MAKING THE INVISIBLE - VISIBLE

Reviving the Realm of Street Children.

SUBMITTED BY

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A REPORT

Submitted in partial fulfillment of the requirements for the degree of Bachelor of Architecture.

University of Mumbai

2020-2021

AIKTC
SCHOOL OF ARCHITECTURE

CERTIFICATE

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ABSTRACT

Street children are a vulnerable group in any society and this problem is a global one which persist in both developed as well as developing countries on different scale. Street children are present everywhere even in urban developed cities as well as villages, the society has accepted them as a buy product of poverty, over population, breakdown of family system. These children are labelled by UNICEF to be in difficult circumstances. The world is facing a serious problem on the issue of street children. Social stability will not exist in the future as this problem is not taken care of.

Latin America, Asia and Africa have the highest percentage of street children in the world. Street children are a vulnerable group in India, they are deprived of education, protection, health care and adult supervision. They are visible in every city near traffic signals, shopping area, railway platforms, religious places, under bridges, road pavements in lack of adequate shelter and yet these street children do not exist in our census and policies.

In the early 60's street children were identified in Mumbai and the number of street children ever since have increased exponentially. Basic amenities like food, shelter, clothing and safety are their everyday problems. This results in them developing hatred and a negative attitude towards the society.

The aim of this project is to meet the need of the street children and for this we also need to understand who they are, what they do, what is their basic needs and how can they be identified.

Destitute children should live a healthy life and should be socially responsible members of the society is the main motive of this project.

-To provide an environment for learning and creating a hope for fulfilling life.

-To provide a space where they are nurtured with care and education.

-Skill based training for children.

-To provide them with health and recreational facilities.

-To design a space which meets the requirement of the user.

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I. Introduction to a research proposal.

II. Aim, Objectives, Scope, Limitation of research proposal.

III. Literature Review – Part 1 (General background)

Introduction

' The United Nations estimates that there are about 2.5 lakh street children in Mumbai '. According to the UN High Commissioner for Human Rights, In India, Almost 18 million children live on streets without proper living and education and belong to the families living under poverty level. There hasn't been any strong adequate measure taken to deal with this issue neither there are proper arrangements for getting them into NGO and Organisations as they are already habituated with street lifestyle. This habit results in various crimes and due to lack of virtues and knowledge they allege into illegal activities with results in irreversible consequences.

Children are the future of a nation. For an emerging country like India, development of underprivileged children holds the to the progress of the nation itself, and their education is the cornerstone of this progress.

It is necessary to take quick action which helps in mental as well as physical development of these children and help them to gain skilful knowledge and education which helps them to secure their future. It will not only help them but even it may stop them to allege into unethical practices with moral values and ethics for a better life and create their own unique identity in society.

Aim-

- To analyse different parameters in an attempt to understand the underlying issues and circumstances that led to the phenomenon of 'street children' and to provide them a space for their 'identity' which would help in developing their physical and mental growth.

Objectives-

- To understand street children with respect to their street lifestyle and their background.
- To identify economical, medical, housing, educational, etc challenges faced by street children in the fastest growing urban environment.
- To perceive the working of different organisations for street children on a national and international level.
- To examine people's perspective on street children and the possibility to help them sustain in the competitive society.

Scope-

- It will direct the helpless street children to a new path in their life so that they can opt for a better career in future, rather than indulging into some sort of illegal activities and criminal cases.
- It will help in building the overall youth of the nation in a way to progress a developing nation like India and make them a responsible and respectful citizen.

Limitation-

- The study focuses on urban context, mainly in the most populated areas of street children in Mumbai.
- According to the research the most affected age group is between 4-15 years hence, the proposal would mainly cater the mentioned age group.

- Children who do rag picking, begging, child labour and below poverty line.

- Providing activities according to children's age group.

Research Methodology-

- To get an understanding of social, economic, educational work and family background of street children.

- To understand the reason why children, live on the streets and their current issues.

STREET CHILDREN

UNDERSTANDING STREET CHILDREN

DEFINITION OF STREET CHILDREN ☰ ③

PLACES(COMMONLY FOUND) ⑥

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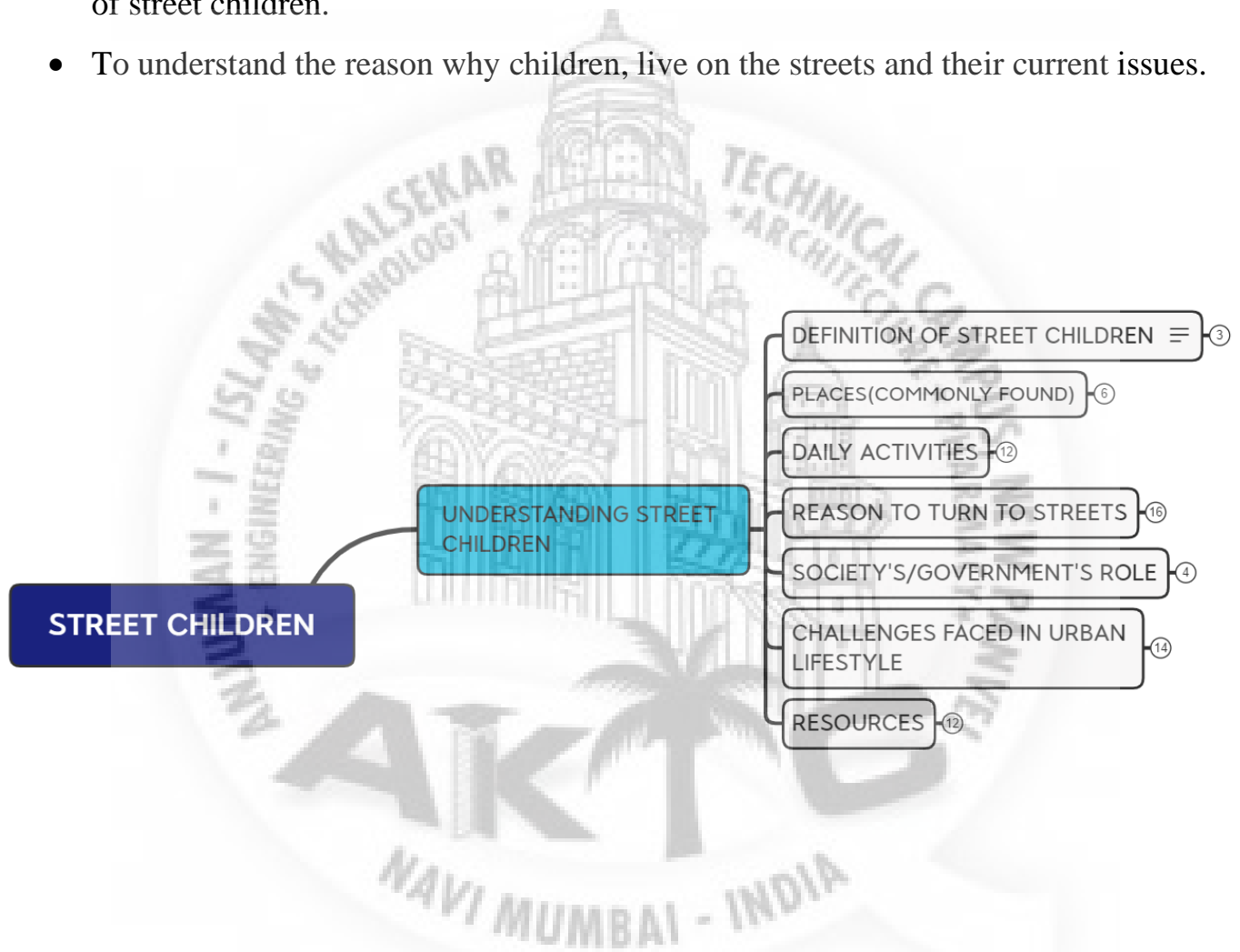
LITERATURE
PART 1
GENERAL BACKGROUND

WHAT IS A CHILD ?

The child age consideration law in India is formed with different objectives but, the maximum age to fall under the child category is below 18 years. So, the definition of 'CHILD' is – **A young human being below the age of puberty or below the legal age of majority.**

Fig.1_ Vector image of a child.

Different definitions of 'child', according to different Indian laws:

Section 2(Protection and Regulation) Act

"Child means a person who has not completed his fourteenth year of age." This law aims at prohibiting engagement of children at work

The Motor Transport Workers Act

"Child means a person who has not completed his fifteenth year." This Act prohibits the employment of a 'child' in motor transport undertaking.

The Beedi and Cigar Workers (Conditions of Employment) Act

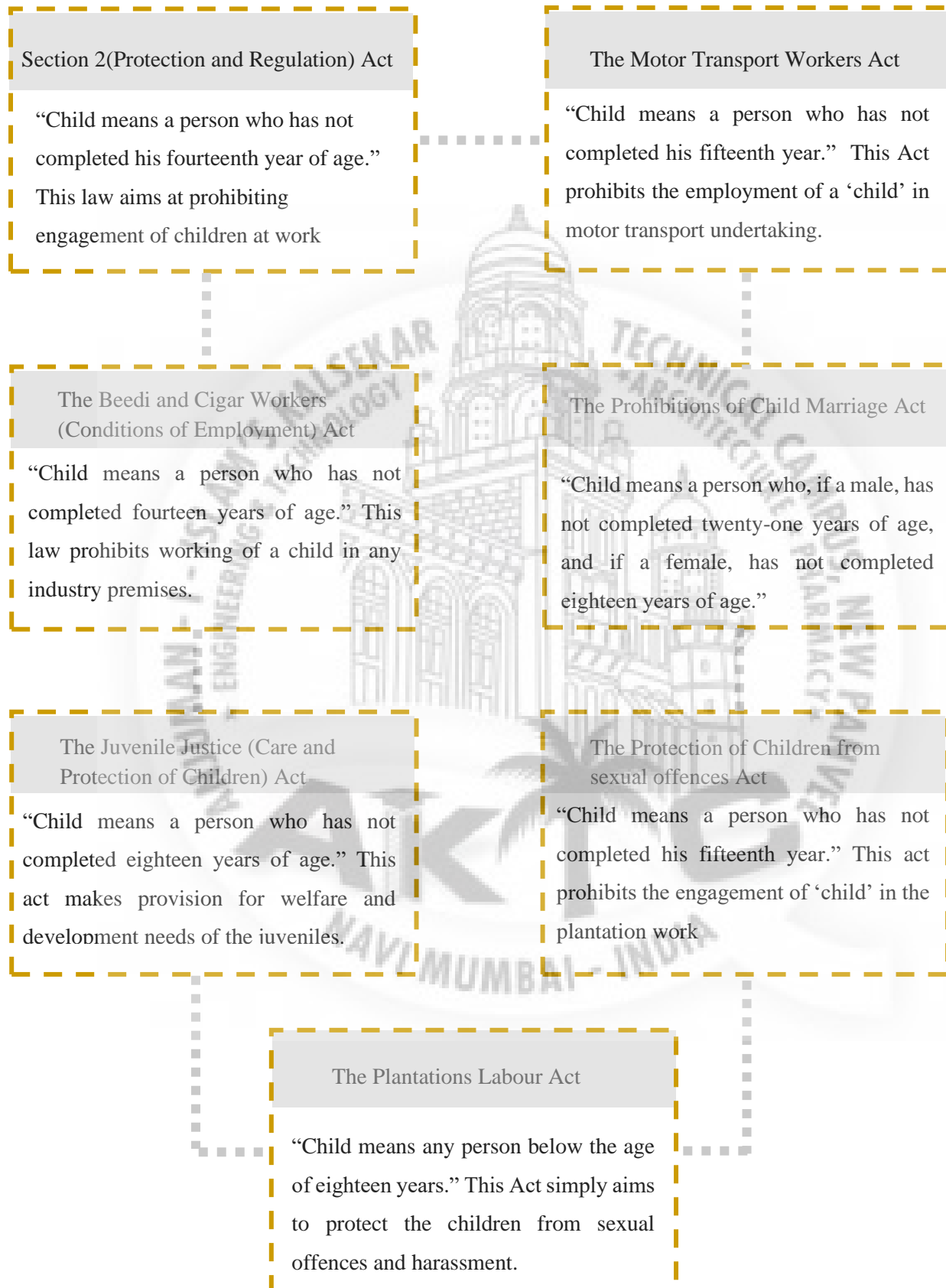"Child means a person who has not completed fourteen years of age." This law prohibits working of a child in any industry premises.

The Prohibitions of Child Marriage Act

"Child means a person who, if a male, has not completed twenty-one years of age, and if a female, has not completed eighteen years of age."

The Juvenile Justice (Care and Protection of Children) Act

"Child means a person who has not completed eighteen years of age." This act makes provision for welfare and development needs of the juveniles.

The Protection of Children from sexual offences Act

"Child means a person who has not completed his fifteenth year." This act prohibits the engagement of 'child' in the plantation work

The Plantations Labour Act

"Child means any person below the age of eighteen years." This Act simply aims to protect the children from sexual offences and harassment.

WHO ARE STREET CHILDREN ?

Street children are a group of vulnerable kids for whom street lifestyle has become their habitual abode, and who lack any adult supervision or are inadequately protected.

Fig.2_ Image of a Street child.

The operational categories of Street Children given by UNICEF

Street children are of classified into three types based upon their way of living. Some stay on the streets along with their family, some stay on the streets but return back to their families at the end of the day while, some totally depend on the street because they don't have contact with their families.
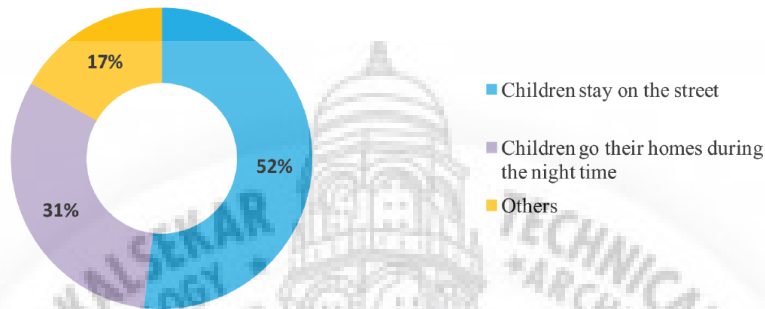
Categories of Street Children

- Children stay on the street
- Children go their homes during the night time
- Others

17%
52%
31%

Fig.3_ Category wise classification of Street children

Children of the Street Family   **Children on the Street**   **Children of the Street**

They are the children of the family who were staying on the streets for many years. They stay on roadsides, footpaths, railway stations, etc.

Forming the largest category, these are children who have homes, and most return to their families at the end of the day.

These children are entirely on the streets, they have no family/relatives to look upon. They are totally independent.

Stay along with families on the street

Return to homes during night

Totally independent

Locating Street Children (Places commonly found)

According to a study conducted by (Patel, 1990; Lugalla and Mbwambo, 1999), street children usually do not have a permanent place to sleep. Many of them sleep in the streets or on pavements near shops and malls, while others prefer sleeping at railways platforms, bus terminals, under bridges and by cinemas. Meanwhile, some prefer spending their nights with security guards due to being vulnerable and subject to abuse if they spent their nights on the streets. So, they try to find a suitable place to sleep which is according to their surrounding circumstances (UNICEF, 2002).

The most common sight where you see street children are on traffic signals begging or selling some stuffs. Many of them work as vendors in public markets and eventually end up beside their stalls during night.

BUS STOPS

Bus stops give a little bit of protection when it rains and also these are empty until 6am.

DRAINAGE PIPES

Unused open drainage pipes can be good cover and also it provides a place to hide from police.

EMPTY TRAIN COMPARTMENTS

Empty train compartments are dry, and almost like a small room.

PARKS/GARDENS

Most parks are closed till 10am, but street kids always find a way to climb in and rest for a while.

SHOP FRONTS

Just like bus stations, shop fronts are better than pavements because at least nobody will step on them.

Fig.4_ Identifying common sights where street children are found.

Understanding the Occupational Profile of Street Children

Street-children engage in various odd jobs. Some of the common ones are described below:

RAG-PICKING

In many cities, it is a common sight to see children carrying gunny bags on their shoulders, scavenging dustbins, garbage heaps, city dumps to collect waste materials such as papers, tins, plastic material, bottles, etc., which have a recycling value.

PORTERS

Many street children work in railway stations, bus stands, godowns, or wholesale markets carrying heavy loads to earn their living.

HOTEL LABOUR

Street children also work in sub-human working conditions in small hotels, roadside eateries, dhabas, restaurants, etc. earning meagre wages.

BEGGING

Begging is also a form of earning for street children. Children affected by disease or physical handicap are often forced into begging by antisocial gangs for making money.

PROSTITUTION

Many street children, especially those who are entirely on their own on the street are engaged in or exploited sexually. Both boys as well as girls are engaged in sexual activities, either for material gains, survival needs, psychological needs or peer group pressure.

