# #WOMENSPATIALACTIVISM

AN URBAN DESIGNER'S APPROACH TOWARDS RE-APPROPRIATION OF SPACES BY WOMEN IN NEW DELHI, INDIA

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## Colophon

**TU**Delft  Delft University of Technology

Master : Master of Architecture, Urbanism and Building Sciences
Track: Urbanism

## Project Information

Project title : An Urbanism approach towards re-appropriation of spaces by women in New Delhi, India
Graduation Studio: Design of the Urban Fabric

## Student Information

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## Mentor Team

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Keywords: Gender Inclusive spaces, Gender sensitive urban design, Accessibility, Safety and crime against women.

Cover Image by author

# Preface

The present report is an explanatory documentation of the graduation project with the title : '#WomenSpatialActivism- An Urbanism approach towards re-appropriation of spaces by women in New Delhi, India'. The research is done on the themes based of the graduation studio "Design of the Urban fabric". The report is a comprehensive booklet completely based on gender sensitive urban design. It contains a clear description of the principles that can be adopted while looking at the spaces in a gender lens. Through this research booklet I want to give an insight on how women are overlooked while designing cities. It contains a research proposal on gender sensitive urban design and a design approach on exploring the possibilities of a safer & more inclusive neighborhood through participatory design actions and community building.

# Acknowledgement

# Abstract

 "If we are going to see real development in the world then our best investment is women" -  Desmond Tutu.

Gender inequality is one of the problems for urban planning and development as identified by the United Nations. Women inequality is a common practice in today's world which is global in nature. Focusing on a developing country like India, violence against women, needless to say, is a grave concern. Crime in the form of rapes, molestation, and eve-teasing, has made public spaces fearful, and women have developed the fear of being a part of these places. The aim of this project is to redesign and reinvent the public spaces in New Delhi, India to reclaim the women's right to the city in public spaces and make them gender inclusive and safe through the participation of stakeholders and community building.

The methodology adopted for this research includes "research by literature" and "research by best practices" which helps in evaluating the theoretical framework. The theoretical framework is used to relate spatial and social qualities of the site and recognize main issues by "research by design." The site for this project is a neighborhood in Malviya Nagar, New Delhi, India. Womenspatialactivism is an urbanism approach devised in this project aiming towards re-appropriation of spaces by women in New Delhi, India. The concept of #WomenSpatialActivism is the re-appropriation of the front door by an old woman, the street by a working girl and the public park by mothers. It aims to spread in the city through digital media.

The women spatial activism is an urban designer's approach which has three main components. These are the physical charter and physical interventions into space, a social stakeholder structure that connects the stakeholders (knowledge, financial and implementation partners) to implement the project and record the feedback of the interventions for its further scope and the third component is the digital structure which includes a mobile application "SHE-CONNECT" that allows women to travel together from the same source to the same destination. The physical structure works on a street and public park to make it more safe, lively and women-centric. The key projects taken up in the research are revitalizing streets (community building and cleanliness through guerrilla gardening), light your lantern (a fund-raising project for lighting the streets), the pink carpet (a wayfinding strip for a safer street), spatial activism headquarters (engaging citizens for temporary urbanism to achieve re-appropriation for women) and reclaiming the park (re-appropriation by women in the public parks with basic amenities). All these projects are a composition of small spatial activism physical interventions which are generic in nature and can be implemented in other areas. The implications have been tested with "Space Syntax" which proves the vitality and viability of the research.

Through these interventions, a gender sensitive neighborhood can be achieved which sets an example in the city of New Delhi and thereafter seeking attention globally. The hashtag #WomenSpatialActivism is a way of spreading a movement through social media. The research topic is socially relevant in terms of the problematics of gender inequalities and freedom of women in public spaces, especially in a country like India.

Future research may include implementation of the #WomenSpatialActivism on the field in the streets of New Delhi and then spreading to other locations. Globally, the interventions might differ according to the issues, but the role of urban design and urban designer remains the same.


Keywords-  Gender sensitive urban design, Spatial Activism, Safety, Community Building, Citizen Participation, Inclusiveness

# #WOMENSPATIALACTIVISM

*Sugandha Gupta*
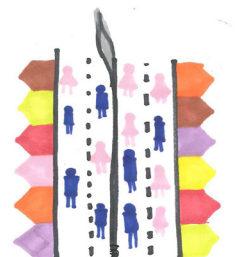


An Urban Designer's approach towards re-appropriation of spaces by women in New Delhi, India

# Reading Guide

Colophon

Preface

Acknowledgments

Abstract

This P5 report consists of 5 reports and this page tells all about these 5 parts of the report :-

I. Introduction
II. Methodology & Research
III. The Site Analysis
IV. Design Research
V. Reflection

Part I : Introduction
This section forms the global problem of gender inequality, problem statement, research questions, best practices, hypothesis and relevance of the project.

Part II: Methodology & Research
It discusses the main methodology and research by literature and design.

Part III: Site Analysis
This part has the main site analysis, including the field study and the workshop hosted. It also has about the concept of the project.

Part IV. Design Research
It has the formulated Gender sensitive Urban Design Principles and the Spatial Activism Design Interventions. The key Design projects on the test case is a part of this segment.

Part V. Reflection
The reflection is about reflecting back on the project and what are the hurdles I faced and the project can face in future.

# Contents

**IV.      DESIGN RESEARCH**

**V.      REFLECTION**

"Oh, come on!"

# I. INTRODUCTION

# 1. Motivation

**I am the motivation for myself.**

**As a young Indian woman I
want to live in a city where every woman feels free and safe in a public space.**

**As a young urbanist I want to plan and design gender inclusive, safe and vibrant public urban spaces.**

As a young Indian woman I have grown up with my own insecurities of living in a developing country. Gender discrimination is one of the main problems that have pertained in the nation since centuries. Never in my home or during my studies have I always felt completely safe about the streets once its dark and even when its not. I have always lowered down my gaze while walking so that I do not have to see the unwanted eyes on me. My motivation comes from women like me who still do not feel safe in the public spaces and streets due to the increasing number of rape cases and eve teasing.

The question comes up in my mind if the built environment and spaces are as much responsible for this safety factor as much as education and the fear of getting imprisoned. It motivates me to take actions as an urbanist to improve the life of women like me in my country who goes to work daily in a metropolitan city like New Delhi and comes back in the night to far off places. Can I provide an environment using the modern technologies in this digital age to make it much safer for these women. I aspire to see if Smart City initiative in India are even smart for the women inhabiting 48.5% population in the country(Ministry of Statistics and Programme Implementation, 2011).
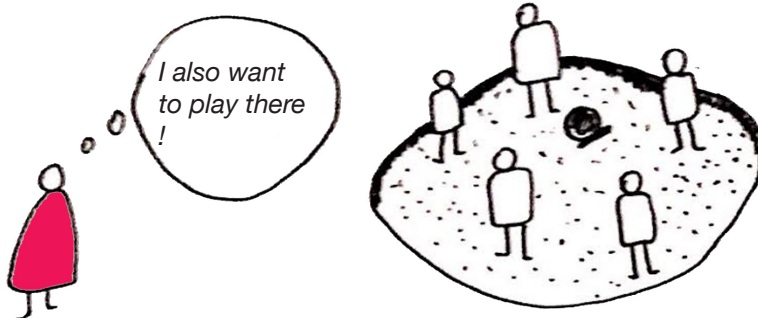


**Figure I.1** *: Figure represent the apprehensions of my mind in childhood*
**Source:** *from author's experience*



**Figure I.3** *: The girl is scared in street.*
**Source:** *by author*

All in all Indian women have actually developed this tolerance level inside them to ignore eve teasing incidents and move on with their respective works. Moving to Netherlands was an eye-opener for me to see and feel the emotion of safety and security, be it day or night.

Figure I.1 represents the will to play outside with the boys or in open space while figure I.3 shows the fear of walking alone in the street with unwanted attention. Figure I.2 presents accompanying male figure when I always wished to be alone.



**Figure I.2** *: The above figure shows what a 14 year Indian girl thinks while being accompanied by a male family member.*
**Source:** *by author*

## 2. Introduction- Inequality in Cities (a global issue)

We live in a world where the people and their lives are moving ahead but a very less percentage of fortunate people think about the unfortunate people of the society. In our contemporary cities issue of inequalities is rising day by day due to competitiveness and in developing countries in the name of culture and traditions.

Here what I am looking for is the inequality in terms of spaces and the ignorance urban designers and planners have while designing urban spaces as described in fig I.4

**Social Parameters :-**

The simplest definition of society is a group of people who share a defined territory and a culture. In sociology, this definition can be taken a little further by arguing that society is also the social strata and interactions of that group of people. Social structure is the relatively enduring patterns of behavior and relationships within a society. Thus, a society is not only the group of people and their culture, but the relationships between the people and the institutions within that group.

The sundry ways in which different vulnerable group exist in society are:-

- **Exclusion:** A situation in which the deprived are let being outside of a certain activity.
- **Segregation:** It is a condition in which the marginalized are separated from certain activities in society.
- **Integration:** It is a condition in which the vulnerable group are 'fit in' to existing conditions in society,
- **Inclusion:** Inclusion at the end is about creating everything according to the marginalised group, basically according to their needs and desires as well as much as it is for the other people.

**The notion of inclusivity :-**

"Inclusion is community. No one becomes included by receiving handouts, even if these handouts are given by public bodies and with public resources. No one becomes included by being treated by a program in which they ore no more than a number or a statistic. Inclusion is connection to the network of community development, it is to become more than a speck of dust, to have a forename and surname, with, one's own distinctive features, skills and abilities, able to receive and give stimulus, to imitate and be imitated, to participate in a process of changing one own life and collective life.' (Busatto, 2007)

**A feeling of inclusion is about:**
- Taking into consideration that diverse groups have different needs that might require extra effort before they can access the opportunities and events that everyone else has.
- Treating each person and group according to their needs,
- The responsibility taken by everyone in terms of betterment for the ones who are deprived of basic rights. It has to done by the people who are stronger and powerful.

**Advantages of being inclusive:**
-Fulfilling the mandate of serving and involving the community as a whole.
-Enhancing problem solving and creative thinking skills.
-Having access to diverse, best qualified individuals.
-Building partnerships with culturally diverse businesses, religious groups and other cultural organizations.
-Empowering people to contribute the best of what they have to offer without holding back because they don't fit in.
-Diversifying volunteer base and support from a broader constituency.
-Responding more quickly and easily to broader community needs.

**Inequalities in Spaces shown to this marginalized Group:-**

Examining the concept of inclusion with a specific group of marginalized people in mind as shown in the figure on previous page is an important approach to locating exclusion in the societal framework. The following section contains a discussion of some of the important social groups where the issue of social inclusion is most relevant;
-Women are subject to social exclusion caused by issues such as poverty, power imbalances, gender-based violence, conflict, restrictions in access to resources and exclusion from decision-making.

**Why Gendered Spaces?**

Women are almost 50% of the world and therefore it is not a minority, so I choose to work with this section of society . In this thesis the spatial interventions will try to have an impact on the social and economic inequalities between humans.
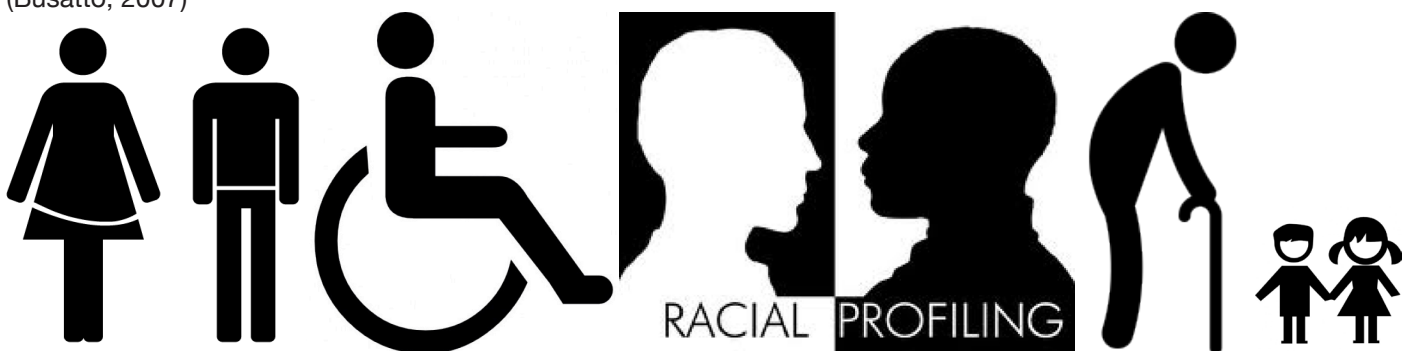


**Figure I.4**: *Representing inequalities in the social groups seen in spaces*
**Source**: *by author*

# Gender Inequalities

The vision Of UN Habitat III aspire cities and settlements that are participatory, promote civic engagement, engender a sense of belonging and ownership among all their inhabitants, prioritize safe, inclusive, accessible, green, and quality public spaces, cultural expressions, and political participation, as appropriate, and foster social cohesion, inclusion, and safety in peaceful and pluralistic societies, where the needs of all inhabitants are met, recognizing the specific needs of those in vulnerable situations such as women , children, elderlies , etc ("Quito Declaration on Sustainable Cities and Human Settlement for all," 2016).

Gender Inequality is a global issue and identified by UN as one of the problems for urban planning and development referring gender to men and women , girls and boys. Women in all the parts of the worlds experience this inequality and have started showcasing their rights to spaces and basic necessities shown in the figure I.5 .

Early approaches to Urban planning and design has always been by the male society and for the healthy white male society making patriarchal suppositions about the women (Woodsworth, 2005).

The male utopians like Ebenezer Howard, Le Corbusier and Frank Llyod Wright gave new insights and roles to women by giving concepts of cooperative housing, kitchen less houses and communal nurseries (Watson, 2007). The automobile age then allowed the city to expand in every direction, providing access to more job opportunities and joyful rides. But it also gave us sprawl, traffic jams, and smog and nearly killed the central city. The fourth revolution of big data, artificial intelligence in the 21st century gives women much more freedom from the household chores and they are out interfering in the public realm of the men demanding space, safety and freedom (Figure I.6) (Daniel L. Doctoroff, 2016).

In the developing countries of global south nothing was different and the conditions in terms of gender inequality even now are much worse than developed nations. Because of colonization the policies and urban planning approach determined by stereotyping in the western world was imposed even on the colonies where in some of the colonies women previously had role in land owning traditionally.



*Figure I.5 : Settlement reconstruction in Nias, Indonesia. 2005.*
*Source: UN Habitat Report Nairobi 2012*



Figure I.6 *: Women demand for justice in all  parts of the World*
*Source: http://oxfamblogs.org/fp2p/wp-content/uploads/2015/11/Gender-*

The basic unit for policies and urbanism was a family which was stereotyped where the private realm was made for the female members and the public realm was designed for men as they were the main bread earners of the family. This approach in the western world remained till 1960s when the 'second wave' of feminism came and started playing a role as well (Greed, 1994).

Cities undergo changes caused by technology, economics and politics. We are strongly affected by technological evolution. A radical change came with Steam Revolution in 18th century which gave cities rapid transportation, steamships and large factories. With great changes come great challenges like it gave the earth first industrialized slums and also air pollution. Women during this revolution were housekeepers or worked majorly in the textile industries as they offered cheap labor (Figure 4) . A revolutionary change came again with electricity age in the early 20th century which gave us artificial light but inhabited people in high rises and made them used to artificial environments blocking sunlight.

Cities in developing countries, designed by stressing on zoning and based on the postulation that people travel by car, have had a negative influence on the mobility of women (Reeves, Parfitt, & Archer, 2012)

India is a developing nation but according to an economic report by WEF, it will be one of the financial leaders of the world in the next decade. Although a fear exists as a new social urbanist if we are ready for it? There are issues in India of misconduct, crime, corruption, poverty, increasing population, lack of infrastructure in whose direction the steps are being taken by recent movements of Smart Cities and Corruption Ban but are we still considering a long persuasive issue of gender inequality. The government is taking footsteps towards the communal issue but not taking it as a socio-spatial concern.

# 3. Role of Women in Space & Time (a global outlook)

**The Pre- Industrial Times**

Figure I.7 shows the whole structure of timeline.

There was much less division between the so-called household work and paid employment. Providing for the needs of the family was the only concern of both the parents. In these societies, gender was displayed through women's and men's involvement in various activities and consequent division and use of space.

Women's roles were conceptualized regarding women and men's historically differentiated functions in the production, where women's impact on nature was immediate and direct. 'Traditional family patterns exhibited the role of women in the family as the mother who devotes her time to caring for and rearing children, looking after the household as well as
offering support to her husband' (Massey, 1991)

*Physical Structure:* Physical structure of the settlements was based on women and men's
historically differentiated roles in production and needs.

**Industrialization of the nineteenth century in Western Europe and North America**

On the one hand, the city makes significant routinized rituals of transportation and clock watching, factory disciplines and timetables, but despite its crowd and mass nature of its life and its bureaucratic conformity, at every turn, the city dweller is also offered the opposite-pleasure, deviation, disruption. In this sense, it would be possible to say that the male and female 'principles' war with each other at the very heart of city life. The city is 'masculine' in its triumphal scale, its towers and vistas and arid industrial regions; it is 'feminine' in its enclosing embrace, in its indeterminacy and labyrinth centeredness. Urban life is based on this perpetual struggle between rigid order and pleasurable anarchy, the male—female dichotomy.

*Social Structure:* With the industrialization of the nineteenth century in Western Europe and North America, a separation of feminine and masculine Spheres became the major outcome of separating production (work/public domain) and reproduction (home/private area). It
Became the dominant ideology that women were to contribute to the nurturance of family and children at home, whereas men were to commit to contribution and hard work in the marketplace. Although working class women added to the workforce, Victorian women were supposed to stay at home and raise children. Because of the identities and ideas, the women were labeled as homemakers and were associated with the notion of home. The primary duty of these women was maintaining moral, aesthetic and cultural stability while expressing the status of their families. Women's taste in designing houses became a significant representation of social status and cultural values(Greed, 1994)

**A change**

This fixed attitude about the roles that men and women are supposed to play was ultimately overturned during the World Wars, "where women were actively encouraged to leave home to take the place of The men, many of whom were sent to fight. By successfully working on the land, in armed forces, in the industry and in other occupations which supported the war effort, women demonstrated that traditional barriers to their involvement in the economic life of the nation could be broken down. On the return of men from the wars, once again the role of the women was redefined, this time through the media and women's magazines,encouraging them to stay at home(Woodsworth, 2005)

The private suburban home, branded with the notion of being healthy and safe and escape from the city, was promoted by federal housing policies after World War II. Advertising and mass media supported this idea of mass consumption and encouraged the suburban dwelling, which maximized appliance purchases. The vision of the single-family house was prevalent in post-World War II Great Britain and the United States. Increased accessibility provided by automobiles and the construction of highways, made suburban housing appealing to many families and gave rise to sprawling suburban houses or 'bedroom communities,' consisting of suburban sprawl. Single-family houses were divided and segregated by class system and supported by commercial strips and freeways. This concept came into account as inspired by the prevailing norm of women being the homemakers.

The roots of this settlement form lie in the environmental and economic policies of the history. In the late nineteenth century, millions of immigrant groups lived in the overcrowded, filthy slums of industrial cities and hoped of achieving reasonable living conditions. However, many militant strikes and demonstrations between the 1890s and 1920s made some employers reconsider plant places and housing issues in their search for industrial order. 'Good homes make contented workers' was the motto of the Industrial Housing Associates in 1919. These consultants and many others helped major partnerships plan better housing for white male skilled employees and their families to eliminate industrial conflict.
Christine Frederick, describing it in 1929 as Selling Mrs. Consumer, encouraged home ownership and easier consumer credit and advised marketing managers on how to handle American women. In the late 1940s, the single family home was expanded. The construction of isolated, over privatized, energy consuming dwellings become commonplace.
More and more married women followed the paid labor force, as the housewife required to be both a frantic customer and a paid worker to keep up with the family's bills. Just as the mass of white male workers had achieved the dream houses in suburbia where fancies of patriarchal authority and consumption could be acted.

• The social and physical condition of the cities brought about a series of social and feminist movements motivated towards empowering women and providing them equal rights as men.
• The early 1900s saw the empowerment of women through the right to vote and participate in democratic government, right to own property and right of entry to professions.
• It was in the 1970's that women enacted the right to equal pay for equal work. It was at this time when women joined the workforce.

The spatial structure of cities did not accommodate women's double burden of homemaking and paid labor, imposing on them additional physical, social, and economic constraints. Cities have continued to feature environments designed to meet the needs of the traditional household, one that consists of a male breadwinner with an unpaid homebound wife.

## Modernist cities

*Social Structure:* Universality and Equality for all were the main social agendas, with cities transforming from the industrial to the modern. Thus, equality of the masculine and the feminine spheres became the major outcome of the Modernist times.

*Physical Structure:* Modernist cities have been planned to segregate different aspects of life; homes, shops, factories, and offices all in separate areas. This segregation has affected women more than men because their lives have never been so neatly partitioned between the different areas of work, leisure and home in the way that men's have. The ideal of a home physically separate from the workplace reinforces a division of labor by gender inside and outside by tying women more closely to a locality.
Policies geared towards land use regulation and residential decentralization 'contributed to the increasing spatial separation and isolation of women from potential jobs, urban amenities and services supporting women's double shift. At the same time, urban policies have largely ignored working women needs related to transportation, care of dependents and meal preparation. This has affected women more because their lives have never been so neatly partitioned between the different areas of work, leisure, and home. Home physically separate from the workplace reinforces a division of labor by gender(Greed, 1994)
Social philosopher, historian, and urban planner Lewis Mumford criticized the "anti-urban" development of post-war America. The Death and Life of Great American Cities, written by Jane Jacobs, called for administrators to review the single-use housing projects, large car-dependent roads, and segregated commercial centers that had become the usual design of cities.

Whether it was in a suburban, exurban or inner-city neighborhood, split-level ranch house, a modern gem of concrete and glass or an old brick tenement, the house was almost perpetually organized around the identical set of spaces: kitchen, dining room, living room, bedrooms, garage or parking area. These areas required someone to undertake own cooking, cleaning, childcare and usually private transportation if adults and children are to exist within it.
Employed mothers usually were expected to and almost invariably did, spend more time in private housework and childcare than employed men; often they were expected to and usually do, spend more time on commuting per mile traveled than men, because of their reliance on public transportation. '70 percent of adults without access to cars are females.'

Their residential neighborhoods were not likely to provide much support for their work activities. Because of residential zoning practices, the typical dwelling would usually be physically removed from any shared community space. No commercial or communal day-care facilities or laundry facilities, for example, were likely to be part of dwelling's spatial domain as opposed to a 'real' neighborhood, which can usually be defined regarding popular shopping, schools and perhaps public transit.
The problem is paradoxical: women cannot change their status in the home unless their overall financial position in society is modified; they cannot improve their status in the paid labor force unless their domestic responsibilities are altered (Massey, 1991).

## Post-Modern Cities

*Social Structure:* Feminization of the workforce and flexibility in work locations took place during the post-modern times and women came to be identified as having a dual responsibility of a homemaker as well as a worker in the paid labor force.

*Physical Structure:* The geographic separation of residence from workplace has taken another form during the past three decades. Rather than simply a suburban issue, spatial isolation perhaps has been an even greater problem for women living in central cities. The relocation of employment opportunities to the suburbs has resulted in longer commutes for inner-city residents, including women.

Although women's rights were supposed to be taken care of, using social as well as feminist movements, but what ultimately suffered was Lefebvre's right to the city. This entails the need to discuss new forms of citizenship in globalized cities from a gendered and feminist perspective and to connect them to women's everyday life and cities' planning and governance(Lefebvre, 1996)

# Women in Space & Time - Time Line (Global)

## PHYSICAL STRUCTURE



Pre-Industrial Structure of Carcassonn town



An Industrial town overlooking women & children existence



Ebenezer Howard Garden City

**Industrial Revolution**

**Pre-Industrial Revolution**

**1700**          **1750**          **1800**          **1850**

## SOCIAL STRUCTURE



Household Work



Employment through spinning yarn



Children & Women on street during Industrial Revolution



Low Wages Revolt starts.

*Household Work & Paid Employment*

*Household Work - Unpaid Labor (Private Sphere)*

*Paid Employment (Public Sphere)*

*Figure I.7 :* *Women role in space and time*
**Source:** *by author*

Colorado
Sub-urban
sprawl




Le-Corbusier
Radiant City


Co-operative
housing -
Scandinavian
Solutions


Gendered Park
in Vienna


Barcelona fu-
ture by Punt6

The 21st Century

Post Modernism

*Modernism*

1900   1950   2000   2015   2050


Women
Considered as
homemakers




Women pres-
ence in public
sphere


Women started
getting right to
vote.

Development
of technology
& machines
led women be
a part of paid
labor

GENDER
EQUALITY

Gender Equal-
ity is UN's
Sustainable
development
goal

*Household
Work - Unpaid
Labor
(Private Sphere)*   **+**   *Paid
Employment
(Public Sphere)*

# 4. Problem Field- Global and India

**Globally**

60% of the working force
30% of the official labor force

Receive only 10% of the world's economy

Owns less than 1% of the world's economy

67% of the world's 875 million adult illiterate are women

70%of the 1.2 billion people living in poverty are again women

**Indian**

12% in the urban sector
29.9%in rural sector

Women are mostly the unpaid labor in India

Non-agricultural wage employment is 17%

40.8% of the literate are women

Women are removed from being considered earning

*Figure I.8 : Global & Indian Women Inequality comparison (made by author)*
*Source of information: www.ilo.org/public/english/region/asro/bangkok/library/download/pub96-01/chapter2*
*UN statistics*
*http://www.undp.org.in/webbook/Enlrg-spc-wmn-india.htm*
*Human Development Report, 2003*

A small description:-

The position of women as described in this infographic I.8 is a neglected group globally as well as in India. Women occupy just 9%of the parliamentary seats and less than 3% are appointed as managers in multinational companies in-spite of their qualifications and work (Green, D. n.d)). Also, in India in spite of the 60% educated women only 12% are working in the urban sector. They work mostly as the unpaid labor in the houses.

World Economic Forum Report

The Gender Gap Index assesses countries on how well they are dividing their resources and opportunities among their male and female populations, regardless of the overall levels of these resources and opportunities.

By providing a comprehensible framework for assessing and comparing global gender gaps and by revealing those countries that are role models in dividing these resources equitably between women and men, serves as a catalyst for greater awareness as well as greater exchange between policymakers.

India's position as 108th has improved in recent years and that is only because of the increase in women politicians in the government. The gap is still really wide and we have a long way to go in all the terms(World Economic Forum Team, 2015)

We have a lot of women who are controlling the country, a lot of them working, a lot of them housekeeping, a lot of them providing services, what we need to do is provide a safe and healthy environment to them so that they can experience everything in the best manner.



Gender gap index
(Equality = 1.0)

0.85 - 0.90
0.80 - 0.85
0.75 - 0.80
0.70 - 0.75
0.65 - 0.70
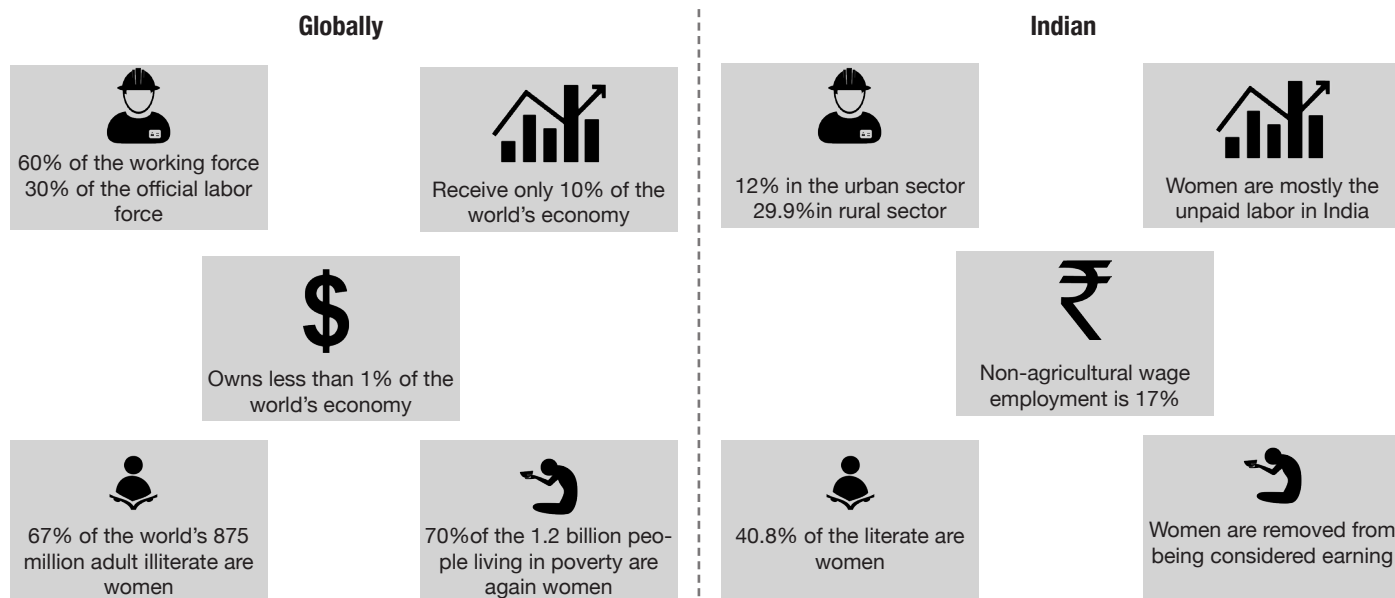0.60 - 0.65
0.55 - 0.60
0.50 - 0.55
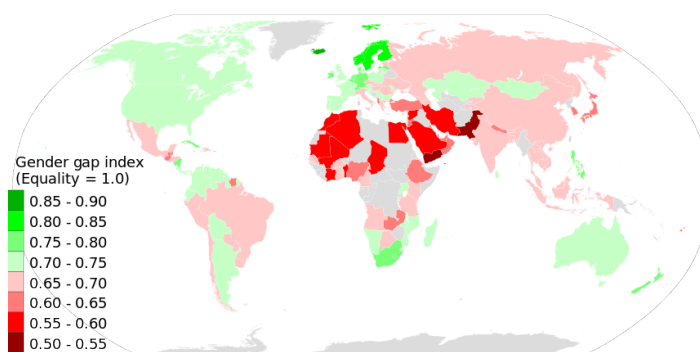
*Figure I.9 : According to 2015 survey of World Economic Forum the overall rank of India according to 2015 gender Gap Index by World Economic Forum is 108 while that of Netherlands is 13.The Gender Gap Index of India is 0.664 while of Netherlands is 0.776.*
*Source : http://www.mckinsey.com/global-themes/employment-and-growth/how-advancing-womens-equality-can-add-12-trillion-to-global-growth*

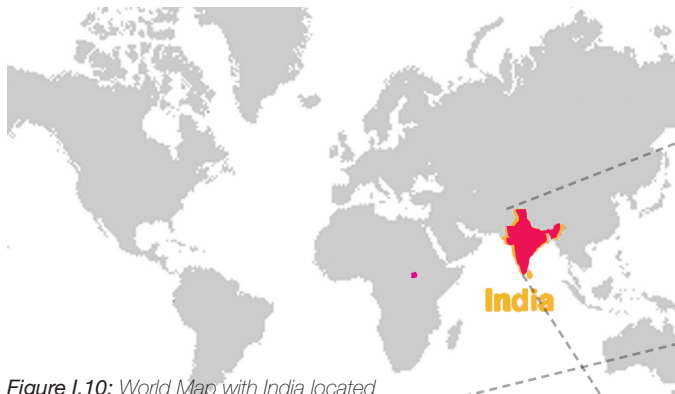# 5. Problem Analysis of women inequalities in the context of India & Delhi



*Figure I.10: World Map with India located*
*Source: Made by the author*



*Figure I.11: Delhi on Google Maps*
*Source: Google Maps*



*Figure I.12 : Location of Delhi on map of India*
*Source: Made by author*

India is the second-most populous country in the world with an estimated population of over 1.2 billion where almost half the population are female. Women had equal rights as men in the vedic age of India as mentioned in Rigveda but their condition began to deteriorate in the medieval period (Madhok, 2008) In India women are worshipped as goddess of wealth and power while on the other hand they are one of the most unsafe groups of the lot in terms of the outside spaces, the non-private places. The public spaces for girls and women in India are the places to be visited due to a reason, for some work or agenda, they would not think about loitering around just like that (Phadke, Ranade, & Khan, 2009)

India, officially the Republic of India, is a country in South Asia as marked in figure I.10. It is the seventh-largest country by area, the second-most populous country (with over 1.2 billion people), and the most populous democracy in the world. As per Census 2011, the population of India is 1210.19 million comprising 586.47 million (48.5%) females and 623.72 million (51.5%) males. The economy of India is the seventh-largest economy in the world with the GDP of $2.25 trillion (Ministry of Statistics and Programme Implementation, 2011)

Delhi (Dilli), officially the National Capital Territory of Delhi (NCT), is a city and a union territory of India. Demographics of Delhi as per Census 2011, the population of Delhi is 16.7 million comprising 7.8 million (46.46%) females and 8.9 million (53.54%) males.Delhi has a GDP of US$67 billion as in 2014-15 "Department of Dte. of Economics &amp; Statistics," 2015).

The issues of gender inequality in India can be seen with 3 perspectives -

**1.Cultural Issue-** The cultural issue includes Delhi as a crime capital where the crime against women have increased. Due to this the family of the girl are afraid to allow her to travel alone and give the independence. The dependence of a girl on her family is also a result of the cultural bindings of the country.

**2. Economic Issue-** Due to a non supportive infrastructure the girls are not able to give their 100%. In spite of the education government invests on her, she is not able to be a part of the country's economy.

**3. Spatial Issue -** The bad infrastructure, non inclusiveness, dim lighting on streets, bad elements on streets late at night, the lost policing, excluded and separated streets, roads and public spaces make them unsafe and unusable by girls and women in the city.
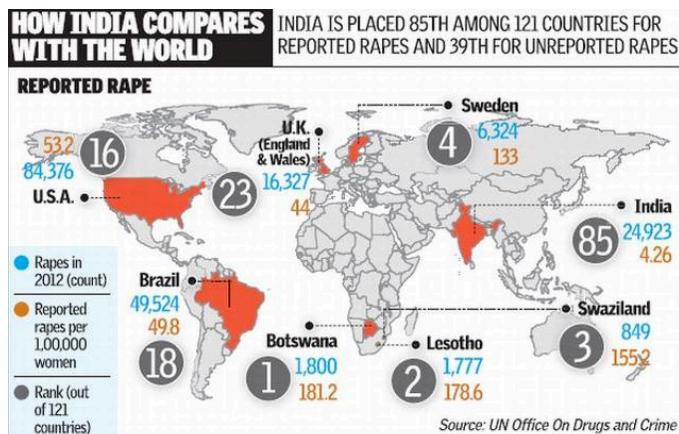
# 5.1. Women Inequality (As a Cultural Issue)



**HOW INDIA COMPARES WITH THE WORLD** INDIA IS PLACED 85TH AMONG 121 COUNTRIES FOR REPORTED RAPES AND 39TH FOR UNREPORTED RAPES

REPORTED RAPE

Source: UN Office On Drugs and Crime

*Figure1.13 : India ranks 85th for the number of reported crimes in 2015 in the world where data is collected from 121 countries*



**UNREPORTED SEXUAL VIOLENCE**

| Ethiopia | Ghana | Finland | U.S. | India |
|----------|-------|---------|------|-------|
| **1** Rank | **2** Rank | **3** Rank | **26** Rank | **39** Rank |
| 55.90% | 44.50% | 43.50% | 18.30% | 8.50% |

*Source: UN Women, various surveys*

*Figure 1.15: A lot of cases get unreported and are avoided, therefore India ranks 39th in the unreported sexual violence (Includes data from domestic violence too)*
*Source : Times of India Newspaper*

Statistics can be a bit misleading as well, India is 85th for reported number of cases but 39th for unreported as shown in figure I.13. It is widely acknowledged that the rate of unreported sexual violence in Indian society is far higher than official statistics would indicate, and that this is likely to be a bigger problem in India than in other countries, as it is a more patriarchal society. The crime that is not reported does not mean is not done and not
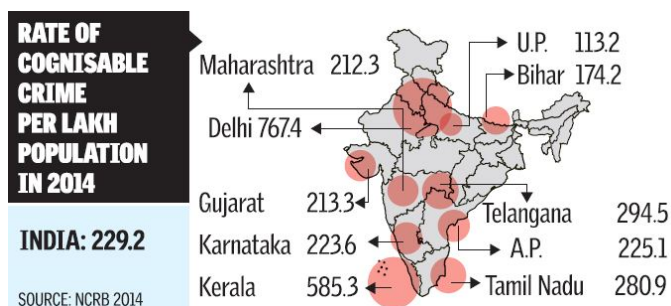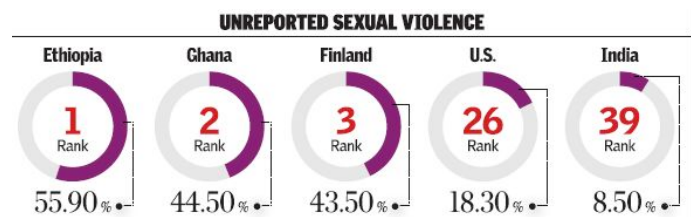
conclusion of cultural, religious and educational disparity. New Delhi is the capital of India and the most diverse city of the country with people from all the states North, South, East and West. According to the data collected by India's National Crime Records Bureau showed a sharp increase of 26 per cent in reporting of crimes against women in 2013 after the Nirbhaya rape and murder case in 2012.The number of rape cases have doubled from 2012 to 2013 in Delhi.



**RATE OF COGNISABLE CRIME PER LAKH POPULATION IN 2014**

**INDIA: 229.2**

SOURCE: NCRB 2014

Maharashtra 212.3
U.P. 113.2
Bihar 174.2
Delhi 767.4
Gujarat 213.3
Telangana 294.5
Karnataka 223.6
A.P. 225.1
Kerala 585.3
Tamil Nadu 280.9

*Figure I.14 : Reported Crime in India in 2014 where Delhi tops the list*

*Source: http://www.thehindu.com/multimedia/archive/02515/2_2515249a.JPG*



| 1,399 Maharashtra | 1,124 Delhi | 766 Telangana | 551 Andhra Pradesh | 519 Uttar Pradesh | 1,907 Others |

*Figure I.16 : Delhi is the second in reported Stalking and eve teasing cases in India*
*Source: http://www.hindustantimes.com/delhi/delhi-india-s-rape-capital-ranks-2nd-in-stalking-cases/story-7PoBMHP6OTP9qEqkQmUoWK.html*

Delhi has the highest number of cases of crimes against women among India's 'million-plus' cities, followed by Mumbai and Bangalore (National Crime Records Bureau 2013, 79). The crime on women in New Delhi has not been changed in a span of 20 years. In 1995 it was 5.7% and in 2015 it continues to be 5% of the total crime rate of New Delhi. This includes only the reported cases of Rape, Eve teasing and Molestation of women in public spaces and streets ("Department of Dte. of Economics &amp; Statistics," 2015).

Safety of girls and women in the cities is a matter of concern in the today's world. In India a milestone in awareness about safety in public spaces was the macabre rape and murder of 'Nirbhaya', in December 2012 has led to widespread and increasing awareness about the issue (Sikdar, 2012). An International Anti-Street Harassment Week is currently celebrated in March each year and the studies states that in 2014, a 2,000-person national survey in the USA with surveying firm GfK found that 65% of all women had experienced street harassment ("Statistics | Stop Street Harassment," 2014)

**2015:** Average of 6 rapes, 15 molestations each day (in public spaces)
Delhi accounts for 18% of all stalking cases in India, 97% of all stalking cases in UTs
**6,266:**Total number of stalking cases registered in India in 2015. Delhi ranks second position in terms of the registered stalking cases in public spaces.

Total Number of Rapes in India- 34,650
Total Number of Rapes in New Delhi- 2199

Delhi Police Commissioner B S Bassi said 70 per cent of the perpetrators in rape cases belonged to the age group of 21-35 years. "Crime-mapping analysis of the city suggested that any woman in a locality is surrounded by between 250 and 400 men who would not think twice before assaulting a woman. Analysis also suggests that 60 to 65 per cent of women victims are between 15-30 years old (Rukmini, 2014).

*Figure I.17 : Delhi tops the most heinous crime against women, rape.*
*Source: http://www.thehindu.com/news/cities/Delhi/delhi-is-now-indias-rape-capital-show-ncrb-data/article7554551.ece*

## CRIME AGAINST WOMEN (UP TO DEC 15)

| Crime Heads | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|
| Rape | 706 | 1,636 | 2,085 | 2,095 |
| Molestation | 727 | 3,515 | 4,182 | 5,192 |
| Eve-teasing | 214 | 916 | 1,282 | 1,444 |
| Dowry death | 134 | 144 | 147 | 119 |
| 406/498-A IPC | 2,046 | 3,045 | 3,005 | 3,301 |
| Dowry Proh. Act | 15 | 15 | 13 | 18 |
| Kidnapping | 2,210 | 3,609 | 3,887 | 4,160 |

*Figure I.18 : Crime against women has increased in the last year in Delhi*
*Source: http://www.hindustantimes.com/delhi/delhi-india-s-rape-capital-ranks-2nd-in-stalking-cases/story-7PoBMHP6OTP9qEqkQmUoWK.html*

## Impact of Crime

The threat of violence has serious effects in terms of curtailing women's freedoms lack of safety in public spaces is often the reason given by families and parents for not sending their daughters to school, or not allowing women to go outside their homes to work or meet their friends. This fear curtails women from going outside without any work and are accompanied by a male member, family or friend, when going out in the dark or unidentified places and sometimes everywhere (Menon-Sen & Shiva, 2001)

Delhi is just 0.5% area of India but 7% of the Public Harrassment cases in India happen in Delhi.
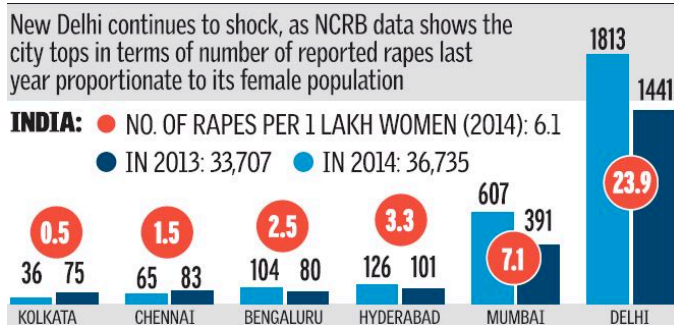


*Figure I.19: Convict of the Nirbhaya Rape Murder Case, New Delhi*
*Source: Al Jazeera, 2012*



*Figure I.20 : Defence Lawyers Nirbhaya Case*
*Source: Al Jazeera, 2012*

## The Nirbhaya Rape Case 2012, New Delhi :

The Nirbhaya case of 2012, in which a young woman named Jyoti Singh was gang-raped on a bus in Delhi and subsequently died of the injuries she sustained, became a landmark in the struggle against gendered violence in India.

As the most prominent rape case in recent years, analyzing the response to the case reveals common attitudes towards gender and violence. The case set off a wave of protests in India and solidarity actions around the world, and sparked a public conversation about women's safety.

In figure I.19, Mukesh Singh, one of the men convicted of Nirbhaya's rape and murder expresses an all too common view of sexual violence.

Many commentators echoed Mukesh Singh's assertions, even as they expressed outrage at Singh's death. They seized on the fact that Singh was assaulted while she was out at night with a male friend to both impugn her virtue and prove that women who dare to go out suffer grave consequences.

## Story of rapes by Men :-

In our society, we never allow our girls to go out of the house after 6:30, 7:30 or 8:30 in the evening with an unknown person. You are talking about a man and a woman as friends. Sorry, that sort of thing doesn't have any place in our society. We have the best culture. In our culture there is no place for a woman. - M.L. Sharma (Defense Lawyer, Nirbhaya Gang Rape)

If my daughter or sister engaged in premarital activities, disgraced herself and allowed herself to lose face and character by doing such things, I would most certainly take this sort of sister or daughter to my farmhouse, an in front of my entire family, I would put petrol on her and set her alight. - A.P. Singh (Defense Lawyer, Nirbhaya Gang Rape)

GENDER EQUALITY
IS NOT JUST A WOMEN'S ISSUE...
IT'S A PEOPLE'S ISSUE!!

*Figure I.21*: *Gender Equity in India*
*Source:* *Google Images*

In the document of Women in India it has been clearly stated that The Constitution of India pledges to secure to all the people . justice, social, economic and political; equality of status, opportunity and before the law; freedom of thought, expression, belief, faith, worship, vocation, association and action, subject to law and public morality.

The Indian Constitution is one of the most broadminded in the world, and guarantees equal rights for men and women. All this is quoted as proof to support the argument that Indian women are free and equal members of society(Menon-Sen & Shiva, 2001)
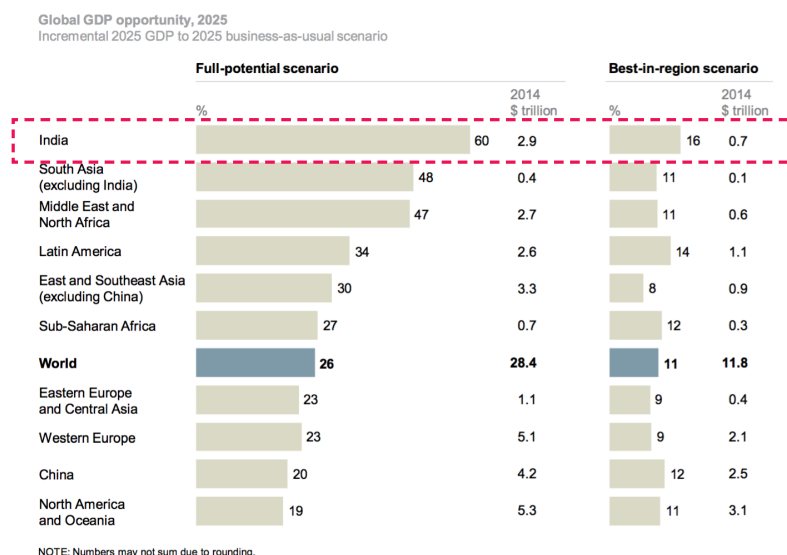
## 5.2 Women Inequality - As an Economic Issue

As explained earlier, the percentage of educated women is high in an urban area like India but the working women population is low after a certain age as they go into domestic labor. It is not only the social structure of a family in India but also a cultural thing that women do not work because of safety reasons and they would always need a companion otherwise if they have to work. But on the other hand awareness has started and women are coming up on roads to do campaigns. Further it is explained with evidences how female labor participation works.

The female labor force participation rate implies that only 125 million of the roughly 380 million working-age Indian females are seeking work or are currently employed (see Census of India 2011 for additional details). Moreover, India's gender gap in participation (between males and females) is the one of the widest among G-20 economies at 50 percent.

Additionally, female labor force participation has been on a declining trend in India, in contrast to most other regions, predominantly since 2004/05(Green, n.d.)

$2.9 trillion can be added to India's GDP by 2025 if it improves Gender Parity as stated in a report from Mc Kinsey which is the maximum for India in the figure below. One of the factors involved in decrement of women in labor force is their safety on streets and public spaces as recognized by them and many other organizations. The findings of the study titled 'The power of Parity: How advancing women's equality can add $ 12 trillion to global growth' show India would be the principal gainer from the efforts to improve gender parity. This is because the nation stands to gain almost a quarter of the full economic potential of $ 12 trillion that can be garnered by gathering gender parity at the global level (Figure I.22). The study's finding shows that improving gender parity alone will double the contribution of the women workforce to the GDP during the next decade (Dobbs, Manyika, Chui, & Lund, 2015)(Raghavan, 2015)

**Global GDP opportunity, 2025**
Incremental 2025 GDP to 2025 business-as-usual scenario

| | Full-potential scenario | | Best-in-region scenario | |
|---|---|---|---|---|
| | % | 2014 $ trillion | % | 2014 $ trillion |
| India | 60 | 2.9 | 16 | 0.7 |
| South Asia (excluding India) | 48 | 0.4 | 11 | 0.1 |
| Middle East and North Africa | 47 | 2.7 | 11 | 0.6 |
| Latin America | 34 | 2.6 | 14 | 1.1 |
| East and Southeast Asia (excluding China) | 30 | 3.3 | 8 | 0.9 |
| Sub-Saharan Africa | 27 | 0.7 | 12 | 0.3 |
| **World** | **26** | **28.4** | **11** | **11.8** |
| Eastern Europe and Central Asia | 23 | 1.1 | 9 | 0.4 |
| Western Europe | 23 | 5.1 | 9 | 2.1 |
| China | 20 | 4.2 | 12 | 2.5 |
| North America and Oceania | 19 | 5.3 | 11 | 3.1 |

NOTE: Numbers may not sum due to rounding.

SOURCE: ILO; World Input-Output Database; Oxford Economics; IHS; national statistical agencies; McKinsey Global Growth Model; McKinsey Global Institute analysis

*Figure I.22 : All regions have a substantial incremental GDP opportunity from bridging the gender gap and India has the maximum opportunity*
*Source: http://www.mckinsey.com/global-themes/employment-and-growth/how-advancing-womens-equality-can-add-12-trillion-to-global-growth*

# The economic case for gender parity

## $28 trillion
of **additional annual GDP in 2025** in the full-potential scenario of bridging the gender gap...

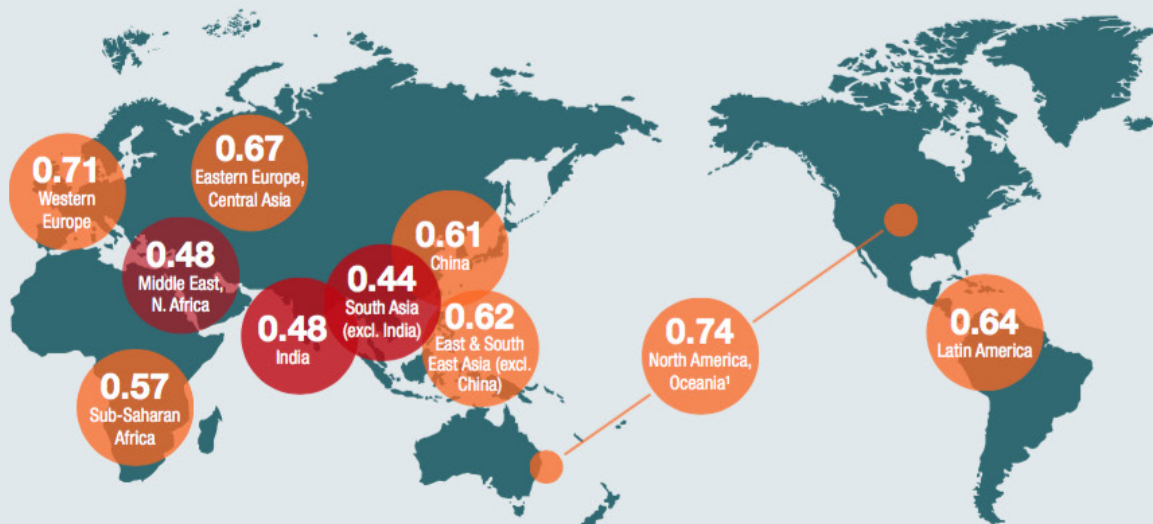... equivalent to the **combined US and China economies today.**

## $12 trillion
could be added in 2025 if all countries matched their best-in-region country in progress toward gender parity.

*Equal to **2x** the likely contribution of women to global GDP growth in the business-as-usual scenario*

---

**McKinsey Global Institute's Gender Parity Score** points to where 95 countries stand on gender parity.

**0.71** Western Europe

**0.67** Eastern Europe, Central Asia

**0.48** Middle East, N. Africa

**0.61** China

**0.44** South Asia (excl. India)

**0.48** India

**0.62** East & South East Asia (excl. China)

**0.57** Sub-Saharan Africa

**0.74** North America, Oceania[1]

**0.64** Latin America

These countries, grouped into 10 regions, are home to **93% of the world's female population.**

**Gender inequality** (1.00 = gender parity)
● High  ● Extremely high

---

**We linked economic potential to 15 outcome-based indicators in 4 categories...**

| Equality in work | Essential services and enablers of economic opportunity | Legal protection and political voice | Physical security and autonomy |

*...and identified the **largest concentrations of gender gaps** around the world to prioritize for action.*

**10** impact zones, covering **>75%** of women affected by gender inequality globally

*Our research for the first time links* **gender equality in society with gender equality in work.** *The latter is not possible without the former.*

McKinsey&Company  |  [1] Oceania = Australia and New Zealand.

*Figure I.23 : World Economic Infographics from McKinsey Report*

**Source:** *http://www.mckinsey.com/global-themes/employment-and-growth/how-advancing-womens-equality-can-add-12-trillion-to-global-growth*
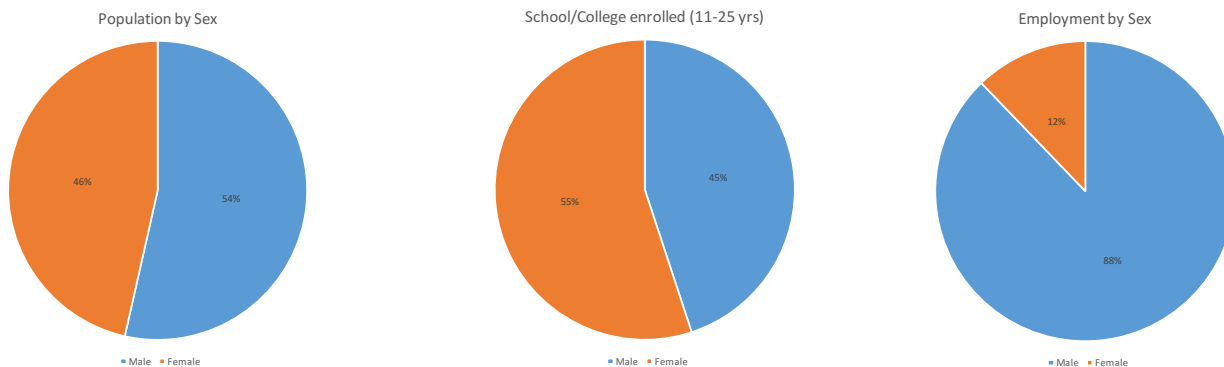
# The Changing trend- A Need to Study the topic



Population by Sex

School/College enrolled (11-25 yrs)

Employment by Sex

*Figure I.24* : Graphs representing information of Demographics, employment & literacy
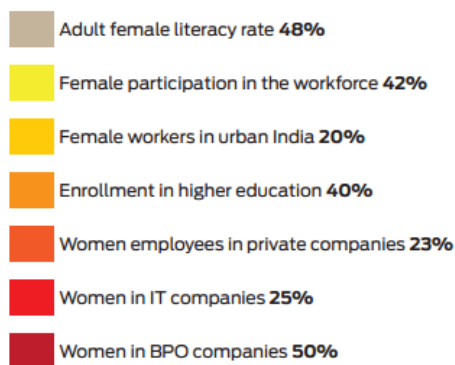*Source:* Made by author (Census Data, 2015)

**Interpretation of Graphs :**

In a city where almost half the population is women and where more than half of the educated lot is female, the employment sector has just 12% of the working population female. The question arises why and Mc Kinsey report answers this question where different factors have been reported along with one mentioned as fear of crime in women's family. Safety is considered as one of the main issues to why the female in a household

can not take permission from the head of the family to work outside, in-spite of the fact that 97% of the rapes are done by someone known to the victim irrespective of private/public space (Dobbs, Manyika, Chui, & Lund, 2015).

**The Changing Trend :**

Prior to understanding the issues that lie in the security and safety of women, it is necessary to empathize to the need for a change in existing mindset of a public realm.



Adult female literacy rate **48%**

Female participation in the workforce **42%**

Female workers in urban India **20%**

Enrollment in higher education **40%**

Women employees in private companies **23%**

Women in IT companies **25%**

Women in BPO companies **50%**

Figures obtained from official Government of India and private industry sources.

*Figure I.25* : Statistics of different women in the work-
*Source:* Delloitte : Women in India

Nowadays, it is evident that a large number of educated Indian women have stepped out of their homes in search of opportunities which is a welcoming change. It is seen that 52% of women in the country are illiterate and there is very low 42% female participation in the total workforce (paid and unpaid labor). Only 18% of women are part of the organized labor sector, just **20% of the total 18% in urban areas**. Women workers in the new **IT-related** occupations are only **0.3% of urban women workers**.

Nowadays, it is evident that a large number of educated Indian women have stepped out of their homes in search of opportunities which is a welcoming change. It is seen that 62% of women in the country are illiterate and there is very low 42% female participation in the total workforce (paid and unpaid labor). Only 18% of women are part of the organized labor sector, just **20% of the total 18% in urban areas**. Women workers in the new **IT-related** occupations are only **0.3% of urban women workers**.

## 5.2 Women Inequalities (a spatial issue)

**Public spaces - A concept**
Public space is defined by the nature of its use having physical, social, cultural and political dimensions. The notion of public space presumes a public sphere with cooperative social use, and a diversity of functions. It is a site for relating to and identifying with others, political protests, contact among people, urban activities, and jargons of community (Viviescas, 1997). The quality of a public space can be determined based on the strength and the value of the social associations it enables, its capacity to welcome and inspire a mixture of diverse groups and behaviors, and its potential for promoting mutual connection on a symbolic level,



*Figure I.26: Bus stops are one of the most visited public spots by women and they are scary as hell when asked from a few working women in Delhi, during nights its almost impossible for them to take such public transports and have to spend on private ubers or ola cabs. Engendering bus stops can help a lot thereafter as it is one of the most fearful places at night.*

cultural expression and integration (Falu, 2009). Women in these public spaces feel insecure due to a lot of reasons including poor design and infrastructural facilities, behavioral patterns of society, etc. The type of public spaces in India are streets, railway stations, parks& gardens, streets, roads, highway, cinema halls, malls, plazas, bus stops (Mahadevia, Lathia, & Banerjee, 2016).

Women's experience of safety in the public realm -
As mentioned earlier, women and men experience spaces differently. The feeling of safety and fear is also relatively different and higher in women.

It depends on the location, time of the day, maybe the mode of transport, the urban setting, sometimes pre-conceived notions regarding a place. Women have a mental list which indicates strict dos and do not in the urban realm. This drastically affects their lifestyle and their daily routine as well. This triggers the extensive need to consider the thoughts and intellect of women in the process of design or planning to carry off fear from their mindsets.

**Women's experience and use of the Public Realm**
The accessibility of women to the public realm depends on the mobility, that is in terms of availability of a secure transportation mode and secondly in terms of safety of



*Figure I.28: Women Versatility as a mother, housekeeper, working women has different uses of spaces. They need to feel safe and secure when moving for work. This is an example from **sabzi mandi (vegetable market)** of India showing the multilevel working of a women.*

the mode/ transit hub. The journey of women when mapped is seen to be more complex than men owing to the functions they perform (shopping, running errands, picking up children, work etc). Women are mostly pedestrians as they usually have to cover lesser distances. The public spaces visited by women are mostly shopping centers, parks, schools, residential areas and the transit links which are the areas most known for a higher crime rate.

Thus, it is necessary to maintain functions in these spaces throughout the day and avoid inactivity. The links to these spaces are sometimes isolated and induce fear among women. Shopping centers, parks etc are usually isolated as women visit these spaces during the off-peak hours.



*Figure I.27 : The dominance of a particular gender on streets and the poorly done infrastructure make it almost impossible for women to dominate these spaces. In the surveys done by Jagori most of the women are accompanied by someone at the night. The ones who are not are scared to the utmost fear especially while walking on these **vulnerable streets.***



*Figure I.29: Gender Disparity in a young age iduces the fear of crime and accessibility to open spaces. **Railway Stations** in India are none less than an open public park. Every station foresee a number of people from all income groups and diversity in one place.*

Integrating these spaces with activities that attract a larger section of population to these spaces such that they are under constant vigilance. Major issues concern isolated alleys, car parks, bus stands etc, i.e mostly the transportation system to the public realm.

Figure I.30 & I.31, give a clear contrasting picture between a lonely park area and a busy market bazaar and the women terrify to go to the park when asked through a telephonic interview.
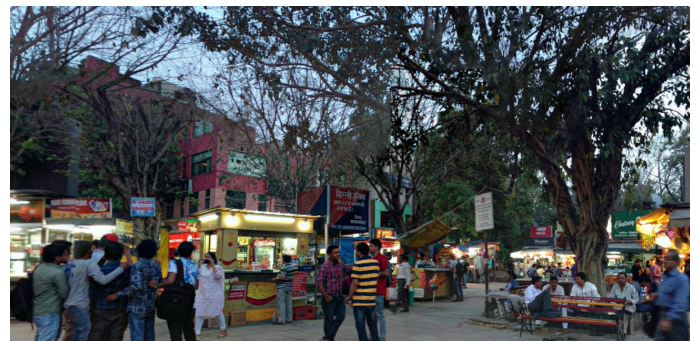
**Women & Fear:**
Women usually express fear as a common element when they experience spaces and hinders their participation in the public realm. It also moderates the way in which women use and respond to spaces. The same was expressed by Valentine in 1989 – "Feminist perspectives on the patterns of inequality in both space and culture, acknowledge fear to be a more important concept in the theory of social control than violence itself". Fear is a major factor that restricts women from participating in the public life.



*Figure I.30 : Gender Mainstreaming in the public parks, **neighborhood public areas** and gardens. Vacant and underused parks are also used by the low income group to sleep and spend their day to day activities sometimes which hinders the activities of the people of the neighborhood.*



*Figure I.31 : Social Inclusiveness in the **market square** can be acheived through proper designing. Most of the market squares are controlled by the male as they are culturally and traditionally the bread winners who do most of the outside work.*

In the present day scenario, Urban Design and Planning studies are gathering sensitivity to the gender perspectives in response to the past tendency to exclude the experiences of women in urban space when defining, interpreting and acting upon planning issues. Tertiary Planning courses are now including subjects such as Gender and Planning aiming to explore, examine, analyze and challenge conventional planning thought and practice from the perspective of gender (Ferretti, 1997).
Today, Women and community safety with respect to the urban design is evolving into the new focus point world wide. Leavitt stated that 'Women face problems of such significance in cities and society that gender can no longer be ignored in planning practice' (Leavitt,1986). Cooper Marcus Sarkissian and Stimpson et al. also wrote on the importance of gender as a focus in planning practice (Cooper Marcus Sarkissian,1986) (Stimpson et al.,1981).
It is often expressed that men and women experience spaces differently. The spaces meant to be safe by men need not be comprehended the same way by women. This leads to a disparity in the design and calls for a cohesive approach in order to make spaces equally accessible to all.

The fear can only be eliminated when the issues and concerns are dealt in the urban design of spaces and thus creating an environment which is safe and secure and which also aims at increasing the use of spaces by women and thus bringing women outside of their homes.

The design of the public realm has been shown by research in the UK (Valentine 1990) to be a major influence on women's sense of safety in that space. This is a hindrance to women withdrawing them from the ability to enjoy the use of urban areas during the day and after hours in particular. Many beliefs are attached to certain localities and the women are particularly warned from accessing such localities. This attitude towards such places needs transformation.

# 6. Problem Statement

## 1. Cultural Issue

The general problem this thesis project will deal with is the issue of gender disparity in public spaces and the loss of right to the city by a section of human race i.e. woman in South Delhi in India. The foremost issue is the cultural zone in Indian context as her status in a family is not really high. There is a missing link between different spheres political, economy, social relations, safety and communities. With the upcoming modernization there is a sense of segregation and vulnerability because of the social structure of Indian society which differs in terms of rights and access given according to the gender, class, caste, creed, religion, migrant status, age, sex or sexual orientation. One of the most vulnerable section of Indian society is the women and exclusion of their presence in the public space traditionally has many implications on the use of that space by this susceptible group.

## 2.Economic Issue

At the same time the relationship between activities of women and how the infrastructure and urban fabric has been planned is poor. A fear of crime and public realm dominates women minds due to the non- gender friendly environments. This forces women to leave working outside as paid labor and in-spite of the highly educated female member she is pinned to stay at home and be part of the unpaid labor force, which is a huge loss to the GDP and economy of the country. Valentine (1990) asserts that 'by facilitating a perception that a physical space is informally controlled the design and layout of public space can increase women's confidence in going out'.

## 3. Spatial Issue -  Unsafe Public Spaces

Women inequality starts as a social problem but when it comes to the gendered spaces in public it becomes a spatial issue, in terms that the freedom of using public spaces is not there inside them. Gender inequality in spatial terms is about not giving equal rights in private and public spaces that are in the reach of people which are the houses people live in and the outside environment. Basically to exercise equal rights the situations and conditions to be given in the surroundings should be based upon equality in designing as well which I cannot see in the case of Delhi in India. Delhi is not an inclusive space to be there and if the capital of India do not have such an urban fabric and infrastructure then how can someone imagine rest of the India to have that. Moreover this problem is topped with the issue of crimes against women taken in the shadow of poorly designed or not designed at all urban areas which induce that sense of fear inside them.

In a country where women comprises 48.6% of the population the issue of gender inequality practiced in public spaces cries for spatial gender rightful environment to thereby give women what belongs to them - right to the city, freedom of being in public realm and a safe environment.

# 7. Hypothesis

By providing a safe, and gender inclusive network of public spaces in South Delhi, women will be encouraged to participate to the active social life of the city and join the workforce.

