Adrián Río Lado Architectural Portfolio





I am Adrián Río Lado, I was born in 1988 in a small town located in the north of Spain. When I was a child I enjoyed building structures with rectangular pieces of wood, trying to make them taller and more stable each time.

I am an architect graduated at the University of A Coruña, Spain. My education combines the Spanish technical background in building technology and Portuguese architectural design influences. Graduate students at the School of Architecture of A Coruña are characterized by strong technical skills, high design quality and precision in construction details.

Some of my inspiration architects are Álvaro Siza, David Chipperfield, Joao Álvaro Rocha, Carlos Seoane, Pierre Koenig, F. Ll. Wright, Hans Meyer, Herman Hertzberger, Smithson, Patxi Mangado, Alvar Aalto, Heikki Siren...

Whilst studying my final year at the University of Coruña I volunteered in university projects, in addition to getting a grant to start my career in *CSA Arquitectura*, a local architecture office, where I enjoyed the relationship between architectural design and its construction process. This attitude led me to further my education studying a MSc in Sustainable Architecture, and broaden my work experience in international environments.

Now, I am ready to start new challenges, contribute with my knowledge and experiences and, above all, I desire to learn through architecture professionals who love what they do and are willing to pass on their knowledge.

Thank you for taking the time to have a look!









**Modular Housing** 





M.Arch. Design Thesis



Professional Experience





MSc Sustainable Architecture Studies











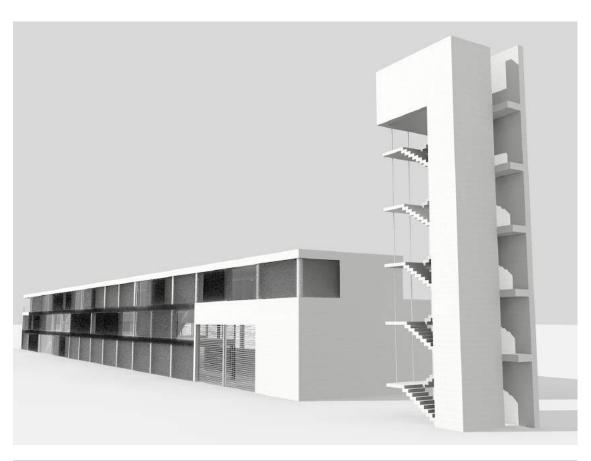
Arteixo Fire Station Arteixo, Galicia, Spain ETSAC 2012 The fire station project is an architectural proposal designed in an industrial environment in the city of Arteixo. The existing typology in the area is formed by large warehouses occupying thousands of square meters and rising to heights around 8 meters.

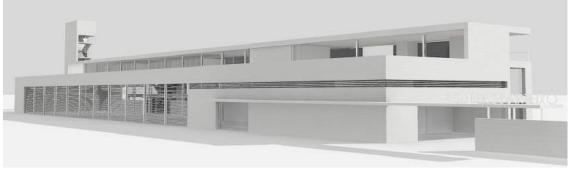
The fire station design aims to facilitate the displacement of the fire-fighters in case of emergency. Since it is a building of a large area and height, its volume is staggered to set back the front facade and not to be prominent.

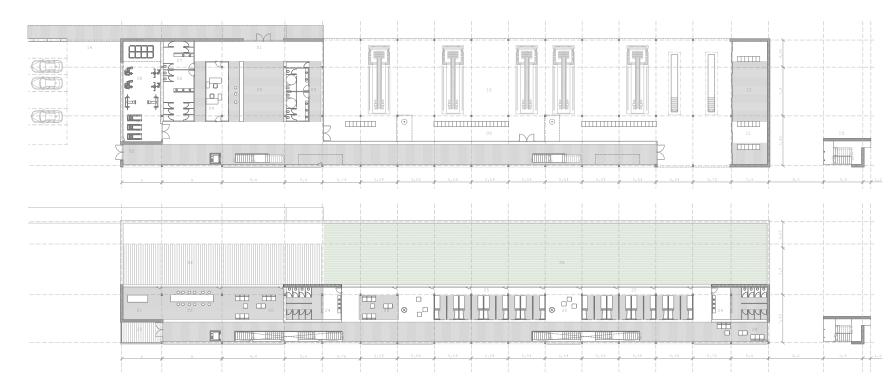
In terms of layout: the public areas and garages are located on the ground floor, the administration offices are on the first floor and finally, the staff's private area is located on the second floor, having access to a large terrace. The stairs and lifts are located aligned with the rear facade.

The main façade is composed of the direct outputs of the truck's garages and small horizontal windows to illuminate the interior space. These windows are the minimum required to light the interior, while acting as a screen of the industrial and chaotic external environment. By contrast, the rear facade hosts large windows overlooking a lake, protected from the sunlight with a micro perforated steel latticework.

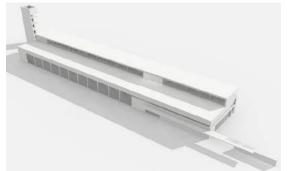
The iconic element of the building is the training tower. The tower is the landmark that shows the building's function to the urban environment, and that is the reason why it has a strong sculptural character.















