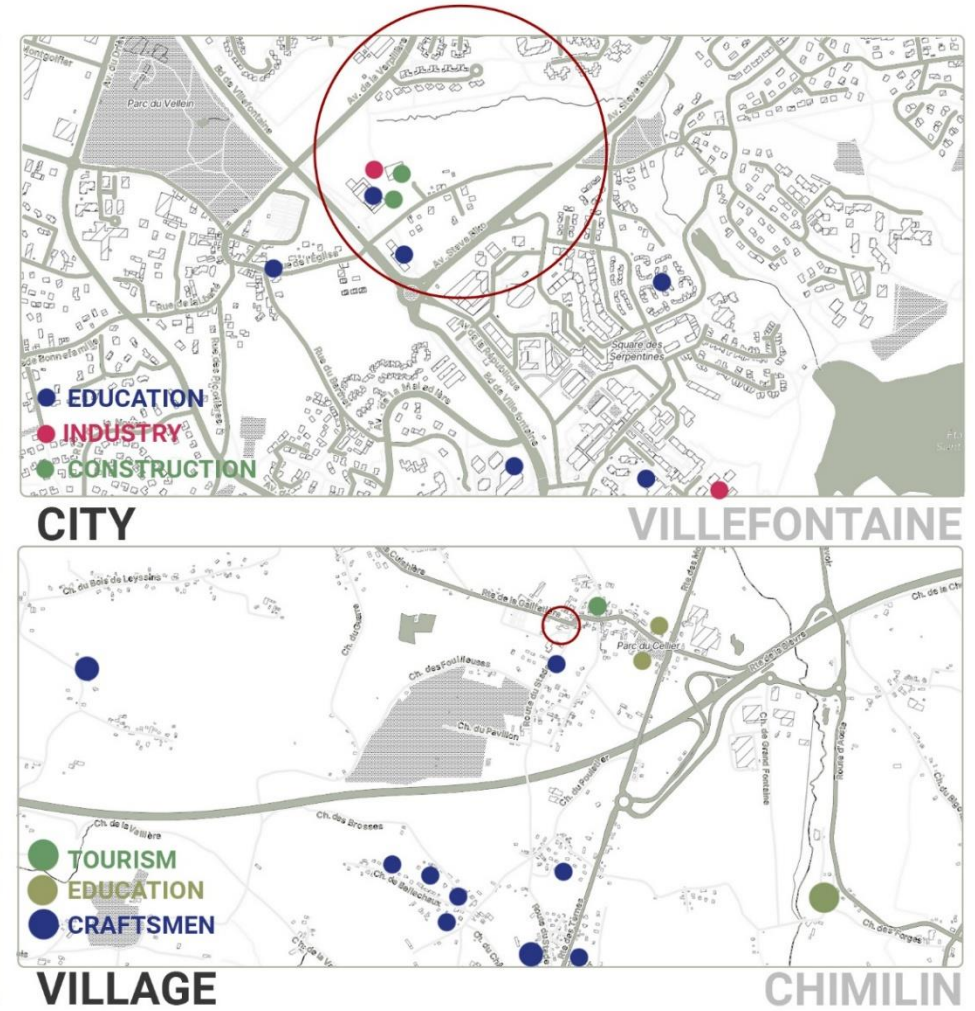
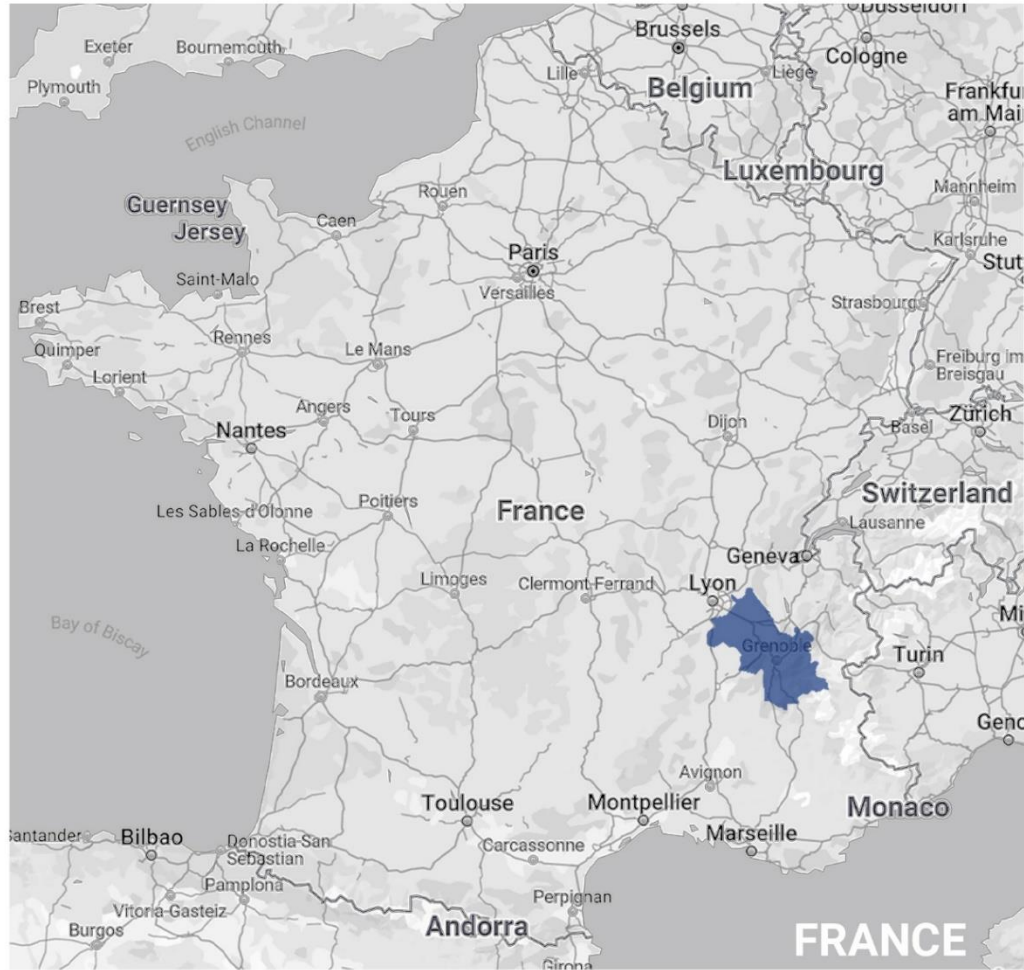




INTERLINKED

NORD ISÈRE- ANALYSIS



NORD ISÈRE- CONNECTING THROUGH MOBILITY AND HERITAGE



EXISTING TRAIN LINES

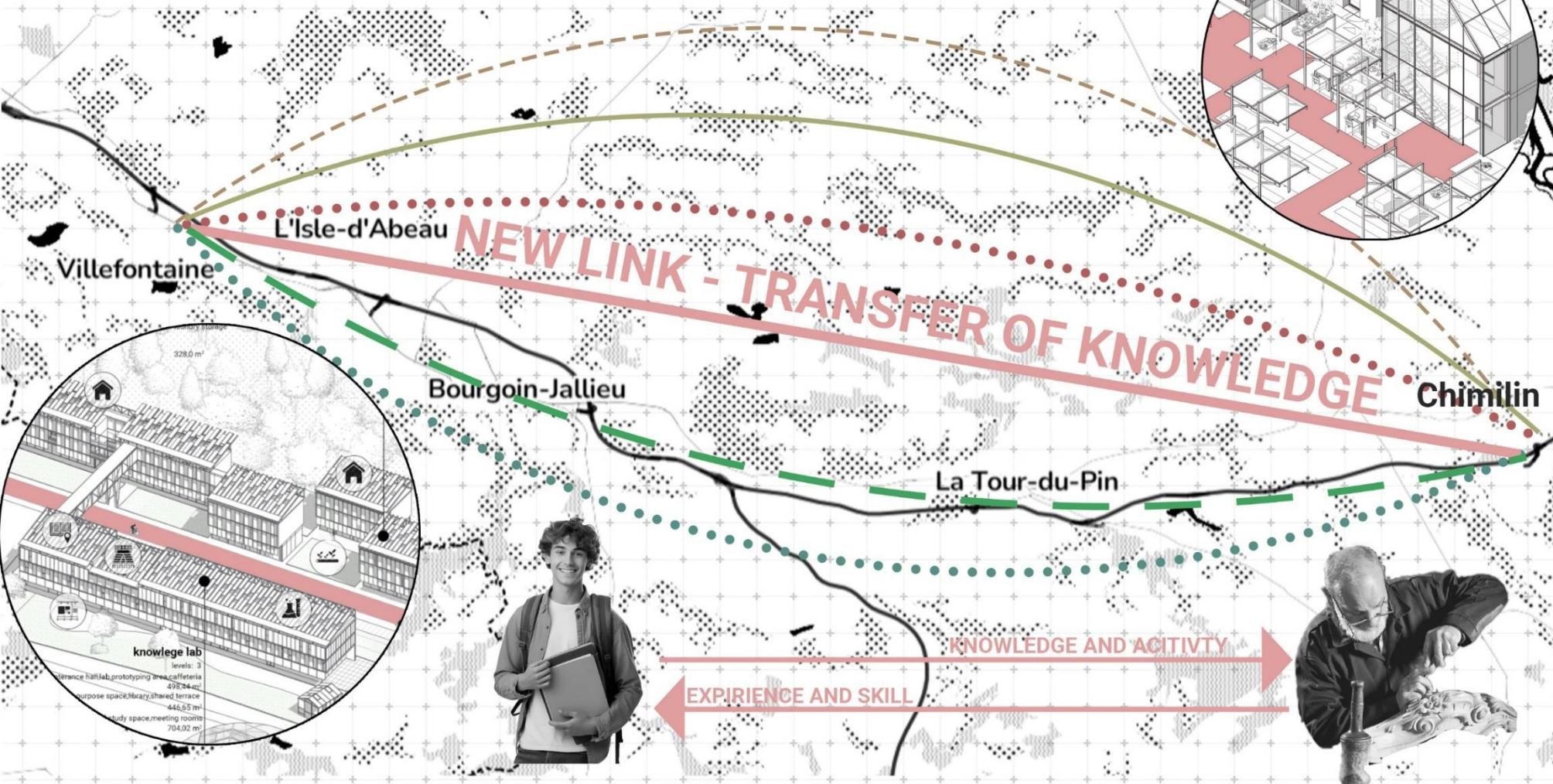
● TRAIN STATIONS ALONG THE RAILWAY

— FUTURE TGV LYON-TURIN

 TEXTILE INDUSTRY HERITAGE

 BIENVENUE À LA FERME/ LOCAL FARM NETWORK

INTERLINKED



EXISTING LINKS

TGV
Gagnez du temps sur le temps.

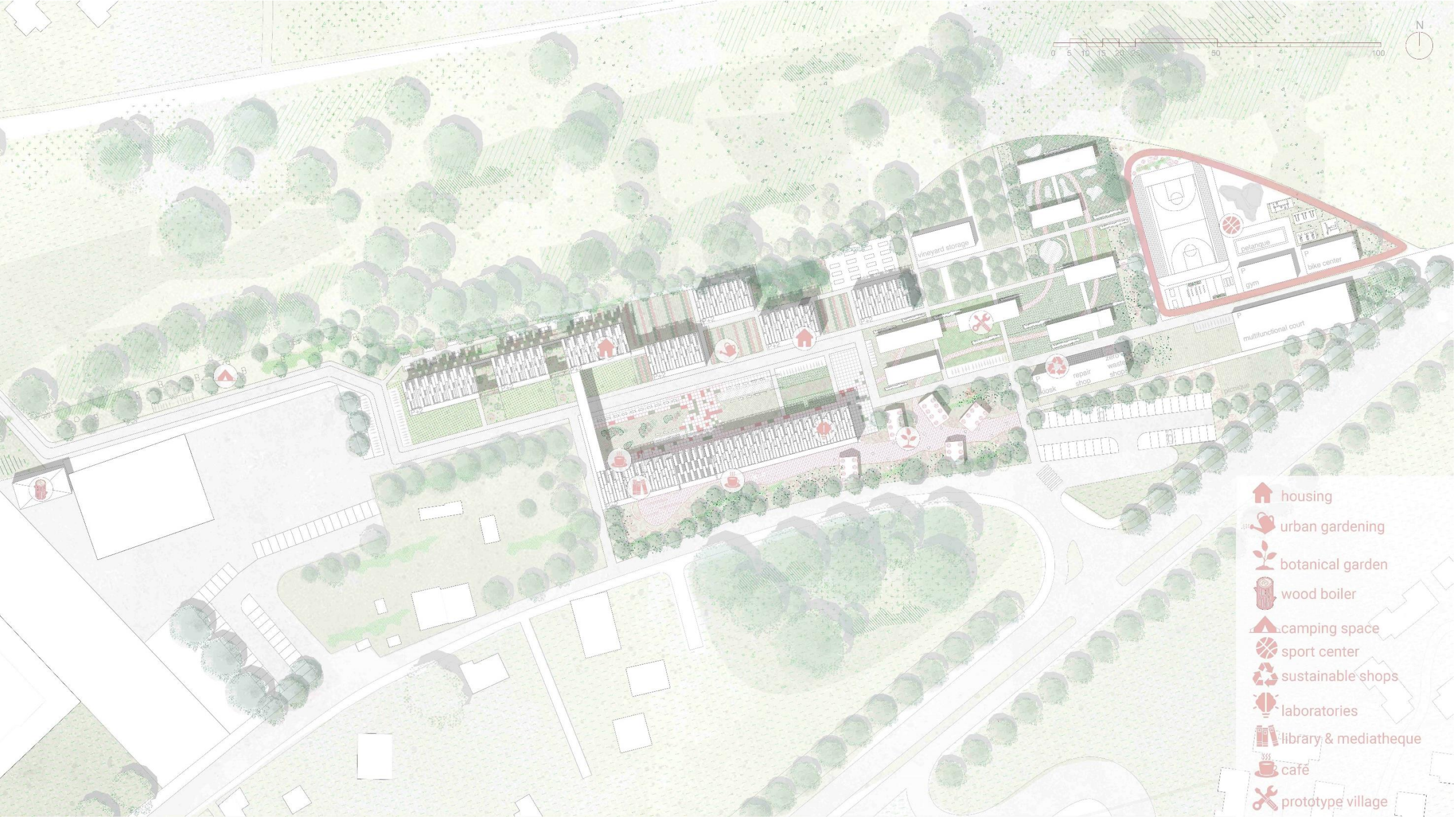
MATERIALS

INDUSTRY

AGRICULTURE

TEXTILE

EXISTING LINKS BETWEEN TWO CITIES ARE FOUND IN THEIR SHARED HISTORY, MATERIAL AND INDUSTRIAL HERITAGE AS WELL AS THE WELL DEVELOPPED MOBILITY- EXISTING AND FUTURE RAILWAYS AND HIGHWAYS. WE INTEND TO DEVELOP A NEW LINK- **A TRANSFER OF KNOWLEDGE** OCCURING BETWEEN STUDENTS IN VILLEFONTAINE, AND ARTISANS IN CHIMILIN. NEW IDEAS AND PRACTICES WILL MEET EXPERIENCE. BY INTERLINKING OLD AND NEW THROUGH SHARED IDENTITIES WE CREATE A PATCHWORK THAT HELPS IN SHAPING THE FUTURE OF THESE TWO PLACES. CHIMILIN SCHOOL WILL HOST EVENTS FOR STUDENTS WHERE THE TWO CAN MEET AND EXCHANGE KNOWLEDGE.



