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## Urban Design Studio –A Proposed Methodology to Study Indian Towns

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### ABSTRACT

Designing parts of the city is equally a challenging task as any other architectural design exercise. What could be more interesting is that they personally make the observer feel the multi dimensions with sensory perceptions of the urban space in quest. Urban design in western context is slightly different from that of Indian context mainly due to their experiential spatial planning, its metaphysical interpretation and its celebration of spaces, cultural landscape and socio- cultural ethos. There is a need for a structured methodology that would methodically address the urban design issues covering visual , aesthetic , physical , functional , socio-cultural , engineering and so on . The purpose of this paper is to address the above-mentioned issues in a sequence that would enable a researcher or a student to take up an exercise in Urban Design in Indian context. The author is proposing a structured methodology that uses exclusive methods to study, understand and analyse the urban design solutions in totality in the context of India

### KEYWORDS

Urban Design Studio, Urban Design Teaching Methodology, Spatial Model, Land Use, Indian Towns

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### Introduction

Urban Design is an interdisciplinary field that has multitude of factors and actors. Urban describes the characteristics of towns or cities and design refers to pattern making or planning activities. Urban design, being a growing discipline, there is an increasing demand for its practitioners from public and private sectors. This demand has been matched by lot of academic courses in Urban Design. Research on urban design topics ranges from the impact of street public realm improvement on business rates, business rents and property values to the social and environmental value of public spaces (all 2017). Pedagogy in Urban design need a clear understanding of how the community operates and how the various interventions shaped the community. The field of urban design studies is relatively new and gained importance in the late 1950's after convening the Urban Design conference at Harvard 's graduate school of design (Carmona 2003) .In the initial days the term civic design was often used for designing the civic buildings, with a strong bearing on aesthetics. It is the contemporary urban design that shifts the focus more on shaping the urban space in its environmental context.

Understanding and studying the city or a town needs a methodical approach. One has to clearly examine how the city was shaped and the factors that were responsible for the spatial layout, the qualities of the urban environment that has led to either the development or deterioration of the urban fabric. Cities do offer tremendous opportunities that attract lot of people for education, employment, trade and so on. (Ritchie 2009) Numerous approaches have been tried in these urban design exercises. With the advent of computational techniques, there are possibilities of iterations and simulations. But there has to be a striking balance in addressing the urban design academic exercises in an Indian context. On one hand it has to have the state of art technology in its design solutions and on the other it should have an understanding of our indigenous knowledge system that was in existence for ages. Indian notion of spaces is highly temporal, in the sense, there is a constant juxtaposition of space over time. (Y. Pandya 2005) While addressing the urban design issues of an Indian cities, one has to understand the histogenesis of the urban space and its associated spatial dynamics. the urban design studios essentially deal with the demographic studies, the land use patterns, the spatial organization, existing housing scenarios, environmental issues, traffic studies and

so on. Based on the intensity of the urban issue appropriate focus is given. Relevant urban design theories and spatial models are then studied and applied.

Urban design is a discipline whose theory has been fragmenting around 'place' and 'people. Urban Studio Pedagogy begins by addressing the challenges or issues faced by the people in their cities with an open-ended research question often working on current issues and challenges in the real world with the people and the student's community explore the design approached in the unique direction lying with in the scope of the project objectives and gives pragmatic solutions for the wellbeing of the people. Anastasia Loukaitou-Sideris (Loukaitou-Sideris 2015) has suggested that Urban Design Education has to guide the Urban designers to have an in depth understanding of the larger socio economic process which creates a deeper impact on Urban form and varied communities in the cities and stressed future Urban designers should also focus on Informal Urbanism which is escalating in cities and it is high time the Urban design pedagogy should prepare future designers to intervene in Informal Urban Landscapes.

Alain J.F. Chiaradia (Chiaradia 2017) emphasized that studio pedagogy should reflect value like social value, cultural value, environmental value, heritage value which are seen in specific places and situations creating values in places from the interaction of people and place in Urban design. Kristianova (Kristianova 2017) stressed the need for Urban Design proposals for the specific areas and spaces to be developed on the basis of Urban Research which has to focus on regional theories, knowledge systems and also people centric approach to Urban design and planning.

The existing pedagogy in urban design studios faces two- way challenges. One is the appropriate usage of the urban design theories and the second one is applying the Indian notion of space. Urban design theories can be categorized as visual- artistic tradition and socialistic tradition. Most often it is the visual artistic tradition that is more taken as the special study in the studio exercises leaving the other socialistic theories. Perceptual studies are given more priorities where as a common urban space that has more temporal qualities are hardly addressed. Most of the traditional Indian cities are structured around a religious or an administrative core. The central core becomes the genius loci of the town or city (Pieper March 1980). The city often follows the mandala grid and there are sacred texts that briefs on the spatial narratives of the towns. (Y. Pandya 2005) They have a grammar that speaks of the spatial layout, the street geometry, adherence of spaces to cardinal directions, location of waterbodies, utility areas and so on. Temple towns are the classical example of these phenomenon where the spatial layout, the streets, waterbodies, utility areas and other features strictly adhere to these sacred texts. This metaphysical interpretation of spaces is very unique in Indian context. There are annual, seasonal and festive events that marks the vibrancy of the spaces. (G. Michell 2008) This uniqueness has to be integrated while formulating the urban design exercises.

