Understanding How the Design of Urban Areas Can Negate Anti-Social Behaviour and Criminal Activity: Taking the Example of Hyderabad Urban Areas as Case Studies

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Abstract

Cities and towns are developing into well-defined, heavily populated areas, but these areas have advantages and disadvantages of their own. With more residents, a city becomes more diverse, with individuals of all different classes and races. Yet, this diversity frequently breeds crime and a fear of victimization for the people living in urban areas. Most of these antisocial behaviors occur in public and neighborhood areas. This paper tries to identify why public spaces are frequently the scene of antisocial behavior and other approaches to criminal and antisocial behavior beyond simply installing surveillance cameras. It examines the root causes and pressing needs for CPTED and offers a critical assessment of the evidence supporting this approach's effectiveness in crime prevention. It also discusses situational and dispositional approaches to preventing crime based on urban design modules and how designing cities based on opportunity reduction techniques with key themes of activity, surveillance, territorial, definition, and control impacts criminal activity in public spaces based on existing models.

A mixed **design technique/methodology** is employed, which includes the following steps:
1. Qualitative method – Insights and analysis of other publications and research papers. 2. Quantitative analysis in the form of a survey and an analysis of the existing urban area with and without the CPTED design measures incorporated in the metropolitan area.

Limitations

Despite lacking conclusive empirical evidence, the paper concludes that a substantial body of research supports the idea that environmental design is a practical and successful strategy for preventing crime.

Keywords: CPTED; Public space; Urban design; Opportunity reduction methods; Neighbourhood.

Theme

Urban design and the role of CPTED in planning urban areas

Highlights

The paper intends to identify how the CPTED principles can be incorporated more humanly in the cities to create a sense of belonging among the citizens and between them and the city.

1. Introduction

Cities and towns are developing into well-defined, heavily populated areas, but these areas have advantages and disadvantages of their own. With a steady rise in population, a city becomes more diverse, yet this leads to crime and a fear of victimization.

People face various threats in urban areas, such as **crimes, street barbarism, acts of terrorism, incivility, fast-moving traffic, natural phenomena, and unseen problems.** *Heath, T., Oc, T., & Tiesdell, S. (2012). Public places Urban space. In Routledge ebooks.*

The public sphere and the development of better places are threatened by crime, safety and security, lack of security, perceptions of safety, and fear of victimization. These dangers result from how metropolitan areas are developed and inhabited.

The leading factor that gives rise to crime in urban areas are:

– People who need to be utilizing a specific location or setting. They do this because the way the urban environment is designed or because it isn't being used makes them feel uneasy or unsafe. Poorly designed urban neighborhoods, including those with dark alleys, visually and physically separated places, subways, and graffiti-covered areas, are to blame for this sensation of unease.

Residential flats have the same problem.

Urban settings frequently cause a dread of victimization. Physical or visual barriers are being built in more and more urban locations to stop this victimization. This results in the physical separation and segregation of communities.

This **paper** analyses CPTED principles and how they are used but tries to suggest other ways in which they can be used that are humane and don't segregate communities or spaces.

It talks about how CPTED principles have been used in different cities taking the example of **Chandni Chowk** and **Gachibowli**.

1.1. Need for the Study

CPTED is a proactive or reactive action that leverages present environmental factors or changes them to lessen the

likelihood of criminal conduct. The environment can be changed by making existing structures open towards the streets or by altering the flow of traffic for cars or people on foot such that there is no blind zone. *Huges, G., Mclaughlin, E., Muncie, J., & University, O. (2002). Crime prevention and Community Safety: New Directions. SAGE.*

1.2. Description

CPTED has five principles: **Natural access control, natural surveillance, territoriality, activity support,** and **maintenance.**

The two principles we will look at in detail are **Natural Surveillance** and **Territoriality.**

And how to incorporate these two principles in the design of Urban areas.

a. *Territoriality*

Territoriality is the claim to a particular place; this claim prevents people from misusing the city or acting impolitely. This principle's design element tries to show who owns the land and other assets. This ownership can be done in two significant ways:

Symbolic barriers are signage, gardens, and landscaping-.

Natural barriers include fences delineating between private, semi-private, and public areas.

b. *Natural Surveillance*

The main goal of natural surveillance is to deter criminal conduct by making public areas easily visible. Even though official surveillance methods might use covert cameras and security guards, illegal activity isn't hampered by a lack of personal contact.

