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A center for a better future of street children

REHABILITATION CENTER FOR HOMELESS CHILDREN

SUBMITTED BY

SURAJ NAYAN PARUI

A REPORT

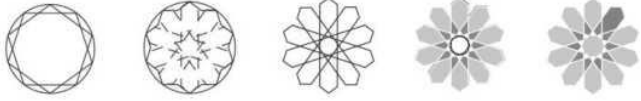
Submitted in partial fulfillment of the requirements for
the degree of Bachelor of Architecture.



University of Mumbai

2020-2021

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CERTIFICATE

This is to certify that the Design Dissertation titled **Rehabilitation Center for Homeless Children** is the bonafide work of the student **Suraj Nayan Parui** from **Final Year B. Arch** of **AIKTC School of Architecture** and was carried out in college under my guidance.

Sign of the guide:

Name of the guide : **Prof. Abhishek Kadam**

Sign of the Dean: **Prof. Raj Mahtre**

Date : **12 Dec, 2020**

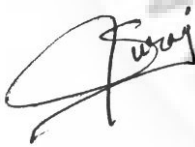
DECLARATION

I hereby announce that this written submission entitled represents my ideas in my own words and has not been taken from the work of others (as from books, articles, essays, dissertations, other media and online); and where others' ideas or words have been included, I have adequately cited and referenced the original sources. Direct quotations from books, journal articles, internet sources, other texts, or any other source whatsoever are acknowledged and the source cited are identified in the dissertation references. No material other than that cited and listed has been used.

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This work, or any part of it, has not been previously submitted by me or any other person for assessment on this or any other course of study.



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Roll no.: **16AR16**

DATE : **12 Dec, 2020**

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This thesis is the result of support from various sources and I acknowledge them all. My success in completing this thesis is by the almighty God who gave me the strength and courage in gathering the information required for the study.

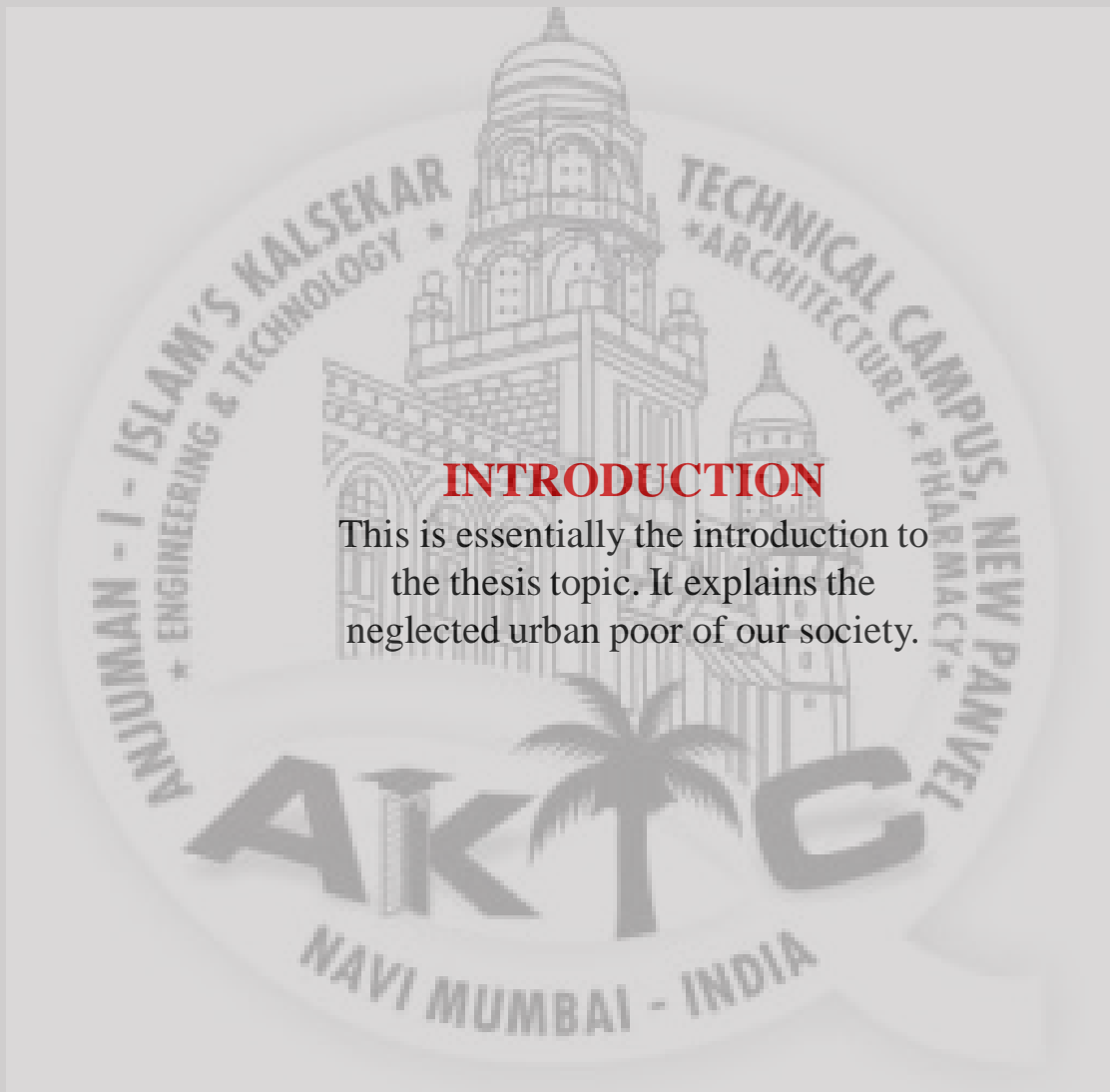
I am very grateful to my friends **Affan Chapekar, Zainab Basha, Arib Momin, Daniel Vnlalhruaia, Swastik Thorat, Sadaf Siddiqui, Samina Rawoot, Umair Katmani, Rupesh Nilve, Sakshi Dhumal** and the whole friend group so called **Bakwaas Company** for being my back to supporting me at every moment.

ABSTRACT

The term homelessness is the situation of individual, a family or a community staying at an unstable, illegalized, inappropriate temporal place with lack of security and hope. The economy is not able to provide employment and income to majority of rural as well as urban poor. The urban poor as a community follows two value systems: traditional and modern.

The population of the city grows through birth as well as migration. A person himself/herself does not chose to live in such unwilling conditions. According to UN, 1.6 billion people live in inadequate houses while 15 million are homeless. Ever imagined of a developed country US has a large number of homeless people. Even after years of Independence, lakhs of helpless people, from every city of India, with or without a family stay above the ground under open sky baring heat, cold and rain in ragged or no clothes in some cases. Not only homeless or orphan children are in need of a rehabilitation centre, but there are several cases that require it. Cases such as child labour, child abuse, child illiteracy, drug abuse and children in mental and health condition.

A line said by Mother Teresa “We think sometimes that poverty is only being hungry, naked and homeless. The poverty of being unwanted, unloved and uncared for is the greatest poverty. We must start our homes to remedy this kind of poverty.”



INTRODUCTION

This is essentially the introduction to the thesis topic. It explains the neglected urban poor of our society.

Chapter 1

1.1 BACKGROUND STUDY

1.1.1 Understanding homelessness

According to the research, in India, over 1.7 billion are homeless out of which 934,384 live in urban areas and 57000 in Mumbai itself. It is stated that at least 13000 people pass away each year over the world. They not only have external harm but also internal harm such as severe trauma to children and youth leading to drug intake putting their health and safety at risk and hampering their development. Some of the factors which force the people to live on streets, under flyovers, bridges, etc. Homelessness affects a wide variety of people. Some groups of people are more likely to become homeless because they have fewer rights, particular needs or are less able to cope by themselves. They include people like young, old, people with children, people with physical or mental health issues, people on benefits or low income, people leaving care, ex-prisoners, refugees, migrators for better life and income, etc. A variety of factors contribute to homelessness in the U.S., including a lack of affordable housing, low wages, poverty, and unemployment. Familial relationships, financial difficulties, lack of affordable housing, natural disasters, social exclusion, forced migration are some of the factors which had forced the people to go homeless unwillingly.

1.1.2 Causes of homelessness

The growth of slums is expected to have major consequences on both humans and the environment, which are inextricably linked. The condition that these people live under physical threat from man made and natural disaster and improper housing have direct impact on the neighbourhood residents. On the other hand, this impacts to the environment due to lack of basic services which results in contaminated soil and polluted air and waterways. The growth of the urban poor can therefore threaten sustainable urban development at local, national and regional scales. It does impact on the economical background in both positive and negative way. These impacts highlight the critical need for managing slum populations worldwide.

1.1.3 Impact of homelessness

Not having a home can make it harder for individuals to find a job, stay healthy and maintain relationships. Some of the effects of homelessness are lack of social security, lack of health insurance, social isolations, mental conditions, suicide attempts, health issues, criminal activities, malnutrition, lower life expectancy, unemployment, drug abuse, loss of self-esteem, economic effects, etc In such conditions, people often encounter a lot of health issues in their lives. Their health gets worse from time to time because they lack attention from people such as doctors, wives, husbands, and family members. And because of lack of necessities they suffer from multiple diseases. With people often experiencing feelings of isolation, homelessness can also increase your chances of taking drugs or experiencing physical or mental health problems. Evidence suggests that the longer someone is in this position the more difficult it can become to get back on your feet. As someone's problems become more complex, anti-social behaviour, involvement with the criminal activities become more likely.

1.2 Aim: -

To provide an environment of inclusion in the society for the homeless children to change the societal recognition over them.

1.3 Objectives: -

- 1.) homelessness – effects of urbanization on homelessness
- 2.) studying and identifying the urbanity a development in case homeless people.
- 3.) understanding and analysing the cause of being “homeless “(impact).
- 4.) documenting and studying the global concern (impact) of homeless.
- 5.) study of existing policies for betterment.
- 6.) classifying the homeless according to the nature/homeless.
(e.g. Beggar, people with jobs but homeless)
- 7.) study of theories and proposals

1.4 Scope: -

The scope of my research is to provide a healthy lifestyle for the homeless children what they deserve.

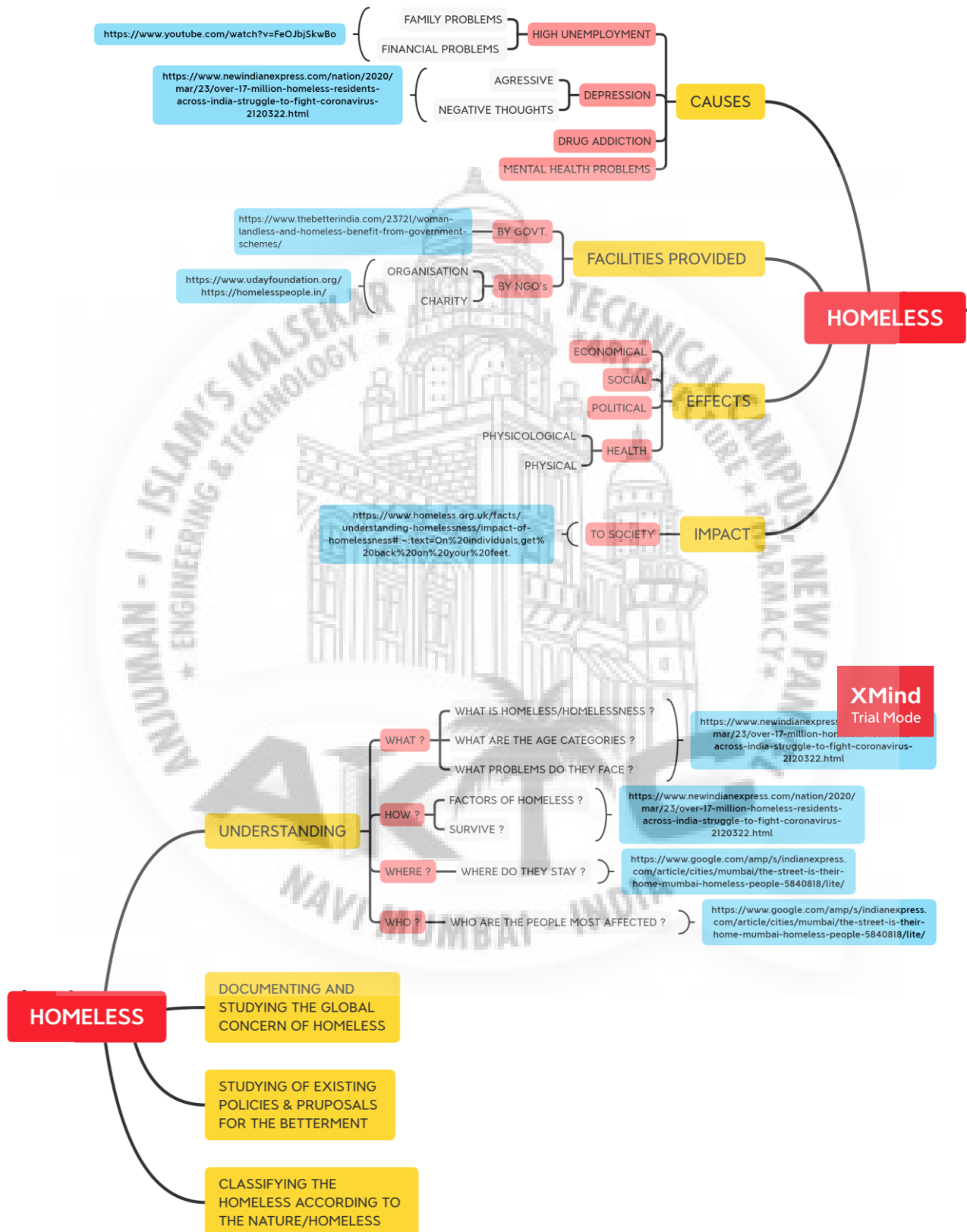
1.5 Limitations: -

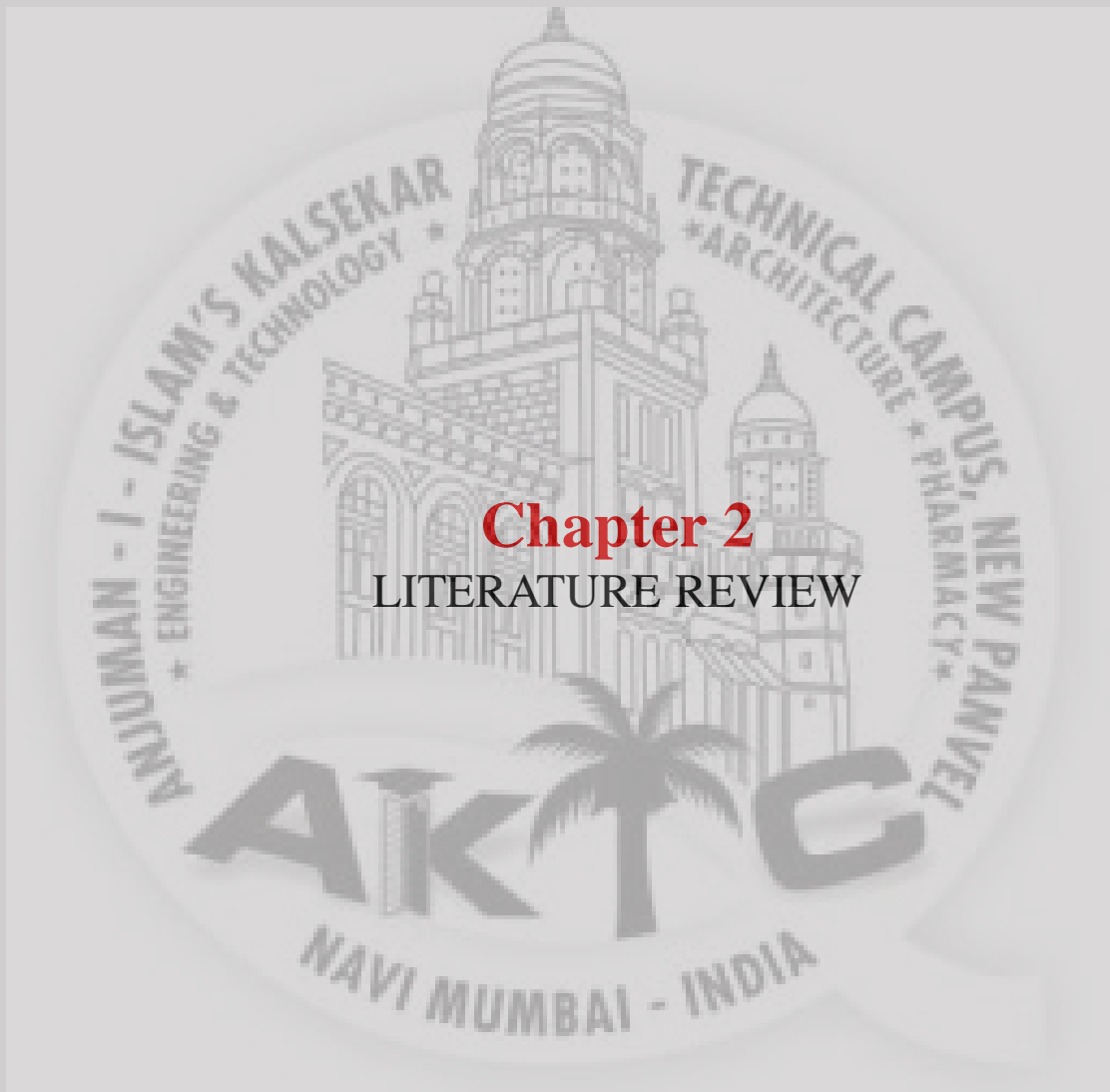
The research scope would be limited to the urban level cities

1. Mumbai (including Navi Mumbai)
2. Delhi
3. Kolkata

The research will focus on lower and lower middle-class people.

1.6 Research Methodology :-





Chapter 2 LITERATURE REVIEW

2.1 - LITERATURE REVIEW (Part 1)

Literature 01

2.1.1 The New Indian Express



Fig. 1

According to the 2011 Census data, the density of population per sq. km. is 382 persons in India. Expulsion threats, lack of access to basic facilities, and absence of administration interferences continue to haunt the lives of people in informal settlements & around 13.7 million households, or 17.4 per cent of urban families, live in informal settlements. Roughly, around 68 million people live in informal settlements in India.

Over 1.7 million homeless people struggle with pandemic situation in India and 938,384 are in urban areas. It's difficult to manage the concept of social distancing, handwashing or at least staying at home which is almost impossible as they stay in a large number having a feeling of fear with no help. Moreover, it is almost impossible to practice social distancing in informal settlements. These people are at most risk.

A basic precautionary measure is to stay at home. But how do homeless stay at home?

Moreover, it is almost impossible to practice 'social distancing' in informal settlements and homeless clusters and shelters. The homeless existing in high-density areas such as accommodations and informal settlements are most at risk, she added.

The state needs to prioritise access of all for basic services, including clean, adequate water.

Source : <https://www.newindianexpress.com/nation/2020/mar/23/over-17-million-homeless-residents-across-india-struggle-to-fight-coronavirus-2120322.html>

Literature 02

2.1.2 The street is their home



Fig. 2

Who are homeless ?

Globally, there are an one billion homeless estimated. The United Nation defines a homeless person as not only someone who lived on street or in a shelter., but also someone whose shelter or housing failed to meet the basic criteria considered essential for health and social development.

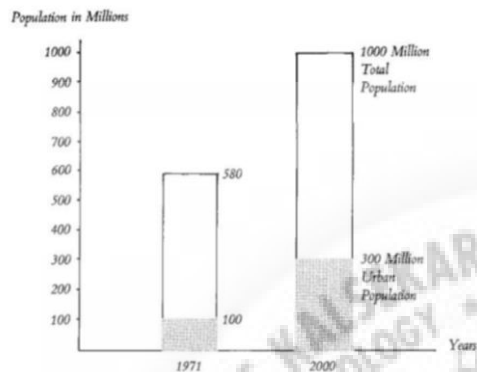
Homelessness stares in Mumbai in the face of every state. India's financial capital, and its richest city, is also where thousands of people sleep rough – on footpaths, under flyovers, and on road dividers because they have nowhere else to go. In the megapolis with the population of 1.25 cr, the state claims that there are only 57,416 homeless people in the city. On paper, it claims to fund 23 shelter homes across Mumbai which can accommodate no more than 780 people.

Mumbai being the richest city has one of the largest numbers of homeless people. Homelessness stares in the face of every street. Despite of problem of homelessness, there is no consideration from politicians or bureaucrats. Misperception of the society leads for the loss of opportunities like education, jobs & leaves them susceptible to exploitation. Within a population of 1.25 Cr, 57416 homeless are in the city. There is a huge gap between the capacity of shelters & homeless people.

Source : <https://indianexpress.com/article/cities/mumbai/the-street-is-their-home-mumbai-homeless-people-5840818/>

Literature 03

2.1.3 The New Landscape urbanization in the third world



Restrictive Buildings- High Rise buildings Fig. 4

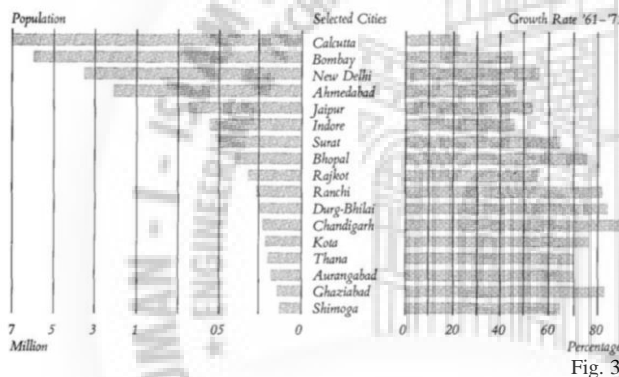


Fig. 3



Low Rise – High Density Built form : Generating Jobs in the Bazaar Fig. 5

By the year 2000 there will be around the world about 50 cities of over 15 million inhabitants each: 40 will be in the Third World. Charles Correa, a inventor in evolving low cost shelter, discusses the inferences of this important trend based on his experiences in Bombay and internationally.

The author makes the case for those values he believes to be most vital in housing, namely: Equity, Incrementality, Pluralism, having Open-to-Sky space, the Disaggregation of the elements that make up the urban context to allow for participation in forming one's own atmosphere and to enable Income Generating actions. He cites examples from all over the world, using demographic outlines, public transportation rules, squatter settlements, etc. to demonstrate his concerns.

On a city and regional scale, Correa emphasises the need to *rearrange* our urban centres and to use the rapidly increasing populations and space itself as primary resources and tools for growth. Correa's broad perspective, in both architectural and planning thought, has been contributory in initiating a strategy for diverting and management rather than stemming the global urbanisation of the Third World.

Source : https://issuu.com/kienviet/docs/charles_correa_-_the_new_landscape

Literature 04

2.1.4 Introduction to urban poverty

IIED is working to reduce urban poverty, and to change confusing views about urbanization and rural alteration. Drawing on the knowledge and applied experience of our partners in Asia, Latin America and Africa, over the next five years . IIED is an international organisation working to reduce urban poverty. To recognize the central role of local government and represented organisation of urban poor in reducing urban poor.



Fig. 6

Around a billion urban occupants live in informal settlements, most of which are affected by:

- Deprived quality, congested housing
- Risk of dynamic removal
- Absence of safe, readily available, water provisions
- Poor provision for cleanliness, drainage and solid left-over collection
- Lack of contact to healthcare, alternative services and regulating
- Difficulty accessing administration schools, and
- Locations at high risk of disasters and with risk levels increasing because of climate change.

Source : <https://www.iied.org/introduction-urban-poverty>

Literature 05

2.1.5 What lessons does COVID-19 offer for India's urban poor policy (Part 1)



Fig. 7

In India, unparalleled urban sprawling already impedes intensification of compound, urban problems including but not limited to land, water and cleanliness. Almost 65 million people or 17 per cent of the urban population live in informal settlements.

According to National Family Health Survey-4, 4.6 per cent, 3.4 per cent and 8.4 per cent of the urban, rural and urban slum populations correspondingly were using unchanged sanitation amenities. The open excretion rate stated in urban slums was 63.1 per cent.

Migrant workers, who are presenters of a slum population, started returning to their native places due to fear, concern and hunger. Most of them were day-to-day wagers and did not preserve cash liquidity for this kind of undefined condition.

The ignorance and the understanding of the depth of the poverty by government or other agencies helps supporting unsuccessful policies. More than half of the world's population is in low and mid urban income countries.

The ignorance and underestimation of the depth of poverty by government or other bodies helps in supporting unsuccessful policies. More than half of the world's population is in lower and mid urban income countries. IIED is an international organization working to reduce urban poverty and to recognize the central role of local government and representative organization of urban poor in reducing urban poor.

