

Architecture that belongs

Theoretical framework

Principle 1: transform without displacing

Based on the method of the continuous process of transformation. This method follows the theory that Tim Ingold (2000) describes in his book "Perception of the Environment". Ingold (2000) discusses ideas about the separation between nature and humans; natural environments and man-made structures. Ingold (2000) is building upon the ideas of Heidegger (1971), who suggests that buildings are not applied onto passive environments; they emerge from an already inhabited world. Ingold (2000) extends this by suggesting that making doesn't impose a form on passive matter; rather, it unfolds through continuous engagement with materials. By applying this framework, human construction isn't separate from nature, but part of a continuous process of transformation. This process can be directly applied to granite as well, and while this process is continuous, architecture can either conceal or reveal this continuity. Every transformation humans apply to this material can be seen as a next step in its already ongoing process of transformation. The problem often is that the material is so much altered that it is no longer recognizable from its original state. But keeping the material and all its transformations at its extraction site can offer the unique possibility to highlight the material lifecycle, and therefore its continuity, in one building. Material is no longer separated from its extraction site, yet by the process of transformation, it can generate different experiences.

Where Ingold (2000) explains the material transformation as a process, Pallasmaa, J. (1996) explains how this transformation can be experienced. Pallasmaa, J. (1996) highlights the importance of the multi-sensory experience of architecture. While the multi-sensory experience seems obvious, because everything is multi-sensory, sometimes some senses are excluded in daily experiences. Touch, for example, is not always guaranteed. The quarry is able to offer the ability for visitors to touch the rough, unaltered granite. Because of that, there is now a new layer to the multi-sensory experience because there is also comparison. When the smooth granite is touched in this project, it can now be experienced in relation to the raw quarry wall. The origin of the material has become legible in the architecture.

Case study 1: Quarry No. 9: Stage Space by Dna

This case study shows how the principle of transformation without displacement can be applied in a project. It's especially relevant because this project is also about the transformation of an abandoned quarry. What you can see very well in this image is the gradient of refinement in the material. In one image, you see the rough stone, more refined stone, cut stone blocks, and smooth blocks of stone. It's all one material but in different stages of transformation. This project shows how one material can be applied in different ways, resulting in different experiences, while also making legible what transformations the material underwent.

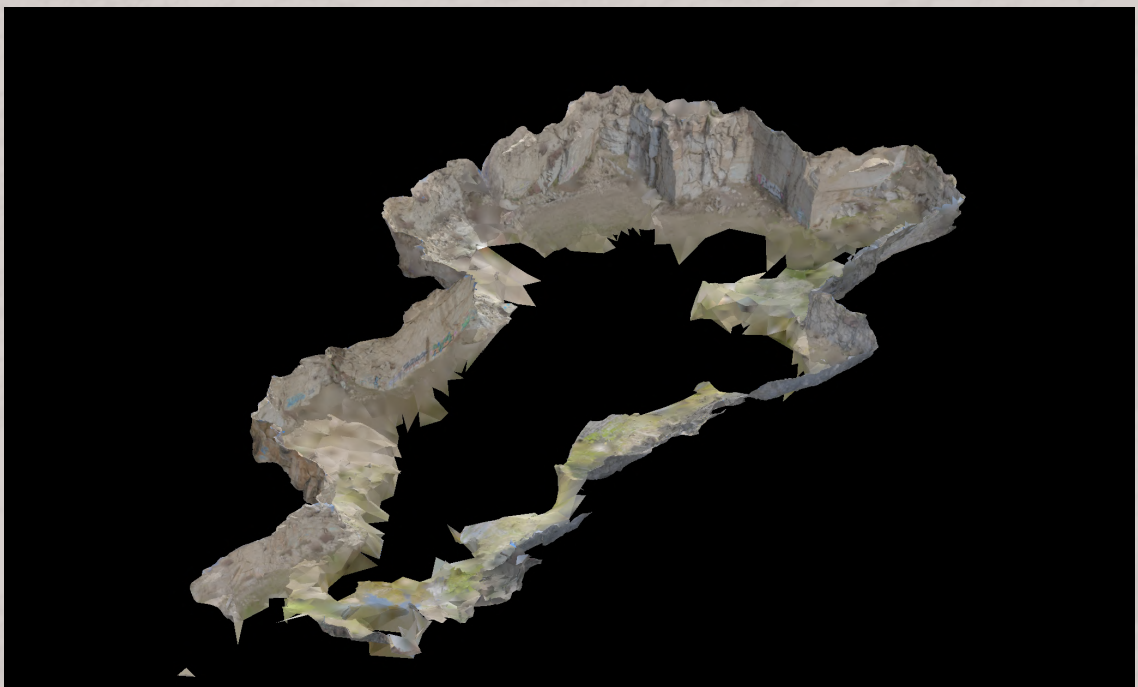
Principle 2: Co-optive making before constructive making

Based on the method of co-optive and constructive making. Right after Ingold (2000) suggests that making is a continuous engagement with materials, he describes two different methods of making: co-optive and constructive. 'In co-optive making, an already existing object is fitted to a conceptual image of an intended future use, in the mind of a user. In constructive making, this procedure is reversed, in that the object is physically remodelled to conform more closely to the pre-existing image.' Ingold (2000) This method offers an approach for architecture to intervene in the abandoned quarry without overpowering it. Unlike situations where the terrain can be treated as neutral ground or a blank canvas to build pre-imagined architecture on, the quarry resists this approach through its irregular topography, exposed walls, and extraction traces. Therefore, a more co-optive approach is better suited, and only when needed, a constructive approach should be applied. Not just because the architecture would be too difficult to apply, but also to preserve the unique character of the quarry.

