

The Living Landscape of Quebrada Jaime



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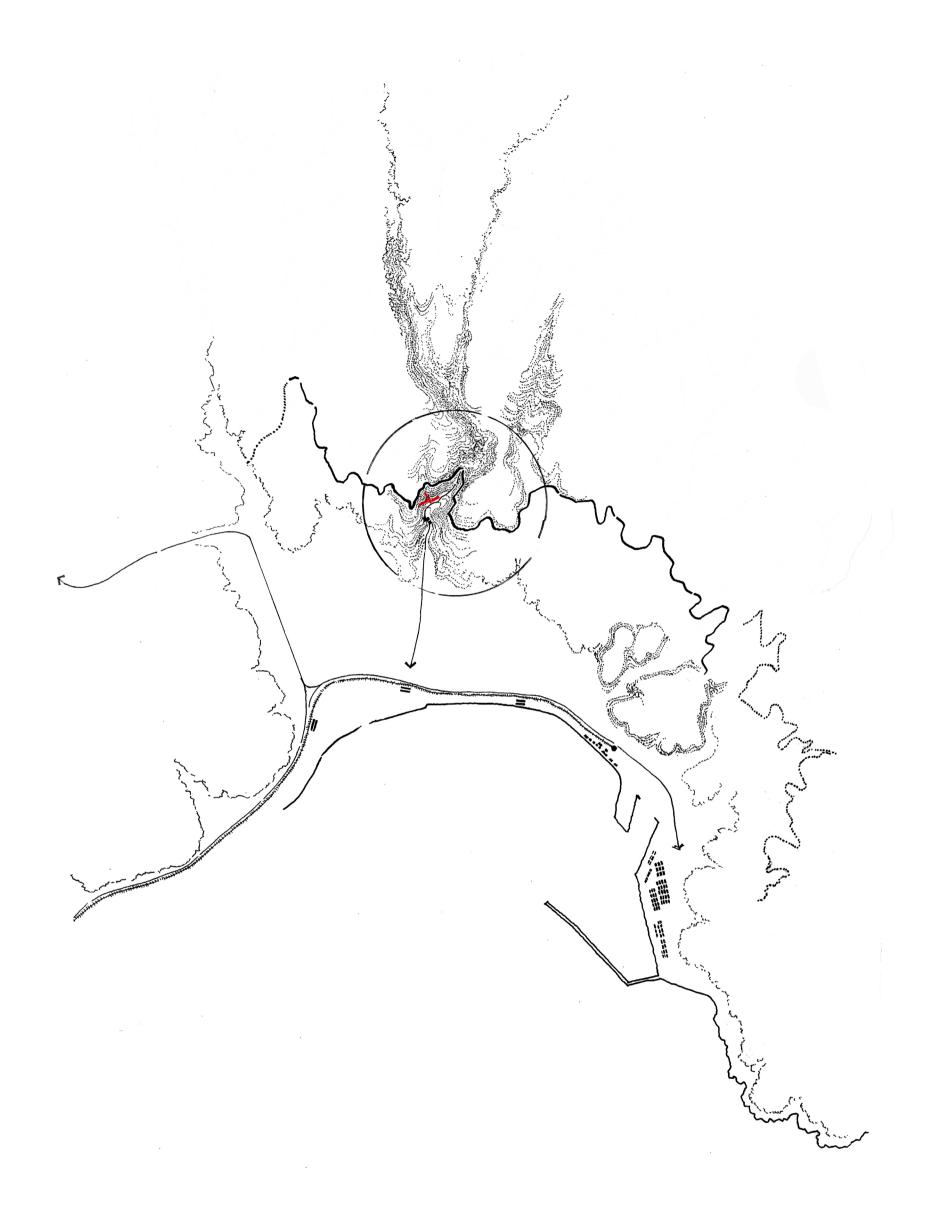


