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TÍTULO: Estrategias proyectuales de observatorios de la naturaleza en espacios naturales de alto valor paisajístico
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TABLE OF CONTENTS

ABSTRACT

Actualmente, nuestra cultura medioambiental, da por hecho que los espacios naturales deben conservarse como condición indispensable para garantizar la sostenibilidad de nuestro planeta a largo plazo. Por esta razón es evidente que en principio no parece pertinente utilizar los espacios naturales de gran valor como lugar para la arquitectura. Sin embargo, a veces es necesario por razones funcionales imprescindibles y otras porque sirven para reforzar o complementar el valor del lugar ayudando a su conservación, aumentando la valoración y expectativas que, tanto la población local como los visitantes, tienen sobre dicho espacio natural objeto de la intervención. Este último caso, donde el paisaje natural tiene atención de paisaje cultural, es el objeto del presente trabajo.

A través del análisis de diversos casos de estudio de arquitecturas y sus modos de relación con la naturaleza, se obtendrán los mecanismos y estrategias de inserción paisajística de dichos elementos arqui tectónicos y de cómo una arquitectura de calidad puede enriquecer un paisaje para implementarle la condición de lugar. A demás el presente estudio tratará de aplicar las conclusiones a un diseño real, proyectando una torre de observación en La reserva de humedales Al Wathba en Abu Dhabi, en el este de la isla de Abu Dha-bi, en salinas conocidas como sabkhas y dunas de arena fosilizadas, donde actualmente se pretende construir.

PALABRAS CLAVE

Estrategias de integración, desintegración, paisaje natural, lugar, no-lugar, paisaje cultural, identidad social, dialéctica: naturaleza, arquitectura, espacio natural protegido, conciencia ambiental.

ABSTRACT

Currently, our environmental culture assumes that natural spaces must be preserved as an indispensable condition to guarantee the sustainability of our planet in the long term. By This reason is clear that in principle it does not seem relevant to use natural spaces of great value as a place for architecture. However, it is sometimes necessary for unexpected functional reasons needed and others because they serve to reinforce or complement the value or of the place helping its conservation, increasing the valuation and expectations that both the local population and visitors have on said natural space object of the intervention. The latter case, where the natural landscape has attention to cultural landscape, is the object of the present work.

Through the analysis of various case studies of architectures and their modes of relationship with nature, the mechanisms will be obtained we and landscape insertion strategies of these architectural elements tectonics and how a quality architecture can enrich a landscape to implement the condition of place. In addition, the present study will try to apply the conclusions to a actual design, projecting an observation tower in the reserve of Al Wathba wetlands in Abu Dhabi, in the east of the island of Abu Dhabi, in salt lakes known as sabkhas and fossilized sand dunes, where it is currently intended to build.

KEYWORDS

Integration, disintegration, natural landscape, place, strategies non-place, cultural landscape, social identity, dialectic: nature - architecture, protected natural space, environmental awareness.

METHODOLOGY

My work for this project began with a reflection on the ways in which architecture relates to nature of high value in ways both symbiotic and parasitic. Architecture can work within and alongside nature to be unobtrusive and sustainable, or it can work to dominate nature through the wasteful exploitation of natural resources and the implementation of disruptive construction methods and the utilization of harmful materials. It is clear, given the current environmental crisis, that contemporary architects have a particular responsibility to ethically occupy a natural space of great value. After completing a careful analysis of historical nature-"integrated" architecture, I noted that any structure required to account for nature during its construction tends to adopt one of the following methodological approaches: complete integration and immersion within the natural space (often due to necessity or lack of building materials), domination of the natural space as an obstacle, or the purposeful incorporation of nature into or around a structure (without entirely disrupting it) for purposes of protection/comfort. These three methodologies unite in diverse and surprising ways within 20th century architecture to achieve the perfect synthesized approach to construction within a natural setting of high value, while simultaneously achieving an additional purpose: the creation of an observatory.

As my final goal was to arrive at an observatory space set in a location of high natural value, the perfect methodological synthesis of 20th century architecture was my aspirational objective. The flamingo reserve space calls for a project that will be gentle and unobtrusive within its protected natural environment, while still offering visitors an immersive and meaningful experience of the high value nature that surrounds its proposed structure. It quickly became clear to me after a preliminary analysis of the location that the site's water—both as an obstacle to construction and as a key component of the high value natural setting—would determine the kind of structure most competitors and myself would develop. While many would find a bridge-like structure to be the obvious choice for such a setting (and while I personally find this to be the most compelling direction for the project) I wished to justify any design decisions I might make using pre-identified qualities extracted from architecture that I found to be either exemplary or cautionary in its integration with nature. Such a sample project would be considered exemplary based on its ability to synthesize elements of the three aforementioned approaches to achieve a sustainable and unobtrusive structure both complementary to and at one with nature. Such a project would be considered cautionary based on its partial or complete failure to achieve the former. I therefore returned to the 20th century as the origin of the kinds of structures I would look to for inspiration, and followed the development of these standard examples into the 21st century so as to extract the contemporary methods of design and construction that might prove essential for my own project.

Through a close study of the structure, materials, function, shape, and the inside-outside relationship of each of my ten chosen 21st century examples, I have identified the key elements I believe are necessary for any observatory structure that might be built within a natural setting of high value. Depending on the location, these key elements can be selected and combined to adapt a project to its natural environment in such a way so as to maximize the elegance of the building while achieving its integration with the natural setting in as seamless and ethical a manner as possible.

HISTORICAL BACKGROUND

LIVING IN NATURE

We are going to analyze the evolution of architecture in relationship with nature. To do so, we will start with the methods in which humans used to take nature and with whatever means they had at their disposal would alter the materials and the topography to create inhabitable spaces inside and around nature itself.

Inside of this category we are going to talk about the Ksar Morocco which will deal with the materiality of earth and mud as their main medium. The Rock houses of Capadoccia in Turkey which will be the interaction with rock and the Cliff Palace in Colorado in the United States of America with again mostly earth and mud as their materials.

Ksar

"Located in the foothills on the southern slopes of the High Atlas in the Province of Ouarzazate, the site of Ait-Ben-Haddou is the most famous ksar in the Ounila Valley. The Ksar of Aït-Ben-Haddou is a striking example of southern Moroccan architecture. The ksar is a mainly collective grouping of dwellings. Inside the defensive walls which are reinforced by angle towers and pierced with a baffle gate, houses crowd together - some modest, others resembling small urban castles with their high angle towers and upper sections decorated with motifs in clay brick - but there are also buildings and community areas. It is an extraordinary ensemble of buildings offering a complete panorama of pre-Saharan earthen construction techniques. The oldest constructions do not appear to be earlier than the 17th century, although their structure and technique were propagated from a very early period in the valleys of southern Morocco. The site was also one of the many trading posts on the commercial route linking ancient Sudan to Marrakesh by the Dra Valley and the Tizi-n'Telouet Pass. Architecturally, the living quarters form a compact grouping, closed and suspended. The community areas of the ksar include a mosque, a public square, grain threshing areas outside the ramparts, a fortification and a loft at the top of the village, an caravanserai, two cemeteries (Muslim and Jewish) and the Sanctuary of the Saint Sidi Ali or Amer. The Ksar of Ait- Ben-Haddou is a perfect synthesis of earthen architecture of the pre-Saharan regions of Morocco." [1]

Fig. 1 - The clay made city using the topography as a base and surrounded by the walls

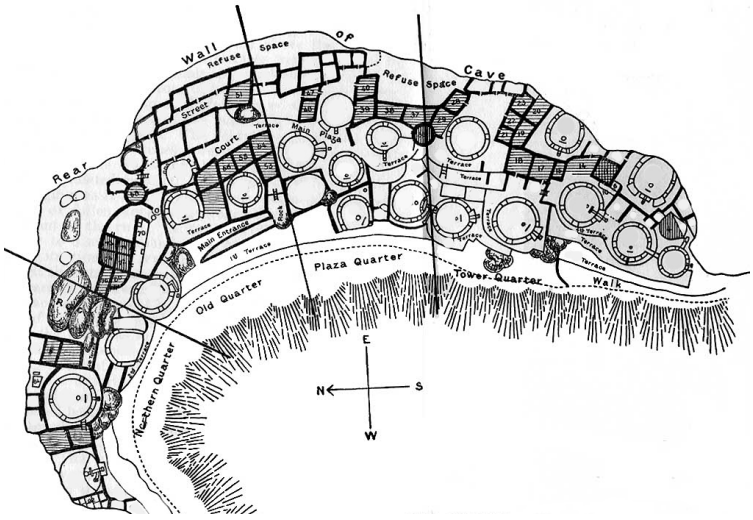
1-Ait Ben Haddou: The Story of a Fortress. (2017, October 31). Retrieved from https://friendlymorocco.com/attractive-places/ait-ben-haddou-the-story-of-a-fortress/.

This is a very interesting example since it will also include something we will talk about later, which is the interaction with nature for defense. The ksar would be always be within the limits of a defensive wall and usually built upon the foothill of a mountain. In this case the mountain and the architecture become one, since one feeds the materials for the constructions. This type of edifications are very vulnerable to degenerate with time so it needs to be in constant care, thats why those which were abandoned and not taken care of relatively fast after that have degraded rapidly.

They are usually located next to a body of water in order to both use it as a source of drinking and to be mixed with the dirts in order to create the material for building. The whole entity of the ksar is then a very organically generated place in which the same earth where it sits its the materials that creates the architecture. The cycle of fabrication and degradation its all then a very natural process.

Fig. 2 - Deatil of one of the towers and the ornamentation made of clay

Cliff Palace



(fig 3) - Plan Drawing of the Cliff Palace structure

"Cliff Palace, Colorado, is the largest cliff dwelling in North America. It had about 100 residents at the height of its use in the 1200s.

Cliff Palace was built by Ancestral Puebloans, sometimes called the Anasazi. Ancestral Puebloans were native to the Four Corners region, where the U.S. states of Utah, Colorado, New Mexico, and Arizona neatly intersect.

The 150 rooms of Cliff Palace were constructed out of natural sandstone, wooden beams, and mortar. The mortar was made of soil, water, and ash. Tiny pieces of stone called chinking are also embedded in the mortar, to strengthen construction." [1]

Fig. 4 - The Cliff Palace settles under Mesa Verde to protect from snow and sun.

1-Mesa Verde cliff dwellings. (August, 2015). Retrieved from https://www.khanacademy.org/humanities/ap-art-history/indigenous-americas/a/mesa-verde-cliff-dwellings.

This I similar to the example before studied of the ksar in morocco although the construction technique is a little more elaborated, the material used was a mix of clay, water with other elements to help it be more structurally sounds making it stand in better conditions for longer. As Colorado Is a place with extreme whether. The pueblos probably chose the place as a natural protection against the smoldering temperatures of the summer and the cold winds and snow of the winters.

The used all they had around as materials for construction or natural defense, made the most of the climate they were in and used it in their favor to create this town. Some of the dwelling were up to four sorties height reaching all the way up to the rock above them. They organized themselves around kivas, which were circular subterranean rooms.

They most likely settled here for the protection against the elements but it was then later abandoned less then a hundred years after. The reason why its still unclear although could have been due to a drought, lack of resources or violence. Whatever the case might be this is a great example of how a community carved their whole existence into the rock and created architecture around nature thanks to nature.

Fig. 5 - Close up of the kivas the the structures around them.

Capadoccia

"In ancient Cappadocia, now part of modern day Turkey, the people who lived there dug incredible, honeycomb-esque cities into the soft rock—underground complexes that could go stories deep. Today, remnants of these underground hives are scattered through the region, and the most recently discovered of these ruins are also some of the most impressive. In 2012, a crew of demolition workers inadvertently uncovered a network of tunnels near Neveshir, Turkey, and now that archaeologists have given this find a deeper look, they think it could turn out to be the most extensive underground city ever known. " [1]

If we take for example the subterranean city of Derinkuyu, the communities there used the soft rock as the main material for construction, but instead of building with it they built by removing it, therefore digging into the rocks and creating this very complex net of labyrinth underground, going down many stories. This places were big enough to at its peak even house as many as 20000 people, there were as complex as to develop different typologies within the excavation, using just the removal of matter as the technique this ancient community created kitchens, wineries, chapels and staircases. Some of them running as deep as 371 feet. And since they were all built using rock as the main "material" some of this formations date back 5000 years

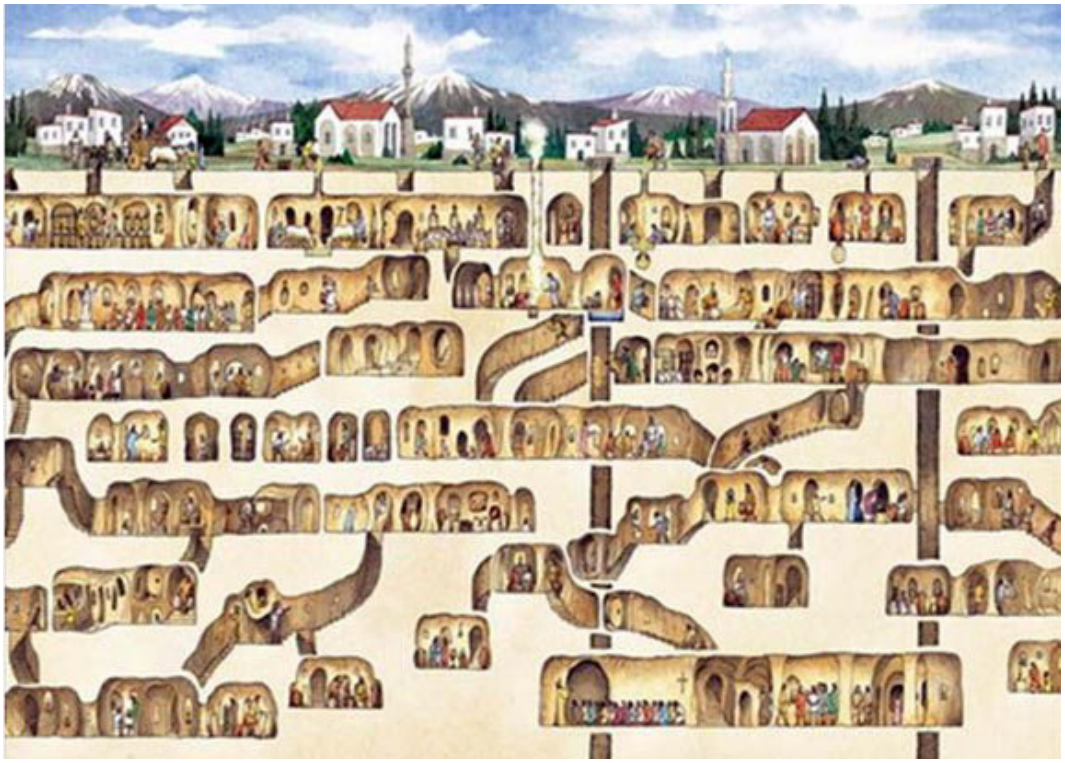


Fig.6 - A section drawing of the subterranean city of Derinkuyu

1-Centre, U.N.E.S.C.O. W.H. (2017). Göreme National Park and the Rock Sites of Cappadocia. Retrieved from http://whc.unesco.org/en/list/357.