Source : <https://www.downtoearth.org.in/blog/urbanisation/what-lessons-does-covid-19-offer-for-india-s-urban-poor-policy-70740>

Literature 06

2.1.6 Who are India's urban poor?

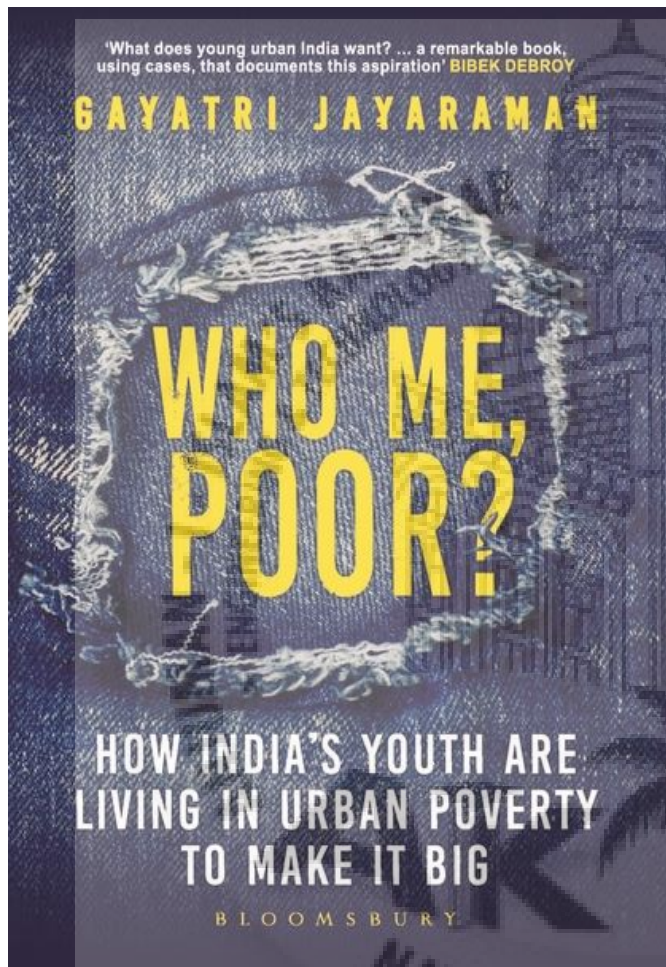


Fig. 8

Gayatri Jayaraman has written about a set of young people, mostly in their mid-20s, who move cities in pursuit of a better life. We know these people. We may have even been these people – frequently trying to juggle the tasks of rent, figuring out food, spending far too much on socialising – for fear that they may be left out or not leave a good impression.

The difficulties of the book are real and need to be emphasized. Our brightest young minds are under tremendous pressure, shaped by corporates marketing them a twisted concept of an ideal life.

It is easy to realize the fears of a young person, out with their ‘cool’ office mass, not knowing the answer to whether they want a cappuccino or a latte. It is also interesting to read about their worries and get a sight into the minds of millennials.

Young people (mid – 20’s) for the betterment of life migrate to urban places and struggle with challenges of rent, food and shelter. The urban poor lives generally in slums in search of better life with no/less access to sanitization, earning insufficient wages and sleep over in places with lack of security due to unaffordability.

Source : <https://thewire.in/books/india-urban-poor-gayatri-jayaraman>

Literature 07

2.1.7 What lessons does COVID-19 offer for India's urban poor policy (Part 2)

According to research 17 % are of urban population live in informal settlements. The population density is 2 lakhs per square kilometre. According to the National Family Health Survey (NFHS) 4.6% urban, 3.4% rural, 8.4% people have unimproved sanitization facilities. 63.1% of urban poor population have open defecation.

Economy Impact

Fear, anxiety, hunger is some of the impacts faced by them. Most of them survive on daily wages. This pandemic situation lead them for forced, unplanned migration. Reverse migration affect to the sectors like real estate, manufacturing, mills, textile, travel, tourism, e-commerce delivery, private security, facility management. Most of the migrant workers are from UP, Bihar, West Bengal. Delhi, Haryana, Punjab, Gujarat, Karnataka, Maharashtra and Tamil Nadu may face decrease in mass production

Social Impact

Anxiety, stress and fundamental concerns about finance.

Domestic violence, crime against women, theft, dacoity, robbery, etc due to emotional and financial stress.

More policies must be executed for holistic inclusiveness and preparedness to develop a more responsive framework to mitigate urban inequality in future.

Health Impact

Poor resourced settings are most vulnerable to any communicable disease.

Literature 08

2.8 Urban poor in the BuzzFeed article anything but poor

These are the urban poor. Objectively and relative to a vast majority of Indians, they aren't 'poor' at all. But they're certainly hungry and broke a lot. The power of choice is what separates them from the "poor". The "urban poor" are the people who are homeless, living on the pavements in our city, keeping their belongings in plastic packets which they store in the bushes.



Does Appearance matter?

Fig. 9

Source : <https://www.downtoearth.org.in/blog/urbanisation/what-lessons-does-covid-19-offer-for-india-s-urban-poor-policy-70740>

Source : <https://www.livemint.com/Opinion/sJgIgc1Ti35xQBVDNSI2iL/Urban-poor-in-Buzzfeed-article-anything-but-poor.html>

Literature 09

2.1.9 India's urban and rural poor expect different things from their local govts, and why it matters.



Fig. 10

For India's citizens living below or staggering just above the poverty line, the capability to make claims on local government is a matter of utmost importance. Critical resources in the areas of health, water, hygiene, housing, basic infrastructure, and a wide range of social safety schemes flow through India's rural and urban local governance figures. These local bodies are frequently the first port of call for citizens seeking support and are the frontline implementers of central and state policy. Democracy works better when local governments are reachable and responsive.

The responses to these questions express volumes about the nature of local democracy, and about the patterns of hope and despair that shape local citizen-state relations.

Critical resources in the areas of health, water, sanitation, housing, basic infrastructure, and a wide range of social protection schemes flow through India's rural and urban local governance bodies. Democracy works better when local governments are accessible and responsive.

Source : <https://theprint.in/opinion/indias-urban-and-rural-poor-expect-different-things-from-their-local-govts-and-why-it-matters/383037/>

2.2 LITERATURE REVIEW (PART 2)

Literature 10

2.2.1 Over 37,00 kids fending for themselves on city's road : First street children



Fig. 11

An estimation of 37,059 children breathing on the fierce streets of Mumbai are noted. Their susceptibility is captured by the fact that two out of five of them witnessed physical, verbal or sexual exploitation or forced starvation at some point of their lives. The census help out bust some myths about children who make homes out of railway platforms, pavements and bus stops. Opposing to popular perception, many of them weren't runaway kids.

According to 2011 observation, it had made it increasingly difficult for homeless populations to live in public space. They may have been forced to alter to nearby locations on outskirts of city or move to other towns and city.

- A total of 37059 street children were found in Mumbai.
- 2.5% i.e. 905 children found on railway premises.
- 70% - Boys, 30% - Girls
- Over two out of five children were found tortured, physical or sexual abuse and forced starved.
- Around 24% of children going school were found uneducated.
- 65% of street children were found living with their families.
- Nearly 24% street children were found some other kind of work like selling fruits, newspaper, fruits and other items, doing odd jobs at eateries, begging, rag picking or construction work.
- 15% were addicted to substances like drugs, tobacco, whitener, shoe polish.
- One of four children witnessed not taking regular meals due to money issue, illness, injury, etc.
- 78% weren't aware of any assistance from police, government agencies or NGO's.

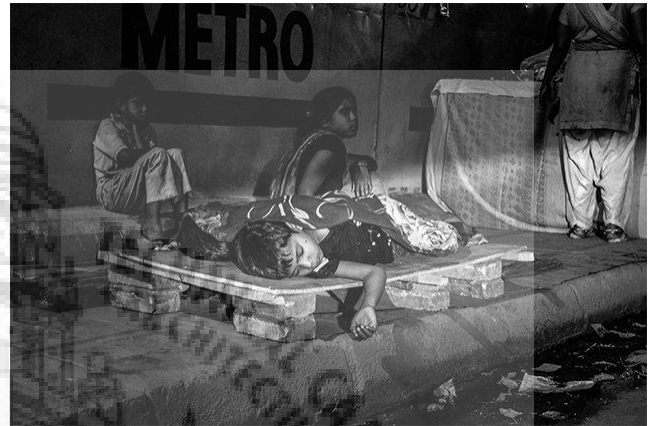
Source : <https://timesofindia.indiatimes.com/city/mumbai/Over-37000-kids-fending-for-themselves-on-city-roads-First-street-children-census/articleshow/26756505.cms>

Literature 11

2.2.2 Street children – statistics, their lives and why we have to care.



talking about the money each of them has earned by begging till noon. Fig. 12



sleep on the footpath few steps away from the night shelter home at Nizamuddin Fig. 13



They hail from Bihar and have been living on the streets in the central Delhi area Fig. 14



Watching his mother asleep, 5-year-old Karim wanders around the market in search of food. Fig. 15

Reasons for running away

Children run away or are forced to leave home for a wide variety of reasons, including violence, abuse, poverty or neglect. Many dream of finding work in the cities and a brighter future. Some intend to return to their families with money for food, but end up lost in the chaotic railway network.

Dangers on the streets

India's huge, bustling railway stations are perfect for abusers looking to prey on lonely, desperate, vulnerable children. Children are constantly at risk of sexual abuse, exploitation and violence. Many children resort to drugs and substance abuse to get through each day.

Source : <https://www.railwaychildren.org.uk/what-we-do/fight-for-street-children/>

Literature 12

2.2.3 Making Street Children Matter

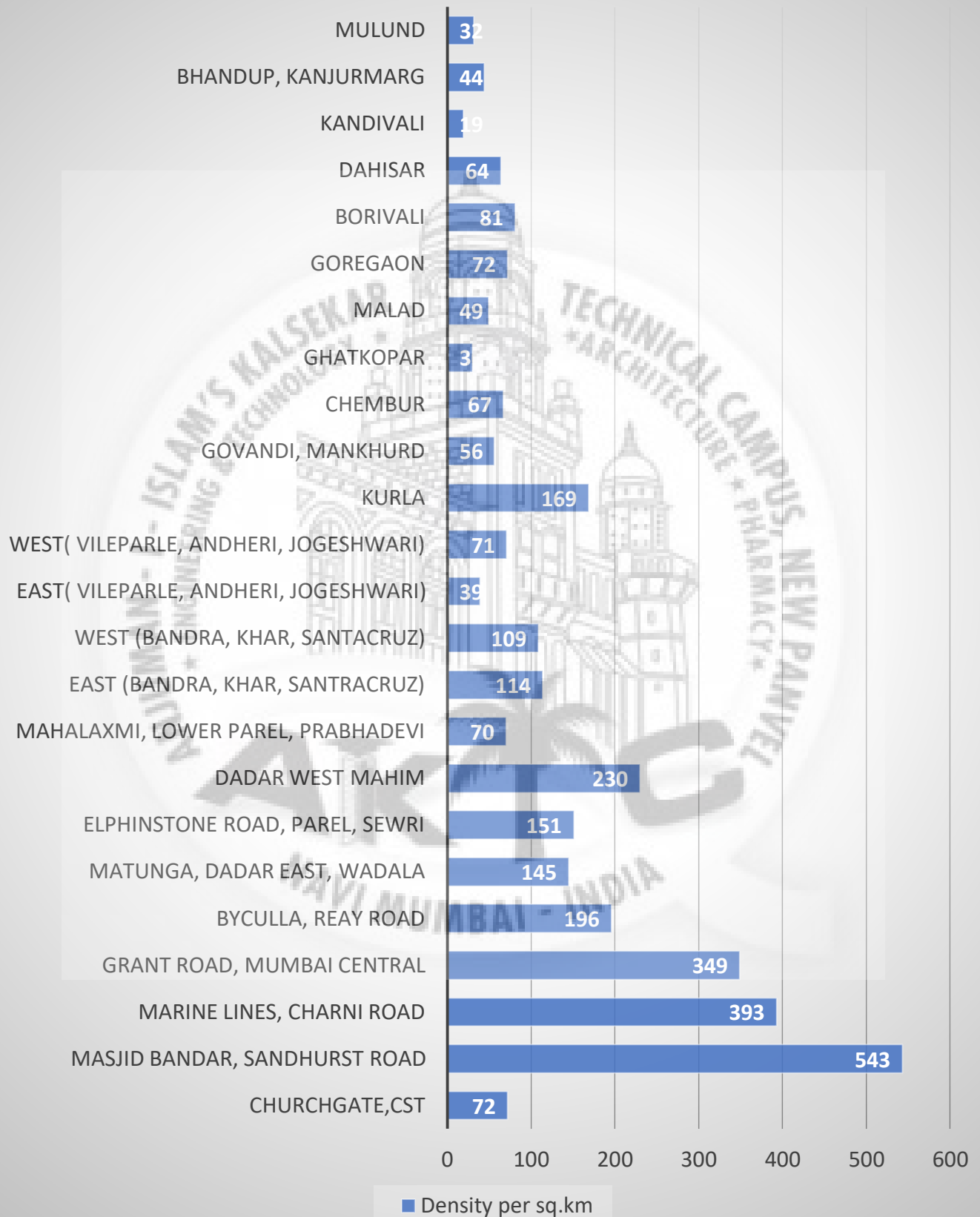
1. Total number of children across Wards

	BMC Wards	Areas	Ward Description from Field Notes of Enumerators	Boys	Girls	Total	Area (Sq. Kms)	Density per sq. km
1	A	Churchgate, CST	Ballard Estate, Lokmanya Tilak Marg, Marine Drive, Colaba	556 2.18%	346 3.21%	902 2.49%	12.5	72
2	B	Masjid Bandar, Sandhurst Road	P D'Mello Road, Abdul Rehman Street, Ramchandra Bhatt Marg, LT Marg	985 3.87%	357 3.32%	1342 3.66%	2.47	543
3	C	Marine Lines, Charni Road	Abdul Rehman Street, Netaji Road, Maulana Shaukatali Road, Marine Drive	467 1.83%	233 2.16%	700 1.93%	1.78	393
4	D	Grant Road, Mumbai Central	V P Road, Walkeshwar, Tardeo Road, Bhuleshwar Naka	1647 6.48%	665 6.18%	2312 6.39%	6.63	349
5	E	Byculla, Reay Road	Reay Road, Sane Guruji Marg, Dattaram Lad Marg, Wadi Bunder	954 3.75%	496 4.61%	1450 4.01%	7.4	196
6	F North	Matunga, Dadar East, Wadala	Thane Creek, NS Mankikar Marg	1343 5.28%	692 6.43%	2035 5.62%	12.98	145
7	F South	Elphinstone Road, Parel, Sewri	Sewri, Kala Chowky	1276 5.02%	684 6.36%	1960 5.42%	14	151
8	G North	Dadar West Mahim	Sion, Dharavi, Mahim Causeway	1682 6.62%	622 5.78%	2304 6.37%	10	230
9	G South	Mahalaxmi, Lower Parel, Prabhadevi	Kashinath Dhuru Marg	415 1.63%	217 2.01%	632 1.74%	9.07	70
10	H East	Bandra East, Khar East, Santacruz East	Santacruz East, Vile Parle, Mahim Causeway	1100 4.32%	448 4.16%	1548 4.28%	13.53	114
11	H West	Bandra West, Khar West, Santacruz West	Bandra, Khar	913 3.59%	351 3.26%	1264 3.49%	11.55	109
12	K East	Vileparle East, Andheri East, Jogeshwari East	Airport	590 2.32%	326 3.03%	916 2.53%	23.5	39
13	K West	Vileparle West, Andheri West, Jogeshwari West	Oshiwara Bridge	1101 4.33%	543 5.05%	1644 4.54%	23.29	71
14	L	Kurla	Ghatkopar, Vikhroli, Powai, Sion Creek	1802 7.09%	470 4.37%	2272 6.28%	13.46	169
15	M East	Govandi, Mankhurd	Deonar Dumping Ground, BARC	1402 5.51%	404 3.75%	1806 4.99%	32.5	56
16	M West	Chembur	Chembur, Ghatkopar, Eastern Express Highway	950 3.73%	349 3.24%	1299 3.59%	19.5	67
17	N Ward	Ghatkopar	Thane Creek, Vikhroli Hills, Ghatkopar	906 3.56%	254 2.36%	1160 3.20%	39	30
18	P North	Malad	Manori, Madh, Marve	1084 4.26%	372 3.46%	1456 4.02%	29.56	49
19	P South	Goregaon	Aarey, Malad Creek, Oshiwara Bridge	914 3.59%	469 4.36%	1383 3.82%	19.13	72
20	R Central	Borivali	Sanjay Gandhi National Park, Gorai, Borivali, Dahisar	975 3.83%	458 4.26%	1433 3.96%	50	81
21	R North	Dahisar	Municipal Boundary Creek and Dahisar Check Naka	742 2.92%	406 3.77%	1148 3.17%	18	64
22	R South	Kandivali	Charkop Village, Poisar	645 2.53%	291 2.70%	936 2.58%	17.78	19
23	S	Bhandup, Kanjurmarg	Eastern Express Highway, Vikhroli	1933 7.60%	869 8.08%	2802 7.75%	64	44
24	T	Mulund	Vihar Lake, Thane Creek	1024 4.03%	426 3.96%	1450 4.01%	45.41	32
	TOTAL			25406	10748	36154		

Table 1

Source : <https://www.actionaidindia.org/wp-content/uploads/2018/06/Mumbai-street-children-V3-Making-Street-Children-Matter1.pdf>

Density per sq.km



2. Children found in the railway lines

A total of 905 (2.50 per cent) children were found on the platforms and trains in the three railway lines which form the heart of the suburban railway network of Mumbai city. An analysis of the 905 children found on the railway platforms suggests that 75 per cent of these children fell under the group of 'children from street families', 20 per cent under the 'street working children' while just 4 per cent of the 'children living on the streets' worked on the railway platforms.

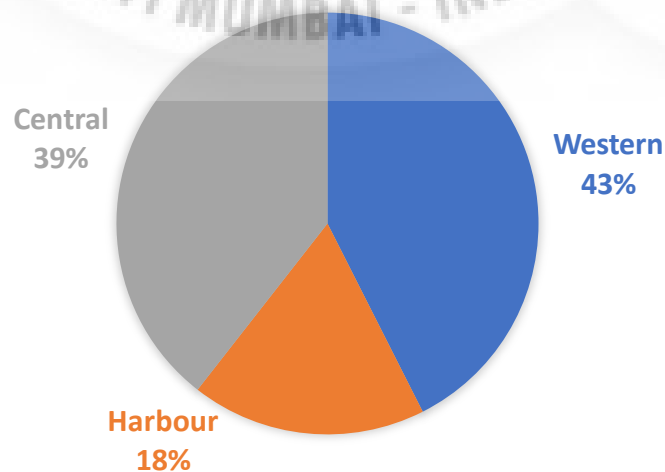
Railway line	Male	Female	Total	Percentage
Western line	240	145	385	42.54 %
Harbour line	90	73	163	18.01%
Central line	224	133	357	39.44 %
Total	554	351	905	
	61.21 %	38.78 %		

Table 2

MALE TO FEMALE CHILDREN RATIO FOUND IN RAILWAY STATION



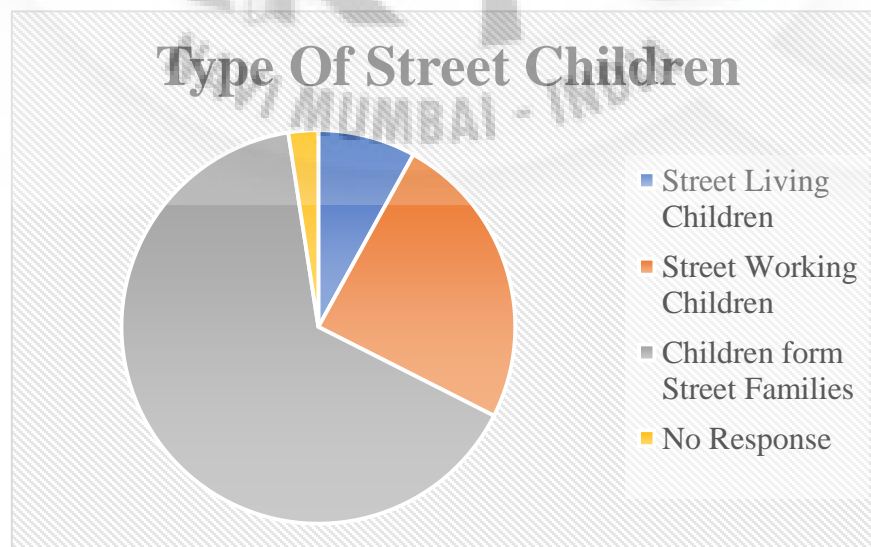
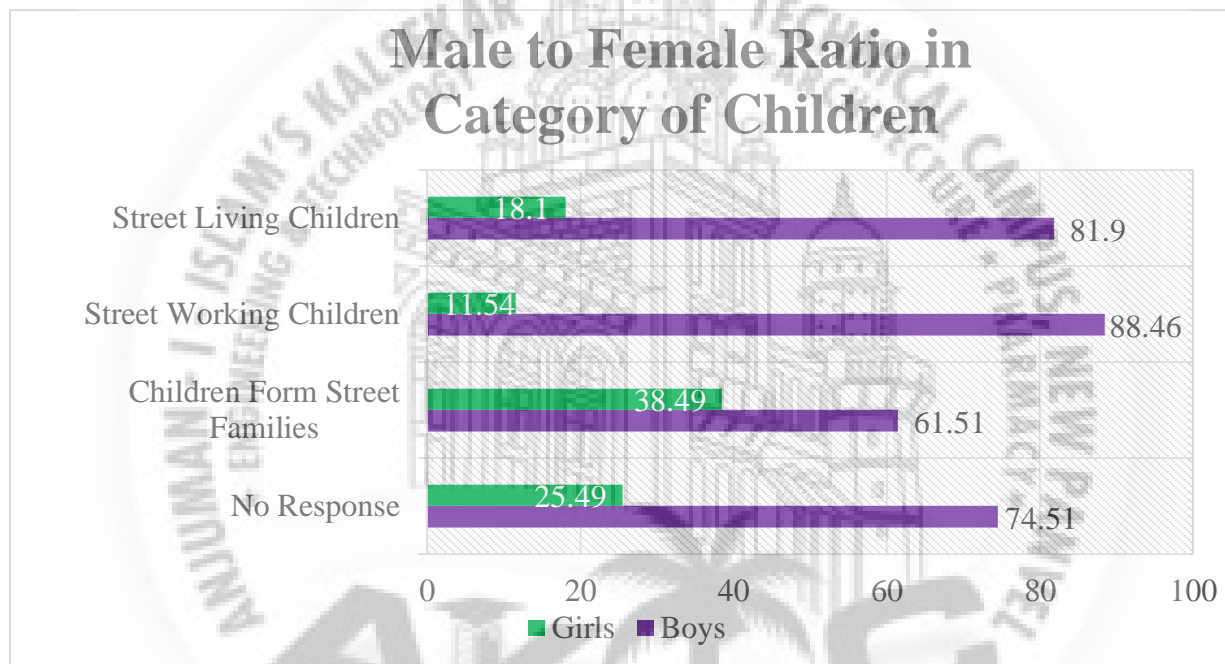
PERCENTAGE OF CHILDREN IN WESTERN, CENTRAL & HARBOUR RAILWAY LINE



