

LIFE BETWEEN BUILDINGS

RECONSIDERING ECONOMIC
AND SOCIAL VALUES OF THE URBAN POOR

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INTRODUCTION

HISTORIC PERIODS OF MUMBAI



THE BIRTH OF THE CITY
1500s-1850s



INDUSTRIALIZATION AND
CENTRALIZATION
1850s-1910s



TRANSITION TO
MODERNITY
1920s-1940s

THE TIME OF BOMBAY BETWEEN 1600 AND 1850 IS CHARACTERISED BY STEADY PROGRESS MARRED BY PLAGUE, FIRE AND THREAT OF INVASION. THE PERIOD BEGINS DURING THE CONSTRUCTION OF THE FIRST BOMBAY MANOR HOUSE (1528 - 1626) AND ENDS WITH THE TRANSITION FROM SLOW AND STEADY PROGRESS TO EXPONENTIAL DEVELOPMENT (AROUND 1850).

THE POPULATION OF BOMBAY BETWEEN 1500 AND 1850 WAS CHARACTERIZED BY GRADUAL AND STEADY GROWTH BEFORE THE TRANSITION TO EXPONENTIAL GROWTH IN THE 1840'S.

POPULATION DENSITY IN BOMBAY UP UNTIL 1760 WAS GENERALLY RESTRICTED TO THE FORT OF BOMBAY. THIS WAS DUE TO SEVERAL FACTORS INCLUDING: SECURITY, THE FORT WALLS PROVIDED PROTECTION

FROM OUTSIDE FORCES AND OPPORTUNITY FOR BUSINESS AND TRADE.

THE FORT BEING THE HEADQUARTERS FOR THE BRITISH EAST INDIA COMPANY MEANT THAT BOMBAY BECAME A MAJOR TRADING HUB TO EUROPE AS WELL AS GENERAL BUSINESS REGARDING SEAMEN WHICH UTILIZED BOMBAY AS A PITSTOP LOCATION.

THE POPULATION GROWTH OF BOMBAY THROUGHOUT ITS EARLY HISTORY (AND INDEED TODAY) WAS HEAVILY INFLUENCED BY MIGRATION. MIGRATION WAS DRIVEN BY A WIDE SPECTRUM OF FORCES INCLUDING, BRITISH COLONIALISTS, MILITARY REINFORCEMENTS FROM BRITAIN, THE SLAVE TRADE AND DISTRESS MIGRATION.

THIS IS A PERIOD CHARACTERIZED BY ITS SHIFT TOWARDS INDUSTRIALIZATION AND MORE CENTRALIZING BODIES BEING CREATED.

THE CRUCIAL SHIFT IN FORTUNES FOR THE CITY OF MUMBAI, AND IN FACT INDIA AS A WHOLE WAS THE BEGINNING OF THE AMERICAN CIVIL WAR IN THE UNITED STATES. THIS SAW THE BRITISH SHIFT THEIR SOURCING OF COTTON TRADE FROM THE COMPLICATED CONTEXT OF THE WAR TO INDIA AS IS WAS ALREADY A PART OF THE BRITISH EMPIRE.

THIS RESULTED IN A RAPID EXPANSION OF THE CITY, ITS PORTS.

AFTER 1950, THE CITY EXPERIENCED A DRAMATIC RISE OF POPULATION, SINCE THE PORT ACTIVITIES AND THE BOOMING COTTON INDUSTRY WERE MAGNETS FOR NEWCOMERS. THIS EXPLAINS THE DIFFERENCE

BETWEEN THE MIGRATION IN INDIA AND THE POPULATION RISE IN MUMBAI. IN INDIA, IN EVERY DECADE, THERE WAS AN AVERAGE OF FOUR TIMES MORE EMIGRANTS THAN IMMIGRANTS (MAINLY TO AND FROM OTHER BRITISH COLONIES). IN THE CASE OF MUMBAI, A CONSIDERABLE RURAL - URBAN MIGRATION MADE THE NUMBER OF INHABITANTS GROW CONSIDERABLY.

DURING THE INFRASTRUCTURAL PERIOD MUMBAI SAW A LOT OF LARGE SCALE INDUSTRIAL PROJECTS WERE IMPLEMENTED.

AFTER THE INDUSTRIALIZATION PERIOD, MUMBAI ENTERED IN A PERIOD OF TRANSITION TOWARDS MODERNITY: TRANSPORTATION AND INFRASTRUCTURE DEVELOPED RAPIDLY, THE ECONOMIC SPHERE WAS PUNCTUATED BY IMPORTANT STRIKES, AND THE IMPORTANT POLITICAL MOVEMENT FOR INDEPENDENCE BECAME MORE AND MORE INFLUENTIAL. MUMBAI'S ECONOMY WAS MAINLY FOCUSED ON INDUSTRY AND TRADE, WHICH LED TO THE DEVELOPMENT AND IMPROVEMENT OF THE INFRASTRUCTURE, IN ORDER TO FACILITATE TRANSPORT AND TRADE.

BESIDES THAT, THE ART DECO MOVEMENT SPREAD OUT IN MUMBAI, CONCERNING ARCHITECTURE, ART AND CRAFTMANSHIP. MUSIC WAS VERY PRESENT THROUGH JAZZ, BRINGING TOGETHER NATIVE INDIANS AND COLONIALISTS.

FURTHERMORE, THE POPULATION INCREASED BY 20% IN THESE 20 YEARS PERIOD, WITH AN INCREASE IN LITERACY LEVEL AND IN MIGRATION DIVERSITY. THIS DIVERSITY MADE MUMBAI AN ALREADY VERY POLYGLOT CITY.

HOWEVER, BETWEEN 1920 AND 1940, THE GENERAL WAGE PER PERSON DECREASED, A NUMBER THAT REFLECTS THE WORKERS STANDING UP FOR BETTER WORKING CONDITIONS.

HISTORIC PERIODS OF MUMBAI



POST-INDEPENDENCE
1950s-1960s



EMERGENCE OF THE
MEGALOPOLIS
1970s-1980s



GLOBAL CITY
1990s-2000s

AFTER THE PARTITION OF INDIA ON 15 AUGUST 1947, OVER 100,000 SINDHI REFUGEES FROM THE NEWLY CREATED PAKISTAN WERE RELOCATED IN THE MAHARASHTRA REGION. IN LATE 1950S AND EARLY 1960S, BOMBAY WAS TO WITNESS THE EMERGENCE OF MIGRANTS.

IN APRIL 1950, GREATER BOMBAY DISTRICT CAME INTO EXISTENCE WITH THE MERGER OF BOMBAY SUBURBS AND BOMBAY CITY. IT SPANNED AN AREA OF 235.1KM AND INHABITED 2,339,000 OF PEOPLE IN 1951.

ECONOMIC GROWTH IN INDIA WAS RELATIVELY STRONG DURING MUCH OF THE 1950S, AND EMPLOYMENT GROWTH IN BOMBAY WAS PARTICULARLY GOOD, AS THE CITY'S MANUFACTURING SECTOR DIVERSIFIED. THE BOMBAY TEXTILE INDUSTRY UNTIL THE 1950S

WAS LARGELY HOMOGENEOUS, DOMINATED BY A RELATIVELY SMALL NUMBER OF LARGE INDUSTRIAL MILLS. FROM THE LATE 1950S, POLICIES WERE INTRODUCED TO CURB THE EXPANSION OF MILLS AND TO ENCOURAGE INCREASED PRODUCTION FROM THE HANDLOOM AND POWERLOOM SECTORS, BECAUSE OF THEIR EMPLOYMENT GENERATING CAPACITIES.

IN THE POST INDEPENDENCE ERA THE METROPOLITAN CITIES IN INDIA HAVE CONSISTENTLY EXPERIENCED RAPID GROWTH OF POPULATION AS WELL AS THE EXPANSION OF THEIR STATUTORY LIMITS. THE SPILLING OF METROPOLITAN AREA GROWTH WAS EVIDENT IN MUMBAI METROPOLITAN REGION (MMR), THE LARGEST METROPOLITAN REGION IN INDIA.

A NEW ECONOMIC MODEL AROSE FROM THE DE-INDUSTRIALIZATION. ENGINEERING, CHEMICAL AND PHARMACEUTICAL INDUSTRIES WERE PUT THROUGH LARGE-SCALE RELOCATION TO AREAS ADJACENT TO MCGM IN THE MMR. BY THE 1980S AND 1990S THAT MUMBAI HAS TRANSFORMED INTO A SERVICE CITY. HOWEVER, THE INFORMAL EMPLOYMENT STILL PROLONGED (44%) TO OCCUPY THE REMAINING JOBS FROM THE TRADITIONAL TEXTILE

INDUSTRIES. UNLIKE THE PREVIOUS ERA WHERE LARGE ECONOMIC GROWTH TRIGGERED MIGRATION FROM THE RURAL AREAS, DECLINE OF THE BLUE COLLAR JOBS OCCUPIED BY THE MIGRANTS ALSO DECREASED THE MIGRANTS POPULATION SINCE 1970S.

ONE OF THE SUCCESSFUL URBAN DEVELOPMENTS IN THIS ERA AS A SOLUTION TO PREVENT THE URBAN EXPANSION OF MUMBAI TO CONTINUE MOVING NORTHWARD IS THE ESTABLISHMENT OF NAVI MUMBAI WHICH BEGAN IN THE EARLY 1970S. MANY GOVERNMENT AND CORPORATE OFFICES HAVE BEEN SHIFTED FROM TO NAVI MUMBAI, ALONG WITH A LARGE POPULATION OF MIDDLE CLASS AND SERVICE CLASS PEOPLE TO DUE TO JOB OPPORTUNITIES OFFERED IN WIDE RANGE OF INDUSTRIES.

THE LIBERALIZATION OF THE ECONOMY, STARTING IN 1991, ALSO MEANT A TRANSFORMATION OF THE GEOGRAPHY OF THE CITY. THE REAL ESTATE MARKET FOR EXAMPLE WAS STIMULATED BY A SURGE IN LAND PROCESS AND DEMAND FOR LUXURIOUS HOUSING AND COMMERCIAL ESTABLISHMENTS. IN THE OTHER HAND HOWEVER, THE WORKING CLASSES IN THE CITY FACED A SHORTAGE IN THE AFFORDABLE HOUSING MARKET. THE TENSIONS BETWEEN THE DIFFERENT CLASSES WAS MORE ACUTE THAN EVER DUE TO THE REAL ESTATE MARKET AND THE IDENTITY-BASED VIOLENCE.

A NEW MIDDLE CLASS WAS FORMED IN THE COUNTRY AS A RESPONSE TO THE NEW ECONOMIC PRACTICES AND ALONGSIDE THE NON-RESIDENT INDIANS THIS PORTION OF THE POPULATION SPARKED A NEW

DEMAND FOR "WORLD CLASS" RECREATIONAL SPACES AND LUXURIOUS HOUSING. THE PRESSURE CREATED BY THIS NEW MOVEMENT CREATED THE PERFECT BACKGROUND FOR THE INTEREST IN REDEVELOPING AREAS IN THE CITY WHICH DID NOT FIT THE NEW IMAGE THE CITY WAS PROJECTING. THE URBANIZATION OF NEOLIBERALISM PROMPTED THE APPEARANCE OF NEW SPACES FOR GLOBAL ECONOMIC INTEGRATION AND ELITE CONSUMPTION. THIS NEW FORM OF URBANISM WAS CONDENSED IN THE CITY DEVELOPMENT PLAN CALLED 'VISION MUMBAI' CREATED BY THE MCKINSEY CORPORATION, A PRIVATE CORPORATE CONSULTANT HIRED TO ACHIEVE A "WORLD CLASS STATUS" FOR MUMBAI.

HISTORIC PERIODS OF MUMBAI

THE EXPANDING
PERIPHERY
2010s-Today



TODAY MUMBAI CAN NO LONGER BE CONSIDERED A SEPARATE ENTITY, BUT RATHER LOOKED UPON AS PART OF THE MUMBAI METROPOLITAN AREA, ITS REACH CONTINUING TO TOUCH FURTHER NORTH AND EAST. UPDATES IN INFRASTRUCTURE ALLOW IT TO CONTINUE SPRAWLING ONTO SITES THAT WERE PREVIOUSLY UNTOUCHED BY BIG DEVELOPMENT. VIRAR AND NALASOPARA ARE SITES OF FURTHER DEVELOPMENT AT PRESENT, AS THE LOCATIONS OF THE LAST STOP ON THE RAILWAY LINE RUNNING NORTH- SOUTH INTO MUMBAI. IN EFFECT, THIS DELINEATES THE LIMIT OF THE EXPANSION TO THE NORTH. AT THE SAME TIME, NEW SITES FURTHER EAST INTO NAVI MUMBAI ARE BEING DEVELOPED FOR AFFORDABLE HOUSING SCHEMES, AS THEY ARE NOT CONSIDERED EXTREMELY VALUABLE LAND. CONSEQUENTLY, THE KEY AREAS THAT SHALL BE EXPLORED INCLUDE VIRAR EAST AND WEST, RAHMAT NAGAR IN EASTERN NALASOPARA AND SECTOR 40, KHARGHAR IN NAVI MUMBAI.

SEVERAL KEY INFRASTRUCTURE PROJECTS TO NOTE WITHIN THE CURRENT TIME PERIOD INCLUDE THE LONG-AWAITED CONSTRUCTION OF THE NAVI MUMBAI INTERNATIONAL AIRPORT AS WELL AS THE TRANSHARBOUR LINK WHICH FORMS THE SECOND CONNECTION BETWEEN MUMBAI CITY AND NAVI MUMBAI. RECENT ADDITIONS TO THE EXISTING INFRASTRUCTURE INCLUDE THE MUMBAI MONORAIL, WHICH AT

THE PRESENT ONLY SPANS A SHORT DISTANCE WITHIN MUMBAI AND THE MUMBAI METRO, BOTH OF WHICH WERE INAUGURATED IN 2014 (MMRDA, 2014). THE NAVI MUMBAI INTERNATIONAL AIRPORT HAS SPURRED ON A FLURRY OF DEVELOPMENT SOUTH OF THE AIRPORT UNDER CIDCO AS THE PLANNING AUTHORITY.

HOUSING OF THIS TIME PERIOD IS CHARACTERIZED BY TALL, TIGHTLY- SPACED RESIDENTIAL TOWERS. THE DEVELOPMENTS TARGETED TOWARDS THE EWS AND LIG SECTORS TEND TO BE TALL, WITH A SINGLE UNIT TYPE REPEATED ACROSS EACH LEVEL AND HAVE LITTLE TO NO USEFUL PUBLIC SPACE. ALL LAVATORIES ARE LOCATED ON THE EXTERIOR FACADES IN SUCH A WAY THAT THEY FORM SHAFT SPACES WHEN TWO BUILDINGS ARE CONSTRUCTED SIDE-BY-SIDE. NEW-BUILDS ARE DESIGNED AND PLACES WITHOUT REGARDS FOR CONTEXT; THE SAME BUILDING CAN BE REPEATED ON MULTIPLE DIFFERENT SITES. REDEVELOPMENTS USUALLY STAY WITHIN THE PRE-EXISTING PLOT BOUNDARIES AND TEND TO FORM EXTRUSIONS OF WHAT WAS THERE BEFORE. DENSITY IS THEREFORE ACHIEVED, USING EITHER OF THESE TWO METHODS: NEW-BUILDS OR EXTRUSIONS, BOTH OF WHICH GENERALLY DISREGARD THE NEED FOR QUALITY PUBLIC SPACE AND AMENITIES.

URBAN POPULATION INDIA

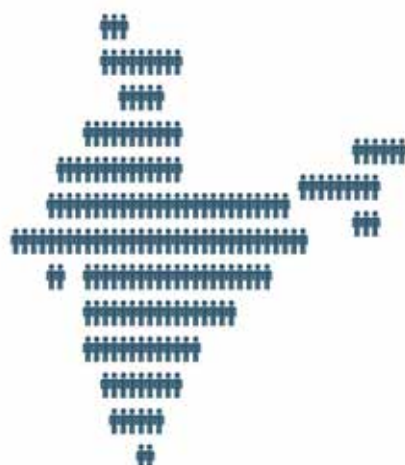
221 979 000
1990



410 204 000
2014



814 399 000
2050



THE URBAN POPULATION OF THE WORLD IS EXPECTED TO INCREASE BY MORE THAN TWO THIRDS BY 2050, WITH NEARLY 90 PER CENT OF THE INCREASE TO TAKE PLACE IN THE URBAN AREAS OF AFRICA AND ASIA. THE WORLD'S URBAN POPULATION IS NOW CLOSE TO 3.9 BILLION AND IS EXPECTED TO REACH 6.3 BILLION IN 2050.

JUST A FEW COUNTRIES ARE HOME TO HALF OF THE WORLD'S URBAN POPULATION. ONE OF THEM IS INDIA, WHICH URBAN POPULATION INCREASED FROM 221 MILLION TO 410 MILLIONS IN LESS THAN 25 YEARS.

FUTURE INCREASES IN THE WORLD'S URBAN POPULATION ARE ALSO EXPECTED TO BE HIGHLY CONCENTRATED IN JUST A FEW COUNTRIES. TAKEN TOGETHER, CHINA, INDIA AND NIGERIA ARE PROJECTED TO ACCOUNT FOR 37 PER CENT OF THE INCREASE OF NEARLY 2.5 BILLION PEOPLE IN THE URBAN POPULATION BY 2050. BETWEEN 2014 AND 2050, THE URBAN AREAS OF INDIA ARE EXPECTED TO GROW BY 404 MILLION PEOPLE.

BETWEEN 2014 AND 2050, THE URBAN AREAS OF INDIA ARE EXPECTED TO GROW BY 404 MILLION PEOPLE AND REACH THE POINT OF 814 MILLION PEOPLE.



URBAN GROWTH
MUMBAI

1700



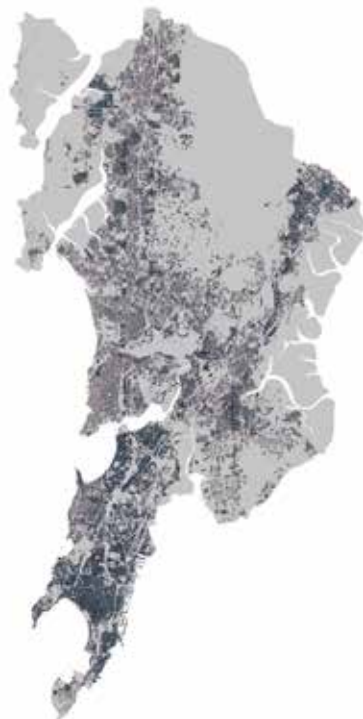
1850



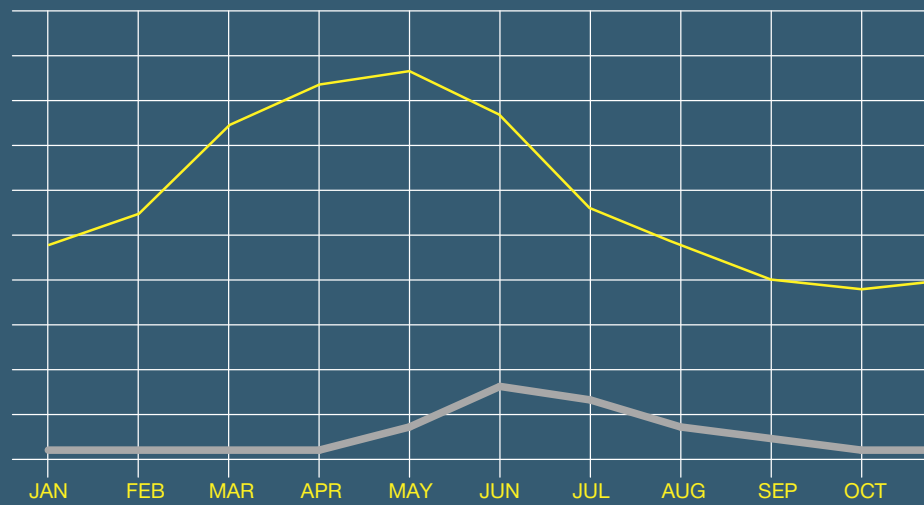
1950



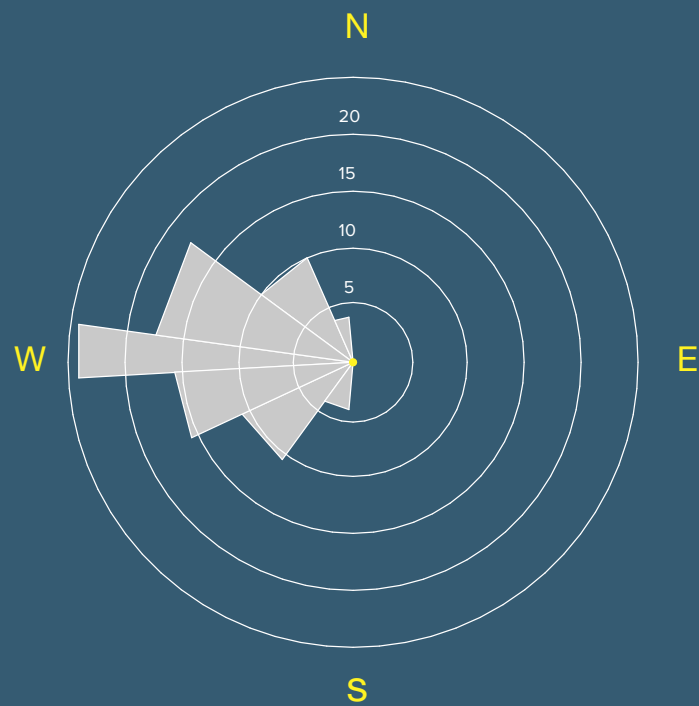
2000



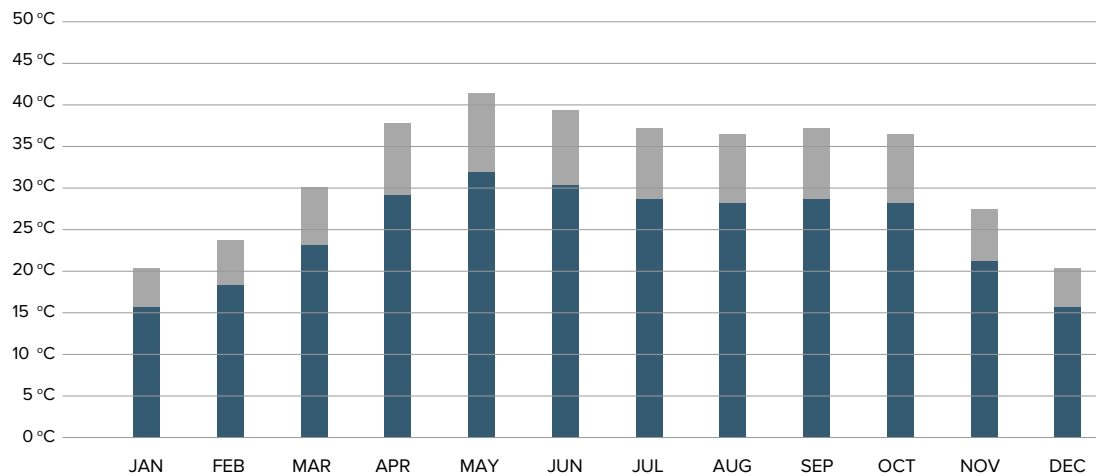
MAX AND MIN WIND SPEEDS PER MONTH (2016)



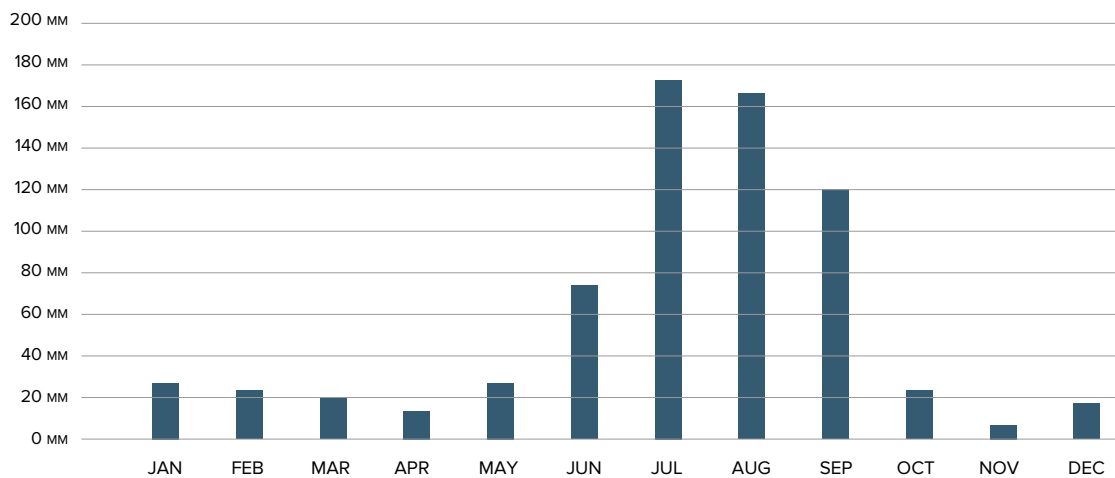
WIND-ROSE PLOT (2016)



MAX AND MIN TEMPERATURES (2016)



AVERAGE PRECIPITATION PER MONTH (2016)



FROM MARCH TILL MAY THE AVERAGE AMOUNT OF SUNLIGHT IN INDIA IS THE HIGHEST, WHICH CORRELATES WITH THE MAXIMUM TEMPERATURES WHICH ARE REACHED AROUND MAY. THE MAXIMUM TEMPERATURE CAN REACH 41 DEGREES CELSIUS, AND THE MINIMUM TEMPERATURE CAN BE AROUND 16 DEGREES CELSIUS. THIS HOWEVER DIFFERS FROM REGION TO REGION, SINCE INDIA COVERS A LARGE AREA RESULTING IN DIFFERENT CLIMATES BETWEEN NORTH AND SOUTH.

PRECIPITATION IN INDIA CAUSES MANY PROBLEMS DURING JULY AND AUGUST ESPECIALLY WITH THE MAXIMUM PRECIPITATION

AT AROUND 200MM. GLOBAL WARMING ALSO ENHANCES THIS EFFECT WITH THE INDIAN SEA LEVEL RISING ABOUT 1.3MM PER YEAR AND PRECIPITATION INCREASING WITH ABOUT 6-8% BY 2030. THERE ARE MANY AREAS IN MUMBAI THAT ARE CONSIDERED AS LOW ELEVATION ZONES, WHICH ARE PRONE TO FLOODING. THIS RESULTS IN INDIA BEING HIGHLY VULNERABLE TO CLIMATE HAZARDS AND THE PEOPLE LIVING IN SLUMS AND LOW LYING AREAS OFTEN THE MOST.

COMPARISON OF POPULATION DENSITY OF INDIA, MUMBAI METROPOLITAN REGION, VISAI-VIRAR AND NALASOPARA



INDIA

THE POPULATION DENSITY IN INDIA IS ABOVE AVERAGE, RANKING IT AMONGST THE TOP 20 MOST DENSE COUNTRIES. THE DENSITY HAS GONE UP FROM 325 PERSONS PER SQUARE KILOMETER UP TO 382 PERSONS PER SQUARE KILOMETERS IN 2011. EVEN THOUGH THE DENSITY IN INDIA HAS INCREASED EVERY YEAR, THE RATE OF INCREASE HAS SLOWED DOWN IN THE LAST DECADE.

MUMBAI METROPOLITAN REGION

MUMBAI'S METROPOLITAN REGION IS IN THE TOP 5 OF THE MOST DENSE CITIES IN THE WORLD. THIS IS PARTLY A CONSEQUENCE OF THE FACT THAT MORE THAN 40% OF THE INHABITANTS OF MUMBAI LIVE IN SLUMS. IT'S MOST INFAMOUS SLUM, DHARAVI FOR EXAMPLE, HAS A POPULATION DENSITY OF OVER 340,000 PERSONS PER SQUARE KILOMETERS.

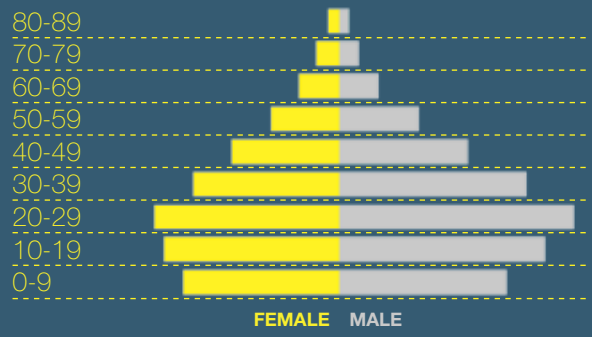
VASAI-VIRAR

THE DENSITY IS LOWER THAN THAT OF MUMBAI'S METROPOLITAN REGION, HOWEVER IT IS STILL VERY DENSE COMPARED TO OTHER CITIES IN THE WORLD.

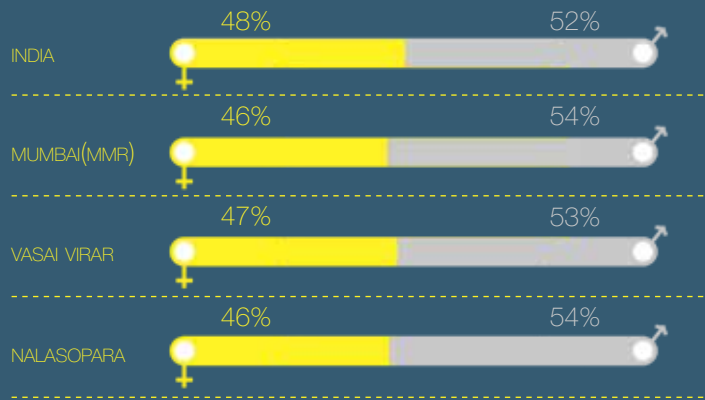
NALASOPARA

THE DENSITY IN NALASOPARA IS ASTONISHINGLY HIGH, WITH AROUND 30% OF THE POPULATION OF VASAI-VIRAR LIVING IN AN AREA WHICH MAKES UP ONLY 11% OF THE WHOLE OF VASAI-VIRAR.

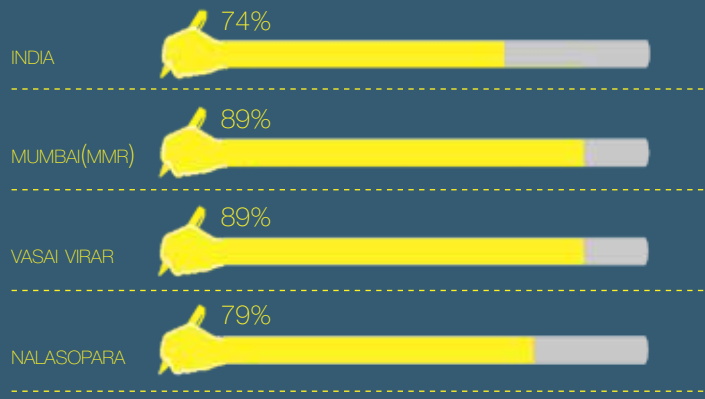
AGE PYRAMID - INDIA / MMR / VASAI VIRAR



COMPARISON OF SEX RATIO



COMPARISON OF LITERACY RATE



AGE

THE LARGEST CONCENTRATION OF PEOPLE IS BETWEEN 20-29 YEARS OLD, WITH THE EXPECTATION THAT BY 2020 THE AVERAGE AGE OF PEOPLE IN INDIA WILL BE 29 YEARS. SAME INDEX IS FOR MUMBAI METROPOLITAN REGION AND VASAI VIRAR REGION.

SEX RATIO

THE MAJOR CAUSE FOR THE IMBALANCED SEX RATIO BETWEEN MALES AND FEMALES IS CONSIDERED TO BE THE VIOLENT TREATMENTS OF FEMALE CHILDREN AT THE TIME OF BIRTH. THE SEX RATIO IN INDIA HAS INCREASED FROM SLIGHTLY FROM 933 FEMALES PER 1000 MALE IN 2001 TO 940 FEMALES PER 1000 MALES IN 2011.

WHEN COMPARED TO THE OVERALL SEX RATIO IN INDIA, WOMEN ARE LESS REPRESENTED IN THE MMR. ON THE FLIP SIDE THE SEX RATION IN 2011 IS MUCH MORE BALANCED THEN IN 2001 WITH 777 FEMALES PER 100 MALES IN 2001 AND 940 FEMALES PER 1000 MEN IN 2011.

LITERACY

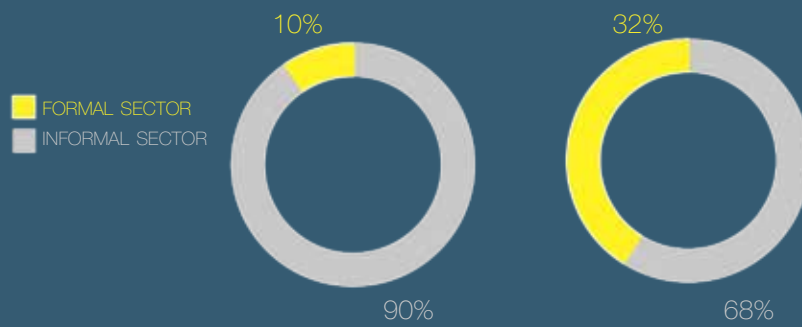
THE LITERACY, WHICH IS A KEY INDICATOR OF THE SOCIO-ECONOMIC PROGRESS OF A COUNTRY HAS GROWN TO 74%. IT IS HOWEVER STILL LOW COMPARED TO THE GLOBAL AVERAGE OF 80%. THERE IS ALSO A WIDE GENDER DISPARITY IN THE LITERACY RATE BETWEEN MALES AND FEMALES.

THE LITERACY RATE IN THE MMR HAS RISEN FROM 86% IN 2001 TO 89% IN 2011 AND IS VERY MUCH ABOVE THE INDIAN AVERAGE. THIS SHOWS A POSITIVE GROWTH IN TERMS OF OVERALL LITERACY. WHEN LOOKING AT THE LITERACY RATE BASED ON SEX THERE IS A SIGNIFICANT GROWTH IN THE LITERACY RATE OF FEMALES. MALES AND FEMALES IN 2001 HAD A LITERACY RATE OF 90% AND 81% RESPECTIVELY, WHILE IN 2011 THERE FIGURES STOOD AT 91% AND 86% RESPECTIVELY.

FAMILY AND CHILDREN

THE AVERAGE NUMBER OF CHILDREN IN THE WHOLE OF INDIA IS 3 PER HOUSEHOLD (2 BOYS AND 1 GIRL), WHILE IN THE MMR AN AVERAGE HOUSHOLD HAS 2 CHILDREN (1 BOY AND 1 GIRL).

PERCENTAGE OF WORKERS IN FORMAL AND INFORMAL SECTORS IN INDIA AND MUMBAI



DISTRIBUTION OF WORKFORCE IN INDIA FROM 2007 - 2017



LABOUR DIVISION

IN 2017, ONLY 10% OF INDIA'S WORKFORCE IS IN THE FORMAL SECTOR, WHICH MEANS THAT 90% OF INDIA'S WORKERS DO NOT HAVE THE PRIVILEGES— LIKE SOCIAL SECURITY AND WORKPLACE BENEFITS— ENJOYED BY THEIR COUNTERPARTS WHO ARE FORMALLY EMPLOYED. THE LEADING CONTRIBUTORS OF INFORMAL EMPLOYMENT ARE AGRICULTURE, MANUFACTURING, CONSTRUCTION AND TRADE.

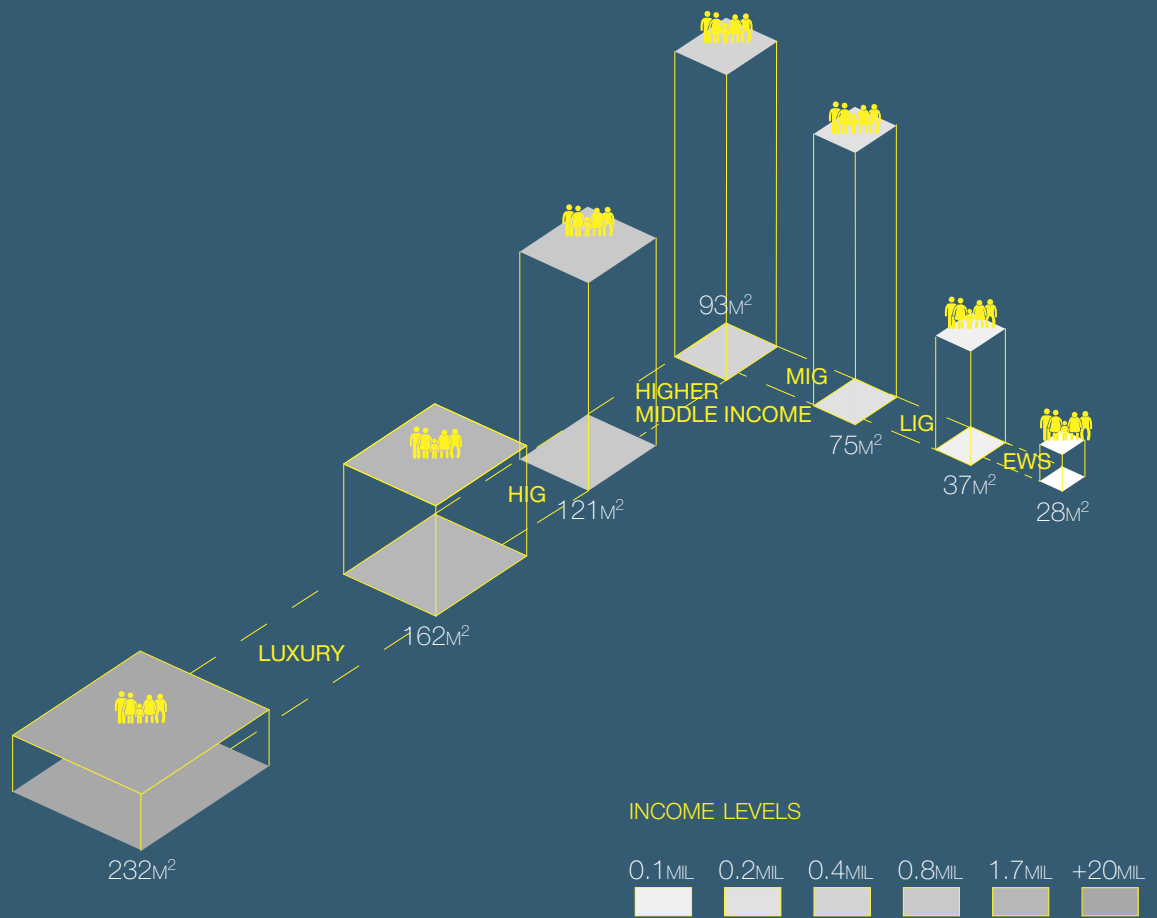
ACCORDING TO THE REPORT OF THE COMMITTEE ON UNORGANIZED SECTOR STATISTICS, THE INFORMAL ECONOMY MAKES A CONSIDERABLE CONTRIBUTION TO THE ECONOMY AND CATERES TO THE REQUIREMENTS OF THE FORMAL ECONOMY. HOWEVER, ITS NEGATIVE REPERCUSSIONS CANNOT BE IGNORED.

INFORMAL WORKERS ALSO WORK UNDER WORSE WORKING CONDITIONS WITH LITTLE JOB SECURITY, NO PERKS OR PROTECTIONS AND WITH LOW WAGES. THE PROTECTIONS GUARANTEED TO WORKERS UNDER DIFFERENT LEGISLATIONS ARE NOT COMPLIED WITH BY THE INFORMAL SECTOR, AND THEY ALSO ESCAPE THE PURVIEW OF THE AUTHORITIES.

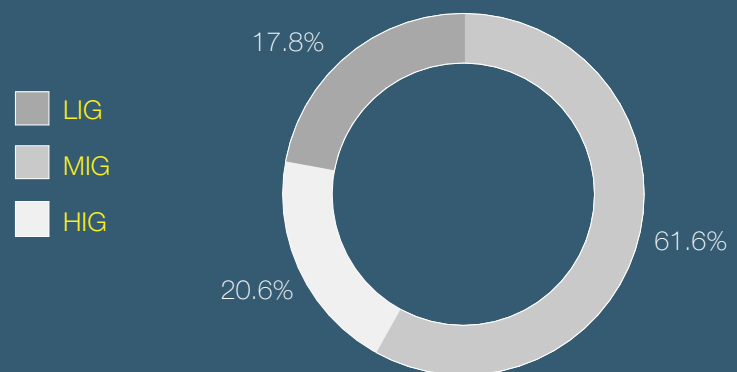
THE PERCENTAGE OF WORKFORCE IN THE FORMAL SECTOR IN MUMBAI IS HIGHER THAN THAT OF THE NATION. 68% OF MUMBAI'S WORKFORCE IS EMPLOYED BY THE INFORMAL SECTOR. A VAST MAJORITY OF THESE WORKERS ARE THE URBAN POOR - EXCLUDED NOT ONLY FROM FORMAL SECTOR JOBS, BUT ALSO FROM FORMAL SECTOR HOUSING - LIVING IN SLUMS AND INFORMAL SETTLEMENTS ACROSS THE CITY.

THROUGHOUT THE DECADE, THERE WAS A SHIFT FROM WORKERS WORKING IN THE AGRICULTURE SECTOR TO SERVICES, WHILE THE OF WORKERS IN THE INDUSTRIES REMAINS AT A SIMILAR PERCENTAGE.

