EXPLORING LANDSCAPE APPROACH TOWARDS LIVABLE URBAN ENVIRONMENT

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ABSTRACT

The undefined spaces start getting transformed into places with time and by people. Allowing these kinds of positive transformations along with planned efforts can rejuvenate the present status of the city rather than building new and instant cities. The livability concerns for urban areas are significant for the local as well as the visitors to the city. The hospitable character of these spaces is an important factor in image building of the city.

The paper attempts to understand the concept of livability in relation with the existing urban environments.

The paper lays emphasis on process of understanding functionally, ecologically and culturally sensitive landscape areas associated with public open spaces in the urban context of Pune, in Maharashtra, India, as a case study and deriving landscape relevance in response to its urban context.

Pune, as a whole represents a unique palate of geomorphologic landscape, overlaid by manmade components since past till present, now facing complex developmental issues related rapid urbanization, traffic congestion, growth of population, densification, urban sprawl, climate modification, pollution, hybridization of cultural and economic policies and resultant lifestyles and so on...

The context of Pune City gives a natural and manmade canvas, to draw upon indigenous and context specific landscape responses towards enhancing the values and towards remedifying the issues concerned with the livable urban environment of Pune. The city still has its unique historic and cultural character thriving amongst the new landscape. The mosaic of old and new becomes a driving force for the visitors to visit Pune.

The paper aims at taking a fresh look at the overlays of natural and manmade, tangible and intangible, past and present for functional and aesthetic interventions and/or creation of living environments for the citizens and the visitors.

Keywords: intangible, livability, livable environments, tangible, urban context.
1. INTRODUCTION

Pune is a city in the state of Maharashtra, located on 559 msl on the eastern side of the Sahyadri ranges and approximately 195 km from Mumbai. City of Pune (approximately 400 sq. km. with population of around 4 Million - neither a Metro nor a small city), is heading towards becoming ‘false metro-city’ displays continuing urban landscapes, consisting of public open spaces, carrying ethos of the past and essence of the present.

Pune is facing complex developmental issues related rapid urbanization, traffic congestion, growth of population, densification, urban sprawl, climate modification, hybridization of cultural and economic policies and resultant lifestyles. The fast pace of life and neglected, inaccessible public open spaces are further adding to the complexity of the overall health of the citizens.

Pune, once known for its peaceful, safe, visually pleasing, climatically comfortable and culturally rich environs, is now on the threshold of loosing its physical, social and cultural identity. The city is always known for its educational infrastructure, cultural context, its hospitable character and its scenic landscape image. The city needs to be looked at with a serious and sensitive understanding of its existence and livable character.

The urban open space structure as an infrastructural component of urban development has been discussed in many landscape forums in India and forms a start point for the discussion here. Pune needs a methodic approach towards identifying landscape opportunities and exploring scope for landscape architecture intervention, to efficiently utilize the available open spaces and to make the urban space more livable and hospitable for the citizens as well as the visitors.

The city’s livable environment is the prime concern. The Public open spaces give character to the city structure which holds memories of the past, which are constantly under the threat of getting occupied by built without any sensitivity. These urban spaces such as road sides, floodplains of rivers, stream corridors, hills, lakefronts, redundant canal corridors, abandoned quarry areas, undeveloped public parks, un-utilised public gardens wafting for their uplift, historic religious precincts, etc are often neglected; remain unnoticed and untapped by imagination. There seems to be an urgent need to tap this valuable resource by the Landscape Architects to make the best of it in terms of livability.

The paper lays emphasis on process of understanding functionally, ecologically and culturally sensitive landscape areas associated with public open spaces in the urban context of Pune, and deriving landscape relevance in response to its urban context.
2. URBAN LANDSCAPES AND LIVABILITY

2.1 Urban Landscapes

Urban landscape is a physical and visual landscape associated with built and unbuilt part of the city, read as a complex collage.
Urban open spaces, which are accessible to the public- citizens and the visitors form a major part of the urban landscape, and hence is a strategic resource which can enhance the quality of life for the citizens and provides obvious benefits such as ensuring visual, social and physical health, providing ecological corridors/ units, bringing nature in cities, social platforms for interaction and contributing to the image building of the city.

2.2 Understanding Livability

The word ‘Livability’ comes from the word ‘Livable’. With respect to landscape architecture it is a spatial attribute.

The livable city as a link between the past and the future: the livable city respects the imprint of history (our roots) and respects those who are not born yet (our posterity). A livable city is a city that preserves the signs (the sites, the buildings, the layouts) of history.

A livable city means a livable urban environment of which, livable public open spaces is the most significant part.

2.3 Urban Public Open Space and Indicators of Livability

The definition of public space is a space where people meet as equals. (Ar. Bimal Patel, Pool, Oct, 2010, 04, Indian Edition). Public open spaces define urban context, they attract visitors to the city and they give quality of life to the citizens by their connection with the nature and with other human –beings.