-  housing
-  urban gardening
-  botanical garden
-  wood boiler
-  camping space
-  sport center
-  sustainable shops
-  laboratories
-  library & mediatheque
-  cafe
-  prototype village

vineyard storage

celanque

gym

bike center

multifunctional court

repair shop

zero waste shop

picnic

dormitory - type A

levels: 3

dwellings: 2 x 1 bed bedroom
4 x 2 bed bedroom
4 x 6 bed bedroom
4 x 8 bed bedroom

498,02 m²



common areas: shared living space
shops
laundry storage

328,0 m²

dormitory - type B

levels: 3

dwellings: 2 x 1 bed bedroom
2 x 1 bed bedroom
(accessible)

144,40 m²

common areas: shared living space
shops
laundry storage

91,50 m²

knowledge lab

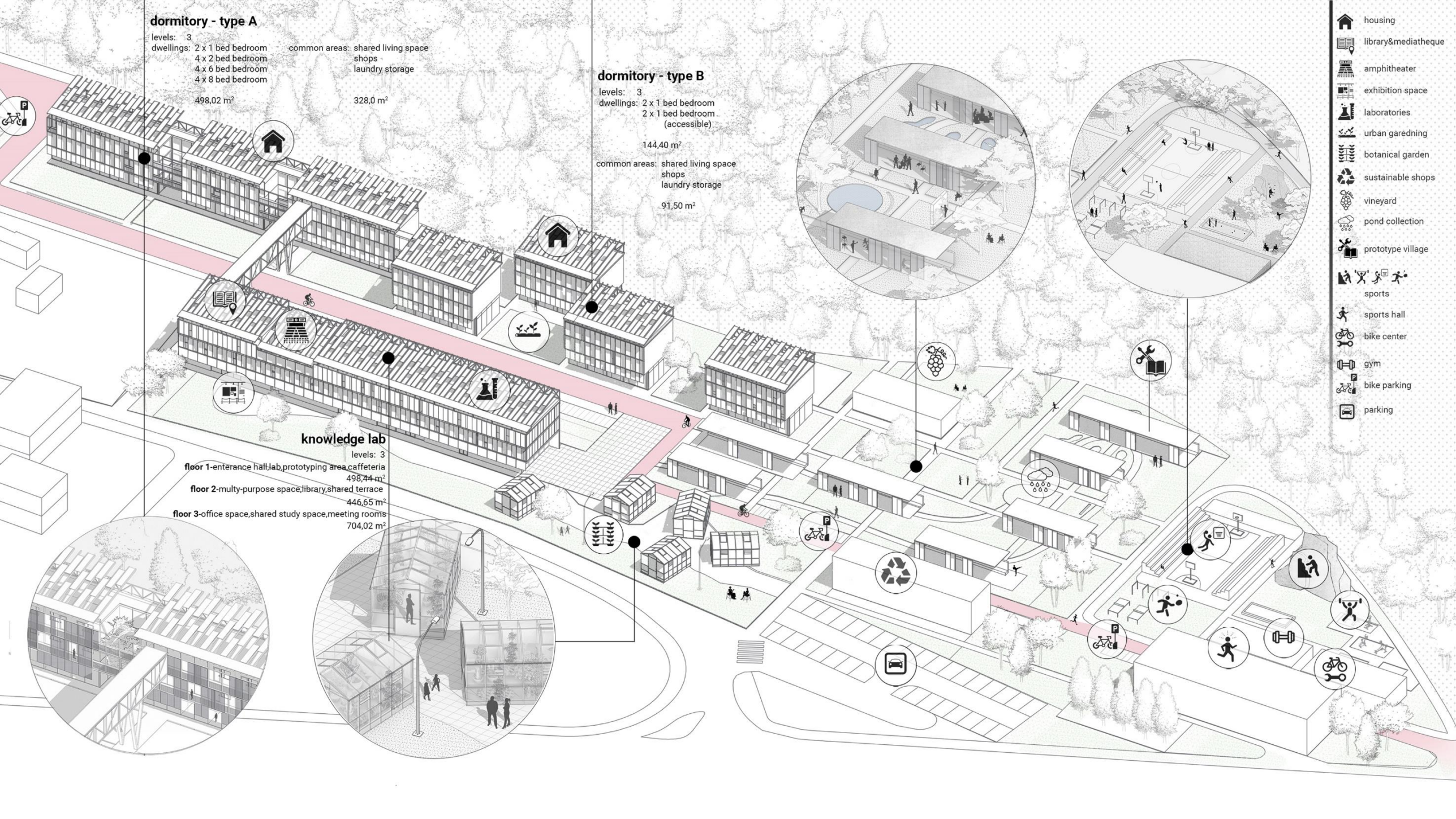
levels: 3

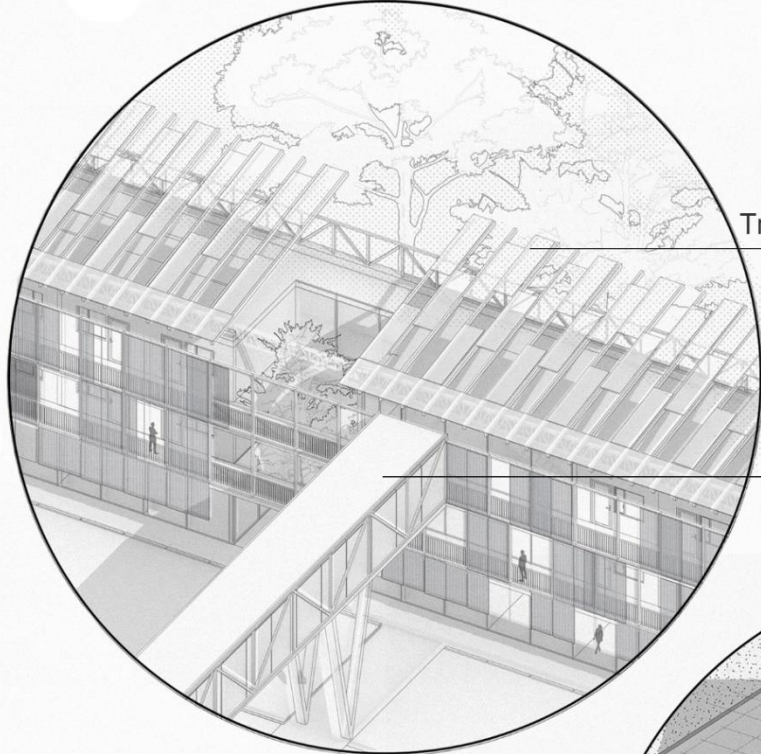
floor 1-entrance hall,lab,prototyping area,caffeteria
498,44 m²

floor 2-multy-purpose space,library,shared terrace
446,65 m²

floor 3-office space,shared study space,meeting rooms
704,02 m²

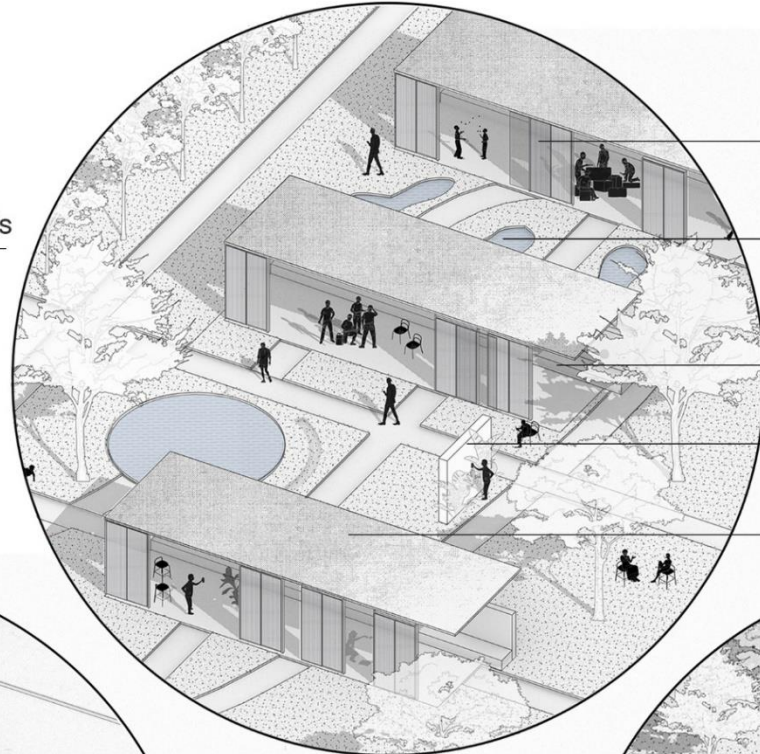
- housing
- library&mediatheque
- amphitheater
- exhibition space
- laboratories
- urban gardening
- botanical garden
- sustainable shops
- vineyard
- pond collection
- prototype village
- sports
- sports hall
- bike center
- gym
- bike parking
- parking





Transparent photovoltaic panels

Pedestrian bridge



Locally sourced linen sun shade panels

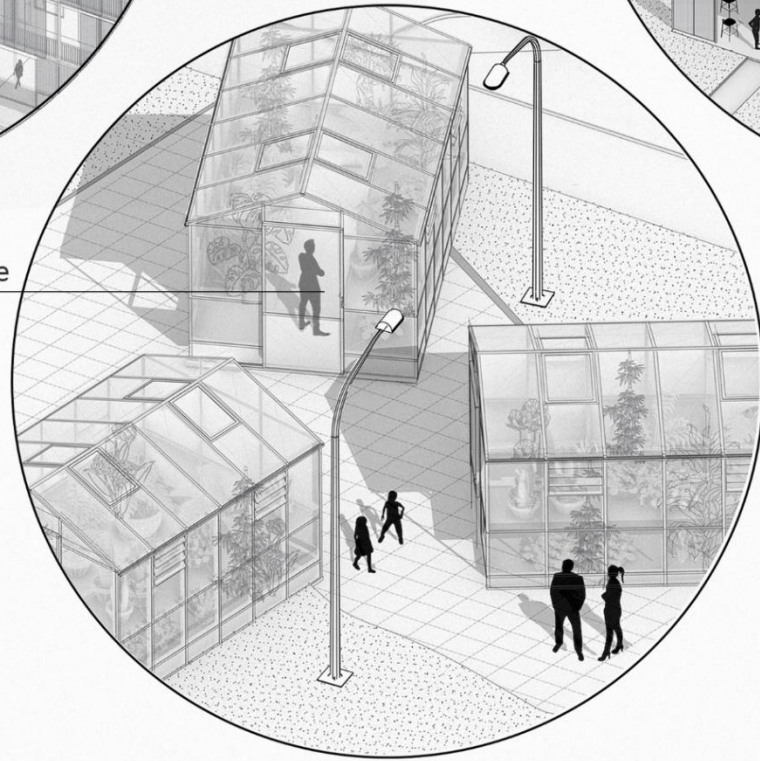
Water retention ponds

Pisé walls/benches

Insect hotel- microclimate preservation

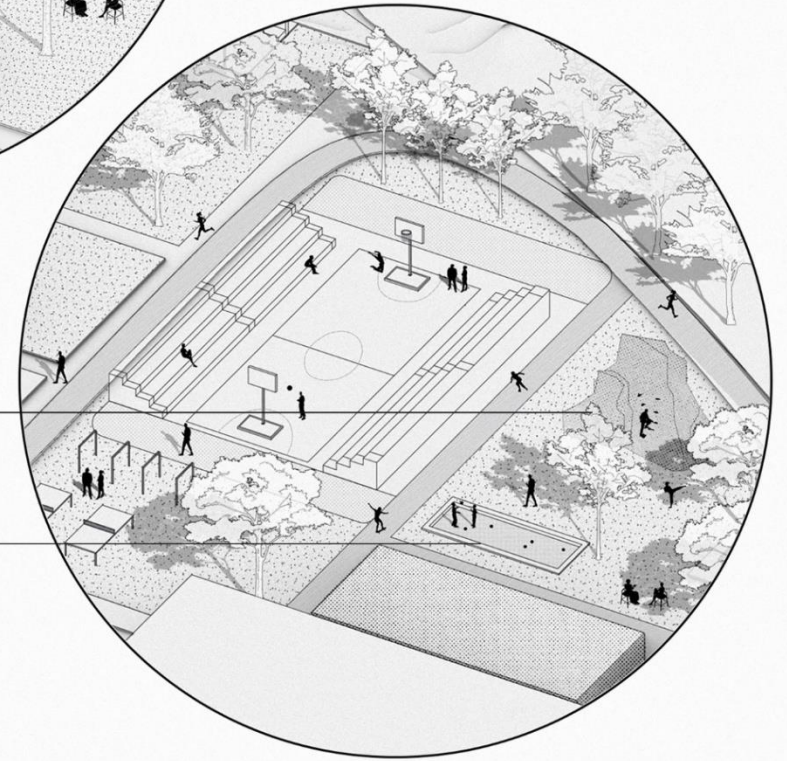
Prototype village station

Bioclimatic greenhouse



Climbing rock

Pétanque court

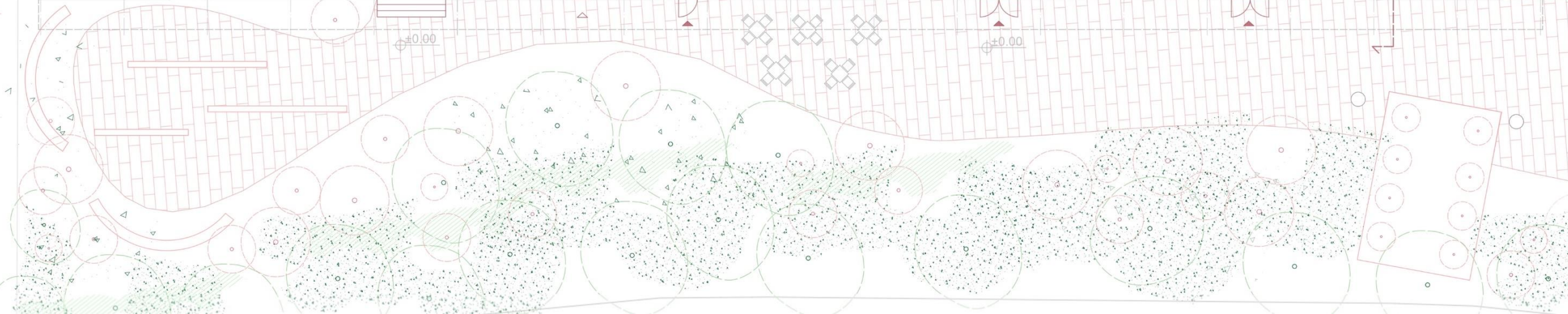
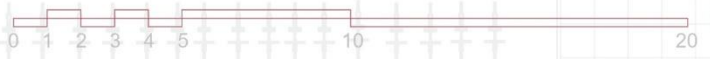






KNOWLEDGE LAB GROUND FLOOR

- 1 Entrance hall
- 2 Reception
- 3 Laboratory
- 4 Prototyping area
- 5 Restroom
- 6 Hallway
- 7 Cloakroom
- 8 Kitchen and dining
- 9 Staff hallway
- 10 Machine room
- 11 Open amphitheatre
- 12 Entrance hall
- 13 Storage room
- 14 Amphitheatre service room
- 15 Restroom
- 16 Coffee shop
- 17 Coffee shop storage



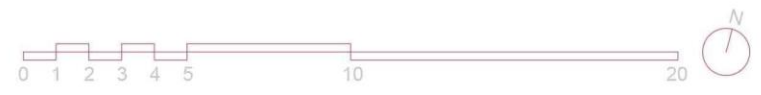
KNOWLEDGE LAB FIRST FLOOR

KNOWLEDGE LAB SECOND FLOOR

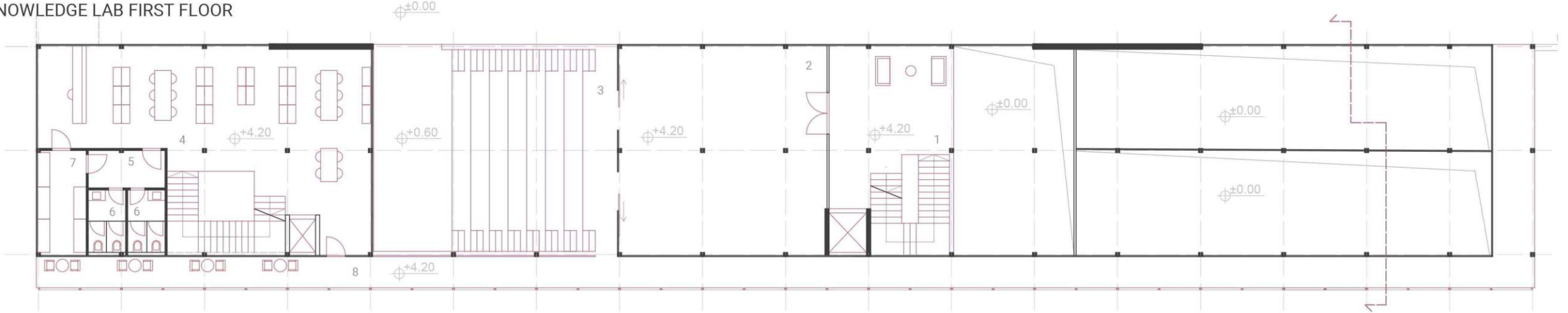
- 1 Hall
- 2 Multi-purpose space
- 3 Open amphitheatre
- 4 Library
- 5 Hallway
- 6 Restroom
- 7 Library archive
- 8 Terrace

- 11 Hall
- 12 Office space
- 13 Office service room
- 14 Small meeting room
- 15 Large meeting room
- 16 Restroom
- 17 Kitchen with dining

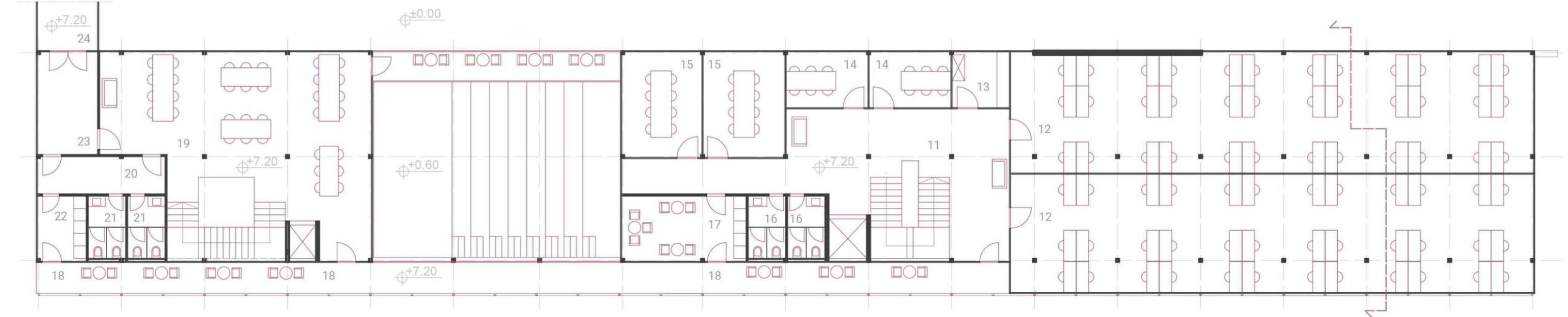
- 18 Terrace
- 19 Shared study space
- 20 Hallway
- 21 Restroom
- 22 Kitchenette
- 23 Hallway
- 24 Pedestrian bridge to dormitory



