THE BRICK,
THE RAFTER,
AND THE SOUTHERN SUN

CLÉMENT TAULELLE THURSDAY 15 JANUARY 2026 PHASE 5

designing within the territory:
transforming a mégisserie into a cultural anchor



WITH THE FINANCIAL SUPPORT OF

delft university of technology "fast funding",
delftsch bouwkundig studenten gezelschap stylos,



WITH THE FINANCIAL SUPPORT OF

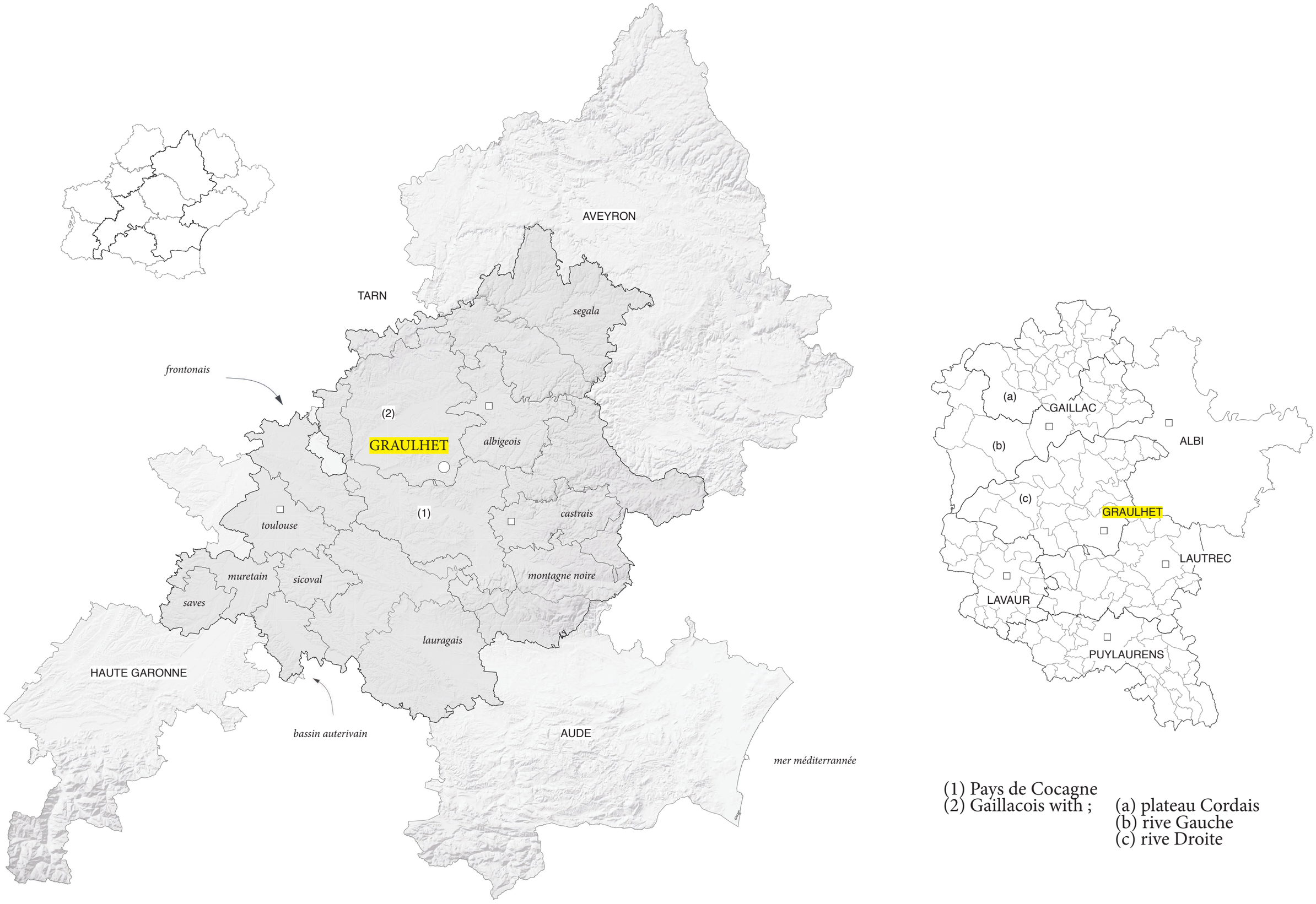
delft university of technology "fast funding",
delftsch bouwkundig studenten gezelschap stylos,

WITH THE ACADEMIC SUPPORT OF

Ir. Mo Smit;
Ir. Lex van Deudekom;
Ir. Eric van der Ham.

AND THE PRODUCTION SUPPORT OF

Bernard Capelle;
Jean Taulelle.



(1) Pays de Cocagne
(2) Gaillacois with ;

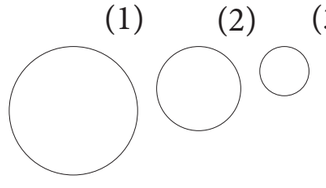
(a) plateau Cordais
(b) rive Gauche
(c) rive Droite


TARN
GRAULHET

[01]
Bouroullec, I., &
Soulié A. (2011).
Iventaire Historique Urbain de la ville de Graulhet. BRGM/
RP-60052-FR.







(1) more than 75 sites
(2) 40 sites
(3) 20 sites

1. DIRTY OLD RIVER

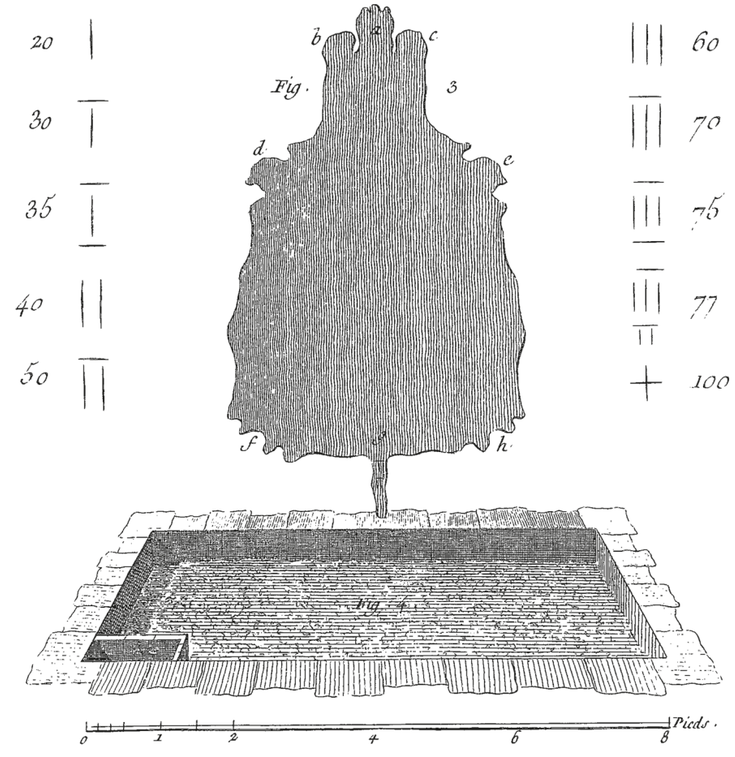
a local and functional typology,
a building that meets an industrial need,

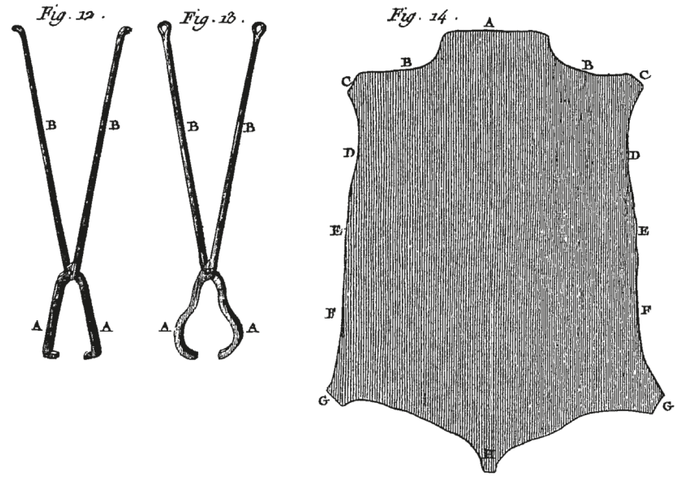
[02]
Diderot, Denis. (1780). "Art du cuir". *Encyclopédie, ou Dictionnaire raisonné des sciences, des arts et des métiers*. Paris : Panckoucke.

[03]
Anonymous, *Aurora Consurgens*, Zurich ZB, MS Rh. 172, fol. 15r (15th c.).

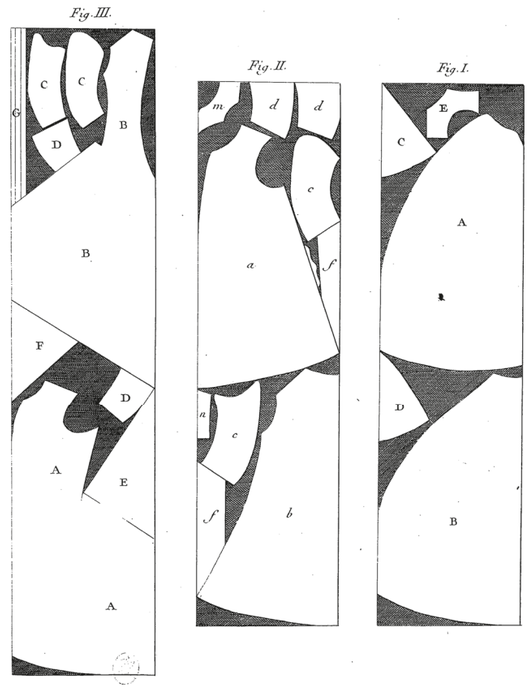


[03]



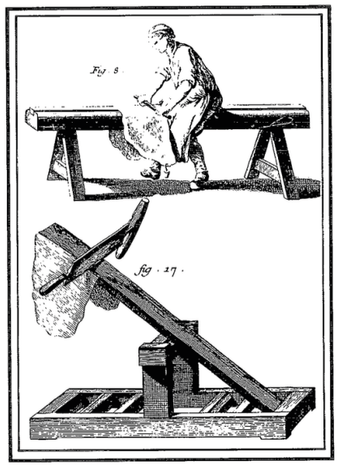


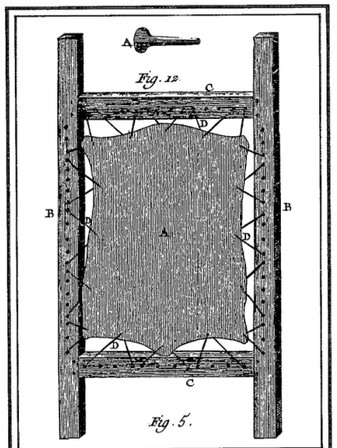
[02]



[04]
Diderot, Denis. (1780). "Art du cuir". *Encyclopédie, ou Dictionnaire raisonné des sciences, des arts et des métiers*. Paris : Panckoucke.

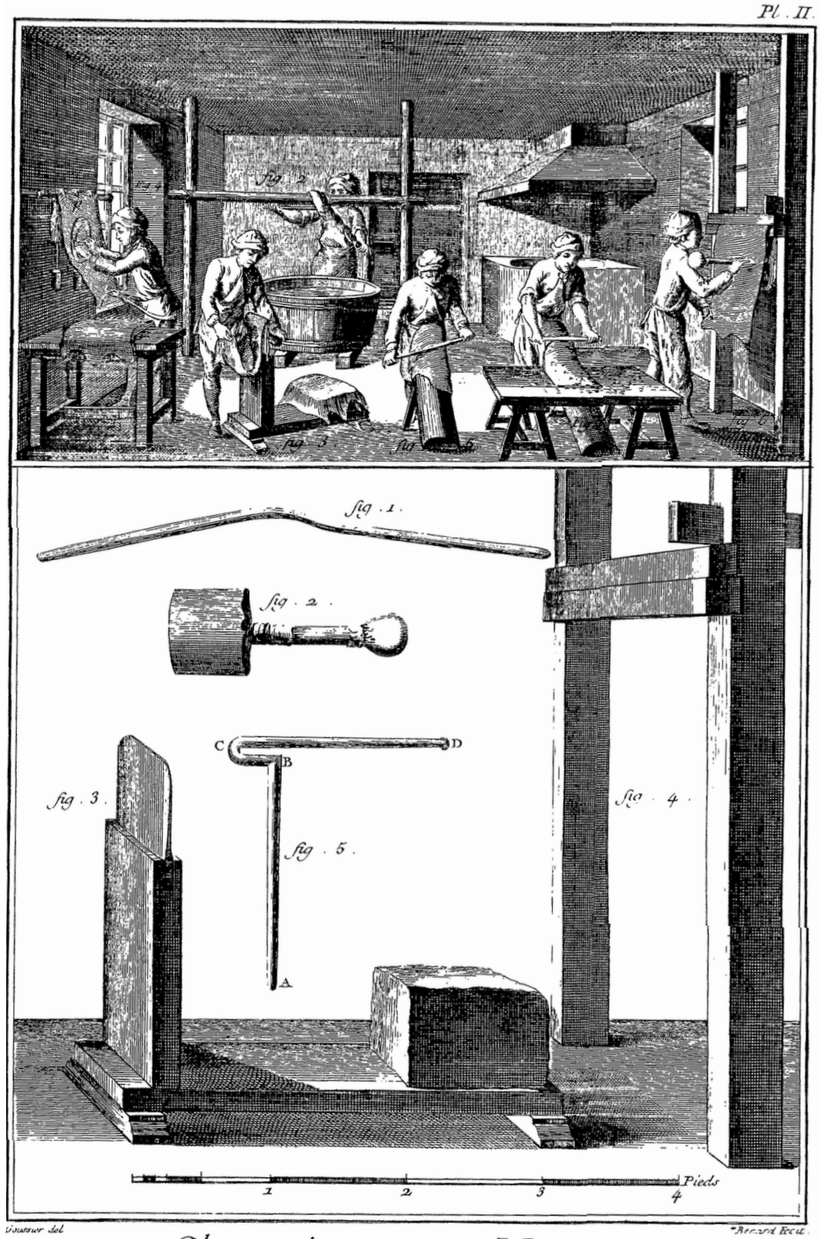
L'ENCYCLOPÉDIE
DIDEROT
ET D'ALEMBERT





ARTS DU CUIR

INTER-LIVRES



Chamoiseur et Megissier.

[05]
Bouroullec, I., &
Soulié A. (2011).
Iventaire Historique Urbain de la ville de Graulhet. BRGM/
RP-60052-FR.









[06]
Bouroullec, I., &
Soulié A. (2011).
Iventaire Historique Urbain de la ville de Graulhet. BRGM/
RP-60052-FR.











[07]
Bouroullec, I., & Soulié A. (2011). *Iventaire Historique Urbain de la ville de Graulhet*. BRGM/ RP-60052-FR.

3.5. SITES PROPRIETES PUBLIQUES

L'*Illustration 11* ci-après présente les sites appartenant à des services et administrations locales, régionales ou nationales (ou son représentant), telle que la commune de Graulhet ou la Communauté de Communes Tarn et Dadou.

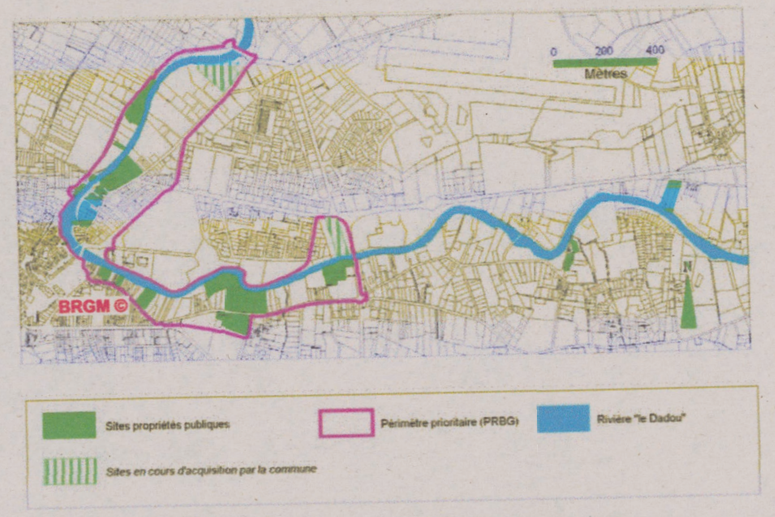


Illustration 11 : Carte des sites industriels dont la propriété est publique.

La commune de Graulhet et la communauté de communes Tarn et Dadou ont amorcé la redynamisation du cœur historique graulhétois par l'achat de nombreuses friches industrielles. Ces dernières sont soit démolies, soit réaménagées comme :

- l'ancienne Mégisserie TIGNOL devenue la Médiathèque Marguerite Yourcenar ;
- les anciennes friches de l'Ilote-Escapat qui sont en cours de réaménagement pour devenir un complexe cinématographique ;
- la Mégisserie Darius Fabre devenue la Maison des Métiers du Cuir.

Certains sites ont été achetés par la commune de Graulhet comme la Mégisserie BOURDARIES mais aussi la mégisserie JOQUEVIEL et VIEU qui ne sont pas encore réaménagés.
De nombreux projets d'achat semblent émerger, notamment la Mégisserie SUDRE, 31 avenue Marcel PAGNOL, où devrait être créée une chaufferie bois.

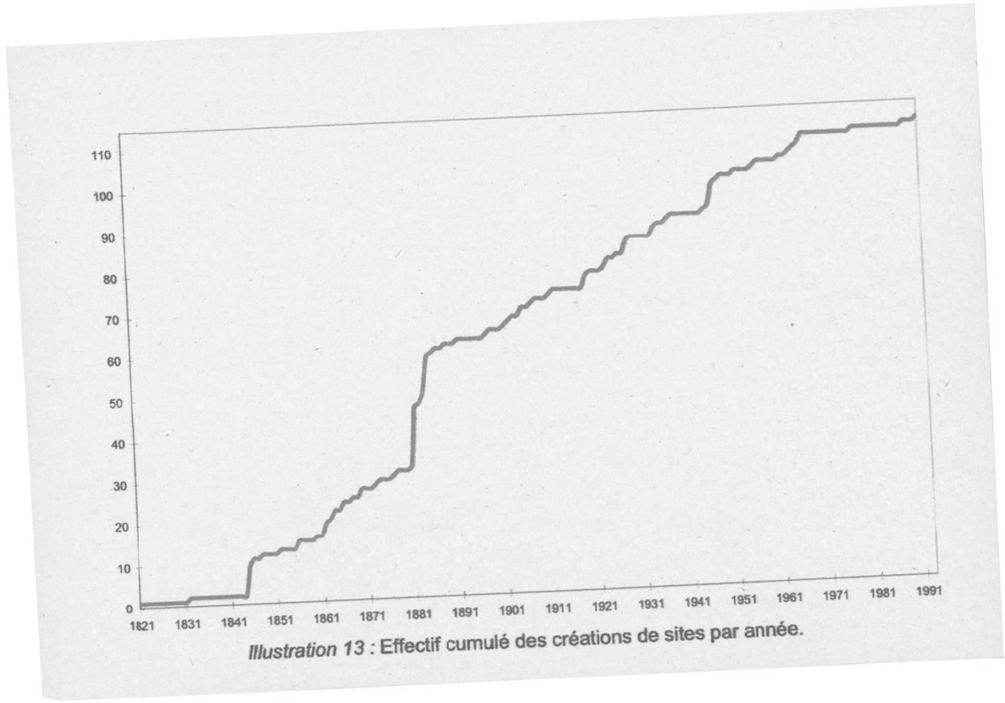


Illustration 13 : Effectif cumulé des créations de sites par année.

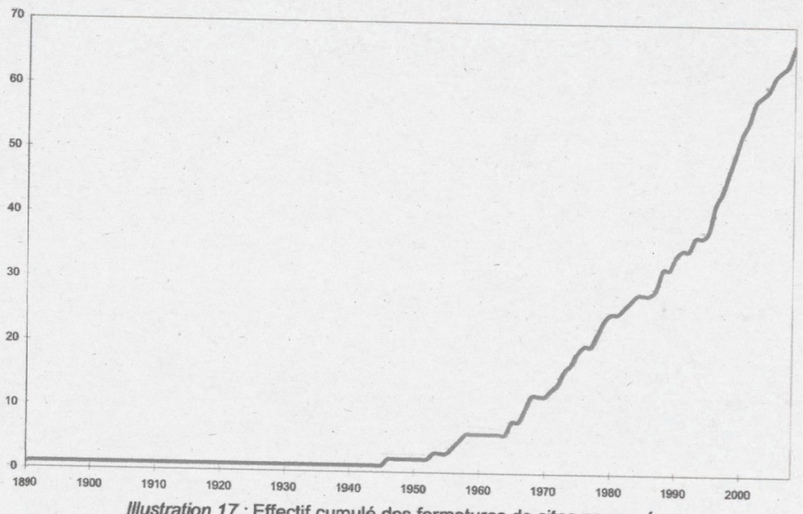


Illustration 17 : Effectif cumulé des fermetures de sites par année

RESEARCH QUESTION

How can an engaged practice at the territorial scale establish a precise analysis of a specific architectural typology, in this case, the mégisserie of Graulhet?

RESEARCH QUESTION

How can an engaged practice at the territorial scale establish a precise analysis of a specific architectural typology, in this case, the mégisserie of Graulhet?

SUB QUESTIONS

How can we consider a wasteland, which bears witness to a rich industrial past (the leather works), as a resource that can be mobilised for new architectural functions?

How can taking into account the elements of the territorial system provide a better understanding of the sources of materials and thus help to anchor projects in the urban environment?





Topology
τόπος

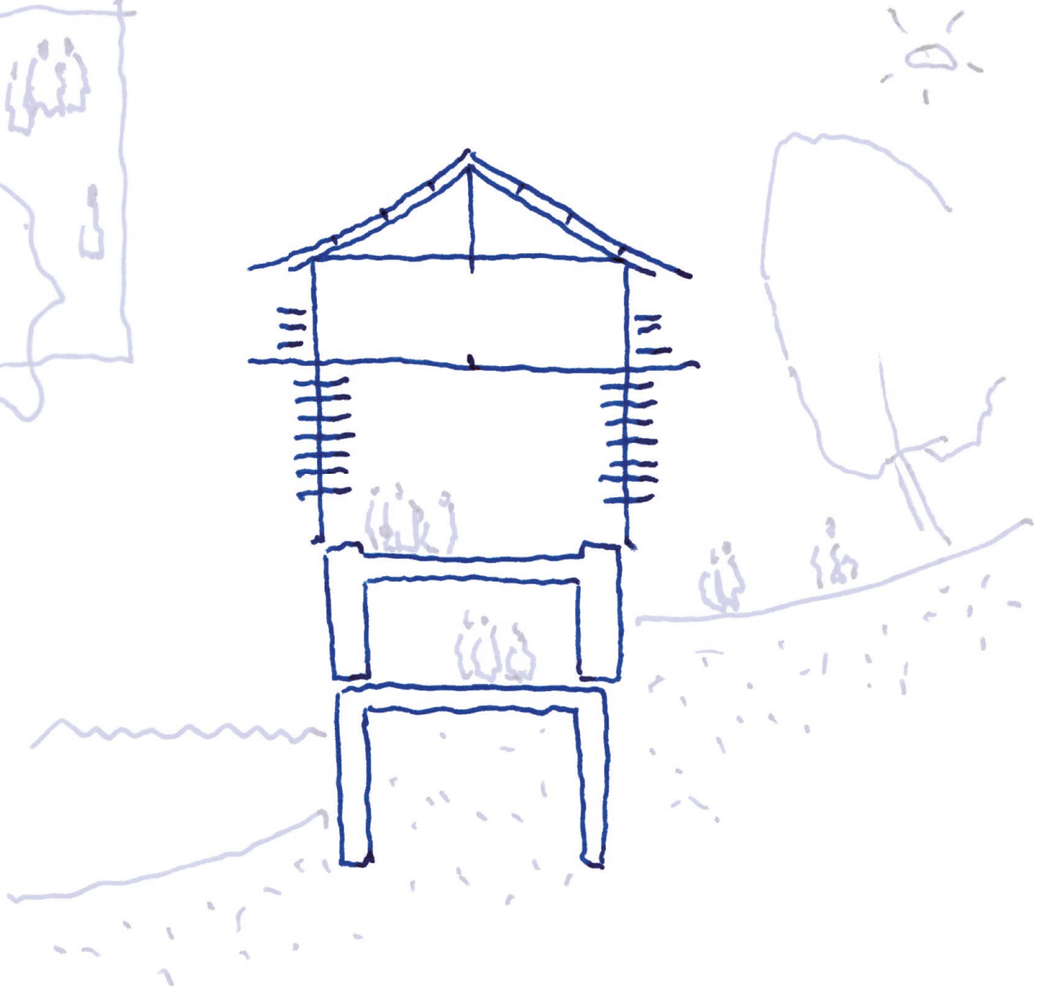




TYPOLOGY
τυπος

Topology
τόπος





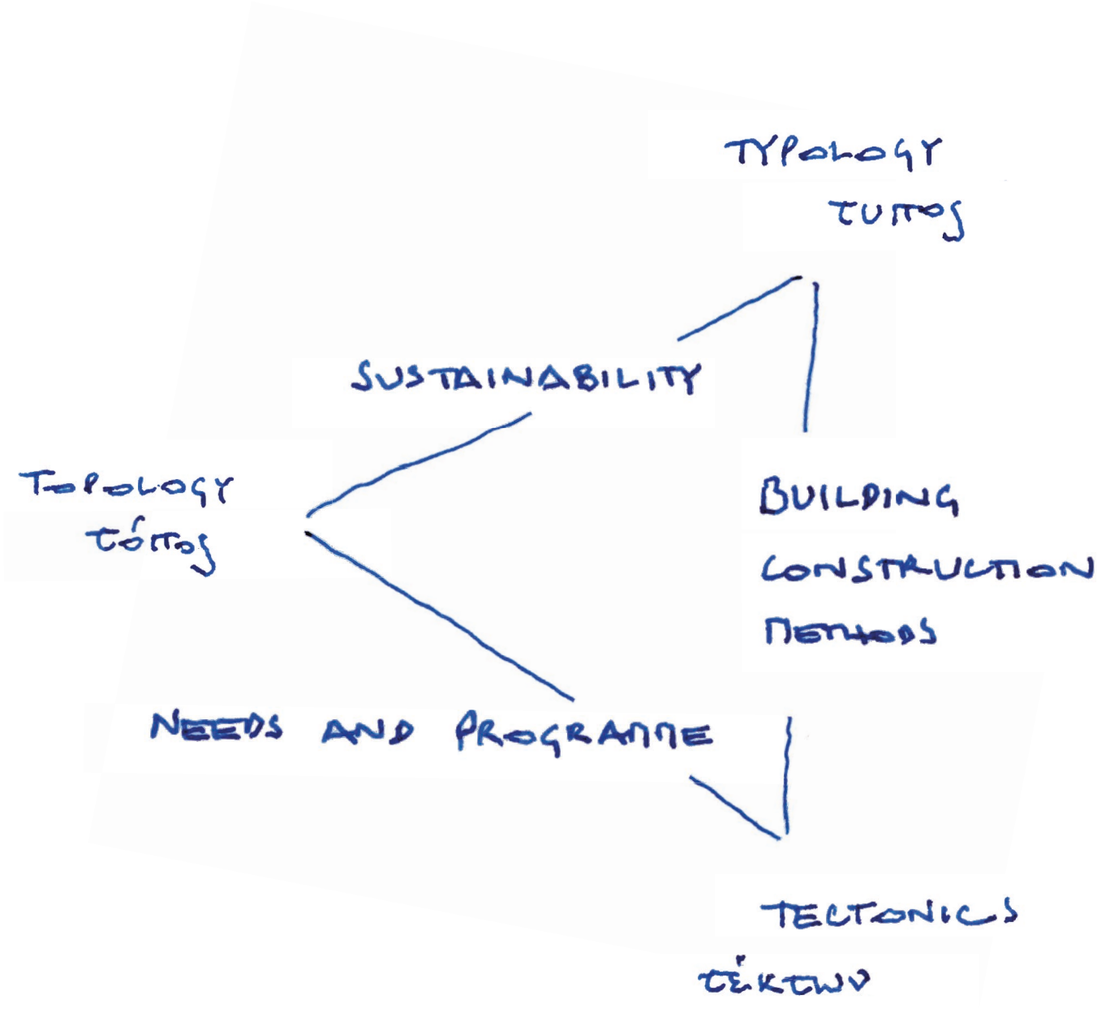
TYPOLOGY
τυπος

TOPOLOGY
τόπος

TECTONICS
τέκτων

[08]
Frampton, K. (2001). *Studies in Tectonic Culture: The Poetics of Construction in Nineteenth and Twentieth Century Architecture*. MIT Press.





[09]
Teaching by action: "Promenadology" by Lucius Burckhardt (1987). Photograph by Martin Schmitz, Verlag, Kassel.

Harvesting ressources: a first step the understand the territory and its local actors,

Promenade, arpentage, glanage, etc.



[10]
Curien, E., Quirot, B., & Boegly, L. (2022). *Art de construire et engagement territorial*. Building Books, Avenir Radieux.

2. "L’ENGAGEMENT DU TERRITOIRE" [2]

a living fabric: an approach to a territory from materiality to local stakeholders

Beaucoup de praticiens qui cherchent à construire des démarches dites « locales » ne regardent pas seulement le territoire comme un ensemble de formes ou d'expériences phénoménologiques pouvant être réinvesties dans la construction. Ils le considèrent comme un milieu évolutif, dans lequel ils ont un rôle à jouer, au sein d'un tissu vivant constitué d'habitants et d'acteurs, de ressources matérielles et de filières de construction, au-delà de l'emprise des édifices eux-mêmes. C'est en cela que l'on peut parler d'engagement territorial au sujet de leur pratique.

"[Many practitioners who seek to build so-called "local" approaches look at the territory not just as a set of phenomenological forms or experiences that can be reinvested in construction. They see it as an evolving environment, in which they have a role to play, as part of a living fabric made up of inhabitants and players, material resources and construction industries, over and above the buildings themselves. It is in this way that we can speak of a territorial commitment to their practice.]"

Curien E., Quirot B., Boegly L. (2022), *Art de construire et engagement territorial [The art of building and territorial commitment]*, Building Books, Avenir Radieux

[11]
Craftsmanship illustrations, 15th century. Bibliothèque nationale de France (BnF), Paris.



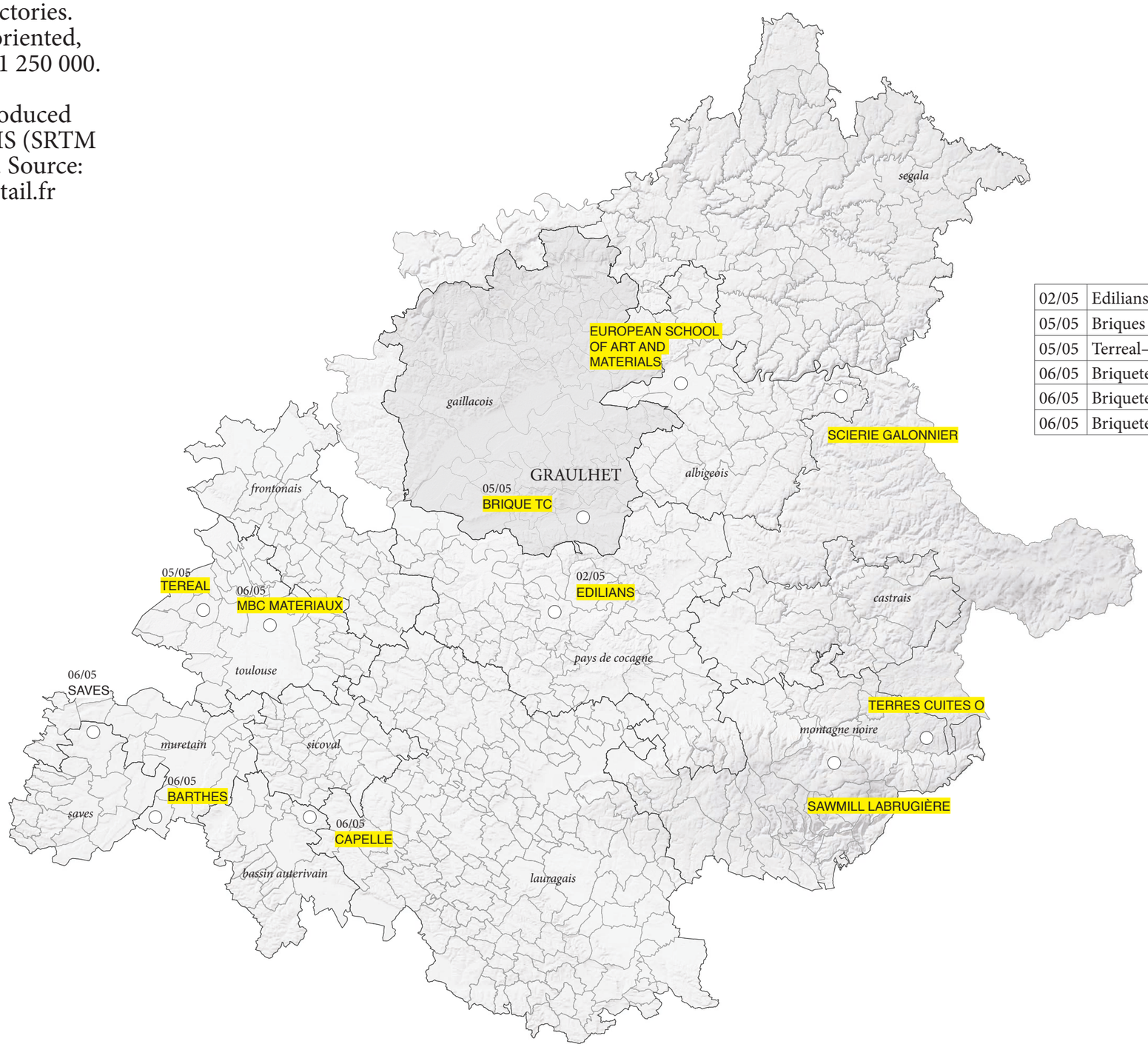






[12]
Map of the visited local stakeholders, with a focus on brick factories. North oriented, scale 1/1 250 000.

Map produced via QGIS (SRTM NASA). Source: Geoportail.fr



02/05	Edilians Damiatte	Damiatte	Mr Coutouly
05/05	Briques Technic Concept	Graulhet	Mr Gay
05/05	Terreal—Wienerberger Colomiers	Colomiers	Mr Dujols
06/05	Briqueterie Capelle	Grépiac	Mr Capelle
06/05	Briqueterie Barthes	Gratens	Mr Barthes
06/05	Briqueterie Savès	Empeaux	Mr Gauzin

[13]
Photographs of visited brick factories (2025). Courtesy of Terreal, Capelle, Savès, BTC Graulhet, and Barthes. Author.





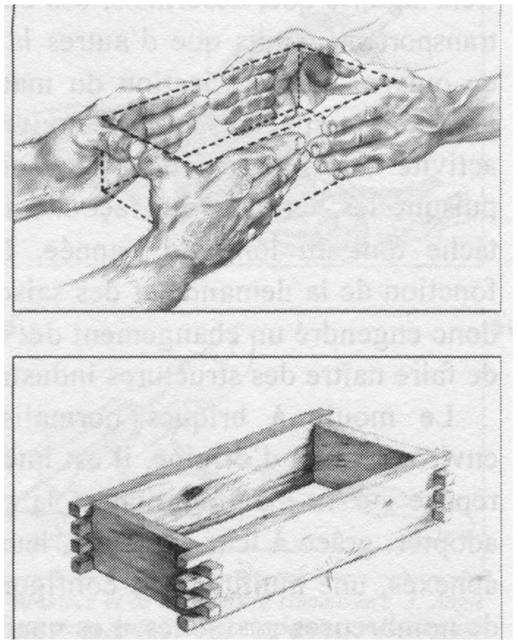

NG8TER
NG8BIS
NG34

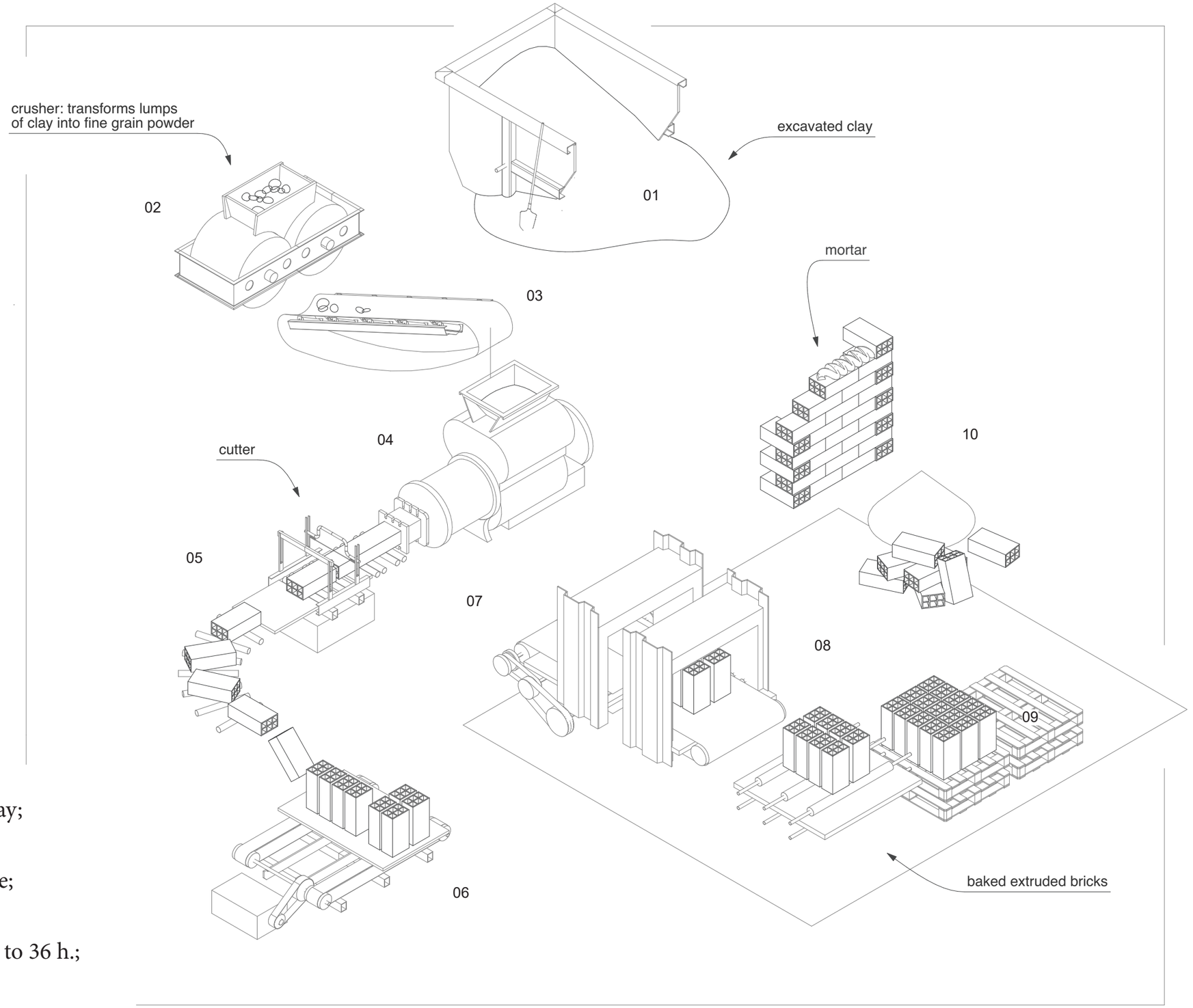






[14]
Production of extruded bricks. Various steps observed during site visits, drawing by author.