Floor 0

Floor 2



**ETSAC 2012** 

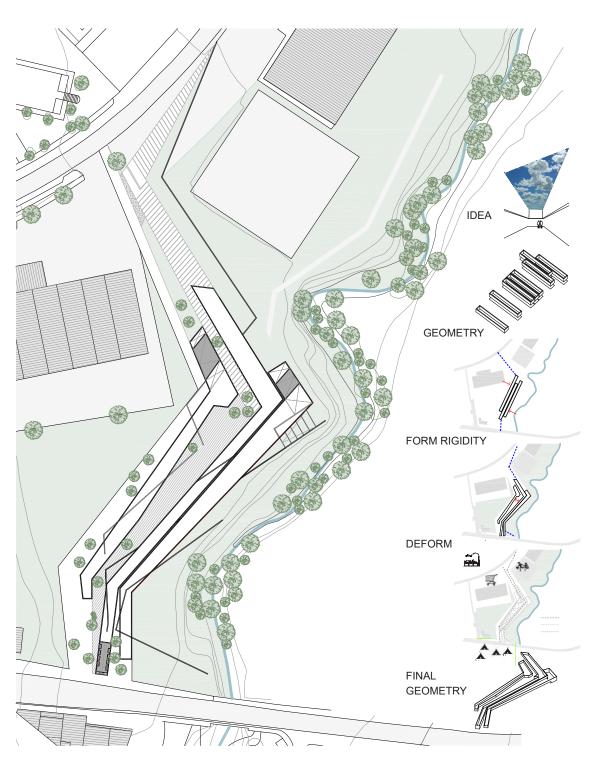
In the city of Arteixo, there is a vacant plot bordered by a creek at the east. This plot also connects two busy areas of the city, the north and south.

Because of these features, the aim of the project was to design a multi-functional structure to organise the plot. The structure is designed to host events and conventions, storage facilities... or otherwise be empty. This is, a structure which can either act as a building and be meaningful (aesthetic + function), or may not but still retain meaning entirely (aesthetic).

The proposed design is a group of reinforced concrete beams supported by concrete walls. These structures delimit the space and can hold temporary structures to be used as roofs, floors...

The geometry of the structure is determined by the routes, immediate surroundings and previous buildings. These aspects give shape to an idea based on regular geometries, becoming a fully integrated element in the territory whilst achieving its purpose.







### **Multi-function**



Exhibitions & markets

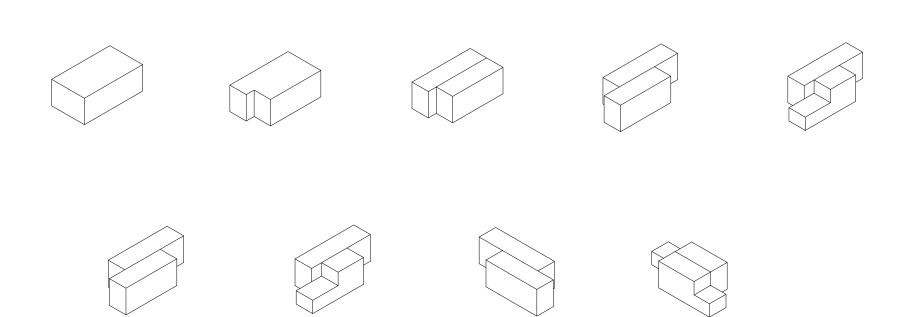






Leisure, political or religious events





# **Modular Housing**

"Solid Prism" Townhouses



Urban Planning & Terraced Housing Solid Prism 1 Pontedeume, Galicia, Spain ETSAC 2010 The Solid Prism Concept is a typology of housing with straight, strong and functional lines based on a simple structural module of 4x4 m. Consequently, it works perfectly in the prefabricated housing industry schemes.

The Solid Prism 1 is a specific design derived from the main concept.

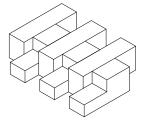
PS1 dwellings are designed for urban environments (especially if the plot has slope) where the terraced house typology is required, due to either economic and optimization aspects or planning regulations.

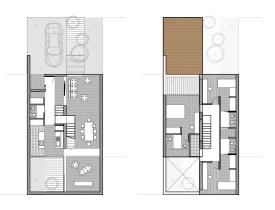
The interior layout is simple and clear, separating the areas according to their privacy and use. Similarly, some major areas share common service spaces, taking intensive advantage of the built-up area.

The main structure is designed in reinforced concrete, providing great strength and good performance against adverse weather.

Additionally, it provides good thermal performance and favours thermal inertia, which is a positive feature in urban housing, intended to be used as habitual residence.

Every house unit is designed to achieve optimum privacy and daylight.

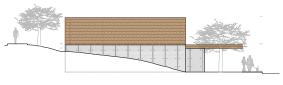




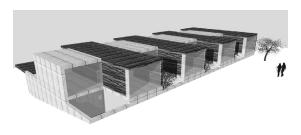
Floor 1

Floor 0





East elevation





12|13



Urban Planning & Semi-Detached Housing Solid Prism 2 Pontedeume, Galicia, Spain ETSAC 2010 The Solid Prism Concept is a typology of housing with straight, strong and functional lines based on a simple structural module of 4x4 m. Because of that, it works perfectly in the prefabricated housing industry schemes.

The Prism Solid 2 is a specific design derived from the principal concept.

PS2 homes are designed either for suburban or urban environments requiring low to medium density residential areas.

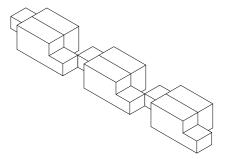
PS2's main feature is that, despite being semidetached buildings, houses do not share walls between living spaces of different homes, so it is not likely to perceive any noise from the adjacent dwelling.

The interior layout is simple and clear, separating the areas in terms of their privacy and use.

The main structure is designed in reinforced concrete, providing great strength and good performance against adverse weather.

Additionally, it provides good thermal performance and favours thermal inertia, which is a positive feature in urban housing, intended to be used as habitual residence.

From an urban development perspective, PS2 detached housing is designed to follow a simple line-based clustering pattern of a maximum of 4 houses.

