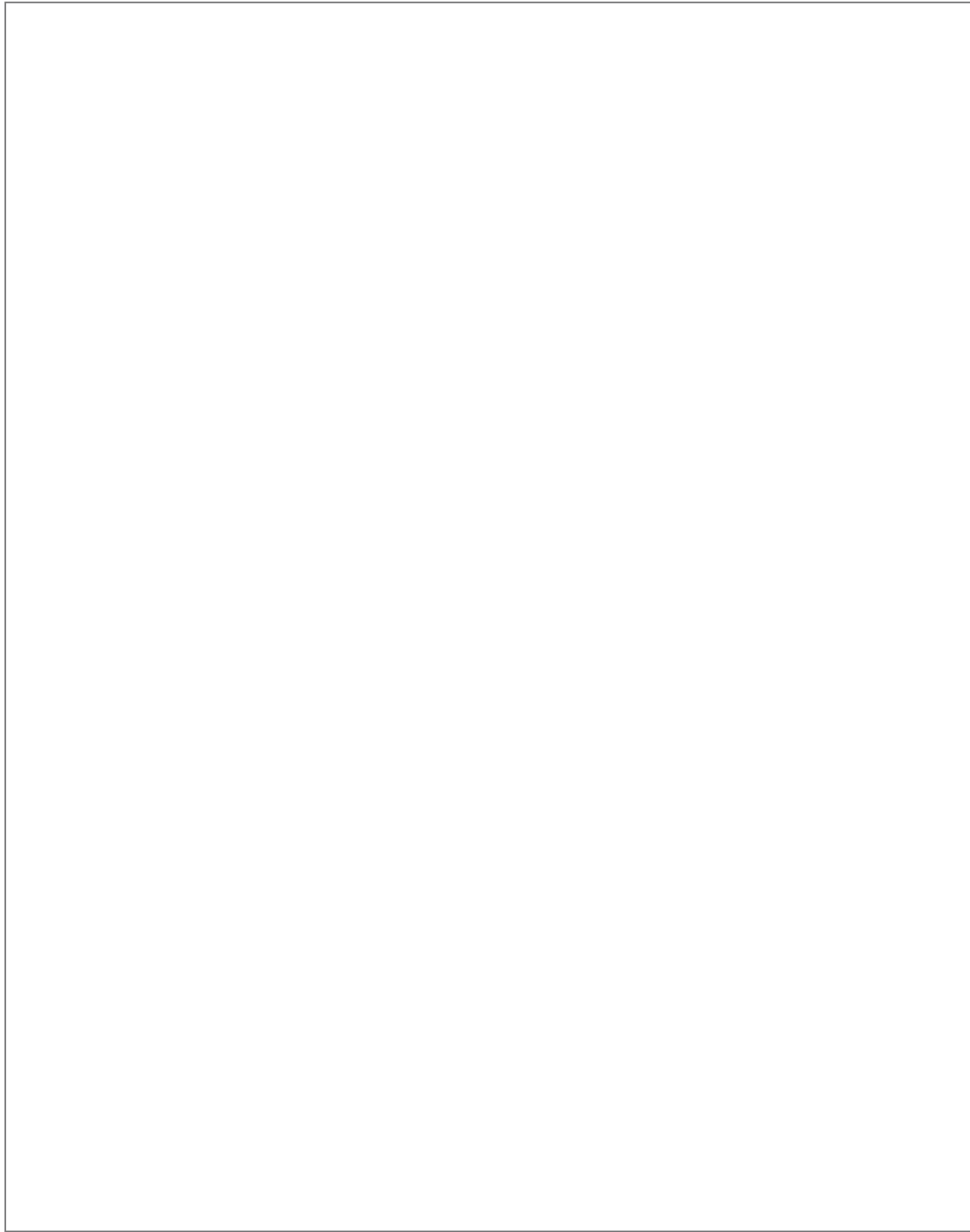


The background of the entire page is a landscape photograph. It shows a calm body of water, likely a lake or a wide river, with a small, grassy island in the middle ground. The far bank is covered in a thick, lush forest of tall trees, possibly pines or cypresses, under a pale, overcast sky. The water reflects the light from the sky and the surrounding greenery.

Research Anthology

Arc 550 - Regional Studio
Southern Illinois University
Summer 2015



Summary

This anthology is a collection of research that each of us collected for our Regional Graduate Architectural Studio. The purpose of this research is to prepare us to design a collection of buildings that will comprise an open air museum. Each chapter is organized in a similar manner. We started off by reading articles from Kenneth Frampton on architectural theory and tectonics. Then, individually, we found other articles to analyze and compare with the Frampton articles. After the initial analysis we proposed a series of building collections that we could then narrow down to one set. With this one set, we then broke down each building into its technical drawings. We further analyzed each building by creating a series of diagrams that graphically explained how these buildings worked and related to each other. After studying our building sets, we proposed the program for our open air museum entrance building. At the end of each chapter is a written description of what we have learned and how we are going to use this knowledge to advance in this project.

Table of Contents

Jacob Bruning	1
Casey Bucher	35
Jeremy Clow	67
Megan Crider	87
Kristen Ellis	123
Faezeh Ensafi	145
Kristina Shrestha Hada	179
Khaled Hasan	227
Stephen Lauer	261
Mark Lazowski	285
Robert Lyons	305
Aaron Neal	373
Eric Okerstrom	407
Patrick Szczecina	445
Joshua West	483



An aerial photograph of a landscape. In the background, a large body of water (a lake or bay) stretches across the top. Below the water is a dense, green forest covering a hillside. In the foreground, there is a green field with a winding path. A long, white, modern building with a flat roof is situated on the left side of the field. To the right of the building, there is a small, dark, rectangular structure. Further to the right, a small, white, single-story building with a brown roof is visible. The overall scene is a mix of natural and built environments.

Jacob Bruning

Walkable buildings

The walkable buildings give me the knowledge of how to think of the site and the building together so it would be an easier climb both for the green roof and the climbing wall. The green roof collection made me aware that it could be used for both energy efficient and unrestricted use. The climbing wall collection gives me understanding that the building can be used in a different way.

ANALYSIS OF READINGS

Frampton - Towards a Critical Regionalism

Kashikar Vishwanath - Modernity and Universalism: *Modernity as a timeless tradition*

Reading 1

"It is possible to argue that in this last instance the specific culture of the region- that is to say, its history in both a geological and agricultural sense-becomes inscribed into the form and realization of the work."(Frampton)

Reading 2

From both articles there were the bases of living forever. This was not a single person that was surviving but a whole culture surviving for thousands of years. Even if there is no culture left the remains can help discover who constructed the structure. "It is possible to argue that in this last instance the specific culture of the region- that is to say, its history in both a geological and agricultural sense-becomes inscribed into the form and realization of the work."(Frampton) To sum up the text, the remains of the structure, geological, and agricultural will give signs that there was a culture in the area. You can look at any specific region and would find what was happening at that period of time. By learning what their geological and agricultural was like you can see what was going on during their height or downfall of culture.

The second reading was just the showing of how a culture could survive for this long of a period without being totally destroyed. But none of the main structure is still being used and even shown to the normal person. By this little of the remains discovered could find out what they were doing in the region and what the structure was used for. "The site chosen was an unobstructed length of coastline with no natural geographic features to break the waves rolling into shore or protect ships."(Swaminathan). Just the footings remaining they could discover why was it in that specific area then anywhere else.

The findings for this not only show the reason of the structure being there but how it was constructed. Without researching or discovering it, nobody would find out why or the purpose for the structure. Any evidence shown or hidden can give

an unwritten document of the people being there. Without knowing who the culture is discovered can find out how much knowledge the ancient people were working with. "Because seawater is part of the reaction, placing this mortar in the Mediterranean promotes greater adhesion rather than causing the concrete to crack." (Swaminathan)

Whatever a civilization constructs from small concrete structure to steel there will always be some evidence of the remains. The people and culture could be all gone from this planet but there will be sign of the knowledge of how the structure was built. "And in building those harbors that were so critical to the empire's success, it is clear that the Romans were extremely careful to choose a material that would ensure longevity—of both port and empire."(Swaminathan) By also telling what region of the structure can give suggestion of once lost culture.

Works Cited:

-Frampton, Kenneth. "Towards a Critical Regionalism: Six Points for an Architecture of Resistance." 1983: n. pag. Print.

-Swaminathan, NIKHIL. "Built to Last." n.d.: n. pag. Print.

Living Away From Everything

From both of the text and article there were trying to live away from the normal economic and technical. "The worst enemy of modern architecture is the idea of space considered solely in terms of its economic and technical exigencies indifferent to the idea of the site."(Frampton) With architects thinking and also the clients want to live close to major cities so it will be cheaper for them to live. But now we can live in the middle of nowhere like a desert, winter, or moderate temperature. Now you can live totally live off power grid so you can live far from the power source.

Not needing a whole lot of power if you picked a spot that has enough nature wind pressure. People will be uncomfortable being in a hot or a cold home and this drive people away. "The wind tower operates in different ways according to the time of the day and wind conditions." (Vefik Alp) Knowing features can help you live more off the environment then before. "A curved roof has a larger convection heat transfer surface, whereby it is more easily cooled." (Vefik Alp) Just adding some features that can be not notice by someone walking by.

Knowing your surroundings that you are living in will provide you an endless resource. With knowing that you can use your environment to benefit you so you can stay conformable. The methods that you use out in the middle of nowhere will not be the same affective if you use it in the big cities. The reason for that you will get tall trees, tall buildings that will block the wind. With having more windows open you will get more noise and more carbon deoxidize flowing through the open windows. But you will still reduce your carbon footprint. "The worst enemy of modern architecture is the idea of space considered solely in terms of its economic and technical exigencies indifferent to the idea of the site."(Frampton) That is why trying to think outside the box force the building look different from others and will act different as well. With each different site locations will affect the building in different ways so the need for more de-

sign into wind or plant or even solar. "Architects today have at their disposal a rich variety of mechanical means to control the climatic environment in buildings they design."(Frampton) It is to common to use the mechanical systems and using up electrically. With the electrically being use all the time trying to control the whole house will bring up the price on your bills at every month.

Work Sited

- Framptonon, Kenneth. Rappel A Lordre, the Case for the Tectonic. N.p.: n.p., n.d. Print.
- Alp, Ahmet Vefik. Vernacular Climate Control in Desert Architecture. N.p.: n.p., 1991. Print.

Jacob Bruning

Architects: Henning Larsen Architects

Location: Holbaek, Denmark

Project Manager: Peter Munch

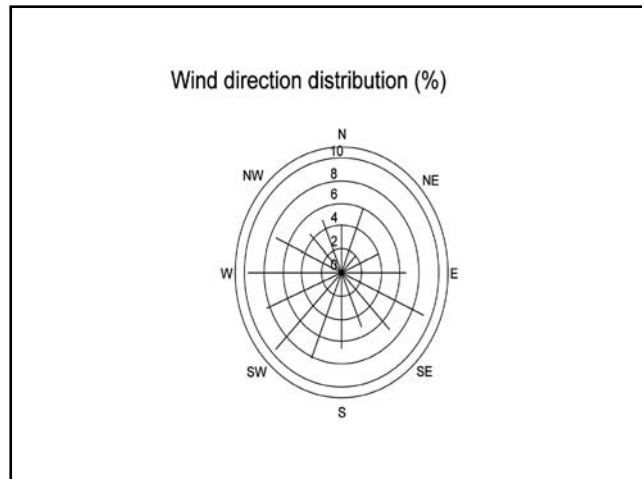
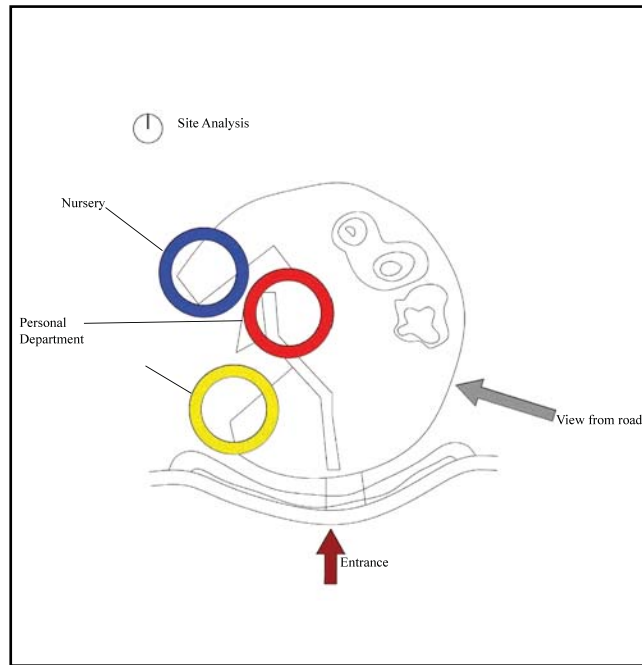
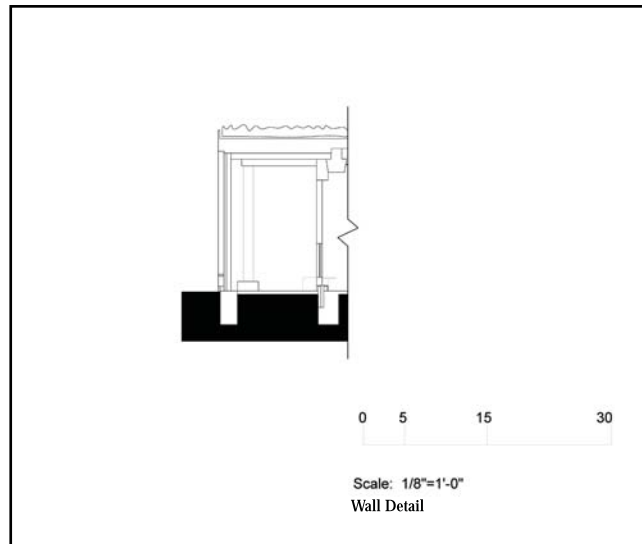
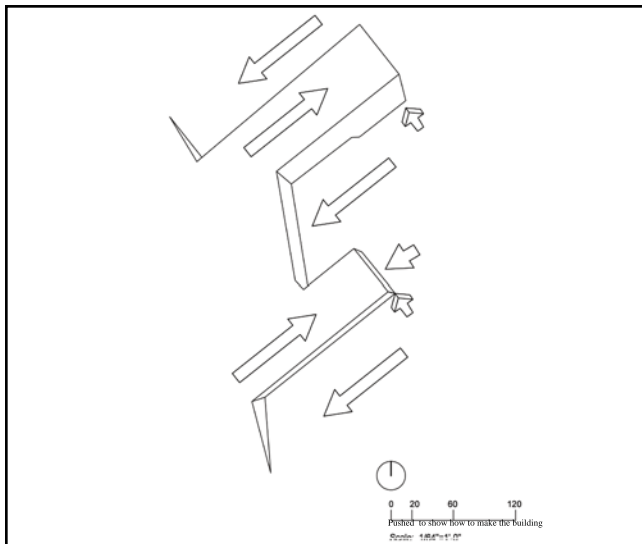
Client: Municipality of Holbæk

Area: 1350.0 sqm

Project Year: 2009

Photos From: "Bernts Have Daycare Center / Courtesy of Henning Larsen Architects." ArchDaily. 31 Oct. 2010. Web. 4 July 2015.

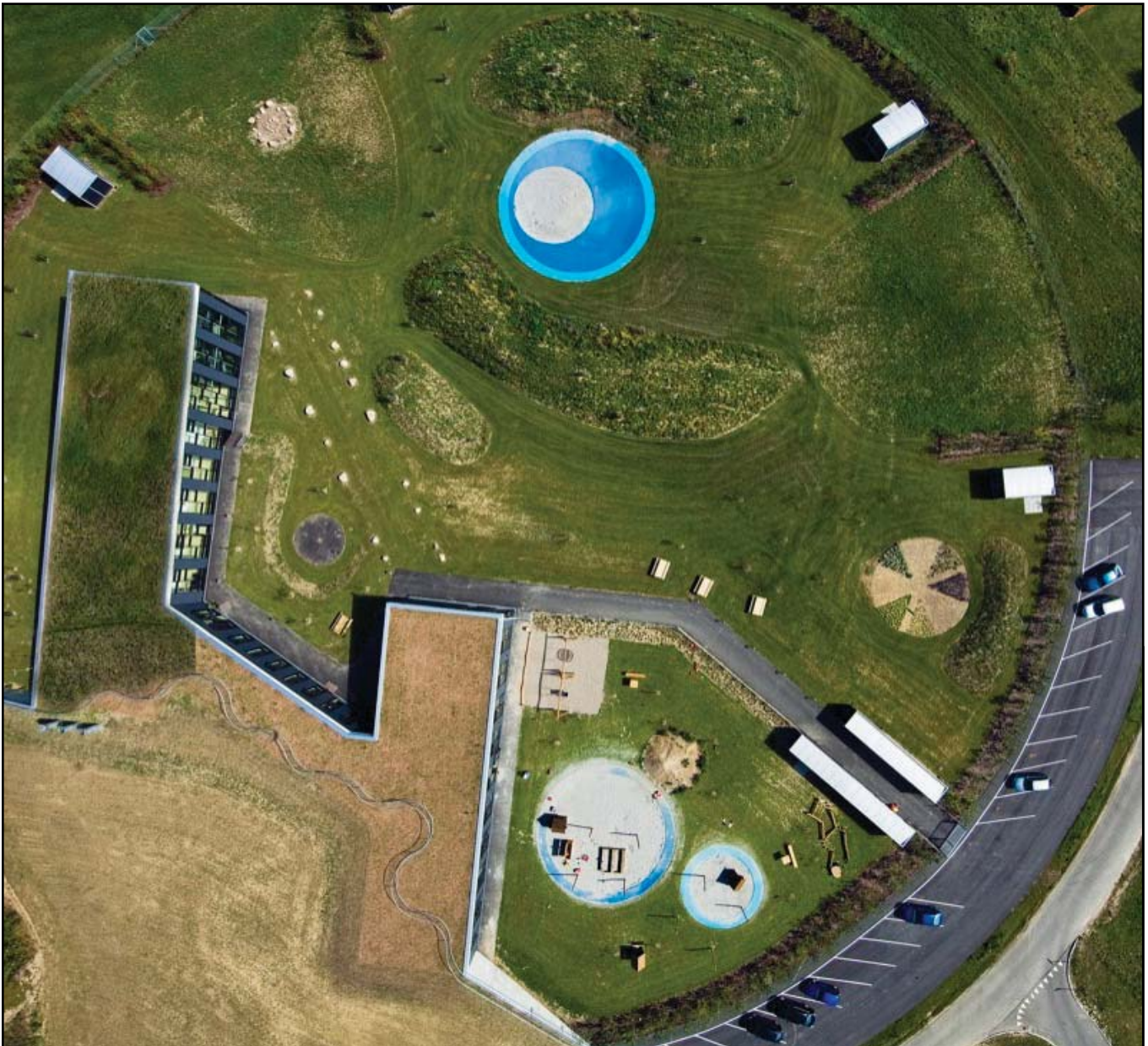
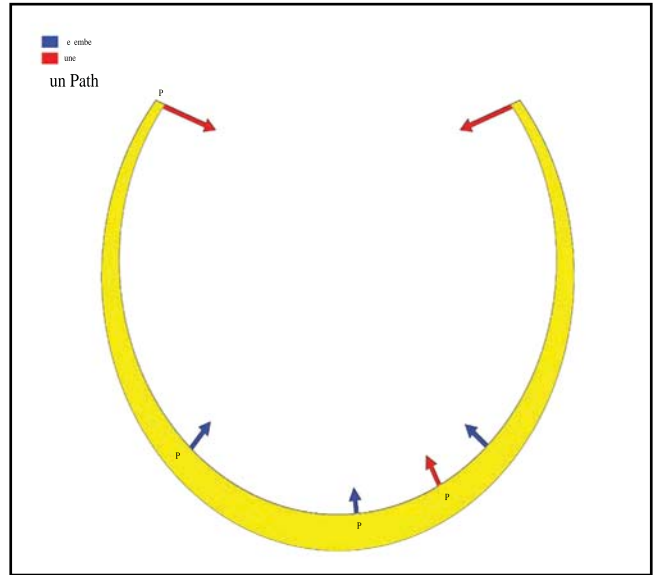




Kindergarten

Photos From: "Bernts Have Daycare Center / Courtesy of Henning Larsen Architects." ArchDaily. 31 Oct. 2010. Web. 4 July 2015.





Salewa Headquarters

Location: Bolzano, Italy

Architect: Cino Zucchi Architetti + Park Associati (Filippo Pagliani e Michele Rossi)

Project Team: Filippo Pagliani, Michele Rossi with Elisa Taddei, Alice Cuteri, Lorenzo Merloni, Marco Panzeri, Davide Pojaga, Alessandro Rossi, Giada Torchiana

Structural Engineering: Kauer & Kauer Ingenieure (Georg Kauer, Ulrich Kauer Area: 30,595 m²)

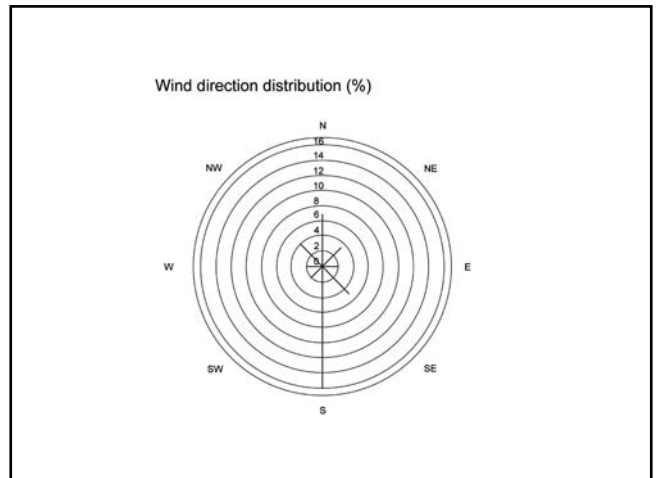
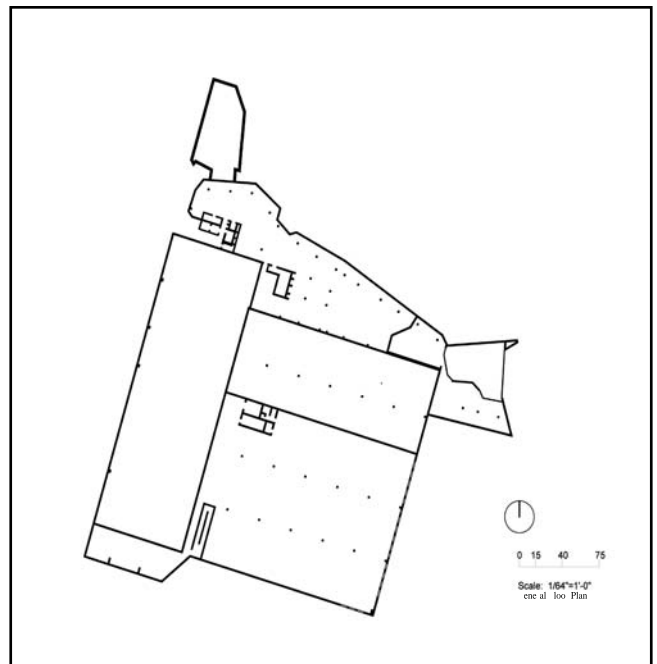
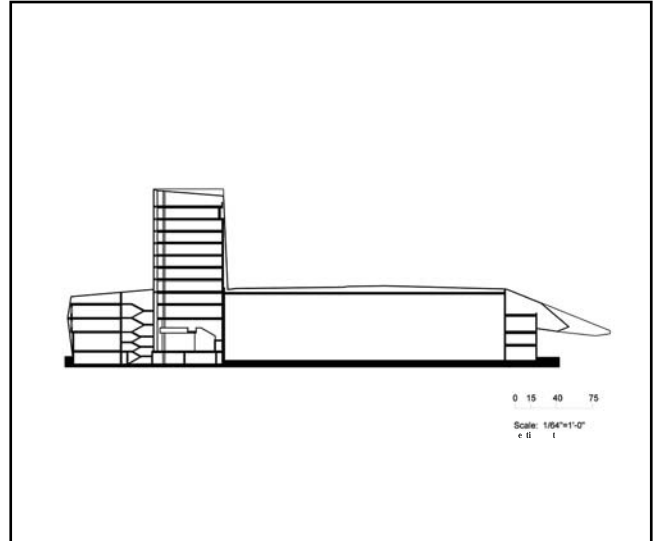
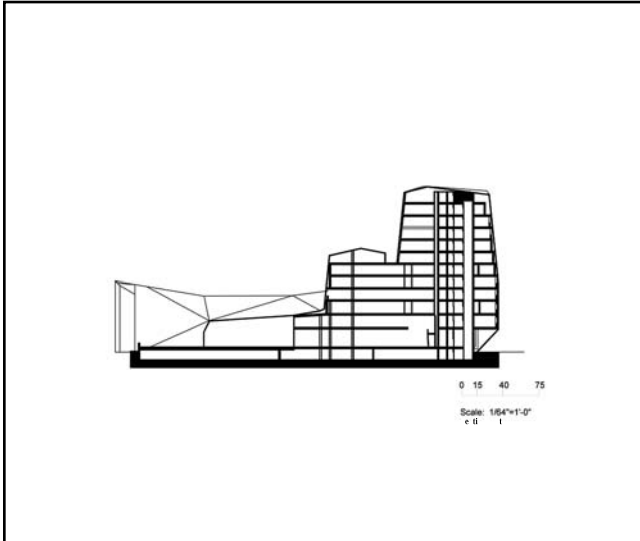
Cost: 40 Million Euros

Year: 2007-2011

Client: Salewa

Photos From: "Salewa's Outdoor Sportswear Headquarters Boasts Italy's Largest Climbing Wall." Inhabitat Sustainable Design Innovation Eco Architecture Green Building Salewa Headquarters Cino Zucchi Architetti Comments. Web. 4 July 2015.

