies on how users appropriate such spaces remain limited. In rapidly growing cities such as Abuja, which retain Western planning traditions, examining the process of informal spatial production is valuable. Focusing on Jabi Lakefront Park in Abuja, where informal practices dominate, this study explores how communities construct a "spatial logic". In this context, it examines how users appropriate the park, identify the spatial characteristics, and investigate how participatory design can transform everyday practices into spatial programming. The research was designed as a qualitative case study based on participatory design and structured around a four-stage framework: exploration, visualization, reflection, and collaboration. The participant sample consists of 35 park users organized into seven groups. Data generated by the users through the mentioned stages were collected by transect walks, sketch-based prototyping, collective mapping, and the design buffet technique. The visual data were analyzed through descriptive reading, spatial coding in MAXQDA, and thematic comment analysis. The findings show a strong overlap between patterns of use and the spatial priorities proposed by participants. The most frequently emphasized elements were infrastructures such as lighting, seating units, gazebos, and railings, together with the preservation of existing uses. The analysis revealed that entrances were treated as service nodes, the lakeside as a recreational edge, and safety as a combination of visibility, circulation, and spatial management. In addition, user expectations and institutional feedback overlapped in relation to accessibility, safety, comfort, and child-friendly spaces. As a result, the study contributes to informality, placemaking, and participatory design by demonstrating how everyday public-space practices can be transformed into structured spatial strategies. It also contributes practically to Sustainable Development Goal 11, particularly Target 11.7, by showing how user-centered interventions can support safe, inclusive, accessible, and resilient public spaces.

Keywords: Postcolonial African Cities, Abuja, Informal Public Space, Participatory Design, Sustainable Development Goals (SDG 11)

Öz

Sömürgecilik sonrası dönemde Afrika kentlerinin çoğunda kamusal mekânlar büyük ölçüde gündelik enformel pratikler ile şekillendirilmektedir. Ancak kullanıcıların bu tür mekânları nasıl algıladığı, sahiplendiği ve yeniden düzenlediğine ilişkin çalışmalar sınırlıdır. Özellikle Batılı planlama geleneğine sahip ve hızla büyümekte olan Abuja gibi kentlerde enformel mekânsal üretim sürecinin incelenmesi değerlidir. Bu çalışma, Abuja kentinde yer alan ve enformel pratiklerin hâkim olduğu Jabi Gölü Kıyı Parkı örneğine odaklanarak, toplulukların inşa ettikleri "mekânsal zekâ"yı anlamayı amaçlamaktadır. Buna bağlı olarak kullanıcıların parkı nasıl sahiplendiğini incelemekte, tercih ettikleri mekânsal özellikleri belirlemekte ve katılımcı tasarımın gündelik pratiklerinin mekânsal programlamaya nasıl dönüştürebileceğini araştırmaktadır. Araştırma süreci, katılımcı tasarıma dayalı nitel bir durum çalışması olarak kurgulanmış ve keşif, görselleştirme, yansıtma

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ve iş birliği olmak üzere dört aşamalı bir çerçeveye dayandırılmıştır. Katılımcı örneklemi, yedi grup hâlinde düzenlenen 35 gönüllü park kullanıcısından oluşmaktadır. Katılımcıların dâhil olduğu aşamalardan elde edilen veriler, transekt yürüyüşleri, eskiz temelli prototipleme, kolektif haritalama ve tasarım büfesi tekniği aracılığıyla toplanmıştır. Görsel veriler, betimleyici okuma yaklaşımı, MAXQDA yazılımında mekânsal kodlama ve tematik yorum analizi yoluyla değerlendirilmiştir. Bulgular, kullanım örüntüleri ile katılımcıların önerdiği mekânsal öncelikler arasında güçlü bir örtüşme olduğunu göstermektedir. Katılımcılar tarafından en sık vurgulanan unsur, aydınlatma, oturma birimleri, kameriyeler ve korkuluklar gibi donatılar ile mevcut kullanımların korunması olmuştur. Daha özelde, girişlerin hizmet odakları olarak kullanıldığı, göl kıyısının aktif bir rekreasyon sınırı olarak görüldüğü ve güvenliğin görünürlük, dolaşım ve mekân yönetiminin birleşimi olarak yorumlandığı ortaya konmuştur. Buna ek olarak kullanıcı beklentileri ile kurumsal geri bildirimlerin erişilebilirlik, güvenlik, konfor ve çocuk dostu mekânlar konularında örtüştüğü belirlenmiştir. Sonuç olarak çalışma; gündelik kamusal mekân pratiklerinin yapılandırılmış mekânsal stratejilere nasıl dönüştürülebileceğini göstererek enformellik, mekân oluşturma ve katılımcı tasarım kavramlarına katkı sunmaktadır. Ayrıca kullanıcı odaklı müdahalelerin güvenli, kapsayıcı, erişilebilir ve dirençli kamusal mekânları nasıl destekleyebileceğini ortaya koyarak Sürdürülebilir Kalkınma Amacı 11'e , özellikle de 11.7 hedefine, pratik bir katkı sağlamaktadır.

Anahtar Kelimeler: Sömürgecilik Sonrası Afrika Kentleri, Abuja, Enformel Kamusal Mekân, Katılımcı Tasarım, Sürdürülebilir Kalkınma Amaçları (SKA 11)

INTRODUCTION

Recent global assessments towards achieving Sustainable Cities and Communities (SDG 11) have brought a renewed focus on African cities, where insufficient infrastructure and lack of access to public services have hindered urban development (United Nations, 2024). In most post-colonial African cities, especially those formerly colonized by Britain and France, there is a more direct influence of user practices on public spaces compared to colonial-inherited town planning approaches based on foreign standards (Watson, 2009; Kombe, 2005; Myers, 2011). However, user satisfaction and practice have received little attention, while records are mostly based on colonial-era.

According to a study, public spaces such as parks and green areas are insufficient in Nigerian cities, and user satisfaction is low due to poor management, insecurity, insufficient facilities, and inability to meet cultural requirements (Adegun et al., 2021). Despite Abuja being recognized as one of Africa's fastest-growing capitals, public spaces have received little attention. Situated in one of Abuja's most developed areas, Jabi Lakefront Park is a manifestation of user practice—shopping, resting, praying, and socializing—as a means of creating a functional public space despite a lack of spatial programming. Thus, Jabi Lakefront Park can be regarded as spatial logic—a space in constant change and organization as defined by UN-Habitat (2014).

This research draws from the concepts of informality, placemaking, and participatory design. Informality explains the role of users in the appropriation of the public space; placemaking highlights the role of use in transformation of space to place; and participatory design considers the role of users in the design process. Also, the recent literature on collective intelligence has emphasized the role of users in the design of public space. According to that, users should not be considered passive informants but active co-designers in the production of space (Spinuzzi, 2005; Ehn, 1992; Sanders & Stappers, 2008; Friedman, 2008).

Jabi Park is therefore an appropriate site for examining community-based spatial production where it attracts diverse users, accommodates multiple informal activities, and at the same time suffers from inadequate infrastructure, waste accumulation, and water pollution (Abubakar et al., 2022). From the point of view on urban informality in Sub-Saharan African countries, this research aims to examine the collective spatial intelligence, spatial logic, of Jabi Riverfront Park and evaluate the role of participatory design in the production of public space in accordance with SDG 11. In this context, the following research questions were considered:

- How do users appropriate Jabi Riverfront Park?
- Which spatial characteristics, amenities, and routines are most valued by users?

- How can participatory approaches embed adaptive practices into spatial programming?

1. Informality, Placemaking and Participatory Space Production

In Africa, especially in sub-Saharan cities, informality is not a problem but rather a means of spatial production that satisfies the needs of people and arranges their lives. As Watson (2009), Kombe (2005), and Myers (2011) have mentioned, most of the urban development in Africa has taken place beyond formal planning, creating room for the development of socially established spaces. In fact, colonial planning traditions have been characterized by strict zoning and abstract spatial concepts, ignoring urban informality and adapting to users' flexibility (Watson, 2009; Parnell & Pieterse, 2016).

In post-colonial cities such as Lagos, Nairobi, Johannesburg, and Abuja, this planning legacy is still present, as witnessed by the concentration of services in areas that are advantageous for privileged groups, while ignoring the existence of informal settlements (Abubakar, 2014; Shackleton & Gwedla, 2021). Abuja's formal planning was influenced by paradigms that incorporated garden cities that offered little consideration of the social, cultural, and economic situation. In Lagos, the slums have often been "permanently illegal and informal," making them vulnerable to exclusionary developments. The case of Nairobi illustrates how colonial planning strategies kept out Africans from formal housing and land ownership. The example of Johannesburg suggests that there is an inherent challenge with the integration of informal settlements with planning in ways that do not disrupt inclusive processes. Overall, these examples illustrate that the Western planning paradigms in African cities are not only theoretical but also rooted spatially (Abubakar, 2014; Olajide et al., 2018; Huchzermeyer, 2021; Anyamba, 2011).