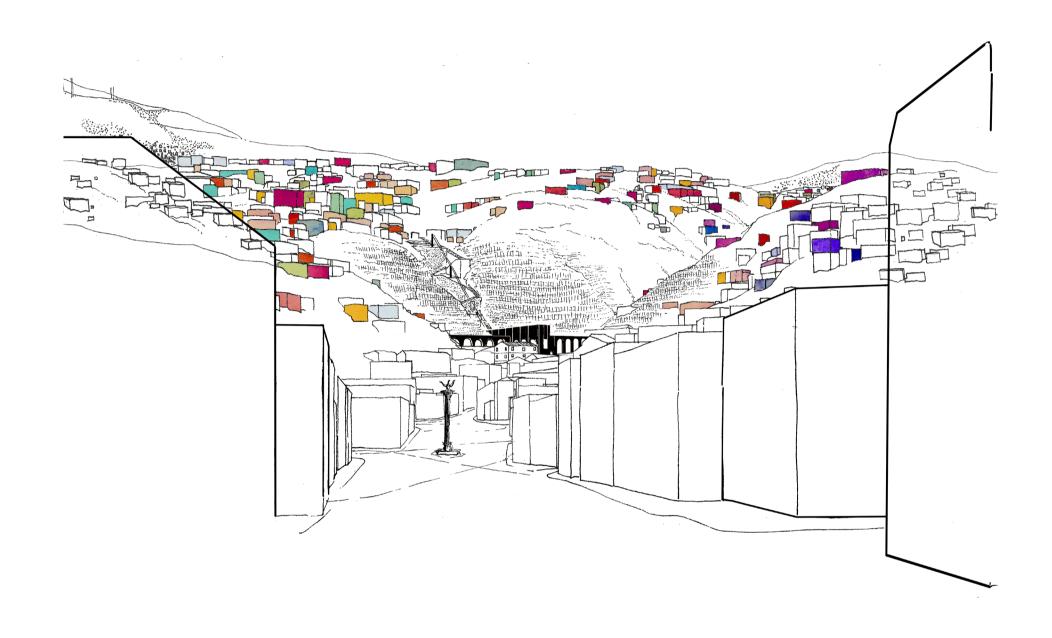


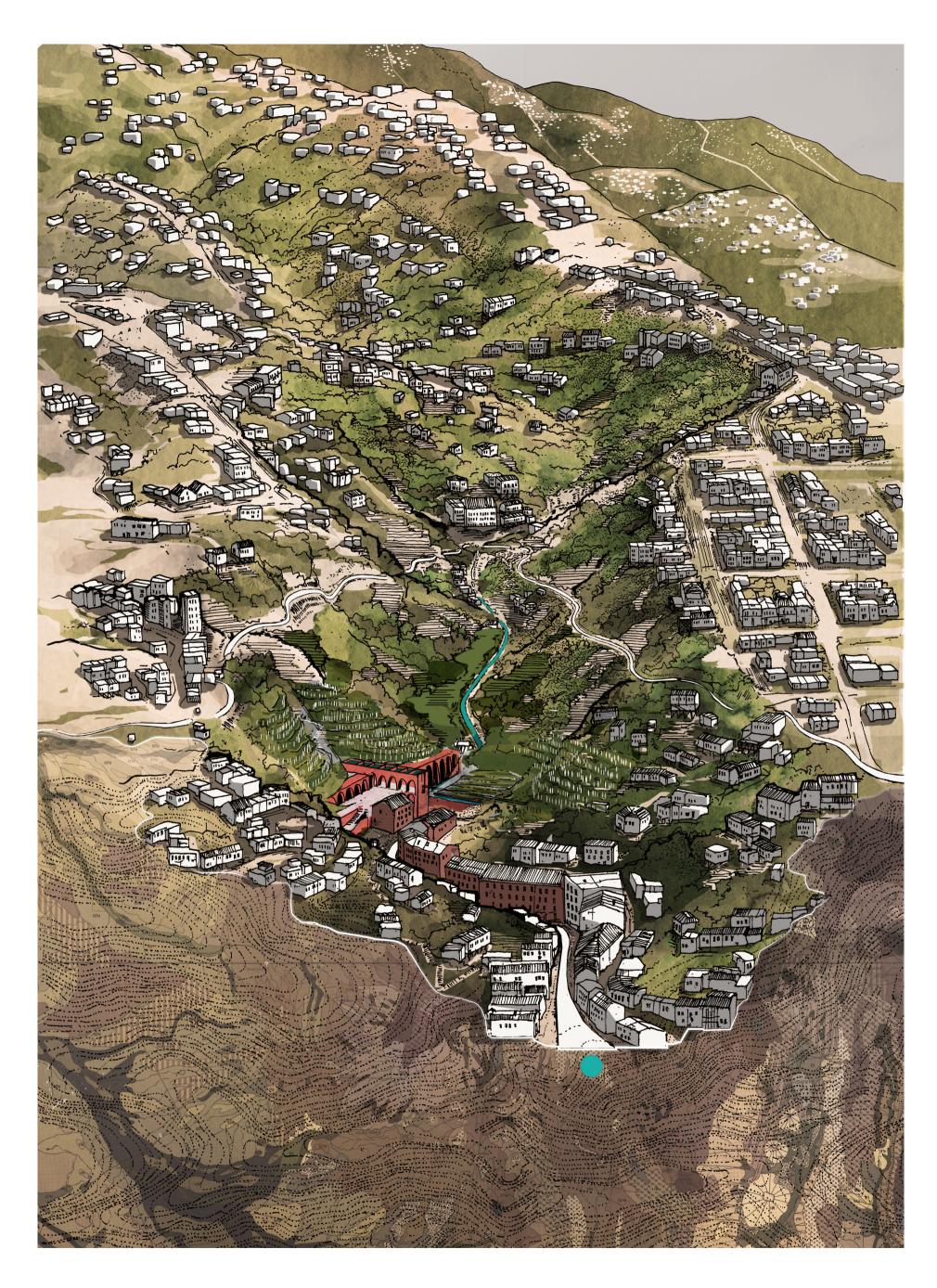
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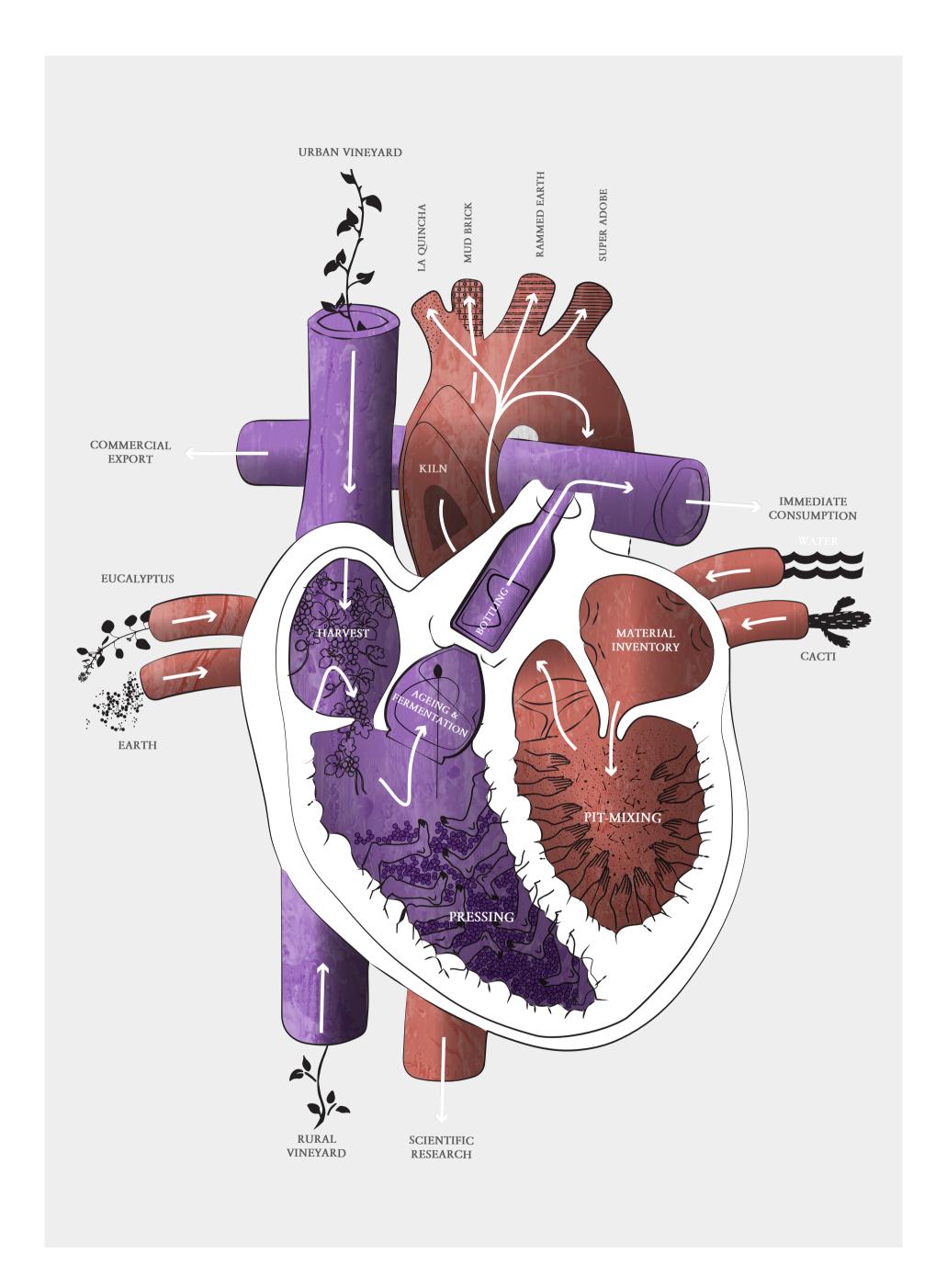
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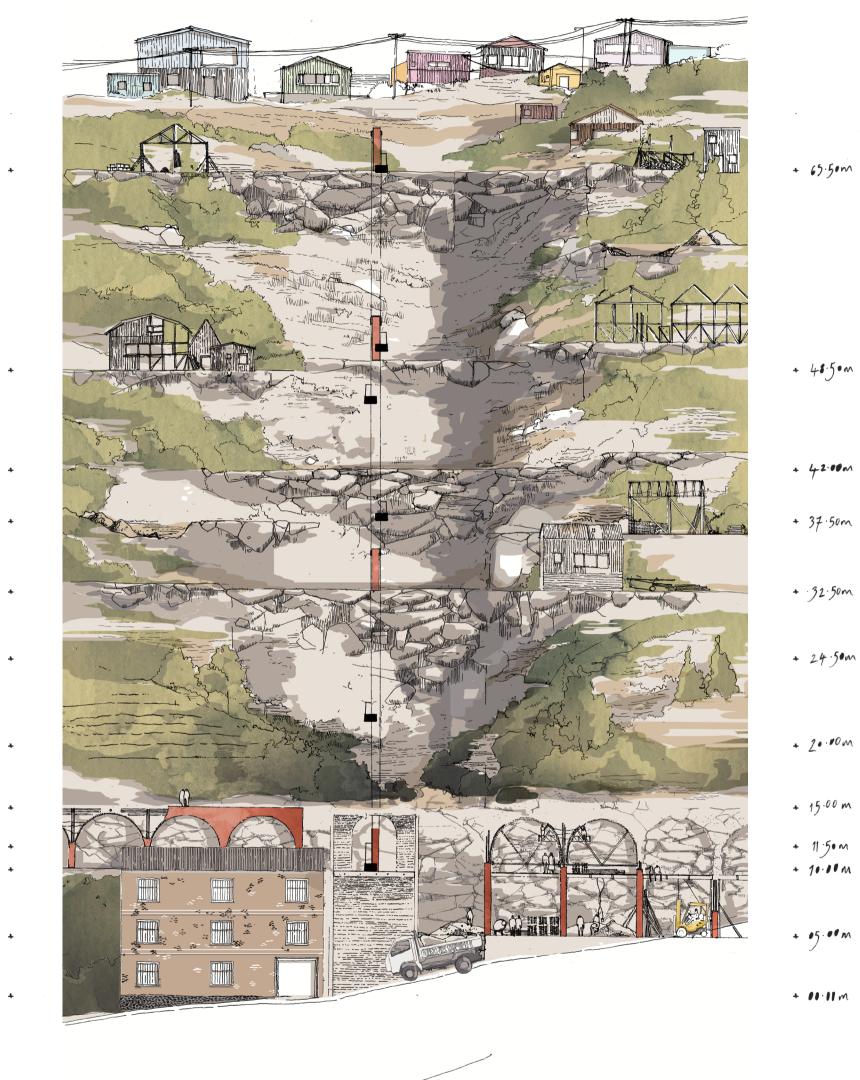




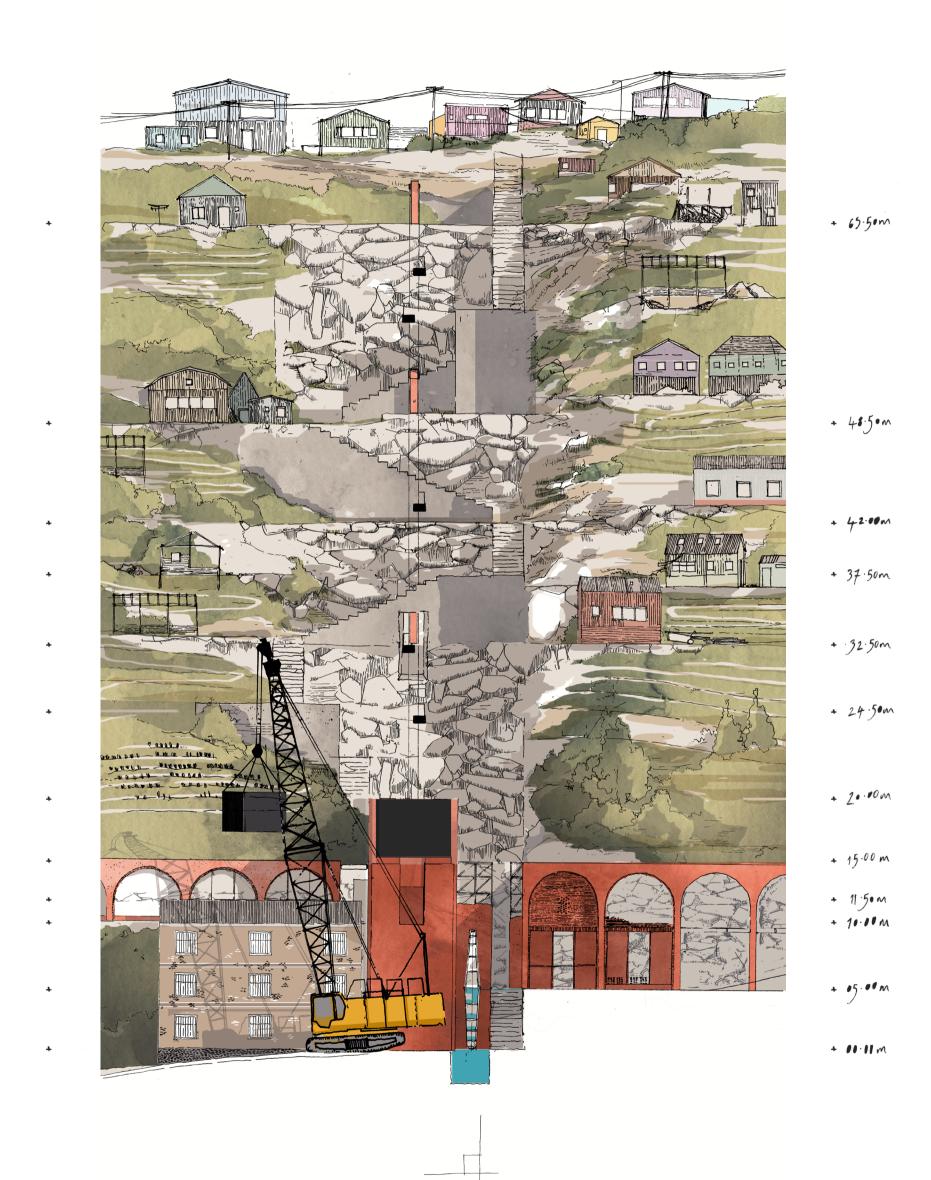


14'



