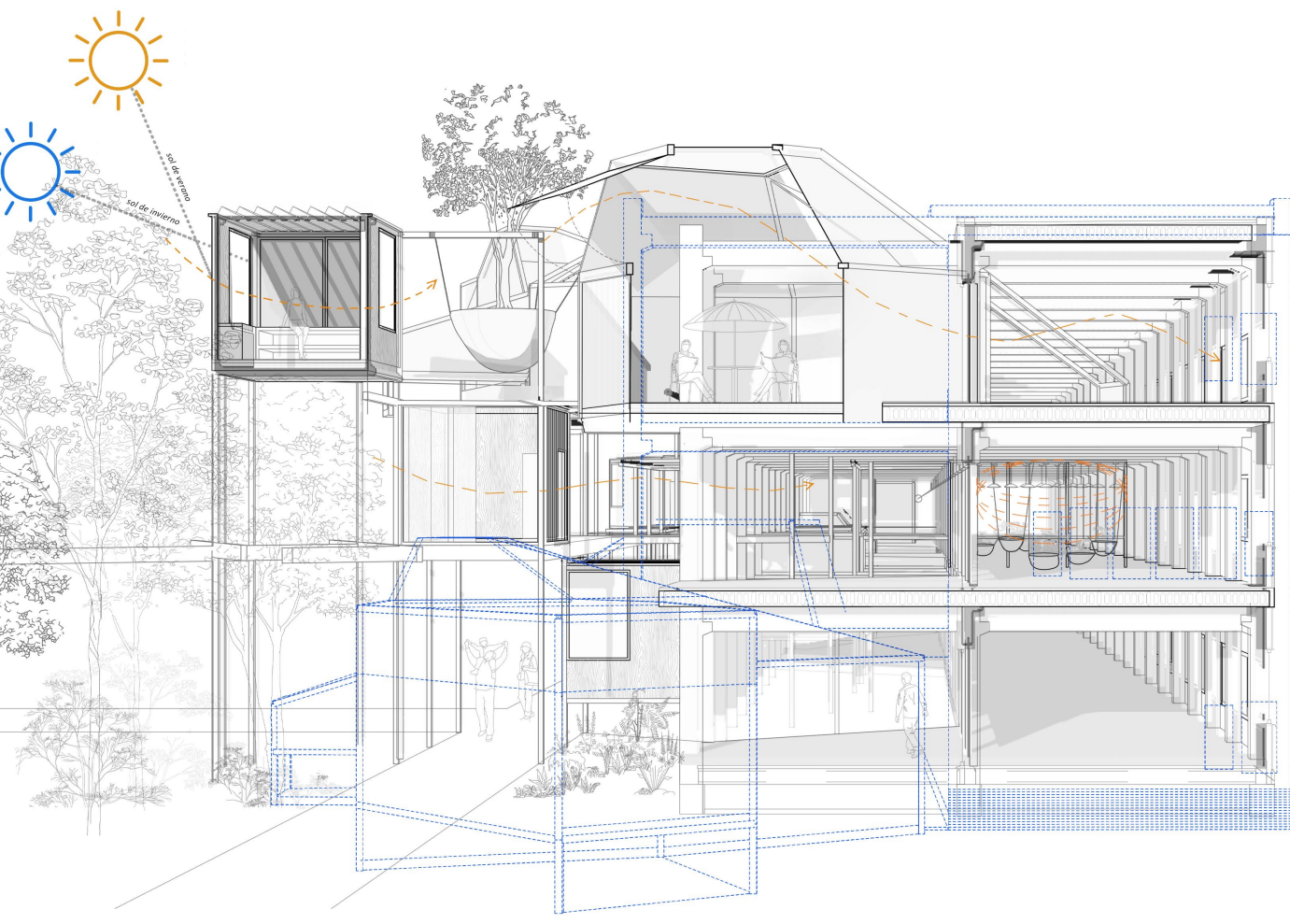
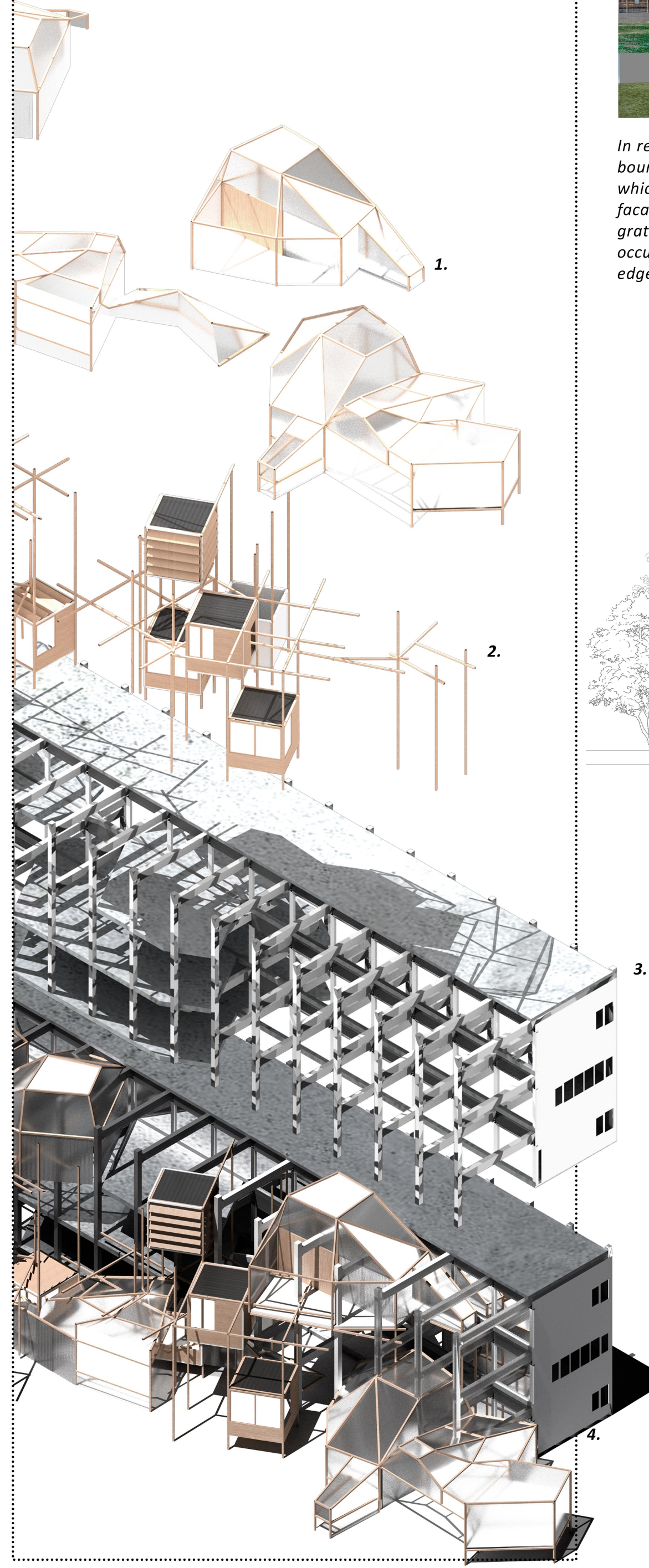