01 excavation and storage of clay;
02 crusher where e = 1.3 mm;
03 sieve for clods;
04 pressure extrusion with a die;
05 wire cutting;
06 kiln drying before firing;
07 firing at 1100 degrees for 24 to 36 h.;
08 classification of stocks;
09 palletizing for transport;
10 use on construction site.

[15]
Photographs of visited sawmills (2025). Courtesy of Scierie Gallonier. Author.



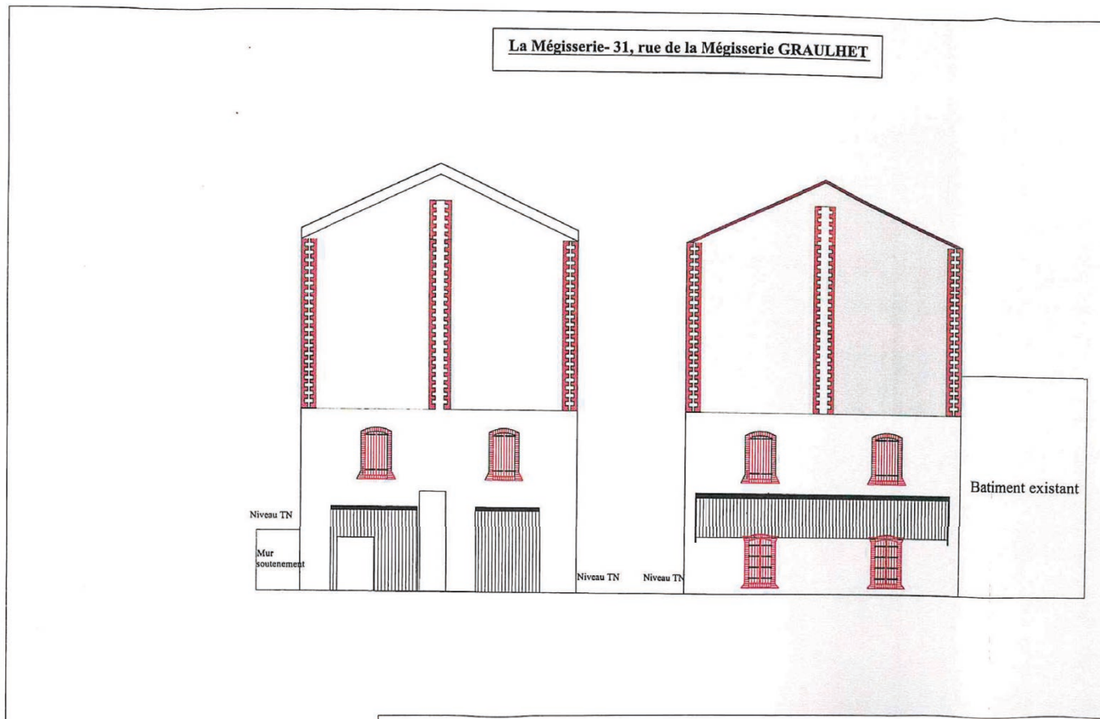


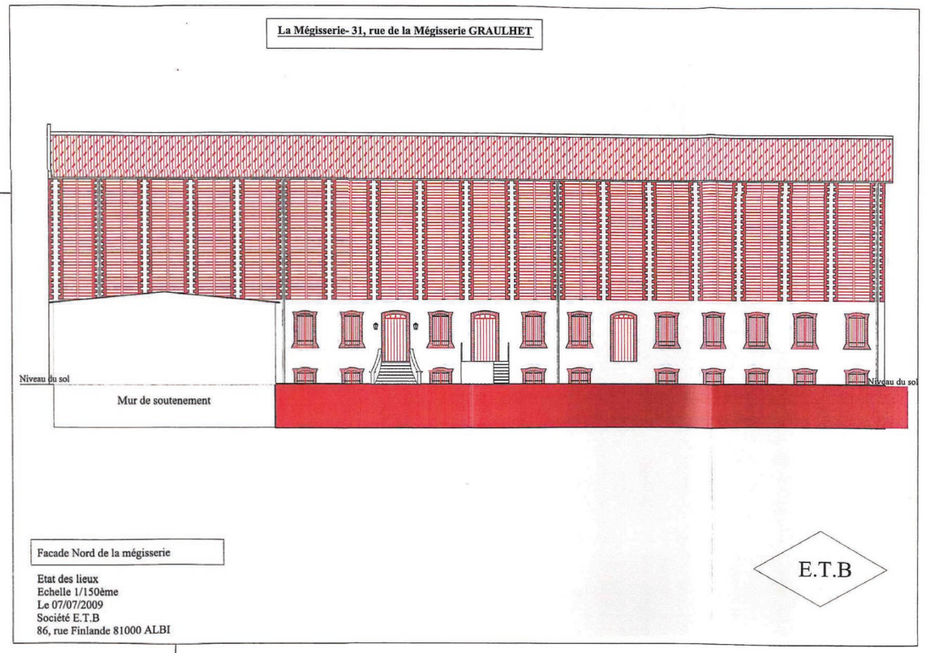


3. DEEP AND WIDE

the transformation of existing wastelands requires a thorough understanding of how the mégisserie operates in order to assign each element of the construction its precise function,

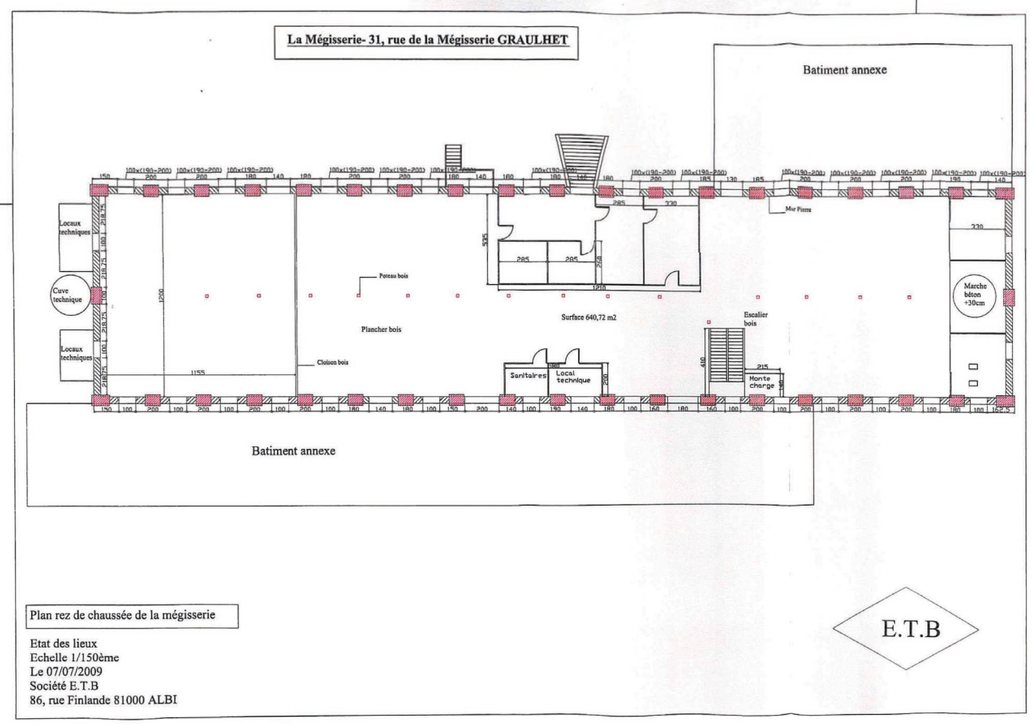
[16]
Scans of plans and elevations of a tannery on Rue de la Mégisserie, Graulhet. Archival material. Courtesy of the Municipality of Graulhet and Evelyne Verlaguet.





Etat des lieux

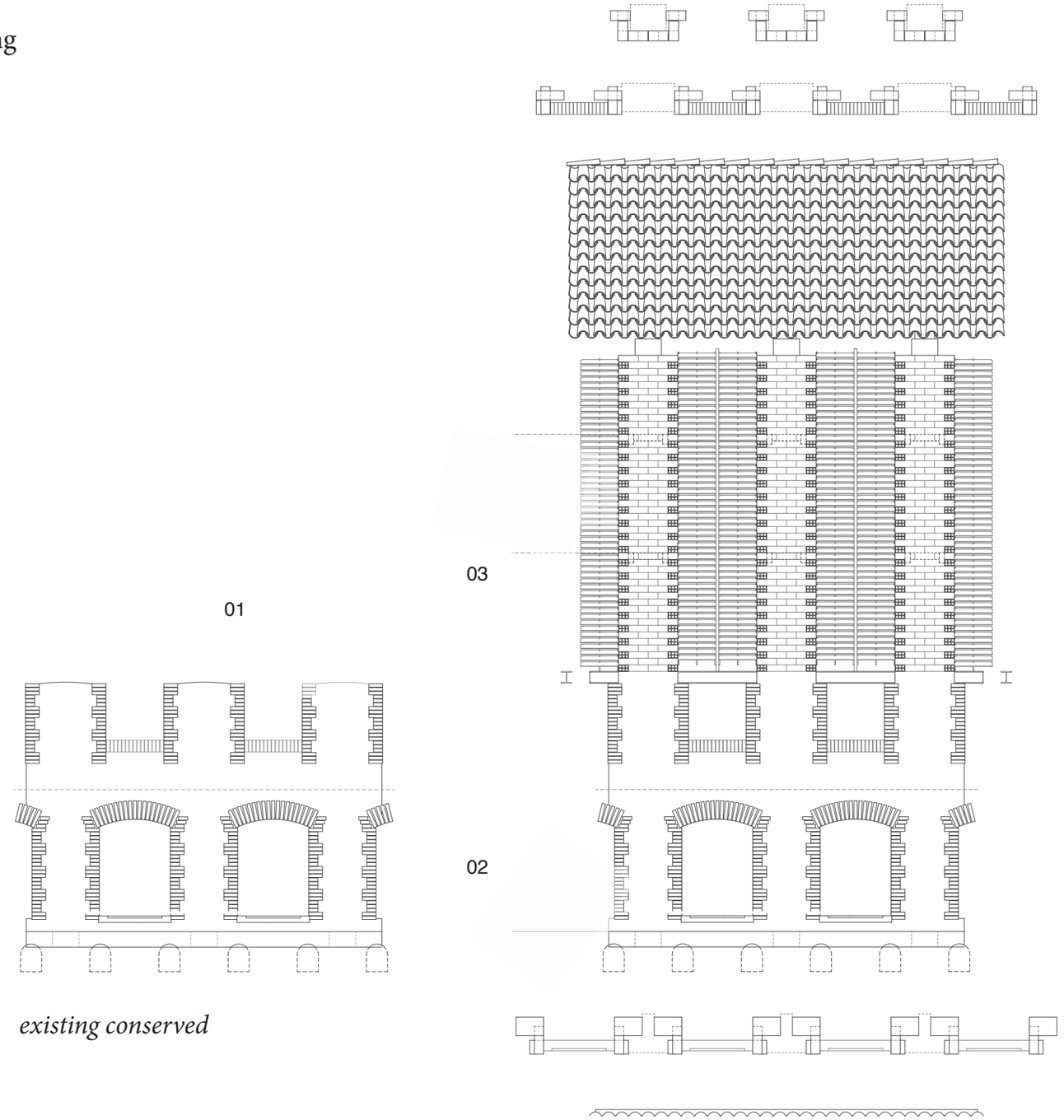
Echelle 1/150ème
Le 07/07/2009
Société E.T.B
86, rue Finlande 81000 ALBI



[17]
Gordon Matta-Clark (1974), *Splitting*. Estate of Gordon Matta-Clark / Artist Rights Society (ARS-, New-York.



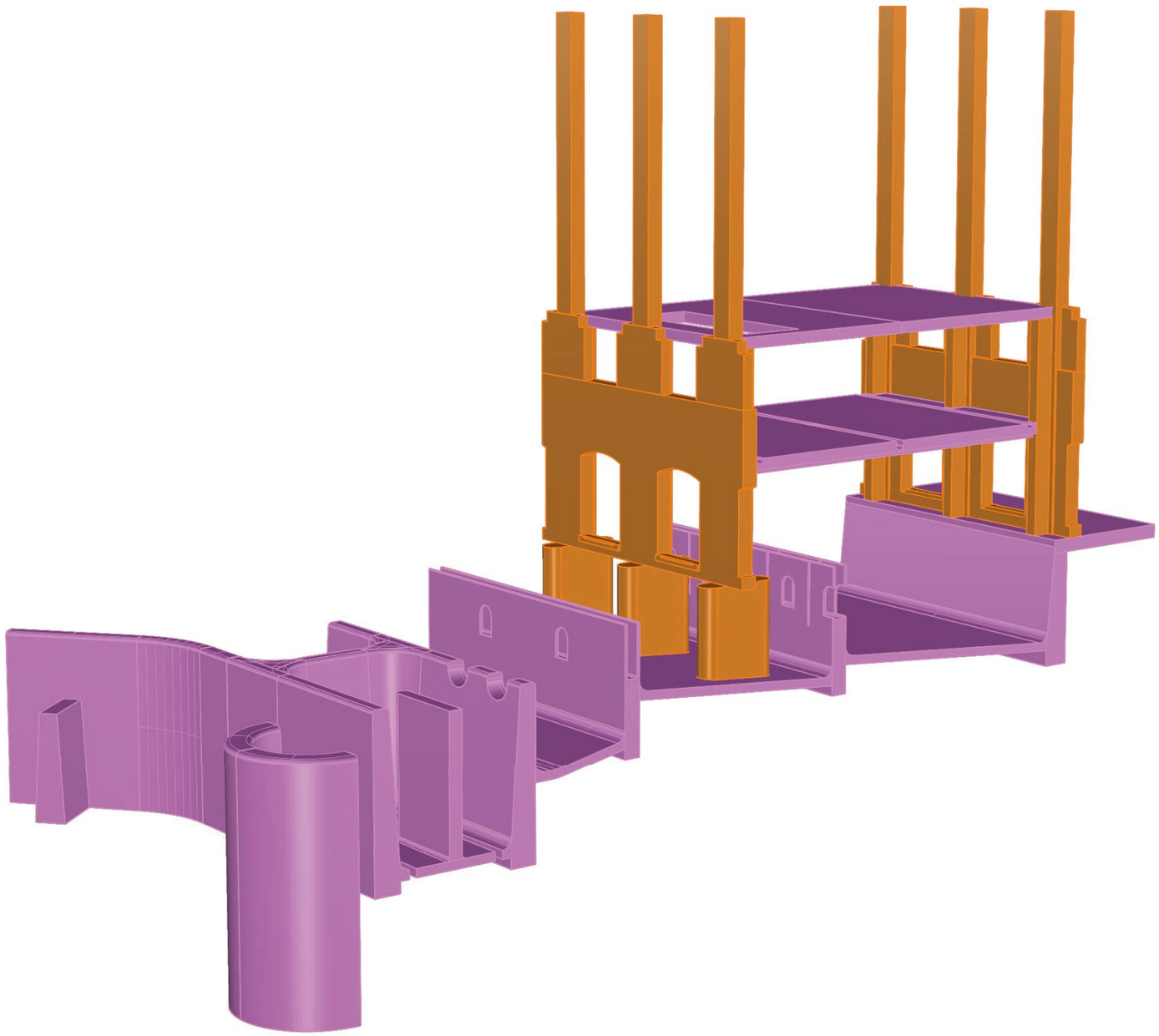
[18]
Elevation of the studied typology with identification of the main materials and elements. Drawing by the author.



01 masonry;
02 bricks;
03 timber.

[19]
3D-model of the studied typology on rhino. Materiality highlighted. Author.

Masonry.



[20]
3D-model of the studied typology on rhino. Materiality highlighted. Author.

Timber.



[21]
3D-model of the studied typology on rhino. Materiality highlighted. Author.

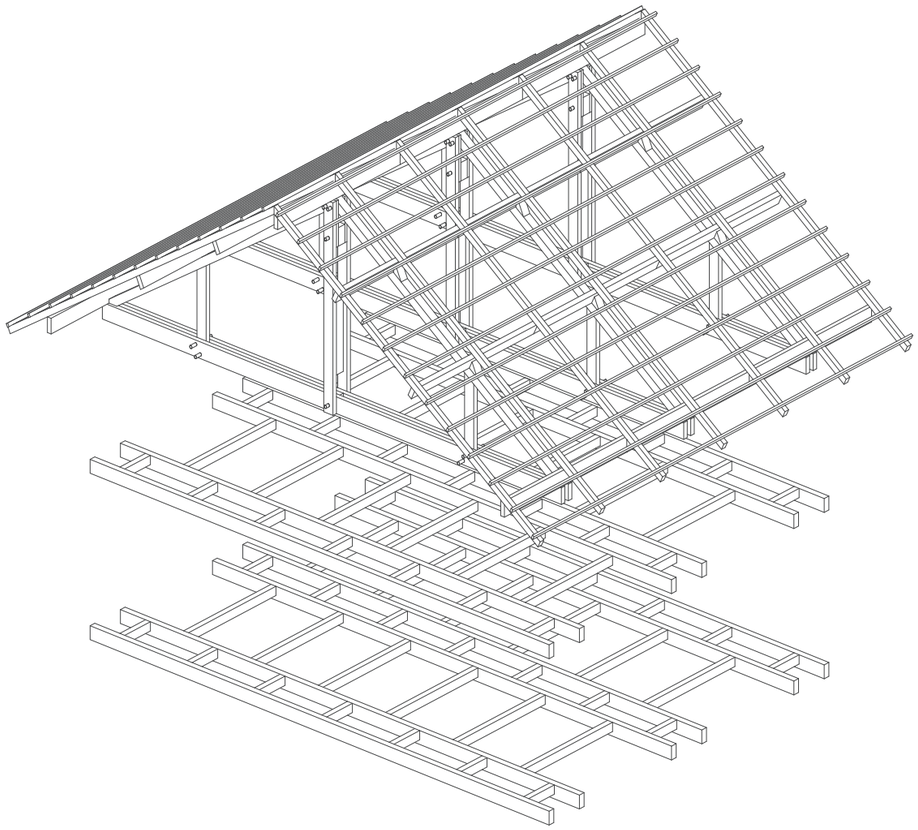
Ceramic.

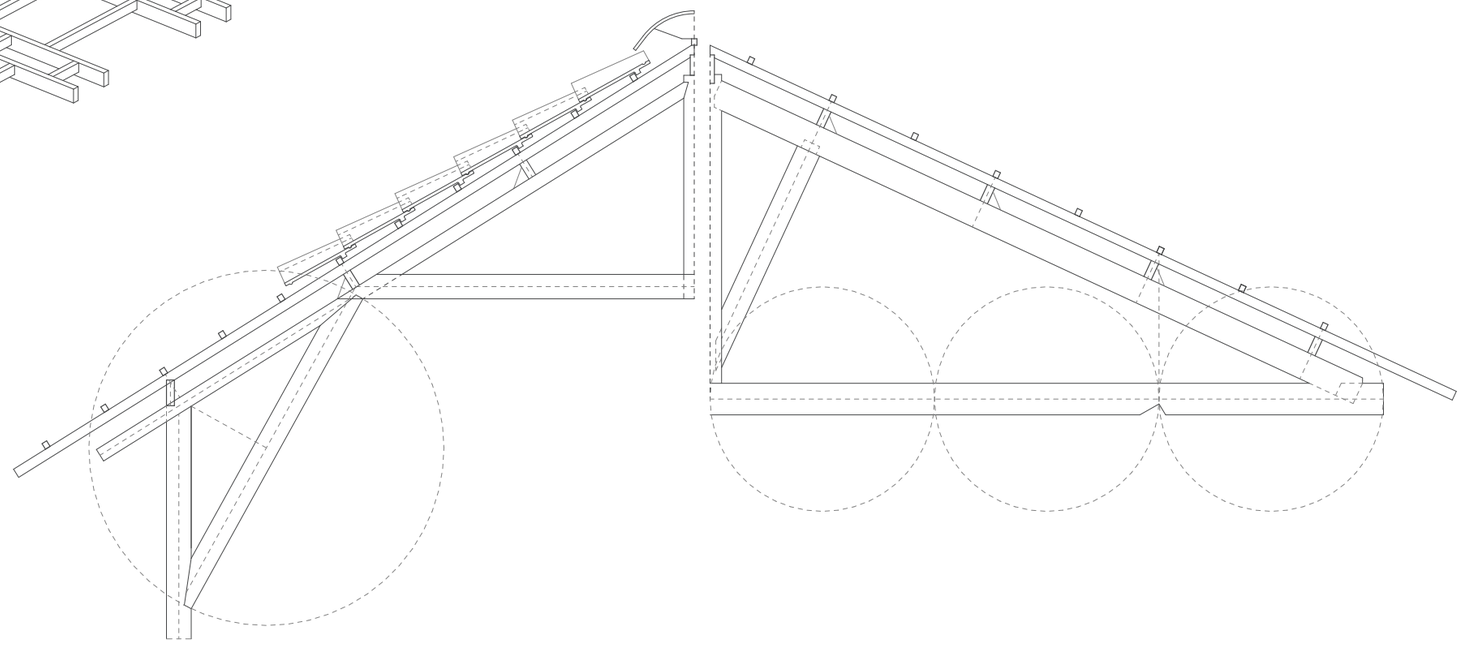


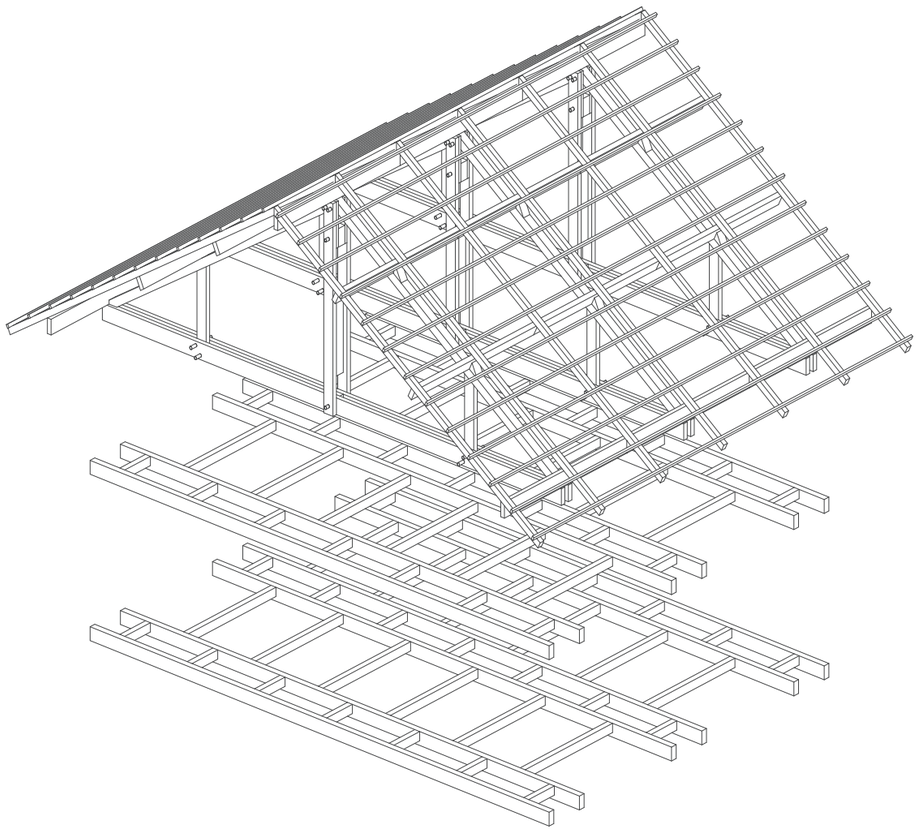
[22]
3D-model of the studied typology on rhino. Materiality highlighted. Author.

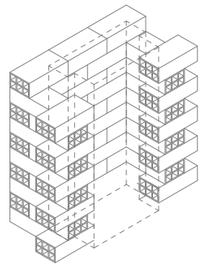
Steel.

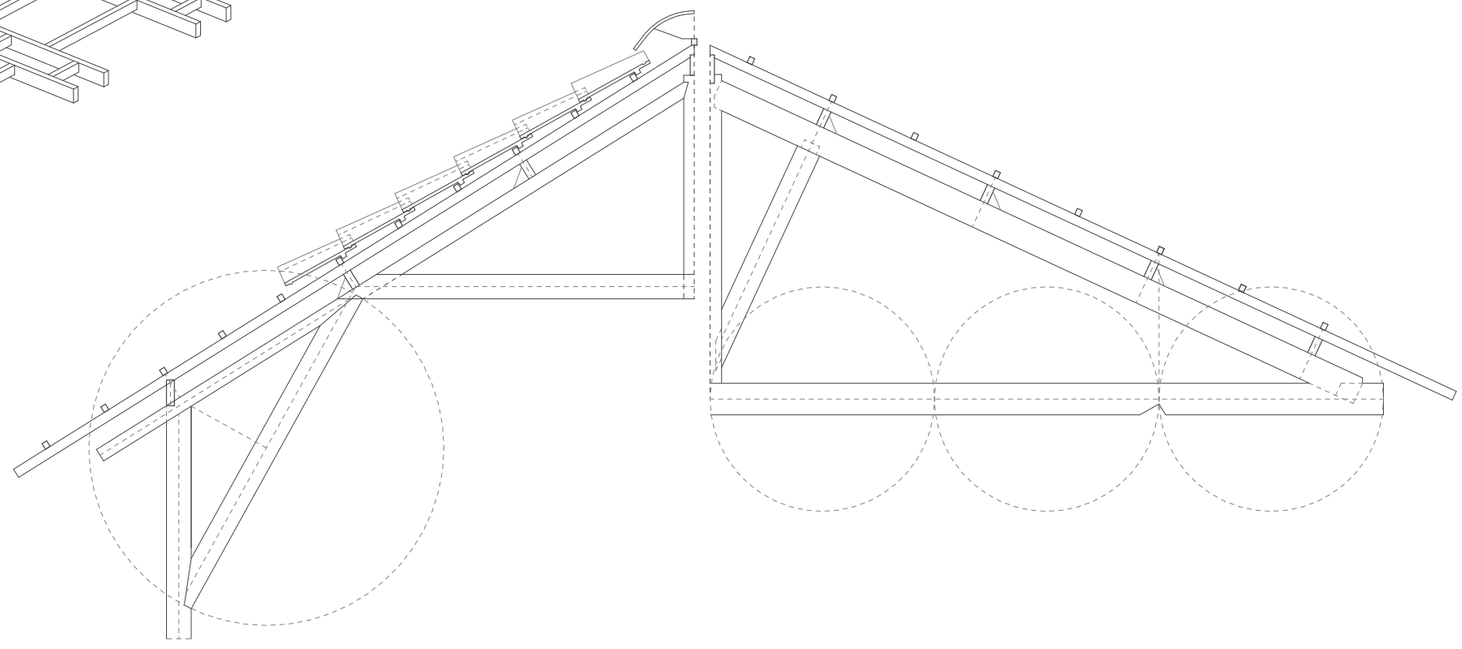


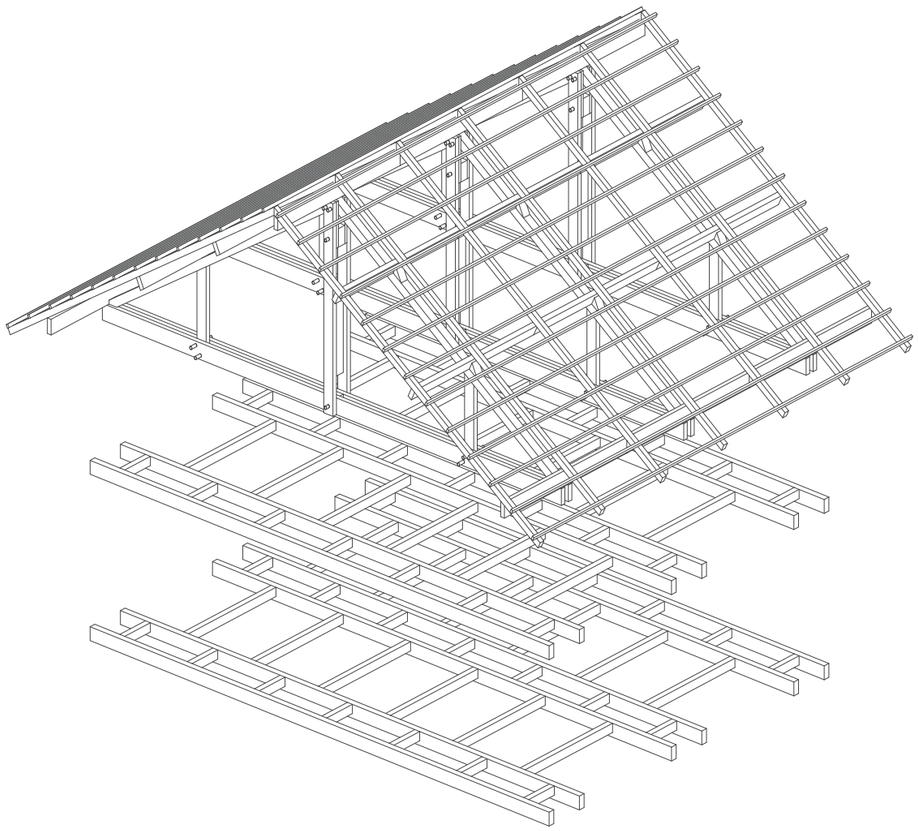


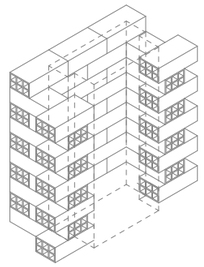


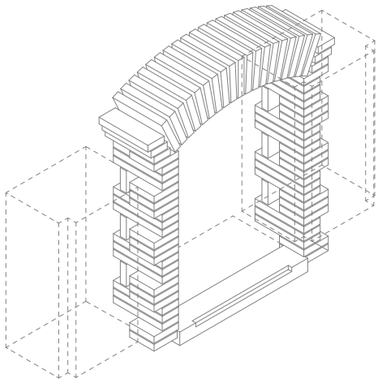


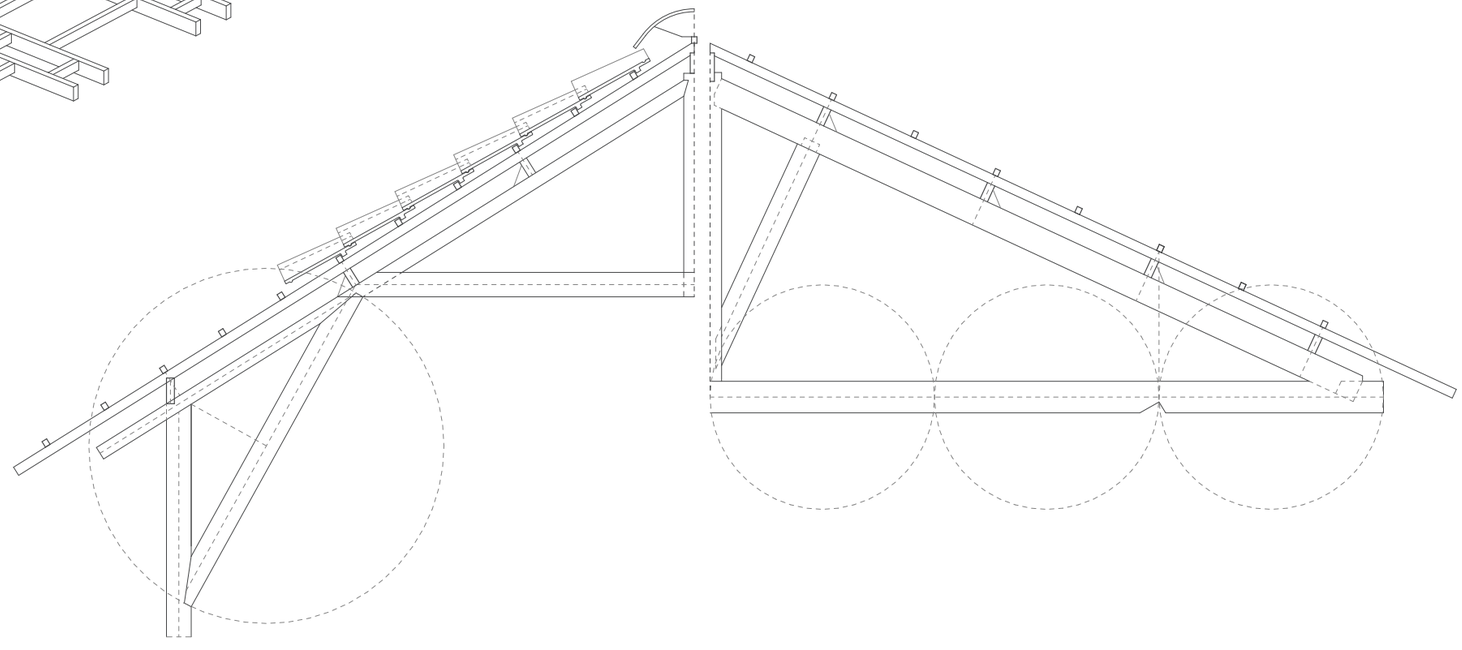




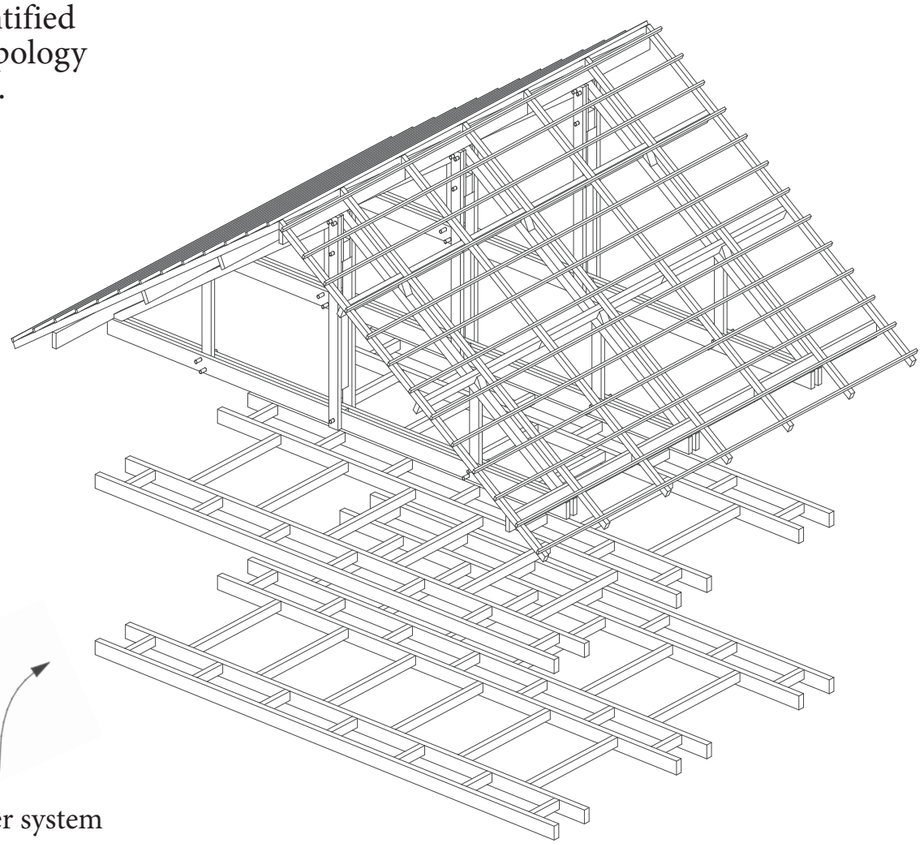




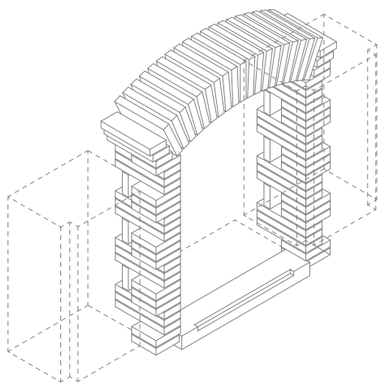


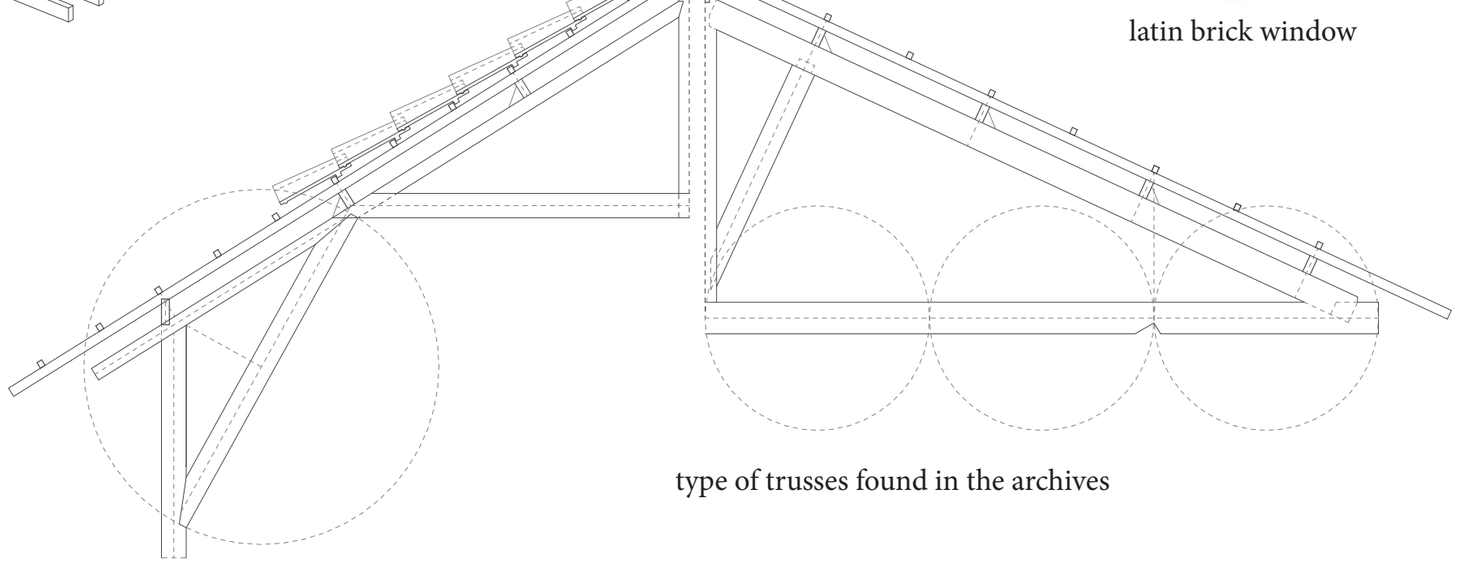


[23]
Drawings of various timber-based products and masonry identified during the typology study. Author.



