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The Efficacy of Public Realms in Indian Context

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Abstract
Public realms are defined as places that are open or accessible to the general people. Roads, footpaths, courtyards, green parks, and ghats are typically considered public spaces. The beginning and completion period for any task is a tedious interaction with the public. Most of these kinds of spaces are usually designed keeping human psychology in mind as they contribute to the city fabric and enhance the user's experience. Without these open spaces, the establishment of a physical link between spaces is incomplete. Public realms not only provide a forum for common interaction and connection but they increase the interactivity of any space. The quality of the public realm is vital to be successful in creating environments that people want to live or work inside. Aside from being utilitarian occasionally, they can likewise be the justification for something; strain between state-driven metropolitan improvement strategies and cultural reactions to spatial changes in Indian urban communities. The concept of universal design access is linked with the planning of public realms to provide public access, common ground, and shared networks – creating spaces that have top-notch amenities. Any space that has a high level of interaction between people or provides a sense of connectivity can be called a public realm, in the modern trends using a rooftop cafe, street gardens, community plazas, etc. are examples of perfect of some public realms. Public realms are not only determinants of urban form and urban morphology but they give liveliness to spaces. The primary aim of this study is to understand discrete urban and rural open public spaces with social, cultural, and political significance and their preservation for recreational purposes which contributes to the high level of quality of life.

Keywords: Public realms, physical link, utilitarian, universal design, urban link, open spaces

INTRODUCTION

The public realm generally refers to the shared spaces and facilities that are accessible to all members of the public, regardless of their social or economic status. These can incorporate roads, walkways, parks, public structures, transportation foundations, and other public spaces that are claimed and kept up with by the public authority or other public elements. Spaces normally contain walkways, seats, water, and vegetation, and are open and available to general society. Some are freely claimed and made due, while others are exclusive yet open to general society [1]. These spaces are framed through the regular turn of events or inappropriate allocation, obliging individuals for explicit purposes after some time (Figure 1).

The concept of 'public realms' as we understand it in modern societies did not exist in the same way during prehistoric times. Prehistoric societies were small-scale and were operated by a much simpler organizational level than contemporary urban civilizations. Public places have developed from a variety of influences against the historical backdrop of public life [2]. Some from the

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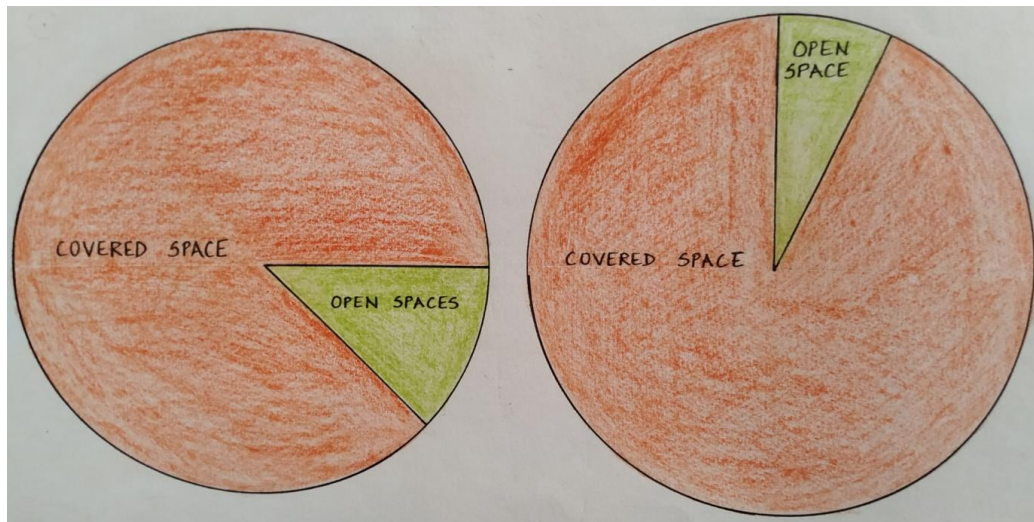
outcome of the crawling infringement of a society that was getting done and filling up spaces in different urban spaces while some were the result of a diverse society with numerous and distinct demands, interests, and aesthetics. Other public regions were the consequence of a longing for fastidious preparation with clashing needs that directed their structure and capability. In any case, some were made suddenly with no proper arranging systems set up [3]. Concentrating on the public domains is significant in a nation like India since it gives a sort of information about friendly communication, public occasions, and metro commitment, and it assists with creating a feeling of the local area and having a place by giving spaces where individuals can assemble, share encounters, and construct associations with each other [4].

