

(un)veiling

restoring public involvement of women,
within space and place of purdah

menno ruijter
graduation report

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colofon

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graduation report
MSc Architecture, Urbanism & Building
Sciences

Global Housing graduation studio
2023-2024

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july 2024

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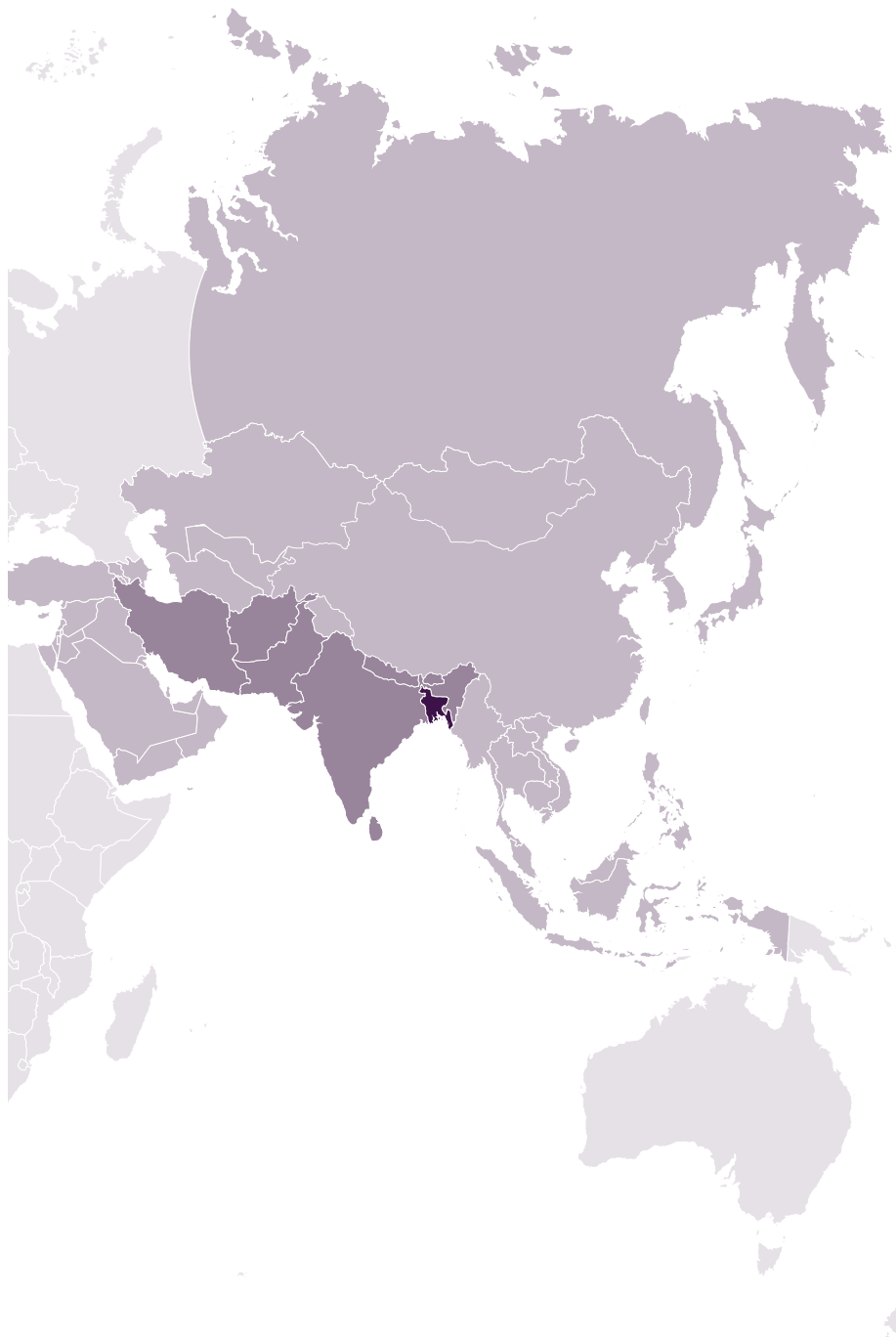
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research plan

“The special needs and problems of women in the provision of shelter has long been a neglected field, especially in developing countries. Any development work or upgrading of settlements in gender-segregated societies must take into account the value system and needs of women.”

Tasneem Chowdhury
(Shelter, Women & Development, 1993)



introduction

Bangladesh is a country in development, where most of the people live in rural areas. As a consequence of the change of climatical conditions, the scarcity of land and other resources is increasing rapidly in rural Bangladesh. In light of the reality that the country's rural population is contingent on these natural resources, unemployment rates have surged with the result that the socio-economic conditions of rural Bangladesh worsen and poverty is prevailed.¹ Due to such profound changes, an overwhelming number of women, men and children migrate to urban areas with the expectations to find a job and hope to enhance their living conditions.

The percentage of internally migrating women to the district of Sylhet is the highest in Bangladesh. It is one of the districts that has witnessed an over-all significant increase of internal migration to urban areas over the last twenty years, although Sylhet still is a rather rural district in comparison with districts as Chittagong, Khulna and Dhaka. This rural character is noticeable in the substantial size of the average households in Sylhet, an indication for a less urban population.² Sylhet also is one of the few districts that has shown a growth in almost every demographic age group. In combination with the relative balance of gender in the migration numbers, these trends show that the process of urbanisation in Sylhet includes several specific characteristics that differ from other urbanising districts in Bangladesh.

Islam is the predominant religion of the country Bangladesh and the district of Sylhet, with respectively 91,04% and 92,52% of the people declaring themselves Muslim.³ In Islamic societies, religion plays a significant role in shaping the home and environment, what entails that the Islam is deeply rooted in the rationale of both the decisions of daily life, as those as drastic as migration. It is therefore essential to try to understand how the thought process of the Islamic religion is embedded in the daily life of the people who migrate from a small rural village to the new urban context of Sylhet, since there is a general separation of male and female domains in the domestic architecture of almost all Islamic societies.⁴

Separation of gender leads to a duality of space, what reinforces the segregation of women in Bangladesh. This system of segregation, seclusion, and veiling of women is known as purdah in the Islamic societies of the former British colonies Bangladesh, Pakistan and India.⁴ The word purdah, literally means curtain, but in this context refers to the physical segregation of living space, as well as the covering of body and face. Purdah is a complex social system which restricts the spaces that women are allowed to occupy in order to maintain moral purity. Jennings et al. argue that it is not a fixed practice, but that it is constantly changing and being adapted to fit different contexts.⁵ The impact of migration on the freedom of movement for women is highly dependent on the flexibility of the purdah system within a contextual shift of urbanisation.



problem statement

One third of the people that migrate from deteriorating rural areas to Sylhet is a woman. A little over 32% of the migrating women resulted of marriage, while 47% of the women migrate due to economic reasons. Bangladeshi tend to migrate from minor to more diversified economic opportunities areas, where they have found a job in advance that led them to migrating or with the intention to look for a job when they have moved to Sylhet already.⁶ People migrate to Sylhet to develop their socio-economic condition, by engaging themselves with various income generating activities in the city, in order to improve their economic foundation by emphasizing the fulfilment of their material objectives.⁷ Although women represent one third of the total migrating population, their movements continue to be dictated by gendered spaces, due to the practice of the social system of purdah.

Grünenfelder describes that purdah is contingent on time, space and social interpretation and designates a broad set of behavioural patterns under contestation rather than providing a fixed set of rules.⁸ The degree of purdah is therefore strongly related with the severity of adamanche of a certain place. Fundamentally within the notion of purdah, space and place are intertwined. Green defines 'space' as the physical environment whereas 'place' is space imbued with social and cultural meaning.⁹ At the centre of people's understandings of, and relationships with, place is whether or not a person belongs; the notion of home is an obvious example. During rural-urban migration, a change in the notion of what is space is evident, whereas the transition of place is more ambiguous and an indirect effect of a changed space, while partially being maintained by for example the same religious conditions.

A more defining understanding of the 'place' of women in the new urban 'space' can only be composed if one comprehends the correlation of the meaning of 'space' and 'place' in the rural settlements. Most rural settlements consist of traditional Bangladeshi homesteads, an aggregation of loosely spaced free-standing units grouped around a central courtyard. Most of these homesteads are unique, depending on economic conditions or the presence of resources, yet the homesteads are consistently laid out on a distinct hierarchical sequence that follows Islamic norms and creates a duality of spaces. Islamic norms of seclusion have given rise to several architectural devices and elements, than can be found in domestic architecture throughout the Islamic world; such as secluded and private open spaces, small exterior openings and multiple entrances on segregated paths with visual privacy.¹⁰

Architecturally the homestead in rural Bangladesh therefore has facilitated the segregation and confinement of women. The physical boundaries of a home, space, were clearly defined, however financial status and specific behavioural norms still determine the rigidity of the spatial barriers between domains, constructing the understanding of 'place'. In which purdah exists as a means of restraining and prohibiting the participation of women in visible roles, while simultaneously fulfilling essential productive activities in the household, casting the extent and limits of women within the confinements of the homestead.¹¹

Migration of families from rural homesteads to the urban area of Sylhet comes with a change of space, given in by economical motivations, to improve income and climb up the social ladder. While urbanization offers greater access to employment opportunities and increased independence for women, a gendered perspective of urban poverty highlights the significance of non-income poverty and highlights fundamental issues of equality and social justice given women's unequal position in the labour market, their limited ability to secure assets and independence from male relatives.¹² Relatively wealthier households in urban areas much less likely send women to work. It is plausible that rising household incomes and prevailing stigma against employment of educated women in menial work on the one hand and the slow growth of employment in sectors appropriate for educated women on the other have limited the overall growth of female employment in Bangladesh.¹³

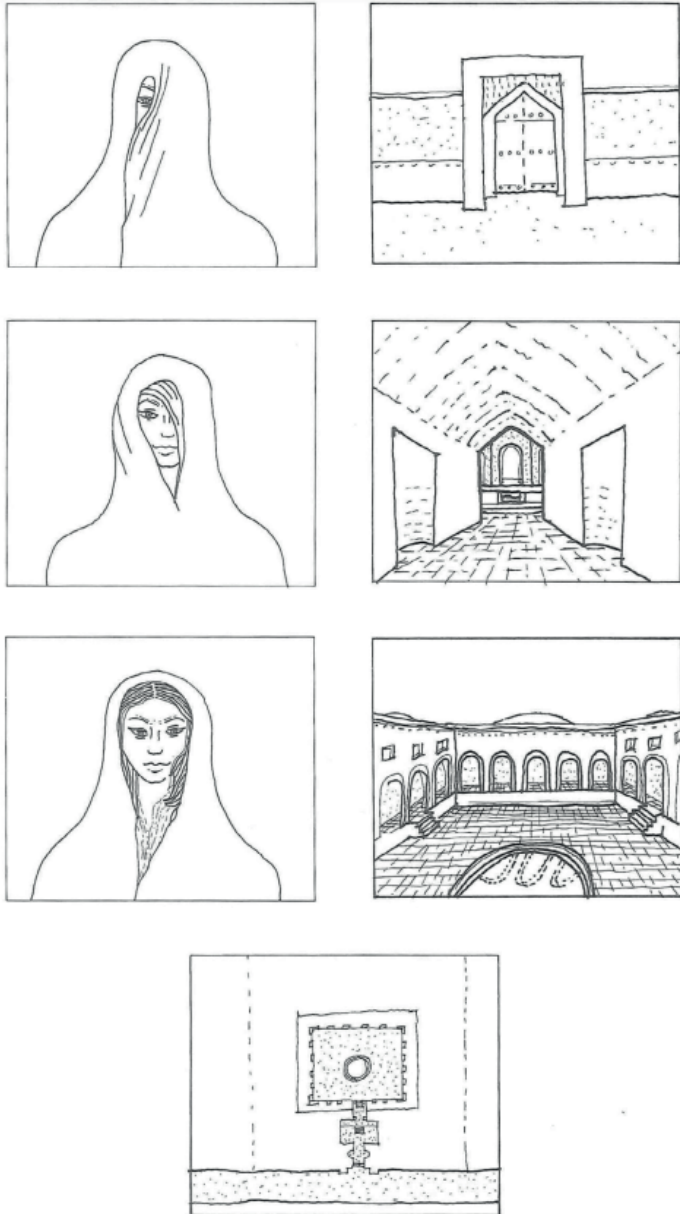
The sense of belonging in the notion of place in urban areas is firmly affected by the tendency around women's constraints to participate in paid labour. The relationship between paid work and women's empowerment is one of "contradictions and contestations", and rarely represents a linear pathway.¹⁴ Female labour is not so much of a choice, but rather, a lack of choice in the context of higher costs of urban living and the insecurity of urban livelihoods. Constraints that restricts the spaces that women are allowed to occupy, facilitating a preservation of strict forms of purdah in a new space of a changed context.

As families move up the social ladder, the boundaries of the house become more defined and solid, the walls become higher¹⁵; behavioural patterns of the social system show an intensification in the strictness of purdah when prosperity increases. Maintaining a social order, avoiding shame, and differences between the sexes are the underlining beliefs of purdah¹⁶. It identifies with the urbanization and social status; symbolic act of detachment from public sphere to derive respect for themselves and gain respect for men with whom women are identified. Thus, the combination of the visible and invisible forms of purdah creates an interconnected web of deprivation, marginalization and denial - not only of women's rights for self-improvement, but also of their roles as agents of change¹⁷. A web that is physically segregated by the boundaries of a dwelling as a space and enclosed by the societal contradictions and contestations of the place.

Chowdhury concludes her research on the rural settlements on an optimistic note, by remarking that the rural homesteads provide an environment for women that is not claustrophobic or confining.¹⁸ The change of space in rural-urban migration comes with a transformation of the rural homestead pattern, due to the higher cost and scarcity of urban land. Whereas design and arrangement of the courtyard house mitigated the effects of confinement, a consolidated form of space in urban context naturally surfaces challenges in maintaining these behavioural patterns within changing physical boundaries. A transitional process of giving form to space and place, in the course of which the perspective of women should be carefully considered within the vulnerable societal boundaries of purdah, while reshaping the confinements of opaque thresholds into a more translucent threshold to public involvement.



The correlation between an increasing level of privacy and the exposure of women in the Iranian Islamic context, through sketches of Kamran Diba.



research question

The architectural design of dwellings inside the rapidly expanding perimeters of Sylhet, directly or indirectly caused by changing climatical conditions, should be carefully positioned within the constantly evolving societal boundaries of purdah. Effects of rural-urban migration due to the change of socio-economic conditions by increased financial resources generated by men, allows them to facilitate a preservation of a strict interpretation of purdah, within the practical notion of space and place. These constraints limit access to labour participation and empowerment of women, restricting their freedom of movement outside the thresholds of the dwelling with the ominous threat of women's public involvement being minimalized. The central focus of this research therefore addresses the following question:

How can dwelling design facilitate a translucent threshold to public involvement for women, within the constantly evolving boundaries of space and place in the social system of purdah in the urban context of Sylhet?

In order to comprehend the core character of the main research question and therefore to be able to construct a set of extensive resolutions, the question will be subdivided into three sub questions.

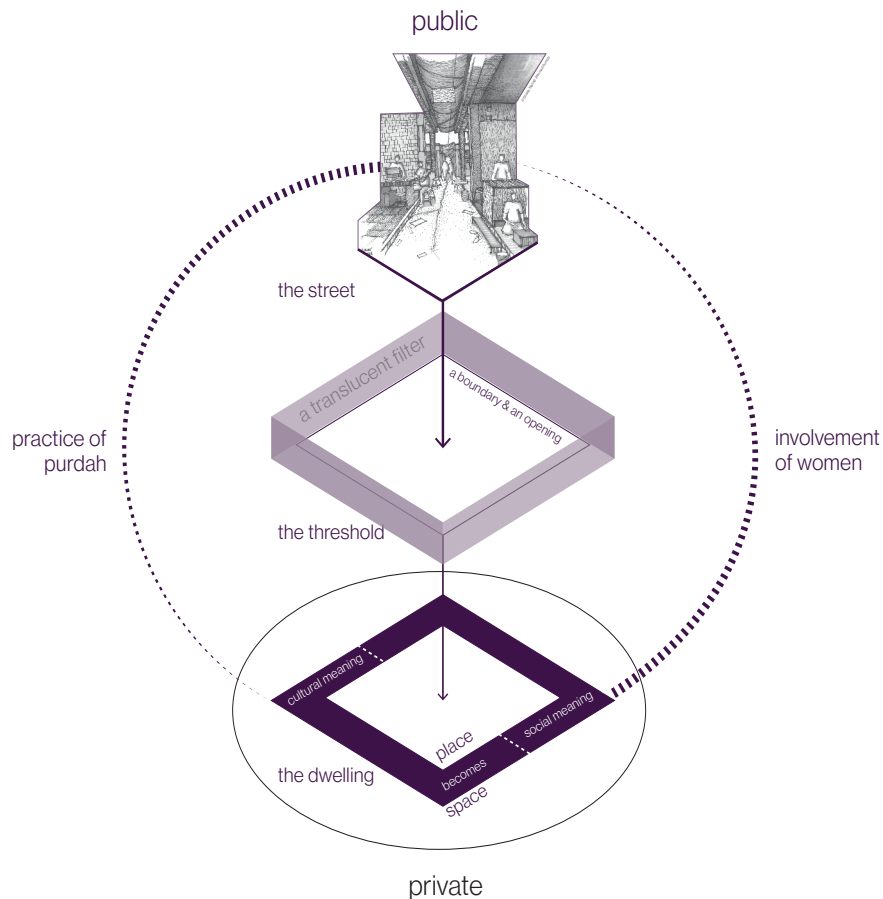
Knowing that purdah is contingent on time, space and social interpretation, it is essential to apprehend the influence of religion on the spatial sequence of the dwelling typology in the Islamic world. **To what extent has the notion of purdah been employed as a mechanism in the historical progression of vernacular architecture in Islamic societies?**

The design and composition of the Bangladeshi homestead mitigates the effects of confinement, where one courtyard flows into another, giving a feeling of openness and heightening the sense of space and movement. Access to neighbouring courtyards assures frequent visits from other women; total isolation is not the norm. However, it is questionable if this is possible within densified urban space. **How can architectural thresholds embody social and cultural meaning in-between the physical boundaries of what is conceived public and private?**

Within the context of the insecurity of new urban livelihoods, women are often confronted with the lack of choice to participate in labour, while an increased income of households in urban areas has resulted in it being less likely for women having the possibility to do paid labour. **What is the impact of space in rural-urban migration on the public engagement of women, and has it led to a shift in their behavioural patterns?**

methodology

schematical representation of methodology



interviews

The social stigma around purdah limits the possibilities of remote research, whilst the experiences on-site have proven to be more open and welcoming than expected. The process of interviewing women at home about purdah, the consequences in daily life and involvement in paid labour is highly intimate and vulnerable. Although a set of prearranged questions functions as a coat rack to store and categorize information, the character of the interview can better be described as an informal, open conversation in which one tries to manoeuvre around the social stigmas to avoid unnecessary cultural vulnerabilities and respect contextual differences.

A variety of women being interviewed, living in Sylhet or Dhaka, in informal settlements or apartment buildings, being Hindu or Muslim, lies at the heart of this research to understand the interpretation and strictness of purdah within these specific places.

fieldwork

On-site fieldwork is crucial in architectural research as it provides a designer with essential insights into the physical, cultural, and contextual aspects of a project site. This understanding is indispensable for designing a housing project that harmonize with their surroundings, meet site-specific challenges, and cater to the unique needs and preferences of the urban community in Sylhet. The conducted research will be documented by means of taking photographs, recording conversations with local people and capturing videos of daily life activities.

An analysis of the compiled info helps to distill the specific information and insights to formulate a comprehensive answer to the set of research questions.



literature and demarcations

The reality of this project is that the predominant part of the time spent to research the potential of thresholds to public involvement of women is remote, off site, from Delft. The theoretical foundation behind the formulated problem statement and research questions is consistently dependable on an exhaustive literature review, in which the demarcation of the use of different selected words of interest, such as threshold, space and place and boundaries, establishes a framework that complements and confines the on-site research.

The referenced works of Chowdhury, Jennings, Banks among others initiated an interest in the topic, while these texts help to act as a set of lenses to enable one to zoom-in on each of the elements, such as the segregation of women in housing by Chowdhury or the changing nature of purdah and public involvement of women by Jennings and Kirkwood. This ensemble of references facilitates to position these within the broader contexts of Bangladesh in the Purdah zone and the role of women in it, which leads to the incentive of the subsequently formulated design hypothesis.

case studies

A selection of three case studies will be carefully selected and analysed to examine the religious functionalities and considerations of Islamic architecture. "Low-rise, high-densification", is a fitting description to the focus of the selection of three compelling, influential projects. By juxtaposing these projects with as a common demoninator the fact that they are mostly inhabited by Muslims, one can reveal similar qualities, contrasting design decisions and architectural developments over time. This comparative approach can help to distill architectural ingredients.

It is of essence to understand that the context of the selected case studies may share the norms and values of Islam, contextual differences like the climatical conditions, ethnicity of the inhabitants or a certain political landscape make it impossible to translate any findings into a comprehensive architectural solution within the context of Sylhet.



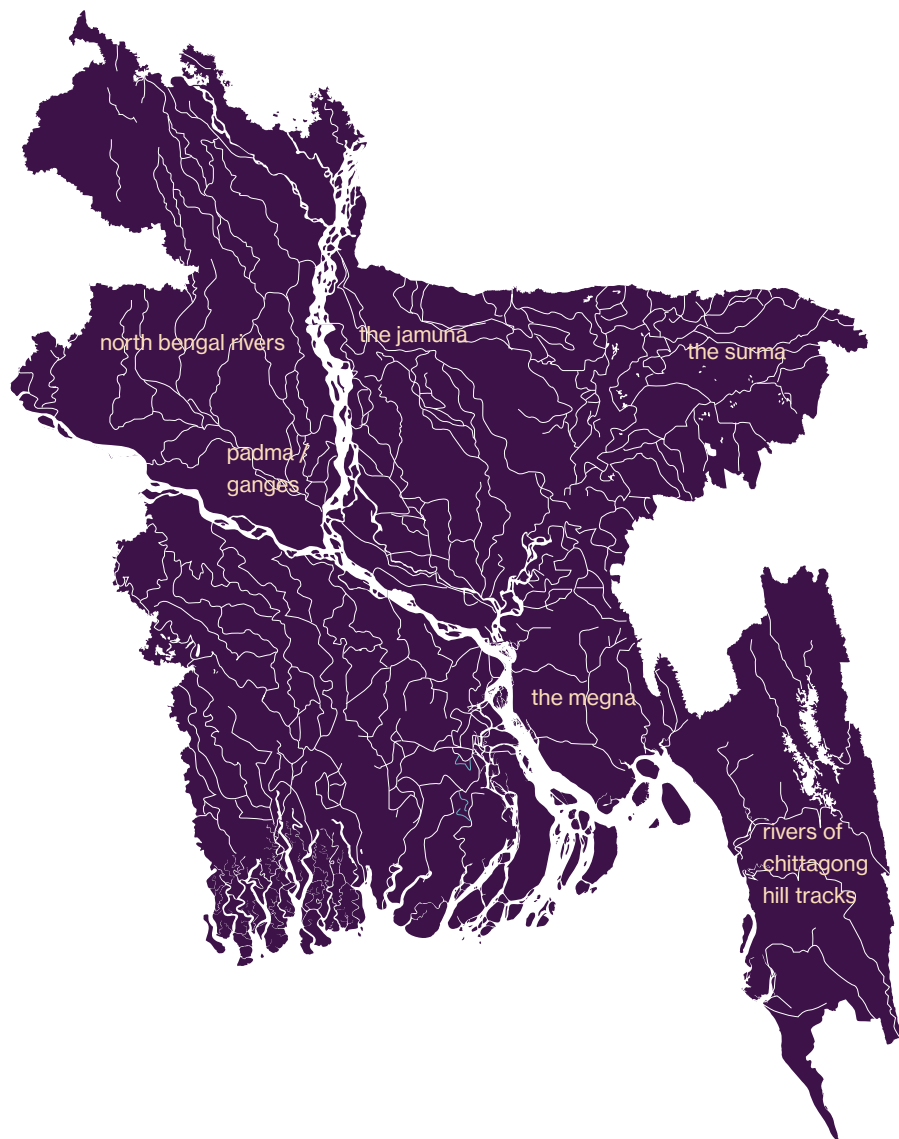
contextual research

“Wherever I work, I must understand that place, it is very important to me, To go somewhere and build something without having the full knowledge of it makes me quite uncomfortable.”

Marina Tabassum
(Dezeen, 2022)

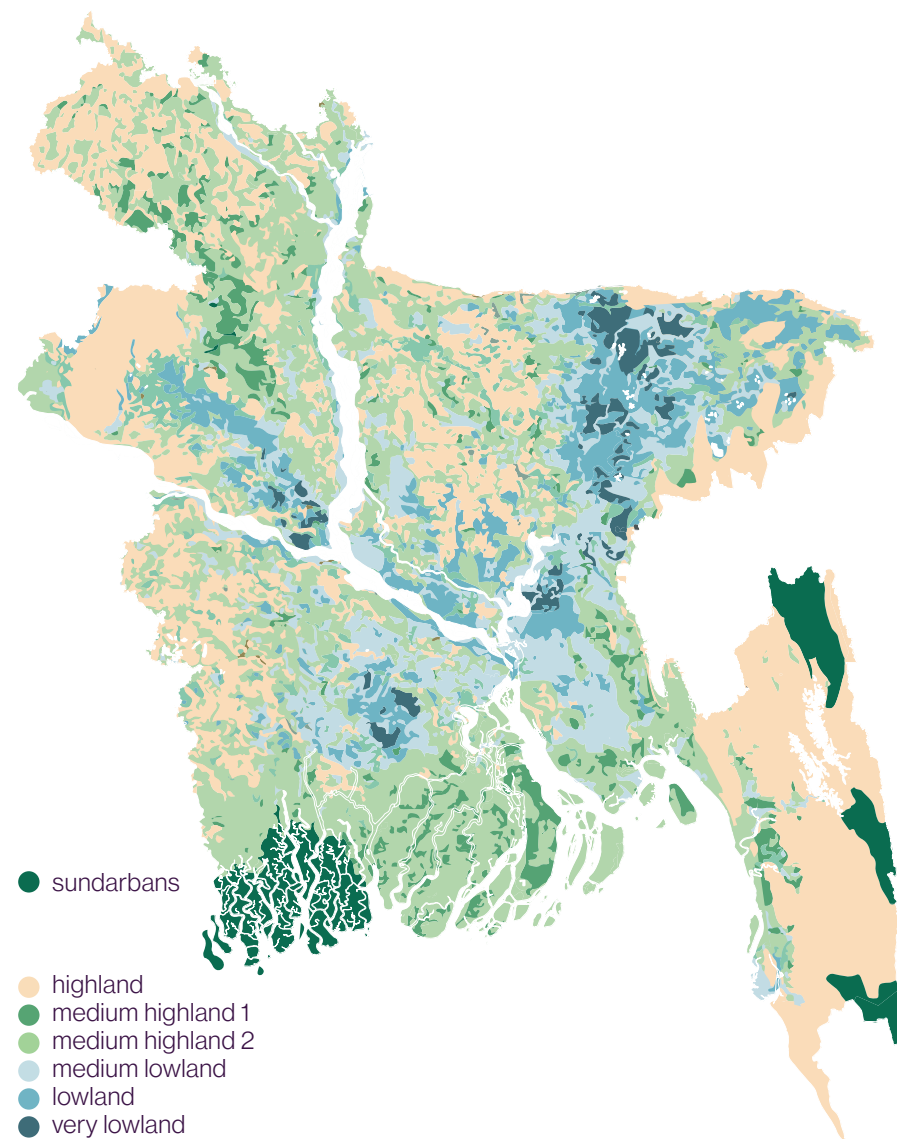
the ganges delta...

The topography of Bangladesh is profoundly shaped by its intricate river networks, notably characterized by its extensive deltaic landscape. These rivers exhibit dynamic and ever-changing patterns. This is why the topography is never accurate for long.¹



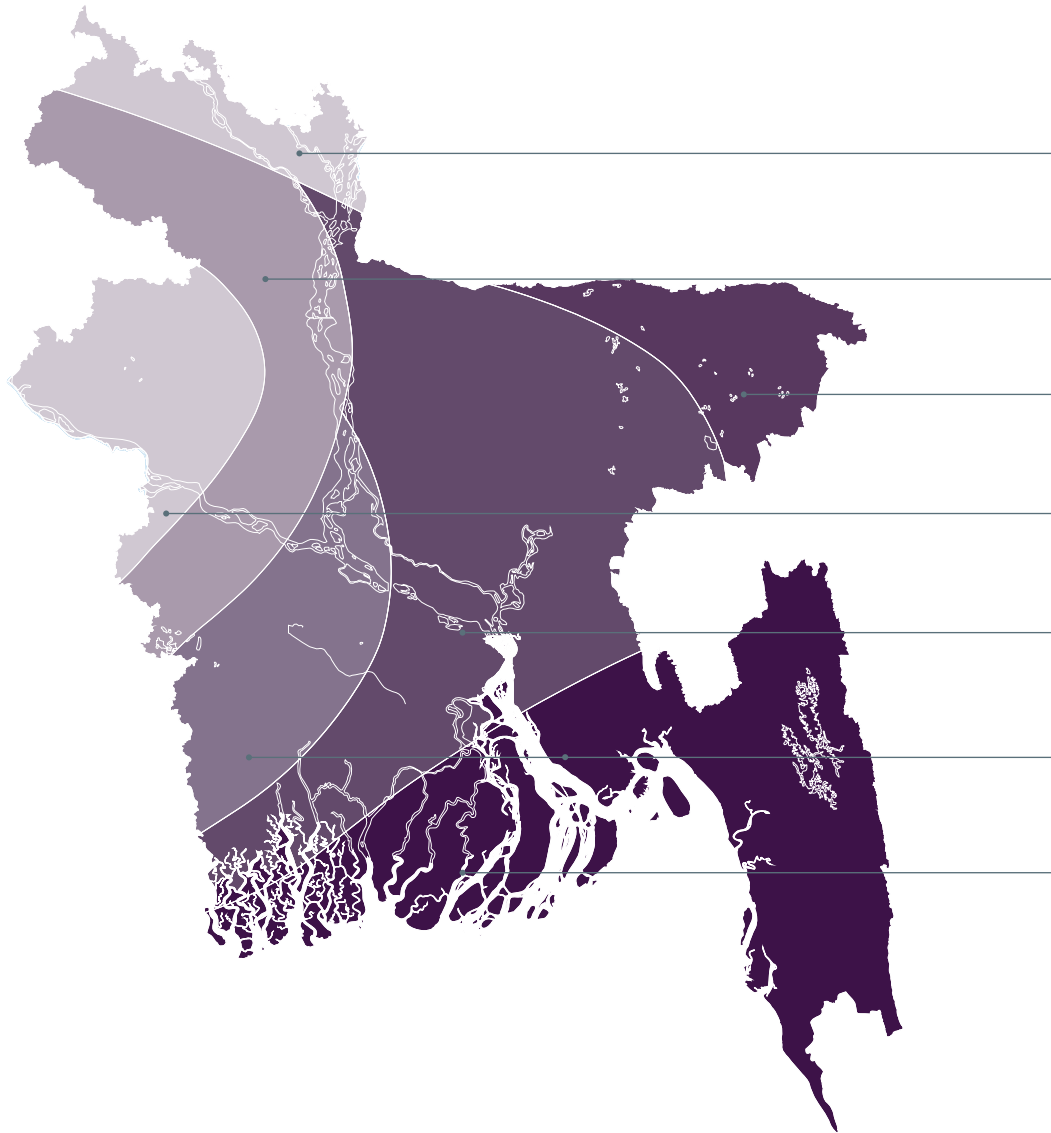
... and its changing landscape

Because of the dynamic Ganges and Brahmaputra rivers, the land categories also change through time. Even though the physical and environmental characteristics remain largely unchanged. These diverse landtypes encourage farmers to grow different crops, adapted to different soil types and flooding conditions.²



seasons of bangladesh

Bangladesh experiences a diverse range of seasons, with a transition occurring approximately every two months.³ These seasonal changes are categorized according to the prevailing weather conditions in specific regions, leading to Bangladesh being referred to as 'The land of Six Seasons'; summer, rainy season, autumn, late autumn, winter, and spring.⁴ The fluctuations in the monsoon's arrival, departure, and the amount of rainfall it brings have significant effects on water resources, energy production, agriculture, the economy, ecosystems, and fisheries in Bangladesh.



heavy rainfall
hot summer
cool winter

moderate rainfall
hot summer

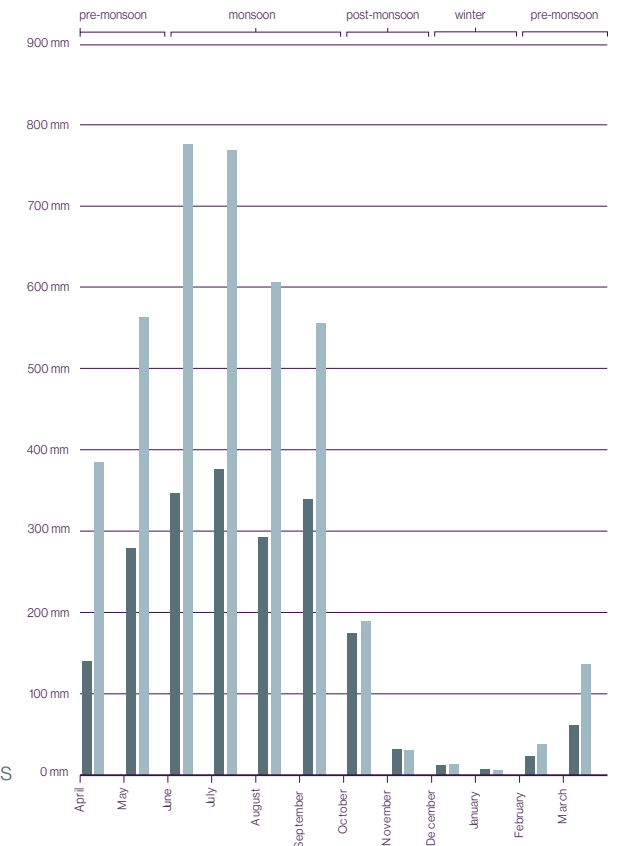
heavy rainfall
mild summer
cloudy cool winter

relatively low rainfall
very hot summer

fairly heavy rainfall
mild summer

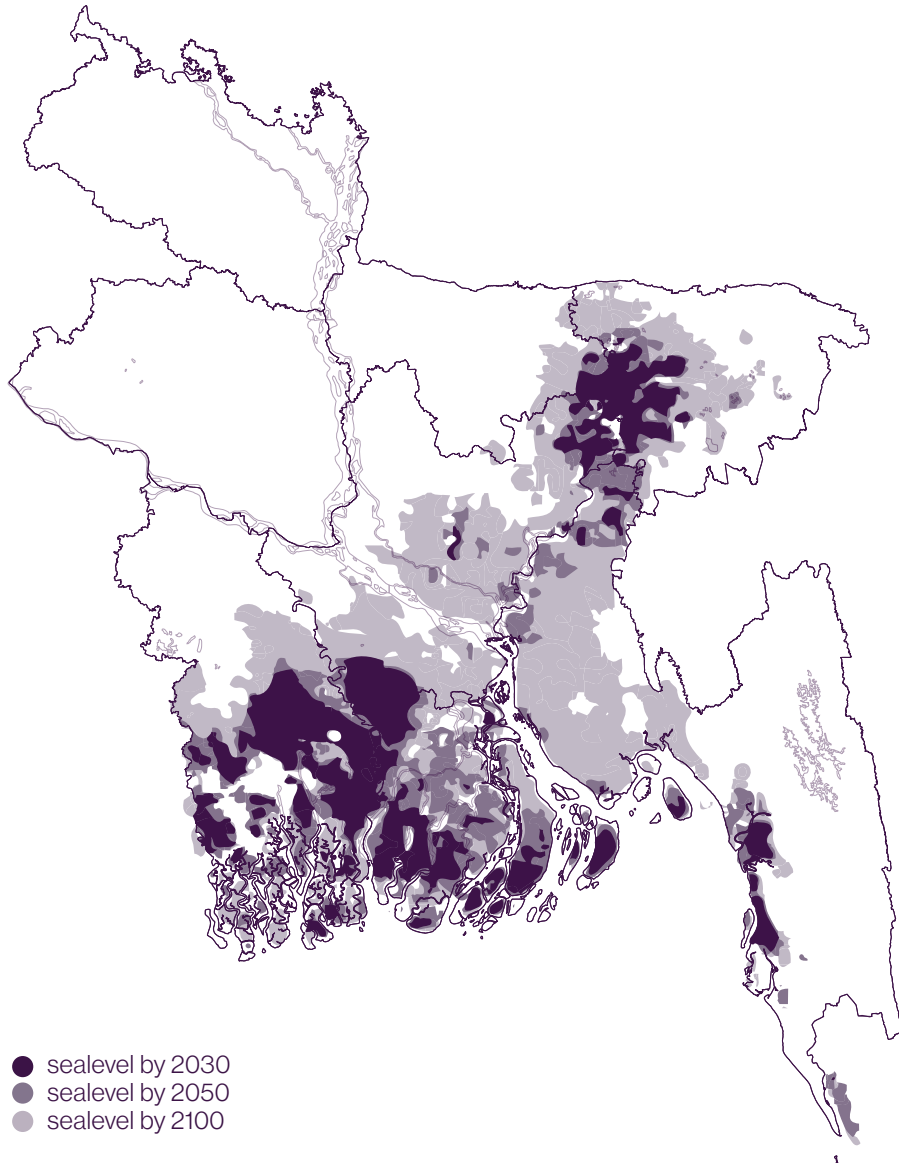
fairly heavy rainfall
hot summer

heavy rainfall
small range of temperatures



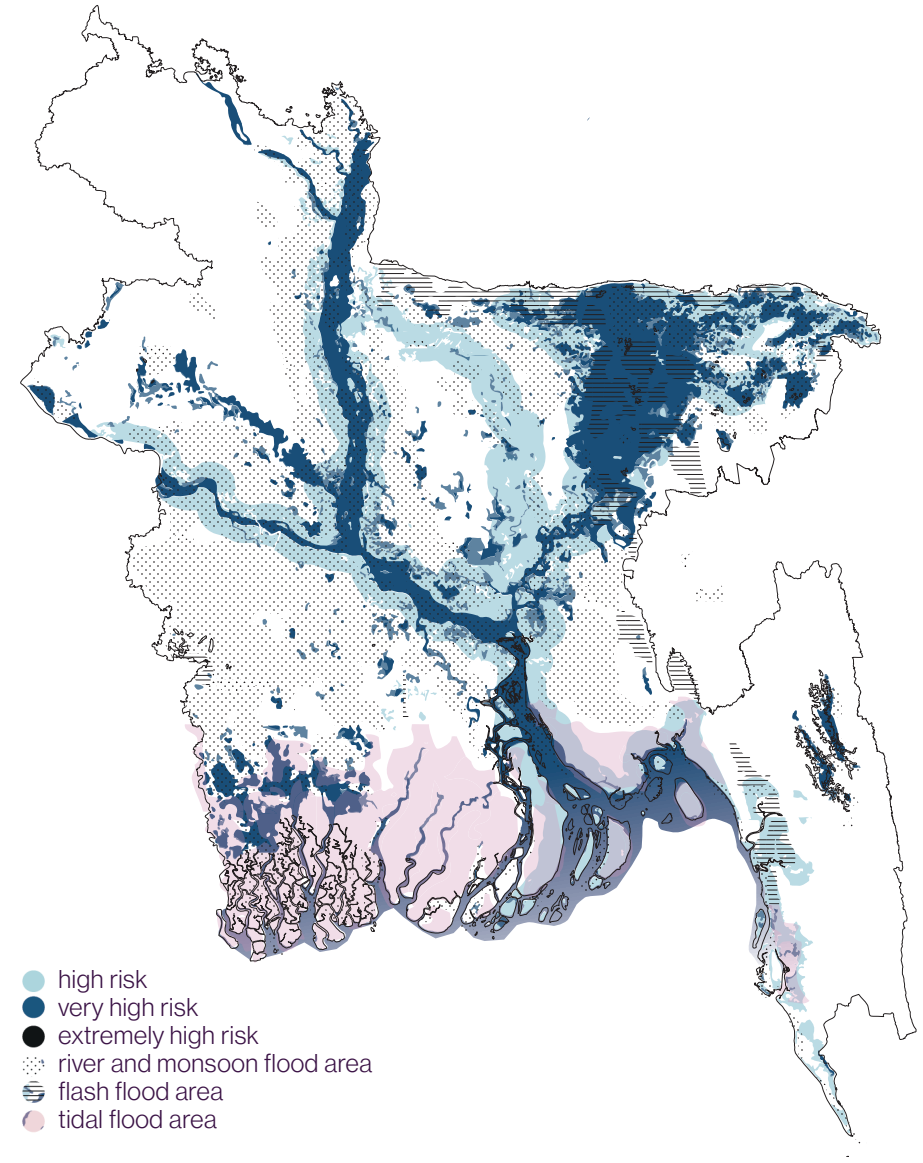
the rising sealevels...