This issue is also reflected in the literature on public space, where the role of everyday practices remains underexamined. While there have been developments in research on green space equity in cities, Sub-Saharan Africa continues to focus on formal planning systems and does not adequately account for the impact of the everyday practice on issues related to the use of public space (Herslund & Mguni, 2019; Lindley et al., 2018; Gashu et al., 2020; Yeshitela, 2020).

In this sense, the concept of placemaking can provide a framework, which highlights the importance of experience in space production and underlines the active role of users as co-producers rather than recipients of space (Beza, 2016; Stout, 2008) where space turns into "place" through social practice (Cresswell, 2004; Malpas, 1999). This concept is compatible with other ideas that move beyond top-down planning and towards discussions of a shared spatial production process and concepts of human-centered design (Shibley et al., 2003; Steen, 2013; Foth, 2017). In this regard, participation can play a role in the placemaking process in terms of dealing with marginalization and making a presence in the public sphere (Fraser, 1990; Montero, 2009; Lenzi, 2013).

The concept of participatory design emerged from Scandinavian traditions of workplace democracy and has been developed further in terms of collaborative design concepts in which both process and outcome are informed by public participation (Mahabadi et al., 2014; Steen, 2013; Foth, 2017). Spinuzzi (2005) argued that participatory design is not only a method but also a way of thinking based on collaboration, mutual knowledge, and shared problems.

In the context of this study, adaptive spatial intelligence becomes an analytical concept that describes the ability of users collectively to interpret, adapt to, and organize space based on their experiences, knowledge, and interactions. The concept is connected by the discourse on vernacular spatial intelligence, which essentially implies the knowledge developed through the utilization of space in the local environment, and by wider discourses on the spatial logic of cities and evaluation of public space participation (Harani, 2025; Habitat III, 2016; UN-Habitat, 2020).

1.1 Informal Appropriation and Spatial Practices in Jabi Lakefront Park

The establishment of the Federal Capital Territory of Nigeria and the selection of Abuja as the national capital were promoted growth within the Middle Belt area (Abumere, 1984) (Figure 1). The Abuja scheme envisioned straight transportation links of significant importance with major halts at strategic locations. The scheme also emphasized the importance of integrating green spaces and alterations within the city layout, such as long stretches of parks, stream valley buffers, and hills as natural boundaries (Urbanet, n.d.).

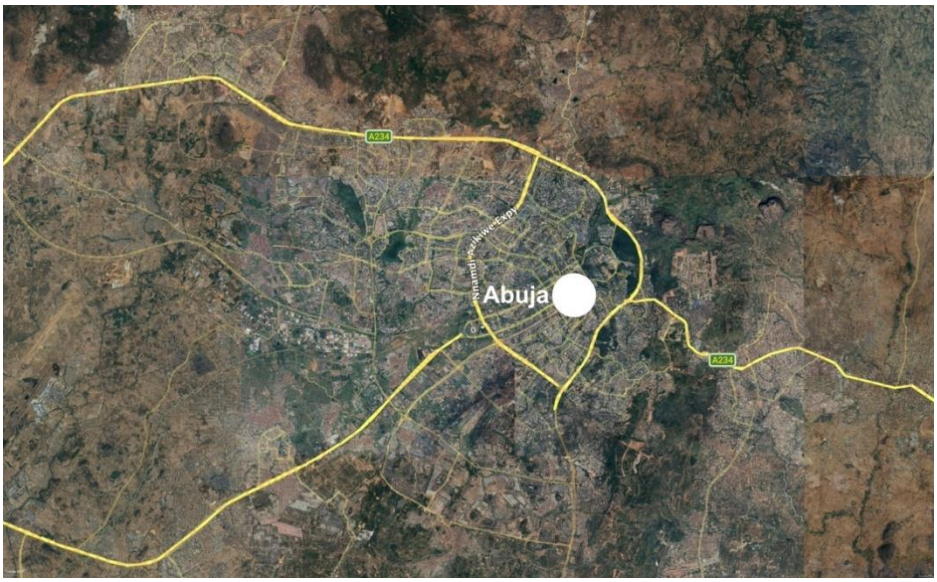


Figure 1: Abuja Location Map (Google Earth, 2024)

Like other modernist cities, Abuja's planning was influenced by the garden city idea, which is based on low-density development and high amount of landscaping. A large area was set for parks and open spaces where the land was used as follows: 33.2% residential, 21.9% businesses and services, 25% open spaces, 19.9% roads, and 7% parks (IPA, 1979). However, scholars have observed that Western-centric model inadequately addresses African socio-cultural dynamics, which are typically defined by elevated levels of interaction and communal living (Abubakar & Doan, 2010). Even though the master plan stressed providing green and recreational space, many of the designated areas are still not being used enough or are not well-equipped (Abubakar, 2014). The gap between formal planning and actual use has led to user-driven practices that "fill the gaps" in city life through informal appropriation.

As seen in Figure 2, the city is made up of four parts. Only five places have fully developed in Phase II: Kado, Jabi, Utako, Wuye, and Gudu/Apo (Abubakar, 2014). This partial expansion leads to an unfair distribution of public space. In central areas, planned green spaces are not used enough, while in peripheral areas, there are often no schools, hospitals, markets, or places to play (Urbanet, n.d.).

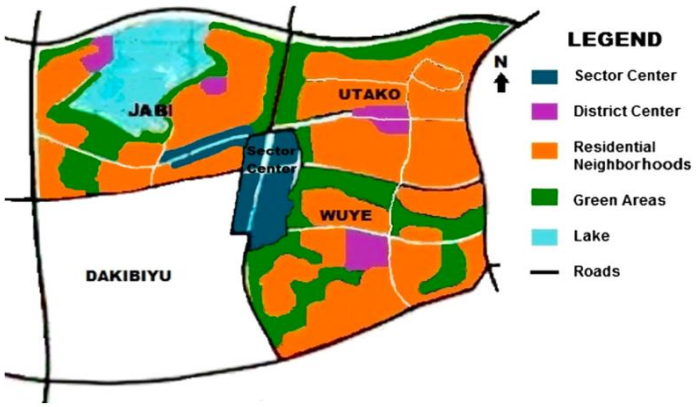


Figure 2: Partial Master Plan of Abuja city (IPA, 1979)

Zakka et al. (2017) emphasize that the land set aside for parks is still not developed. In 1998, Abuja had 41 parks and green open spaces. However, 27% of these were still not growing as part of Phase I of the master plan. This number rises to 82% at larger green allocations (Adegun, 2021), while Jabi Lakefront Park (Figure 3) is one of the examples of planned green spaces in Abuja that shows both the good and bad sides of post-colonial planning (Enoguanbhor et al., 2022).

Figure 3: Aerial view of Jabi Lake and park (Google earth, 2024)

Jabi Lakefront as a park of emergent public life:

Jabi Lake was constructed as a dam but it evolved in time from a structure of utility to a place of recreation in 2007. It features horse riding, tennis, football, vendor shopping, and picnicking. It is not a very safe park, the buildings and the walkways are not well maintained, and the place is deteriorating. These are all making the place less favorable, though, Jabi Park remains a popular place where people go.

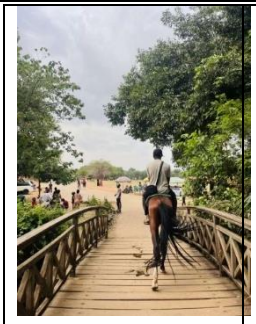
As seen in Table 1, Figure 4 and Figure 5, systematic observations were conducted on-site utilizing Jan Gehl's (2011) methodology, concentrating on the informal appropriation of space through everyday activities. Activities were categorized mainly as necessary, optional, and social.

On a weekday and the weekend in September 2004, data were collected at the park's three main entrances. Three observers at each gate counted how many people were walking by every five minutes and noted their age and gender.

Weekdays are usually quiet, with the most activity around 5 p.m. and most of the people are adult men doing routine or maintenance work. Weekend mornings, are active, especially around 9:30 a.m. at the middle entrance, which attracts the visitors according to its proximity to a shopping mall and social, optional and retail attractions such as table tennis, roller skating, and vendor stalls. In contrast, weekday mornings are limited to staff and a few elderly visitors engaged in optional and social activities such as chess or horseback riding.