KNOWLEDGE LAB FIRST FLOOR

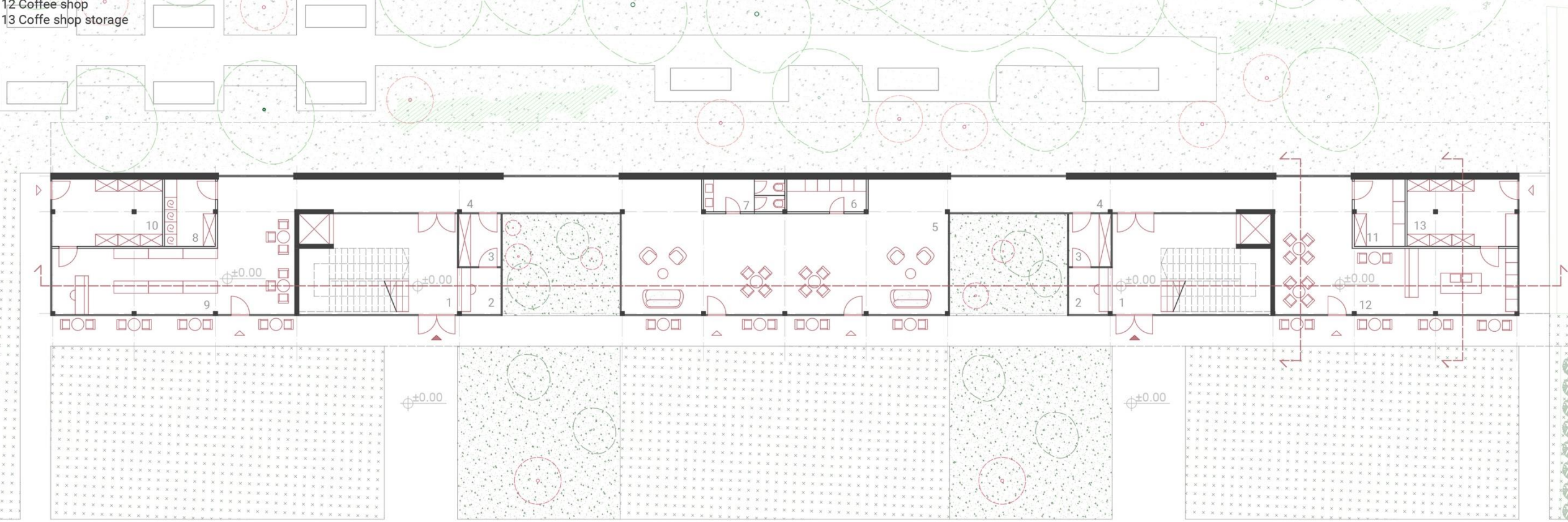


KNOWLEDGE LAB SECOND FLOOR



DORMITORY TYPE A - GROUND FLOOR

- 1 Entrance hall with staircase
- 2 Reception
- 3 Locker room
- 4 Hallway
- 5 Shared living space
- 6 Kitchenette
- 7 Restroom
- 8 Laundry room
- 9 Shop
- 10 Shop storage
- 11 Storage room
- 12 Coffee shop
- 13 Coffe shop storage

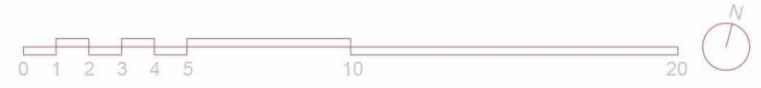


DORMITORY FIRST FLOOR

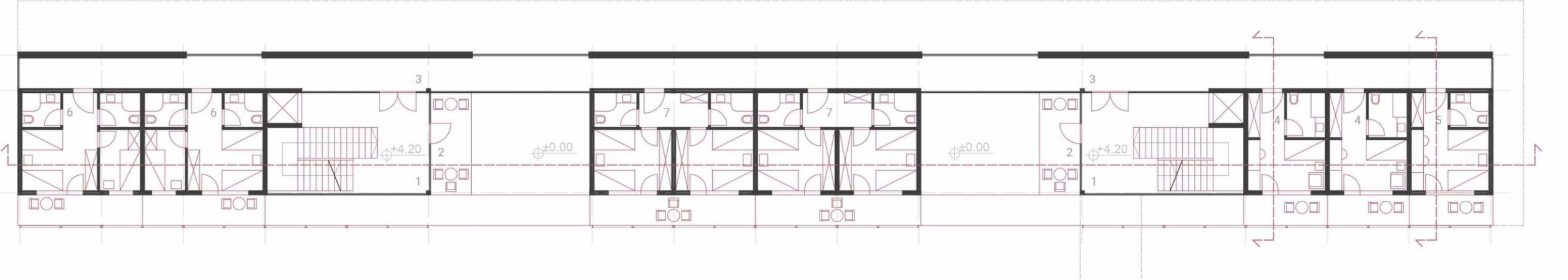
DORMITORY SECOND FLOOR

- 1 Hall
- 2 Shared terrace
- 3 Hallway
- 4 One bed bedroom
- 5 Two bed bedroom
- 6 Six bed bedroom
- 7 Eight bed bedroom

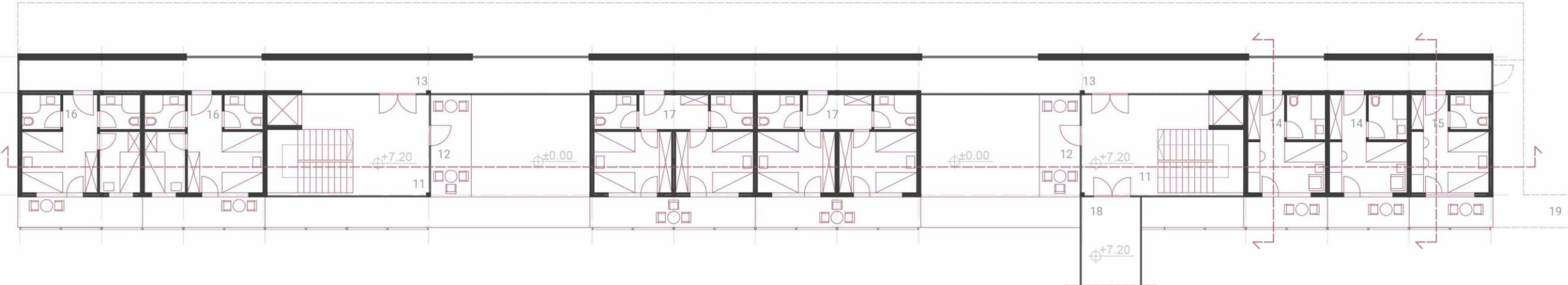
- 11 Hall
- 12 Shared terrace
- 13 Hallway
- 14 One bed bedroom
- 15 Two bed bedroom
- 16 Six bed bedroom
- 17 Eight bed bedroom
- 18 Pedestrian bridge to knowledge lab
- 19 Potential pedestrian bridge to additional units



DORMITORY FIRST FLOOR



DORMITORY SECOND FLOOR



DORMITORY TYPE B - ADITIONAL UNITS

GROUND FLOOR

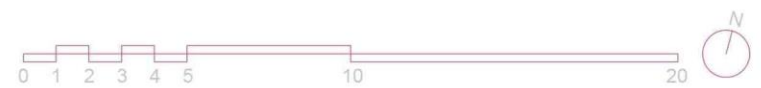
- 1 Entrance hall
- 2 Locker room
- 3 Hallway
- 4 Storage and laundry
- 5 Restroom
- 6 Shared kitchen with dining
- 7 Shared living space
- 8 Shop
- 9 Shop storage

FIRST FLOOR

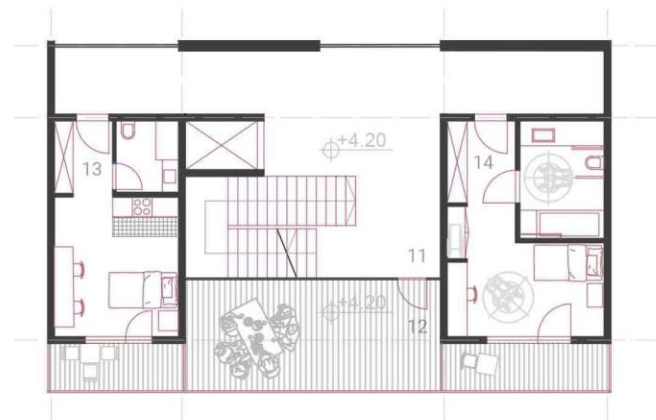
- 11 Hall
- 12 Shared terrace
- 13 One bed bedroom
- 14 One bed bedroom (accessible)

SECOND FLOOR

- 21 Hall
- 22 Shared terrace
- 23 One bed bedroom
- 24 One bed bedroom (accessible)
- 25 Potential pedestrian bridge to dormitory

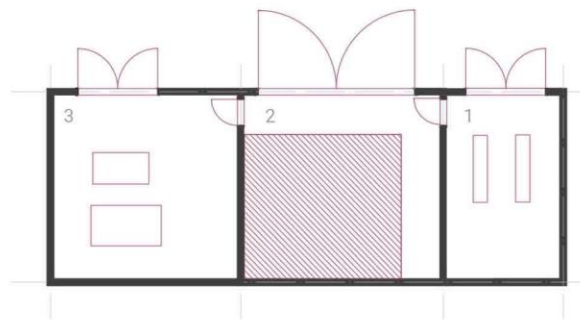


FIRST FLOOR



WOOD BOILER ROOM

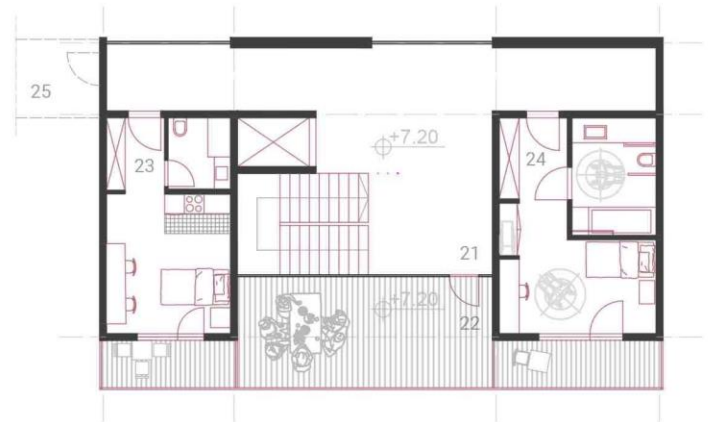
- 1 Shredder room
- 2 Silo
- 3 Boiler room

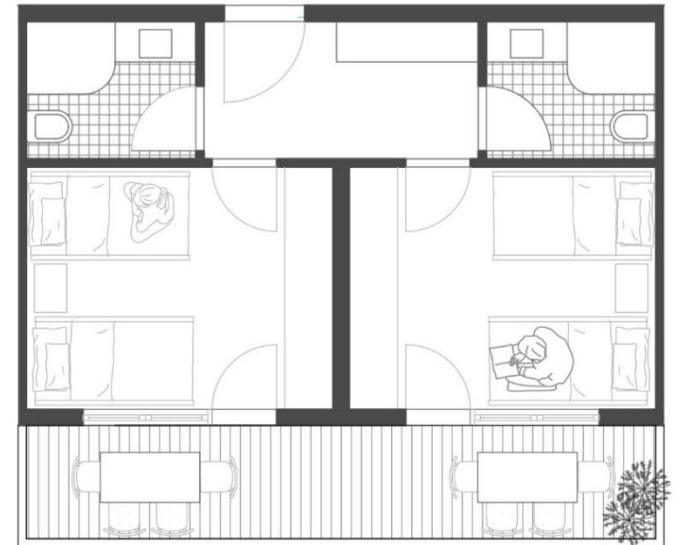
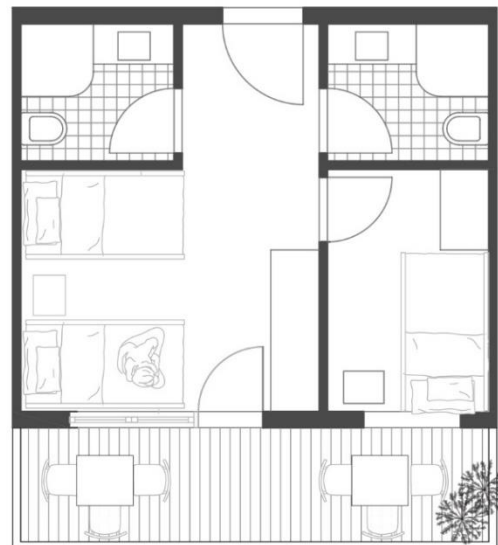
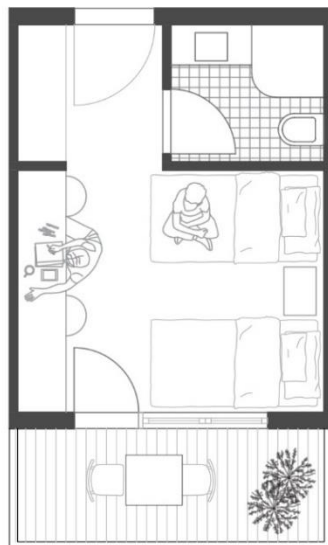
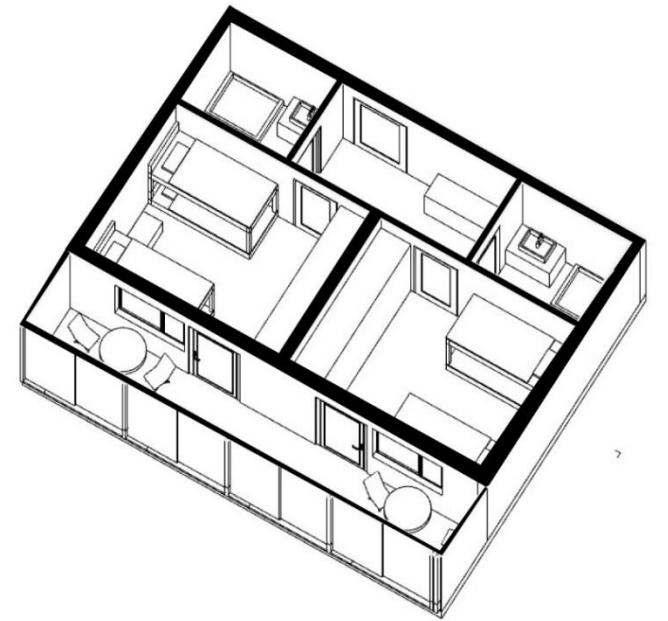
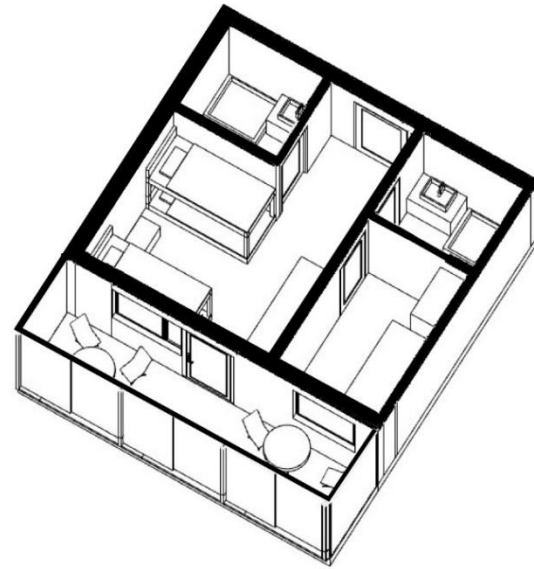
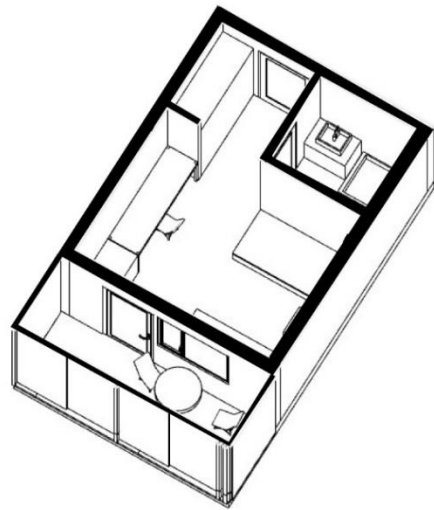
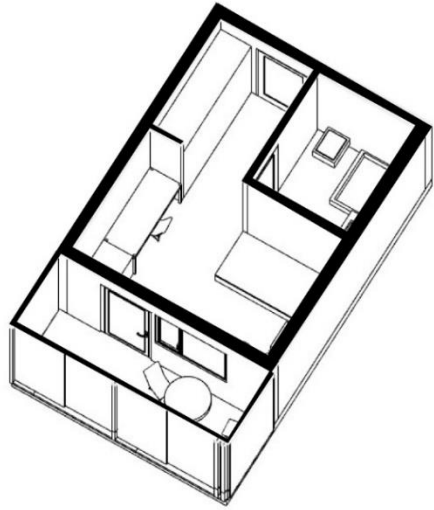


