Assessing of place- making aspects in beach precinct: Case of Vishakhapatnam

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ABSTRACT

Place-making is a process of creating "people-oriented" places by enriching urban life experiences in public places. One of the aspects of place-making is to provide place identity, which is mainly determined by the "sense of place" experienced by users. The study is aimed at investigating place-making the approach in an urban public space. It does so by exploring connections between the human experience, aspirations and the physical dimension of space by onsite phenomenological research of criteria for successful places established by Project for Public Places and urban design qualities for improved liveability. A primary case study concentrating on R.K beach precinct in Vishakhapatnam has been demonstrated to analyze the ways in which people use, value and relate to this public beach. The analysis of study revealed factors that contribute to everyday experiences of spaces of the built and unbuilt environment as key components of the experience of quality in the public realm.

Keywords— *Liveability, Waterfront place-making, Sense of place*

1. INTRODUCTION

Liveability has many aspects which describe how well a city works**.** A highly liveable city respects its natural settings, provides protection from hazards and has a strong sense of place through its public realm. Urbanized beaches form important public spaces of coastal cities. India has a coastal length of about 7500 km with 73 coastal cities, 2661 towns and 3827 villages (CZMA). The coastal population of India is 171 million and 48% of this population is from urban areas (Census, 2011). About 43% of our coast is constituted by sandy beaches (CZMA) hence they can be classified into character areas/ typologies on the basis their 1) Jurisdiction (urban, rural) 2) Land use- (Residential, recreational, civic, commercial and hybrid) 3) Character, etc. Urban beaches thus for this study has been operationally classified as non-engineered public beaches that lie within municipal limits of a city and are already developed up to the shoreline with drainage, approach road, and other infrastructural facilities in other words beaches that are in CRZ-2 areas. Beach precincts are considered as gateways between developed areas of cities and natural environment of beaches. Urban liveability is not only concerned with physical built environment of neighborhoods' but also with its public places, which forms a platform for experiencing urban life. Place-making is both theory and tool of planning, designing and managing public places. This place-led approach provides a strategy for urban design and planning enhancing the users experience for space strengthening the "Sense of place" through guided developments by discovering needs and aspirations of users to maximize common values for a higher sense of belonging improving the intangible aspect of liveability. This paper has two parts the first part reviews various urban design literature which is related to the phenomenology of the place to understand how users value and relate to various places and develops a framework for assessing place-making. The second part is an empirical study through which this paper tries to demonstrate the conceived framework to analyze the ways in which the built environment influences Sense of place. The knowledge that this paper tries to produce is not only whether or not, but more on how the assessing place-making can improve the liveability of any place.

2. LITERATURE

Place emerges from the everyday experience of space (Williams, 2007). While space is merely a location and container, places are a condition of human experience (Tuan, 1975) (Relph, 1976). David Canter in his book called Space Psychology (1977) highlights that -The sense of place not only creates coordination and proper functioning of the human and physical environment but also helps to create a sense of belonging (Canter, 1977). Strong sense of public place signifies more livability high-quality urban living experience. As outlined by Edmund Husserl in 1906 phenomenology study explores how users perceive elements through sensory experiences in physical environments and attach meaning and emotion to those places. Place Phenomenology is a more communicative approach to urban planning and design (Norberg-Schulz, 1976).

The concept of place-making was introduced in the 1960s by Jane Jacobs and William H Whyte as a bottom-up attempt to improve safety, comfort, attractiveness, and vitality of public places to create more people-oriented places (PPS, 2000). Place-making may encompass three realms 1) Locale – Social and cultural relations – participatory approach which strives to combine community participation, culture, heritage and display of place attachment in order to strengthen community 2) Strategic- locational physical setting 3) Sense of place- human capacity for production of meaning (Agnew, 1987). Place-making can be both a "process" and a "tool": as a process, it involves interventions by professionals to provide order and form to physical being of space. It is based on the notion that physical layout has the ability to influence a diverse group of users for a place to 'discover their needs and aspirations' and to create a common goal or vision for the place that is constantly evolving (Place-making, Chicago). As a tool it aids designers to understand how users value and relate to any place, to enhance their sense of belonging in an urban environment. Place-making is also a popular way of implementing liveability by the revitalization of places through physical, social and even perceptual dimensions as compatibility of social activities and user's perceptions with design attributes of physical realm determines the long-term success of any public place.

