

Project : **Play and Learn**

Date : 2021
 Location : 23 Fife Road, Kingston Upon Thames, London
 Category : education, circular communities, reuse
 Size: Four levels, a total built floor area of approximately 1350m².

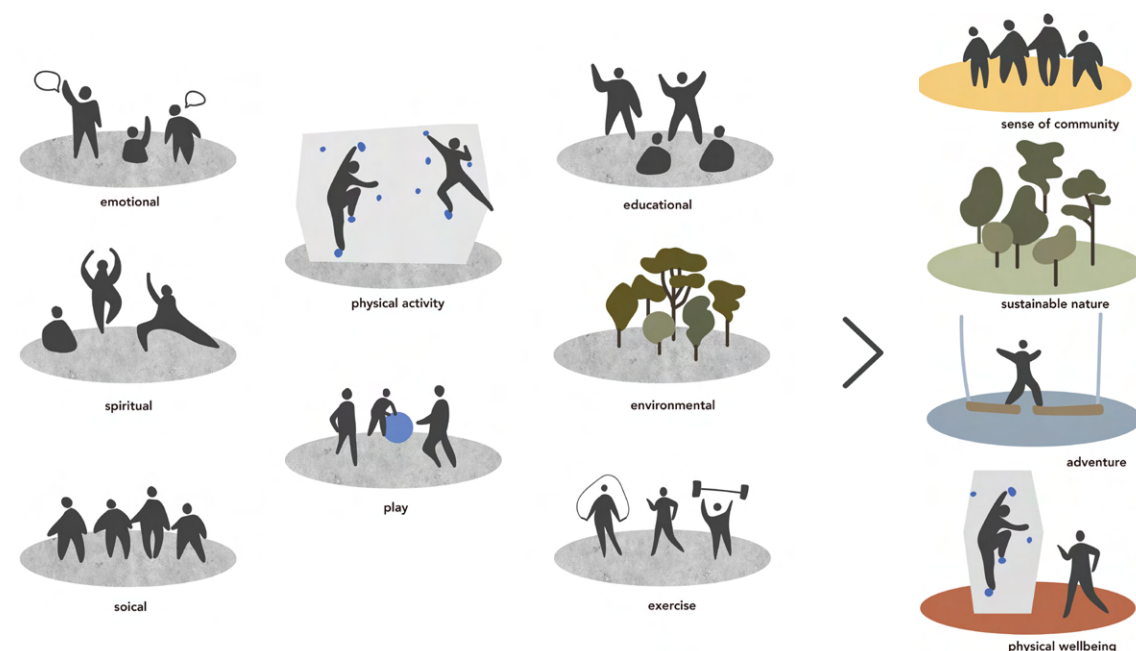
The building in fife road (Kingston) is now abandoned and ready to demolish. By investigating the idea of circular communities, reuse is a sustainable way to conserve the building. Applying a new use for the building benefits the community development. Through the research of Kingston, I found out that the main development focuses are on retail. Parallely, the statistics of the population in youth is rapidly increasing. Overall, the lands need for education used and play areas are limited.

I proposed my design to transform the building into an education centre, which provides space and physical education facilities for kids and students. The client of this project will be the council education department or government society centre, which will be in charge of the building's service. It is open to the public. The schools and students in Kingston will have the priority to reserve the facilities/ rooms during weekdays. It will offer diverse activities and facilities that benefit the youth's growth and health.

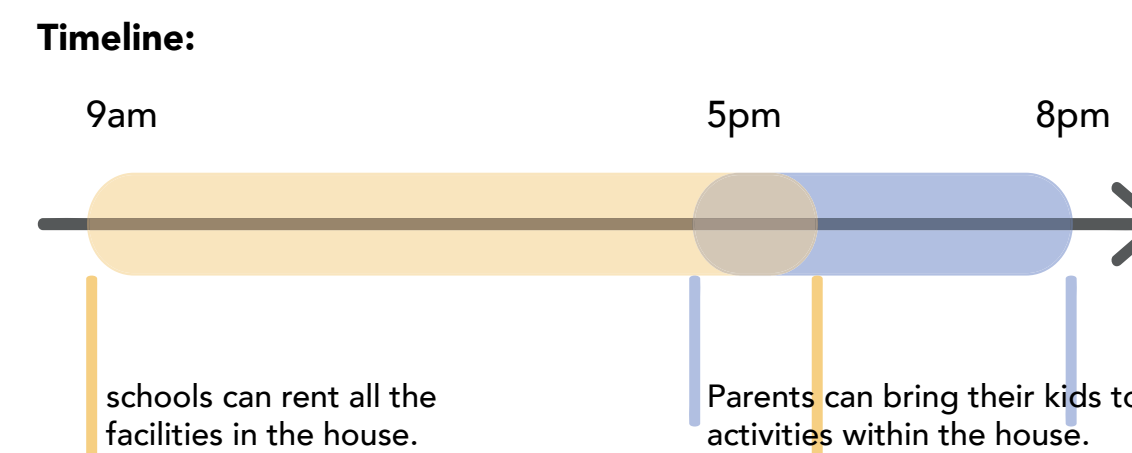
The main concept of my scheme is to encourage children to explore and learn through playing. A lot of parents might like to set a boundary to their kids, which they can do or which can't. From my perspective, the way to build up their kids' confidence will be to explore and try.

' Play is the primary way children were designed to learn.'

The design is strongly focused on diversifying the space functional and the expression of spatial perspectives on varied floors. I have deliberately crafted out parts of ceilings to create a void. Indeed it provides spaciousness to the building, which creates a lot of sharing space. It expresses the idea of gathering and the sense of being in endless nature. The settings of the space have reinforced the hierarchy that different ages of people doing things, which like a game that they need to defeat the barriers. It encourages kids to aim and challenge various highness of adventures. This will be an education method that merges with the physical facilities (activities) to train and develop youth wellbeing, confidence and ambition.