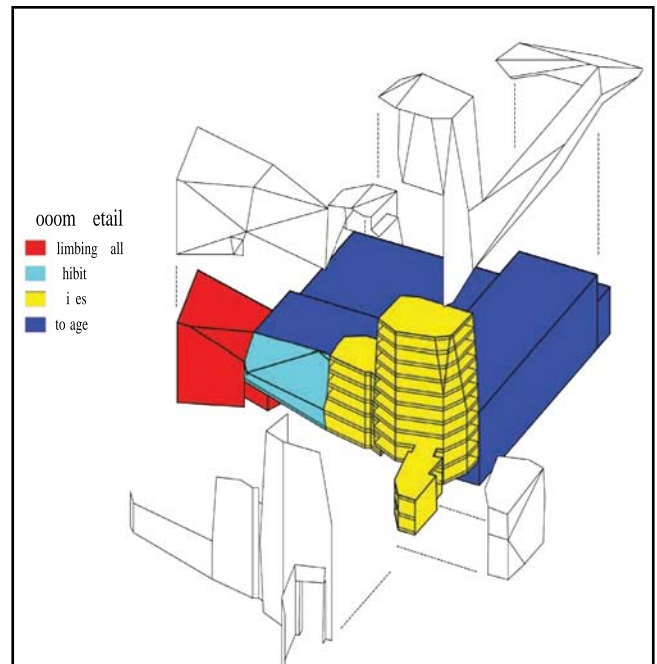
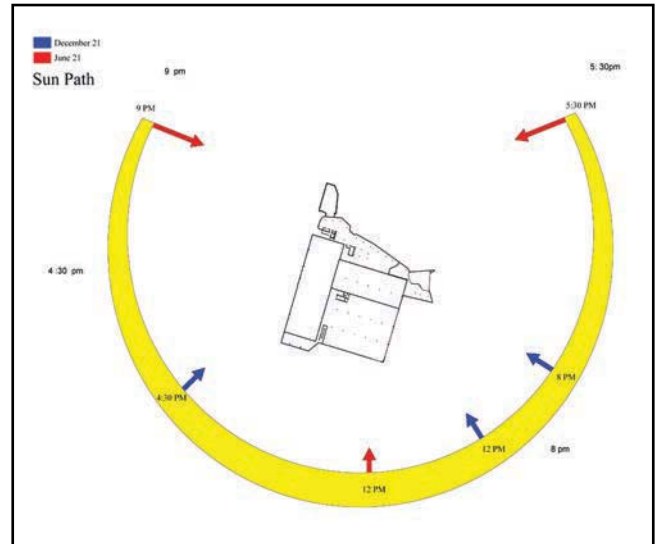
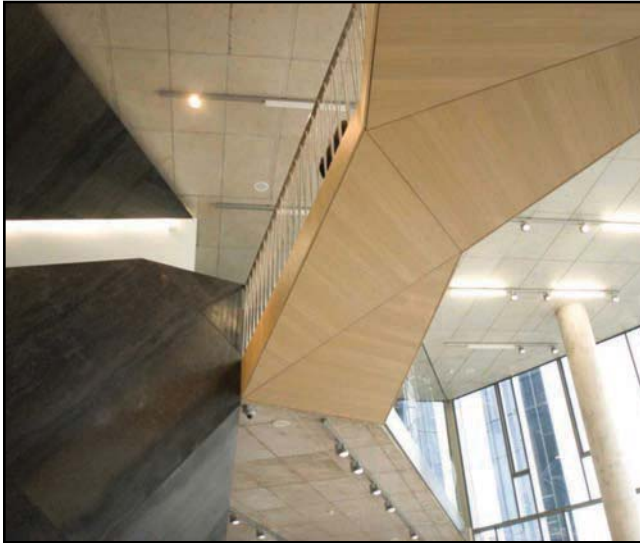




Salewa Headquarters

Photos From: "Salewa's Outdoor Sportswear Headquarters Boasts Italy's Largest Climbing Wall." Inhabitat Sustainable Design Innovation Eco Architecture Green Building Salewa HeadquartersCino Zucchi Architetti Comments. Web. 4 July 2015.





Moesgaard Museum

Location: Aarhus, Denmark

Type: Cultural – Public

Client: Moesgaard Museum

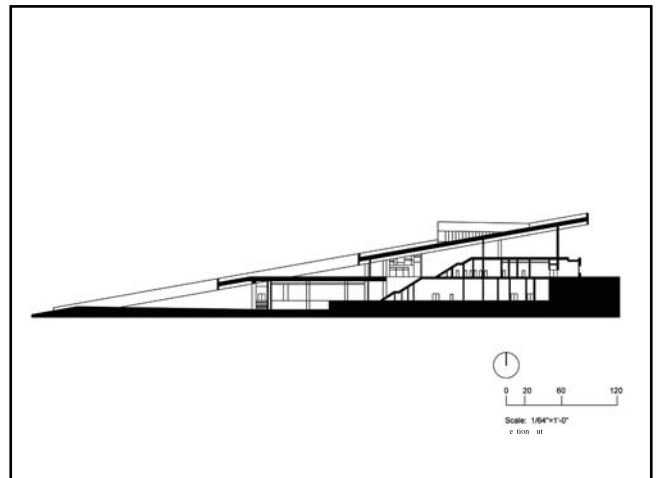
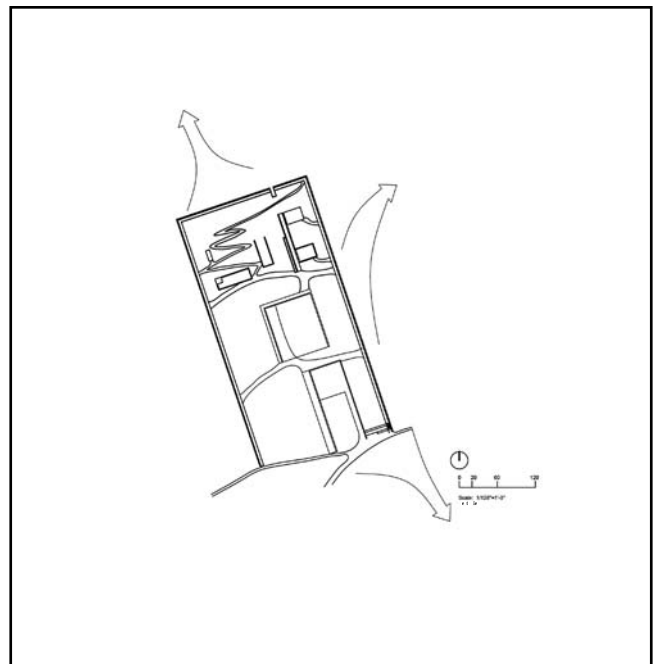
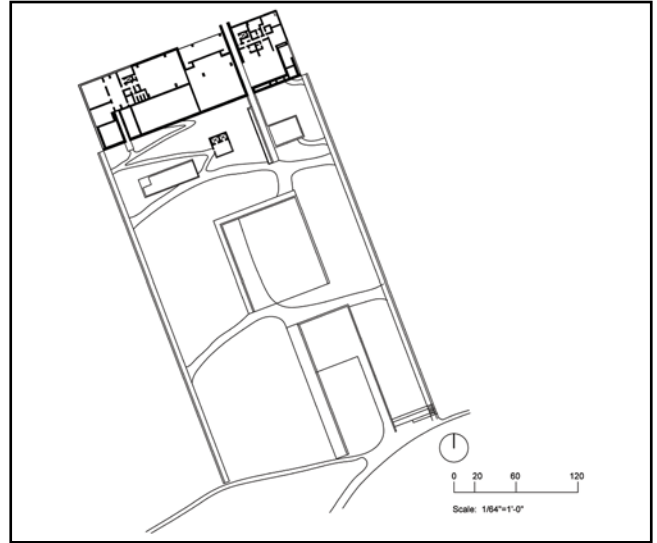
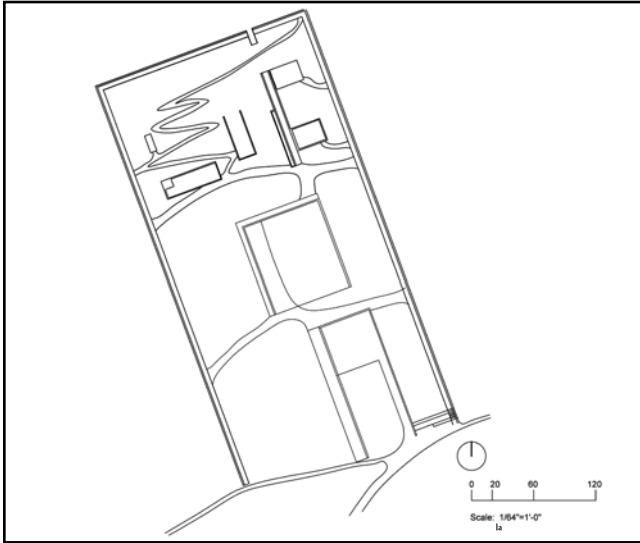
Gross floor area: 16,000 m²

Year of construction: 2010 – 2013

Architects: Henning Larsen Architects

Photos From: “Bernts Have Daycare Center / Henning Larsen Architects.” ArchDaily. 31 Oct. 2010. Web. 4 July 2015.

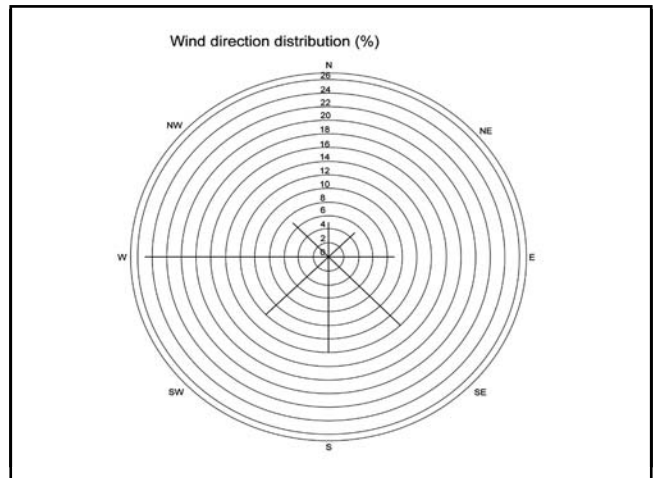
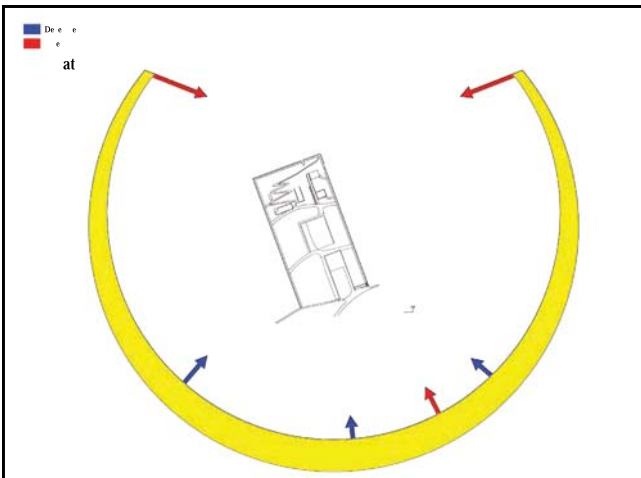
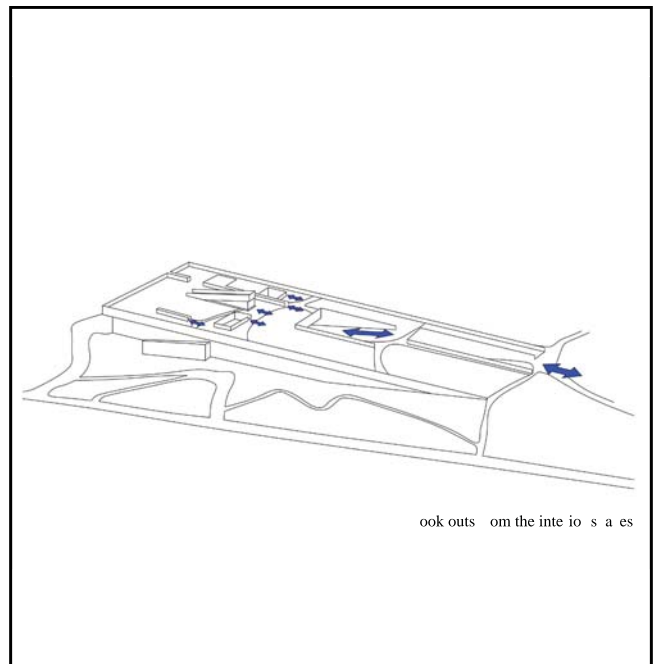
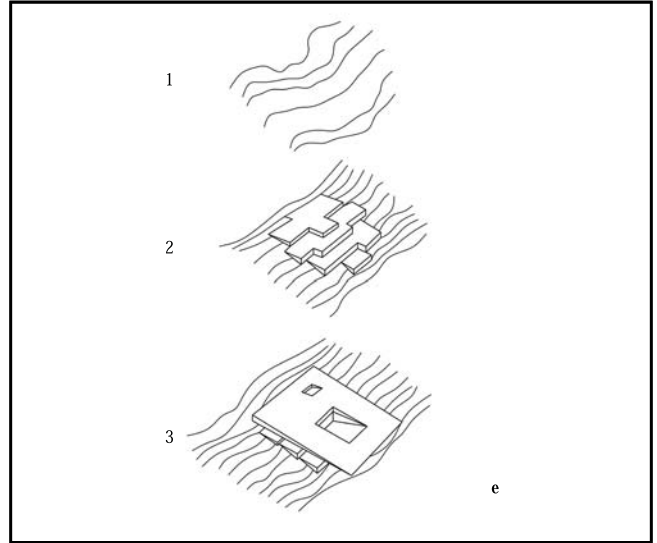




Moesgaard Museum

Photos From: "Bernts Have Daycare Center / Henning Larsen Architects." ArchDaily. 31 Oct. 2010. Web. 4 July 2015.



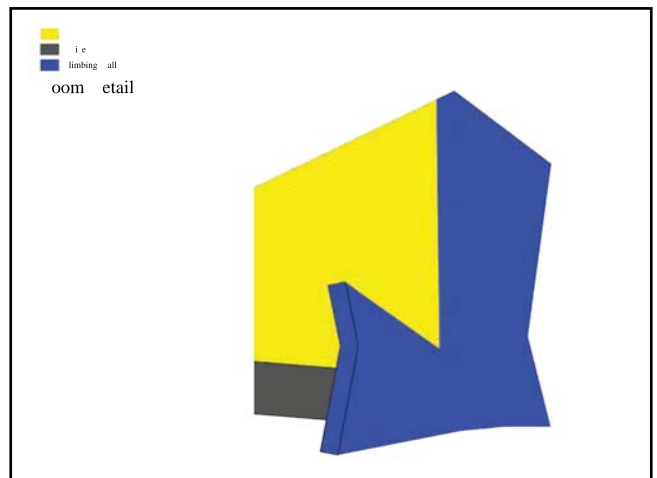
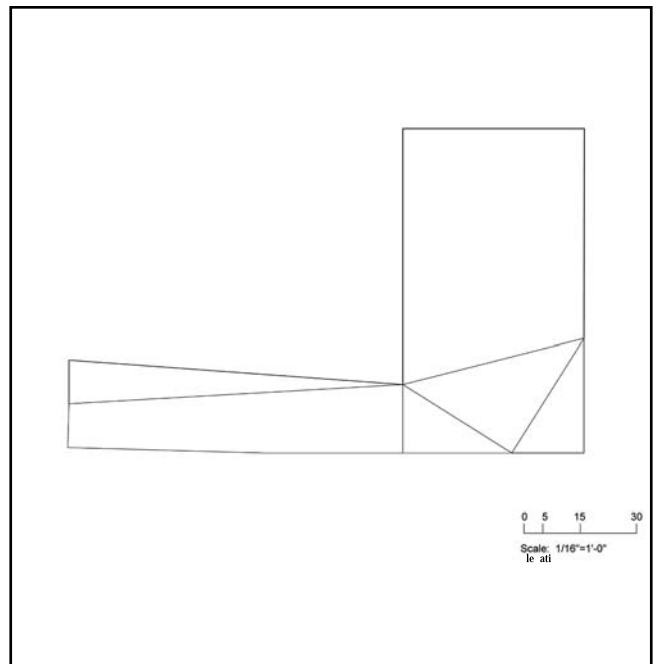
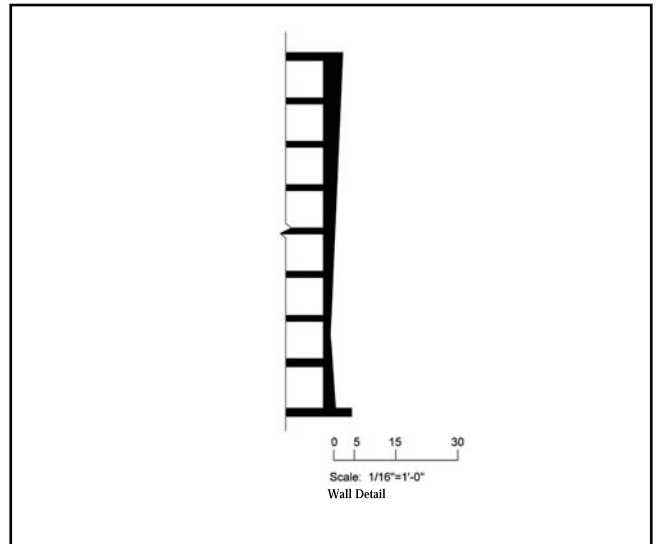
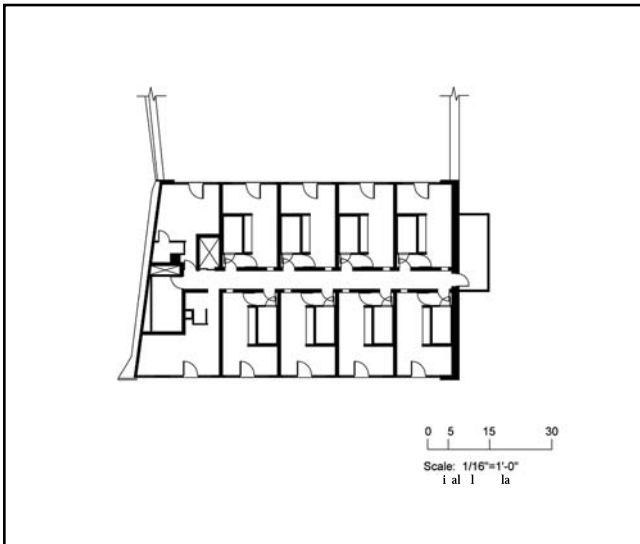


Climb Your Dorm

Location: Enschede, Netherlands

Photos From: "Bernts Have Daycare Center / Henning Larsen Architects." ArchDaily. 31 Oct. 2010. Web. 4 July 2015.

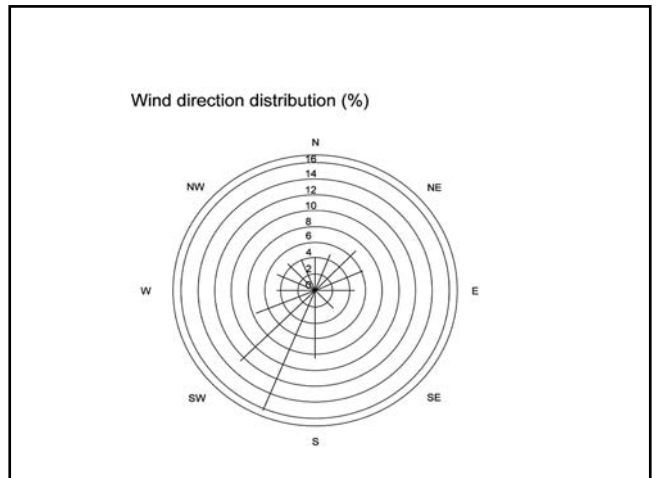
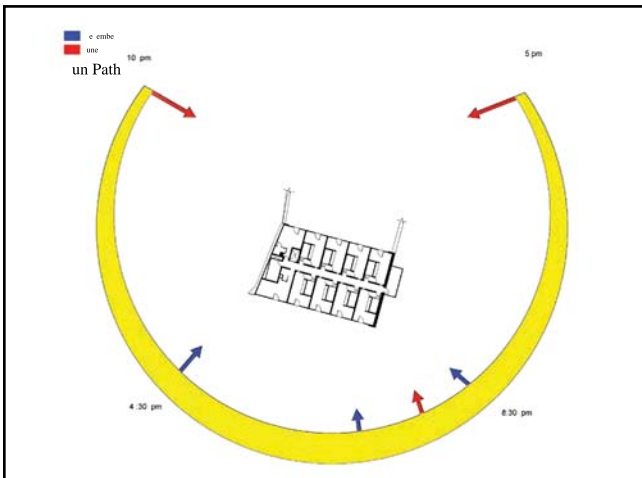
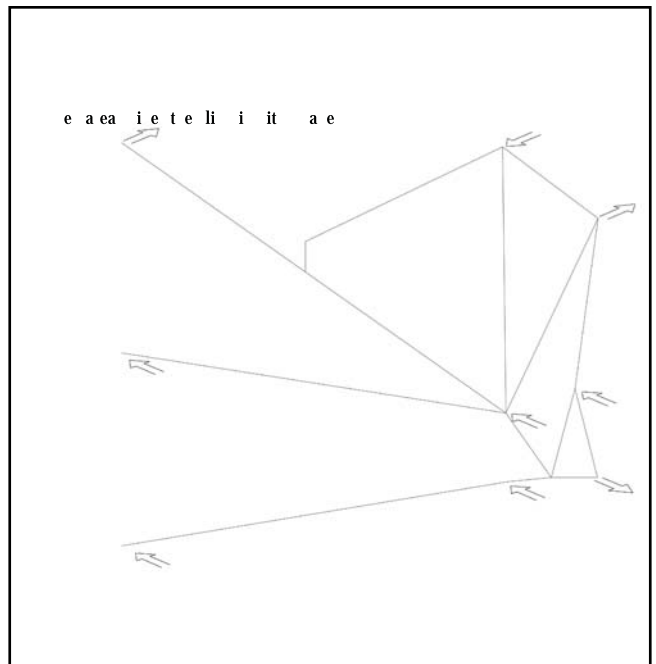
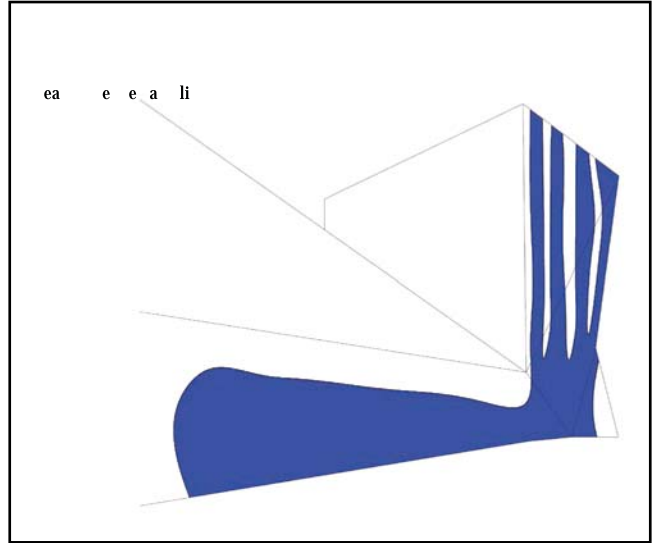




Climb Your Dorm

Photos From: "Bernts Have Daycare Center / Henning Larsen Architects." ArchDaily. 31 Oct. 2010. Web. 4 July 2015.





Heat Exchanger VAŽECKÁ

Location: Važecká Street, Košice, Slovakia

Architects: Atrium Studio

Area: 180 m²

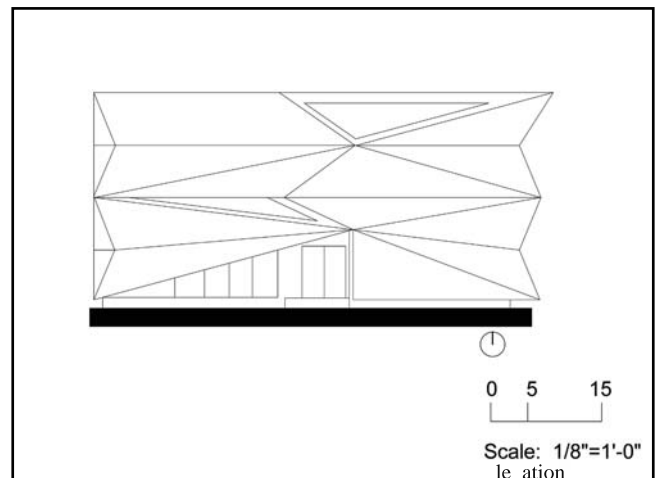
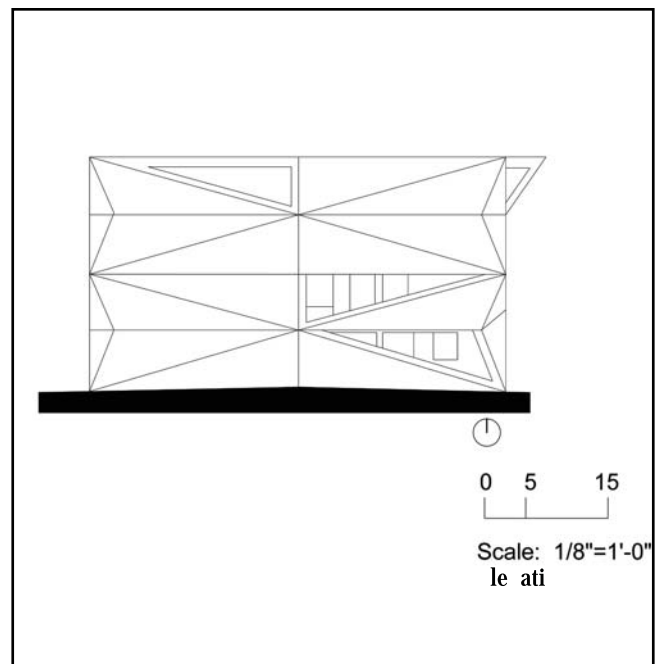
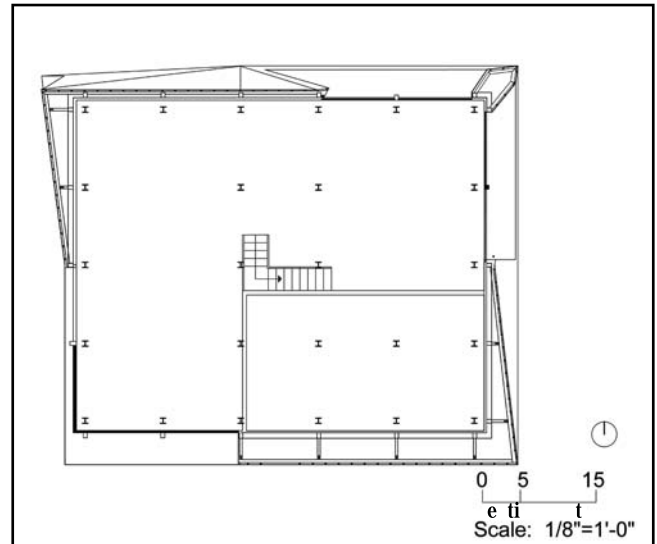
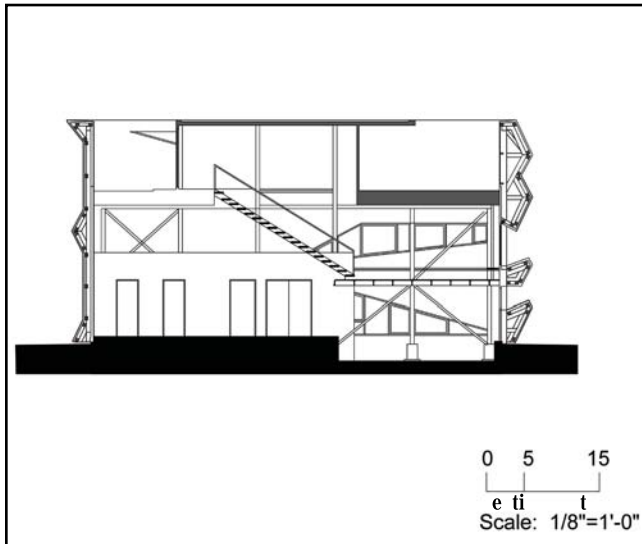
Year: 2011

Investor: Košice City

Photographs: Ľubo Stacho

Photos From: "Bernts Have Daycare Center / Henning Larsen Architects." ArchDaily. 31 Oct. 2010. Web. 4 July 2015.

