

KARACHI SEEN FROM A DISTANCE

A NEW PERSPECTIVE



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About the Publication

This publication is a collation of the selected projects from the 7 Karachi Design Studios held 2013-2021 in the International Master of Architecture, KU Leuven Faculty of Architecture, Sint-Lucas Brussels Campus. It is supported by the Urban Cultures Engagement and the PhD Research of Ar. Asiya Sadiq Polack.

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01. INTRODUCTION KARACHI STUDIO

Ar. Asiya Sadiq Polack

Karachi studio was initiated in 2013 at the Faculty of Architecture - KU Leuven, Campus Brussels and has completed 07 cycles in 2021. The remote case based Karachi studio was established by Ar. Asiya Sadiq Polack and Ar. Martine De Maeseneer with the intention of developing a specialized studio on Hyper Transforming Cities utilizing the available expertise available in house, introducing the International Masters students to the specificity of the South Asian context through the case of Karachi, introducing the challenges encountered in the making of contemporary architecture in the global South.

Given the hyper transforming context of South Asia, its mega cities face challenges of fast evolving urban cultures which require consolidating via research and design. These design issues are a consequence of ; over population, a rising majority of youth with new and modern aspirations, changing gender relations, retreating state, emerging middle classes, empowered poor, motivated communities, and crumbling governance structures operating within a formal-informal intertwined system. These emerging design trends and societal changes need to be situated and seen in the global overarching debates of our times like; neoliberalism, land scarcity and density, climate change, migrations, increasing populations, decreasing resources, multiple disparities, and impending pandemics like COVID - 19.

The studio projects produced over the 7 cycles have addressed the above mentioned contextual realities via the case of Karachi - A South Asian Megapolis of around 22 million people. In each studio cycle one of the emerging design issues was introduced to the students as design studio brief supported with lectures, discussions, and the personal archives of the tutors. The teams of students further researched the design issue in hand via primary and secondary data sources and digital means such as online lectures, interviews with resource persons and local stakeholder's groups identified by the tutors, as well as websites, vlogs, documentaries and other media sources. The data gathered remotely was analysed and developed as design projects by interfacing with the available archives and the real life personal and professional experiences of Asiya Sadiq - as a local resource person from Karachi.

The student projects produced have dealt with the critical design issues of; formal-informal housing gap, revival of passive design strategies in the face of climate change and energy crisis, new housing typologies due to increasing populations and densities, inner core degradation and suburban sprawl, changing urban cultures and the making of inclusive public spaces, community participation and alternative practices. Each year the student projects have culminated as presentations, books and posters furthering the knowledge base and adding to the archives at the Faculty.

The Exposition on the 7 Karachi studios, " Karachi Seen from a Distance - A New Perspective" is foreseen to extract the knowledge produced over the years and draws out the intricacies, complexities, and contextual realities of designing and executing in fast transforming contexts like Karachi. The Exposition aspires to raise awareness, sensitize, and add to the knowledge on current and pertinent issues faced by Asian Mega Cities and will point out the future trends which will serve as an important, innovative, and original future reference. The exposition and accompanying book will add to the archives of the Faculty of Architecture - KU Leuven and will support the extension of the existing knowledge and expertise available on the topic.



02. LARGER FRAMEWORK OF ARCHITECTURE AND PLANNING IN SOUTH ASIAN HYPER TRANSFORMING CITIES

Hyper transformation occurs when cities undergo rapid population increase and expansion due to migrations from the rural areas. This trend is true for all cities due to their economic pull. However, in the current global setting, the hyper transformations of mega cities in the South Asian region have been phenomenal with 130 million people living in informal settlements with about the same in formal ones. This pace of urbanization could provide South Asian countries with the potential to transform their economies to join the ranks of richer nations in both prosperity and liveability, but these cities struggle to make the most of the opportunity as their developments are often informal and not tied to any larger economic and city planning. Reason being that globalization and liberalization have allowed for international corporations to influence city plans to be able to operate international trade smoothly (K. Rowley & Schneider, 2004). This is resulting in an urgency amongst the city governments in developing countries to ignore their ground realities and focus on reaching the formally accepted global city image, making city branding more important than city development.

City branding which is also known as urban branding refers mainly to the different actions that take place with the intention of transforming a city from a location to a destination ("Future of cities: The secret of creating a successful city brand", 2008). Although urban branding may benefit the country's economy and image in some ways, it ignores the reality of the city and the development that it requires for the betterment of its citizens. Cities which rely on foreign aided projects do not necessarily focus on pressing urban development issues such as provision of sustainable housing and infrastructure, climate change and responsive architectural regulations, demographic changes, and appropriate densities, increase in poverty and productive zones allocations. Instead, priority is given to mega funded projects such as elevated highways, expensive mass transit schemes, tourism and international hotel developments and sites of attraction for tourists. This mindset has only increased the formal-informal divide in the fast transforming urban areas resulting in rich-poor social divides and physical disparities.

This situation has resulted in many international organizations, corporations and businesses flocking to Asian mega cities, investing in their development with a rapid rate to cater to their emerging middle classes, which make the new market and clients. This is done with the intention of creating market cities which can absorb consumer products made and marketed by these international businesses and brands. The local governments are made a party to this superficial development rather than catering to real infrastructure needs and their urban planning demands. When looking at the Asian cities, 60% of the region's urban population lives in small and medium sized cities, 29% of the urban population lives in Metropolitan cities with 1 to 10 million inhabitants and the remaining 11% of the region's urban population reside in Mega-cities which have more than 10 million inhabitants ("21st Century Asian Cities: Unique Transformation, Unprecedented Challenges", 2012). At these different scales, they require development in various sectors to continue with the rapid growth these cities are facing.

The small and medium sized cities along with metropolitan cities, require city development strategies that help support and develop the existing resources in an optimal economic, socio-cultural, and environmental manner. Whereas, with mega-cities, they require regional spatial planning and development, whilst coping with financial inequalities ("21st Century Asian Cities: Unique Transformation, Unprecedented Challenges", 2012). The current economic and urban development model of these urban centres focuses on creating more opportunities in the economic, employment, social and cultural spheres resulting in aggravating the poor living conditions by attracting more people to move to the city. With rapid urbanization, more informal communities take ground in the city and its periphery. As the governments do not provide sufficient facilities for them in terms of housing, clean water, sanitation, social infrastructures and open collective spaces, the inhabitants self organize and help themselves. ("Urbanization: expanding opportunities, but deeper divides", 2020).

This results in various levels of pollution, overcrowding, economic distress and in most situations, it also creates social and political unrest. With the growing densities of inhabitants, the cities become unable to fulfil the needs of all its citizens. The South Asian metropolises are no exception and face many such issues related to, housing affordability, insufficient infrastructures, and socio-economic disparities. The young and growing population create a divide between the alienated elite upper class, the rising middle, and the masses of lower income groups. The ruling elite and the new upper and middle classes begin to see development in terms of, urban projects, gated communities, and mega infrastructure projects. In the process ignoring the needs of the masses, who fill the gap by developing an informal sector which works with political support and muscle power.

Another critical issue hyper transforming cities face is the growth of the consumerist middle class that is now the dominant group in the urban areas. This has resulted in a huge impact on the needs for commercial facilities, public amenities and increased consumption of goods and services ("Global trends in urbanization and a growing middle class", 2016). It is essential that urban governance and planning should take on a more dominant role to address these issues and propose strategies that cater to a diverse group of citizens especially the ignored and the marginalized poor income groups bringing all stakeholders together.

Following are some of the socio-economic, ecological and governance impacts on the hyper transforming cities.

Ecological Impacts

The adverse impacts on the ecology include Urban Sprawl - which affects the ecological footprint by eating up the agricultural and protected zones on the periphery of the metropolitan areas due to the

¹ <https://www.worldbank.org/en/region/sar/publication/urbanization-south-asia-cities>

increasing demand for cheap housing for the poor. This also results in uncontrolled expansion of the city limits, long travel time and resultant physical and mental health issues. Pollution – over population and poor infrastructures result in the degradation of natural resources such as air, water, soil and fast disappearing green areas. Poor Waste Management - Cities fail to have a well-managed waste collection and disposal system which results in both organic and in-organic waste being dumped in public spaces.

Inorganic waste is often picked up by garbage scavengers and sold further, however, organic waste is left to rot and create health hazards. The above mentioned pollution and lack of waste disposal results in detrimental physical and mental health conditions, exploitation of natural resources and high levels of air and noise pollution. Exploitation of Ecologically Protected Zones - this includes the shrinkage of riverbed and streams, destruction of mangroves and forests impacting flora, fauna, and human development. Climate Change – globally accepted as a critical phenomenon both for local and global development due to; increased temperatures, heavy rainfalls, floods and impending human and ecological disasters mega cities suffer it the most.

These are the few ecological impacts observed in the fast transforming Asian cities, where measures like efficient land use planning, natural resource management, sustainable urban agriculture, preservation of ecological sensitive areas require planning and projects at all scales of urban development.

Economic and Social Impacts

In many urban metropolises, transportation, water, energy, communication, and social amenities are not accessible for all due to a large urban footprint and a lack of affordability. Unemployment due to a large population is forcing inhabitants to depend on the informal sector. The low availability of jobs is leading to a situation of unemployment, low labour wages and the consequent exploitation of labour force. The formal sectors like; industries, banking, educational institutions offer some employment opportunities and economic stability but at the same time trigger rural to urban migration. However, a lack of infrastructure, unemployment and growth of the informal sector creates vulnerable situations in some parts of the cities. Some of these cities find economic resilience by increasing their productivity, linking more informal sectors to the formal ones, improvement of infrastructure and by creative planning tools like shorter travel distances, mass transportation schemes and affordable housing.

However, the economic imbalance is reflected in the polarized social fabric of all such cities. This creates a situation of inaccessibility to affordable housing, health, education, and other social amenities and creates vulnerable groups of people and communities. In most South Asian cities these citizen groups are present in large numbers and results in an increase in the informal sectors, informal settlements, and an eventual increase in the urban footprint. The most common social issues faced are social disparities and conflicts, riots, misuse of social power, corruption, bribery, nepotism, and political unrest. Most South

Asian cities are finding solutions and resilience through the emergence of the non-governmental organizations, community based organizations and the private sector.

Governance Impacts

The poor governing capacity and inappropriate policies of the respective local to federal governments of these cities and countries has its roots in a lack of research and understanding of the fast changing ground realities. This lack of information is compounded by an inefficient enforcement of laws, rules, regulations, top down political influence, disorganized community groups, non address to informal sector and processes, and privately self organized initiatives. Many upgradation and improvement programs are made and implemented but are not long lasting due to weak civil society institutions, lack of multi stakeholder participations in political decision making processes and non inclusion of bottom up community driven projects. Cities which have made reforms and found a balance between their formal top down and informal bottom up initiatives, have better policies, plans and projects.

Conclusively , the reasons underlying the hyper transformations are.

- Non-Adherence to the proposed Plans & Policies.
- Expensive & Inappropriate Designs; Rejected, Adapted or Appropriated.
- Adhoc Execution and No Public Consultation for Public projects.
- Lack of Operation and Maintenance.
- Plans are Out and Projects are In.
- Local and National Interest groups are ignored.
- Evictions, Land Reclamations, and Inappropriate Resource Usage.
- Spatially, Environmentally, Culturally and Technologically Inappropriate Designs
- Resistance and Litigation by Communities and Ignored Stakeholders of top down Mega projects.
- Lack of Formal Research and Design on Informal Urbanism, despite being a Defacto Reality and Response to New and Emergent Roles and Relationships in the City.
- Lack of Appropriate Design Education.
- Disinterested Professionals, Elite and Decision makers.
- Lack of Formal Sector Research and Design on Formal-Informal Interface.
- Lack of Recognition, Representation and Redistribution of Resources by the Politicians, Planners, and Decision makers.

Reference: PhD - Ar. Asiyah Sadiq - October 2019 - KU Leuven - Faculty of Architecture - Campus St Lucas - Brussels

03. HYPER TRANSFORMING CITIES : THE CASE OF KARACHI

When Pakistan became independent in 1947, Karachi was home to around half a million people. Today, it has approximately 22 million people inhabiting it. This is evidence enough of the hyper transformations the city has and is witnessing. This also raises the question of how has Karachi housed this population? The city - in the abstract sense of its institutions - has not. Instead, the people have housed themselves through an informal sector, and the city - in the concrete sense - is their creation.

Karachi - the port city is one of the core regions for trade and commerce across South Asia with a formally estimated population of sixteen million, which including the unaccounted for informal groups comes to more than 22 million. This formal-informal dichotomy is present in all aspects of the planning and development of Karachi and needs to be recognized to understand Karachi and to appropriately respond to its urban development, architectural and urban planning needs.

In the last ten years, Karachi's population has doubled. By 2025, it is expected to double again, surpassing 30 million. As more and more people make the city their home, it is becoming less and less hospitable - a paradox shared with many of the developing world's mega cities. Like many mega cities in the region, Karachi is vibrant, diverse, self sufficient, chaotic, polluted and overcrowded. Most of the city's population is composed of immigrants, refugees, or their descendants. As they have settled in the city, the strife that had brought them there has been focused on a smaller stage, reflected in their struggles for accessing resources, political power, and influence which in the absence of relevant state structures becomes a struggle and a fight (Hasan, A (2002) Understanding Karachi: Planning and Reform for the Future, City Press, Karachi).

The demographic figures of the city indicate that Karachi had a tremendous population growth in the last few decades rendering it one of the fastest growing mega cities in the modern world. The average city population density is 3,400 people per sq km, however there are certain places like Karachi central, Karachi South, East & West and Korangi districts with population density range of 15,000 to 43,000 people per sq km.

Hyper Transformation - Reasons and Impacts

Karachi is the most populous city in Pakistan and the fifth most populous city in the world. Karachi is situated in the Sindh province of Pakistan lying on the coast of the Arabian sea housing two seaports and is ranked as a mega global city. The city is experiencing its rapid transformation in terms of globalization and urbanization. As a result, in the last few decades it has witnessed rapid growth in its population and size. Karachi's urban sprawl has been spread out to a radius of 20 km from its centre (the Karachi Port) and it is presently calculated at an area of 3780 sq.km.

Morphological, Demographic and Ecological Changes

The city's transformation has its roots in the seventeenth century, when the port of Kharak Bunder was relocated to the then Kolachi which became a transit point for the central Asian trade. In the eighteenth

century, Karachi was subjugated by the British and they expanded the city as part of the colonial developments in the country, then called the Indian Subcontinent. By 1947, Pakistan became an independent nation and Karachi held the title of its capital city until the inception of Islamabad in the 1950's. In 1947, with the making of Pakistan, the city's populations increased by 161% (Arif Hasan & Masooma Mohib, 2003) due to the immigration from India, which increased the footprint of the city as the incoming refu-

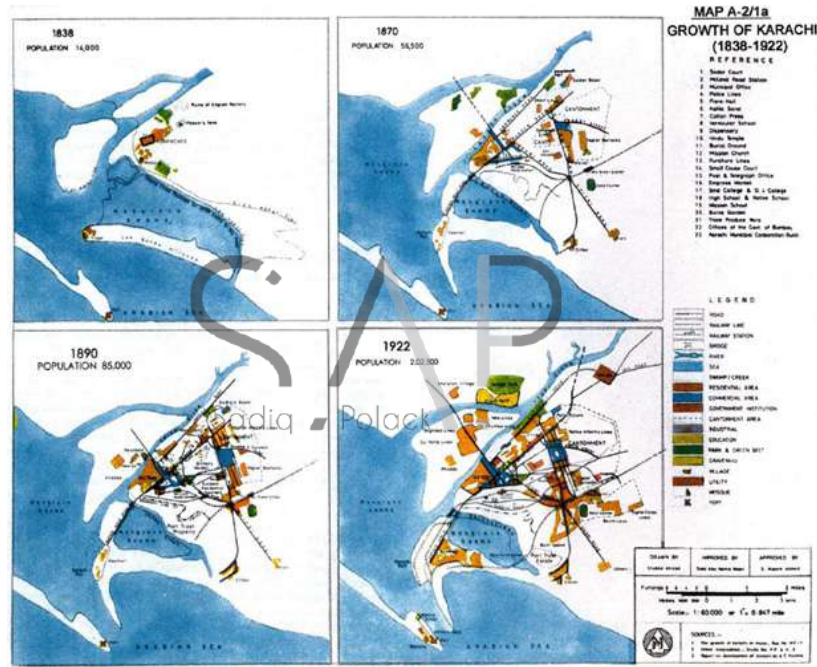


gees settled in squatter settlements in the inner city. The post-independence period has shaped the city through the development of agricultural and industrial sectors in Pakistan which triggered country wide rural to urban migrations.

Super Diversity

The many migration waves triggered by national and regional political and economic happenings have made the city very diverse in terms of its culture and ethnicity with 90% of the population formed by immigrants from various backgrounds. During the time of independence, the native population consisted of Sindhi Muslims, Balochi Muslims, Sikhs, and Hindus and during the India-Pakistan partition most of the

non-Muslim left for India. The migrants from India to Karachi included Urdu, Gujarati, Marathi, Konkani, Rajasthani, and Malabari speaking Muslims together called Muhajirs and form the largest ethnic group



Faruqi, M.Salman (1982) Karachi, Physical Situation of Human Settlements, Karachi

in Karachi. The other prominent ethnic group are Punjabis and Pashtuns. The remaining people are small communities of Hindu, Sikh, Anglo-Indians, Parsis and Goan Catholics. The diverse ethnic influence has made Karachi the most cosmopolitan, secular, and socially liberal city in Pakistan.

Demographics, Densities and Sprawl

The demographic growth and other factors that influenced shaping the city physically, socially, and culturally are: a) squatter settlements which appeared within and at the periphery of the city b) the formal sectors response to it by shifting these squatter settlements to new towns 20 km away from the city centre along with industrial developments for the economic sustainability. However, it did not happen as planned and resulted in a city with larger footprint and more travel distance for daily commute as the military government in 1960's and 1970's demolished the squatter settlement in the city centre which resulted in people having to shift to the banks of natural storm water drains (Nallas) and build katchi abadis (temporary settlements), d) the green revolution and industrialization triggered the rural to urban

migration which increased the number of informal settlements / katchi abadi, e) nationalist movements and implementation of Islamic religious policies degraded the cosmopolitan life of the city by ending social and recreational facilities and f) the regional political conflicts of the Afghan region from 1980's onwards influenced the economy and resulted in the immigration of Afghan refugees increasing the densification of the certain inner city and peripheral katchi abadis. All together the present Karachi has a footprint of 20km radius, a dense city centre, an informal settlement in the inner city and the periphery, inadequate social amenities, segregated income groups and diverse ethnic and religious communities.