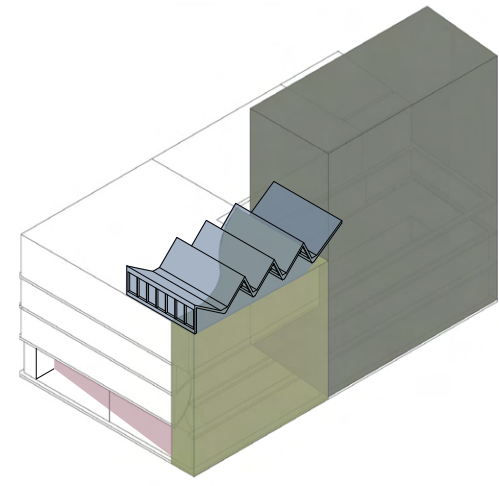


Client: government- education department
Target group: students, children
Age: 5- 15
Use: activities space
Facilities: [programs]
 - climbing wall
 - multiuse room (which can hold different clubs/ classes, like yoga, dance)
 - classroom
 - kids playground



There have activities that were aimed for the parents to join after work. So they are working out and bending with their kids through activities.

design proposal



■ angled entrance

I have deliberately pushed the entrance into an angled. In considering the entry sequence which there will have a lot of people who will come in with a large group, the entrance will become a buffer space. It provides convenience for people who can open their umbrella on a rainy day with bags & buggy or a school group arriving with 30 kids etc.

Width: ~15m

■ kids playground area

Crop out the ceiling on each floor to create a curve shape void. It is aligned and matches the kids' playground area. The cutout gives opportunities to get more sunlight as the front, which makes the building open to nature and increase the transparency of the space.

Height: ~12.8m

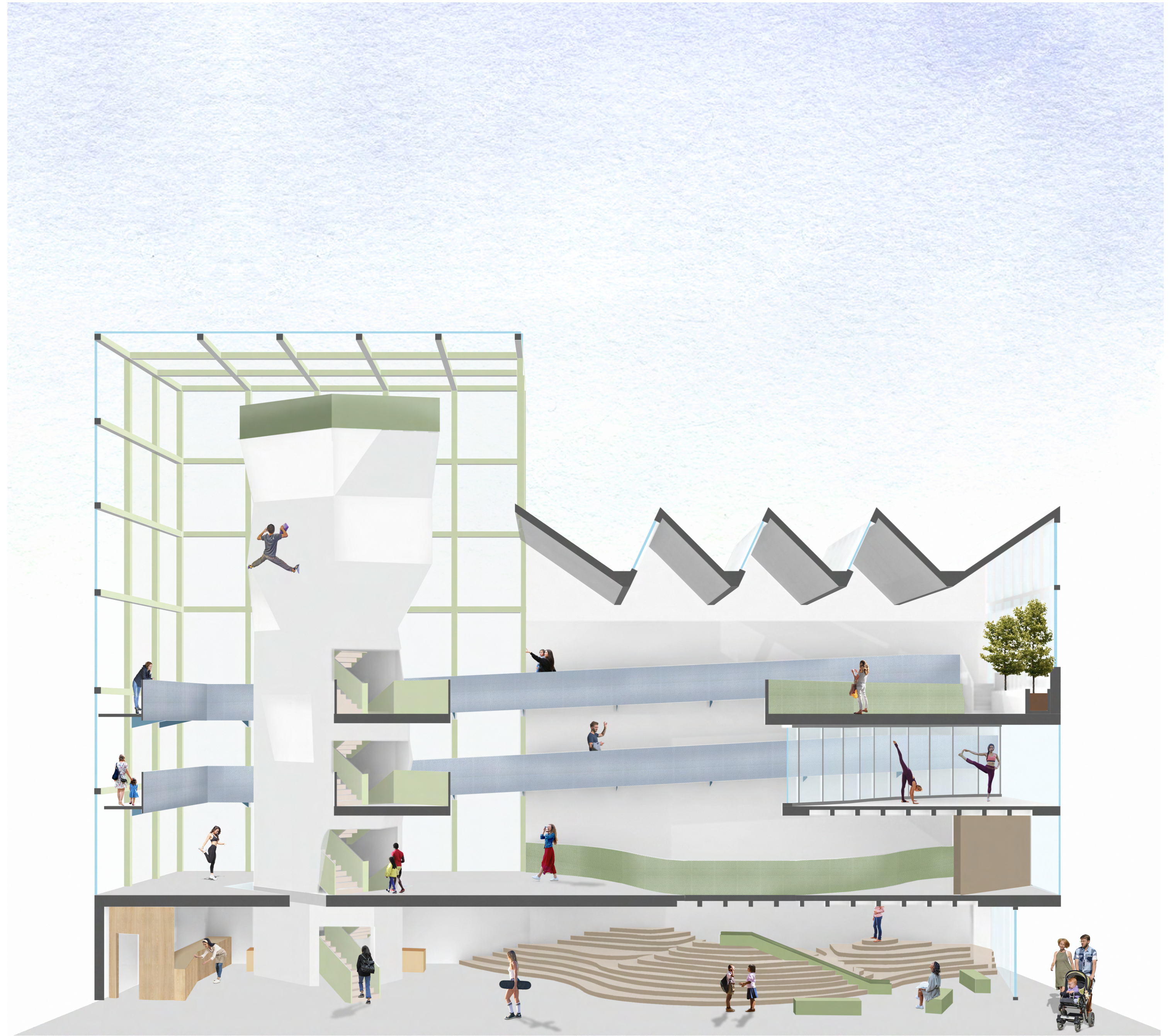
■ climbing wall volumn (box)

