

# Role of Built Form Interfaces in Generating Inclusive and Participatory Built Environments for Social Sustainability

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**Abstract**— The present research aims to highlight the role of Built form in shaping the interfaces of public realm through the study of socio-cultural responsiveness of built environments; wherein the research methodology will be through investigation of parameters like interactions and exchanges considering the public realm as socio-cultural landscapes. The research will look at different typologies of interfaces like – inclusive interfaces, participatory interfaces and self-built interfaces; wherein these typologies will give a matrix to study and analyze the inferences on the performance of built form interfaces in maintaining Social sustainability of the place.

**Keywords:** Built Form, Interfaces, Exchanges, Socio-Cultural Landscapes, Social Sustainability

## I. INTRODUCTION

The built environment is a cumulative effect of the people, the setting and the culture. The responsiveness of built form to its immediate setting determines the aptness and the

Purposeful presence of it in the daily routine of the user as well. The built form has to be a part of the narrative proposed by the setting and the identified user group becomes the primary stakeholder for exchanges and interactions in the given social space which is an extension of the interfaces of the built form.

According to Concise Oxford Dictionary (1990), the term public is defined as “of or concerning the people as a whole”, “open to or shared by all people”, “done or existing openly” and “provided by or concerning local or central government”. Here the people, their accessibility to public realm and the right or ownership of the space which can control the usage as well as the accessibility of the space is defined. Therefore, usage, accessibility and ownership will play a crucial role in defining the types of exchanges that can happen between these “interfaces”

## II. SIGNIFICANCE OF RESEARCH

The research will definitely contribute in building responsive built environments for future based on the study of how interfaces play an active role in making built forms inclusive and the user’s participation being a crucial part in making successful neighborhoods.

## III. RESEARCH OBJECTIVES AND METHODOLOGY

The current research will help analyze certain parameters of built form ‘INTERFACES’ which are the core role players in making the built form sometime responsive ,at times inclusive , sometimes also participatory; all of which is crucial in defining how well the interfaces of the built form are allowing meaningful socio-cultural exchanges to maintain Social sustainability of the given public space.

Through case studies, social surveys and interviews qualitative –quantitative mixed methods to arrive at needs and typologies of different built form typologies generating different interfaces. The aim of this research will be to study how social accessibilities and exchanges within the interfaces of mixed use neighbourhood can maintain the social sustainability of a given locality or neighbourhood.

The case studies of built forms wherein the character of public realm is either showing higher values of ‘inclusiveness’ or processes involving ‘participatory or responsive approaches will be understood through analysis of selected list of parameters related to’ interfaces’ of built forms under consideration. Further analyzing these contrasts will help establish the need for participatory approaches in shaping of today’s built environments.

### A. Built form Interfaces and their impact on daily life of users:

The impact of Built form interfaces at street level was observed to understand how land use/building use/mixed use actually impact the user of the city on a daily basis by experiencing the quality of interactions that the “built form interfaces” are actually capable of ,whether the interfaces are capable of generating the social exchanges which make the city alive is the reality check for the Built form typology and its further contribution in maintaining the Social sustainability of the given street, neighborhood or locality.

Perry (2003) defines planning as the act of making space, not only physical space but social space where planning exists in the tension between “the lived space and the abstract space of society”. Defining place as process and process as space may help reduce this disconnect between built form, land-use, built environment and process of decision-making. Hence interfaces need to be the extensions or bridges between the “lived space” and the “abstract space” of the society.

### B. Study area - Streets of Mixed use neighbourhoods of Thane city

Case study of Thane city by considering 3 Mixed use neighbourhoods and the performance of their built form interfaces of selected streets in terms of social exchanges and interactions, the quality and engagement of social spaces created along the transitions between built and unbuilt edges of the streets was understood and the comparison between the streets of the organic, planned and township was considered as a pilot study to arrive at the conclusions through surveys and interviews of users of these study areas. The active /inactive patterns generated for the selected streets and their interfaces or the performance or efficiency whether adequate or inadequate will help arrive at the possible outcome of social exchanges conducive to building social sustainability for that given mixed use neighbourhood or locality.