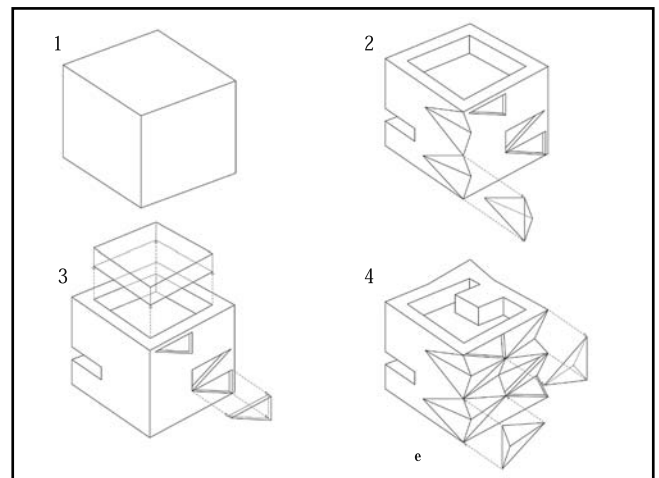
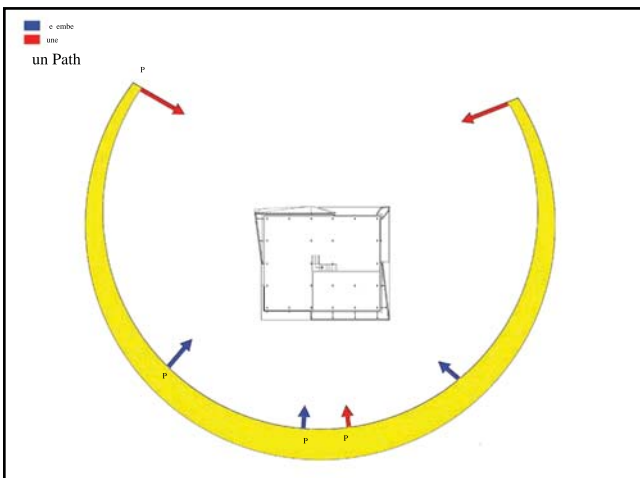
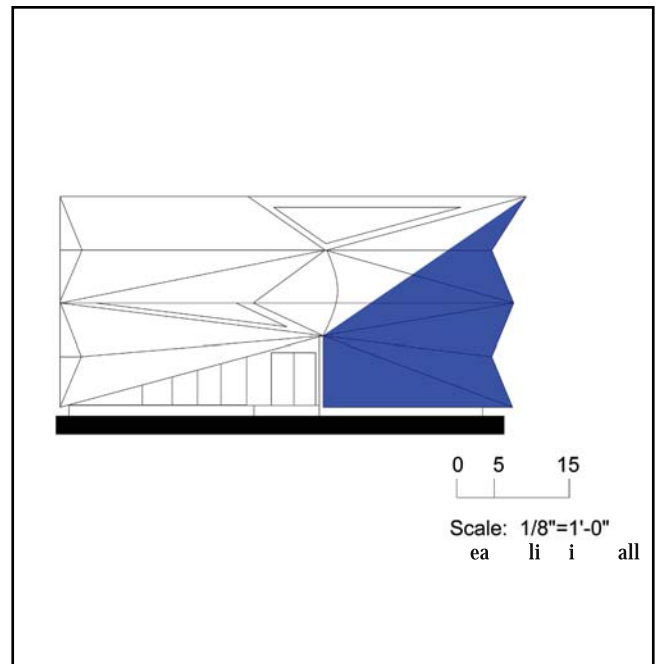
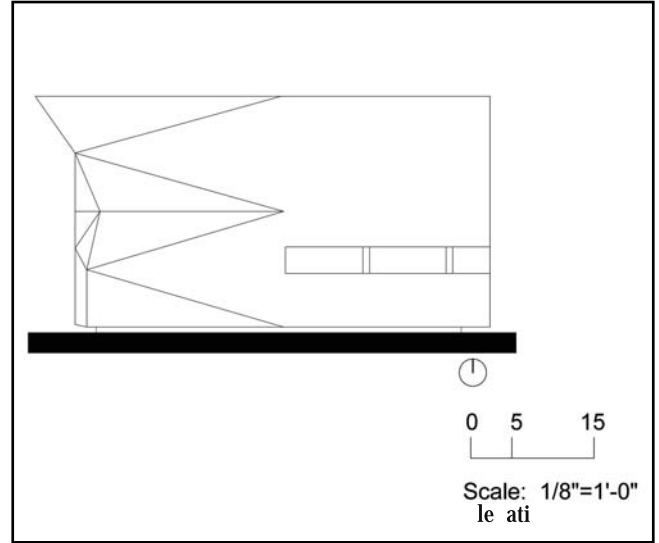




Heat Exchanger VAŽECKÁ

Photos From: "Bernts Have Daycare Center / Henning Larsen Architects." ArchDaily. 31 Oct. 2010. Web. 4 July 2015.





Kindergarten Farming

Location: Biên Hòa, Dong Nai, Vietnam

Architect: Vo Trong Nghia Architects

Principal Architects: Vo Trong Nghia, Takashi Niwa, Masaaki Iwamoto

Area: 3,800 sqm

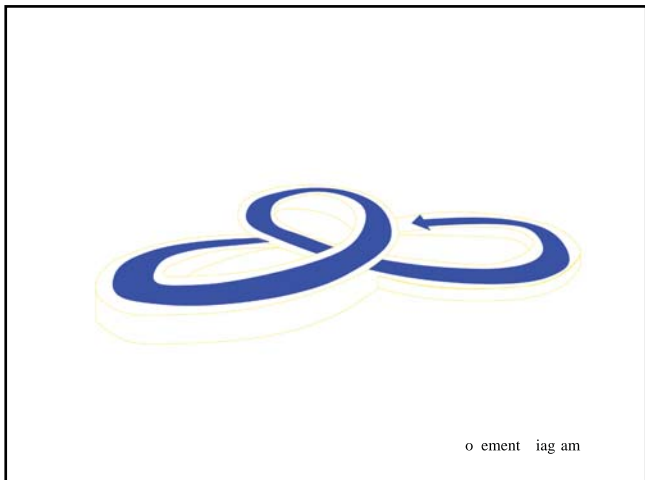
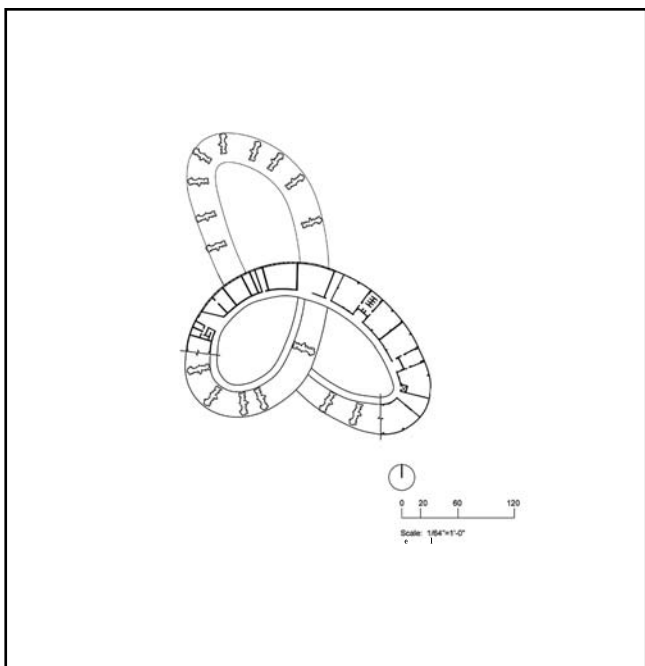
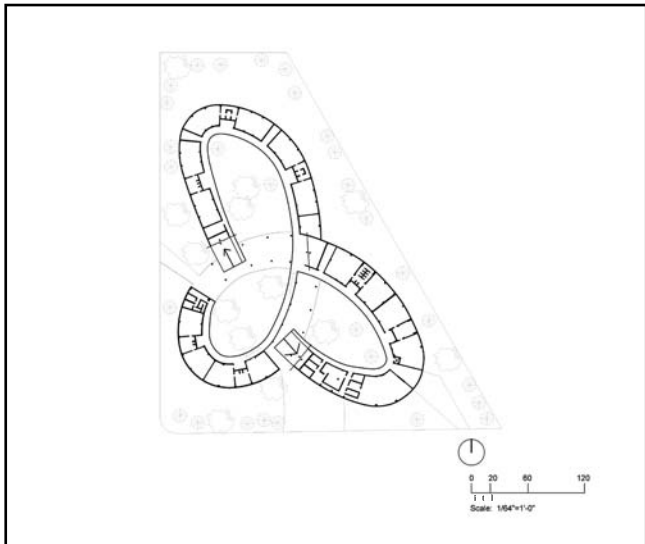
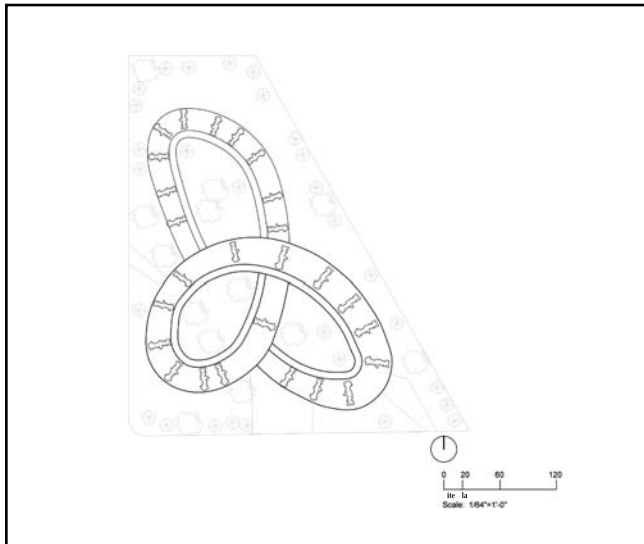
Year: 2013

Client: Pou Chen Vietnam

Photographs: Hiroyuki Oki, Gremsy

Photos From: "Bernts Have Daycare Center / Henning Larsen Architects." ArchDaily. 31 Oct. 2010. Web. 4 July 2015.

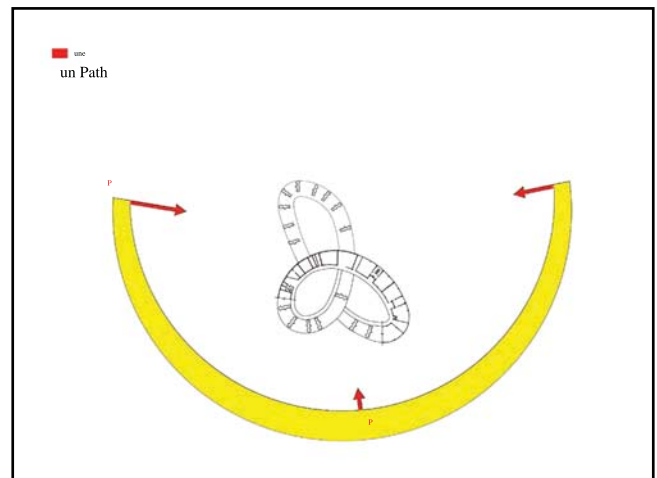
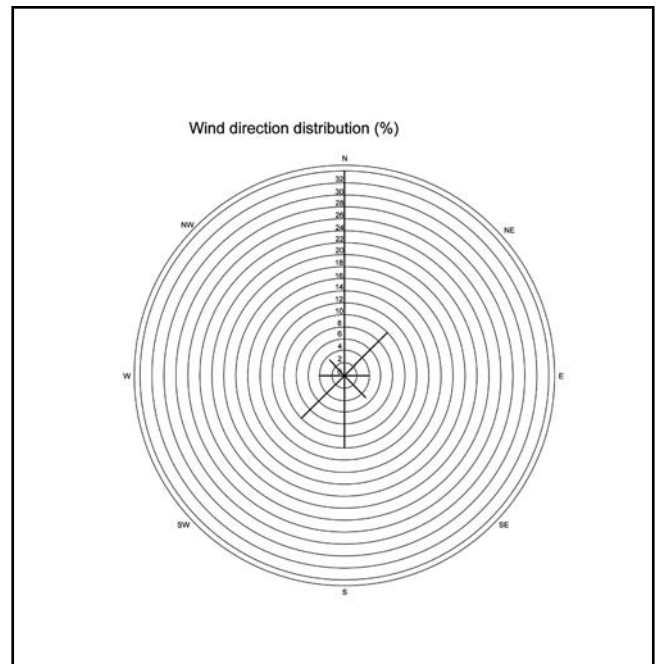
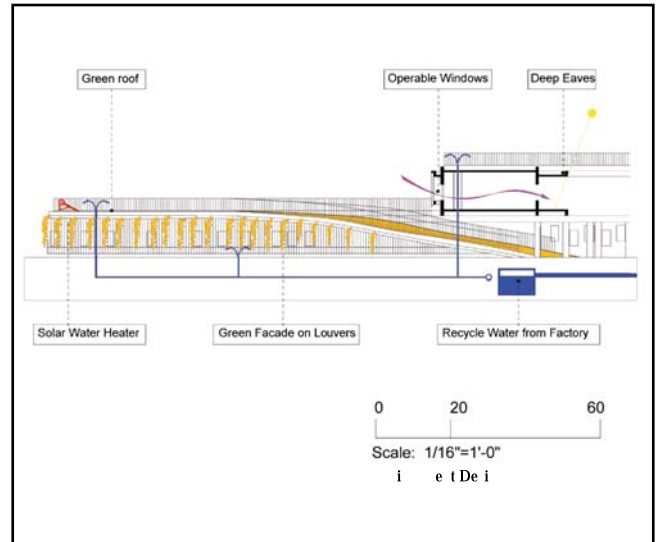




Kindergarten

Photos From: "Bernts Have Daycare Center / Henning Larsen Architects." ArchDaily. 31 Oct. 2010. Web. 4 July 2015.





Program Analysis

Frampton - Towards a Critical Regionalism

Kashikar Vishwanath - Modernity and Universalism: *Modernity as a timeless tradition*

SIUC College of Architecture
Little Grassy Lake
Jacob Bruning

Program Area	Area Required (in Sq. Ft.)	Number of Room(s) Required	Total Area (in Sq. Ft.)	Notes	Citation
--------------	----------------------------	----------------------------	-------------------------	-------	----------

Offices

Curator	200	1	200		
Administration	120	2	240		
Business	140	1	140		
Secretary/Reception	100	2	200		
Education	150	1	150	Makes learning about art enjoyable and intellectually for audience	
External Affairs	160	1	160	Responsible for attracting, welcoming, retaining, and increasing visitors	
Merchandise and Retail	150	1	150	opportunity for employees to enrich and develop in art.	
Human Resources	150	1	150	Recruiting and retaining a talented and diverse staff	
Information	100	1	100	located near main entrance	

Exhibits:

Exhibit 1	400-600	2	1,000	no sunlight room	
Exhibit 2	400-600	2	1,000	partial sunlight	
Exhibit 3	400-600	2	1,000	direct sun light	
Exhibit 4	800	1	800	Exterior	

Storage:

Furniture	300	2	600		
None Controlled	300	1	300	No direct light and some control of temperature	
Controlled	300	3	1,200	The air and light is controlled, Archeology, Specimen, Textiles, Mammalogy, Art, Paleontology Storages	
Exterior	225	1	225	For art work that is stores exterior	

Others:

Auditorium	2,300	1	2,300	114 seat	Design Guidance: Learning: Environment. http://www.uc.edu/architect/documents/design/learnenv.pdf . Web. 3 July 2015.
First Aid Room	225	1	225		
Security Room	225	1	225	Holds security cameras, Lockers, weapons,	
Classroom(s)	350	2	700		Design Guidance: Learning: Environment. http://www.uc.edu/architect/documents/design/learnenv.pdf . Web. 3 July 2015.
Restoration Rooms	300	4	1,200	oil paintings, ceramics, Sculptures, ...	
Coat Check	300	1	300		
Conference	300	1	300	14 Seats, 22 Sq. Ft. per person	
Restaurant	3,500	1	3,500	100 seats, 1,000 Sq. Ft. Kitchen, 1,500 Dining Area	How to Create a Restaurant Floor Plan Total Food Service. How to Create a Restaurant Floor Plan Total Food Service. Ed. Total Food Service. Web. 25 July 2015.
Entry	1,000	1	1,000	This will include other rooms or areas	
Vending Machine	100	1	100	Room or Area	

Grounds:

Tool Room	300-500	2	800	Shop, Assembly room	
	176	2	352	8x22 Compactor Receivers, Plastic, Cardboard use	http://www.kenbay.com/sites/default/files/uploads/Brochures/Balers/Others/kenbay_c40_spec_sheet.pdf
	128	1	128	8x20 Glass Recycler	"recycling Container with Dome Roof." http://customcontainersolutions.com/wp-content/uploads/2012/02/Recycling-Container-with-Dome-Roof.pdf . Custom Container Solutions Manufacturers of Steel Roll Off's Located in Central PA. Web. 3 July 2015.
Trash/Recycling	160	1	160	8x20 None recyclable materials	
	1,500	1	1,500	Safe Area	
Helicopter Pad	400	1	400	Area the Helicopter Lands, Green Pad	"Frequently Asked Questions: Tornado/Hurricane Safe Rooms FEMA.gov." Frequently Asked Questions: Tornado/Hurricane Safe Rooms FEMA.gov. Web. 3 July 2015.
Storm Shelter	600	2	1,200	This could be in a hallway or alone storm shelter	"Frequently Asked Questions: Tornado/Hurricane Safe Rooms FEMA.gov." Frequently Asked Questions: Tornado/Hurricane Safe Rooms FEMA.gov. Web. 3 July 2015.

Parking:

Bus	600	4	2,400	Green Pad	"Bus Stop Safety and Design Guidelines." http://nacto.org/docs/usdg/bus_stop_safety_design_guidelines_kimley.pdf . Web. 24 Mar. 2004.
Handicap	300	6		Green Pad,	"Parking Lot Design Standard." http://www.uh.edu/plantops/departments/fpc/design-guidelines/09_parking.pdf . Web. 3 July 2015.
Car	150	50	7,500	Green Pad	"Parking Lot Design Standard." http://www.uh.edu/plantops/departments/fpc/design-guidelines/09_parking.pdf . Web. 3 July 2015.
Drop off/Delivery				Asphalt	"ParkinCounty, Jackson. "Zoning Ordinance." http://www.co.jackson.wi.us/vertical/sites/4C09F8F2-A8A2-4929-9E2A-A836851B00CC/uploads/Chapter_17_Zoning_Ordinance.pdf . Web. 3 May 2014.

Support Spaces:

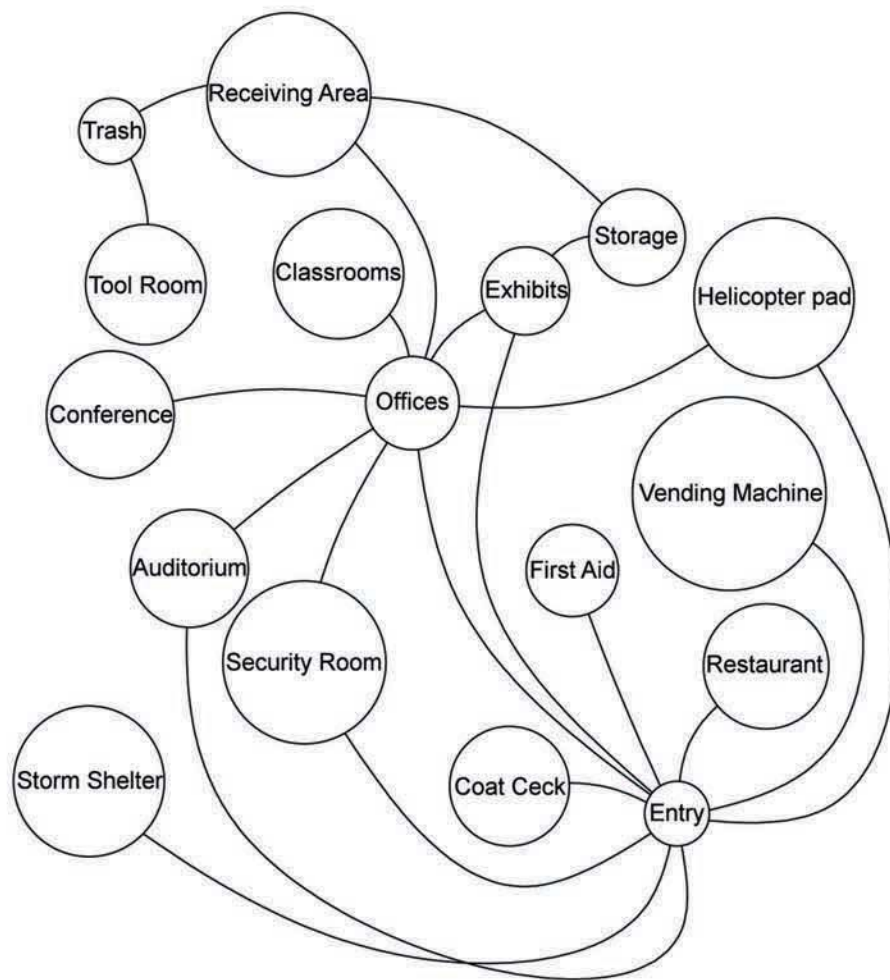
Mechanical Room	20% of the building		3,891		
Receiving Area	500	1	500	2 Loading doors, Split between exterior and interior receiving Area	
Restrooms	325	4	1,300	8 WC each restroom	"Planning Guide for Accessible Restrooms." http://www.bobrick.com/Documents/PlanningGuide.pdf . Web. 3 July 2010.
Janitor Room	100	2	200		
Circulation & Overhead	10% of the Building		1,946		
Total Building Programed Spaces:			19,465		

Building Total

25,302

Site Total

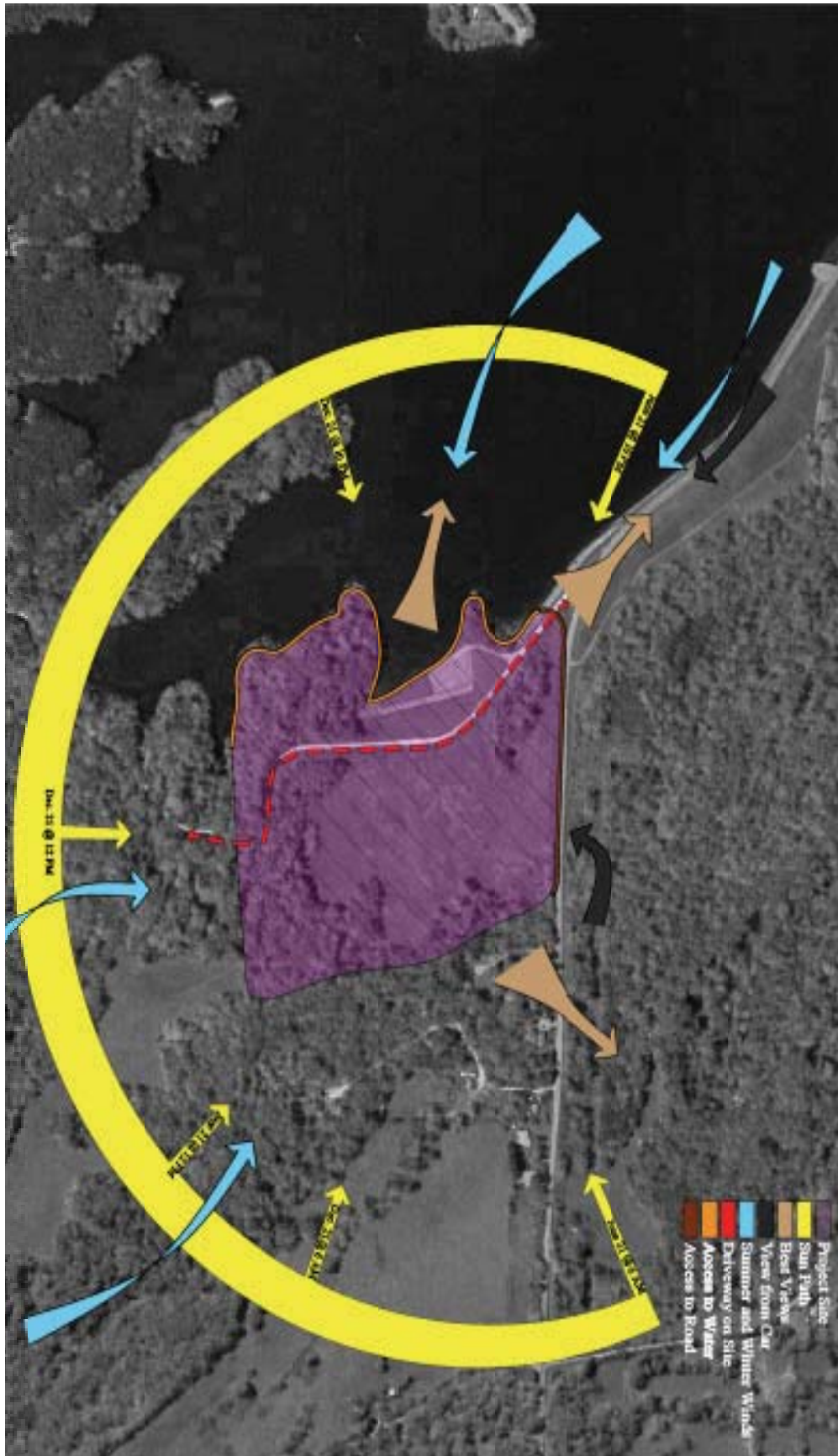
Bubble Diagram

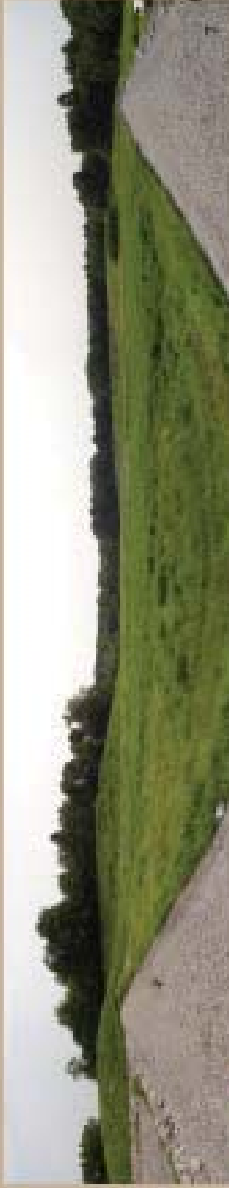


WRITTEN SUMMARY

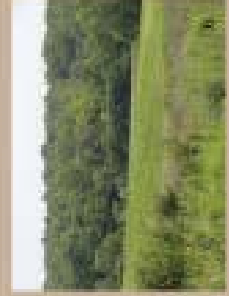
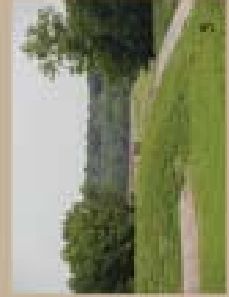
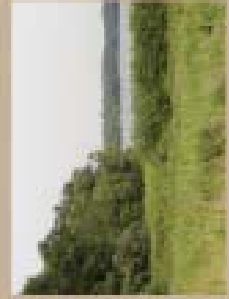
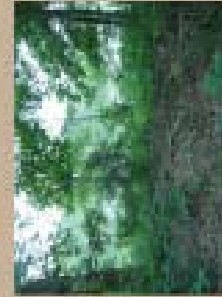
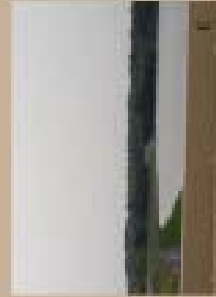
Frampton - Towards a Critical Regionalism

Kashikar Vishwanath - Modernity and Universalism: *Modernity as a timeless tradition*





- 8. Hill,
- 9. Hill, boat dock
- 10. Hill,
- 11. Flat, ideal for waterfront structure or boat dock
- 12. Valley, ideal for tall buildings so it will not go above tree line
- 13. Hill, ideal for main building for views from bridge
- 14. Hill, ideal for main building for waterfront



WRITTEN SUMMARY

Frampton - Towards a Critical Regionalism

Kashikar Vishwanath - Modernity and Universalism: *Modernity as a timeless tradition*

The collection of buildings that contains climbing walls and walkable green roofs gives you an open and active place where people are encouraged to interact with the building. The green roof collections give more light into the building to give it a more of an open feeling within the building. The green roof also gives the building a possibility of adding plants to the roof. The green roof also gives the opportunity to be an active place so people can snowboard when it snows, relax, and have a garden on top of the roof. The buildings that have active climbing walls are shaped in to symbolize a mountainside to give climbers to practice on. The buildings that have a climbing wall on the side of the structure is not only perpendicular to the ground but it slopes and folds into different directions to give the client and its climbers some representation of the mountain side.