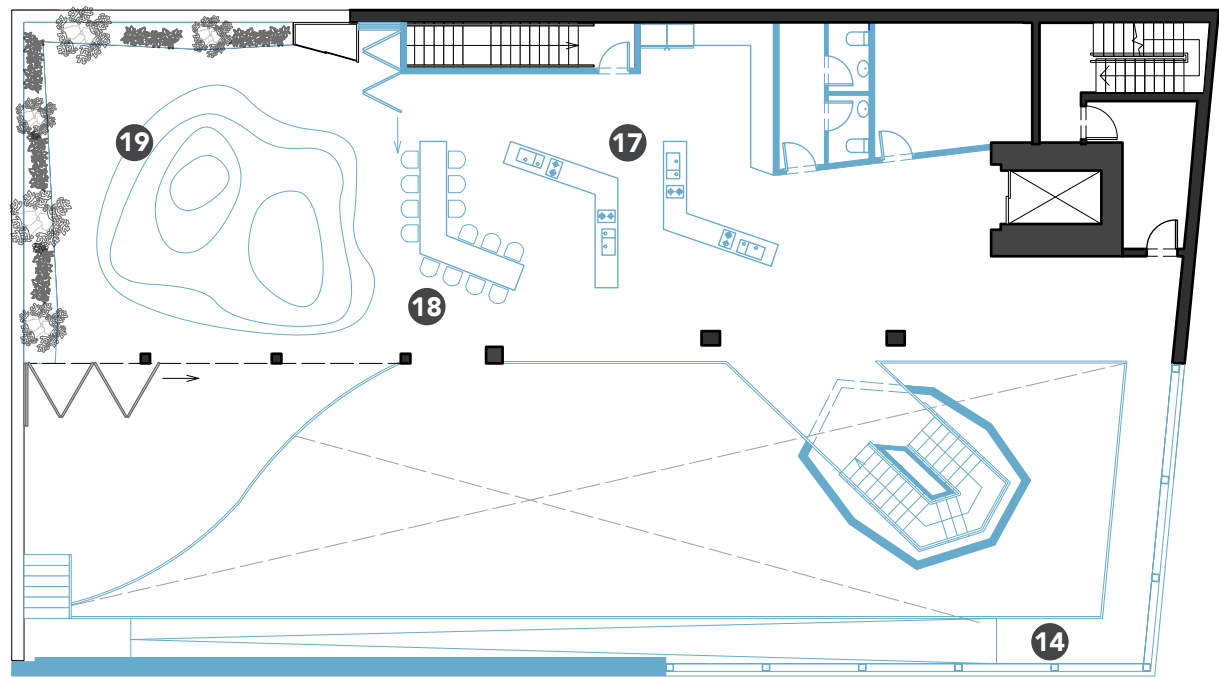
The climbing wall needs a lot of vertical space, therefore I have divided the building into 4 parts. The area that the climbing wall located are originally covered by steel framework roof, which is easy to remove and build a new structure on that area. I proposed to use the steel columns to build a box shape form to hold the climbing wall externally. It united with the building. From the exterior, it can clearly see the different between old and new, as well as the various construct materiality working together.