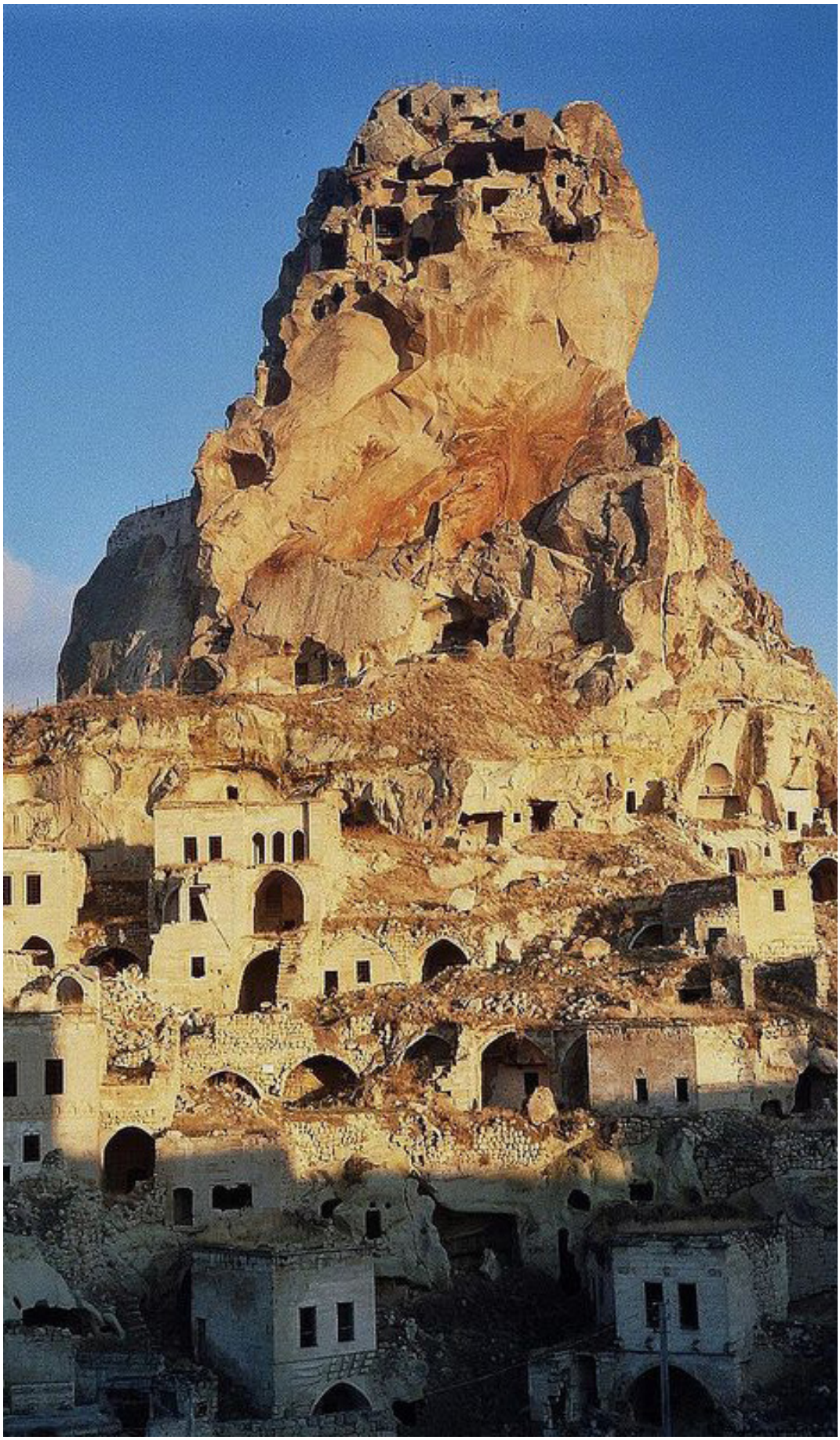


Fig. 7 - Constructions in the stone.. Ortahisar Castle and town,.

CONQUERING NATURE. PLACE-MAKING

Sometimes nature was used to build within and as a material resource in the construction, but as the communities grew and needed to search for resources or new places to settle, sometimes nature became an obstacle that needed to be overcome. That is when nature becomes something we need to cross or go under, and then is when the need to bridge the gap between two places that the construction of bridges occurred. Some of the ones here studied are those that have a double use, a bridge that create social exchange or economical. So both overcomes nature and creates community.

Chengyang bridge: 1912

This is a more traditional example of inhabited bridge, erected between several small villages in the rural parts of china. This structure is a kind known as a wind and rain bridge, built in 1912 it spans across 65 meters and it has two symmetrical platforms on either side. Although the reason why this structure is so interesting is the usage of a beam structure to hold the major load of the bridge. The building that sets on this structure is up to three floors in some parts of it.

Materials came from the different forest around the towns that it linked making the bridge match the colors of the area and integrating with its surroundings

Fig. 8 - Chengyang bridge façade showing the search for beauty and cultural identity

The Covered Bridge 1874

Located in the town of Lovech, Bulgaria. It crosses the Osam River, it becomes a link between the old and the new parts of the town. This bridge was built by the community, the poorest ones work themselves on the bridge construction and the wealthier ones providing with money or paying to provide workers for the construction, making the bridge an icon for the town that everyone would feel proud about.

The original, destroyed in a fire, had 64 shops. The one currently there is 106 long and hosts only 14 stores.

The construction was made with local materials all selected by the architect. It retains a local look due to the locally sourced materials. The background of the bridge is a mountain with trees and very rocky formations. The rocky mountain matches the structural supporting the bridge and the woods match the look of the wood structure

The new structure after the fire uses metal beam to support the bridge, this allowing for longer spans than the original one that had 6 different arches, This new structure makes the impact with the river under a lot smaller, going from seven support points to only two. New construction methods and techniques allow to create less invasive setting. Making architecture and nature collaborate better.

Fig. 9 - Image of the newest covered bridge, with metal beam support.

USING NATURE FOR DEFENSE

The previous examples dealt with either how to make nature your livable environment and use it for building and protection from element or examples that tried to overcome nature for their need to move from place to place, overcoming river, valleys or other topographic obstacles.

Now we will study how to use nature just as a standpoint for defense, positioning themselves in a way that the access can only be done in certain ways.

St Lawrence

The people from Dubrovnik finished building this fort rapidly due to the news of the Venetians trying to come to conquer them. Such was the importance of the fort that once finished it made it impossible for the Venetians to conquer them. They tried many times and every one of them, as soon as the canons from the fortress started firing they had to retreat, showing how important the decision to set the castle up in a rough nature point would help their defense.

They architecture is very sturdy and solid towards the sea with walls as thick as 12m, capable of resisting almost anything, Toward the city the walls are much smaller in case they needed to be blown for defensive purposes, averaging 60 cm thick.

This shows how nature was used as a magnificent tactic for defense, and when working together, could become a deadly force.

Fig. 10 - Saint Lawrence Fortress upon the rocky formation for defense

Great Wall of China

The construction materials of the Great Wall of China were mainly earth, wood, stones, sand, and bricks, used depending on construction era and construction site with different climate and local materials.

The construction of the long wall fortress was set atop very rugged topography to difficult any attempts of attacks from their enemies. As per usual in this types of architectures, those areas neglected with time has been taken over by nature as the materials used to build them belonged to it. Not it looks as if the ruins and nature have become one in some parts, having been reclaimed by the trees and the vegetation.

Lots of materials were required to construct the wall, that why the resources were usually found locally. When they built over the mountain range, the same rocks around the area were the ones used. When building in the plains, earth rammed into solid blocks was the method of construction. In the deserts, sand with branches were used.

When the technique for the brick was improves some parts of the wall were able to use them, but it was still more affordable and easier to use whatever techniques were available around the area. Thats why the bricks were use sometimes only for the exterior face using the local techniques for the interior of the wall

Fig. 11 - Adaptation of the defense structure to the mountain

Fig. 12 - Degradation when nature takes over

20th CENTURY MASTERS

Retreat, natural enjoyment, escape from the city

Falling Water
Frank Lloyd Wright

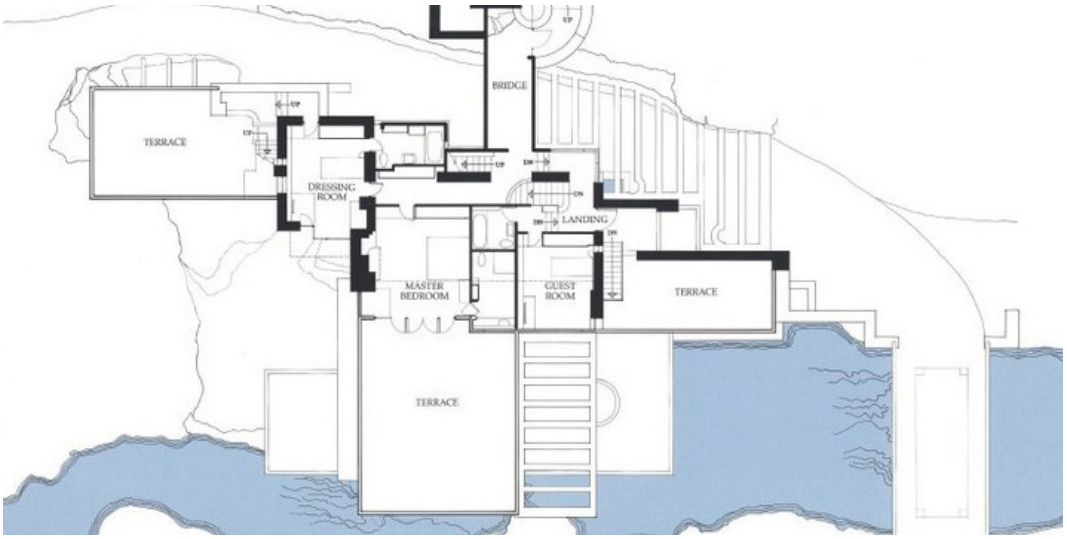


Fig. 13 - Plan of floor one of Fallingwater

"Fallingwater is a great blessing - one of the great blessings to be experienced here on earth, I think nothing yet ever equalled the coordination, sympathetic expression of the great principle of repose where forest and stream and rock and all the elements of structure are combined so quietly that really you listen not to any noise whatsoever although the music of the stream is there. But you listen to Fallingwater the way you listen to the quiet of the country..." [1]

"In Fallingwater Wright captured the perfect essence of our desire to live with nature, to dwell in a forested place and be at home in the natural world." [2]

Fig. 14 - Fallingwater seen through the forest

1 - Frank Lloyd Wright .Talk to the Taliesin Fellowship, May 1, 1955
2 - Edgar Kaufmann, jr.

Frank Lloyd Wright designed with project in 1935, the client was a friend of his, Edgar Kaufman. It took three years to complete.

He was commissioned to do a project that faced the waterfall but when he visited the site and spotted the area he decided to build in the rocks next to the waterfall and have the house´s three floor cantilever over it. The front of the building works in relationship with the waterfall as the back works with the wooden valley.

The kitchen space was even extended out over the torrent in order to allow for a meeting space to socialize in.

As we have seen in some of the historical examples. Wirght extracted references from the natural topography of the site as well as materials. He used locally sourced sandstone for the body of the house. He also ensured that the palette of colors used for the rest of the elements would be limited to those that would help it blend with the topography.

Concrete was made in an ochre tone, the metals were painted red to match the color of the trees. He presented an example of “organic architecture” in which he searched for the harmony between design and nature.

There are also elements of nature that transpire into the house like a staircase that leads down to the river edge. There was also a little stream that was allowed to drip through the house. Rocks also went into the living room to help create the fireplace at its center

Fig. 15 - Fallingwater interiors reminiscent of nature.

Casa Malaparte

Malaparte + Libera

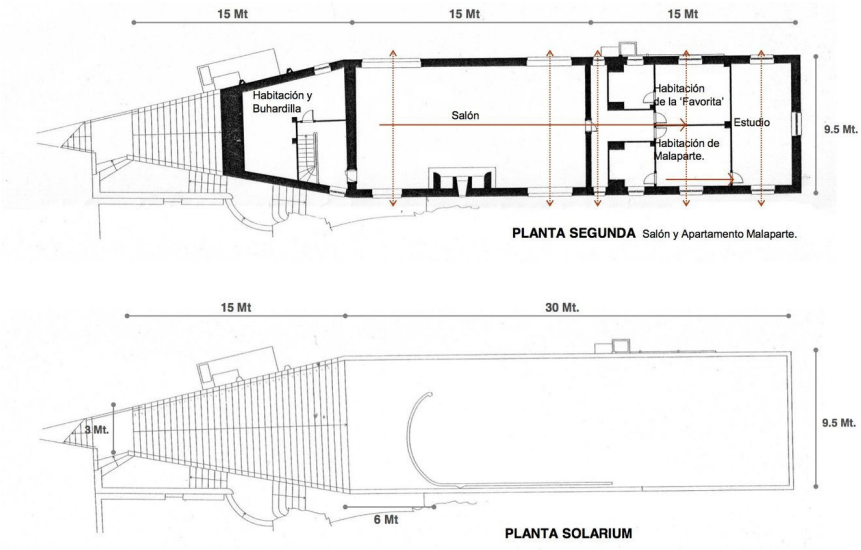


Fig. 16 - Plans of the house Malaparte

"A view over the 'faraglioni', the white grotto and the natural arch, which could be reached only on foot or by sea, very far from the city center. […] From downtown Capri, you reach the Malaparte estate through a pine forest; to get to the villa you need another ten minutes, along a little road that was built exclusively for that purpose; a steep staircase leads to a very private beach, much lower than the house, while a staircase that takes up an entire side of the villa leads to the roof terrace; on the ground floor are the (four) guest bedrooms and the servants' quarters. On the upper floor, after the hall, there are Malaparte's bedroom and the one he decided to name – inspired by D'Annunzio, and making it official with a plate – 'room of the favorita'"

Fig. 17 - Casa Malaparte atop the rocks in front of the ocean

1 - AD Classics: Villa Malaparte/Adalberto Libera. (2016, January 4). Retrieved from https://www.archdaily.com/777627/architecture-classics-villa-malaparte-adalberto-libera.