By this, India's GDP would increase significantly, as well as women's equality in Indian society.
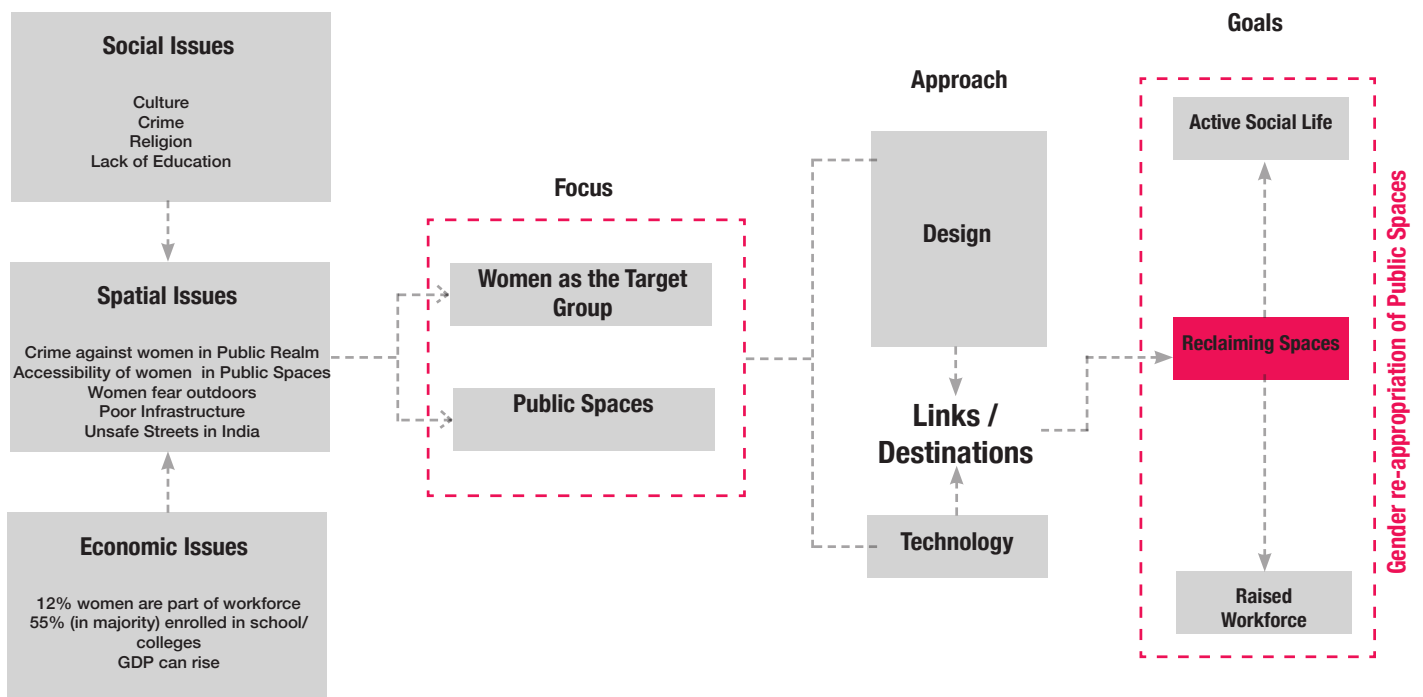


From all these kinds of issues I set up a hypothesis shown in the diagram above to make design interventions in the links and destinations of women specifically to make the paths inclusive, more vibrant, safe and inviting for the pedestrians. It has been seen in the problem statement that women do not have appropriation of spaces. The right to the city for them is missing. So I aim to attain gender re-appropriation of spaces by reclaiming the space by the women in the area. This will eventually increase the presence of women on streets.

The design hypothesis aims at intervening the spatial issues of the place and deal with an urgency to rectify the issue. It is basically an attempt that acts on a space and do not go in the direction of demonstrations and protests. It has been recognized that crime against women is not the only factor that is urgent but a realization that the project needs to work in terms of gaining the authority of the space into hands of everyone equally. An active social life and raised workforce is what I take as long term objectives.

# 8. Research & Sub Research Questions

*Which spatial interventions, technology based solutions and design process could give women of New Delhi a gender inclusive network of public spaces and re-appropriation to what the city has to offer?*

The main research question can be answered through a detailed research and investigation of the following sub 3 categorical research questions:-

## A. Global

*A.1 What has been the contributing factors spatially, socially and economically in shaping the position of women globally in the past?*

## B. Generic

*B.1 Which best practices/activisms have induced safety & inclusiveness of women in the public sphere of the society?*

*B.2 What can be the urban design objectives & principles for gender sensitive urban design?*

## C. Context Based - New Delhi, India

*C.1. Which attributes of the physical & social setting contributes towards movement of a woman and change in which part of the urban fabric can reduce fear in them?*

*C.2. Which stakeholders are involved in the spatial, social, political and financial implementation of gender sensitive urban design in the neighborhood of Malviya Nagar?*

*C.3. What tools, methods and strategies can be adapted to make a gender sensitive urban design project?*

*C.4. How will the spatial interventions & technology based solutions integrate with the spatial structure and design process in Malviya Nagar?*

*C.5 What is the role of design and urban designer in shaping a gender sensitive urban design project?*
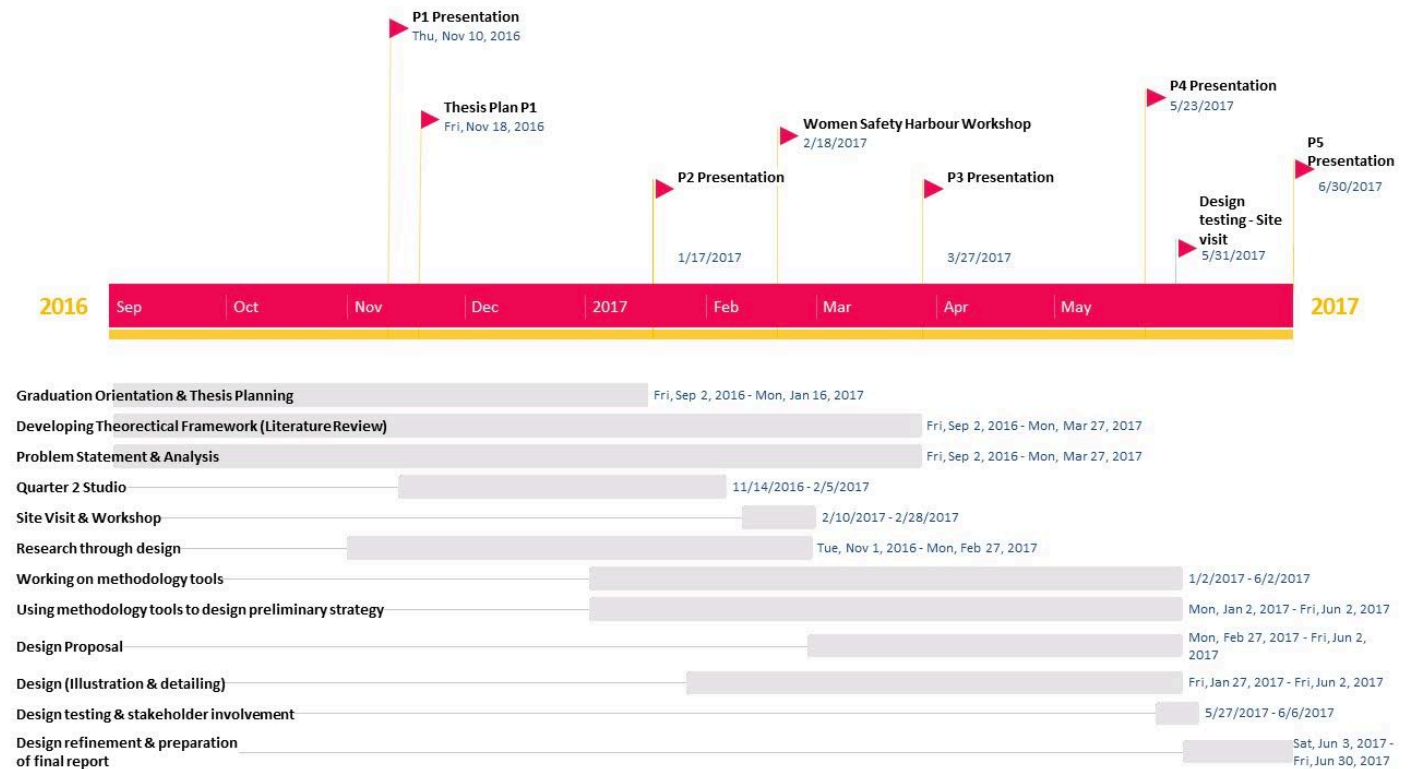
# 9. Timeline



*Figure I.32 : Timeline of the project representing different stages*
**Source:** *made by author*

**Phasing of the Project:-**

Figure I.32 illustrates the time planning for this project. The activities undertaken for each stage above are outlined in more detail below.
During the whole project site visit will be made once before the design start and then the other would be done to take the reflection of the project.

**Details of Stages:-**

*Graduation Orientation & Thesis Planning:* This stage includes formulation of problem statement, initial research questions, project goal, theoretical framework. Main products P1 & P2 report.

*Developing Theoretical Framework (Literature review)-* Still ongoing reading and desk research for writing the theoretical framework of thesis report, theory paper and case studies.

*Problem statement and analysis:* There are a variety of methods that have been used for this purpose, desk research and reading of reports contributed the most. Site visits, personal interviews and expert interview will throw more light upon these.

*Site Visit & Workshop:* This step is done in a duration of 15 days and will give me a closer look to the harsh reality on ground.

*Research through design:* In a project like this there are a number of methods and tools that need to be found out first to be used further in the project. For this the old tool of sketching and mapping will be used.

*Working on methodology tools:* This is an ongoing process which extends till the end of the project as the methodology might change at times during the project.

*Methodology framework & strategy:* A methodology framework is made to make and test the design strategy in further steps.

*Design Proposal:* A design strategy for the neighborhood will be followed up by the design proposal of a small scaled down location.

*Design (Illustration & Detailing):* This is a step to be taken in the end to make explanatory illustrations and detail the design plan.

*Design Testing & Stakeholder Involvement (Site Visit)-* A phase of design testing on the site and invovement of the stakeholders to be researched upon.

*Design Refinement & Preparation of Final Report-* Further refining is done on the report after P4 to the last comments that are given and for the reflection of the design proposal taken from the workshop visitors online.

# 10. Social & Scientific Relevance

## Social Relevance of Gender Sensitive Urban Design

The topic taken for graduation is about the safety and security of women in public spaces. Safety of Women in India is none the less a problem and the changing trends show that the improving literacy rates move women to the urban centers to seek job opportunities. These women coming for attending colleges or working do not have the feeling of safety inside them while their movement in the city due to poor urban infrastructure. A fear of a crime happening in their surroundings or to them is always there in their minds while roaming around as asked in a few interviews. The numbers shown completely reflects the picture of how women are being playing with by the other gender under the name of culture or religion. A need for improvement of the urban infrastructures is a cry from every women living in the city so that she can use whatever the city has to offer without any fear. In a country like India, such projects are a necessity not only for the vulnerable group but also the other majority to realize the importance of needs and desires of others.

Through this project I want to create awareness that work is being done in the world on gendered cities and successful stories can be heard through the people of respective locations, for example, Vienna and Seoul.

At the same time, the world is changing but in India still loitering or hanging around in public spaces for women is not considered ethical and if they are in the public sphere of the society then it is only because of a purpose. Phadke in her paper writes about how a girl illustrates her purpose by using a cell phone, carrying babies and parcels or a handbag. Hindu unmarried women often wear traditional markers like sindoor in hair or engagement rings or the customary necklace to show the respect and be safe. She gives an overview of how an anti-social woman is considered more respectable over the girls being social, working, partying and returning late  (Phadke, Ranade, & Khan, 2009). Most of the criminals performing indecent acts against women have given statements that they did it because the women were in inappropriate clothing or because they thought that the girl was not decent as she was outside on the roads in the night. All these incidents occur in the public spaces of the city because of poor physical setting of spaces and planning policies that are not in favor of gender inclusiveness. Urban Design and planning is a way through which a change in the urban setting can set a change in the minds of the people, like remove the fear of crime  from women and create a fear in the minds of the criminals that they can get caught.
Finally according to the United Nations also this is a universal issue and gender inclusive planning was included as one of the main focal point of Habitat III conference.

## Academic Relevance of Gender Sensitive Urban Design

Ana Falú from the National University of Cordoba  and the Coordinator of the UN-Habitat UNI Gender Hub in her lecture states that the women are cross-cut by differences of class, income, education, sexual option, race, ethnicity, place and territory we live in. She states that making a women-friendly city means creating a space that is safe for everyone. She takes this as a necessity of the hour and mentions four principles to be undertaken while planning gender inclusive cities. In the literature a lot have been written about gender inequality, distinctive gender usage of spaces and economic disparities. Not much have been done in terms of gender sensitive urban design and therefore I feel this project can be a small example which can have big implications.

Urbanism is a discipline which through spatial transformations can generate socio-economic opportunities for the citizens of a place. So from a scientific point of view though an urbanist works on the spatial characteristics of a place he/she can produce a framework of possibilities and opportunities. There are a wide range of these opportunities and it is in the hands of an Urbanist of how to manipulate the spatial conditions to improve the social and economic status  of the people.
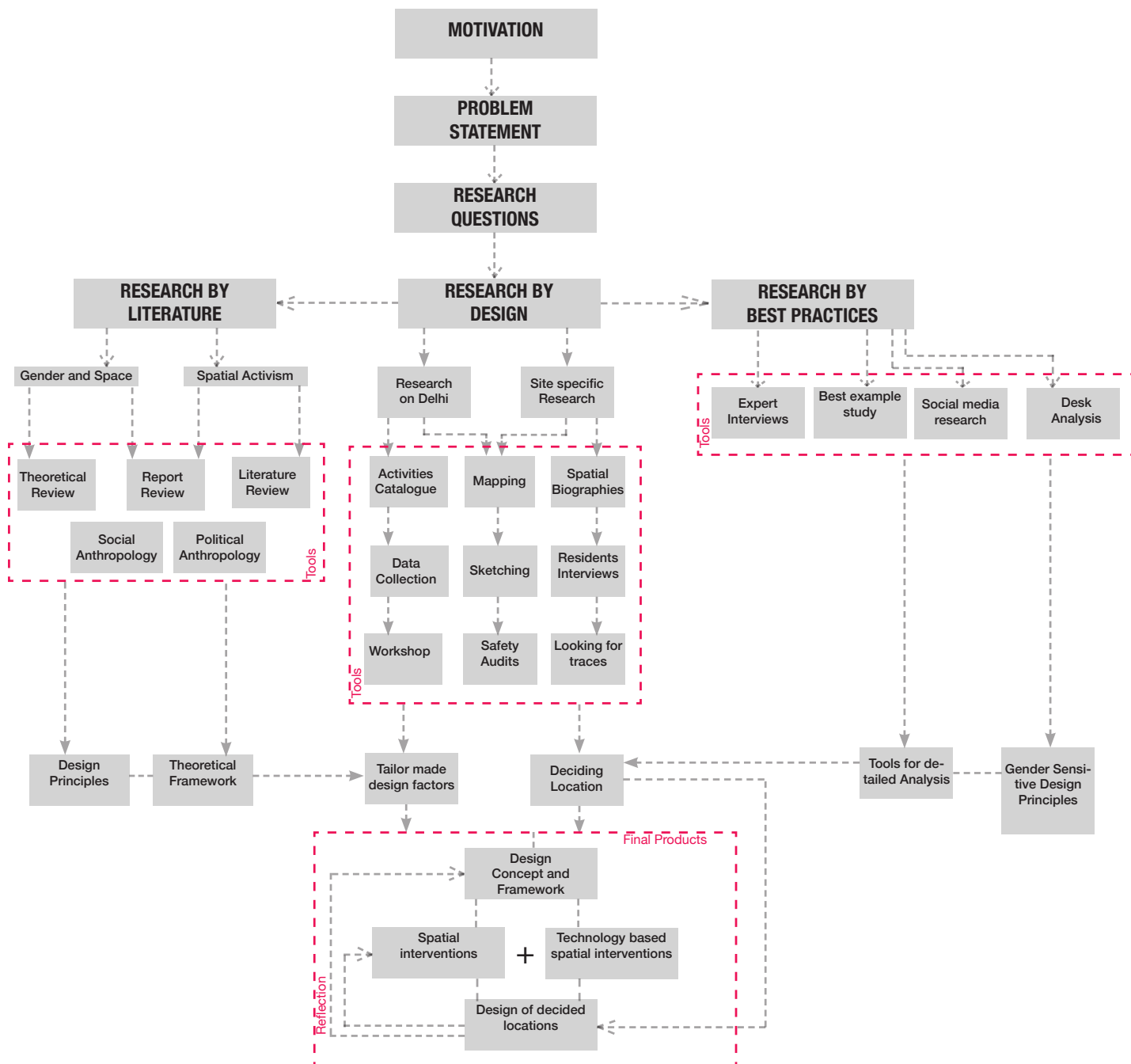
So, I see the relevance of the chosen topic and hereby a case of new possibilities and opportunities for those who are deprived. Delhi is huge, almost the size of Netherlands and therefore I choose a part of Delhi for my interventions to represent this project as an abstraction of a global issue. I would try making this project practically feasible for the government to adopt the principles.

### The Ethical Statement :-

The graduation thesis that I do largely involves the citizens of the city and I have till now and will further make sure that I include pictures and statements of only those who agree to be printed and also mention clearly the contribution of different people. I also hereby ensure the quality and integrity of this research proposal by mentioning the reference of the texts and images that have been taken directly. I also respect the confidentiality and anonymity of the research respondents who does not want to be a part of the research in name. Also I have made sure that all the participants of my workshop and the ones to be further conducted have a clear idea on what is the purpose of it. My research is completely independent, though I have used innumerable sources and will keep on using them, explicitly telling about each of them in the report.

# II. METHODOLOGY & THEORETICAL FRAMEWORK

# 1. Methodology Diagram & Tools



**MOTIVATION**

**PROBLEM STATEMENT**
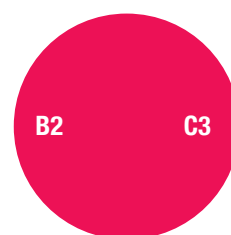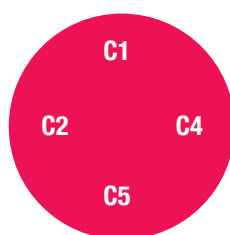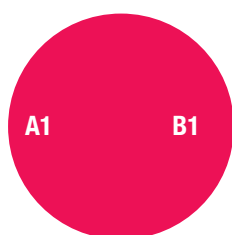
**RESEARCH QUESTIONS**

**RESEARCH BY LITERATURE**

**RESEARCH BY DESIGN**

**RESEARCH BY BEST PRACTICES**

Gender and Space

Spatial Activism

Research on Delhi

Site specific Research

Expert Interviews

Best example study

Social media research

Desk Analysis

Tools

Theoretical Review

Report Review

Literature Review

Activities Catalogue

Mapping

Spatial Biographies

Social Anthropology

Political Anthropology

Data Collection

Sketching

Residents Interviews

Tools

Workshop

Safety Audits

Looking for traces

Tools

Design Principles

Theoretical Framework

Tailor made design factors

Deciding Location

Tools for detailed Analysis

Gender Sensitive Design Principles

Final Products

Design Concept and Framework

Spatial interventions

+

Technology based spatial interventions

Design of decided locations

Reflection

Questions answered in which category

A1        B1

C1

C2        C4

C5

B2        C3

*Figure II.1*: Methodology Diagram
**Source:** by author

# 2. Methodology Explained

The respective research questions can be answered by using the following tools:-

*Theoretical/Literature Review* – The academic literature to be consulted will be from interdisciplinary fields related to history, sociology, gender inequalities, urban planning and design and human psychology (focus on women).

*Collection of Data-* Recording data by mapping from the information accessed by open data. Safetipin( the application) can be used to record movements and dark spots.
Statistics will be obtained from National Crime Bureau (NCB) and Department of Economics and Statistics in Delhi.

*Practical/Report Review* – This process will be done by critically analyzing the reports produced by social foundations like UN Habitat, Asian Foundation, Jagori (NGO) , etc.

*Spatial Analysis-* An analysis of the city and classic maps are made to understand Delhi and therefore to understand the site selected. It is also about seeing the land use of area and using them to make spatial biographies of women in South Delhi.

*Interviews-* Interviews will be segregated in 3 categories :
1.      Expert Interview
2.      Resident Interviews
3.      Target Group ( Women in Delhi)

*Site Visits-* Demarcating different needs of men and women in terms of public spaces. Clearly picturing, sketching, mapping different activities of women in public spaces.

*Case Studies Booklet-* Case studies from different parts of the world are done and critical analysis results will help me which framework of the policies would help to put my design in a framework as well.

*Mapping-* Behavioral mapping as explained by Jan Gehl is used to plot people's movement, sitting, standing and chatting, etc. marked with symbols (Jan Gehl,1936).

*Photographing-* This is an efficient tool to study the relationship between people and urban form and where they fail to respond to each other.

*Workshop-* The workshop to be organised is an added feature in which people from different sections, journalists, sociologists, architects, planners, target groups, experts would take part in order to make this project and their fruitful comments will help be to make a safer and better community.

*Design Strategy-* A design strategy is thought of through the desk research for the location to be chosen and then proposing an overall framework to work within including spatial and technological interventions.

*Spatial & Tech Interventions-* Specific interventions according to the concept and requirements are to be made for the decided project.

*Reflection-* A reflection is made on the whole project at the end to suffice the hypothesis and if the design interventions can be helpful to the end user.

# 3. Research Questions Methodology

## A. Global

*A.1 What has been the contributing factors spatially, socially and economically in shaping the position of women globally in the past?*

*A.1.This question will be answered by literature review method and through socio-cultural anthropology globally. A timeline has to be made based on the role of women in the past being paid/unpaid labor along with the physical structure of urban planning showing the non-supportive nature of cities for women.*

## B. Generic

*B.1 Which best practices/activisms have induced safety & inclusiveness of women in the public sphere of the society?*

B.1. Knowledge of this will be obtained through Internet Research and **Practical/Report review** by social foundations and governmental organization. A framework will be made that gives **gender sensitive urban design principles**.

*B.2 What can be the design objectives & principles for gender sensitive urban design?*

B.2. A **theoretical framework** will be made about the design principles that can be followed while designing and a framework of the tools to study the site and **people's behavior** will be made after the case studies and site observations. This constitutes most of my **literature review paper** which gives methodology and research tools to study gender sensitive urban design. A **final objective list from the literature review** will come defining gender sensitive urban design.

## C. Context Based

*C.1. Which attributes of the physical & social setting contributes towards movement of a woman and change in which part of the urban fabric can reduce fear in them?*

An **activity mapping** will be done to see what activities are actually carried out by the women in different public spaces. **Potential mapping** will be done during site analysis and this will be a personal narrative of the city along with the story of the interviewee. **Crime mapping** should also be done to identify the critical area. This will be identified by carrying out a spatial analysis and descriptive of the city. This will be supported by a d**esk analysis** and the **gender & the city workshop** of the citizens and women of the area. The analysis will be based upon the **personal interpretation** and narrative of the location and also as a narrative of the interviewee and participants of the workshop.

*C.2. Which stakeholders are involved in the spatial, social, political and financial implementation of gender sensitive urban design in the neighborhood of Malviya Nagar?*

C.2. **Analysis of data** from safety audits of Jagori and Safetipin application will elaborate about the spatial barriers and study of **social and political anthropology** sheds light on the political strata of the system and gives an input of the stakeholders. **Expert interviews** of the identified stakeholders will facilitate this investigation further.

*C.3. What tools, methods and strategies can be adapted to make a gender sensitive urban design project?*

*C.3.* A physical **gender sensitive urban design charter** is to be generated that will be the result of the **gender sensitive urban design principles** and objectives formed during the research. From the design principles generated design interventions are made which can be implemented in the design of the specific location at a local level.

*C.4. How will the spatial interventions & technology based solutions integrate with the spatial structure and design process in Malviya Nagar?*

C.4.Deciding the **specific location** and **implementing/testing** the design principles generated in the case is the main objective of this research question. **Research by design** is the main method to be used here with hit and trial. Proposals are made for the decided location and **feasibility** of the project will be tested*.*

*C.5 What is the role of design and urban designer in shaping a gender sensitive urban design project?*

*C.5* A new **role of design** and **urban designer** in shaping the project will be marked under this research question.

# 4. Research by Literature

## 4.1 Research by Literature (Spatial Activism)

(i). Right to the City

Henri Lefebvre has written about the rights to the city and has mentioned taking different approaches in lieu of the old practices. He gave a general theory of urban time spaces that includes the old practices of including humans that can be seen as a new theory in which philosophy and science come together. Transduction is a practice that can be methodically carried out and which differs from classical induction methods (Lefebvre, 1996).



*Figure II.2*: *Transduction Theory*

*Source:* *by author*

He announced right to the city as a cry and demand which can be transformed and renewed as the right to urban life. On a conclusion, he stated to concentrate on understanding the daily life and movements of the people. That's the key, and it has to be included in the science and art of the city. Centralizing is not the solution, understanding people's behaviors and their response towards cities in terms of their movements is what is required.

Appropriation of City space has two main points :-
-Inhabitants appropriating the space in the city.
-Reintegrate space into the web of social connection.
Autogestion here states the control and management of an enterprise by representatives of the workers. It has been identified that only through autogestion can the members of a free association take control over their own life, in such a way that it becomes their own work. This is called re-appropriation or de-alienation (Lefebvre 2009, 150)

## (ii). Proximity

Ana Falú from the National University of Cordoba  and the Coordinator of the UN-Habitat UNI Gender Hub in her lecture states that the women are cross-cut by differences of class, income, education, sexual option, race, ethnicity, place and territory we live in. She concludes the main factors to be looked at while designing a women-friendly city are localization, proximity, participation and resources. Localization in terms of the services, proximities according to the movement of different genders, participation at all the levels from high government politicians to the citizens and resources in the form of georeferenced violence, statistics, and data.

According to her the abandonment and fear of spaces is a vicious circle that is created by the social construction of public and so-called protected spaces.
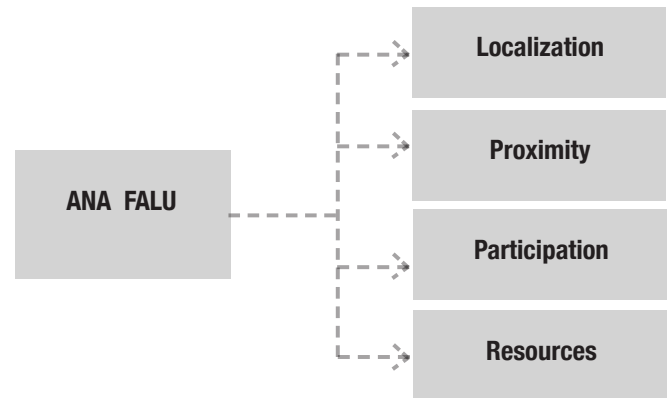


*Figure II.3*: *4 Rules given by Ana Falu for making Gender Sensitive Cities*

*Source:* *by author*

## (iii). Community Opportunities

Dolores Hayden comments about the special housing facilities given for working women and their families in Copenhagen by Oho Fick in 1903 and highlights the Scandinavian solutions of the problems faced by these women. This was carried on by Sven Ivar Lind and Sven Markeliuch in the 1970s who designed Marieberg Collective House in Stockholm, Sweden. In 1970 Steilshoop Project in Hamburg, Germany facilitated public housing with supporting services. In 1972, Nina West homes in London designed an iconic project in the name of Fiona House which provides Day Care centers, collective babysitting and created jobs for single parents. All these examples are successful real experiments done to reach a gender conscious environment (Hayden, 1980).
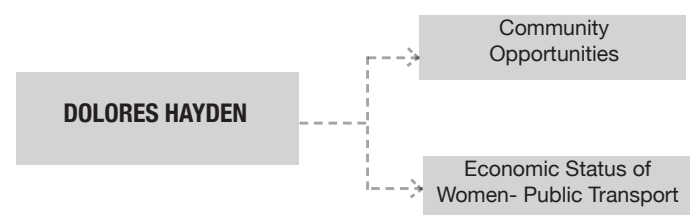


*Figure II.4*: *The two main focal points as proposed by Dolores Hayden*

*Source:* *by author*

## 4.2 Research by Literature - Gendered Space

**(iv). Economic Status related to Movement**

The percentage of women in the US participating in the workforce can be found to be 58% over the 12% of women participation in India. The factors and barriers of the variance in this participation level are different for distinctive countries. The economic status though is one of the reasons that show the number of participation of women in paid labor force. Hayden had identified that in the machine age after the home was equipped with latest machines like a washing machine, home blender, etc. women had to go out to earn to pay for these additional loans even when these machines actually helped them with the household works (Hayden, 1980).

**(v). Place is a Process**

Even in the United Kingdom in the mid-1960's an economic reform shook the stability of all the jobs where jobs were decentralized and were now being overpowered by the women. The basic reason of this occurrence was that the female group constituted cheap labor and part time availability suited them and officials of the companies as well. In the book Space place and gender, Doreen Massey has tried to configure about A Woman's Place and the economic structure which was the main reason why the whole United Kingdom was talking about relationships between men and women. It was basically studying about how the regional planning affected employment sector, and jobs were transferred from one section to the other. Questions were being raised upon the old patriarchal form of domestic production which was torn apart (Massey, 1991). In figure II.5 Masseys proposal of a place organic development is described.

**(i). Spaces**

As Jan Gehl (2001) describes in 'Life Between Buildings', there is a worthwhile differentiation between places where people merely come and go and places where they stop and stay. They are those who include good opportunities for staying that make public spaces lively. As a result, streets with high concentration of various groups need to support land uses that permit the 'sitting function'. Regarding the selection of the activities, a great potential have the following uses in public spaces: eating, reading, sleeping, knitting, playing chess, sunbathing, watching people, talking etc (Gehl, 2001).

Dorst says about the social control that there are specific kind of spaces that humans witness in public.The intimate space is the immediate space and its important to learn about it for this project, as no interference with this space is likable. It is linked to the livability of the place and enhance that increase the inclusiveness of spaces for everyone (Dorst, M.V , 2011). Figure II.6 represents intimate, personal and social spaces.
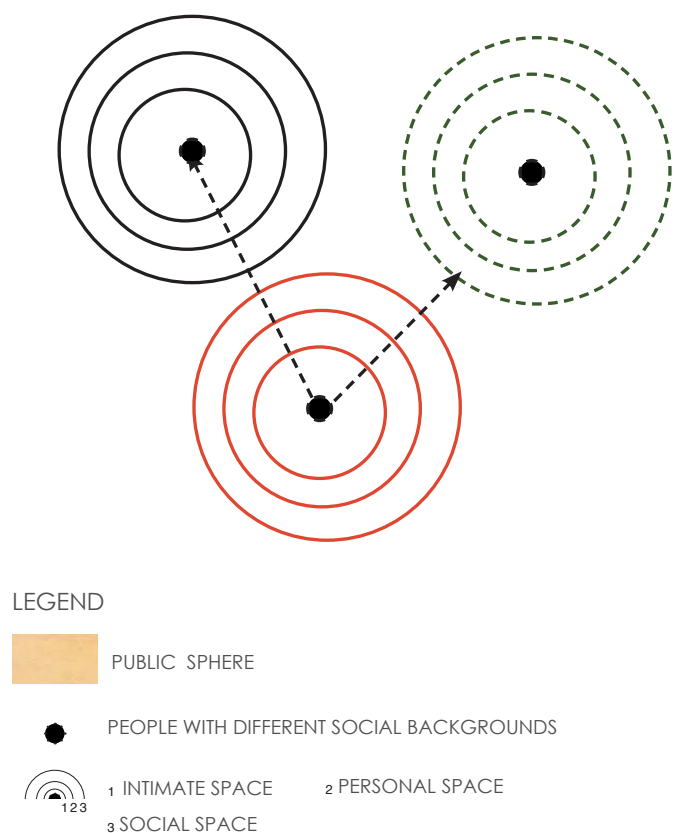


| DOREEN MASSEY | ⇢ | Place is a process |

*Figure II.5: Doreen Massey proposes a place organic development*
*Source: by author*



LEGEND

PUBLIC SPHERE

PEOPLE WITH DIFFERENT SOCIAL BACKGROUNDS

1 INTIMATE SPACE    2 PERSONAL SPACE
3 SOCIAL SPACE

*Figure II..6: Represents Intimate Space, Personal Space and Social Space*
*Source: by author (inspired by Dorst's theory of Livability)*

## (ii) Territories

To achieve a desired level of privacy for the pure residential parts of the Malviya Nagar, it is important that the crossing points between areas where public territories meet more private territories should be redefined as described in figure II.7. What is needed is a clear demarcation between public and private areas (Hab-raken, 2005), or alternatively, a high level of closure (Sampson, Morenoff & Earls, 1999). The key idea is that the urban form can guide the flow of people in certain paths.

OPEN PUBLIC TERRITORY (MAIN STREET)

OPEN PRIVATE TERRITORY (RESIDENTIAL AREA)

OPEN PRIVATE TERRITORY (RESIDENTIAL AREA)

RESIDENTIAL ZONE

COMMERCIAL ZONE

TRANSITION ZONES IN BETWEEN RESIDENTIAL BUILDINGS
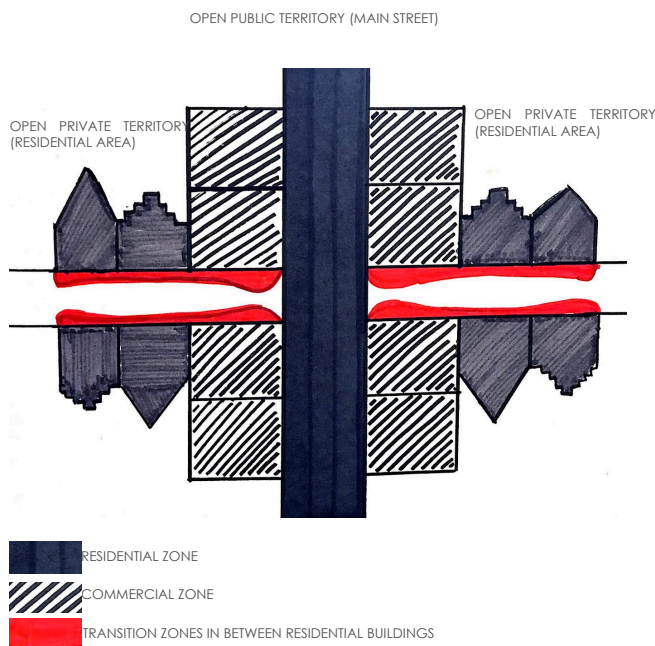
*Figure II.7*: Represents relationship between public and private territory
*Source:* by author (inspired by Dorst's theory of Livability)

## (iii) Cultural relations

The culture and everyday life plays an important part in seeing and deciding the gendered roles of public spaces and the streets. The paper highlights and demarcates the extent to which the right to the city, that is, the right to use and the right to participate are violated because of the gendered power relations, which intersect with ethnic and national power relations. It clearly tells about inspite of knowing that the women have a right to access public spaces and even the spaces at home they do not tend to use it such because of the cultural thinking of the people of the local place (Fenster,2004).
To conclude, 'The right to the gendered city' always intersects with other identity crisis issues Like ethnicity, nationality, and culture. In this context, the right to the gendered city means that the right to

Tovi Fenster → Culture dominates Right to the City

## (iv) Wayfinding

In the paper Women imaging the city: Their perception of environment, various case studies and research shows the differences between wayfinding abilities in men and women. It has been seen that women are dependent more on the landmarks and signages than the map informations. Women become more anxious when on unknown routes and discover shortest and safest routes possible in all parts of the country (Lawton, C.A. & Kallai, J. Sex Roles , 2002). This is also because of the cultural mindset of the girl child that has been setup in the childhood about not going outside in the streets.

Carol A. Lawton → Wayfinding

## (v) Role of Indian Culture

A space that does not support gender equality is a gendered space.
•Many of our public spaces are gendered because women often feel unwelcome or have to tolerate some form of harassment in many of these places.Many homes have separate spaces for women and men e.g. 'zanana' 'mardana.'

To add insult to the injury, even by acknowledging a lack of safety women risk inviting more 'restrictions and control' from our patriarchal families.
Public places in the use of men:-

•Men are taking more space than women.
•Space not available to them in mosques and temples.
•They get space in plazas and shopping malls only during shopping.
•At the bus stop waiting for the bus.
•No facilities of toilets for the women.
Toilets for women should be double in number than that of men; it's due to their physical and biological needs. (Desai,2007)
•Men are urinating in the streets, still usurping women's space.

Madhavi Desai → Culture Role

41

## (vi). Public Space as a notion of gendered Space

Gender equality in spatial terms can be achieved by equal rights in private, and public spaces that are in the reach of people which are the houses people live in and the outside environment. Public space is defined by the nature of its use having physical, social, cultural and political dimensions. The notion of public space presumes a public sphere with cooperative social use and a diversity of functions. It is a site for relating to and identifying with others, political protests, contact among people, urban activities, and jargons of the community (Viviescas, 1997).

### Quality of a Public Space

The quality of a public space can be determined based on the strength and the value of the social associations it enables, its capacity to welcome and inspire a mixture of diverse groups and behaviors, and its potential for promoting mutual connection on a symbolic level, cultural expression and integration (Falu, 2009).The three potentials of a public space are described in figure II.8. Women in these public spaces feel insecure due to a lot of reasons including poor design and infrastructural facilities, behavioral patterns of society, etc. The type of public spaces in India are streets, railway stations, parks& gardens, streets, roads, highway, cinema halls, malls, plazas, bus stops (Mahadevia, Lathia, & Banerjee, 2016)
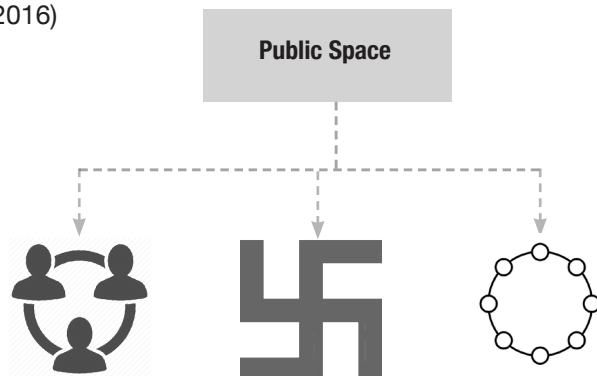


*Figure II.8 : The 3 potentials of a public space mutual connection, cultural expression and integration (L-R).*

*Source: by author (inspired by Ana Falu's theory)*

Jane Jacobs in 1961 stated that "Cities have the capabilities of providing something for everybody, only because, and only when, they are created by everybody" (Jacobs, 1961) . This statement clearly signifies that the cities have to be designed taking care of needs and desires of all the inhabitants.

These varied factors of culture, socio-economic status and freedom of genders to use public spaces define how the usage of space can change due to planning policies and change in urban structure.

## (vii). Inclusive Space
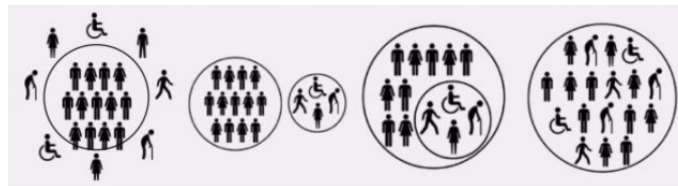


*Figure II.9: Exclusion, Segregation, Integration, Inclusion (L-R)*

*Source: Inclusivity Report, SPA Delhi, 2015*

### What is an inclusive city?

"An inclusive city is a city that over-rides differences of race, gender, class, generation, and geography, and ensures inclusion, equality of opportunity as well as capability of all members of the society to determine an agreed set of social institutions that govern social interaction." (Expert Group Meeting on Promoting Social Integration, Helsinki, July 2008).

An inclusive city provides one and all an opportunity to grow to their maximum potential, irrespective of all differences or inequalities, by sharing public resources equally through all economic and ethnic sections.

The World Summit for Social Development (Copenhagen 1995) defines an inclusive society as a "society for all in which every individual, each with rights and responsibilities, has an active role to play". Such an inclusive society must be based on respect for all human rights and fundamental freedoms, cultural and religious diversity, social justice and the special needs of vulnerable and disadvantaged groups, democratic participation and the rule of law. It is promoted by social policies that seek to reduce inequality and create flexible and tolerant societies that embrace all people.

In an inclusive society, members not only have the right to education or the right to political participation but actually take part in the process, using the right to education and having a vote that actually counts in a political process. What is most significant in creating an inclusive society is the engagement of the individual in the process by which society is managed, ordered and represented.

### In an Inclusive city:

- All its citizens have access to basic services.
- People have access to employment opportunities and can engage in productive livelihoods.
- Recognizes each person's cultural rights and provides facilities and public spaces for people to express these rights.
- Recognizes the human capital of all its people and strives to actively enhance this through appropriate programs.
- Political freedom and political expression.
- A city that is both socially and spatially cohesive, where people from every race, ethnicity, nationality and socio-economic background are welcome.
- Cherishes and promotes human rights.
- Proactive in meeting development challenges, and plans ahead to meet future needs.
- A city that promotes growth with equity.

(Source: Inspired from Inclusivity Report, Delhi)

# 4.3 Research by Literature (Tools)

## (i). Space Syntax

WSpace Syntax is a tool that will be used to study the street segments in Delhi. A brief study of the same is given at which level the tool can be used. Micro scale spatial relationship in urban studies is about the relationship between buildings and street segments. According to Jane Jacobs and Jan Gehl, one formula to ensure urban liveliness is many entrances and windows facing a street [Jacobs, 2000] and [Gehl, 1996]. What these authors are missing in their research on urban street life, is a consistent spatial tool for measuring it (AkkeliesV.Nes, 2011).

The topological depth between private and public space There are several ways of analyzing the spatial configurative relationships between building entrances and the street network. An easily way is to register the topological depth between private and public space [Hillier and Hanson, 1984, p. 102] which is done as follows: Counts the number of semi-private and semi-public spaces from the private space to the public street. These numbers are then compared to see the safety index of a street.
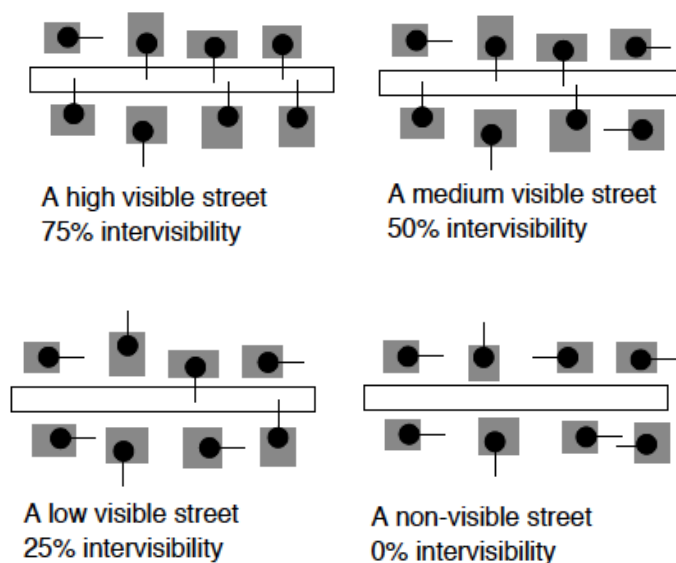


*Figure II.10*: *Different degrees of inter-visibility between entrances and streets.*
*Source*: *A. van Nes, Space syntax in urban studies – an introduction, 2011*

As identified by Akkelies Van Nes space syntax is a method and a tool that can be used for the analysis of the streets through visual sight lines to calculate the spatial configuration of built environments and can be realistic on a wide scale level in research on built environments. It is able to categorize the streets spatial features for vital shopping areas, crime distribution, various social classes spatial preferences, etc. (Van Nes, 2011).

## (ii). Safety Audits

The first safety audit method was made in Canada by METRAC (The Metro Action Committee on Public Violence Against Women and Children) and has been efficaciously used throughout Australia, North America and Great Britain, to measure ostensible danger in the urban setting (METRAC, n.d.). These safety audits are a mapping tool to study an area in terms of crime and to recognize the problems.

## (iii). Use of technology

Kalpana Viswanatha, a sociologist and NGO worker, started an application named as Safetipin which collected the data from a number of cities and a number of points from a varied database provided by different user groups including men and women. This database now signifies the safe and unsafe places in a few metropolitan cities of India and also provides a function of emergency calling. In this world of computer and tech-savvy lifestyle most of the low-income countries are still inaccessible to computers but Smartphone technology has reached hands of many Indian citizens who can avail the opportunity to contribute and access data and services including banking, payments, market intelligence for business and other amenities. A report estimates that smartphone usage in 2014 is 1.76 billion and it is estimated that one in three persons will have a smartphone in India by 2017 (Vishwanath & Basu, 2016).

The public wireless network and extending CCTV cameras are a method that is undertaken by the government of India to ensure the security of women after the brutal rape in public transport in 2012 but critically reviewed this method is proving more to be moral policing and capturing the young couples on the road under the law of spoiling culture and obscene acts in public rather than paying attention to safe built environment.
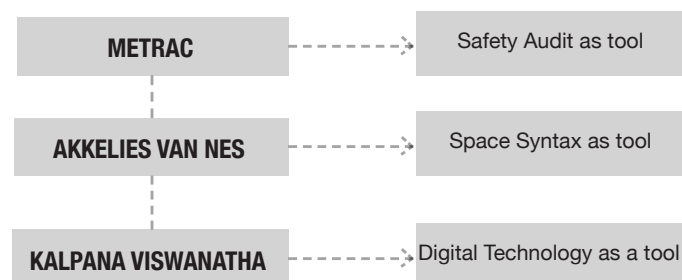


*Figure II.11*: *The practical approaches that taught which tools can be adopted to research the spatial aspects in this thesis. Also one of it suggests how it can be combined with the design interventions further.*

## Conclusion

The respective theories and concepts focuses on the keywords of proximity, movement, citizen participation, participation at government level, mixed use public spaces and streets, safe environments and inclusive spaces. This moves me to have a structure about some safety principles.

## 4.4 Research by Literature (Safety Principles)

### (i). Defensible Spaces

The defensible space theory is about creating the environment and urban spaces in order to enhance safety and vigilance (Newman,1970).

Four principles to remove fear from Women's mind by Newman-

There are four principles which can be applied to eliminate fear from the mindsets of women almost immediately:

1)**Natural Surveillance:** An attempt to make spaces safer through continuous eyes at all times of the day by proposing landuses/activities that keep the spaces active throughout the day. This discourages anti-social behavior and instills a feeling of safety.

2)**Access Control:** Controlling and surveillance of the public spaces through regulating the entry/ exit locations through physical or visual barriers.

3)**Ownership:** Spaces that are owned by a certain authority are continuously under vigilance and thus give a feeling of security. The authorities are meant to act responsibly for the events and activities in such spaces. Thus, such spaces are accessed with ease in comparison to spaces which are not taken care of.

4)**Maintenance:** One feels safe and secure in areas which are maintained and seem to be regulated constantly. The feeling towards areas that are taken care of are very positive and thus eliminate the fear of anti-social elements. This does not indicate complete safety but least it contributes towards the fear factor.

As explained in figure II.12 it is clear how crime can be prevented through environmental design and including features like transparency.

Discourage Landscape Barrier



*Restricted Viewing*    *Non-Restricted Viewing*

*Transparent Bus Stop Skin*    *Interactive Windows*
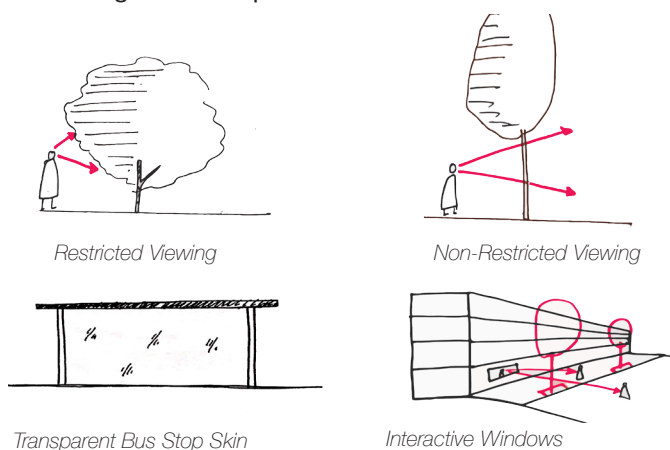
*Figure II.12: Crime prevention through environmental Design*
*Source: by author*

Elimination of **blind walls** to routes in the streets of the daily network is one of the important actions from the guidelines of Col.lectiu Punt6 who proposes to have a safe network of places visited by women (Gutiérrez et al., 2016). An important finding in Death & Life of Great American Cities is about making streets more open and safe. For which transparency of the walls have been talked about explicitly(Jacobs, 1961)

### (ii). Lighting:

The mixed use streets are considered to be safe only when there are many residential uses on the ground floor. In the night time when the shops close active residential slots can help making public spaces safer. In case of a street more towards commercial side is considered unsafe at night(Hillier & Sahbaz, 2008). Lighting is considered as a very important safety parameter also by the Safetipin organization (Viswanath & Mehrotra, 2007).

### (iii) Wayfinding in Safety:

The design principles proposed in Image of the City links to imageability of space and the reading capacity of the street. It requires signs/signages at the points of decision and clear sight lines. The material used can be same for connecting important destinations as indicated in figure II.13 (Lynch, 1972). Collec-tiu punt 6 also suggests the importance of wayfinding of women with signages (Gutiérrez et al., 2016). The cognitive compatibility and wayfinding recognition is different for sexes. Women depend more on the landmarks and signs (Lawton & Kallai, 2002)
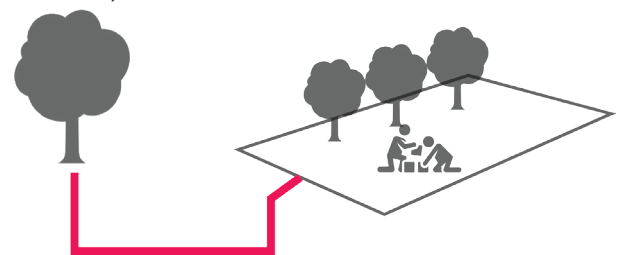


*Figure II.13 : One color or material connects two destinations.*
*Source: by author*

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## 4.5 Research by Literature ( Socio-cultural anthropology)

Women and men have different movement patterns in a city as identified now in many researches, to refer to one will be the Vienna Development Program (Foran, 2013). Figures II.14 shows the movement patterns in India by men and women in the city.
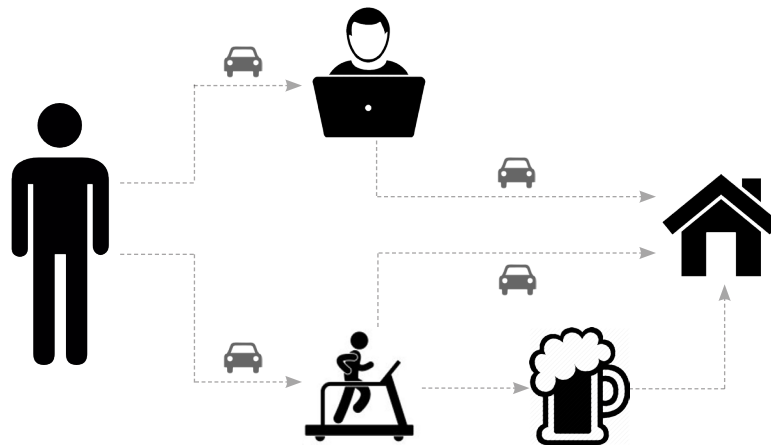


*Movement of men at different levels in a city*
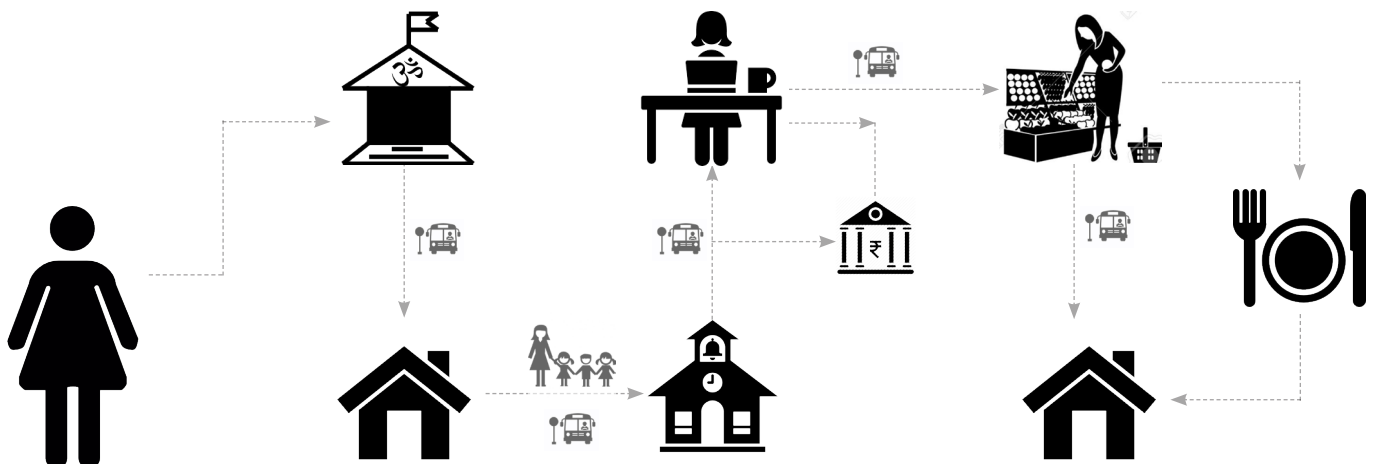**Source**: *Made by author*



**Figure II.14** : *Movement of women at different levels in a city*
**Source**: *Made by author*

Dolores Hayden states clearly in her paper that the movement of men and women are different and that a women has to travel a lot many places than men usually. Also the first private car that comes in a family follows a general trend to go to the male member and female generally take up the public transport.

The women has to use public transport more and therefore it should be planned according to the needs of the women as well. The first need of them is safety in a public transport as identified by UN Women that fear of being unsafe is one of the biggest rivals of women movement in a city.

# 5. Research by Best Practices

## 5.1 Digital practices - Social Awareness & Actions
### #Walkalone & #WhyLoiter

#WalkAlone

A volunteer-run collective called Blank Noise has been working against street harassment since 2004. In June, it launched a campaign – #WalkAlone – to encourage women to reclaim public spaces as in figure II.15. Women are being asked to walk alone to places they have never visited, or have been warned about. The campaign is urging women to undertake the challenge at any time of the day, for three weeks, humming a song, daydreaming, with hands unclenched, shoulders relaxed, until they get back their right to walk without fear(Agarwal, 2016)
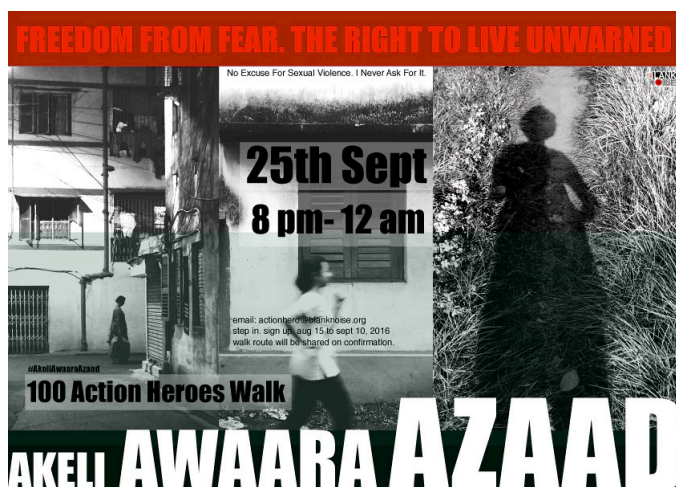


*Figure II.15 : A Blank Noise poster demanding freedom from fear and the right to live unwarned. Akeli Awaara Azaad means to be alone, an unattached wanderer and free. Photograph: blanknoise.org*

#Whyloiter?

Pukar Organisation, Mumbai- The Gender and Space Project focuses on gender as a category to examine the ordering and experience of the city and its varied spaces, particularly public space. Public space in the context of the study refers to public places, ranging from streets, public toilets and market places to recreational areas and modes of public transport. The project is located in and focuses on the city of Mumbai(Phadke et al., 2009)
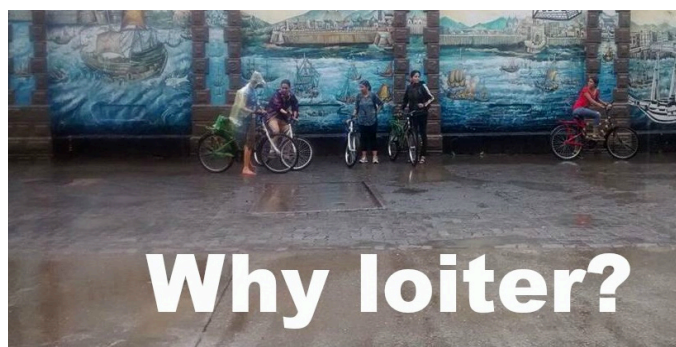


*Figure II.16: Don't stay out after dark. Avoid empty streets, and never loiter around on the streets or in parks. Don't invite trouble! is the message this group of girls want to contradict.*

## 5.2 Seoul Gender Inclusive City
### (towards inclusiveness, safety and equity)

Existing City Strategy :-

The existing women related policies in Korea mainly targeted at the improvement of the socio-economic status of women, and gender equality. But, the authorities also felt that the present policies in Korea had little consideration of a woman's perspective and experiences pertaining to roads, transportation, and cultural aspects. This led to inception of the Women-friendly City Project which was focused to improve the city spaces by reflecting women's perspectives in all city policies and thereby facilitating their day to day urban life. Around 90 sub-projects came up in 5 areas. The objectives of the Women-friendly City Project were broadly represented as :-

-Resolving the factors that cause inconvenience, discomfort and uneasiness in their daily lives.
-Enhancing women's rights and helping women achieve their potential.



*Figure II.17 : Seoul Women Friendly Campaign*
*Source: http://www.seoulwomen.or.kr/nhpeng/archives/policy*

Vision :-

Gender equality
Women's independence
Women's health
Women's safety
Safe environment for women
Women's wellness

Proposed Strategy :-
In order to achieve the objectives, the Project was divided under five major aspects:

1.Women and Family Policy Affairs
which emphasized on the different ways to help career-interrupted women regain employment. Provision of affordable yet high quality daycare facilities was a thought that was involved.

2. Green Seoul Bureau
Building parks with women-friendly amenities. This is of significant interest to this study from the successful project which has showcased to the world how to create parks that are safe for a woman by using simple mechanisms.

**Existing City Strategy :-**

**3.City Transportation**
Parking zones and Public Transport systems were featured to be amongst the most feared zones for women on survey. This called for a creation of safe and easy parking systems for women drivers and attempt to encourage women to travel by para-transit and public transit at night through strengthening the existing system

**4. Seoul Metro**
The reliability and safety of metro services were studied and accordingly proposals to revamp existing system considered.

**5. Protection**
Another important aspect was the creation of crime free zones. The process involved participation of female citizens from policy making to implementation. 244 experts and professors were consulted during policy making. 200 women (workers and housewives) were involved in on site monitoring.


*Figure II.18* : Image taken at one of the designed parking lots in Seoul
*Source*: Women Friendly Seoul Project Report

**Projects Executed for safety of Women (towards safety)**

The projects that were executed for the safety of women in the city included:

**1.Women-Friendly Parking Lots:** 56,000 parking lots that give first priority to female drivers (7.9% of around 7,00,000 slots in 13,00 parking lots. And installation of CCTVs and emergency bells in underground parking lots along with improving lighting as seen in figure II.18

**2.Women-Friendly Roads -** Existing roads were improved in terms of their quality and safety through installation of more CCTVs and increasing the lighting to 30 lux. Separating resting spots from pedestrians to give more privacy.

CCTVs though is a very skeptical term to be used as we do not know how much of use is it.

**3.Women-Friendly Parks -** Parks, the most feared zones were made accessible by provision of good lighting of the parks and the pedestrian pathways, removal of visual barriers, safe and cleaner public toilets and parking lots. This can be visualized in figure II.19 and II.20

**4.Women-Friendly Built Environment -** Crime prevention systems, such as windowed (transparent) elevators, in consideration for safety. Building childcare facilities along with female bathroom facilities. Subway ticket gates were modified for stroller use.

**5. Safe Seoul without Blind Spot**

That SMG is responding actively to crimes in daily life, including spy cams and dating violence, which are increasing. TFs will respond to each type of crime and engage in consultation and education for preventive measures, and will implement reinforcing countermeasures as a result.


*Figure Ii.19* : Pathways and parks along with roads designed as per safety guidelines of the policy.
*Source*: Women Friendly Seoul Project Report

**6. Women to Play a Key Role in Overcoming Disasters**

The SMG will enhance related infrastructure for women to act more actively and respond for safety. The Disaster Preparedness Manual and Safety Experience Center will be reanalyzed with perspectives of women to provide and reinforce resulting educational benefits.


*Figure II.20* : Pathways made inside the parks.
*Source*: Women Friendly Seoul Project Report

## 5.3 Jagori- Safe Delhi Campaign (towards safety)
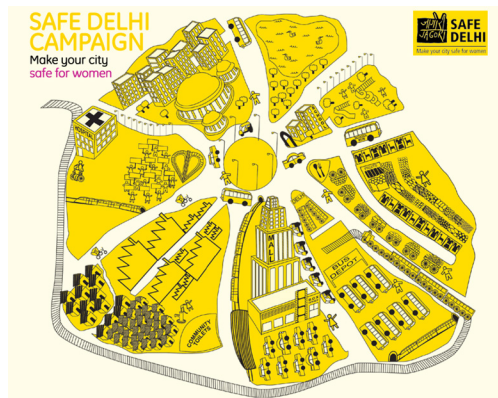


*Figure II.21:Safe delhi Campaign started by Jagori as an initiative to make the city a better place.*

### JAGORI

In the year 2009, Jagori in partnership with UN Women and Department of Women and Child Development launched the 'Safe City Free of Violence against Women and Girls Initiative'. The goal of the initiative is: " Cities where women and girls are able to move around freely without the fear of harassment and violence at all times and enjoys what the city has to offer".

JAGORI undertakes action-research that serve as the basis for focused advocacy and women-led interventions in the community. These studies raise crucial questions regarding the centrality of women-centered perspectives that need to be brought to the attention of policy makers and implementers. These studies are aimed at supporting the struggle of the community to claim their rights and entitlements as citizens of Delhi (Jagori,2015).

A safety audit is a process whereby individuals and groups can assess a space to see what makes it safe or unsafe for use. There is a checklist which has now been converted into a rubric for the safety app. Jagori, has bought four smart phones, which they have used to train community youth and women to do safety audits with. This also serves the purpose of building the capacity of women and youth in these communities.
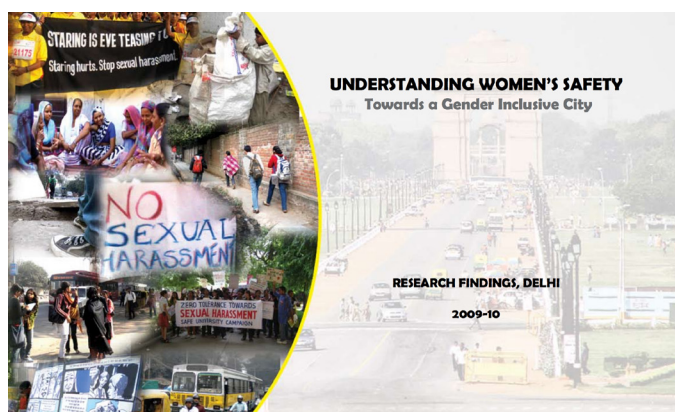


*Figure II.22 :Safe delhi Campaign started by Jagori as an initiative to make the city a better place.*

## 5.4 Safety Audits & Space Syntax (towards safety)
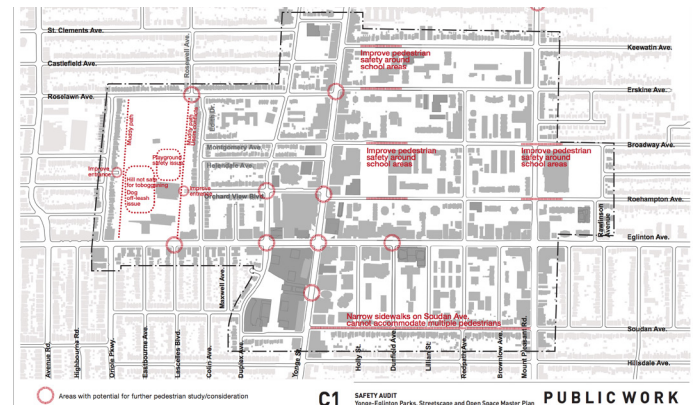


*Figure II.23:The first safety audit done in Canada and has been repeated all over the world since then.*

### First Safety Audit, Toronto

The safety audit method as seen in figure II.23 was first developed in Canada by METRAC (the Metro Action Committee on Public Violence Against Women and Children), and has been successfully used across North America, Australia and Great Britain, to evaluate perceived risk in the urban environment.
(METRAC, n.d.)

### Space Syntax Analysis
As identified by Akkelies Van Nes space syntax is a method and a tool that can be used for the analysis of the streets through visual sight lines to calculate the spatial configuration of built environments and can be applied on a wide scale level in research on built environments. It is able to identify the streets' spatial features for vital shopping areas, crime distribution, various social classes' spatial preferences, etc.(Van Nes, 2011).

Safety Audits information has to be analyzed and overlapped with space syntax map to find conclusions.