### **1. Existing issues and gaps**

The conventional urban design studio essentially has four to five stages namely reconnaissance studies, data collection and site studies, identification of issues and action areas, concept stage and finally the proposal stage. The students need to be introduced to the urban design vocabulary before the actual commencement of the reconnaissance exercise as that helps in using appropriate urban design technologies such as grain, texture, bulk, volume, density and so on. In the structured methodology, that is taken as the first stage. In the conventional Urban Studio exercises students make a study on western theories of Urban design and apply it in the Indian cities. Urban design theories in western context often follows visual artistic tradition and socialistic tradition. Works of Lynch (K. Lynch, Image of the City 1960), Cullen (Cullen 1971), Camillosite (Camillosite 2003), Halprin (Halprin 1963) follows the visual artistic tradition where the focus is more on urban aesthetics, legibility of urban form, perception and so on. Works of Whyte, Jacobs, Alexander follows the socialistic tradition (Carmona 2003). Social theories of the Western have relatively different connotation from that of the oriental towns. As a result most of the students chooses western theories that are perception oriented. Eventually the final urban design solutions turn to be more of urban aesthetic related solutions. During their analysis stage the students look into the planning legislations that gives tentative directions to the final proposals. Most of the governmental projects and schemes of India like the NCU (NCU n.d.), JNNURM mission cities program (JNNURUM n.d.), smart cities program (CITIES n.d.), comprehensive development plan exercises have an exclusive tool kit. While giving the final urban design solutions, students often find it hard to bring in the real character of the Indian cities. The problem arises because of the lack of literature surveys done on the urban design texts on Indian towns. Though

limited, still there are lot of classical as well as research texts available on Indian towns. The proposed methodology focusses more on the appropriate texts that are needed to study the urban design exercises in Indian context. It brings in a structured methodology right from the inception of the project in creating appropriate vocabulary till the end in understanding the spatial dynamics of the town. Indian cities are known for its constant interaction with time. There are seasonal variations. There are year-round rituals and festive events that makes the place more vibrant (Y. Pandya 2005). Also, the traditional temple towns have lot of traditional commercial activities and micro-clusters around the temple core area (G. Michell 2008). It becomes important for the students to understand how the entire system operates. This understanding helps them in the entire design process as well helps them in identifying the existing issues in the city context. There is a need for a methodology that brings in a striking balance to read appropriate western theories, read contextual texts on Indian cities, check for the urban planning norms and standards and finally arrive a solution that becomes the best fit

## **2. Objectives**

This paper aims to examine the limitations of conventional urban design approaches that are predominantly rooted in Western methodologies and widely implemented in design education in India. Current practices tend to adopt a linear process—beginning with reconnaissance surveys and data collection, followed by analysis, issue identification, and solution generation—largely based on Western theories of urban form, aesthetics, and functionality. However, this approach often fails to account for the complex, layered socio-cultural contexts of Indian cities. As a result, students may overlook vital aspects, such as cultural landscapes, local traditions, and symbolic spaces, seeing native urban elements like bazaar areas merely as overcrowded or outdated spaces rather than intrinsic features of urban life.

This study seeks to address these gaps by advocating for an urban design pedagogy that emphasizes a deeper, context-sensitive understanding of Indian urbanism. Through integrating indigenous theories on cultural landscapes, spatial rhythms, and the temporal transformations of urban spaces, students can develop design solutions that honor the unique identities and living traditions of Indian towns. By bridging the gap between global design frameworks and local urban characteristics, this paper aims to provide a foundation for an adaptive, culturally responsive urban design approach tailored to the evolving needs of Indian cities.

## **3. Scope and Methodology**

This study seeks to develop a structured approach to urban design education, specifically tailored for understanding and designing Indian temple towns. The scope encompasses the integration of Indian urban design vocabulary, cultural significance, spatial dynamics, and functional requirements unique to Indian cities. By engaging students in data collection, visual and functional analyses, and synthesis phases, the study aims to cultivate a nuanced understanding of urban spaces through an Indian context. This research emphasizes creating an urban design framework that not only acknowledges the unique characteristics of Indian cities but also accommodates the complex socio-cultural elements and local traditions that shape these urban environments. The final goal is to devise urban design solutions that are both theoretically informed and contextually relevant, with a specific focus on culturally embedded practices, social nodes, and the sacred geometries often inherent in temple towns.

The methodology of this study follows a three-stage approach that begins with building a foundational vocabulary for understanding the unique spatial and cultural dimensions of Indian temple towns. Initially, students engage with terminologies that are significant to Indian urban design, such as Mandala planning and haptic space experiences. This vocabulary-building phase is crucial, as it encourages students to view urban spaces not just through Western urban design theories but through concepts deeply rooted in Indian traditions. With this culturally relevant vocabulary, students can better articulate the complexities of temple towns and their distinct socio-cultural fabric. They are then introduced to methods of site analysis, where they begin to identify and document important landmarks, nodes, movement routes, and significant cultural spaces. This stage includes reconnaissance surveys and visual documentation, equipping students with a comprehensive understanding of the town's urban form, spatial dynamics, and social patterns.

In the subsequent stages, students synthesize the collected data, analyzing spatial patterns, cultural nodes, and the functionality of different urban elements within the city's core and peripheral areas. This synthesis allows them to develop a conceptual framework that respects the cultural and spatial rhythm of Indian temple towns. They

continue with an intensive functional analysis, identifying clusters of activity and their interrelations to design feasible interventions. Finally, students propose urban design solutions informed by their analyses and observations. These solutions range from policy-level guidelines to specific design interventions that meet cultural, social, and architectural demands. The evaluation phase ensures that proposed solutions align with the city's unique context, supporting an urban design approach that is sensitive to the social, cultural, and temporal needs of Indian cities, particularly temple towns.

