

Need for Context-Based Design for Local Streets in Old Cities in India

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Abstract-

Local Streets have been an integral part of the community. They serve as paradigm of social life in the Old cities, where people are engaged in socio-cultural practices. But in Indian scenario, the street designs are more focused on motorised traffic and do not consider human scale and perception of street life. The culture of local streets is threatened by the influence of globalisation. Different Indian street design guidelines follow top-down approach in street designs. The emphasis is given to motorised modes, making the street private. In this sense, most cities in India do not have clear guidelines. The guidelines that exist are mainly for national and state highways with limited focus on diversified urban roads, most of which are controlled by mixed land uses. This paper will focus on the existing approach to the local streets in India through review of standards and guidelines like that of Indian Road Congress Code-86 and Complete Street Guidelines, 2019. It will also unveil the problems faced due to the mismatch in street design guidelines and character of the street. Further, approach to adopt context based street design will be given in the paper. This will help in keeping the rich and convivial culture of local streets intact, so that they can be conducive to the public.

Keywords- Context Sensitive design, local streets, old cities, importance of streets

Introduction

Streets have played a dire role in cities since primeval times by linking spaces with people and objects, thus helping to boost social connections and encourage people to move about. Local streets have played an important role by contributing to the pecuniary, cultural, social, and radical functions of cities. They are the paradigm of social life having mixed activities around it. They act as the inclusive spaces where people can interact with each other and celebrate.¹ In spatial practices such as urban design and planning, the street is imagined as a stage on which public life will be performed, a backdrop to activities that are programmed within its boundaries. The street is also a home to traveling populations, and is appropriated as an extension of activity from houses, shops and other spaces.



Fig.-1 Local Streets of Varanasi with beautiful architectural designs

Wesley Marshal, in an interview of **25 Great ideas of New Urbanism** said that, “If you get the architecture right and the streets wrong, your place doesn’t work. On the other hand, if you get the architecture wrong and the streets right, your place still has a pretty good shot of succeeding...”²

If we put a glance at our local streets we can easily find people buying eatable and bargaining with vendors, eating outside at a local restaurant that offers only local delicacies, getting your vehicles fixed, and sipping a cup of chai at a Chai Thela (Stall). It reflects

the hustle and bustle of local streets in old cities of India. Women spend their time chattering, sorting pulses, chopping vegetables, and needling sweaters in winter sun. They enjoy the cup of Chai in sunlight at their door footsteps and talking with their neighbours. This illustrates the local street culture of most Indian cities, where the street is the stage where the daily activity choreographies form a relaxed rhythm that reflects the common identity of public life on any local street in old towns.³

However, the local street culture in India is progressively in danger by the influence of motorisation and global trends. Local streets, which were at human scale and represent the Indian culture, are now replaced by wide, far-reaching roads with high-speed cars. Nowadays, many of the activities created by the street frontage are at risk due to changes in city lifestyles. More priority is given to vehicle traffic as it has become a symbol of growth. The heavy impact of 'national' urban planning ideals on local street design guidelines has also affected the ethnic character of cities. For many years, the planning, design and development of highways and streets has mostly been left to "professionals" – highway and road engineers who obey the requirements of the Indian Road Congress or other guidelines available to them. Nowadays, local streets in India are often overlooked. They are poorly integrated and worst case, they are neglected.⁴



Fig.-2 People enjoying evening tea at chai stall in walled city, Amritsar

Relevance of Local Streets in Indian Standards and Guidelines

Since independence, the government of India has formulated many standards and guidelines for the easy mobility of people from one node to another. But the practice has been highly influenced by the globalisation. The race of being global cities, Indian Urban planners and policy makers have neglected the

essence of local streets which make Indian streets unique in social, economic and environmental aspects. Here, two standards/guidelines are discussed, which are- (1) Indian Road Congress Code-86 and (2) Complete Street Guidelines, 2019.

Indian Road Congress Code-86

These standards talk about the Geometric design of urban roads in plain areas and are also applicable in sub-urban areas. Under this code, the urban roads are classified into four main categories- Arterial, Sub-arterial, Collector streets and Local streets.

According to IRC-86, Local Street is defined as, “A street primarily for access to residence, business or other abutting property.” It means that local streets are of lowest hierarchy which give access to an individual’s property, where one reside or work. The main function of local streets, as given by IRC-86, are as follows:-

- These are planned mainly to provide **access to adjoining property**
- Usually **do not carry large volume of traffic**.
- Majority of trips in urban areas either **originate from or terminate on** these streets.
- They **allow unrestricted parking and pedestrian movements**⁵

From the definition given by the Indian Road Congress, it seems that local streets are most important category as there is unrestricted flow of pedestrian movements but at the same time it is inviting parking problems because there are no regulations given. If we think in perspective of old cities, the historic or religious buildings/areas in centre of the cities, surrounded by local streets. Cities such as Ahmedabad, Amritsar, Varanasi, Haridwar, Mathura, Bangalore, Kolkata, Delhi, etc have rich and diverse culture, that these codes are not applicable there. These codes do not satisfy the need of local streets of Indian cities and thereby, it creates unmanageable chaos due to excess motorization. These codes urge the transport planner and engineers to use one format which fits for all, thereby neglecting the opinion of people and context of local streets and environment.