ODD JOBS

Street children are involved in various other odd jobs such as jobs in parking areas, work as petty-hawkers, peddlers, messenger boys, shoe shines, cleaners, and helpers in shops and establishments, gas stations, garages, as labourers in construction sites, small factories and institutions.

Fig.5_ Occupational profile/categories of Street children

In order to financially support their survivals, street children are lured into illegal & harmful jobs such as rag-picking, porters, hotel labor, begging, prostitutions, odd jobs.

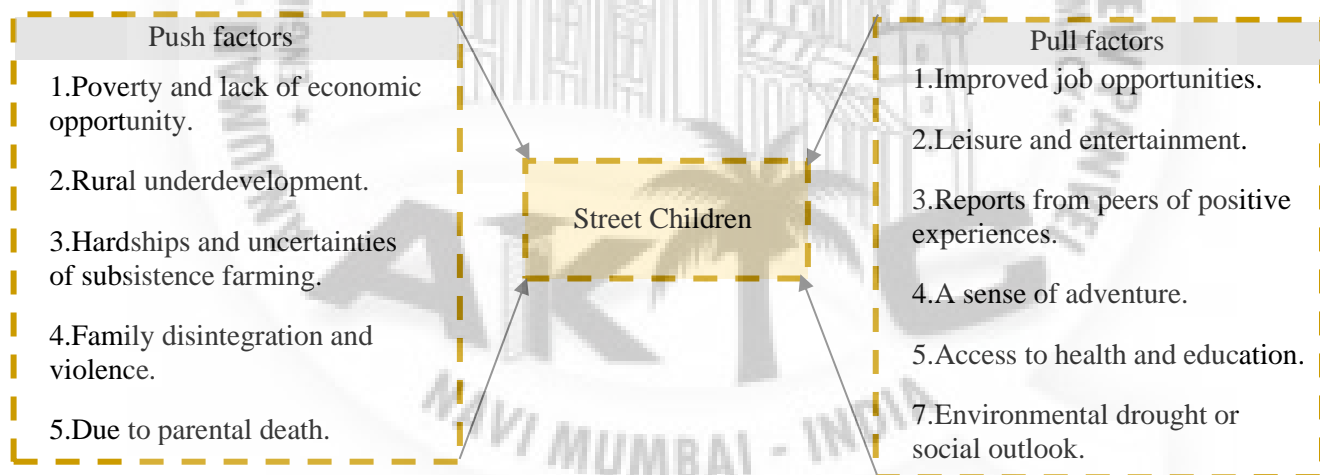Fig.6_ Street child begging

Fig.7_ Street child collecting garbage

Fig.8_ Street child working on construction

Understanding the phenomenon of Street Children and their reasons to turn to street.

In the worldwide around, the phenomenon of street children has not been a recent issue as it has attracted the attention of humanitarian aid agencies and government bodies for more than thirty years. One of the aftermaths of the World War II was Street Children. Post the War, the term Street Children was coined by United Nations Educational, Scientific, and Cultural Organization (UNESCO). Street Children gained a lot of worldwide momentum resulting in the declaration of the year 1979 as International Year of the Child and an Inter- NGO Program was developed on 1982.

Push and Pull factors –

Children and young people in many cases tend to move from a rural area to the city and are found to be living on the street because they are unable to live elsewhere. Such reasons for rural-urban movement are categorized as 'push' and 'pull' factors. Push and pull factors for street life are the main elements that influence a child to take up the decision to follow the street life. However, as per situations and context these factors vary and they should not be seen in general terms.
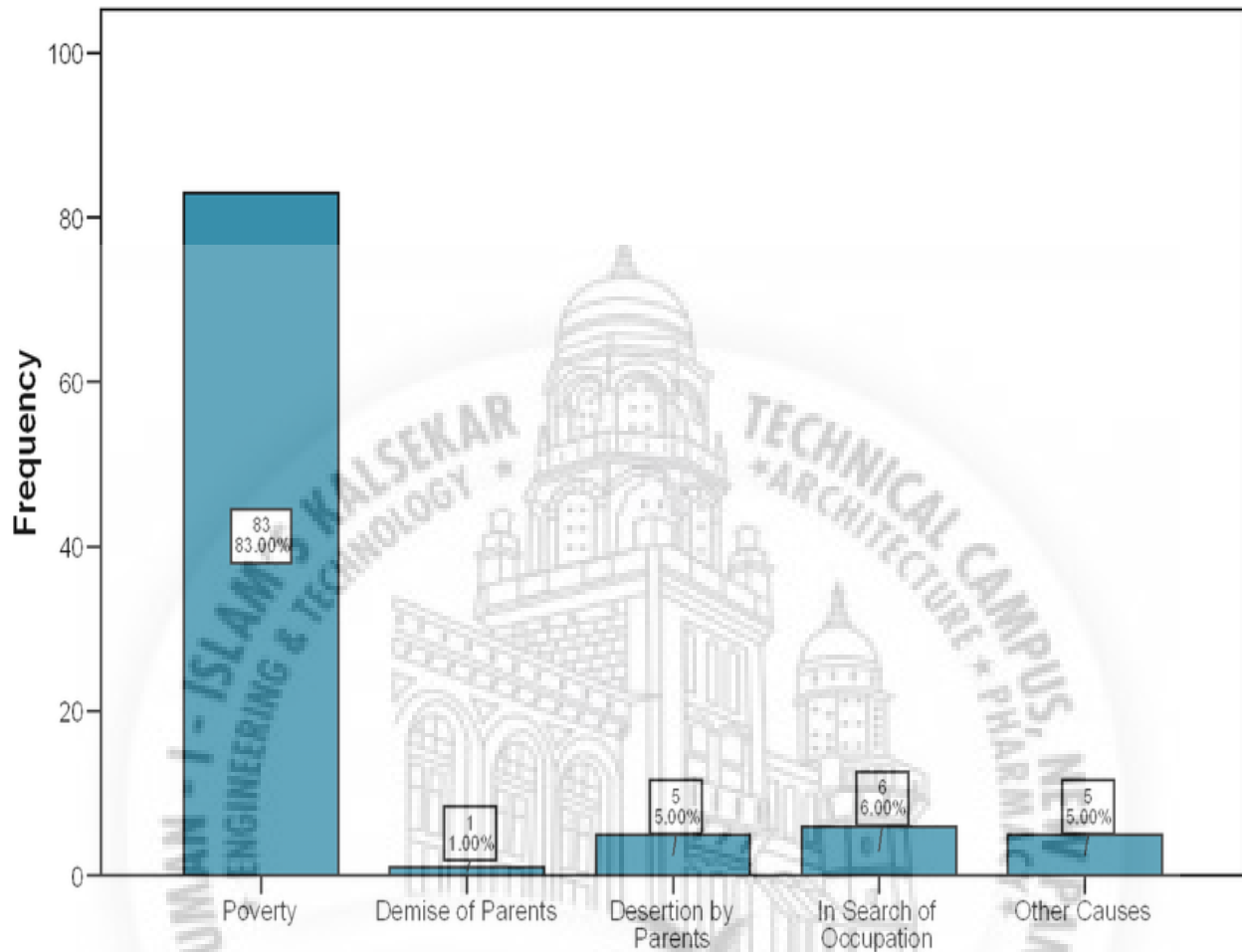
Push factors
1.Poverty and lack of economic opportunity.
2.Rural underdevelopment.
3.Hardships and uncertainties of subsistence farming.
4.Family disintegration and violence.
5.Due to parental death.

Street Children

Pull factors
1.Improved job opportunities.
2.Leisure and entertainment.
3.Reports from peers of positive experiences.
4.A sense of adventure.
5.Access to health and education.
7.Environmental drought or social outlook.

Fig.9_ Frequency analysis for the push and pull factors of the phenomenon of Street children.

There's a reason for every street child to be on the street, some are attracted by the freedom, excitement and financial and commercial status of a city while, other factors contributing to street life are abandonment, economic poverty, natural disasters, etc. and out of these poverty is the most common cause contributing 83% of the total causes.

Understanding the risk factors and other challenges faced by Street Children.

Fig.10_ Image of a Street child smoking.   Fig.11_ Street children sleeping under a bridge. Fig.12_ Street child selling stuffs.

Work Related Problems Faced by Street Children –

Employers who engage minor street children, exploit their physical & physiological development, due to long hours of tedious work without providing any sense of social security and the work is mostly too demanding looking upon their sizes and strength, causing irreversible damage and resulting in permanent disabilities, with serious consequences for their adult lives.

Night shelter/ sleeping place at night –

Street children prefer to sleep as close as possible to their source of income. Any place that offers food & money can lure them to it. Mostly, they don't have any permanent accommodation and they frequently keep changing their place of stay or even locality, so as not to get encountered by police or government officials. During the day, they take rest at some market places and during the night they usually end up on pavements or under bridges. Many of the respondents has also said that –

Jekhane Rat, Sekhane Kat (Sleep there, where the night falls).

Substance abuse and other problems –

With no guardian to overlook, street children are exposed to drugs at a very early age. Even if living & working conditions are set aside, there are many more factors that street children have to brave through. Criminal acts, petty thefts, general exploitation, sexual abuse and sometimes even grave levels of violence.

People's perception towards street children –

In a study conducted by Campbell and Williams in 2007, it was asserted that street children are marginalized and rejected by virtually all sections of the urban community leading them to social rejection.

In another study by Tipple & Speak in 2004, it was found that these false & negative implications formed the basis of an ill-informed perception in the larger society.

Such perceptions, further serve to keep homeless children and people excluded from society and they ultimately receive ill treatments from the society.

Instead of viewing street children as recipients of our help, they are seen & treated as a problem & threat to society.

Not having basic amenities such as food, shelter, they are viewed as victims as they work on streets instead of working in school, they are sexually and mentally exploited.

The often use of drugs, committing petty thefts, lead them to be considered as a transgressor & further grouped as threatening gangs.

Fig.13_ A Street child being neglected by the society.

Street Children in Global Context

The phenomenon of Street kids is not on a national level, but is across worldwide. Though it exists everywhere, it is observed that the count is high in developing countries due to rural to urban transition. The World Health Organizations (WHO) has reported that there are 100 million street children globally. Some countries have responded well by introducing various programme approaches catering to the needs of the street children. Street children are the product of rural-to- urban migration, unemployment, poverty and broken families in the developing countries. The countries in South Asian region has contrived with a large population and also belong to some of the least economically developed countries in the worldwide.

100 MIILION STREET CHILDREN WORLDWIDE.

Fig.14_ Infographic image for the count of Street children in the Global context.

Some examples across the world

Bangladesh - The problems of street and working children is quiet high in Bangladesh and as mentioned by Ahmedullah (1992), there are 1.8 million street children in the age group of 5-15.

Nepal – In a study, Narayani Manandhar (1992) says that people face innumerable problems of existence in rural areas of Nepal and more than 90 percent of the population lives in rural areas and 70 percent of the population are of below the poverty line. Nepali families economic pressure compels many children to earn an income and those children who are denied the minimum basic needs eventually turn out to be street children.

Kathmandu, Bhutan & Tibet - Neglection or abusive habits of step - mother, attraction for city life or death of one or both parents, forced peer group, natural calamities like earthquake, flood and landslide and the problem of refugees from Bhutan and Tibet who collect garbage, sell rage, paper, metal and plastic to junk dealers are some of the reasons the children of Kathmandu come to the street.

Sri Lanka - There are about 15,000 street children in Sri Lanka out of the 6 million child population and as per the sample survey of the various organization in several areas, the problem of street children has grown vastly in Sri Lanka.

Street Children in India

Though there are estimates of working Children in the context of "child labour" in India, there are no statistics on street children but some city level studies have attempted to estimate the quantum of street children in an informal way. India has in all 24 large cities and some 200 small cities and towns which are growing rapidly and due to population explosion, poverty, limited educational facilities, limited jobs opportunities and scanty resources, these cities drawing migrants from rural areas in a large quantum. These are the most evident factors that force children to take up living on the streets.

India has made a commendable progress in various child progresses in various child survivals and development indicators like immunization and education during the last 50 years but still, there are 52 young children suffering from malnutrition, out of 17.37 million working children, 2 million are working in hazardous industries, 10 percent suffer from various kinds of disabilities and associated disadvantages, 35 percent of children in the age group of 5-14 years are out of school and there are an estimated 11 million street children and about 4 lakhs child prostitutes. As far as family background is concerned the majority of them have parents with socio-economically weak background because most of them have reported to have large family size which affects their economic conditions. Hence, due to poor economic conditions, their family made them lead their life on the streets. Their living, working, health conditions are very poor and they also face harassment by the municipal and the police authorities. They are exploited in the work place as well and do not find any time to have recreational for refreshing their mind and bodies.

Fig.15_ Infographic image for the count of Street children in the Indian context.

Historical background of Street Children in India

India is home to the largest population of these street children in the world, with a total population of more than 1 billion in 2000 AD.

Due to the complex interplay of various socio - economic and cultural factors, religious, cultural, linguistic and geographical diversities, the phenomenon of street children is an offshoot.

One of the social disease's symptom is the large-scale presence of street children. In the wake of rapid industrialisation and urbanisation especially in the developing countries such as India, it has acquired gigantic dimensions.

This is because of various reasons such as exploitative socio and economic structure, lopsided development and iniquitous resource ownership, large scale unemployment, rapid urbanisation, rural to urban migration, rapid population growth, extreme poverty, increasing diparities in wealth and income, cutbacks in government social and education budgets, high level child abuse by the parents and society, and the breakdown of traditional family and community structures etc.

As a result, on the street children are forced to live and earn livelihood for themselves in order to support their families, thereby forgoing all the opportunities for development in life and loosing valuable time. Their vulnerability to exploitation is enormous and the risks of children living street life are higher. The country's future depends upon the quality of present-day children, as India is the seventh largest country in the world.

How many of them?

There is no exact count of Street children as there has been no survey/census conducted on a national level yet. It was estimated by UNICEF in 1994, that there are around 11 Million Street kids, though these figures are far from reality and under-estimation.

It was also estimated, India homes around 20 Million street kids, which is approximately 7% of total child population. So, there is no census data available for street children since they constitute a floating population.

Statistical analysis of Street Children in different cities of India.

Lucknow – Mughal Sarai – Kolkata – Patna – Hyderabad.

Proportion of Street Children in the City's Population

	Lucknow	Mughalsarai	Kolkata -Howrah	Patna	Hyderabad	Total
A. City Population[32]	28,17,105	1,09,650	55,73,769	16,84,297	69,93,262	1,71,78,083
B. Street Children	10,771	1,399	21,907	21,926	28,560	84,563
B as a % of A	0.4%	1.3%	0.4%	1.3%	0.4%	0.5%

Fig.16_ Proportion of Street children in different cities of India.

According to the study, Mughal Sarai being a major railway junction proportion of street children was highest (1.3 per cent). Patna was almost at par with Mughal Sarai and the city attracts children from other parts of Uttar Pradesh.

Chart 3.1
Distribution of Street Children by Category (in percent)

Legend:
- Street Working Child
- Street Living Child
- Child of Street Family
- Others

	Lucknow	Mughalsarai	Kolkata -Howrah	Patna	Hyderabad	Total
Street Children	10,771	1,399	21,907	21,926[35]	28,560[36]	84,563
Base	10,771	1,399	21,907	21,925	28,491	84,493
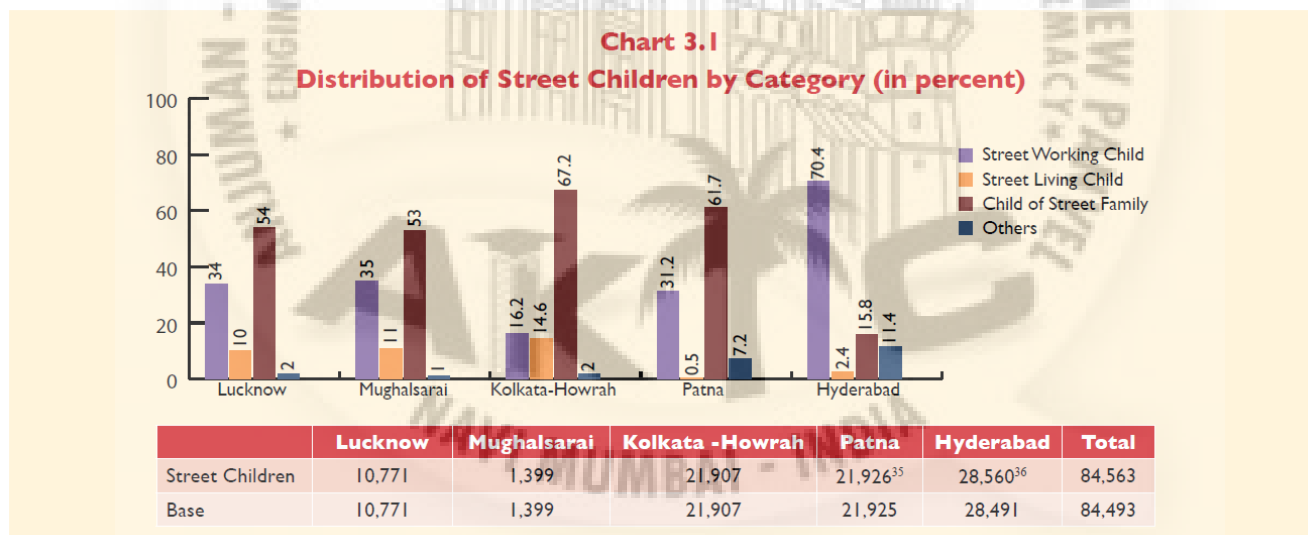
Fig.17_ Category wise distribution of Street children in different cities of India.

