



Render of the main entrance from Market Street on a rainy day.

01 KAIROSCOPE

THE URBAN INSTITUTE
SAN FRANCISCO, CA | 3500 SQFT

Spring 2021 Arch 100B Studio
Instructor: Lingxiu Chong

The building is a conjunction of different programs [research, education, advocacy], with a common set of interests: a better quality of urban life can be supported through design. Located at an infill site on Market Street, it is both an icon for the city's architecture and urban design, it is also a flexible rental space for the public to engage with discussions in these disciplines.

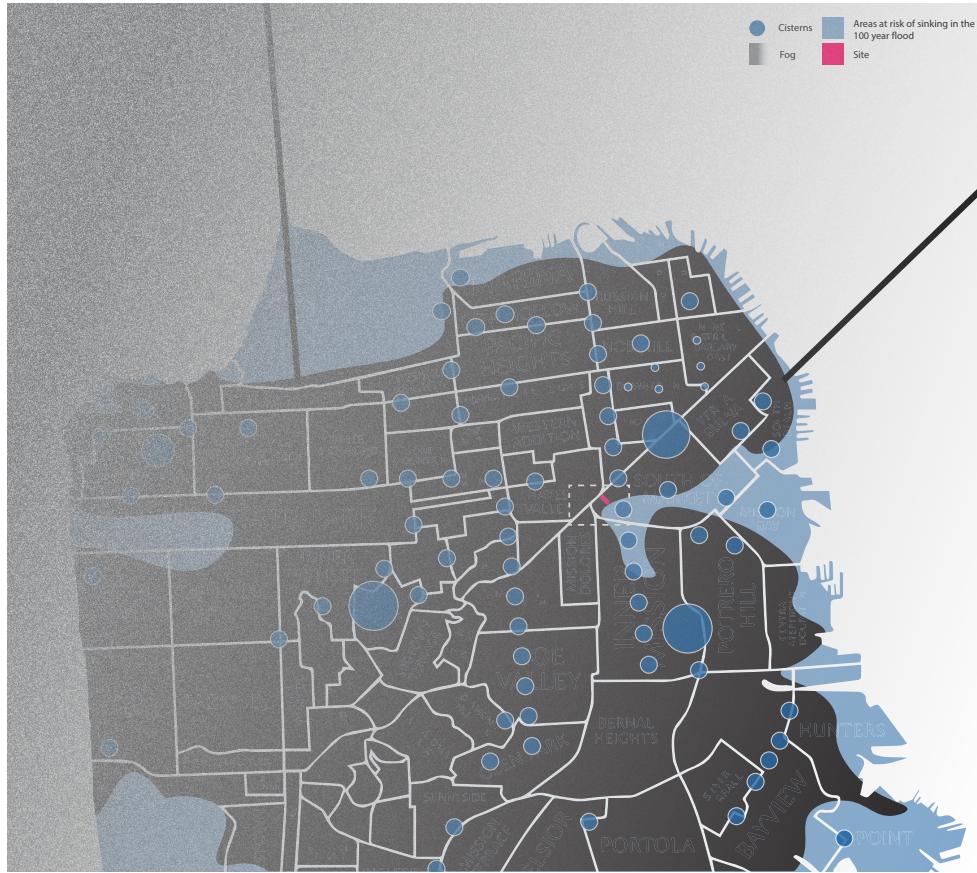
Kairos *noun*

- ¹ An appropriate/critical time, opportune moment
- ² Seasonal, weather

Scope *noun, verb*

- ¹ An instrument with which to observe
- ² The opportunity or possibility to do or deal with sth.

The Urban Institute centers around water, celebrating its contributions to the city and stimulating a conversation about the use, conservation and future. It becomes a device to observe the conditions of the greater interaction between climate and humankind.