Public space needs to be ‘inclusive’- it used to be an arena for interaction and mutual awareness across social, economic strata; it can still be instrumental in transcending the ’enclave’ structure that our cities are now becoming prone to. (Prof. MShaheer)

Public open spaces in Indian urban context means multifunctionally, cultural associations with natural landscape components of a place, values and symbolic meaning associated with sacredness of a place, cyclic usage according to the local moon-based calendar, celebrations and interactions of all age groups. Public open spaces are the lungs of the city as Indian cities are getting densified and overcrowded. Theses spaces represent the city’s life, culture and are part of everyday life of the people. People rest, enjoy, interact, celebrate, exercise, worship and hold on to the cities for their daily urban life.
The indicators of livability for the urban public open spaces are:

Functional:
1. Accessibility – visual and physical for all age groups and gender
2. Connectivity to the other areas of the city and to the other open spaces
3. Proximity
4. Safety
5. Climatic comfort
6. Multifunctionality and flexibility of use
7. Need and aspiration based evolution of the place
8. Flexibility to evolve with time- open ended character
9. functional sustainability

Ecological
1. Availability of fresh air, water, land and vegetation
2. Opportunity to experience nature in cities
3. Awareness of the natural landscape parameters of land, water and vegetation

Perceptual
1. Visually pleasing ambience
2. Visual linkages to landscape and built landmarks
3. Experiential quality
4. Temporal character
5. Humane scale
6. Sociological and psychological security
7. Readable visual identity

Cultural
1. Presence of cultural association
2. Sense of place
3. Sense of belonging
4. Opportunity for social interaction
5. Opportunity for participation in the making and maintaining the space
6. Readable vocabulary of the spaces

The present study aims to examine the indicators of livability as understood from the references, consolidated and applied within the framework of context.
4. THE PROCESS TOWARDS LIVABILITY

The process is a step by step method to understand what the city offers in terms of available public open spaces as of today, overlaid on the existing natural landscape parameters, studying their existing status in relation with the City’s Development Plan and the livability indicators. The city is looked at from whole to part and a sectoral approach for the analysis gives the opportunity to look at the available public open spaces in detail. The process further takes up selection of the representative areas for landscape intervention. Depending on the livability parameters to be addressed, a suitable landscape approach is derived.

4.1 The landscape landmarks and open space structure of Pune

Figure 1: Location of Pune and the city’s development plan with designated open spaces and study areas shown

Pune is situated in a watershed basin and on the banks of two rivers, Mutha and Mula, with their confluence towards the north-east. The geomorphological setting of the city shows a backdrop of hills on the south and south western sides, with steeper slopes and rocky red soils. The lower elevations and comparatively shallower slopes towards the north eastern sides show presence of rich fertile black cotton soil. The dendritic hydrology pattern based on the monsoon is predominant giving rise to a network of seasonal streams and river flowing through alternating valleys and ridges. Such a setting has given rise to a moderate climate with annual rainfall of 700mm. The vegetation pattern is conducive almost for all types of tropical species indigenous and exotic both. The city has a tree cover distributed throughout the urbanscape.

The landscape landmarks comprise of natural and manmade elements such as hills (Parvati, Vetal Tekdi, NDA Hill), lakes (Pashan, Katraj), rivers (Mutha, Mula), streams, historic riverfronts dotted with ‘ghats’ and temples, bridges on the rivers, historic monuments. The city has a historic background dating back to 14th CE. It was a city sited on the banks of streams and river, having an open space structure composed of productive landscape of fruit orchards, riverfront developments in the form of ‘ghats’ and temples.
Exploring landscape approach towards livable urban environment

and agricultural lands surrounding the city. The distinction of public and private open spaces was clear in terms of their ownership though the private spaces were occasionally made accessible to the public for recreation. The landscape vocabulary used such as ‘Baughs’, ‘was indigenous and represented cultural association with the culture and people of the city. The natural landscape was associated with cultural meaning in addition to their functional need. The city followed an organic growth till the independence of India in 1947. The planned effort to accommodate immigration and expansion of the city led to new opportunities and constraints. A new vocabulary emerged out of the landuse planning. Public parks became the new ‘Public Spaces’ for Pune.

The year 1964 was the landmark year when the drinking water dam at ‘Panshet’ on the River Mutha, burst, flooding all the lower elevations, this encouraged new developments to occur away from the river towards the higher elevations which were rich landscape spaces.