*Figure II.24 :This is an illustration representing space syntax techniques for the analysis of safety on the streets.*
*Source: Dr. Akkelies van Nes*

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## 5.5 Vienna
### (Towards accessibility & inclusiveness)



*Figure II.25:Slope introduced as a design intervention to increase the accessibility for women with children and handicapped in Vienna*



*Figure II.26: The redesigned park in Vienna according to the requirements to increase inclusiveness in the space.*

Figure II.25 shows a  gigantic staircase with a ramp running through the middle was installed near a major inter-section to make crossing easier for people with strollers and individuals using a walker or a wheelchair. Additional lighting was added to make walking at night safer for women. Side-walks were widened so pedestrians could navigate narrow streets.

Women-Work-City was also built keeping in mind the requirements of the women. It consists of a series of apartment buildings surrounded by courtyards. Circular, grassy areas dot the courtyards, allowing parents and children to spend time outside without having to go far from home. The complex has an on-site kindergarten, pharmacy and doctor's office. It also stands in close proximity to public transit to make running errands and getting to school or work easier, by making it much more easier for the working women with kids.

The study, which took place from 1996 to 1997, showed that after the age of nine, the number of girls in public parks dropped off dramatically, while the number of boys held steady. Researchers found that girls were less assertive than boys. If boys and girls would up in competition for park space, the boys were more likely to win out.

In 1999, the city began a redesign of two parks in Vienna's fifth district as seen in figure II.26. Footpaths were added to make the parks more accessible and volleyball and badminton courts were installed to allow for a wider variety of activities. Landscaping was also used to subdivide large, open areas into semi-enclosed pockets of park space. Almost immediately, city officials noticed a change. Different groups of people -- girls and boys -- began to use the parks without any one group over-running the other.

People have started to pay attention. In 2008, the United Nations Human Settlements Pro-gramme included Vienna's city planning strategy in its registry of best practices in improving the living environment. Vienna's park redesign project, along with a program to create a

nominated for the United Nations Public Service Award, a badge of honor recognizing efforts to improve public administration(Foran, 2013).

The Vienna government has taken steps for gender mainstreaming and in terms of road safety and planning they can be followed in the following manner :-

### Gender aspects in road safety

*Sidewalks*
- Minimum sidewalk widths as large as possible, at least two meters.
-Pavement subsidence in the crossing regions, heel height of about three centimeters.
-Sidewalk Shifts for more mounting surfaces and a better view.

*Safety*
-Lane divider for large or heavy traffic lane widths to allow the secure cross the road in two stages.
-Roadway increases as speed brakes, and for the same level crossing of intersections.
-Fewer bottlenecks, for example loading areas, traffic signs, street furniture, masts.

*Public transportation*
-Bottlenecks to traffic in the bus stations, so pedestrian can safely cross the road.
-Wider stops
-Gender aspects in relation to the quality of stay.
-Sufficiently large areas for pedestrian traffic.
-Attractively designed floor coverings, especially in the pedestrian zones.
-More seating to relax and disengagement.
-Less anxiety spaces through better lighting
-Drinking fountain
-Measures for the "playing on away", for example dribbler, smarties.

**5.6 Collective Point 6, Barcelona (towards Co-Working & Co-Responsibility)**

Col·lectiu Punt 6 (Collective Point 6),is a cooperative of architects, sociologists and urban planners of different origins with more than 10 years of local, national and international experience. The goal is to make our cities more inclusive and make the people who inhabit them the experts of the spaces that surround us.
This catalonian community works towards the betterment of the women and making the city for them. The main principles they work on are :
- Mutual Support
- Interchange /Sharing of knowledge
-Projects based in real needs (Real innovations)
-Work together and have responsibility

Along with the standard and conventional themes of gender sensitive urban design of safety, this team strongly thinks that co-working and co-responsibilities can change the environment for the women completely where she can be more free.

The 6 main strategies for generating a gender inclusive environment (AnneMichand,2001)

1. **Signage:** Know where you are and where you want to go.

2.**Visibility:** See and be seen

3.**Sound:** The concurrence of people listening and being listened in the public environment.

4.**Security:**Access to formal aid to escape & help from environment.

5.**Planning & Maintenance:** Clean & Welcoming Environment

6. **Participation :** Community work



*Figure II.27 : Aspects of Gender Mainstreaming by Punt6*
*Source: by author*

## Do you know Col·lectiu Punt 6?

More than a decade rethinking spaces from everyday lives experiences and for a feminist transformation.



*Figure II.28 : A view from a proposed project in Barcelona,Spain.*
*Source: http://www.punt6.org/en/*

## 6. Temporary Urbanism (towards Co-Working & Co-Responsibility)


Yaraville Pop-Up Park, Australia


Temporary Activities to liven Street, Australia (Better Build Block)


Guirrella Gardening (Neighborhood)


A collectifetc installation

Figure II.29 :Temporary Urbanism examples.

Temporary Urbanism is a new approach that is coming up to rectify the problems and issues that are coming up in the urbanism world. These are short term actions which will have a long term impact. Temporary Urbanism includes a lot of terms like DIY Urbanism, Tactical Urbanism,etc. but tactical urbanism approach is what I will be using in the project as it is the long term impact planning. A lot of research has been done on  Tactical Urbanism projects that respond to outdated policies and planning processes with innovative transportation, open space, and small-scale building initiatives. These projects often result from the direct participation of citizens in the creation and activation of their neighborhood, or the creative work of formal entities, such as nonprofits, developers, and government. Collectively, they demonstrate time and again that short-term action can create long-term change (The Street Plans Collaborative, 2016).

Tactical Urbanism is an approach to neighborhood building that uses short-term, low-cost, and scalable interventions and policies to catalyze long term change.

Whatever the time interval, this approach is all about action. Also known as DIY Urbanism, Planning-bydoing, urban acupuncture, or Urban Prototyping - Tactical Urbanism refers to a city, organizational, and/or citizen-led approach to neighborhood building using short-term, low-cost, and scalable interventions to catalyze long-term change.

The main objectives of using tactical urbanism are as follows:-

*Inspire* action and expedite project implementation.

*Draw attention to perceived shortcomings* in policy and physical design, and allow people to physically experience alternative options.

*Widen public engagement*. As noted in Planning by Doing by Gehl Studio, Tactical Urbanism projects allow for feedback to be expressed through use and demonstrated preferences, rather than stated preferences alone.

*Deepen understanding* of local user's needs at the neighborhood, block or building scale.

*Gather data* from the real-world use of streets and other public spaces.

*Encourage people to work together* in new ways.

*Test aspects of a program*, project or plan before making large political or financial investments.
Iterative design is welcome as part of the process.

The bottom-up approach main objectives can be overlapped with the objectives of the gender sensitive urban design.
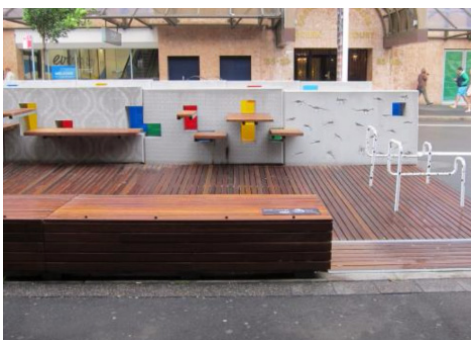

Location: Sydney, NSW, Australia


The scales of interventions show here on which the project is implemented

# 7.Theoretical Framework

| Gender Sensitive Urban Design | | |
|---|---|---|
| **Activism Literature** | **Gender & Space** | **Best Practices (Spatial)** |
| *-Right to the City*<br><br>*-Reclaiming & Re-appropriation*<br><br>*-Cultural Impact*<br><br>*-Improving Economic Status*<br><br>*-Citizen Engagement*<br><br>*-Protests* | *- Community Opportunities*<br><br>*- Participation of Citizens*<br><br>*- Inclusiveness*<br><br>*- Wayfinding*<br><br>*- Territoriality of Space*<br><br>*- Movement* | *- Co- Working & Co- Responsibility*<br><br>*- Participation of Citizens*<br><br>*- Sound of being heard*<br><br>*-Planning & Maintenance*<br><br>*-Public Participation*<br><br>*-Innovation*<br><br>*-Digitalization* |

- Reclaiming Spaces

-Community Engagement

-Integration of the community

-Co-working & Responsibility

-Participation of actors

-Planning & Maintenance

**Community Building**      **Co-Working & Co-Responsibility**

**Re-appropriation of Spaces**      **Participation of Stakeholders**

**Gender Sensitive Urban Design**

| Safety Approaches | Tools for Research | Tools for Design Implementation |
|---|---|---|
| *- Natural Surveillance* | *-Space Syntax* | *-Temporary Urbanism* |
| *-Transparency* | *-Social Media Awareness* | *-Tactical Urbanism* |
| *-Openness* | | *-DIY Urbanism* |
| *-Visibilty* | | |
| *-Signages* | | |
| *-Accessibility* | | |

- Inclusiveness

- Accessibility

-Safety in general

**Bottom-Up Approach**

-Temporary Urbanism
-Social Media
-Digital Technology

**Safety**

**Inclusiveness**

**Digital technology**

**Temporary Urbanism**

# III. SITE ANALYSIS

# 1. Introducing Delhi-as an Urban Space



*Figure III.1 : Impact of neighboring statesv*

**Source:** *Made by the author*

**Delhi:-**

Delhi (Dilli), officially the National Capital Territory of Delhi (NCT), is a city and a union territory of India. Demographics of Delhi as per Census 2011, the population of Delhi is 16.7 million comprising 7.8 million (46.46%) females and 8.9 million (53.54%) males. Delhi has a GDP of US$67 billion as in 2014-15 "Department of Dte. of Economics &amp; Statistics," 2015).

**Impact of Nearby States:-**

The states nearby, Rajasthan, Haryana and Uttar Pradesh has the maximum influence on the city of Delhi and even vice versa. Most of the satellite towns are found in the states of Uttar Pradesh, Rajasthan and Haryana. The cultures brought in are from all over the India but these states have maximum impact.

NCT (1.483 sq.km)
CNCR (3.718 sq.km)
NCR (33.000 sq.km)

Netherlands (41.500 sq.km)
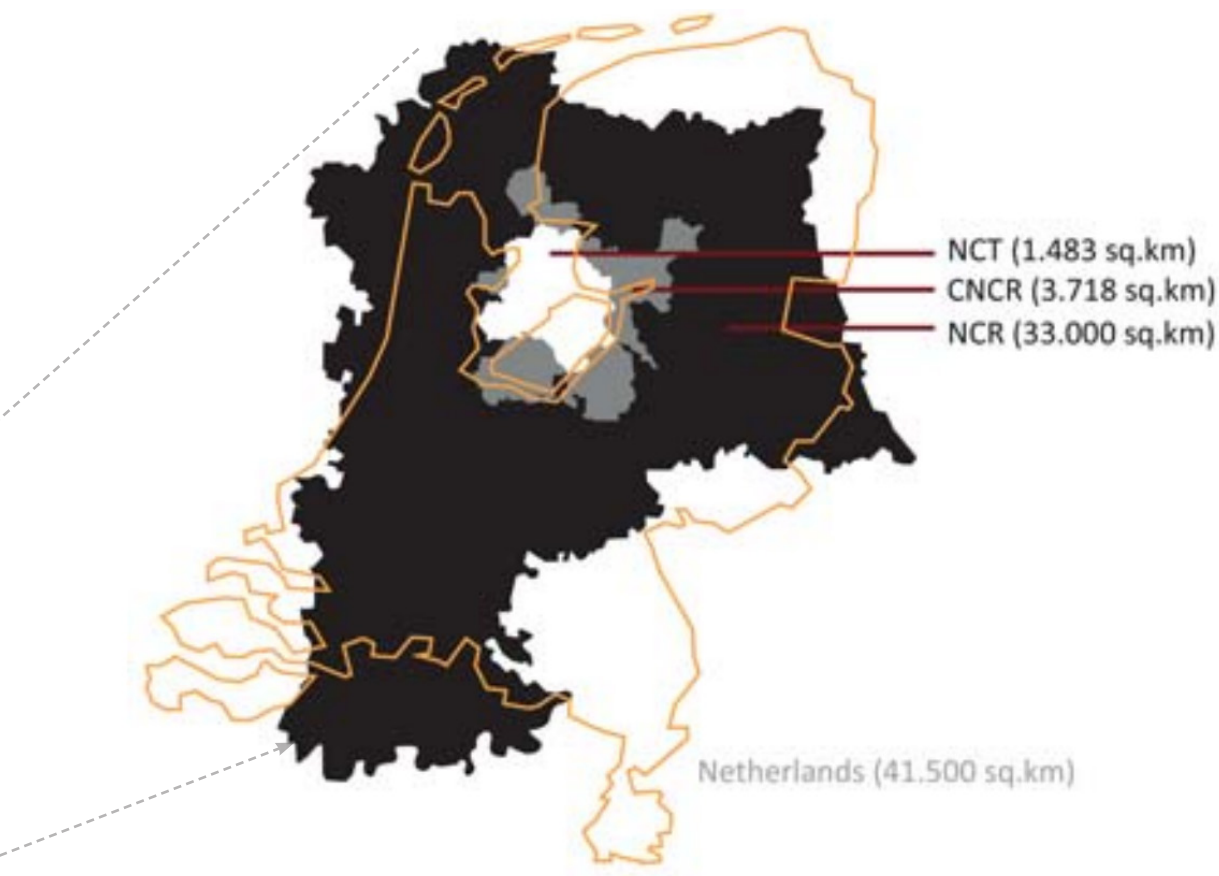
*Figure III.2 : Scale of Delhi as compared to the Netherlands*
*Source:http://venhoevencs.nl/wordpress/wp-content/up-loads/2012/01/20130318_Delhi2050_Ipad.pdf*

Figure III.2 shows the scale of Delhi as compared to the Netherlands.



*Figure III.3: Expansion of Delhi till 2021*
*Source:http://venhoevencs.nl/wordpress/wp-content/up-loads/2012/01/20130318_Delhi2050_Ipad.pdf*

Figure III.3 shows expected expansion of Delhi by 2021. The South of Delhi therefore becomes even more popular area thereafter. Its connection with Gurgaon, a satellite town will be stronger and that is connection one of the weakest when it comes to women safety and inclusiveness.

## Connectivity
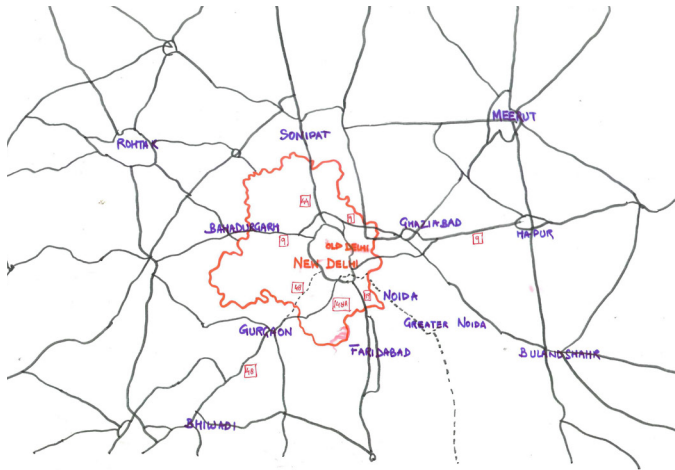


*Figure III.4 : Highway map*
*Source: Made by author*

### Satellite towns

Gurgaon and faridabad in the south, Noida and Greater Noida in the south east and Ghaziabad in the east are the main satellite towns of Delhi. Noida, Gurgaon, faridabad and ghaziabad all the cities are declared as non gender inclusive cities.

All the satellite towns are as infamous for women as Delhi. The trends set in Delhi expands all over the NCR region very quickly. So the at a regional level for the movement that I am working on can spread through these satellite towns after Delhi.

The crime rate in NCR is higher than Delhi though the reported cases are lower (S, 2015).  But the reason behind choosing Delhi is that it is a city with more NGOs and international organizations working. For a project where an issue as sensitive as gender is to be touched we will be needing people who have a broader view and can be a part of the stakeholder team. It is important to study the cultural diversity of Delhi.
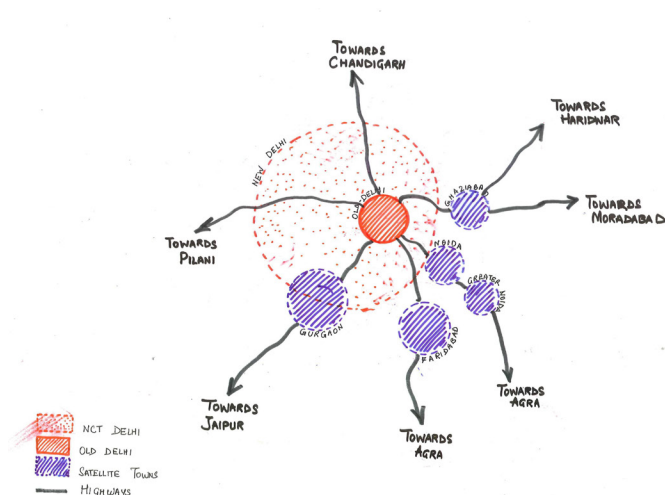


*Figure III.5 : Connection with rest of India*
*Source: Made by author*

## Cultural Diversity in Delhi



*Figure III.6 : Languages used in Delhi*
*Source: Made by author*

▢ Official Languages in Delhi

▢ Other Languages Spoken

### Languages

Delhi has very diverse culture with approximately more than 100 languages spoken all over the area. Hindi is the most used language by 80% people, followed by English, Punjabi and Urdu as mentioned in figure III.6 . English is understood by almost 80% people in Delhi. Since Delhi is the capital and surrounded by different states, its culture, religion, languages, festival are really diverse and distinctive.

| | | |
|---|---|---|
| Hinduism | ▬ | 81.68% |
| Muslims | ▬ | 12.86% |
| Sikh | ▮ | 3.40% |
| Jains | | 0.99% |
| Christians | | 0.87% |
| Others | | 0.12% |

*Figure III.7 : Religion Percentages in Delhi according to survey in 2011.*
*Source: Made by author*

### Religions

The Hindu population of the city is the highest and again religion wise as well the area is very sundry mixed with other religions such as muslims, sikhs, jains, christians and others.

The religious and cultural issues are an important and vital discussion that has to be a part of the site study as cultural hurdles are an integral backface of the spatial problems in a neighborhood in India.

# Safe/Unsafe Areas - (Safetipin Map)
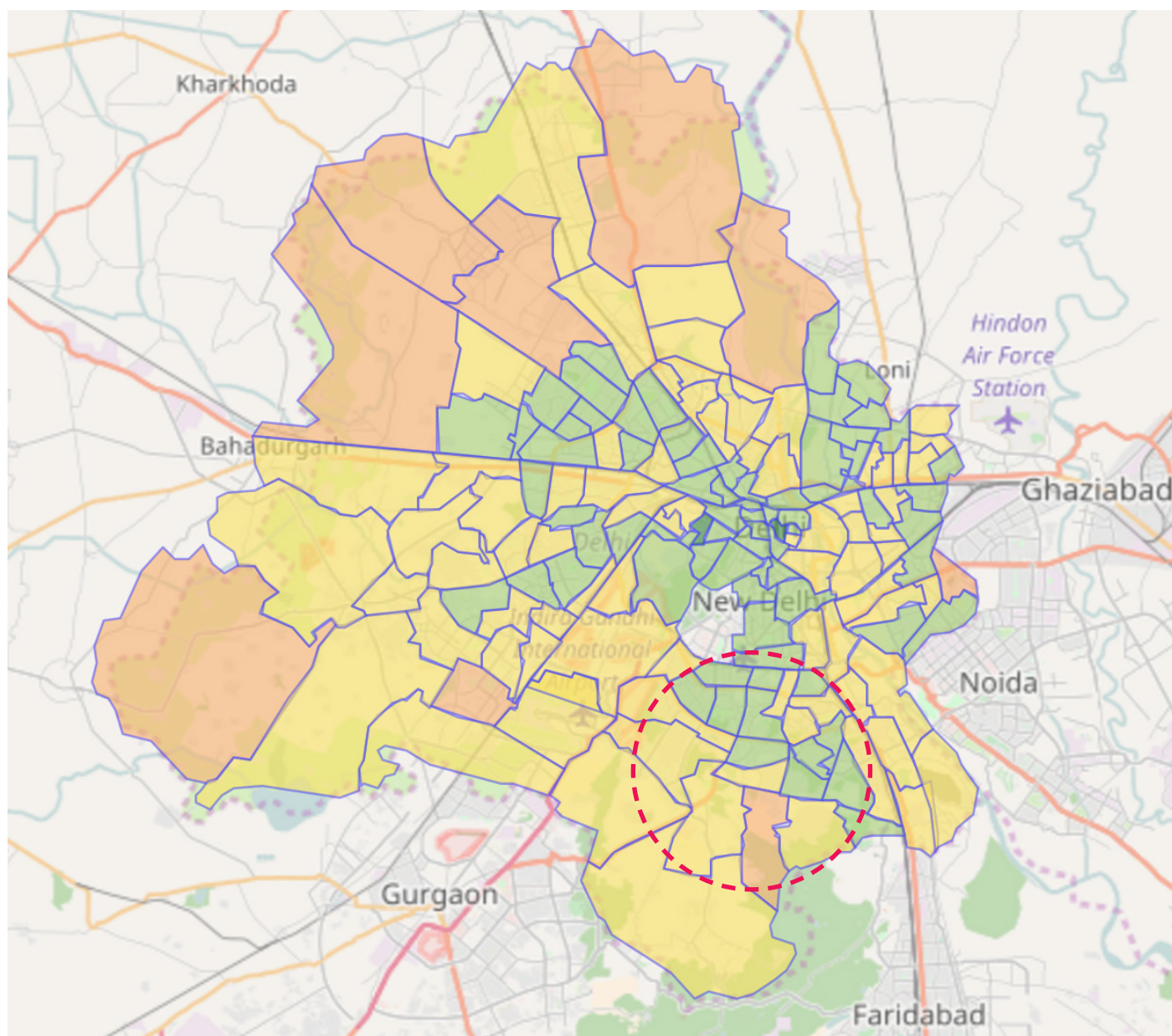


*Figure III.8 : Safe Unsafe area in Delhi*

*Source: http://www.safetipin.com/resources/files/Delhi_Report.pdf*

| Very unsafe | Unsafe | Comparatively Safe |

SafetiPin is a social enterprise providing a number of technology solutions to make the cities safer for women and others. They use apps to collect information and engage with individuals, and provide back end solutions for large scale data collection and analytics. They work with governments, NGOs, city planners, international agencies and corporates, to provide and use safety data for change.

At the core of the app is the Safety Audit. It consists of a set of 9 parameters that together contribute to the perception of safety. Each audit results in a pin on the specific location where the audit was performed and also records the time and date. The colour of the pin is red, orange or green based on the measure of the parameters. Based on audit data in an area, a Safety Score is generated.

Security is scored lowest of all the audit parameters, followed by gender usage. This graph reinforces the fact that visible,security,both public and private,is poor in the city and less women are present in public spaces, especially after dark. While there is not much significant difference among the regions, the Central area scores higher in several parameters. Interestingly,north Delhi also scores higher is some parameters. West Delhi appears to have lowest score in all parameters except in gender usage, where South Delhi has an even lower score.

South Delhi is not the most unsafe zone as per figure III.8 in Delhi where gender usage is found to have the lowest score. Also Delhi South is an area that comes under the main jurisdiction and changes will be applied here earlier than any other area as it is considered to be one of the

## Delhi South & Malviya Nagar
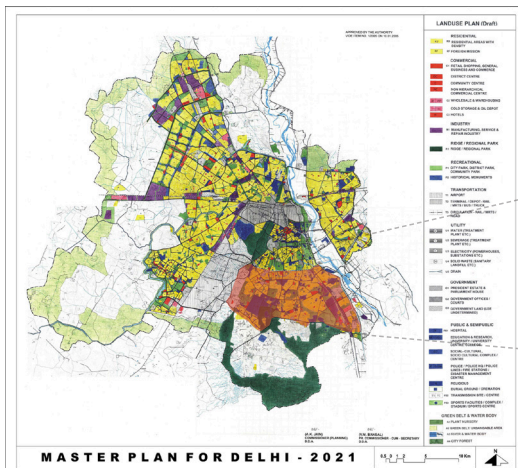


*Figure III.9 : Delhi Master Plan*

*Source: http://delhi-masterplan.com/*
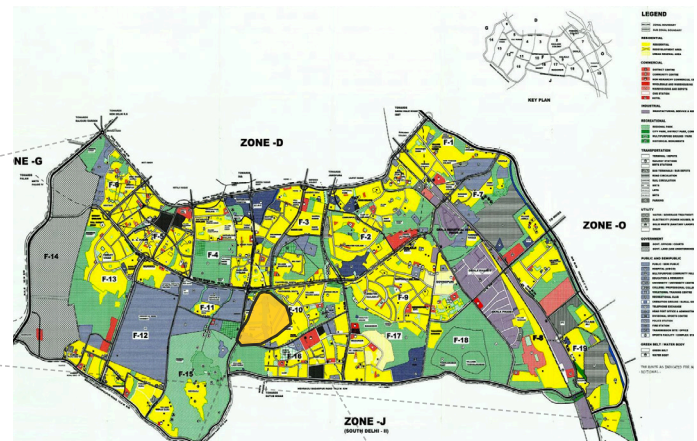


*Figure III.11 : The location lies in zone F-10 in Zone-F Masterplan 2021*

*Source: http://delhi-masterplan.com/zonal-plans-mpd-2021*
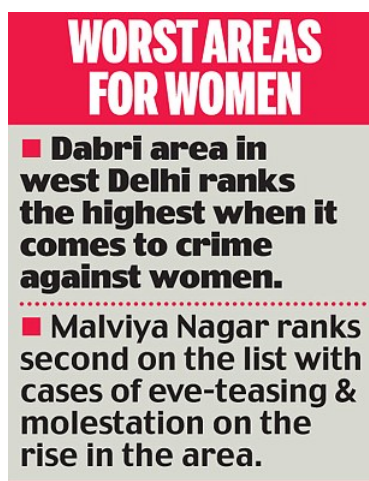


*Figure III.10 :Articles on unsafe public spaces for women in Malviya Nagar*

*Source: http://www.dailymail.co.uk/indiahome/indianews/article-2606279/Crime-map-shows-Delhis-rural-semi-urban-areas-unsafe-women.html*
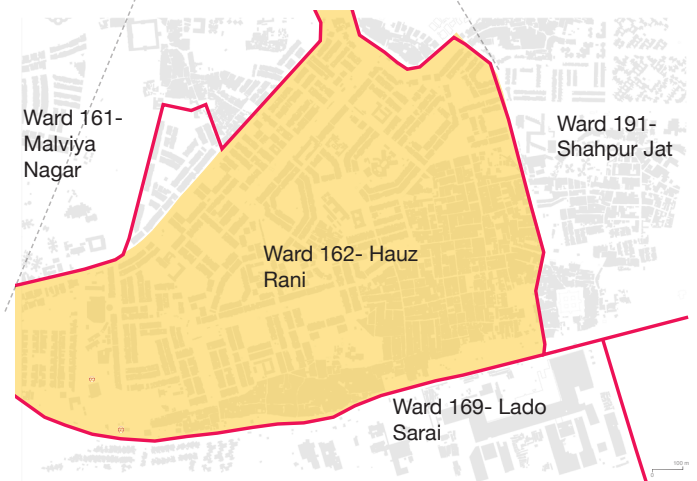


*Figure III.12 : The 4 wards surrounding the site though the location is part of*

*Source: made by author ( http://indikosh.com/ward/68416/dmc-u-ward-no-0162)*

The chosen location of south Delhi is due to unsafe areas according to safetipin application and also personal interest as I am most acquainted with these zones. Though I will focus more after my research on site to the neighborhood level.

The focus is take on the south Delhi as I am connected more to the place and know more about it as I have myself experienced cases here. Other reasons for taking Delhi-South is that a movement starts where people have same mindsets. Delhi South is a region that has millennial and would help in promoting the and spreading the project. The main points would be:

1. Part of Unsafe Zone
2. The region houses maximum number of young girls (residents and migrated Population).
3. This area is a mix of HIG, MIG and LIG
4. A politically affluent region marks as an example for other areas.
5. Personal interest as familiar with the area.

In the context of Urban Delhi, Zone-F is identifiable with it's low density green character. This zone is mainly comprised of planned, well maintained posh residential localities. This also included rehabilitation colonies and Government housing areas. This Zone is situated in the south of Zone-D.

Malviya Nagar that is the part of the Zone-F is declared to be one of the worst areas for women. Malviya Nagar being part of one of the posh locality is still high on crime against women. Even though this is a region where girls from the whole country come and reside.

### About the women:-

Malviya Nagar ranks second after the crime report of Delhi was generated in 2015. from the information collected by the various sources of newspapers and crime report by NCB of India, it has been seen that the women vulnerable are mostly the ones in age group 15-40 yrs.

# 2. Why Malviya Nagar?
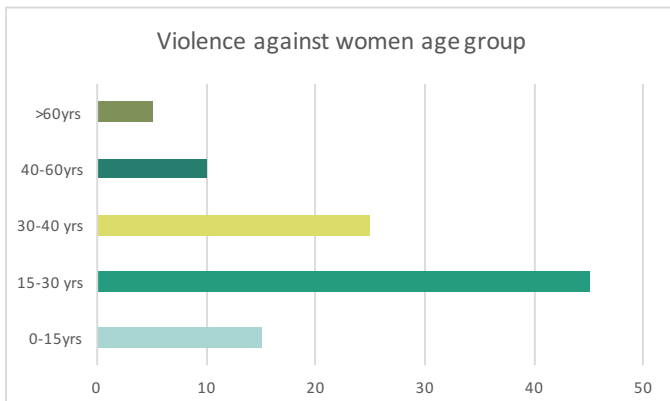


Figure III.13 : Graph showing that mostly young women are the target group

Source: made by author (http://www.asianage.com/delhi/unsafe-delhi-six-women-raped-daily-says-police-043)
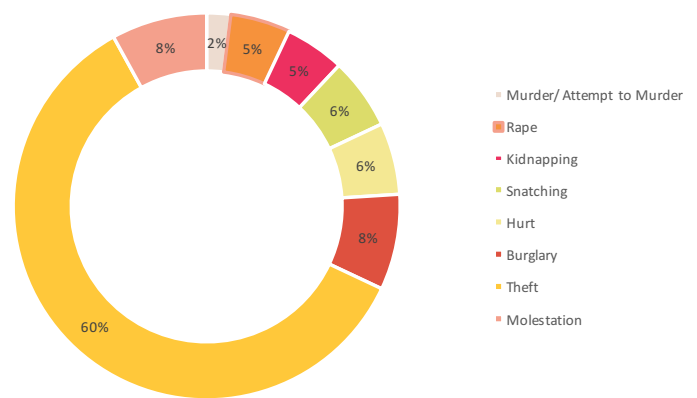


Figure III.15 : Most of the criminal cases include theft , burglary and molestation.

Source: Made by author ( information derived from Malviya Nagar Police station)

There are several factors which have led to an unsafe condition in place of Malviya Nagar. There are two kinds of crime which are observed which makes the security of the space a threat in general:

**Organized Crime:** Drug Peddling, Prostitution

**Drug Peddling:** Khirki Extension is commonly known as the hub for drug peddling as there are Nigerian migrants who are involved in this business and they reside here as it's their source of income.

**Prostitution:** The area of Khirki and Khirki Extension has reported many cases of prostitution at the night time on the streets. Prostitution in India involves a lot of illegal activities along like illegally possessing places, people searching for call girls on the road, etc. As many female workers in Select City Mall reside in the area and enter there after hours, it becomes difficult for them to get to their home safely.

**Unorganized Crime:**
Eve teasing, mugging,molesting, attempt to rape, attempt to hurt, child kidnapping,passing comments, cat calling, fighting, rowdiness, stalking, gambling, drinking, attempt to hurt.

The age group of women that are residents of Malviya Nagar are mostly 18-30 years. This age group is the one against whom mostly the crime is performed.

**Occupation:**
The most common occupation of the targeted age group are either students, working in private or government sector. There are also women who are self employed.

**Target Group:**

The study found that out of total sample size of 555 respondents, 68% are in the age group of 18 to 30 years. While 19% are 31 to 45 years old; only 5% of them belong to the age groups of 46 to 60 years and 7% are above 60 years old. In other words, 87% women who are living alone are in the age group of 18 to 45 years.

The data and analytics show that the area is high in crime rate and gender usage. The two main issues that come from this analysis are that the neighborhood is high on crime and is inhabited by many working women who face sexual harassment and molestation on the streets.



Figure III.14: The Pie Chart shows the Age Group of women living alone in
Source: made by author (Report- Alone in the City by HDS, India)
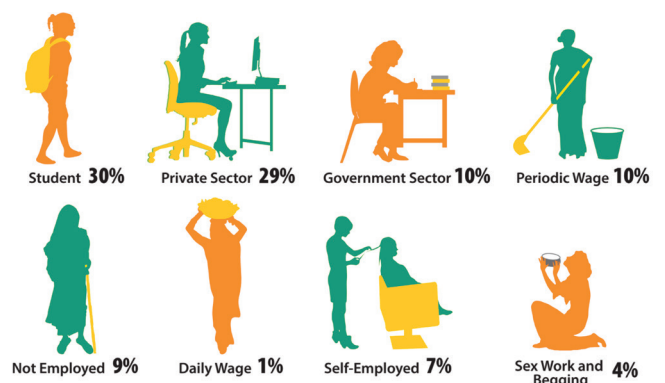


Figure III.16 : Different Occupation of Women in the neighborhood.
Source: made by author ( Reference- HDS Report)

# Cheap Residential Area- Malviya Nagar



*Figure III.17* : *Destination Map showing close proximity of the area offering cheap Paying Guest Services*
*Source*: *made by author*
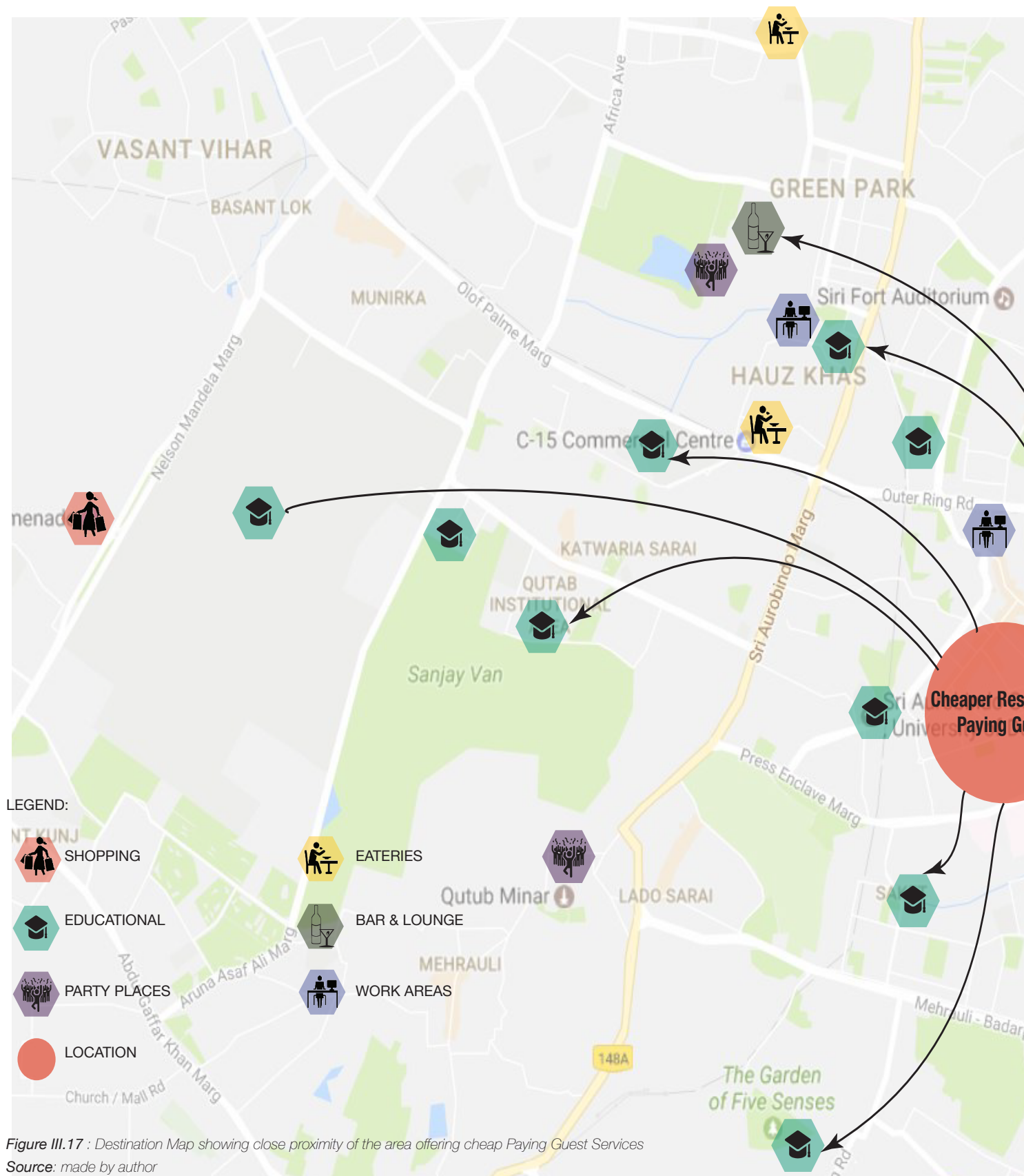
**Destination Map of Cheap Residential Area (Malviya Nagar):**

This destination map clearly shows how the location of Malviya Nagar supports proximity and cheap places to stay and live. It caters to colleges like Shaheed Bhagat Singh, IIT Delhi, etc. Also people studying in JNU lives here. They go to Select City Walk, SDA Market and Hauz Khaz as recreational spots. The main observation to be noticed is that open spaces are not still considered as destinations to go and spend good time except a few parks in central Delhi.

EXTENSION

Jamia Millia Islamia

Lala Lajpat Rai Rd

EAST OF KAILASH

SUKHDEV VIH

GREATER KAILASH I

Lotus Temple

NSIC Exhibition Complex

SIRI FORT

Hans Raj Gupta Marg

PLACE

GREATER KAILASH

Nehru Pl Rd

Ma Anandmayee Marg

KALKAJI

OKHL HA

idential uest

OKHLA INDUSTRIAL A

Lal Bahadur Shastri Marg

Alaknanda Rd

OKH

WALK

PUSHP VIHAR

DAKSHINPURI

TUGHLAKABAD EXTENSION

pur Rd

Mehrauli - Badarpur Rd

Central Ave

HAMDARD NAGAR

Tughlakabad Fort

1Km

0

It can be seen how Malviya Nagar is being used as a place to stay for the girls going to work, college or teaching. It is a famous cheap paying guest house area also for the male students and professionals. Full of the youth, it is near to the JawaharLal Nehru University which is considered to be the hub for demostrations,

protestations, activist movements and rallies.

# Malviya Nagar Demographics
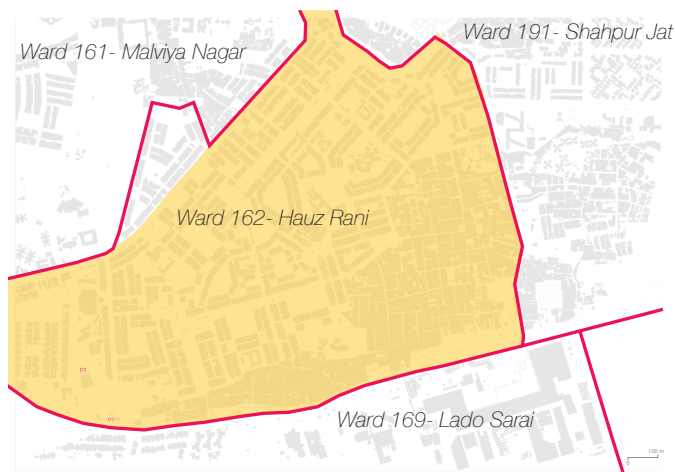


Figure III.18 : The 4 wards surrounding the site though the location is part of ward number-162 Hauz Rani

*Source: made by author ( http://indikosh.com/ward/68416/dmc-u-ward-no-0162)*



Figure III.19 : The 4 wards surrounding the site though the location is part of ward number-162 Hauz Rani

*Source: made by author ( http://indikosh.com/ward/68416/dmc-u-ward-no-0162)*

As per MPD 2021, the Zonal Plan for Zone 'F' was prepared for a population of about 19,75,000 by the year 2021 and the total area of the Zone as 11,958 ha.

### Population-
Dmc (u) Ward No 162, with population of about 37 thousand is Delhi city's the 12th least populous ward, located in Hauz Khas sub district of South district in the state Nct Of Delhi in India as per Figure III.18

### Demographics-
 The ward is home to about 37 thousand people, among them about 20 thousand (53%) are male and about 18 thousand (47%) are female. 93% of the whole population are from general caste, 7% are from schedule caste. Child (aged under 6 years) population of Dmc (u) Ward No 162 is 11%, among them 52% are boys and 48% are girls. There are 8118 households in the ward and an average 5 persons live in every family as per figure III.19.

### Sex Ratio - Females per 1000 Male
As of 2011 census there are 895 females per 1000 male in the ward. Sex ratio in general caste is 893, in schedule caste is 925. There are 911 girls under 6 years of age per 1000 boys of the same age in the ward.

### Literacy
Total about 30 thousand people in the ward are literate, among them about 17 thousand are male and about 14 thousand are female. Literacy rate (children under 6 are excluded) of DMC (U) WARD NO.-0162 is 91%. 94% of male and 88% of female population are literate here.

DMC (U) WARD NO.-0162 has 35% (about 13 thousand) population engaged in either main or marginal works. 53% male and 16% female population are working population. 51% of total male population are main (full time) workers and 2% are marginal (part time) workers. For women 15% of total female population are main and 1% are marginal workers.

The working population shown by the statistics of the government is low as they do not include the paying guest houses girls who are living there.

The non worker female population is quite high that includes the unpaid labor whose sphere is the neighborhood and we have to keep them in mind while designing the site.

Also a sharp difference can be noticed in the literate and working population of Malviya Nagar, where 88% of the female population is educated only 15% is working and a part of the economy.
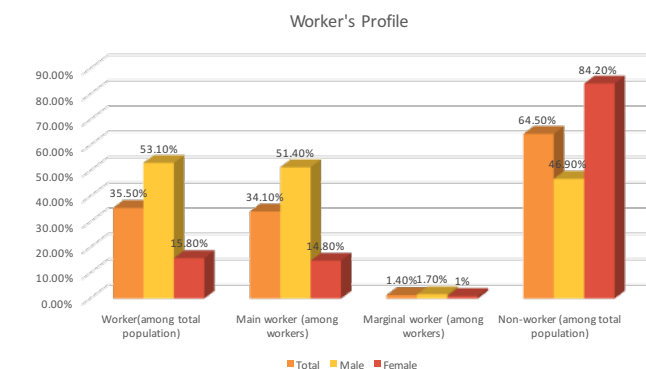


Figure III.20 : Workers profile in Malviya Nagar

*Source: made by author ( http://indikosh.com/ward/68416/dmc-u-ward-no-0162)*

# The Paying Guest Houses
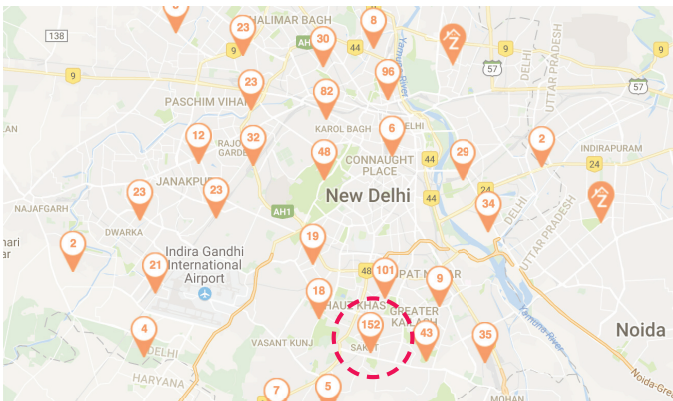


*Figure 21:* Map of the paying guest houses available in Delhi, 152 in Saket and Malviya Nagar as compared to all the other neighborhoods.
*Source:* http://zocalo.in/pg-in-malviya-nagar-saket-new-delhi



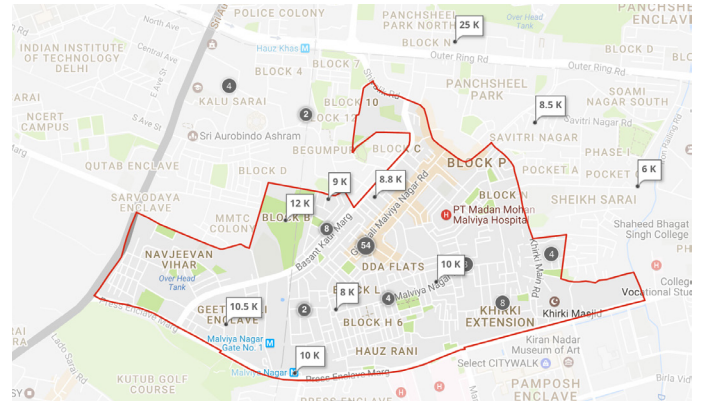*Figure III.23:* Map of the paying guest houses available in Delhi, economic price of the places (around 125 euros/month for one person).

*Source:* http://zocalo.in/pg-in-malviya-nagar-saket-new-delhi

Since I am talking about an age group of 15-30 years, Malviya Nagar is one of the most favored destinations for the single girls to stay as a paying guest. The maps show the number of houses showing this facility being offered to the girls who come to Delhi from all over the world.

The map in figure III.23 show high frequency of getting a room accommodation in Malviya Nagar while the other one shows the low rates according to the locality which implies that due to low living standards the rate of rent is lower as well.



*Figure III.22:* Paying Guest Hostels
*Source:* by author



*Figure III.24:* A group of girls enjoying in a private sphere of paying guest house
*Source:* by author

The figure III.22 shows the layout of paying guest house where an owner and his family generally lives on the ground floor and gives the top floors for rent. The houses are converted into kind of hostels and moral policing starts for the girls where there are restrictions on when you enter the house.

There are also restrictions on what to wear inside the house, how do you interact on the street with the opposite sex outside the building. Girls are stopped from entering late night into the house. Their freedom in this Paying guest is lost just how it is lost when they are in public spaces.

Conclusions:-

The Site Analysis chapter was a desk analysis to decide the appropriate site.
1. Delhi being a metropolitan city was selected as the case study.
2. South Delhi was chosen from personal preference and was supported by the evidences of being a posh area with high crime rate.
3. Malviya Nagar and Khirki Village were decided to be the most vulnerable crime against women areas.
4. The milennials and youth  paramount the locality due to cheap residential neighborhood.
5. The cheap residences represent the quality of life in the neighborhood.
6. The target group has the working women between 18-34 yrs and homemakers from 34-50 yrs and the old women in the neighborhood.
Now, site visit will be explained in order to get a framework of desk analysis.

# 3. Approach towards the Site Visit

The site visit started with a visual analysis of the popular unsafe areas in Delhi that has been stated by the past crime records and failure of maintenance of public spaces by the government.

Residents Interview & Survey Analysis

Expert Interviews

**SITE VISIT**
Delhi

Gender Equity & The City Workshop

Site Analysis- Malviya NAgar & Khirki Village
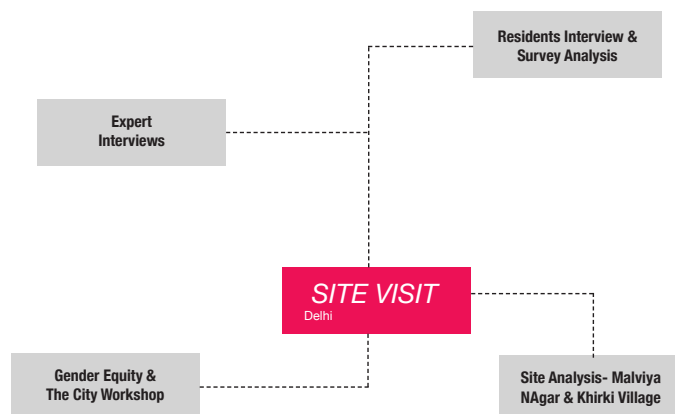
## Site Visit Activities

-Analyzing the different prospective South Delhi Sites like Vasant Kunj Area, Aruna Asaf Ali Road, Mehrauli, Okhla , Saket and Malviya Nagar.

-Malviya Nagar & Khirki Village  is chosen to be the final neighborhood based on the desk analysis, availability of data, presence of target group.

-**Residents were interviewed** and made fill the questionnaire to take inputs of the locality and test which hypothesis would work the best.

-Expert Interviews helped in creating an overall theme of gender inequalities and results on what kind of approach is being taken by the government while considering smart cities.

-Gender & the City Workshop- The Equity workshop is done to bring different stakeholders at one common platform and hold a debate to get perspectives from everyone. An urban city game helps in figuring out the most important issues that are experienced by the women in the city in general and the context.

- Site Visit - Site visit was an integral part and was supposed to be done at various times of the day and night. Also a lot of visits were required to  analyze the movement and activities of women in the neighborhood.

# 3.1 Gender Equity & The City Workshop



*Figure III.25 : Image from the workshop*
*Source: by author*

The workshop started at 14:45 as per the scheduled time with a short introduction to the project and the speakers with the topics they will be speaking on. After my presentation, Dr.ir. Luisa M. Calabrese appeared on Skype with a delightful presentation of hers on Spatial Activism which provided a distinctive angle to the topic explaining how the cities have been designed keeping in mind that the Women's place is at home. She explicitly explained how the women have lost the right to explore the city, use it and the right to just hang around.



*Figure III.26: Safetipin Introduction*
*Source: by author*



*Figure III.27 : Discussion on what are the important aspects ofwomen*
*Source: by author*

Figure III.28 : *Set up for the Workshop*
Source: *by author*

The workshop then moved on to Dr. Akkelies Van Nes talk about Space & Crime where she talked about the different projects and awareness of the spatial activism about women safety in different parts of the developing world. Though due to the poor connectivity there was no discussion that could happen but after both the skype sessions we in the workshop had discussions on what had been spoken about in the talks.The City Urban Equity game then took the lead to ease everyone a little bit and act on the problem with already existing solutions and some innovative thought process to have the inputs about in what terms the gender sensitive design concept should be changed.

After a mind activism lecture it was time for some facts and figures which were given by Sonali Vyas on data collection and GIS mapping. It enlightened us about a hell lot of work done in terms of data collection on women safety and the spatial crime and unsafe areas. It was closed with an interesting discussion on the incentives Safetipin receives after collecting the crowdsourced data and giving it to the government bodies.



Figure III.31 : *Discussion & Debate in process*



Figure III.29 : *A lecture from Luisa Calaberese on Women Spatial Ac-*
Source: *by author*

The game was targeted at gaining the different perspectives from various stakeholders about what can be done at different public spaces to increase awareness and induce inclusivity for women. It was a really informative and demanding activity in which in just a time limit of 20 minutes everyone had to make up their series of solutions for specific public spaces. Everyone had a different perspective and vision to the problem as per preferences. Some did it as users while the others did it as professionals.



Figure III.30 : *The Gender Equity Urban Game*
Source: *by author*



Figure III.32 : *Discussion & Debate in process*
Source: *by author*

## Conclusions Drawn from the workshop

| Issues | Solutions |
|---|---|
| Last mile connectivity missing | Wide roads & Removing illegal parking |
| Shortest routes cannot be followed | Widening pavements |
| No walking space | Identifying dark spots and illuminating the frequent routes |
| Lack of adequate or no lighting | |
| Lack of signage (specially for toilets) | Increasing signage on facades of private and public buildings |
| | Regulations |
| Presence of alcoholics and drug addicts | |
| Lack of adequate or no lighting | Improving façade lighting and regulations for lighting advertisement board in night |
| Fear while waiting for public transport (rickshaw, auto, taxi, bus) | Fear while waiting for public transport (rickshaw, auto, taxi, bus) |
| Scarcity of toilets | Increasing paid toilets in private buildings |
| Inadequate police/private security personnel | |
| Poor maintenance of public spaces | Low Maintenance Landscape |

*Figure III.33 : Issues and solutions from the workshop*
*Source: by author*

Some generic issues that came up from the workshop are given herewith the solutions that participants could thought of showcased the tendency of depending upon the government for everything.
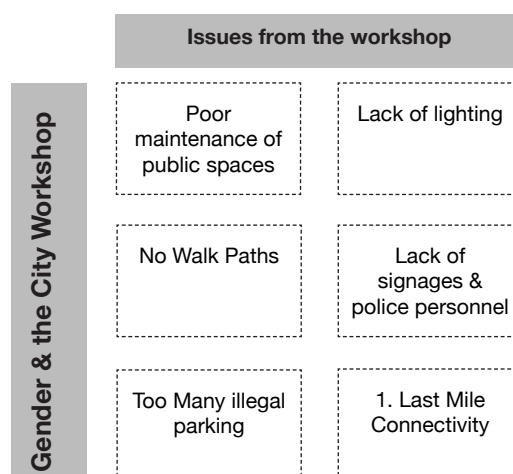


*Figure III.34 : Deriving main issues of the workshop*
*Source: by author*

The main issues that came from the workshop are mentioned hereby in the figure III.34 which will be taken further to relate with the other research steps. The main concluding issues that came are poor maintenance of public spaces , no walk paths or walk paths acquired by the cars parked, lack of signages and police personnel.

One of the main output of the workshop was a discussion if segregation is good or bad and it has been found that right now the youth or the women who are using the public spaces and public transport feel comfortable in the girls only metro compartment but would prefer a medium crowded street instead of an isolated one.

## 3.2 Expert Interviews

"I am not sure how CCTV cameras can make the city safe and inclusive, we need more something that changes mindset."

Interview with Mrs Salma Ansari
Wife of Mohammad Hamid Ansari (Vice- President of India)

"While some feeble efforts have been made to make city planning gender sensitive, much more efforts are called for.."

Interview with Dr. Sudhir Krishna
Former Secretary, Ministry of Urban Development,
Delhi, India

"There is no discrimination of Genders in Smart City Mission."

Interview with Kumar V. Pratap
Economic Adviser, Ministry of Urban Development, Government of India
Heading Smart City Mission India

"Many companies are taking the charge of metro station and lighting them with making them more inclusive, such practices need to be appreciated and demanded."

Interview with Mrs. Bhavana
Journalist at DD News
Delhi, India

## 3.3 Resident Interviews



"We miss ploughing fields back in our villages but the home now are very comfortable, we do not have to go to fetch water, but yes we miss talking to neighbors while doing that."

"We are the sales women who have to reach certain targets, we come from nearby area and have to roam around the streets all 365 days, its difficult in summers without toilet and water."

"I live here and its really fearful in the night when I come through Khirki Village, I have to take an auto rickshaw in order to reach home. Sometimes I even fear that."

"We mostly talk about cooking vegetables, being a housewife we do not really have anytime once the kids and children come back home from work and school."

"Living in Malviya Nagar has never been a good decision in terms of fearful atmosphere but being in a group has always helped and we try if we are late then we are with someone trustworthy"

*Figure* : *Pictures from resident interview collage*
*Source*: *by author*

## 3.4 Resident Survey

**What kind of places do you visit in the daily routine? (Multiple Answers)**

Answered: 31    Skipped: 0



| Answer Choices | Responses | |
| --- | --- | --- |
| Office (Mark the office) | 51.61% | 16 |
| Grocery stores ( Mark the Market) | 29.03% | 9 |
| Metro stop | 41.94% | 13 |
| Bus Stop | 9.68% | 3 |
| Select City Walk | 22.58% | 7 |
| Do you live here? | 38.71% | 12 |
| Do you study/work here? | 29.03% | 9 |
| Total Respondents: 31 | | |
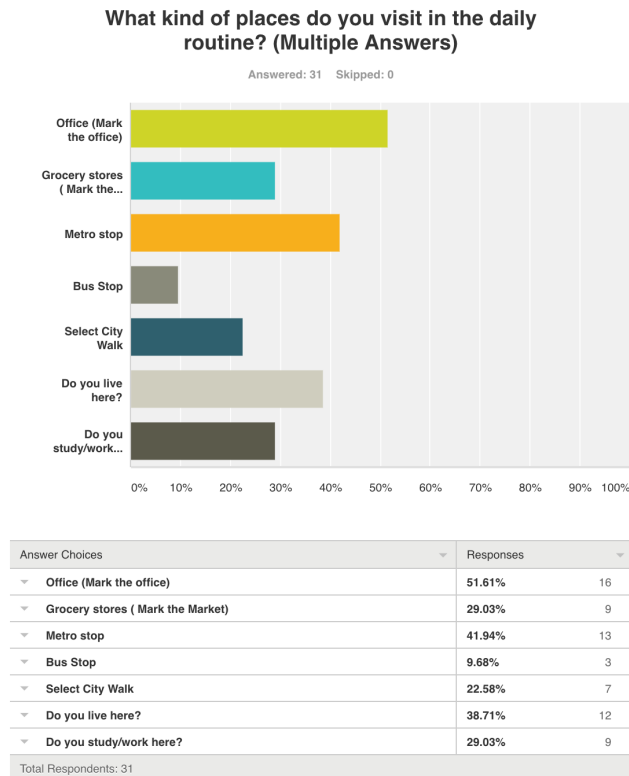
*Figure III.35 : Resident Survey Results*
*Source: by author*

Figure III.35 is an example of the resident survey questionnaire. The Conclusions of the resident survey is as follows :-

Q. What kind of places do you visit in the daily routine?
Office and metro stop have been identified as the main destinations by the women in the area.

Q. What personal safety risks, concerns you the most when you are in this area?
From the survey it can be seen that sexual harassment, hassling, eve teasing, stalking and touching are common practices that women are afraid of in the neighborhood.

Q. What spatial factors contribute to the feeling of being unsafe?
A. The survey shows that public transport and the links connecting are considered to be the most unsafe part of public spaces.

Q. When you are here what do you do to keep yourself safe?
A. Women avoid going after dark and going out alone that makes them lose their right to public space.

Q. What kind of street elements can make you feel safer?
A. The answer that was most important was the light in the area.

Q. What kind of solution would be the best for attaining a gender inclusive environment?
A. To connect women together, to travel together and through the community.

## Conclusions
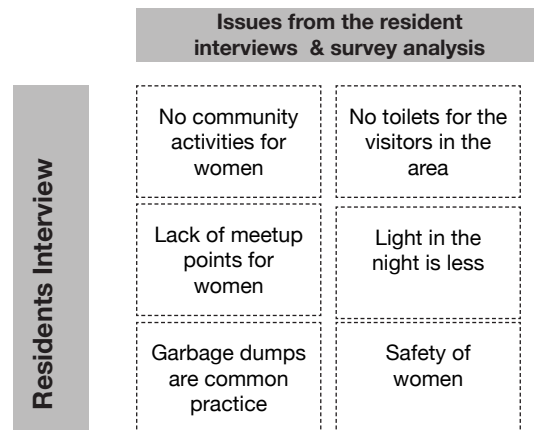


*Figure III.36 : Resident Interview & Resident Survey Results*
*Source: by author*

From the resident interviews and resident surveys the above figure shows the main issues that come out to be the community activities that are lacking in the area for women. There are hardly any meetup points for women as well. Garbage dumps are common and inflict a fear in the night. Toilets turn out to be a huge lack even from the interviews.
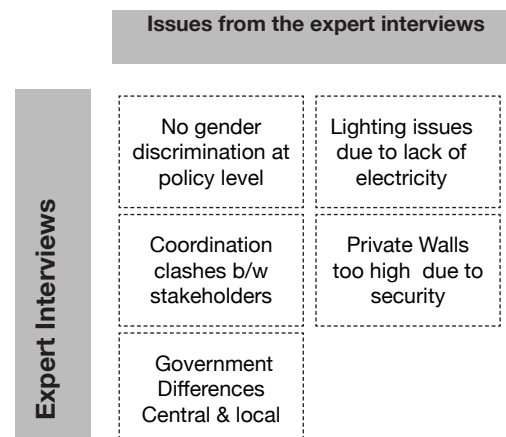


*Figure III.37 : Expert Interview Conclusions*
*Source: by author*

The expert interviews in figure III.37 made the issues more explicit and stated a very important observation that there is no gender discrimination in making smart cities which according to me is a lack in the basic smart city mission.

Also a fact was noticed that a lack of coordination exists between various stakeholders.

Moreover above all it was an experience that led me understand the unawareness of not the problem but an action that can be taken to produce a solution.

# 4. Stakeholder Analysis

## Political Anthropology
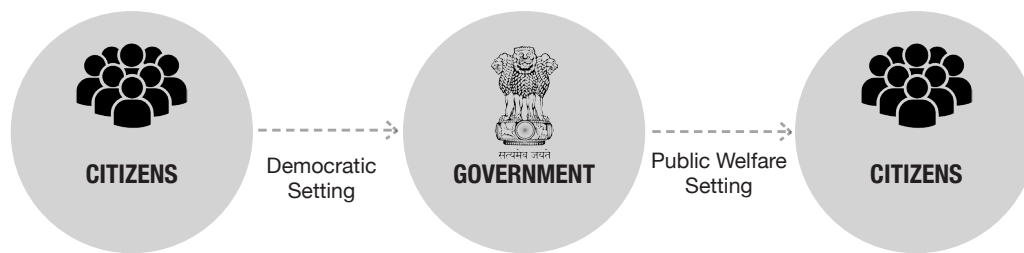


*Figure III.38* : *Government selection Hierarchy*
*Source*: *Made by author*

### Delhi Government

The National Capital Territory (NCT) of Delhi is one of the India's 29 states, with a population of 16.6 million. Its powers are closely dependent on the Indian national government. At the state level, powerful bodies like the Delhi Development Authority and the Delhi Police are centrally supervised. Executive power is exerted through the Chief Minister of Delhi, who is elected by 70 members of the Delhi Legislative Assembly.

The central government appoints the Lieutenant Governor and he belongs to the ruling political party. At the local level, there are 11 districts administered through four Municipal Corporations and, partly, by the Delhi Cantonment Board. The executives within these institutions are appointed by national ministries.

22% of the NCT's budget is allocated to public transport and 13% to urban development and housing.

## Delhi Governance Structure
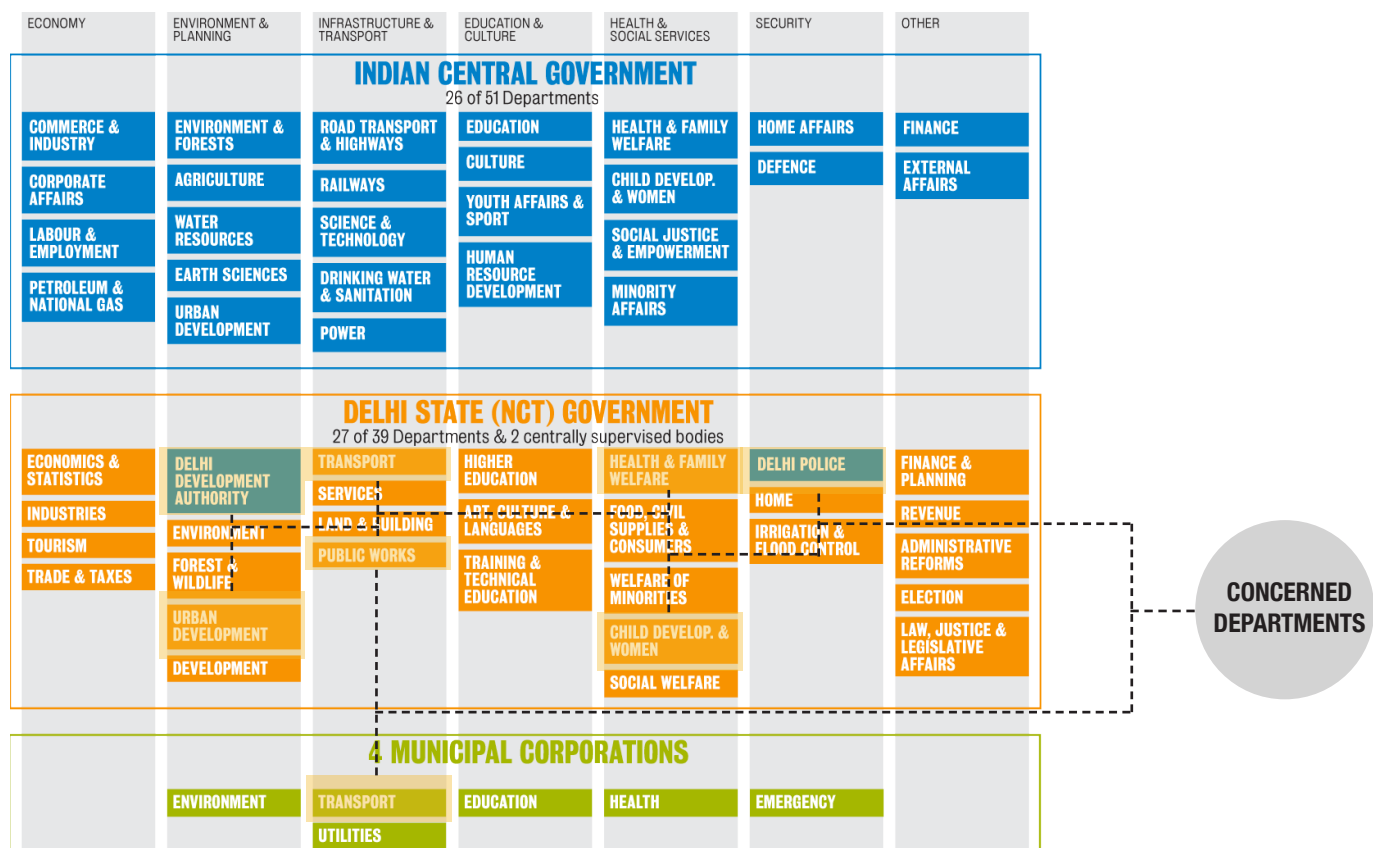


*Figure III.39* : *Different municipalities & ministries under delhi government*
*Source*: *made by the author*

Multi-level governance

■ National level    ■ State level    ■ Sub-city level

# Stakeholder Hierarchy

**TOP**

| | | | | |
|---|---|---|---|---|
| Municipal Corporation Delhi<br>MCD | Delhi Development Authority<br>DDA | Member of Legislative Assembly<br>Mr.Somnath Bharti | Ruling Political Party<br>AAP | Social Entrepreneurs<br>Swechha |

| | | | | |
|---|---|---|---|---|
| Non Profit Organization<br>Jagori - Women Development | Artists & Activists<br>KHOJ Safetipin | Govermental Research Organisation<br>Center for Social Research (CSR) | Universities & International Grants<br>TU Delft Harvard | Sustainable Business Improvement<br>Solar companies |

| | | | | |
|---|---|---|---|---|
| Malviya Nagar Resident Welfare Association<br>RWA | Khirki Extention Resident Welfare Association<br>RWA | Corporates & Multinationals | Citizen Activists | Residents |

**BOTTOM**

- Government Authorities
- Social Business Organizations
- Social Organizations
- People Participation

*Figure III.40*: *Stakeholder Analysis*
*Source*: *by author*

Legend :-

- Development authorities in Delhi - DDA, MCA
- Member of Legislative assembly - Mr. Somnath Bharti
- Ruling Paty- Aam Aadmi Party
- Governmental Research Organization
- Social Entrepreneurs
- Sustainable Business Partners
- International grants
- Artists & Activists Association
- Universities National & International
- National Government Organizations (NGOs)
- Resident Welfare Association
- Corporates & Multinationals
- Citizen Activists
- Residents

# Recognizing Stakeholders - (Knowledge Partners & Financial Partners)



*Figure III.41* : *Knowledge Partners & Advisory Body*
**Source**: *Made by author*

**Knowledge Partners/Advisory Body (figure III.41):-** The advisory body consists of TU Delft and the mentor team who are building the project with me. It consists of NGOs and the Artists and Activists who critically analysed the project and gave inputs. The government research organizations who can be a part in implementation process.