1.3. Literature Study

Following a comparison of various urban spaces and how they are designed using the CPTED concept, it is determined that the CPTED guide is applied in the following ways when creating a room:

Natural Method

1. Dumpsters should not create blind spots or hiding areas, mainly when located in lanes.
2. Recessed doorways, alcoves, or other dark niches should not be created or removed to eliminate hiding places for potential assailant vandals or other criminal activity.
3. Loading areas should not create hiding places.
4. Signs placed within windows should cover at most 15% of the window area to ensure natural surveillance.
5. The lower branches of existing trees should be kept at least 10 feet off the ground.
6. Parking areas should be visible from the building street.
7. Paths in commercial areas should be provided in a location with good surveillance, not blocked in by blank walls and dense landscaping.

8. The exterior of a building should be well-lit.

9. Mixing of uses should be encouraged.

Territorial

1. Public events such as festivals and outdoor concerts help to increase activity.

2. Property boundaries should be marked with hedges, low fences, or gates.

3. Private and Semi-private areas should be easily distinguishable from public places.

4. Lanes should be well-maintained with pavement and landscaping.

5. Use of furniture.

Mucano, K., Duda-Banwar, J., Klofas, J., (2018). Crime Prevention Through Environmental Design [CPTED]: Designing Out Opportunity and Fear: Rochester Institute Technology College of Liberal Arts.

Research Gap

Even if both barriers serve to dissuade criminal activity, they can also result in the segregation of communities, and there is no way to predict what will happen when space is divided into Public, Private, and Semi-Public spaces. Lack of activity in the semi-public area may trigger uncontrollable actions. One such is gated communities, which display social division, polarisation, and fragmentation. Walls and gates surrounding the gated community block public access to areas that would otherwise be accessible to all and easily supervised, such as playgrounds, parks, beaches, rivers, and trails.

How can CPTED principles be used without segregating communities and keeping a sense of belonging between the communities? This sense of belonging makes people more conscious of their environment and want to protect it.

2. Research Methodology

A mixed approach is used in the research methodology:

1. Qualitative method – Insights and analysis of other publications and research papers.

2. Quantitative analysis in the form of a survey and an analysis of the existing urban area with and without the CPTED design measures incorporated in the metropolitan area.

Survey

From an informal survey, it is understood that people feel unsafe for various reasons. These reasons are identified.

Case Study

Two areas have been selected from different states to analyze how planning and the absence of CPTED principles affect how people perceive the physical environment.

Chandni Chowk

One of the oldest and busiest markets in Old Delhi, India, is the **Chandni Chowk**. Nearby to the **Old Delhi Railway Station** is where it is situated. The **Red Fort** monument is located at Chandni Chowk's easternmost point. Shah Jahan, the Indian Mughal Emperor at the time, constructed it in the 17th century. Canals used initially to partition the market and reflect moonlight are now closed. It is still one of the biggest wholesale markets in India. Chandni Chowk has a rich history of traditionally built structures and historic dwellings. Initially, even though Chandni Chowk was small and needed separate roads for cars and pedestrians, it was hectic. Following its renovation, Chandni Chowk is now a hive of activity that attracts people from all social and economic backgrounds.

The mixed-use dwelling and the numerous activities happening in the area were the primary criteria for selecting this space.

Gachibowli

Gachibowli is a neighborhood in the **Serilingampally** mandal of the **Rangareddy** District of Hyderabad, Telangana, India. Hitech City, another IT hotspot, is located around 5 km distant. Numerous IT businesses, commercial spaces, and housing units are in Gachibowli. It covers a large size and is peppered with hillocks and rocky terrain.

