

re-Living the [Sabarmati] Riverfront:

- an inclusive mixed-use housing strategy that reconnects living, working, public space and urban life along the Sabarmati riverfont in Ahmedabad, India.

Graduation Report Booklet

Enrico van den Berg

AR4GH010
Global Housing Studio

Prof. Dirk van Gameren
Dr. Brook Haileselassie
Prof. Marina Tabassum

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The Sabarmati riverfront represents a condition in which large-scale urban development has reshaped the relationship between the city and the river. While the project has improved environmental conditions and flood control, it has also produced a spatially uniform and highly regulated environment. This raises questions about how infrastructural landscapes can support a wider range of social and spatial activities.

Through a design-based approach, this graduation project investigates how housing, work, public space and everyday life can be reintroduced and recognised within the riverfront. By working with the existing urban framework, the aim is to develop an inclusive mixed-use environment that accommodates different forms of inhabitation and reactivates the river as a lived urban space.

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1 What and Why?

[a] Problem Statement
[b] Research Questions
[c] Relevance and Objective
[d] Scope

[a] Problem Statement

India is experiencing rapid urbanisation, driven largely by rural-to-urban migration in search of economic opportunities. More than 522 million people currently live in urban areas, a figure expected to rise to approximately 723 million by 2050 (The Wire, 2026). This growth places increasing pressure on cities, where housing provision and infrastructure struggle to keep pace with demand. As a result, access to adequate and affordable housing remains a major challenge; particularly for low-income populations. While formal housing development largely serves middle- and higher-income groups, Economically Weaker Sections (EWS) often depend on informal forms of settlement, resulting in a persistent housing shortage and increasing socio-spatial inequality (ACASH, 2026).

These dynamics are clearly visible in Ahmedabad, a city whose rapid industrialisation historically attracted large numbers of rural migrants (Janaagra, 2026). Unable to access formal housing, many settled along the banks of the Sabarmati River. The seasonal riverbed provided space for housing, work and everyday activities, creating a dense urban environment in which living, production and social life were closely interconnected. The river functioned not only as a geographical feature, but also as an active part of the city's everyday urban life (Maurya, 2022).

The Sabarmati Riverfront Development Project (SRDP) sought to transform this relationship between city and river. By stabilising the river, improving flood control and creating a continuous public waterfront, the project aimed to reconnect Ahmedabad with the Sabarmati and provide new public space for the city. While the intervention has significantly improved environmental conditions and accessibility, it has also produced a highly regulated and spatially uniform riverfront. Informal settlements were removed, everyday economic activities disappeared and the river edge became separated from the social and productive life of the surrounding neighbourhoods.

As a result, a paradoxical condition has emerged. A project intended to reconnect city and river has simultaneously created a new spatial disconnect between them. Although physically accessible, large sections of the riverfront remain detached from the everyday urban life and

accommodate only a limited range of activities. The riverfront functions primarily as an infrastructural and recreational landscape, rather than as an inhabited urban environment.

> This condition raises a broader architectural question concerning the relationship between large-scale urban infrastructure and everyday urban life. How can a highly controlled riverfront support greater diversity of uses, users and forms of inhabitation? And how can housing, work and public space contribute to re-establish the relationship between city and river?

This project approaches the Sabarmati riverfront as a site where these questions can be explored through design. Rather than rejecting the existing riverfront development, it investigates how its spatial framework can be extended and reinterpreted through the introduction of mixed-use housing, collective space and everyday activities. In doing so, the project seeks to transform the riverfront from a controlled edge into an inhabited urban environment.

[b] Research Questions

“How can the Sabarmati riverfront in Ahmedabad be reimagined as an inclusive mixed-use residential environment that integrates affordable and middle-income housing while reactivating public life along the river?”

SQ1 How has the transformation of the SRDP affected spatial practices, livelihoods and everyday life along the river?

SQ2 What spatial, social and economic needs define low-income communities living around the Sabarmati riverfront today?”

SQ3 How can living, working and public functions be integrated into a continuous mixed-use riverfront condition?”

[c] Relevance and Objection

The SRDP is widely regarded as a successful urban transformation, improving flood control, environmental conditions and public accessibility along the river. At the same time, the project raises broader questions about the relationship between large-scale urban infrastructure and everyday urban life. While the river has become physically accessible, much of the riverfront remains characterised by a controlled and relatively uniform spatial environment with limited integration of housing, work and daily urban activity.

This condition is particularly relevant within the context of rapidly urbanising Indian cities. As urban populations continue to grow, access to centrally located and affordable housing remains increasingly difficult for low- and middle-income groups. At the same time, the SRDP demonstrates how the provision of public space and environmental improvements does not automatically result in the integration of everyday life. As a result, housing, public space and infrastructure frequently remain separated into distinct urban domains.

The Sabarmati riverfront presents an opportunity to explore an alternative approach. Rather than understanding the riverfront solely as a recreational or infrastructural landscape, this project investigates its potential to function as an inhabited urban environment in which living, working and public life coexist. In doing so, it contributes to ongoing architectural discussions concerning mixed-use urbanism, housing accessibility and the integration of infrastructure within the city.

> The objective of this project is to develop an inclusive mixed-use residential environment that strengthens the relationship between Ahmedabad and the Sabarmati River. Through the introduction of affordable and middle-income housing, (work)shops and public space, the proposal seeks to transform the riverfront into an active urban environment that accommodates a diversity of users and forms of occupation.

Rather than approaching the riverfront as a tabula rasa, the project builds upon the existing spatial framework established by the SRDP. The intention is not to replace the current intervention, but to extend and reinterpret it through architectural strategies that promote social inclusion, programmatic diversity and spatial continuity between city and river.

This ambition is closely connected to my personal interest in the relationship between architecture, infrastructure and urban life. I have been particularly interested in how architectural interventions can operate across multiple scales, making the connection with the everyday spatial practise of residents. The Sabarmati riverfront provides a unique context in which these questions can be explored through design.

[d] Scope

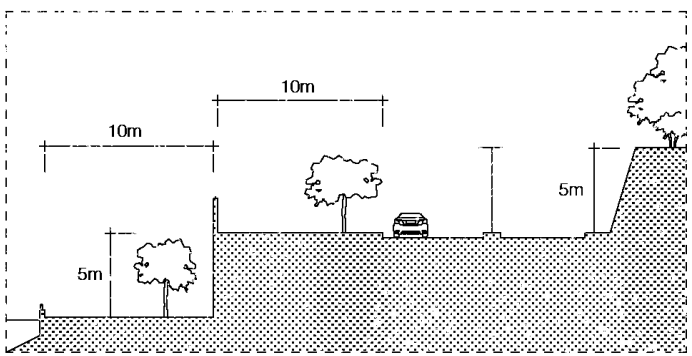
The project is situated along the Sabarmati riverfront in Ahmedabad, India, adjacent to the former Calico Mills site. Located within Ahmedabad's historic industrial belt, the area is characterised by the coexistence of residual industrial structures, informal settlements and the formalised riverfront infrastructure introduced through the SRDP. As such, it represents a location where the relationship between river, infrastructure and urban life becomes particularly visible.

> The selected site occupies a defined section of the riverfront approximately 400 meters in length. It includes the lower riverfront level, the upper riverfront level, the adjacent roadway and the city level beyond. Together, these elements form a layered urban section in which significant level differences and infrastructural barriers currently limit the continuity between the city and the river.

This location was selected because it directly borders existing informal communities and the spatial and social tension that are central to this research. On one side, dense residential neighbourhoods support a wide range of everyday

social and economic activities; on the other, the riverfront functions as a controlled public landscape with limited integration into daily urban life. The site therefore provides an opportunity to investigate how housing, public space and infrastructure can be reorganised to strengthen the relationship between city and river.

Rather than addressing the entire eleven-kilometre riverfront, the project focuses on a site-specific intervention that operates as a pilot within the larger riverfront framework. The proposal explores a repeatable spatial system whose principles can be adapted to other sections of the Sabarmati riverfront, while responding to the specific conditions of the Calico Mills area.





Section of the riverfront site illustrating the existing height difference. (left).
Aerial sattelite view of the site context. Source: Mapbox. (top).



2 Approach?

[a] Methodology
[b] Theoretical Framework

[a] Methodology

This project combines precedent analysis, fieldwork, mapping and research-by-design to investigate how the relationship between the city and the Sabarmati River can be strengthened through the integration of housing, (work)shops, public space and everyday urban activity. Research and design are approached as an iterative process in which analysis and design continuously inform one another.

The research began with a collective study of housing projects in India. Conducted in collaboration with fellow students, this phase examined low-income housing precedents to understand how density, spatial organisation, construction systems and everyday living conditions are addressed within the Indian context. This provided an initial framework for evaluating housing conditions and identifying architectural strategies relevant to the project.

Building on this foundation, fieldwork was carried out in Ahmedabad in collaboration with CEPT University. Site visits focused on housing developments and informal settlements surrounding the Calico Mills area. These observations revealed the contrast between the dense urban fabrics of adjacent neighbourhoods and the highly regulated riverfront environment.

The fieldwork was documented through mapping and analytical drawings. Two maps were developed to analyse the spatial organisation of the informal settlement and explore potential housing configurations derived from observed conditions. These drawings served as tools to study relationships between movement, density and social activities.

To further investigate architectural strategies for density, collective space and infrastructural integration, a series of precedent studies was undertaken. Projects including CIDCO-Housing, the Sanjaynagar Slum Redevelopment Project, Unite d'Habitation and Liziba Station were analysed to identify spatial principles that could be adapted to the specific conditions of the Sabarmati. Riverfront.

The design was developed through an iterative research-by-design process. Insights from fieldwork, mapping and precedent studies were continuously tested through drawings, models and spatial explorations, allowing analytical observations to be translated into architectural proposals.

The outcome of this project is a pilot proposal for an inclusive mixed-use riverfront environment, composed of a series of spatial elements that integrates housing, (works)shops, public space and infrastructure within a single framework. The project is presented through architectural drawings, diagrams and models that demonstrate how the Sabarmati riverfront can evolve from a controlled public landscape into an inhabited urban environment.

[b] Theoretical Framework

This project is grounded in the idea that urban space emerges through the interaction between spatial order and everyday urban life. While architecture and infrastructure provide the organisational framework of the city, the social and economic activities of its inhabitants give meaning and vitality to that framework. The Sabarmati riverfront is approached as a site where these two dimensions have become increasingly separated, creating a spatial condition in which physical accessibility has been improved, yet everyday urban life remains limited.

Urban order is traditionally established through the organisation of functions and movement. The concept of the Functional City (van Es et al., 2014) proposes a clear spatial structure in which dwelling, work, recreation and transport are organised as distinct yet interconnected urban systems. Similarly, Le Corbusier's notion of the Nation for Living (1985) frames housing as a rational and repeatable system capable of providing efficient and scalable living environments. Together, these ideas emphasise the importance of clarity, organisation and standardisation in shaping the built environment.

However, spatial order alone does not produce urban life. The areas surrounding the

Calico Mills site demonstrate how living, working and social interaction are often deeply intertwined within dense urban environments. Here, spatial organisation emerges through everyday practices and economic necessity rather than formal planning. Urban space is continuously produced through use, adaptation and occupation.