**Financial Partners (figure III.42) :-** The financial partners consists of a set of the NGOs, Corporate social responsibility funds, International grants, the activist organisation, the national grants in women area, etc.
The possible funding partners are mentioned below in the figure who can be a part of the project. Some of them have already been contacted regarding the project implementation.



*Figure III.42*: *Financial Partners*
**Source**: *Made by author*

# 5. Spatial Analysis (Site Visit- Snapshots)

*Figure III.43* : *Semi Private space authority*
**Source**: *taken by author*



*Figure III.46* : *Dilapidated Cars*
**Source**: *taken by author*



*Figure III.44*: *Saleswomen spending time in the park*
**Source**: *taken by author*



*FigureIII.47* : *Homemakers going for grocery shopping*
**Source**: *taken by author*



*Figure III.45* : *Derelict spaces in the area*
**Source**: *taken by author*



*Figure III.48* : *Bench right mostly taken by men.*
**Source**: *taken by author*

# Possible Women Target Group

| Women living Alone | Housewife | College Students | School Girls |
| --- | --- | --- | --- |

| Old Women | Street Vendors | Shop-owners | Women Travellers |
| --- | --- | --- | --- |



*Figure III.49* : The collage shows kind of possible target groups in Delhi
*Source*: Collage is made by the author

These are the possible target groups in India, the women who scales from the people below poverty line to the richest and still has to surpass the looks and fear of crime in public spaces.

Let it be a sex worker, a multi national worker or a housewife every women on the streets of Delhi undergo same kind of fear system inside their head and heart.

# Different Women Activities

Women selling stuff on roadside

Women walking on street with kid

Kids playing in the park

1200

School kids going to school in group

Women going shopping in a rickshaw

छोले बटूरे

A women's stall of food

A muslim woman on street going shopping
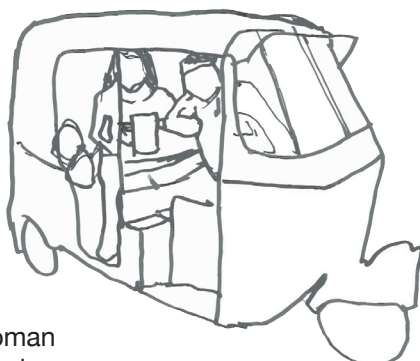
People going in autorickshaw

Two housewives chatting on street

**Women Activities**
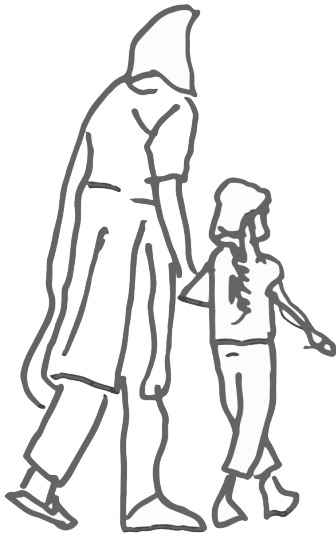
A wmen taking her daughter to tutions
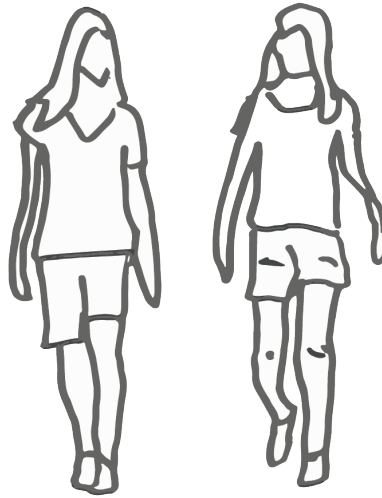
Twp girls returning home after tution classes
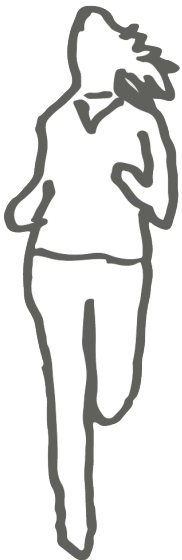
Girl jogging

Woman sitting outside her house

Girl with her boyfriend returning late at night

Girl walking in dead wall street
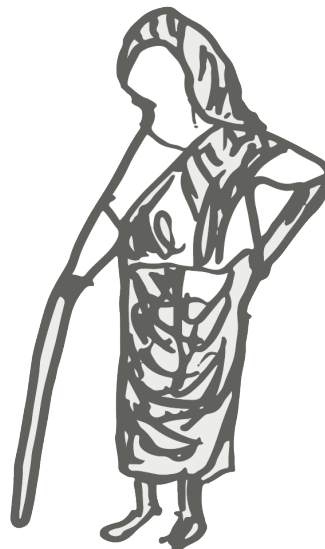
## The Concept & Target group

Built Spaces:
-Library/Museum/ Cultural Centre/ Inter Arts School/ Amphitheatre
-Sports Club/ Fitness Centre/ Gymnasium
-Shopping Mall / Supermarket / Departmental Store Cinema Hall / Multiplex
-Club/ Bar/ Cafes / Restaurants / Marriage Halls
-Community Centre / Convenient Shopping Centre
-Vegetable Market / Bazaar / Local Shops
-Places of Shops

Open Spaces:
Tot Lots / Neighbourhood Parks / Natural reserve / Maidan / Fair ground
Public Square/ Plaza/ Terraces
Streets / Activity nodes
Central Markets/ Weekly Haats
Public transportation

The women activity mapping have been done on site to know what kind of activities are taking place in the neighborhood. It has been noticed that the public spaces for women are being used only for commuting and the connection of the public and lively environment is lost within them to experience. Some household activities need to come out of the houses into the public realm to actually realise the spaces and spend some time outside.

The programme is conceived primarily as an ethological space model to create appropriate behaviour settings which is key to success to any user friendly environment. The above thematic approach to programme relates and reinforces these ethological spaces- the territory and the personal space of an individual's appropriation habit.



| By Old Women | By Young Women | By Mothers |

*Figure III.49* : *Conceptual Re-appropriation of spaces by the target group*

*Source*: *made by the author*

**Concept- Re-appropriation of Spaces by th Target Group**
**Target Group- Old Women, young girls and the homemakers/mothers**

As shown in the figure above the re-appropriation of spaces is done by the three main target groups who have been identified as the old woman who will reclaim the space outside her house at the front door level. The other target group is the young girl that goes to office and is part of the social active group of the select city walk mall. The last but not the least target group are the homemakers and mothers who want to spend some time as a community but do not have a place to do so. They will reclaim the spaces in the public park. These three target groups further in my design proposal will appear as the main design motives.
From here generates the right to the city and reclaiming spaces on streets which will further turn into **Women Spatial Activism.**

# Land Use Study of Malviya Nagar



Legend

**Residential** (yellow)
**Government** (pink)
**Mixed Use** (red)
**Public- Semi Public Building** (green)
**Commercial** (brown)
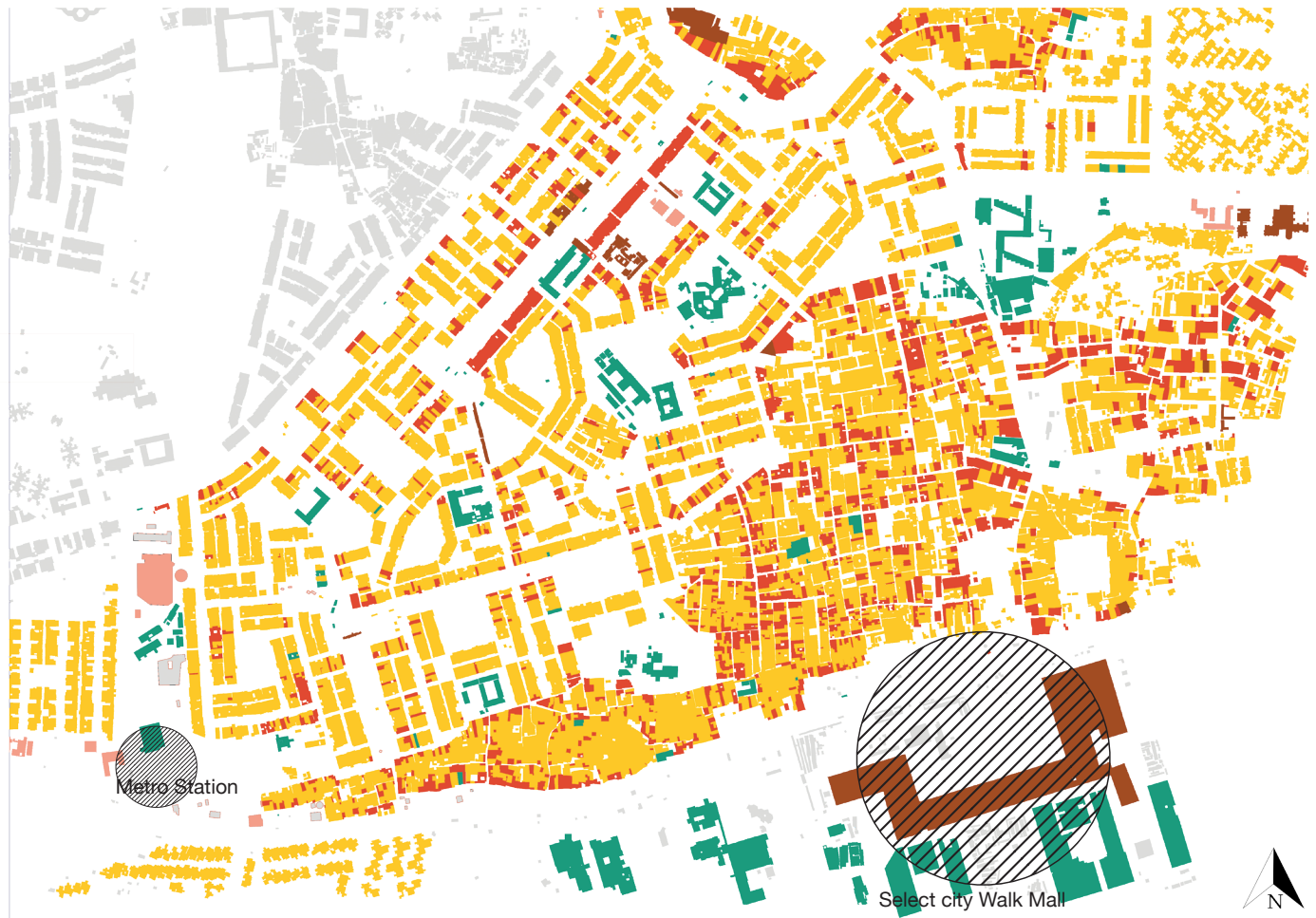
*Figure III.50 :Commercial Street (After 9:30 PM)*
*Source: made by author ( information from site analysis)*

## Function map of Malviya Nagar:-

The place has governmental schools both for boys and girls but it lacks school for the children of the migrants. Thus many children don't have proper access to education. There is religious significance in the area due to presence of social infrastructure. Also as analyzed there is no facility for the women of the area inside the location.



*Figure  III.51:Commercial Street (5PM- 9:30PM)*
*Source: made by author ( information from site analysis)*



*Figure III.52 :Commercial Street (After 9:30 PM)*
*Source: made by author ( information from site analysis)*

The two streets show clearly how an active commercial street in the day becomes inactive in the night and it explicitly tells that a commercial space is not the safe space .

Shopping Mixed Use in Malviya Nagar



Residential Area



Malviya Nagar Police Station



Select City Walk Mall



Shopping Mixed Use in Khirki Village

The main observation of the land use map is the variety of functions happening at micro-level spatial conditions of the urban environment. It is a mixed use area with two main variant neighborhoods. The Malviya nagar is posh area while Khirki Village is an area where the economic conditions are weak.

According to the activities the important source and destination of women are the metro station and the select city walk mall.

# Open Space Mapping



*Figure III.53 :OPEN SPACE MAP*
*Source: made by author ( information from site analysis)*

| | |
|---|---|
| Derelict Space. | Scrub Area |
| Public Park Open | Parking Space |
| Private open Parks | Prohibits the entrance to the location. |
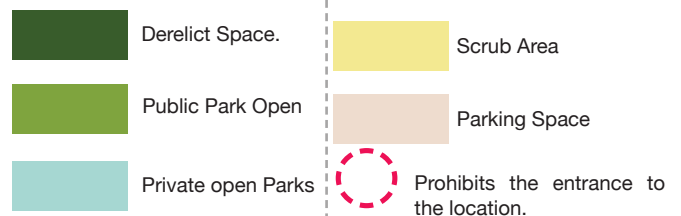
**Green Space:-**

There are ample of communication and DDA green space but it is not distributed properly to the community as most of the space are Bari gated, fenced or they are underutilized due to its low maintenance.

**Morphological factors which leads to the tendency of crime:**

There are certain spatial characteristics which has led to unsafe condition due to unmanaged and un-organized spaced

which are neglected in the long run such as underutilized open spaces which has maximum spaces for community greens, barricaded spaces and scrub land which has become neglected space and has a huge potential for community based transformation.

The derelict spaces though have a lot of potential in them for temporary use of urbanism further to be used in the project.

# Street Hierarchy Mapping
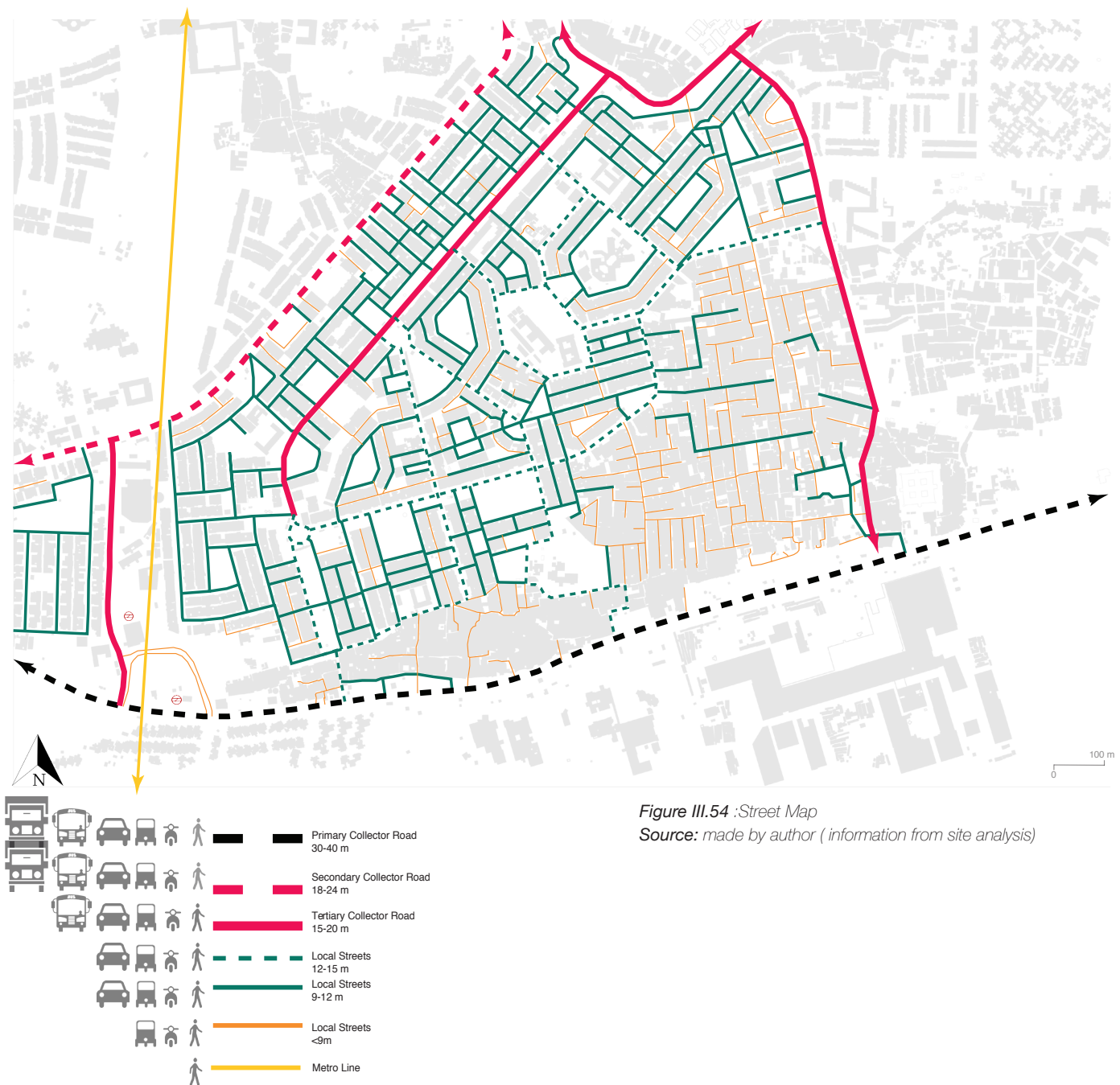


*Figure III.54 :Street Map*
*Source: made by author ( information from site analysis)*

**Legend:**

| | |
|---|---|
| Primary Collector Road 30-40 m | |
| Secondary Collector Road 18-24 m | |
| Tertiary Collector Road 15-20 m | |
| Local Streets 12-15 m | |
| Local Streets 9-12 m | |
| Local Streets <9m | |
| Metro Line | |

**Movement Pattern:-**

The main connecting pedestrian network on the main street is highly cluttered by many unsafe conditions such as underutilized open spaces, garbage dump yard. The neighborhood movement network lacks proper street structure as the streets are very narrow and lack proper drainage facilities and lighting. The scarcity of basic necessities also induce many insecure spaces. The parked vehicles on road enhances the fear among women in the night time when have to pass through cramped up area.

**Edge conditions:-**

The major spine of Press Enclave road is surrounded by varied edge condition by the residential Lal Dora area at one edge and the scrub land surrounded by two city level important hospitals and select city mall on the other edge.

Such surroundings with poorly defined land uses like the scrub land and the open green and the huge inward facing institutional plots and the gated community creates an isolated (passive) zone around the residential area.

Non defined entry and walled edges, both on the Lal Dora area and the institutional area.

# Conclusive Issues at Micro-Spatial Level
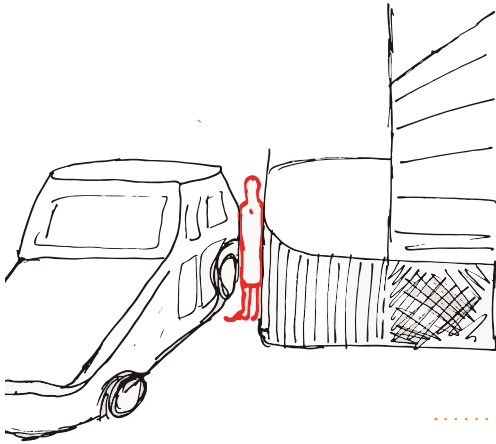


(+ve Point)- Extended green Space for having better urban environment.
(-ve Point)-Illegally occupying the space as an extension to the older and legalized building line, imitating others who extend as an extension to space.
(Reduces Road Width)

Absence of Slope
250mm. Also , pro
of people to come
keep inside. Prese
prohibit entering s
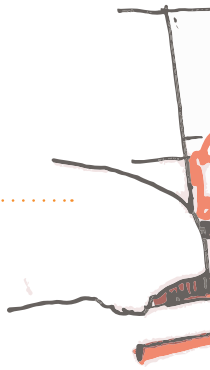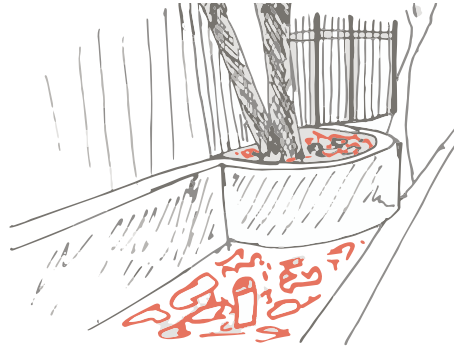
Feeling of fear when passing through crumped up space between binding fabric line and the car.
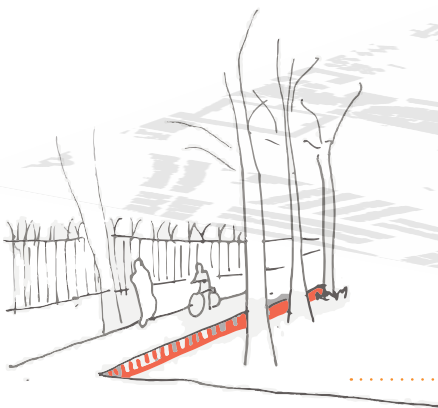
Height of Pathways are increased to 150-200mm (non-inclusive spaces)
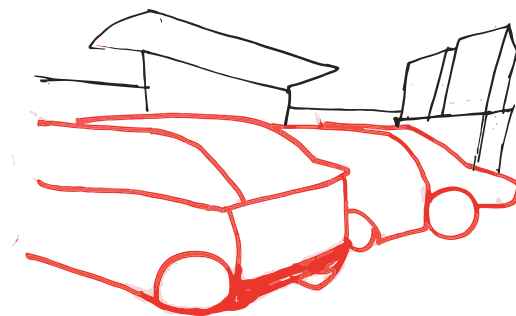
*Figure III.55* :*Micro Spatial Issues*
**Source:** *made by author ( information from site analysis)*

The backside of the houses serve as dead al
view making them damp and narrow.
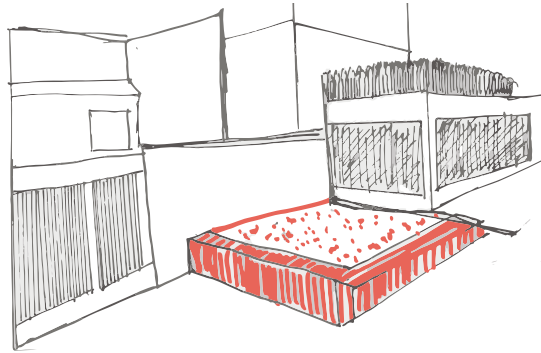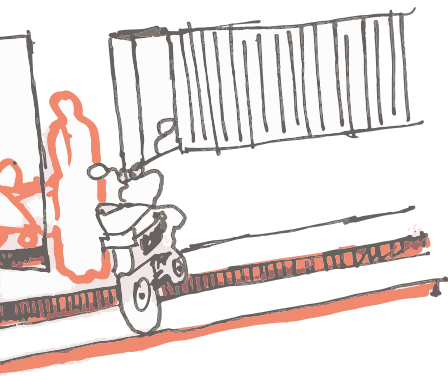
(+ve Point)
Extended green Space for having better urban
environment.

(-ve Point)
Illegally occupying the space as an extension to the older and legalized building line, imitating others who extend as an extension to space.
(Reduces Road Width)

es and as high as 3 steps in total of 200 mm-
ohibits entrance of strollers of forces more number
e to these destinations to pick up the stroller and
ence of vehicles parking on road in front of gates
paces.
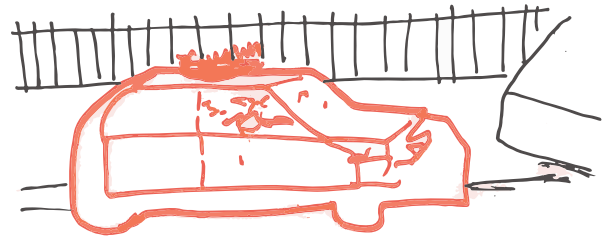
(+ve Point)
Standing useless vehicles can be used to convert into urban components that are useful.

(-ve Point)
Dilapidated cars standing only not to lose ownership of space.
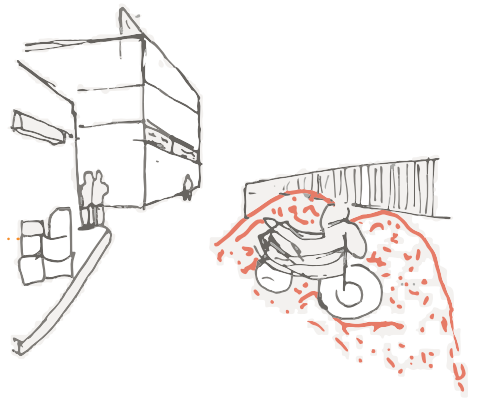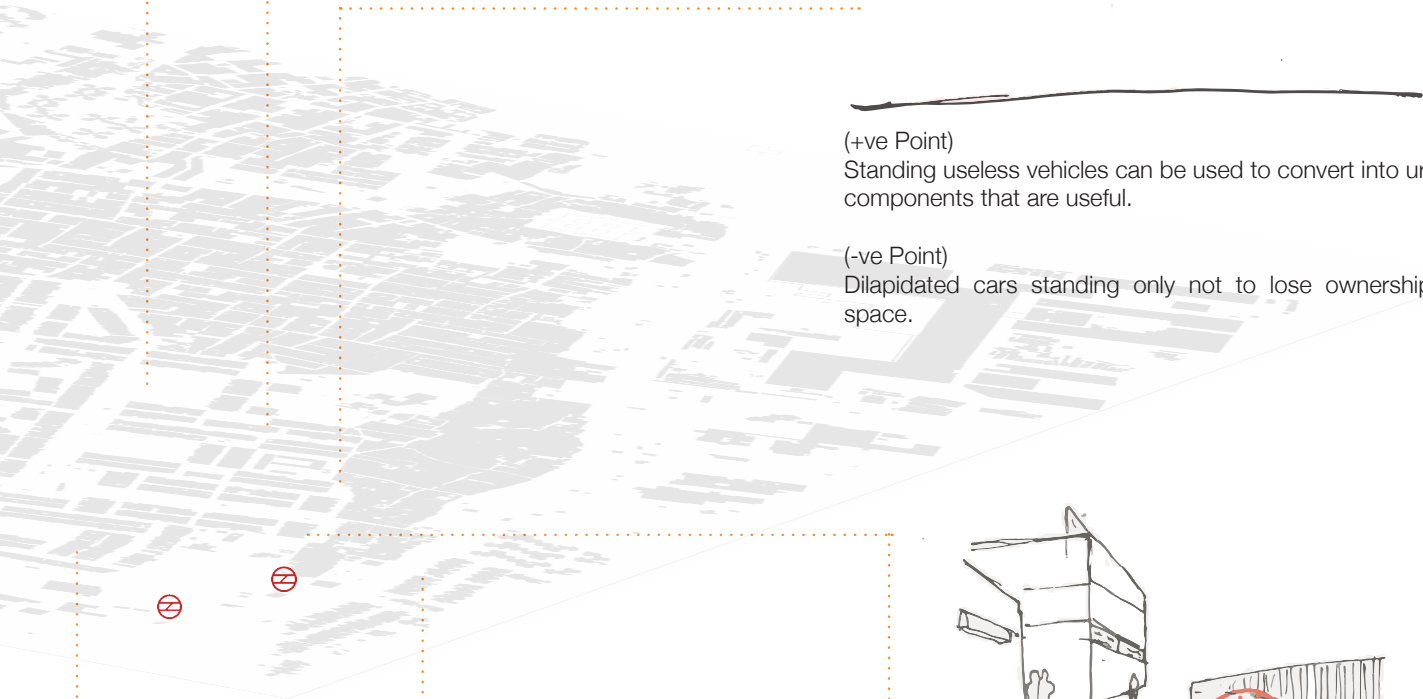
Piles of construction material kept again to signify the ownership of the space. in night these temporary elements hinder safety by reducing width & legibility of place.
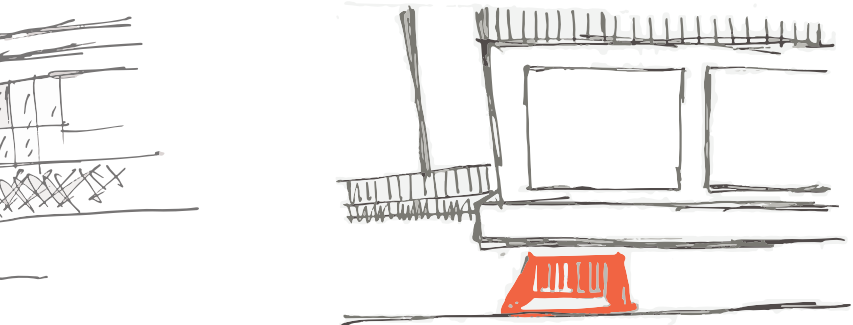
Random opening in the road are scary for the people crossing and in the dark its very dangerous.

leys and obstruct the

# Site Levels of Interventions for Spatial Activism

**Issues Scales on Site**
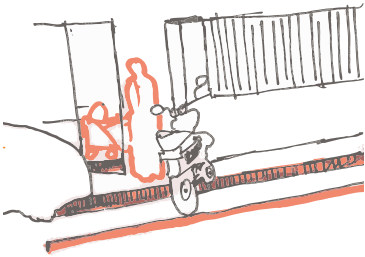


Accessibility Issues at micro level
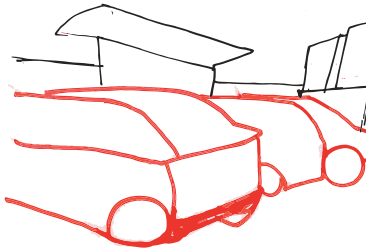


Car PArking Issues at Building level

**Spatial References**





**Site Scale Levels of Interventions**





**Implementation scale of Design Proposal**



**Micro Level**



**Building Level**

**Site Level of Intervention:-**
The scales above have been formulated where design would be implemented on the site.

From the micro-spatial issues these site scales have been intervened which are the micro level, building level, street level, network & nodes and neighborhood scale.

Isolated Dead Streets



Garbage Dumyards in Links
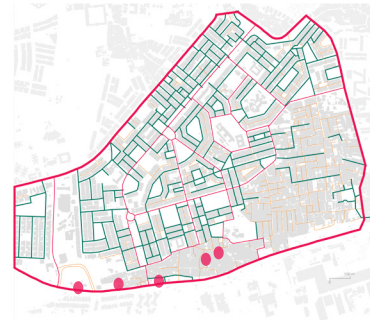


Weak edges at the neighborhood entrance















**Street Level**



**Networks & Nodes**
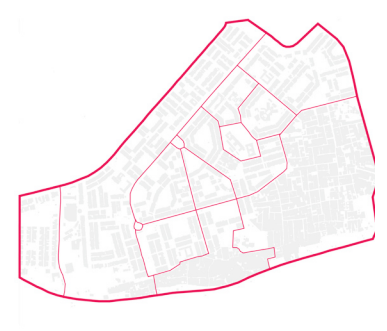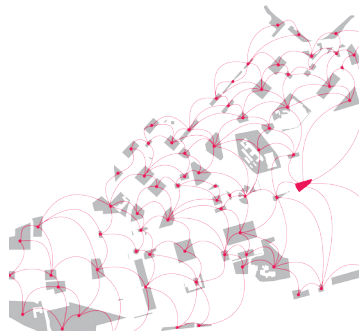


**Neighborhood Level**

1.Micro level - It directs towards the front door level interventions.
2.Building level- It is the frontage/facade of the building or building level.

3.Street Level- It is the main street.
4. Network & nodes - This is the public parks.
5.Neighborhood Level - This is the whole Malviya Nagar and Khirki Village.

## 6. Social Analysis - Social Map of Malviya Nagar
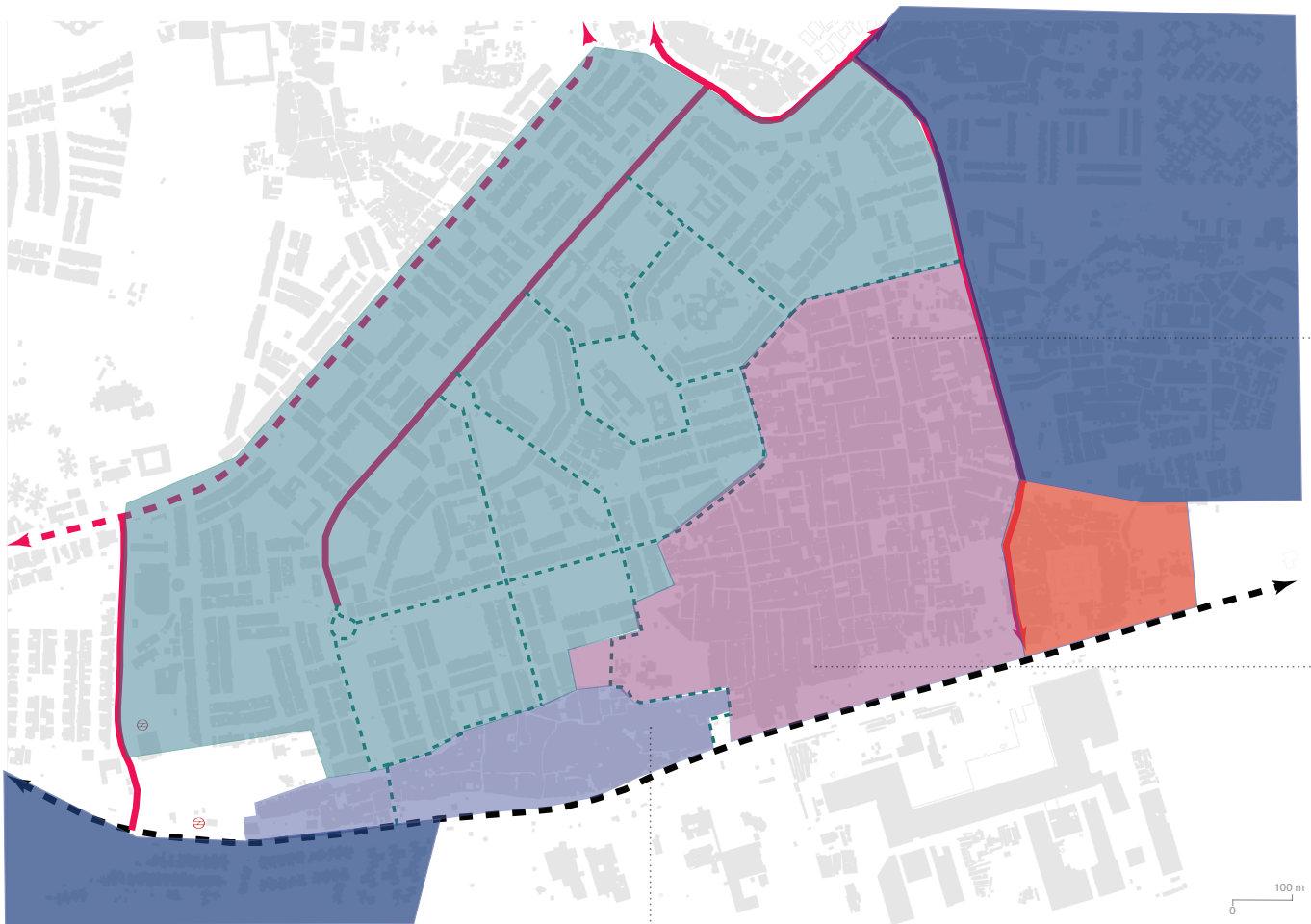


*Figure III.55* : *Social and religious Map, showing residing different*
*Source*: *made by author ( information from Malviya Nagar Statistics)*

LEGEND:

▮ Punjabi Hindus

▮ Afghanistan, Bangladesh, Muslims

▮ Mixed Population

▮ Nigerian, Hindu, Muslim

▮ Jats & Hindus

**Social Factors which leads to the tendency of un-safe areas:**

There are many social factors such as difference in income levels and well as difference in race which leads to tendency of illegal behavior and feeling of insecurity as different mix of people inhibits different lifestyle which may be sensed as a possible threat factor to other people.

Mix of community due to different migrant class. There are a mix of Muslims, Hindus, Afghans, Nigerian, Bangladeshi, Nepalese community and thus there is no sense of community bonding between the people thus restricts neighborhood watching.

Also there is no watch on the non-legal migrants thus they tend to involve in illegal activities which arises sense of non secured and non-trust able conditions.

The area of Malviya Nagar has a varied economic structure having a mix of several class including upper higher income group, medium income group and low income group. These difference in economic background leads to many social distinguishing thus affect the people behavior and way they use a space.

# Income Levels in Malviya Nagar
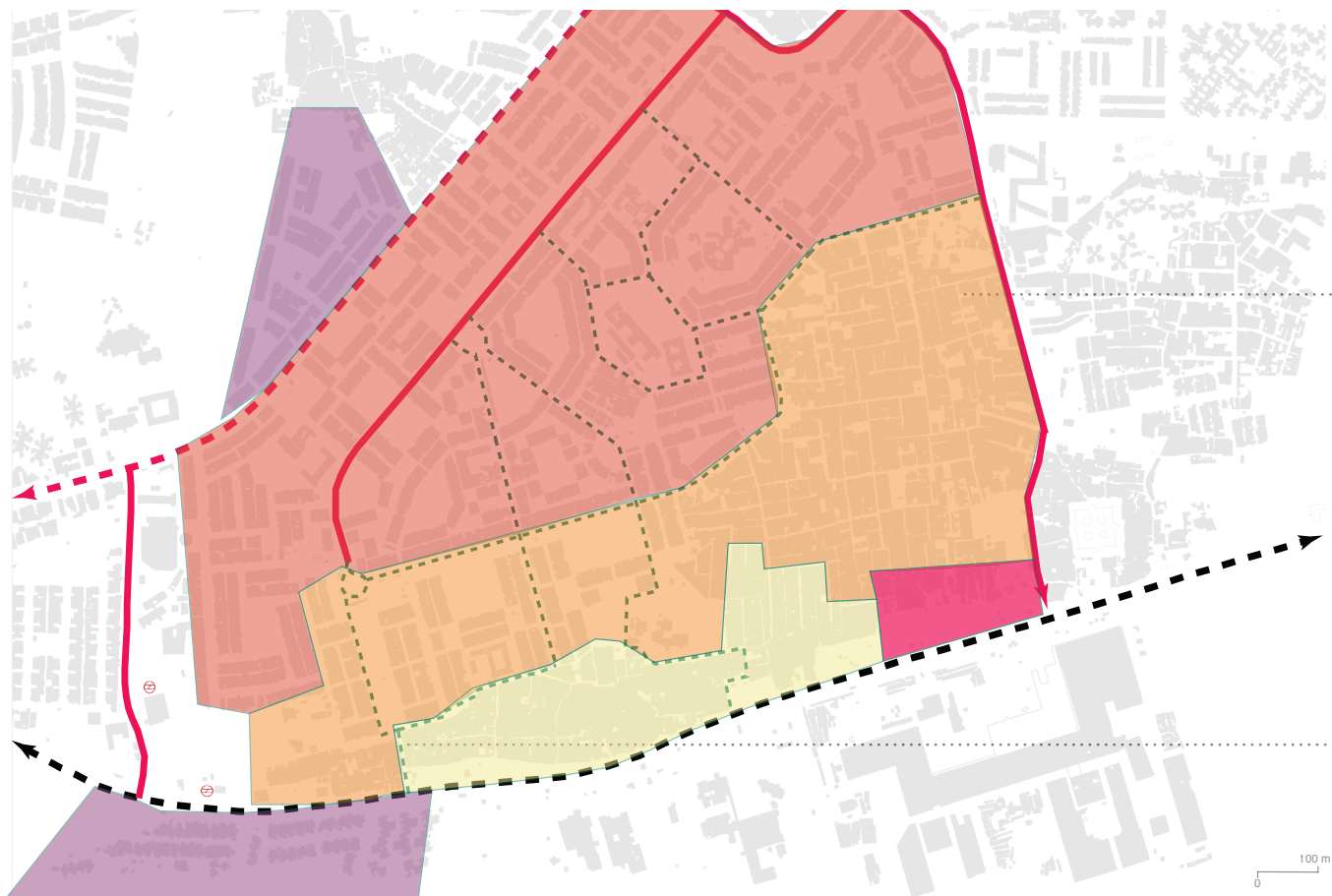


*Figure III.56* : *Income Map showing variety of groups in one area.*
*Source*: *made by author ( information from Malviya Nagar Statistics)*

LEGEND:

High Income Group

Upper Income group

Medium Income Group

JJ Slums

Low Income group





The Income and religious map shows the mixing of community and is the evidence of non inclusive area for communities like Africans, North East Indians, etc.

# Women Crime Analysis



*Figure III.57* : Crime map from the past cases reported
*Source*: made by author ( information from Malviya Nagar Police Station)

Legend

Eve teasing, Mugging, Molestation, Attempt to rape, Hurting

Eve Teasing, passing Comments, Fights, Rowdiness, Stalking

Gambling, Drinking, Attempt to Rape

## Crime Map:-

The main observation of the map is that the entrance to the location is not safe and at all inclusive for a woman to pass the space without any fear to go to the respective place and that is the reason why everyone wants to take an auto till the metro station/ select city walk (main destinations). The crime analysis shows clearly how the Khirki Village area is completely crime ridden.

## Overlapping :-

In the next map I overlap the layers of social map, income, map and the crime map which will help me in deciding the location of the site.

# The Differential Spine
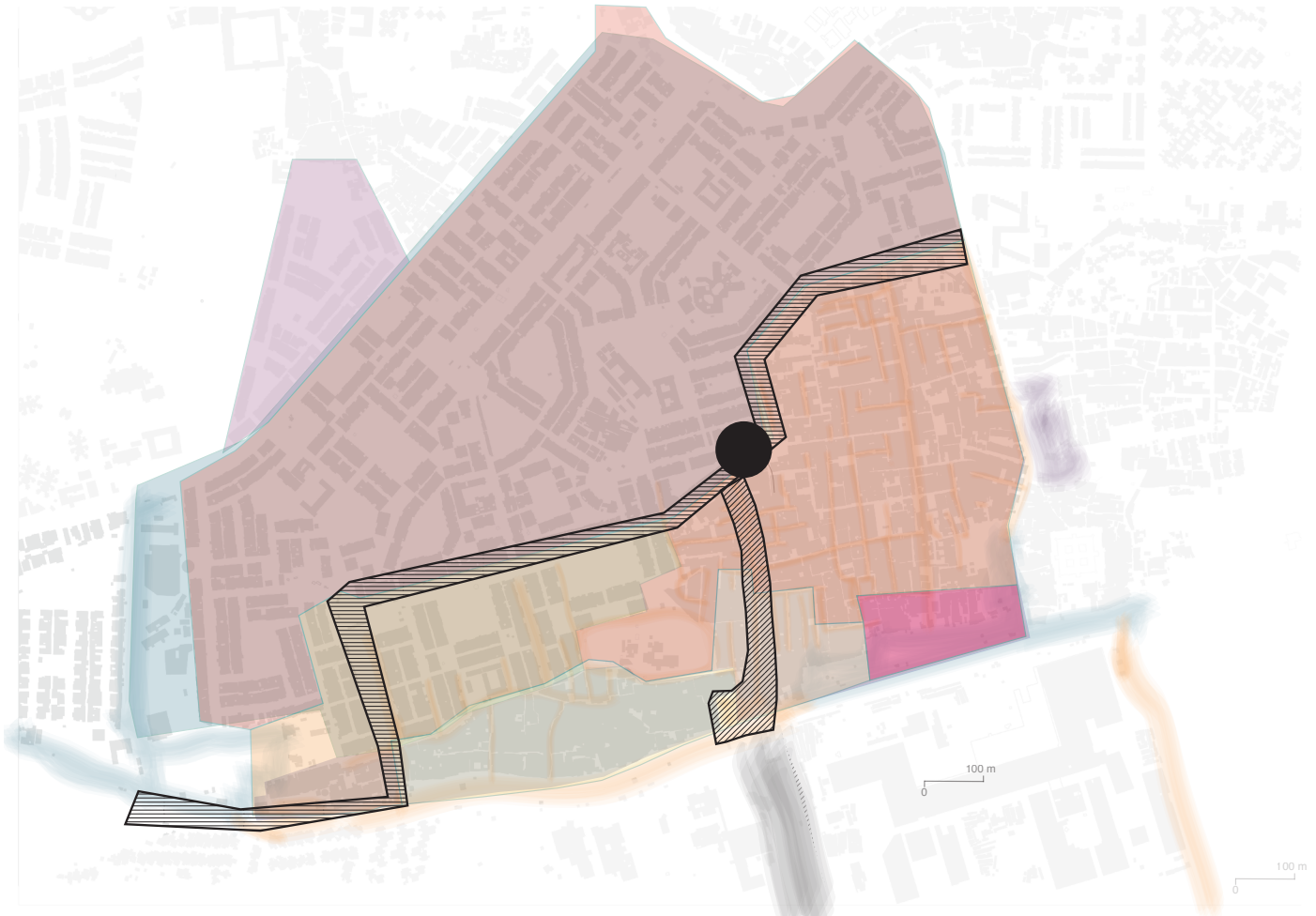


*Figure III.58* : Maps Overlay- Social Map, Income Map and Crime Map
*Source*: made by author

## Overlapping :-

Two differential spines are obtained after overlapping, one is found to be the horizontal spine and one is vertical. It is mainly according to the different religion and economy of the Malviya Nagar and Khirki Village.
The horizontal spine also is the main route followed by the pedestrians and people on rickshaw.

The vertical spine is a differentiation of the two income levels aside the street. It is also one of the regions that is high in women crime in the area.

# Movement Patterns- During Day, Evening & Night



*Figure III.59* : *Morning (7AM- 9:30AM) Map*
**Source**: *made by author ( information from site analysis)*



*Figure III.60* :*Evening (5PM- 8:30PM) Map*
**Source**: *made by author ( information from site analysis)*
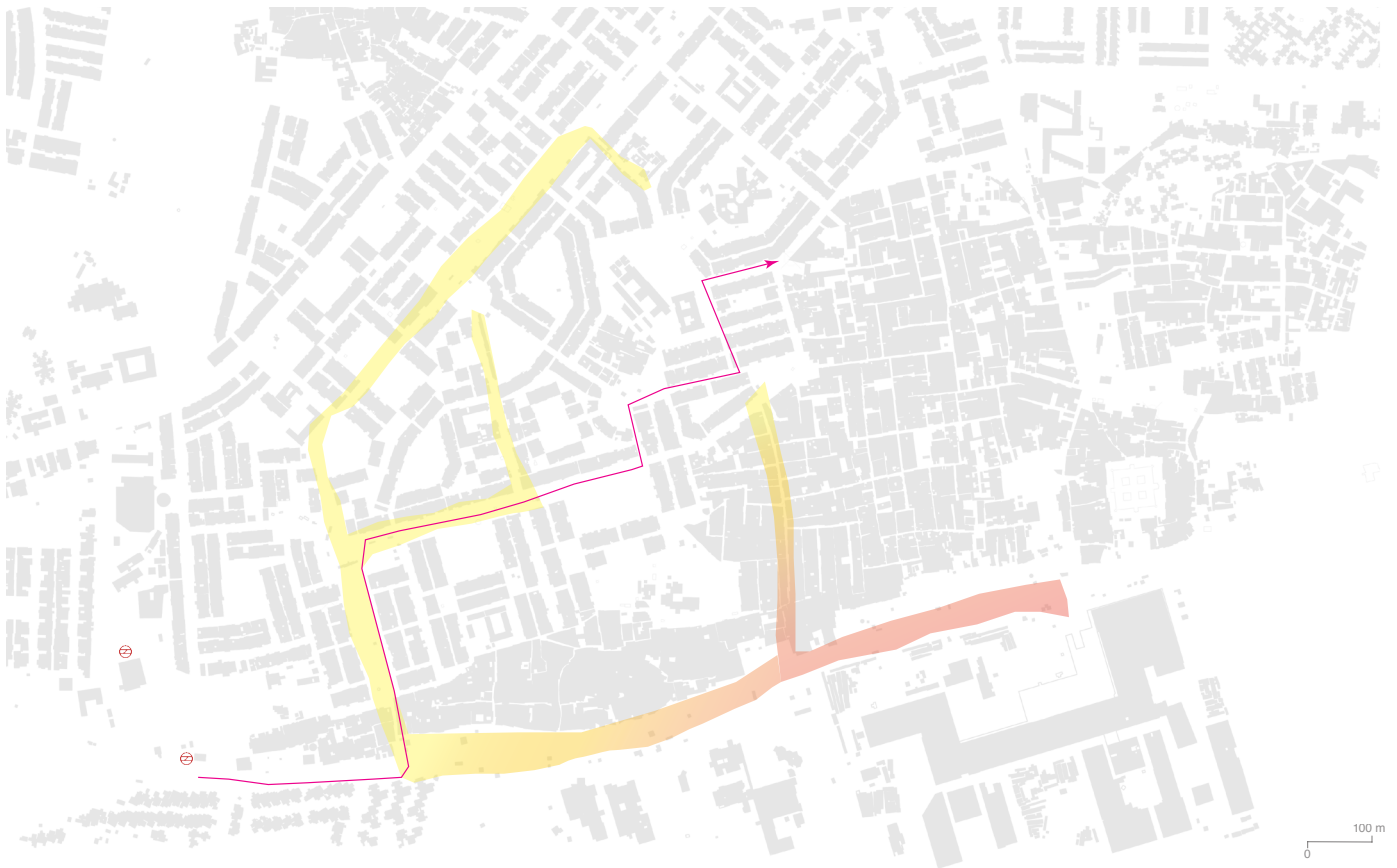
*Figure III.61* :*Evening (10PM-11PM) Map- in groups mostly accompanied with men*
*Source*: *made by author ( information from site analysis)*

Source                                    Destination



Legend:-

● Metro Station
● Beauty Parlor / Salon
● Gymnasium
● Select City Walk Mall
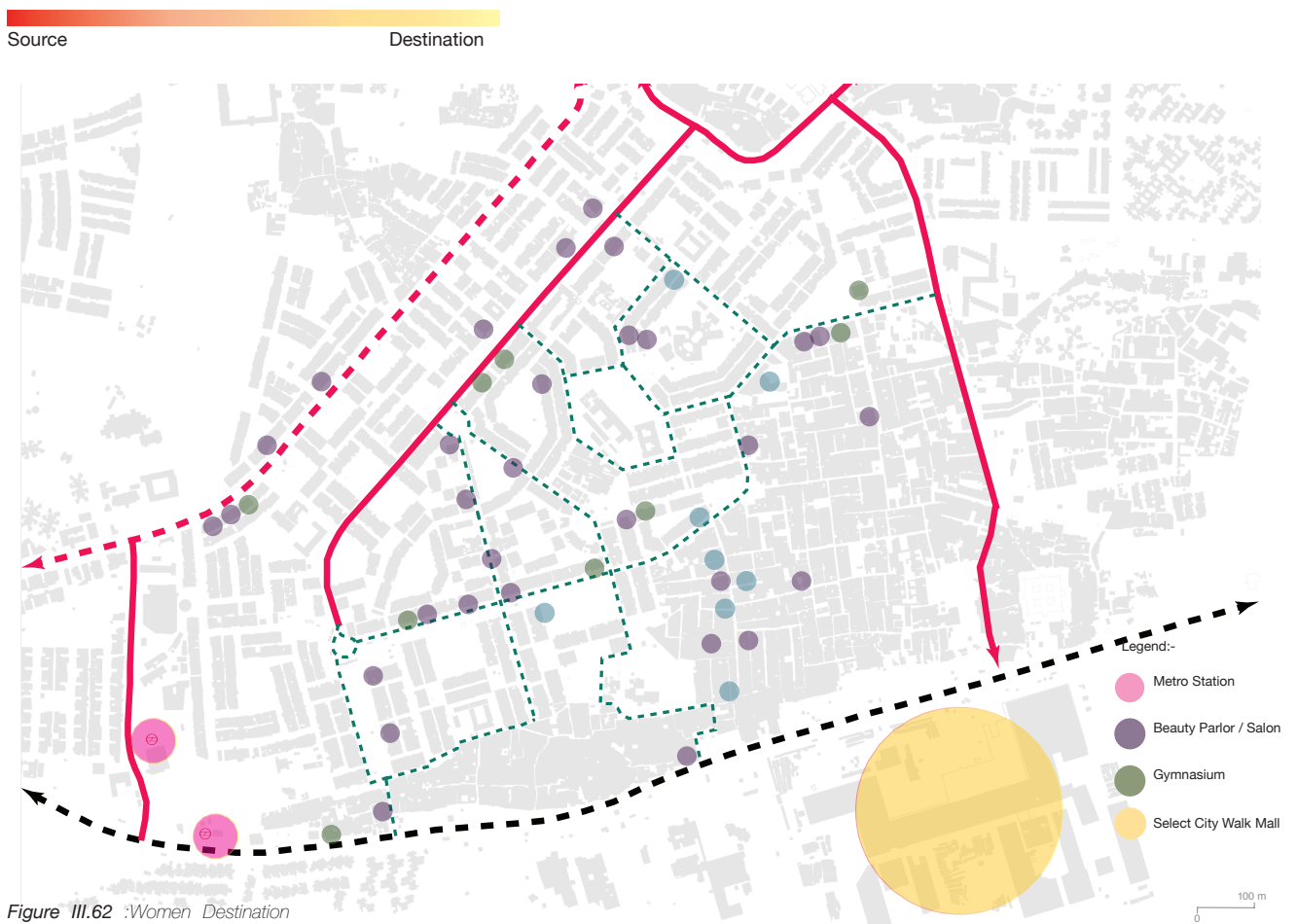
*Figure  III.62* :*Women  Destination*
*Source*: *made by author*

# Conclusive Mapping of the Site
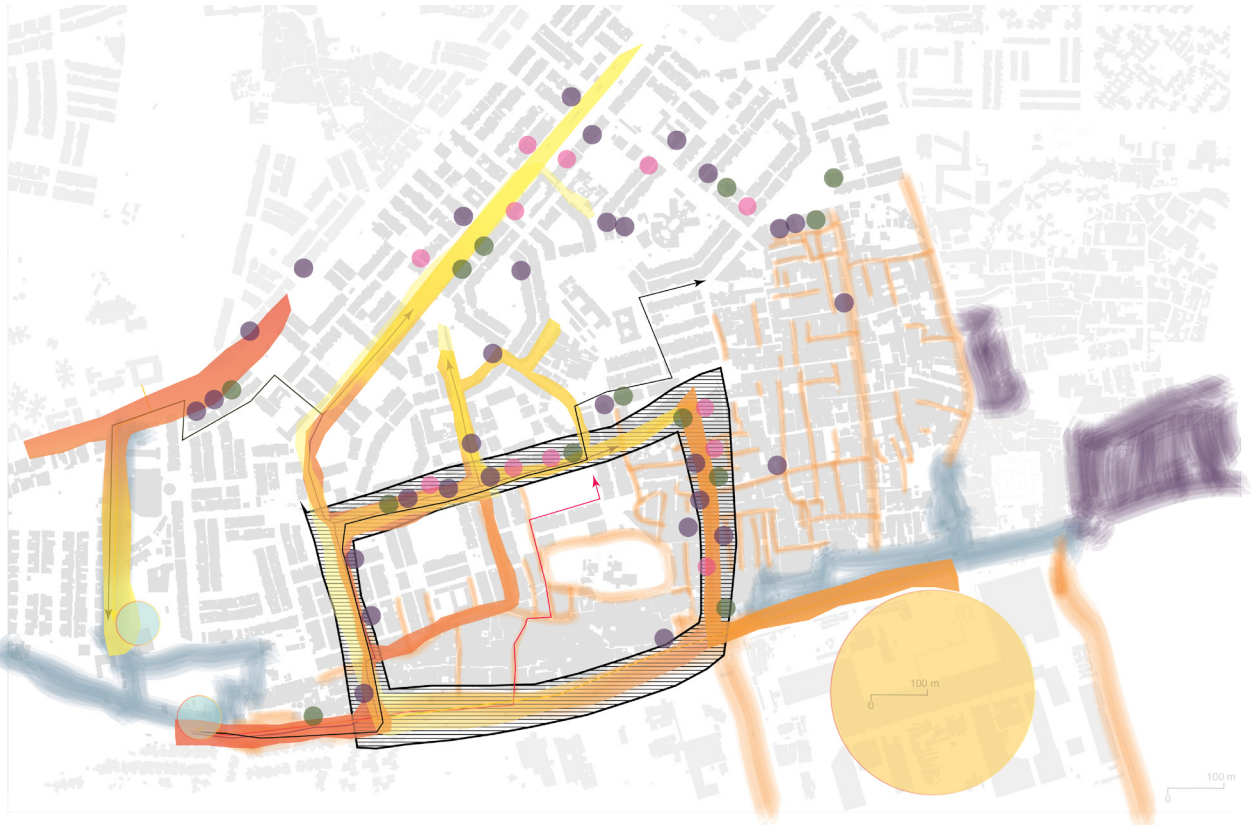


*Figure III.63* : *The overlapping of movement patterns, crime map and destination mapping.*
*Source*: *made by author ( information from site analysis)*

**Movement Patterns:-**

Overlapping the movement of target groups showcase the main routes taken by them in various times of the day. The main routes therefore taken by the target group in the area are designed and the first act needs to be done in one of those streets.

**Detail of the Maps (Figure III.59 - III.61):-**
**Morning (7AM- 9:30AM) Map -** In the morning the source of the people are from mostly the paying guest houses of Malviya Nagar and Khirki Village towards the metro station and the main road for auto rickshaws.

**Evening (5PM- 8:30PM) Map-** In the evening the source of women is from the metro station going towards home, select city walk mall.
Another source is the houses and people moving towards the mall for some recreational activities.

**Evening (10PM-11PM) Map -** This map shows the source mainly as the mall and mostly women are accompanied by a male member. The flow goes inwards Malviya Nagar or to other neighborhoods.

**Destination Map -** The women destination map shows the common destinations like gymnasium, beauty parlors, metro station, selct city walk mall and grocery shops.

**Overlapping Map (Figure III.63):-**

The overlapped map shows a rectangle that is mostly used by the women during all times of the day and night. The right side of the rectangle is crucial as in the night it is a mixed use street an the shops close. While the women pass through it late from work and also from the mall after their recreational activities.

Through the interviews it can be seen that women are afraid to walk alone through Khirki Village area and the side comes from that area.

# Site Selection
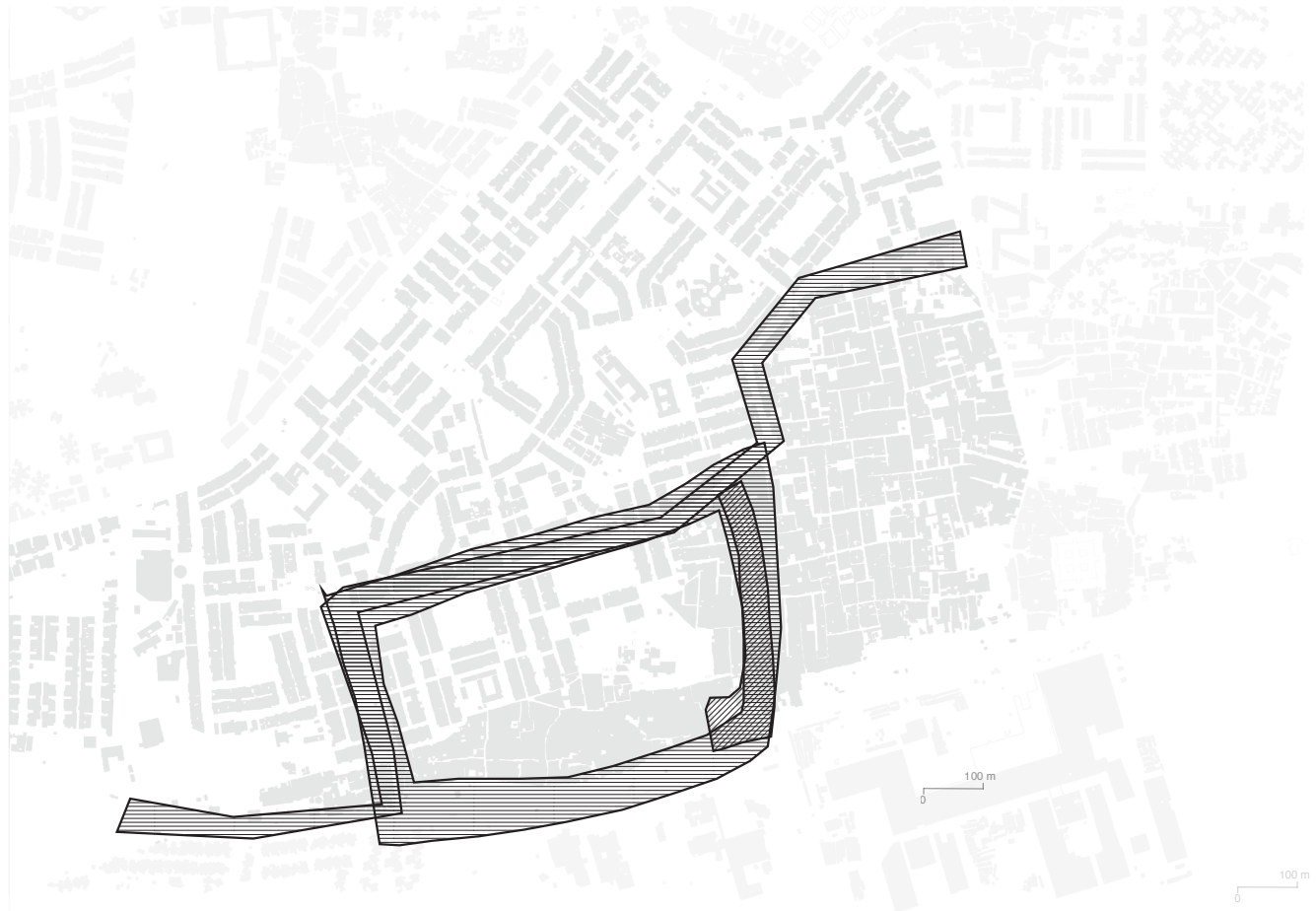


**Figure III.64** : The differential spine and the rectangle when overlapped has a U shape .
**Source**: made by author ( information from site analysis)
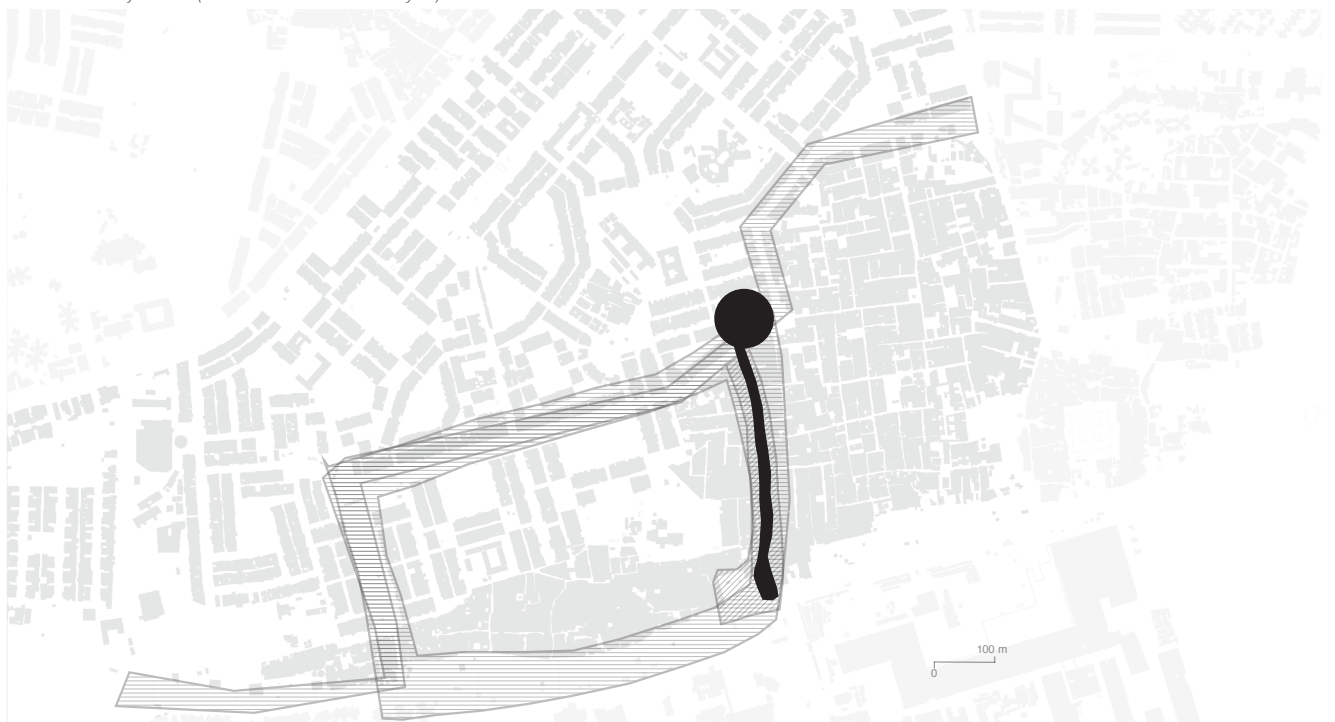


**Figure III.65** : The Site is chosen to be the black spot and the line beneath
**Source**: made by author ( information from site analysis)

Site Selection:-
The map in figure  shows the overlapping of differential spine and the rectangle where an inverted U shape is obtained
while the site selected is  the vertical spine and the public park as it connects both the communities together and is a
link between the two different worlds. through this the spatial activism can spread in both the worlds.