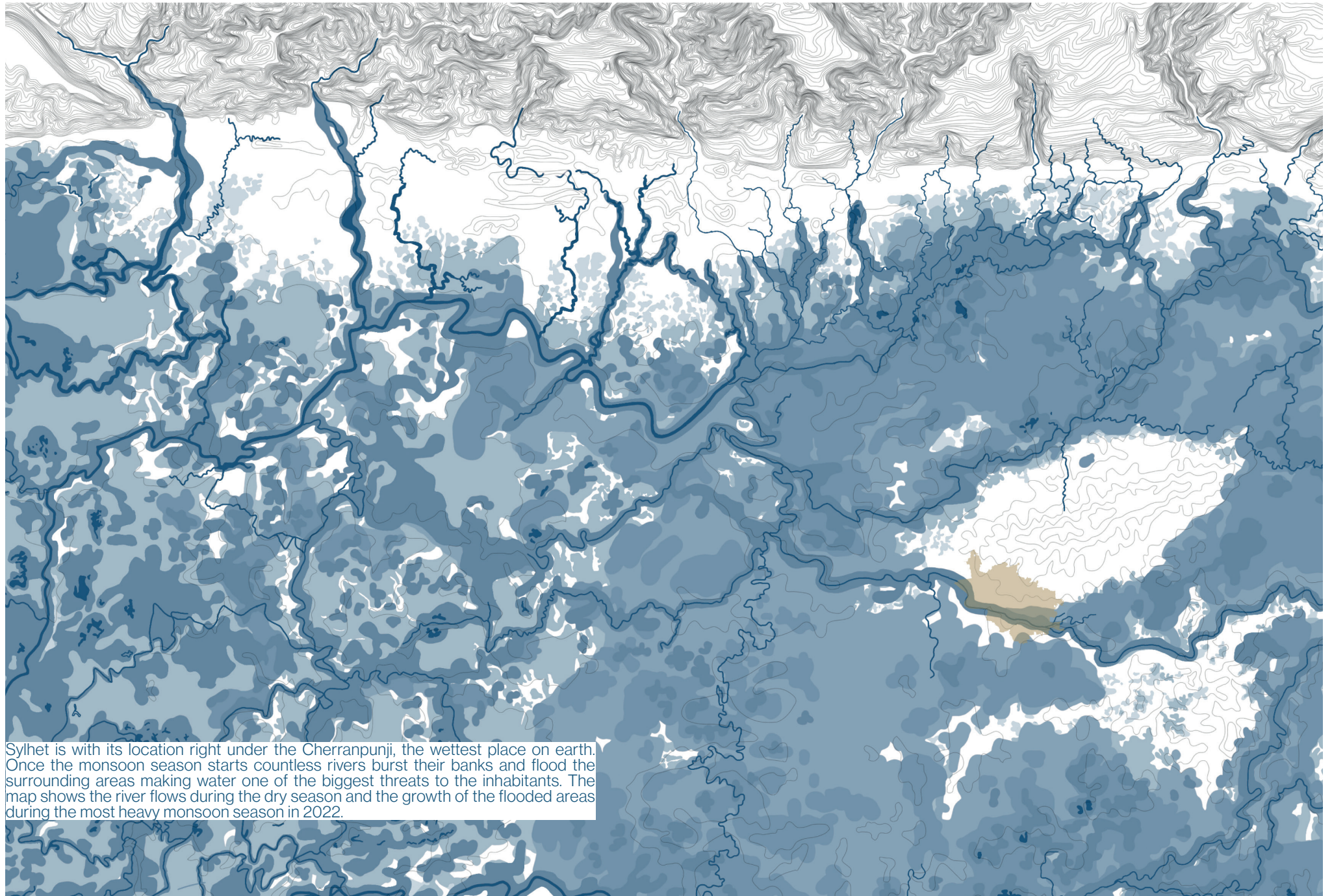
Due to climate change, the sea level will rise and globally this will increase the risk of flooding. Bangladesh has the second highest percentage of population with a high risk of exposure to flooding.⁵



...cause a flood-prone country

This map shows the dangerous areas based on an assessment of the land that has been flooded between 2017 and 2020, specifically using data from the monsoon seasons, adding factors such as elevation, population density and distance from a river to predict how impactful a flood would be.⁶







the most densely populated delta

Bangladesh is a country in development, where most of the people live in rural areas. As a consequence of the change of climatical conditions, the scarcity of land, Bangladesh is known for its high population density, making it one of the most densely populated countries globally and earth's most densely populated delta. With approximately 1,329 people per km²,⁷ its population density is significantly higher compared to many countries, including the Netherlands, which has around 522 people per km² which is 2,5 times less dense than Bangladesh.⁸ The Sylhet division, with a population density of 873 people per km², is notable for its relatively lower population density compared to the national average.⁹ Within the Sylhet division, the highest density is found in the Sylhet district where Sylhet city is found. The highest density is found in the Dhaka district which has a major influence on the average population density in Bangladesh.



opportunities for growth...

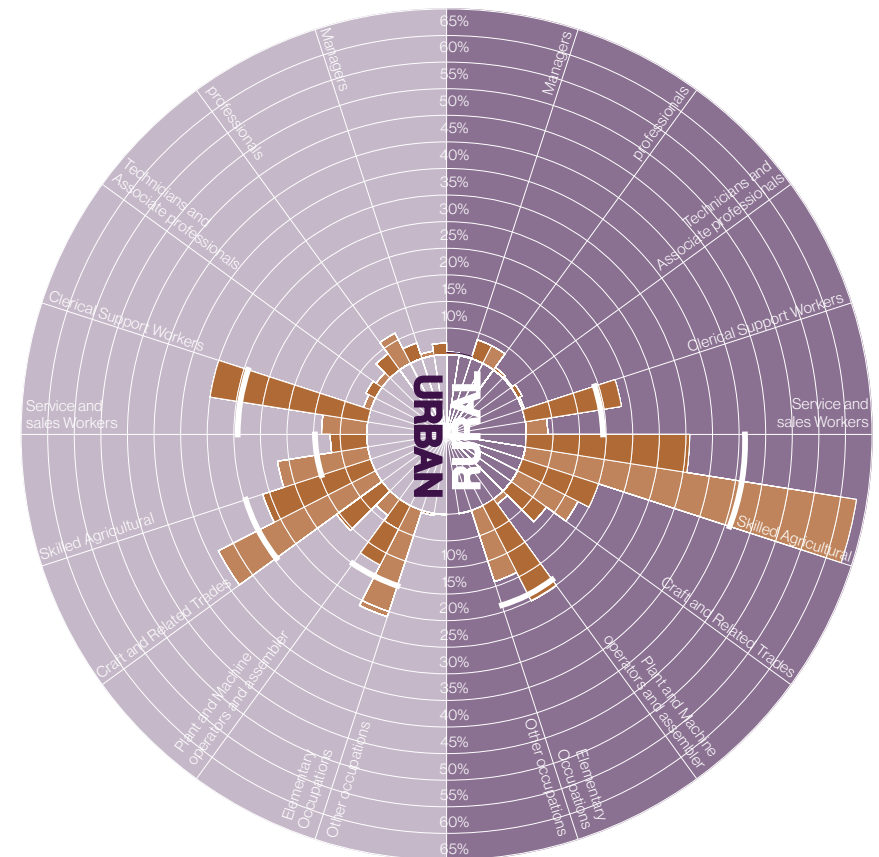
A notable demographic feature of Bangladesh is its beneficial age pyramid. The population is predominantly young, with a substantial part under the age of 30.¹⁰ This youthful demographic structure means there isn't a significant aging population, unlike many Western countries. Youthfulness is often seen as a positive aspect, having a lot of young people entering the working age is like having an opportunity for economic growth.¹¹ However a youthful population in Bangladesh also faces potential challenges. The pressure on resources, such as healthcare, education and employment opportunities can be overwhelming.¹¹ Making sure everyone gets a good education can be challenging in a county with such a high young population. Moreover, despite the potential for economic growth, ensuring meaningful employment opportunities for the youth can be difficult. High youth unemployment rates can lead to social unrest and create a threat to the overall stability.

In the employment of the population, we see a notable gender disparity. This underscores the inequality in the labor market of Bangladesh. Public engagement of women in both rural and urban situations comes at a risk by not being able to contribute to the public realm by means of labor. It restricts the freedom of movement for women in public, partly due to this gender disparity in the labor market.



...enforce gender disparity

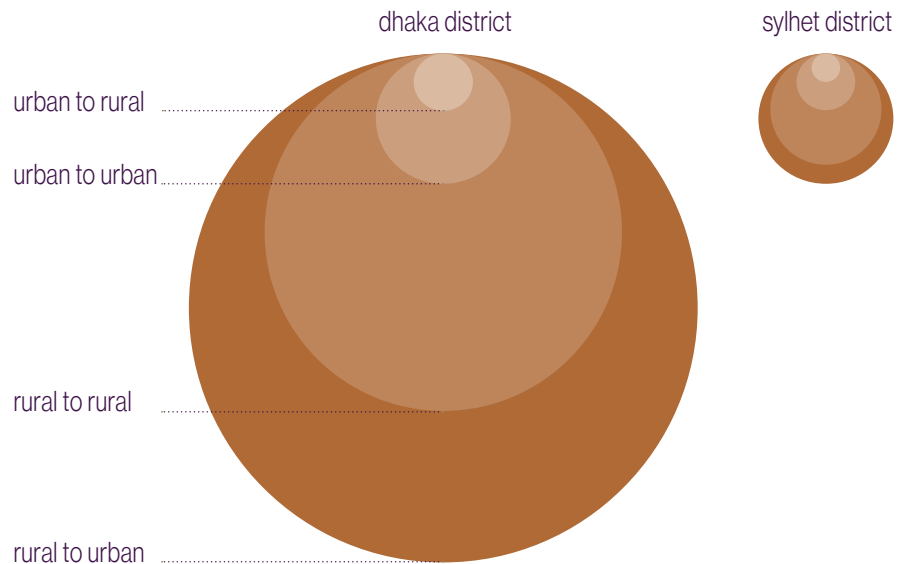
Here, the employment by occupation and industry in Bangladesh is shown. Among the total employed population, there are 18,636,186 females (33.9% of the working-age population) and 42,182,400 males (78% of the working-age population), indicating a significant gender gap in the workforce.¹² One noticeable trend is that in rural areas, both men and women are more likely to be engaged in agriculture as their primary occupation. Agriculture has traditionally been the backbone of the rural economy in Bangladesh, with both genders contributing to various agricultural activities. In contrast, urban areas present a different occupational landscape. Here, for men, sales related occupations dominate. This includes jobs like sales workers and retail trade workers. The urban environment offers diverse economic opportunities, and the sales sector is often prominent choice for men due to its accessibility and potential for income.



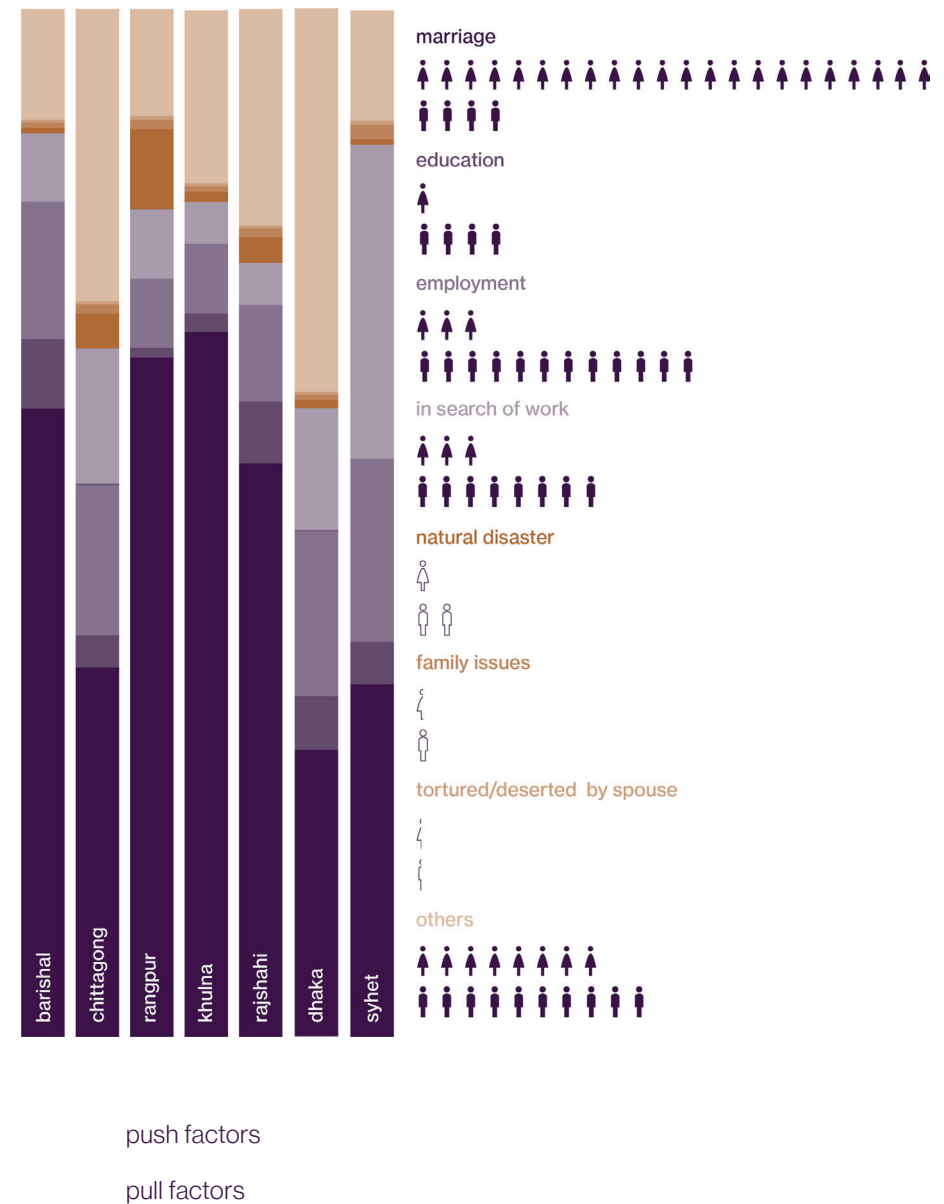
internal migration...

In Bangladesh, internal migration predominantly revolves around districts like Dhaka, Gazipur, and Narayanganj, attracting over 20% of migrants. People from rural areas flock to these urban centers in pursuit of better opportunities while seeking refuge from vulnerabilities in their places of origin. Meanwhile, the Sylhet Division has recently witnessed a notable shift in migration patterns.

Gender disparities are pronounced, with men mainly driven by economic prospects, while women and girls migrate primarily for marriage. Push factors, including natural disasters and family issues, also play a significant role. Sylhet Division's status as a regional economic hub is evident, driving a high rate of internal migration for economic prospects.

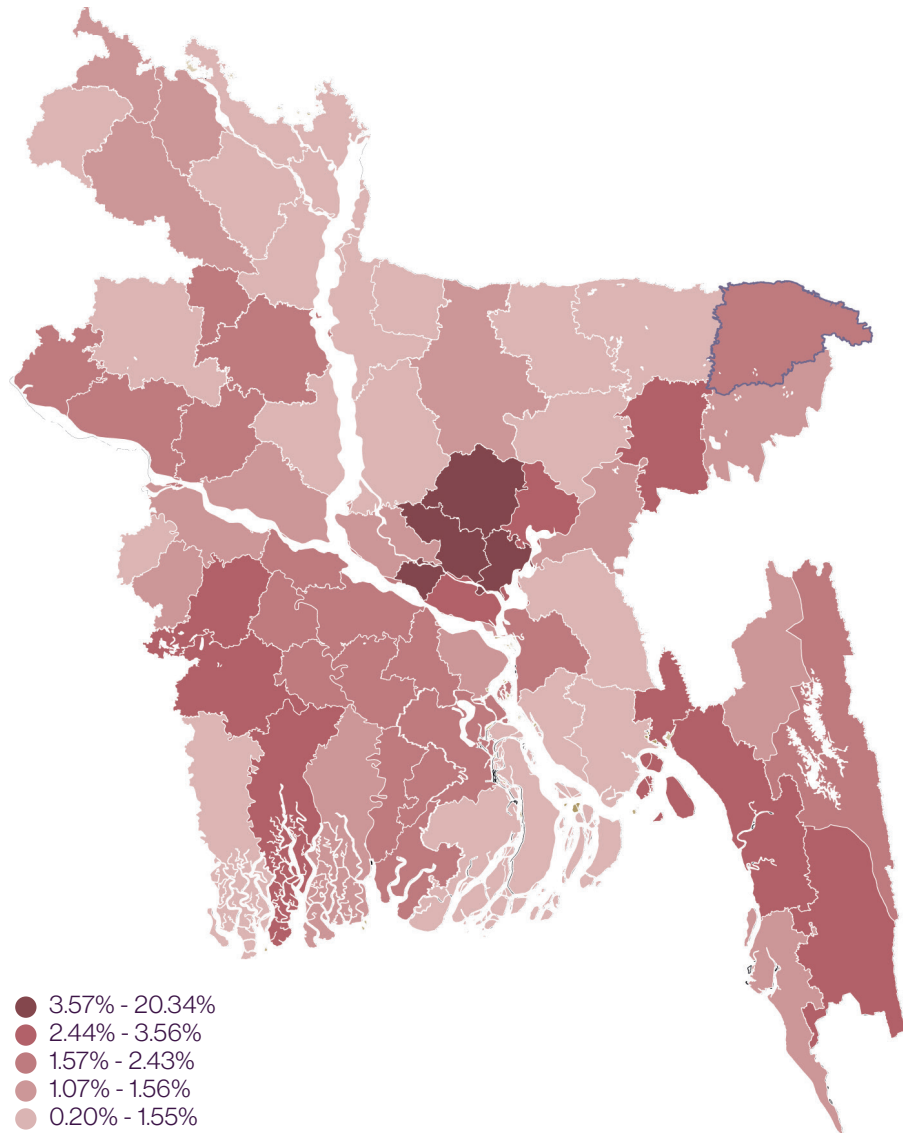


...and why



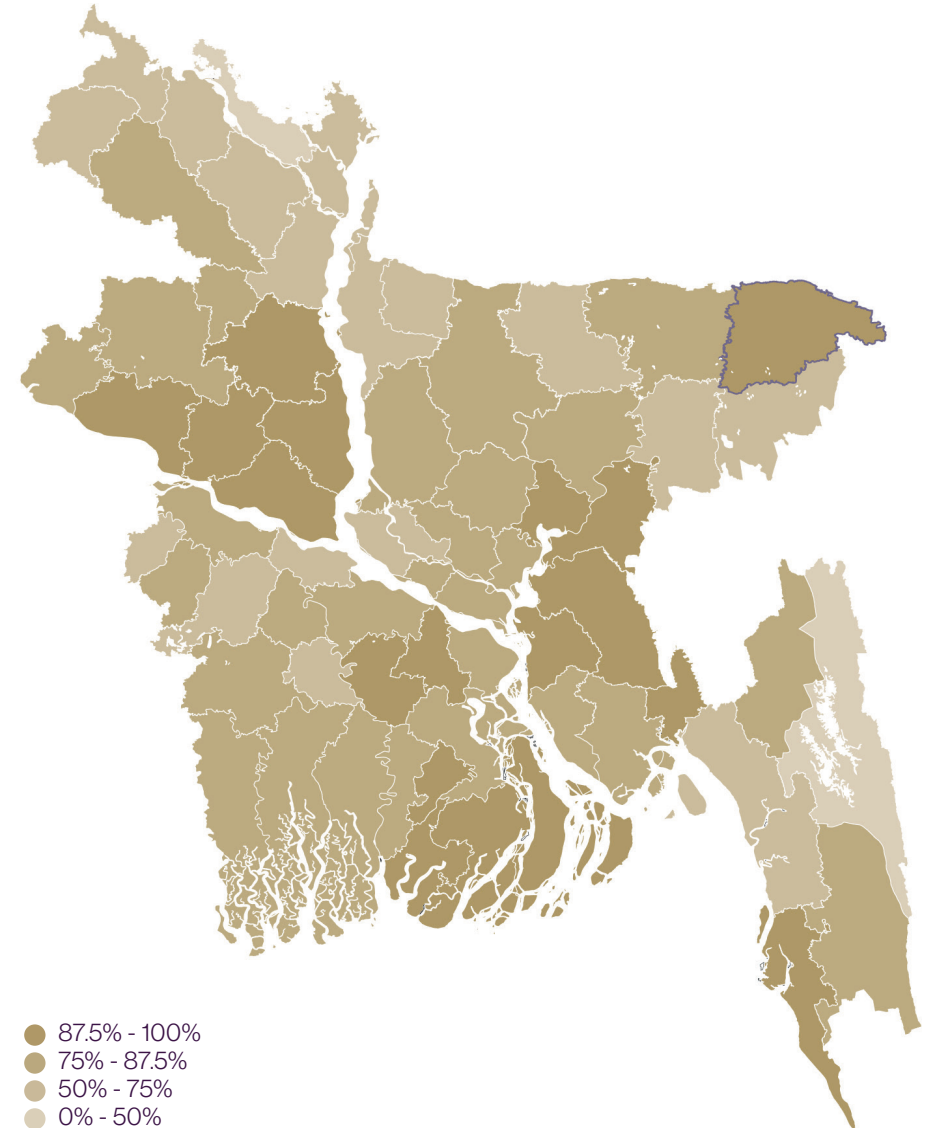
internal migration to sylhet...

The internal migration rates of the Sylhet district are higher than most of its surrounding districts, which are in general more rural.¹³ Women and their families move to Sylhet for the economic prospects and to increase the quality of life.

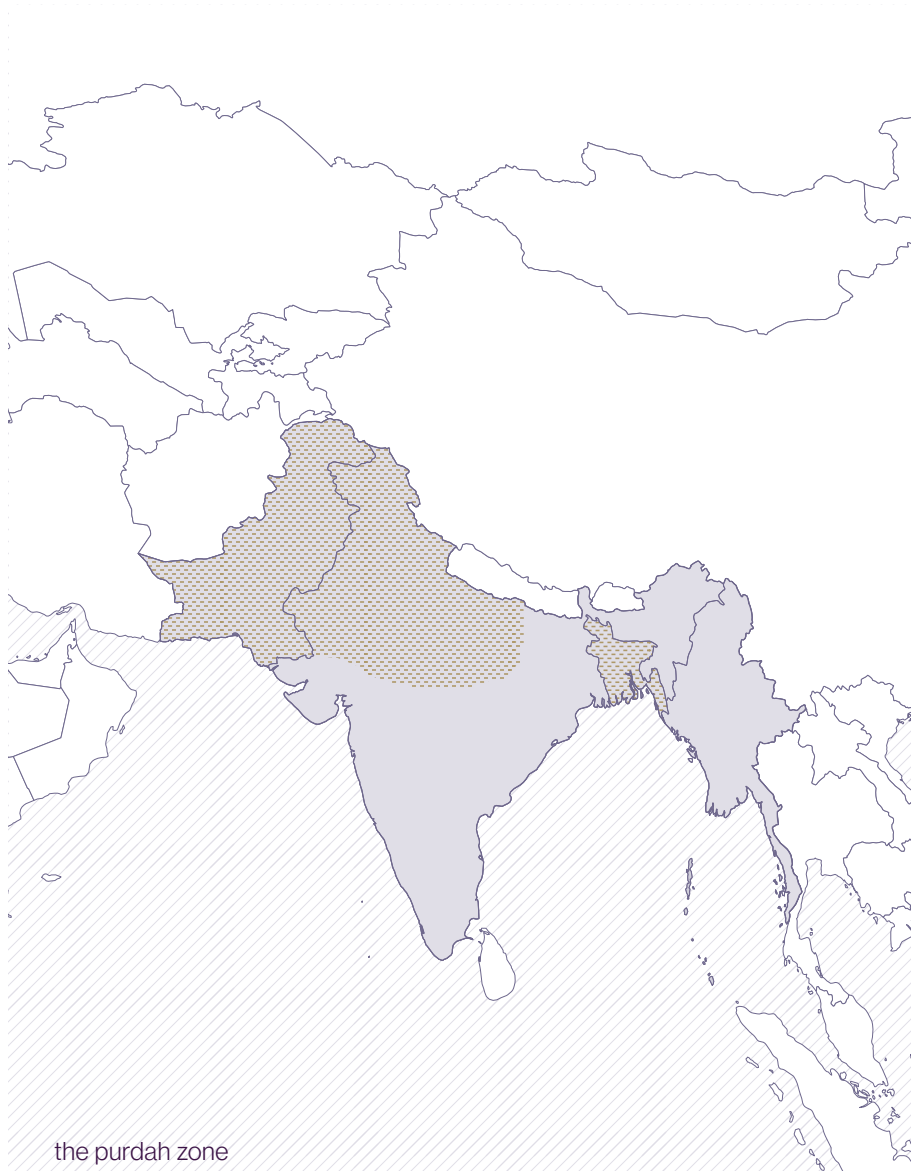


...effects in a stricter form of purdah

However the strictness of purdah in Sylhet is considerably higher than the districts adjacent to it. More so, Sylhet is one of the districts with the highest percentage of the practice of the social system of purdah. Women will be effected by this strictness of purdah due to the fact that they migrate to these areas.¹⁴



the purdah zone



Purdah is a religious and social practice of female seclusion prevalent among Muslim and Hindu communities. As seen in the map on the right, the practice of purdah is common across Bangladesh. Zooming into the Sylhet division, Sylhet district stands out as particularly conservative.

There is a significant link between the practice of purdah and women's labor force participation (LFP). Despite substantial progress in female education in Bangladesh, this has not translated into a comparable improvement in gender gaps in LFP. Women remain largely in the informal sector or in unpaid work. Access to paid jobs has a positive impact on women- smaller family size, increased age at first marriage age, female autonomy, and career aspirations. Yet due to community norms surrounding purdah, women are kept out of the labor market despite increases in education or household income.

There is a stigma against the employment of educated women in lower-level work, coupled with the slow growth of employment in sectors appropriate for educated women. Additionally, the gender division of labor within marriage constrains women further. There is also concern for women's safety in public spaces and restrictions to outside mobility. Both push and pull factors impact women's LFP decisions. Women can be pushed into paid work during economic crises, and pulled by greater demand for female labor in the industrial sector.

The purdah zone comprises all of Bangladesh and Pakistan and large parts of northern India. There is no abrupt shift from a purdah to a non-purdah region, but rather a gradual transition through the intervening regions to quite different gender relations of South India. All these countries have been under rule of the British Raj.



case studies

“I presented the three-storey, high-density low-rise walk-ups to the assembly. The chant of some women in the crowd, “Where will our chickens go?” allowed me to explain the design of open-to-sky terraces at each level, “This is where the chickens will roam, vegetables will grow and toddlers will play under your watchful eyes.”.

Yasmeen Lari
(ADA, Issue 32, 2015)



selected projects



angoori bagh
by yasmeen lari

Lahore, Pakistan
1973
787 dwellings



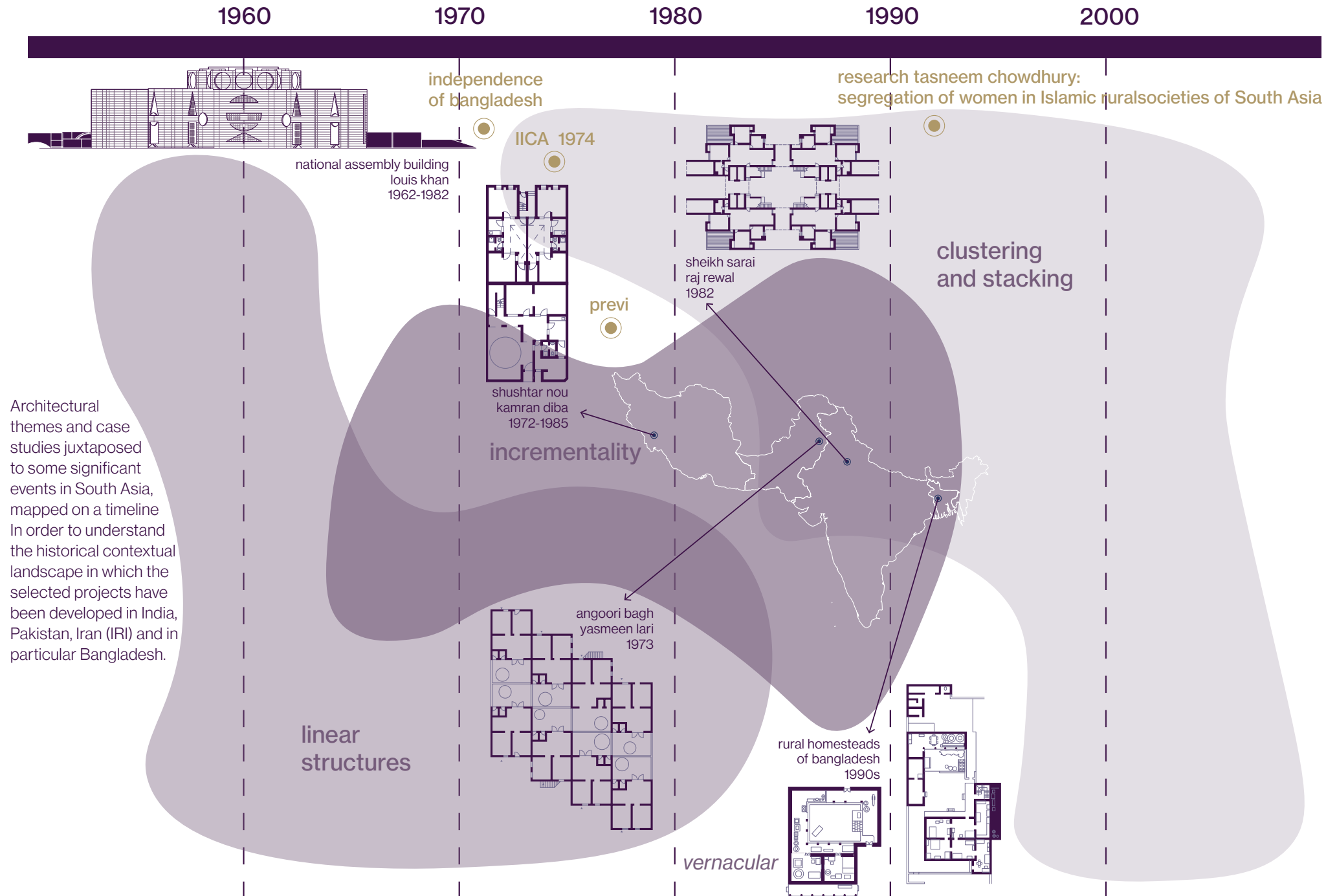
sheikh sarai
by raj rewal

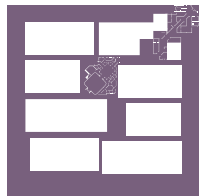
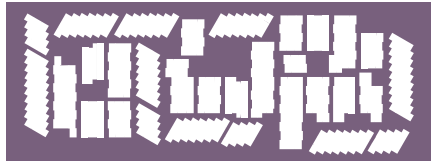
New Delhi, India
1982
146 dwellings



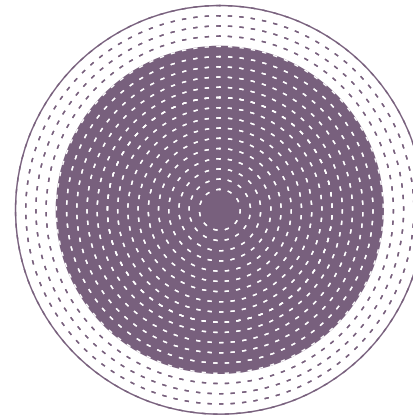
shushtar nou
by kamran diba

Shushtar, Islamic Republic of Iran
1975-1982
148 dwellings



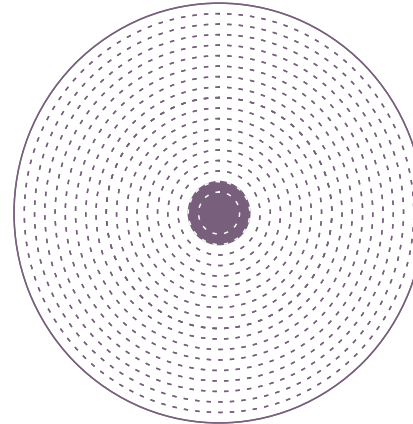


statistics



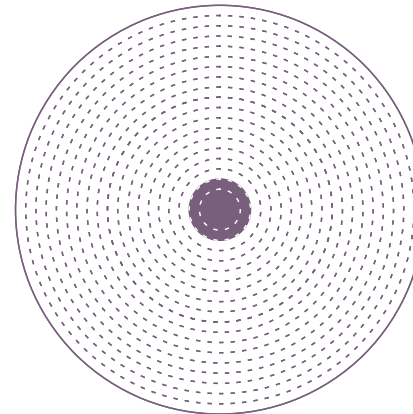
angoori bagh

dwellings:	787
area:	
apartments per hectare:	142,3
Ground Space Index:	0,44
Floor Space Index:	1,11



sheikh sarai

dwellings:	148
area:	8.266
apartments per hectare:	176,8
Ground Space Index:	0,29
Floor Space Index:	1,17

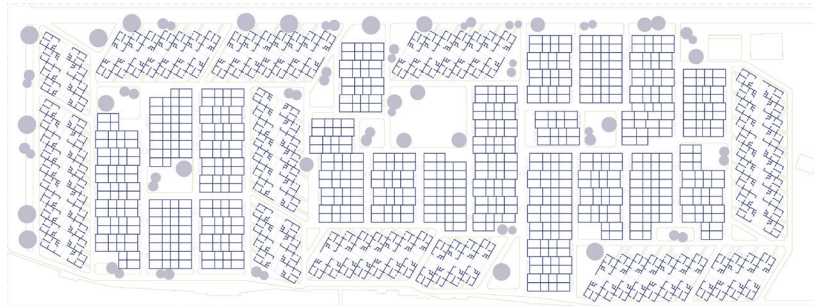


shushtar nou

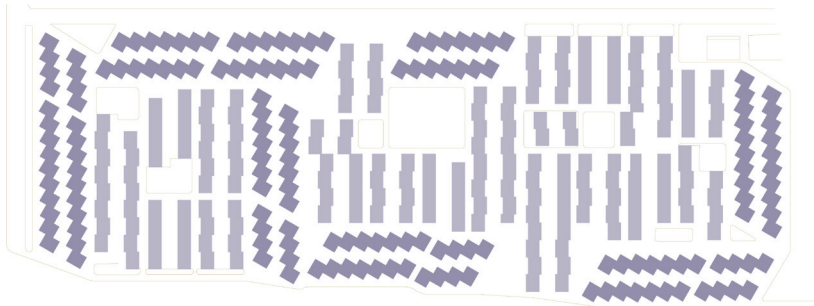
dwellings:	148
area:	30.105
apartments per hectare:	49,2
Ground Space Index:	0,47
Floor Space Index:	1,13

angoori bagh by yasmeen lari

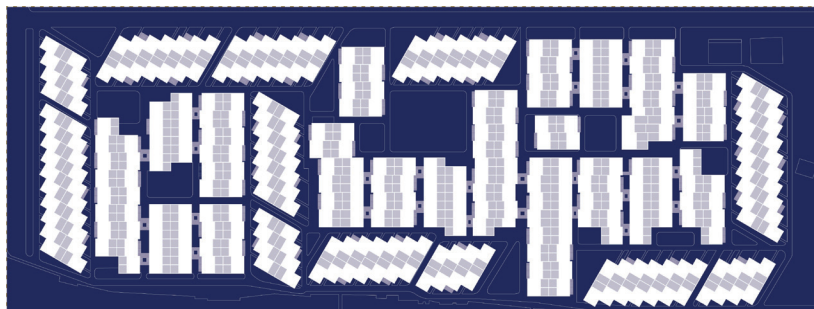
In 1973, the Punjab government commissioned Yasmeen Lari to design a social housing scheme, which was part of an extensive plan aimed at providing 6,000 houses for medium- and low-income families. The Angoori Bagh Housing project represented the first phase of this plan and was the only segment to be constructed. Lari perceived this commission as an opportunity to demonstrate that high-quality housing could be achieved through thoughtful design, cost-effective materials, and the utilization of local labor. Drawing inspiration from the organic morphology of Karachi and Lahore, Lari's proposal adeptly addressed site constraints.

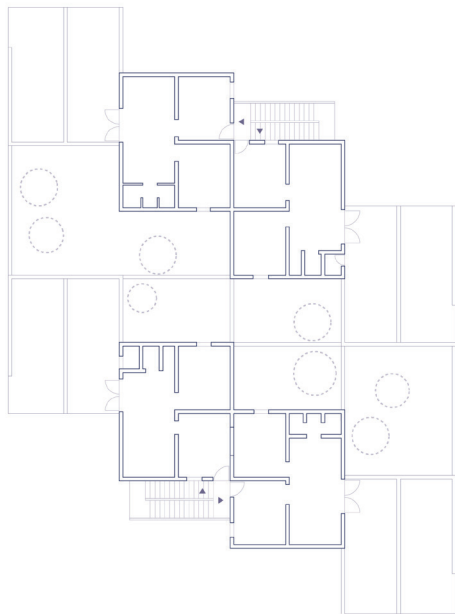
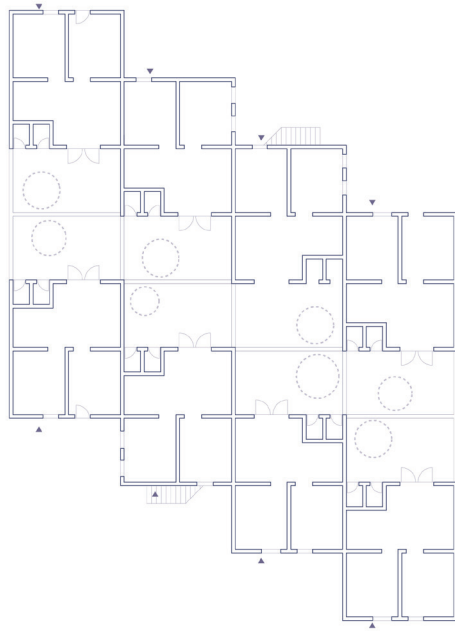


dwelling types

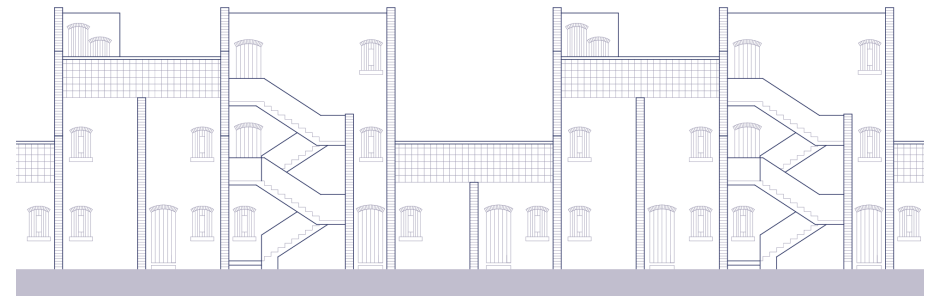
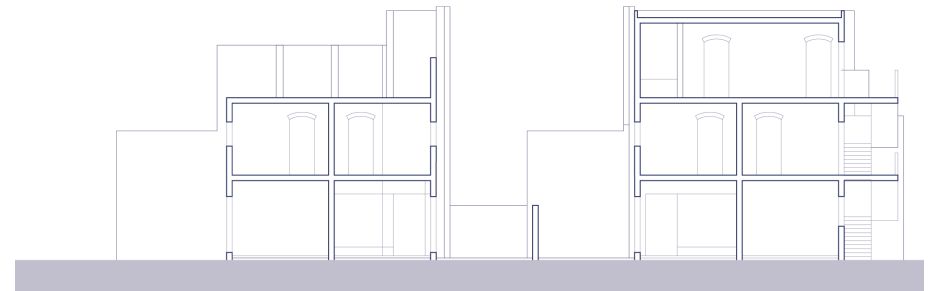


sequence of thresholds



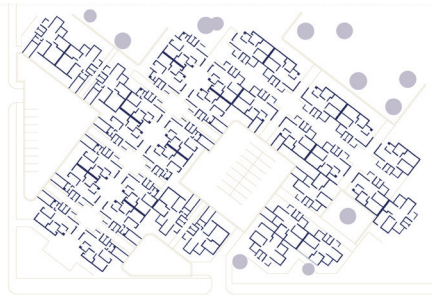


The housing scheme encompassed 787 dwellings arranged in 2- and 3-story blocks and incorporates two distinct typologies, both designed to be compact and occupy a minimal area. Category II houses, measuring 520 ft² (48 m²), feature two bedrooms along with a veranda and a courtyard. The kitchens are enclosed within the veranda, while the bathrooms open directly to the courtyard. The integration of these two typologies within the various 2- and 3-story clusters generates dynamism and contributes to a visually engaging townscape. The facades offer a degree of flexibility, permitting families to personalize their homes with color on windows and doors. Access to the dwellings is facilitated by pedestrian streets paved with brick, external staircases, and overhead bridges.

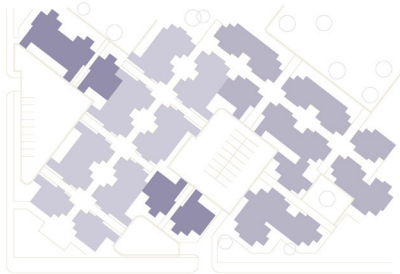


sheikh saraj by raj rewal

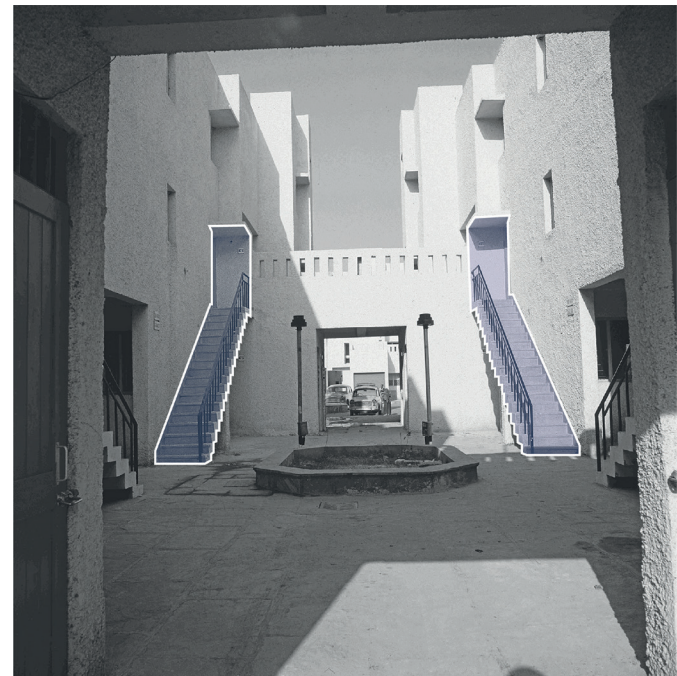
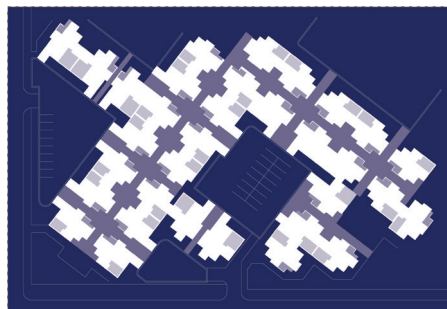
Sheikh Sarai is a low-rise, high-density scheme that combines the diversity in the units with axial pedestrian networks for a range of spatial and visual experiences and is located in the South of Delhi. Commissioned by the Delhi Development Authority (DDA), this project was designed by Raj Rewal to provide housing for middle and lower-income groups. It represents one of the earliest large-scale experiments in social housing in India. heikh Sarai Housing is the characteristic of the urban fabric of India, by establishing a clear concept of the close relationship between public and private spaces. The design arranges the open spaces in a methodical hierarchy.