The kindergarten building is a green roof with high ceilings that provides daylight to come in. The high ceiling gives an open feeling to the building and brings the daylight when the sun is at its highest point of the day. This gives the client to use less electricity within the building during daytime. When winter comes around most of the building's windows are facing the southeast. This blocks the cold winter winds from blowing against the window and driving the cost of heating up. With having no classrooms on the exterior surface and just allowing the hallways to have window access this gives the children to focus on their classwork and also give the room a controlled HVAC. Controlling the HVAC within the classrooms keeps the rooms the same temperature year around. The site of the structure has a sloping hill and gives the opportunity to put the building half way into the ground and give the roof a smaller slope to it. This gives the interior spaces more room to learn and play. Most other pitched roofs usually have dead space where no one can occupy that place. With this method you will save more space and you will not hit your head on the ceiling. When the children are playing outside there are different playgrounds that are separated by the shape of the building. This also gives different ages

groups some separation from each other. If there are some disabled children the teachers can control their movement to keep them safe.

The Salewa Headquarters is a sportswear manufacturer and designer for outdoor equipment. This is an all in one building that contains manufacture, research, design, marketing, sells, and test their equipment before offering the gear to their clients. The building is located within the northern part of Italy surrounded by mountains. The building has one of the largest man-made climbing walls that are in Italy. The building is housing 90 different routes that climbers can exercise and 2,000 m² of climbing wall area. The main climbing wall is open to the exterior elements facing southeast. This way of having the climbing wall on the inside of the building but allowing one of the walls to be dropped and exposing the climbing hall to the weather gives the climbers a safe area to exercise. This gives them a year around climbing hall without being limited by the weather. With having the climbing hall inside the building the building could be a plain design on the exterior surface. The architects design the rest of the building in a way that the factory floor and most of the offices are facing the northwestern part that will block the cold winds and placing the climbing hall the southeast direction. Playing with the exterior surface of the building they can design it in a way that represent a mountain ridge. Using a metal mesh material for the representation of the mountain ridge the designers could use energy efficient systems to the building. The exterior surface only allows partial daylight into the window. Then using most of the flat roof, they added a solar panel system.

The Moesgaard Museum is a green roof building that works with the site that. The architects took from the site by lifting up the grass and placing the museum underneath the grass. The pitch of the roof is parallel to the hill, which the building is on. The terrain at the bottom of the green roof continues to slope down. The structure can be seen from the water, the land, and the city that is just north of the museum. The green roof is used in both winter and

winter and summer season. During the summer the roof can be used in a way of relaxing by lying down and taking in the views. By the winter season when the snow falls the long slope can be used for skiing, snowboarding, or sledding. The holes that is on the south side with the green roof allows daylight to shine into the interior parts of the roof. Normally on pitch green roofs there are no openings to allow daylight inside but there are several holes that does provide light to come inside.

Climbing Your Dorm is a campus dorm located in Netherlands. The 9-story building contains dorms and on the exterior is a climbing wall for the students to climb on. The exterior climbing wall has different angle instead of a perpendicular wall. This gives the students some challenge to climb.

Heat Exchanger VAŽECKÁ is a transformed building that is use now by cultural, public, sports center. This building is unique in a way that the exterior design is used for a climbing wall. The different angled wall gives kids a challenge and fun place to be. This is a free climbing wall that allows kids to jump up and play as much as they can. This is only a 3-story building that has a climbing wall that is only 2.5-stories tall. The walls that are parallel to the other surround buildings are flat but the walls that are not parallel to the surrounding buildings they are different angled. The different angled walls are folding into it self and this gives an ideal climbing wall.

Farming Kindergarten is an educational center for the workers' children that work next to the school. The green roof is providing 5 different vegetable gardens that are educational too for the kids to learn. The three different ring building provides 3 different courtyards that give a safe playground. The slow sloping roof offers the children an easy climb without giving them trouble.

There are many different ways of using green roofs and climbing walls. There are little main ideas and goals that each architecture building used. They all tried to blend their main goal like green roofs and climbing wall into something is not usually noticeable when approaching the building. Each one of them used the environment to their benefit or used it in a way that does not decrease in a way that would back fire on them.



A historical photograph of a city street after a war. The street is covered in rubble and debris. In the background, several multi-story buildings are visible, some of which appear damaged. A large crowd of people is gathered on the left side of the street, looking towards the camera. The overall scene depicts the aftermath of a conflict.

Casey Bucher

No one likes to see war, yet it is a part of everyone's history. For some people it is more vivid than others. After a war, countries are left shattered, buildings left abandoned. This is a collection of a few of those buildings that showcase some of the unique concrete structures of World War II.

ANALYSIS OF READINGS

Frampton - Towards a Critical Regionalism

Kashikar Vishwanath - Modernity and Universalism: *Modernity as a timeless tradition*

After reading Frampton's "Towards A Critical Regionalism: Six Points for an Architecture of Resistance" what seemed like a million times, before his words finally began to sink in. Though I am exaggerating just a bit, I've realized that Frampton is a man of many words so I decided to just break it down and focus on one section. In part 5 "Culture Versus Nature: Topography, Context, Climate, Light and Tectonic Form"¹ the author discusses the condition of placelessness. The modern way to go about architecture is to clear and flatten the land in order to build the building that you had envisioned. Whereas, the more traditional route was to build with the land; try to maintain the original site as much as possible and let your building reflect its contours. This would be known as critical regionalism. Frampton also brings to point the issues of universal technique as far as light and climate are concerned. He discusses a museum or an art gallery as being "insufficiently recognized how this encapsulation tends to reduce the artwork to a commodity, since such an environment must conspire to rend the work placeless. This is because the local light spectrum is never permitted to play across its surface: here, then, we see how the loss of aura...also arises from a relatively static application of universal technology."² He talks about the window being an element of expression of architecture by the placement of it, controlling both light and climate. In placing a fixed window in a museum or gallery, Frampton is stating that this is the epitome of universal technique and that it is becoming a dominant and repetitive thing in architectural design.

Aside from placelessness and universal technique, the author also touches on the importance of tectonic. This is also what I focused on when choosing a second reading. Architectural tectonic is a somewhat new term for me, so I wanted to focus on this more in depth since much of Frampton's entry had mentioned the principles of tectonic versus scenographic. Frampton had quoted architectural historian Stanford Anderson as saying "Tektonik referred not just to the activity of making the materially requisite construction...but rather to the activity that raises this construction to an art form... The functionally adequate form must be adapted so as to give expression to its function. The sense of bearing provided by the entasis of Greek columns

became the touchstone of this concept of Tectonic."³ This quote is one that find really fascinating. Tectonic is the process of making a building and it's structure into a work of art. Frampton uses the term as more of a poetic take on the construction of a building. In Yonca Hurol's article, "Reconsidering Ethics in the Tectonics of Architecture through the Tectonics of Bodies of Love" she is comparing the modern tectonic architecture to the historic ways it had been perceived. She states, "unlike ancient Greek architecture, modern architecture is opposed to using building structures for the purpose of religious representation."⁴ Making it known that technology has changed the tectonics of architecture, she believes that design is trying to integrate more importance and symbolism into the building. The struggle between the opposing sides, technology versus artistic design, is a major factor in an architect's vision for the building. This makes me wonder if it were possible to incorporate both techniques into a design. Can some architects create a building that is less technologically advanced and more meaningful? I would like to think that people could make this happen. Hurol believes that Frampton views tectonics as more aesthetic than a technological issue. She's quoted as saying "He also argues that a building is a tectonic if the expressive interaction of load and support in architecture is visually neglected."⁵ Therefore, between both of their views, it seems that this issue of tectonics is always shifting and is a major cause of conflict between the artistic and the analytic.

1 Foster, H. (ed.), *The Anti-Aesthetic: Essays on postmodern culture*, Bay Press, Port Townsend, WA 1983, pp. 16-30

2 Foster, H.

3 Foster, H.

4 Hurol, Yonca. 2014. "Reconsidering Ethics in the Tectonics of Architecture Through the Tectonics of Bodies in Love." *Journal Of The Faculty Of Architecture* 31, no. 2: 25. Art & Architecture Complete, EBSCOhost (accessed June 15, 2015).

5 Hurol, Yonca.

Frampton - Rappel a l'Ordre

Carles Vallhonrat - **Tectonics Considered:** Between the Presence and the Absence of Artifact

In Frampton's second article that was given to read, I see many similarities to his part 5 of his work, "Towards a Critical Regionalism: Six Points for an Architecture of Resistance". In both Part 5: Culture Versus Nature and his other article, "Rappel a l'ordre, the Case for the Tectonic", Frampton is emphasizing the importance of tectonics as a form of art. He explains that the favoritism shown towards scenography, a representation of a building's perspective, in the Post-Modern era has given the view of architecture and its buildings as just "things". Instead, he wants the emphasis put back into a building, letting the construction become poetic. He is quoted as saying, "Needless to say, we are not alluding here to mechanical revelation of construction but rather to a potentially poetic manifestation of structure in the original Greek sense of *poiesis* as an act of making and revealing."¹ In this particular area, I can feel a strong sense of relation. Growing up, with my grandpa being a local carpenter, I remember the amount of work and artistic ability he put into each building he did. Each home he designed and constructed had a sense of purpose, not just a structure on a piece of land. In his later days, when I would drive him to and from doctor's appointments, I remember all the stories he had for each house that he helped design and build. Through the many drives we had, never once did he tell the same story. That is true poetic architecture. When a building becomes more than just a building, you know you are doing something right. His homes were far from grandiose; he didn't make it more than what it needed to be. Simplistic. I envision a perfect poem to be simple, that is what makes it a work of art.

In another article I found, "Conviction into Tectonics: The Work of Rintala Eggertsson" a similar effect is portrayed throughout the article. They state, "We have to go far to do meaningful work because we can't do it in the midst of our own problems, we can't see them, there is no problem in our society, sort of, and we don't need to have any answers either. So in our society architects are decorators of the modern vocabulary."² This company, Rintala Eggertsson, believes that we are in a time

period where we don't see what is wrong with the direction architecture is heading. We are content with our surrounding but seem to want to make the change in unknown territory. They believe that the Western world is afraid of voids and will automatically fill it with meaningless "things", as Frampton would put it. However, the belief of Rintala Eggertsson and myself, is that these voids will one day have potential for some significant architecture to fill its space. I particularly like the metaphor the company was quoted as saying, "Gardening and crafting are important in Rintala Eggertsson's thinking about architecture as they highlight their unwanted opposites: agriculture and mass building. They see in these two activities the opportunity to learn from and act in sympathy with the local and its traditions. They are not against technological progress per se, but write that 'its exclusive pursuit since the Industrial Revolution has tended to exclude other means of creating assets', which they describe as a 'creative collage of the existing [resources], a collage where the product is more than the sum of its components. Gardening and architecture are examples of this kind of montage.'³ By adapting their surroundings, the poetic design they envision is inspiring. Not counting out the use of technology, the historic tectonic architecture that Frampton seemed to loved, seems to be well carried out through the future of this company and its success to come.

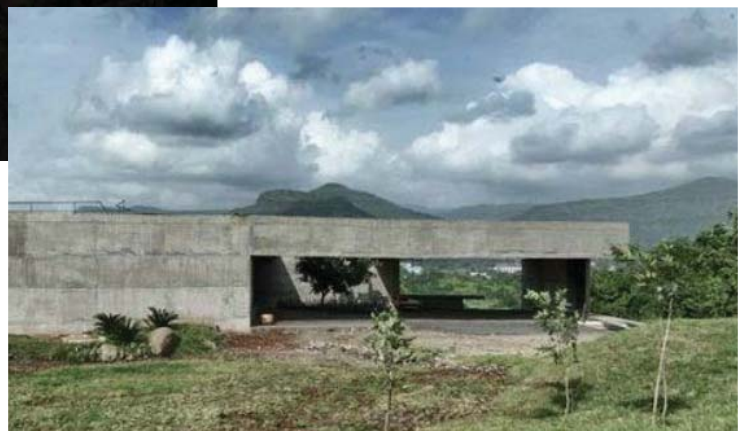
¹Frampton, K. (1990). Rappel à l'ordre: The case for the tectonic. *Architectural Design*, 60(3-4), 19-25. Retrieved from <http://search.proquest.com/docview/55588598?accountid=13864>

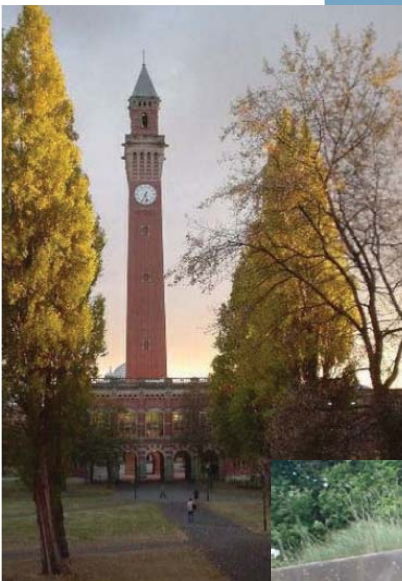
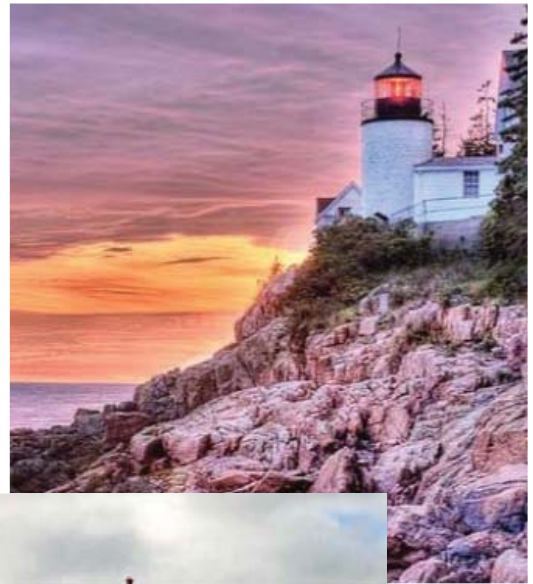
²Hermansen Cordua, C. (2015). Conviction into tectonics: The work of rintala eggertsson. *Architectural Design*, 85(2), 76-81. doi:<http://dx.doi.org/10.1002/ad.1879>

³Hermansen Cordua, C.

How It All Started...

Before there was a war building collection for my museum, there were several different options for a museum exhibit running through my head. I started generic, with things that I was most interested in: residential architecture, medieval times, and history. From there I knew it would have to be narrowed down drastically. So for residential, I wanted to look into homes made predominantly of one material. So for two of my “top five” building collection ideas, I chose Concrete Homes and Glass Houses. From there, I kept the house theme going, only to take a different approach: Lighthouses. These tall towers gave me the idea of Medieval bell towers. I love the castle/gothic look that the Medieval times brought, but needed something of a smaller scale. So Bell Towers seemed to be the perfect fit. As far as history goes, a building collection could have gone in any direction. After some research, I found that concrete was a common theme amongst building materials. By narrowing it down to just World War II structures, I was able to solidify a common theme amongst the concrete structures. After researching the “top five” building collections, I narrowed down my search quickly. Many of the residential buildings had little information to give. I was drawn most to the war structures because it would be a unique building collection for the heartland of the United States and I also thought I could tell a good story from this collection. I felt that with the site we were given to work with and the people from the surrounding area, this would be the perfect collection to build for visitors of all ages.





Lookout Towers

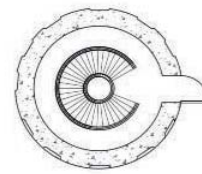
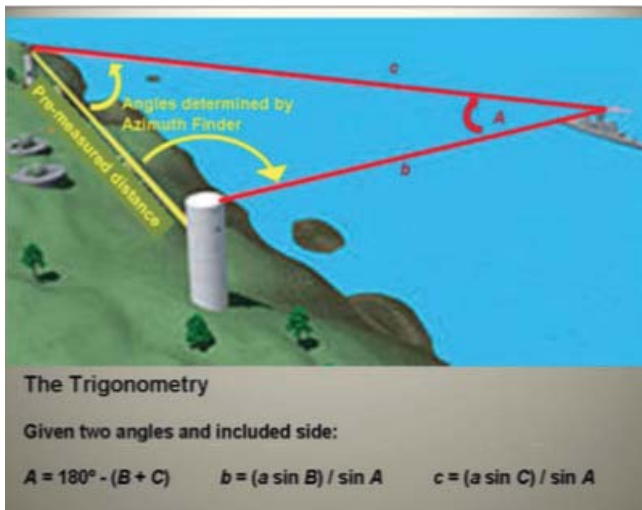
Location: Delaware Bay, USA

These are observation towers along the coastal region used to watch for enemy ships and submarines.

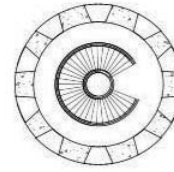
Photos From:

“The Watch Towers that Line the DE Coast: Signs of World War II.” Last modified: January 24, 2013 <http://shore-bread.com/2013/01/24/the-watch-towers-that-line-the-de-coast-signs-of-world-war-ii/>

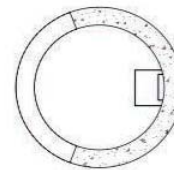




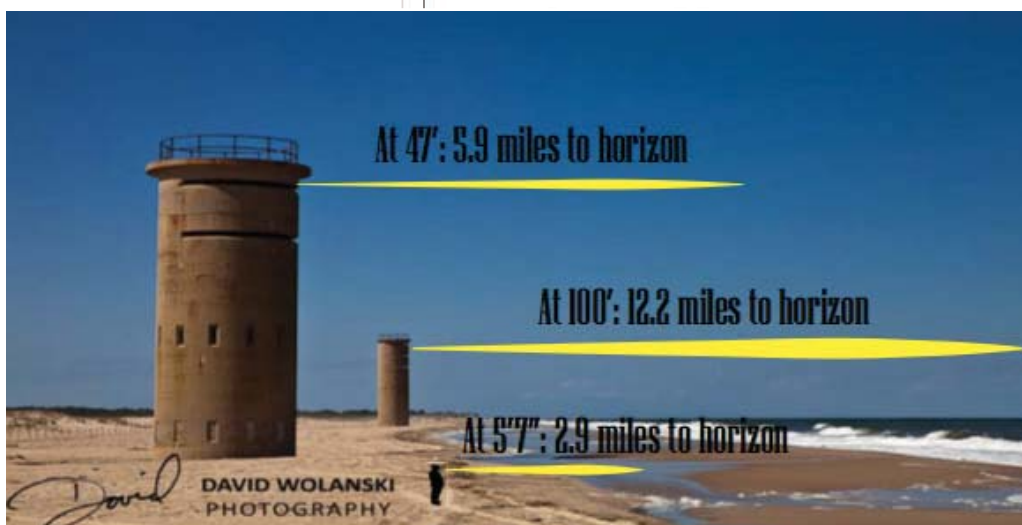
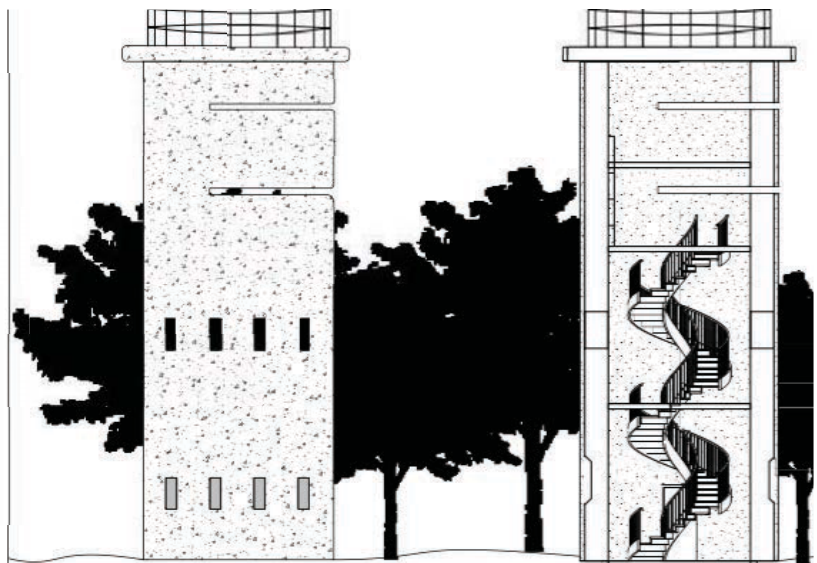
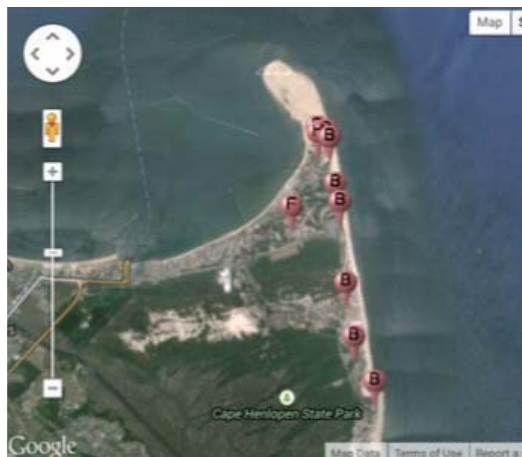
FIRST FLOOR



SECOND FLOOR



TOP FLOORS



Fire Towers

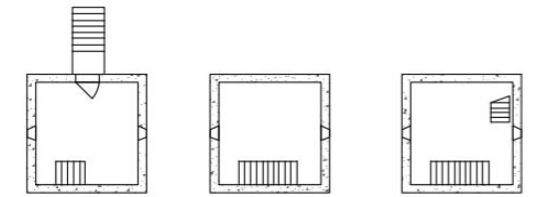
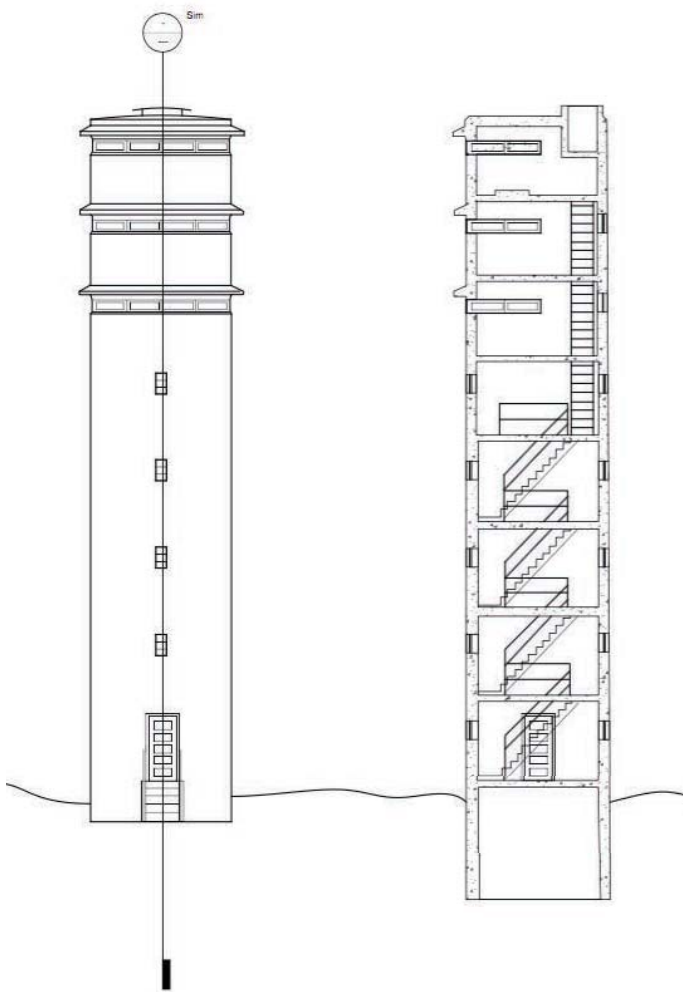
Location: Nahant, Massachusetts

The Fire Towers was a network of structures (towers, cottages, or buildings) that would be on the lookout for enemy attacks. Though called fire towers, they were not built to scope out fires. Instead, these structures were for directing fire (weapons) upon enemies approaching.

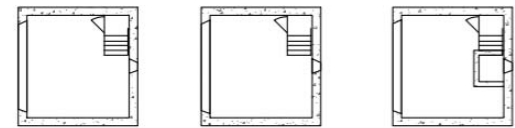
Photos From:

“Fire control tower.” https://en.wikipedia.org/wiki/Fire_control_tower Last modified: October 15, 2013

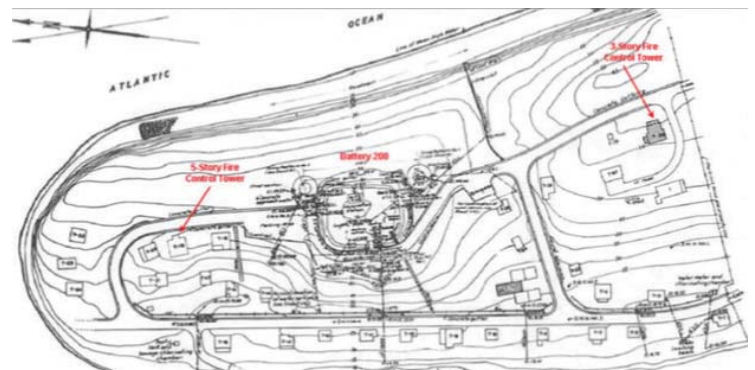
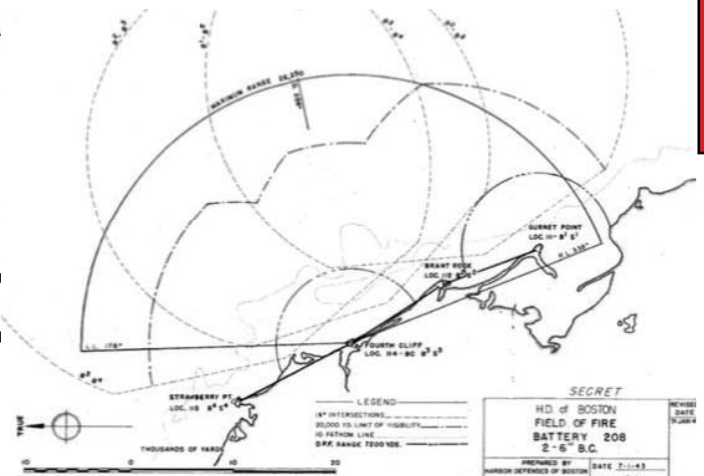




FIRST FLOOR 2-4 FLOORS FIFTH FLOOR



SIXTH FLOOR SEVENTH FLOOR EIGHTH FLOOR



Albanian Bunker

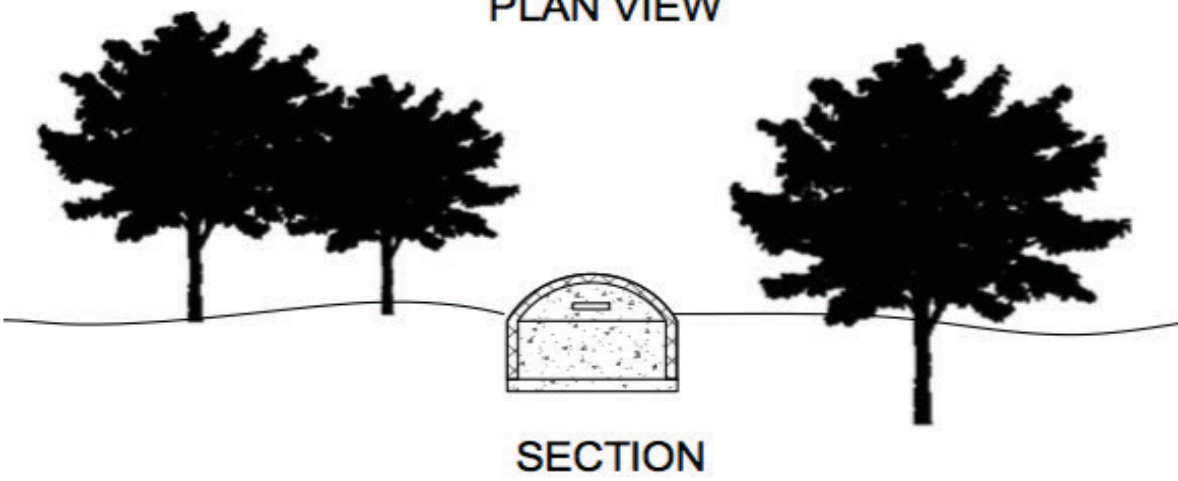
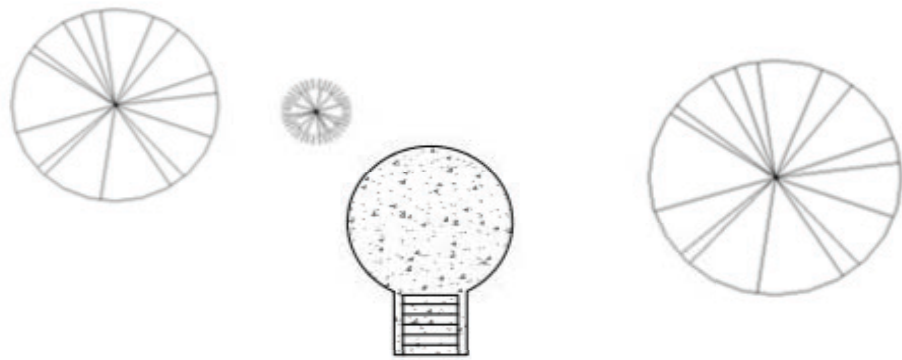
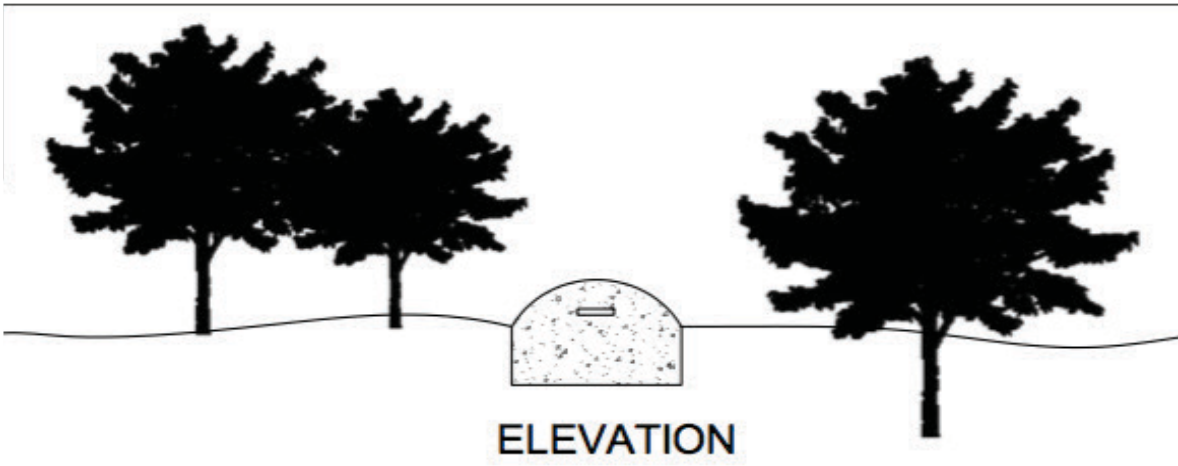
Location: All across Albania

Albanian bunkers were located everywhere in Albania. These dome structures ranged in size and shape but were there for soldier and citizen protection. During many battles, families would take refuge in these bunkers until fighting had ceased.