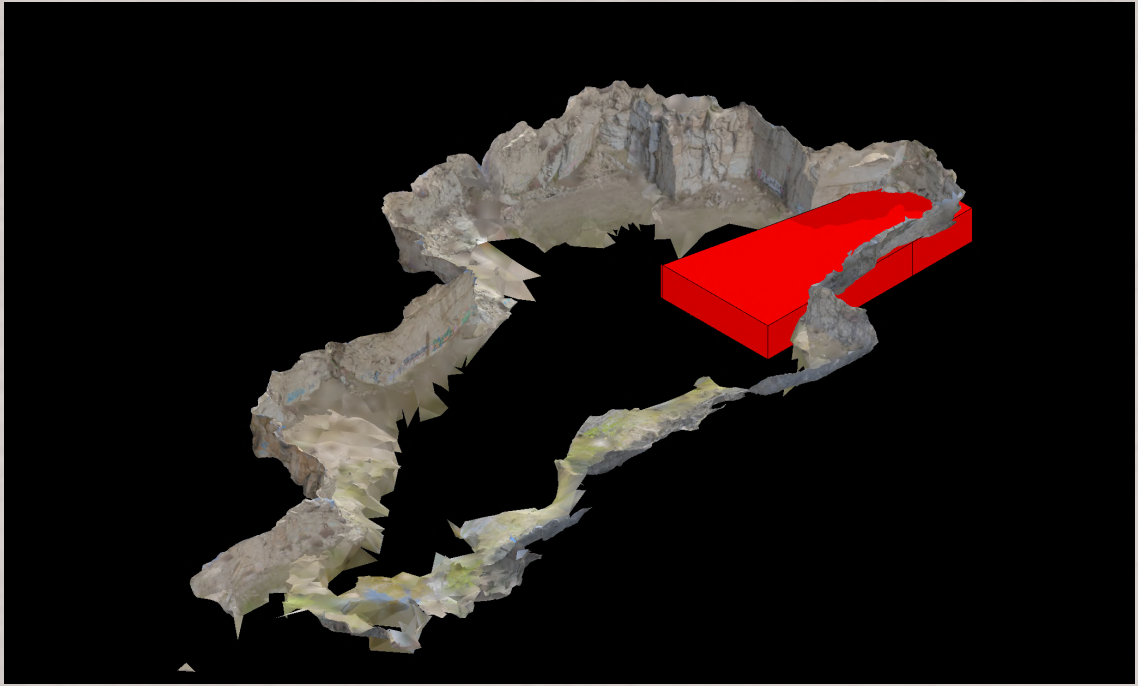
Frampton, K. (1983) warns about using universal solutions to architectural problems and argues that architectural forms and materiality should emerge from their surrounding environment, microclimates, and cultural structures. Situated practice, however, should not be confused with copying vernacular forms directly. A co-optive approach offers a way to avoid both universal solutions and copying vernacular architecture. A hierarchy between co-optive and constructive making is required to prevent one from dominating. While a co-optive approach is preferred, it cannot be applied completely. There will be things that need to be altered and added to conform to modern standards and regulations. In the case of this project, the constructive making will be dependent on the co-optive making. New spaces will be generated through the extraction of material, which results in new spaces that can be co-opted and new material that can be used to construct with. A co-optive approach doesn't mean that it refuses construction; it means that construction must be able to justify itself against what the quarry can already provide.

Case study 2: Ca'n Terra House by ENSAMBLE STUDIO

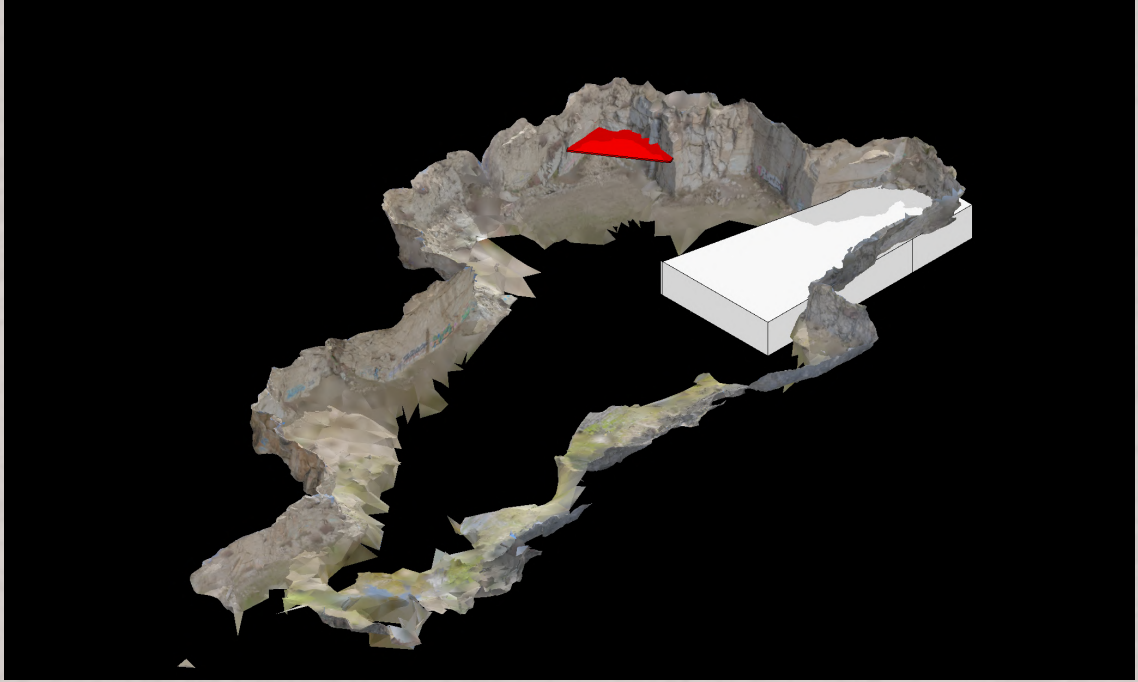
This case study highlights how effective a co-optive approach can be. They were able to co-opt an abandoned quarry into a house suitable for living, with just a few adjustments. Minimal interventions were needed to achieve maximum results. The shape of the extraction made it possible to create new spaces with minimal intervention, because there are a lot of carved spaces inside the rock, which is different from the open quarry in Colmenar Viejo.