HOUSING AFFORDABILITY AND INCOME GROUP CLASSIFICATION



INCOME GROUP DISTRIBUTION IN INDIA

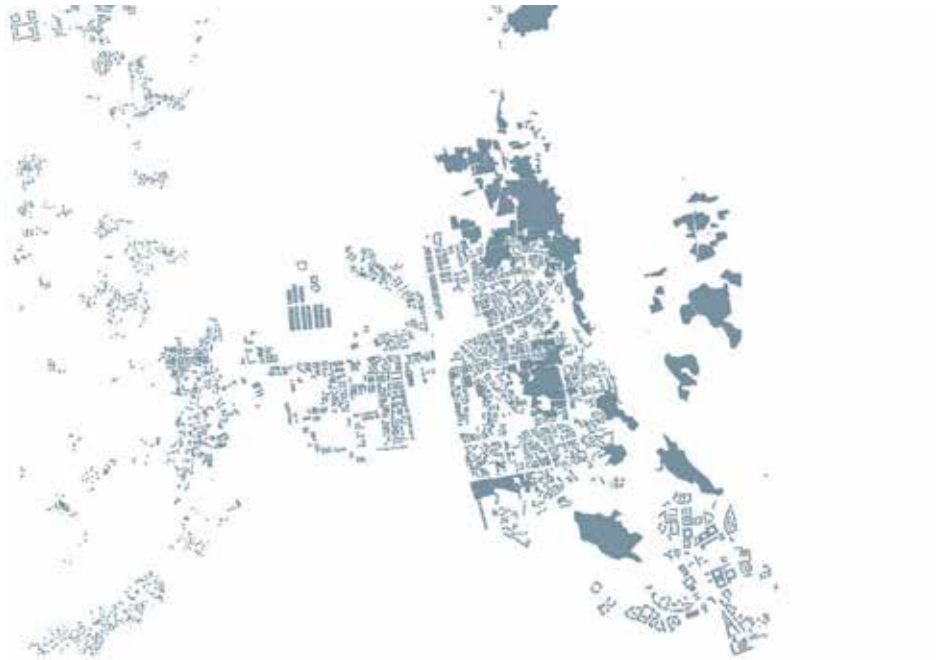


INCOME GROUPS AND AFFORDABILITY

OUT OF TOTAL 228.4 MILLION HOUSEHOLDS OF THE COUNTRY AT THE END OF 2009-10, 47.6 MILLION WERE HIGH INCOME HOUSEHOLDS (20.44 PER CENT), 140.7 MILLION (61.6 PER CENT) WERE MIDDLE INCOME HOUSEHOLDS AND 41.0 MILLION (17.96 PER CENT) WERE LOW INCOME HOUSEHOLDS.

MIDDLE INCOME HOUSEHOLDS ARE THE LARGEST INCOME GROUP IN MODERN INDIA. AS WELL AS THE LARGEST CONSUMER GROUP FOR HOUSING. ON THE OTHER HAND, AFFORDABLE HOUSING SECTOR IS THE FASTEST GROWING SEGMENT IN INDIA, AND THERE IS A PARADIGM SHIFT OF AFFORDABLE HOUSING TAILORED TO THE ASPIRATIONS OF THE MIDDLE CLASS LIVING STYLE.

THE HUGE DISPARITY OF INCOME GAP IN INDIA RESULTS IN A WIDE RANGE OF DIFFERENCES IN TERMS OF SQUARE METERS PER HOUSEHOLD, RANGING FROM 232M² FOR MOST LUXURIOUS HOUSEHOLDS TO 28M² PER HOUSEHOLD IN THE EWS.



NALASOPARA

STARTING WITH THE PERIOD OF INDUSTRIALIZATION (1850-1920) MUMBAI WAS GROWING AT AN ACCELERATED PACE. DUE TO THE TECHNOLOGICAL PROGRESS AND NEW INDUSTRIES, A BIG AMOUNT OF WORKING OPPORTUNITIES WAS CREATED ALL OVER THE CITY. AFTER THE RAILWAY CONNECTIONS WERE COMPLETED IN 1863 AND THE SUEZ CANAL WAS OPENED IN 1869, MUMBAI TURNED INTO THE SO CALLED 'INDIA'S GATEWAY'.

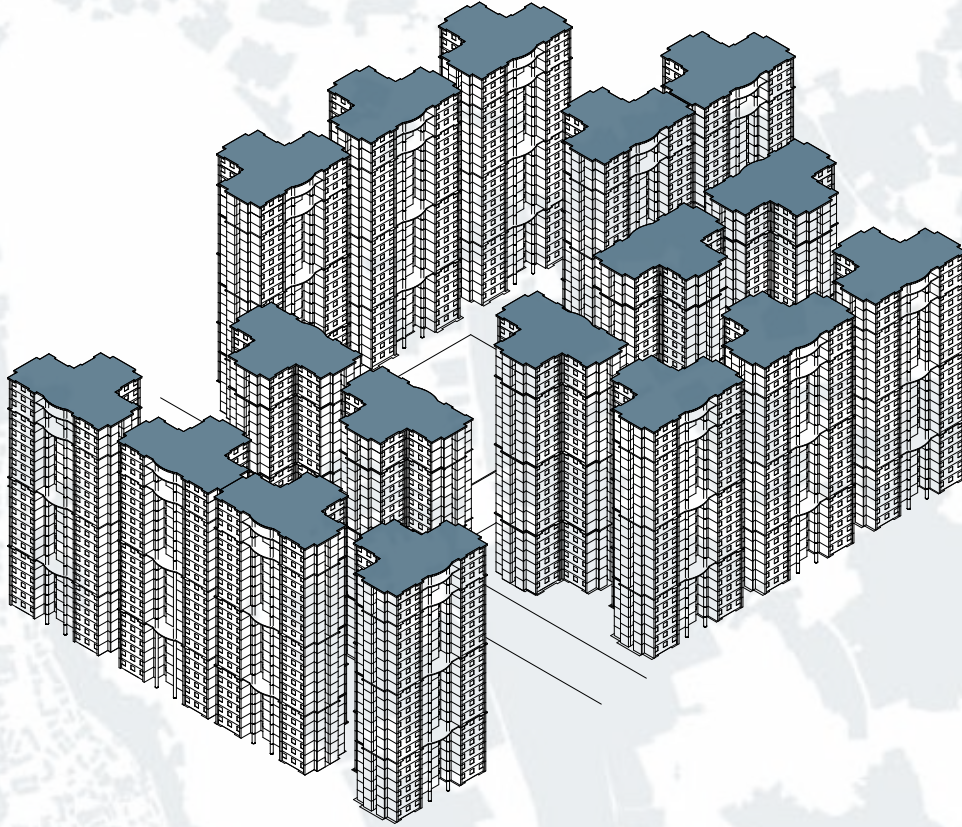
HISTORICALLY, PEOPLE WERE ALWAYS INTERESTED IN SETTLING NEXT TO THE TRANSPORTATION JUNCTIONS BECAUSE OF THE GOOD AND FAST CONNECTION BETWEEN THEIR HOMES AND WORKING PLACES. THE TRAIN LINE PROVIDED NEW OPPORTUNITIES FOR THE CITY TO EXPAND. THIS PHENOMENON ENTAILED A POPULATION GROWTH OF MORE THAN 500%¹ IN LESS THAN ONE HUNDRED YEARS. ACCOMPANYING THIS SHOCKING NUMBERS, THE LACK OF AFFORDABLE HOUSING ENSUED.

THE NEWCOMERS HAD TO TURN TO THE ILLEGAL SQUATTER SETTLEMENTS OF THE LAND, WHICH LED TO THE GROWTH OF INFORMAL COLONIES, WHICH SPREAD AROUND ALL MUMBAI'S METROPOLITAN REGION UP NORTH TO THE AREA OF VASAI VIRAR. NALASOPARA - A TOWN, SITUATED ONLY FORTY MINUTES BY TRAIN FROM MUMBAI CENTRAL, WITH THE CONSIDERABLY LOW RENT PRICES (IN COMPARISON WITH MUMBAI SOUTH), RAPIDLY BECAME A HARBOR FOR THOUSANDS OF NEWCOMERS.

¹ ROW ANANDA T, CENSUS OF INDIA (BANGALORE, GOVERNMENT PRESS, 1901)



MHADA DEVELOPMENT



THE WEST OF THE CITY CONSISTS OF THE OLD VILLAGE AND THE NEW DEVELOPMENTS OF APARTMENT BUILDINGS FOR LOW INCOME GROUP (LIG) AND MIDDLE INCOME GROUP (MIG).

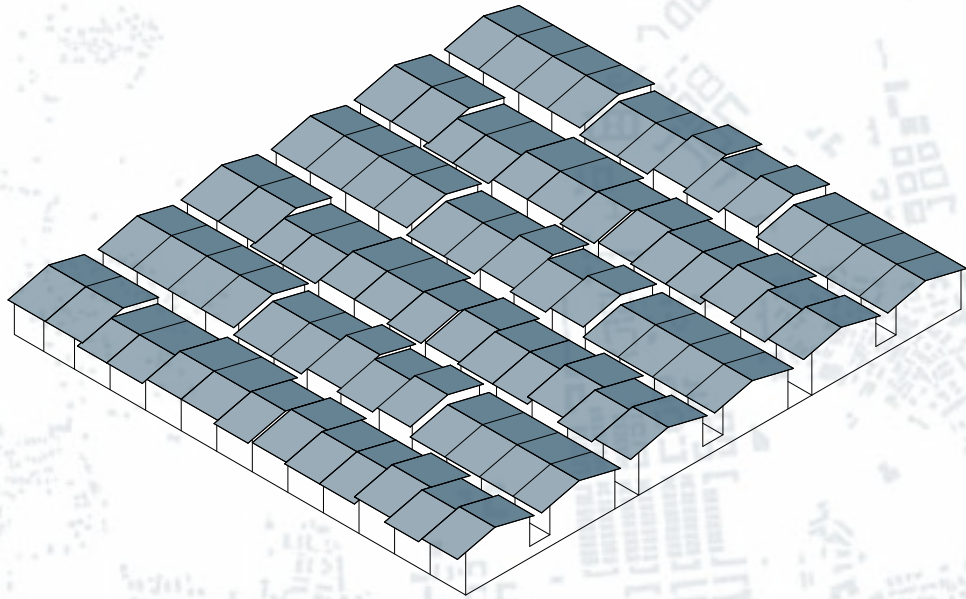
SO CALLED MHADA HOUSING COLONY, DISTINGUISHED BY HIGH DENSITY, NO RELATION TO THE GROUND, LACK OF ECONOMIC ACTIVITY AND ABSENCE OF PROPER PUBLIC TRANSPORT.

EVEN THOUGH MAHARASHTRA HOUSING AND AREA DEVELOPMENT AUTHORITY WERE ESTABLISHED TO DEAL WITH AFFORDABLE HOUSING, THE INTERESTS OF INHABITANTS OF INFORMAL SETTLEMENTS OF NALASOPARA, WHO BELONG TO ECONOMICAL WEAKER SECTION (EWS), WERE NOT INCLUDED INTO THE INITIAL SCHEMES.





BAITHI CHAWLS



ONE OF THE MAIN DISTINGUISH OF BAITHI CHAWLS IS THE SENCE OF COMMUNITY. ITS ALLEY IS A CRAMPED SPACE, A VERY LOVELY SOCIAL AREA THAT WORKS AS AN EXTENSION OF THE HOMES.

THIS IS WHERE THE PRIVATE LIVES OF THE DWELLERS MEETS THE PUBLIC SPHERE AND WHERE FAMILY, FRIENDS AND NEIGHBORS MEET EACH OTHER. IT IS A VERY IMPORTANT SPACE FOR THE COMMUNITY TO BOND AND TO DISCUSS IMPORTANT MATTERS.



BAITHI CHAWLS

EXISTING INFORMAL SECTOR HOUSING REPRESENTS A SOLUTION RATHER THAN A PROBLEM. IT IS, MOREOVER A SOLUTION THAT APPEARS TO DENY CONVENTIONAL PLANNING ORTHODOXY. THE PRIORITIES OF THE SLUM-DWELLERS ARE FREQUENTLY NOT THOSE OF THE MUNICIPAL AUTHORITIES.

SPACE TAKE PRECEDENCE OVER PERMANENCE. A PORCH MAY BE BUILT BEFORE BATHROOM; A WORK PLACE MAY BE MORE IMPORTANT THAN A PRIVATE THAN A PRIVATE BEDROOM. THE APPARENT INVERSION OF VALUES IS ESPECIALLY EVIDENT IN THE PUBLIC SPACE. WHEREAS PLANNED SITES AND SERVICES PROJECTS USUALLY INCORPORATE RUDIMENTARY, MINIMAL CIRCULATION SPACE, THE PUBLIC AREAS OF SLUMS ARE CHARACTERIZED BY RICHNESS AND DIVERSITY.

PRESENT-DAY 'STANDARDS' ARE A POOR TOOL IN UNDERSTANDING THE COMPLEXITY OF THE HOUSING REQUIREMENTS. A NEW SET OF SETTLEMENT STANDARDS NEEDS TO BE EVOLVED. THESE STANDARDS SHOULD SEEK TO ACCOMMODATE, RATHER THAN TO ORGANIZE. THEY SHOULD REFLECT THE REALITY OF THE URBAN POOR, AND THEY SHOULD RESPOND TO THEIR SPECIAL NEEDS, NOT TO AN IDEALIZED SET OF CRITERIA.

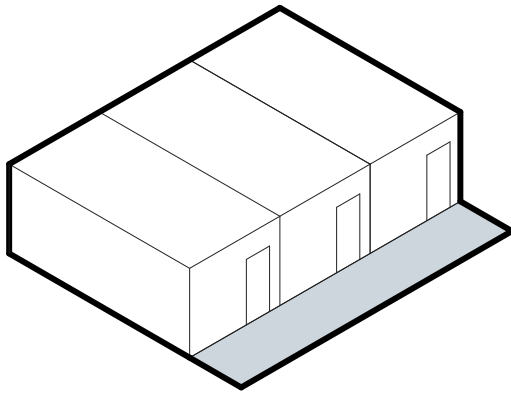
THE CURRENT PLANNING METHODOLOGY OF SITE AND SERVICES PROJECTS RECOGNIZES THE DISTINCTION BETWEEN HOUSE PLOTS AND CIRCULATION SPACES, BUT DOES NOT DEAL EFFECTIVELY WITH THE DIVERSITY OF THE ACTIVITIES THAT TAKE PLACE IN THE 'STREET'.

IN ADDITION TO ACCOMODATING MOVEMENT, THE STREET IS A PLACE OF WORK, SHOPPING AND COMMERCIAL ACTIVITY. IT IS THE SETTING OF SOCIAL AND RELIGIOUS FUNCTIONS. A GREAT VARIETY OF DOMESTIC ACTIVITIES TAKE PLACE OUTSIDE THE PLOT PROPER.

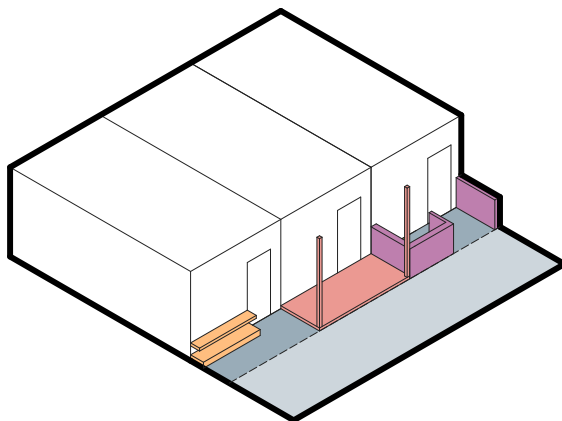
HOUSE EXTENSIONS TAKE DIFFERENT FORMS, AND REPRESENT A MEDIATING ZONE BETWEEN THE HOUSE AND THE STREET. IT CAN ALSO BE TURNED INTO THE WORKPLACE. A WIDE RANGE OF COMMERCIAL ACTIVITIES TAKE PLACE IN AND AROUND THE HOME, AND REQUIRE DIFFERENT SORTS AND SIZES OF SPACE. RELATED TO INCOME-GENERATION, LIKEWISE, ARE SMALL SHOPS, BOOTHS AND KIOSKS, FREQUENTLY A PART OF THE DWELLING OR ATTACHED TO IT.

STREETS AND OTHER PUBLIC SPACES ARE GREATLY INFLUENCED BY THE PRESENCE OF TREES, WHICH HAVE PHYSICAL, SOCIAL AND SOMETIMES RELIGIOUS SIGNIFICANCE. STREETS ARE ALSO MARKED BY THE PRESENCE OF PUBLIC STRUCTURES SUCH AS PUBLIC WATER TAPS, TEMPLES AND PLINTHS.

POSSIBILITY OF HOUSE EXTENSION

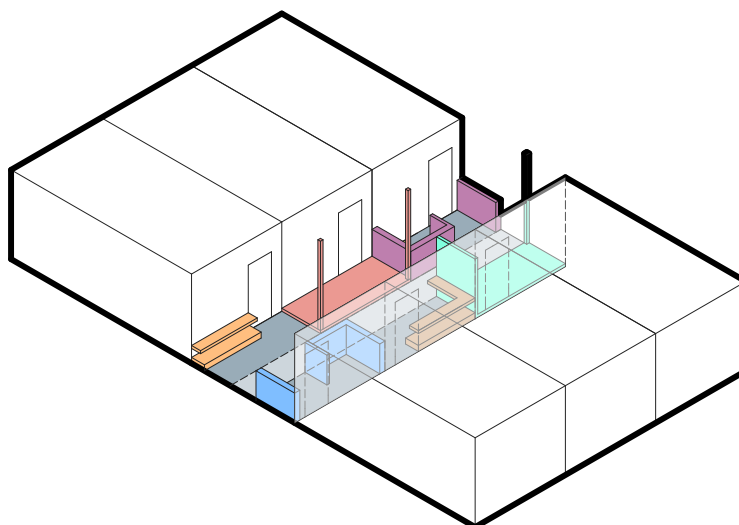


CIRCULATION SPACE



HOUSE EXTENSIONS

- STONE SEAT
- RAISED PLATFORM
- PORCH



CONTACT WITH A STREET LIFE

THERE EXISTS, IN SLUM HOUSING, A COMPLEX HIERARCHY OF WHAT WE HAVE CALLED HOUSE EXTENSIONS: SPACES IN FRONT OF THE HOME THAT ARE NOMINALLY A PART OF THE PUBLIC REALM, BUT THAT HAVE ACQUIRED A PRIVATE CHARACTER THROUGH USE, AND THROUGH VARIOUS PHYSICAL MODIFICATIONS.

THE SIMPLEST, AND SMALLEST, OF THESE EXTENSIONS IS THE STOOP, OFTEN NO MORE THAN AN ENLARGED STEP, MADE OUT OF BEATEN EARTH, STONE OR CONCRETE. THE STOOP IS USUALLY LESS THAN 1M WIDE, AND IS USED AS A STEP, AS A SEAT, OR AS A WORKBENCH.

THE SIZE OF THE STOOP IS USUALLY CONSTRAINED BY THE WIDTH OF THE STREET, OR THE TYPE OF TRAFFIC ON IT. WHEN THE STREET IS WIDER, OR WHEN THERE IS VERY LITTLE TRAFFIC, THE EXTENSION MAY BE ENLARGED TO LEAVE THE MINIMAL REQUIRED CIRCULATION AREA IN THE CENTER OF THE STREET. THE MOST COMMON FORM OF THIS KIND OF EXTENSION IS THE PLATFORM, UP TO 2M DEEP. THE CHANGE OF LEVEL CLEARLY DEMARCATES THE PRIVATE AREA, CONTROLS TRAFFIC, AND IS INEXPENSIVE TO BUILD. IT CAN ACCOMMODATE A WIDE RANGE OF ACTIVITIES, INCLUDING FOOD PREPARATION AND COOKING, GRAIN DRYING, AND CERTAIN TYPES OF HOUSEHOLD WORK. THE PLATFORM CAN ALSO BE USED AS A SLEEPING SPACE, BOTH DURING THE DAY, AND AT NIGHT.

FREQUENTLY, THE PLATFORM EXTENSION IS ELABORATED TO BECOME A ROOFED PORCH - A TRADITIONAL RURAL INDIAN HOUSE SPACE. THE PORCH ROOF CAN BE TEMPORARY (PLASTIC, CANVAS, REEDS) OR MORE PERMANENT (TIN, PLASTIC, CLAY TILES). A PORCH SERVES THE SAME USES AS A PLATFORM, AND, IN ADDITION, IS OFTEN USED AS A STORAGE SPACE, BOTH FOR HOUSEHOLD GOODS, AND FOR VEHICLES SUCH AS PUSHCARTS, MOPEDS, BICYCLES AND MOTOR-CYCLES. THE PRESENCE OF THE PORCH SUPPORTS ALSO ALLOWS CLOTHES-LINES TO BE FASTENED.

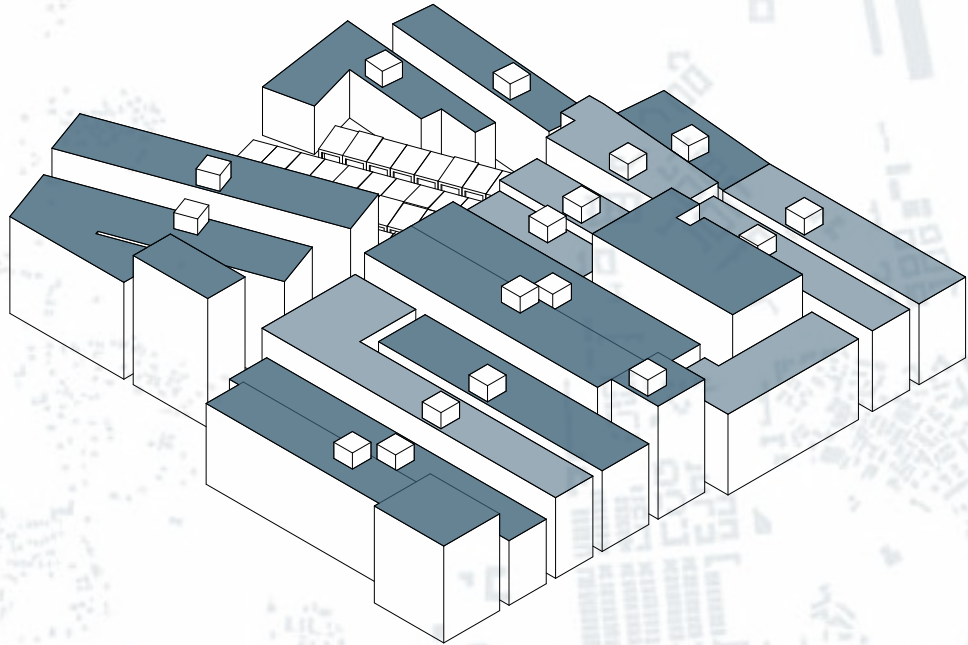
A FURTHER ELABORATION OF THE PORCH IS THE OUTDOOR ROOM, A ROOFED PLATFORM WHICH ACHIEVES A GREATER MEASURE OF PRIVACY THROUGH THE USE OF WALLS ON ONE OR TWO SIDES. THE OUTDOOR ROOM CAN ACCOMMODATE SOME FAIRLY PRIVATE ACTIVITIES SUCH AS WASHING.

THE REASON WHY PEOPLE ARE BUILDING EXTENSIONS IS THAT PLOTS ARE EXTREMELY SMALL, AND MANY ACTIVITIES CANNOT BE ACCOMMODATED INSIDE THE HOUSE. THE PORCH OR PLATFORM IS A FEATURE OF INDIAN RURAL HOUSING THAT PEOPLE UNDERSTAND, AND WHICH IS EASILY INTEGRATED INTO EVERYDAY LIFE. THE PUBLIC NATURE OF THIS PART OF THE HOUSE ALLOWS A GREATER CONTACT WITH STREET-LIFE. AND, OF COURSE, PLATFORMS AND PORCHES ARE INEXPENSIVE.





MHADA DEVELOPMENT



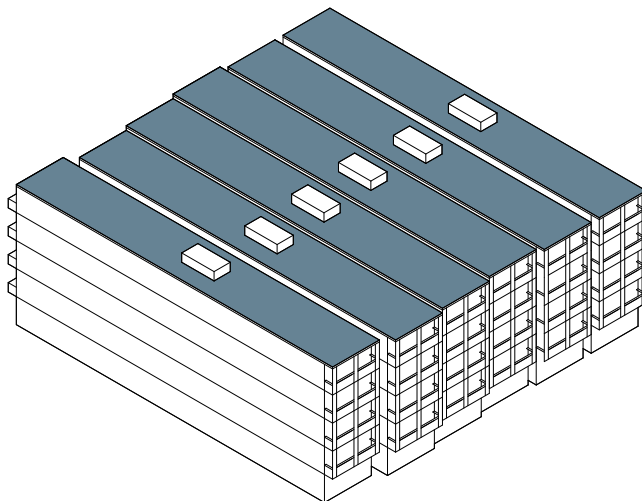
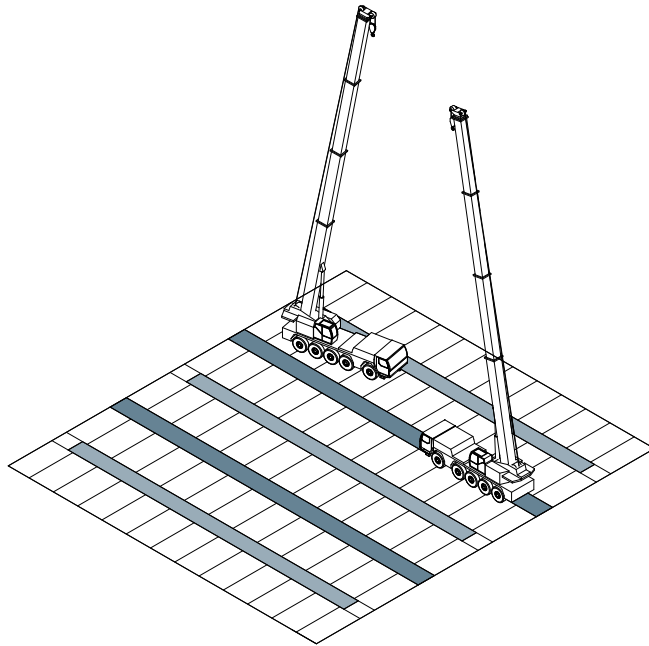
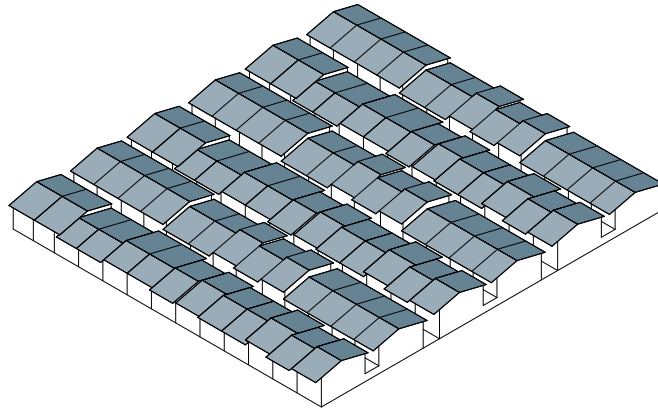
SO CALLED 'HANDSHAKE' CHAWLES AROSE AS THE RESULT OF THE HIGH DEMAND FOR HOUSING IN THIS AREA AND DEVELOPER'S ECONOMIC INTEREST.

SIMILAR TO SLUM REHABILITATION SCHEMES (SRS), WHERE DEVELOPERS WERE ENTITLED TO CLEAN OUT THE EXISTING SLUMS AND DEVELOP THE LAND FOR THEIR OWN BENEFITS, ON THE CONDITIONS THAT ALL RESIDENTS WILL BE REHABILITATED AND PROVIDED WITH A TENEMENT FOR FREE, EASTERN PART OF THE CITY IS GRADUALLY TURNING INTO VERTICAL SLUM AREA.









TRANSFORMATION FROM BAITHI TO HANDSHAKE

THE EAST PART OF NALASOPARA CONSISTS OF BAITHI CHAWLS AND THEIR 'UPGRADED' VERSION – HANDSHAKE CHAWLS.

THE LATER ONE AROSE AS THE RESULT OF THE HIGH DEMAND FOR HOUSING IN THIS AREA AND DEVELOPER'S ECONOMIC INTEREST. SIMILAR TO SLUM REHABILITATION SCHEMES (SRS), WHERE DEVELOPERS WERE ENTITLED TO CLEAN OUT THE EXISTING SLUMS AND DEVELOP THE LAND FOR THEIR OWN BENEFITS, ON THE CONDITIONS THAT ALL RESIDENTS WILL BE REHABILITATED AND PROVIDED WITH A TENEMENT FOR FREE. EASTERN PART OF THE CITY IS GRADUALLY TURNING INTO VERTICAL SLUM AREA.

PROCEEDING FROM THE IDEAS OF EXTREME DENSIFICATION, THE ORIGINAL ONE-STOREY BAITHI CHAWLS WERE REPLACED BY 4-5-STOREY SLAB BUILDINGS WITHOUT TAKING INTO ACCOUNT THE COMPLEXITY OF EXISTING SOCIAL AND ECONOMIC NETWORKS. THE INITIAL IDEA TO PROVIDE ALL NEWCOMERS WITH AFFORDABLE HOUSING FAILED TO MEET THE NECESSITIES OF THE URBAN POOR.

THE REDEVELOPMENT IN THE RAHMAT NAGAR AREA OF NALASOPARA TOOK UP ABSURD AND SOMETIMES DANGEROUS FORMS. HAVING POOR HYGIENIC CONDITIONS CAUSED BY THE LACK OF A DAYLIGHT AND NATURAL VENTILATION, (AT SOME POINTS THE DISTANCE BETWEEN BUILDINGS IS NO MORE THAN 15 CM) LIVING THERE FOR A LONG TIME MAY BE HARMFUL FOR PEOPLE'S HEALTH.



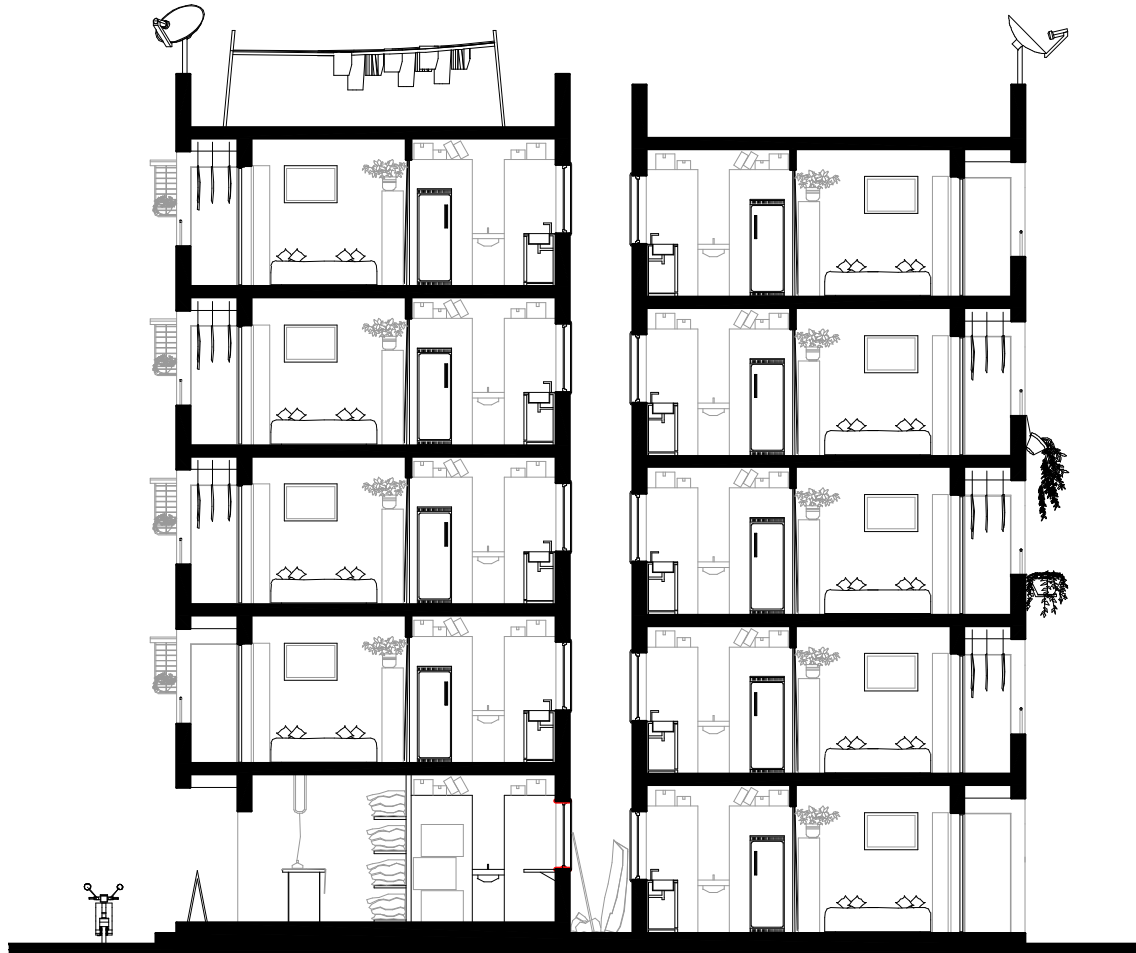


THE PROCESS OF THE LAND TRANSFORMATION WAS VERY FAST, STARTING WITH 2002 THE EASTERN PART OF NALASOPARA (THE AREA OF RAHMAT NAGAR) WAS GROWING IN AN ACCELETARED PACE, GRADUALLY REPLACING BAITHI CHAWLS WITH THE HIGH RISE BUILDINGS.

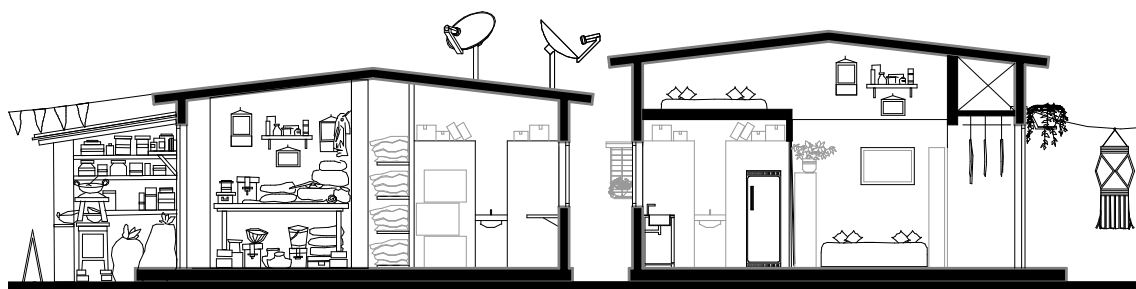
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HANDSHAKE CHAWLS

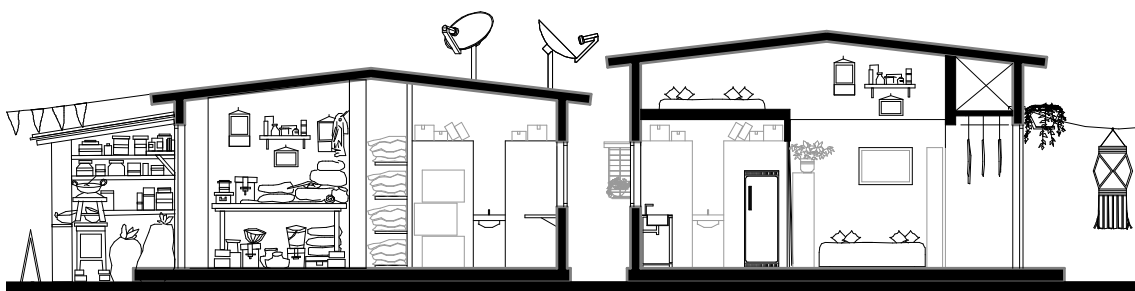


BAITHI CHAWLS





BAITHI CHAWLS





**INCOME
GENERATION**

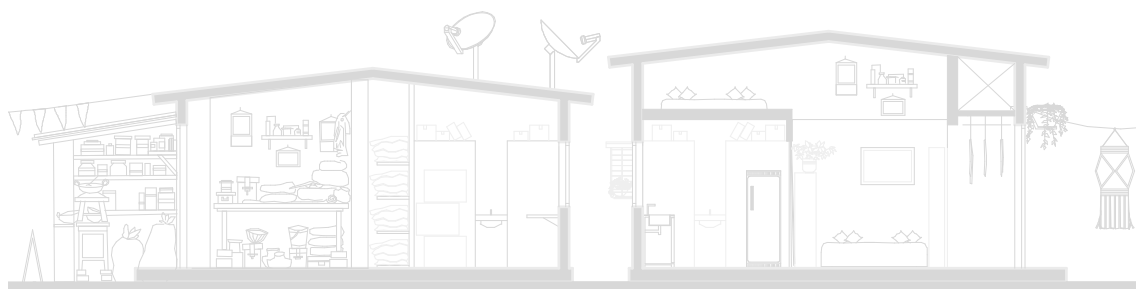
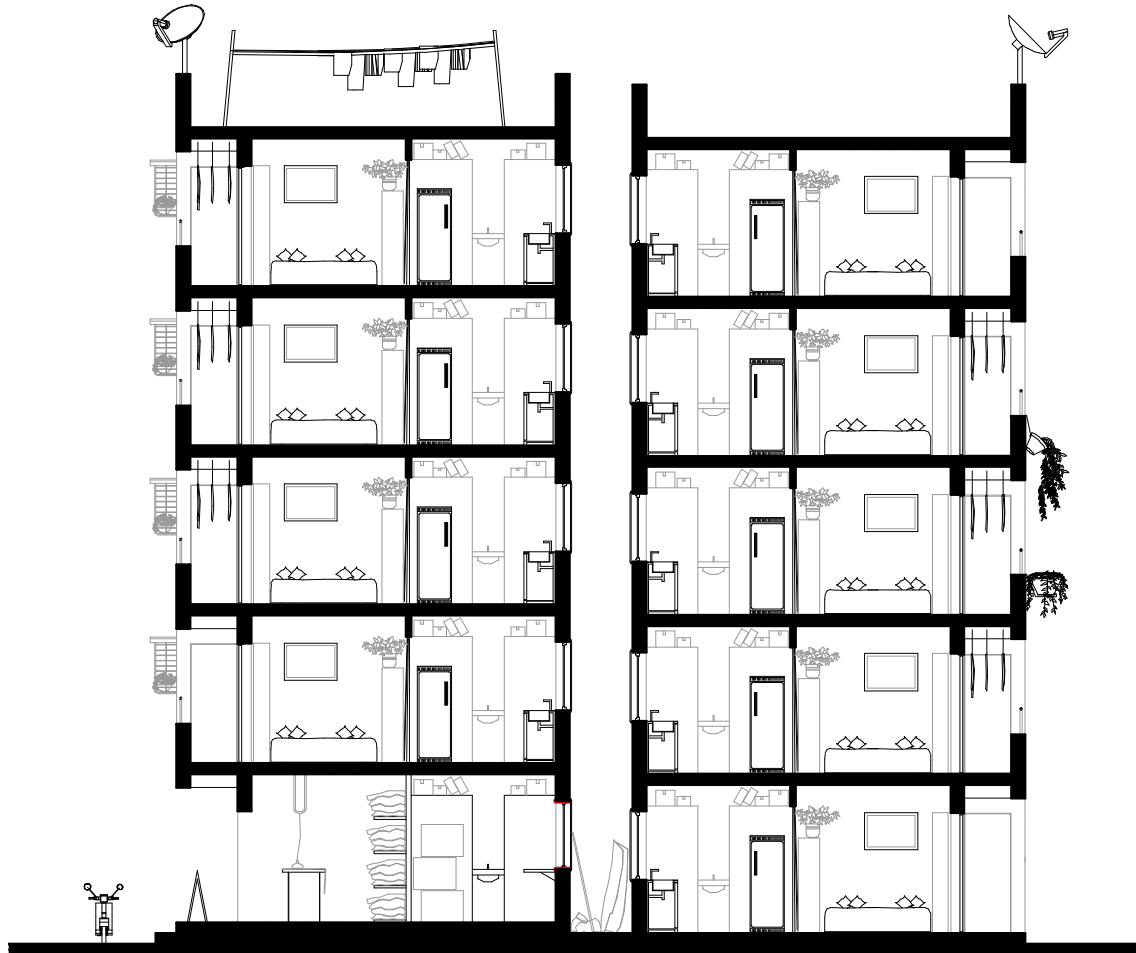


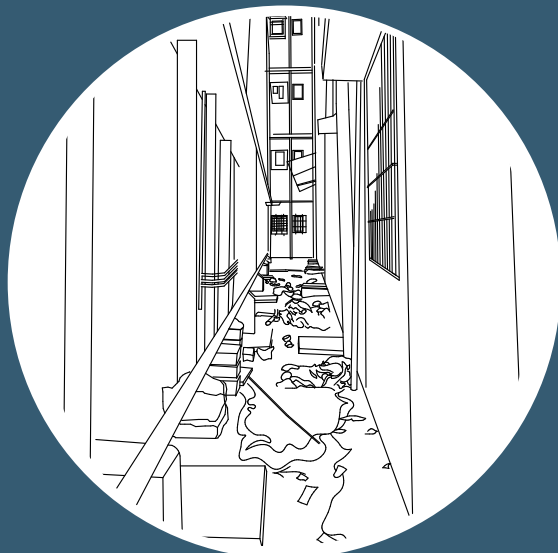
**SOCIAL
INTERACTION**



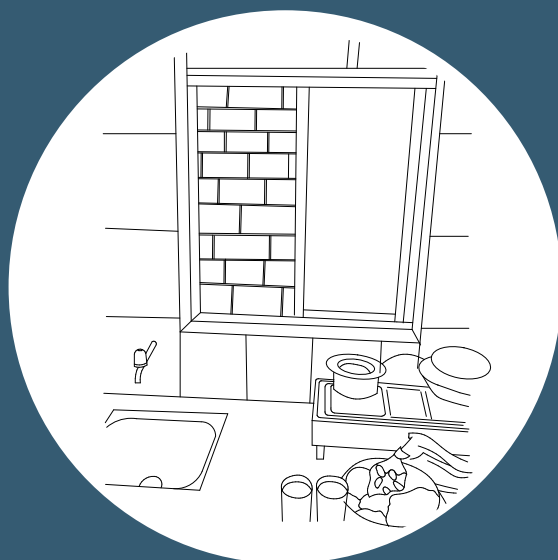
**MULTI-
FUNCTIONAL
EXTENSION**

HANDSHAKE CHAWLS





**POOR HYGIENIC
CONDITIONS**



**LACK OF
VENTILATION**



**OUTDOOR
NEGLIGENCE**



UNUSED PLINTH



**LACK OF
DAY LIGHT**

PROBLEM STATEMENT

NALASOPARA EAST GREW AS A SATELLITE DORMITORY TOWN OF MUMBAI WITH A **CHAOTIC MASS OF MONOTONOUS BUILDINGS** WITH **POOR INFRASTRUCTURE AND IMPOSSIBILITY OF COMMUNITY AND INFORMAL ECONOMY.**

THE LACK OF INCOME GENERATION SPACES, MEETING PLACES, EDUCATIONAL FACILITIES AND CULTURAL AMENITIES TRANSFORM THE CITY INTO MONO-FUNCTIONAL ZONE, WHICH **FAILS TO MEET THE NECESSITIES OF THE NEWCOMERS.**

«WHEN THE TOWN WAS EXPANDING, ITS PUBLIC SPACES WERE SHRINKING.»

