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CHEN KUN

Nanjing Tech University, China

Apply for Architectural Design

Cardiff University

# 01

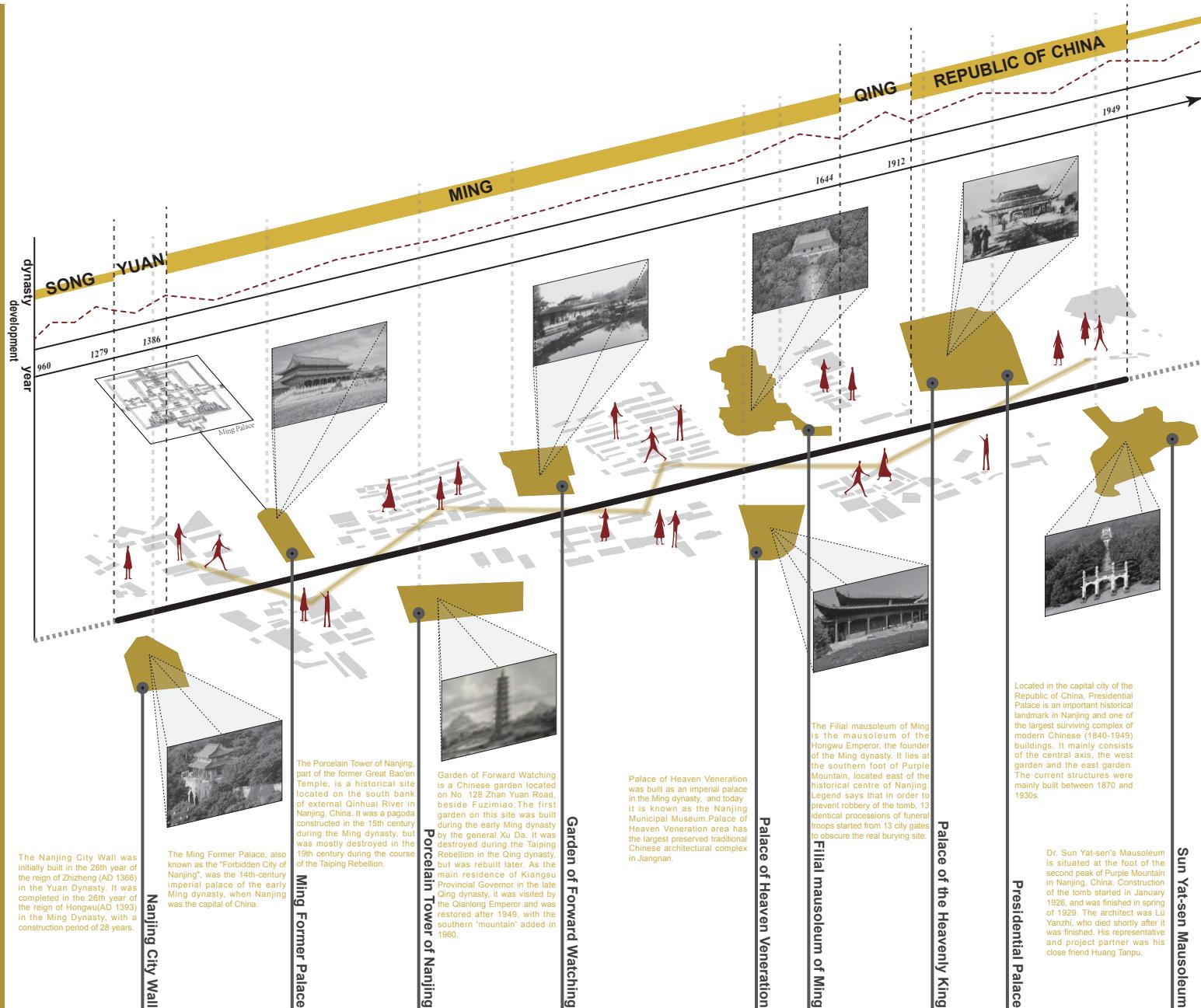
## JOINTED MUSEUM

### Traditional Structure Reuse | PAST

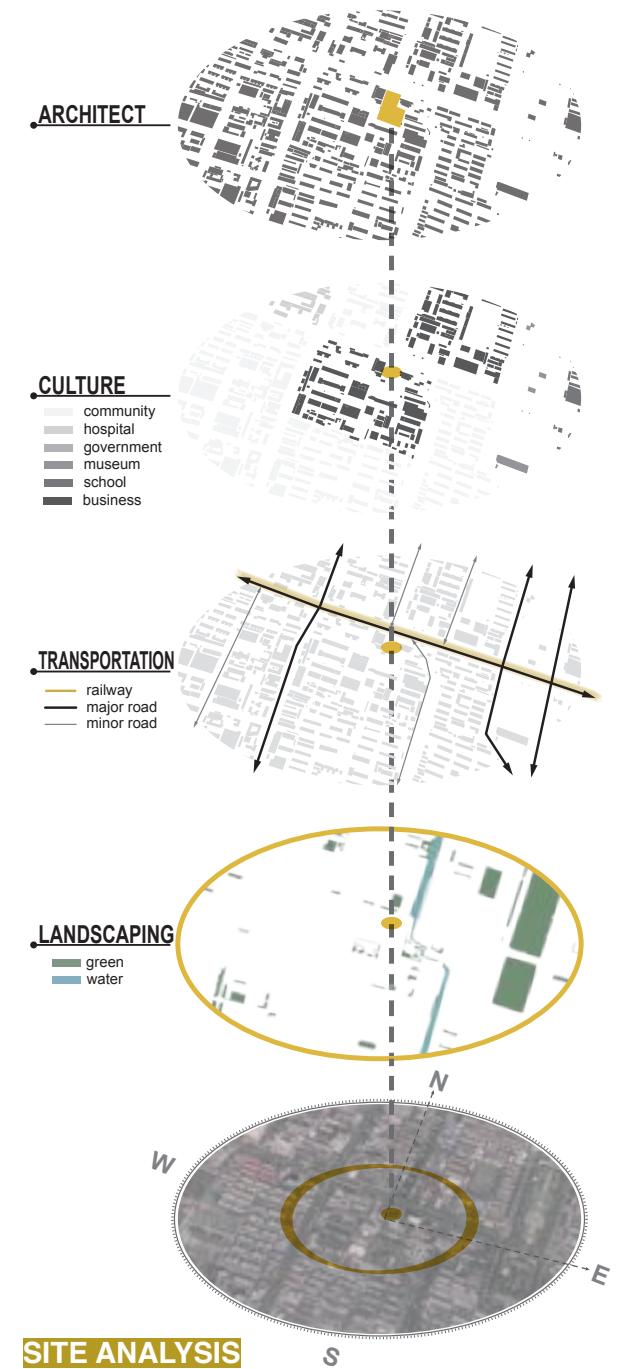
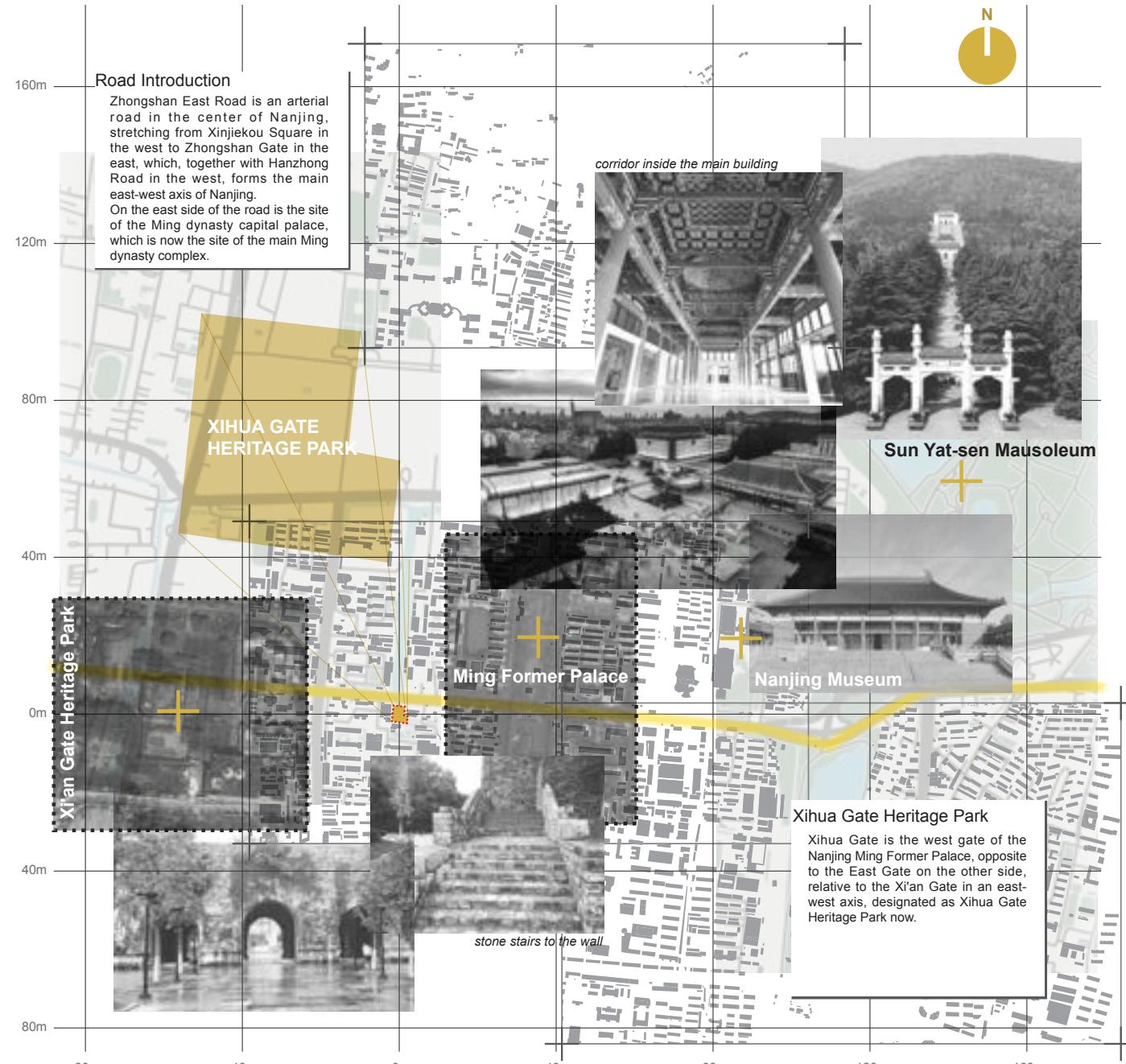
project location: Nanjing, Jiangsu, China  
individual project  
completed in 2020

Nanjing was once the capital of six ancient dynasties, one of the most famous of which was the Ming Dynasty. The Ming dynasty left many architectural monuments, most of which have been protected by becoming national cultural relics, while some have been seriously damaged and have become ordinary small parks.