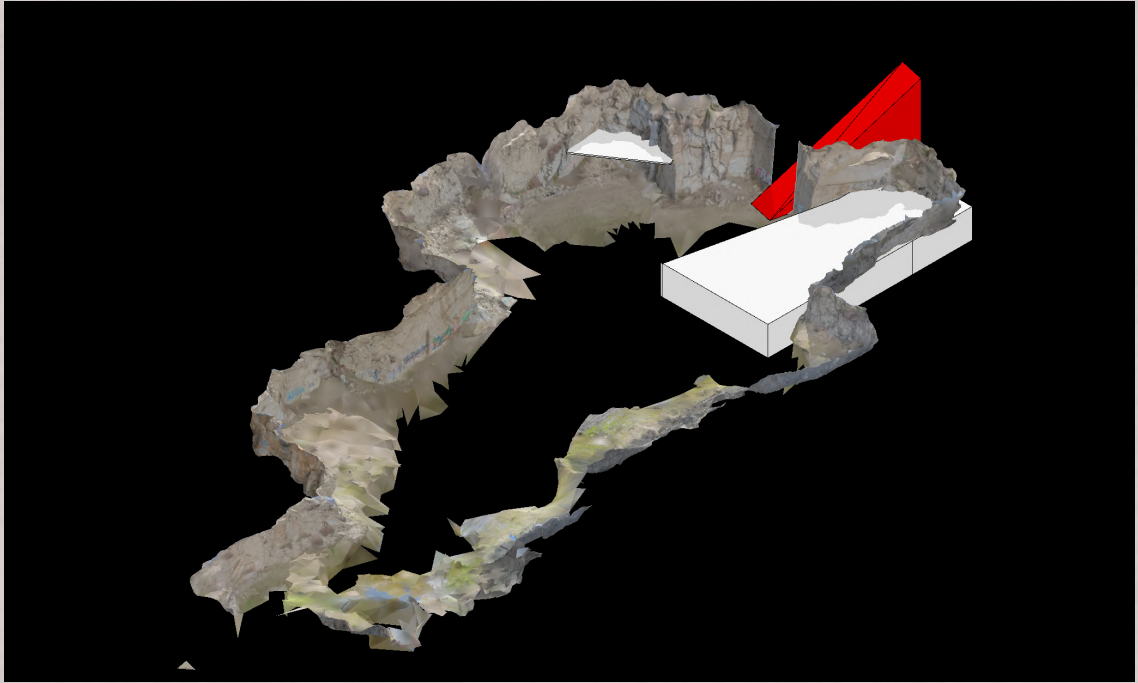
Current situation



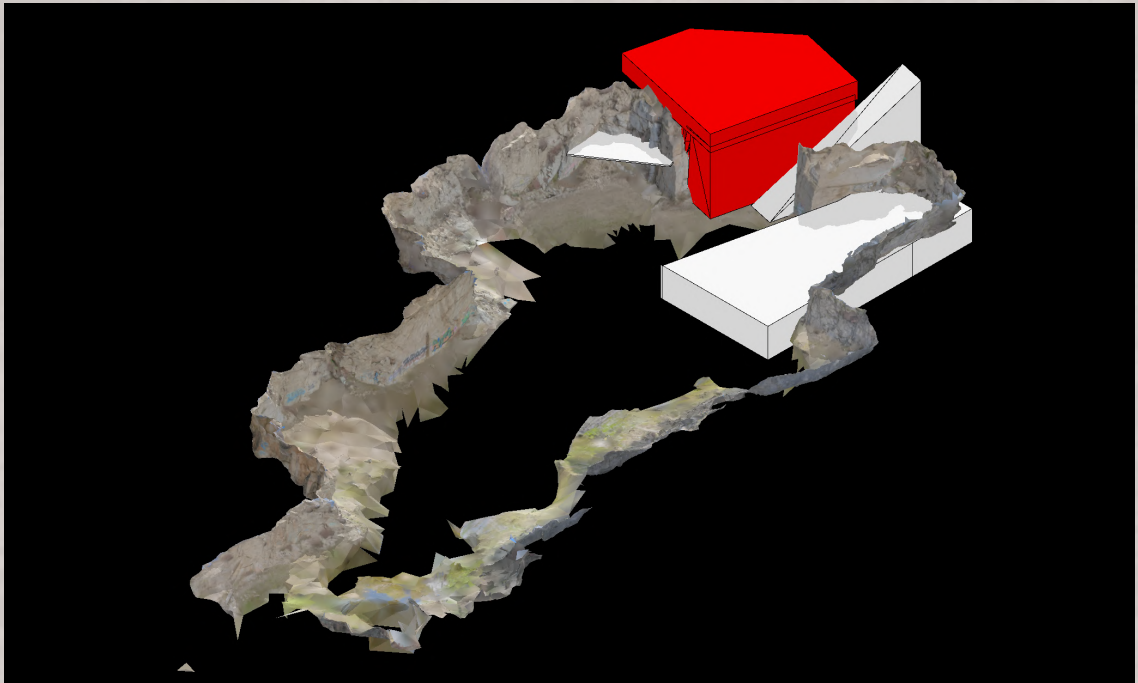
Co-optive approach for amphitheatre



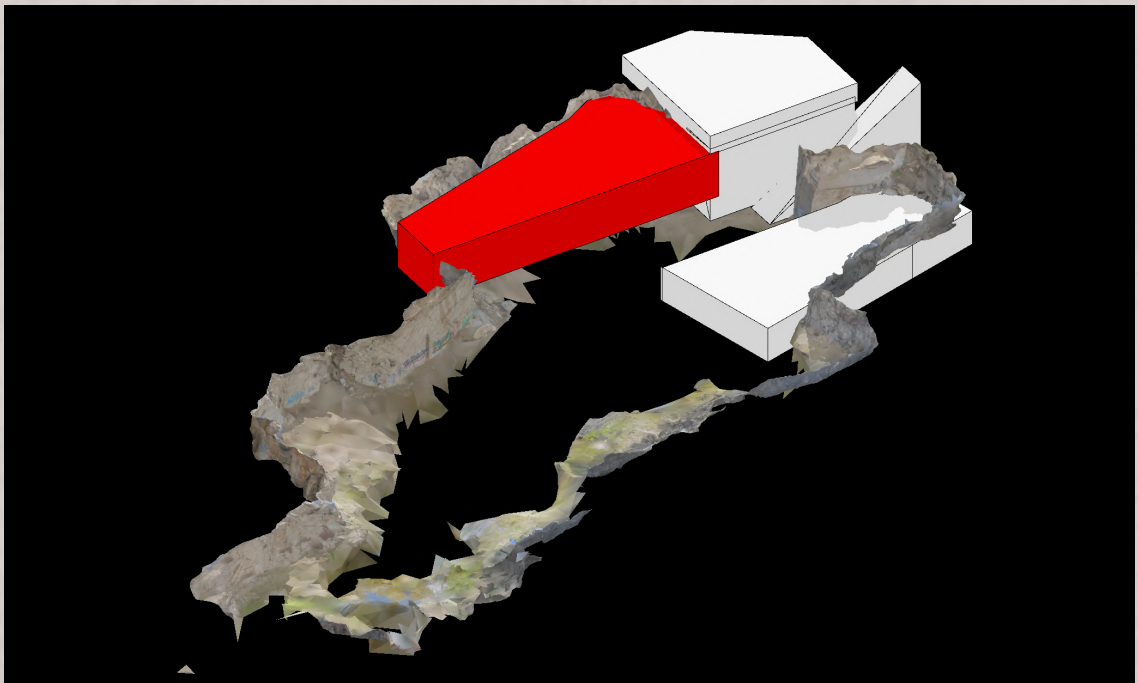