PK DAS

RESEARCH AIM

INVESTIGATION OF **THE NEEDS AND AMBITIONS OF PEOPLE**
IN THE NEIGHBOURHOOD, ANALYZING THE EXISTING OUTDOOR
SPACE OF DIFFERENT SCALES, ITS **POSSIBILITIES, FORMATION**
TOOLS AND RELATION TO THE DWELLING.

RESEARCH QUESTION

TO WHAT EXTENT **THE SENSE OF COMMUNITY** OF THE BAITHI
CHAWLS CAN BE PRESERVED (ENHANCED) IN **AN AFFORDABLE**
DWELLING TYPOLOGY, OFFERING **A COMPETITIVE ALTERNATIVE**
TO THE CURRENT DEVELOPMENT?

RESEARCH SUB-QUESTIONS

WHAT ARE THE ELEMENTS THAT DETERMINE COMMUNITY?

HOW CAN SOCIAL AND INCOME GENERATING ACTIVITY BE
STIMULATED WITHIN THE FRAME OF A NEW DEVELOPMENT?

WHAT ARE THE MAIN POSSIBLE SOURCES OF INCOME GENERATED
IN THE NEIGHBORHOOD?

TO WHAT EXTEND LOW-RISE, HIGH-DENSE APPROACH COMBINED
IN BAITHI CHAWL CAN BE TRANSFORMED IN A NEW, COMPETITIVE
(REGARDING FSI) SCHEME, WHILE PRESERVING THE SENSE OF
COMMUNITY?

WHAT ARE THE ELEMENTS, WHICH IDENTIFY AND INFLUENCE
SPACES FOR SOCIAL INTERACTIONS AND INCOME GENERATION?

ASSIGNMENT

ON THE URBAN LEVEL - TO **LEVEL OUT THE DENSITY** OF THE BAITHI CHAWLS AND THE HANDSHAKE CHAWLS, CREATE A SEAMLESS NET OF OPEN SPACES

ON THE LEVEL OF NEIGHBORHOOD - TO ACHIEVE **DIVERSITY**, REGARDING VARIOUS TYPOLOGIES RESPONDING TO DIFFERENT INCOME GROUPS, PROVIDE HEALTHY LIVING CONDITIONS

ON THE LEVEL OF CLUSTER - CREATE **SOCIAL AND INCOME GENERATION SPACES**, ENHANCE THE QUALITY OF LIFE

ON THE LEVEL OF DWELLING - DIVERSITY REGARDING LEVELS OF **PRIVACY**. POSSIBILITY FOR **EXTENSION**

MY GOAL IS TO FIND OUT A SOLUTION, THAT CAN BE BOTH ATTRACTIVE FOR THE DEVELOPER, REGARDING COMPETITIVE FSI, CREATING COMMERCIAL SPACES AND ACTIVATE THE STREETS FOR THE DWELLERS, CONSIDERING ECONOMIC AND SOCIAL PATTERNS AND VALUES OF THE URBAN POOR.

BOOK OF PATTERNS

अपार्टमेंट, साई बाबा मंदीर जवळ,
सावरकर मार्ग, विरार (पूर्व)
आता महागडी सजावट



WERELDHAVEN - NALASOPARA

TO HELP WITH THE RESEARCH AND GUIDE STUDENTS IN THE RIGHT DIRECTION OF INVESTIGATION, THE RESEARCH SEMINAR GLOBAL HOUSING WAS INTRODUCED. THE AIM OF THE COURSE WAS TO UNDERSTAND THE CORRELATION BETWEEN PATTERNS OF INHABITATION AND THE MORPHOLOGICAL AND TYPOLOGICAL CHARACTERISTICS OF HOUSING SETTLEMENTS BY MEANS OF VISUAL ETHNOGRAPHY.

BASED ON CHRISTOPHER ALEXANDER'S 'A PATTERN LANGUAGE', THE ASSIGNMENT FOR THE STUDIO WAS TO CREATE OUR OWN BOOK OF PATTERNS, BY MEANS OF MATERIALS (INFORMATION) COLLECTED DURING THE INVESTIGATION. THE RESEARCH PROCESS WAS SPLIT INTO TWO PARTS. IN THE FIRST STAGE, BEING DIVIDED INTO GROUPS OF THREE, WE WERE ANALYZING DIFFERENT PROJECTS DESIGNED BY DIFFERENT INTERNATIONAL ARCHITECTS, WHICH ARE SITUATED IN THE NETHERLANDS. THIS CASE WORKED BOTH AS A PART WE USED FOR THE COMPARATIVE STUDY AND AS A PRACTICAL TRAINING BEFORE INDIA. DURING THE SECOND STAGE, THE SAME GROUPS OF STUDENTS WERE INVESTIGATING AN AREA OF NALASOPARA, BY APPLYING METHODS AND SKILLS GAINED DURING THE FIRST PHASE. THE OUTCOME OF THE COURSE SHOULD BE AN INDIVIDUAL CRITICAL REFLECTION ON THE COMPARISON OF THESE TWO CASE STUDIES.

TO START WITH, I WOULD LIKE TO SAY THAT THESE TWO PHASES WERE HARDLY EQUAL IN RELATION OF TIME ALLOTTED FOR THE RESEARCH, AVAILABILITY OF DATA AND ACCESS TO THE PRIMARY SOURCES. THUS, THE FIRST PHASE BECAME A VITAL EXERCISE, WHERE WE COULD UNDERSTAND THE COMPLEXITY OF THE ASSIGNMENT AND DEVELOP THE TOOL TO REACH THE RESULT. HERE OUR GROUP WAS FORTUNATE TO INVESTIGATE A RESIDENTIAL COMPLEX IN ROTTERDAM, DESIGNED BY A DUTCH ARCHITECT JAN WILS. THE PROJECT, NAMED 'WERELDHAVEN', WAS REALIZED BETWEEN 1941 AND 1943 AND MANIFESTS AS A SLAB SIX-STORY BUILDING WITH COMMERCIAL FUNCTIONS ON THE GROUND FLOOR ALONG TO THE BUSY ROUTE OF GOUDSESINGEL. OTHER BUILDINGS, WHICH ARE ALSO A PART OF THE COMPLEX, ARE SITUATED BEHIND THE ELONGATED BLOCK. GRADUALLY DECREASING IN THE AMOUNT OF FLOORS (FROM 5 TO 2) TOWARDS A WARANDE STREET PARK, AND BEING 'PROTECTED' FROM THE BUSINESS AND NOISES OF THE MAIN ROAD, THE SPACES IN-BETWEEN EXISTING STRUCTURES HAVE A VERY QUIET AND PRIVATE ATMOSPHERE.

EVEN THOUGH THESE WELL-MAINTAINED STREETS WERE QUITE BLANK AND UNINHABITED, WHICH COMPLICATED THE TASK OF COMMUNICATING WITH THE RESIDENTS, WE SUCCEEDED TO FIND SOME PEOPLE WHO WERE GLAD TO SHARE THEIR THOUGHTS AND OPINIONS WITH US. IN WERELDHAVEN WE UNDERSTOOD THAT THE MOST INTERESTING PART OF THE RESEARCH WAS THE CONVERSATION WITH PEOPLE WHO INHABIT AND/OR WORK IN THE AREA. THIS EXPERIENCE OF INTERVIEWING PEOPLE WAS ALSO VERY USEFUL FOR US, BECAUSE WE COULD SEE THE REALITY OF THE NEIGHBORHOOD THROUGH THE EYES OF ITS DWELLERS. BEING BASED ON THREE DIFFERENT STORIES, FROM THREE DIFFERENT PERSPECTIVES, THE REALITY WE DECIDED TO DESCRIBE TOOK A FORM OF A SYNECDOCHE (USING A PART OF SOMETHING TO REPRESENT THE WHOLE). BEING AWARE OF THE FACT, THAT OUR STORY ABOUT THREE INTERSECTING UNIVERSES WAS SUBJECTIVE AND NOT COMPLETE, WE SHOWED OUR VISION OF THE EXISTING SITUATION.

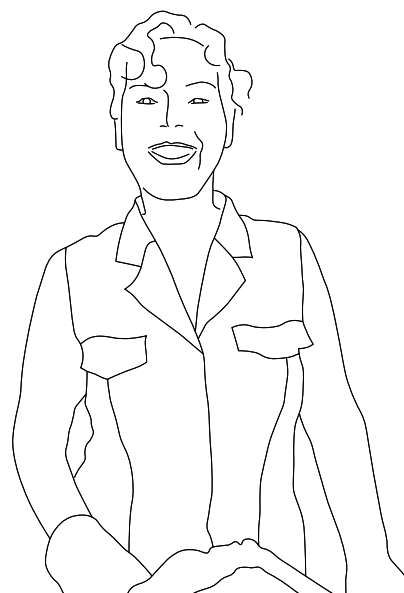
STUDIO BEIGE

**GRAPHIC DESIGNERS RUNNING AN
EXHIBITION SPACE AT THE SAME TIME.
LOCATED IN THE INDUSTRIE GEBOUW.**



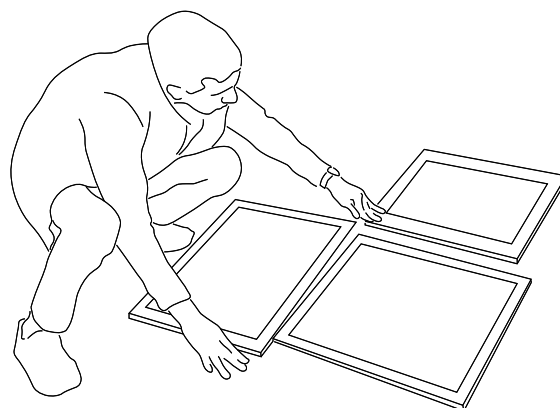
MIRIAM

**FOOD BLOGGER AT HEART. TAKING CARE
OF A FRENCH BULLDOG TWICE A WEEK.
LIVES IN WERELDHAVEN.**



AHMED

**TEACHER WITH PAINTING AS A SECRET
PASSION. TAKES INSPIRATION FROM
MOROCCON LANDSCAPES WHERE HE IS
FROM ORIGINALLY.
PROUD OF HIS FOUR CHILDREN SUCCEED
IN SCHOOL. LIVES IN WERELDHAVEN.**







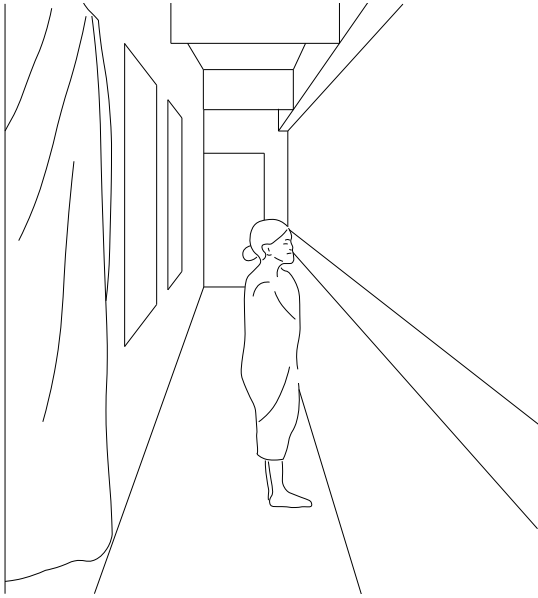
BECAUSE OF THE FUGACITY CAUSED BY THE LIMITED AMOUNT OF TIME, THE INVESTIGATION OF THE INDIAN SITE SHOULD HAVE BEEN ORGANIZED IN A VERY PRODUCTIVE WAY. FOR THIS REASON, WE DECIDED TO TAKE THE SAME APPROACH WE USED IN WERELDHAVEN AND REPLICATE IT IN MUMBAI, IN THE POLAR TO ROTTERDAM CITY OF CHAOTIC MASS OF MONOTONOUS BUILDINGS AND POOR INFRASTRUCTURE. UNLIKE EMPTY STREETS OF THE DUTCH NEIGHBORHOOD, THE AMOUNT OF PEOPLE WALKING THE STREETS OF NALASOPARA, THEIR OPENNESS, DESIRE TO COMMUNICATE AND TO BE INVOLVED IN THE DISCUSSIONS EASED THE PROCESS OF GATHERING NECESSARY INFORMATION. BY INTERVIEWING RESIDENTS AND FOCUSING ON THE WAY, THEY USE THE OUTDOOR AND INDOOR SPACE WE WERE TRYING TO UNDERSTAND AND INVESTIGATE THE RELATIONS BETWEEN PEOPLE, PLACES AND SPACES.

UNLIKE THE FIRST STAGE OF THE RESEARCH, IN NALASOPARA OUR GROUP WAS MAINLY FOCUSED ON SOCIAL SPACES. THEREFORE, THE OUTCOME OF THIS REFLECTION IS MAINLY RELATED TO THE COMPARISON OF THIS ASPECT INTO TWO DIFFERENT REALITIES. ONE OF THE DISTINCTIONS WE UNDERSTAND BY LOOKING AT INDIAN AND DUTCH CASE STUDIES IS THAT IN NALASOPARA THE DEFINITION OF THE SOCIAL SPACE IS NOT AS CLEAR AS AT WERELDHAVEN. THE REASON FOR THIS PHENOMENON IS DIRECTNESS OF THE DESIGN, WHEN ONLY A SMALL AMOUNT OF PLACES HAVE A STRAIGHT RELATION TO THE SOCIAL ACTIVITY. BESIDES A FEW SPACES, LIKE AN EMPTY OUTSIDE PLAYGROUND CALLED THE CENTRAL PARK, THE CITY IS LACKING OF PLACES INTENDED FOR PEOPLE'S INTERACTION. MOST OF THE TIME THEY HAVE A CHARACTER OF SPONTANEITY OR APPROPRIATION. EVEN THE SLIGHTEST LEVEL DIFFERENCE CAN BE TURNED INTO A MULTIFUNCTIONAL ELEMENT, A NARROW PEDESTRIAN STREET CAN BE TRANSFORMED INTO A FOOTBALL FIELD AND A SHOP PORCH WITH A FEW STEPS CAN EVOLVE INTO A CONFERENCE PLACE. THIS COMPLEXITY AND MIXED-USE NATURE OF THE SPACE IN NALASOPARA CONTRASTS WITH THE CLEARNESS AND INTEGRITY OF THE DUTCH REALITY, WHERE COMMON STREETS OR SEMI-PRIVATE COURTYARDS ARE USED WITH A DIRECT TARGET AND BY SPECIAL INTERESTS GROUPS.

IN BOTH CASES, OUR GROUP TRIED TO IDENTIFY THE SCALE OF THE PLACE USED AS A SOCIAL SPACE AND THE GROUP OF PEOPLE USING IT. AS OPPOSED TO WERELDHAVEN, IN NALASOPARA PLACES INTENDED FOR RESIDENTS' INTERACTION ARE NOT CLEARLY DEFINED IN TERMS OF BORDERS. WHILE EXPLORING THE AREA OF JAN WILS COMPLEX, WE VISITED SOME OTHER PLACES OF THE AREA, RELATED TO THE SOCIAL ACTIVITY. ONE OF SUCH SPACE WAS THE COURTYARD OF THE INDUSTRIEGEBOUW, WHICH IS USED AS AN OPEN TO AIR FOOD COURT. BEING LOCATED ON A BUSY STREET, IT WAS PROTECTED FROM A NOISE AND CONTAMINATION WITH WALLS OF NEARBY BUILDINGS, WHICH ALSO PLAYED A ROLE OF THE BOUNDARY FOR THE SPACE. ANOTHER EXAMPLE IS THE GALLERY OF A WOMAN CALLED MIRIAM, WHO IS LIVING ON THE FIRST FLOOR OF THE 6-STOREY SLAB BUILDING. THE SPACE, WHICH IS SITUATED ABOVE THE BIG SUPERMARKET IS WIDER THAN GALLERIES THAT SIT ABOVE, THEREFORE, IT IS USED AS A GATHERING PLACE FOR THE NEIGHBORS OF THIS EXACT FLOOR. IT HAS A FORM OF A SQUARE BEING LIMITED WITH THE WALL ON THE ONE SIDE AND A FENCE ON THE OTHER. SINCE THE SPECIAL CONFIGURATION OF SOCIAL SPACES OF NALASOPARA DOES NOT HAVE A DIRECT RELATION TO THE ACTUAL USAGE, WE FELT THE NECESSITY TO ADD SOME ELEMENTS THAT ACCORDING TO OUR OBSERVATION, CAN HELP TO IDENTIFY THE SOCIAL SPACE. THIS ELEMENT ARE DIFFERENT IN SIZE, MATERIALITY AND FUNCTION, BUT ALL OF THEM PLAY A ROLE OF A MAGNET, WHICH ATTRACTS MASSES. IN SOME CASES, THIS ELEMENT COULD BE A STOOP, A NARROW STREET, AN ALTAR OR EVEN A RICKSHAW.

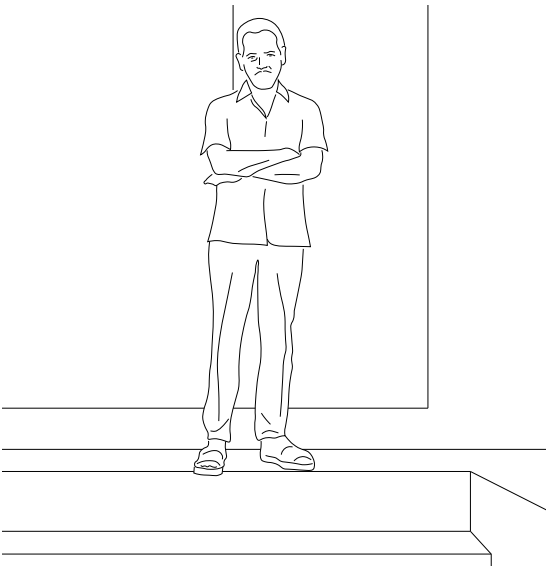
DIFFERENT KINDS OF SPACE, CONSISTING OF THE ABOVE-MENTIONED 'TRANSACTIONAL' ELEMENTS ARE ALSO ORIENTED TO DIFFERENT SOCIAL GROUPS. FOR EXAMPLE, IN THE AREA OF NALASOPARA, UNLIKE DIVERSE USE OF WERELDHAVEN, WE FOUND THAT MAIN STREETS ARE GENERALLY FILLED WITH MALE POPULATION, SOME EMPTY OPEN SPACES ARE ALWAYS FULL OF CHILDREN, HOUSES WITH NARROW ALLEYS IN BETWEEN IS A PART OF THE WOMEN DOMESTIC ACTIVITIES. THE INVESTIGATION OF SOCIAL SPACES HELPED OUR GROUP TO IDENTIFY THE DYNAMICS OF INHABITATION OF THE POPULATION. BY ANALYZING THE SPACES OF SOCIAL INTERACTION YOU CAN HAVE AN OVERVIEW OF HOW PEOPLE RELATE TO DIFFERENT PLACES AND TO EACH OTHER.





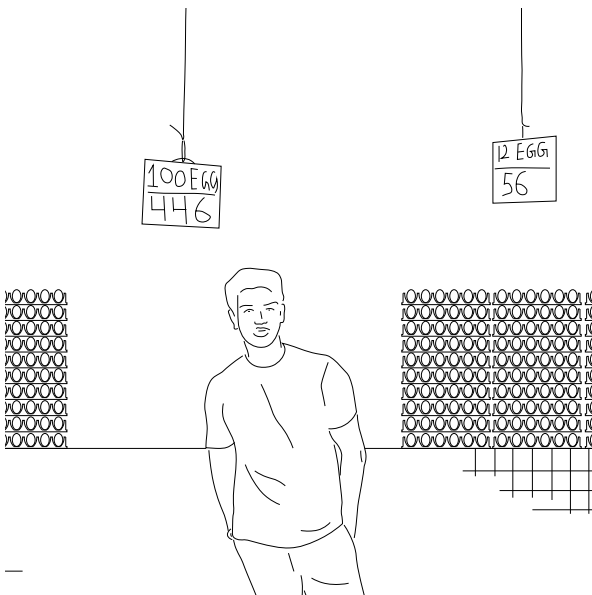
GEETA

**LIVES IN A CHAWL ON THE FIRST FLOOR
MOTHER OF TWO BOYS FROM MUMBAI
HAS A HUSBAND FROM RAJASTHAN WHO
WORKS AT CONSTRUCTION**



VISHAL

**SHOP OWNER OF DECENT MENS WEAR
KNOWS ALL THE KIDS OF VIJAY COLONY
AND LETS THEM SIT ON THE STAIRS IN
FRONT OF HIS TAILOR SHOP**



AMAN

**SELLS EGGS LIVED IN SAUDI ARABIA
BEFORE IS IN A MORE AFFLUENT AREA
OF NALASOPARA NOW HAS HIS SHOP
IN RAHMAT NAGAR BECAUSE IT IS
PROFITABLE**

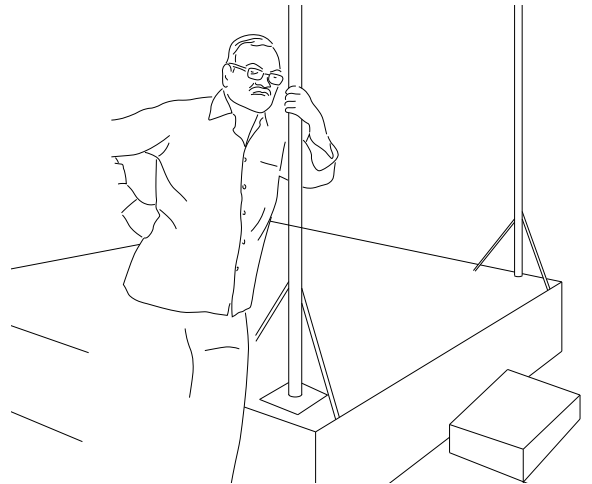
GAURAV

LIVES WITH HIS FAMILY IN A CHAWL IN RAHMAT NAGAR, HELPS OUT IN AMAN'S EGG SHOP FROM TIME TO TIME MEETS HIS FRIENDS ON THE STREET IS SAID TO CHEW TOBACCO



SANJEE GUPTA

FATHER OF THREE KIDS OWNS A SHOP IN THE BAITHI CHAWLS ORIGINALLY FROM UTTAR PRADESH LIVING IN NALA SOPARA FOR 25 YEARS ALREADY AND CALLS IT HOME



MOHAMMED

IN 10TH GRADE FATHER WORKING IN SAUDI ARABIA SINCE 6 YEARS DID NOT SEE HIM SINCE THEN WILL BE BACK IN 2-6 YEARS GOT 4 LAKH WHEN RELOCATED FROM MAHIM WILL GO BACK ON COMPLETION

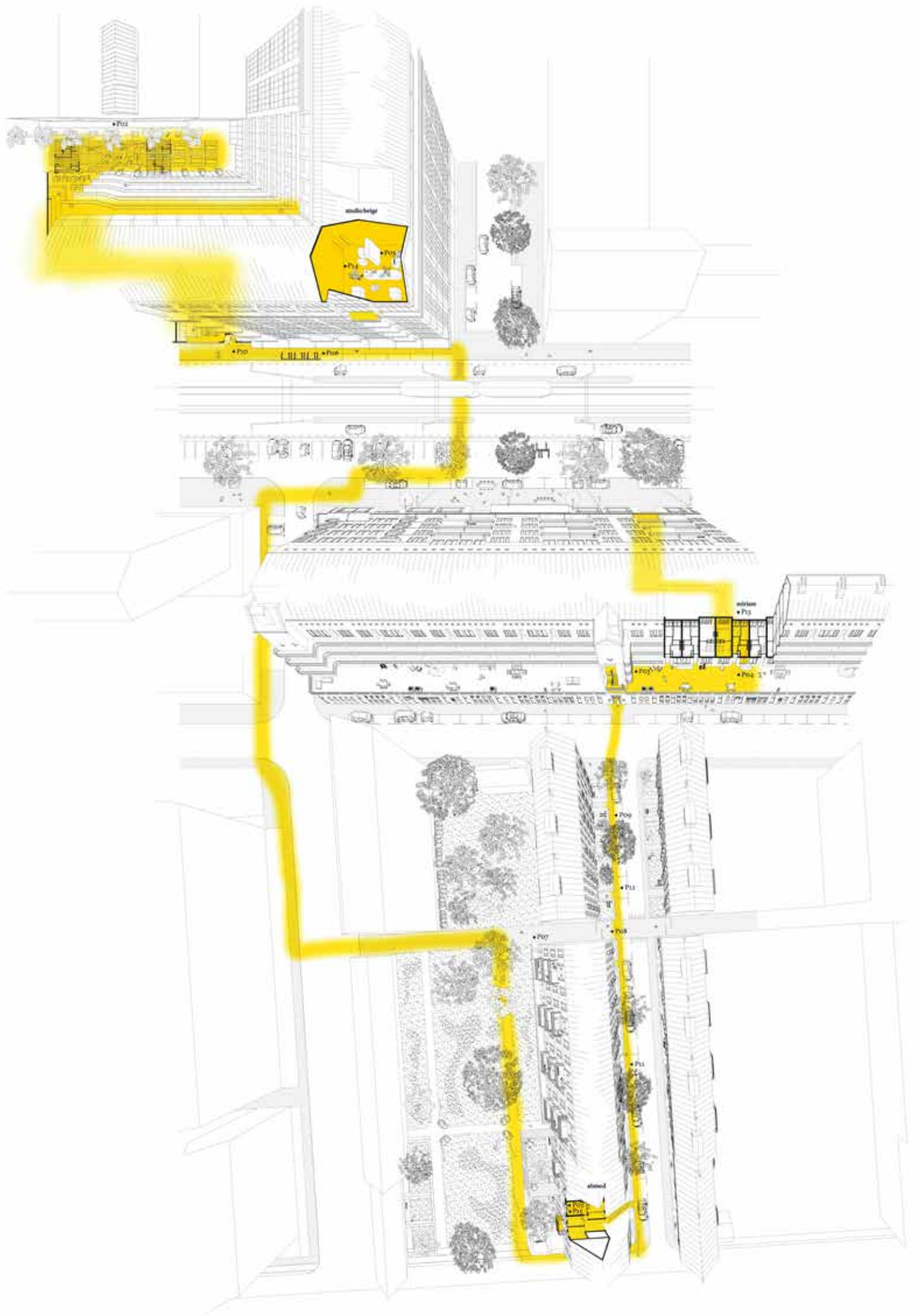






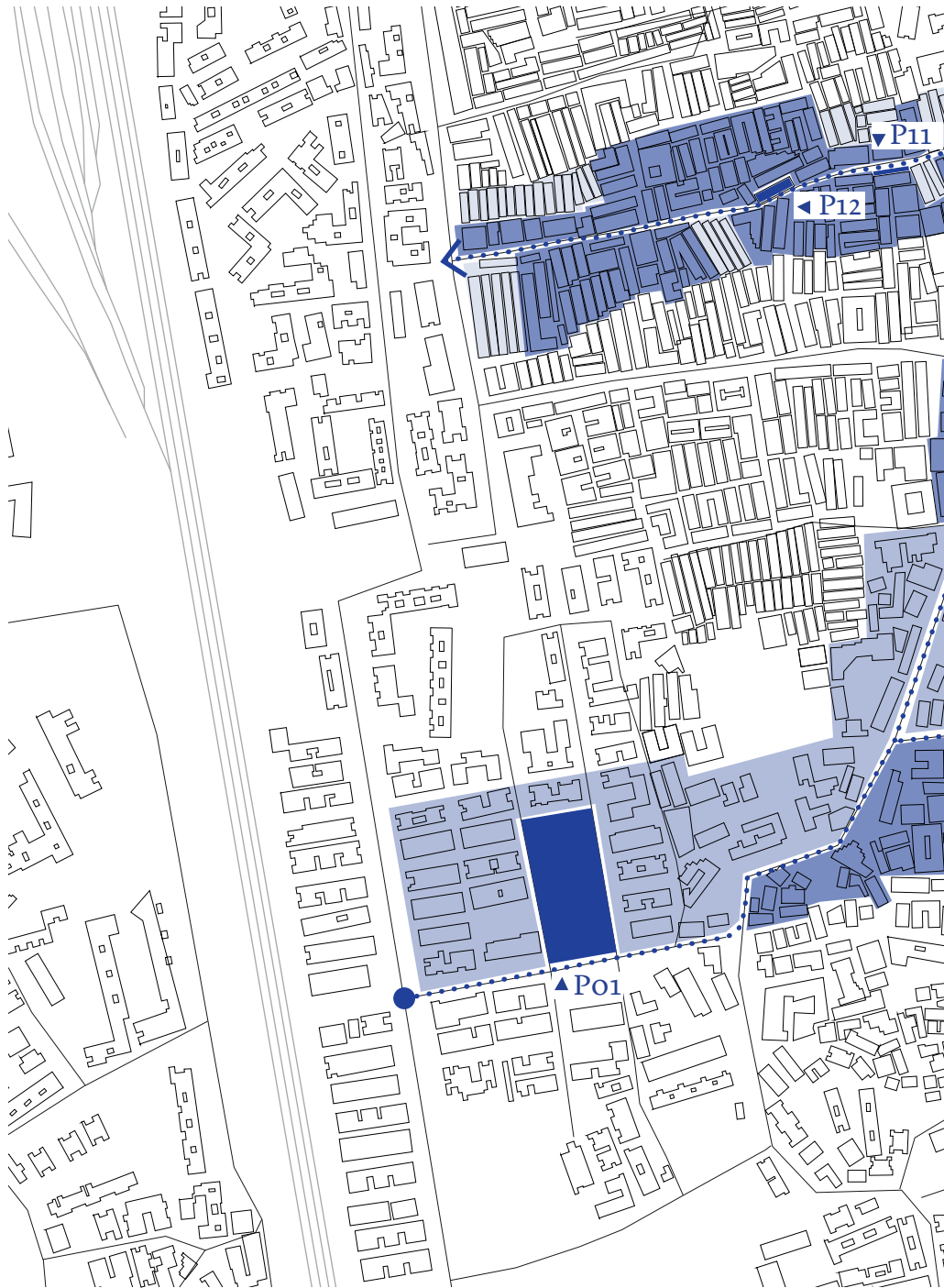
AS A RESULT OF OUR INVESTIGATION TWO BOOK OF PATTERNS WERE CREATED. BY USING THE SAME APPROACH TO IDENTIFY THE SPACES (OR ELEMENTS) OF SOCIAL INTERACTION, WE ACHIEVED TWO REALITIES, NOT SIMILAR TO EACH OTHER. THE REASONS OF THIS DIFFERENCE COULD BE DIVERSE: RANGING FROM HABITS AND CULTURE TO ECONOMIC SITUATION AND THE ATTITUDE OF THE GOVERNMENT. HAVING A FULLY DESIGNED, FORMALIZED AND LIVABLE NEIGHBORHOOD ON THE ONE SIDE, AND AN UNDEFINED, CHAOTIC NEIGHBORHOOD ON THE OTHER PROVOKES YOU TO THINK ABOUT MANY THINGS.

HOWEVER, BOTH BOOKS OF PATTERNS AND SUPPLEMENTARY DRAWINGS IS, ON THE WHOLE, A PERSONAL REFLECTION OF THE EXISTING SITUATION AND IT IS IMPORTANT TO BE CONSCIOUS OF THE FACT THAT OUR RESEARCH, BASED ON ONE AFTERNOON INVESTIGATION, COULD BE SEEN AS NOT COMPLETE AND SUBJECTIVE. EVEN GIVEN THESE FACTS, I BELIEVE THAT THIS SET OF TOOLS CAN BE USEFUL FOR THE FURTHER INVESTIGATION OF UNDERSTANDING THE RELATIONS BETWEEN PEOPLE, SPACE AND PLACE AND BELIEVE IT HAS ALREADY GIVEN ME A STRONG BASE TO MOVE FORWARD WITH MY PROJECT.



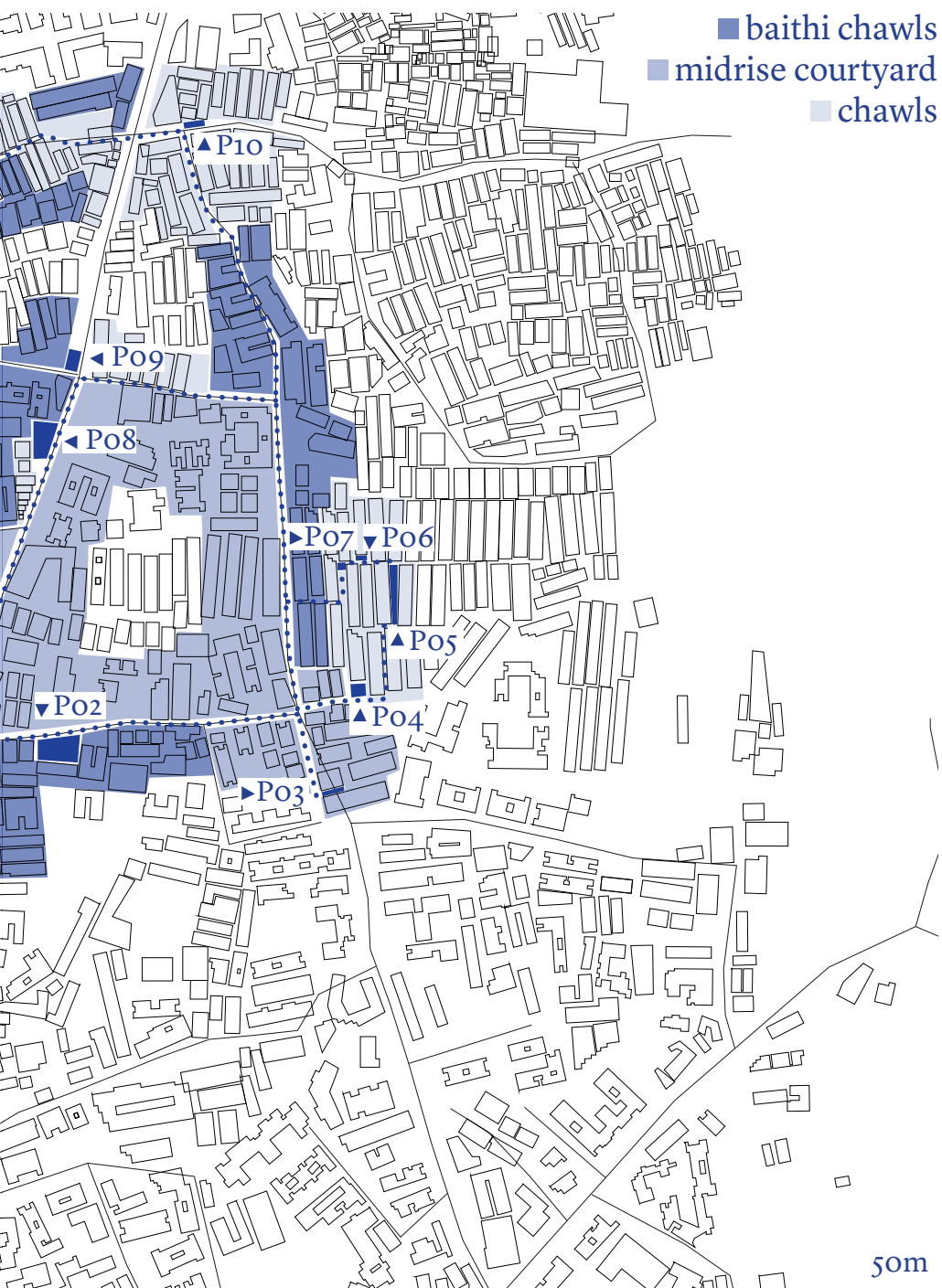


SOCIAL SPACES

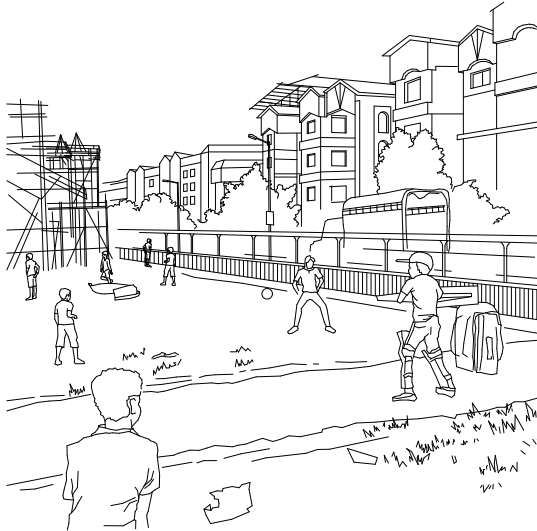


THE FOLLOWING MAP SHOWS OUR TAKEN ROUTE THROUGH THE NEIGHBOURHOOD. IT INDICATES THE LOCATIONS WHERE PATTERNS OF SOCIAL PLACES WHERE

DEPICTED [P01 – P12]. ON THE CONTRARY, THE MAP PRESENTED ON THE POSTER IS FICTITIOUS, BASED ON OUR PERSONAL PERCEPTION OF THE PLACE, COMPOSED BY DIFFERENT URBAN SITUATIONS INTO A NEW SCENE.



SOCIAL SPACES



**«WE ALWAYS COME TO PLAY HERE
BECAUSE IT'S FREE ... WE LEARNT TO
PLAY AT THE CRICKET SCHOOL BUT THAT
IS ONLY FOR MEMBERS»**

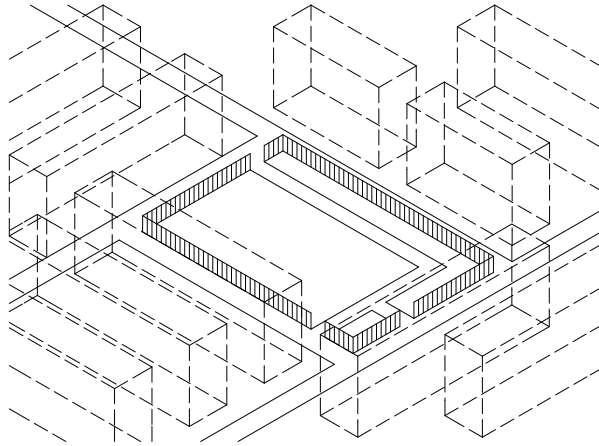


**«WE ARE WAITING FOR THE SCHOOL
BUS... CLASS WILL START
AGAIN AT 12.30 PM.»**

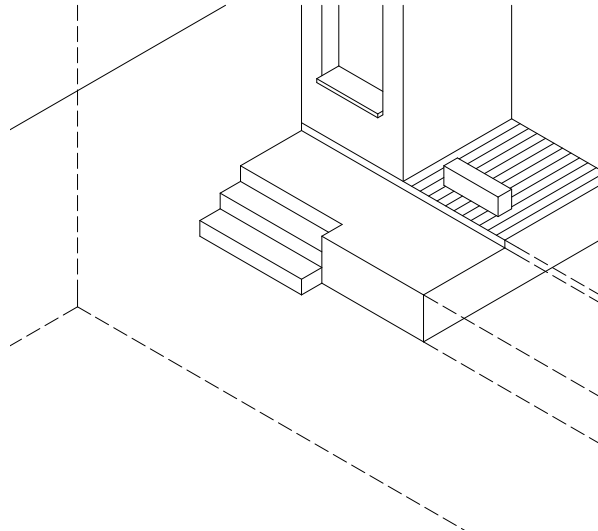


«ARGENTINA! MESSI! MESSI!»