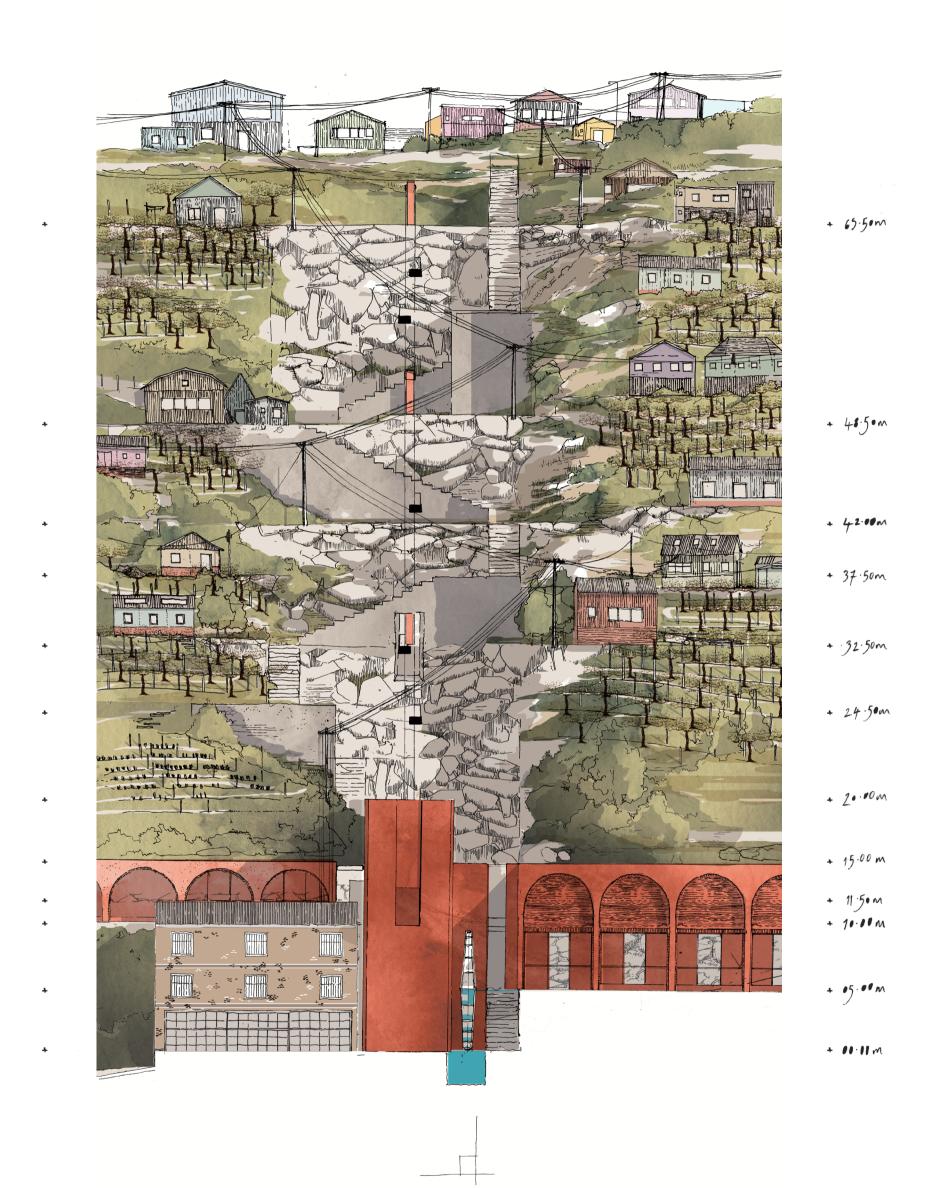


14'