Gachibowli was chosen primarily due to its mixed-use buildings, integration of many purposes in one area, and future center location where most social contact occurs.
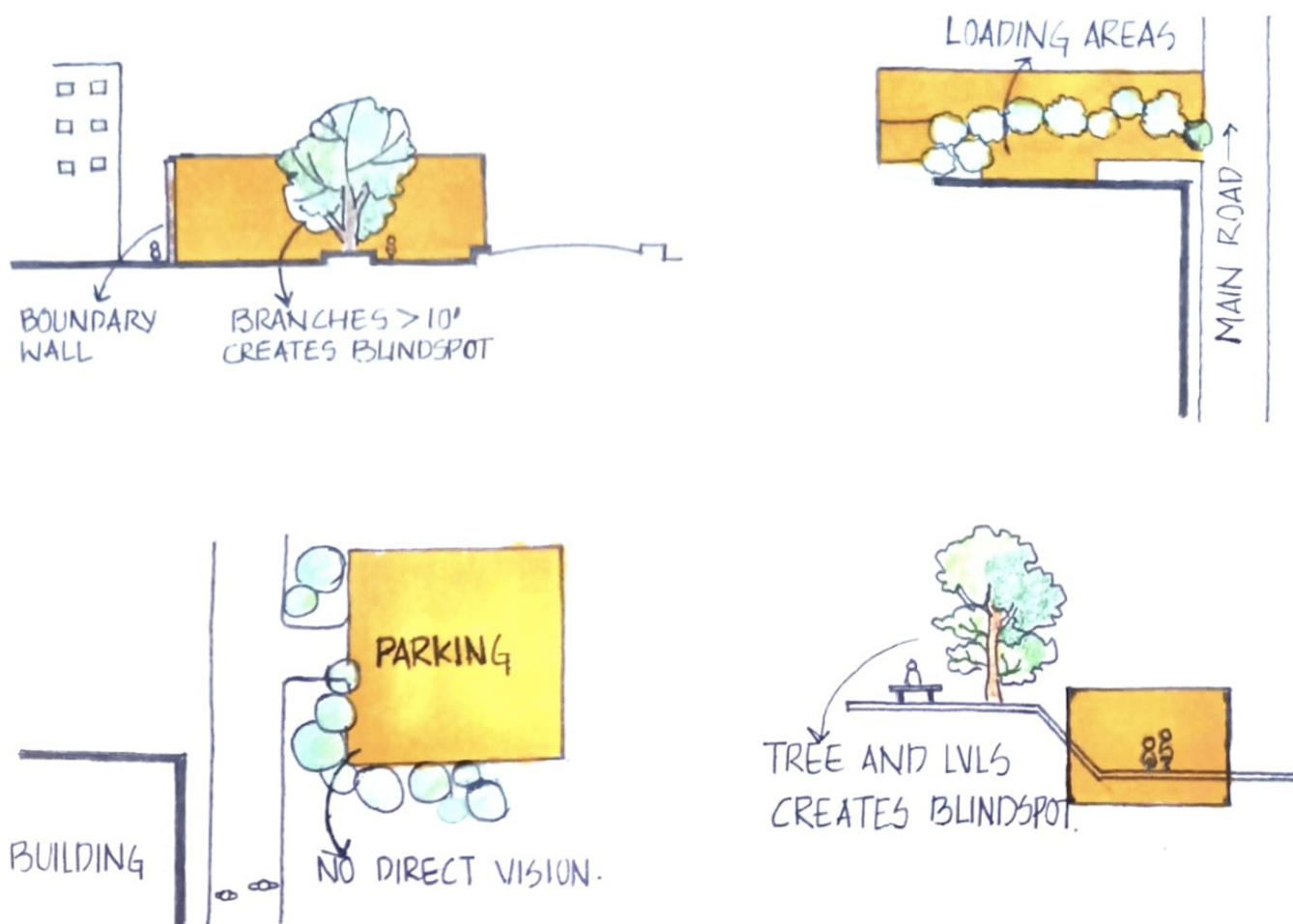
3. Results