Co-optive approach for indoor stage



Carved stairs towards main approach



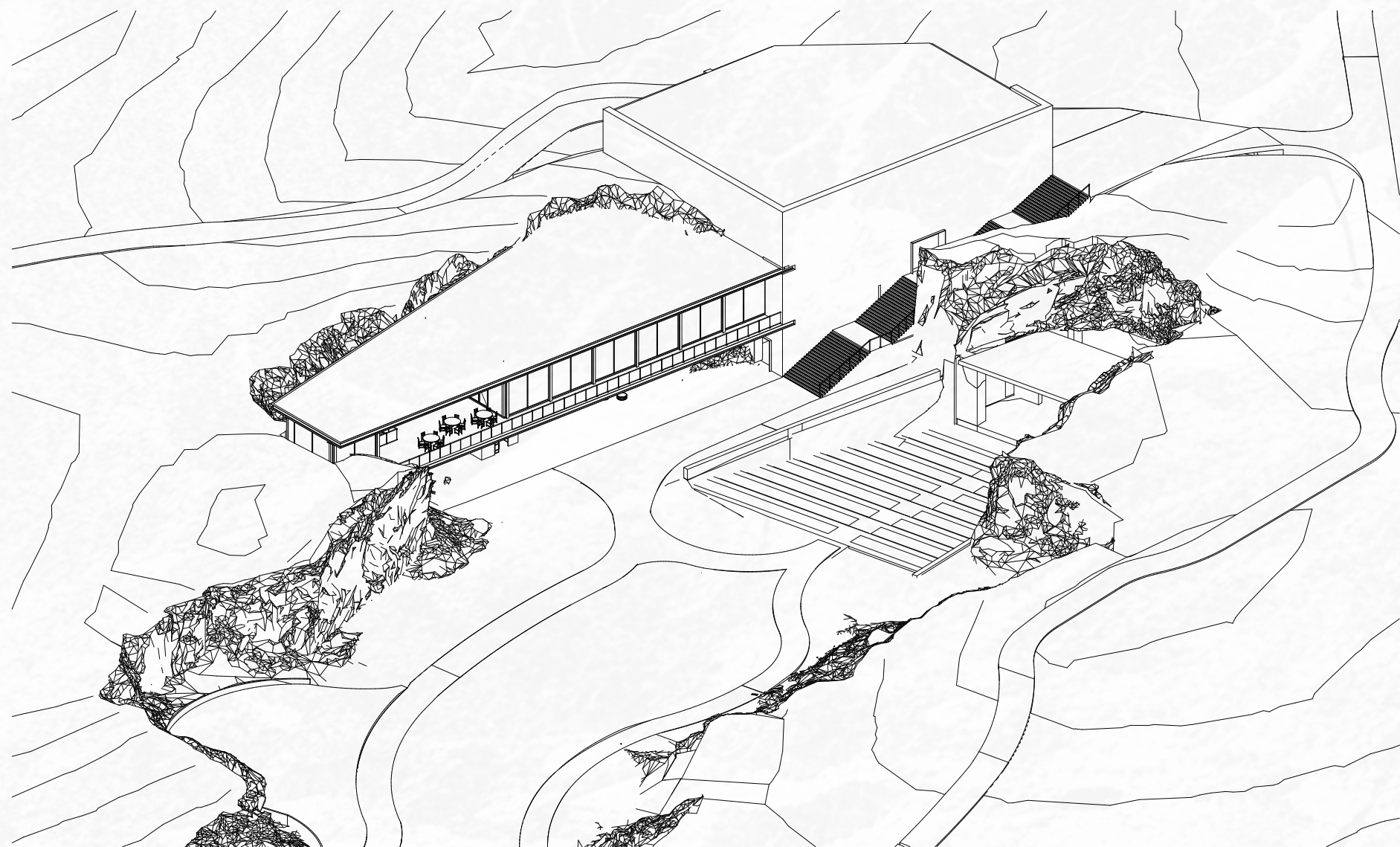
Back of house, services, and mobility centered