Height: ~18m

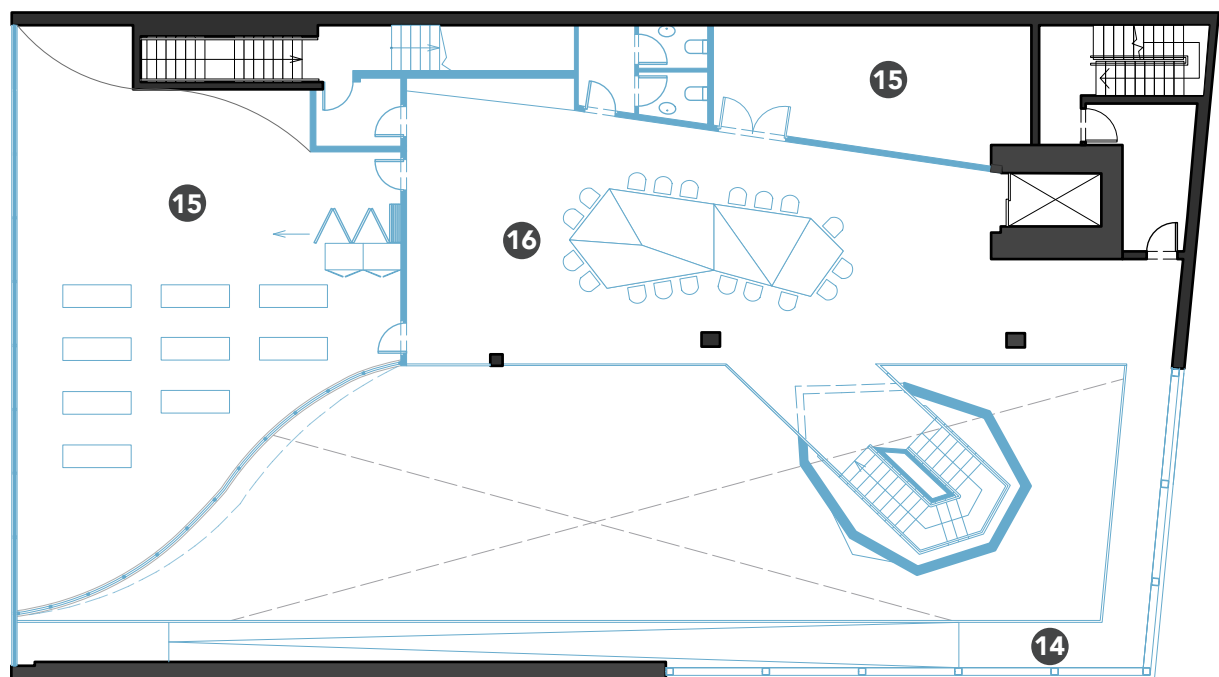
■ sawtooth roof

By considering the interior temperature of the building during summer, I decided to use a sawtooth roof on top of the kids' playground. The roof with glass panels facing away from the equator. It will help to block the light and heat of direct sun exposure and provides natural sunlight over a large area. Additionally, I will well use the benefits of this roof, then install some solar on the non-window sides, which the building can self-produce energy to supply for the building use. Also, the shape of the roof has some connection with the interior setting, which both are angular.

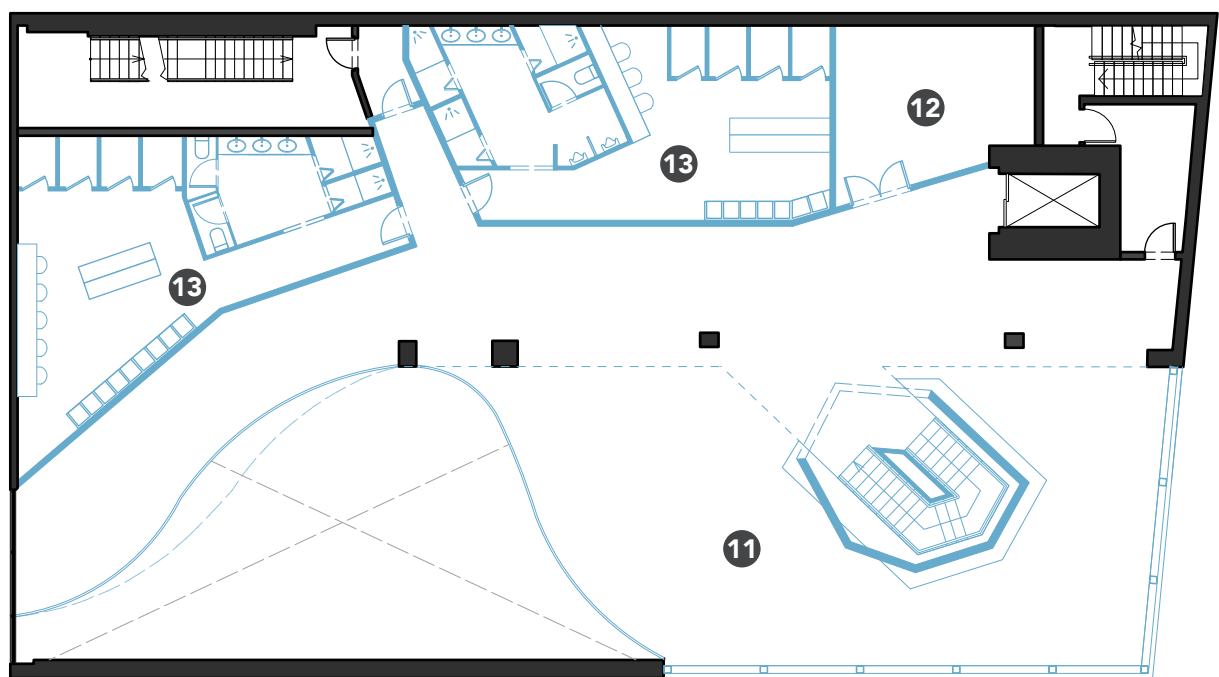




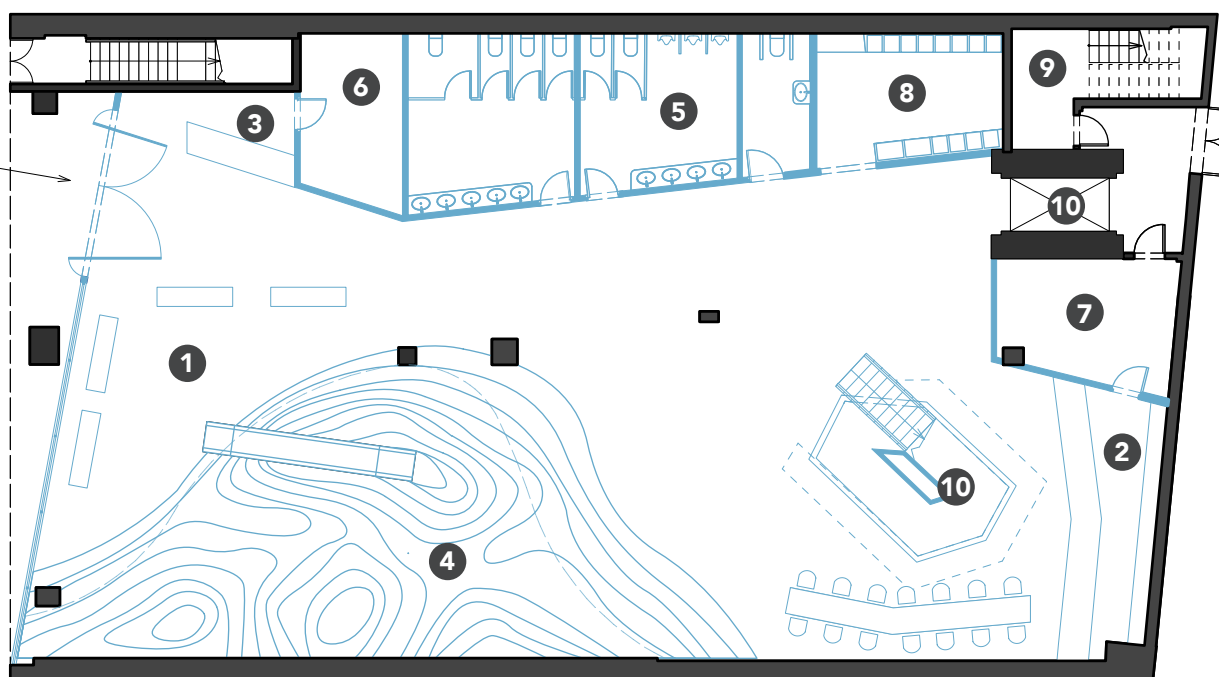
^ 3/F plan [1:200 @ A2]