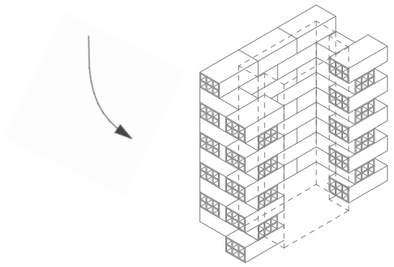
timber system

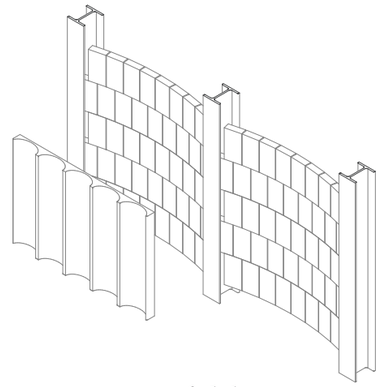




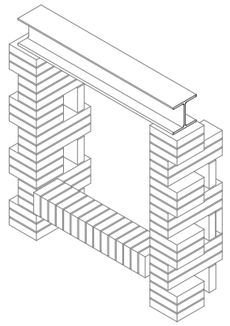
type of trusses found in the archives

extruded brick columns





type of slabs

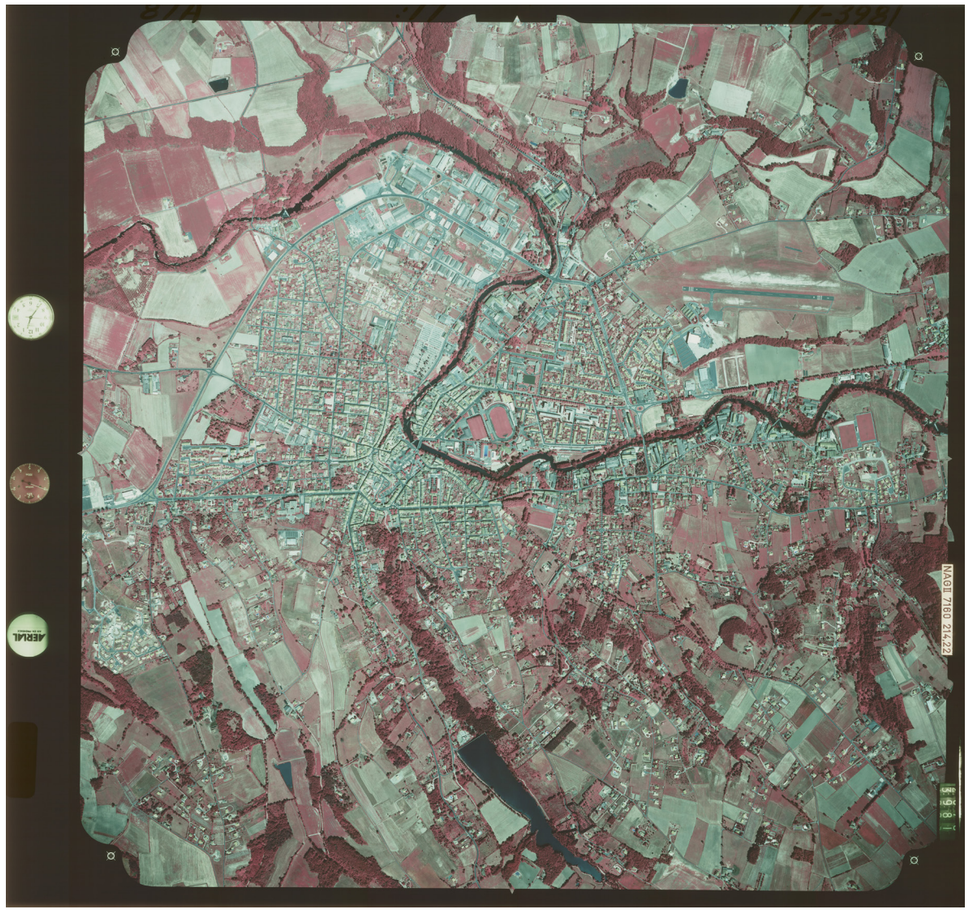


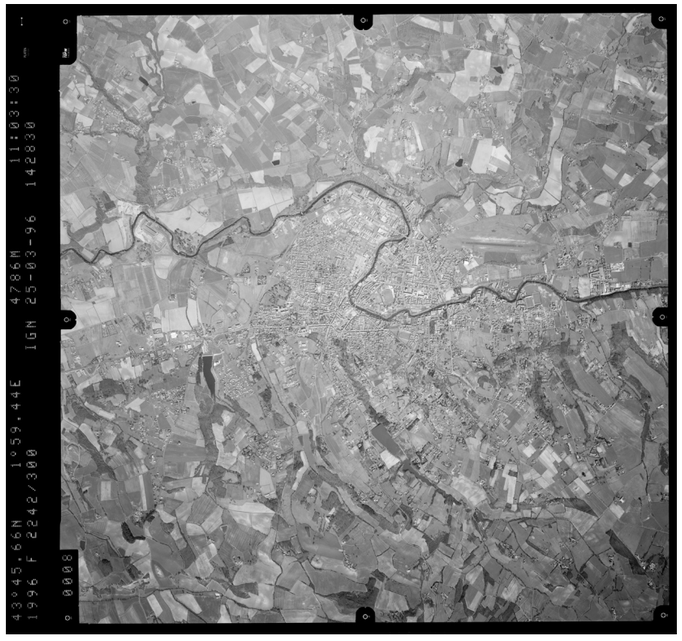
latin brick window

the transformation of existing wastelands requires a thorough understanding of how the mégisserie operates in order to assign each element of the construction its precise function,

[24]
Aerial photographs (1965, 1988, and 1996). IGN France.







[25]
Cadastral Area of the *Périmètre Prioritaire de Transformation* (Priority Transformation Perimeter).



[26]
Extracted cadastre
1/500 and 1/1000.
Cadastre.gouv.



[27]
Drone photograph,
DJI Mavic Mini.
Mathieu Robin.



[28]
The site. 5 côte du Moulin. Photographs by author.







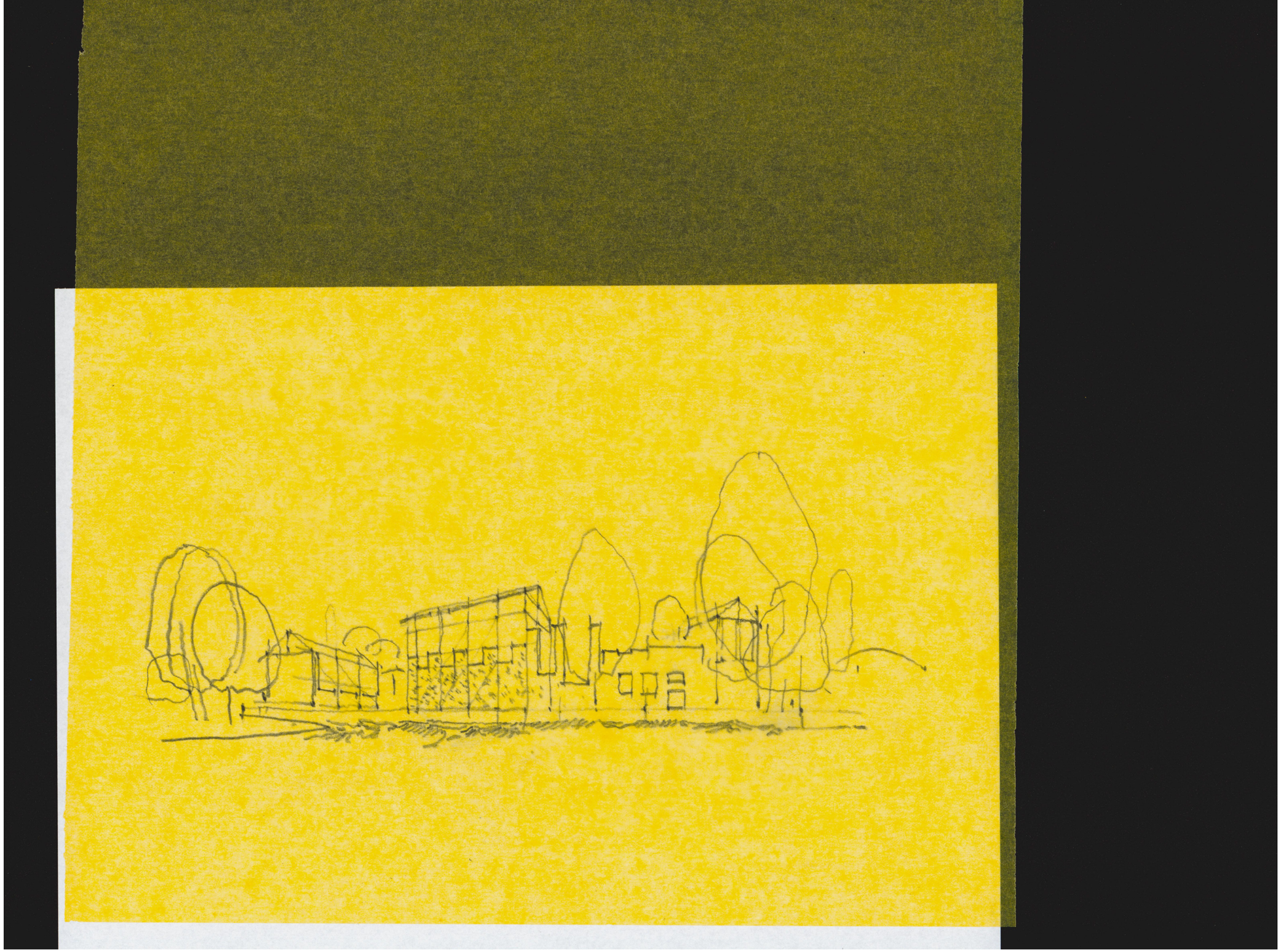








[29]
Drawing.
Author.



[30]
The context of the current city center. Photograph by author.



PROGRAMATIC NEEDS

a cultural center of industries would contributes to the economic revitalization of the region by welcoming artists or designers gathered around the industrial and traditional craftmanships of the region,

an operational framework for hosting craft, research, production and public life within a former industrial landscape,

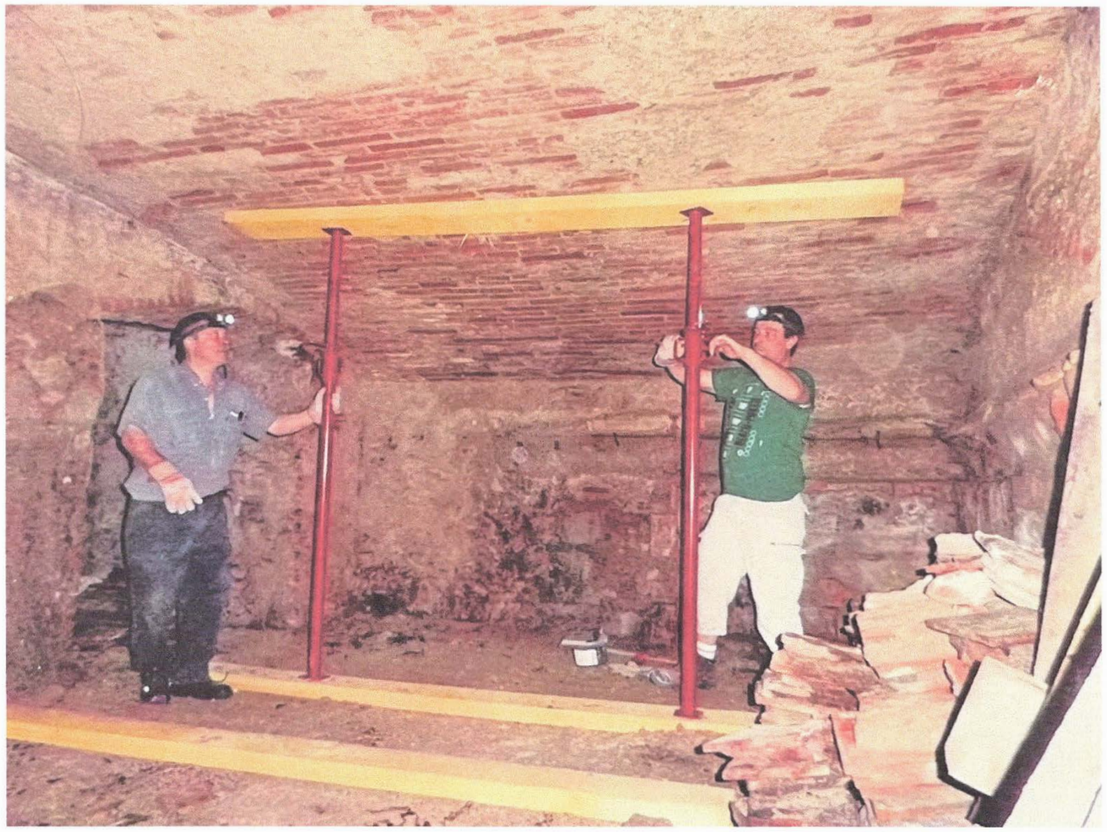
spaces to;

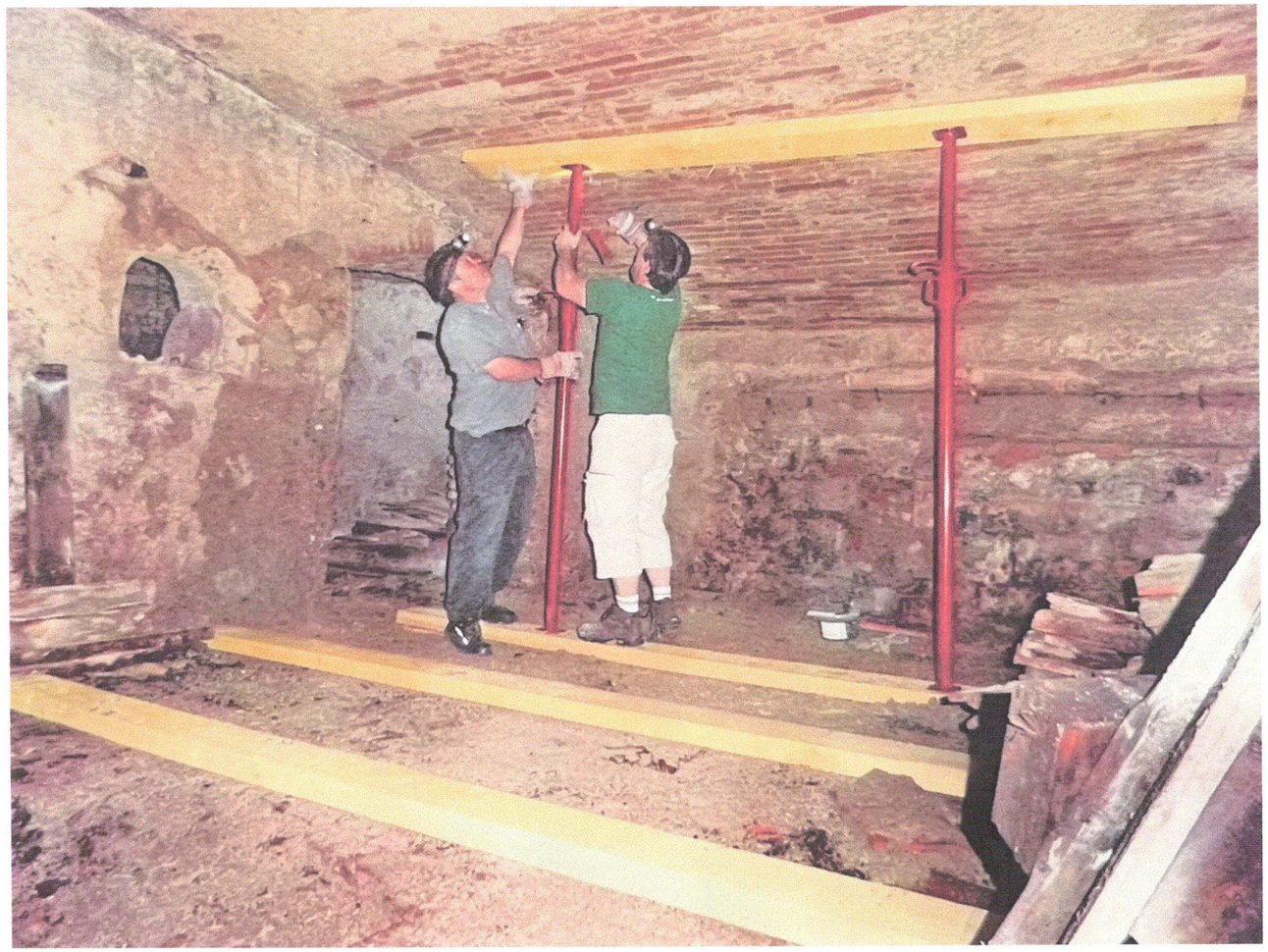
welcome — exhibit — accommodate — meet — make — share

5. BACK TO REALITY: DISMANTLE, REPAIR AND MAINTAIN?

what to keep? site visits, investigations and surveys,

[31]
Courtesy of Michel Boe, landlord of the plot (2001). *Archive photographs scanned during a meeting in Toulouse with the landlords*. All right reserved.







[32]
Courtesy of Michel Boe, landlord of the plot (2001). Site visit on 14 October 2025. Photographs by the author.



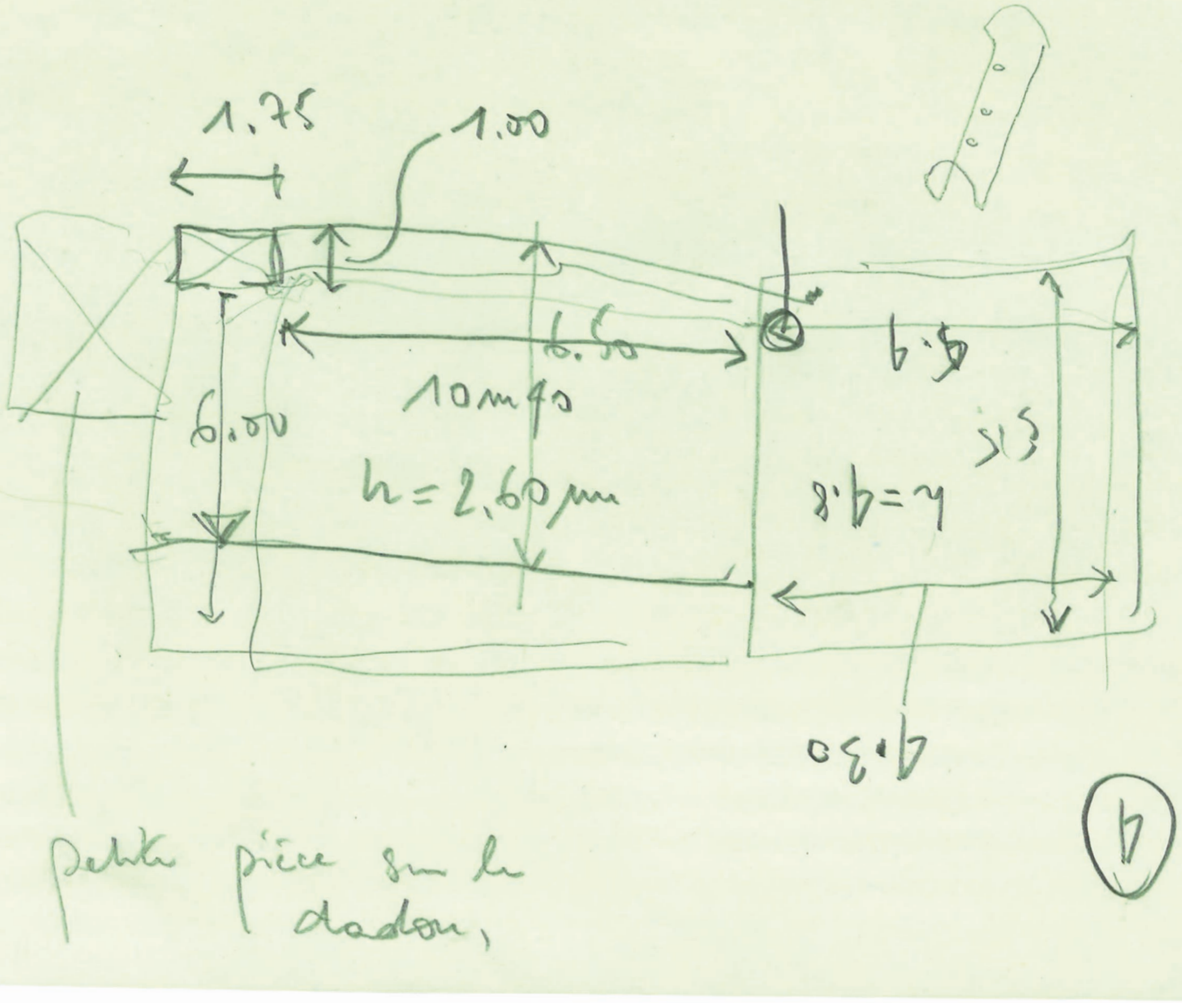






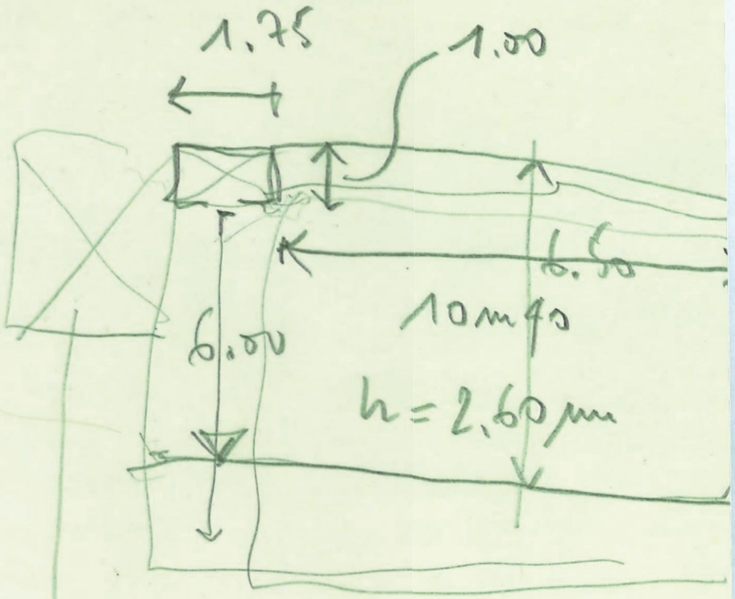
[33]
Courtesy of Michel Boe, landlord of the plot (2001). Site visit on 14 October 2025. Photographs by the author.



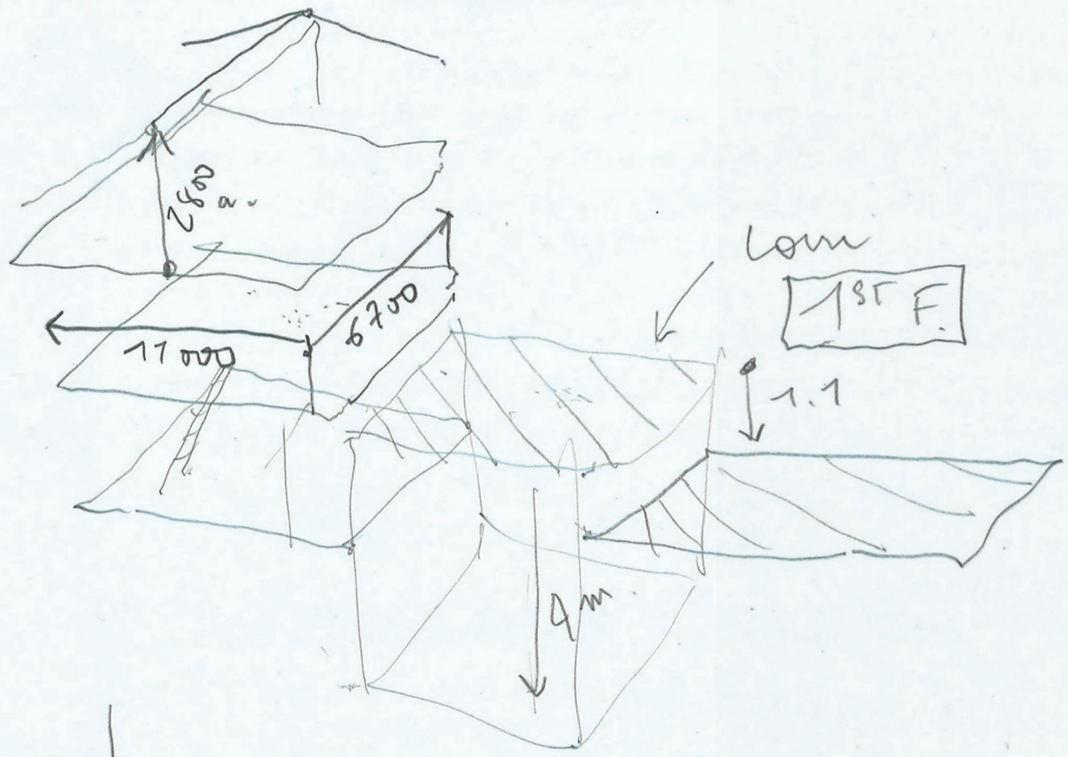


petite pièce sur le dessus,

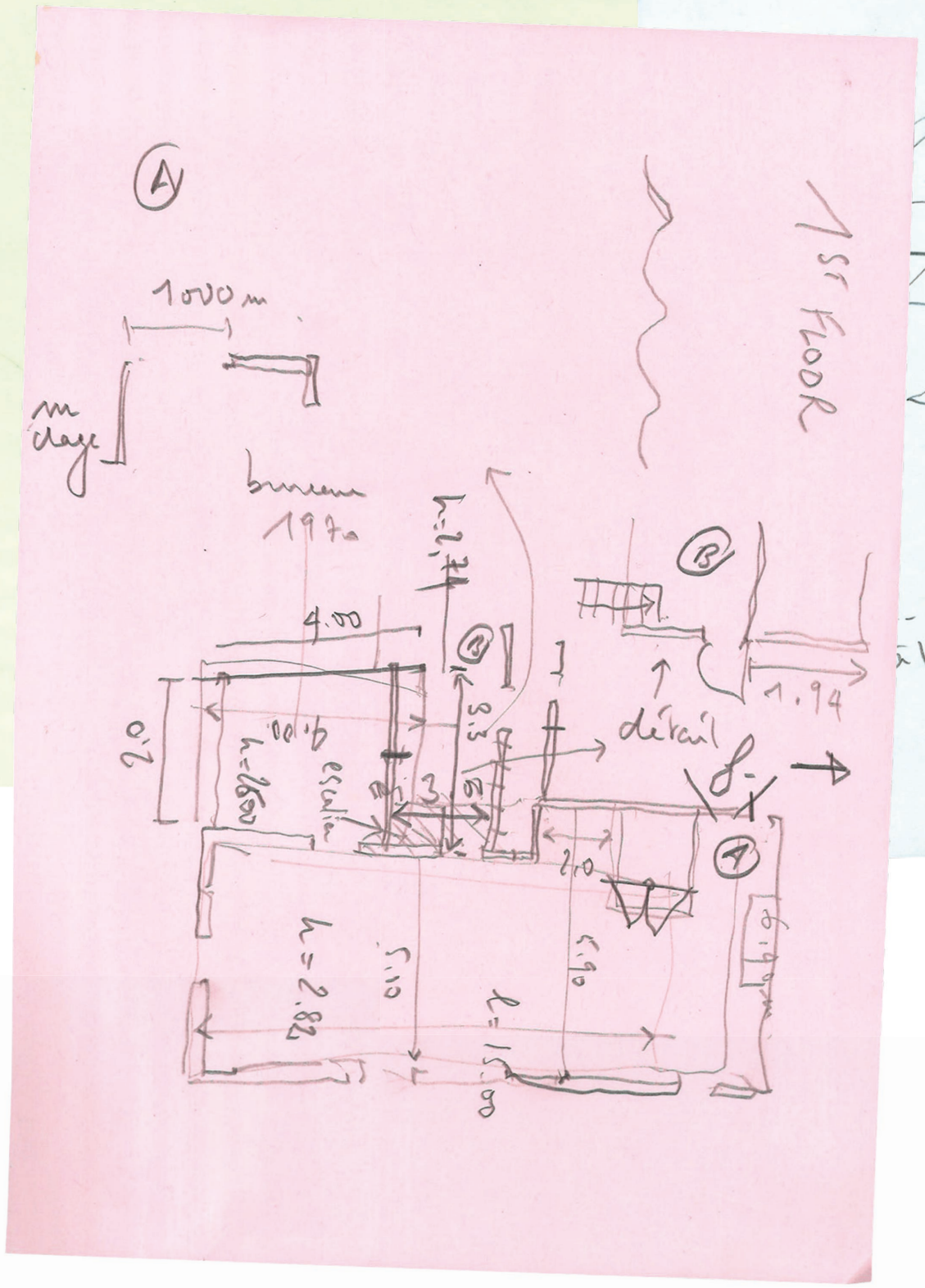
(4)

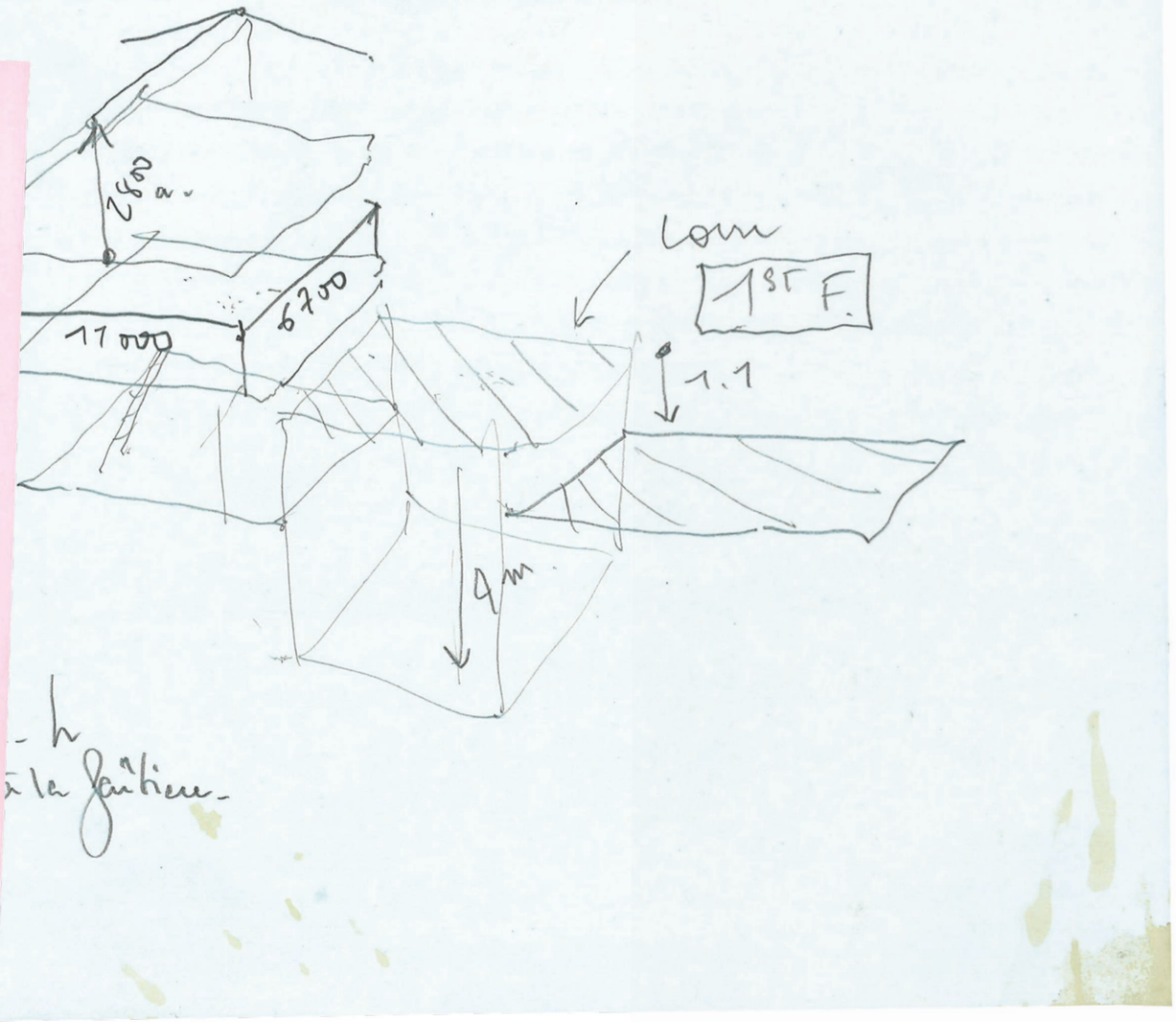


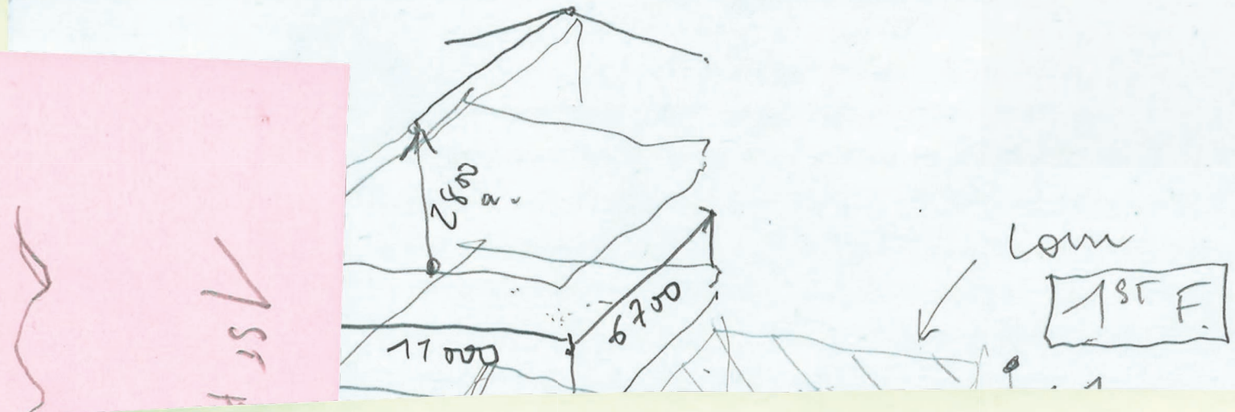
petite pièce sur le dodon,

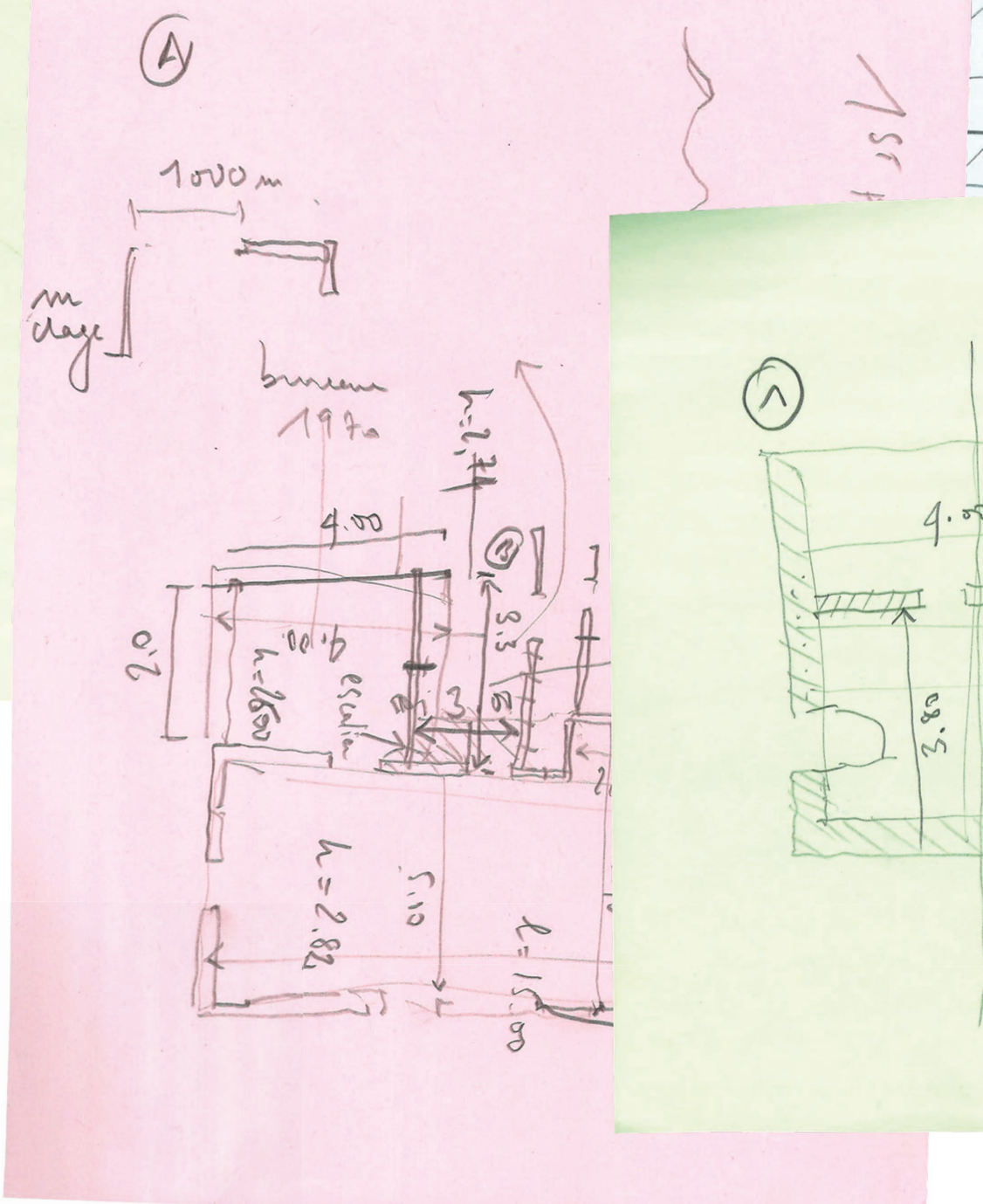


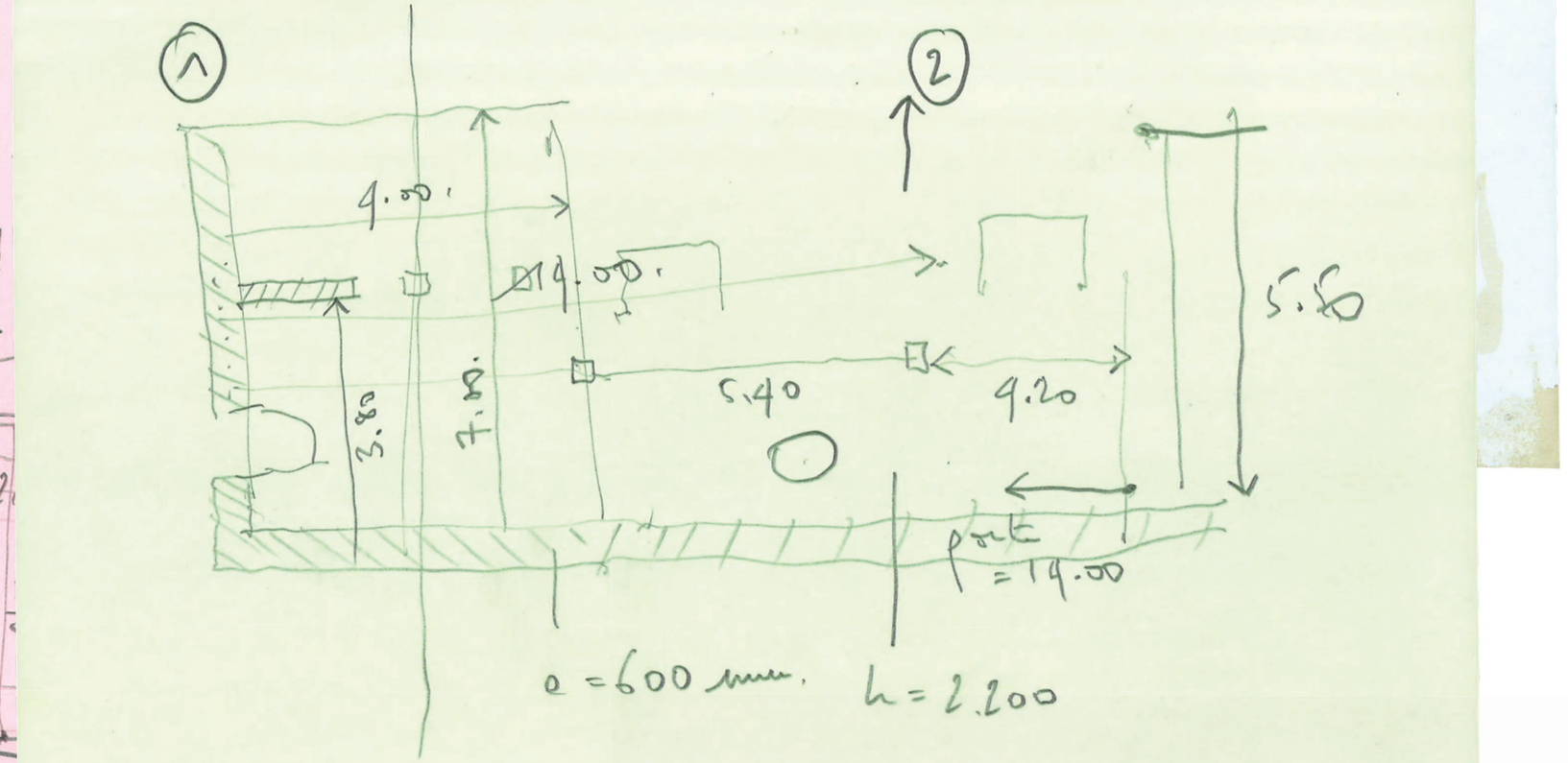
a. h
à la fenêtre.

