

Gender mainstreaming as a tool for creating inclusive settlements – the Kerala Context

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B IN U COM
uilding inclusive urban communities



Informal Settlements Indian Cities
Impulses for Innovation in Architecture and Urban Planning

Gender Mainstreaming as a tool for creating inclusive urban settlements



Urban planning and design

- Urbanization and urban growth have accelerated in many developing countries in the past few decades.
- Urban planning has focused, to a large extent, on physical and spatial aspects of urban development.
- Key questions that we need to answer
 - Are our cities healthy?
 - Friendly to the elderly?
 - Friendly to the specially abled?
 - Friendly to the women and the children?

Relevance – in view of fast urbanisation and development of smart cities in India



Women and Society

- **Women's holistic development** is a pre-requisite to all round development of the society and the Nation.
- The major goal of any Urban Development Programme should be **to strengthen the life of women** who are marginalized and deprived of opportunities in life.
- **Gender planning** prioritizes the needs and conditions in which women live and work.
- It involves a critical analysis of the **gaps between women's and men's access** to economic, social political and cultural resources.

Why women use cities?

- **more diverse employment** opportunities to increase financial independence
- greater ease in **accessing education** at different levels
- better access to **healthcare**
- more opportunities to socialize outside the home
- more prospects to take up **community or political leadership roles**
- more possibilities to redefine the traditional roles of men and women.



The threats!



- Sexual harassment and other forms of sexual violence in public spaces
- From unwanted sexual remarks and touching to rape and femicide.
- Kidnapping
- It happens on streets, in and around public transportation, schools and workplaces, in public sanitation facilities, water and food distribution sites and parks.

Source – UN Women
(<http://www.endvawnow.org/>)

The results!

**STOP
VIOLENCE
AGAINST
WOMEN**



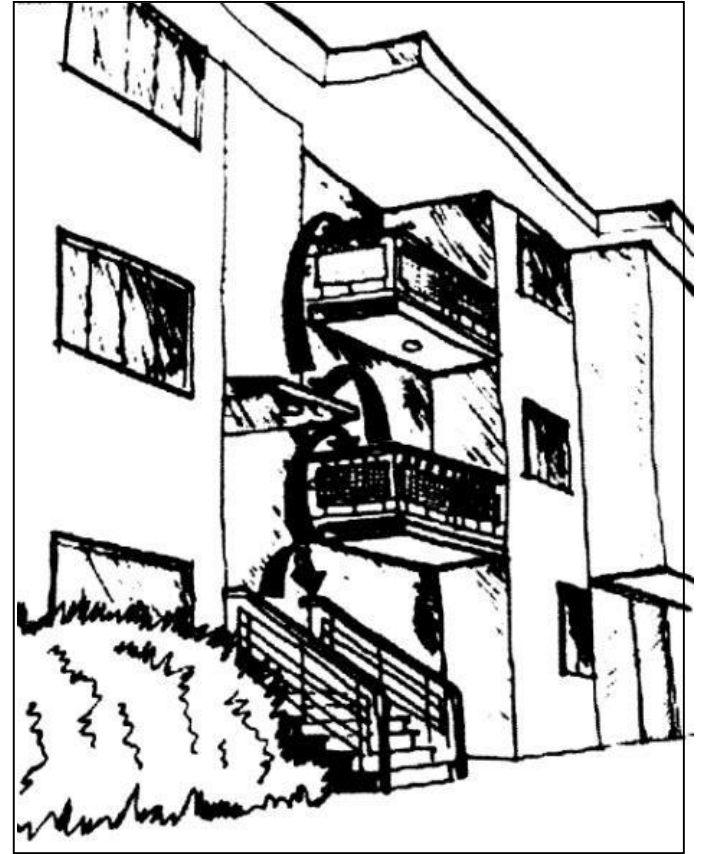
- This reality reduces women's and girls' **freedom of movement**.
- It reduces their **ability to participate** in school, work and public life.
- It **limits their access to essential services** and their enjoyment of cultural and recreational opportunities.
- **Un- equal opportunities in urban living**
- It also **negatively impacts their health and well-being**.

Although violence in the private domain is now widely recognized as a human rights violation, violence against women and girls, especially sexual **harassment in public spaces, remains a largely neglected issue**, with few laws or policies in place to prevent and address it.