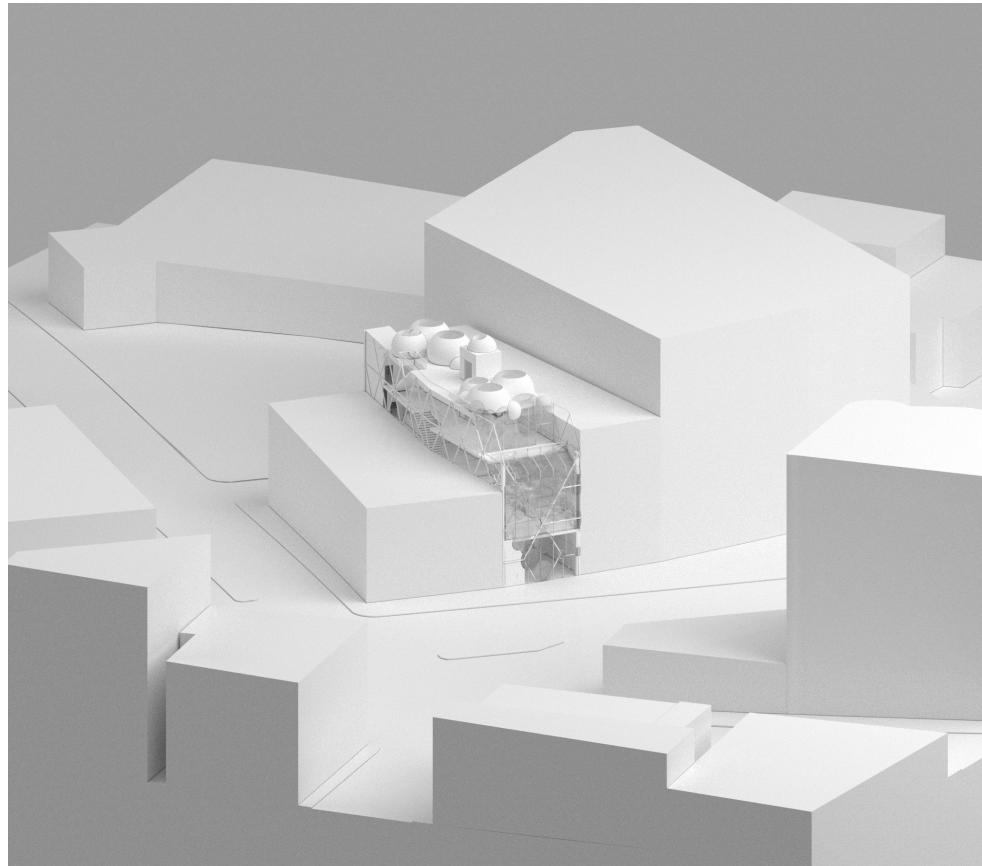


Analytical Drawing - fog, flood and underground water cisterns over a map of San Francisco.

San Francisco's irony is that it is at risk of severe coastal erosion and flooding in the bay, yet it faces a water crisis. Underground, numerous cisterns hold several thousand gallons of water for fire fighting emergencies.

The city's primary source of water travels 167 miles west from the Hetch Hetchy Reservoir in Yosemite National Park, a system that has been at the heart of several long standing environmental, political and cultural tensions.

San Francisco is also the fog city - relentless tiny droplets of water that engulfs the people, the tallest buildings, and not even the Golden Gate Bridge is spared.

