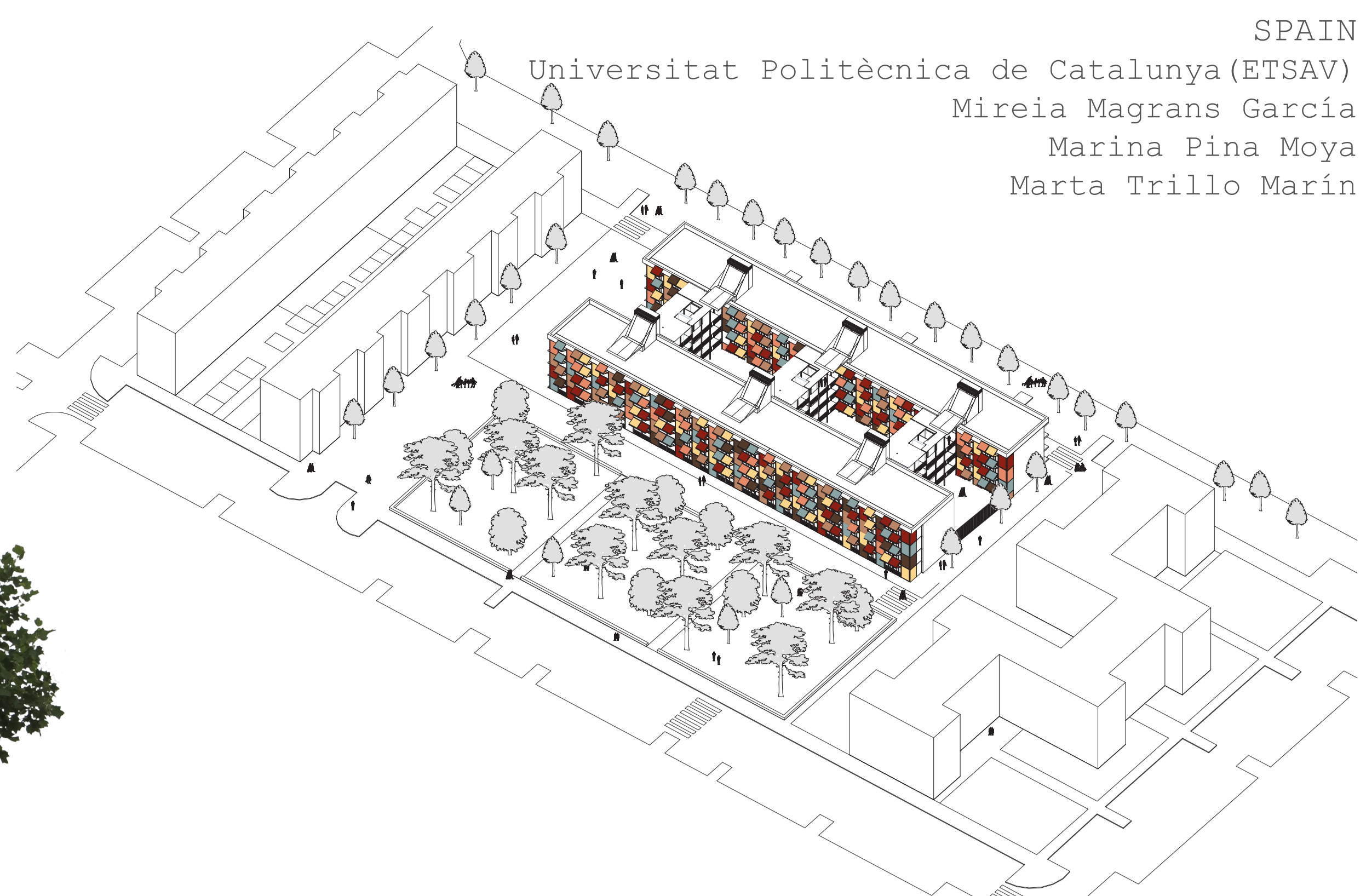


AS SUN AS POSSIBLE

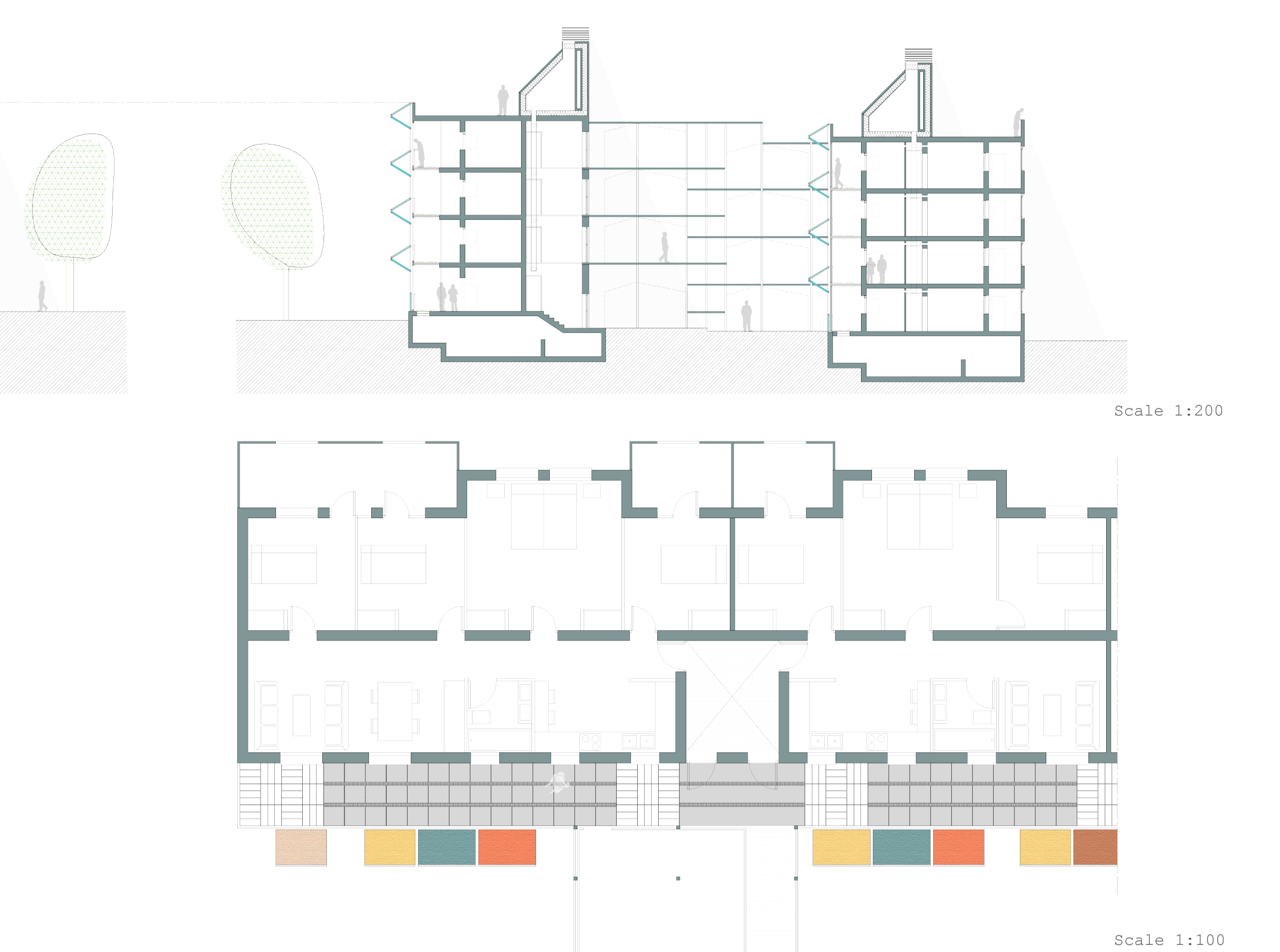
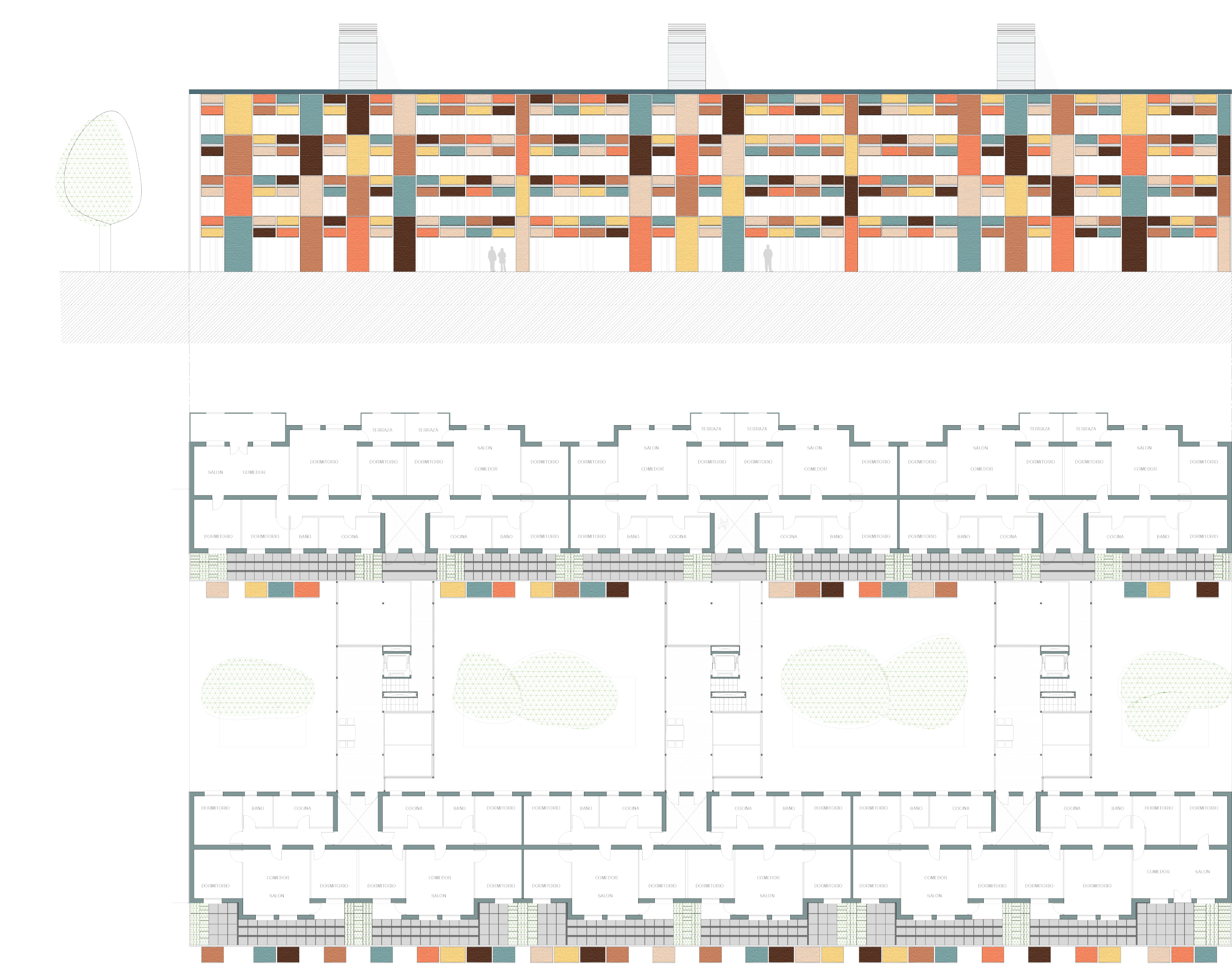
SPAIN
 Universitat Politècnica de Catalunya (ETSAV)
 Mireia Magrans García
 Marina Pina Moya
 Marta Trillo Marín



An opportunity to work in a residential building located north of Madrid has arisen, more specifically in the neighbourhood of San Blas, next to the airport. This is a deteriorated building complex, the construction system of which does not provide optimum living conditions.

Therefore, the proposal is aimed at optimizing the conditions of energy efficiency and acoustic comfort, which will lead to the subsequent revaluation of the housing. The first points that are raised are, first, that the intervention is as least aggressive as possible with the life habits that currently exist in the place. That is why it is proposed that the implementation of the project does not alter the living conditions of the existing neighbours during the construction work.

It is only an intervention of the outer skin, adding semi-habitable spaces and a solar chimney on the deck. In the interior of the house, it is only required to perform the incorporation of an acoustic false ceiling that isolates of the noise and allows in turn space for the piping system, which contains the air of the solar chimney.