Table 1: Observed Activities, Classifications and User Groups in Jabi Park

Observed activity	**Main users**	**Spatial function**	**Gehl classification**
Horse riding with spectators (see photo 1)	Horse riders, families, youth	Leisure / Social interaction	Optional / Social
Scooting (see photo 2)	Mixed age groups	Mobility / Leisure	Necessary / Optional
Street vending (see photo 3)	Vendors	Informal economy	Necessary
Informal snack and drink vending under sunshade umbrellas (see photo 4)	Vendors, mixed age groups	Informal economy / Social interaction	Necessary / Social
Sitting under trees, eating/resting/picnicking/praying (see photo 5)	Families, mixed age groups	Social interaction / Leisure	Optional / Social
Youth playing football	Youth	Leisure	Optional / Social
Playing table tennis	Mixed age groups	Leisure / Social interaction	Optional / Social
Viewing the lakeside landscape	General users	Environmental amenity	Optional



Horse riding with spectators (photo 1)

Scooting (photo 2)

Street vending (photo 3)

Informal snack and drink vending under sunshade umbrellas (photo 4)

Sitting under trees, eating/resting/ picnicking/ praying (photo 5)

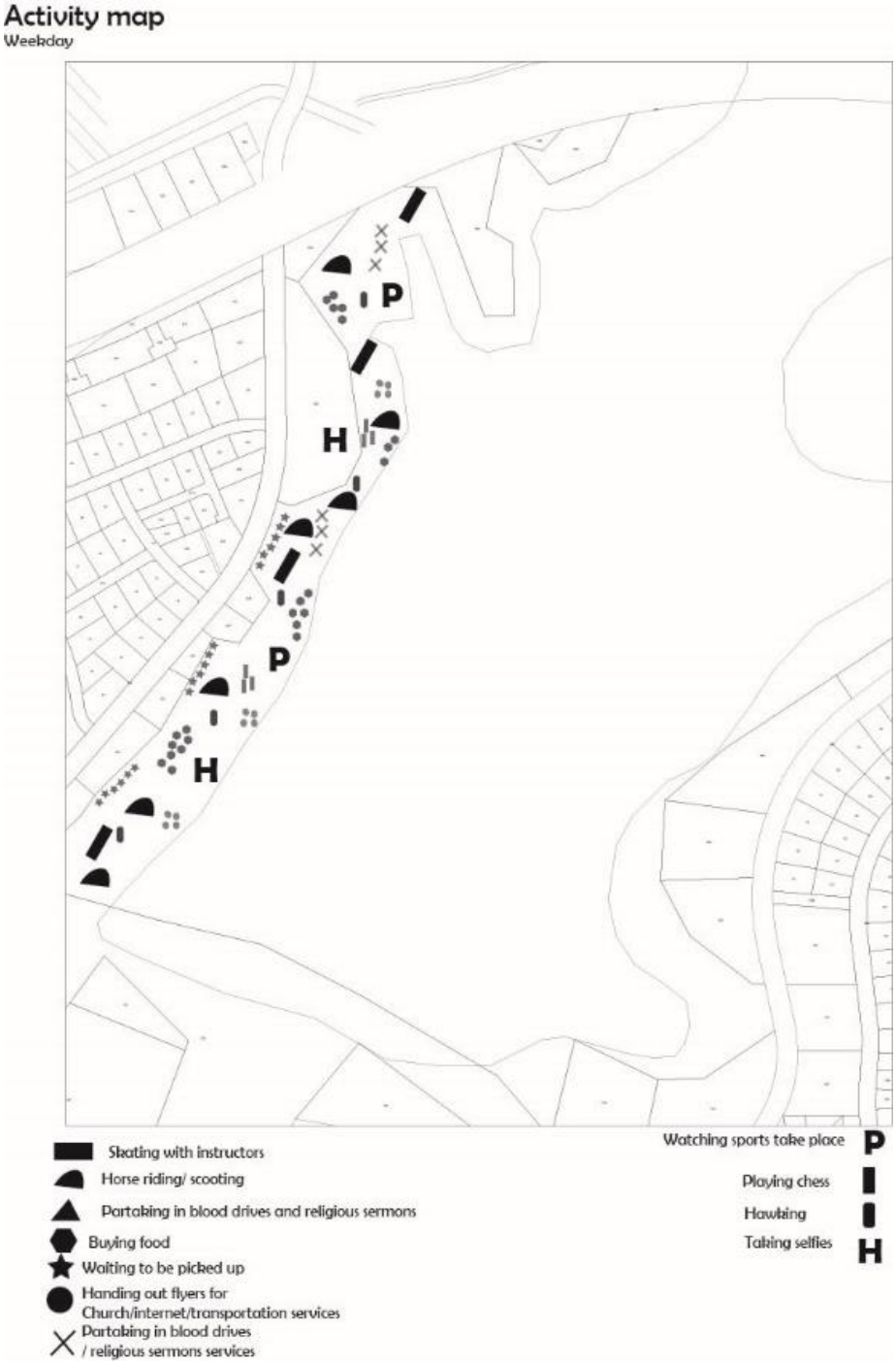


Figure 4: Sample of Activity Map from Weekday

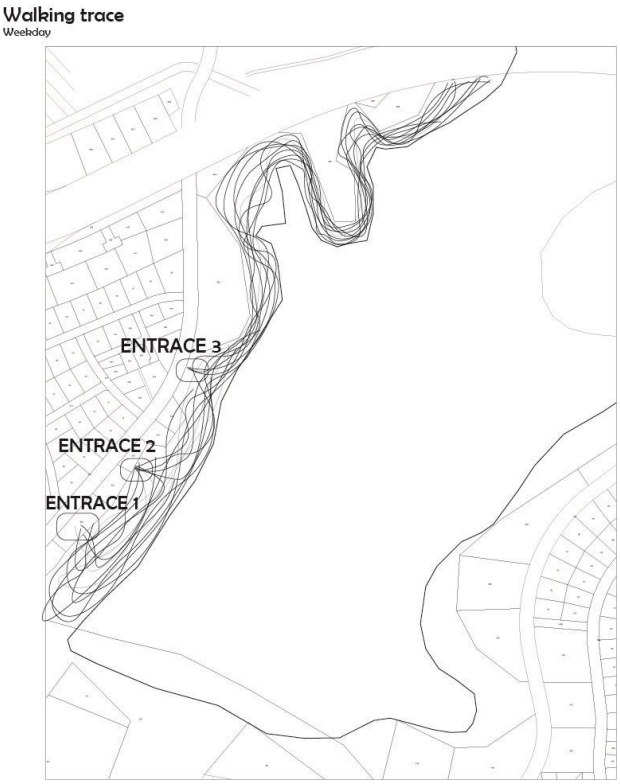


Figure 5: Sample of Movement Map from Weekday

Mixed age groups and young men usually spend time in the park to skate or ride bikes for transportation and recreation. Weekdays are dominated by necessary activities such as walking and waiting. During weekends, numerous optional and social activities take place, particularly around the lakeside, including picnics, performances, youth playing footbal and social gatherings of families and mixed age groups. Despite men dominating over the women, children and elderly, the spaces are vibrant social hubs. The observations reveal how Jabi Park informally appropriated, despite the fact that it lacks much infrastructure and maintenance.

2. Methodology

The research employs a qualitative participatory case-study method based on a four-step model of spatial production, which includes exploration, visualization, reflection, and collaboration phases (Figure 6). Based on the literature about participatory design and co-creation methods (Sanders & Stappers, 2008; Belgrave et al., 2022; Sanoff, 2022), the model enables users, architects, and institutional actors to collaboratively shape spatial outputs through transect walks, sketch-based prototyping, collective mapping, and comment analysis.

Thirty-five volunteers, including park users, were selected as the sample and divided into seven heterogenous groups by age and gender. Each group was supported by one architecture student and one moderator from the Federal Capital Development Authority (FCDA), who facilitated observation, discussion, and group-based decision-making throughout the process.

2.1 Participatory Process, Data Collection, and Analysis

The four-step framework was executed via several processes designed as a co-creation process. The first stage involved the use of transect walk technique. In this process, each group walked around the park with facilitators and made observations of the circulation system, activity nodes, environmental conditions, and existing facilities. Group members discussed their observations verbally and reached an understanding of how the park functions in reality. Due to resource limitations, participants could

communicate their observations only verbally. Figure 6 illustrates the empirical basis of this initial step.

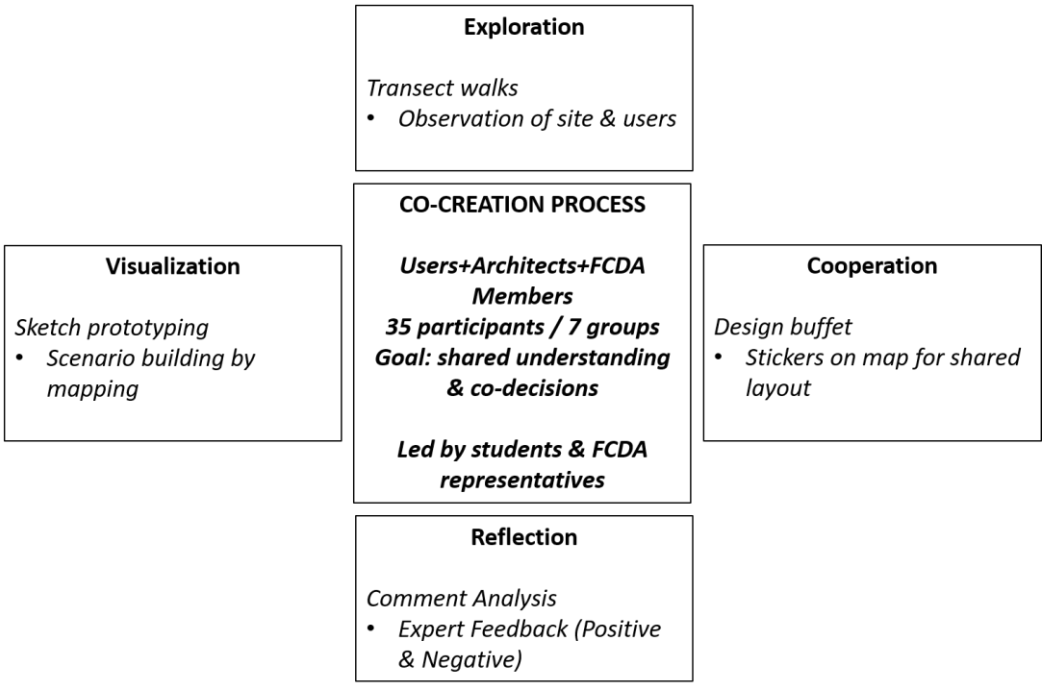


Figure 6: Methodological Framework

In the second stage, the participants translated their observations into seven layouts based on sketches. By creating prototypes, the groups were able to define their activities, support functions, and spatial relationships, developing initial maps of an "ideal" public space configuration. This process is based on participatory drawing and sketch mapping practices that use visual techniques for capturing local knowledge and common spatial interests (Handayani & Kusumaningdyah, 2019; Burdon & Potts, 2020; Aditya et al., 2020).