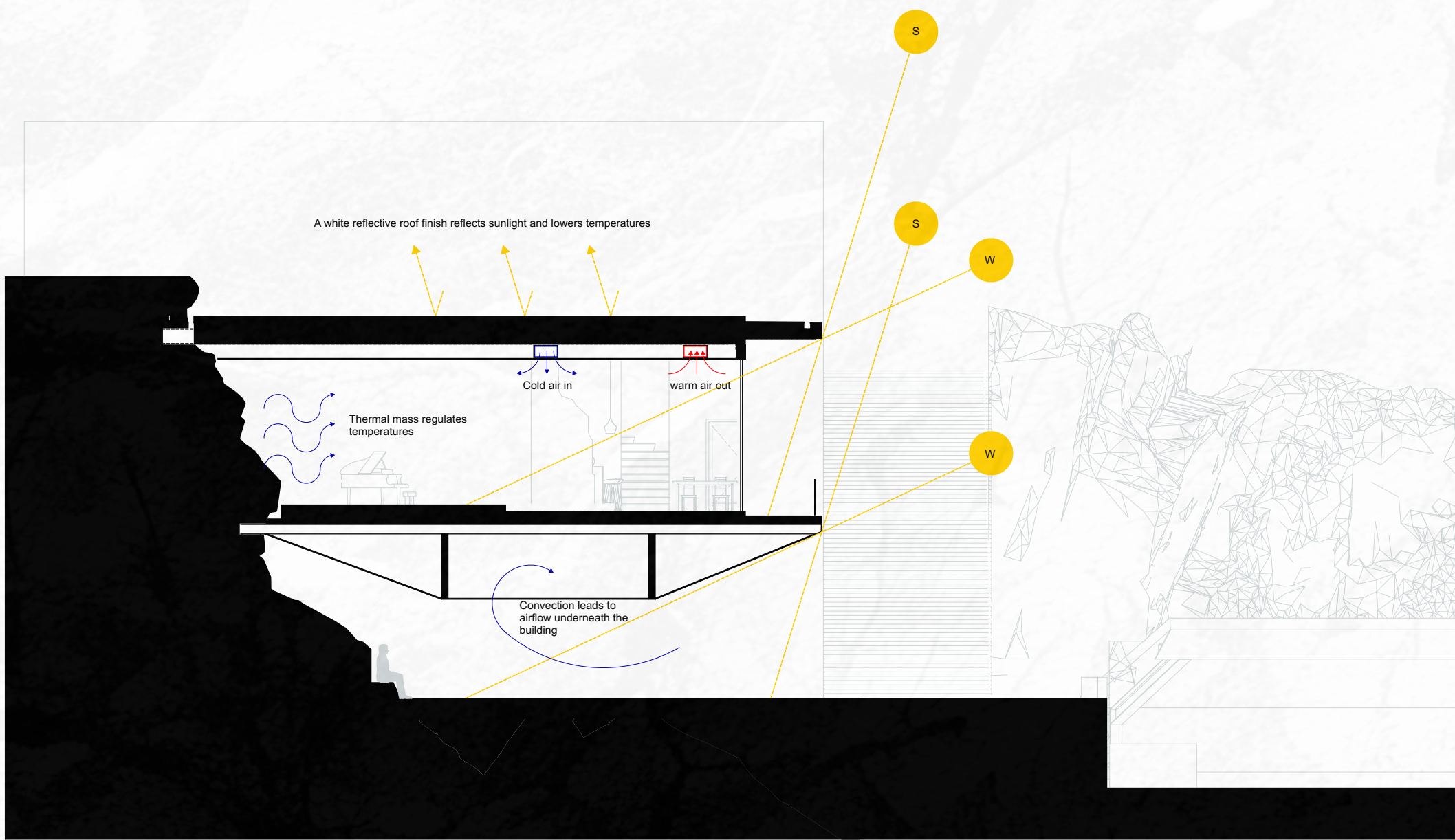
Restaurant overlooking the quarry



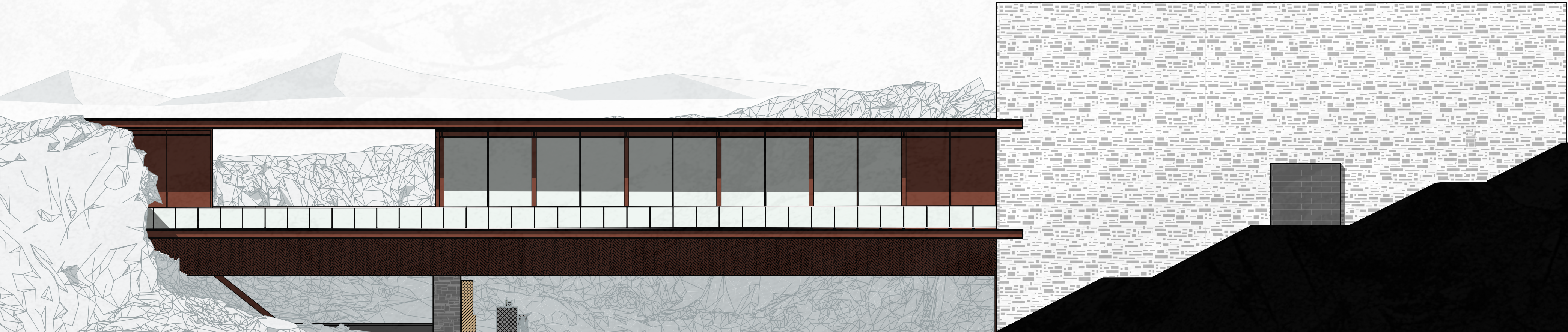