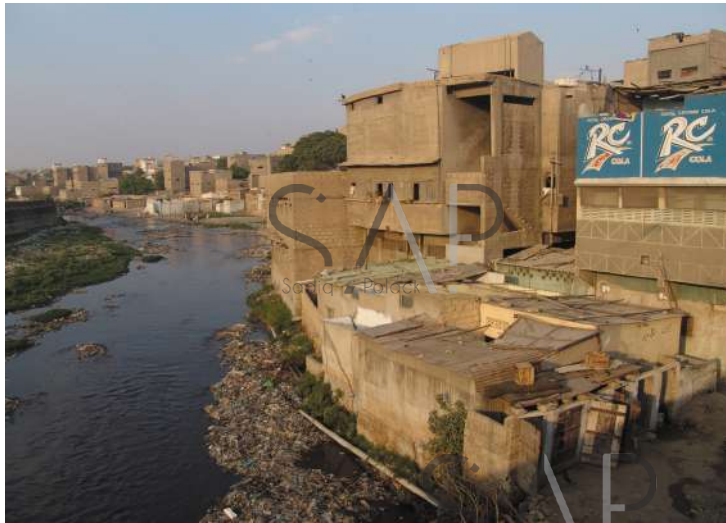
Changing Social Needs

Karachi is facing social changes triggered by a rising number of youth, increasing nuclear families, rising middle income class and empowered low-income communities. In middle and lower income groups the increase in literacy and presence of youth groups and community based organizations has increased demands for better services, employment opportunities and services and infrastructures. The higher income groups are more insulated into their gated communities with their exclusive amenities and services.

The major social trends that are evident across the city are a) increase in literacy, b) increase in men and women equality, c) the narrowing of the male-female literacy gap d) increase in age of marriage e) increase in divorce rates, f) trend towards the formation of nuclear families g) increase in women labour empowerment. The urban economy is strongly rooted on its formal sector which includes the port activities, business establishments and the industries making the city the financial hub for the entire nation. The major industries are textile, leather, paper, marble, ceramics, rubber, plastic, glass, iron, electronics, pharmaceuticals, food products, agricultural and dairy products, and stationery. However, 75% of working population is depending on informal sector and mostly works in low-income areas where cottage industries engage in production of ready to wear garments, leather products, textile, carpet weaving, and light engineering sectors.

Governance Issues

Karachi's governing agencies do not necessarily suffer from a lack of resources. The issues are mostly of a lack of updated technical knowledge, corruption and political influence. Another issue which often complicates city planning and projects is the presence of multiple of land owning, planning and administrative agencies. This results in a polarized city master plan and a lack of coordinated planning and implementation. Given this situation the city has grown in parallel tracks spanning the formal and the informal sectors, the government and private developments and top down bureaucratic and bottom up community driven projects. This has resulted in the 2 sectors catering to the different classes, ethnic and religious groups and communities. This has also resulted in disparities, polarizations and a divided city. For the situation to improve in future it is important to have a planning process which can result in projects and policies which bring all concerned formal and informal stakeholders on a platform to discuss a sustainable city plan via a formal-informal interface.



04. EMERGING NEW NEEDS AND TRENDS



2013-2014

- 1. Build it up community building in Karachi.
- 2. Nala Community Building.
- 3.
- 4. Informal Karachi.
- 5. Informal Karachi.
- 6. Bridging the Urban GAP.
- 7. Lines of an organized chaos: Once upon a time in Karachi.

2014-2015

- 8. A new edge - Architectural Project A.
- 9. A new edge - Architectural Project B.
- 10. The Wall - threatened Communities. Machar colony, Karachi.
- 11. Housing
- 12. The Ambition of periphery.
- 13. Karachi Utilities Injection: Urban sanitation as a housing design tool.

2015-2016

- 14. Karachi - The city of Light.
- 15. Karachi Rising.
- 16. Karachi Stories.
- 17. Karachi - The city without limits.
- 18. Nawalane Stair-community.
- 19. Incremental Architecture.
- 20. New Fahad squares.

2016-2017

- 21. Karachi Agrihood.
- 22. Fragmented City Density.
- 23.
- 24. The inner port a development from the inside.
- 25. street my cricket' how it happened.
- 26. River as a public place.
- 27. Sustainable Upgrading.
- 28. Sustainable resettlement.
- 29. Fix.
- 30. One thousand and one night in karachi.
- 31. Family training programe.
- 32. The forgotten typology.
- 33. The productive Oasis.
- 34. Fishing Port Machar Colony, Karachi.
- 35. Habitude
- 36. The transit zone of the introvert city
- 37. Introveted city - community market place
- 38. Urban interiority
- 39. Sustainability of Fishermen Communities
- 40. Invertline
- 41.
- 42. A prototype for communal living in Machar Colony, Karachi
- 43. Karachi Lines Area: Introvert Collectivity.

2018-2019

- 44. Urban Accupuncture.
- 45. Takingout the trash
- 46. Roofscapes -Pilot Project
- 47. Walkability Analyses Looking at Karachi.

2019-2020

- 48. Sohanja : An Urban farming master plan for Karachi.
- 49. Changing Karachi by empowering its women.
- 50. Transforming society.
- 51. Densities.

2020-2021

- 52. Accomodating informality.
- 53. Saddar crafts revival.
- 54. Looking beyond saddar borders.
- 55. Outline.
- 56. Cultural Heritage a collective memory.

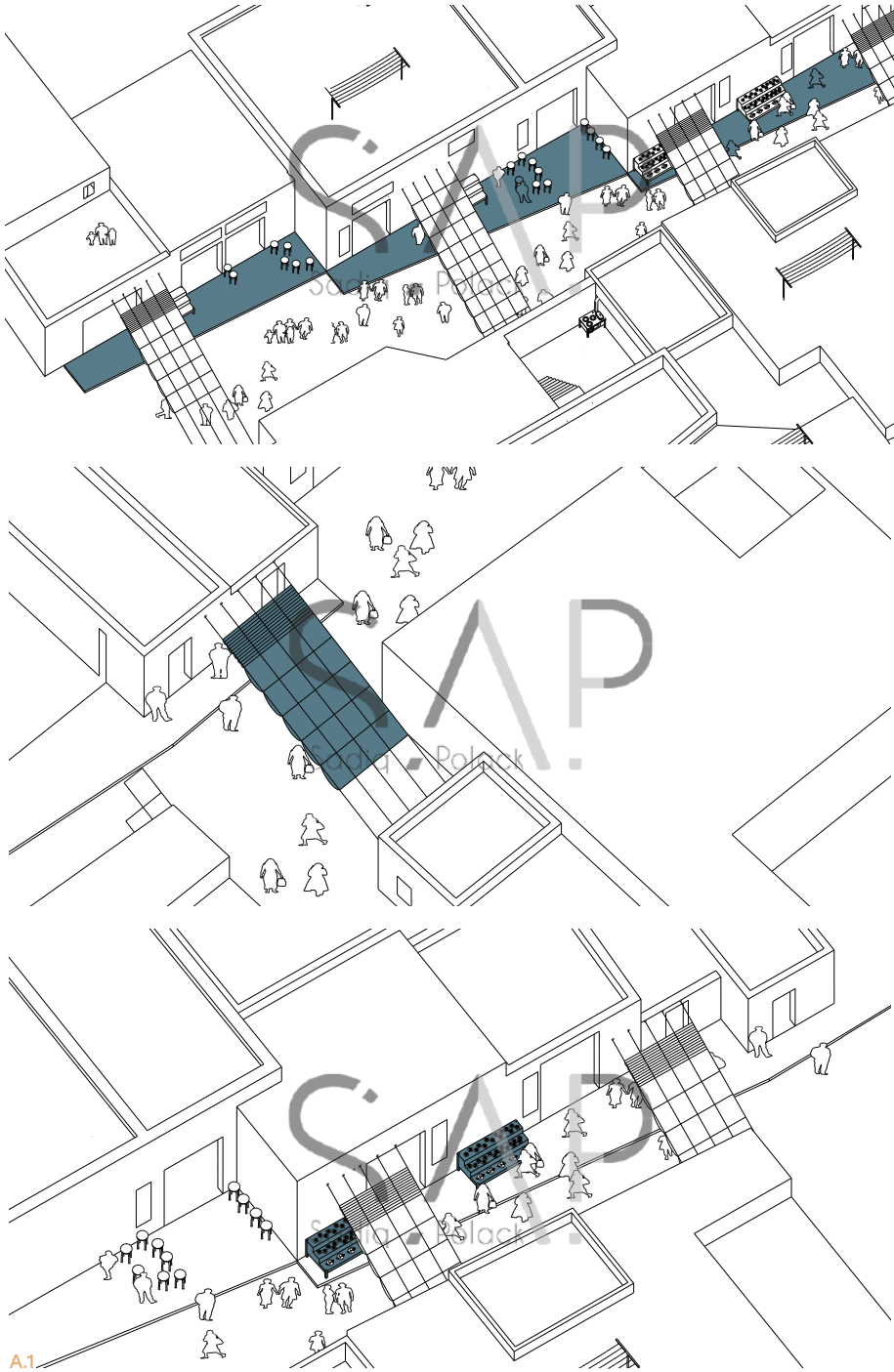
STREETS - NEED TO BE MORE THAN JUST MOBILITY NETWORKS

In Pakistani cities and villages, streets are the primary public spaces. Streets have been traditionally used as productive, living, and recreational spaces. Cities and settlements were mixed income, mixed land use with homogeneous communities and cultures where streets became grounds for play, interaction, economic enterprises, and social control. However, 1960's onwards modernist car dominated plans for Karachi changed the usage of streets, especially in middle and upper income areas. Streets in car dominated areas adapted to fast movement, easy access to vehicular traffic, influx of new settlers/migrants, diverse communities, their cultures, and security concerns. In lower income areas, due to economic needs and intact traditional social set-ups, streets are still actively used as productive, living, and recreational spaces often adapting the modernist planning.

In general, in Karachi appropriation of streets is tolerated according to the needs and suggestions of everyday life. Hence, the hustle and bustle of the streets form the predominant elements in people's image of the city. The streets of Karachi, house not only mobility but also activities like; commerce, out spill of restaurants, pavement economy, social gatherings, play area for children, cricket for the youth and hanging out spaces for all. The active and vibrant street life tends to dissolve into community spaces as it moves towards domestic units forming the streets' gathering points or transitory semi public spaces. Street usage is varied from the neighbourhood to the city scale accommodating different types of public, semi public, and private functions.

In formal planning, Karachi's streets are predominantly designed as mobility arteries, ignoring the fact that, locally streets perform the function of public and collective spaces as well. This dichotomy leads to appropriations and adapted street designs responding to pedestrian movement and informal economic and social activities going beyond the formally accepted spatial standards of vehicular mobility alone. Neighbourhood streets especially in low-income areas, accommodate these spatial needs due to a lack of other open public spaces which can cater to a variety of social and productive community activities.

The Karachi studio projects which have dealt with this new way of looking at contemporary streets go beyond the constraints of mobility and propose new socio-culturally responsive designs. The streets of Karachi were studied for their diverse activities, land uses, user groups, resulting in designs which provided innovative and flexible usages to the streets while accommodating vehicular and pedestrians mobility as well. These projects have proven that streets if designed well can work both as collective spaces and means of mobility.



A.1

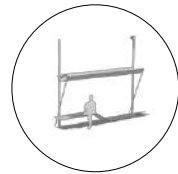


A.2

A.1, A.2 Battistutta , (16-17) 'Lines Area'. The proposal is to improve the current conditions of the market, with interventions such as introducing a better product display, a barrier between sellers and buyers, implementing different design strategies. The aim is to enhance the working of the streets by bringing more clients and making the ambience more pedestrian friendly.



Flexible shading

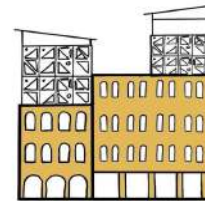
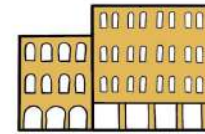
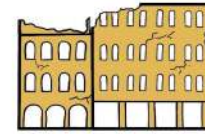


Seat shading



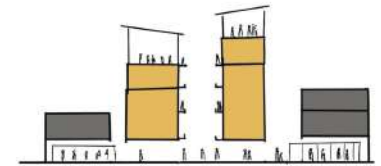
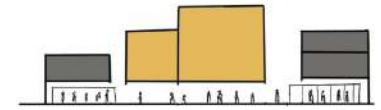
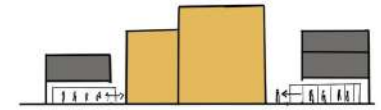
A.3

restoration + build up



A.4

public space



A.3 Charlot, Maingiaux, Nasser, Yang ('18-19), 'Walkability Analyses Looking at Karachi': Developing the idea of walkability in Karachi by analysing the different street conditions of the Burns Road precinct. The project aimed to improve the street quality, already a public space, into a more pedestrian friendly space. Rehabilitating the area through improved sidewalks, having permanent public street infrastructure, alternate proposals for the vendors and new shading systems to suit the different actors on the street enabled a safer and vibrant streetscape.

A.4 Ciarán, Farren, Lambreth, Moors ('20-21), 'Saddar crafts festival': Focusing on the revival of the arts and heritage conservation of existing buildings, the project generates a comprehensive programme for a crafts centre in Bohri Bazaar. The proposed functions are flexible and aim to restore the fading craftsmanship of Karachi, promote education and public space. By integrating the activities of the crafts centre with the street life of the surrounding shopping streets and also extending it to the other levels, new ways of public architecture and interaction are introduced through adaptive reuse of heritage buildings.

DENSITY - TO BUILD UP OR TO BUILD OUT

Despite having a high population density, at an average Karachi's built density is medium and comparable to most planned cities such as Copenhagen, Amsterdam, and Brussels and in certain areas the built density is even less than cities like, Seoul, Singapore, and Barcelona. Why is it then that Karachi faces urban density issues like; overburdened infrastructures, lack of open and green spaces, congestion, and a pressure to build high rises to accommodate the housing deficit. This situation has given rise to a recurring question, how can we use urban density as a design tool to plan a sustainable Karachi?

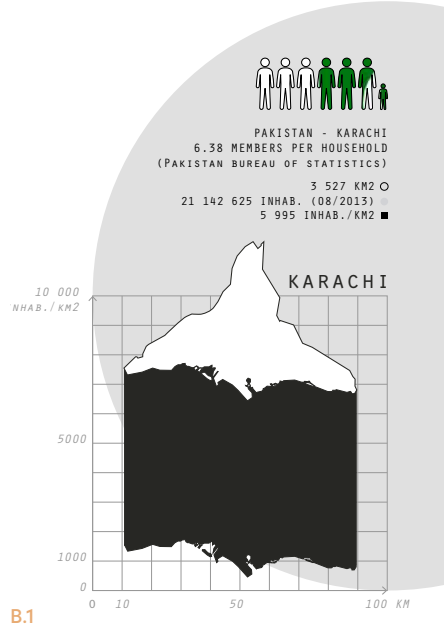
However, to arrive at an ideal density for the city one needs to understand its demographics, social and cultural aspects. In the case of Karachi, to achieve an ideal density, the imperative question is whether to "Build up or Build out" given its congested inner city and ever-expanding periphery. Karachi has an urban sprawl of a radius of 20 km and its built densities vary between 3349 people per hectare in the city centre and 501 people per hectare in the suburbs (Hasan et al., 2010). This gives the city an over all medium built density but extreme case conditions. This points towards the need to de-congest the poor-quality high-rise apartment blocks of the inner city and to densify the low-density suburban areas, maximizing on the available social and physical infrastructures. This would provide affordable, accessible housing options as well as result in controlled urban sprawl and inner-city congestion.

However, the local governments do not get into researching these ground realities. Obsessed with creating a branded city with a modern outlook, with high rises and high real estate returns the appropriate density solution is always seen in the making of high rise - high density projects. However, most of these projects fail due to inappropriate socio-cultural and poor utility provisions like elevators which are non-operational due to power shortages, or apartments unable to accommodate home run shops. This situation is especially true for the lower income groups due to the mismatch with their lifestyles, economic needs such as home shops/cottage industries and a lack of social connection with the streets. This points to the need to find density solutions which create a socio-economic and environmental balance depending on the area of intervention along with its relation to the available open spaces, infrastructure conditions and future population growth trends.

The different Karachi studio projects have attempted to address this design issue by studying the existing and future demographic, social and economic trends, real estate pressures, affordability and accessibilities of the new aspiring generation and clientele in Karachi. The design projects address new housing needs and trends for new stakeholders such as single people, new couples, nuclear families, incremental modules within apartment blocks for two to three generations, old peoples housing, single parent housing. Special focus has been on safeguarding and or reviving the traditional climatically efficient domestic typologies and architectural components. Co-related with design programmes for stakeholder's/community participation which can technologically, socially, and ecologically result in sustainable projects.

B.1, B.2, B.3 De Backerm, Ophoff, Poot ('13-14), 'Nallia Community Building'. The design attempted to counteract the urban sprawl by reusing the existing structure of the Lyari express way. Through this it responded to the housing demands by densifying and building up in a sustainable way through productive landscape, where housing, recreation, manufacturing, and commerce are interlaced.

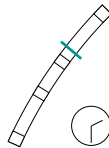
B.5 Leonova ('16-17);'Urban Interiority'. The proposal focused on Nawalane, the highest density area in Lyari and addressed strategies which could allow to accommodate the density through build up. As privacy is a critical issue in these settlements, through the notion of urban interiority where public transitional spaces such as corridors, streets, rooms are transformed to a space that is intermediate and flexible with the ability to change their state. The project aimed at creating environments of urban interiority in high-rise buildings.