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

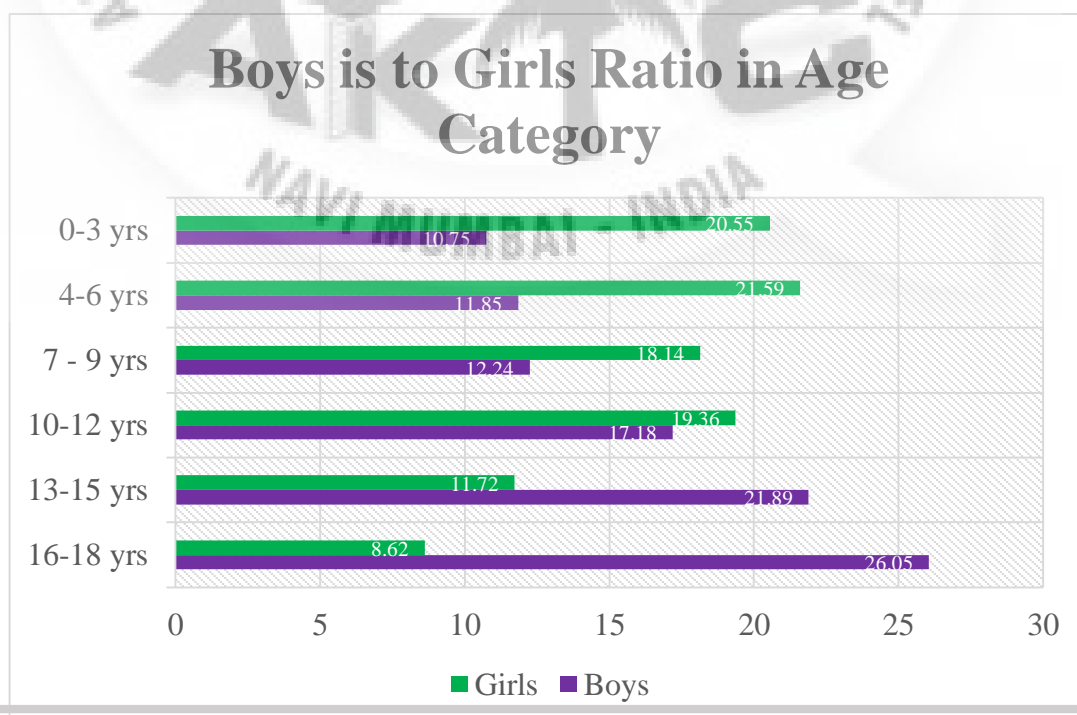
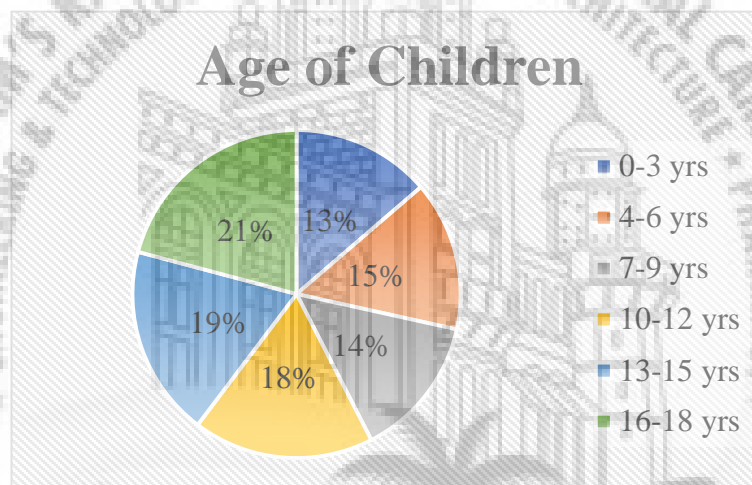
Table 3



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%

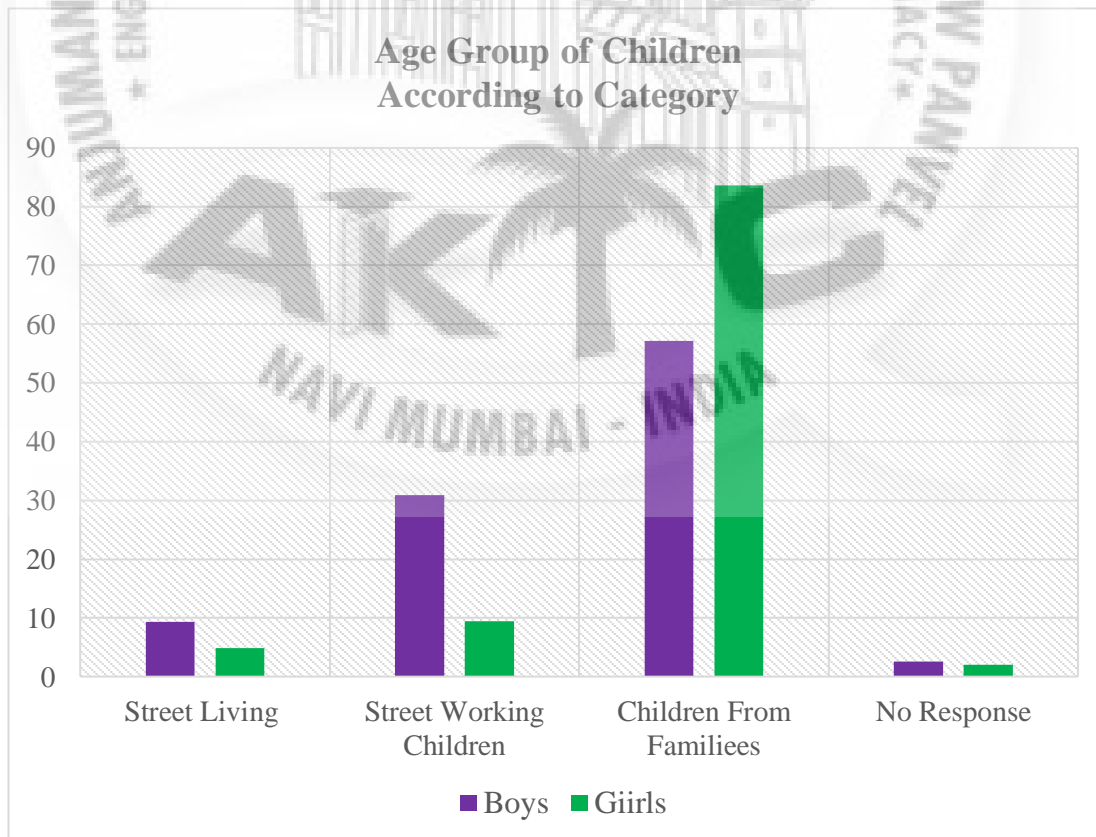
Table 4



Age Group of Children According to Category

Years	Street Living		Street Working Children		Children from Children		No Response Street Families		Total		Total (boys & girls)
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	
0-3	85	77	108	75	2498	2085	102	44	2793	2281	5074
	3.04 %	3.38%	3.87%	3.29%	89.44%	91.41%	3.65%	1.93%	55.05%	44.95%	13.69% of total
4-6	137	111	163	100	2710	2147	68	39	3078	2397	5475
	4.45%	4.63%	5.30%	4.17%	88.04%	89.57%	2.21%	1.63%	56.22%	43.78%	14.77 %
7-9	232	104	410	155	2468	1702	70	53	3180	2014	5194
	7.30%	5.16%	12.89%	7.70%	77.61%	84.51%	2.20%	2.63%	61.22%	38.78%	14.02 %
10-12	437	106	1142	261	2753	1730	129	52	4461	2149	6610
	9.80%	4.93%	25.60%	12.15%	61.71%	80.50%	2.89%	2.42%	67.49%	32.51%	17.84 %
13-15	573	80	2631	255	2343	942	136	24	5683	1301	6984
	10.08%	6.15%	46.30%	19.60%	41.23%	72.41%	2.39%	1.84%	81.37%	18.63%	18.85 %
16-17	971	60	3557	199	2064	678	173	20	6765	957	7722
	14.35%	6.27%	52.58%	20.79%	30.51%	70.85%	2.56%	2.09%	87.61%	12.39%	20.84 %
Total	2435	538	8011	1045	14836	9284	678	232	25960	11099	37059
	9.38 %	4.85%	30.86%	9.42%	57.15%	83.65%	2.61%	2.09%	70.05%	29.95%	100 %
		8.02%		24.44%		65.09%		2.46 %			

Table 5



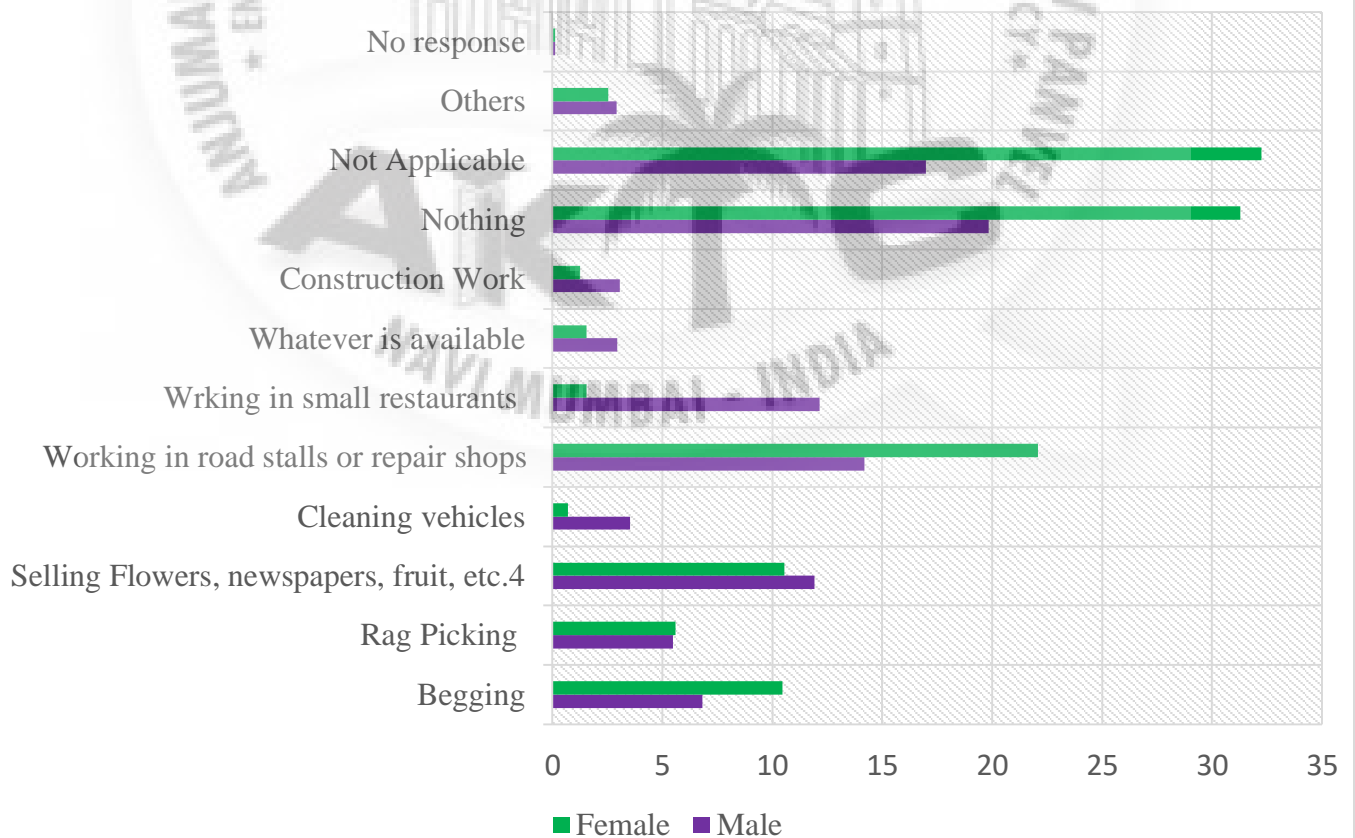
5. Occupational profile of the children

About 11.50 per cent of children were found to be selling flowers, newspapers, fruits and other items on the road; followed by 10.6% per cent working in roadside stalls and repair shops, 9.5% per cent working in eateries and 7.9 per cent who were found begging. About 5.5 per cent were into rag picking; 2.5 per cent into construction work and another 2.5 per cent did whatever work was available.

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%)

Table 6

Boys to Girls Ratio in Occupation



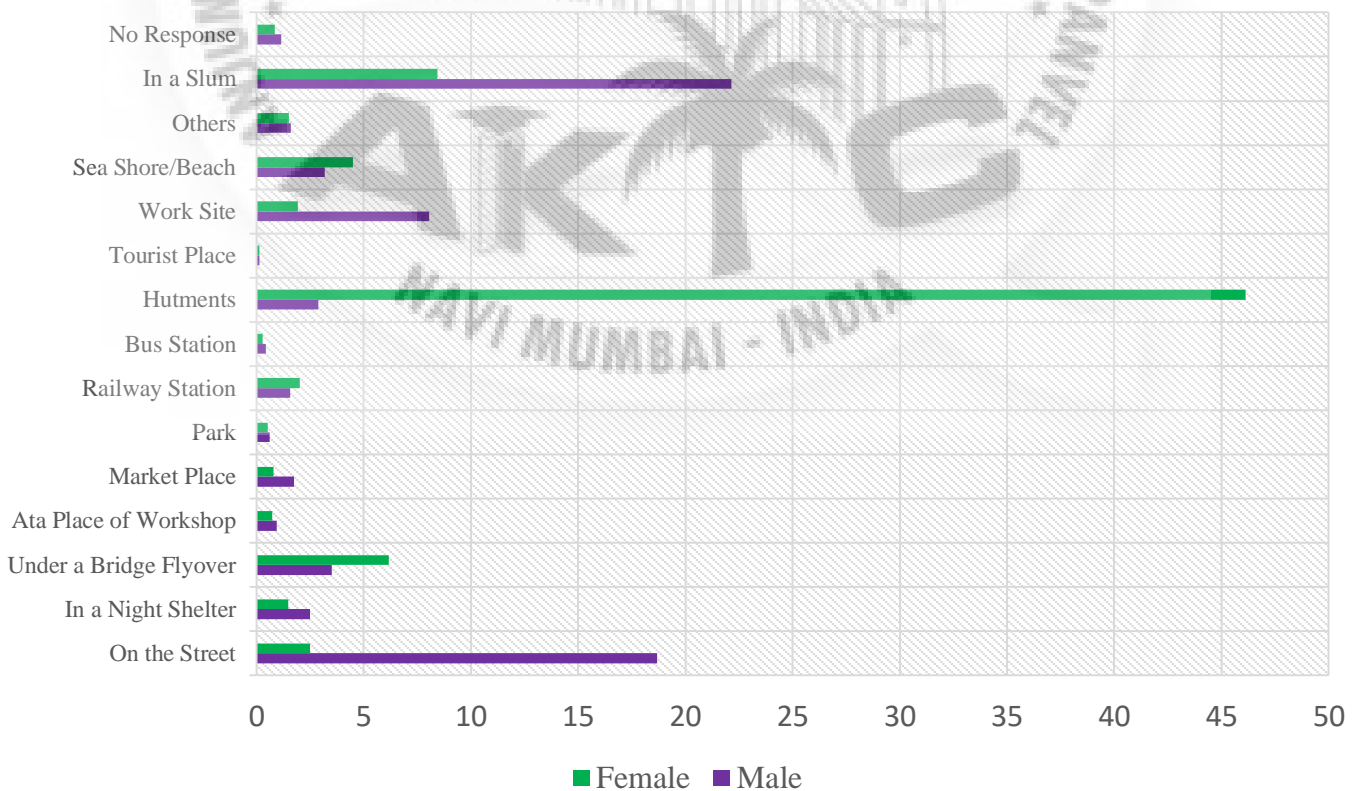
6. Place of stay

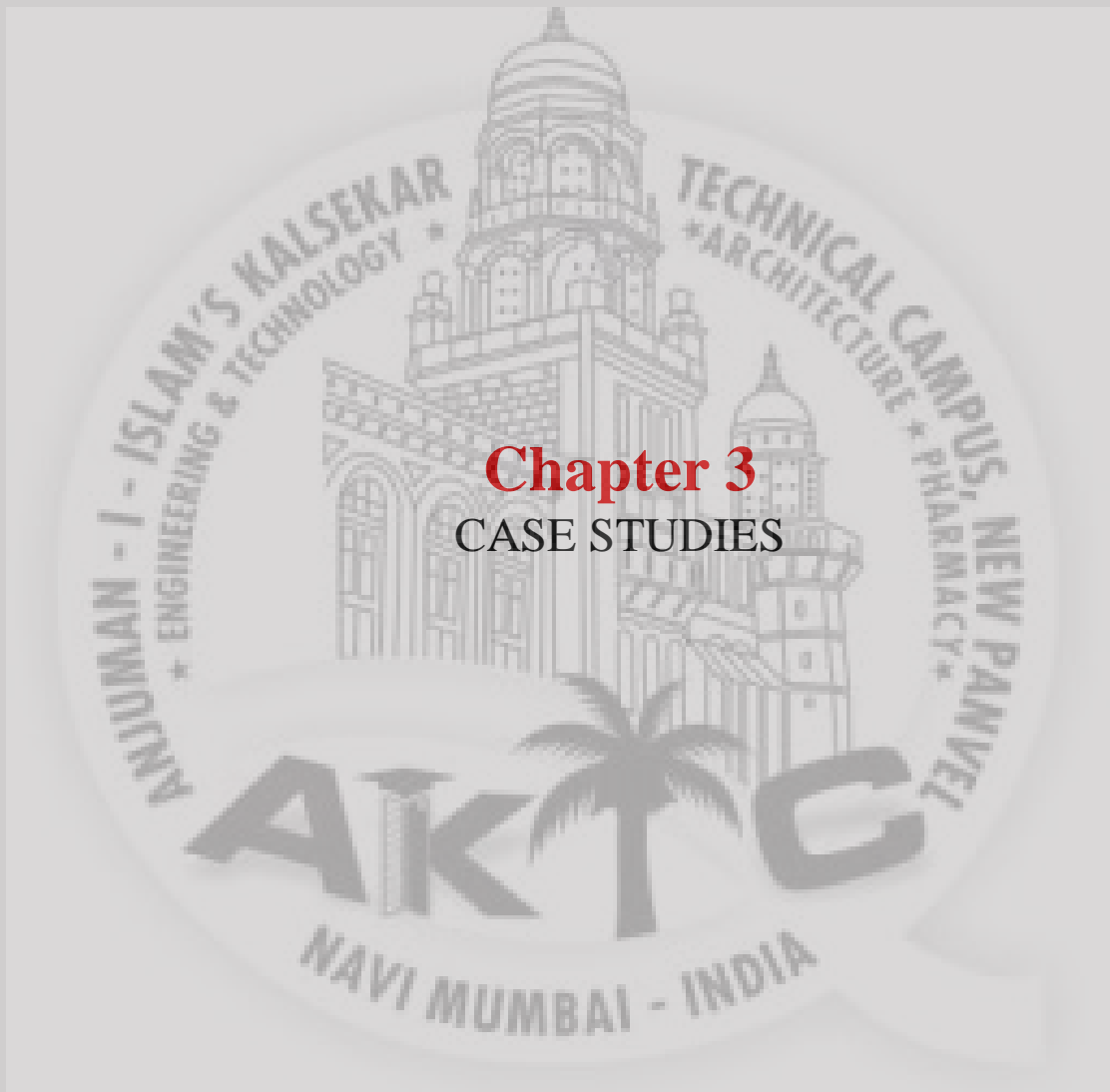
Almost 37 per cent of children lived in hutments, around 20 per cent of children lived on the streets and around 18 per cent of the children lived in the slums.

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

Table 7

Male to Female Ratio of Place of Stay





Chapter 3 CASE STUDIES



Fig. 16. (a)

The Orphan

Architect - Van Eyck

Location - Amsterdam

Function - Residence for the orphans
or from broken families

Capacity - 125 youths (1-24 year)
30 - 40 staff members

Function

It is a residence for the orphans, as its design achieved privacy and served the needs of children of each age of both gender. Also each form is connected to courtyards and corridors, having their own privacy.

Concept

Using the basic geometrical shapes that kids play with, and connecting them with each other.

Intent

The intent is about to built both a home and a city in the outskirts of Amsterdam. To design a modern building with a new urban vision.



circle



triangle



square







rectangle

Geometry

It's a very important issue for Amsterdam orphanage. As the building consists of several shapes that do range in scale and location. These space are useful as they come together to help and define spaces. Square shapes are like grid shape in the building which is enhanced by 90* angles of squares and rectangles. All shapes compliment each other and help forming each other and go with the concept of the structure.

Key map :

-  Circle
-  Rectangular
-  Square
-  2nd floor volume

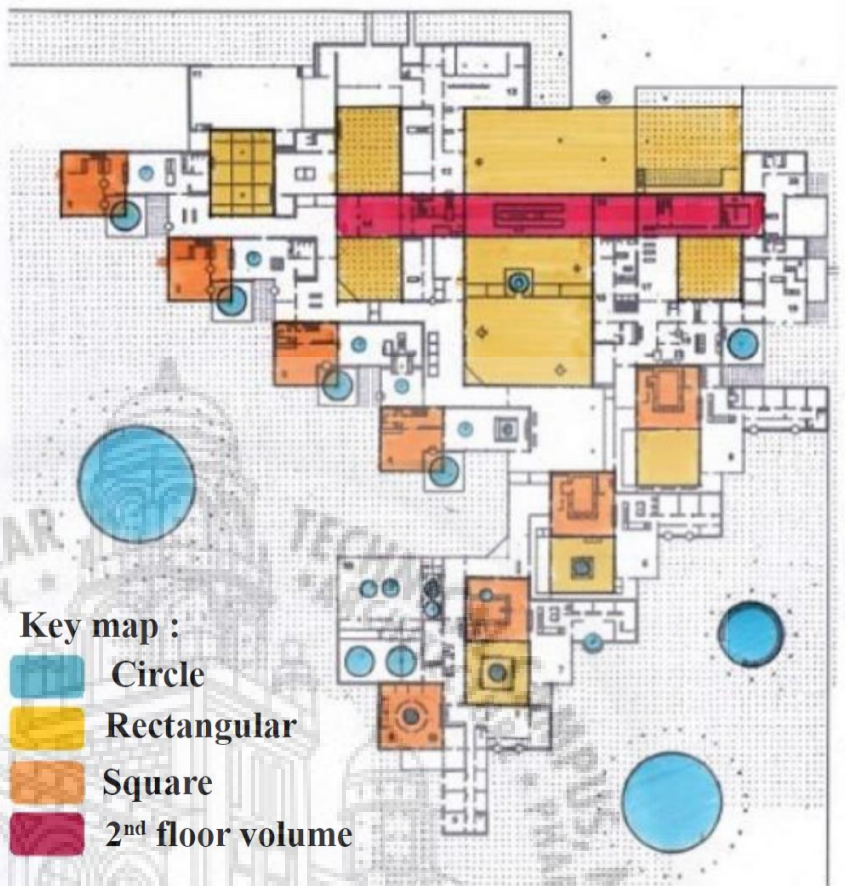


Fig. 16. (b)

Ground floor zoning

It's organized according to the people and orphans living there. The space is organized into living and playing spaces, that adjoins through circulation. Privacy and Flexibility are the two terms gained by this concept.