Figure 1. Comparative analysis of provision for open spaces between two housing typologies.

Figure 2. Key qualities of a good public space.
(Source: images.adsttc.com)

The primary aim of the Figure 2 study of the public realm is to understand its significance in the Indian context and its relevance through historical, cultural, social, economic, and environmental contexts with the help of various factors that can influence their design and utilization, thus creating a connection between individuals, their surroundings, and functionality [5]. The paper also explores how public spaces can significantly improve the quality of life and well-being of individuals and communities alike.

KEY OBJECTIVES

The targets of the review accentuation are to get a profound comprehension of the job of the general population in the improvement of roads that are divided among various gatherings; to examine various strides for empowering the best use through the elements that shape the utilization and plan of public domains; to recognize the difficulties and chances of making comprehensive and open public spaces, and investigating how public spaces add to the prosperity and personal satisfaction of people and networks [6]. To illuminate strategies, plan practices, and local area activities that upgrade the public domain and advance a feeling of having a place and city commitment.

IMPORTANCE OF PUBLIC REALMS

Any kind of public space can be easily identified apart from any other space in terms of terms of access, the source, and the nature of command over the passage to use the space. Accordingly, there are various important parameters defining the public realm.
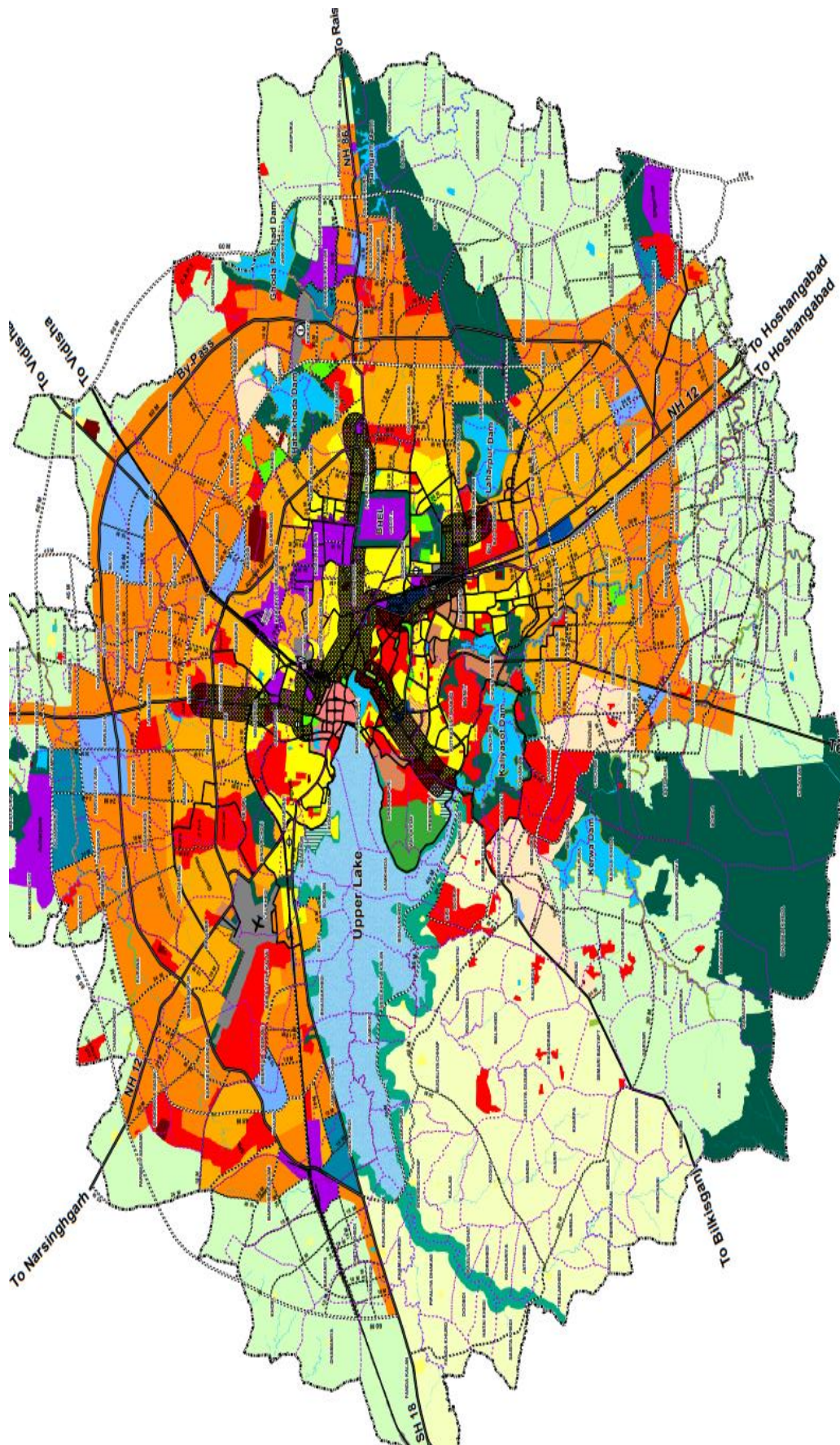
Historical