^ 2/F plan [1:200 @ A2]



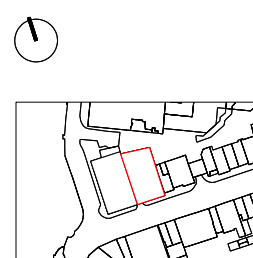
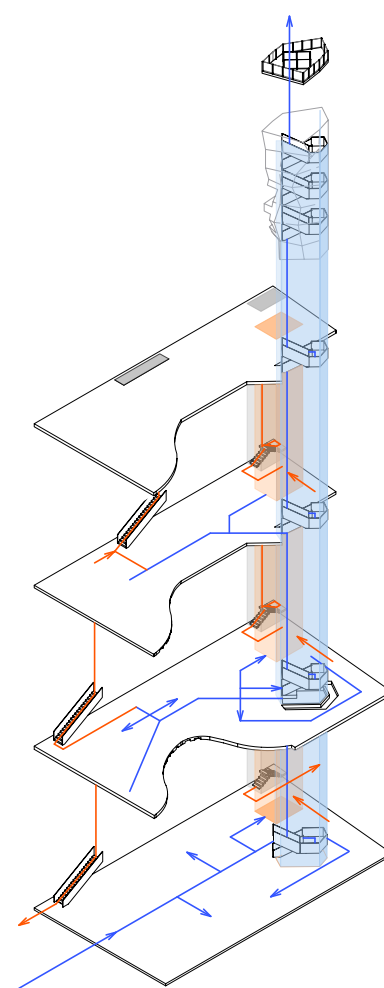
^ 1/F plan [1:200 @ A2]



^ G/F plan [1:200 @ A2]

Key:

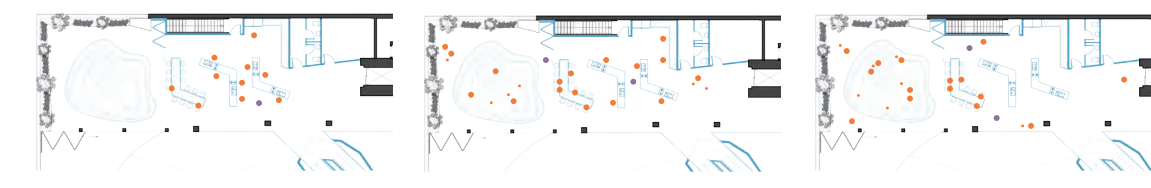
- 1 Waiting area
- 2 Cafe
- 3 Reception
- 4 Kids playground
- 5 Toilet
- 6 Staff room
- 7 Storage
- 8 locker+ storage (public)
- 9 Fire escape staircase
- 10 Lift + staircase
- 11 Climbing wall area
- 12 Climbing equipment storage
- 13 Changing room
- 14 Path (rounding building)
- 15 Multiuse rooms (bookable)
- 16 Multiuse space (public)
- 17 Open kitchen
- 18 Seating area
- 19 Courtyard
- 20 Viewing platform (top of the climbing wall)



entry sequence of the building



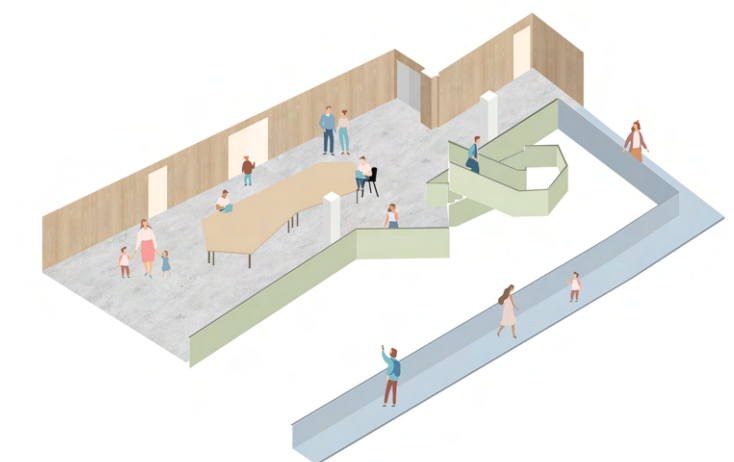
3/F
open kitchen
+
courtyard.