According to the Census in all five cities, the majority of street children found were from the category of "children *of street living families*". In all cities except in Hyderabad, 70 per cent of the street children were also in the category of street working children.

Chart 3.5
Literacy Rate among Street Children (in per cent)

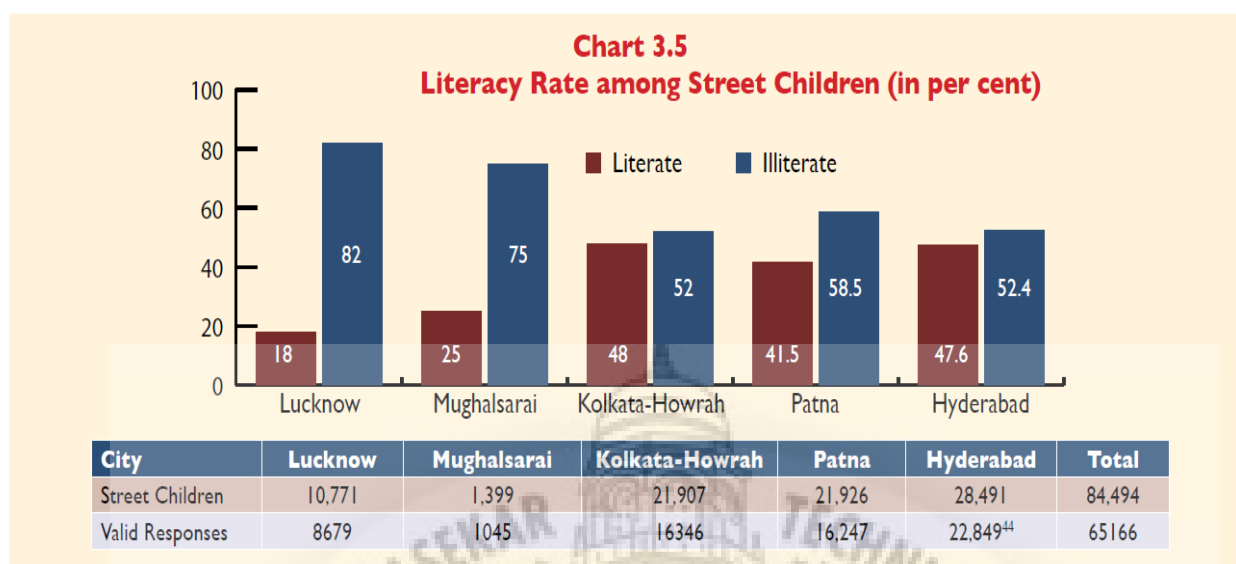| City	Lucknow	Mughalsarai	Kolkata-Howrah	Patna	Hyderabad	Total
Street Children	10,771	1,399	21,907	21,926	28,491	84,494
Valid Responses	8679	1045	16346	16,247	22,849[44]	65166

Fig.18_ Literacy rate among Street children in different cities of India.

Despite of the right to education act for children the literacy rate is found to be very low in Lucknow.

Reasons for being on Street

Reason to be on the street	Lucknow	Mughalsarai	Kolkata-Howrah	Patna	Hyderabad	Total
Sample	731	502	1048	994	998	4273
In search of jobs/ income	63.6%	62.8%	48.1%	44.1%	63.0%	55.0%
Due to slum displacement	3.3%	3%	11.9%	22.7%	22.7%	14.4%
Could not find a shelter	3.3%	1.8%	9.5%	12.5%	1.2%	6.3%
Lost contact with family	2.5%	2.8%	5.2%	1.1%	0.3%	2.4%
Aimlessly move on the street	0.8%	1.6%	1.3%	0.2%	0.7%	0.9%
No money to rent a place	6.3%	2.4%	5.9%	15.7%	1.9%	6.9%
Family feud/ discord/ disharmony	2.5%	1.2%	2.7%	0%	0.3%	1.3%
Others	0.9%	0.3%	3.8%	2.2%	6.7%	3.2%
No Response	16.8%	24.1%	11.6%	1.5%	3.2%	9.6%
Total	**100%**	**100%**	**100%**	**100%**	**100%**	**100%**

Fig.19_ List of push and pull factors for children to be on the streets.

Search for job/income, slum displacement, lack of money to pay rent, and lack of a shelter are the four key reasons for children to be on the streets, though search for employment is a far bigger reason than any other (it accounts for 55 percent of all responses).

Analysis of census data of Street Children in Mumbai, 2013(TISS).

Total number of children across Wards

During the time of the enumeration a total of 36154 street children were found across the 24 Wards of Mumbai. Besides this count a number of 905 children (2.5%) were found in addition on the railway trains and platforms of Mumbai. Thus, in the census all together 37059 street children were enumerated. According to the analysis of data, it indicates that larger population of street children were found in commercial areas with a bustling and robust informal economy – market places, railway terminals, bus depots, construction sites, places of worship, etc. Out of the total count 70% of the children were found to be boys while 30% were girls.
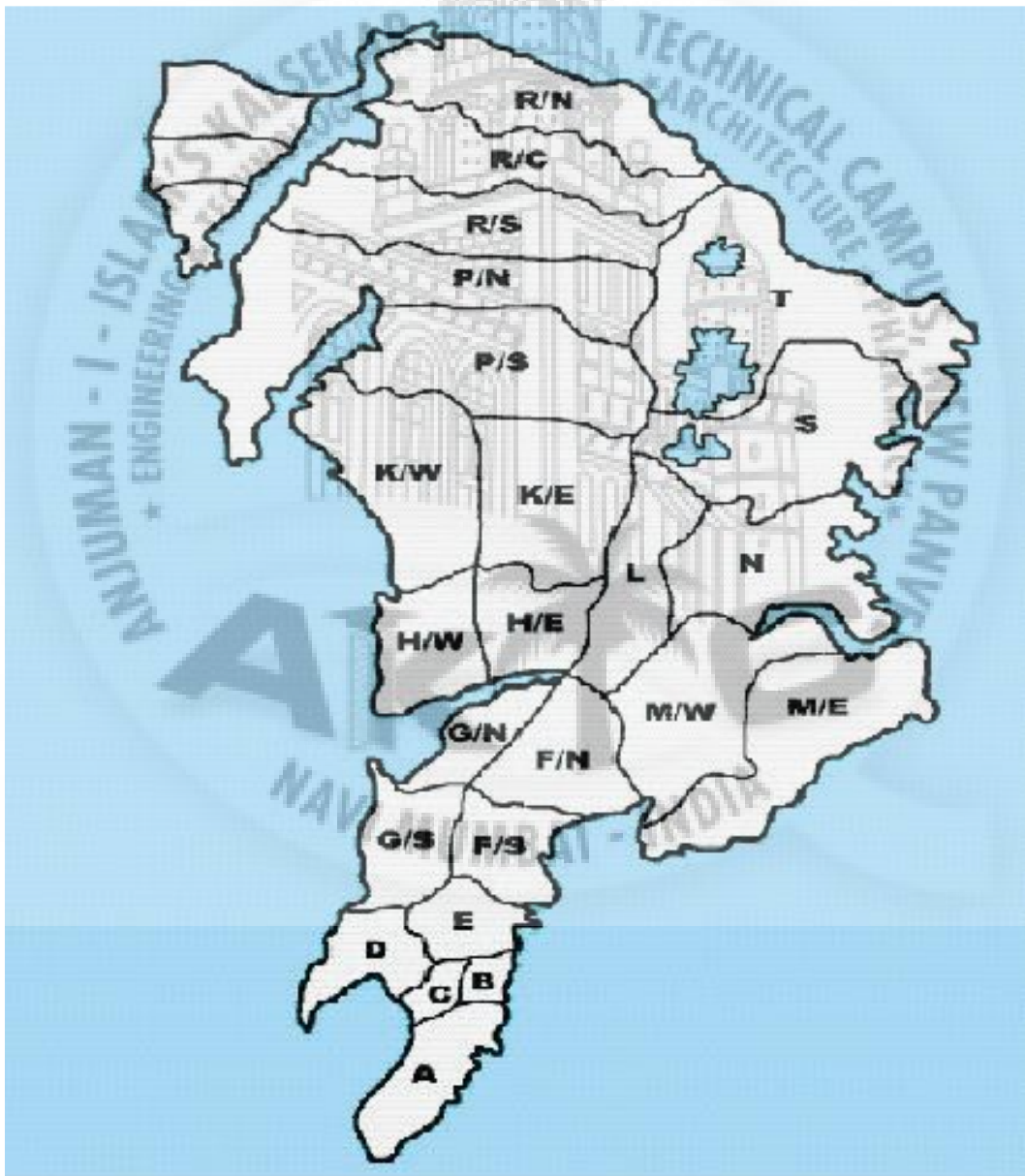
Fig.20_ Ward wise distribution in Mumbai city.

S Ward was found to have a maximum number (2802) of street children out of the total 36154 children across the 24 Wards during the time of the enumeration. D Ward was found as the next large group of street children with 2312 children.

F South with 1960 children were another group of Wards where children were found in larger numbers.

Street children dotting these areas are in higher densities because, most of these Wards are commercial areas with a high degree of economic activities which provide opportunities for work and subsistence hence, the reason.

M East Ward with 1806 children. K West War with 1644 children, H East Ward with 1548 children, P North with 1456 children. E ward with 1450 children, T Ward with 1450 children, R Central Ward with 1433 children, P South with 1383 children, B with 1342 children, M West Ward with 1299 children, H West Ward with 1264 children, N with 1160 children and R North Ward with 1148 children.

B, C, & D Wards are hubs of commercial activities, traditionally known for their wholesale markets.

The least number of children were found in R South with 936 children, K East Ward with 916 children, A Ward with 902 children, C Ward with 700 children, G South with 632 children.

If one looks at the political economy of these Wards, it emerges that larger populations of street children were found in commercial areas with a bustling and robust informal economy – market places, railway terminals, bus depots, construction sites, places of worship etc. Areas with smaller percentages of street children's population included largely the middle and upper class residential areas, where there was little scope for commercial activity, or those areas that had a high degree of securitization or police surveillance.

Understanding the categories of Street Children in Mumbai with respect to their living conditions and age.

Table3.3: Category of children

Type of street child	Boys	Girls	Total
Street Living Children	2435	538	2973
	81.90 %	18.10 %	8.02 % of total children
Street Working Children	8011	1045	9056
	88.46 %	11.54 %	24.44 % of total children
Children from Street Families	14836	9284	24120
	61.51 %	38.49 %	65.09 % of total children
No Response	678	232	910
	74.51 %	25.49 %	2.46 % of total children
Total	25960	11099	37059

Fig.21_ Category wise distribution of Street children based on their living conditions in Mumbai city.

The data showed that almost 65% (24120) of the children lived with their families on the street. Out of this, Street working children were the second largest group at 24.44% (9058). This was followed by street living children at 8.02% (2973).

Table 3.4: Age of the children

Age	Boys	Girls	Total
0-3 yrs	2793	2281	5074
	10.75%	20.55%	13.69%
4-6 yrs	3078	2397	5475
	11.85%	21.59%	14.77%
7-9 yrs	3180	2014	5194
	12.24%	18.14%	14.01%
10-12 yrs	4461	2149	6610
	17.18%	19.36%	17.83%
13-15 yrs	5683	1301	6984
	21.89%	11.72%	18.84%
16-18 yrs	6765	957	7722
	26.05%	8.62%	20.83%
Total	25960	11099	37059
	99.96%	99.98%	99.97%

Fig.22_ Age wise distribution of Street children in Mumbai city.

The highest number of the children was in the age group of 16-18 years (20.8%), followed by (18.8%) in the age group 13-15 years, and (17.8%) in the 10-12 years bracket. It is also noted that the number of boys kept increasing while the number of girls kept decreasing as the age increased, across the various age groups.

 One of the reasons for same could be that the girls are married off young, or may have been trafficked, or pushed into exploitative relationships.

Understanding the educational and occupational profile of Street Children in Mumbai.

Table 2: Association between employment status and education

Status	Employed	Unemployed	Total
Left School including dropout	68	4	72
School continued	19	9	28
Total	87	13	100

Chi square- 12.6, Degree of freedom= 1, p< 0.001

Fig.23_ Educational status of Street children in Mumbai city.

Table 3.6: Educational profile of the children

Educational Profile	Boys	Girls	Total
Balwadi and pre-school	1061 4.08%	663 5.97%	1724 4.65%
Illiterate	6239 24.03%	2701 24.33%	8940 24.12%
Can read & write but did not go to school	1353 5.21%	417 3.75%	1770 4.77%
Up to Primary (Class III)	5695 21.93%	2363 21.29%	8058 21.74%
Between Primary and Secondary (Class IV to VIII)	5764 22.20%	1697 15.28%	7461 20.13%
Between Secondary to SSC (Class IX and X)	1494 5.75%	376 3.38%	1870 5.04%
Above SSC (Class XI and above)	536 18.10%	176 1.58%	712 1.92%
No Response	520 2%	145 1.30%	665 1.79%
Not Applicable	3228 12.43%	2517 22.67%	5745 15.50%
Others	70 0.26%	44 0.39%	114 0.30%
Total	25960	11099	37059

Fig.24_ Educational profile of Street children in Mumbai city.

The study reveals that many children leave their education to work for survival. The literacy rate is really very low, only 31% of the children in the age 4-6 years went to primary education, as the child grows up he has to leave his education in order to earn for survival and the girl child falls under the threat of traffickers or early child marriage.

Table3.7: Occupational profile of children

Occupation	Male	Female	Total
Begging	1772 6.82%	1162 10.46%	2934 (7.9%)
Rag Picking	1422 5.47%	622 5.60%	2044 (5.5%)
Selling flowers, newspapers, fruits and other items on road	3093 11.91%	1170 10.54%	4263 (11.5%)
Cleaning car and two wheelers	916 3.52%	77 0.69%	993 (2.7%)
Working in road side stalls or repair shops	3686 14.19%	245 22.07%	3931(10.6%)
Working in small restaurants	3153 12.14%	184 1.65%	3337 (9%)
Whatever is available	771 2.96%	147 1.56%	918 (2.5%)
Construction work	796 3.06%	142 1.27%	938 (2.5%)
Nothing	5149 19.83%	3472 31.28%	8621 (23.3%)
Not Applicable	4407 16.97%	3581 32.26%	7988 (21.6%)
Others	761 2.93%	282 2.54%	1043 (2.8%)
No Response	34 0.13%	15 0.13%	49 (0.1%)
	25960	11099	37059 (100%)

Fig.25_ Occupational profile of Street children in Mumbai city.

Half of the population of the street children had to do really harmful jobs like begging (7.9%), rag picking (5.5%), construction work (2.5%) and 2.5% do any available jobs. Other jobs include (selling flowers, newspapers, fruits and other items)-11.5% followed by working in roadside stalls (10.6%), restaurants (9.5%).

Tracing the locations of Street Children in Mumbai and their places of stay.

Table 3.8: Location of the children

Location	Male	Female	Total
On the street	13412 51.66%	5626 50.68%	19038 51.37%
In a drop-in centre	143 0.55%	54 0.48%	197 0.53%
Under a bridge/flyover	684 2.63%	492 4.43%	1176 3.17%
At a place of worship	651 2.50%	224 2.01%	875 2.36%
Market place	4049 15.59%	659 5.93%	4708 12.70%
Park	312 1.20%	122 1.09%	434 1.17%
Railway station	947 3.64%	601 5.41%	1548 4.17
Bus station	142 0.54%	59 0.53%	201 0.54%
Hutments/temporary structures	2750 10.59%	2192 19.74%	4942 13.33%
Tourist place	59 0.22%	43 0.38%	102 0.27%
Work site/construction site	2781 10.71%	1018 0.90%	3799 10.25%
No Response	30 0.11%	9 0.08%	39 0.10%
Total	25960	11099	37059

Fig.26_ Location wise distribution of Street children in Mumbai city.

These children don't have their permanent houses, so they are majorly found on streets (51.37%) followed by 12.7% in market place & 10.25% at construction sites.