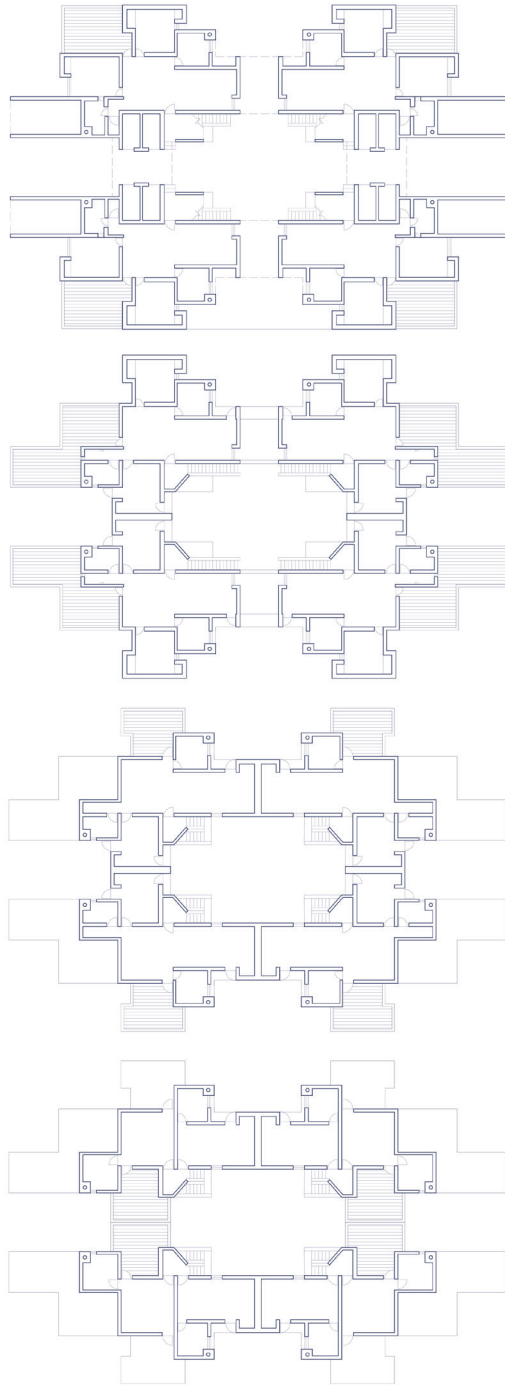


dwelling types

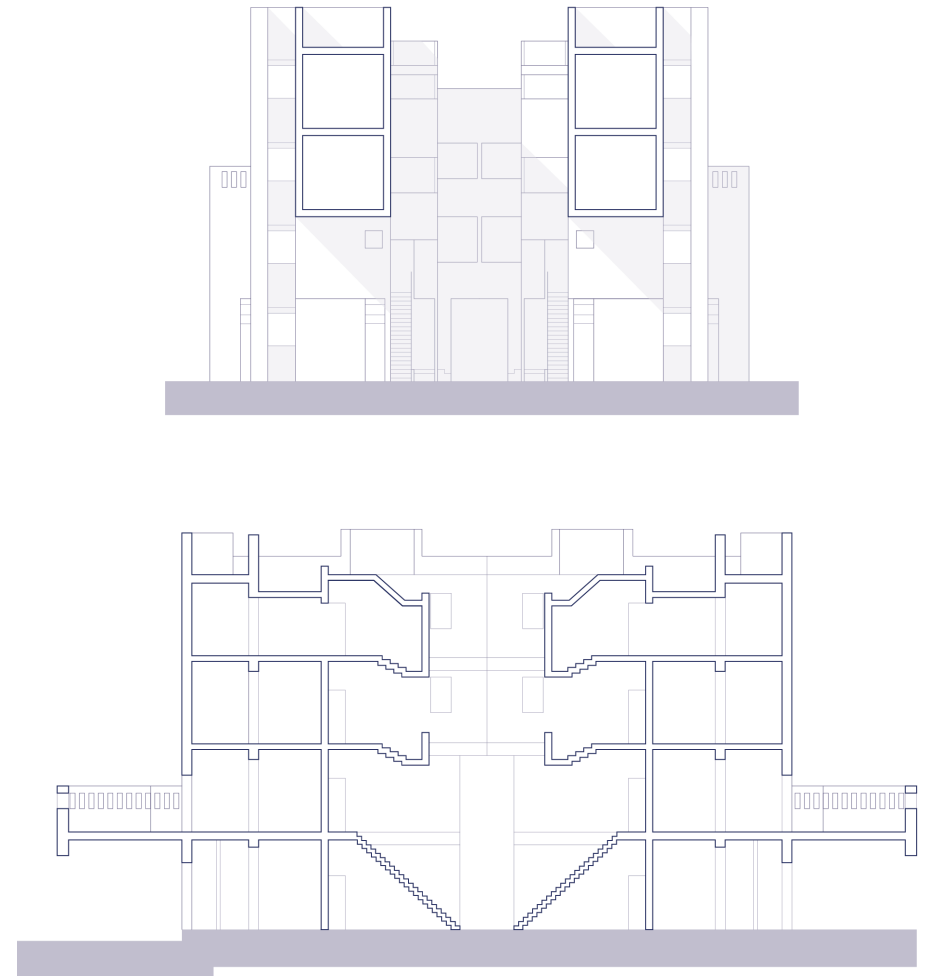


sequence of thresholds



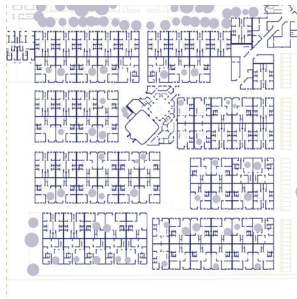


The development of the Sheikh Sarai housing complex commenced in 1978 and reached completion in 1982. Initially, the site was designated for the development of Low Income Group (LIG), Middle Income Group (MIG), and High Income Group (HIG) housing units. However, due to financial constraints, the DDA introduced a new housing category, the Self-Financing Scheme (SFS). Under this scheme, allottees were required to pay for their units in five installments over the construction period. Participants in the SFS were entered into a lottery system, where they could specify their preferences for unit type, layout, and location. The economic viability of the mass housing scheme was ensured through subsidized housing units and the utilization of local construction materials, which significantly increased the affordability of the apartments.

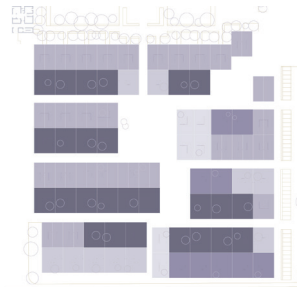


shushtar nou by kamran diba

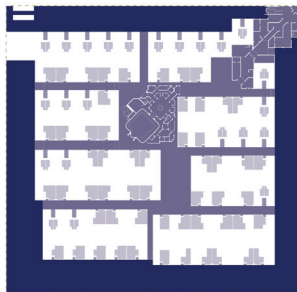
Shushtar Nou is an important Iranian housing project, situated in close proximity to the ancient city of Shushtar in south western Iran. Designed by Kamran Diba in 1972, the project adheres to the traditional urban fabric of Iranian cities. Central to Diba's urban design philosophy is the integration of a 'social spine' within the layout, comprising interconnected public spaces such as paved squares, verdant gardens, sheltered resting areas, and water features including fountains and flowing water. These spaces are strategically flanked by educational institutions and marketplaces, fostering a vibrant environment conducive to social engagement and community interaction.



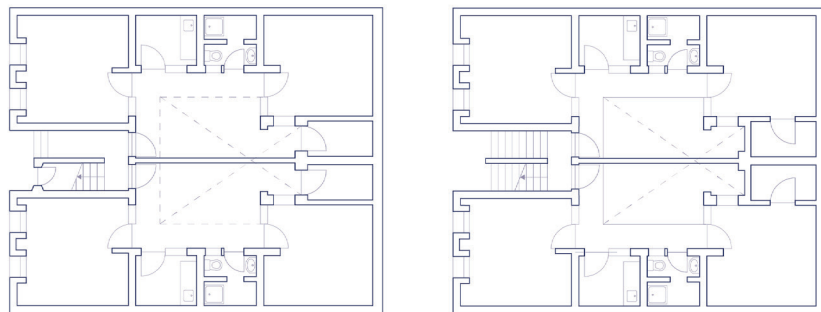
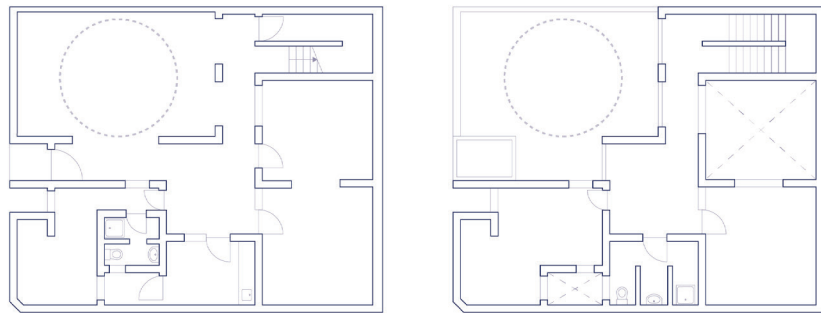
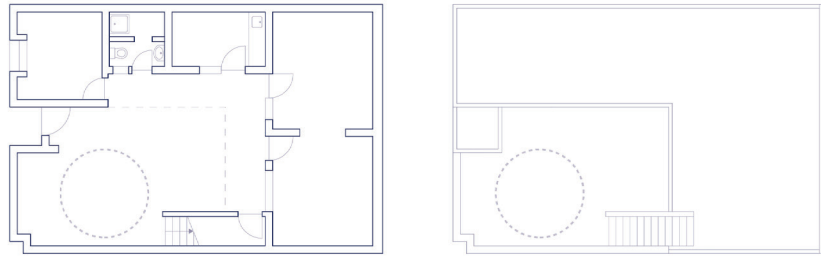
dwelling types



sequence of thresholds

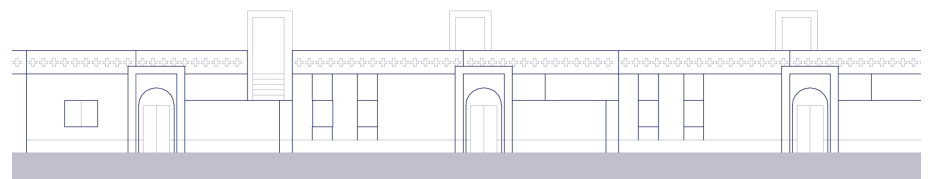
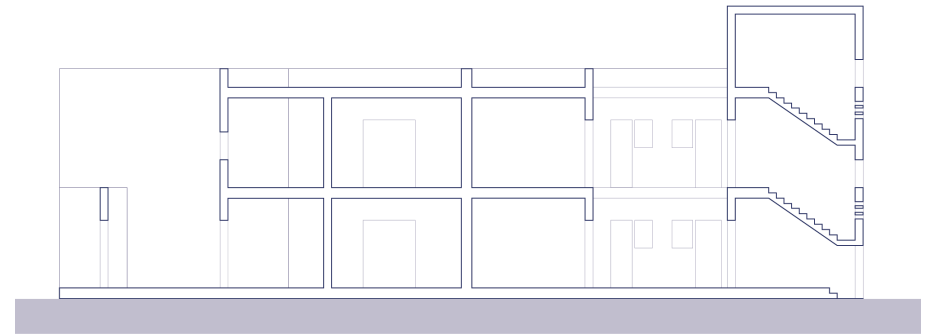


(un)veiling

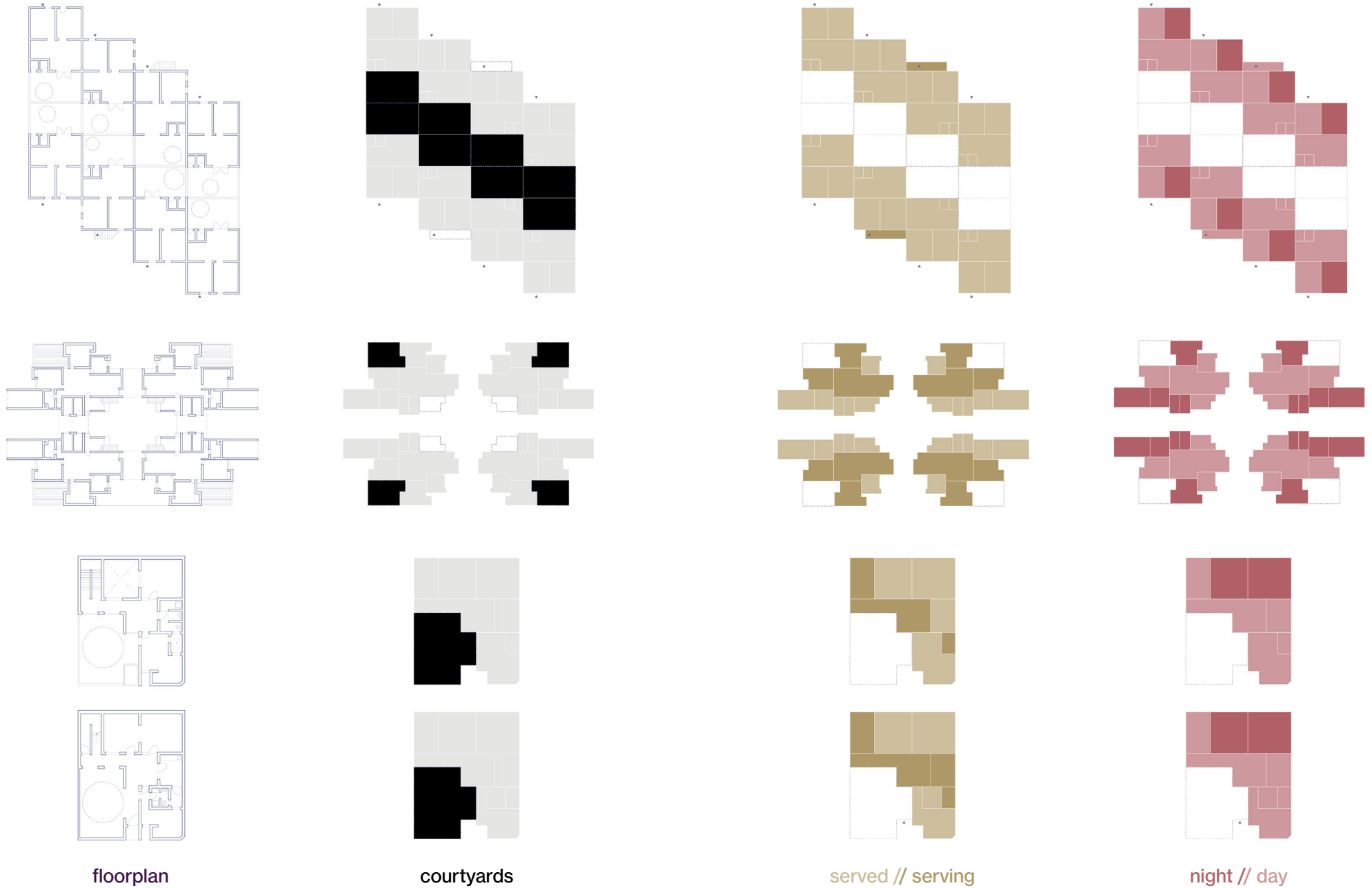


(case studies)

Shushtar Nou consists of a variety of housing types. All types have in common that the centre of the dwelling is an enclosed courtyard. It is the breathing heart of the spatial layout designed by Diba and based on the walled cities of Iran. Most types consist of multiple floors and have an accessible rooftop. In contrast to the Western paradigm where houses are typically conceived as compositions of distinct rooms serving specific functions (such as living, dining, and sleeping areas), the foundational principle in his approach was rooted in the traditional concept of the room as a versatile space capable of multiple uses. In the design of dwelling units, particular emphasis was placed on drawing inspiration from the courtyard, a fundamental architectural element that embodies the cultural identity of Iranians.



matrix of domestic life



rural homesteads

Research of Tasneem Chowdhury documented the Bangladeshi rural homestead during the 1990s. Her work elaborates on the daily life of women in rural regions in the country. Within these homesteads, there is a clear segregation of women, based on Islamic norms and values. It is important to juxtapose the homesteads to the other case studies, to identify main differences and challenges that come with rural-urban migration and its impact on the sequence and spatial lay out of the dwelling. Under here we see the situation of the typical homestead of the farmer, to the right we see the situation of the homestead of the landlord.

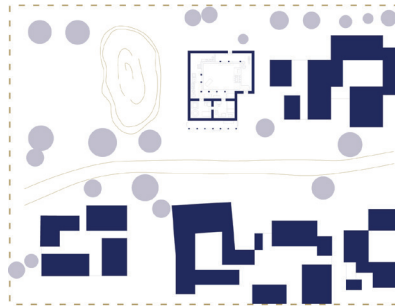
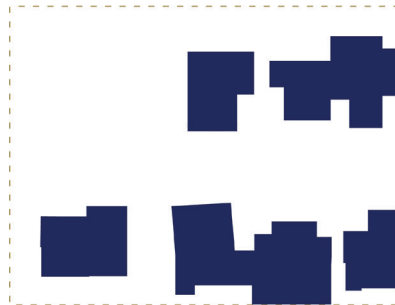


figure ground



open space

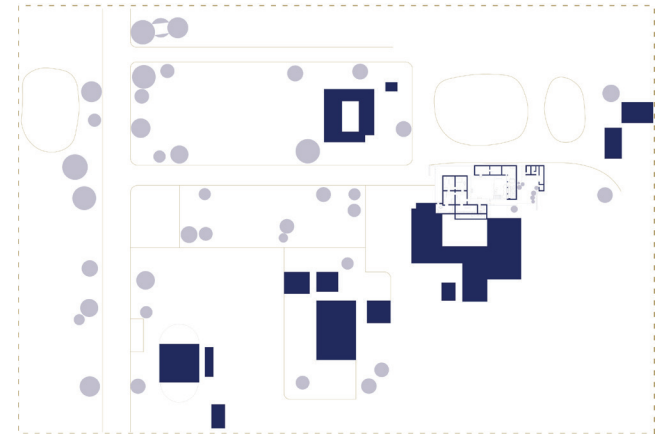


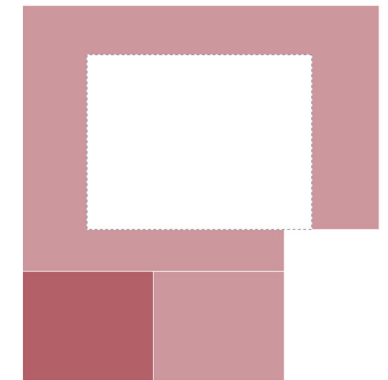
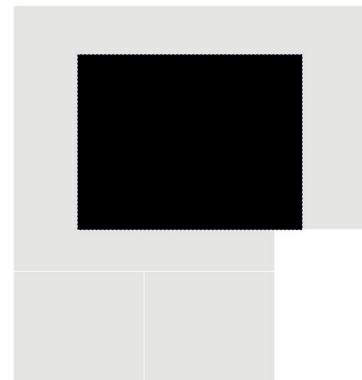
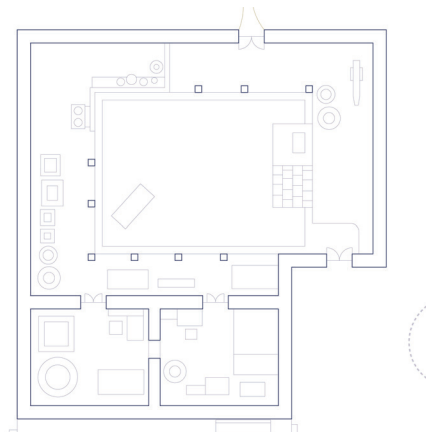
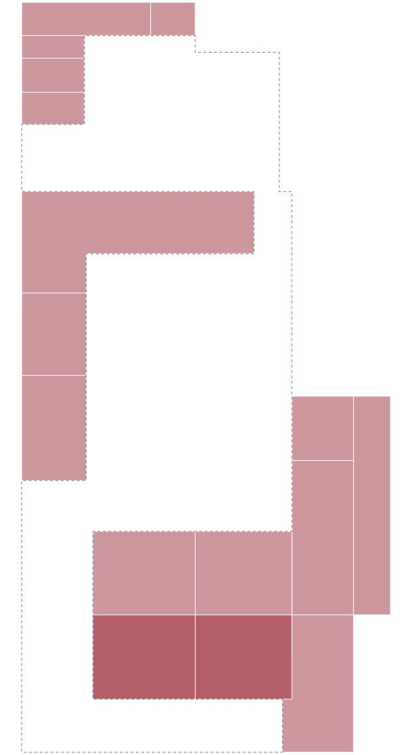
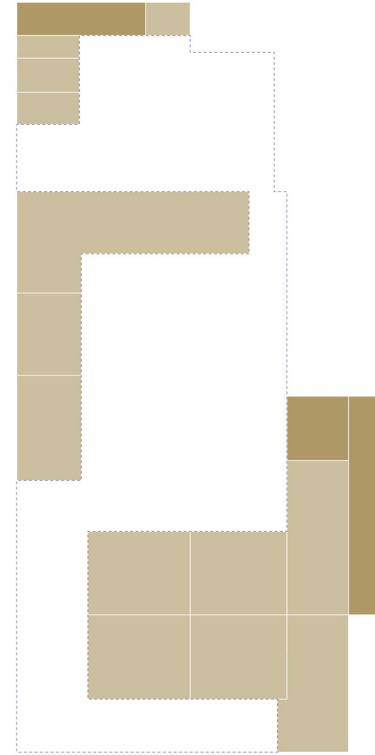
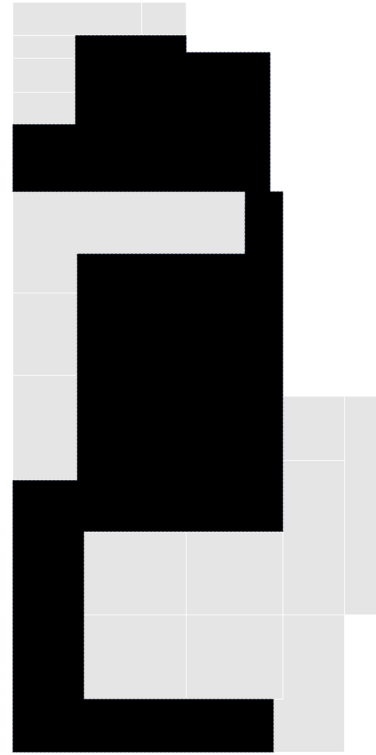
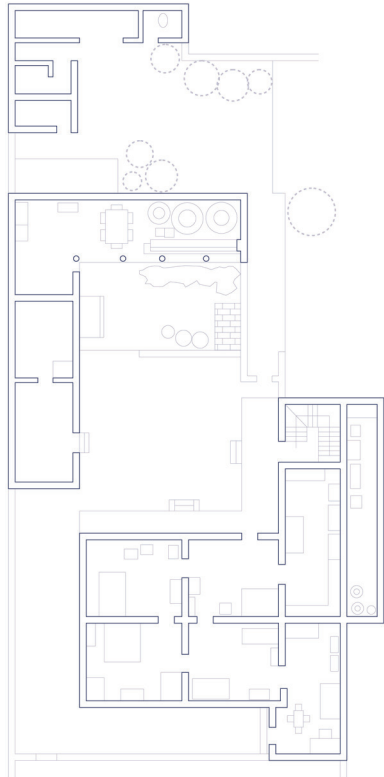
figure ground



open space



matrix of domestic life

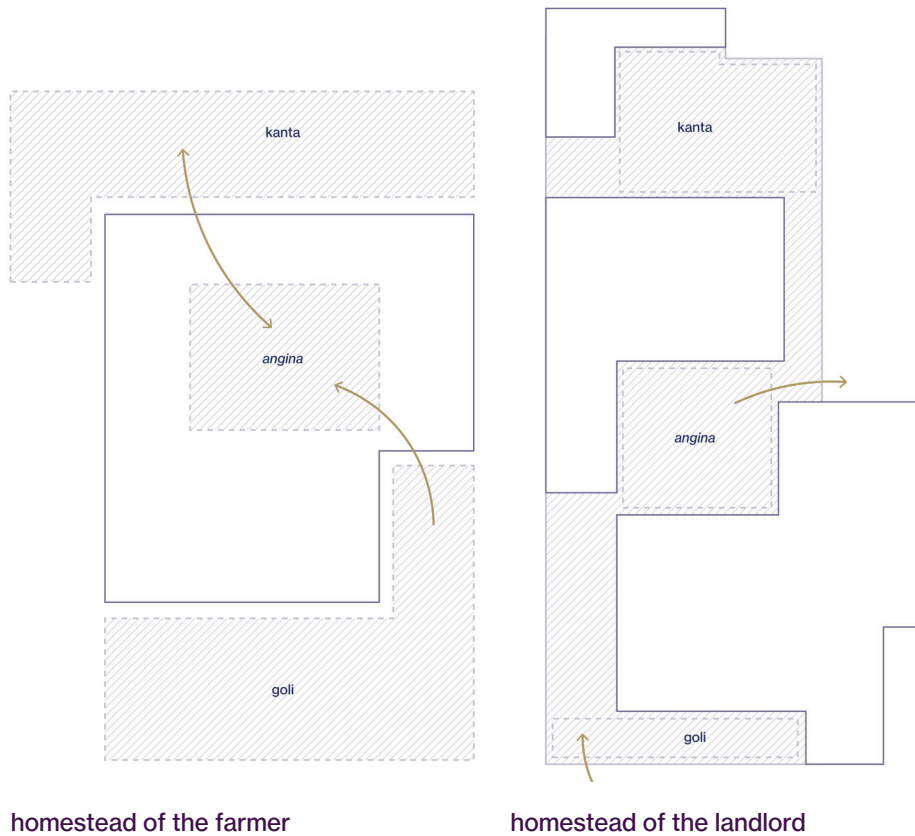


floorplan

courtyards

served // serving

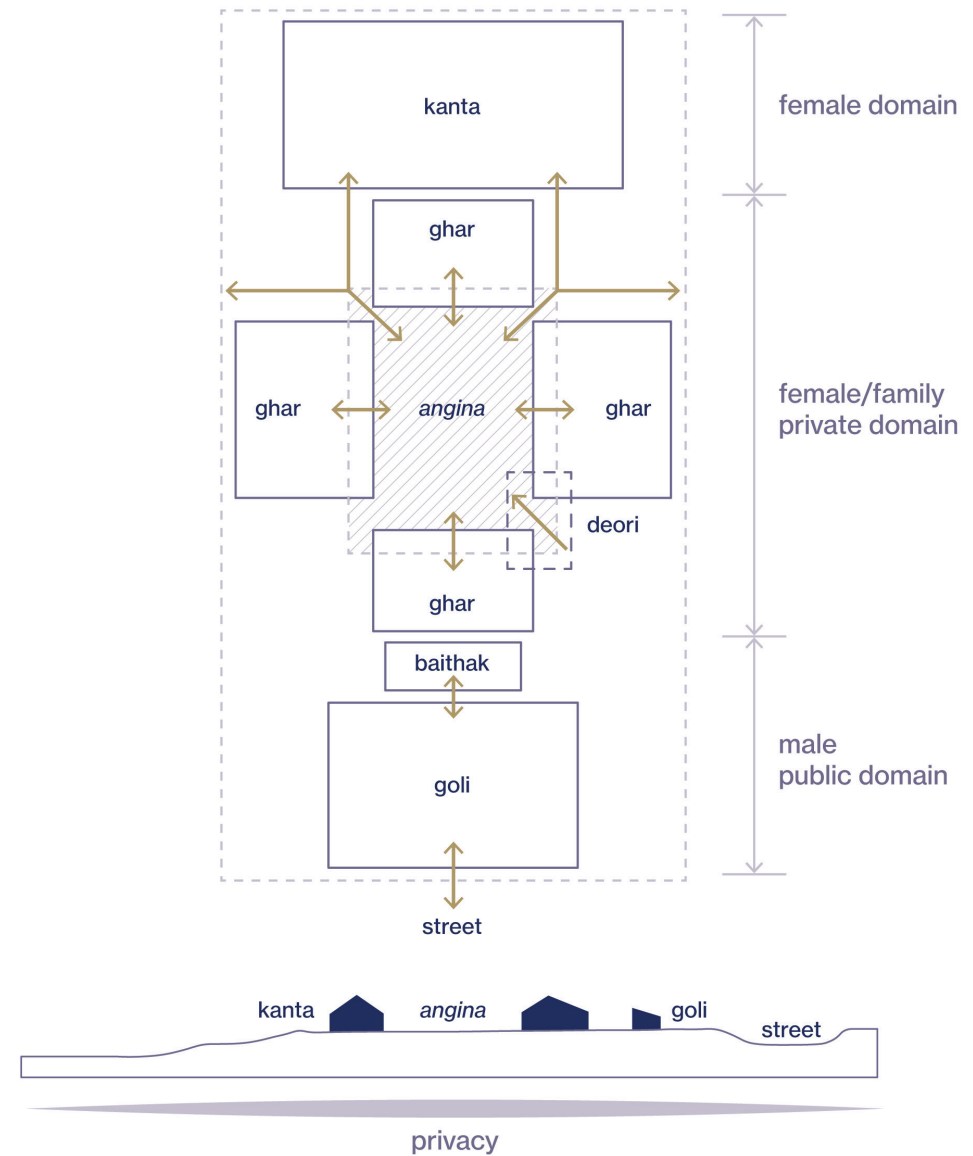
night // day



homestead of the farmer

homestead of the landlord

A recognisable sequence can be recognised in all the homesteads of rural settlements in Bangladesh. Both in the farmer's homestead as in the landlord's the clear goli, angina, kanta sequence is visible. The angina is the most private part of the house and can fulfill a central role in the daily chores of the women. The goli is located at the front of the homestead and is conceived as the men's domain; where men receive their guests and drink tea. The kanta is located at the back of the homestead and is the women's space, however it is seen that in case of prosperity the kanta gets closed off and again limits the freedom of movement by women. In this scenario the kanta performs the role of a second angina, where for example the staff can sleep and the cattle can be stored.



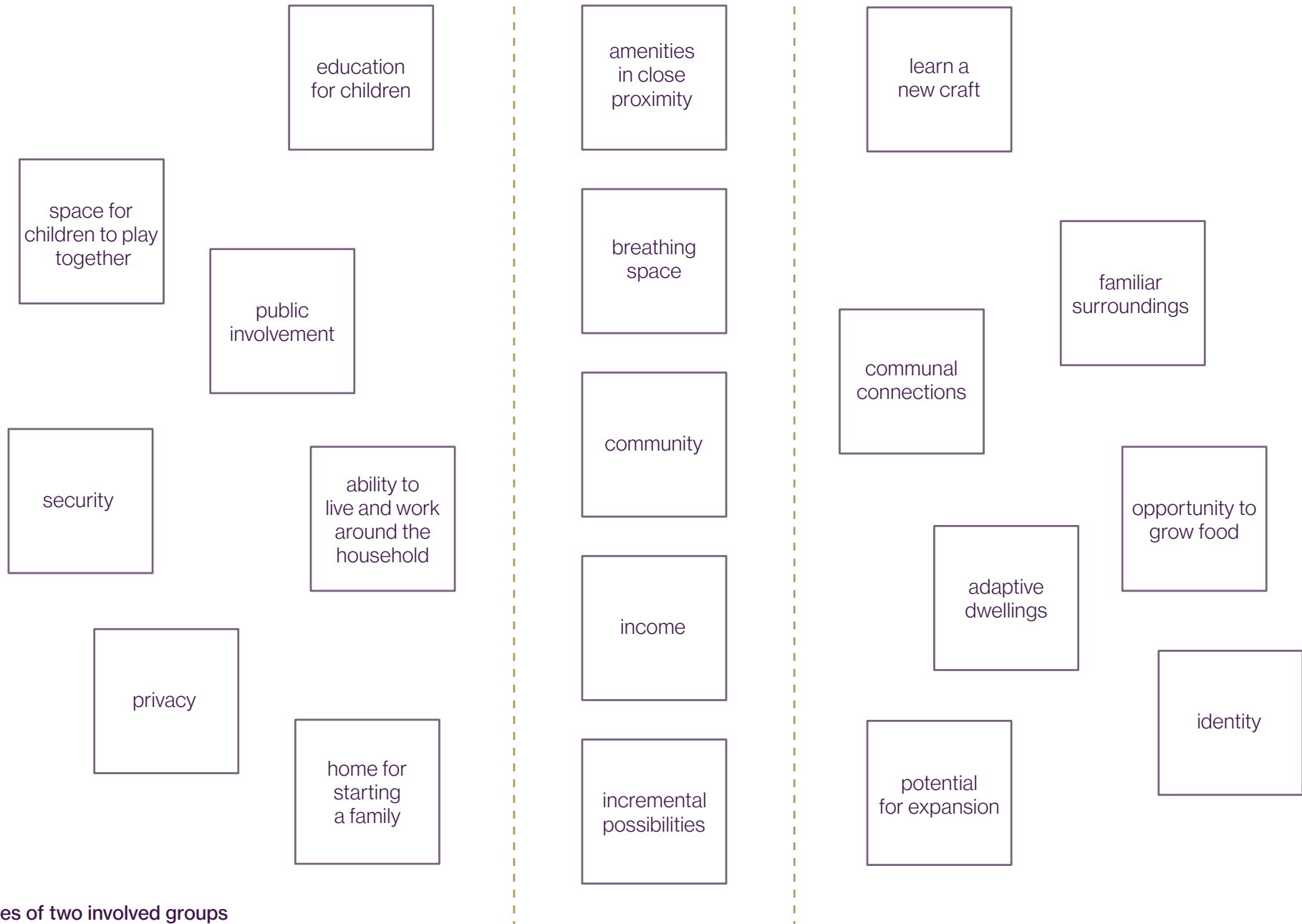
It is important to understand this sequence, due to the fact that rural-urban migration comes with a change of space. Therefore it is essential to understand what these people conceive as their place, with the flexible approach to mitigate this.

women

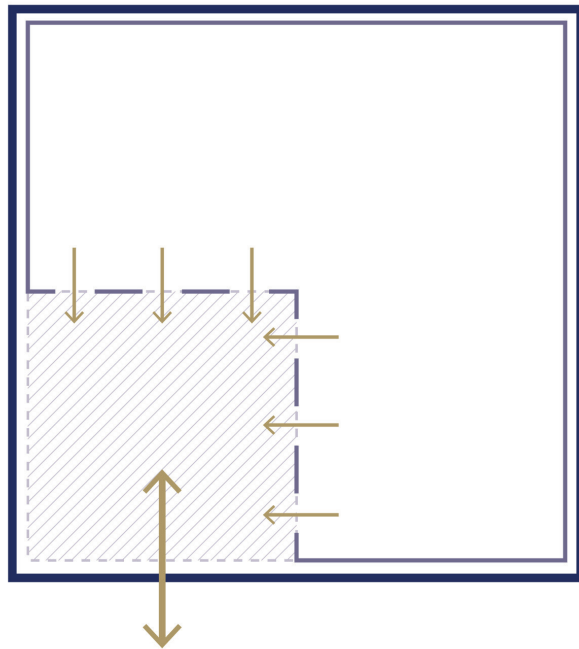
rural-urban migrants

desirables of two involved groups

public
↑
↓
private

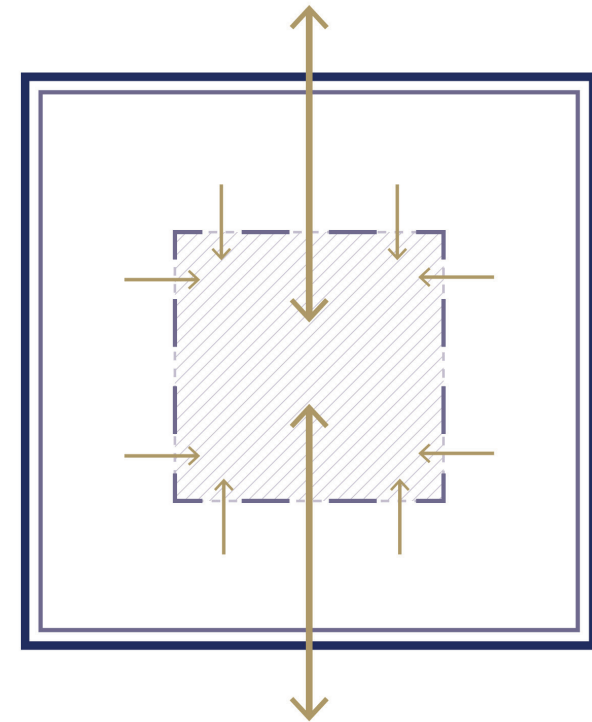


shushtar nou type b



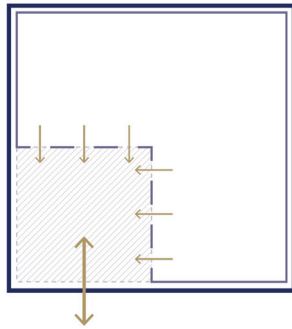
Kamran Diba's Shushtar Nou maintains a strict border between public and private life. The walled houses are not very permeable and limit women from public involvement due to the strict Islamic laws in Iran. Behind the threshold of the wall, one however notes that the courtyard allows the house to breathe. At the heart of the house, in some cases even a tree grows, the courtyard enhances a flexible use of the rooms and because every room is accessible from the courtyard a hierarchy is partly dissolved.

the rural homestead

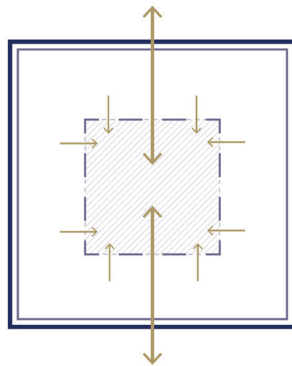


Chowdhury concluded in her research that the physical boundaries for women are flexible but vary according to time, period, and occasion. However, the kinship boundaries of the family and the physical limits of the homestead define the world of a woman, meaning that an increasing amount of resources leads to an increased strictness of purdah. By for example being walled off in which the women's domain of the kanta disappears, limiting the movement of women.

(un)veiling



+



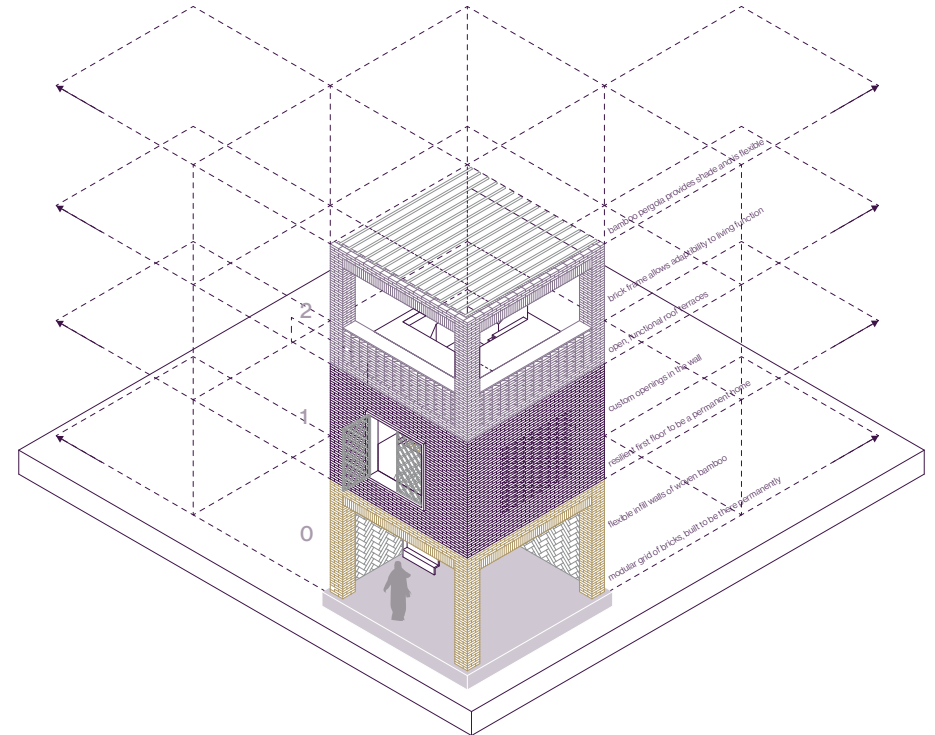
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an urban homestead

clustering / permeability/ less hierarchical / courtyards

how can dwelling design facilitate public involvement for women?