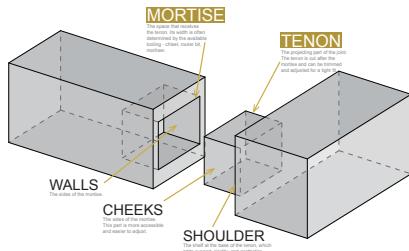
This project is located in the Xihu Gate Heritage Park on Zhongshan East Road. The project is a small museum with the building inherits the traditional building techniques - mortise and tenon.



BRIEF HISTORY AND TYPICAL BUILDINGS OF NANJING



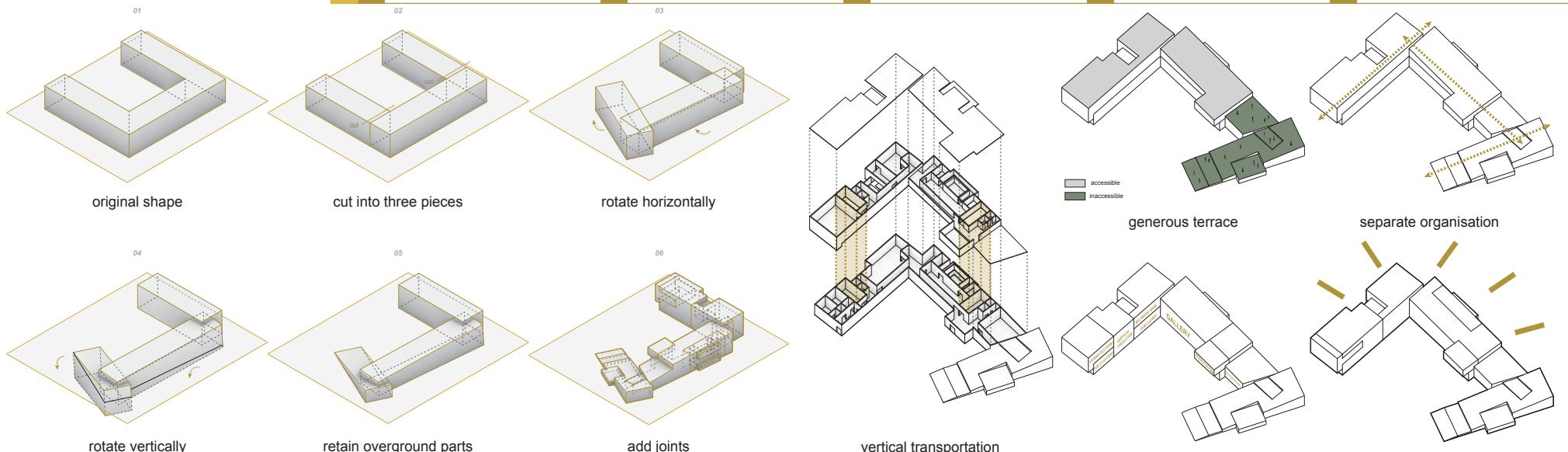
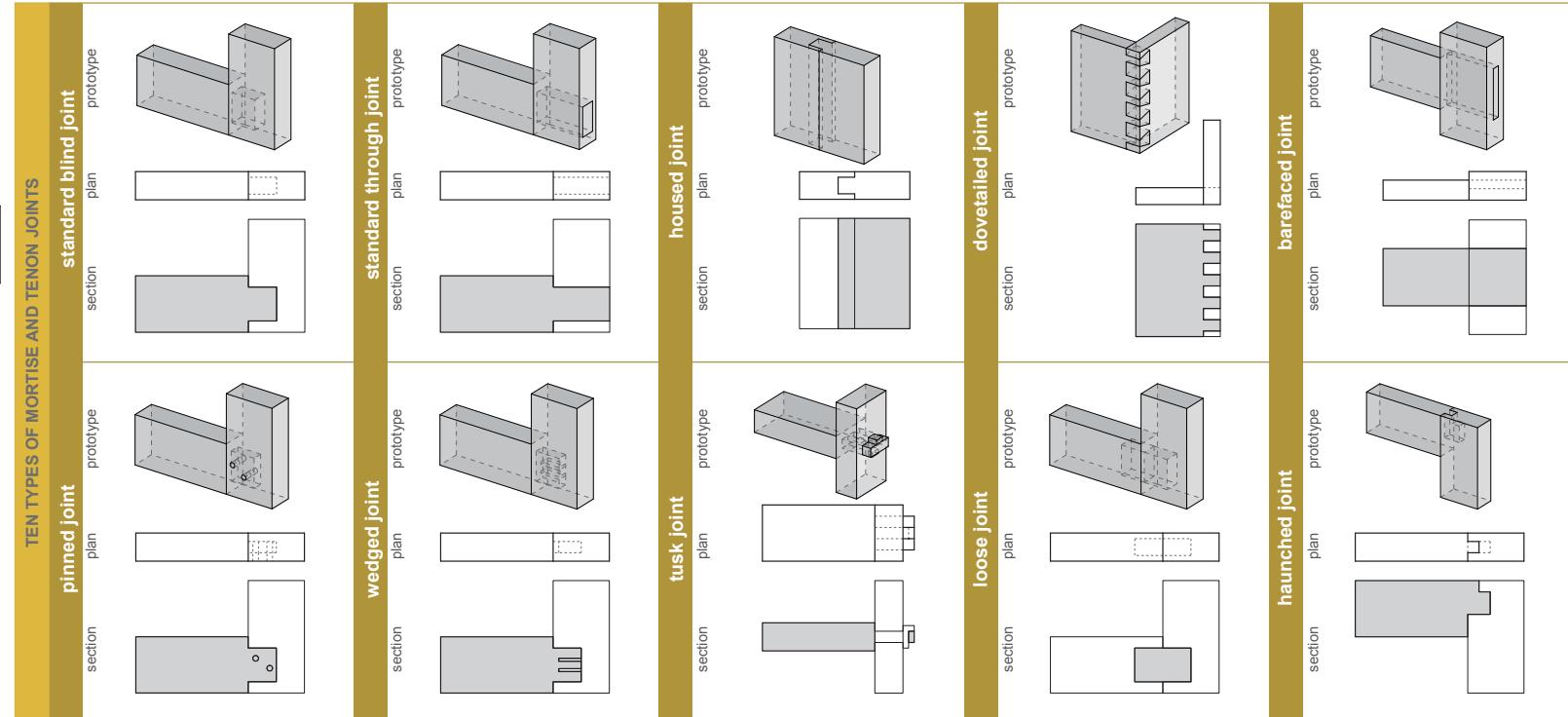
## MORTISE AND TENON



A mortise and tenon joint connects two pieces of wood or of material. Woodworkers around the world have used it for thousands of years to join pieces of wood, mainly when the adjoining pieces connect at right angles.

It is considered to be one of the strongest joints next to the common dovetail joint. They furnish a strong outcome and connect by either gluing or locking into place.

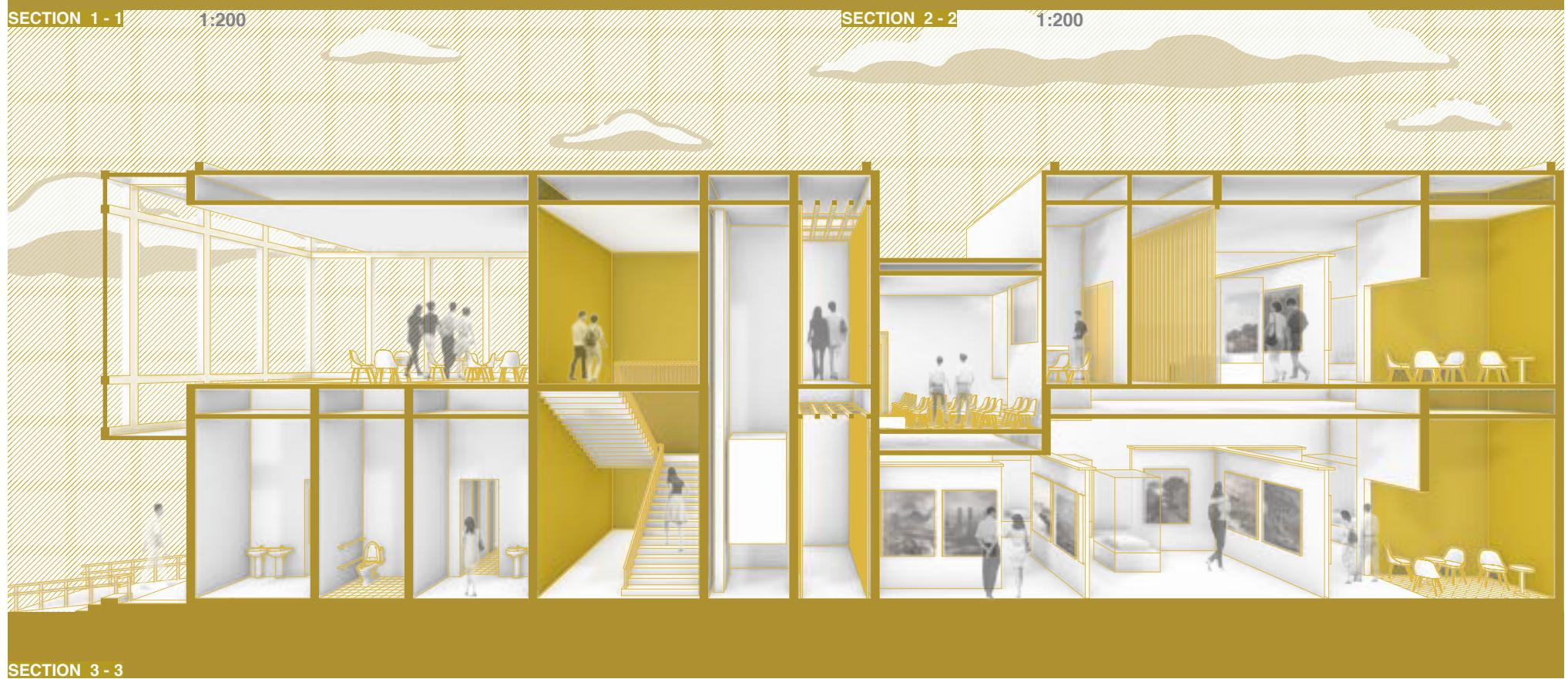
The mortise and tenon tenon joint also gives an attractive outlook. One drawback to this joint is the difficulty in making it due to the precise and tight cutting required.