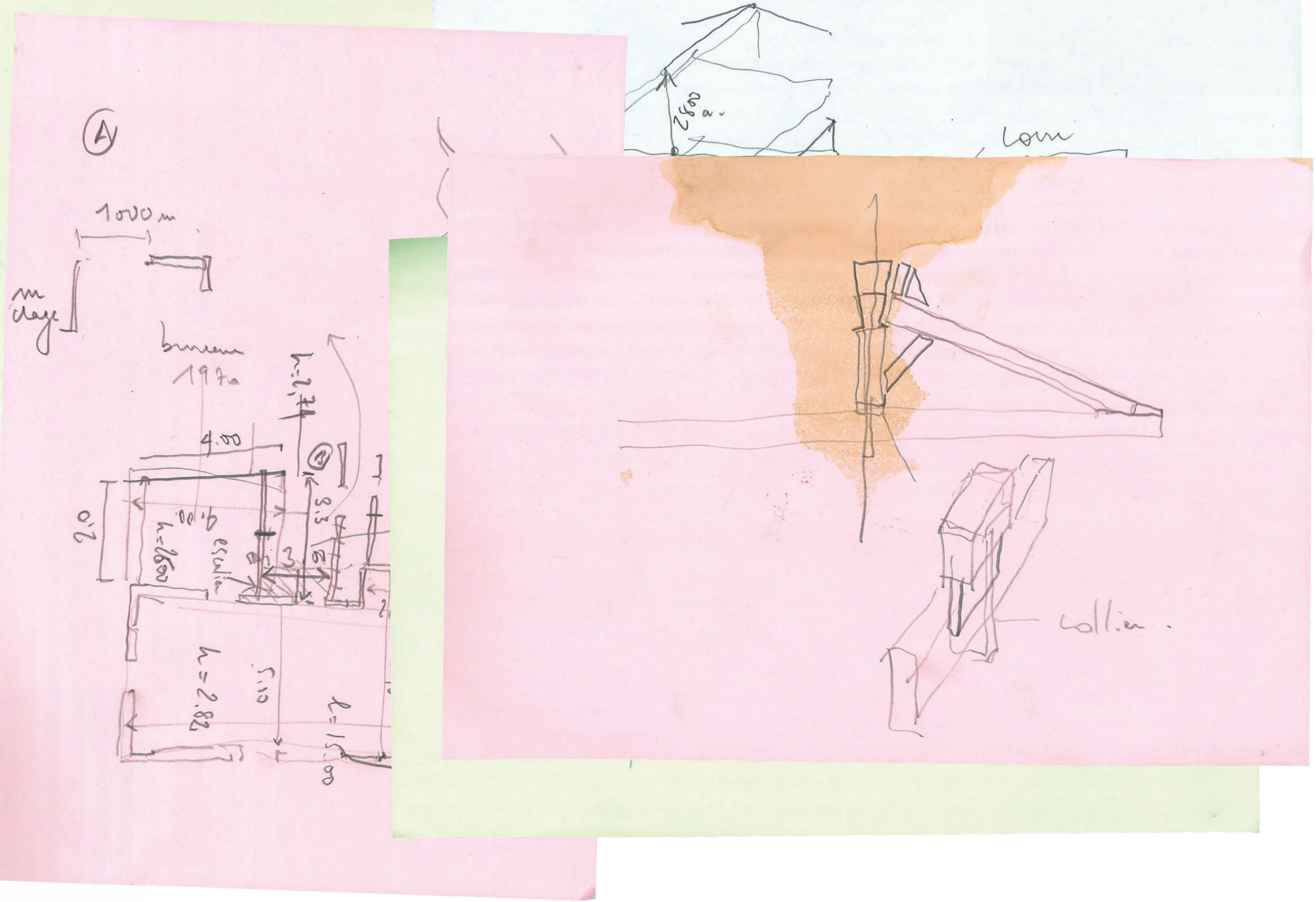

A
1000 m
mur dalle
bureau
19 m²
1.74
1.94
4.00
2.0
2.82
1.10
1.90
0.70
3
B
détail
1.94
1ST FLOOR

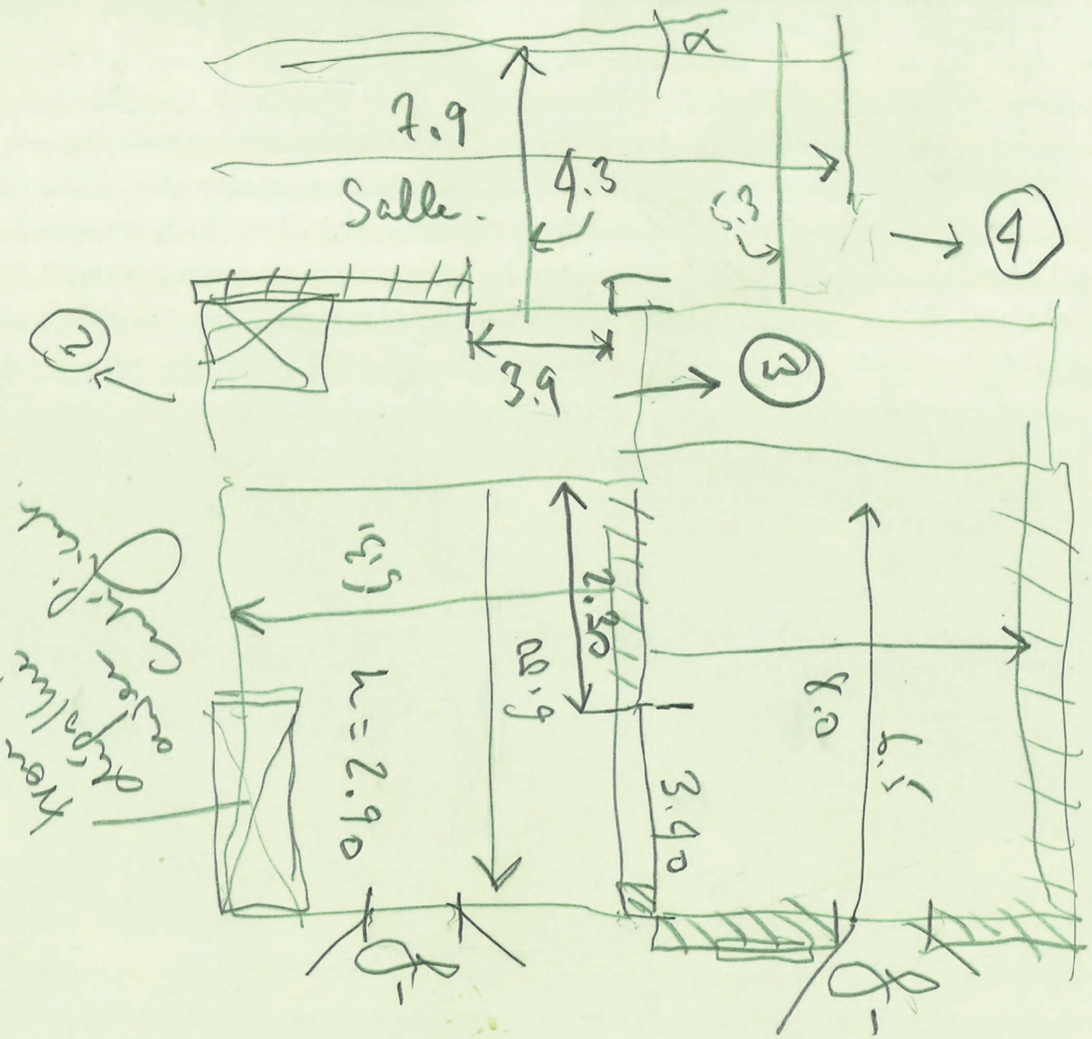

2.50 m
11 000
6700
Low
1ST F.
1.1
9 m
- h
à la fenêtre -


1550 m.
17 000
6700
Low
1ST F.


A
1000 m
m dage
bureau
19 m
4.00
2.0
escalier
3
2.82
1.10


A
2
4.00.
14.00.
5.40
9.20
5.60
3.80
7.80
porte
=14.00
e=600 mm.
h=2.200

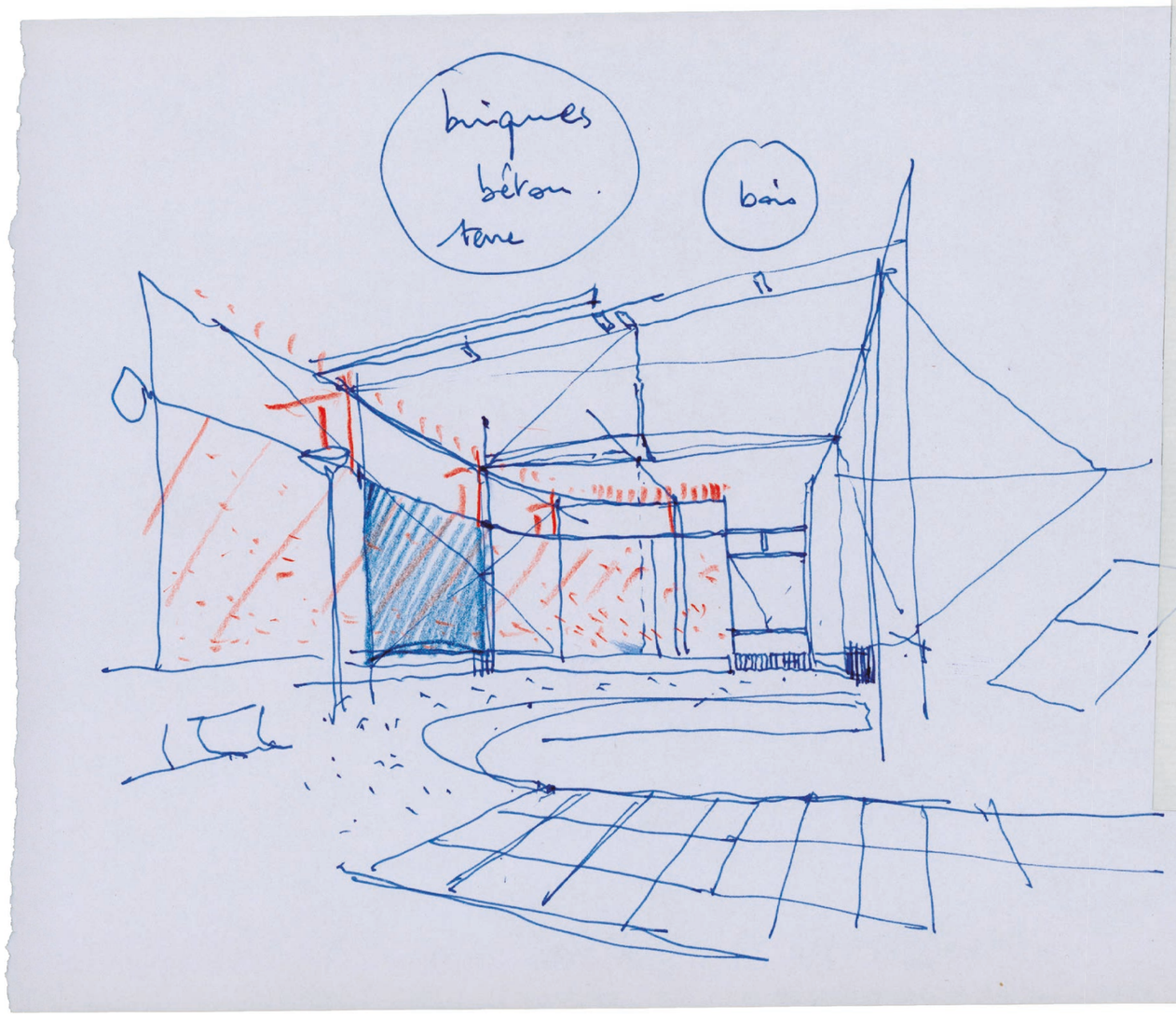

A
1000 m
m
dage
bureau
197a
4.00
2.70
h=2.82
3
escalier
Loue
Colline.

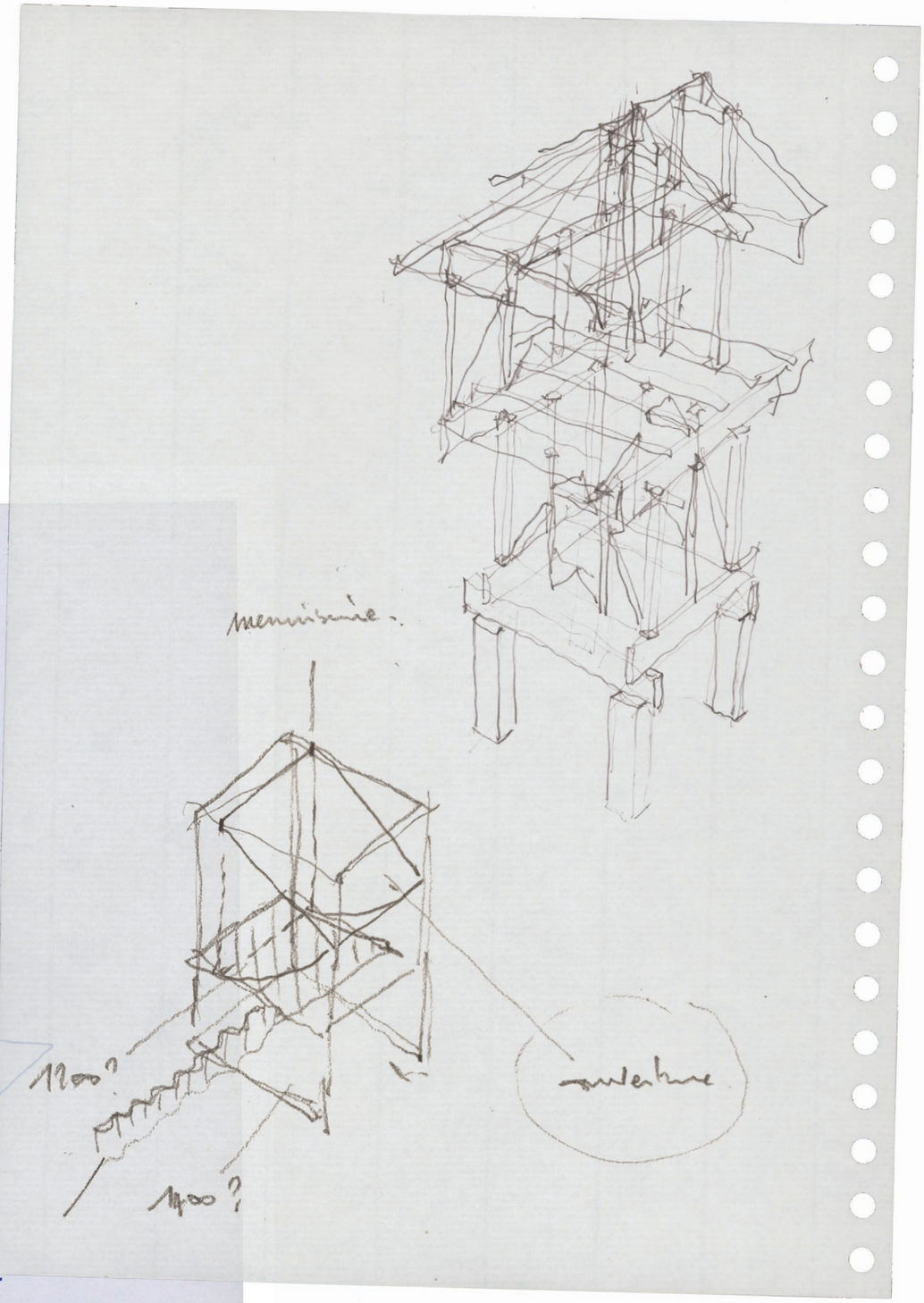

7.9
Salle.
4.3
3.9
3.90
3.90
h=2.90
3.90
3.90
3

6. THE BRICK, THE RAFTER AND THE SOUTHERN SUN

set of drawing,
project proposal,

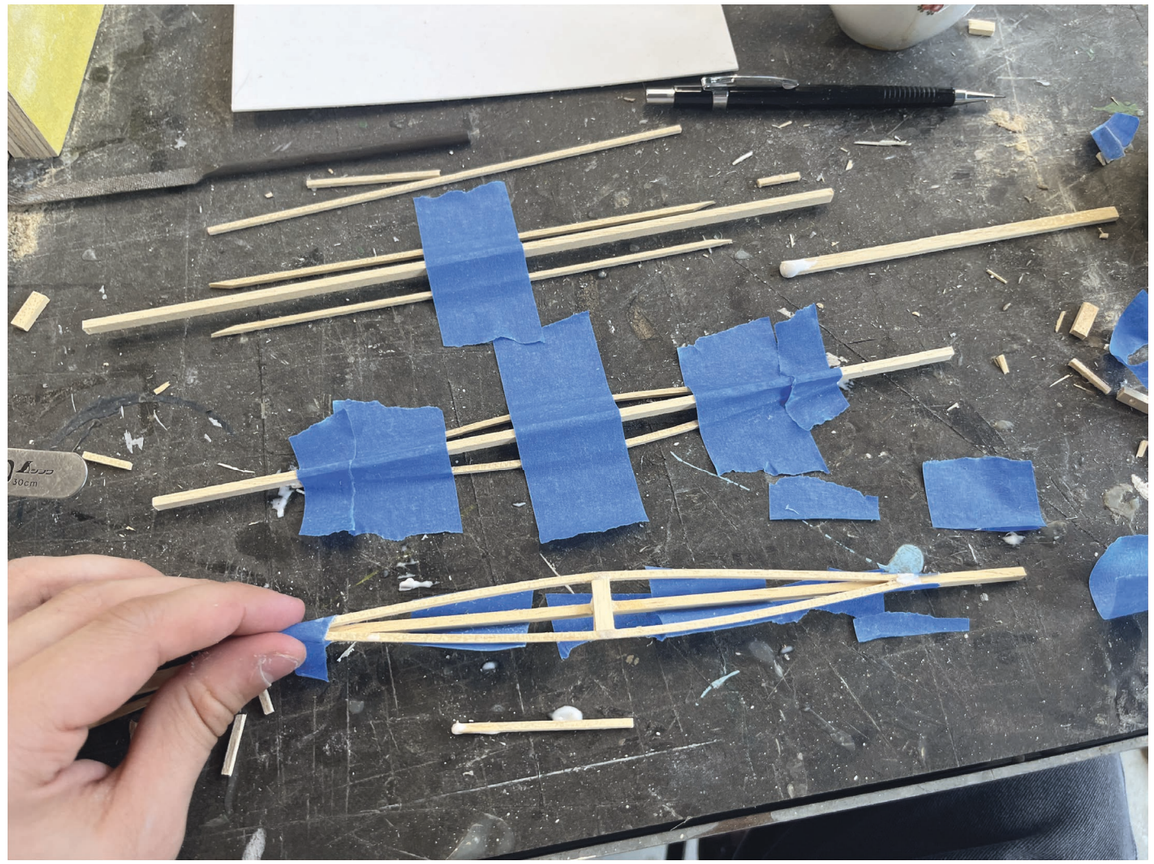
[34]
Working phases, drafts and iterations (2025). Author.





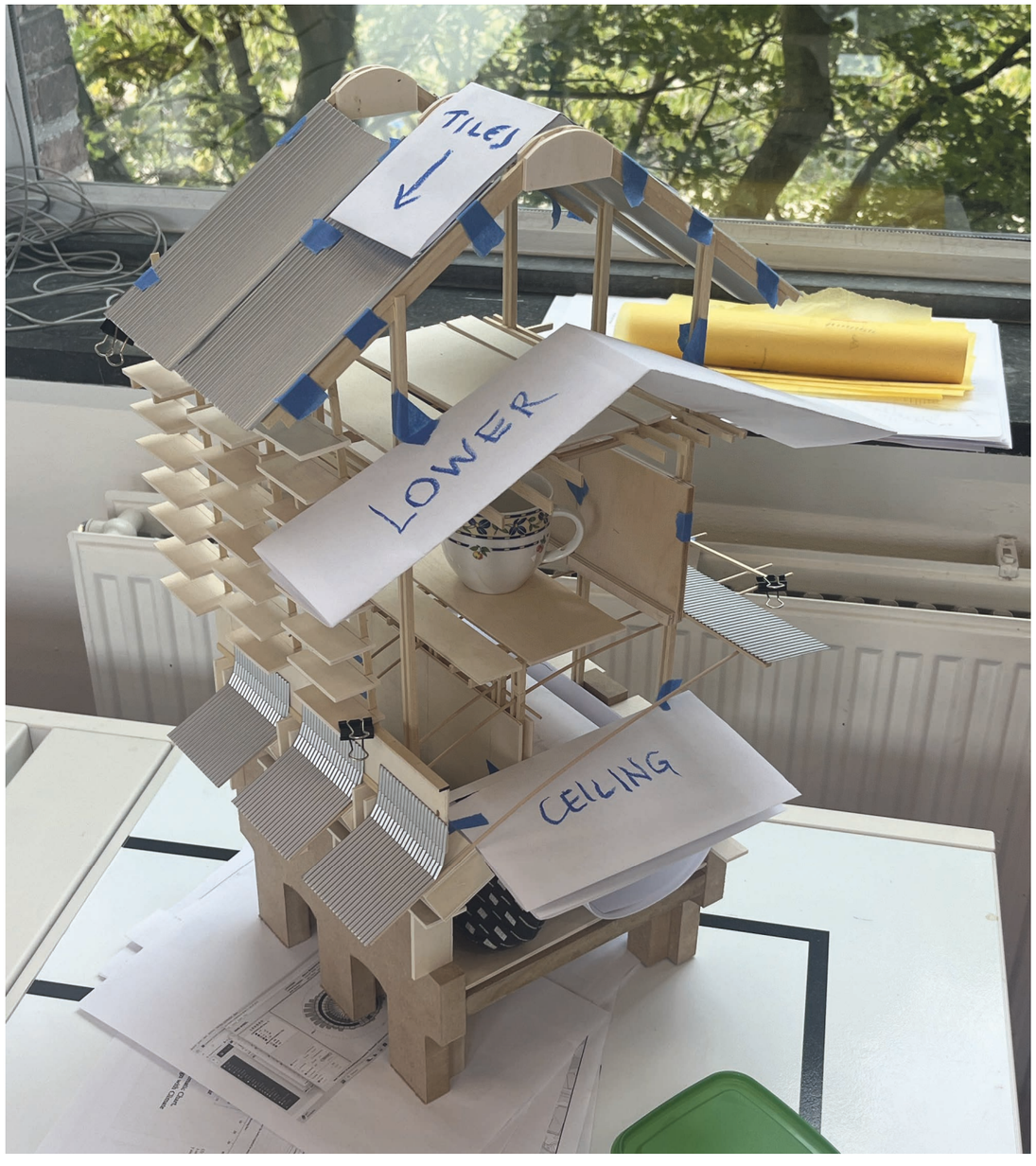
[35]
Structural
experimentations
(2024). Author.







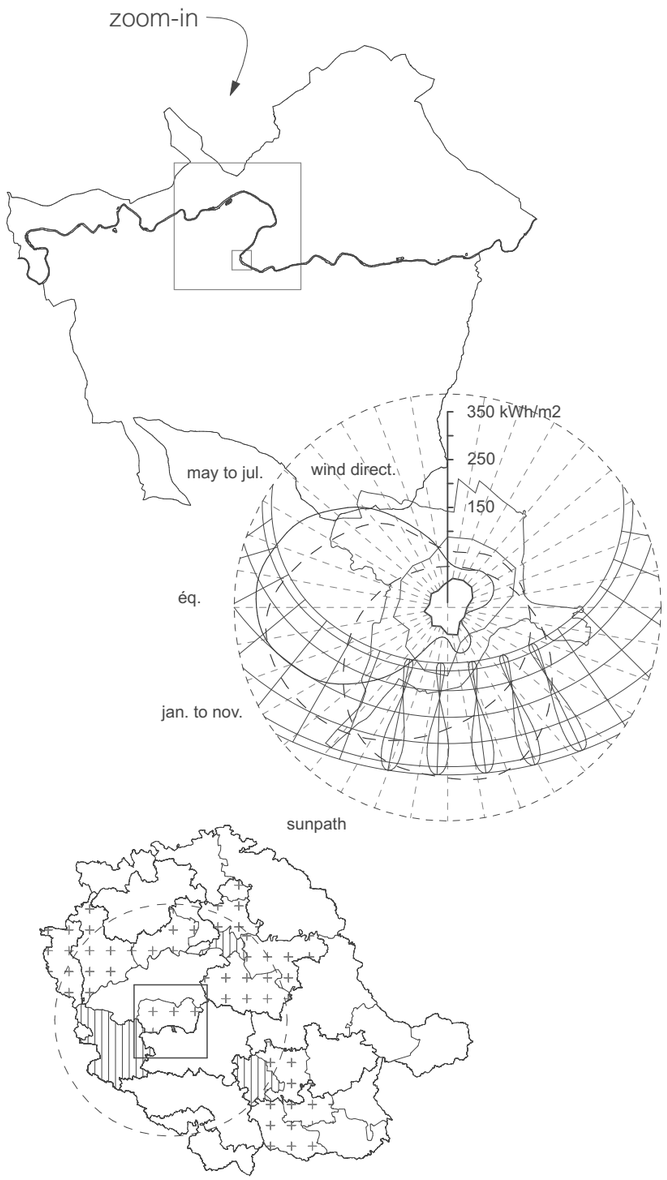
[36]
Structural
experimentations
(2024). Author.

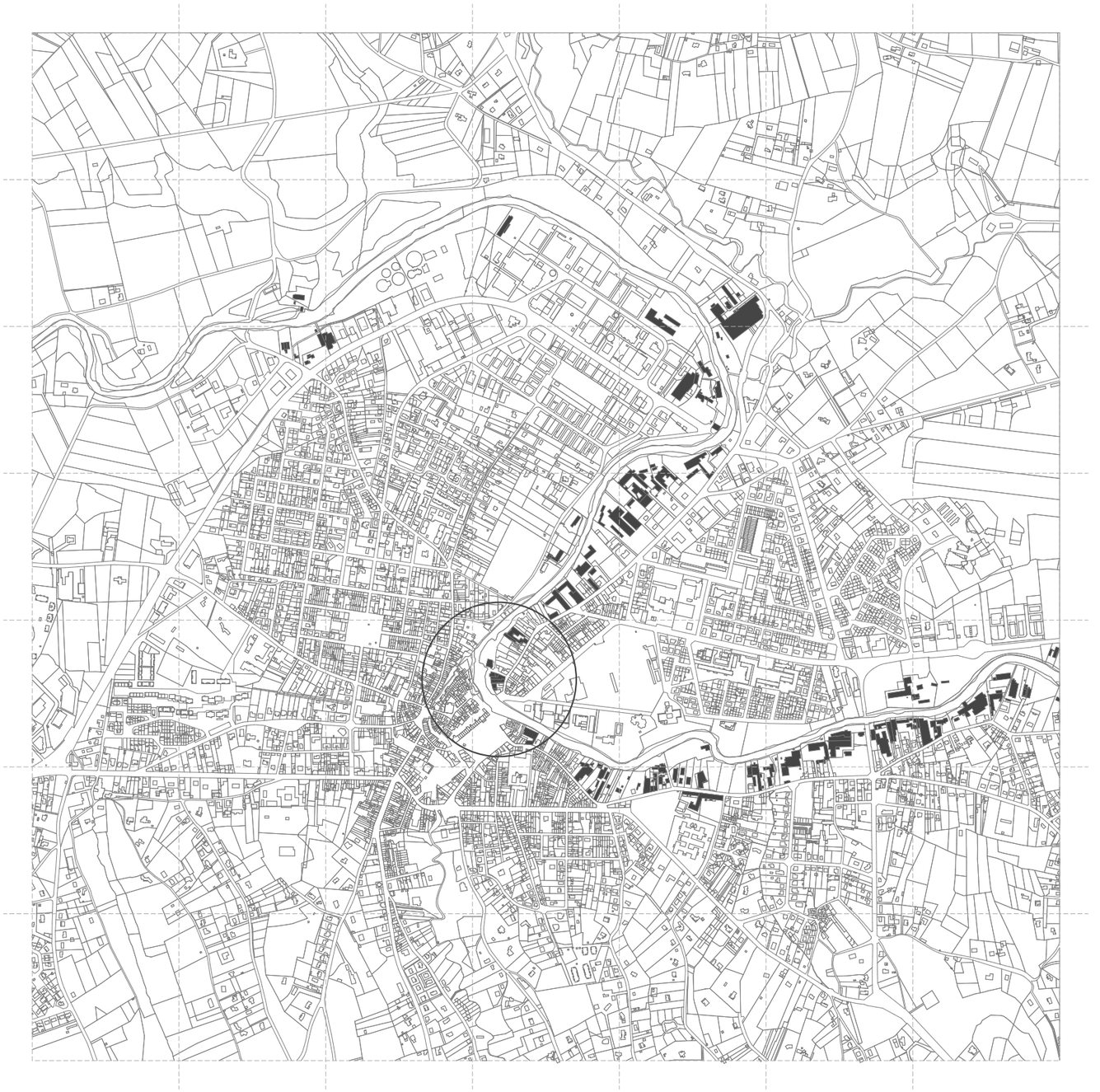






clément taulelle,





PLAN, LOCALISATION — 1:15000

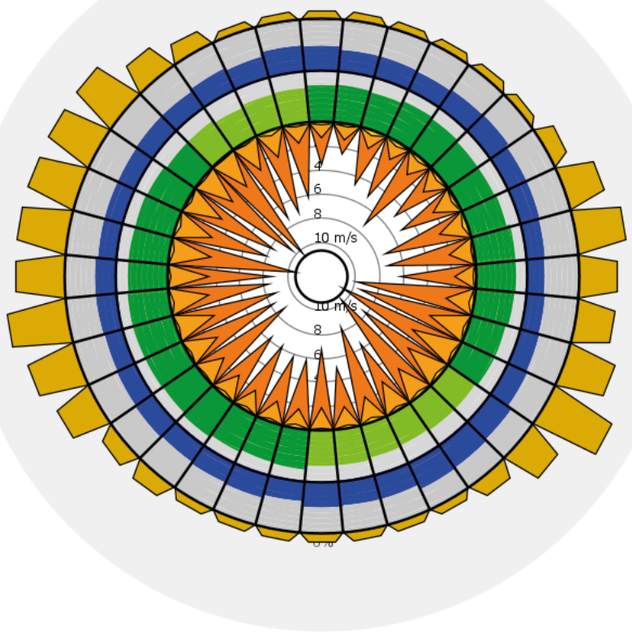
"the brick, the rafter and the southern sun"
published on thursday, the fifteenth of january,

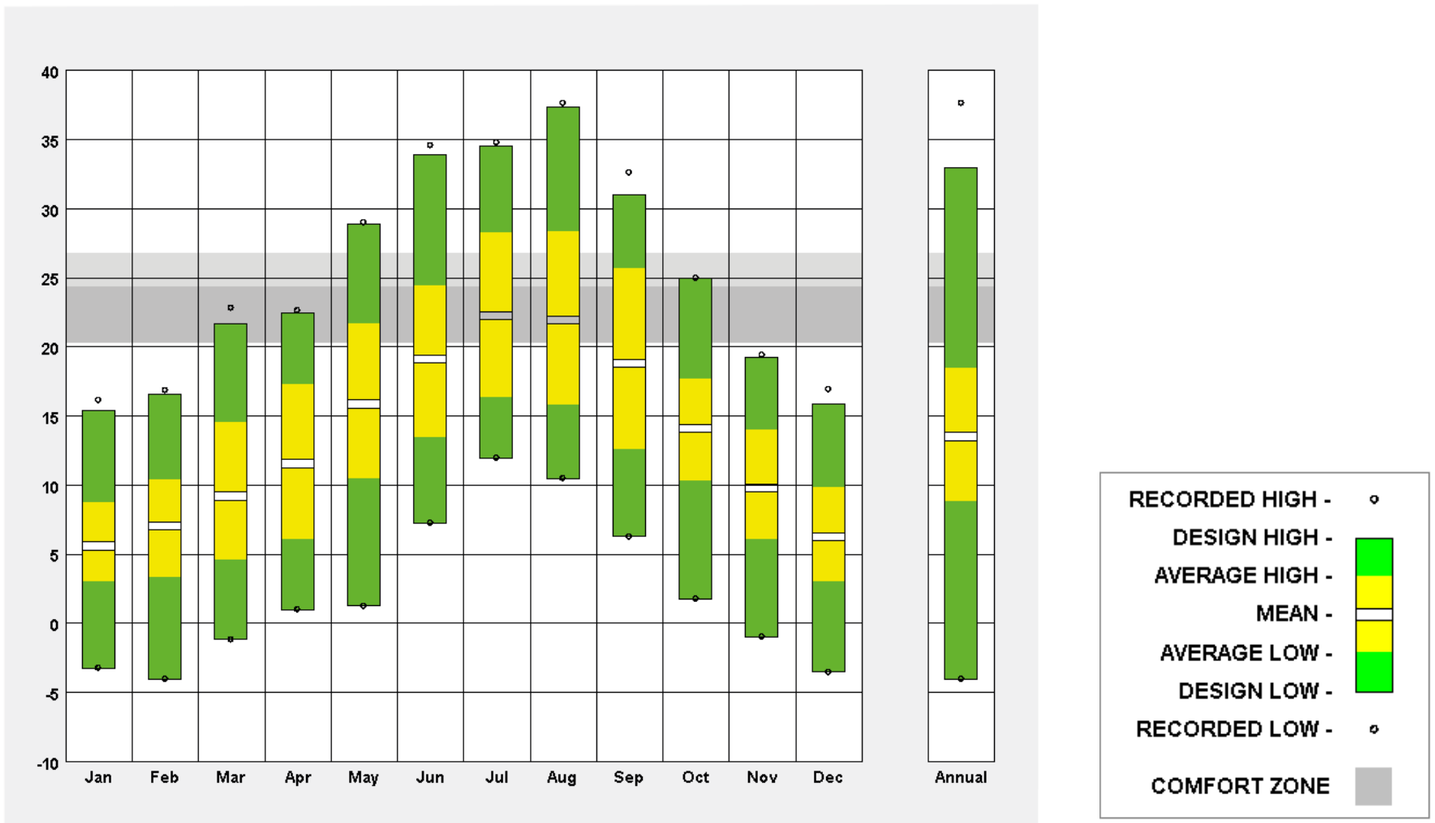
delft university of technology,

aE graduation studio, fall/25

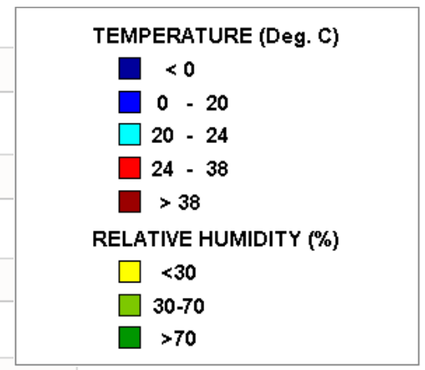
[37]
Climate Consultant 6.0, data extracted from local epw file. Author.