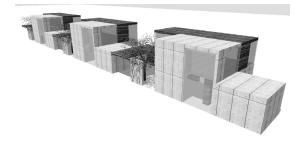


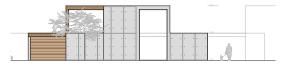


Floor 1

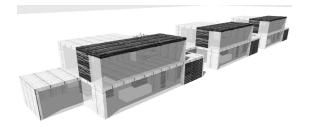


Floor 0



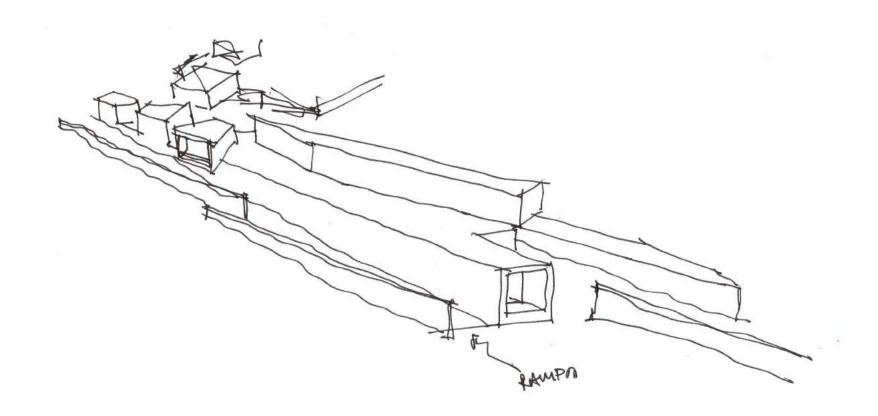


North elevation





Section



**Master of Architecture Design Thesis Project** 

Wine Cellar in O Ribeiro





Wine Cellar in O Ribeiro Cabanelas, Galicia, Spain ETSAC 2013 This project consists on the design of a wine cellar, including the necessary buildings for the management of the business.

The plot presents a fully consolidated structure and organization (functional and formal) based on terraces. It also contains five existing buildings, four of them are currently in ruins.

The pattern of settlement in Galicia, is characterized by the existence of almost 30,000 rural settlements called *aldeas* (most of them have a small population, e.g. Cabanelas). The geographical dispersion of these settlements is another distinct feature from other regions.

The importance of architecture and urban planning associated with the regeneration project of a place with cultural, gastronomic and oenological tourism potential can be used as a responsible policy to control land use and additionally, recover high quality spaces and environments almost uninhabited.

The development of these rural areas could be promoted by architectural proposals based on a clear and useful activity as a tool to provide infrastructure, facilities, services and housing. This is the reason why the winery project approach is consistent, due to the amount of grapes harvested in the plot is not enough to meet the maximum production capacity of the wine cellar, i.e. 10,000 wine bottles per year. Hence, the exploitation of adjacent lands is required. Similarly, the project is an opportunity to improve the mobility of the viticulture's activity within the property, such as communicating isolated bags of land with the rest of the plot, shortening routes, diversifying activities along the plot to promote both the traditional dynamism of the Spanish villages and its contact with nature

In order to promote the ideas previously presented, the objectives of the architectural proposal will be achieved by:

 Placing the wine cellar in the southern edge of the plot, and therefore occupying a bag of



currently unused and not topographically suitable land for cultivation.

- Renovating two of the ruins: one as the manager's accommodation and the other one as a wine shop and visitor centre.
- Preserving the rest of the constructions in the existing state of ruin
- Demolishing one of the sheds and replacing it with a new building comprised of changing-rooms and space for workers.
- Demolishing the shed located at the west of the plot, freeing the necessary space to manoeuvre while loading and unloading goods.

The different degrees of intervention in the existing ruins are given by both the project needs and the analysis of previous studies conducted in this design thesis. The information gathered from local people showed the necessity of intervening in different ways. In addition, as some of the buildings had been in ruins for a long time, a sensible intervention methodology was considered. For instance, conserving some of the existing structures, but not renovating them according to new functions in order

to not alter either the collective perception of the place, or the essence that they have reached over time in this state. By contrast, other buildings requiring restoration works, tolerate renovation and new functions, i.e. despite their deterioration they have held activities until recently. The pre-existing buildings considered neither useful nor valuable are eliminated, nevertheless their traces will remain in the new pavement.

The aim of the whole project and specially the new wine cellar building is to not produce **scale pollution**. This means disproportion in the relationship between the sizes of various architectural elements that shape an urban development, whatever the scale, altering its characteristics.

Aesthetically speaking, the surrounding's retaining walls are a powerful image, this is the reason why the building buries the main floor, where all the industrial activity is developed, to achieve optimum ambient conditions. For instance, with these design decisions, grapes can be introduced into the wine cellar through the upper floor, whilst grape processing and wine production can be

Model of the current status





elaborated with the comfort of a flat surface. Likewise, wine production is stored and prepared for distribution at the same floor level. Another key point of the project is the ramp that connects the south-eastern isolated land of the plot, allowing its communication with the rest of the plot, thus, facilitating the access of machinery to this area and giving unity to the plot. This ramp uses the imagery of a road between walls (predominant in the traditional typology of streets in Galician *aldeas*) to distribute the wine out of the cellar, while making a shaded strip in the topography.

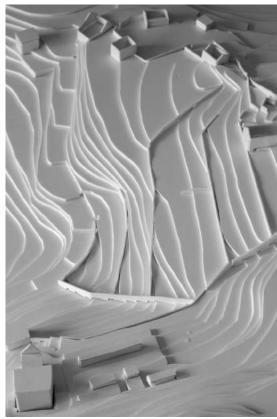
The upper floor constructions are used as entrance points to the building. The wine cellar uses these spaces to organize (i) the feeding of raw material into the process, (ii) the entry of visitors and workers, (iii) the wine tasting room, and (iv) the access to the head of the fermentation tank.

The access to the tanks demands greater heights to collect wine samples and have direct access to the oenological laboratory. These constructions are shaped to create visual funnels toward specific points or scenic

landscape views.