This understanding is reflected in Lefebvre's concept of the Right to the City (1968), which positions urban space as a collective construct shaped by its inhabitants. Likewise, Placemaking (Project for Public Spaces, 2020) argues that the quality of public space depends not only on its physical design but also on its capacity to accommodate diverse forms of activity. Jacob's notion of 'Eyes on the Street' (2020) further highlights the importance of continuous presence and interaction in creating safe, active and socially meaningful urban environments.

Applied to the Sabarmati riverfront, these perspectives reveal a spatial imbalance. While the riverfront provides a clear and controlled spatial framework, it accommodates only a range of everyday activities. The result is a public landscape that remains only partially integrated into the daily life of the city.

This project therefore does not position spatial order and urban life as opposing conditions. Instead, it argues that both are necessary. Spatial structure provides accessibly, legibility and continuity, while everyday practices generate diversity, adaptability and social meaning. The design proposal explores how these dimensions can be brought together through the integration of housing, (work)shops, infrastructure and public space within a single urban system. In doing so, it seeks to strengthen the relationship between city and river while creating opportunities for a broader range of urban activities and forms of inhabitation.

3 What has been achieved?

[a] Spatial and Social Context
[b] Historical and Spatial Transformation
[c] Precedents Analysis
[d] Design Proposal

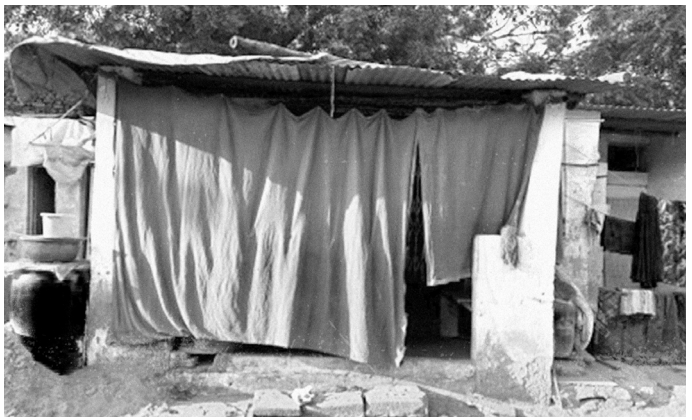
[a] Spatial and Social Context

Fieldwork revealed a sharp contrast between two adjacent urban conditions. On one side, a dense neighbourhood supports a wide range of social and economic activities; on the other, the Sabarmati riverfront functions as a highly regulated public landscape. Despite their close proximity, both environments remain physically and socially disconnected by a high-speed road and significant level differences.

The Calico Mills informal settlement is characterised by a compact urban fabric in which housing, work and everyday life are closely intertwined. Housing is self-constructed and densely arranged, ranging from permanent brick and concrete structures to more temporary configurations using corrugated sheets and reused materials. Boundaries between private and public space are often blurred, with domestic activities extending into the street and contributing to a highly active public realm.

Small-scale economic activities form an integral part of this environment. Shops, barbers, laundromats, jewellers and food vendors are embedded within the residential fabric, creating a continuous layer of local production and exchange. Alongside these economic functions, communal facilities such sas a mosque, primary school





Dilapitated informal dwelling in the Calico Mills settlement, with objects placed as ballast against wind uplift. (top)
Temporary façade formed by fabric and makeshift material adaptations. (bottom).

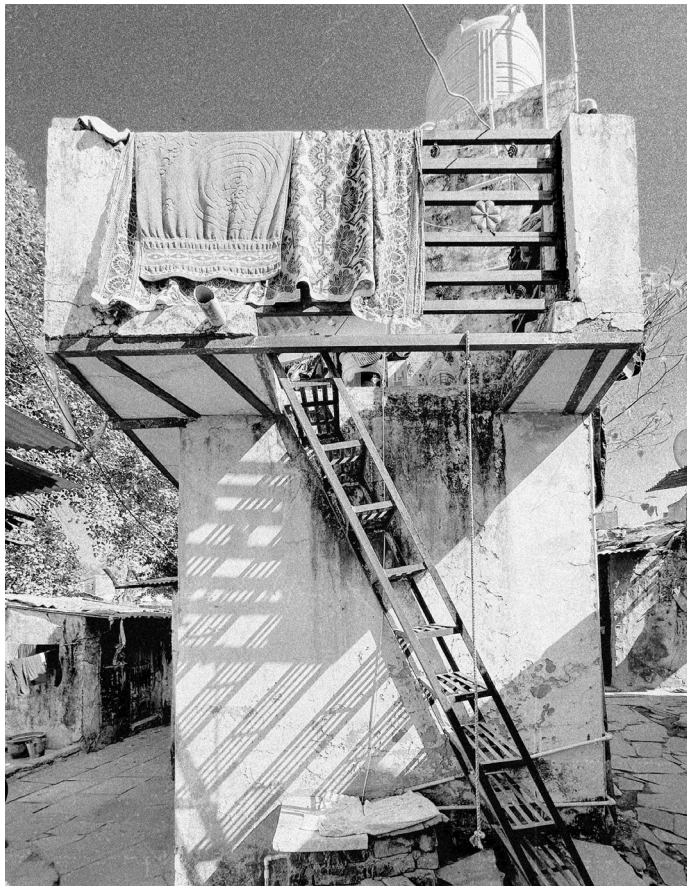
and local NGO support social, educational and religious life. Together, these elements create a neighbourhood in which living, working and collective activities are spatially integrated.

Despite limited infrastructure and a lack of formally designed public space, the settlement demonstrates a strong internal logic based on proximity, daily routines and shared use of space. Activities overlap not only spatially but also temporally, allowing streets to continuously shift between functions such as movement, work, social interaction and play. Urban life is distributed throughout the neighbourhood rather than concentrated in designated ares. Streets function simultaneously as spaces of movement, work, social interaction and play, allowing a wide range of activities to coexist within a compact spatial framework.

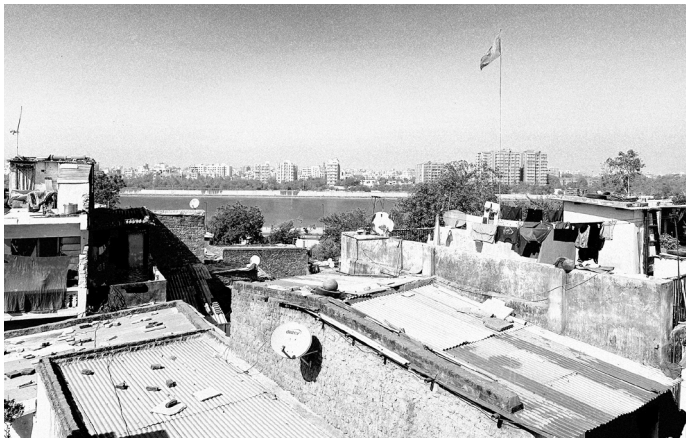
In contrast, the riverfront presents a fundamentally different condition. Following the SRDP, the river edge has been transformed into a formalised and controlled public environment. While the intervention has improved accessibility, environmental quality and flood protection, it accommodates a relatively limited range of activities. The lower riverfront remains largely inaccessible, newly planted vegetation has yet to

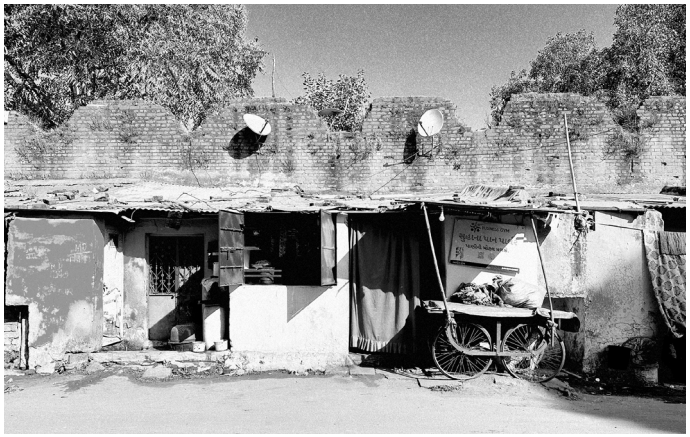
generate usable public space and the adjacent road restricts permeability between the neighbourhood and the river.

This juxtaposition reveals a fundamental spatial contradiction. The neighbourhood adjacent to the riverfront accommodates a dense mix of living, working and social activity, while the riverfront itself remeins detached from these everyday practices. Rather than functioning as an extension of the surrounding urban fabric, the riverfront operates as a separate spatial domain. Understanding this disconnect between city and river forms the starting point for the design expiration developed in this project.

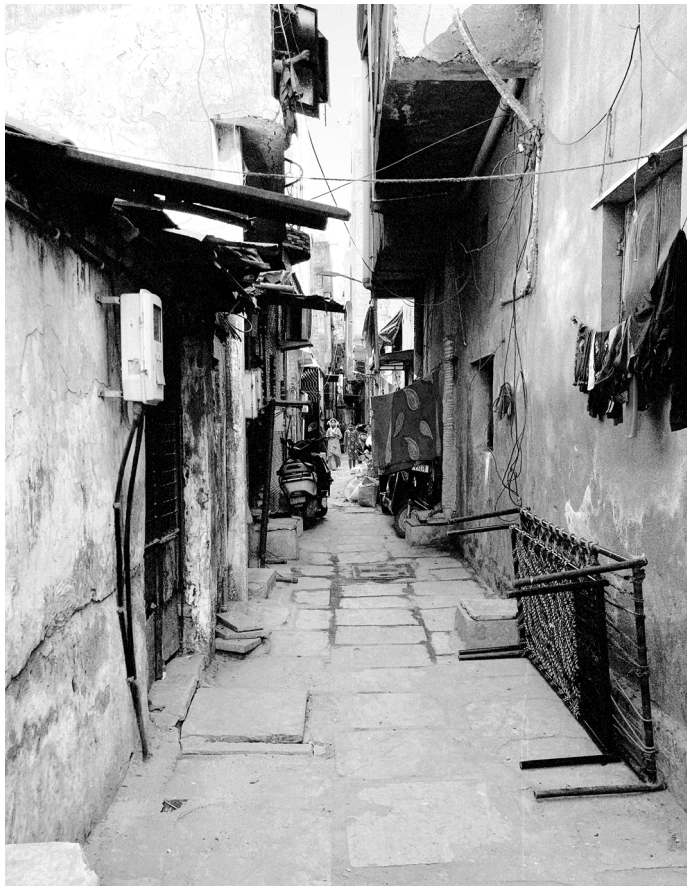


Steep staircase providing access to a dwelling, constructued with a simple steel structure.



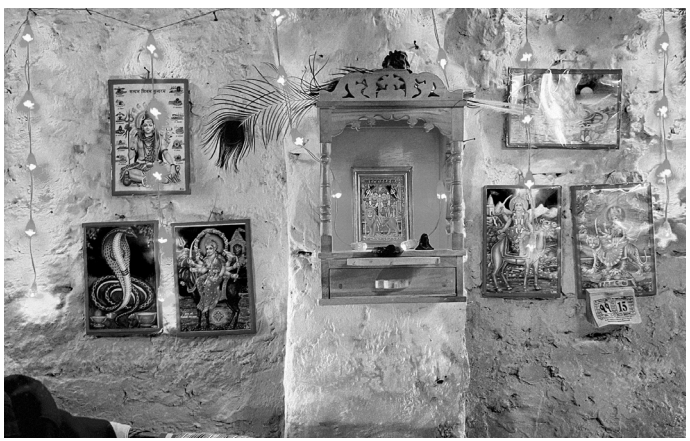


Corrugated sheet roofing with views towards the Sabarmati River. (top). Small dwellings built against the former boundary wall of the Calico Mills factory. (bottom).