LOCATION: **Albi-Le.Sequestre.AP, LP, FRA**
Latitude/Longitude: 43.9147° North, 2.1164° East, **Time Zone from Greenwich** 1
Data Source: SRC-TMYx 076320 WMO Station Number, **Elevation** 171 m

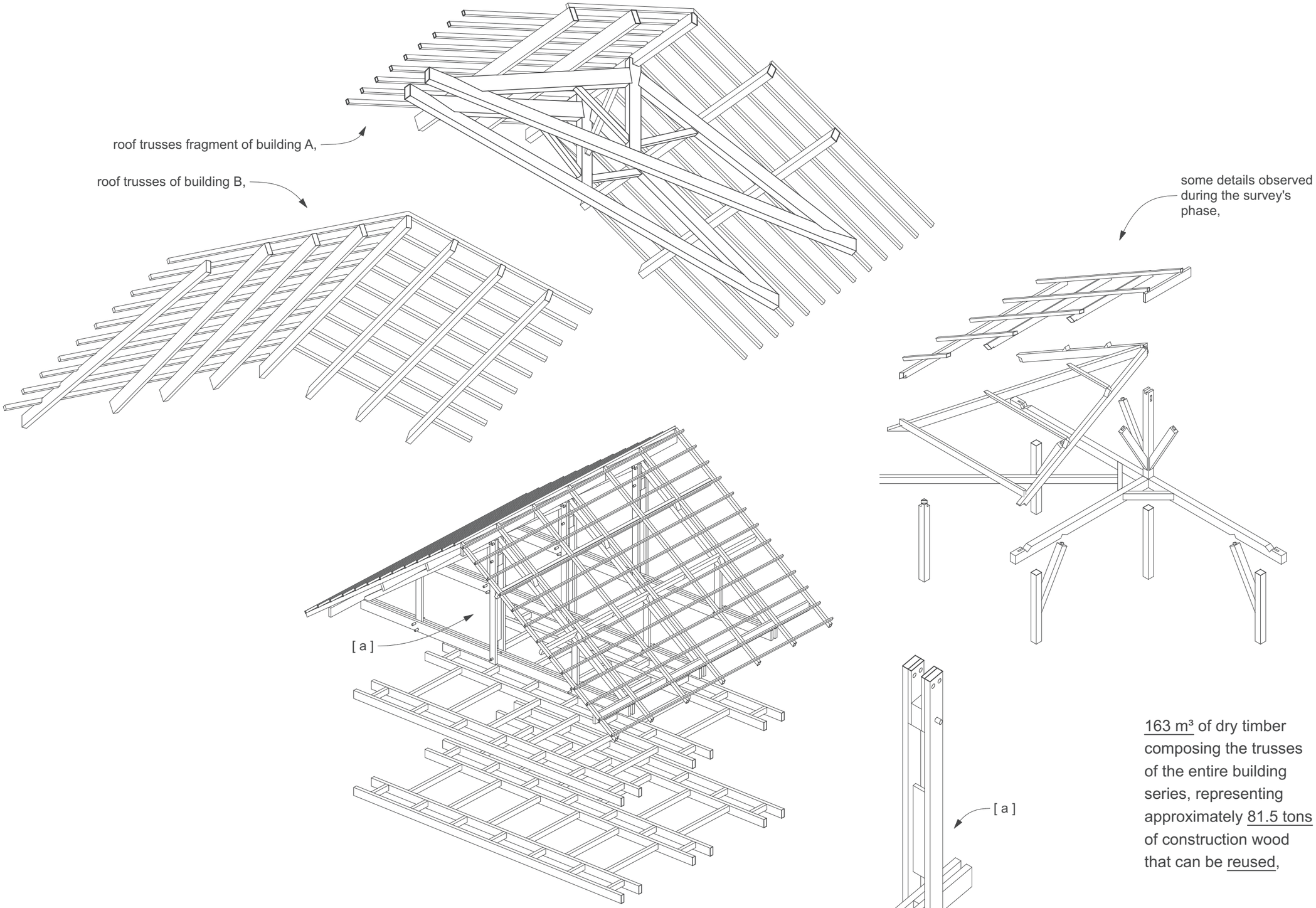




31	Organize floorplan so winter sun penetrates into daytime use spaces with specific functions that coincide with solar orientation
18	Keep the building small (right-sized) because excessive floor area wastes heating, cooling, and lighting energy
8	Sunny wind-protected outdoor spaces can extend occupied areas in cool weather (enclosed patios, courtyards or verandas)
1	Tiles or slate (even on wood floors) provide enough surface mass to store winter daytime solar gain and summer nighttime 'coolth'
62	Climate responsive buildings in temperate climates used light weight construction with slab on grade and operable walls and shaded outdoor spaces



clément taulelle,



163 m³ of dry timber composing the trusses of the entire building series, representing approximately 81.5 tons of construction wood that can be reused,

AXONOMETRY, EXISTING TIMBER — 1:100

"the brick, the rafter and the southern sun"
published on thursday, the fifteenth of january,

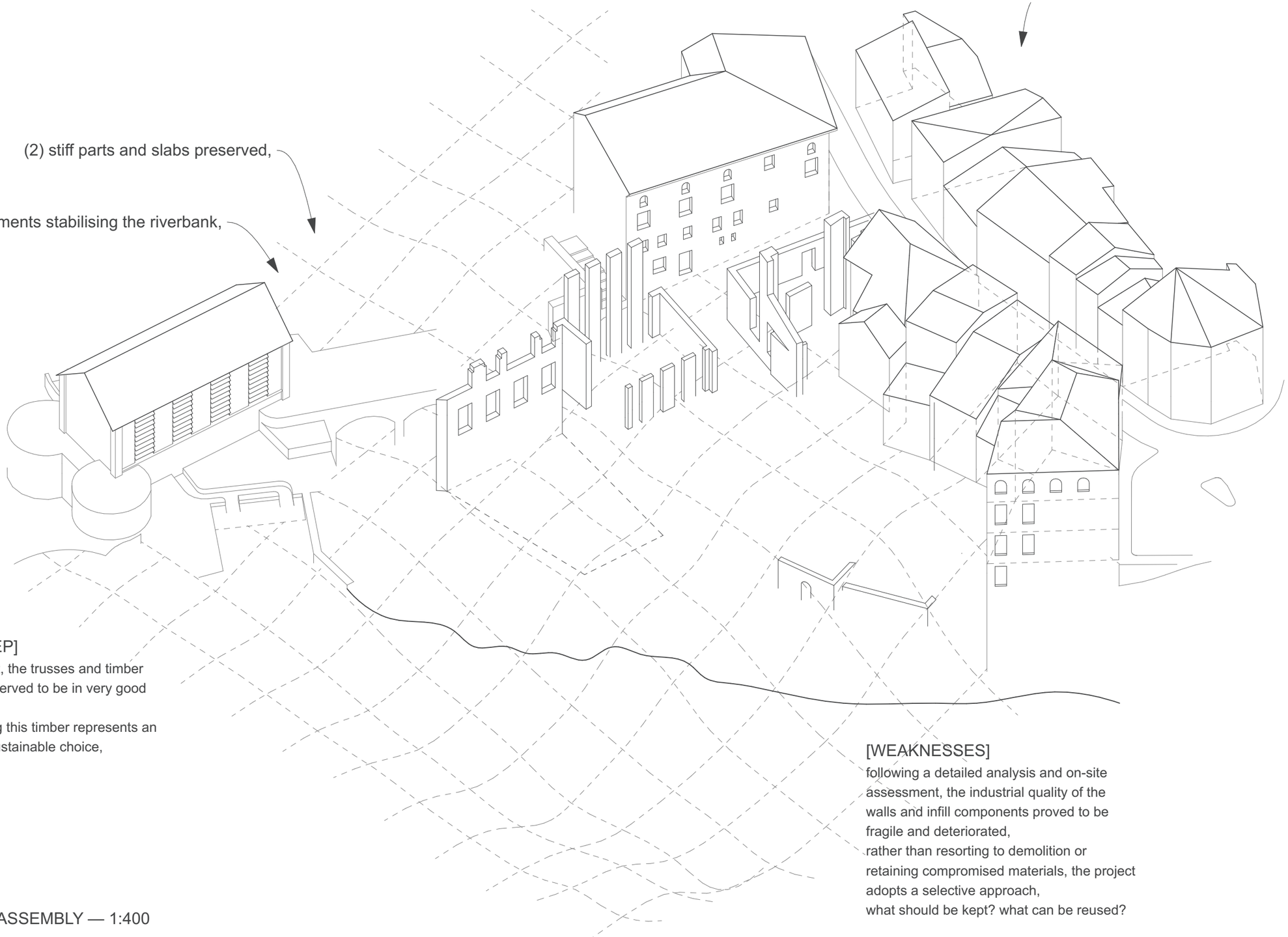
delft university of technology,

aE graduation studio, fall/25

clément taulelle,

(2) stiff parts and slabs preserved,

(1) monolithic, fragile elements stabilising the riverbank,



[WHAT TO KEEP]
during the site visit, the trusses and timber structure were observed to be in very good condition,
as a result, reusing this timber represents an economical and sustainable choice,

[WEAKNESSES]
following a detailed analysis and on-site assessment, the industrial quality of the walls and infill components proved to be fragile and deteriorated,
rather than resorting to demolition or retaining compromised materials, the project adopts a selective approach,
what should be kept? what can be reused?

AXONOMETRY, AFTER DISASSEMBLY — 1:400

"the brick, the rafter and the southern sun"
published on thursday, the fifteenth of january,

delft university of technology,

aE graduation studio, fall/25

[38]
Abbaye du Thoronet (1170), Thoronet. Author.

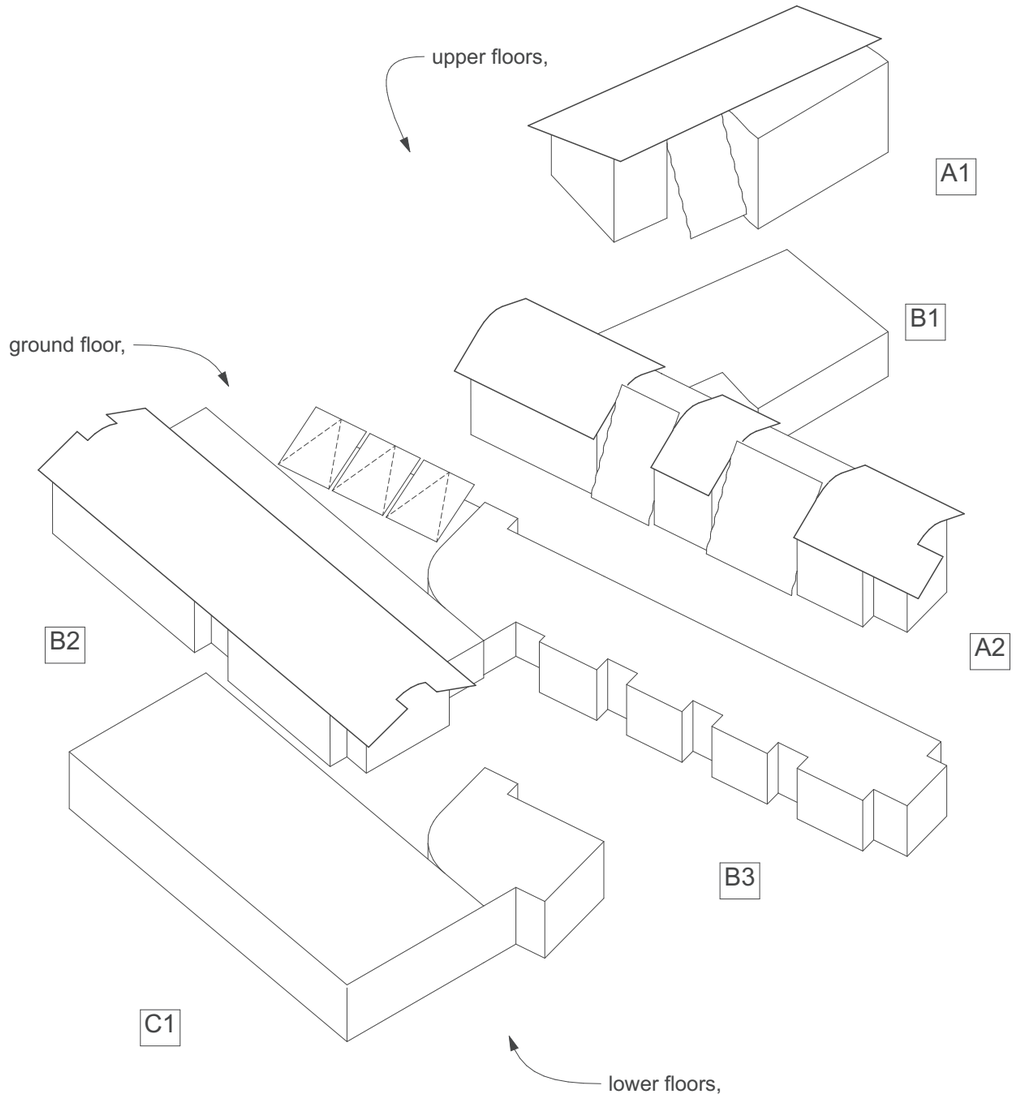
[39]
Thermes de Caracalla (216 AD), Rome. Author.



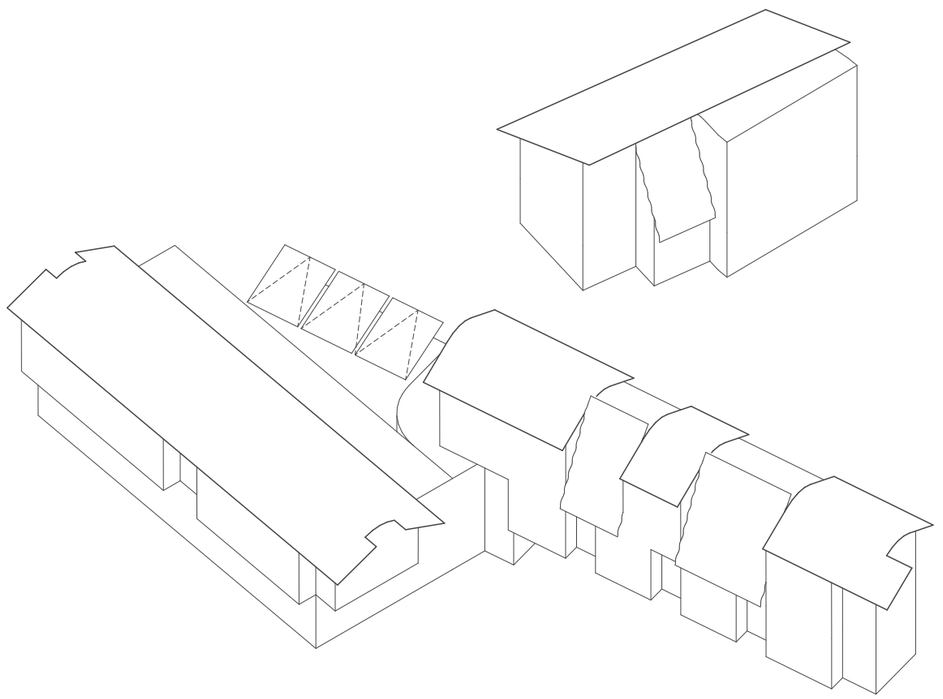




clément taulelle,



[A1]	administrative space	sqm	40
[A2]	the "gallery"	sqm	180
[B1]	café	sqm	120
[B2]	multipurpose hall	sqm	220
[B3]	resident accomodation	sqm	180
[C1]	ateliers	sqm	200



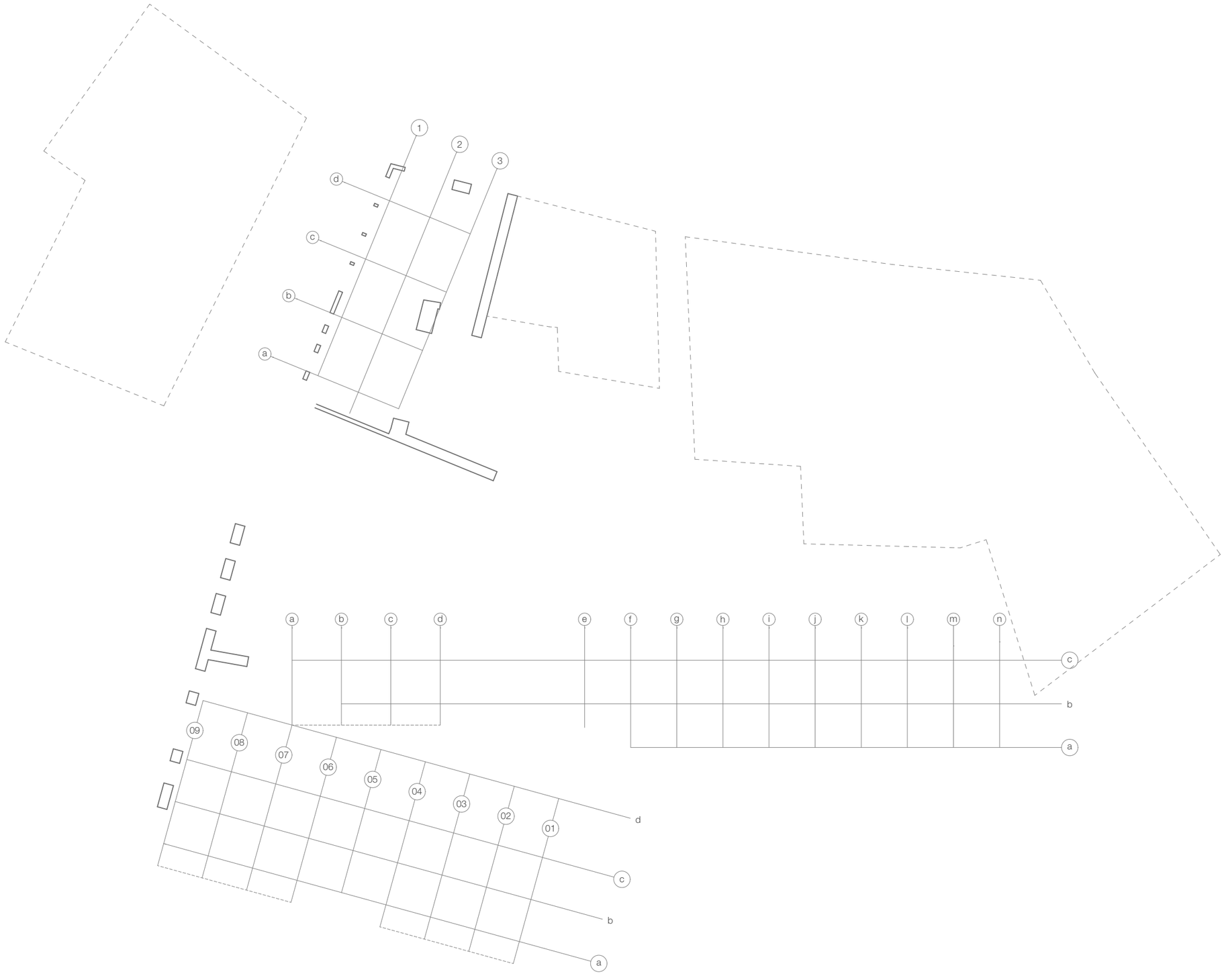
AXONOMETRY, VOLUMETRY AND SPATIAL COMPOSITION — 1:200

"the brick, the rafter and the southern sun"
published on thursday, the fifteenth of january,

delft university of technology,

aE graduation studio, fall/25

clément taulelle,



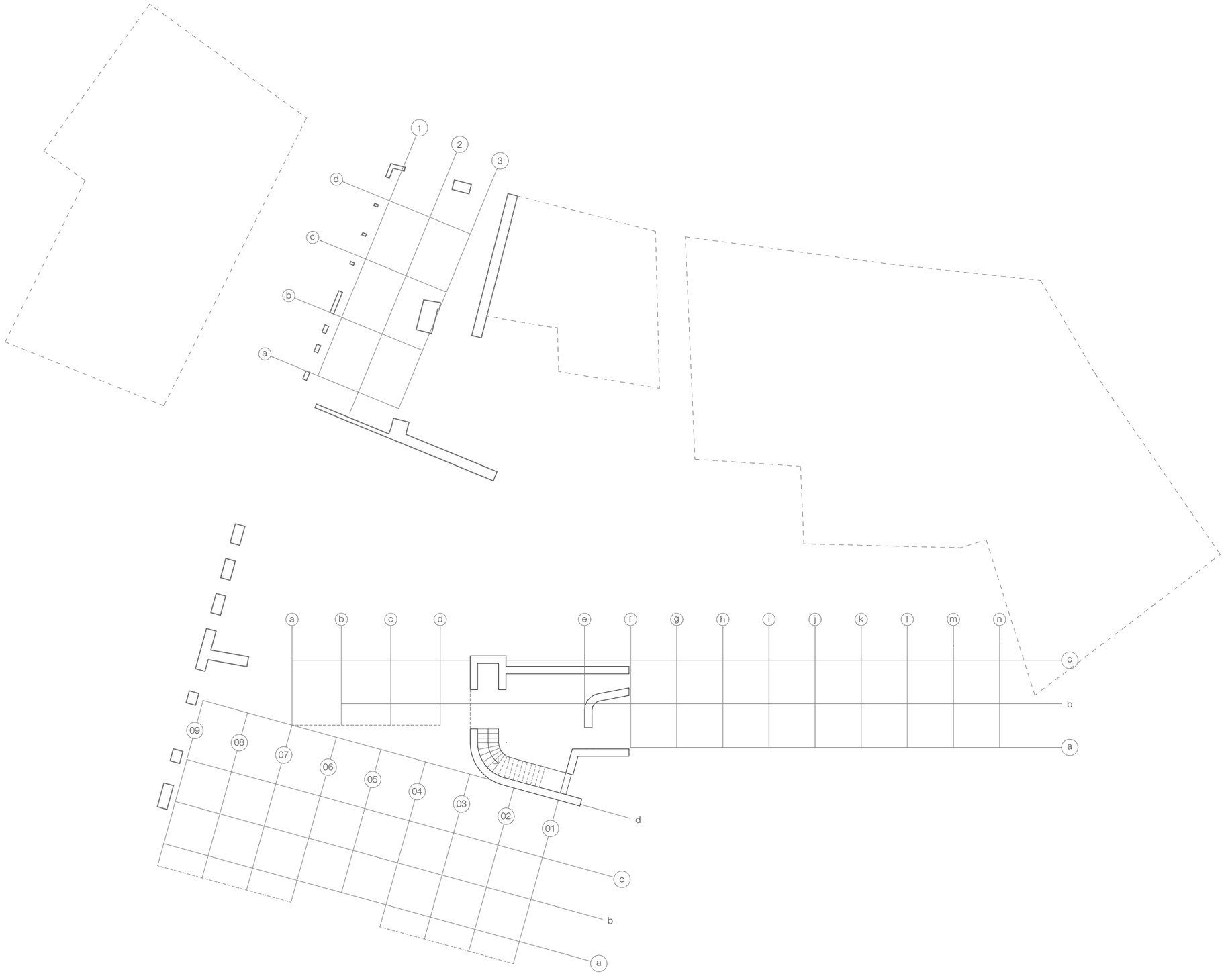
PLAN, MAIN FLOOR — 1:250

"the brick, the rafter and the southern sun"
published on thursday, the fifteenth of january,

delft university of technology,

aE graduation studio, fall/25

clément taulelle,



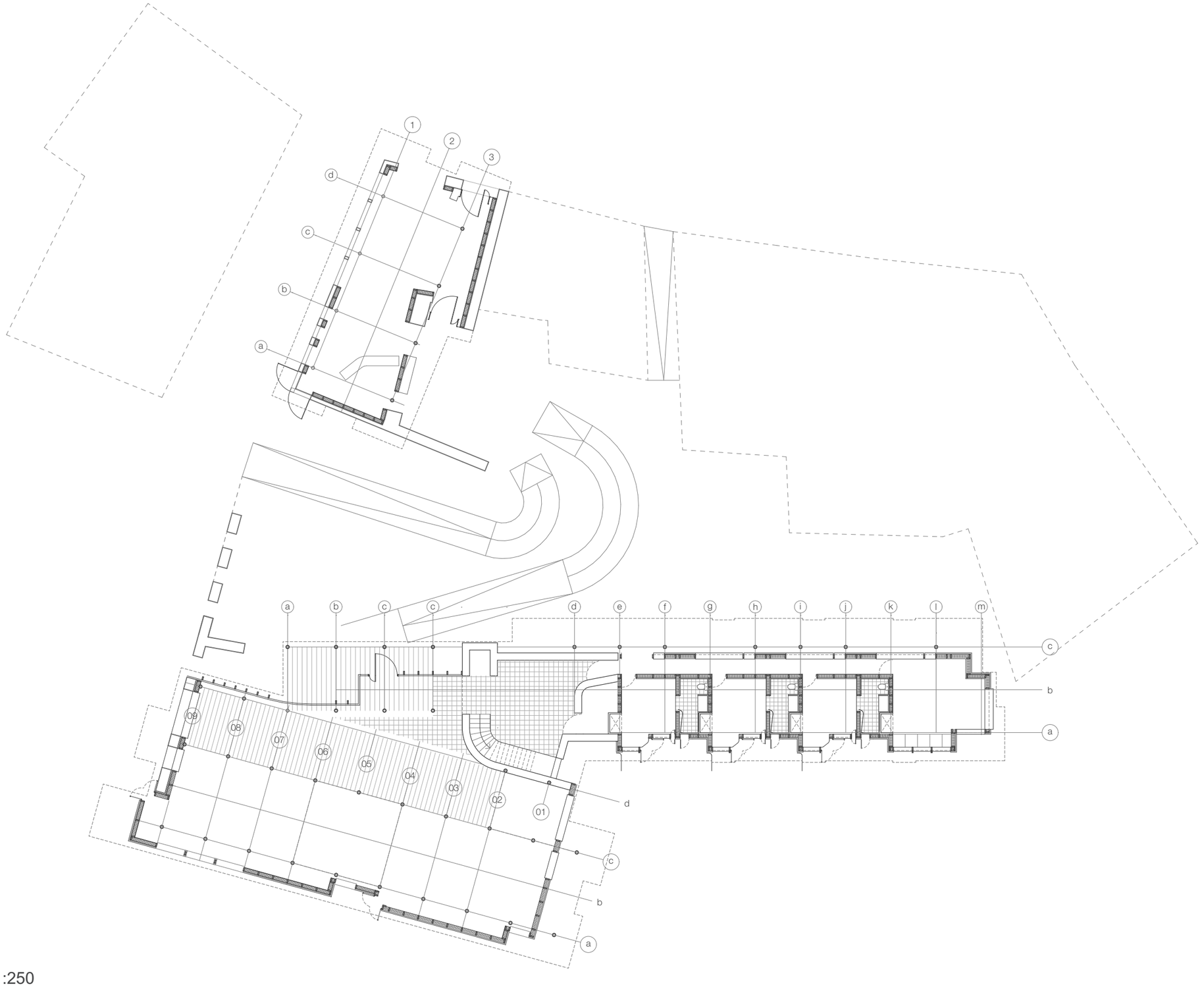
PLAN, MAIN FLOOR — 1:250

"the brick, the rafter and the southern sun"
published on thursday, the fifteenth of january,

delft university of technology,

aE graduation studio, fall/25

clément taulelle,



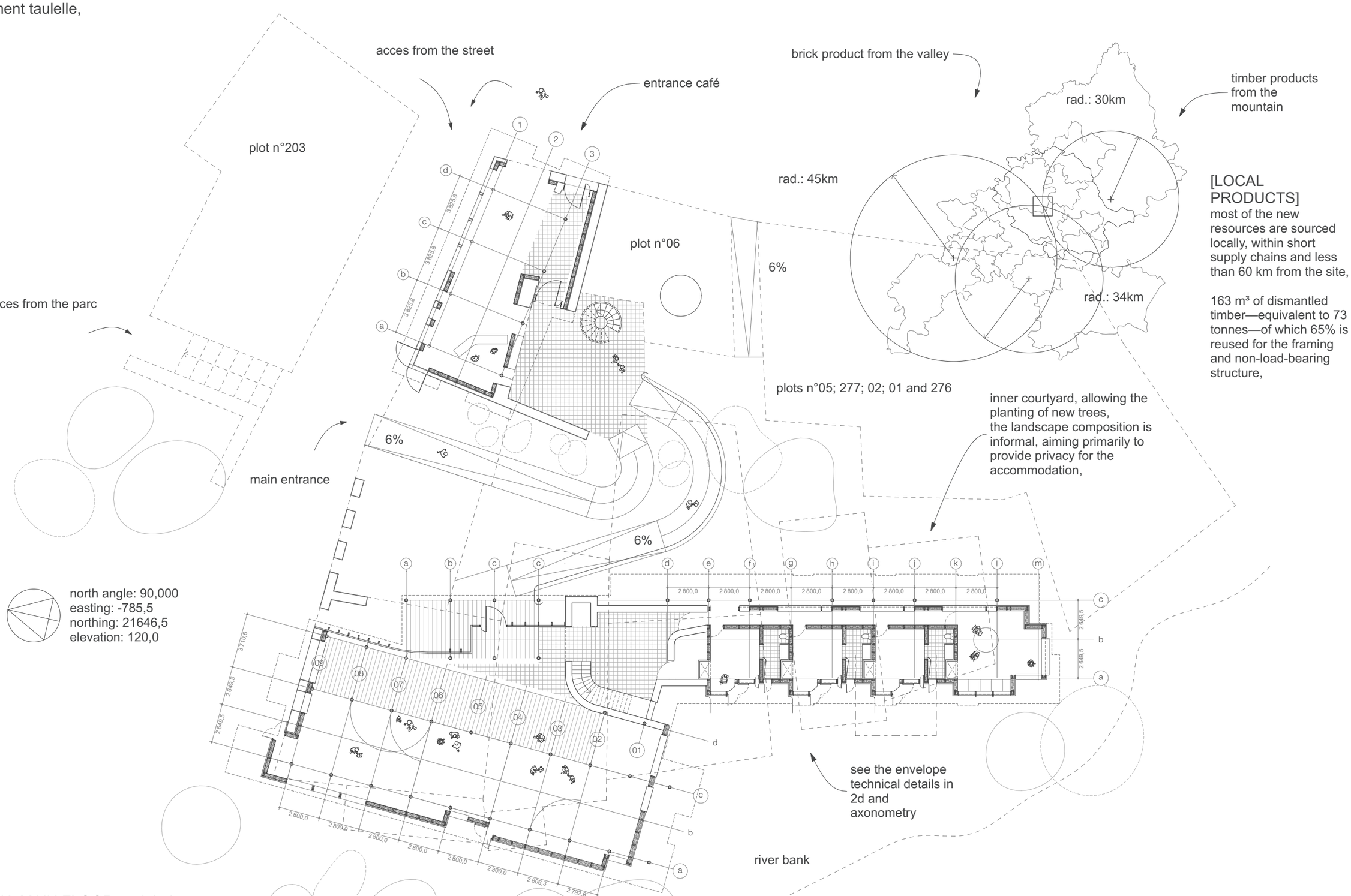
PLAN, MAIN FLOOR — 1:250

"the brick, the rafter and the southern sun"
published on thursday, the fifteenth of january,

delft university of technology,

aE graduation studio, fall/25

clément taulelle,



[LOCAL PRODUCTS]
most of the new resources are sourced locally, within short supply chains and less than 60 km from the site,

163 m³ of dismantled timber—equivalent to 73 tonnes—of which 65% is reused for the framing and non-load-bearing structure,

PLAN, MAIN FLOOR — 1:250

"the brick, the rafter and the southern sun"
published on thursday, the fifteenth of january,

delft university of technology,

aE graduation studio, fall/25

clément taulelle,



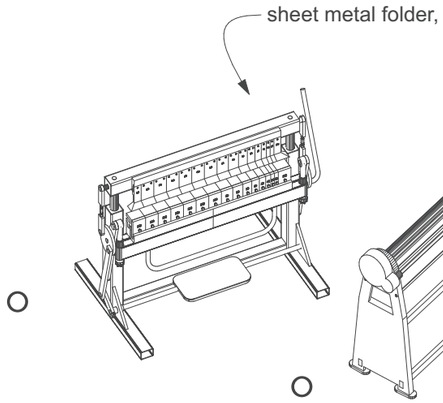
PLAN, LOWER FLOORS — 1:250

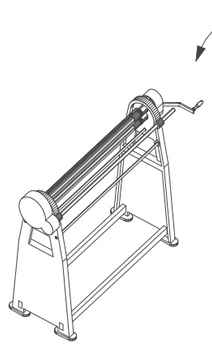
"the brick, the rafter and the southern sun"
published on thursday, the fifteenth of january,

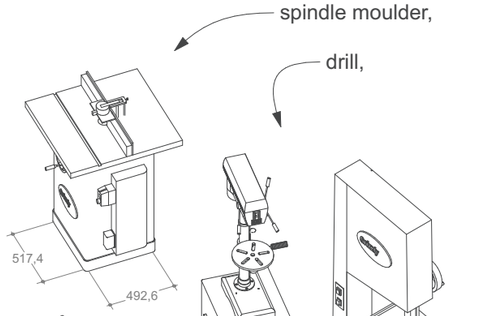
delft university of technology,

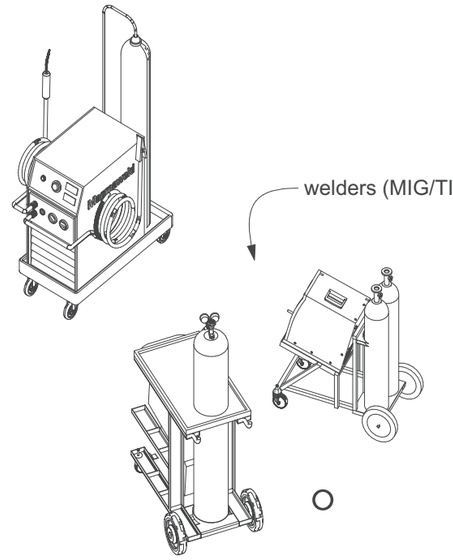
aE graduation studio, fall/25

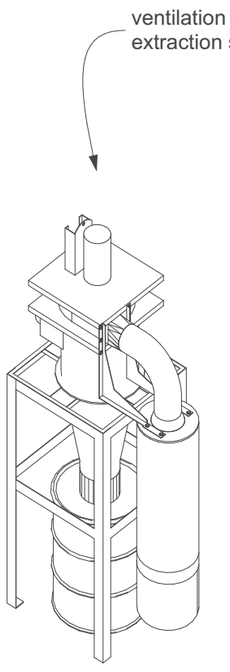
clément taulelle,

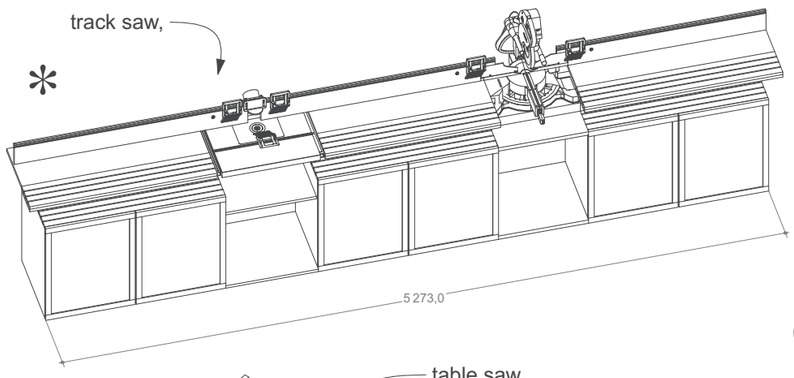


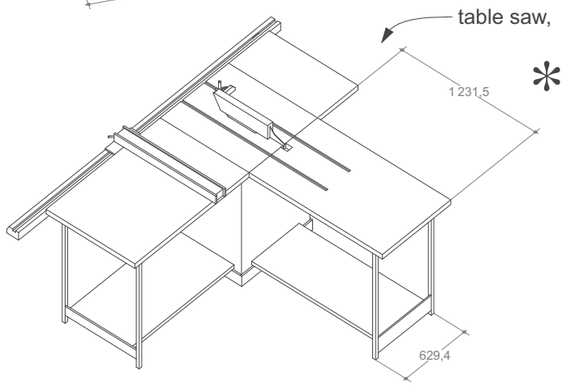


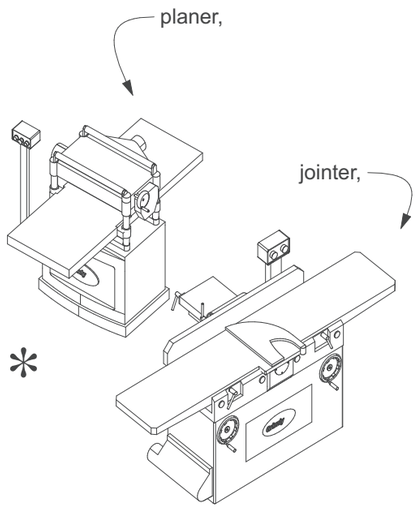


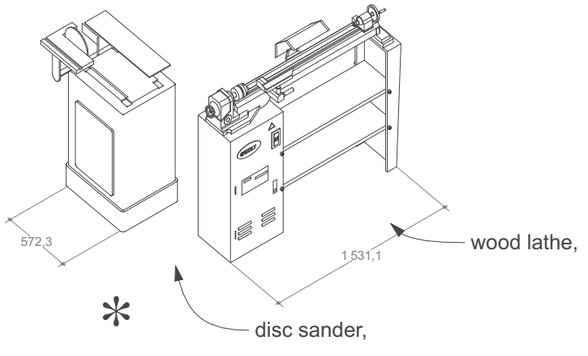












cost estimation

* woodworking	80sqm	EUR 60,000	c.a.
◦ metal working	60sqm	EUR 55,000	c.a.
cutting and handling	15sqm	EUR 5,000	c.a.
services	25sqm	EUR 30,000	c.a.
	180sqm	EUR 150,000 ~	