#### **Conventional teaching pedagogy in Urban Design Studio and the limitations**

**The conventional** design approach in the Urban design solution is more or less generic and is very global following the footsteps of methods that were been tried, iterated and accepted in western schools of urban design. It follows a very linear pattern. Reconnaissance survey being the first stage of the study, makes the student understand the pulse of the city, its activities, functions, nodes, important network and so on. The next stage is the data collection where the student collects information on demography, physiography, geo-morphology, land details and land use, transportation, infrastructure, housing and so on. The students are to collect information from both primary and secondary survey

Primary survey is done through verbal interview, survey questionnaire, photo documentation, documentation of selective streets, junctions and land marks and so on. Maps, land records, details of infrastructure, policies by the government are taken through the secondary survey. The students normally follow the standard procedure in studying the areas that addresses and affects the human needs such as standard of living, societal structure comfort, territoriality , circulation, sense of belongingness ,legibility of urban form , to name a few. Western theories speak of breaking the subject to sizeable elements in terms of its physical or aesthetic realm. Students try to apply the elements they decipher from these urban design theories to the town or city they study either in parts or whole. They make an intense analysis of population growth, education level, employment pattern, change in land uses, conflicts in land uses, traffic and transportation issues, housing issues, infrastructure demand and so on. Some of the urban design Studios uses SWOT analysis for taking appropriate solutions. Next stage is the identification of issues which in turn leads to the concept and design proposal stage

Urban design Texts exclusively on Indian towns are limited. But still there are works done on Indian cities by both western as well as Indian authors. They carefully examine and observe the functioning of these towns. The cosmic theories of Indian philosophy, Mandala Planning, concentric pattern of urban form, cultural landscape, ritual landscape, celebration of spaces are all discussed in their works. For instance, the ritual spaces of temple towns are well defined by Jan piper on his case study Suchindram. The concentric pattern of the streets with the important festive events associated with the streets are mentioned in his seminal works on Madurai by Jan pieper) (Pieper March 1980). Cultural landscape of Varanasi is elaborately explained in his seminal work by Rana P.B.Singh (Singh 2002).Lynch, in his theory of good city form describes about Madurai as an example that has connections between city, men, rites and god (K. Lynch, Good City Form 2001) . Yatin Pandya describes the temporal aspects of the market area in Manek chowk of Ahmedabad. (Y. Pandya 2005)

Once the students are exposed to limited theories, the ultimate result that comes out as the design solution has its own drawbacks. They tend to see the congested areas or the bazar areas more as a physical or social blight whereas those are the very typical native urban characters of the Indian Cities. The students need to have a better understanding of what the city or the town demands in terms of its socio- cultural context also which cannot be done by merely following the western design theories. What is needed in the holistic and contextual understanding of the Urban design issues .

Next aspect is the lack of understanding of the living traditions. Indian cities are known for its cultural heritage and living traditions. Each city has its set of living traditions, sometimes very unique in its geographical setting. There are year-round festive events that marks the celebration of these spaces. How the space transforms itself to accommodate the events makes the interesting part of the study .

#### **4. Literature Review**

Jarvis (Carmona 2003)discusses on two broad traditions of Urban Design as Visual Artistic Tradition and Social Usage Tradition, while the former emphasizes in visual form and the latter on the public usage and experiential environments. According to him, the very starting of the Visual Artistic Tradition starts from Camillo's City Planning According to Artistic Principles in 1889. Urban design as a discipline started its growth in the middle of the twentieth century. Cullen's townscape elements (Cullen 1971) and Lynch's imageability (K. Lynch, Image of

the City 1960) are two important works in the artistic tradition. Townscape, the term coined by Cullen speaks of the visual coherence and organisation of the urban environment. He describes it in three ways of emotional impact created by the environment, concerning optics, place and content. In his book, Image of the city Lynch narrates how urban spaces are perceived. Individual mental representation of the city is collectively recorded and analysed. He categorises the image making elements as paths, edges, nodes, districts and landmarks.

Whyte's Social Life of Small Urban Spaces (Whyte 2018) is an observational study of people's relationship with urban spaces. He narrates of "what attracts people" and further speaks of seating, edges, barriers, sunlight, eateries, trees and shading, steps and other parameters and also the choice and preference of choosing the same. Notable works that epitomise the social usage tradition includes "Eyes on the Street" by Jane Jacobs (Jacobs 2016), "Pattern Language" by Alexander (Alexander 2010), "Small Urban Social Spaces" of Whyte (Whyte 2018) and "Responsive Environments" by Bentley (Bentley 2015). Jane Jacobs advocates for viable urban spaces and not large-scale urban projects that destroy the character of neighbourhoods. In his book Pattern Language, Alexander speaks of Patterns, that are the elements of his language. Each pattern in the book describes a problem and solution for it, which occurs in the urban environment. Gehl (al 2006.) speaks of life between buildings and works are highly appreciated for his application of social science research methods. The core component of his research includes the Public Spaces Public Life (PSPL) surveys. Apart from the core urban design texts, there are texts available on Indian cities. Jan Piper's Haptic space experience on Indian towns, water architecture, temple town layouts (Pieper March 1980) speaks more of the unique urban spatial experience in regional context. There are ancient treatises on architecture and planning (Acharya 2006) that narrates on the city planning, their layouts, streets, spatial organisation and so on (Table – 1).

