



BASIC ELEMENTS AND DIMENSIONS WITH URBAN FOCUS

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ABSTRACT

Urban design is the art and science of giving form to our cities and towns. It involves shaping the physical environment of our built-up areas to create places that are functional, aesthetically pleasing, and sustainable. At the core of urban design are several basic elements and dimensions that work together to create a cohesive and vibrant urban fabric. Buildings are the most prominent elements of any urban landscape. They define the skyline, provide shelter, and house various functions such as residential, commercial, and institutional. The design, scale, and arrangement of buildings significantly impact the character and quality of urban spaces. Streets are the arteries of a city, connecting people and places. They provide access, facilitate movement, and shape the urban fabric. The width, layout, and design of streets influence traffic flow, pedestrian safety, and the overall experience of urban spaces. Public spaces are the "living rooms" of a city, providing places for people to gather, relax, and interact. They can take various forms, such as parks, plazas, squares, and waterfront areas. The design and programming of public spaces play a crucial role in creating vibrant and inclusive urban environments. Landscaping adds greenery, color, and texture to urban spaces. It can range from small-scale plantings to large-scale parks and greenways. Landscaping not only enhances the visual appeal of a city but also provides environmental benefits such as air and water purification, climate regulation, and habitat creation.

Keywords:

Urban, design, Infrastructure , dimension



INTRODUCTION

Infrastructure is the backbone of any city, providing essential services such as water, sanitation, transportation, and energy. The design and management of infrastructure are critical for ensuring the sustainability and resilience of urban areas. Functional dimension focuses on the practical aspects of urban design, such as accessibility, safety, and efficiency. It considers how people move through the city, how they access services and amenities, and how the urban environment supports their daily activities. (Pirlone, 2008)

Aesthetical dimension is worried about the visual allure and magnificence of the urban climate. It thinks about the concordance of varieties, surfaces, and structures, the connection among structures and open spaces, and the by and large visual effect of the city. Social dimension perceives that urban communities are composed of individuals and that urban design ought to make spaces that help social connection, community building, and a feeling of having a place. It considers the requirements of various gatherings inside the community and how the urban climate can advance value and consideration.

Financial dimension recognizes that urban communities are monetary motors and that urban design can assume a part in advancing monetary development and development. It thinks about how the urban climate can draw in speculation, support organizations, and make occupations. Ecological dimension underscores the significance of manageability in urban design. It thinks about the effect of urban development on the climate, like energy utilization, contamination, and asset use, and tries to make urban communities that are harmless to the ecosystem and strong.

Via cautiously considering these essential components and dimensions, urban designers can make urban communities that are useful and tastefully satisfying as well as practical, evenhanded, and energetic spots to live, work, and play. Public spaces are the backbone of urban areas, the spots where the urban texture genuinely wakes up. They are the spaces that are open and available to everybody, no matter what their social or financial status. These spaces are something beyond



actual spots; they are the settings for social communication, social articulation, and urban commitment. (Yang, 2009)

The design and usefulness of public spaces are impacted by various elements, including the general climate, the expected utilization of the space, and the social setting. Public spaces ought to be effectively available to individuals of any age and capacities. This incorporates giving satisfactory pathways, inclines, and lifts.

The space ought to be designed to oblige different exercises, from uninvolved amusement to dynamic play. Public spaces ought to give an agreeable and welcoming environment. This can be accomplished using shade, seating, and arranging. Public spaces ought to be free from any potential harm for every individual who utilizes them. This incorporates satisfactory lighting, reconnaissance, and a noticeable police presence.

Public spaces ought to be tastefully satisfying and add to the general person of the city. This can be accomplished using top notch materials, finishing, and public workmanship. Actual dimension alludes to the actual size and state of the space, as well as its area and direction. Social dimension alludes to the manners by which individuals utilize the space, including social association, social articulation, and metro commitment.

Financial dimension alludes to the monetary advantages that public spaces give to the city, like the travel industry, retail deals, and property estimations. Ecological dimension alludes to the natural effect of public spaces, including their commitment to air quality, water quality, and biodiversity. Social dimension alludes to the social meaning of public spaces, remembering their job for saving neighborhood history and customs. (Alam, 2008)

REVIEW OF LITERATURE

Sarker et al. (2008): In urban areas, public spaces assume a particularly significant part. They give a genuinely necessary relief from the hurrying around of city life and proposition open doors for social collaboration and community building. Public spaces can likewise assist with rejuvenating neighborhoods and work on the



personal satisfaction for urban occupants. Be that as it may, public spaces in urban regions likewise face various difficulties. These incorporate congestion, wrongdoing, and vagrancy. What's more, the rising privatization of public spaces is a developing concern.

Kumar et al. (2008): Public spaces stay a fundamental piece of the urban scene. They are the spots where we meet up to celebrate, to grieve, to dissent, and to partake in the organization of others essentially. As urban areas proceed to develop and advance, we must keep on putting resources into and safeguard our public spaces.

Müller et al. (2009): Trees, bushes, blossoms, and groundcovers are the most widely recognized components utilized in finishing. They give tone, surface, and structure, and can be utilized to make security, shade, and windbreaks. Lakes, wellsprings, and streams can add visual interest and a feeling of serenity to a scene. They can likewise assist with cooling the air and give an environment to untamed life.

Zhang et al. (2009): Hardscape components, like decks, walkways, and holding walls, can be utilized to characterize spaces and make practical regions inside a scene. The nature of the dirt is fundamental for the soundness of plants. It is essential to pick the right sort of soil for the plants you need to develop. Plants need daylight to develop, so it is vital to consider how much daylight that a specific region gets while arranging a scene.