3.1. Survey

According to the results of the informal study, certain situations make people feel safe and unsafe.
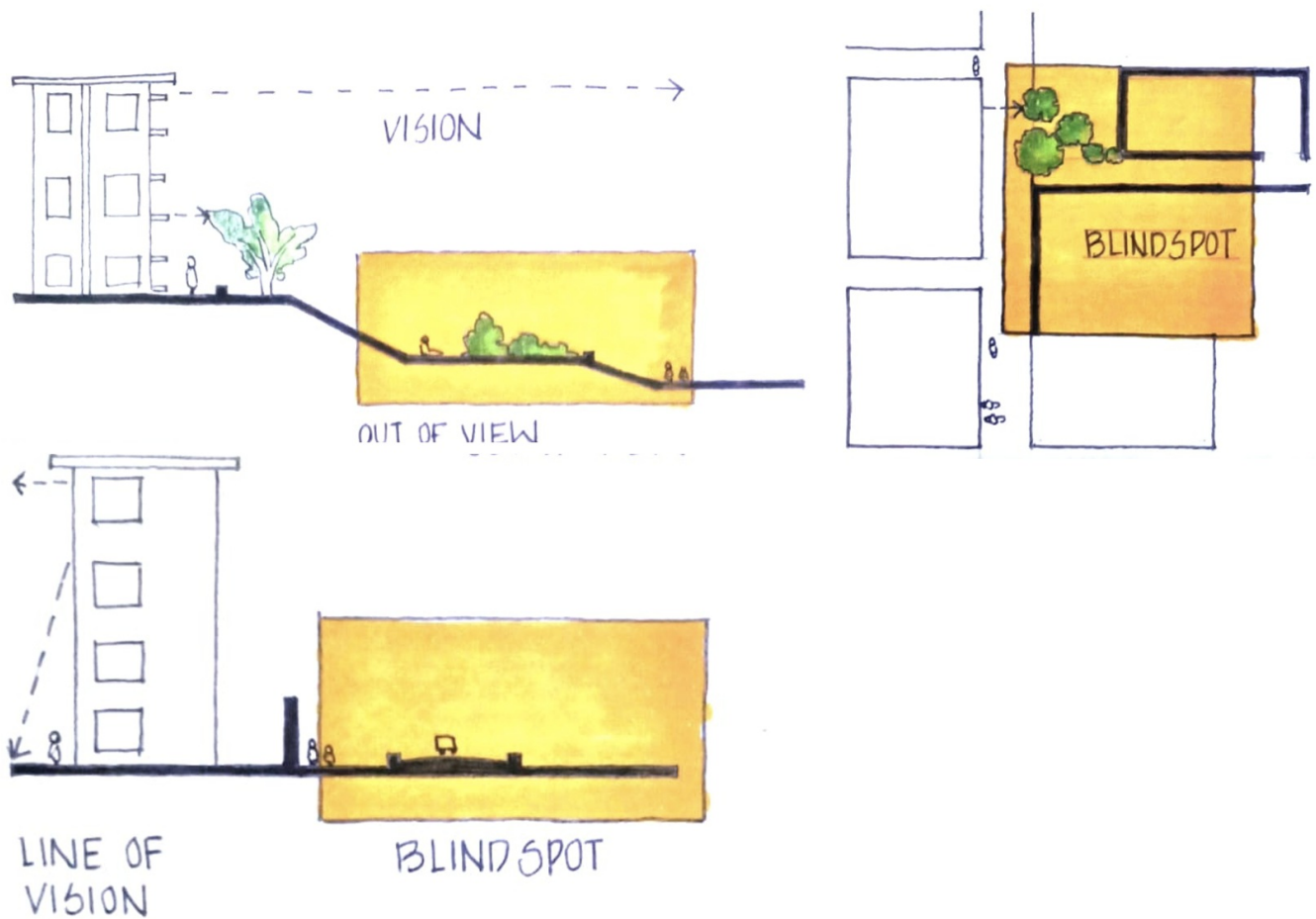
When there is no sufficient visual link to the road or when open spaces are provided that are distant from the main road and have objects built in front of them that block visibility, unsafe conditions in the physical environment are created. Most people feel that POSH areas segregate communities.

The divided residential neighborhoods need direct access to the main road. The vicinity of the gated community is also devoid of unauthorized activity.