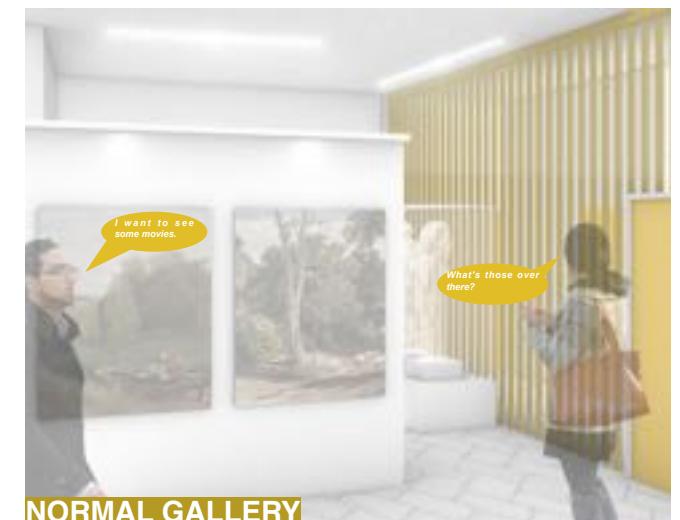


## FORM CREATION

## ANALYSIS GROUP







02

## REBORN CONCERT HALL

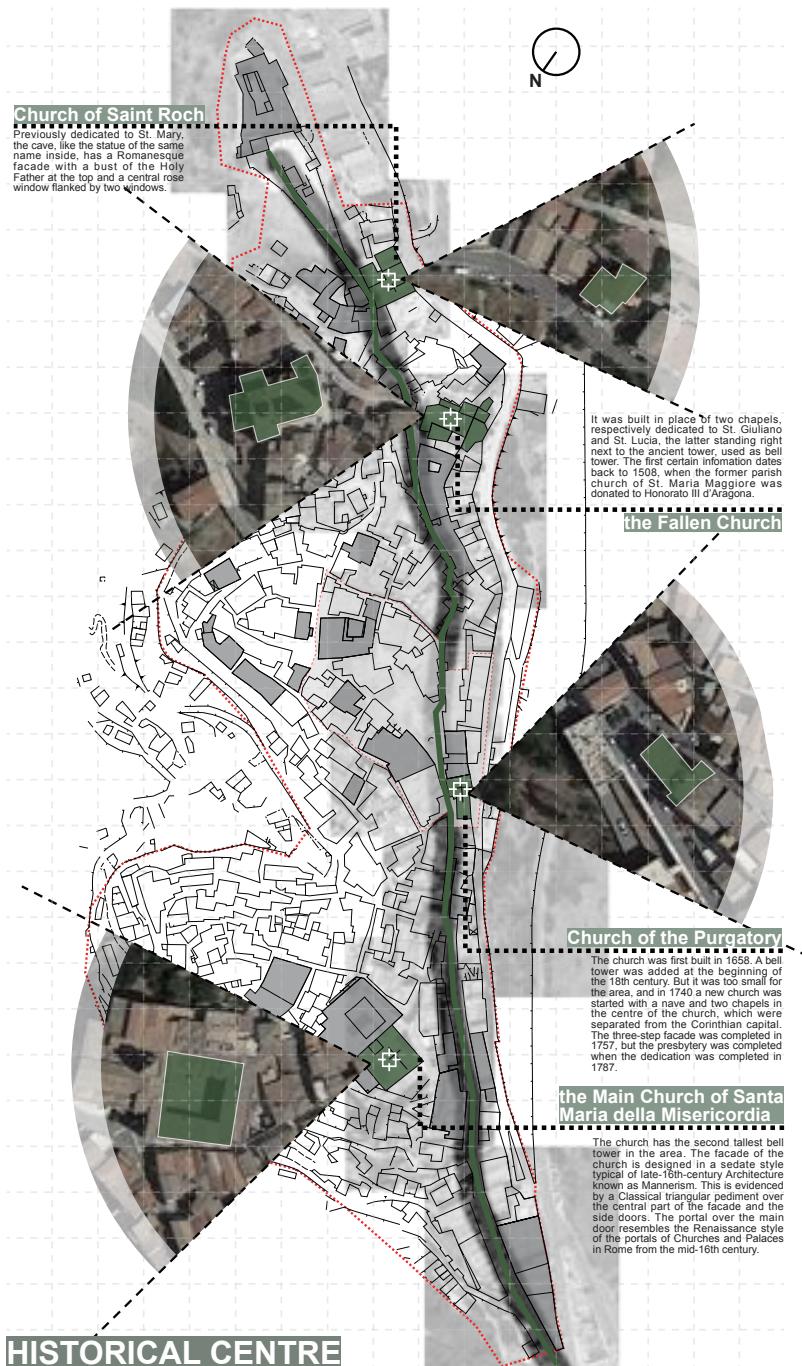
Inheriting History | PRESENT

project location: Grottole, Matera, Italy  
individual project  
completed in 2020

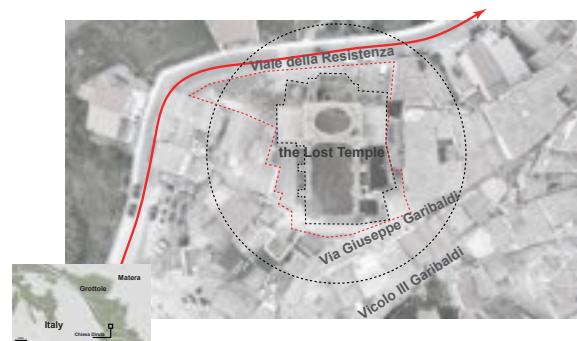
This project is located in a small town in Grottole, province of Matera, in southern Italy, turning a ruined local church into a small concert hall and a place of interest, in order to active local cultural life.

Due to the high historical value of the church, which dates back as far as the 16th century, the original remains of the church have been preserved to a large extent. The new part of the building is made up of modern bricks to fill in the missing walls, using them to create small spaces for light and ventilation.





# HISTÓRICAL CENTRE



**LOCAL AREA**

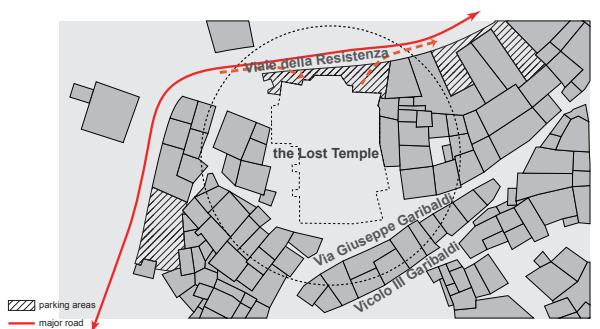
**location**

**land use**

Legend:

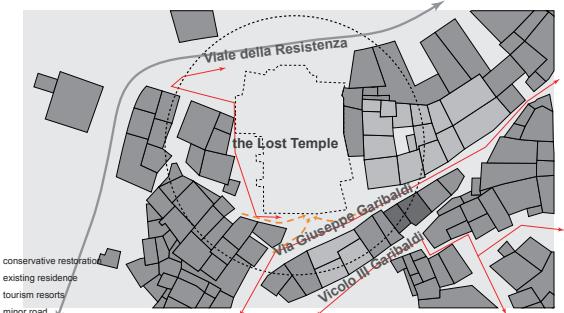
- constructions
- greenland
- pavements
- residential
- commercial
- industrial
- green

## **LOCAL AREA**

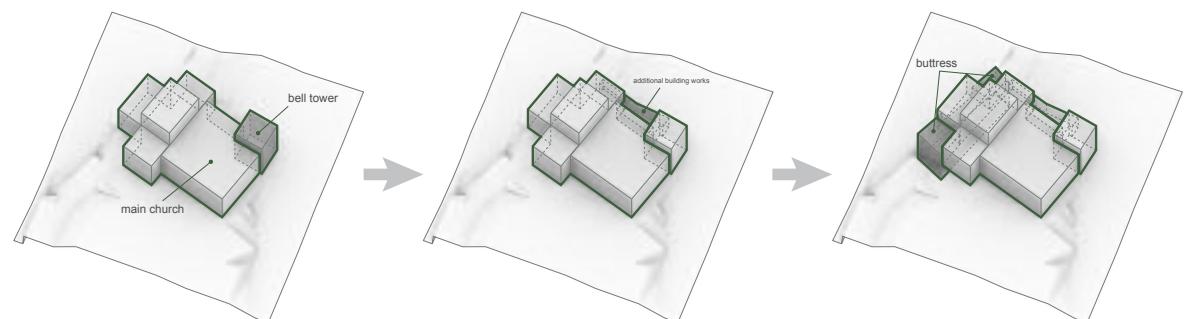


 parking  
— major ro  
- - - traffic ro

circulation + parking

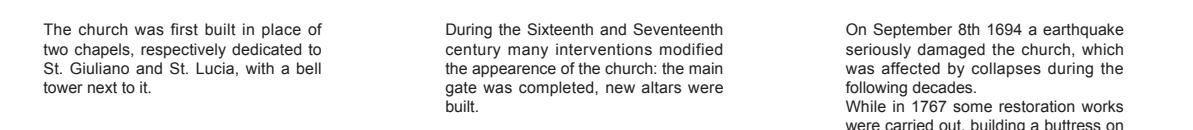


pedestrian + building



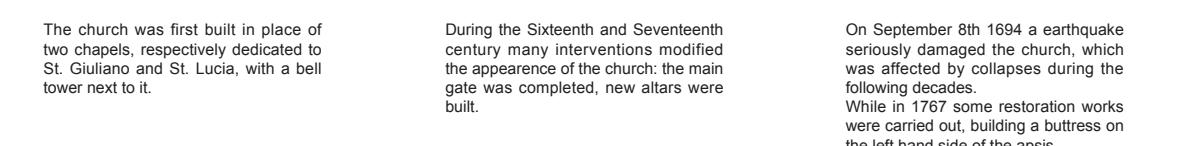
1508

The church was first built in place of two chapels, respectively dedicated to St. Giuliano and St. Lucia, with a bell tower next to it.



1560s-70s

During the Sixteenth and Seventeenth century many interventions modified the appearance of the church: the main gate was completed, new altars were built.