# 7. The Street - Main Location



*Figure III.66*: The image shows the derelict space in the site.
*Source*: by author



*Figure III.69* : Entrance to the mixed use street
*Source*: by author



*Figure III.67*: A daytime view of the mixed use street
*Source*: by author



*Figure  III.70* : A dead end street used for parking cars.
*Source*: by author



*Figure III.68* : Mixed culture is present on the street.
*Source*: by author



*Figure III.71* : Street vendors on the mixed use street.
*Source*: by author

# Function Map of the Street

Scale- 1:1000

**Function Map:-**

The function map of the street shows the male dominated , female dominated and the neural shopping areas of the mixed use street.

From here we can have a clear picture that the male dominated areas are more in the mixed use street and that almost the whole street at ground floor is a shopping area which would close at night and the are becomes dead, while it is a frequently visited area.

**Male Dominated Areas**

- Optical Shop
- Men's Hairdresser
- Men's Clothing Shop
- Tea Stall
- Restaurant
- Kiosk
- Meat Shop

**Neutral Shops**

- Grocery
- 24Hours Medicine Shop
- Restaurant Family
- ATM
- Meat Shop

**Female Visited Area**

- Kids Shop
- Women Salon
- Women Shopping Areas
- Cosmetics
- Jewellery
- Women Clothing Shop

# Typologies of the Street
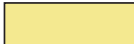


Public Park



Residential Street
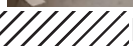


Dead End Street



Derelict Space



Dead Wall Street



Mixed Use Street

**Street Typologies:-**
The site has been segregated into different typologies as follows:-
1. Public Park - This is the park that is common for Khirki villge citizens and malviya nagar residents.
2. Residential Street -  The ROW is approximately 12m.
3. Dead End Street - It has a closed end.
4. Dead Wall Street- This doesnt have any opening on the street.
5. Mixed use  street - Th street has shops on the ground floor.

Scale- 1:1000

*Figure III.73* : Typology Map
**Source**: made by author

# Issue Analysis of the Site

Parking Spaces ...........

Levels in Surfaces

Too dense trees ...........

No Toilets &
No signs of toilets

No command on space on streets ...........

No space to walk ...........

Last Mile Connectivity ...........

very less lighting in night

Dead streets ...........

Garbage & Dumping
Grounds

Signages ...........

Open Manholes ...........

No pedestrianization

*Figure* : *Issue Map*
*Source*: *made by author*

*Figure III.74* : *ISSUE ANALYSIS*
*Source*: *made by author*

N

Scale- 1:1000

# Issues & Objectives Relationship

## Issues & Objectives Relationship



### Issues

Last Mile Connectivity
Parking Spaces
No Woman on Streets
No Space to Walk
Levels in Surfaces
No link in organization
Religion and Economic Difference
Commanding Spaces on Streets
Open Spaces
Toilets
Lighting
Signages
Garbage and Dumping Grounds
Open Manholes
Dead Streets
Too Dense Trees
No Pedestrianization
Public Space meetings happen over kids
No social spaces for women
Climate( hot and humid)

### Design Objectives

**Community Building**
Integration
Community Opportunities
Presence Theory
Co- working
Citizen Engagement
Digitalization

**Participation**
Reappropriation
Improving Economic Status
Territory Building
Digitalization

**Safety**
Natural Surveillance
Wayfinding
Visibility
Openess
Transparency
Lighting

**Inclusiveres**
Mixed Use
Variety
Innovation
Improve accessibility

*Figure III.75 : Issue objective relationship*
*Source: made by author*

The Issues and derived designed objectives then further help me to design the gender sensitive urban design principles and therefore the design interventions for Spatial Activism using temporary urbanism. The women spatial activism agenda takes shape as the Issues and objectives from the site analysis comes together.
The issues are taken from all the scales and levels.

In the figure III.76 on the next page we can see that the issues are derived from the whole analysis and filtered with the theoretical framework to obtain main design issues. They are categorised on the basis of objectives from theoretical framework.

The diagram consists of issues that came from different research steps :-
Gender & the City Workshop
Expert Interviews
Resident Interviews & resident Surveys
Site Visit
Stakeholder, Social & Spatial Analysis

The main Issues are taken based on the keywords coming from theoretical framework and the solutions and women spatial activism physical interventions have been derived from in here.

## 8. Main Issues from different research steps

### Gender & the City Workshop

| | | | |
|---|---|---|---|
| 1. Poor maintenance of public spaces | 1. No Walk Paths | 1. Lack of lighting | 1. Last Mile Connectivity |
| | 2. Too Many illegal parking | 2. Lack of signages & police personnel | |

### Residents Interview

| | | |
|---|---|---|
| 2. No community activities for women | 3. No toilets for the visitors in the area | 3. Light in the night is less |
| 3. Lack of meetup points for women | | |
| 4. Garbage dumps are common practice | | |

### Expert Interviews

| | |
|---|---|
| 4. No gender discrimination at policy level | 4. Lighting issues due to lack of electricity |
| 5. Coordination clashes b/w stakeholders | 5. Private Walls too high due to security |
| 6. Government Differences Central & local | |

### Site Visit

| | | |
|---|---|---|
| 5. A lot of garbage dumps in the area | 6. Density of trees and the foliage is high | 2. Level Difference in the public spaces |
| 6. Number of women decrease in the night | 7. Dead walled streets with no openings | 3. Dilapidated cars in parking on streets |
| 7. Empty public parks due to lack of activities | 8. Lights in certain area are not there | |

### Spatial, Social & Stakeholder Analysis

| | |
|---|---|
| 8. Multicultural & clash of societies | 7. Difference in economic level |
| 9. Unhygienic Conditions | 8. Illegal parking by visitors |

### Main Issues

| | |
|---|---|
| 1. Poor maintenance of public spaces | 5. A lot of garbage dumps in the area |
| 2. No community activities for women | 6. Number of women decrease in the night |
| 3. Lack of meetup points for women | 7. Empty public parks due to lack of activities |
| 4. Garbage dumps are common practice | 8. Multicultural & clash of societies |

*Main Issues*

| | |
|---|---|
| 1. No Walk Paths due to parking | 5. Coordination clashes b/w stakeholders |
| 3. No toilets for the visitors in the area | 6. Government Differences Central & local |
| 4. No gender discrimination at policy level | 7. Difference in economic level |
| 8. Illegal parking by visitors | |

*Main Issues*

| | |
|---|---|
| 1. Lack of lighting | 6. Density of trees and the foliage is high |
| 2. Lack of signages & police personnel | 7. Dead walled streets with no openings |
| 5. Private Walls too high due to security | |

*Main Issues*

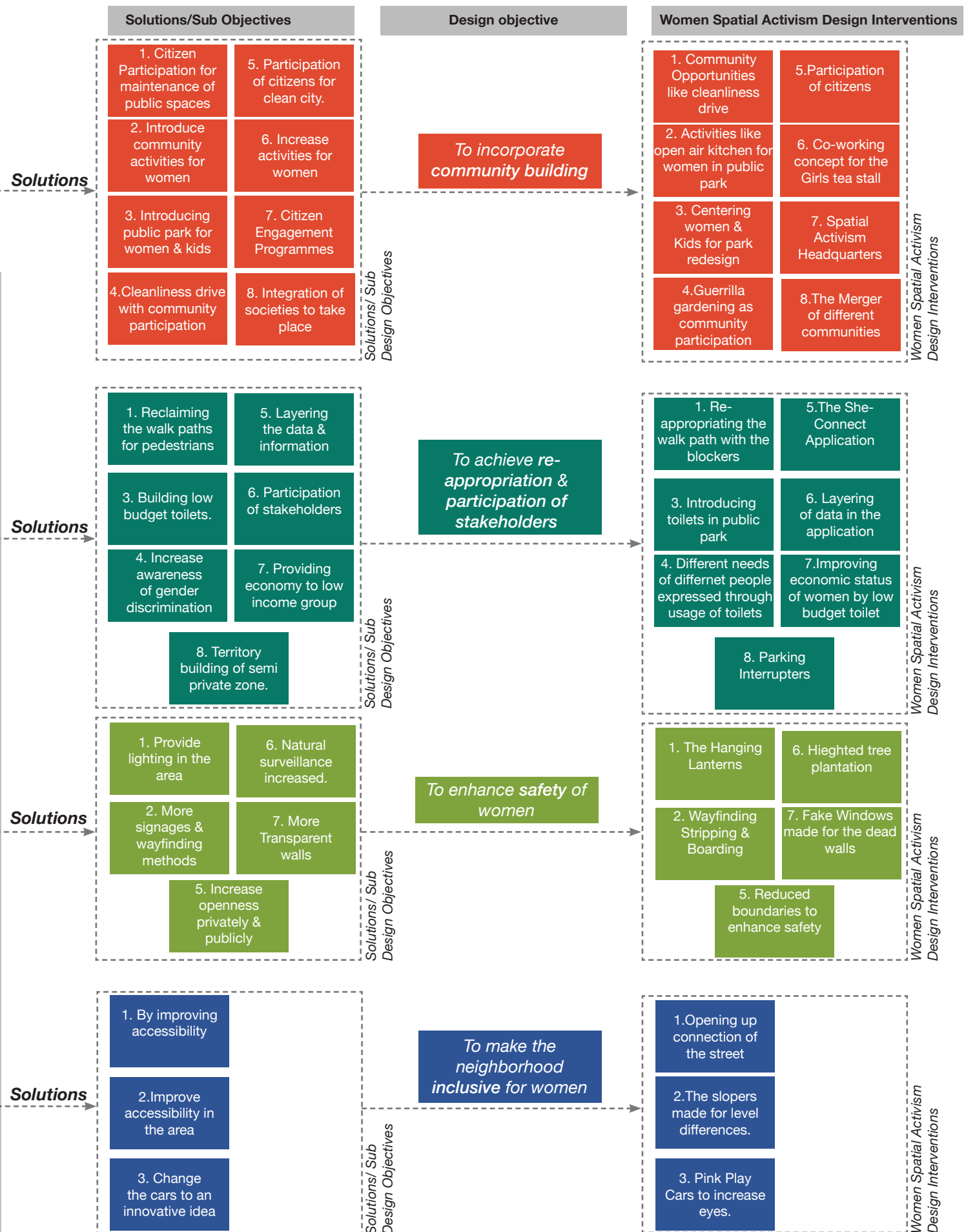| |
|---|
| 1. Last Mile Connectivity |
| 2. Level Difference in the public spaces |
| 3. Dilapidated cars in parking on streets |

*Main Issues*

**Legend :- Theoretical Framework Objectives for Women Spatial Activism Agenda**  — Community Building — Re-appropriation & Participation of Stakeholders — Safety — Inclusiveness

*Figure III.76* : Issue collection
**Source**: made by author

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# IV. Design Research

From the issues devised in the previous chapter the solutions are found out on the basis of theoretical framework of gender sensitive urban design. The solutions turn to main objectives of gender sensitive urban design that are community building, re-appropriation of spaces, participation of stakeholders , safety of women and inclusiveness in the area. These objectives are changed to the design interventions that have to be done by a bottom up approach as it can be seen in political anthropology that there is a conflict between the governments and proposals need long time to run.

# 1. #WomenSpatialActivism Strategy

**What is #WomenSpatialActivism?**

#WomenSpatialActivism is a spatial & digital movement to reclaim spaces and the right to the city by women in New Delhi. The spatial part makes physical changes in the urban infrastructure and the digital movement helps in bringing out that change. The women spatial activism altogether brings out a change in the social structure of the neighborhood. This process is shown in the following diagram.

The strategy figure IV.1 revolves around these 3 main components and they came from the issues as deduced from the page before. Further it is shown that the spatial activism starts from a street and park level and will spread through the neighborhood and the city.

The 3 components of the strategy are:-
1. Physical Structure
2. Social Structure
3. Digital Structure
All the three are a part of the Spatial Activism Agenda



**DIGITAL Technology Structure**
- **- Safetipin + She-Connect (Travel together)**
- **-Awareness of #WomenSpatialActivism**

Promoting through Social Media

Connecting with a digital platform

**Women Spatial Activism Agenda**

Planning Approach

**Social Structure**
- **- Creating a stakeholder structure & Process Implementation**

**Physical Structure**
- **- Gender Sensitive Urban Design Principles**
- **-Spatial Activism Temporary Urbanism Design Interventions**

Temporary Urbanism

Implementation of the Project

*Figure IV.1* : *Strategy Diagram of the Project*
*Source*: *made by author*

After the implementation of the project the #Women SpatialActivism Agenda aims at spreading. The figure shows how the activism will spread in the future and coming times. In the next image the connectivity of the public park is shown and that functions in one place can activate other areas to do something about the issues.

The spatial activism table structure figure IV.4 explains how the spatial activism agenda comes from the micro spatial issues of the project. The design objectives and the spatial design interventions using temporary urbanism have been shown clearly in the structure.
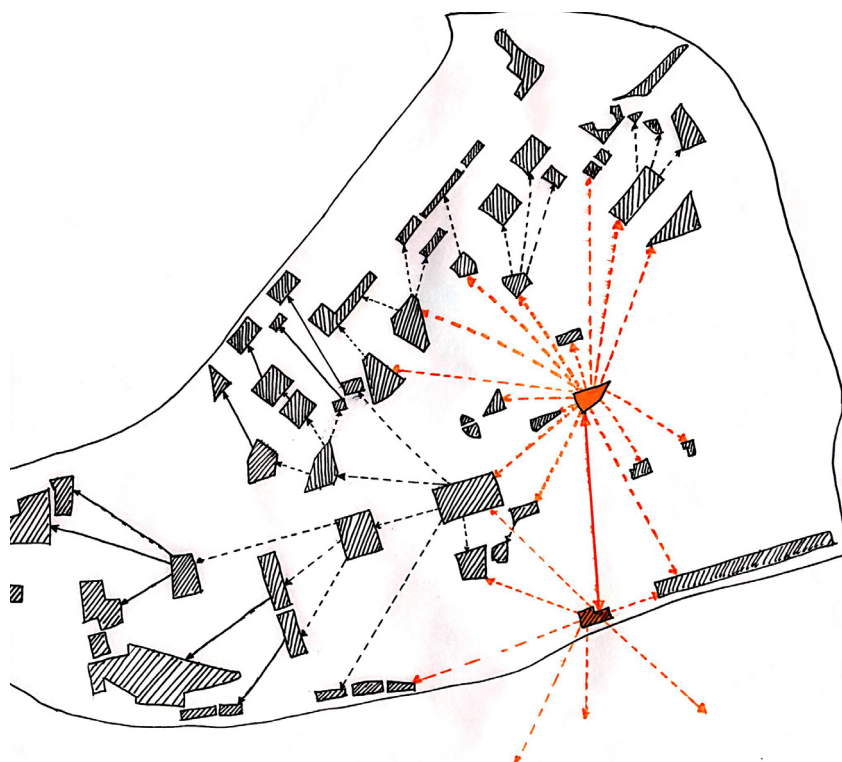
*Figure IV.2: The spatial Activism radiates thereafter to the neighborhood and finally to the city scale.*
*Source: made by author*
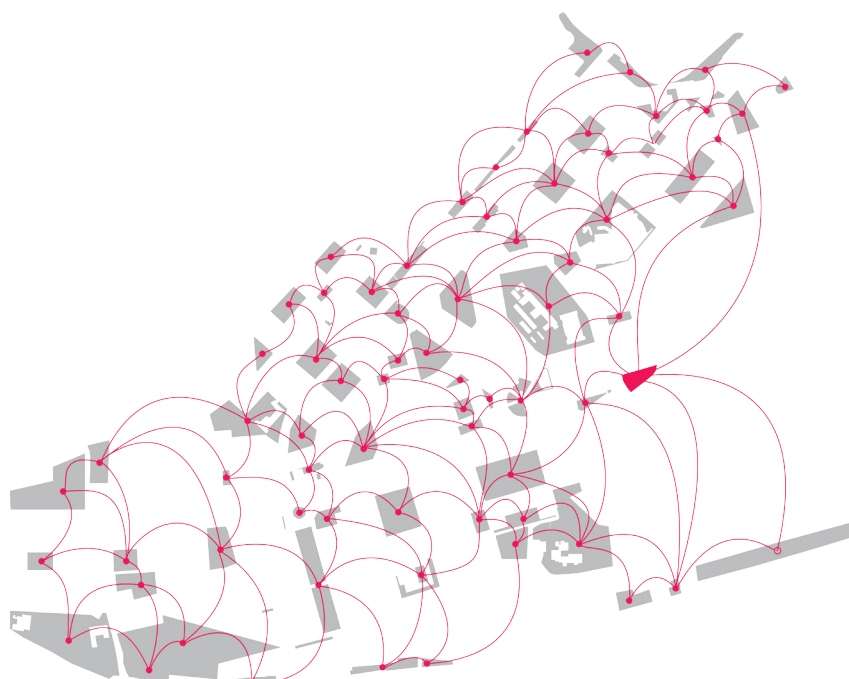


*Figure IV.3 : The park is chosen because of the central location of it. It will be easier for Spatial Activism to spread through this.*
*Source: made by author*

## Issues from different research steps



**Gender & the City Workshop**

- 1. Poor maintenance of public spaces
- 1. No Walk Paths
- 1. Lack of lighting
- 1. Last Mile Connectivity
- 2. Too Many illegal parking
- 2. Lack of signages & police personnel

**Residents Interview**

- 2. No community activities for women
- 3. No toilets for the visitors in the area
- 3. Light in the night is less
- 3. Lack of meetup points for women
- 4. Garbage dumps are common practice

**Expert Interviews**

- 4. No gender discrimination at policy level
- 4. Lighting issues due to lack of electricity
- 5. Coordination clashes b/w stakeholders
- 5. Private Walls too high due to security
- 6. Government Differences Central & local

**Site Visit**

- 5. A lot of garbage dumps in the area
- 6. Density of trees and the foliage is high
- 2. Level Difference in the public spaces
- 6. Number of women decrease in the night
- 7. Dead walled streets with no openings
- 3. Dilapidated cars in parking on streets
- 7. Empty public parks due to lack of activities
- 8. Lights in certain area are not there

**Spatial, Social & Stakeholder Analysis**

- 8. Multicultural & clash of societies
- 7. Difference in economic level
- 9. Unhygienic Conditions
- 8. Illegal parking by visitors

## Main Issues

**Framing — Main Issues**

- 1. Poor maintenance of public spaces
- 5. A lot of garbage dumps in the area
- 2. No community activities for women
- 6. Number of women decrease in the night
- 3. Lack of meetup points for women
- 7. Empty public parks due to lack of activities
- 4. Garbage dumps are common practice
- 8. Multicultural & clash of societies

**Framing — Main Issues**

- 1. No Walk Paths due to parking
- 5. Coordination clashes b/w stakeholders
- 3. No toilets for the visitors in the area
- 6. Government Differences Central & local
- 4. No gender discrimination at policy level
- 7. Difference in economic level
- 8. Illegal parking by visitors

**Framing — Main Issues**

- 1. Lack of lighting
- 6. Density of trees and the foliage is high
- 2. Lack of signages & police personnel
- 7. Dead walled streets with no openings
- 5. Private Walls too high due to security

**Framing — Main Issues**

- 1. Last Mile Connectivity
- 2. Level Difference in the public spaces
- 3. Dilapidated cars in parking on streets

Legend :- Theoretical Framework Objectives for Women Spatial Activism Agenda

- Community Building
- Re-appropriation & Participation of Stakeholders
- Safety

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| Solutions/Sub Objectives | Design objective | Women Spatial Activism Design Interventions |
|---|---|---|

**Solutions** →

1. Citizen Participation for maintenance of public spaces
5. Participation of citizens for clean city.
2. Introduce community activities for women
6. Increase activities for women
3. Introducing public park for women & kids
7. Citizen Engagement Programmes
4. Cleanliness drive with community participation
8. Integration of societies to take place

*To incorporate community building*

1. Community Opportunities like cleanliness drive
5. Participation of citizens
2. Activities like open air kitchen for women in public park
6. Co-working concept for the Girls tea stall
3. Centering women & Kids for park redesign
7. Spatial Activism Headquarters
4. Guerrilla gardening as community participation
8. The Merger of different communities

*Solutions/ Sub Design Objectives*

*Women Spatial Activism Design Interventions*

**Solutions** →

1. Reclaiming the walk paths for pedestrians
5. Layering the data & information
3. Building low budget toilets.
6. Participation of stakeholders
4. Increase awareness of gender discrimination
7. Providing economy to low income group
8. Territory building of semi private zone.

*To achieve re-appropriation & participation of stakeholders*

1. Re-appropriating the walk path with the blockers
5. The She-Connect Application
3. Introducing toilets in public park
6. Layering of data in the application
4. Different needs of differnet people expressed through usage of toilets
7. Improving economic status of women by low budget toilet
8. Parking Interrupters

*Solutions/ Sub Design Objectives*

*Women Spatial Activism Design Interventions*

**Solutions** →

1. Provide lighting in the area
6. Natural surveillance increased.
2. More signages & wayfinding methods
7. More Transparent walls
5. Increase openness privately & publicly

*To enhance safety of women*

1. The Hanging Lanterns
6. Hieghted tree plantation
2. Wayfinding Stripping & Boarding
7. Fake Windows made for the dead walls
5. Reduced boundaries to enhance safety

*Solutions/ Sub Design Objectives*

*Women Spatial Activism Design Interventions*

**Solutions** →

1. By improving accessibility
2. Improve accessibility in the area
3. Change the cars to an innovative idea

*To make the neighborhood inclusive for women*

1. Opening up connection of the street
2. The slopers made for level differences.
3. Pink Play Cars to increase eyes.

*Solutions/ Sub Design Objectives*

*Women Spatial Activism Design Interventions*

■ Inclusiveness

*Figure IV.4 : Women Spatial Activism Agenda.*
**Source**: *made by author*

## 3. #WomenSpatialActivism - Physical Design Intervention Charter

| | COMMUNITY BUILDING | | | |
|---|---|---|---|---|
| | **Integration** | **Community Opportunities** | **Co - Working Concepts** | **Citizens' Engagement Programs** |
| **Gender Sensitive Urban Design Principles** |  |  |  |  |
| **Theoretical Background** | - Jan Gehl Integration of diversity<br>- Jane Jacobs introducing variety in age, type & conditions of built fabric. | Community appropriation of meeting (punt6.org) | Creating a working cross between different social groups | Creating a working cross between different social groups (DIY & Tactical Urbanism) |
| **Gender Sensitive Urban Design Interventions on Site (Temporary Urbanism)** | <br>The merging | <br>Guerilla gardening | <br>The girls' tea stall (dhaba) | <br>Spatial Activism headquarters |
| **Site Scale of Interventions** |  |  |  |  |
| **Typology of Streets of the Site** |  |  |  |  |
| **Achieved Qualities** | - Integration of diverse users<br>- Activating space temporarily | - Re-appropriating spaces. | - The cleanliness drive of removing garbage dumpyards. | - Co-working<br>-Citizen Engagement<br>-Production |

*Figure IV.5 : Women Spatial Activism Physical Charter - 1*
*Source: made by author*

| | RE - APPROPRIATION & PARTICIPATION | | | |
|---|---|---|---|---|
| **Attraction of Women in Public Spaces** | **Re - appropriation & Re - claiming** | **Improving Economic Status** | **Territory Building** | **Digitalization** |
|  |  |  |  Residential zone  Commercial zone  Transition zones in-between residential buildings |  Feedback Organization Spatial Tech- Social Media |
| - Gender & Built Environment by Madhavi Desai says that women in public space attracts even more women. - Jan Gehl Sitting principles support. | - Jane Jacobs tell to differentiate clearly between private & public spaces - Safetipin works towards safer pathways | - KDI Design Initiatives is the example behind this principle of creating economic opportunity in a sustainable manner. | Machiel Van Dorst define territories between private and public in the transition zones. | - Layering the information and data from several agencies is done by urbanists in the KDI initiative to have the best involvement of citizens. |
|  Bring out your chair |  The blockers |  - open - air kitchen - bamboo toilets |  The parking interrupters |  She-Connect |
|  |  |  |  |  |
|  |  |  |  | |
| - Increases number of women on street. | -Re - appropriation of spaces by removing illegal parking. | - Community spaces for women. - Toilets which is one of the main issues can be solved. | Sitting spaces, pink color marks the presence of women in the area. | Digital Connection brings together the stakeholders at one platform |

# #WomenSpatialActivism - Physical Intervention Design Charter
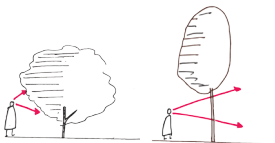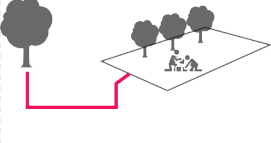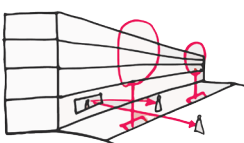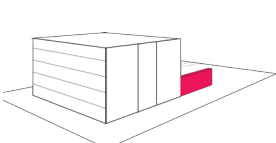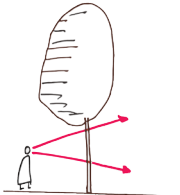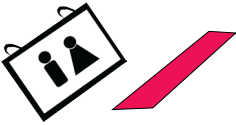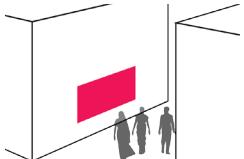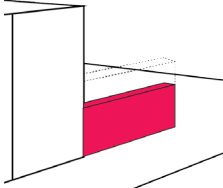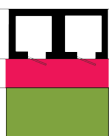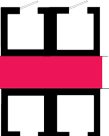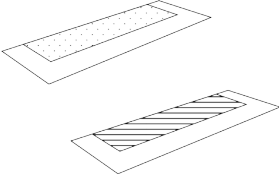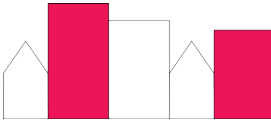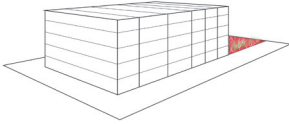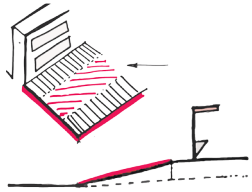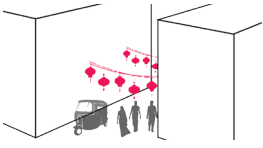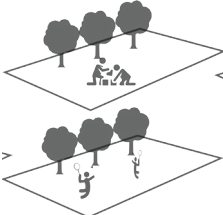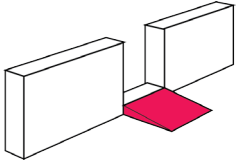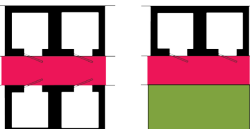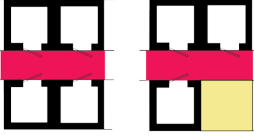
| | SAFETY | | | |
|---|---|---|---|---|
| | **Natural Surveillance** | **Way - Finding** | **Transparency** | **Openness** |
| **Gender Sensitive Urban Design Principles** |  no landscape barrier |  same pavement flow |  transparent walls |  reduced boundary walls |
| **Theoretical Background** | - Crime Prevention Through Environmental design | - The first right of space, is the one of prescence... the second is use and action. (Lynch,1981) - Keeping same tree type and pavement to the destination | - Crime Prevention Through Environmental design | - Crime Prevention Through Environmental design - To see and be seen (Punt6.org) |
| **Gender Sensitive Urban Design Interventions on Site (Temporary Urbanism)** |  Wise Tree Plantation |  Stripping & Board Bombing |  The Fake Opening |  Reduced Boundaries |
| **Site Scale of Interventions** |  |  |  |  |
| **Typology of Streets of the Site** |  |  |  |  |
| **Achieved Qualities** | - Increases the natural surveillance of the park. -Low maintenance trees | - Women will know where the toilets are -Wayfinding in the night will be easier. | - Decreases the feeling of fear on a dead wall street. | - Increases openness and the visibility of the area. |

*Figure IV.6* : *Women Spatial Activism Physical Charter -2*
**Source**: *made by author*

| Lighting | INCLUSIVENESS | | | |
|---|---|---|---|---|
| | **Shared Space** | **Variety** | **Innovation** | **Accessibility** |

| **Lighting** | **Shared Space** | **Variety** | **Innovation** | **Accessibility** |
|---|---|---|---|---|
|   street lamps |   shared space to attract kids |   gendered activities |   innovating spaces |   improved accessibility |
| - Crime Prevention Through Environmental design<br>- Safetipin parameters to make safe spaces | - Shared Space is a relatively new concept and increases adaptability.<br>- Play the City example is used here. | - The activities performed by girls in the playground are much different than boys (Holmes & Procaccino, 2009). | - Innovation is defined by punt6 as one of the gender oriented principle as its a psychological ambition of making things beautiful. | - Same level with different material to avoid inclusion issues.<br>- Giving ramps whenever there is level difference. |
|   The Hanging Lanterns |   Play in the city |   The sandboxes |   The play car |   The wooden slopers |
|  |  |  |  |  |
|  |  |  |  |  |
| - Lights up the street in the night sustainably.<br>- It triggers Spatial Activism on a larger scale.<br>- Contributes to Urban Safety<br>- Increases legibility | - Equipments are not needed to play by kids.<br>-Same space is used for several activities. | - More girl kids will come in the park. | - Spots of Spatial Activism<br>- Dilapidated cars have some use.<br>-Reclaims Space<br>- Increases Innovation | - Inclusive Environment<br>-Strollers Accessibility in parks and other areas. |

The #WomenSpatialActivism physical design charter shows the relationship between each intervention, the urban design principle, their theoretical background, scale of intervention, the typology and achieved qualities. The next section will show the explicit explaination of each design intervention and how it can be implemented in different contexts.

## 4. #WomenSpatialActivism Physical Design Interventions

# The Merger
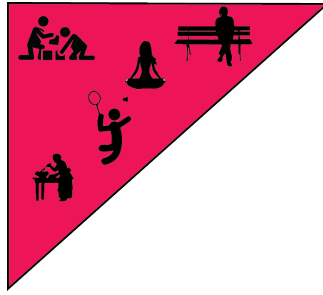


*Hypothesis* - Merging communities, age groups, social groups can enhance the liveliness of the area.

*Added Hypothesis* - To integrate the two different communities from Malviya Nagar & Khirki Village.

## Context:-

Malviya Nagar and Khirki Village are two sub neighborhoods part of the Hauz Rani Ward. Malviya Nagar is a posh area while Khirki Village is an urban village. The two areas have very contrasting communities in terms of financial, religious backgrounds and professional scenario.

## Urban Design Principle :-

To integrate and to segregate is an important decision to be taken in urban design and planning. Integration hereby is used to bring together distinct activities and categories of people to work side by side (Gehl, 2011). Liveliness and variety will attract more liveliness and diversity and is one of the four main principles of a good park design (Jacobs, 1961). Integration therefore is taken as the urban design principle where we merge communities, age groups, social groups and various activities in the park.



- Age Groups
- Religious Groups
- Financial Groups
- Gender Integration
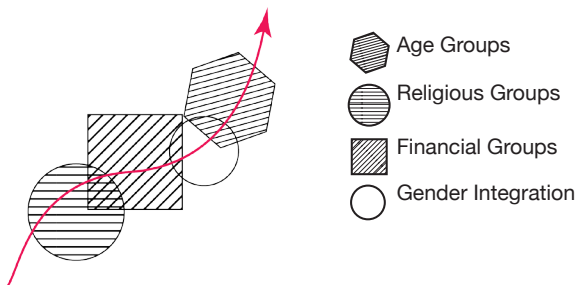
## Spatial Activism Intervention

The idea is merging different communities and functions in a public space to make it more lively and therefore even more safe.
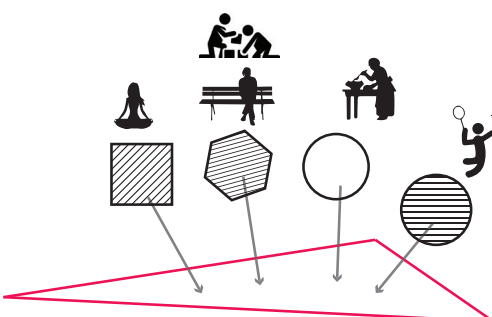
## Actors Involved:-

The actors involved in the integration of the public park involves mainly the citizens who are at the end the users of the place as well. In this particular intervention goverment or the local municipality plays a key role.



*Urban Designer*    *Residents*    *Non- Profit Organizations*    *Govt. Bodies*

## Site Scale of Interventions:-



The intervention can be implemented to a public park where all the sundry activities take place. The public MCD park is a location which is the intersection point of Malviya Nagar and Khirki Village. From this location of intervention we can reach out to two drastically distinctive group of people. The activism can therefore spread in both the directions.

## Typology of the Site



The typology chosen is clearly the public park which is a place where activities from all age groups are done, sitting, chatting, dog walking, playing, kitti parties, walking, jogging, etc.
Through integration and amalgamation of groups an enriching quality of space will be achieved that will help in community building.



*Figure IV.7: Integration principle turned to Spatial Activism intervention of The Merger*
*Source: made by author*

**Site Context:-**



*Figure IV.8*: *The lone Malviya Nagar Park on a nice evening at 5PM with good weather conditions.*
*Source*: *by author*

**Reference Image:-**



*Figure IV.9* : *All age groups and diverse community come together through placemaking.*
*Source*: *http://www.designcouncil.org.uk/sites/default/files/styles/dc_-_wysiwyg_-_smart_embed/public/assets/images/SH-PICTURE-1%2B_sd.jpg?itok=mT-d1CHD*

# The Girl's Tea Stall 'Dhaba'



*Hypothesis* - Connecting the women of the neighborhood through a recreational activity.

*Added Hypothesis* - Women love cleanliness privately & publicly, this design intervention has to be towards cleanliness.

## Context:-

The context of the problem are the male dominated tea stalls incorporated in the urban fabric in form of temporary shelters or shop extensions. Hardly, one can ever see a women sitting and chilling at a tea stall. The stereotyped tea stalls are mostly inhabited by a comparatively low income group of the society.

## Urban Design Principle :-

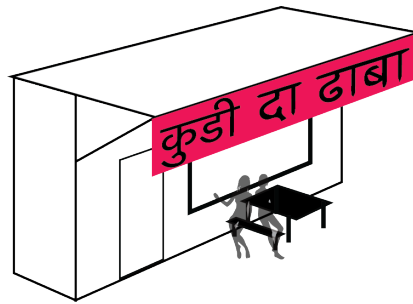Community Opportunities- The design of the spaces affect relations between people. According to the uses and activities that are prioritized and cause spaces relationship can promote coexistence, exchange and socialization of people so equally contributing to the development and strengthening of social networks Membership community. A community environment can also prevent people remain isolated so it is easier for  living situations of violence against women that have a social network community to support that request (Gutiérrez et al., 2016)
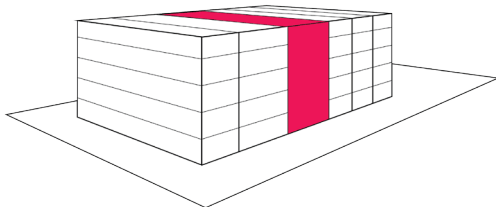


Introducing Community Opportunities

## Spatial Activism Intervention:-

The Tea Stall is an initiative to bring the women community together and reclaim the space on the streets with more presence of women for a leisure and recreational activity.

A girl from Udaipur opened a tea stall only for girls and is running it successfully giving freedom to the women in the area ("(8) Udaipur Girl Priya Sachdev Opens Up a Tea Stall Specially for Ladies - YouTube," 2016)

## Actors Involved:-

The girl's tea stall is a move which needs financial partners and it can be a CSR project with sponsorship. It can be lead by the student union members. The women activists can take the responsibility of the promotion of the tea stall.



*Urban Designer*    *Residents*    *Corporate Social Responsibility*    *Artists/Activists*    *Student Unions*

## Site Scale of Interventions:-

The idea can be a part of the built fabric or can also be a temporary extension to the edge of the fabric. Though specifically the best location for this is considered to be the center of teh mixed use street and the park.

## Typology of the Site

The mixed use street that is the junction of the Malviya NAgar and Khirki village is considered to be the best place to introduce the tea stall as it is the common point for the millennials and the housemaker women to come , relax and rejuvenate themselves.
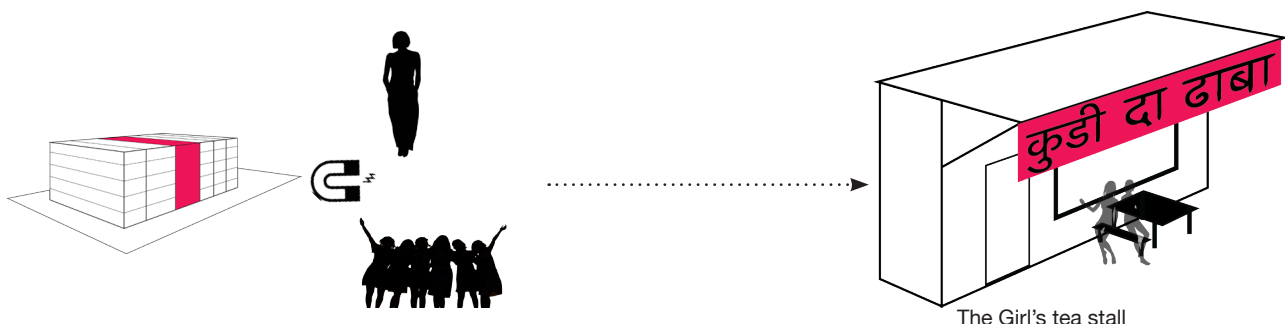


The Girl's tea stall

*Figure IV.10 : The community building principle is converted to a girl's tea stall*
*Source: made by author*

*Figure IV.11 :A tea stall in an Indian urban setting claimed by men in the area.*

*Source: by the author*



*Figure IV.12 : Priya Sachdeva opened a girls only tea stall as an initiative in Udaipur, Rajasthan, India which proves to be a suceess financially and socially*

*Source: http://images.catchnews.com/uploads/images/2016/04/13/priya-sachdev-2.jpg*

# Guerilla Gardening
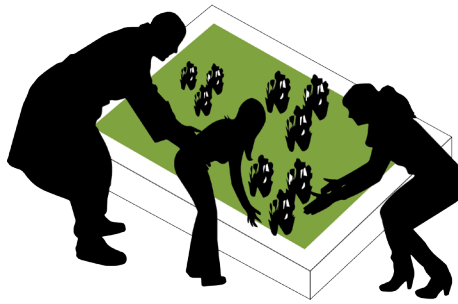


*Hypothesis* - Bring people together to work towards a sustainable, clean and safe neighborhood.

*Added Hypothesis* - Women love cleanliness privately & publicly, this design intervention has to be towards cleanliness.

## Context:-

Like any other neighborhood in India, Malviya Nagar and Khirki village are filled with dirt, garbage dumps and worsening conditions of sewage which has caused a lot of health hazards in the area. The government has long plans of sewage lines and disposal system which will take years to be implemented on the ground.

## Urban Design Principle :-

Co-Working Concept - A community environment favors the appropriation of spaces and the feeling of belonging of people reinforcing social cohesion and community participation to the environment. The actions include participation of women in the building process and participation of the community in the urban transformations. Access of women in decision making and community building are prime. (Gutiérrez et al., 2016)
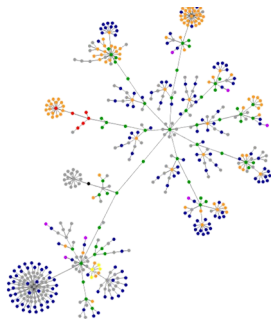


*Figure IV.13 :Different communities working together.*

## Spatial Activism Intervention:-

Guerrilla Gardening is an activity in which the areas that are not in use like vacant lots, private properties or garbage dumps are revived by gardening.

With the help of Guerrilla gardening at the various scales people are attracted to come together and participate in the community opportunity (Garcia, 2016).

## Actors Involved:-

Guerrilla Gardening is a community project which can be taken up by schools, colleges and universities in order to increase awareness of sustainability.



*Urban Designer*    *Residents*    *Non- Profit Organizations*    *Artists/Activists*    *Student Unions*

## Site Scale of Interventions:-



The practice of Guerrilla gardening can be done at any scale like neighborhood, street and micro level just outside the private doors to prevent random parking or garbage pits.

## Typology of the Site



The dead wall street, dead end street and the derelict space in this context are the suitable typologies for guerrilla gardening to be executed. Here in the context figure a derelict space of the site is shown with dumped neglected garbage which have been thrown mostly by the natives of the area.



Guerrilla Gardening

*Figure IV.14:The co-working concept turns to guerrilla gardening movement in Malviya Nagar*
*Source: made by author*
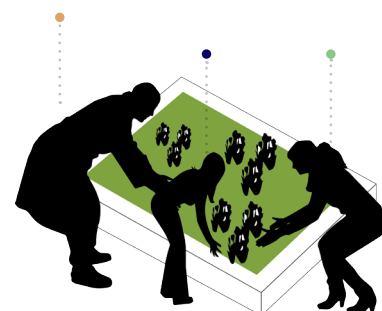
## Site Context:-



*Figure IV.15*: *The unused garbage dumps in Malviya Nagar*
*Source*: *by author*

## Reference Image:-



*Figure IV.16*: *Guerilla gardening in action in London, UK*
*Source*: *http://map.seedmap.org/wp-content/uploads/o5.jpg*

# Temporary Urbanism Workshop
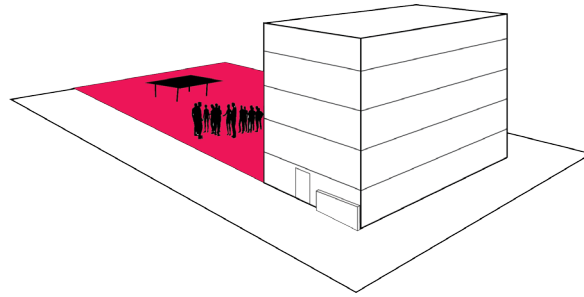


*Hypothesis* - Making a cross between social groups by engaging in temporary urbanism introduced in the neighbor-
*Added Hypothesis* - The vacant lots used as dump yards can be functional.

## Context:-

There are a lot of vacant plots in the neighborhood that have been spotted with scrap recyclable and non-recyclable waste. These kind of places pose fear in the night as they have spaces to hide and attract illegal activities like drug pedaling and prostitution in the area(Garvin, Cannuscio, & Branas, 2012).

## Urban Design Principle :-

Citizen Engagement Program- The citizen engagement program is a working cross between all the social groups that can be divided according to age, class, income and professions. It is believed that DIY urbanism combined with civic engagement can lead to more vibrant, people-centered urban spaces. Residents are often expected to know their own needs best and to contribute to the success of urban developments (Sawhney, de Klerk, & Malhotra, 2015).
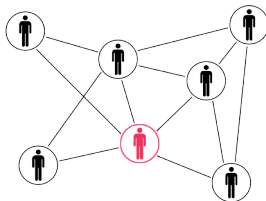


*Figure IV.17 : Creating a cross between people from different communities*

## Spatial Activism Intervention:-

Urban activism in the form of DIY urbanism is now becoming central to the contemporary urban planning discourse, with a diversity of terms used to explain 'bottom-up urbanism.'

The temporary urbanism workshop aims to create products for the Spatial Activism like slopers, blockers, etc. It also aims to reuse the recyclable material on the plot for its development.

## Actors Involved:-

The temporary urbanism has to be done by the residents and creative visitors who can be part of student unions or CSRs office employees.



Urban Designer    Residents    Social Entrepreneurs    Artists/Activists    Student Unions

## Site Scale of Interventions:-

This activity can be done at a neighborhood scale by identifying the vacant plots in the neighborhood which have scrap belongings and are prone to crime and illegal activities.

## Typology of the Site

The vacant plot or derelict spaces that are not being used are identified on the site and the intervention is to be implemented in here. The derelict spaces ownership though is an important criteria and legal permission is required to use the pace for these kind of purposes let it be private/public.



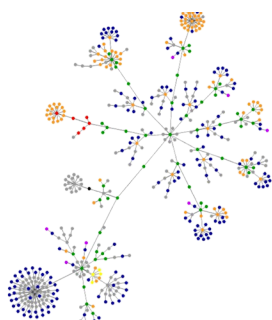Vacant Lot or Derelict Spaces     Through Participation of people     Temporary Urbanism Workshop

*Figure IV.18:The co-working concept turns to guerrilla gardening movement in Malviya Nagar*
*Source: made by author*

# Site Context:-



*Figure IV.19* : *The derelict space near Sri Krishna Mandir, Malviya Nagarvv*
*Source*: *by author*

# Reference Image:-



*Figure IV.20*: *The citizen engagement Program by urban activists Koon in Moscow*
*Source*:*http://www.thepolisblog.org/2012/09/cooperative-urbanism-in-moscow.html*

# Bring out your chair
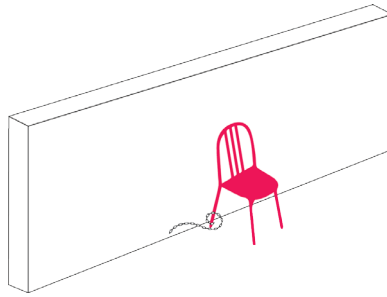


*Hypothesis* - The main hypothesis for this intervention is to increase the number of women in the street

*Added Hypothesis* - An old woman keeps the watch on a small girl going alone to school.

## Context:-

The bare high walls of the built fabric in the neighborhood built for the security purposes avoid the safety of the urban street people. The opaque walls reduces the transparency making streets even more dangerous. Due to the robbery cases this is a common practice followed in India and Malviya Nagar is no other exception.

## Urban Design Principle :-

Women attract more Women- Gehl famously said that people attract people and the theory here can be used as women attract even more women in a public space (Gehl, 2011). Madhavi Desai also mentions that it's a safe environment when there are more women on streets. They feel the place to be more inviting and are attracted at such places (Desai, 2007).
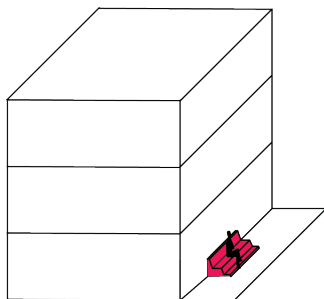


*Figure : Seating for women attracts women*

## Spatial Activism Intervention:-

Bring out your chair is an urban design intervention where the residents are invited to bring their old furniture outside their houses and paint them pink to invite more women to sit outside.

This will increase the number of women and their presence in public spaces which all in all creates a confort level for the other women to cross streets.

## Actors Involved:-

Mostly the residents have the main role in this intervention as the financial side is also taken care by them . The urban designer thought process can be converted into a conversation with the residents of the area.



*Urban Designer*    *Residents*

## Site Scale of Interventions:-



This activity can be done at a neighborhood scale by identifying the vacant plots in the neighborhood which have scrap belongings and are prone to crime and illegal activities.

## Typology of the Site
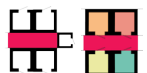


The dead end streets and the mixed use street typology are the best for this kind of intervention as in the dead street it can be used as a way of interaction and in the mixed use street this can be a more safety solution than the conversation.



*Figure IV.21:The women attracting more women principle is changed to bringing out you chair.*
*Source: made by author*

## Site Context:-



*Figure IV.22*: *A Malviya Nagar Street where women want to be outside but no far than the house.*
*Source*: *by author*

## Reference Image:-



*Figure IV.23*: *An old chinese street where women and men bring their own chair out to sit and relax.*
*Source*: *http://media-us-west-motionelements.s3.amazonaws.com/m/s/236/2354737/a-0005.jpg*
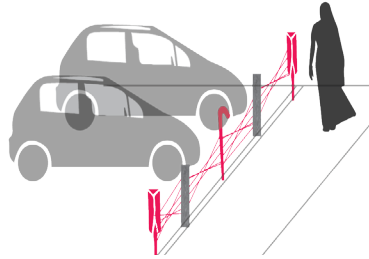
# The Blockers



*Hypothesis* - The blockers are made to achieve re-appropriation of the spaces used by parked cars.

*Added Hypothesis* - A clear walkway is achieved for a better pedestrian flow.

## Context:-

Most of the pathways and walkways made by the local government in India are occupied by the parked cars which is an outcome of very less parking spaces in In metropolitan cities in India like New Delhi. Malviya Nagar is a highly dense and populated area which causes such issues.

## Urban Design Principle :-

In the Death & life of American Cities, Jane Jacobs talks about bordering spaces with distinctive uses and to make clear distinctions with colors, materials or borders (Jacobs, 1961). Safe, secure and wide walkways contribute to a safer environment for women (Viswanath & Mehrotra, 2007) To maintain the continuity of the routes the urban elements coming in between like furniture, vegetation, etc. needs to be removed (Gutiérrez et al., 2016)



*Figure IV.24 : Specifying the use of urban spaces*

## Spatial Activism Intervention:-

The Blockers are an idea that takes place as an event. The people are invited to bring old recyclable material from their houses like bat, hockey, wooden sticks, photo frames, etc. They collectively then have to bury and place them along the pathway after the cars once have moved back to their original settings. The sticks then have to be tied together with the help of the pink threaded steel wire which keeps them intact in place. This will clear the sidewalk and made available to walk thereafter.

## Actors Involved:-

Various stakeholders at diverse stages come in role. The urban designer has to design where exactly and to what extent the burying activity has to take place followed by the support of activists and RWAs.



| Urban Designer | Residents | Resident Welfare Association | Artists/Activists | Student Unions |

## Site Scale of Interventions:-



The blockers intervention is mostly for the street sidewalks and can be implemented at the neighborhood level.

## Typology of the Site



Mostly the residential street and the park edges are occupied with cars parked, some visiting, some of residents which have no use and some for just occupying the place.
The park edge is an important place for this intervenytion so the vision is not blocked as well.



The Parked cars initially

The Blockers

*Figure IV.25 :Re-appropriation of the sidewalk by temporary urbanism*

*Source: made by author*

## Site Context:-



*Figure IV.26*: The sidewalk just outside the edge of the park is completely occupied by the cars.
*Source*: by author

## Reference Image:-



*Figure IV.27* : A space re-appropriated temporarily for the benefit of the citizens
*Source*: http://www.downtownexpress.com/wp-content/uploads/2017/03/tactical-urbanism-2017-03-23-pic6DEPRINT_WEBWEB-600x425.jpg

# The Open air Kitchen & The Toilet
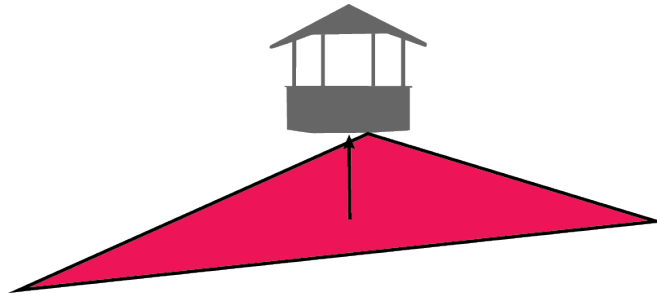
*Hypothesis* - To create spaces for the women rejuvenation & necessity

*Added Hypothesis* - It can help in the economic growth of the women of low income group of the neighborhood.

## Context:-

A very notable insight of the gender and the city workshop suggests that problems as small as toilets are huge when it comes to women. When surveyed and analyzed the area hardly has public toilets. Also the public parks mostly do not define a use for them and serve as closed spaces. The sanitation of the neighborhood is in general very low.

## Urban Design Principle :-

Konkuey Design Initiative in Kibera comes out with a solution to two problems that were low sanitation, crime and unemployment. They make a sanitation block along with the citizens to benefit them in return by appointing people to earn through the toilets. This initiative is a successful project("Kounkuey Design Initiative | KSPS06," 2014).

*Figure IV.28: The figure shows the people with no work with money make toilet block and gets money out of it to revive their lives.*

## Spatial Activism Intervention:-

The open air kitchen introduced gives a function to the park in itself and a gathering space for the women to cook together and spend some time. It can be built as a very simple bamboo structure with a shade which provides shelter to the people coming to the park against the harsh sun.

While, the toilet adds to the economy of the people and also provide them with work lowering down the illegal activities in the region.

## Actors Involved:-

Stakeholders at all stages are needed for this project as it also has to be a legalized reality. So the local municipality and the financial partners will have a major role in the project.

*Urban Designer*   *Residents*   *Corporate Social Responsibility*   *Artists/Activists*   *Student Unions*

## Site Scale of Interventions:-

The open air kitchen and the toilet have to be made i the premises of the park. Therefore it can be implemented in other areas in a public park.

## Typology of the Site

The public park is a suitable space to employ this along with the derelict space in the area. But in this case derelict space is not used for making these functions as it is privately owned and therefore long term functions cannot be proposed for the area. In other cases derelict or vacant plots are a better option for making the toilets.

An economic startup

Improved status of women
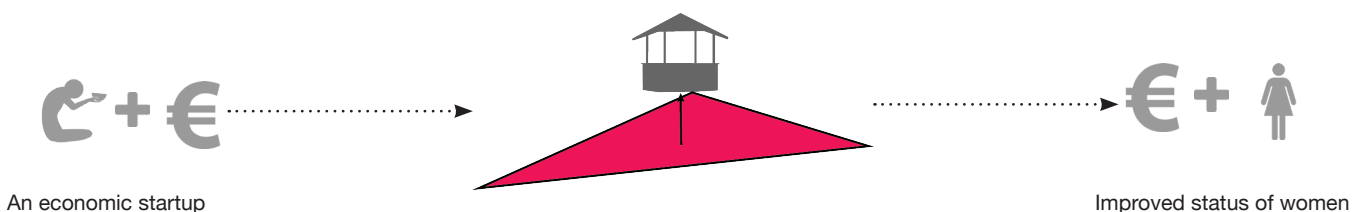
*Figure IV.29 :Space for women rejuvenation & necessities*

*Source: made by author*

## Site Context:-



*Figure IV.30* : *An empty park with hardly any people in the time of evening due to being a destined functionless space.*

*Source*: *by author*

## Reference Image:-



*Figure IV.31*: *Sanitation block made by Konkuey Design Initiative with the help of the residents in the area.*

*Source*: *http://www.kounkuey.org/Kibera_PPS6.html*

# The Parking Interrupter
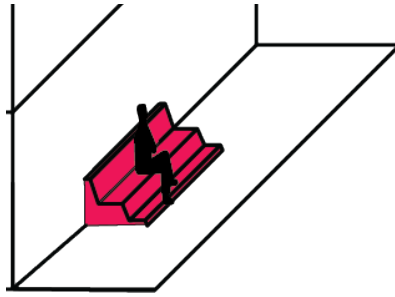


*Hypothesis* - Increase multi-use spaces for the citizens of the area.

*Added Hypothesis* - Have more seating space and improves interaction in between the residents

## Context:-

The spaces outside the houses are occupied by the car of the owners deliberately even when they have space in the houses for the car to stand. This happens mainly because the owner do not want the space to get occupied by random visitors cars.

## Urban Design Principle :-

Territoriality or control in the external environment has been identified as a positive quality of space. The control on private and public spaces define their share-ability between strangers and known people(Dorst, 2002).
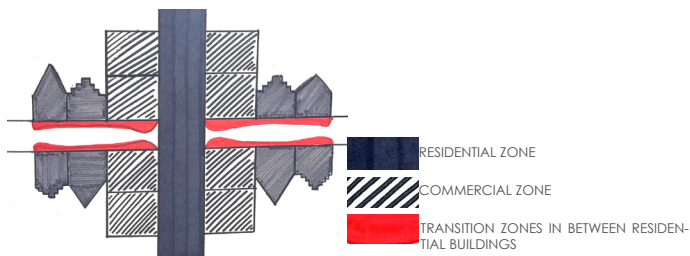


*Figure IV.32 : The figure shows the transition zones in between residential is less and in between commercial is more.*

## Spatial Activism Intervention:-

The control and command on the space is done by the parking interrupter by having multiple uses. The idea of parking interrupter is to convert into a public pink seating bench in order to occupy the space for the owner when the car is not there and serve as an urban furniture to enrich the urban environment.

## Actors Involved:-

Actors involved for this project is very importantly the owner of the houses who need to be convinced to invest in the system as it is useful for them and the community a whole.



*Urban Designer*   *Residents*   *Artists/Activists*

## Site Scale of Interventions:-

The parking interrupters are made at a micro scale but as part of activism they can spread in the neighborhood as a whole.

## Typology of the Site

Residential Street is the focal implementation typology and the parking interrupters are to be placed in front of the housing typology. The solution aims at the front door of the houses to improve control on the space in a way that is useful to the owner and the community as a whole.



Parking Spaces

Folded Parking Interrupter converted to seating

Parking Converter used as bases for parking car again.
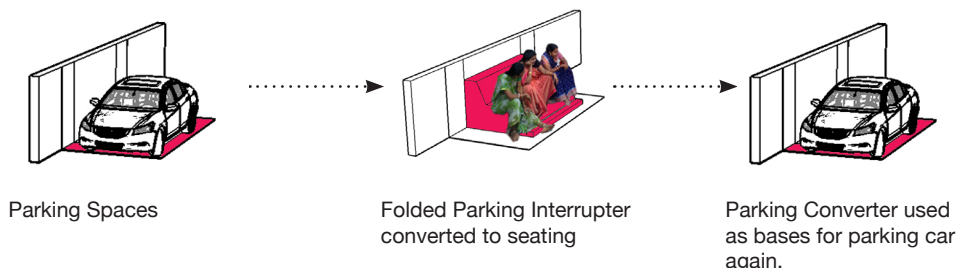
*Figure IV.33 :The hierarchy of Parking Interrupters*
*Source: made by author*

**Site Context:-**



*Figure IV.34* : The parked cars at the front gates of the houses in Malviya Nagar
*Source*: by author

**Reference Image:-**



*Figure IV.35*: A floor converting to bench is an example on how the idea can come to reality.
*Source*:https://in.pinterest.com/pin/162481499026584385/

# She-Connect Application
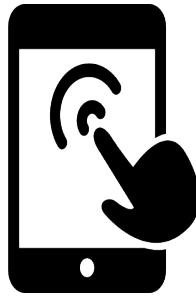


*Hypothesis* - To connect the women while traveling alone in Delhi

*Added Hypothesis* -Spatial Activism routes to be shown as the preferred routes to be followed.

## Context:-

It has been seen that the women walking or traveling alone always try showing being busy either listening to songs or chatting on the phone or talking on the phone. This happens mainly because they feel the fear while walking down the streets or a public space.

## Design Principle :-

Layering the information and data from several agencies is done by urbanists in the KDI initiative to have the best involvement of citizens. Also from the surveys the solution to travel together was considered to be one of the most workable ones and hence its used as a principle("Kounkuey Design Initiative | KSPS06," 2014).



Feedback
Organization
Spatial Techniques
Social Media

*Figure IV.36: The figure shows the people with no work with money make toilet block and gets money out of it to revive their lives.*

## Spatial Activism Intervention:-

She-Connect application connects the women travelling together from A to B by overlapping the data from various sources and highlighting the spatial activism streets. The idea is to take information from all the agencies working in the area like Safetipin, Jagori, Khoj and many other, then layer them and collect the data inn the form of interacted maps. The Spatial Activism Streets will be considered as the most preferred route in the application.Based on the information obtained from different agencies and Spatial Activism, the hotspots or meeting points will be suggested as well. It will have a link to upload the original ids of the people to avoid fake profiles.

## Actors Involved:-

The players of She-Connect will be the CSR , NGOs, Artists and Activists involved with international financial partners. The application need app developers and a PR team.



Urban Designer  Non- Profit  Corporate  Artists/Ac-  S t u d e n t
Organizations  Social  tivists  Unions
Responsibility

## Scale of Interventions:-

The digital scale is applicable for this intervention and after the development of the application it will again need the stakeholders to use it and promote the app amongst people. Below is a workflow given of the application on how it will conceptually run and create better environment for the women by travelling together through activism streets and create their own spatial activism in other forms in their streets and neighborhoods.
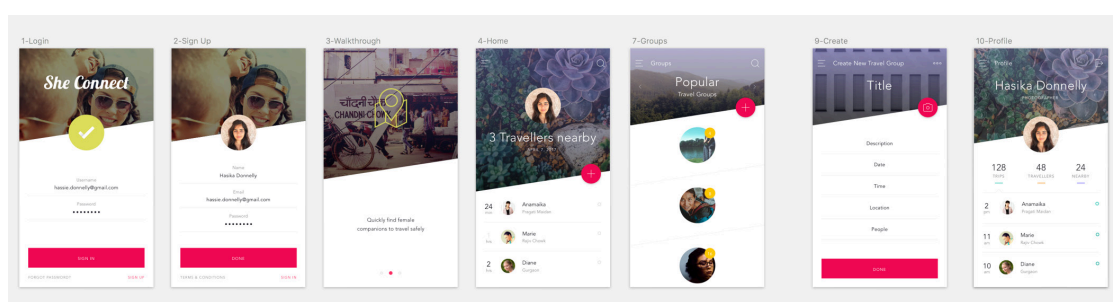


*Figure : The first run experience of a lady is shown in this flow diagram designed for the application*

*Source: made by author*

**She Connect**

Username
hassie.donnelly@gmail.com

Password
••••••••

SIGN IN

FORGOT PASSWORD?                    SIGN UP

Log in Window

Name
Hasika Donnelly

Email
hassie.donnelly@gmail.com

Password
••••••••

DONE

TERMS & CONDITIONS                    SIGN IN

Sign up Window

चाँदनी चौक
CHANDNI CHOWK

Quickly find female
companions to travel safely
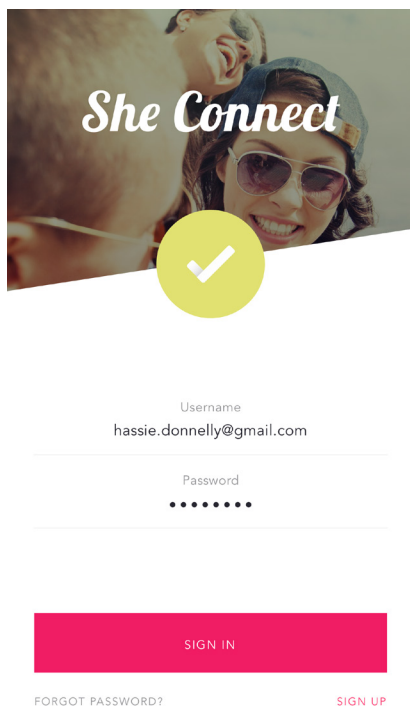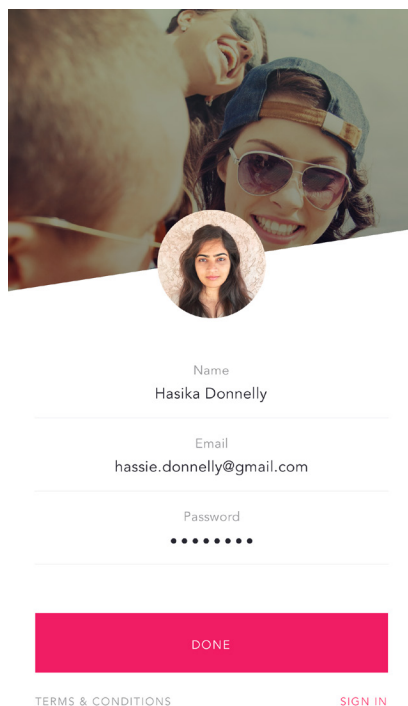
Walkthrough

*Figure IV.37* : *The screenshots of the designed application She-Connect*
*Source*: *by author and friend*

3 Travellers nearby
APRIL 7, 2017

24 min     Anamaika
           Pragati Maidan

1 hrs      Marie
           Rajiv Chowk

2 hrs      Diane
           Gurgaon

Home Page

Groups

**Popular**
Travel Groups

Travel Groups

Profile

**Hasika Donnelly**
PHOTOGRAPHER

128        48          24
TRIPS      TRAVELLERS   NEARBY

2 pm       Anamaika
           Pragati Maidan

11 am      Marie
           Rajiv Chowk

10 am      Diane
           Gurgaon
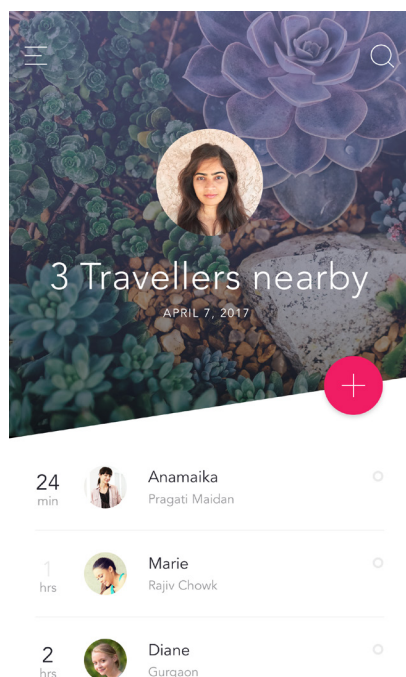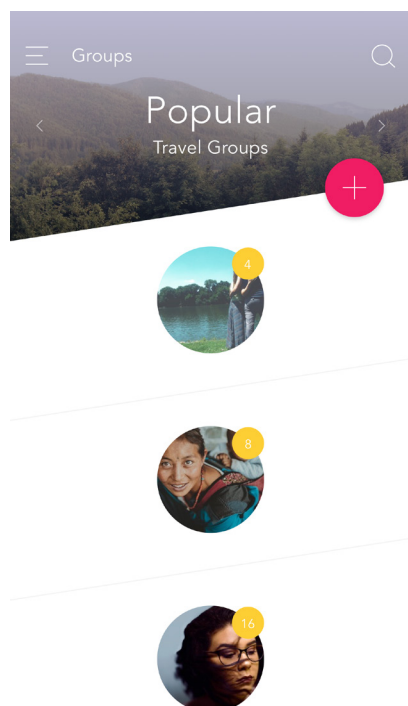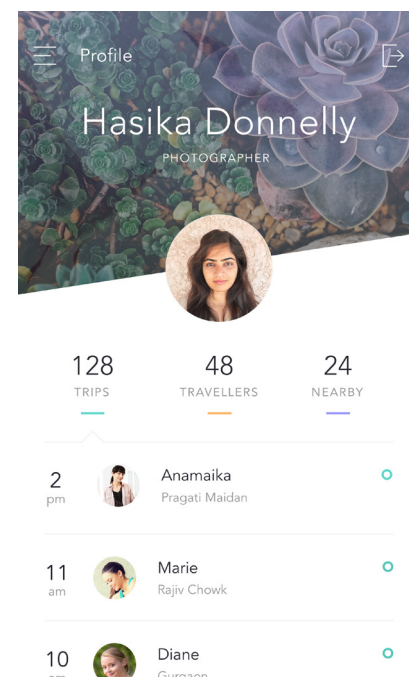
Possible travelers

*Figure IV.38* : *The screenshots of the designed application She-Connect*
*Source*: *by author and friend*

# Wise Tree Plantation
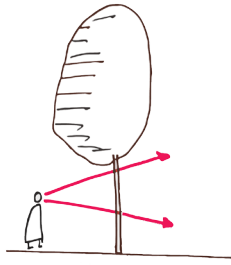


*Hypothesis* - Make the neighborhood more open increasing natural surveillance.