Key map :

-  KIDS SPACES
-  PUBLIC
-  COURTYARDS
-  PRIVATE SPACES

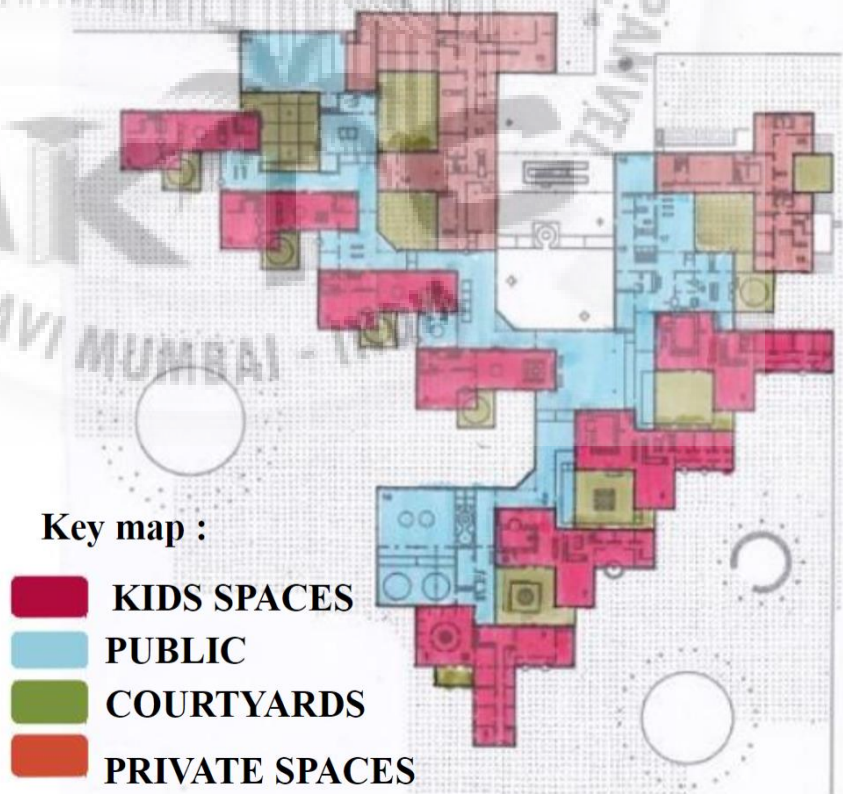


Fig. 16. (c)

KEY MAP:

- Administration
- COURTYARDS
- Theater & gym
- Library
- Shed
- Team leader residence
- Main kitchen
- Outdoor play area
- Festival hall
- Kids

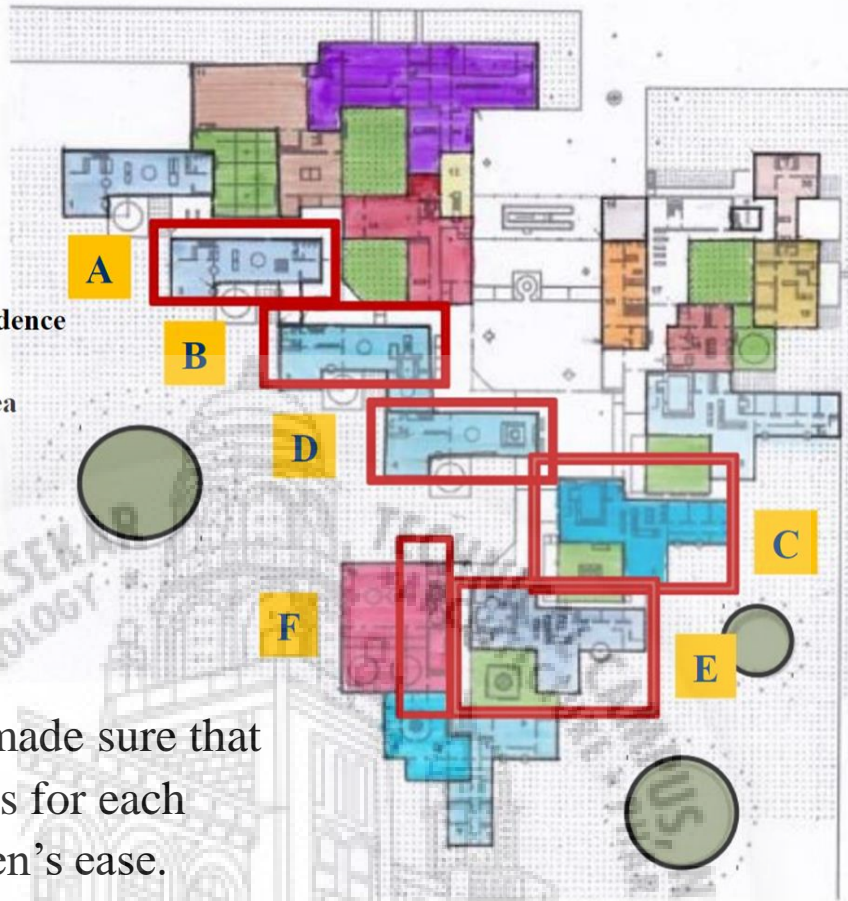
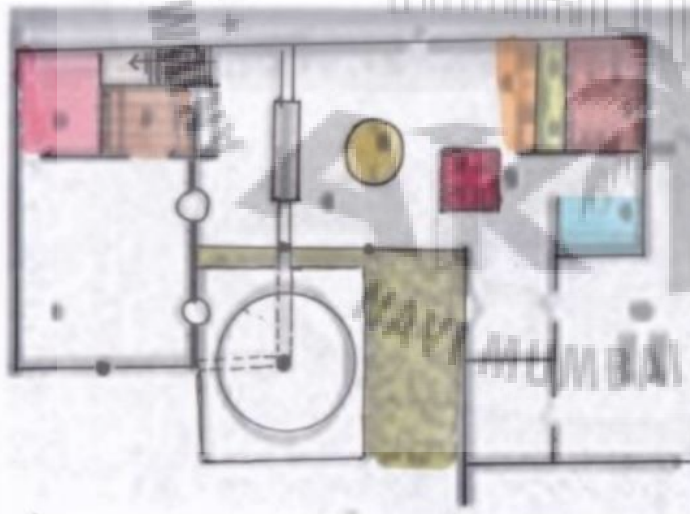


Fig. 16. (d)

The architect made sure that he makes zones for each group's children's ease.



R

Layout

Fig. 16. (e)



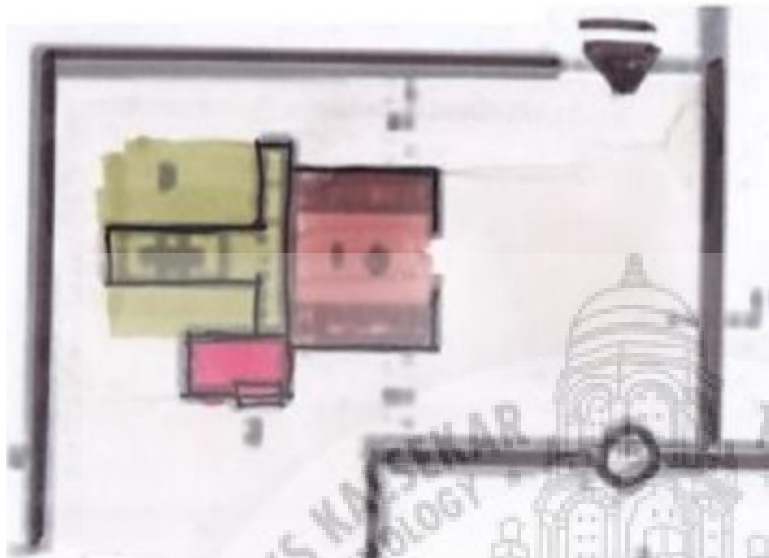
Fig. 16. (f)

Reading corner

KEY MAP:

- WARDROBE
- SHOWER
- KITCHEN
- CUPBOARD

- STUDY CORNER
- STEEL RING WITH LAMPS
- TOILET
- READING CORNER



KEY MAP:

- STUDYING AREA
- PLAY ROOM
- SEATING

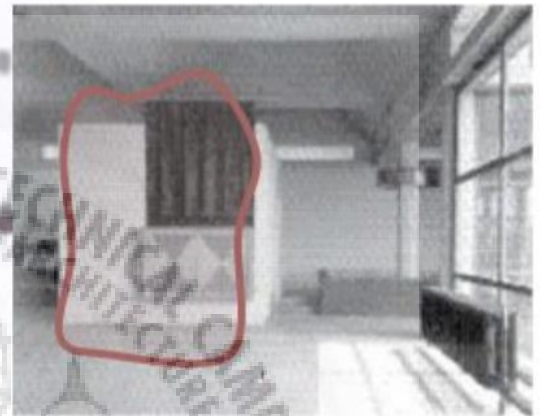
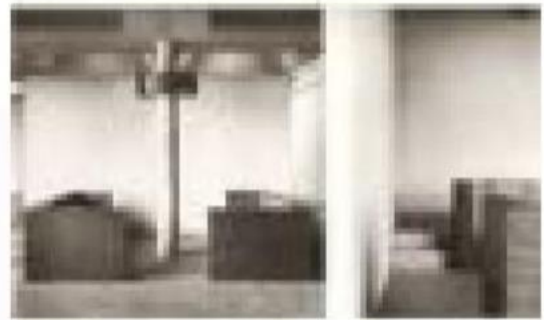


Fig. 16. (g)

KEY MAP:

- WC & SHOWERS
- CLOAK ROOM
- CUPBOARD
- KITCHEN
- SMALL BRICK ROOM
- STUDY CORNER
- SEATING
- COVERED PLAY AREA
- SANDPIT WITH HOLLOW FOR RAIN WATER
- SLEEPING ROOMS

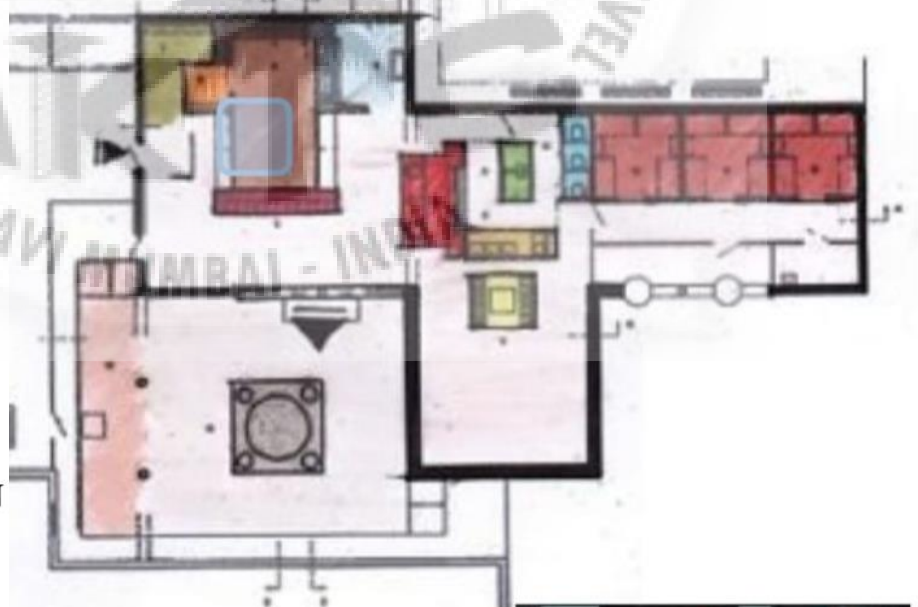


Fig. 16. (h)

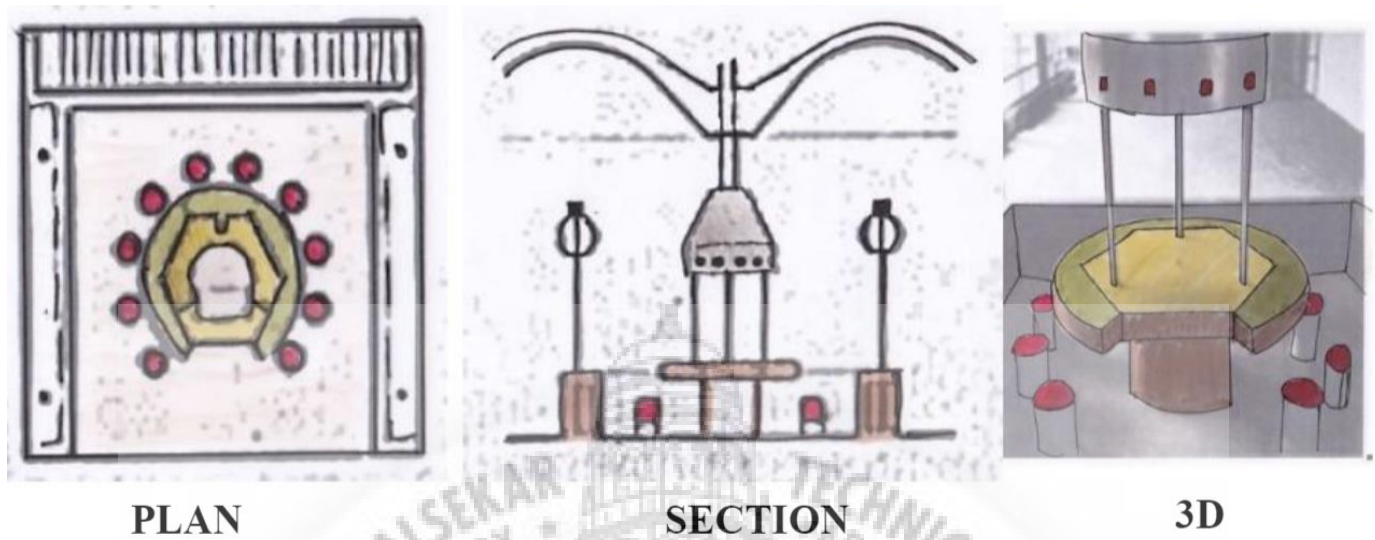


Fig. 16. (i)

The sketches shows seating area in girls room, its convenience for them, using appropriate colors, furniture scales.

The orphanage was built to give kids a place to live and grow up. so the architect made a built in space that kids can play in. Different play areas were designed depending on age and also common area with no user age thought. The festival hall is wide open for all. Making transitions between outdoor and indoor which allows for hours of free play.

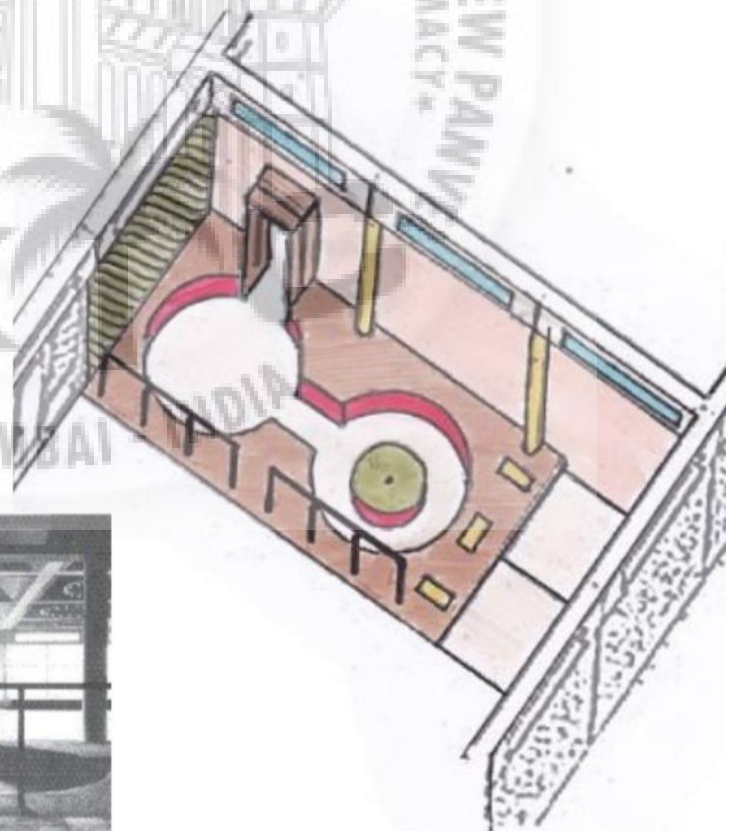


Fig. 16. (k)

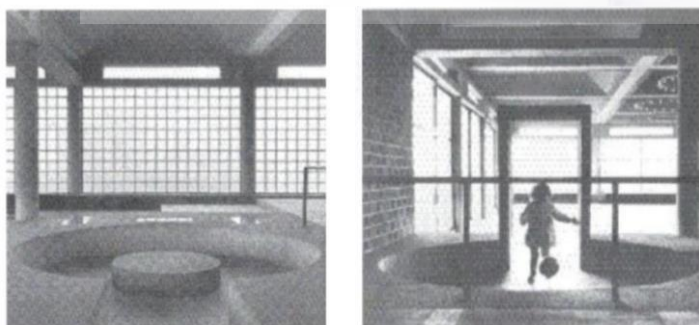


Fig. 16. (j)

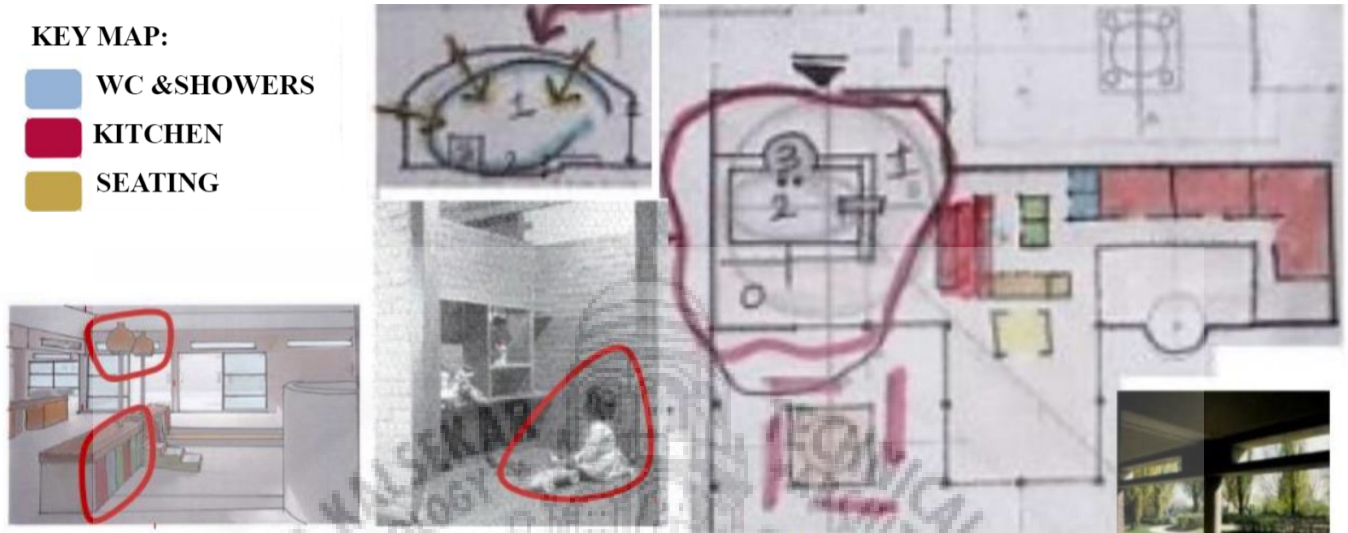
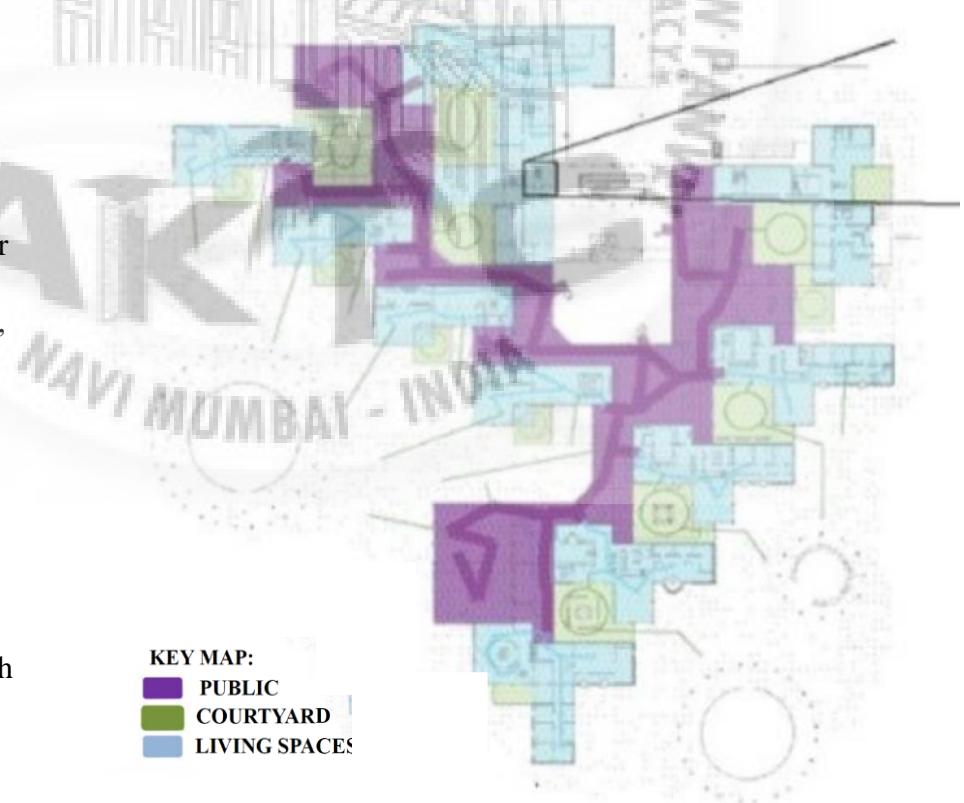


Fig. 16. (l)

Circulation

Transition here between different spaces is articulated, through defining views or moments which allows for people to view the destination ahead of them, also the place where they came from, but at the same time no particular space was special. Circulation & Interaction is achieved here between different age groups in inviting kids to mix and enjoy the company of each other.



KEY MAP:
 PUBLIC
 COURTYARD
 LIVING SPACES

Fig. 16. (m)



Fig. 17 (a)

Children Museum

Architect - Feris & Feris Architect

Location - Amman, Jordan

Function - Teaching children

Project(A) - BUA - 7348 sq.m
 Site (A) - 20000 sq.m

Concept

The idea developed from “kids toy box”, where primary colored blocks are addition to abundance of platonic masses and shapes that attract the child’s attention to explore, imagine and learn through the act of playing.

This is summed up by old Chinese proverb :

I Hear And I Forget, I See And I Remember, I Do And I Understand

Circulation

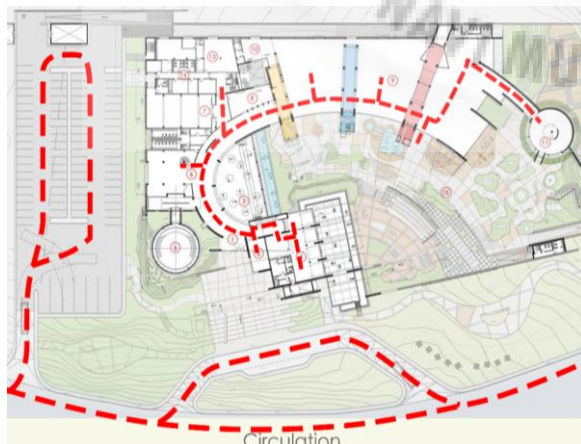


Fig. 17 (b)

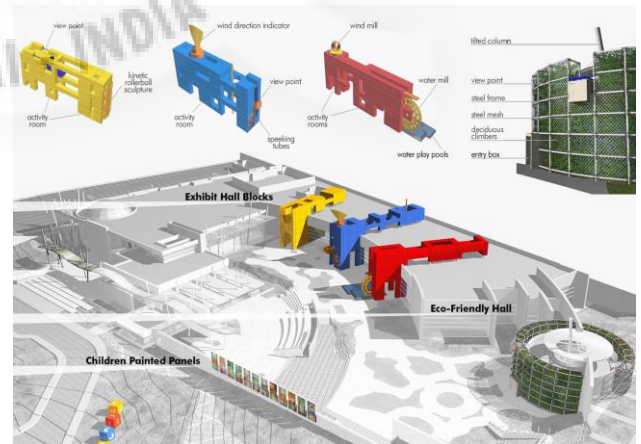


Fig. 17 (c)

Planning

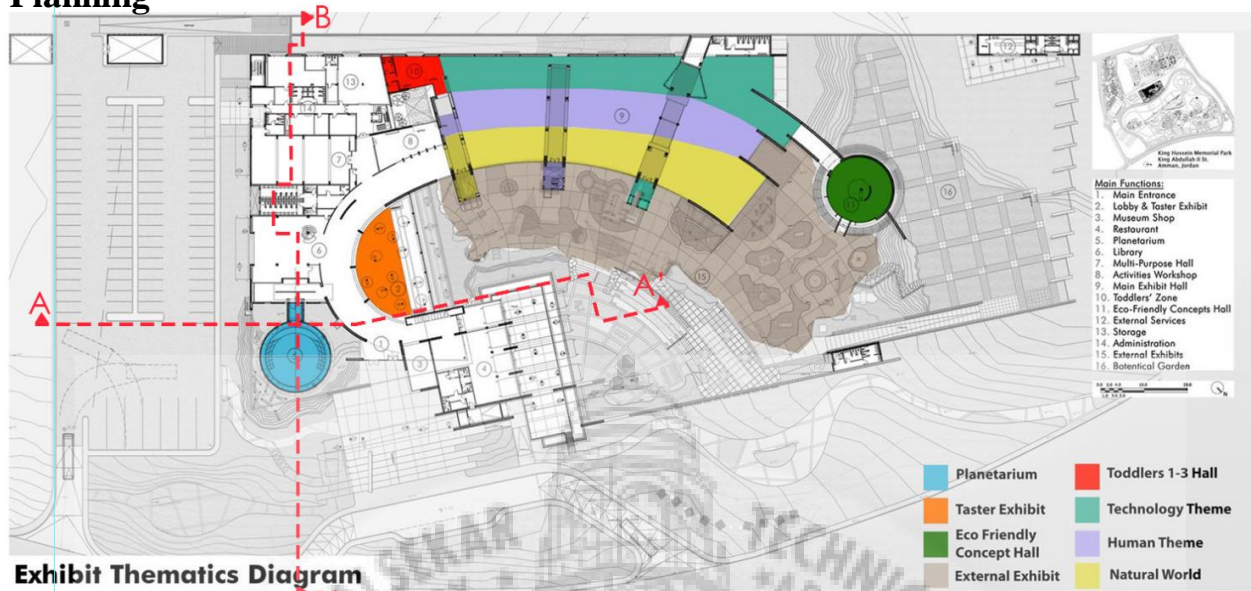


Fig. 17 (d)

