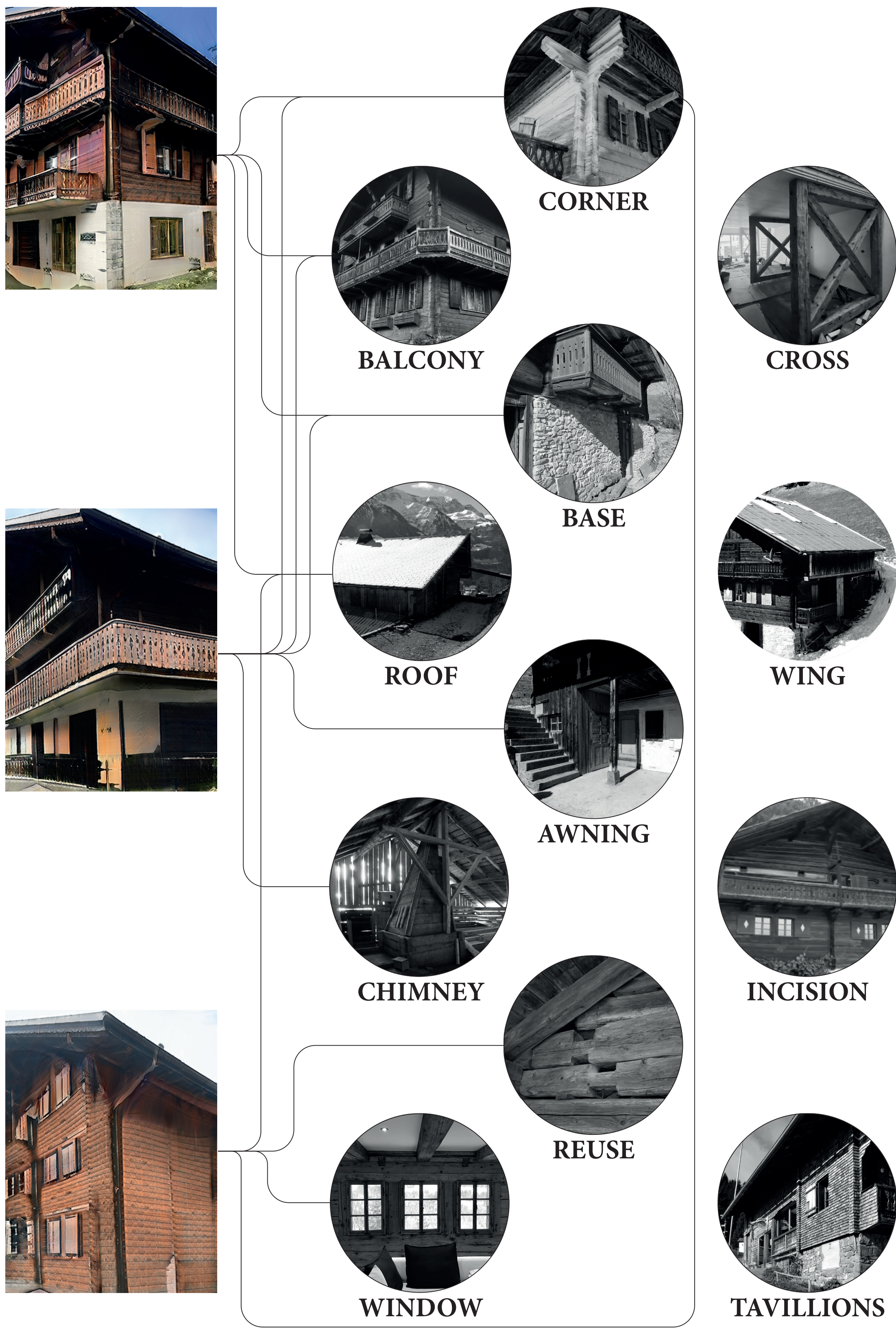
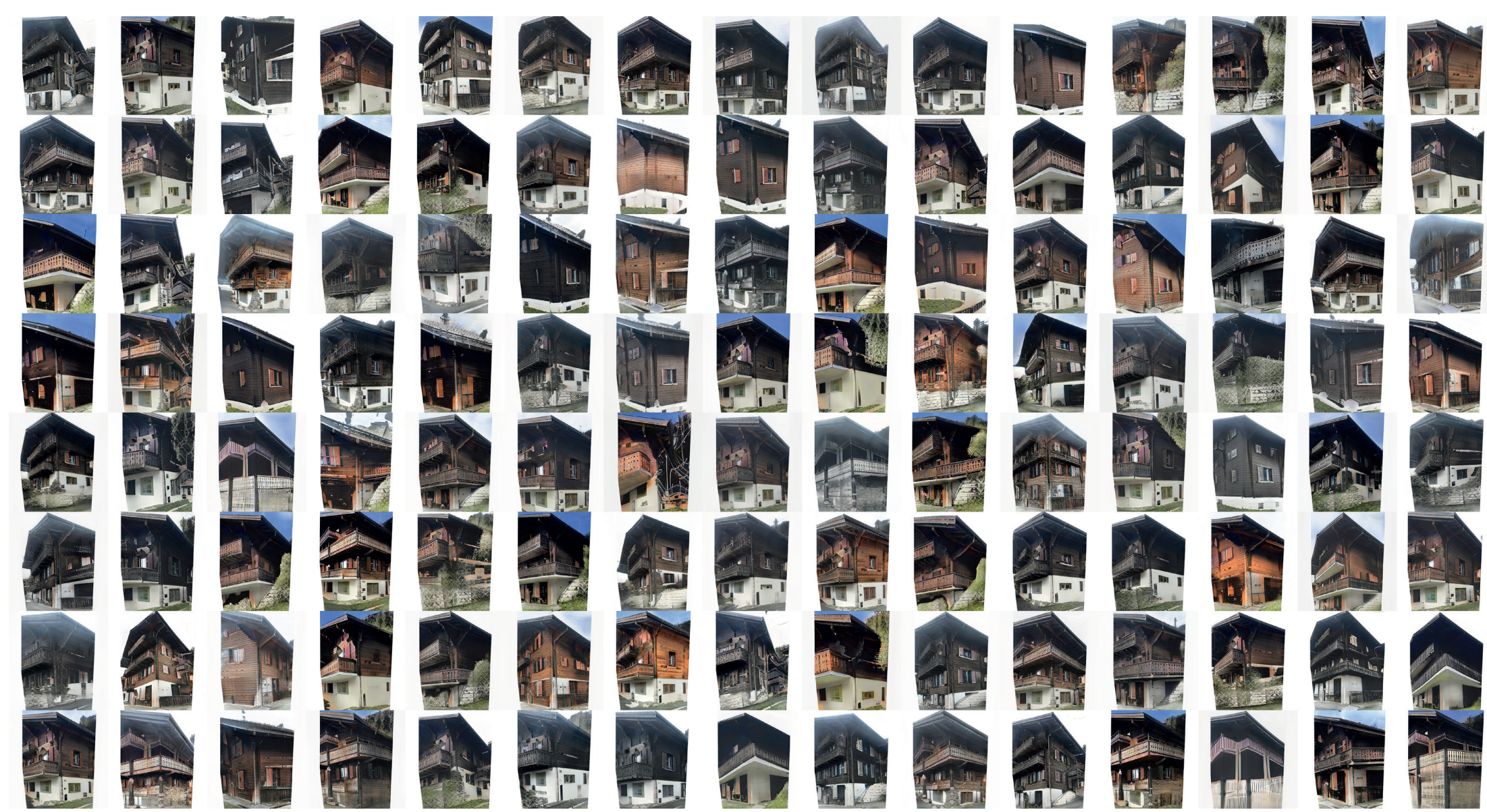