Table 1: Dimensions of Place-making

Dimension	Aspects analyzed	Method
Perception	Criteria by Project for Public Places (PPS)	Questionnaire- User rating
Physical	Urban design qualities	Urban design Literature and onsite observation
Sense of place	Place attachment	Questionnaire

2.1 Measuring urban design

2.1.1 Project for public places: As per Project for public places (PPS), the qualitative evaluation of any public place could be determined by their defined matrix which analyses users' reviews for the following criteria:
- Access and Linkages: ease of reaching, distance to nearest transit, visibility from distance, etc.
- Comfort and image: first impressions, seating choices, safety and cleanliness.
- Uses and activities: something that gives reasons to come to a place and return.
- Safety: fear of crime, negative activity

2.1.2 Urban Design Qualities (Ewing and Clemente, 2013): These qualities focused on two of eight perceptual qualities: imageability, enclosure, human scale, transparency, complexity, coherence, and legibility defined by Ewing and Clemente as a scale for measuring the success of the urban design. The attributes that affect "sense of place" in any waterfront public realm were identified by literature as imageability and walkability. The definitions are as follow:

2.1.3 Imageability: It is the quality of a place that makes it distinct, recognizable and memorable. A place has high imageability when specific physical elements and their arrangement capture attention, evoke feelings and create a lasting impression (Ewing, 2013) (Lynch, 1960) (Zurich).

2.1.4 Walkability: Ways in which built environment influences walking. (Choi)

The significant physical features of both attributes included common determinants which were used for site assessment.

Table 2: Physical dimension of place-making

Parameter	Output	Analysis	Benchmark	Assessment
No. of buildings	Building grain density	Fine, medium, coarse	Coarse grain- Imageability	The street segment, size, plot width
No. of Floors	Skyline	Enclosure 0.5-1:1 good Below 0.5 poor	3-5 Floors	Road width, Plot size, Byelaws
Market Value	Location of higher demand	The potential for a strategic intervention		Property rates, rental values
Built use	Usage	Active/ Inactive	Mixed-use- indicates the high-quality public realm	No of activities, buildings with active frontage
Landscape features	Landmarks	enclosure		Parks, long sight lines, outdoor spaces

2.2 Research question and methodology
Through literature review and empirical study, the research question of this paper investigates aspects that effect liveability of beach precincts by carefully understanding the relationship between urban form and users' perception of previously described critical aspects of the place. The aim of the paper is to improve the liveability in beach precincts.

2.3 Objectives
- To understand aspects that affect aspects of liveability in beach precincts.
- To understand user's relation with public place through place attachment.
- To identify spatial strategies could be adopted for long term appeal to the precinct

The research adopts mix method techniques to investigate *what* aspects of place-making contribute to spatial success as well as *How* do the perceptions of users impact the beachfront in order to incorporate diverse viewpoints (Olsen, (2004)). As this study requires

to deal with both the built environment and the people's experience/ aspirations of place, the study method for this project combines the observation method often used in studies on urban form with them and observing human behavior. To evaluate the experience on the selected beach front in qualitative aspects the matrix developed by Project for Public Places (PPS) was referred questionnaire was framed accordingly. Their relation to the placed was also mapped by Nasar's cognitive mapping method which included questioning them about most liked and least liked places in the precinct.