NO 
Violence
AGAINST **WOMEN**

So are the cities designed to be vessels facilitating such crimes?

- **Poor urban design choices, such as cluttered non occupied spaces**
- **Poor street lighting**
- **Underused public spaces – odd hours**
- **secluded underground walkways can put women more at risk of violence in public spaces.**



Women's safety in cities?

- Involves strategies, practices and policies which aim to reduce gender-based violence, including women's vulnerability to crime.
- Making communities safer for all - requires a change in community norms, patterns of social interaction, values, customs and institutions.
- Thus gender sensitive policies, planning and approaches to the prevention of crime and violence against women need to be inclusive of development and safety strategies.

“VIOLENCE AGAINST WOMEN IN ALL ITS FORMS IS A HUMAN RIGHTS VIOLATION. IT’S NOT SOMETHING THAT ANY CULTURE, RELIGION OR TRADITION PROPAGATES.”

MICHELLE BACHELET

Safe spaces in cities! The vernacular settlements



Women in Kerala-Present Status

- According to 2001 Census population of Kerala is 31.84 million out of which 16.5 million are females which constitutes 51.8%. Decadal growth rate of female population in Kerala was 11.48 % during 1991-2001 compared to the national figure of 22.89%.
- In 2011 census, population has grown to 33.4 million out of which 17.5 million are females. Sex ratio is 1084 in 2011 as against 1058 in 2001

Female Population and Sex Ratio – 1961 to 2001

Kerala					India			
Census Year	Total Population (million)	Female (Million)	Growth Rate (%)	Sex Ratio (per 1000 men)	Total population (million)	Female (Million)	Growth Rate (%)	Sex Ratio (per 1000 men)
1	2	3	4	5	6	7	8	9
1961	16.90	8.50	23.19	1022	439.23	212.90	--	941
1971	21.35	10.80	27.06	1016	548.16	264.00	24.00	930
1981	25.45	12.90	19.44	1032	683.33	330.80	25.30	935
1991	29.09	14.80	14.73	1036	838.58	403.37	21.94	927
2001	31.84	16.50	11.48	1058	1027.02	495.70	22.89	933

Source: Census of India

Women and Society – The Kerala Model

Gender Development Indications - Kerala Vs. India - 1981 & 2001

Sl.no	Indicators	India		Kerala	
		1981	2001	1981	2001
1	2	3	4	5	6
1	Sex Ratio (Female /1000 Male)	935	933	1032	1058
2	Life Expectancy at Birth	54.7	65.3	71.8	74
3	Mean age at marriage	18.3	19.5	20	22
4	Birth rate (per 1000)	--	27.2	26.4	16
5	Death Rate (per 1000)	12.7	8.3	6.4	--
6	Infant mortality Rate	79	71	41	15.3
7	Maternal Mortality Rate(per lakh)	468	407	--	140
8	Total Fertility Rate(per women)	4.5	3.2	--	--
9	Literacy Rate (%)	29.76	54.16	--65.7	87.86
10	Gross Enrolments (millions)	--	--	--	--
	a. Primary School	28.5	49.8	--	0.9
	b. Upper primary School	6.8	17.5	--	0.08
11	Work participation Rate	19.7	25.7	16.6	15.3
12	Public Sector Employment (lakhs)	15	28	1.39	1.93
13	Administration (1987) and 2001	360 (5.40%)	645 (7.60%)	8 (5.9%)	18 (6.8%)

Source: Census and selected statistics

Positive picture in terms of GEM Gender Empowerment measure and GDI Gender Development Index

2011 census –

- Sex ratio (Female / 1000 males) is 1084
- Life expectancy – 78
- Infant Mortality Rate – 12
- Female Literacy Rate – 92.07

WHY?