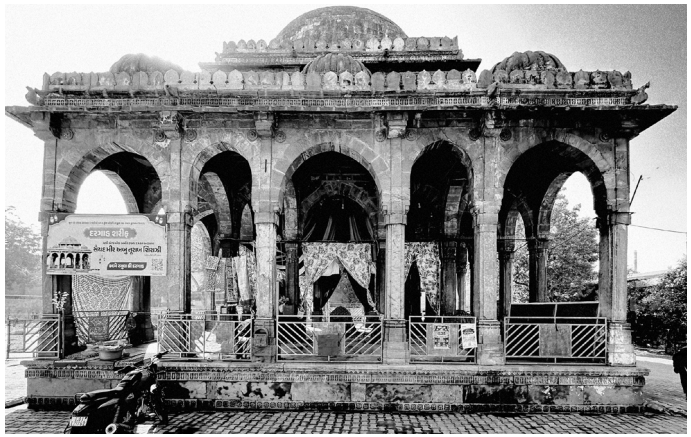


Narrow street structure through the settlement, with everday use extending into the public space.



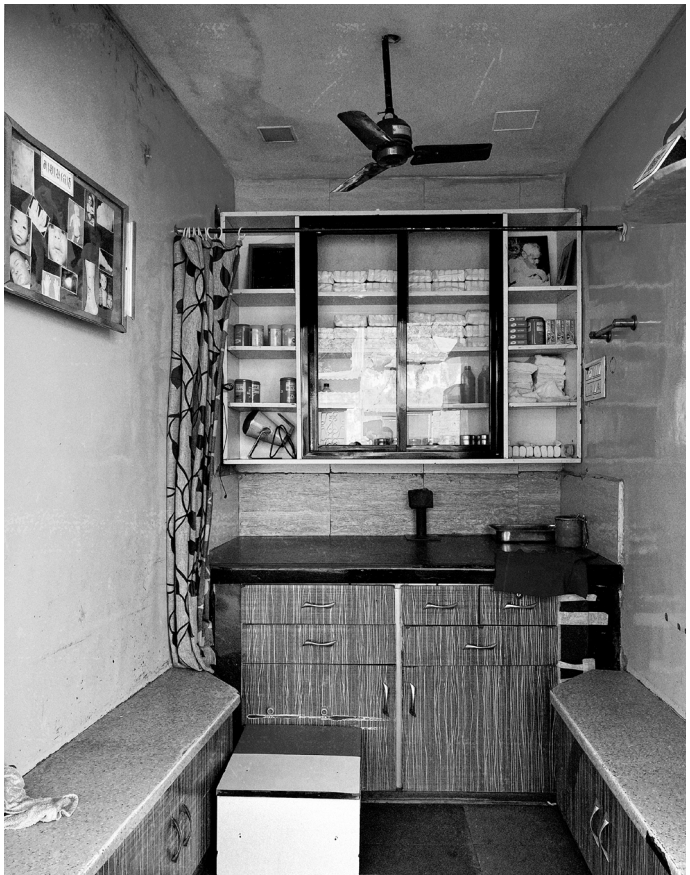


Interior view of a kitchen within a dwelling in the settlement. (top). Pooja space within a dweling, used for daily Hindu religious rituals and worship. (bottom).



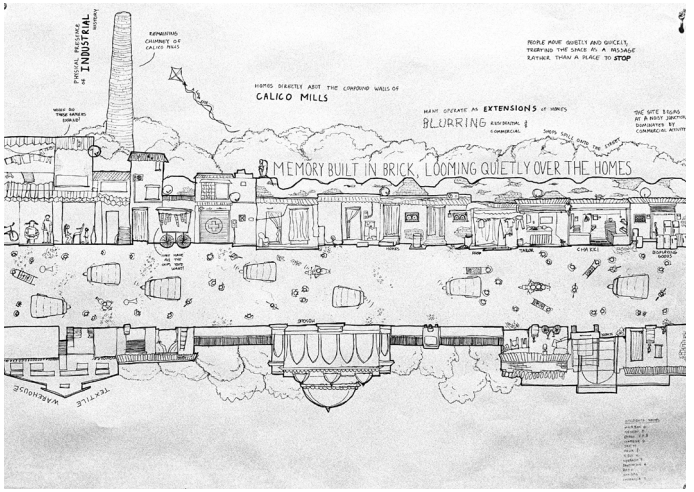


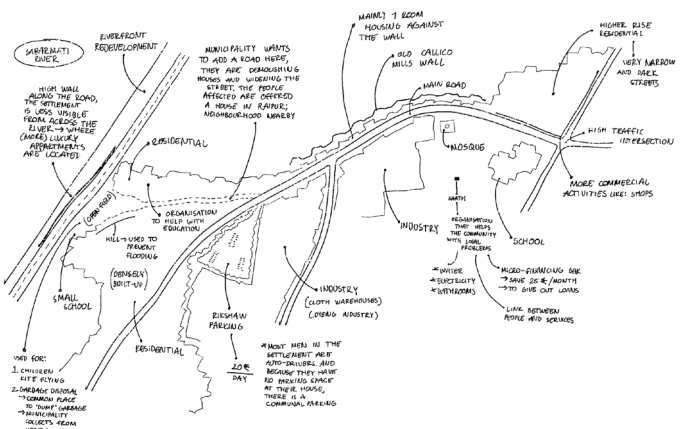
Tomb within the settlement, functioning as a local religious and communal point. (top).
Primary school serving the local community within the settlement. (bottom).



Small-scale local healthcare facility embedded within the settlement.

In collaboration with CEPT University in Ahmedabad, observations from the fieldwork were translated into a series of analytical and speculative drawings, consisting of a Spatial Observatoins Map and a Future Dwelling Study, exploring the findings within the existing settlement.





The Spatial Observations Map documents the spatial structure of the informal settlement adjacent to the former Calico Mills site. Based on field observations, it maps the relationship between housing, small-scale economic activities and communal facilities. The drawing illustrates how spatial organisation emerges through proximity, necessity and everyday routines, revealing the internal logic that supports the neighbourhood's social and economic life. (right).

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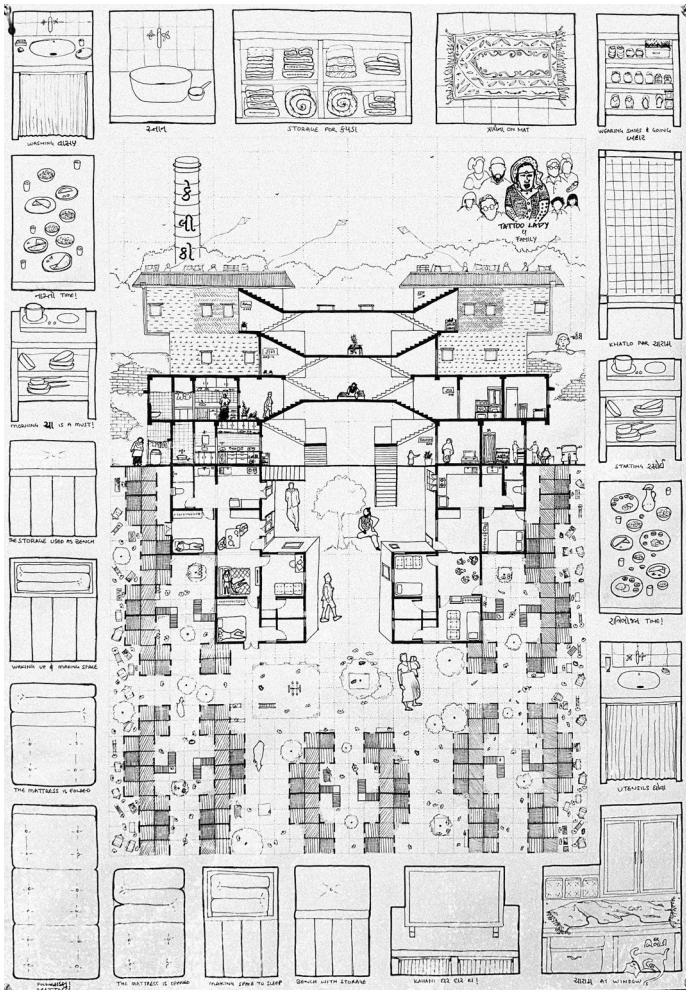
The Future Dwelling Study translates observations from the fieldwork into a speculative spatial study. It is informed by a specific household observed during the fieldwork, where a family of ten expressed the need for a 3 BHK dwelling to accommodate their current living conditions. The study attempts to understand and represent the daily cycle of a resident within the settlement through the use of furniture and domestic arrangements, considering the limited spatial capacity and lack of storage within the dwellings. It explores how modular furniture systems can support changing daily activities within the compact living environments. (right).

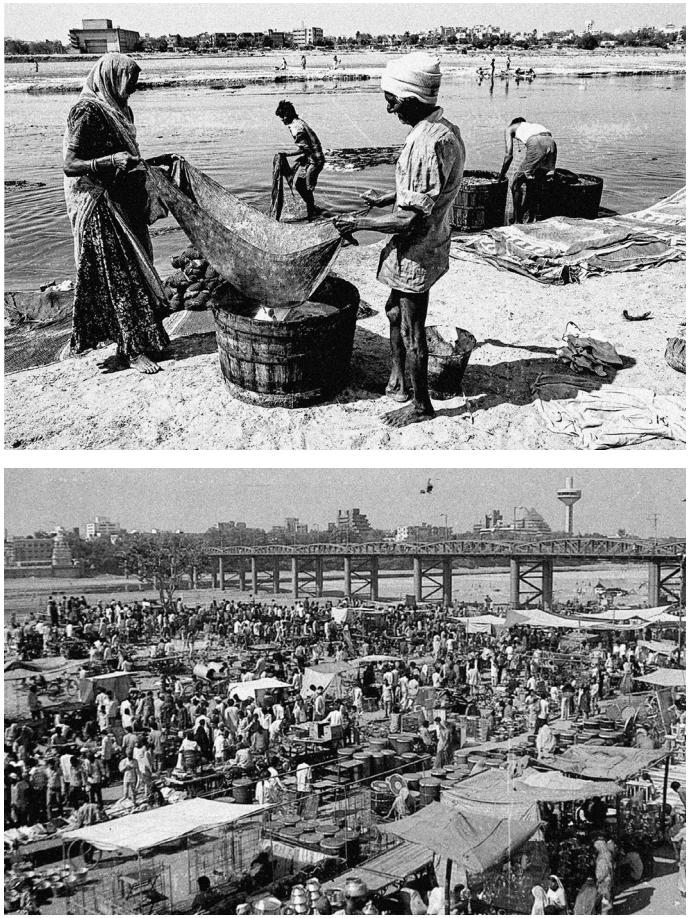


[b] Historical and Spatial Transformation

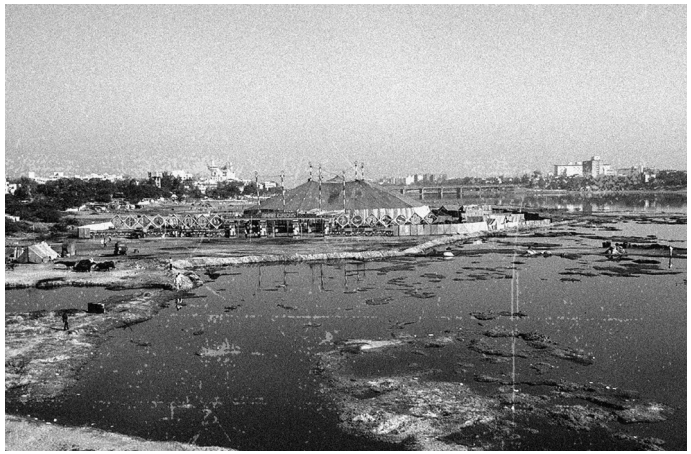
The contrast between the city and the Sabarmati River is the result of a long process of spatial transformation. Historically, the river played an important role in Ahmedabad's social, cultural and economic life. As a seasonal river shaped by monsoon cycles, its riverbanks and dry riverbed accommodated a wide range of activities, including markets, religious festivals, washing, small-scale agriculture and public gatherings (Maurya, 2022). Rather than functioning as a fixed boundary, the river operated as an adaptive urban landscape closely connected to everyday urban life.