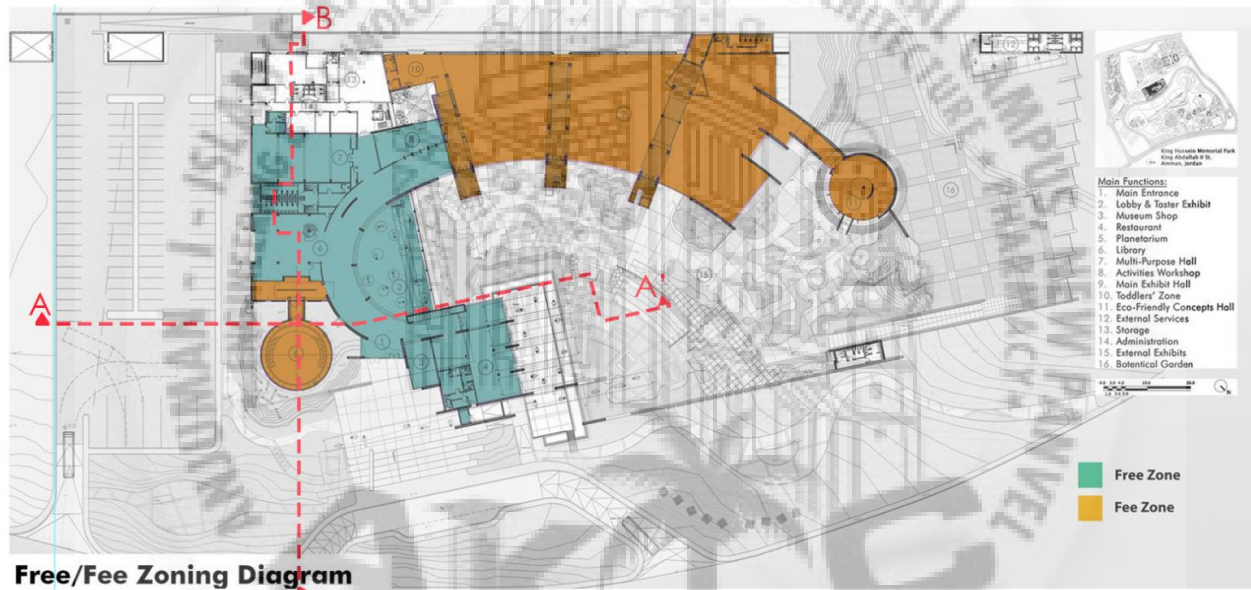


Fig. 17 (e)

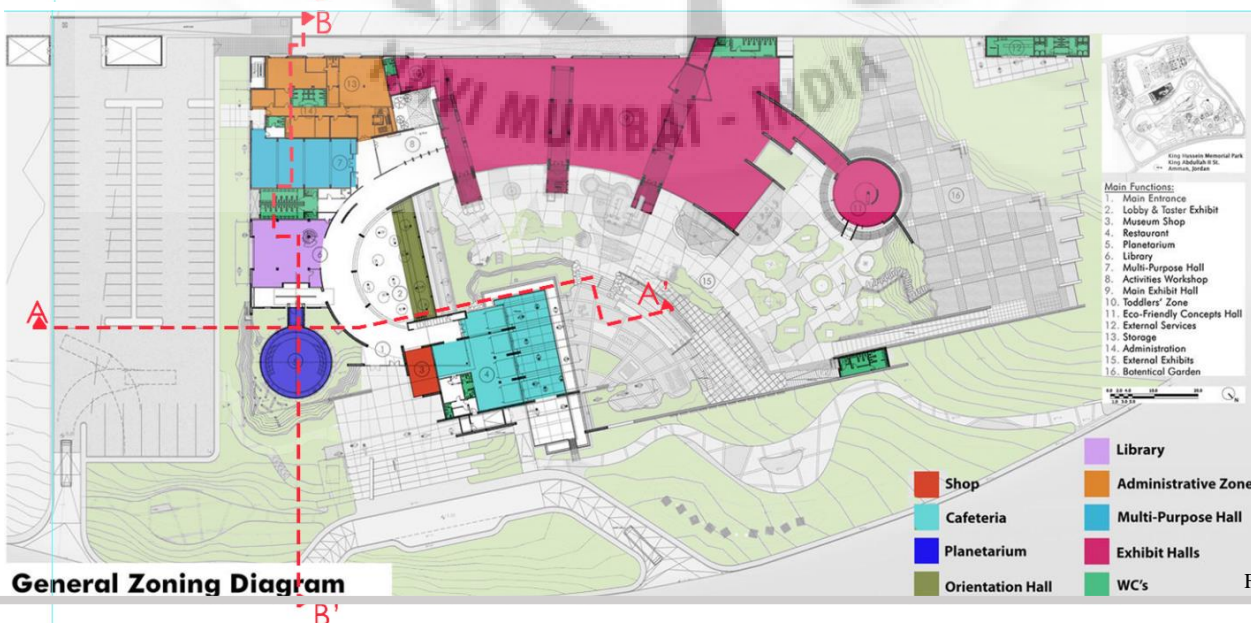


Fig. 17 (f)



Fig. 17 (g)

Exterior Analysis

Challenge in this project was to translate the conceptual idea into architectural terms, through building an interactive learning medium for kids as the building itself becomes an exhibit. Colorful elements were integrated within the building forming its key features :

>The nine color cubes at the entrance with Arabic letters spelling out of the word “Children’s Museum”

>Supporting the different themes of the exhibit halls, through assigning each theme a color_

- Yellow for human kind
- Blue for technology
- Red for Natural World

>Transforming the building into an exhibit by becoming exhibits themselves_

- The water mill
- Water-play pools
- The speaking tubes tower, pyramids



Fig. 17 (h)



Fig. 17 (i)



Fig. 17 (j)



Fig. 17 (k)



Fig. 17 (l)

Energy Efficiency

Use of insulating materials in the walls and roof led them achieve efficient energy.

Natural ventilation is provided by openings in the colored exhibit halls. Most of the elevation of the hall made use of glass to provide natural light. One of the places that energy efficiency is done clearly and in a creative way is the Eco Friendly Concepts Hall which is rapped with a structure of metal scaffolding and wire mesh, which deciduous climbers will grow on.

Using of deciduous plants leads to addition of educational & dynamic look to building which changes in different seasons. And also prevents the direct sunlight through the curtain walls behind.

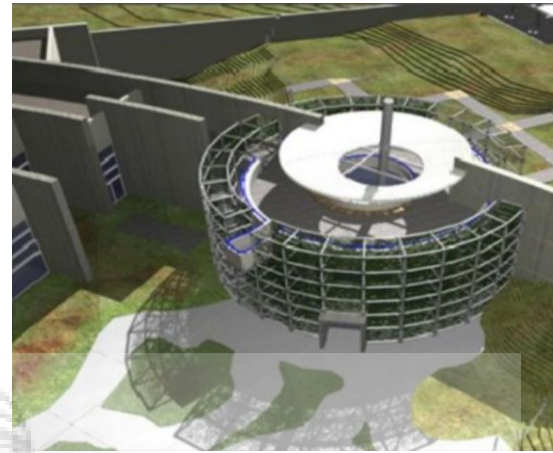


Fig. 17 (m)



Fig. 17 (n)

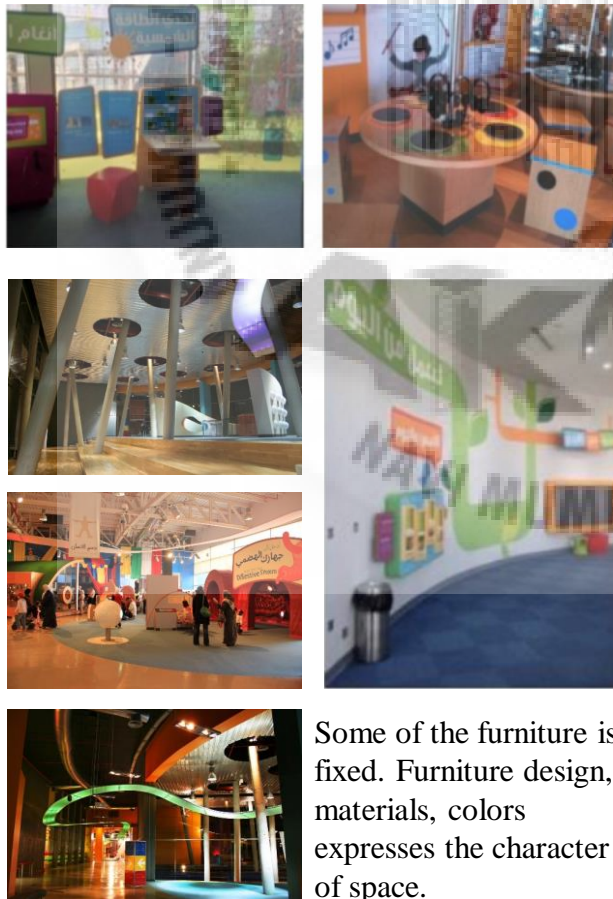


Fig. 17 (o)

Some of the furniture is fixed. Furniture design, materials, colors expresses the character of space.

Interior Analysis

The playful exterior design with; shapes, angles materials is seamless comparing it with the museum's interior. Floor, ceiling, walls, furnishings everything used inside in order to disperse young visitor's hesitation about learning and discovery.

Materials

Concrete, gypsum boards, aluminum sheets, linear dividers are used for walls. PVC sheets for flooring.

Furniture

It is integrated with the structure design, characterized to be safe, durable, light, related to science, comfortable.



Fig. 18 (a)

Habitat For Orphans

Architect - ZAV Architects

Location - Iran

Function - Social Housing

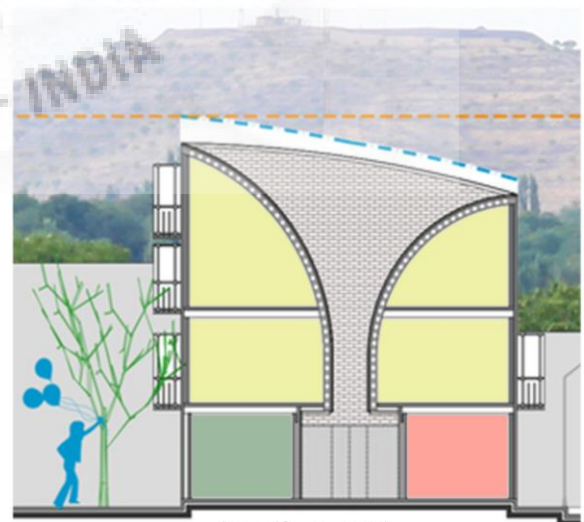
Site (A) - 800 sq.m

Year - 2014

The intent is to provide residence to the orphans but to change the point of view over orphan girls, to inclusion into inseparable and normal part of society. They built a modest and monumental dormitory which includes public and private spaces but also some special balconies that act as a stage to express, celebrate according to the changing seasons and occasions.



Fig. 18 (b)



Section AA'

Fig. 18 (c)



Fig. 18 (d)

- Residential rooms
- Rest Rooms
- Kitchen
- Private Space
- Learning Space
- Mechanical Room
- Interaction Space

An honest building technology was decided for this charity project with a site area of 354sqm and a built area of 800sqm in four levels. Construction cost –with local workmanship- ended up with less than half compared to the common and future preservation costs enhanced to the minimum.



Fig. 18 (e)

Circulation & Overview

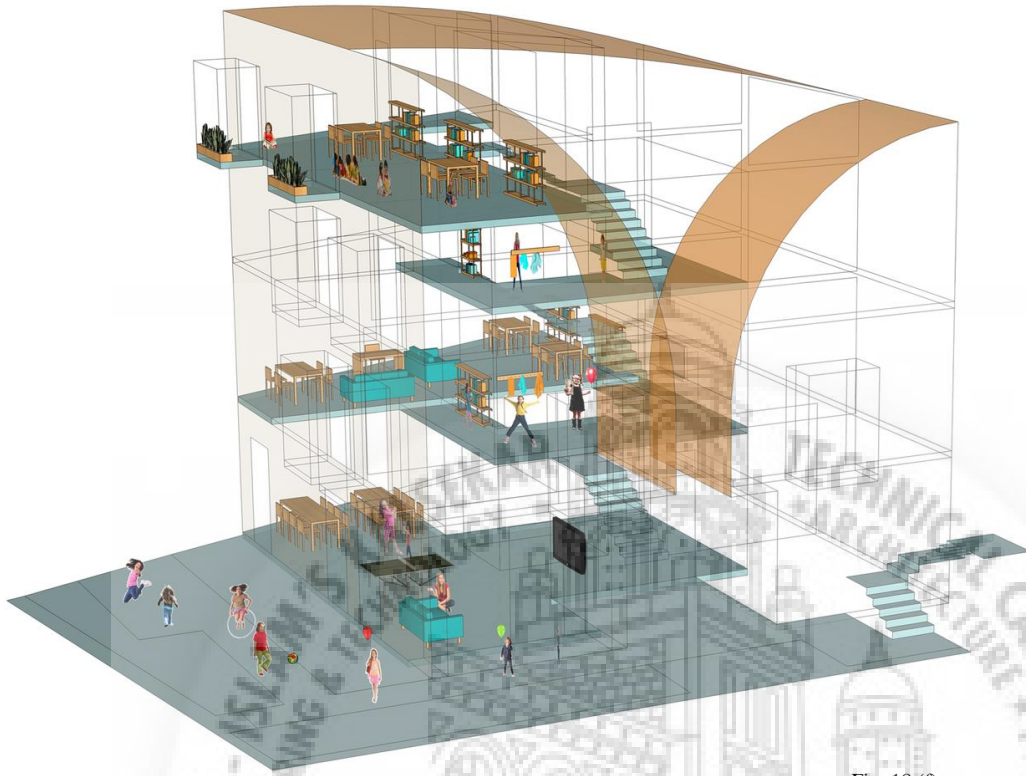


Fig. 18 (f)

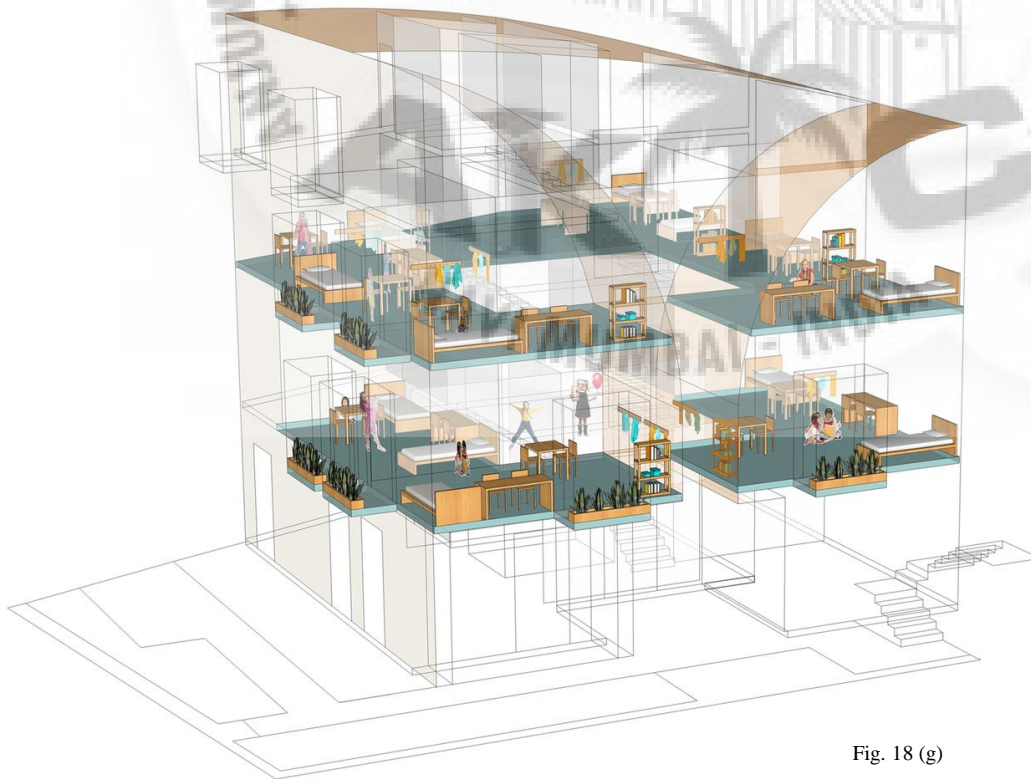


Fig. 18 (g)



Nowrouz



Religious Holidays



School Season



Moharam – Safar Religious Ceremony



Sepas Charity



Yalda Night



Nowrouz Cleaning



Fig. 19 (a)

Greenville arts expression program center for the homeless

Location -London, England

Project(A)-Site(A)-7576sq.m
BUA-5857sq.m

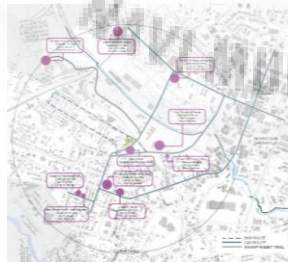


Fig. 19 (b)

Function

A place that treats homeless as artists. The center acts as a bridge to prepare them to enter the community.

Homeless people can express themselves and their thoughts through art & music. The art produced is sold to provide for their living expenses sustainability.



Concept

GAEP is a program where art embraces the homeless families staying in center. music, painting, dancing, sculpting studios that enhances and helps exploring. Community to homeless interaction occurs through exhibition space and auditoriums. The homeless will find themselves identified as artist and will learn to free themselves from hunger that exists in every soul whether young or old.

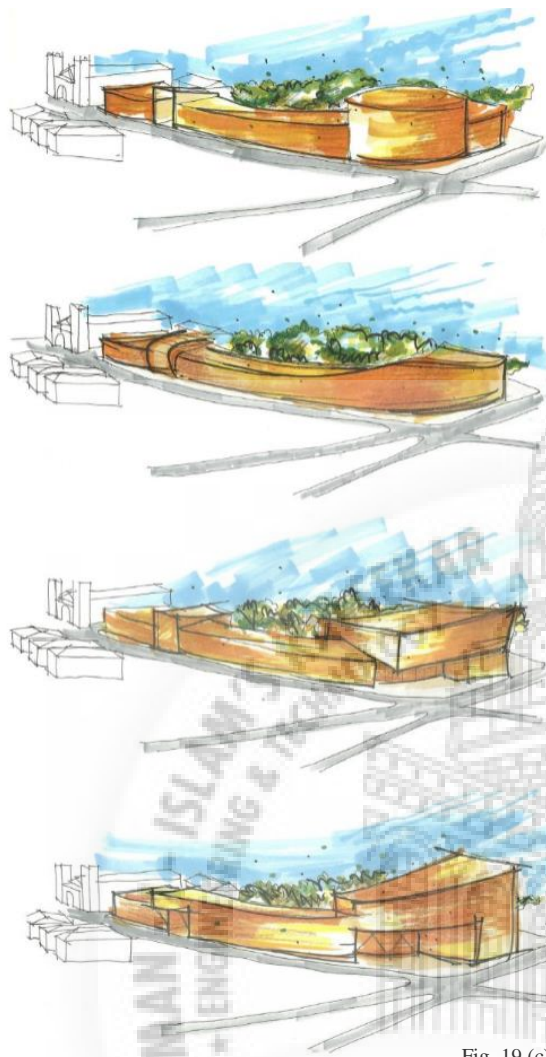


Fig. 19 (c)

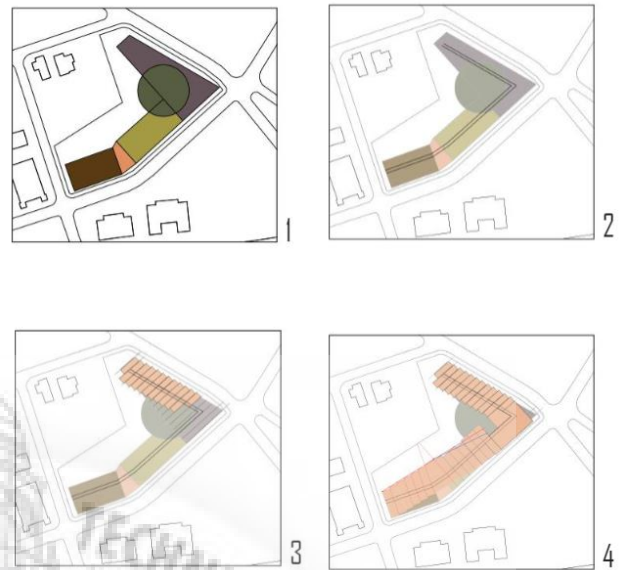
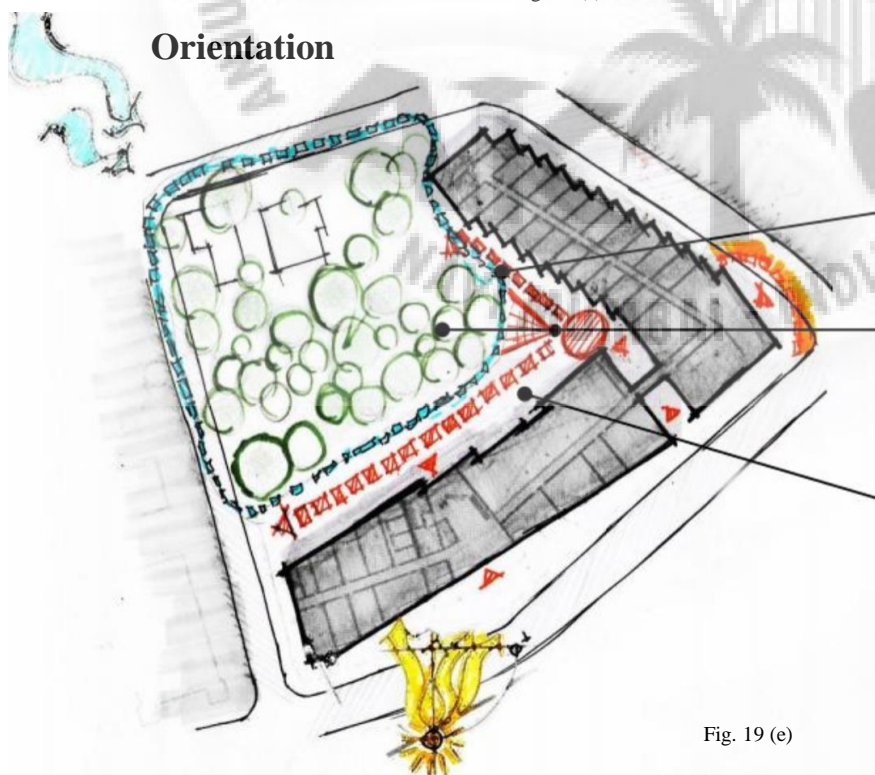


Fig. 19 (d)

Schematic Design

Initial massing studies were done in site. The consideration of the surrounding architecture was crucial in the form of the homeless center. The form of the auditorium will be most crucial in overall design as it will be an interacting space with the community. The grid for adjacent program was found by connecting dots of housing units to create the final form