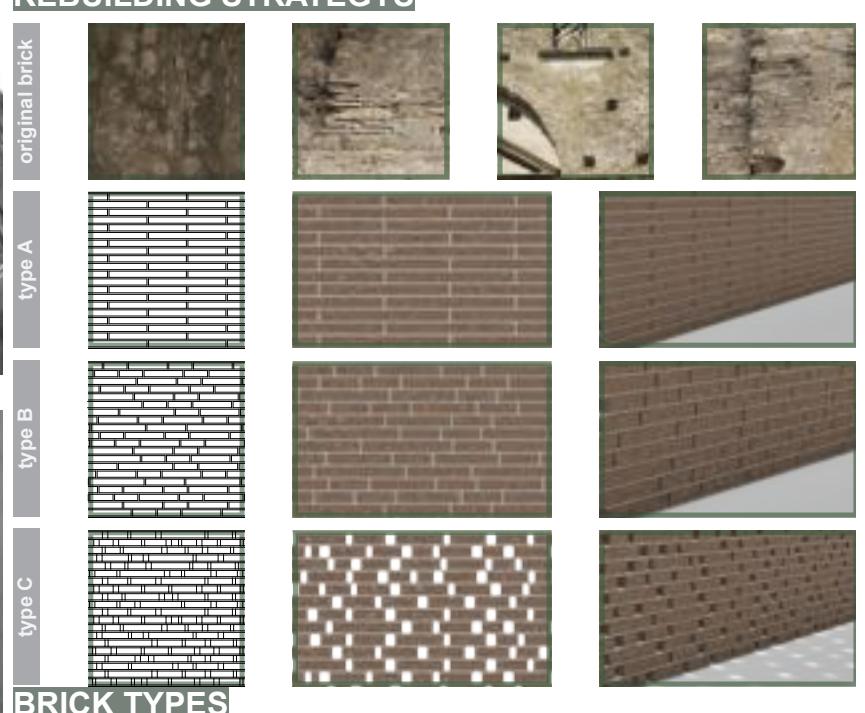
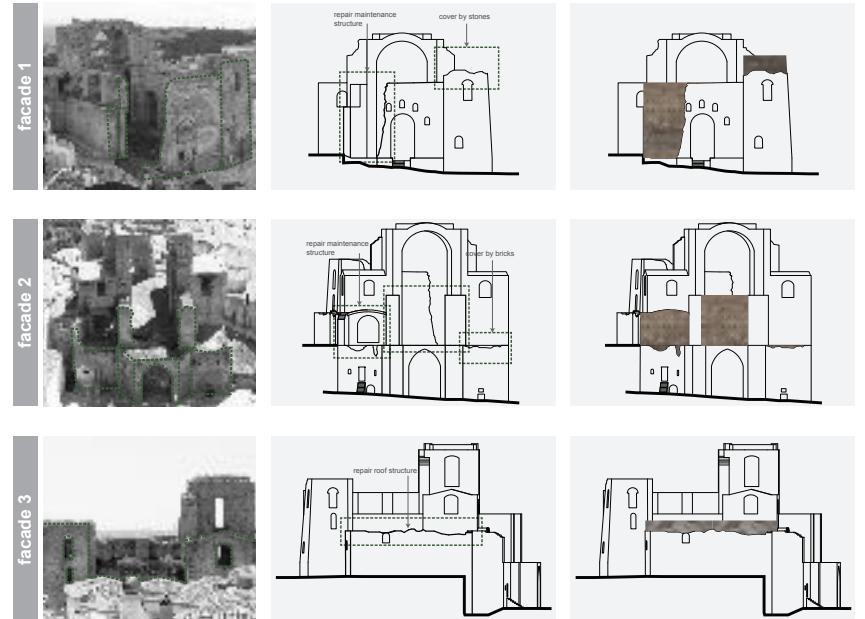
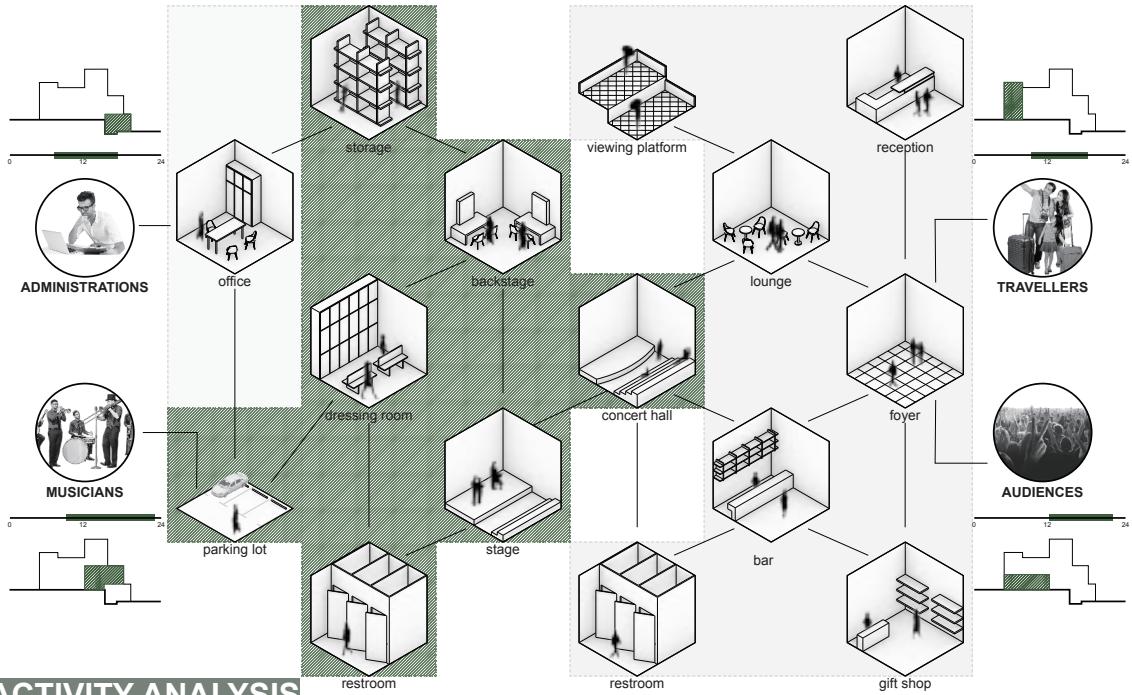


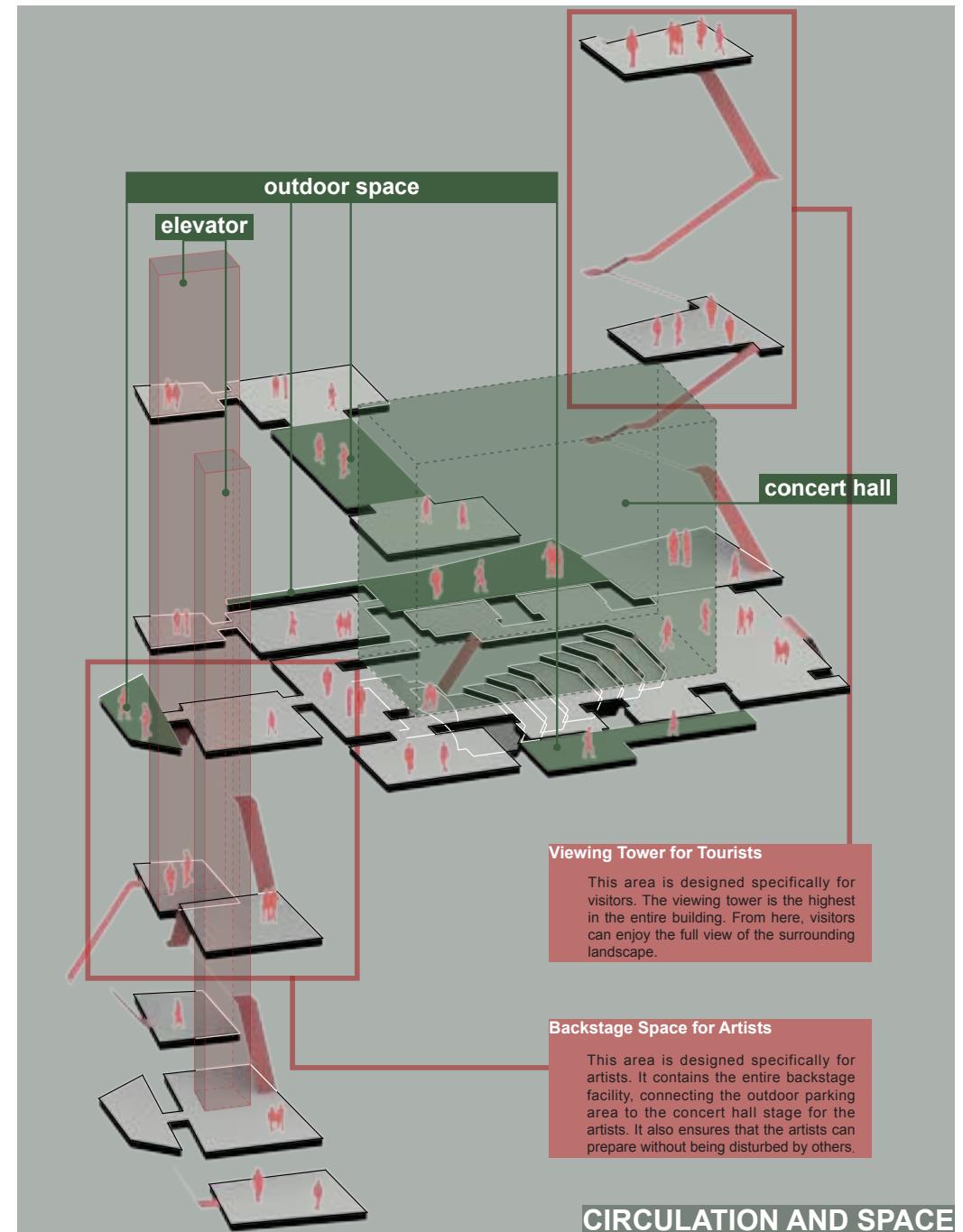
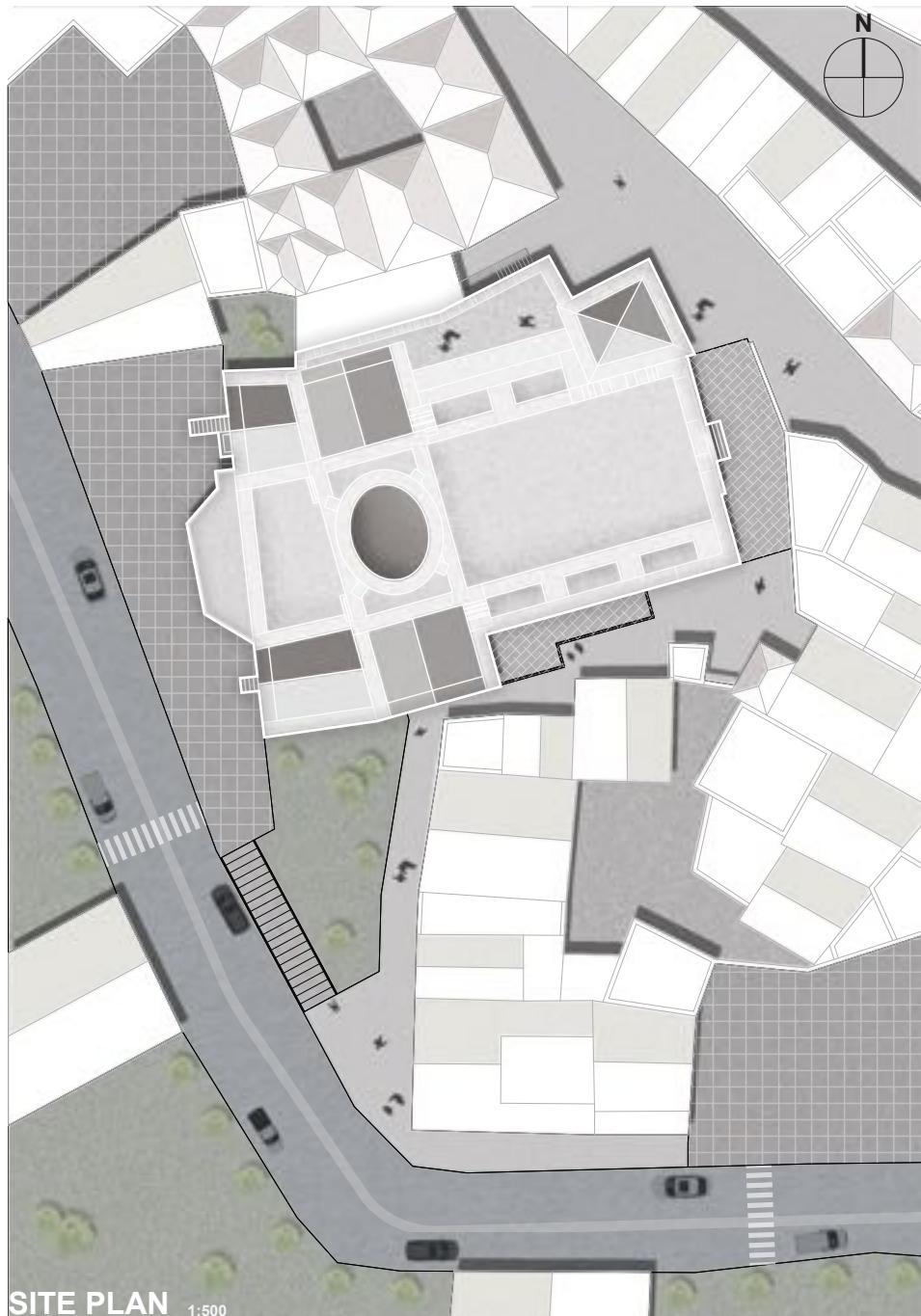
1767