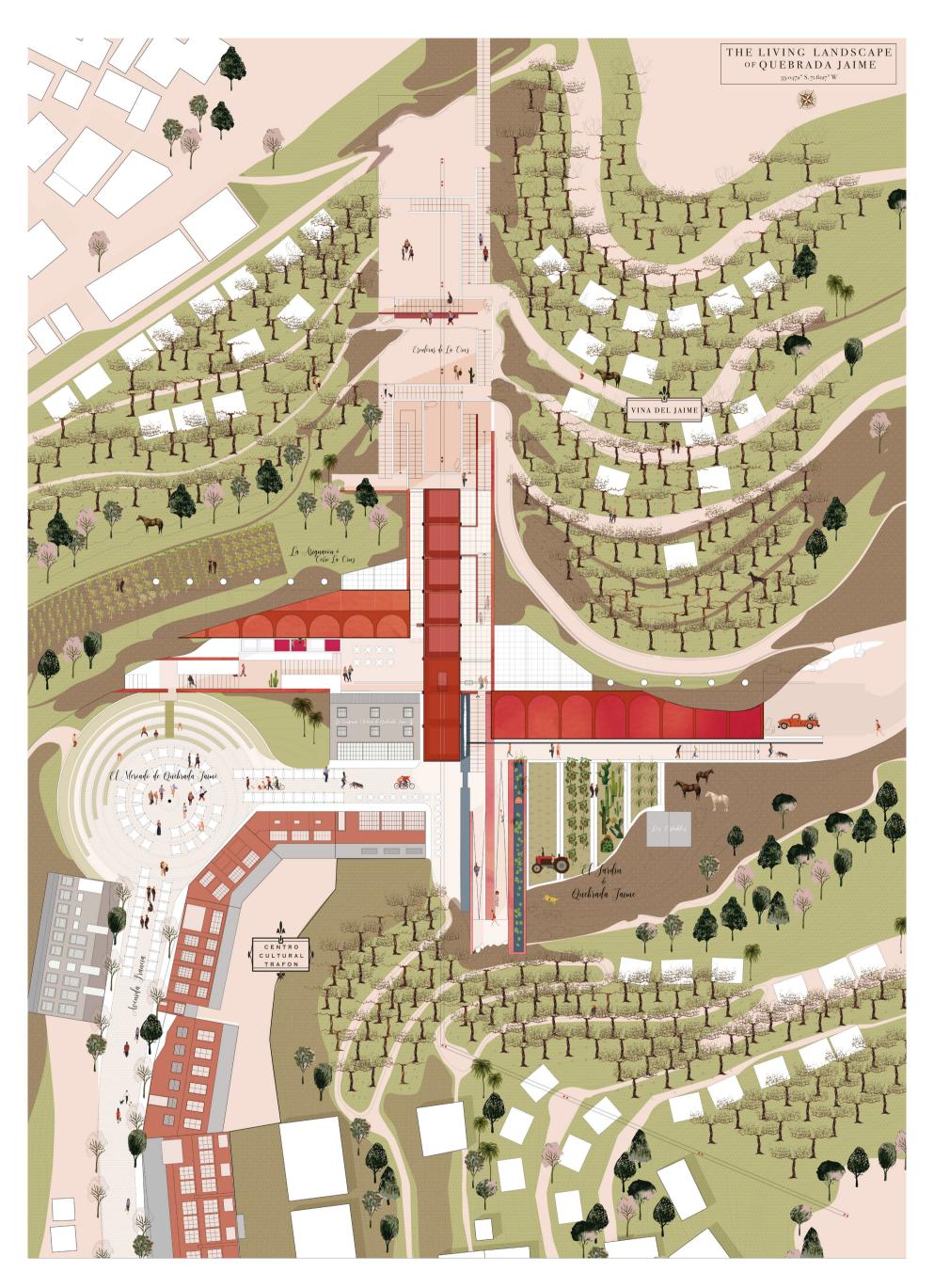


Construction Phasing

Phase 3 | 5 - 10 years

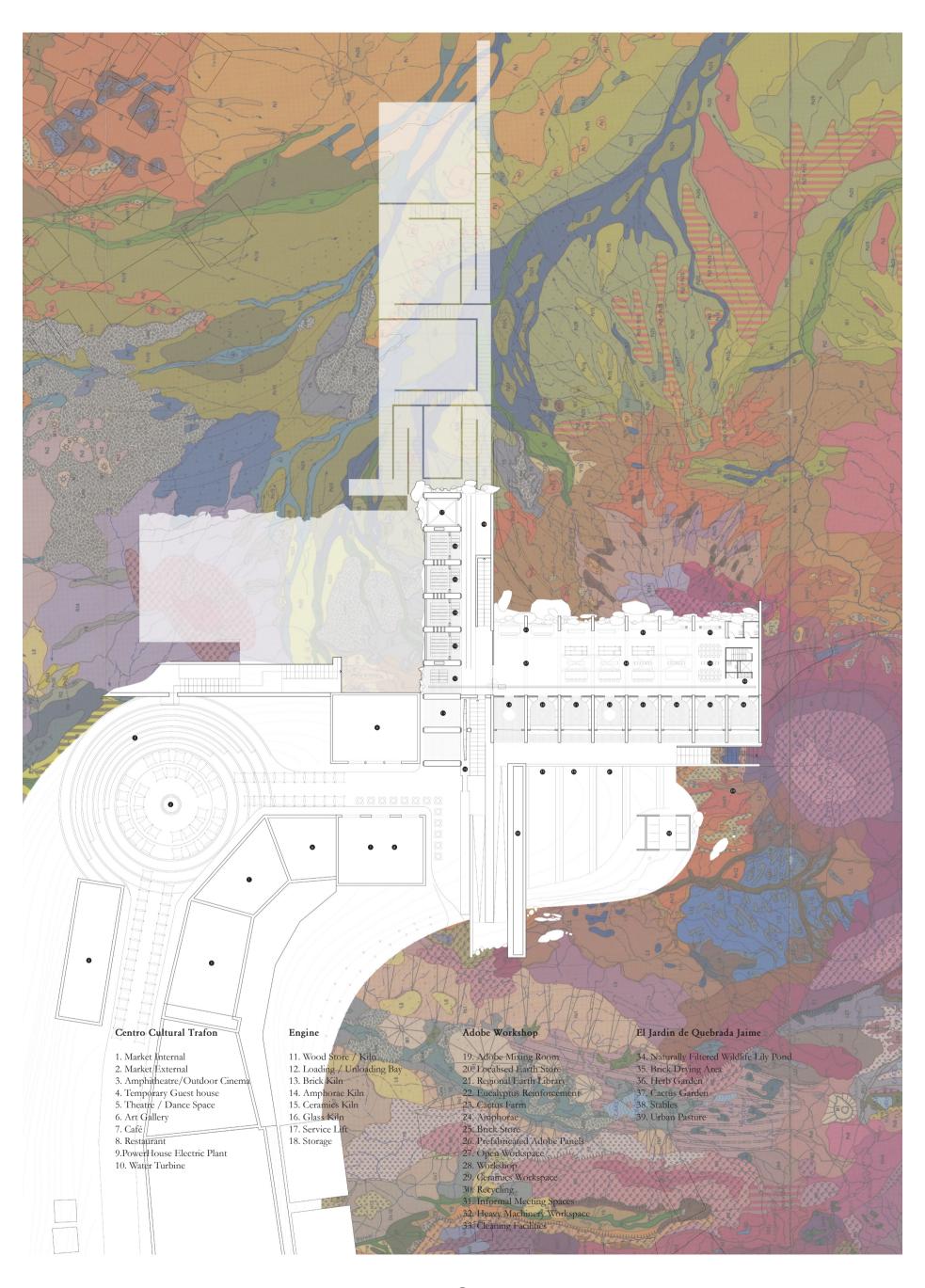


Construction Phasing
Phase 4 | 10+ years

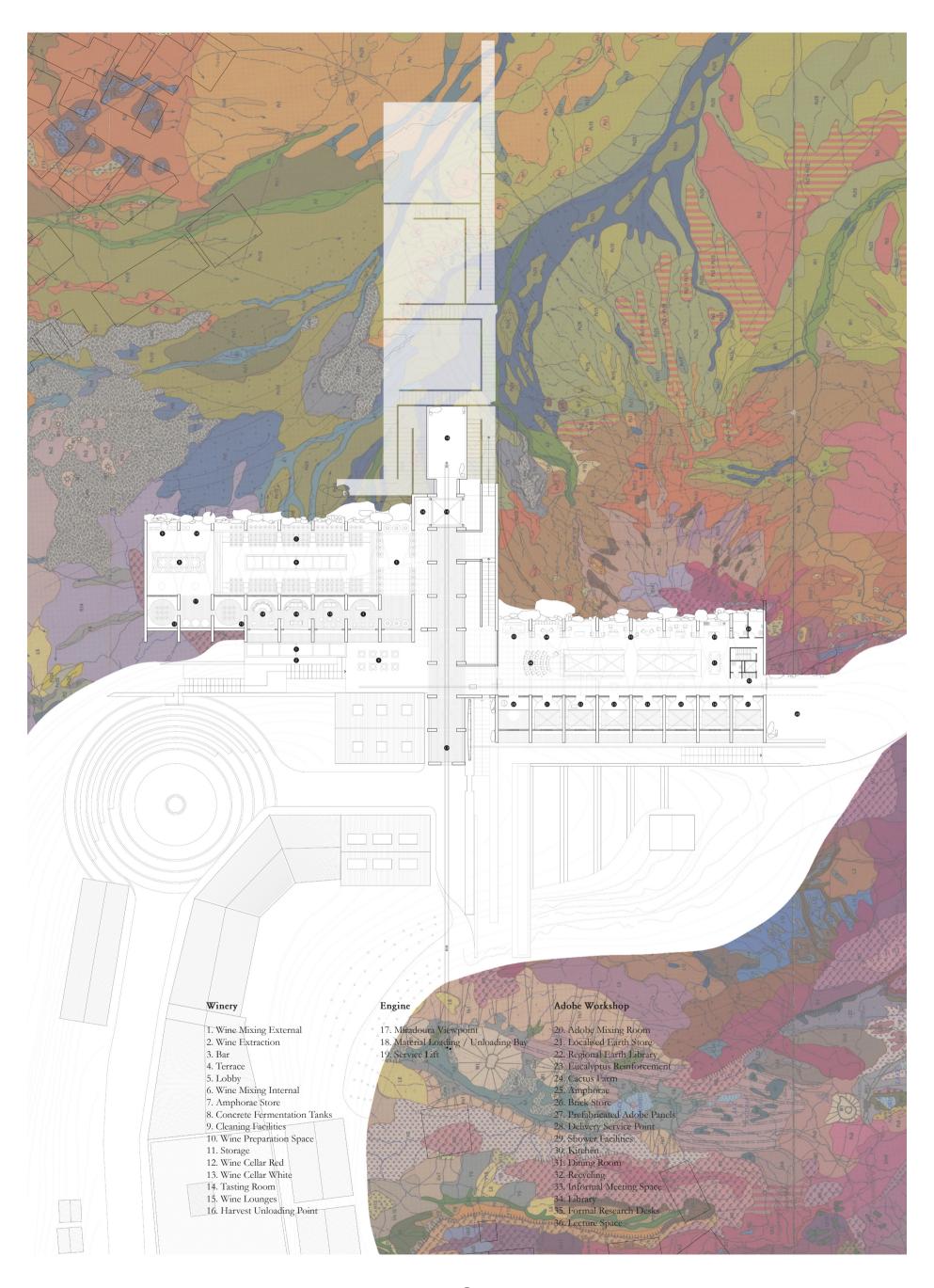




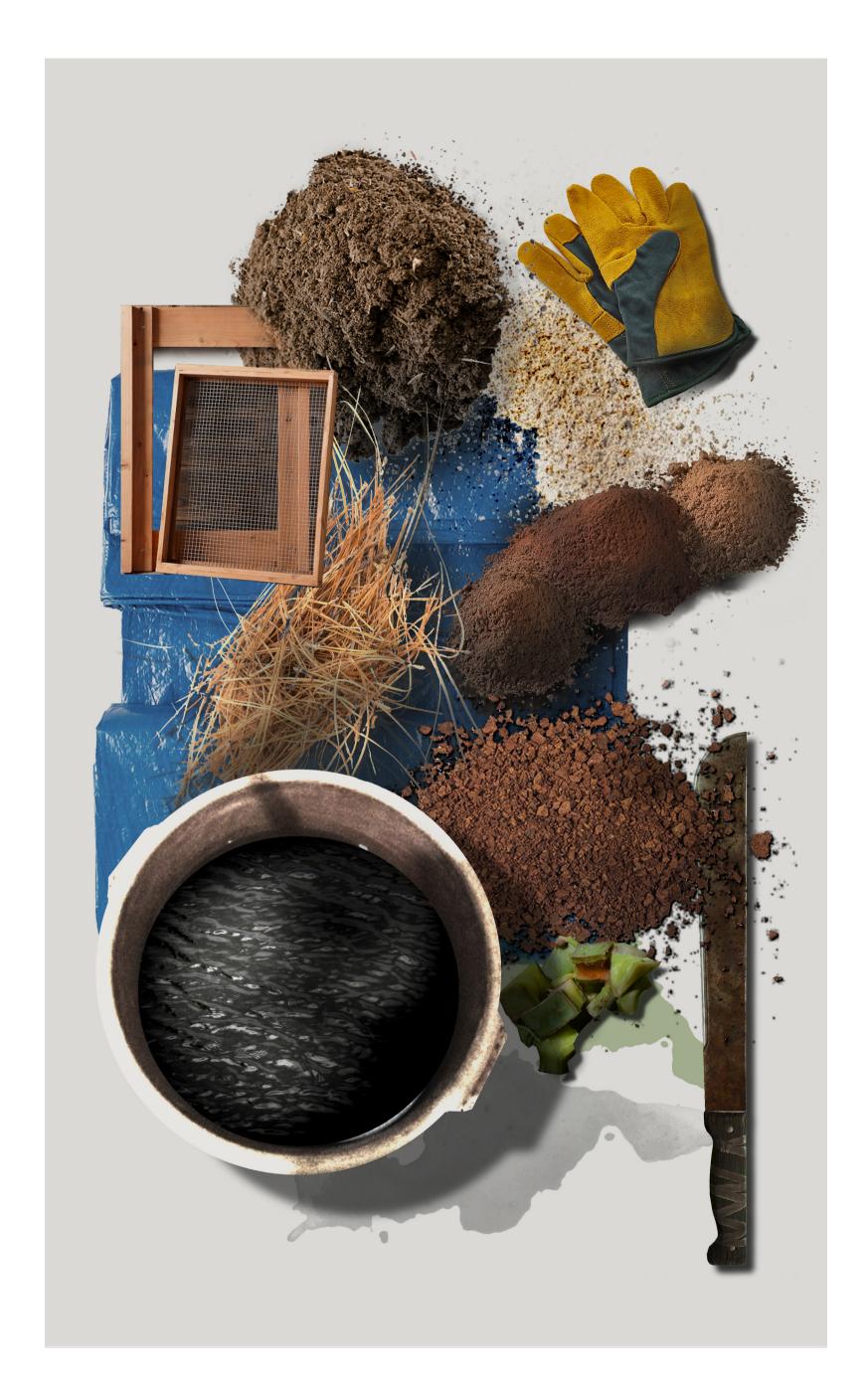


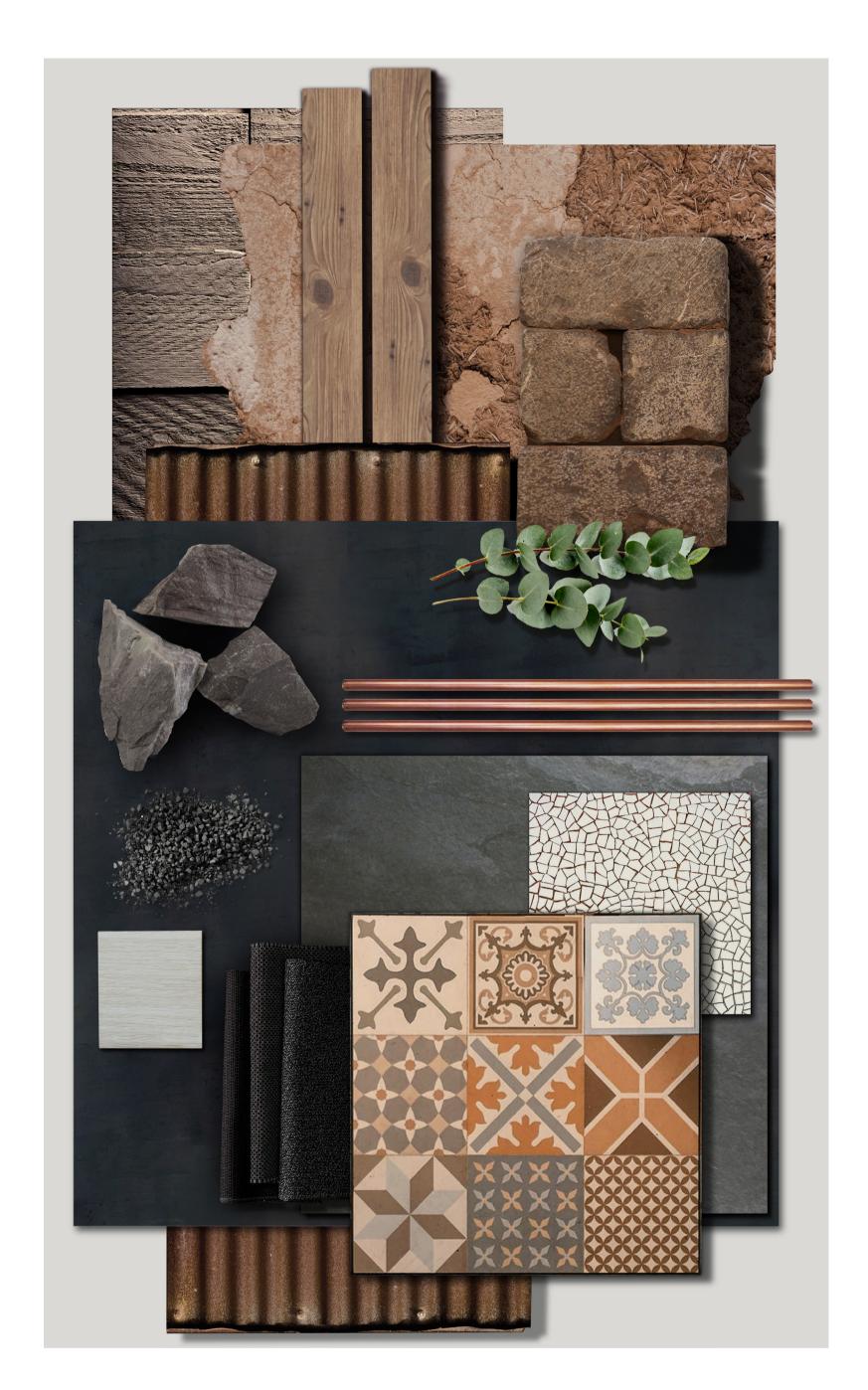


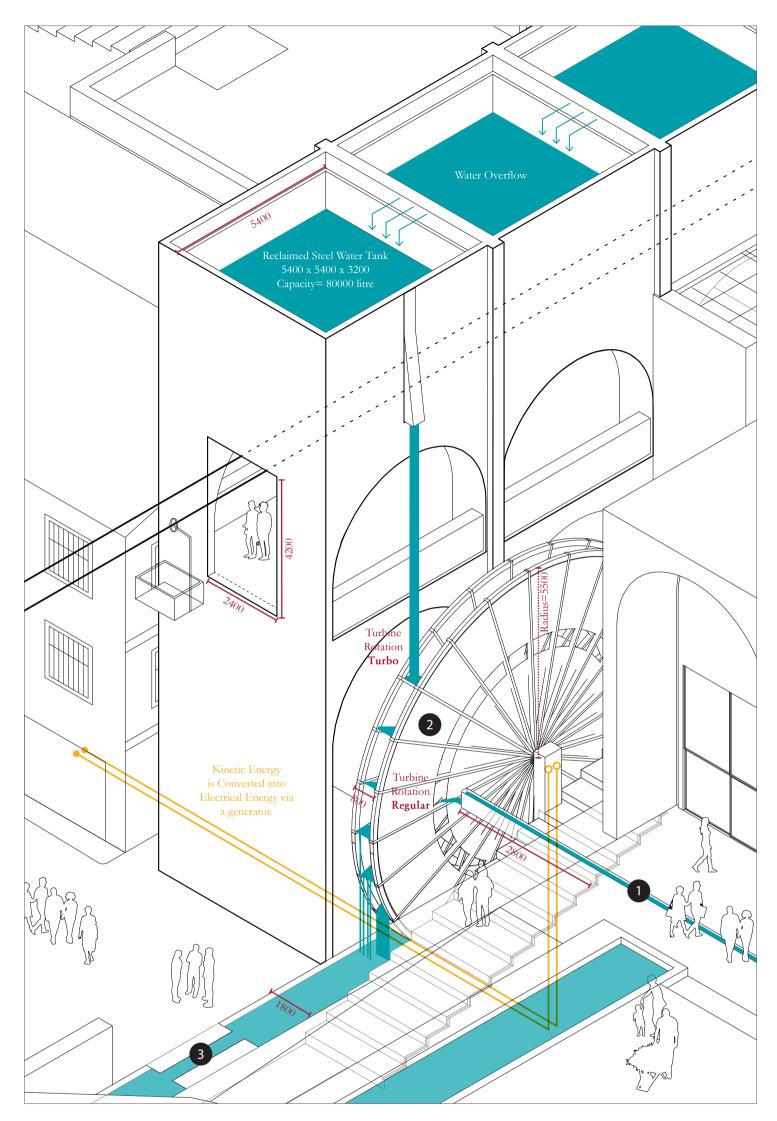












1