GROUND FLOOR



SECOND FLOOR





One bed bedroom

Two bed bedroom

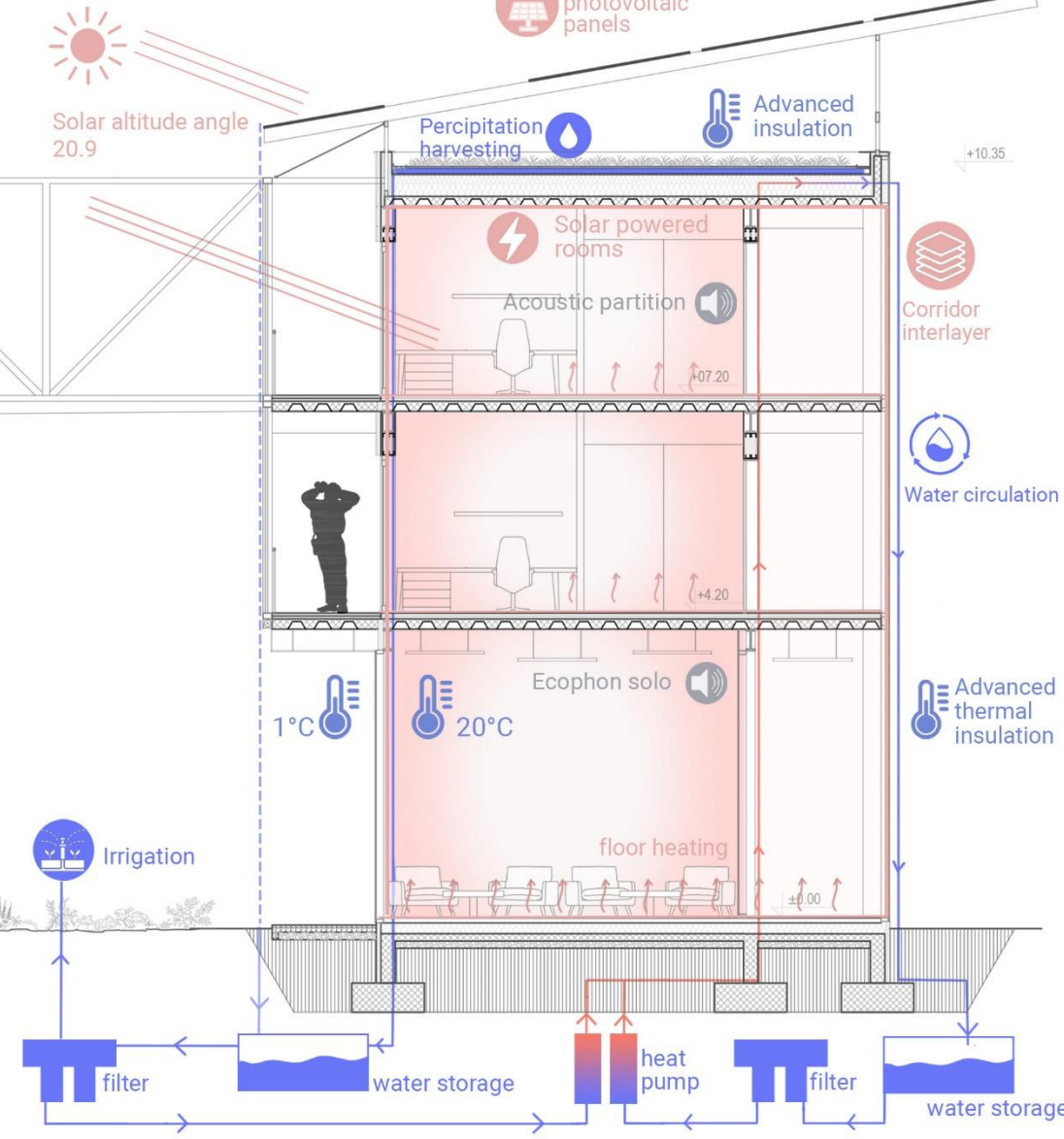
Six bed bedroom

Eight bed bedroom

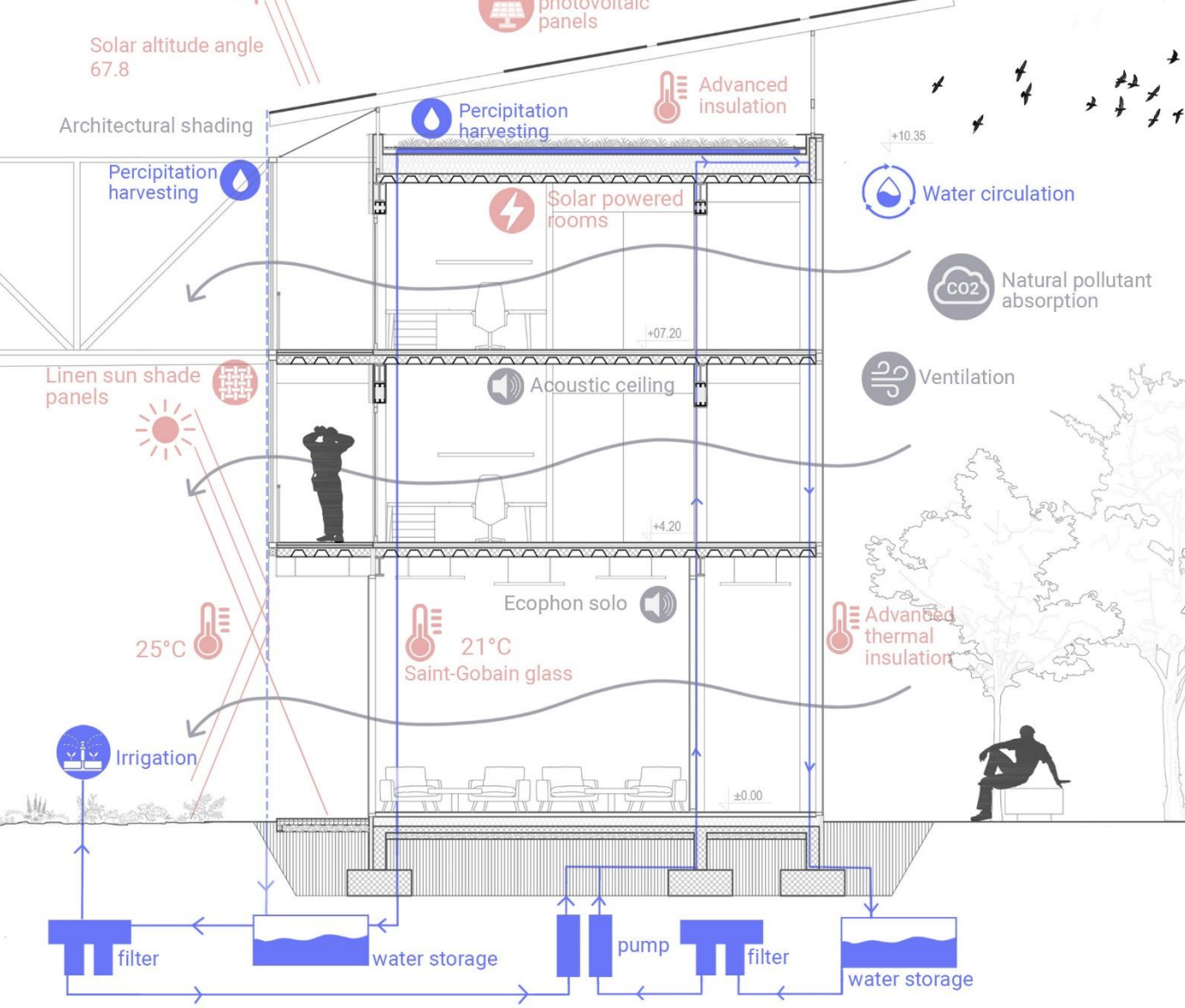


CIRCULATION AND COMFORT- RESIDENTIAL

WINTER



SUMMER



CIRCULATION AND COMFORT- KNOWLEDGE LAB

See



Feel



Hear



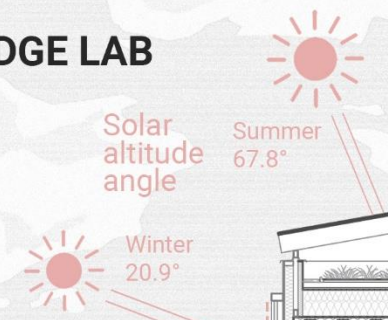
Breathe



6 CLEAN WATER AND SANITATION

3 GOOD HEALTH AND WELL-BEING

7 AFFORDABLE AND CLEAN ENERGY



Transparent photovoltaic panels

Percipitation harvesting

Advanced insulation

Linen sun shade panels

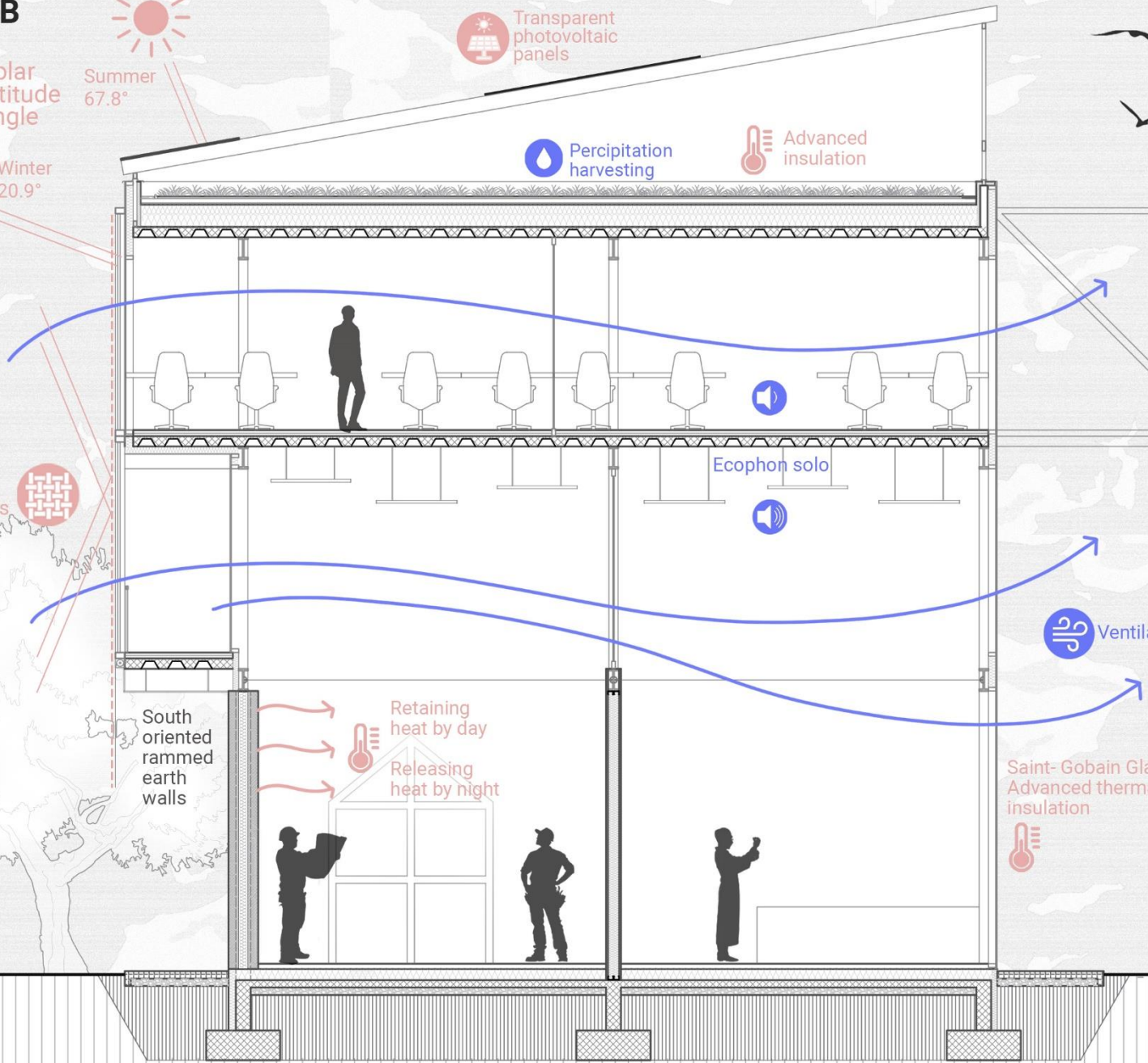
South oriented rammed earth walls

Retaining heat by day
Releasing heat by night

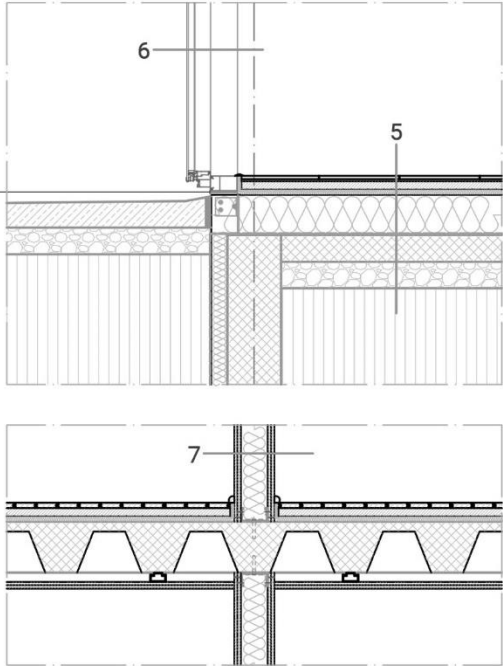
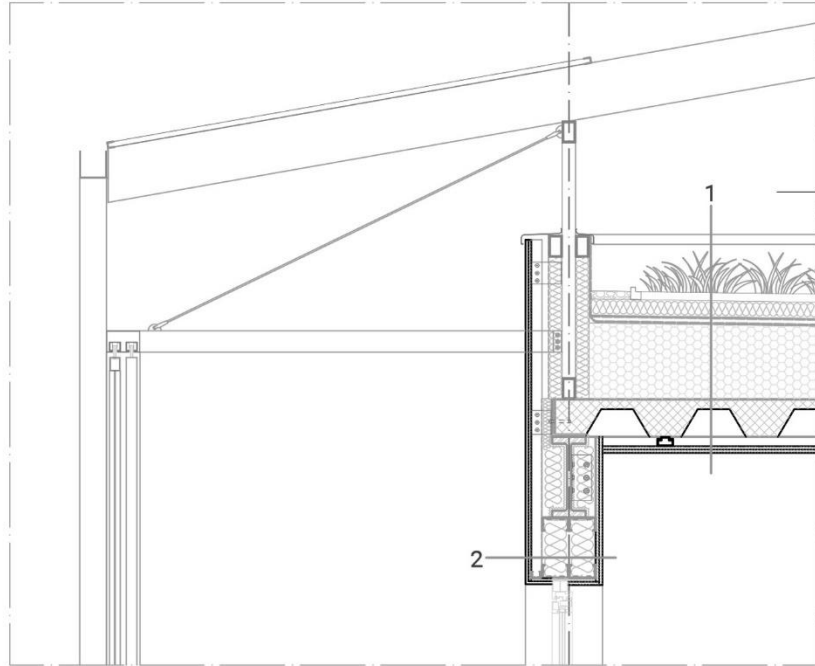
Ecophon solo

Ventilation

Saint-Gobain Glass Advanced thermal insulation



ARCHITECTURAL DETAILS



3 Interior floor slab

Engineered wood flooring
 WEBER WeberFloor parketofix
 WEBER WeberFloor 150 dura screed 30 mm
 Underfloor heating cables
 WEBER Weberdry pur seal hydroinsulation
 ISOVER flo sound insulation 20mm
 WEBER WeberFloor 4716 primer
 Composite floor slab 190mm
 ECOPHON solo textile panel substructure
 ECOPHON solo textile acoustic ceiling panels 40mm

4 terrace floor

Ceramic tiles
 WEBER Weberset SPF tile adhesive
 WEBER WeberFloor 4640 external screed 40 mm
 WEBER Weberdry pur seal hydroinsulation
 Composite floor slab 190mm
 Steel substructure, facade ventilation
 Outdoor cement board
 WEBER Weberend aid stipple render
 WEBER weberpral M render