There is no reasonable link between the road and the open space, so poor physical and visible connectivity encourages criminal activity and incivility.
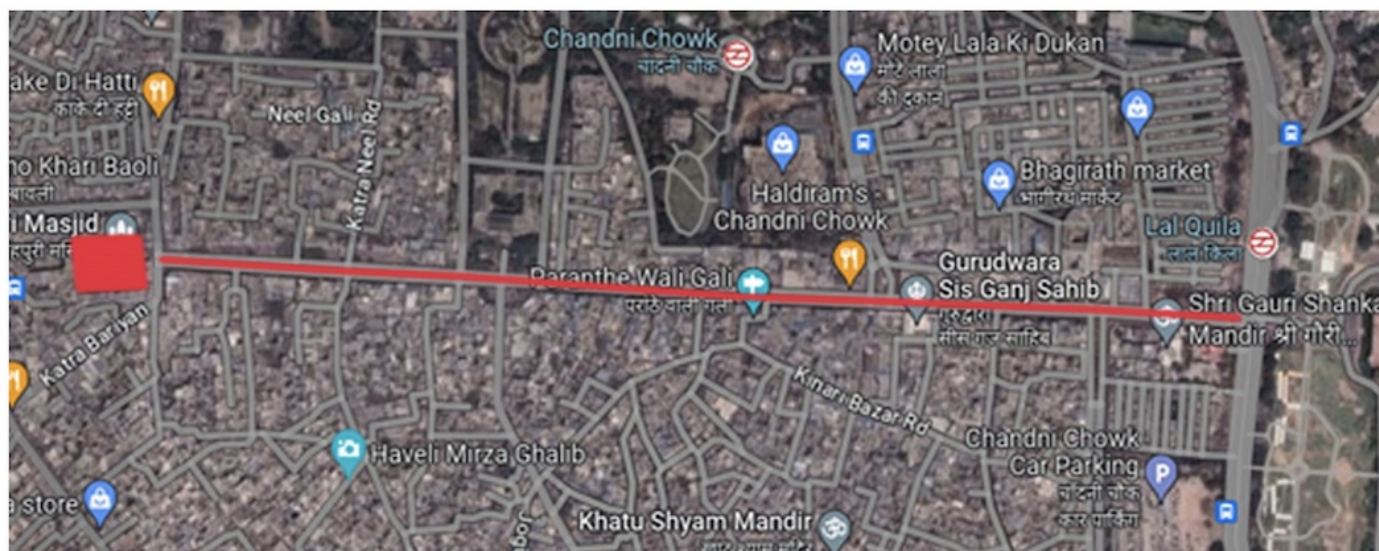
BOUNDARY
WALL

BRANCHES > 10'
CREATES BLINDSPOT

LOADING AREAS

MAIN ROAD →

PARKING

BUILDING

NO DIRECT VISION.

TREE AND LVLS
CREATES BLINDSPOT.

These are some of the design issues that creates a barrier in natural surveillance, that was found according to the survey.

VISION

OUT OF VIEW

BLINDSPOT

LINE OF VISION

BLIND SPOT

Placements of openings towards the main road create a sense of safety for the pedestrians, Still, to maintain the occupants' privacy, personal spaces should be oriented inwards, but balconies should be oriented outwards.

3.2. Case Study

3.2.1. Chandni Chowk

Chandni Chowk stretches from Jama Masjid to Lal Quila. The stretch contains formal and informal markets, mixed-use buildings, and street furniture.

With street décor and lighting at strategic locations, the length is pedestrian-friendly. Additionally, many impromptu vendors, shops, and homes are on the top floors of the streets. In addition to houses, the road is dotted with hotels and shrines.

Combining all these actions makes the roadways safer, and others who use this area sense their safety.

In Chandni Chowk, the streets are designed to provide a sense of safety through the natural surveillance method, one of the CPTED principles. This natural surveillance is achieved through the following activities that are:

Analysis of CPTED Principles found in Chandni Chowk

1. The maximum number of openings helps in natural surveillance, and as most of the shops open towards the roads, there is no blind spot.
2. Segregation of vehicular and pedestrian roads is present, yet the numerous activities in the streets deter incivility.
3. There is a smooth transition from public to private with no clear distinction; there is no segregation, yet it aids in

deterring incivility.

No specific boundary walls or fences deter the segregation of communities. There is a gradual transition from the main road to the inner shops, yet that doesn't create blind spots where harmful activities can occur.

A mix of different built use helps in natural surveillance; no fence or boundary deters the segregation of communities.