Villa Malaparte is located in Capri, Italy. It is one of the gems of the Italian rationalism. It was started as a concept in the 1930s and finished in 1943. There is not a consensus about who built it some saying the owner, the writer Malaparte himself who designed it and other attributing to Adalberto Libera.

The house is built 32 meter above the water in a cliff on the Gulf of Salerno. Its access can only be made by foot or boat. This isolated character is achieved thanks to the roughness of the topography around, succeeding in giving the property the character of isolation and introspection that the owner seeked after.

> *"Now I live on an island, in an austere and melancholy house, which I built myself on a lonely cliff above the sea. [It is] the image of my desire."*

The materiality for building the house was extracted from the site itself. Although the project does not try to hide itself in the topography, the colors used in the facade and the textures are in contrast with those of the cliff making it very recognizable.

Its interaction with nature is volumetrically and visually, it adapts its entrances and its geometry to the cliff, creating an inverted pyramid like stair that leads to the roof, a staircase to infinity as Malaparte wanted, it leads you to enjoy the horizon. Also it relates to nature through the windows, always reminding you of your position in relationship to the ocean, your height and your inaccessibility.

It is a project that interacts with nature in a very profound and solitary way. Making nature seem both very close and yet very distant.

Fig. 18 - Casa Malaparte as seen from the boats passing by.

1 - Words by Curzio Malaparte.

Casa Farnsworth
Mies van der Rohe

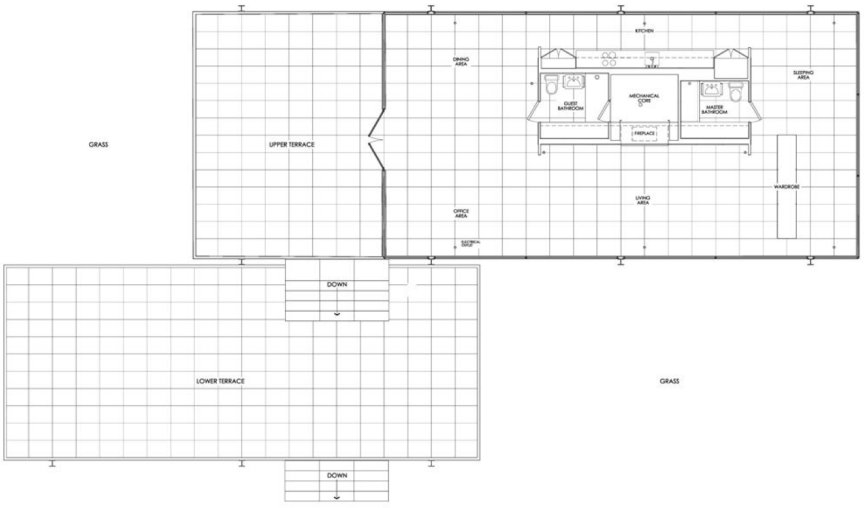


Fig. 19 - Farnsworth house plans

"No one knows what it is like to live in a glass house," [1]

"Mies talks about 'free space': but his space is very fixed . . . any arrangement of furniture becomes a major problem because the house is transparent, like an X-ray." [2]

"glass cage on stilts." [3]

"The truth is that in this house with its four walls of glass I feel like a prowling animal, always on the alert." [4]

Fig. 20 - The colors of the architecture blend with the landscape after the snow

1,2,3,4 - Friedman, Alice T, "People Who Live in Glass Houses: Edith Farnsworth, Ludwig Mies van der Rohe, and Philip Johnson." in Women and the Making of the Modern House: A Social and Architectural History, ed. Diana Murphy. (New York: Abrams), 1998. Found in Joseph A. Barry, "Report on the Battle Between Good and Bad Modern Houses," in House Beautiful 95 (May 1953), 172–73, 266–72; quotation is on p. 270.

Mean to be a getaway house in a wooden location in Plano, Illinois. Mies always believed in the importance of nature in relationship with architecture

> *"...we should attempt to bring nature, houses, and human beings together into a higher unity."* [1]

The white finished paint and the glass was chosen to create the least contrast in nature, being able to be see through and let the nature flow under and through the house visually, almost as if it wa floating. This, although a great premise, led to a lot of problems when it came living within.

The lack of ventilation made it very uncomfortable, making some areas of the house very hot while other too cool, the house although with the premise of being very flexible, had no real possibility of function interchange. Also it was very hard to furnish or decorate since all the walls were glass.

So although the relationship with nature is well thought out, other aspects of it as wind flow, sun protection or intimacy were poorly achieved, which made it very uncomfortable to inhabit.

This brought to my attention how something can work with nature in some ways but be completely negligent in other, as it is in this case, in which shape and materiality are very well resolved but other aspects such as how to work with the sun paths or the wind flows are completely misused and it turns against the overall experience of the architecture.

In this case the integration with nature in a visual aspect is extremely well done but the experience as a user is not enjoyable.

Fig. 21- The neutrality of the material palette help the project stay integrated in the landscape

1 - Quote by Mies in an interview

INHABITING NATURE
Vernacular examples of adaptation in nature

CONQUERING NATURE
Solving connection problems, placemaking.

NATURE AS DEFENSE
Topography and materiality as defense

20th - Current
Retreat, natural enjoyment, cultural enrichment

CONTEMPORARY NATURE OBSERVATORY

We will analyze and study this projects through the comparison of 5 main points across the projects, so we can them come to conclusions that we could use to take decisions in the design of our project.

The criteria for selecting the following projects were based on structures that spanned over natural setting of high value.

MATERIALS
STRUCTURE
RELATIONSHIP INSIDE OUTSIDE
SHAPE
FUNCTION

1. KISTEFOS MUSEUM

Location: Jevnaker, Norway
Client: Kistefos Museum
Area: 1000 m²
Office: Bjarke Ingels Group

2. BRIDGE HOUSE

Location: Huntsville, Canada
Client: Family
Area: 230 m²
Office: Llama Urban Design

3. EYSTUR TOWN HALL

Location: Norðragøta,
Client: Eysturkommuna
Area: 750 m²
Office: Henning Larsen

4. MAX BRIDGE HOUSE

Location: Adelaide, Australia
Client: Particular
Area: 110 m²
Office: Max Pritchard Architect

5. GALLERY OF YUSUHARA

Location: Kochi Prefecture
Client: Cultural
Area: 4736.47 m²
Office: Kengo Kuma Architects

6. TRUFFLE HOUSE

Location: Spain
Client: Hotel
Area: 60 m²
Office: Ensamble

7. WOODEN HOUSE

Location: Kumamoto, Japan
Client: Residential
Area: 15 m²
Office: Fujimoto

8. UNDER RESTAURANT

Location: Sweden
Client: Restaurant
Area: 1500 m²
Office: Snohetta

9. LOOKOUT

Location: Scotland
Client: Installation
Area: 20 m²
Office: Angus Ritchie, Daniel Tyler

10. NARROW CONCRETE HOUSE

Location: Chile's Coliumo Peninsula
Client: Residential
Area: 65 m²
Office: Pezo von Ellichshausen

KISTOFOSS MUSEUM

BJARKE INGELS GROUP (BIG)

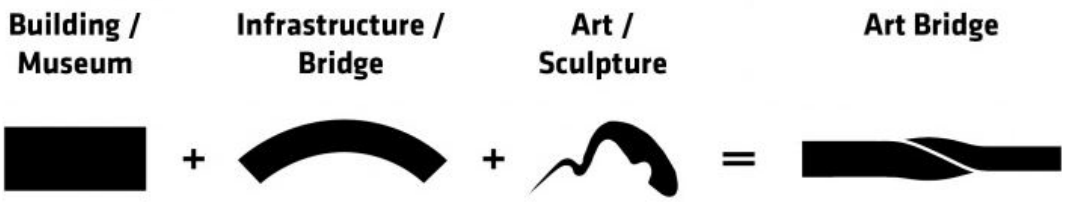


Fig. 22 - Diagrams of the ideas that drive and inform the design. By BIG

This project spans over the winding Randselva river in Norway. Being the link to the two sides of the sculpture park it sets in. Twisting like a deck of cards, the building achieves to link both sides while changing height, accommodating all the program and landing at the right height needed by the topography.

This museum becomes more than just an addition, it becomes part of the path around the sculpture park. Both ends of the building differ in size and scale, allowing it to characterize the programs inside.

This is a case in which an inhabited bridge becomes a center element of the culture of a place, enhancing the experience of the sculpture park and attracting visitors to enjoy the forest and the old mill from a new unavailable point than before.

This new piece of architecture in the forest of Opaland will allow to the enjoyment of the forest while visiting the exhibition or just going through the bridge.

Fig. 23 Kistofoss Museum seen in the fog. Designed by BIG

STRUCTURE

The structure spans over the river unsupported in the center. Only both extremes have a footing made of big concrete mass that supports the end of a truss-shaped structure that goes along the facades, twists and continues all continuous movement. This structure is all along the perimeter , leaving the space completely free of any structural elements allowing the museum to dispose of the space uninterrupted for display.

The structure only touches at the ends leaving the pass of the river unaltered.

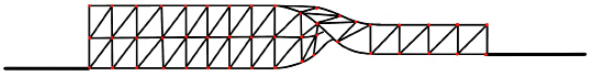


Fig. 24 Diagram of the structure

MATERIALS

The whole facade is only 2 materials, stainless steel and glass. The glass only appears in a small section of the project where the views will point towards the all mill and the rest of the sculpture park. The rest of the building is cladded in stainless steel in rectangle sections that twist to create that central transition as well as it allows the building to adapt to the topography.

This materials do not seek to blend with the environment but to offer a big contrast to it making the building stand out clearly from the surroundings. Clearly recognizable through the forest.

Fig.25 Overall view of the integration of the museum/bridge/observatory within the natural setting

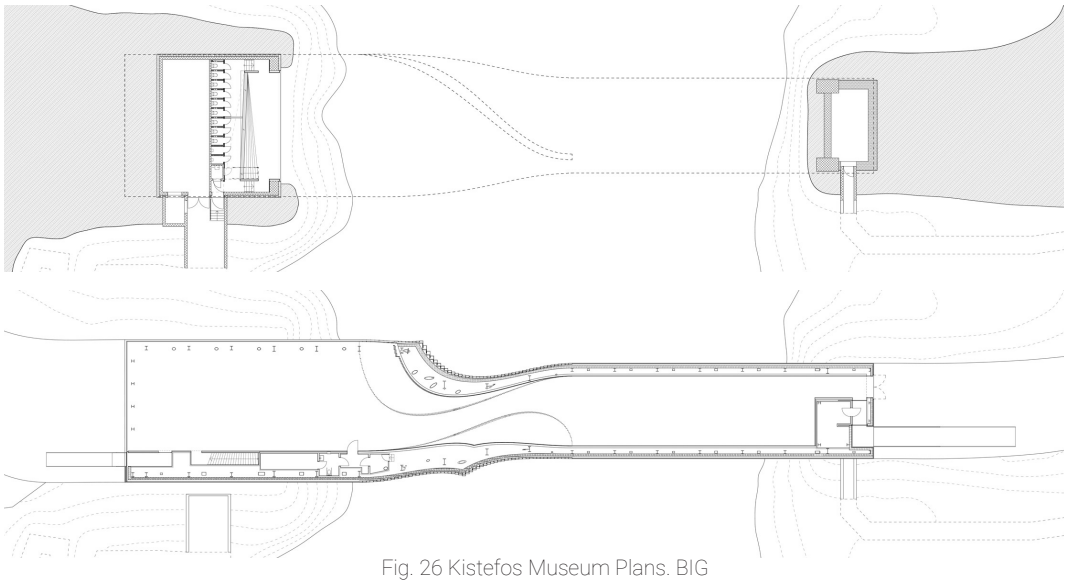


Fig. 26 Kistefos Museum Plans. BIG

SHAPE

Condition by the topography and searching the views towards the rest of the park, the decided to unify the whole project in one simple transitional movement. They made the lowest point in the topography a much higher ceiling height in the project while keeping the taller topographic entrance a simple height space. They join those spaces through a twist in the center to allow for a seamless continuity space that would help the experience of the museum.

The glass wraps around the facade where the views to the park and the mill want to be accentuated keeping the rest cladded for the museum areas that need more privacy

Fig. 27 Kistofoss Museumat night. BIG

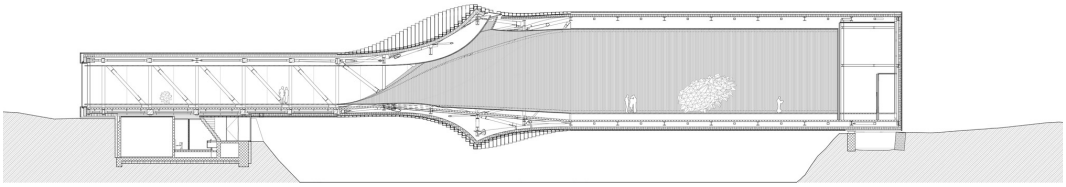


Fig. 28 Kstefos Museum Section. BIG

FUNCTION

The project works as three different functions; museum, bridge and nature observatory

RELATIONSHIP INSIDE OUTSIDE

The relationship here to the outside is done in the area of the museum that offers the best view to the outside, being this very focused, aimed and concrete. Does not have cross view to both sides. Almost the rest of the project closes towards the inside in an attempt of allowing the space to be more private.