B.1

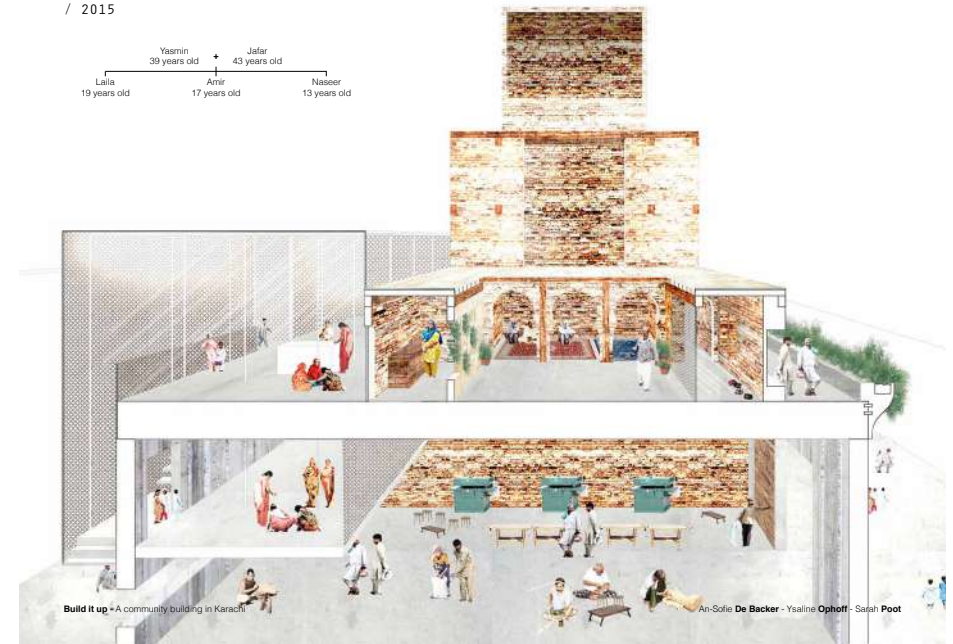
/ DHOBIS

Our walk back home is very pleasant, as the activities along the river are changing continuously. The dhobis are fascinating me the most. To me, it seems to be a big choreography of fabrics, which are washed by the men, dried in the sun and finally ironed by the women.

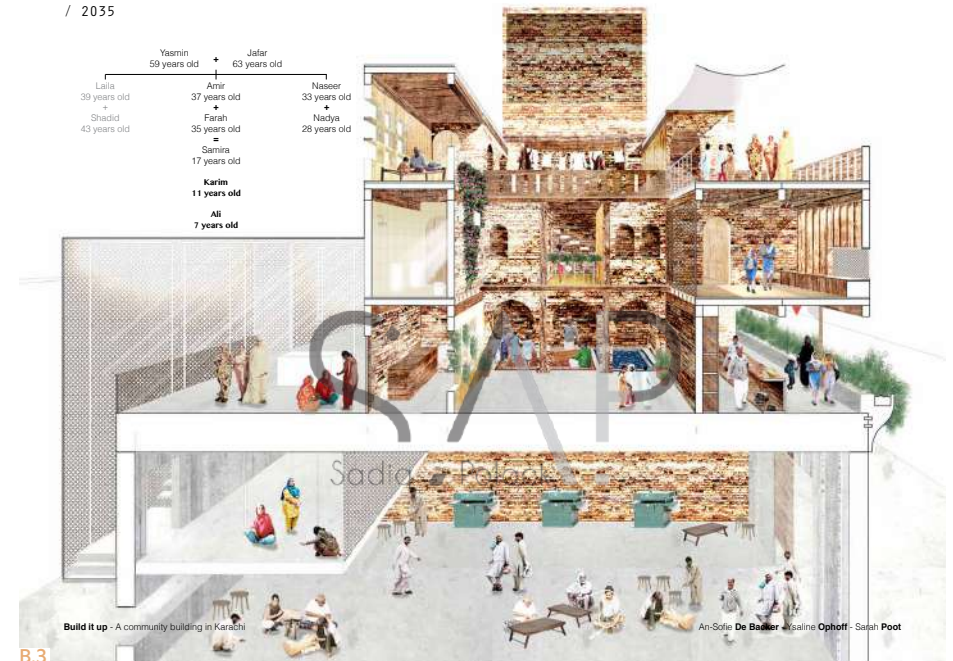


B.2

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B.3

B.4 Bruers, Chen, De Pauw, Gopal ('19-20). The four different types of densities identified in Karachi.

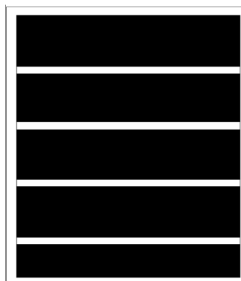
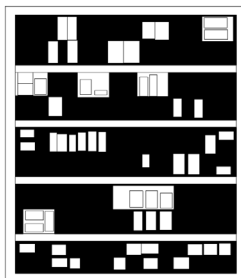
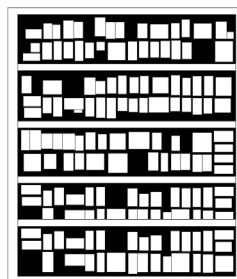
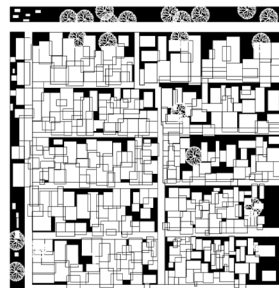
B.6 Lander, Isabelle, Matteto ('14-15), 'The Ambition of periphery'. An analysis of the active and passive urban policies and their related spatial patterns in Karachi.

B.7 Gopal ('19-20), 'Low Density'. A mixed income sustainable design development, that promotes a new way of communal living integrating different income groups with adaptive spaces at different scales of dwelling, neighbourhood, and urban scale.

B.8 Bruers ('19-20). Looking closely at the high to medium-high density built space in Karachi, the project aimed at preserving and creating new open spaces that benefited women and children, creating accessible spaces to all through landscape and connecting all income groups through the idea of sports.

B.9 De Pauw ('19-20). Located in Karachi central on the highly and most densely populated typology, the proposal aimed at mitigating the crucial issues that arise in densely developed settlements. With the intention of providing people with more liveable open spaces through wind catchers that provide sufficient ventilation, elevated pathways that not only have vegetation but also act as a cleaning system and to increase social contact but also provide shade in the internal spaces, a two wall system was introduced.

B.10 Chen ('19-20). This project focused on medium density typology in Karachi. The lack of public open space, shortage of water supply, basic facilities, and hot weather were prominent issues of concern. The population occupying the sites were far lower than the ideal population and the high rental prices required a new proposal. Through sub dividing the site into smaller blocks with modular construction, more housing units were introduced. This also allowed for larger open collective spaces. The proposal also aimed at integrating a water collection and ventilation system.



B.4 Bruers, Chen, De Pauw, Gopal ('19-20)



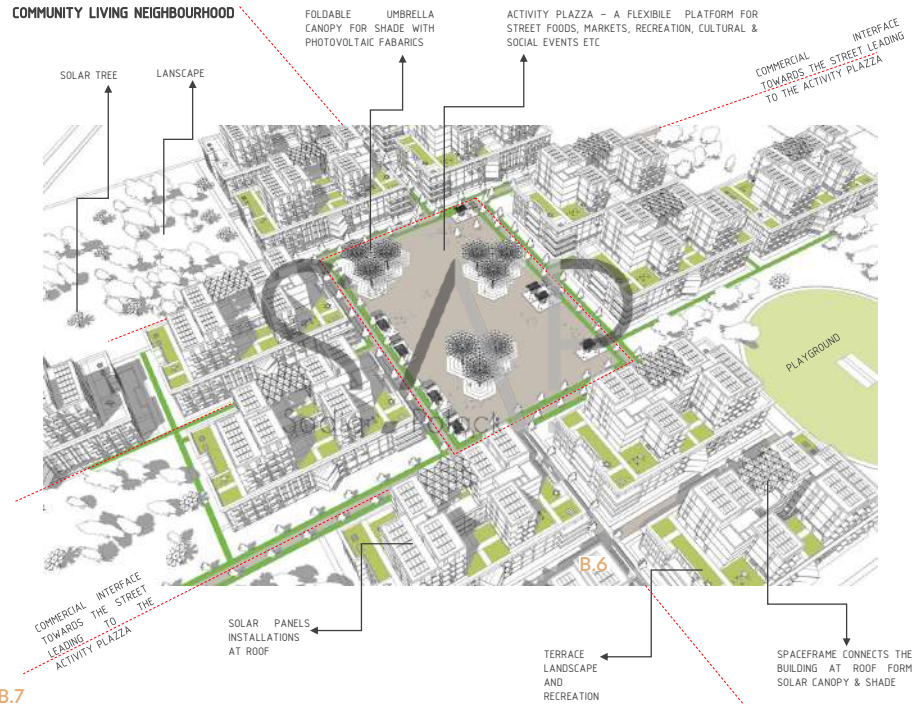
B.5



B.6

Groundfloor

COMMUNITY LIVING NEIGHBOURHOOD



B.7



B.9



B.8



B.10

RECONCILING - TRADITION AND MODERNITY

During the 1950's Karachi's population increased by 161% because of the immigration of 600,000 refugees from India. This was followed by several waves of immigration due to local and regional economic and political happenings. This has completely changed Karachi, not only demographically, but also culturally and ethnically. Over the last 70 years, Karachi has changed from a low rise, low density compact city of a few hundred thousand to a sprawling medium density city with a cosmopolitan and diverse culture. This has created a physically stretched out and a socially divided city of dualities and disparities.

Karachi being an economic centre with a strong services sector attracts and has a consolidated population with; high literacy rate, decreasing male-female literacy gap, an increasing number of working women, an increase in the age for marriage (especially for women), an increase in divorce rates, a reduction in the number of married people, and a trend towards the formation of nuclear families as opposed to extended ones. These transformations have created a society which struggles with harmonizing tradition and modernity in terms of life-styles and spatial needs. All together Karachi is more adapted to modernity, digitalization, and globalization but with a high influence of religion and traditional aspects.

The Karachi studio projects dealing with this dichotomous thematic decide to document and profile some of these emerging trends both socially and spatially. For these contacts were established with local stakeholder's and insights were sought via interviews, informal discussions, and organized activities. These primary contacts helped double checking the secondary data and picking on underlying nuances, changes, and undercurrents typical to a society undergoing socio-cultural transition. Projects responded to the fast transforming situation by coming up with new typologies of domestic and public architecture and urban spaces which aspire to reconcile tradition and modernity addressing all transitory phases. This reconciliation required sensitivity, empathy and research engaging with real stakeholders converting digital knowledge into real understanding summarizing the challenges, needs and aspirations of Karachiites.

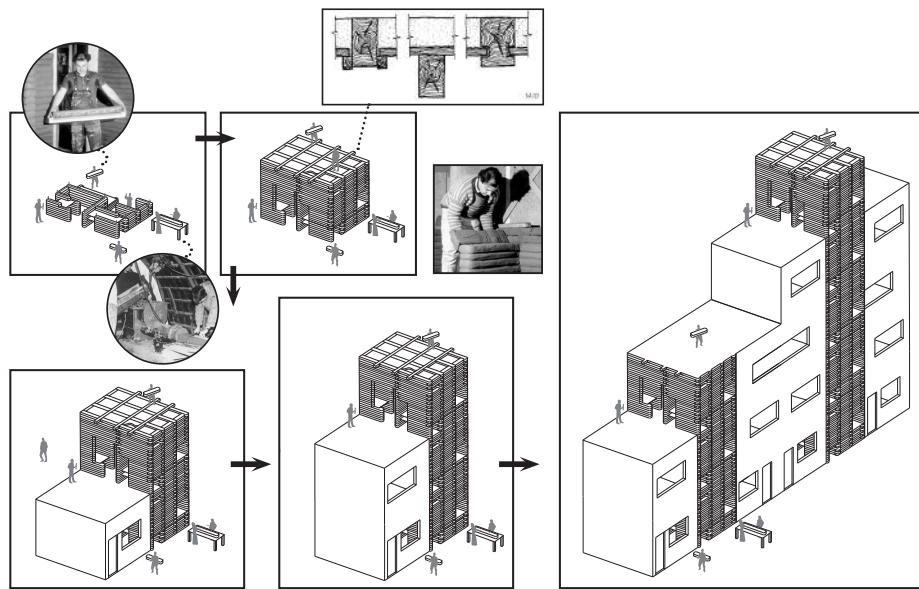
C.1, C.2 Tesseur ('13-14), 'Space syntax'. Informal patterns of mobility which can be easily reproduced and adapted to improve the existing city structure. The new space syntax with the integrated pattern creates a new centre and connects both sides of the Nalla, at every 100m with a bridge to cross the water.

C.3 Belouni ('15-16) 'Karachi-The city of light'. A response to the use of public space in the Pakistani culture focusing on the appropriation of streets according to the needs and suggestions of the everyday life reconciling tradition and modernity.

C.4 Swartjes ('16-17), 'The Productive Oasis: The Secret Garden as a Tool for Sustainable Upgrading and Urban Development'. Inspired by the Persian gardens, the project aspired to be a green paradise surrounded by walls. Addressing the issue at the different scales of urban sprawl. At the small scale, the secret garden was a leftover

in the urban fabric which was re-purposed with a productive landscape, a productive building, and an education centre. At the medium scale, the secret garden began to outflow and spread throughout the neighbourhood through trees for shade and food. At the larger urban scale, it aimed at creating a framework for a self-sufficient community based urban farming.

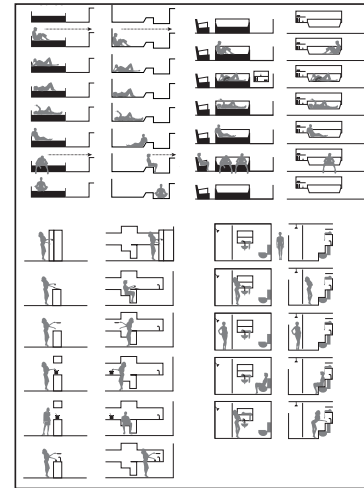
C.5 Dehghani, Eisen, Jarina ('19-20), 'Changing Karachi by empowering its women through community involvement, microeconomics, and spatial solutions'. Placing the focus on the women of Karachi, the project aims at female empowerment, the involvement of the community and introducing micro-financing. Starting as pilot-project, with providing skills training to the women and focusing on a particular street making it accessible for community use, the project aims to grow overtime creating a network of change led by women.



C.1

Functional relationships

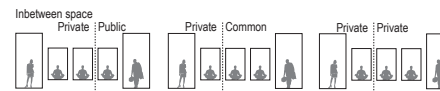
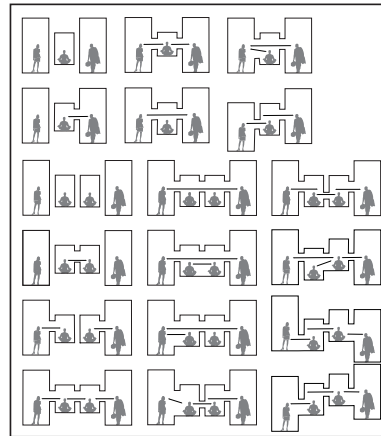
To determine the internal features of the 'close', I analysed my functional behavior. What are the things I do when I'm inside a certain space of my home. In this way a new spatial form could be created.



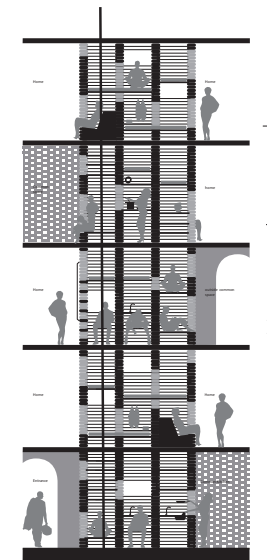
The above section shows the relationship between the implemented functions, creating inter-functional relationship and new spaces.

Spatial relationships

Since the 'close' exists out of multiple layers we analysed what the relationships between those spaces could mean. As shown below, it could become an inbetween space for different types of rooms, with direct and indirect relationships with each other.



C.2



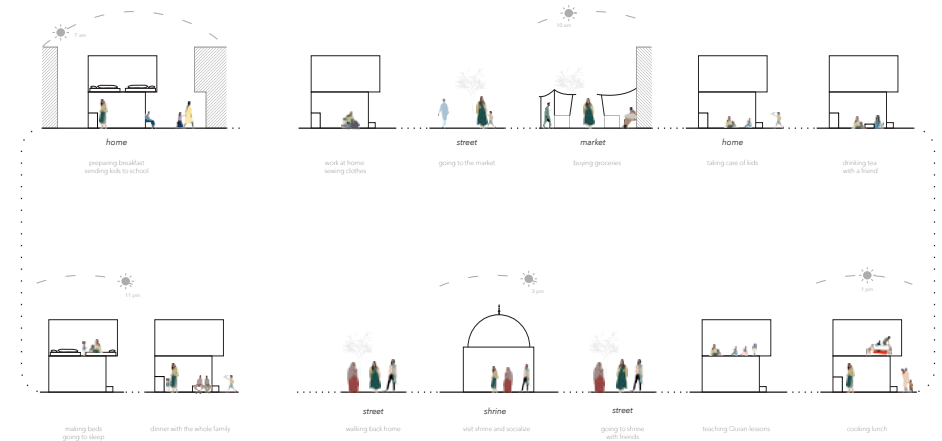
The above section shows the relationship between the implemented functions and their adjacent spaces.



C.3



C.4



Activities in one day

C.5

EMERGING GENDER AND COMMUNITY RELATIONS

Karachi's reconciliation of diversity, tradition and modernity is supported by the fact that it has a better literacy, especially female literacy rate than the rest of Pakistan. Access to education and employment opportunities has played a major role in the shaping of the society as well as having more empowered women, who are financially independent and active contributors towards the household income and decision making. The conflict that arises is the disparity between the financial and social mobility of women and is reflected in the predominantly male dominated streets and neighbourhoods. This conflict makes the easy movement of women especially working women difficult through the city.

The present urban conditions and spaces are not safe and comfortable for the women and children. However, the increasing economic participation of the women in the labour force of the city demands that their movement and the design of housing settlements, urban spaces and other social infrastructures in the city should facilitate this change. Policies, plans, and projects need to respond to the emerging demands for gender equality and the provision of women and children friendly spaces.

Similarly, the conditions of poor immigrant communities in the city have also changed over the years and requires integration into mainstream planning and design of the city. The third generation immigrants, their sense of ownership and relationship to the city is more engaged than that of their parents and grandparents. They are more educated, urbanized and committed to the city and aspire to upgrade and modernize their settlements for their future generations. They are engaged with the city and want to be partners in the development of it for which they need designs which are responsive to their financial, human, and technical resources. This requires research by designers into new typologies of architecture and urban spaces which are co-created with the participation of concerned stakeholder's while catering to their diverse backgrounds.