The historical significance of public realms in the Indian context is deeply rooted in the country's diverse cultures, rich traditions, and long history of civilization. Throughout various periods, public spaces have played pivotal roles in shaping social, cultural, and political dynamics. In ancient India, cities like Mohenjo-Daro and Harappa showcased advanced urban planning, featuring well-designed streets, public squares, and drainage systems [7]. These public spaces were essential for communal gatherings, trade, and civic activities. Temples, mosques, stupas, and other religious structures have been historically intertwined with public spaces. Bazaars and markets have been integral to Indian society. These public spaces facilitated trade, commerce, and cultural exchange, contributing to the development of economic networks and the spread of ideas. The Mughal period saw the creation of magnificent public spaces, such as gardens (Charbagh), plazas, and monumental structures like the Red Fort and Jama Masjid in Delhi. These spaces blended architectural excellence with public utility. During the colonial era, British urban planning introduced concepts of public spaces like parks, gardens, and administrative centers. Examples include Victoria Memorial in Kolkata and Cubbon Park in Bangalore. Public spaces played a crucial role in India's struggle for independence. From Mahatma Gandhi's gatherings at Sabarmati Ashram to public meetings and protests, these spaces became platforms for voicing dissent against colonial rule. Post independence, public spaces have been central to urban planning and architectural developments—modern cities, like Chandigarh designed by Le Corbusier, integrated public spaces into urban designs. Many of India's historical monuments, such as the Taj Mahal and Qutub Minar, are set within expansive public spaces. These sites offer insights into the country's architectural and cultural evolution. Throughout history, public spaces have been vital for social interactions, forging identities, and reinforcing the sense of belonging within communities. The historical significance of public realms in India is intertwined with cultural practices, architectural marvels, political movements, and the evolution of urban environments [8]. These spaces have served as witnesses to the unfolding of India's past, reflecting the values, aspirations, and dynamics of its diverse populace.

Social

The public realm provides an opportunity for people of diverse backgrounds to communicate. They facilitate social connections, encourage communication, and foster a sense of community and

Figure 3. Bhopal development plan 2031 implemented with circulation for pedestrians, cyclists, and vehicles and other important realms like the transit access, the route for utilities, transit access, recreational green spaces for the public, etc. *(Source: BDP, 2031)*

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belonging. The social significance of public spaces is profound and multifaceted, impacting individuals, communities, and societies in various ways. These areas provide people of all ages, skills, and backgrounds with essential venues for social interaction, community building, and variety. It offers a space for Recreational leisure to enhance social cohesion and strengthen the overall fabric of society.