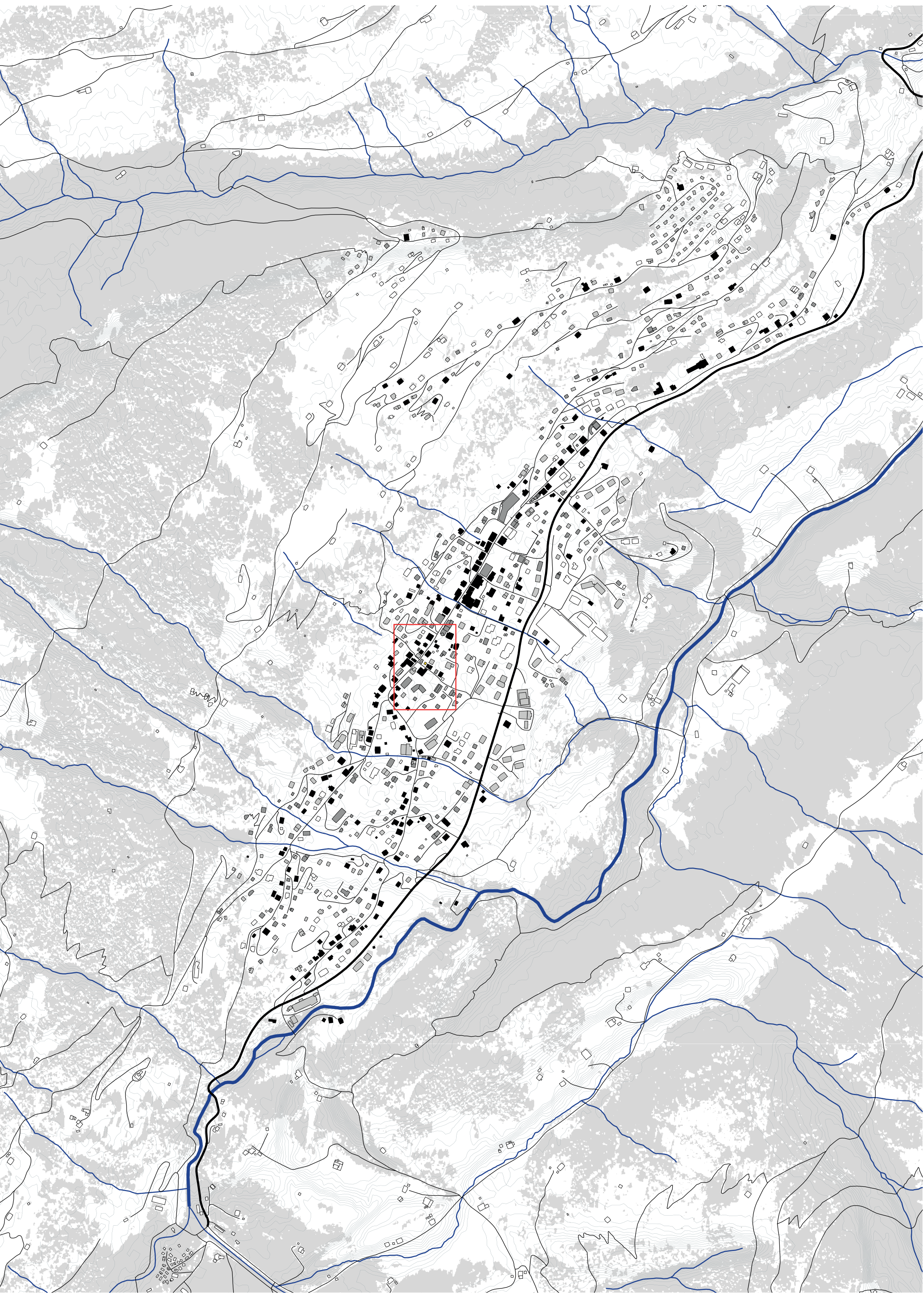
NEW LIFE CYCLE FOR THE COMPONENTS OF AN OLD SHED IN CHAMPERY

Bryan Parvex
Supervisor : Prof. Jeffrey Huang
Teacher : Prof. Corentin Fivet
Assistant : Frederick Kim

CULTURAL HERITAGE

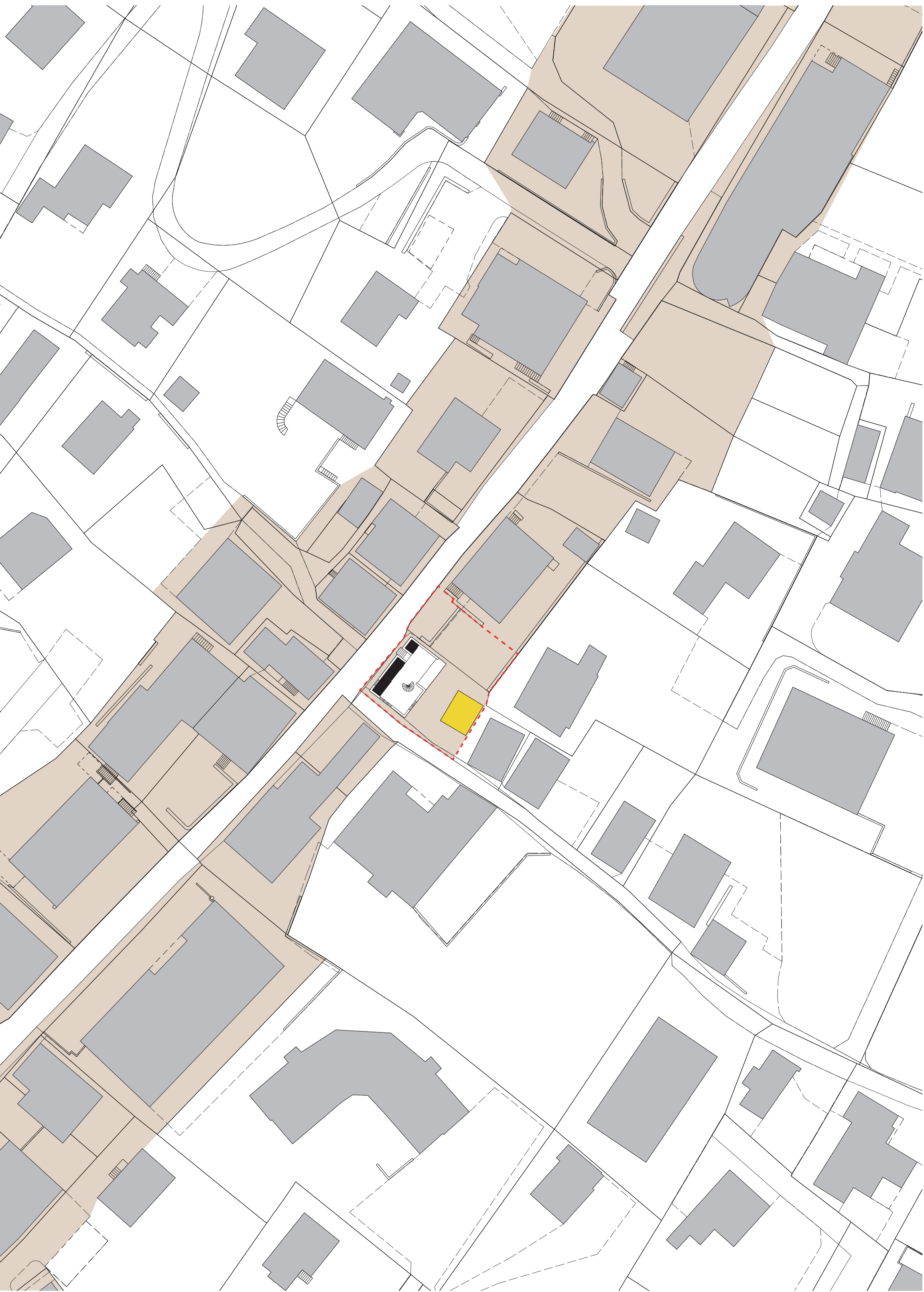
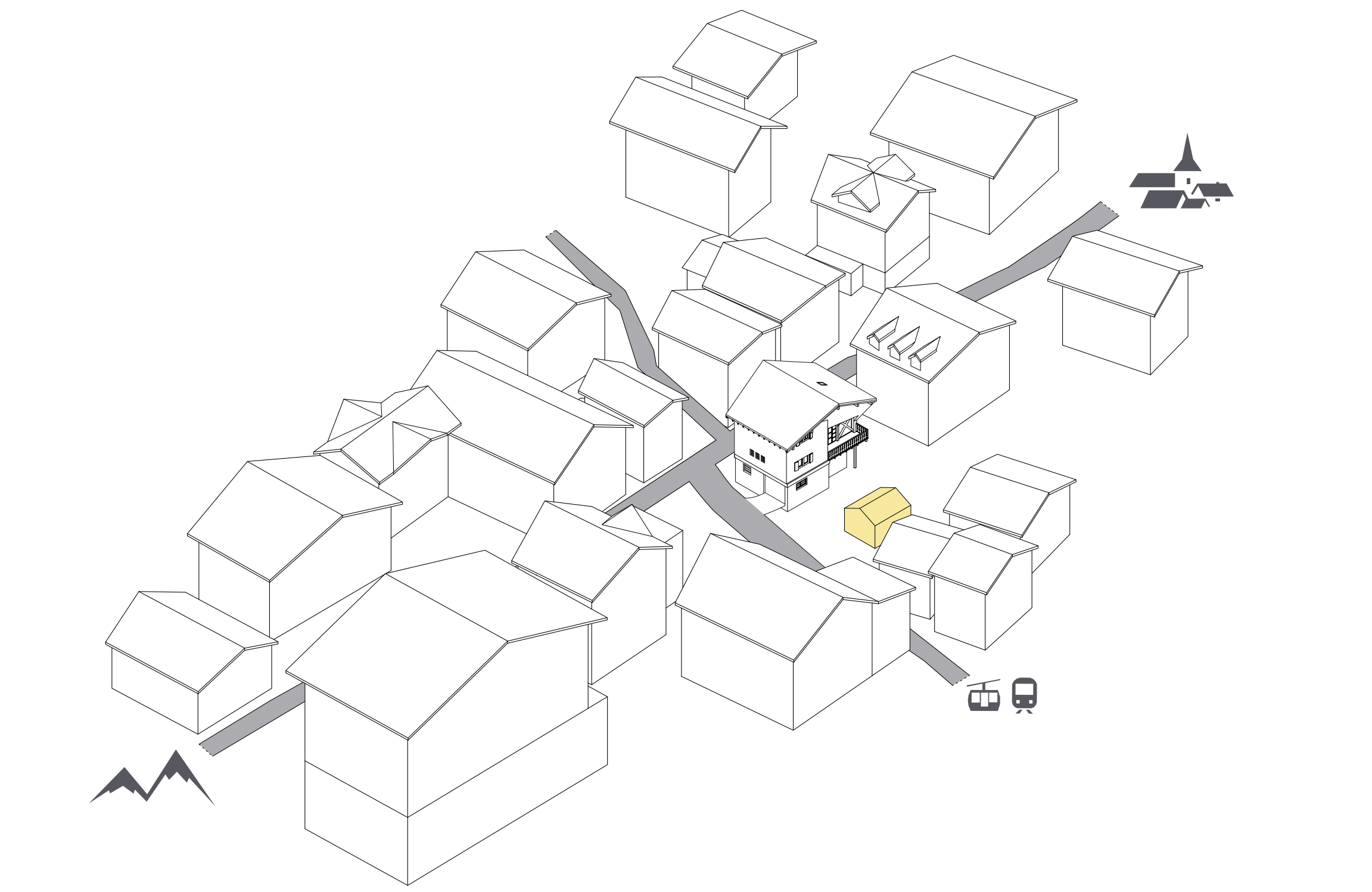