(case studies)



design hypothesis of the P1 presentation



sylhet

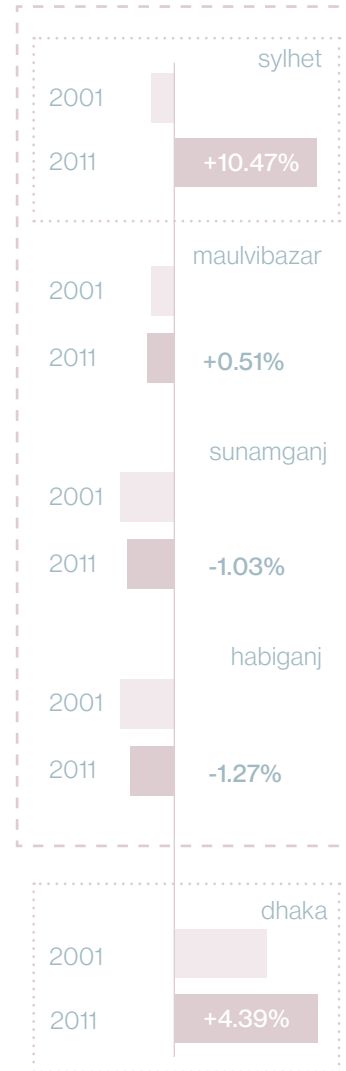
“Migrating people from all over Bangladesh are coming to Sylhet and they are of many income groups. Rickshaw pullers with low income or people who are trying to start a business. The job market is not the biggest, but it is growing, with grocery shops, and clothing shops for example.”

Tahsin Chy
(from conversation in 2024)

an expanding city

In the past ten years, Sylhet District has witnessed a significant internal migration increase of more than 10%, while other districts within the Sylhet Division have experienced a relatively minor net internal migration change, not exceeding 1% between 2001 and 2011. Notably, the relative change in Sylhet Division is double that of Dhaka District. Furthermore, there was an unexpected 20% increase in urban-to rural migration within the district from 1991 to 2001, while rural-to-urban migration within the district decreased by 17%. These migration trends can be contrasted with Dhaka, where changes in urban-to-rural, urban-tourban, and rural-to-rural migration are negligible.

sylhet division



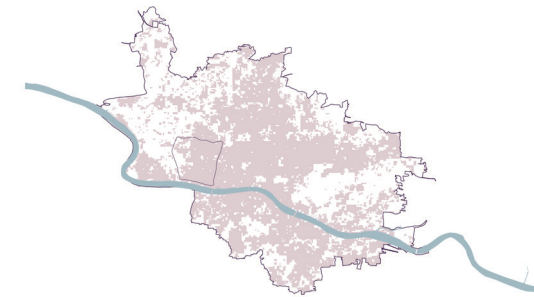
1972



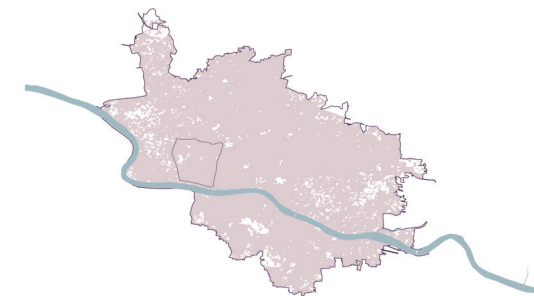
1980

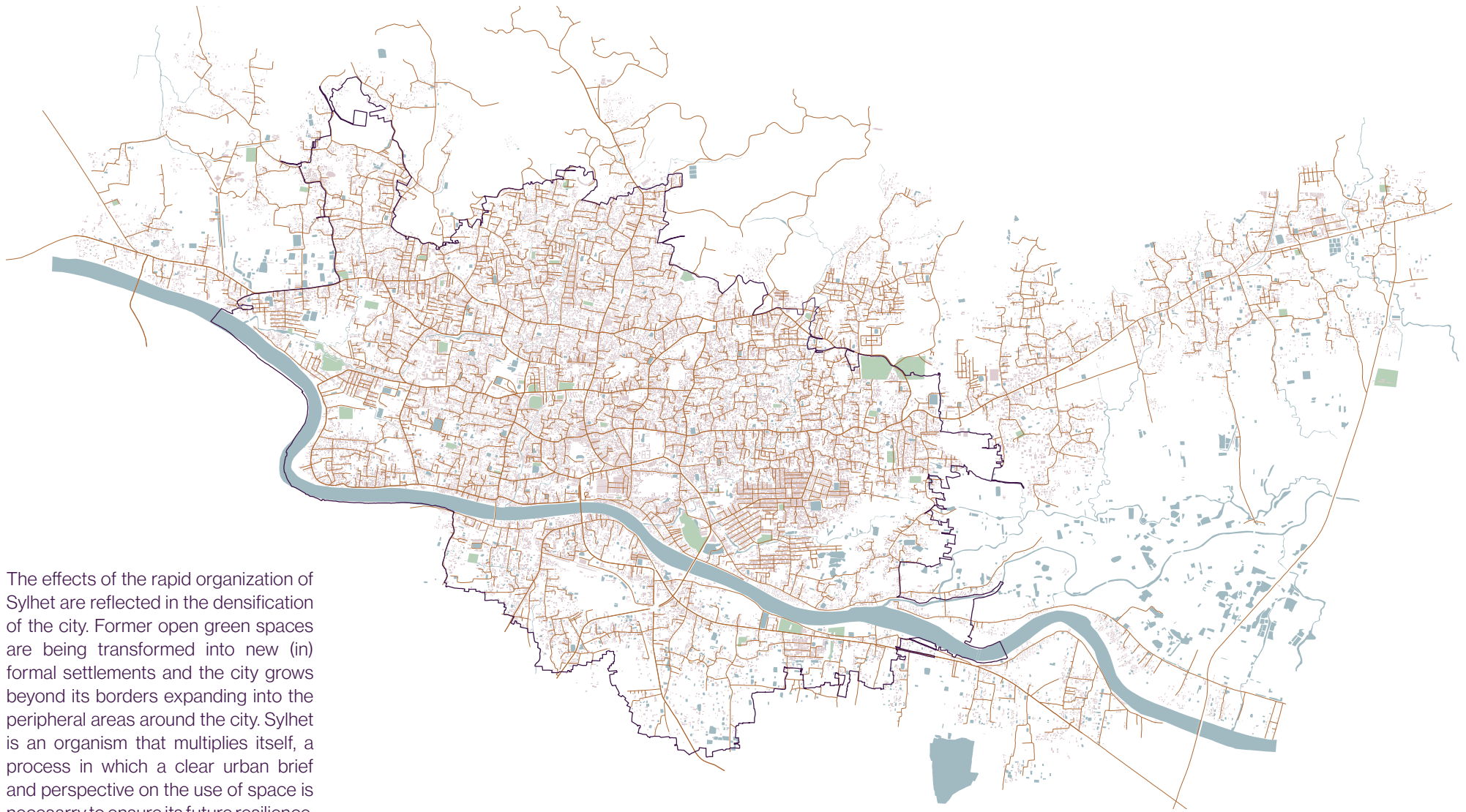


1991

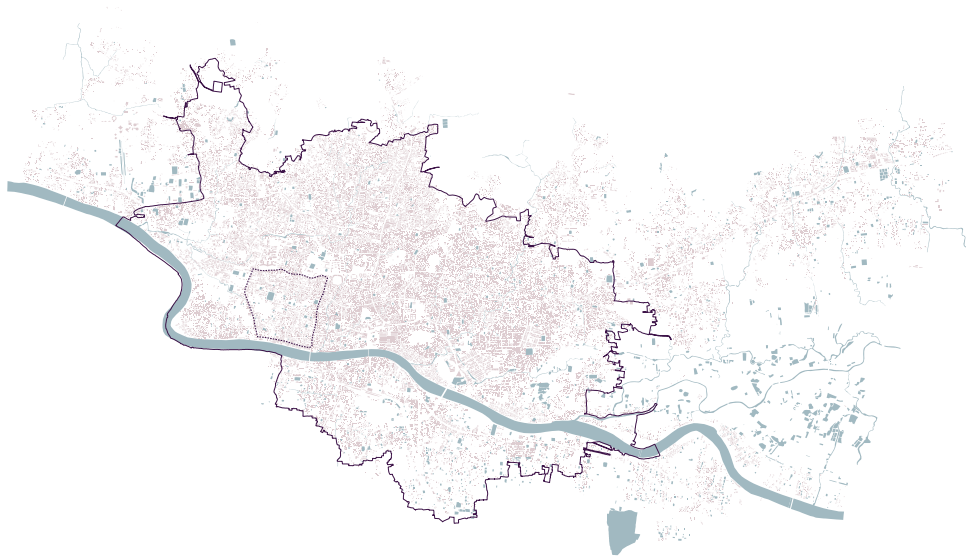


2015



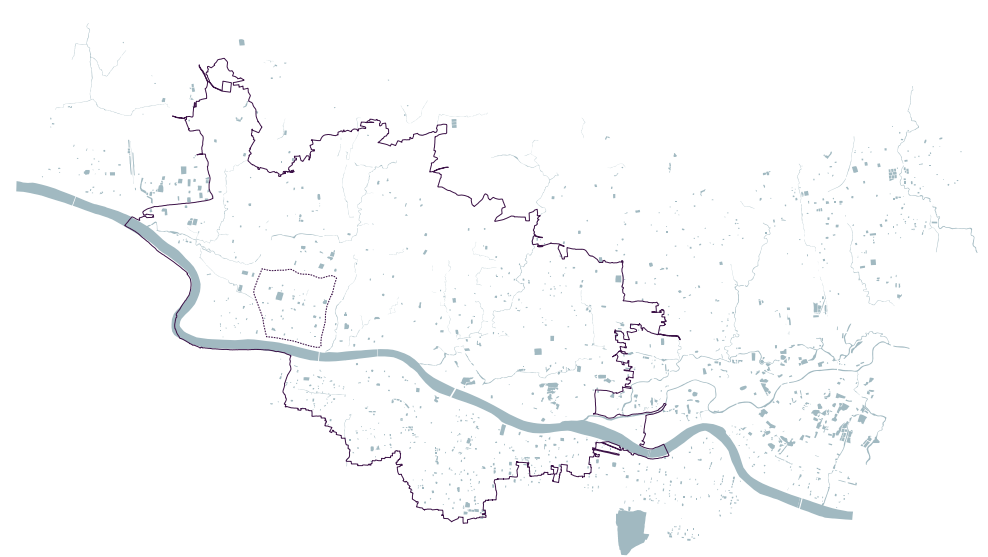


The effects of the rapid organization of Sylhet are reflected in the densification of the city. Former open green spaces are being transformed into new (in) formal settlements and the city grows beyond its borders expanding into the peripheral areas around the city. Sylhet is an organism that multiplies itself, a process in which a clear urban brief and perspective on the use of space is necessary to ensure its future resilience.



identity

During the current expansion, the identity of Sylhet should be maintained and integrated within urban design. Landmarks such as the red Keane bridge and the shrine of Shahjalal Dargah embody the culture of the city and should be kept intact in further urban expansion. The Bangla Baton house, one of the archetypical Sylheti dwelling types, represents the historical way of dwelling of the area and should be protected against the current trend in which they are quickly disappearing because of modern residential towers and complexes, that lack a sense of cultural value.



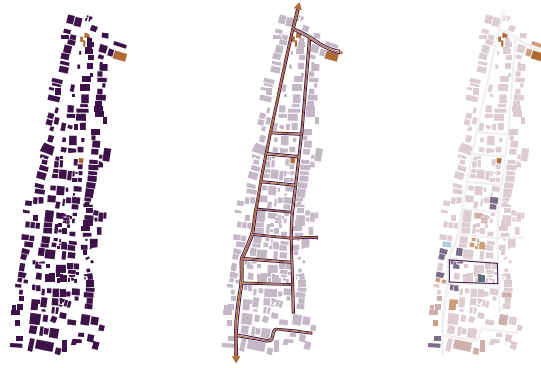
ponds

Water bodies have always played a significant role in the city's social, economic, and environmental aspects, serving various purposes, including fishing, swimming, washing, daily house chores, and passing leisure time. In the city of Sylhet the ponds are also an essential part of the resilience strategy against the abundance of water during the monsoons, effecting in the flooding of the Surma river. A worrying trend sees that multiple small and bigger ponds are being filled in to open up space for real estate, weakening Sylhet's water resiliency in vulnerable times of climate change.

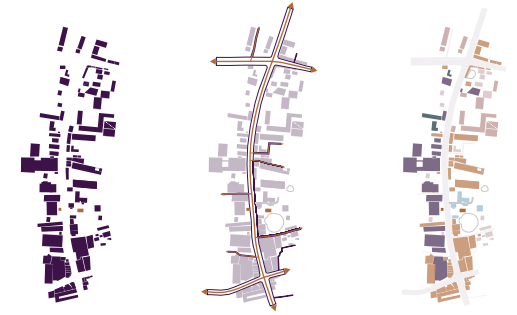
profiles of sylhet

- religious
- residential
- commercial
- mixed use
- educational
- health
- industrial

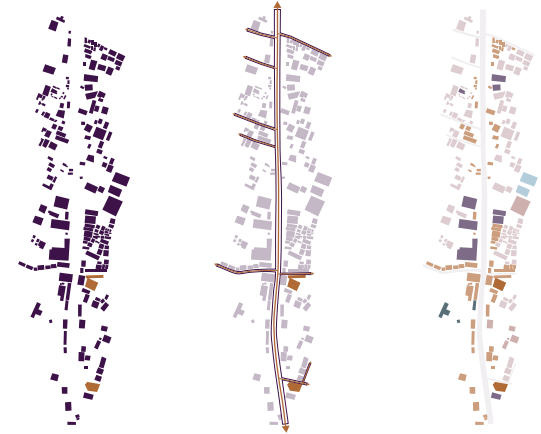
housing estate



zindabazar



chamelibagh



medical college road



kolapara



padma oil

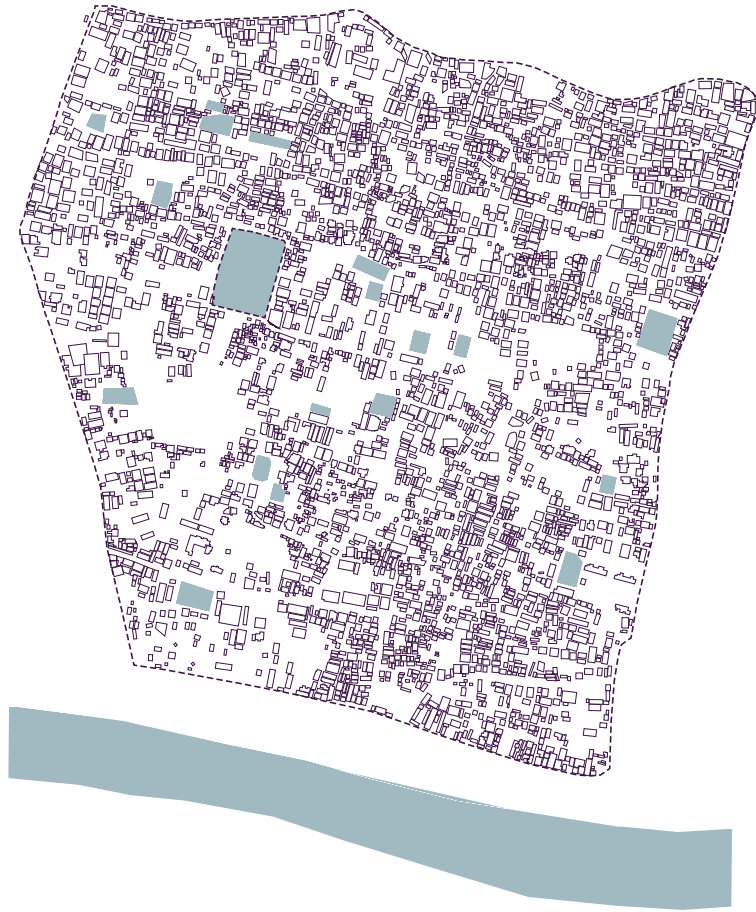




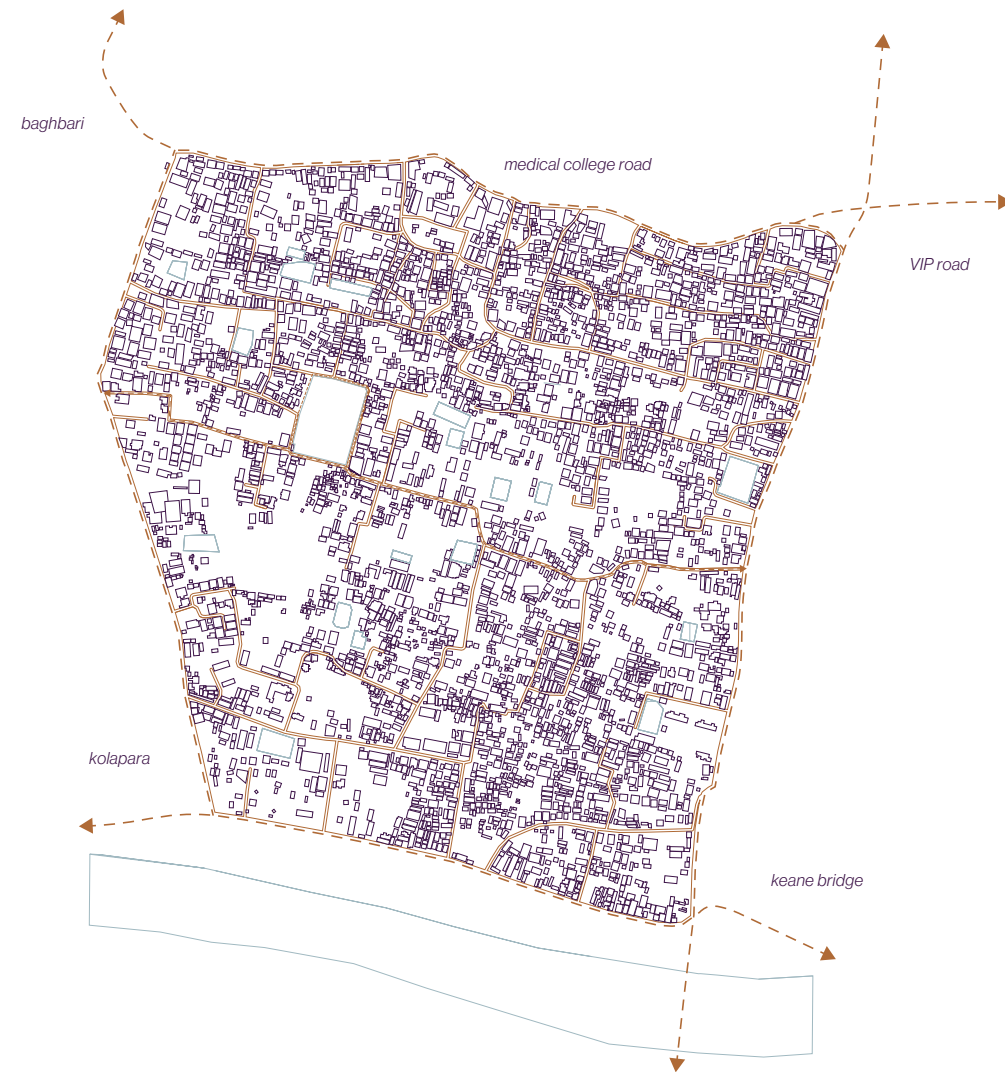
ward 11&12
figure ground



ward 11&12
open space



ward 11&12
urban waterbodies



ward 11&12
urban connections



Sylhet MAG Osmani hospital

This renowned governmental hospital was established as institute hospital in the year 1936 shifted to its present location in 1978. It is named after a hero of the liberation war, general Osmani.



staff quarters

This medical colony a little north east of the Laladighi urban zone houses staff and students of the MAG Osmani hospital and its medical college.



sylhet district stadium

This stadium with a capacity of over 15,000 is mostly used for football matches and is a bit smaller than the International Cricket stadium and is located on the northern side of Sylhet.



site analysis

“The pond frequently gets flooded during monsoon season, the water comes in our houses up until the height of my hip, but we like to live and come together around the pond.”

Woman living in the informal settlement
(from conversation during site visit in 2023)



relevance & applicability

The social system of purdah is characterized by constantly evolving boundaries contingent to social interpretation. Within the understanding of purdah, 'place' is space imbued with social and cultural meaning of a specific context. One could stress that this implies that any architectural project within the contextual fluid boundaries of purdah is highly distinctive by nature and hence too site specific to have relevance in a broader context.

To translate the character of the conducted research into an architectural pertinent hypothesis; the selection of an appropriate project site within the changing urban climate of Sylhet will be defining for the overall relevance of the project in both the (hypothetical) built and unbuilt. A social motivation for the choice of a specific site should consider the urgent effects of rural-urban migration to the city, demanding a certain spatial flexibility within the chaotic fabric of Sylhet in order to develop a dwelling project that is rooted in the city while also being an addition to that what already exists. The site should be able to accommodate growth of the city, without limiting possibilities and interfering of daily habits of existing communities, and actually mitigate existing boundaries prompted by for example religion and urban planning.

Laladighir Par is one of the urban water bodies in the shape of ponds that are scattered around the city and deeply intertwined with its urban fabric and inhabitants. Water bodies have always played a significant role in the city's social, economic, and environmental aspects, serving various purposes, including fishing, swimming, washing, daily house chores, and passing leisure time.¹⁹ The pond is the spatial center of a diverse community consisting of primarily Muslims and Hindu ethnic Manipuri people. A walk around the pond displays a wide variety of housing types. A walled and vacant, trash-strewn greenfield immediately catches the eye, located right in between an informal settlement on one side and a few mid-size apartment blocks on the other. The strip of land of around eighty meters deep and thirty meters wide functions as a boundary in between the pond in the south and a large, open play area with a cricket field in the north, while simultaneously being squeezed in between the small, porous informal housing and the bigger apartment blocks. A space where the potential of connection and challenges of transition are intertwined, within the walled boundaries making a threshold of this place.

The culmination of this research should manifest itself as an architectural toolset for facilitating public involvement of women, beyond just a built endproduct. Within the constantly evolving boundaries of purdah, the strength of a housing project on a site like this in an expanding Sylhet is found in its reapplicability. A flexible, modular approach towards the temporary and permanent design decisions will allow this project to be resilient, versatile and reapplicable in the near and distant future.

living side by side

Laladighi consists of a muslim and manipuri community, two groups that live via their own cultural values but live side by side around the pond. The pond is the place where they come together, where two communities become one.



The muslim women are less visible in the daily chores around the pond, because of the strict purdah norms. Like in the kantas of rural Bangladesh, these women find ways to move around as free as possible via informal paths.

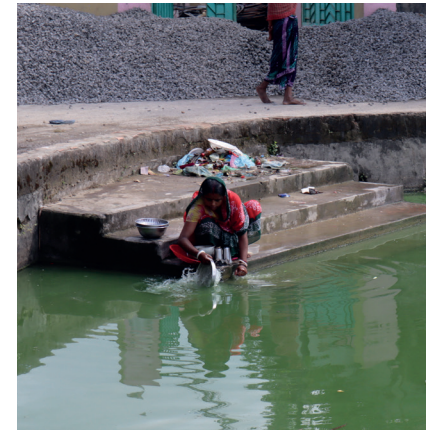


Migrating women told us that they want to start their own mudi shop, with financial help of NGO's. The sense of community of the pond can stimulate these intentions and help these women to be publicly involved and accepted.



activities of laladighi

Women come together around the pond to do the dishes, a moment they highly value. During these activities, the muslim and manipuri people meet each other, establishing a sense of community around the Laladighi pond.



The pond is being emptied from trash multiple times per day. The man doing this, shown on the image, is at the heart of the community of Laladighi and is highly valued.



Especially men come together in the pond to wash themselves. An activity that allows social interaction and goes back to the essence of these urban waterbodies.



a new spatial sequence

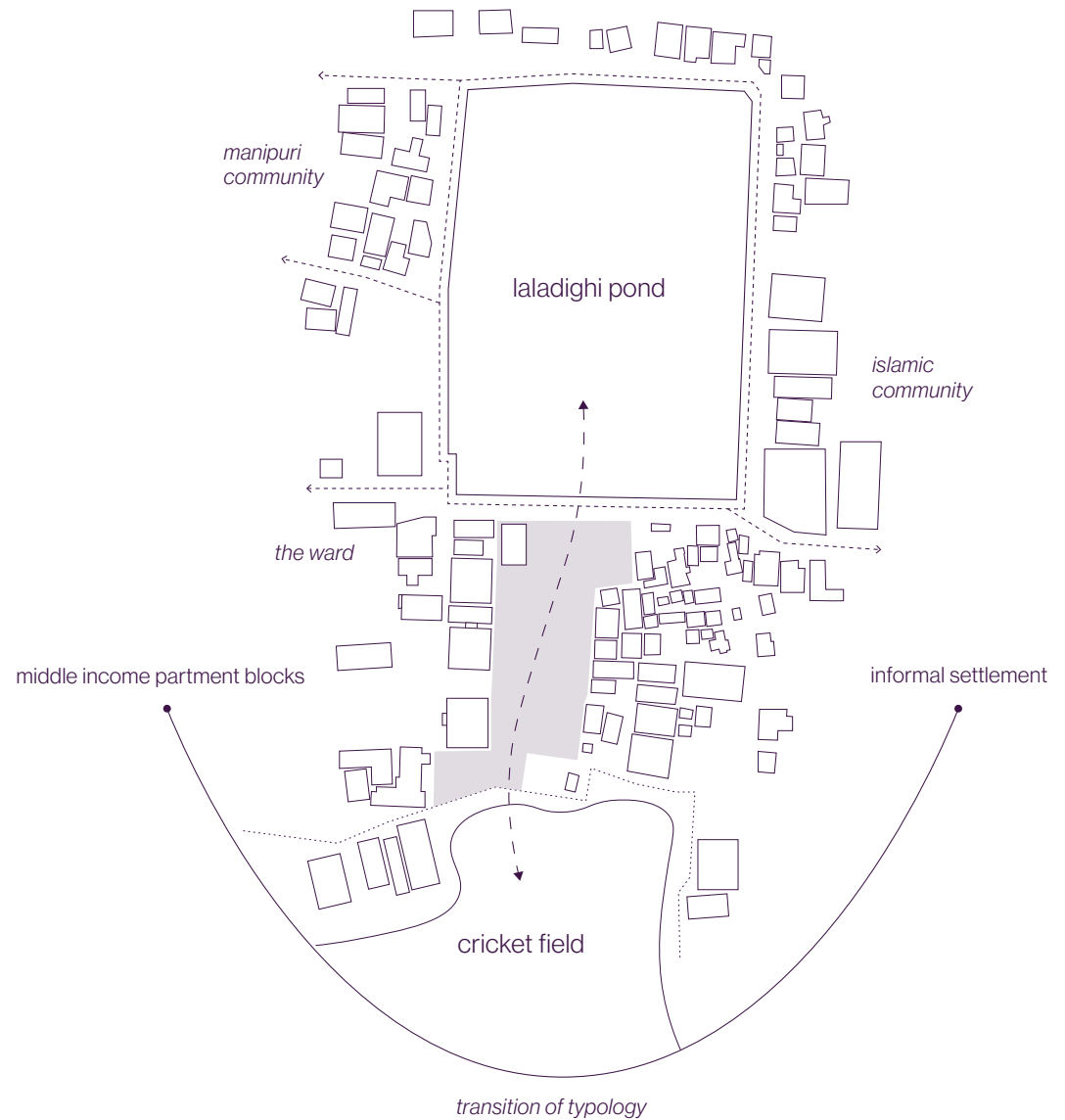
The fact that the site is directly next to the pond embodies high potential. The sense of community of Laladighi should be further enhanced by means of this new development and should be integrated in the added urban fabric.



Located right in between an informal settlement and middle income apartment blocks, demands a typology transition. The brownfield is not even used for playing anymore and should therefore be transformed and activated.



A large green open area functions both as a cricket field and a meadow for cattle. Establishing an urban connection between the pond and the cricketfield can enhance the sense of community and public involvement for women.



main observations of site analysis

stakeholders



To conclude the urban- and site analysis, a group of possible stakeholders for this development have been identified. The role of the Sylhet MAG Osmani hospital and medical college stands out the most. Due to the rapid expansion of Sylhet and therefore the need of an increasing capacity of medical care, the location and medical character of this site are ideal to include staff housing for the hospital and by doing so involve the governmental hospital as a financial catalyser that is closely knit with the community of Laladighi, establishing new job potential for the women of Laladighi.

interests

socio cultural

physiological and safety needs

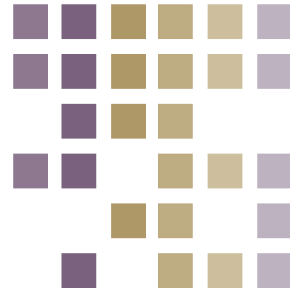
health & wellbeing

communication & relationships

religious practice

social integration

leisure activities & personal evolvement



economic

low cost construction

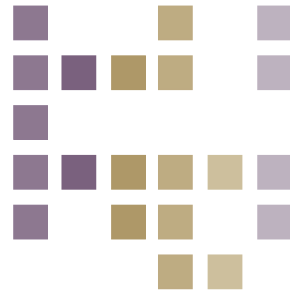
urban connectivity

cheap labour

efficient use of space

cheap maintenance

financial advice



environmental

fresh air quality

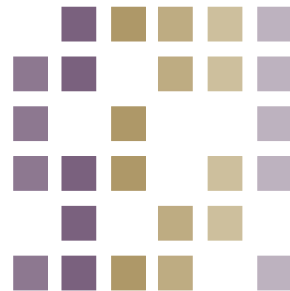
clean water

low tech construction

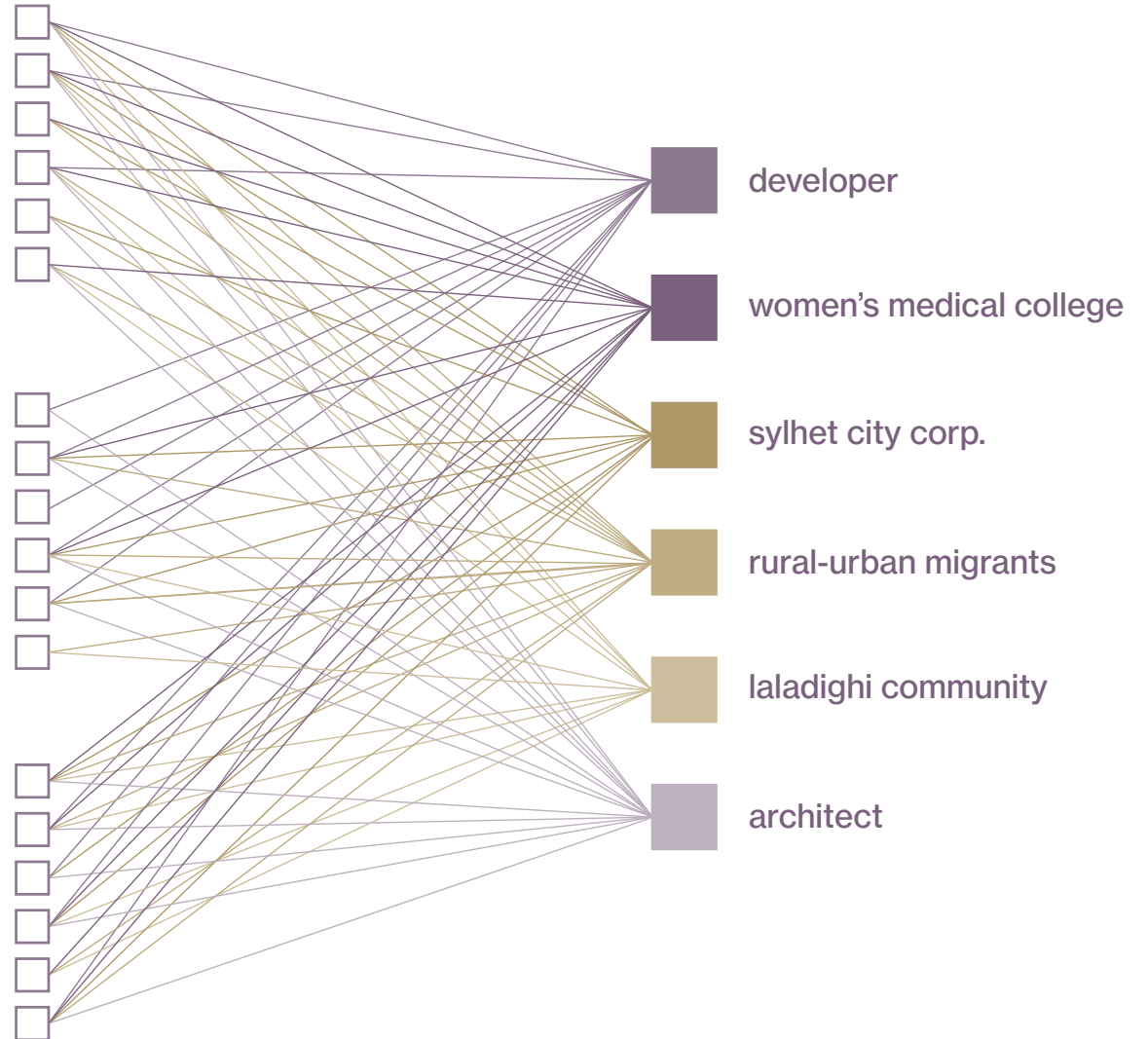
controlled waste organization

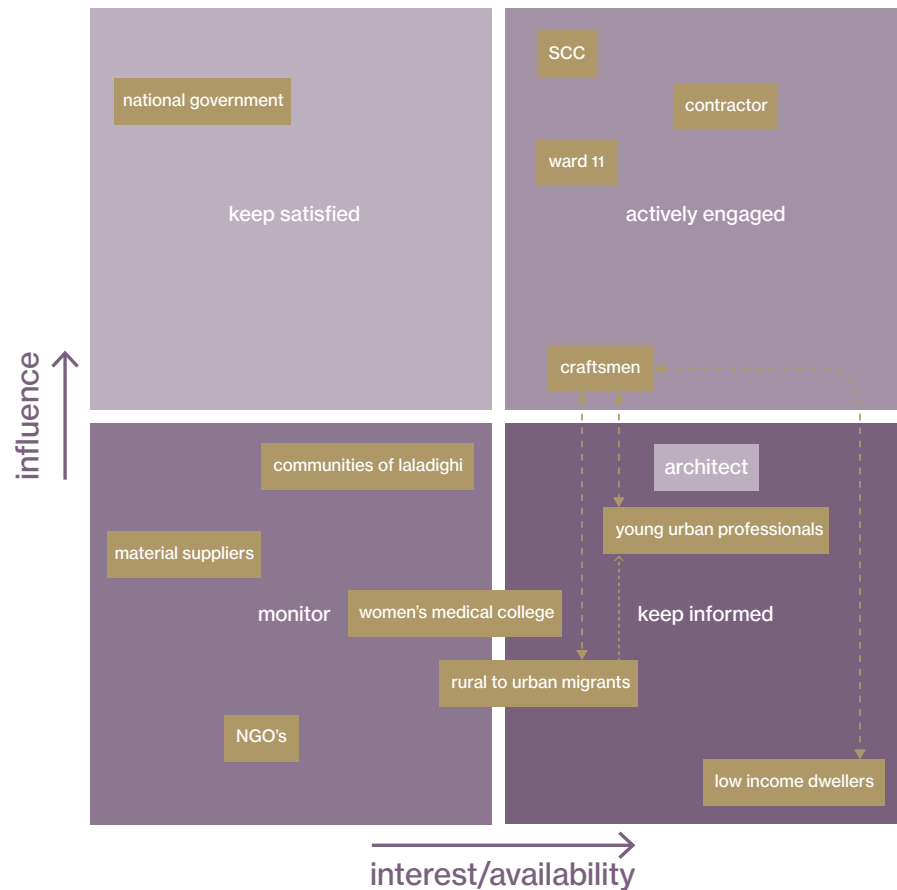
local food production

water resilience



stakeholders



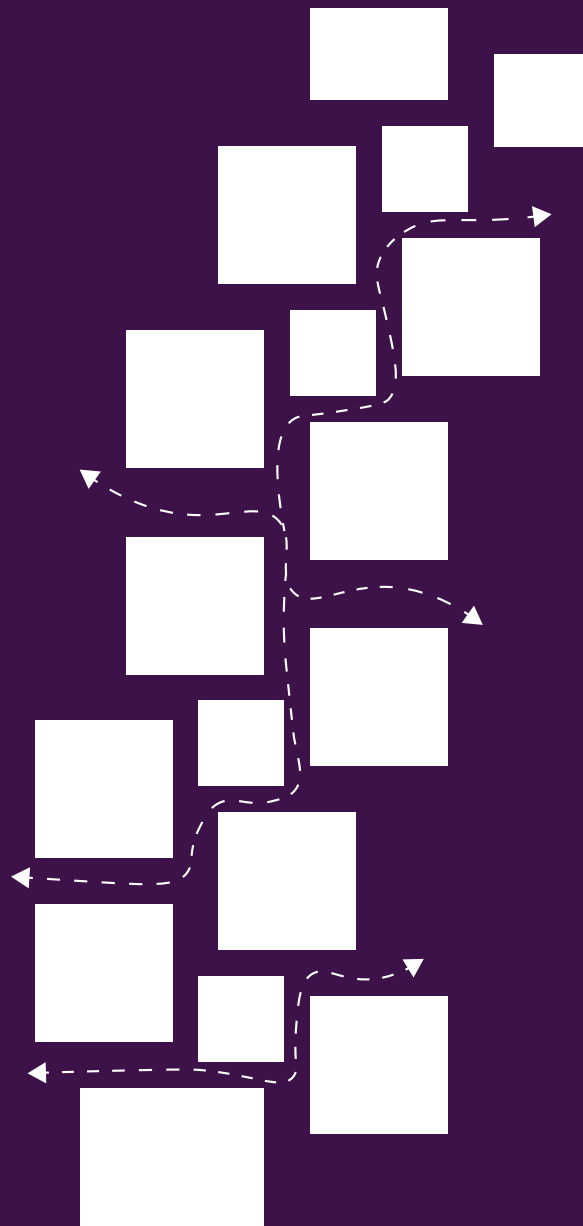


stakeholders mapping

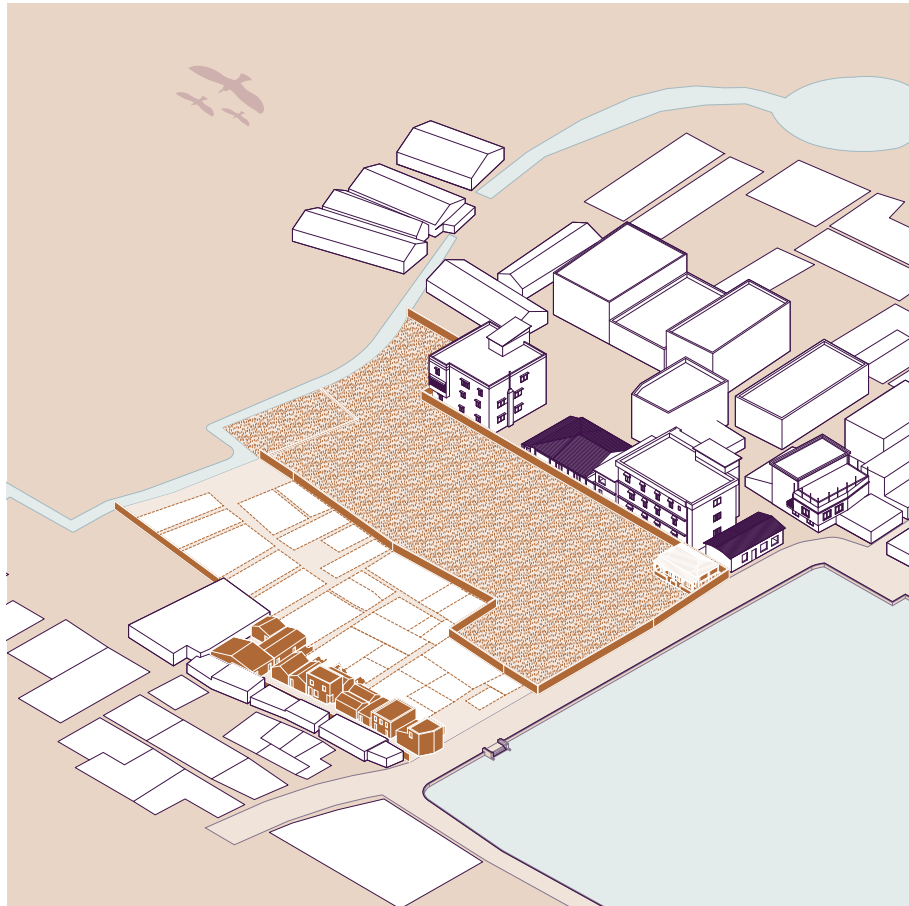
By mapping the various stakeholders, one generates an overview on the involvement of the different actors. By doing this, a clear managerial strategy can be defined in which the role of the Sylhet MAG Osmani hospital and medical college is essential.

The map clearly shows the importance a strong sense of community can play both during and after the development. Connecting the low income dwellers, rural-urban migrants and highly educated young professionals by means of involvement is the development of this design project can be essential for the overall resilience of Laladighi. Striving for a maximal involvement of the people of Laladighi brings them together and can be a catalyser an increased amount of public involvement for women as well.