Public spaces act as venues for public gatherings, Figure 3 discussions, and political activities. Public spaces can serve as informal educational environments where people can learn from one another, share skills, and engage in discussions on various topics. Public spaces help break down social barriers and encourage interactions between people of different socioeconomic backgrounds, fostering a more interconnected and empathetic society [9]. In short, public areas are crucial in forming the social fabric of local communities. Their design, accessibility, and inclusivity are crucial factors in determining the extent to which they can fulfill their social functions and contribute positively to the well-being and cohesiveness of society.
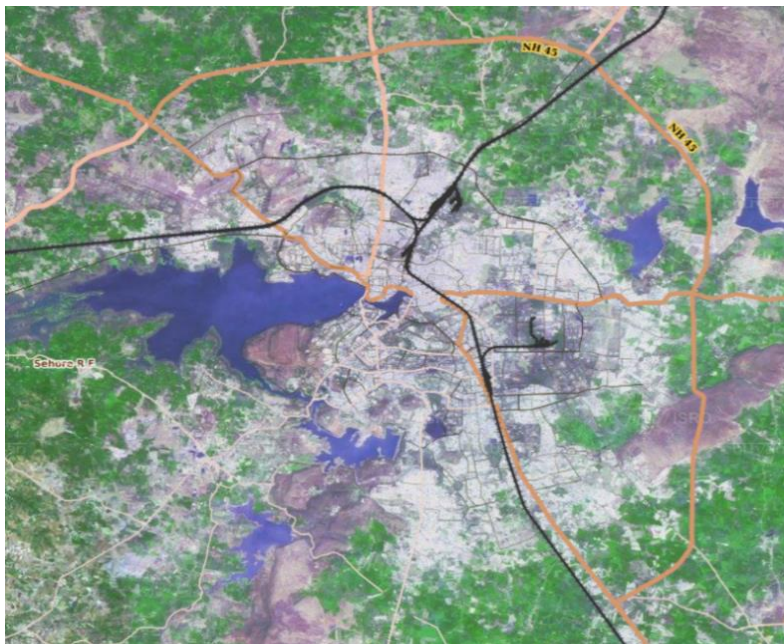
Cultural
Public spaces often serve as venues for cultural events, festivals, and celebrations. They allow for the expression and preservation of cultural traditions, promoting a sense of identity and pride within communities [10]. The cultural significance of public realms in the Indian context is profound, as these spaces have historically been integral to the expression, preservation, and celebration of the country's diverse cultural heritage. Public spaces in India serve as platforms for cultural interactions, traditions, rituals, and artistic expressions. Public spaces are central to cultural festivals like Diwali, Holi, Eid, Navaratri, and Christmas. These spaces become vibrant hubs for communal celebrations, showcasing traditional dances, music, rituals, and festive decorations. Temples, mosques, churches, and other religious sites often have adjoining public spaces that facilitate religious practices, ceremonies, and gatherings [11]. These spaces enable devotees to engage in spiritual activities and connect with their faith. Many spaces serve as spaces for cultural performances, traditional markets, or bazaars These realms provide places for cultural exchange where people from different backgrounds exchange their ideas about their customs and traditional practices, which are deeply rooted in India's cultural heritage and are often shared in communal settings. In India, public realms act as living canvases for cultural expression and heritage. These spaces continue to evolve as they incorporate contemporary influences while preserving the country's rich cultural legacy. They play a crucial role in fostering cultural continuity, promoting diversity, and ensuring that traditional practices and artistic forms thrive in the modern world.

Environmental
In addition to providing green spaces, parks, and green areas also promote biodiversity and lessen the negative effects of pollution, all of which help to maintain the ecological balance of urban surroundings. The environmental significance of public realms in the Indian context is particularly crucial due to the country's rapid urbanization, diverse ecosystems, and the challenges posed by climate change. Public spaces that are designed and managed with environmental considerations can have a positive impact on ecological health, air and water quality, and overall sustainability through water and biodiversity conservation. Public spaces that prioritize the environment support a number of Sustainable Development Goals (SDGs), such as Goal 11 (Sustainable Cities and Communities), Goal 13 (Climate Action), and Goal 15 (Life on Land). Public realms with greenery, trees, and shading elements can help eliminate the urban heat island effect by providing cooling and shade.

Well-designed public spaces with vegetation can act as ''green lungs,'' Figure 4 absorbing pollutants and releasing oxygen, thus contributing to improved air quality and reduced carbon levels in the atmosphere. In the Indian context, where the challenges of rapid urbanization, air and water pollution, and climate change are pronounced, prioritizing the environmental significance of public realms can lead to more resilient, healthier, and sustainable cities [12]. Public spaces can become showcases of how urban development can coexist harmoniously with nature and cultural heritage.