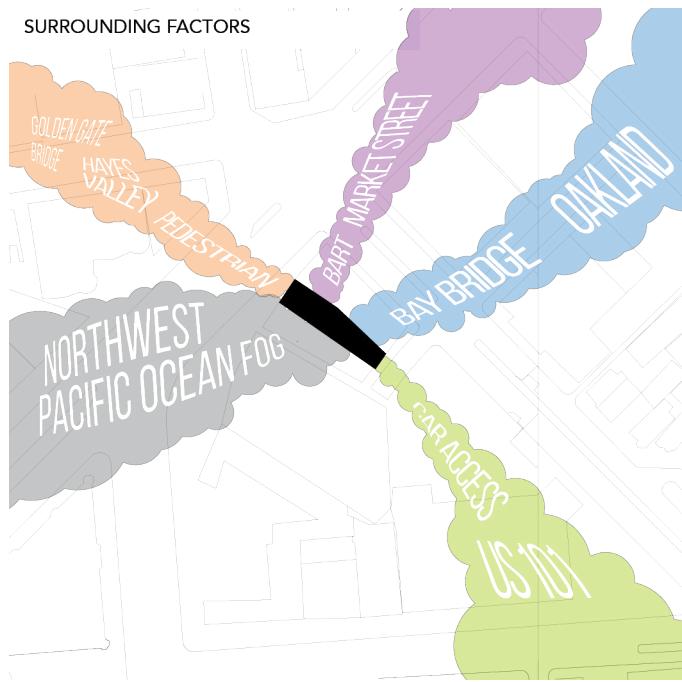


"Paper Model" render of the building within the site., showing northern and eastern elevations.

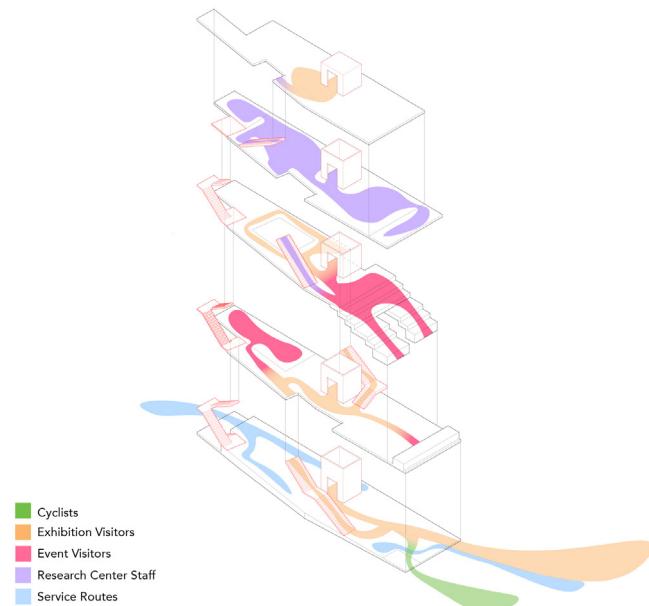
Through close stacking of programs, the central atrium becomes an unprogrammed social space that all visitors are likely to pass through, whether they are a casual exhibition goer or a serious urbanist working in the field.

Revealing something that is usually hidden kicks start an awareness of the water that flows in every building around us, in the environment and our body.

SURROUNDING FACTORS



CIRCULATION FLOWS

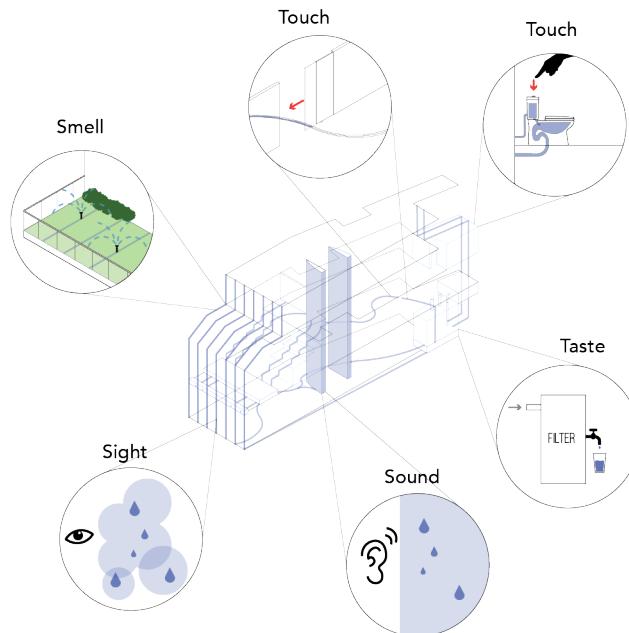


PROGRAM ADJACENCIES AND PERSONAS



- | | | | |
|-----------------|--|--|--|
| Casual Visitor | | | |
| Serious Learner | | | |
| Researcher | | | |
| Guest Speaker | | | |