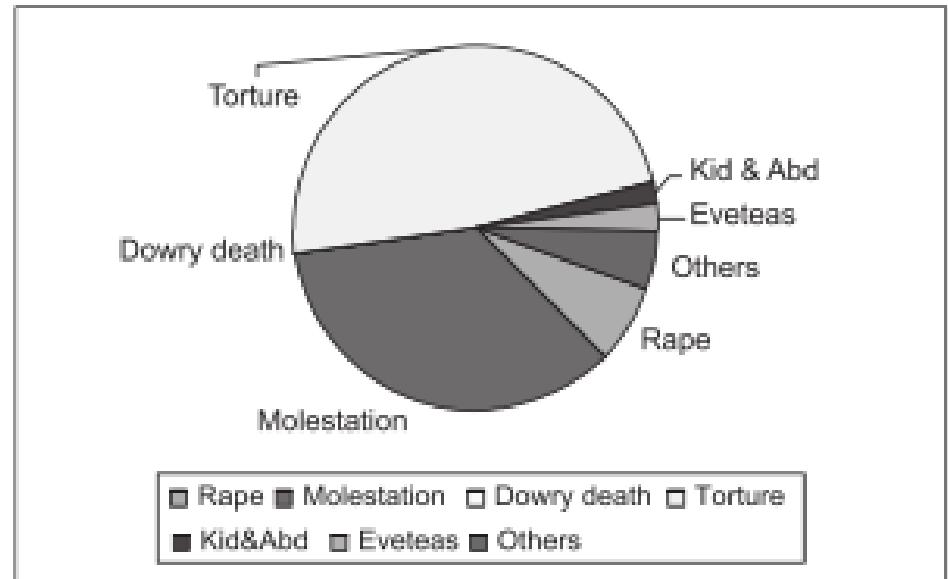
Crime rate levels	States/ Union Territories
Low (<10)	Bihar, Goa, Jharkhand, Manipur, Meghalaya, Nagaland, Punjab, Dadra and Nagar Haveli, Daman and Diu, Andaman and Nicobar Islands, Uttar Pradesh, Uttarakhand, Lakshadweep
Medium (10-15)	Arunachal Pradesh, Gujarat, Himachal Pradesh, Karnataka, Maharashtra, Mizoram, Pondicherry, Sikkim, Tamil Nadu, West Bengal,
High (15-20)	Chhattisgarh, Haryana, Jammu and Kashmir, Orissa, Chandigarh, Delhi, Rajasthan
Very High (>20)	Madhya Pradesh, Andhra Pradesh, Assam, Kerala , Tripura

Distribution of States and Union Territories according to the crime rate on women

Crime and Cause

WOMEN FELT UNSAFE IN THE FOLLOWING CONDITIONS:

- Crowded public transport**
- Inadequate lighting**
- High walls on sides of roads**
- Lack of safe and clean public toilets**
- Shaded bus stops**
- Unsafe in cinema theatres, city streets**
- No visible policing**
- Dealing with or consuming alcohol by men, gives lack of feeling of safety**
- Lack of regular and familiar people, shops and vendors – insecurity**



CRIME AGAINST WOMEN IN KERALA

Source- Study by Sakhi Women's Resource Centre 2011

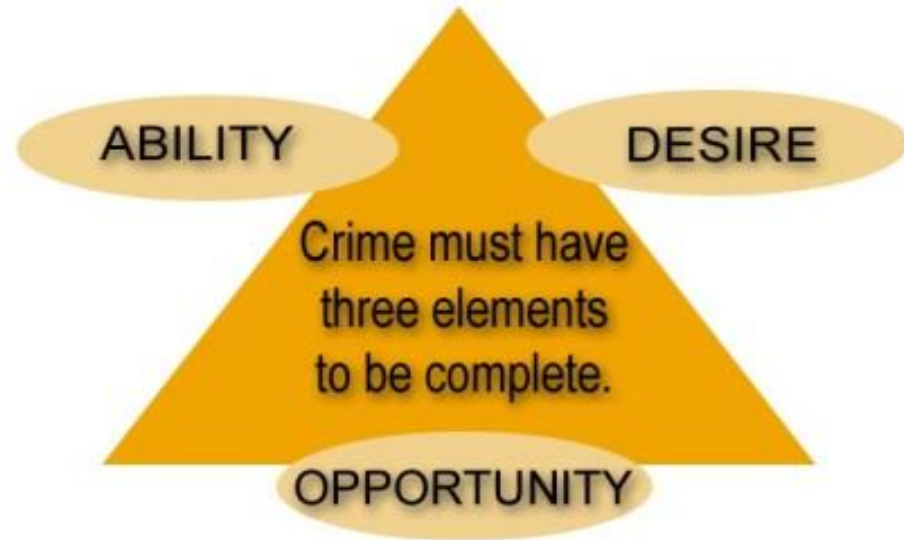
Crime Occurrence

William Spellman and John Eck's model of **Crime prevention triangle** , the components necessary for a crime to occur includes:

- **Ability**
- **Desire**
- **Opportunity**

Reactive Approach: Wait till the crime occurs and then take action

Proactive Approach: Find out the possible reasons for a crime to happen and then take measures to stop those possibilities.