Figure 4. Bhuvan NRSC.
(Source: https://bhuvan.nrsc.gov.in)

Economical
   The economic significance of public realms is substantial, as these spaces contribute to economic growth, local businesses, tourism, job creation, influence property values, and overall urban development. Properly planned public areas have the power to draw people in and boost local business. Restaurants, shops, and businesses often thrive when there is an inviting public space that draws people in. Well-maintained public spaces enhance the quality of life in neighborhoods and can increase the value of nearby properties, attracting potential buyers and investors. Public realms also influence local businesses for example they host street vendors and informal traders, contributing to the informal economy and providing livelihood opportunities for vendors and their families. Public spaces require maintenance, security, landscaping, and event management. Efficiently designed public spaces near transportation hubs can improve accessibility and connectivity, promoting the use of public transport and reducing commuting costs for residents. In the Indian context, where urbanization and economic growth are prominent, leveraging the economic significance of public realms can lead to inclusive development, increased employment opportunities, enhanced business activity, and improved quality of life for residents and visitors alike.

DETERMINANTS OF PUBLIC SPACE USE AND DESIGN
   The determinants of public space design are the various factors that influence the planning, layout, and features of a public realm. These factors shape the purpose, functionality, aesthetics, and overall user experience of spaces. The surrounding environment, urban or rural setting, neighboring buildings, and natural features impact the design and use of the public space. Understanding the preferences, cultural diversity, and specific needs of the local community guides the design to ensure it serves the intended user groups. Determining the primary function of the space, such as recreation, relaxation, social interaction, or cultural events, influences the layout and amenities to be provided hence such design elements shall be introduced that promote physical activity, relaxation, and mental well-being significantly enhance the overall user experience of public spaces. Another important component is designing for people of all ages and abilities, including those with disabilities, to ensure that the space is welcoming and usable for everyone. Safety and Security are other factors that help in determining the design. Considerations like energy efficiency, water management, use of sustainable materials, and promoting biodiversity impact the environmental impact of the space while choosing durable materials and considering maintenance requirements impact the long-term sustainability of

the space. By incorporating flexibility and adaptability in the design process, a space becomes capable of accommodating a diverse range of activities and events over time. Community involvement is key to creating a space that meets the needs and wants of the community. Designing within legal and regulatory frameworks is essential. It is of utmost importance to comply with local building codes, zoning regulations, and government policies. Budget constraints, maintenance costs, and the potential economic impact on local businesses influence design decisions. Incorporating technology like Wi-Fi, interactive displays, or smart infrastructure can enhance the user experience. Considering vehicular and pedestrian traffic patterns and connections to public transportation affects the accessibility and functionality of the space. Acknowledging the historical and cultural importance of the site can inform design choices and thematic elements. Reflecting local aesthetics, culture, and heritage contributes to the character and sense of identity of the space. Many Indian cities have historical landmarks and heritage sites that influence the design and preservation of nearby public spaces. India's rich cultural diversity and heritage influence the design and aesthetics of public spaces. Incorporating elements from different cultures and traditions is important to create inclusive and resonant spaces. Incorporating traditional urban design principles, such as courtyards, shaded walkways, and community squares, can enhance the functionality and aesthetics of public spaces.

These determinants interact and overlap, guiding the decisions of designers, architects, urban planners, and community stakeholders to create public spaces that satisfy their intended purpose, while considering the needs and aspirations of the people who will use them; hence these factors should be essentially considered while designing public spaces in India which requires a holistic approach that blends modern urban planning principles with cultural sensitivity and community engagement. Create spaces that foster social harmony, enhance well-being, and reflect the diversity of Indian society.

UTILIZING CHALLENGES AND OPPORTUNITIES IN PUBLIC SPACE DESIGN.

In the realm of urban planning and architecture, the design of public spaces involves crucial factor in shaping the character and functionality of any city. As our cities continue to evolve, designers and planners are faced with a spectrum of challenges and opportunities that guide the creation of vibrant and inclusive public spaces. Navigating these challenges while seizing these opportunities is key to creating dynamic and comprehensive public spaces in our ever-evolving cities. Here are some of the key challenges that designers face when creating public spaces:

Challenges

Public spaces need to accommodate a wide range of users, including children, the elderly, people with disabilities, and different cultural backgrounds. So, the design shall serve the diverse user needs and the designer must ensure that the space is accessible, safe, and inclusive for everyone. In urban environments, the space available for public realms can be limited. Thus, spaces must be created to make the most of the available area while maintaining a balance between green spaces, pedestrian pathways, seating, and other amenities. Achieving a balance between urban development and climate change while incorporating greenery and natural elements is crucial. Designers should incorporate eco-friendly elements such as green roofs and rain gardens, as well as energy-saving lighting while designing such areas. Planning for safety without making spaces feel overly restricted or intimidating is yet another challenge as a well-designed space deters crime while still feeling open and inviting. Involving the local community in the design process can be challenging, as various stakeholders may have conflicting interests. Finding ways to incorporate community input while maintaining design integrity is important. Designing public spaces that are both visually appealing and easy to maintain can be difficult. The choice of materials, landscaping, and infrastructure should take long-term maintenance costs and efforts into account.

Opportunities

A reasonable qualification among public and confidential spaces is an urgent component of powerful metropolitan plan. Public areas ought to be designed to be inviting and accessible, while

private spaces, such as backyards or terraces, should be marked as such. Designing a positive division among public and confidential capabilities is a key aspect of good urbanism. The success of external public realms relies heavily on the land use surrounding them and the ones lining the streets that lead to them. This means that planners must be realistic about what can and cannot work in certain locations. It is not feasible to create a bustling commercial hub in a peaceful residential area or a tranquil oasis in the middle of a busy urban center. In any case, on the off chance that the objective is to make such a space, dynamic purposes ought to be deliberately coordinated into the public space all along, to such an extent that the public space will be loaded up with life and permit clients to collaborate with it. Therefore, planning a mix used surrounding public spaces is a crucial and early lesson in the public space design process, and planners must take a leading role in making these decisions.

Creating public spaces that offer users a meaningful experience is essential (Figure 5). These areas become increasingly important as users engage with them, developing a rich history and character that reflects their use and incorporates significant historical and landscape elements. Additionally, providing amenities such as smart lighting, kiosks, pools, sculptures, digital wayfinding, screens, bandstands, sports, facilities, and public art, interactive installations enhances the overall experience for visitors. Likewise, public spaces can celebrate local culture, heritage, and diversity through art installations, sculptures, murals, and design elements that reflect the identity of the community. Creating distinctive and iconic structures or features within public spaces can become landmarks that define a city's identity transforming ordinary areas into unique and memorable places through the thoughtful design of public spaces can effectively foster community engagement and a strong sense of belonging. Public spaces can work with social collaborations, everything being equal, from huge scope occasions to humble experiences. These scenes act as locales for public discussion, dissent, correspondence, and towns and urban communities' public activity. Research shows that development out in the open space dominatingly streams along prevailing passages going directly through spaces, and from development passageways to the dynamic purposes of room as well as the other way around. In almost every much-coordinated spaces, a little extent of clients will stop inside and connect straightforwardly with the space, while the larger part will go straight through. Elevated degrees of through development animate elevated degrees of movement in the space, accordingly working with more friendly commitment between individuals. Well-planned public spaces encourage people from different backgrounds to interact and socialize, fostering community cohesion, and reducing social isolation. Involving the community in the design process can lead to a sense of ownership, pride, and responsibility for the space's upkeep. An unobtrusive rebalancing of space is many times everything necessary for traffic and walkers to share public space agreeably, with common advantages to the two gatherings. This includes giving adequate room to walkers for development and socialization, confiding in them to move and explore openly, and dialling back traffic on streets driving into and through open spaces. For public spaces to succeed, they should have a solid plan that incorporates regular materials, trees, and plants, and a reliable degree of action that can adjust to changes over the long run. This likewise involves planning arrangements that reflect the planned schedules and spending plan imperatives for keeping up with public space, with materials and highlights that age well and are immortal. Updating disregarded or underutilized regions can work on metropolitan renewal and redevelop neighborhoods, draw in speculation, and work on metropolitan style.

POLICIES, PRACTICES, AND COMMUNITY BEHAVIOR WHILE USING PUBLIC SPACES

Policies, practices, and community behavior have significant influences on the use and experience of public spaces. These factors interact to shape the overall functionality, atmosphere, and impression, of public spaces in different ways.

Policies refer to the rules and regulations set by authorities or governing bodies that dictate how public spaces are used and managed. These policies can cover a wide range of aspects, such as hours of operation, permitted activities, maintenance standards, and safety guidelines. In the Indian context,

these may be related to the use of public spaces and can vary based on the specific location, jurisdiction, and type of space.