In this case the wall can be used for the exhibitions or future shows, thats why the use of glass in the facade is very controlled to be used in the areas that its most needed, not just as an overall facade solution to enhance nature cross-views. This museum controls the space in gradients of transparency, going from the single story space very light, open to the outside and in touch with nature to the opposite side of the bridge where it is completely closed up.

Fig. 29 View from the inside of the smaller space looking out towards the mill

BRIDGE HOUSE

LLAMA URBAN DESIGN

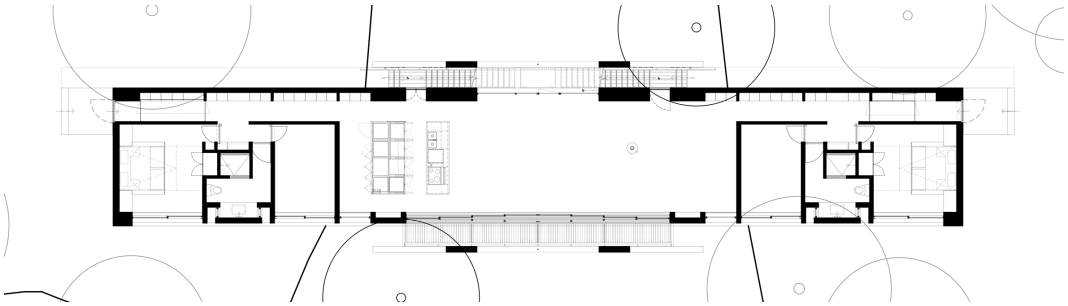


Fig. 30 Plan Drawing. Llama Urban Design

This project is located north of the city of Toronto, on the shores of Mary Lake in Porto Sydney, Ontario. It is situated over a ravine, between two large maple trees. The whole projects sits across the ravine creating a bridge that links both ends, creating a 38 meter long line where the project sits.

People in the house walk over and across the ravine. Also if walking under through it would act as a portico that signals the way towards the lake.

The need of being elevated is due to the levels of the water rising some times of the year, this way protecting the integrity of the project and allowing it to be used all throughout the year.

Fig. 31 Footings to the side. Llama Urban Design

SHAPE

The building shape is dictated by the need of spanning across the distance from both ends of the slope. This creates a 38 meters long platform in which the house sits.

The V-shapes in the facades serve as a double function, being the main structure that articulates the project and also being the support for the stairs that allow the access to the roof of the house. This connects the interior social spaces of the home with the roof deck

MATERIALS

The main material used in the project is wood. All locally sourced to help it integrate it in the surroundings. This project seeks to camouflage itself in its environment. Using for the exterior cladding unstained cedar siding running horizontally, this way it accentuates the shape and directionality of the proposal.

In the interior again the main material used is wood. Large panels of maple plywood. Bringing the interior of the spaces in unison with the exterior, the light, the tree ever changing shadows, all of it becomes one .

Fig. 32 Bridge House seen through nature. Llama Urban Design

STRUCTURE

This is a house spanning over 38 m through the ravine. The foundations are set a both ends and an inverted V-shaped glulam tied with cross beams is the main part of the structure. This V glulam will be supporting the exterior stairs going to the roof deck.

From this a beam hangs to allow a central support without having to have any structure go down to the ravine floor, therefore keeping all the space under the house free from any structure.

Then the floor is supported by the extreme foundation, the beginning of the V glulam and the hanging beam, reducing the maximum span of any of the elements to maximum 7 meters, being this a very adequate span.

The structure is then braced by glass and wood all around to allow maximum cross view possible while the wood allows to blend into nature.

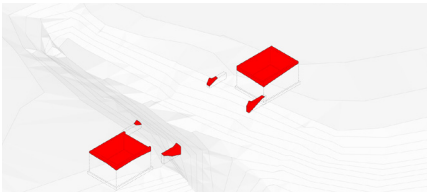


Fig. 33a Footings

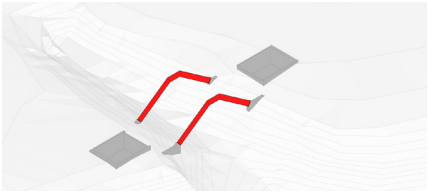


Fig. 33b Inverted V

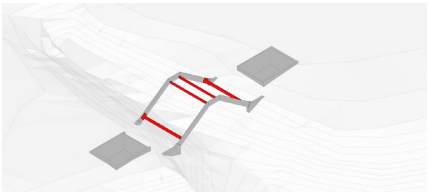


Fig. 33c Cross bracing

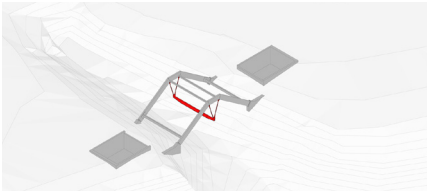


Fig. 33d Hanging beam

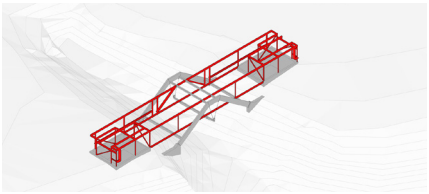


Fig. 33e Skeleton frame

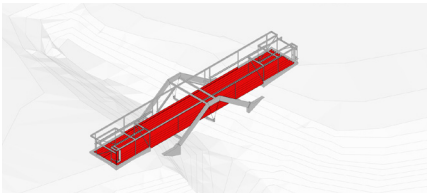


Fig. 33f Floor slab

FUNCTION

This project although a residential project also serves as a nature observatory from the roof deck or even from the glass cladded interior.

The whole house is organized in order to maximize nature visuals and to bring inside the nature into the house, so much so that the limit of house vs nature is blurred in many instances

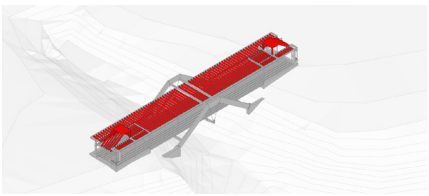


Fig. 33g Roof slab

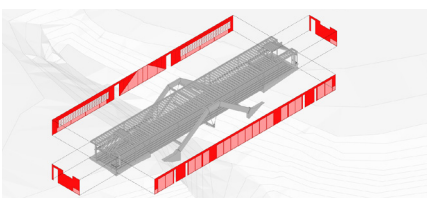


Fig. 33h Facades

RELATIONSHIP INSIDE OUTSIDE

This projects transparency allows the nature to be enjoyed and viewed from all angles. The facade is mostly composed by glass, this allows the house experience to be completely blended with the nature around it. The trees, the woods, the water becomes part of the living experience. Accessing the roof deck allows to be fully immersed in the woods, having the tree tops as a second nature roof over your head.

The materials chosen also create very little distinction from where the architecture ends and nature begins, colors, textures become all one, making this project blend in effortlessly in its natural setting.

Inside and outside therefore blurred, having it all be a very inmersive natural experience.

Fig. 34 Llama Urban Design

FOREST HOUSE

MAX PRITCHARD ARCHITECT

Fig. 35 Landscape plan. Max Pritchard Architect

"An idyllic site of winter creek, billabong, large river red gums, dense wattles and rocky banks called for a house that would "touch the earth lightly". The solution, a narrow bridge like structure spanning the creek providing the experience of living amongst the trees in an almost untouched beautiful setting.

Winter sun through the north facing windows heats the black concrete floor for radiation at night. A wood combustion heater supplements the natural passive heating. Double glazing to the living area helps retain the heat. Perforated steel louvers shade the north windows in summer. The narrow plan form allows cross ventilation and is combined with ceiling fans to provide sufficient cooling for summer comfort. Solar hot water heating and photo-voltaic cells positioned on the garage roof compliment the sustainable character of the house. "

Word by the design team at Max Pritchard Architect

Fig. 36 The house seen trough the forest. Max Pritchard Architect

SHAPE

A very simple rectangle extrusion supported by structure on both sides. The long side of the prism aiming towards the creek running under it. The depth is very constrained to have a small span across the main structure supporting the building. A small indent at the center of the volume allows or a small terrace in the main facade.

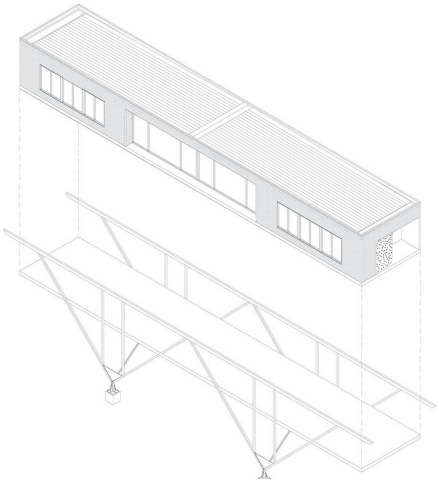


Fig. 37 Axonometric with the structure support. Max Pritchard Architect

FUNCTION

The project is a second residence for a family. This particular case the building does not create communal spaces or any cultural experience. It is a nature observatory for a family

Fig. 38 River flowing under the house. Max Pritchard Architect

MATERIALS

The main material used in the project is metal for the outside and wood inside. All wood is locally sourced to help it integrate it in the surroundings. This usage of metal for the external cladding makes it obvious that it was not the intention of the designer to create a project that would blend in but that would be in complete contrast with the nature it set in.

So we encounter that duality of an exterior in complete opposition with nature but an interior cladded in wood that extends out into the forest.

STRUCTURE

There are two trusses that compose the primary structure. This trusses were built off site and were set up on site by two men and a crane in only a couple of days. They were anchored to four concrete piers. The floor of the building is a concrete slab over a steel decking base.

The structure then does create 4 points of touch in the creek, the beams are very thin so the impact of the flow of nature under the project is pretty much unaltered, allowing fauna and flora to continue to grow and flow unaltered.

The fact that the main structure could be so easily assemble also speaks in favor of the project, since the machinery needed on site for construction probably wasn't disrupting nature much.

Fig. 39 Facade detail seen through the forest. Max Pritchard Architect

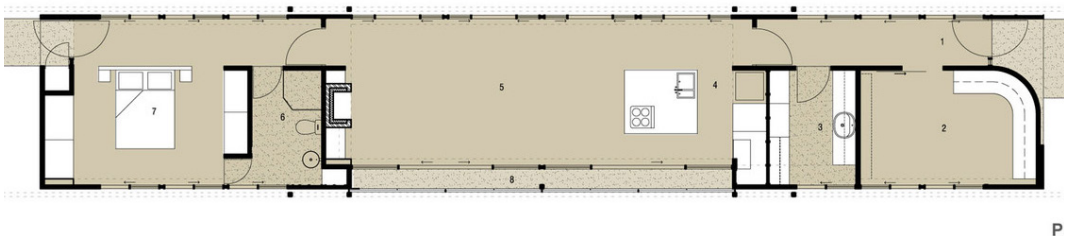


Fig. 40 Plan Drawing. Max Pritchard Architect

RELATIONSHIP INSIDE OUTSIDE

The prism is covered in glass panels which makes the view of the exterior from every room of the house the main attraction. Nature becomes an integral part of the design, being always what drives the focus of furniture and the arrangement of furniture and elements within the project.

The relationship with the nature is only perceived from the inside as the materials used in the exterior are hard and cold, creating a very clear line signaling where one ends and the other starts, cold metal trusses have nothing to do with the warmth of the trees or the softness of the grass bed of the slopes and terrain

Fig. 41 Façade detail and contact with the ground. Max Pritchard Architect

EYSTUR TOWN HALL

HENNING LARSEN

This place gain importance thanks to the fishing industry. But before that the local beach was the main meeting point for any special occasion. This was the first of more buildings aiming to reclaim public life to the center of the won. This project taking the responsibility of setting the mood for others to come. With terraces and the roof open to the public, it welcomes people to come over for picnics and to swim in the river that flows under the project. This building symbolically and physically unites two different municipalities of the Faroe Island.

In this Islands is a very common trait of architecture the blurred line between nature and the architecture, making it difficult to fully understand where one starts and the other begins.

I see this very relevant going forward into my design, maybe taking into account hoe much i would like my project to merge with the lagoon

STRUCTURE

The structure in this project is very simple and its all confined inside the facades or interior partitions. This project doesn't have the need for big spans and it all leveled with the ground. The is part of it that goes over the river but the distance is nothing notably difficult to solve. This kind of approach could be critiqued by its alteration of the flow of fauna and flora, but they solved that problem by basically take that floor that they occupied and turning it into their roof, basically uniting to sides of the island that before were disconnected with the same qualities of the natural setting around, they created a natural bridge over the water

Fig. 42 Seen here the blending of the project with the colors of nature around

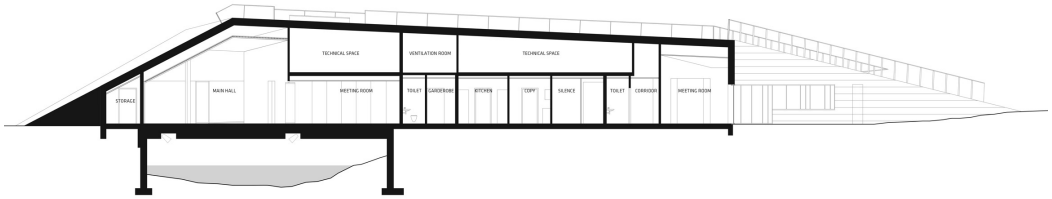


Fig. 43 Section Drawing of the city hall. Henning Larsen

MATERIALS

The materials used in this project are mainly wood and nature itself. The whole facade is claded with dark wood siding panels that keep the chromatic tones of the constructions around it and the rocky formations of the ridge behind and the rocks of the river. The roof of the project is completely covered with grass and greenery of the same nature of the one around the land its set in. This project emerges from the earth to bridge to municipalities in the most respectful way possible. It stays as low close to the ground as possible and

SHAPE

Almost all of the examples analyzed try to elevate themselves from the ground to do the least impact to it as possible. This one takes a different approach, the ends of the volumes emerge from the ground to create a natural bridge that unites both municipalities in the most environmentally seamless way possible. They stay also very close to the ground which is very commonly used in the traditional architecture due to the necessity of staying warm. This shape aims to bring nature as the driving force of the design

Fig. 44 Building rising from nature from the sides. Creates a community meeting area

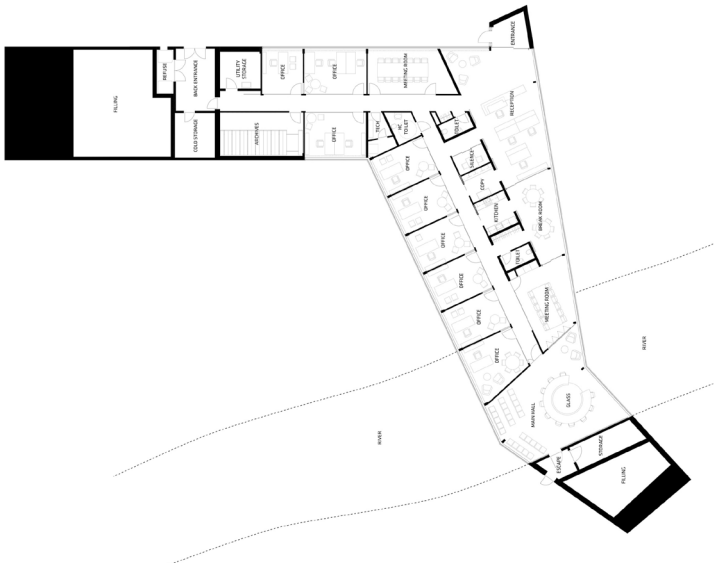


Fig. 45 Plan

FUNCTION

Although function is not the main point of the work it does make an impact on the design decisions taken usually. In this case is a community driven project that aims to reinforce the values of communities lost due to infra-structure . This s project then seeks to reunite to municipalities separated by the ricer and create social and meeting places for people to have fun enjoy and come together to enjoy the river and the beach. It is because of that the building takes this bridge like form and the materials are so informed by the local architecture

Fig. 46 Relationship of the project with the river.