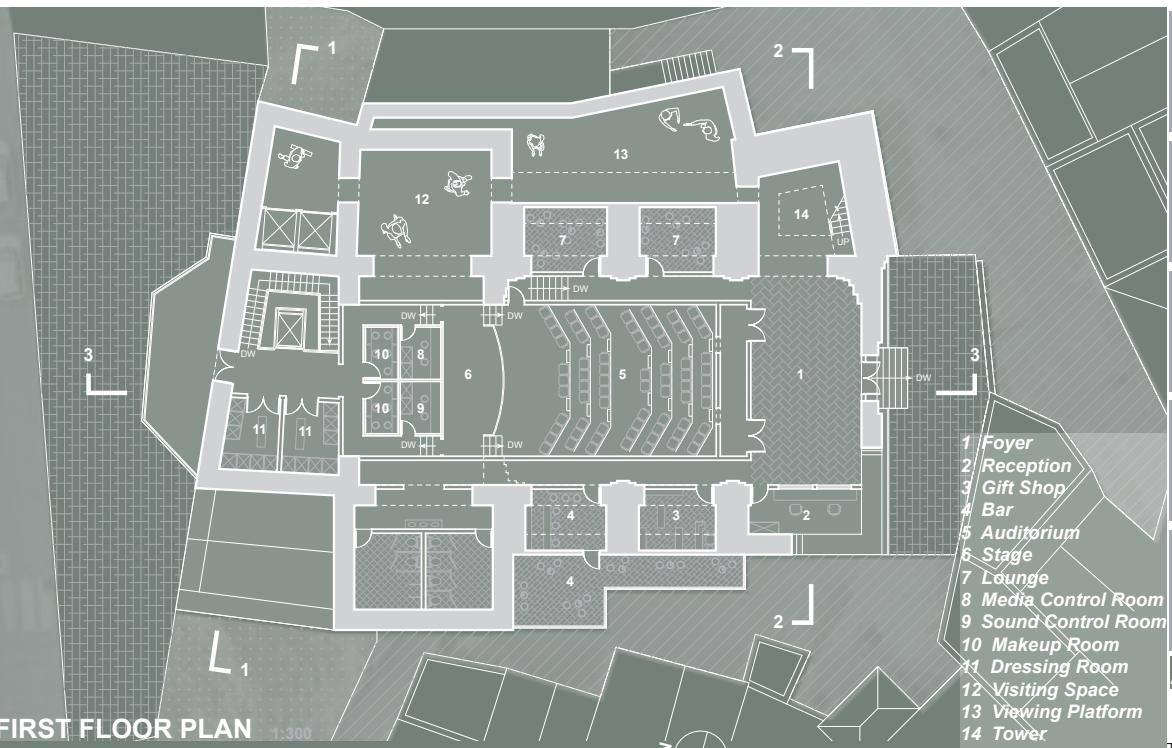
On September 8th 1694 a earthquake seriously damaged the church, which was affected by collapses during the following decades.

While in 1767 some restoration works were carried out, building a buttress on the left hand side of the apsis.

## CHURCH HISTORY



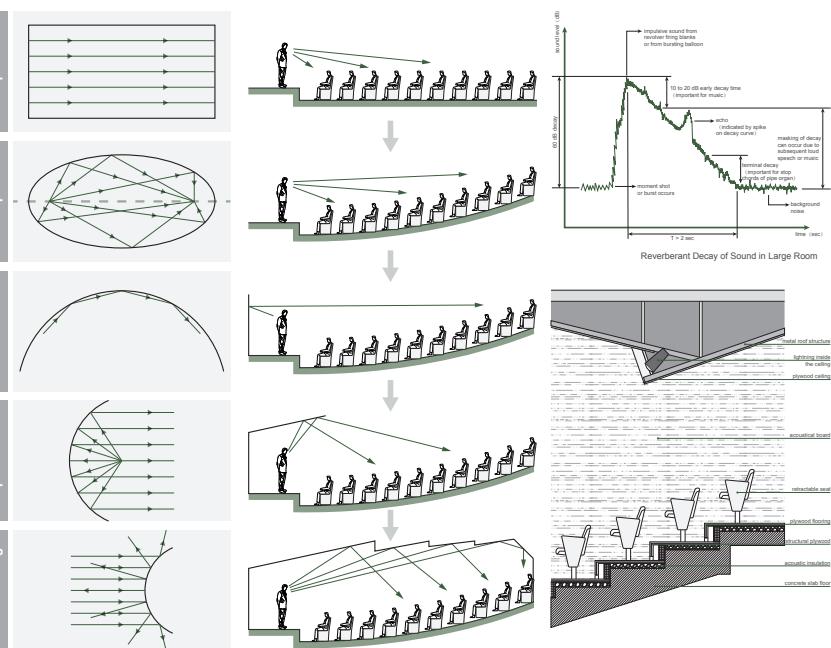




FIRST FLOOR PLAN

1:300

## AUDITORIUM SOUND ANALYSIS



1

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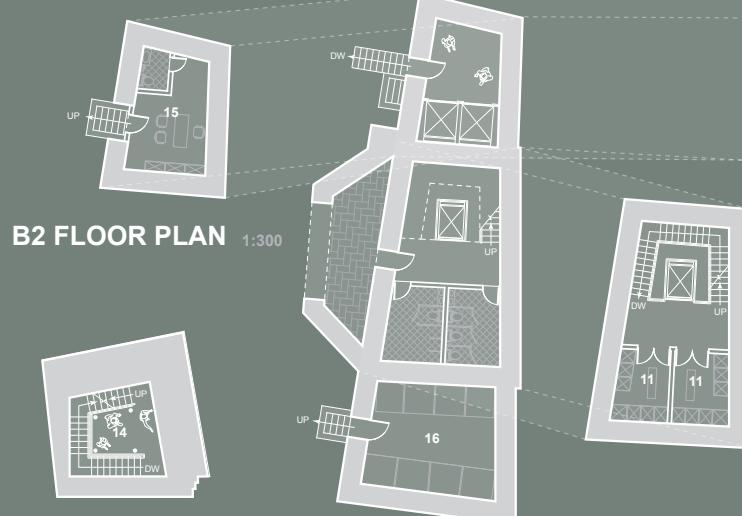
12