Figure 5. Spaces should be designed to promote relaxation, with comfortable and movable seating options, toilet facilities, landscaping, and consideration for microclimate.

Many public spaces have designated opening and closing hours to ensure safety and manage foot traffic. Parks, plazas, and other recreational areas often have specific hours of operation. Likewise, different public spaces might have restrictions on the types of activities allowed. For instance, some areas might permit sports and recreational activities, while others may restrict them to maintain a peaceful environment. Policies might regulate whether commercial activities like selling goods, food, or services are allowed in public spaces. Some areas might have designated zones for street vendors or prohibit certain types of businesses.

Likewise, organizing any event or gathering requires obtaining event permits from local authorities. These permits outline guidelines for crowd management, waste disposal, and other logistical aspects. Policies related to waste management require users to properly dispose of trash and keep public spaces clean. Regulations regarding noise levels and disturbance are important to maintain a peaceful coexistence with surrounding residents. Public spaces might have specific noise limits during certain hours. Public spaces often have safety guidelines, such as rules about using certain equipment, wearing protective gear, and adhering to traffic regulations in spaces like pedestrian zones. Policies might focus on ensuring that public spaces are accessible to all individuals, including those with disabilities. This can involve guidelines for ramps, pathways, seating, and signage, whereas certain policies might aim to protect the environment within public spaces, including regulations about planting trees, conserving water, and minimizing pollution. Public spaces with cultural or historical significance might have policies in place to protect and preserve their unique characteristics. This can include guidelines for restoration and maintenance. To maintain a safe and family-friendly environment, some public spaces may prohibit alcohol consumption or the use of certain substances.

Public spaces are used for a variety of activities such as recreational activities, cultural events, gatherings, exercise routines, and more. The actions and activities that take place within these spaces are known as practices. The type of public space and the preferences of the community using it can influence the types of practices that occur.

Community behavior involves different attitudes, actions, (Table 1) and interactions of individuals and groups while using public spaces. This behavior can significantly influence the overall

atmosphere and functionality of an area. Community behavior in public spaces must prioritize respect and shared ownership which involves being considerate of others, following rules, and ensuring cleanliness. This behavior should also acknowledge the cultural diversity of India, respecting different customs and traditions. Noise control is essential, especially in densely populated areas. Environmental responsibility is key, with individuals safeguarding these spaces' natural beauty and resources. Engrossment entails making public spaces accessible to people of all backgrounds and abilities. By practicing these behaviors, communities in India can create harmonious, safe, and welcoming public spaces that enhance the quality of life for all residents.

Table 1. Community behavior involves different attitudes, usage, and interactions of individuals or groups while using public spaces.

Board Type	Specific Types Public Places and Spaces
Public Places	Neighborhood parks
	Sporting places
	Town Squares
	Coastal and foreshore nodes
	Streets and verges
	Urban farms
	Urban nature
	Claimed places from spaces
Public Spaces	Boulevards
	Open malls and forecourts
	Laneways
	Large urban parks and foreshores*
	Redundant spaces*
	Underused parks
	Campuses*
	Road verges
Public non-spaces	Closed shopping malls
	Transport stations (e.g. train)
	Acquired non-spaces

Parts of some of these large can emerge as claimed places defined and planned to be placed rather than being claim.

CONCLUSION

From the above findings, we can clearly state that encouraging the best utilization of public realms involves an integration of planning, design, management, and community engagement strategies. Designing and utilizing public realms in India requires a holistic approach that considers the unique and diverse factors influencing the urban landscape. Public realms play a crucial role in transforming ordinary spaces into meaningful, vibrant, and distinctive places within a community or urban environment. The importance of the public realm lies in its relation to the socioeconomic aspects of the city and its role in shaping the experiences of its inhabitants. In a country like India, public realms are of paramount importance for addressing the multifaceted challenges posed by rapid urbanization and population growth. While challenges such as congestion, inadequate maintenance, and accessibility persist the significance of well-designed public spaces cannot be underestimated. Indian cities and communities should prioritize creating, revitalizing, and sustainably managing public spaces. These spaces can significantly impact human environments. For public spaces to succeed; they must incorporate social and physical diversity and be tailored to the local community's needs.

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