Table 3.9: Place of stay

Place of Stay	Sex		Total
	Male	Female	
On the street	4854 18.69%	2719 2.49%	7573 20.33%
In a night shelter	646 2.48%	164 1.47%	810 2.18%
Under a bridge/flyover	914 3.52%	684 6.16%	1598 43.08%
At a place of workshop	249 0.95%	83 0.74%	332 0.89%
Market place	455 1.75%	88 0.79%	543 1.46%
Park	156 0.60%	57 0.51%	213 0.57%
Railway station	406 1.56%	222 2.00%	628 1.69%
Bus station	113 0.43%	32 0.28%	145 0.39%
Hutments	8751 2.89%	5120 46.13%	13871 37.42%
Tourist place	33 0.12%	14 0.12%	47 0.12%
Work site	2092 8.05%	215 1.93%	2307 6.22%
Sea shore/beach	824 3.17%	499 4.49%	1323 3.56%
Others	418 1.61%	169 1.52%	587 1.58%
In a slum	5748 22.14%	938 8.45%	6686 18.04%
No Response	301 1.15%	95 0.85%	396 10.67%
Total	25960	11099	37059

Fig.27_ Places of stay of Street children in Mumbai city.

Almost 37 per cent of children reported living in hutments, while around 20 per cent of children stated that they lived on the streets. Around 18 per cent of the respondents stated that they lived in the slums. Least number of children resided in tourist areas. One reason for this could be that many of these areas are now under police surveillance, as part of promoting tourism.

Understanding the health and the habit of substance addiction practiced by Street Children.

Table 3.10: Health issues faced by children

Visible Health Problems	Male	Female	Total
Fever and cough	2238 8.62%	1147 10.57%	3385 9.13%
Skin infections or sores	704 2.17%	350 3.15%	1054 2.84%
Bruises, wounds or injuries	251 0.96%	118 1.06%	369 0.99%
Multiple health issues	345 1.32%	195 1.75%	540 1.45%
Others	999 3.84%	323 2.91%	1322 3.56%
Fever /cough/injuries	22 0.08%	8 0.07%	30 0.08%
Fever /cough/sores	2 0.01%	3 0.002%	5 0.01%
No Response	21399 82.4%	8955 80.68%	30354 81.90%
Total	25960	11099	37059

Fig.28_ health related issues faced by Street children in Mumbai city.

About 18 per cent children reported various illnesses. The highest reported illness being fever (9 per cent) followed by skin infections (3 per cent) and around 81% had chosen not to give any response regarding their health concerns.

Table 3: Type of substances used by street children

Substance abused	Frequency
Tobacco in all forms	83
Alcohol	12
Charas & Ganja	16
Glue solution	8
Fruit beer	2

(Responses are not mutually exclusive)

Fig.29_ Varieties in substance abuse by Street children in Mumbai city.

Table 4: Etiology of starting substance abuse

Reason to abuse drugs	Frequency	Percentage
Peer pressure	25	56
Habit in family	9	20
Inquisitiveness	6	13
Stress	5	11
Total	45	

Fig.30_ Etiology to start substance abuse by Street children in Mumbai city.

Peer pressure remains the main reason for starting substance abuse. Wages earned are handed to their parents by 59% of the children and 23% purchase drugs/substances.

The table shows that tobacco is the most widely used substance among 83% of the street children, followed by other substances like alcohol, charas & ganja, glue solution and fruit bear.

Comparative analysis of Street Children in Mumbai with the National Capital of India i.e. Delhi.

Fig.31_ Infographic map comparing the count of Street children in Mumbai with the national capital of India i:e Delhi.

The Number of Street Children in Delhi.[1]

During July 12 to 28 August 2010, the study had identified that there are **50,923** children below 18 years of age as street children in Delhi.

The Number of Street Children in Mumbai.[2]

The first ever census of street children conducted by the Tata Institute of Social Sciences (TISS) and voluntary organization Action Aid India in 2012 has revealed that there are an estimated **37,059** children who live on the brutal streets of Mumbai.

Analysis –

- According to the latest census check, the number of street children is found to be more in Delhi which is 50,923 while that of Mumbai is 37,059.
- According to the researchers the decrease of the number in Mumbai is due to the increase of police surveillance in the city after the 26/11 terror attack which has shifted street children towards the outskirts of Mumbai and, this made it difficult for the researchers to get the exact data.
- Another reason for the high population of street children in Delhi is due to the larger area of the city i.e. 1,484 sq.km and that of Mumbai is 603.4 sq.km.

Government's and local bodies role towards to Street children.

Child Welfare Committee (CWC) -

"Child Welfare Committee" is the sole authority to deal with matters concerning children in need of care and protection. The Committee has the final authority to dispose of cases for the care, protection, treatment, development and rehabilitation of the children as well as to provide for their basic needs and human rights.

CHILD IS REPORTED TO THE CWC

Preliminary inquiry done by CWC.

Child does not know where family is.	Child wants to go back to family	Child does not want to go back to family
CWC to direct SJPU/ NGO to register child as 'missing' — • on the Khoya-Paya portal • on the Track Child portal • FIR at the local police station.	CWC passes interim order for short term care in CCI/ fit person till family is contacted.	CWC passes interim order for short term stay till final order.
CWC passes interim order for short term care in CCI / fit person till family is contacted.	When the family of the child is found, CWC to order restoration with family after following due process.	CWC obtains report from DCPU/SJPU/ social worker/ NGO to assess each individual case and counsels child.
When the parents of the 'missing' child are found, CWC to order restoration with family after following due process.	If child does not want to return home - CWC to pass order for long term residential care in CCI.	If child between 14-18 years, neither wants to return home nor be in CCI – CWC to pass order for assigning child to part time care at Open/ Night Shelter or Day Care Centre.

Fig.32_ Flowchart - Preliminary Procedures/ Steps to be followed by CWCs w.r.t Children in Street Situations

Reintegration and Rehabilitation of a Street Child.

STEP 1 -

After the social investigation report and the police report, if the CWC comes to the conclusion that the child does not have parent(s)/ relatives/ guardians or is abandoned the CWC can make any of the following orders under the various provisions of JJ Act, 2015 and the Rules framed thereunder –

A. Placing the child in foster care

B. Placing the child with a guardian

C. Placing the child with a fit person

D. Placement of a child in full time institutional support.

STEP 2 -

The CWC may, while placing a child under foster care or under a guardian or fit person, at the time of restoration, direct such foster family, guardian or fit person to enter into an undertaking providing for care, well-being and protection of the child.

STEP 3 -

The CWC shall direct for submission of timely progress reports from the foster family, guardian or fit person with respect to the child.

Fig.33_ Steps for Reintegration and Rehabilitation of a Street child.

Steps for After Care & Re-Integration into Society w.r.t Children in Street Situations

- The JJ Act, 2015 makes special provision for after care of children leaving a child care institution on completion of eighteen years of age. "Aftercare" means making provision of support, financial or otherwise, to persons, who have completed the age of eighteen years but have not completed the age of twenty-one years, and have left any institutional care to join the mainstream of the society (Section 2 (5) of JJ Act, 2015).
- Such children may be provided with financial support in order to facilitate their re-integration into the mainstream of the society (Section 46 of JJ Act, 2015).

10 NGO'S working for the betterment for Street Children –

1. Child Rights and You (CRY)

2. Katha

3. Smile Foundation

4. Childline India Foundation

5. Save the Children

6. Uday Foundation

7. Pratham Education Foundation

8. Teach for India

9. Goonj

10. Robin Hood Army

Role of Media in Revealing Life of Street Children –

Media plays an important role in raising public awareness of child rights. It also plays a vital role in protection, prevention and awareness of child rights. The role of media does not ends here, it also influences behaviour and generates public opinion.

Role of Media is also to create awareness of the right of the children and about various NGO that would give them facilities, benefits, legal aids and protection against exploitation. The media can play a significant role in promoting their livelihood by making capacity building of the street children.

**LITERATURE
PART 2**
REFERENCE STUDY

Magic bus - RMA Architects – NATIONAL CASESTUDY.

Location - Panvel / Navi Mumbai

Built up area: 2415 m^2

Completed in year: 2007

Project description -

The Mumbai-based NGO campus i: e, Magic Bus, contains administrative buildings, dormitories and a dining facility for children who visit the campus for training programs from the slums of Mumbai.

Project initial idea -

Through the materials used the idea here was to surround the children with a sense of familiarity but also to inspire them to reimagine their use in a more sophisticated configuration.

User group - Children from slums of Mumbai

DINING PAVILION

DORMITORY

Amenities provided -

The tectonics of the building was developed as a kit-of-parts that could be configured for various institutional uses ranging from community toilet to clinics and education centres in the slums.

Design programme -

Life Skills Education

Education Enhancement

Employability Skills

Livelihood Connect

No. of Children - Catering approx. 125 children.

Age groups - Children & young between age

group of 12 -18 years.

Funding type - Public & private funding. Program - Magic bus take up children from across the slums of Mumbai for a week long or 14 days campus training to panvel where they groom children in all aspect of learning and as they grow up the institution also provides the children with employability skills and map job potentials as well.

Master plan –
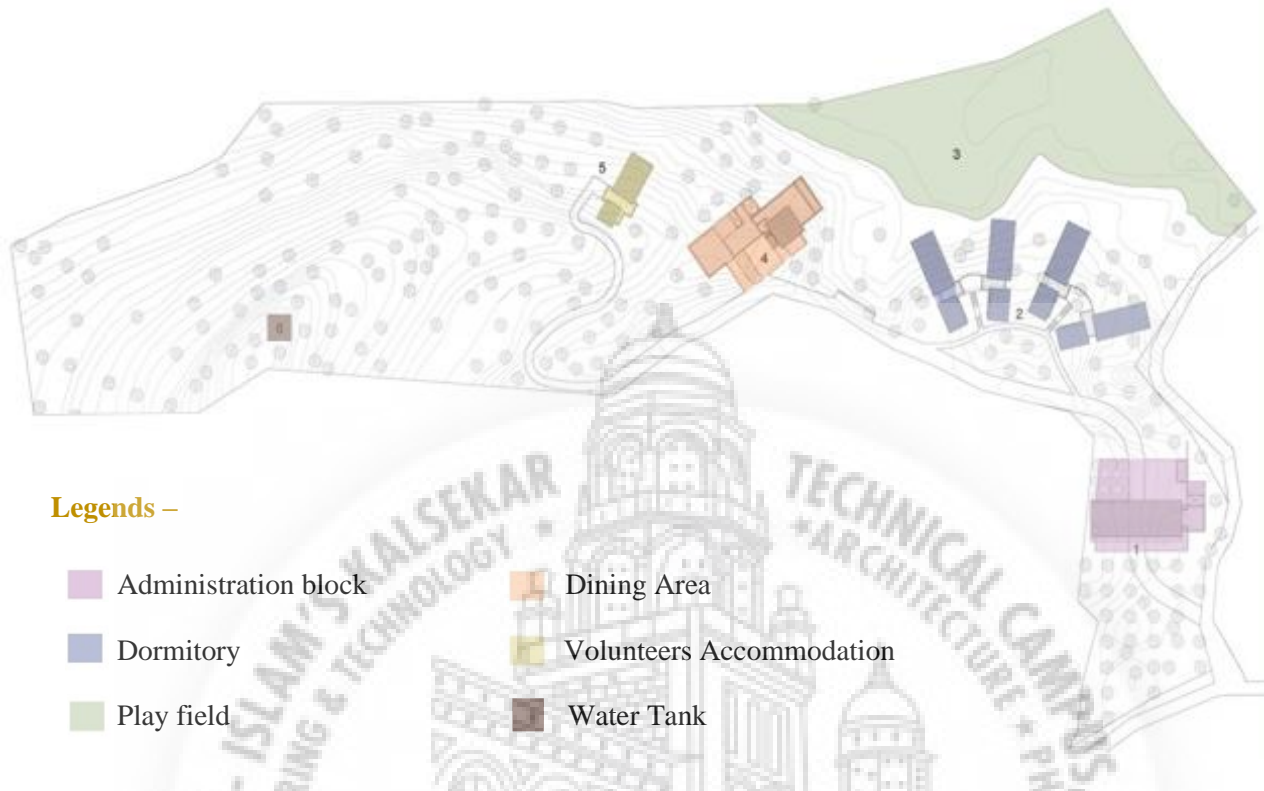
Legends –

▧	Administration block	▧	Dining Area
▧	Dormitory	▧	Volunteers Accommodation
▧	Play field	▧	Water Tank

Design considerations – Material

Understanding in section drawings.

Stone Rubble

Corrigated Aluminium

Wood
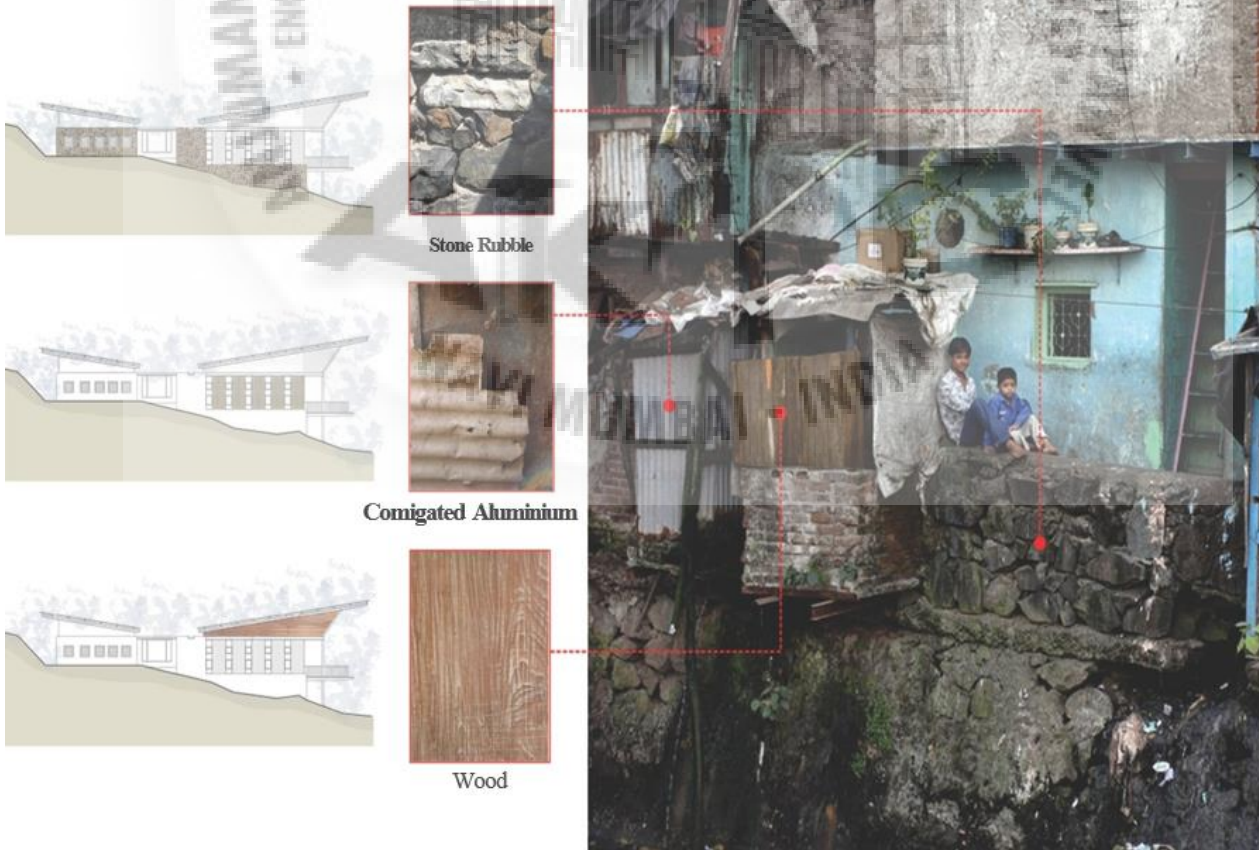
Magic bus learning pavilion – Architecture brio – NATIONAL CASESTUDY.

Location - Karjat / Raigad

Built up area: 300 m2, 7.4 Ha Master plan

Completed in year: 2013

Theme - Sustainability, Innovation, Context, Flexibility

Project description –

The Magic Bus Learning Pavilion is partly a building, partly a challenge course. It is an interactive building used as a gathering space and play area for underprivileged children while they are on their weekend camps.

Experiential learning and challenge course –

The valleys of the Sahyadri Hills supply a unique variety of diverse terrains to be experienced by the children. Rivers, woods, nature trails, camping grounds, and expansive green lawns for Soccer promote the NGO's concept of "learning by doing". Here children engage with obstacle courses, climbing walls, Jacob's ladders zip lines, the Learning Pavilion is envisaged as an interactive building becoming part of this Challenge Course.