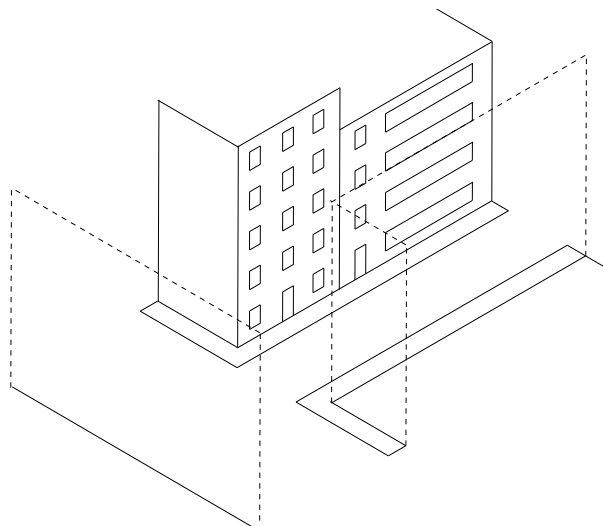
**GULLY CRICKET
P01**



**WAITING PLINTH
P02**



**GULLY FOOTBALL
P03**





«WE PREFER TO SIT HERE AND GOSSIP»

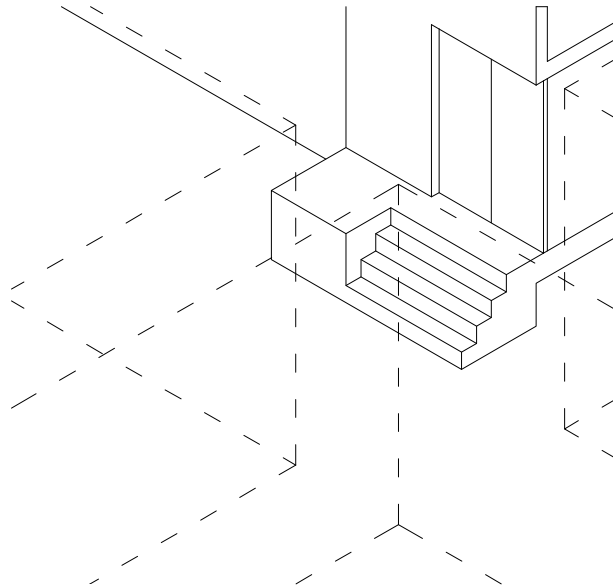


**«WOMEN LIKE TO STAY IN THEIR
COMFORT ZONE AND MEN STAY IN THE
BIGGER STREETS»**

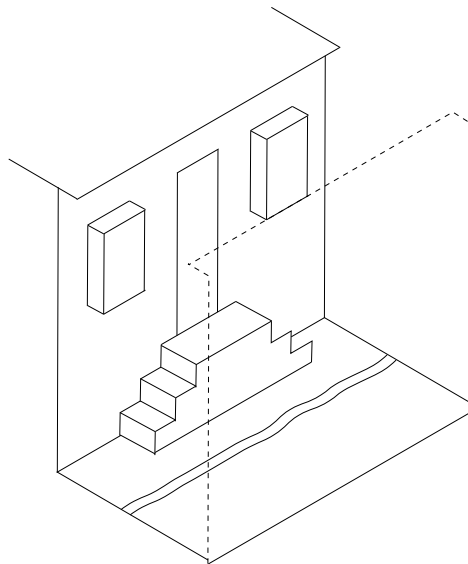


**«DURING GANESH CHATURTHI WE
PREPARE THE STAGE FOR THE IDOL. WE
DECORATE WITH FLOWERS AND OFFER
SWEETS TO THE LORD. A LOT OF OUR
FRIENDS AND RELATIVES COME TO
CELEBRATE WITH US»**

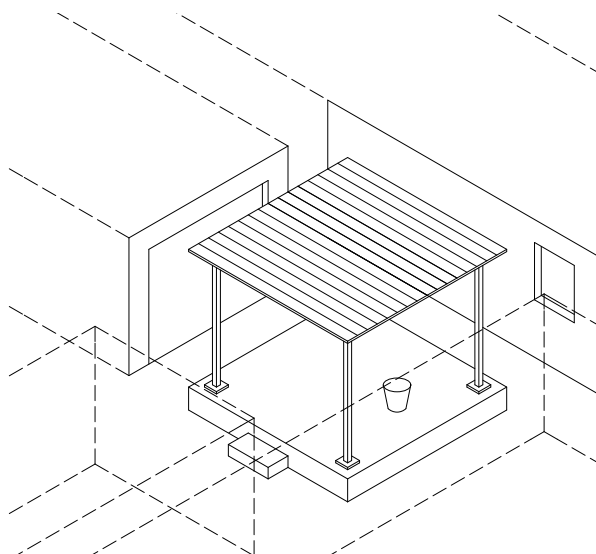
**GOSSIP CORNER
P04**



**ALLEY OF INTIMACY
P05**



**MULTIPURPOSE ALTAR
P06**

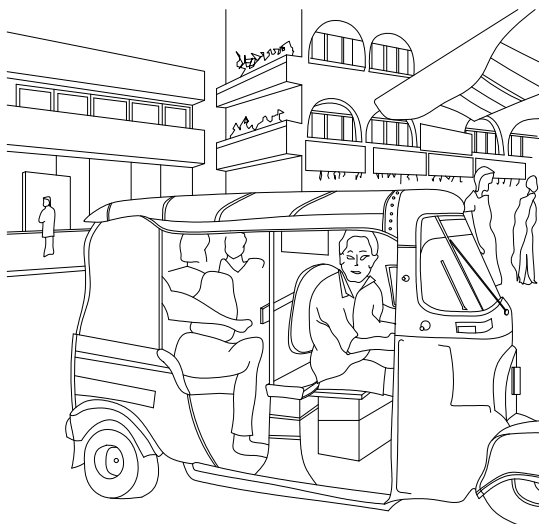




**«ALL THE NEIGHBOURS DRY THEIR PAPAD
IN THE STREET TODAY»**

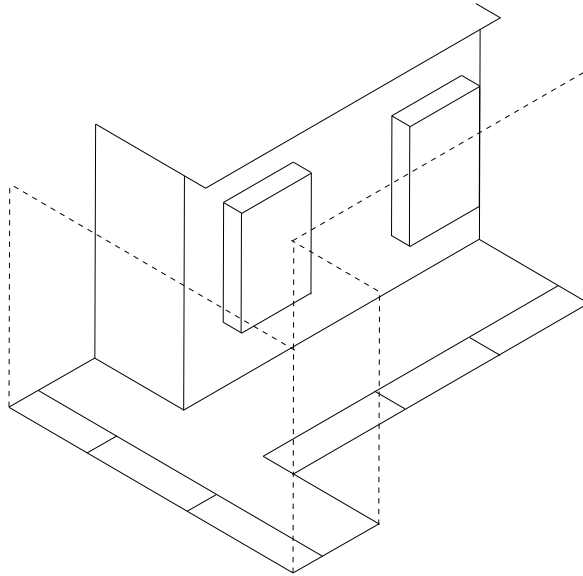


**«LOOK... THEY ARE ALL RICKSHAW
DRIVERS. THEY MUST BE TAKING A
BREAK»**

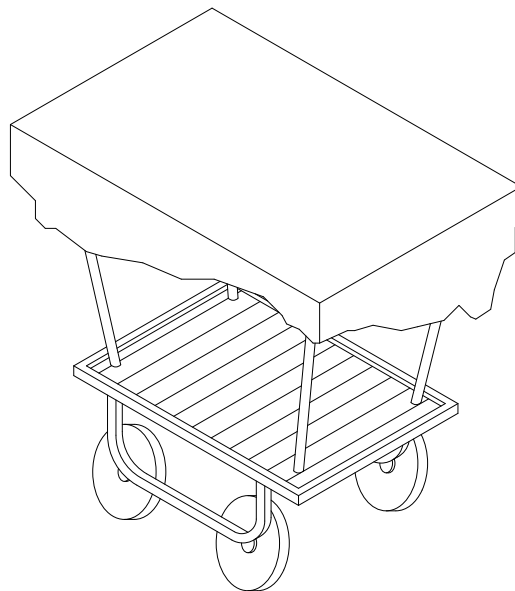


«HERE TO THE LEFT»

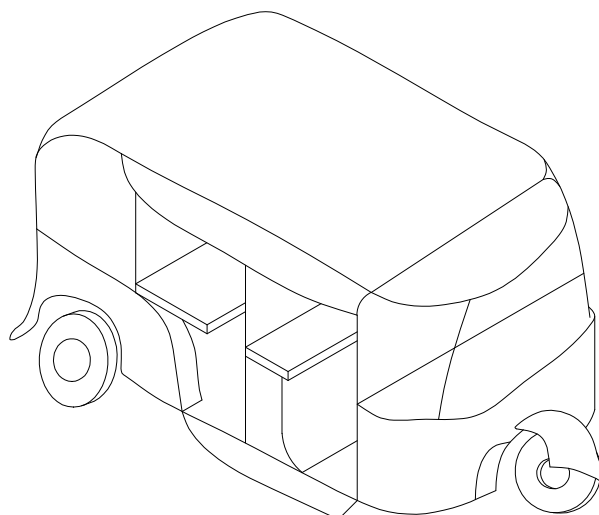
**PRODUCTIVE
INTERSECTION
P07**

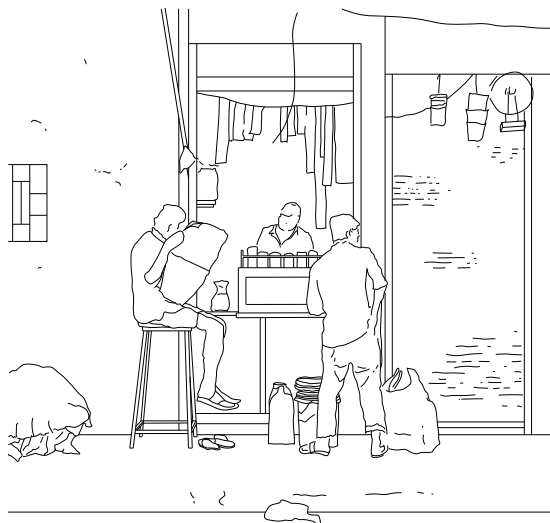


**LUNCH IN THE SHADE
P08**

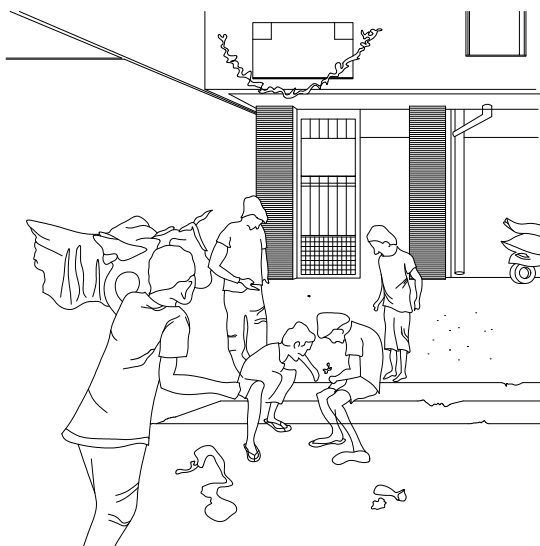


**SOCIALISING ON THE GO
P09**

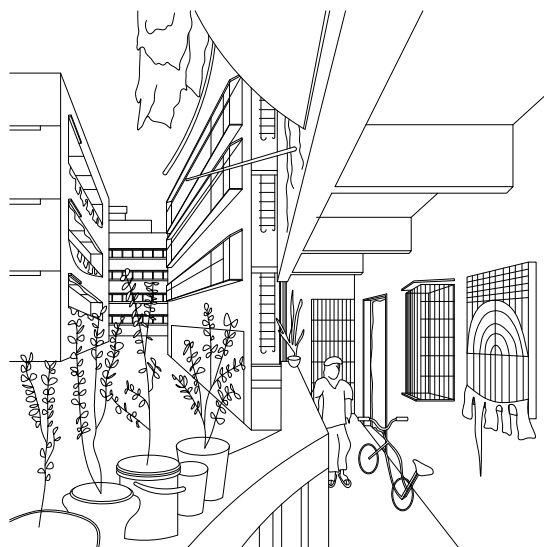




**«I CAME TO MY NEPHEW'S SHOP TO
EAT PAAN. WE HAVE A CHAT WHILE HE
PREPARES THE PAAN FOR ME»**

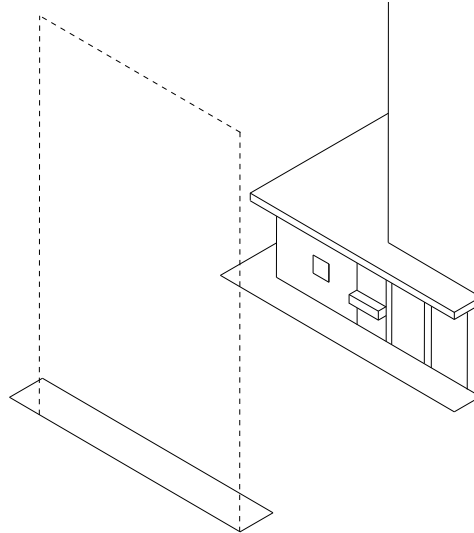


**«DIWALI IS COMING UP... WE WILL HAVE
CRACKERS!»**

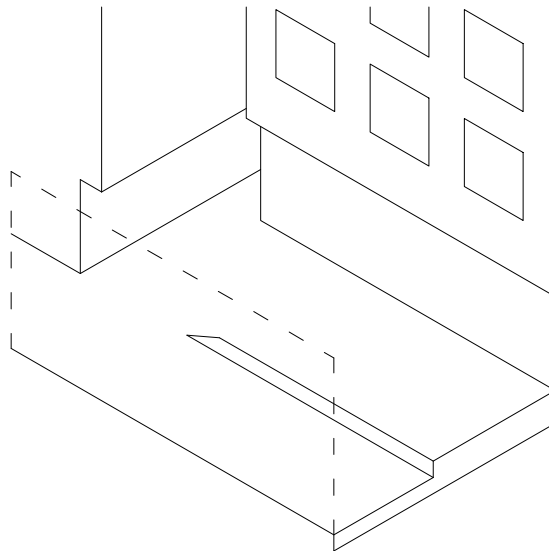


**«MY HUSBAND AND I MOVED HERE FROM
BOMBAY BECAUSE IT'S CHEAPER... WE
PAY RS 2000 A MONTH»**

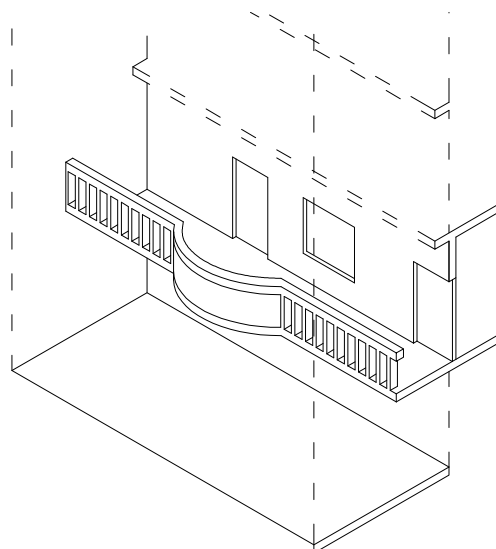
**WINDOW CHAT
P10**



**EXPLOSIVE STOOP
P11**



**SOCIAL CORRIDOR
P12**



INCOME GENERATION

INCOME GENERATION

BUILDING

A LOT OF WORKPLACES WOULD HAVE THEIR SOURCE OF PRODUCTION VERY CLOSE TO THEIR PLACE OF SELLING, BE IT BAKING, TEXTILE WORK OR SHOEMAKING. THIS IMMEDIACY ALLOWS FOR A VERY RESPONSIVE TYPE OF BUSINESS AND A LOCALIZED SYSTEM.

“GENERALLY THE OWNERS WILL LIVE IN THE CHAWLS ABOVE WHILST THE WORKERS LIVE IN THE BHATI CHAWLS NEARBY”. PEOPLE TYPICALLY LIVE CLOSE TO THEIR PLACE OF WORK. SOME IN THE BUILDING ABOVE AND SOME IN THE ADJACENT BUILDING, DEPENDING ON WHAT THEY CAN AFFORD AND THEIR POSITION IN THE BUILDING.

THE SPATIAL CONDITION OF THE SHOP FRONT IS SEEN AS CRITICAL FOR THE SHOP OWNERS. EVERYTHING POSSIBLE IS PUSHED TO THE FRONT OF THE SHOP TO MAXIMISE VISIBILITY. THE ‘OTTLAS’ (STEP) AT THE FRONT OF THE STORE IS USED AS A DISPLAY SHELF AND CANOPIES ARE UTILISED TO OFFER SHADE AND OPPORTUNITY TO HANG PRODUCTS.

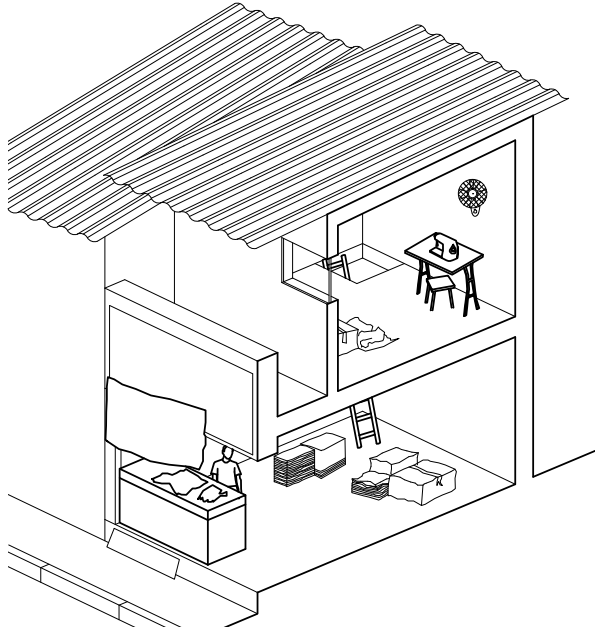
IN BETWEEN THE CHAWLS ARE THE PRODUCTION WORKSHOPS AT THE GROUND LEVEL. GENERALLY THESE SMALL SUBCONTRACTING ENTERPRISES PRODUCE GOODS SUCH AS JEWELRY AND GARMENT TO BE SENT TO THE CENTER OF MUMBAI BASED ON BULK SUPPLY AND DEMAND ORDERS.

IN NALASOPARA SPACE IS ONE OF THE MOST VALUABLE COMMODITIES. THIS RESULTS IN VARIOUS SUB-RENTING OUT THEIR SPACE TO PEOPLE TO MAKE MONEY. PEOPLE LIVE ABOVE SHOPS AND IN SOME EXTREME CASES PEOPLE MOVE OUT OF THEIR HOMES AND RENT THE SPACE TO OTHERS AS THEY HAVE NO OTHER MEANS OF INCOME.

WHILE THE MALE WORKS IN THE CITY, IT IS COMMON FOR HIS WIFE TO WORK IN THE HOUSE. AFTER FINISHING THE HOUSEWORK, THEY ENGAGE IN PRODUCING PETTY COMMODITIES SUCH AS JEWELRY ASSEMBLY AND EMBROIDERIES ON CLOTHES. THESE CREATE SOCIAL NETWORKS OF FRIENDS AND/OR FAMILY WHO WORK TOGETHER IN EACH OTHER'S HOUSE.

“EDUCATION IS VERY IMPORTANT FOR NALASOPARA, THERE ARE CHILDREN CHEWING TOBACCO ON THE STREETS JUST BECAUSE THEY DON'T KNOW IT'S BAD FOR THEM”. AFTER SCHOOL CLASSES ARE COMMON IN NALASOPARA AS THE CHILDREN SPEND TIME ON LEARNING ENGLISH AND MATH SKILLS. PARENTS VALUE EDUCATION FOR CHILDREN'S FUTURE ASPIRATIONS AND OPPORTUNITIES FOR FAMILY'S IMPROVEMENT.

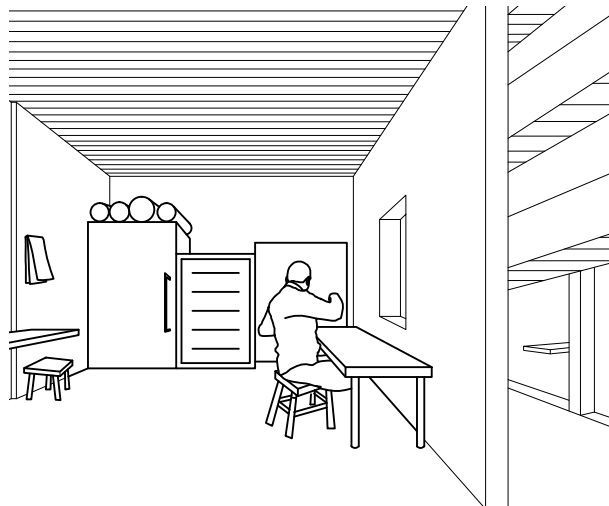
**INTIMATE PRODUCTION
AND CONSUMPTION**



**COMMERCIAL
EXTENSIONS**



**DECENTRALIZED
INDUSTRY**



INCOME GENERATION

STREET

DUE TO THE POPULATION SHIFT THROUGHOUT THE DAY WITH PEOPLE ENTERING AND LEAVING TO WORK IN THE CITY CENTRE, THE HAWKERS WILL OPEN, CLOSE, MOVE AND REOPEN AGAIN, USUALLY OPERATING IN TWO SHIFTS, MORNING AND AFTERNOON. THE HAWKERS RESPOND QUICKLY TO THE CROWD AS THEY TAKE ADVANTAGE OF DIFFERENT MARKETS IN DIFFERENT AREAS TO MAKE THE MOST OF THEIR FREEDOM TO CHANGE POSITION.

THROUGHOUT THE DAY THE LICENSED HAWKERS WILL OPEN AND CLOSE BUT IN THE SAME PERMANENT LOCATION. THEIR OWNERSHIP IS FIRST OBTAINED BY A LOTTERY AND PASSED DOWN THROUGH GENERATIONS AS IT WILL BE INHERITED BY THE CHILDREN OF THE CURRENT OWNERS.

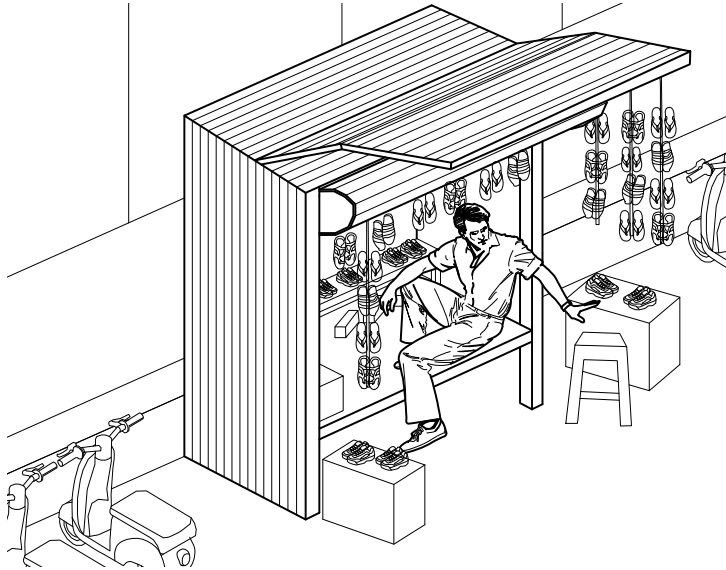
IN THE EMPTY STATIC SPACES ON THE STREETS PEOPLE WILL APPROPRIATE WITH THEIR SMALL INFORMAL STALLS. THEY SELL TOYS, VEGETABLES, SPICES AND MORE. THEIR MEANS TO SELL THESE THINGS ARE DIFFERENT TO 'HAWKERS' THEY OFTEN JUST USE A BLANKET ON THE FLOOR OR PUT A TABLE.

OVER THE DAY THE NATURE OF THE AREA'S SALES STRATEGY CHANGES, THE TEMPORARY AND SCATTERED STALLS HOMOGENISE TO FORM A NIGHT MARKET WHICH BECOMES MORE OF A COMMUNITY EVENT. LARGE NUMBER OF WOMEN WILL APPEAR AROUND THE TIME BEFORE DINNER TO SHOP FOR THEIR GROCERIES.

THE SPEED OF INTERACTIONS ON THE STREET FRONT IS EXTREMELY RAPID, AND PEOPLE ALWAYS TAKE THE FASTEST ROUTE TO RECEIVE OR DELIVER WHAT THEY NEED. PEOPLE OFTEN DON'T EVEN NEED TO EXIT THEIR VEHICLES TO PURCHASE THEIR GOODS. THE WAY PEOPLE POSITION THEMSELVES IN THE STREET SCAPE MEANS THAT PEOPLE CAN PURCHASE QUICKLY.

IN CERTAIN TIMES OF THE YEAR LARGER SCALE EXTENSIONS ARE MADE INTO THE STREET FOR SELLING THE GOODS. LANTERN AND FIREWORK STORES WERE ERECTED FOR DIWALI DURING OUR VISIT BUT THE SAME WILL HAPPEN FOR OTHER FESTIVALS AND EVENTS. THESE TEMPORARY STRUCTURES EMPHASIZE THE DYNAMIC AND EVER-CHANGING NATURE OF NALASOPARA.

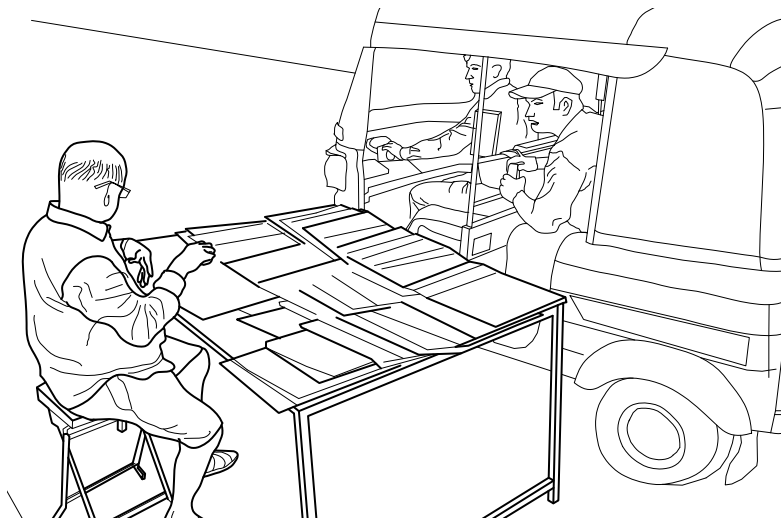
**LICENSED
LOCATION**



**THE INFORMAL
CORNER**



**DRIVE-THRU
HAWKING**



DOMESTIC ACTIVITIES

DOMESTIC ACTIVITIES

CURTAINS

CURTAINS DETERMINE THE LEVEL OF PRIVACY IN THE HOUSE RATHER THAN THE DOOR WHICH IS ONLY CLOSED WHEN ABSENT OR AT NIGHT. IF THE CURTAINS ARE OPEN, EVERYBODY PASSING IS INVITED TO CONNECT OR JOIN, WHEREAS A CLOSED ONE IS MOSTLY OBSERVED WHILE THE RESIDENT IS RESTING.

CHILD BARRIER

IN EVERY HOUSE WITH A SMALL CHILD, A WOODEN DOOR BARRIER IS USED TO PREVENT THE CHILD FROM LEAVING THE HOUSE, THEREFORE ENABLING THE MOTHER TO CLEAN, COOK OR WORK AT LIBERTY WITHOUT THE NEED TO CONSTANTLY WATCH THE CHILD.

INVITATION DOORSTEP

THE THRESHOLD OF THE HOME IS ACTIVATED BY THE AFFORDANCE OF A STEP AT THE FRONT. THIS STEP OFFERS DWELLERS A POSITION TO SIT AT THE BOUNDARY BETWEEN THE HOME AND THE PUBLIC SPACE BEYOND. THIS ACT BECOMES AN INVITATION FOR AFTERNOON SOCIALISING.

DOORSTEP FOOD PREPARATION

THE INTERMEDIARY BUFFER SPACE AT THE THRESHOLD OF THE HOUSE FACILITATES THE GATHERING OF WOMEN IN THE LATE AFTERNOON. THIS IS A PLACE WHERE SOCIALISING HAPPENS WHILE CHOPPING ONIONS AND TOMATOES IN PREPARATION FOR FAMILY SUPPER, AS WELL AS WATCHING OVER CHILDREN PLAYING BOTH INSIDE AND OUTSIDE THE HOUSE.

WATER ACQUISITION

THE ACQUISITION OF WATER IN NALA SOPARA IS AN IMPORTANT HOUSEHOLD ACTIVITY WHICH CONNECTS ACTIVITIES IN THE HOME TO EXTERNAL LOCATIONS WITHIN THE NEIGHBOURHOOD. WATER IS RETRIEVED FROM VARIOUS PLACES, INCLUDING LOCAL BOREHOLES WHERE WATERUMPS (NON-POTABLE) HAVE BEEN INSTALLED AND NEARBY MARKETS WHERE BOTTLED WATER IS AVAILABLE (POTABLE).

WATER TANK

THE BULK OF WATER FOR DOMESTIC USAGE IS STORED IN LARGE WATER TANKS IN NICHE ABOVE THE 'WET ZONE' OF THE HOUSEHOLD. AN ATTITUDE OF INGENUITY TOWARDS STORAGE, AND WATER STORAGE IN SPECIFIC, MAKES USE OF ABOVE HEAD HEIGHT STORAGE SOLUTIONS, FREEING UP GROUND SPACE FOR OTHER DOMESTIC ACTIVITIES (ALSO CENTRED AROUND WATER).

WET ZONE WATER BUCKETS

WATER BEING A SCARCE AND VALUED RESOURCE IS REFLECTED IN ITS CAREFUL AND THOUGHTFUL USAGE. BATHING HAPPENS IN A WET ZONE OF THE DWELLING BY MEANS OF WATER STORED IN BUCKETS, WHICH IS LATER RE-USE TO CLEAN CLOTHES AND IN OTHER DOMESTIC ACTIVITIES.

DRYING WASHING

WASHING CLOTHES AND SUBSEQUENTLY DRYING THEM IN AN OUTSIDE SPACE IS ONE OF THE MOST APPARENT ACTIVITIES HAPPENING THROUGHOUT THE DAY. THE WINDOW GRILLS, OUTSIDE CORRIDOR SPACES OR ANY OTHER POSSIBLE HANGING SPOTS ARE BEING USED FOR THAT MATTER, RESULTING IN THE COLORFUL DISPLAYED APPROPRIATION IN THE CITY.

CURTAINS

**ACTIVITY: RESTING
VARYING
ELEMENT: CURTAINS**



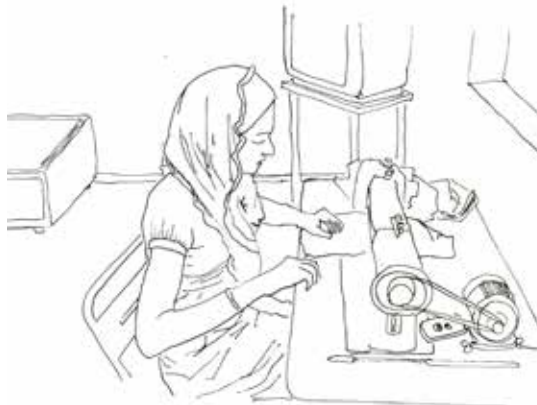
DOORSTEP FOOD PREPARATION

**ACTIVITY: SOCIALIZING
WHILE COOKING
ELEMENT: HOUSEHOLD
THRESHOLD**



DAYTIME WORKING

**ACTIVITY: WORKING
ELEMENT: SEWING MACHINE,
JEWELRY PLIERS,
VARYING**



FOOD PREPARATION

**ACTIVITY: COOKING
ELEMENT: KITCHEN, POTS,
PANS, CUTLERY**



DOMESTIC ACTIVITIES

DAYTIME WORKING

INCOME GENERATION IS A CRUCIAL PART OF THE EVERYDAY LIFE IN NALA SOPARA. WHILE THE MEN MOSTLY GO TO WORK OUTSIDE THE HOUSE, THE WOMEN OFTEN WORK AT HOME, THUS MAKING JEWELRY, SEWING, OR DOING OTHER WORK-RELATED ACTIVITIES. THE LIVING ROOM OR, IF APPLICABLE, THE GUEST ROOM IS THEREFORE TRANSFORMED INTO A WORKSPACE FOR A FEW HOURS PER DAY. IF THE WORKLOAD IS TOO HIGH FOR ONE PERSON, SOMETIMES THE WOMEN IN THE WHOLE HOUSE ARE EMPLOYED FOR THIS PURPOSE.

NIGHTTIME SLEEPING

AT NIGHT, THE LIVING ROOM IS TRANSFORMED INTO A SLEEPING SPACE FOR THE FAMILY. AN EXTENDABLE SLEEPING COUCH AND EXTRA BEDDING STORED UNDERNEATH CONSTITUTE THE MAIN ELEMENTS WHICH, ESPECIALLY IN ONE ROOM APARTMENTS, ENABLE AN OPTIMIZED USAGE OF SPACE.

KITCHEN STORAGE

SINCE SPACE IS A SCARCE RESOURCE, EVERY OPPORTUNITY IS BEING USED. THIS INCLUDES LOWER BATHROOM CEILINGS FOR STORAGE SPACE ABOVE, USAGE OF SHELVES AND OTHER ELEMENTS ON THE WALLS, CUPBOARDS AND ALSO THE WINDOW GRILLS AS ELEMENTS FOR STORAGE SUCH AS SHOES AND POTS.

FOOD PREPARATION

EVERY MORNING THE FOOD PREPARATION FOR THE FAMILY BEGINS. WHETHER IT IS THE HUSBANDS LUNCH, THE CHILDRENS SCHOOL SNACKS OR THE PURI FOR DINNER, CERTAIN THINGS ARE ALREADY PREPARED IN THE KITCHEN TO AVOID EXTRA WORK LATER. GENERALLY THE MOTHER CARRIES OUT THIS TASK, SOMETIMES WITH THE HELP OF HER CHILDREN. MOREOVER, SINCE FOOD CONSTITUTES A GREAT PART OF INDIAN CULTURE, MOST OF THE KITCHENS ARE RELATIVELY GOOD EQUIPPED.

EATING TOGETHER

THE SHARING OF FOOD AS A FAMILY (AND OCCASIONALLY WITH FRIENDS) IN THE EVENING IS A FAMILIAL RITUAL. THIS IS A RARE MOMENT IN THE DAY WHEN THE WHOLE FAMILY IS TOGETHER IN THE HOME. THIS INWARD FACING DOMESTIC ACTIVITY CONSTITUTES FAMILY BONDING TIME OVER A MEAL PREPARED BY THE WOMAN OF THE HOUSEHOLD.

WATCHING TV

IN ADDITION TO PROVIDING ENTERTAINMENT AND RELAXATION TO THE WOMEN OF THE HOUSEHOLD AFTER THE COMPLETION OF HER CHORES, THE FOLLOWING OF TELEVISION PROGRAMS CONNECT THE LADIES IN THE NEIGHBOURHOOD AS THEY DISCUSS THE LATEST HAPPENINGS. ADDITIONALLY, WATCHING TELEVISION TOGETHER AT NIGHT, WHICH IS WHEN THE WHOLE FAMILY IS AT HOME TOGETHER, CONSTITUTES QUALITY FAMILY BONDING TIME.

DAILY RELIGIOUS RITUAL

EVERY DAY BEGINS WITH A RELIGIOUS RITUAL, WHICH CONSTITUTES A MAJOR PART OF THE DOMESTIC LIFE IN GENERAL. AS AN EXAMPLE, ALMOST EVERY FAMILY HAS A HINDU SHRINE IN THEIR HOME WHICH IS TYPICALLY LIT FIRST THING IN THE MORNING, VARYING IN SIZE AND SPLENDOR DEPENDING ON THE INCOME.

EATING TOGETHER

ACTIVITY: EATING SUPPER
ELEMENT: EATING
UTENSIL FLOOR



KITCHEN STORAGE

ACTIVITY: STORING
ELEMENT: SPACE OVER TOILET,
CUPBOARDS,
WINDOW GRILLS



WATCHING TV

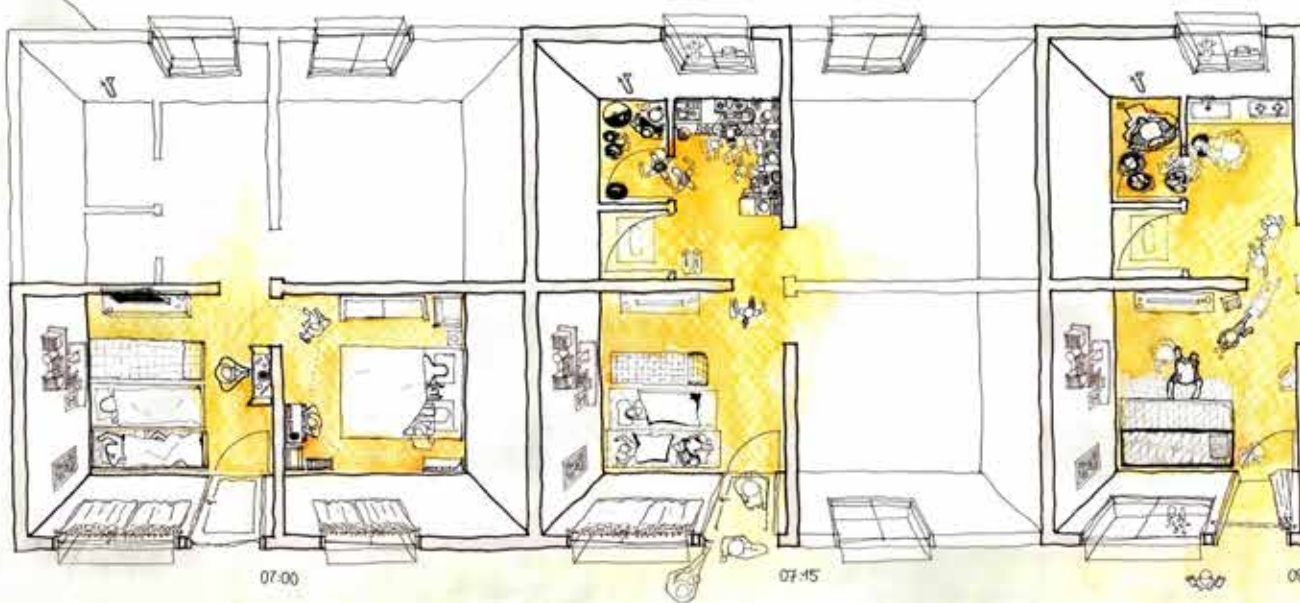
ACTIVITY: WATCHING
TELEVISION
ELEMENT: TELEVISION
UTENSIL FLOOR

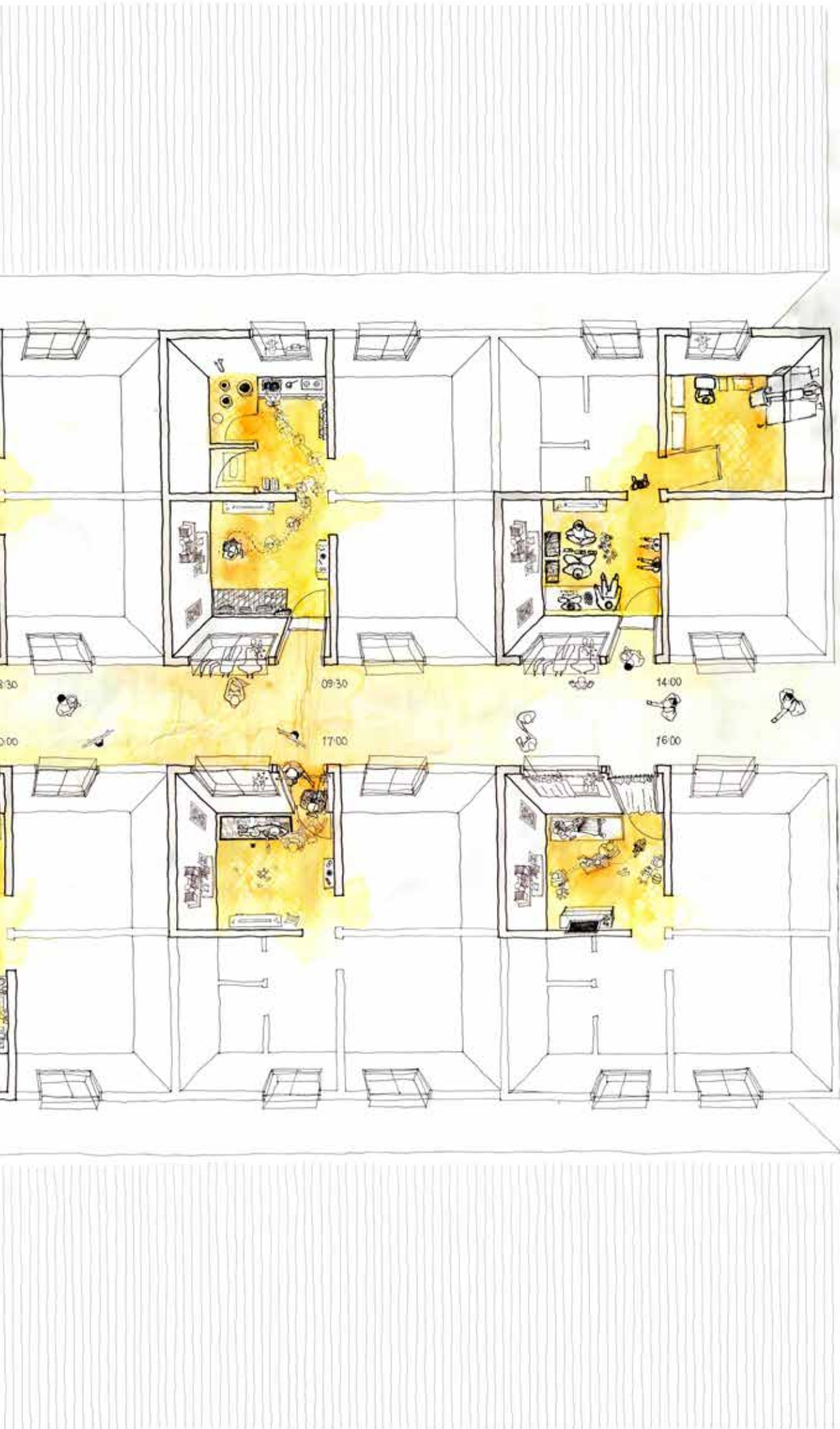


DAILY RELIGIOUS RITUAL

ACTIVITY: RELIGIOUS ACTIVITY
ELEMENT: HINDU SHRINE,
NAMAZ MAT







BUILDING TECHNIQUES

BUILDING TECHNIQUES

PLINTH

WOODEN FORMWORK FOR PLINTH BEAMS

THE CONCRETE 'PLINTH BEAMS' ARE CONSTRUCTED USING WOODEN FORMWORKS. THE FORMWORK IS MADE OF PLYWOOD PANELS SCREWED TO WOODEN PLANKS. THE FORMWORK PANELS ARE ATTACHED TOGETHER ON THE TOP BY, WOODEN PLANKS NAILED TO BOTH OF THE TWO SIDES. INSIDE THE FORMWORK ARE STEEL REINFORCEMENT BARS. THE CONCRETE IS POURED INTO THE FORMWORK COVERING THE REINFORCEMENT BARS, FORMING THE PLINTH BEAMS.

PLINTH CONSTRUCTION

AFTER THE 'PLINTH BEAMS' ARE CAST, RUBBLE IS PLACED IN BETWEEN THEM FILLING THE GAPS. CONCRETE IS THEN POURED ON TOP OF THE RUBBLE AND THE PLINTH BEAMS' CREATING A FLAT SURFACE FOR THE PLINTH. THE LABOUR IS DONE MANUALLY WITH AN ADDITIONAL CONCRETE MIXER. MEN DO MOST OF THE WORK, HOWEVER WOMEN ARE OFTEN THE ONES CARRYING STONE AGGREGATES TO THE MIXER IN BASKETS ON THEIR HEADS.

TILED PAVEMENTS

NALA SOPARA SUFFERS FROM THE LACK OF URBAN PLANNING AND THEREBY A VERY POOR INFRASTRUCTURE. MANY OF THE STREETS AND PAVEMENTS ARE UNPAVED, WHILE OTHERS ARE PAVED BY USING DIFFERENT TILES AND PAVER BLOCKS TOGETHER. THE PAVEMENTS THEREFORE REPRESENT THE PRACTICE OF USING WHAT IS CHEAP AND AVAILABLE AS WELL AS THE PURE FUNCTION, RATHER THAN THE AESTHETIC VALUE OF THE TILES AND BLOCKS.