The present city shows a fragmented open space structure with parks and playgrounds, lack of hierarchy of landscape landuse, non-designated open tracts, and predominant expansion of residential landuse overlaid on either hillslopes/ watershed areas or rich fertile lands. The planning policies encourage gated communities, which allow limited access to public open spaces discouraging any city level contribution. The public open spaces in the older urban areas are under constant threat of getting built due to densification pressures. Majority of the open land near the existing city limits is under the defence ownership. Rest is under the pressure of the new rapid residential and infrastructural developments. Traffic and transportation is in a bad shape with absence of good public transport, preferred use of private transport overloading the roads. The conflicts and indecisiveness of the political parties in terms of choosing a public transport mechanism (choice of BRT or Metro rail or waterway) and its partial haphazard execution is further adding to the pressure on the available public open space Therefore the identification of the existing available open spaces for public realm becomes utmost important. Pune’s aerial image (Figure 3) shows the urban limits and the representative areas considered for study.

4.2 Urban Areas for Study and Exploring Landscape opportunities

To study the landscape concerns of the city associated with public open space, areas of the city were selected having a particular set of landscape elements, a specific pattern of development and a visual urban image in the present context.

A detailed study of these areas was carried out in the following stages:

a. Identifying and mapping significant landscape landmarks(natural and manmade) with respect to land, water and vegetation
b. Identifying significant present pedestrian and vehicular circulation and parking areas during various times of the day and year
c. Understanding people’s response to the existing public open spaces
d. Analysis and synthesis of the values and issues associated with the identified spaces(functional, environmental, social, visual)
e. Exploring opportunities for connections/ links (physical, visual), transitions, access, usability, sources, destinations, activity nodes, pauses, movement, new landscape landmarks to enhance or to create livable urban spaces.
f. Developing a suitable landscape approach
The city was looked at with six different urban units as representative areas for the study and their landscape concerns and opportunities studied are as follows:

1. Deccan and Peths (Traditional neighbourhoods)
   An area associated with River Mutha, Historic city and the post independence planned development, showing contrast in terms of typology, scale and vocabulary of public open spaces. The area which is the city center of Pune, is a densely populated area of historic importance and the oldest amongst the six. This includes area on both banks of River Mutha and is bounded by 2 important bridges- ‘Balgandharva Bridge’ and ‘Shivaji Bride’ on East and west. The study indicates the concerns related to historic and cultural values and vibrancy in terms of activities. The Riverfront is a continuing link between the past and the present, with its dynamics of yearly manmade floods as a result of discharge of water from the upstream dam ‘Khadkwasla’.

2. Swargate to Katraj area along the BRT (Bus Rapid Transit) rout
   This area lies south of Pune. Swargate being one of the busiest bus transport hub and the road being one of the most used BRT route, represents the chaos of the city. The area shows a neglected manmade traffic corridor and a neglected natural corridor of Ambilodha Stream. The stream is now a neglected, partly channelised, drainage water carrying corridor, physically detached from the adjacent residential development.

3. Sinhagad road area
   Leading to the famous historic fort of ‘Sinhagad’, the area along the Sinhagad Road, dotted with temples, religious precincts, and residential areas, represents an abode of religious cultural activities. The area is a fertile watershed with hillslopes, a water supply canal and upstream area along River Mutha, now prone to new gated developments along the river. The area was known for its avenue of ‘Ficus bengalensis’ trees, just 10 years back.

4. Paud-Kothrud Warje tekdi area
   This area is bound by hills on three sides covering approximately 700 acres, almost equal to the total residential development in the area and forms a western gateway to
the city. The area is predominantly residential with well organised open spaces at
neighbourhood level.

5. **Hadapsar area**
The area once known for its rich fertile agricultural land and fruit orchards is now rapidly getting covered with gated large scale townships (100 acres and above) like Magarpatta city and IT hubs, establishing no relationship with the city and its landscape values.