The learning pavilion –
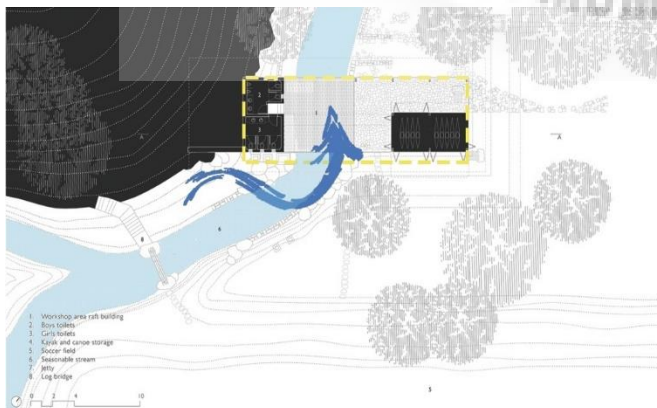
This open structure creates a comfortable environment through the natural breeze that flows from the river cooling the covered spaces. Additionally, it allows the river to be experienced through the building from the sports field.

Flexibility in spaces –

The bouncy ropes bridge acts as a conventional passage from one activity space to another and also becomes a viewing gallery. The area doubles as a viewing platform of the sports field during the soccer matches played here.
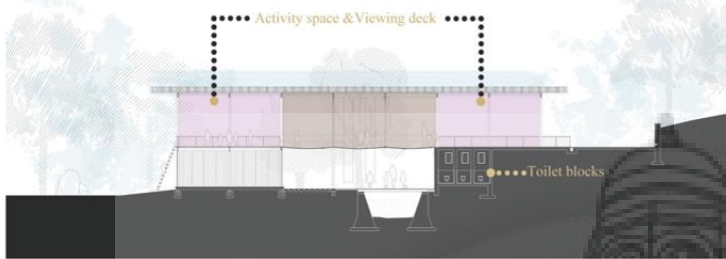
Top view of pavilion -

Exploded axonometric view -
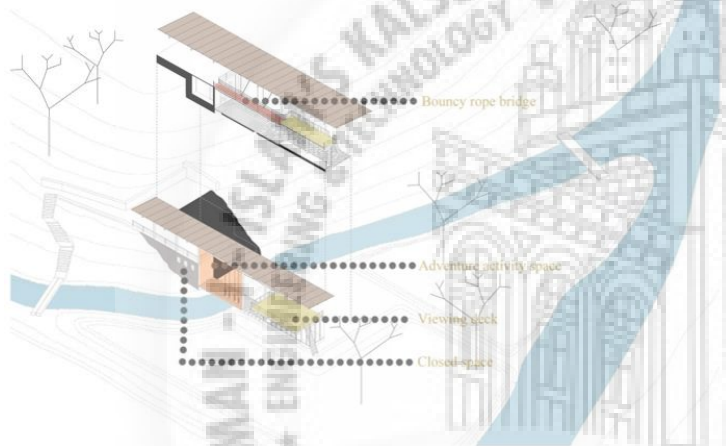
Soccer field in front of viewing deck

Legends -

1. River
2. Entrance
3. Village
4. Riverfront habitat
5. Sports field
6. Children's pavilion
7. Outdoor learning
8. Paddy fields
9. Hillside habitat
10. Hall of residence

Master plan -

Building components -
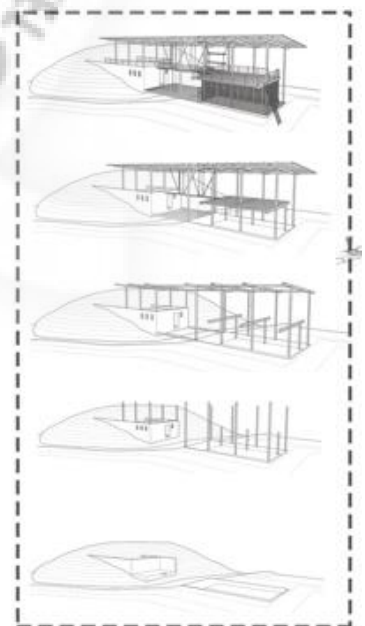
Manav Sadhana activity centre – NATIONAL CASESTUDY.

Location - Ahmedabad / Gujarat

Built up area: 1100 m^2

Theme : Non-polluting environment, economic

empowerment and affordable built forms.

Floor plans -

1. ENTRY
2. ADMIN
3. STORE-ROOM
4. TOILET
5. CLASSROOM
6. LIBRARY
7. KITCHEN
8. DONNING AND WASH

DENTAL CLINIC
10. SITTING
11. MEDITATION SPACE
12. COURTYARD
13. DAY CARE
14. GYM
15. ANGANWADI

FIRST FLOOR PLAN

SECOND FLOOR PLAN

Design concerns and aim –

To serve the underprivileged by seeing the god in every individual. The multi-purpose activity centre serves as an informal school for young children, provides evening education for adults and serves as a training centre and as an activity workshop for manufacturing of craft-based products by women and elderly. Funding - Govt./Public/Private

Spatial organisation & design development –
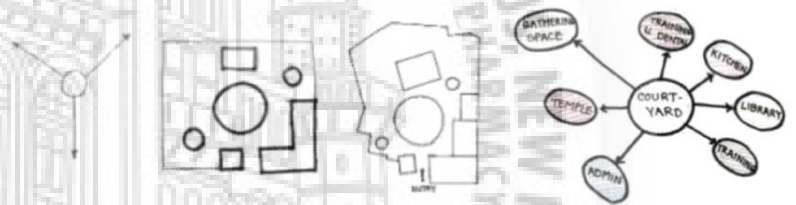
It has the radial organization. A radial organization combines elements of both central and linear organization here all the spaces tend to open at the central court the courtyard acts as a multipurpose space where children's dance and play various outdoor games. Many cultural programmes are conducted here.

Climatic response –

Ahmedabad has the hot and dry climate. All the spaces are oriented towards the wind- ward side facing the open court for the ease in cross ventilation climatic response.
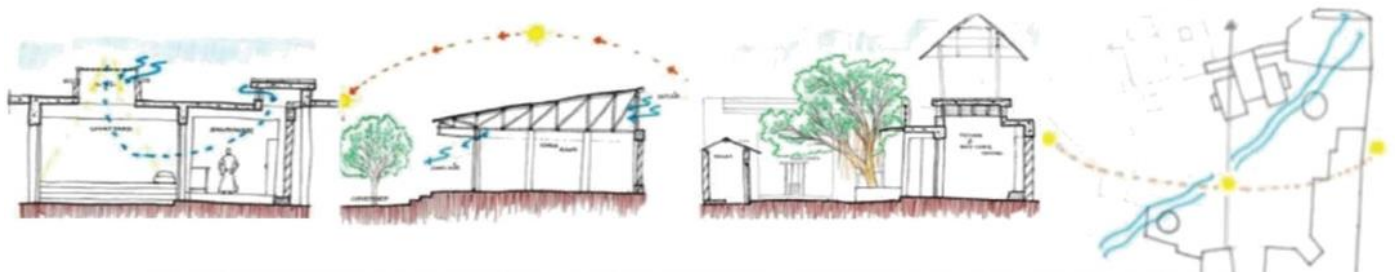
Programme and circulation –

Semi open spaces acts as A good transition from open spaces to closed space. Due to hot and humid climate users mostly prefer to use this semi-open spaces.

Section drawings –
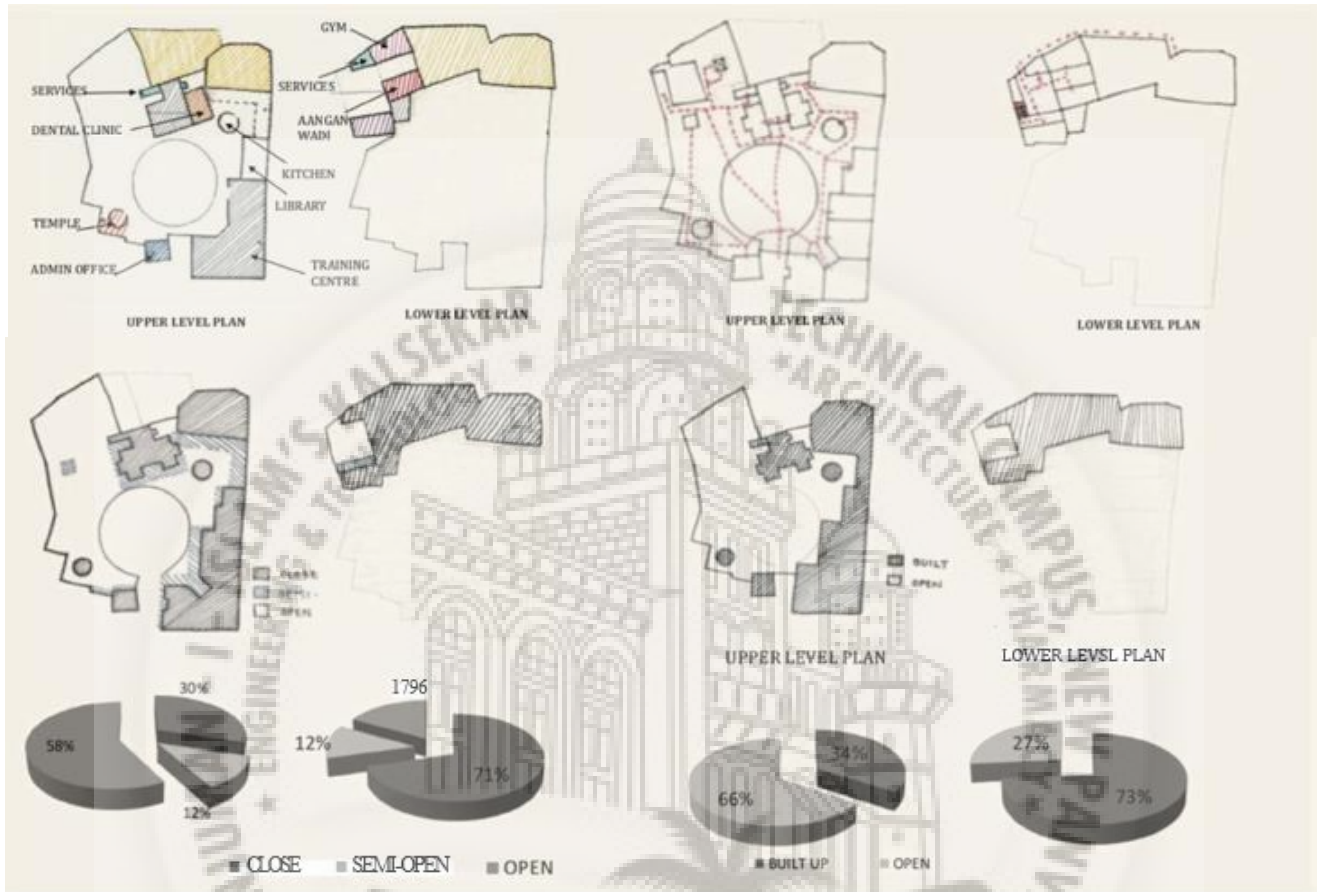
SECTION —AA'

SECTION - BB'

SECTION - CC'
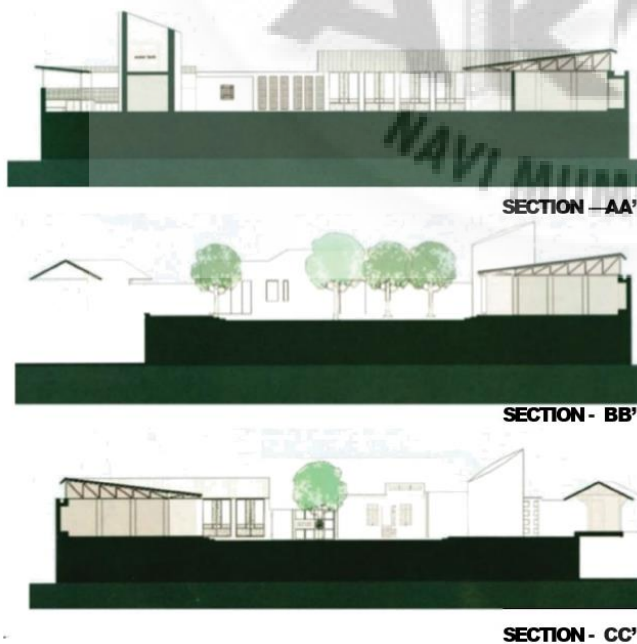
Construction technology & materials –
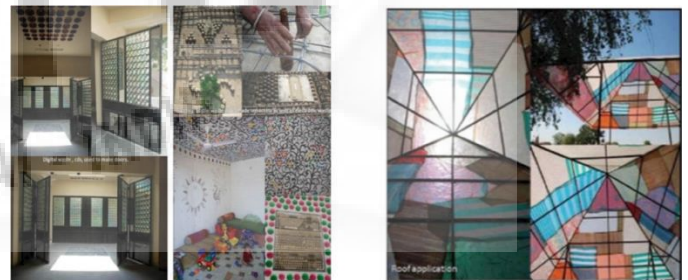
The building, apart from its flexible layout allowing the multipurpose activities, serves as an open book, demonstrating the conversion of the domestic and municipal waste into affordable, effective and aesthetic building components. This is conceived as a live demonstration of these concerns and placed amongst the people so users can emulate them in their own habitat.

An eco-village for orphaned Kenyan children – INTERNATIONAL CASESTUDY

Location - Kenya/ Africa

'Shortlisted for The World Architecture Festival 2017'

Theme: Environmentally-friendly campus for orphaned and abandoned children in Kenya.

Users: A home for 100 orphaned children education for 500, skills training for the local community, an income-generating eco-farm, and 50 local jobs. Funding - Private.

Project description –

The aim of the project is to create a conducive place to learn, play and live for the Kenyan orphans. The Children Eco-Village design is inspired by traditional Kenyan Maasai architecture that emphasize on the spirit of community, robust in-between spaces and the use of local materials. The design reinvents traditional form to suit the need of a large institutional and housing facilities by innovating on appropriate local building material and technology.

Programme & circulation –
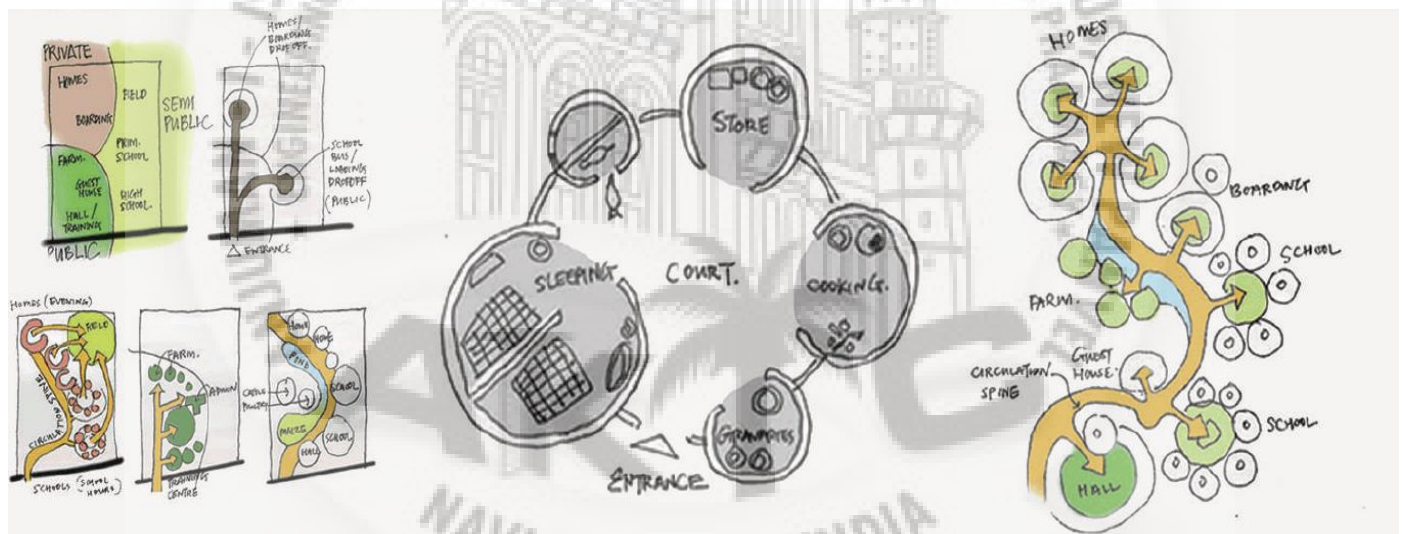
It is planned as a self-sustaining village with clear zoning of programs. Public area like training centre, community hall and farm are located near the front of the property. Homes for the orphans are toward the back protected by the schools and farm in between. A wide circulation spine links all components together and increase the legibility and accessibility within the site.