The third stage involved reflecting and analyzing the data. The seven maps created by the groups were considered visual qualitative data and were analyzed using MAXQDA through the use of a spatial coding technique. This analysis was done in three steps: (1) a descriptive reading of the map created by each group; (2) spatial coding of the recurring elements, such as activities, amenities, security measures, entrances/exits, and gathering places, to reveal recurring themes and differences between the groups; and (3) thematic analysis of the comments made, where the comments from the participants, architectural students, and FCDA officials were analyzed regarding circulation, safety, greenery, and amenities (Tiruwa et al., 2019).

The process of coding performed through the software MAXQDA allowed for the comparison of the seven visual concepts based on coding of recurrent spatial themes and then comparing the frequency and relationships between them throughout the dataset. The process of coding in MAXQDA served as a tool for structuring visually presented data and allowed for the comparison of similarities using different types of codes and code relations. In particular, the analysis was based on the concepts of code relations and code mapping that were utilized to determine which spatial characteristics were repeatedly appearing in conjunction and which concepts were similar or different.

In the last stage, the design buffet method based on the gallery method (Geschka, 1979) was employed. In this stage, participants used stickers for activities and amenities and placed them in a

park map to develop collective solutions through the synthesis of individual ideas. This was done under the supervision of architects and moderators, emphasizing quick thinking, discussion, and consensus rather than elaborating (Adams, 2019; Hou, 2022). This phase resulted in a shared space-programming map that integrated the most strongly supported functions and spatial priorities.

2.2 Ethical Considerations

All participants were informed of the purpose of the study and provided verbal consent. Anonymity and voluntary participation were ensured. Prior to data collection, ethical approval for the research was obtained from the Host University Scientific Research and Ethics Committee.

2.3 Findings: Spatial Programming Outcomes from the Co-Creation Process

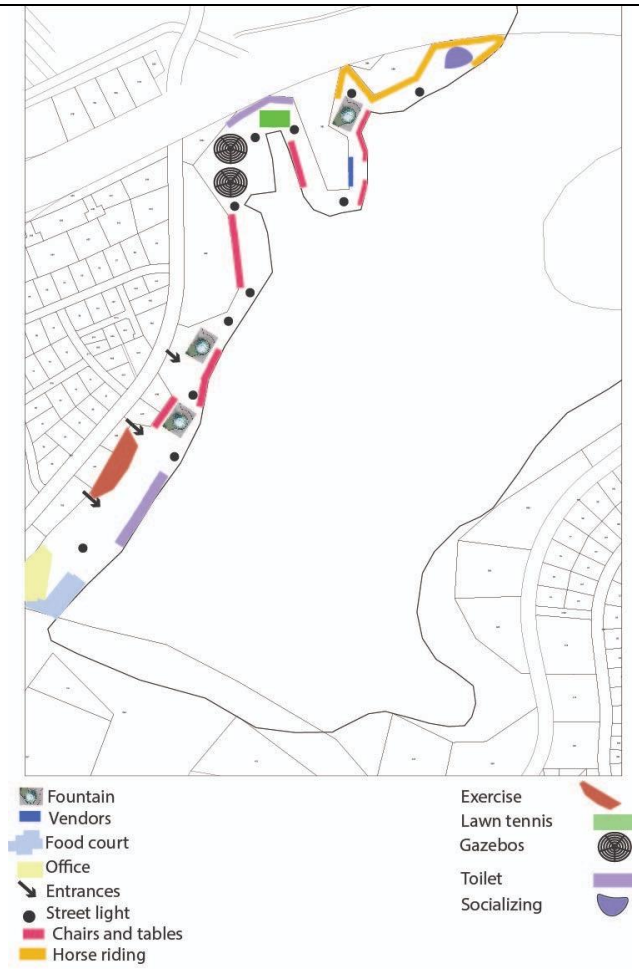
In particular, the seven maps that emerged during prototyping are evidence of recurring spatial relationships that users used to reinterpret and strengthen their park experience. In all seven maps, the existing programs such as table tennis, horse riding, and scooting were maintained. However, additional programs, such as a playground, offices/warehouse, food court, gazebos, and games center were included into the proposed plans (Table 2). Amenities such as restrooms, fountains, street lighting, and railings can also be seen as common elements among the proposed designs. Rather than proposing an entirely new park, participants focused on strengthening what already exist, redistributing uses more clearly, and improving comfort, safety, and access.

Shared spatial logics in the seven group maps:

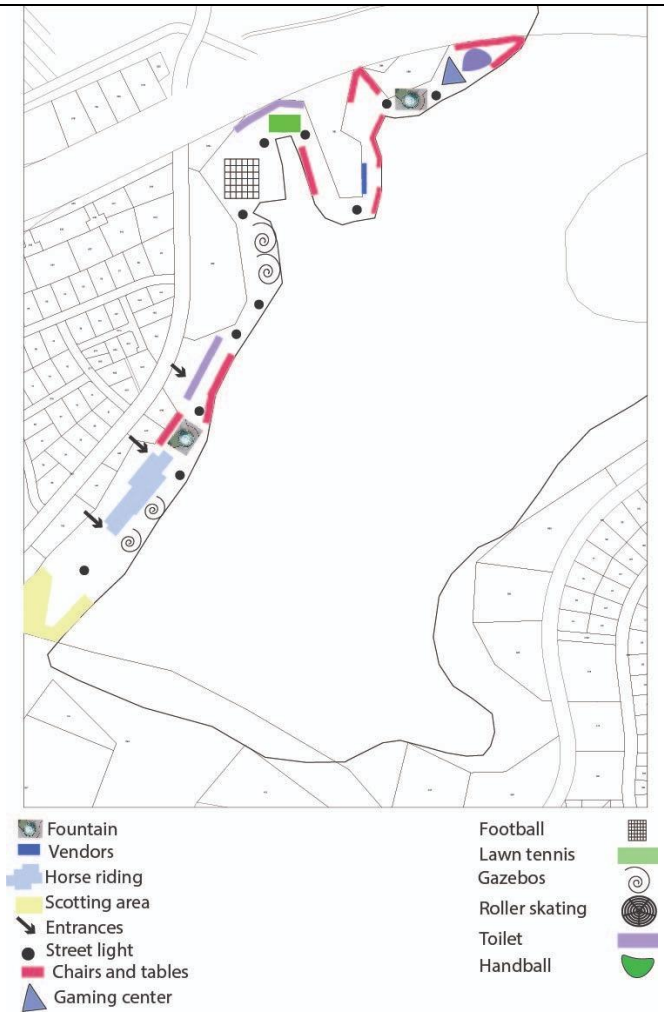
While there has been a distinct spatial arrangement created by each group, there emerged consistent tendencies within the groups. First, entries were commonly designed as service and orientation points where facilities for toilets, seats, gazebos, and lighting would be grouped together. Second, lakeside edges were consistently thought of as being spaces of active recreation where activities such as exercise, water recreation, picnicking, and enjoyment of the view would occur. Third, safety was addressed through spatial design by incorporating facilities like lighting, railings, a specific horse riding area, and improved circulation. Finally, many groups suggested family-oriented and intergenerational adjacencies, such as playgrounds next to adult seating or spectator areas. These patterns show that participants were not inventing a new spatial order; they were reorganizing informal uses into a more legible and supportive public-space structure.

These tendencies came out differently in each group. While Group I focused on lake view and recreation clustering, Group II focused on visibility and spectator activity around the entry zone. Group III had the tendency to design a youth-oriented and recreation-rich space, while Group IV focused on circulation and a family-friendly atmosphere. Meanwhile, Group V focused on having greenery and easy access to amenities, while Group VI stressed on safety, administration, and family comfort. As the last, Group VII concentrated on clear entry areas and linear movement along the activity spaces. As Table 2 shows, despite the differences, the groups converged around usability, accessibility, and managed coexistence of activities.