Generative approach
By gathering 600 corner photos of chalet corners, we obtained interesting GAN trained images that provided input for our design. This digital reinterpretation of the cultural heritage fed our inspiration. The processes explore different configurations, varying from a rational volumetry to a more sophisticated form integrating a plurality of reused elements. At the same time, the surveys of different reuse projects help us to elaborate the best possible strategy. Thus, we have identified 12 significant inputs for this cultural heritage.



situation 1:10'000

Immersion
The site is located at the intersection of the old village street and the cable car street. The historic fabric is well developed, so it is a particular place to express a reinterpretation of heritage. The need for housing is always important, especially in good season. The housing program will serve to meet societal needs. This program wants to propose to revisit the archetype of the traditional chalet, in a new way by digital processes. This contrast between lowtech and hightech enriches the experience of reuse.



mass plan 1:500



south elevation 1:50



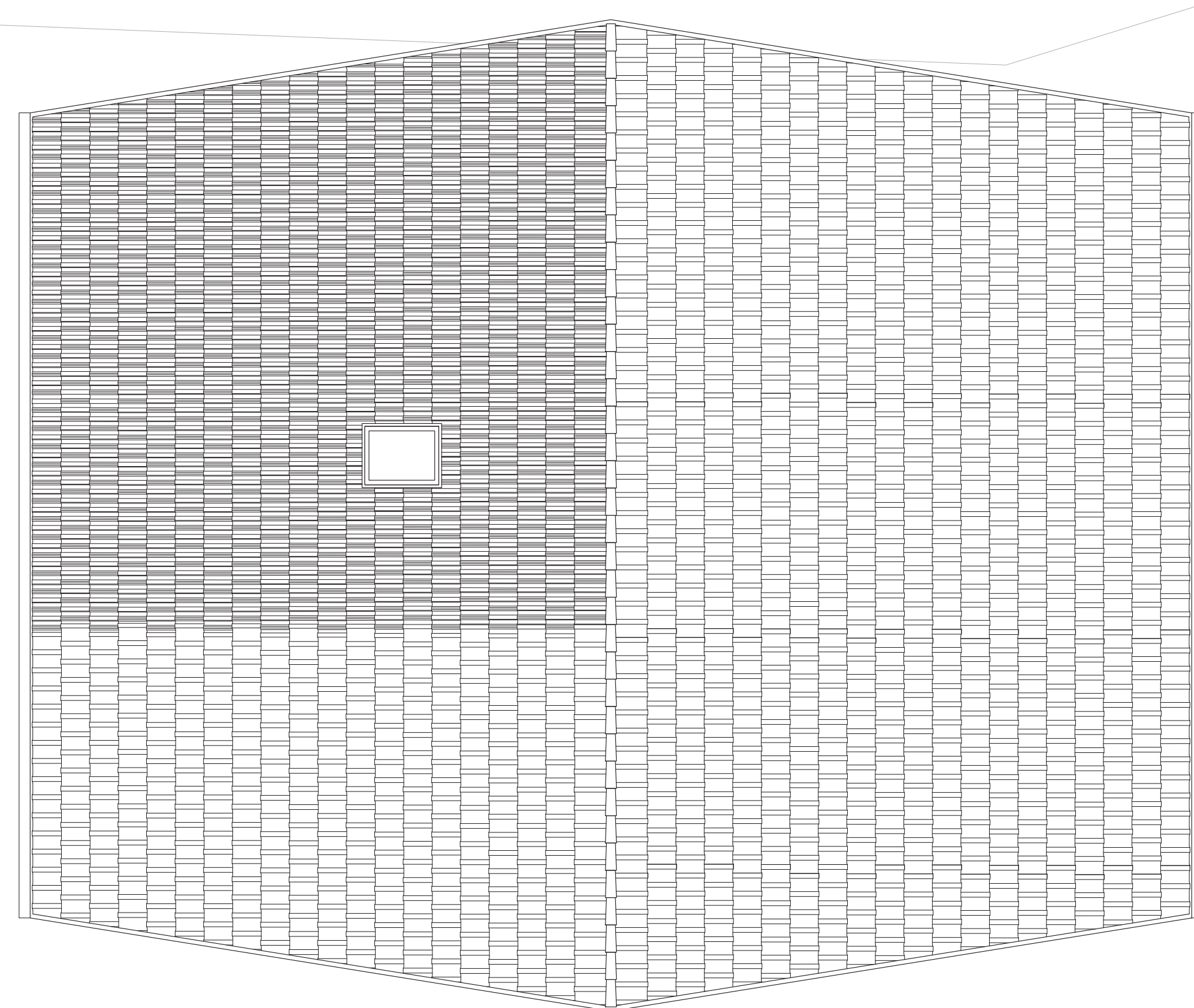
west elevation 1:50



north elevation 1:50



east elevation 1:50



roof plan 1:50

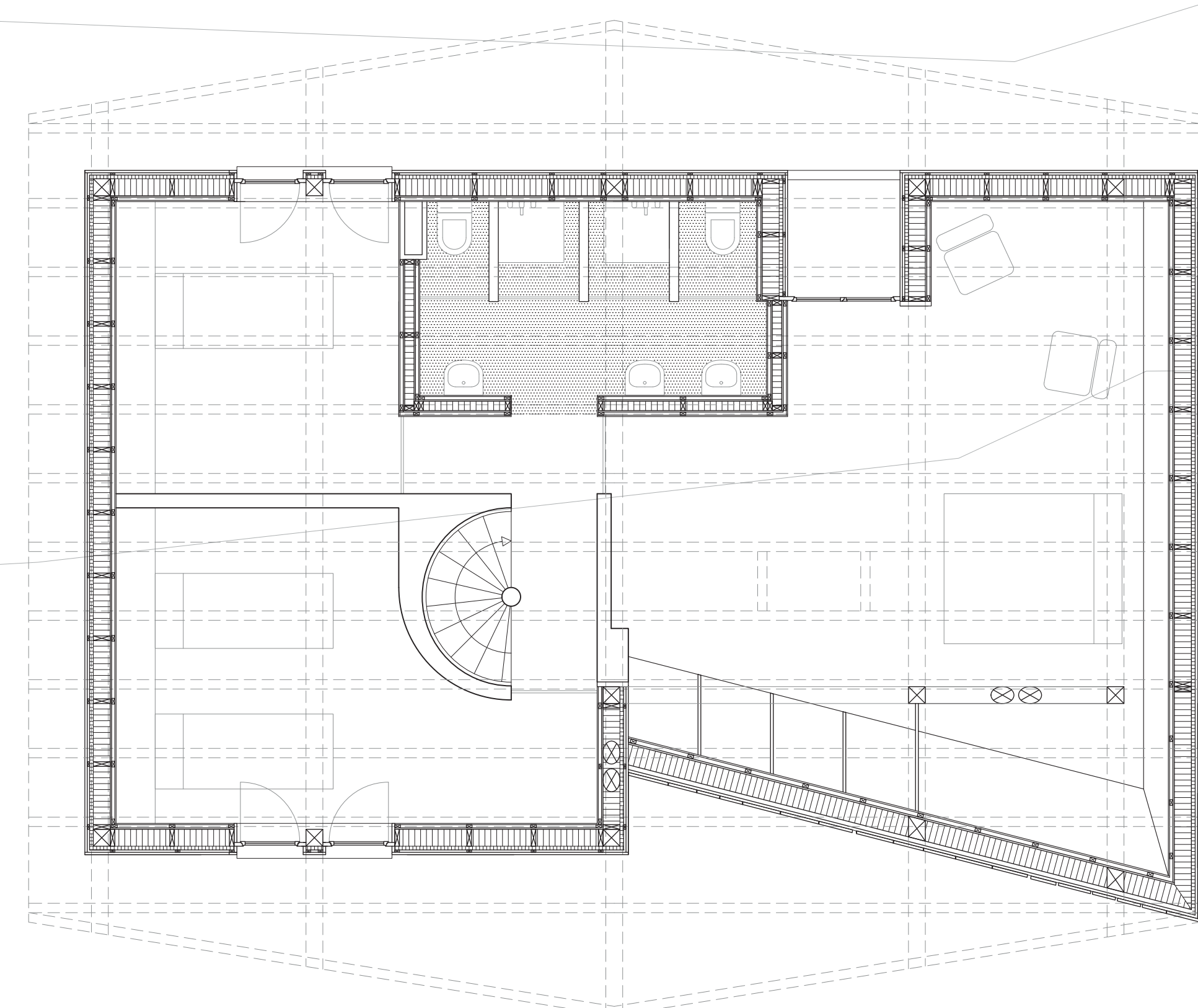


The tilted facade, obtained as a contraction of the wing and the «sif-flet» roof, allows a contemplation of the wooden components on the outside and a storage space or bed for child on the inside.

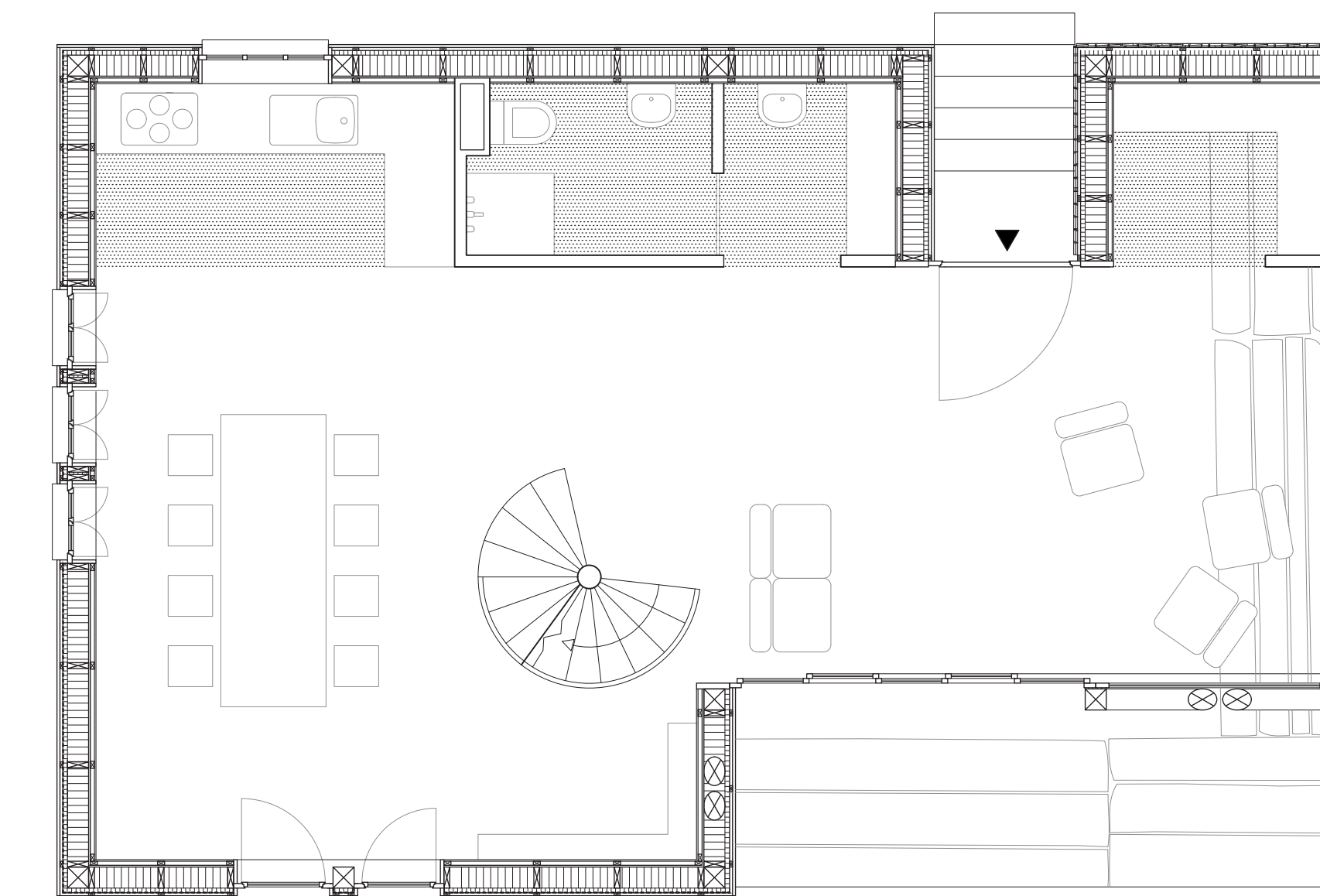
The entrance is dictated by an existing concrete staircase. Thus, we use a maximum of the existing conditions. An existing retaining wall to the north allows for a space directly next to the chalet. The entrance is made either by a canopy topped by a small intimate balcony. We enter through the technical layer of the facilities, then projected into an open space with a large opening to the Dents du Midi. Ups-tairs, the space is very roomy, to emphasize the contrast with the downstairs.

The accesses between floors are assured by a spiral staircase in very thin steel, in order to contrast with the almost very present wood and to obey the openspace character. The palette in the living room is then composed of wood, concrete and steel.