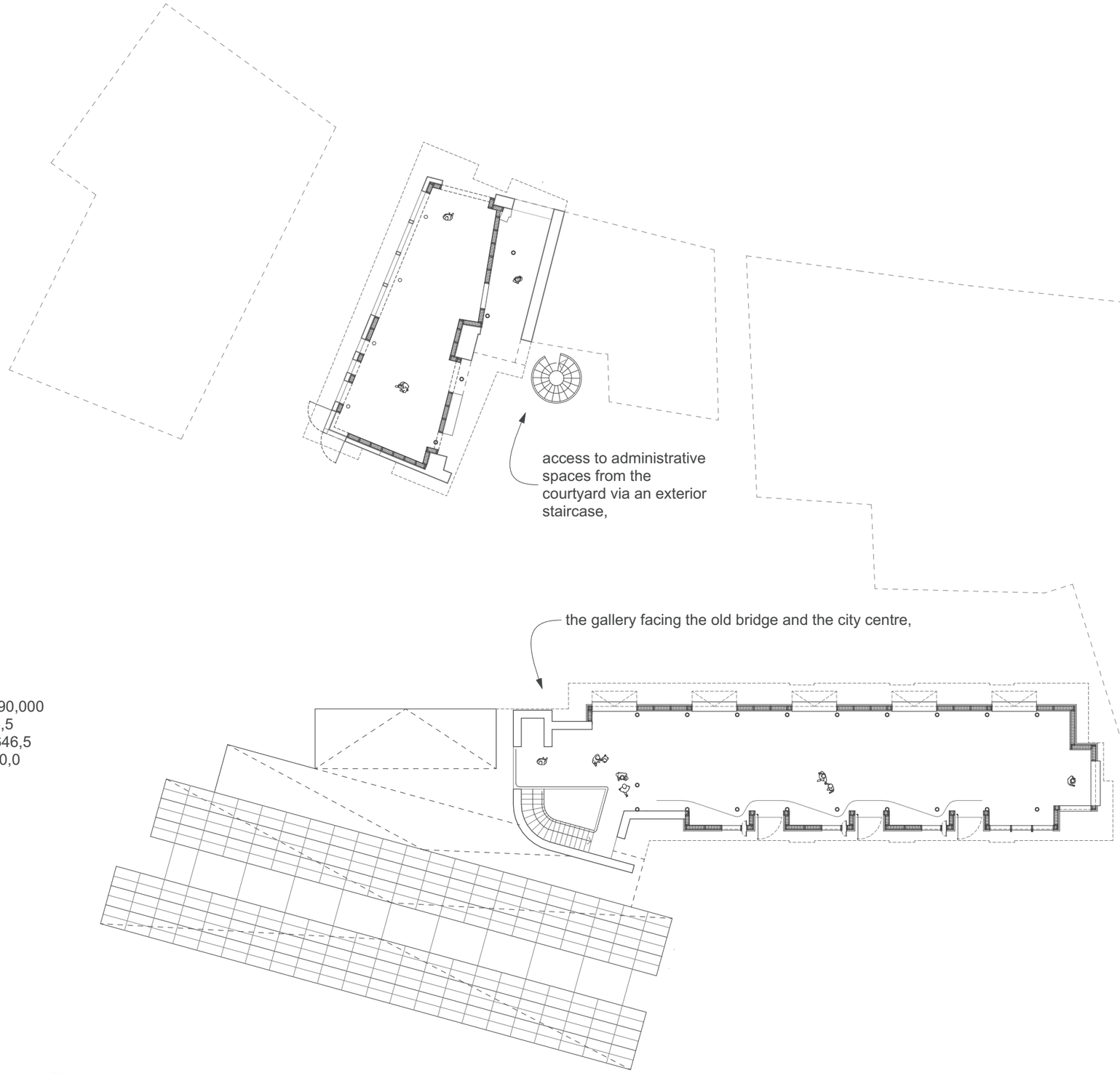
AXONOMETRY, INDUSTRIAL NEEDS — 1:50

"the brick, the rafter and the southern sun"
published on thursday, the fifteenth of january,

delft university of technology,

aE graduation studio, fall/25

clément taulelle,



north angle: 90,000
easting: -785,5
northing: 21646,5
elevation: 120,0

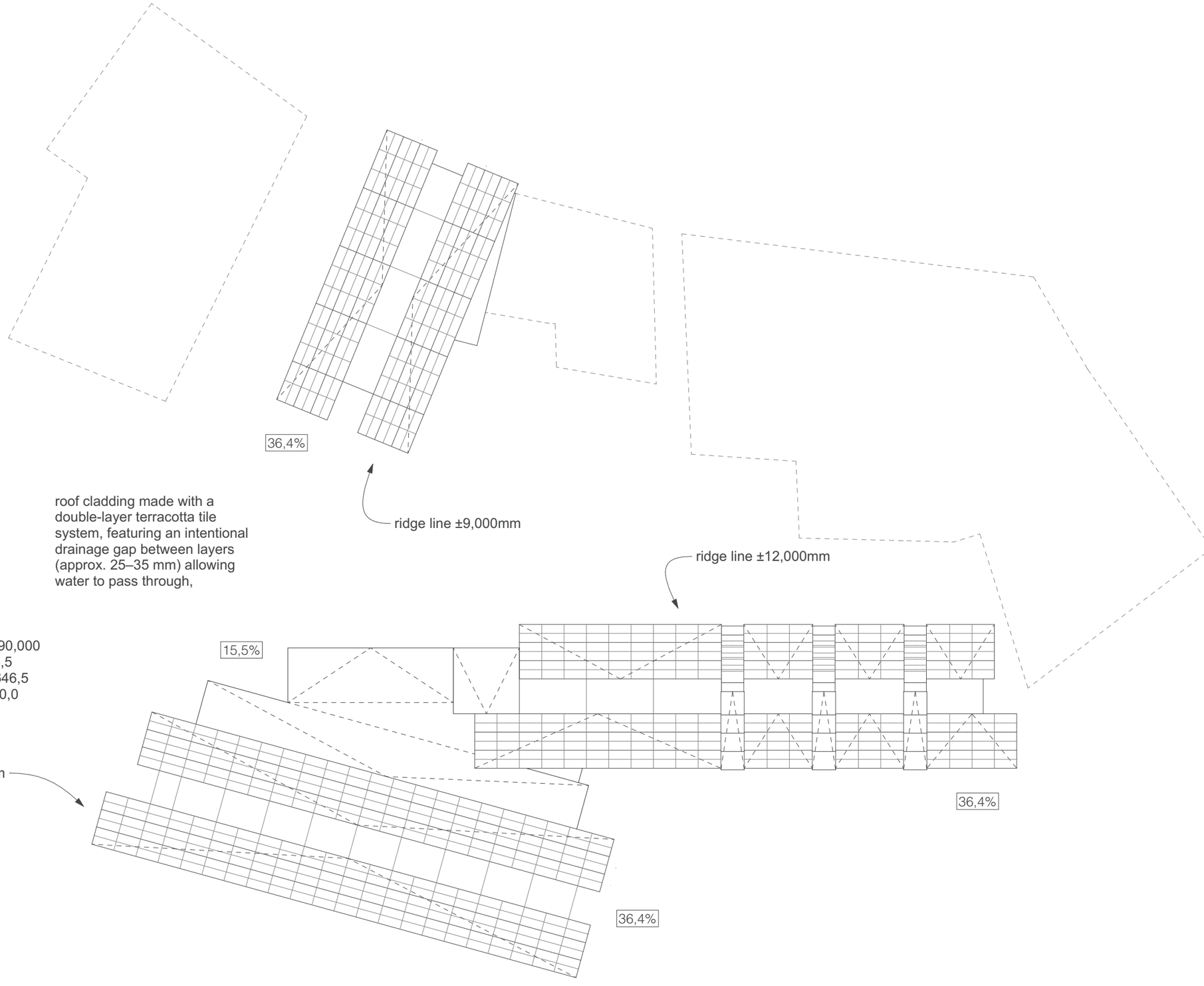
PLAN, UPPER FLOORS — 1:250

"the brick, the rafter and the southern sun"
published on thursday, the fifteenth of january,

delft university of technology,

aE graduation studio, fall/25

clément taulelle,



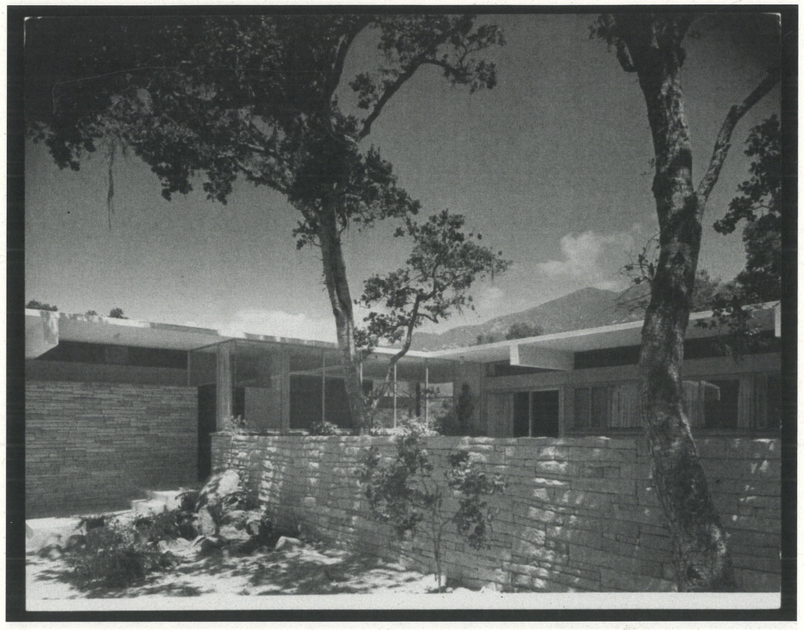
PLAN, ROOFS — 1:250

"the brick, the rafter and the southern sun"
published on thursday, the fifteenth of january,

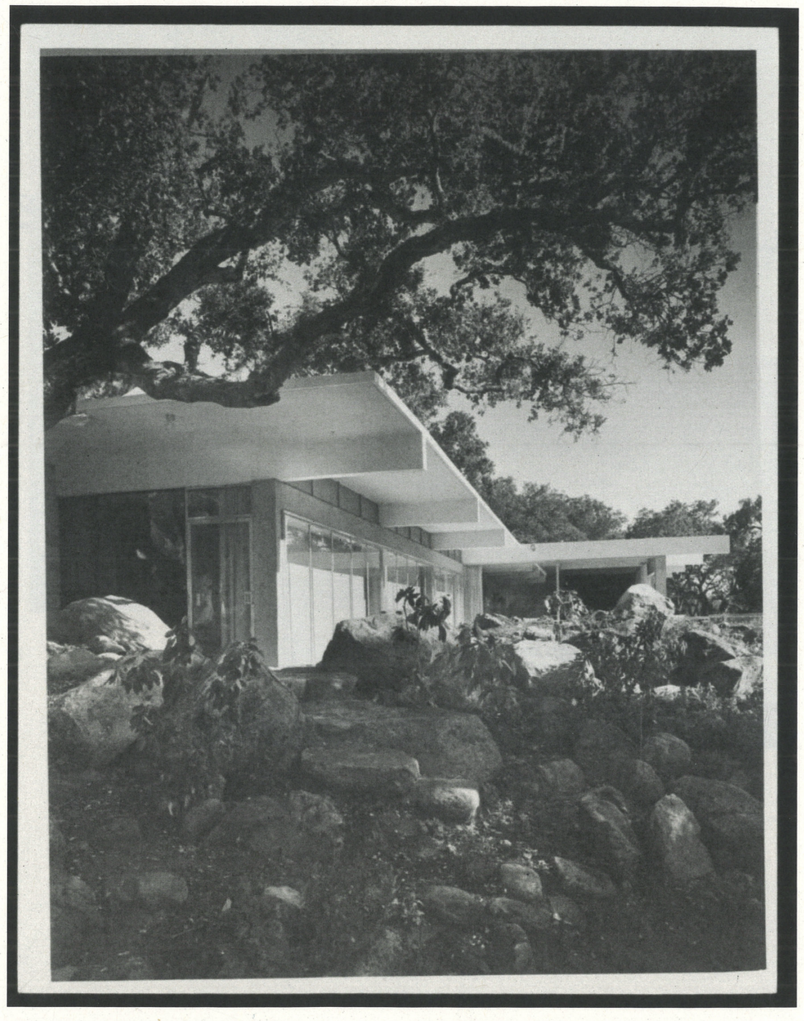
delft university of technology,

aE graduation studio, fall/25

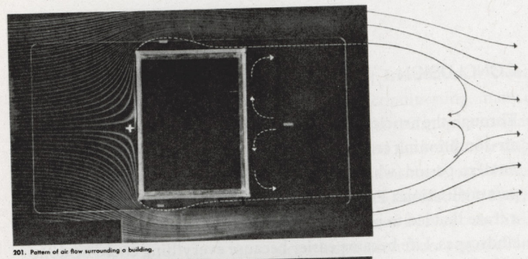
[40]
Clément Taulelle (2024), Heating and Cooling in the Desert: Towards an Universal approach to Climate Control. History Thesis realised under the supervision of Birgitte Louise Hansen, Delft University of Technology. Photographs: courtesy of R*ichard Neutra Archives Fondation*, Los Angeles. All rights reserved.



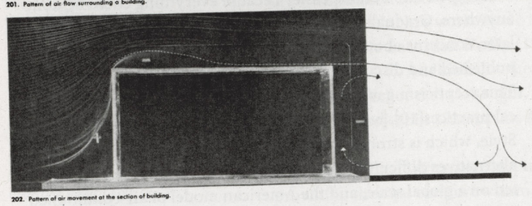
32



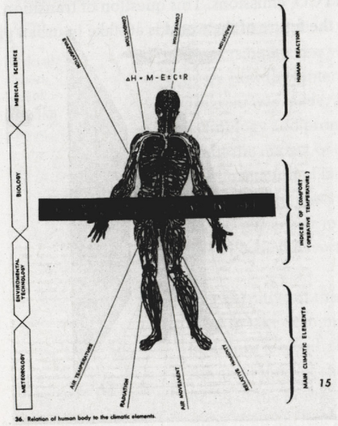
33



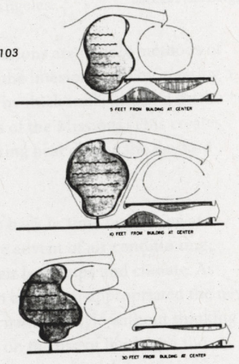
201. Pattern of air flow surrounding a building.



202. Pattern of air movement at the section of building.

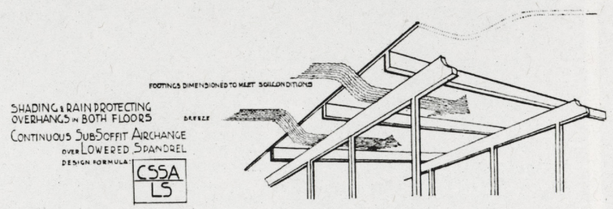


36. Relation of human body to the climatic elements.

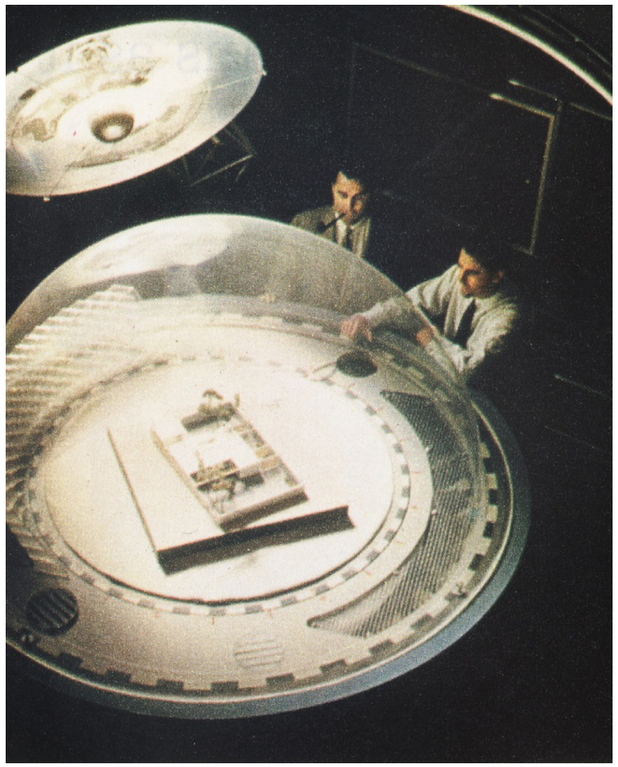


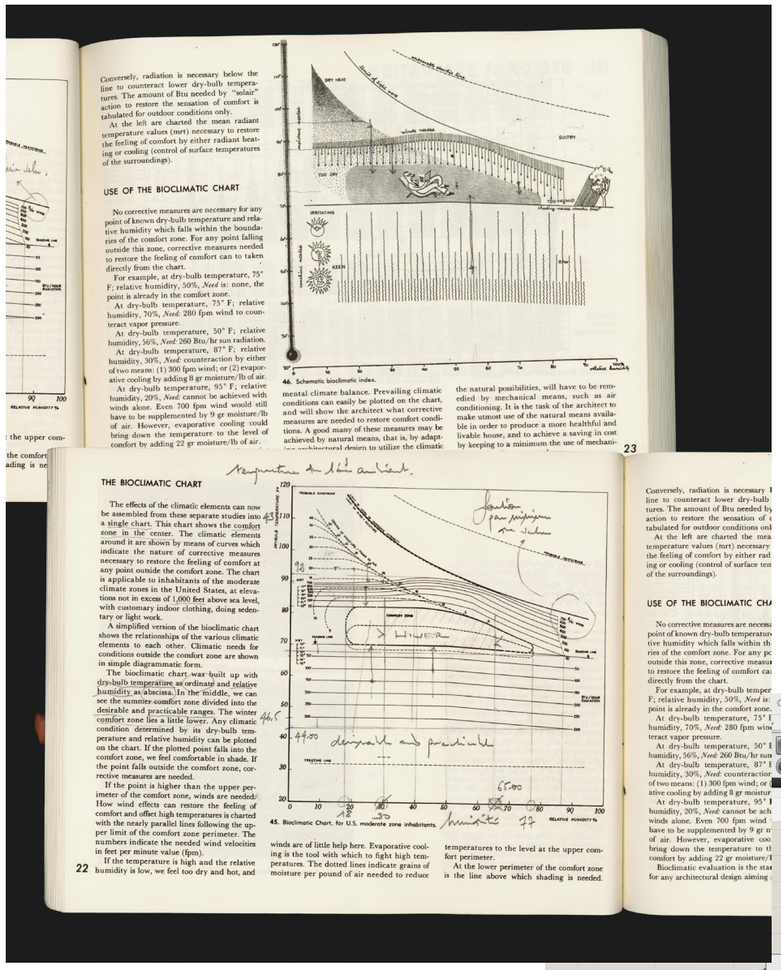
103

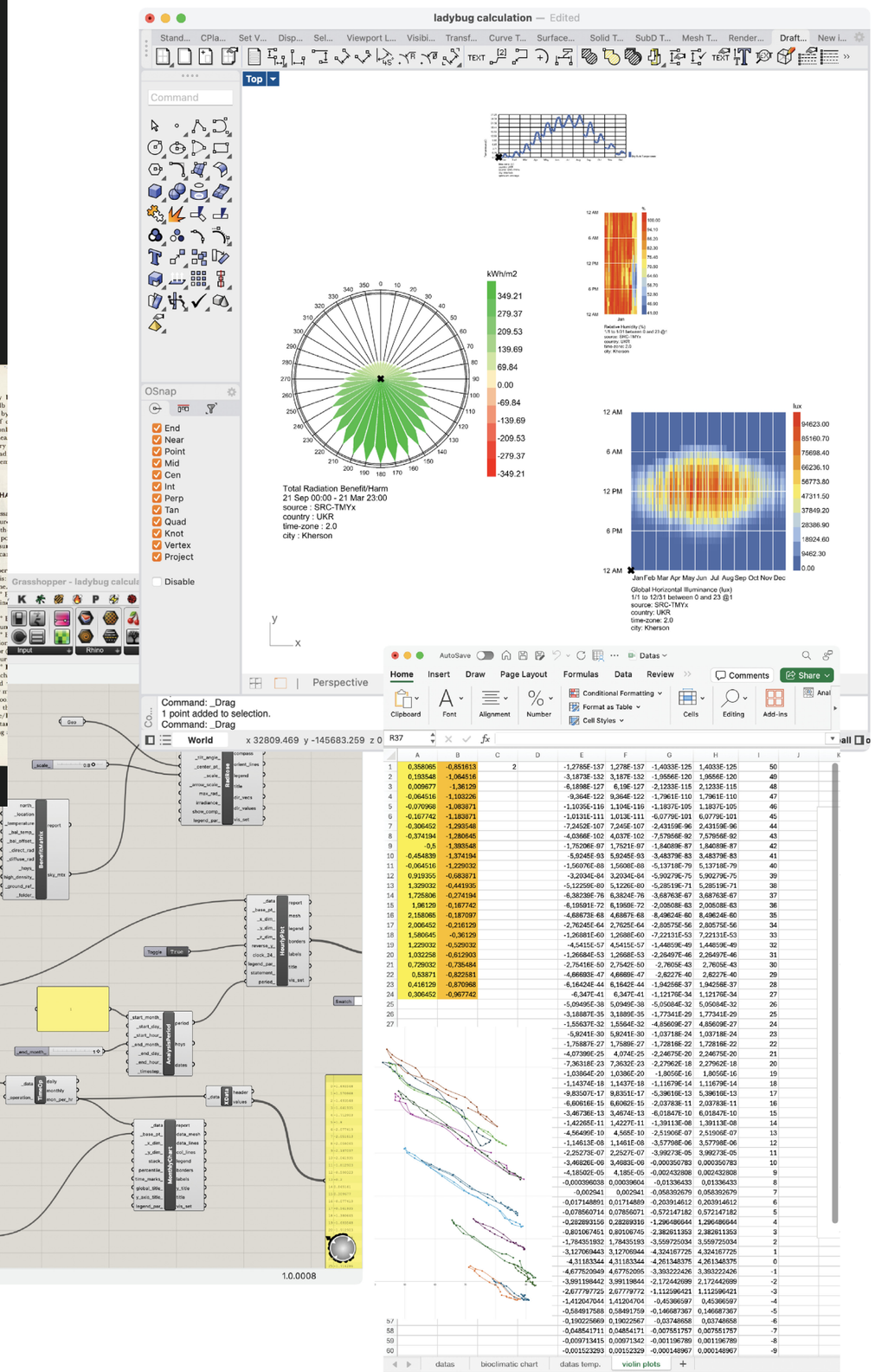




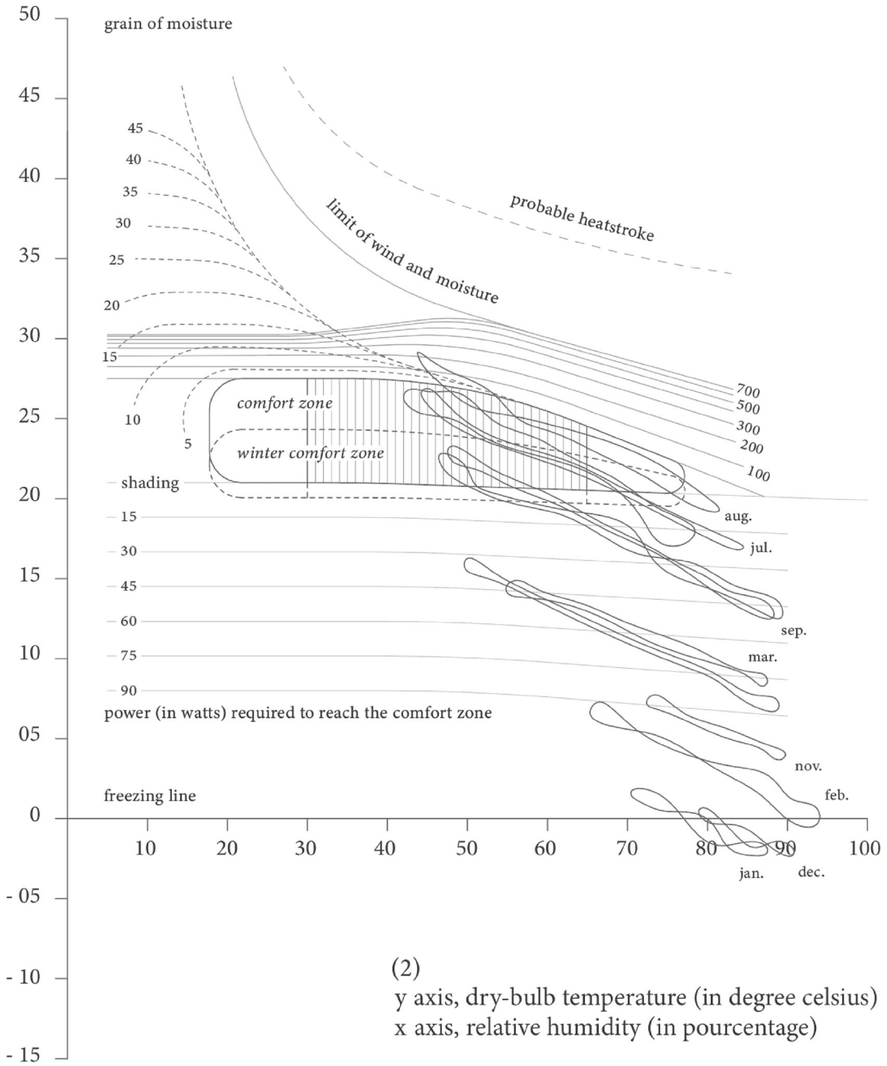
[41]
In the manner of Olgyay's brothers: creation of a bioclimatic chart using an epw file and ladypug plugin on grasshopper. Author.



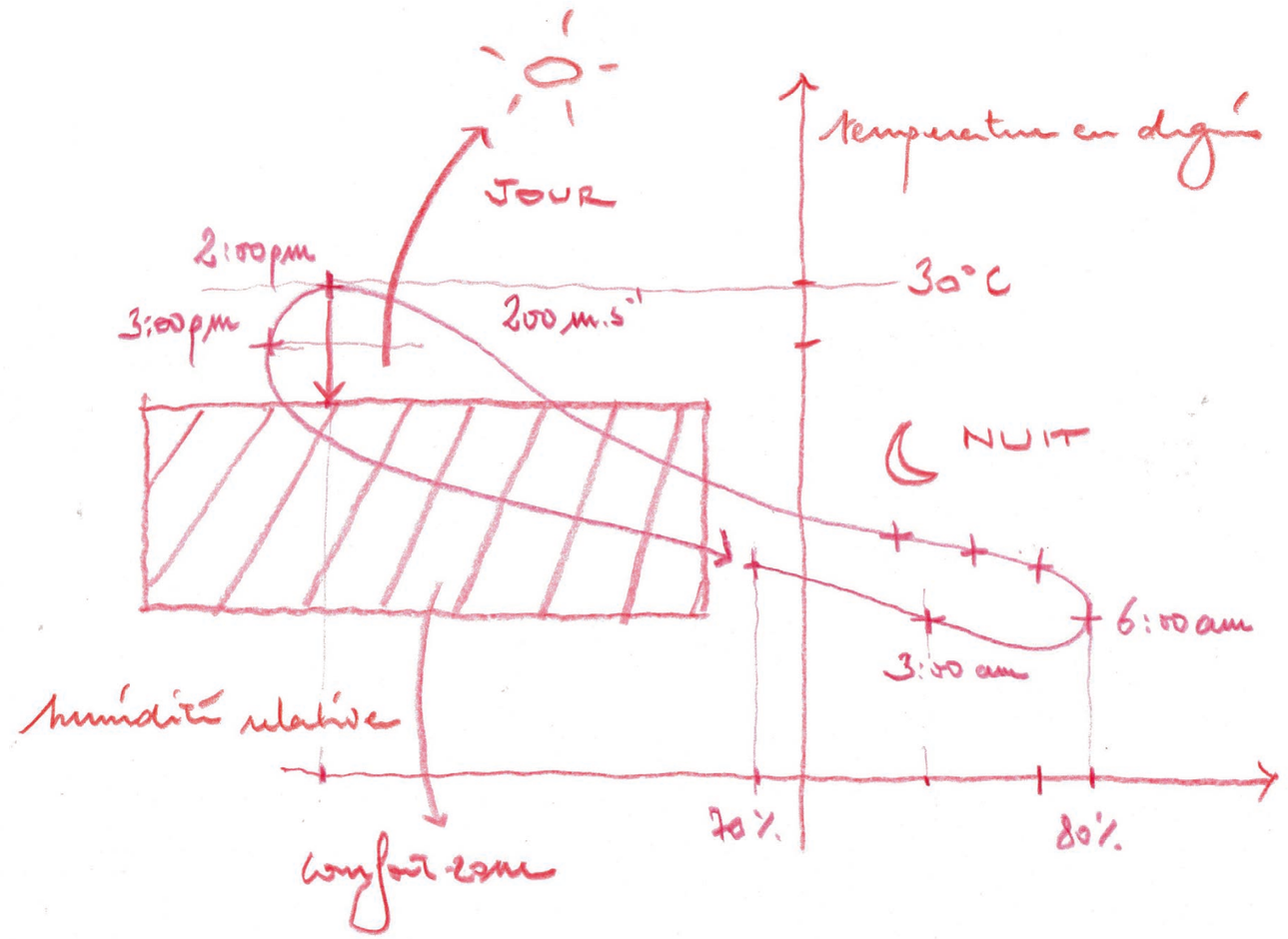




[42]
In the manner of Olgyay's brothers: creation of a bioclimatic chart using an epw file and ladypug plugin on grasshopper. Author.



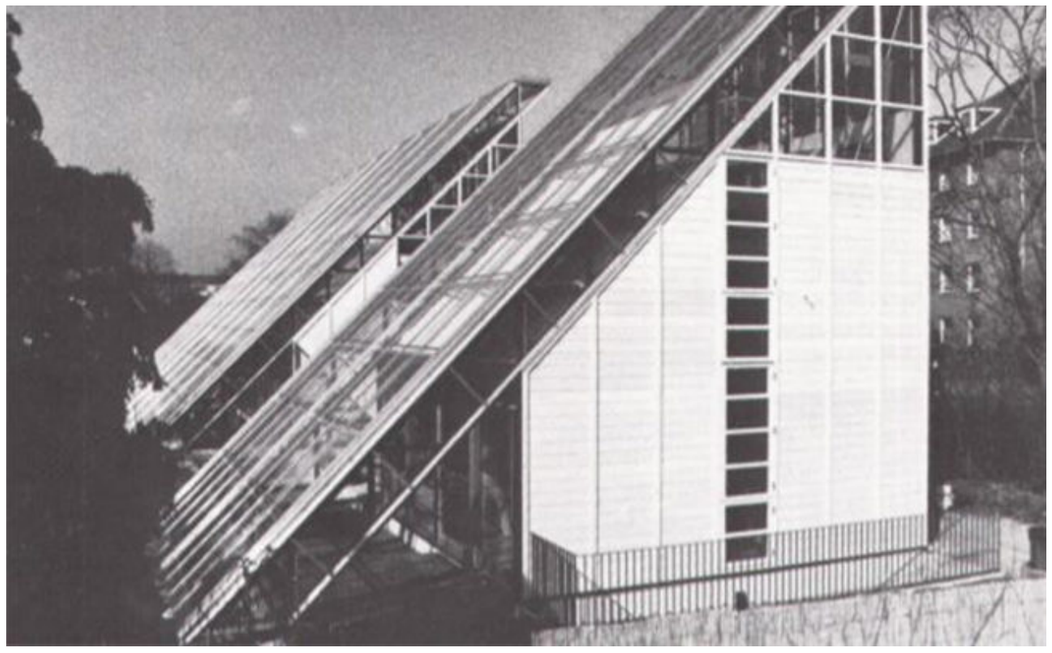
(2)
y axis, dry-bulb temperature (in degree celsius)
x axis, relative humidity (in pourcentage)



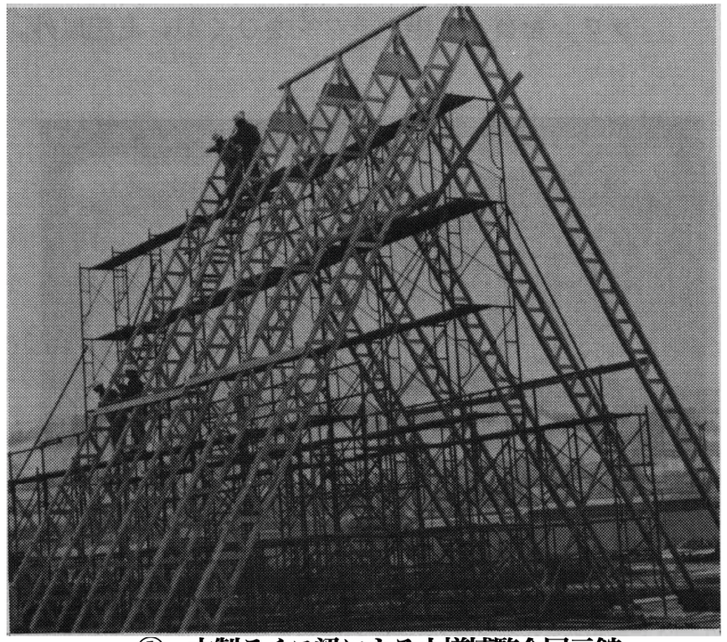
[43]
From left to right, Diébédo Francis Kéré, Gando Primary School in Gando, Burkina Faso (2001). National Park of Mali (2010) in Bamako. Thomas Herzog, building in Milbersthofen, Munich (1982).



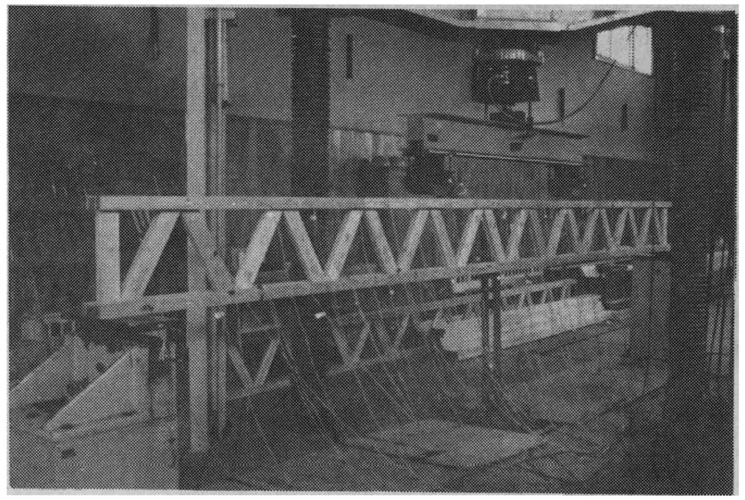




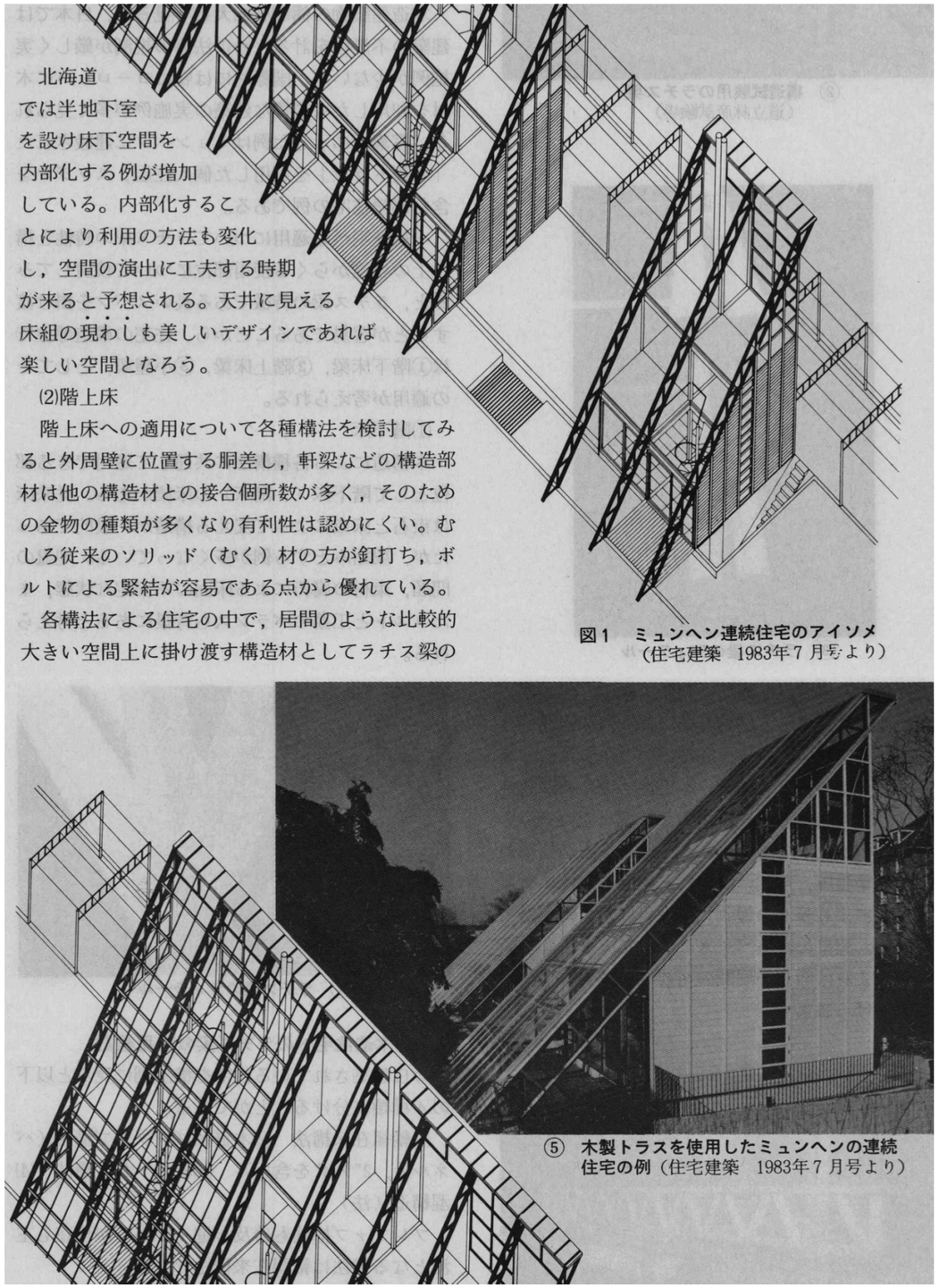
[44]
Kitajima, H. (1986). *Rachisu-bari no jūtaku e no riyō o kangaeru* [Consideration on the use of lattice beams in housing]. August Issue.