Type of urban design project	Suggested Theories		Traditions of thought	Application
1. Urban renewal 2. Conservation 3. Urban rejuvenation 4. Urban revival of olden parts of cities	Urban design	Lynch -Image making elements Theory of Good City Form Cullen – Townscape Elements Alexander – Pattern language Spiergien – Architecture of town and cities (	Visual – artistic – aesthetic tradition	Applying to decipher and decode the urban elements
		Jane Jacobs	Social tradition	Understanding the social issues of the older areas
		Conservation manual – ICOMOS, INTACH, ASI (icomos n.d.) (intach n.d.)	Conservation methods	
5. Urban studies along corridors or highways	Urban design	Lynch – image of the city Apple yard – view from the road Form based codes (codes n.d.)	Visual – artistic – aesthetic tradition	Applying to decipher and decode the urban elements
	Allied areas	Traffic engineering studies and methods	Traffic and transportation	Methods and techniques Simulation models
6. Urban spaces – squares, parks and others	Urban design	William Whyte – small urban social spaces	Social tradition	Understanding the social behaviour of the public and
7. Commercial spaces	Urban design	Lynch -Image making elements	Visual – artistic – aesthetic tradition	Applying to decipher and decode the urban elements

		William Whyte – small urban social spaces	Social tradition	Understanding the social behaviour of the public and
8. Urban spaces – typology and morphology	Allied areas	Batty – spatial models (Batty n.d.)	Simulation models	Simulation models
	Allied areas	Isovist models	Simulation models	Simulation models
9. New towns 10. Neighbourhood design 11. Gated community 12. Township design	Urban design	Perry – neighbourhood Mumford – neighbourhood Rem koolhas – S, M,L ,XL Form based codes New Urbanist Principles	Contemporary approaches	At different levels of hierarchy
13. Transit oriented development	Urban design	New Urbanist Principles	Contemporary approaches	
14. Mixed land use	Urban design			
15. Water front development	Urban design	Landscape based theories – Mcharg Streetscape design	Understanding natural ecology	Designing with nature
16. Urban housing	Allied areas	National housing policy National commission on urbanisation Form based codes	Housing and community planning	Existing methods, models and recent techniques Community planning simulation models
17. Slum redevelopment 18. Housing for the urban poor	Allied areas	Doshi – slum networking Bhatt – how the other half builds National housing policy National commission on urbanisation Form based codes	Housing and community planning	Existing methods, models and recent techniques Community planning simulation models
19. Traditional towns – temple based	Allied areas	Mayamatham – planning of villages and towns Manasara – planning of villages and towns	Various aspects of physical planning	Typology of settlements, functions and shapes , topography , orientation , Street layout, number of streets
	Allied areas	Simulation models	Visual – artistic – aesthetic tradition	Applying to decipher and decode the urban elements
20. Traditional towns – vernacular	Urban design	Rappaport – house form and culture Rappaport – human aspect of urban form	Factors affecting and influencing type of architecture	Studying and understanding the intrinsic aspects of vernacular architecture
	Urban design	Lynch -Image making elements Cullen – Townscape Elements Alexander – Pattern language	Visual – artistic – aesthetic tradition	Applying to decipher and decode the urban elements

**Table – 1 (Suggested Theories for Appropriate Urban Design Solutions- Urban Design Studio Exercise)**

## **5. Urban Design Studio Process**

### **6.1 Understanding the scale of the project**

Understanding the scale of the project is very essential as it is the first stage of the project and sequence goes to the next level of relevant data collection, site details, application of relevant theories in urban design and applying it on the action area and testing for the best fit. The scale of an urban design project varies from giving policy level guidelines to architectural detailing. Depends on the solutions demanded, the approach could focus on physical aspects, functional aspects, social aspects, visual aspects, engineering solutions (including transport, environment, infrastructure) or sometimes simulation modelling.

### **6.2 Reconnaissance survey**

The Reconnaissance survey or the visual survey is key portion of any urban design study. This shows its significance as it makes the observer understand the pulse of the city. It is a visual and experiential examination of the form, appearance, and composition of a city or neighbourhood by the observer. To conduct a visual survey, one must have a basic idea and understanding of the elements of urban form which would further lead to examining the city and describe it in terms of this vocabulary.

- Identifying the characters of districts-sub districts-based on social, aesthetic, functional, physical, housing characters, leisure, religious, institutional, (either by virtue of land use or physical functioning)
- Understanding the physiographic condition- topography, terrain- rolling/ flat, contour, vegetation, water bodies, and any man-made natural features.
- Understanding the basic urban fabric in terms of its built space, path space & open space system.
- Understanding the boundaries- administrative/visual boundaries.
- Understanding the approach and exit
- Understanding significant landmarks, views& vistas.
- Significant- corridors/paths of movement

### **6.3 Collection of primary and secondary data**

The data that is directly collected through observations, mapping and surveying becomes the Primary data (investopedia n.d.). Data that is collected from various publications and relevant literatures and reports becomes secondary data. Data on the past history also forms part of secondary data. The data collected could be either qualitative or quantitative. Primary data can be collected in a number of ways with the most common techniques being self-administered surveys, structured interviews, informal interaction with residents, field observation, and experiments. Samples thus collected could be either random sampling or stratified sampling. Primary data collection is quite expensive and time consuming compared to secondary data collection. Primary data collection may be the only suitable method for some types of research.