Table 2: Prototyping Outcomes of Seven Group Maps

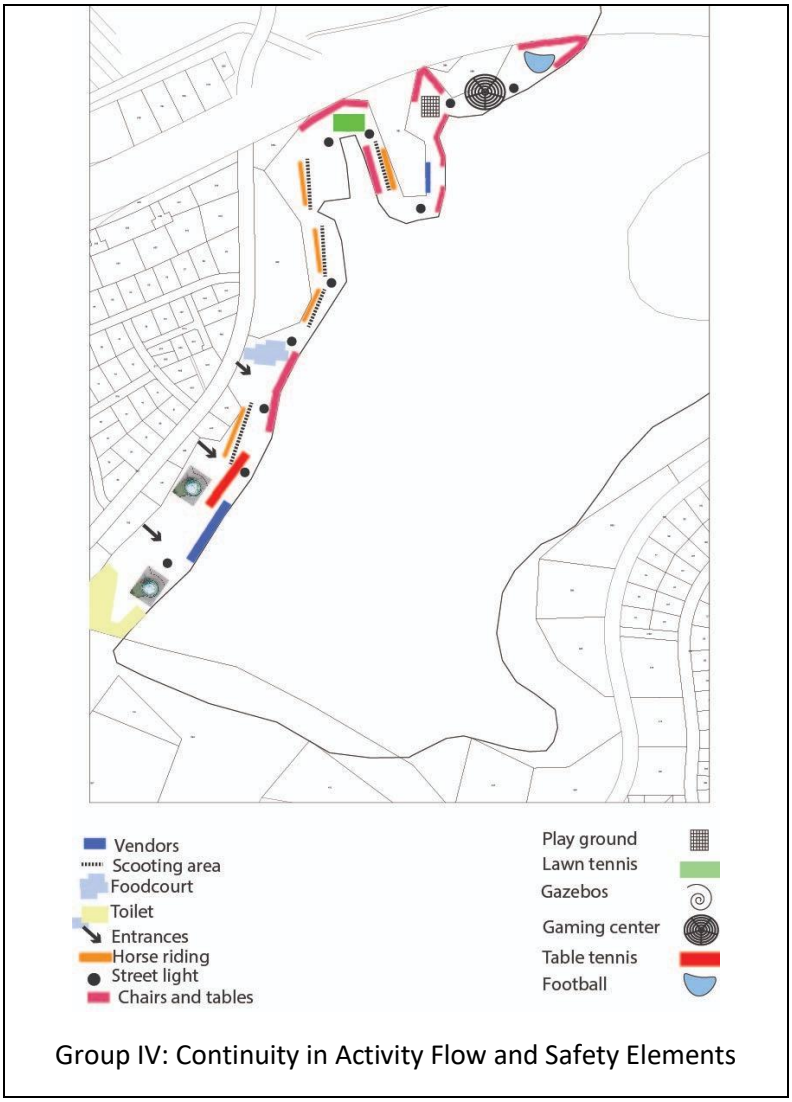


Group I: Functional Clustering and Recreation by the Lakeside

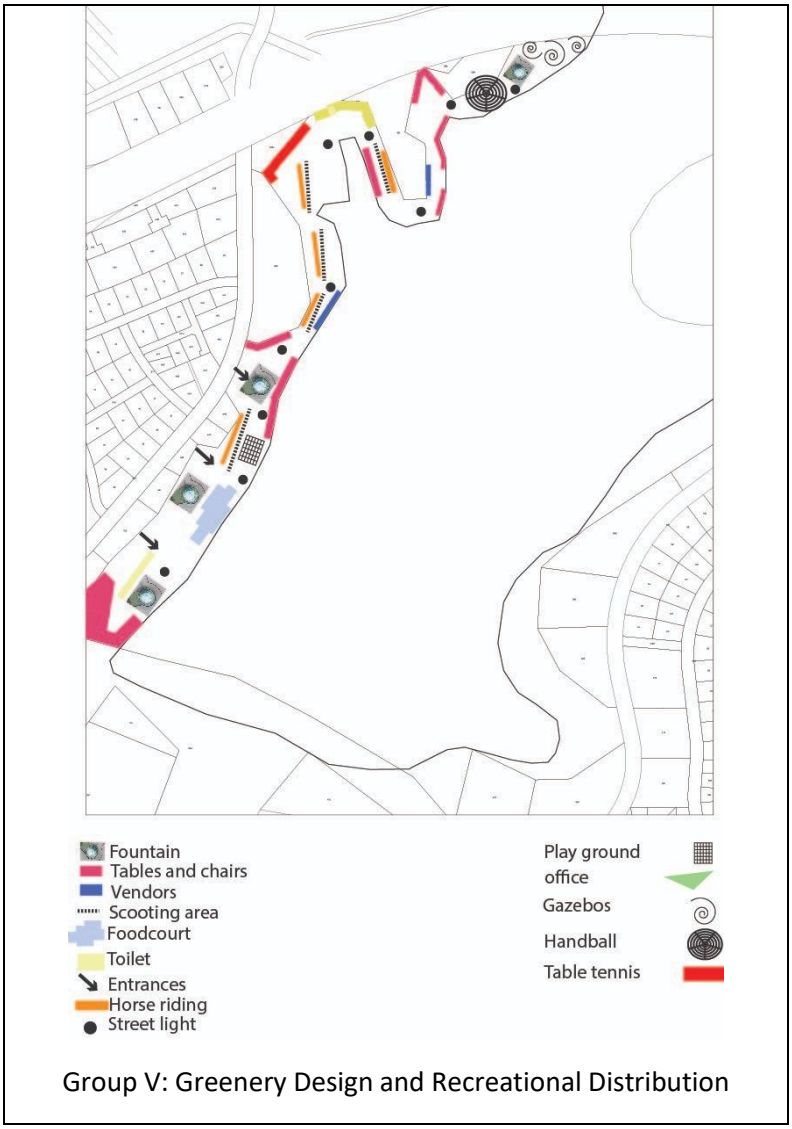


Group II: Activity Zoning and Lakefront Engagement

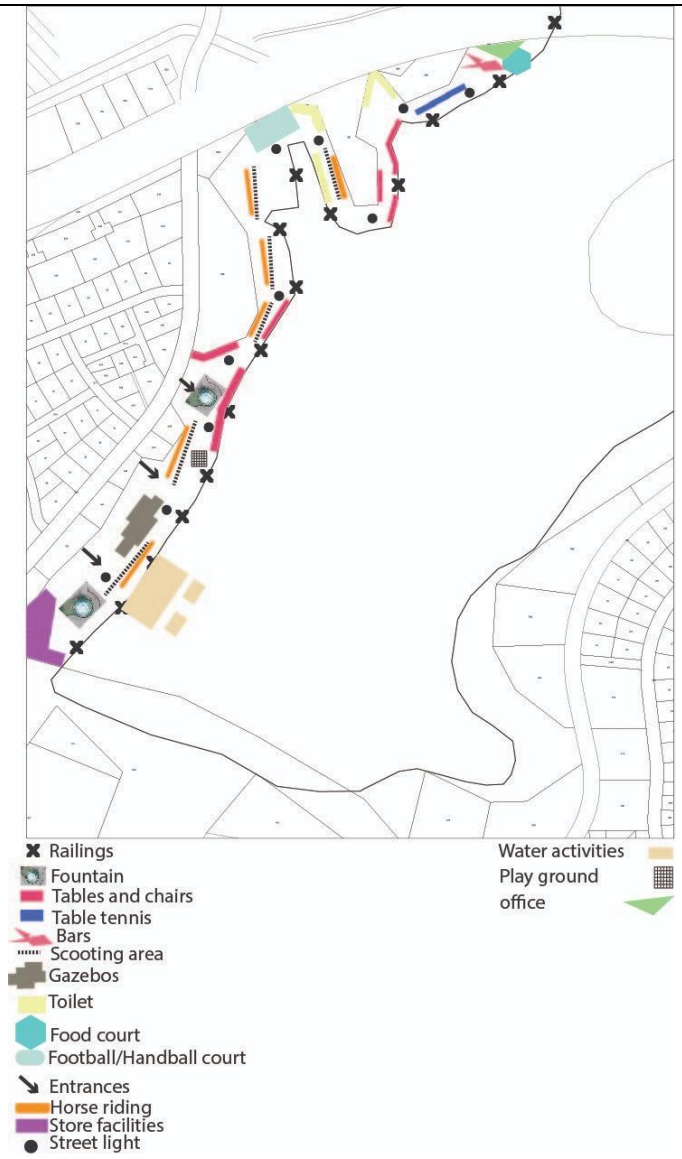
Group III: Activity Diversity for Young People