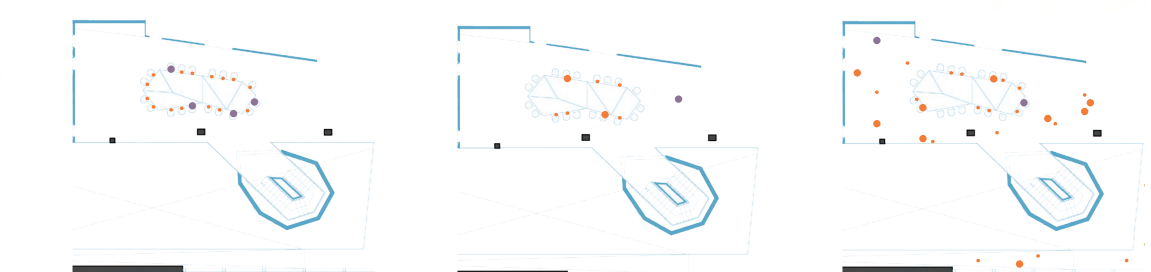
1/ cooking lesson use

2/ rental for events

3/ open to public (weekend)



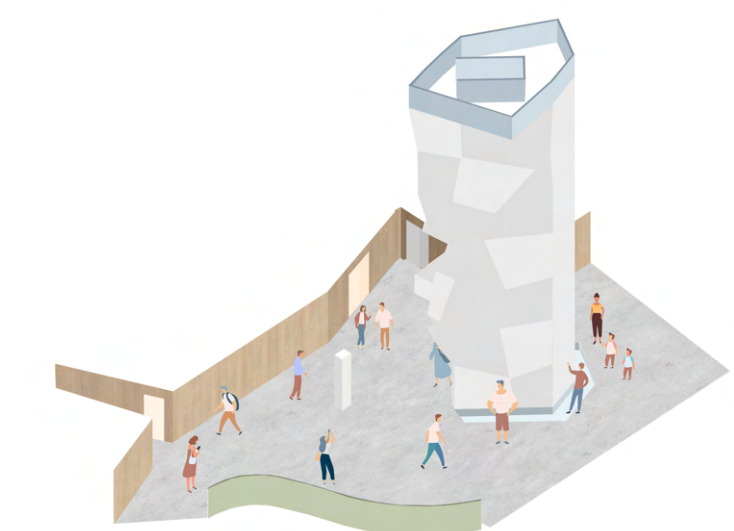
2/F
open multiuse space.



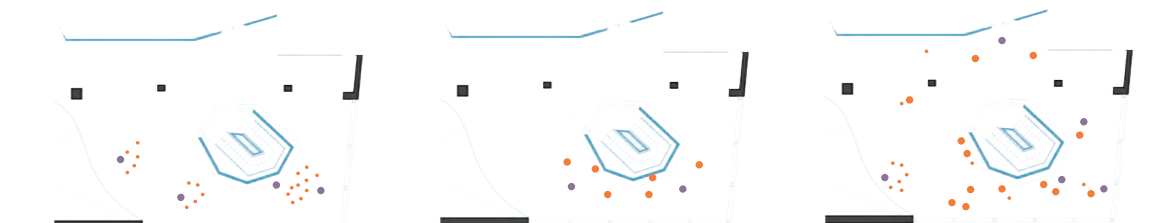
1/ school use (weekday)

2/ after school club (weekday)

3/ open to public (weekend)



1/F
climbing wall.



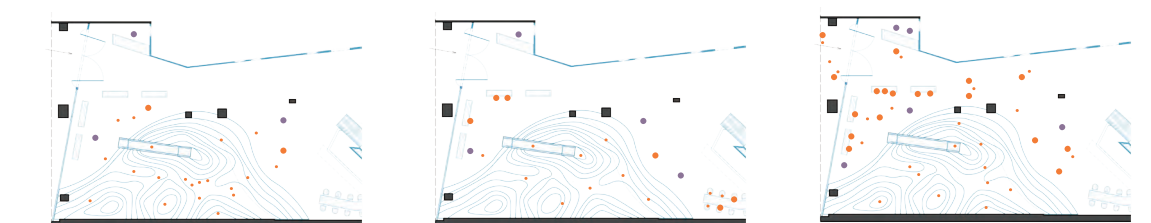
1/ school use (weekday)

2/ climbing training use (weekday)

3/ open to public (weekend)



G/F
kids playground.