① 木製ラチス梁による小樽博覧会展示館の建設例（道立林産試験場）



② 構造試験用のラチス梁
（道立林産試験場）



北海道では半地下室を設け床下空間を内部化する例が増加している。内部化することにより利用の方法も変化し，空間の演出に工夫する時期が来ると予想される。天井に見える床組の現わしも美しいデザインであれば楽しい空間となろう。

⑵階上床

階上床への適用について各種構法を検討してみると外周壁に位置する胴差し，軒梁などの構造部材は他の構造材との接合個所数が多く，そのための金物の種類が多くなり有利性は認めにくい。むしろ従来のソリッド（むく）材の方が釘打ち，ボルトによる緊結が容易である点から優れている。

各構法による住宅の中で，居間のような比較的大きい空間上に掛け渡す構造材としてラチス梁の

図1 ミュンヘン連続住宅のアイソメ
（住宅建築 1983年7月号より）

⑤ 木製トラスを使用したミュンヘンの連続住宅の例（住宅建築 1983年7月号より）

[45]
Smiljan Radic (1992-97), The Room alias "La Habitación", San Miguel, Chiloé Archipelago, Chile.

[46]
Atelier Julien Boidot (2020), School renovation project, Guécélard (72), France. Courtesy of Julien Boidot.







[47]
Marina Tabassum Architects (2023), Khudi Bari. Model 1:10 photographed in her office in Dhaka, Bangladesh. Now part of MoMA New-York collection. Courtesy of Marina Tabassum. Author.

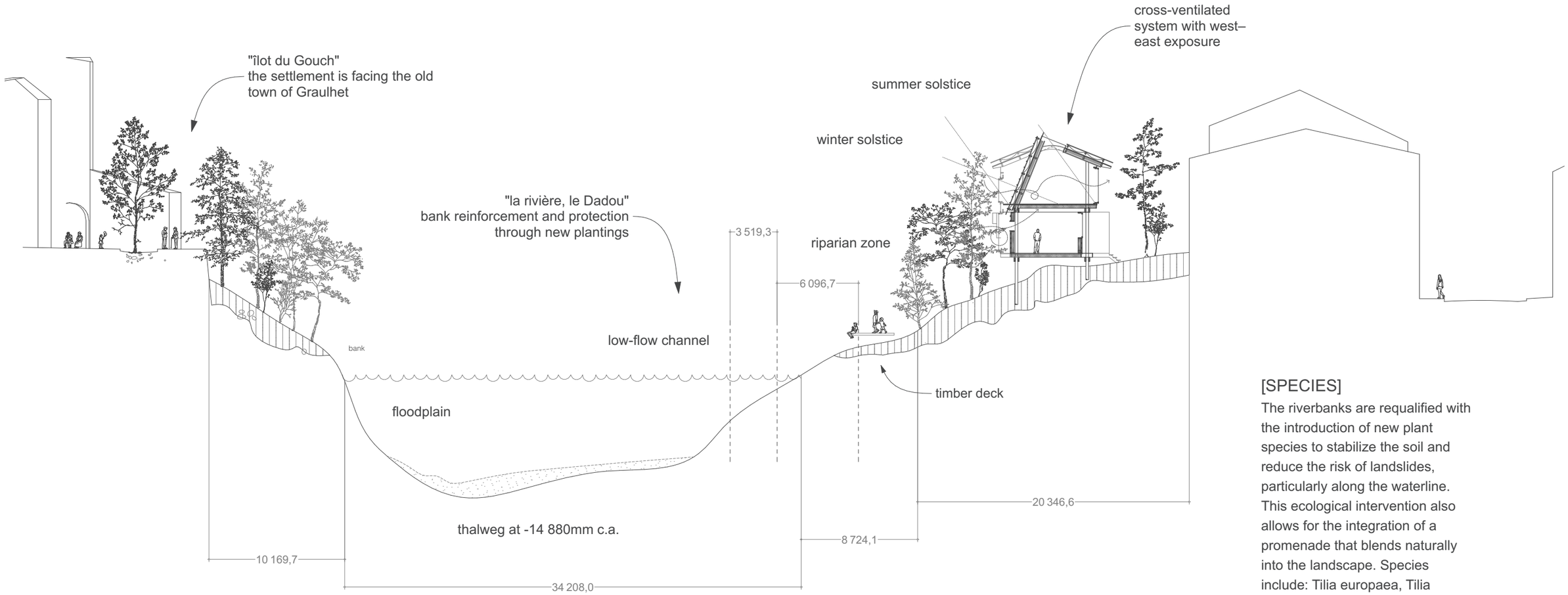
[48]
Le Corbusier (1961), Chandigarh College of Architecture, Chandigarh, Punjab, India. Author.







clément taulelle,

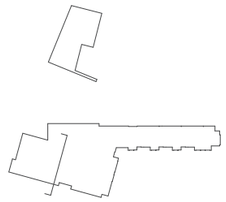


[SPECIES]

The riverbanks are requalified with the introduction of new plant species to stabilize the soil and reduce the risk of landslides, particularly along the waterline. This ecological intervention also allows for the integration of a promenade that blends naturally into the landscape. Species include: Tilia europaea, Tilia tomentosa, Robinia pseudoacacia, Platanus acerifolia, and Aesculus hippocastanum.

SECTION, LANDSCAPE AA' — 1:300

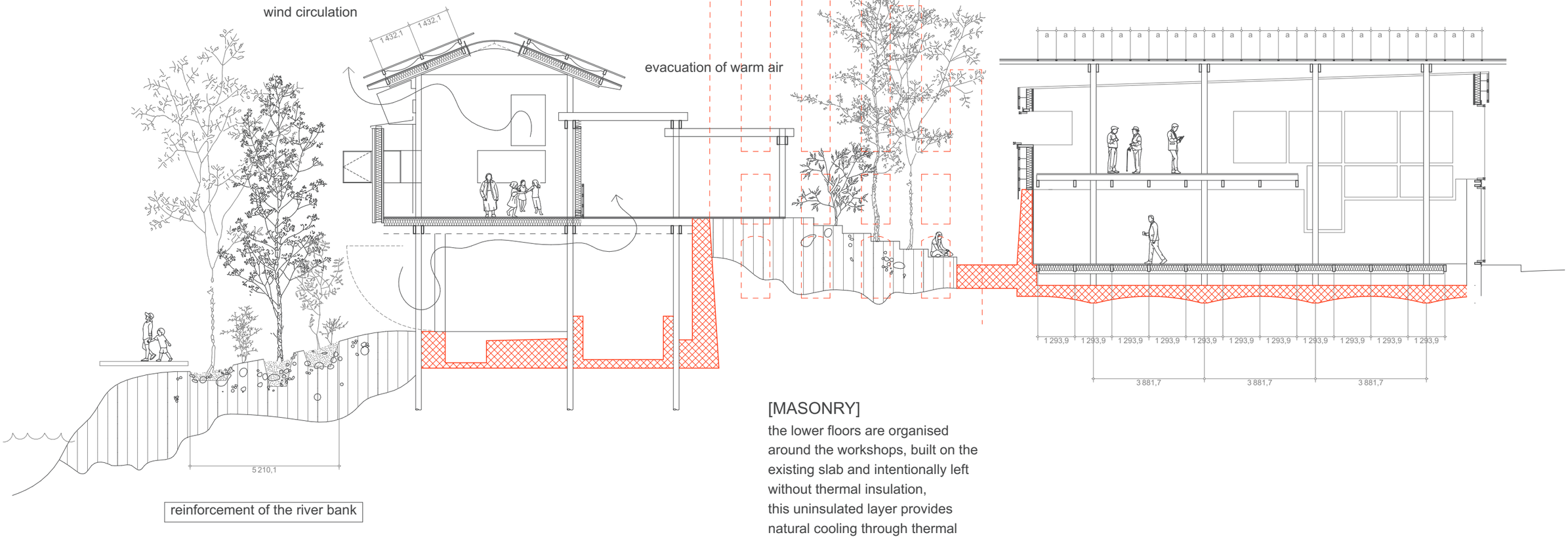
clément taulelle,



profile of the preserved northern facade,

wind circulation

evacuation of warm air



reinforcement of the river bank

[SUTURA, SUTURAE]
the northern side of the site integrates delicately with the existing façade. Internal thermal insulation is added to improve climate comfort,

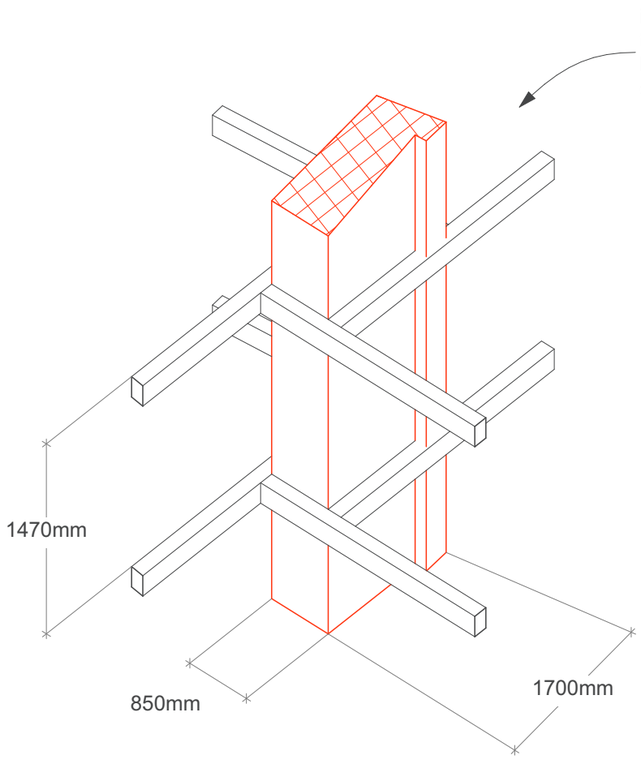
[MASONRY]
the lower floors are organised around the workshops, built on the existing slab and intentionally left without thermal insulation,
this uninsulated layer provides natural cooling through thermal inertia, helping to moderate temperatures and keep the ground floor comfortable during summer,

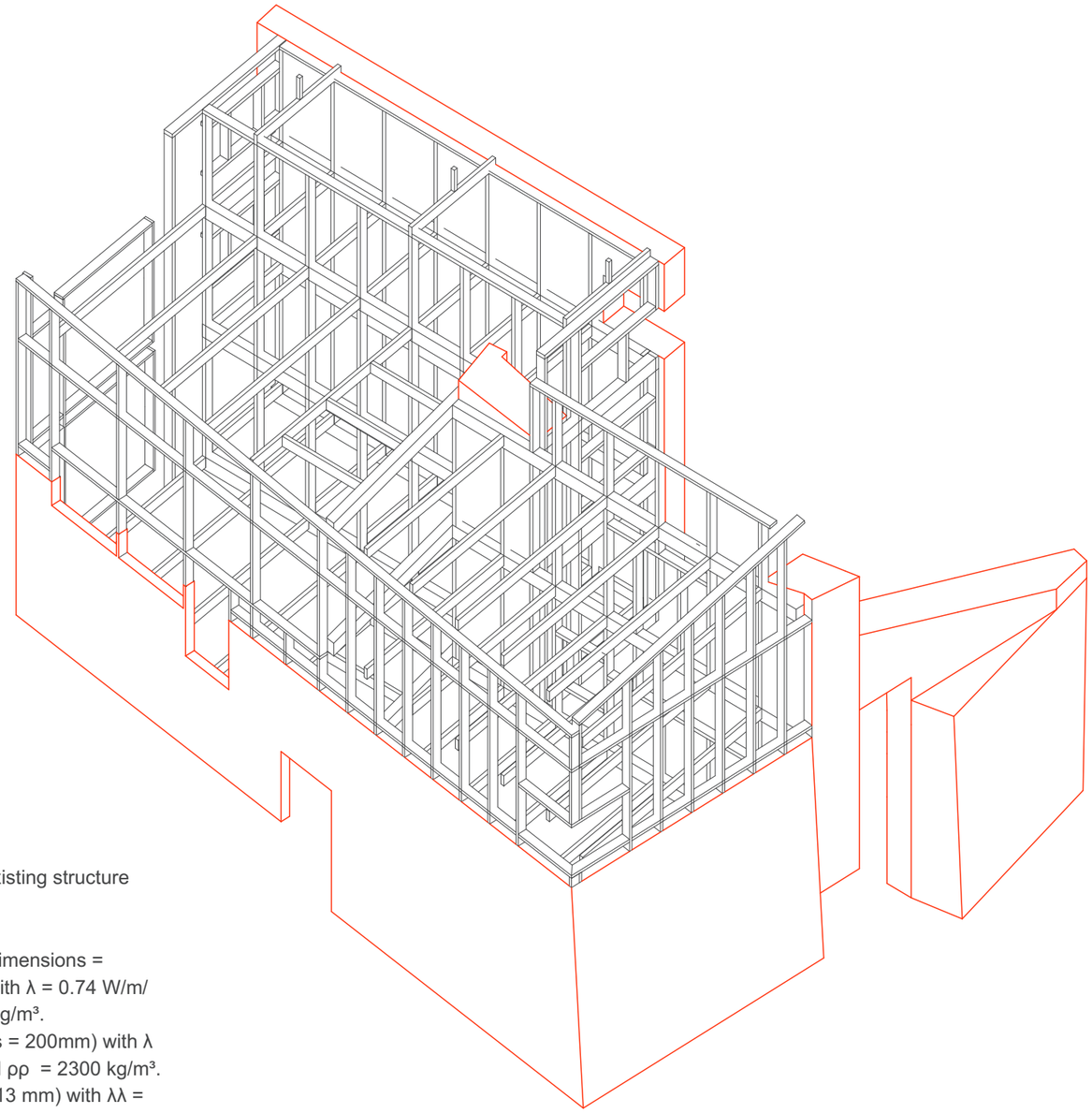
SECTION, (SUTURA, SUTURAE) BB' — 1:140

"the brick, the rafter and the southern sun"
published on thursday, the fifteenth of january,

delft university of technology,

aE graduation studio, fall/25





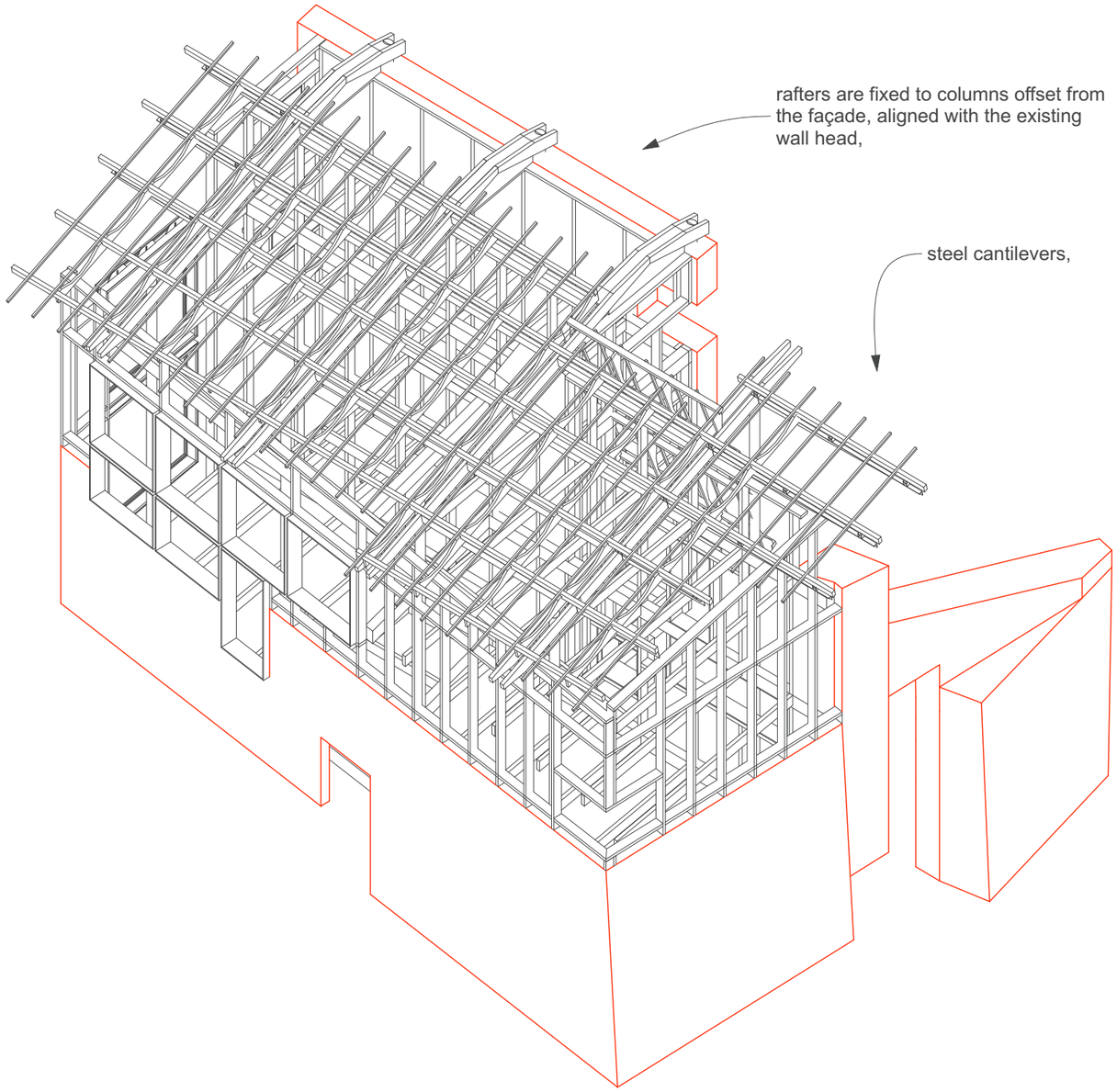
[PHASE SHIFT CALCULATIONS]
Thermal phase shift calculations (achieving climate comfort through optimal insulation thickness),

(1) monolithic masonry wall of the existing structure (thickness = 227mm);

1.1 masonry type PL01 — Terreal (dimensions = 220*50*14 mm and mass = 0.3kg) with λ = 0.74 W/m/K, C = 1000 J/kg/K, and ρρ = 1948 kg/m³.
1.2 cast concrete (average thickness = 200mm) with λ λ = 2.00 W/m/K, C = 880 J/kg/K, and ρρ = 2300 kg/m³.
1.3 BA13 plasterboard (thickness = 13 mm) with λλ = 0.035 W/m/K, C = 1008 J/kg/K, and ρρ = 9.30 kg/m³.

AXONOMETRY (MAIN STRUCTURE), MONTAGE FROM EXISTING — 1:125

clément taulelle,



[PHASE SHIFT CALCULATIONS—BIS]

Thermal phase shift calculations (achieving climate comfort through optimal insulation thickness),

(1) monolithic masonry wall of the existing structure (thickness = 227mm);

1.1 masonry type PL01 — Terreal (dimensions = 220*50*14 mm and mass = 0.3kg) with λ = 0.74 W/m/K, C = 1000 J/kg/K, and ρρ = 1948 kg/m³.

1.2 cast concrete (average thickness = 200mm) with λ λ = 2.00 W/m/K, C = 880 J/kg/K, and ρρ = 2300 kg/m³.

1.3 BA13 plasterboard (thickness = 13 mm) with λλ = 0.035 W/m/K, C = 1008 J/kg/K, and ρρ = 9.30 kg/m³.

AXONOMETRY (CARPENTRY), MONTAGE FROM EXISTING — 1:125

clément taulelle,

[PHASE SHIFT CALCULATIONS—TER]

Calculation of the thermal phase shift of a wall and the thermal conductance of its constituent materials:

U (thermal conductance in $W.m^{-2}.K^{-1}$) = $\frac{e}{\lambda}$

with R (thermal resistance in $m^2.K.W^{-1}$) = $\frac{1}{R}$

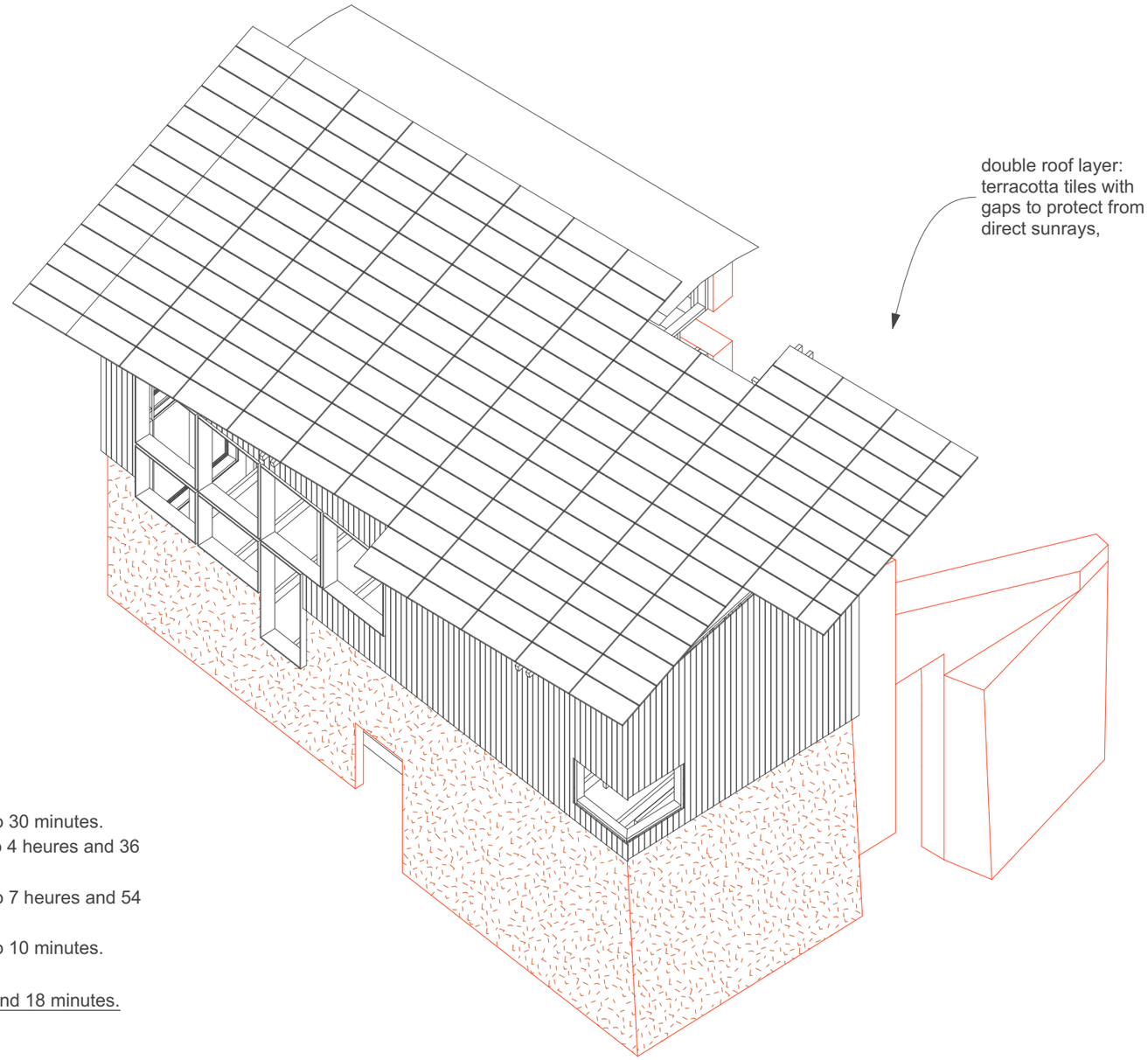
$\eta\eta_x$ (phase shift) = $\frac{e}{v} = \frac{T}{2\pi}\sqrt{\frac{\pi\rho C}{\lambda T}}e$ = $\eta_{(a)} + \eta_{(b)} + \eta_{(c)} + \ldots + \eta_{(n)}$

$U_{(1.1)}$ = 52,857 $W/m^{-2}.K^{-1}$ $\eta\,\eta_{(1.1)}$ = 0,5h éq. to 30 minutes.
$U_{(1.2)}$ = 10,000 $W/m^{-2}.K^{-1}$ $\eta\eta_{(1.2)}$ = 4,6h éq. to 4 hours and 36 minutes.
$U_{(1.3)}$ = 2,692 $W/m^{-2}.K^{-1}$ $\eta\eta_{(1.3)}$ = 0,2h éq. to 10 minutes.

with, η_1 (phase shift) = 5,3h which represents 5h and 18 minutes.

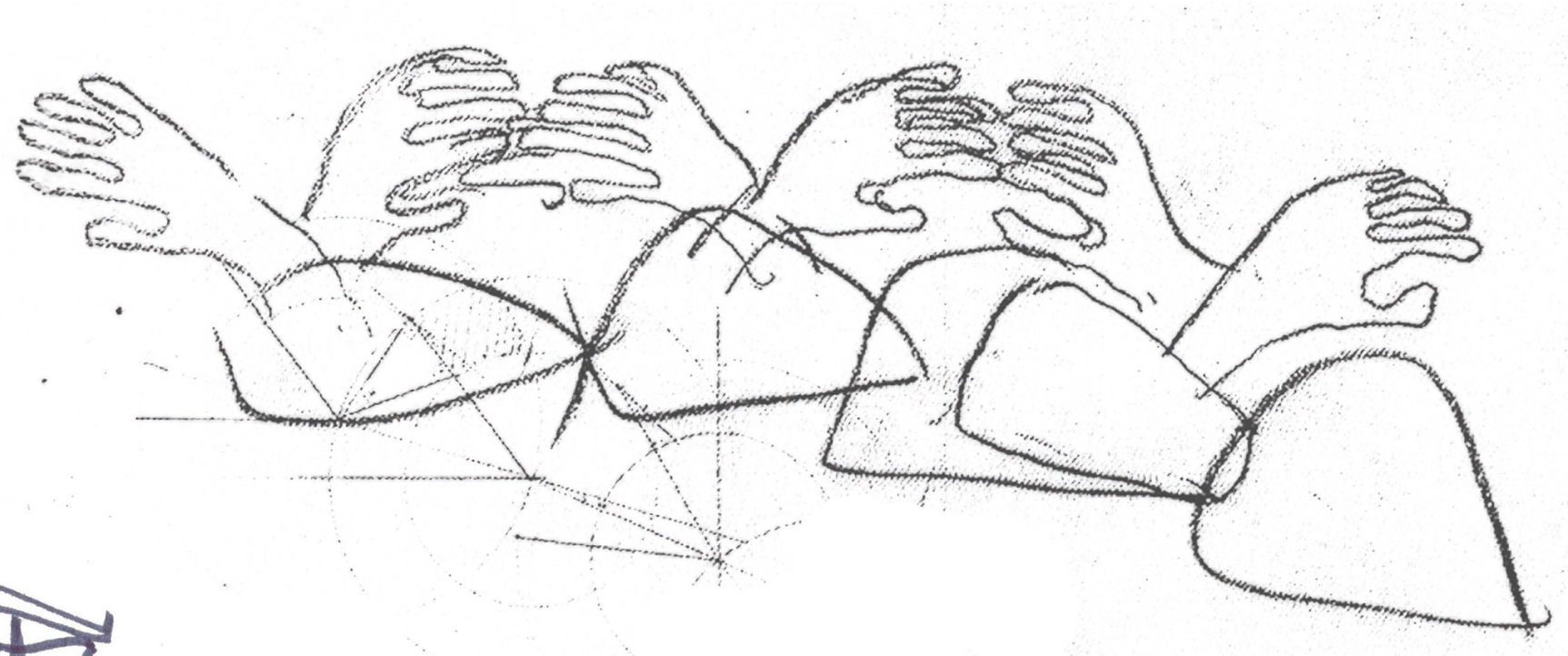
$U_{(2.1)}$ = 52,857 $W/m^{-2}.K^{-1}$ $\eta\,\eta_{(2.1)}$ = 0,5h éq. to 30 minutes.
$U_{(2.2)}$ = 10,000 $W/m^{-2}.K^{-1}$ $\eta\eta_{(2.2)}$ = 4,6h éq. to 4 heures and 36 minutes.
$U_{(2.3)}$ = 0,278 $W/m^{-2}.K^{-1}$ $\eta\eta_{(2.3)}$ = 7,0h éq. to 7 heures and 54 minutes.
$U_{(1.3)}$ = 2,692 $W/m^{-2}.K^{-1}$ $\eta\eta_{(2.4)}$ = 0,2h éq. to 10 minutes.

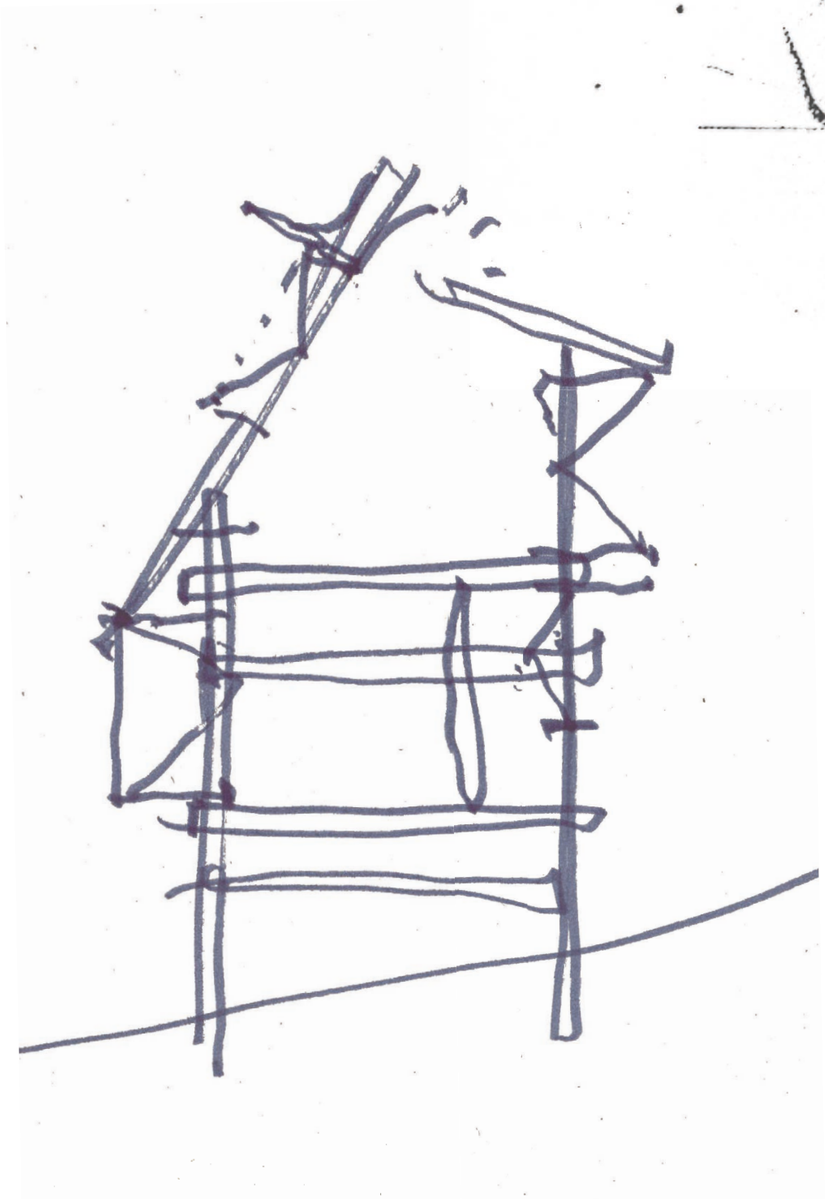
with, η_2 (phase shift) = 12,3h which represents 12h and 18 minutes.



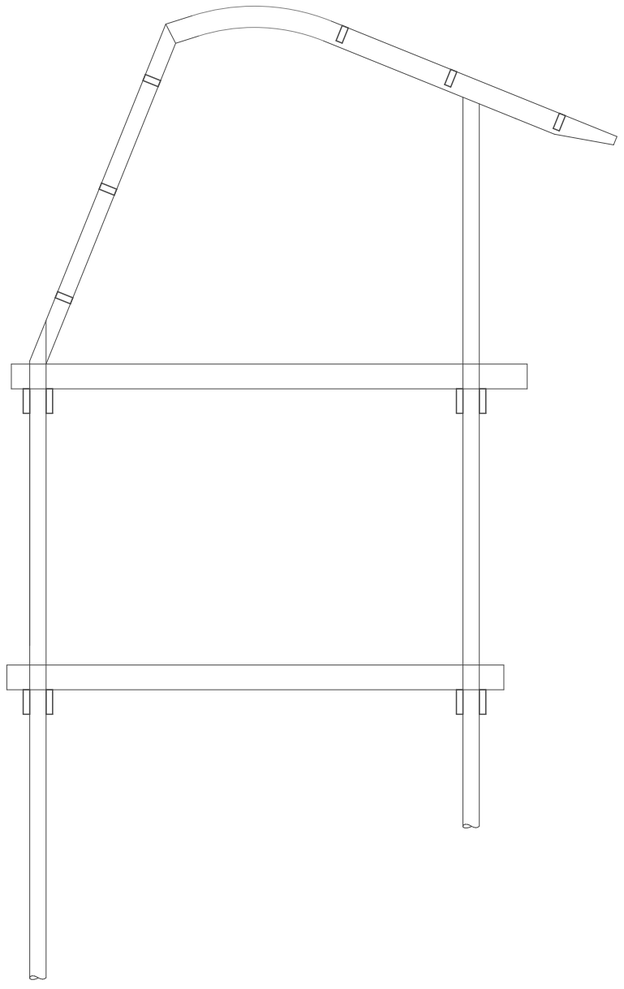
AXONOMETRY (ENVELOPPE), MONTAGE FROM EXISTING — 1:125

[49]
Jorn Utzon (1962), sketch of first coversas hands intertwined for Bayview House (unbuilt), Sydney, Australia. Courtesy of Jorn Utzon Archives.





clément taulelle,

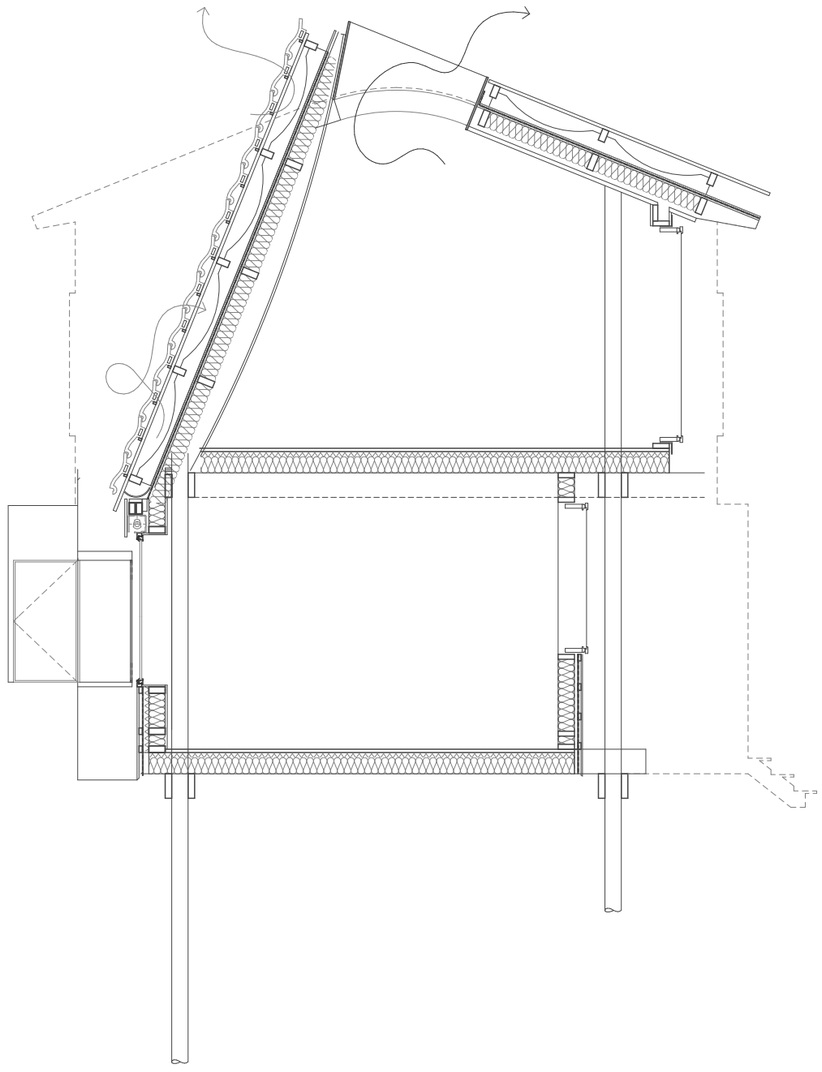


SECTION, SIGNIFICATIVE CC' — 1:75

"the brick, the rafter and the southern sun"
published on thursday, the fifteenth of january,

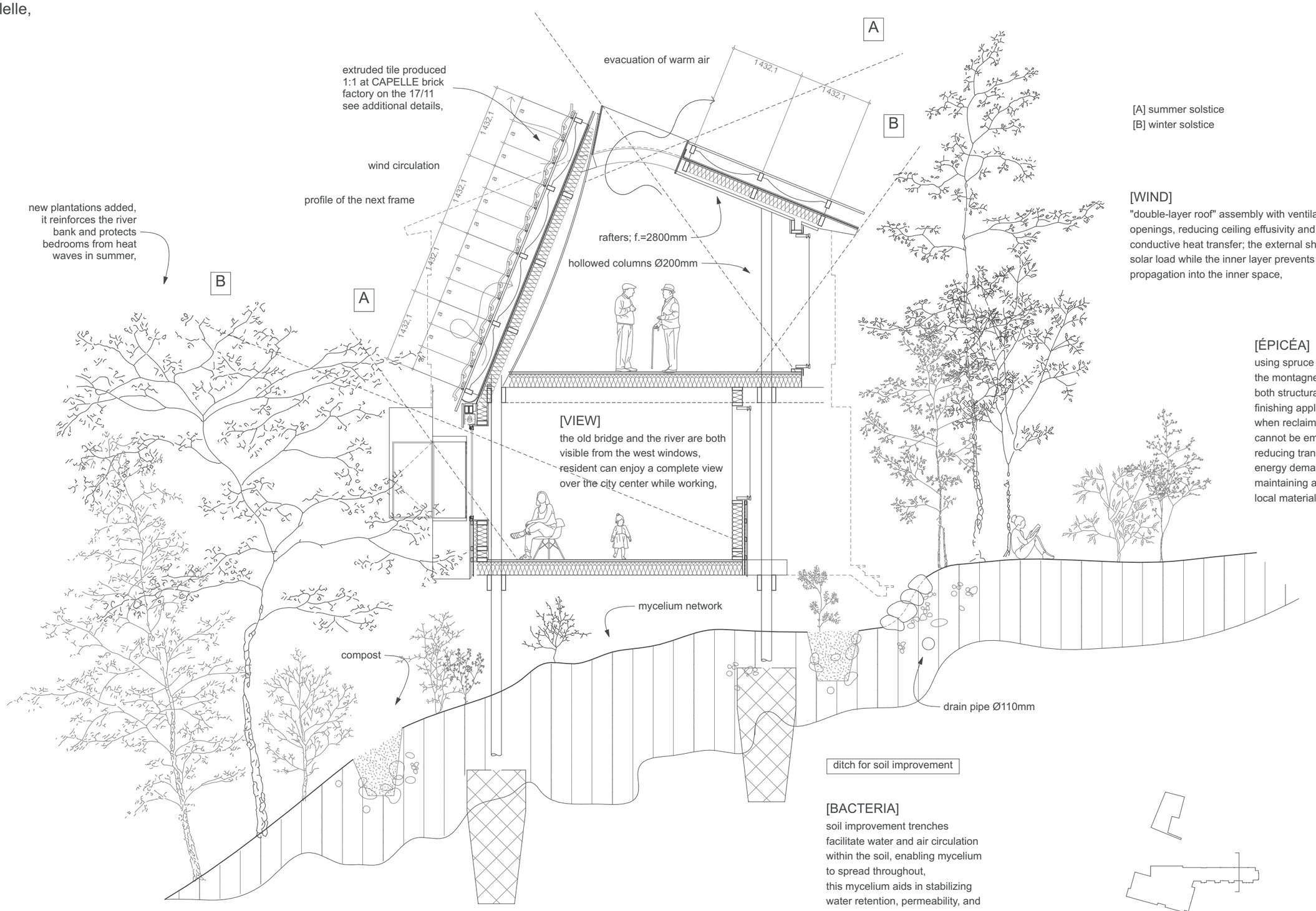
delft university of technology,

aE graduation studio, fall/25



SECTION, SIGNIFICATIVE CC' — 1:75

clément taulelle,



[A] summer solstice
[B] winter solstice

[WIND]
"double-layer roof" assembly with ventilated openings, reducing ceiling effusivity and slowing conductive heat transfer; the external sheet absorbs solar load while the inner layer prevents its propagation into the inner space,