As we have heard from the women of Laladighi during our interviews, they are always most directly involved in the rebuilding of their dwellings after the rising waters have damaged it, so these women are not only responsible for daily tasks as cleaning, cooking and taking care of the kids. Involving women in the design and the rest of the process, we can give them a public voice.



urban strategy



laladighi: a status quo



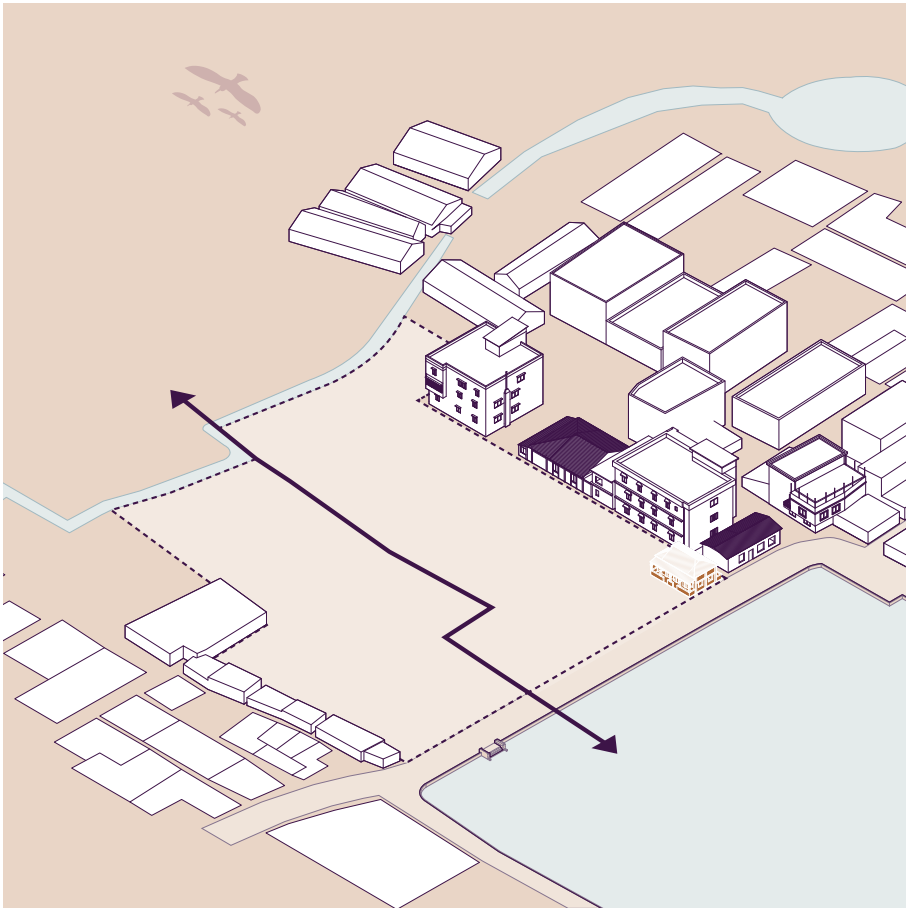
informal settlement

The quality of the housing in the current informal settlement next to the site is very poor. Every year during the floods, the water comes over 3ft high, effecting in yearly rebuilding of most of these houses. To improve the resilience of the area, it is considered to replace the existing situation for more resilient dwellings by adding the footprint of the informal settlement to the site. An integral development of this community can strengthen their future prospects.



middle-income apartment blocks

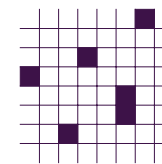
A number of middle-income apartment blocks on the other side of the site will be maintained. The structural quality of these buildings are sufficient and the current residents represent an important part in the demogrphical build up of the islamic community of Laladighi. The wall inbetween the site and these blocks will be removed, to stimulate connection within the expanding urban fabric. Creating a network of connections to open up life.



a vision for a new urban interface



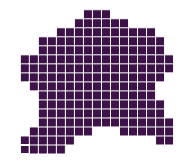
urban structure



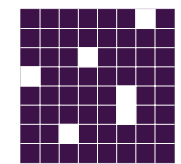
collectivity



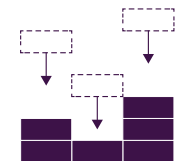
privacy/purdah



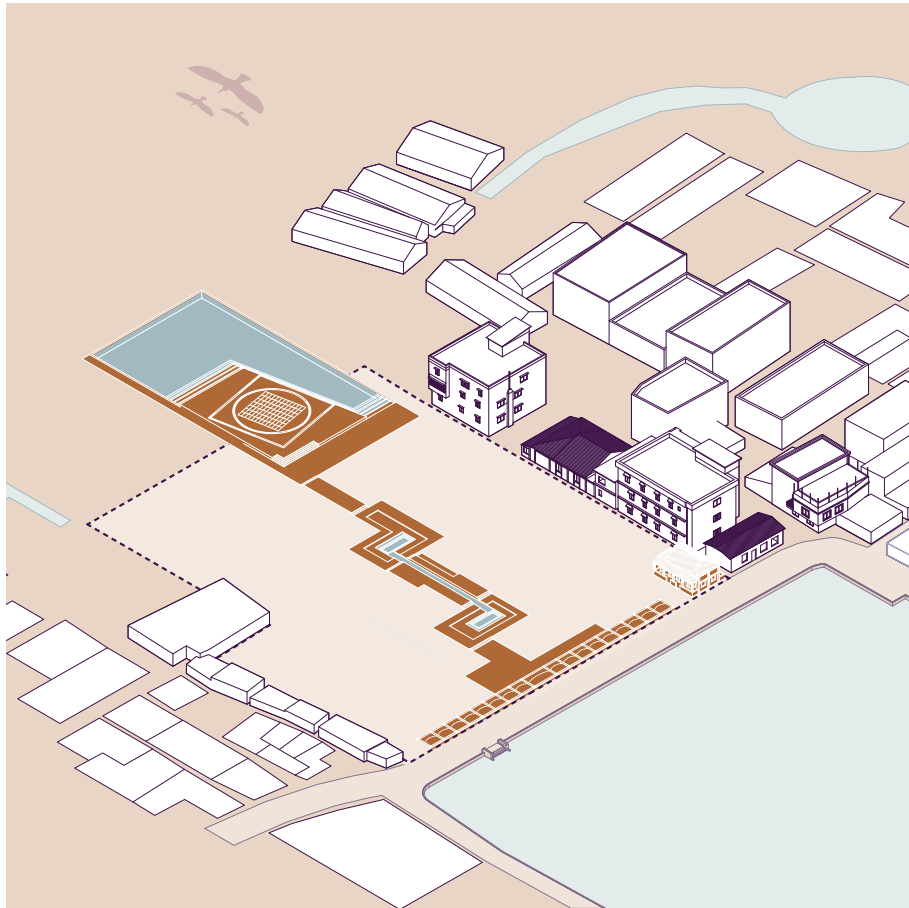
small urban grain



density



incremental



an urban counterweight



friendship hospital by kashef chowdhury

The design of the hospital was inspired by a powerful abstraction of the riverine Bengal landscape, the campus blends with the surroundings. A canal was introduced, which traverses the site controlling access while collecting rainwater and animating an internal landscape. Two large tanks hold the harvested water, a valuable resource in an area where the saline groundwater is practically unusable.

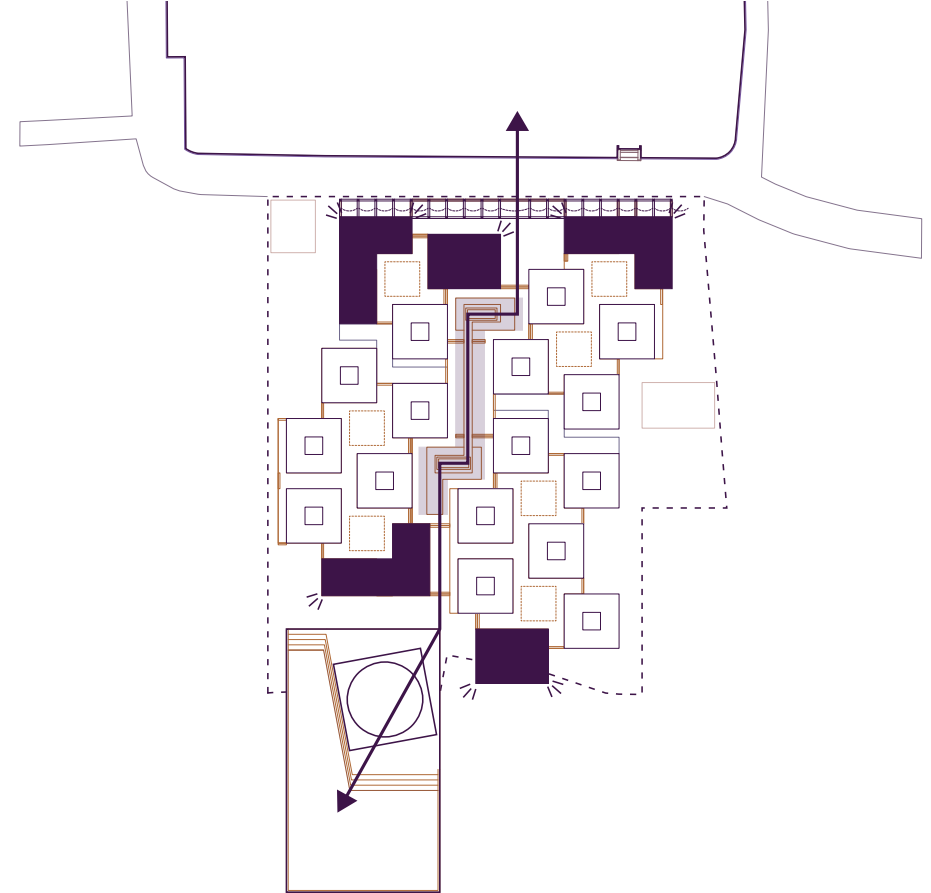


tara housing by charles correa

Charles Correa's Tara Housing is laid out on a configuration that resulted in a central area which allows the units to shade each other against the hot dry climate of North India. The central community area is landscaped with trees; running water and trellis were proposed along with trees so as to humidify and cool the dry winds. An introvert street configuration was created fitting in the topography.



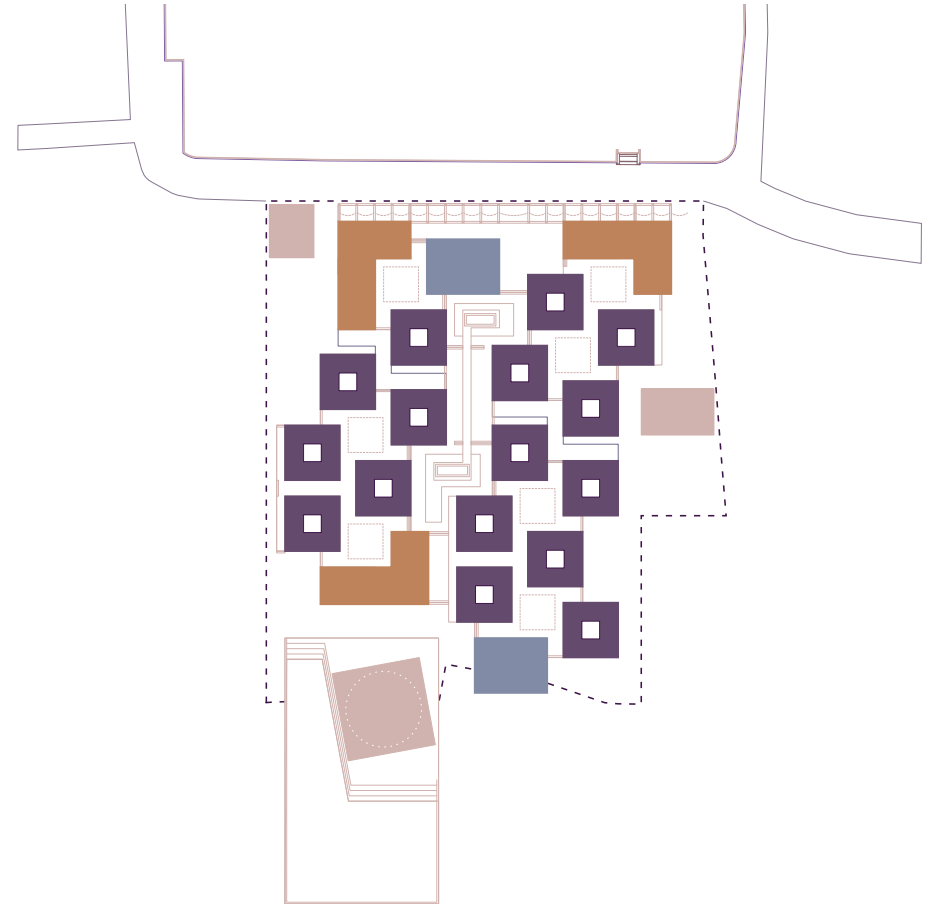
from pond to pond: a gradient of thresholds



The public focal points are in close proximity to the urban waterbodies, connected through a public spine with the possibility for commercial activities in most of the ground floor dwellings.

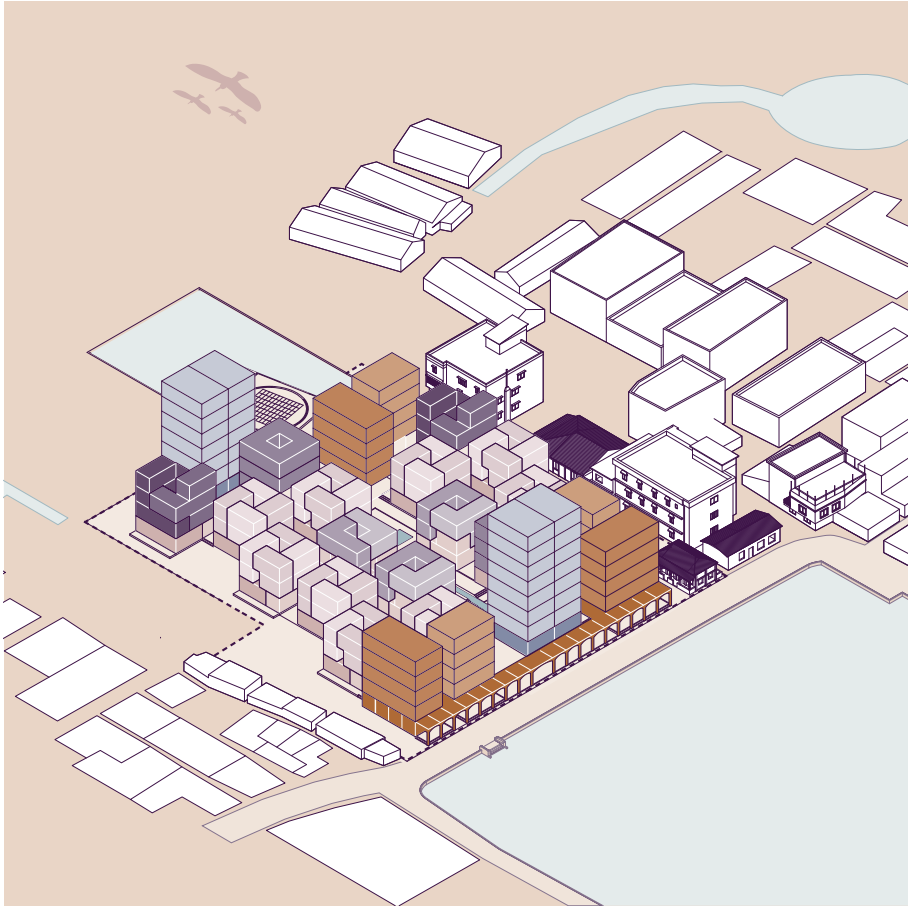


a set of urban fitting volumes



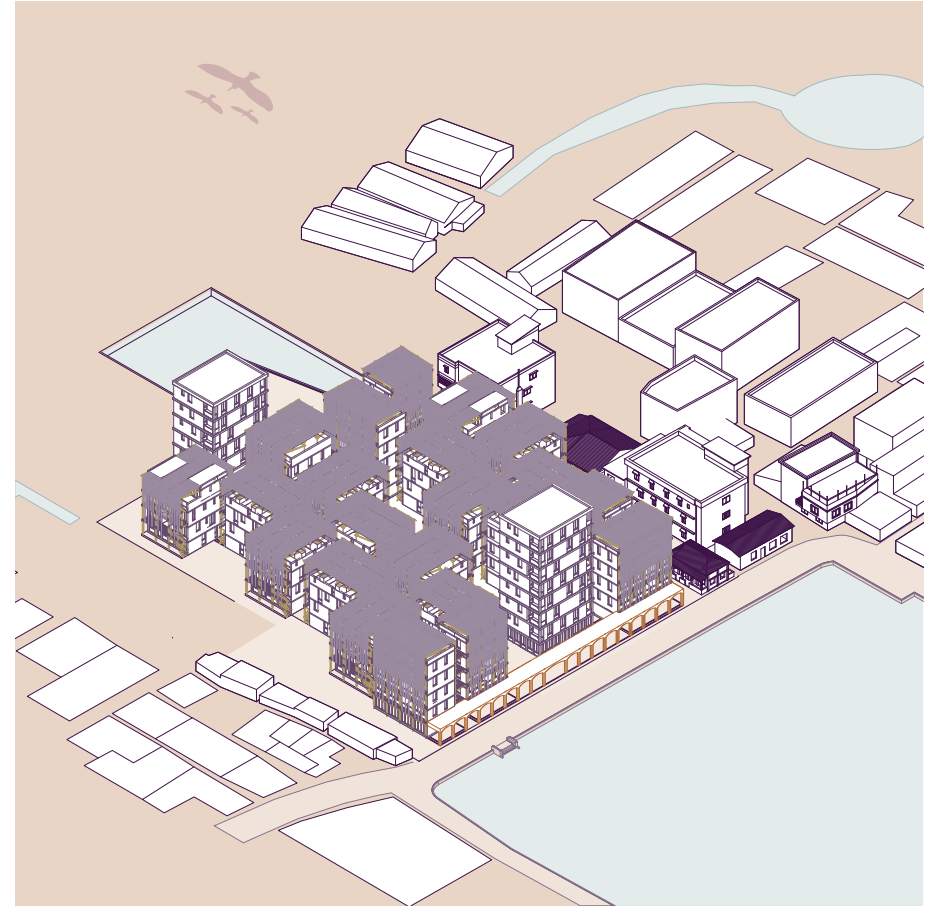
Three urban volumes: the urban homestead, the pondside & the beacon.

5/6

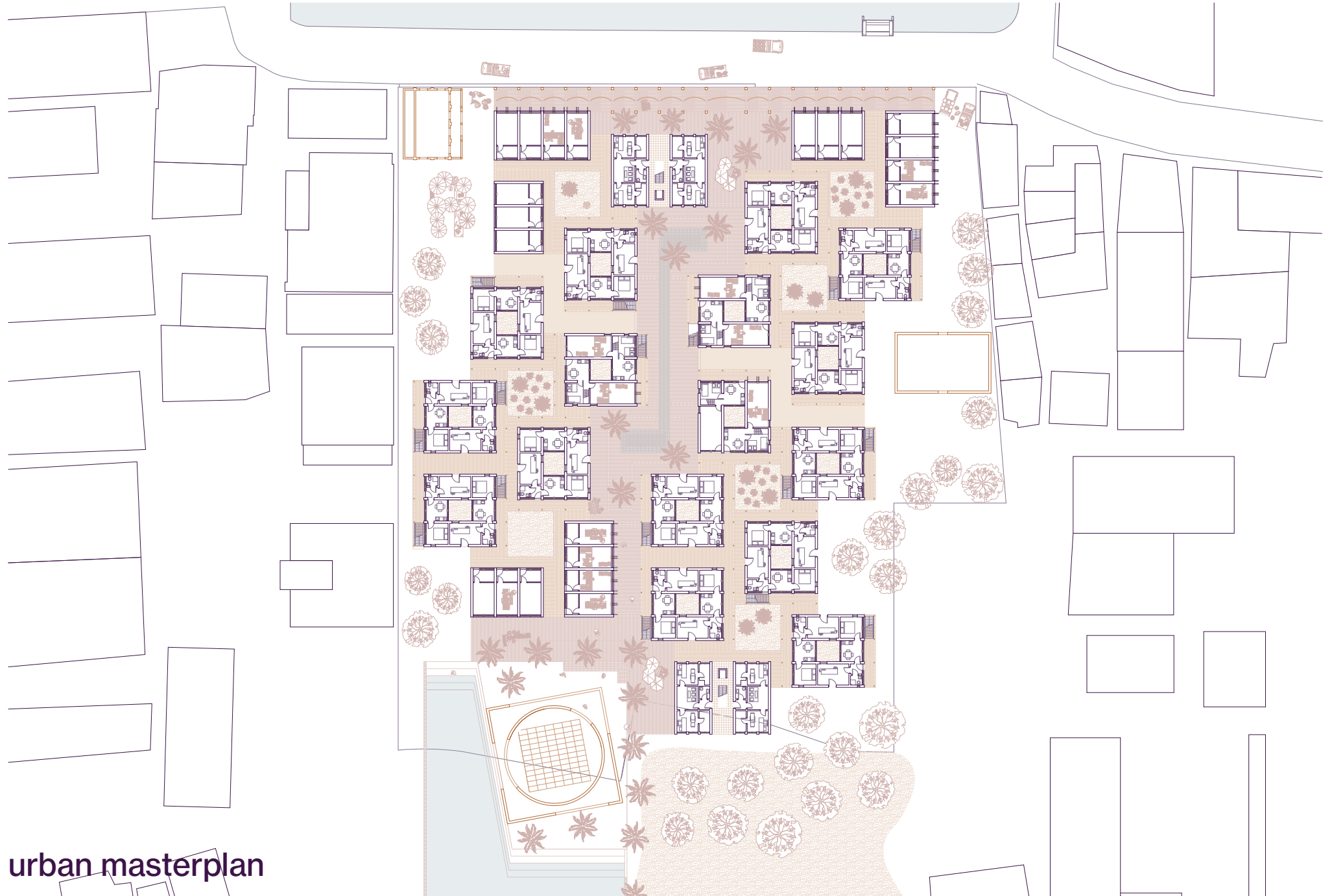


differentiation within a set framework

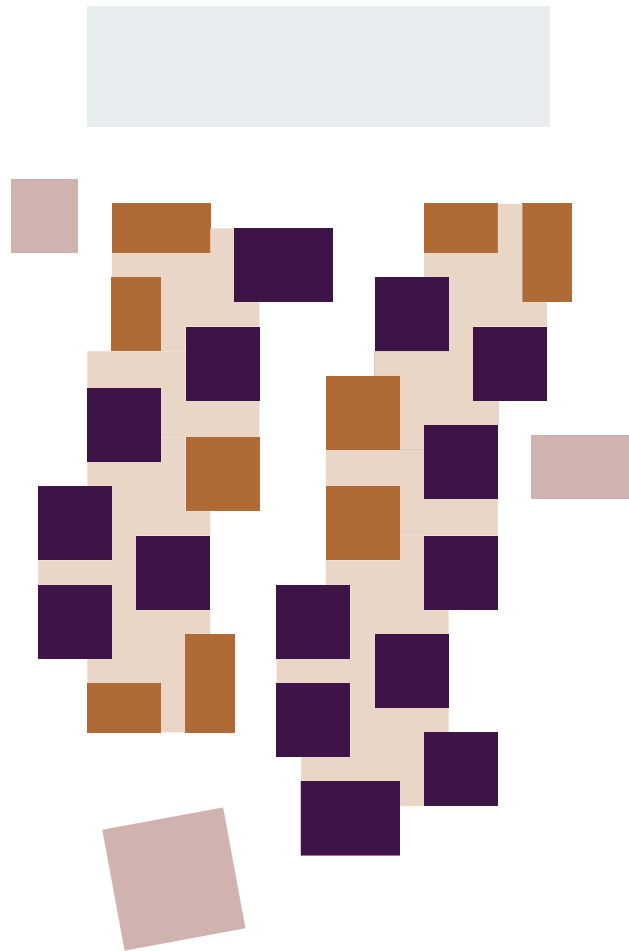
6/6



A new Laladighi.



urban masterplan

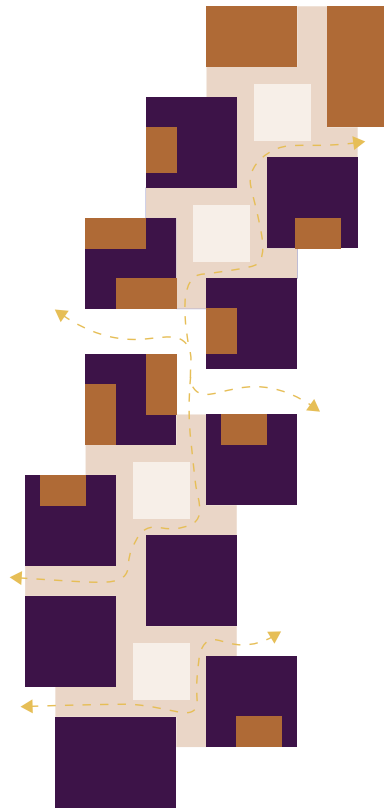


district



The mobility of women in the public realm in rural Bangladesh is limited, however the villages Tasneem Chowdhury studied had a “women’s pier” at the riverbang where women would come together and bathe. Men would normally avoid these places. In my urban scheme the intention is to mix men and women in the public realm when possible. Respecting the social system of purdah, while trying to give reason and opportunities for women to be publically involved, with the Laladighi pond as the main destination where everyone can come together and strengthen the sense of community.

laladighi

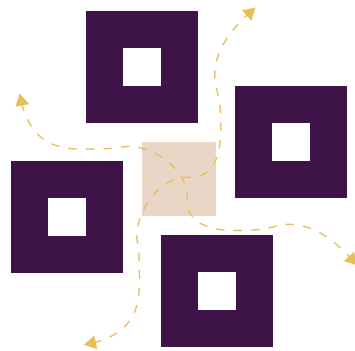


neighbourhood



Chowdhury states that the backyard of the homestead, the kanta, is considered as primarily women's space. Women can move freely there, throughout the para's. Small neighbourhoods connected by narrow footpaths at the back of the homesteads. In the new development the para's are translated into a secondary route through the plot from east to west. Connecting the middle apartment blocks to the newly built school and the former informal settlement, trying to optimize the connectivity for all income groups and to add a next translucent threshold to dissolve the strict borders of purdah.

para

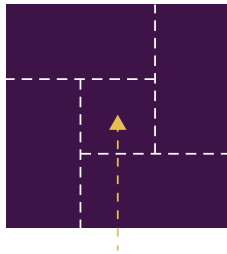


cluster

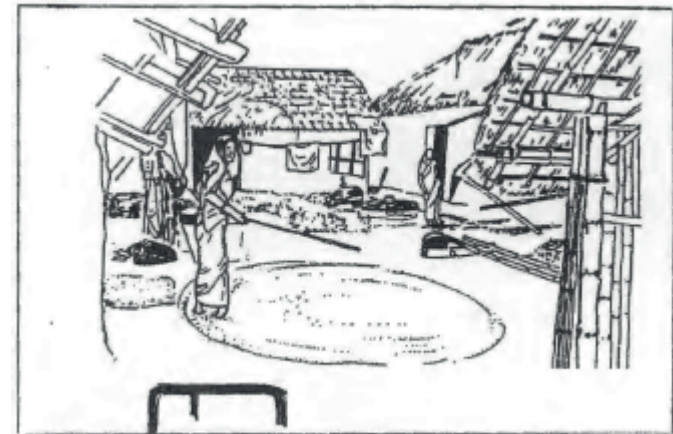


In rural villages, the baithak is mostly men territory. It is a long shaded porch facing the goli where male guests are recieved. The baithak is one of the spaces in the sequence of the rural homestead in which purdah is most recognizable. That is why in my design I had the intention to thematically flip the understanding of the baithak. It maintains its function as a place where people meet in front of their dwelling, however it now becomes the centre of a formed cluster in which women can come together to perform their daily chores, grow vegetables or discuss financial matters.

baithak



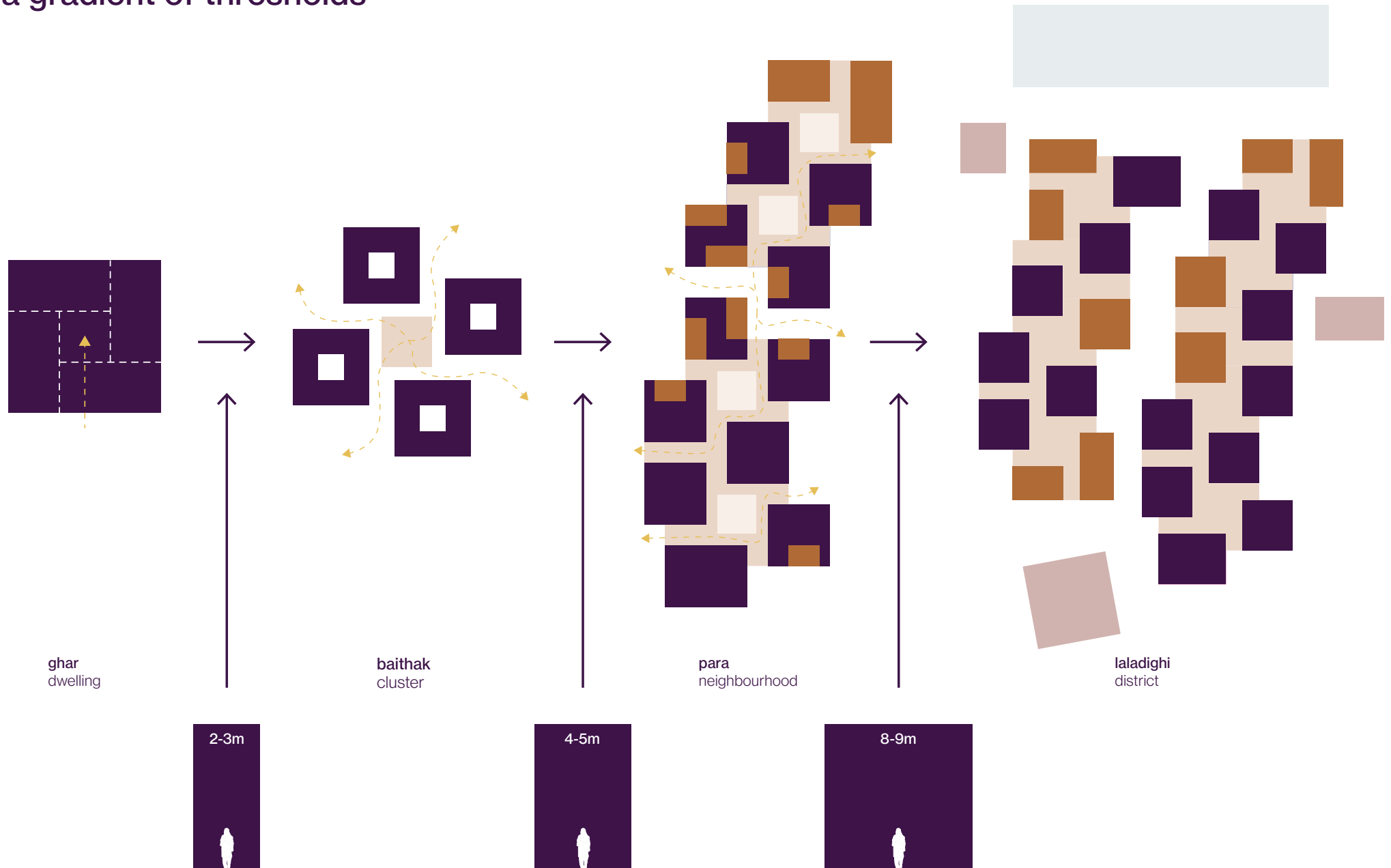
dwelling



Within the homesteads, a ghar is usually a single or two-room multifunctional structure used mainly for sleeping. It is the building block that is placed around the courtyard to form the homestead. Thematically I maintain the concept of it being a building block. The different ghars form different dwellings stacked on each other. Creating an important mix of income groups, while the norms of values of purdah can be more freely interpreted.

ghar

a gradient of thresholds

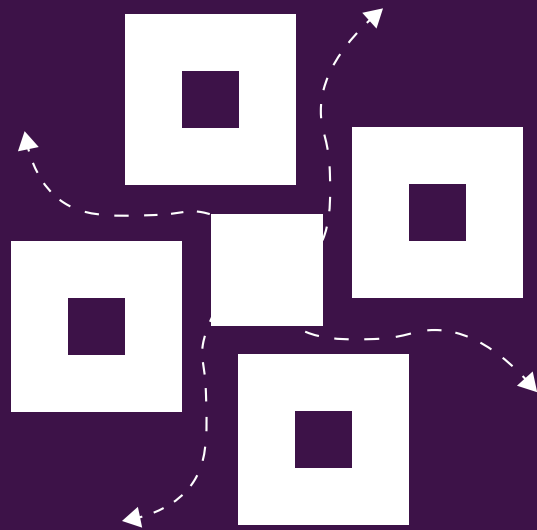




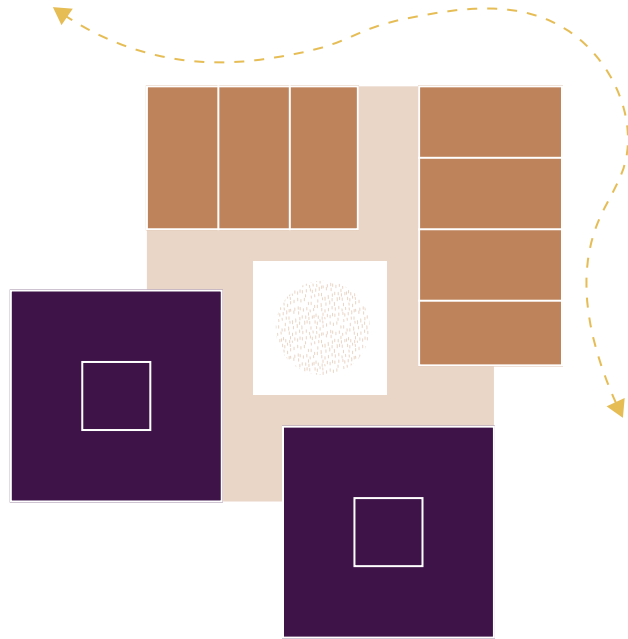
a revitalised promenade

A key aspect in the redevelopment of Laladighi is to add a sense of community and public wellbeing on the banks of the pond. The gradient of thresholds, from ghar to Laladighi, ensures the pond to be at the end of this route. Upgrading Laladighi as a revitalised urban destination for both the neighbouring communities as people from the rest of Sylhet, where they can meet and buy their groceries under the new arcade.

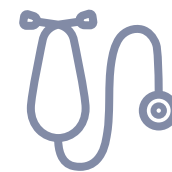
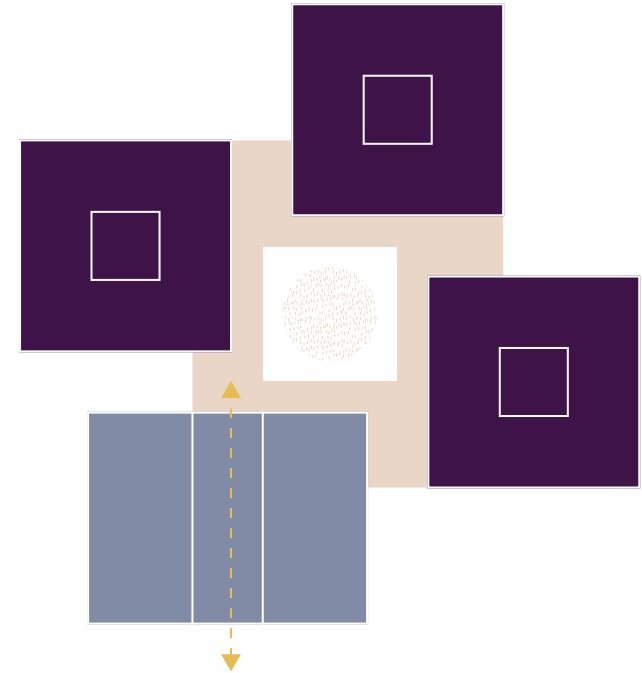




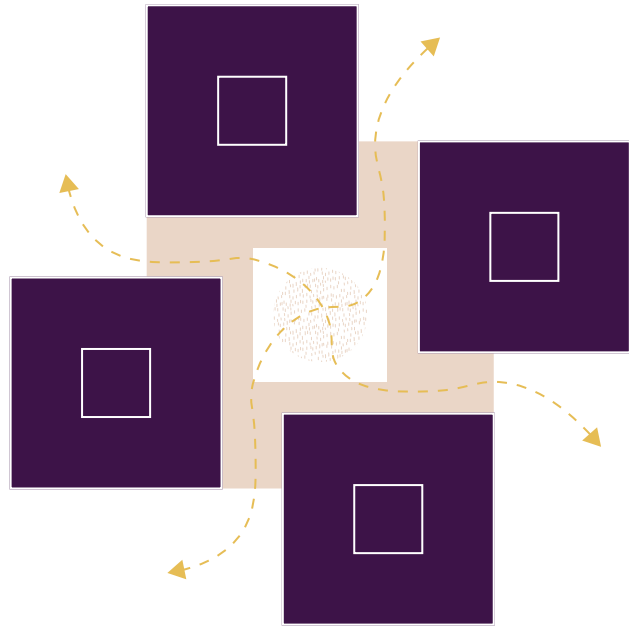
cluster design



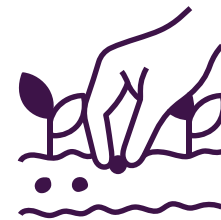
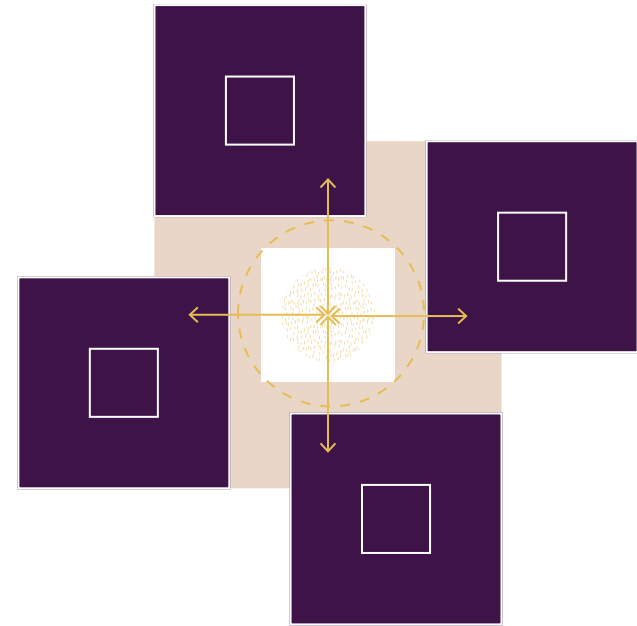
commercial plinth



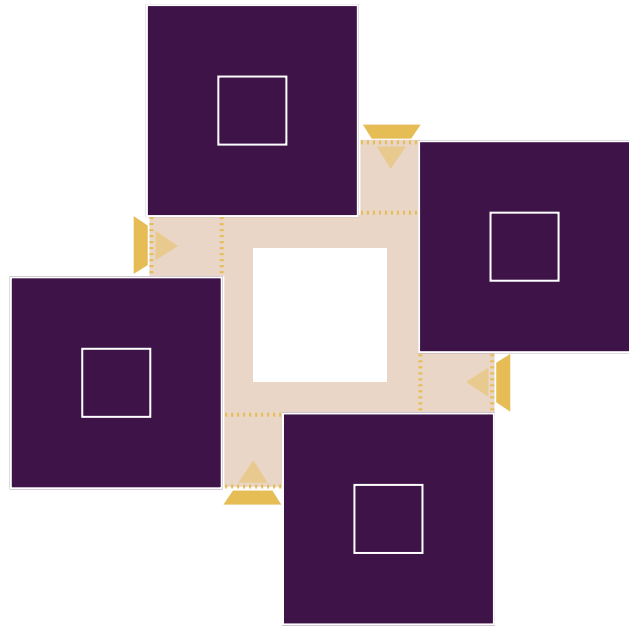
healthcare facilities



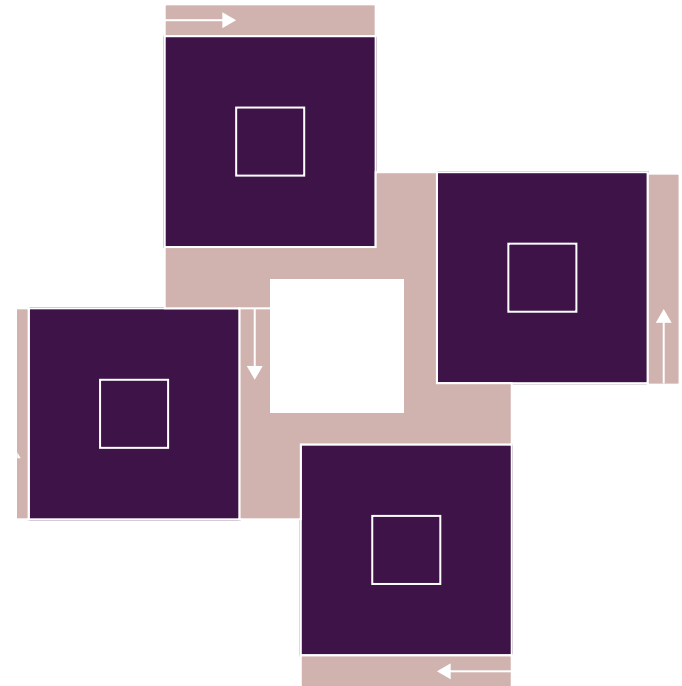
the baithak



a shared courtyard



translucent thresholds



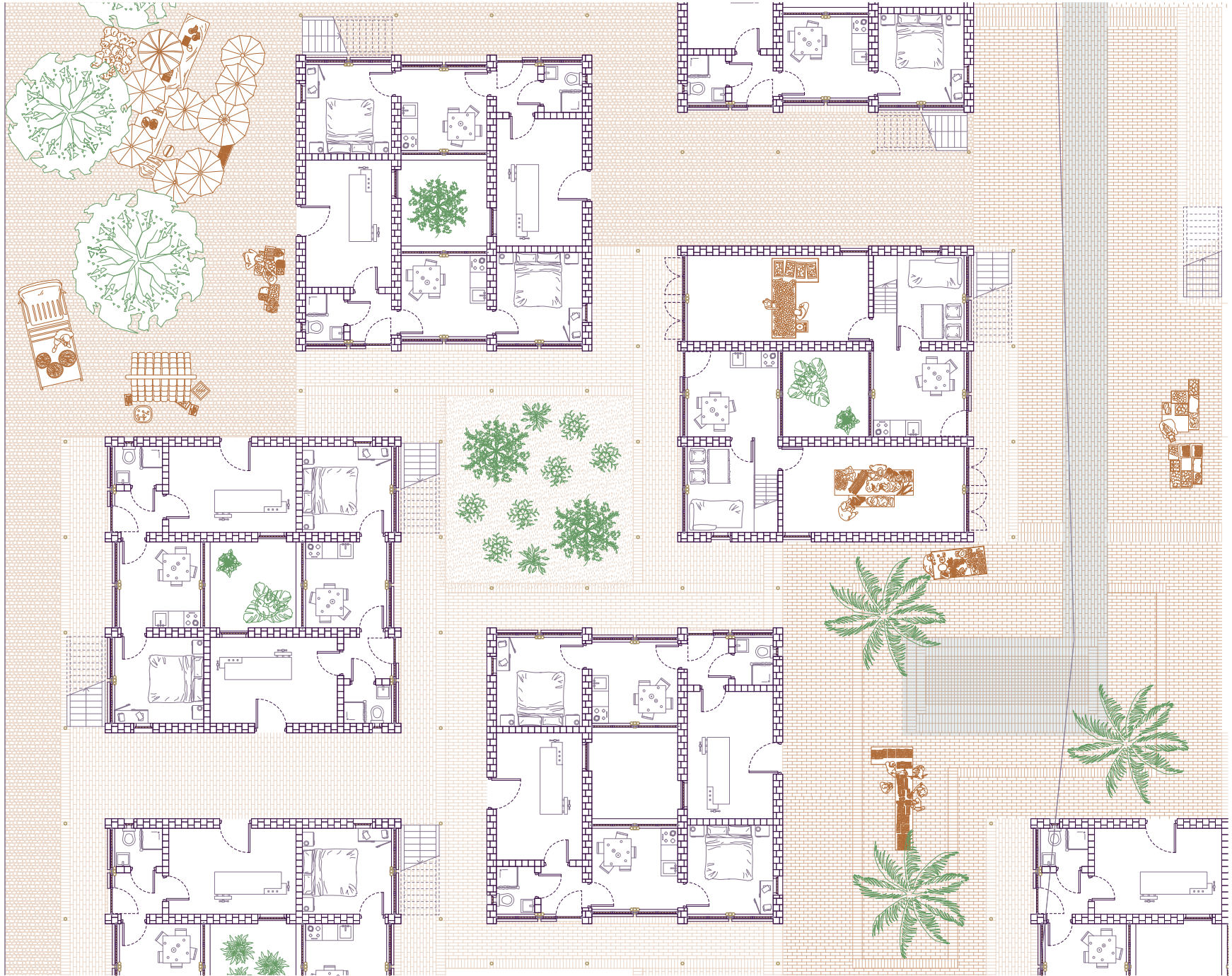
communal platform



a section through life

The baithak is shown here as it being a section through life. The courtyard is the heart of the community where women come together to grow vegetables, discuss family matters, financial troubles and of course to gossip.