Architecture that belongs



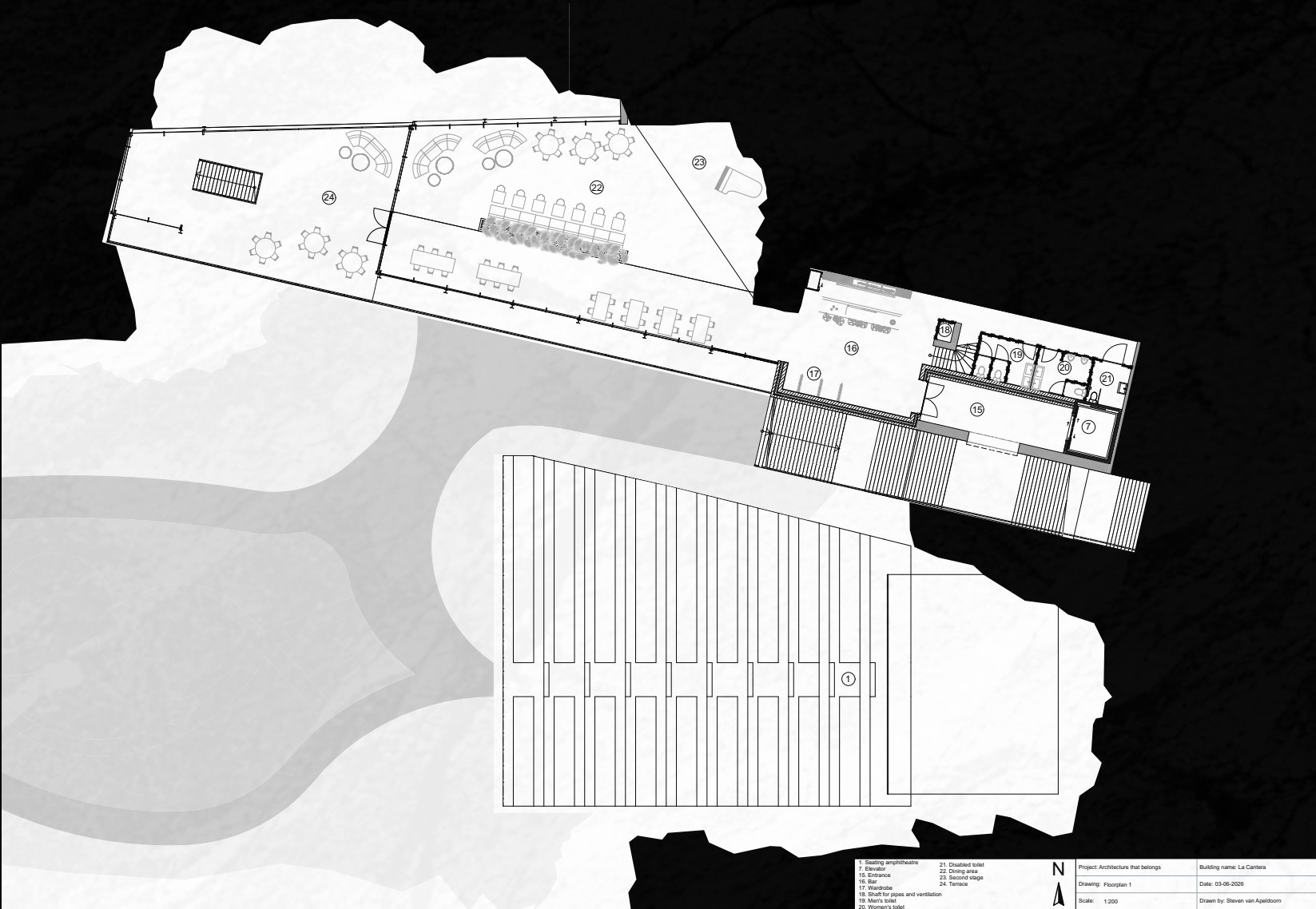
Axonometry



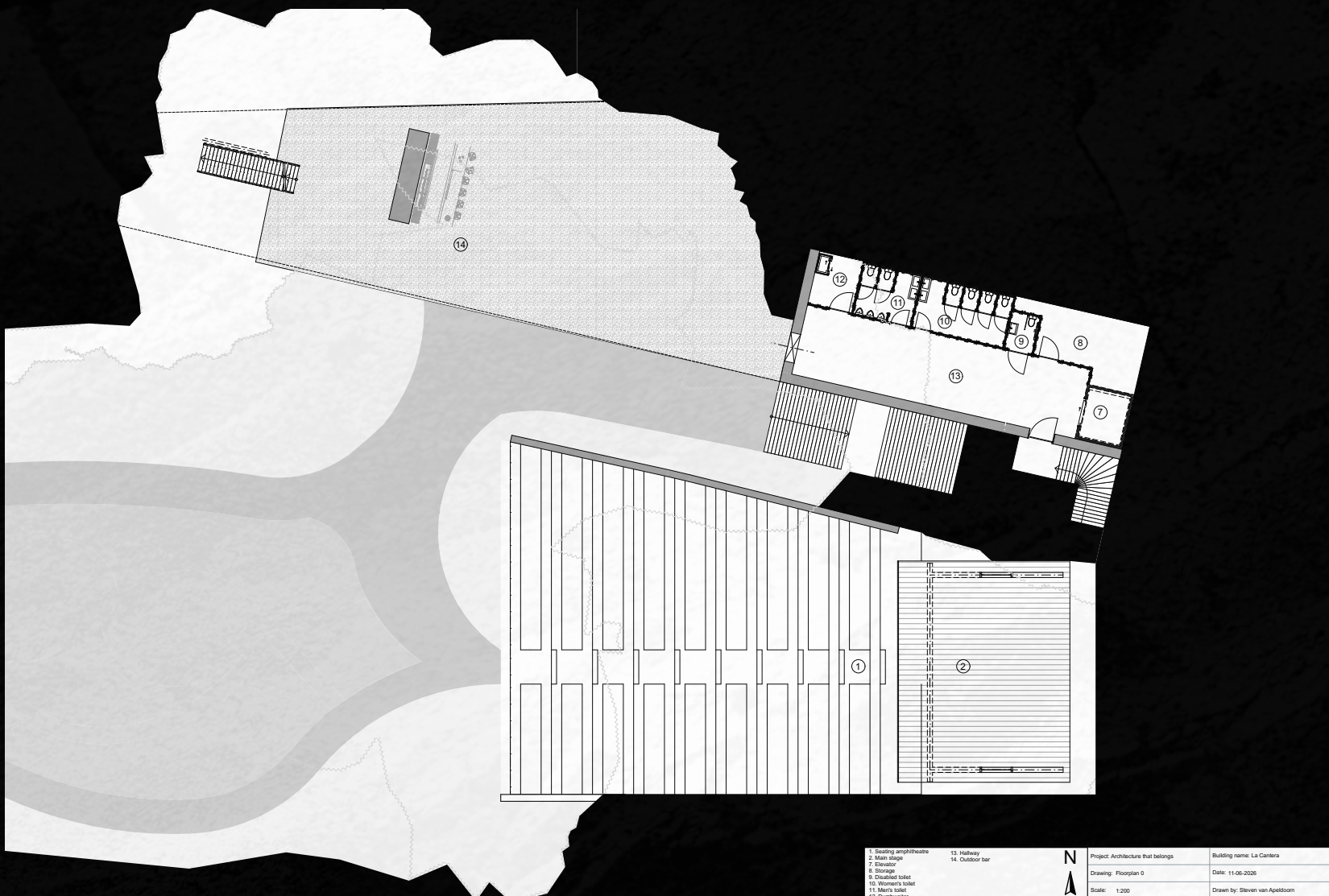
