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Small Open Space

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Abstract— People can participate in the public realm by using public open spaces. In contrast to the setting of home or job, it is a place where people can physically join the larger community. The absence of neighbour interactions and the isolation of people as a result of a lack of well-maintained public open spaces have been characteristics of a new emerging town. Many public open places around the world have been underappreciated and severely neglected. A well-planned public open space would entice residents to leave their homes and participate in a variety of activities. When it comes to use and occupancy, this can raise the quality of the area. By evaluating the architectural and urban elements of the public open spaces, this research intends to discover and analyse dysfunctional public open spaces and weak linkages in those areas, and come up with solutions to improve these spaces and stimulate public life.

Keywords— “Open Spaces, Community, Access and Linkage, Use and Activities, Sociability, Comfort and Image”

Introduction

Public space is a place that is generally open and accessible to people. It is a space in which people can choose to be, regardless of their ethnicity, age, ideologies and gender. A public space doesn't necessarily indicate a typical square or garden but can also be a space of everyday use such as streets, sidewalks and public library [1]. Open spaces must be connected with the surrounding environment which is important to attract people and activities in that space.

The quality in public space design was achieved in the past in the form of great city squares in both eastern and western parts of the world these historic squares that developed over the time span more than two millennium, still exists in European and Asian towns [2]. Traditional towns in the Kathmandu Valley also support this case. Modern cities, on the other hand, appear to disregard traditional planning and features as they are created outside of the Kathmandu Valley's central region. Public places that are not adequately utilized are poorly managed and designed. In order to meet the housing needs of expanding populations, a number of plans and programs have been developed, including site and service plans, land grouping plans, land development plans

for private developers, etc. However, the need for public spaces has not been taken into account, which has led to the degradation of public open spaces.

Objective Of The Study

- To identify initial objective to design
- To understand user's need.
- To access functional design.
- To enhance quality of life.
- To encourage social interaction.

Literature

A. Public Open Space

Public Open Space can be defined as [3]:

- Public: open to the people.
- Open: allowing entrance or access to public.
- Space: interval between points or objects.

Public space can be defined as a common area that is not closed or blocked up and provides access for people to share. It is a common space shared by strangers for a place of enjoyment, gathering, politics, religion, commerce, sport etc. Public open space is an important part of the city; with quality spaces having a huge impact on city ranging overall areas including social, economic and environmental benefits. Open space can enhance the character of residential areas, civic buildings, conservation areas and archaeological sites [3].

B. What makes successful open spaces?

Within the framework of Project for Public Spaces; In a study conducted worldwide, more than 1000 public spaces were studied which concluded that success of the public spaces majorly depends on four key attributes [4]:

- Access and Linkage.
- Use and activities.
- Sociability and activities.
- Comfort and Image.

Access and Linkage is concerned with how space is connected to its surroundings both visually and physically

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[5]. Accessibility is an important component of making a successful public space. Successful squares aren't just well walked around and usable but leading roads should also be safe and inviting to the pedestrians [4]. The purpose of "Access and Linkage" is to describe the accessibility relationship between the surrounding area and the public open space environment to specify its strategy. Everyone should be able to access and use public space.

Sociability involves the feeling of willingness to interact comfortably with people (i.e.: local people, neighbourhood, including particularly strangers also) [5]. Social life is a basic element for every successful public space. The important starting point in developing a concept for any public space is to identify the talents and assets within the community [6]. Besides from finding of Project for Public Spaces, many other researches have proved that people participation and sense of belonging are the important factors [4]. It is also concerned with user's participation in maintaining space in a good condition.

Uses and activities are considered as the main reason why people often visit and use a space. Activities can convert any space into a different new spot, that is distinguishable among the city's other public spaces based on their diversity, and the opportunities provided to the users to partake in them [5]. For people to continue using public spaces throughout the day, there needs to be a good balance between users of all ages and genders participating in those activities.

Comfort and image are related to the success of a space because when a space is comfortable, it can represent itself well and leave good image in peoples mind [5]. Comfort and image include how individuals feel towards the public space, in terms of safety, cleanliness and maintenance. In addition to this individual's perception towards adjacent building and surrounding's character are also equally important. Furthermore, comfort in public spaces should have the space for people to sit. Many public spaces don't provide place to sit, so just to be comfortable, people are often forced to adapt to the situation in their own way [6].