ground floor

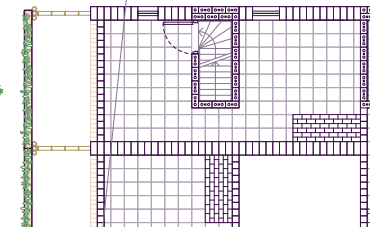
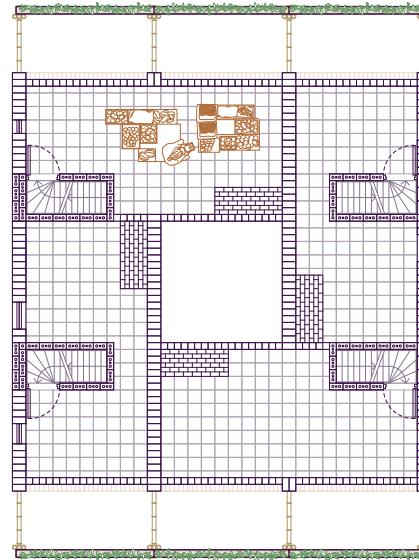
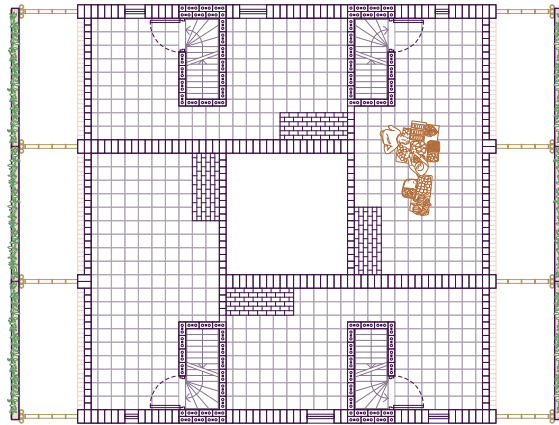
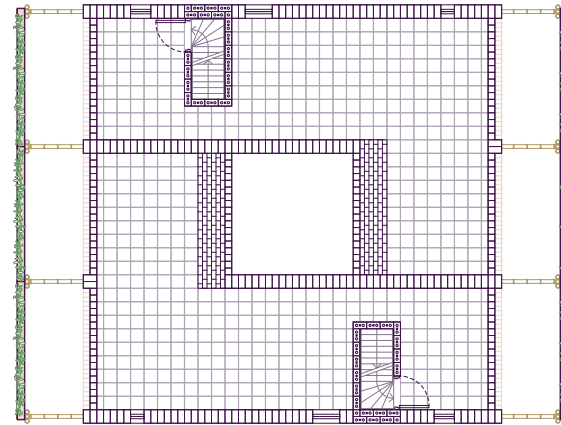
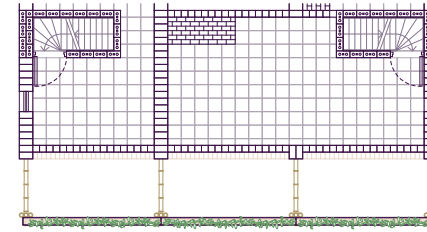
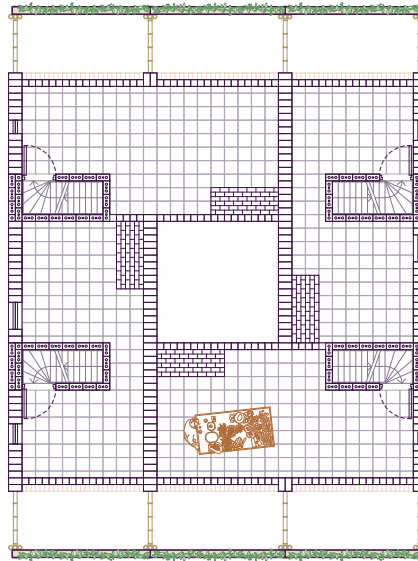
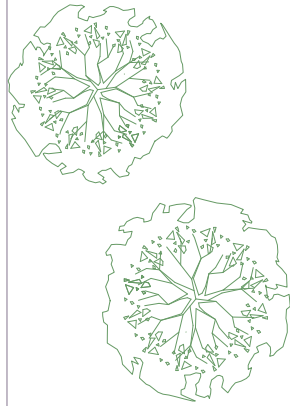


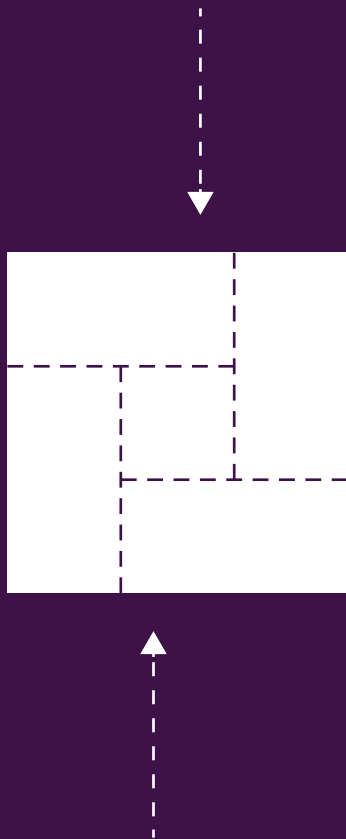
first floor



second floor



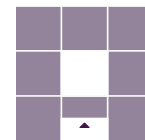
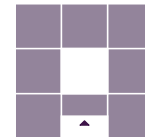
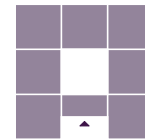
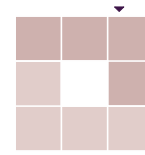
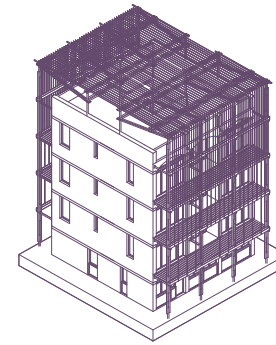
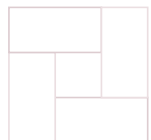
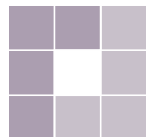
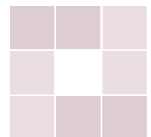
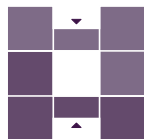
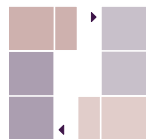
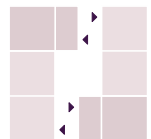
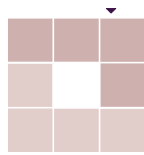
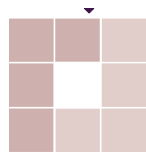
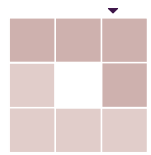
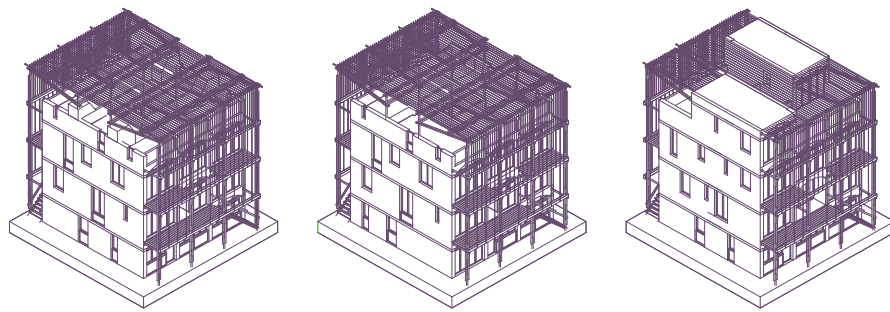




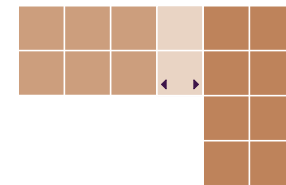
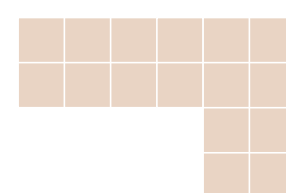
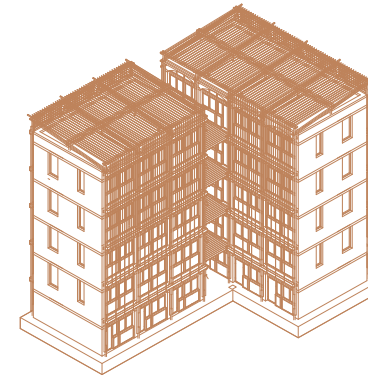
dwelling strategy

dwelling typologies

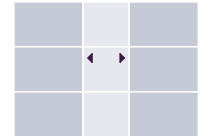
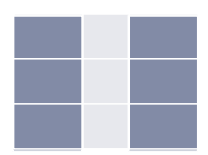
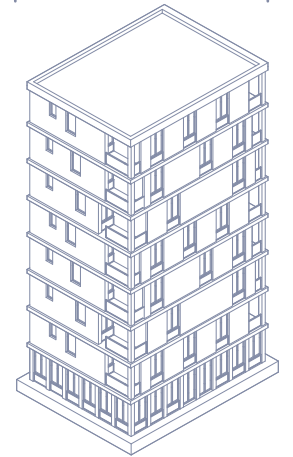
urban homestead



pondside



beacon



urban homestead

pondside

beacon

UH1

2 dwellings
36 sqm
two room apartment
LIG

UH3

2 dwellings
32 sqm (+ 18 sqm shop)
live/work duplex
LIG

UH1

2 dwellings
36 sqm
two room apartment
LIG

UH2

4 dwellings
36 sqm (+18 sqm)
incremental duplex
LIG/MIG

UH4

2 dwellings
54 sqm
duplex
MIG

UH5

2 dwellings
86 sqm (+18 sqm)
triplex
HIG

UH1

2 dwellings
36 sqm
two room apartment
LIG

PS1

8 dwellings
50 sqm (+4 sqm loggia)
three room apartment
MIG

B

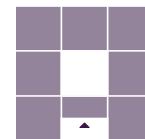
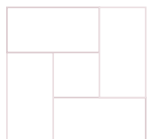
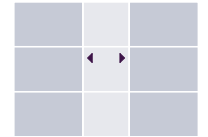
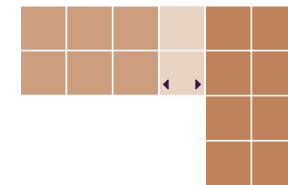
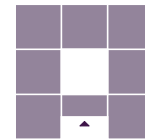
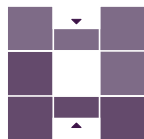
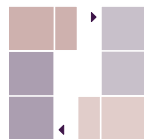
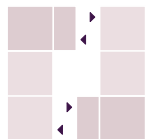
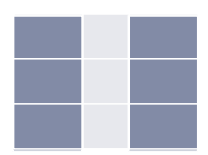
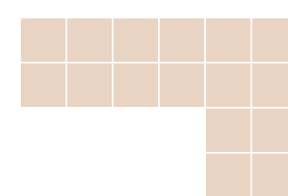
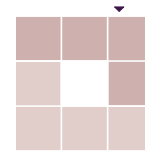
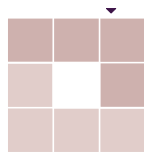
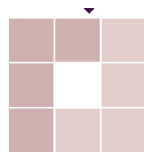
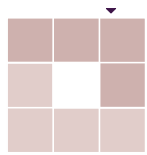
14 dwellings
42 sqm (+5 sqm)
three room apartment
MIG

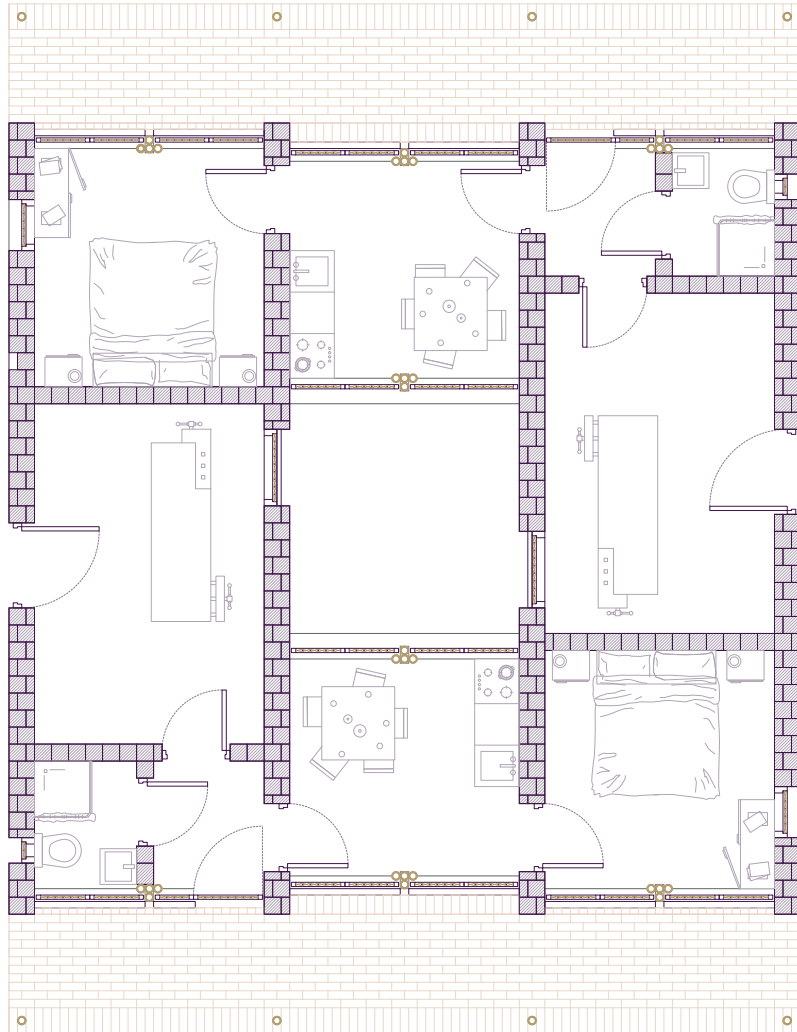
UH6

3 dwellings
69 sqm
four room apartment
HIG

PS2

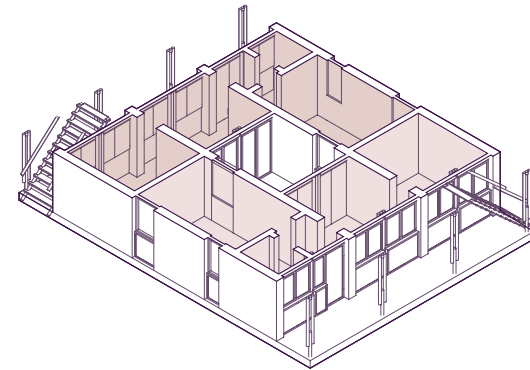
8 dwellings
63 sqm (+ 9sqm loggia)
four room apartment
MIG/HIG





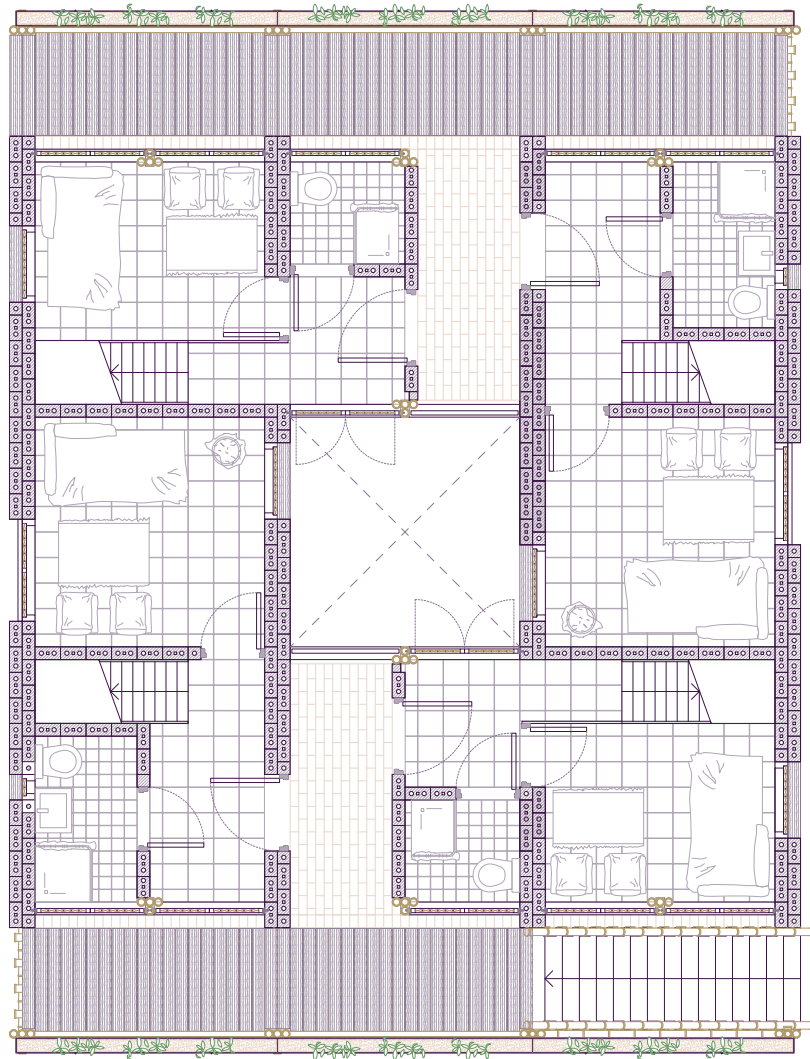
urban homestead A
ground floor

2 x UH1
36 sqm



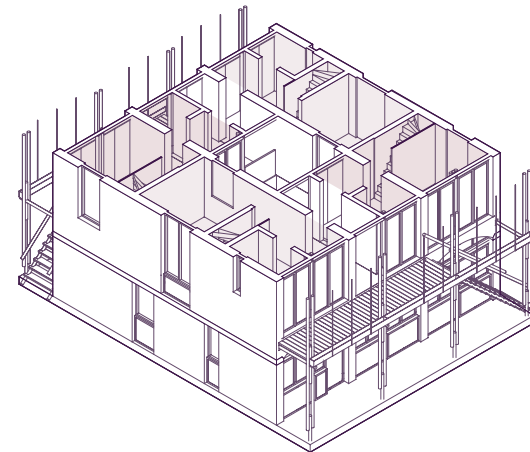
target group
low income group
current slum dwellers
sweepers in hospital

Groundfloor dwelling with a workshop space, which can alternatively be used as living room or extra bedroom.



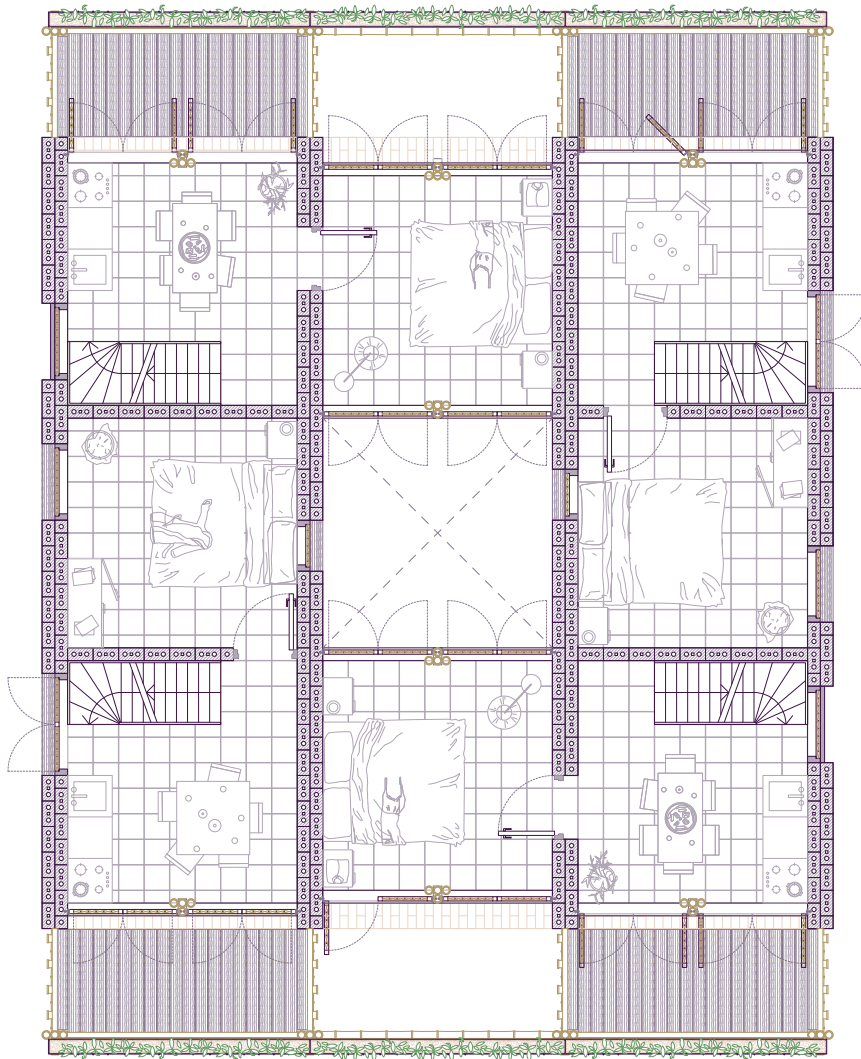
urban homestead A
first floor

4 x UH2
36 sqm (+18)



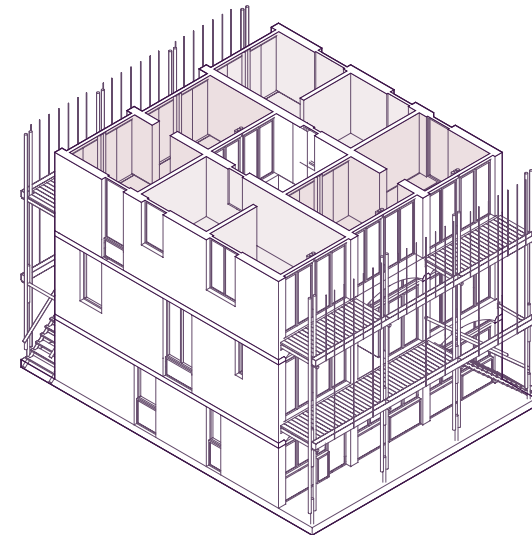
target group
low to middle income group
(starting) nurses in hospital

First floor of a duplex, accessible from communal platform. The entrance pocket allows women to enter discretely, when there are male guests in the adjacent living room.



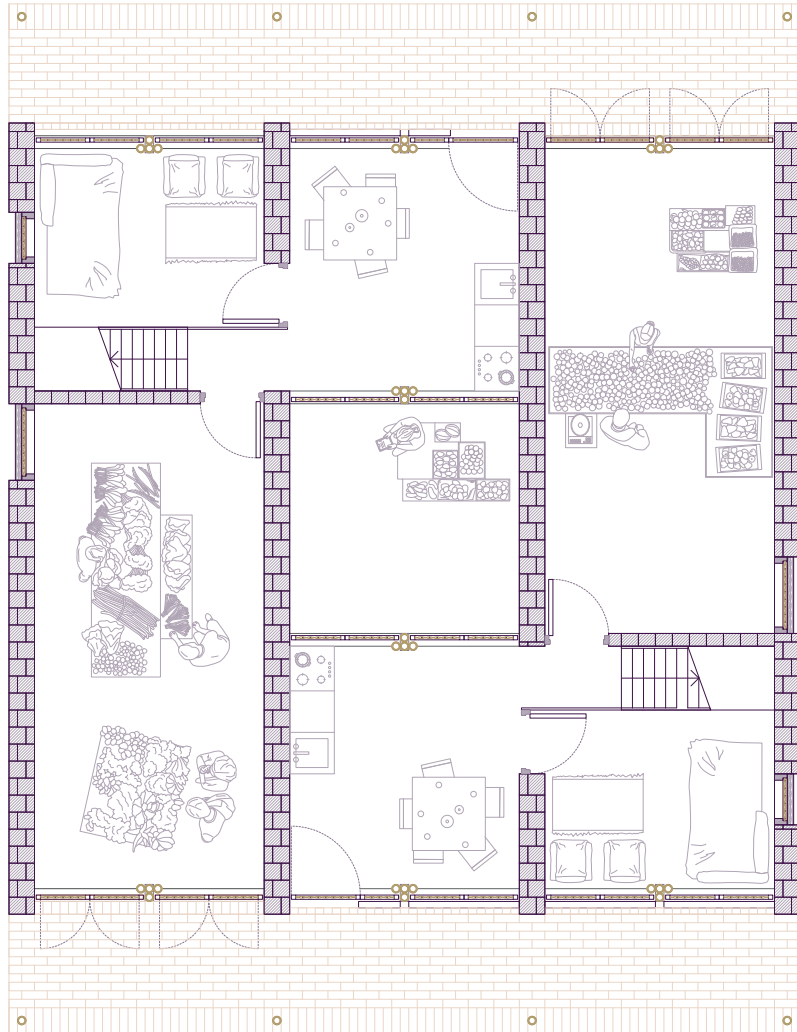
urban homestead A
second floor

4 x UH2
36 sqm (+18)



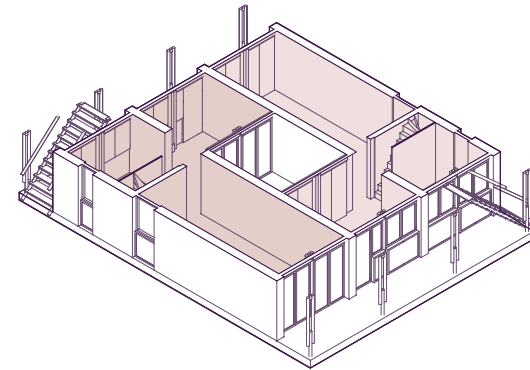
target group
low to middle income group
(starting) nurses in hospital

Second floor of duplex, with incremental opportunities to the roof now functioning now as terrace. Kitchen can be extended to the second skin, increasing usable space.



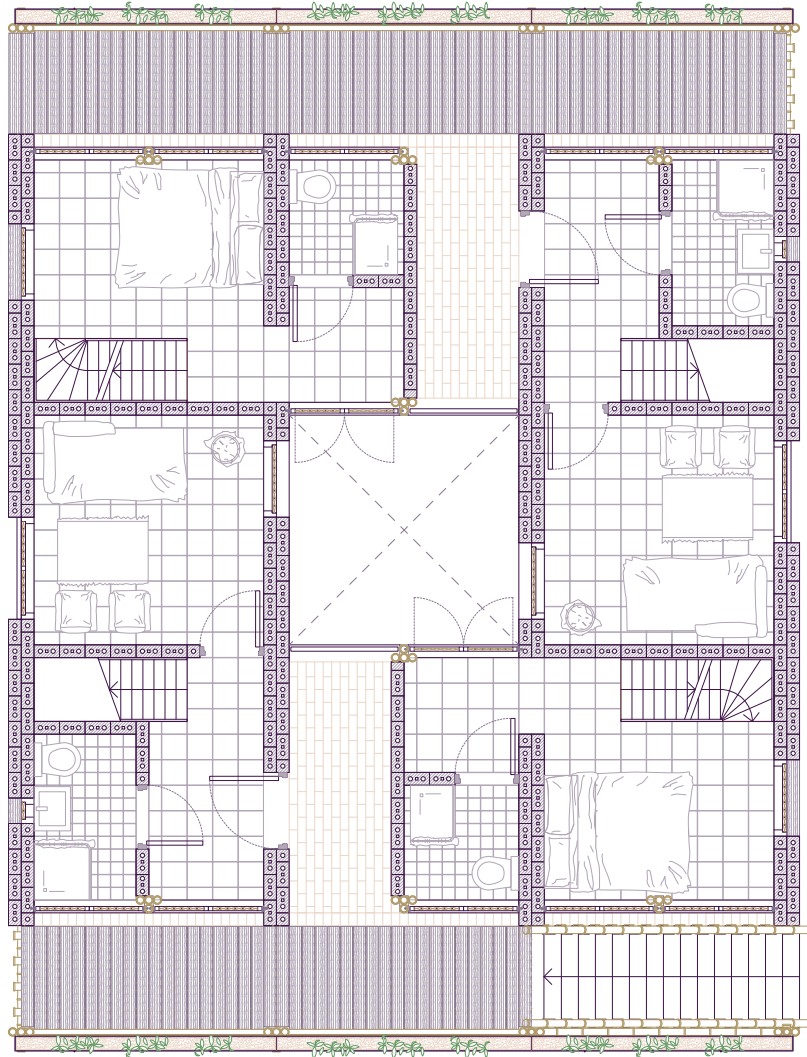
urban homestead B
ground floor

2 x UH3
32 sqm (+18 of shop)



target group
low income group
migrated women who wants to start
their own shop

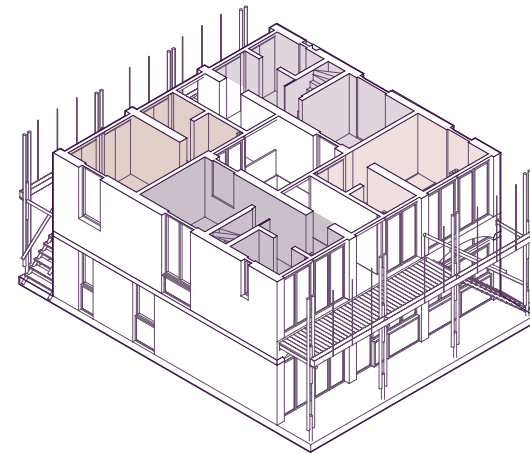
A compact duplex with an included space to start an own shop in, to allow public involvement of newly migrated women and men in the Laladighi area.



urban homestead B
first floor

2 x UH3
32 sqm (+18 of shop)

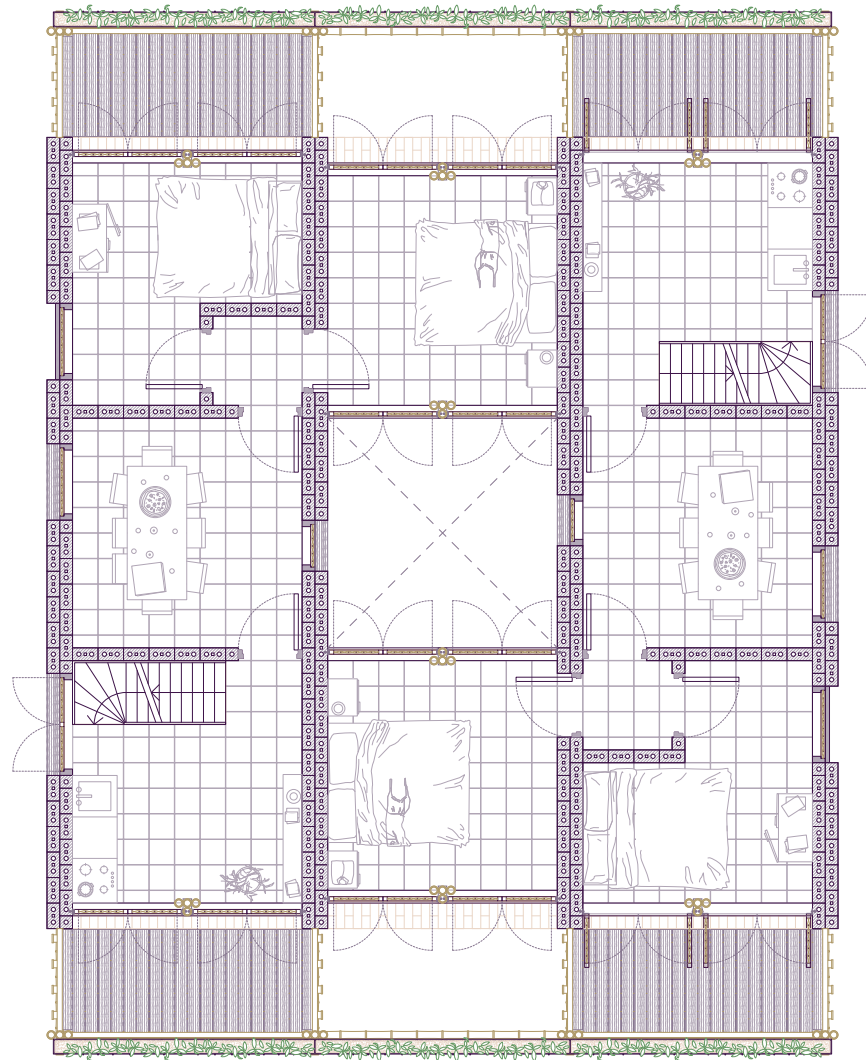
2 x UH4
54 sqm



target group
low income group
migrated women who wants to start
their own shop

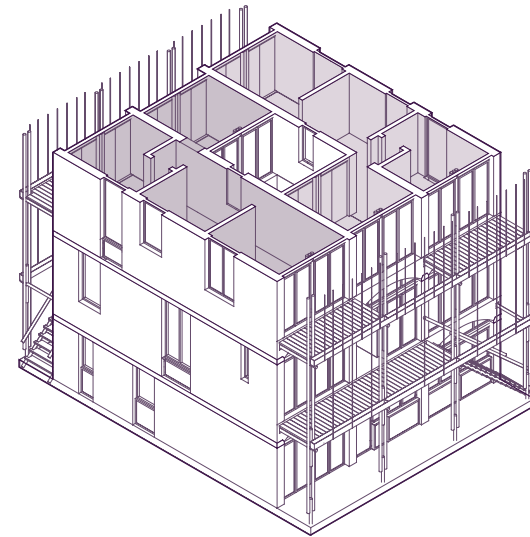
target group
middle income group
(experienced) nurses in the hospital

First floor of a three room duplex, accesible via open entryway that allows ventilation to go through the block. Two income groups live together, without it being an obstacle.



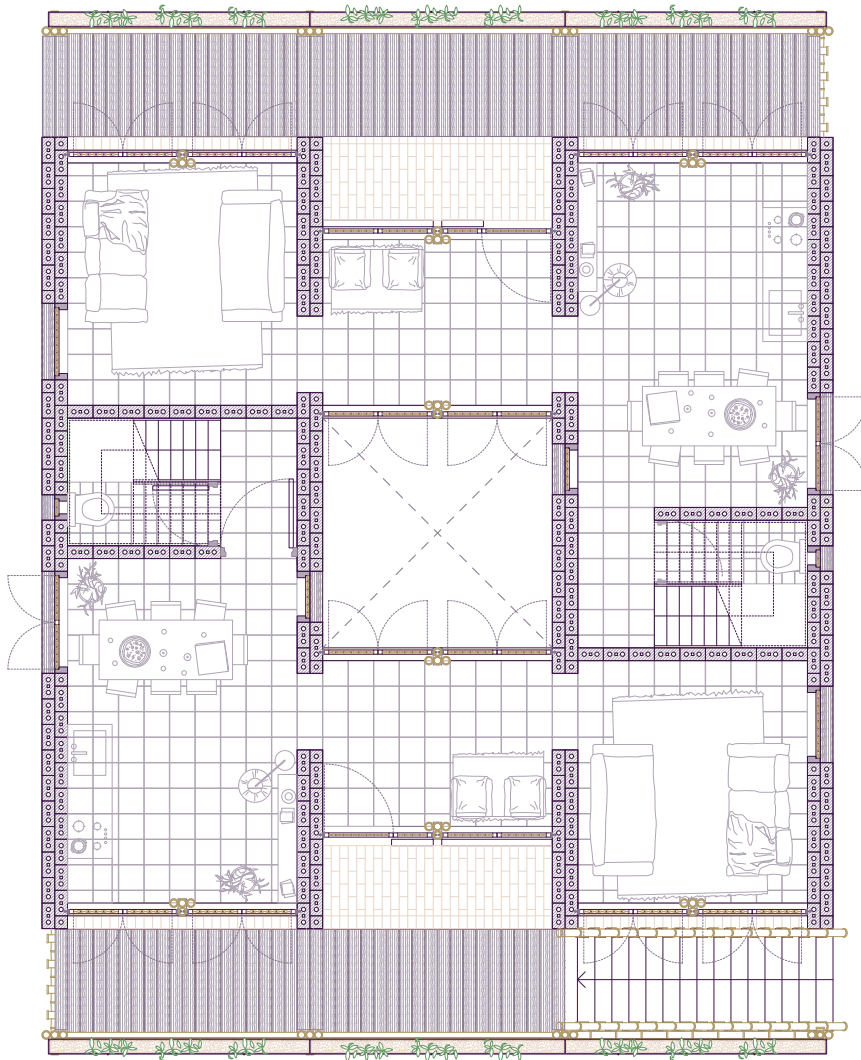
urban homestead B
second floor

2 x UH4
54 sqm



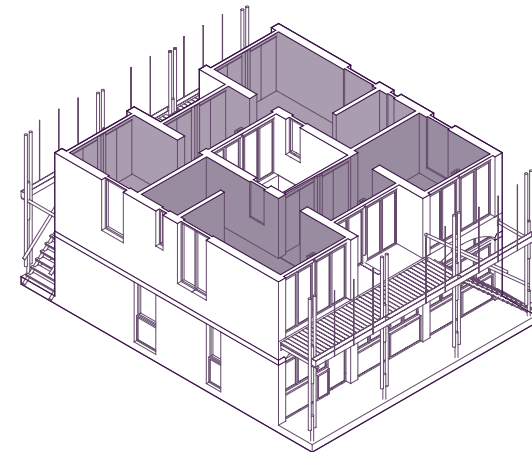
target group
middle income group
(experienced) nurses in the hospital

Top floor of the duplex, in which the usable space of both a bedroom and the kitchen can be extended towards the second skin by opening the flexible facade.



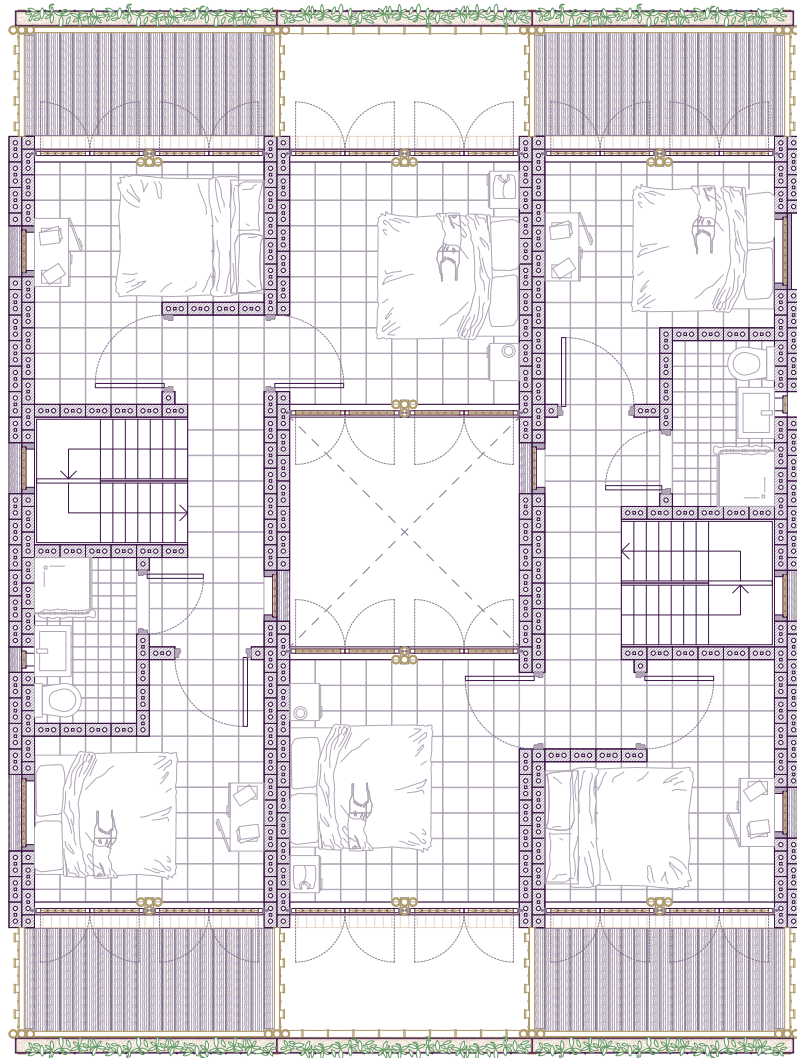
urban homestead C
first floor

2 x UH5
86 sqm (+18)



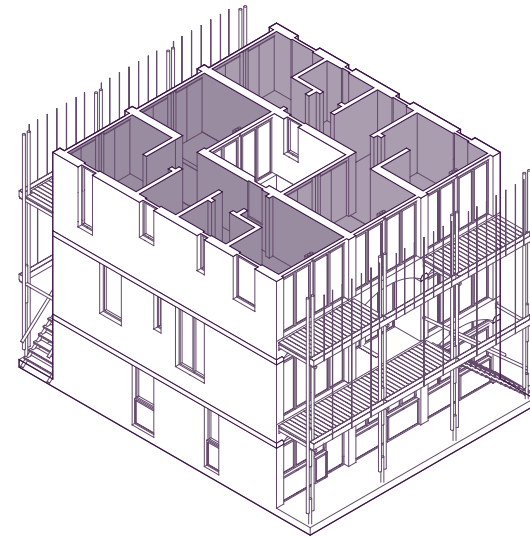
target group
high income
(female) doctors in the hospital

The biggest dwelling of the project, designed for the female doctors of Sylhet MAG Osmani hospital. Incorporating all income scales of the hospital in the project.