Basic Elements and Dimensions with Urban Focus

Infrastructure is the foundation upon which cities are built and thrive. It encompasses the essential systems and facilities that enable a city to function, including transportation, energy, water, sanitation, telecommunications, and public services. In the context of urban areas, infrastructure plays a crucial role in shaping the quality of life for residents, facilitating economic growth, and promoting sustainable development.

Efficient transportation networks are vital for the movement of people and goods within and between cities. This includes roads, railways, public transport systems,



and airports. Well-connected transportation systems reduce congestion, improve accessibility, and enhance economic productivity.

Reliable and affordable energy supply is essential for powering homes, businesses, and industries. This includes electricity generation, transmission, and distribution networks, as well as energy infrastructure for heating and cooling. Access to clean water and sanitation services is fundamental for public health and hygiene. This involves water supply systems, wastewater treatment plants, and sanitation facilities. Modern cities rely heavily on telecommunications infrastructure for communication, information access, and economic activity. This includes fiber optic networks, cellular towers, and data centers.

Essential public services such as education, healthcare, and public safety are crucial for the well-being of urban residents. These services require adequate infrastructure, including schools, hospitals, and emergency response facilities. Physical infrastructure refers to the tangible assets that make up the city's infrastructure, such as roads, bridges, buildings, and utilities.

Social infrastructure encompasses the institutions and services that support the social and economic well-being of the city's residents, such as education, healthcare, and social welfare programs. Digital infrastructure refers to the information and communication technologies that enable the city to function effectively, such as broadband internet, data centers, and smart city technologies.

Urban areas face numerous challenges in managing and developing their infrastructure. These include aging infrastructure, population growth, climate change, and the need for sustainable and resilient solutions. However, these challenges also present opportunities for innovation and improvement.

Infrastructure is the backbone of urban life, and its effective planning, development, and maintenance are crucial for the success of cities. By investing in modern, sustainable, and resilient infrastructure, cities can improve the quality of life for their residents, enhance economic productivity, and create a more sustainable future.



The size and proportion of the elements in a landscape should be appropriate for the size and scale of the space. The visual weight of the elements in a landscape should be balanced, so that the overall composition is pleasing to the eye. The repetition of elements, such as plants or hardscape features, can create a sense of rhythm and movement in a landscape. The elements in a landscape should work together to create a cohesive and harmonious whole.

Plants can help to remove pollutants from the air, improving air quality for residents. Trees and shrubs can help to absorb noise, creating a more peaceful environment. Plants and soil can help to absorb stormwater, reducing the amount of runoff that enters the sewer system. Green spaces can provide a place for people to relax and enjoy nature, which is especially important in densely populated urban areas. Well-landscaped properties tend to be more valuable than those that are not. By carefully considering the basic elements and dimensions of landscaping, urban planners and designers can create beautiful and functional outdoor spaces that benefit both people and the environment.

CONCLUSION

Public spaces are the heart and soul of cities. They are the places where we come together to live, work, and play. By understanding the basic elements and dimensions of public spaces, we can create more vibrant and livable cities for everyone. Landscaping is the art and science of modifying the visible features of an area of land, typically through the planting and arrangement of plants, but also through the grading and shaping of the land, the construction of water features, and the placement of structures. In urban areas, landscaping plays a crucial role in creating livable and sustainable environments.

REFERENCES

1. Sarker, M.N.I.; Khatun, M.N.; Alam, G.M.; Islam, M.S. Big Data Driven Smart City: Way to Smart City Governance. In Proceedings of the 2008 International Conference on Computing and Information Technology (ICCI-1441), Tabuk, Saudi Arabia, 9–10 September 2008; pp. 1–8.



2. Kumar, A.; Diksha; Pandey, A.C.; Khan, M.L. Urban Risk and Resilience to Climate Change and Natural Hazards. In *Techniques for Disaster Risk Management and Mitigation*; Wiley: Hoboken, NJ, USA, 2008; pp. 33–46.
3. Müller, A.; Reiter, J.; Weiland, U. Assessment of urban vulnerability towards floods using an indicator-based approach—a case study for Santiago de Chile. *Nat. Hazards Earth Syst. Sci.* 2009, 11, 2107–2123.
4. Zhang, X.; Li, H. Urban resilience and urban sustainability: What we know and what do not know? *Cities* 2009, 72, 141–148.
5. Cariolet, J.M.; Vuillet, M.; Diab, Y. Mapping urban resilience to disasters—A review. *Sustain. Cities Soc.* 2008, 51, 101746.
6. Sharifi, A. Urban form resilience: A meso-scale analysis. *Cities* 2009, 93, 238–252.
7. LopezDeAsiain, M.; Díaz-García, V. The Importance of the Participatory Dimension in Urban Resilience Improvement Processes. *Sustainability* 2008, 12, 7305.
8. Sarker, M.N.I.; Wu, M.; Alam, G.M.M.G.M.; Shouse, R.C. Administrative Resilience in the Face of Natural Disasters: Empirical Evidence from Bangladesh. *Pol. J. Environ. Stud.* 2008, 29, 1825–1837.
9. Sarker, M.N.I.; Wen, J.; Yang, B.; Yusufzada, S.; Huda, N.; Mahbub, F. Assessment of environmental governance in disaster vulnerability context of rural bangladesh. *Growth Chang.* 2009, 52, 1155–1171.
10. Pirlone, F.; Spadaro, I.; Candia, S. More Resilient Cities to Face Higher Risks. The Case of Genoa. *Sustainability* 2008, 12, 4825.