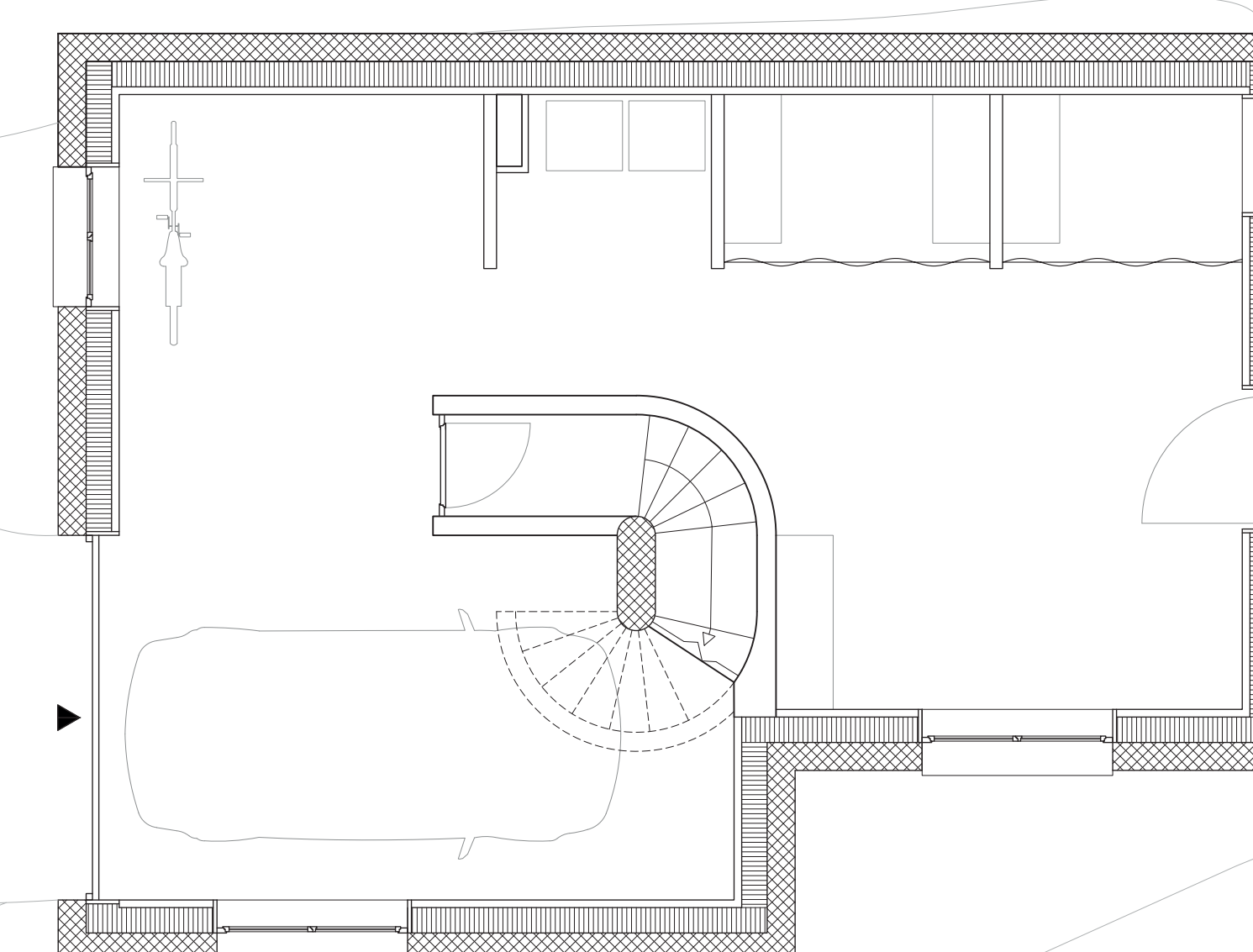
We do not make a doctrine of reuse. The contemporary uses reappropriate the components and combine old and new in the composition. The user will enjoy an immersion with different colors of wood thanks to the circular economy.



first floor plan 1:50



ground floor plan 1:50



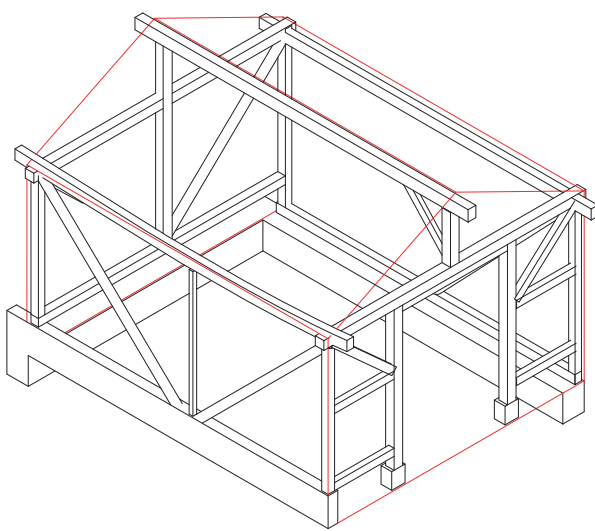
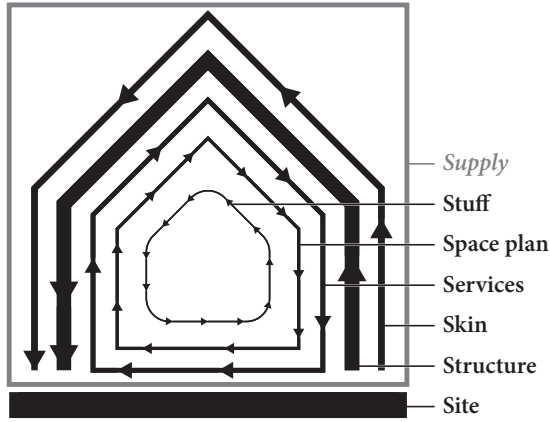
basement plan 1:50



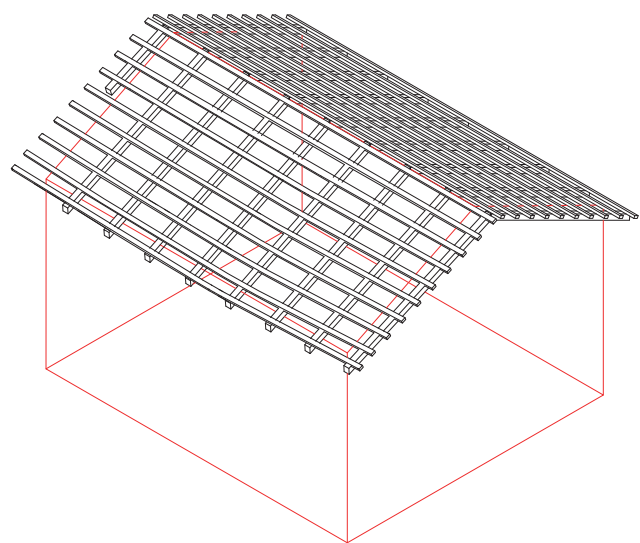
REUSE

The shed studied, which dates from the early twentieth century, displays all the codes of traditional construction. Its material remains particularly degraded by time, however there is still potential to exploit. The survey of each piece independently and their automation allow us to constitute a solid databank for reuse.

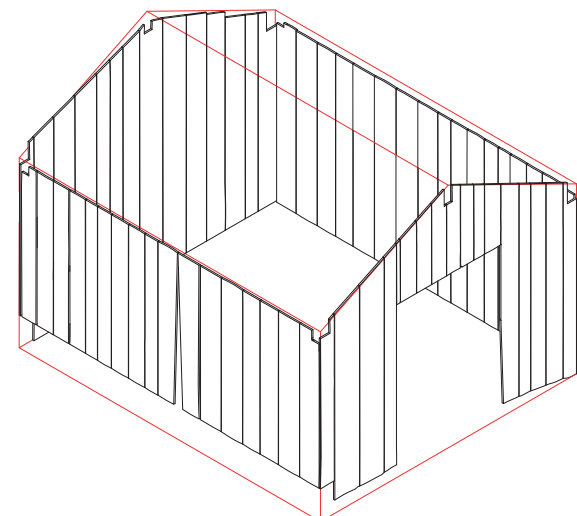
We use Stewart Brand’s method and his 6S diagram to prioritize the reuse of components. The quality of the components will also dictate whether we reuse, reprocess or recycle them.