During the twentieth century, Ahmedabad experienced rapid urbanisation drive by the growth of the textile industry (Desai, 2022). As formal housing provision failed to keep pace with increasing migration, many low-income residents settled informally along the riverbanks (Mohta, 2019). Over time, these settlements developed into dense urban environments where housing, work and social life were closely intertwined.

From the 1960s onwards, various proposals sought to redefine the relationship between the city and the river. While an earlier version, Bernard Kohn's ecological river valley, embraced the rivers seasonal character, The SRDP adopted a more controlled approach. Initiale in the 1990s and

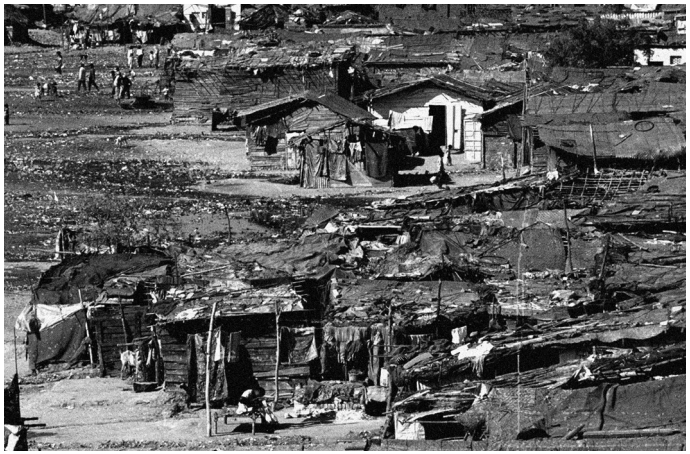


Everyday use of the Sabarmati riverbed for washing clothes [Ahmedabad, 1995]. Source: Living Waters Museum. (top).
Gujari Bazaar occupying the dry riverbed as marketplace [Ahmedabad, 1980]. Source: Living Waters Museum. (bottom).





Seasonal circus on the Sabarmati riverbed, showing its role as a flexible space [Ahmedabad, 2000]. Source: Living Waters Museum. (top).
Moharram festival along the riverbanks [ahmedabad, 2000]. Source: Living Waters Museum.. (bottom).





Informal settlement along the Sabarmati riverbed, where housing, work and daily life are intertwined. Source: Living Waters Museum (top).
Polluted condition of the Sabarmati within the urban core, reflecting pressures of inhabitation. Source: Living Waters Museum. (bottom).

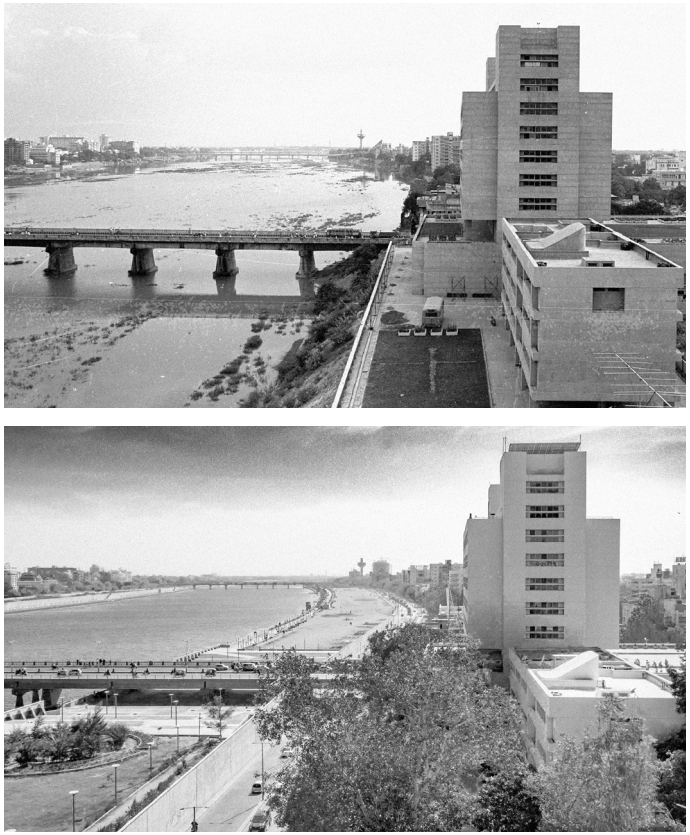
led by Bimal Patel, the project stabilised the river through engineered embankments and the diversion of water from the Narmada Canal, creating a continuous public riverfront and improving flood protection and environmental conditions.

Although the project successfully re-established physical access to the river, it also transformed the riverfront into a highly regulated urban environment. Approximately 10.000 families living along the riverbanks were relocated, often to peripheral locations far from their established social and economic networks (Mohta, 2019). While relocation policies initially promised resettlement within a 5km radius of their original homes, many households were ultimately moved to sites located more than 15km from the city centre. This relocation significantly increased the distance to employment opportunities and informal income-generating activities concentrated in central Ahmedabad. As a result, access to daily livelihoods became more difficult, disrupting long-established spatial and economic dependencies.



Map showing the relocation of informal residents from the Sabarmati riverbanks, comparing the proposed 5km relocation radius with the actual resettlement location.

As a result, the Sabarmati riverfront today exists as a formal public landscape directly adjacent to dense urban neighbourhoods, yet with limited spatial and functional continuity between them. A project intended to reconnect Ahmedabad with its river has improved accessibility and environmental quality, but has also produced a new separation between the riverfront and everyday urban life. This tension forms the starting point for the design proposal developed in this project.



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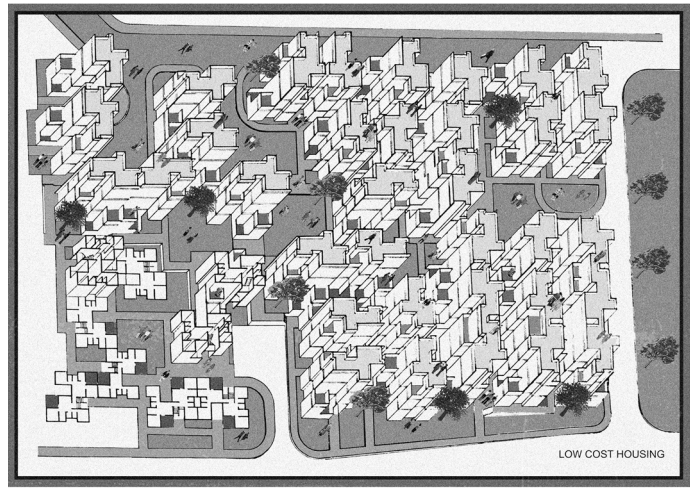
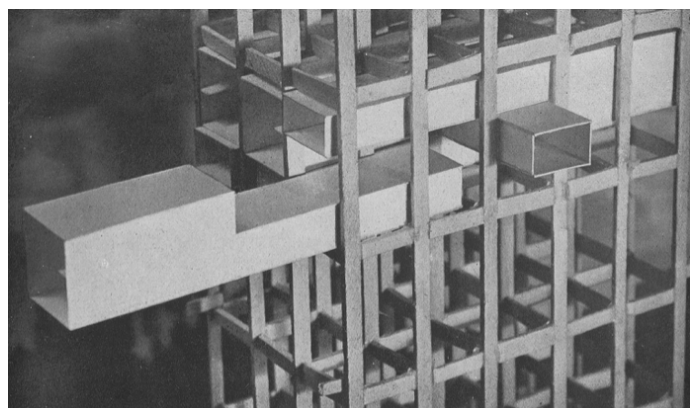
Pre-development condition of the Sabarmati riverbank. Source: The Guardian. (top).
Post-development condition of the Sabarmati riverbank, characterised by reclamed land. Source: The Guardian. (bottom).

[c] Precedents Analysis

Three spatial principles emerged from the precedent studies that help address the disconnect between the city and the river: density through repetition, social continuity and infrastructural integration.

A first principle is the organisation of density through repetition and standardisation. Both the CIDCO Housing project and Unite d'Habitation demonstrate how large numbers of dwellings can be accommodated within a coherent spatial system. While CIDCO achieves density through clustering of compact units in a low-rise configuration, Unité d'Habitation relies on vertical stacking and a repetitive structural framework. Together, these projects illustrate how standardised housing systems can provide both efficiency and spatial legibility.





Axonometric drawing of CIDCO Housing, illustrating the clustering logic of the units. Source: Raj Rewal Associates. (top).
Physical model of Unité d'Habitation, showing how the standard unit is shifted within the structural frame. Source: Architecture 50. (bottom).

A second principle concerns the relationship between housing and existing communities. The Sanjaynagar Slum Redevelopment Project demonstrates how housing interventions can improve living conditions without disrupting established social networks. By working with existing patterns of occupation and involving residents in the redevelopment process, the project show that architectural interventions can strengthen rather than replace existing forms of urban life. This principle is particularly relevant to the Sabarmati riverfront, where questions of social continuity and inclusion are central to the design challenge.