Orientation



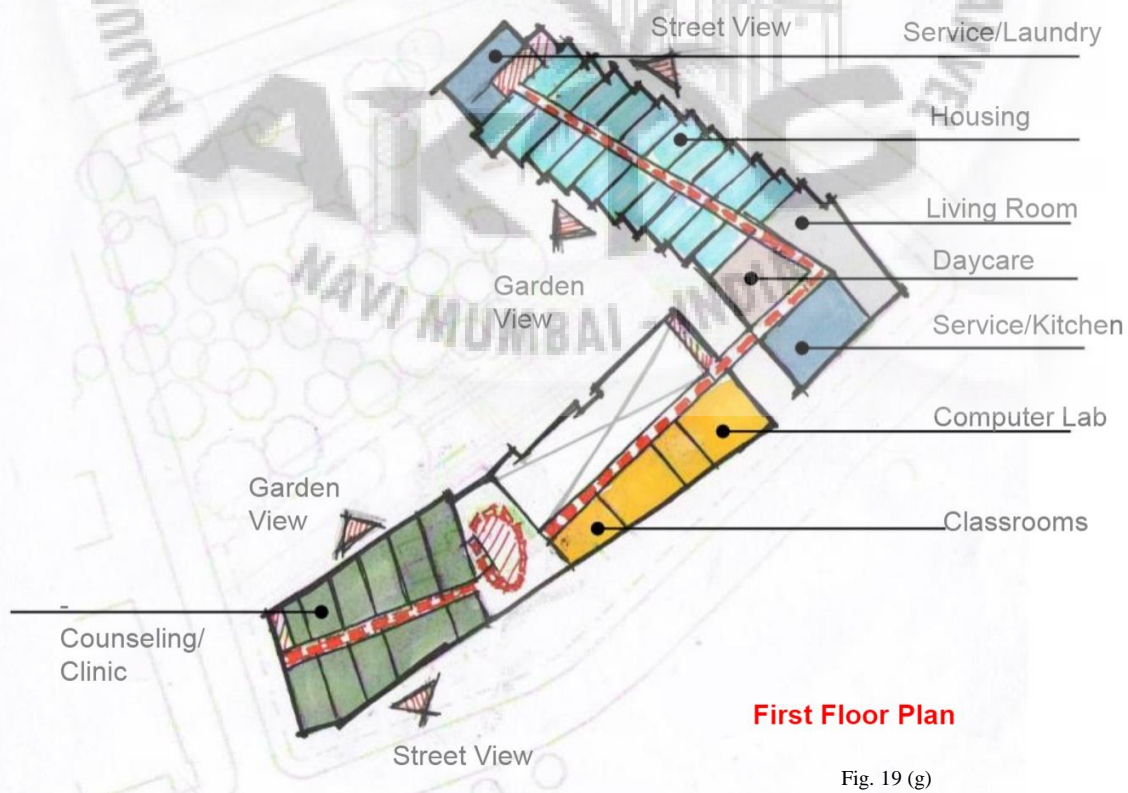
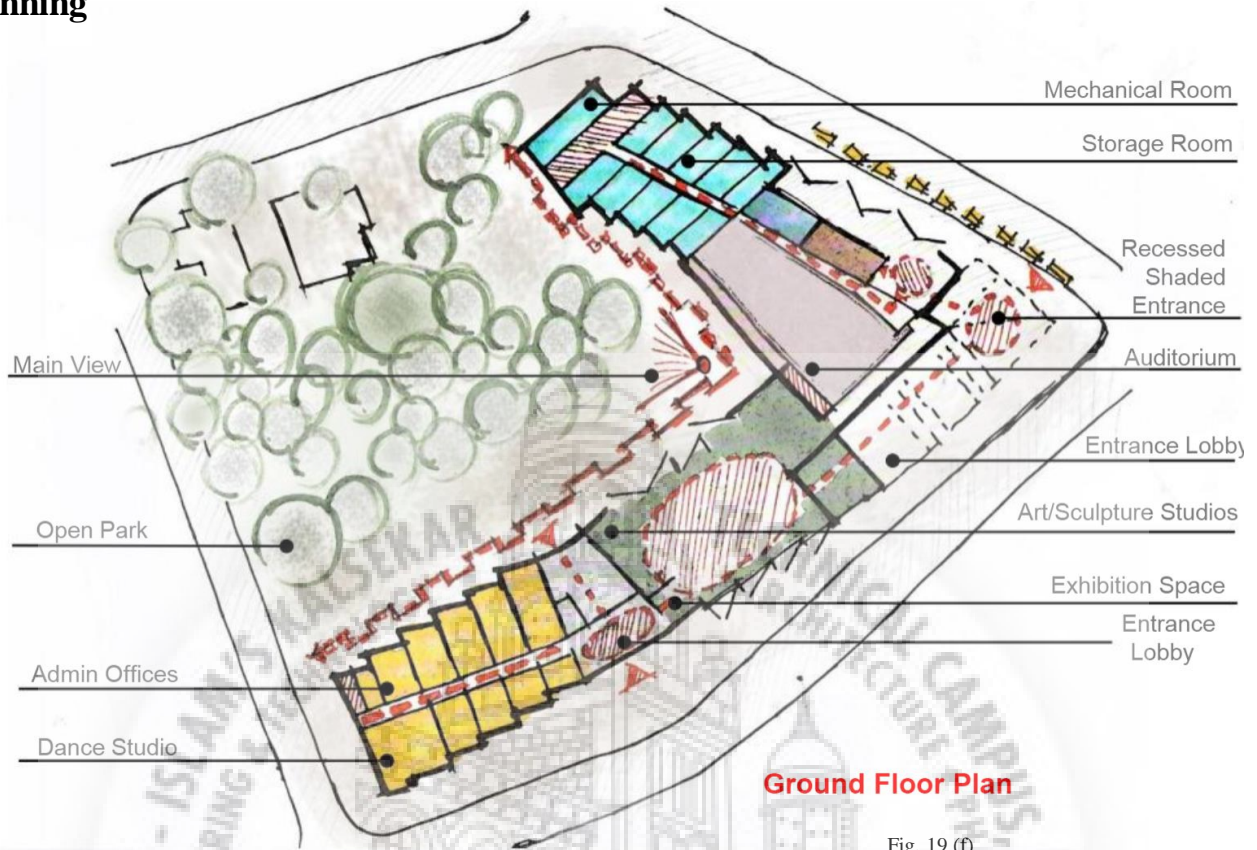
The shaded areas are properly oriented

The front garden blocks the prevailing wind. Meanwhile the building is oriented towards the Khamaseen wind

The orientation of the building throws shade on the garden and direct sunlight is directed on the playground leaving it unshaded, specially in the middle of the day.

Fig. 19 (e)

Planning



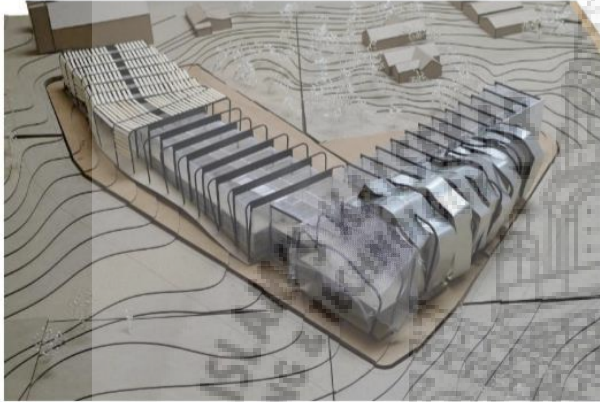


Fig. 19 (h)

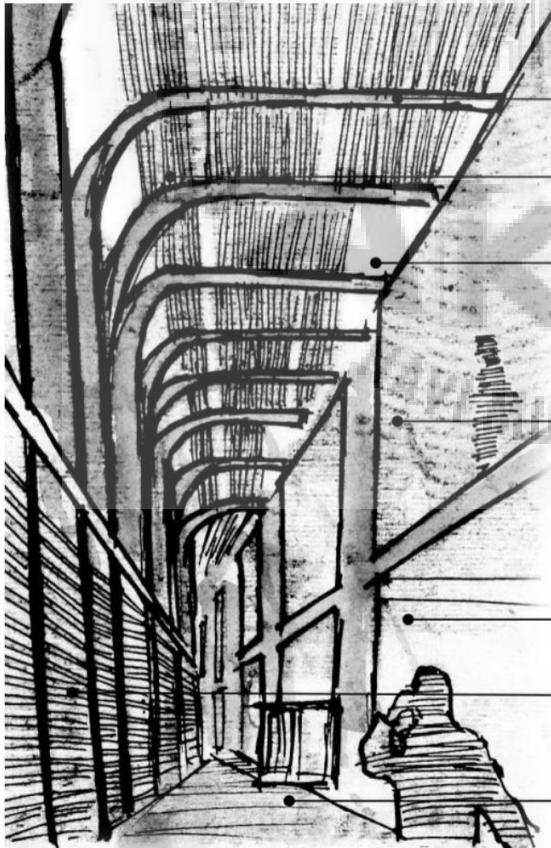


Fig. 19 (i)

Structure

Main structure covered by curved steel girder. Acts as silhouette or shelter. Free open space for interaction. Natural ventilation and movable facade & optimize less energy.

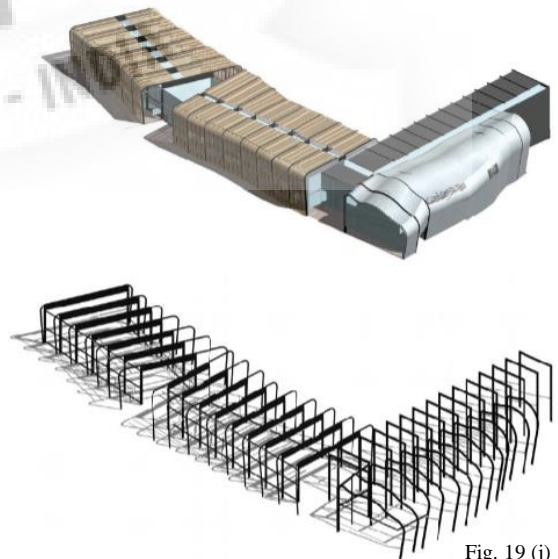


Fig. 19 (j)



Fig. 20 (a)

Children's Village

Architect - Alf Zero, Rosenbaum

Location - Brazil

Function - Residential Architecture,
Social Housing, Schools

Site (A) - 23344 sq.m

Year - 2017

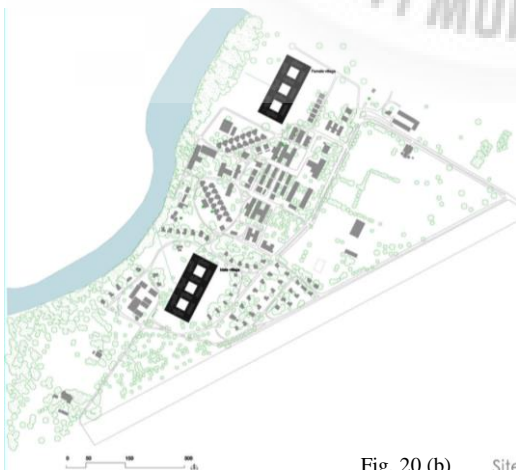


Fig. 20 (b) Site

Concept/Program

Children village, work of the Brazilian architects consists in a new school complex on the edge of the rainforest in northern Brazil. The project provides boarding accommodation for 540 children aged 13 to 18 attending the Canuanã School. Pupils come from remote areas of the country, some travelling many hours by boat. In the Children Village the idea to central to their vision for the project was the idea of architecture as a tool for social transformation where the architects worked closely with the children to identify their needs and desires for their school.

Planning

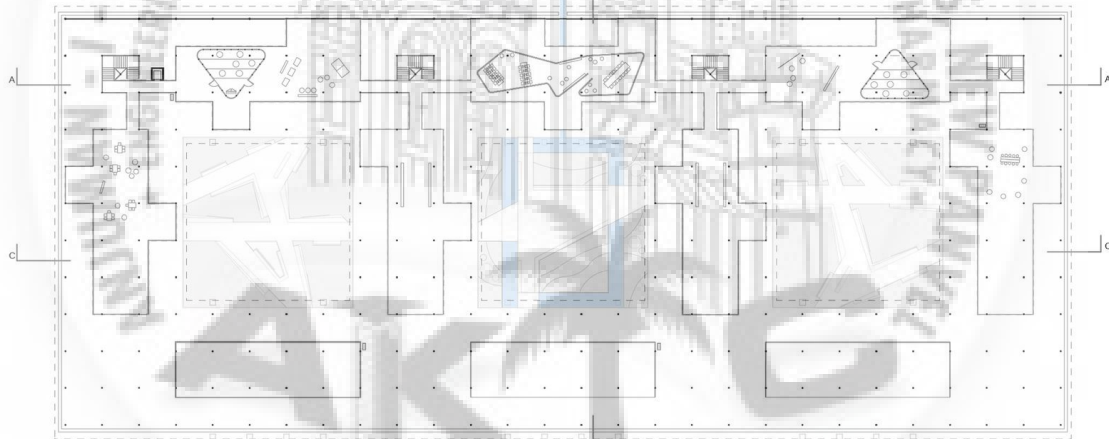
They wanted to create an environment that could be a home away from home, where children could develop a strong sense of both individuality and belonging. The overhanging canopy design has created an intermediary space, between inside and out, giving the effect of a large veranda overlooking the surrounding landscape and creating a comfortable environment with no need for air conditioning. The large canopy roof, the structure of which is made up of cross-laminated timber supports, provides shading.



Fig. 20 (c)

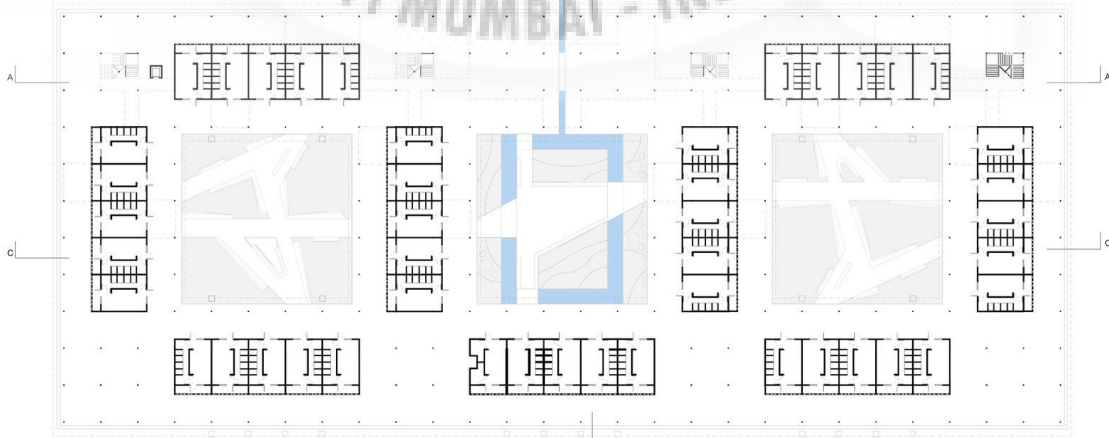


Fig. 20 (d)



First Floor

Fig. 20 (e)



Ground Floor

Fig. 20 (f)

Dormitories

Replacing dormitories for 40 students, the new design provides rooms for six children in a more friendly atmosphere. As well as private spaces, public spaces were intended to give sufficient space for pupils to study, play and relax.

Residences are arranged around three large, open and well-shaded courtyards at ground level, where the dormitory accommodation is located. Casing an area of almost 25,000 m², Children Village is planned into two identical complexes: one for girls and one for boys.



Fig. 20 (g)

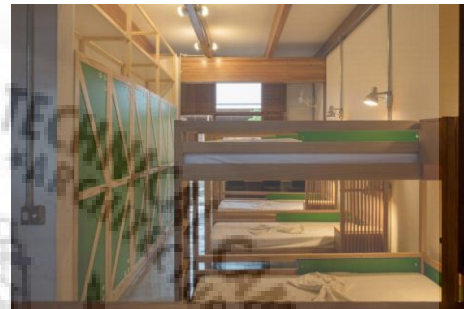


Fig. 20 (h)

Architectural Spaces

On the first floor, there are a number of flexible common spaces, ranging from reading spaces and television rooms, to galleries and mounds, where the children can relax and play

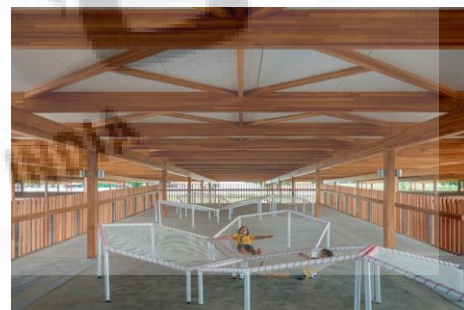
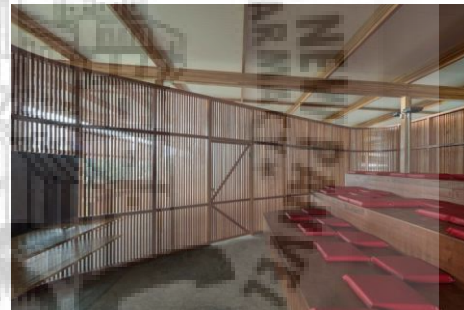


Fig. 20 (i)





Fig. 21 (a)

Maya Somaiya Library

Architect - Sameep Padora & Architects

Location - Kopergaon, India

Function - Library, Schools

Site (A) - 5750 sq.m

Site (A) - 2018

Concept

A place inside for study and a place above for play. The impetus that children have towards landscape over a building was imagined to a library building to be a formal extension of the ground plane. Inspiring spatial experience to be a magnet to attract students and other residents from the nearby settlements after school hours.

Maya Somaiya Library holds the potential to inspire both young students and the local community to interact with their environment. Designing and constructing a space to inspire young people to share and cultivate knowledge.

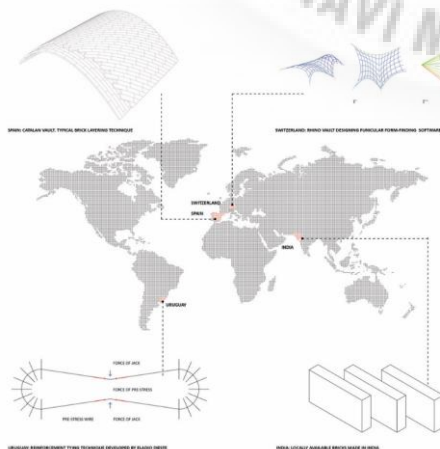


Fig. 21 (b)

Elevation



Fig. 21 (b)

Section

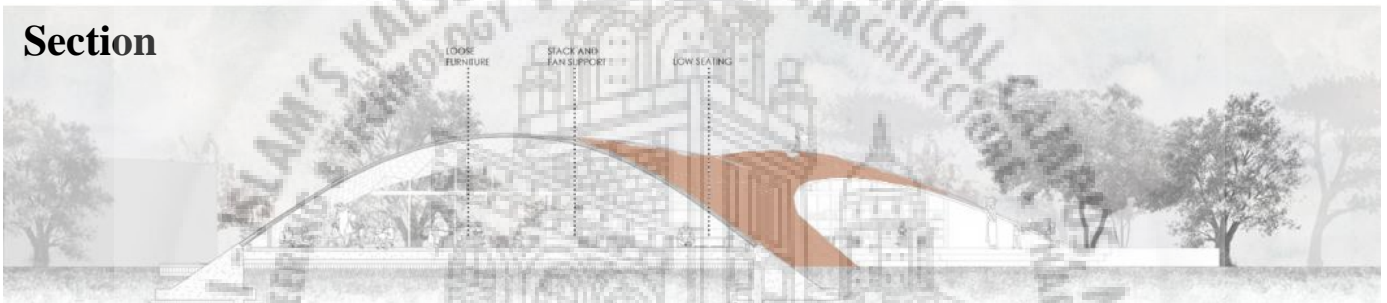


Fig. 21 (c)

Plan

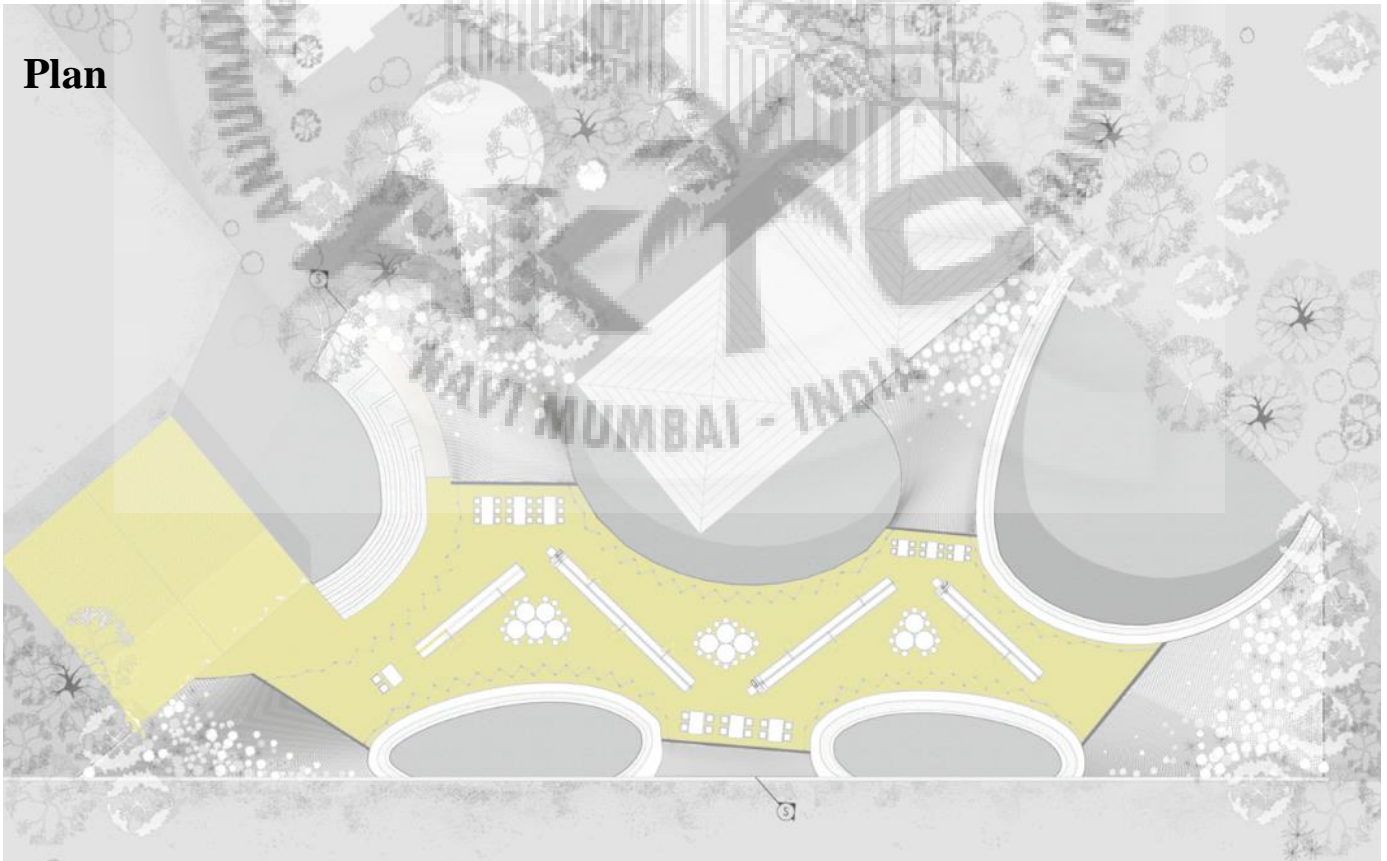


Fig. 21 (d)



Fig. 21 (e)



Fig. 21 (f)

The Library

The library lies at the intersection of a student's daily routine it became a pavilion accessed from multiple sides with students potentially engaging with books while traversing through the library or over it. Library is able to carry its own load, as well as the 'live load' of anyone wandering over the architectural landscape, while supporting a sheltering capacity of twenty-two thousand books.