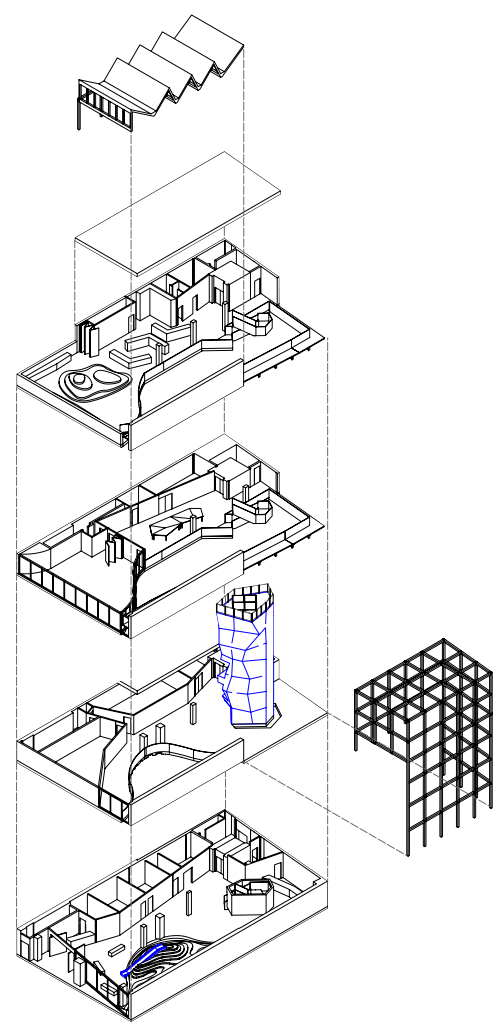
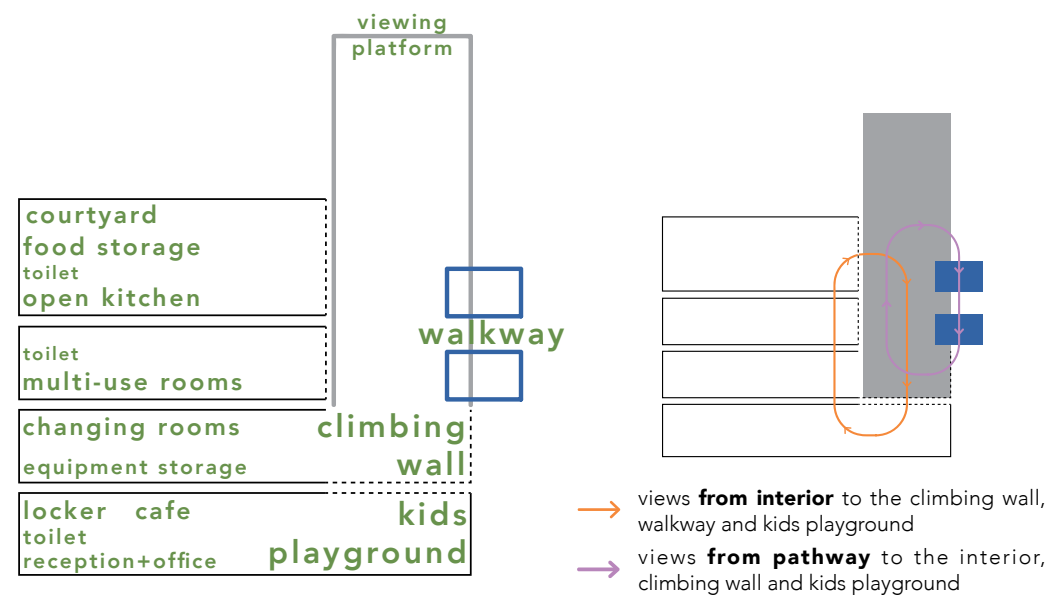
1/ school use (weekday)

2/ after school (weekday)

3/ open to public (weekend)

- staffs
- adults (parents)
- kids (students)

visual and function



- 1 2/F - viewing at the climbing wall and pathway
- 2 2/F - viewing the open multi-use space
- 3 3/F - viewing the building's outlook at rooftop garden