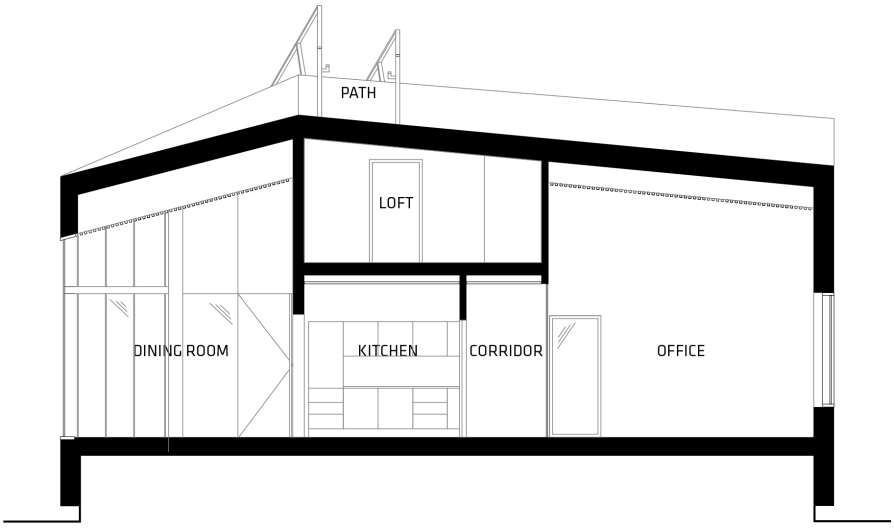


Fig. 47 Section of the highest point. Shows see through view.

RELATIONSHIP INSIDE OUTSIDE

The big glass panels allow for a very open an bright connection to the outside which is always the focus of projects in this Nordic countries, the lack of light and the search for lights makes for big openings that also help to be connected outside and to feel very in touch with nature.

Fig. 48 View looking out from one of the main spaces fully cladded in wood.

GALLERY OF YUSUHARA

Kengo Kuma Architects

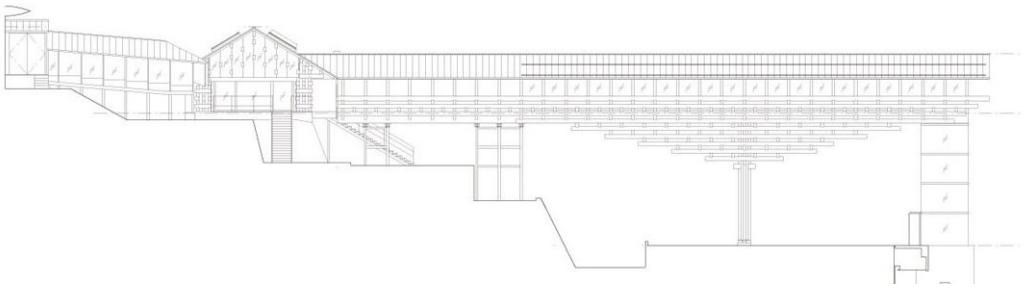


Fig.49 Overall view of the integration of the museum/bridge/observatory within the natural setting

STRUCTURE

The structure seems to try to defy gravity, almost to appear as if it floats over the forest. Supported by the sides and in the center by a column (fig), the way that it grows upwards helps the overall feeling of lightness, and the complexity of the facade (fig) and the structure helps to feel lighter and in sync with the nature that it has as a backdrop. Although visually it dominates the space due to how impressive it is, the way it its design alternates very little the surroundings by touching in only three places. It allows the eye to go to the forest under and above and creating an overall feeling of integration with nature that works very well.

Fig. 50 Focus on nature at the end. Interior filled with locally sourced wood

MATERIALS

The main two materials used in this project are the wood for both the exteriors and the interiors and the glass floor the openings, although the glass can be neglected at some instances where it basically disappears to extend the project into the woods. The outside wood is very intricate and complex, creating an overall feeling of shadows that could resemble to those by branches in the forest. The glass allows to be fully in touch with the nature. The materiality invites you to participate of nature and to enjoy the views that prologue from the inside

SHAPE

The shape of the architecture is very simple, a straight prism, that has been fully developed and worked on to achieve a more organic look that would help it merge with its backdrop. The way the prism meets the column is by an inverted pyramid of complex wood assembly that merges the prism with the column. That same shape and formation of beams becomes the ceiling of the interior of the space

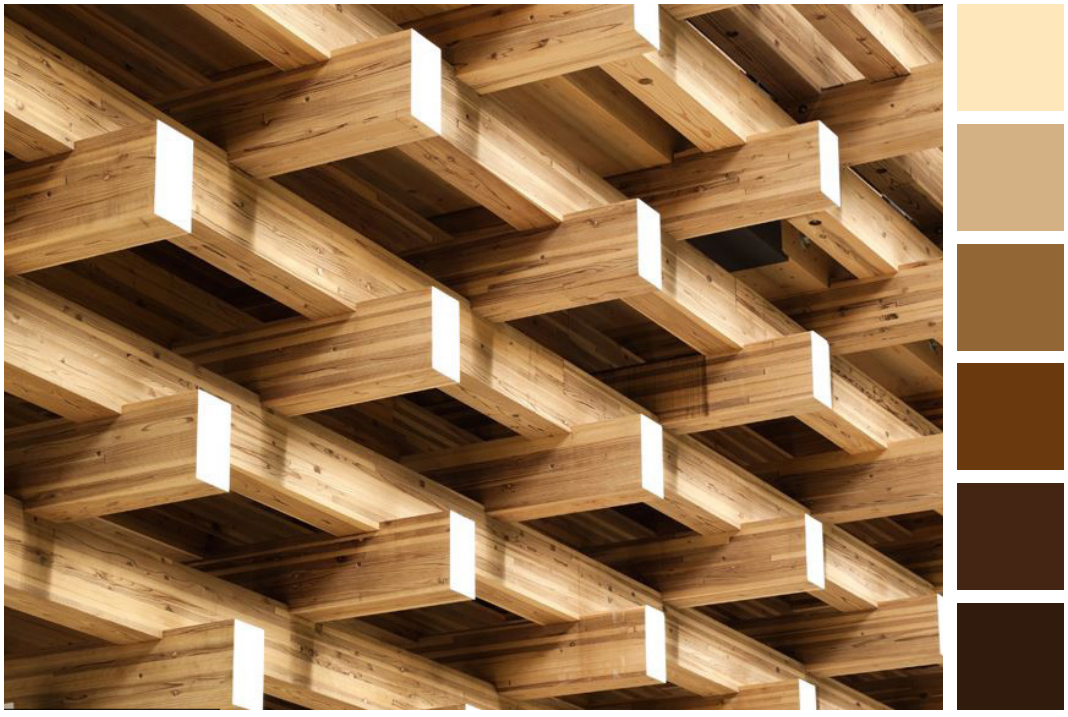


Fig. 51 Detail of the maze of wood that creates the facade

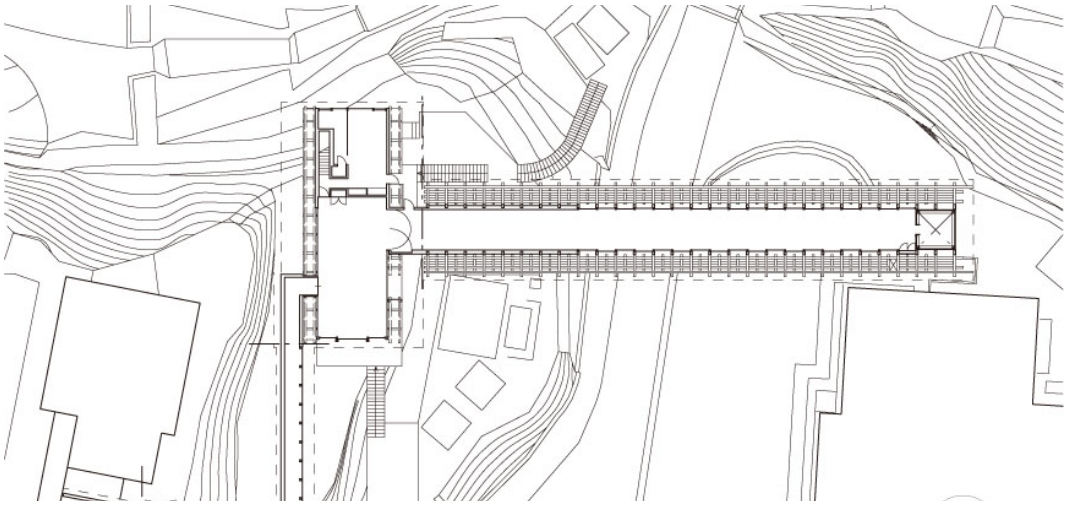


Fig. 52 Plan Drawing of the connection bridge

FUNCTION

The glass allows nature to come into the building visually and the wood used inside of the project takes you into nature. The lines drive toward the exterior and it makes nature feel like it is part of the project, although it is actually inaccessible since the building is on stilts

Fig. 53 The structure with the forest behind at night. The wood become a protagonist.

RELATIONSHIP INSIDE OUTSIDE

The glass allows nature to come into the building visually and the wood used inside of the project takes you into nature. The lines drive toward the exterior and it makes nature feel like it is part of the project, although it is actually inaccessible since the building is on stilts

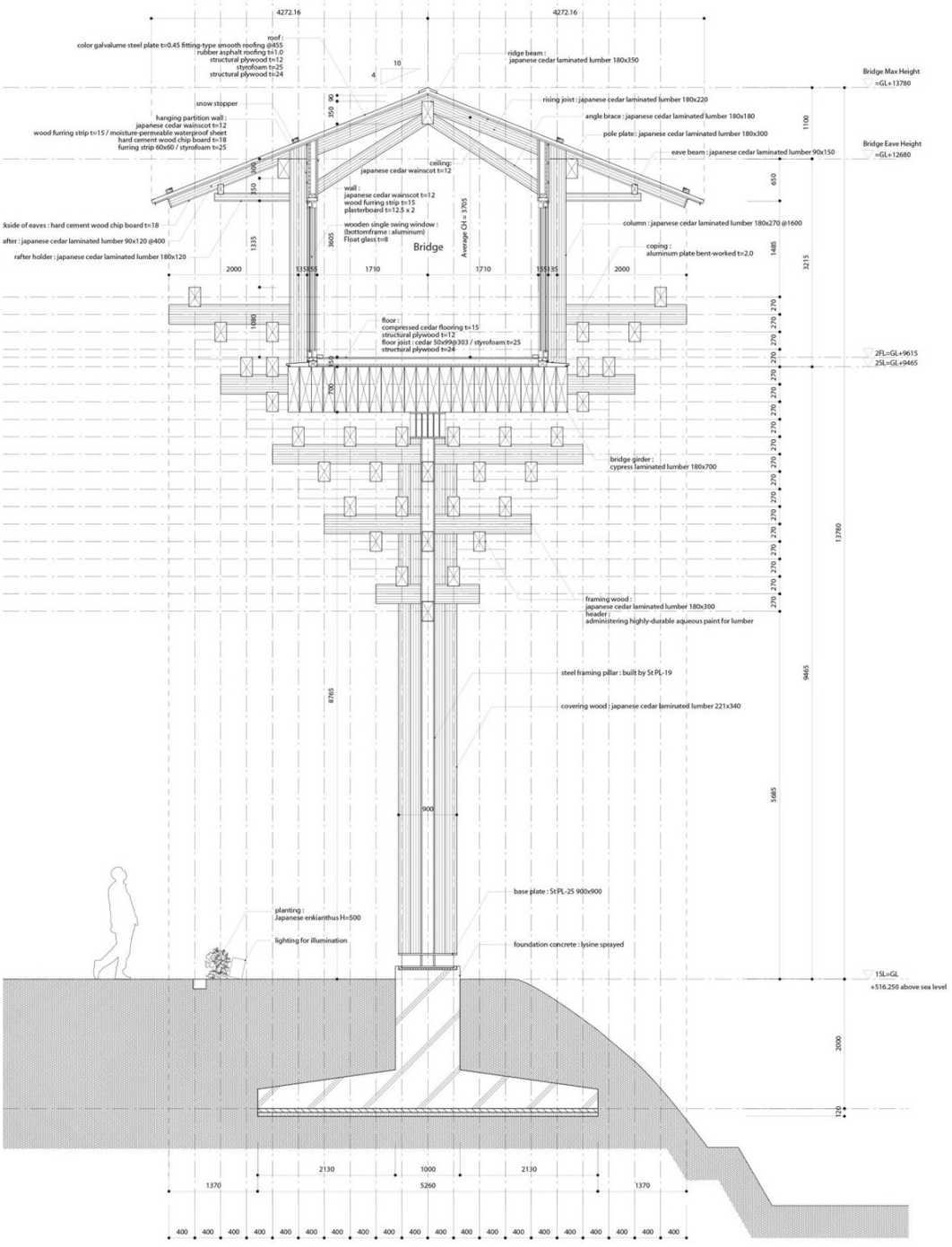


Fig. 54 Section of the facade structure and the relationship with the exterior

TRUFFLE HOUSE

Ensamble Estudio

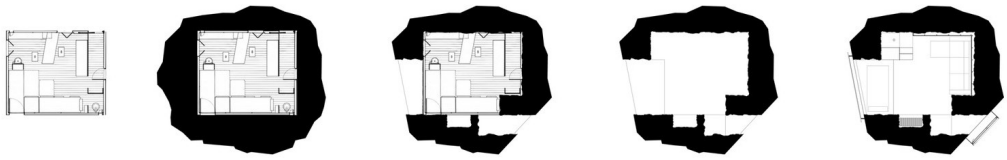


Fig.55 Plan organization design concept development

STRUCTURE

This is a very interesting project in which nature basically decided most things. The architects drew diagrams defining the necessary space for life, then they built those diagrams on a 1 to 1 scare out of hay inside of a whole they dug into the ground. After setting it all up inside the hole the poured the concrete which took whatever space was left in between the hay and the ground, making nature the form giving element.