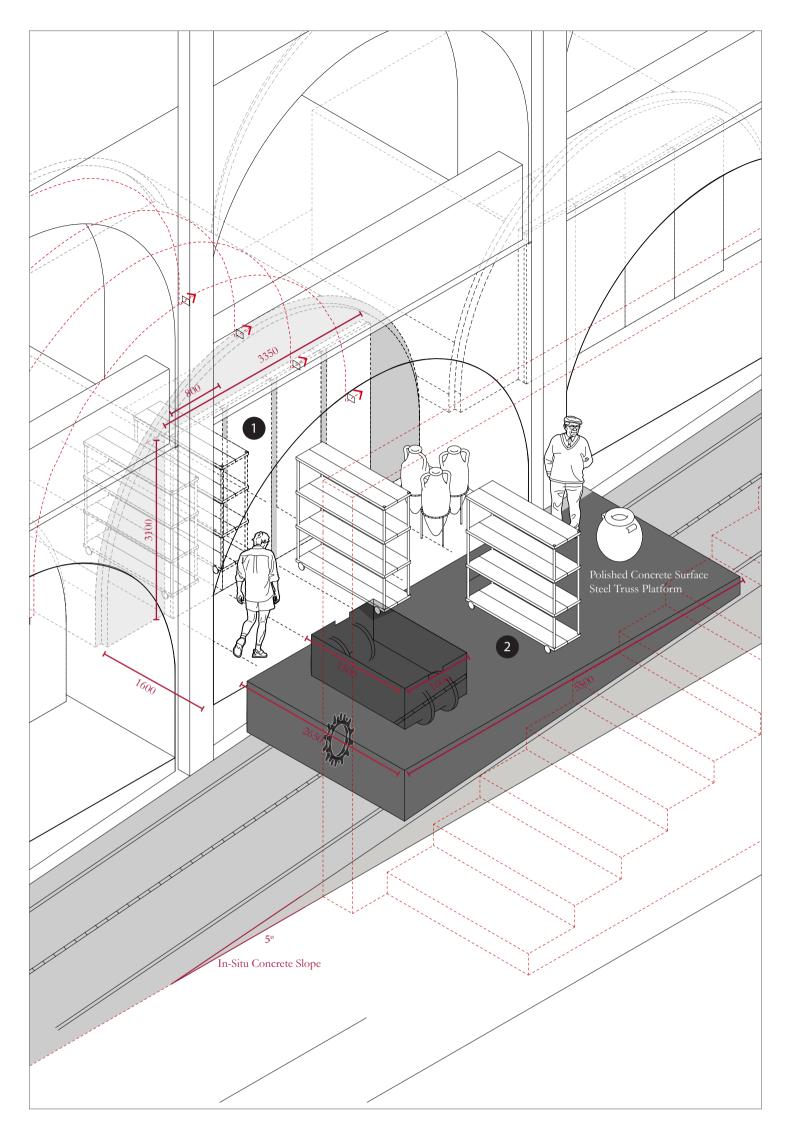
The current estuary of Quebrada Jaime runs below ground is canalised with the bricks once produced by the brick and paving factories that existed on Avenida Francia. The stream is now resurrected above ground. It follows an elegant path in a steel channel at surface level. People can follow this route up Quebrada Jaime.