Climate diagram



2nd floor



1st floor



Ground floor

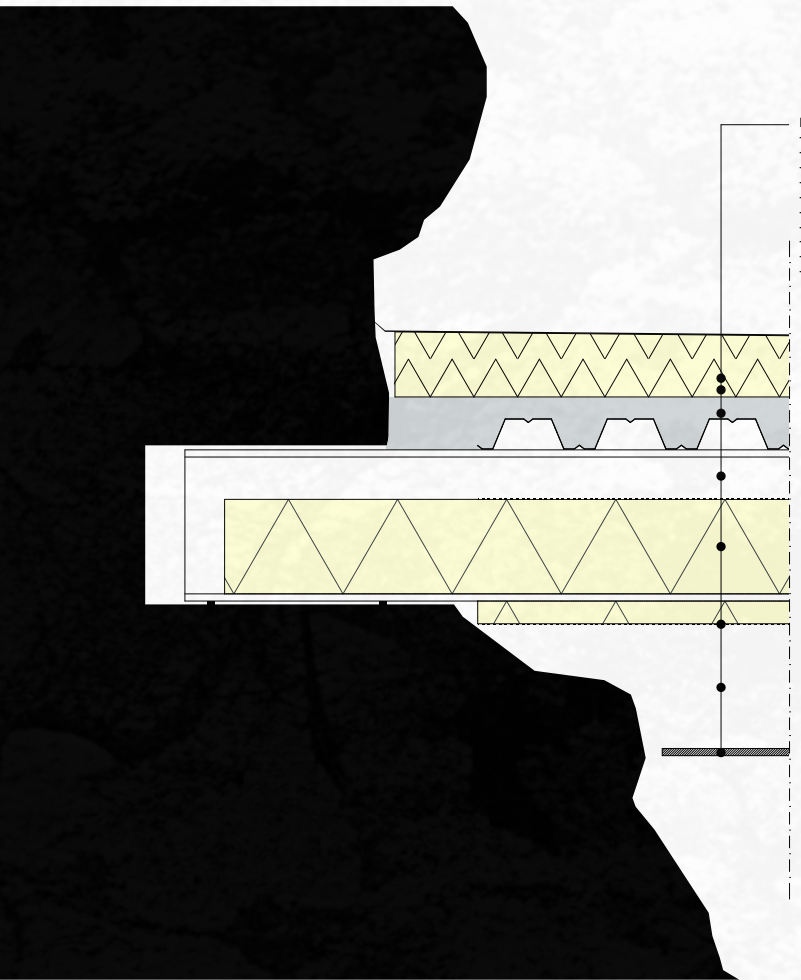