### **6.4 Demographic profile**

The population studies are the generating element of the initial phases of urban studies as it is the directing element and reason for being of the whole process. The entire physical planning works based on the demographic profile. The analysis of demographic issues often lead to certain directions which would lead to the formulation of scenario with forecast methods. The population forecasting is very essential in making economic and social development programs

Demographic studies should include the information regarding population, age-sex ratio, education, employment, literacy rate ,socio-economic profile, migration pattern and so on

### **6.5 Land use**

Land use is the essentially the function that how the geographic land is used according to mans need. The study of land use is about how the land is managed and shaped .In short it is the judicial allocation of land for various specific purposes. Land use is also related to the study of human trends and movements. There are different types of land uses that includes residential, commercial, institutional, industrial and recreational Land use studies should include Existing land use, compatible land use, land use conflicts, tentative directions of growth as per the master plan (at the level of the city) and conclude with the Proposed land use

### **6.6 Infrastructure:**

The definition of infrastructure is essentially the basic facilities that help a community operates that includes roads, schools, phone lines, sewage treatment plants and power generation (investopedia n.d.). Infrastructure is classified into physical and social infrastructure. These systems involve high-cost investments and are the key vital elements for the economic development. In short, they are the one of the key indicators of physical planning.

Physical infrastructure is the basic underlying foundation for any community to operate, work and function . The study on infrastructure should include water supply (regular / intermittent / sources / issues) ,sewage disposal ( methods / mechanisms / issues), solid waste management (methods / mechanisms / issues),storm water drain,electricity,utility lines and so on .Social infrastructure should include institutions, health facilities, community facilities, utilities & services.

#### 6.7 Housing

Urban housing is the study of existing housing typologies that includes the private and public housing. The various housing typologies includes independent houses, row houses, traditional vernacular houses, apartments, slums and squatter settlements. Studies in urban housing should include

- Existing housing condition
- Existing housing stock
- Housing clusters in dilapidated condition
- Traditional housing clusters that have heritage values

#### 6.8 Understanding the form and pattern of the urban space

Urban pattern is the geometry thus created, regular or irregular, formed by routes, open spaces and the built form. This intrinsic mix gives a unique urban form to any area. Basically, it is the pattern of street network that creates different patterns like grid iron, radial, concentric, star shaped and so on. Urban areas have distinct patterns and are the outcome of the street layouts. The mix of open spaces and the built up space constitute still another pattern. Form and pattern of the urban space is done through

- Density and character of the buildings – understanding the traditional or vernacular architectural language of the urban space. Land use mix and density characters are to be analysed. Most of the Indian cities show a mix of low rise and high dense development in the inner core areas where there is an intense mix of land uses
- Spacing of buildings – the bulk , volume and density mix of buildings and further the spacing and siting of buildings helps in easier decoding of buildings
- Paving – materials used and analysed in terms of its maintenance.
- Signages and lighting – helps in legibility and clarity of the urban form.
- Focal points, views and vistas – important landmarks that are made visually strong and gives a better sense of orientation to the users.

#### 6.9 Understanding urban aesthetics and the quality of urban space

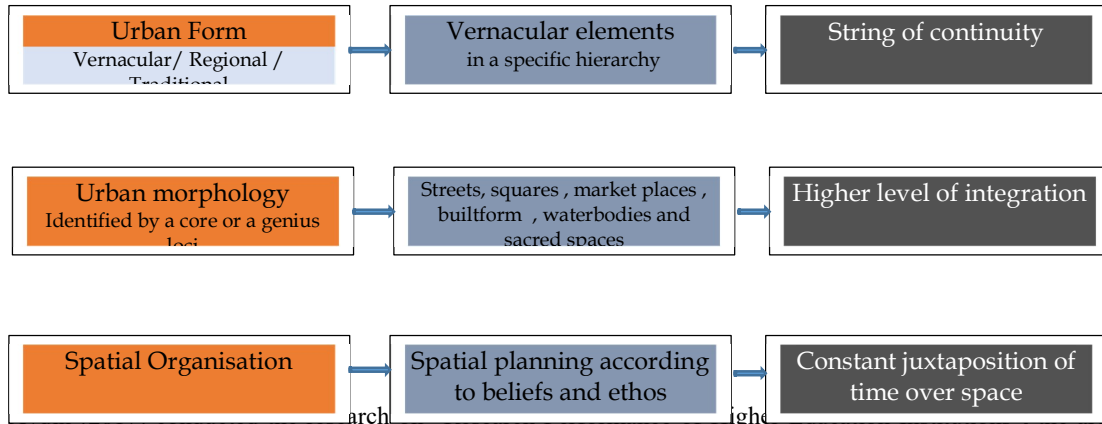
Urban Design considers shape, form, identity, character to city blocks, districts, and metropolitan areas, articulating urban plans in four dimensions, including space and time. Urban Design methods provides a set of descriptive, narrative and analytical tools for working with the tangibles and intangibles of landscape, built form, land use, open spaces and infrastructure. Its concepts and methods clearly demarcate the areas and enable the observer to examine and make sense of how people use space. Urban aesthetics give a unique identity to an area and is expressed through its street facade character in detail. The quality of the urban space is predominantly determined by its quality of enclosure, the quality of its detailed treatment or outfitting and the activity that occurs in it. Study of the urban aesthetics in done through the following aspects

- The urban geometry in totality
- Shape, Scale and size
- Grain and texture
- Street furniture
- Open spaces and its hierarchy , condition and usage
- Size

The students were given some relevant theories and study materials to strengthen their understanding of the urban issues. This study part helped them in narrowing down specific areas which are appropriate in their study. Applications of the suggested theories, their traditions of thought, their relevance in the present context and their application were all debated and analysed in the class exercises. This has helped the students in the initial stage to identify selected texts for studies as well as in the interim stage to apply the theories on to the proposals