CONSTRUCTION

WOODEN FORMWORK FOR COLUMNS

AFTER MAKING THE CONCRETE PLINTH THE CONCRETE COLUMNS, BEAMS AND FLOORS ARE CONSTRUCTED. THE MOLD USED FOR THE COLUMNS ARE MADE FROM WOODEN PLATES SCREWED TO WOODEN SLATS. ON EVERY SIDE OF THE STEEL REINFORCEMENT RODS THAT STICK OUT OF THE PLINTH, ONE OF THESE WOODEN PLATE IS PLACED. THE PLATES ARE ANCHORED TO EACH OTHER BY STEEL BARS OR WOODEN SLATS. TO KEEP THE MOLDS UP RIGHT, THEY ARE JOINT TOGETHER BY WOODEN STICKS.

STEEL FORMWORK FOR CONCRETE FLOOR

WHEN THE CONCRETE COLUMNS ARE DRY THE SCAFFOLDING FOR THE CONCRETE BEAMS AND FLOORING IS MADE. THE BEAMS HAVE A WOODEN MOLD SIMILAR TO THE COLUMNS WHILE THE FLOOR IS POURED ONTO STEEL PLATES THAT ARE WELDED TOGETHER. TO KEEP THE MOLD UP, WOODEN, ROUND STICKS OF SIMILAR THICKNESS AND PLACED AS SCAFFOLDING

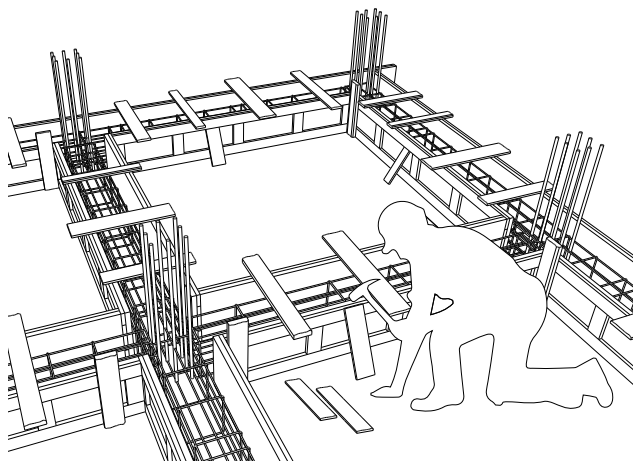
BRICK INFILL

THE CONCRETE FRAMEWORK IS FILLED IN WITH TWO LAYERS OF BRICK. THE HOLES FOR WINDOWS AND DOORS ARE SUPPORTED BY CONCRETE FRAMES. THE OUTER LAYER IS LATER CLADDED WITH CEMENT OR PLASTER TO PROTECT THE FACADE FROM RAIN.

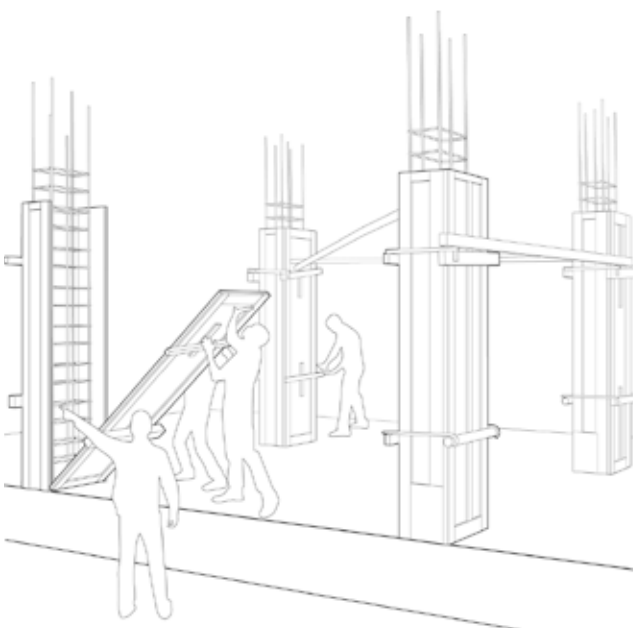
LOAD BEARING BRICK

THE STRUCTURE OF THE LOW-RISE BAITHI CHAWLS ARE MADE WITH LOAD BEARING BRICK WALLS THAT HAVE BEEN CONSTRUCTED ON TOP OF A CONCRETE PLINTH. THERE IS NO SPECIFIC BRICK BOND USED, AS VARIOUS SIZES OF BRICK AND DIFFERENT THICKNESSES OF MORTAR CAN BE OBSERVED. THE EXTERNAL FACADE IS LATER CLADDED WITH CEMENT OR PLASTER AND THEN PAINTED OR TILED TO PROTECT FROM RAIN.

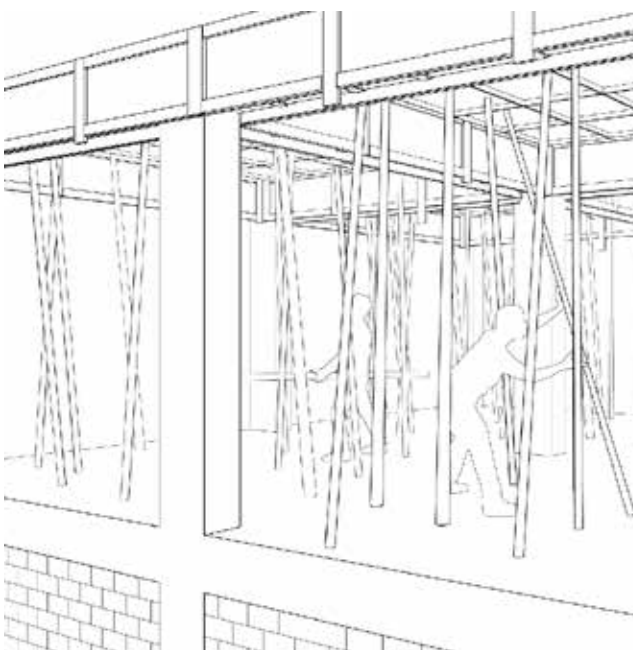
**WOODEN
FORMWORK FOR
PLINTH BEAMS**



**WOODEN
FORMEWORK
FOR COLUMNS**



**STEEL
FORMEWORK FOR
CONCRETE FLOOR**



BUILDING TECHNIQUES

ROOFS

SLOPED STEEL ROOFS

MOST MID-RISE BUILDINGS ARE CONSTRUCTED WITH SIMPLE FLAT ROOFS BUT THESE ARE PRONE TO LEAKAGES DURING THE MONSOON PERIOD. THEREFORE AN EXTRA ROOF IS OFTEN BUILT ON TOP OF THE FLAT ROOFS. THESE ROOFS ARE CARRIED BY ROUND STEEL POLES AND A FRAME OF STEEL I BEAMS. ON TOP OF THIS FRAME, CORRUGATED ROOF PANELS ARE PLACED. THESE DO NOT ONLY PROTECT THE MAIN ROOF FROM RAIN DAMAGE BUT ALSO CREATES A EXTRA COMMUNAL SPACE FOR THE INHABITANTS OF THE CHAWL.

ALTERNATIVE ROOF FIXINGS

THE ROOFS OF THE BAITHI CHAWLS ARE COVERED WITH DIFFERENT SIZES OF CORRUGATED STEEL SHEETS OVERLAPPING. IN ORDER TO TO KEEP THE PANELS DOWN, HEAVY BRICKS, STEEL RODS AND STONES ARE PLACED ON TOP. DURING MONSOON, TARPULIN SHEETS ARE PLACED IN-BETWEE, FOR WATER PROTECTION.

OPENINGS

SLIDING WINDOW

THE MOST COMMONLY FOUND WINDOW TYPE IS THE SLIDING WINDOW. THESE WINDOWS ARE USED IN SINGLE STORY CHAWLS AS WELL AS HIGHER CHAWLS. THE FACT THAT THE ALUMINIUM FRAMES OF THESE WINDOWS CAN BE FOUND ALL AROUND NALA SOPARA COMBINED WITH THE LOW PRICE MAY EXPLAIN THE WIDESPREAD USE OF THESE WINDOWS.

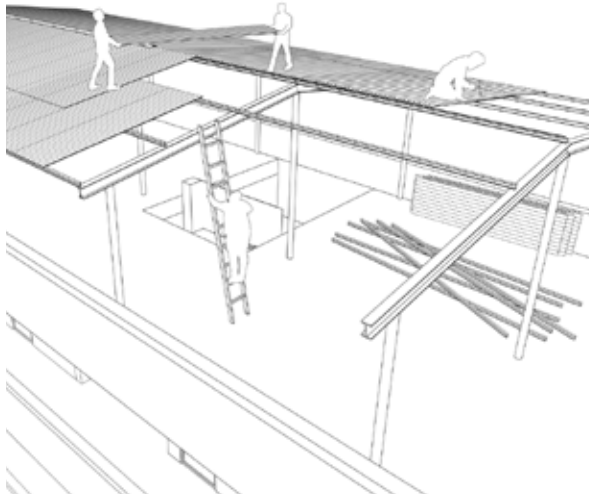
JALIS

JALIS ARE OFTEN USED IN COMMON STAIRCASES OF HIGHER CHAWLS TO PROVIDE VENTILATION AND COOLING. WHEN THE AIR MOVES THROUGH THE HOLES OF THE JALIS IT IS COMPRESSED AND THEREBY COOLS. BECAUSE OF THE COMPRESSION THE AIR ALSO SPEEDS UP, CREATING A LIGHT BREEZE. JALIS OFTEN HAVE GEOMETRICAL SHAPES AND PROVIDED SOME NEEDED DIVERSITY TO THE FACADE'S.

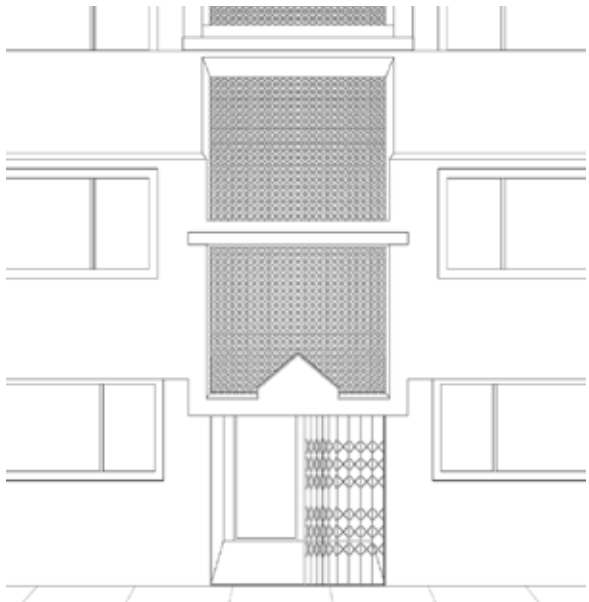
ROLLING SHUTTERS

ROLLING SHUTTERS CAN BE FOUND EVERYWHERE ALONG THE GROUND FLOORS OF THE MID-RISE BUILDINGS IN NALA SOPARA. THE MANUAL CHAIN OPERATED ROLLER SHUTTER DOORS ARE DESIGNED FOR INSTALLATIONS WHEN POWER IS NOT AVAILABLE. THE SHUTTERS ARE MADE FROM GALVANISED STEEL.

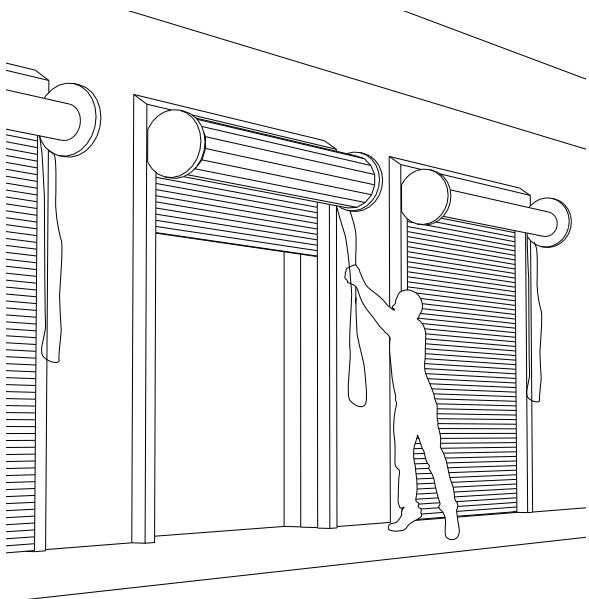
**SLOPED STEEL
ROOFS**



JALIS



**ROLLING
SHUTTERS**



BUILDING TECHNIQUES

ADAPTATIONS

REPLACING DOORS

MOST HIGH RISE BUILDING IN THE AREA ARE BUILD ILLEGALLY BY PRIVATE DEVELOPERS AND HAVE RATHER MONOTONE DOORS AND WINDOWS. TO PERSONALIZE THE DWELLINGS MOST INHABITANTS REPLACE THE DOORS WITH MORE UNIQUE VARIANTS THAT CAN BE BOUGHT IN NALLA SOPARA. THE NEW DOORS OFTEN HAVE OPENINGS TO PROVIDE BETTER VENTILATION TO THE DWELLING AND ARE DECORATED IN DIFFERENT COLOURS.

TILING THE WALLS

THE CEMENT CLADDING ON THE OUTSIDE OF THE BUILDINGS OFTEN DOES NOT PROVIDE SUFFICIENT PROTECTION FROM THE RAIN DURING MONSOON PERIOD. TO BETTER PROTECT THEIR DWELLINGS FROM THE RAIN AND TO MAKE THE HOUSE MORE PERSONAL INHABITANTS SOMETIMES TILE THE OUTSIDE OF THEIR HOUSE. THE FIRST ONE TO TILE THEIR FACADE OFTEN ALSO TILES THE SPACE UNDER THE BEAMS THAT SEPARATE THE HOUSES. LEAVING LESS ROOM FOR THE INHABITANT NEXT-DOOR TO PERSONALISE THEIR FACADE.

GATES AND FENCES

STEEL SLIDING GATES ARE OFTEN PLACED AT THE ENTRANCE OF MULTI STORY CHAWLS TO PREVENT UNKNOWN PEOPLE FROM ENTERING. THESE GATES ARE OFTEN OPEN DURING THE DAY AND WILL BE CLOSED DURING THE NIGHT, OFTEN AFTER 2 AM. THE GATES ARE MADE FROM STEEL HORIZONTAL RODS THAT SLIDE OVER A RAIL AT THE TOP AND BOTTOM. STEEL CROSSES IN BETWEEN THE RODS PREVENT PEOPLE FROM CREEPING BETWEEN THE RODS. THE DOORS ARE MOST PROBABLY MADE IN SMALL STEEL WORKPLACES AROUND NALLA SOPARA.

INSTALLING WINDOW GRILLS

WINDOW GRILLS ARE COMMONLY ADDED BY THE OWNERS THEMSELVES, AFTER THE CONSTRUCTION OF A BUILDING. THE WINDOW GRILLS CAN BE FOUND ON EVERY FLOOR, PLACED IN FRONT OF THE WINDOWS. THE GRILLS ARE MADE OF BLACK PAINTED IRON AND ARE ATTACHED TO THE FACADE BY USING MOUNTING BRACKETS IN THE CORNERS AND SCREWS. ALTHOUGH THEY MAY SEEM UNIQUE AND SELF-MADE, THE WINDOW GRILLS ARE MOST LIKELY MASS-PRODUCED IN SMALL STEEL WORKPLACES LOCALLY IN NALLA SOPARA.

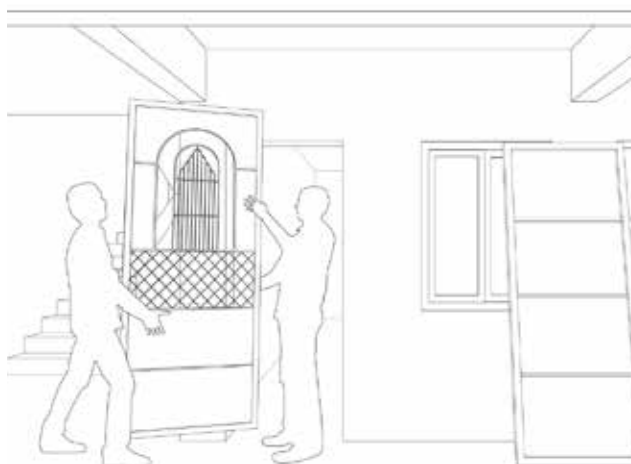
HORIZONTAL EXTENSIONS

A COMMON WAY TO EXTEND THE LOW RISE CHAWLS IS TO MAKE A SLOPED EXTENDED ROOF IN FRONT OF THE HOUSES. THESE EXTENSIONS ARE OFTEN MADE TO PROVIDE SHADE AND PROTECT THE FACADE FROM THE MONSOON RAIN BUT ALSO CREATES A SOCIAL PLACE IN FRONT OF THE HOUSES THAT CAN BE USED TO MEET PEOPLE OR START A SMALL SHOP OR WORKING SPACE. THE CONSTRUCTION OF THESE EXTENSIONS CAN BE MADE OF BAMBOO OR WOODEN STICKS TIED TOGETHER BY ROPES. SOMETIMES THE CONSTRUCTION IS MADE FROM WELDED STEEL POLES. THESE ROOF EXTENSIONS ARE A FIRST WAY TO ENCROACH PUBLIC SPACE AND OFTEN TAKE MORE PERMANENT FORMS LATER ON.

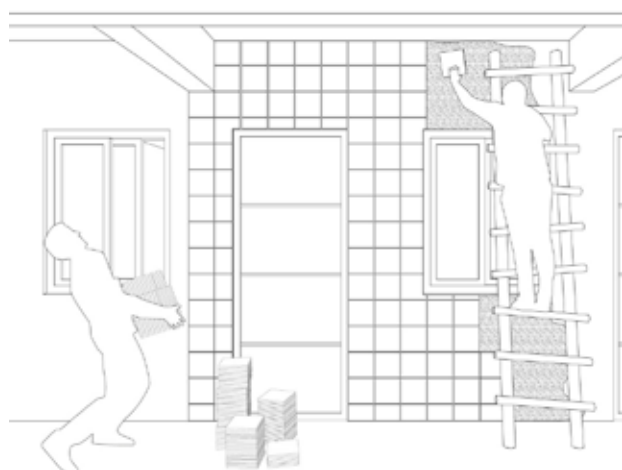
VERTICAL EXTENSIONS

THE LOW-RISE BATHI CHAWLS ARE OFTEN EXTENDED VERTICALLY BY THE ADDITION OF A SECOND FLOOR. TWO TYPES OF STEEL BEAMS ARE USED IN THIS PROCESS. THE FIRST, LARGER I-SECTION BEAMS WHICH ARE PLACED ON TOP OF THE EXISTING LOADBEARING BRICK WALLS. THE SECOND, SMALLER T- AND L-SECTIONS THAT GO ON TOP OF THE I-SECTIONS. LOCAL LADICOBBA STONES OF 600 X 600 MM ARE THEN PLACED IN BETWEEN AND HELD IN PLACE BY THE SMALLER BEAMS. AN IN-SITU CONCRETE FLOOR IS LATER CAST ON TOP. FINALLY, NEW LOAD BEARING BRICK WALLS ARE BUILT ON TOP OF THE CONCRETE FLOOR. FOR THE INTERNAL FINISHES, FLOOR TILES AND PAINT ARE USUALLY USED.

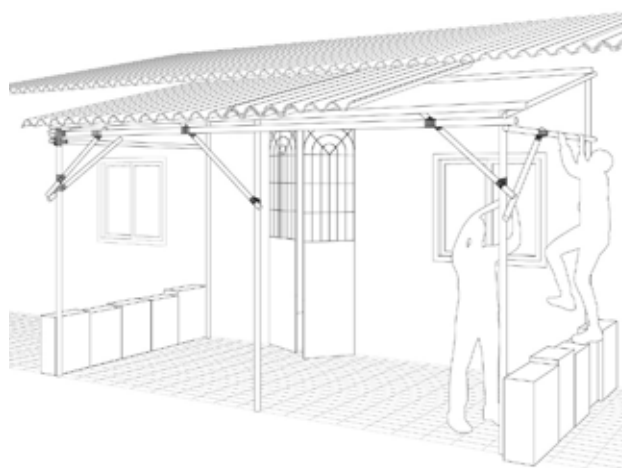
REPLACING DOORS



TILING THE WALLS



HORIZONTAL EXTENSIONS



AMENITIES

AMENITIES

EDUCATION

EDUCATIONAL BUILDINGS CAN BE SEEN ALL OVER THE AREA. THESE BUILDINGS CAN BE PLACED INTO THREE DIFFERENT CATEGORIES. PRIVATE SCHOOLS, CHAWL SCHOOLS, AND PLACES FOR TUTORING. THE SCHOOLS IN THE AREA ARE SPREAD OUT AND EDUCATIONAL BUILDINGS CAN BE SEEN IN THE MULTIPLE CHAWL AREAS AS WELL. INTERESTING TO SEE IS THAT WHERE LARGER SCHOOL BUILDINGS ARE MORE TUTORING SCHOOLS TEND TO POP UP NEAR THE BIGGER SCHOOLS

CHAWL SCHOOL

THESE SCHOOLS ARE FOUND IN THE LOW-RISE CHAWLS AND ARE NORMALLY SELF-ORGANIZED. THEY RUN ON A DONATION-BASED SYSTEM, SO THOSE WHO CANNOT AFFORD IT DO NOT HAVE TO PAY FOR THEIR CHILDREN TO ATTEND.

PRIVATE SCHOOL

THERE WERE A FEW LARGE PRIVATE SCHOOLS LIKE THIS, SOME OF WHICH WERE CHRISTIAN SCHOOLS. CHILDREN ATTENDING THESE SCHOOLS WORE UNIFORMS. PRIVATE SCHOOLS ALWAYS HAVE YARDS AND TEND TO BE THE MORE PROMINENT BUILDINGS IN THE AREA.

TUTORING

SCHOOLS WERE SURROUNDED BY TUTORING PLACES. THESE PLACES CONSISTED OF A SINGLE ROOM, USUALLY IN A SINGLE SPACE MEANT FOR COMMERCIAL ACTIVITY. THESE ARE MEANT AS AFTER-SCHOOL SUPPLEMENTARY ENGLISH, MATH AND SCIENCE (AMONG OTHER SUBJECTS) CLASSES.

HEALTH CARE

IN THIS AREA HEALTHCARE BUILDINGS CAN BE SEEN ALL AROUND. WE CAN DISTINGUISH DIFFERENT TYPES OF HEALTHCARE FACILITIES. WE DIVIDED THEM IN PUBLIC HOSPITALS, PRIVATE HOSPITALS AND CLINICS. THE SAME THINGS AS WITH THE EDUCATIONAL BUILDINGS HAPPENS HERE AS WELL. WHENEVER THERE IS A LARGER HOSPITAL MORE CLINICS APPEAR AROUND THIS LARGER HOSPITAL. THE SAME THING HAPPENS WITH PHARMACIES. EVEN THOUGH HEALTH CARE IS QUITE SPREAD OUT IT CENTERS AROUND THE LARGEST PUBLIC HOSPITAL.

PUBLIC HOSPITAL

THERE WAS ONLY ONE GOVERNMENT HOSPITAL IN RAHMAT NAGAR. IT WAS MULTIPLE STOREYS TALL AND SETBACK FROM THE MAIN ROAD.

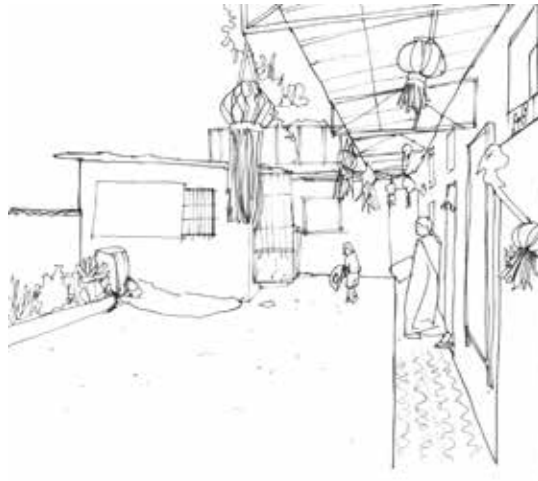
PRIVATE HOSPITAL

PRIVATE HOSPITALS TOOK OVER SOME SPACES IN LARGER BUILDINGS, ONLY CONSISTING OF A COUPLE OF ROOMS. THESE ARE USUALLY PRICEY SO THE LOCALS CAN'T AFFORD TO GO THERE.

SMALL CLINIC

CLINICS LIKE THESE COULD BE FOUND ALMOST EVERYWHERE THERE WAS ANY COMMERCIAL ACTIVITY, HOWEVER THEY WERE CERTAINLY MOST FOCUSED AROUND HOSPITALS.

CHAWLS SCHOOL



PRIVATE SCHOOL



PUBLIC HOSPITAL



SMALL CLINIC



AMENITIES

RELIGION

RAHMAT NAGAR IS HOME TO MANY RELIGIONS, BUT THE MAIN RELIGION IN THE AREA IS HINDUISM. THIS CAN BE SEEN BY THE MANY DIFFERENT TEMPLES WHICH ARE SCATTERED THROUGH THE AREA. EACH COMMUNITY HAS THEIR OWN TEMPLE. BESIDES THESE TEMPLES MANY SHRINES ARE IN THE AREA AS WELL AS 'TREE TEMPLES'. IN THE CHAWL AREAS NOT MANY TEMPLES WERE FOUND. THIS IS DUE TO PEOPLE HAVING THEIR OWN PRAYER AREA IN THEIR HOMES.

BESIDES HINDU TEMPLES, A COUPLE MOSQUES CAN BE FOUND IN THE AREA. THESE MOSQUES ARE NOT SEPERATE BUILDINGS BUT ARE A COMMON PRAYER AREA ON THE GROUND FLOOR OF THE APARTMENT BUILDINGS.

THOUGH THERE WERE MANY CHRISTIAN SCHOOLS NO CHURCHES WERE BUILT IN THIS AREA.

LARGE TEMPLE

THIS WAS THE ONLY REALLY LARGE TEMPLE IN THE AREA AND IT ADVERTIZED MUSIC CLASSES INSIDE. PERHAPS LOCAL RESIDENTS OR SOCIETIES PITCHED MONEY TO GET THIS BUILT.

SMALL PRIVATE TEMPLE

THE SMALL TEMPLES WERE MAINLY LOCATED IN THE COURTYARDS OF BUILDING SOCIETIES, TO BE USED ONLY BY THE RESIDENTS OF THOSE BLOCKS. THEY WERE IN VERY GOOD SHAPE AND WERE USUALLY MORE ELABORATE IN DETAIL COMPARED TO MOST OTHER TEMPLES.

SHRINE

TEMPLES LIKE THESE WERE MAINLY FOUND IN THE LOW-RISE CHAWL AREAS. THEY SEEMED ON THE VERGE OF BECOMING PERMANET STRUCTURES BUT WERE STILL SOMEWHAT TEMPORARY IN NATURE. THESE TEMPLES WERE SOME OF THE MOST BASIC IN FORM AND STRUCTURE.

TREE TEMPLE

THE MOST BASIC FORM OF TEMPLES WERE THE TREE TEMPLES, WHICH COULD BE FOUND IN THE MIDDLE OF A BUSY ROAD. THIS USUALLY CONSISTED OF A SIMPLE PLATFORM AROUND A TREE.

WATER

WATER SERVICES ARE EVERYWHERE IN THE AREA. FOR THE LARGEST PART OF THE AREA PEOPLE GET THEIR WATER FROM WATER TRUCKS. PEOPLE CAN GET THEIR WATER EVERY OTHER DAY. BECAUSE THERE IS NO PLUMBING IN MOST AREAS PEOPLE HAVE TO TAKE THEIR WATER TO THEIR APARTMENTS. THE COMMUNAL TOILET BLOCKS AND WATER PUMPS CAN BE SEEN IN THE BAIHI CHAWL AREAS. THESE PEOPLE DON'T HAVE A TOILET IN THEIR OWN HOME. THEY SHARE THESE TOILET WITH MANY OF THEIR NEIGHBOURS. THE WATER PUMPS SUPPLY WATER TO THE PEOPLE IN THE CHAWLS BUT MOST OF THEM ARE BROKEN.

COMMUNAL TOILET BLOCKS

TOILET BLOCKS WERE ONLY BUILT TO SERVICE THE LOW-RISE CHAWLS, AND SO CAN ONLY BE FOUND IN THOSE AREAS OF RAHMAT NAGAR. THERE ARE USUALLY ONLY A FEW TOILETS FOR EVERY FEW CHAWLS.

WATER TRUCKS

WATER TRUCKS SUPPLY THE MID-RISE EXTRUDED CHAWLS AS THEIR WATER SUPPLY IS NON-EXISTENT. THE TRUCKS COME IN THE MORNING ONCE EVERY OTHER DAY TO SUPPLY THE RESIDENTS WITH WATER WHICH MUST BE CARRIED BACK TO THEIR HOMES.

WATER PUMPS

WATER PUMPS WERE MAINLY FOUND NEAR THE LOW-RISE CHAWLS, HOWEVER A FEW OTHER BUILDINGS ALSO HAD THEIR OWN. THESE PUMPS WERE FOR RARE USE, MANY OF THEM BEING BROKEN. THE IDEA WAS THAT WHEN THE POTABLE WATER THAT WAS SUPPLIED WAS INSUFFICIENT, RESIDENTS COULD USE THIS WATER TO DO THEIR WASHING AND BASHING.

SMALL PRIVATE TEMPLE



TREE TEMPLE



WATER TRUCKS



WATER PUMPS



BORDERS

BORDERS PHYSICAL

BAITHI CHAWLS

OPEN GATES AT ENTRANCES FOR SECURITY CONTROL

SOME OF THE CHAWLS THAT BELONG TO A SOCIETY HAD GATES, AND OTHERS DO NOT. THE GATES WERE USUALLY OPENED, AND WE COULD ENTER THE CHAWLS EASILY. THE GATES WERE ON A RAISED CURB WHICH BLOCKS THE RAIN DURING MONSOON SEASON.

CLOSED GATES AT REAR END FOR SECURITY CONTROL

IN SOME OF THE CHAWLS, WE COULD SEE A GATE AT THE REAR END. ON THE OTHER SIDE OF THESE GATES WERE NARROW ALLEYS, FOLLOWED BY COMPOUND WALLS OF THE TALLER APARTMENTS.

GUTTER AS DIVIDER BETWEEN ROWS OF CHAWLS

THERE WERE GUTTERS THAT GO THROUGH THE COMMUNAL AREA OF THE CHAWL. THEY DIVIDE THE COMMUNAL SPACES INTO TWO.

KEEPING DOGS AS SECURITY MEASURE

DOGS BARKED AT US WHEN WE ENTERED SOME OF THE CHAWLS, RECOGNIZING US AS A STRANGER. IN A CHAWL WE VISITED, THE DOG IS OWNED BY A MAN WHO WORKS IN KOLKATA, AND THUS THE OTHER RESIDENTS IN THE CHAWL HELP TO FEED THE DOG ON A DAILY BASIS.

PLINTH, OBJECTS, AND FACADE MATERIALS TO IDENTIFY INDIVIDUAL UNITS

THERE WERE RAISED PLINTHS IN FRONT OF EACH UNIT, DEMARCATING A SEMI-PRIVATE SPACE. THESE PLINTHS ALSO CONTAIN STORAGE SPACES UNDERNEATH. THE WATER TANKS IN FRONT OF EVERY UNIT ALSO SEPARATE THE SPACES AMONG THE UNITS. SOME RESIDENTS ALSO PLASTER THE FACADE OF THEIR UNIT WITH A DIFFERENT MATERIAL. THESE ELEMENTS ALLOWED US TELL ONE UNIT APART FROM THE OTHER.

CURTAINS TO SEPARATE PRIVATE AND COMMUNAL SPACES

WE SAW THAT MANY OF THE UNITS HAVE A LAYER OF CURTAIN APART FROM AN ACTUAL DOOR. THE CURTAIN PROVIDES A CERTAIN LEVEL OF PRIVACY WHILE STILL ENSURING VENTILATION. IT IS ALSO A SOFTER BOUNDARY THAN A DOOR, IN SOME CASES THE POSSIBILITY OF ENTERING A UNIT WHEN THE CURTAINS ARE DOWN DEPENDS ON HOW WELL YOU KNOW THE PERSON LIVING INSIDE. THE CURTAINS ARE USUALLY USED IN THE DAY INSTEAD OF THE DOORS.

MID-RISE CHAWLS

GATE AT ENTRANCE OF THE CLUSTER

MOST OF THE MID-RISE CHAWLS HAVE A GATE WITH THE NAME OF THE CLUSTER HUNG ABOVE IT. THESE GATES ARE USUALLY OPENED AND WE COULD ENTER THEM WITHOUT A KEY.

GATE AT REAR END OF THE CLUSTER

IN THE MID-RISE CHAWL WE SAW GATES AT THE REAR END THAT ARE CLOSED PERMANENTLY. THEY SEPARATE THE BUILDINGS FROM THE NEIGHBOURING BUILDINGS.

GATE FOR THE BUILDING

ON THE GROUND FLOOR WE ARRIVED AT ANOTHER GATE THAT WAS LOCATED BEFORE THE STAIRCASE. NAMES OF THE RESIDENTS IN THE BUILDING ARE LISTED ON A BOARD. SOMETIMES YOU CAN IDENTIFY THE ORIGINS OF THE PEOPLE IN THE BUILDING BY THE NAMES OR THE LANGUAGE IT IS WRITTEN IN. WE COULD GO THROUGH MOST OF THESE GATES, THEY ACT MORE AS A MARKER OF TERRITORY THAN A TOTAL BOUNDARY.

BOARD ON THE CORRIDOR DIVIDING BOTH WINGS

WE WENT UP THE STAIRCASE AND UPON ARRIVAL ON THE CORRIDOR, THERE WERE BOARDS THAT WERE PIVOTED AGAINST THE WALL. THESE BOARDS SEPARATE THE CORRIDOR INTO TWO WINGS.

PRIVATIZATION OF CORNER UNIT

AS WE WALKED ALONG THE CORRIDOR WE SEE ANOTHER GRILL AT THE END. IT IS COMMON FOR CORNER UNITS TO PRIVATIZE PART OF THE CORRIDOR WITH THESE GRILLS FOR EXTRA DOMESTIC SPACE. IT IS COMMONLY USED FOR STORAGE AND DRYING CLOTHES.

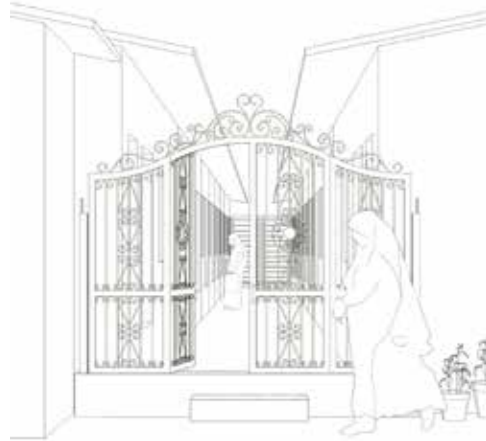
STRUCTURAL COMPONENTS AS SEPARATOR BETWEEN UNITS

ALTHOUGH THE CORRIDOR IS COMMUNAL, ARCHITECTURAL ELEMENTS LIKE THE BEAMS AND BALLUSTRADES DEFINE THE SEMI-PRIVATE SPACE OF EACH UNITS. THE SPACES BETWEEN THE BEAMS ARE OFTEN USED TO DRY CLOTHES.

WINDOW GRILL TO SEPARATE PERSONAL AND PUBLIC SPACE

WE SAW THAT ALMOST EVERY UNIT INSTALLED THEIR OWN PROTRUDING WINDOW GRILLS, CLAIMING MORE SPACE FOR STORAGE. WE ALSO SAW CHILDREN STANDING AND PLAYING IN THESE SPACES. THE GRILLS ALSO ALLOW VENTILATION IN THE UNITS.

**OPEN GATES AT ENTRANCES
FOR SECURITY CONTROL**



**KEEPING DOGS AS
SECURITY MEASURE**



**GATE AT REAR END OF THE
CLUSTER**



**CURTAINS TO SEPARATE
PRIVATE AND COMMUNAL
SPACES**



BORDERS PHYSICAL

COMPOUND APARTMENTS

COMPOUND WALL WITH SPIKES

AS WE WALKED IN THE NEIGHBOURHOOD WE CAME ACROSS HIGH COMPOUND WALLS, SEPARATING THE APARTMENTS FROM THE NEIGHBOURING CHAWLS. SOME OF THE WALLS HAVE POINTED SPIKES, AND SOME OF THEM HAVE PIECES OF GLASSES ATTACHED, TO PREVENT OTHERS FROM CLIMBING INTO THE COMPOUND. WE SAW A CHILD USING THE WIDE COMPOUND WALLS TO DRY LARGER PIECES OF FABRIC.

MAIN GATE WITH SECURITY GUARD

WE SAW BIG GATES AND SECURITY GUARDS IN FRONT OF THE COMPOUND APARTMENTS. SOME OF THE GATES ARE OPENED, WHILE SOME OF THEM ARE CLOSED WITH A SMALLER OPENED GATE ON THE SIDE. SOME SECURITY GUARDS STOPPED US FROM ENTERING THE PREMISE OR TAKING PHOTOS, WHILE SOME ALLOWED US TO ENTER AFTER A FEW QUESTIONS.

SEPARATION OF CIRCULATION AND LEISURE SPACE

THESE APARTMENTS HAVE COMMUNAL SPACES IN THE GROUND FLOOR, SURROUNDED BY LOW FENCES THAT SEPARATE THE MOTORCYCLE FROM THE PEOPLE WHO WERE ENJOYING THE GARDENS.

CLAIMING SPACE WITH DECORATED ENTRANCES

WE WENT UP THE STAIRCASES AND SAW MANY UNIT ENTRANCES THAT WERE PERSONALIZED. IN THIS CASE THE WALLS AND CEILING AROUND THE DOOR WERE LAMINATED IN THE SAME WOOD AS THE DOOR, CLAIMING COMMUNAL SPACE AS THEIR OWN WHILE ANNOUNCING THE ENTRANCE OF THE UNIT.

STREET

FLEXIBLE STREET BORDER

WHEN WE WERE ON THE SITE IN THE MORNING, THERE WERE MORE VEHICLES AND LESS SPACE FOR PEDESTRIANS ON THE STREET. HOWEVER, IN THE EVENING, THE STREET TRANSFORMED INTO A MARKET. SPACE FOR VEHICLES WAS REDUCED AND THE VEHICLES WERE MOVING SLOWLY, WHILE THE SIDES OF THE STREET WERE OCCUPIED BY STALLS AND PEDESTRIANS. THEREFORE THERE WAS NO FIXED BORDERS ON THE STREETS, BUT A RATHER FLEXIBLE ONE DEPENDING ON DIFFERENT TIMES OF THE DAY.

OBJECTS BETWEEN SHOPS TO CLAIM TERRITORY

MANY SHOP OWNERS PLACED OBJECTS LIKE SIGNS OR MERCHANDISE OUTSIDE THEIR SHOP, CLAIMING PART OF THE STEPS AND THE PAVEMENT AS THEIR SPACE WHILE DIVIDING THE COMMUNAL SPACES AMONG THE NEIGHBOURS.

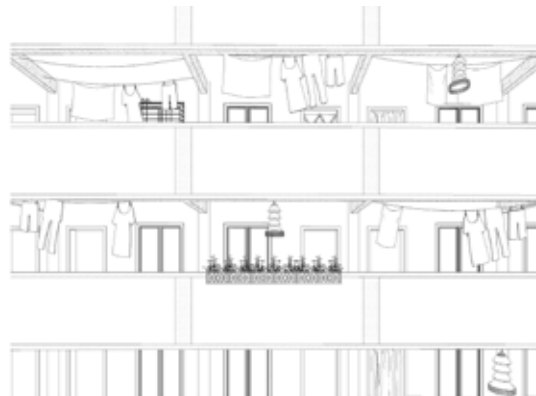
FLEXIBLE SHUTTER DOORS

THE SHOPS ON THE GROUND FLOOR HAVE SHUTTER DOORS. THEY ARE USUALLY FULLY OPENED WHEN THE SPACES ARE USED AS A SHOP, AND HALF CLOSED WHEN THE SPACES BEHIND ARE USED AS WORKING SPACES FOR ACTIVITIES LIKE ELECTRONICS REPAIR OR JEWELLERY MAKING. WHEN THE SHUTTER DOORS ARE HALF CLOSED, THEY BLOCK PART OF THE SUNLIGHT, PROVIDE PRIVACY WHILE ALLOWING VENTILATION AT THE SAME TIME.

**BOARD ON THE CORRIDOR
DIVIDING BOTH WINGS**



**STRUCTURAL COMPONENTS
AS SEPARATOR BETWEEN
UNITS**



**PRIVATIZATION OF CORNER
UNIT**



**MAIN GATE WITH SECURITY
GUARD**



BORDERS

SOCIAL

GENDER BORDER

AT THE MARKET AND IN THE SHOPS, WE REALIZED THAT ALMOST ALL OF THE SHOPKEEPERS AND STALL VENDORS ARE MEN, WHILE ALL OF THE BUYERS ARE WOMEN. WHEN WE VISITED THE HOUSES IN THE DAY, MOST OF THE PEOPLE WE MET WERE ALSO WOMEN, WHILE MOST OF THE MEN ARE WORKING.