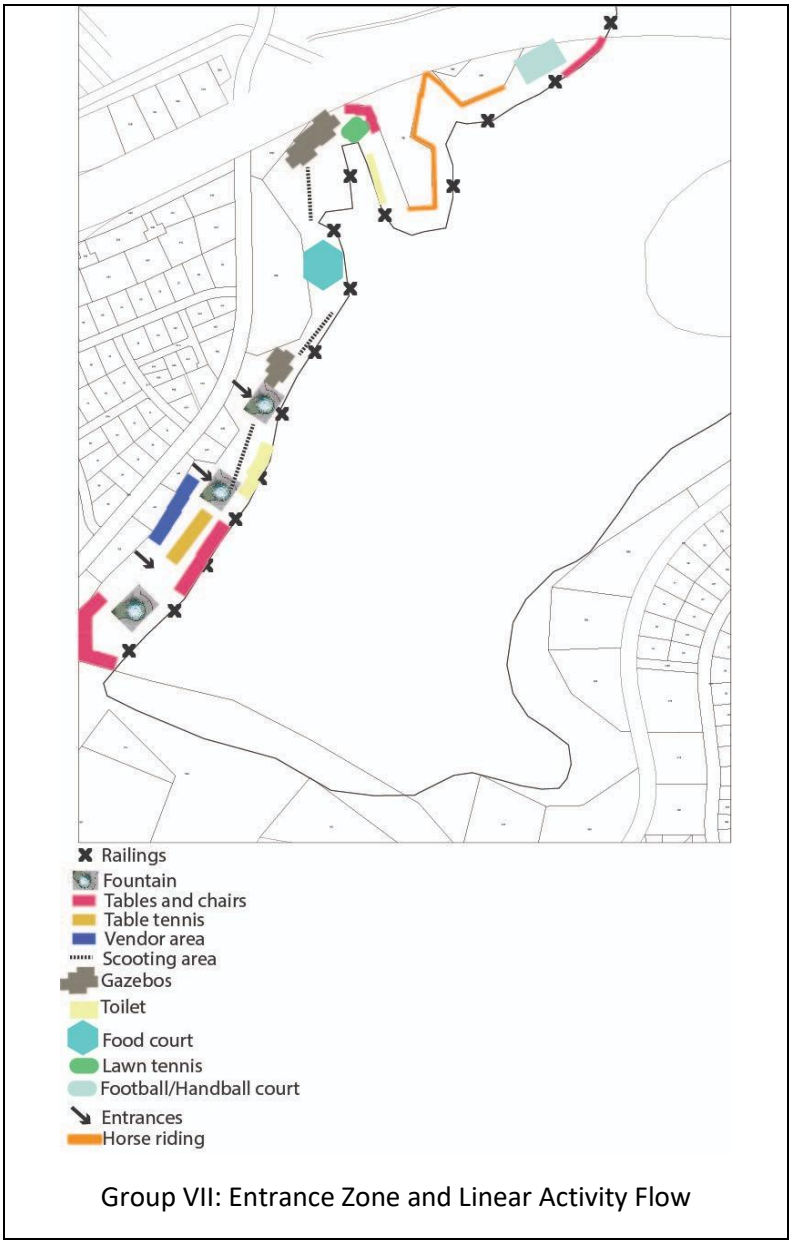
Group IV: Continuity in Activity Flow and Safety Elements



Group V: Greenery Design and Recreational Distribution



Group VI: Family-Oriented Planning with Safety



Group VII: Entrance Zone and Linear Activity Flow

Visualizing collective spatial preferences through MAXQDA:

In order to move from simple descriptive comparison to a more complex analytical process, the seven group maps were also examined by conducting a MAXQDA code-relation analysis that identified common demands as well as specific recommendations for each group. Code-relation analysis by MAXQDA can be presented visually in the form of a code-relation map, integrating all seven maps while indicating demand frequency and inter-group proximity (Figure 7). Similarities between different groups are mostly observed with respect to basic requirements like gazebos, restrooms, lighting, seating, and safety-related features, rather than highly specialized interventions. This indicates that participants viewed the park less as an empty site requiring redesign and more as a functioning public space in need of infrastructural reinforcement and better spatial distribution.

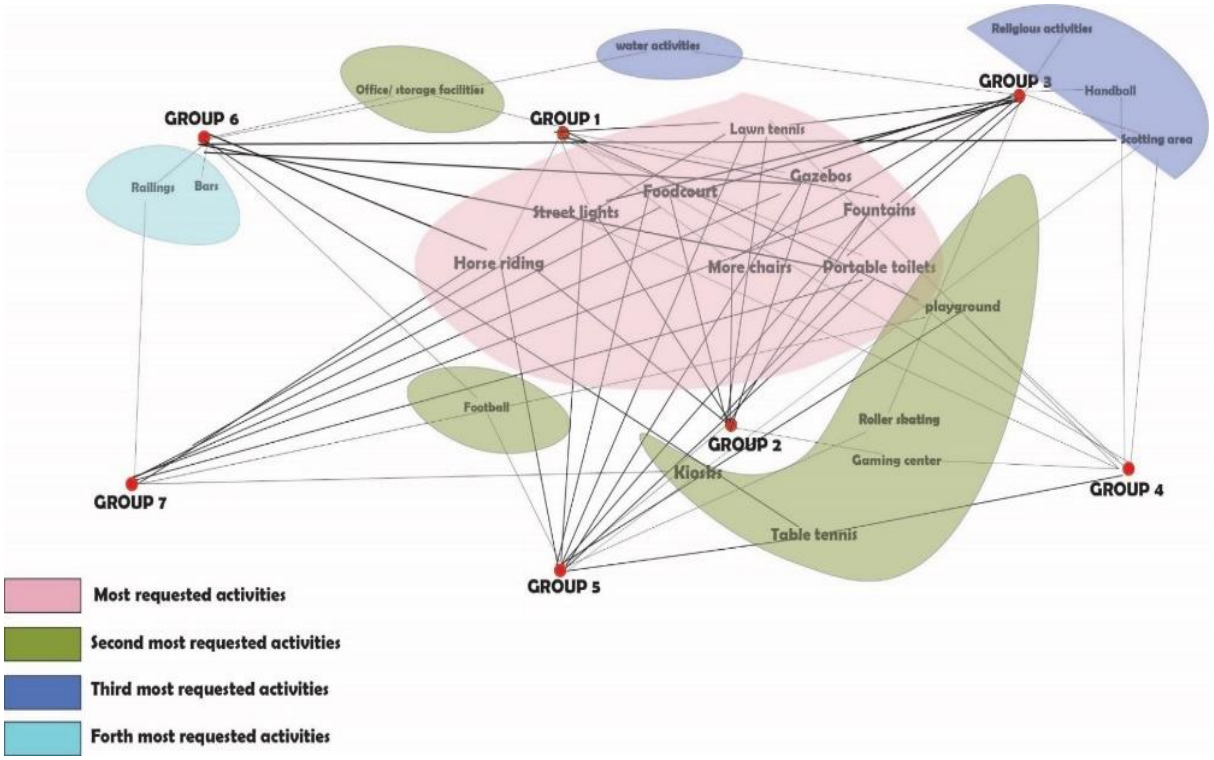


Figure 7: Code-Relation Map Illustrating Commonalities (MAXQDA 2022 VERBI Software, 2021)

The code-relation map is structured according to a network of interlinked nodes, connecting each group with the spatial proposals made during the prototyping process. The pink zone represents the most common proposals, the green zone second-most, the purple zone less common proposals, and the blue zone proposals unique to the particular groups. Therefore, the most densely clustered central areas denote the highest degree of consensus on common needs, specifically in relation to comfort, access, safety, and flexible recreational facilities. Analytically, the graph suggests that the most critical changes needed at the park are relatively incremental rather than radical.

Figure 8 further elaborates the model by visualizing the relationship between the three main entries and their respective activities and facilities. While participants do not envision the park as a monolithic programmatic space, they differentiate between the three entries, with Entry 2 being the most prominent activity point, linked primarily with football play, roller skating, and water-related activities, and Entries 1 and 3 being related more to garden, sitting, and picnic activities. Some facilities—such as gazebo structures, lighting fixtures, restrooms, chairs, and railings—are common to all three entries, which implies that certain basic levels of comfort and safety are considered universal thresholds.