3. EMPIRICAL STUDY

The coastal city of Visakhapatnam (also known as Vizag) with a land area of 515 sq. km and 70 Km coastal length is located at Latitude- 17° 30' 15" to 18° 11' 15" North Longitude - 82°57' 37" to 83° 28' 12''East facing the Bay of Bengal in Andhra Pradesh state- India. It is the biggest city in the state both in terms of population (1,730,320- Census 2011) and economy and the 3rd largest on the east coast of India after Chennai and Kolkata. Vizag is a port city and Eastern Naval Command of Indian Navy is often called "The Jewel of the East Coast".

3.1 Why Vishakhapatnam

In 2014, after Hud- Hud cyclone, Andhra Pradesh disaster recovery programme had been initiated by world bank to restore, improve, enhance the resilience of public services, environmental facilities, and to enhance the city's capacity to respond to disasters (Natural or Manmade). A project is a multi-sectoral approach which has seven components, one of which is, shore protection and of beachfront development. As per this component, the beach stretch has been divided into four zones by the authorities as per and a draft beachfront master plan for a coast length of 35km and 1km landward side of the beach is to be prepared. The chosen Zone A is selected per predefined criteria already has a developed beachfront and it also the most popular public place in the city (as per smart city survey- 2014) but the beach redevelopment is to enhance the quality of public realm. Also, the city development plan-2015 identifies low imageability of its coastal areas as a constraint in its development. Hence place making framework here has opted here for its redevelopment.

| (a) | (b) | (c) |

Fig. 1: (a) Location map Vishakhapatnam (Source: Smart city Annexure), (b) Zonal division of beach (Source; Smart city Annexure), (c) Zone -A, Division of the site into neighborhoods (Source: Author)


**Fig. 2: The R.K beach road**

Source: Author

Table 3: Perceptual dimension: Understanding user experience

Factor	Questions asked	Purpose	Analysis
Social	Most liked area Most disliked area Areas visited per visit Things you would like to change Things you feel should never change	Valued places, neglected areas	The frequency of repetition shared places and behavior pattern
Perceptual	Rating from 1 to 5 for each aspect of access, public transport, comfort for walking, sitting, promenading, view qualities, aesthetic aspects etc. Yes or no questions for perceived satisfaction	Impact on perception due to existing scenario	Rating score 1-2 =poor, 3-4= Could be improved ,5 = Not to be changed Yes and No for direct assessment of what effects most

(a)

(b)

(c)