PHOTO-TROPISM

A directional response that allows plants to grow towards a light source.



In recent years, particularly amid the pandemic, workplaces have undergone profound changes, blurring the boundaries between work and home life. At the forefront of this transformation is the ESTEC project in Delft, which addresses a 40% office vacancy by reimagining traditional architectures. By removing the existing facade, the project symbolically breaks down barriers between work and living spaces, fostering a more integrated approach to daily life. Introducing versatile modules, including greenhouses and living areas, connects occupants with nature while improving conditions for 60% of workers. This adaptive design not only acknowledges the evolving needs of society but also represents a new era in workspace conception.



1_Communal modules

In these modules, we can find a wide variety of common uses, besides serving as a physical support to promote social interactions and the development of collective activities. They provide a greater gradient of intimacy, and their materiality serves those same purposes. It is the connection between individual spaces and the ESTEC; it gives space to the new community that wants to establish itself in this area and solves the major spatial problem of the pre-existing building.

2_Individual modules

Rest takes place in these modules, whose scale is significantly reduced, adapting to human proportions and more individual development activities. Among the uses they accommodate are bedrooms, bathrooms, noise areas, and places for rest. The copeneration machines are also located in this individual format since their scale and activity are more suited to a smaller, private module. The walls that form these modules ensure proper insulation and protection of privacy. They are located in the outermost parts of the ESTEC units, leaving the communal modules in a more intermediate space.

3_Preexistence

The DK building is a prefabricated concrete structure, with 320mm alveolar slab flooring and a facade made of architectural concrete panels. In the first phase, the building is stripped down, and the south facade is removed to allow for the attachment of modules. Some floors are removed, leaving platforms that will serve as a connection between both worlds. The concrete structures allow for a high degree of disassembly. The beams and columns remain intact, and only some alveolar slabs and the south facade are removed.