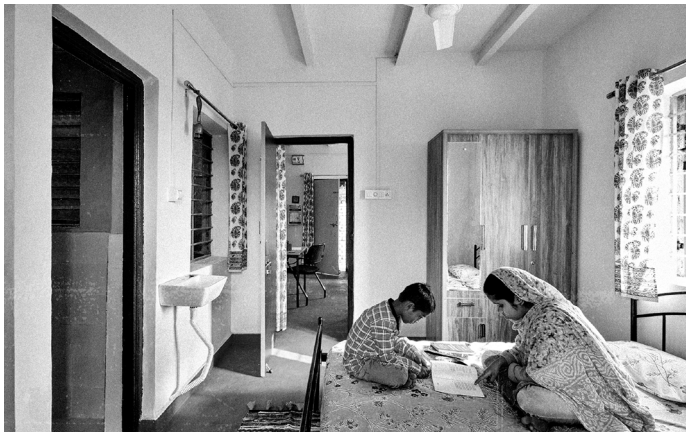




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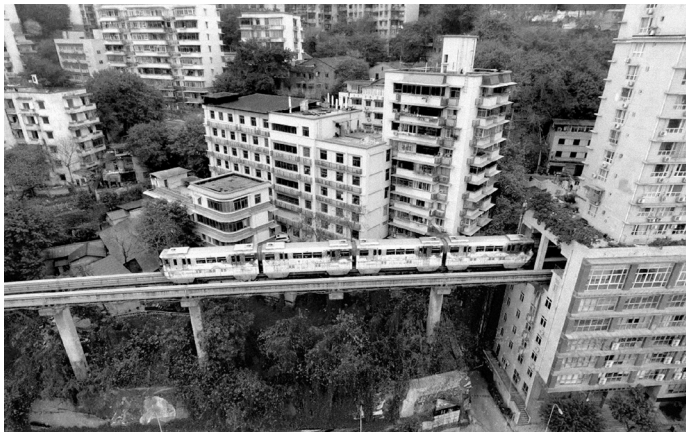
Image showing the spatial organisation of the sleeping area. Source: Community Design Agency. (top).
Image showing the spatial organisation of the flexible space/kitchen area. Source: Community Design Agency. (bottom).

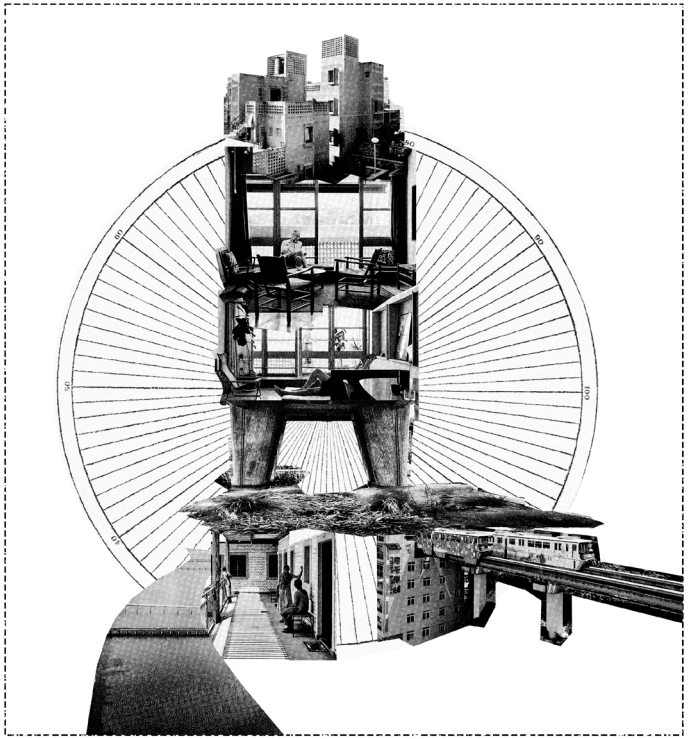
A third principle is the integration of infrastructure within the architectural system. Liziba Station illustrates how mobility infrastructure can become part of the spatial organisation of a building rather than functioning as a separate layer. Instead of treating infrastructure as a barrier, the project demonstrates how circulation and built form can operate asa single interconnected system.





Images of the Liziba Station in Chongqing, China, showing the monorail passing through a residential building. Source: CNN Travel. (top) (bottom).

These principles are directly translated into the design proposal. They suggest that density can be achieved through repetition and standardisation, that housing should reinforce existing social structures and that infrastructure can be integrated into the architectural framework rather than acting as a source of separation. Combined, they offer a framework for re-establishing continuity between city and river through the integration of housing, workspaces, public space and infrastructure within a single urban system.



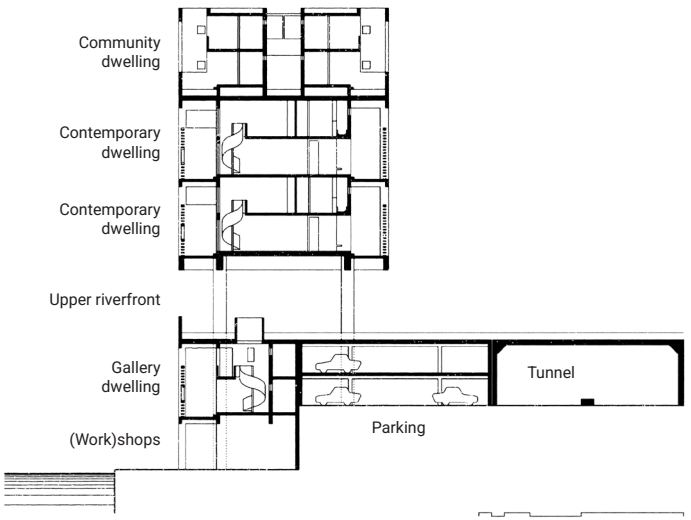
Collage translating key spatial principles from the precedent analysis into design strategeis and including their translation within the project.

[d] Design Proposal

The proposal is conceived as a modular mixed-use housing system for the Sabarmati riverfront in Ahmedabad, in which living, working and public space are brought together within a single spatial framework. The project is actively designed through the section. The section acts as the primary design instrument, organising a series of spatial elements across different levels within one coherent structure.

Each element defines a specific condition with its own programme, density and mode of occupation, while remaining part of an overall system. Together, these elements form a repeatable framework that can be extended along the riverfront.

The system is composed of a series of stacked street conditions. Each layer can be understood as a street that could exist at ground level within the city, but is here positioned vertically within a compact footprint. Connected through a shared circulation system, these layers create a continuous urban section in which different forms of living, working and public life coexist.



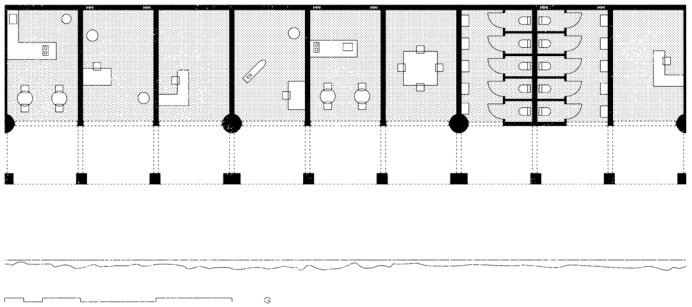
Section showing the layered composition of the project, where living, working and public space are organised as stacked street conditions.

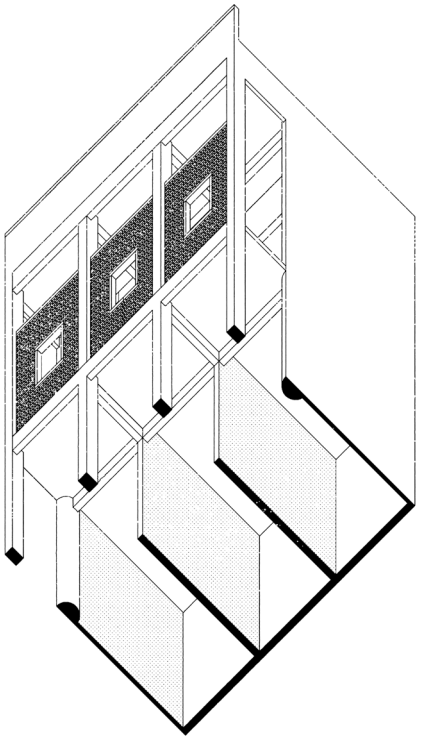
(Work)shops

At the base, the lower riverfront forms a public street along the water. Compact (work)shops create an active urban edge, while a continuous shaded colonnade defines an attractive public enfironment that supports recreation, informal activities and everyday urban life despite Ahmedabad's hot climate.

dimensions:
h: 4000 mm
d: 6500 mm
l: 12000 mm
area: 23 m^2

material:
exposed concrete, brick, steel





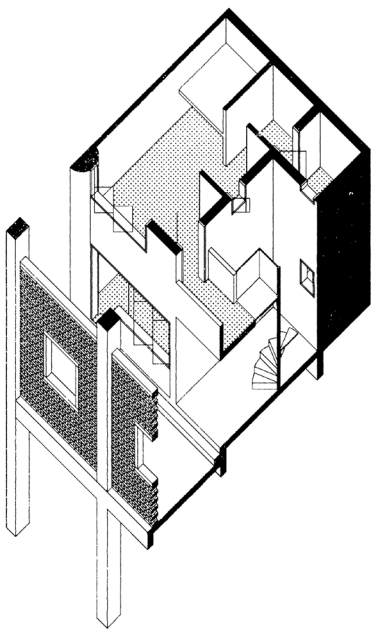
Combined floorplan of the lower riverfront (work)shops. (left).
Axonometric drawing of the lower riverfront. (top).

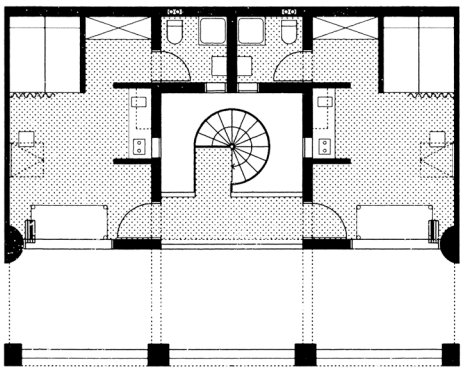
Gallery dwelling type

Above this level, two residential layers are arranged along a double-height collective gallery. The compact dwellings contain the basic domestic functions, while daily life extends into the shared circulation space, creating a continuous residential street and collective living environment.

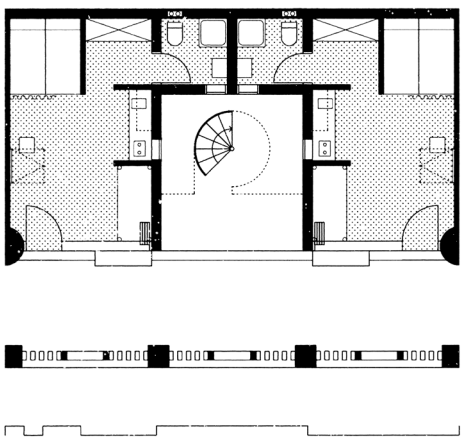
dimensions:
h: 2610 mm
d: 6000 mm
l: 6500 mm
area: 25 m^2

material:
exposed concrete, brick, wood



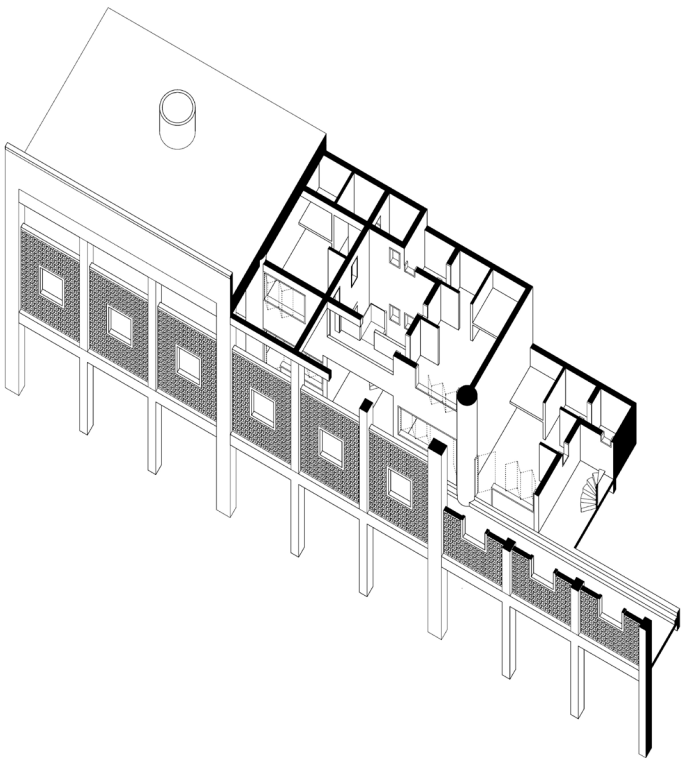


upper apartment



lower apartment

Axonometric drawing of the gallery dwelling type. (left).
Floor plans of the housing units and circulation system. (top).