The height of the wine cellar is the minimum needed to allow the habitation comfort. Nevertheless, the current views of the existing ruins are not hidden by the height of the building, as they are higher. The access floor area, that is not occupied by these volumes, is intended to function as a viewpoint to the rural landscape (likewise the church of the parish does). Under the pavement of this viewpoint-level, the water is accumulated in a flooded roof, acting as a reservoir. The water of the flooded roof is uncovered in the perimeter of the building, where the proximity of visitors is to be avoided.

Regarding the design of construction systems, the finishes of the façades are different among the "podium" and the upper volumes despite being solved with the same curtain wall system. Both the half-buried floor and the volume through which the raw material enters, are perceived as one of the traditional retaining walls, i.e. they have irregular-geometry granite slabs with rough finish, performed with a chisel. On the other hand, the rest of the surfaces in the upper floor present 120x80 cm regular slabs with a precise finish at joints and edges.



Regarding the composition of the layouts, the ground floor is influenced by a straight line (parallel to the ramp), creating a longitudinal gallery that facilitates the linear process of handling the grape. The remaining areas hold the complementary industrial processes related to the main gallery, however they are distributed in irregular spaces. This irregular grid and the interior finishing in concrete create a "cave" character, which is directly associated to the natural and artificial caves used as wine cellars in Spain over the past centuries.



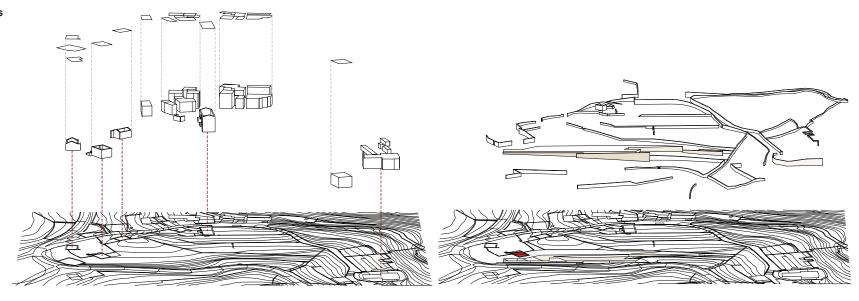




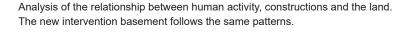


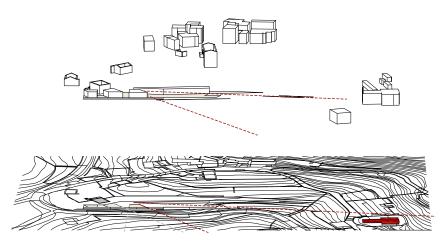
18|19

#### Creative process



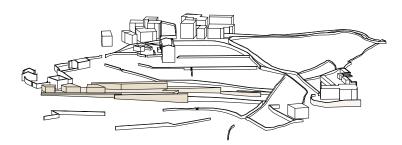
Analysis of the previous buildings' areas and scales.





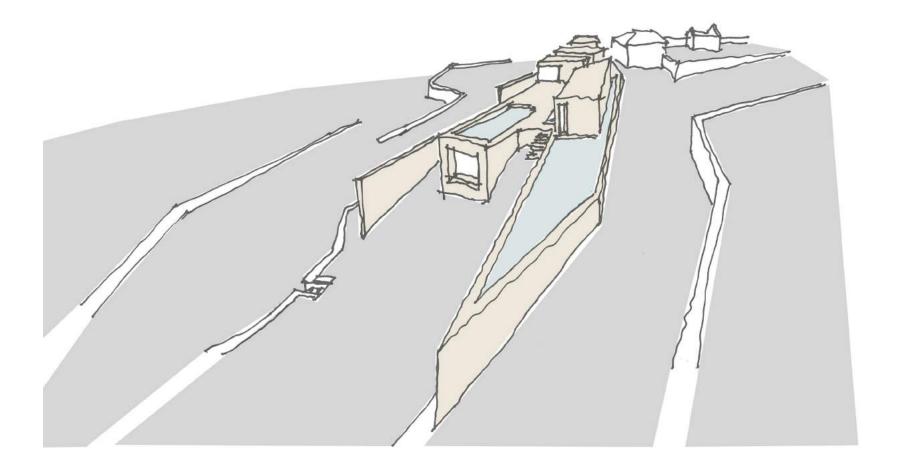
The wine cellar volumes (with presence in the landscape) are risen on a similar scale to traditional buildings in the rural settlement.

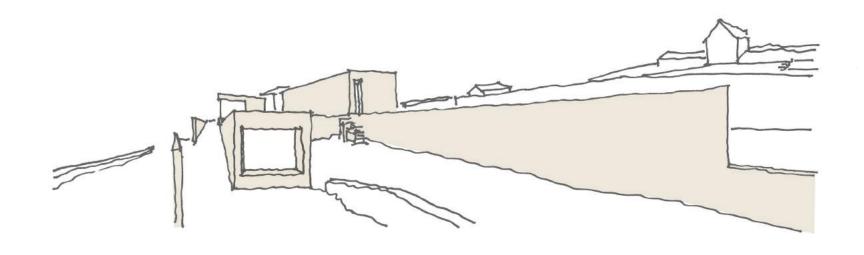
These new volumes are influenced by the landscape views, iconic buildings or urban references and connections.



The achieved outside formal aspect is directly related to the constants that have shaped the buildings and rural environment over the years in the region:

- The retaining walls, necessary to create terraces with less steep surfaces, e.g. the walls of the half buried volume, becoming a stereobate for the architectural pieces on the upper floor.
- 2. The parts with greater presence in the landscape are the result of the extrusion of rectangles, which areas are determined by the arithmetic average of the existing buildings surfaces.