#### 6.10 Understanding the regional character / vernacular aspects

Vernacular settlements are structured in such a way they reflect the aspirations and need and aspirations of the society considering the socio-cultural aspects. Vernacular Urban Design is seen through its residential quarters, unique urban morphology comprising of open spaces, squares, streets and markets, spatial organization showing certain amount of hierarchy and their intrinsic mix. Historically, the development process of traditional residential neighbourhoods in old settlements give more emphasize to culture, religion, ethos, privacy, climate, and security as important factors, which affect to a great extent the urban built form. These places have higher sense of belongingness. These vernacular urban areas have a unique urban form and that is shaped by the societal needs over a period of time



intends to raise awareness of "research performance," which plays a crucial role in university competition. The study makes an effort to summarize the findings of a thorough literature evaluation in the area of higher education research performance in order to achieve this goal. First, basic literature on research performance is discussed together with its concept definition and indicators. Then, a thorough presentation of the variables affecting research performance followed. The study concludes with the provision of a conceptual framework that will be useful to all university staff.

Stages of study – Urban Design Studio

The Urban Design Studio employs a three-stage approach that progressively builds on data collection, analysis, synthesis, and proposal development.(Refer Table 2)

Vocabulary Building: To foster an Indian-centric approach, students begin by studying urban design terminologies that resonate with Indian planning practices, including concepts such as Mandala planning and haptic space experience. This helps in creating a culturally relevant vocabulary necessary for comprehending and articulating the spatial and symbolic dimensions of temple towns.

1. Stage 1: Data Collection and Visual Survey:

Reconnaissance Survey: Students conduct an initial physical survey to familiarize themselves with the site’s urban character, including landmarks, street patterns, and socio-cultural nodes.

Visual Survey with Temporal Dimensions: Emphasis is placed on observing spatial patterns and mapping culturally significant locations, informed by interviews with locals, to capture temporal uses of space during festivals or social events.

Functional and Hierarchical Analysis: Through functional analysis and identification of micro-clusters, students evaluate relationships between land uses, circulation systems, and core areas. This includes mapping nodes such as commercial hubs, religious sites, and traditional artisan clusters.

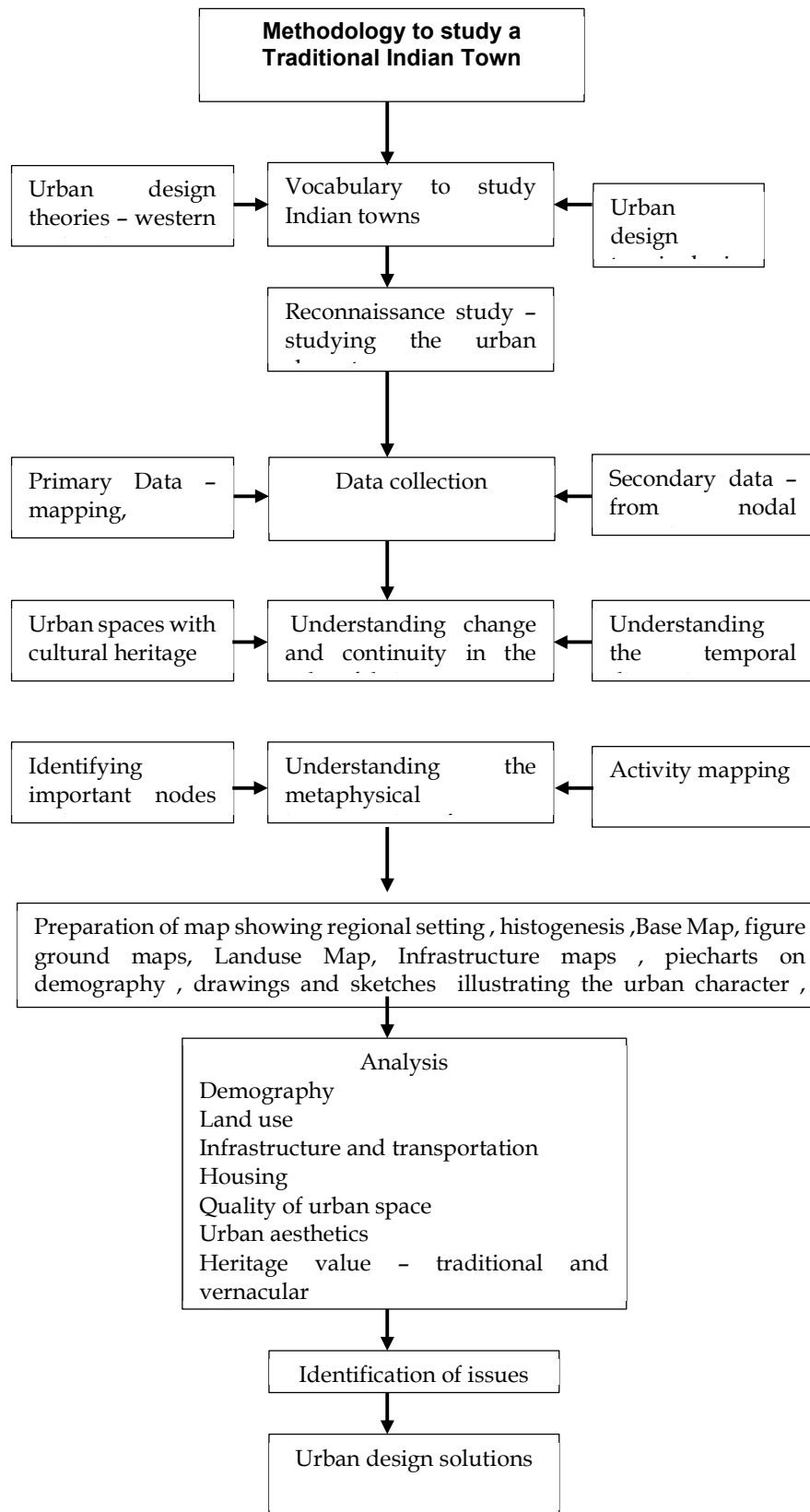
2. Stage 2: Analysis and Synthesis: In this phase, collected data is synthesized to generate conceptual frameworks that reflect the site’s cultural context and urban dynamics. Students develop schematic design proposals that address identified issues, focusing on how urban form, function, and cultural practices interact within the spatial structure.