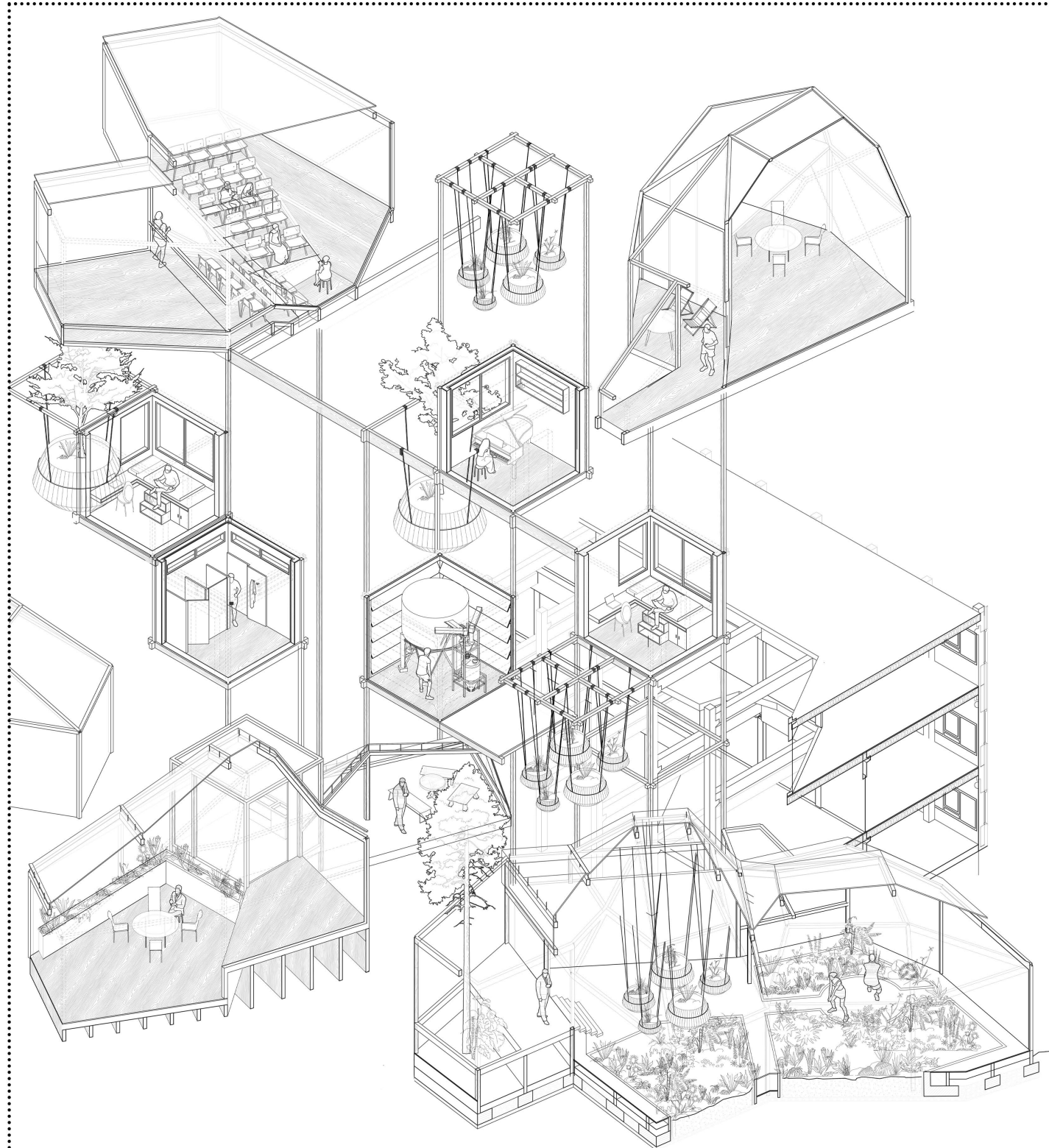
4_Intervention

The extension of the DK Building breaks away from the claustrophobic feeling that the building generated and opens up in the most literal way towards the external forest. An auxiliary wooden structure is used to create domestic spaces that would occupy the percentage of disused offices, supporting wooden modules with different functions. The project sews the partially disassembled building back together, completing it and including a new dimension of use that enriches the location and makes it more suitable for the arrival of a new community, the Dutch society.