INTERACTING THROUGH THE 5 SENSES



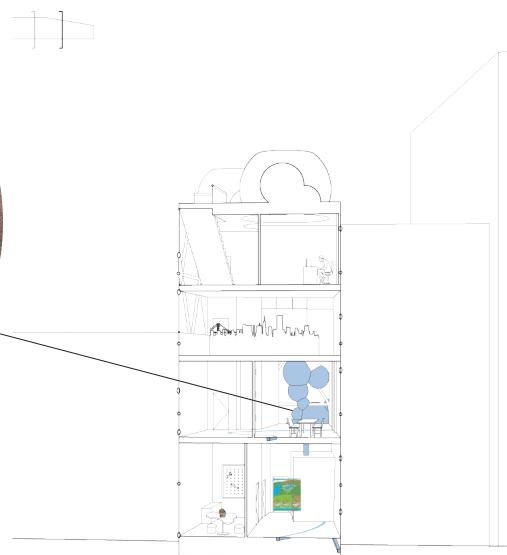
Research/Policy Center



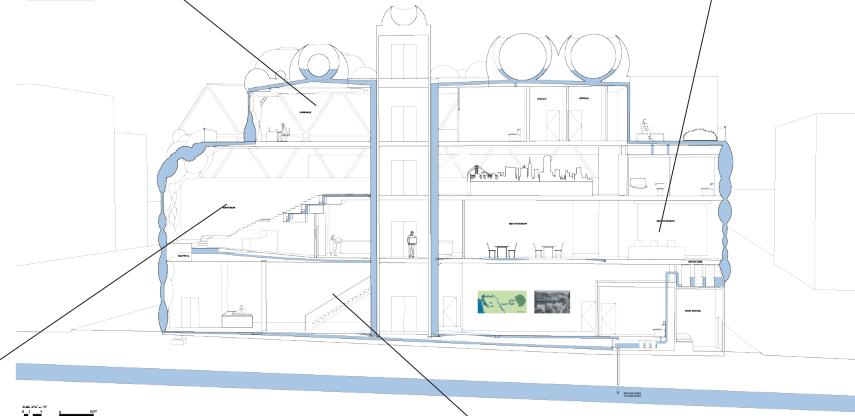
Flexible Meeting Room



SECTION B

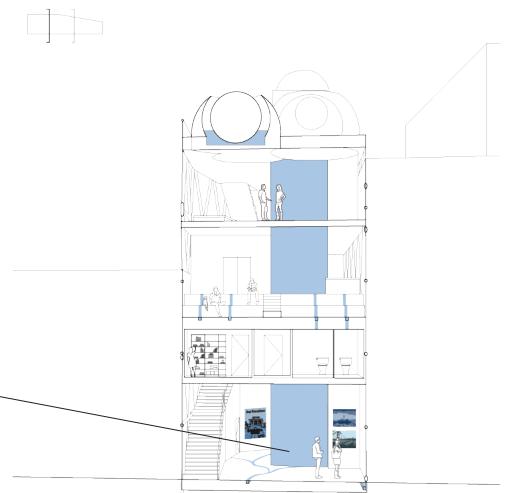


SECTION 1



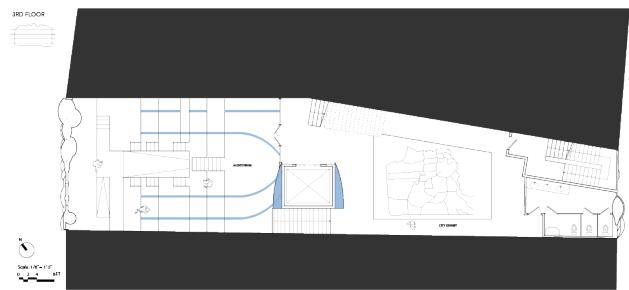
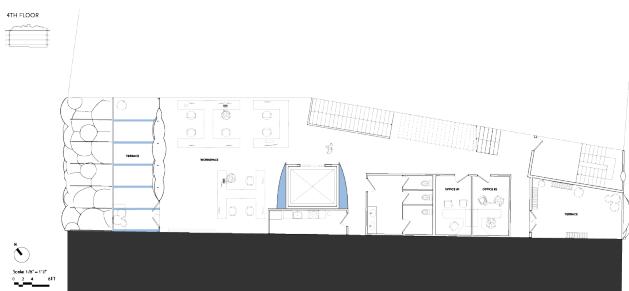
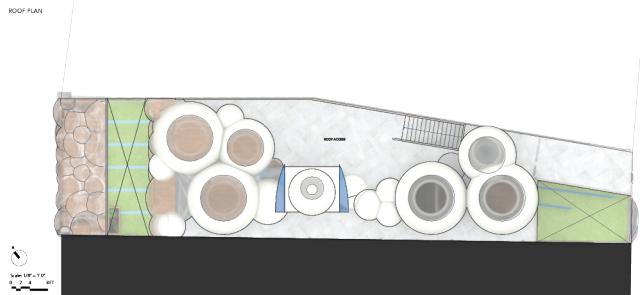
Assembly/Lecture Hall

SECTION A

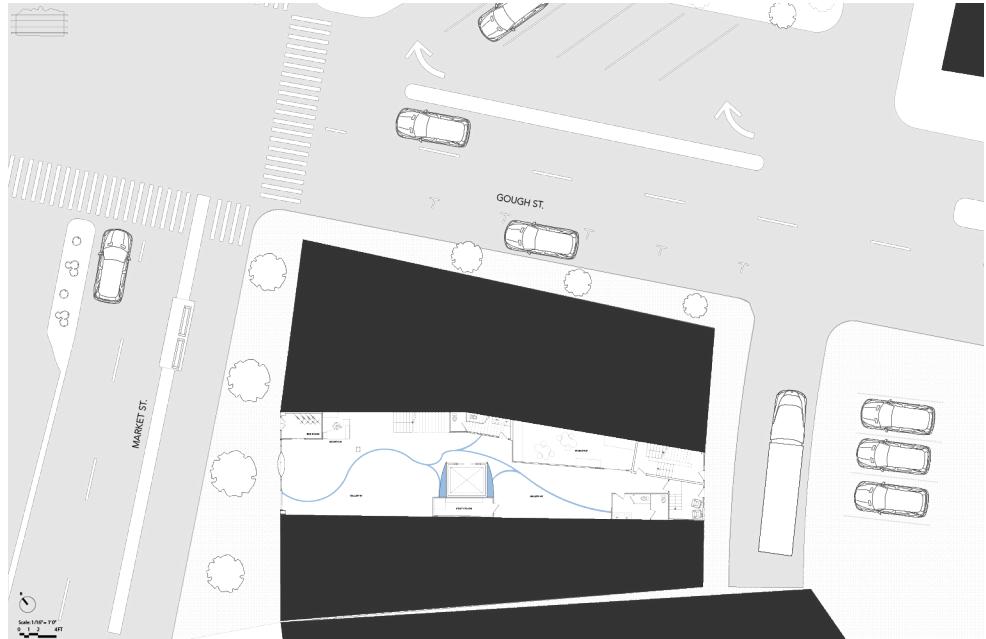


Streetfront Exhibit

Floor Plans



Ground floor plan



PROGRAM

4th Floor

11. Research and Policy Center
12. Kitchenette
13. Small Office
14. Outdoor Terrace

3rd Floor

9. Permanent Exhibit
10. Assembly Hall (Seating)

2nd Floor

7. Assembly Hall
8. Flexible Meeting Spaces

Ground Floor

1. Bike Room
2. Reception
3. Streetfront Exhibition
4. Workshop
5. Utilities
6. Garbage/Recycling Area

Water is collected through orb-shaped collectors at the top, flowing through the building via channels.