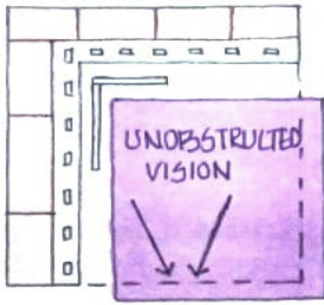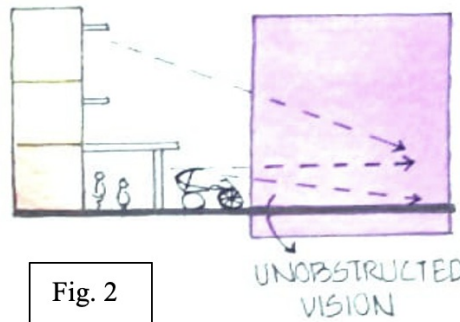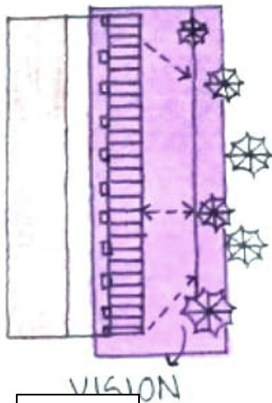Paratransit and Informal vendors on the roads help in natural surveillance.
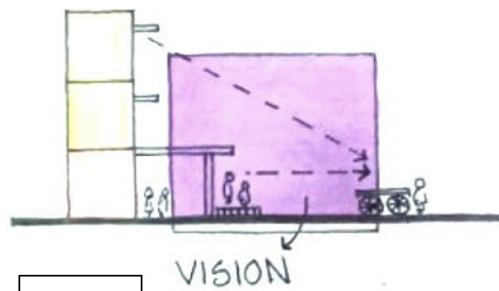
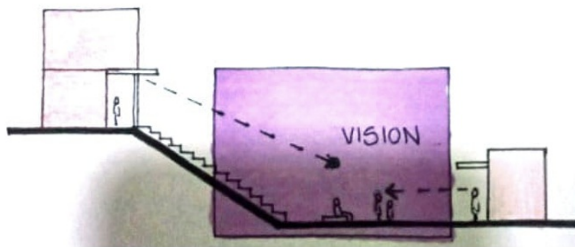Fig. 1

Fig. 2

Fig. 3

Fig. 4

Fig. 5

- Informal activities/ shops around the main road make it safe, as seen in Figure 3.
- Mix-use buildings help in surveillance.
- Open spaces in front of the shops give an unobstructed view as seen in Fig. 1.

3.2.2. Gachibowli

Commercial, residential, hospital, and office buildings can be found there. One of the social hubs is this neighborhood, which is dotted with cafes.

Gachobowli is built in a very upscale manner, with tall structures and extensive commercial areas covered in hoardings that obstruct the view of the road. This frequently results in a little less clear vision of the road. Parking is commonly used in the areas in front of commercial buildings, obstructing natural vision.

Traffic is not adequately segregated. Because the residential areas are supplied distance from the main road and have open spaces surrounding them, the risk necessary to engage in criminal activity there is reduced.

Border walls and fences divide communities and destroy their sense of belonging. Behind these boundary walls, there is no direct connectivity to the offices. With a smooth transition between spaces, some actions that are easier to govern occur.

Open lots are behind boundary walls, and mitigating the activities inside is challenging.

The space underneath flyovers is vacant, surrounded by boundary walls, often where illegal activities occur.

Some informal activities and shops do look towards the roads, but they are towards the inside and look inward, with no activities towards the main roads.

