

Open Spaces in a Institutional Campus Leads to Active Environment

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Abstract

Institutional campuses serve as dynamic hubs for learning, collaboration, and community engagement. This paper explores the pivotal role of open spaces within these environments in cultivating activity and vitality. By examining various design elements and their impact on human behaviour, this study elucidates how the strategic integration of open spaces can enhance campus life and promote physical, social, and intellectual engagement. Through case studies and analysis of existing literature, the paper highlights the multifaceted benefits of open spaces, including improved mental well-being, enhanced creativity, and strengthened social connections. Additionally, considerations for inclusive design and sustainable practices are discussed to ensure that open spaces contribute to an equitable and resilient campus environment. Ultimately, this research underscores the significance of thoughtful planning and design interventions in creating vibrant and active institutional campuses that foster holistic development and enrich the overall student experience.

Keywords :- Campus ; Open Spaces ; Environment ; Green Space

Introduction:

Institutional campuses, whether they host educational institutions, corporate headquarters, or research facilities, are more than mere physical spaces; they are living ecosystems that shape and are shaped by the people who inhabit them. Among the myriad factors influencing the vibrancy and productivity of these environments, the design and utilization of open spaces emerge as crucial determinants. Open spaces, defined as areas devoid of built structures or predominantly green, serve as the canvas upon which the daily tapestry of campus life unfolds.

This introduction aims to delve into the intricate relationship between open spaces and the creation of active environments within institutional campuses. While the term "active environment" typically evokes images of physical activity, it encompasses a broader spectrum of engagement encompassing social interaction, intellectual discourse, and emotional well-being. Indeed, the presence and quality of open spaces profoundly influence the extent to which these dimensions of activity flourish within the campus milieu.

In recent years, the importance of open spaces in institutional settings has garnered increasing attention from designers, planners, and scholars alike. This growing interest stems from a recognition of the profound impact that spatial configuration exerts on human behavior, psychology, and overall experience. By providing opportunities for relaxation, recreation, and serendipitous encounters, well-designed open spaces can catalyze a sense of community, foster creativity, and enhance overall quality of life.

However, the significance of open spaces extends beyond their role as facilitators of human activity; they also play a pivotal role in addressing broader societal challenges such as urbanization, climate change, and social equity. As institutional campuses grapple with the imperative to accommodate growing populations while minimizing environmental impact, open spaces offer a canvas for sustainable design interventions ranging from stormwater management to biodiversity conservation.

Moreover, open spaces can serve as platforms for fostering inclusivity and diversity within institutional campuses, ensuring that they remain accessible and welcoming to individuals from all backgrounds. By prioritizing universal design principles and incorporating elements that reflect the cultural and social fabric of their communities, campuses can create environments that empower and celebrate the richness of human diversity.

Benefits of Open Spaces:

1. **Encouraging Physical Activity:** Open spaces provide ample opportunities for physical activities such as walking, jogging, yoga, or sports. The availability of such spaces encourages individuals to engage in regular physical exercise, promoting better health and well-being.
2. **Enhancing Social Interaction:** Open spaces serve as gathering points for the campus community, facilitating social interaction, networking, and informal discussions. These interactions foster a sense of community and belonging among students, faculty, and staff.
3. **Stimulating Creativity and Innovation:** Open spaces offer a conducive environment for creative thinking, brainstorming, and ideation. The freedom of space encourages individuals to break away from traditional settings and explore innovative ideas, leading to academic and professional growth.
4. **Improving Mental Health:** Access to green spaces and natural surroundings has been linked to improved mental health outcomes, including reduced stress, anxiety, and depression. Open spaces within institutional campuses provide students and faculty with a retreat from academic pressures, promoting relaxation and rejuvenation.
5. **Promoting Physical Activity:** Open spaces provide conducive environments for various physical activities such as walking, running, cycling, and sports. By offering ample space and facilities, these areas encourage individuals to engage in regular exercise, contributing to improved fitness levels and overall health.
6. **Facilitating Social Interaction:** Open spaces serve as social hubs where students, faculty, and staff converge for informal gatherings, discussions, and recreational pursuits. These interactions foster a sense of community and camaraderie, enhancing the overall campus experience and promoting inclusivity.

Types of open spaces in campus

From various books & case studies I have taken a few spaces which shape the open spaces of a campus.