(d)
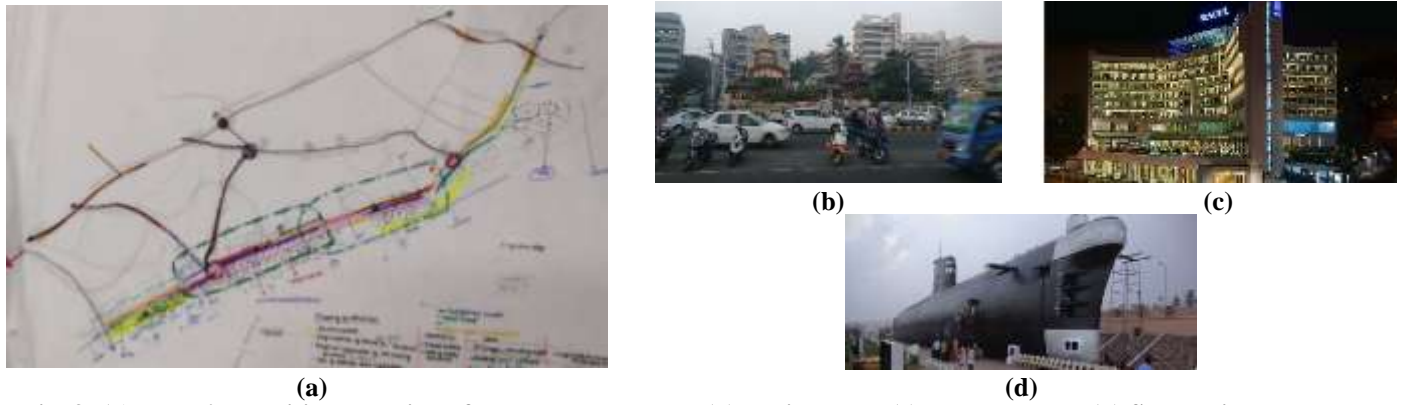
Fig. 3: (a) Nasar's cognitive mapping of most valued places, (b) Kali temple, (c) Novotel hotel, (d) Submarine museum
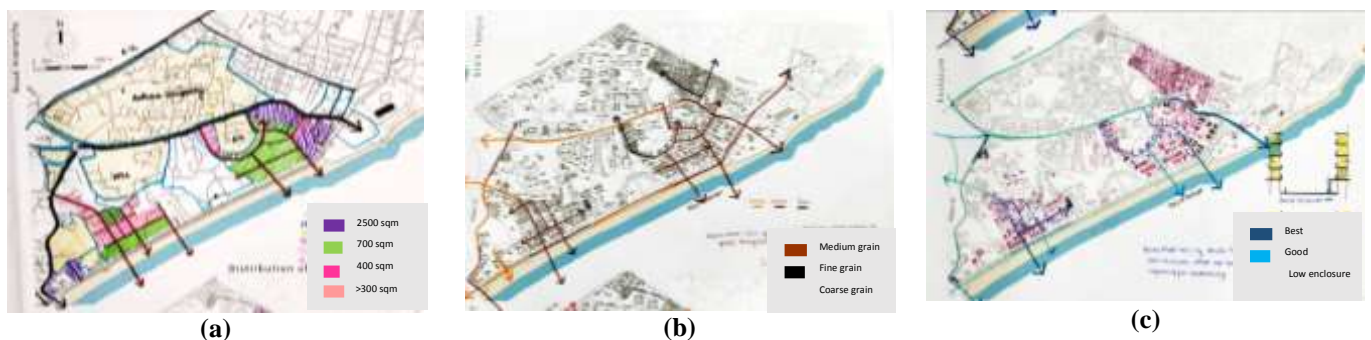*Source: Author*

About 82 % of mentions for most liked area fell within the zone between Novotel hotel and Museum Zone indicating that it is in this 2.5 km stretch that people prefer to linger most. Thus, it could be concluded that interventions in this area would have maximum impact on users experience and hence built form analysis for this neighborhood only had been conducted and its existing impact on urban design quality was assessed (refer figure 3 and 4).

(a)

(b)

(c)
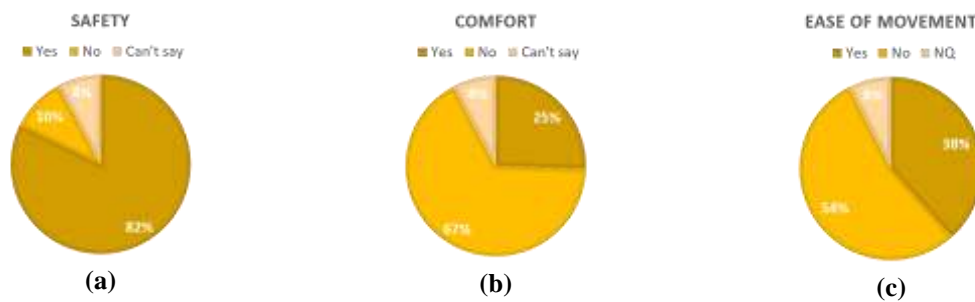
Fig. 4: Satisfaction survey (a) Safety (b) Comfort (c) Ease of movement
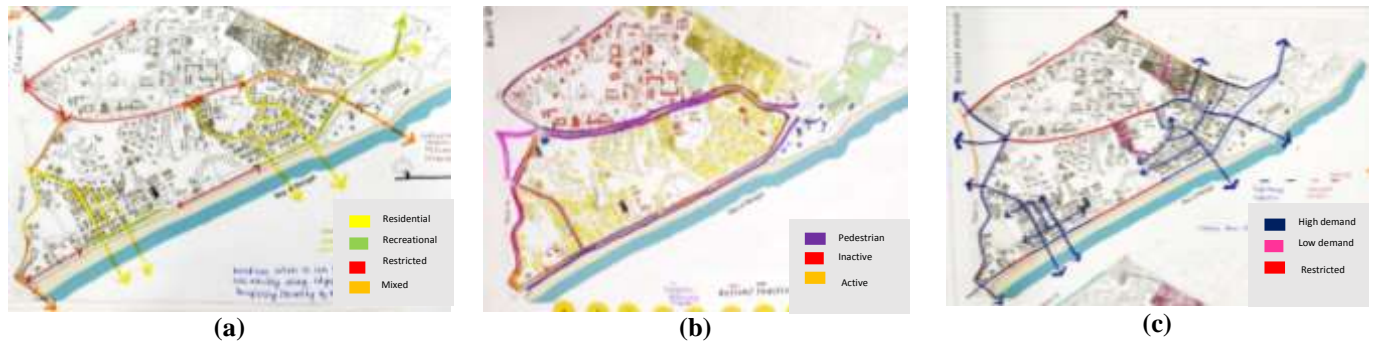
Source: Author