Axonometric drawing of interconnected gallery dwelling units arranged along the collective gallery.



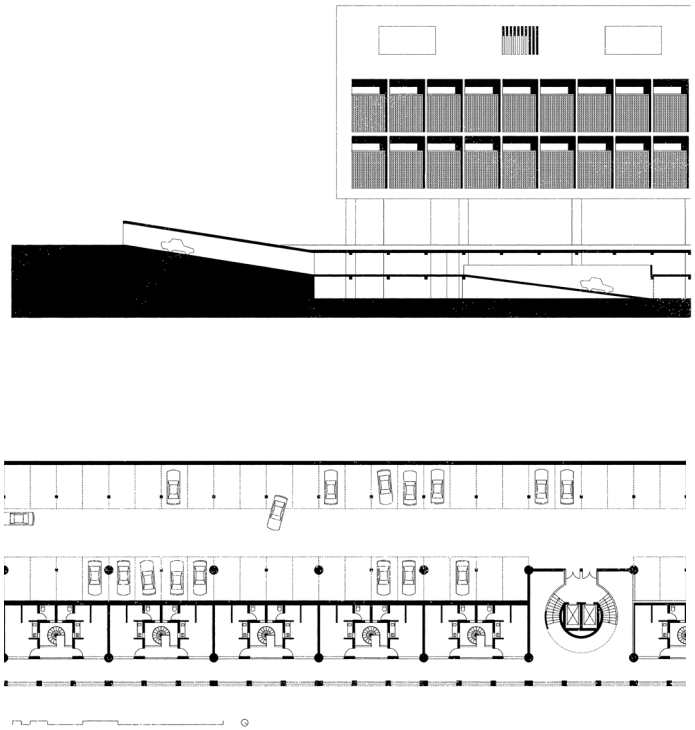
Model photograph illustrating the gallery condition and shared circulation space.

Parking

By raising the lower riverfront and aligning the upper riverfront with the city level, a continuous void is created beneath the new ground plane. This space accomodates a two-storey parking garage spanning the entire 400-metre site.

dimensions:
h: 2100 mm
d: 16000 mm
l: 400 m
area: 12800 m^2

material:
exposed concrete



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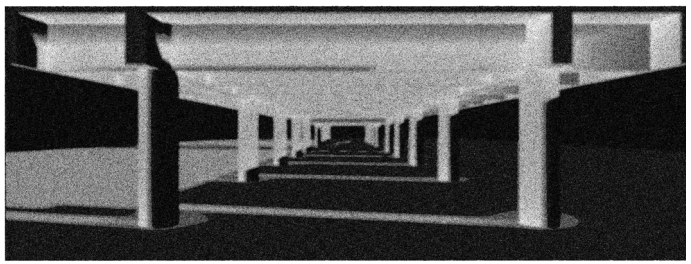
Sectional drawing illustrating the access ramp to the parking garage. (top).
Floor plan of the parking structrue integrated beneath the new ground plane. (bottom).

Upper riverfront

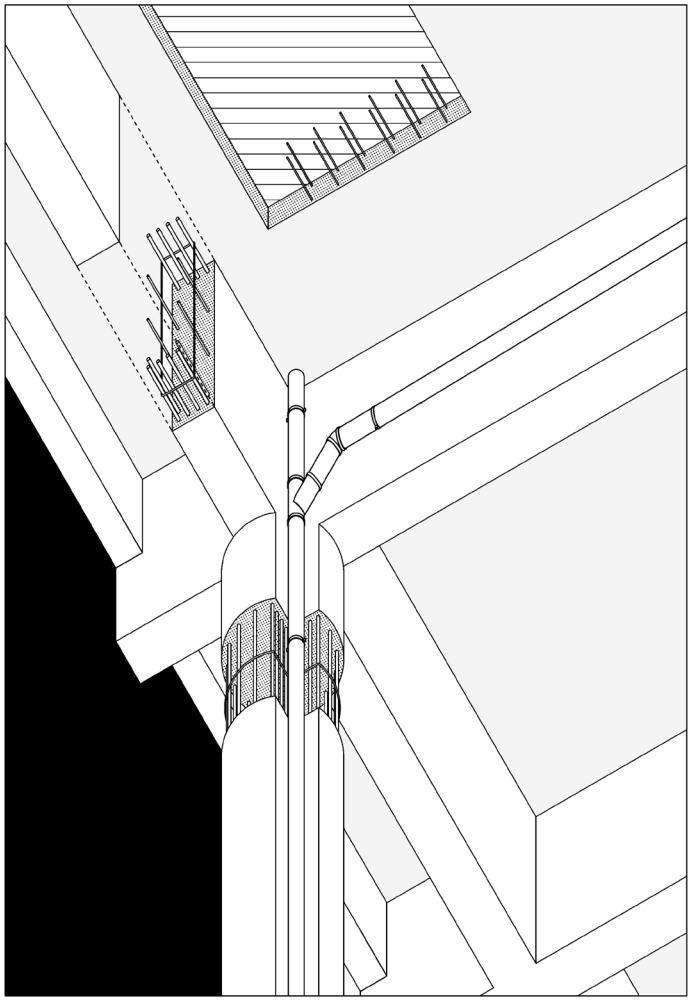
At city level, an open plaza is inserted within the structure. Framed by a continuous colonnade, the space provides shade and functions as an adaptable urban room where a wide range of everyday activities can occur. Rather than being defined by a fixed programme, the plaza remains open in its spatial organisation, allowing differenft forms of use, gathering and occupation to emerge.

dimensions:
l: ∞ mm

material:
exposed concrete



Impression of the structural column and colonnade system.



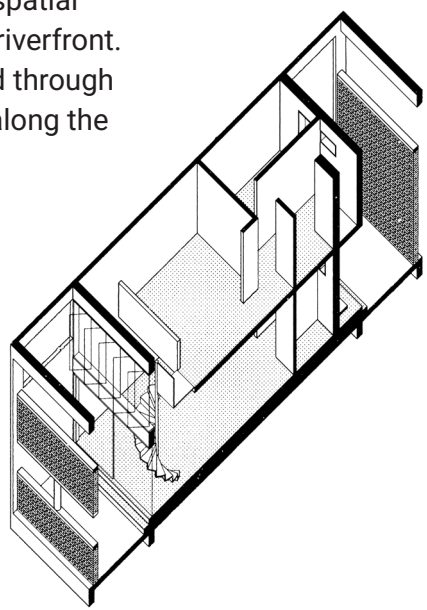
Impression of the structural column and colonnade system.

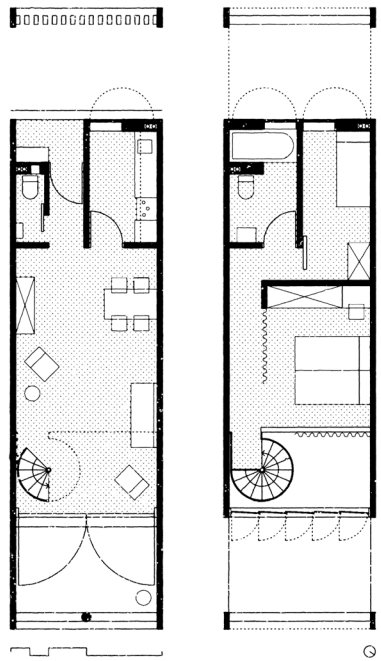
Contemporary dwelling type

Above the plaza, duplex units are arranged within a repetitive structural grid. Each dwelling contains two bedrooms and an open double-height living space that extends towards a private balcony overlooking the river. The balcony acts as an extension of the interior, creating a strong visual and spatial connection to the riverfront. Access is provided through an internal street along the façade.

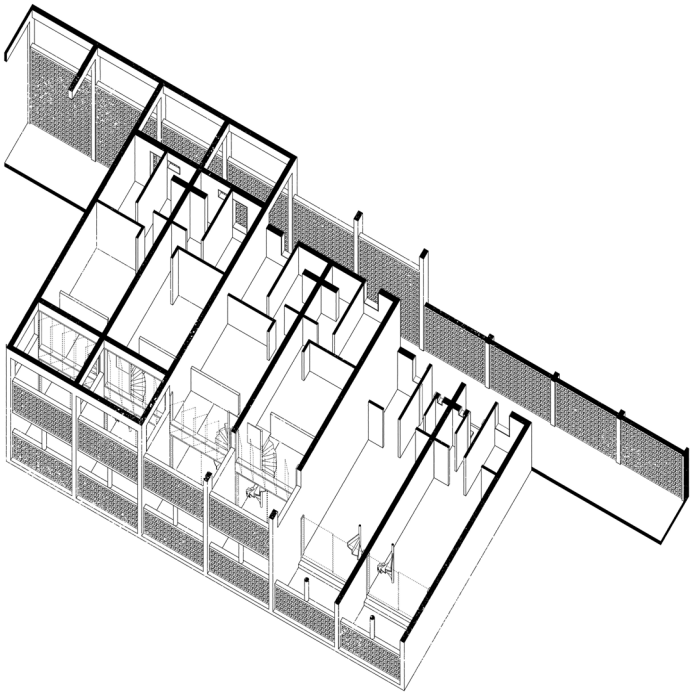
dimensions:
h: 5820 mm
d: 4000 mm
l: 16400 mm
area: 80 m^2

material:
exposed concrete,
brick jali, wood





Axonometric drawing of the duplex housing unit. (left).
Floor plan illustrating the spatial organisation of the dwellings. (top).



Axonometric drawing of interconnected contemporary dwelling units arranged along the gallery.



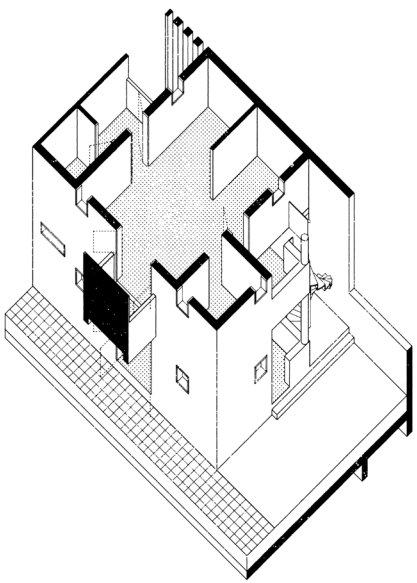
Model photograph illustrating the gallery condition and shared circulation space.