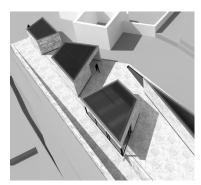




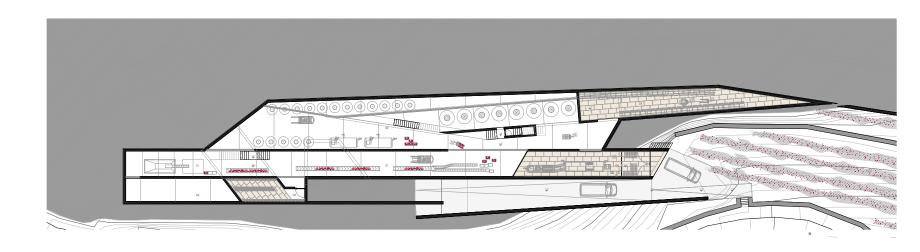








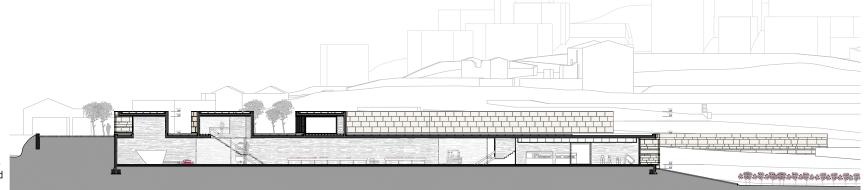
Exterior images





Floor -1

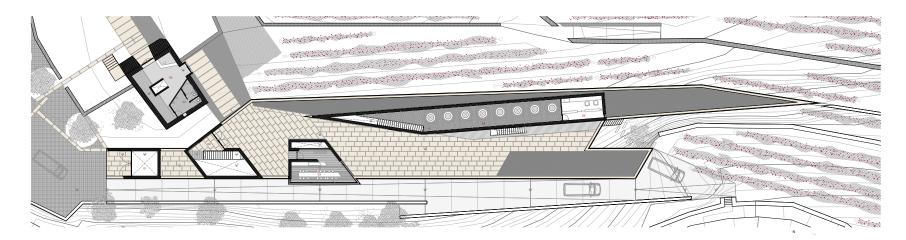
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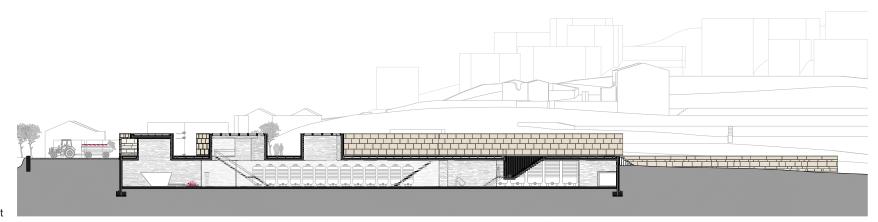
Section: Raw material incoming, packaging line and shipping port.



### North elevation



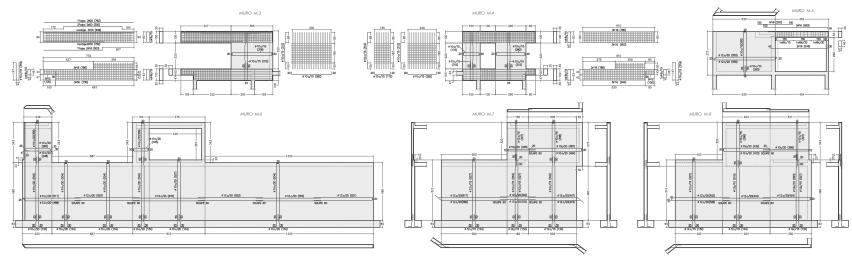




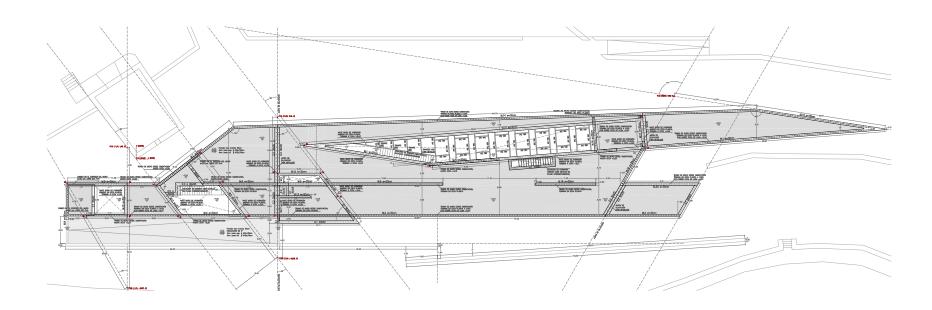
# Wine Cellar construction Structural details