Further, the recommended street width for the local streets is 10-20 m. But in actual situation, the width of local streets in old cities goes below 10m also..⁶ The designed speed given for local streets is 30km/hr, but

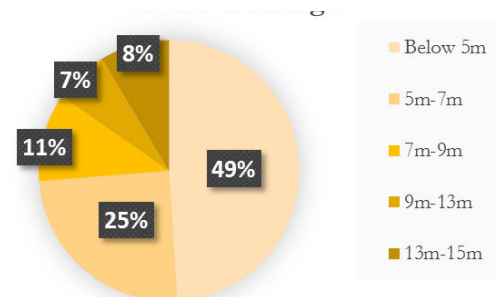


Fig.-3 Width of road in Walled City Amritsar

for the street width of below 10m, the speed of 30km/hr seems too much, inviting conflict between pedestrians and vehicles.

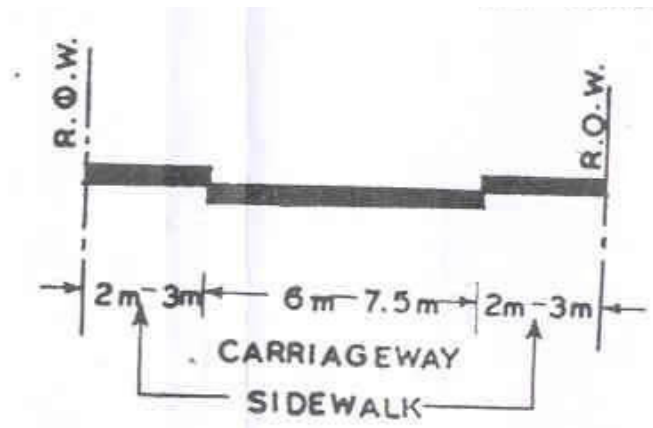


Fig.-3 Typical cross-section of Local Street

The typical road cross-section depicts existence of sidewalks, but the guidelines are not followed, even if the street width is 10m or above. Therefore, the codes stand no value in the old cities of India because the depiction of local streets is not appropriate.

Complete Street Policy, 2019

The Complete Street Guidelines were given by Ministry of Housing and Urban Affairs. A Complete Streets Policy is important to direct the formation of better streets for walking and cycling. A complete street is one that is designed to satisfy to the needs of all users and activities. Complete Streets include various elements such as safe, shaded, and continuous footpaths. It also includes elements like segregated cycle tracks as well as bus lanes where required, safe pedestrian crossings with refuges, uniform carriageway, and organised on-street parking to cater the needs of public.⁷

The designs integrate bus stops, street vending, trees, seating, children's play zones, and all other street furniture as well as service utilities as appropriate to the street typology. Each element should be located carefully so that they do not obstruct the experience of people. It should balance the needs of mobility and liveability without compromising one another. But such designs cannot be applicable on the local streets in old cities of India because there is not much width available that all elements can be incorporated. It is very difficult to incorporate Non-motorised means of transport and motorised means of transport in smaller widths.⁸