After that, they brought up the concrete from the ground and they had cows eat the hay revealing the negative of the space and creating all the spaces needed for the room. So in the end the structure was made by the earth, and even part of the structure became after food for local animals.

Fig. 56 Project looks like a boulder sitting on the landscape

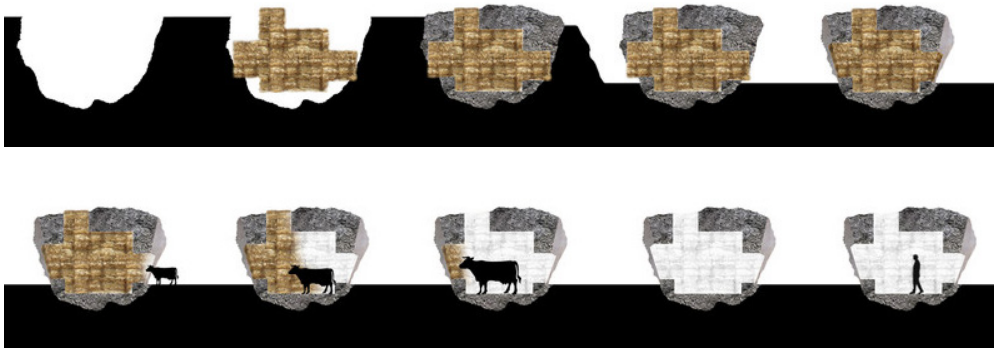


Fig.57 Concept Building Process

MATERIALS

The materials of this project is just concrete as the final product, although i think o its necessary to talk about how earth and hay, although not presented in the final product, where the deciding factor on the final look of the projects, that why the exterior concrete finish is completely different form that one of the inside.

The exterior is formed against the earth so you can read the lines of dirt, locks and even marks of the earth was extracted from the ground, so the finish is rougher. In the inside it was formed by the hay so the finish is a lot softer and more controlled and repetitive. This materiality also does a nice job blending in the environment by just appearing as a big boulder

Fig. 58 View going out towards the sea the finish interior by nature

SHAPE

Although they could control the main idea, the overall look and Irish of the project was left to decide for nature. As in traditional architecture we design the inside and outside and we can exercise some control over the whole design, in this case only the inside space was fully controlled. They had studies what was the space needed they wanted in the inside and then the develop the volume of that space that needed to be there after the pour of the concrete. So after the poured the concrete and the hay was gone they had what appeared to be an oversized rock with a very well though out interior space.

FUNCTION

In this case I don't see a great relationship of the function with the development of the design. It is a hotel room but the design was driven primarily by the concept and not so much by the function it was going to develop. The thing that the function mainly decided was the openings for windows, skylight and door, but not how it related with the nature around.

Fig.59 Space left over interior

RELATIONSHIP INSIDE OUTSIDE

The biggest part of the relationship with nature is due through the main window that looks over the sea. The project does a good job of interacting with the natural surrounding as it looks like an oversized rock, and due to its dimensions just that big opening and the skylight provide a lot of visual connections to the exterior the sea the sky and the ground. So although small in scale, it achieves a lot of things. And it is indeed a very interesting project architecturally

Fig. 60 Entrance to the space.

WOODEN HOUSE

Fujimoto

Fig. 61 Man enjoying the interior

STRUCTURE

The whole project is made out of wood logs of 35cm by 35 cm and different lengths. So although it could seem as very straight forward simple design, by this simple premise they achieve a complexity that yet is very well integrated in the forest around it, looking almost like a very nicely organize pile of wood for the fire. There is a very straight forward cube like orthogonality that could have potentially be a big contrast against the trees around it, but the disintegration of the cube helps create lights and shadows that help it blend in.

Fig. 62 Natural setting of the project with its views

MATERIALS

The only material that has presence in this project is the wood, there are small glass indents here and there but visually they are almost imperceptible. The wood is sourced locally and it matches the color scheme of the area so it works very nicely and the interior feeling is very welcoming and warm, inviting to stay in and look out towards the forest and The Valley.

SHAPE

It is a perfect square made out of logs of 35cm by 35, and then some of those have been cut smaller or completely removed. It creates a net of spaces nook and crannies that can be used in many different ways, places to lay down, sit down, stand, have meetings, conversations. It also allows to play with the levels of privacy in such a small place. The openings create many opportunities to enjoy the view outside. Although a very small project, it has many different way in which can be experienced or enjoyed.

Fig. 63 Project seen through the vegetation

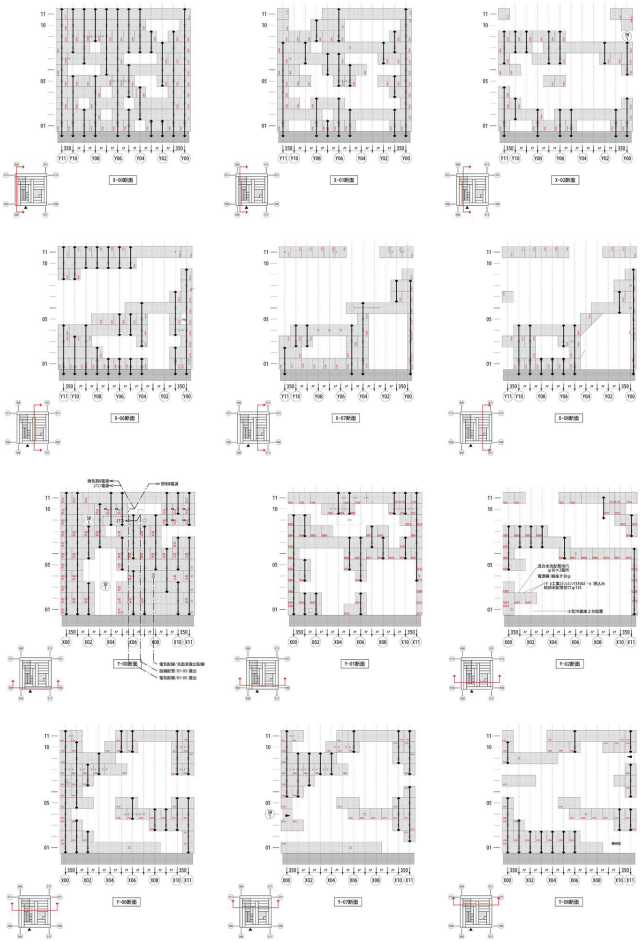


Fig. 64 Configuration options with the wood logs

FUNCTION

In this case the function is in direct relationship with nature, as it is mainly a place from which enjoy nature and reflect. This is what lead to the design that we previously talked about and therefore it created this many ways in which the projects relates and interacts with nature, whether opening spaces or creating visual lines towards The Valley or the woods. Its entirely function is to become parts of the forest as well as a place to look at the forest.

As we can see in the diagram that function could potentially be performed in a many different ways, all of them working for the same purpose, but creating slightly different experiences

Fig. 65 Interior of the use of the space

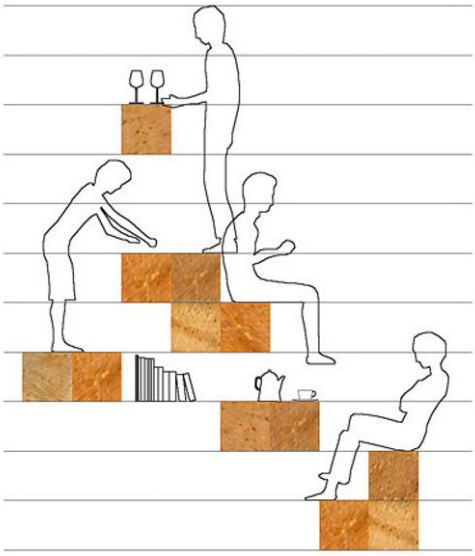


Fig. 66 Different uses thanks to the configuration

RELATIONSHIP INSIDE OUTSIDE

I consider this project to not have a clear boundary line in which exterior becomes interior. The interior is an extension of the forest and therefore they are both dependent and intertwined. There are a big array of visuals from the inside of the object towards the outside

Fig. 67 Different filters expanding the views towards the outside

UNDER RESTAURANT

Snohetta

Fig. 68 Landscape setting of the project

STRUCTURE

The structure for this project is extremely bold in its conception but also very intrusive in nature. The whole project was build outside out of concrete and then transported and dropped to the bottom of the sea. The platform is huge and its all fully in contact with the seabed, completely destroying whatever fauna and flora were under and disrupting the flow of nature around it. Although a very interesting concept and as an architecture experience it is very interesting, the way this project's structure interacts with nature is poorly resolved. I think it could have been maybe resolved by creating some substructure that could have hosted the base of the project in a way that the substructure only touched in some point at the seabed instead of covering the whole contact area

Fig. 69 Interior of the dining restaurant

MATERIALS

The materials used in the project are mainly concrete glass and wood. From the outside, it could almost appear as a stranded whale reaching over the rocks. The concrete although with the same tonalities of the rocks around it doesn't fully achieve any sort of blending with its surrounding, and it probably was never intended to do so. The glass are only used underwater as view areas towards the sea. I think Again as we talked about in the previous category this materials choices are really interesting architecture choices that don't truly work for the nature around it. The interior are cladded all in wood paneling so the expression of the raw concrete is solely reserved for the exterior surfaces which are also the most exposed.

SHAPE

The projects shape is a prism with rounded edges that has been tilted so one of the ends is facing towards the bottom of the sea. This decision is not one made to relate to nature but for the spectacle of those dining inside. The shape emerges from the water to allow people enter, then you go down into the dinning area where you enjoy the seabed view.

Fig. 70 The project looks like a sunken ship or a stranded whale

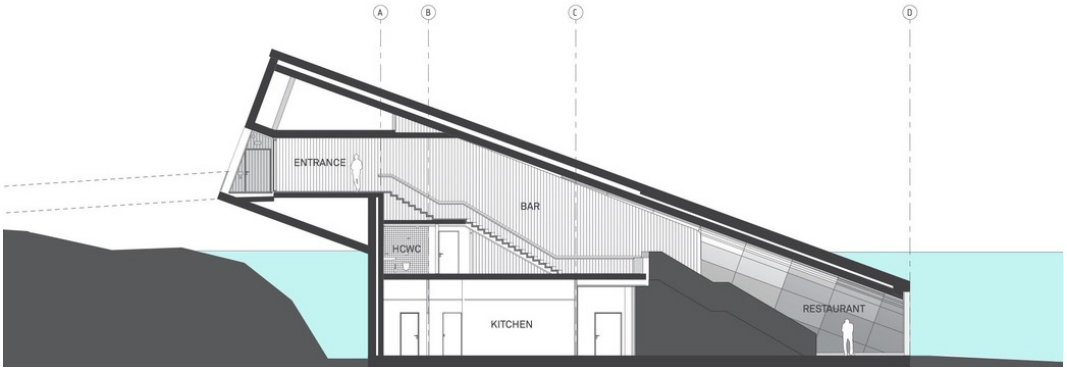


Fig. 71 Section to the bottom of the sea

RELATIONSHIP INSIDE OUTSIDE

The way the project relates to the exterior is mainly through the big glass panels inserted at the water level. There are no relationship above water which i find to be an opportunity lost, since its also interesting and beautiful. The whole project is aimed to that one shock factor at the end, so the whole project revolves around the big glass panel at the end of the cylinder.

FUNCTION

The project is a restaurant, which is not a justification enough for the rest impact the project probably had while being built and after in the seabed and the flow of water and sea life around it

Fig. 72 Entrance to the restaurant, the only exterior to show wood

LOOKOUT

Angus Ritchie + Daniel Tyler

Fig. 73 Landscape setting of the project

STRUCTURE

This project would range more in the realm of installations being completely disassemble. Its structure it very light and can be put together very easily on the spot. It is shaped as a cube which could remind us of previous example through we can easily tell how some design strategies made this approach completely different. It achieves a certain level of camouflage which helps the structure to feel light and not fully present

Fig. 74 The project reflects nature around it except where the wood details are

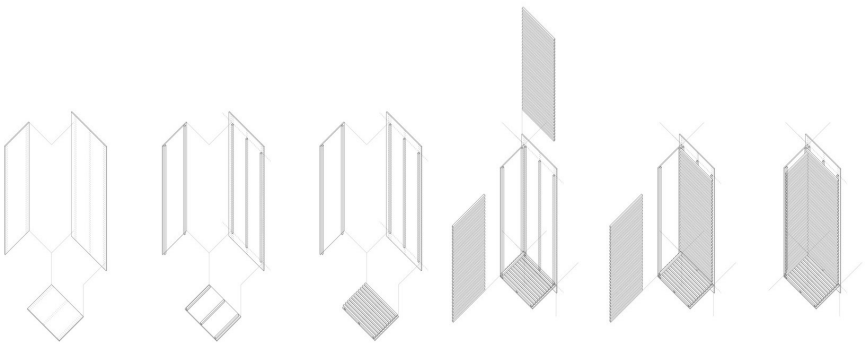


Fig. 75 Landscape setting of the project

MATERIALS

This project plays with two main materials that are complete opposites. In the one hand we have the wood for the interior finishes that matches the colors and the aesthetics of the landscape and then on the other hand we have the mirror stainless steel that although would not fit the nature scheme of the place or the colors, since its fully reflective, it helps camouflaging the project.