The Karachi studio projects which aspired to investigate these emerging new relations and trends questioned the role community groups (mainly in the informal sector) and specifically women in the development of their settlements and Karachi and how could they be facilitated. The aim was to solve the difficulties uncovered in the current designs of public and private spaces by proposing more engaged design and implementation by participation schemes. It was found out that communities, especially women's willingness to have multiple roles as well as the wide mutual support networks that they belong to makes them powerful agents of change in their settlements, city, and the society at large. Projects have addressed the thematic of female empowerment, community involvement, micro-finance, youth participation and children's involvement and facilitation at the settlement and city scales.

D. 1 Usai , ('16-17) 'The inner port'. A complex of wooden structures provides new spaces for the community to host the activities that take place in the area, while providing healthier environment and basic infrastructures. Water is brought inside the plot through the creation of a wet dock that helps boats to bring the produce and to transfer the boats from the ground to the water and vice versa.

D.2, D.3 Goldenis ('16-17), 'Fishing Port, Machar Colony'. Aiming at the fishing communities residing in the fishing harbour, strategies were proposed to rethink the waterfront so that it could host a range of different activities connected to the fishing industry and waste recycling. The different functions proposed include a market, a redistribution and education centre, geared to facilitate the economic upgradation and empowerment also providing better standards of living to the inhabitants.

D.4, D.5, D.6 Dehghani, Eisen, Jarina ('19-20), 'Changing Karachi by empowering its women through community involvement, microeconomics, and spatial solutions'. Placing the focus on the women of Karachi, the project aims at female empowerment, the involvement of the community and introducing micro-financing. Starting as pilot-project, providing skills training to the women and focusing on a particular street making it accessible for community use, the project aims to grow overtime creating a network of change led by women.

D.7 Baluken, De Schuytener, De Vos ('20-21), 'Looking beyond Saddar Borders'. The project focused on the youth of Karachi addressing the issue of lack of sufficient public spaces for their recreational activities. The aim was to create optimally designed public spaces in unused, empty pieces of land that enables more sustainable transportation and development of youngsters. Through the strategies a bridge that connect

both parts of Saddar Bazaar , pedestrian walkways, cycle lanes and resting points for the inhabitants are proposed allowing them to be more active in the public realm of Saddar.

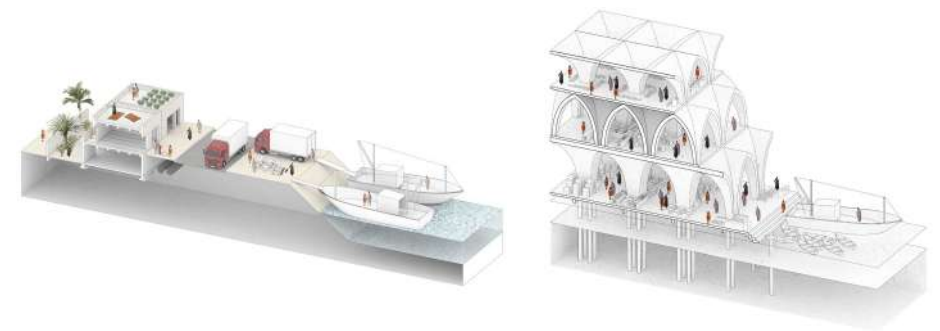
D.8 Denayer, De Greef ('20-21), 'A new way of living'. With the rising rental prices and real estate becoming too high has made it unaffordable for the upcoming working-class population to own houses. The proposal looks at an alternative way of affordable housing that aims individuals and couples, promoting collective living and shared spaces. Simultaneously, focus was also given to the increasing interaction and the connection between outside and inside, by allowing the events on the streets to extend to the ground floor of the building, encouraging social activity amongst the new residents and the old neighbourhood.



D.2

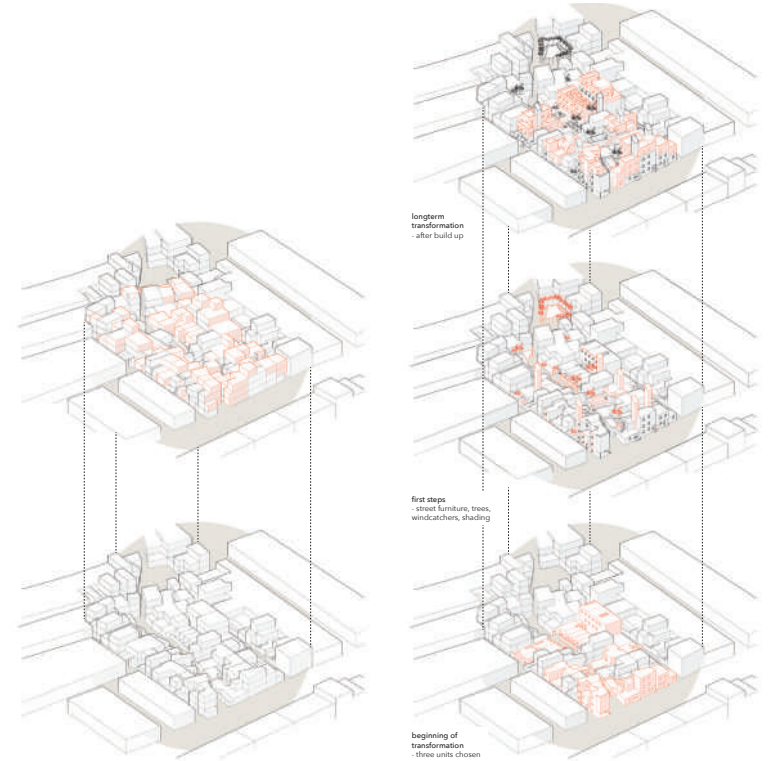


D.1





D.3



D.5



D.4



D.6



D.7



D.8

ROOFTOPS, COURTYARDS, STAIRS - AS COMMUNITY SPACES

Karachi like the rest of South Asian cities has had the tradition of using rooftops as a service and recreational area benefiting from the views, the sunshine, and the sea breeze rampant in the city. Over time with an increase of digitalization and information technology and the consequent changes in lifestyles in general lead to the people spending more time indoors. However, with rising temperatures due to climate change, energy crisis and power failures, increasing pollution levels and a lack of open public spaces in the city has made people revert to the use of rooftops for social purposes, landscaping, and even vertical farming. Especially in the densely populated areas of Karachi with small houses and or apartment blocks which lack proper ventilation and open spaces inhabitants continue to rely on the rooftops for a breath of fresh air and a glimpse of the sky. Conclusively, it has become clear that the rooftops of Karachi's buildings offer an opportunity to develop as collective space to be able to meet the social and recreational needs of the different age groups and communities in the city.

The same fate has been suffered by open courtyards and staircases due to changing lifestyles, high real estate prices, lack of affordability and inappropriate building bye laws and regulations which allow for compulsory open spaces but on the periphery of the plots, rather than in the centre. Where provided, these open spaces are often encroached and covered to create more rooms. This has led to many design issues like, ventilation, privacy, lack of greenery and congestion, especially in dense and congested areas. However, due to increasing population and family sizes, open courtyards, and their often attached staircases, are emerging as ideal semi-private or semi-public (depending on the situation) open spaces in the centre of the houses and or apartment buildings to catch wind and sun light, resulting in cross ventilation and healthier living spaces.

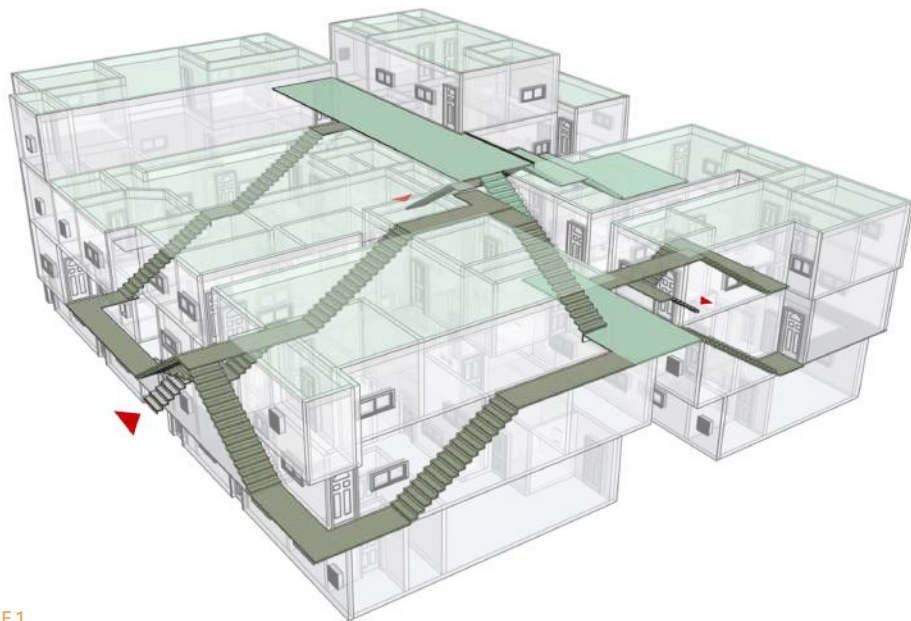
Staircases within buildings and the few steps outside houses and buildings connecting to the street have also always provided for semi public, well ventilated hangout spaces for communities. The inner staircases and adjoining spaces are especially inhabited by women and small children as semi-private and safe spaces. However, again due to poor building regulations and a lack of creative design thinking these practices are often abandoned in new buildings resulting in dark, unsafe staircases pushed to the backs of the buildings.

Karachi studio projects which decided to revive the rooftops, courtyards and staircases as open community spaces show that these space typologies offer multiple possibilities to combat the urban heat effects and the mitigate the lack of open, green, safe, and easily accessible and fast disappearing collective spaces in the city. The rooftops of houses can be used by individual families or interconnected to develop into clusters which provide for bigger open and collective spaces for larger community activities encouraging socio-cultural integration amongst diverse communities. The fundamental idea being physical and social integration via a network of small and large, at grade and elevated green spaces, where the residents can unwind after being in the noisy and vibrant streets of Karachi. These spaces would cool down the buildings as well as contribute towards the city's green cover mitigating the effects of climate change at the city level. In these open, green, and collective spaces social, cultural, and productive events can be organized. The spatial interventions encourage social interaction, better communication, and a friendly environment amongst the diverse communities of the city. This interactivity between the citizens would foster good relationships and trust, translating into safer neighbourhoods and city.

E.1, E.2 Dung Vu ('15-16), 'Nawalane Stair-community'. Revitalizing downtown Lyari to become a safer place for community through revitalizing the streetscape by stimulating activities such as housing improvements, creating semi-public spaces to solve the shortage of community spaces, and using staircases as the key element to provide inner circulation and possibility to extend living spaces upward.

E.3 Ahmadipour, ('16-17) 'One thousand and one nights in Karachi creating new collective spaces'. The project focused on the available open spaces in Karachi and their issues. By introducing the collective spaces in their existing courtyards and introducing newer collective spaces on the rooftops, the design aims to create an alternative network of public space.

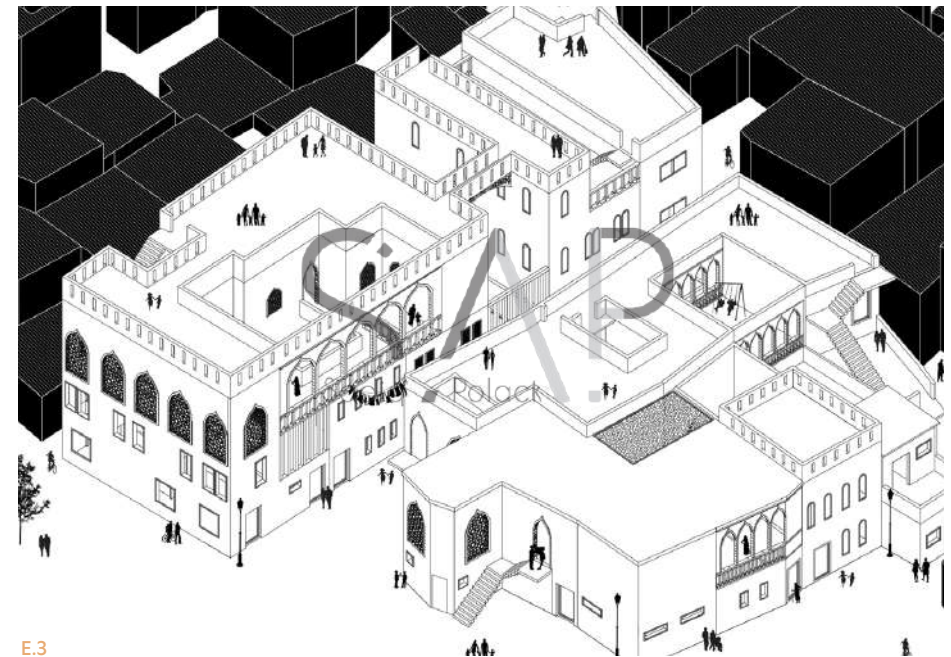
E.4, E.5 Ronchetti, Desimpelaere ('18-19), 'Roofscapes. A Pilot project in Karachi'. Paying close attention to the drastic impacts of climate change and the rise in need for collective spaces, the project works towards creating a sustainable community whilst making life easier and safer for residents. By changing the rooftops as green collective spaces, a self-sustainable micro community is established where the residents are involved in productive processes.



E.1



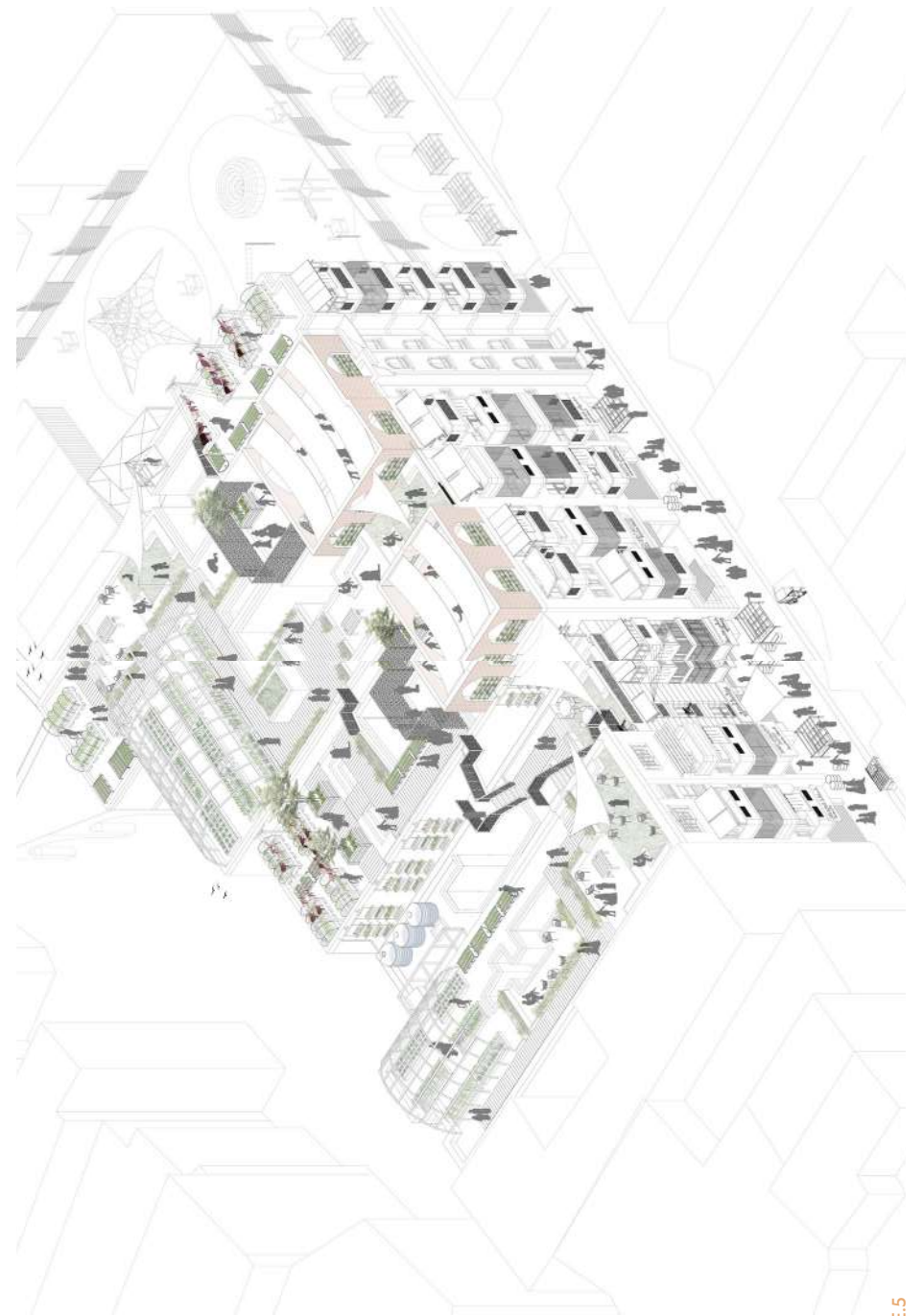
E.2



E.3



E.4



E.5

SOCIAL UPWARD MOBILITY AND INCREMENTALITY

Karachi's housing stock is more than 50 percent made up of informally developed low income settlements which over time have become vibrant, socially upwardly mobile lower middle to middle income settlements. Often well located and connected to the city's infrastructure grids, in Karachi we have two types of low income settlements. The old and new inner city settlements which rely on the financially active core of the city for its job opportunities and the availability of good social infrastructures. The other type is the incrementally developed peripheral low income (by now lower middle income) settlements which have grown and consolidated over time. Most low income people prefer to rent houses in informal settlements near to the city centre compared to owning houses in far flung peripheral settlements. However, in both cases, the aspiration is to own a house and to achieve this upward socio-economic mobility they rely on several forms of incremental housing provision networks.

These lower middle income communities and settlements bust stereotypical myths by not being passive onlookers but proactive participants in the process of incremental housing development. The socio-economic upward transition of these communities/neighbourhoods and the consolidation of the housing schemes may take time (sometime up to two generations), as it depends on the gradual savings and investments made. However, the investments that the communities make into these productive units, social amenities and infrastructures of their areas belies the stories of them being a burden on the city. Instead, once studied, these emerge as productive, vibrant, growing economies and societies.