Photos From:

“Albanian Tourist.” <http://www.albaniantourist.com/albanian-bunkers.html>





German Pillbox

Location: Germany, England

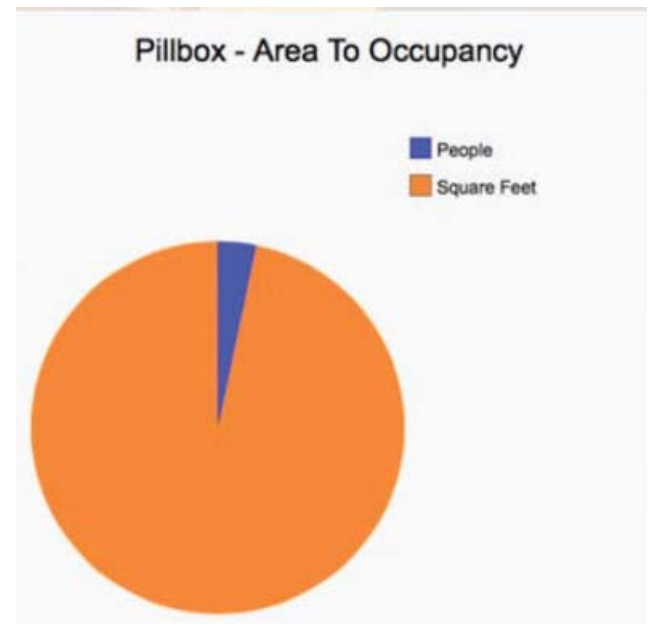
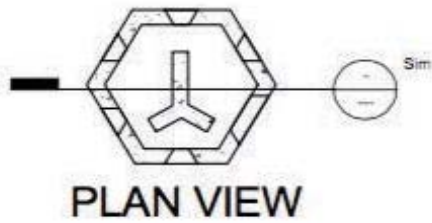
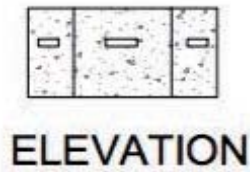
Pillboxes were similar in strategy to bunkers. The structure was built to withstand enemy attack, with its deep concrete walls. Again, ranging in size and shape many were buried into hills and covered in native grass to blend in with the environment.

Photos From:

“German Pillbox.” <http://www.carlisle.army.mil/ahec/trail/Pillbox/index.cfm>



Feb. 1945 Intelligence Bulletin, Collⁿ: LoneSentry.com



IES/
AMS/



WHERE IN THE WORLD

Langham Dome

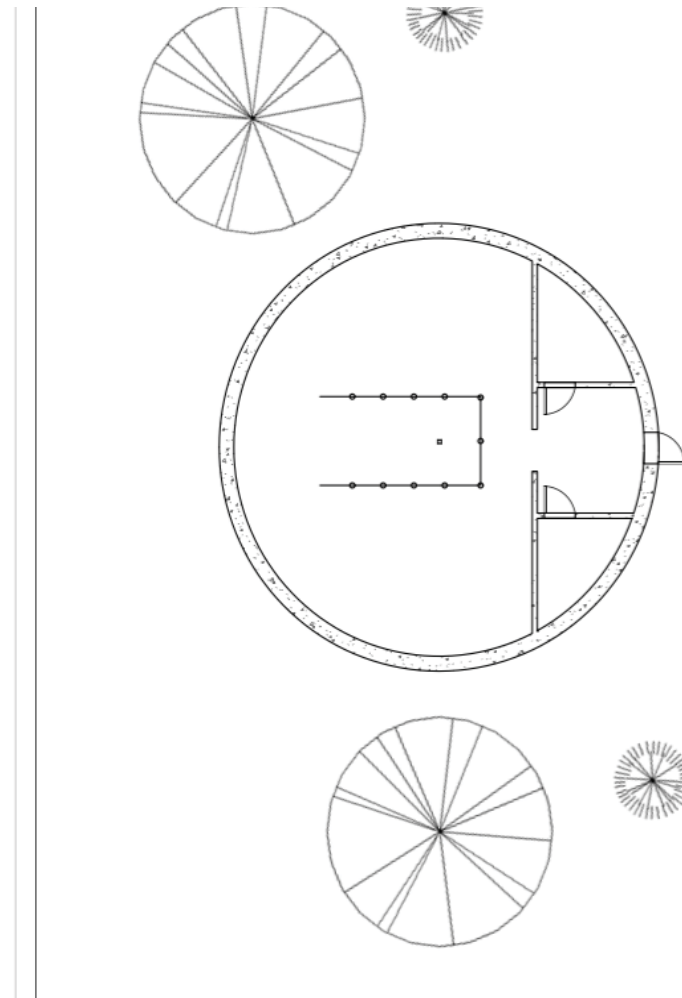
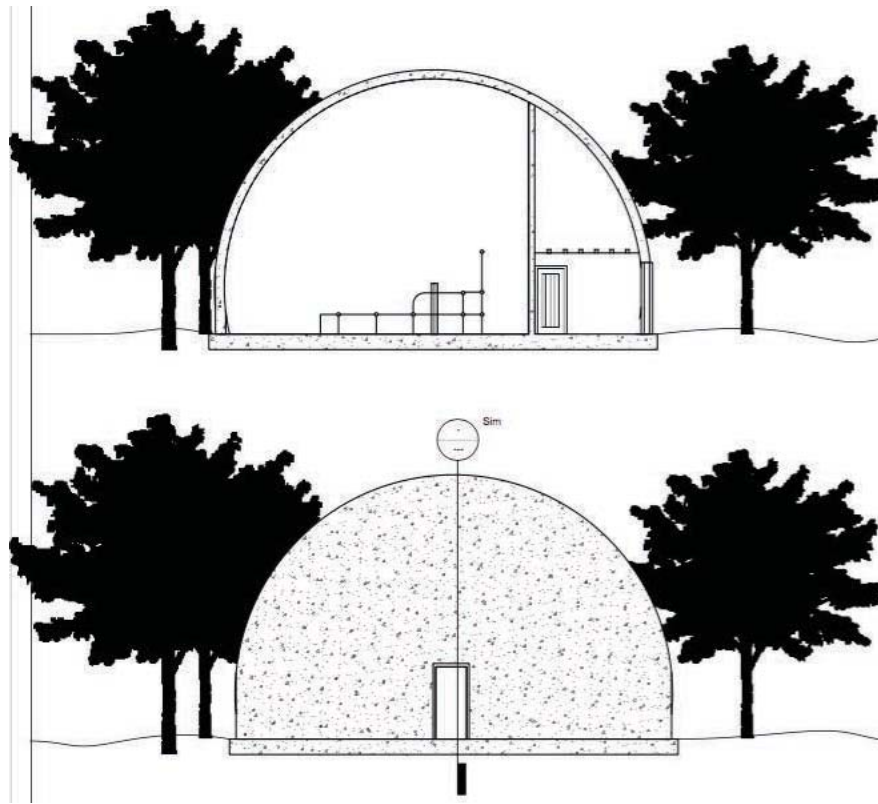
Location: Norfolk, England

The dome was built as a high-technology training facility for the Royal Air Force. Simulators and the most advanced technology was brought in to aid in a soldier's training.

Photos From:

"Training for AA Defence at RAF Langham." <https://langhamdome.org/about-raf-langham>





Marine Peilstand

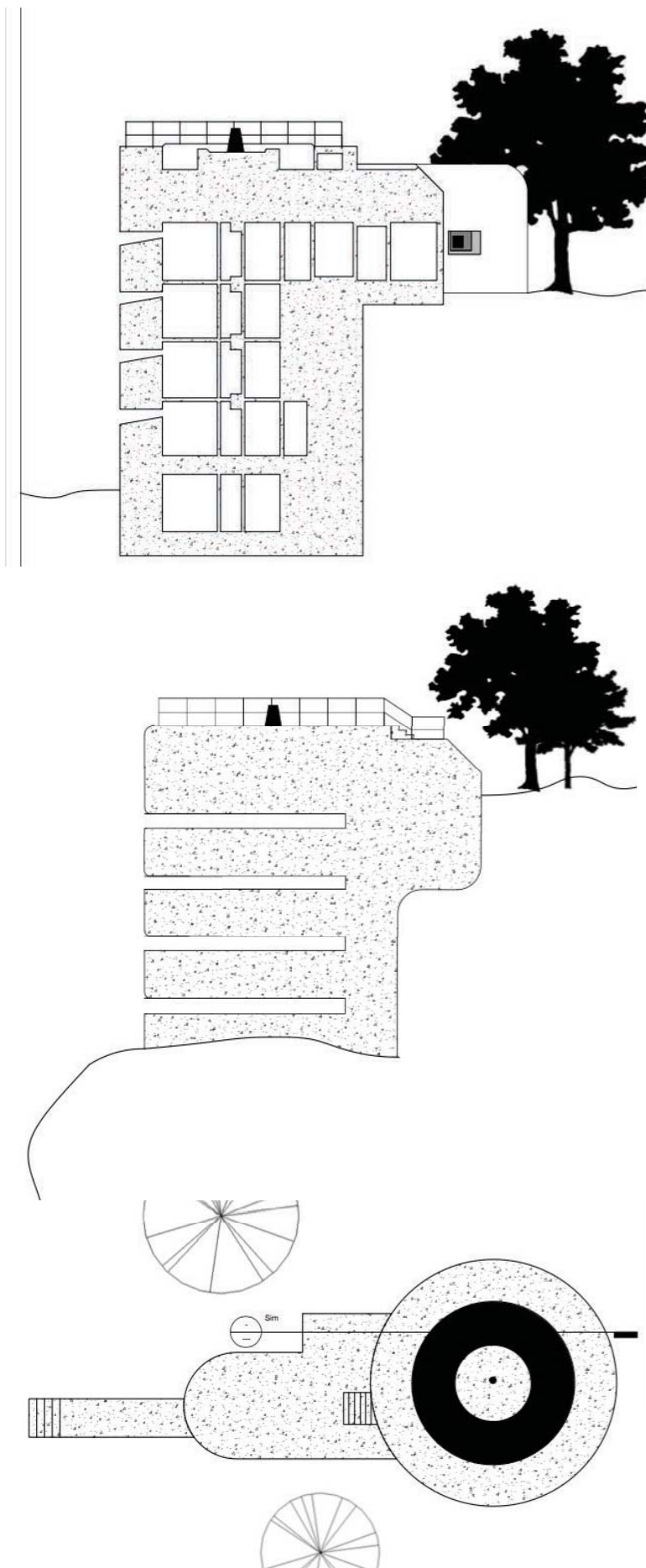
Location: St. Ouen, Jersey

This German observation tower was a massive structure. Built atop a cliff, it gave the Axis powers a large range to view for attackers.

Photos From:

“Marine Peilstand 3.” <http://www.tracesofwarjersey.com/Marine%20Peilstand%203/index.html> Last modified: 2015





Occupancy per Structure



ALBANIAN BUNKER



LANGHAM DOME



FIRE TOWER



MARINE PEILSTAND



WATCHTOWER

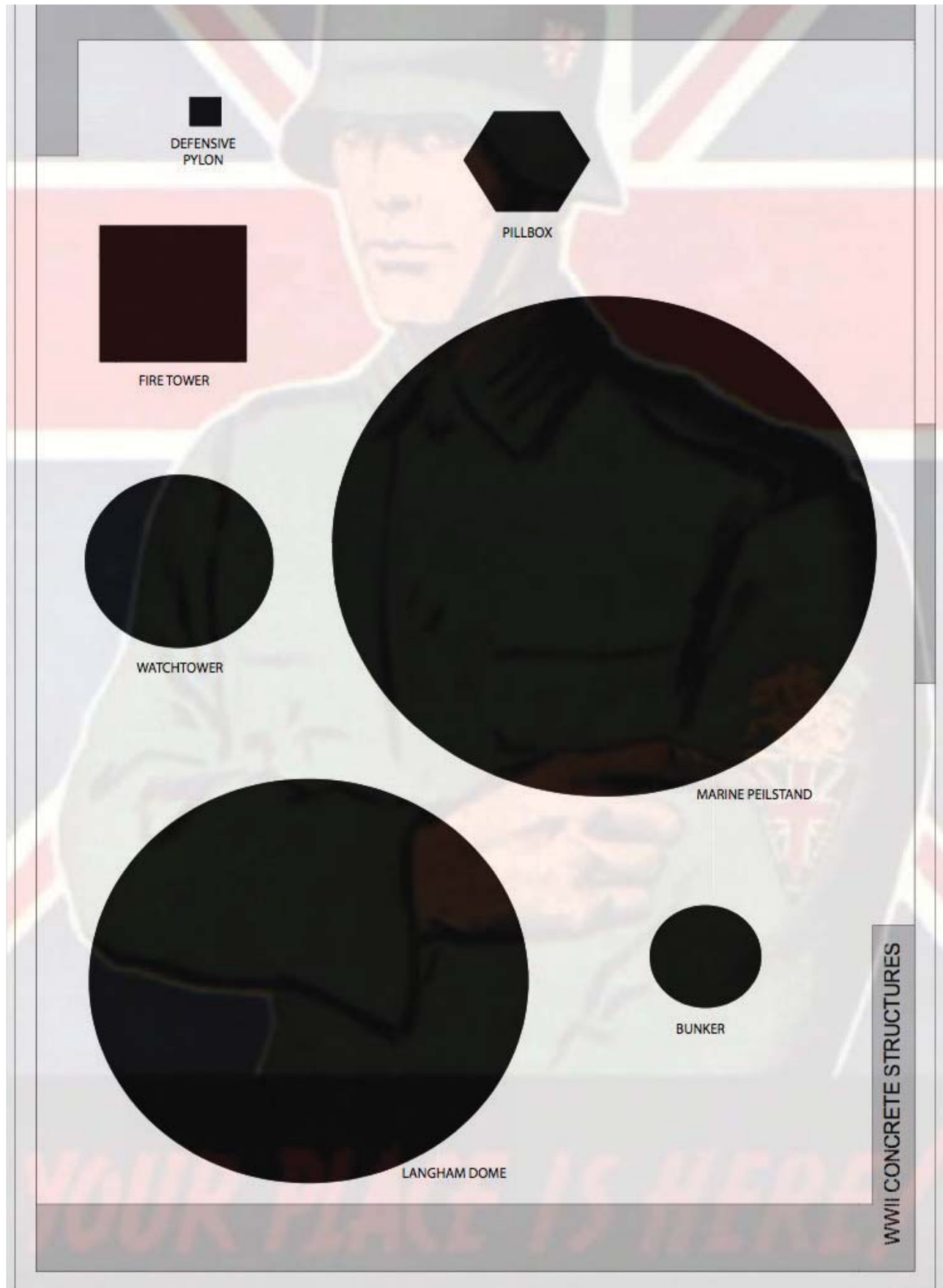


PILLBOX



DEFENSIVE PYLONS

Mass Comparison



Program Analysis

ARCHITECTURAL PROGRAM

CASEY BUCHER

ARC 550 - REGIONAL ARCHITECTURE STUDIO

WWII CONCRETE STRUCTURES OPEN AIR MUSEUM



IN THIS 36 ACRE LOT, GUESTS CAN BE BROUGHT BACK TO THE BATTLE GROUNDS OF WORLD WAR II. PEOPLE WILL EXPERIENCE THE GROUNDS AND OPPOSING STRUCTURES AS THEY WERE IN THE 1940s. THIS OPEN AIR MUSEUM WILL PROVIDE HISTORIC ANALYSIS AND CULTURAL ASPECTS OF SEVEN DIFFERENT STRUCTURES USED IN BATTLES BETWEEN THE ALLIED AND AXIS POWERS. THE WELCOME CENTER WILL FEATURE ART AND FILM DATING BACK TO THIS WAR-TIME ERA THAT WILL HELP VISITORS EXPERIENCE HOW IT TRULY FELT TO BE A SOLDIER IN THE WAR ZONE.

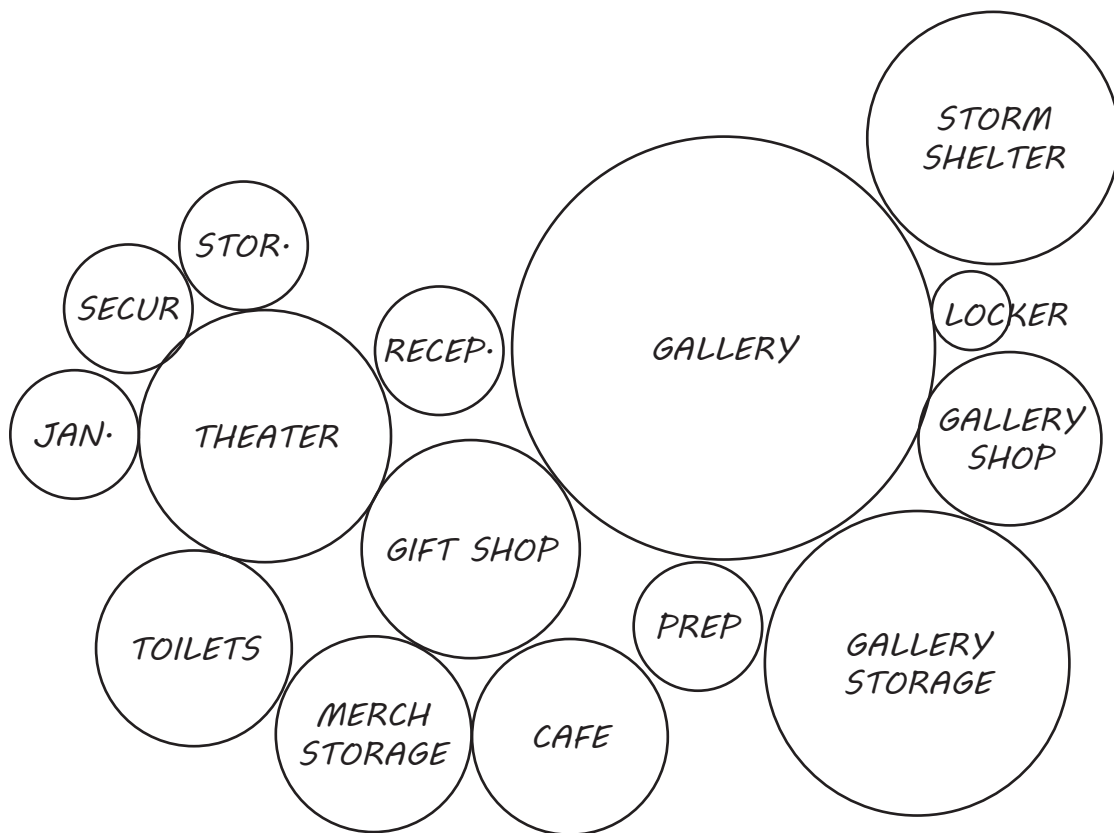
WELCOME CENTER

Entry Vestibule	This is the main entrance to the Welcome Center for the WWII Open Air Museum. This space will welcome guests into our center where history is expressed through art, film and structure.	50 sq ft
Reception	The desk area at Reception is where guests can ask questions and get any information needed for a guided tour of the grounds.	100 sq ft
Gallery	This open space will be for war exhibits and any memorabilia related items to display. This area will give visitors an insight into the World War II facilities that they are about to experience.	1500 sq ft
Gallery Storage	A space to store any exhibits not on display. These items will be rotated in and out of the gallery.	750 sq ft
Gallery Prep	Prep work for new displays will be assembled and organized in this space.	200 sq ft
Gallery Shop	Area to assemble new exhibit casework and fix existing displays as needed.	300 sq ft
Theater	Theater featuring one or two films on rotation to give guests a visual learning experience and a brief background history of WWII.	520 sq ft
Gift Shop	A store for visitors to purchase memorabilia and other gifts related to the world's history of WWII. Something that will enable the guest to remember their time at the museum.	400 sq ft
Café	An area for refreshments and snacks for guests of the museum.	300 sq ft
Merchandising Storage	Storage space for both the Gift Shop and Cafe. Each space will have the facilities needed for proper storage of their goods.	200 sq ft

Program Analysis

WELCOME CENTER cont'd.

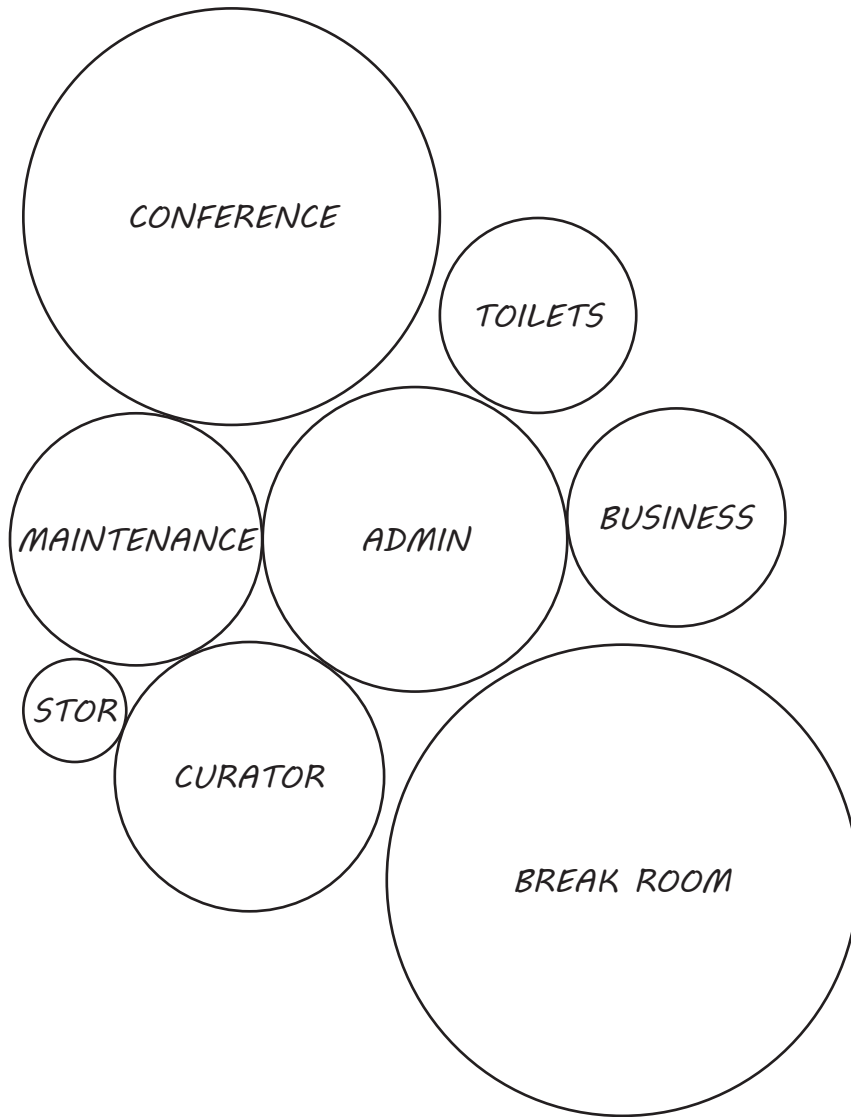
Toilets (2 @ 150 sq ft)	300 sq ft
Public ADA accessible restrooms for both Male and Female, as per code requirements.	
Security	100 sq ft
Office space for Security Guards on duty. Will be closely situated with Reception.	
File Storage	100 sq ft
Storage space for Reception and Security needs. Will be in close proximity to both areas in the welcome center.	
Lockers	60 sq ft
Storage space for guests of the museum. This is where they can safely store personal belongings, instead of carrying items throughout the museum tour.	
Janitor	100 sq ft
Storage space for cleaning supplies and anything a janitor/maintenance crew would need.	
Storm Shelter	500 sq ft
An area of refuge for guests and staff, in case of emergencies.	