So in the end the play of materials works as a mirage in which it seems there is a distortion in nature and some wood floating around. Like a glitch in the system

Fig. 76 Integration of the camouflage by the reflective metal and the wood integration

FUNCTION

This is a nature viewpoint, a pavilion from which to look nature. I think that informed the amount of places from which to look out and to create three different sport in which to sit, be covered and observe the landscape around.

RELATIONSHIP INSIDE OUTSIDE

The relationship with the exterior is very immediate. There are places to be covered and to feel more “inside”, but overall, it all comes down to be in touch with nature and to be part of it. The way this project interacts is mostly from a perspective of views, it aims the spots from where to look out, it suggests where to be, where to stand and where to look towards.

Its a place that host you while you are in touch with it and then while you go away it disappears amidst the reflections and the colors of the mountains.

Fig. 77 Detail of the reflective facade

NARROW CONCRETE HOUSE

Pezo von Ellichshausen

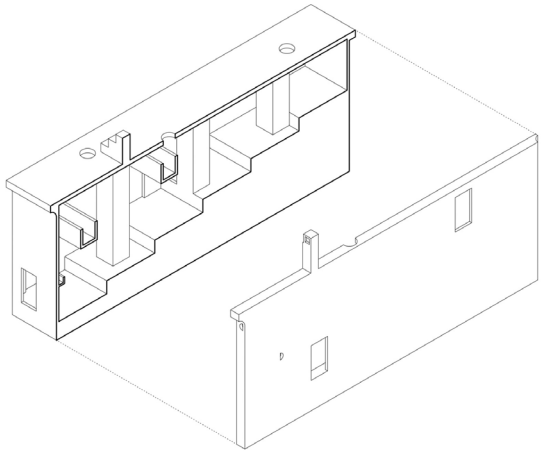


Fig. 78 Landscape setting of the project

STRUCTURE

This projects structure is made out of it own architecture expression, being the wall load bearing. It is all made out of concrete with wood form boards. The walls extend all the way into the mountain side, cutting off completely a rectangle of the nature it sets in. Due to the way it touches land I don't think the relationship of this structure with its nature is the most respectful way to address it.

Fig. 79 Enjoying the infinity view platform

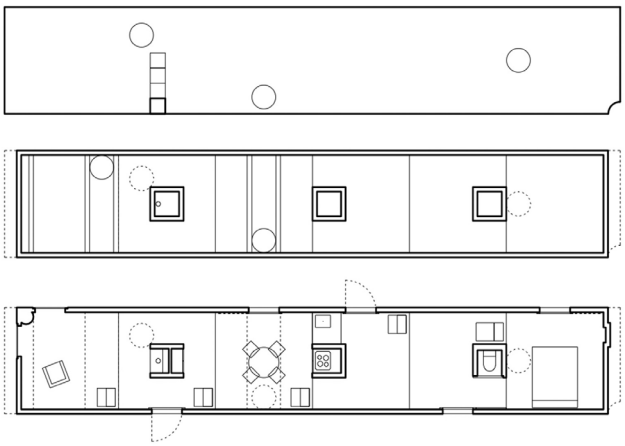


Fig. 80 Landscape setting of the project

MATERIALS

The only material used both inside or outside is the raw concrete, it created a very unique feeling of solitude and i think because of the simplicity of the concept it has some of the aspects that we talked about in the Malaparte house, of that roof deck that extends towards the horizon in this raw material feels like its staying as close to pure earth materials as possible and somehow that does give it an aesthetic that I find blends very naturally with its surroundings.

Fig. 81 Views towards infinity

SHAPE

The shape of this project is a very simple extruded rectangle that adapts itself to the nature, creating a nice interesting section that grows as it goes downhill. The shape also looks like it emerges from the nature, as you can go directly from the forest on the roof or down the stair into the house, feeling the extension of nature through the roof into infinity the natural continuity path. Nature, architecture, infinity then become the overall experience of those coming upon this building the first time.

Once inside, the experience is one almost religious, the spaces are raw, unadorned and really introspective. Although it has this introverted character to it, always looking in way of which to frame the views towards the exterior, creating many different openings and viewpoints that are very well executed.

FUNCTION

It is meant to be used as a house, probably just a getaway place for a few days at a time, not a permanent residence, therefore the rawness of the materials and the introverted aspect of the place having a character for self reflection while also framing the infinity with the roof and the views from the inside.

Fig. 82 Interior rough finishes and framed views

RELATIONSHIP INSIDE OUTSIDE

The relationship with the outside happens all over the experience of the project. The moment you encounter the project you are drawn towards the infinity roof deck that extends towards the sky. Also you can go down into the house with it is splattered with opening towards the sky and the sides and the front of the project, allowing views towards multiple directions. I would say the relationship of this project with nature are all mostly view based, since the actual architecture doesn't really relate to the surroundings. There is a clear boundary where nature ends and architecture begins.

Fig. 83 Integration with the surrounding landscape

CONCLUSIONS

STRUCTURE

	truss structure	hanging structure	colums through nature	integrated	exoesqueleton
Kistefos Museum	■			■	
Bridge House		■			■
Forest House	■		■		■
Eystur Town Hall				■	
Gallery of Yuhusara			■	■	
Under Restaurant				■	
Truffle House				■	
Wooden House				■	
Lookout				■	
Narrow Concrete				■	

The structures are the main statement and will drive how the architecture sets in the ground. This is one of the main design decisions that will determine the amount of presence the building will have in the setting.

Walls will create a new element that nature will have to work around like the Under restaurant . Most of the examples that we examined do a great job creating a structural system that creates the minimum impact on the ground, through bridge structure using trusses to be able to jump big distances with the minimal amount of elements.

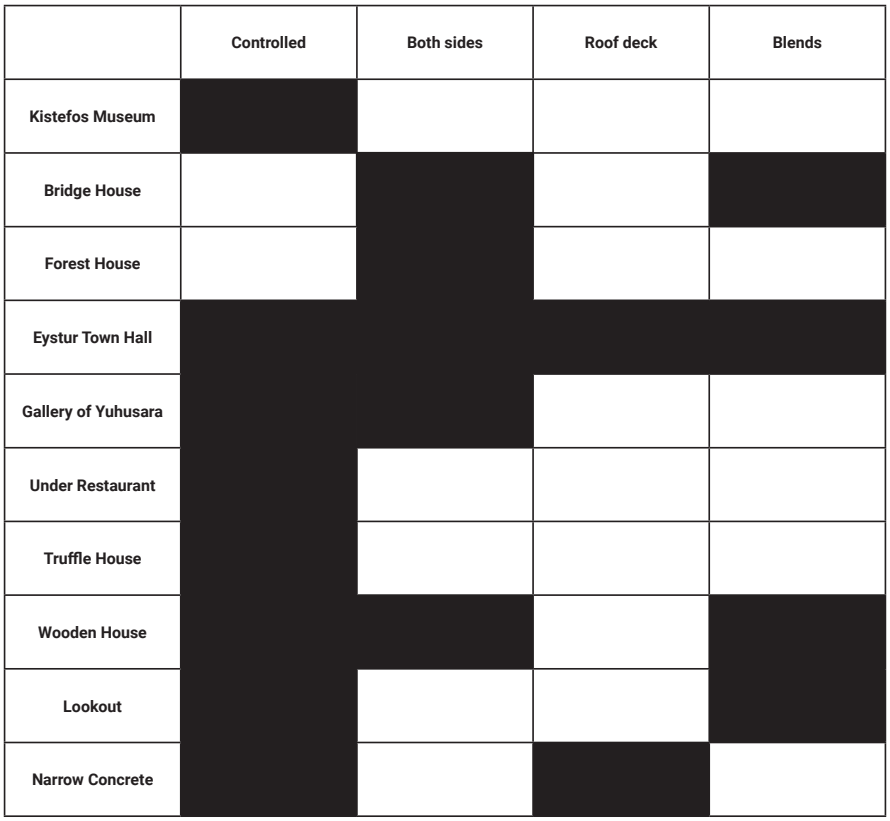
The integration of the structure with the nature is a point that was very relevant, whether it becomes part visible of the project of it hides within.

What we gather of the examples is that the aim is always to minimize the amount of points touching the ground, elevate the project so nature can continue the natural flow under and the use of bridge like structures that allow for bigger spans and therefore bigger surfaces for building.

The capacity of expansion. A buildings life span can be extremely long if well taken care of and the changes in uses may need of expansions, therefore having a structure that is flexible enough that could allow to be extended or things to be added, subtracted or moved becomes of much importance.

Therefore the strategies would be few touching points of small entity, materials that blend in and a modularity that allows for expansions or changes while having it all be part of the same overall geometry.

RELATIONSHIP INSIDE OUTSIDE



The relationship of the buildings with nature is usually seeking the maximum amount of views possible. Only in the case of the museum the views is much more controlled because of the program that it holds. Although we all want to achieve maximum views, we should take into account the function of the building to be sure that the building operates in the right way

It seeks the fluidity and the transparency with the environment trying to bring the nature inside of the project and make those inhabiting the space feel as in touch as possible with the exterior.

One of the decisions that drives the design is if we want to make the project completely blend with the nature with the use of the materials, the shape of the placement in relationship with the nature.

We will seek the most transparency possible across all elements used in this project, from the platforms to the elements holding programmatic elements while creating moments of intimacy.

MATERIALS

	Metal	Wood	Blends	Contrast	Vegetation
Kistefos Museum	■			■	
Bridge House		■	■		
Forest House	■			■	
Eystur Town Hall		■	■		■
Gallery of Yuhusara		■	■		
Under Restaurant		■		■	■
Truffle House			■	■	■
Wooden House		■	■		
Lookout	■		■	■	
Narrow Concrete				■	■

When filtered down to the essentials, there are two paths to take when choosing the materials, contrast or blending in.

When trying to contrast, the use of metals and glass becomes the best way to break with the nature color scheme, also the way it reflects the lights makes it very distinguishable from the materiality around it.

When trying to blend into nature using locally sourced materials becomes a good way to make the color schemes match so the project wont be standing out. Also by matching the qualities of the materials used to those of the nature around it we make sure that the light will affect it the same way as it will to the elements around it.

In our proposal we will use materials that help blend our project with the natural environment and since we will be dealing with fauna, we will use materials that can be found nearby that wont be alien to them.

SHAPE

	Orthogonal	Parametric	Bio Morphing	Nature Driven
Kistefos Museum	■	■	■	
Bridge House	■			
Forest House	■			
Eystur Town Hall			■	■
Gallery of Yuhusara	■		■	■
Under Restaurant	■			■
Truffle House		■	■	■
Wooden House	■			■
Lookout	■			
Narrow Concrete	■			

Whether emerging from nature becoming one with the environment the shapes of the interventions can be many. We have been able to identify 2 groups, those who keep very orthogonal approaches that try to solve the problems of integration in a very straightforward way by elevating the project and setting it on a base , and those who adapt the shape to meet the topography changes .

There are also approaches that are a lot more Parametric in their approach trying to mimic the movements of nature, creating more suggestive shapes that could potentially help the camouflage of the geometry into the environment setting

For our proposal we will keep very simple geometries over a platform that will host the very basic geometries of the program.

FUNCTION

	Private	Cultural	Goverment	Community
Kistefos Museum		■		■
Bridge House	■			
Forest House	■			
Eystur Town Hall			■	■
Gallery of Yuhusara	■	■		■
Under Restaurant	■			■
Truffle House	■			
Wooden House	■	■		■
Lookout	■			
Narrow Concrete	■			

The function of the project informs what is the necessity for views or for the relationship between nature and architecture, it is not the same to design a museum or to do a family residence, so it is then very important to understand the program needs and how those could be intertwined with the natural setting it is located in.

A museum might need to have much more controlled openings where a government building or family housings might seek the most amount of visual connection to its surroundings.

For our project the function is a nature observatory. This will make our design be looking for views and to be integrated as much as possible with its surroundings.

DESIGN DECISIONS

Materials: We will source local materials that blend into the color scheme and materiality of the natural reserve of Al-Wathba, try to avoid have an alien look.

Structure: Using the least amount of structural anchor points to minimize our impact, or reducing the surface impacted by our intervention.

Relationship inside outside: make the relationship as transparent as possible, controlling shading devices for heat control to maintain a comfortable experience for the users.

Function: Since this is a cultural project to observe nature, we will maximize the views towards the exterior and minimize the amount of enclosed spaces to the minimum.

Shape: Seeking to blend in we will try to stay as close to the ground as possible without creating any alienating forms that could confuse the flamings.