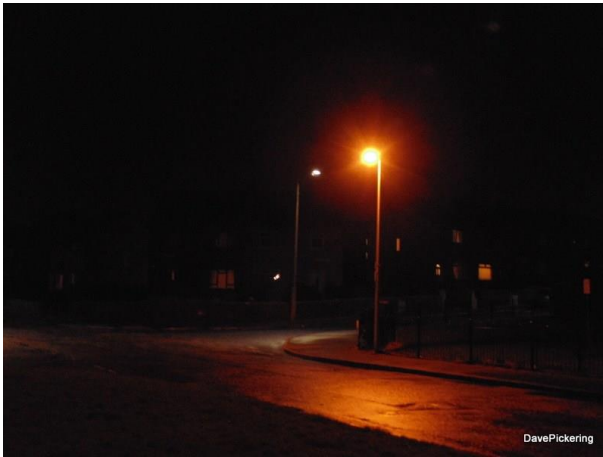


Crime prevention triangle

(source: <http://www.salinasneighborsunited.org/>)

Favourable Factors for Crime

- Inadequate lighting



- Situations that create potential access difficulties for police



- Easy escape routes



- Places of concealment for attackers



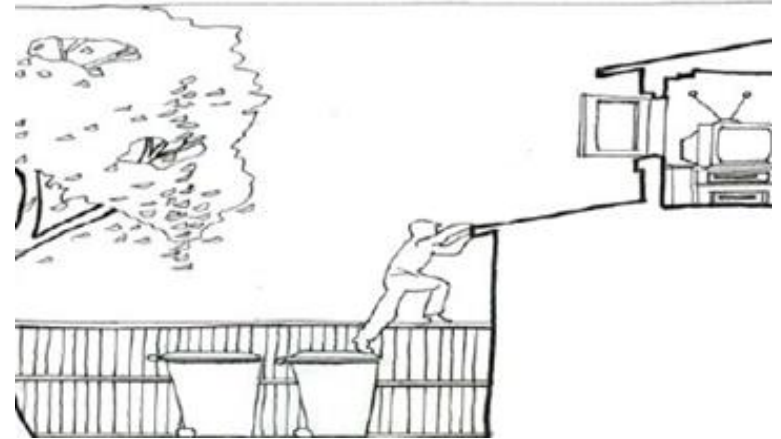
vacant structures, dense shrubbery, trash accumulations, isolated parking areas

Favourable Factors for Crime

- Poor surveillance



- Easy access to terrace & upper floors



- Hide out spaces in buildings



- Lack of neighbourhood environment



Crime Prevention Theories

Social Control theory (By Jane Jacob – 1961)

- This theory pointing the notion that **mixture of land uses** make a physical space more active and hence it will increase the sense of security feel of the users.
- Development of **separate activity areas such as residential, commercial, recreational, industries and financial**, may make the **city unsafe**.
- Safer streets are those frequented at all times of the day and night – mixed land use
- “Eyes on street”