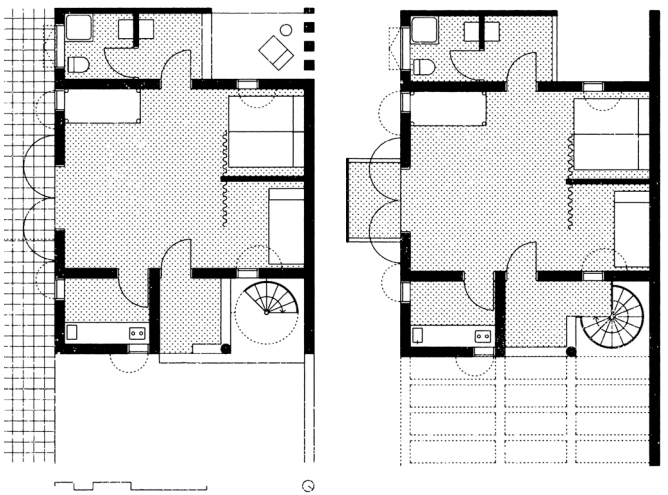
Community dwelling type

The uppermost layer consists of community-based housing organised around shared courtyards that form collective green roof spaces. Each cluster contains four units sharing a communal garden and arranged as two stacked affordable aparatments. Selected units can be replaced by facilities such as a primary school.

dimensions:
h: 2610 mm
d: 6500 mm
l: 6000 mm
area: 40 m^2

material:
exposed concrete

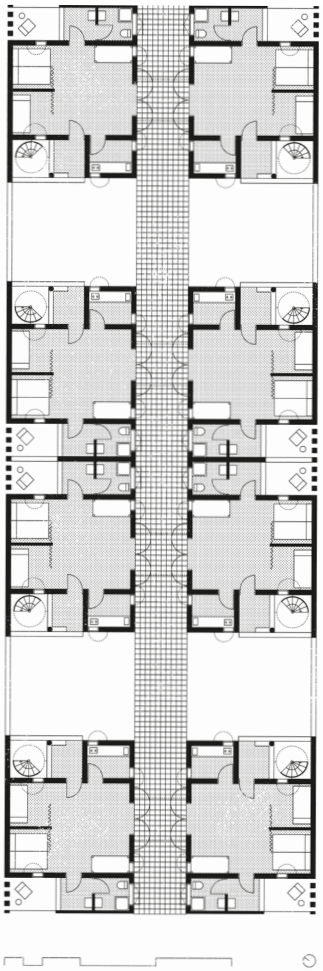




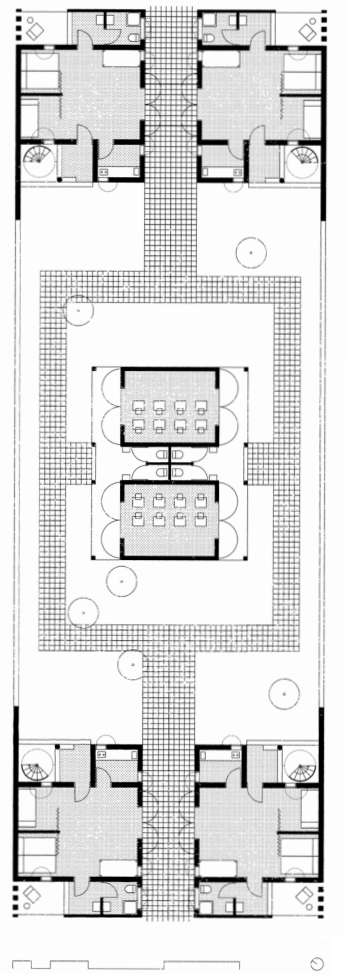
lower apartment

upper apartment

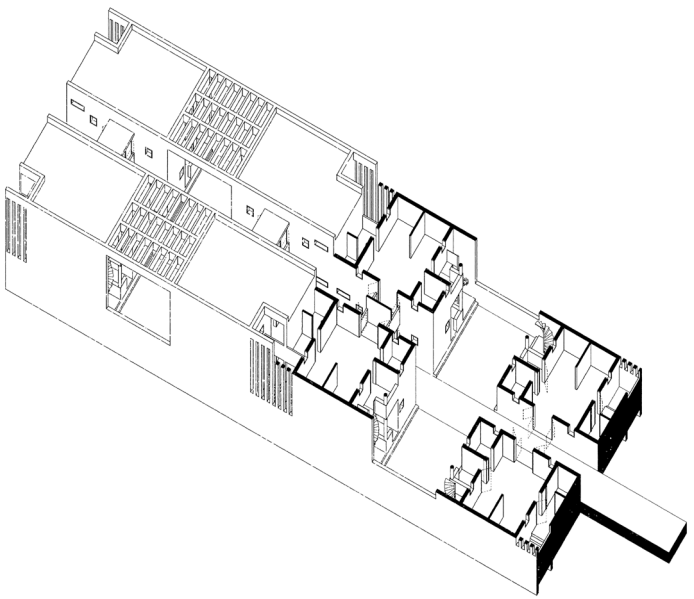
Axonometric drawing of the community housing typology. (top).
Floor plans showing the spatial organisation. (right).



Floor plan showing the spatial organistaion of the community dwellings and their relation to the shared collective courtyards.



Floor plan of a primary school inserted by interrupting the repetition of the community dwelling system.



Axonometric drawing of interconnected community dwelling units arranged along the internal street.



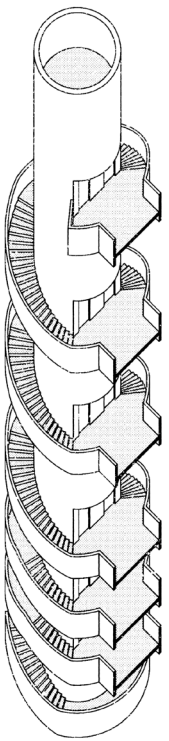
Model photograph illustrating the internal street.

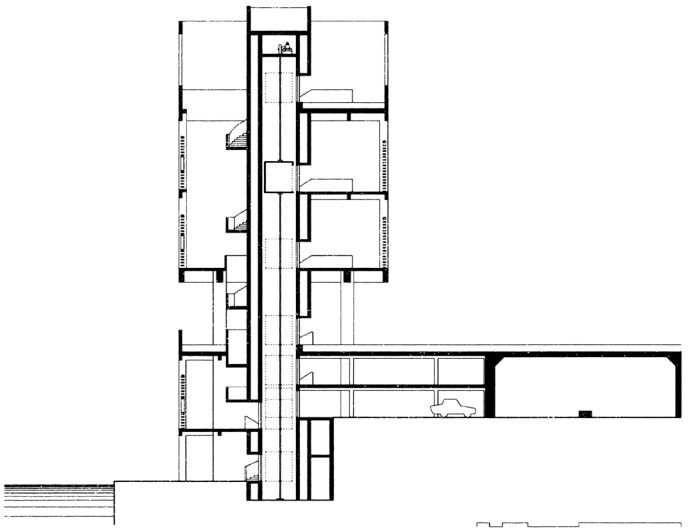
Stairs

The main organising element of the project is the vertical circulation spine. Centred around a spiral staircase, it functions as the ‘main street’ of the structure, connecting all programmatic layers from the riverfront to the roof. By linking the different elements of the project into a continuous system, it acts as both a spatial and organisational core. A water tank is integrated at the top of the structure, combining circulation and infrastructure within a single element.

dimensions:
h: 47500 mm
d: 8000 mm

material:
exposed concrete





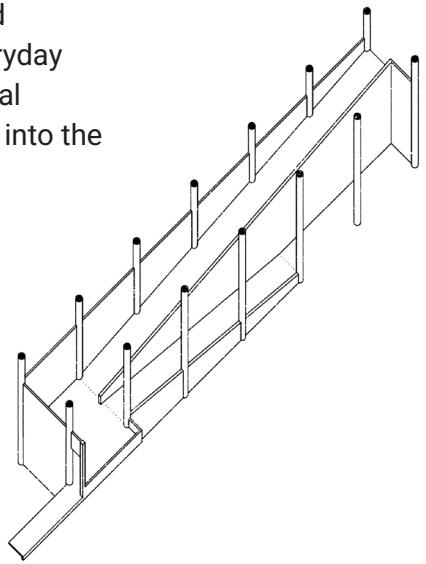
Section showing how the vertical circulation spine connects all layers of the project. (top).
Axonometric drawing of the spiral staircase. (left).

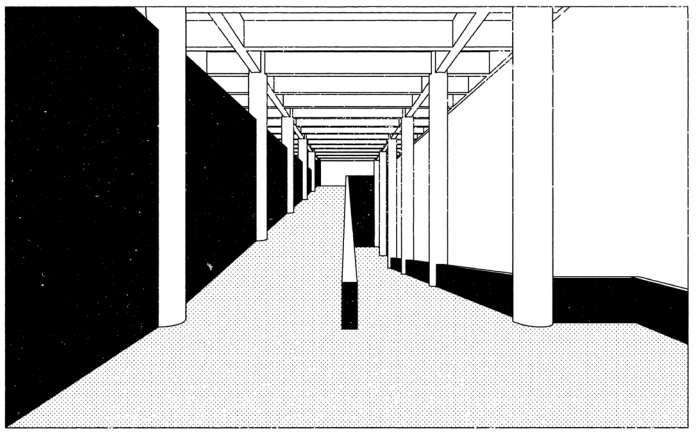
Ramp

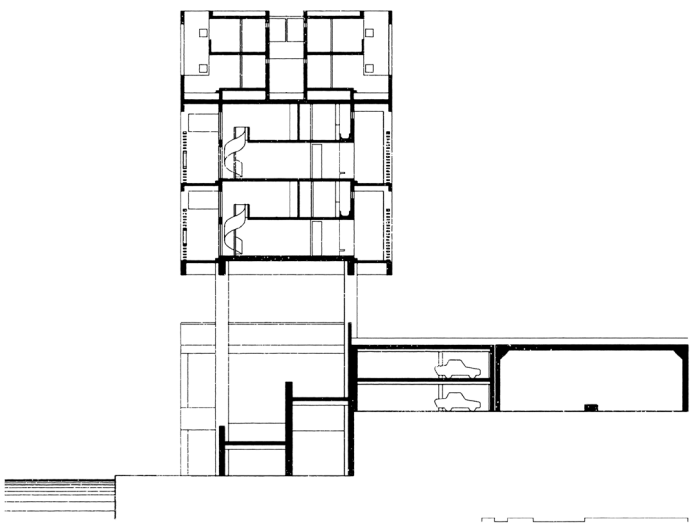
The ramp links the city level to the lower riverfront and connects the two colonnades, forming a gradual transition between city and river. It accomodates pedestrians as well as informal modes of movement such as auto-rickshaws and carts, allowing everyday economic and social activities to extend into the riverfront.