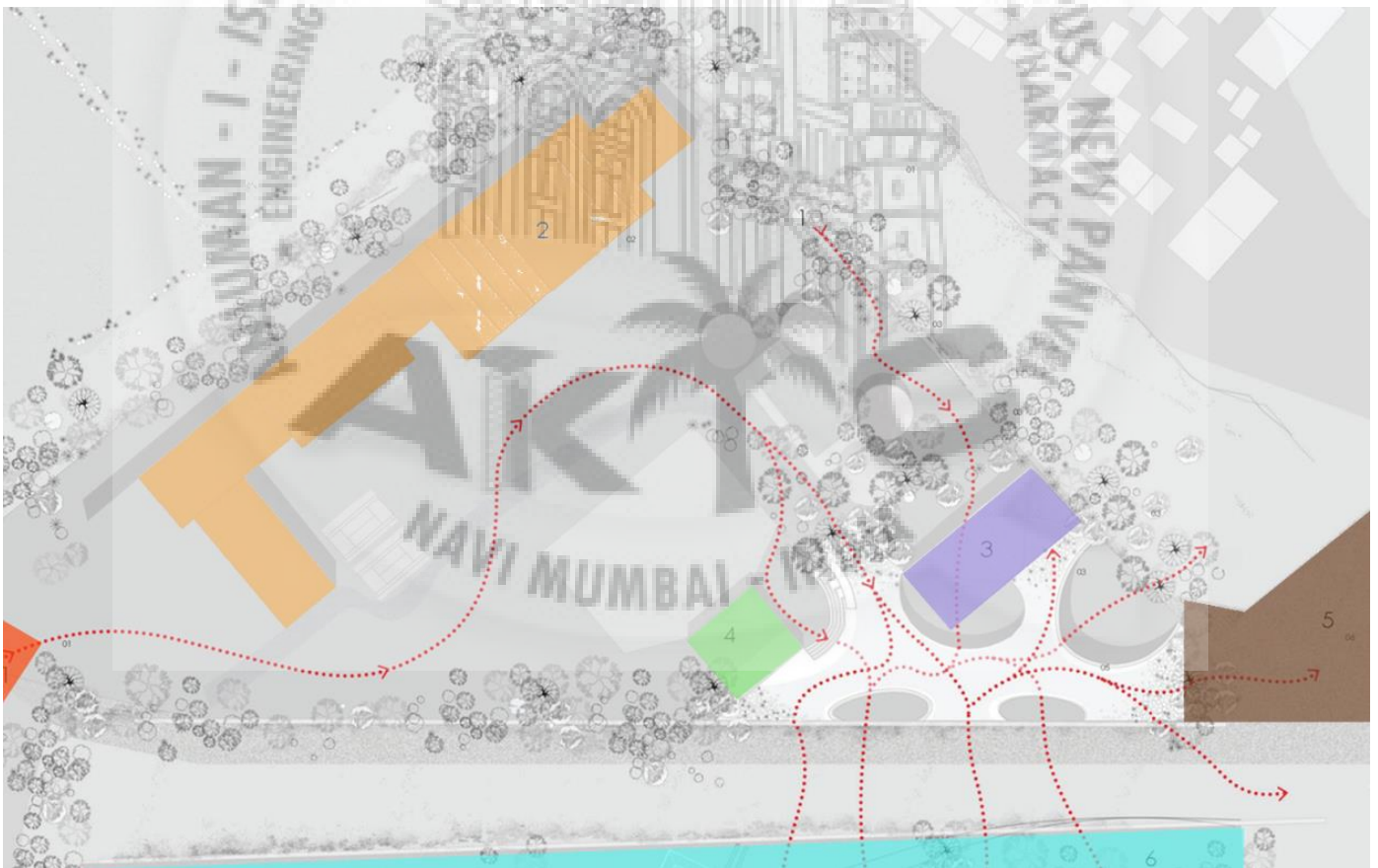


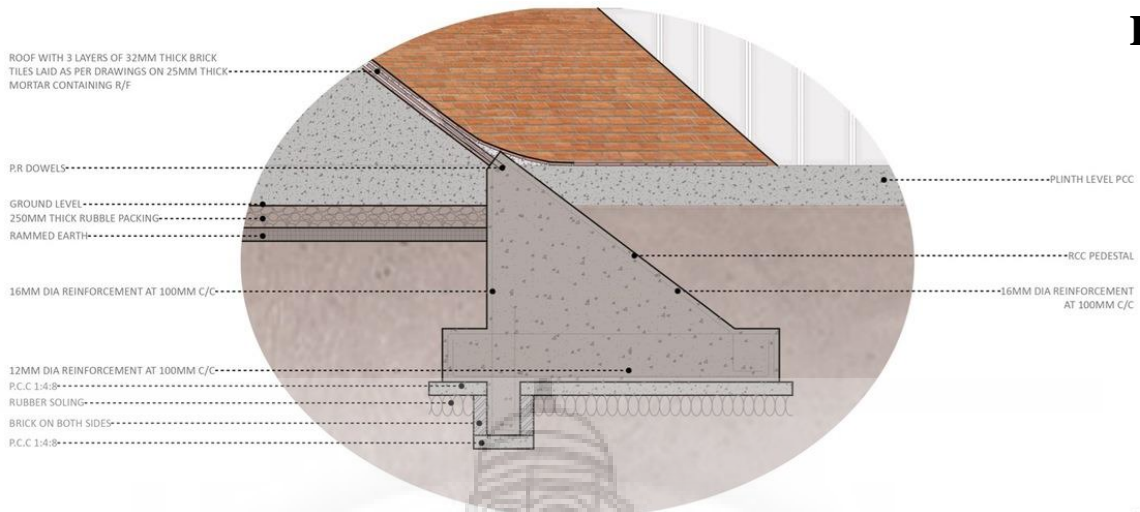
Fig. 21 (g)

Circulation

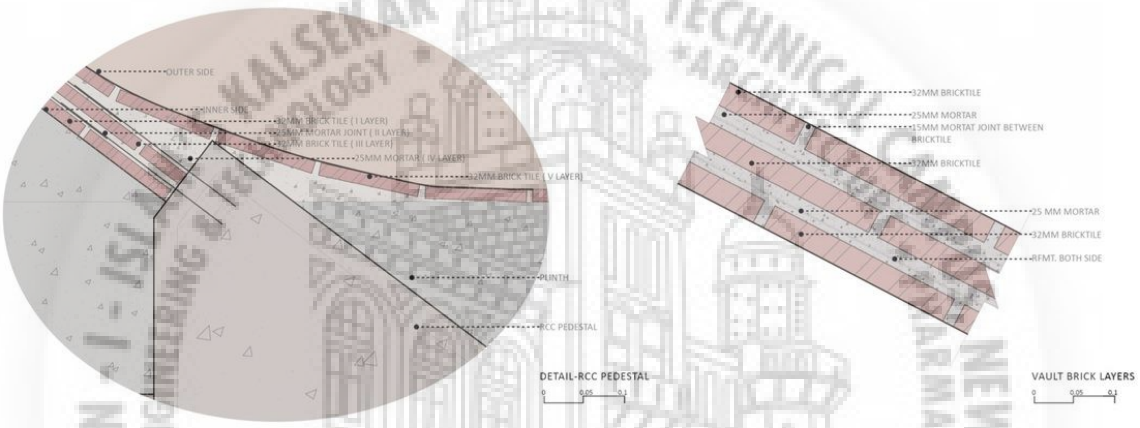
The site needs small addition of a children's library within a school in rural Maharashtra. Library as an interaction of pathway.

- Entrance
- Main School Block
- Stage/Performance Area
- Kindergarten Classroom
- Playground
- Proposed Sports Complex

Detail

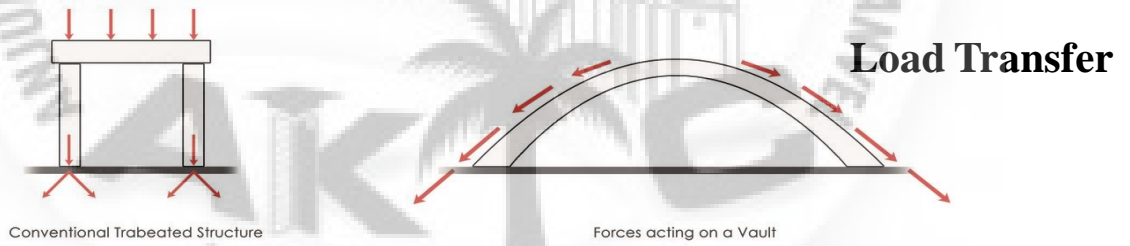


DETAIL-RCC PEDESTAL

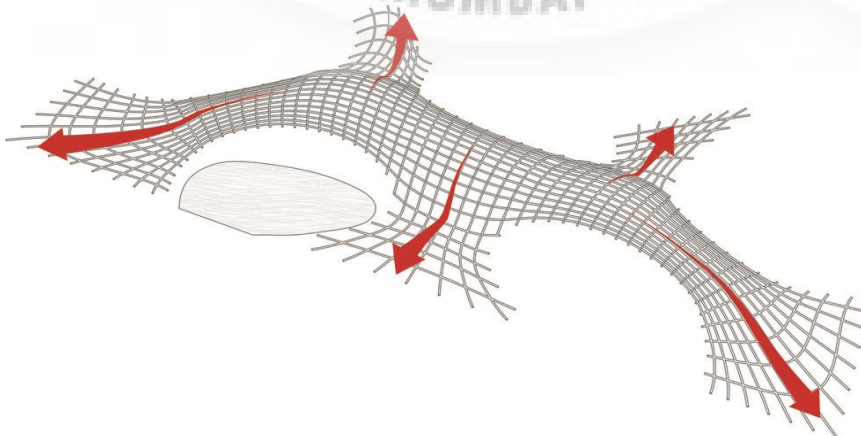


DETAILS

Fig. 21 (h)



Load Transfer



Sharda Library Force Diagram

Fig. 21 (i)

Interior

Spatial & seating systems, a floor stool system towards the edges for a more intimate study area and towards the center, tables and stools for collaborative study. The self-structured window bays are striated profiles for increased stability with economical window section sizes



Fig. 21 (k)



Fig. 21 (j)

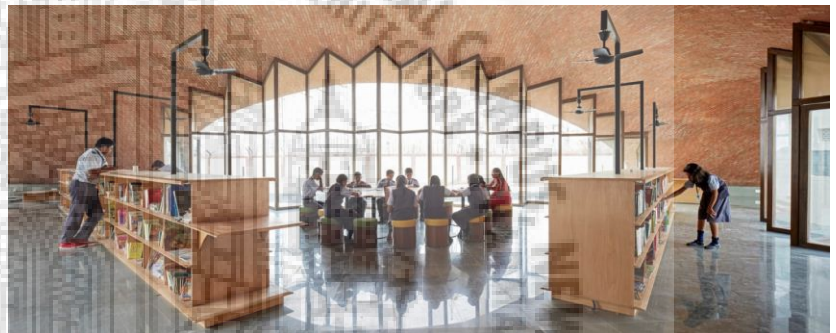


Fig. 21 (l)



Fig. 21 (l)



Fig. 21 (m)

Materials & Construction

Catalan Tile Vaulting system to the compression ring detail from the work of Eladio Dieste in Uruguay. Spanning of forty-five by eight meters, the vaulted structure is ten centimeters thick, a depth of three layers of brick.

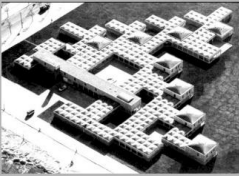


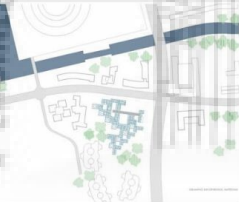


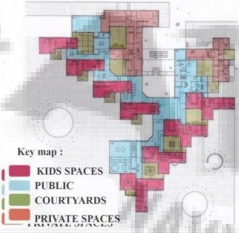


Super Structure: 20mm thick Brick Tile

Flooring: Kota Stone


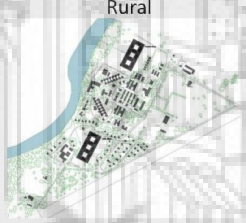

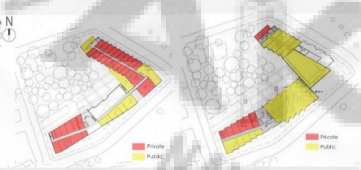

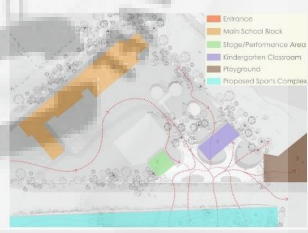
Windows: Aluminum, Wood, Glass

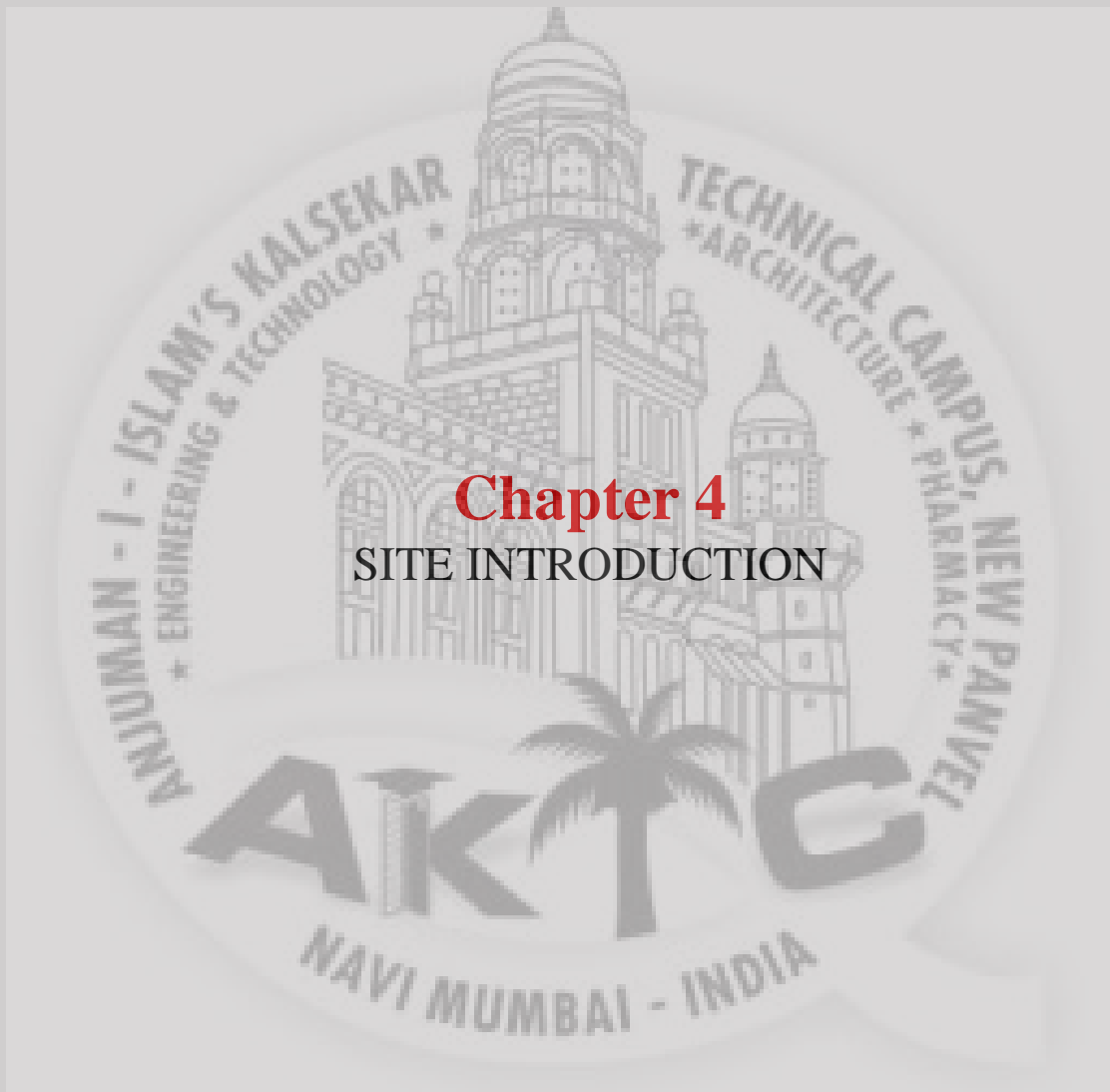
Furniture: Pre-laminated Wood Ply

3.7 Case studies - Comparative Analysis

Name (Type)	The Orphan	Children's Museum	Habitat for Orphan
			
Location	Amsterdam	Amman, Jordan	Iran
Site Area	14000 sq.m	20000 sq.m	800 sq.m
User Group	Children(1-24)	Children (School Students)	Orphan Girls
Architect Year	Van Eyck 1960	Feris & Feris Architects	ZAV Architects 2014
Intent	To build both a home and a city in the outskirts. To design a modern building with a new urban vision. To the children of all age groups.	to provide an interactive learning environment, nurturing the power of imagination and the spirit of exploration and self-discovery. They cater to the children age group of 1- 14.	To provide residence to the orphans but to change the point of view over orphan girls, to inclusion into normal part of society. to make a change from exclusion to inclusion.
Program	Residents for the orphans or from a broken family	Teaching Children	Social Housing
Context	Urban 	Urban 	Rural 
Public/Private			
Material Palette	RCC rounded columns, Pre cast conc. Roofs Facades – Glass wall, Solid brown bricks	Concrete – major part of museum Rough Or smooth texture rough was achieved by sand blasting the formwork wood panels Eco Friendly Hall made of wire mesh and metal scaffolding and deciduous climbers on it.	Steel structure, conc floors, brick wall interior and exterior, metal sheet roof, the staircases, and the water fountains are made out of concrete
Structural System	RCC frame structure	RCC Frame structures	Composite structure – concrete + Steel columns
Sustainability	Courtyard apply to an important aspect of building design, it's flawless connection between indoors and outdoors. Pools and sandpits were added in the courtyards.	Energy Efficiency by using insulating walls on roof and walls. Using of deciduous plant leads to addition of educational and dynamic look which changes in different seasons.	As a result of exposed mechanical and electrical facilities, removal of finishing stage in the construction process and durable materials, it is expected this building to last long and to sustain itself with a minimum maintenance fee.

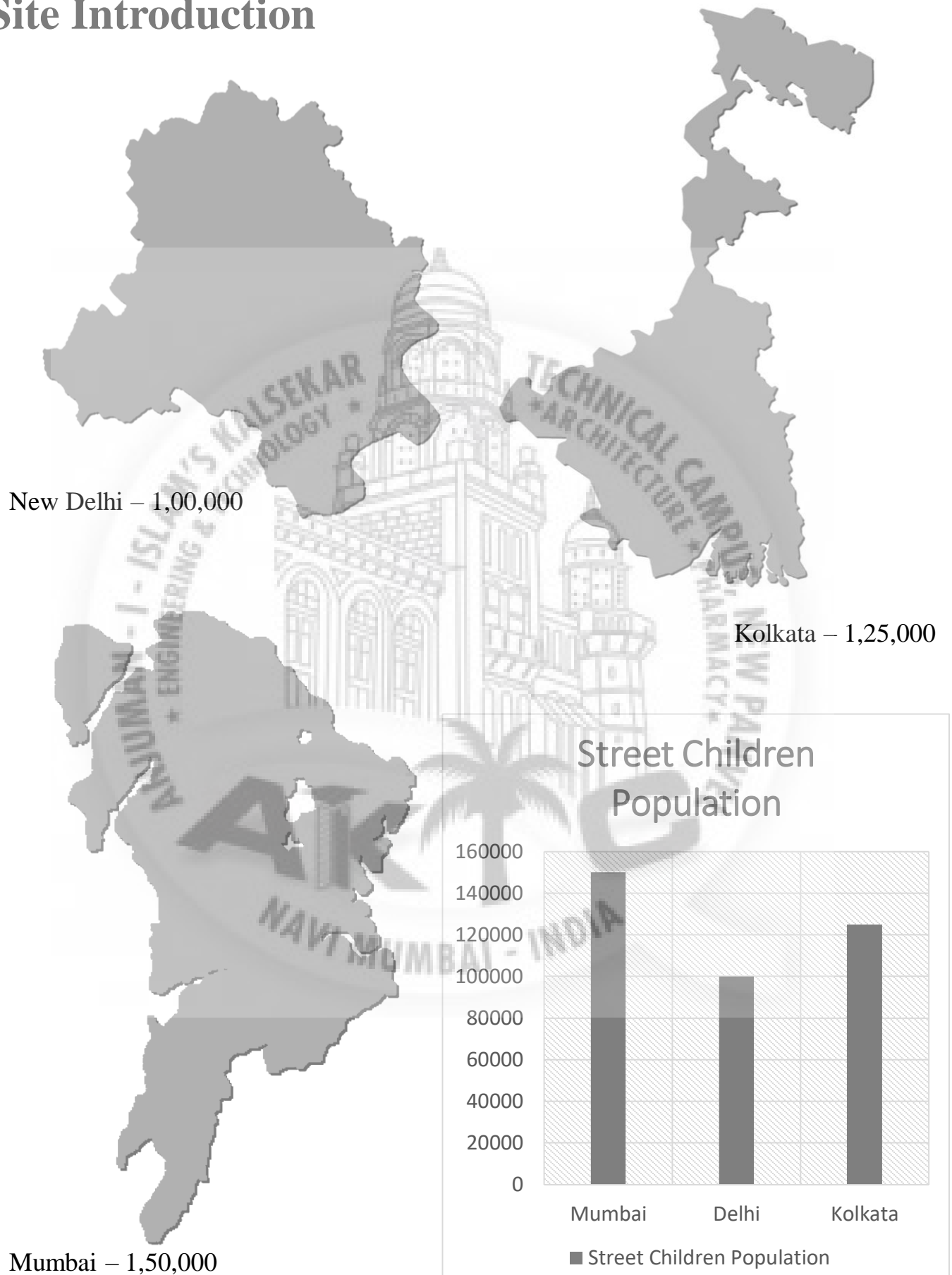
3.7 Case studies - Comparative Analysis

Name (Type)	Greenville arts Expression Program Center	Children's Village	Maya Somaiya Library
Location	London, England	Brazil	Kopargaon, India
Site Area	7576 sq.m	23344 sq.m	5750 sq.m
User Group	Children (School Students)	Children (13-18)	Students, Other Residents
Architect	-----	Alf Zero, Rosenbaum	Sameep Padora & Architects
Year	-----	2017	2018
Intent	The intent is the inclusion of residents into society. To provide it in an urban society.	the need to add values to the whole existing complex, as well as to potentialize the idea of belonging of the students to Canuana.	To build a place inside for study and a place above for play. Accessible from multiple sides with students potentially engaging with books while traversing through the library or over it.
Program	A place that treats homeless as an artist. Home For children and families.	Residential Architecture, Social Housing, Schools	Library, Schools
Context	Urban 	Rural 	Rural 
Public/Private			
Material Palette	Steel Frame structure Wooden Louvers for windows Conc. Floor on metal decking Curved steel girders with wooden louvers on top for the exterior	Earth blocks composed of local soil. Glued laminated eucalyptus wood support a thin metallic roof. Structure is made up of cross-laminated timber beams and columns.	Flooring – Kota Stone Windows – Aluminium, wood, glass Furniture – Pre laminated wood ply
Structural System	Composite-RCC + Steel	Wooden structure	Geodesic Structures, Vaulted
Sustainability	Homeless people can express themselves through art & music. The art produced is sold for their living expenses i.e. sustainability	Even in mid 40* C in summer, there was no need of air-conditioning. Self-shading structure. Glued laminated eucalyptus wood known for its versatility and sustainability.	The self-structured window bays are striated profiles for increased stability with economical window section sizes.

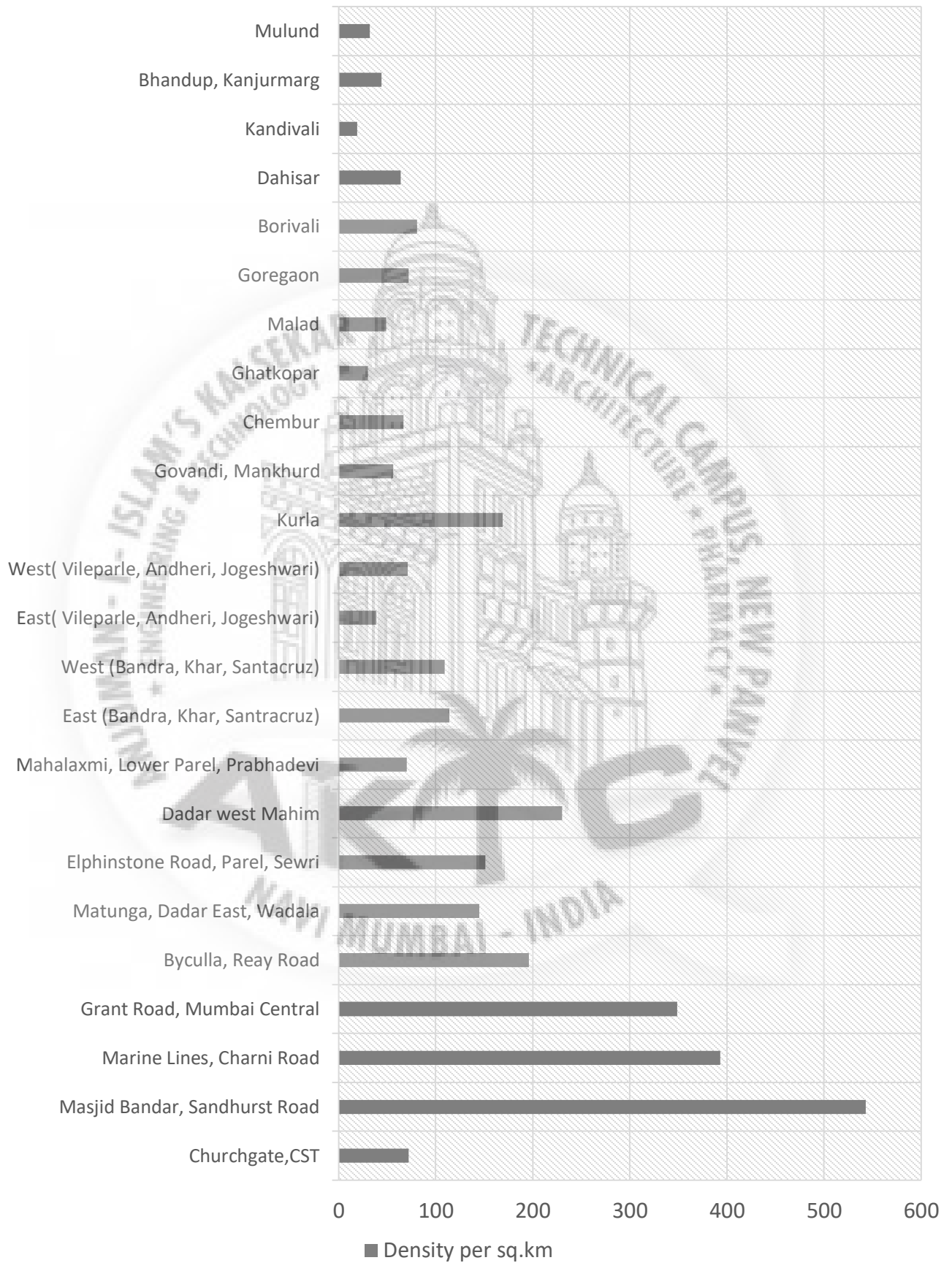


Chapter 4 SITE INTRODUCTION

Site Introduction



Density per sq.km

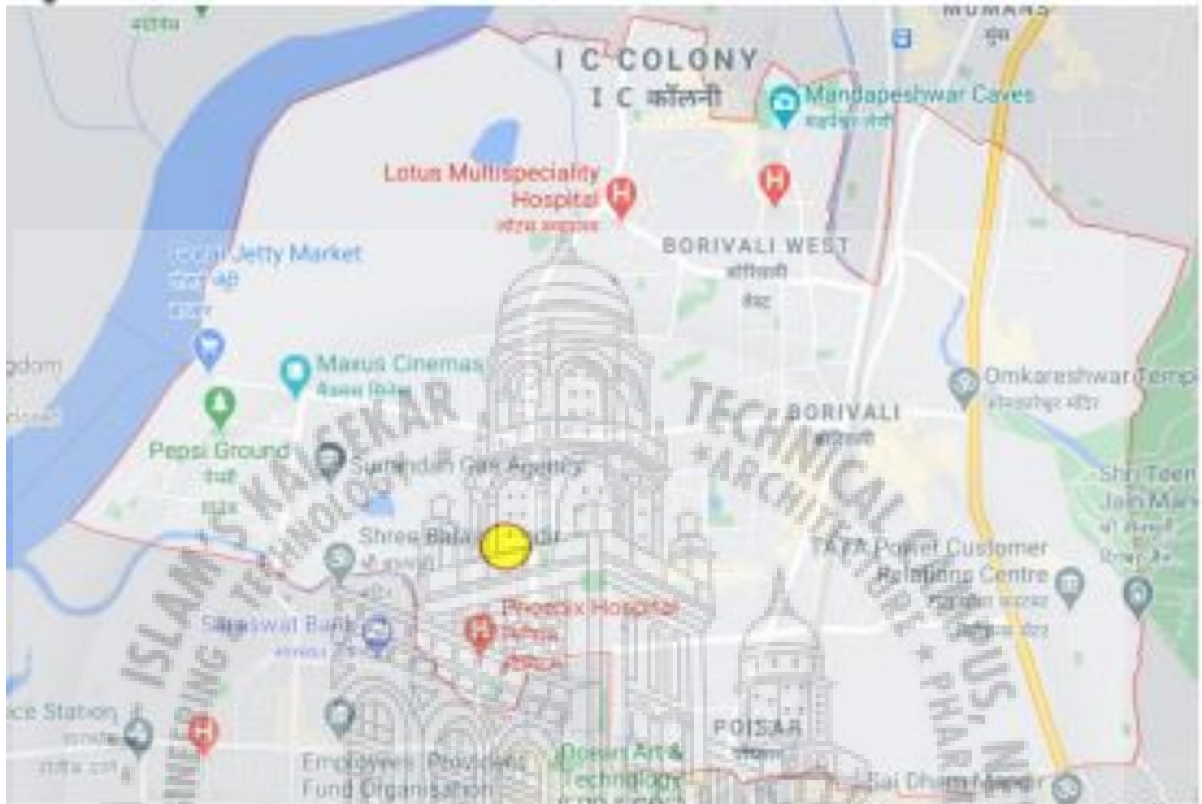




Mumbai,
Maharashtra

Borivali, Mumbai
On the outskirts of Mumbai

Borivali - Site Introduction



Borivali - Google Map

Borivali or Borivli is a suburban area located in the north-west section of Mumbai island of Maharashtra, India.