Conceptual diagrams –
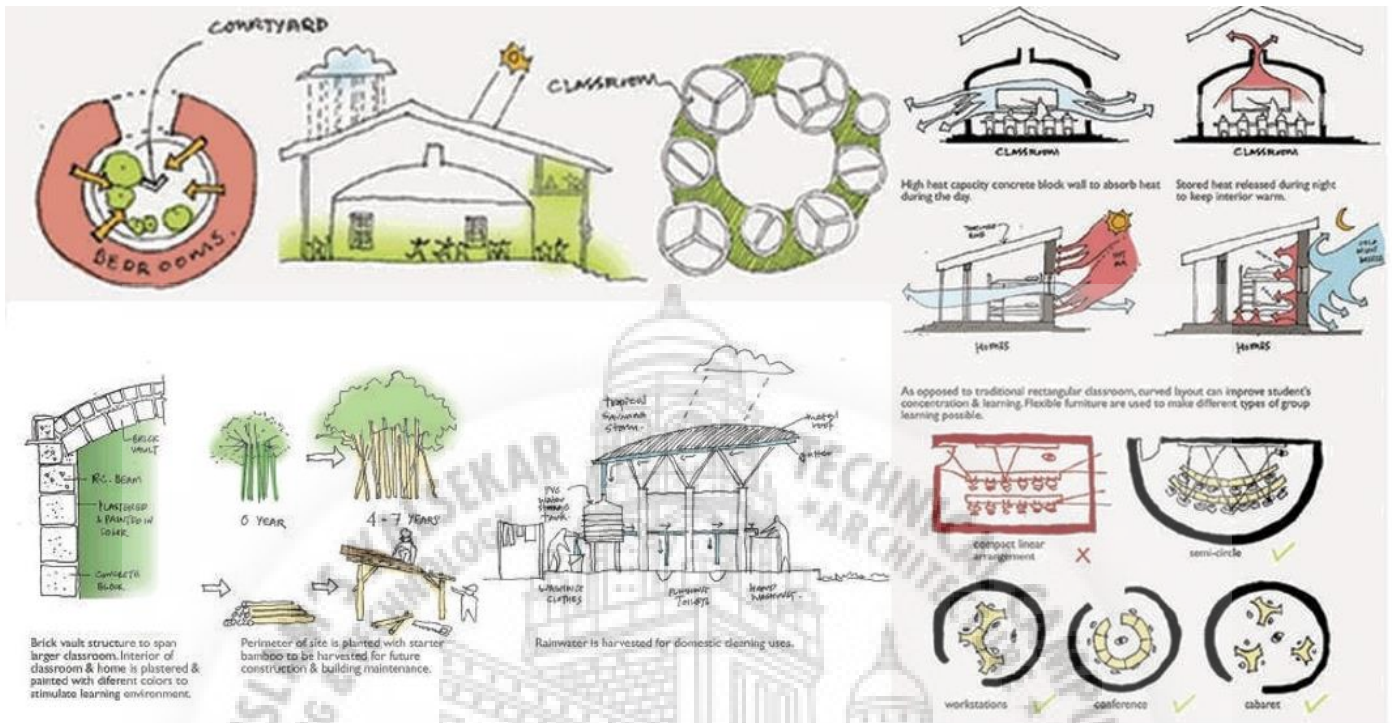
Classrooms and bedrooms are designed according to the local climate. Shaded clay brick wall with big window openings cool down the classroom by inducing cross-ventilation during the hot day. At night, heat absorbed by the bedroom concrete block wall help keeping the interior warn. Sustainable material like bamboo is explored as structural element.

Interactive play & learning spaces –

Material palette and details –
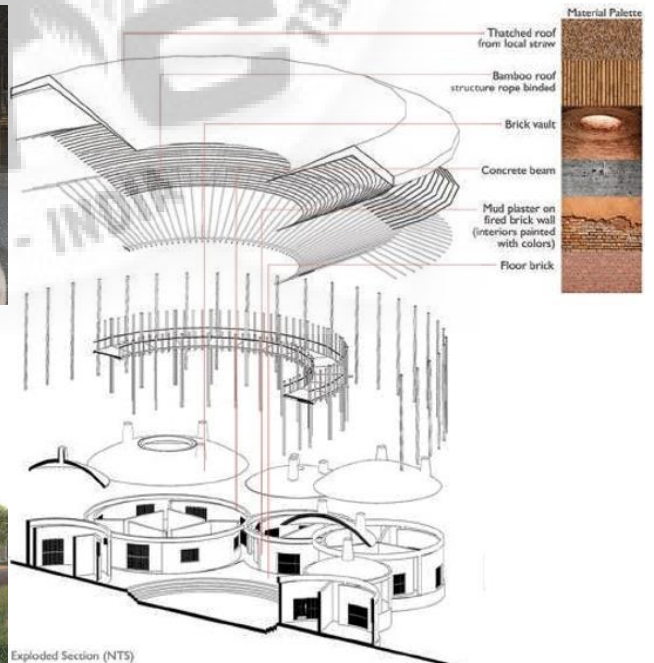
Income generative eco-farm –

Site drawings –

Master plan

Roof plan

Sections through primary school
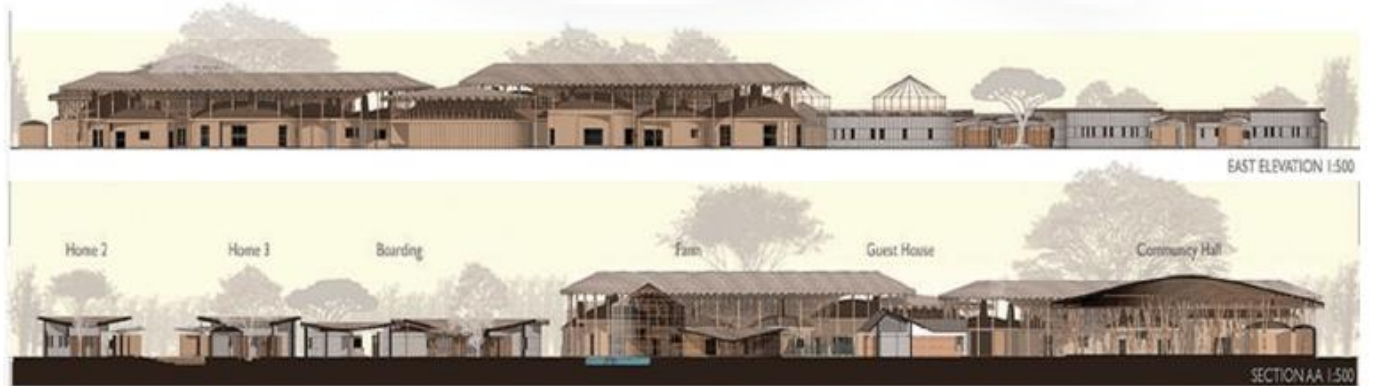
Municipal orphanage - Amsterdam – INTERNATIONAL CASESTUDY

Location - Amsterdam / Holland

Built in: 1955 - 1960

Built up area: 14000 m^2

Theme: To create both a home and small city for orphans on the outskirts of Amsterdam.

Design concept –

Building a home for 125 children of all ages, articulating a revolutionary synthesis in the consideration of the individual and the group, the inner and outer space, of large and small areas.

Spatial organisation –

The design reconciles the advantages of a centralized structure with the decentralized pavilion patterns. The system of pavilions with two module sizes is transformed into a continuous, but perforated volume, within which both the pavilions and the main block are identified. The smaller modules were used for the residences and the larger ones for the common spaces.
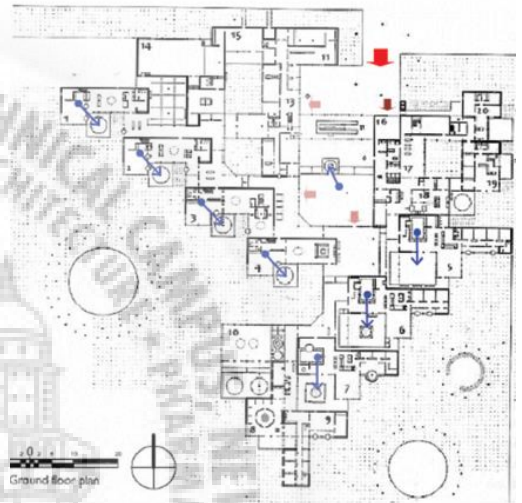
Shifting of various centres, reducing their dominance
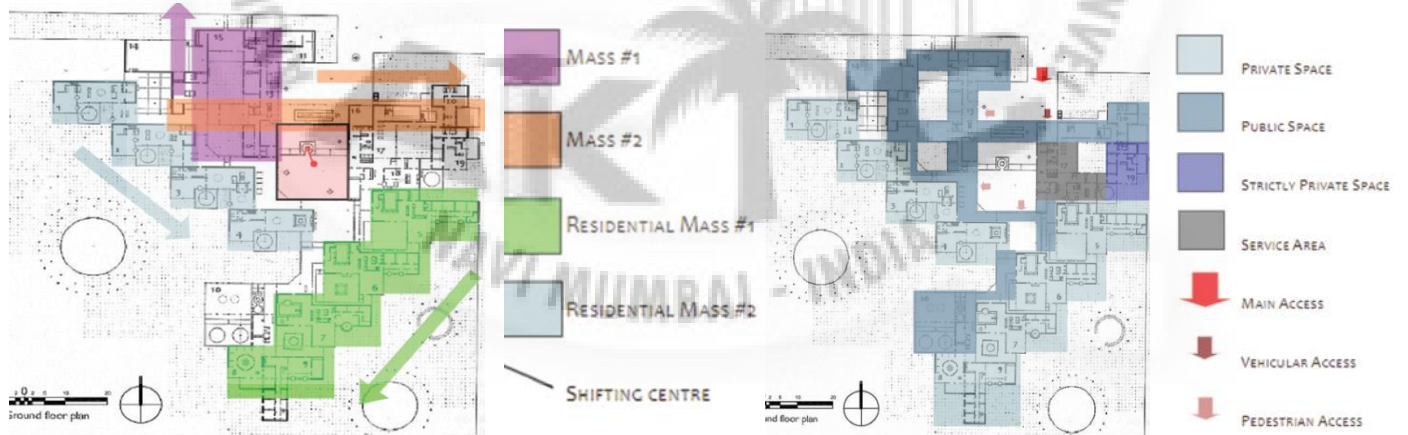
Decentralised & linearised pin-wheel organisation

Programmatic distribution of spaces

MASS #1

MASS #2

RESIDENTIAL MASS #1

RESIDENTIAL MASS #2

SHIFTING CENTRE

PRIVATE SPACE

PUBLIC SPACE

STRICTLY PRIVATE SPACE

SERVICE AREA

MAIN ACCESS

VEHICULAR ACCESS

PEDESTRIAN ACCESS

Response to context

A microcosmic analogy of the dwelling as a city and the macrocosmic analogy of the city for the dwelling — a parallel is made through comparing passages within dwellings to streets and urban public plazas to living rooms.

THE STREETS WITHIN AMSTERDAM
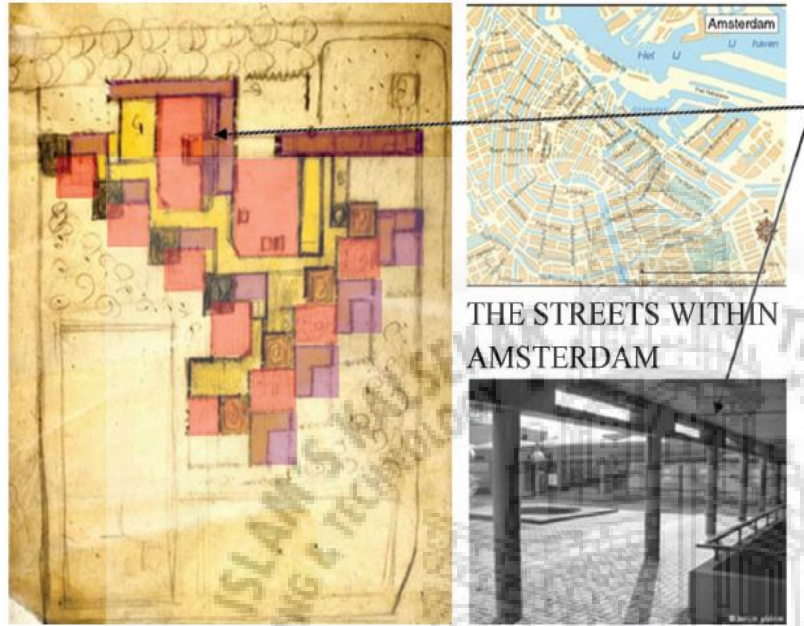
The streets within the 'city of the orphanage'

☐ taken from one of Eyck's concept sheets

Materials –

The buildings have been built with reinforced concrete panels and both opaque brick, dark brown, and translucent glass. The floors are also made of concrete.

Domes –

The central area of the project is covered with a hundred pyramidal domes of square base, 3.36m of side. The domes are supported by a grid of equal dimensions created by round pillars and concrete T-shaped jigs made in situ.

CONCRETE CUPOLAS

PRECAST CONCRETE BEAM

SLIT LEFT IN BETWEEN TENSION AND COMPRESSION ZONES

LEFT FILLED FOR TRANSMISSION OF FORCE AND GIVES ILLUSION OF A CAPITAL

GENERAL 'ORDER' AND TECHNOLOGY USED

EXPOSED CONCRETE CUPOLA

EXPOSED PRECAST CONCRETE BEAM

LIGHT WELLS FOR DORMITORIES

GLASS BLOCKS

EXPOSED BRICK MASONRY
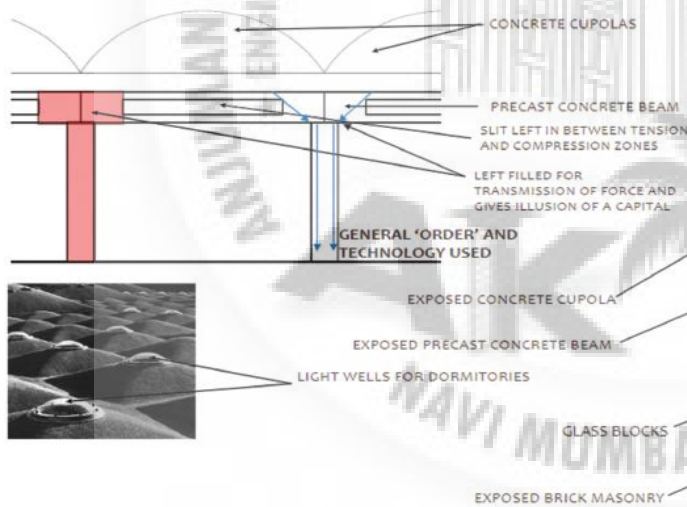
MATERIALS USED (VIEW)   The patio of the unit for 2-4 age group

SECTION SHOWING GENERAL RHYTHM AND HORIZONTALITY

OVERALL WE SEE A LOT OF SUSTAINABLE PRINCIPLES USED BY EYCK:
- LESS CONCRETE USED IN BEAMS AND NO PLASTERING
- THE USE OF THE DOME
- LOAD BEARING WALLS
- SEVERAL SMALLER GUTTERS CREATED BY CUPOLAS FOR RAINWATER
- LOTS OF OPENINGS TO ALLOW LIGHT AND HEAT
- PREFABRICATION OF BEAMS

OPEN, TRANSITIONAL AND CLOSED SPACES – SERVED AND SERVING SPACES (I.E. OPEN AND CLOSED SPACES SERVED BY THE TRANSITIONAL

CLOSED

TRANSITIONAL   ROOM FOR KIDS (4-6)
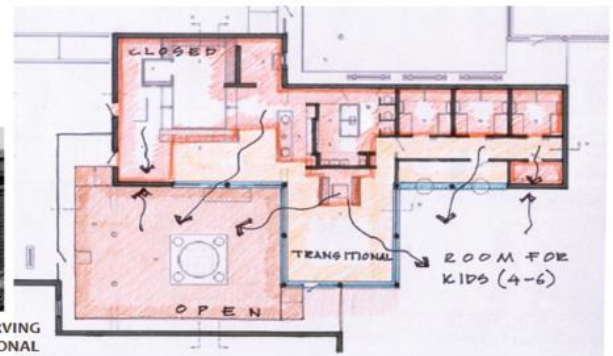
OPEN

Courtyards and day lighting –

A courtyard with enclosed spaces that are combined with others open or semi covered creating a large square from which access to the main areas of the program.