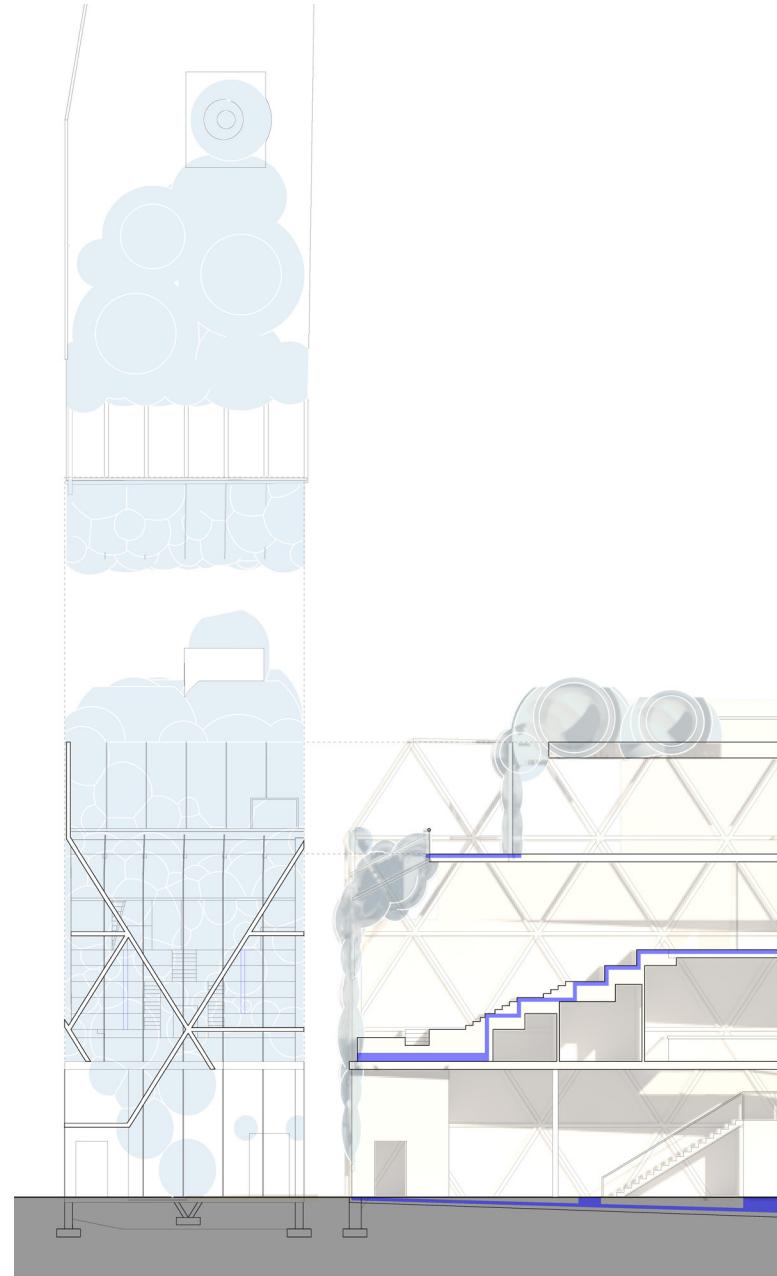
The water channels act as a central exhibit in the social space, helping to scatter light on both street facing facades, and finally helps to regulate temperature in the building through radiant heating or cooling. Water collected is used for hand washing and flushing.

The three degree slope of the ground floor allows water to collect in the filtration systems in the back. This creates the possibility of a net zero water building.

People interact with this building in a variety of ways, through the five senses, including operable panels that can alter the path of the water depending on how the space is occupied.