*Added Hypothesis* - The vigilance increases and line of vision improves.

## Context:-

The public parks in the area and in most of the neighborhood have high hard walls and dense trees. The plantation is not maintained in the long term which makes it a bit worse. Also, they are designed to be gated from all the entries and exits which makes it even more inaccessible.

## Design Principle :-

Natural Surveillance is a technique given by crime prevention through environmental design and it says to have less foliage trees till the height of 3m so that at the eye level everything is pervious ("CHAPTER 9: CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN," 1972)
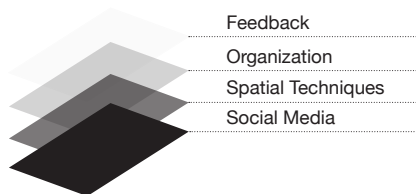


RESTRICTED VIEWING          NON-RESTRICTED VIEWING
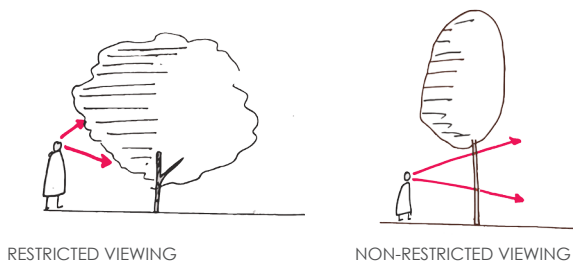
*Figure IV.39: The figure shows the people with no work with money make toilet block and gets money out of it to revive their lives.*

## Spatial Activism Intervention:-

The Wise tree plantation is an attempt where carefully trees are planted like the use of Asoka tree which is tall and less foliage at bottom.

The act is proposed in terms of trees and also the boundary wall of the houses. Blocked vision and clear sight lines are achieved with this application of project.

## Actors Involved:-

Wise tree plantation has to be followed by a multi-scalar heirarchy of stakeholders. Governmenet when planting takes care na dthen the RWAs, clubs and associations. Making green wisely including all the



Urban Designer     Residents     Non- Profit Organizations     Govt. Bodies

## Site Scale of Interventions:-

The three scales of application of the natural surveillance can be the park by reducing tree foliage. At the street level it can be about reducing the boundary height. At the neighborhood scale it talks about the entry and exit clear points of the neighborhood.

## Typology of the Site

The site typologies includes natural surveillance in the public park and residential neighborhood. The residential neighborhood needs to reduce the boundary of the houses and the public park has to have tree with less foliage.
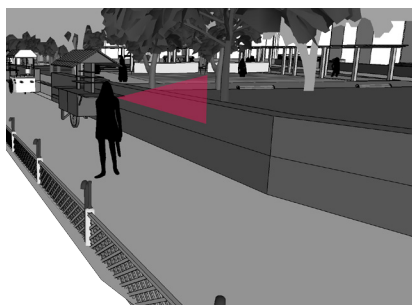


Before- Restricted view of the Park
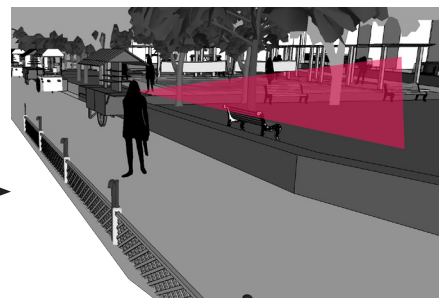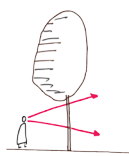
After- Improved vigilant & under surveillance park

*Figure IV.40:Before After images of the controlled non surveillance park.*
*Source: made by author*

**Site Context:-**



*Figure IV.41* : *The non visible public spaces due to cars parked and the trees that obstruct vision.*
*Source*: *by author*

**Reference Image:-**



**BEFORE**                                                **AFTER**

*Figure IV.42*: *The trees prevent the vision of the road and sidewalk from the house, in the other picture organized trees facilitate the sidewalks by natural surveillance.*
*Source*:*https://pbs.twimg.com/media/C3f9dpLUoAALFkC.jpg*
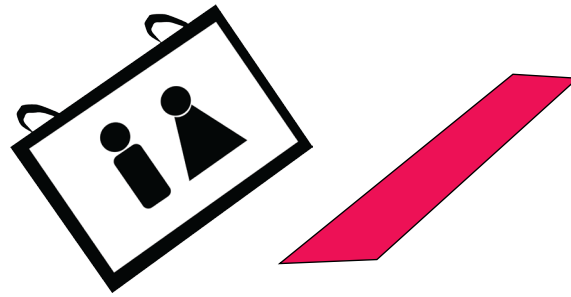
# Stripping & Board Bombing



*Hypothesis* - Increase multi-use spaces for the citizens of the area.

*Added Hypothesis* - Have more seating space and improves interaction in between the residents

## Context:-

Proper signs/ signages of popular destinations and essential services like toilets, etc. are not present in the whole of neighborhood. Malviya Nagar and Khirki Village lacks legibility in the internal urban infrastructure due to interconnected narrow lanes. This is a common problem in almost every neighborhood of the region.

## Urban Design Principle :-

The design principles proposed in Image of the City links to imageability of space and the reading capacity of the street. It requires signs/signages at the points of decision and clear sight lines. The material used can be same for connecting important destinations (Lynch, 1972). Collectiu punt 6 also suggests the importance of wayfinding of women with signages (Gutiérrez et al., 2016). The cognitive compatibility and wayfinding recognition is different for sexes. Women depend more on the landmarks and signs (Lawton & Kallai, 2002)
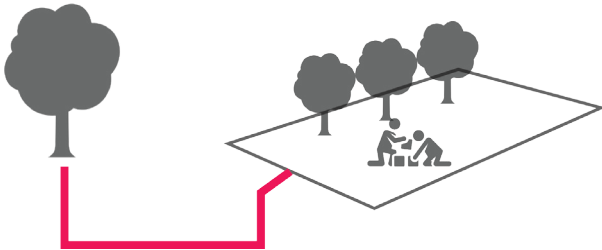


*Figure IV.43 : One color or material connects two destinations.*

## Spatial Activism Intervention:-

The wayfinding can be dealt with temporary urbanism as well and we do it by bard and strip bombing. Self made signages on cardboards are put by owners of houses signifying important destinations to the visitor women of the area. The glow painted strips are made in order to coordinate with sight lines of women in night without light.

## Actors Involved:-

The stakeholders in the project would be including the residents who apply the changes, NGO and artists workers who convince people for doing it. It is not a very costly project and does not require financial partners.



*Urban Designer*   *Residents*   *Artists/Activists*   *Non- Profit Organizations*   *Resident Welfare Association*
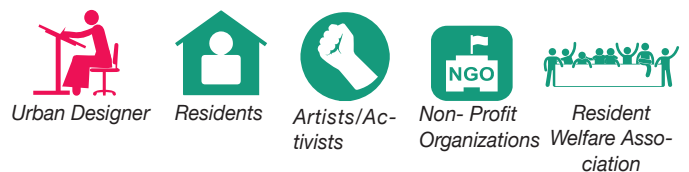
## Site Scale of Interventions:-

Micro Scale represents the front door of the houses for board bombing while the street scale is for painting the glow strip.

## Typology of the Site

The dead street and the mixed use typology have to be bombarded with these temporary urbanism strip and tactical wayfinding boards. The dead street will have a vision line to move forward, while the mixed use street offers a lot of options to hang the boards in front of shops.



A dead wall without windows

Stripping & Board Bomboing

The dead wall becomes active with strip and board.
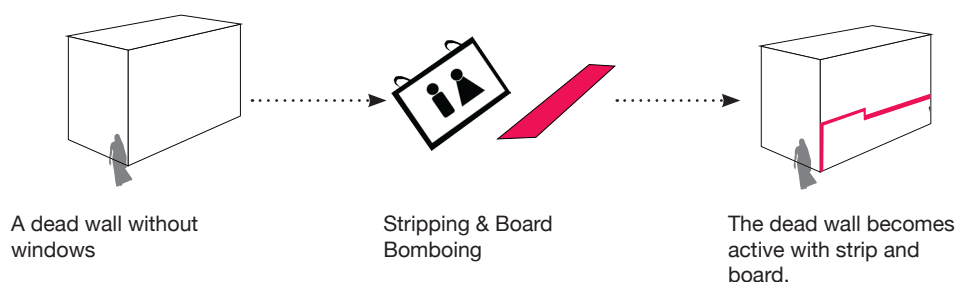
*Figure IV.44:The signage boards and glow strip to guide way in the dead street.*
*Source: made by author*

**Site Context:-**



*Figure IV.45*: A dead street on both sides of the walking and scooter street.
*Source*: by author

**Reference Image:-**



*Figure IV.46*:The first image shows guerrilla wayfinind boards while the other one shows the pedestrian carpet.
*Source*: https://s-media-cache-ak0.pinimg.com/736x/f5/f9/09/f5f9093108bcc38942e845f22b8a149c.jpg
https://s-media-cache-ak0.pinimg.com/736x/43/55/1b/43551b263367eb4acbac224d26790f57.jpg

# The Fake Openings
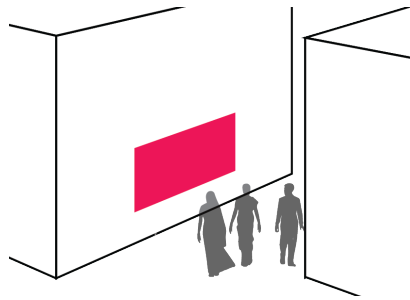


*Hypothesis - Opening up the street visually to induce a sense of being seen and to see.*

*Added Hypothesis - It makes the way more fun and lively to reach safer capacities of a road.*

## Context:-

If we talk about Delhi, the first thing that comes to mind are the narrow lanes of Old Delhi. In most places still which developed as urban villages there are a lot of these narrow lanes which are dark, ill-lit used as shortcuts turn scary in the night. In some places these are the only way that can be followed to reach destinations.

## Design Principle :-

Elimination of blind walls to routes in the streets of the daily network is one of the important actions from the guidelines of Col.lectiu Punt6 who proposes to have a safe network of places visited by women (Gutiérrez et al., 2016). An important finding in Death & Life of Great American Cities is about making streets more open and safe. For which transparency of the walls have been talked about explicitly(Jacobs, 1961)
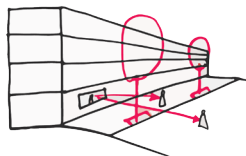


*Figure IV.47 : Presence of windows at eye level keeps eyes on the street (Jacobs,1961)*

## Spatial Activism Intervention:-

The fake openings are 3D art paintings done on the wall to show imitation of real windows. When women walk on streets they feel comfortable if the house windows are open and active. The fake openings will have a similar function and will make strangers and the dwellers of the neighborhood more comfortable especially in the night.

## Actors Involved:-

The creative artists, guests from different colleges/ universities are invited for the mock up workshop and an art competition is hosted to bring different creations. This project do not require financial partners but a wide network of creative guests contribution.



| *Urban Designer* | *Residents* | *Corporate Social Responsibility* | *Artists/Activists* | *Student Unions* |

## Site Scale of Interventions:-

The fake openings in general are made at a micro level on the walls of the houses or public buildings but it is implemented slowly on the whole street. It can spread if good response comes then through street network in itself.

## Typology of the Site

The fake windows are specifically designed for narrow dead wall lanes and therefore the typology chosen would be very specific though in a general context it can spread streets with same urban fabric.
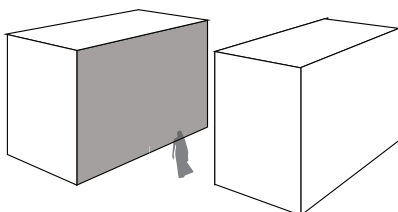


Abstract showing the dead wall in a street
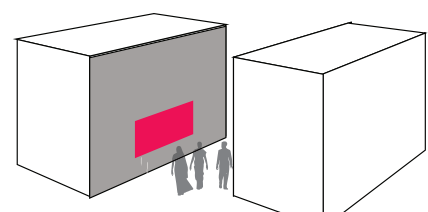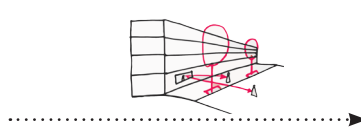
Fake opening implanted on the wall

*Figure IV.48: A more opened and transparent street visually achieved with this intervention.*

*Source: made by author*

**Site Context:-**



*Figure IV.49* : Dead Walls street in Khirki Village
*Source*: by author

**Reference Image:-**



*Figure IV.50* : A fake door in the London streets.
*Source*: https://c1.staticflickr.com/1/204/441060311_00cd38a7de_z.jpg?zz=1

# The Hanging Lanterns
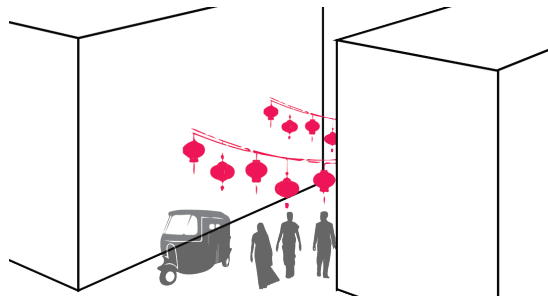


*Hypothesis - Lighting the dark areas literally as well as figuratively.*

*Added Hypothesis - It makes the way more fun and lively to reach safer capacities of a road.*

## Context:-

A mixed use street is vibrant and lively in the day but when shops are closed there are no rules and regulations for them to be lighted. In such cases these streets after 8PM turn pitch dark and after 10PM there are hardly people on streets except the loafers, alcoholics and drug pedalers. Women feel unsafe to walk on closed street at this point of time.

## Design Principle :-

The mixed use streets are considered to be safe only when there are many residential uses on the ground floor. In the night time when the shops close active residential slots can help making public spaces safer. In case of a street more towards commercial side is considered unsafe at night(Hillier & Sahbaz, 2008). Lighting is considered as a very important safety parameter also by the Safetipin organization (Viswanath & Mehrotra, 2007).



*Figure IV.51 : The conventional street lamps considered as the remedy of removing darkness in streets.*

## Spatial Activism Intervention:-

The Hanging Lanterns is a concept in which solar lanterns are hanged from one balcony to other in a street just 6meter wide. The Pink lanterns will be sustainable and light the street keeping an eye on the road. The pink lanterns need to be tied in 1st and 2nd floor of the balcony. This will be an apt height for the light to exist on street.

## Actors Involved:-

This is a fund raising project and financial partners will play a key role. Though to avoid vandalism we need to include a subsidized ownership of the residents who will buy them at a nominal rate. NGOs and Activists still are vital partners for implementation.



Urban Designer    Residents    Corporate Social Responsibility    Artists/Activists    Social Entrepreneurs

## Site Scale of Interventions:-



The Scales for the hanging lanterns are building scale and street level both of which are the implementation scales. Further growth of this project depends on the success of the product.

## Typology of the Site



Mixed use street is the typology of applicability in coordination to the theory and site analysis of lost street in the dark. A personal experience showed an intriguing fear to cross the street when accompanied.
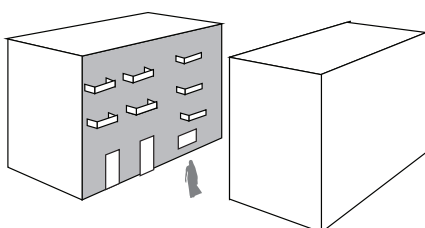


The built fabric closed at night with openings.
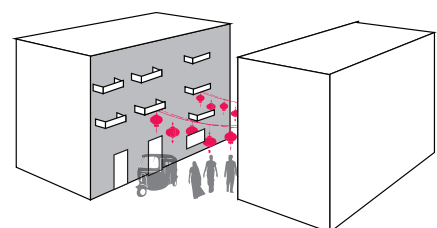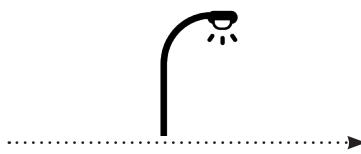
The hanging lanterns makes the street lively and active.

*Figure IV.52: Hanging lanterns converts the street to a more lightened and safer lane.*
*Source: made by author*

**Site Context:-**



*Figure IV.53*: Dark Mixed use street after the shops are closed in Malviya Nagar
*Source*: http://cdn.static-economist.com/sites/default/files/blackout5_0.jpg?1343852723

**Reference Image:-**



*Figure IV.54*: A Lampshades light up the Rue du Mail, Paris.
*Source*: https://s-media-cache-ak0.pinimg.com/736x/72/f5/e9/72f5e9e6e064ece15a93f7347fb2b920--street-lamp-paris-street.jpg

**Play the City**



*Hypothesis* - *Enhancing the usage of urban spaces by diverse users.*

*Added Hypothesis* - *Diverse communities can come together and interact at the common platform of a public space.*

## Context:-

The park when noticed at various times of the day was noticed to be a bit empty. The spaces designed for a particular function were not being used as they are not user interactive. Maintenance is found to be a huge issue regarding the public spaces in India and therefore spaces which do not demand care are required.

## Design Principle :-

The shared space concept is relatively new and is an urban design approach which seeks to minimize the segregation of pedestrians and vehicles. It removes the specific feature or function of a place and leaves the uncertainty of use (Karndacharuk, Wilson, & Dunn, 2014).



*Figure IV.55: Same space with distinct functions*

## Spatial Activism Intervention:-

Play the city is a concept where the unused badminton court is added with the possibility of other games for the kids , like snakes and ladder which can be played also

by the children of the low income group. Snakes and Ladder is an interactive game and every kid in India learns how to play in the very childhood.

## Actors Involved:-

This project will be part of the park renovation proposal and therefore requires actors involved in the monetary assistance along with the pilot project implementation. So the RWA can play a major role as they can also permit for the intervention on their risk.



Urban Designer    Residents    Artists/Ac-    Non- Profit    Resident
                                tivists       Organizations  Welfare Asso-
                                                             ciation

## Site Scale of Interventions:-

Public Park and the street can be painted with different games in options related to the education, knowledge and upbringing of the kids in particular context.

## Typology of the Site

The park is taken as the space for the design implementation and a shared space zone is created where all sundry kids activities can take place. Since its temporary it can be changed to other interesting examples.



The built fabric closed at night with openings.

The kids playing snake and ladder and the space used for playing badminton.

*Figure IV.56: Hanging lanterns converts the street to a more lightened and safer lane.*
*Source: made by author*

## Site Context:-



*Figure IV.57 : Badminton Area is mostly unused at all scales of times.*
*Source: http://cdn.static-economist.com/sites/default/files/blackout5_0.jpg?1343852723*

## Reference Image:-



*Figure IV.58 : Streetscape turned to play spaces in Europe.*
*Source: https://s-media-cache-ak0.pinimg.com/originals/5a/aa/3b/5aaa3b60939b6a086a0a31c99c60eb96.jpg*

# The Sandboxes
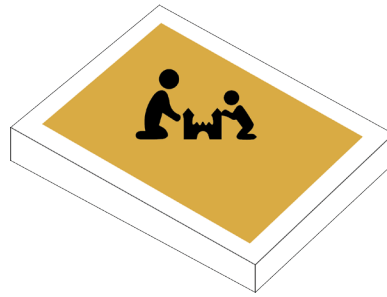


*Hypothesis - Giving equal opportunity to girls and boys to play in a public space.*

*Added Hypothesis - Sand Pools can keep the kids grounded to the earth.*

## Context:-

Most of the public spaces in India see boys playing cricket, football and badminton while girls in a corner playing whisper games and running behind each other. The monotony is not praised by the girls playing and they need a variety in the environment.

## Design Principle :-

In constructed playground or environments, however, girls are more likely to choose socially-driven activities such as games or make-believe scenario, or play equipment that promotes social
interaction (Nabhan & Trimble, 1994). Moreover, they are more likely to choose sedentary activities such as playing in the sandbox or games played on a plaid in the grass
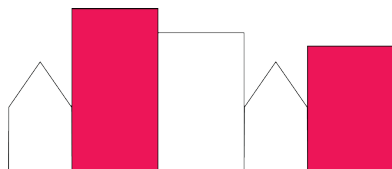


*Figure IV.59: Conceptual diagram showing variety in the uses of buildings.*

## Spatial Activism Intervention:-

The sand boxes or sand pool are a soft play area which facilitates gendered activities and support most of the childhood girls game to be played in public space.
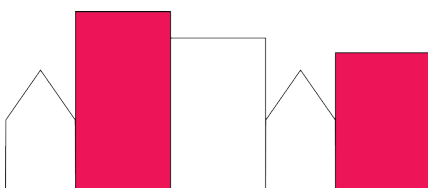
The childhood impact proves to be of great worries in the future and therefore a design move to improve the fear in next generation has to be taken now.

## Actors Involved:-

Sandpool is a part of the park renovation proposal and therefore requires actors involved in the monetary assistance along with the pilot project implementation. So the RWA also play a vital role in its significance.



*Urban Designer*   *Residents*   *Artists/Activists*   *Non- Profit Organizations*   *Resident Welfare Association*
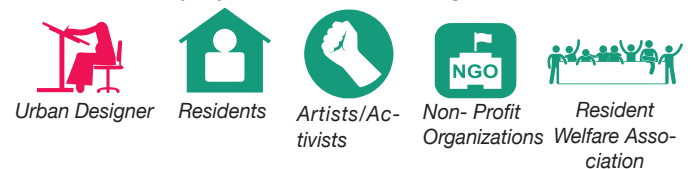
## Site Scale of Interventions:-

Sand pool is to be made in the public space and can be made in any public space throughout the city with more number of kids than adults. While small sandboxes implementation can be in front of the front door of a house.

## Typology of the Site

Public Park is the main site of intervention for the sand pool as it invites all age of kids boys and girls to play with sand and communicate without any clashes between the communities.
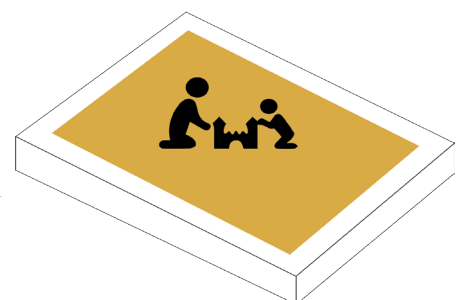


*Figure IV.60 :The abstract of identity and gendered activities converted to sandboxes or sand pool to be introduced as function in the public park.*

*Source: made by author*

**Site Context:-**



*Figure IV.61*: *Dark Mixed use street after the shops are closed in Malviya Nagar*
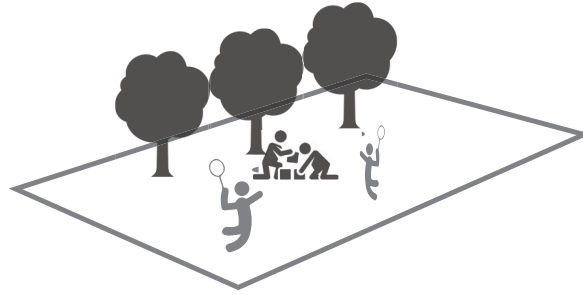*Source*: *http://cdn.static-economist.com/sites/default/files/blackout5_0.jpg?1343852723*

**Reference Image:-**



*Figure IV.62*: *A Lampshades light up the Rue du Mail, Paris.*
*Source*: *https://s-media-cache-ak0.pinimg.com/736x/72/f5/e9/72f5e9e6e064ece15a93f7347fb2b920--street-lamp-paris-street.jpg*
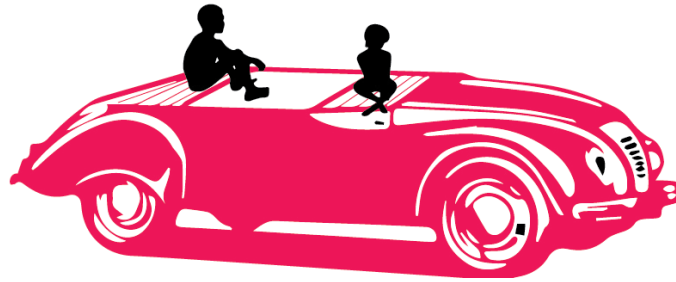
# The Play Car



*Hypothesis* - Replacing dead dark spots with the creative play cars to improve inclusiveness.

*Added Hypothesis* - *Opportunities for children to play with recyclable objects and learn value of creativity & sustainability*

## Context:-

Dead, scrap and salvaged cars can be find standing with no use in the streets of Delhi. Their only purpose is to occupy the parking space which owners assume to be theirs even when it belongs to the municipality. There were approximately 100 cars found in the neighbourhood which are not functional.

## Design Principle :-

Innovation is defined by punt6 as one of the gender oriented principle as its a psychological ambition of making things beautiful. Creativity & innovation therefore are urban design principles that can be there at any scale and level (Gutiérrez et al., 2016).
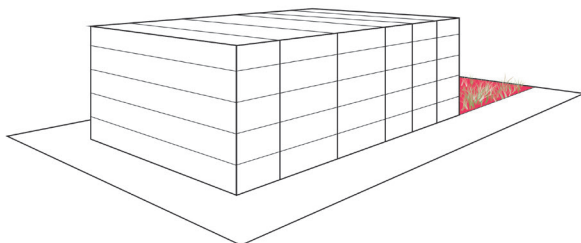


*Figure IV.63 : An example of innovating a barren place with harvesting.*

## Spatial Activism Intervention:-

Play cars is an innovative idea to transform the freestanding useless cars into something functional and useful. Play cars are equipped with urban games in the dashboard.

Some green is also grown on the car to increase awareness of the play city that can be done in less communicative neighbourhood.

## Actors Involved:-

The car is designed by the architect/urban designer and then talking to the owner is of significance importance. Also the NGOs and activists role is important as they try convincing the shop owners and car owners.



Urban Designer | Residents | Artists/Activists | Non- Profit Organizations | Resident Welfare Association

## Site Scale of Interventions:-

The play cars concept is done at a micro level but then spread at a neighbourhood level. It creates a network of the dilapidated Spatial Activism Spots.

## Typology of the Site
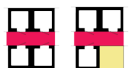
The case in which the owners are convinced it can be done at the same spot on a residential scale but where they are not convinced it can be taken to the derelict spaces to be implemented.



Cars standing without objective in the parking space.

Use less cars converted to play cars for kids.

*Figure IV.64: Hanging lanterns converts the street to a more lightened and safer lane.*

*Source: made by author*

## Site Context:-



*Figure IV.65* : *The abandoned and dilapidated car standing*
*Source*: *by author*

## Reference Image:-



*Figure IV.65* : *Eye sore abandoned car gardening for a community place.*
*Source*: *https://2.bp.blogspot.com/-6mSFSwxVkyA/UyhebaQJfRI/AAAAAAAA7Fw/SmyQiCZW5Ag/s1600/44.jpg*

# The Wooden Slopers
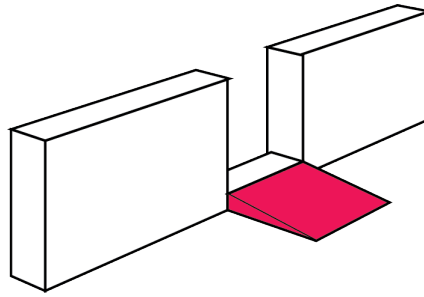


*Hypothesis - To grow inclusiveness in the neighborhood and betterment of living conditions*

*Added Hypothesis - Creating awareness of simple solutions making life easier in an urbanized world.*

## Context:-

Level difference in the urban spaces is a common micro-spatial issue noticed in whole of Delhi. This hinders with the movement of women with strollers, oldies on wheelchair and handicapped people. Its a common issue and everyone knows about it including the government still no actions take place in spatial terms.

## Design Principle :-

Universal Design is a concept that talks about a design for all. Accessibility to all the public spaces, buildings is an integral part of the composition of an urban environment setting (Mace, Hardie, & Place, n.d.). Clear accessibility at the neighborhood level by opening up entries and making smaller spaces approachable easily are one of the necessities of gender inclusive environment (Desai, 2007).
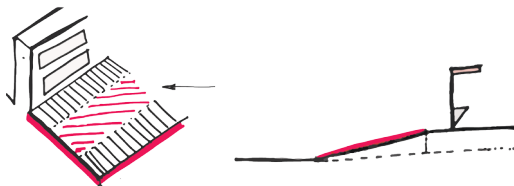


*Figure IV.66: The figure shows different materials to be used at the same level and slopes whenever there is a necessity of level difference.*

## Spatial Activism Intervention:-

The Wooden sloper is an easy temporary urbanism solution handmade specifically for the defined areas. The pink painted slopers mark the achievement of the spatial

activism at all levels. It will enable the mothers to easily take their kids in the carriage to public parks and pathways to the market.

## Actors Involved:-

The slopers will be made in the spatial activism workshop with the help of the citizens, activists the student contributors an the creative guests invited for the purpose.



Urban Designer  Residents  Corporate Social Responsibility  Artists/Activists  Student Unions

## Site Scale of Interventions:-

The slopers are made at a micro level but can pop-up in the whole neighborhood especially at the entries and exits of the parks where the issue is accentuated the most.

## Typology of the Site

It is enacted in the public park to enhance its importance and as that is the most problematic area for free accessibility of women, kids and elderlies. A start with this typology is most needed.
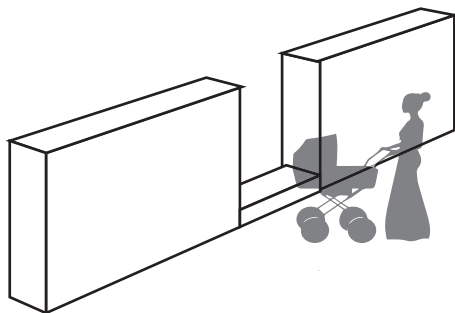


Level difference at entrance of the park
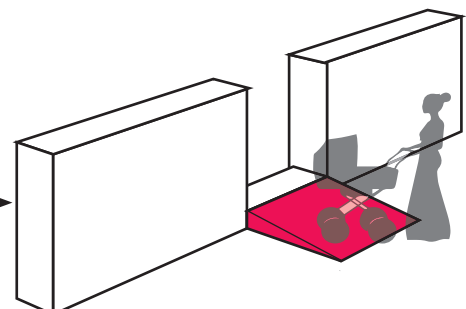
Wooden Slopers solve the issue of level difference.

*Figure IV.67 : Illustration showing physical use of the wooden slopersv*

*Source: made by author*

## Site Context:-



*Figure IV.68*: *The level difference and absurd parking lowers the accessibility of the park.*
*Source*: *by author*

## Reference Image:-



*Figure IV.69*: *A temporary ramp boardwalk made to enhance accessibility in New York*
*Source*: *http://pss-innovations.com/PlasticSafety/media/ProductImages/BoardWalk/RAMP-with-People.jpg?maxsidesize=250*

## 5. #Womenspatialactivism - Stakeholder Process
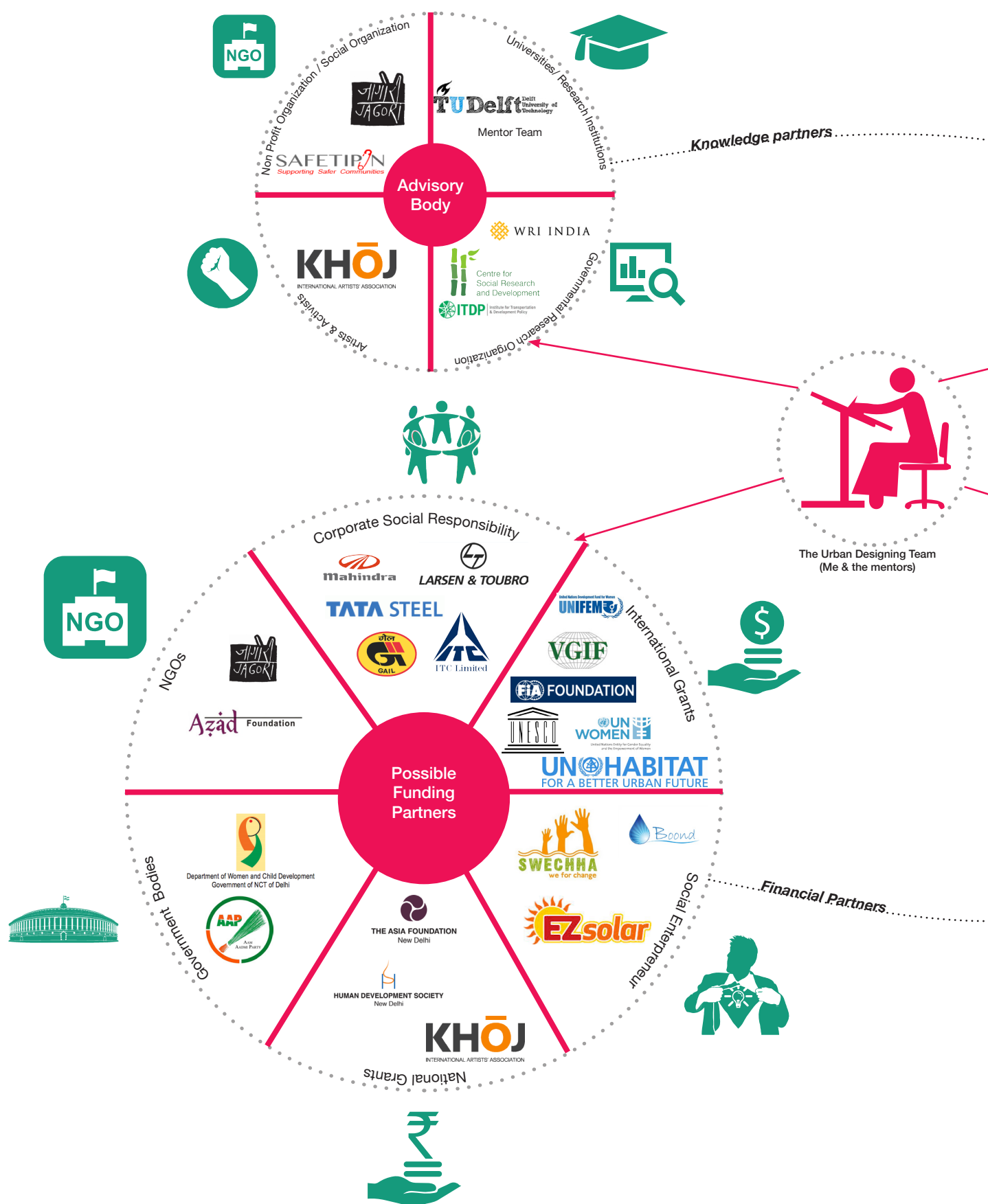


*Figure IV.70* : Stakeholder Process Diagram
*Source*: http://pss-innovations.com/PlasticSafety/media/ProductImages/BoardWalk/RAMP-with-People.jpg?maxsidesize=250
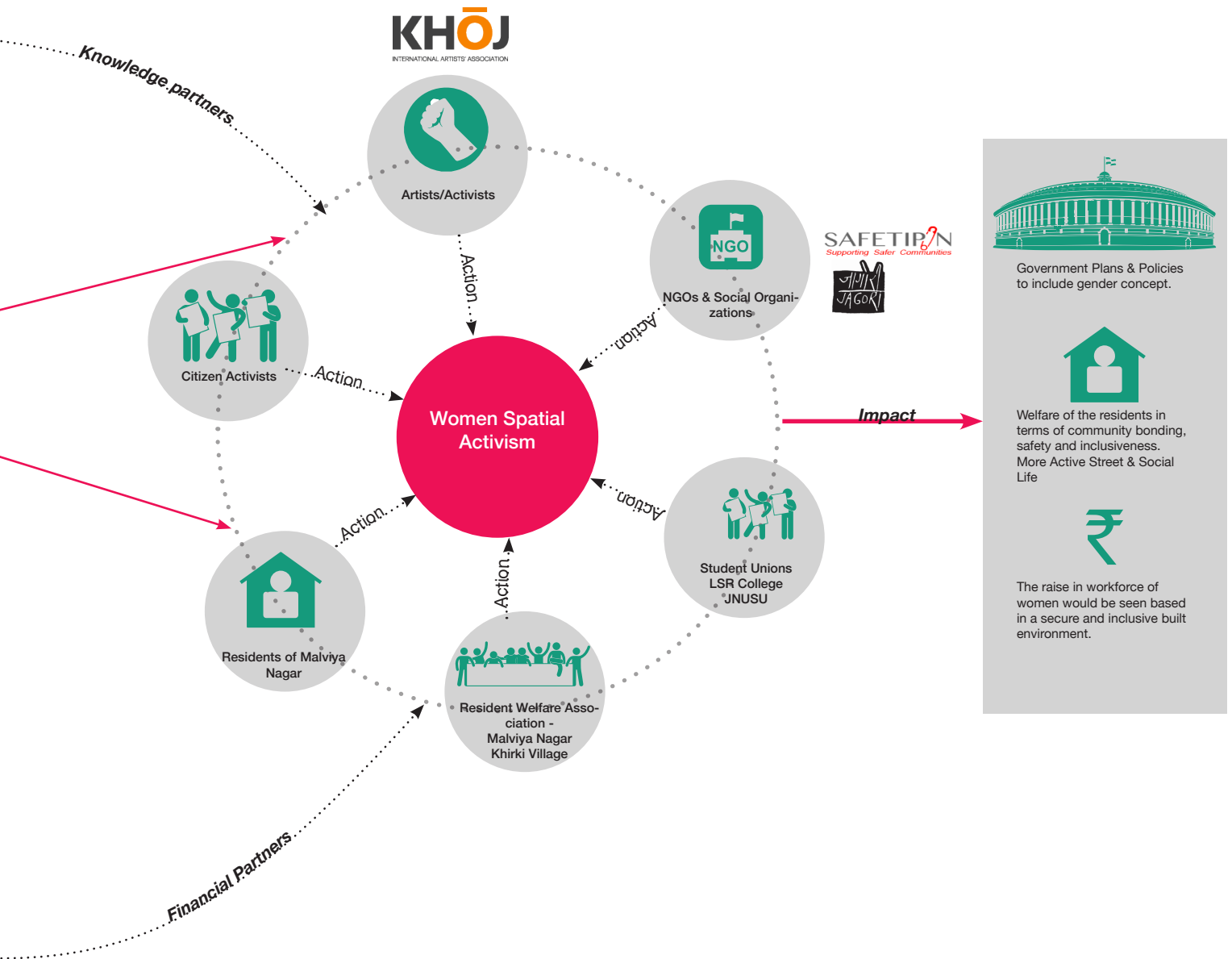
# KHŌJ
INTERNATIONAL ARTISTS' ASSOCIATION

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Action

Citizen Activists

Action

NGOs & Social Organizations

SAFETIPIN
Supporting Safer Communities

JAGORI

Action

Action

Women Spatial Activism

Action

Residents of Malviya Nagar

Action

Resident Welfare Association - Malviya Nagar Khirki Village

Student Unions LSR College JNUSU

Action

Financial Partners

**Impact**

Government Plans & Policies to include gender concept.

Welfare of the residents in terms of community bonding, safety and inclusiveness. More Active Street & Social Life

The raise in workforce of women would be seen based in a secure and inclusive built environment.

Legend :-

Development authorities in Delhi - DDA, MCA

Member of Legislative assembly - Mr. Somnath Bharti

Ruling Paty- Aam Aadmi Party

Governmental Research Organization

Social Entrepreneurs

Sustainable Business Partners

International grants

Artists & Activists Association

Universities National & International

National Government Organizations (NGOs)

Resident Welfare Association

Corporates & Multinationals

Citizen Activists

Residents

# #Womenspatialactivism - Stakeholder  Process

The stakeholder map Figure IV.70 is divided into three key elements which are advisory bodies, funding partners and women spatial activism partners (implementation partners). These three elements are linked with the core members of urban design team which is central to the stakeholder map. The role of the urban designer is pivotal to bring all the stakeholders on a common platform.

### Advisory Body/ knowledge Partners -
The advisory body is categorized into artists & activists, NGO's or social organizations, university or research institutions and government research organizations. The artists or activists group includes organizations such as KHOJ which is an international artists association. The aim of this organization is to bring creative minds from various disciplines to create new possibilities of art and art making. The major role of activists & artists here is to provide field inputs and insights relevant for the implementation of this project. Several key projects related to gender empowerment have been a brainchild of KHOJ studios which are successfully implemented. One such example is a mobile shop run by a woman for women in Malviya Nagar, New Delhi. The idea is to bring women out of their houses and to engage them in an active dialogue session at this shop. This way, these women reclaim the spaces which is lost to the male dominant society.

The NGO's or social organizations provides a platform to conduct the pilot projects such as revitalizing street drive, light your lantern drive, painting the pink carpet, spatial activism live workshop and reclaiming the park designing. These activities are organized under their platform as these organizations have vital resources for project implementation.

The universities and research institutes provides assistance on the design ideas. The recommendations from educational organizations are significant to develop a feasible and viable design. The government research organizations also provide key insights into the subject. The case studies and reports issues by these institute provide working examples of closely related projects.

### The Financial Partners-
The funding partners are categorized under NGO's, government bodies, CSR organizations, international grants, social entrepreneurs and national grants. The role of the financing agencies is most important to put the ideas into practice. The funds are required to host the mockup workshops, for subsidizing lanterns, to procure materials for the pink carpet and other design ideas.

South Asia Women's Fund: Strengthening South Asian Feminist Movements Programme 2017-18 offers funds for NGO's and project proposals working in the segment of women development.

### The Implementation Partners-
The women spatial activism partners are implementing agencies to put the design ideas into action. These partners are artists/activists, citizen activists, residents or resident welfare association, student union groups and NGO's & social organizations. These partners provide key resources in the form of volunteers to implement the ideas. The key activities performed by them are to host the mockup workshop, install the lanterns, painting the pink carpet, revitalizing the street by Guerrilla gardening and community engagement. This community building activity enhances the safety in the neighborhood and allows women and girls to have a secure access to all the public places.

The role of the urban designer is to coordinate with all the stakeholders and bring them together under one roof. Active participation of all key partners in this project can help build a sustainable society and create a safe environment especially for women.

# 6. #Womenspatialactivism - Digital Process



The Digital process

**The Global Digital Expansion - Tool- Social Media**

#WomenspatialActivism
#SpatialActivism
@SpatialActivism

**Mobile phone Application
She-Connect**

Overlaps the information of various research organisation
Connect women to travel together
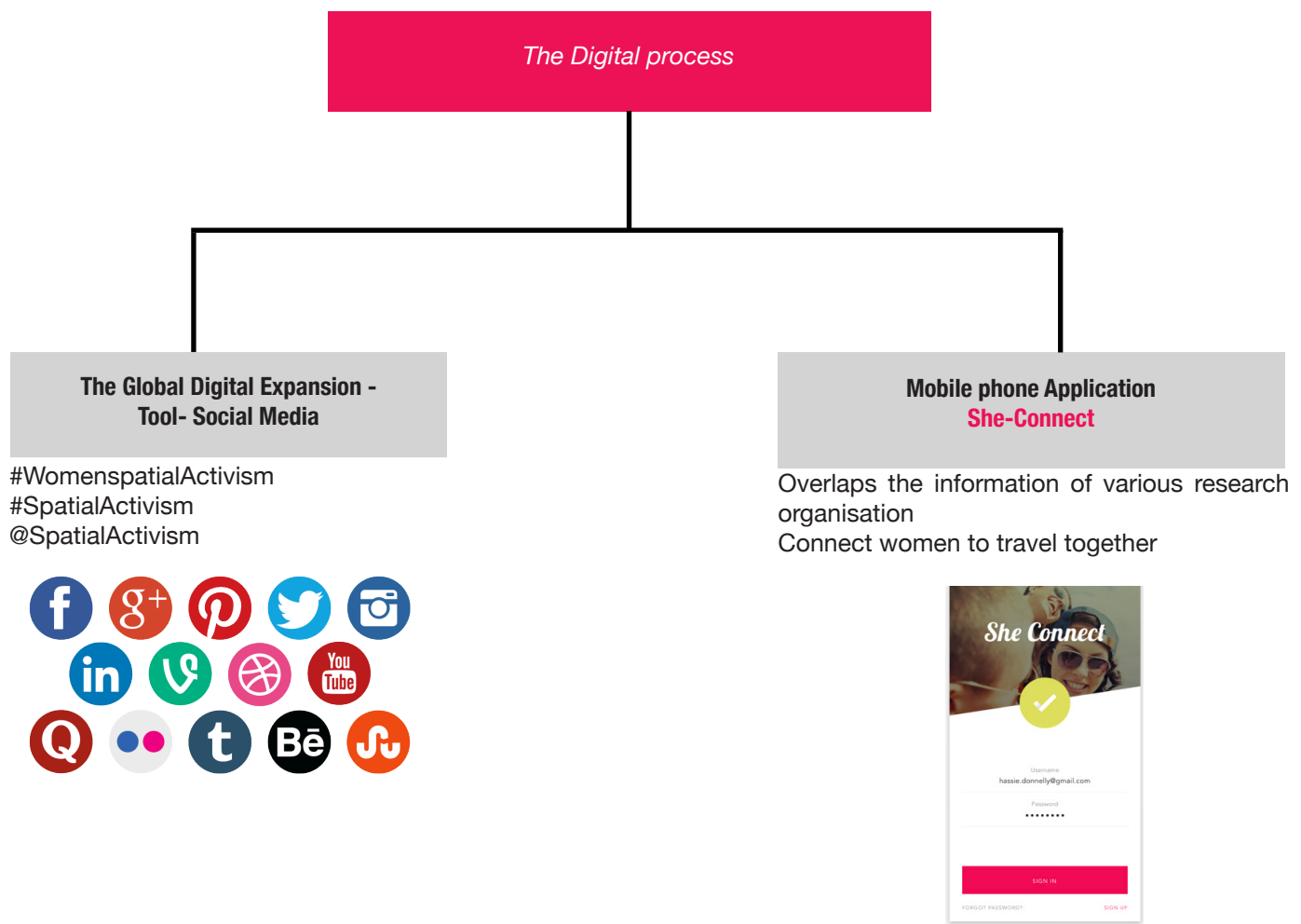
*Figure IV.71 : The Digital Process*
*Source: made by author*

The digital process has two main constituents -

*1. The Global Digital Expansion-* This is a step which will be taken at two stages of the design process, once when we need participants for the mock-ups and the pilot projects to promote them as events.
Secondly, we need the digital expansion as the last step of the project which is a vital part of the proposal as I aim to spread and disseminate the #womenspatialactivism globally. The best way to do this in todays world is social media and will form a PR team to disseminate the design proposal.

*2. Mobile Application She-Connect -* She-connect is an application designed in order to overlay the information and data collected by various organizations working in the Malviya Nagar & Khirki, filter them and organize to what is useful. This information and the Spatial Activism routes will be shown to the users and then they can connect with the other women who starts from the same origin and go to the same destination to travel together.

#WomenSpatialActivism will spread through social media. The application will be a part of the awareness project as it will connect the women to travel together showing the #WomenSpatialActivism routes as the main routes to be taken.

The first intervention is a result of a dire need of the project while the other one is a result of the case study done in Malviya NAgar in form of survey forms which explicitly collected information from around 60 users and stated that an application in which women can connect with other women could be one of the best interventions of the project towards safety.
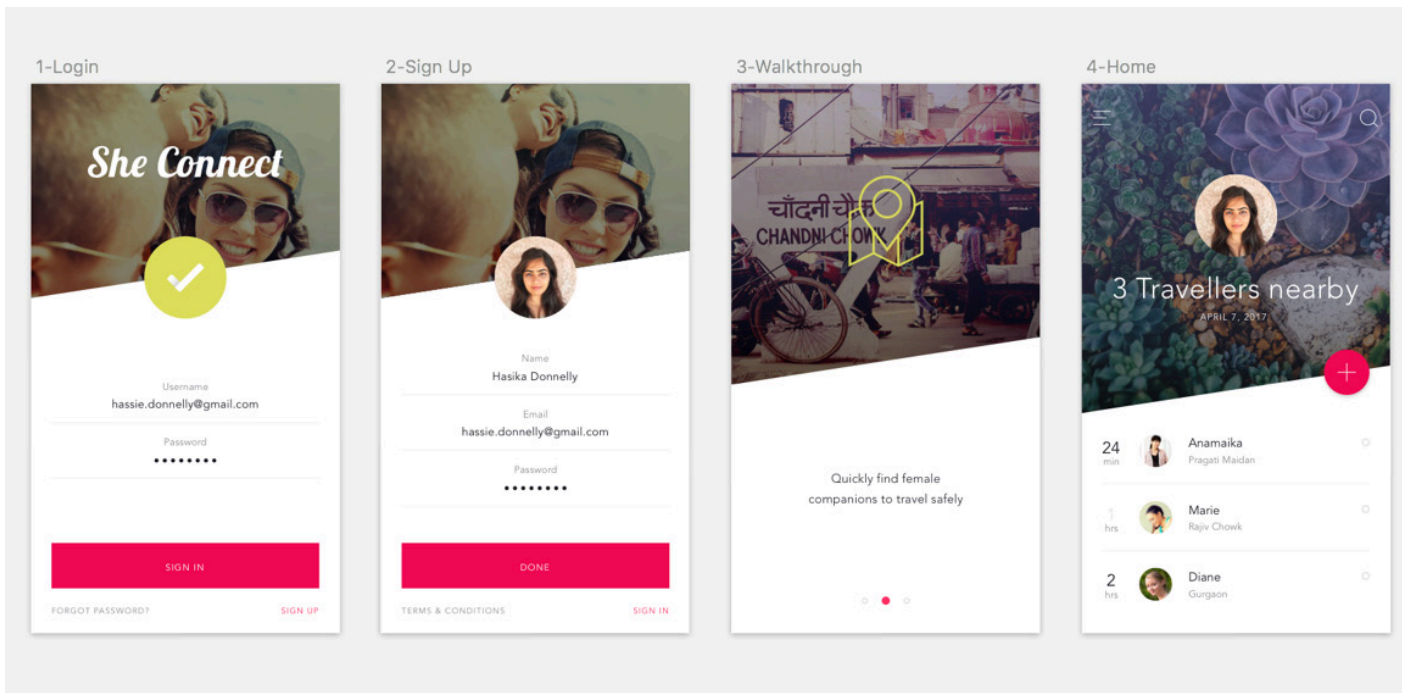
*Figure IV.72* : *User Interface She-Connect ScreenShots*
*Source*: *made by author*
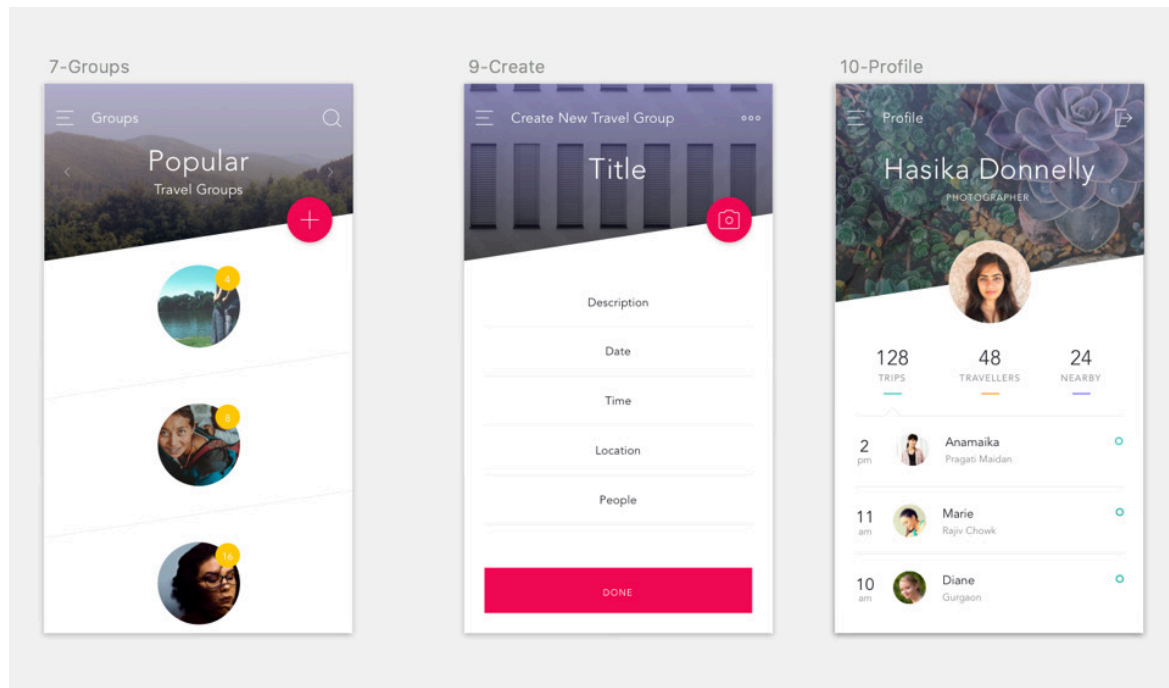


The figure IV.72 show the flow of the user interface screens , showing the first run experience of the application for the lady. These layouts have been created in order to give a glimpse of the mobile application that can be developed in further times.

# Introducing the Key projects :-
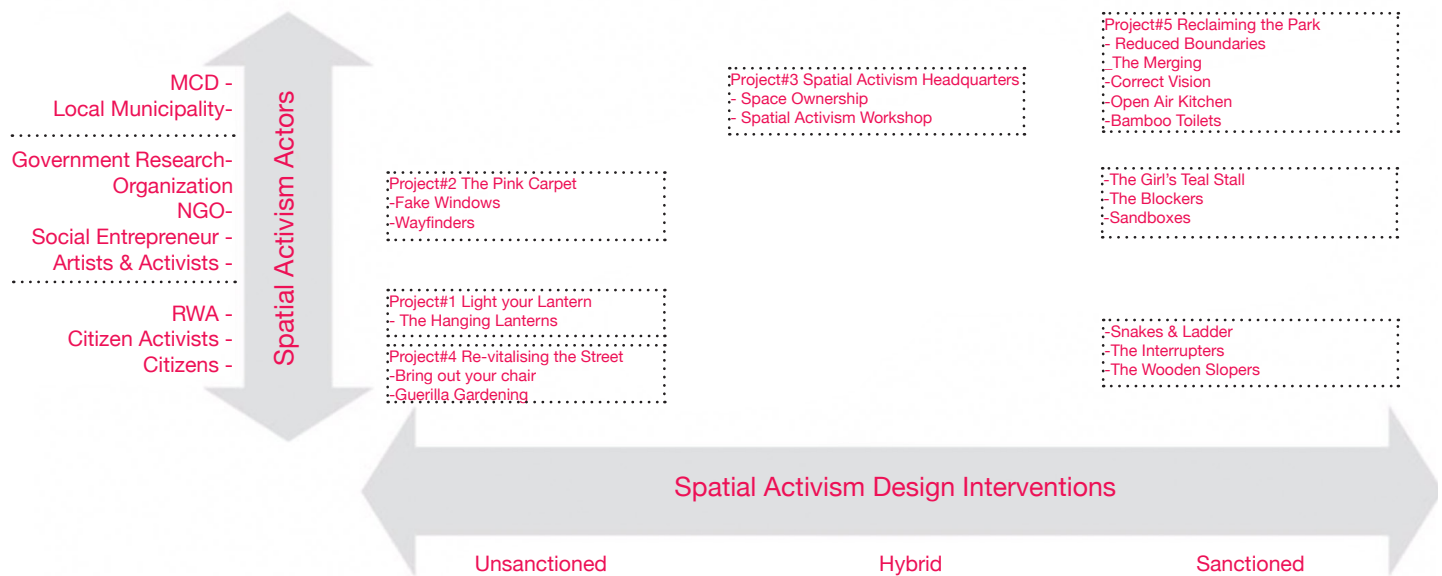


Figure IV.73 : Development of the key projects based on relationship between Spatial Activism Design Interventions & Actors
Source: made by author

The figure IV.73 shows the relationship between Spatial Activism Design Interventions and Spatial Activism Actors involved on a line of Sanctioned, unsanctioned and hybrid projects. According to this the key projects have been formed and placed . The unsanctioned projects can be done as pilot projects in the future.

The key projects are formed by micro-spatial issues interventions at the different points shown in the masterplan on the next page. The key projects are given as follows:-

**Project #1 - Light your Lantern -**A fund raising project for lightning the streets to provide light in the night for working women.

**Project #2 - The Pink Carpet-** A wayfinding strip for a safer street in a dead wall street with no openings on either side.

**Project #3 - Spatial Activism Headquarters -** Engaging Citizens for temporary urbanism to achieve re-appropriation for women. This includes ownership of space and hosts the spatial activism workshop.

**Project #4 - Revitalizing the Street -** Community building and cleanliness through Guerrilla Gardening.

**Project #5 - Reclaiming the Park -** Re-appropriation by women in the public parks with basic amenities. It is a sanctioned project in almost all of its forms. Some of the interventions can be done without permission from authorities like The Blockers, Interrupters and wooden slopers. For all the rest of the design interventions local resident welfare association and local government needs to regularize.

# 7. Key Projects Masterplan



Reduced Boundaries

The parking interrupters

The blockers

The girls' tea stall (dhaba)

कुड़ी दा ढाबा

*Reclaiming the Park-ing*

The Hanging lanterns

Wayfinding Boards

*Light your Lantern*
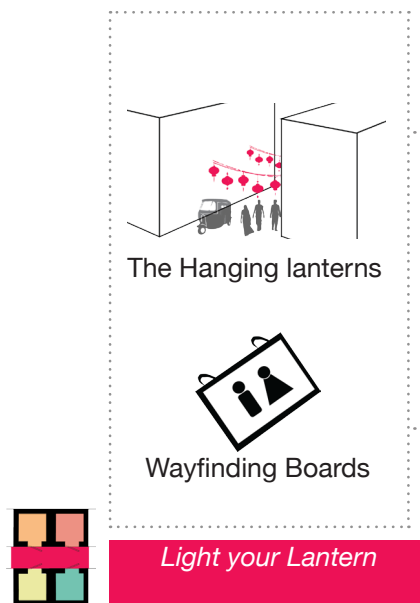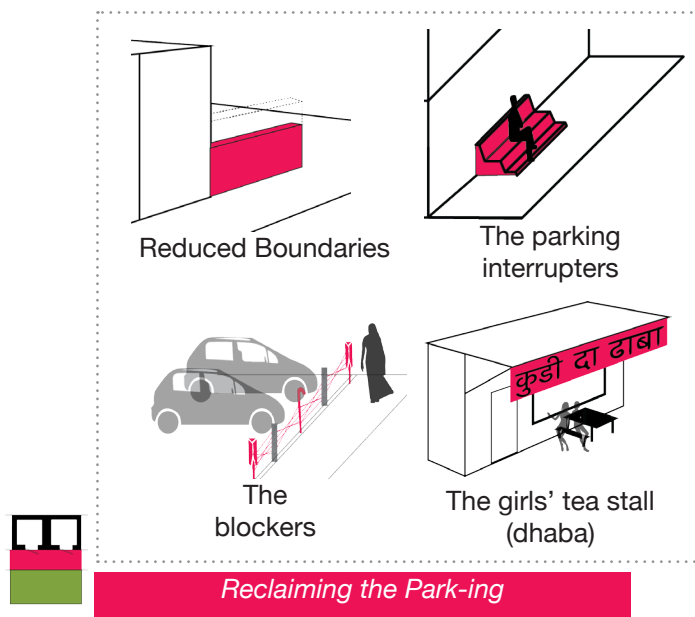
*Figure IV.74* : *Development of the key projects based on relationship between Spatial Activism Design Interventions & Actors*
*Source*: *made by author*

The
merging

The wooden
slopers

- open - air kitchen
- bamboo toilets

The
sandboxes

Snakes
& ladder

Correct Vision
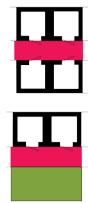
*Reclaiming the Park*

Spatial Activism
headquarters

The play
car

*Spatial Activism Headquarters*

Bring out
your chair

Guerilla
gardening
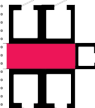
*Revitalising Street*

Wayfinding
Strips

Fake Windows

*The Pink Carpet*

Scale- 1:1000

N

# Key Projects in perspective of the Street



The Pink Carpet

Fake Windows

Wayfinding Strips
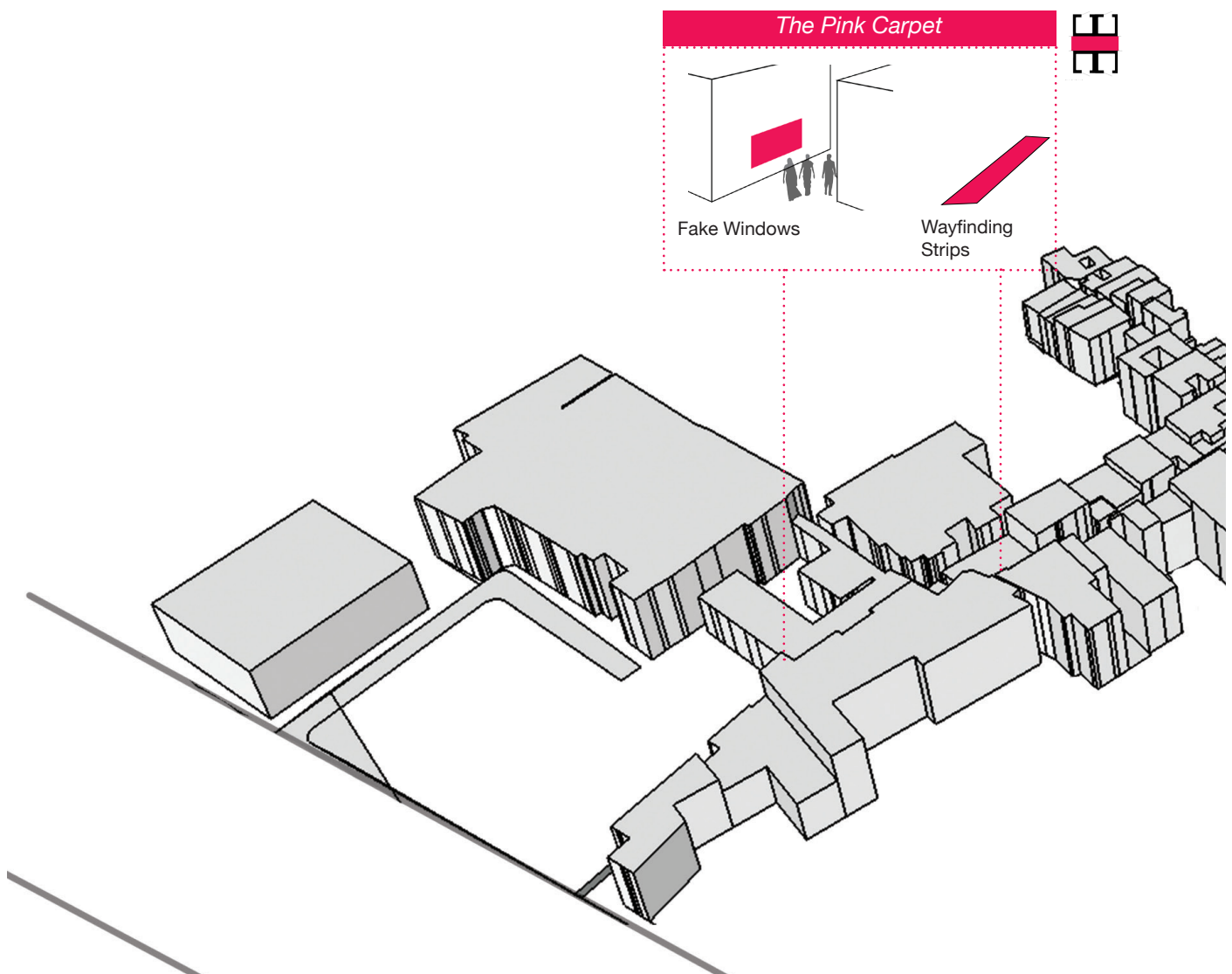
*Figure IV.75* : Key Projects location in perspective
*Source*: made by author

The sandboxes

- open - air kitchen
- bamboo toilets

Correct Vision

Reduced Boundaries

The wooden slopers

The Blockers

The Merger

Snakes & ladder
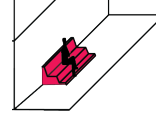
The parking Interrupters

Revitalising Street

Bring out your chair

Guerrilla Gardening
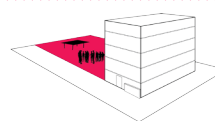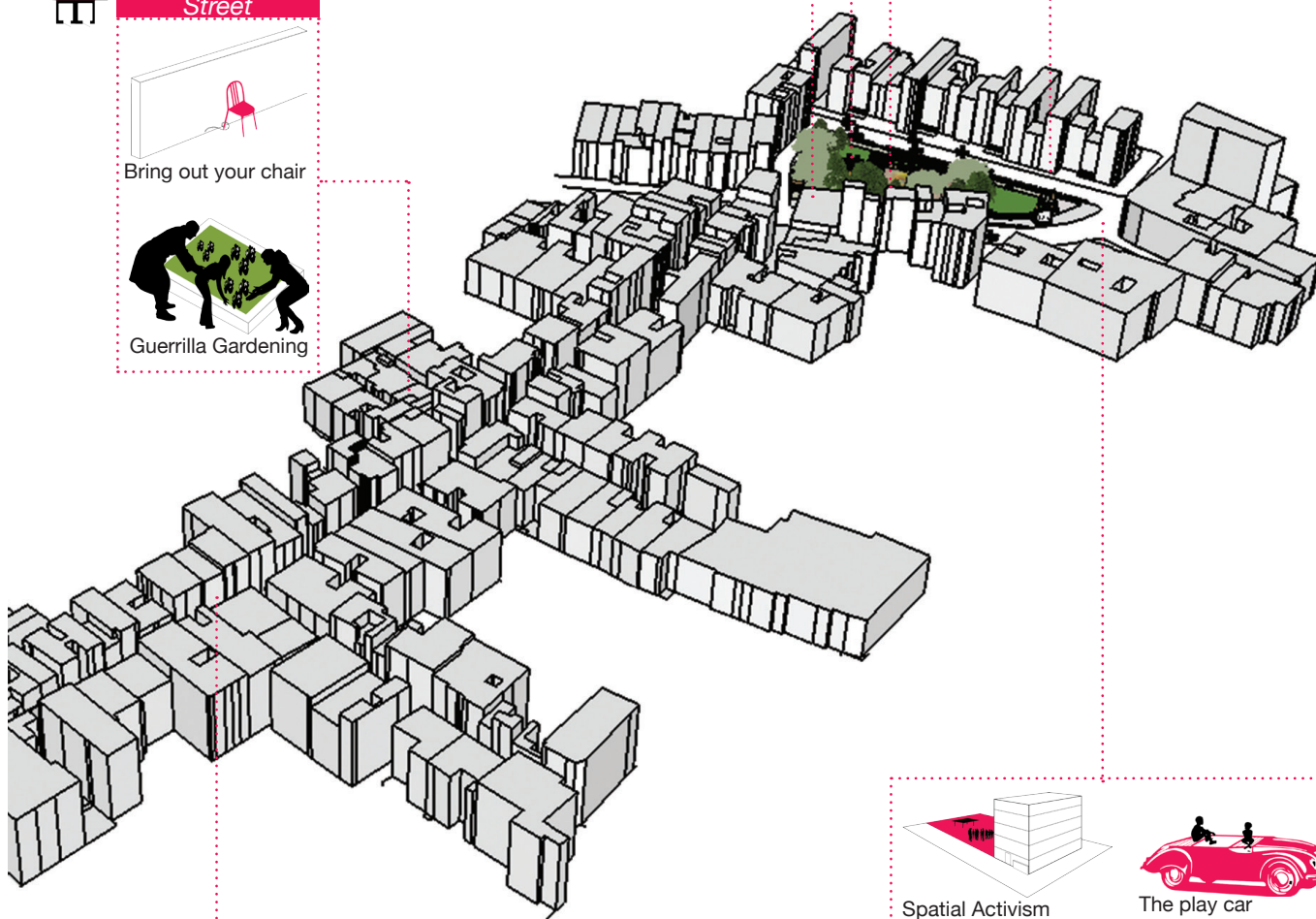
Spatial Activism workshop

The play car

Guerrilla Gardening

Bring out your chair

Spatial Activism Headquarters
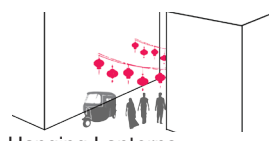
Hanging Lanterns

Wayfinding Boards

Light your Lantern

# 8. Project #1 - Light your Lantern

## 1. Introduction
The "light your lantern" project is aimed at increasing the safety index in the streets of Malviya Nagar during late evening hours. It is a sustainable hanging lanterns project focused to increase the safety especially for women through lighting up the street. Another aspect of this project is increasing the legibility of wayfinding boards.