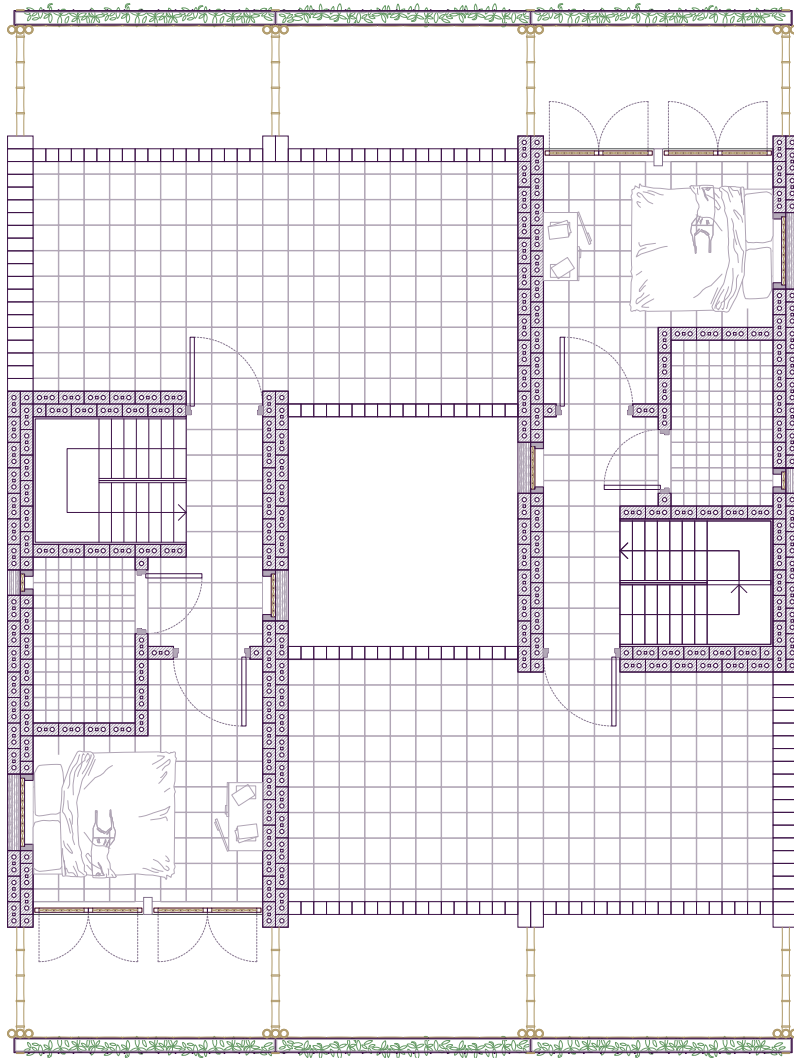
urban homestead C
second floor

2 x UH5
86 sqm (+18)



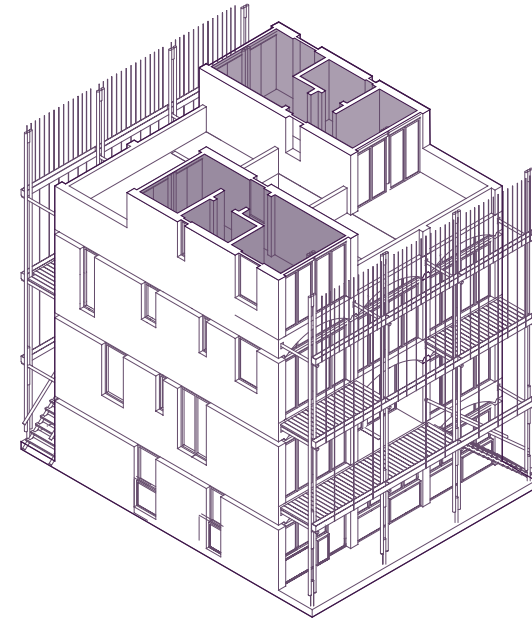
target group
high income
(female) doctors in the hospital

The second floor of the triplex houses three bedrooms and a bathroom and again the second skin of the secondary structure comes into play as a climatical barrier.



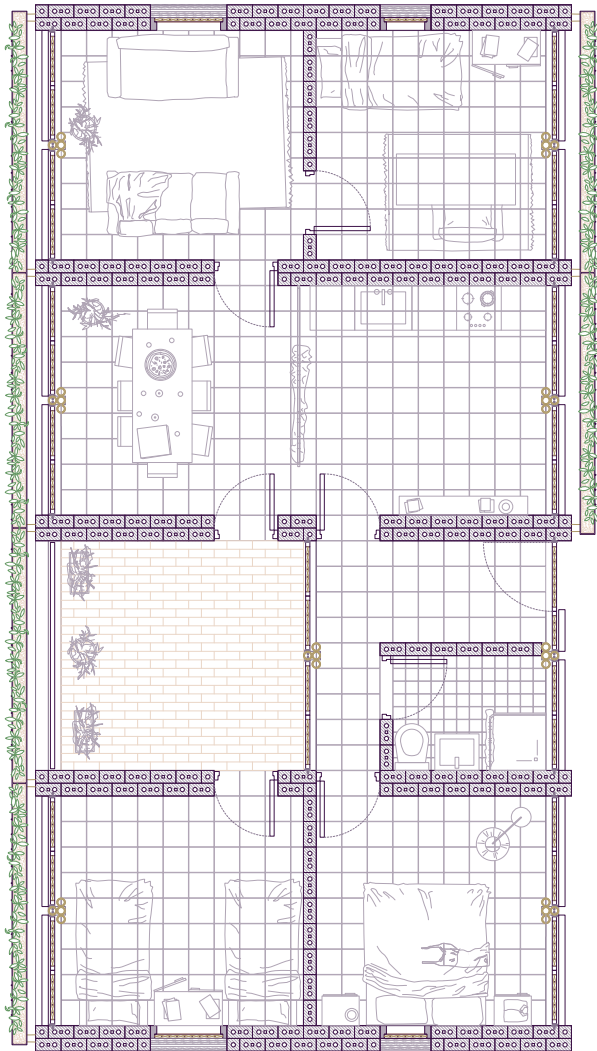
urban homestead C
third floor

2 x UH5
86 sqm (+18)

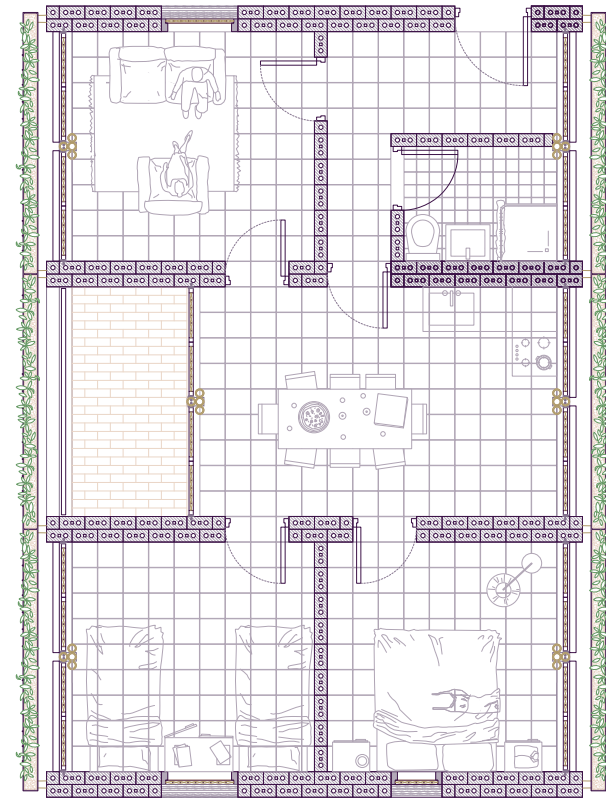


target group
high income
(female) doctors in the hospital

The top floor has an extra bedroom, also usable as office space and an adjacent storage or laundry space. The rooftop garden has views to the cricket field and pond.



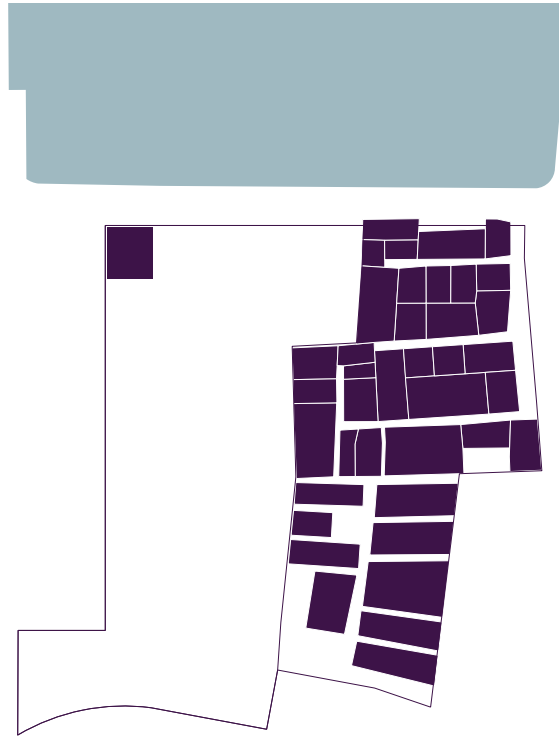
pondside PS1 & PS2
typical floor



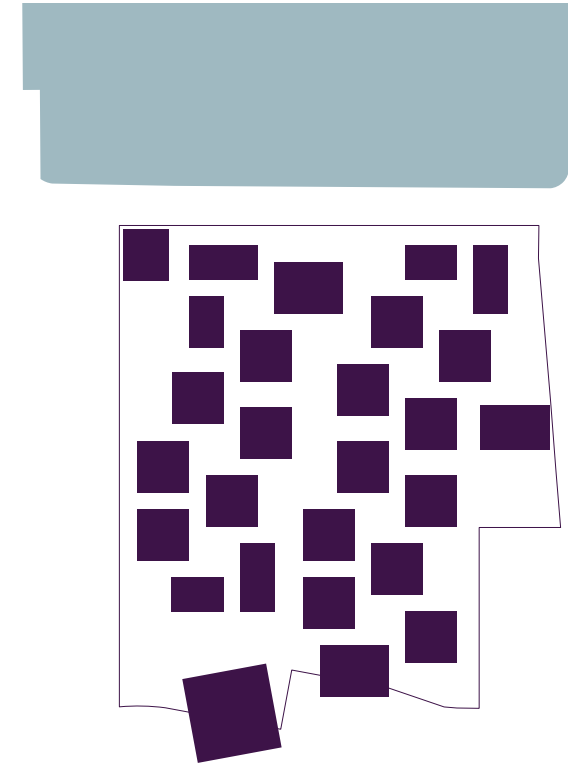
target group
middle and high income group
nurses and doctors at Sylhet MAG Osmani hospital

before...

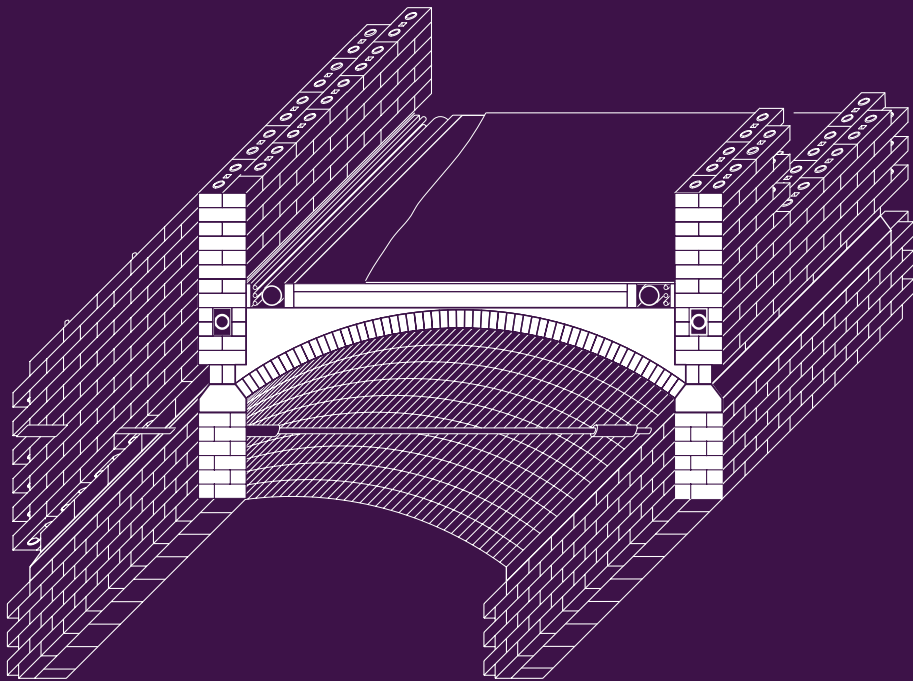
...and after



plot area: 5,929 sqm
 total constructed area: 2,070 sqm
 total ground floor area: 2,070 sqm
 GSI: 0,34
 FSI: 0,34
 number of units: 65
 density: 110 apt/ha
 dwelling types: informal housing



plot area: 5,793 sqm
 total constructed area: 10,112 sqm
 total ground floor area: 2,884 sqm
 GSI: 0,49
 FSI: 1,76
 number of units: 136
 density: 231 apt/ha
 dwelling types: 6

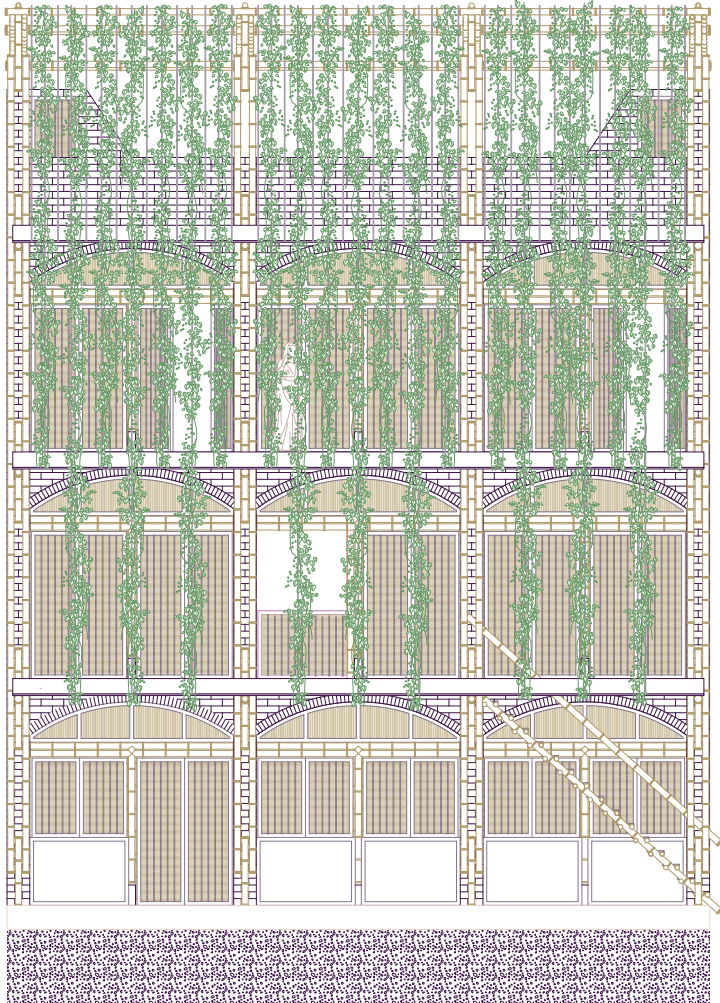


building technology

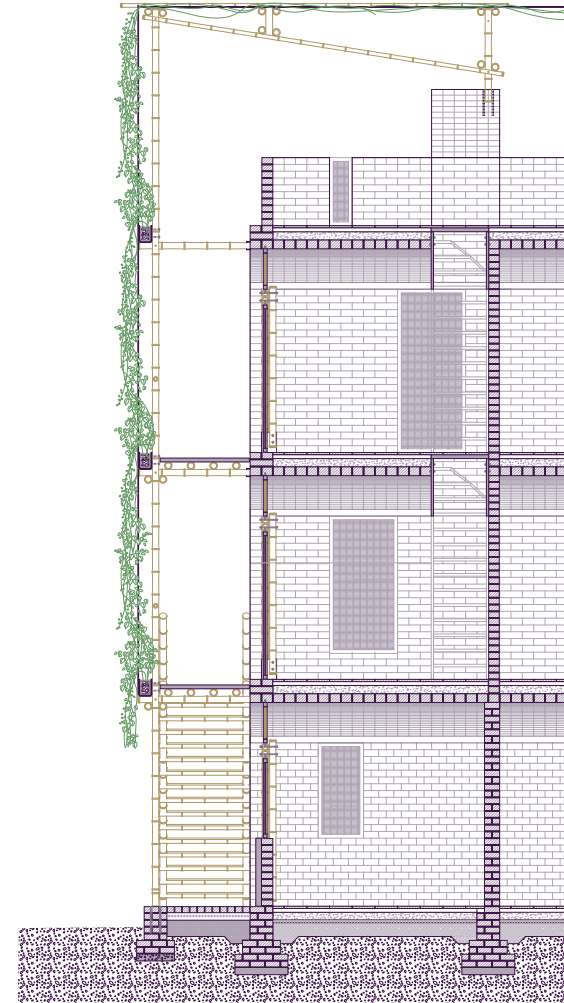


To understand the integrated building technology in the design, a typical block has been selected that represents both the thematic as technological values of the project. The urban homestead A-type with the incremental possibility to vertically extend the duplexes on the roof has been chosen and will be decomposed in this section.

typical fragment

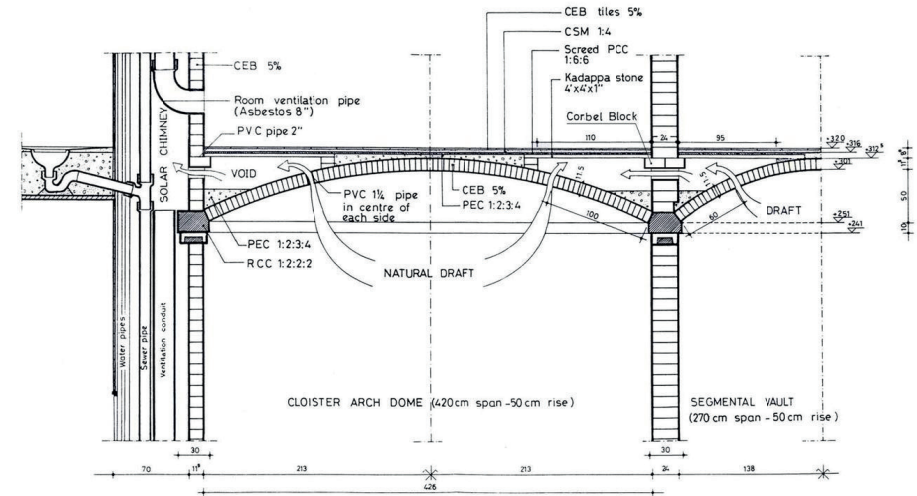


elevation of typical fragment

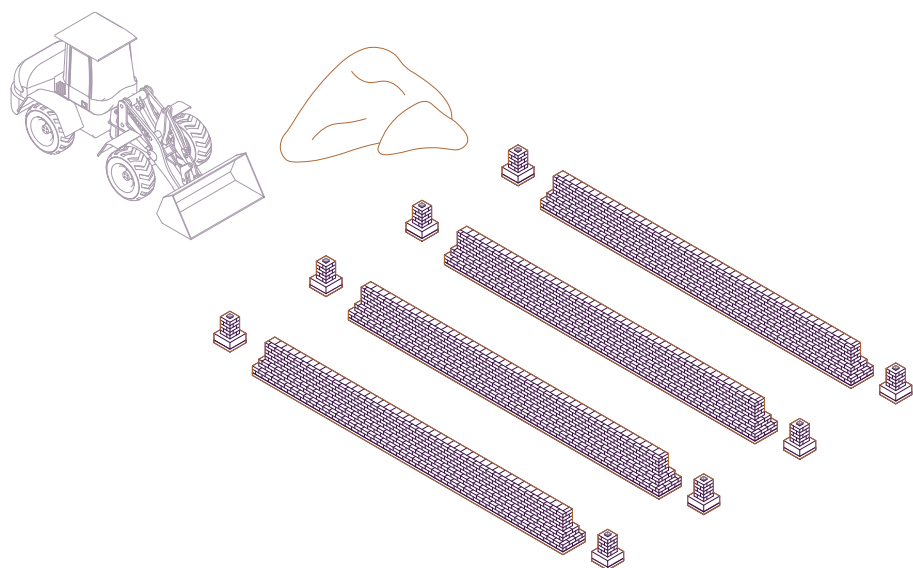


technical section of typical fragment

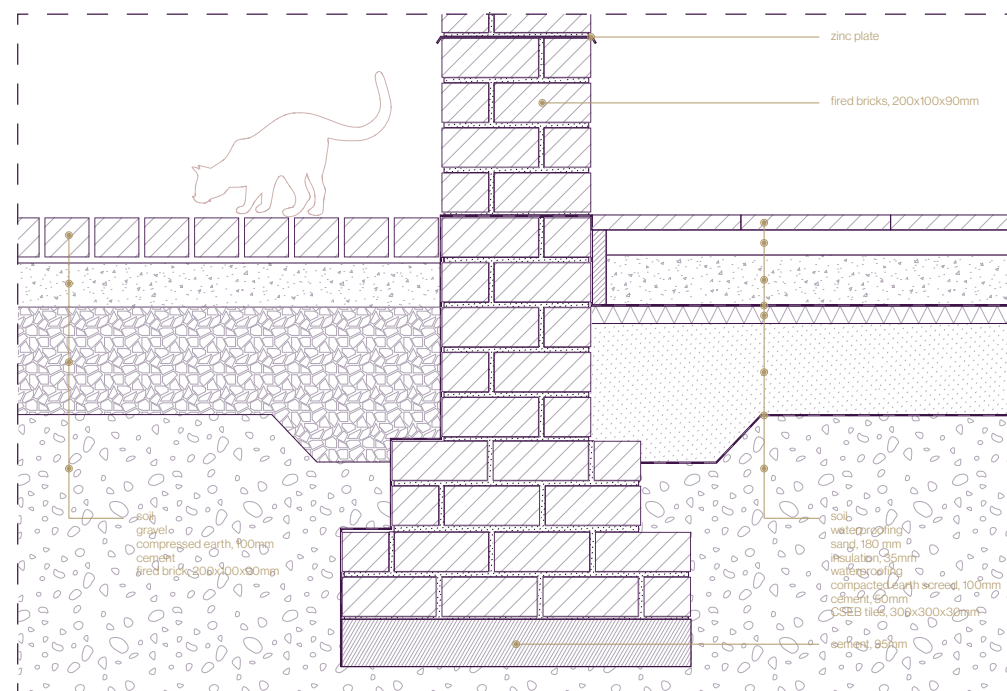
a precedent of building with CEB's



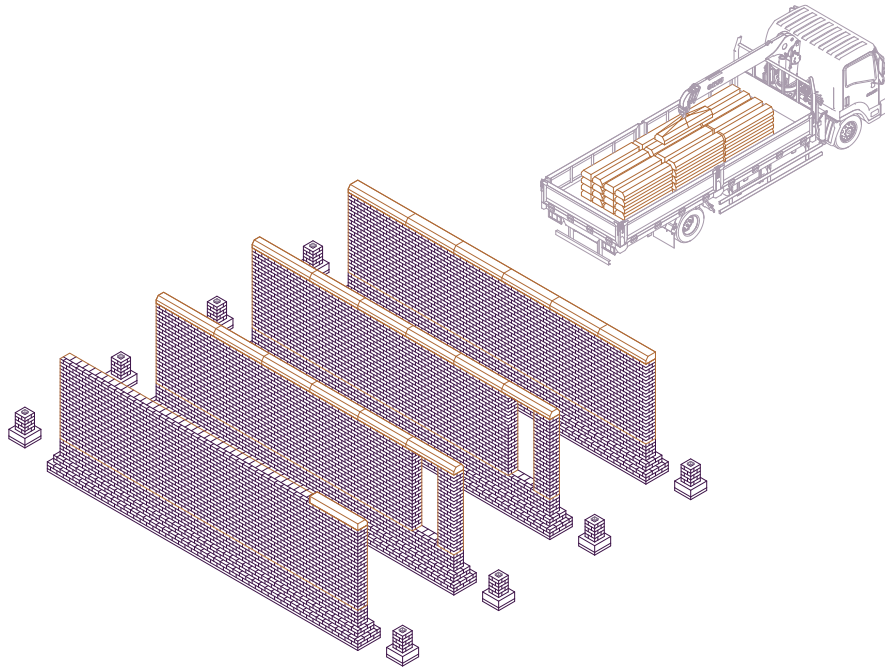
In Auroville, in the south of India, the Vikas Settlement is a project by Satprem Maini. The concept aims to develop a sustainable collective project for a community initially consisting of 500 people. This number was not constrained by a pre-established budget or strict building restrictions but was chosen for social reasons. According to the commissioners, "it seemed to be the maximum number that could foster a more complete and fraternal life and exchange." Therefore the project is built with Compressed Earth Blocks (CEB) with 5% cement, which significantly reduces CO2 emissions and uses up to 15% less energy than fired bricks. It also features stabilized rammed earth with 5% cement for foundations, as well as paints and plasters made from stabilized earth. Importantly, all these elements are designed for easy production by semi-skilled labor, supported by a training workshop (see the pictures to the left for excerpts of the building process). The structure is entirely load-bearing with 24cm thick walls from the plinth level to the parapet wall, rising up to four storeys.



a brick foundation



detail of ground floor 1:15

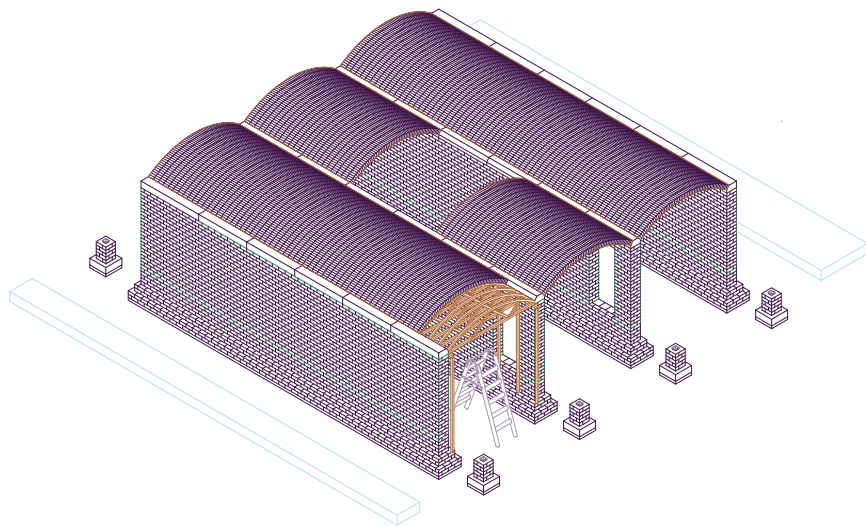


walls & concrete lintels

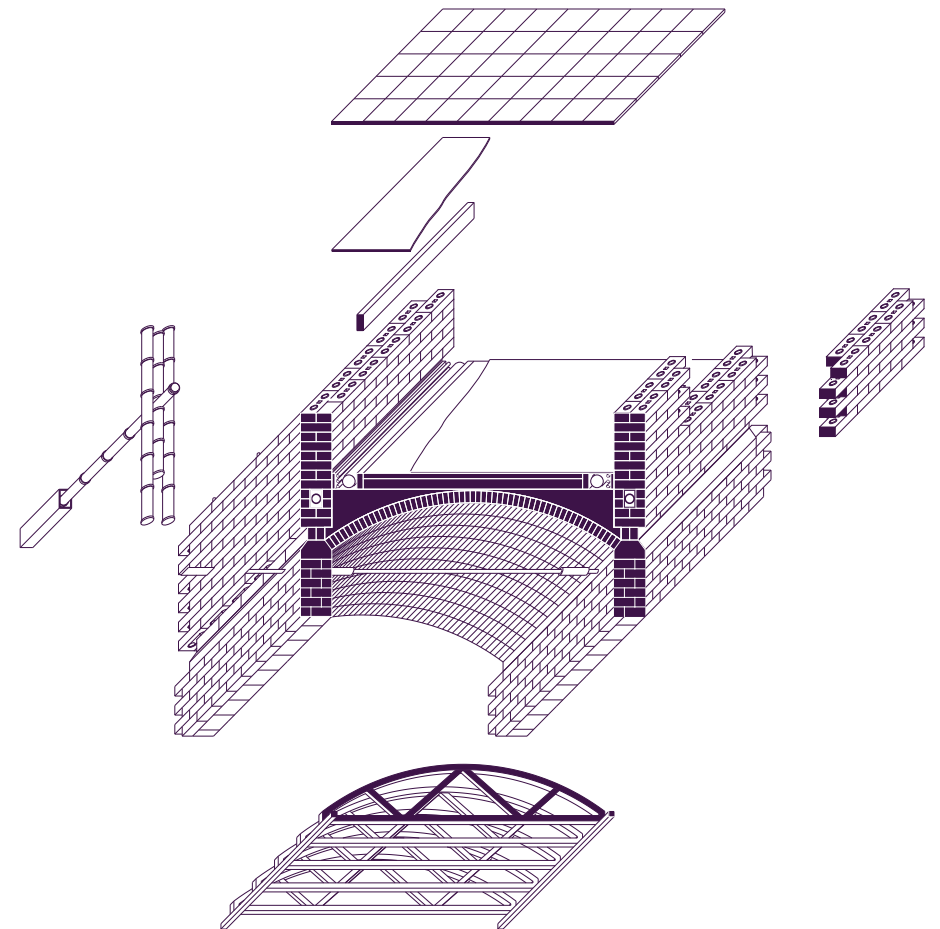


A pre-fabricated concrete impost beam of 1200mm of span is located on top of the masonry walls, to support the vault structure. The building process is in general organised to keep the size and weight of the different elements low, to involve the local dwellers as craftsmen. Making it a building process with a hands-on approach.

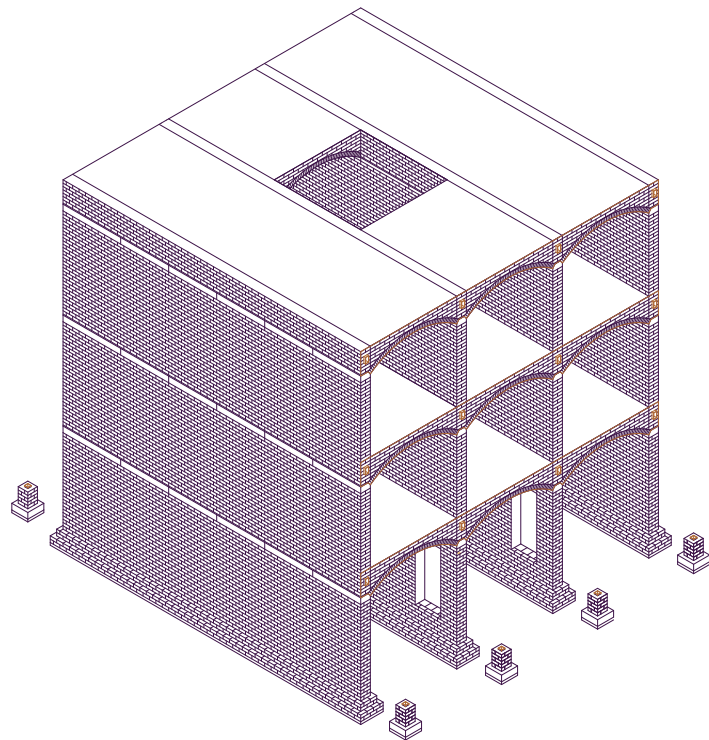
hands-on building process



a vault structure



axonometric detail of the construction

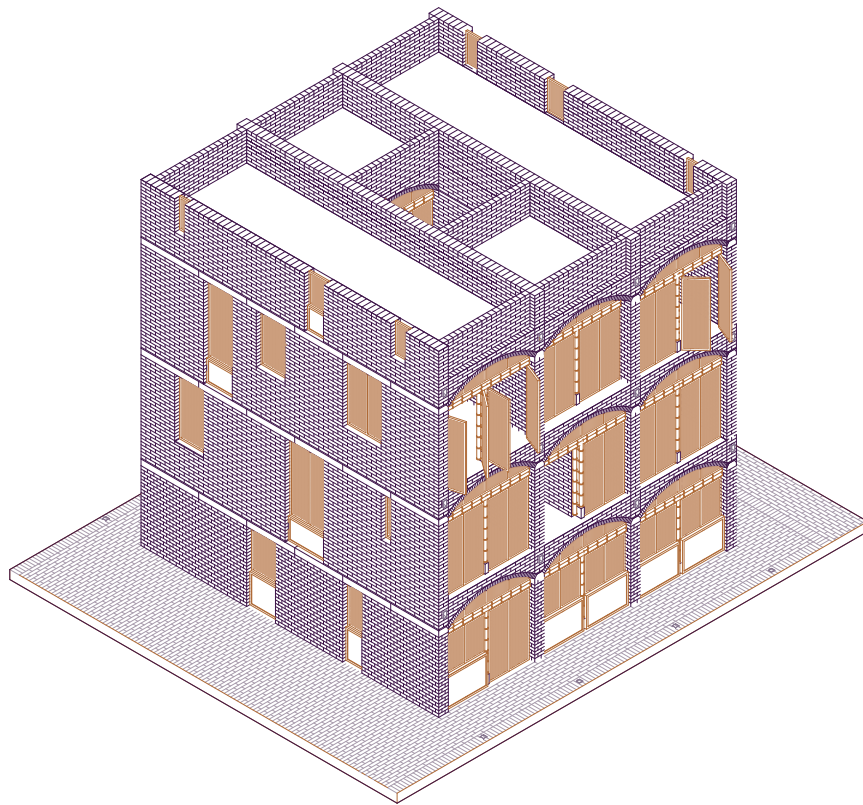


the constructed core

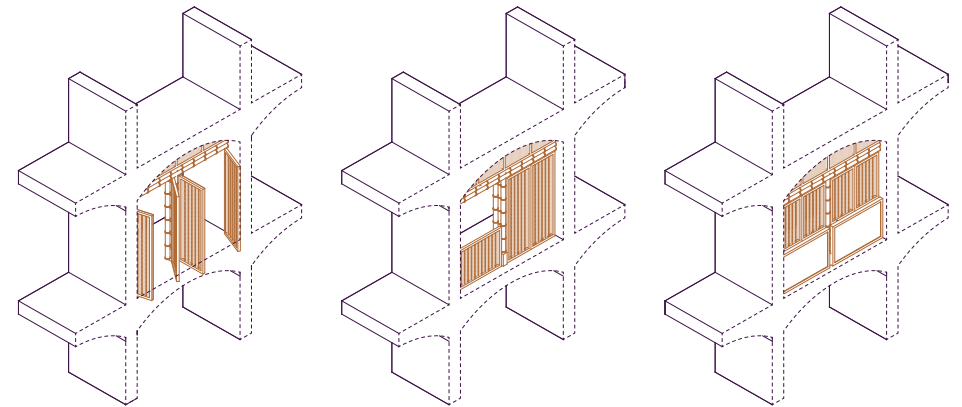


Maison Jaoul by Le Corbusier, consists of a pair of houses near Paris featuring an aesthetic of unpainted cast concrete *béton brut* and roughly detailed brickwork. The vault construction of the houses generates a certain linearity in the appearance of the facades. The use of wood in the head sides increases this duality and adds to the aesthetic quality of the design.

convergence in materiality



a duality in facades



The open facade has been designed to optimize its character. A variety of different infills of a modular structure allow maximum flexibility for both the use of space and the climatical performance of the facade. The facade can be opened up in total by opening the floor to ceiling doors when desired, but at more publically engaging areas at the ground floor, the system allows to be filled in in a more discrete manner to adjust to the required feeling of security for the residents.

flexible facade system



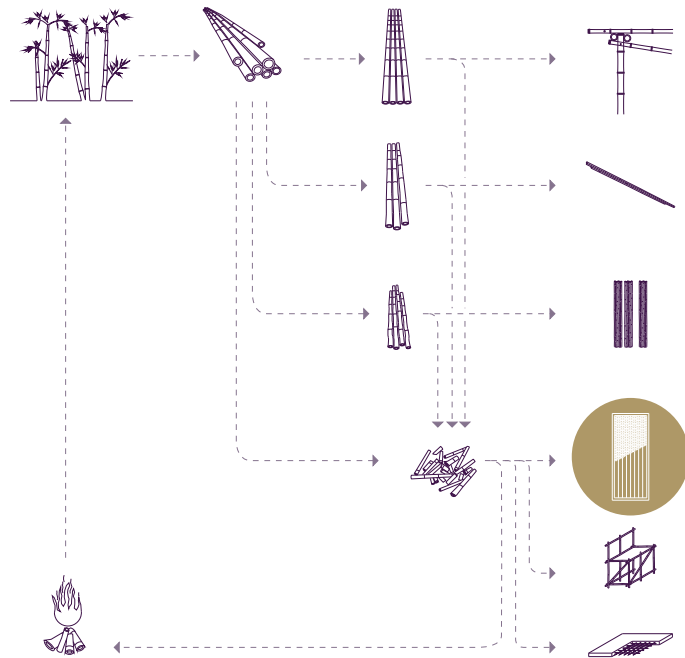
“An embellishment: purdah”, by Jane Rendell selected twelve short extracts from ‘To Miss the Desert’ and rewrote them as ‘scenes’ of equal length, laid out in the catalogue as a grid, three squares wide by four high, to match the twelve panes of glass in the west-facing window of the gallery looking onto the street. Across the glass, she repeatedly wrote the word ‘purdah’ in black kohl in the script of Afghanistan’s official languages – Dari and Pashto, referring to the outlined rims with black kohl looking out through the window of an embroidered screen, with her eyes being the woman only part to be seen.