Analysis of CPTED Principles found in Gachibowli

1. Informal shops are there that help in natural surveillance.
2. The presence of territoriality with fences and boundary walls.
3. Commercial buildings open towards the pedestrian roads help in natural surveillance.
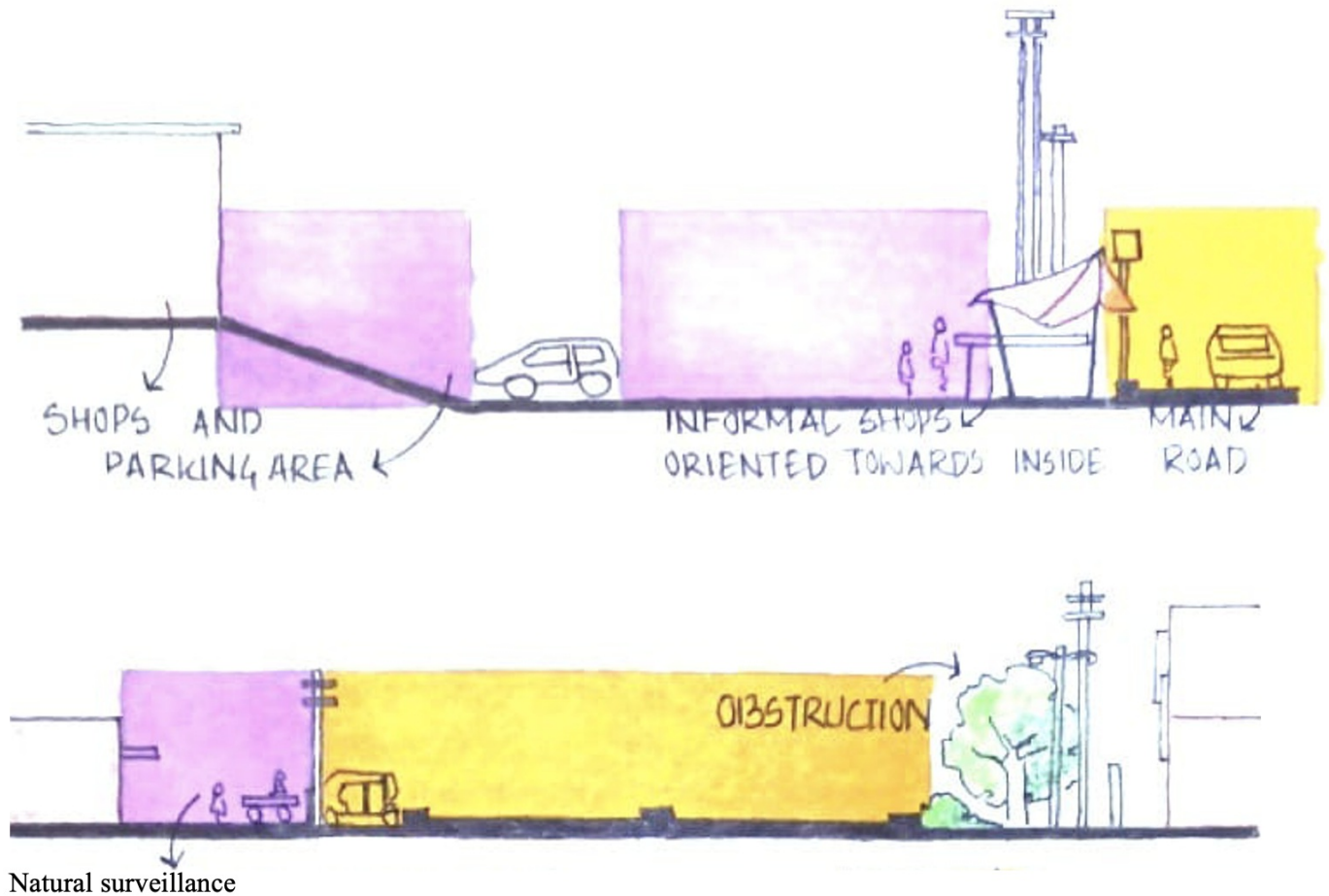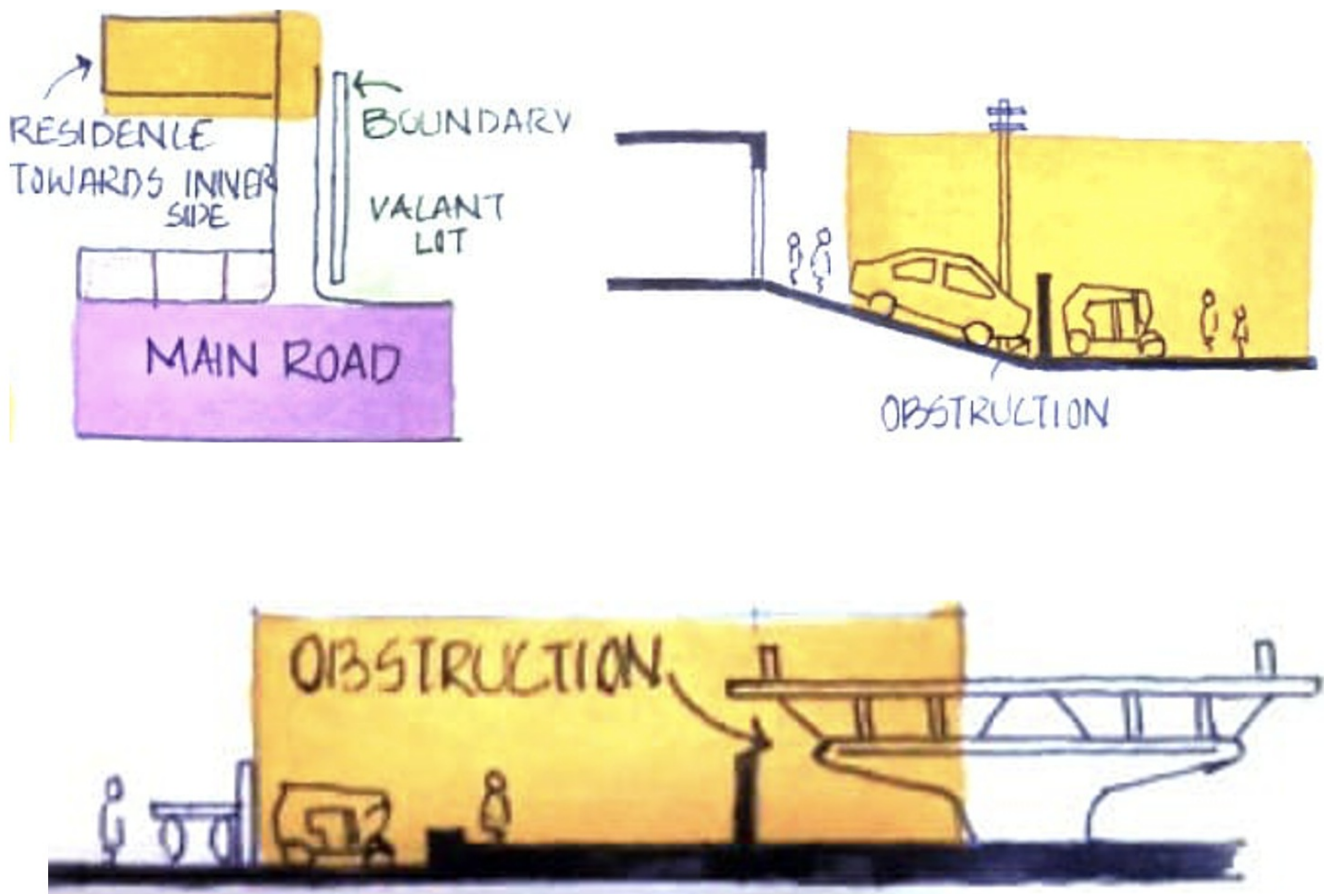