01B CONCEPTUAL FACADE DESIGN

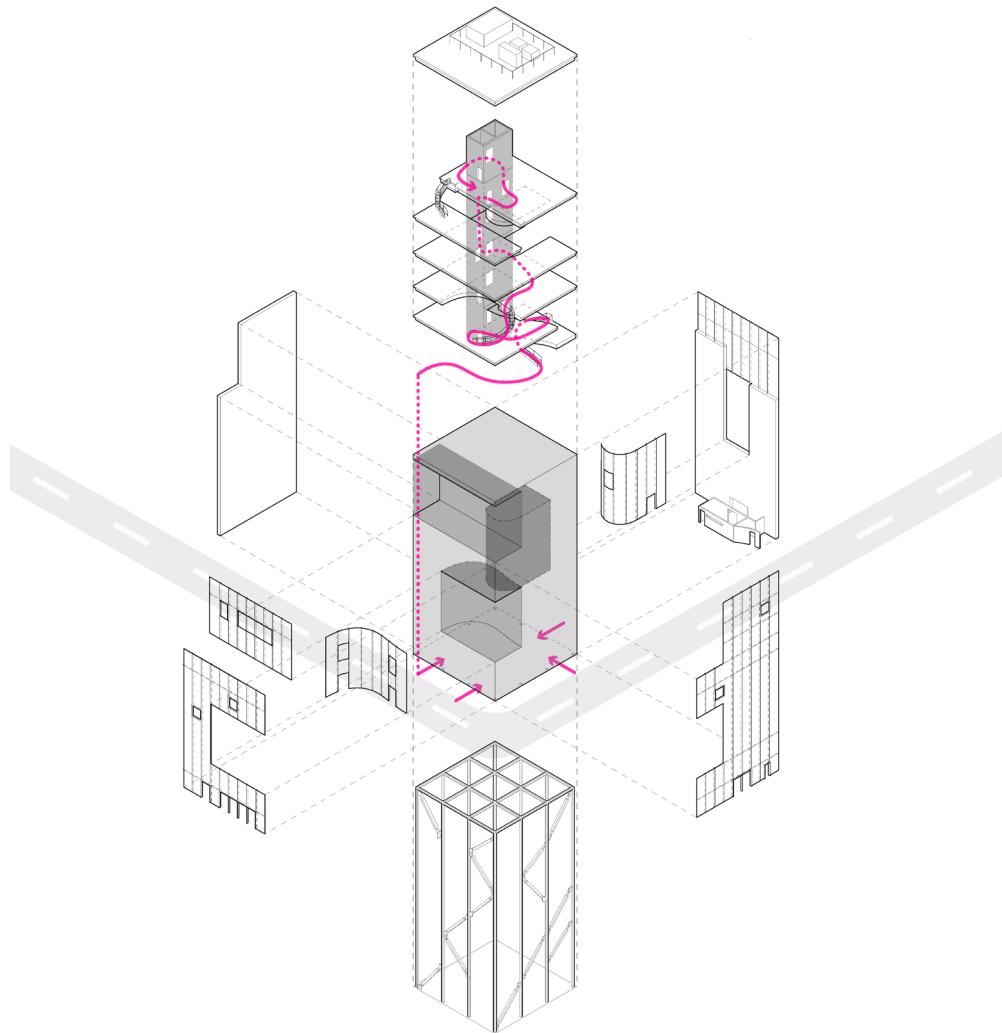
The "Expanded cut" is an unfolded view showing front elevation, roof plan and longitudinal section.



Conceptual facade using double skin technology - shape sorter with removable "wfh" pods. diagonal steel bracing inspired by san francisco's market street. this facade concept was later reimaged in project 01 as the water collection system.

Expanded cut for project 01 - showing the flow of water through the collectors.

01A CASE STUDY – SHIBAURA HOUSE



case study of kazuyo sejima's shibaura house in tokyo, japan. exploring facade technology, circulation, porosity, outdoor spaces and structure.



Shibaura House
Photo: Iwan Bean