#### Materials:

- Concrete
   HA-25/B/20/IIb
- Steel S275JR and B500S steel bars



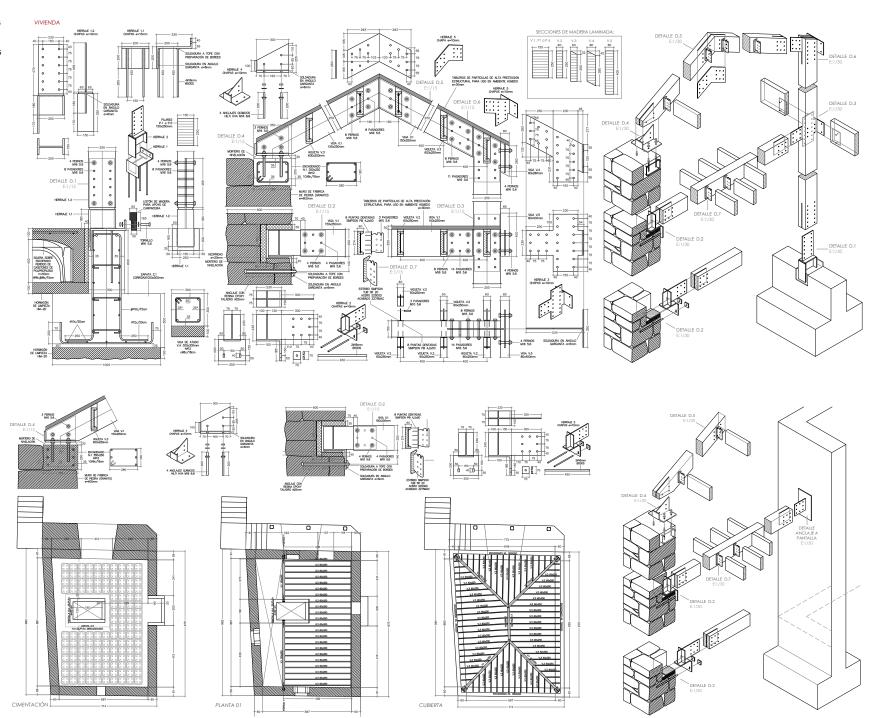


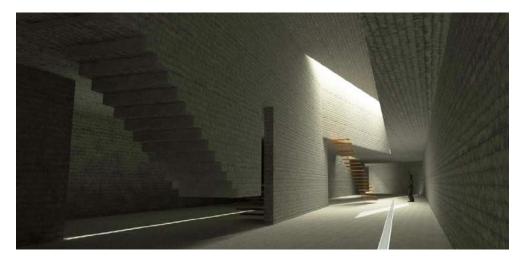


### Ruined buildings renovation Structural details and plans

#### Materials:

- Glued laminated timber GL28h
- Steel S275JR
- Concrete
   HA-25/B/20/IIb







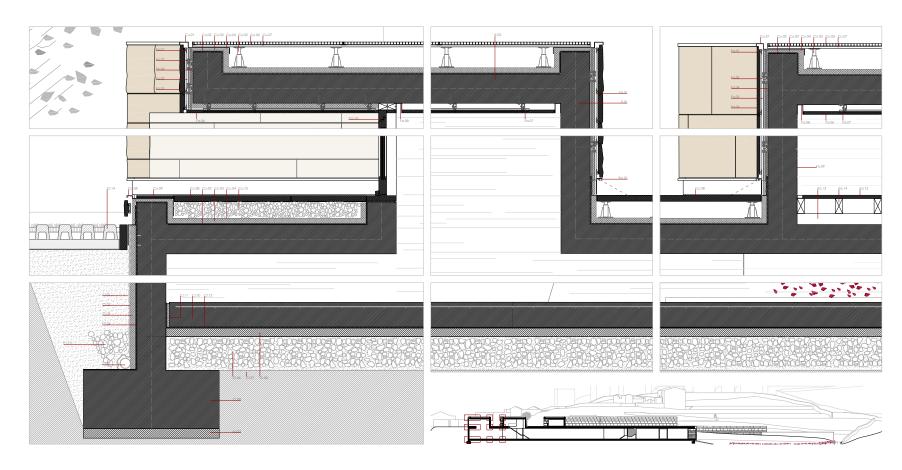






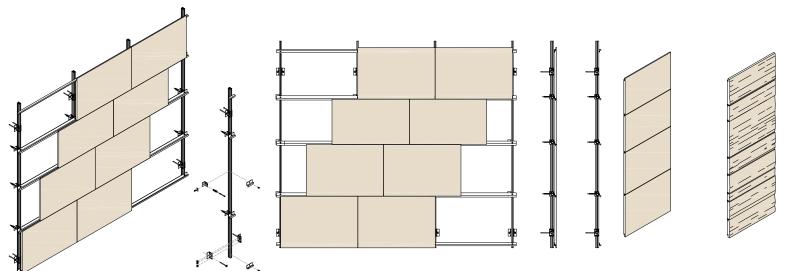
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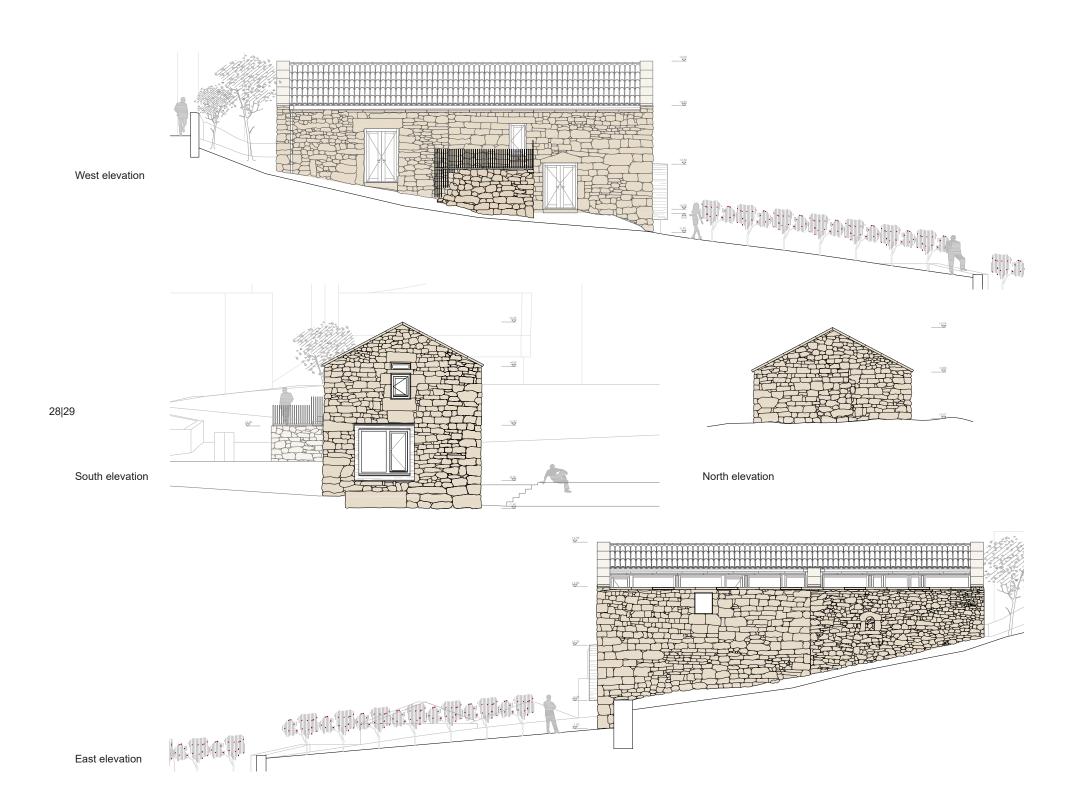
# Wine cellar construction details