Open Space Plan and Design

It is now believed that sustainability indicators for urban development should include more parameters about public spaces and green open areas, as well as indexes reflecting citizens' satisfaction and perception of their living environments (Chiesura 2004). Based on the community perception and understanding, their reflection on the open space design would be satisfactory for the citizens. Research done on the pocket park states pocket parks should be designed with the following criteria to ensure maximum safety for the community.

- Active, frequent use.
- Regular and maintenance.
- Comfortable pedestrian traffic.

- Opportunities for recreational activities.
- Community groups and stewardship initiatives.
- Formal or informal supervision.
- Access to help if needed like telephones.

Methodology

Within the interpretive paradigm, the research was conducted utilizing both quantitative and qualitative methodology. The research's three methodological steps were as follows:

- Mapping of already-existing open spaces.
- Monitoring of user activity and open space use
- A survey of locals' opinions can be used to evaluate the study area's open space.

The physical dimensions, distance, size, and number of spaces were studied quantitatively in order to determine the resources and capability that were available.

To enable the dissemination of knowledge regarding open space quality indicators, requirements and advantages, as well as concepts and theories of planning for open spaces in the neighbourhood, primary and secondary data were gathered.

Depending on the morphology of the settlement, a systematic random sampling was done. Since the major goal of the survey was to learn how people felt about public places, samples from various locations were tried to be included.

Site and Data

The 'Yaulakhel and Pushpalal smriti park' were chosen for the study because they were in a mixed urban region with two contrasting contexts, such as in between mixed residential districts and in the river corridor. Yaulakhel and Pushpalal smriti parks are in Lalitpur's Dhobighat and Dhalkhu, Kathmandu respectively. The current context was good with average management due to the involvement of local clubs and municipalities. Despite the fact that the community is expanding, there is currently a lack of proper usage of the settlement's public spaces. As a result, we decided to conduct our investigation at Yaulakhel Park and Pushpalal smriti Park Area.

C. Yaulakhel Park

1) *Features of Public Space*: Local merchant Baldev Rajak claimed that Yaulakhel's land was first used for any random purpose and was unmanaged during an interview on May 9, 2023. Since the region was flat and on an elevated terrain, the prevailing wind came mostly from the west. Site was reachable via a two-lane road network from three separate sides. The site was also connected to a dead end and was split into two sections by a road, with the remainder of the space on the western side of that road and the gym, public restrooms, and municipal single-story structure in the eastern section.



Fig. 1 Tentative Masterplan of Yaulakhel Park

Along with the designated open area, off-site facilities included a club office with restrooms, a pharmacy, a temple complex, and other supportive spaces. A small garden to the east and a play area, a small tea shop, appropriate seating areas, a smoking area, etc. were located in the center of the site. A water tank for collecting water in case of an emergency, such as a fire hazard, a small football field, a badminton court, and a volleyball court were available in the lowland.

2) *Existing scenario:* That vendor said that the restroom had controlled access, meaning it was locked while not in use. As was already noted, the proprietor of the little tea store, who also served as the club's chairman, managed and maintained the park by himself. He was unsure of the cause, but the flow of people has decreased by 60% compared to the flow of people in the past. This Park is used for this purpose as well during epidemics. Various low-wage workers received food throughout the COVID period. The area was lively, and evening traffic was heavy. Local population flow is extremely minimal. It is because the neighbourhood had a mixed-use, high-income population residing there, but people from other locations also frequented the area. The same location is also used for a variety of social activities such as training, exhibitions, and vaccinations, most of which are arranged by the local government, red cross, lion club, etc.