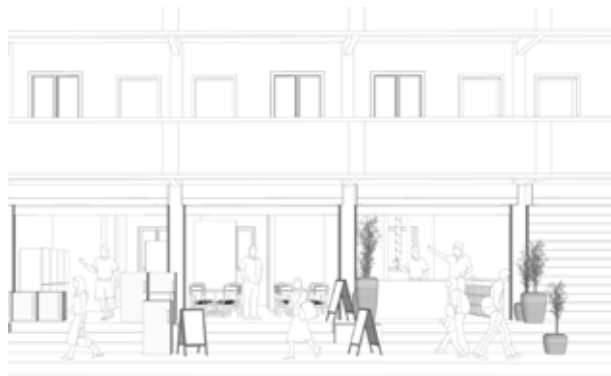
RELIGIOUS BORDER

WHEN WE SPOKE TO PEOPLE ON THE SITE, SOME OF THEM TOLD US THAT THERE IS A MUSLIM AREA SOMEWHERE IN THE AREA, BUT NO ONE COULD DESCRIBE WHERE THE BORDER OF THE MUSLIM COMMUNITY EXACTLY IS. WE DID NOT FIND A CLEAR PHYSICAL BORDER BETWEEN THE MUSLIM AND HINDU AREAS, BUT AS WE WALKED THROUGH THE STREETS OF RAHMAT NAGAR, THERE ARE MOMENTS WHEN WE FEEL THAT WE HAVE ENTERED A MUSLIM AREA. WE SAW THAT THE MEN HAD 'TOPI' ON THEIR HEADS, AND WOMEN ARE EITHER IN BURKA OR A COMBINATION OF SAREES AND HIJABS. THERE WAS A LACK OF SWASTIKA FLAGS ON THE STREETS, AND MOST OF THE SIGNBOARDS ARE IN URDU INSTEAD OF HINDI. WHEN THERE IS A MOSQUE NEARBY, WE CAN HEAR SOUND OF THE PRAYERS. HOWEVER, THE HINDUS AND THE MUSLIMS ARE NOT COMPLETELY SEPARATED, THERE ARE ALSO HINDUS STAYING IN MUSLIM AREAS AND VICE VERSA.

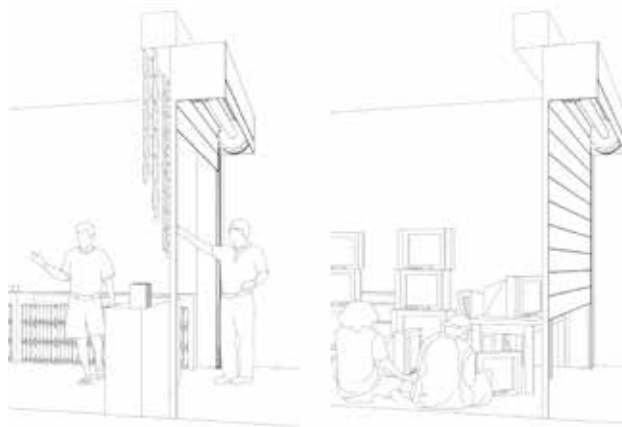
**SEPARATION OF
CIRCULATION AND
LEISURE SPACE**



**OBJECTS BETWEEN
SHOPS TO CLAIM
TERRITORY**



**FLEXIBLE SHUTTER
DOORS**



GENDER BORDER



URBAN MORPHOLOGY

URBAN MORPHOLOGY

THE CHAWLS AND THE BAITHI CHAWLS ARE SPREAD THROUGH NALASOPARA EAST: MOST OF THE TIME, THE BUILDINGS ARE CLUSTERED BY TYPOLOGY. HOWEVER, SOMETIMES BOTH TYPOLOGIES INTERSECT, CO-EXIST, FORMING DIFFERENT URBAN SHAPES.

HAND-SHAKE CHAWLS

RESIDENTIAL

THE CHAWLS ARE 5 STOREYS HIGH BUILDINGS, SITUATED AROUND A STREET THAT IS FROM 90CM TO 4M WIDE. THE GROUND FLOORS ARE VERY POROUS, WITH OPEN ENTRANCES OR STAIRCASES. USUALLY, WORKSHOPS OR PRODUCTION SPACES ARE LOCATED ON THE GROUND FLOORS WHEN THE STREETS ARE WIDER.

COMMERCIAL

THE MAIN STREETS OF NALASOPARA ARE USUALLY PUNCTURED WITH CHAWLS, SUPPLEMENTED WITH COMMERCIAL SPACES ON THE GROUND FLOORS. OPENEABLE THANKS TO A ROLLING GARAGE DOOR, THESE SHOPS ACTIVATE THE STREETS, OFTEN SPREADING OVER THE WHOLE STREET. THE STREETS ARE USUALLY FROM 3.5 TO 8M WIDE, WITH WALKWAYS PROTECTED BY THE OVERHANG OF THE UPPER FLOORS.

BAITHI CHAWLS

RESIDENTIAL

THE BAITHI CHAWLS, OR LOW CHAWLS ARE MAINLY GROUND FLOOR CONSTRUCTIONS, ALTHOUGH SOMETIMES AN ADDITIONAL FLOOR IS BUILT, WHEN THE INHABITANTS CAN AFFORD AN EXTRA SPACE. THE BUILDINGS HEIGHT VARY, AS THERE IS NO REGULATION TO IT, RANGING FROM 2.3 TO 5M HIGH. THE RESIDENTIAL BAITHI CHAWLS ARE SITUATED ALONG AN ALLEY, BETWEEN 2.5 TO 4 METERS WIDE, PERPENDICULAR TO USUALLY COMMERCIAL STREET.

COMMERCIAL

VERY OFTEN, THE BAITHI CHAWLS ARE ALSO USED AS SHOPS OR PRODUCTION SPACES. THE DWELLINGS ARE THUS SMALLER, LEAVING SPACE FOR COMMERCIAL ACTIVITIES. THEREFORE, THE BUILDING DIMENSIONS ARE SIMILAR TO THE RESIDENTIAL BAITHI CHAWLS. MOST OF THE TIME (ALTHOUGH NOT ALWAYS), THESE TYPOLOGIES ARE LOCATED ALONG A COMMERCIAL STREET OR ALLEY.

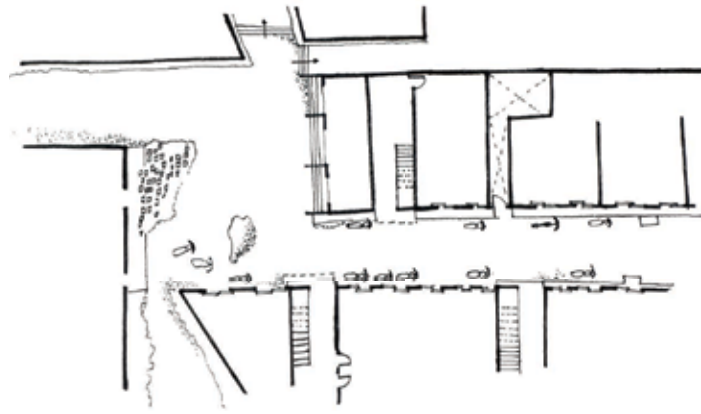
ALTHOUGH THE CHAWLS AND BAITHI CHAWLS ARE CLUSTERED PER TYPOLOGY, THEY INTERSECT WITHIN THE CITY, RESULTING IN A VARIED STREETSCAPE.

IN THE RESIDENTIAL PARTS, WHERE THE CHAWLS AND BAITHI CHAWLS MEET, THERE IS RUPTURE OF SCALE. THE BUILDING'S HEIGHT DIFFERENCE IS EMPHASIZED WITH A PLATFORM, ELEVATING THE CHAWLS FROM THREE STEPS, BREAKING THE CONTINUITY BETWEEN THE TYPOLOGIES.

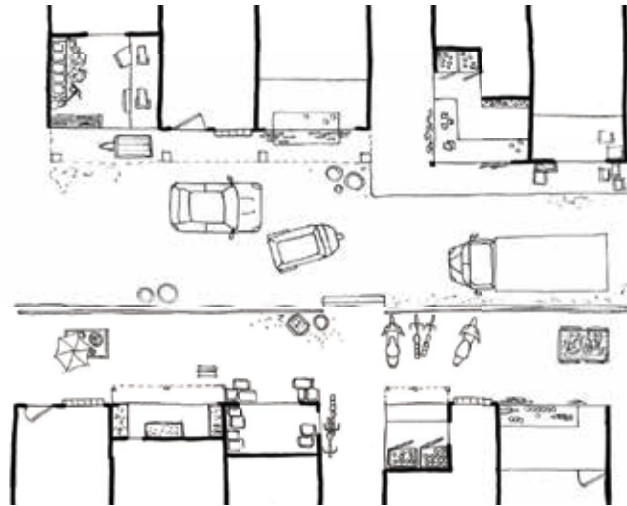
THE COMMERCIAL ACTIVITY OF THE GROUND FLOORS CONNECTS THE CHAWLS AND THE BAITHI CHAWLS, RESULTING IN A CONTINUOUS STREETSCAPE. INDEED, THE SHOPS, DESIGNATED BY A SMALL STEP, ARE OPEN TO THE STREET, ALONG WHICH THE COMMERCES ARE SPREAD.

WHEN ALL THE TYPOLOGIES MEET, MIXING CHAWLS AND LOW CHAWLS WITH COMMERCES AND HOUSING, THE SPACE BECOMES MORE UNDEFINED. THE THRESHOLDS ARE MORE POROUS, LETTING THE PUBLICNESS OF THE SHOPS INTERACT WITH THE PRIVACY OF THE DWELLINGS.

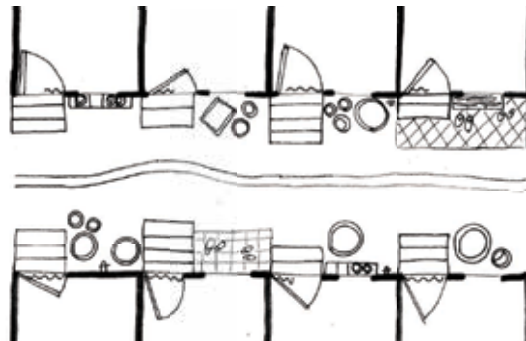
**HAND-SHAKE
RESIDENTIAL**



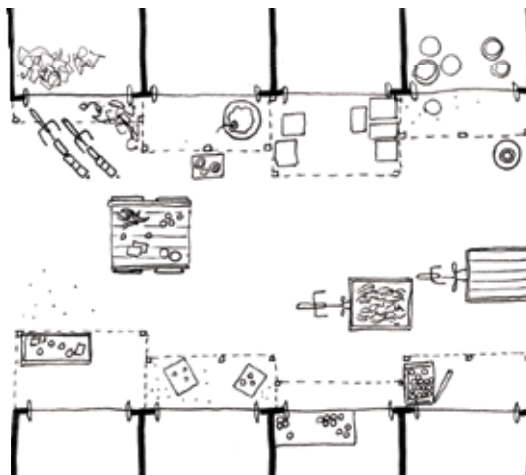
**HAND-SHAKE
COMMERCIAL**



**BAITHI
RESIDENTIAL**



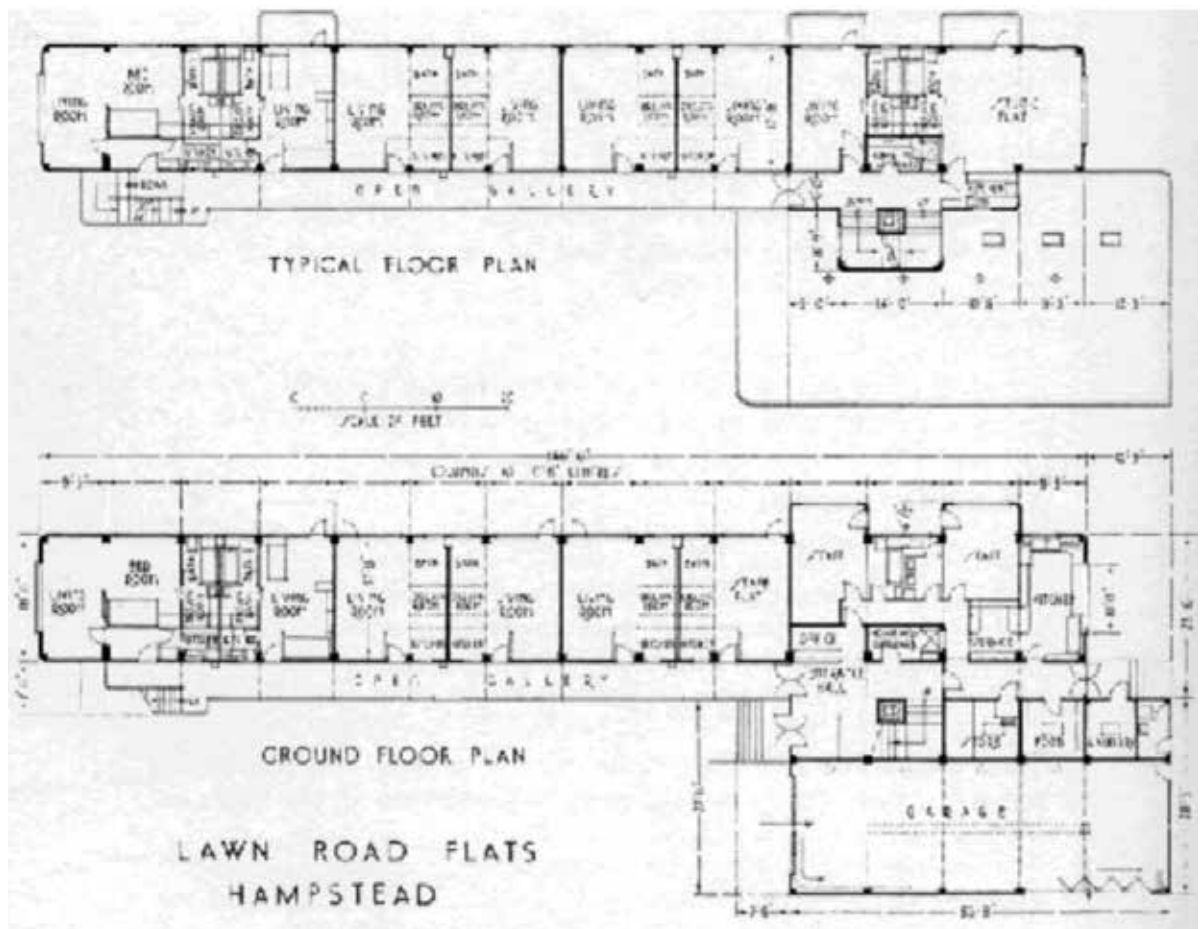
**BAITHI
COMMERCIAL**



REFERENCES



THE ISOKON BUILDING (HAMPSTEAD, UK)
WELLS COATES
1934



THE BUILDING WAS A SOCIAL EXPERIMENT, EXPLORING NEW WAYS OF URBAN DWELLING, BRINGING THE CREATIVE PEOPLE OF THEIR TIME TOGETHER IN A NEW TYPE OF URBAN CONTEXT.

THE ISOKON BUILDING CONSISTED OF 32 FLATS WHERE EVERY TENANT HAD THEIR OWN BEDROOM/LIVING ROOM, BATHROOM AND A SMALL KITCHEN. BUT WHAT SET THE BUILDING APART FROM OTHERS WAS THE FACT THAT THE ISOKON WAS PLANNED AS A SEMI-SHARED HOUSE. THE OCCUPANTS SHARED A LARGE KITCHEN, LAUNDRY ROOM, DINING HALL AND A RESTAURANT CALLED THE ISOBAR.

ALL FLATS OF THE BUILDING ARE IN DIRECT CONTACT WITH THE OPEN GALLERIES. THE CORRIDOR PLAYS AN

IMPORTANT ROLE IN THE SOCIAL INTERACTION BETWEEN RESIDENTS. EVERY APARTMENT HAS A SECLUDED SPACE AT THEIR DISPOSAL WHERE RESIDENTS CAN RETIRE AT ANY MOMENT. THESE HIGHLY PRIVATE SPACES WORKS JUST AS ANY APARTMENT WITH A PHYSICAL LOCK AND KEY CLEARLY DEFINING THE DIFFERENCE BETWEEN PRIVATE AND PUBLIC.

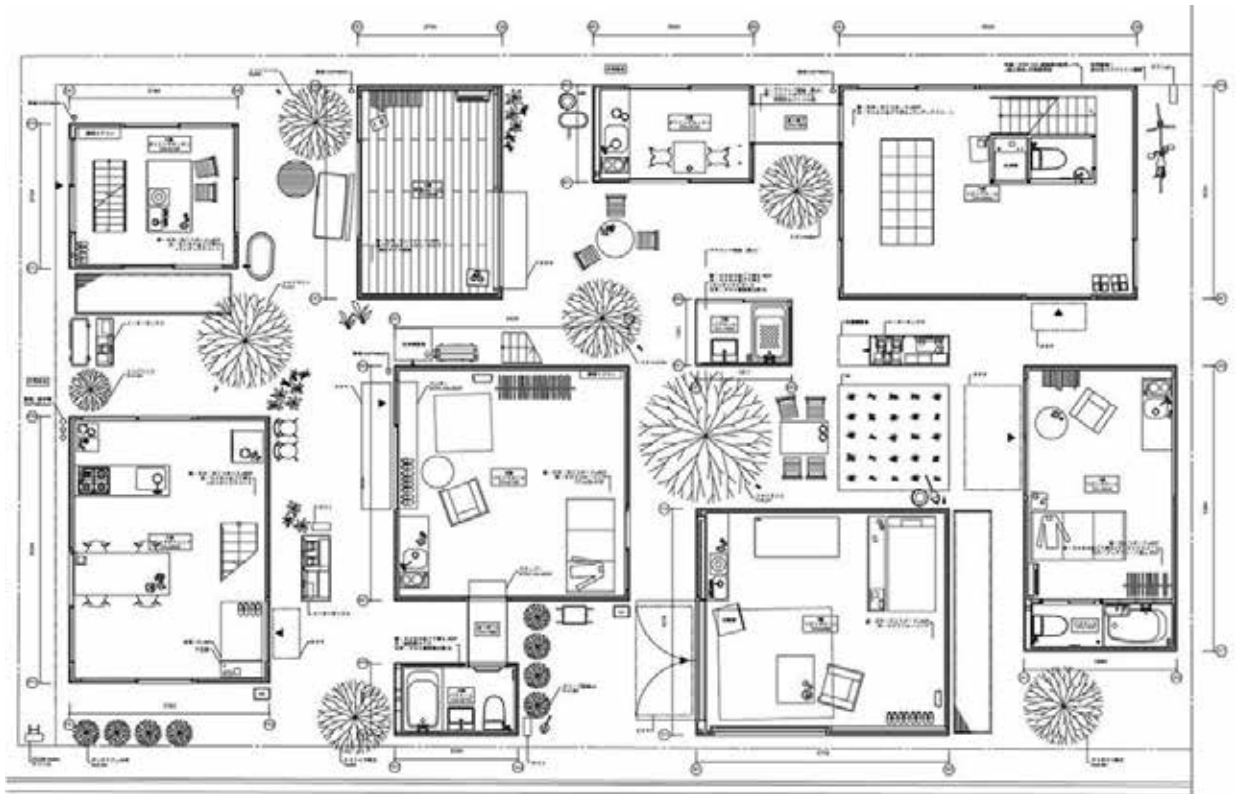
IT IS VERY IMPORTANT TO GIVE THE OCCUPANTS THE ABILITY TO CHOOSE FOR THEMSELVES WHEN AND WHERE THEY WANT THE INTERACTION TO TAKE PLACE. THERE IS A SPECIFIC DISTINCTION BETWEEN THE MATERIALS USES IN THE PRIVATE OR/AND PUBLIC SPACE. LARGE OPENINGS IN THE FACADE ESTABLISHED CONTACT WITH THE SURROUNDINGS.

ISOKON GALLERY. THE STORY OF A NEW VISION OF URBAN LIVING.
WWW.ISOKONGALLERY.CO.UK

O'KELLY, EMMA. LONDON'S ISOKON BUILDING OPENS A GALLERY TO TELL ITS RICH HISTORY AS THE HOME OF MODERNIST DESIGNERS, WRITERS, AND SPIES. WALLPAPER
WWW.WALLPAPER.COM

MORIYAMA HOUSE (TOKYO, JAPAN)
RYUE NISHIZAWA
2005





THIS UNIQUE PROJECT ATTEMPTS TO CHALLENGE THE CONVENTIONAL SCHEMES OF THE DOMESTIC ARCHITECTURE BY PROPOSING A SCHEME THAT REDEFINES PUBLIC AND PRIVATE SPACE. WHILE THE SITE FOR THE MORIYAMA HOUSE IS QUITE SMALL, ITS BUILDINGS ONLY TAKE UP ABOUT HALF ITS AREA. THE COMMUNAL SPACE IS SHARED BY SIX TENANTS, INCLUDING THE OWNER YASUO MORIYAMA; AND ITS DESIGN PLACES AN EMPHASIS ON THE RELATIONSHIPS BETWEEN THE PUBLIC AND PRIVATE SPACES.

THE PROGRAM OF THE MORIYAMA HOUSE IS DECONSTRUCTED AND RECOMPOSED IN 10 INDIVIDUAL BOXES THAT RANGE FROM ONE TO THREE STOREYS HIGH. ALTHOUGH THE UNITS MAY APPEAR SMALL IN SIZE, FROM FIRST GLANCE, THE WALLS THAT ENCLOSE THEM ARE REALLY THIN, MAXIMISING THE INTERIOR VOLUMES. FROM THESE UNITS, MORIYAMA CHOOSES WHICH SHOULD BE INCLUDED INTO HIS RESIDENCE OR AS A RENTED SPACE FOR HIS TENANTS.

ANALOGOUS TO NATURE, THE MORIYAMA HOUSE CONSTANTLY CHANGES AND READAPTS TO SUIT THE INHABITANTS NEEDS, WHICH CONSEQUENTLY ALSO CHANGES THE CIRCULATION WITHIN THE SITE.

THERE ARE NO PHYSICAL BARRIERS MARKING THE BOUNDARIES OF MORIYAMA HOUSE, WHICH ALLOWS IT TO PRESENT ITSELF AS A SOMETHING BELONGING TO THE PUBLIC, AS MUCH AS IT IS PRIVATE DWELLING. TENANTS AND PEDESTRIANS ALIKE MAY COME AND GO AS THEY PLEASE THROUGH THE SITE, AND THROUGH MULTIPLE ENTRIES. IN ORDER TO RESPOND TO THE LACK OF A PERIMETER AROUND THE HOUSE, INTEGRATION OF ITS GREEN SPACE ACTS A BUFFER BETWEEN THE STREETS AND NEIGHBOURING RESIDENCES. ALTHOUGH THE HOUSE'S GREEN SPACE IS MEANT TO BE PRIVATE, THE THRESHOLDS OF THE SPACE BETWEEN THE UNITS ARE LEFT AMBIGUOUS. THE PRIVATE SPACES CAN BE READAPTED TO BECOME PART OF THE COMMUNAL SPACES.

URBAN STRATEGY

BAITHI CHAWLES



MAIN ROADS



SECONDARY ROADS



COMMERCIAL FACILITIES



EDUCATIONAL FACILITIES



MEDICAL FACILITIES



ROAD NETWORK IMPROVEMENT



OPEN SPACE PRESERVATION



GREY FIELDS AS STARTING POINTS

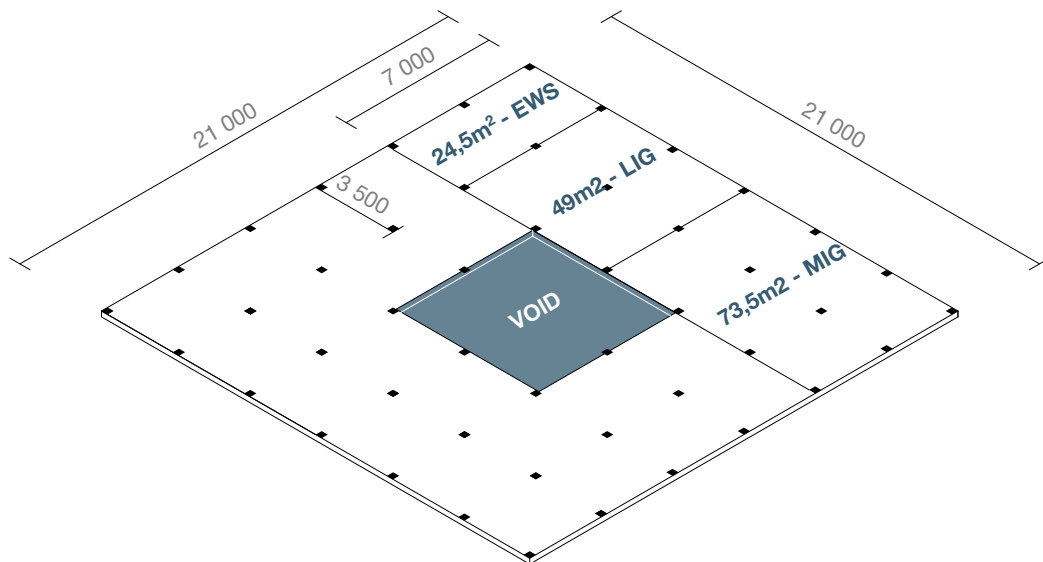


SEAMLESS NET OF OPEN SPACES



ARCHITECTURAL RESPONSE

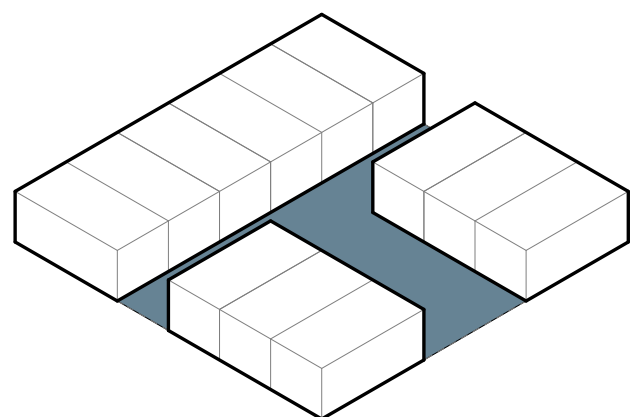
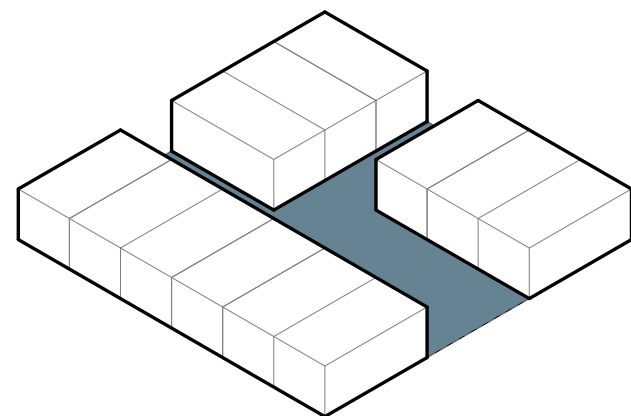
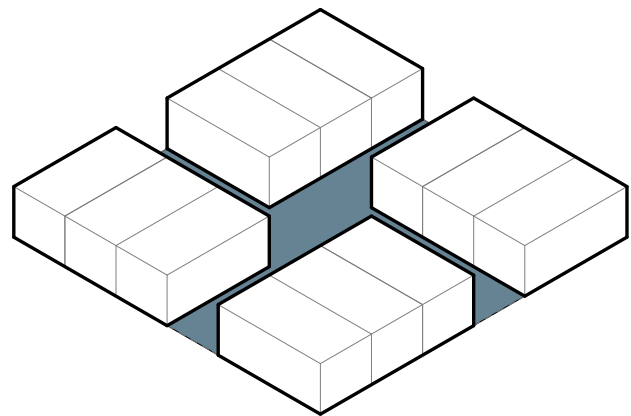
STRUCTURE



CLUSTER WITH A MODULAR COLUMN GRID 3.5 PER 3.5M GIVES AN OPPORTUNITY TO RESPOND TO ANY INCOME GROUP BY JUST ADDING 1 OR TWO EXTRA MODULES. A VOID IN THE MIDDLE WORKS BOTH AS PHYSICAL AND VISUAL CONNECTOR FOR THE WHOLE BUILDING ALSO PROVIDING NATURAL VENTILATION.

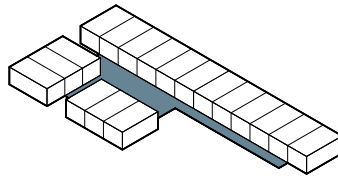
A CLUSTER FORMATION CAN ADOPT TO DIFFERENT URBAN CONDITIONS, OPENINGS ON THE SIDES ALLOWS SUNLIGHT GET INSIDE, ALSO PROVIDING CROSS VENTILATION WHICH IS SO IMPORTANT IN THIS CLIMATE.

ADAPTATION TO DIFFERENT URBAN CONDITIONS

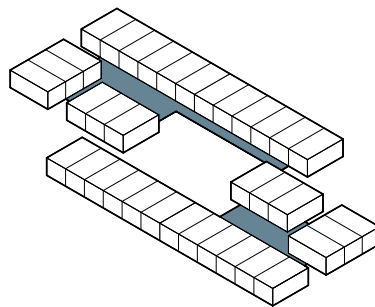


STRUCTURE

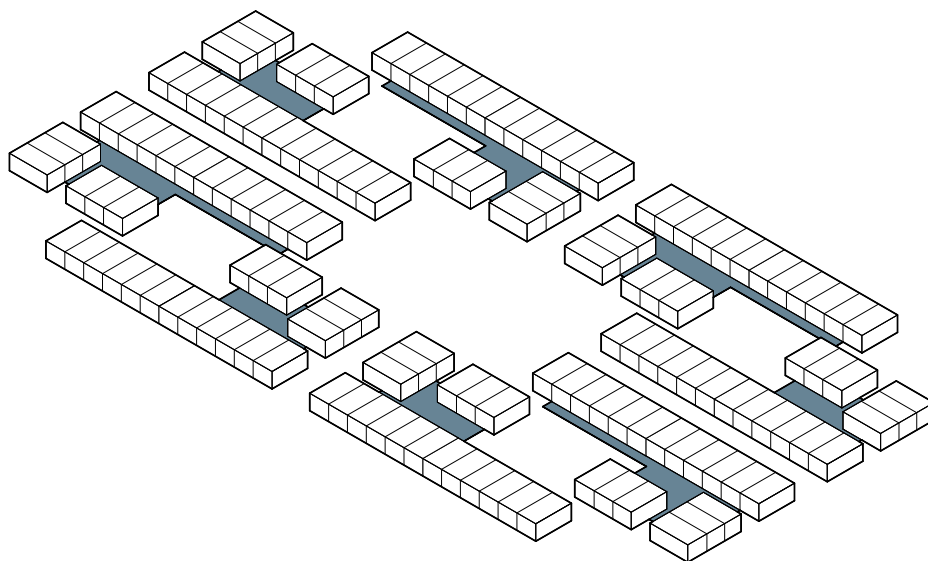
CLUSTER

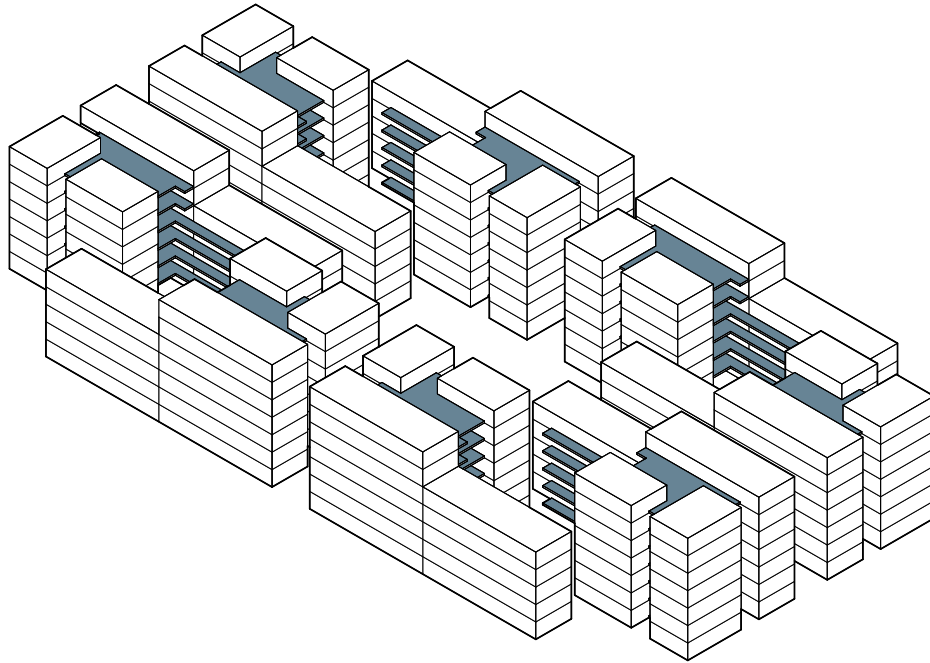


COURTYARD



NEIGHBORHOOD





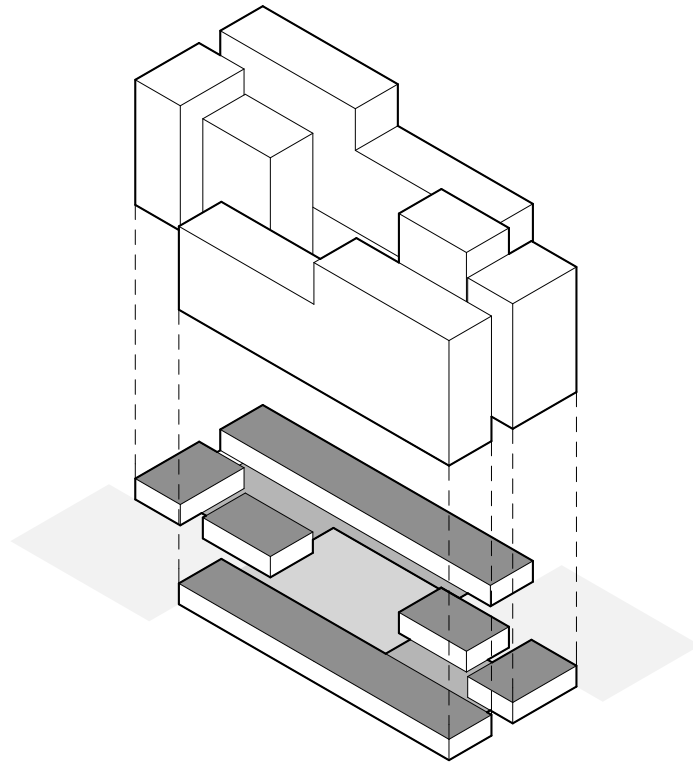
A CLUSTER FORMATION CAN ADOPT TO DIFFERENT URBAN CONDITIONS, OPENINGS ON THE SIDES ALLOWS SUNLIGHT GET INSIDE, ALSO PROVIDING CROSS VENTILATION WHICH IS SO IMPORTANT IN THIS CLIMATE.

THE POSSIBILITY OF GROWTH MAKES THE CLUSTER ADJUST TO DIFFERENT URBAN CONDITIONS AND EXIST AS A SMALL COMMUNITY FORMATION. HOWEVER, BY COMBINING OF TWO ELEMENTS, THE COURTYARD OF DIFFERENT SHAPES CAN BE CREATED.

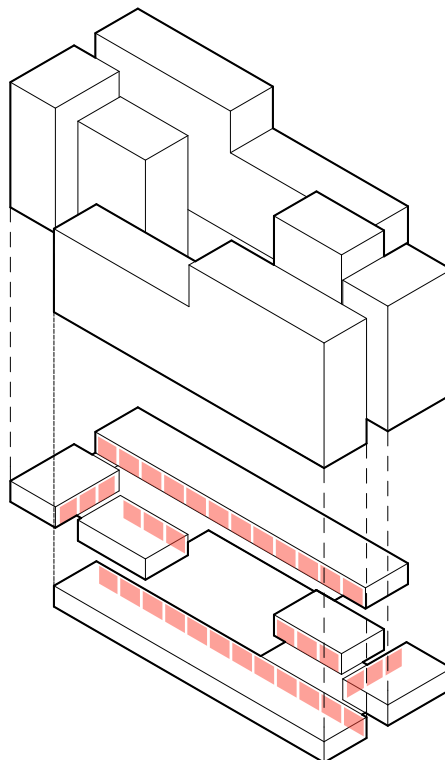
THIS SYSTEM ALSO ALLOWS TO ACHIEVE THE SEQUENCE OF SPACES COMING FROM THE MOST PRIVATE TO THE COMMON TO THE PUBLIC.