dimensions:
l: 100 m

material:
exposed concrete



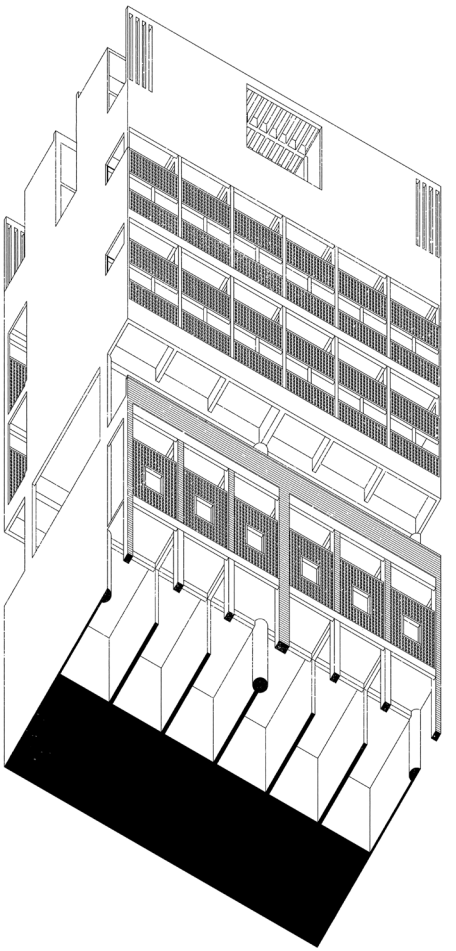




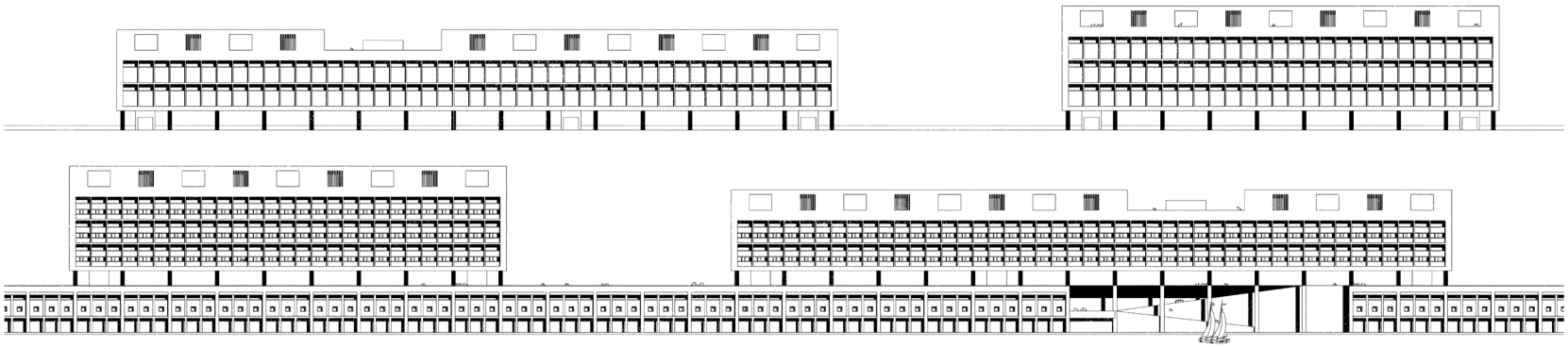
Axonometric drawing of the ramp as an element. (top).
Section of the ramp within the building, together with an impression drawing of the ramp between the colonnade. (right).

Final configuration

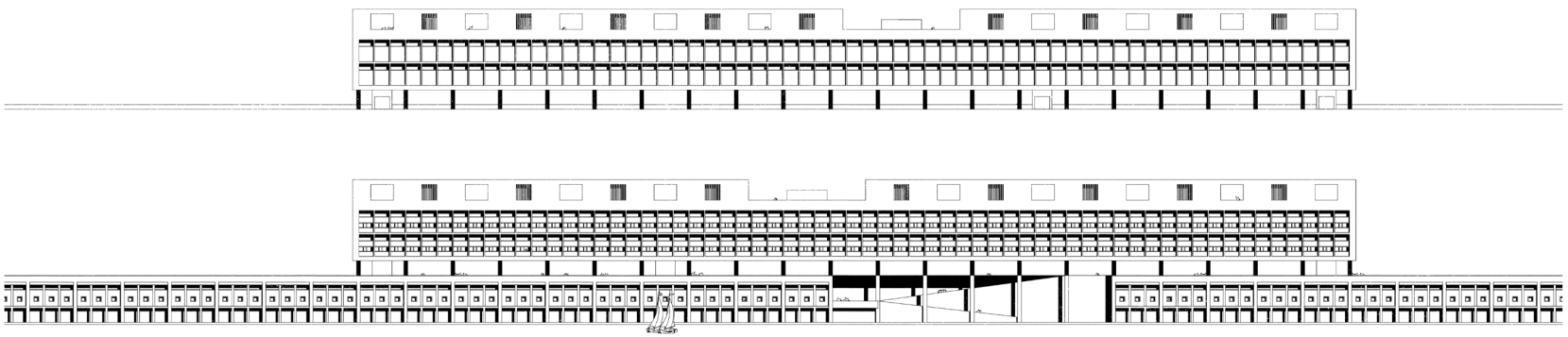
The proposal operates as a vertically layered and repeatable urban system, reconfiguring the Sabarmati riverfront into an integrated sectional condition where city and river are continuously intertwined. Housing, work, infrastructure and public space are brought together within a single spatial framework, in which each layer acts as an internal street. The system functions as a modular framework that can be extended along the riverfront. While the spatial elements remain fixed in their vertical position, their repetition can be configured, allowing variations in density and programme and generating different façade expressions along the river edge.



Axonometric drawing of a full vertical segment of the building.



1



2

○

Drawing of different configurations of the system and their resulting façade expressions



4 What is the impact?

[a] Conclusion
[b] Implications
[c] Reflection

[a] Conclusion

This project demonstrates how the Sabarmati riverfront in Ahmedabad can be transformed from a controlled infrastructural edge into an inclusive urban section where housing, work, infrastructure and public life are reintegrated within a single spatial system. The riverfront shifts from a separated boundary condition into a continuous urban environment in which everyday activities, mobility and inhabitation are redistributed across multiple levels.

Forms of everyday urban life that are currently excluded from the riverfront, such as street vending and informal mobility, are reintroduced into the site. This reactivation is achieved through a ramp system that connects the city level to the lower riverfront, allowing gradual access for both pedestrians and small-scale transport. In contrast to the current condition, where access is restricted and informal activities are prohibited, this creates a spatial condition in which everyday use becomes structurally possible again along the river edge.

The removal of the physical and perceptual barrier between city and river is further reinforced by aligning the city level with the upper riverfront and integrating the existing high-speed road as a subsurface tunnel condition. This produces a continuous spatial ground, where the riverfront

is no longer separated from its urban context but becomes visually and spatially connected to it.

Within this redefined ground condition, the project introduces a vertical spatial system organised through a central circulation spine and a series of stacked internal streets. The spine operates as the main urban connector of the system, linking all levels and ensuring that the entire section functions as a single accessible structure. Each layer operates as an internal street, similar to streets in the city, but reorganised vertically within a single footprint. This transforms circulation into a shared urban infrastructure rather than a purely functional movement system.

Programmatically, each layer is positioned according to its relation to urban intensity and proximity rather than a fixed hierarchy. The lower riverfront becomes an active public ground where (work)shops and small-scale economic activities are reintroduced, directly reconnecting dwelling with livelihood. Low-income housing is positioned here to maintain this direct relationship between living and working.

Above this, duplex housing introduces a more individualised domestic condition along shared internal streets, maintaining connection to collective urban space while shifting towards

greater spatial autonomy.

At roof level, a spatial condition emerges in which a more community-oriented, village-like street environment can be introduced within the section. This is made possible by the vertical organisation of the system, where stacking creates a zone above the duplex housing. Within this freed sectional space, shared outdoor spaces are organised as courtyards that support everyday social interaction.

Because this condition is lifted above ground level, it does not interfere with the visual continuity between city and river, allowing the sightline from the city level towards the river to remain open. Social infrastructure such as schools and neighbourhood facilities is integrated within this layer, embedding collective functions into the housing system.

Across the section, public space is distributed rather than concentrated. Internal streets, the lower riverfront, the ramp system and roof landscapes together form a continuous spatial field connected through the circulation spine.

The architectural system is deliberately designed as an open structural framework rather than a closed object. While the spatial order is fixed, material articulation and finer spatial interpretation

are left open to inhabitant appropriation. This allows the built environment to be adapted and personalised over time, reinforcing the riverfront as an evolving urban condition rather than a static design outcome.

In relation to the research question, the project demonstrates that the Sabarmati riverfront can function as an inclusive mixed-use urban environment when infrastructure is reorganised as a connective system and when circulation is understood as shared urban space rather than functional movement alone. Within this framework, the integration of public functions plays a crucial role in sustaining everyday urban life across different user groups. By reintroducing space for informal activities, small-scale economies and diverse forms of occupation, the riverfront is able to support a broader range of social and economic practices than the current condition allows. In this way, inclusivity is not only achieved through housing provision, but through the spatial organisation of access, use and interaction across the entire urban section.

[b] Implications

The project proposes a shift in how riverfront development is understood within rapidly urbanising contexts. Rather than treating the riverfront as a public space or infrastructural edge, it suggests understanding it as a spatial system in which housing, mobility and public life are fundamentally interconnected. This repositions the role of architecture from the design of isolated objects or programmed zones towards the construction of adaptable urban frameworks.

A key implication lies in the role of informality within the city. By integrating space for street vendors, small-scale economic activities and other informal practices, the project challenges the idea that urban order requires strict separation between formal and informal use. Instead, it demonstrates that these forms of occupation are essential to urban vitality and should be structurally accommodated within spatial systems rather than excluded from them.

Another implication concerns the relationship between infrastructure and public space. The project shows that infrastructural elements such as roads do not need to function as barriers, but can be reconfigured as spatial conditions that support continuity and access.

[c] Reflection

The design process has been strongly shaped by fieldwork in Ahmedabad, which provided direct insight into the spatial and social separation between the riverfront and the surrounding city. Experiencing the impact of infrastructural barriers on site clarified how access, visibility and everyday use are structured and directly informed the decision to reorganise levels and circulation within the design.

At the same time, the early timing of the fieldwork meant that the research direction was still in development during site observations. This resulted in a more open and exploratory approach, which allowed unexpected spatial conditions to become part of the design process. In retrospect, a more defined research focus during fieldwork could have sharpened the analytical outcomes.

A limitation of the project leis in its scope as a site-specific proposal. While the system is designed as a repeatable framework for the riverfront, variations in local conditions such as heightened differences, adjacent urban fabric and infrastructural constraints require further investigation. In particular, the integration of landscape design has remained intentionally open, leaving room for future interpretation and development by other disciplines.

Despite these limitations, the project demonstrates the value of combining fieldwork, precedent analysis and research-by-design as a method for translating complex urban conditions into spatial strategies. Rather than resolving every aspect of the site, the design maintains a level of openness that allows different forms of use and adaptation to emerge over time.

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