2

A water turbine made from aluminium, rotates at varying speeds. It is powered by the natural flow of Estuario Jaime, but its speed can be improved by water stored in the tanks, sourced from the vineyard terraces of the neighbouring hillside. This allows the pulley system which connects to the neighbouring Cerros, La Cruz and Monjas, to be served. The water turbine is constantly in motion and producing electricity. This is managed by the powerhouse located directly next to the wheel, an existing derelict building.



The water that collects at the bottom in the lower reservoir creates a physical threshold between the rural nature of Valparaiso and the urban city. One can simply cross this boundary and access the proposed metropolitan park which runs up to the crown of Valparaiso. Water that had been channelled above ground at this point, is canalised and runs under Centro Cultural Trafon and out to the Pacific Ocean.

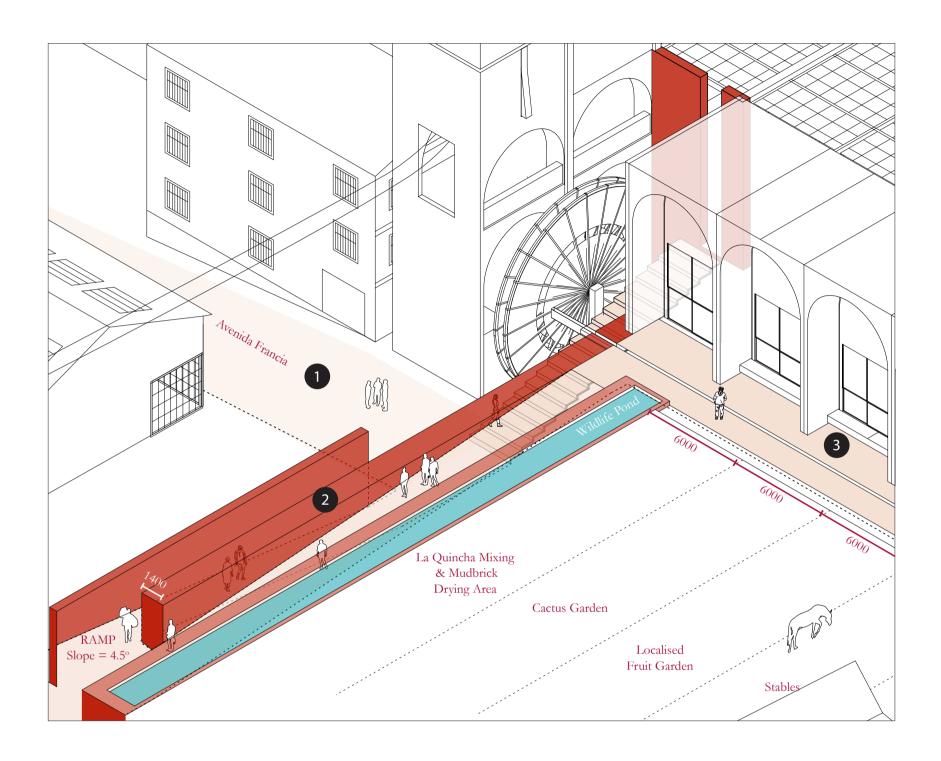




Dragon Kilns used in east Asia traditionally allowed from heat to be retained in a set of chambers, with temperature levels being monitored and adjusted based on the required level of temperature. An inlet and outlet at differing heights, allows for a stack effect and heat to be moved from one chamber, into another. The kilns vary in size for use, whether it is to fire adobe products, bricks, amphorae, ceramics or glassware depending on need. Heat is eventually exhausted through a cavity in the viaduct structure



A ramp that accesses the kilns can move materials up and down the shallow slope when required. This platform moves up and down the slope by a cog system built directly into the ground. A mechanical system that is hand operated allows the cog to move, thus in turn pushing the platform up and down. A set of trolleys are available on site to move goods back and forth. The trolleys are heat resistant and can be slid into the kilns through a set of doors where the firing process can take place. These trolleys can then be removed and reused when desired.



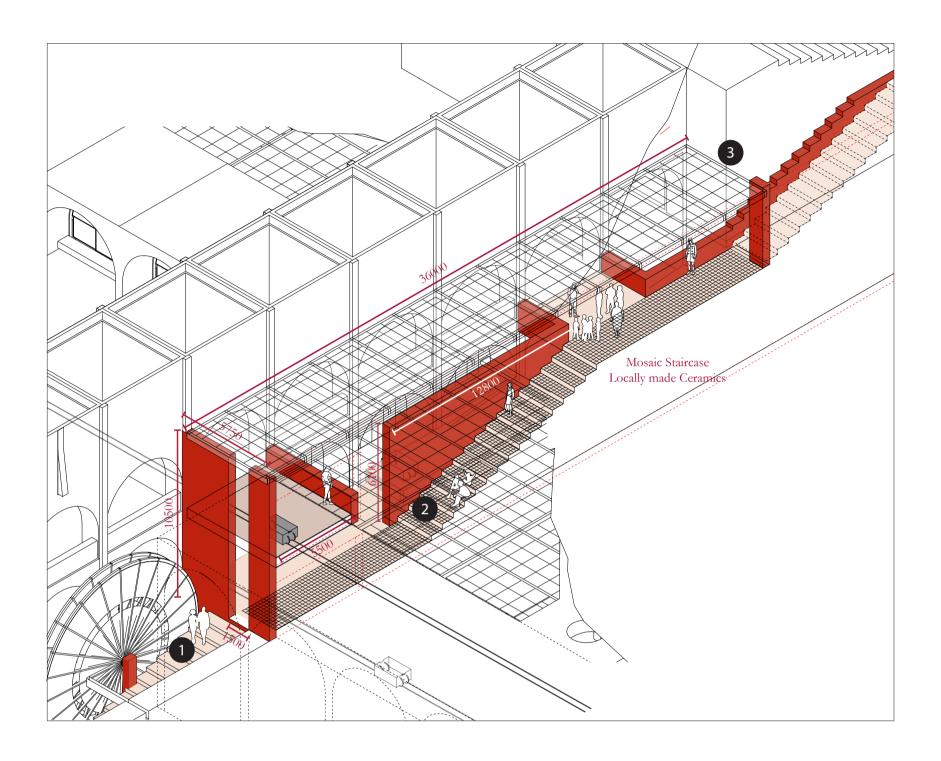
Avenida Francia is currently in existence and connects the city to Avenida Alemania, a service road connecting across the cerros. In the urban masterplan this has been reconfigured into a pedestrianised market street which marks the urban rural gateway. Products produced on site as well as crafts created by the local residents can be sold here. This micro economy supports the neighbouring hillsides.



A ramp which cuts into the landscape provides a physical intervention to mark the urban rural threshold. Constructed from Adobe material, the thickness reaches up to 1metre in some instances de-marking its importance. The ramp leads people up from the market street directly into the building where the mixing of adobe takes place. It also directs individuals to the arched facade. The ramp also slows down people, allowing for greater engagement between the context and the earth.