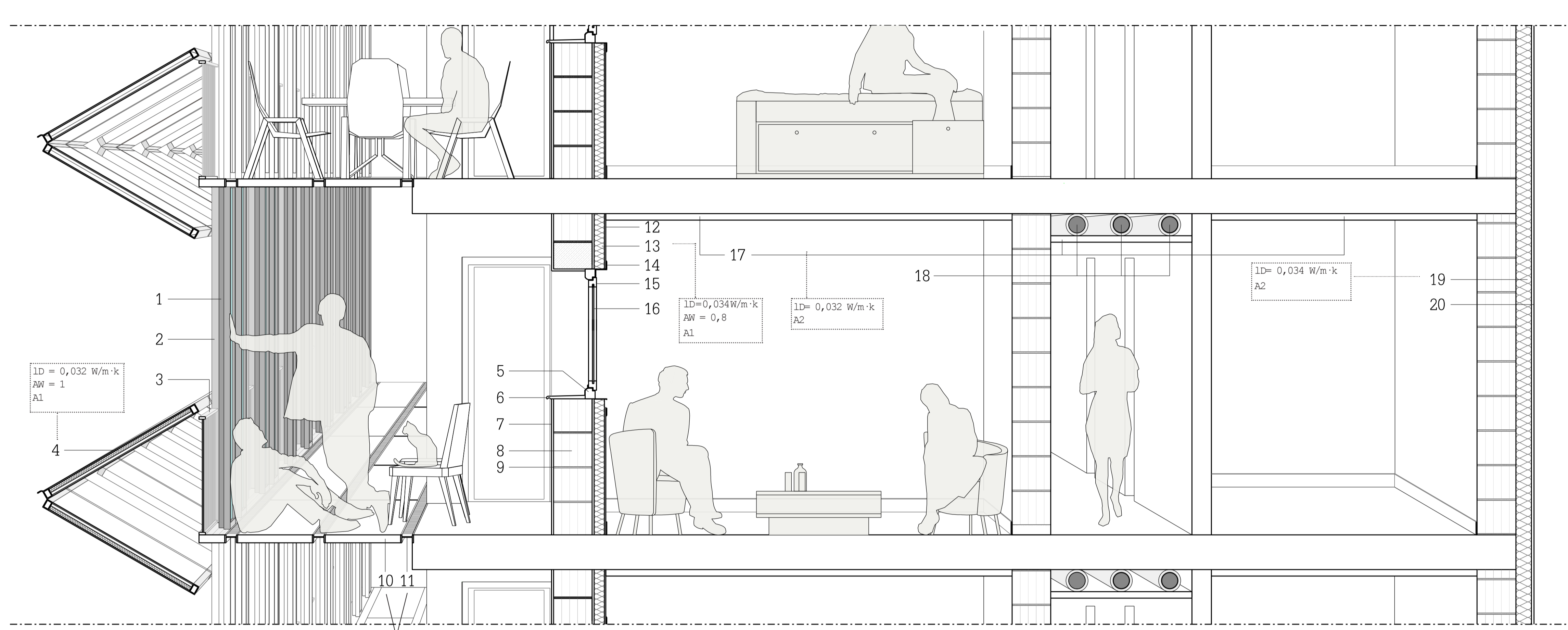


Scale 1:200

Scale 1:100

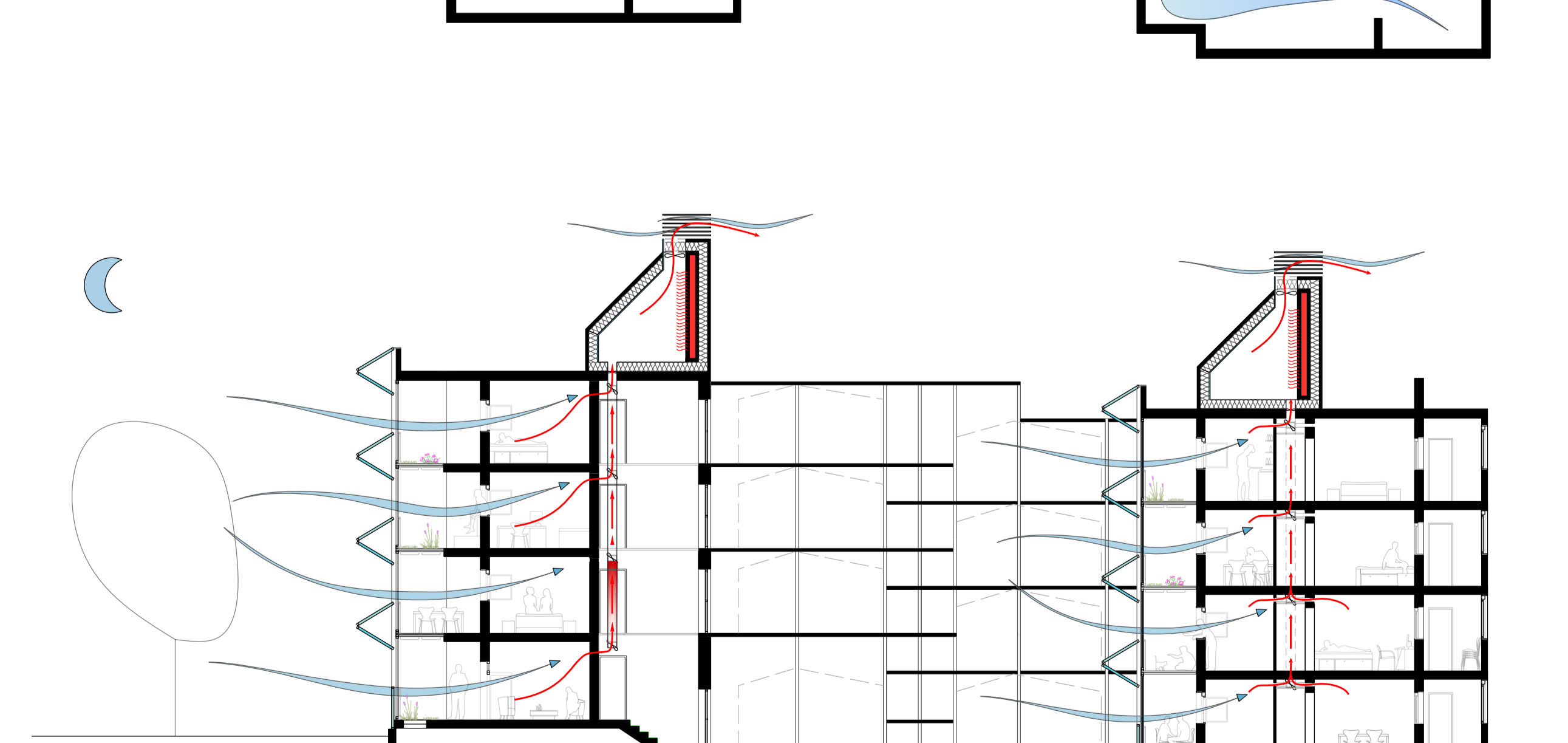
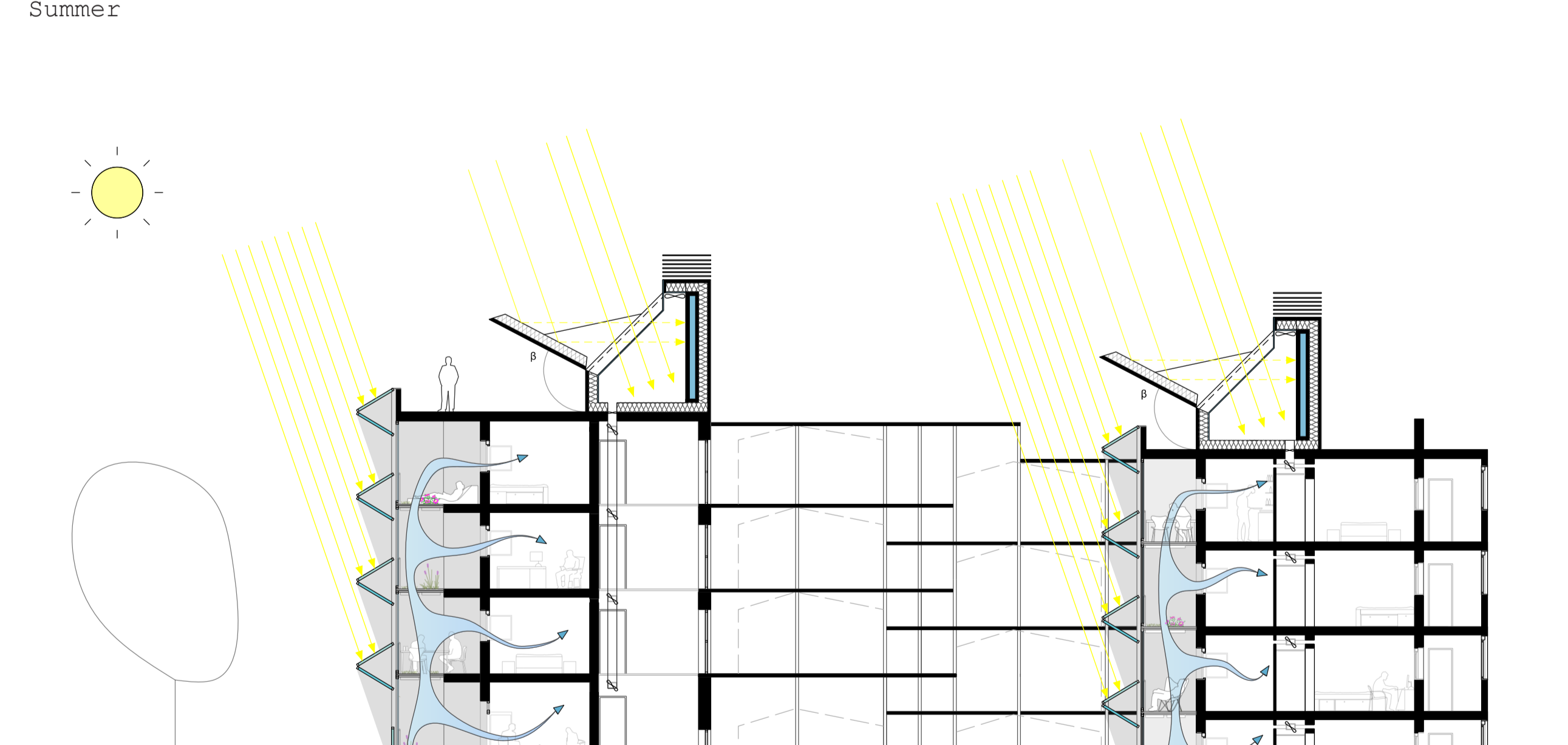
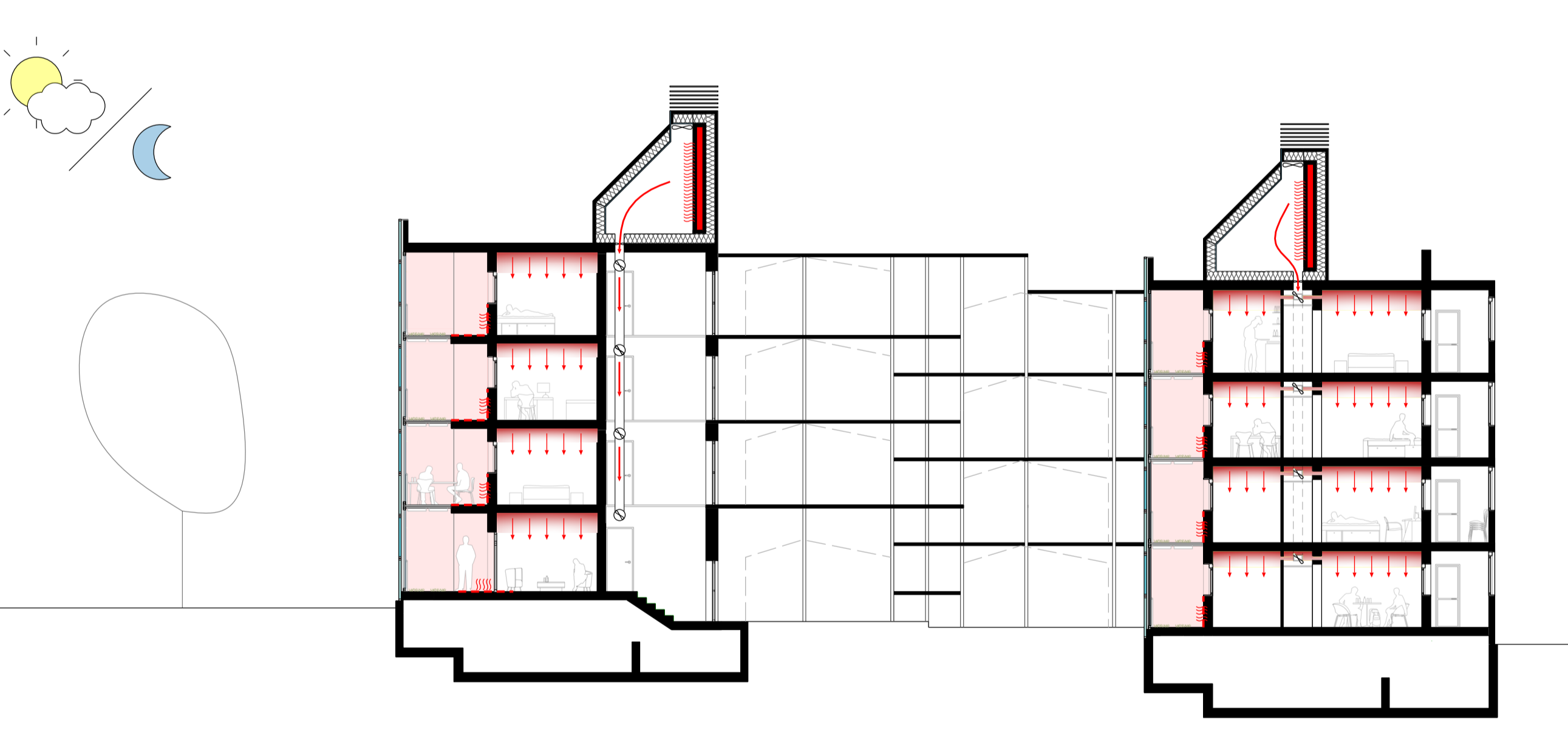
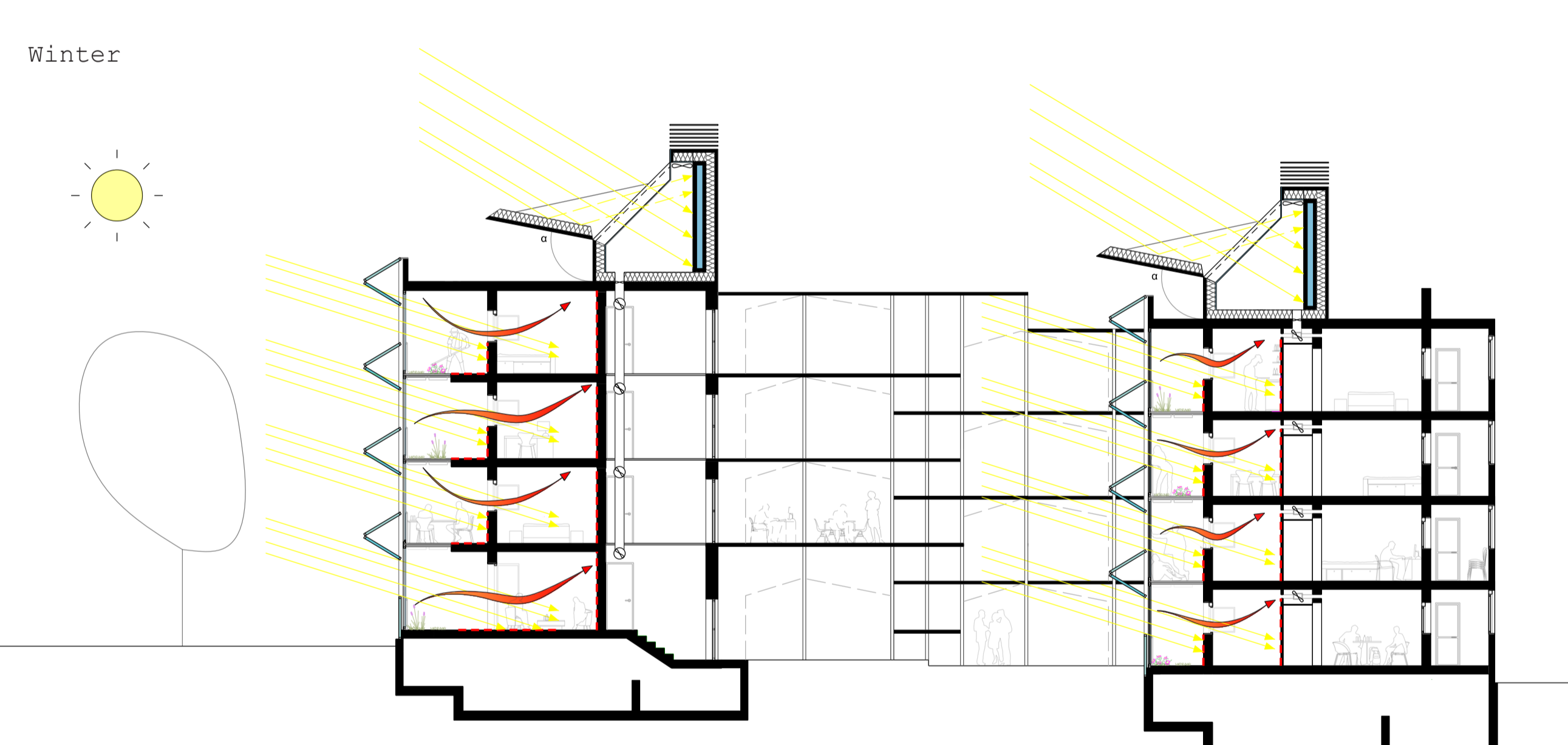
It has been observed that the building that is located in the north of the set has an inappropriate interior distribution for the operation of the double skin that is proposed, so a possible redistribution of the housing is suggested, considering only minimal interventions. Therefore, in short, the