Enclave/ Access control Theory

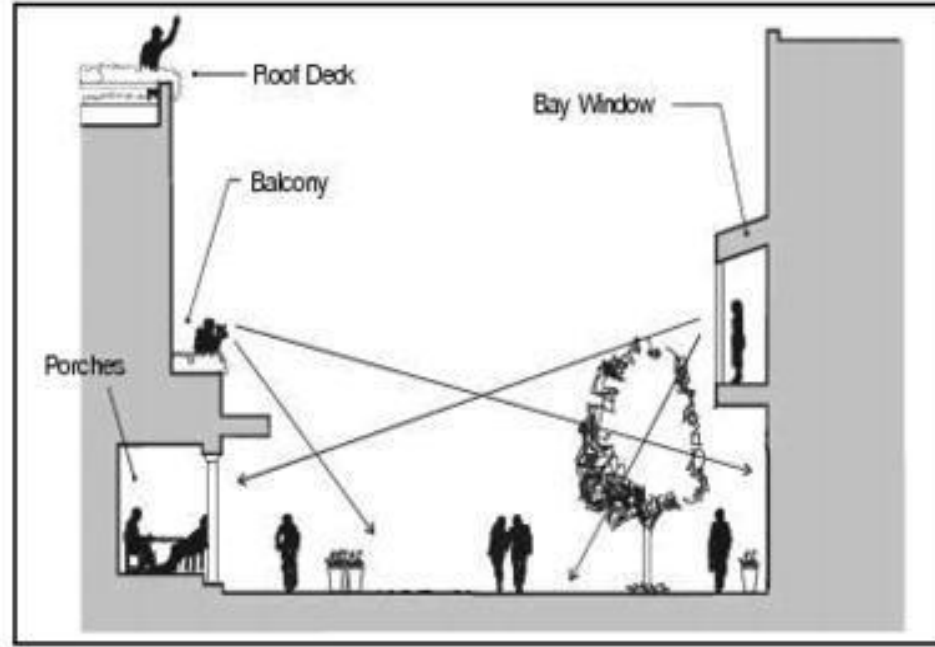
In a homogeneous community, the environment around is designed in such a way that to discourage, even prevent, criminal access and hence the environment itself give strong sense of security to the users.

Suburban shopping plazas – implicit checks on the behaviour of pedestrians prior to entry

Defensible space theory (By Oscar Newman-1972)

A physical space is **under surveillance**, the chances of occurrence of crime or potential of anti-social act are less

- **Territoriality** – subdivision of buildings and areas into zones
- **Natural surveillance** – to increase sight lines
- **Image** – to increase the sense of ownership
- **Environment/ Milieu** - eg: locating residential projects into areas near institutions, offices etc



(Source: <https://bardcityblog.wordpress.com>)

Crime Prevention through Environmental Design (CPTED) – Ray Jeffrey - 1971

The major concept of this theory is that crime results partly from the opportunities presented by the physical environment. so we can reduce the chance of crime by changing the physical environment.

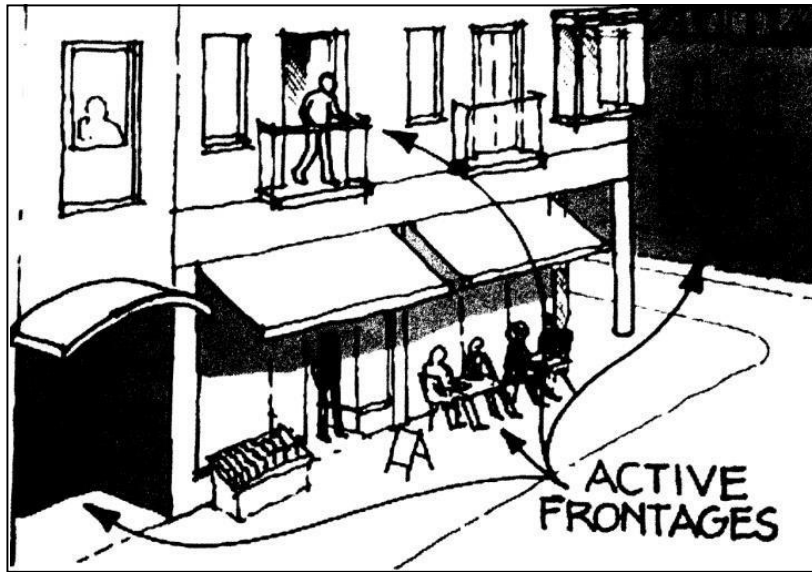
- **Casual surveillance opportunities and sight lines**
- **Landscape**
- **Land use mix and activity generators**
- **Exterior building design**
- **Lighting**
- **Way finding**
- **Predictable routes and entrapment locations**
- **Building community**
- **Territory**