-1 floor

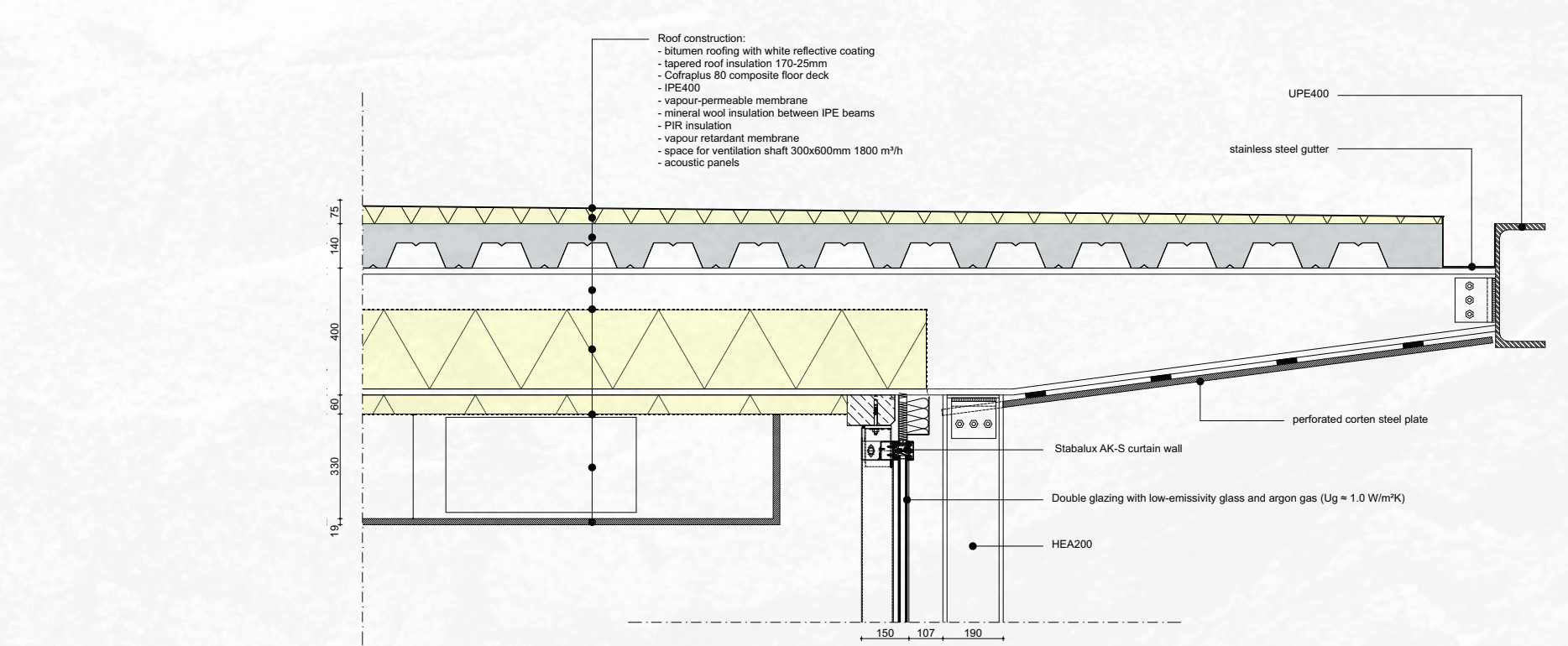
Architecture that belongs



Situation



Detail 2



Detail 1