The Karachi studio projects which worked on this theme did so by first researching and understanding the existing ground realities and emerging trends in the settlements and communities. This was followed by proposing a phase wise, gradual step-by-step process whereby building components were appended or improved by the owner/builders as funding, time, or materials become available. Community participation and the role of the designer as partners in the process resulted in solutions which aspire to be cost effective while responding to the future spatial, social, and economic demands of the communities over time and generations resulting in an evolving and adapting architecture.

F.1 Asmpach, Riche ('13-14), 'Lines of an organised chaos: Once upon a time in Karachi'. Design for middle & lower income people of Karachi by introducing innovative ways of living in a neighbourhood. The proposal deals with the factors of connection, economy, and the community life along the communities of Lyari Nalla.

F.2 Adons, De Laet, ('14-15), 'A new edge': The Lyari riverbed offers a diverse range of opportunities and available spaces for the development of recreational, mobility, housing and public spaces which are very much needed on the scale of neighbourhood and the city. "These settlements do not only require water supply and sanitation. They also require entertainment, recreation, culture and relaxation."

F.3 Eren ('14-15), 'Machar fishing edge'. Focusing on upgrading the fishing community on the edge of Karachi, the project aimed at creating stronger connections between the street and water whilst introducing better living conditions for the community. Through providing newer forms of collective housing, shared spaces, commercial ground floors and ateliers directly related to fishing activities, the community is hoped to be empowered.

F.4, F.5 Zvirblite ('14-15), 'Machar Colony'. The project revolved around the question of, how is it possible to preserve mangroves at the edge of the Machar colony? By defining the limit of mangroves and planting more mangroves to maintain the limit, the built spaces are imagined over stilts where houses, markets, workshops are imagined.

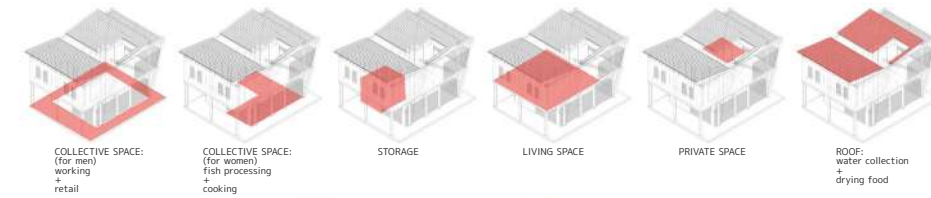
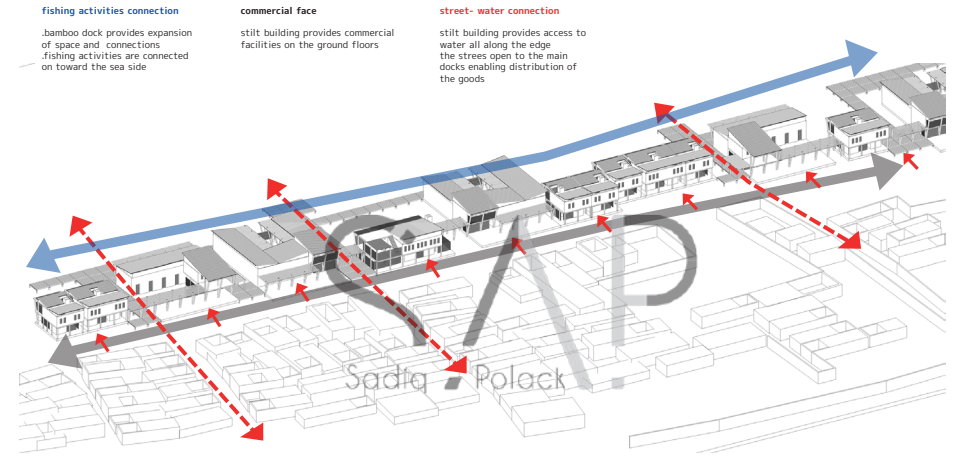
F.6 Paninopol ('14-15), 'Machar Colony; Living on the Edge'. The edge design is a metaphorical wall where the community relates in harmony with the neighbouring environment. This "wall" is a permeable structure with functions which allow the interaction between locals and what happens outside their colony. The stilt houses

allow the ground floor to be used for public activities such as working spaces, commercial facilities and social spaces. A new street is made opening towards the estuary and connecting the semiprivate areas of the gardens providing social interaction.

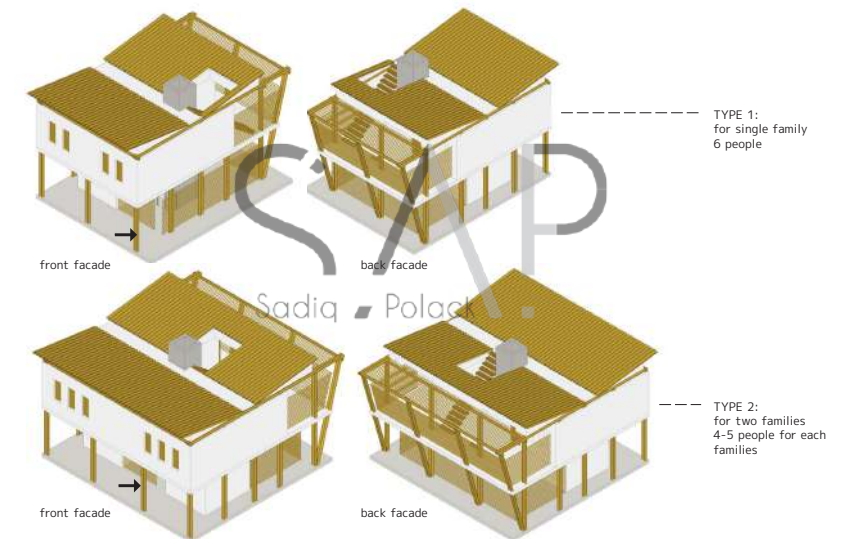
F.7 Bista, Costa ('14-15). Public space interventions for environmental comfort. The design proposal identifies various transitory spaces through the urban interventions by proposing water towers, playground, laundry areas and markets. The housing intervention proposal includes the enhancing of courtyard spaces, passive techniques, and the incremental way of construction.

F.8 Cindric, ('16-17) 'Sustainable upgrading'. Providing identity to a neighbourhood through collective spaces. Accepting and understanding Karachi's genius loci, courtyard becomes a catalyst for a sustainable way of life.



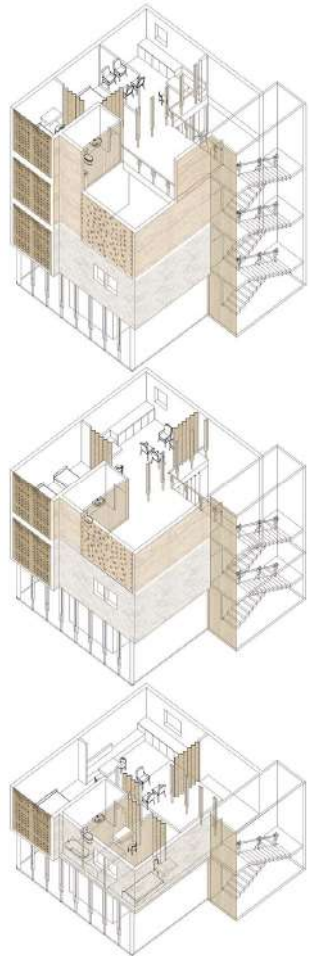


Level 0			Level 0		
Open/built Ratio	1/3.3	1/2.7	1/3	1/2.9	1/3.3
Level 1			Level 1		
Open/built Ratio	1/3	1/2.9	1/3.1	1/3.1	1/3.3
Level 2			Level 2		
Open/built Ratio	1/2.8	1/3.1	1/3	1/3	1/2.9
Total	1/3.03	1/2.9	1/3	1/3	1/3.1

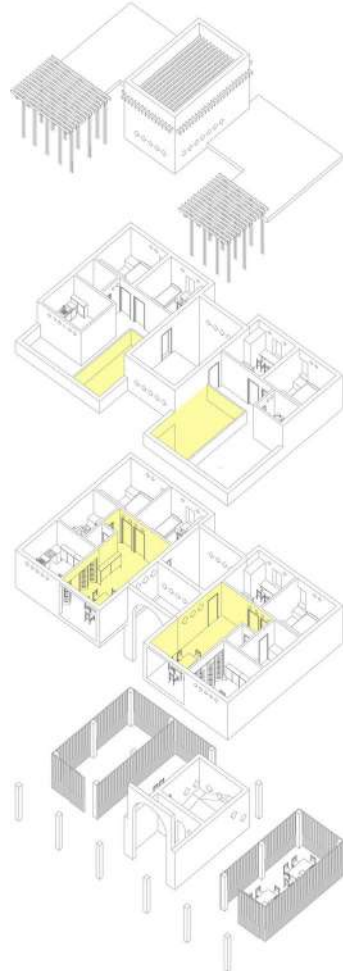




F.4

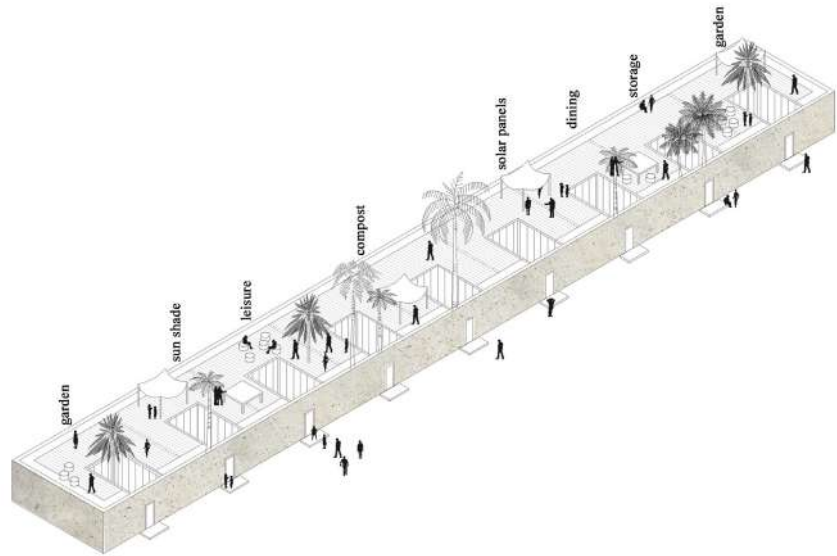


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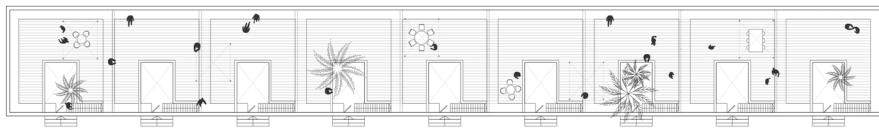


F.6

F.7



ground floor / 0 / private



first floor / 1 / community

F.8

NALLAS* - AS PRODUCTIVE LANDSCAPE

Two of the main Nallas of Karachi are the Lyari Nalla and Orangi Nalla. Originally perennial rain-water drains, these have over time turned into sewage channels due to the dumping of untreated sewerage and solid waste into them by the adjoining settlements both rich and poor. Some of the key reasons for the degradation of these open channels (lungs for the city) and consequent flooding are a lack of covered secondary drains, garbage dumping, rising nalla beds due to a lack of purging, illegal constructions over the nallas and the lack of an overall drainage plan for the city.

The lives of the communities along the banks of these Nallas becomes more vulnerable due to unhygienic living conditions, flooding often resulting in the loss of lives, finances and building stock and a constant fear of eviction. There are many stigmas surrounding the Nallas and their adjoining communities, these range from; encroachment, criminality, hotbeds of drugs and illegal activities, burden on the society, sources of unhygienic conditions and many more. However, the truth is that these settlements are a result of the housing deficit for the poor which the city faces and although started illegally, by now a lot of these are regularized under the Sindh Katchi Abadi Authority Act. These communities contribute towards the city's services provision and provide skilled and unskilled labour support to the adjoining formal industrial zones.

As for the riverbed, the sewerage which is dumped in it is contributed by the whole city and is a consequence of a lack of an overall drainage and solid waste disposal plan for the city and cannot be attributed to the poor alone. Apart from the obvious ecological issues which need to be solved, the riverbed provides a much needed open lung and relief area to the adjoining dense settlements and the city. In addition, there are many productive activities like; cattle markets, garbage recycling yards and washermen's (dhobi) work areas inhabiting its dry parts.

Nallas, although treated as the back waters of the city offer a rare resource of open and fertile land or city lungs which can be imagined further for opportunities such as urban farming, creation of productive landscapes, urban parks, and public amenities . All these projects would provide direct and indirect benefits to the adjacent communities such as better living conditions, less pollution, livelihoods and over all city development. For this the communities living along the Nallas and local governments must be addressed and included to co-create these projects addressing both local and city level social , economic, and environmental issues.

The Karachi studio projects which developed this thematic came up with ideas to use these open lungs to address global issues like, climate change, food sustenance for communities, housing, and public space shortage in the city. The projects bring necessary knowledge and skills to engage the adjoining communities through means of education, employment, and services acting as a catalyst to transform the informal settlements to formal sustainable neighbourhoods.

**(Open Sewerage and Rainwater Drains)*

G.1 Evaldas , ('16-17) 'River as a public space Karachi'. River valleys have always been the starting point of civilizations due to water and soil fertility. Both these elements can be used to create a public space that changes through the season, the way the water rises and lowers. Different types of plants thrive in different conditions. A combination of these forms an evergreen corridor which changes through the seasons.

G.2 Jia He, Vandewelle, Vasudevan ('19-20), 'Sohanja : An Urban farming master plan for Karachi'. The project focused on combating climate change by empowering the low-income communities through an urban farming proposal that benefited them economically, socially, and politically. The implementation of a self-sustaining community and greening of Karachi by improving their landscape, purifying the water bodies at site-specific scale, and involving the

neighbourhood residents, whilst providing them with jobs, education about urban farming overcoming their food insecurity, will enable them to live independently and prevent from moving further out of the city.

G.3 Lander, Isabelle, Matteto ('14-15), 'The Ambition of periphery'. An analysis of the Active and Passive urban policies and their related spatial patterns in Karachi.



G.1



G.2



G.3



G.4

G.4 Dominguez, Legasa, Orpez, Yazdani ('19-20), 'Transforming society'. Situated along the banks of the Lyari Nalla, two strategies were proposed. Firstly, the development of a co-housing project that was flexible and adaptable to the different family typologies in Karachi. The housing complex integrated itself with the surroundings creating a hierarchy of public spaces from the streets to collective spaces to private outdoor gardens of residents. The second strategy aimed at the development of a public green walkway along the Nalla with the intention of reactivating Lyari and increasing socio-spatial relations between the citizens.

DIVERSITY AND THE NEED FOR NEW PUBLIC ARCHITECTURE & OPEN SPACES

Karachi is all about diversity with its many ethnicities, multiple cultures, and diverse income groups. Over time, the diversity of Karachi has been polarized due to political and economic differences played on by political parties and non inclusive bureaucratic urban planning, projects, and policies. This has resulted in the making of gated communities for the rich and middle classes, ethnic/religious enclaves for minorities, and ghettos for the poor. Over time leading to a physically and socially divided city where the rich and poor never mingle beyond economic employer/employee relationships. In the absence of inclusive public spaces, the situation has led to segregated social amenities, exclusive recreational facilities, and divided lifestyles resulting in a city with estrangements, doubts, and fears.

If the city must grow sustainably there should be public architecture and open spaces which are inclusiveness and accessible for all. In today's interconnected world the right to the city requires finding a balance between, informality and formality, rich and poor, uniformity and heterogeneity, local and the global, tradition and modernity. It requires, public architecture and open spaces which house diverse group of people irrespective of their ethnicity, culture, financial, and educational status. For Karachi to be true to its cosmopolitan and liberal nature, it must have democratic and functional spaces for all, which are affordable, accessible, and without any form of discrimination. These spaces, like Karachi, must be a cultural melting pot and be attractive to all citizens groups. To ensure that, a variety of facilities, services and functions must be provided, some of which could be co-created by the people themselves.

The Karachi studio projects which have addressed this design need, do so by proposing new public architecture and open space typologies which engage the rich and the poor, the old and the young, provide gender balance, are pedestrian friendly, respect ethnic and religious diversity and are adaptable to change. These projects rely both on new developments as well as retrofitting existing buildings and heritage. In the whole process the focus is on the well-being of the local population and enhancing their public space usage to provide a better and inclusive urban life experience to all citizens decreasing the socio-cultural-economic divides.

H.1 Estiévenart, Jacobs ('14-15), 'A new edge': The Lyari riverbed offers a diverse range of opportunities and available space for the development of recreational, mobility and housing facilities and public spaces which are very much needed on a scale of neighbourhood and city. "These settlements do not only require water supply and sanitation. They also require entertainment, recreation, culture and relaxation."

H.2 Francois, Houtmans, Huygen, Molli ('15-16) 'Karachi Stories'. Enhance the sense of belonging and encourage connections within the neighbourhood by grouping small units around courtyards as a shared transitional space, creating different levels of privacy using traditional architectural elements.

H.3 Byttebier , ('16-17) 'Collective Borders'. The undefined borders in between fragments of different built densities in Karachi are the places to introduce inclusive collective spaces. These undefined borders offer spaces for people from different income classes, has less traffic and these are present everywhere in the city.

H.4 Hammash, Momickj ('16-17), 'The fragmented city'. Up-down-Up the design process needs to constantly alternate between top-down and bottom-up approaches while all the time basing on a single platform that is most important and common for the city.

H.5 Guin ('16-17), 'The Forgotten typology'. Inspired by the step well typology of North-Western India, which were a type of water centred leisure monuments which served as an introverted and quiet public space. These step wells prove to be beneficial as they provide year round access to water for different functions, provided cooling during hot seasons and they are neutral public spaces open to all genders and social stratum.

