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Equity and Inclusivity through Architecture of Future Cities

Under Subtheme: Goal 11- Sustainable Cities and Communities

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Abstract

All 17 sustainable development goals focus towards promotion and development of strategies for equity and inclusivity in cities and communities around the world. Participation of persons from all walks of life, having varied skill sets and abilities, regardless of gender, race, physical and cognitive limitations, etc. is the key towards sustaining our future communities and cities. Though this effort towards development is multi-faceted and multi-disciplinary, this paper aims to examine the role of architecture and architects in creation of a built and unbuilt environment which encourages and invites participation from all citizens and provides opportunity and a sense of inclusivity, well-being, safety and self-esteem to one and all.

This research will examine case studies that set the tone towards developing ideas and innovations through architecture for inclusion, equity of space and gender and race neutrality. The methodology will include collection of various studies, literature reviews and opinions of experts/scholars which will point towards the general perception of inclusive spaces around the city and the memories and impressions created by the architecture, which encourages participation and contribution towards the development of the city, making it sustainable in the face of the ever-changing and ever-growing urban fabric.

This paper will highlight the various aspects of space and place-making, built environment and public places which make a city more equitable and inclusive as a shared asset not only for the residents but also for the floating population and migrants which are so typical for a megapolis like Mumbai. This study concludes with the enforcement of the role of architecture in the development of future sustainable cities and its neighborhoods.

Keywords

Equity; Inclusivity; Sustainable; Architecture; Gender; Safety

1. Introduction

Sustainable development demands an approach with inclusive growth for equitable allocation of wealth. Inclusive growth and equitable sharing of resources has been the highlight of discussions for evident reasons. The focus today is towards faster growth of economy which points towards the need to find a balance between growth and equity which is sustainable and inclusive. Inclusive growth is a process which leads to large benefits and ensures equal opportunities for everyone. At the same time, it promotes a sense of ownership of the environment, resources and the development and thereby, encouraging participation of all in the growth and sustenance of the city. While we are aware that there are a number of factors which promote this participation, this paper tries to establish the role of architecture in this process. The research aims towards finding ways that the built/unbuilt environment or urban fabric can influence the participation of the people from all streams of life in the development of their city and thereby making it sustainable in every way.

A number of challenges exist in the encouragement of sustainable urbanization in the developing world. Inclusive urbanization addresses issues in accessibility to urban infrastructural services and the equity of the urban socio-economic structure by ensuring that all participants have access to the same opportunities and resources/facilities as each other. More often this presents by ensuring rights for marginalized or urban poor and groups which were excluded in the past, such as women and children, migrant workers/refugees, more importantly, regardless of their age, gender, race, abilities and skills and economic status. All plans and schemes that have previously unaccounted for these groups are altered to accommodate them equally.

1.1 Inclusive Urban Development

Growth-first urbanization focuses on a kind of development that benefits the financial well-being of the city first and then promotes the growth and sustainability at an economic level. Rapid urbanization of many countries has been the result of such a 'Growth-first' approach ensuring vast economic growth of those countries. Growth-first urbanization relies on a notion that as economic conditions improve for a city, the situation and conditions of the citizens will also improve through access to increased capital. But, that is not true for the fact that such 'Growth' is not always inclusive and does not take into account environmental and social factors, thus making such an approach unsustainable over a period of time. In the last few years, awareness about environmental sustainability has increased and certain practices have been made mandatory in developmental plans for the city. Yet, social sustainability is a newer concept and has recently raised its head in architectural circles. Social sustainability is necessary to humanize the city and recognize the contribution and participation of all its people in the development of the city. This is where 'Equity' and 'Inclusivity' seem an important part of the growth plan.

Figure1: Architects discuss community layouts with residents for the Yerwada Slum Upgrade project in Pune, India.