SECTION THROUGH KIDS PLAYROOM

LIGHT WELLS IN DOMES AND CUPOLAS ALSO PROVIDE LIGHT TO WALLED SPACES, ALONG WITH THE SLIT BEAMS
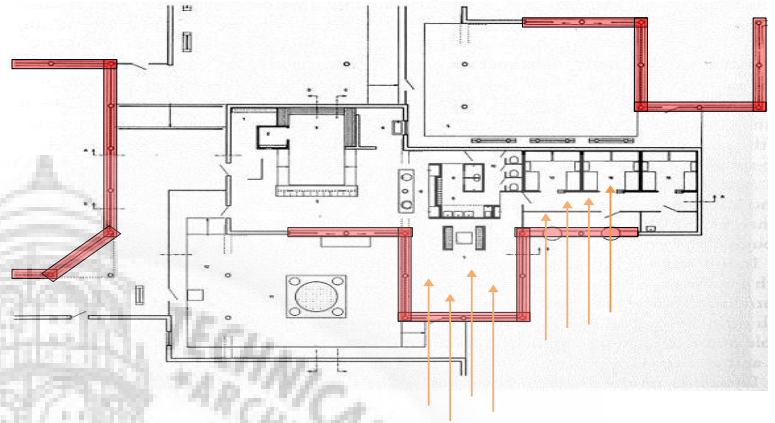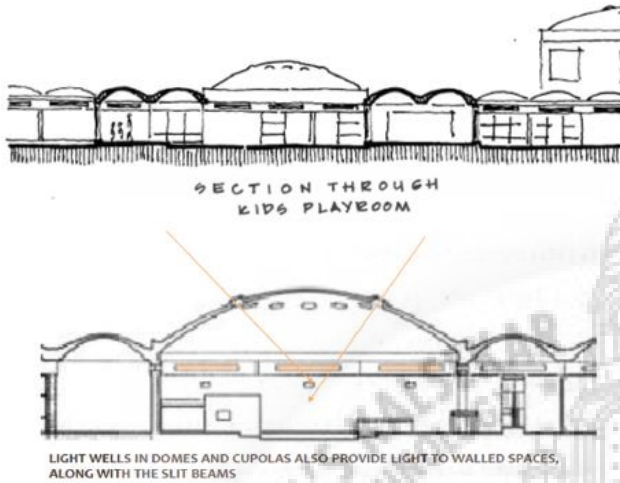
Almost 50% of walls surfaces are openings to allow light & thus heat

Ground floor plan

COURTYARDS ACT AS LIGHT TRAPS

Ground floor plan
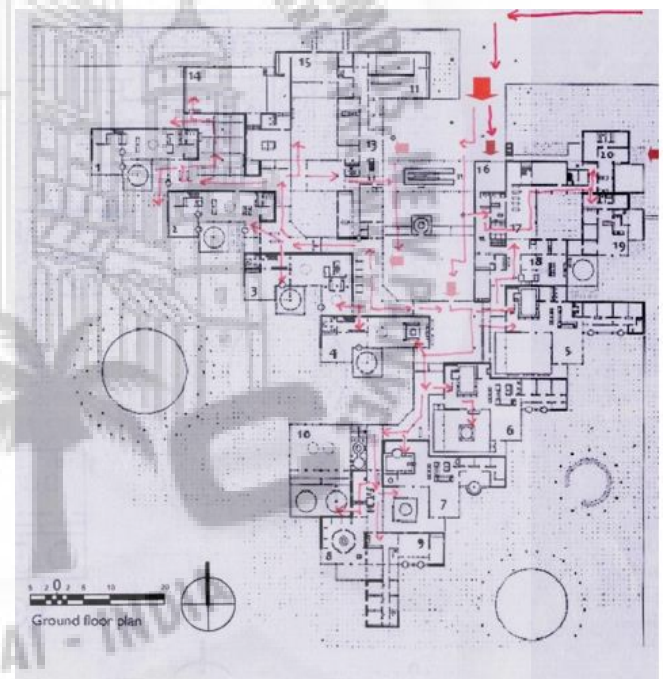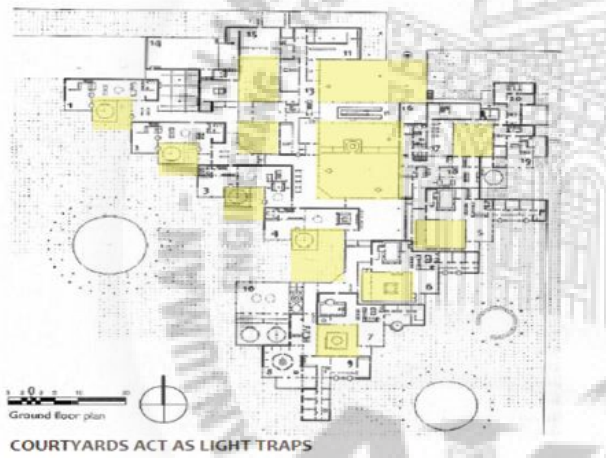
Movements – Pedestrian and vehicular

PEDESTRIAN MOVEMENT

VEHICULAR MOVEMENT

Ground floor plan
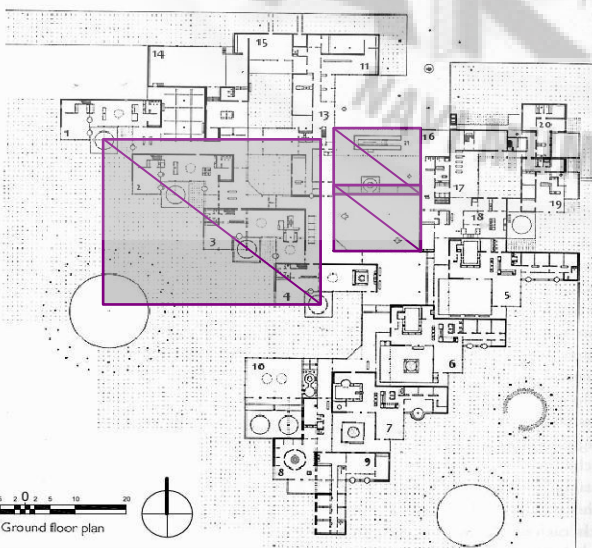
Proportions seen in the building

SOS children's village – INTERNATIONAL CASESTUDY

Location - Tadjourah, Djibouti.

Built in: 2014

Theme: A medina for children designed according to extreme weather conditions and community traditions.

Project description –

A - It is a medina for children — A safe environment, with no cars, where the narrow streets and squares become places to play.

B - It is a medina with plenty of open spaces — Public and private spaces are clearly defined. And in the private, the inside and outside areas melt, allowing residents to maintain certain outdoors living.

C - It is a medina with lots of vegetation — Where the inhabitants are encouraged to take care of their plants and benefit from the result.

Movements – Pedestrian and vehicular

Spatial organisation –

So typical of medinas, these optimal distances are also a tool for keeping the privacy of each house: they participate in the clear definition between public and private spaces, which encourages residents to use the outdoors. Through a layout with optimal distances between houses, each open space becomes an integral part of the house, a private space with a strong relation between interior and exterior.

Section drawings –

Open floor plans that enhance natural ventilation

Planting indigenous plants that offer shading

Ventilation and thermal comfort –

Its typical narrow streets and optimal orientations are a great solution for passive and effective ventilation, to render the extreme climate habitable. In critical points, and when it wasn't possible to have a free flow of air, tall ventilation shafts, were created as "wind catcher towers", hence keeping a refreshing air flow in the interior spaces.

Safety and self-sufficiency –

As it is a medina for children, and in the local cultural context, the narrow streets sometimes open up to become squares of different sizes, where communal activities take place and a sense of community can be built. Those open spaces are also safe spaces for children to play, as cars are completely kept out of the project, with a few parking lots at one of the entrances. In this way, the project is a constant place of recreation, and interstitial spaces are suited.

The structure does not follow the traditional classroom approach for effective learning. Also, public and private spaces are very clearly defined. interstitial spaces are suited.

Floor plans -

Ground floor plan

Upper floor plan

LYCS architecture design school – INTERNATIONAL CASESTUDY

Location - Hangzhou, Zhejiang, China.

Built in: 2017

Site area: 44900m²

Theme: A kindergarten, primary and secondary school complex filled with child-scaled spaces and "happy" streets.

Project description –

Encompassing 44,900 square meters, the design takes inspiration from a child's drawing of his ideal school. The complex is broken up into 15 gabled volumes, which gradually increase in size and scale to accommodate the range of student ages.

Design concept –

"Traditional primary and secondary school planning in modern Chinese cities usually provides students and children with an adult-scale campus environment at an excessively early stage. Such environment gives no help to them in coping with high educational and social pressure. Facing these phenomenon, it is the architects' responsibility to subversively break these conventions in school planning and offer children with space of their own scale and age in which they will enjoy living and studying.

Facade treatment –

- In this campus coloured with white and grey, each of the gabled facade is designed differently in colour, material and window forms, as to signify the different usage of each building.

- These facades painted with bright colours of yellow, green and light blue not only renders a warm and lively atmosphere, but more importantly underlines the sense of belonging and identification of different area.

Design program and scale of the project–

Program consists of 12 kindergarten classrooms and 27 primary and secondary school classrooms, organized into three U-shaped blocks distributed from south to north along a "main street." The varying height of the rooflines create a dynamic skyline, while interstitial spaces between buildings offer play space and courtyards of different paving and landscape surfaces.

Experiential –

Building facades vary in colour, material and openings to signify their use, helping children to easily identify their location and form a cognitive map of the campus.

Spatial organisation –

Rooftop activity space maximize the structure's capabilities, and feature space for activities such as gardening, theatre and runway, as well as reading rooms and relaxation areas. Additionally, elevated corridors and public spaces have been intentionally enlarged to connect the 2nd floors of each of the buildings, creating another plane for public activity

Design context –

The kindergarten building, an independent 4-story structure, is located near the main road of the city, and responds to its context with providing a "unified facade that coordinates with the overall urban interface.

"Adhering to a special variation in scale, the design of this entire campus closely follows the growth and emotion of its users. The design notion of 'the story of a small town' will allow students and children to enjoy their own fairy tale like campus."

Butterflies resilience centre – NATIONAL CASESTUDY

Location - Jaunpur, Delhi.

Built in: 2019

Site area: 505 m²

Theme: An environmentally aware lifestyle of simple comforts with enjoyment and beauty, achieved with simple means - a sustainable lifestyle

Run by: Butterflies Child rights NGO. Funding: Public & Private.   No. of Children: 200 approx.

Design concept –

The project renews and enhances the traditional fabric with richer life, from the cool basements to rooftop gardens. It exemplifies a model of small grain urban regeneration.

Site context –

Designed along a linear elongated site, the centre incorporates facilities by creating an energised network of spaces allowing the children to explore, move around and feel at home.

Section showing all functions –

A hybrid structure of loadbearing walls and RCC with CSEB infill walls provides an earth quake resistant armature forming a robust spatial framework, allowing changes of function and internal subdivision as desired, over the lifetime of the building.

Sustainability –

Keeping in mind the linearity of the site, the formality of the traditional 'haveli' courtyard type has been reconstituted by integrating green concepts. Cool air that rises from the courtyards is stored through assisted ventilation and is being used to relieve humidity. Courtyards painted in white act as a funnel to filter daylight into the spaces.

Roof gardening has been implemented to turn the grey water and composted kitchen waste into a productive cycle. Solar heaters and photo voltaic panels on the roof minimize the consumption of resources. Wall heights have been designed as per children so that they can easily climb on them and explore each area.

Construction techniques and material –

Low carbon construction has been a consistent concern and thought kept in mind. Soil excavated from the basement has been used as the primary building material for walls, and around 80 per cent of doors and windows have been bought and reused from local second-hand stores.

Recycled construction debris and city waste has been used for short-span filler slabs. These techniques not only set an example for ease of construction but also provide a sustainable, cost-efficient and eco-friendly approach to buildings.
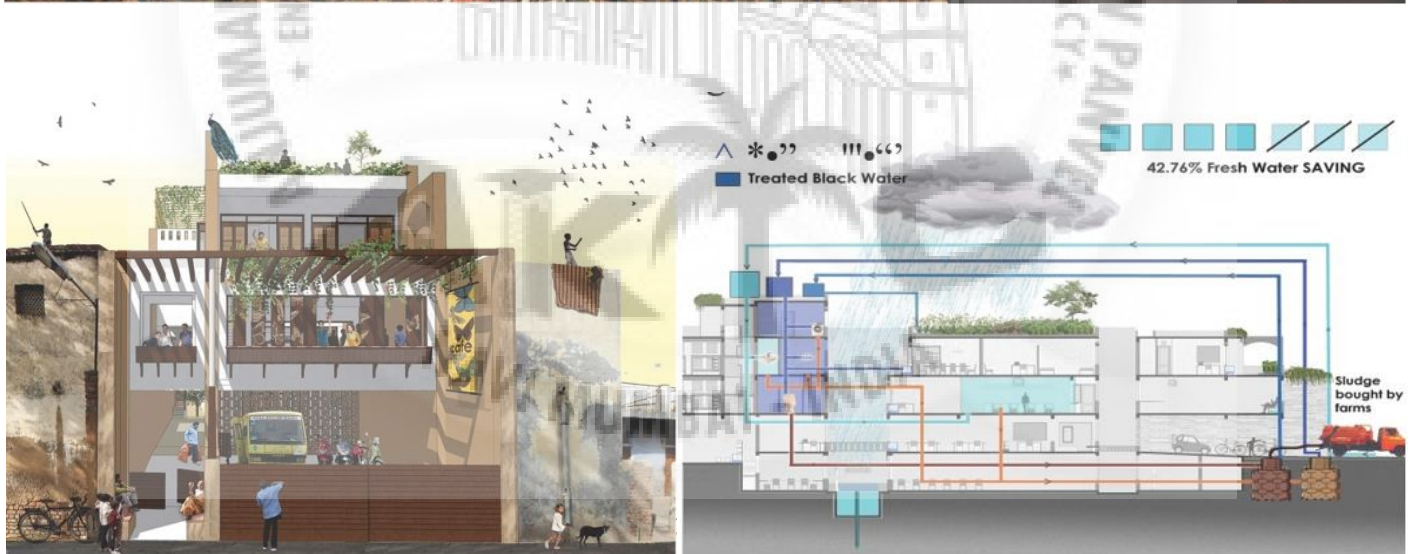
Roof top gardening

Diagram showing water and waste treatment cycles within the building

COMPARATIVE

	Category	Selection Criteria	Location	Area
Magic bus - RMA Architects	Context & Experiential (National)	To understand the materials used to provide a sense of familiarity to street children.	Panvel, Navi Mumbai (Outskirts)	2415 sq.m (Built up)
Magic bus learning pavilion	Context & Experiential (National)	To understand flexibility in spaces and experiential learning program for underprivileged children.	Karjat, Raigad. (Outskirts)	300 sq.m (Built up) 7.4 Ha (Site area)
Manav sadhna activity centre	Context (National)	To understand the conversion of the domestic and municipal waste into affordable, effective and aesthetic building components.	Ahemdabad, Gujarat. (CIty fabric)	1100 sq.m (Built up)
An eco village for orphaned children	Context/Innovation in program(International)	To understand the learning program, skill training & various workshops to uplift the underprivileged children.	Kenya, Africa	- - -
Municipal orphanage	Experiential/Inovation in technology	To understand the spatial organisation.	Amsterdam, Holland (Outskirts)	14000 sq.m (Site area)
SOS children's village	Context & experiential	To understand the medina of safe environment & efective learning approach through open & closed spaces.	Tadjourah, Djibouti	- - -
Hangzhou No.2 School	Context, Experiential & Innovation in program(International)	To understand the spatial organisation w.r.t child psychology.	Hangzhou, China	44900 sq.m (Site area)
Butterflies Resilience Centre	Context, Experiential, Innovation in program & technology (National)	To understand the spatial organisation in compact spaces.	Jaunpur, Delhi	505 sq.m (Site area)

ANALYSIS

Concept	Function	Facility	Run by	Funded by	Materials	Merits
To create a sense of familiarity	Institutional & Residential (Campus)	Education. Vocational training. Sports training. Skill training. Health care & food Shelter.	NGO	Public & Private	Steel Bamboo Stone Tin	Replication of slum environment
Interactive & experiential learning environment	Institutional, Adventure sports training & Residential	Education. Vocational training. Sports training. Skill training. Health care & food Shelter.	NGO	Public & Private	Steel Bamboo Stone Tin	Effective interactive & experiential spaces in the built environment.
Non Polluting Environment, Economic Empowerment & Affordable Built Forms.	Multipurpose activity centre	Vocational training Workshops Health care Canteen Meditation & Gym Day care	NGO	Govt, Public & Private	Sustainable & reuseable materials	Flexible layout. Functional, cheerful & suataibale space. Alchemy of built & unbuilt environment.
To create a condusive place to learn, play & live for the Kenyan orphans.	Institutional, Residential & Income generative.	Education Vocational training. Workshops Health care Canteen Farm & fish ponds Shelter.	NGO	Private	Local materials of Africa.	Income genrative platform along with education.
Revolutionary synthesis in the consideration of the individual group, the inner and outer space, of large and small areas.	Institutional & Residential	Education. Vocational training. Sports training. Skill training. Health care & food Shelter.	Govt.	Govt. & Private	RCC Bricks Translucent glass.	Spaces responsive to children's age, gender, physical & mental status & creates opportunities for learning.
A medina for children according to extreme weather conditions and community traditions.	Institutional & Residential	Education. Vocational training. Sports training. Play garden. Health care & food Shelter.	Govt.	Public & Private	RCC Cement blocks. Cement finish.	Natural ventilation Effective sun shading by introducing wind chimneys and narrow streets.
A school complex with child - scaled spaces	Kindergarten, Primary & Secondary	Education Sports Canten Gymnasium	Govt.	Govt. & Private	RCC Glass Steel	Child-scaled spaces have been effectively designed as per different age groups.
Sustainable lifestyle Model of Urban regeneration.	Instituional & Day care	Education Recreation Canten Culinary training Rooftop gardening	NGO	Public & Private	Low carbon construction. Recycled debris.	Compact spaces have been effectively utilised. Innovation in technology & program.