Program Analysis

OFFICES

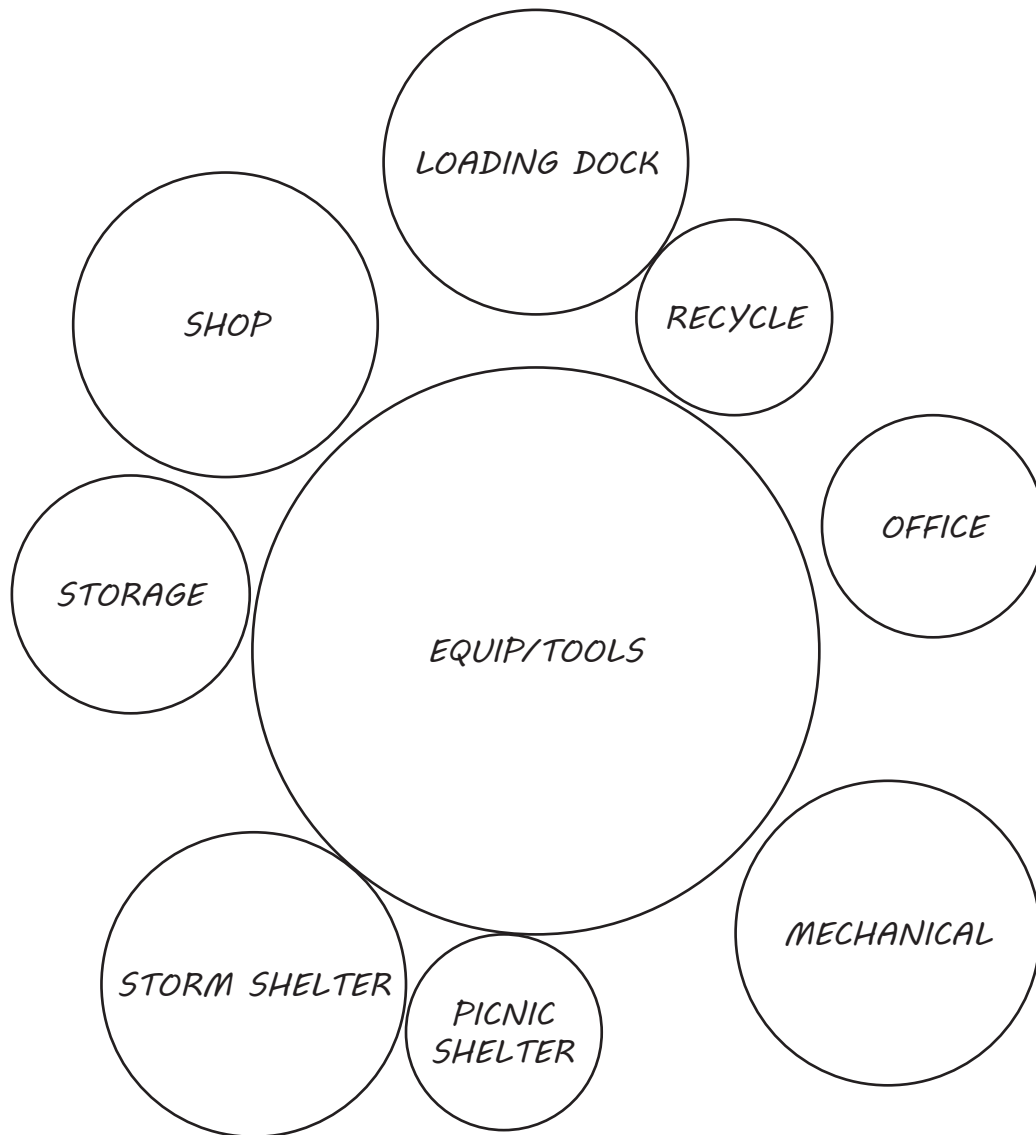
Administration (2 @ 120 sq ft)	240 sq ft
Offices for museum secretary and receptionist. Adequate space will be given for Admin to perform their daily activities.	
Curator	200 sq ft
Office for the head of the museum's creative design. Adequate space will be given for Curator to perform their daily activities.	
Business	140 sq ft
Office for the head of finances of the museum. Adequate space will be given for them to perform their daily activities.	
Maintenance	160 sq ft
Office for the head of maintenance for the interior portion of the museum. Adequate space will be given for them to perform their daily activities.	
Conference	320 sq ft
Space for informal or formal meetings between staff and their guests.	
Toilets (2 @ 60 sq ft)	120 sq ft
ADA compliant facilities for Male and Female staff.	
Break Room	350 sq ft
Space for staff to enjoy their breaks. Kitchen facilities to be provided.	
Storage	50 sq ft
Storage space for staff's personal items.	



Program Analysis

GROUNDS

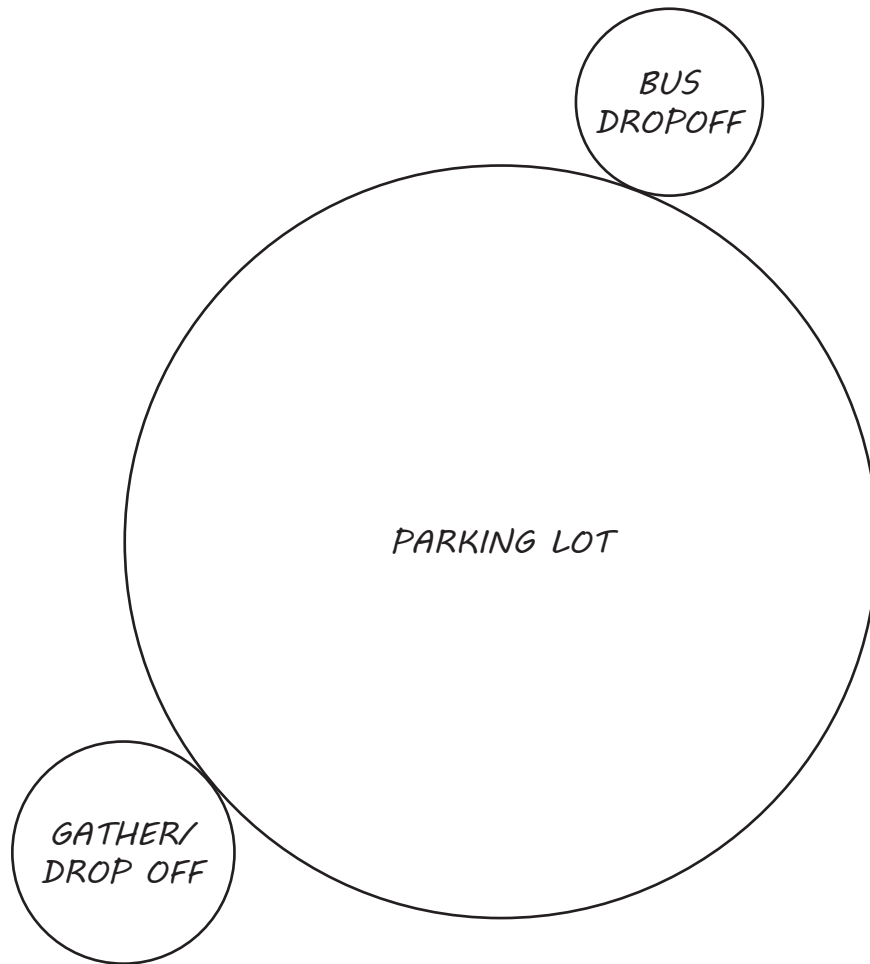
Equipment/Tools	700 sq ft
Space for the grounds crew to store tractors, mowers, and other tools needed for ground maintenance.	
Shop	200 sq ft
An area for the grounds crew to fix anything broken within the outdoor museum's facilities.	
Mechanical	200 sq ft
Space allowed for generators, HVAC for facilities, or any other mechanical needs at the museum.	
Loading Dock	200 sq ft
Area allotted for delivery trucks.	
Recycle Area	100 sq ft
Space given for recycle bins and other trash needs.	
Office	120 sq ft
Office space for the grounds crew.	
Storage	150 sq ft
Storage space for the grounds crew.	
Storm Shelter	200 sq ft
An area of refuge for guests and staff, in case of emergencies.	
Picnic Shelter	100 sq ft
An area for guests to enjoy lunch or relaxation on the grounds.	



Program Analysis

PARKING

Parking Lot	5000 sq ft
Spaces allotted for guest's personal vehicles and other forms of transportation.	
Gathering/Drop Off	120 sq ft
Area for guests to meet their groups before/after the museum festivities.	
Bus Drop Off	100 sq ft
Similar to the gathering/drop off area, only for public transportation.	



WRITTEN SUMMARY

A Historic Exhibition Displayed in Southern Illinois

We started off this summer semester by taking on a more psychological approach to architecture. After reading Frampton's two articles, *Toward a Critical Regionalism*, *Six Points for an Architecture of Resistance* and *Rappel à l'Ordre*, a common theme I found was to make architecture more than just a building... "make architecture a form of art". In our semester project, I don't think there are two articles more fitting for an open air museum featuring buildings as the exhibit. By keeping Frampton's thought process in mind, not just architecture as a form of art, but also the culture, regionalism, and context. What better way to exhibit architecture as a form of art than an exhibit itself? By researching and analyzing the building set, it is critical to maintain that the building remains true to its original form and regional context. Through research and weighing out the best options, I decided on a historical building collection from the World War II era. Though this war had several different structures all over the world, I narrowed down my search and display to just concrete structures. By basing it off a single material, I was able to show the wide variety that countries could design with limited resources. Without even trying, I noticed that my collection seemed to be based on defensive structures. I seemed to get more variety and information on these buildings. I also kept in mind the site. Defensive structures seem to work much better on the site compared to large headquarters where offensive lines were based.

The first building I chose was the lookout towers on the Delaware Bay. These towers are one of the few historic structures of World War II on American soil. Much of the war was fought on European territory. The purpose of these towers was to "monitor the coastlines... searching for approaching enemy ships or stealthy submarines." Eleven towers ranged up and down the coast line. Each tower in a specific location, certain distances away from the next tower, so that soldiers could calculate exactly where a ship was located in the ocean. My goal for my exhibit is to mimic this strategy on our site to give guests the same experience that soldiers from the '40s exhibited. These towers also range in height, dependent on where it was placed along the coast. Towers that sat on high ground were capable of being a story or two shorter than the others. The cylindrical shape of these towers was also a strategic move. This gave soldiers a complete 180 degree view of the coastline.

The next building is another United States war structure. The fire towers of Nahant, Massachusetts were

used similarly to the lookout towers with the exception of their shape. The tallest towers were along the shoreline, close to 75' tall, while several fire towers were placed within a town and often connected to a house, not nearly as tall. Each military battery "had a network of structures (towers, cottages, or buildings) that had their own job to do for the defensive side. Soldiers in the Nahant towers also used the triangulation method when scoping out enemy ships. Again, where these towers were located on the site would determine how tall the structure would be. Despite a tower being ten stories along the coast, each floor would not be occupied. Only the top two or three stories would be occupied by soldiers on the lookout. The reason they were considered "fire towers" was not to put out fires, but to direct fire upon enemy vessels from the coast. A similar strategy will be put into place on the museum site.

A third structure that I have added to the collection is the Albanian bunker. These bunkers range in size and variety, which is understandable considering "over 700,000 bunkers were built in the country - one for every four inhabitants". Many bunkers were made for one or two soldiers to fit, as a defensive protection... similar to the one that will be on my site. These bunkers are a small dome shape that is sunk in the ground in order for soldiers to stand upright. The strategy behind the dome shape was so that enemy bullets and missiles would ricochet off the dome. These bunkers were dotted all over the country in a wide range of surroundings. From plains to street corners, these defensive structures were there to protect its people and soldiers.

The next structure is a German Pillbox. This fortress was the stud of all war structures. Made with "two feet thick concrete walls, the pillbox offered a great deal of protection from enemy rifle and artillery fire." Again, the pillbox ranged in sizes and shapes. Some are located below the surface while several others were built into hillsides. The structures I plan on exhibiting are the hexagonal pillboxes found along the rolling hills. These structures seem more fitting in the Southern Illinois setting. With only 3 small lookout points, soldiers could be struck at from all sides with very few bullets being able to enter the fortress. Concrete walls with a solid two foot thickness would barely receive a dent from the enemy shots. These little pillboxes were made to be the most efficient of any structure coming from the war. The size and height of these allowed for very little wiggle room, being made to hold only a handful of soldiers. Many of

these structures can be found along the German-French border and were built “at strategic locations on trench lines, hillsides, or on the outskirts of towns and housed weaponry ranging from machine guns to artillery.”

The Langham Dome is my next building in my collection. This large dome found literally in the middle of nowhere was a critical piece to the Allied forces puzzle. Part of the Royal Air Force (RAF) station, this place was built for defensive training. “The dome was a state-of-the-art anti-aircraft facility where gunners were schooled in accuracy using ground breaking technology”. This structure would simulate air attacks to prepare soldiers for war. This large dome stood 25’ tall along the grassy plains of Norfolk. Out of the forty structures built similar to this one, only six remain post-war. Seeing this structure on my museum site will intrigue the guests to want to know its purpose. Upon entering this building, visitors will be blown away by the technology and simulations they will get to experience at the Langham dome.

The next building that will be part of my collection is the marine peilstand. This massive concrete structure is once again a defensive establishment for soldiers. The MP-3, as it was called during war times, had prime real estate in the city of St. Ouen, Jersey. Sitting atop a large hillside, this defensive concrete structure was part of Germany’s Atlantic Wall. Though they had planned to build nine of these structures, only three had become reality. It was the Axis Power’s version of an observation tower. The massive structure could house dozens of soldiers at a time. Like the United States impression, this building is also cylindrical in shape to give maximum views of the surrounding areas. The walls ranged from 3-6 feet thick and could withstand nearly anything that was thrown its way. Like many of Hitler’s other war structures, this tower outdid itself.

The last structure I have in my collection is the defensive pylons along the Cramond Island. Though these aren’t actual buildings, the structures themselves are a sight to see. Starting at the coast and heading out to sea, hundreds of these defensive structures were built to banish enemy submarines. “The line of pyramidal pylons...as part of the defences of the Firth of Forth with its vital naval dockyard at Rosyth. Referred to as antisubmarine defences, there would in fact never have been sufficient water for submarine operations and the main concern would be to prevent surface operations by inshore craft such as E-boats.” Even though these pylons weren’t strategically placed to execute its main purpose, these structures are a unique sight and something different for a visitor to experience and learn from.

The overall research analysis for this building collection was an interesting and learning experience. I took a historic interest of mine and began developing

it into a serious museum exhibition. I feel that many war veterans from the surrounding area would appreciate a museum of this sort, without having to travel to Washington D.C. to experience it. Not only would veterans visit but the learning environment for school groups is one of a kind for this area. Not only learning about America’s involvement in World War II, but also countries from around the world...how they responded to attacks from the enemies. I hope this collection will be more than something worth stopping by for, I hope it will be an experience to revisit time and time again.

1. Foster, H. (ed.), *The Anti-Aesthetic: Essays on post modern culture*, Bay Press, Port Townsend, WA 1983, pp. 16-30
2. “The Watch Towers that Line the DE Coast: Signs of World War II.” Last modified: January 24, 2013 <http://shorebread.com/2013/01/24/the-watch-towers-that-line-the-de-coast-signs-of-world-war-ii/>
3. “Fort Miles Artillery Museum and Towers.” <http://www.militarymodelling.com/news/article/fort-miles-artillery-museum-and-towers/7281>
4. “The Watch Towers that Line the DE Coast: Signs of World War II.”
5. “Fire control tower.” https://en.wikipedia.org/wiki/Fire_control_tower Last modified: October 15, 2013
6. “Fire control tower.” https://en.wikipedia.org/wiki/Fire_control_tower Last modified: October 15, 2013
7. “Fire control tower.” https://en.wikipedia.org/wiki/Fire_control_tower Last modified: October 15, 2013
8. “Albanian Tourist.” <http://www.albaniantourist.com/albanian-bunkers.html>
9. “Albanian Tourist.” <http://www.albaniantourist.com/albanian-bunkers.html>
10. “German Pillbox.” <http://www.carlisle.army.mil/ahec/trail/Pillbox/index.cfm>
11. “German Pillbox.” <http://www.carlisle.army.mil/ahec/trail/Pillbox/index.cfm>
12. “Training for AA Defence at RAF Langham.” <https://langhamdome.org/about-raf-langham>
13. “Training for AA Defence at RAF Langham.” <https://langhamdome.org/about-raf-langham>
14. “Marine Peilstand 3.” <http://www.tracesofwarjersey.com/Marine%20Peilstand%203/index.html> Last modified: 2015
15. “Cramond Causeway Defences.” <http://www.geograph.org.uk/snippet/534> Last modified: December 29, 2009



Revit



<http://vaughanrockets.typepad.com/.a/6a00d8354d1e6469e2017c31f501d7970b-pi>



<https://johnmchoul.files.wordpress.com/2012/05/boxes4.gif>



http://www.toppoint.com/media/products/Products_1600_x_1053/10_LT95000.jpg

Jeremy Clow

The burden of landfills has spread round the world. The underutilized waste created by the human population is taking up more space than ever imagined. Designers and innovators have now used these materials to create shelters both big and small. Pallets, shipping containers, bottles, cardboard, and more now provide a roof over someone's head.

ANALYSIS OF READINGS

Frampton - Towards a Critical Regionalism

The reading Towards a Critical Regionalism sparked numerous interests in my gear box of a brain. The Culture and civilization section with a historic outlook is different from the social norm of today. Verticality wasn't embraced as it is now though if it was maybe the natural world as we know it would have been embraced decades ago and preserved for our future endeavors. In the fifth section describing tectonics and form it is evident that our natural advancements are overlooked with our technological ones. "Why use passive cooling on a site when we have air conditioners?" -Chad S. This is sad but true with our advancements we have overlooked more natural and sustainable solutions. With the modern movement nature is taking back what she deserves however. The implementation of solar glazing not only reduces heat gain but produces power in turn cooling the interior space. Proving a structure may no longer reign; instead the landscape is taking its hold defining the space within it.

My gears however were put into overdrive on section four. Space, what how where and why is it? Walls, barriers, fences, changes in material define lines but not space. Space is relative to those experiencing it. A yard could be a park; a park could be a canine outhouse. Everything is defined by its user and every use is relevant. Parking lots full of cars during the daily eight to five become gathering places or dead spaces for the following fifteen hours. This creates a waste of time, energy, and space leading to a waste of our natural environment. The parking lot could be multilevel, with a park, and during those fifteen hours used by the working community for play and interaction all with the same physical footprint. The use of multiple footprints creates negative impact with our environment. A home to live in, a car to drive, a road, a parking space for the car, a place to work, a place to play; everything adds up using space and resources. Vertical cities are the current modern solution to this problem. One footprint with everything you need under one roof. This solution can however eliminate natural

interaction and culture. The ideals that define us as human beings: the morning drive to work, getting cut off by a Benz or picking up that amazing bagel and cream cheese that your mouth was watering for on the way in. All moments changing our social experience with our spacial interactions from the time we get up to the time we go to sleep.

No answer is the right answer but I do believe there is a happy medium that fits the humanitarian and environmental needs of our society. Space is taken for granted in some cultures, American for example. With over half the space being natural and uninhabited the mind believes there is abundance. What harm could an extra building do when there are so many trees and so many fields? The reality is the destruction is already done; we should be thinking in reverse. How every inch of space was natural in the beginning of time? The glass is now half empty and our space is relative to our interaction. The advancements of today's technology have allowed us to combine with natural elements to preserve our environment. Our goal shouldn't be to create space from a structural stand point but instead to assist others in interaction with what is already here. When walking down a concrete paved sidewalk with closed storefronts and dark structures an area of interest may be an obstacle between point A and B. Open a few doors, turn on some music, add a little color; the sidewalk is now points B thru Y on a path from A to Z.



http://www.metalocus.es/en/system/files/file-images/metalocus_frampton_04-1024.jpg

*British Journal of Social Psychology: Displacing place-identity:
A discursive approach to locating self and other*

“Placeology” a term I coined after reading the British Journal of Social Psychology. Specifically the article on Displacing place-identity: A discursive approach to locating self and other. Place-identity is a combination of not only who we are but where we are (Dixon 2000). Closely related to the definition of space; we define space based on our personal interaction. We also define who we are with our interactions and the places we carry them out. Space, Place, and Identity studied in combination with psychology, geography, architecture, and other sciences. The combination of all these ideals creates what I like to call Placeology; the mere explanation to the experiences that define and locate us. “Places are re-conceived as dynamic arenas that are both socially constituted and constitutive of the social” (Dixon 2000). Our culture is influenced by our community and nation. Also our ethnicity is influence by this location. A reoccurring factor, GPS coordinates, provides ideals and boundaries to define us as a person. On a smaller scale we are defined by our home while simultaneously we define the home as well. We spend time in the workplace interacting in a space once unfamiliar but now as familiar as the back of our hand. Place is defined by identity that inhabits subjectivity, working together they cannot be separated without a foreclosure of understanding. Place-identity can be described as a ‘pot-pourri’ of memories, conceptions, interpretations, ideas, and related feelings about specific physical and types of settings (1983, p. 60)(Dixon 2000). The body and mind interact with the surrounding space in three types of ways known as ‘insideness’ –Rowles. A ‘physical’ conception involving the body with its surroundings both man made and environmental creates a physical detailed knowledge of the space. A ‘social’ concept created with the interaction among others making a relationship, group, or community. An ‘autobiographic’ is an understanding of ones stature and self-worth created after long interaction. This ‘autobiographic’ is the most interesting to me, after years of interaction within a family and community creating a

sense of stature. This leads to future interactions generation after generation based on the trust and values tied directly to a specific location or place. Someone new comes to Southern Illinois University Carbondale School of Architecture looking for students and resources to fabricate their own idea. The school, though containing the proper equipment is unable to do private work. Thus for they provide the name and details to someone who has created an Identity in the community and is a reliable source to ensure the clients success and the image of the university as well for helping someone in need. All these details no matter how grand or how precise lead back to Place-identity. Being in the right place at the right time creates a new identity, an opportunity. Without the location the timing is irrelevant, it is only right in that specific place. Place-identity is equally related to the past, present, and the future. A patriotic community such as the United States may scream for joy on July 4th and celebrate till the days end, where as another community outside of the nation treat July 4th the same as any other day. A historic event relevant to a specific community provides hope for the present, dreams for the future, and pride from the past. Location and national boundaries create a division economically and militarily between multiple engaging communities. Before the ownership and claiming of lands communities were still in existence. Place-identity was reflected through social barriers, language being the greatest promotes interaction in a common space. Space is defined differently by every party involved. This study whether it be psychology, scientology, sociology, or architecture leads to a common theme Place-identity or Placeology.

Dixon, J., & Durrheim, K. (2000). British Journal of Social Psychology. Displacing place-identity: A discursive approach to locating self and other. 39, 27-44.

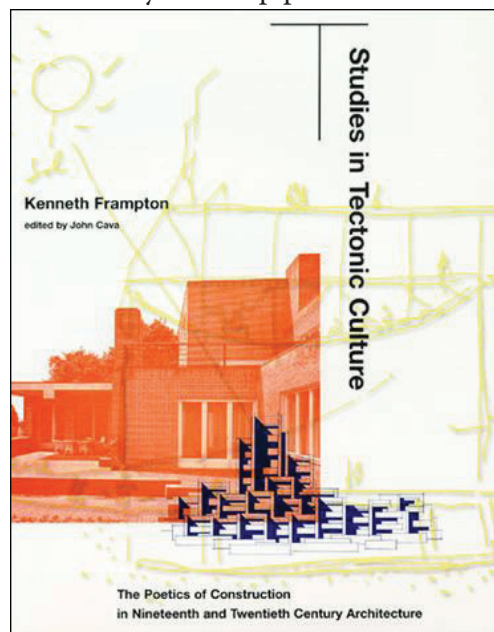
ANALYSIS OF READINGS

Frampton - Rappel a l'Ordre

Kenneth Frampton's *Rappel A l'ordre*, *The Case for the Tectonic* is a thorough analysis and critique of tectonic, stereotomic, and culture. Interaction creates a connection just as connection instigates interaction. From a natural stand point, all living creatures interact and play their part in some way, shape, or form. Architecture interacts the surrounding environment and engages the user producing a genuine connection between person, place, and thing. Though as Frampton states there is a presence of unfamiliarity between abstract art and the constructional tectonics. The four elements deeply relating to the tectonic discipline of construction and a straying the scenographic activity. Architecture itself without the surrounding elements, uses, and features creates its own connectivity. The smallest detail, a joint creates just one connection leading to a domino effect we call architecture. The joint dates back to the beginning of shelter and is carried into the four elements. The first ever connection in structure itself, the knot has held items together for centuries. The tectonics come from the earth and frame in a structure, the term first recorded in the 1600's. Long after the term architect which came around in the 1500's even though tectonics were prevalent in the needs for shelter prior to the time of design. The form of connectivity in these joints spreads greatly around the world from culture to culture. In the beginning the knot could hold items together designed for mobile tribes. As time progresses each culture has advanced their connections. The joint heavily based on the surrounding elements, climate, and materials used. These technologies led to a differentiation in architecture among the world's people, as well as varying connections. Centuries of using and manipulating the environment led cultures into technological advancements unforeseen by their ancestors. These advancements created a drive for future endeavors while losing the roots of primitive techniques. "The environment is therefore not a system in which to dissolve architecture. On the contrary, it is the most important materi-

al from which to develop the project" -Gregotti. For generations technology driven design has lost sight of the beauty and assistance Mother Nature provides. Architecture is an art form creating not only a primitive necessity for shelter but a designed space deeply correlating with inhabitants and materials. The surrounding environment should shape the piece of work as though it were the most prestige exhibit. The structure creates and experience in the environment just the same as the environment creates in it.

Tectonically connections aren't limited to material joints. A joint and a break are the tectonical form of two separate materials coming together. Precise placing of concrete in conjunction with rammed earth leaving a presence of exterior, interior, or spacial division allows the interpreter to understand his or hers environment in a new way. Time connects one period of design to another, a joint of ideals if you will. Modern art and design creates an entire foundation but only a portion is connected to the postmodern walls. Leaving behind pieces that were only necessary for progression and making way for a new era that will be connected only at its top plate.

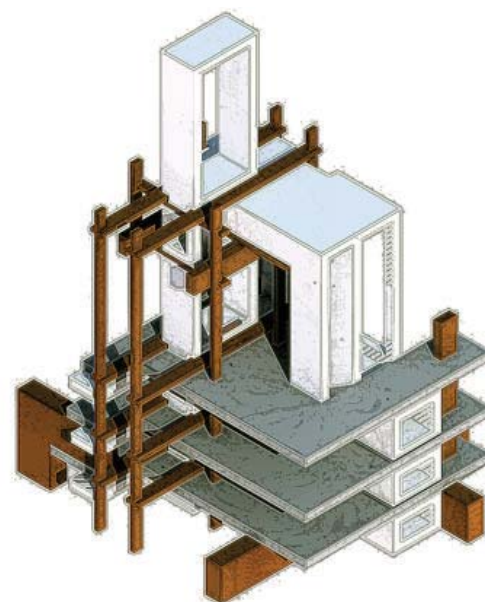


<http://farm9.staticflickr.com/>

Tectonics? A Case Study for Digital Free-Form Architecture

A new era: after reading Tectonics? A Case Study for Digital Free-Form Architecture what I felt was a new existence for my generation is prevalent. Architecture creates a story and constructional poetry whether done by hand or digital means. The new advancements with computers and software have paved the road for changes in architectural form, design, and understanding. Tectonics of the modern world not only represents primitive protection but a display of construction as an art form. Structural harmony sings with the proper interaction between environment, form, and people. Attention to detail with ease, creation, and form an inexistent joint is able to be tested and designed digitally. Computers are now used in every step of the construction process, making them an indispensable resource for design work. The design and completion of Bilbao's Guggenheim Museum laid the digital brick to a whole new way of thinking. Curves, threads, and ideals stuck in dreams could now move from paper to a digital world making them possible. The design process is only limited by the abilities of its user. With the use of proper programming the details cannot be stunted by computing, allowing for the most abstract of architecture. Tectonics related to earth, frame work, and materials cannot properly represent the digital use of characteristics. Does this create a new form of Tectonics? The understanding of Tectonics in a material and joint state allows for precise digital production. Having an understanding of how materials work and their limits keeps the digital fabric of design rooted to reality. The mere limits of imagination can push issues, thicknesses, joints, and forms that can be tested digitally as well. The digital representation is not only easier for the creation process but the manipulation of design as well. Testing new ideas or thoughts at a moment's notice with the touch of a few buttons allows the designer to explore their imagination without a loss of time or money. A concept, manipulation, construction, form, and space phase all happen independently but simultaneously with digital production. When designing a

standard structure in a program like Revit an individual piece can be manipulated, removed, or added at a moment's notice changing the experience with a fully three dimensional understanding. This small step can lead to thoughts, ideas and a creation of form never brought to the attention with hand drafting. The greatest feature of all digital production is the characteristic of formal expression. Images display the corresponding materials and options from a realistic standpoint, the imagination is only required to create and the computer provides a real life example. The forward thinking leaders of our generation are designing, creating, and constructing every day. The future is limitless and computers have every ounce of potential we put into them. The proposal of a structure could now be uploaded to a site where individual who would be using the space could interact with the space as if it were a game. This shows experiences, emotions, how the use interacts with the site. Did they follow the proper path? Is there an issue with transition or emotion from one space to another? A full understanding of a completed structure can now be enhanced before ever breaking ground.