Reference:<https://www.weforum.org/agenda/2019/09/here-s-how-we-can-design-inclusive-cities>

The concept of inclusiveness involves four attributes:

- Access- The built and unbuilt environment should be accessible to all and provide the means to bring people together, thereby providing opportunities to enhance their capabilities
- Opportunity- The planning of the city should generate various ways for people to earn a living and increase their incomes over time.
- Capability- The architecture of the city should provide the opportunities for people to learn and enhance their skills and capabilities in order to participate in the development of the city and feel ownership for the same.

- **Safety and Security-** The fabric of the city should provide the means for citizens to feel safe and to protect their self and loved ones against any danger to life, modesty and self-esteem.

The above four attributes are vital to the generation of architecture in the city through redevelopment projects, urban inserts, rejuvenation of urban heritage, creation of open spaces and place making within the city along with retrofitting public buildings with an indoor and outdoor environment which attracts the people and encourages them to be a contributory part of the growth of the city.

It is important to note here that Lemaire X. and Kerr D, 2017, through their research state that exclusion of certain part of society due to physical, social and economic barriers, inhibit them from participating in the growth of the city, and failure of local schemes to integrate them in their decision making is more than often a function of inertia and bureaucratic governance. Ethnicity, gender and religion are contributing factors to exclusion along with the economic divide between urban poor and urban elite both of which who live in their own little universes. They also state that infrastructure development projects and redevelopment of urban centers caused displacement of the under-privileged and therefore, exclusion and marginalization of a certain population in the cities. The immigrants from rural and semi-urban areas have a low level of purchasing power and affordability and therefore suffer for their hygiene and vulnerability which in turn causes marginalization, isolation and exclusion of a significant proportion of urban population.

1.2 A Case Study in Inclusivity in urbanization projects

The above commentary refers to the general development of infrastructure in the city. A number of NGOs are found to be effective in tackling issues of such exclusivity in cities, as is evident from the case studies given below.

Lemaire X. and Kerr D, 2017, have cited the Bill and Melinda Gates Foundation's Global Programme for Inclusive Municipal Governance, where the City of Harare was chosen as one of thirteen cities (the others being Cairo in Egypt, Lilongwe in Malawi, Luanda in Angola, Monrovia in Liberia, and eight cities in Ethiopia) to implement new inclusive urbanization programmes.

They explain that the Programme proposed to build relations between municipalities in the partner cities and the urban poor population, a group which is generally excluded from mainstream planning projects and that the Programme also aimed to address specific issues of partner cities in planning their interventions. For example, in the Cairo and Monrovia cases, the Programme focused on assisting municipal governments in solid waste management and planning practices, whilst in Harare, Luanda and Lilongwe, interventions were more focused on building capacity in municipal governments to deal with increasing informality in the city's habitation in a sustainable and inclusive manner.

Lemaire X., Kerr D, 2017, conclude that the programme itself had a number of benefits, addressing granting of formal land rights and allaying fears from experience of previous mass evictions. These benefits have a significant effect on the quality of life of slum dwellers in the city, with socio-economic characteristics improving for the vast majority of project beneficiaries.

From the above endeavor, it is evident that such inclusive programmes work to ensure participation at environmental and infrastructure level of the planning, which is at a Macro level of the city. Yet, there is a large lack of sensitivity in the way architects look at this picture of inclusivity and equity through architecture, at the micro level. This concept is slowly trying to find its foothold in the way architects are perceiving the built environment in offices and other work environments. In recent years, this attempt is being made to make women inclusive rather than all sections of society. Equity and Inclusivity need to be established at multiple levels in the city through multi-disciplinary attempts as is promulgated through the 'Sustainable Development Goals.' But, here we are trying to approach this issue through the architectural fabric of the modern city, which will lead us to tools that will help us to make the built and unbuilt environment accessible and equitable to all.

2. Different approaches towards equity and inclusivity in modern sustainable city

2.1 Inclusion through architectural renovation

Keeping in mind the aspects of environment, carbon footprint and climate change, architecture of any city demands retrofitting, renovation, reuse and adaptation of existing buildings. This also holds true for the urban heritage in the city. While architectural interventions can produce habitable and tangible outcomes for social sustainability, they also offer practical solutions to environmental aspects.