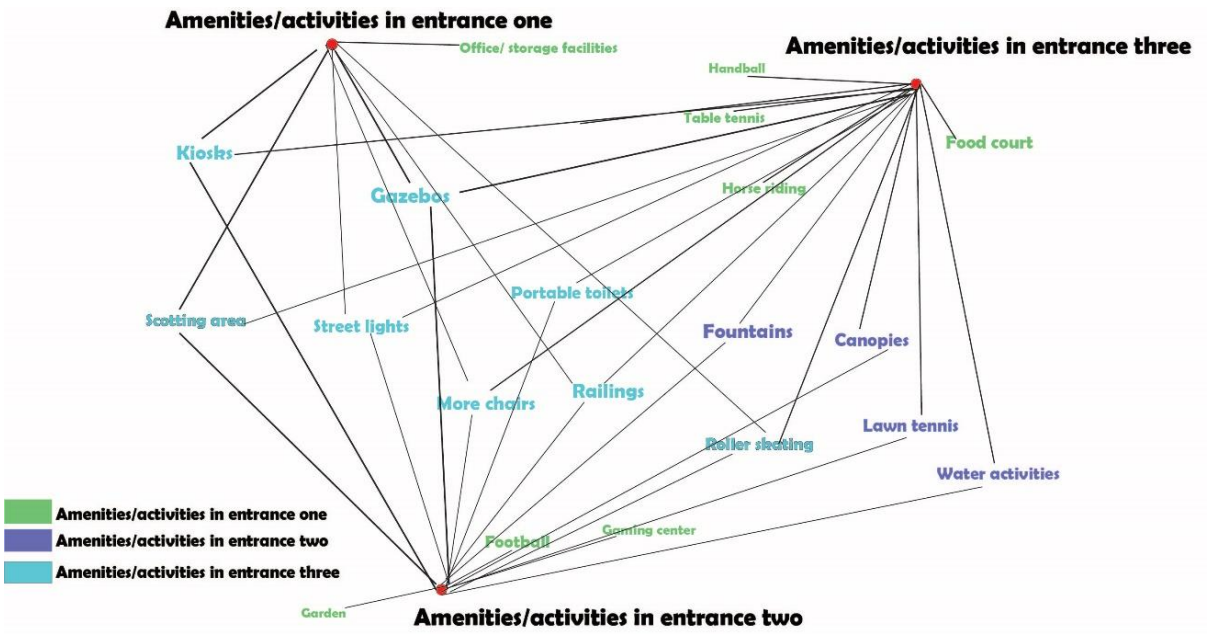


Figure 8: Code Map Illustrating Relation Between Entrance Zones and Activities (MAXQDA 2022 VERBI Software, 2021)

This is exemplified by activities like roller skating that can be accessed through any of the three entrances, while highlighting the importance of having more than one access point and the ability for circulation to be fluid. This confirms that the participants were calling for a non-uniform design for the park.

Critical reflection on design alternatives and comment analysis:

Comment Analysis was also a key stage at which feasibility criteria emerged as part of validation process prior to making a decision about the acceptability of user-generated proposals. Feedback collected from architecture students, professionals, and park management officials with regard to circulation, access, safety, openness, seating, toilets, gazebo locations, and amenities showed that positive feedbacks agreed with designs that were conducive to comfortable access for people and inclusivity especially for prayer rooms, shaded seating, and gender considerations. This intersection of needs and feasibility suggests that participation in prototyping not only led to articulation of needs, but also produced proposals that are partially feasible.

As shown by Figure 9, excessive walking, inappropriate scale, and dysfunctional circulations are some of the issues that were raised by negative feedbacks. This implies the challenges that might be faced if a proposal generated by users was to be implemented immediately without feasibility testing. In this sense, the comment analysis functioned as a refinement mechanism.

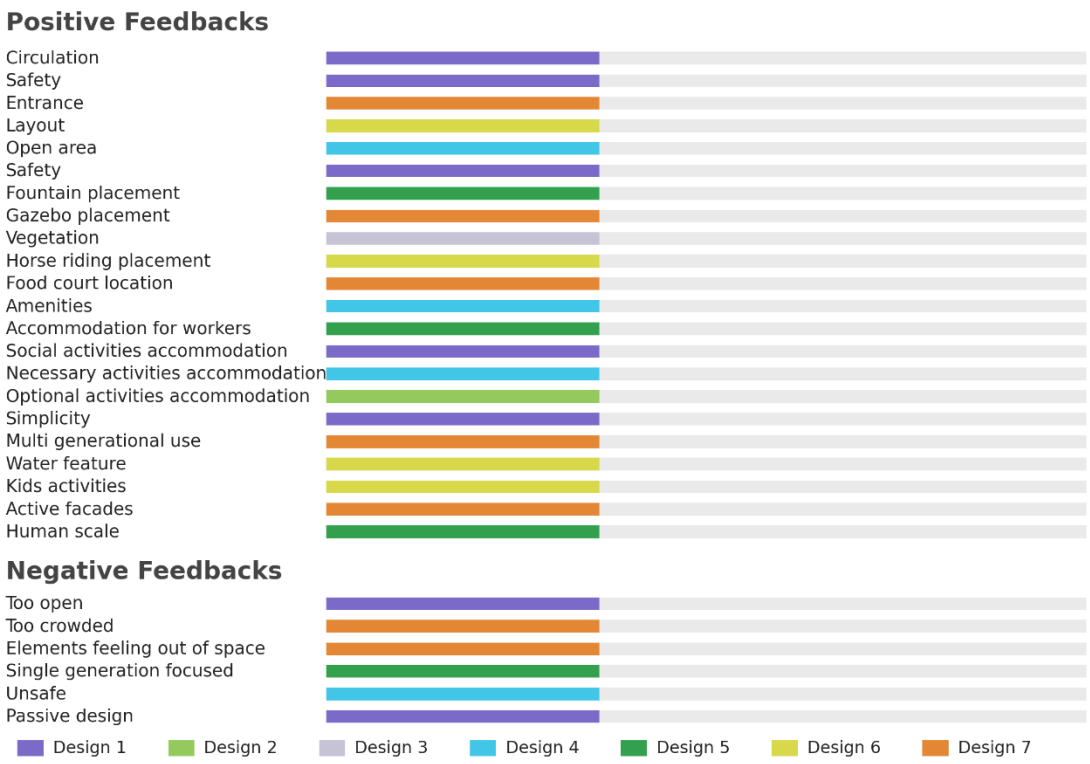


Figure 9: Comment Analysis

The matrix identifies the extent to which the ideas put forth by each of the groups resonated with institutional interests. Rather than framing the suggestions of the experts as authoritative correction, the matrix highlights how user-centered design and institutional interests can overlap through shared considerations like safety, accessibility, and amenity locations. This supports the argument that participatory outputs can become a basis for more formal design discussions.

Collective visualization and design buffet stage:

The final stage involved the consolidation of individual group preferences into a spatial program through negotiation. As part of the design-buffet process, all participants worked on a single plan in which stickers representing uses and facilities from earlier stages. The final product was not a randomly collected set of ideas but a selection of uses that had multiple approvals from different groups. In this context, the design-buffet helped identify the spatial priorities that were common enough to be programmatic (Figures 10-12).

In this stage, some components became new collectivist innovations, which included offices, vendor stalls, places for adults, playgrounds, and a gaming zone. On the other hand, street lights, pavilions, benches, toilets, and railings were highlighted as crucial infrastructural needs. Existing activities, such as skating, table tennis, water sports, riding horses, football, handball, and lawn tennis, were maintained but strategically placed in different parts of the park. This implies that the final design was not motivated by the need to include new programs, but rather coexistence, minimizing conflicts, and enhancing comfort.

Figure 12 shows the final integrated layout design. Street lights are scattered around the park, and there are adaptable zones where activities of roller skating and scooting take place, in order to avoid any clashes with pedestrians. Gazebos and restroom units can be found around the entrances, and water activities are located in the lakeside zone. Railing is suggested as demarcation of zones for high-risk activities. Activities involving groups of people, for example, football, handball, and lawn

tennis are located in the zone where spectators are present, and horse riding is treated as an activity zone. The playground equipment and games can be found close to family gatherings places and areas of meeting that can also be used for indoor games. Together, these decisions suggest that the final layout represents convergence around usability, safety, and collective comfort, rather than the accumulation of isolated preferences.