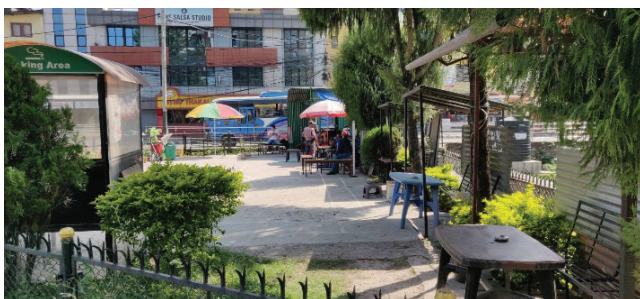


Fig. 2 Central seating area



Fig. 3 Major play area

D. Pushpal Smriti Park in Dhalkhu, Kathmandu

Along the Bishnumati river, near Dhalkhu, Kathmandu, is where you'll find Pushpal Smriti Park. This park is bounded by two major roads in the south and east, the Bishnumati River in the west, and it is located in a mixed-use area. It takes five to ten minutes to walk from the adjoining house to get to the park, which is open to both locals and visitors. All age groups are equally represented in this park, and there are a variety of venues available for use, including an open gym, a basketball court, lots of seating areas, and provisions for universal access. The fundamental reason for creating this park was to encourage a feeling of comfort in social interaction.



Fig. 4 Pushpal smriti park

1) *Existing Scenario:* As we can see, the park's grounds are effectively divided between areas for children to play, an open gym, and lots of places to sit. The majority of people come this park for open gym, where there is greater public participation. 50 persons were surveyed in the park, and the results are what we found.

- 60% of people were involve in open gym.
- 20% of people were involve in sports.
- 10% of people were involve in social interaction.
- 2% of people were involve in religious activities.
- 8% of people were involve in yoga.

According to our observations, the spaces are managed properly, however the solid trash is not managed properly. No dustbins or equipment for gathering rubbish were visible to us.

Results and discussion

E. Yaulakhel Park

Visual observation and informal talk with a local shopkeeper were the basis for these contents. The primary goal of this research is to comprehend user perceptions of public open spaces. The outcome is divided into four attributes.

1) *Access and Linkage*: This open space lies in the centre of mixed-use residential area with two apartments to north and south, a school to east, a pharmacy, temples, shops, a café, etc. around it. Site was surrounded from all three direction with 2 lane pitched road from three different points. Not all of the local people use the park but most of the people comes to park is from outside of that neighbourhood. Proximity to this park from Neighbouring houses is about 1 to 5 minutes.

2) *Uses and activities*: Gym area and green garden was fenced due to which use of such was not possible but other spaces such as badminton court, small open football play area, seating spaces, *Chautara*, etc. were unfenced, so use of such were frequent. Small tea shop makes the park livelier for people going to that space. People typically use open places for social interaction, sports, exercise, yoga, and religious activities. It is also use for social works like awareness program, vaccination, Blood donation, trainings, etc. by red cross, lion's club, municipalities, etc.

Time of use

- 10% of people use open space in morning.
- 20% of people use open space in day.
- 70% of people use open space in evening.

3) *Sociability*: Despite the fact that the park is located in a mixed-use residential zone with two apartments, the park is used by fewer individuals in the neighbourhood, surrounded by three major roads might have create discomfort for the parents to let their children to play in the park.

4) *Comfort and image*: Provision of Collection of trash was not in practice not even the trash bin. So, no proper facilities for solid waste management. Play area containing football ground and badminton court was in lower land which might face problem of water collection during raining which means no proper facilities of drainage.

F. Pushpalal Smriti Park

This analysis' primary goal is to comprehend how users feel about public open spaces. Four qualities have been assigned to the outcome.

1) *Access and Linkage*: Access and Linkage is concerned with how space is connected to its surroundings both visually and physically. Accessibility is an important component of making a successful public space.

a) *Proximity*: Pushpalal Smriti Park is located in a mixed-use area and is bordered by the bishnumati River on the west and two important roads: Pushpalal Road in the south and

east. This park is within 5–10 minutes walking distance to nearby neighborhoods, and it is open to the public as well as residents.