Catalog of Uses

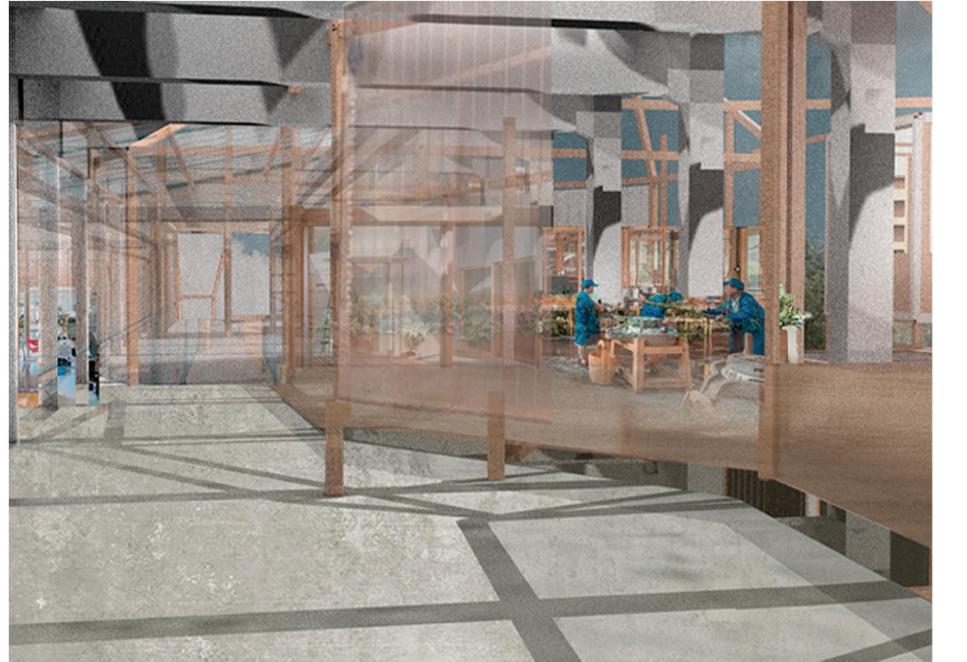
E0_communications core

- E1_hanging trees
module 3 / interior / intervention / 2m height / 2 m² / light_3 / noise_0 / privacy_x
- E2_hanging gardens
module 3 / interior / intervention / 2m height / 2 m² / light_3 / noise_0 / privacy_x
- E3_common use areas
module 2 / interior / intervention / 4.5m height / x m² / light_3 / noise_2 / privacy_0
- E4_noise room
module 1 / interior / intervention / 3m height / 9 m² / light_1 / noise_3 / privacy_1
- E5_cafeteria and kitchen
module 2 / interior / intervention / 3m height / 9 m² / light_1 / noise_3 / privacy_1
- E6_greenhouse
module 2x3 / interior / intervention* / 7m height / x m² / light_2 / noise_2 / privacy_0
- E7_microcogeneration
module 1 / interior** / 3m height / 9 m² / light_0 / noise_3 / privacy_x
- E8_gym
module 1x2 / interior / intervention / 3m height / 18 m² / light_1 / noise_2 / privacy_3
- E9_showers
module 1 / interior / intervention / 3m height / 9 m² / light_1 / noise_1 / privacy_3
- E10_classroom / conference room
module 3 / interior / intervention / 6m height / 20 m² / light_1 / noise_2 / privacy_0



1_Exterior individual modules

The shape of the current slab is adapted to the new modules and retracts in areas that require more lighting on the lower floor. Some of the uses of the intervention may be related to the use inside the offices, and the workers use them in their day-to-day activities. ESTEC employees can go outside to smoke a cigarette or take a walk, making their workspace more friendly.



2_Courtyards by pre-existing slab

The shape of the current slab is adapted to the new modules and retracts in areas that require more lighting on the lower floor. Some of the uses of the intervention may be related to the use inside the offices, and the workers utilize them in their day-to-day activities.



3.Office lighting

The office corridors are enclosed by large windows that allow light to enter the interior, overlooking the new modules and the exterior courtyards. Some of the uses of the intervention may be related to the use inside the offices, and the workers use them in their day-to-day activities.



4_Pre-existing offices

The remaining 60% of the offices retain their function. The large windows allow the entry of light and highlight the presence of the exterior modules. The office corridors are enclosed by large windows that allow light to enter the interior, overlooking the new modules and the exterior courtyards.



Intervention

The extension of the DK Building breaks away from the claustrophobic feeling that the building generated and opens up in the most literal way towards the external forest. To create domestic spaces that would occupy the percentage of unused offices, an auxiliary wooden structure is used that supports wooden modules with different functions. Along the longitudinal axis of the project, the further away the module is from the core of the offices ("the comb"), the greater its level of domesticity and compatibility with residential use. Smaller modules also appear, which respond to individual uses (residence, toilet) as opposed to the collectivity of the larger blocks (greenhouse, common areas).