13

14

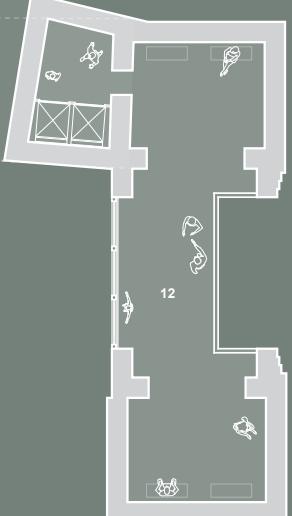
15

16



B2 FLOOR PLAN

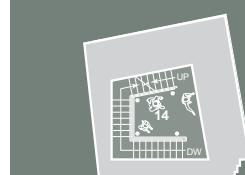
1:300



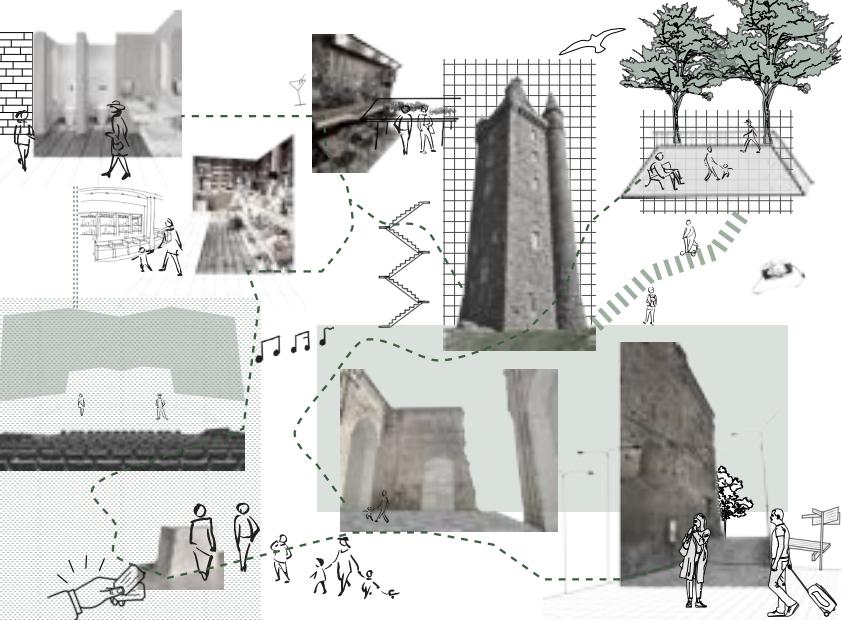
B1 FLOOR PLAN 1:300

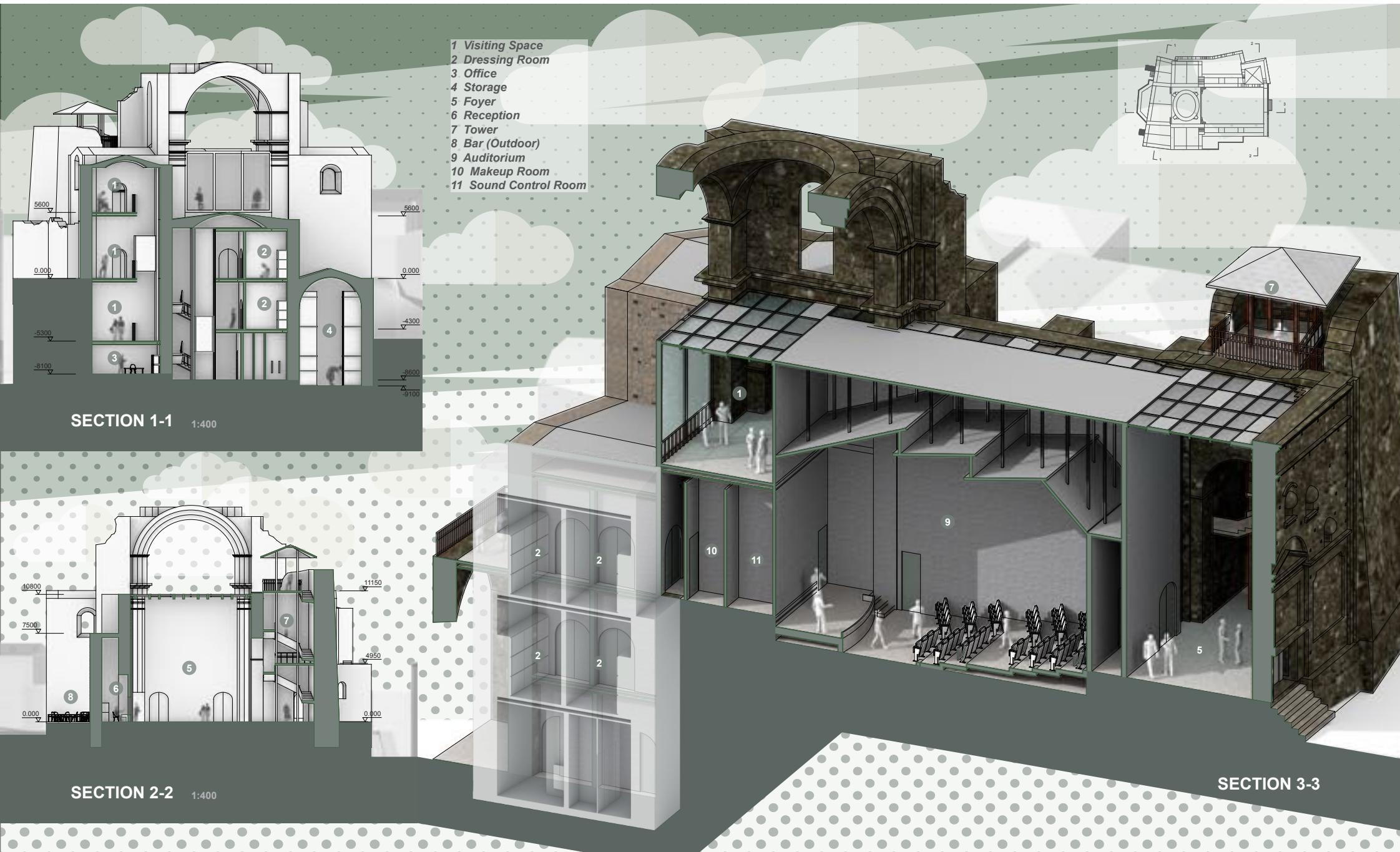
SECOUND FLOOR PLAN 1:300

TOUR ROADMAP



TOWER PLAN 1:300







# 03

## FLOATING COMMUNITY

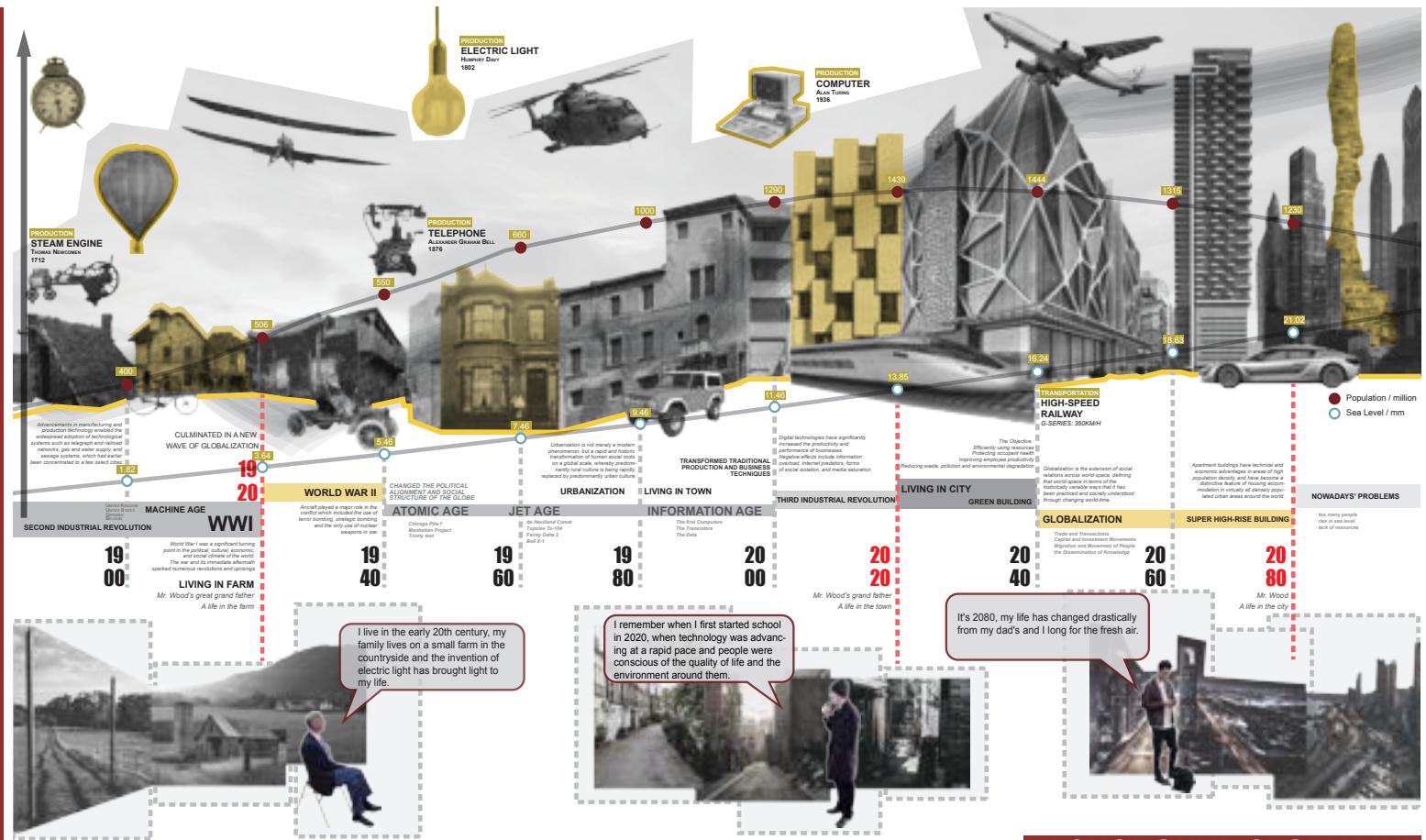
New Style of Living | FUTURE

project location: Ocean  
individual project  
completed in 2020

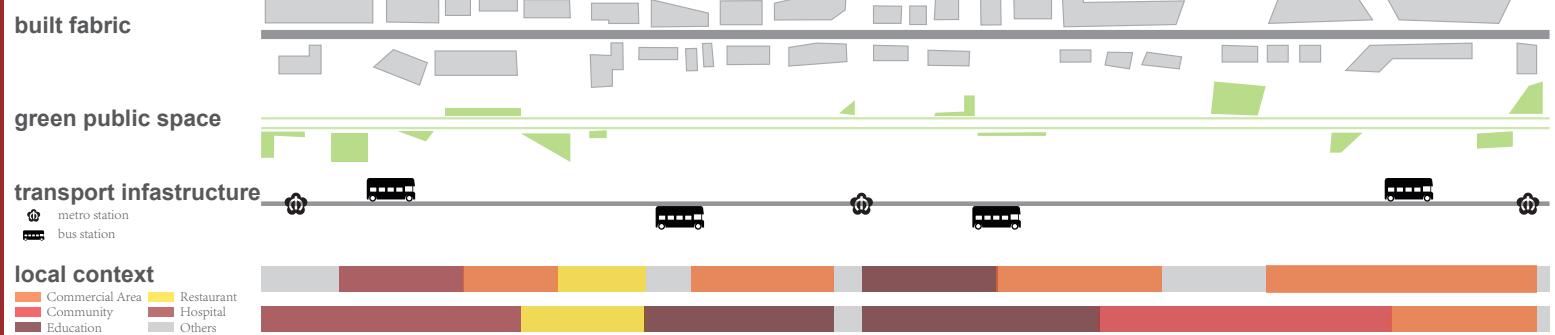
With the development of science and technology, the number of human beings is increasing, the area available per person is shrinking, and environmental pollution is becoming increasingly serious. The global sea level is rising as a result of the greenhouse effect.

These changes can affect the shape of the communities in which people live. How can we use the remaining land effectively? How do we deal with the changing waters? How can we increase communication and interaction between people?