5 Ground floor

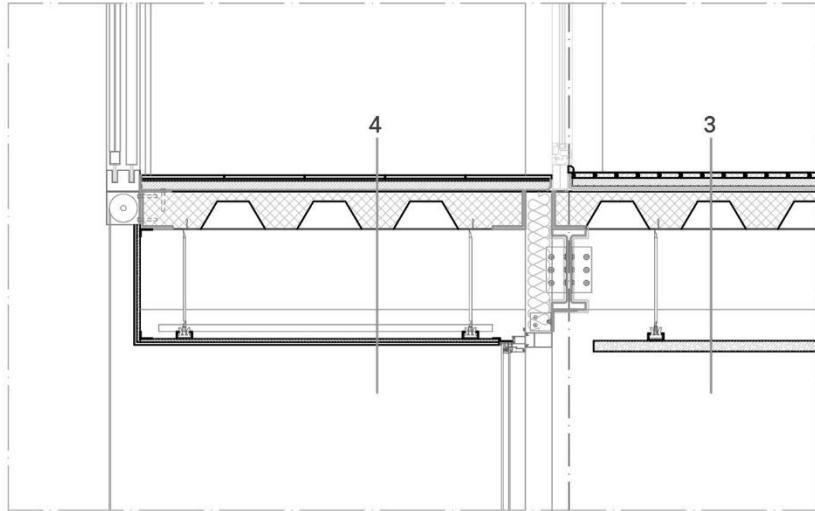
Ceramic tiles
 WEBER Weberset SPF tile adhesive
 WEBER WeberFloor 150 dura screed 30 mm
 Underfloor heating cables
 WEBER Weberdry pur seal hydroinsulation
 ISOVER flo sound insulation 20mm
 ISOVER mineral wool insulation 150mm
 WEBER Weberotec Superflex 10 hydroinsulation
 CHRYSO EnviroMix concrete 100mm
 Gravel 100mm

6 Curtain wall

Steel substructure
 SAINT GOBAIN SGG Pacific sky glass

7 Interior wall in rooms

RIGIPS Rigidur H 2x12.5mm
 RIGIPS RigiProfil MultiTec CW 100mm
 ISOVER steel frame infill batt 100mm
 RIGIPS Rigidur H 2x12.5mm



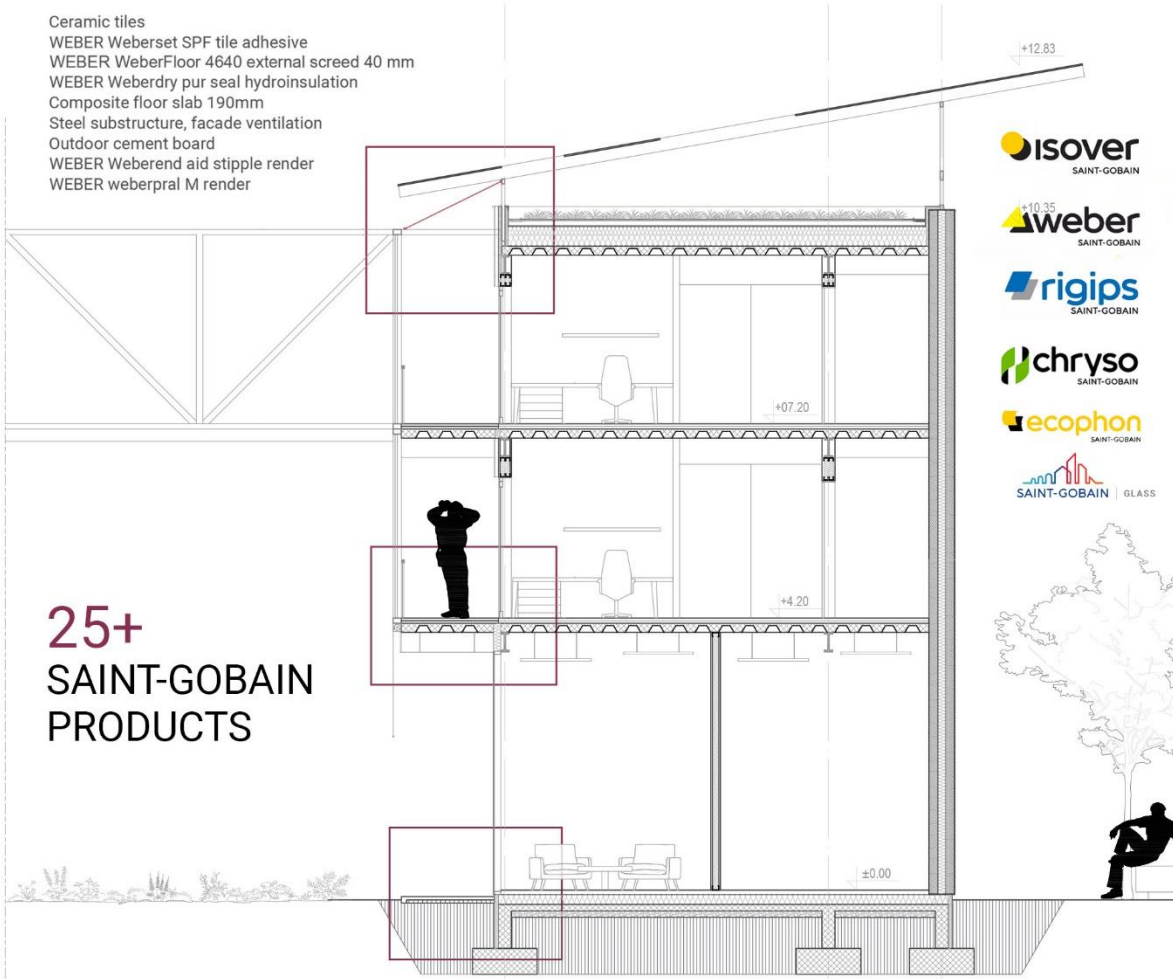
1 Flat green roof

Dry-loving vegetation
 Extensive mineral substrate 30mm
 ISOVER Flora hydrophilic panels 50mm
 Filter fabric
 Drainage studded foil
 Protective geotextiles
 Water-proofing resistant to root penetration
 ISOVER eps 150 thermal insulation with slope wedges
 ISOVER eps 100
 Vapour barrier
 Composite floor slab 190mm
 RIGIPS R-CD 27/60 Rigiprofil
 RIGIPS energoboard re plasterboard 12.5mm

2 Exterior wall

WEBER weberpral M render
 WEBER Weberend aid stipple render
 Outdoor cement board
 Steel substructure, facade ventilation
 ISOVER Vario KM Duplex hydroinsulation
 RIGIPS RigiProfil MultiTec CW 2x100mm
 ISOVER steel frame infill batt 2x100mm
 RIGIPS Rigidur H 2x12.5mm

25+
 SAINT-GOBAIN
 PRODUCTS



ENERGY ANALYSIS TOOL

ZEBRA (ZERO ENERGY BUILDING REDUCED ALGORITHM)

ENERGY BALANCE

PRIMARY ENERGY CONSUMPTION – 116.7 KWH/M2(TFA)/A



UK Research and Innovation



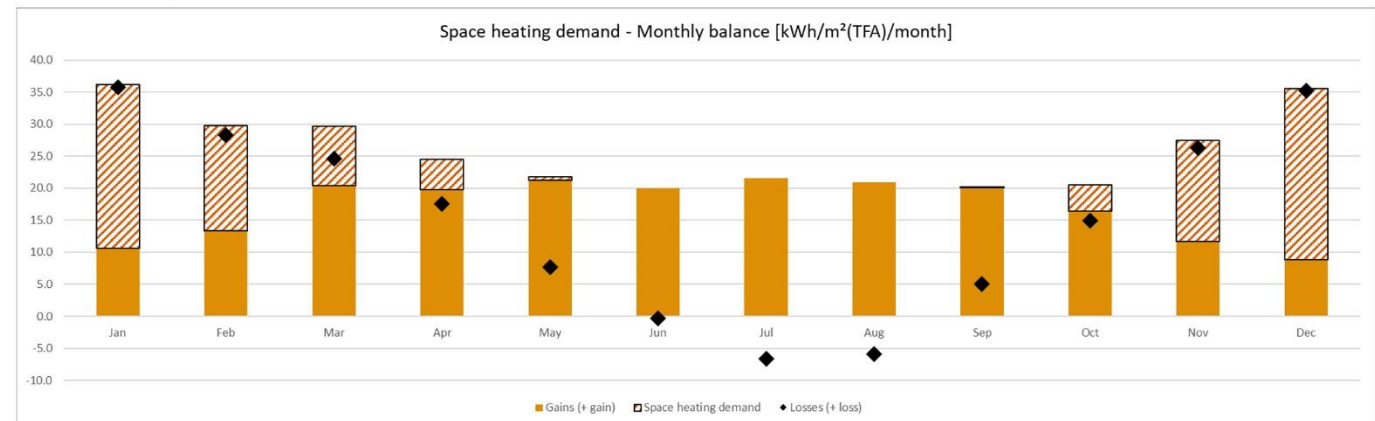
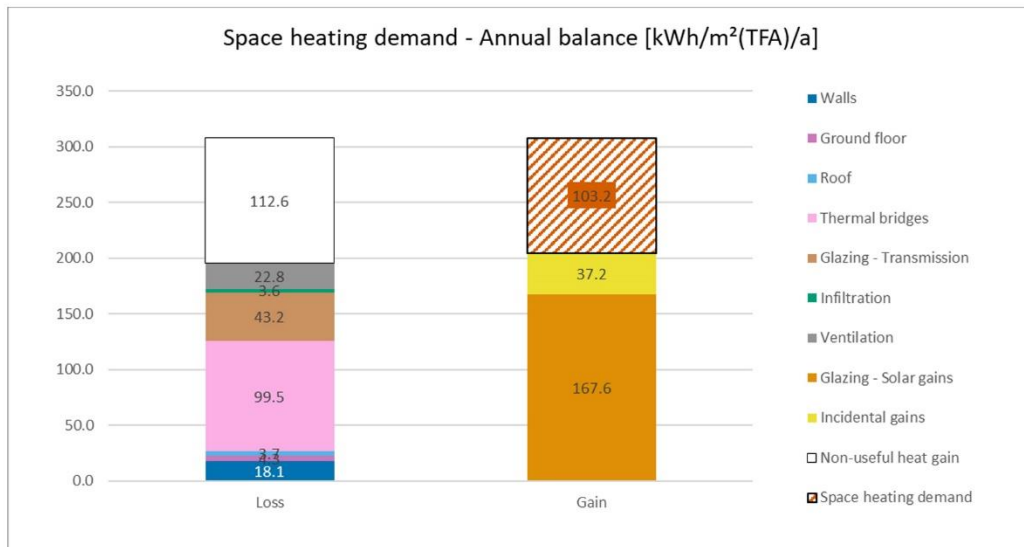
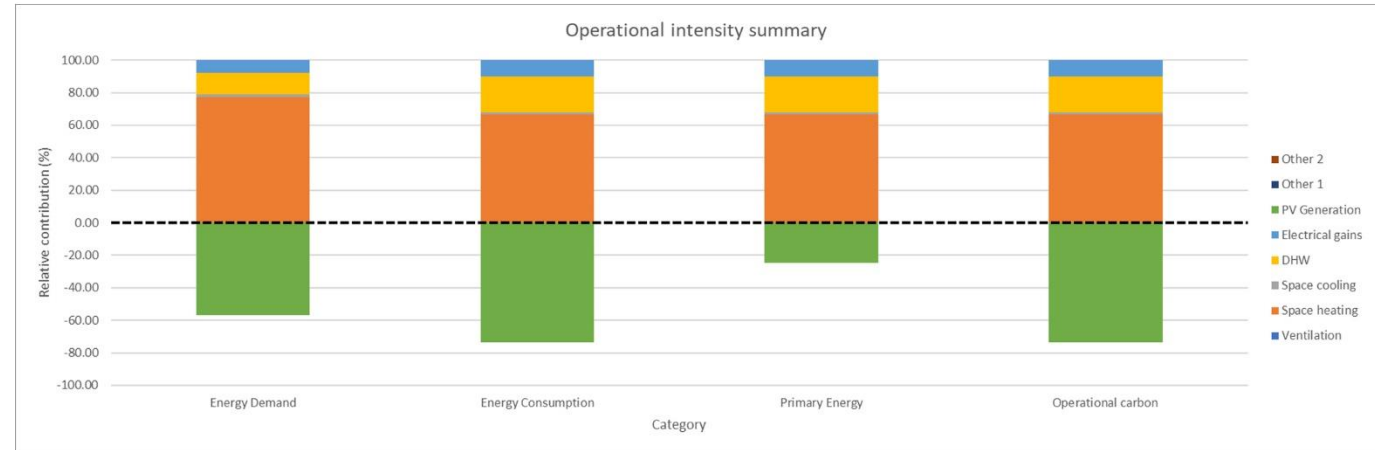
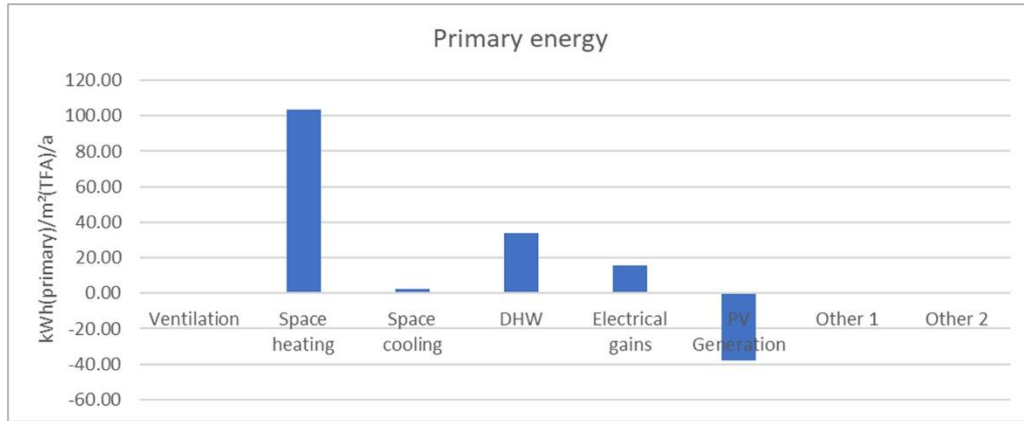
ACTIVE BUILDING CENTRE RESEARCH PROGRAMME



UNIVERSITY OF BATH



ENERGY ANALYSIS KEY OUTPUTS

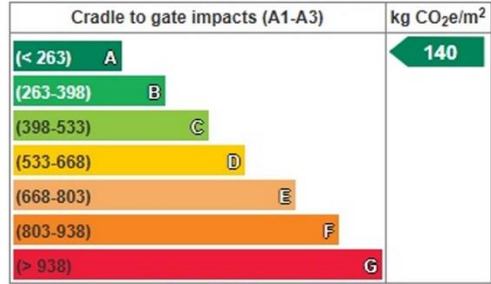


LCA ANALYSIS

▼ Results and benchmarking - Design: 2 - INTERLINKED

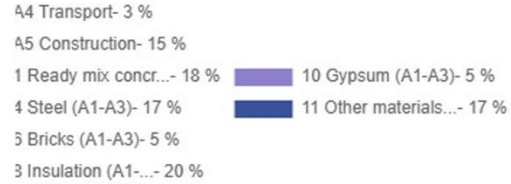
Select design ▼

Embodied carbon benchmark ?