3. Stage 3: Urban Design Solutions: Finally, students propose solutions that range from policy

recommendations to design interventions. The solutions are evaluated for contextual appropriateness, ensuring alignment with cultural, architectural, social, and technical demands.

## **6. Formulating a Structured Methodology for Studying Indian Towns**

Urban Design Exercises in Indian schools follow the generic pattern that is been accepted globally. The proposed methodology is exclusively structured for studying any traditional town in Indian context with strong traditional and heritage values. To strengthen the intensity of the study, vocabulary to study Indian towns is taken as the first stage of the design exercise . Urban design terminologies are introduced followed by Urban Design Theories on Visual Artistic Tradition, Socialistic Tradition and Place Making Traditions by the Western Theoreticians on Urban Design. In addition to that works and terminologies formulated by western authors on Indian cities are introduced such as Haptic Space Experience, Genius Loci, Mandala Planning are also discussed. This enables the students to have an exposure to the urban design theories as well as relevant texts on Indian cities



**Fig 1 : Methodology to study a Traditional Indian Town**

In the reconnaissance stage, important nodes and routes that are associated with the festive events and long living traditions are identified, followed by complete set of data collection. Living traditions are very unique in the temple towns of Tamilnadu (G. Michell 2008). Every town has its own set of living traditions that are particular to that geographical area. It is practised as ritualistic traditions, performance-based traditions, water-based rituals, sacred topographical traditions and so on. Temple towns do have a specific spatial layout that is centred around the major temple complex. (V. a. Bharne 2013). Madurai, an important temple town, for instance, celebrates Chithirai Thiruvizha, which has a sequence of events including celestial wedding of the deities till the holy dip of the deity in the river Vaigai (J. S. Smith 1976). The rituals that are interwoven takes into account the specific routes of movement, circumambulation in the concentric streets, water based rituals and allied events. Chidambaram (G. Michell 2008), another temple town celebrates the celestial dance, the dance of Shiva and is celebrated as a festive events of the Classical Dance, Bharatha Natyam as the Natyanjali festival. Srirangam has a set of performance-based rituals namely Araiyaar Sevai, where the entire narration of events is done through performing arts by the temple priests. holy dip and circumambulating hillocks are also quite common and forms an integral part of the Urban Form. Understanding of these living traditions and integrating it in the proposals is important. This is done through constant interaction with historians, scholars and archaeological experts. Thus, a holistic picture of the city that was shaped and transformed through ages is done. The students then start mapping the significant routes, its associated events and the time and the duration of those events are also documented. Heritage towns in an Indian context have a higher number of traditional commerce activities associated with it. There are micro clusters following these traditional commercial activities around. Activity analysis of functioning of the urban spaces with special reference to the microclusters is also done

### **7. Proposed Structure and Methodology for the Urban design studio**

The proposed methodology for the Urban Design studio integrates theoretical inquiry with practical, experiential learning to create a comprehensive framework for understanding and shaping urban spaces. This approach emphasizes exploring visual, aesthetic, and social traditions within urban environments, allowing students to delve into the theoretical foundations that inform urban design principles. By studying visual traditions, students gain insight into how artistic and cultural aesthetics shape cityscapes, influencing everything from street layouts to architectural facades. Examining social traditions, on the other hand, introduces students to the historical and cultural context of cities, encouraging them to think about the human aspects of urban design, such as community needs, heritage preservation, and public engagement. Together, these elements offer a well-rounded understanding of the visual and social aspects that define urban spaces.

The methodology is also centered on active engagement with the living, dynamic spatial experiences within cities. Students are encouraged to interact with the urban environment directly, observing, analyzing, and immersing themselves in the spaces they aim to study or transform. This activity-based learning promotes a connection between theoretical concepts and real-world urban challenges, helping students identify and address practical issues cities face today, such as overcrowding, accessibility, and sustainability. By merging classroom knowledge with fieldwork, the studio methodology aims to transform students into thoughtful designers who can consider cities' cultural and social dynamics while proposing solutions that are both functional and aesthetically pleasing. Additionally, the studio is designed to act as a collaborative meeting ground where conceptual ideas intersect with the tangible aspects of urban infrastructure, governance, and available workforce. By engaging with local practitioners, planners, and other stakeholders, students experience how urban projects are influenced by the various actors involved in a city's functioning. This collaborative setting fosters a holistic view of urban design, where students can test their ideas against real-world constraints, such as budgetary limitations, workforce availability, and regulatory frameworks. Through this interactive process, students learn to balance innovation with feasibility, ensuring that their designs are both visionary and practically implementable in contemporary urban landscapes.