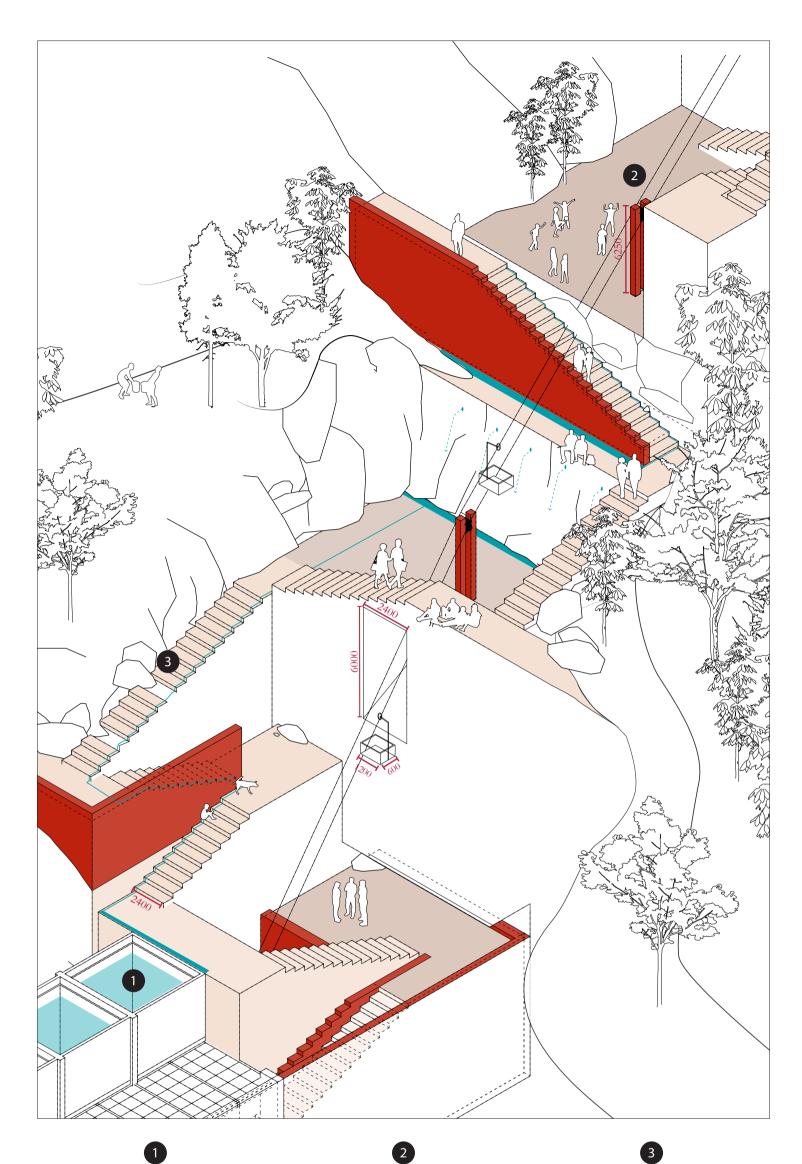
The arched facade is a striking element to the buildings design. A set of sliding doors means the facade can open out onto the street and neighbouring cactus and wildlife garden. Adobe mud-bricks can be bought outside to be naturally dried under the sun. The facade exhibits the different raw materials required of the adobe production as well as the final products themselves. An exhibition on the craft and process is fundamental to the buildings transparency.



Upon entry into the building, the building is presented with a strong facade. A narrow slice marks the gateway into the space. This architectural move is also employed with entry from the other side. The space is entirely permeable. The envelope does not close. A set of doors to the right allow people into the workshop if required and can be closed after hours to the public.

A large staircase takes people up into the mezzanine level of the building or up to Cerro La Cruz. The staircase is simplistic, made from stone and is bookended by thick adobe walls. An intimate space, echoes the Quebrada.

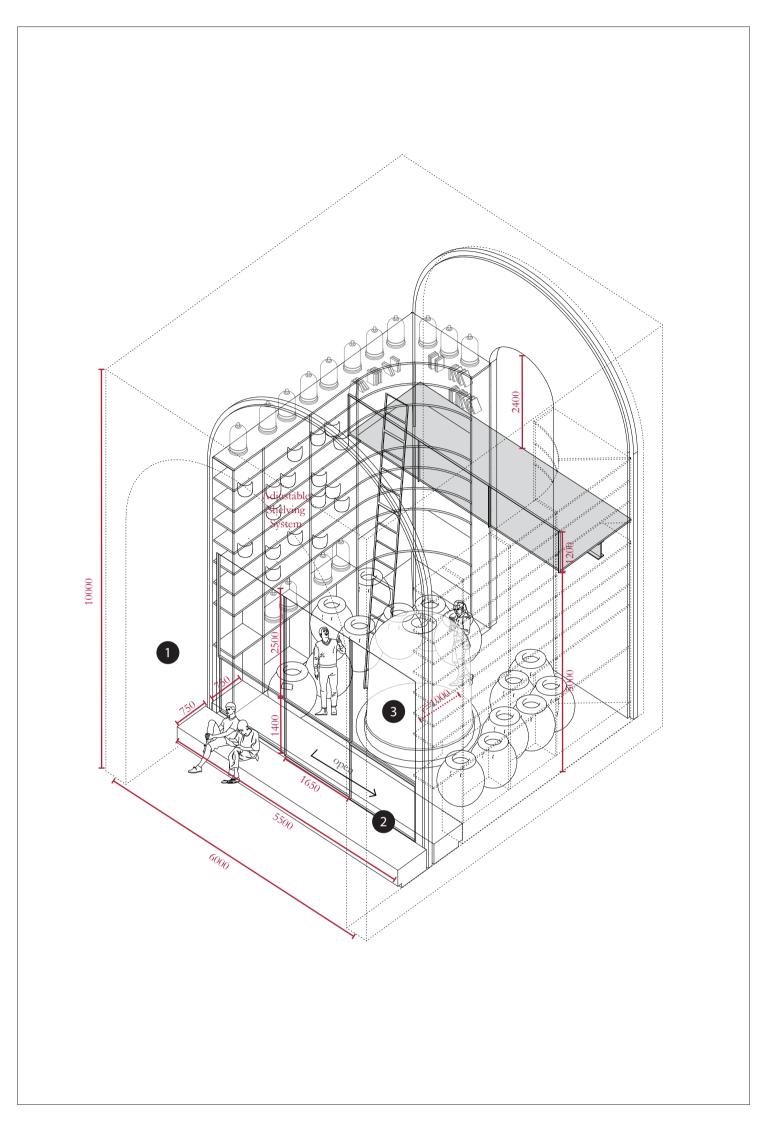
An acrylic polymer roof allows light to enter the building. A shading device on the underside, allows fabric to slide into place during summer months to avoid overheating and excessive glare. The roof structure negates for rainfall and created an interior environment in what actually is and outdoor space. It also mediates the interstitial space between the Engine block at the centre of the design and the Adobe Workshop.



Excess water from the terraced landscapes, vineyards and hillside settlements is channelled into the ravine and into the series of water tanks for future use. Water pathways cascade and intertwine with the winding staircase as a form of landscaping.

Large plazas are carved into the hillside to create informal miradouras which overlook Quebrada Jaime and engage with the Pacific Ocean. These larger terraces allow for earth excavated from the hillside at great heights, to be bought across horizontally, where it can be transported down into the workshop by a series of carts operated by a pulley system, controlled by the water turbine.

The staircase itself combines the natural rock of Quebrada Jaime. The steps are carved into the landscape and do not have balustrades at some instances. Adobe formed walls also help orientate the pathway and guide individuals up and down the hill. Smaller niches are created along the pathway to create spaces of interest and meeting points between the local residents who have helped to build the residence..



1

The facade of the building is formed from rammed earth adobe construction. A brick vault supports the underside of the arch in a catenary effect. A brick cavity infill faces the building on either side with perforations to allow airflow and the natural ventilation.

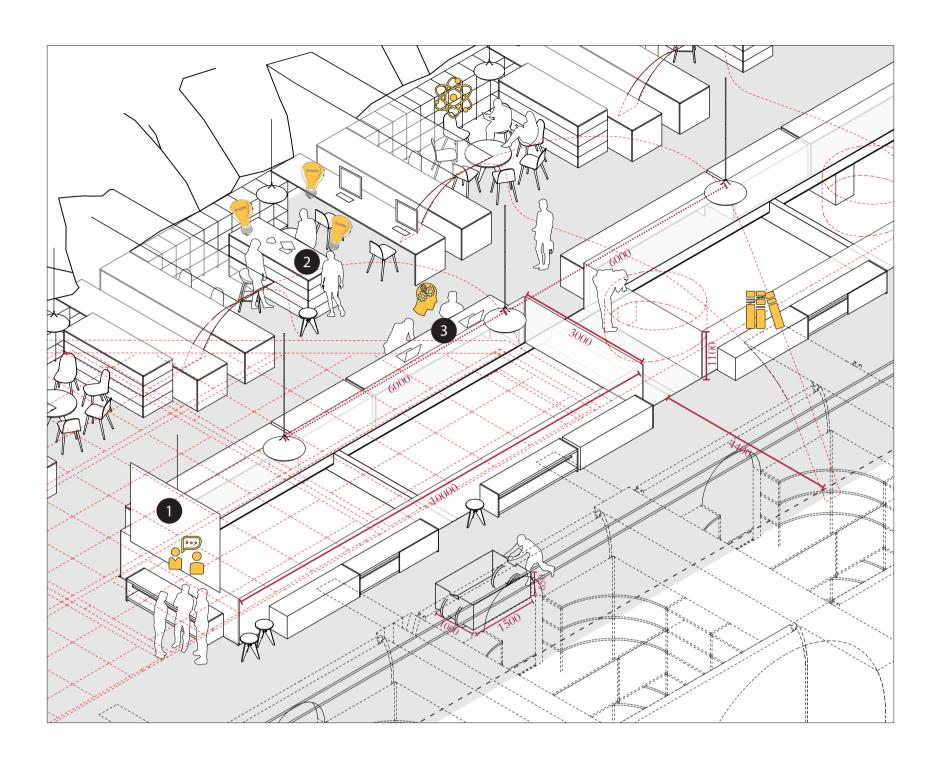
2

The facade of the building is mediated by glazing. The glazing at a lower level can be opened and closed, making the windowscape interactive.

Passing traffic can interact with activities taking place within the building.

3

Each archway will exhibit a raw material or finish product of eh adobe craft. At the centre of the space, the volume will exhibit an action or material in a state of rest in a museum like experience. For this instance, an interior cactus garden for scientific purposes is controlled at the centre of the space. Different species line the walls and lay dormant on the shelves.