[ÉPICÉA]
using spruce sourced from the montagne noire for both structural and finishing applications when reclaimed timber cannot be employed, reducing transport-related energy demand and maintaining a coherent local material chain,

[BACTERIA]
soil improvement trenches facilitate water and air circulation within the soil, enabling mycelium to spread throughout, this mycelium aids in stabilizing water retention, permeability, and aeration, thereby creating a soil environment conductive to support living organism,

SECTION, SIGNIFICATIVE CC' — 1:75

"the brick, the rafter and the southern sun"
published on thursday, the fifteenth of january,

delft university of technology,

aE graduation studio, fall/25

ARCHICAD EDUCATION VERSION

acoustic resilient layer (high-density insulation)

22-mm OSB3 panel

lacquered steel flashing

protected exterior-grade plywood panel

integrated stora 220*220mm

weather-resistive barrier (WRB) / rain barrier

480,0

368,0

1 424,0

metal blades protrude outward with a white glossy coating, providing privacy while also increasing the amount of light inside

fixed window, height = 1800mm

879,2

rad. 531mm

fixed window, height = 2300mm

clément taulelle,

ARCHICAD EDUCATION VERSION

STEEL

clément taulelle,

ARCHICAD EDUCATION VERSION

[A] summer solstice
[B] winter solstice

wind circulation

evacuation of warm air

extruded tile produced by the CAPELLE brick factory in the 17th, see additional details

[ÉPICÉA]
using sprsce sourced from the montagne noire for both structural and finishing applications when reclaimed timber cannot be employed, reducing transport-related energy demand and maintaining a coherent local material chain,

ponctual rafters for opening

rafters; l.=2800mm

[WIND]
"double-layer roof" assembly with ventilated openings, reducing ceiling effusivity and slowing conductive heat transfer; the external sheet absorbs solar load while the inner layer prevents its propagation into the inner space,

mycelium network

drain pipe Ø110mm

compost

ditch for soil improvement

[BACTERIA] soil improvement trenches facilitate water and air circulation within the soil, enabling mycelium to spread throughout, this mycelium aids in stabilizing water retention, permeability, and aeration, thereby creating a soil environment conductive to support living organism,

hollowed columns Ø200mm

BB 1/50 P4 — 1:62,500

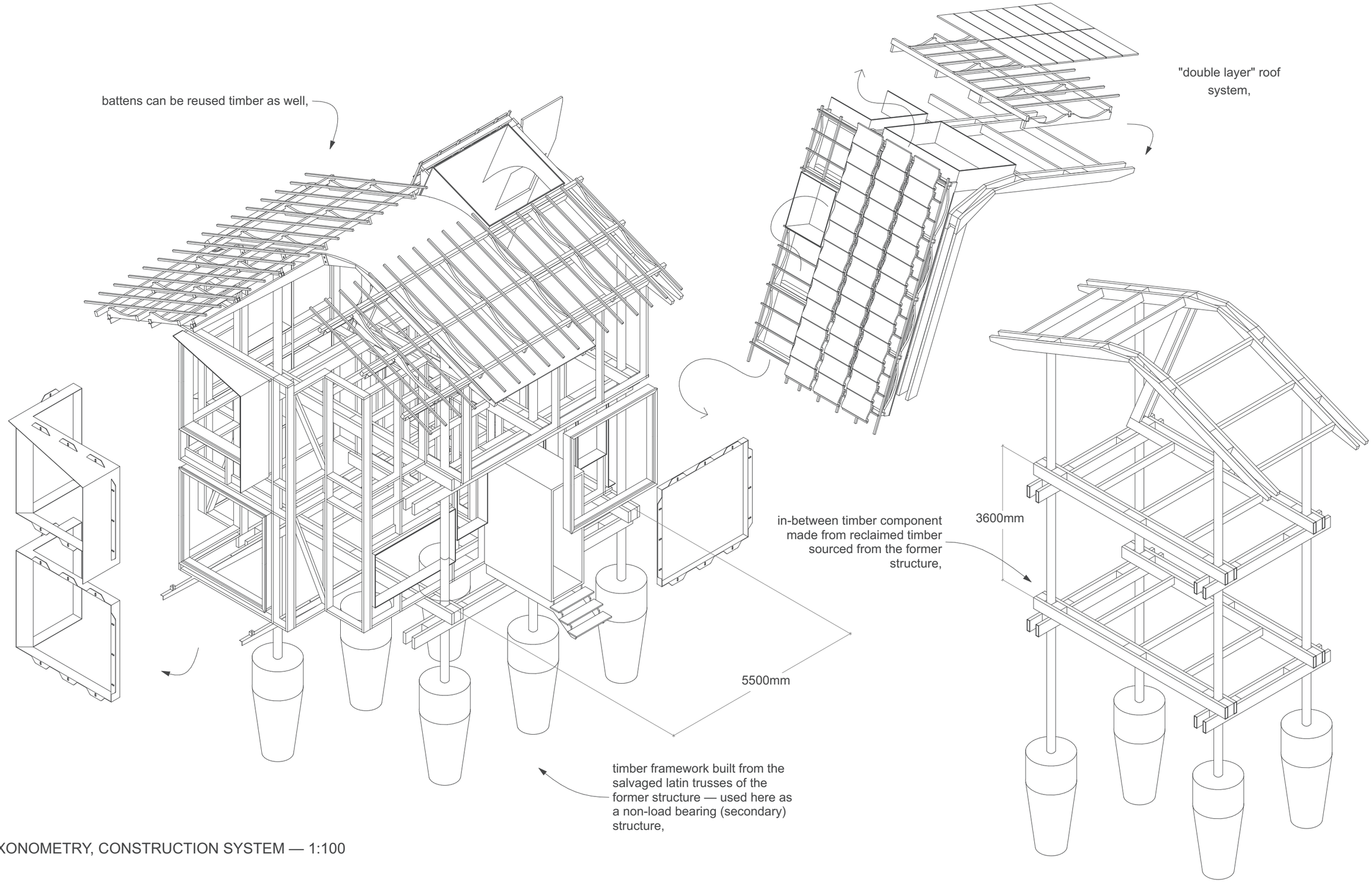
"the brick, the rafter and the southern sun"
published on thursday, the eleventh of december,

delft university of technology,

aE graduation studio, fall/25

aE graduation studio, fall/25

clément taulelle,



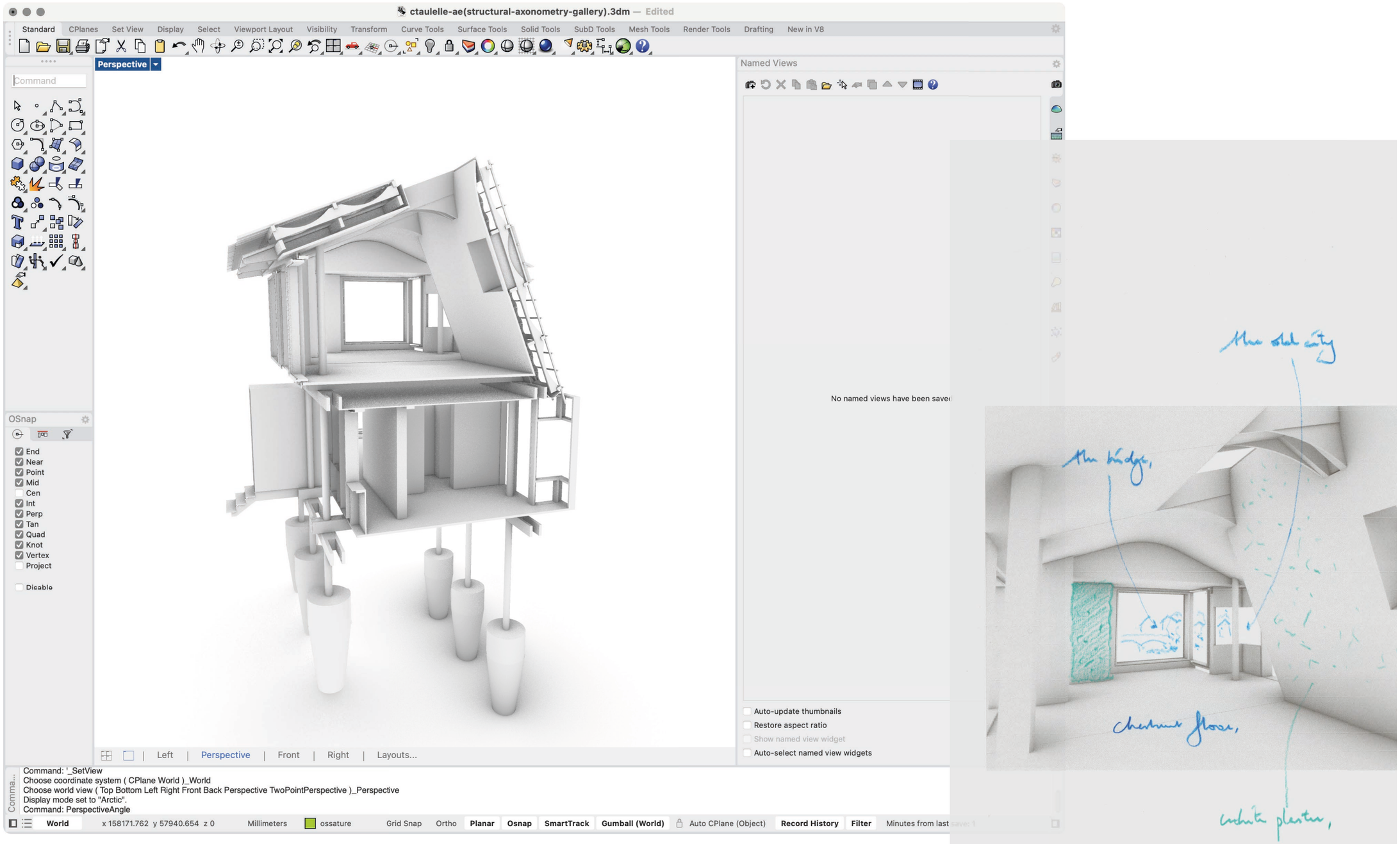
AXONOMETRY, CONSTRUCTION SYSTEM — 1:100

"the brick, the rafter and the southern sun"
published on thursday, the fifteenth of january,

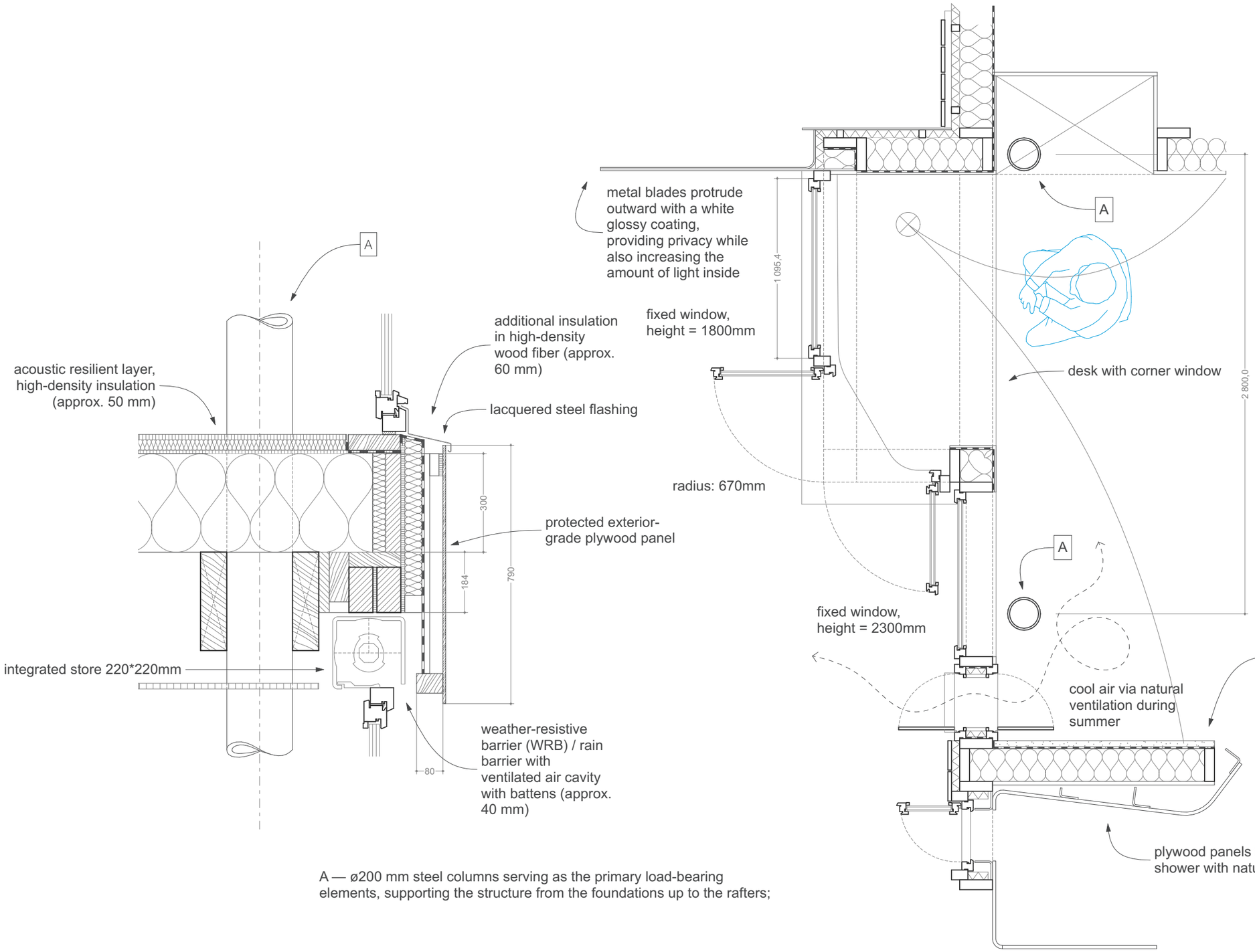
delft university of technology,

aE graduation studio, fall/25

[50]
Working phases, materiality and shapes (2025). Author.



clément taulelle,



A — ø200 mm steel columns serving as the primary load-bearing elements, supporting the structure from the foundations up to the rafters;

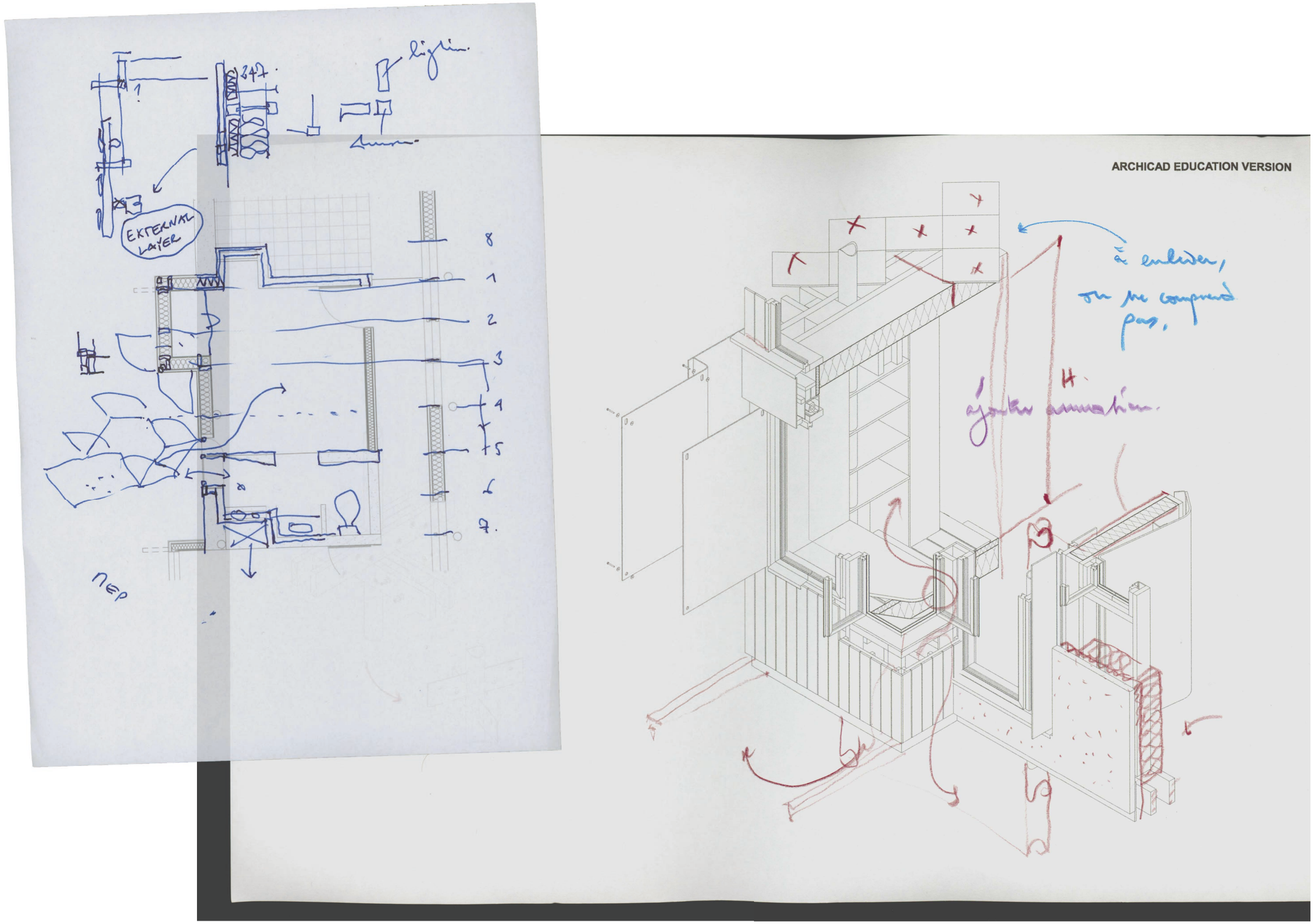
DETAILS, TECHNICAL DRAWINGS — 1:25

"the brick, the rafter and the southern sun"
published on thursday, the fifteenth of january,

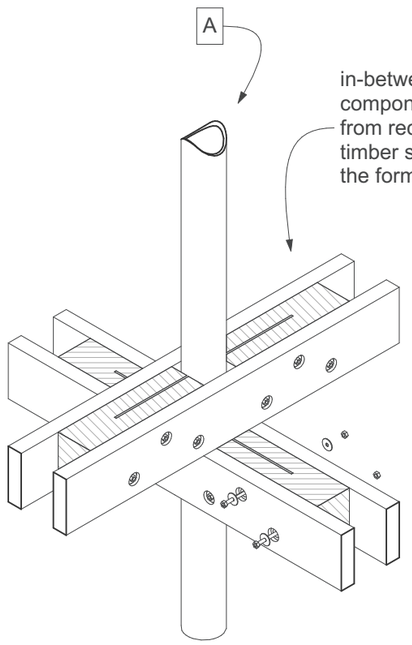
delft university of technology,

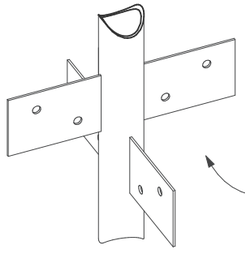
aE graduation studio, fall/25

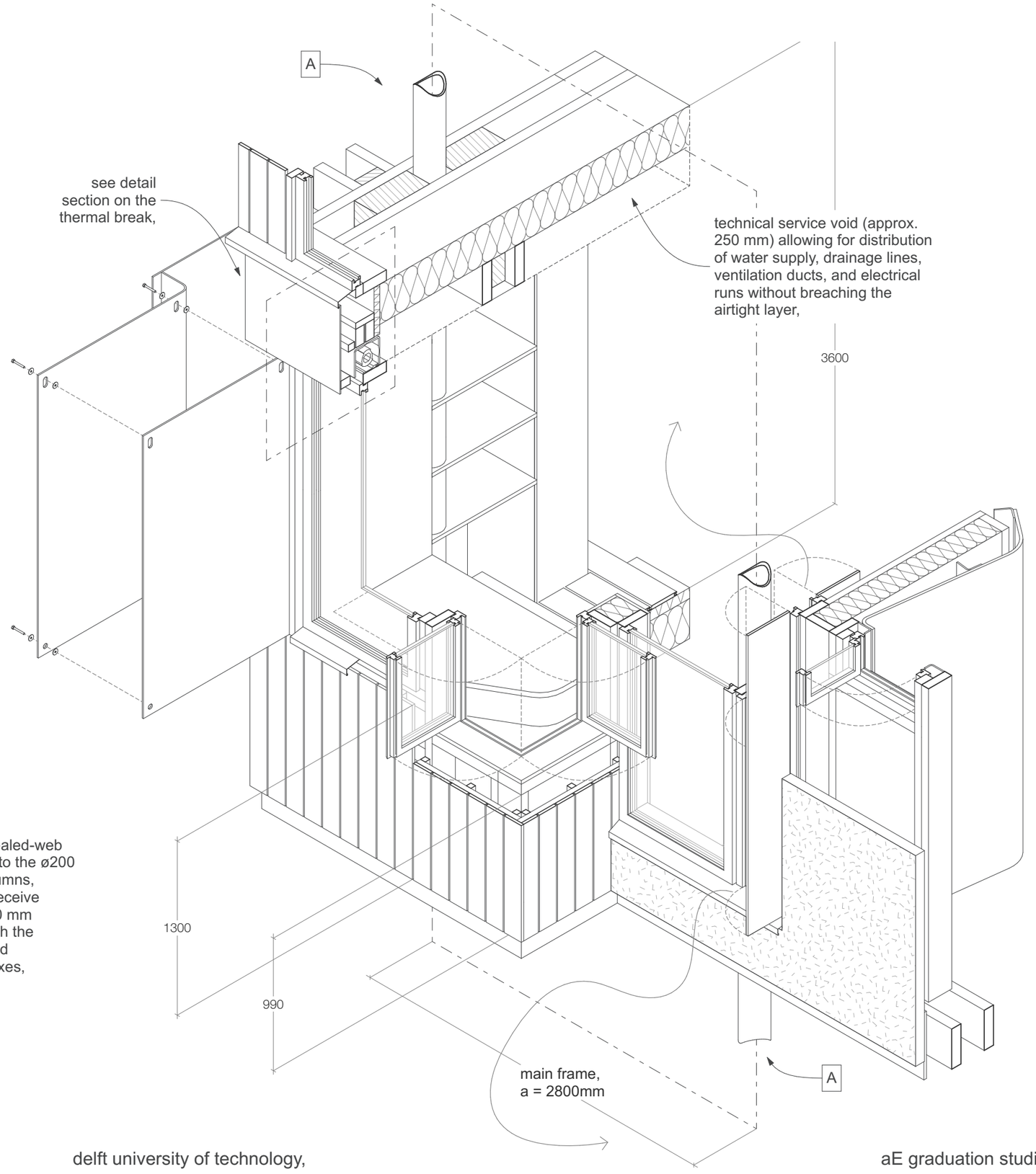
[51]
Working phases, drafts and iterations (2025). Author.



clément taulelle,







AXONOMETRY, DETAILS FACADE — 1:33

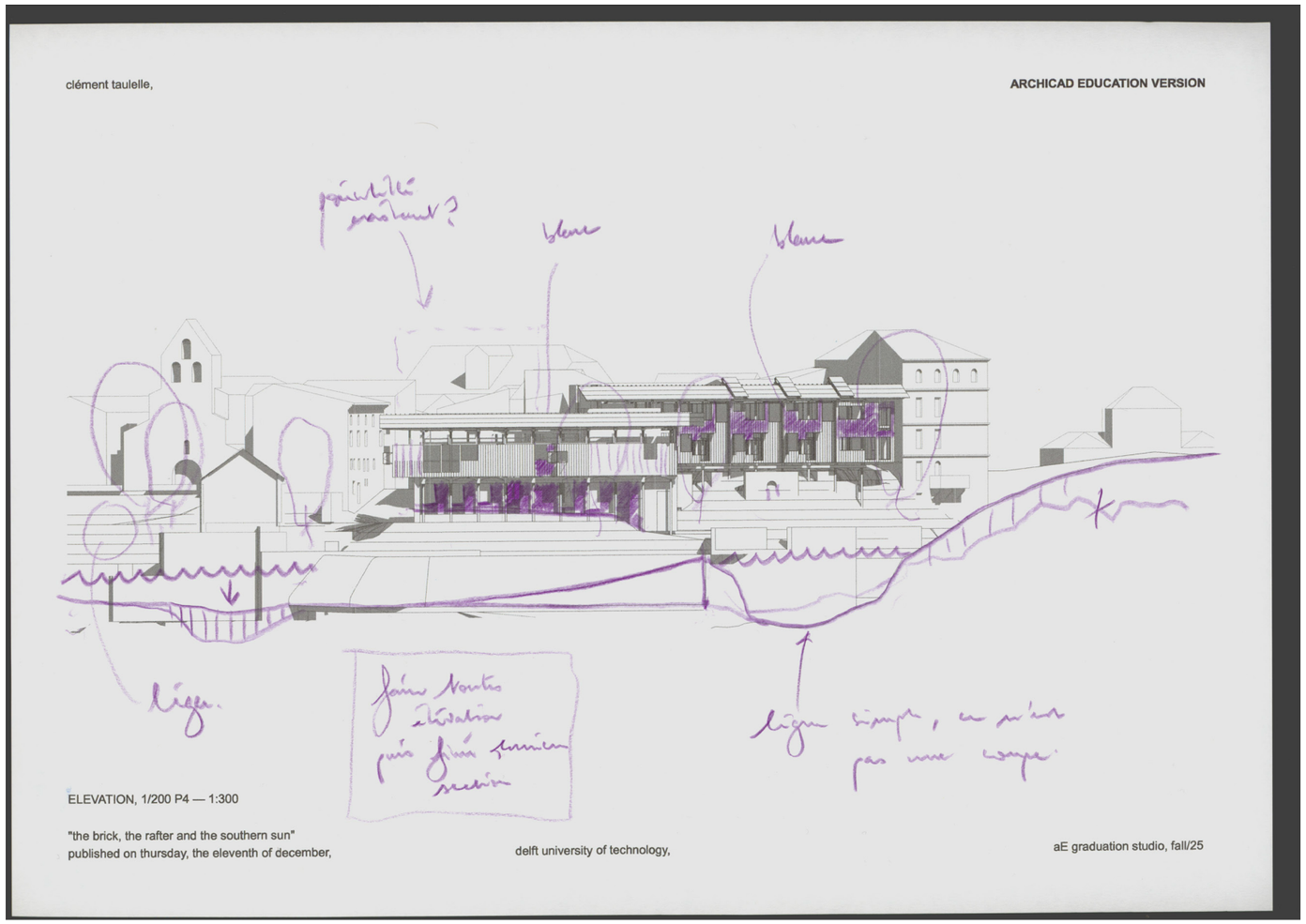
[52]
Nousaku, Fuminori, and Mio Tsuneyama (2024). *Urban Wild Ecology*. Tokyo: TOTO Publishing.



セルロースファイバーを不織布で覆った壁内に吹き込む。
Cellulose fiber insulation is blown into the wall cavity that has been wrapped in non-woven fabric.

木ずり板下地に砂漆喰を塗り、この上に土佐漆喰を塗る。
Sand plaster is first applied over the rough wooden base, followed by a layer of *Tosa* plaster.

[53]
Working phases,
drafts and iterations
(2025). Author.





[52]
Perspective visualisation from the upper floor.



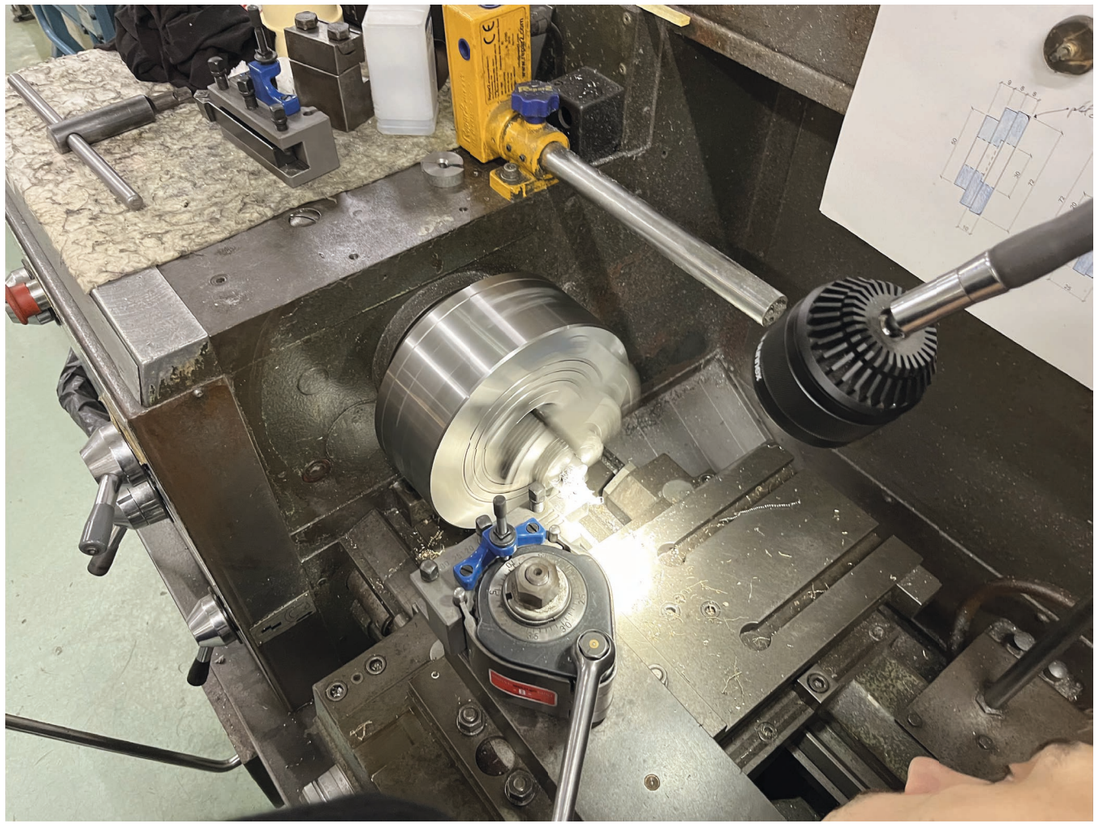
[54]
Tom Emerson, & 6a Architects. (2013). *Never modern*. Park Books.

creation of a mock-up that bridges the research produced in May with the design phase, demonstrating the architect's role as a player among local actors,

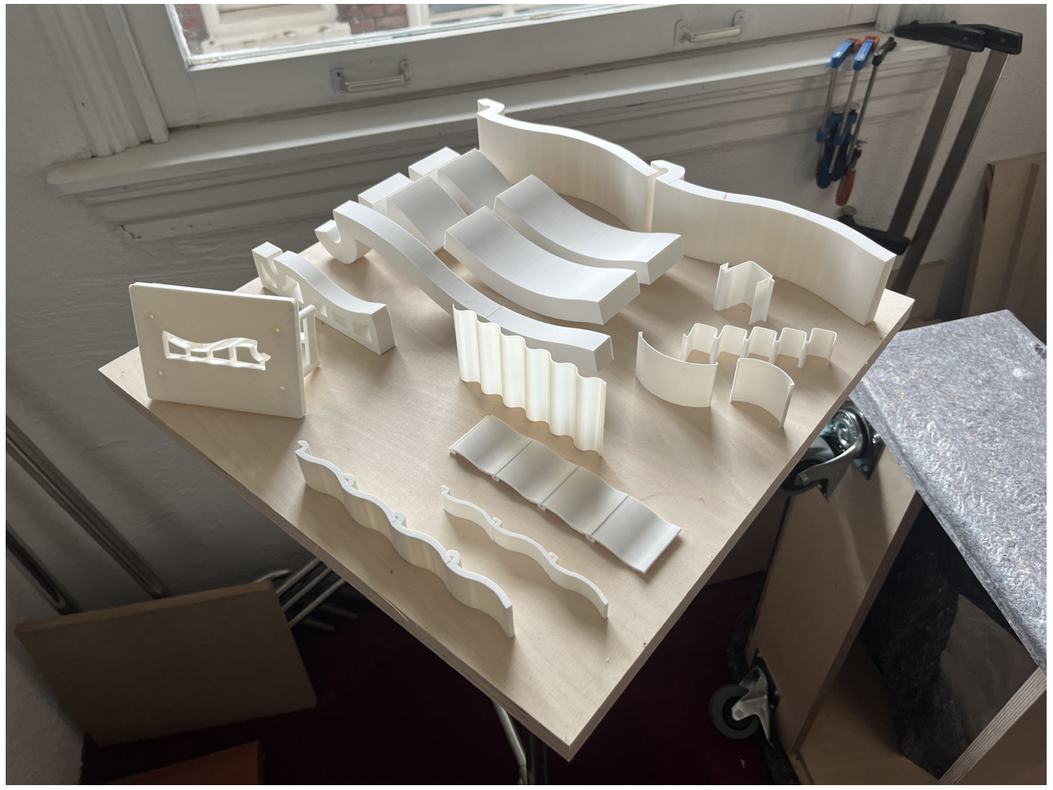
[55]
Courtesy of Briqueterie Capelle, extrusion of a small brick series (2025). Realised in November with Jean Taulelle, student at ENSCi, Paris.

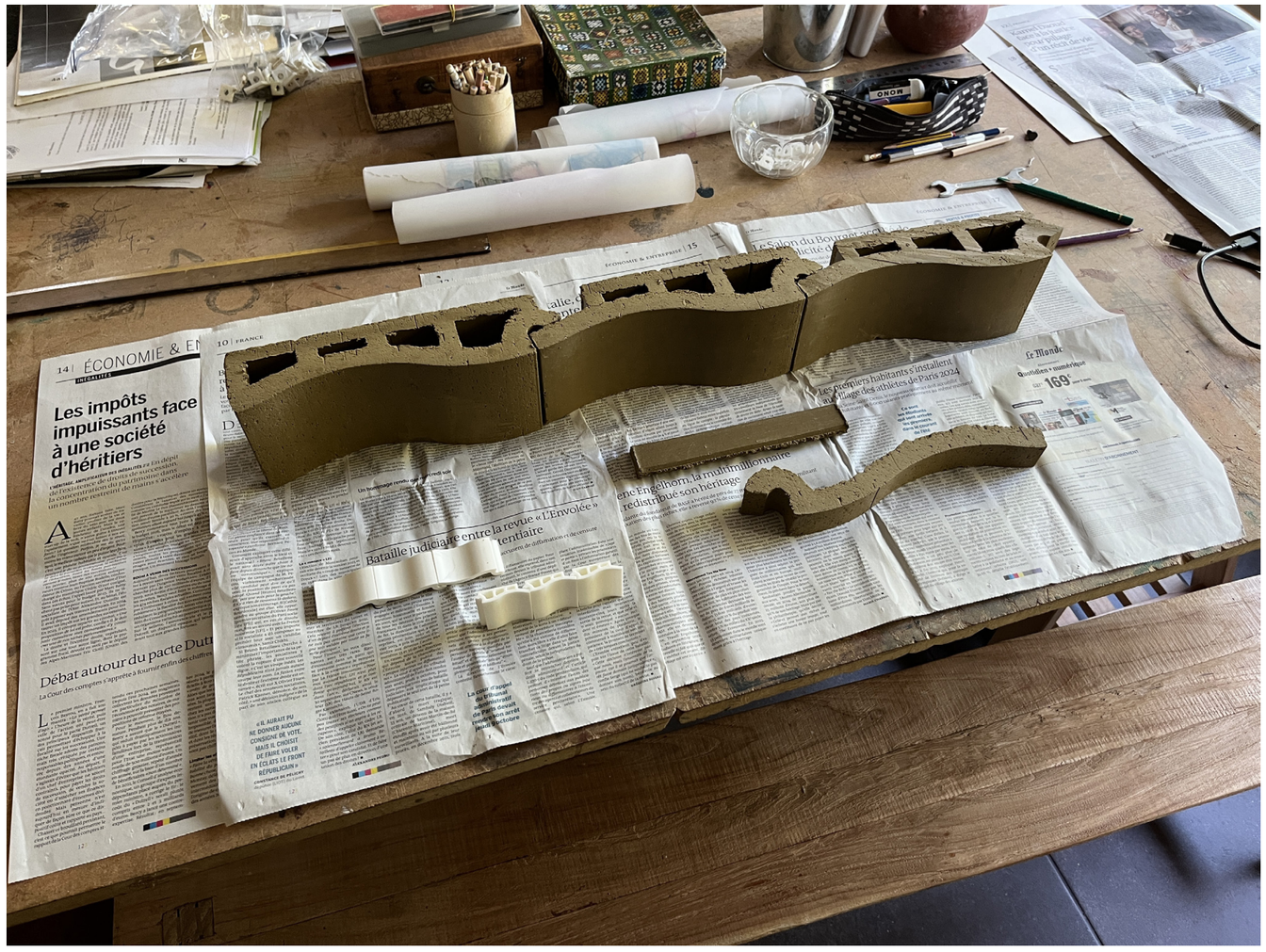



94.17
240.02
20.50








Les impôts impuissants face à une société d'héritiers
Débat autour du pacte Dutr
Bataille judiciaire entre la revue « L'Envolée »
Le Monde
Quotidien + numérique
169