CONCEPT

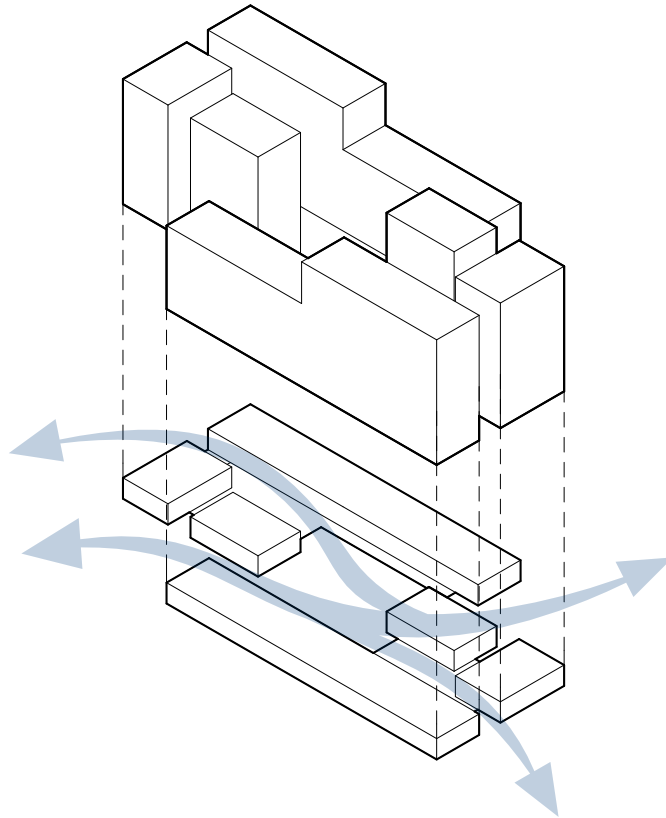
DIFFERENT LEVEL OF PRIVACY



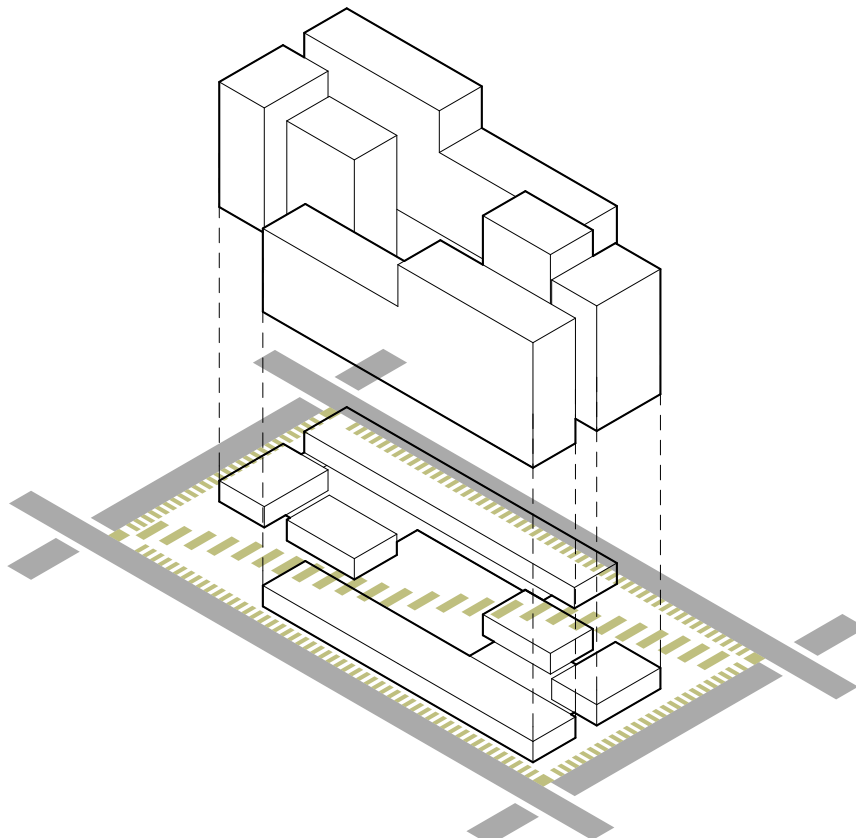
DIFFERENT LEVEL OF PRIVACY COMMUNITY AND SELF SECURE



NATURAL VENTILATION



SELF COURTYARD



NEIGHBORHOOD STRATEGY

STAGES

PHASE 0



STARTING POINT

PHASE 1



60 NEW UNITS
60 TO CLEAR
0 VACANT UNITS

PHASE 4



393 NEW UNITS
151 TO CLEAR
387 VACANT

PHASE 5



242 NEW UNITS
629 VACANT

460 TO CLEAR
169 VACANT

PHASE 2



120 NEW UNITS
120 TO CLEAR
0 VACANT UNITS

PHASE 3



310 NEW UNITS
165 TO CLEAR
145 VACANT

PHASE 6



220 NEW UNITS
280 TO CLEAR
109 VACANT

PHASE 7

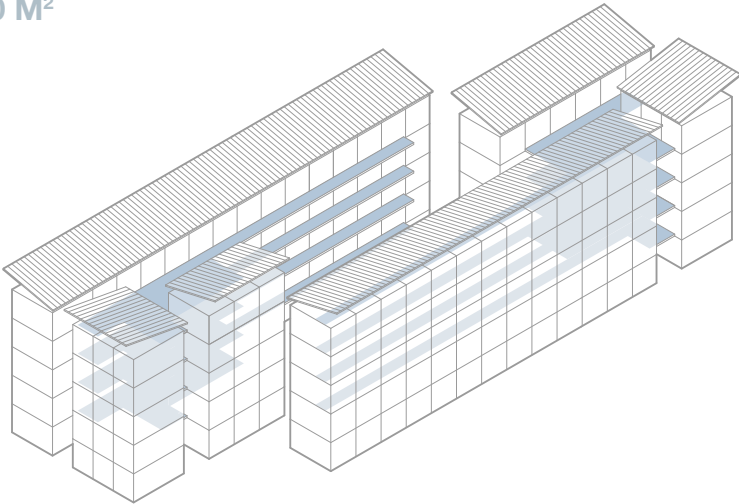


36 NEW UNITS
0 TO CLEAR
145 VACANT

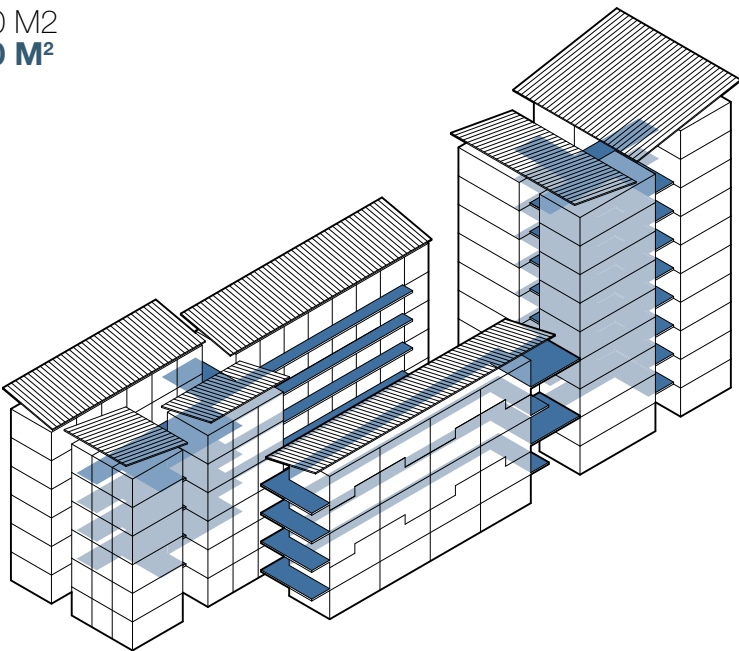
MODIFICATIONS / EXCEPTIONS



5 170 M2
1 320 M²

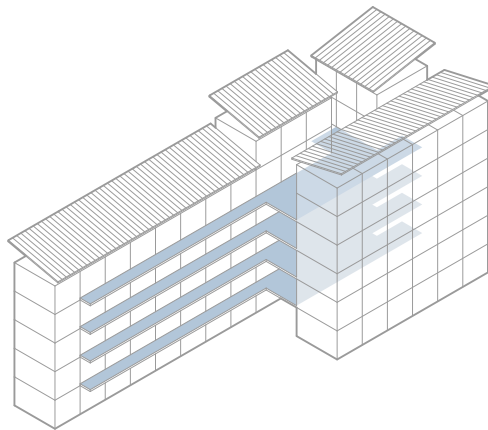


7 790 M2
2 670 M²

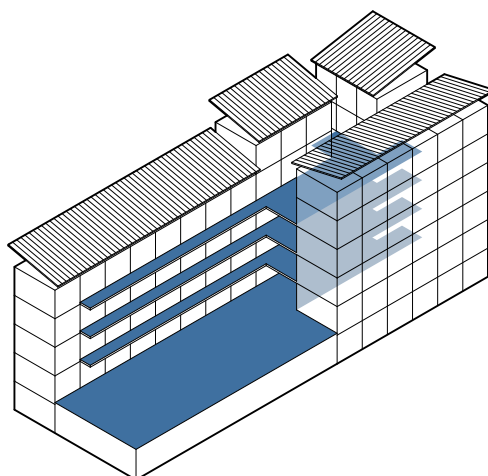




2 770 M²
690 M²



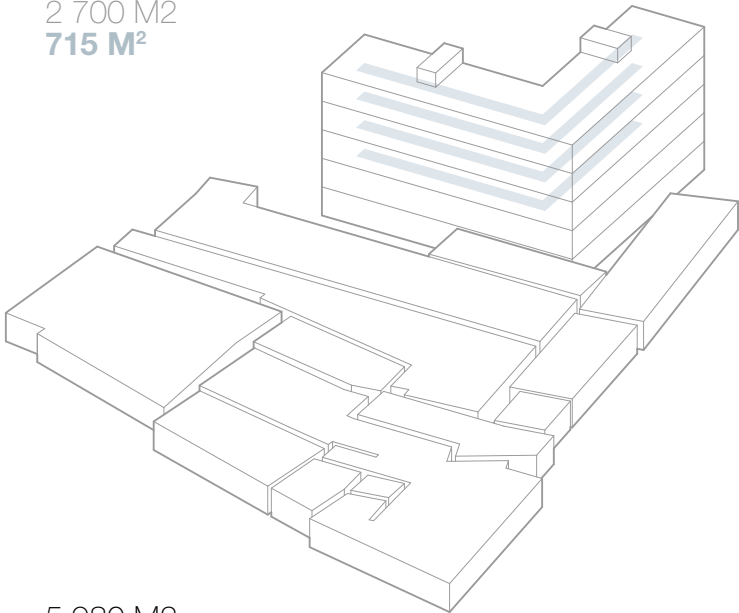
3 220 M²
1 080 M²



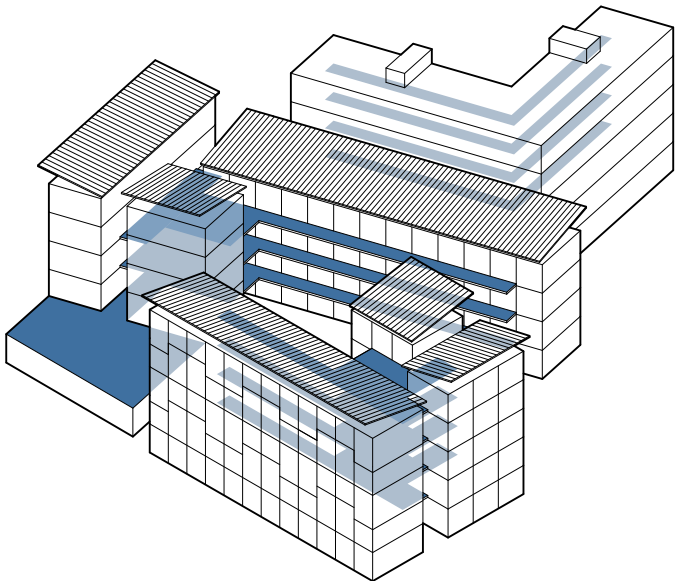
MODIFICATIONS / EXCEPTIONS



2 700 M2
715 M²

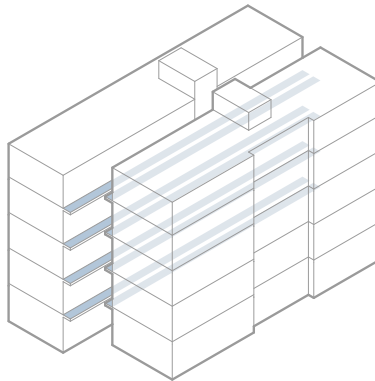


5 980 M2
1 800 M²

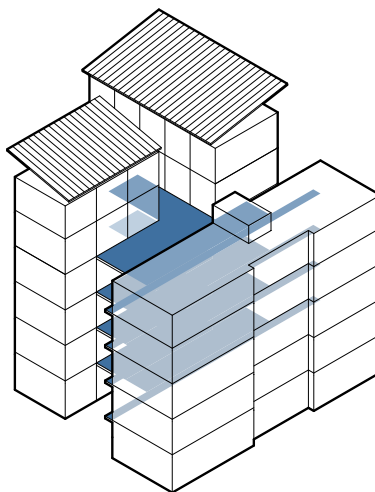




1 960 M2
208 M²



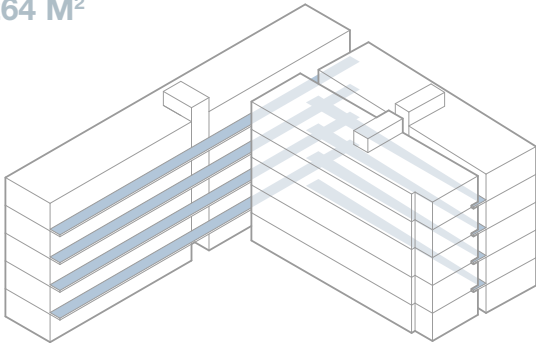
2 310 M2
560 M²



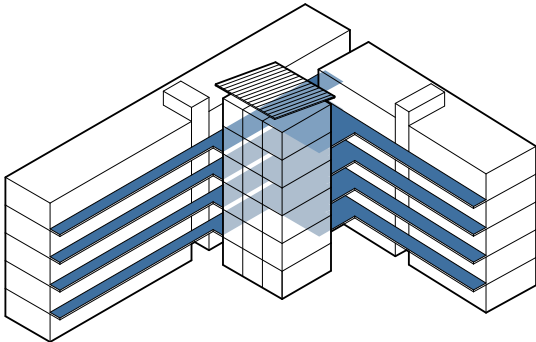
MODIFICATIONS / EXCEPTIONS



3 870 M2
264 M²

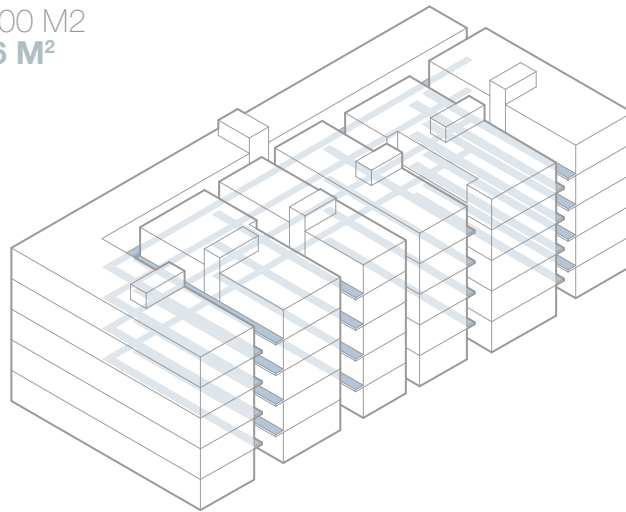


3 380 M2
960 M²

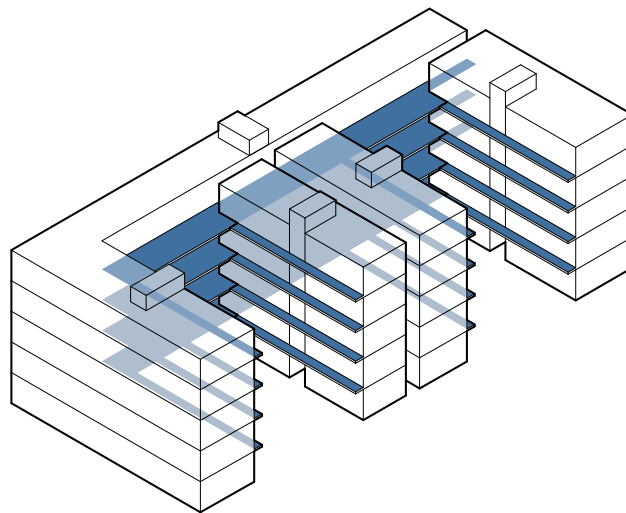




6 500 M²
756 M²



5 100 M²
960 M²



NEIGHBORHOOD MASTER PLAN





PUBLIC SQUARE

MORNING
GRAZING



AFTERNOON
MARKET



EVENING
STREET FOOD



CLUSTER

GROUND FLOOR PLAN





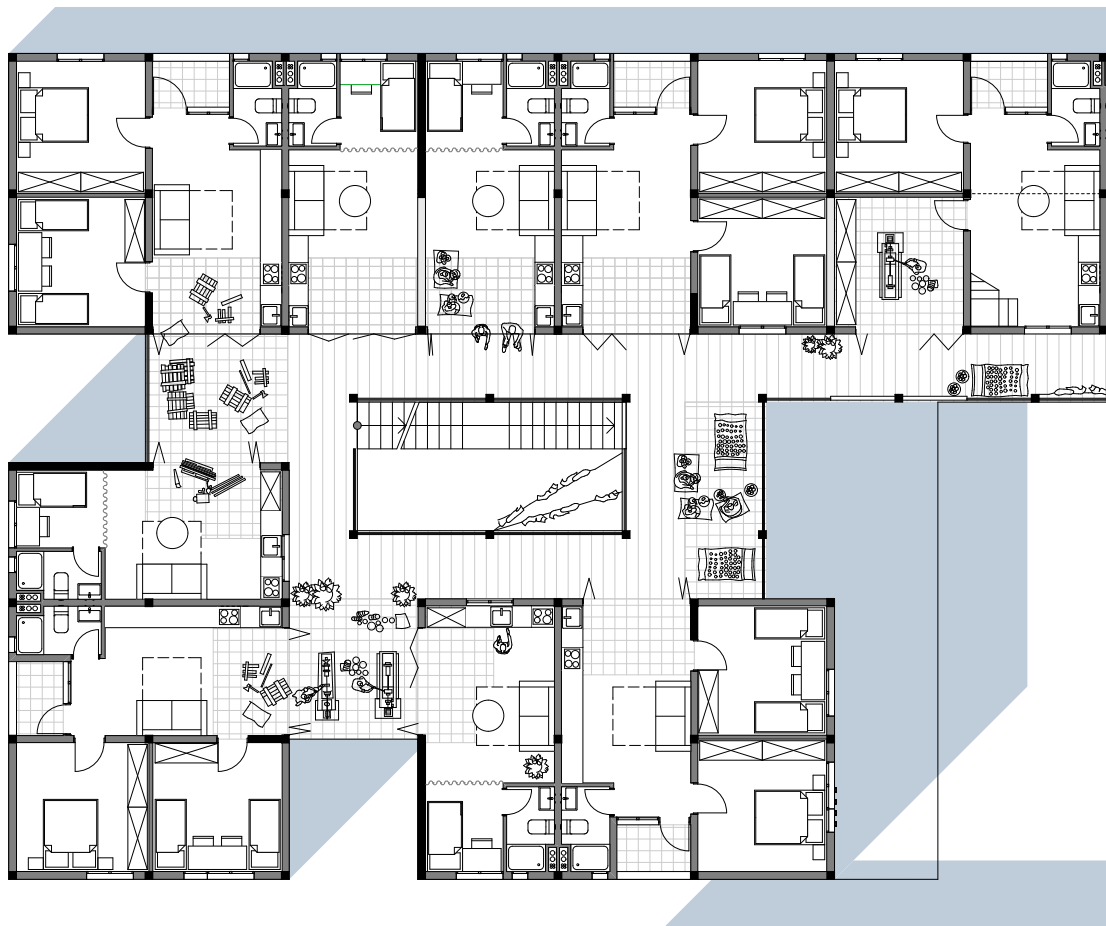
TYPICAL FLOOR PLAN



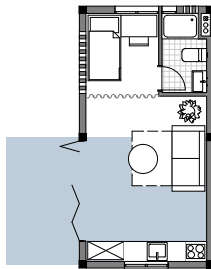


'CLUSTER' FLOOR PLAN

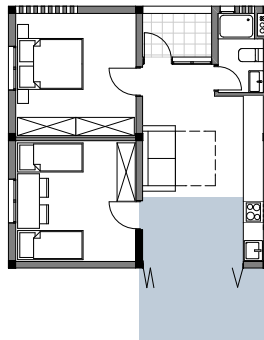
EWS / LIG
24 - 45 m²



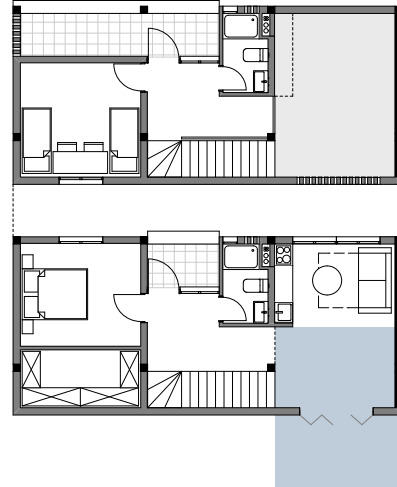
Type A - 24m²
31m² - incl. front door space



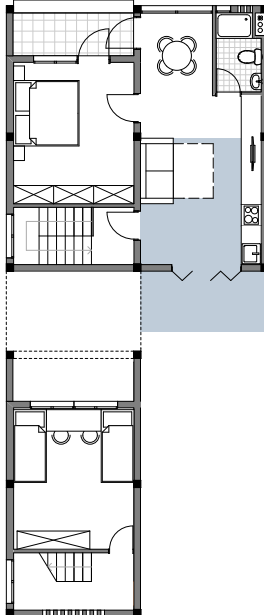
Type B - 45m²
52m² - incl. front door space



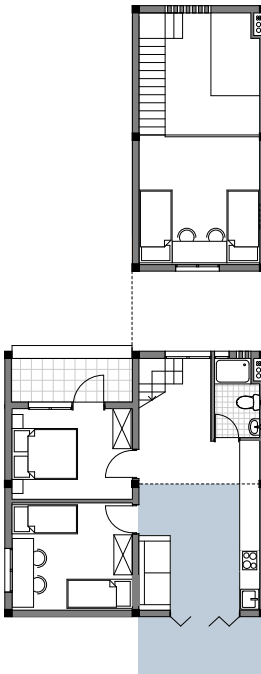
Type C - 76m²
82m² - incl. front door space



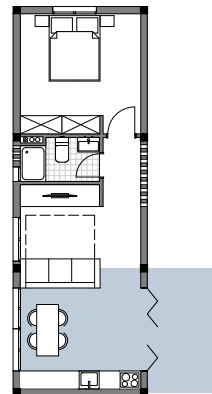
Type D - 72m²
78m² - incl. front door space



Type E - 60m²
66m² - incl. front door space



Type F - 34m²
40m² - incl. front door space

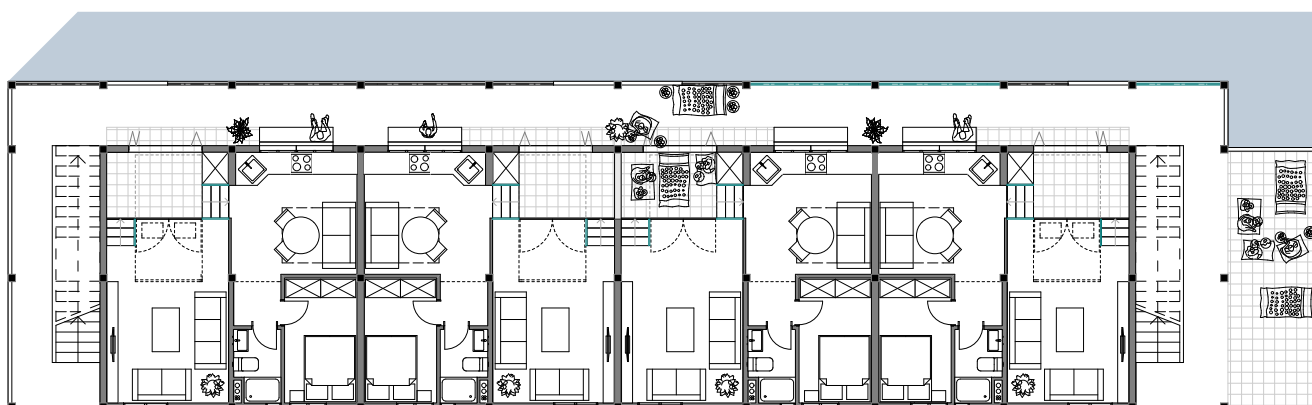


'SPLIT LEVEL' FLOOR PLAN

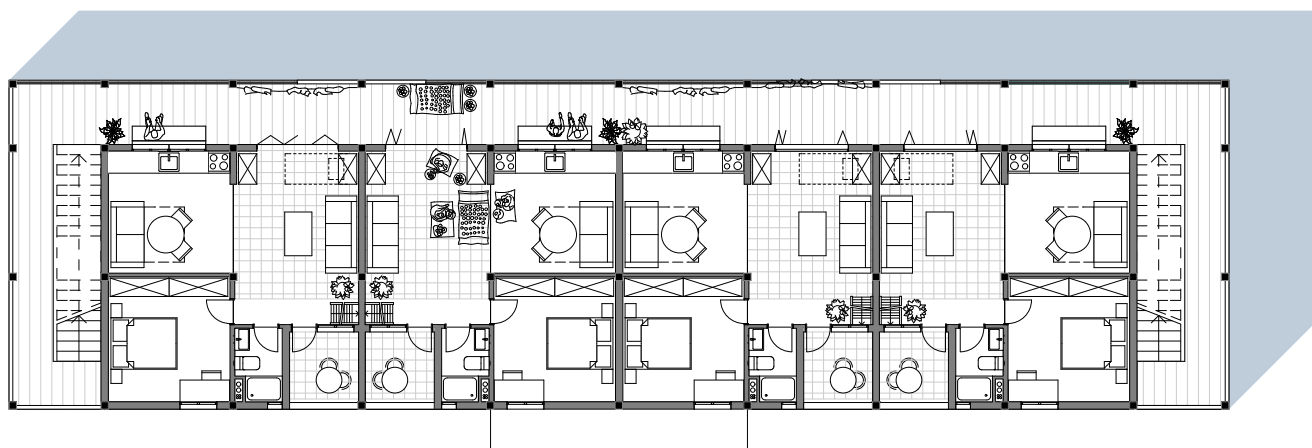
LIG / MIG
45 - 60 m²



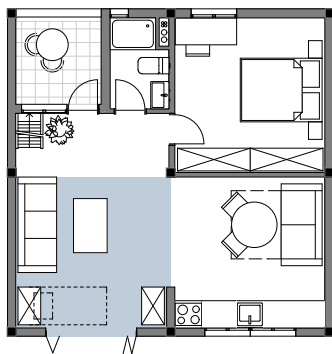
THIRD FLOOR



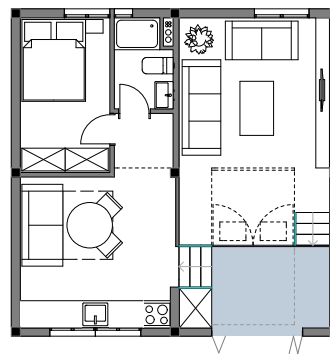
SECOND FLOOR



Type G - 44m²
54m² - incl. front door space

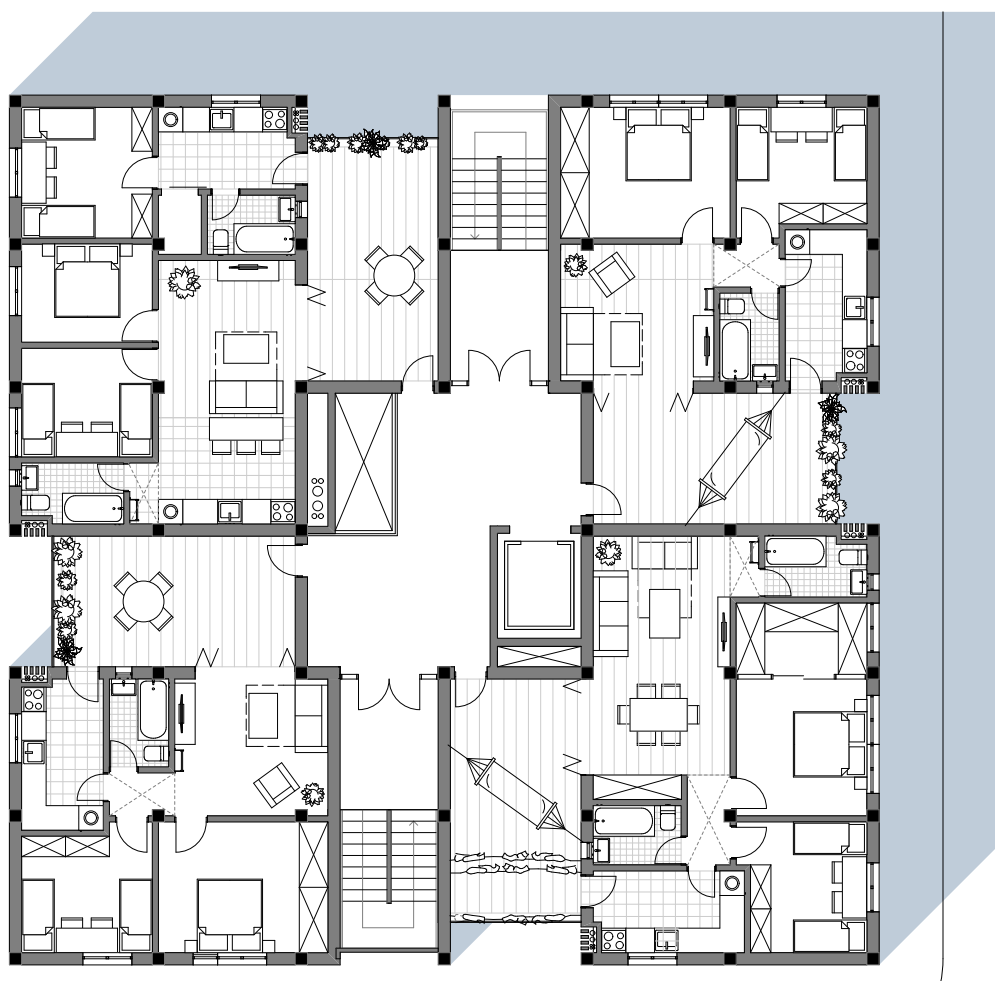


Type H - 48m²
54m² - incl. front door space

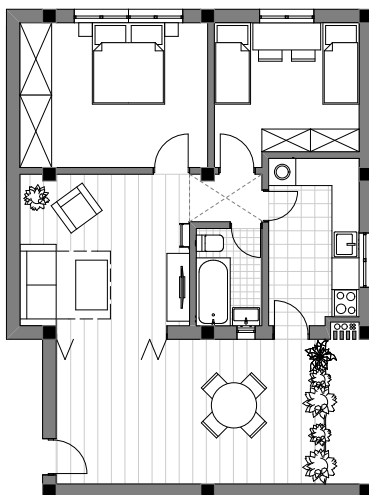


'TOWER' FLOOR PLAN

MIG / higher MIG
72 - 95 m²

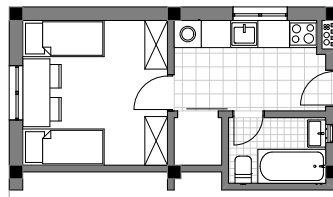


TOWER BUILDING

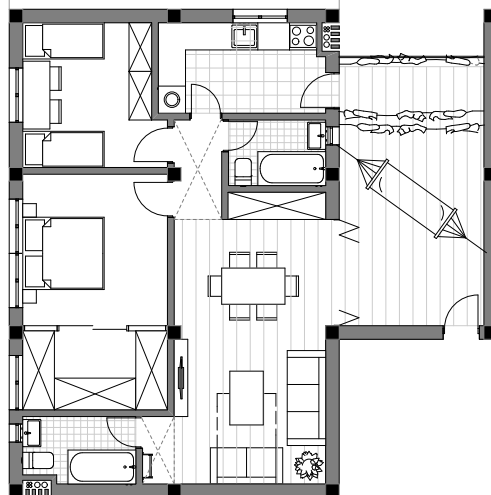


21m²

Rent out option

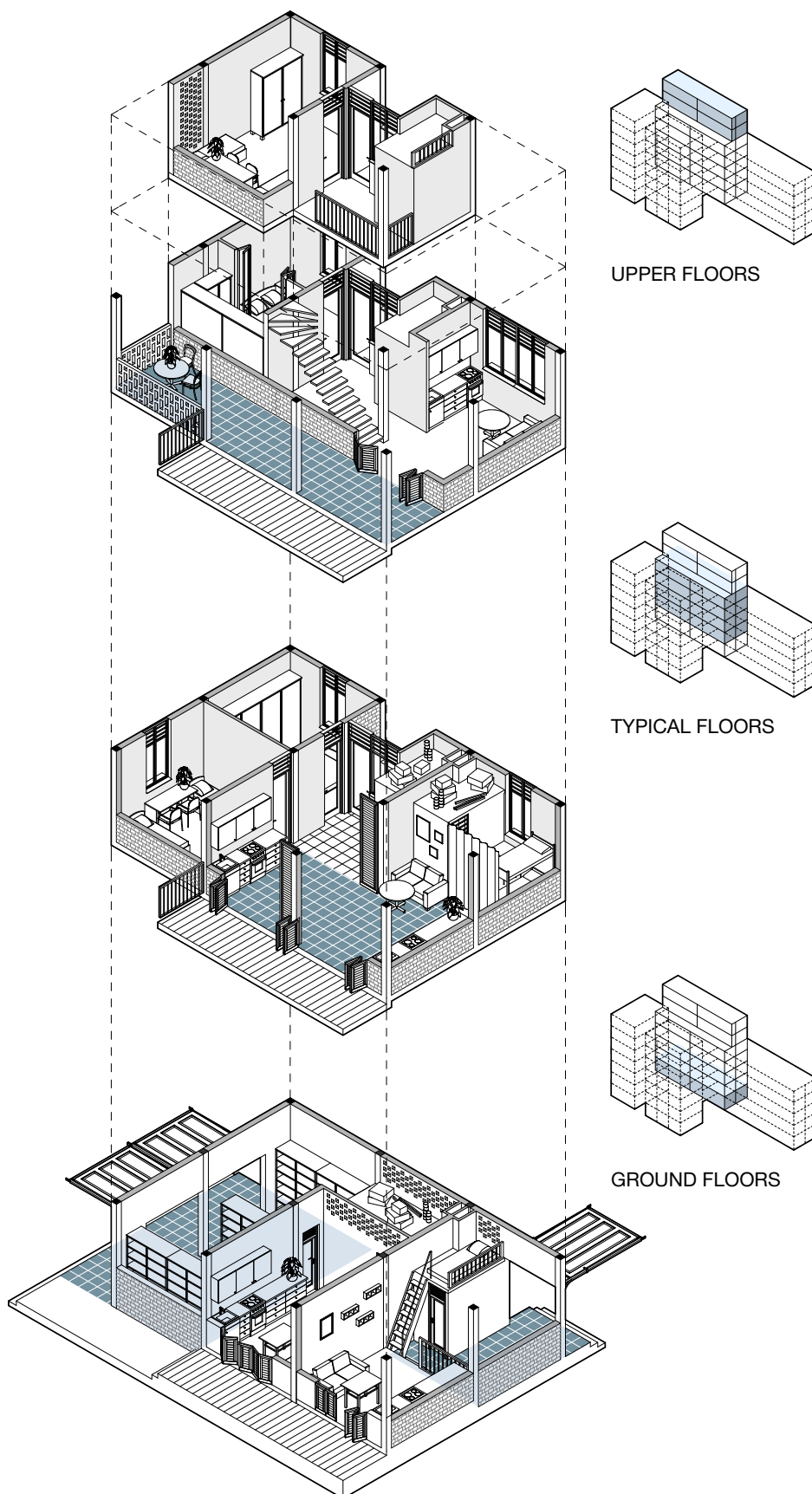


Type J - 88m²



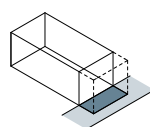
DWELLING

INCOME GENERATION SPACE

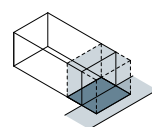


ACTIVITY:

wooden crates - 24-36m² (interior/exterior) square
 rope - 30-32m² (interior) - long
 awnings - 28-32m² (roofed) - square
 sandals - 12-20m² (roofed) - square
 utensils - 14-18m² (interior) - rectangular
 baskets - 8-16m² (roofed) - rectangular
 bread - 6m² (interior) - rectangular



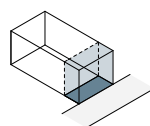
PASSAGEWAY IN FRONT
OF THE HOUSE



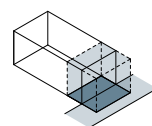
COMBINED

ACTIVITY:

wooden crates - 24-36m² (interior/exterior) square
 strings - 4m² (interior) rectangular
 carpentry - 4m² (interior) square
 clothes - 2-4m² (interior) square
 brooms - 2-4m² (interior/exterior) square
 cigarettes - 6m² (interior) square
 sandals - 12-20m² (roofed) - square
 bread - 6m² (interior) - rectangular



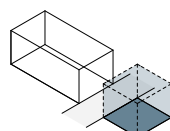
PART OF LIVING SPACE
HOUSE EXTENSION



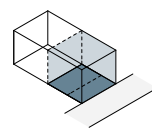
COMBINED

ACTIVITY:

house shop - 3-24m² (front of the house)
 grocery shop - 5-24m² (front of the house / living area)
 commercial point - 2-9m² (part of the living area)
 vegetable stall - 2-18m² (front of the house / living area)
 metal work - 6-18m² (interior) square
 garbage sorting - 4-6m² (exterior) square

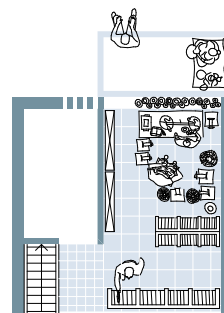
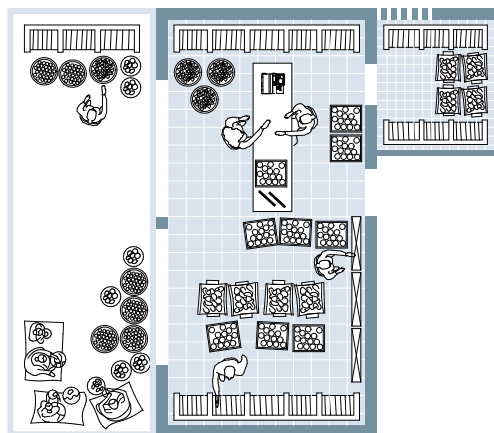
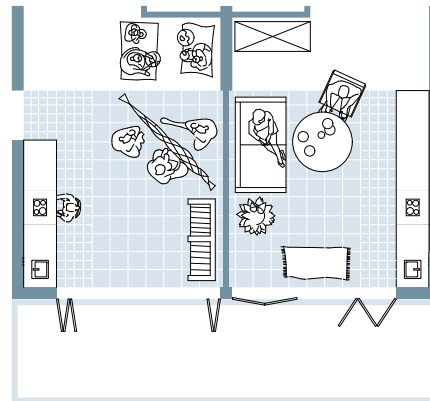
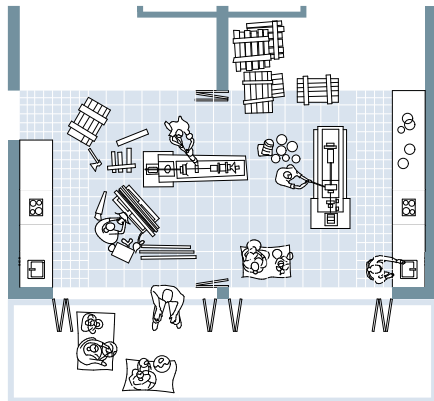
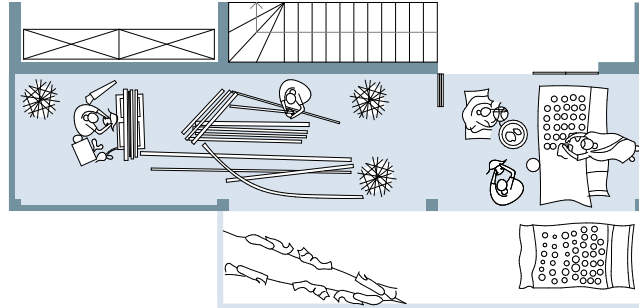


SEPARATE STALL OR
SHOP



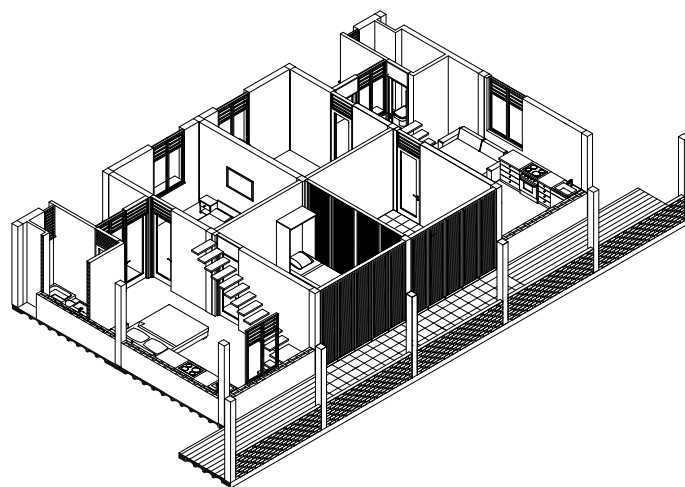
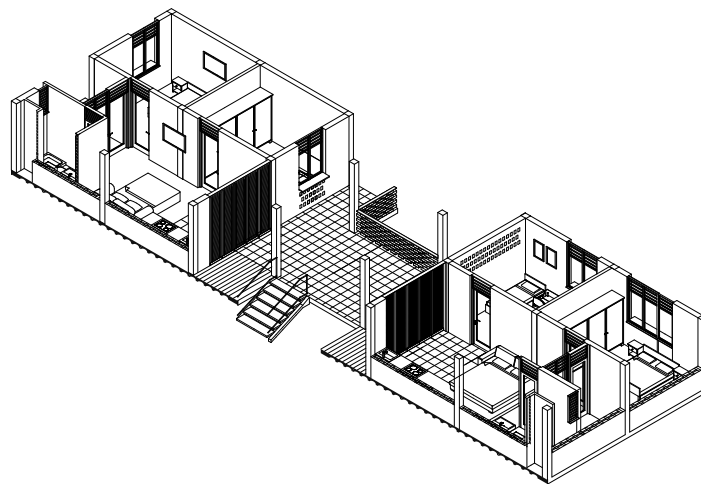
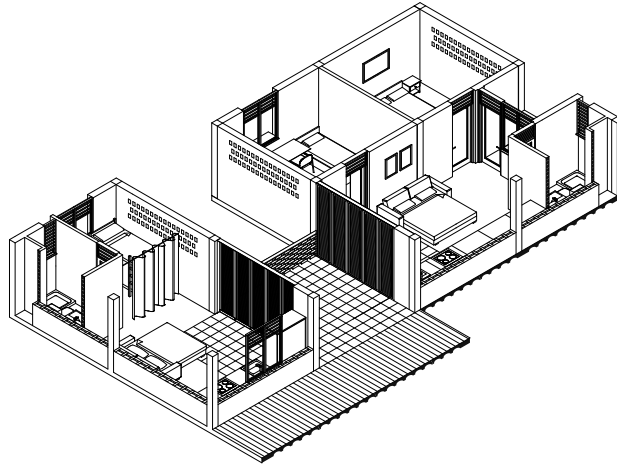
PART OF LIVING SPACE

INCOME GENERATION SPACE

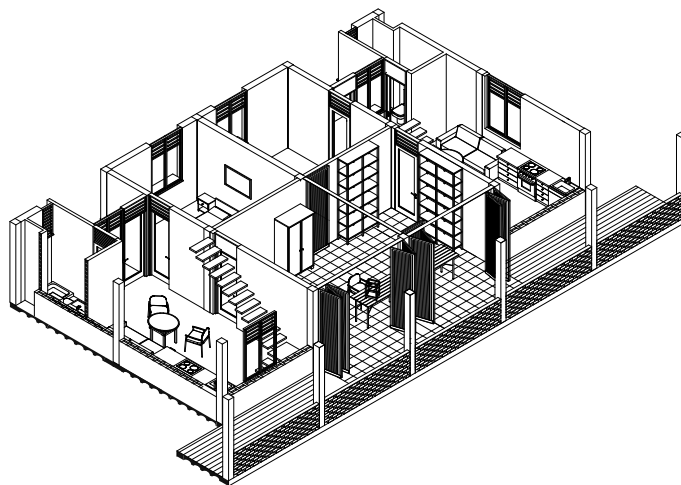
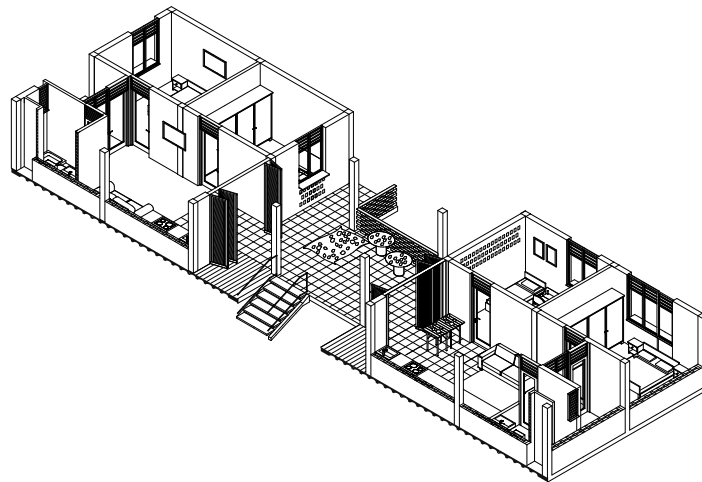
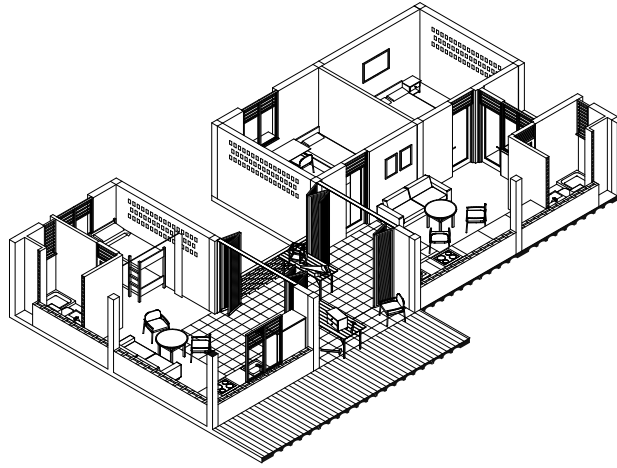