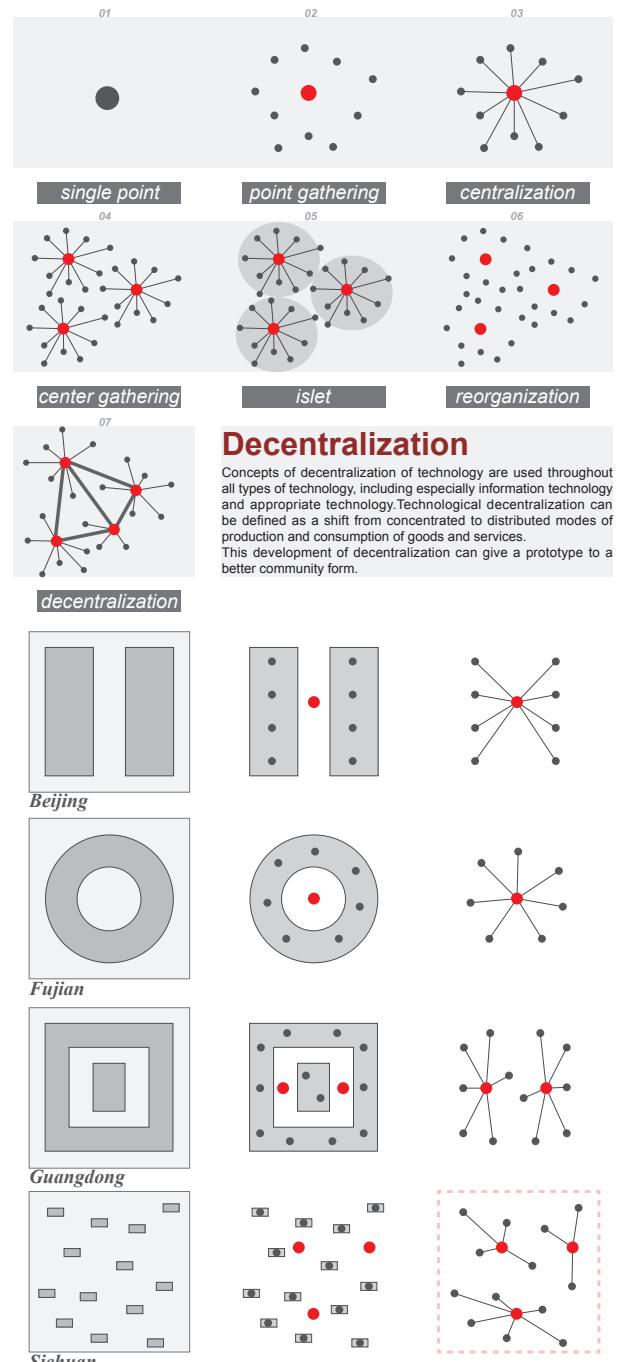
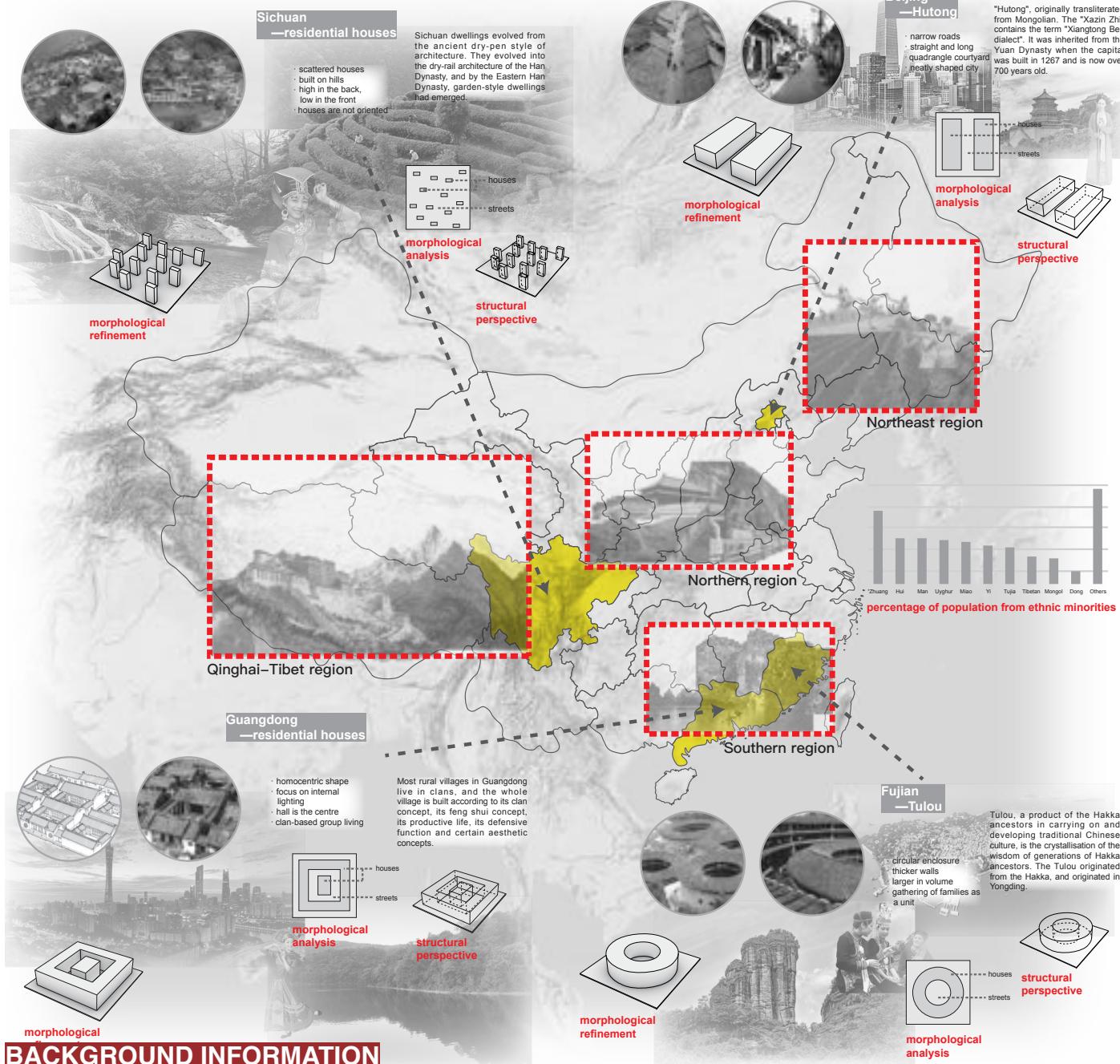
This project is in the future 2080, try to find a kind of solution to the future community style.

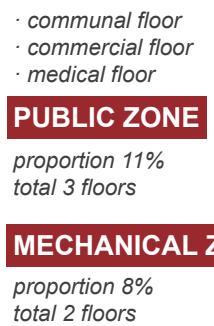
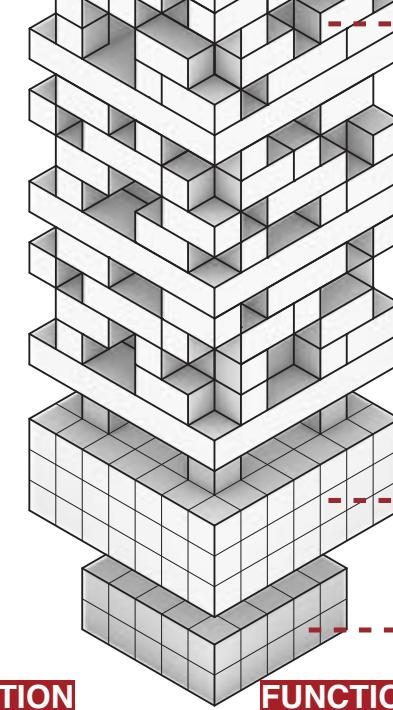
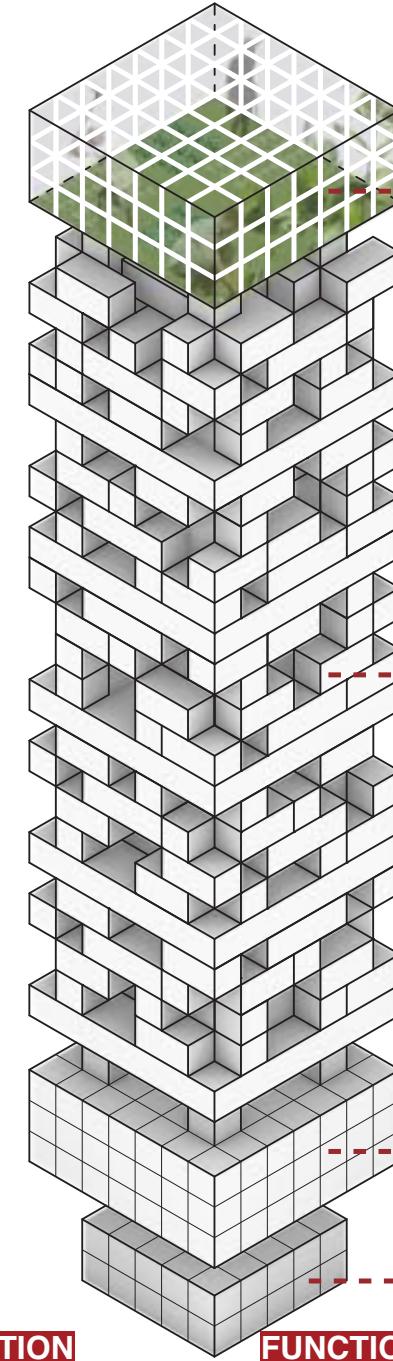
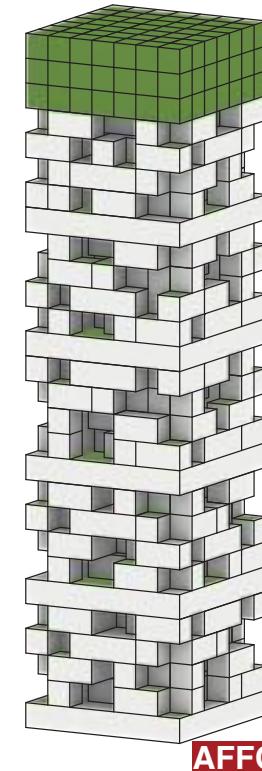
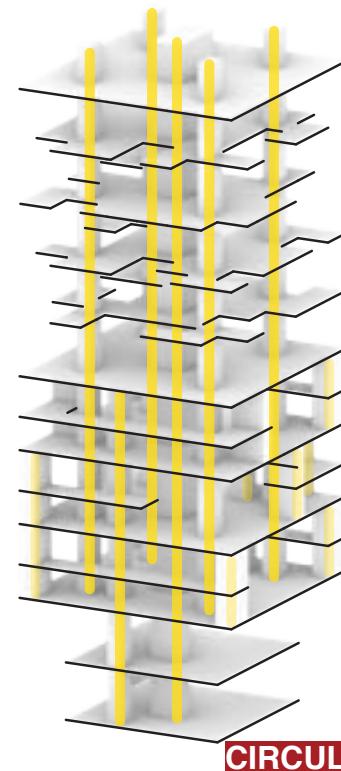
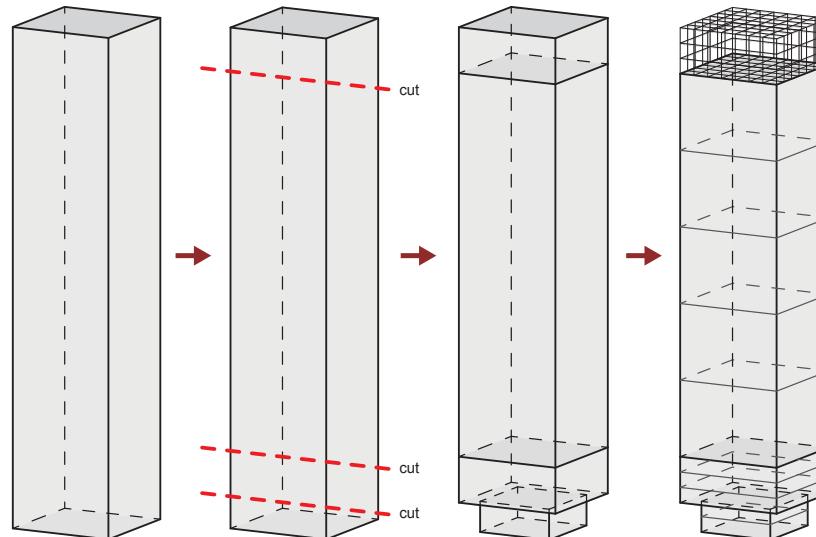
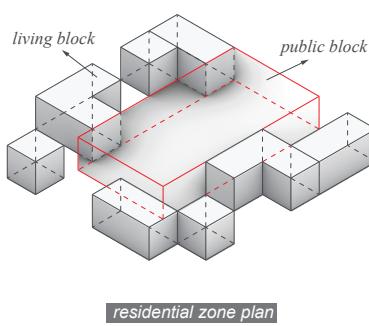
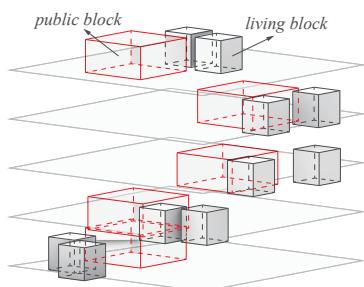
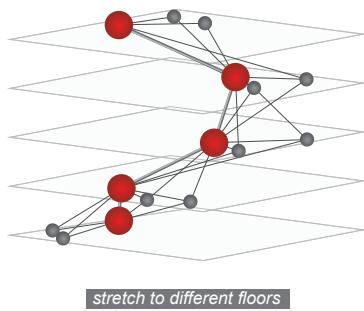
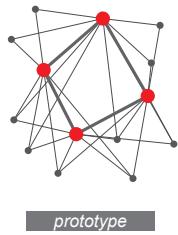


### Nanjing Zhongshan Road



**TYPICAL COMMUNITY ANALYSIS**





## 1+1+1+?

In daily life, people's need can be divided into two different ways: basic need and optional need.