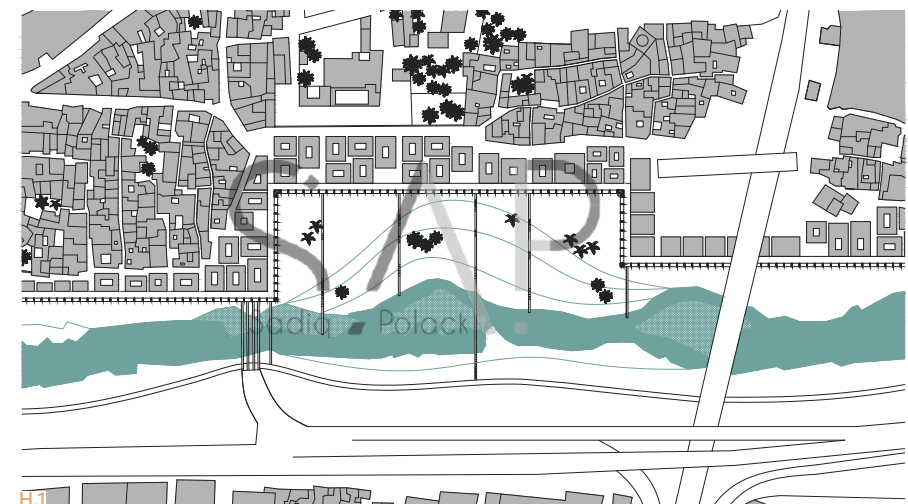
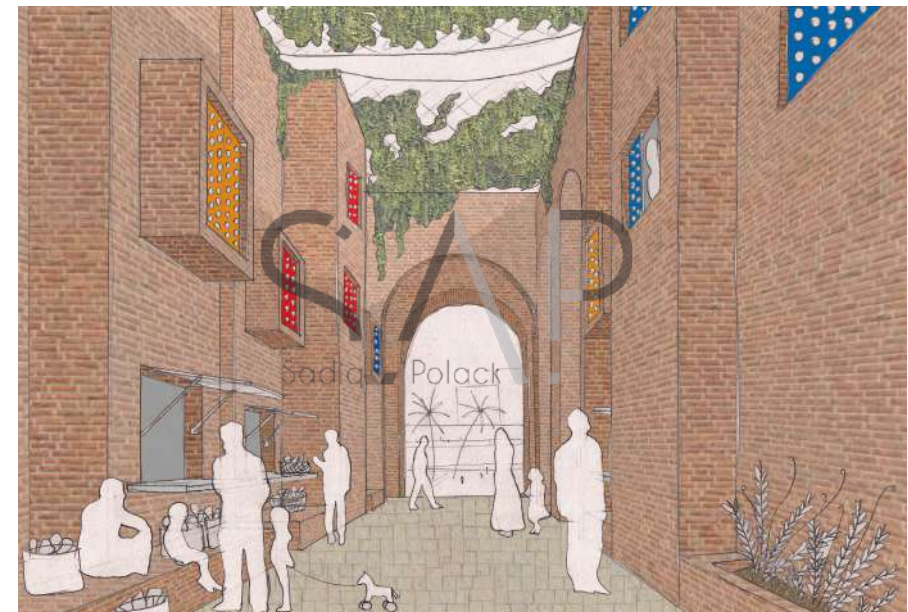
H.6 Matasic ('20-21), 'Saddar X'. The project focuses on accommodating the hawkers of Saddar Bazaar who are part of the informal economy, reorganizing the traffic to provide more efficient transit opportunities and provide better quality

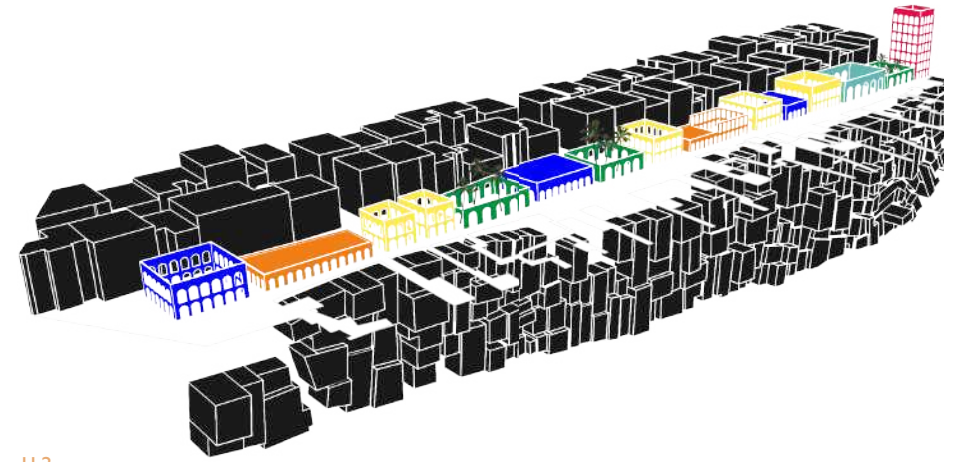
public infrastructure. The intervention of urban elements which provide seating facilities, better access to water, storage, passageways, and lighting elements for safety and security, new public infrastructure is introduced in the streets of Saddar Bazaar.

H.7 Tariq ('20-21). Using vernacular design and bamboo as the form of construction, new form of street furniture such as stalls and benches are proposed for the hawkers of Saddar Bazaar who are part of the informal economy, to enhance their current operating conditions. Through the idea of urban acupuncture and focusing on the streets, public urban infrastructure for seating, shading devices and vegetation are introduced to provide more comfortable public spaces for the people.

H.8 Ciarán, Farren, Lambreth, Moors ('20-21), 'Saddar crafts festival'. Focusing on the revival of the arts and heritage conservation of existing buildings, the project generates a comprehensive programme for a crafts centre in Bohri Bazaar. The proposed functions are flexible and aim to restore the fading craftsmanship of Karachi, promote education and public space. By integrating the activities of the crafts centre with the street life of the surrounding shopping streets and extending it to the other levels, new ways of public architecture and interaction are introduced through adaptive reuse of heritage buildings.

H.9 Boonen, Roland, Rui He ('20-21), 'Cultural Heritage: A Collective Memory'. In this project, the concept of adaptive reuse is aimed towards under used heritage buildings which would create awareness on preservation and ownership among the citizens. Focusing on the target group of the youth, these buildings can turn into educational platforms, that created new ventures for the development of the youth population. The second concept of green acupuncture promoted urban regeneration on a smaller scale by implementing the idea of dual use of the street, during day and night, making the street a safer public space.

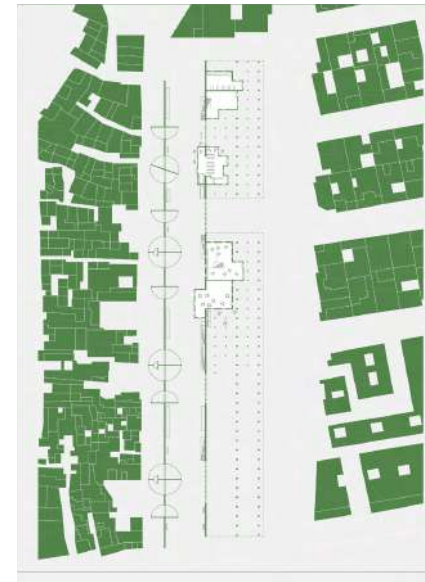




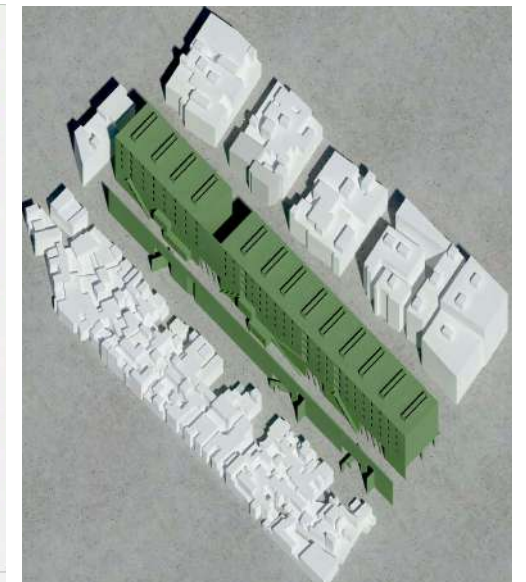
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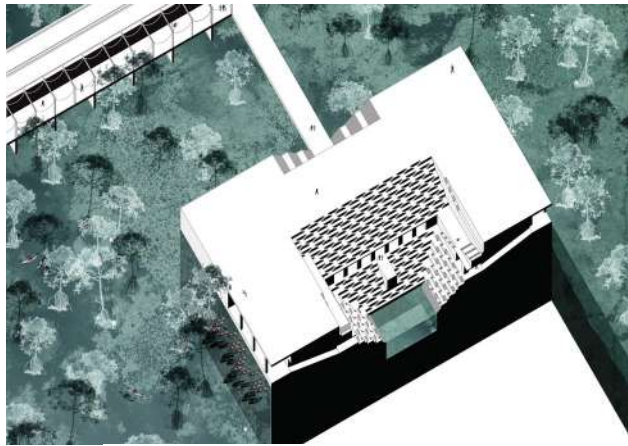


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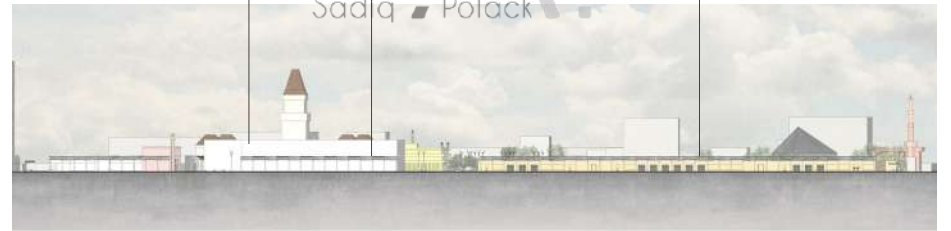
H.5



Noorani Square Visualisation

East Price Road Visualisation

West Price Road Visualisation

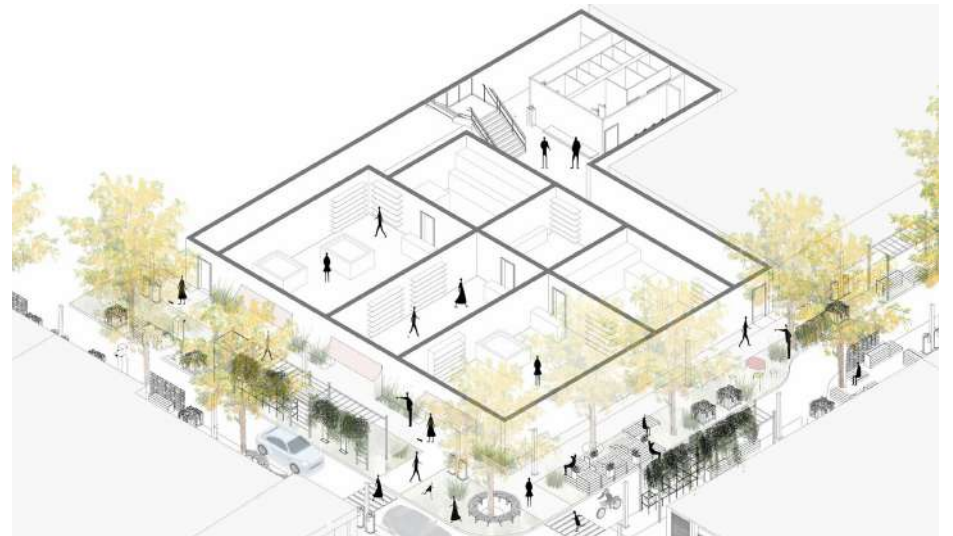
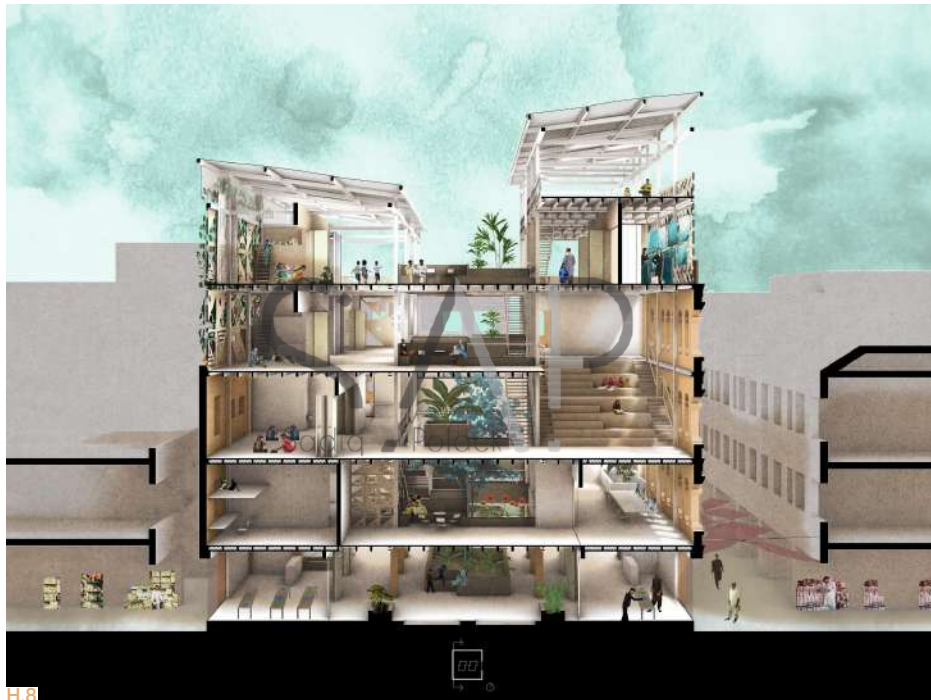


H.6

East - West price Road Section



H.7



H.8

H.9

HOUSING AND THE VALUES OF INCREMENTALITY - FLEXIBILITY AND ADAPTABILITY

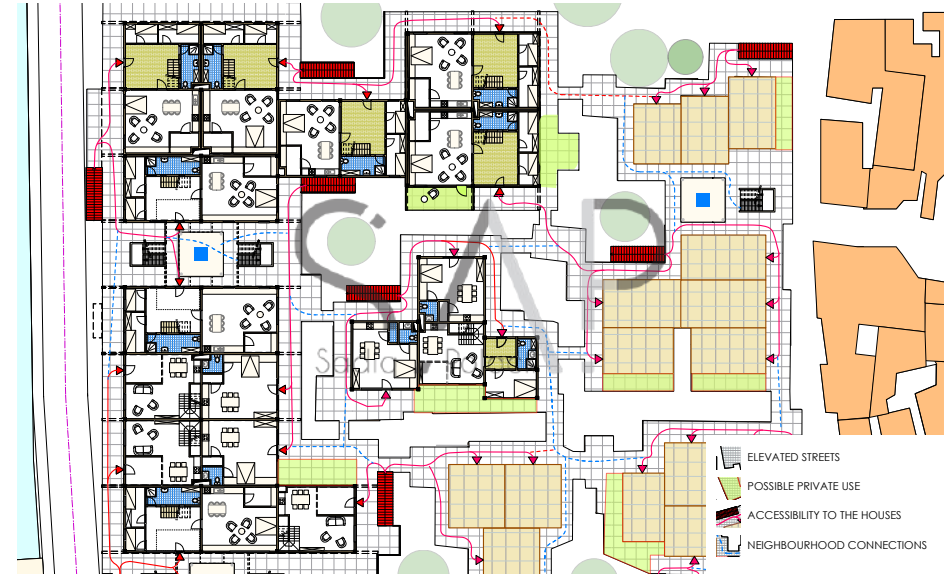
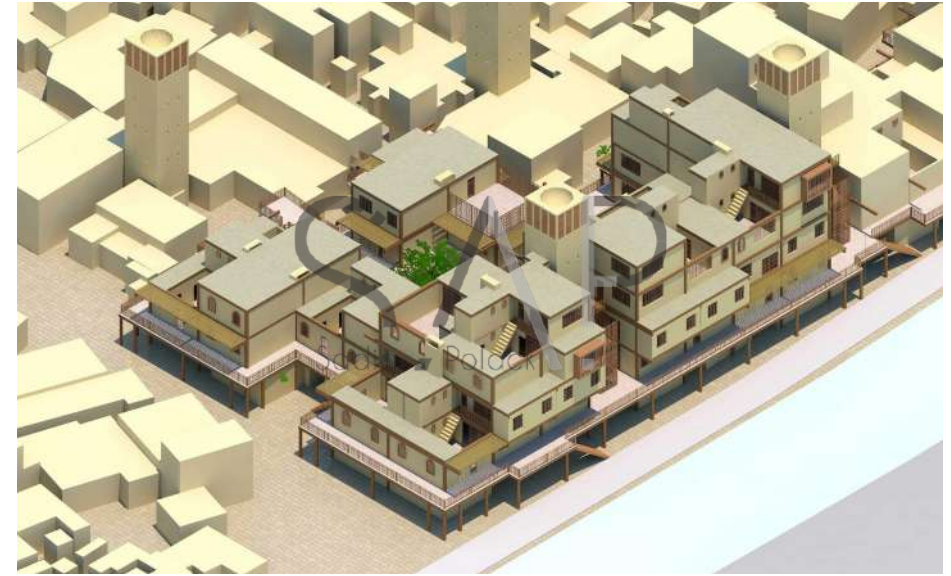
Due to a demand – supply gap in the formal housing sector in Karachi, there has been an emergence of the informal housing sector which counts for more than half of the incrementally developed housing stock in the city. Over time, the formal sector has also fallen short on the provision of adequate utilities and services to these settlements and the informal housing sector lobbies for these facilities or develops these on self help basis. Consequently, the problems of sewerage and waste disposal, clean water supply, proper public transportation, pollution, unsafe streets, and unregulated construction are addressed and dealt with successfully by the communities themselves with the support of non-governmental (NGO's) and community based organizations (CBO's).

Incremental informal developments have provided the city with a lot of important design lessons like, flexibility, adaptability, low-cost technologies, self help networks and bottom-up strategies. The concepts of incremental and adaptive, affordable, simple, and easy local construction techniques learnt from these settlements have been adopted by some concerned professionals. However, this concept of approaching housing as a process and not only as a product remains ignored by the formal sector planning agencies and policy makers due to, vested interests, a lack of research on ground realities, disinterested professionals, and inadequate community demand.

These incrementally developed settlements and communities can address and support their architectural and urban design needs with the flexible processes of the informal sector. Ranging from land provision on easy instalments, to loans, to housing advice and building materials and utilities connections, the informal sector is easily accessible, affordable, and responsive to the needs of the lower income groups. The gap appears when it comes to the provision of technical support and professionals for developing qualitative architecture and urban spaces. As eventually, it is not only about the provision of affordable houses but sustainable housing settlements, with adequate provision of infrastructures, open spaces, utilities, and amenities. This requires that more designers need to be sensitized and trained to become involved in these design projects to address the requirements of the products (houses) and the processes (housing) both.