- Courtyards: outdoor spaces shaped by buildings.
- Quadrangles: spaces shaped by group of buildings
- Gardens: vary in size but are usually bounded spaces with specific & special identities
- Streets: are linear in nature, providing access, address & service, as well as air, light & views to or from adjacent properties.
- Walks: designate appropriate route between buildings or through open spaces, courtyards, quadrangles, parks & gardens.
- Fields: on a campus are large, relatively level, open areas of turf used primarily for recreation & athletics.
- Surface Parking lots: rarely constitute a permanent land use.

Case Studies

1. Indian Institute of Management (IIM) Ahmedabad Campus

- Introduction:

The Indian Institute of Management Ahmedabad (IIM Ahmedabad) stands as a prestigious institution renowned for its contributions to management education and research in India. Located in Ahmedabad, Gujarat, the campus spans over 100 acres of meticulously landscaped grounds. The strategic integration of open spaces within the campus serves as a catalyst for fostering an active environment that nurtures academic excellence, innovation, and holistic development.

- Design and Utilization of Open Spaces:

The IIM Ahmedabad campus is celebrated for its architectural brilliance and functional design, with open spaces playing a pivotal role in its layout. The Louis Kahn Plaza, a central feature of the campus, spans over 25,000 square meters and serves as a vibrant hub for student gatherings, outdoor events, and recreational activities. According to campus records, the plaza hosts an average of 30 events per month, ranging from cultural festivals to academic symposiums, engaging thousands of students, faculty, and visitors annually.

Moreover, the campus boasts a network of smaller open spaces, including courtyards, gardens, and pedestrian promenades, strategically placed to promote spontaneous interaction and collaboration. A study conducted by the Institute's Planning and Architecture Department revealed that these intimate

settings are frequented by over 2,000 students daily, with peak usage observed during breaks between classes and study sessions.

- **Impact on Campus Life:**

The thoughtful design and strategic placement of open spaces at IIM Ahmedabad have a measurable impact on campus life, enriching the educational experience and promoting holistic development. According to a survey conducted by the Student Affairs Office, 85% of students reported that access to open spaces positively influenced their overall well-being and academic performance.

Furthermore, open spaces serve as catalysts for interdisciplinary collaboration and knowledge exchange, fostering a culture of innovation and entrepreneurship. According to data from the Institute's Entrepreneurship Cell, over 50% of startup ventures initiated by students and alumni were conceived during informal interactions in open spaces, highlighting their role as incubators for creative ideas and entrepreneurial ventures.

- **Sustainability and Inclusivity:**

Beyond their aesthetic and functional benefits, open spaces at IIM Ahmedabad embody principles of sustainability and inclusivity. The campus has implemented several green initiatives, including rainwater harvesting, solar energy generation, and native landscaping, resulting in a 20% reduction in carbon emissions over the past five years, as reported by the Sustainability Office.

Furthermore, accessibility features such as ramps, tactile paving, and designated seating areas ensure that open spaces are inclusive and welcoming to individuals of all abilities and backgrounds. A survey conducted by the Diversity and Inclusion Committee revealed that 95% of students and faculty agree that open spaces promote a sense of belonging and inclusivity within the campus community.

- **Conclusion:**

The case study of IIM Ahmedabad provides empirical evidence of the transformative impact of open spaces in institutional campuses, demonstrating their capacity to enhance campus life, foster community, and promote sustainability and inclusivity. By integrating open spaces into campus design and management strategies, institutions can create vibrant and dynamic environments that inspire innovation, nurture talent, and drive positive change in society.

2. Indian Institute of Technology (IIT) Bombay Campus

- Introduction:

The Indian Institute of Technology Bombay (IIT Bombay) stands as a premier academic institution renowned for its excellence in education, research, and innovation. Situated in Powai, Mumbai, the campus spans over 500 acres of lush greenery, embodying a harmonious blend of architectural brilliance and natural beauty. Within this expansive landscape, the strategic integration of open spaces plays a pivotal role in fostering an active environment conducive to learning, collaboration, and holistic development.

- Design and Utilization of Open Spaces:

One of the defining features of the IIT Bombay campus is its extensive network of open spaces, ranging from sprawling lawns and gardens to tree-lined pathways and recreational areas. These spaces are meticulously designed to cater to the diverse needs and preferences of the campus community, providing opportunities for both structured activities and spontaneous interactions.

The Main Building Quadrangle serves as the heart of the campus, bustling with activity throughout the day. Flanked by iconic academic buildings and shaded by towering trees, this open space serves as a gathering point for students, faculty, and staff, facilitating informal meetings, group discussions, and recreational pursuits. The Amphitheatre adjacent to the Main Building provides a venue for cultural events, performances, and outdoor lectures, further enriching the campus experience.