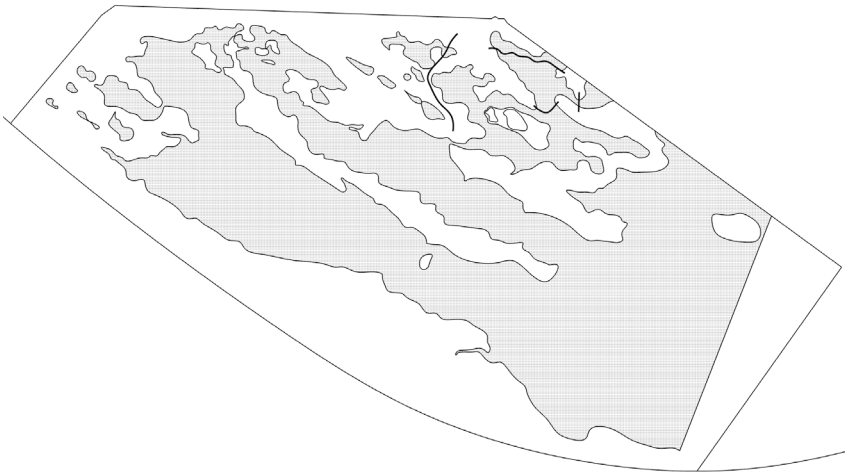
DESIGN PROPOSAL

Al-Watha Flamingo

LOCATION
AL-WATHBAH (Abu Dabi)

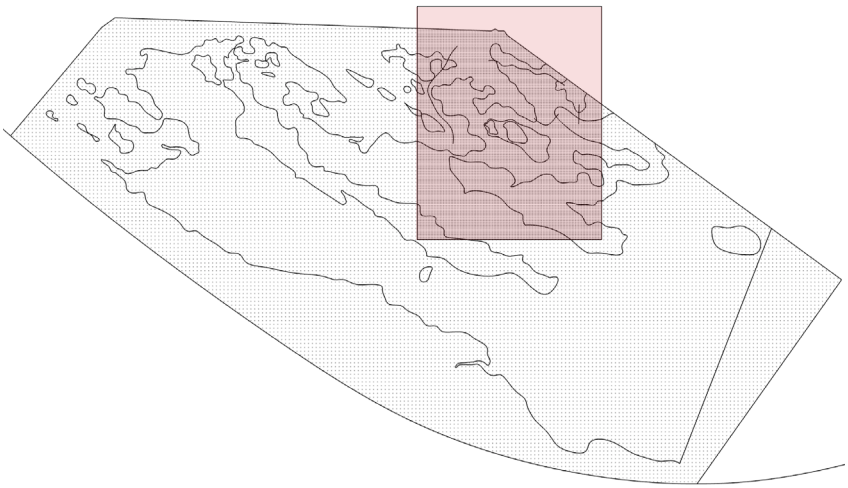
Situated a lit inland from Abu Dabi, the natural reserve of Al-Wathbah is home to a large population of flamingos. Our project will search the extension of the already existing paths in a more respectful way and the creation of an information and viewing post in this natural setting of high value. To do so we will focus on the elements previously explained. Material we will use will be different variations of woods, well keep the views as open as possible yet offering protection from the sun, our structure would use point to pint support elevated from the ground to avoid cutting natural flows and well avoid a very strict orthogonality to let it blend in with the area of vegetation around it.

COLOR SCHEME



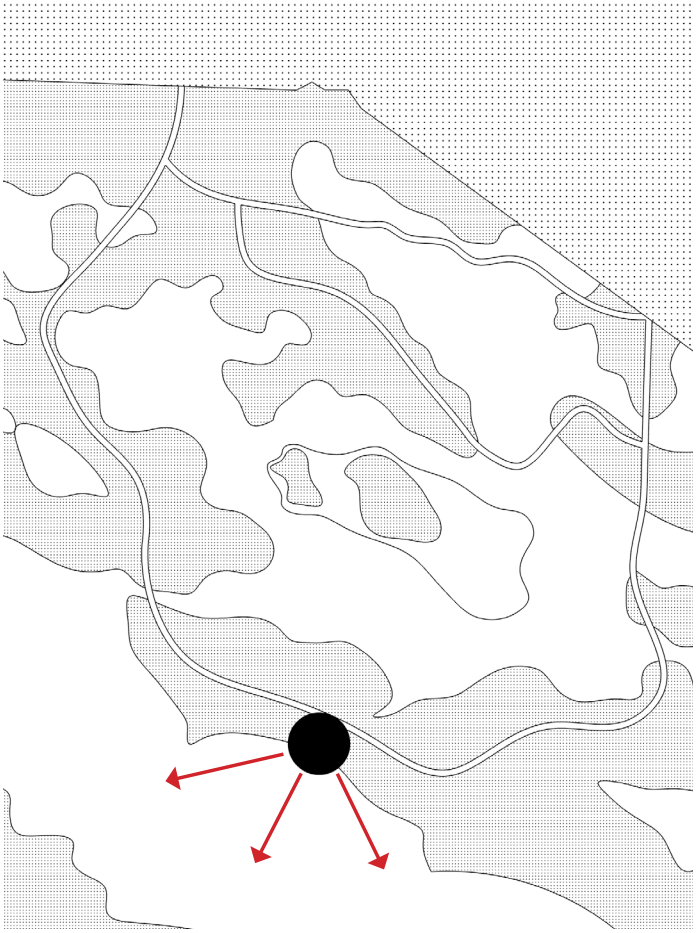
OVERALL SITE. LAND VERSUS WATER

We will study the relationship between water and land to determine the position of our project in a place where the repercussion to nature would be minimum



INTERVENTION AREA

The project required of a place as a promenade over the lands and a viewing point. After analyzing the site we have reduced our area of intervention to an area where previous paths had been created



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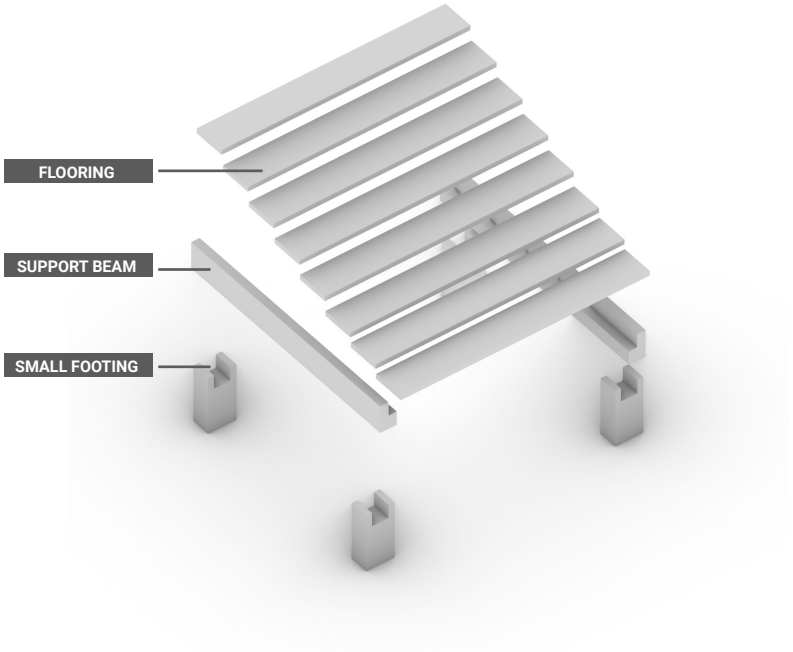
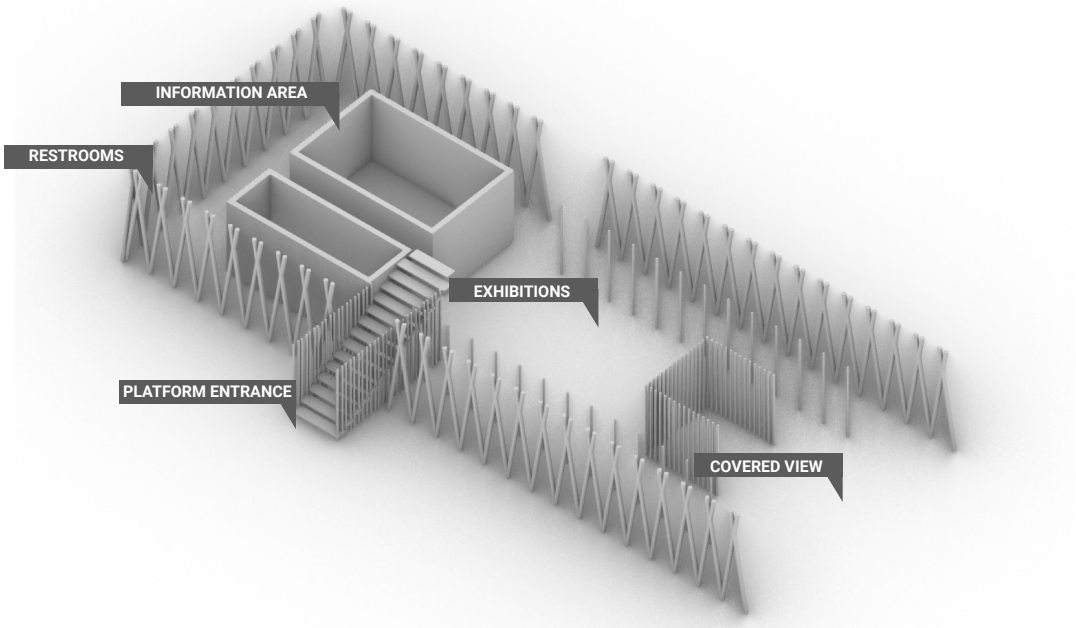


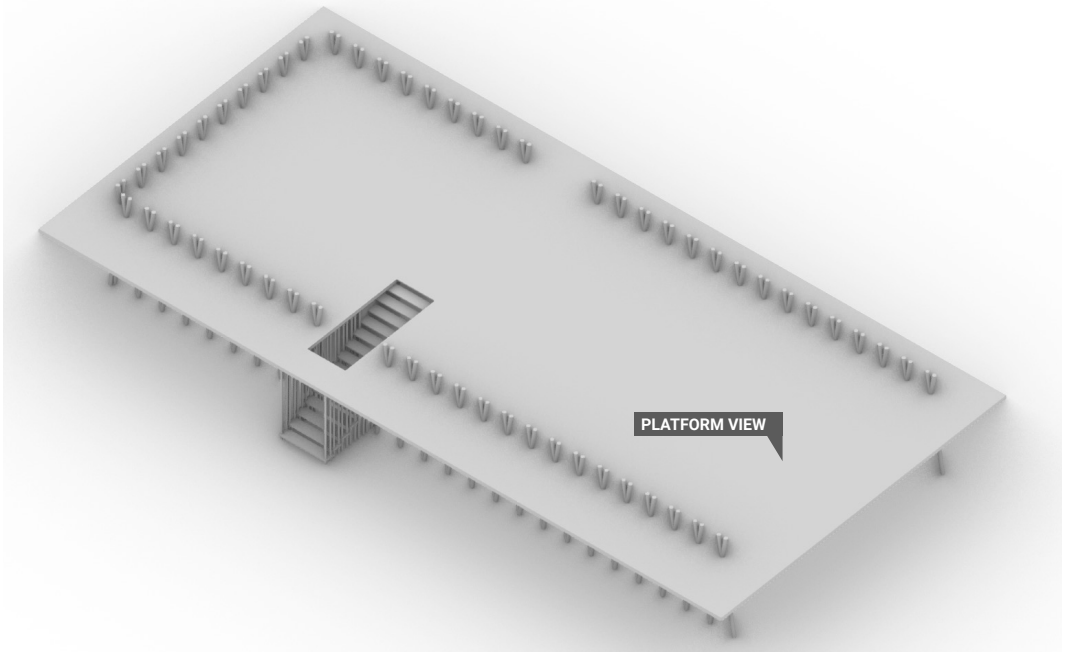
PATHS

The new paths added to create a full pedestrian circles will be done in the least intrusive methods. Can be build progressively without even stepping into the land. m



STRUCTURE

The new paths added to create a full pedestrian circles will be done in the least intrusive methods. Can be build progressively without even stepping into the land. m



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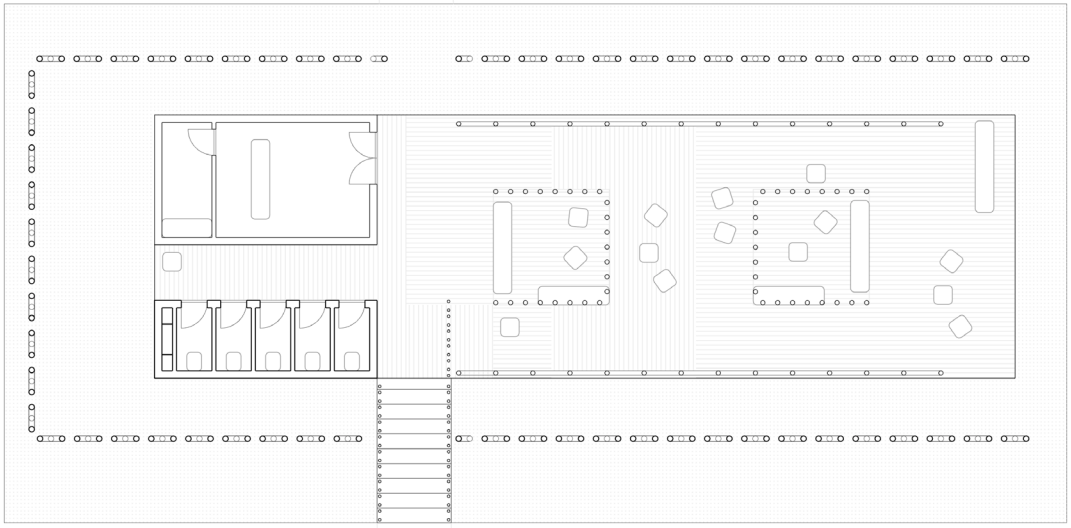
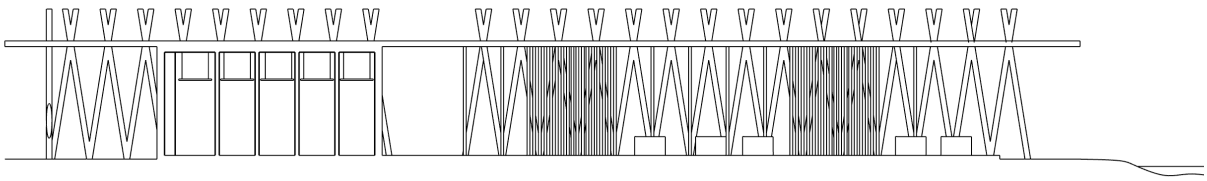


PLAN

Instead of creating a long extensice project, we decide to extend the path the most responsible way possible and reach the most attractive point in which this platform sets. It host bathrooms, information center, and a cover viewing point and an exposed one.



SECTION

The project aims to concentrate in one point all the necessities instead of scatter them around. The structure is set over a substructure to allow nature and fauna to be able to crawl under. The structure is not fully orthogonal and set in an area where there are higher vegetation species to help camouflage around it. It aims towards the lagoon wish both covered and uncovered viewing points. The structure, flooring and walls would be made in wood of different colorations that would help camouflage with its surroundings, all the furniture made in ocher and pastel pinks out of recycled plastic

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