Crime Prevention through Environmental Design (CPTED) – Ray Jeffrey - 1971

- Land use mix and activity generators

Increases security by generating activity

- Exterior building design



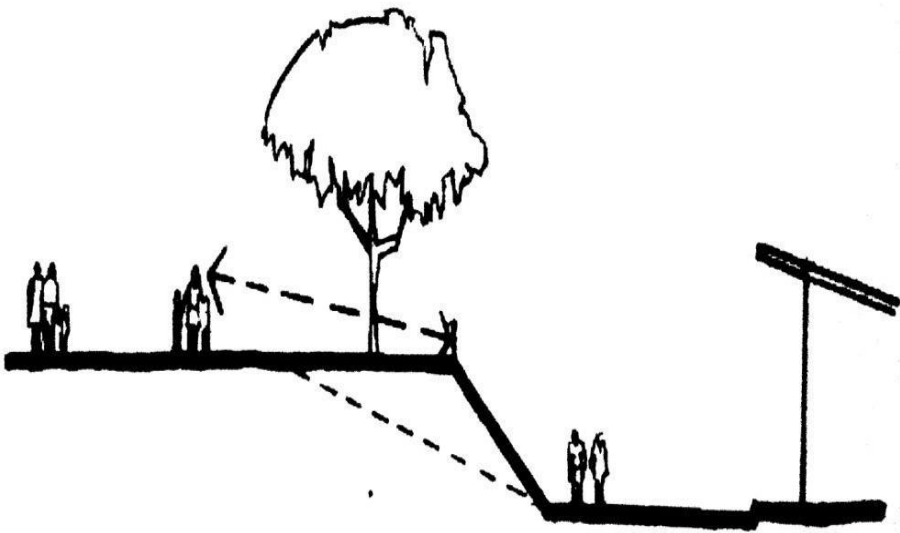
Active Frontages



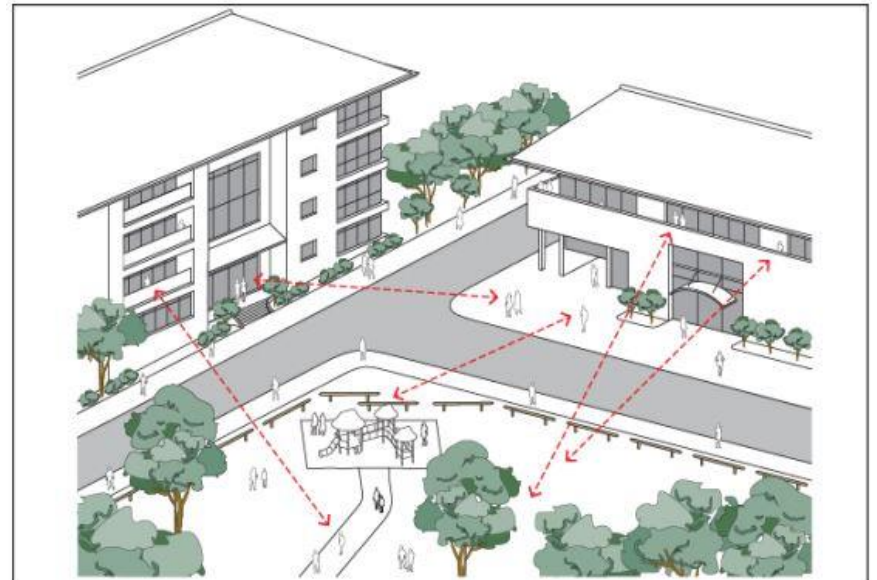
Minimize natural ladders

Crime Prevention through Environmental Design (CPTED) – Ray Jeffrey - 1971

- Casual surveillance opportunities and sightlines



Avoid sharp changes of grade that minimize sightlines