## Façades construction system

- Steel sub-structure
- Galician granite pieces, density 2,6g/cm3

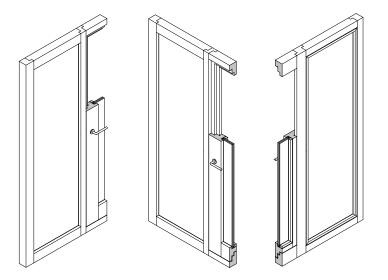


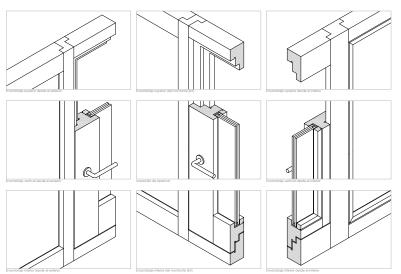


# House retrofit details



# Windows joinery axonometry







# **Professional Experience**

CSA Architecture Office www.cseoane.com





House Renovation Chester Row 9, London, England Project, CSA 2013

Finished, January 2014

The CSA architecture office was commissioned to renovate a house located in a quiet street in London. Additionally, a new family room was designed in the rear courtyard, where the existing extension had to be demolished.

The project included the modification of partitions and openings in existing walls. Thus, CSA architecture worked in collaboration with a local engineering office to design a structural proposal. In addition, our architectural office conducted an economic analysis of the different budgets submitted by the local construction companies, producing a detailed annex with financial information to help the client with the decision making process.

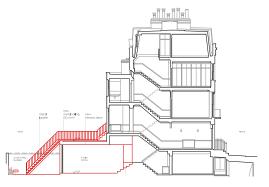
All new elements were designed under the principles of the office, focused on the careful design of construction details, joinery and rhythms according to the mechanical properties of the materials used (British standard bricks, wood and steel).

The design process covered all the project scales, from walls to furniture, as we strongly believe that high quality architecture should take care of every phase of the construction process based on geometrical criteria, building technology and a wise use of the material.

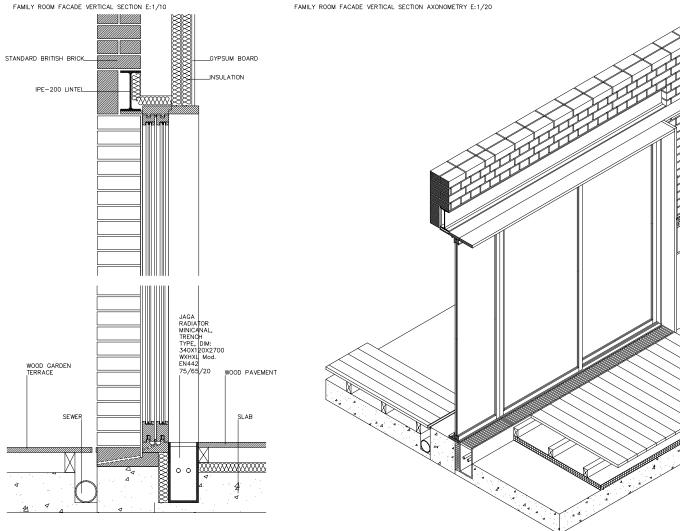








Rear extension detail













Social and Bio-Healthy Leisure Center

Ribeira, Galicia, Spain Project, CSA 2013

Finished, October 2014

This project was developed by CSA arquitectura, to satisfy the City Council of Ribeira requirements.

Some of these programme requirements were related to management activities and public events, e.g. conferences, workshops, meetings or leisure activities. As a result, the building volume was divided into two independent structures. This strategy helped to introduce a new large building into a rural environment.

The detailed construction process led to a smart perception of the building, e.g. the thin cornice. Likewise, the wall, floor and ceiling finishes were carefully detailed to achieve the desired imagery, which is a consequence of the study of the surrounding patterns and palette of materials.

Lastly, reinforced concrete, jatoba wood and natural granite stone were used, to avoid a disruption in the adjacent traditional Galician constructions, whilst achieving a high quality building.

Awarded, XVI COAG prize (2015). Public facilities category.

SUP.UTIL SUP.CONST | Som2 | 108m2 | 55m2 | 62m2 | 108m2 | 25m2 | 29m2 | 15m2 | 18.45m2 | 15m2 | 14.1m2 | 4.4+6.1m2 | 15.3m2 | 2.4m2 | 14.1m2 | 4.4+6.1m2 | 15.3m2 | 2.4m2 | 2.4m2 | 3.6m2 PLAZA DE JUEGO Planta Baja: resumen TOTAL Superficie Vestibulo Exterior Descubierto: 72m2 S. Construido: 646m2



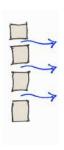


Main entrance



East façade Stonework detail







Jatoba joinery













East and South façades





## **MSc in Sustainable Architecture Studies**

The University of Sheffield

September 2014 - September 2015



University of Sheffield Wood Towers Hounsfield Site, Sheffield, UK.