DESIGN CLUES & IDEAS

Street children have different psychological behavior on the basis of their background, impacts of living on the street, abuse, addiction etc.

Hence, there is a need to intervene into their problems and help them developing their personalities accordingly.

Street children need special care and attention for their overall development and it can be achieved through differential spaces.

From the case studies and pre – requisite studies it was observed that they need equivalent amount of area for the outdoor activities through hierarchy of courtyards, child scaled spaces and open spaces (that blends with nature).

Considering the space program, courtyard can be divided into 3 types –

PUBLIC

SEMI - PUBLIC

PRIVATE
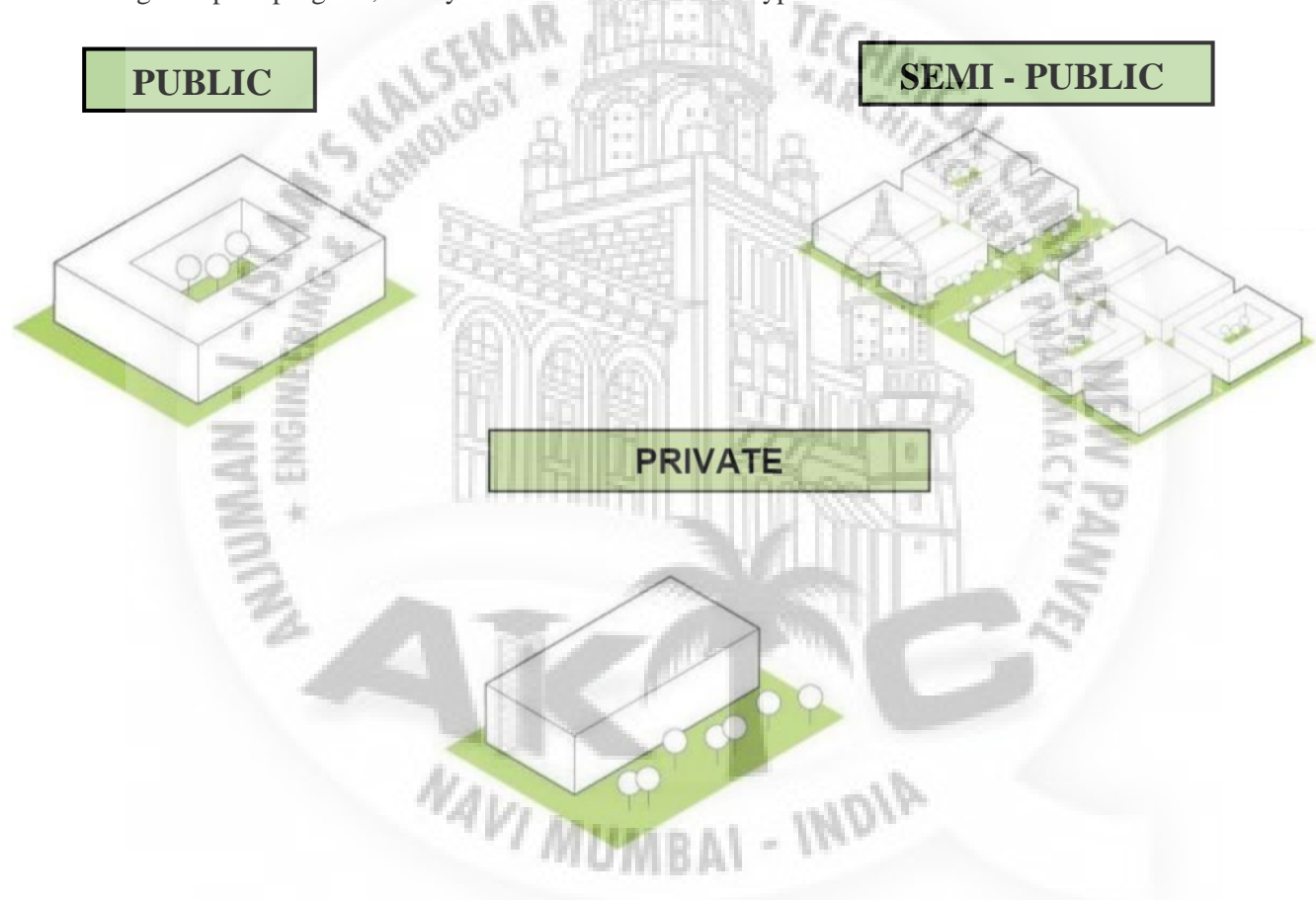
Hierarchies in courtyards can also segregate spaces according to their functions.
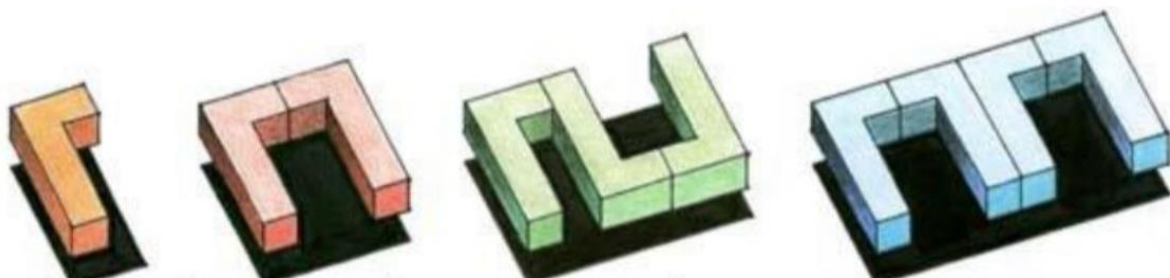
Climatic parameters –

Child scaled spaces –

Child scaled spaces would play an important asset for the overall development of a street child, which would offer the children with space of their own scale and age in which they will enjoy living and studying.

EYE LEVEL

SPACE PROGRAM

The program aims to uplift the street children by providing basic facilities such as Education, Healthcare and personal development. Training programs & workshops could be allied facilities, that would help to involve & express their creative side. These workshops could also act as a source of income, thereby attracting more attention. For an overall development, sports facilities will also be included. This will also encourage children to join the Centre.

Various training sessions including children from different states of India could be conducted. This could help them converse & improve their social skills by interacting with children of similar social wavelengths.

The primary intent could be to develop a strong sense of awareness for their city, reflect on their own identities, and how they are such an important force in their culture & community.

INTERMEDIATE SPACES:

Phase 1 – The design consideration of this space is meant to be very playful, secured and a feel of openness, so that the children feel free, protected and gradually heal physically, socially and psychologically; moving to a healthy life.

Phase 2 – Grouped individual homes.

Phase 3 – Dormitories.

ZONES:

Private zone – The Residential Zone : Clusters according to different age groups, gender & phases.

Clusters for staff.

Guest house clusters

Health care zone : Health checkup units

Drug de-addiction zone

Healing garden

Meditation zone

Recreation – Play spaces & Gym

Semi-public zone – The Educational Zone: Active learning

Vocational learning

Culinary training

Workshops (outlets showcasing the exhibits)

Library

Administration

Restaurants & canteen

Recreation – Play spaces & open gym

Festive Hall

Public Zone – Multipurpose & Sports facility – Skills training.

Amphitheatre

INCOME GENRATIVE PROGRAM:

Eco farm & Fish ponds

Rooftop vegetable gardening

TENTATIVE AREA PROGRAM:

Sr no.	space	No. of units	Type of space	Area approx.
1	**Admin**			
	Reception/waiting	1	Public	20
	Director's office	1	Private	10
	Assistant's office	1	Private	10
	Accountant's office	1	Private	10
	Program coordinator's office	1	Private	10
	Conference room	1	Private	50
	Store room	1	Private	10
	Toilet	4	Public	10
		Total		130 sq. mt
2	**Dormitory**			
	Rooms (350 children)	7		700
	Kitchen	2		50
	Dining area	2		140
	Toilet	40		350
	Bathroom			
	Care taker's room	8		120
	Common room	2		40
		Total		1,400 sq. mt

Sr no.	space	No. of units	Type of space	Area approx.
3	**Rehabilitation block**			
	Lobby	1	Public	20
	Caring units	10	Semi public	100
	General room	2	Private	100
	Meditation room	2	Private	100
	Counselling room	2	Private	40
	Examination room	2	Private	20
	Doctor's cabin	1	Semi public	10
	Nurse's room	1	Private	10
	Maid's room	2	Private	60
	Pantry	1	Private	20
	Store room	4	Private	15
	Toilet	4	Public	30
		Total		525 sq. mt
4	**Vocational activity learning centre**			
	Lobby	1	Public	25
	Painting/art	1	Private	40
	Craft	1	Private	40
	Computer	1	Private	40
	Workshop	1	Private	80
	Storing and drying	1	Private	15
	Handicraft	1	Private	40
	Pottery	1	Private	80
	Wood craft	1	Private	80

	Informal classroom	3	Private	90
	Class rooms for primary	4	Private	240
	Class rooms for secondary	4	Private	240
	Store room	8	Private	80
	Staff room	1	Private	80
	Pantry	1	Private	25
	Toilet	2	Public	300
		Total		1,495 sq. mt
5	Auditorium/Multipurpose hall			500
	Parking Landscape Play area Circulation space			

Total built up area – 4,050 sq. mt

SITE SELECTION AND JUSTIFICATION –

The reason for selecting the site in Chandivali is – According to the censes check by TISS in Mumbai (2013),

Chandivali falls under 'S' ward which has the highest population of street children comparing with the others wards

of Mumbai.

News articles –

NEWS

BMC To build shelters for street kids

BY **AU NEWS BUREAU**
⊙ 19/12/2018

The Brihanmumbai Municipal Corporation (BMC) on Tuesday urged the Bombay High Court to issue directions to the various development and transport authorities to provide plots for construction of shelter homes for children living on the streets in Mumbai. The civic body also sought suggestions from experts for the schooling and opening up de-addiction centres for such children, so that the same can be incorporated in its development plan (DP) of 2034.

TOP NEWS | Woman 'gangraped' in Jharkhand's Dumka, 1 held ❮ ❚❚ ❯

Home / Cities / Mumbai / 'We have set a target to increase the number of shelter homes to 131': Dr Sangita Hasnale

'We have set a target to increase the number of shelter homes to 131': Dr Sangita Hasnale

"Three shelter homes are under construction in Dahisar, Chandivali and Magathane. We have also invited expression of interest to appoint an agency to run our existing 45 welfare centres as shelter homes for homeless," says Dr Sangita Hasnale.

According to the news articles, BMC had planned for a proposal for children living on the streets of Mumbai in the areas of 'S' ward like Dahisar and Chandivali but, nothing has been started on the ground yet.

Chandival
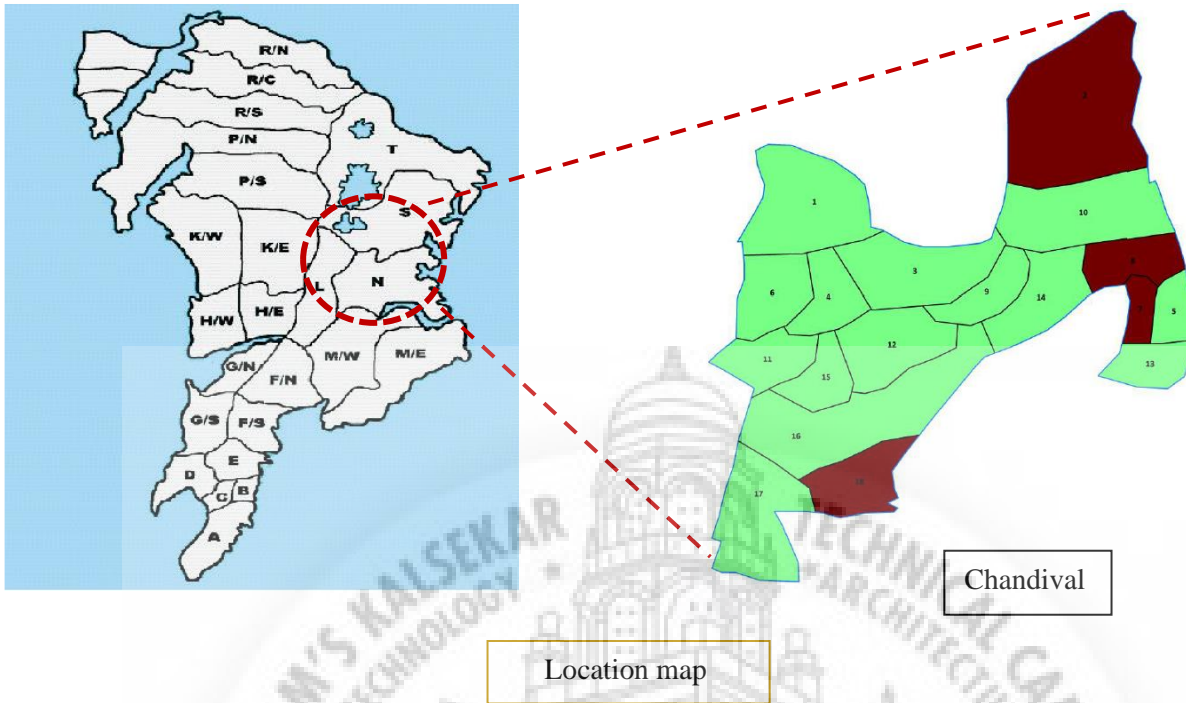
Location map

Site plan

The plot is located in Chandivali, Mumbai, nearby Jogeshwari-Vikhroli link road and it comes under 'S' ward.

Site location – Chandivali, Mumbai.

Site area – 11762 sqm

Ward – S

Site surroundings – Open land

        Slum settlement

        Residential buildings

        Hostel buildings

        College & school buildings

        `Chandivali lake

Owner - BMC

Topography - Flat terrain

Climate - Warm and Humid

Rainfall - 128 mm

FSI: 1.5

Existing state – There is an existing slum settlement on the west side of the land.

        – Entire land is vacant and surrounded by trees and green spaces.
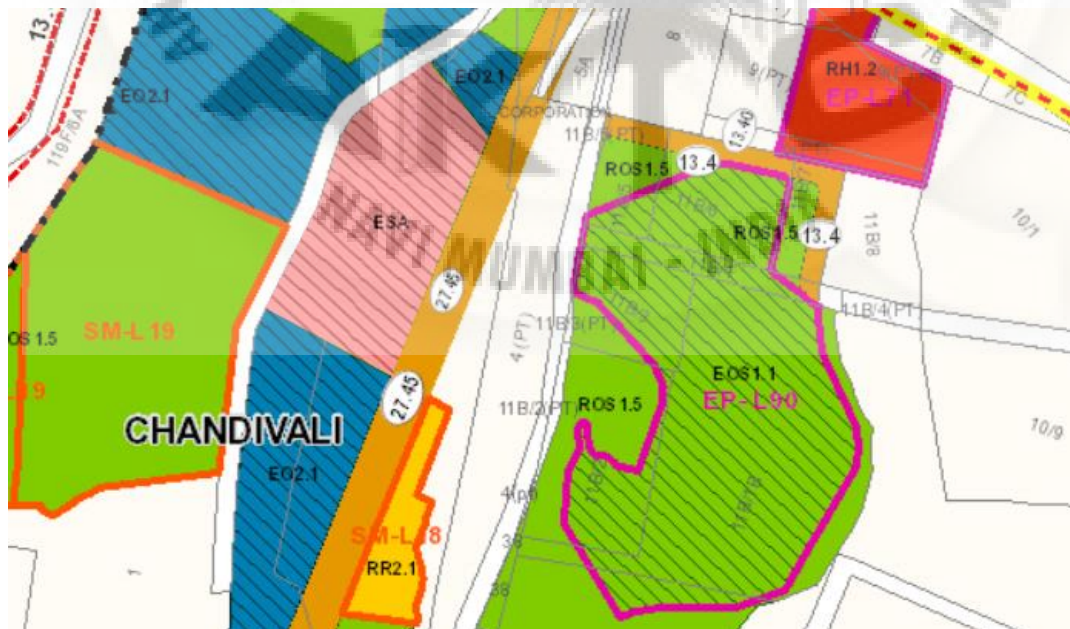
Development plan

Site proposed for social amenities

- The above development plan of Mumbai indicates that the highlighted pink portion comes under social amenities.

- The proposed site is in Chandivali Mumbai Maharashtra.

- The site comes under greater Mumbai in S ward.

- The total site area is 32 acres which is allotted by government of Maharashtra for construction of social amenities structure.

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