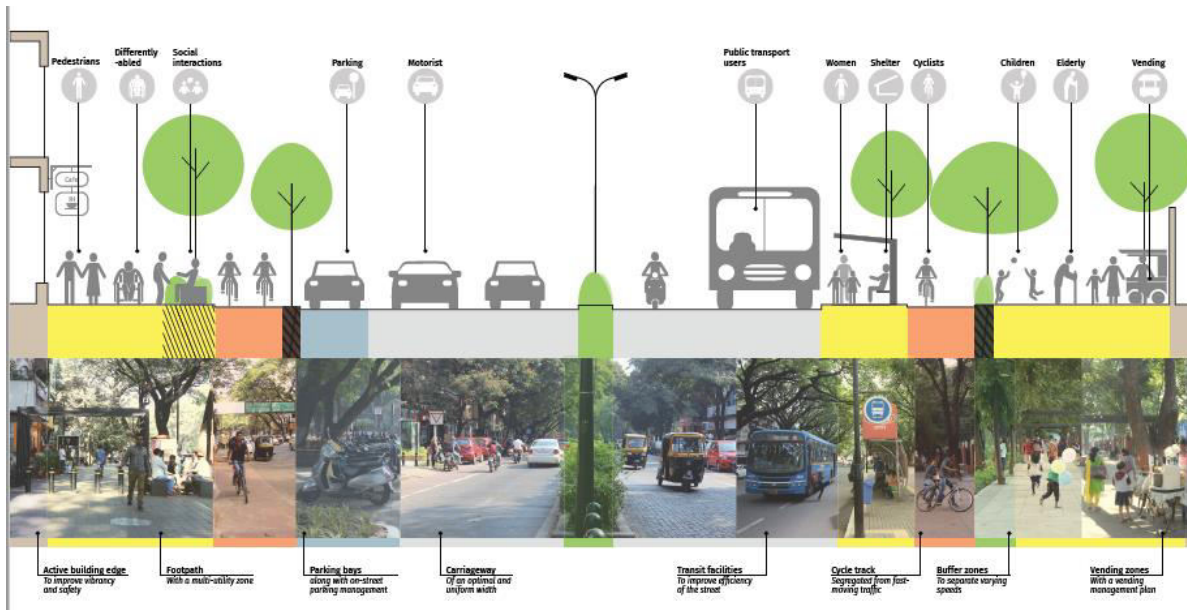


Fig-4. Elements of Complete Streets

Streets in ancient cities were the product of a vision of society rather than a feature of the economy, but today the streets are built with a view of the economy with wider road widths, plenty of parking spaces and high-speed moving lanes. In spatial practices such as urban design and planning, the street is imagined as a stage on which public life will be performed, a backdrop to activities that are programmed within its boundaries. The street is also a home to traveling populations, and is appropriated as an extension of activity from houses, shops and other spaces.

Case Study:- Guru Bazar Road, Walled City of Amritsar

Walled city of Amritsar is the heart of Amritsar, built by Maharaja Ranjit Singh centuries ago. The street pattern in walled city is zig-zag pattern with narrow widths. 85% of streets in Walled city of Amritsar range between 5m-9m.

Guru Bazar is a famous and oldest market for jewellery made of gold and silver, which attracts people from all over the north regional states/UT like Punjab, Haryana, Jammu-Kashmir, Delhi, etc. The market is visited by hundreds of individuals, especially women, for the love of jewellery. Guru Bazaar is famous for its gold and silver ornaments, and the traditional Indian jewellery known as 'Jadau.' Women flock the shops of this market to take home gorgeous pendants and earrings studded with semi-precious stones.