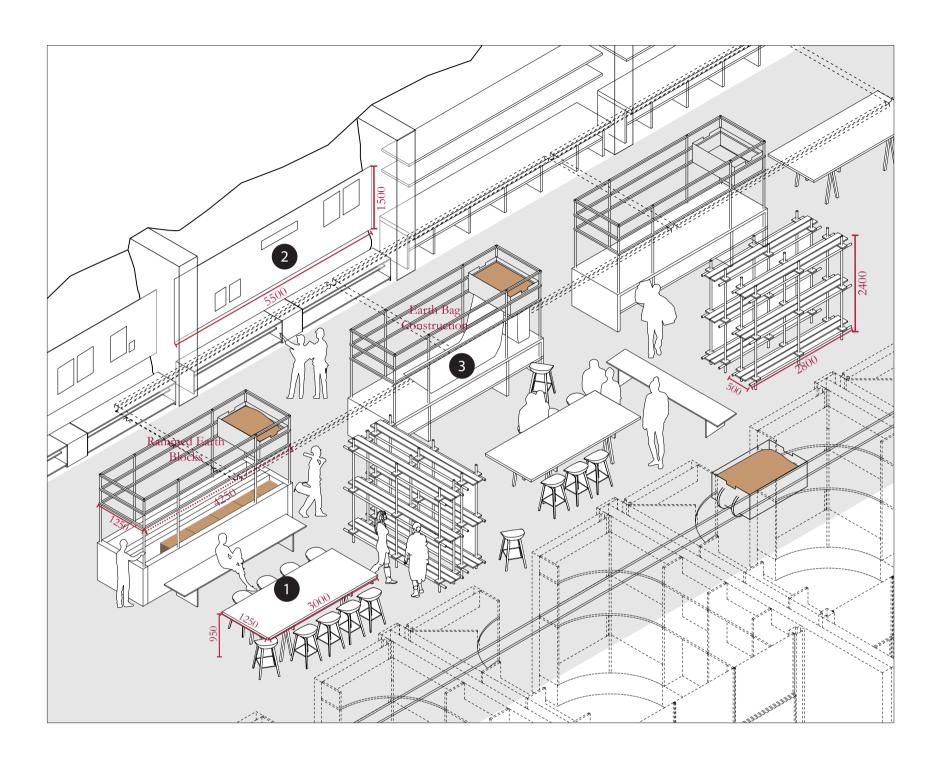


For researching the craft and science of adobe techniques a set of spaces, undefined by walls are created within the large floor plate. A place for discussion is created. A large open seminar room greets visitors to the research level. Lectures can take place frequently while observing and overlooking the construction taking place at a lower level.

Smaller niches are tucked away to the bedrock of the floor plate. These are defined by the ceiling structure and furniture layout. These more prescribed spaces become research hubs that focus as a more relaxed place for discussion to take on future tech, fire proofing adobe, water proofing and improving seismic resistance.

Informal work spaces are dotted around the void space of the floor plate. These offer storage and work benches for visitors to the building, as well place. Storage is also combined with the furniture of the building.

3



1

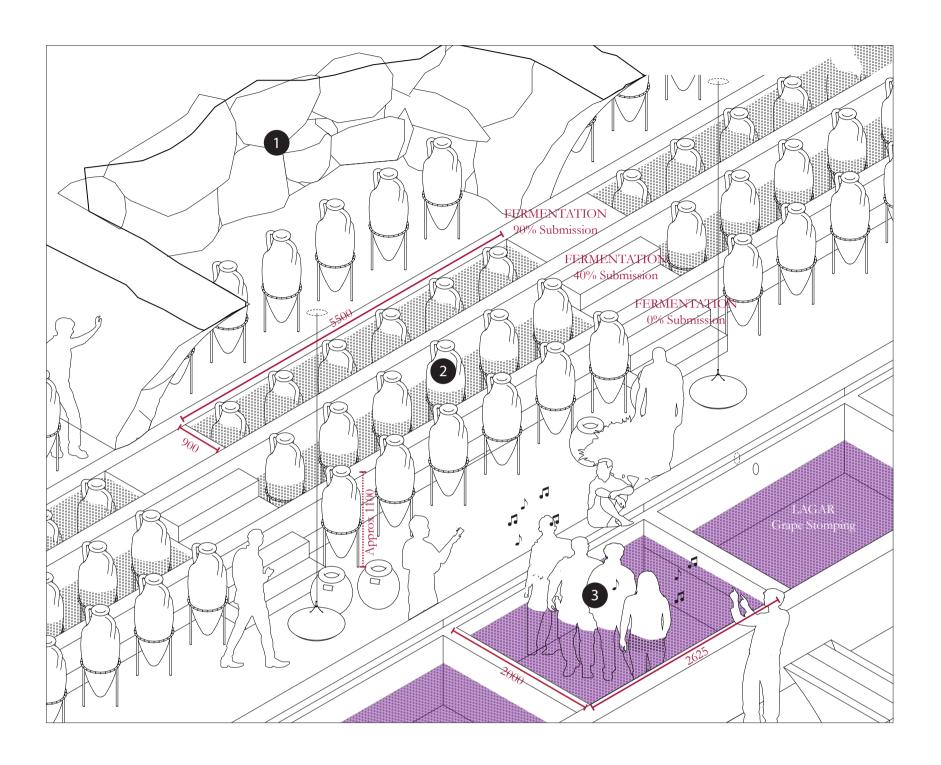
Large workbenches are placed in the Adobe Workshop. They offer space for discussion and craft to take place. These are built from locally sourced pine. Here mud-brick moulds can be formed as well as prefabricated panels for the la quincha methods to be applied.

They line the entire length of the Adobe Workshop and face the street behind the arches. All visitors are welcome to use on site machinery. 2

The back of the workshop is where storage of materials, large blackboards for discussion are placed as well as heavy machinery is located. These are pinned into the rock structure and have an archaic architectural quality, promoting craft and hand made goods.

3

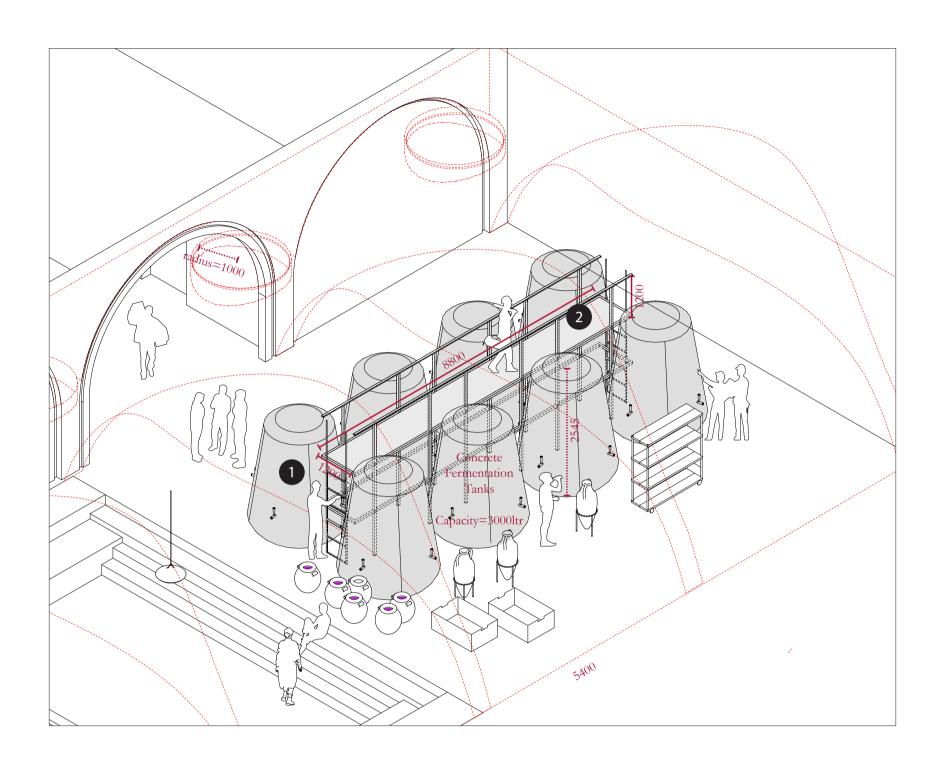
Custom built furniture for producing earth bags as well as rammed earth blocks, help facilitate the quicker production of these units for construction methods. The stream of production is quickened if so desired.



The bodega is placed within Quebrada Jaime. To such an extent, it is buried entirely under the Cerro La Cruz. It is enveloped by adobe which allows a level of natural oxygenation to occur in the fermentation of wine. This porosity of the natural building material creates an irregularity in the taste of the wine, not to mention its fermentation taking place within amphorae pots. This creates a wine of the region and of the place. An artesenal quality making this wine so particular and unique.

Amphorae pots are formed in the Adobe Atelier on site and are transported to the Bodega where wine ferments in these custom made vessels. The amphorae can be stored in the space at different levels of submersion based on desired levels of exposure to oxygenation. The designed terrace facilitates the showcasing of the pots as well as ease of access. The amphorae can be completely buried, semi buried or not buried at all. Reclaimed rock and stone from site is crushed to bury the pots.

A lagar is used for the pressing of wine. This designed concrete embellishment is simplistic. It poured on site and becomes the meeting place for the action and process of making wine to take place. They form a public form of furniture which can be used when the harvest is out of season. Wine can be extracted from either side from a set of bespoke taps. A polished concrete floor allows for the easy cleaning of spilt wine.





Concrete fermentation tanks are custom built off site and bought into the bodega. These are used for the industrial production of wine on a large scale above the more traditional methods of amphorae. The tanks are made from cast concrete, facilitating the oxygenation of wine with more control. Wine is aged and extracted and there after bottled. The bottles are taken immediately to the wine cellar or sold on site.



A scaffolding system which is lightweight allows for staff to enter the tanks from above and access the hatch to the eight fermentation tanks above. Wine can be stirred from this level and extracted from below. The scaffolding can be removed if tanks need to be cleaned for maintenance. Grapes can be bought directly from the lagar where it is freshly pressed and placed within the tanks.