The Karachi studio projects dealing with this topic understood this inseparable relationship between the product and the process. All these projects provide for bottom-up implementation plans and community participation components supported by architects or community based para architects. Similarly, all designs also consider the financial planning via community savings schemes, revolving loans and income generation schemes organized by the NGO's and or CBO's.

The design interventions range from; upgradation of existing informal housing stock, to the provision of new adaptable and flexible housing units, mixed use incremental units and new density typologies catering to nuclear and extended families. These housing solutions are tied in with a phased-out plan for implementation tying in with the development of utilities, social infrastructures, urban farming, pedestrian friendly streets, solid waste management, recycling, and other income generation ideas.



I.1

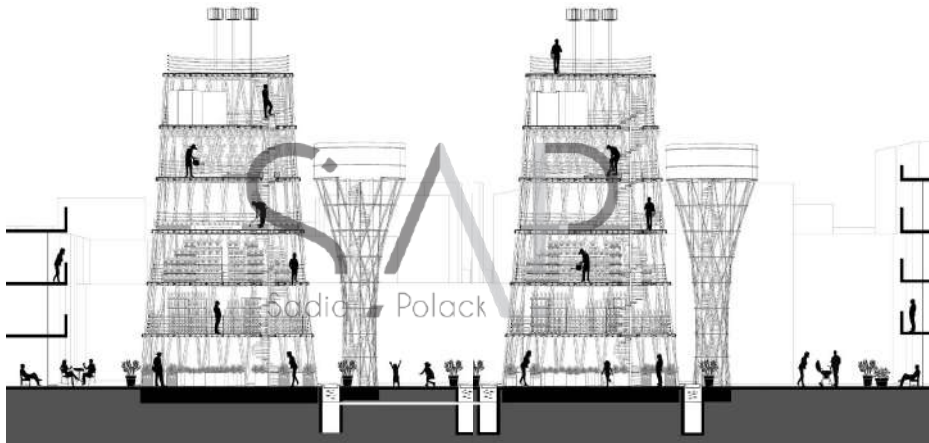
I.2

I.1, I.2 Davey, Vanderstadt ('14-15), 'Karachi utilities injection'. The designs explored the idea of using urban sanitation as a housing design tool, using upgrading the urban infrastructure of a community as means of upgrading the standards of living into which other housing facilities can also be integrated.

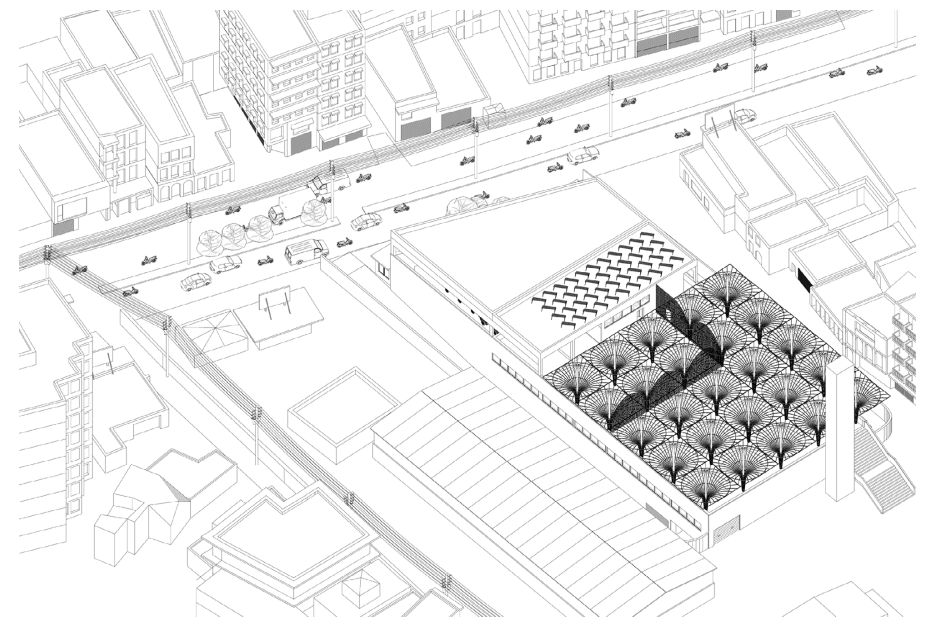
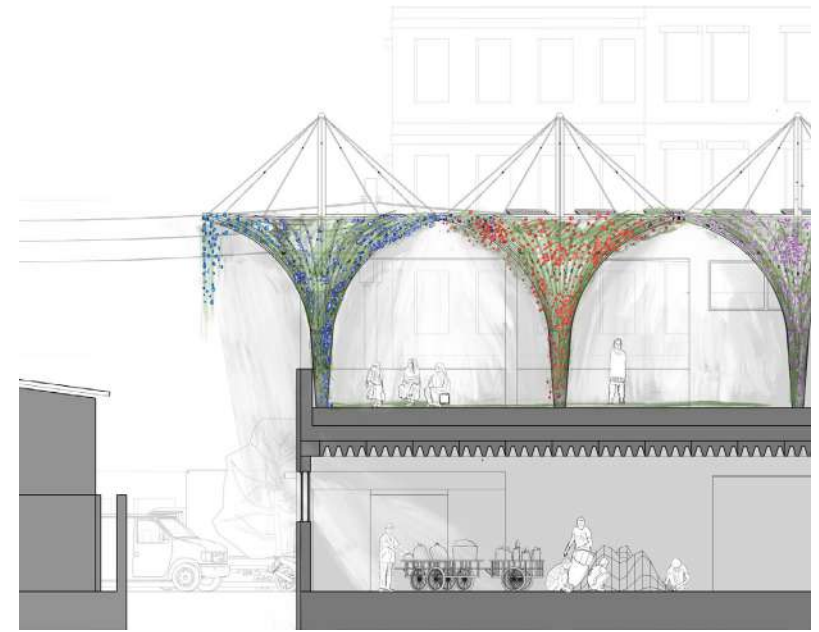
I.3 Quan Mai, ('16-17) 'Karachi Agrihood'. The vertical gardens to benefit the social, economic and environmental aspects as new gathering areas which reduce conflict of users in the street and through which low-cost material and green spaces were introduced making life quality better.

I.4 Abdi, Gruca, Seehawer, Sluyts ('18-19), 'Taking out the trash; A sustainable productive landscape in Karachi'. By merging the two underestimated resources within the city; the presence of a large informal sector and a huge amount of organic waste, the project attempted to bring life to the

Lyari Nalla by using organic waste as a resource and establishing waste collection centres and while empowering the informal community by providing them with housing and education. Lyari is imagined as the recycling industry's backbone within the industrial expansion of the city .



I.3



I.4

PASSIVE ARCHITECTURAL HERITAGE REVIVAL

In Karachi like the rest of Pakistan, impacts of climate change, air pollution, increasing densities, power shortages and energy crisis have resulted in the need for climatically resilient, comfortable, and affordable architectural solutions. Issues start at the urban scale exploitation and destruction of natural resources due to the urban sprawl which has led to environmental impacts like; temperature rise, flooding, water scarcity, destruction of storm-water drains, carbon emissions, pollution of air and water and fast disappearing flora and fauna. At the architectural scale, built structures are conceived to be reliant on mechanical means for ventilation, heating and cooling. South facing glass façades, lack of cross ventilation, good insulation in roofs and walls, lack of greenery and natural pollution controls result in expensive, magazine like yet uncomfortable buildings and an increasing green house effect and accelerated climate change. Natural resources such as water are not being recycled despite heavy shortages and there is no attention paid to garbage recycling and the promotion of kitchen gardens and green areas. Low to medium rise structures with open courtyards, covered verandahs and wind catchers are forgotten and multi-storied to high rise living is being promoted which relies heavily on artificial means of comfort provision.

Neo vernacular passive solutions can be an appropriate way to mitigate the above mentioned issues. However, these traditional practices and materials have been abandoned over time due to the unavailability of appropriate materials in the city like bricks and adobe and a dying out traditional architectural crafts industry, making the overall passive construction process expensive. Another contributing aspect is the lack of research on and promotion of traditional passive architectural techniques in local curriculum and local professionals who are non proficient in these building techniques. Last but not the least, a change in lifestyles and a preference for modern architectural typologies both in the practitioners and the clients. This situation is further compounded by a lack of interest and funding by the state into developing neo vernacular passive and appropriate technologies and last but not the least a lack of promotion of such architectural solutions and systems by the media.

Karachi studio projects responded to the situation by researching the regional and local vernacular architectural techniques and passive energy utilization methods, which are well integrated in to the social, cultural, and environmental dimensions of Karachi. The results of the research revealed that, if the professionals and planning agencies can change their mindset, implementing simple passive techniques can make a huge climatic comfort difference. Simple passive vernacular techniques can include the revival of; courtyards, covered verandahs, jaali/louvre/sunscreen and shades, mud/clay blocks for construction, cavity walls, wind catchers, roof gardens, cross ventilation, and adaptable window designs. This would require small adaptations in the existing byelaws, regulations and practices but are immensely beneficial and in keeping with the socio-economic needs of individuals, families, communities, and the city.

These project proposals with affordable passive architectural solutions rooted in local techniques also address the larger issues of architectural crafts revival and job generation, responding to the growing demand for housing and the up-gradation of informal developments. In the proposed projects not only the lower income but also the middle and higher income groups of the society have been addressed.

J.1, J.2 Majda ('13-14), 'Build it Up; Community building in Karachi'. Re-shifting built-up area to implement natural lighting by the means of mashrabiya screens, effective natural ventilation through stack effect and thus enhancing the communal spaces.

J.3 Ciarán, Farren, Lambreth, Moors ('20-21), 'Saddar crafts festival'. Focusing on the revival of the arts and heritage conservation of existing buildings, the project generates a comprehensive programme for a crafts centre in Bohri Bazaar. The proposed functions are flexible and aim to restore the fading craftsmanship of Karachi, promote education and public space. By integrating the activities of the crafts centre with the street life of the surrounding shopping streets and extending it to the other levels, new ways of public architecture and interaction are introduced through adaptive reuse of heritage buildings.

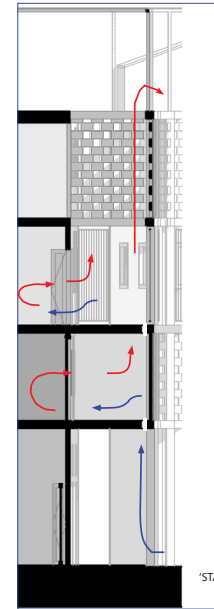
J.4 Carbonez ('15-16), 'New Fahad squares'. How to utilize all these low-cost technologies for heat prevention and establish a good relation to the street on Fahad Square?

J.5 Dehghani, Eisen, Jarina ('19-20), 'Changing Karachi by empowering its women through community involvement, microeconomics, and spatial solutions'. Placing the focus on the women of Karachi, the project aims at female empowerment, the involvement of the community and introducing micro-financing. Starting as pilot-project, with providing skills training to the women and focusing on a particular street making it accessible for community use, the project aims to grow overtime creating a network of change led by women.

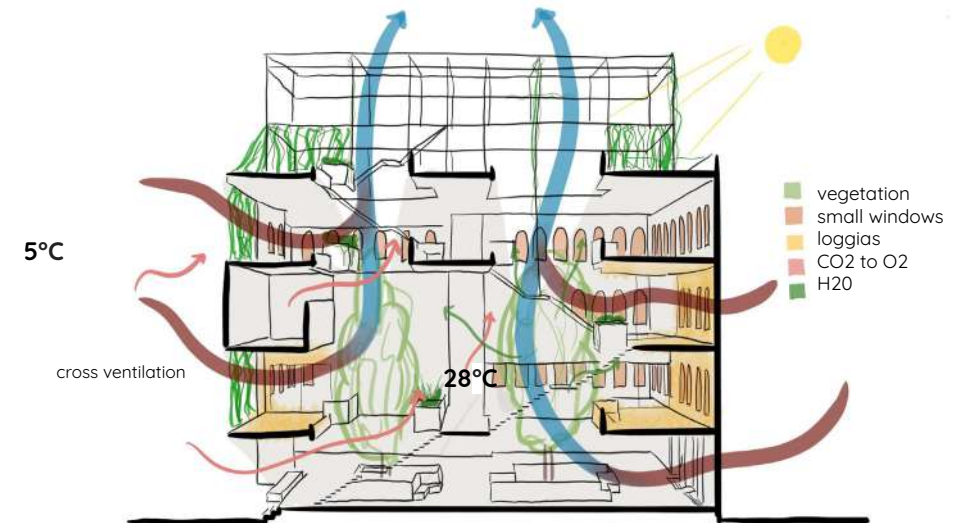
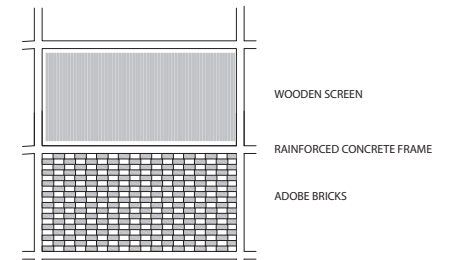
J.6 Jia He, Vandewelle, Vasudevan ('19-20), 'So-hanja : An Urban farming master plan for Karachi'. The project focused on combating climate change by empowering the low-income communities through an Urban farming proposal that benefited them economically, socially, and politically. A set of passive techniques and key considerations in choosing the appropriate vegetation were identified that acted as guides for design in Karachi.



J.1

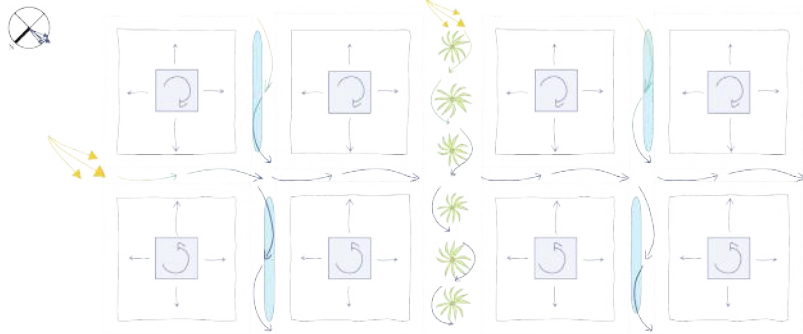


J.2

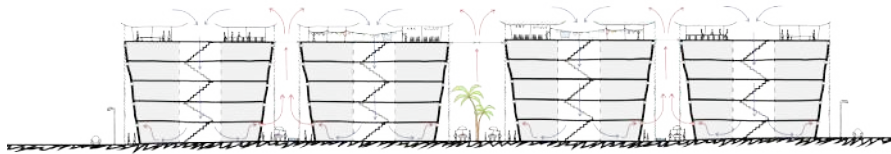


J.3

Using the main wind direction to ventilate without heating up



Ventilating with the sun, thanks to natural convection



J.4

Jali (mashrabiya)

climatic function
light blocking & airflow support
-> temperature and humidity control

parameters
ideal 85% perforation
ideal depth ratio 0.75:1

women's privacy

forms
balcony
window
mashrabiya
porch

shading

shading can reduce heat gain from solar glare by 80%, shaded surface can be 11.25°C cooler than unshaded one

deep balconies

shading fins

vertical shades

horizontal shades

overhang

wind catcher

air outflow

wind inflow

east/north east

west/south west

vegetative cooling

trees on streets

temperature in the shade of trees is 1.5°C lower than when unshaded

ground covered with vegetation

Ground cover and shrubs around buildings to lower air temperatures and reduce reflected sunlight.

courtyards

morning

midday

evening

windows

cross ventilation

small intake and large outflow allows for circulation - removes heat and allows for 1.5°C temperature drop

clerestory windows

windows beneath the ceiling allow the hot air to escape

roof solutions

reflective surface

reflection index 0.1 - white coloured roofing

radiant barriers

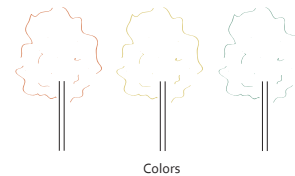
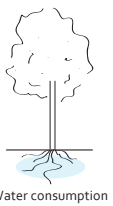
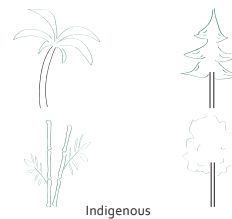
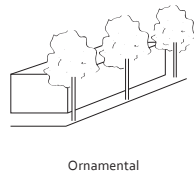
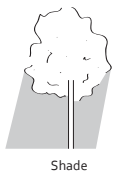
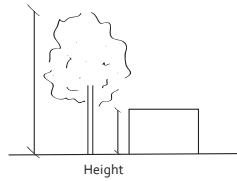
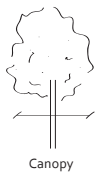
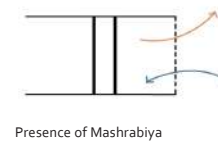
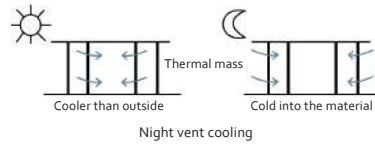
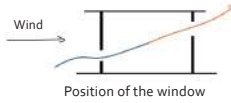
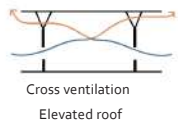
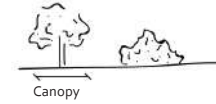
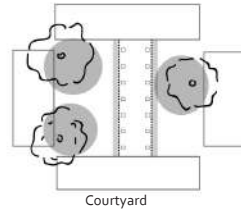
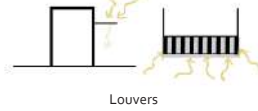
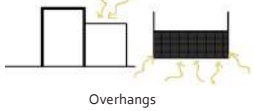
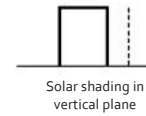
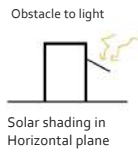
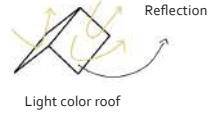
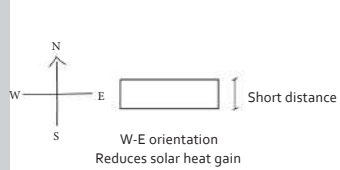
shiny foils with emittance of 0.5 reduce heat gain through the roof

double roof

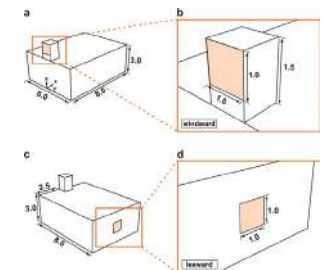
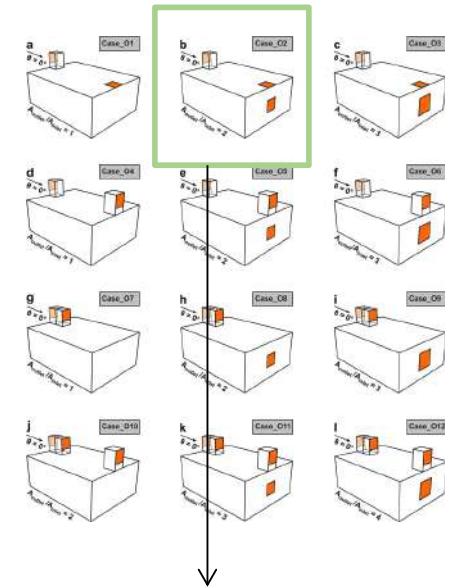
wind flow cools the roof by taking out the heat

sw wind

J.5



J.6 De Pauw (19-20). Detailed wind catcher analysis was conducted to specify passive ventilation system for Karachi.