As per survey the aspect of user's the aspect comfort had scored the least as about 67% (Figure 2 b) of respondents felt that in afternoons less options of shade were given and at the same time in evenings traffic and congestion affected their experience and it was analyzed through the number of utterances that the while natural view of beachfront was highly liked about of people felt that the potential of development has not been and hence it lacked the required vibrancy. As per aspirations for the place the people envision for it to develop as an active green beachfront with facilities of for entertainment, food or shopping zone. Since the development around the beachfront had occurred in a piecemeal approach the lack of unified character was felt and improvement of urban aesthetics or beautification was mentioned by 70% of respondents. 70% satisfaction level was established for benchmarking polarity for a survey of a public place.

(a)

(b)

(c)

Fig. 5: (a) Road Hierarchy and distribution of Plots; (b) Grain Texture- Fine, medium, coarse; (c) Enclosure
Source: Author

The built form analysis is carried out along its major streets in segments of about 350m. Overall It was observed that the built form is highly dependent on plot size and its distribution with respect to road hierarchy and since 70% of the roads have coarse grain-built (figure 4 (a) and (b)) form the resultant impact on existing public realm could be considered positive. However, as per figure 4c, the built enclosure was appropriate only for about 40% of the mapping further provided indicated specific areas where strategic interventions could improve the perception of movement in the precinct.

Fig. 6: (a) Character analysis; (b) Active -inactive frontage; (c) Market Demand

Source: Author

The built use mapping indicates that only 10% is mixed use and also the presence of large compound walls along the majorly accessed corridors contributes poorly to the sense of place. In order to break the inactive zones, compatible activities could be proposed at a strategic location to make the precinct more vibrant. Further, the market pricing indicates where the properties are not being capitalized and thus new ventures could be identified in.

4. CONCLUSION AND RECOMMENDATIONS
The sense of place increases exponentially when people can spend more time comfortably at any place. In the case of R.K beach, precinct place-making approach indicated that the pre-existing beachfront and precinct was not perceived as comfortable by users and also the perceived ease of movement fared poorly in the survey. Further, the city through its Comprehensive development plan aspired to improve the existing image of beachfront. The existing built form analysis through urban design literature provided clues that the streets and points of access are crucial components of beachfront development interventions to enhance walkability should be focused. The enclosure aspect is significantly low as measure the same could be achieved by landscape hence strategic avenues are to be proposed. Similarly, the edges can be activated by positioning street vendor zones at regular intervals. Over long term along the most inactive edges, mixed-use could be encouraged and other activities could be added as well. Lastly, the lack of comfort and ease of movement could be improved by soft scape thus an avenue along the beachfront is also proposed. At locations identified like nodes, transit points Form-based codes could be adopted to create landmarks and further enhance the sense of identity along the beach by differentiating character zones.

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