2) *Use and Activity*: For the proper balanced participation of the people in the park there must be proper division of the spaces.

a) *Activities and use of open spaces*: This Park feature ample resting areas as well as areas for children to play, an open gym, and a basketball court. The majority of individuals use public places for sports, exercise, yoga, and social interaction. This Park hosts not just sporting events but also social, cultural, and educational ones.

b) *Time of use*:

TABLE 1
PARTICIPATION OF PEOPLE IN NORMAL DAY AND WEEKEND

| Age Group | Normal Day | | | Weekend Day | | |
|-----------|------------|------|---------|-------------|-------|---------|
| | Morning | Noon | Evening | Morning | Noon | Evening |
| Child | 10-15 | 5-10 | 20-25 | Up to 10 | 10-15 | 20-30 |
| Teenager | 5-9 | 5-9 | 10-15 | 10-15 | 5-15 | 15-20 |
| Old aged | 5-10 | 5-10 | 15-20 | 10-15 | 5-8 | 10-15 |

From the above table we can see the participation of the all-age group people in normal days and in the weekend. For the percentage we can see from the below pie chart;

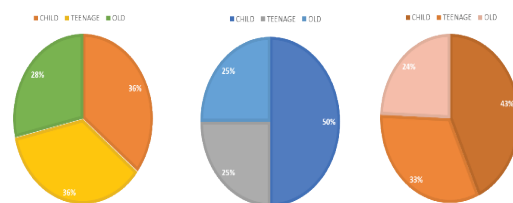


Fig. 5 Participation of people in weekend

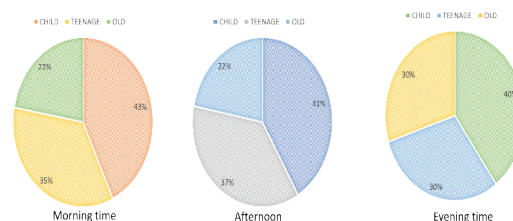


Fig. 6 Participation of people in normal days

3) *Sociability*: Since there is a lot of public participation in this park, it is a really lively place. Due to its location in the slump region, youngsters and the elderly make up the majority of visitors to this park. This may also be the cause of the lower level of participation among nearby residents. The streets were extremely congested during the direct observation, which may have made it uncomfortable for the parents to let their kids to play in the park. The park's ability to provide universal access was one of its positive aspects.

4) *Comfort and images*: How people feel about the public environment in terms of safety, cleanliness, and upkeep is included in comfort and image. The way this person perceives the character of the surroundings and the buildings next to it are also crucial. Furthermore, there should be space for people to sit in public areas for comfort. Many public locations don't have seating; thus, individuals frequently have to make their own adjustments to the environment in order to feel comfortable.

As we can see, there are plenty of places for people to sit and rest, however the solid waste management wasn't well managed. No dust bins or other tools for collecting dust were present during our visit. The Bishnumati river receives any rainwater that has accumulated there.

Conclusion

According to the study's findings, one of the main problems with the current public places is the lack of involvement of the surrounding community. Due to bad administration and a lack of engaging features, accessible public spaces are not welcoming. Neighbourhood participation in open space programs is absolutely necessary for their success. One of the main reasons for the degradation of open spaces is a lack of community engagement in the maintenance of public areas.

The value of public space has not been recognized by neighbourhoods, and the inadequate development of neighbourhood public space is also lowering the standard of social life.

The current flaws in the design and administration of public spaces, such as inadequate upkeep, improper access, and a lack of solid waste management, seem to have had an impact on how they are used both regularly and during social gatherings.

When considering all four factors, it becomes obvious that, if open spaces are well maintained, they have a high potential for being used effectively and also contribute to the environment's welfare. If we are able to provide proper solid waste management, such as providing dustbins according to waste in open space, it might help to improve the environment of the spaces, proper management of the spaces according to age group, and ample sitting spaces might help to increase the participation of local people and interaction between the local neighbours.

Recommendation

- According to observations, people prefer accessible parks as open spaces; therefore, during the restoration of existing open spaces, a park with adequate accessibility and basic facilities should be provided to engage users.
- Even though children are surrounded by technology and are generally preoccupied with electronic devices,

they still require opportunities for outdoor play in community areas. As a result, child-friendly open places should be offered, which fosters a sense of belonging to the community.

- The success of a given public place is determined not just by the architect, urban designer, or urban planner, but also by the people who use and manage the space. People's attitudes regarding public open space are influenced by the success or failure of the open space. As a result, everyone should practice self-regulation and respect for public spaces.
- Parking is a crucial issue in any public space, so dedicated parking spaces should be provided in or near the intended area.
- Proper management of waste should be the provision for the parks.

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