(in)visibility



My facades can be seen as the final element in a series of translucent thresholds. An element that is most directly created by my means of design and use of material. The facade is the culmination and embodiment of the thematic research on purdah by means of materialization. It allows the conceptual approach to be made tangible. Solidifying the in-between, balancing on the visible and invisible. Weaving bamboo into a securing, but open pattern can mitigate the effects of purdah and is therefore chosen to be manifested as part of the final threshold.

thematical translation



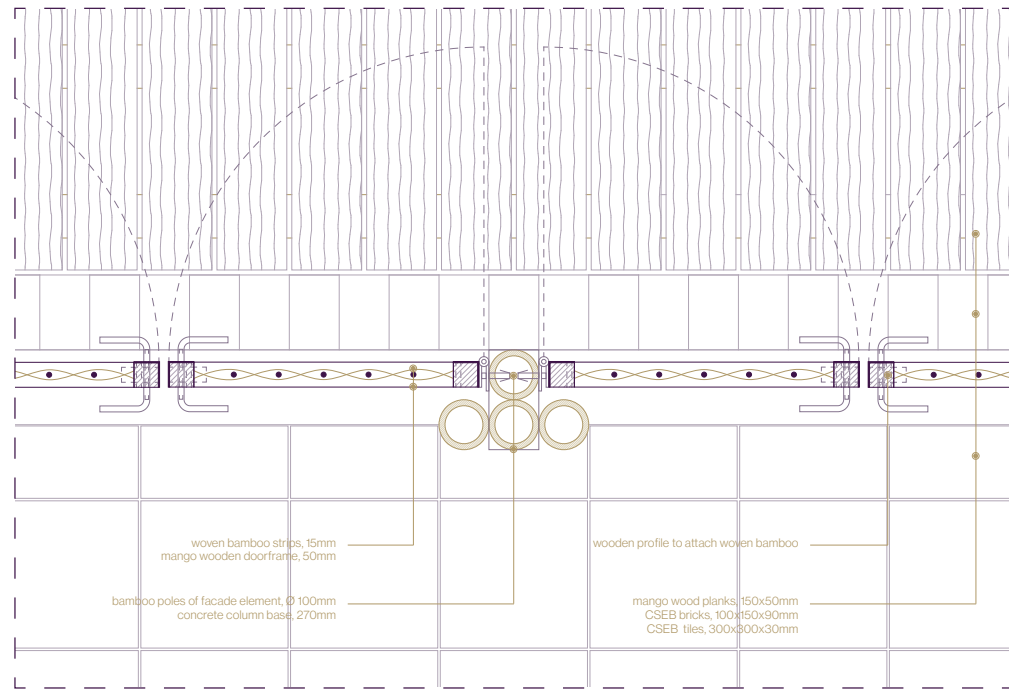
A schematic representation of the full exploitation of the bamboo plant. Bamboo is an incredibly flexible material that can be used in all layers of a building and grows fast.

woven bamboo

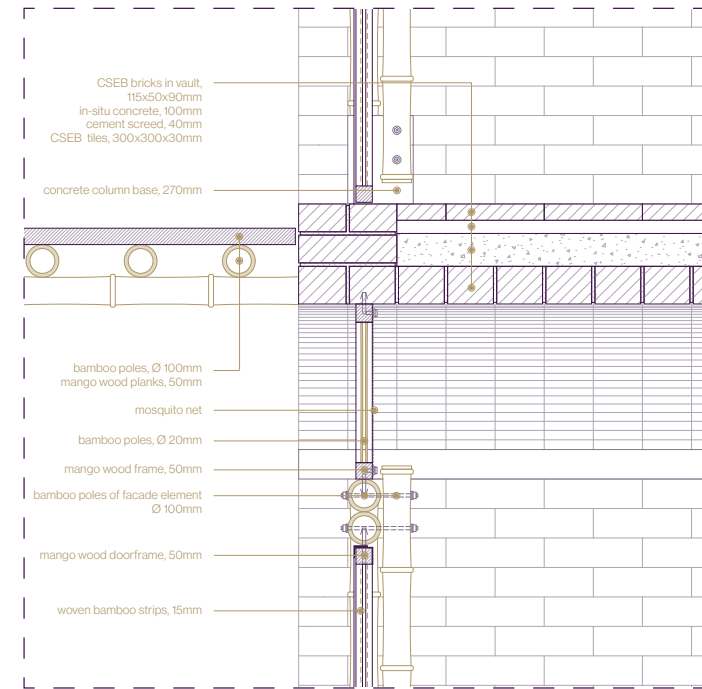


Bamboo grows in and around the city of Sylhet in close proximity of the building site. Thus, also logistically bamboo is a sustainable material to incorporate in the design.

local resources



horizontal detail of facade design 1:15



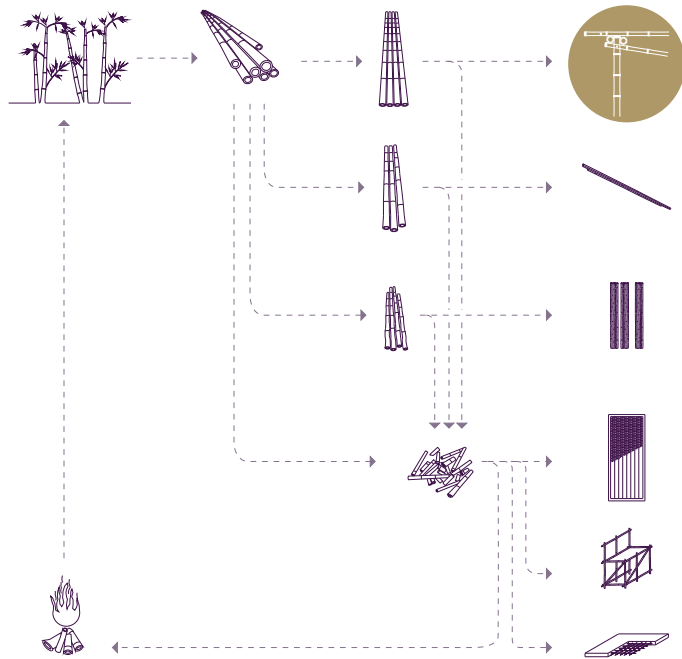
vertical detail of facade design 1:15



A threshold in between the baithak, dwelling, and baithak, cluster, is according to the traditional use of purdah very direct. A built boundary wall or the use of curtains are examples how spaces are closed off that prevent public exposure of women. The approach of this design project is not to abolish purdah, but to minimize its limiting effects on women. By covering the dwellings in a second skin, one mitigates the effects of the threshold. A strict hard border, becomes a gradient of spaces in which the public exposure of women can be enhance, while the purdah is respected. The purdah mirror by INDO made represents the thematic approach of this decision.



Natura Futura Arquitectura and Juan Carlos Bamba design for Las Tejedoras in Ecuador seeks to be a space for the intermediation of productive development processes, linking unemployed women through active participation. The use of round teak wood holds the roof and the floors on the upper level, creating an extra space in between what is conceived as inside and outside.



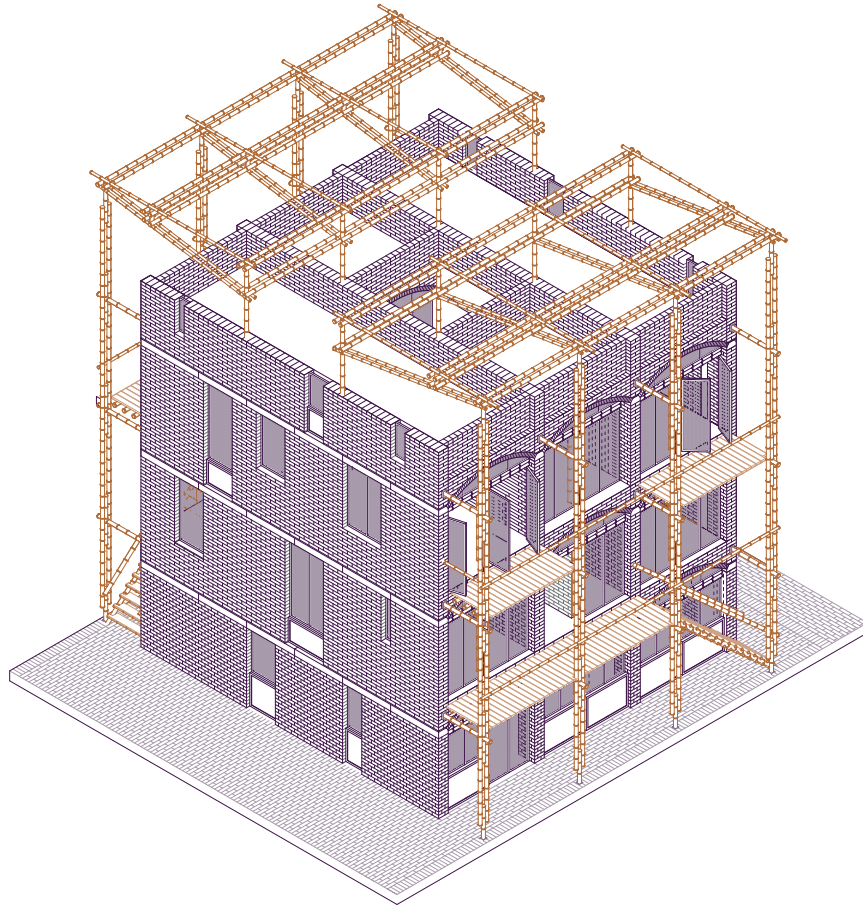
The bamboo plant is incredibly versatile in its ways to use the product. The major use in the region and across the world is to use the cane as a construction material.

secondary structure of bamboo

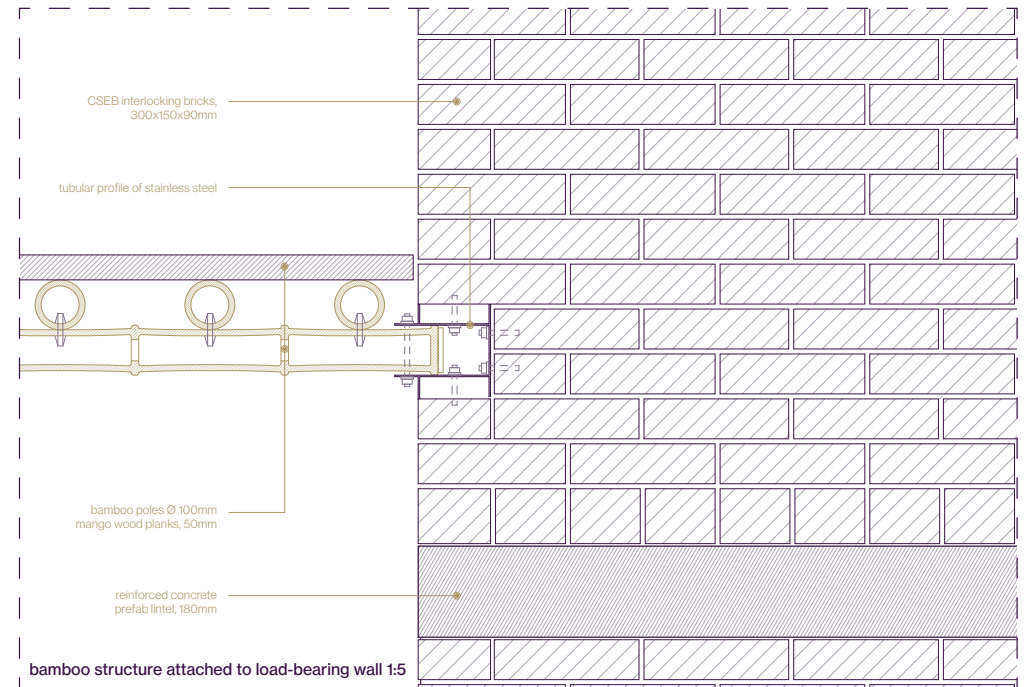


The Pani Community centre by SchilderScholte architects is a fine example of how to use bamboo as a secondary construction material in the north of Bangladesh.

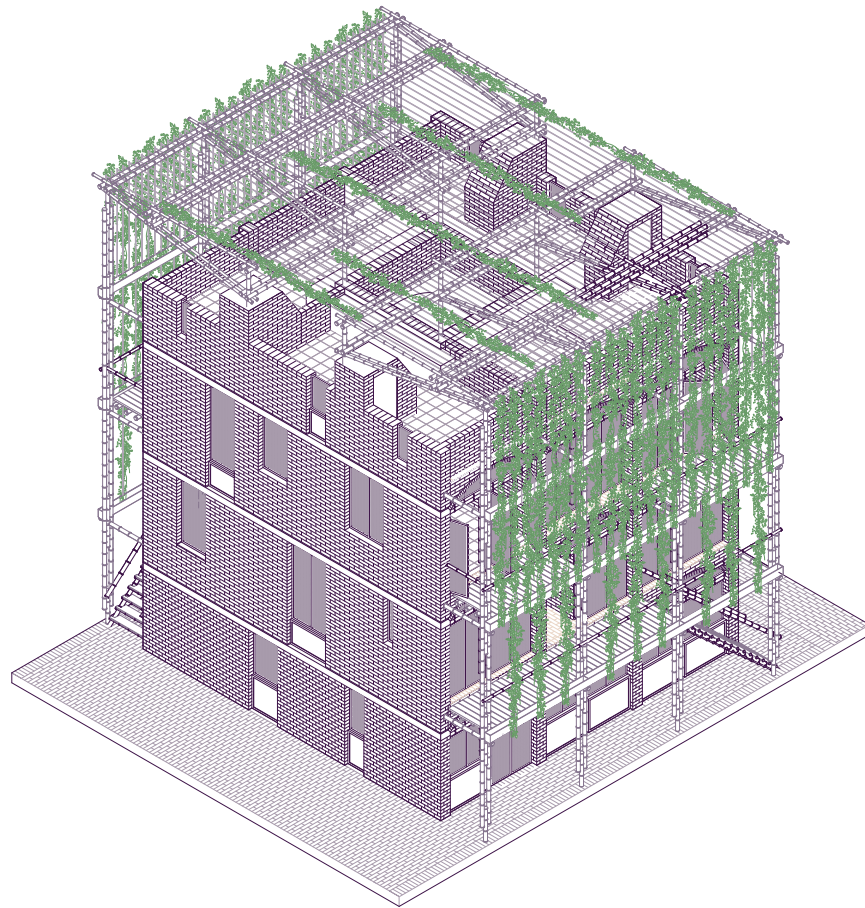
local example



a second skin



detail of bamboo structure attached to load-bearing wall 1:15

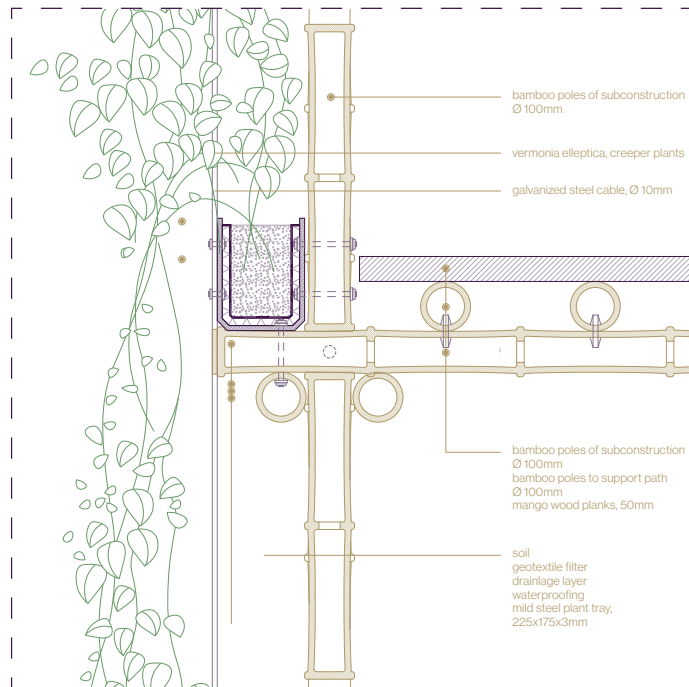


a green veil



The design by Vo Trong Nghia in Vietnam on the left is draped in a living green facade. It is designed as a soft layer, as an environmental diffuser, to filter direct sunlight and prevent the interior space from overexposure to the outside, without the feeling of isolation. The veil also protects the CSEB bricks of the water, to extend the durability of the material. RMA architects' design in Hyderabad demonstrates the relevance of traditional cooling systems of humidified surfaces used through time in the hot and dry climates of South Asia.

a breathing building



detail of planting trays and bamboo 1:15



**type of
creepers**

season
color
density
fragrance
sun needs

**jacquemontia
violacea**

all year
blue/purple
high
weak
full sun

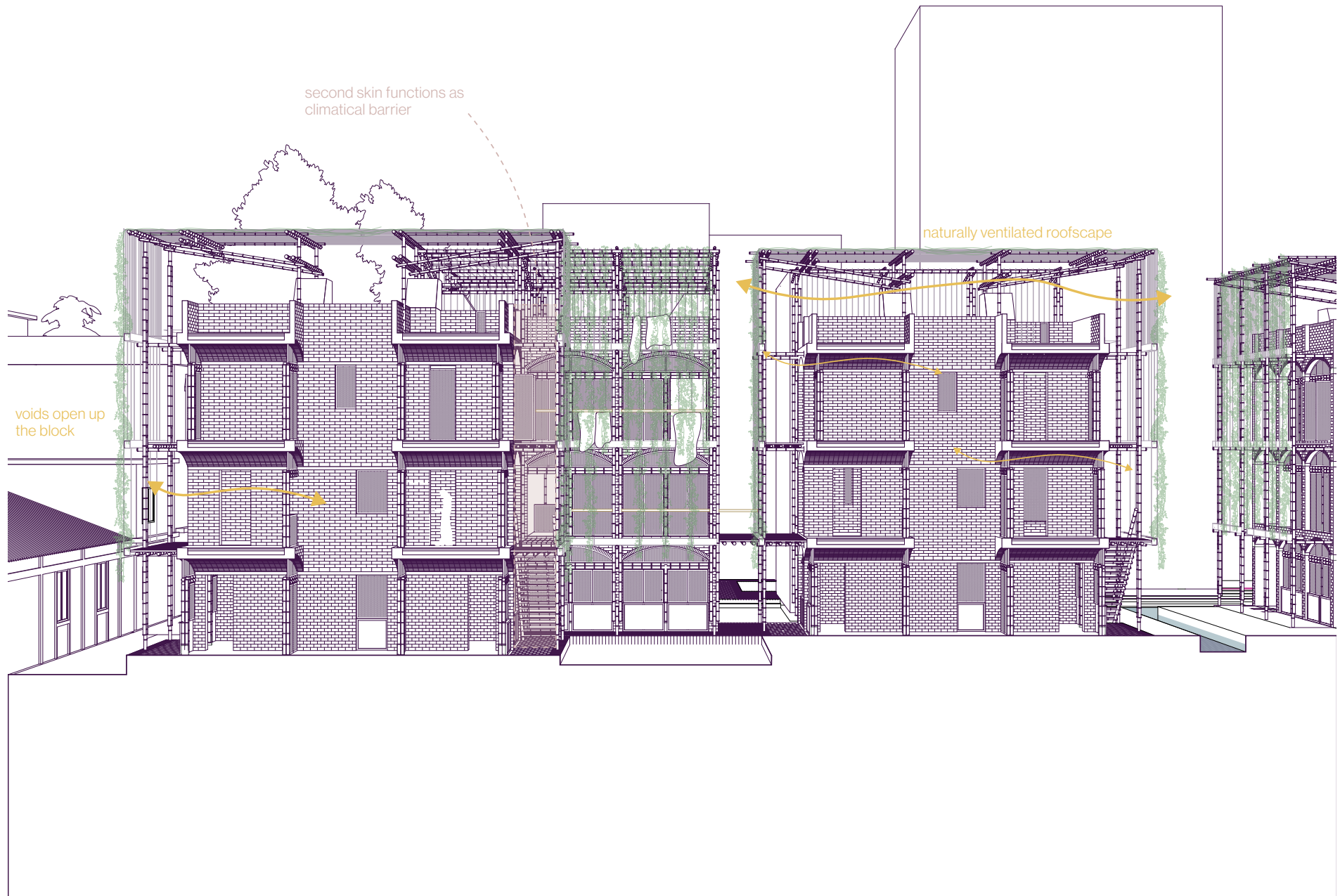


**jasminum
sambad**

all year
white
medium
strong
partial sun

variation of plantation

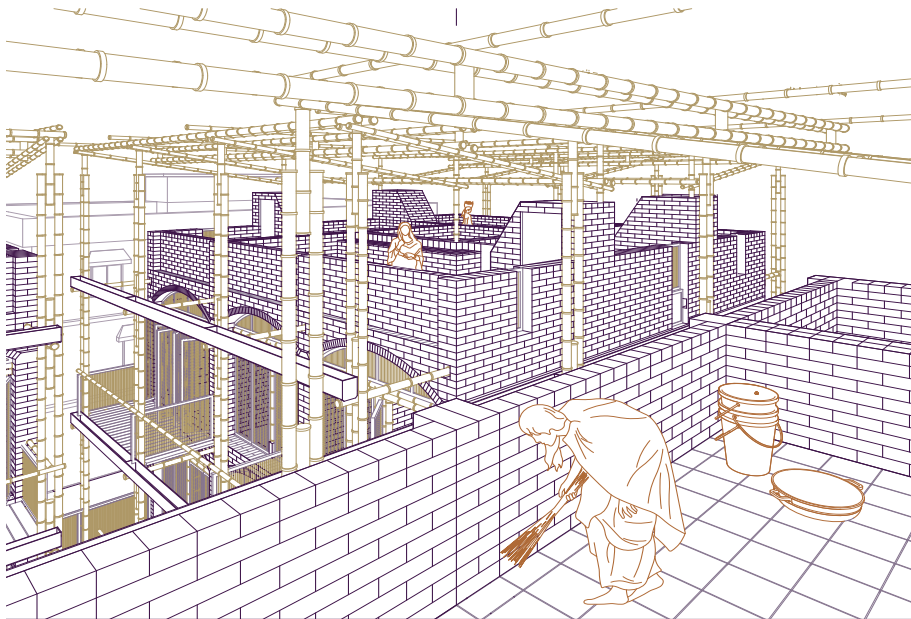
main climate principles



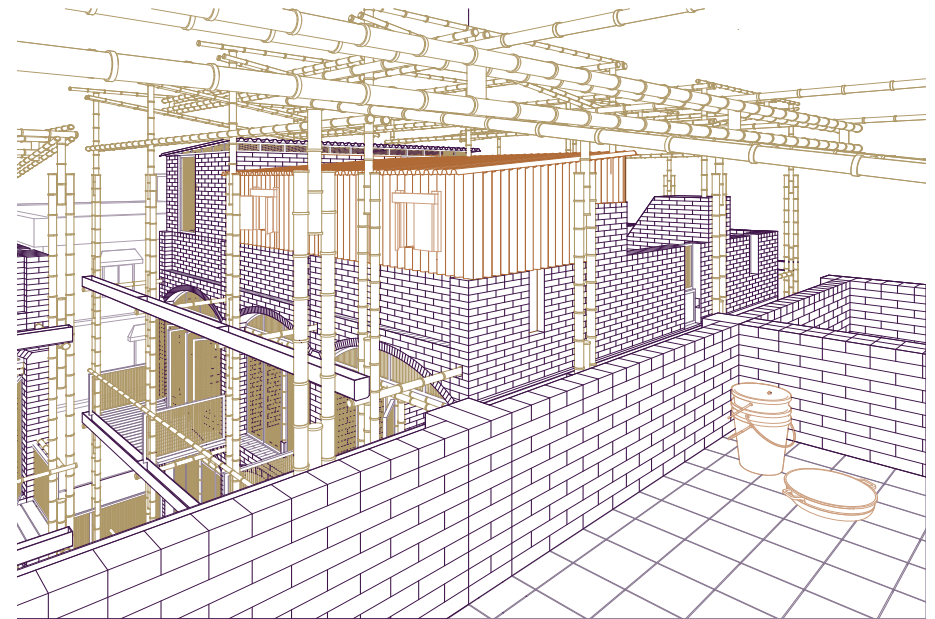
water strategy



incrementality



a view on the bamboo sub-construction



flexible structure supports vertical extensions



managerial strategy

an inclusive urban toolbox

UN's "Her City" is an urban development initiative aimed at contributing to the United Nations' Sustainable Development Goals (SDGs). It addresses several goals, including:

- Goal 3:** Health and Wellbeing,
- Goal 5:** Gender Equality
- Goal 10:** Reducing Inequality
- Goal 11:** Sustainable Cities and Communities
- Goal 16:** Peace, Justice and Strong Institutions
- Goal 17:** Partnerships.

Established by UN-Habitat (the United Nations Human Settlements Programme) and the independent think tank Global Utmaning (Global Challenge), this initiative seeks to provide methods and tools to urban actors and cities worldwide.

The initiative's goal is to help cities scale up and integrate girls' participation in planning as part of their long-term strategies for building sustainable cities and societies. Her City equips municipal professionals, urban actors, and local decision-makers with a comprehensive toolbox designed to mainstream youth, gender, and socioeconomic perspectives by strategically involving girls and young women in urban planning and design.

There is a significant knowledge gap in participatory urban planning and design, especially regarding the involvement of vulnerable groups in urban development processes. Research has shown that engaging girls and young women, local actors, and multi-level decision-makers in participatory urban development fosters opportunities for more inclusive, equitable, and sustainable urban growth.

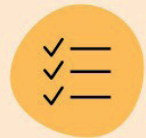


The toolbox

9 flexible blocks



Support urban development from a girl's perspective



Guide urban actors to implement projects through a step-by-step methodology



Provide an open and digitally accessible platform for all



Facilitate an ongoing dialogue between professionals and citizens

ASSESSMENT



Block 1
Stakeholder mapping



Block 2
City wide assessment



Block 3
Site specific assessment

DESIGN



Block 4
Analysing challenges



Block 5
Designing ideas



Block 6
Recommendations for actions

IMPLEMENTATION



Block 7
Action plans



Block 8
Sharing results



Block 9
Implementation and follow-up



the women of laladighi

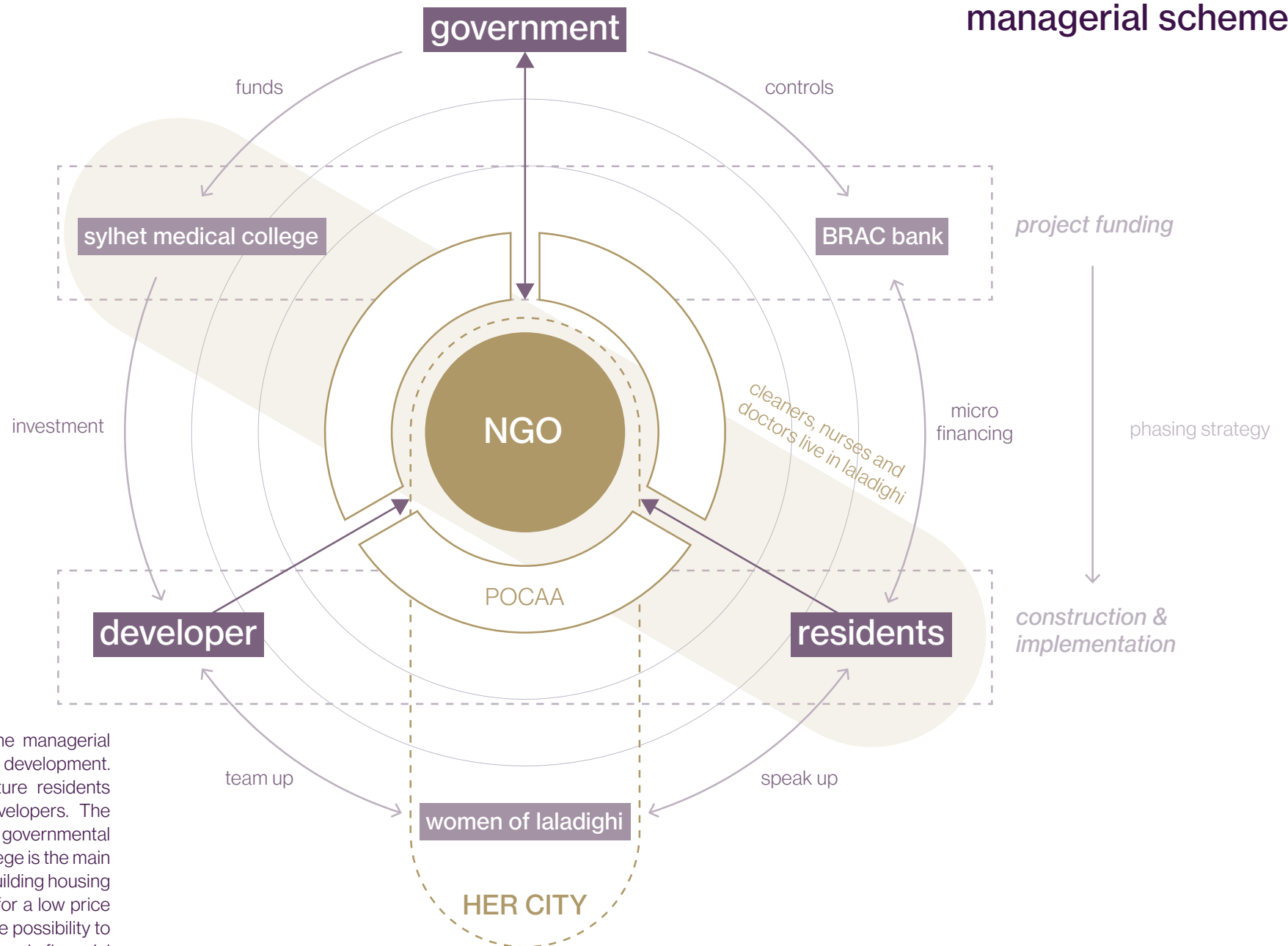
The women of Laladighi are an essential aspect throughout the whole process of this design. Therefore it is crucial to involve women in all the single steps of the process. The “Her City” toolbox plays an important part in reaching this goal. However it can be beneficial for the project to get a local NGO on board. By doing so, the NGO can perform a central role in the process. This NGO can be the link between the architect and all the other actors involved, by maintaining the focus on women but not losing track of striving for this sense of community.

Platform of Community Action and Architecture (POCAA) is a Bengali NGO that aims to create a platform for community-led architecture. POCAA has multiple years of experience in the development of women friendly residential and communal projects on both rural and urban locations.

By involving POCAA in the Laladighi development, the effectivity of the “Her City” program can be augmented, which will lead to a safer living environment for the girls and women of Laladighi.

POCAA | লালদিঘি
platform of community action and architecture

managerial scheme



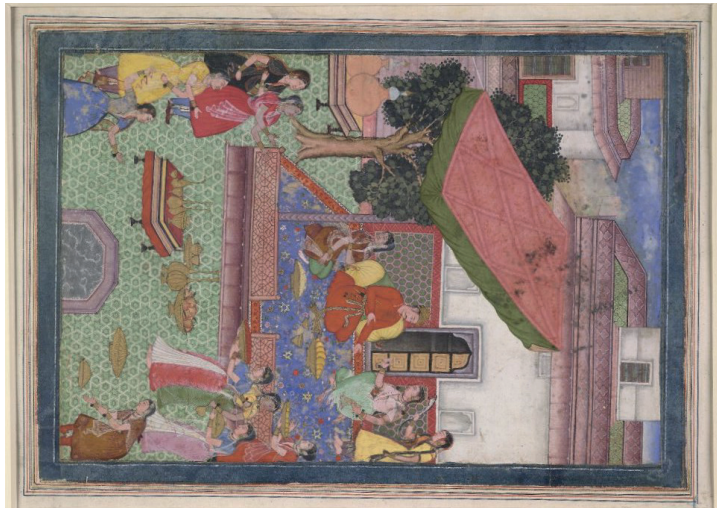
This scheme explains the managerial scheme of the Laladighi development. In which the female future residents take on the roll as developers. The Sylhet MAG Osmani governmental hospital and medical college is the main financer of the project. Building housing which they can rent out for a low price to their staff, who have the possibility to buy the house if an increase in financial resources asks for an incremental extension to their house.

UN's toolbox for women's participation in urban development.



zanānah

Persian: زنان, zanānah; Urdu: زنان, zanānah: women's quarters



changing the perspective of the women's quarters



bangla baton houser to become Laladighi HQ

laladighi

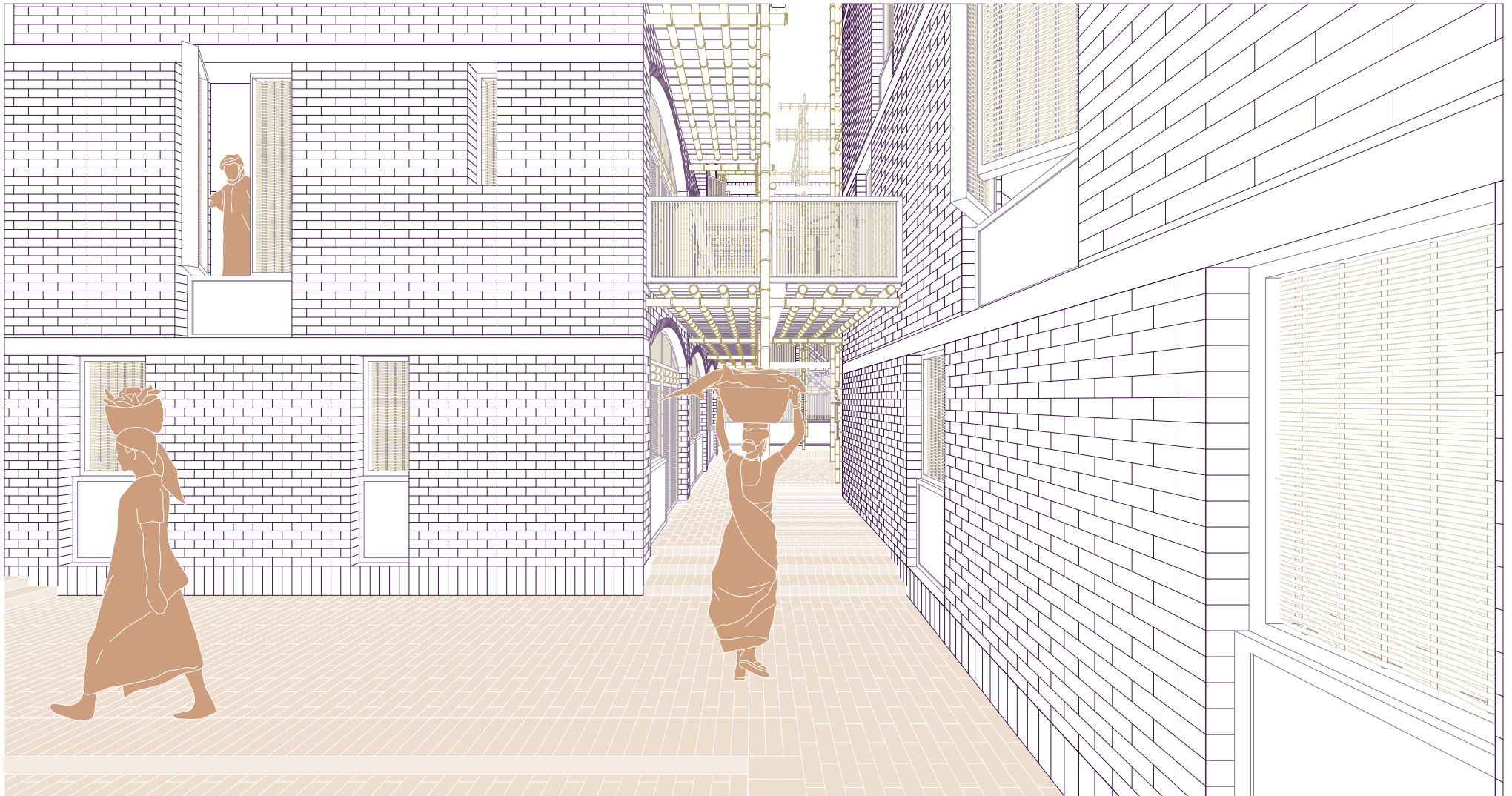
district



Impression of the public spine on the district scale of Laladighi.

para

neighbourhood



Impression of the threshold in between the public spine and the baithak. The bamboo subconstruction acts as a gate to the courtyard: a translucent threshold.

baithak

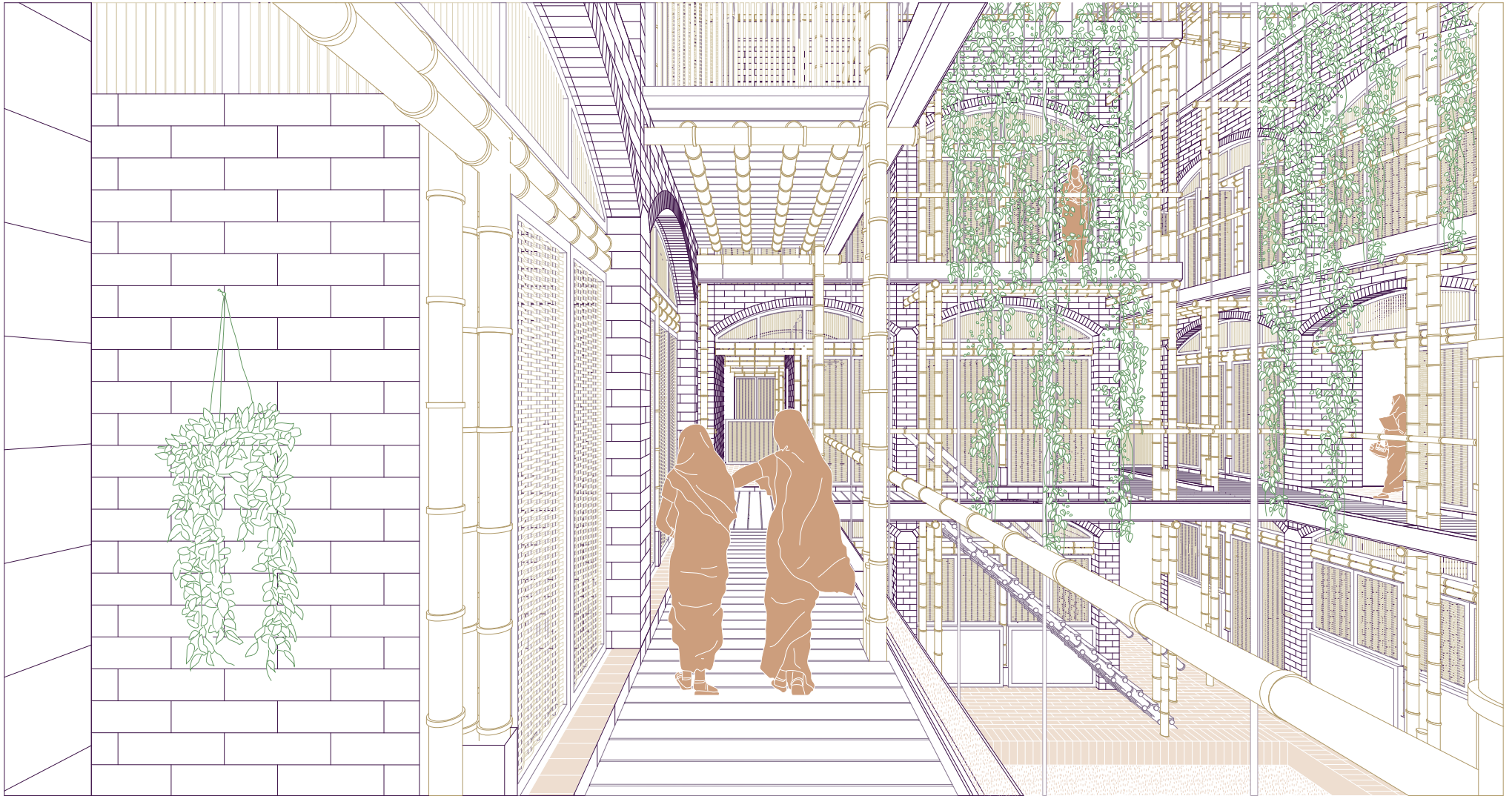
cluster



Impression of the baithak. The courtyard that acts as the centre of a cluster, activating women both on the groundfloor as on the platform and balconies surrounding it.

ghar

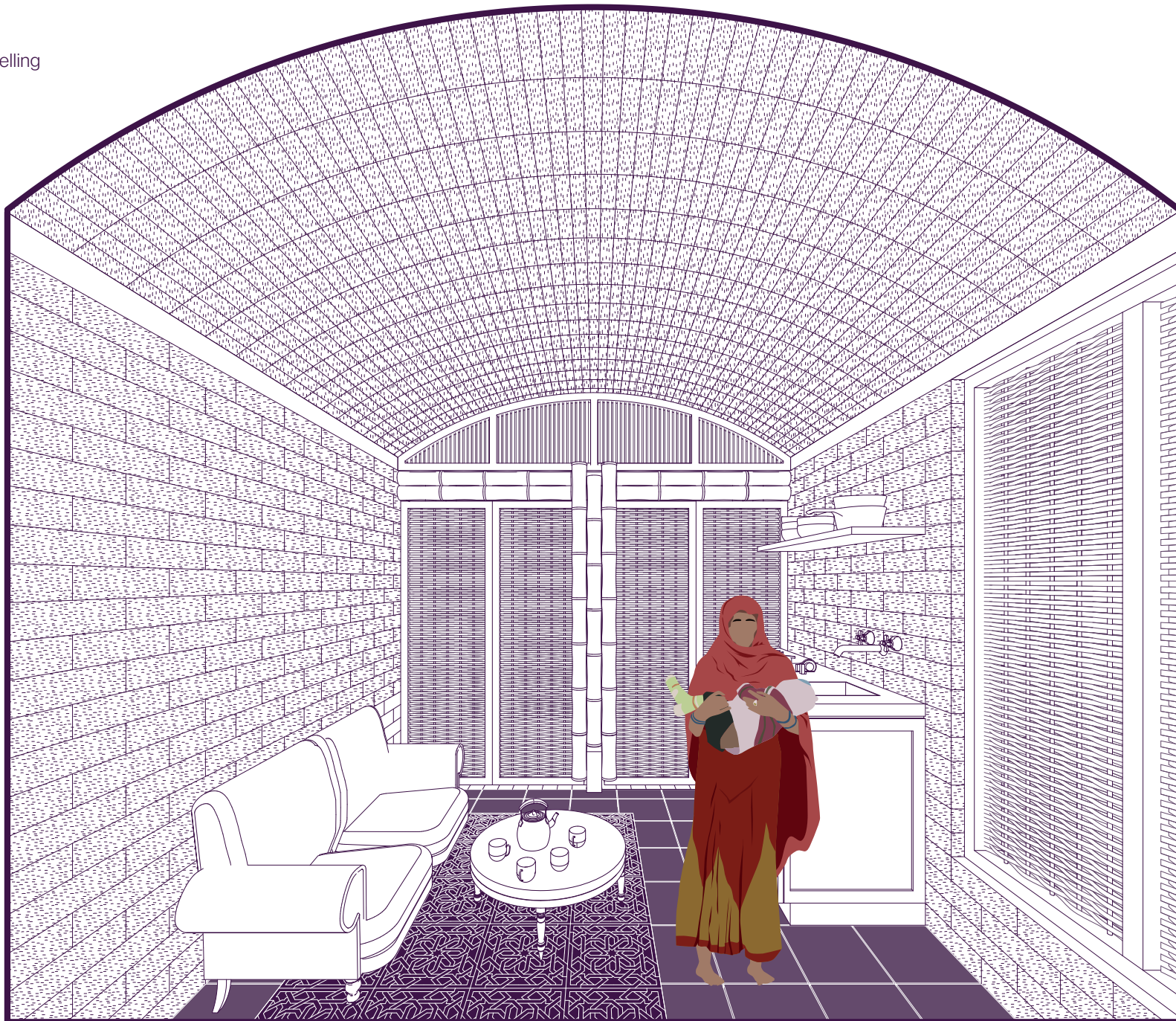
dwelling



Impression of the ghar and the platform that connects the entrances of the duplexes.
It is the place where women get to know their neighbours.

closed

versatility of the dwelling



semi open

versatility of the dwelling

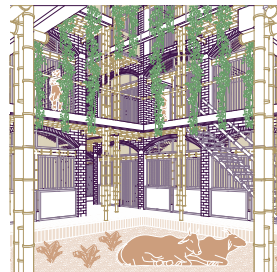


open

versatility of the dwelling



translucent thresholds of laladighi



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