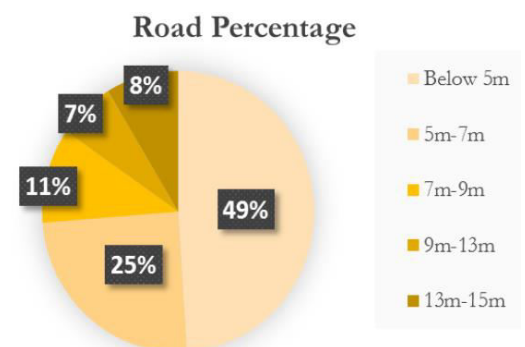


Fig.-5 Width of road in Walled City Amritsar

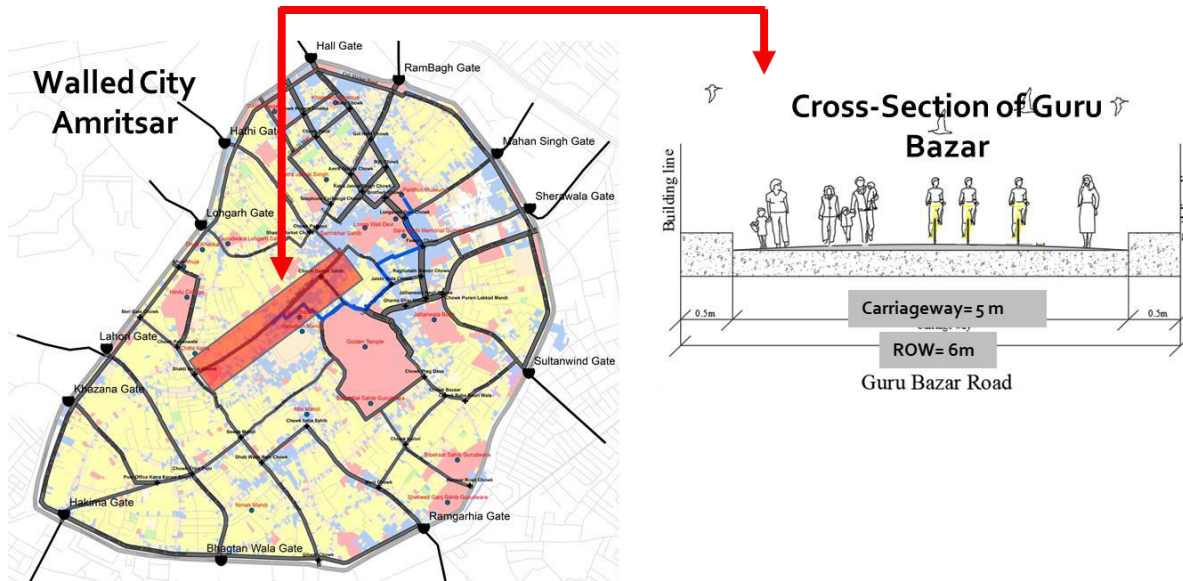


Fig.-6 Location of Guru Bazar Road and it's Cross-section

The cross-section depicts that the carriage way of the road is merely 5 m which cater to the vehicle composition of 2 wheeler and 3-wheeler like cycle rickshaws and e-rickshaws. Pedestrians come in high number daily. The Street character is purely commercial for Gold Ornaments with no loading or unloading requirement. Narrow road in Guru Bazar with on-street parking of two-wheelers which encroach the already narrow lane road.

So, in case of Guru Bazar Street, the design guidelines of IRCodes and Complete Street Guidelines can't be applicable. It does not enough street width, that the components and elements of such guidelines can be applicable. But looking at the importance of such streets, some special guidelines are needed.

Need for Context Based Design

Earlier, Streets are designed for increasing the movement of motorised vehicles. In India, the street guidelines are for National highways and State Highways. Street designs are based on one-format-fits-all. There is less focus on local streets. Context based street design will give basis for designing streets according to the society, neighbourhood and its convivial characteristics.

Context Sensitive Solutions, or CSS, is an approach which can be used for keeping intact the character of local streets in old cities of India. It will help to ensure that:-

- Affected community members are active,
- Affected people are valued in the process of planning,

- Result with a transportation project or process that supports a broad range of community needs and desires.⁹

Approach for Context Sensitive Solutions

Using a Context Sensitive Solution approach for designing of local streets is important as a means of planning as it will help in facilitating the community conversation and exchange of ideas to build stronger and healthier communities. Moreover, it will also help in keeping the rich and convivial culture of local streets intact, so that they can be conducive to the public.

- *Understanding the Whole Context*—The configuration of the streets should be compatible with the circumstances of the region they are planned for. Physical features such as location and height of buildings, use of structures and landscaping should be paired with streets built to meet the needs of people living nearby.
- *Engaging Relevant Disciplines*—It is very important to diagnose the significance of the corridor (street) closely. People of different skills should be allowed to engage in the planning and design process. The diverse viewpoints of architects, urban designers and planners will assist in the best understanding of the context.. For example, if context of street is related to religious activities and heritage, so the designing team should engage people having expertise in heritage field.
- *Engaging Affected Stakeholders*—In addition to multidisciplinary professional involvement, collaboration with members of the community is a key part of making the right diagnosis. Early participation and involvement of people, living or working nearby, in the designing process can help build support and acceptance for the ultimate solutions.
- *Establishing Collaborative Communication*— It is rightly said that, “Collaboratively developed solutions are often better supported than ideas created in isolation”. Therefore, collaboration should begin early and carry on during the course of the project.
- *Beginning with an Open Mind and a Blank Sheet*—Although there is an urgent need and a straightforward answer to be found in certain cases (such as vital safety issues), most frequently street improvements require changes and resources that can be best solved by communities engaging in a collaborative process.
- *Developing Harmony on Performance-based Goals and Targets*— Properly and explicitly recording desired results will help to overcome changes and tradeoffs in the process.¹⁰

Findings of the Research

The Existing approach to local streets is poor as the standards are very old and need to be renewed keeping in mind the present situations in old streets. “One design fits all” approach can not be used as the character and context of every street is different. If we say that character of street is commercial, then also, there are many variations in commercial area. Complete street Guidelines has somewhat touched the concept of “sensitivity to local context” but further approach to it is missing in the guidelines. Old streets providing access to commercial area need special attention and approach.

Socio-Cultural (intangible) aspects of the local streets in Old cities is not taken into consideration as they have not mentioned anything related to importance of intangible aspects while designing the street . Whereas, designing of elements of streets should consider it, which will result in more integrated approach with the society.

The problems caused due to mis-match of street character and guidelines are as follows-

- Loss of character of the street
- Visual appeal of a street is disturbed
- Urban form is disturbed which becomes eye-sore for the residents and people passing by.
- Illegal parking and encroachment of public-space

Indian local streets in old cities are symbolic of public spaces, rich culture and active life, which should be given preference by policy makers, so that the context and authenticity of area is kept intact. The contemporary approach for old cities, which suggest “one design fits for all” is not going to be applicable. Different approach needs to adopted, so that function and context of local streets in cities is kept unharmed by trends of globalization.

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