Figure 10: Design Buffet Selection and Mapping

Figure 11: Participants Working on the Map

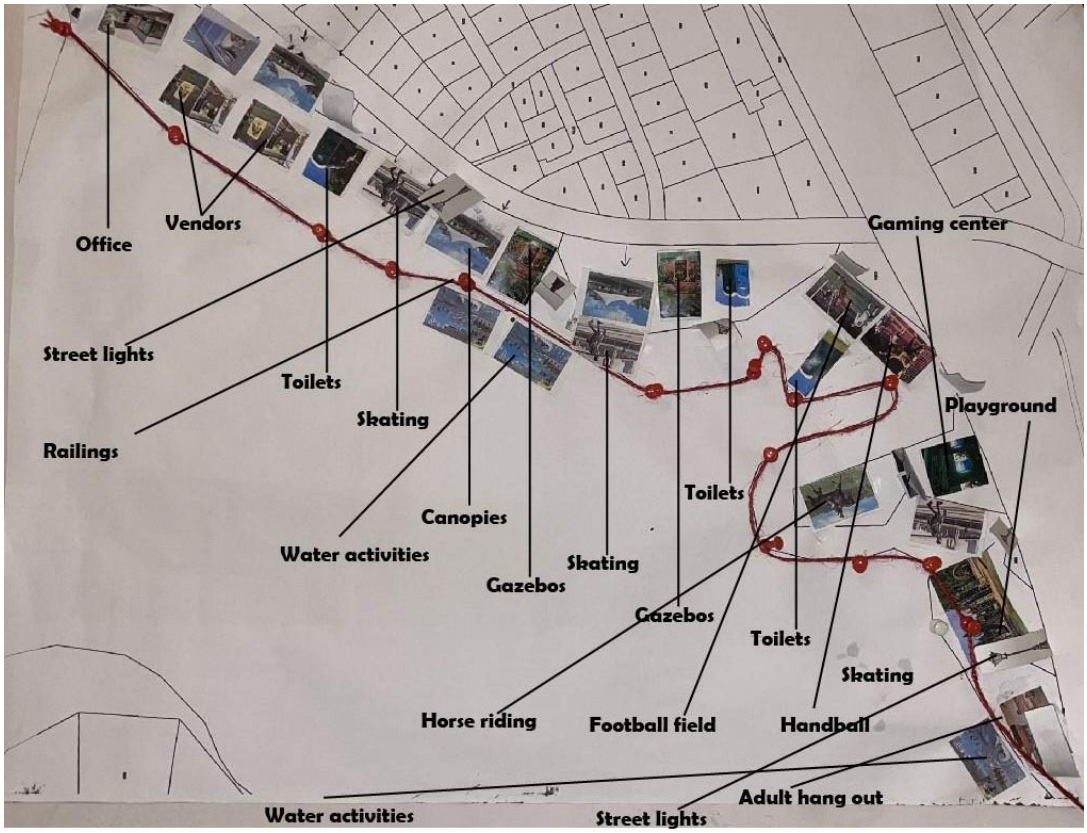


Figure 12: Space Programming Map as the Outcome of the Design Buffet Stage

In addition, it was pointed out by participants that a number of already present amenities required both maintenance and improved distribution. The presence of offices for park staff members also implies that users relate management potential to the quality of space in the same way as they relate its physical characteristics to it. In this respect, the resulting collective map confirms one of the crucial findings of this research: users did not seek to replace the park's informal life with a new formal order, but to stabilize and support that life through modest, legible, and collectively negotiated interventions. This supports the broader argument that participatory spatial production can transform dispersed everyday practices into a coherent and institutionally legible programming strategy.

3. Discussion

This study contributes to discussions on informality, placemaking, and participatory design by demonstrating how everyday practices in Jabi Park can be translated into spatial programming through co-creation. In contexts where formal planning excludes marginalized communities, informal uses of public spaces should not be considered as signs of chaos; but a form of spatial knowledge, accordingly, addressing a research gap on the usage of green spaces in African communities (Adamu et al., 2025).

The co-creation process at Jabi Park reveals differences between standardised Western approaches to planning and reality in postcolonial urban contexts. As Watson (2009), Myers (2011), and Parnell & Pieterse (2016) argue that often misalignment remain between planning logics and user-generated practices. Furthermore, the findings support this critique: rather than approaching the park as a tabula rasa, participants proposed to improve and reorganize what already exists. By doing so, they defined the site based on access, safety, intergenerational use and activity continuity. This suggests the potential value of the concept of placemaking in their use and people's engagement (Beza, 2016;

Stout, 2008; Cresswell, 2004; Malpas, 1999), while participatory design provides the tools to translate this knowledge into negotiable design proposals (Steen, 2013; Foth, 2017; Spinuzzi, 2005).

Consequently, two main findings stand out. Firstly, there is significant agreement between the behavior of users and the spatial priorities defined through co-design, validating the 'designing what already exists' approach. Secondly, the behaviors of the users proved convertible into design parameters, confirming the capability of collaborative techniques for recording and redefining public space. Moreover, the consistency between the needs of the users and professional critique implies that cooperation among diverse groups is highly efficient. It should be noted that the research provides evidence to the concept of adaptive spatial logic, highlighting the possibility of incorporating local wisdom into the process of spatial planning.

3.1 Advancing SDG 11 through Everyday Urbanism of Jabi Park

The Jabi Park as an example clearly shows how informal urban spaces can help in achieving SDG 11, especially with respect to Target 11.7. The results suggest that identifying and augmenting the spatial and social dynamics provides a more realistic pathway to this target. The park operates through a routine spatial order shaped by visibility, accessibility, and co-presence, evident in activities such as picnicking, playing, and praying. This arrangement creates a "positive spiral," whereby co-present activities increase social life and liveliness (Gehl, 2011).

At the same time, it becomes clear from the analysis that inclusion depends on some basic infrastructural support. Without proper lighting, toilets, seating, and sanitation facilities, the park cannot provide sufficient safety and accessibility. The proposals generated through drawings and maps directly support SDG 11.7. Specifically, better lighting and railings will increase safety, whereas toilets, seats, and circulation will improve accessibility, while maintaining informal use will ensure resilience based on current usage. Moreover, participation-based decision-making adds to inclusiveness through enabling participatory governance by allowing users to shape public space. In this sense, the study operationalizes SDG 11 not as an abstract policy goal but through concrete spatial measures that respond to the realities of everyday public-space use and to what UN-Habitat (2014) describes as spatial logic.

3.2 Towards Bottom-up Public Space Production Strategies

The Jabi Park case also contributes to wider discussions on bottom-up public-space production. Similar initiatives in Ikageng, Surakarta, Kampong, Poznan, and Seattle highlight how the concept of co-design may take various shapes. Comparable initiatives in cases show that co-design can take multiple forms, including interviews, walking tours, drawing, semantic evaluation, and collective mapping (Strydom & Puren, 2013; Handayani & Kusumaningdyah, 2019; Micek & Staszewska, 2019; Aditya et al., 2020; Hou, 2022). Compared to these examples, Jabi Park stands out because it shows how informal public space in a postcolonial African city can be made institutionally visible without losing its logic.

This challenge is especially relevant to African cities where urban planning is usually detached from the urban reality. Thus, the case supports the need to move from expert-led urban planning to more participative and iterative practices. This transition is particularly relevant in postcolonial African cities where official urban plans have rarely taken into account everyday realities (Watson, 2009; Parnell & Pieterse, 2016; Sanoff, 2022). Consequently, the significance of the Jabi Park example lies not only in the practical findings obtained during the project but also in the methodological implications of co-designing public space.

3.3 Policy and Design Implications

The notion of designing what already exists proposes an alternative planning approach for Abuja and other cities of the same nature. Instead of adopting strict frameworks, the FCDA can partner with communities in identifying existing patterns, improve the infrastructure, and test out cost-effective and tactical designs before implementing any formal plans. In this sense, the paper supports the suggestion of Abubakar (2014), which is to make Abuja habitable for all citizens using public participation, but also conforms to the UN-Habitat's (2009) call for accommodating the requirements of different stakeholders during urban planning and development.

Participatory methods, such as the transect walk, sticker mapping, and the design buffet, prove to be especially important. These tools show how patterns of use, density, gathering, and movement can inform planning. The correlation between the suggested activities and density, evident in the creation of children's playgrounds, shaded gathering spaces, sports areas, and market-like social hubs, demonstrates how community needs can be incorporated into a design framework.

CONCLUSION

This study attempted to explore how people appropriate and redesign Jabi Park under conditions of formal planning, as well as how participatory design may help translating such appropriation into spatial programming. Using methods of transect walks, prototyping by sketches, collective mapping, and design buffet, the research analyzed the possibilities for rendering the practices of informal public space use both analytically legible and institutionally visible.

In summary, three main findings have been established. First, in the course of the participatory design exercise, there was notable consistency between practices and stated priorities, which justified the "designing what already exists" approach over the tabula rasa. Second, the largest number of participants demanded the installation of such infrastructural elements as lighting, toilets, gazebos, seating elements, and railings. Finally, the resulting layout showed that it is possible to generate a spatial strategy based on the practices of informal public space use which was comprehensible for both users and institutions.

The paper offers contribution to the academic literature by conceptualizing a link between four related topics: informality, placemaking, participatory design, and adaptive spatial intelligence/logic. The practical significance of the findings lies in suggesting ways of informing urban public space planning in fast-growing African cities with the use of low-cost participatory methods. This can be seen as a contribution to SDG 11 that the proposals advanced would address such SDG-related topics as improved safety, accessibility, inclusiveness, and urban participation.

It should be noted that there are several limitations associated with the current research. These include focusing on one particular case of informality and placemaking, relying on a limited number of participants, and being limited only to the proposals phase and without following the actual implementation of the generated strategies. Due to the fact that there were no interventions or post-occupancy evaluations after the co-creation process, the sustained effectiveness of the proposed design cannot be determined. Future studies might employ the co-creation strategy in similar spaces in postcolonial countries, conduct comparative analysis among different spaces, and create a system for allowing users to contribute not only during the proposal process but also during the actual creation and implementation of the space.

Compliance with Ethical Standards

1. ***Conflict of Interest***

The authors declare that there are no conflicts of interest between themselves and/or any third parties or institutions regarding this work.

2. Ethics Committee Approval

This study was approved by the Bahçeşehir University Scientific Research and Ethics Committee at 27.06.2024 with the number of E-85646034-604.01-84954.

3. Generative Artificial Intelligence (GAI) Usage Statement

Generative artificial intelligence tools were used solely for language editing, including grammar, spelling, and clarity improvements. The authors reviewed and approved all revisions and take full responsibility for the final content.

4. Funding Statement

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