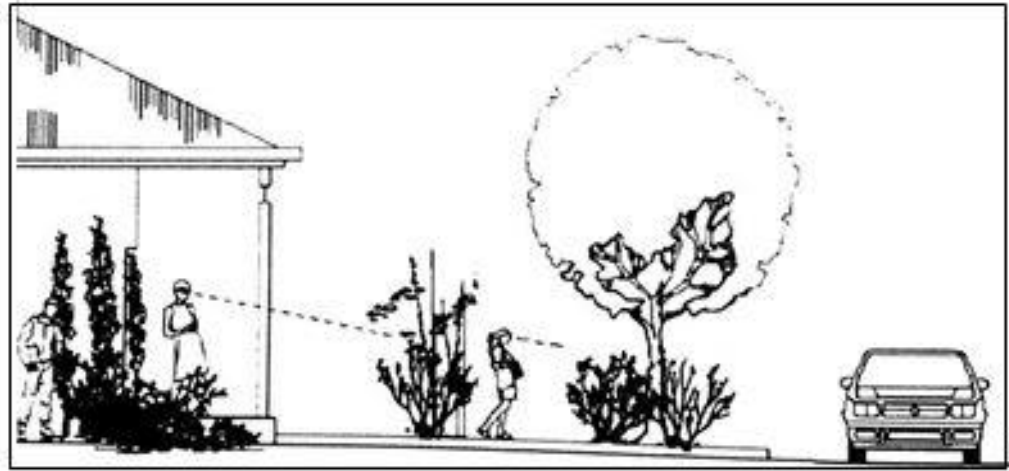


Buildings and spaces are positioned to maximize casual surveillance

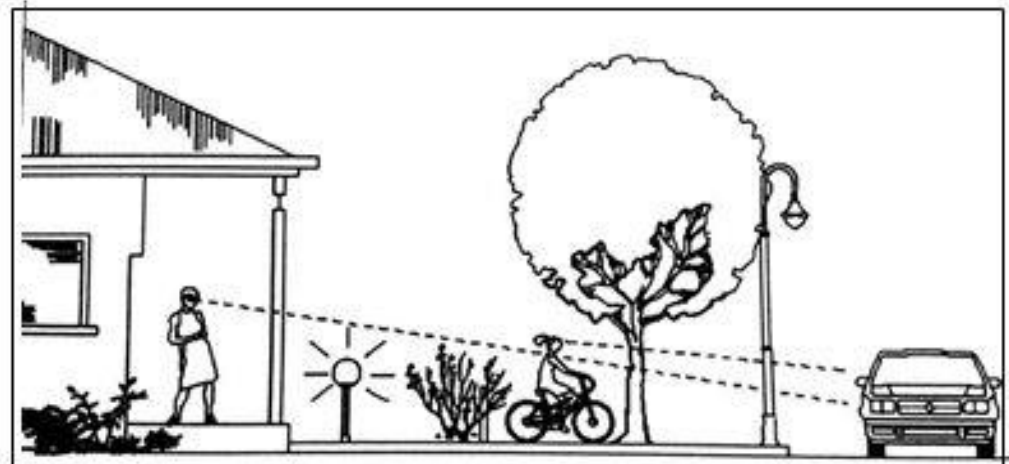
Crime Prevention through Environmental Design (CPTED) – Ray Jeffrey - 1971

- **Landscape**

plants don't allow people to see the street or other people in the area easily.



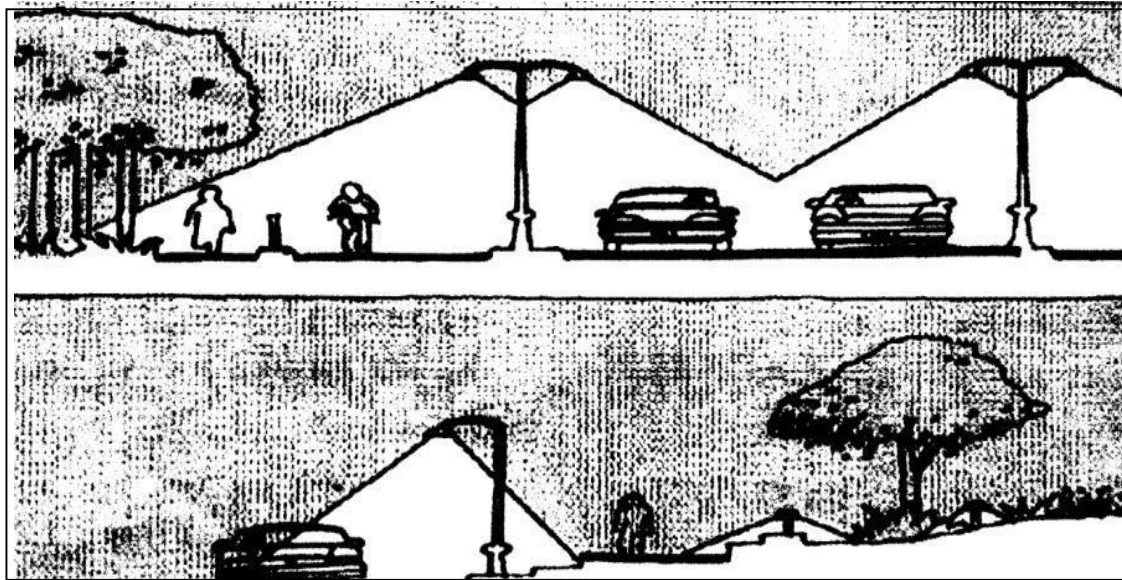
appropriate plants and lighting can allow everyone to see what is happening on and near the street around a home.