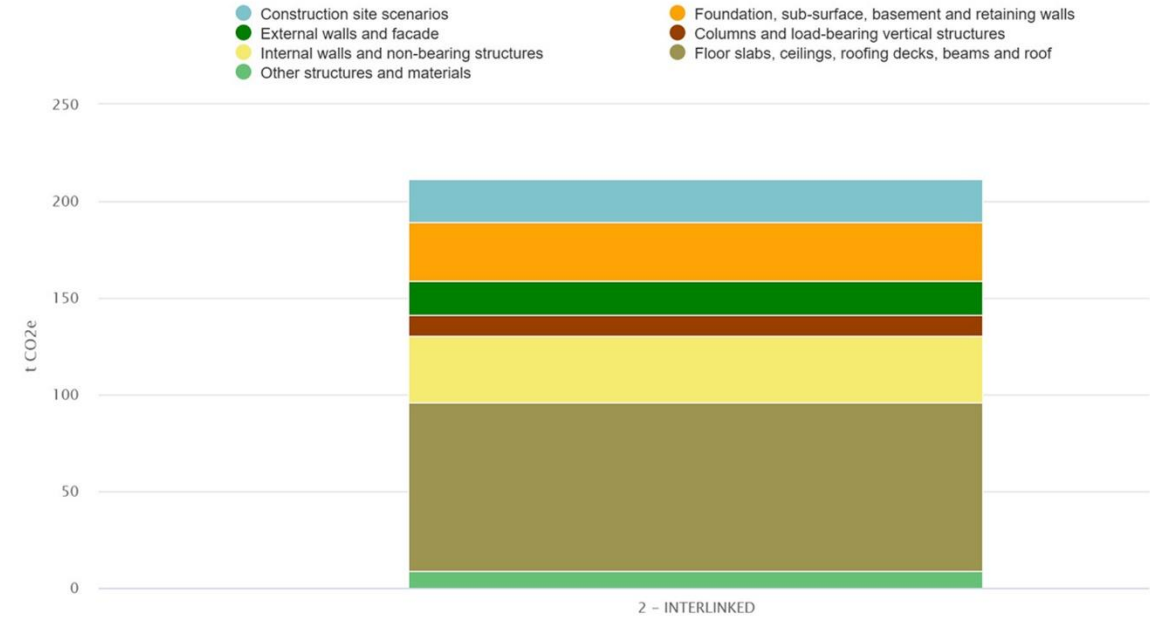
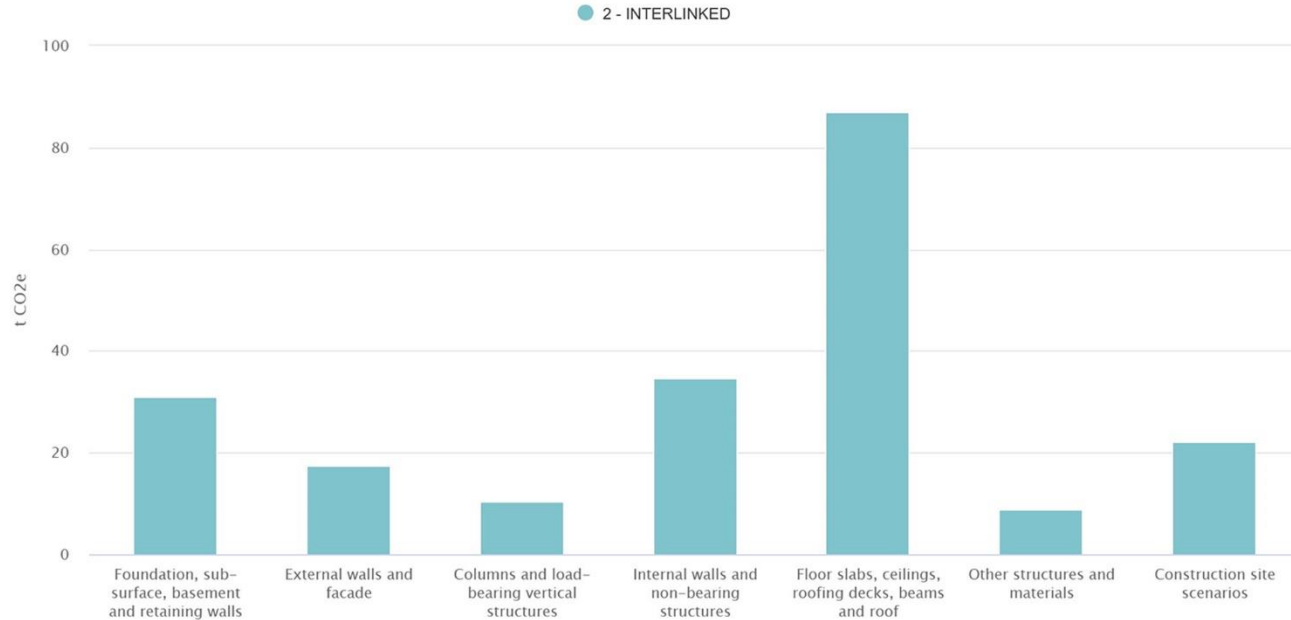
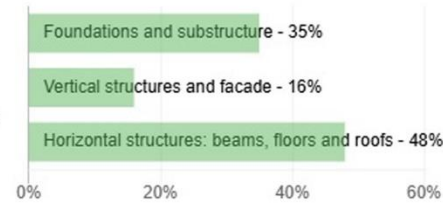


France all building types - 2023 Q3 ?

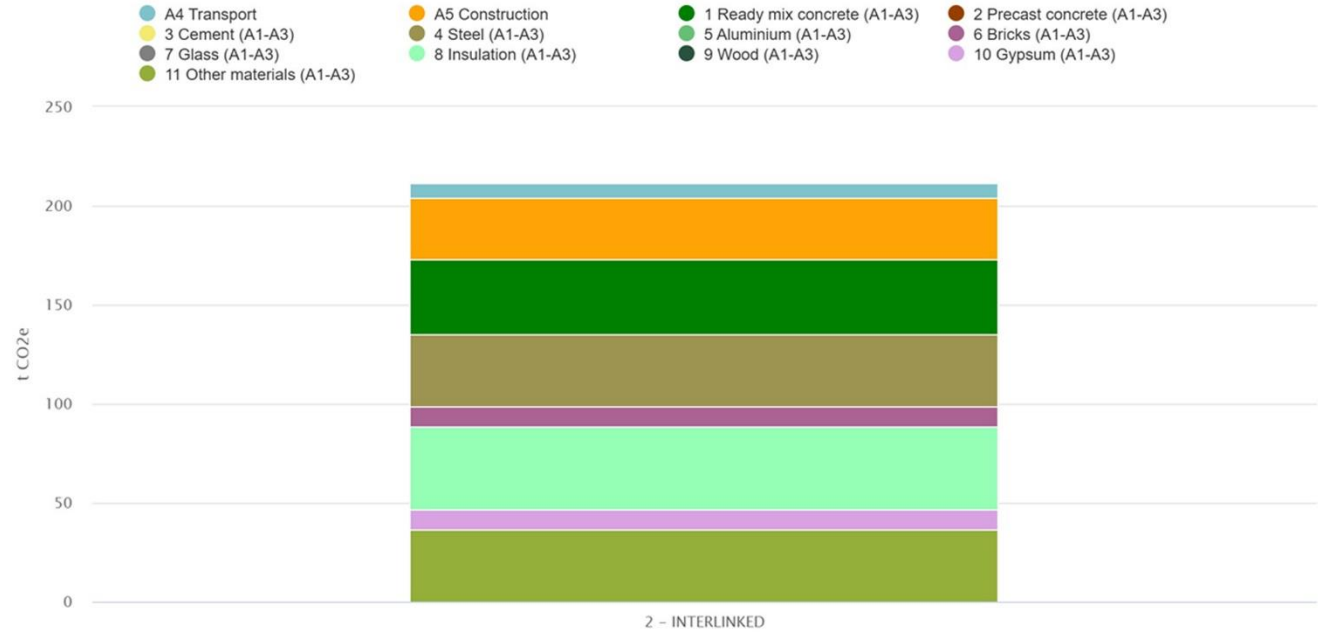
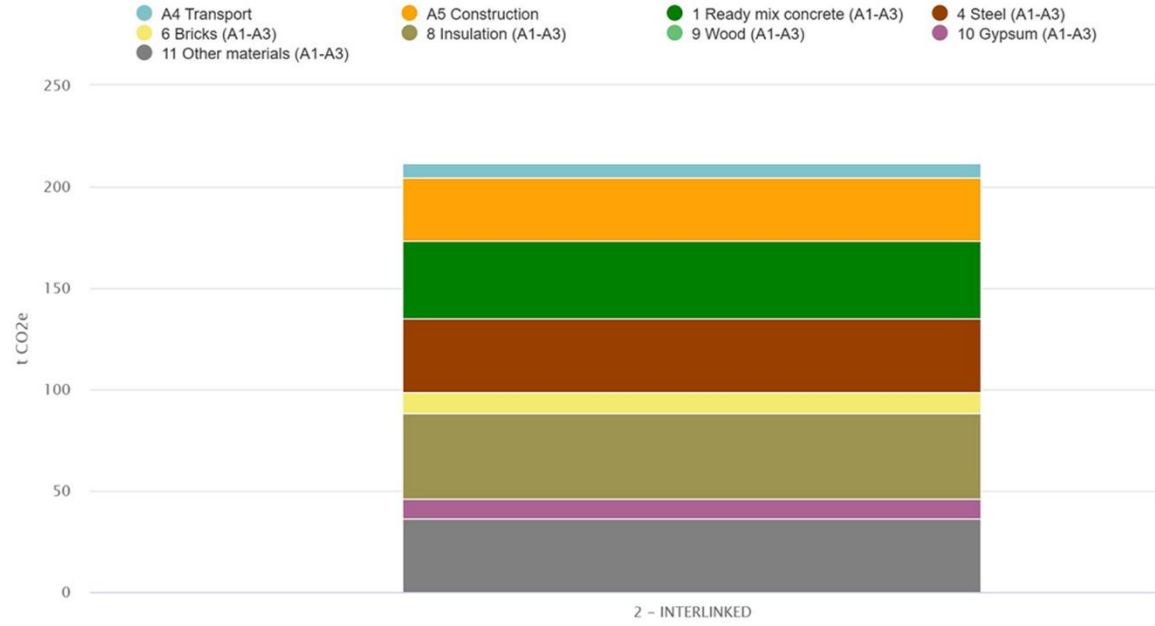
Embodied carbon by life-cycle stage