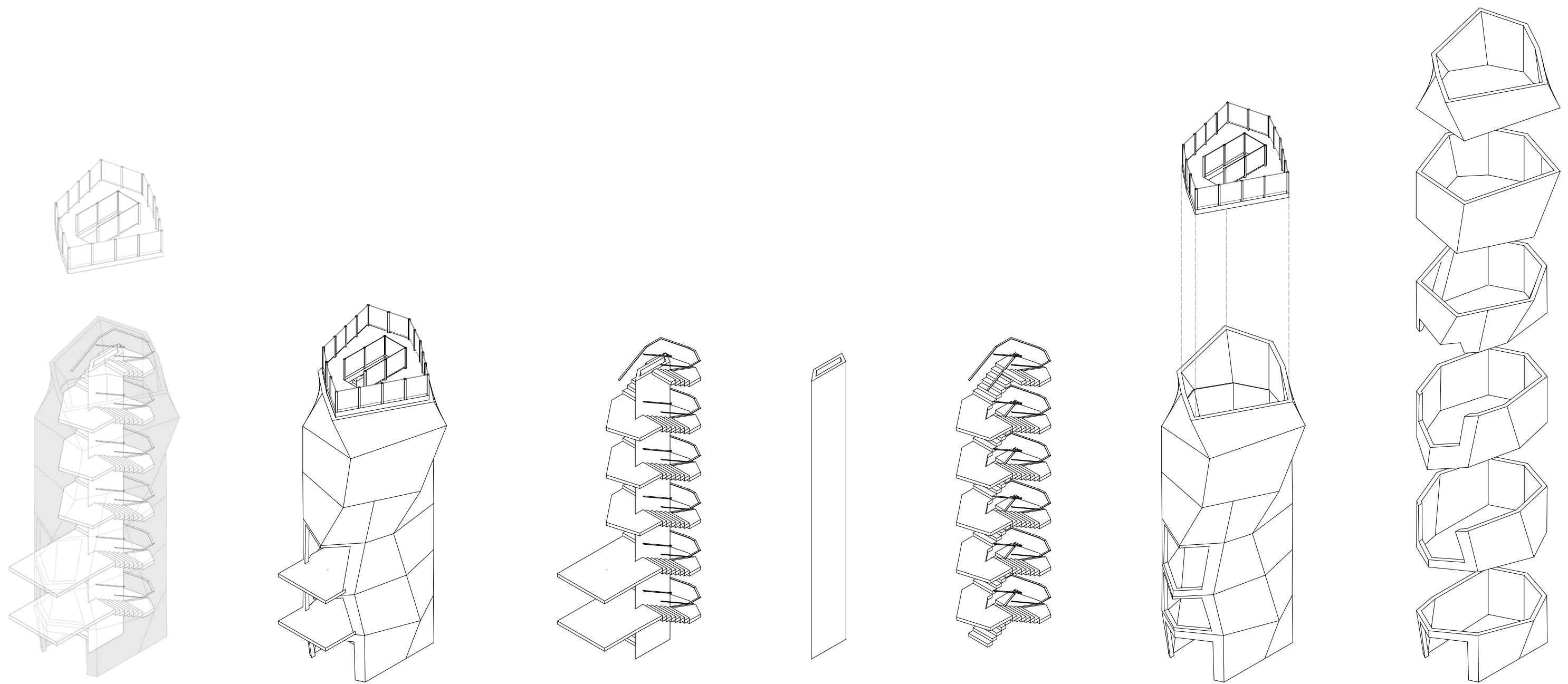


staircase design

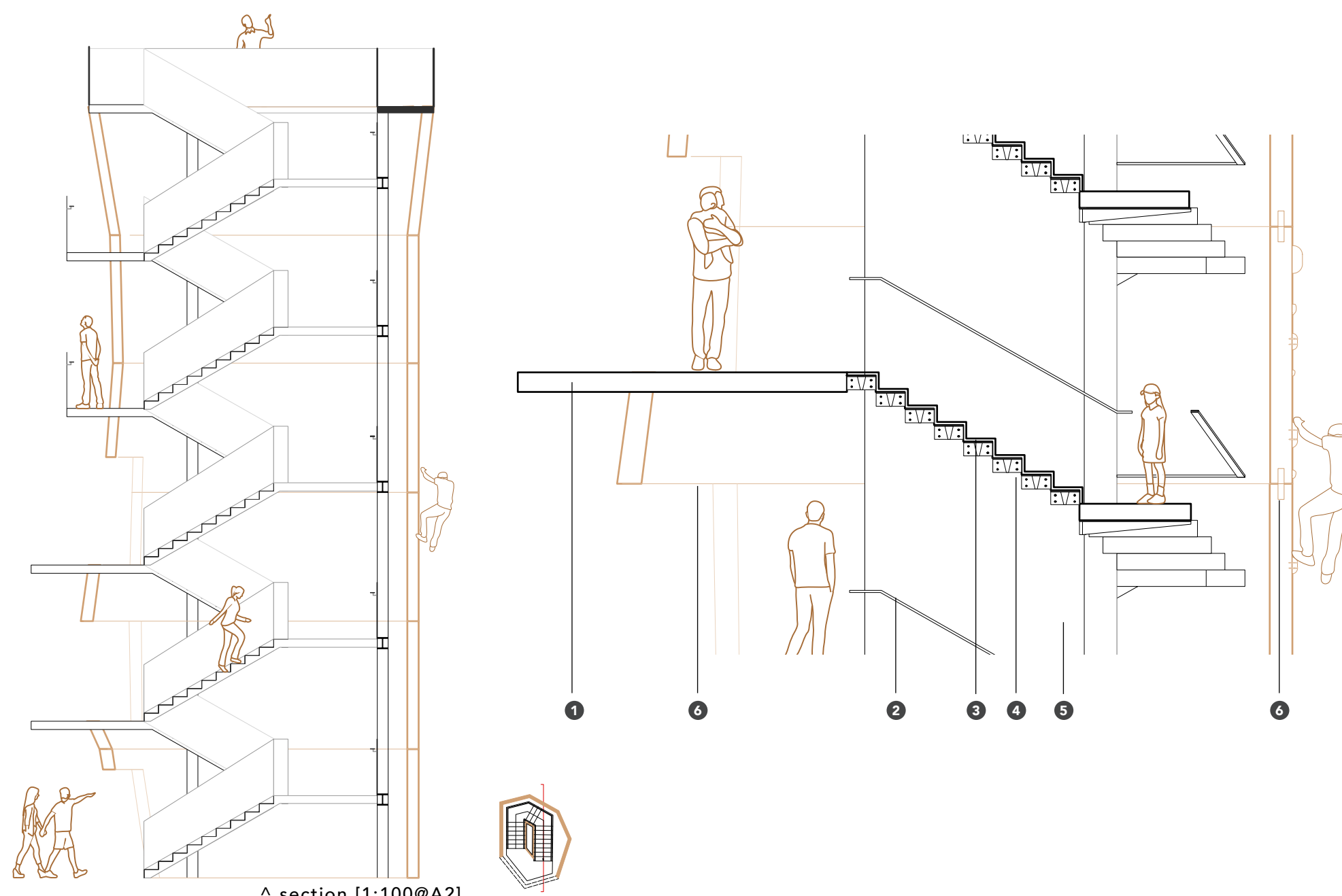


By referring to the concept of the building, I tried to express the sense of outdoor, nature. I have concentrated on the experience/ impression that users walk inside this climbing wall. Therefore, I have come up with an idea of the stair's shape, which inspired by the precedents New York University Department of Philosophy. The idea of their staircase is similar to mine. Their shape of the staircase and its construction is perfectly present with their aim, light. Hence, I have designed a new plan for the building's staircase.

The staircase is upheld by the shape of the climbing wall, which will be liked a more natural shape flowing inside the climbing wall. It emphasizes the idea of different vertical events and circulation taking place inside and outside. It will give a strong impression to the users. The transformation of the staircase makes an essential building element become more valuable.



^ isometric diagram of the staircase and climbing wall's construction



^ section [1:100@A2]

- 1 platform bridge**
link the staircase to the existing building.
- 2 Handrail**
Attached to the column.
Height: ~900m
- 3 Stair's steps material**
Timber stair steps will support by the stair cantilever under. The materiality is trying to echo nature. The internal staircase has a strong contrast with the external material. It resembles a cave. Develop distinct experiences.
Riser: 160mm
Tread: 280mm
- 4 Stair cantilever**
Attached to centre column, support the material of the steps on top.
Size: 1200mm x ~100mm
Depth: ~220mm
- 5 Structure- columns**
Beam built vertical columns
Height: ~18000mm
- 6 Climbing wall element joint**
Made of CLT panels. These will be customised with certain angles and joints, which allows the workers easier to build up on-site, demolish and reuse in a different place in future.
Thickness: ~150mm
Height: 2500mm(per parts), ~18000mm(total)