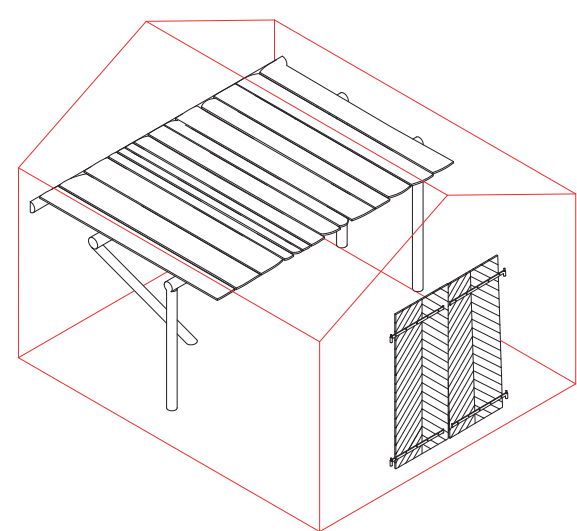
Structure 1



Structure 2



Skin



Space plan + Stuff

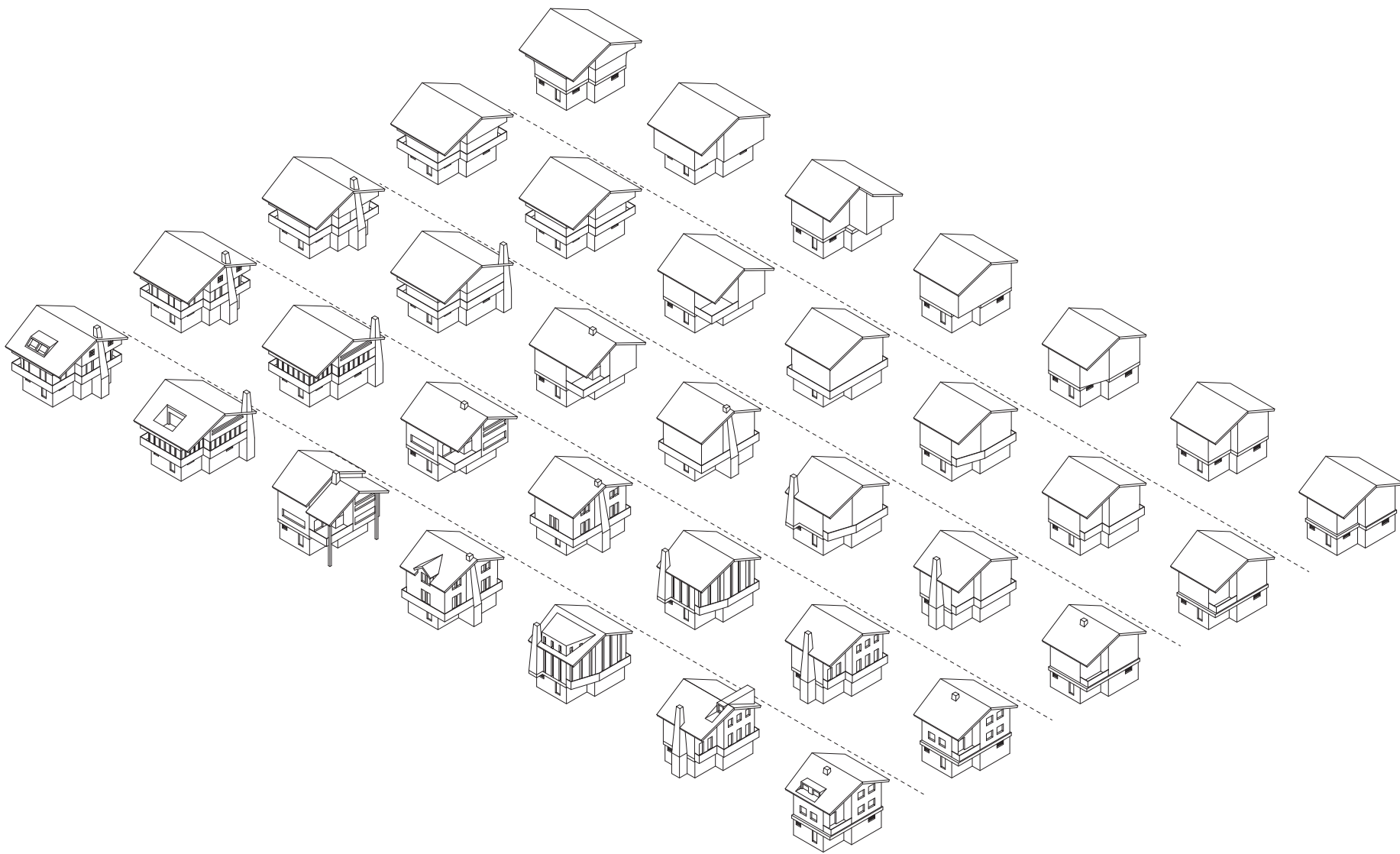


Extreme waste calls for extreme reuse

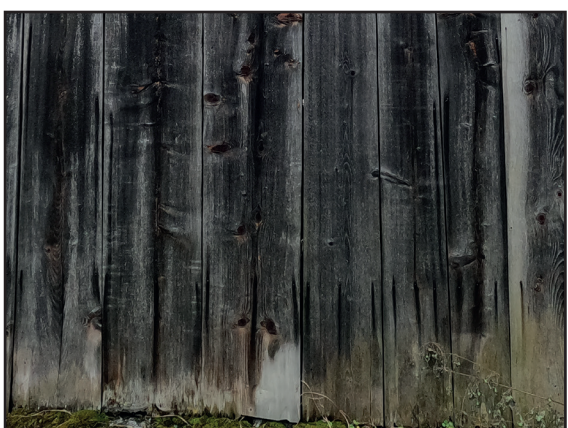
The project takes place on an abandoned concrete base in the village, for an end-to-end vision of a waste-free future, according to the principles of the circular economy.

Canton Heritage officially described the concrete pad as: «A concrete constructed cake that appears as the start of a taller construction that would have been interrupted.»

This is the starting point of our story.



REUSE



REPROCESS

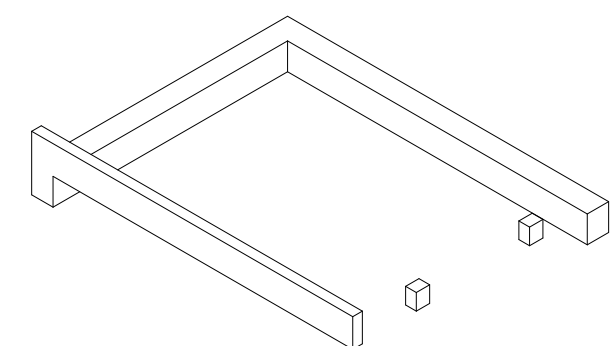
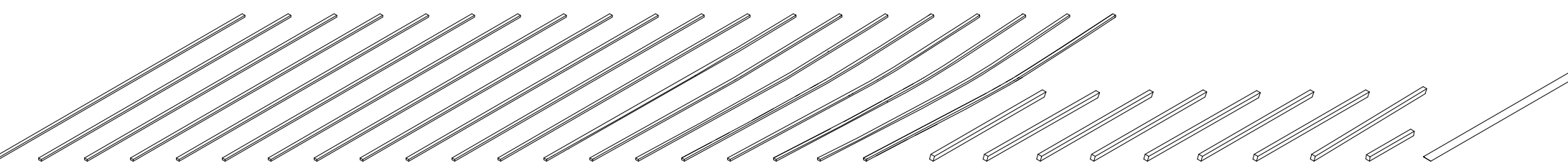
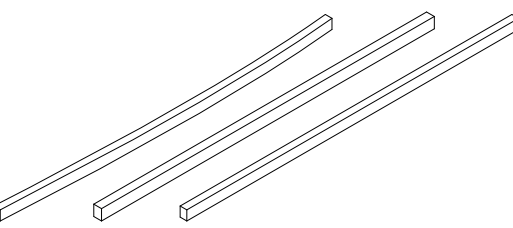
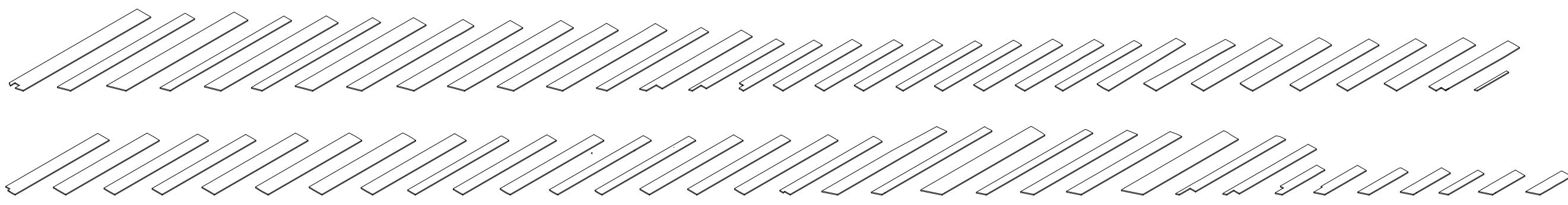
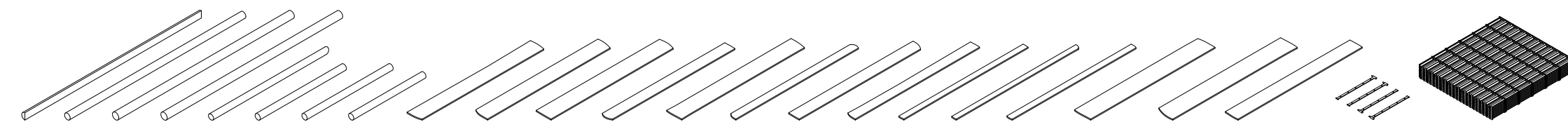
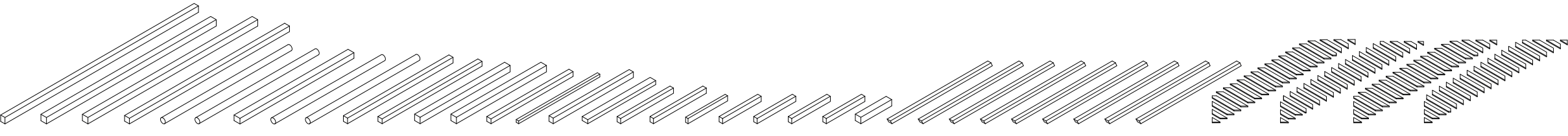