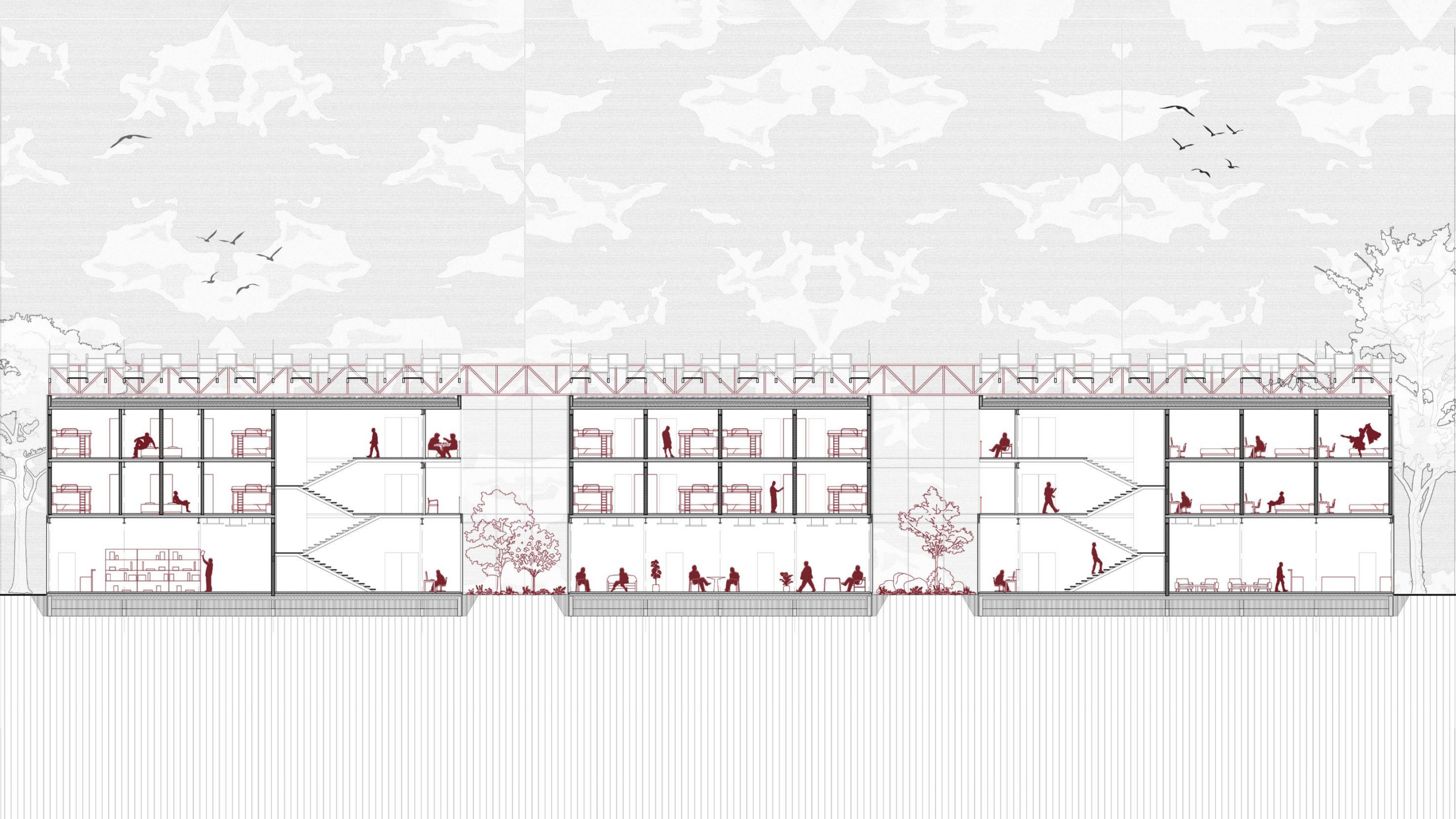


Embodied carbon by structure - A1-A3



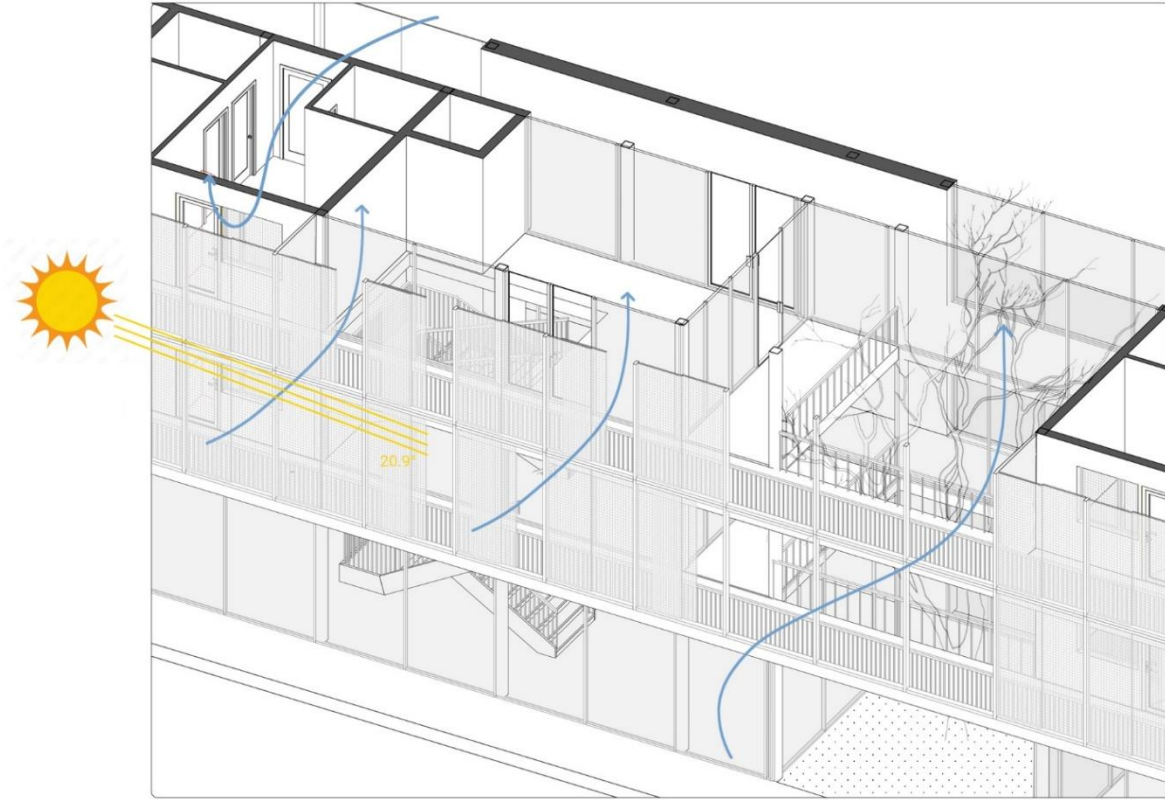
LCA ANALYSIS



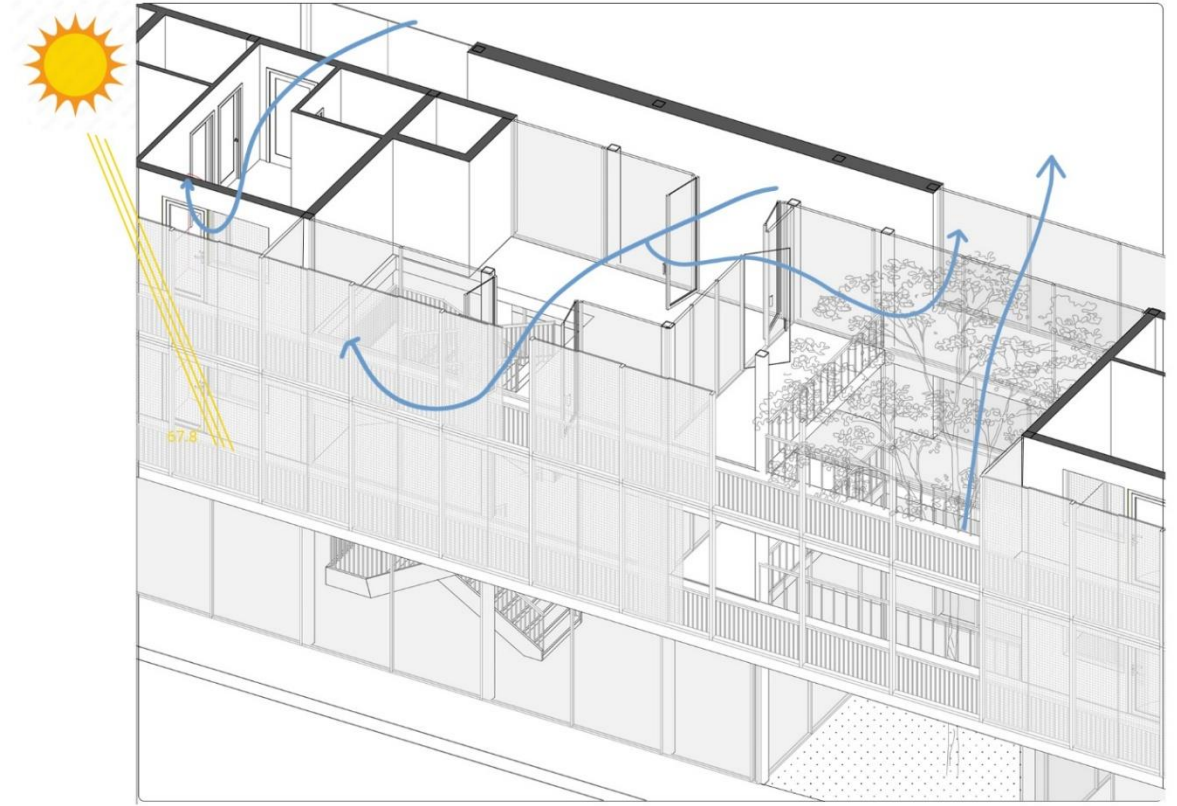


VENTILATION AND SHADE AROUND THE ATRIUM

WINTER

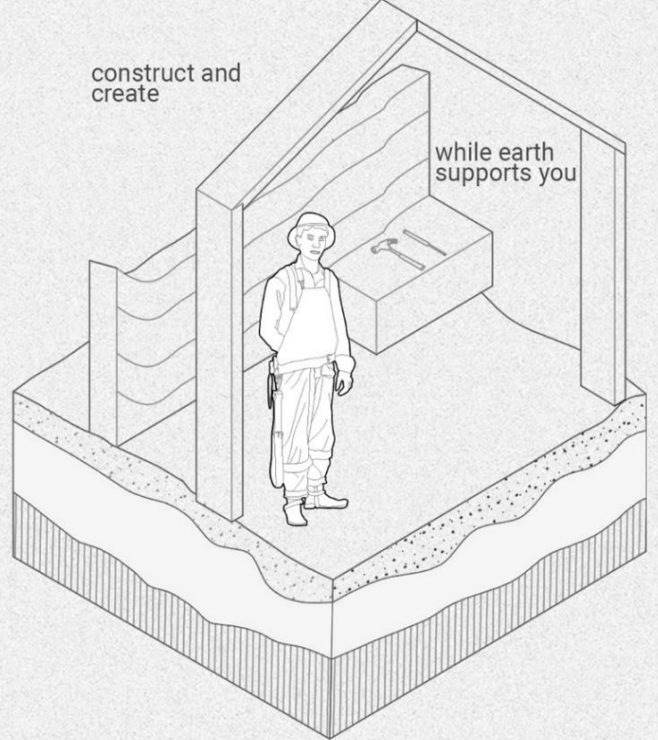
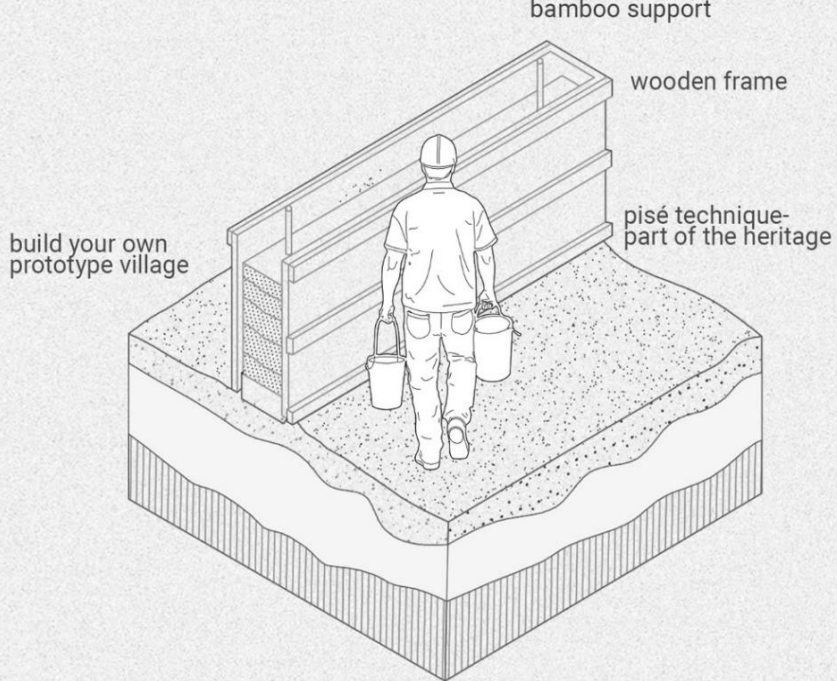
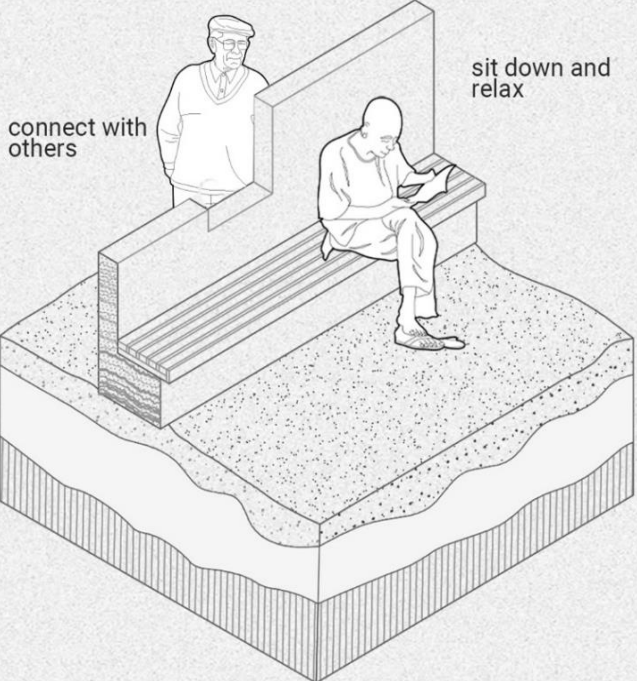


SUMMER



PROTOTYPE VILLAGE

PISÉ WALLS





CHIMILIN

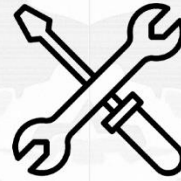


KNOWLEDGE TRANSFER



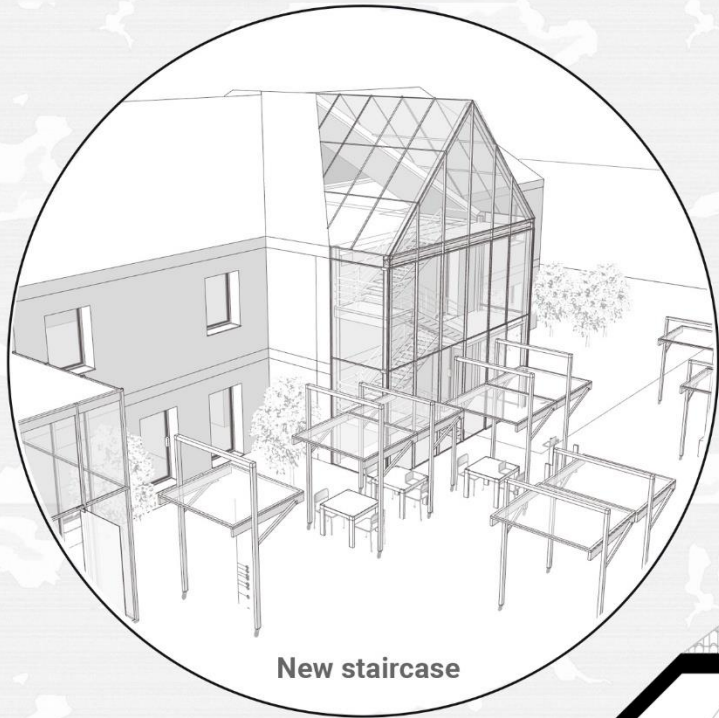
Modern practice →

← Experience

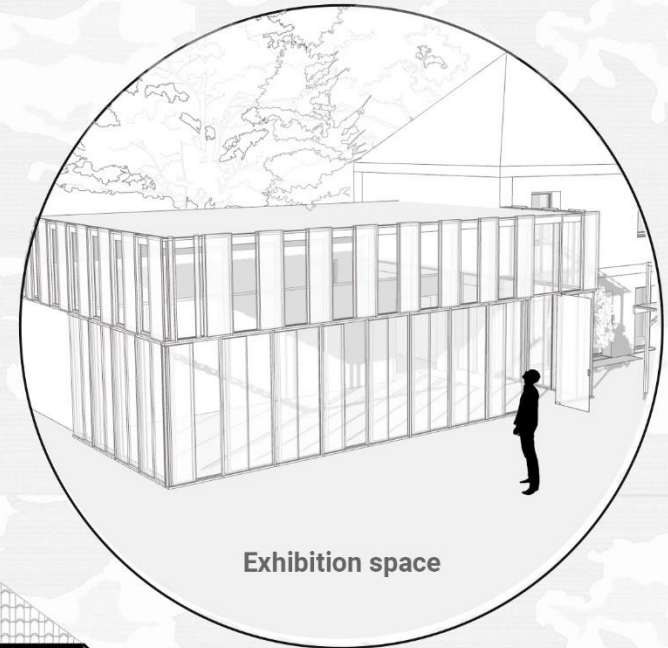


Villefontaine students

Chimilin artisans



New staircase

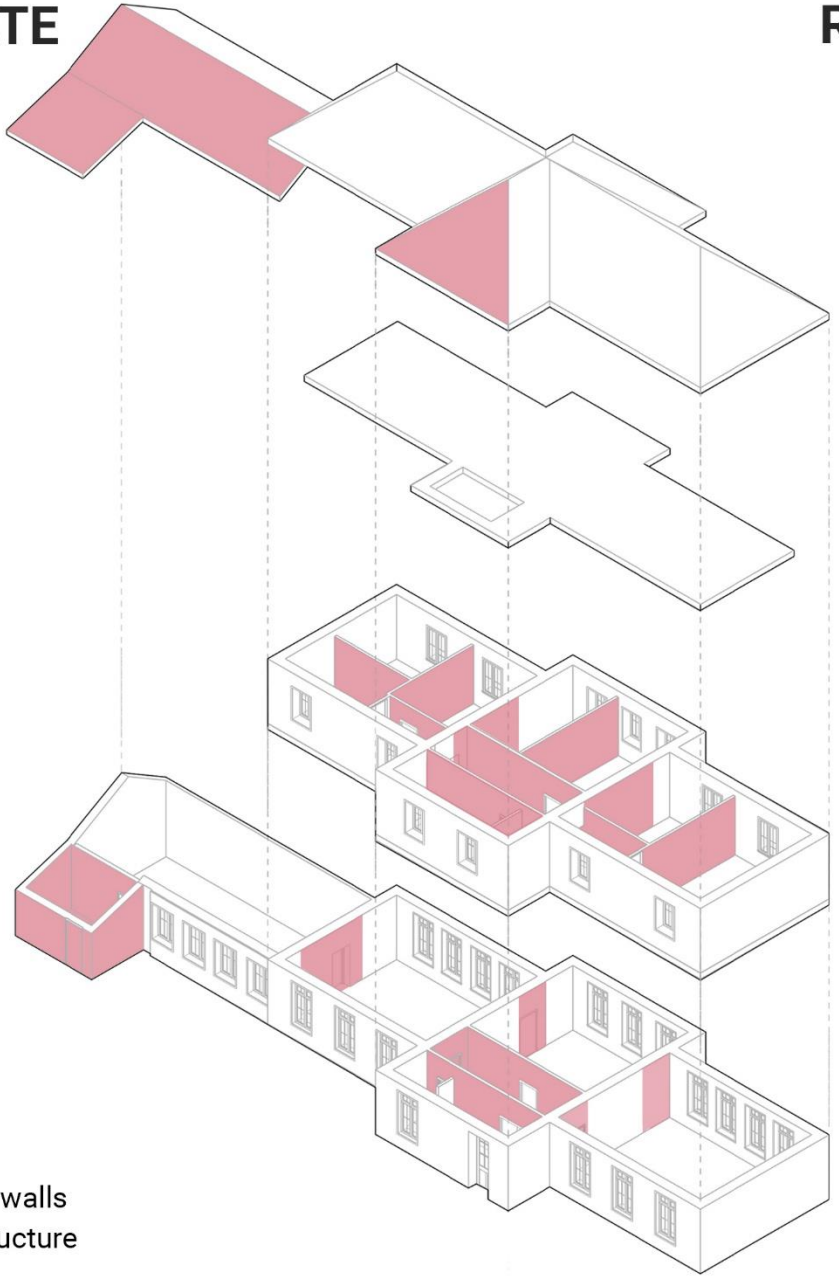


Exhibition space



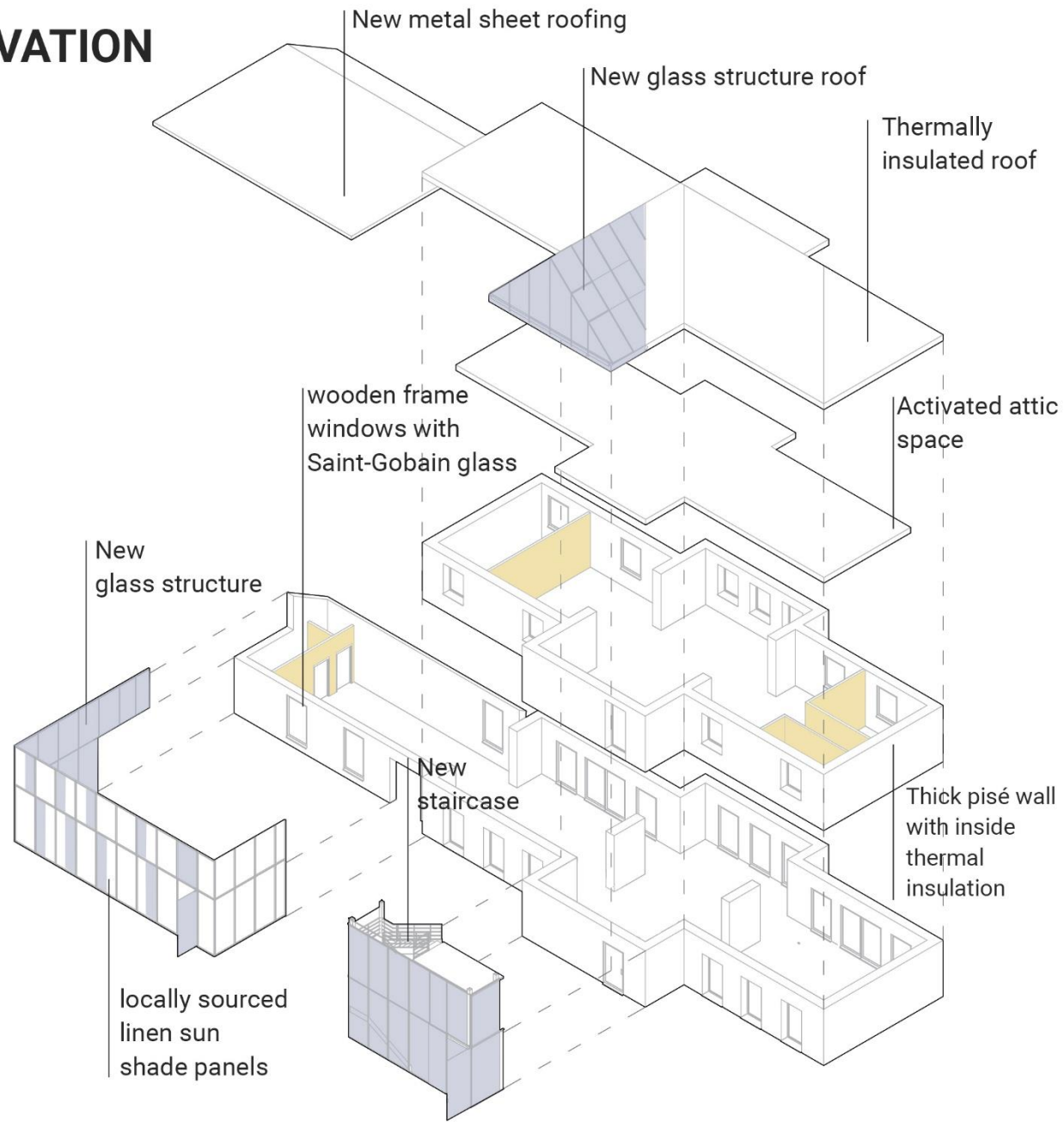
- 1. Baking zone
- 2. Artisan market
- 3. Workshop space
- 4. Workshop extension/student zone
- 5. Toilet
- 6. Meeting room
- 7. Office space
- 8. Office space
- 9. Lounge room
- 10. Toilet
- 11. Multifunctional room
- 12. Basement/ Storage room