Stages	Conventional urban design studio	Proposed urban design studio	Expected deliverables	Remarks
Vocabulary development	Not done as a mandatory exercise	Done before reconnaissance	Study, understand the terms and apply in the case study where	Better understanding in the process of survey, analysis and design Students use appropriate urban design terminologies in the entire process
Data collection	Documentation of the physical fabric	Documentation of the physical fabric as well as identifying spaces with strong temporal dimension	Physiography mapping land use infrastructure transportation housing	Maps , sketches , diagrams Understanding the metaphysical interpretation of spaces that are exclusive in the traditional towns
Analysis	Aspect wise analysis of land use infrastructure transportation housing	More weightage on indicators of physical change and analysis based on temporal dimensions	Adherence to level of standards and conflicts if any	Students were able to understand and study the city more specific to Indian context in terms of the planning and functioning. They could analyse the temporal dimensions as well
Identification of issues	Aspect wise	Inter relationship of the parameters and its impact is used as an important tool in identification of issues	Mapping the key issues aspect wise	The student could understand the state of art urban design solutions
Synthesis	Proposals ranges from policy level guidelines to architectural proposals	Proposals ranges from policy level guidelines to proposals for the microclusters within the urban fabric	Complete master plan followed by detailing of action areas in terms of plans, sections and elevations	The final plan integrates the whole to parts

Table 3. Comparing Conventional Urban Design Studio with Proposed Urban Design Studio

**8. Result and Discussion**

The Urban Design studio methodology yielded valuable insights into the effectiveness of integrating theoretical inquiry with experiential, activity-based learning in understanding and shaping urban spaces. One significant outcome was students’ enhanced appreciation for the visual, aesthetic, and social traditions that define urban environments. By studying these traditions, students were able to recognize how cultural aesthetics and historical influences impact the physical and social layout of cities. This understanding allowed students to approach urban design with greater sensitivity to the community’s cultural heritage, resulting in design proposals that respected local identity while addressing contemporary needs. Moreover, engaging with visual and social traditions equipped students with a strong foundation for creating urban designs that balanced functional requirements with aesthetic value, making their work more adaptable to diverse urban contexts.

Another notable result was the impact of immersive, experiential learning on students’ ability to identify and address real-world urban issues. Fieldwork activities, such as reconnaissance surveys and direct engagement with city spaces, enabled students to move beyond theoretical concepts and actively observe the challenges faced by modern cities, such as crowding, infrastructure strain, and lack of accessible public spaces. This hands-on approach proved particularly effective in fostering a problem-solving mindset, as students could witness firsthand the consequences of urban planning decisions and think critically about potential solutions. Through this activity-

based process, students developed a nuanced understanding of spatial relationships, circulation patterns, and the functional interplay between built and open spaces. Their proposals were enriched with practical insights, as students could base their design interventions on the lived experiences they observed, rather than purely on abstract ideas.

The collaborative aspect of the studio further strengthened students' learning outcomes by exposing them to the realities of urban governance and project implementation. Working alongside practitioners and other stakeholders, students confronted real-world constraints, such as workforce limitations, regulatory restrictions, and budgetary concerns. This interaction with professionals and local officials helped students refine their design proposals to be both innovative and feasible. Discussions around the logistics of project implementation encouraged students to think about urban design beyond aesthetics, considering how policies, resources, and stakeholder interests could affect the viability of their ideas. As a result, students' final proposals demonstrated a comprehensive approach to urban design, showcasing their ability to balance visionary design with practical, sustainable implementation strategies. This studio experience thus effectively prepared students to approach urban design with a holistic understanding that integrates aesthetic, social, and practical dimensions.

## **9. Findings**

The Urban Design studio revealed several key findings that highlight the strengths of an experiential, theory-informed approach to understanding and addressing urban issues. First, the integration of theoretical inquiry with real-world activities significantly enhanced students' ability to analyze and appreciate the cultural, aesthetic, and social dimensions of urban spaces. By engaging with concepts such as visual-aesthetic traditions, social organization, and place-making, students gained a deeper understanding of how cultural heritage and social practices shape urban design. This foundational knowledge led to proposals that respected the identity of the area and were responsive to the unique characteristics of the local environment.

Another important finding was the value of field-based learning, which enabled students to translate theoretical ideas into concrete observations and interventions. Through reconnaissance surveys, visual analysis, and on-site data collection, students were able to identify critical spatial and functional relationships within urban spaces. These hands-on activities provided them with direct insights into urban patterns, pedestrian and vehicular circulation, and the integration of built and open spaces. The immersive nature of this approach fostered a practical problem-solving mindset, allowing students to tackle issues like crowding, accessibility, and infrastructure limitations with realistic, context-sensitive solutions.

Finally, the studio underscored the importance of collaboration and real-world constraints in urban design. Working alongside local stakeholders and understanding regulatory and workforce limitations enabled students to align their proposals with practical feasibility and community needs. This exposure helped students develop a holistic view of urban planning, combining visionary design thinking with actionable, sustainable strategies. These findings suggest that an Urban Design studio model combining theoretical rigor, experiential learning, and collaborative problem-solving effectively prepares students to address contemporary urban challenges..

## **10. Conclusion**

The structured methodology of the urban design studio made an easier approach for the students in the understanding of scale as well as issues in the studio. This study demonstrated a systematic approach right from choosing the appropriate texts till understanding the current state of art of designing parts of cities. It is very essential to understand the social, cultural and metaphysical context of urban spaces as that forms the major part of urban studies in Indian context. It was made possible through constant interaction with architects, faculties, researchers, historians and scholars. The similar approach can be tried for Traditional towns with cultural focus or traditional towns that are in transition. Further development in this approach could be made through the vertical studio approach when the design gets interrelated with design exercises of varied years and schools. Combinations of interdisciplinary approaches could be further tried in those approaches.

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