## 2. Context -
The mixed use street is vibrant and lively in the day but when shops are closed there are no rules and regulations for them to be lighted. In such cases these streets after 8PM turn pitch dark and after 10PM there are hardly people on streets except the loafers, alcoholics and drug peddlers. Women feel unsafe to walk on closed street at this point of time.

## 3.Target Group -
The young women aged (18-35 yrs) who are mentioned to be the ones in the concept for reclaiming the street are the target group for this project.

## 3. Design Principle -
This project is based on the urban design principle of using street lamps. It triggers spatial activism on a larger scale (building level and neighborhood level) and contributes to urban safety. The typology of the streets on the site are of mixed use where both commercial and residential spaces co-exist.

## 4. Stakeholders -
There are multiple actors involved in this project. The financial partners are important as it is a fund-raised project. The residents need to be involved in the eco-system to avoid any socio-cultural barriers and also to avoid theft or vandalism of these lanterns. The agencies such as NGO's and social activists are involved to monitor and implement this project.

Urban Designer | Residents | Corporate Social Responsibility | Artists/Activists | Social Entrepreneurs

## 5. Flexibility
The scope of this project is flexible and depends on the typology of the streets. It is relevant in a mixed-use street where during late evening hours, the commercial spaces close down. Hence, to improve the safety through better lighting, this design is most suitable.
The stakeholders can be seen in a given area and studied how they have been studied here in the project for successful implementation of the Light your Lanterns.

## 6. Site Scale of Interventions:-

The Scales for the hanging lanterns are building scale and street level both of which are the implementation scales. Further growth of this project depends on the success of the product.
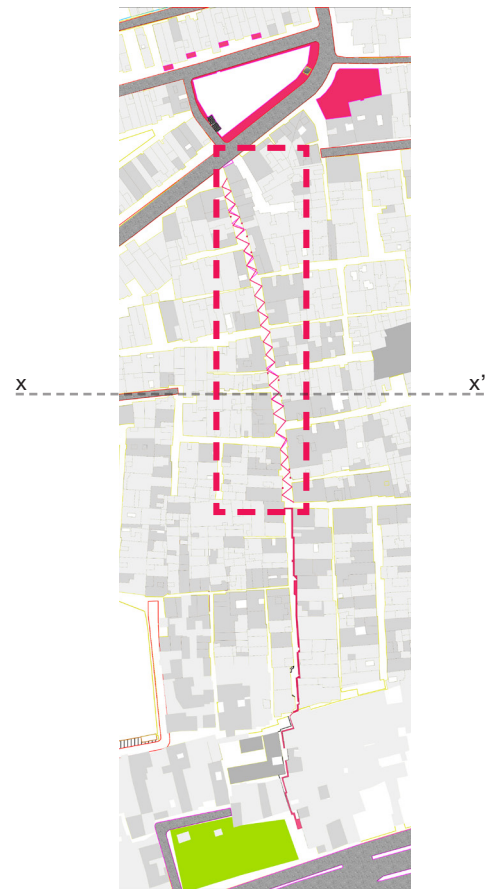
*Figure IV.76  : Location Map*

*Source: made by author*

## 7. Design Concept -

The design concept has been taken as lighting the inner self of a human being. This task is done for a good cause for women like us who travel everyday through the paths and routes just infront of the resident's house who has to put these lights and get molested.
By Light your Lanterns project I aim to lighten the street by lighting one's heart and soul.

## 8. Typology of the Site

Mixed use street is the typology of applicability in coordination to the theory and site analysis of lost street in the dark. A personal experience showed an intriguing fear to cross the street when unaccompanied.

## 9. Achieved Qualities
Safety and Inclusiveness by increasing number of women on the streets.

The Hanging lanterns

Wayfinding Boards
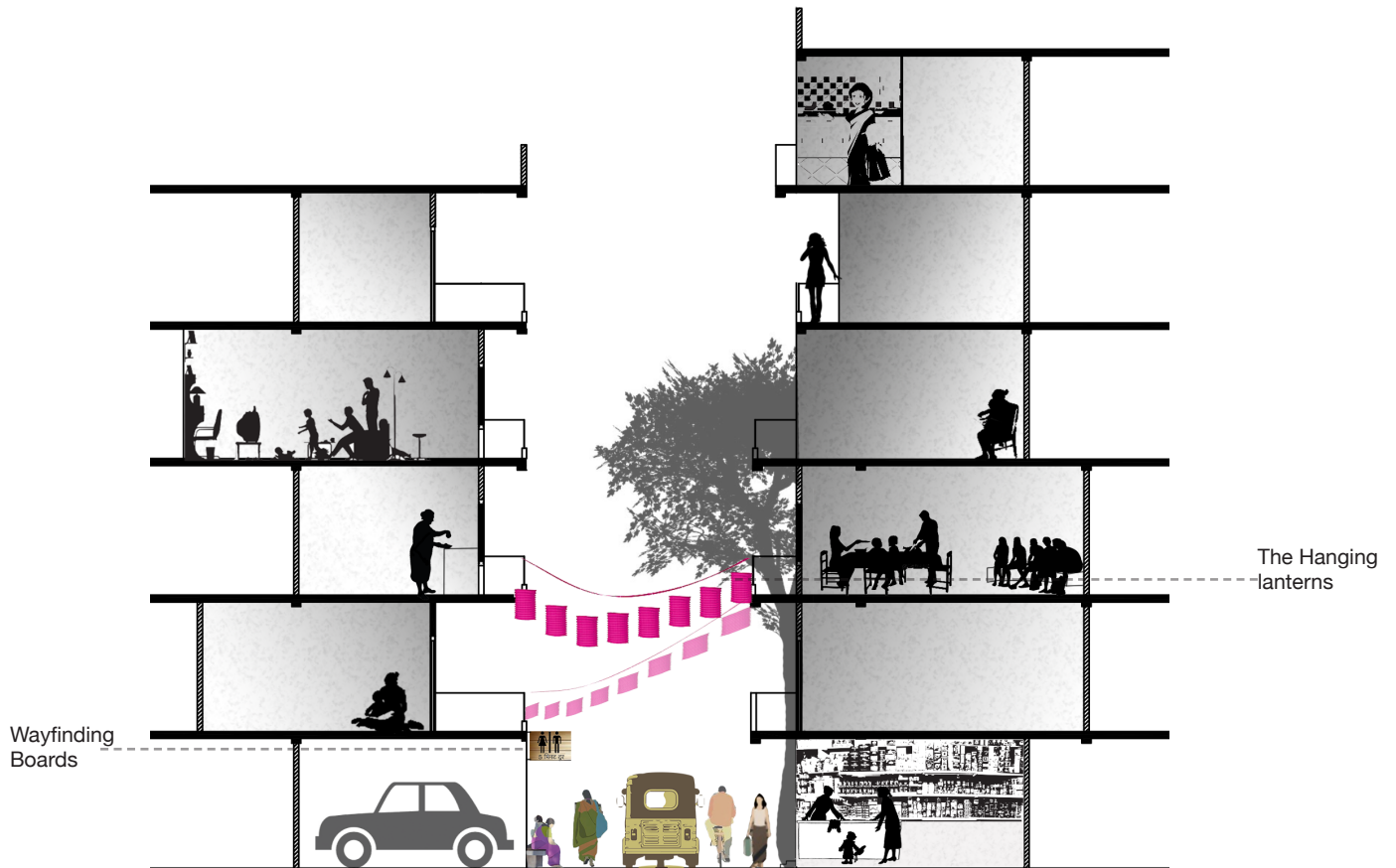
*Figure IV.77 :* *Section XX' showing the hanging lanterns with the balconies of the streets that are 6m - 9m wide. (Scale- 1:200)*

*Source: made by author*



*Figure IV.78 :* *A dark street of khirki village*

*Source: made by author*



*Figure IV.79 :* *Rendered image of the mixed use street at night*

*Source: made by author*

# 9. Project #2 The Pink Carpet

### 1. Introduction
The project pink carpet is aimed towards showing the direction to the women who come late to the houses in the narrow dead wall without any eyes upon the streets. The glow paint strips specially designed at the eye level will help them follow the way through the street.

### 2. Context -
Proper signs/ signages of popular destinations and essential services like toilets, etc. are not present in the the dead wall street. It lacks legibility in the internal urban infrastructure due to interconnected narrow route to dead ends. Due to lack of light it is very difficult at night or even day to find your path.

### 3.Target Group -
The young women aged (18-35 yrs) who are mentioned to be the ones in the concept for reclaiming the street are the target group for this project.

### 3. Design Principle -
The wayfinding principle makes it easier to design the path and route of the people.

### 4. Stakeholders -
The stakeholders in the project would be including the residents who apply the changes, NGO and artists workers who convince people for doing it. It is not a very costly project and does not require financial partners.

| Urban Designer | Residents | Artists/Ac-tivists | Non- Profit Organizations | Resident Welfare Asso-ciation |
|---|---|---|---|---|
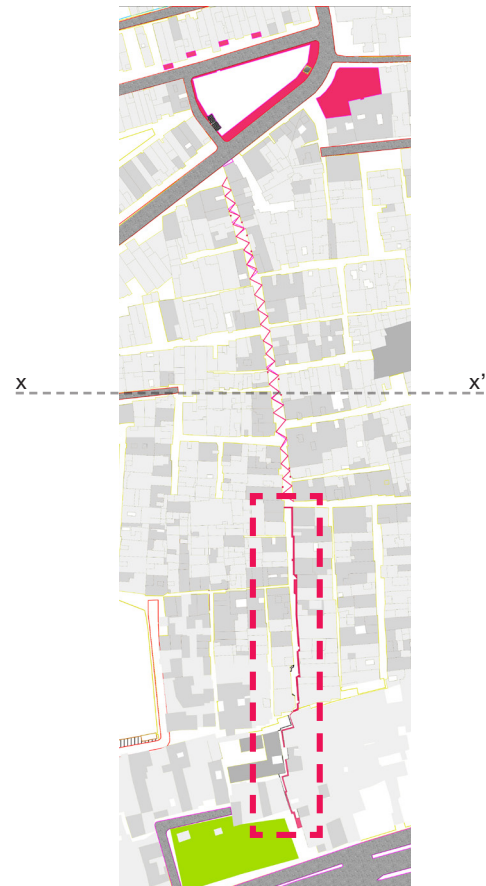


Figure IV.80 : Location Map
Source: made by author

### 5. Flexibility
The wayfinding strip and the board bombing are the concepts that are viable for all the dead dark dingy streets but depends on the use of the street. Like specifically in the present context the street is being used by the women in late hours.

### 6. Site Scale of Interventions:-

Micro Scale represents the front door of the houses for board bombing while the street scale is for painting the glow strip.

### 7. Typology of the Site

The dead street and the mixed use typology have to be bombarded with these temporary urbanism strip and tactical wayfinding boards. The dead street will have a vision line to move forward, while the mixed use street offers a lot of options to hang the boards in front of shops.

### 8. Design Concept

The design concept comes from wayfinding interiors and the fluorescent strips designed to lead your path to fire exits. The same concept has been used in here with these glow strips.
At the corners glass shards and small hedges are used to prevent criminals to hide there. It is completely done from waste material.
Fake openings are also made in the walls to induce a feeling of openness.

# Project #2 Drawings (Plans)



Open Manholes

Hiding Corners

Electric Poles in Between

Scale- 1:100
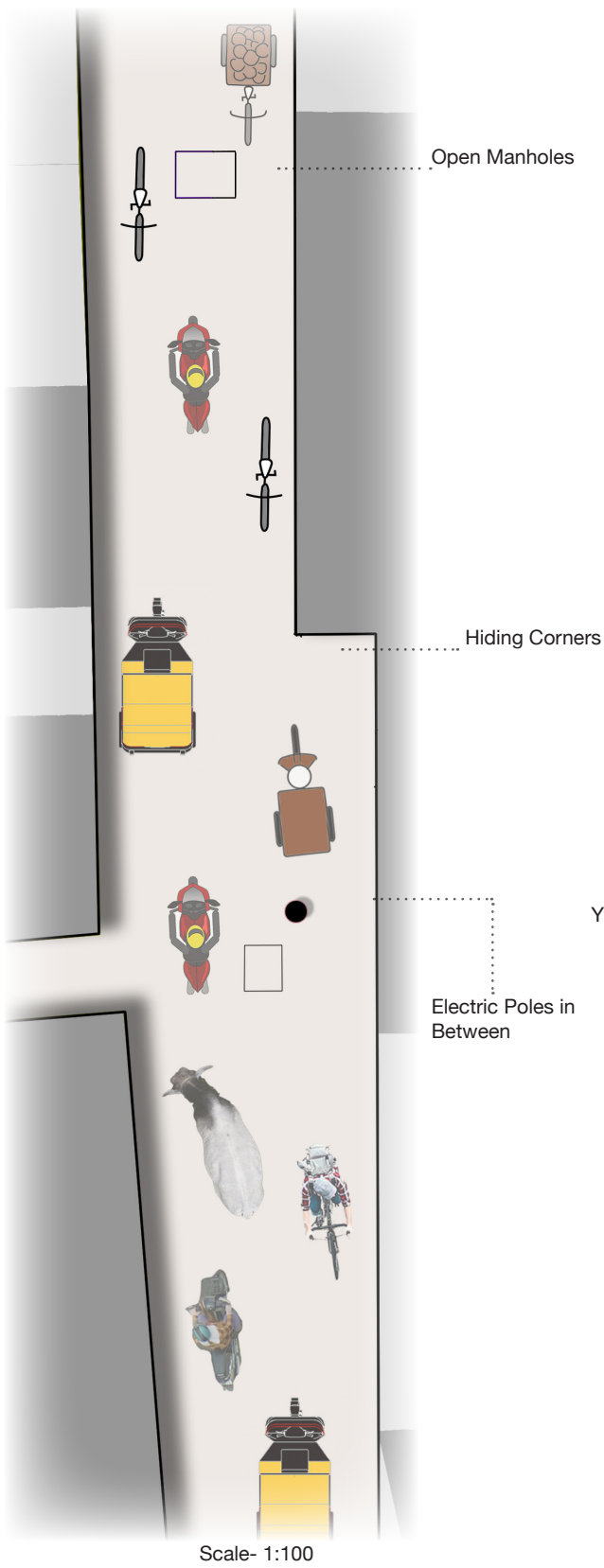
*Figure IV.81*: *Existing Plan of Mixed use street*
*Source*: *made by author*



Guerilla Gardening at spots to decrease speed

Manholes covered & painted

Glass shards & Hedges to avoid criminals to hide.

Y — — — — Y'

Space made for street vendors

Pink Carpet glow in Dark

Scale- 1:100
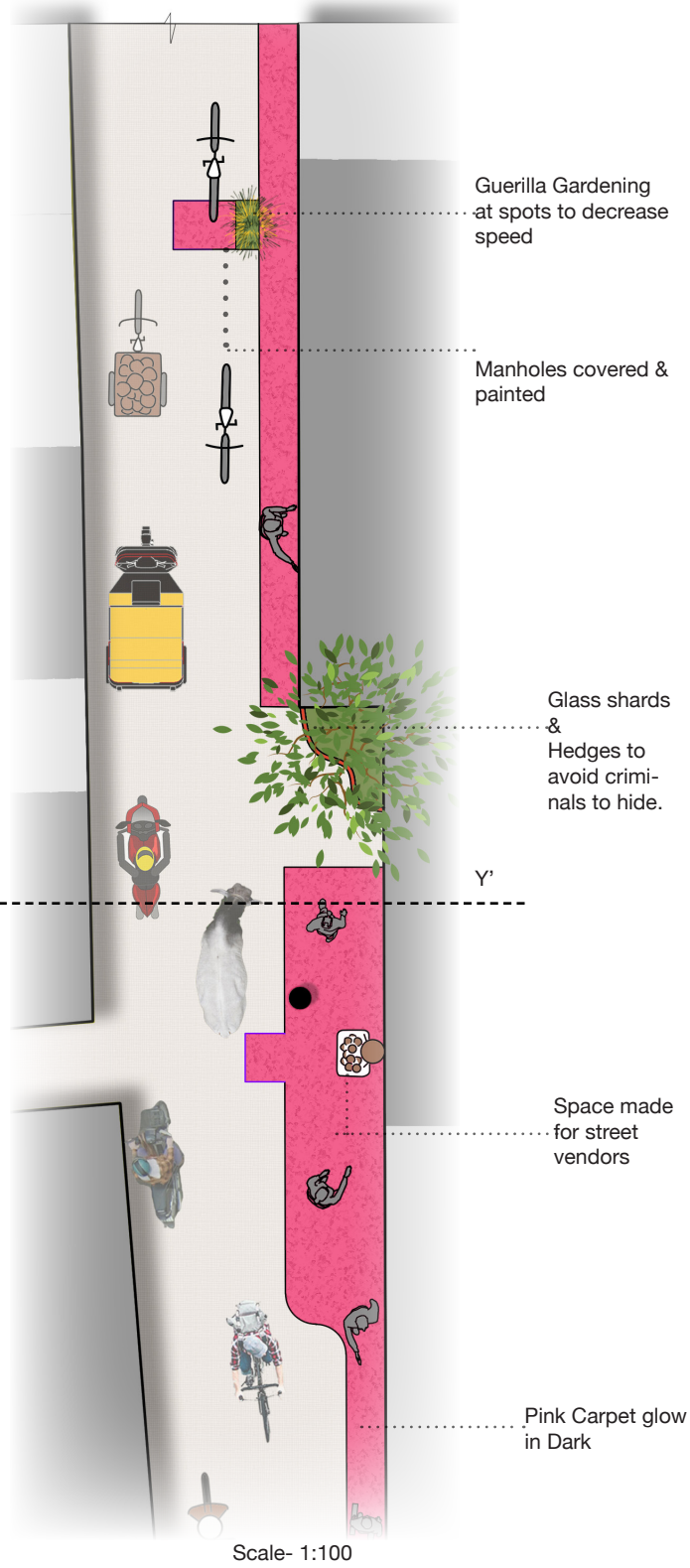
*Figure IV.82* :*Proposed plan for mixed use street*
*Source*: *made by author*

# Section & Renderings



Eye level  Wayfinding

Fake Window to increase transparency

Glass Shards & small hedges for avoiding people to stand
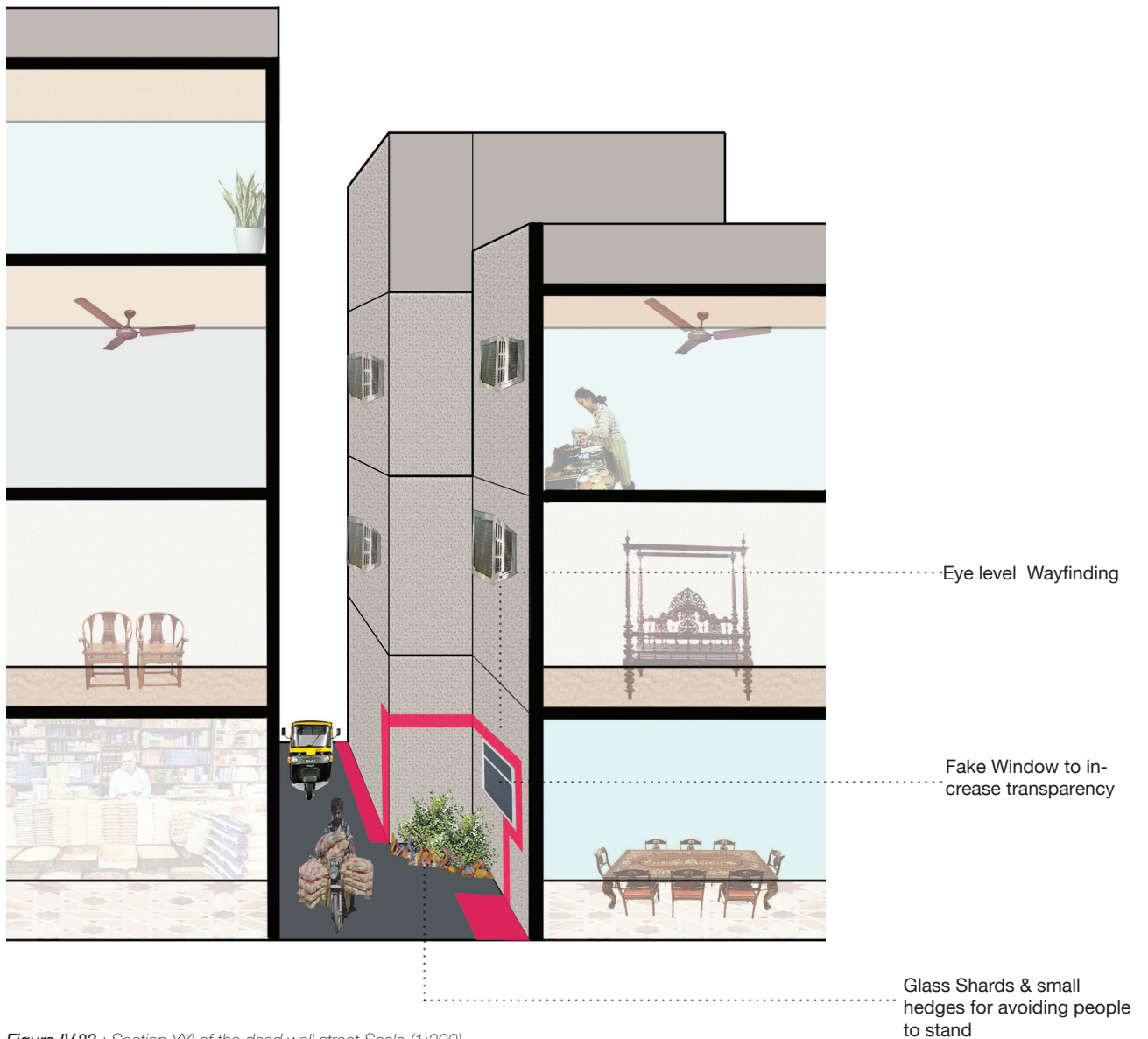
*Figure IV.83* : *Section YY' of the dead wall street Scale (1:200)*

*Source*: *made by author*



*Figure IV.84*  : *Existing view of the*

*Source*: *made by author*
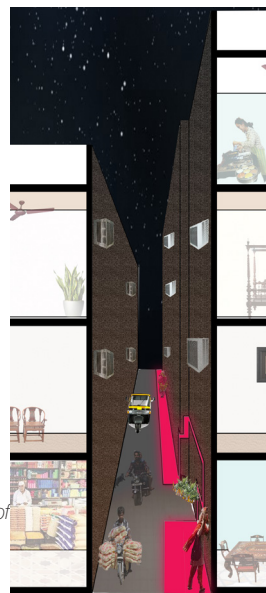


*Figure IV.85* : *A night view of the street showing glow street*

*Source*: *made by author*

# Implementation process of design
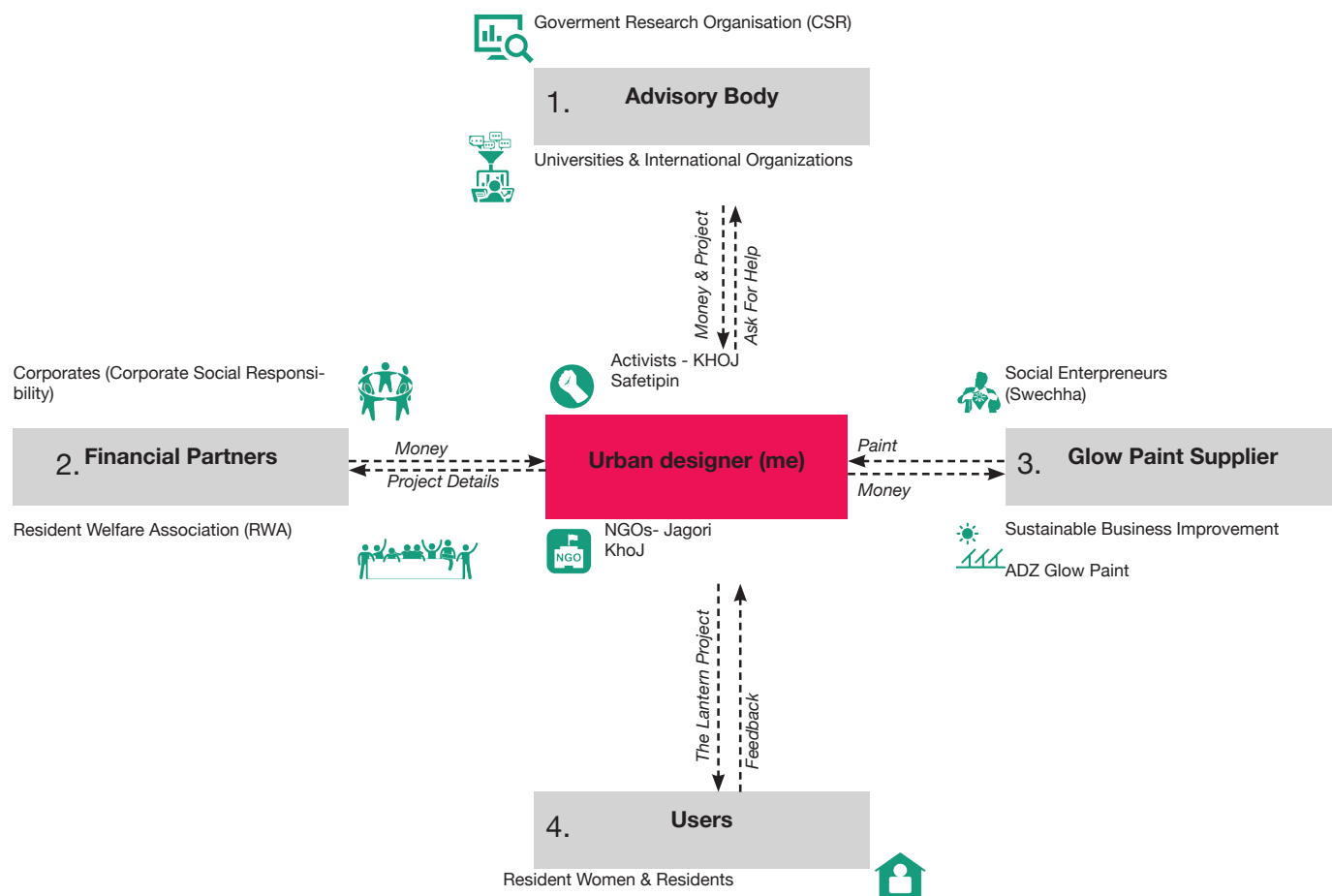


This is a process that the project follows.

1)The Project initiators who are the NGO's and social activists asks for help from the advisory bodies for the project and grants.
2)Then the project goes to the investors to raise funds.
3)After getting the money the material is brought from the suppliers.
4)Then the users participate in implementation and the completion takes place.
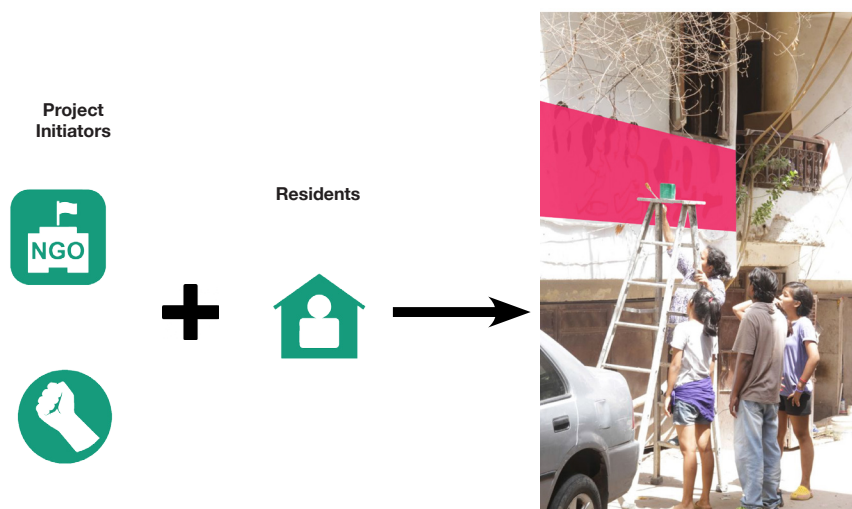


The initiator that is the social activists and the NGOs work together alongwith the residents of the area to implement the project.
The kids come together and paint as designed by the urbanist who is me here.

# 10. Project #3 Spatial Activism Headquarters

### 1. Introduction
Spatial Activism Headquarters aims at using the derelict spaces for making spatial activism products like slopers, etc. It also aims to reuse the recyclable material on the plot for its development.

**2. Context -** A vacant plot have been spotted with scrap recyclable and non-recyclable waste. These kind of places pose fear in the night as they have spaces to hide and attract illegal activities like drug pedaling and prostitution in the area.

**3.Target Group -** All the age groups are the target in the spatial activism workshop as everyone can participate in it.

**3. Design Principle -** Urban activism in the form of DIY urbanism is now becoming central to the contemporary urban planning discourse, with a diversity of terms used to explain 'bottom-up urbanism.'

**4. Stakeholders -**The temporary urbanism has to be done by the residents and creative visitors who can be part of student unions or CSRs office employees.

Urban Designer    Residents    Social Entrepreneurs    Artists/Activists    Student Unions

### 5. Flexibility
This is a workshop that can take place in a vacant plot in coordination with the owner of the space when it is written in writing to use the area for a temporary use.

### 6. Site Scale of Interventions:-

This activity can be done at a neighborhood scale by identifying the vacant plots in the neighborhood which have scrap belongings and are prone to crime and illegal activities.

### 7. Typology of the Site

The vacant plot or derelict spaces that are not being used are identified on the site and the intervention is to be implemented in here. The derelict spaces ownership though is an important criteria and legal permission is required to use the pace for these kind of purposes let it be private/public.



*Figure IV.86* : Location Map
**Source**: made by author

### 8. Design Concept

The design concept comes from temporary and DIY urbanism. The play cars are made here with tyres and guerrila gardening. A temporary shelter is made under which the women can sit and organise and reorganise making the slopers and blockers.

The tyres are converted into seating and are used by the kids for open air tutions.
Guerrilla Gardening forms a part like urban farming in the area.

Plans are made for the next pilot project and all the ideas are discussed in here in a group to set up the next event.

*Figure IV.87* : Derelict Space
*Source*: by author



*Figure IV.88* : Derelict Space being used for the temporary urbanism parts.
*Source*: by author

# 11. Project# 4 - Revitalizing the Street

### 1. Introduction
Revitalizing the dead end street is about community building and cleaning the garbage that is very significant in almost all parts of the neighborhood.

### 2. Context -
The dead ent streets are full of garbage and space is covered by parked cars or animals. The dead ends are good spots for criminal activities which needs to be avoided as well.

### 3.Target Group -
All the age groups are the target in the operation. Anyone can come up and participate in guerrilla gardening drive.

### 3. Design Principle -
Co-Working Concept - A community environment favors the appropriation of spaces and the feeling of belonging of people reinforcing social cohesion and community participation to the environment. The actions include participation of women in the building process and participation of the community in the urban transformations. Access of women in decision making and community building are prime.

### 4. Stakeholders -
Street revitalization is a community project which can be taken up by schools, colleges and universities in order to increase awareness of sustainability.

Urban Designer    Residents    Social Entrepreneurs    Artists/Activists    Student Unions

*Figure IV.89* : *Location Map*
**Source**: *made by author*

### 5. Flexibility
This is a community project that can be implemented in other parts of the city wherever there is a dead end street in collaboration with local stakeholders.

### 6. Site Scale of Interventions:-

The dead end streets can be found in the neighborhood all over the area where it is implemented at micro level and then on street and neighborhood thereafter.

### 7. Typology of the Site

The dead street is the typology for this project as they are kind of dingy and shady which induce fear in the women passing through the area.

### 8. Design Concept

The area that is occupied by the men to smoke weed and cigarettes will now be replaced by the community projects done by women in order to reclaim the space by making the surroundings green.
It is a sustainable move and also promotes green urbanism and importance of cleanliness.
Wayfinding boards can also be used at places where required.

# Section & Renderings



Sustainable Hanging Lantern

Plastic Bottle Vertical Planters

Plastic Crate Planters

12.0 M

1.0 M

*Figure IV.91 : Section ZZ' (Scale 1:50)*

*Source: made by author*

Men smoking in nooks and cornerss of the street

Garbage littered
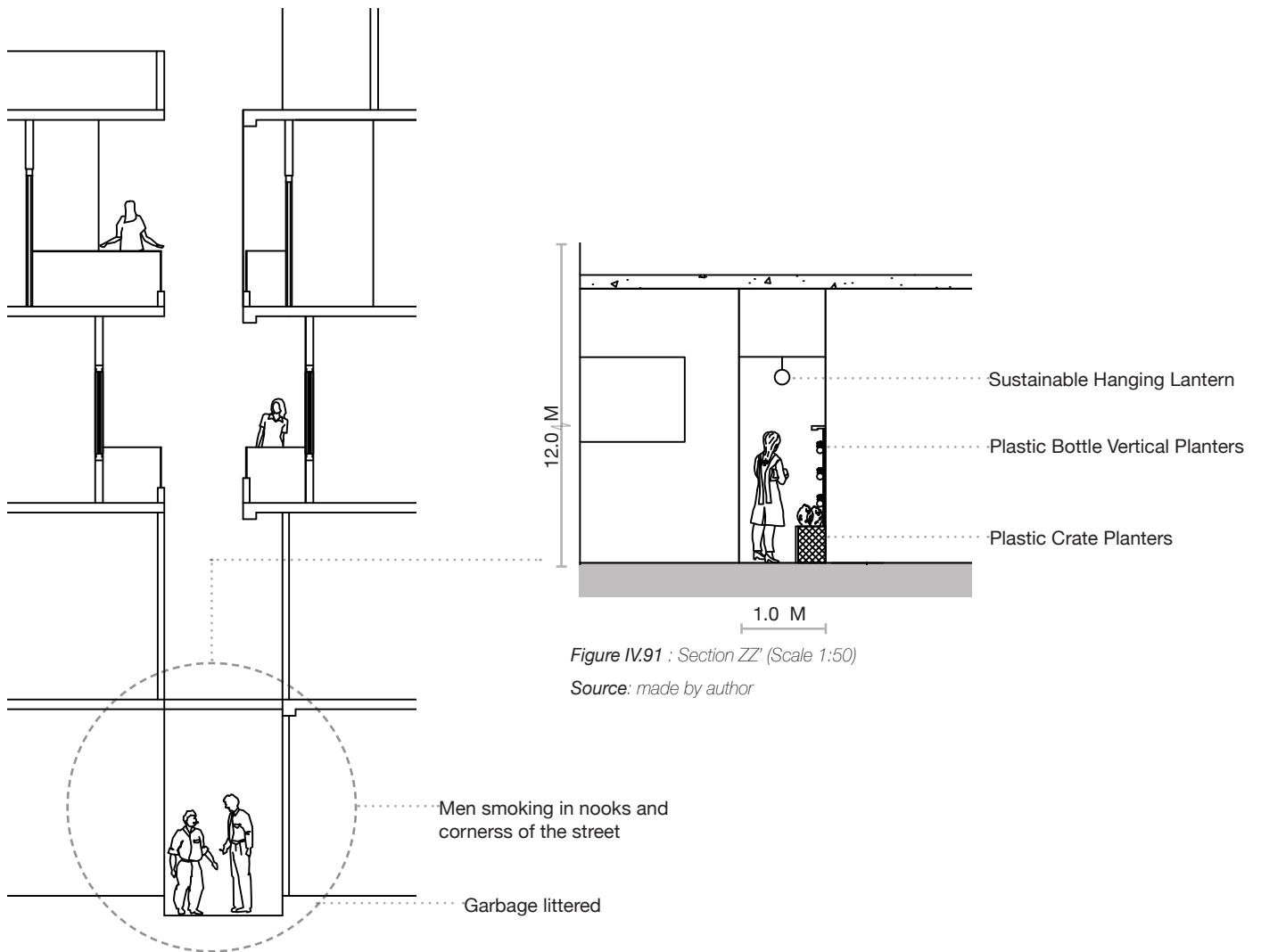
*Figure IV.90 : Section ZZ' (Scale 1:100)*

*Source: made by author*



*Figure IV.92 : Before of dead end street*

*Source: made by author*



*Figure IV.93 : After revitalization of dead end street*

*Source: made by author*

# 12. Project# 5 - Reclaiming the Park

### 1. Introduction
Reclaiming the park is a project that aims at reclaiming the space not only in the park but also outside the park at walk paths and semi - private parking zones.

### 2. Context -
The public park at the center of malviya nagar inspite of the green area is not used. The main reason behind this is the lack of activities in the space.

### 3.Target Group -
The main target group for the park is the homemakers and mothers in the area.

### 3. Design Principle -
There are various design principles and interventions that will be implemented in the public park and its surrounding shown in the plan in next pages.

### 4. Stakeholders -
Almost all the stakeholders are required as it is a sanctioned project and therefore the government will be involved in order to give permission to make changes.

Urban Designer   Residents   Social Entrepreneurs   Artists/Activists   Student Unions

International Grants   Sustainable Business Partners   DDA - Development Authority   Govt. research Organisation

### 5. Flexibility
The design interventions are flexibile to be implemented in other parts of the project but the project in itself is not as it tailor made for this particular park.

### 6. Site Scale of Interventions:-

The design interventions can be employed later in different sites at different levels.

### 7. Typology of the Site

The typology is the public park and the residential street.

### 8. Design Concept

The design concept is women and kids centric, an open air kitchen is given for the women in the center of the park so that they can see the kids on both their sides. Also toilets have been provided at the corner to be used by both visitors and residents of the area. Trees are provided in the south west to prevent scorching sun and invite from the North. A shelter is also given on the top to give a roof to few activities like chatting after sitting in shade, etc.

Re-appropriation of spaces is done by blockers on the pathway where the space is being occupied by the illegal parking cars.

Also parking interrupters have been given at few points in front of the houses.

# Existing Plan of the Park

Haphazard Parking covering the pedestrian path

Level difference at almost every step



Scale- 1:500

*Figure IV.95*: *Existing Plan of the park (Scale 1:500)*
**Source**: *made by author*

# Proposed Plan



Swings for the girls who usually come to the park to talk on phone

Open Air Kitchen

The parking Interrupters

Reduced Boundaries

The slopers

Sand Pool for Kids

Bamboo Toilets

A

Trees on the south west to protect and shade from the sun
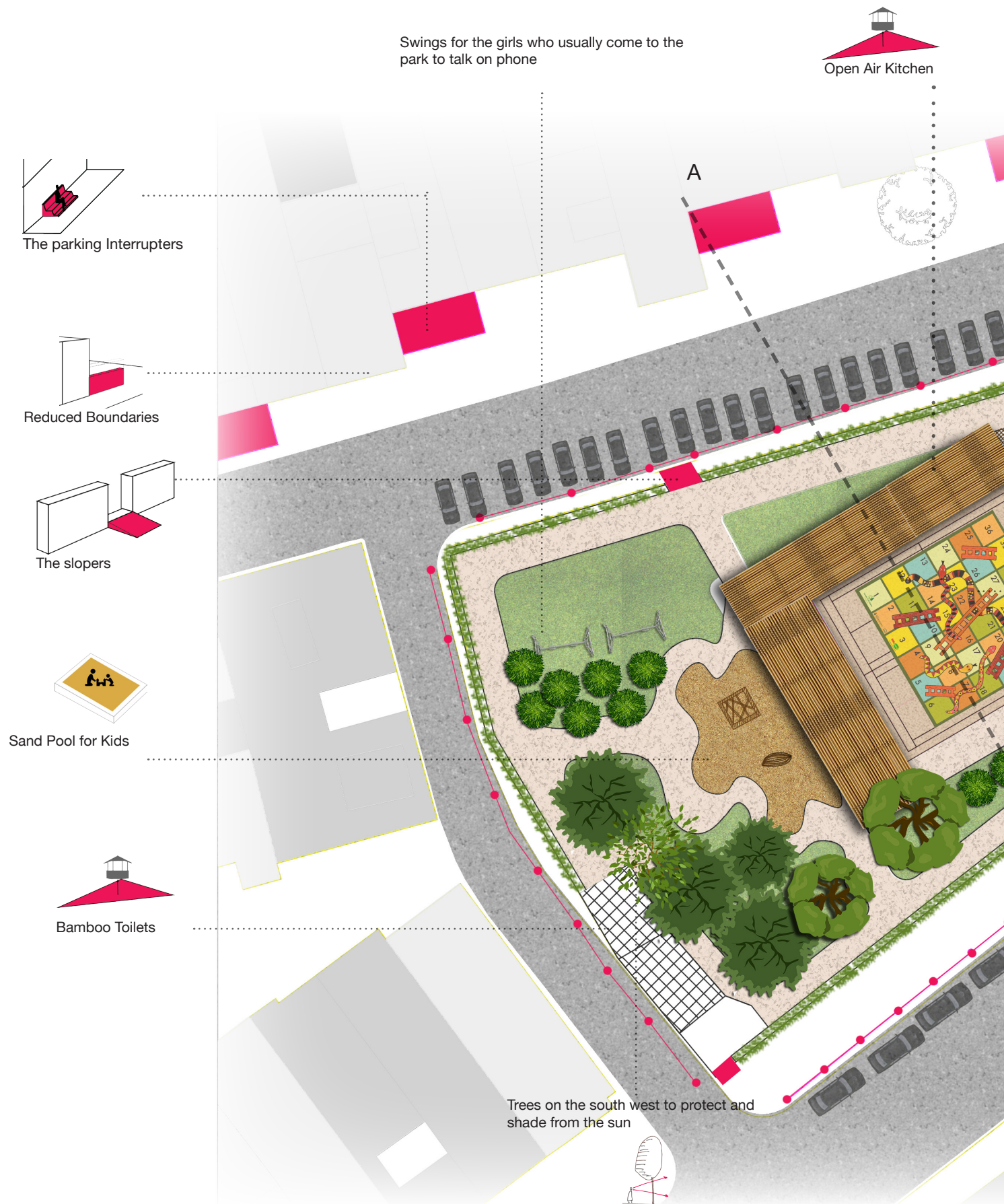
*Figure IV.96* : *Proposed Plan of the public park (Scale - 1:250)*

*Source*: *made by author*

Yoga & Meditation Center

Existing Electric Junction

Blockers

A'

# Isometric Sections



Parking space claimed by owners | Vehicular Road | Parking on Pedestrian Pathway | High Trees

High Walls of the Park
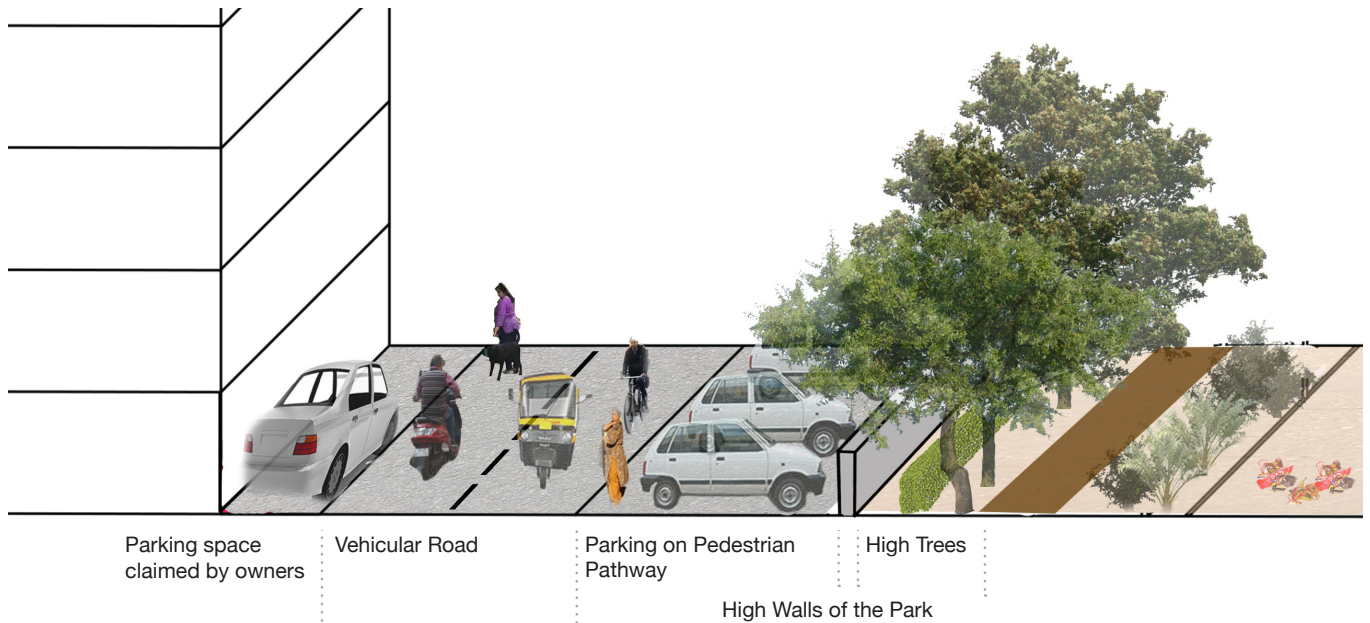
*Figure IV.97 : Existing Section AA' through the Park*

*Source: made by author*



Parking Interrupter | Vehicular Road | Parking Space | Buffer | Open Air Kitchen | Shared Playing Space
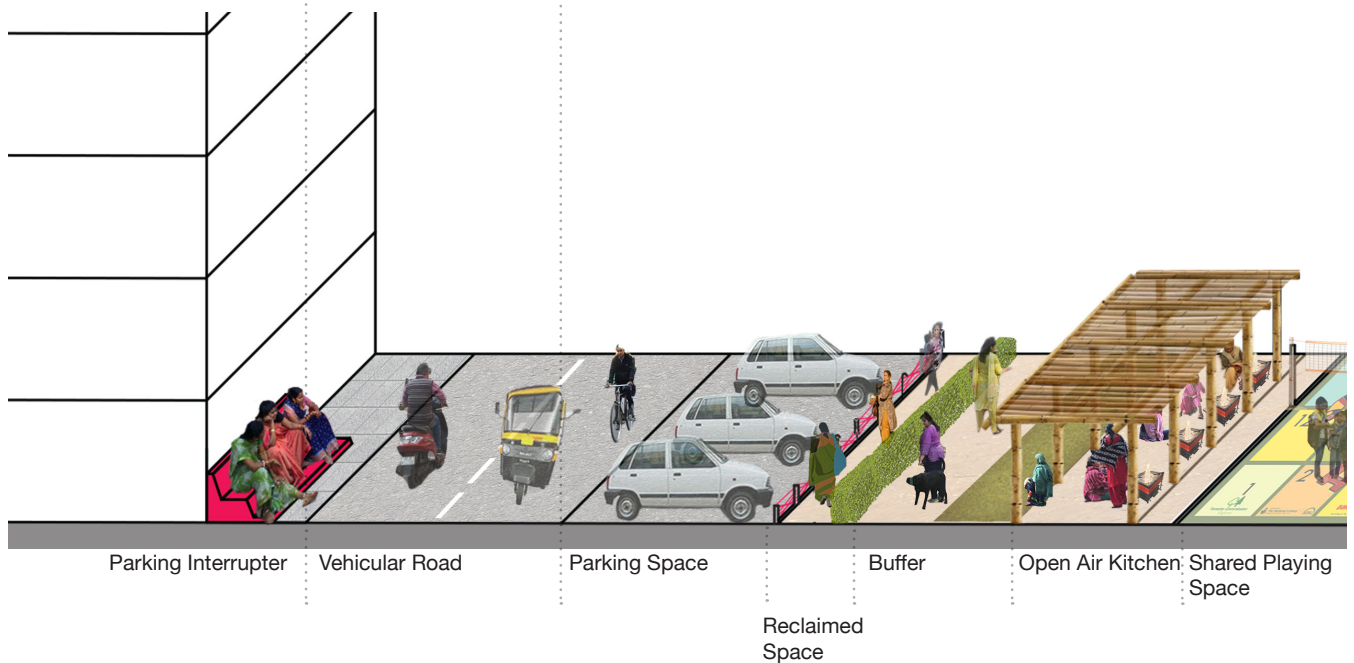
Reclaimed Space

*Figure IV.98 : Proposed Section AA' through the Park*

*Source: made by author*

Barren
lands

Illegal Parking

Vehicular Space &
Pedestrian Path



Shared Playing
Space

Walk Path

Buffer

Walk
Path

Reclaimed Space

Vehicular Space
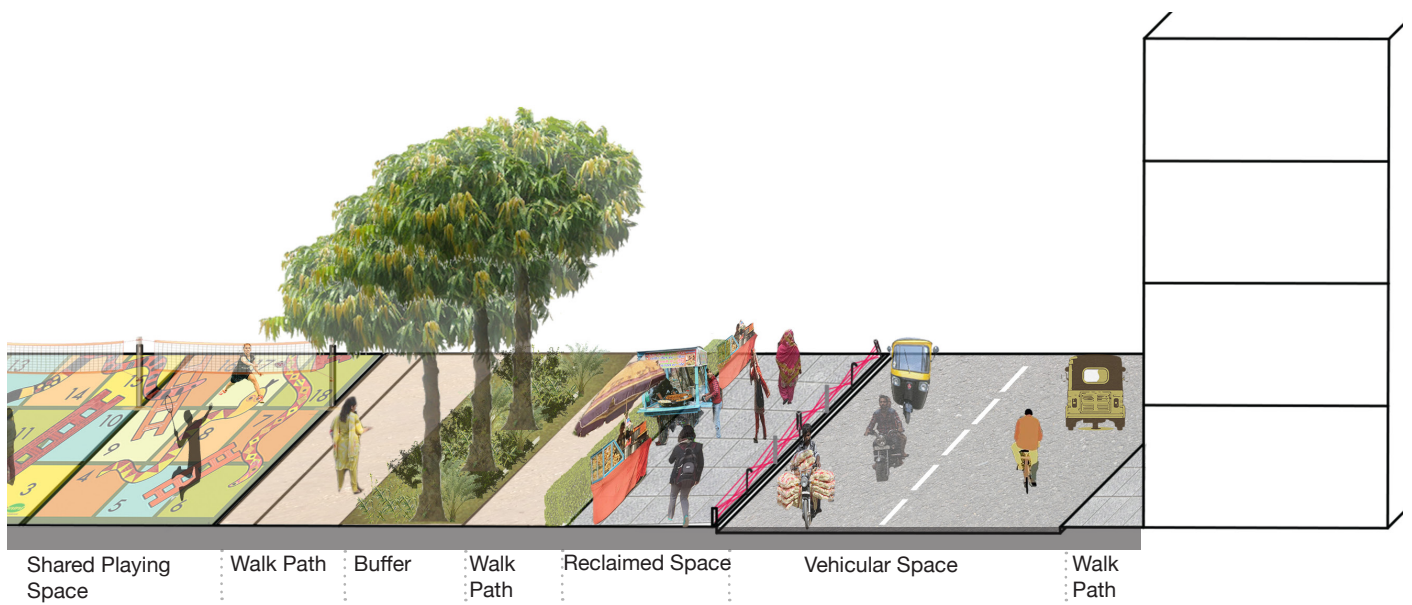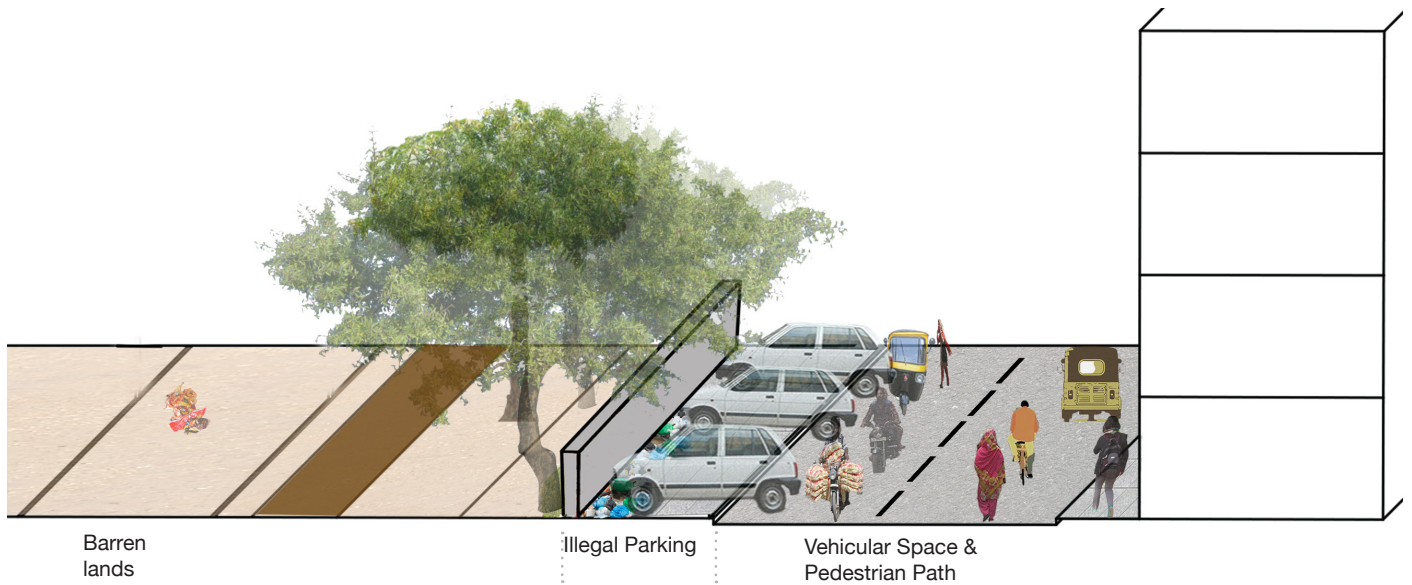
Walk
Path

# Renderings



*Figure  IV.99 :*  *A view of the Park showing reclaimed walk path.*

*Source*: *made by author*



*Figure  IV.100 :*  *A view of the sand pool area.*

*Source*: *made by author*

# 13. Reclaimed Spaces by women
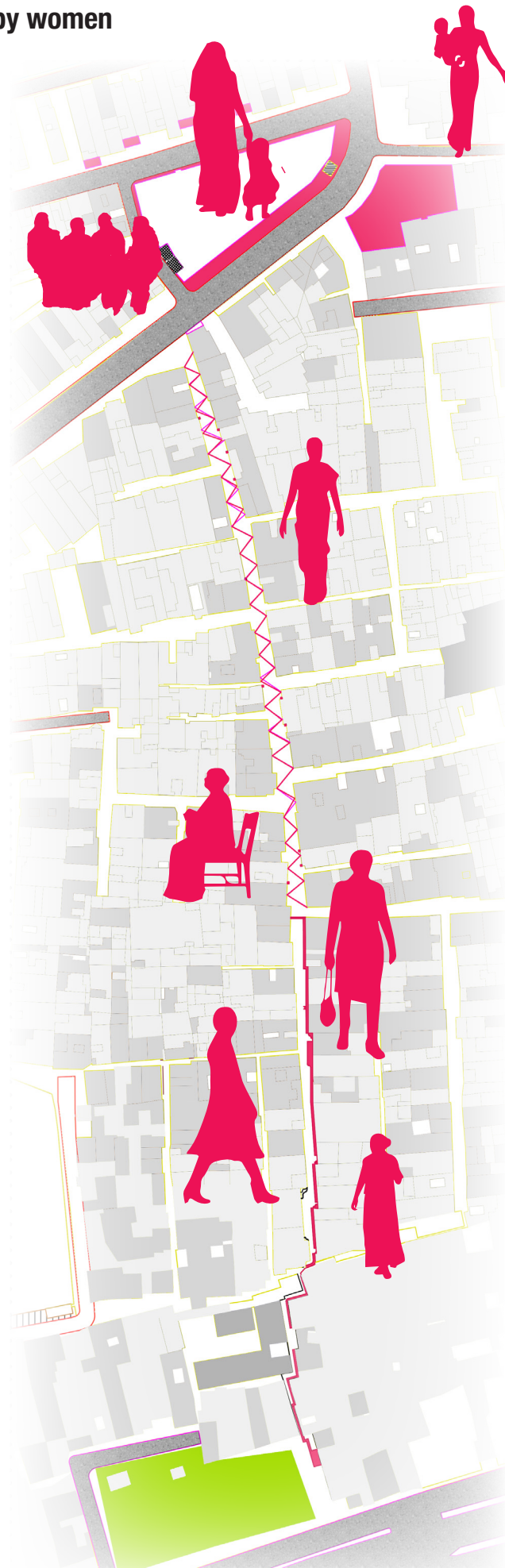


*Figure IV.101 : Reclaimed Spaces by the target groups*

*Source: made by author*

# 14. #WomenSpatialActivism Implementation Design Process

The women spatial activism design process is a part of the project which clearly defines how this project can be implemented on the ground level. With the stakeholders and projects already defined we have a know how of the ingredients. I am the urban designer around whom the whole process circles in 8 steps as shown in (Figure D.7.1).

**1. Step- 1 -** The idea of the spatial activism is generated by me and the mentors (advisory body & knowledge partners). I work with women in Delhi, Safetipin and the residents of Malviya Nagar together.

**2. Step-2 -** Along with these people I form a women spatial activism charter-1.

**3. Step-3 -** In the third step I coordinate with the advisory body once again and we add, substract and re-invent the charter.

**4. Step-4-** I work to have four main objectives of community building & participation, re-appropriation, safety and inclusiveness. Here we form a final women spatial activism charter.



**Step - 1**

IDEA INCUBATOR

me

advisory body-mentors TU Delft

Gender & The City Workshop

Residents Interview

**Step - 2**

WOMEN SPATIAL ACTIVISM INTERVENTION CHARTER-1

**Step - 3**

Advisory Body (Knowledge Partners)

addition     +     subtraction     +     reinventing

**Step - 4**

Community Building

Re-appropriation & Participation

Safety

Inclusiveness

WOMEN SPATIAL ACTIVISM DESIGN INTERVENTION FINAL CHARTER

*Figure IV.102* : The Women Spatial Activism Design Process designed by the urban designer
**Source**: made by author

**5. Step-5 -** In this step I coordinate with the stakeholders like NGOs , social organizations (Safetipin & KHOJ in this case) to organize mock up workshops and invite residents, citizen activists and the creative guests to aware them about the project.

**6.Step-6 -** Here comes the step where I have to talk to the financial partners and the advisory body again about the finances of the project as it is a low cost project.

**7.Step-7-** Along with the financial partners, knowledge partners and the implementation team the pilot projects take place on the actual site.

**8. Step-8 -** The last step is about the spin-offs and what will be the impact of the project on the street and further. We get national & international visibility of the project that will impact on the spreading of it and further more impact the economy by getting more girls being part of paid workforce.

STAKEHOLDERS COORDINATION - Example- Safetipin & KHOJ



Residents

Student Union
Creative Guests

KHOJ
Studio

Citizen
Activists

SPATIAL ACTIVISM HEADQUARTERS
MOCK UP WORKSHOP

KHOJ STUDIO
MOCK UP WORKSHOP

THE FINANCIAL PARTNERS + ADVISORY BODY (KNOWLEDGE PARTNERS)

XL

XS

Revitalising Street Drive

Light your lantern

Reclaiming the
Park Designing

Spatial Activism
Live Workshop

Painting the pink carpet

PILOT PROJECTS

ADVISORY BODY (KNOWLEDGE PARTNERS)

SPIN - OFFS &
Dissemination

Reclaimed Park for women & kids

Community Building & Realization of
importance of Reusable material

Inclusive & Safe streets for
working women

Safe & Re-appropriated Streets

National & International
Visibility of Women Spatial
Activism

Step - 5

Step - 6

Step - 7

Step - 8

# 15. Role(s) of Design in Shaping Women Spatial Activism Agenda - Design as a process and impact

## 1. Design as a process (Figure D.7.2)

- Design by definition is a plan, sketch or outline for the construction of an object, system or measurable human interaction.
- The art or action of conceiving and producing a plan or drawing of something before it is made ("design - definition of design in English | Oxford Dictionaries," n.d.).
*Design Synonyms–*
Plan, Sketch, Outline, Ideation, Framing, Art of conceiving, Drawing, Structuring, Arrangement.

## Steps of Design in shaping the agenda:-
### I.Multi-Disciplinary Analyses
1. Designing framework of research and design on Crime Against Women and the loss of the women right to the city.
2. Planning the site visit and preparing questionnaire for expert interviews and resident interviews.
3. Sketching the activities of the women in the neighborhood.
4. Outlining the agenda for Gender Equity & the City Workshop.
5. Ideating for the big problematics in the area.