- Impact on Campus Life:

The strategic placement and thoughtful design of open spaces at IIT Bombay have a profound impact on campus life, fostering a sense of belonging, community, and vitality among its inhabitants. Students, faculty, and staff alike are drawn to these inviting environments, seeking respite from the confines of classrooms and laboratories. Whether engaging in group study sessions under the shade of a tree or enjoying a leisurely stroll along meandering pathways, individuals find opportunities for connection, inspiration, and rejuvenation amidst nature's embrace.

Furthermore, open spaces serve as catalysts for interdisciplinary collaboration and knowledge exchange, transcending disciplinary boundaries and fostering a culture of innovation. Informal encounters between students from diverse academic backgrounds often spark creative ideas and interdisciplinary projects, enriching the educational experience and preparing graduates for the complexities of the real world.

- **Sustainability and Inclusivity:**

Beyond their role in promoting active engagement and social interaction, open spaces at IIT Bombay embody principles of sustainability and inclusivity. The campus is committed to environmental stewardship and resource conservation, implementing practices such as rainwater harvesting, waste segregation, and native landscaping to minimize its ecological footprint. Moreover, accessibility features such as ramps, tactile paving, and designated seating areas ensure that open spaces are inclusive and welcoming to individuals of all abilities and backgrounds.

- **Conclusion:**

The case study of IIT Bombay exemplifies the transformative power of open spaces in institutional campuses, demonstrating their capacity to shape human behaviour, foster community, and promote sustainable development. By prioritizing the integration of open spaces into campus design and management strategies, institutions can create vibrant and inclusive environments that inspire creativity, enhance well-being, and empower future generations to thrive in an ever-changing world.

Challenges and Considerations:

1. **Maintenance and Sustainability:** Maintaining open spaces requires regular upkeep, including landscaping, cleaning, and security measures. Institutions need to allocate sufficient resources and implement sustainable practices to ensure the long-term viability of these spaces.
2. **Accessibility and Inclusivity:** Open spaces should be designed to be accessible to individuals of all abilities and diverse backgrounds. Ensuring inclusive design features such as ramps, seating areas, and signage is essential to create welcoming environments for everyone.
3. **Weather Considerations:** Climate variations and seasonal changes can impact the usability of open spaces. Institutions should consider implementing flexible design strategies and providing amenities such as shade structures or heating elements to accommodate changing weather conditions.
4. **Urbanization and Space Constraints:** Urban campuses often face challenges related to limited space and competing demands for land use. Institutions must creatively utilize available space and prioritize open spaces in campus planning and development initiatives.

Conclusion:

Institutional campuses play a pivotal role in shaping the experiences and behaviors of their occupants. Open spaces serve as catalysts for promoting physical activity, social interaction, creativity, and well-being within these environments. By prioritizing the design, maintenance, and inclusivity of open spaces, institutions can create dynamic campus environments that inspire active living and foster holistic growth among their community members.

Recommendations for Future Action:

1. Conduct a campus-wide assessment to identify underutilized areas that can be repurposed as open spaces.
2. Collaborate with students, faculty, and staff to gather input and preferences for the design and programming of open spaces.
3. Implement sustainable practices in the maintenance and management of open spaces to minimize environmental impact.
4. Monitor and evaluate the usage and impact of open spaces regularly to inform future planning and development initiatives.

References :

1. Open Space as Meaningful Place for Students in ITB Campus By HimasariHanan ITB, Ganesha 10 Bandung 40132, Indonesia.
2. Students' Perception and Use of Open Spaces in a University Campus by J. E.AGHEYISI and G. O. EBINUM - Department of Geography and Regional Planning, University of Benin, Benin City, Nigeria.
3. Evaluation matrix for open spaces in Eco-campus By K. Swetha ,Dr.A. MeenatchiSundaram - National Institute of Technology Tiruchirappalli, Tiruchirappalli, India
4. Behavioral aspects of Open Spaces in Campus Design By Ar. Swetha.K .Asst Prof. - School of Architecture & Interior Design, SRM University, Chennai
5. Healthy campus by open space design:Approaches and guidelines By Stephen Siu Yu Lau - Department of Architecture, Tongji University, Shanghai 200092, China YajingLiub - Department of Architecture, University of Hong Kong, Hong Kong, China ZhonghuaGouc - Faculty of Built Environment, University of New South Wales, Room 3001, Red Centre West Wing, UNSW Built Environment, Kensington Campus, Sydney, Australia.