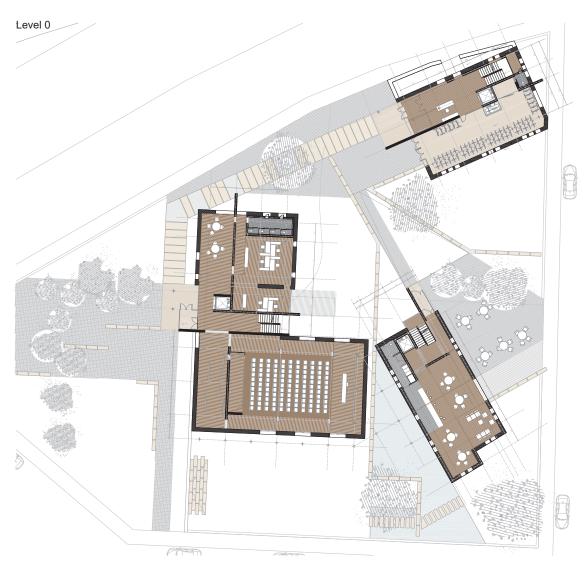
February - June 2015

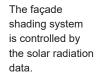
38|39

After a careful study of The University of Sheffield master plan for the next years, the area known as Hounsfield Site draw my attention. Facing an increase in the number of students, the master plan considers a new building to meet the future space requirements in this plot, where four existing buildings are located.

The project's aim is to offer an alternative to the current master plan strategy, which consists in demolishing the whole site. This proposal aspires to re-invent the plot by evolving the four key buildings and therefore, follow an identity-keeping approach to the re-born of the area, facing the future as a metamorphosis of the past. This evolution will take place by extruding the existing buildings' layout. As a result, the final concept is a combination of towers of different heights.

This alternative project is also an opportunity for the university to take a lead in the development of sustainable high rise buildings designed in timber, demonstrating an awareness of climate change issues. At the same time the importance of including environmental simulations at the design stage is key towards low-energy demanding buildings, which must deal with a more extreme and unstable climate in the future.



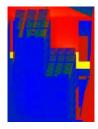




Floor plan. Illuminance simulation







Images,

- 1, 2. North-west
- 3, 5. South-west
- 4, 6. South-east















Urban
Colonization
Structures
Luzern,
Switzerland.

March - May 2015

The University of Sheffield Interactive Urban Skins studio proposed to the students a field trip and a workshop in Switzerland, visiting Basel, Zürich and Luzern. During our field study in Luzern, I realised the great surface of land that the railways occupy in the city centre of Luzern, causing a dramatic urban grid interruption that literally divides one of the most thrilling areas of the city.

Urban Colonization Structures (UCS) is a project designed to consider and experiment the relationship between the city and residual areas, aiming to recover these spaces currently inaccessible for the public.

This situation inspired me to consider how this invisible wall, i.e. the railways perimeter, could be trespassed by the citizens and somehow take advantage of the available space, creating a manifesto:

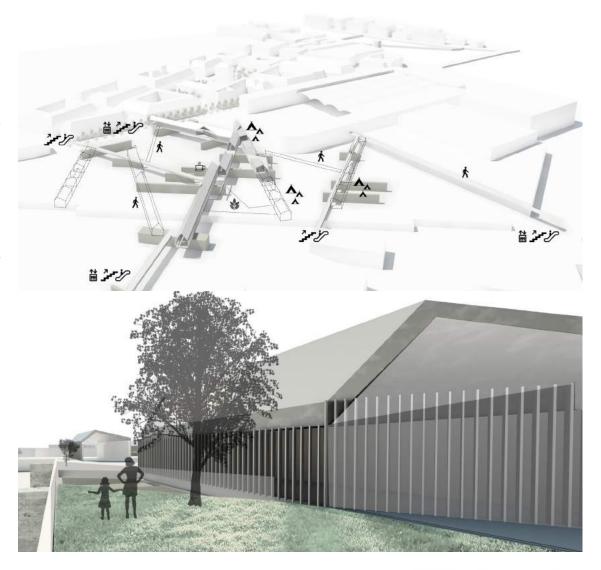
#### CICATRIZATION MANIFESTO

#### When?

- 1. Dramatic urban grid interruption
- 2. Demand for urban services

#### What is the proposal?

- 1. Ephemeral, adaptive and standardised structures.
- 2. Rational organic development.
- 3. Proper transition spaces between the city and the new structures.
- 4. Green areas and food-growing gardens.





40|41

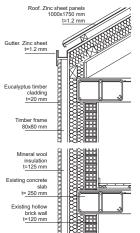


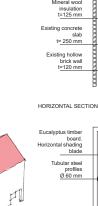
Retrofitting of a 70's dwelling Cee, Galicia, Spain

June - September 2015

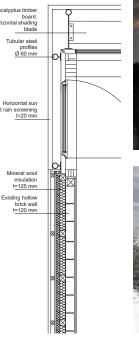
Updating the existing buildings is key towards a sustainable and affordable path. In Spain, 58% of the building stock was built previously to 1980 and therefore, efficiency regulations were not considered during the design process. While we face this reality, in Spain, the current renovation and retrofitting ratio is 19% of the total construction activity versus an average of 42% in the UE or 62% in Germany.

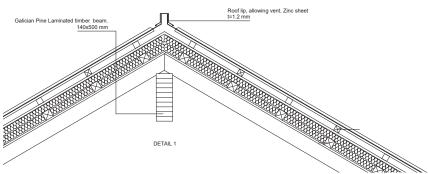
Consequently, as part of my MSc thesis, I developed a design research project based on the insulation of walls and roof, and the recovery of traditional elements from the Galician vernacular architecture (the glazed gallery facing South and the stone wall behind it to store heat from the solar gains) to improve energy efficiency, as well as, thermal and lighting comfort.

















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