‘Social sustainability has been defined in relation to architecture as “a process for creating sustainable, successful places that promote well-being, by understanding what people need from the places they live and work. Social sustainability combines design of the physical realm with design of the social world – infrastructure to support social and cultural life, social amenities, systems for citizen engagement and space for people and places to evolve.” (Woodcraft, S., et al.,2012)

In a research by T. Peters, 2016 titled ‘ Architectural interventions for social sustainability: the renovation of modern housing’, the author has presented three case studies of architectural renovations of 1960’s-1970’s housing in Denmark where he has stated three tools to encourage social sustainability.

- Hierarchy and variety
- Customizable Facades using designed palette of materials
- Expanding the brief to other living environments for a varied mix of uses

2.2 The language of Technology in Architecture

In an article written by Ella Comberg, titled ‘What it Means to Build Without Bias: Questioning the Role of Gender in Architecture’, 2020, the author brings our attention to the research work of Hannah Rozenberg, a recent graduate of the Royal College of Art, which is on the idea that ‘architecture can, by design, be gendered’. Here she gives an example of St. James, an exclusive London neighborhood that houses dozens of gentlemen’s social clubs. Rozenberg insists that gender is built into the technology that we use and hence, gender-biased architecture will persist in our daily practice. Here, she uses architecture as a medium to revise the obvious. Rosenberg developed a website, along with her coder friend, that uses an algorithm similar to that of Google Translate to measure a word against the gender with which it is most commonly associated. ‘The program then quantifies these linguistic associations into “gender units” (GU), (Fig 2) with positive numbers indicating more female words and negative more male. As Rozenberg describes it, by analyzing text sourced from Google News articles, “the machine learns that a man is to a king what a woman is to a queen.” And when applied to architecture and design terms, it learns that what concrete, steel, and wood are to men, lace, glass, and bedroom are to women’. Rozenberg asserts that *‘Biased language leads to biased technology which in turn results in a biased environment. To get at problems like gender bias in architectural design, she says, “the first thing we need to change is language’*. (Comberg E., 2020).

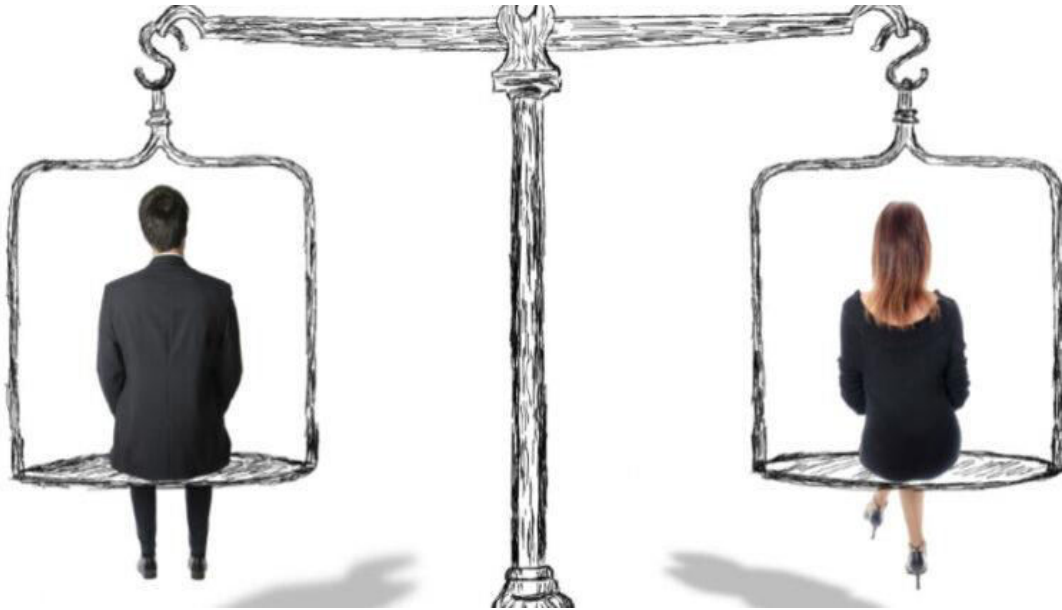


Figure2: Linguistic Associations- Gender Units

Reference: <https://knowledge.wharton.upenn.edu/article/gender-equality-design-building-inclusive-productive-workplace>