project does not remove elements of existing buildings, but proposes an extension of the dwellings by means of a self-supporting structure, in such a way that a double skin is generated, contributing new properties to the building through the functioning of its new facade that, in addition, makes possible the overturning of the houses.

- CONSTRUCTIVE LEGEND**
- Aluminium window structure, sliding opening system
 - Insulated double-glass window (4-10-4)
 - Handrail made of glass with stainless steel connection tubing
 - Movable panels ISOVER ECOVENT VN 032 (100 mm)
 - 4.1. Exterior resistant laminated plasterboard
 - 4.2. Semi-rigid mineral wool ISOVER panels, non-hydrophilic, coated on one side with a black glass fabric of high mechanical resistance
 - 4.3. Isover panel substructure
 - 4.4. Exterior resistant laminated plasterboard
 - Aluminium window frame structure
 - Ceramic piece to finish off the sill of the window
 - Outer plaster finishing touch of cement and paint
 - Vertical separation element on southern facade
 - Principal part of facade made of ceramic thermal blocks + Insulated ISOVER OPTIMA U St
 - Wood finishing panel
 - Galvanized exterior steel grid for ventilation
 - Interior finishing with laminar plaster panel (15 mm)
 - Insulation made of rigid rock wool panel ISOVER ACUSTIANK 70 (60 mm)
 - Clamping metallic profile ISOVER OPTIMA U St
 - Collapsible aluminium window structure
 - Insulated double-glass window (4-6-4)
 - Interior roof acoustic insulation made of mineral wool ISOVER ARENA OPTIMA (50mm)
 - SUPPORT FRAME
 - 17.1. OPTIMA U ST profile
 - 17.2. Extension OPTIMA 50
 - 17.3. OPTIMA 240 profile
 - 17.4. OPTIMA2 Clips 76/160 and OPTIMA Connector
 - ISOLATION
 - 17.5. Mineral Wool ISOVER Arena Basic
 - INTERIOR COATING
 - 17.6. Plaque Laminated Gypsum Board
 - Ventilation ducts ISOVER ULTIMATE Protect WIRED MAT
 - High density glass wool thermal insulation ISOVER Clima 34 (80 mm)
 - Adhesive and painted outer plaster of north facade glass fibre interior reinforcement in slab zone.



Scale 1:20

HOW DOES IT WORK?



Scale 1:150

ENERGETIC BALANCE INSIDE THE BUILDING