Crime Prevention through Environmental Design (CPTED) – Ray Jeffrey - 1971

- **Lighting**

- Maximize the opportunities for penetration of natural light in to spaces.
- Ensure that lighting illuminates pathways and potential entrapment spaces rather than windows and roads.



Light design is to provide safe levels of visibility

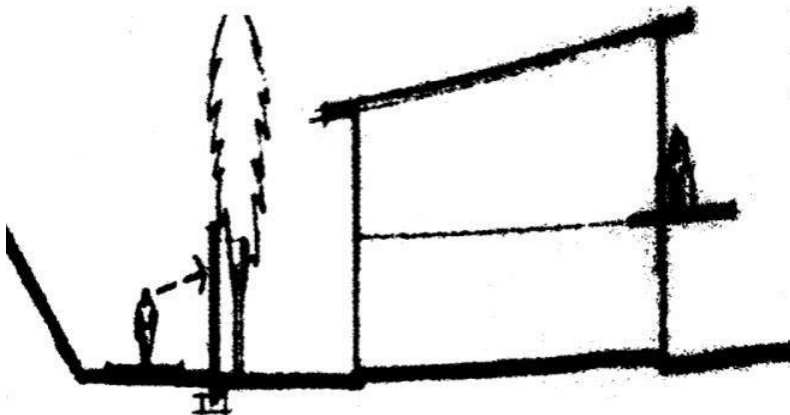
- **Crime Prevention through Environmental Design (CPTED) – Ray Jeffrey - 1971**

- **Way finding**

use of symbols, cue and signage to help navigate through areas

- **Predictable routes and entrapment locations**

- eliminate predictable routes and potential entrapment locations.
- If we have no other alternative to predictable routes, make them more lit and bring sightlines to there.



Location of pathways should not be in areas which have poor surveillance and predictable routes

- **Crime Prevention through Environmental Design (CPTED) – Ray Jeffrey - 1971**

- **Building community**

increasing the interaction between the people through design we can encourage a sense of community.

- **Territory**

- Use physical and symbolic barriers to define use and ownership.
- fences as an example of physical barrier and vegetation as symbolic barrier.

Means and Manners

Designing Out Crime in our cities

- Natural surveillance
- Public and private spaces to be clearly separated
- Maintain high volumes of through movement to create a busy, self-policing environment
- careful management of landscaping and street furniture
- No hidden areas or lonely spaces; give careful attention to boundary design.
- Do not place open spaces at the backs or rear of developments.
- Gardens should back onto one another, not onto rear accesses.
- Do not create high planting and walls.



Means and Manners

- Architecture – strong colors on the corner – identity & legibility



distinctive architecture
aids legibility & character

Conclusion

- **Sense of security is a very relevant factor which attracts people to use the built environment.**
- **Mixed use buildings will enhance more activity on the areas and thereby increases the security of that place, therefore placement of commercial facilities facing public spaces, improves vitality.**
- **Entrapment routes & predictable escape routes to be avoided, while planning an area, however if there is still chance of predictable route, increase the lighting and sight lines in that area to ensure security.**
- **All theories of security design point out that the sense of security of a place can be increased by increasing or improving the sight to the area and sight from the area**

Conclusion

- **GEM Gender Empowerment measure and GDI Gender Development Index does not indicate that there is less crime on women and they find cities safe.**
- **Women feeling unsafe in cities is surely a planning blight**
- **Every project should contribute to making of real neighbourhood, respecting social and cultural preferences and environmentally sustainable.**
- **Key question – is the project truly inclusive? Does it mitigate its own impact?**
- **The answer is “Gendered understanding of spatial planning in creating inclusive settlements”**



Thank you

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Conservation Architect**

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