6. **Baner area**
The area situated on the north western part of the city is blessed with hills, watershed area, *Ram Nadi* - River and the Scenic and ecologically valuable lake of ‘Pashan’. This area is predominantly getting developed as a high-end residential area due to its proximity and accessibility to the ‘Hinjewadi’ – IT hub.
The River *Ram* is dotted with historic temple precinct of ‘Someshwar’- a shiva Temple and numerous ‘ghats’ and historic water structures along the Riverfront. The adjacent designated public park lacks in its appropriate landscape design treatment. The existing scenario shows existence of contrasting cultural vales and lifestyles and as such the use of the open spaces available.
<table>
<thead>
<tr>
<th>Study area</th>
<th>Livability concerns identified</th>
<th>Landscape opportunities identified</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Deccan and Peths</strong></td>
<td>Non-accessible spaces for pedestrians, underutilised riverfront, non-friendly road sections, no visual identity.</td>
<td>‘Modification of the Heritage walk Rout’ and the’ Riverfront Landscape Development’</td>
</tr>
<tr>
<td><strong>Swargate to Katraj area along the BRT (Bus Rapid Transit) rout</strong></td>
<td>Lack of pedestrian facilities, safe road traffic, and suitable vegetation policy, distribution of public open spaces and associational value and visual identity.</td>
<td>Landscape Development of the stream banks for pedestrian connections and activities.</td>
</tr>
<tr>
<td><strong>Sinhagad road area</strong></td>
<td>Lacks in terms of pedestrian network, climatic comfort, undeveloped public open spaces, visual order, and neglected canal water front.</td>
<td>Landscape development of religious precincts and the canal fronts as public open spaces.</td>
</tr>
<tr>
<td><strong>Paud-Kothrud Warje tekdi area</strong></td>
<td>Neglected hills, traffic chaos, lack of larger scale open spaces, pedestrian links, suitable vegetation policy, visual image, accessibility to available open spaces and climatic comfort.</td>
<td>Landscape development of available public open spaces i.e Warje Tekdi as a designated Bio-diversity Park, a designated but neglected public park at its foothills and developing a pedestrian link joining the northern and southern approaches to the hills.</td>
</tr>
<tr>
<td><strong>Hadapsar area</strong></td>
<td>Lack of pedestrian networks and public open spaces. The hill area, ‘Ram Tekdi’ is encroached upon</td>
<td>The area between the old and new canal which is neglected, inaccessible and non-utilised seems to be only available public open space for landscape intervention.</td>
</tr>
<tr>
<td><strong>Baner area</strong></td>
<td>Availability of new public open space but lack of planning of landscape landuses, vegetation and water management policy, piecemeal development, neglected hill areas, loss of visual identity due to uncontrolled development at the foothills of the surrounding hills.</td>
<td>Landscape development of available public open spaces along River Ram, ‘Pashan Lake front’ as a bio reserve, ‘Ram Nadi (river)’ corridor with the temple precinct and the landscape redevelopment of the neglected and underutilised public park.</td>
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4.3 Exploring Landscape Approach

The available open spaces identified for public use are mapped and they show an immense scope for landscape interventions at planning as well as design level. A suitable landscape approach depending on the synthesis of the study addresses the identified livability concerns for the respective area.

Landscape Approaches explored are:

1. **Integrated or holistic Landscape Approach – I**
   - Equal priority to all the indicators of livability.
   - Encourages interdisciplinary input from landscape architecture, allied professional, scholars and administrators.

2. **Sectoral Landscape Approach – S**
   - Prioritises the most relevant indicators of livability.
   - Enables reading of the project in parts based on the availability of resources.

3. **Ecological Landscape Approach – E**
   - Gives priority to the ecological indicators of livability.

4. **Participatory Landscape Approach – P**
   - Develops a landscape proposal which is predominantly initiated and formulated by the citizens or the users of the public space.

5. **Futuristic Landscape Approach – F**
   - Addresses concerns of the future public open spaces and its development

At times, combination of more than one approach is effective depending on the landscape opportunities identified in the given urban area and its stage of development. The following table illustrates the point:

<table>
<thead>
<tr>
<th>Study area</th>
<th>Significant Landscape indicators to be addressed</th>
<th>Landscape Approach</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deccan and Peths</td>
<td>F, E, P, C</td>
<td>I, E, P</td>
</tr>
<tr>
<td>Swargate to Katraj area along the BRT route</td>
<td>F, P</td>
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<td>Baner area</td>
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<td>I, E, P, F</td>
</tr>
</tbody>
</table>

(Significant Landscape indicators
Functional- F, Ecological- E, Perceptual- P, Cultural –C)
5. CONCLUSIONS

Many of the available urban open spaces offer an opportunity for a landscape intervention and place making out of that neglected/vacant space. Hence, role of a landscape architect in identifying such landscape opportunities in an existing urban open space structure is a significant step towards making the existing cities livable. Allowing these kinds of positive transformations in the existing open space structure along with planned efforts can rejuvenate the present status of the city rather than building new and instant cities.

There seems to be an urgent need to establish a relevant meaning and order and an appropriate landscape treatment to the available urban public open spaces in the city. The degree of livability needs to be justified on the basis of the site and culture specific livability indicators, which are predefined for the city and which are periodically reviewed by the concerned planning and implementing authorities, citizen’s groups and by the decision makers/politicians together.

The scope of a landscape architect is significant in terms of ‘Introducing’, ‘Enhancing’ and/or ‘Recreating’ the component of livability. Such Landscape Interventions will aim at addressing the functional, ecological, perceptual and cultural indicators of livability associated with existing public open spaces, based on the suitable landscape approach chosen by the Landscape Architect.

An indigenous vocabulary is needed for the associative value and the readability of the landscape intervention for the common people. The intended landscape intervention should impart a ‘sense of belonging’ for citizen’s participation and upkeep of these available open spaces. A participatory, interactive and interdisciplinary landscape approach will help to sustain the livable character of Pune’s urban environment.

6. REFERENCES

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