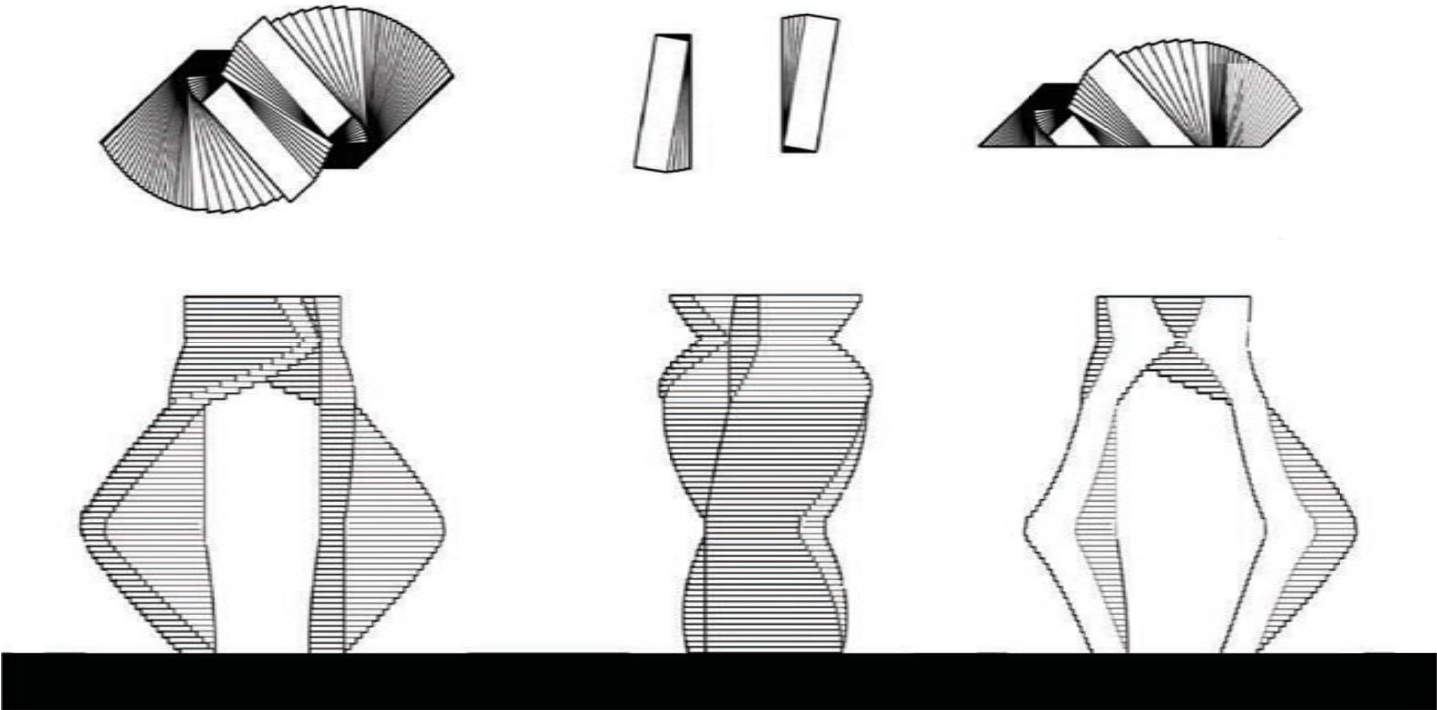
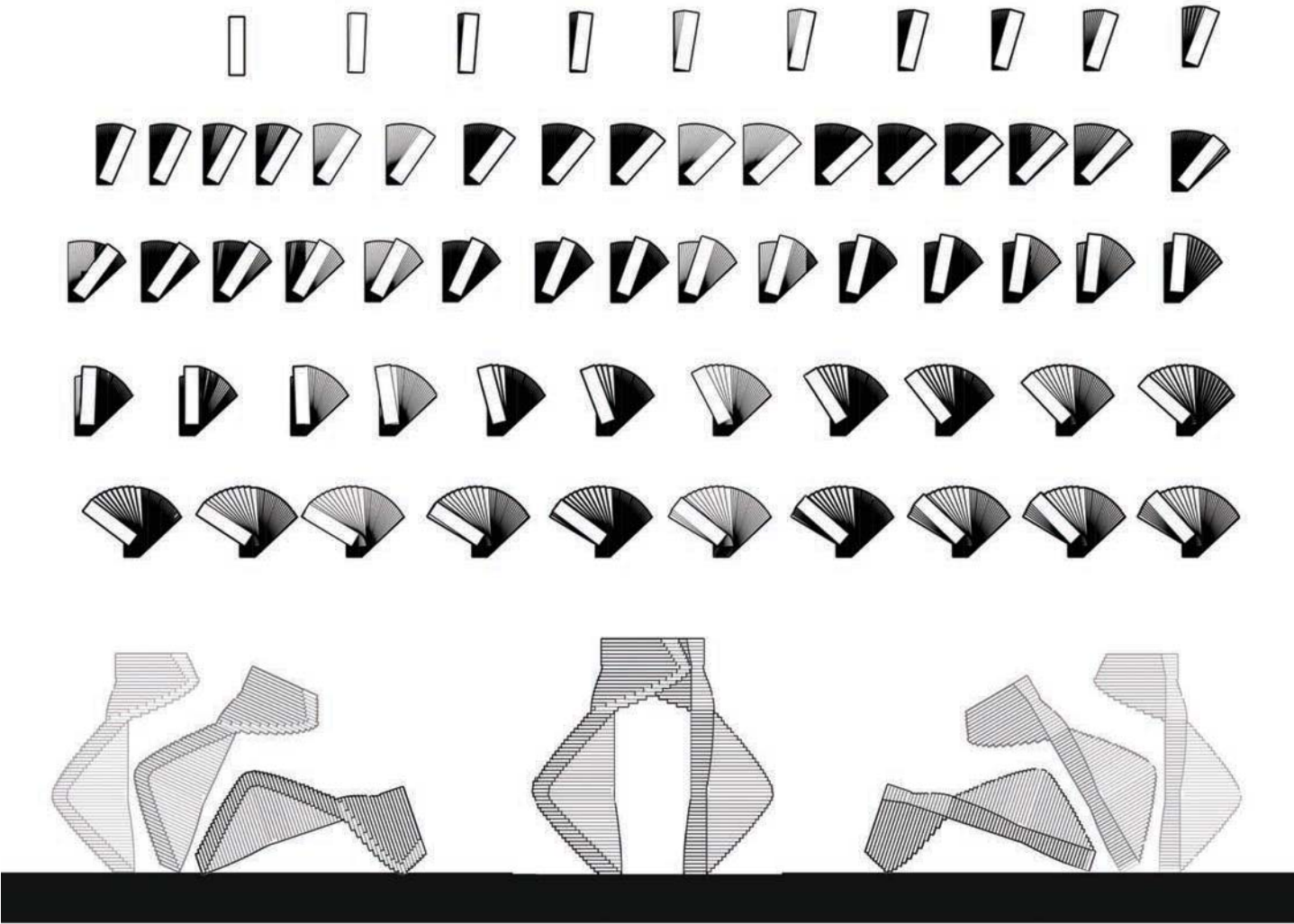
https://next3-assets.s3.amazonaws.com/activities/600/backgrounds-1423864815-tectonic_intro.

Pop Up Chapel

Pop Up Chapel designed as a special exhibition along with nine other buildings. The competition was created from the legalization of gay marriage in New York. The ten buildings had to be set up in a park within two hours for an assembly of weddings. Pop Up Chapel is designed from a rectangular piece of cardboard with each piece being rotated in the same fashion as a double helix. The two independent “legs” lean on each other for support. This is a representation of the partners who are about to married beneath the chapel depending on one another for support.

Photos From: <http://ad009cdnb.archdaily.net/wp-content/uploads/2012/09/1346963756-celinewillard-375x500.jpg>



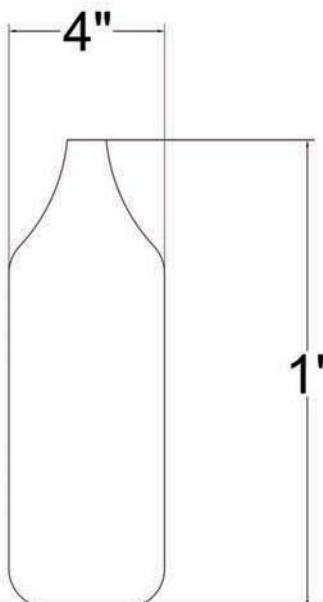
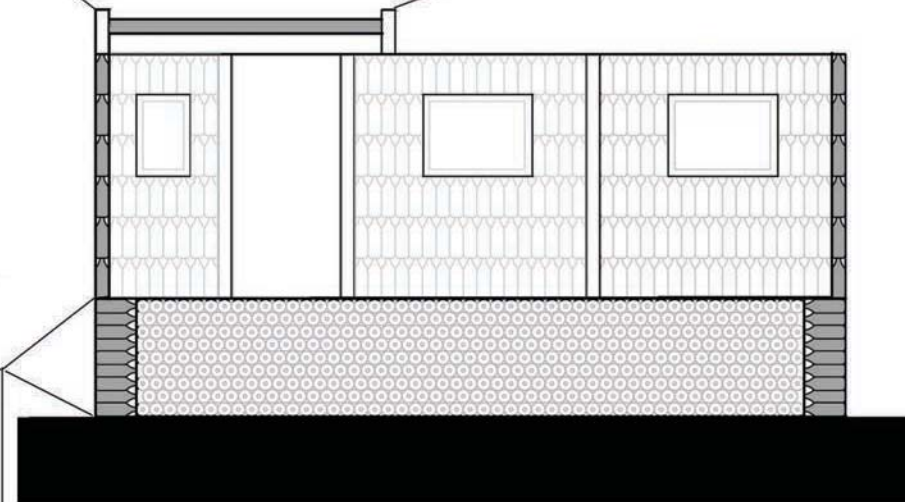
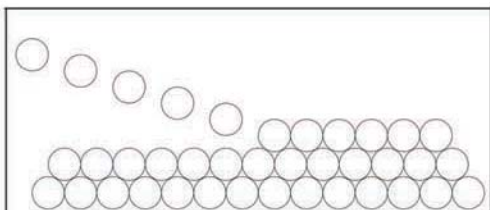
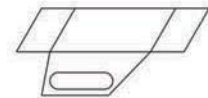
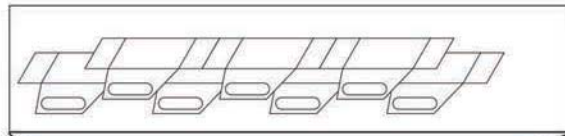
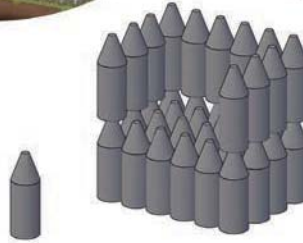
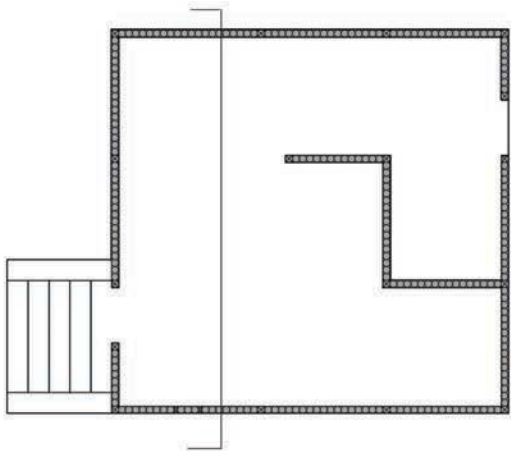


Casa de Botellas

A structure made with modular construction based on a two liter bottle. The bottle is four inches wide and one foot tall. The posts used for support are also four inches wide making all walls in increments of four inches. The wall height is six feet, window sill three feet, and window height of five feet. Layers of bottles on their side make up the foundation. The bottles are filled with dirt and placed on top of each other offset by their midpoint to creating a solid wall. Windows and doors are made of recycled jewel cases. The roof consist of Tetra Packs layered on one another. The sealed cardboard packs wick water and the layering system represents shingles keeping the water from coming into the interior.

Photos From: <http://assets.inhabitots.com/wp-content/uploads/2010/02/plastichouse5.jpg>





1 Bottle
1 Post
4"

1 Bottle
1 Post
4"

8 Btls
32"

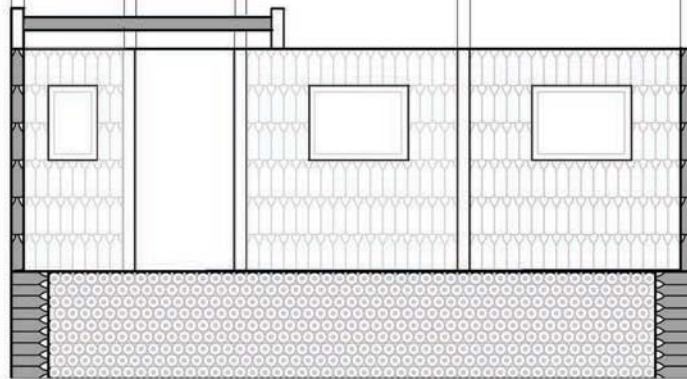
8 Btls
32"

17 Btls
68"

17 Btls
68"

6 Bottles
6'

9 Bottles
36"

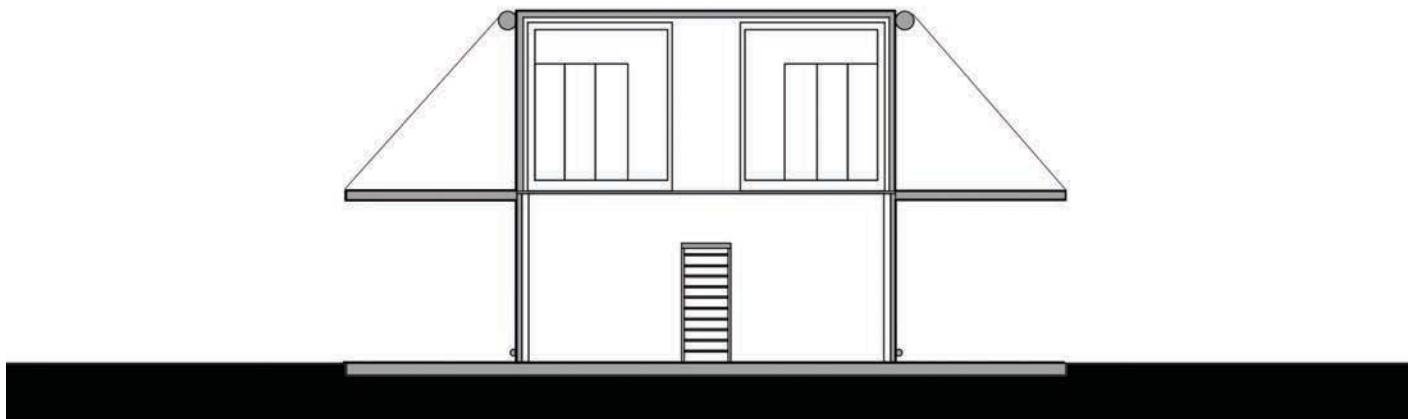
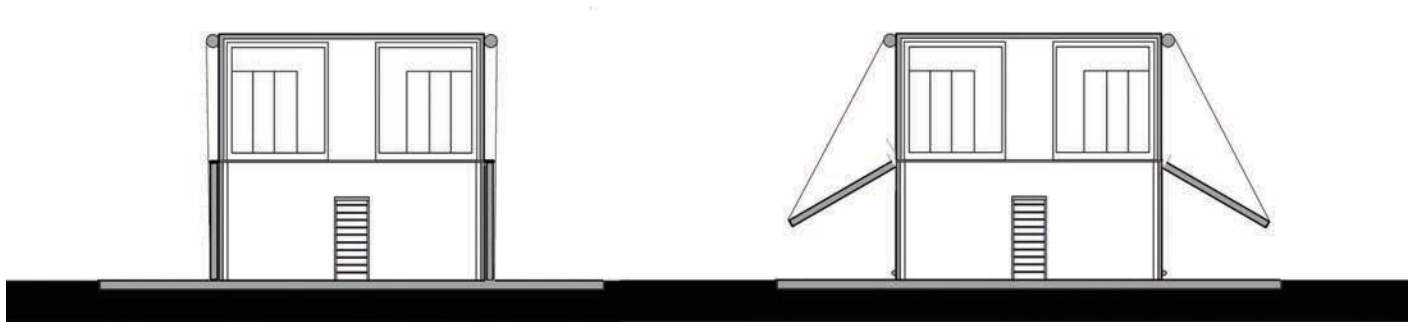
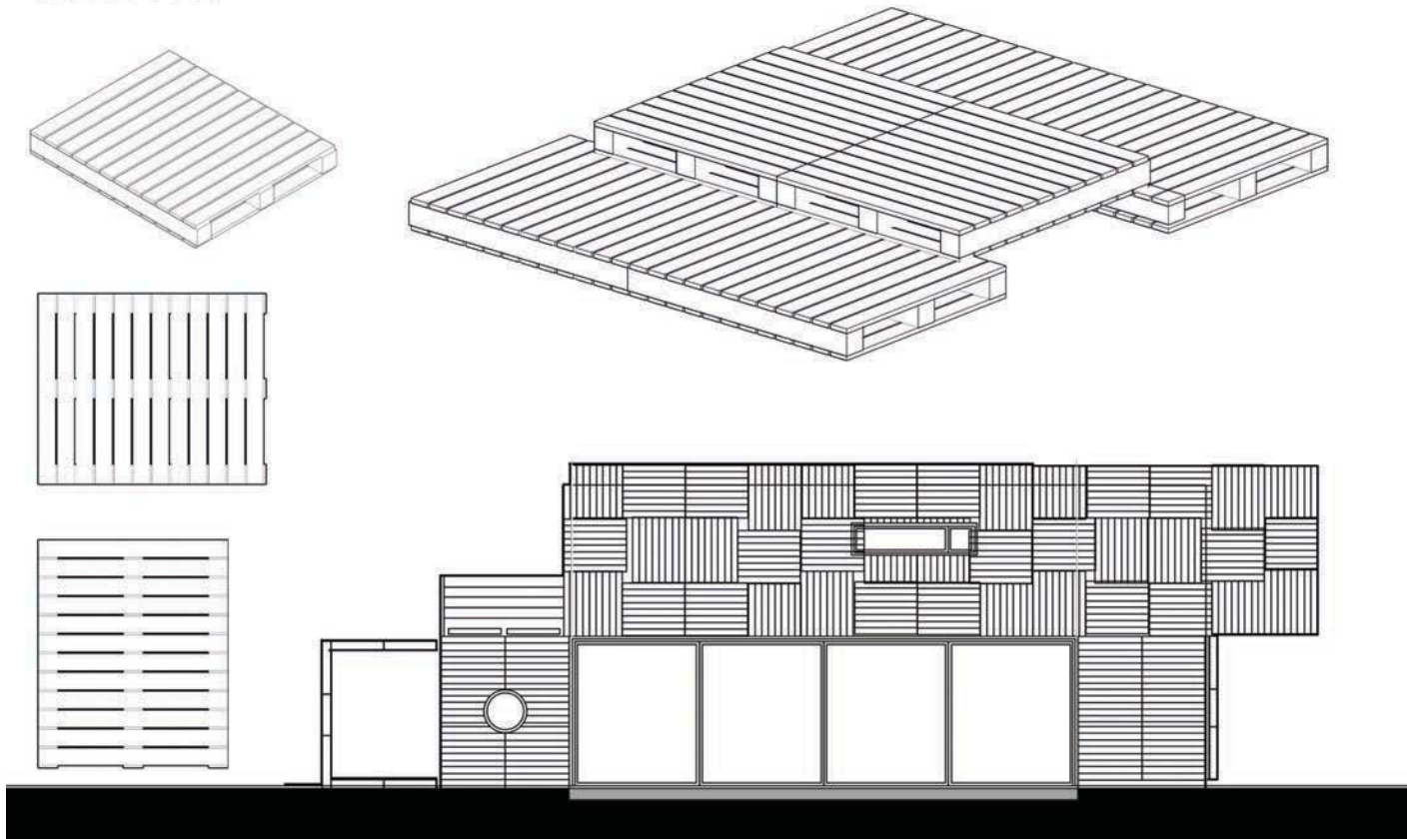


Manifesto

Recycled shipping containers make the structure of this house. Six eight foot by eight foot containers with a length of twenty feet are placed side by side to make each floor. The top is offset by one container providing a cantilever cover on one side and a deck on the other. The center four containers on the first level have a door that is operated by a rooftop motor. Both sides can open providing cross ventilation during optimal times of the day. Pallets are installed on the exterior of the containers providing horizontal louvers that block sunlight but allow for cross ventilation.

Photos From: <http://d2q0ji2epx3h7q.cloudfront.net/wp-content/uploads/2014/10/Manifesto-house-2.jpg>
http://archive.fortune.com/assets/i2.cdn.turner.com/money/galleries/2011/news/companies/1111/gallery_shipping_container_homes.fortune/images/manifesto.jpg





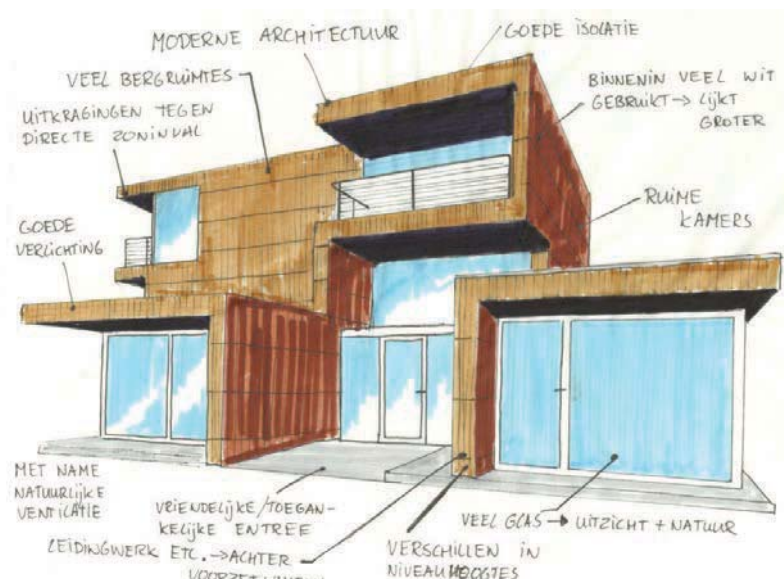
Villa Welpeloo

Villa Welpeloo is located in Enschede, Netherlands and was designed based on materials rather than ideas. The designers used a Google Earth map with a twenty kilometer radius. Finding the structural steel from a textile factory, the cladding from damaged cable reels, and insulation from whilst polystyrene (packing peanuts) in an abandoned factory. Recycled glass, coffee cups, umbrellas, billboards, and more were used to make the interiors. Each piece designed for this space specifically and carried out tremendously. The sky lift used during the construction process was even used as an elevator within Welpeloo to lift heavy art and object to the second level for the collectors inhabiting the space.

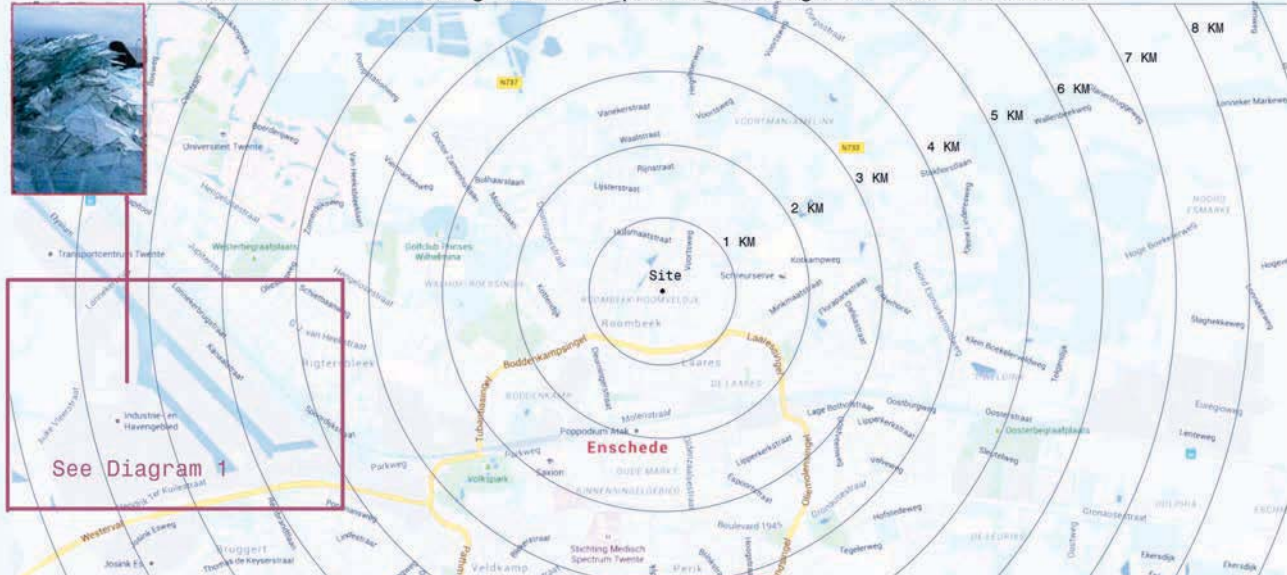
Photos From:

<http://www.rickvanveghel.nl/wp-content/gallery/integraal-ontwerpen-schetsen/villa-welpeloo-comfort-b.jpg>

http://www.villapalladio.nl/wp-content/uploads/2009/12/welpeloo_enschede_1.jpg



Materials surrounding the site provided design for the structure.



Steel frame came from a textile machine.



Whilst polystyrene offcuts from an abandoned factory.



Glass waste and remnants from a local glass factory.



Erstwhile billboards used for the kitchen interior.



Interior lift was the sheer crane used in construction.



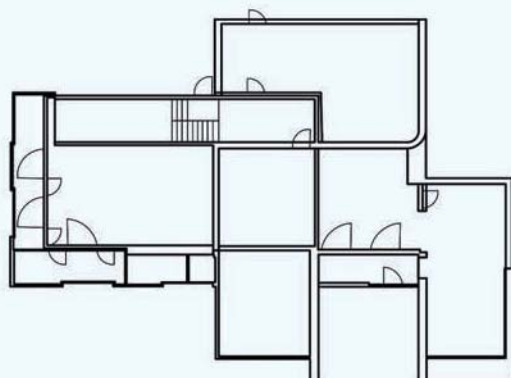
Lights are suspended from recycled umbrella spokes.