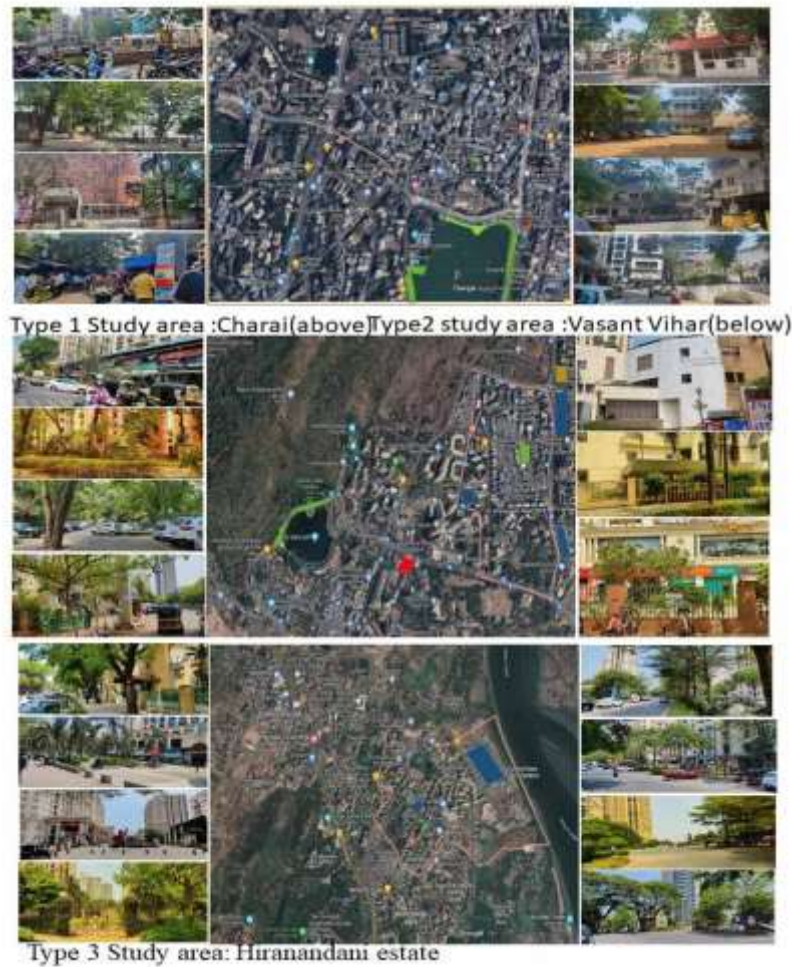


Fig. V.1: Study area - Streets of Mixed use neighborhoods of Thane city (Source :

Built form typology	Type 1 interface :Study area :Charai		Type2 interface: Study area :Vasant Vihar		Type 3 interface: Study area: Hiranandani estate	
	Active/ Inactive/absent	Adequate/ Inadequate/absent	Active/ inactive	Adequate/ inadequate	Active/ inactive	Adequate/ inadequate
Residential	Active	inadequate	active	adequate	active	adequate
Residential and recreation	Absent	absent	active	adequate	active	adequate
High vehicular traffic	active	inadequate	active	adequate	Moderately active	adequate
High pedestrian activities	Highly active	inadequate	Highly active	adequate	Moderately active	adequate
Promenade/pedestrian friendly walkways	Highly Active	adequate	Highly active	adequate	active	adequate
Built form with Public places	deficit	inadequate	active	adequate	active	adequate
Built form with Community center	deficit	inadequate	active	adequate	active	adequate
Built form with Gymkhana/club house	absent	NA	active	adequate	active	adequate
Built form with institutions and schools	Highly Active	inadequate	active	adequate	Moderately active	adequate
Built form with Outdoor gyms	absent	NA	active	adequate	absent	NA
Built form with sit outs	absent	NA	active	adequate	absent	NA

Table V.2: Built form typology factors generative active or inactive /adequate or inadequate interfaces contributing to high or low Social sustainability in 3 different Neighborhoods of Thane city.

#### IV. RESEARCH FINDINGS:

In the given case study of Thane city, the research helps defining the role of Built form interfaces in generating exchanges and interactions on the public realm-be it streets or the neighborhood social or community spaces at three different localities. The study helps defining the interface parameters which may help contribute in better performance in terms of inclusiveness and whether these interfaces can be more participatory and culturally responsive to help neighborhoods achieve communities to conserve or revive the Social sustainability of the locality or place.

#### V. CONCLUSION:

The mixed use neighborhood built form interfaces , can represents a stronger public-private collaboration and the success rate of social sustainability through Cultural and political processes shaping the social space of the street differently, and aid street design as seen in the study areas shortlisted in Thane city.

The mixed use neighborhood streets actually have the potential to establish a network that allows the social spaces within and along the edges to be adapted to variety of exchanges and connectivity , they can adapt to the most adaptive and accommodative format of daily social space by reshaping neighborhoods and consequently their urban form-space dynamics. Hence physical Planning approach needs to revive social sustainability through neighborhood interfaces not only for accessibility and connectivity but also designed as social space defining the social sustainability of a neighborhood making the interfaces not only inclusive but also participatory.

Further research of Interface parameters will come with strategies and recommendations to understand and identify the factor of responsiveness in built environments with the socio cultural participatory engagement of the people (users) themselves and the inclusiveness of socio –cultural core traditional knowledge and techniques as a vital component in shaping of responsive built environments.

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