INITIAL STATE

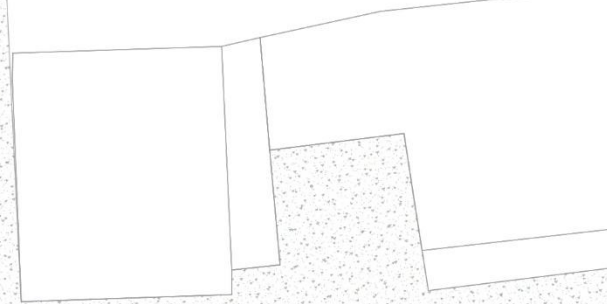
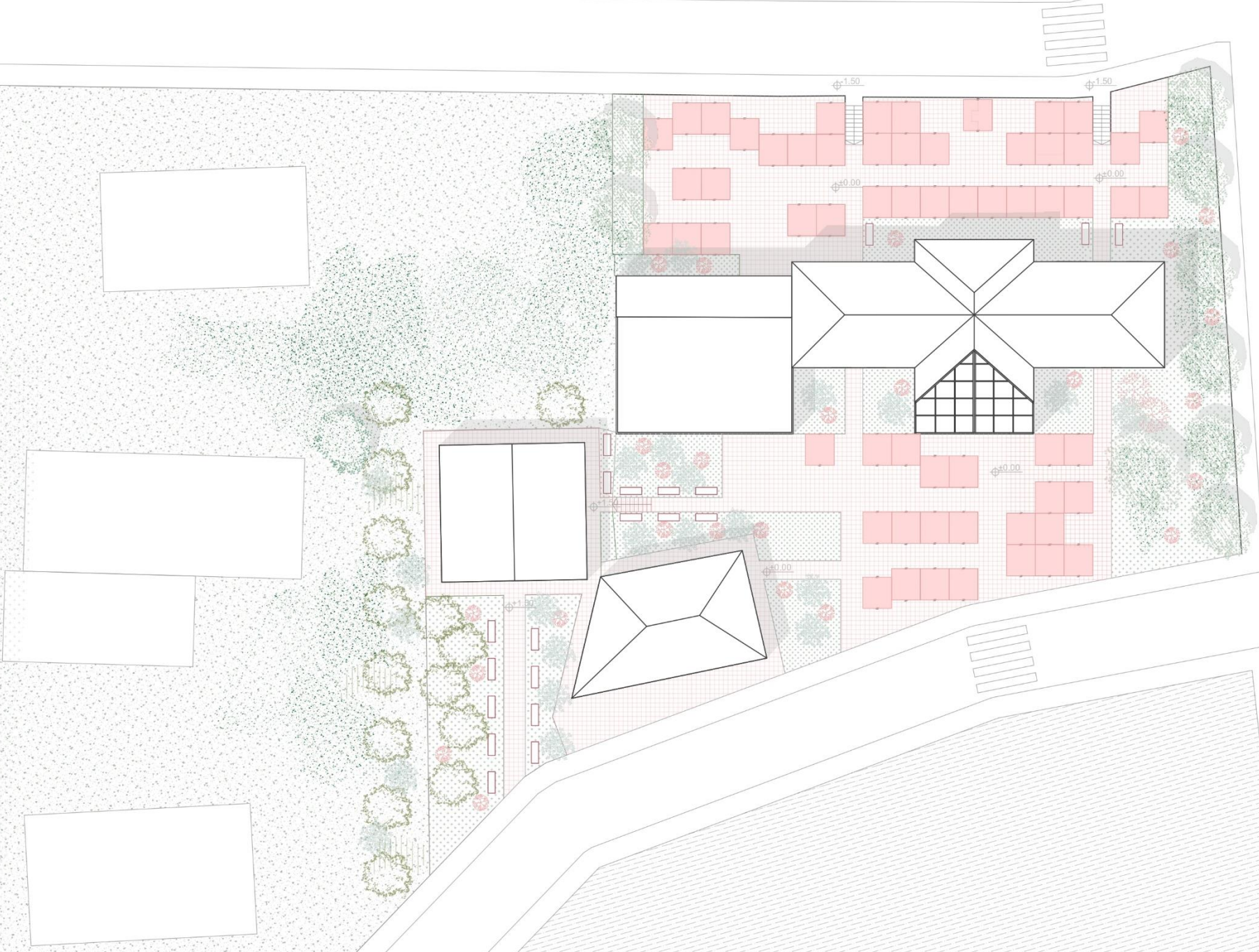


- demolished
- new partition walls
- new glass structure

RENOVATION

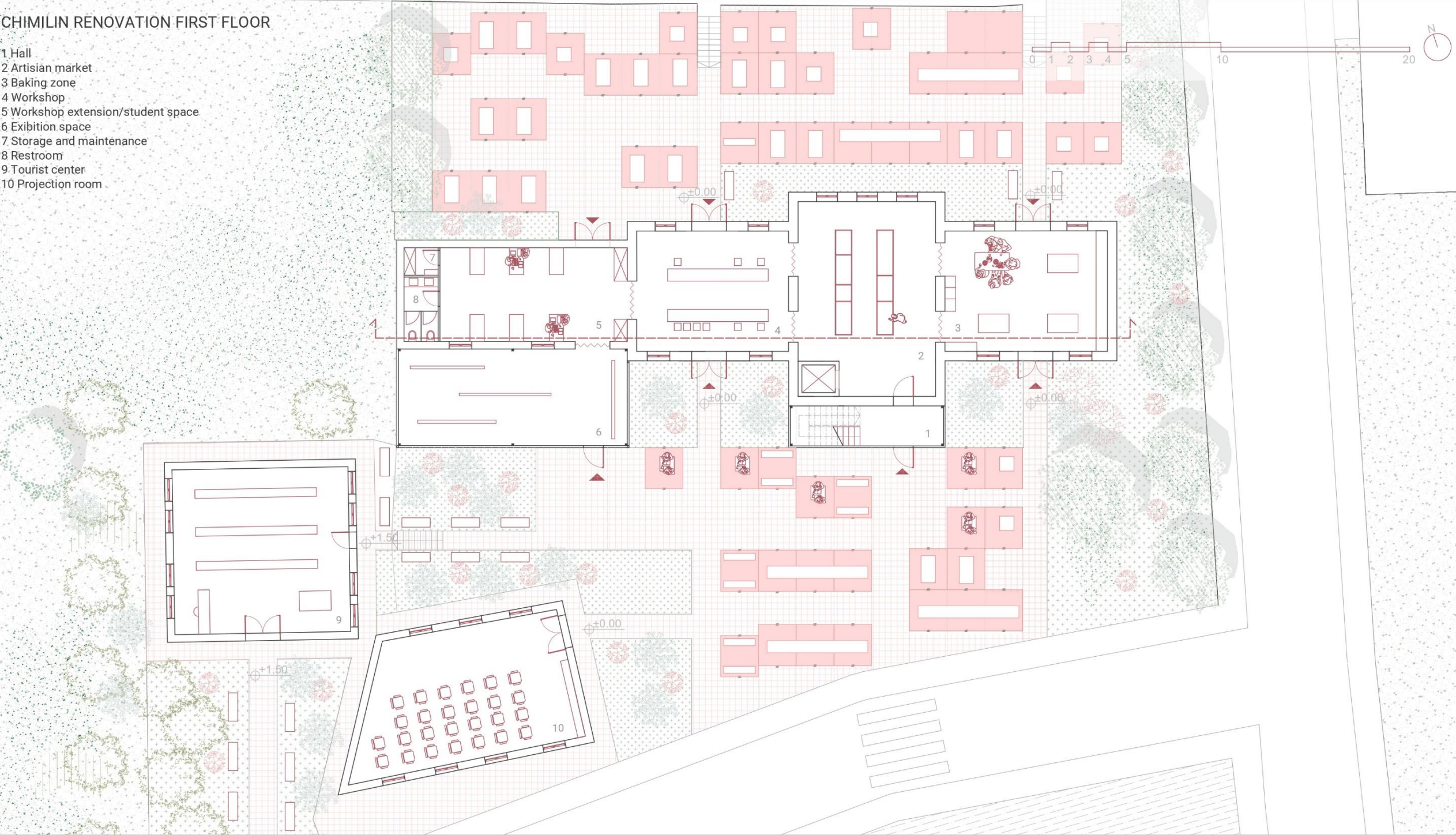


CHIMILIN RENOVATION



CHIMILIN RENOVATION FIRST FLOOR

- 1 Hall
- 2 Artisan market
- 3 Baking zone
- 4 Workshop
- 5 Workshop extension/student space
- 6 Exhibition space
- 7 Storage and maintenance
- 8 Restroom
- 9 Tourist center
- 10 Projection room

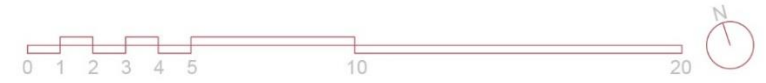


CHIMILIN RENOVATION FIRST FLOOR

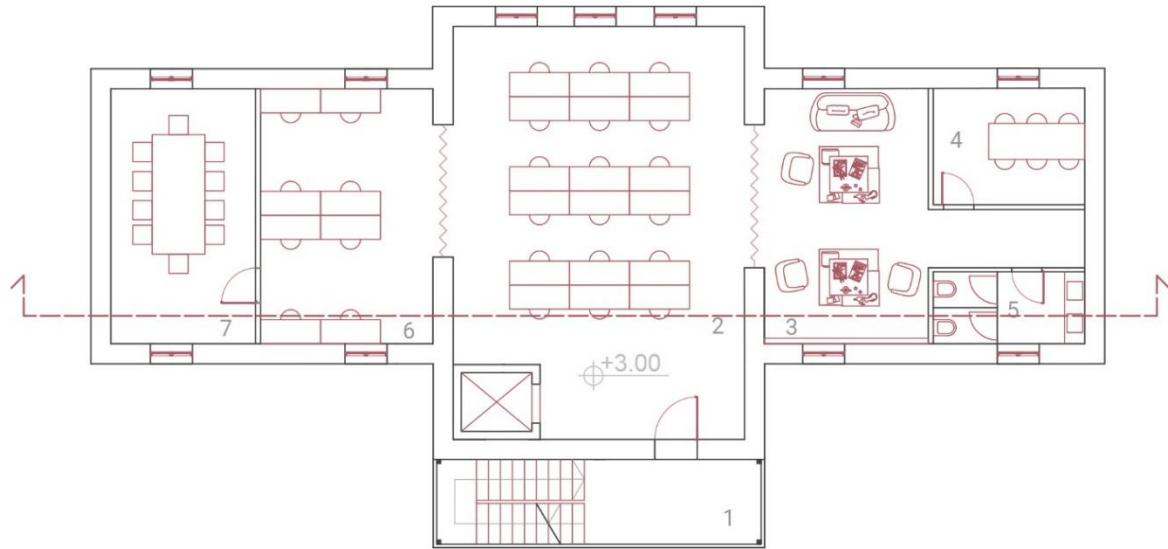
- 1 Staircase
- 2 Office space
- 3 Lounge room
- 4 Small meeting room
- 5 Restroom
- 6 Office space
- 7 Large meeting room

CHIMILIN RENOVATION SECOND FLOOR

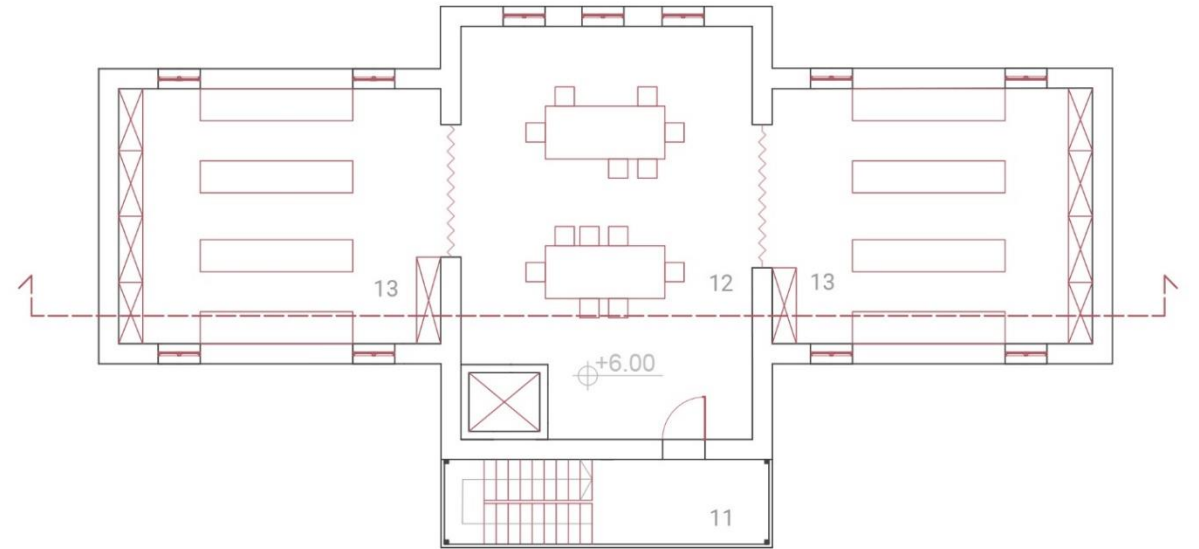
- 11 Staircase
- 12 Multifunctional room
- 13 Storage



FIRST FLOOR



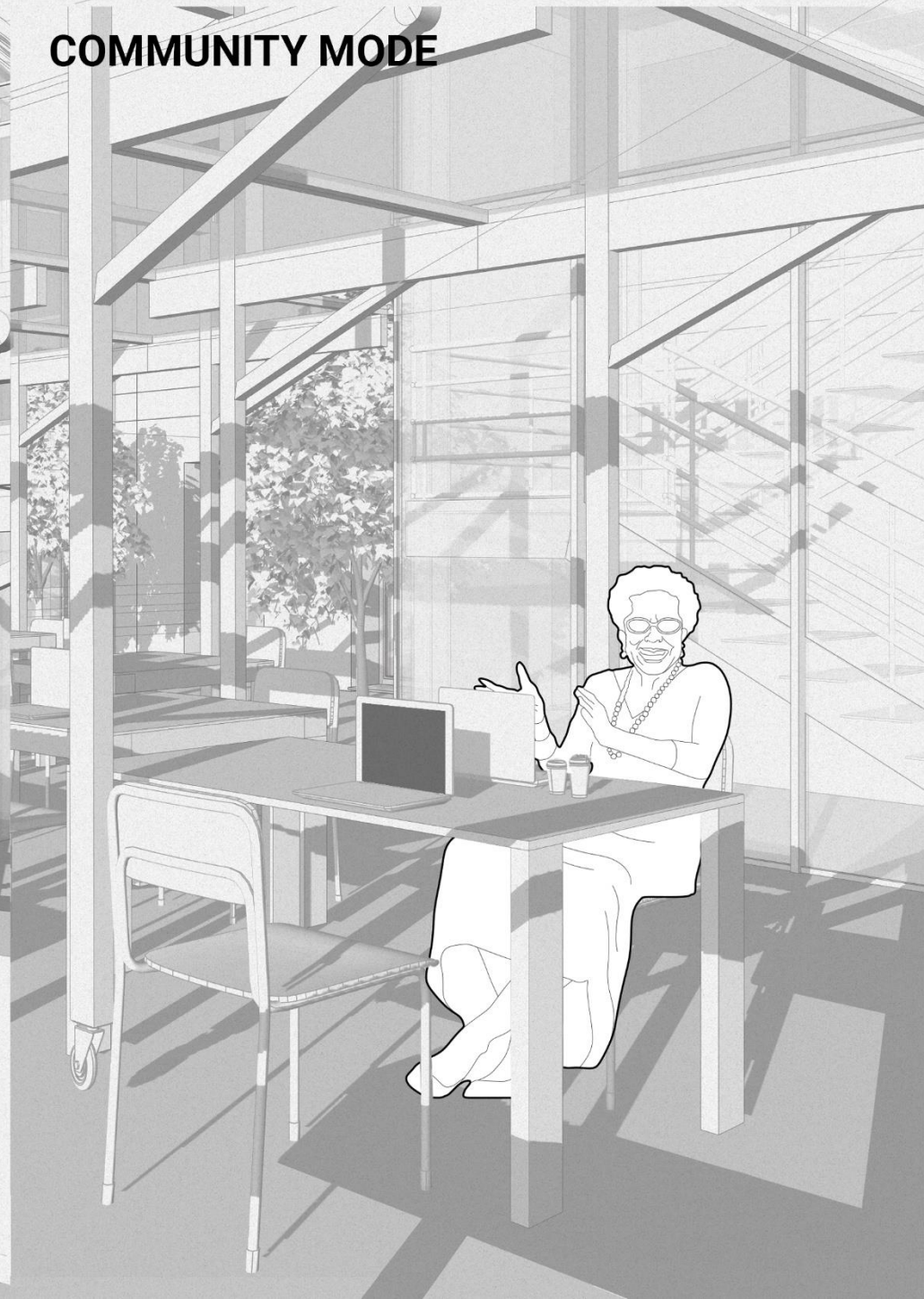
SECOND FLOOR



MARKET MODE



COMMUNITY MODE



MODULAR MARKET STALL