## 2. Design as an impact (Figure D.7.3)

The role of design in the project is related to the impact of the changes on spatial and social life of the women residents and the visitors in the neighborhood. These changes mainly focus on the two parts :

-Awareness & spreading spatial activism.
-Creating a better, safe, more livable and inclusive neighborhood by increasing community building among the residents.

The urban design in this project will have an impact on the society particularly on women and the visiting women in the area.
The impact can be explained through the project proposals in detail.
**1. Light your Lantern-** Light your Lantern provides a safe environment and induces a feeling of safety in the women passers by and among all.
Also, with this project a sense of ownership comes in the residents to take care of the public property and be concerned about it.
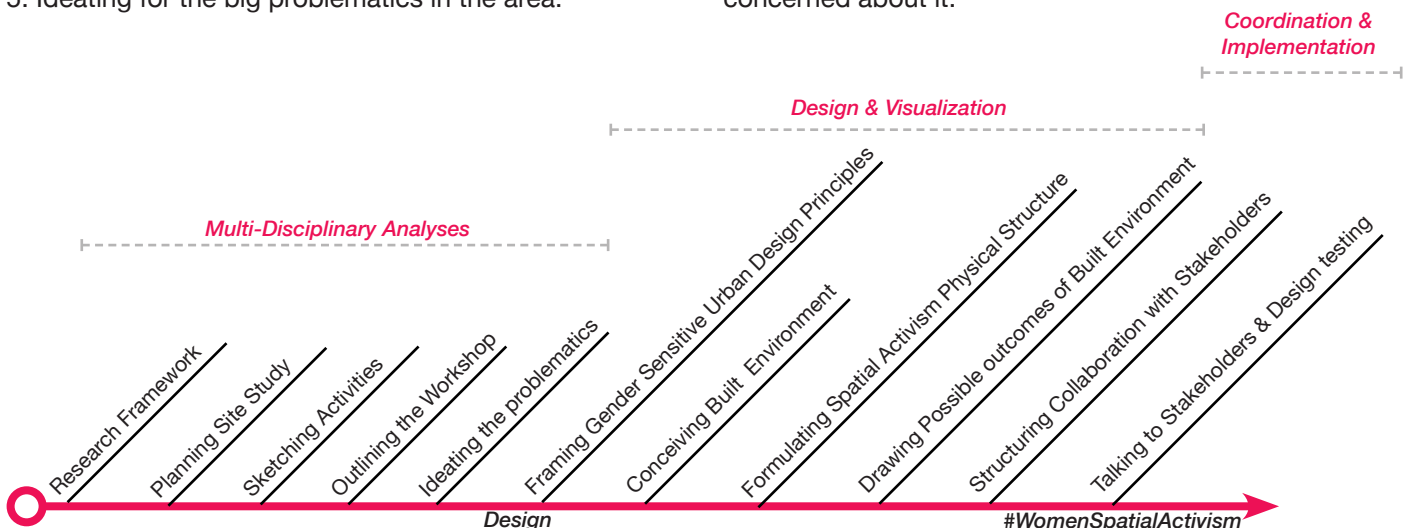


Figure IV.103 : Role of Design in shaping Women Spatial Activism as a process
*Source*: made by author

## II. Design & Visualization
6. Framing the gender sensitive Urban Design Principles.
7. Formulating the Spatial activism Physical Structure.
8. Conceiving a safe, free and gender inclusive built environment for the women of Malviya Nagar and hence making it safe for everyone.
9. Drawing the possible outcome of the changed built environment.

## III. Coordination & Implementation
10. Structuring the collaboration with the stake holder in the Spatial Activism Agenda.
11.Talking to stakeholders & design implementation & testing

-The local government also becomes aware of the changes taken place and will then try inducing them in the plans thereafter.

**2.The Pink Carpet-** In the next design which focuses on safety for pedestrians during night shifts will again induce a secured feeling in passing the street. The glow signals guide the pedestrians on their way in the narrow streets. This design intervention particularly focuses the millennial coming late night from the parties who are soft targets for the criminal activities.

**3.Spatial Activism Headquarters-** The spatial activism headquarters is a design initiative which temporarily utilizes the derelict space for a specific purpose till it has no use.

The urban farming done in the area will create a sense of sustainability in the area and the spatial activism products creation will train children in constructive activities.

**4. Reclaiming the Park -** The design is focused on women, young children and kids. The open air kitchen forms a platform where the women get a shelter to sit together, talk, cook and on the other hand also look after their children.

The reclaimed parking spaces changed to their original form of walk space creates re-appropriation of spaces.

The design will impart openness in the society and will create a sense of safety and security among women & girls.

**5. Revitalizing the Street-** People participate in sustainable activities and creates an awareness of the importance of green.

Overall this project is an attempt to realize how cleanliness is important for everyone and dingy, dirty places are uninviting to the residents and passers-by.



**Temporary:** Safe Walkway and easy wayfinding for the working women coming late at night.

**Permanent:** The Governments plans and policies enlighten towards pedestrian, gender safe and legible built environment.

**Temporary:** Increase safety for working women and therefore for all.

**Permanent:** Improve lighting in the area in the future local municipality plans.

**Temporary:** Realization of ownership of activities. Ownership of women in public spaces

**Permanent:** Changes in the Municipality plans will be according to the need of the citizens.

**Temporary:** Space utilized for making temporary items. Urban farming educates and grows local vegetables.

**Permanent:** Utilization of derelict space for the duration till it has no use. Space helps in creating a sustainable neighborhood.

**Temporary:** People participate in sustainable activities. Create awareness of green neighborhood.

**Permanent:** Aims to create an impact on the citizens about the cleanliness and innovation.

*Figure IV.104 :Role of Design in shaping Women Spatial Activism*
*Source: made by author*

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## 16. Role(s) of Urban Designer in Shaping Women Spatial Activism Agenda

An urban designer's role vary in a significant manner and is the most important and vital in this project. There are a lot of activisms that are going on in the world but what we are trying to do here is spatial activism - making real changes in the space. The most important role of an urban designer is to propose design ideas, test their feasibility & viability and implement them thereafter. I am the urban designer in the project and my role can be explained in the following steps:-

*1. Being the Idea Incubator -* I am the main idea incubator along with the advisory body i.e. my design mentors. I generate along a gender sensitive urban design physical interventions charter.

*2. Design Discussion with the Advisory Bodies-* I discuss the design with he mentors who are the advisory bodies of the project and then by addition, subtraction we reach a conclusion.

*3. Stakeholder Engagement (NGOs, community groups & citizens) - Social Structure-* Then an urban designer get all the stakeholders on a single platform for the successful implementation of the project. The designer has to work in close collaborations with agencies like KHOJ, SAFETIPIN, citizen activists, RWAs and NGOs.

*4.Access to finance partnerships-* The urban designer also has the responsibility to recognize the probable investors and help in raising the funds for the project majorly through international organizations & CSR activities.

*5.Coordinating with stakeholders*, NGOs, social and artists organzations along with advisory bodies for mock-up and pilot projects

*6. Monitoring & Increasing Visibility to the planning bodies by Awareness (Digital Structure) of Spatial Activism -* After the implementation of the project the role of an urban designer is to monitor the project closely & increase its visibility to make an impact on the government agencies.
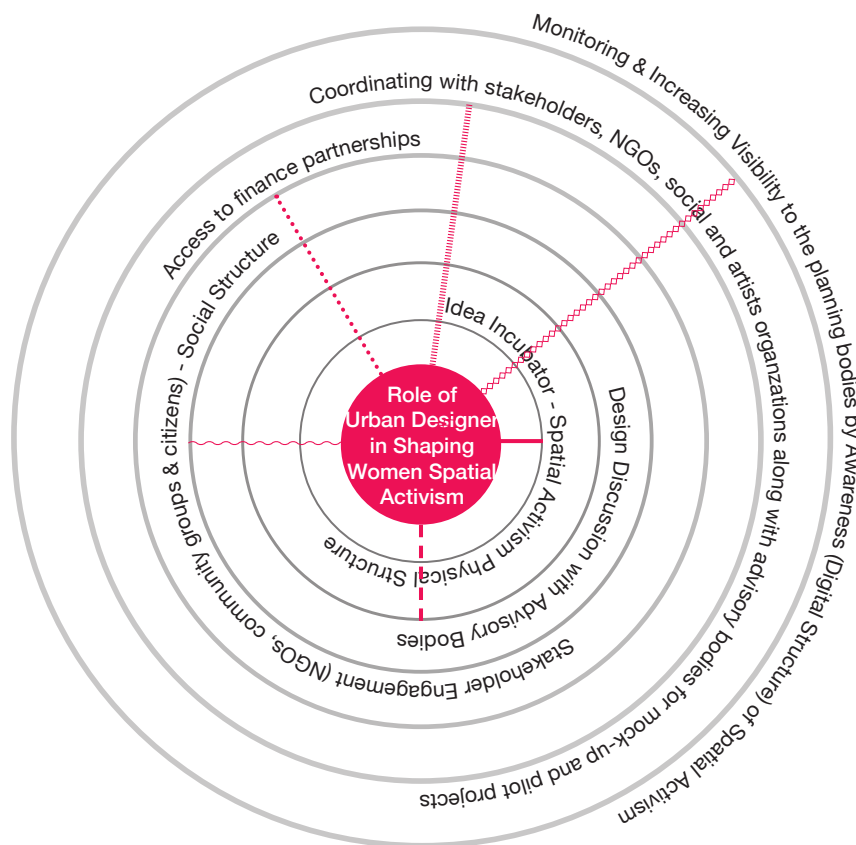


*Figure IV.105 :Role of Design in shaping Women Spatial Activism*
*Source*: *made by author*

Legend :-

──────  Spatial Activism physical Charter

─ ─ ─  Design Discussion with Advisory Bodies

∼∼∼  Stakeholder Engagement (NGOs, community groups & citizens) - Social Structure

⋯⋯⋯  Access to finance partnerships

▪▪▪▪  Coordinating with stakeholders, NGOs, social and artists organzations along with advisory bodies for mock-up and pilot projects

⬦⬦⬦⬦  Monitoring & Increasing Visibility to the planning bodies by Awareness (Digital Structure) of Spatial Activism

## 17. Future Strategy Of the Project

From the previous research of seeing social activism in the area, spatial Activism is being introduced with the idea of #WomenSpatialActivism and this aims to spread in Delhi, starting from this small neighborhood. In this way it will ignite the minds of the government to work on it and create some permanent solutions of the issues. By that time people can learn to be aware that there is a right that one has over some things and it is fine to awail it back.
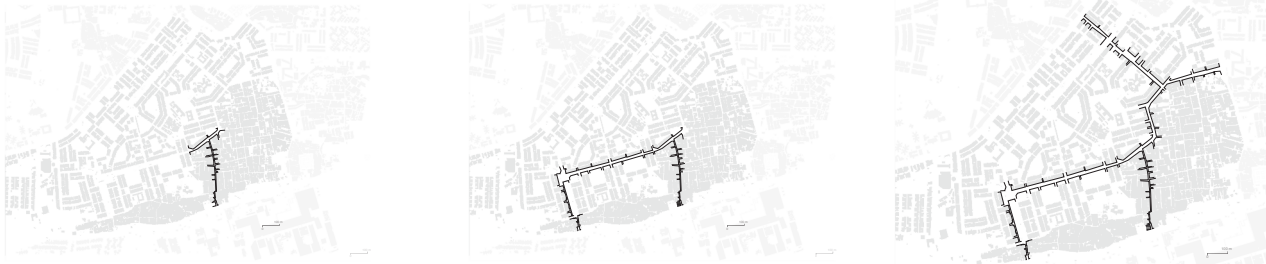


*Figure IV.106* :*Spreading Women Spatial Activism*
*Source*: *made by author*

This is the potential route that has been identified to implement the Spatial Activism design interventions in the neighborhood. Also to be more site specific one road is chosen at the end to implent and test the design.



Second Phase Expansion of
Spatial Activism
First Phase of Spatial Activism

Public Parks for Spatial Activism

Derelict Spaces for Spatial
Activism
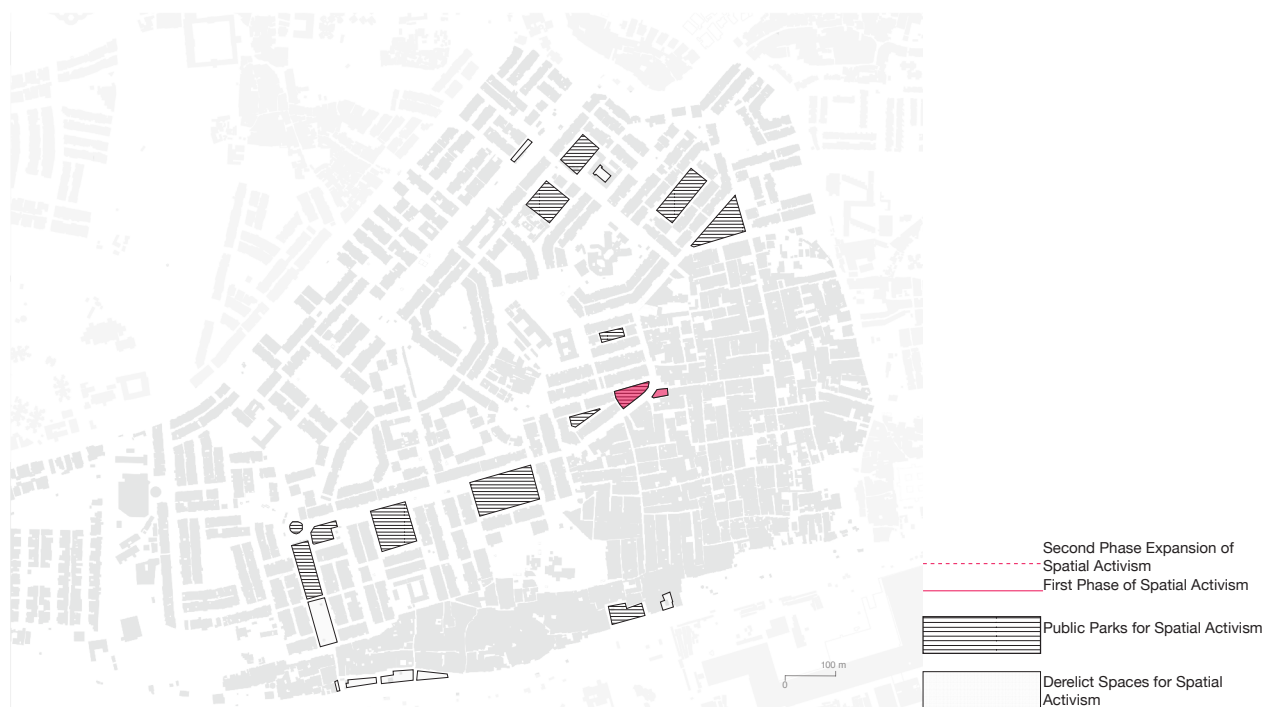
*Figure IV.107* :*Spreading women spatial activism through the public spaces*
*Source*: *made by author*

The potential open spaces are seen if they can support the strategy.
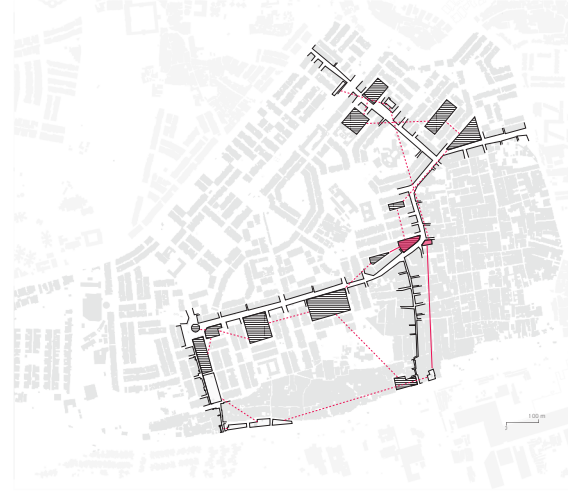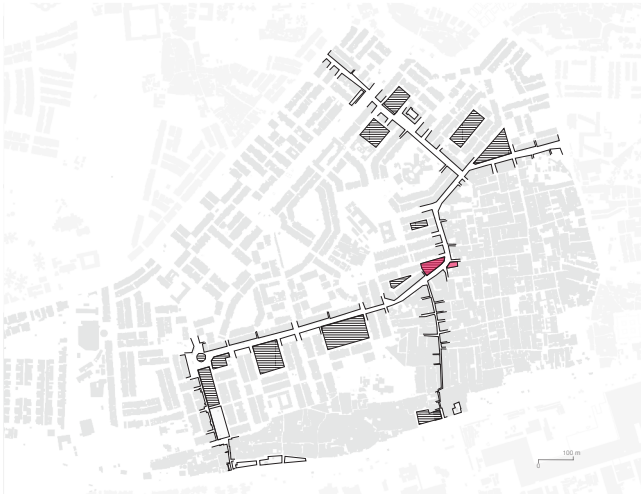
*Figure IV.108 :Connecting the public spaces & networks and nodes*
*Source: made by author*

A network is made for the neighborhood to implement Spatial Activism, so on a timeline it will be a reverse process starting from the street scale.

The public spaces activate other public spaces, while the derelict spaces activate other derelict spaces for Spatial Activism.



*Figure IV.109 : Future Strategy Timeline*
*Source: made by author*

# V. REFLECTION

# 1. Design Evaluation - Testing & Implementation

For the design testing I went to India and talked about its implementation to the stakeholders. I am in talking terms with the Khoj Studio about the implementation of the project. Also I have talked about it to the Safetipin members and they are also interested in discussing further. I talked to the various citizens and convinced a few of them to buy lanters bring out their chair and sit, etc.





*Figure V.3* : In conversation with the stakeholders Sonali Vyas (Safetipin) & Radha Mahendru (Khoj Organisation) to implement the project

*Source*: made by author



### Bring Out Your Own Chair

*Figure V.1*: Convinced citizen with chair outside
*Source*: made by author

I am in talking terms with many stakeholders of the area and talking about the feasibillity of the project. I have got positive feedbacks except a few who talks about vandalism of the projects.



*Figure V.2* : In conversation with the citizens about the implementation of the project
*Source*: made by author

# Design Evaluation - Space Syntax

The design has been evaluated in terms of space syntax and the feedback analysis.

Space Syntax results show that the missing link after being connected can increase the vitality of the street. HIgh integration shows more people on the street.

The street will be revitalized and more connected which is proved through the space syntax angular metric map. The flow of movement is higher and so will be the opportunities along the street.

Accessibility to the shopping mall also increases. It also becomes the part of urban renewal strategy where the street is renewed and opportunities are open for people for more shops.

According to the space syntax analysis it has been seen that the street connects two neighborhoods now and serve as a safe and reliable root.



*Figure V.4*: *Angular Metric Existing (Low)*
*Source*: *made by author*



*Figure V.6* : *Angular Metric Existing (High)*
*Source*: *made by author*



*Figure V.5*: *Angular Metric Designed (Low)*
*Source*: *made by author*



*Figure V.7*: *Angular Metric Designed (High)*
*Source*: *made by author*

# 2. Conclusions

The *Women Spatial Activism* is a movement that aims towards attaining a gender inclusive environment. The main research question stated, which spatial interventions, technology based solutions and design process could give women of New Delhi a gender inclusive network of public spaces and re-appropriation to what the city has to offer?

The *spatial interventions* are a bottom up approach and citizens led movement that make their own neighborhood safe, livable and righteous for them. The spatial interventions include a redesigned public park that has women and kids as the central focus, bamboo sheltered open air kitchen and toilets support the daily needs of the women and kids. The Pink Carpet is an attempt to make the street safe for pedestrian women and help them direct their way home. The Hanging Lanterns will provide light to the women in the dark as the market closes. The women reclaim space through their daily activities in the neighborhood by subsiding cars and making way to walk, the slopers help mothers to move with their babies to and from the park, etc.

The *technology based solutions* include two main things- the application She-Connect and the awareness of the project through social media. She-Connect helps in layering the information from several sources and connecting the women of the area while social media connectivity helps in spreading awareness of the project to increase number of stakeholder participants.

The *Design process* here is defined as a multi-actor and multi-scalar method in which the stakeholders, knowledge, financial and advisory partners coordinate together for the implementation of the urban design interventions. The urbanist leads the process and brings everyone together on one platform. #WomenSpatialActivism is a cycle of the three processes jointly impacting each other.

Answers to *sub research questions* will explain the conclusion further:-

### A.1 What has been the contributing factors spatially, socially and economically in shaping the position of women globally in the past?
The question is answered in various ways, through a lot of theoretical review and internet based research. A timeline research is done on the condition of women in the past and how their dependency on being paid/unpaid labor have changed since then. One of the important findings of this question was the long lost status of women being in public realm and the equality for which they have to fight every time against all odds to make a better life in the world.

A very basic but significant result of it is the time taken in different policies and planning rules to be actually implemented on the ground and the changes that took years to impact the life of women in real. The timeline shows the ignorance of city planning towards gender for which one of the main reason has been women not being a part of the urban planning and designing committee.

### B.1 Which best practices/activisms have induced safety & inclusiveness of women in the public sphere of the society?
The best practices - social, spatial and digital activisms have given a wide variety of confirmative and useful results. This I consider as the empirical knowledge obtained to be implemented in a similar or distinctive context. The concluding results of this research are as follows:-

*1. Social Activism* demand political and social changes in the government policies and the judicial structure, be it international or national. It can be for social awareness, democratic protests towards equal rights and even about reclaiming public spaces. This no doubt creates awareness but has a long process to make ground level changes.

*2. Digital Activism* is a new key mainly used for crowdsourcing data on violence against women, doing safety audits or spreading movements digitally through social media.

*3.* In the name of *Spatial Activism* a lot of projects have been done internationally from which I learned how to use local community both for feedback, inspirations and implementing the design proposals as well.

*4. Temporary Urbanism-* The concept of temporary urbanism taught how short term actions can have long term impacts on governmental policies and planning governance.

All in all the best practices from here triggered my mind to have Spatial Activism to be the main project as it has the capacity to make real changes on the ground level and change life of women of the place.

### B.2 What can be the design objectives & principles for gender sensitive urban design?
B.2 A theoretical framework is made from the literature review and central design objectives have been framed according to the main research question of identifying the key elements for attaining re-appropriation of spaces. So the main design objectives are :-

*1.Community Building :-* This objective will bring the women community together to design and make spaces in real for themselves. It has various sub objectives too like creating community opportunities, co-working concepts, etc.

*2.Re-appropriation & Participation* –From the literature and best practices it has been identified that for a freedom to access and use public spaces for a women it is important for her to reclaim those spaces. A step was needed to be taken by the women themselves to bring about this change.

*3.Safety* – After the crime data analysis in the problem statement, safety is an unsaid focus that is required to generate a women friendly space in the time of sexual and emotional violence against the women.

*4.Inclusiveness-* Inclusiveness is a characteristic of the place that gives equal rights to all the people, this is a vital property of a gender inclusive environment.

Under the main design objectives, gender sensitive urban design principles are given which comes either from literature or the best practices.

### C.1. Which attributes of the physical & social setting contributes towards movement of a woman and change in which part of the urban fabric can reduce fear in them?

C.1. The *activity mapping* done in Malviya Nagar showcases the network, nodes & destinations as an integral part of the women built environment. *Potential Mapping* done during site analysis and connecting it to the personal narrative of the city resulted in showing the main movement paths of women in the city which connects a mixed use street, metro station and the mall in the neighborhood. *Crime mapping* has highlighted the critical areas in Malviya Nagar but they have to be passed in the routes. A *spatial analysis* of the site has concluded that women prefer a route that is more lively and active even if it's a longer route. The *wayfinding cues* form an essential medium for them to find their way in an unknown setting. Dark alleys are avoided by them and they feel comfortable with presence of more women.

*Social Analysis* was equally important as it helped in identifying the main male dominated areas and the important connections of streets which were finally taken to be the design intervened areas. The key finding therefore for this research question is selection of the site location and spotting unsafe areas. Also it identified the street which can be used for implementing Women Spatial Activism.

### C.2. Which stakeholders are involved in the spatial, social, political and financial implementation of gender sensitive urban design in the neighborhood of Malviya Nagar?

C.2. The final stakeholder networking identifies the possible knowledge partners, financial partners and the design implementation team. Following is a description of the concluding stakeholders in the project.

*Knowledge Partners-* The advisory board will be the team of the NGOs, Artists & Activists like Khoj, TU delft and the mentor team with the governmental research organizations.

*Financial Partners –* The possible financial partners include international grants, funds under corporate social responsibility, national grants, government bodies and the NGOs.

*Design Implementation team-* The citizens , citizen activists, resident welfare associations, creative groups from universities, come together under one roof to implement the design on site.

### C.3. What tools, methods and strategies can be adapted to make a gender sensitive urban design project?

C.3. The *strategy* comes out to be a design initiative that revolves around urban design and stakeholders in order to make a more comprehensive and explicit process

#womenspatialactivism a reality for the betterment of the women in the area.

A *physical gender sensitive urban design charter* is generated that is the result of the gender sensitive urban design principles and objectives formed during the research. The #WomenSpatial Activism Design Charter explains which design project can deal with one of the issues of the women in a public space and at what scale can it be implemented.

(The charter is followed as the main design tool in designing the street, park and derelict spaces)

### C.4. How will the spatial interventions & technology based solutions integrate with the spatial structure and design process in Malviya Nagar?

C.4 The spatial interventions are based on the gender sensitive urban design principles and the women spatial activism charter formulated under sub research questions C3 & The final proposals made are:-

*Light your Lantern –* A fund raising sustainable hanging lantern proposal that lights up the street in the night hours for the late running working women and the ones returning from the mall.

*The Pink Carpet –* A glowing pink carpet that can be followed by the pedestrians at night leading the right way to the destination and losing in the streets.

*Spatial Activism Headquarters-* A derelict space used for gender sensitive temporary urbanism to redesign the public park.

*Re-vitalizing the Street -* Dead end streets revitalized with green spaces instead of garbage dumps to accentuate the feeling of cleanliness and thereafter safety.

*Reclaiming the Park –* A re-appropriation step taken by the citizens to reclaim spaces to their original tasks.

The respective proposals do not suggest changes in the urban fabric as it is a long term process while makes changes which can effect life of the people positively. The technological solutions of the She-connect application and the the hashtag helps in creating awareness and disseminating the Women Spatial Activism.

### C.5 What is the role of design and urban designer in shaping a gender sensitive urban design project?

C.5. The leading result of this research question is a *spatial activism design process* that is regulated in between the stakeholders (Safetipin, Khoj and others) and an urban design proposal for the public spaces. This research question simply answers on how an *urban designer* is not just responsible for the physical interventions but a proposal that can define the partnership of possible contributors to a social project from step 1 and taking the proposal to the implementation level.

# 3. Recommendations

The present thesis project leads to a *gender sensitive approach* in the form of urban spatial activism. The design projects derived from this study helps in developing a gender sensitive society by *reclaiming spaces*. *It can be used as an example case for designing gender sensitive neighborhood as it defines the key urban design principles which remain the same in different contexts all over the world.* The Spatial Design interventions are the ones that are context based solving specific issues on the site.

This section contains academic recommendations for future researchers and practical recommendations for the stakeholders.

*Academic Recommendations for future researchers:-*
The methodology followed is useful and it is explained what can be adapted from which part of the steps :-

*From Research by Literature -* The research done by literature enables one to focus on a few objectives and at the first step narrow downs the scope of looking at issues and problems. The theoretical framework at an earlier stage is important as it mentions the key points like in this it already explained that if we talk about a women in the city, its not just about safety but also about community building and participation of stakeholders to build a society.

*From the Gender & the city Workshop-* The workshop in the project turned out to be a very productive input as it helped in framing a structure of the general gender issues and held a good debate on segregation and inclusion of women in public spaces, transportation and streets. A workshop like this helps in bringing together the people with same interests on one platform and increases your insight towards the topic.

*From Site Analysis-* The site study is an integral part of the research and resident interviews tell you the utmost significant insights into the project. A very simple issue of level difference in public spaces which is not seen by the government proves to be a menace for the residents. So the residents interview and analysis should be an essential part of the methodology.

*Research from Best Practices-* The research of best practices and conclusions drawn proved to be the most insightful input in the project since not many projects or research has been done specifically on gender sensitive urban design. This can be used further in critically analyzing and making relations to other parts.

*Practical Recommendations for Stakeholders:-*

*For the NGOs-* The NGOs and social activists should have combined operations along with the other organizations. The information and data should be layered together to deribve important conclusions. They can work on having a common platform for sharing data, evidences and information on same issue. They should have an open dialogue with the citizens in order to have a holistic understanding of the gender sensitive problems.

*For the government –* The government should have an open discussion with the stakeholders including social activists , citizens, urban designers and NGOs for making comprehensive and inclusive policies and plans . The local government and the municipality should integrate the interventions done at the citizen level as that is a demand supply cycle and not designed sitting in a room. The government in collaboration with the stakeholders should demonstrate the design ideas in the physical form to gain trust among the citizens and showcase the feasibility of design ideas.

Overall, these recommendations are aimed towards successful implementation of the project by multiple stakeholders and for future researchers to explore the issue of gender sensitive urban design.

*Future Research Topics :-*
From this research project there can be several spin-of research topics
The future research can be done in various segments that are explored in the next paragraph :-
*1. Related to the Context -* The gender sensitive design principle framework can be evaluated and tested in other contexts and regions and see how the framework changes and what particular additions can be done when tested with other framework.
*2. Related to Urban Planning-* The impact of the project can be seen at a planning level in the city.
*3. Expanding Women Spatial Activism-* The Spatial Activism is a movement and citizen led approach, the proposals like hanging lanterns, pink carpet and other solutions can bring together the community anywhere.
*4. Identifying multi-stakeholders -* More stakeholders such as Khoj Studio and Safetipin can be identified from which scope of the design project can increase. The stakeholders can provide inputs and the activism can be implemented in other neighborhoods of Delhi.
*5. Space Syntax & Sexual Harassment -* The space syntax map tests the viability and feasibility of the project. The sexual harassment and crime mapping can be explored in detail with the relationship of the built fabric.

# 4. Reflection

The chosen graduation project under the title '#*WomenSpatialActivism- An Urbanism approach towards re-appropriation of spaces by women in New Delhi, India*' is a design process and a system to impact the conventional long-term planning process. The project is done under the research group of Design of the Urban Fabric, that is the part of the Urbanism Department at TU Delft.

Regarding choosing a certain location, there are a few factors that were dominant. *Firstly*, the precise motivation of the project was me and the changes that I wanted to make as a young Indian woman and a young urbanist in India regarding the position of women in public spaces. Delhi was chosen as the central location as the project is an activism and a process that is aimed to spread as a movement. This is inspired by the urban fabric goal of understanding, how individual and groups design in a complex setting.

*Secondly,* the neighborhood of Malviya Nagar is selected as it is one of the top crime-ridden areas of New Delhi and inhabited by girls as paying guests from all over India.

Even more, complexity comes in with the economic and religious differences in the area due to the presence of an urban village 'Khirki' in the site. So, *thirdly*, a site with all the differences intersecting have been selected for local interventions to make it a more mixed community space and start the women activism among all sections of the society.

The concept of *'Spatial Activism'* is a design process that collaborates different stakeholders and with the help of participation of the residents make physical changes to produce a social network using tactical urbanism design initiatives. Re-designing the urban environment in this way will make the area more sustainable, safe and vital for the women population.

***The relationship between the theme of the graduation lab and the subject/case study chosen by the student within this framework (location/object)***
The studio of the Design of the Urban Fabric has been chosen in order to work on the re-appropriation of spaces physically, i.e. to solve a social, economic and cultural issue, spatially.

The Urban Fabric design studio allows one to research the social factors (intangible) along with the spatial (tangible) which was the primary goal of the project to combine social and spatial aspects for doing spatial design intervention. The scale of the project also supports the studio theme as work is done on the neighborhood level to the micro level of the urban fabric. The bottom-up approach (citizen engagement) and tactical urbanism are the tools that are used to structure design process in the multi-actor setting.

***Methodical line of Urban Fabric Research Group & Project Methodology***
The two core methods & approaches, taken by the Design Studio as *"patterns"* & *"scenarios"* have been used from the day-1 to set forth a hypothesis as a scenario and developing design patterns as *design principles* that are generic and site-specific.

The *hypothesis* was set initially in the project based on the evidence and facts collected. The hypothesis of working on bus stops did not turn out to be the most urgent issue after the site visit and the workshop. The methods adopted to carry out a detailed research included field study, which cleared an image of the location that it has many more intensive and sensitive aspects which are more cultural than spatial to be looked after while designing. A different direction of research and design was thought of after talking to the residents (resident interviews) who notified that most women are using auto-rickshaws. Also, after the expert interviews and *Gender Equity & the city workshop* hosted in Delhi, the urgent issues turned out to be different & immediate action was realized.

The knowledge gained from these practices helped in evaluating a new hypothesis to work on links and destinations used by the women in the area. After the under laying of spatial and social analysis, a future of the area is explored where the community participation re-appropriate their spaces by intervening into what is theirs with the help of social activists and NGO's.

The research on the topic has been done in various manner and at different levels. The methods of research included *research with design by literature, case studies, design and site study*. To make it clearer, the project had two aspects s*ocial/cultural and spatial*. The social dimension was taken care of by field study, resident interviews, the equity workshop held in Delhi & political-cultural anthropology. For the spatial part, desk analysis, morphology analysis and user analysis of the location specified unsafe spots and spaces where appropriation of women is necessary, especially surrounding kids is done.

***The relationship between research and design***
To reach the gap in between Research & Design, **design tools** have been developed and *tactical urbanism interventions* are made at the neighborhood scale. Five scales/levels micro, building, parks, streets and neighborhood are demarcated for the implication of strategy. After the scales I realized it was really important to identify the typology of the specific location and therefore I divided the open spaces into Dead Wall Street, Dead End Street, Mixed Use Street, Residential Street, Derelict Spaces and Open Public Parks. Design principles were adopted from the literature and case studies as a link between the research and design solutions. These design principles/#WomenspatialActivism physical design charter are derived as a part of defined gendered urban studies and gendered urban design projects from all over the world. An important decision of using Tactical

temporary urbanism was taken, and small interventions were done to make it a better place for the women to live, an inclusive neighborhood for them. The projects that came up linking design principles, tools, typologies and scales are *The Pink Carpet* (for Dead Wall Street), *Light your Lantern* (for Mixed Use Street), *Revitalized Street* (Dead End Street), *Reclaiming Public Space* (Open Public Park) and *The Spatial Activism Headquarters* (Derelict Spaces). Time- phasing and spatial agenda is based on the scales at which the interventions can take place in the longer term of the project.

*Social Relevance & Looking Forward :-*
The topic of spatial activism for women in India, needless to say, is evidently socially relevant. The women in India are constrained from the basic fundamental right of being treated as equal, to act freely in public space and not to be exploited on the streets. Most of the measures taken in terms of unequal distribution of resources or free accessibility given to women are long term actions and plans which will take years to be implemented. The women spatial activism in India from its capital of New Delhi aims to turn out to be a movement that helps women to lead a freer, safer and inclusive environment in the city by solving the issues on their own by building a community and participating in re-appropriating spaces. The interventions are short-term actions that target a long-term change in the planning process instigated by the residents.
In a wider social context, the *#womenspatialactivism* is targeted to spread through social media and the digital world. The design concept has to spread in the city and further to bring about a positive impact on freedom of women in a public space in India.

# 5. Limitation

This section contains the problems/ hard times that I faced in order to pursue the project successfully. For a better understanding of the limitations I have divided the whole section into 3 parts:-

*Research by Literature-*
- All the literature concerning the topic of gender and the built environment is mainly concerned with spatial planning and policies. Gender Sensitive Urban Design reference projects hardly exists.
- The spatial planning literature concentrated only at the economic and urban planning scale at a city level. To get the findings on a smaller scale of urban design was not there.

*Site Analysis*
- The distance to India is in itself a limitation of the project. The site visit had to be pre-planned in a very detailed manner as there was no other way of doing it again if left with anything.
- The communication is always not an easy task to do and convincing people to fill out survey and questionnaires were quite a challenge.
- Financial hurdles also came up as I had to spend money in organizing the Gender & the City workshop in Delhi and allowances couldn't be availed from any organization.
- While doing the site survey, I had to accompany myself with someone in the night as of course as the topic suggests it's not a safe area to be there alone in the night.
- Also to walk such long stretches of 2.5 km multiple times, to trace small understandings of the urban fabric was interesting and tiring.

*Stakeholder Interviews*
- To arrange the expert interviews and talk to the social organizations for an expert opinion on the project was not every time entertained and also the after remarks were usually for not publishing the interviews.

*Design Research-*
- While designing, the main conflict was the google 3d street views which are not available for India. It posed to be a huge hurdle everytime I had to get a detailed information of the urban fabric.
- It wasn't possible to test the design in real which could have been possible with long stays in India. I envision to do it in the coming future.
- It is an academic project but practical relevance couldn't be ignored in Indian scenario about the feasibility due to which a lot of design solutions had constraints.

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# VII.  Appendix

# Interview with Mrs. Salma Ansari

*Wife of Mohammad Hamid Ansari (Vice-President of India)*
*Working towards development of Women and Children*
*NGOs and schools operating under her in Aligarh*
*Dated:- 14th February, 2017*



*Location : Vice President's House, New Delhi*
*Source: By Author*



*Location : Vice President's House, New Delhi*
*Source: By Priyanka Agarwal Choudhary*

**Q. What do you think about women safety in public spaces and your opinion particularly in the case of New Delhi?**
A. There are two things mainly, first of all, people do not want to help in cases of eve teasing, and secondly, the police is unaware and unhelpful. Of course, if we talk regarding places then dead alleys and streets without any light are the most unsafe spaces which are very frequent in the city of Delhi.

**Q. There is a nice talk about CCTV cameras to be put, do you think its the way to give freedom to women to claim public spaces?**
A. Yes, it's a positive thing but where all can you put cameras. Okay, you will bring them to bus stops, metro stops, railway stations but you just cannot put it everywhere.
The most important thing we all need to understand is that Delhi is a place where people come from all over the country. It's diverse, and there is not one particular community that is living here. Because of the unexposed conditions in other states of India people go haywire when they come to Delhi. People bring their own psychosis and mental attitude with them which does not match the levels of an urban woman.

**Q. In planning terms does reduced distances to work, and other daily necessities nearby can help in making Delhi a more inclusive city?**
A. I do not think it is in the hands of women. We are a mixed-use city, and just one place only is not only work oriented so it's hard to say if this solution can help. Also, the world is appalling today, if you see the number of cases coming up regarding child exploitation, I am really not for the community building personally.

**Q. Regarding money distribution at governance level or in terms of phasing the project do we need to be movement specific, that is should we work first more on the paths that are used more or equal importance should be given to all the roads and streets?**
A. No No you need to be specific and concentrate on the areas that are used more. Two most important things would be police patrolling and light distribution. The population needs to be estimated before developing an area. In Malviya Nagar, at first it was open and safe, but after the metro now, there are a lot of people and services are not that much.

**Q. With the rapid urbanization what do you think can help in making the streets and alleyways safer and inclusive?**
A. More the people more the trouble, a problem arises as much in a crowd as alone in the street. It all melts down to be a strong woman who can say NO.

# Interview with Dr. Sudhir Krishna

*Honorary Chairman, Governing Council of IMRT*
*Former Secretary, Ministry of Urban Development, Government of India*
*Dated:- 9th February, 2017*



*Source: Google Pictures*

**Q. What are the aspects of planned urbanization that are most important in your view?**
A. I would rate sustainability as the overarching framework for planned urbanization. Sustainability would have five dimensions namely, environmental, social, managerial, technological and financial.

**Q. There has been a lot of debate to include gender while planning infrastructure and mobility, to what extent the gender factor is considered in planning and designing cities?**
A. While some feeble efforts have been made to make city planning gender sensitive, much more efforts are called for. Please take a look at the URDPFI Guidelines available on MoUD's website, for more details.

**Q. In smart cities governance, why do we talk about digital India more than inclusive cities?**
A. I am no longer in MoUD and hence cannot speak on their behalf. However, I do believe that smart cities must meet the criteria of sustainability in all its five dimensions mentioned above. Social sustainability would include social inclusiveness.

**Q. How a small scale intervention like CCTV cameras being considered more important than mixed-use developments of the urban fabric?**
A. Both are relevant in their respective frameworks and I would not like to rate one of them more relevant than the other.

**Q. Do you think its important to include gender when we talk about safe cities?**
A. Yes.

**Q What kind of interventions can be done considering the gender part particularly in Public spaces including transport sector?**
A. Street lighting, clean walkways, and well-structured public transport systems would help in making mobility safe and convenient for women and the elderly/disabled. Please take a look at the various guidelines floated by the Institute of Urban Transport (India) in partnership with MoUD, for more details.

**Q Henri Lefebvre projected the term "Right to the city", would you like to comprehend on this?**
A. I would like to have the cities safe, inclusive and sustainable.

# Interview with Kumar V. Pratap

*Economic Adviser, Ministry of Urban Development, Government of India*
*Heading Smart City Mission India*
*Dated:- 15th February, 2017*



Location : Nirman Bhavan, Ministry of Urban Development, new Delhi, India
Source: By the author



Location : Kumar V. pratap
Source: LinkedIn

**Q. What are the aspects of Smart Cities that are the most important in your view?**
A. The main principles of a smart city as mentioned on the website is about the infrastructure development, increasing livability i.e. walkability . We work on doing more with less  and that is why we focus on things like CCTV and smart metering for electricity.

**Q. There has been a lot of debate to include gender while planning infrastructure and mobility, to what extent the gender factor is considered in planning the financial budgets of Public Private Partnership?**
A. In the smart city mission we do not discriminate between men and women.

**Q. In smart cities governance, why do we talk about digital concepts more than inclusive and safe smart cities?**
A. Safety of women, children and elderlies are a priority in project implementation. If you read the guidelines it focuses on women and children safety. Parks and playgrounds to be provided for the elderlies and children around the specific area.

**Q. To what extent are the finances contributed towards facilities required by different genders in Smart Cities?**
A. As I said there is no discrimination in genders while making the Smart City Mission.

**Q. The PPPs in winning Smart City proposals hardly include Social human control and safety, does it have a specific reason behind?**
A. We do talk about safety and security specifically for women and children in our guidelines. But yes the focus areas under Pan City Mission is to provide the basic infrastructure to the cities.

# Resident Survey

## What kind of places do you visit in the daily routine? (Multiple Answers)
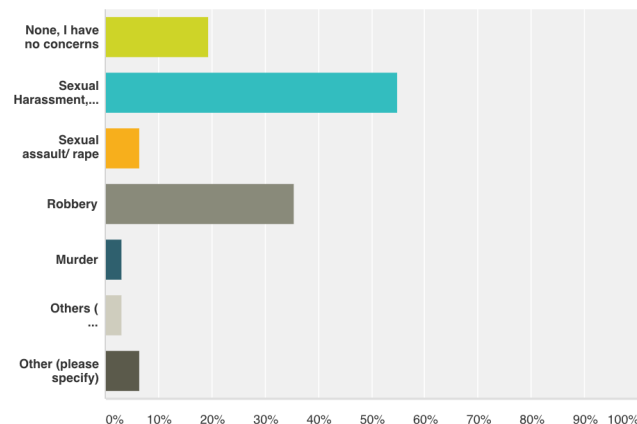
Answered: 31   Skipped: 0
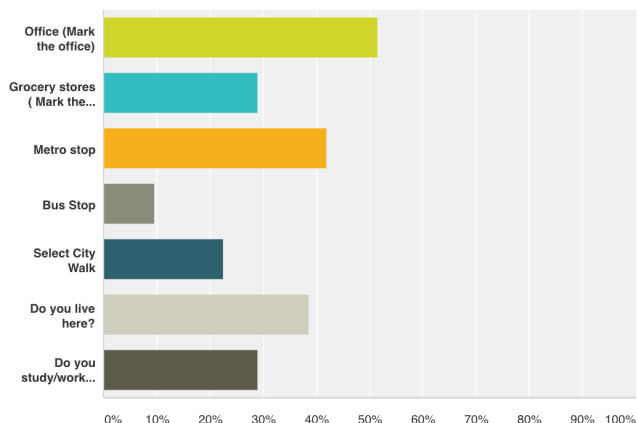


| Answer Choices | | Responses | |
|---|---|---|---|
| | Office (Mark the office) | 51.61% | 16 |
| | Grocery stores ( Mark the Market) | 29.03% | 9 |
| | Metro stop | 41.94% | 13 |
| | Bus Stop | 9.68% | 3 |
| | Select City Walk | 22.58% | 7 |
| | Do you live here? | 38.71% | 12 |
| | Do you study/work here? | 29.03% | 9 |
| Total Respondents: 31 | | | |

## What personal safety risks concern you most when you are in this area? (Multiple Answers)

Answered: 31   Skipped: 0



| Answer Choices | | Responses | |
|---|---|---|---|
| | None, I have no concerns | 19.35% | 6 |
| | Sexual Harassment, Hassling, eve teasing, Stalking, touching, flashing | 54.84% | 17 |
| | Sexual assault/ rape | 6.45% | 2 |
| | Robbery | 35.48% | 11 |
| | Murder | 3.23% | 1 |
| | Others ( ) | 3.23% | 1 |
| | Other (please specify)          Responses | 6.45% | 2 |
| Total Respondents: 31 | | | |

## Which factors contribute to your feeling of being unsafe? (Multiple Answers)

Answered: 30   Skipped: 1



| Answer Choices | | Responses | |
|---|---|---|---|
| | Lack of poor signage/ information | 10.00% | 3 |
| | Poor maintenance of public spaces | 40.00% | 12 |
| | Crowded public transport/ bus stops/stations | 56.67% | 17 |
| | Lack of clean and safe public toilets | 20.00% | 6 |
| | Lack of vendors or stalls/people in the area | 6.67% | 2 |
| | Men dealing with or taking alcohol/drugs | 43.33% | 13 |
| | Lack of respect for women | 46.67% | 14 |
| | Others ( ) | 0.00% | 0 |
| Total Respondents: 30 | | | |

## What is the first place you would go if something like molestation/assault happens? (Single Answer)

Answered: 30   Skipped: 1



| Answer Choices | | Responses | |
|---|---|---|---|
| | Access your phone and try to contact someone | 30.00% | 9 |
| | Shout to take help | 46.67% | 14 |
| | Take help from people in buildings | 6.67% | 2 |
| | Report it to police | 13.33% | 4 |
| | Others ( ) | 3.33% | 1 |
| Total | | | 30 |

# Resident Survey

## Which factors contribute to your feeling of being unsafe? (Multiple Answers)

Answered: 30    Skipped: 1

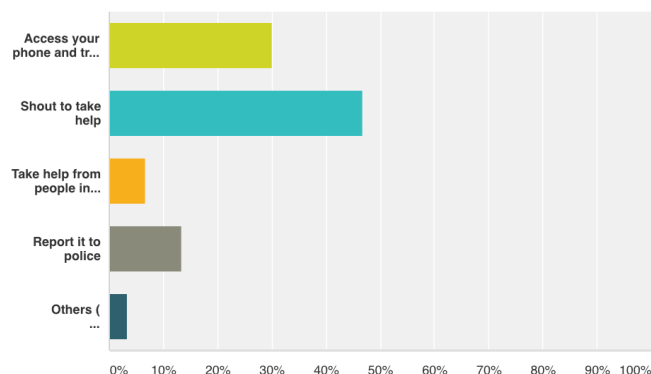| Answer Choices | Responses | |
|---|---|---|
| Lack of poor signage/ information | 10.00% | 3 |
| Poor maintenance of public spaces | 40.00% | 12 |
| Crowded public transport/ bus stops/stations | 56.67% | 17 |
| Lack of clean and safe public toilets | 20.00% | 6 |
| Lack of vendors or stalls/people in the area | 6.67% | 2 |
| Men dealing with or taking alcohol/drugs | 43.33% | 13 |
| Lack of respect for women | 46.67% | 14 |
| Others ( ) | 0.00% | 0 |
| Total Respondents: 30 | | |

## What is the first place you would go if something like molestation/assault happens? (Single Answer)
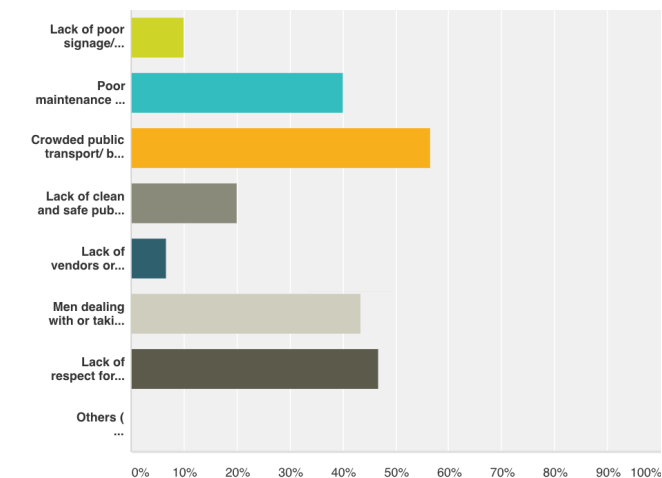
Answered: 30    Skipped: 1

| Answer Choices | Responses | |
|---|---|---|
| Access your phone and try to contact someone | 30.00% | 9 |
| Shout to take help | 46.67% | 14 |
| Take help from people in buildings | 6.67% | 2 |
| Report it to police | 13.33% | 4 |
| Others ( ) | 3.33% | 1 |
| Total | | 30 |

## When you are here, do you do any of the following in order to be safe? (Multiple Answers)

Answered: 31    Skipped: 0
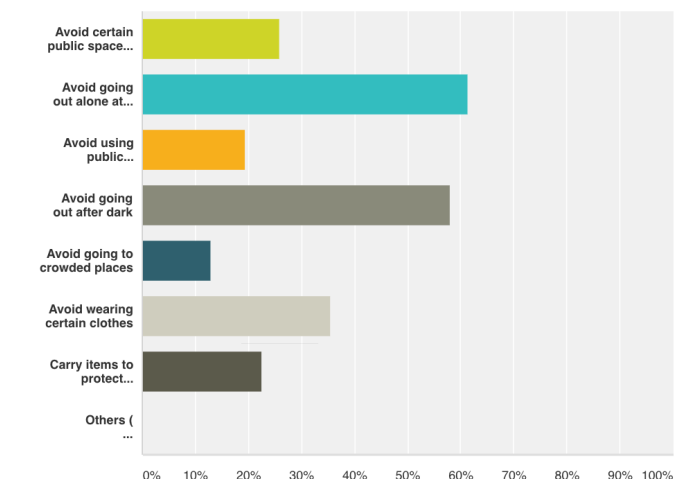
| Answer Choices | Responses | |
|---|---|---|
| Avoid certain public spaces completely | 25.81% | 8 |
| Avoid going out alone at times | 61.29% | 19 |
| Avoid using public transport | 19.35% | 6 |
| Avoid going out after dark | 58.06% | 18 |
| Avoid going to crowded places | 12.90% | 4 |
| Avoid wearing certain clothes | 35.48% | 11 |
| Carry items to protect yourself | 22.58% | 7 |
| Others ( ) | 0.00% | 0 |
| Total Respondents: 31 | | |

## What kind of street elements do you think should be there in order to make a place safe?(Multiple Answers)

Answered: 31    Skipped: 0
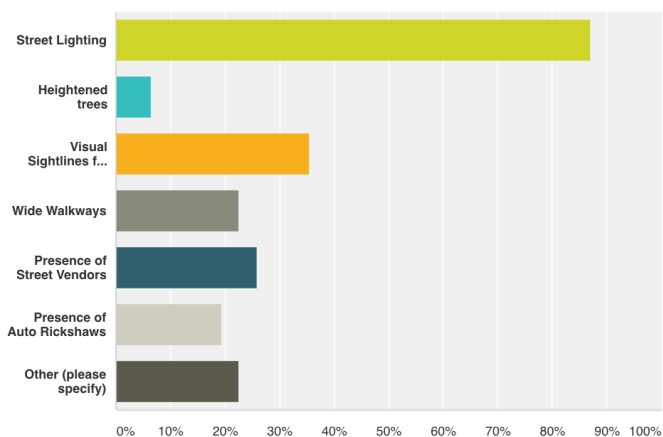
| Answer Choices | | Responses | |
|---|---|---|---|
| Street Lighting | | 87.10% | 27 |
| Heightened trees | | 6.45% | 2 |
| Visual Sightlines from the People in Buildings | | 35.48% | 11 |
| Wide Walkways | | 22.58% | 7 |
| Presence of Street Vendors | | 25.81% | 8 |
| Presence of Auto Rickshaws | | 19.35% | 6 |
| Other (please specify) | Responses | 22.58% | 7 |
| Total Respondents: 31 | | | |

# Resident Survey

**What would you prefer as a solution to the problem of women safety in public? (Multiple Answers)**

Answered: 31    Skipped: 0
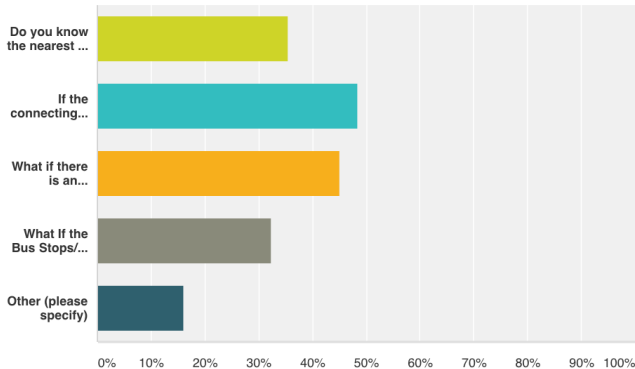


| Answer Choices | | Responses | |
|---|---|---|---|
| ▽ | Do you know the nearest Bus Stop/metro stop in order to run and reach in a situation? | **35.48%** | 11 |
| ▽ | If the connecting paths between destinations are made safe? | **48.39%** | 15 |
| ▽ | What if there is an application connecting women travelling from Spot A to Spot B? | **45.16%** | 14 |
| ▽ | What If the Bus Stops/ Metro Stops are made the Safety spots digitally? | **32.26%** | 10 |
| ▽ | Other (please specify)    **Responses** | **16.13%** | 5 |
| Total Respondents: 31 | | | |

Q. What would you prefer as a solution to the problem of women safety in public?
A.More lighting, more security guards to keep things in check, more cctv surveillance, more people to claim public spaces.
A. Presence of police or security guards
A. The major issue with this area is transport. Like company cabs cannot come in the lane due to road width and the roads are not even developed to walk on them or travel on.
A. Thumbs up to the idea of the application to connect women together to travel from Spot A to Spot B
A. If the dark spots are removed I would feel more secure.

Extra Comments:-

Q. What personal safety risks concern you most when you are in this area?
A.Being teased or harassed is a threat if I'm in this area after 8 pm
A. I just feel the fear inside me to go out after dark.

Q. What kind of street elements do you think should be there in order to make a place safe?
A. Two things. firstly, policemen or security personnel that I can reach out to instantly. Secondly, stricter rules to prevent autorickshaw-men from refusing to take passengers to any location. More autorickshaws are not needed, but all the existing ones to be at our service.
A. Proper police support
A.Presence of police
A. I dont feel good or you can say safe to walk in the night after 8:30 pm
A. I would love if there are CCTV cameras for surveillance. Also, a good security system to keep a check on such activities.
A.Security police at as nearest distance possible
A. Better lighting and elements which can be lit up (for instance better signages, well lit public infrastructure)

# Workshop Attendee List

**EQUITY & THE
CITY
Attendee List**

18.02.2017

| Sno. | Name | Profession | Designation | Organization/ Institution | Mobile | Email-ID | Signature |
|------|------|-----------|-------------|---------------------------|--------|----------|-----------|
| 1 | Sugandha Gupta | Architect & Urban Designer | Student | T.U. Delft | 9837025847 | sugandha2108@gmail.com | Host |
| 2 | Chhaya Gupta | Business | Director/ HOUSEWIFE | M/S Hotel Galaxy | 9045270576 | galaxyhotelaligarh@gmail.com | |
| 3 | Sanjeev Gupta | Business | Director | M/S Gupta Enterprises | 9412275847 | sanjeevguptagalaxy@gmail.com | |
| 4 | Sawan Gupta | Business | Member | Dev Nagar Model Housing Society | 9999899799 | unmtchedsawan@gmail.com | |
| 5 | Priyanka Agarwal | Media | Anchor | DoorDarshan | 9899067309 | apriyanka@hotmail.com | Host |
| 6 | Divyamanu Chaudhry | Corporate | Senior Manager( Corporate Affairs) | ITC | 9899992732 | | |
| 7 | Rohit Agarwal | Director | Director | Levana | 9839126387 | rohit101@hotmail.com | |
| 8 | Aakanksha | Architect | Depty. Architect | CPWD | 9760643323 | ar.aakanksha@gmail.com | |
| 9 | Bushra Shahwar | Architect | Student | IIT Roorkee | 9410024824 | shahwarbushra511@gmail.com | |
| 10 | Sonali Vyas | Architect & Urban Planner | Programme Associate | Safetipin | 8800264033 | sonali.vyas@safetipin.com | |
| 11 | Mukul Kumar Sahu | Lawyer | Public Prosecutor | Government Of India | 9810259179 | | |
| 12 | Firoz Ahmed | Architect | Assistant Architect | CPWD | 9634105856 | | |
| 13 | Salman Naqvi | Architect | Architect | BDP Architecture Firm | 9897353197 | ar.salmannaqvi@gmail.com | |

# Workshop Attendee List

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 14 | Sandhya Agarwal | Housewife | | | | | |
| 15 | Saadia Siddiqui | Urban Planner | Research Assistant | SPA Delhi | 8126470496 | siddiquisaadia@gmail.com | |
| 16 | Fatima Ahmed | Engineering | Student | TERI | 9650231088 | fatima.ahmad@students.teriuniversity.ac.in | |
| 17 | Utkarsh Aggarwal | Student | Xth Standard | AMITY International School | 9968257454 | demigodslie@hotmail.com | |
| 18 | Uday Aggarwal | Engineering | Student | JIIT | 9560253240 | uday.agg97@gmail.com | |
| 19 | Bhavna Chaudhry | Media | Anchor | DoorDarshan | 9818798636 | bhavana2102@gmail.com | |
| 20 | Jyotika Grover | Media | Anchor | DoorDarshan | 9818255502 | jyotikags1@gmail.com | |
| 21 | Zainul Ahmed | Architect | Architect | | 9717347820 | ar.zainulahmad@gmail.com | |
| 22 | Anubhav Aggarwal | Professional | Marketing | Eattreat | 7259777721 | anuchetan1@gmail.com | |
| 23 | Priyanka Bhola | Management | Manager | PAYTM | 8588899145 | P.N.bhola@gmail.com | |
| 24 | Kriti Agarwal | Urban Designer | Program Manager | Safetipin | 9811214357 | kriti0212@gmail.com | |
| 25 | Madhuri Prajapati | Designer | Interior Designer | Mobelgrace | 8512875854 | madhurikmr08@gmail.com | |
| 26 | Richa Rashmi | Urbanism | Consultant | Ministry of Housing & Urban Poverty alleviation | 9654403560 | richa.rashmi2577@gmail.com | |
| 27 | Suparnaa Chadda | Media | Consultant | Social Project-We endangered Woman | 9899289312 | suparnaachadda@gmail.com | |
| 28 | Kiran Choudhary | Education | Former HOD | NCERT-Elementary Education | | | |
| 29 | Nabiha Fatima | Student | Architecture | GGSIPU | 9654939603 | nabihafatima@gmail.com | |

# Workshop Schedule
## Equity & The City
*Gender Inclusive Urban Design in Public Spaces, New Delhi*
18.02.2017 (2:30 pm to 5:00 pm)
Delhi Flying Club, Safdarjung Airport, New Delhi
Organized by Sugandha Gupta, Moderated by Priyanka Aggarwal

| Time | Activity | Notes | Important | Content |
|---|---|---|---|---|
| 2:45 pm – 2:50 pm | Introductory note by Priyanka Aggarwal, Workshop moderator | Details for the workshop | **By Priya di** | **The workshop is regarding taking opinions about the safety of women in public spaces. It is an open forum for discussions and inputs. Please introduce yourself and me. Sugandha Gupta is my sister and a student of Masters in Architecture and Urbanism in TU Delft, The Netherlands. She is doing her graduation project on Gender Equity & the city – Spatial interventions towards gender inclusive and safe environment : the case of New Delhi, India.** |
| 2:50 pm – 3:00 pm | Presentation by Sugandha Gupta, MSc student at TU Delft | Project description, Introduction to Luisa M. Calabrese, Professor at the Faculty of Architecture, TU Delft | **By Sugandha** | **In PPT** |
| 3:00 pm – 3:15 pm | Video conference with Luisa M. Calabrese | Talk about "Relationship between Spaces and Inclusiveness" | **By Luisa** | **Skype** |
| 3:15 pm – 3:20 pm | Introduction to Akkelies Van Nes, Professor at the Faculty of Architecture, TU Delft | | **By Sugandha** | **In PPT** |
| 3:20 pm – 3:40 pm | Video conference with Akkelies Van Nes | Talk about "Space and Crime" | **By Akke** | **Skype** |
| 3:40 pm – 3:45 pm | Introduction to Sonali Vyas, Urban designer from Safetipin | | **By Sugandha** | **In PPT** |

TUDelft

**A 15 yr old kid input to the workshop**

Written By :-
Utkarsh Agarwal
Age- 15 yrs (Xth Standard)

## Gender Equity In The Urban Areas

Good afternoon everyone. I am Utkarsh Aggarwal and I am given this opportunity to share my opinions on ways which would be used to increase gender equality in urban areas.

Women and men, ~~rich and poor~~ contribute to city development and have a right to equal access to basic services. This is a reason why Infrastructure development should be gender neutral. ~~Urban development is generally assumed to be gender neutral~~, this however is not the case. Reduced frequency of buses in non-peak hours ~~that~~ increase travelling time for women and roads designed without womens safety needs and ~~or~~ streetlights increase crimes against women. Crimes can be prevented through changes in the Urban design, for instance :

→ Providing good lighting during the evening may encourage much better use of a facility or route. More activity in a ~~an~~ area may reduce risk of crime.

→ More buses, particulary at certain times of the day may encourage greater use of a bus shelter.

→ Removing an opaque barrier may open up an area, allowing users to see and be aware of others in a place. ~~This will increase~~

Design of the physical environment can have an affect on criminal behaviour, with good design leading to a reduction ~~in crime as well as to a reduction~~ of the fear of crime. Some of the shortcomings comings in the modern society are :

→ Dark neighbourhoods / park / parking lot
→ ~~Underground~~ Lack of ~~sight~~ Police patrolling at night.
→ ~~Limited access to police.~~ → Narrow lanes

# Biomass Cook Stove





Reference https://www.greenwayappliances.com/

Greenway Smart Stove is a single-burner, high efficiency cook stove that works on all solid biomass fuels such as wood, dry dung, crop waste, coconut waste, bamboo etc. The stove does not require any fuel processing/cutting.
Features
•        Size: 9.8" x 7.6" x 11.6"
•        Materials: Steel and Aluminum with Bakelite Handles
•        Loading Capacity: 25 kg
•        Secondary Air Induction Mechanism: Yes
•        Warranty: 1 year
•        Fuel Savings: 65%
•        Smoke Reduction: 70%
•        Ergonomic front loading design

What makes the Greenway Smart Stove better than a traditional stove?
Greenway Smart Stove comes with a patented air regulation technology that leads to better combustion i.e. increased efficiency (less fuel) and reduced smoke. This mechanism is highly durable and does not have any moving parts.

Is the stove portable?
Yes, the stove is portable and can be easily carried from one place of use to another.

Does the ash fall on the floor?
No, the ash stays inside the stove and can be removed by tilting the stove once cooking is finished.

Can the flame come out from the front?
The Greenway Smart Stove has a shroud protruding in the front to limit instances of fire coming out of the front feeding area.

What if I spill food or water on the stove?
Worry not.  Greenway Smart Stove has an aluminium body which you can wipe clean easily.  Your stove will keep looking new :)

Will the food taste different?
No.  The food will taste as delicious as before.

How is it different from the Greenway Jumbo Stove?
The Smart Stove is ideal for smaller families i.e. 4 to 6 persons while the Jumbo may be used for larger households or bulk cooking.

$9.89

List price $18.99  Save $8.10

Sold & shipped by **Wayfair**

$4.99 shipping
Or get it by **May 19** with faster shipping options  Shipping options

Free pickup not available from this seller

Quantity: 1 ▾    **Add to Cart**

Add to List        Add to Registry

1 other seller from $16.56

$16.56 + $5.99 shipping
*2-Day Shipping*
Sold & Shipped by **Walmart** ☀

About this item

Disclaimer: While we aim to provide accurate product information, it is provided by manufacturers, suppliers and others, and has not been verified by us. See our disclaimer below

Get an alternative to traditional lighting with this Solar 2x Brighter Blue Fabric Hanging Lantern. It has a durable fiber construction and a blue finish. This traditional lantern automatically turns on and off. It is environmentally friendly, using only the energy from the sun in order to operate. It is designed to be easy to install.

Solar 2x Brighter Blue Fabric Hanging Lantern:

- Durable fiber construction
- Blue finish
- 2 lumens
- Blue hanging lantern automatically turns on and off
- Easy installation, no assembly or wiring
- Environment friendly, use the energy from the sun

## Specifications

| | |
|---|---|
| Gender | Unisex |
| Type | Hanging Lights |
| Condition | New |
| Manufacturer Part Number | DH0005-R2-KK-A1 |
| Contained Battery Type | Nickel Cadmium |
| Color | Blue |
| Model | DH0005-R2-KK-A1 |
| Power Type | Solar |
| Brand | EZSolar |
| Assembled Product Dimensions (L x W x H) | 10.00 x 10.00 x 21.14 Inches |

#WOMEN SPATIAL ACTIVISM DESIGN IS IN PROCESS TOWARDS IMPLEMENTATION