2.3 The ‘Urbanism of Care’

Maria-Cristina Florian, (2022) writes on Dolores Hayden, Professor Emerita of Architecture, urbanism, and American studies at Yale University, in her article titled ‘Urban Historian and Architect Dolores Hayden is Honored with the Vincent Scully Prize’, 2022. Florian states that Professor Hayden who is an advocate of “urbanism of care”, as an integral part of sustainable development, has documented the term from its beginning from the 1860s through the 1920s when women proposed a broader definition of public infrastructure. She has also founded a NGO to acknowledge the efforts of women, men, and children of all ethnic backgrounds in downtown Los Angeles.

2.4 Beyond the gender- Gender neutrality

In an article written by Jullia Joson, (2022) titled ‘Queer Spaces: Why Are They Important in Architecture and the Public Realm?’ 2022, she reflects on existing queer spaces which celebrate their triumphs, the future of public space and architecture which can prioritize safety, hospitality, and inclusion for all. In current times of gender- neutrality, all persons need to be unapologetic beyond closed doors of hypocritical projections. (Fig 3) She says that architecture becomes a key towards social acceptance and feeling of safety and equity for our people which defines the need to assert one's true identity, sexuality, and the need for social connection and interaction.

Figure3: Questioning the role of Gender in Architecture



Reference: <https://www.archdaily.com/900856/what-it-means-to-build-without-bias-questioning-the-role-of-gender-in-architecture>

2.5 Talking of and Taking up public space for safety

Jennifer Garner and Larissa Begaul, 2019, in their article ‘How Better Urban Planning Can Improve Gender Equality’, make the following statements-

- Urban planning and public-space design has long responded to existing uses, rather than creating opportunities for entirely new behaviors.
- Inequality is spatially reinforced by design, from our systems all the way down to individual public spaces.
- Sometimes designs to keep women safe can paradoxically make them feel less safe.

They further add that sometimes design feature intended to improve safety and prevent crime can backfire when it comes to the perception of safety. Each design intervention has the other side, like too much light can also cause darkness in certain areas, hedges and walls for deterring intruders may also hinder visibility, which in turn may deter women from using public spaces. Therefore there is a need to question our existing design vocabulary for the real and the perceived systems and address the safety concerns of women and children in the public realm. The idea of shaping urban space for inclusion and equity has never been of as much importance as in today’s times. Our Architectural approach should be true and honest and humble and recognize the limits of our design. Design is a powerful tool but the space is ultimately transformed and made relevant or irrelevant by human action.

3. Conclusions

Currently, with more than half of the world’s population residing in urban areas, which is likely to rise to 70% by the year 2050, cities will become the center for offering greater freedom and equitable and inclusive growth as per UN ‘Sustainable Development Goals’ for developing countries. Hereby, this paper concludes by stating that architects through the architecture, urban interventions, urban renovations, architectural language through material, texture, form, facades, color, outdoor/indoor spaces, universal accessibility, safer markets, inclusion of people in decision-making for neighborhood design to city planning, aiming towards a dynamic participatory process, will be conducive to inclusive,

safe, and sustainable urban space. The architects' role in the modern sustainable city will increase in value over time. Inclusive and safer streetscapes, ease of access, public buildings that are inviting, more than forbidding and bureaucratic in language, will be the norm for all people, including those with physical and cognitive disabilities. Thus, the new sustainable city will be truly smart and inclusive, transcending biases of age, gender, race, religion and abilities/skills.

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