05. NEED FOR A FORMAL - INFORMAL INTERFACE

Ar. Asiya Sadiq Polack and Prof. Burak Pak

To be implemented all the identified design thematic and proposals require a shift in the mindset of the policy makers, planners, and project end users. Karachi being a city of parallel realities where informality is a de-facto situation, all new ideas and paradigm shifts require interfacing the formal and the informal sectors to achieve tangible results in policy circles, civil society, academia, and practice.

Informality becomes a political question when space usage and maintenance is contested between the residents/ permanent and transient/temporary target groups. Petitions by the more educated, middle to upper class resident groups and organizations regarding; cleanliness, security and unsocial behaviors cannot be ignored politically or administratively. Novel modes and means of communication and spatial intervention need to be explored. The formal sector is faced with an informality it does not 'recognize' or 'represent' or considers a part of 'redistribution' (Wacquant, 1999). The limits of tolerance are stretched as the questions of legality-illegality, rights and responsibilities, papers-without papers, citizen-transient, local-foreigner, ethnicity-nationality pop up and need to be verified and dealt with; as per law, national, regional-local political climate, and global agendas of sustainability. A balance must be maintained between the social welfare model, neo-liberal policies, and capital-intensive real estate developments in the city. Spatial practices must deal with and propose new ways of including the under-represented marginalized communities in the regional, communal, and local tiers of decision making.

Mega projects are often used to simplify the complexity in the name of redevelopment; giving access to a new entrepreneurial middle class with; capital, skills, and cultures compatible to the existing neo liberal vision on cities. The social upward mobility of the pushed out marginals groups is compromised and informal, yet valuable businesses and social networks lost (Devlin, 2019), resulting in; gentrification, further marginalization and alienated communities resulting in divided and unsustainable cities. This process is closely tied up to the larger questions of; right to the city, globalization impacts, neoliberal land politics and increased disparities (Harvey, 1997).

This would require a critical spatial practice: inclusive, socially engaged, recognizing and responding to the local and global needs, requiring professionals open to take on multiple roles such as; designers, facilitators, advocates and researchers balancing dialogue and negotiations between the; governmental tiers, communities and other informal stakeholders stretching the social, symbolic, and spatial boundaries to accommodate future development demands like; climate change, energy crisis, artificial intelligence and communications. Concerned informal networks, communities and politicians must be made aware of the potentials of informality and the integration of dynamic aspects of; ethnicity, languages, religious tradition, regional and local identities for playing their part in pushing the extents of possible formal/informal interfaces (Bobic, 2004) establishing new social relations that alter spatial norms of governance through an evidence based approach avoiding stigmatization.

Rethinking formal-informal interface as a critical spatial practice (Miessen, 2017) relies on conceptual and practical interfaces between the formal and informal sectors dealing with sensitivity, trust, and sympathy towards each other. Interface in this context refers to infrastructure(s) through which multiple systems, subjects and organizations meet and interact (Hookway, 2014). The interface facilitates interactions that enable the making of socially sustainable public spaces through supporting ideas, networks and flows distilled into concrete actions. It requires that the regional and local governments understand informality and have tools of communication for inclusive spatial practice and administration. It demands from the urbanists and practitioners to learn from informal actors and practice, rather than trying to fit their actions into preconceived political or theoretical frameworks. Doing this, points us toward an understanding of the informality of need (Devlin, 2019) as a loose, imperfect, but critically important form of communication-by-doing; a means for all stakeholders to convey what they need the city to be and to become.

06. LOOKING BACK ON KARACHI STUDIOS

"As a Pakistani origin architect, urbanist and academic living and working in Belgium for the past decade. I noticed a knowledge gap with regards to the design challenges faced by the fast-transforming cities in the global South. I wanted to bridge this gap by sharing my personal and professional knowledge on this topic with my students at the Faculty of Architecture- KU Leuven. This led to the inception of the Karachi studio in 2013 in collaboration with my colleague Martine De Maesener and it has completed 7 cycles in 2021 .

Teaching a remote studio on Karachi versus a situated studio as I was used to do in Karachi, was a new experience for me which was both a challenging and a gratifying methodology for both the tutors and the students. It provides the freedom to the designers to take a distance from the daily realities of a city to research design, formulate ideas and think out of the box. Remote studio teaching and learning relies heavily on online; lectures, interviews with resource persons and local stakeholder groups. However, substantiating and checking this data and information relies heavily on interfacing with the available knowledge, real life experiences and understanding of the ground realities of the tutors. This requires that the tutors engage in constant knowledge update, networks and identifying the emerging trends.

The 7 cycles of the Karachi studio to date have given me a new perspective on the design challenges in the global South and more specifically in Karachi. It has revealed and proven that not only local, but any good designer can address a context both from within and the outside if they invest time in understanding a context and responding to it with empathy and sincerity. I am grateful for this opportunity to re-explore my home context from a distance with the assistance of multiple new eyes, minds and hearts who opened my mind to many new urban and architectural design issues and the emerging discussions around them.

I am very happy that the diverse student projects which were borne out of this process have been analysed and organized as an exposition and an accompanying book which will add to the archives of the Faculty of Architecture - KU Leuven and will support the extension of the existing knowledge and expertise available on the topic of "Hyper Transforming Cities of South Asia" in contemporary times."

(Ar. Asiya Sadiq Polack)

"I am from India and during the academic year 2019 -2020, I had the wonderful opportunity to be part of the Karachi Studio. The in-depth research on Karachi's social, cultural, economic, and ecological aspects was interesting and it led to formulate the basis of various architectural design interventions. Working with team members from various parts of the globe was also an amazing experience, that we shared about the various design approaches at their respective home towns and learned a lot from that too. Later in 2021 the opportunity to be the part of publications of the Karachi exposition, again offered a platform to know more about Karachi. As the transformation of my home cities is quite like Karachi, the

themes emerged out during the Karachi exposition like density as design tool, passive Architecture revival etc has quite to offer to other south Asian contexts too. The urban design approaches which are emerged out of the study on sociology was fascinating and the process was inspiring".

(Ragesh Gopal, Year 2019-2020)

"I had the wonderful opportunity to be part of the Karachi studio in 2019-2020. Even though I was from Sri Lanka which shared a similar setting to that of Karachi, working on a remote studio was a completely new experience and was quite challenging at the beginning. It was intriguing to learn and discover new elements of Karachi through research. Recognizing the issues of hyper transforming cities such as overcrowding, increased disparity in the formal-informal settings and rising environmental concerns also made us understand this was a global phenomenon that needed new practices of architecture that addressed these issues. As one of the Co-editors for the Publications of the Karachi exposition, I had the privilege to witness the vast amount work that had been produced over the 7 cycles, on the various challenges in Karachi and the myriad ways in which students have tried to encounter them. The emerging new trends which cater to provide solutions through giving importance to passive architectural techniques, the need for newer forms of public architecture, a gradual shift through social upward mobility and promoting incremental ways of living are practices which hold importance not only in the scale of Karachi but also serve as important aspects that need to be addressed in the current architectural practices. The Karachi studio is particularly very close to my heart and has inspired me to explore new trajectories in architecture and I believe it will continue to do so".

(Mahishini Vasudevan, Year 2019-2020)

"I think it is crucial to expose students to so extreme contexts and you can then really put to work and moralise, the intellectual and design resources in a way of dealing with topics that are very current, and very contemporary way of producing and thinking of cities..."

(Ar. Cecilia Chiappini, Visiting Lecturer)

"...The research and the exercises we did in studio helped me to understand the culture and develop a project. It is one of the projects I am really proud of and draw inspiration from, in my current projects, in conversations about art and architecture..."

(Marianna Jarina, Year 2019-2020)

"We really enjoyed this studio and it was very enriching. We worked together and learnt how to use vernacular architecture and we learnt how to address pressing issues on how to deal with humid countries and most importantly that architecture and architects can make a difference..."

(Fadi Belouni, Year 2015-2016)

07. ABOUT KARACHI EXPO

"KARACHI FROM A DISTANCE – A NEW PERSPECTIVE

Case of a Hyper Transforming Mega City"

Dates: 01 April to 20 May 2021

Location: Ground Floor – Rue des Palais 65/67, 1030 Schaerbeek

Initiated , Coordinated and Curated by Ar. Asiya Sadiq with the Assistance of Ar. Mahishini Vasudevan and Ar. Ragesh Gopal

In Collaboration with the; Engagement - Urban Cultures, Outreach program GOING PUBLIC and the Framework of the PhD Research " Formal-Informal Interface and the Making of Public Spaces" of Asiya Sadiq at KU Leuven Faculty of Architecture, Campus Brussels.



Source: <https://tribune.com.pk/story/1841263/authorities-launch-operation-clean-saddar>

Karachi Expo draws on the results of the 07 Karachi design studios held between 2013 to 2021 at the International Masters Programme - Faculty of Architecture – KU Leuven. This studio was established to explore the design challenges "Hyper Transforming Cities" face due to fast evolving urban cultures and resultant physical conditions.

The case of Karachi – a prototype megapolis of approximately 22 million was addressed for its design challenges of; over population, aspiring youth, changing gender relations, retreating state, emerging

middle classes, empowered poor, motivated communities, and crumbling governance operating within a formal-informal milieu. Design projects have been situated and seen in the global overarching debates of our times like; neoliberalism, land scarcity and density, climate change, migrations, increasing populations, decreasing resources , multiple disparities, and impending pandemics like COVID - 19.

The Expo and its complimenting Booklet aspires to raise awareness, sensitize, and add to the knowledge on current and pertinent issues faced by fast transforming cities and will point out the future trends which will serve as an important , innovative, and original future reference. The exposition and accompanying booklet will add to the archives of the faculty of architecture - KU Leuven and will support the existing knowledge and expertise available on the topic.

Proposed Programme

April 2021 – Opening Expo Karachi and Online Lecture on Karachi by eminent Pakistani architect Arif Hasan

May 2021 – Closing Colloquium Expo Karachi and Launch of the Booklet

PARTICIPATING EXPERTS AND RESOURCE PERSONS

Karachi

Ar. Arif Hassan - Practicing Architect - Urban Planner and Academic
Prof. Dr. Anila Naeem - Chairperson - Department of Architecture and Planning - NEDUET - Karachi
Drs. Asiya Sadiq - Practitioner and Doctoral Scholar - Faculty of Architecture - KU Leuven
Engr. Farhan Anwer - Urban Development Consultant
Dr. Noman Ahmad - Dean - Architecture and Management Sciences - NEDUET - Karachi
Dr. Saeed Uddin Ahmad - Assistant Professor - Department of Architecture and Planning - NEDUET - Karachi
Dr. Suneela Ahmad - Assistant Professor - Department of Architecture and Planning - NEDUET - Karachi
Ar. Tania Soomro - Lecturer - Department of Architecture and Planning - NEDUET - Karachi

Europe

Ar. Cecilia Chiappini - Visiting Lecturer - INTMA - Faculty of Architecture - KU Leuven
Ar. Christophe Polack - Practitioner and Visiting Lecturer - INTMA - Faculty of Architecture - KU Leuven
Ar. Julie Charlot - Practicing Architect
Prof. Martino Tattara - Teacher and Coordinator Urban Cultures - INTMA - Faculty of Architecture - KU Leuven
Ar. Martine De Maeseneer - Dean Internationalization - Faculty of Architecture - KU Leuven
Ar. Marvi Mazhar - Practitioner - Scholar at Gold Smiths, University of London
Ar. Najia Zaidi - Researcher Cardiff University
Ar. Rosaura Romero - Practitioner and Doctoral Scholar - Faculty of Architecture - KU Leuven
Ar. Sarah Poot - Practicing Architect

2013 - 2014

TUTORS

Drs. Asiya Sadiq Polack
Ar. Martine De Maeseneer

STUDENTS

An-Sofie De Backer
Ysaline Ophoff
Sarah Poot
Olga Majda
Celia Tesseur
Antonios Asmpach
William Riche
Vit
Kaat Anciaux
Kim van Kempen
Asiri Dissanayake

2014 - 2015

TUTORS

Drs. Asiya Sadiq Polack
Ar. Martine De Maeseneer

STUDENTS

Ece Eren
Anca Paninopol
Roberta Zvirblyte
Elizaveta Ermakova
Claudia Ferrer Costa
Amaryllis Bista
Reintje Jacobs
Lisa Estievenart
Elias Vanderstadt
Fien De Laet
Ellen Adons
Lander Mentens
Isabelle Verhoeven
Alex Davey Thomson

2015 - 2016

TUTORS

Drs. Asiya Sadiq Polack
Ar. Martine De Maeseneer

STUDENTS

Annelieke Huygen
Claudia Miolli
Vincent Francois
Delphine Houtmans
Arnaud Carbonez
Kamil Daszkiewicz
Kim Chung Dung Vu
Kubra Karaoglu
Doras Alver
Karolina Wong-Pokorska
Justin Wong
Fadi Belouni Pille
Koppel Lydia
Vyto
Anthony Albrecht

2016 - 2017

TUTORS

Drs. Asiya Sadiq Polack
Ar. Martine De Maeseneer
Ar. Gideon Boie

STUDENTS

Nicolas Borgerhoff
Khiem Hoang Le
Emmanuel Velge
Joao de Vasconcelos Monteiro
Maelle Vandenberg
Lidia Leonova
Dien Quan Mai
Kynam Doan
Anna Battistutta
Annelies Vanhauwaert
Onur Can Zorlutuna
Tina Ahmadipour
Vi Nguyen
Luka Cindric
Aaron Swartjes
Niyati Gururaj Mannari
Melanie Grace Nunez
Kancleris Evaldas
Rosaura Noemy Hernandez Romero
Mara Usai
Marta Guin
Ioana Anca
Mohammed Hammash

Matteo Pesenti
Filip Momikj
Willem Byttebier
Nguyen Thao Vy do
Desislava Petkova
Dovile Kriksciunaite
Diane Ong
Mindaugas Glodenis
Nils Van de Putte
Davina De Coster

2017 - 2018

(No Karachi Studio held)

2018 - 2019

TUTORS

Drs. Asiya Sadiq Polack
Ar. Martine De Maeseneer
Dr. Caroline Newton

STUDENTS

Simon Desimpelaere
Nicolas Ronchetti
Hedieh Ghaem
Kathya Estrada
Nangula Shilongo
Yannick Sluyts
Juliane Seehawer
Marta Gruca
Amir Abdi
Julie Charlot
Olivia Nasser
Yang Shize
François Maindiaux

2019 - 2020

TUTOR

Drs. Asiya Sadiq Polack

STUDENTS

Jia He
Victoria Vandewelle
Mahishini Vasudevan
Ava Dehghani
Mariana Jarina
Lisa Eisen

Claudia Orpez
Tecla Legasa
Miguel Dominguez
Ilya Yazdani
Ragesh Gopal
Frey Chen
Charlotte De Pauw
Lynn Bruers

2020 - 2021

TUTOR

Drs. Asiya Sadiq Polack

STUDENTS

Yu-Li
Anne Boonen
Kobe De Greef
Natalie De Schuytener
Luca De Vos
Catherine Denayer
Ciarán Philip Farren
Xiaorui He
Camille Lambreth
Marko Matasic
Jascha Moors
Monica Roland
Hassaan Tariq
Cihat Balkun Torelly de

EDITORIAL TEAM

About Asiya Sadiq

Asiya Sadiq is an architect-urbanist-academic, currently a PhD scholar and visiting lecturer at KU Leuven, Belgium and an Associate Professor at the Department of Architecture, NED University Karachi. Her professional practice (2000 to date) in partnership with architect Christophe Polack follows the motto "Cities, Citizens and Spaces" which aspires for and promotes socially resilient projects engaging; ecology, history, social and cultural diversity, local identities, and their inherent formal/informal interfaces. Documenting and promoting "Public Space Making" is an essential part of their practice in which ; research, academics, and stakeholder participation results in the co-creation of knowledge which is shared with their students, peers, and the profession at large.

www.sadiqandpolack.com

www.linkedin.com/in/asiyasadiqpolack

About Ragesh Gopal

Ragesh Gopal is an Architect graduated from National Institute of technology, Calicut, India in 2011, with over nine years of professional experience in the field of Architectural Design, he has involved in various Design competitions, Residential, Offices, Institutional, Stadium and Industrial projects while working with multinational Architectural firms at New Delhi and Doha. At present he is pursuing his Master's degree in Architecture at KU Leuven, Belgium. His current research interest is about 'connected Community living practice' with the spatial and neighbourhood needs for the same.

About Mahishini Vasudevan

Mahishini Vasudevan is currently pursuing her Master's degree in Architecture at the KU Leuven, Belgium having completed her Bachelor's degree at University of Manchester & Manchester Metropolitan University, United Kingdom. She gained professional experience working at an architectural firm in Sri Lanka and an ecological housing community in India. Her current research interests lie in Informality and Solidarity as a way to rethink Architecture as a product and in co-design that integrates itself with social architecture, producing ecological solutions for communities and the environment.