Ward : R/C Ward

Borivali is a Locality in Mumbai City in Maharashtra State, India. It belongs to Konkan region . It is belongs to Konkan Division .

Dattapada Fatak , Madhukunj Society , Food Corporation Of India Warehouse , Meghdoot , Kora Kendra are the nearby Localities to Borivali.

Mira-Bhayandar , Thane , Vasai , Nalasopara are the nearby Cities to Mumbai.

It is near to Arabian sea. There is a chance of humidity in the weather.

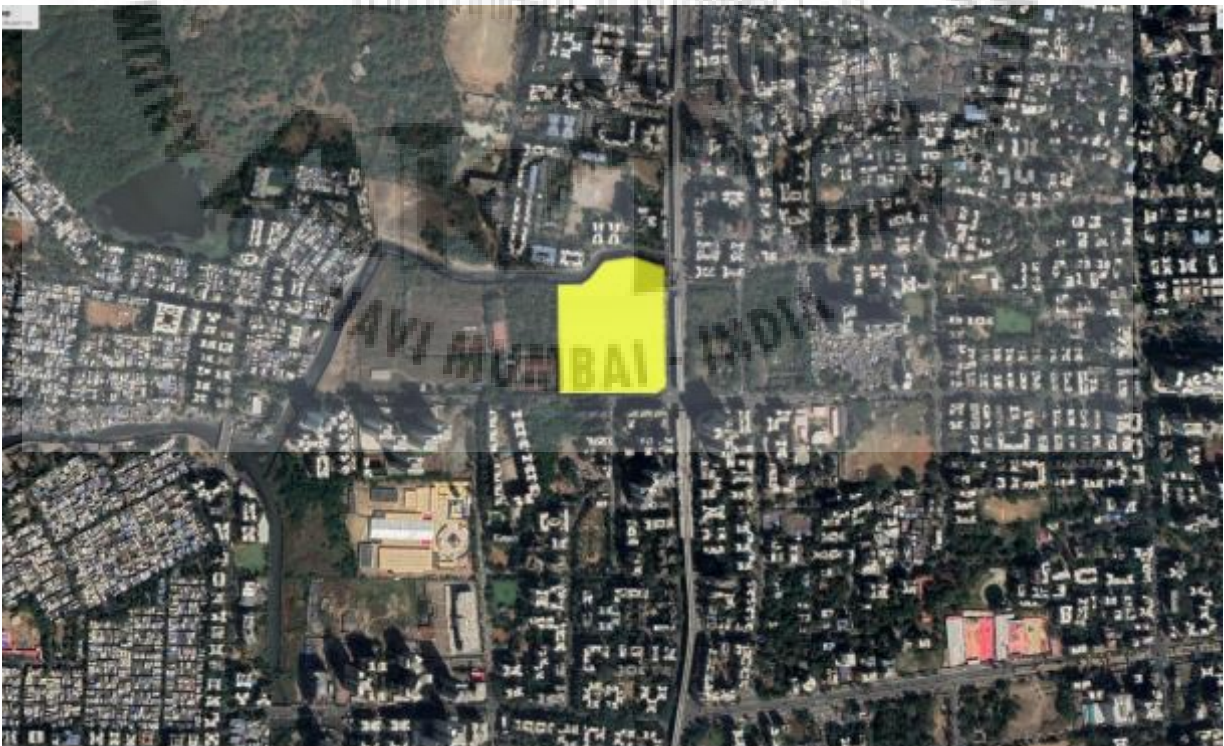
Marathi is the local language spoken there.

Site – Google Earth Plan

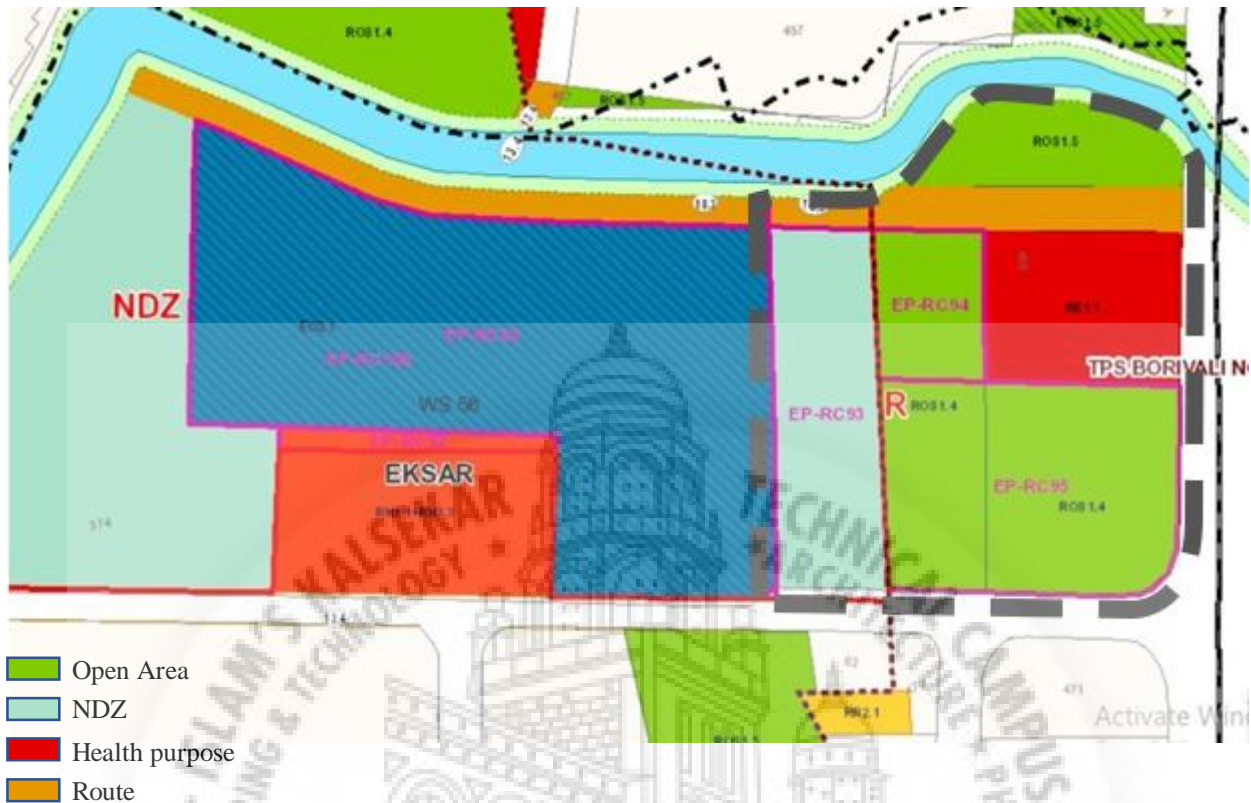


Site Location– Shimpoli, Borivali
Site Area – 32000 sq.m, 7.9 Ac

Site Context – Google Earth Plan



Site - DP plan

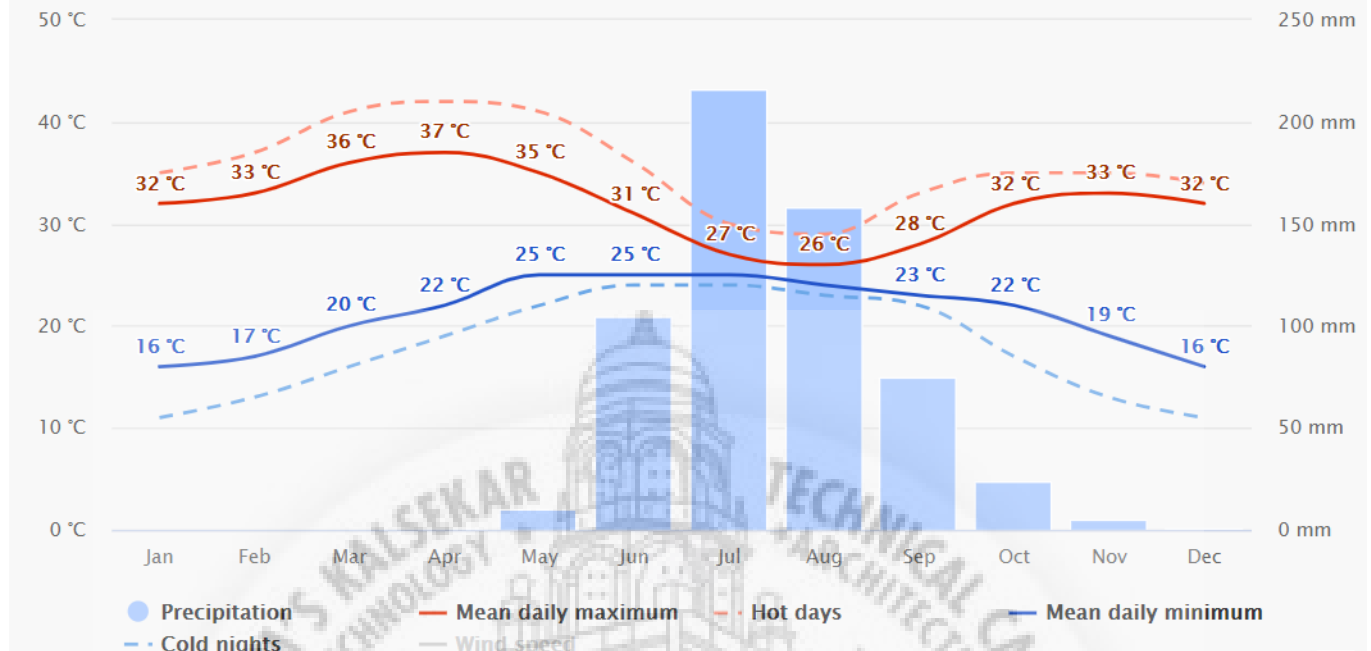


Site – Google Map

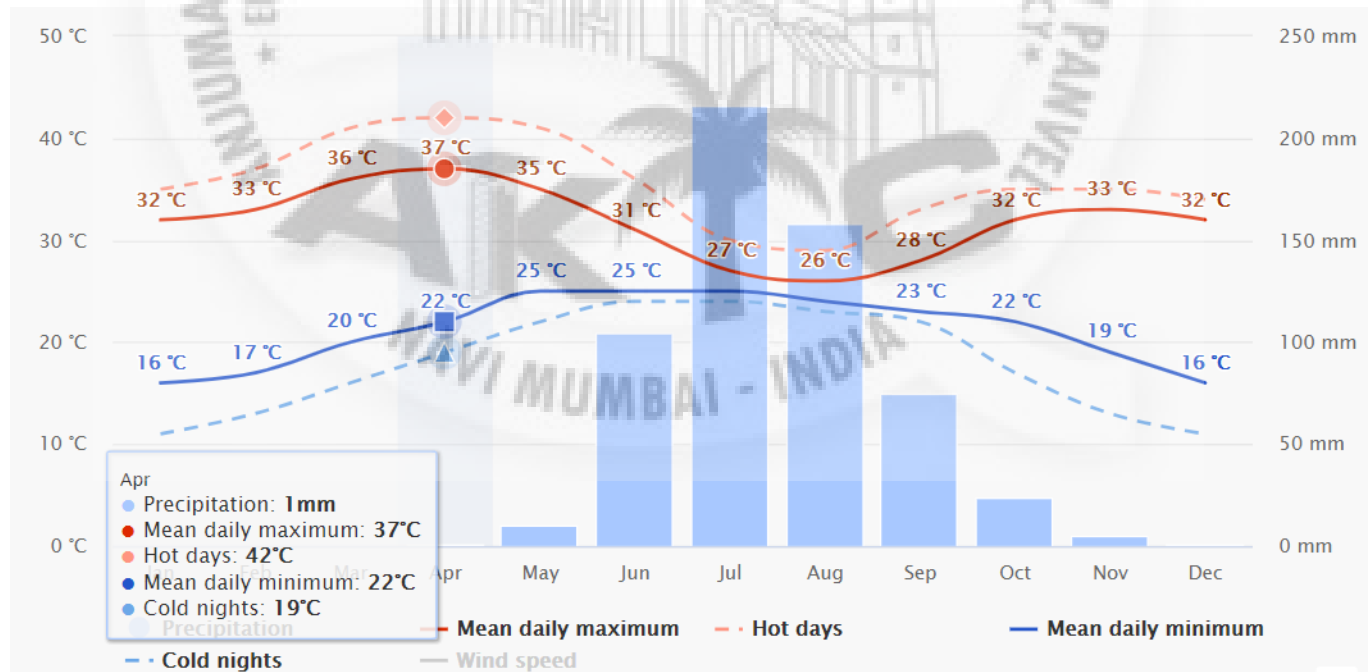


Site Location– Shimpoli, Borivali
Site Area – 32000 sq.m, 7.9 Ac

Average temperatures and precipitation

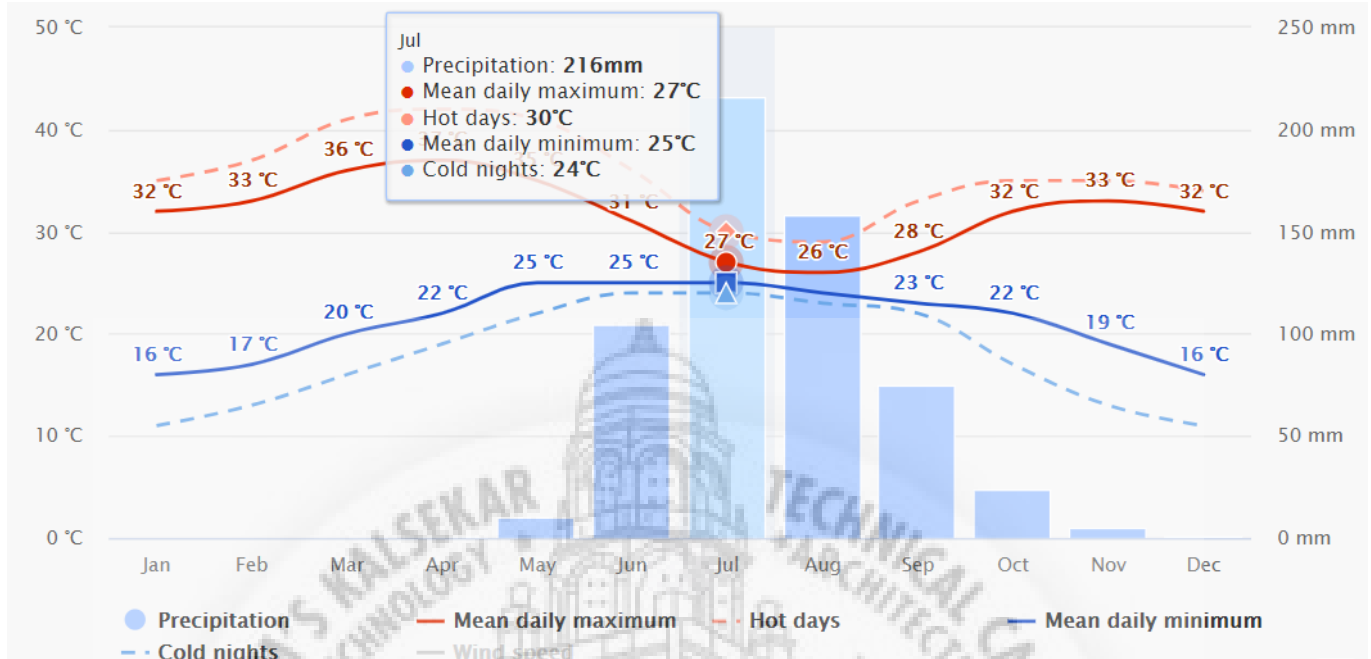


Average Summers in Borivali



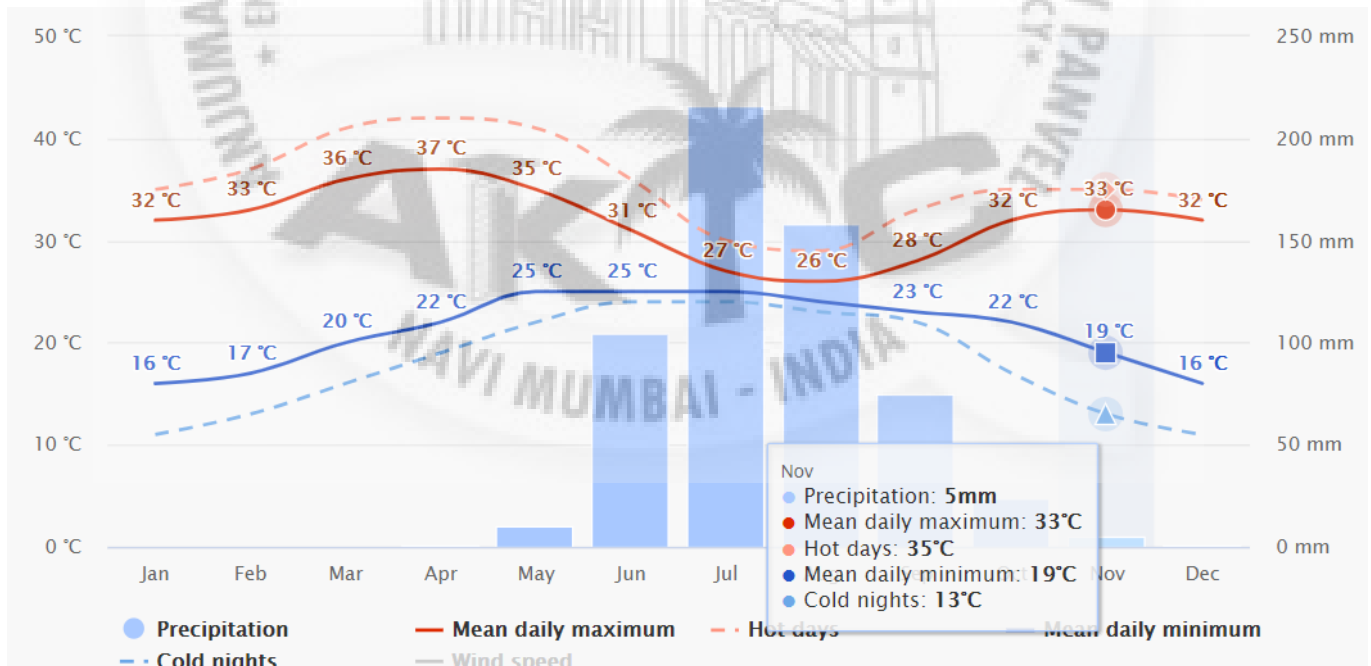
This Graph shows the maximum temperature i.e. in the summers can go up to 42* C in the month of April. The temperature can vary from 25*C to as high as 42*C in the months from Mar – Jun.

Average Rainfall in Borivali



This Graph shows the Average rainfall in Borivali is 150mm and can go up to 250mm. During monsoons.

Average Winters in Borivali



This Graph shows the lowest temperature i.e. in the winters can go up to 13°C – 15°C in the month of November. The temperature can vary from 13°C to as high as 32°C in the months from Nov – Feb.

Design Brief

The Rehabilitation center will fulfil a long felt need of an organisation to guide, advice, co-ordinate and encourage the activities. To create an environment of belongingness. To create a space which could help them improving their skills and become self sustainable at a particular age, a space where they can heal their historical moments and develop a new lifestyle which would help them become responsible. To provide them a new identity and to change the view of the societal recognition towards them.



Design Program

A Center where the all category of children will be entertained, where they could learn or develop its form of art, culture which would embrace their life. A place where they would be encouraged at every moment of their life until they become self sustainable.

A Social Space where a child from each category interact with each other and participate in various activities which would help improving their mental and physical health.

Open and Closed spaces for play area for the children, help them developing a greater ability to physically relax and curing their health with a provision of therapy. A open playground for small children.

Educational Spaces for Flexibility that can be easily adjusted to meet support the learning activities, allowing for various groupings, hands on experiment on learning, making and building. Including Arts having curriculum integration. Support of cognitive skills and development.

A space for Performing Arts can encourage your **child** to explore their emotions, expanding their imagination and helping them develop their own, unique voice. Each discipline, Music, dance and drama, engage a child's brain, body and emotions in different ways to encourage their confidence and find joy in self-expression.

An Indoor Farming Space will teach kids Life Skills like raising food, where food comes from, hard work, communication, care for others and animals. It teaches a child to be aware, observant and alert. Farming is physical, mental, stressful but it gives the joy of succeeding.

A Water body will help kids creating a connection with the nature and developing imagination and help forgetting their negativity.

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- Fig 2 - <https://indianexpress.com/article/cities/mumbai/the-street-is-their-home-mumbai-homeless-people-5840818/>
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- Fig 11 - <https://timesofindia.indiatimes.com/city/mumbai/Over-37000-kids-fending-for-themselves-on-citys-roads-First-street-children-census/articleshow/26756505.cms>
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<https://www.archdaily.com/151566/ad-classics-amsterdam-orphanage-aldo-van-eyck>
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<https://archnet.org/sites/7088>
<https://archello.com/project/the-childrens-museum>
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- Table 7 <https://www.actionaidindia.org/wp-content/uploads/2018/06/Mumbai-street-children-V3-Making-Street-Children-Matter1.pdf>

Bibliography

Jha, Raj Kamal, 2020, The Indian Express, Over 1.7 million homeless residents across India struggle to fight coronavirus, 15 July 2020

Jha, Raj Kamal, 2019, The Indian Express, The Street is their home , 18 July 2020

Correa, Charles, 2014, The New Landscape urbanization in the third world, issuu, Vietnam Association of Architects

International Institute for Environment and Development, 2019, Introduction to Urban Poverty, 20 July 2020

Down to Earth, 2020, What lessons does COVID-19 offer for India's urban poor policy, 25 July 2020

Gayatri Jayaraman, 2017, Who Are India's Urban Poor?, 26 July 2020

Down to Earth, 2020, What lessons does COVID-19 offer for India's urban poor policy, 30 July 2020

Mint, 2016, 'Urban poor' in Buzzfeed article anything but poor, 2 June 2020

The Print, 2020, India's urban and rural poor expect different things from their local govts, and why it matters, 5 June 2020

The Times of India, 2013, Over 37,000 kids fending for themselves on city's roads: First street children census, 5 June 2020

ActionAid, 2017, Children on the street, 7 June 2020

Chachra Sandeep, 2016, ActionAid, Making Street Children Matter, A census study in Mumbai, TISS