SPACE TRANSFORMATION

NIGHT TIME

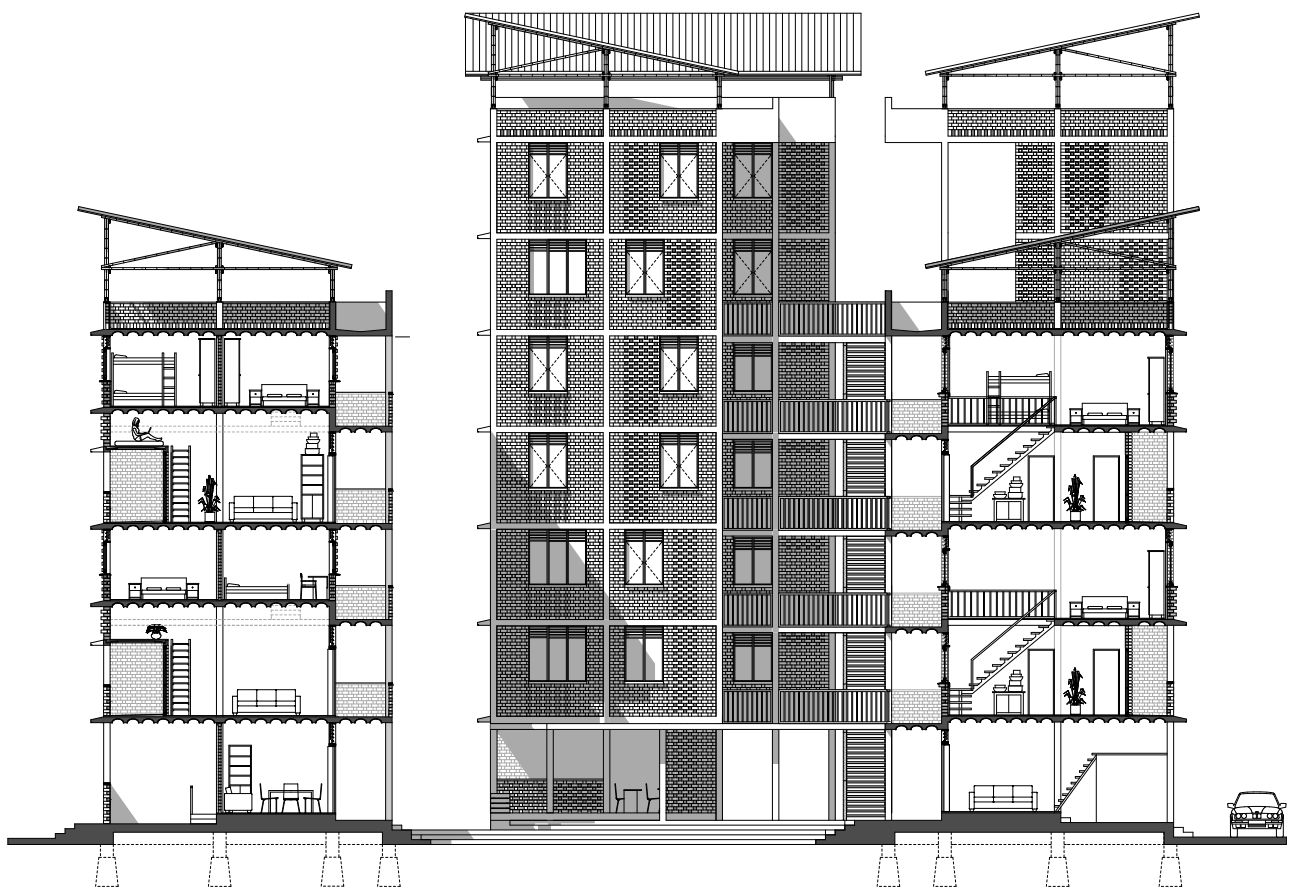


DAY TIME

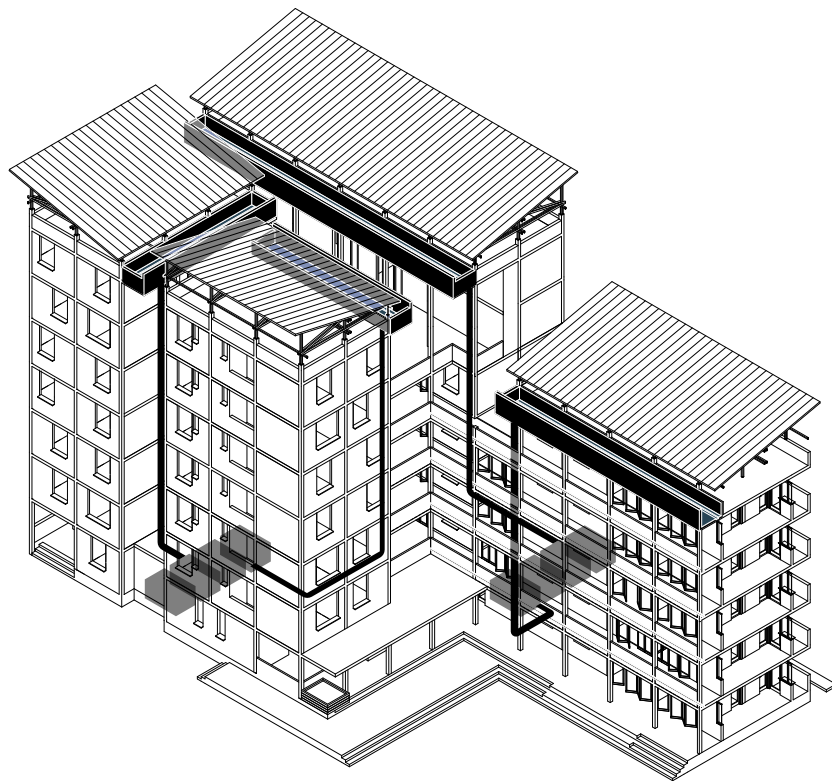


MATERIALITY

EASTERN ELEVATION / CROSS SECTION

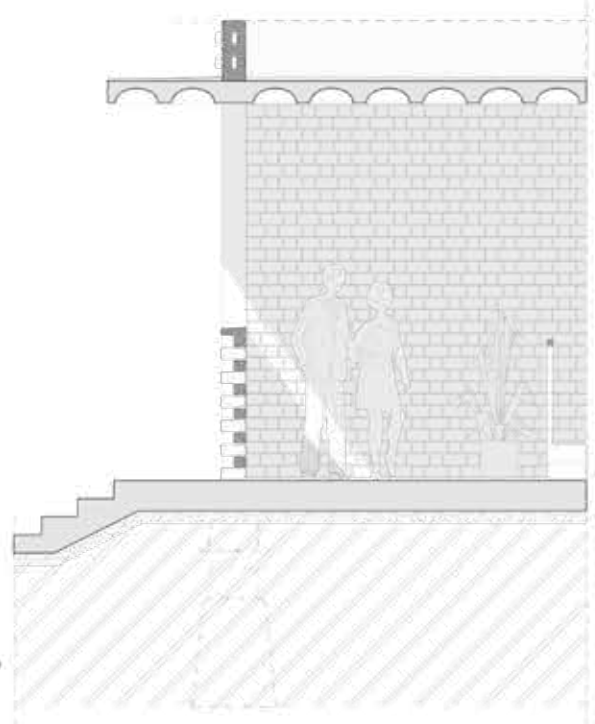
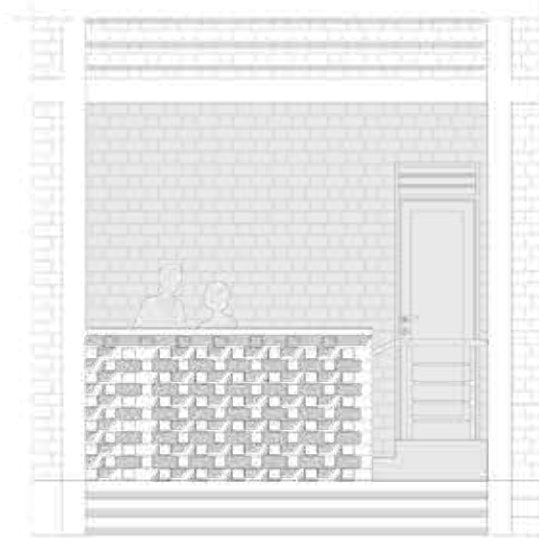
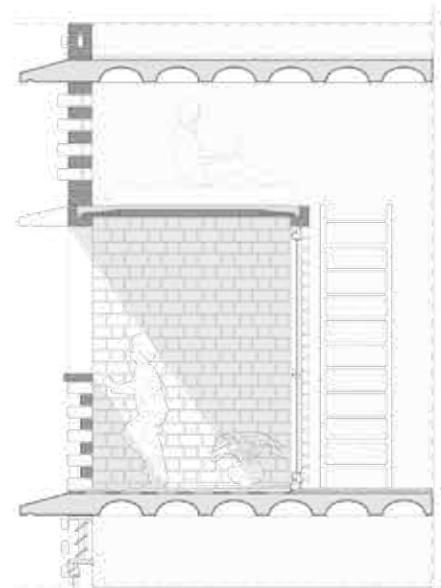
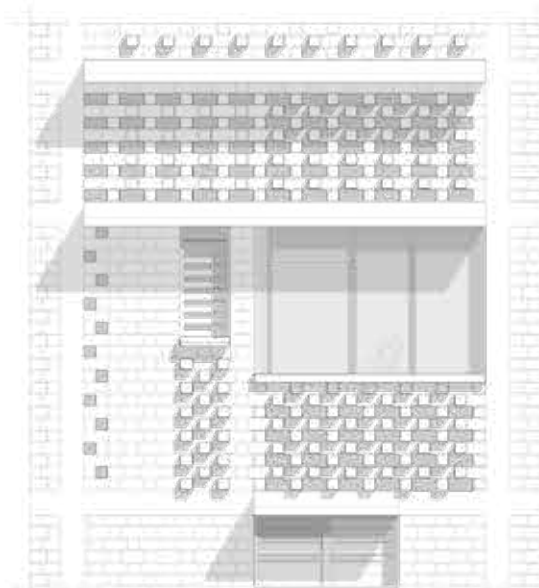
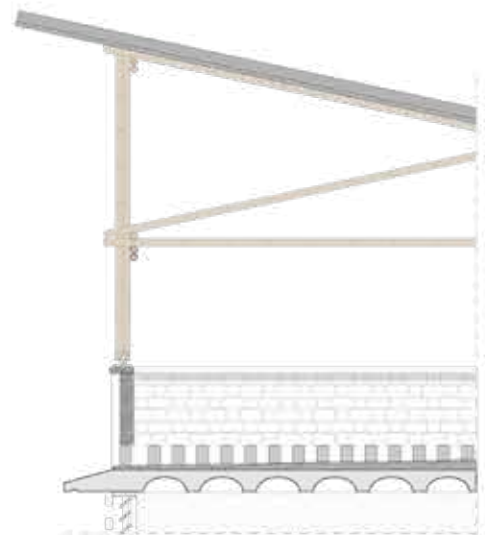
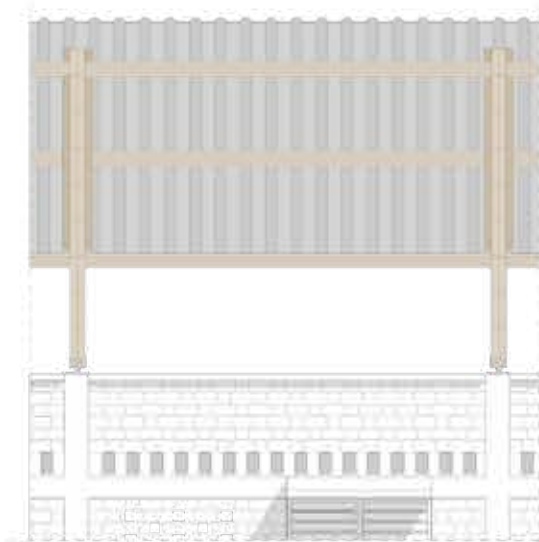


WATER COLLECTION SYSTEM



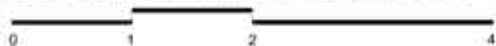


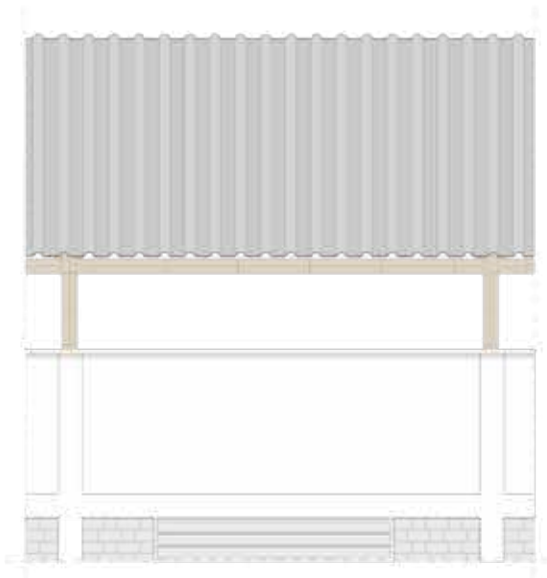




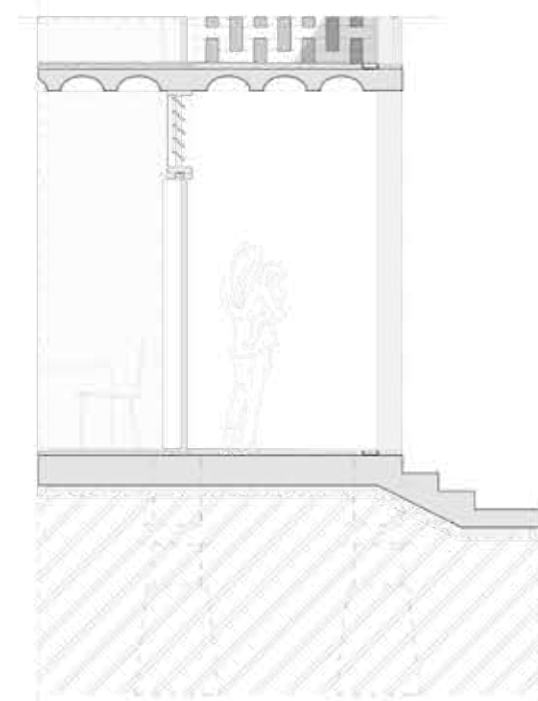
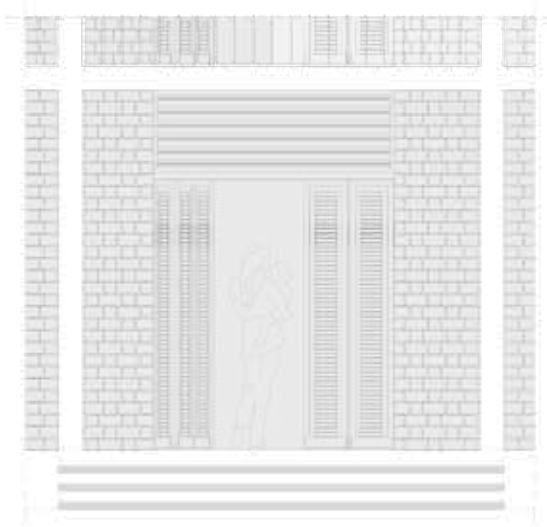
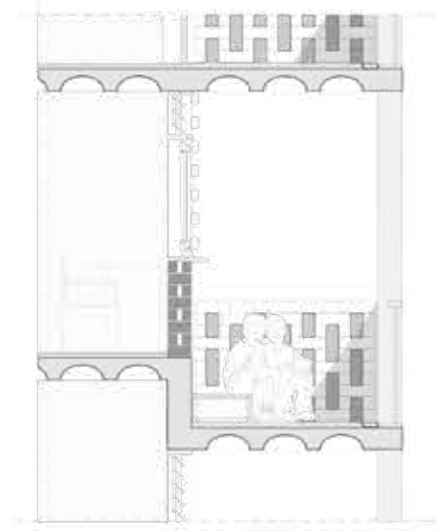
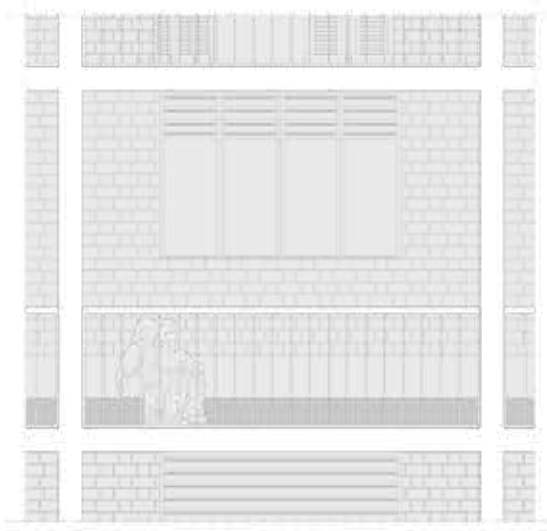
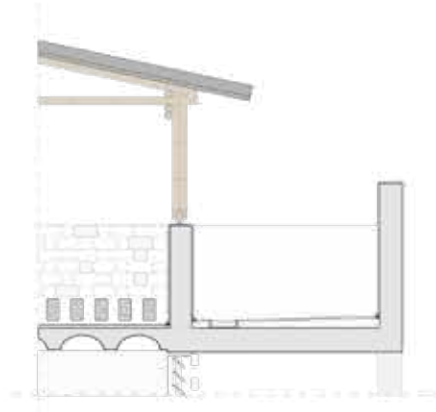
SOUTH FACADE ELEVATION

Roof Structure: corrugated steel sheets (12° slope) / bamboo structural roof beams (Ø 85mm)
 Roof Slab: pootexile / waterproofing layer / claydite concrete (to create slope) / vapour seal /
 filter slab with clay pot (ceramic claypots height - 100mm, diameter 350mm)
 Typical Slab: ceramic tiles 200*400mm / glue layer for tiles 10 mm / light concrete layer 30 mm
 filter slab with clay pot (ceramic claypots height - 100mm, diameter 260mm)





STRUCTURAL SECTIONS OF THE BUILDING
SOUTH / NORTH FACADES ELEVATIONS



NORTH FACADE ELEVATION

Facade structure: fly-ash and red clay bricks 200x100x70mm / brick overhangs for passive cooling
 Fence: fly ash and red clay bricks 200x100x70mm with voids / stainless steel fence
 Interior finishing: 2 layers of fly-ash and red clay bricks 200x100x70mm / plaster layer / wall painting
 Openings: wooden door and window frames with annealed glass / jalis conformed by brick rotation / sun shading system of jakouse (passive ventilation)
 Foundation: in situ casted reinforced concrete foundation plate 300 mm / claylite concrete / hard rammed soil





STRUCTURAL AXONOMETRY

BAMBOO STRUCTURAL BRACING

CLAY POTS

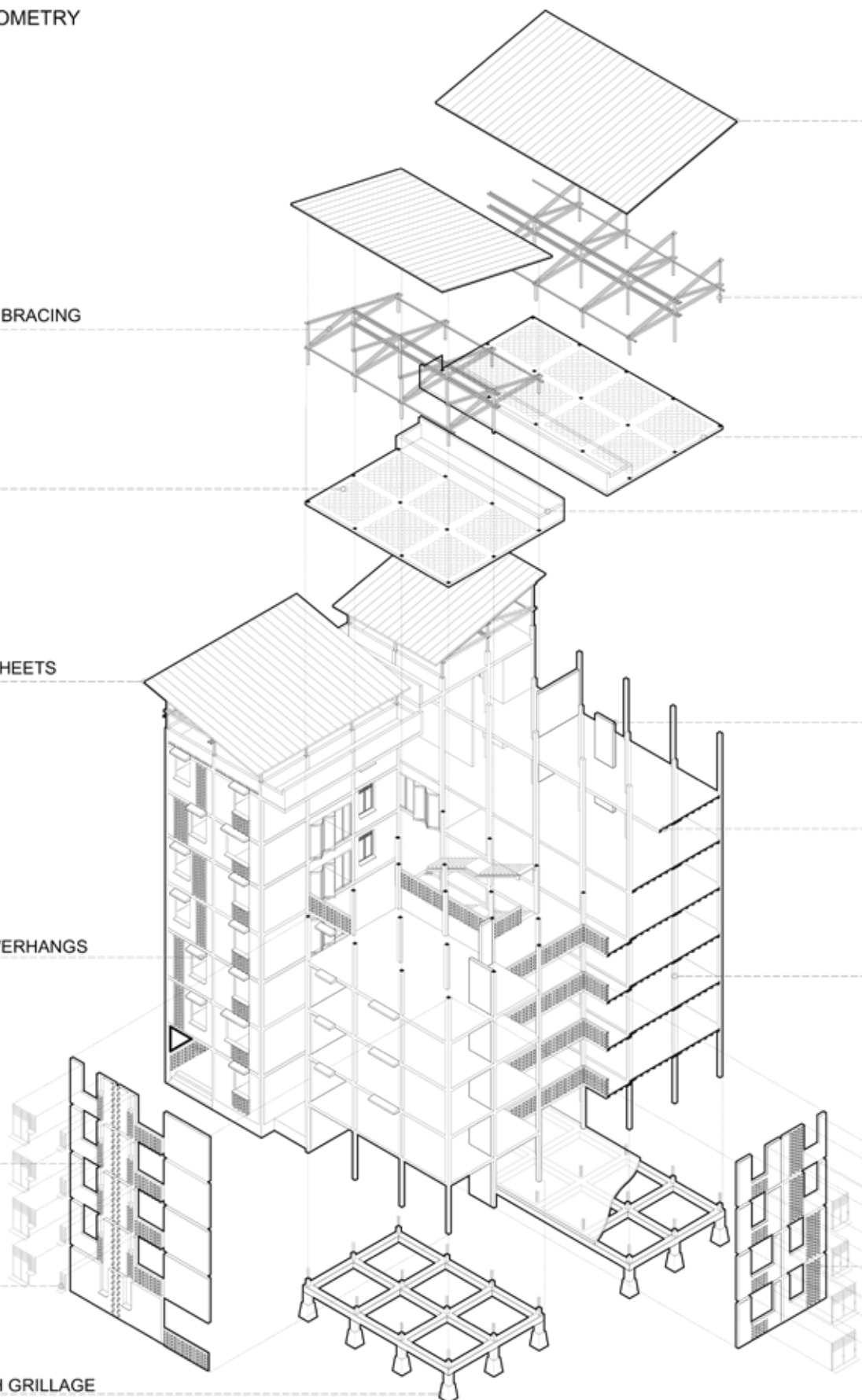
CORRUGATED STEEL SHEETS

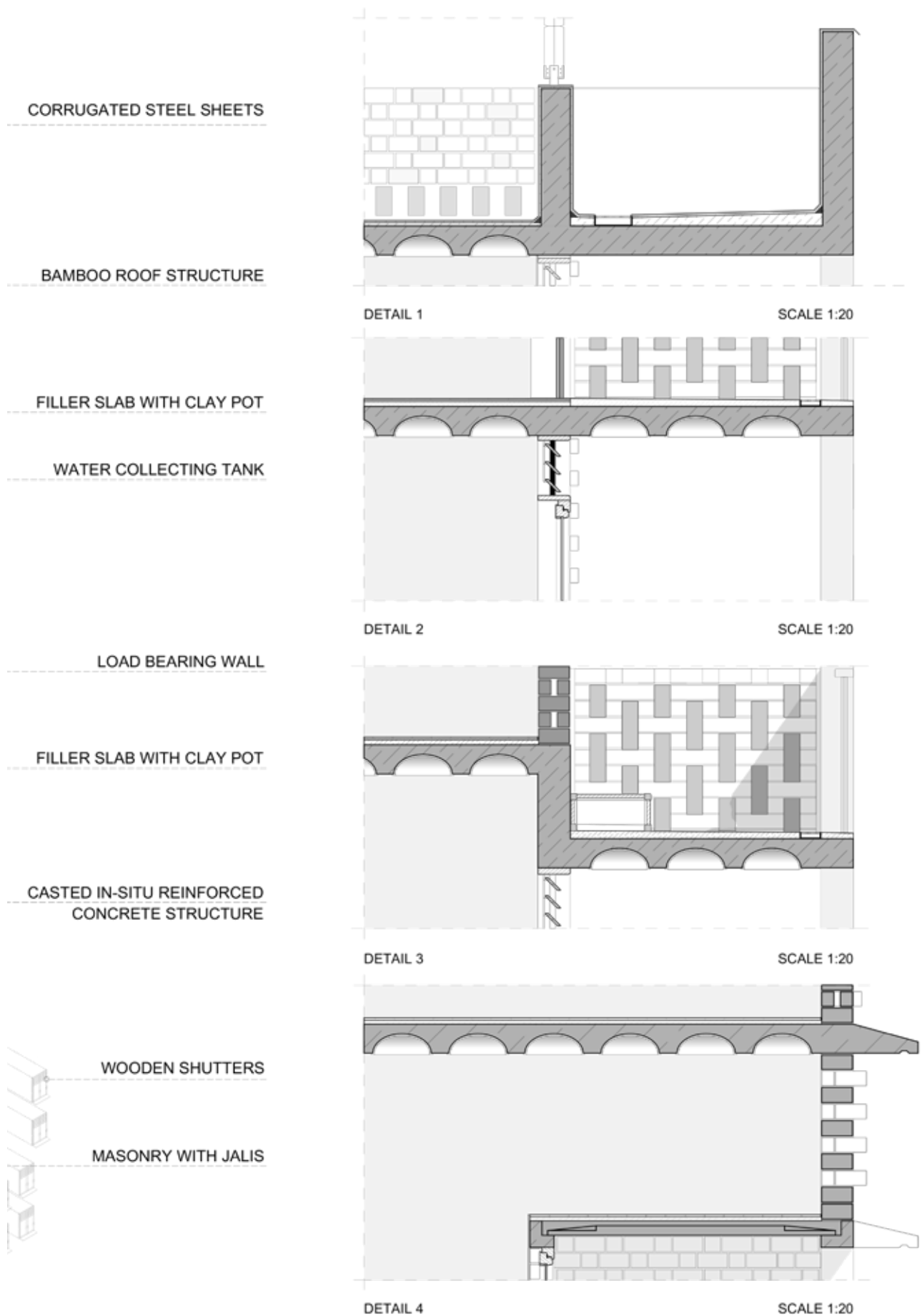
CASTED CONCRETE OVERHANGS

FLY ASH BRICK

SUN SHADING
JALOUSIE

PAD FOUNDATION WITH GRILLAGE



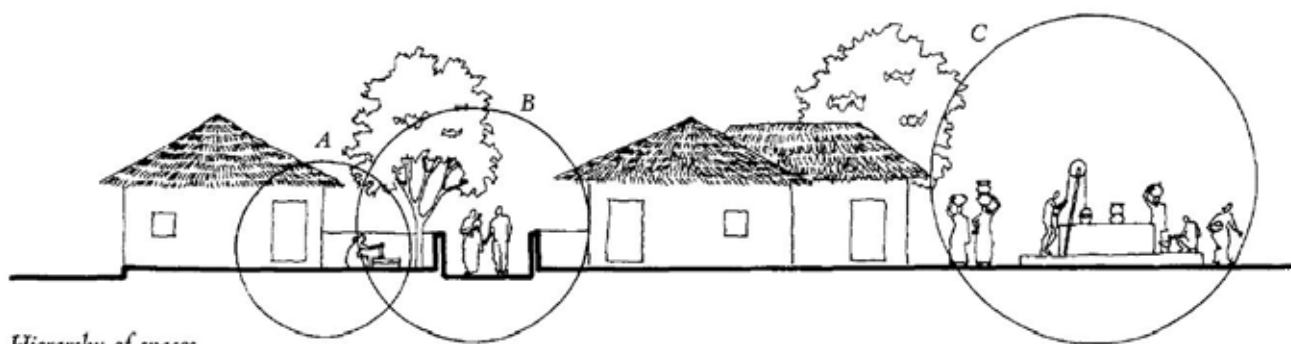




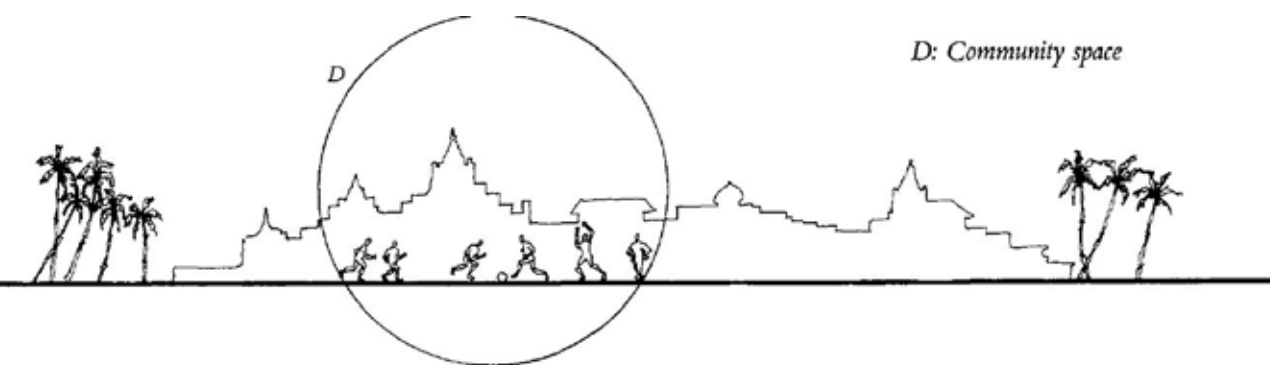


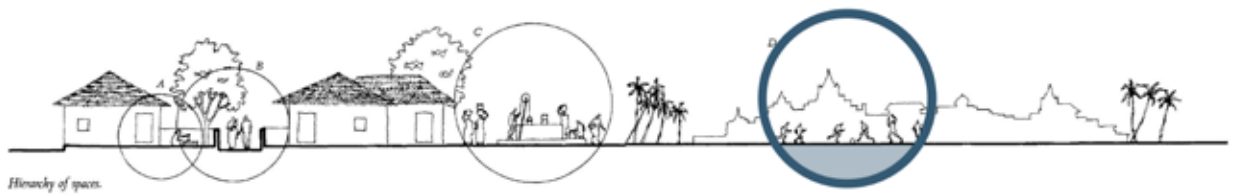
**«SUCCESSFUL HOUSING IS A SEAMLESS CONTINUUM OF SPACES
THAT GOES ALL THE WAY FROM THE MOST PRIVATE, TO SEMI-PRIVATE,
TO THE PUBLIC. THIS IS WHY IT GENERATES COMMUNITY.»**

CHARLES CORREA



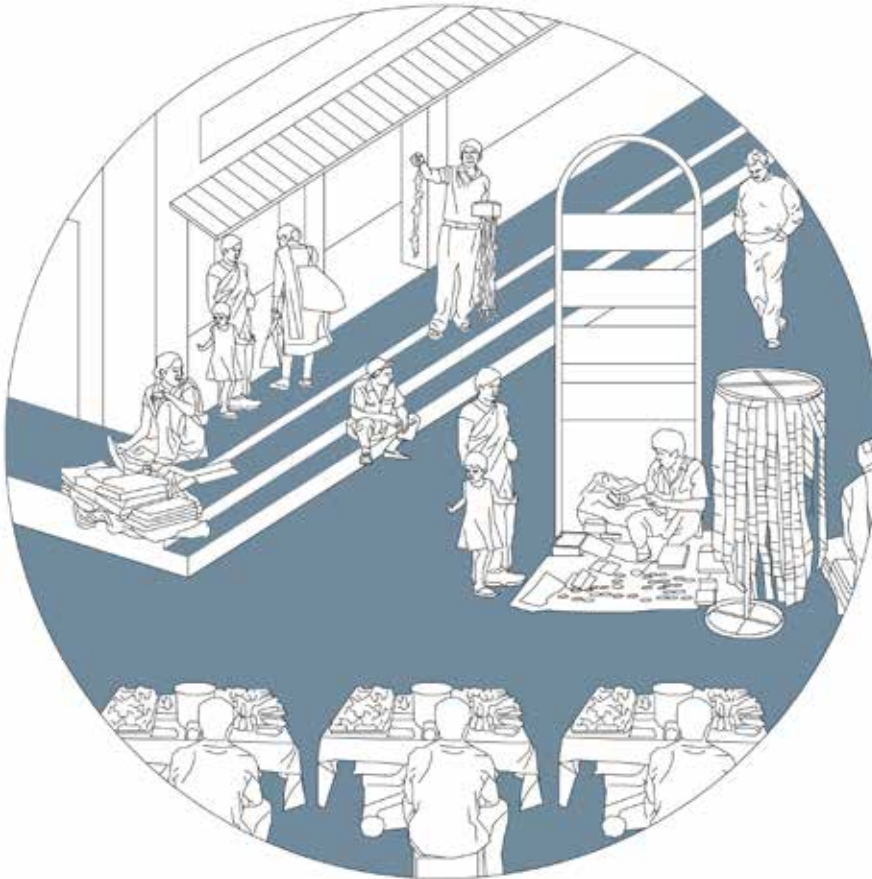
Hierarchy of spaces.

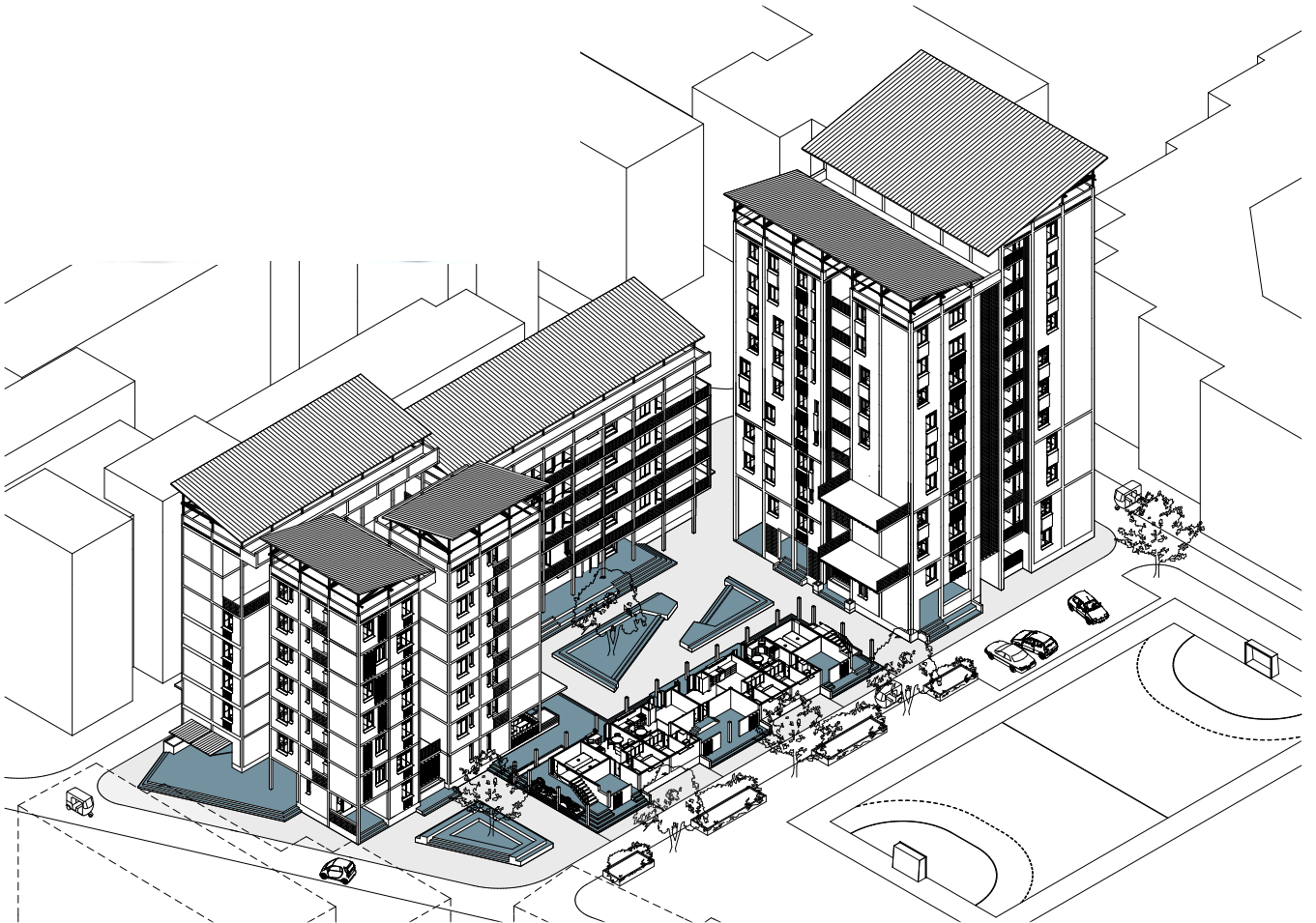


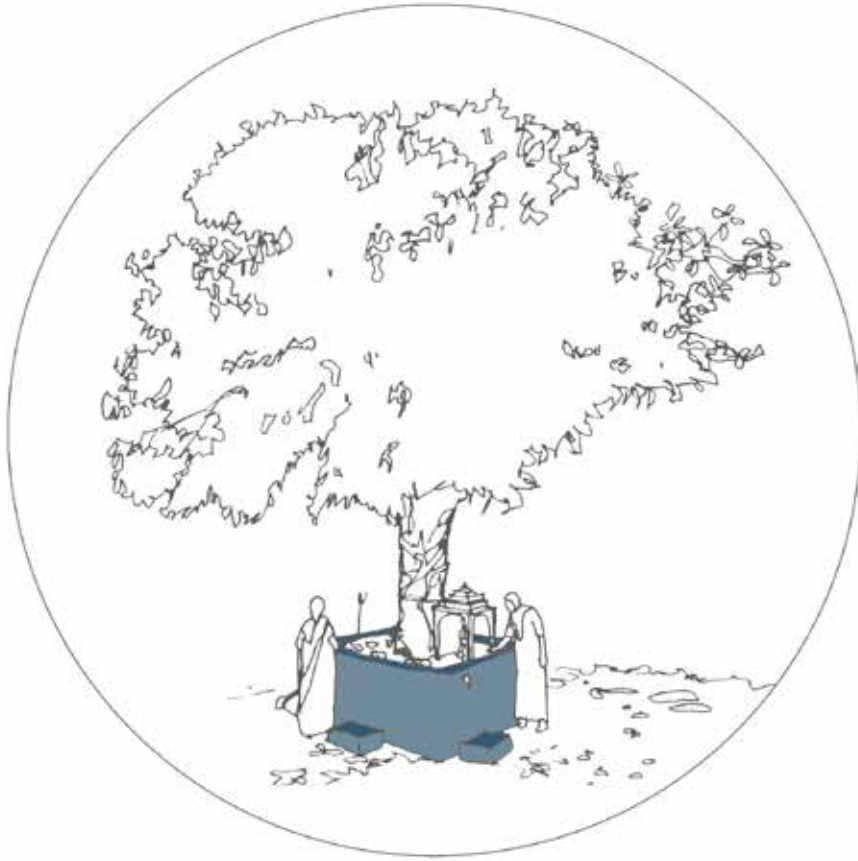


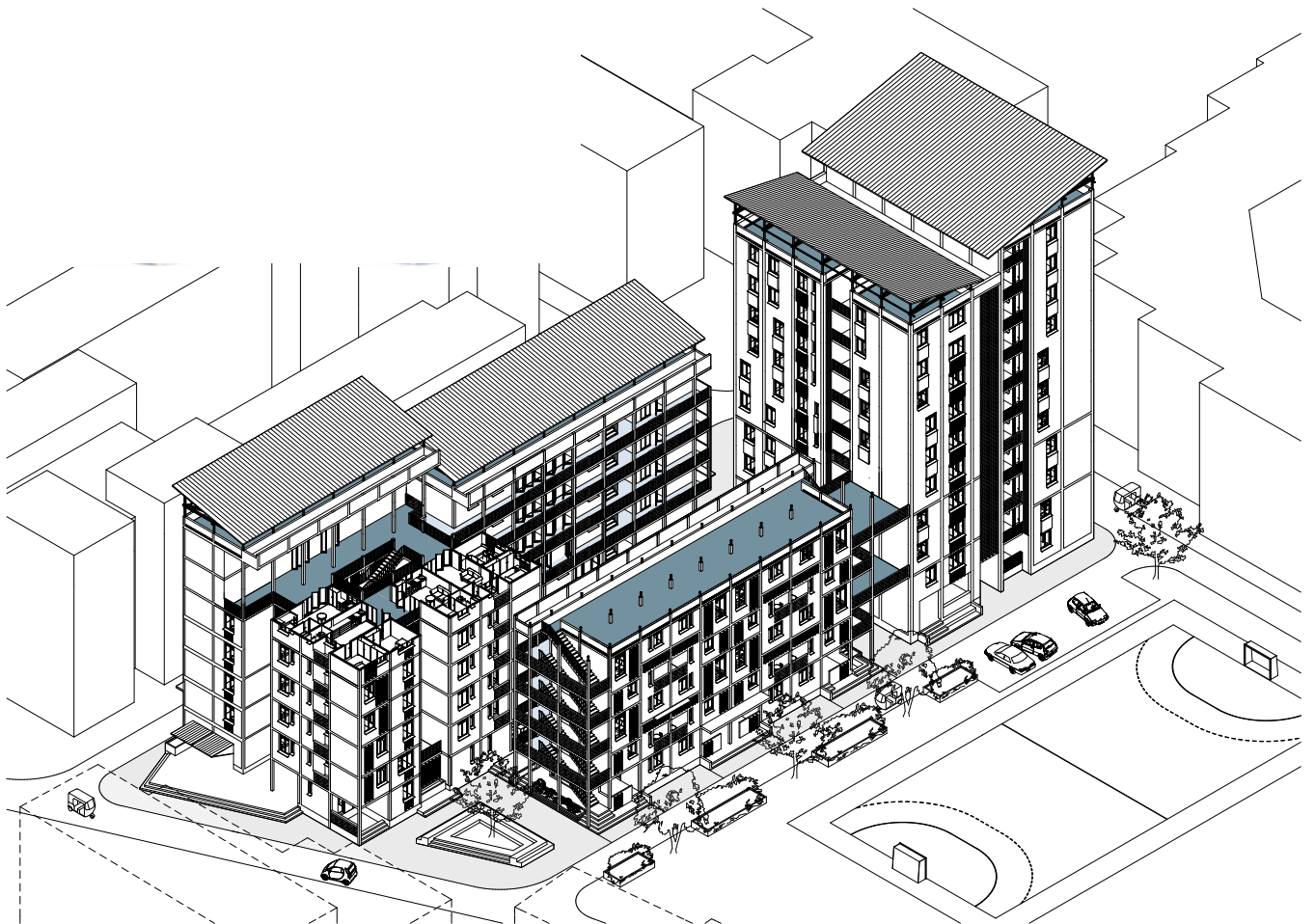
Hierarchy of space.















Hierarchy of spaces.





LIFE BETWEEN BUILDINGS

RECONSIDERING ECONOMIC
AND SOCIAL VALUES OF THE URBAN POOR

TU DELFT
Architecture and Dwelling
Global Housing Graduation Studio:
MIXING MUMBAI
Affordable Housing for Inclusive Development

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