Basic needs are always the same: eatting, sleeping and bathing.

Optional needs are depending on each person's personalities, which are always different. Optional needs can be broadly divided into two categories in terms of space: indoor activity and outdoor activity.

Each size of family is designed to meet as many needs as possible in design of the residential layout.

**Single Person**



Eatting

**Small Family**



Eatting

**Large Family**



Eatting

**Basic need**



Sleeping



Sleeping



Bathing

**Optional need**



Cooking



Reading



Playing Instruments



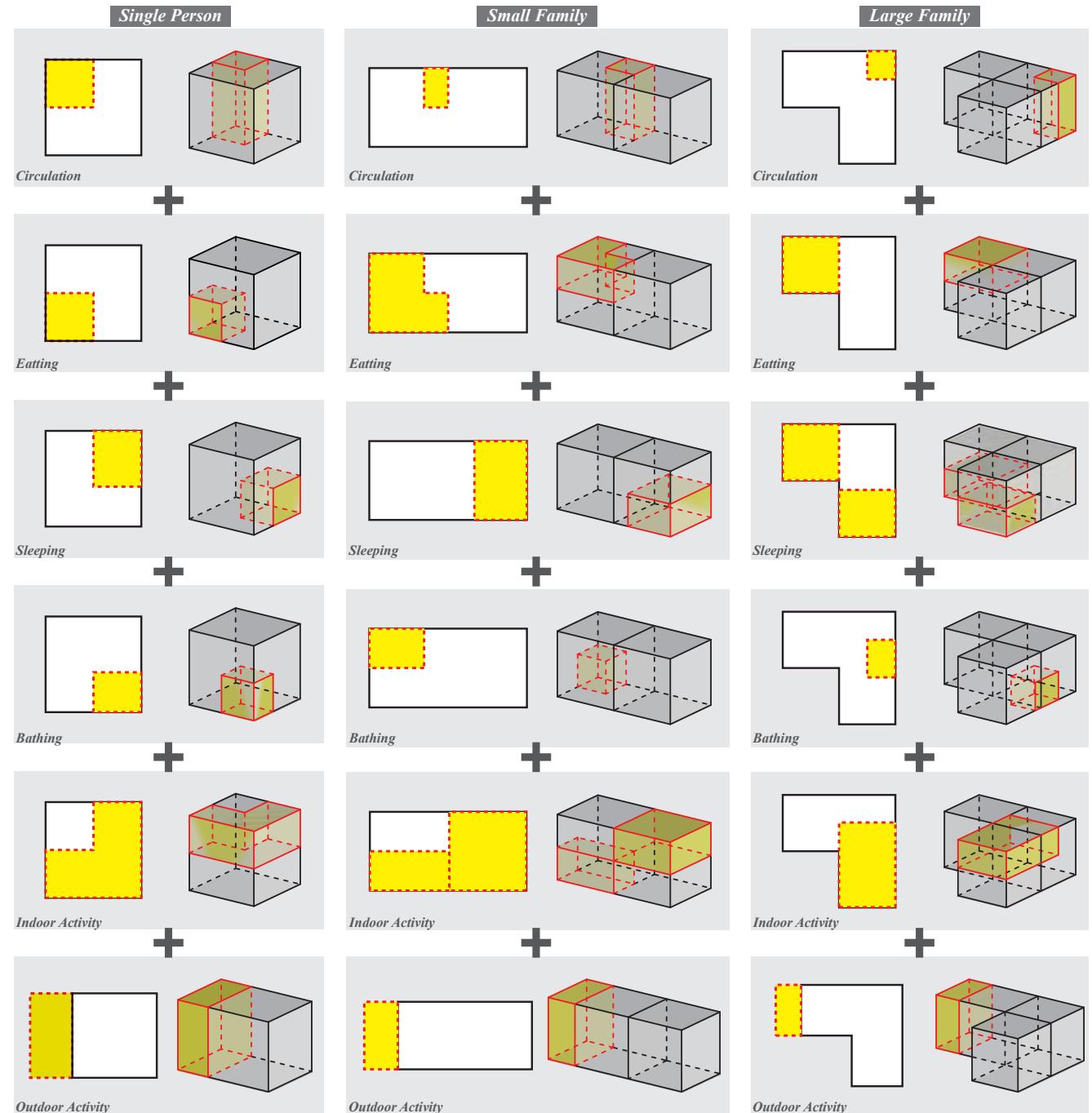
Planting

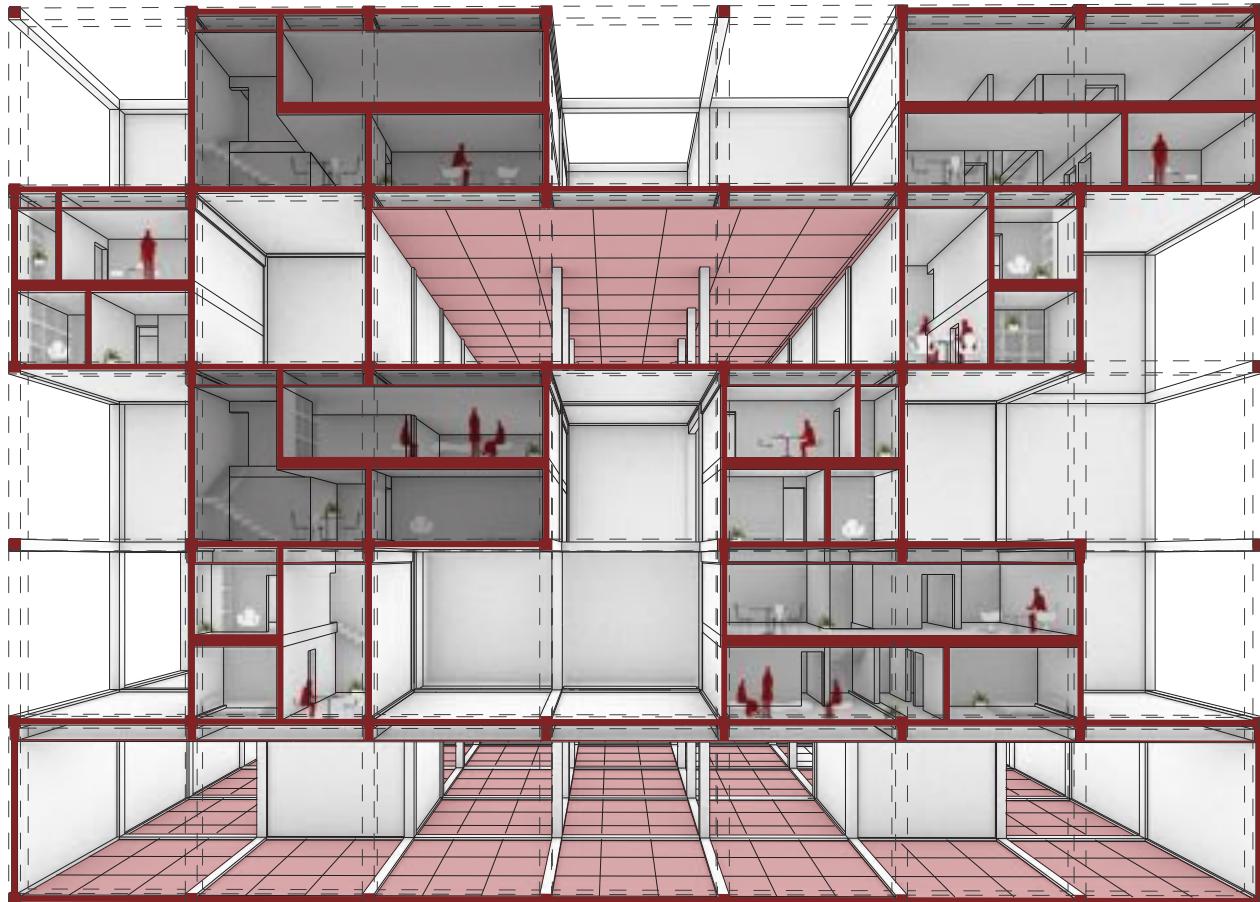
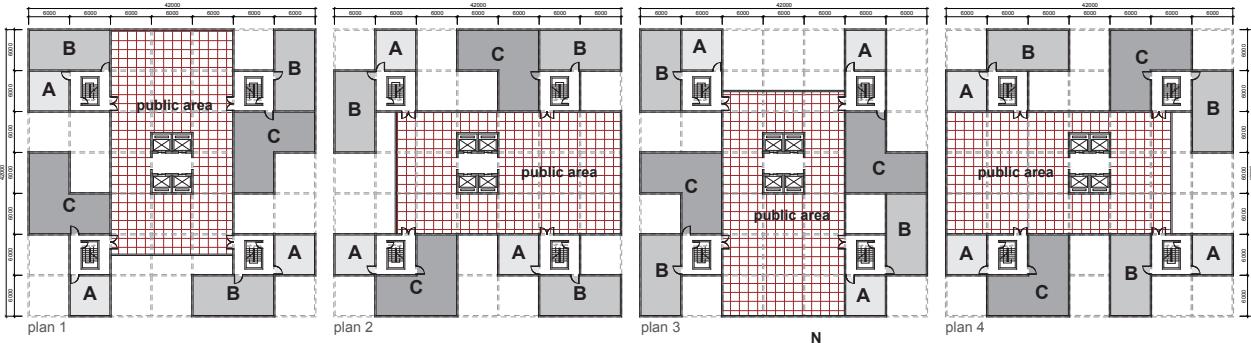


Meeting Friends



Playing Sports

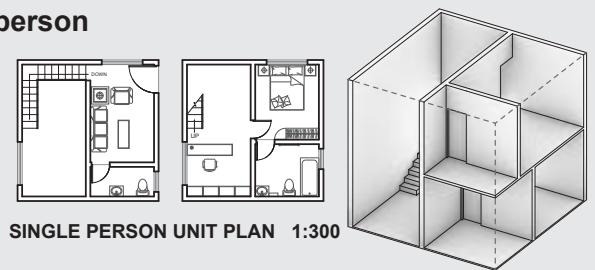




**RESIDENTIAL ZONE UNIT**

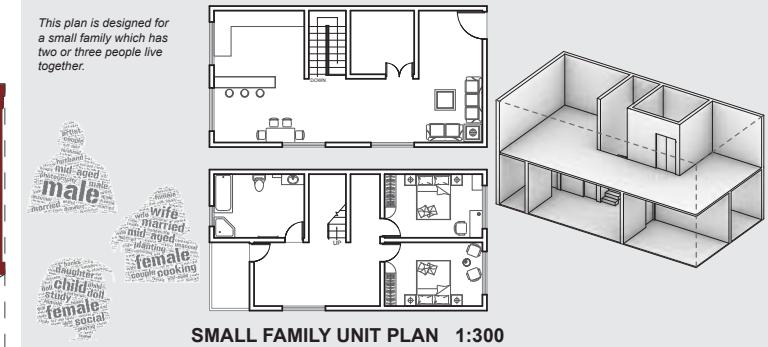
### A : single person

This plan is designed for person who lives alone.



### B : small family

This plan is designed for a small family which has two or three people live together.



### C : large family

This plan is designed for a large family which has more than three people live together.