RECYCLE

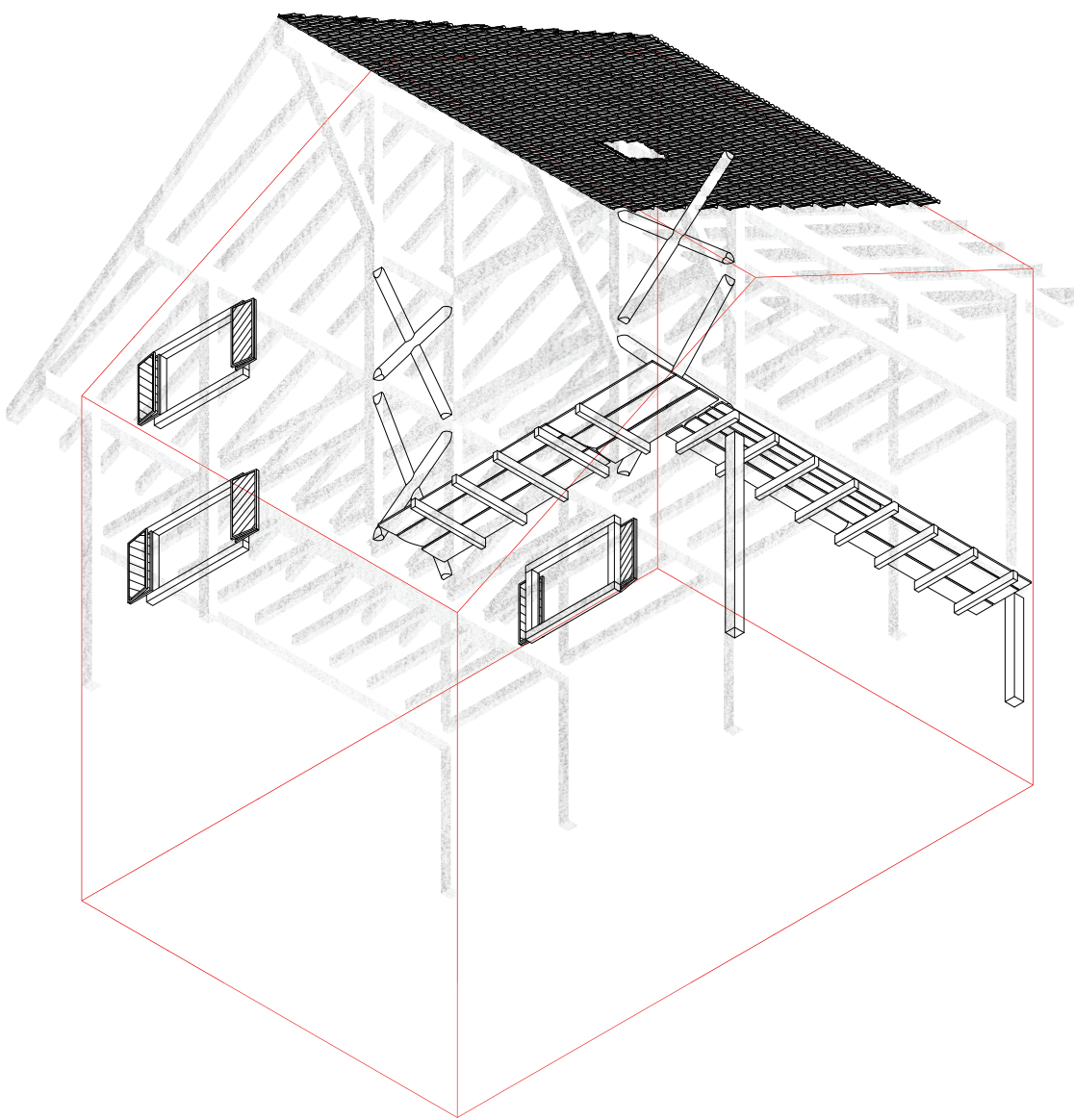


DOWNCYCLE

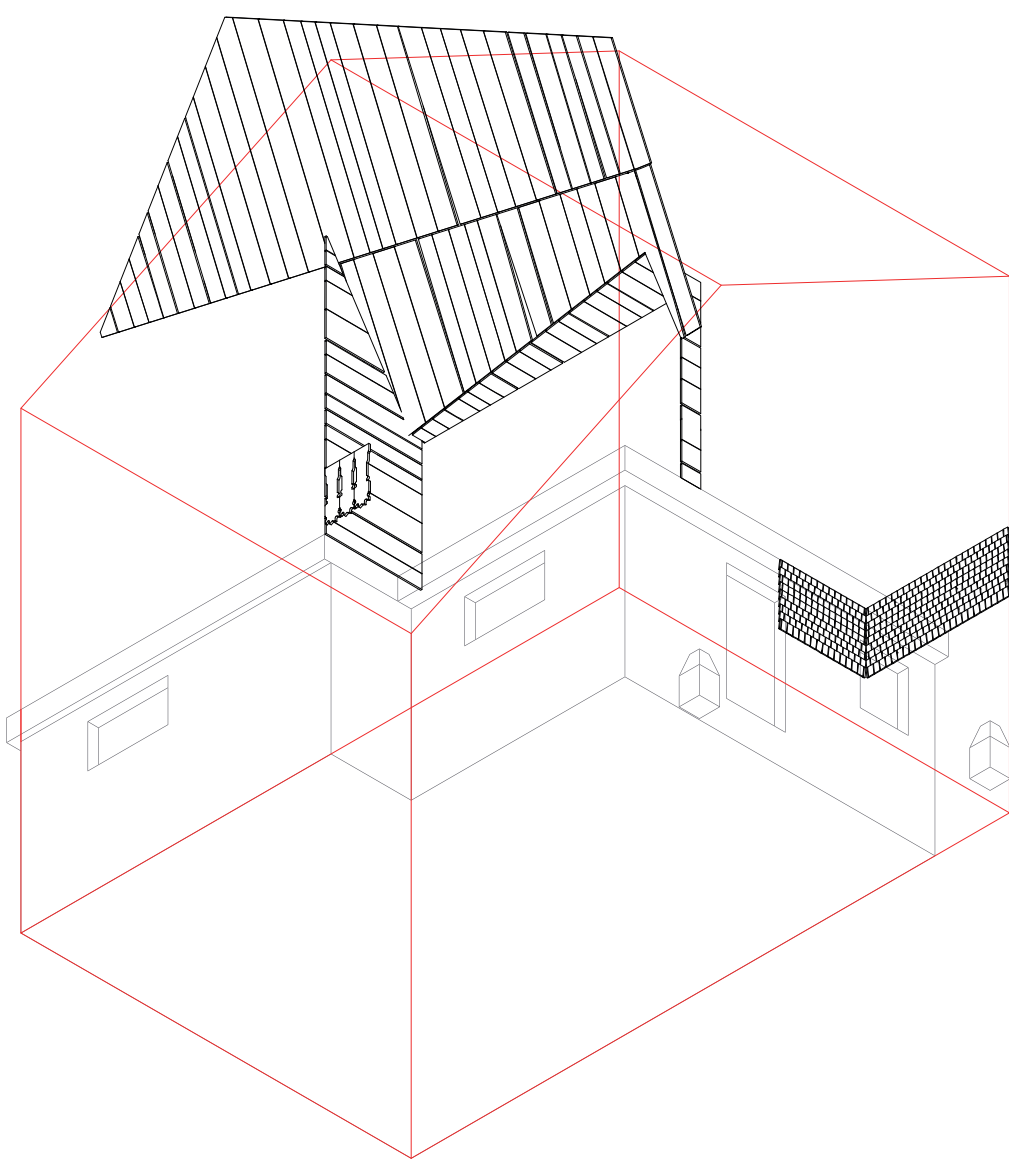
RECOVERY

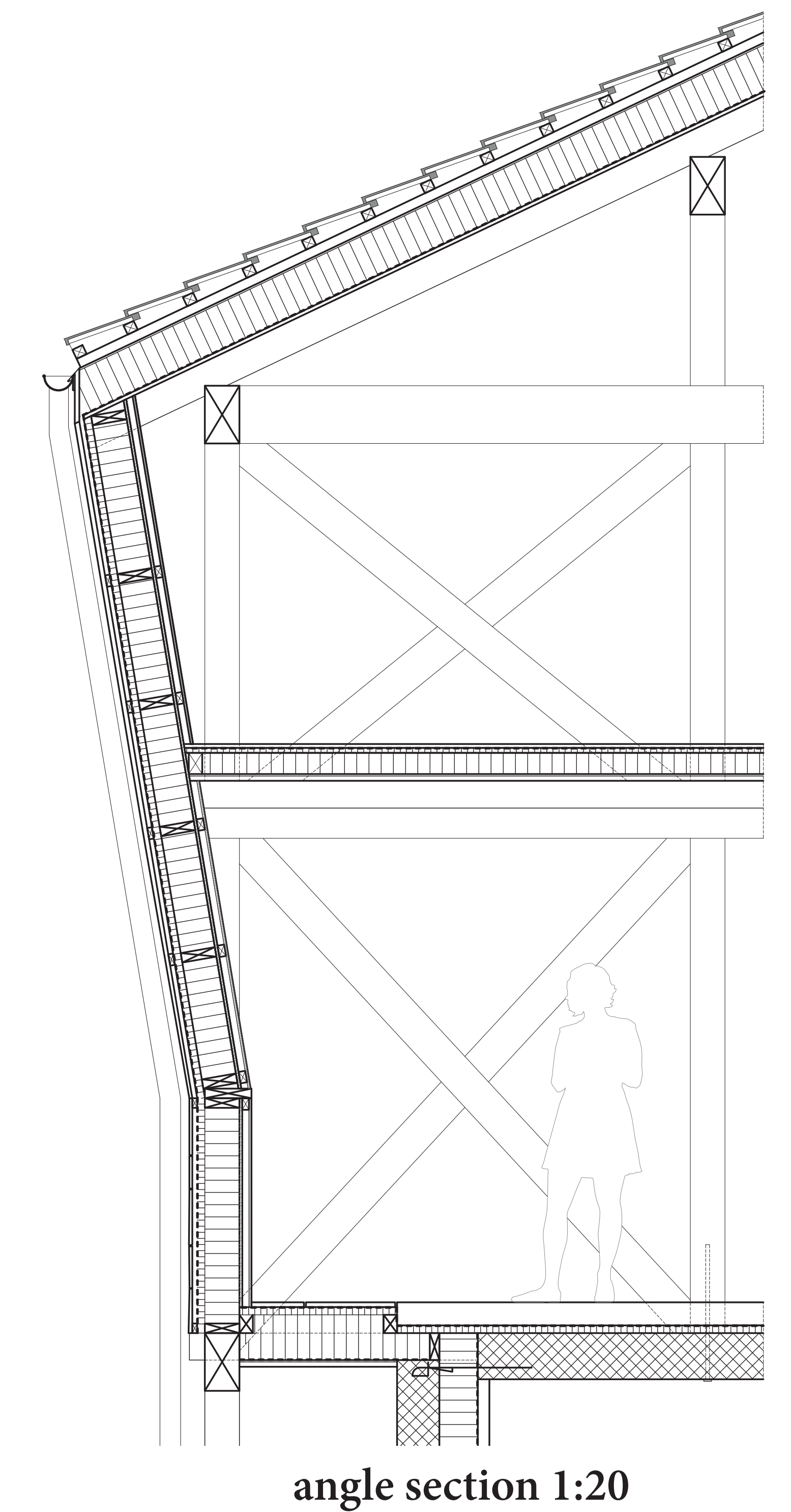
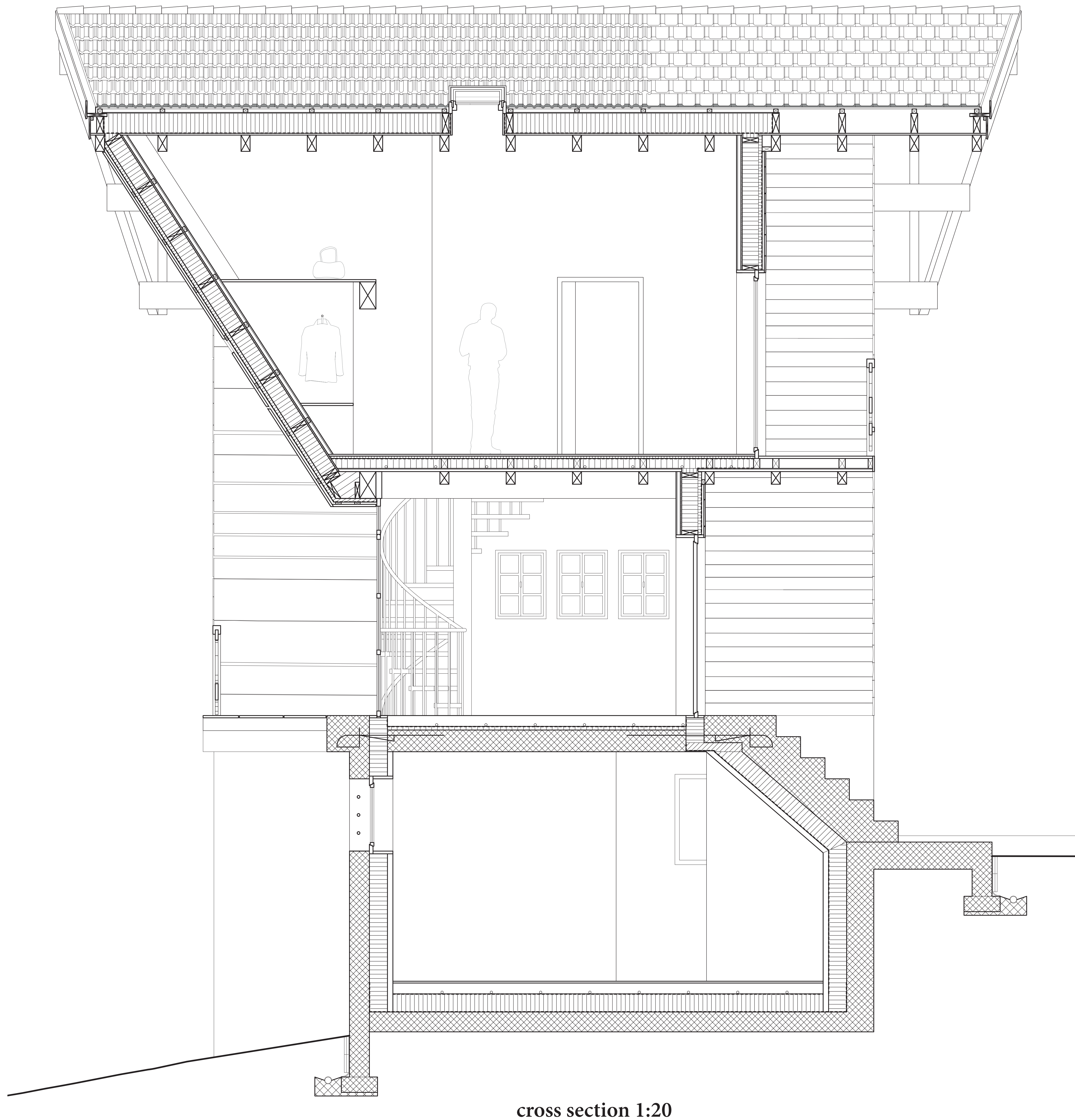


Structure + Skin + Stuff



Stuff





Transmission, appropriation & interoperability

Reuse questions our relationship to the old. Reuse calls for the transmission of material, while the vernacular calls for the transmission of knowledge. In both cases, appropriation plays a decisive role.

In order to respect the structural considerations for reuse in a new form, new parts may be added. We combine the inventoried components of the barn, to which are added other parts recovered from nearby cottages, with new elements. The interoperability of the elements remains the strategy applied throughout the process.