Parking in between the pedestrian space and road.

Informal activities

Residential areas away from the road with boundary walls.

SHOPS AND PARKING AREA

INFORMAL SHOPS ORIENTED TOWARDS INSIDE

MAIN ROAD

OBSTRUCTION

Natural surveillance

4. Conclusion

The design of the physical environment plays a significant role in regulating urban space. It not only makes the environment usable for all but, through design, incivility and criminal activities can be deterred; as seen in the above case studies, making an environment safe isn't just adding fences, segregating communities, and adding cameras.

A safe environment can be designed by incorporating **Opportunity Reduction Methods** in Planning.

It can be done in the following ways:

1. **Increasing the perceived effort of the offense.**
2. **Increasing the perceived risk of the offense.**
3. **Increasing the perceived risk of the offense.**
4. **Increasing the perceived risk of the offense.**

Opportunity reduction methods can be used in planning the urban area. It is under surveillance most of the time by opening the windows toward the street, having informal activities, and providing amenities on the road. Good planning or an urban environment will make the space safer and deter criminal activity due to constant surveillance. Planning also helps people to use the area appropriately without any excuses for harmful actions.

All of this planning that helps in natural surveillance can be seen and found in old Indian cities; the main aim of the paper is to understand what these methods are that are more humane and do not segregate any community and how they can be used better.

Segregation can be mitigated by providing amenities outside the gated communities that prompt people to use them.

This doesn't mean these planning methods should be copy-pasted in the present context but should be thought about and modified to make it work in the current context.

This study concludes that a mixed-use setting is much more appreciated than standard zoning, bringing all the communities close.

Conflicts of Interest

Approaches to reducing opportunity are criticized primarily for their reputation and the potential for displacement.

The employment of opportunity reduction strategies has frequently raised concerns concerning the picture sent and the atmosphere of the resulting environment. For instance, expressed security concerns, crime prevention, and a heightened sense of safety have led to highly defensive urbanism. Nevertheless, urban areas and public spaces were made safe, but they lost their allure or began to frighten and intimidate potential users. Environments that are overly policed are oppressive to others.

Funding

Acknowledgements

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