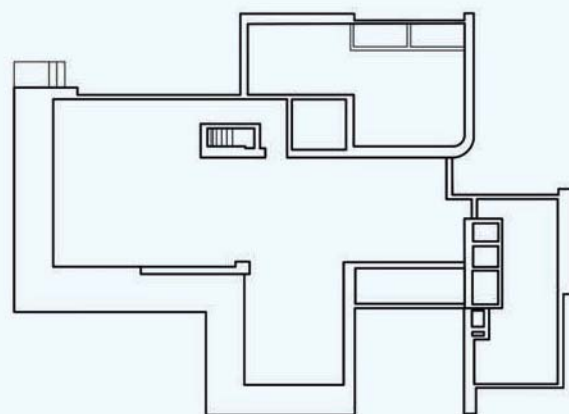
Dark tiles made from recycled coffee cups.



Exterior wood cladding produced from cable reels.



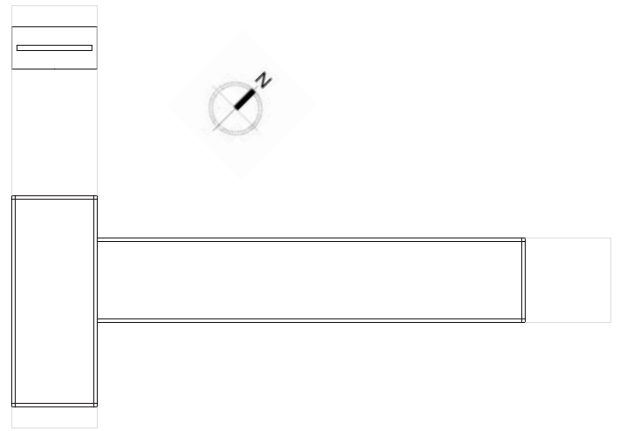
First Floor Plan



Second Floor Plan

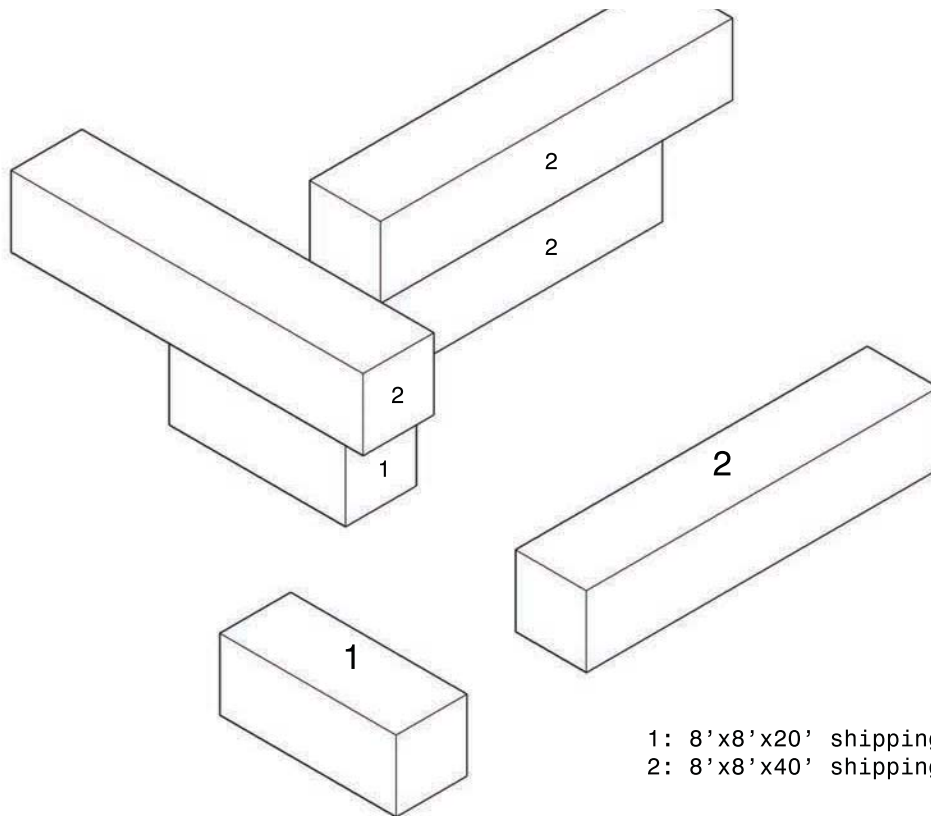
Starbucks

The Starbucks in Tukwila, Washington is a one of a kind recycled piece of architecture. The designer used a few shipping containers, already carrying the company logo to make this drive up location. It also offers a window on the opposing side for pedestrians to get a cup of their famous coffee. A small twenty foot container on the base houses the serving quarters for the employees. A forty foot container on the first floor allows for production and machinery used in the Starbucks establishments. Above, two forty foot containers overhang the ordering location and the serving window for the vehicular clientele. These spaces double for storage on the second level eliminating a large foot print for goods storage and back of house mechanical space.

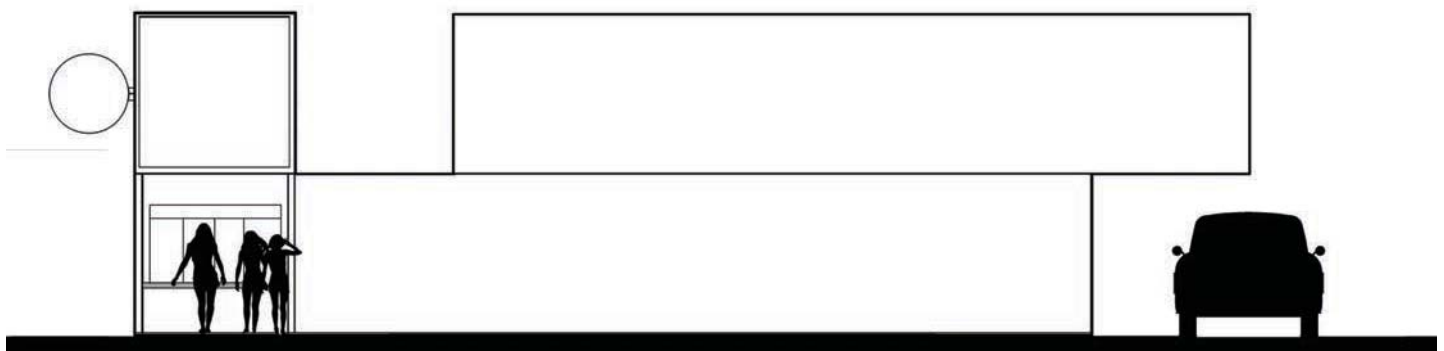
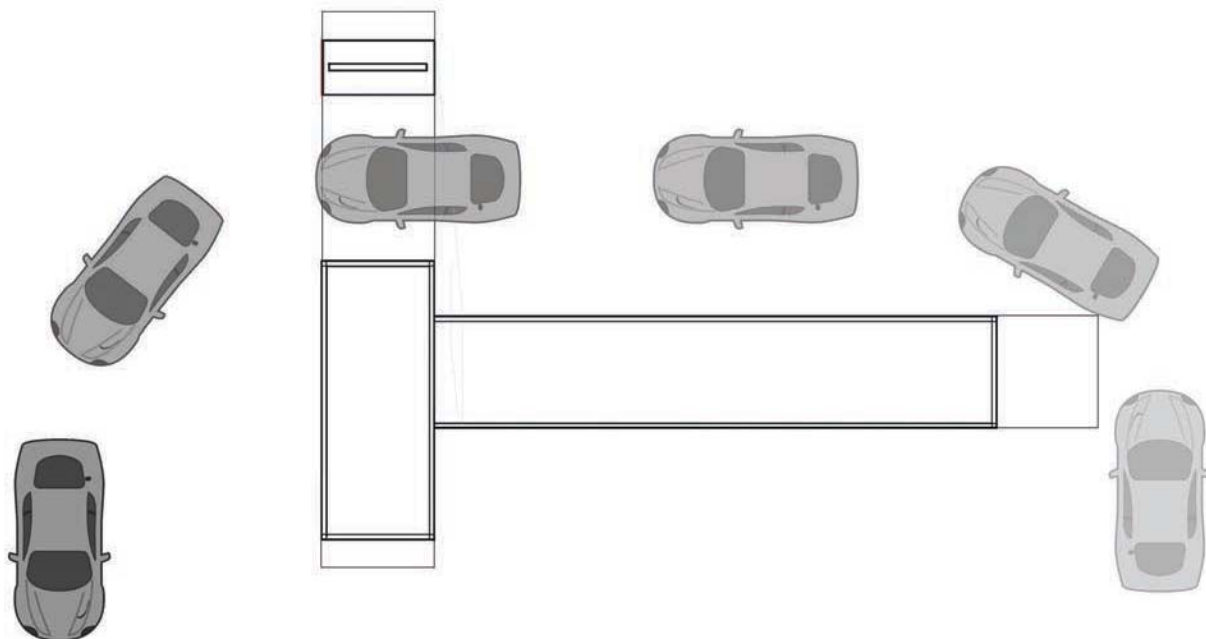


Photos From: <http://www.starbucks.com/blogmedia/ebe457d4-9a24-419e-b362-84f765052f9b>





1: 8'x8'x20' shipping container
2: 8'x8'x40' shipping container

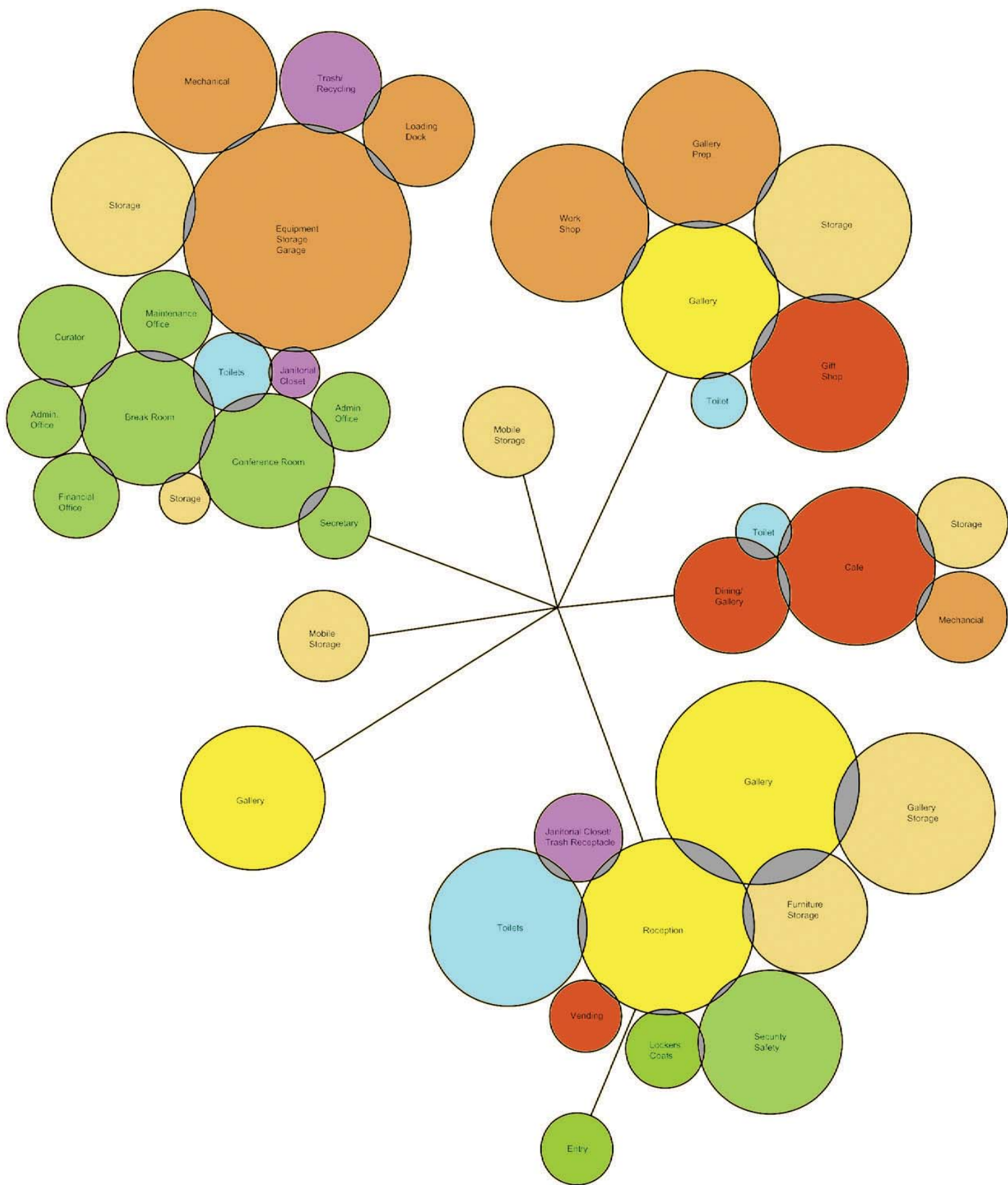


Program Analysis

Architectural Program by Jeremy Clow

ARC 550. Chad Schwartz. Summer 2015

1. Museum Entrance	
a. Entry Vestibule	100
b. Reception/Receptionist	600
c. Safe Room/Security Office	400
d. Coat/Locker Room	120
e. Janitorial Closet/Trash Receptacle	150
f. Gallery (1)	800
g. Vending Area	100
h. Gallery Storage	500
i. Furniture Storage	300
j. Toilets (240 sq. ft. each)	480
k. Circulation	1450
Total Museum Entrance Square Footage	5000
2. Gallery 2	
a. Gallery	400
Total Gallery 2 Square Footage	400
3. Gallery 3	
a. Curator Office	200
b. (2) Admin. Offices (120 sq. ft.)	240
c. Financial Office	140
d. Conference Room	350
e. Break Room	350
f. Secretary	100
g. Storage	050
h. Toilets (60 sq. ft. each)	120
i. Janitorial Closet	050
j. Maintenance Office	160
k. Equipment Storage/Garage	1000
l. Loading Dock	240
m. Storage	400
n. Trash/Recycling	200
o. Mechanical	400
p. Circulation	1000
Total Gallery 3 Square Footage	5000
4. Gallery 4	
a. Café	480
b. Toilet	060
c. Dining/Gallery Space	260
d. Storage	160
e. Mechanical	160
Total Gallery 4 Square Footage	1120
5. Gallery 5	
a. Gallery	600
b. Workshop	240
c. Gallery Prep.	240
d. Gift Shop	160
e. Storage	260
f. Circulation	500
Total Gallery 5 Square Footage	2000
6. Storage Building (Mobile)	160
7. Storage Building (Mobile)	160
Total Museum Square Footage	13840



WRITTEN SUMMARY

Recycling is the use and/or reuse of any material that would be considered waste. All items that we as humans dispose of through the trash end up in giant landfills. This not only is an inefficient use of some materials but also land that must be allocated to store the waste. Concrete is a historical building material that created a burden on landfills. Demolished sections of concrete construction with steel reinforcement would be delivered to landfills year after year. The government however in most countries placed a law against this improper use and required the companies to recycle it as aggregate and steel. For my research I originally studied seven buildings before narrowing the selection down to a specific set of five. These recycled pieces of architecture use bottles, pallets, shipping containers, and more. The two buildings I removed from my list were great pieces of architecture, they however were lacking in contextual research. EcoArk a mobile exhibit space currently in Taiwan used a machine to turn bottles into “Polli bricks.” The process made the bottles fit together modularly similar to Legos. The bricks formed a three story structure that is not only mobile but typhoon and earthquake resistant. Yancy chapel, an architecture student’s thesis project was designed with recycled products and carried out for less than fifteen thousand dollars. Tires packed with rammed earth covered with wire and stucco makes the basic walls. Wood trusses come from an existing adjacent structure and stone quarried from a nearby river. The other buildings shown previously in my presentation show the implementation of our “trash” in so many usable fashions.

The research has led me to implement these same functions into the creation of my museum. Installing the five buildings on the site and using each of them to their fullest extent. The exterior of all the structures will remain the same shape and consist of the same recycled materials. The interiors however will be altered, providing the same

square footage. Recycled materials will also be used in different fashions to create usable museum spaces within each exhibited piece. Each building will house galleries and usable spaces at the museum site that would typically have to be in a new structure. The only new building will be the main entry reception hall. This is due to necessary square footage for particular spaces and it will also house the Pop Up Chapel made of cardboard due to its inability to be outside. In the main entry I will implement recycled materials similar to the exhibits as well as other materials to make an original recycled structure.

We as humans have created more than enough footprints, especially carbon in our history. Taking recycling to a whole new level can help implement ideals that may provide a healthier environment. Instead of adding to landfills the use of these materials makes the building blocks for our primitive needs of shelter. When addressing the site many existing components can be utilized. Demolished materials can be handled carefully such as steel and wood and turned into a new framework. An existing driveway or parking lot could remain or if demolished provide the aggregate for a future pavement. Environmental impacts can be utilized rather than fought to help conserve energy. Abandoned shipping containers can provide a strong structure for the building. Pallets provide cladding optimal for cross ventilation and shading. Bottles are transparent pieces installed side by side or stacked; they can also remain empty providing air insulation or filled for stability. Tires filled with rammed earth and tied together create a large heavily insulated barrier commonly used for a foundation or wall. Cardboard doesn’t typically hold up in exterior conditions, however tetra packs, laminated, and printed cardboard has a sealed finish that wicks water. This allows for it to be implemented in the elements even in the areas exposed to the most water like a roof.

Designing brought to a local concept. Most Architects start with a design then implement and order materials to make the structure. Why not use your surroundings to design? Villa Welpeloo was the creation from this exact concept. Using a Google Earth map the designers found abandoned industrial spaces within a twenty kilometer radius. They then scavenged the areas looking for essential and abundant materials to build with. Factory equipment provided their steel structure, Styro-foam peanuts for insulation, cable reels for cladding, glass for windows, and much more. The site is the most important piece of information utilized in a design. With the proper vehicles and man power a designer picks a radius to inspect for materials. Less distance equals less money for transportation of the materials. Pieces available for recycle are typically free as well, most of the property owners would be happy to have their junk removed free of charge.

Researching architecture composed of recycled materials is laying the groundwork for my museum design. The five main exhibition pieces that are existing structures will be constructed with the same materials as they originally were. Those same materials as well as locally sourced recyclables will be used to design the main entry building. Little Grassy Lake has a history for being a source of stone. Many quarries provided stone during the forties to military camps that taught laboring skills. Abandoned buildings and walls built with this stone can be assessed for reuse. Some factories and pole barns can provide components for a steel structure. I also want to provide a healthier environment for the museums surroundings. The Little Grassy Lake is known to have a higher than average mercury content. A water feature would fit well within the museum as a tranquil transition piece running along the buildings. I intend to create a small river that uses a pump to bring water to

the top of the hill. The river will run at a minimal grade back into the lake. Paddle boats can be used to travel along the site, the paddles will consist of cobalt-molybdenum-sulfur. This sponge like material designed by Northwestern University chemists removes mercury from the water. As people paddle through the river they are helping clean the water that cycles back into the lake. The river will also have cilantro growing along the banks and in small patches. Studies have shown that cilantro is natural detoxing agent, commonly used by third world countries in their salsa to provide a healthier life. This river will provide and appealing natural element for the museum's site that also gives back to the adjacent lake and community. All details of the site and structures must be addressed specifically to provide the best interaction with the surrounding environment.





Photo by: Samuel Ludwig



Megan Crider

This collection of buildings contains chapels and small churches from all over the world. They are linked both by their concrete construction and their strong use of natural lighting within their interior.

ANALYSIS OF READINGS

Frampton - Towards a Critical Regionalism
Galison - War against the Center

Regionalism in a Changing World

Regionalism plays an imperative part in architectural design. Largely, it connects the local culture and context of an area, therefore its people, to a building and its site. Frampton states that “by way of general definition, we can say that it [regionalism] upholds the individual and local architectonic features against more universal and abstract ones.”¹ I feel that architecture with this type of consideration is generally held in higher regard by its users and the local community simply for the fact that it belongs and is entirely unique to the area in which it is constructed. People begin to identify themselves with regionalistic architecture; it becomes more than a building, it becomes a symbol.

It doesn't stop there... Regional architecture can, and often does, extend beyond its local context to reflect the world culture. Frampton again writes that “the case can be made that Critical Regionalism as a cultural strategy is as much a bearer of world culture as it is a vehicle of universal civilization... we are, in principle, subject to the impact of both, we have no choice but to take cognizance today of their interaction.”² As the world culture continues to grow and influence architecture, so grows universal civilization and modernization.

As this development continues, as it has for centuries, the struggle for power and supremacy continues to rear its ugly head. For many, this threat is as much a part of everyday life as going to work or going to the market or a grocery store. For as long as this disturbing aspect of our nature, both as humans and as civilizations, exists, it will continue to affect how we must think about architecture and planning. It would be greatly welcome the thought that this isn't the case at all, but humanity operates differently than that. Frampton himself points out that “no one can say what will become of our civilization when it has really met different civilizations by means other than the shock of conquest and domination.”³

A viable answer to this reality is pointed out in Galison's “War against the Center” where the solution to such worldly realities lies primarily in the

“architectures of dispersion, counter-urbanization, and nonhierarchical grids.”⁴ I had never thought about urban planning in this way. In his discussion, the author talks about some of the allied bombing strategies during WWII and how the United States strove to make the most substantial economic impact by their choice in bombing targets in Germany. This conversation becomes important because Galison flips the tables so that the reader thinks about this strategy from the target's point of view. This is intriguing because it makes us think about architecture and urban layout from a different perspective. If we keep this consideration of security and defense in the forefront of our minds when designing, how does this affect the outcome? Are we left with fortified concrete structures and a utilitarian aesthetic? No, fortunately we are not. As Galison points out the solution is simply that of a reconfiguration of our urban layout. Let's not centralize all of our structures but rather disperse them throughout the landscape, subsequently disintegrating our standard hierarchy of buildings.⁵

Regionalism in architecture is critical because it increases the connection of the design to that of the user and the surrounding community and culture. In our ever-changing and advancing civilization, I think it wise to accompany regionalistic ideas with the attitudes of architectural dispersal and nonhierarchical planning as a means of security and defense.

1. Foster, H. (ed.), *The Anti-Aesthetic: Essays on postmodern culture*, Bay Press, Port Townsend, WA, 1983, pp. 16-30

2. Foster, H.

3. Foster, H.

4. Galison, Peter, *War against the Center*, Grey Room no. 4: 7, 2001, EBSCO-host (accessed June 15, 2015).

5. Galison, Peter.

Frampton - Rappel a l'Ordre

Schwarzer - Ontology and Representation in Karl Bötticher's Theory of Tectonics

Cohesion in Design: Let's Think about Structure

Oftentimes we overlook some of the most important parts of buildings. We concern ourselves with the completed aesthetics of the architecture – what the building 'looks like.' However important the finished appearance may be, we must not overlook the actual construction of the building, most particularly the structure and joints. It seems to me that too frequently we think about architecture perhaps as a form sitting on top of some structural pieces – not much thought is given to the structure itself. We must remember that the structure is as much a part of the overall building, if not more so, than the finishing materials. Karl Bötticher agreed, stating that the "essence of architecture lies in functional needs and constructive forces."¹ Within the structure, the jointing can also play a key role in our overall experience of the architecture. Like every other aspect of the building, the joints are also carefully considered and designed and should themselves encapsulate the conceptual ideas that the architect is trying to achieve. Frampton points out that "there is a spiritual value residing in the particularities of a given joint, in the 'thingness' of the constructed object, so much so that the generic joint becomes a point of ontological condensation rather than a mere connection."² The joints are as much a part of the existence of the building as any other part. When designed carefully, they can contribute as much to the experience of the building as the architectural forms. I feel that this perspective is important to keep in mind, especially during architectural education where a continuous conscious thought about the structure and connections within a building is established within a designer at an early stage. It seems like it is the case much more often where, either for the sake of time or workload (or any other reason for that matter), we cheat our designs out of the cohesion that a carefully considered structure can provide. We are much too quick to half-heartedly place a structural grid within a project and include generic steel beams and columns. Largely, we fail to think

about the structure and how it relates to our overall design concept. We tend to not think about the structure as potentially creating the aesthetics and experience of the interior and the overall building. My hope is that this will change and structure and jointing will become a part of our conscious design efforts. Doing so will help us work towards what Frampton calls the "poetics of construction."³ I agree with what he goes on to say: "one may assert that building is ontological rather than representational in character and that built form is a presence rather than something standing for an absence... we may think of it as a 'thing' rather than a 'sign.'"⁴

We must think of architecture as existing on a site, because after all that is what it is doing. We interact with it on a daily basis; we experience it each time we inhabit the space and the site. Thinking more about structure and jointing as part of our designs will help us to enhance the users' overall experience of our architecture. Each piece of the building will work together to create a completely cohesive design, both inside and outside.

1. Schwarzer, Mitchell. "Ontology and Representation in Karl Bötticher's Theory of Tectonics." *Journal of the Society of Architectural Historians* 52, no. 3 (1993): 267-80.

2. Frampton, Kenneth. *Rappel a l'ordre: the case for the tectonic*. na, 1990.

3. Frampton, Kenneth.

4. Frampton, Kenneth.

Initial Collection Ideas

STEREOTOMIC CHAPELS: MANIPULATION OF NATURAL LIGHT

BRUDER KLAUS FIELD CHAPEL

ARCHITECT: PETER ZUMTHOR



SOURCE: 50SA.TISTORY.COM/ENTRY/PETER-ZUMTHOR-BROTHER-KLAUS-CHAPEL

NOTRE DAME DU HAUT

ARCHITECT: LE CORBUSIER



SOURCE: BESTOURISM.COM/MEDIAS/DFP/13800

CHURCH OF THE LIGHT

ARCHITECT: TADAO ANDO



PHOTOGRAPHER: ATTILA BUJDOSO

TECTONIC CHAPELS: MANIPULATION OF NATURAL LIGHT

BOEDIGHEIM CHAPEL

DESIGNERS: ILLINOIS I.T. COLLEGE OF ARCHITECTURE STUDENTS, ECKER ARCHITEKTEN



PHOTOGRAPHER: BRIGIDA GONZALEZ

SAINT ANNA'S CHAPEL

ENGINEER: VARDEMARO BARBETTA



PHOTOGRAPHER: PAOLO DEL FREO

KAMPPI CHAPEL

ARCHITECT: K2S ARCHITECTS



PHOTOGRAPHER: TUOMAS UUSHEIMO

MEMORIALS COMMEMORATING WARTIME LOSS

PEARL HARBOR MEMORIAL

ARCHITECT: ALFRED PREIS



SOURCE: EN.WIKIPEDIA.ORG/?TITLE=USS_ARIZONA_MEMORIAL

CANAKKALE MARTYRS' MEMORIAL

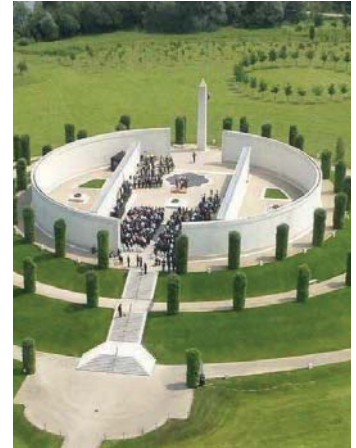
DESIGNERS: DOGAN ERGINBAS, ISMAIL UTKULAR, ERTUGRUL BARLA



SOURCE: GEOLOCATION.WS/V/P/25302052/ANAKKALE-EHTLIK-ABIDESI/EN

ARMED FORCES MEMORIAL

ARCHITECT: LIAM O'CONNOR



SOURCE: EXPRESSANDSTAR.COM/NEWS

WATERFRONT CHAPELS

BOEDIGHEIM CHAPEL

DESIGNERS: ILLINOIS I.T. COLLEGE OF ARCHITECTURE STUDENTS, ECKER ARCHITEKTEN



PHOTOGRAPHER: ROBERT HARDING

CHAPEL IN CHIOS, GREECE

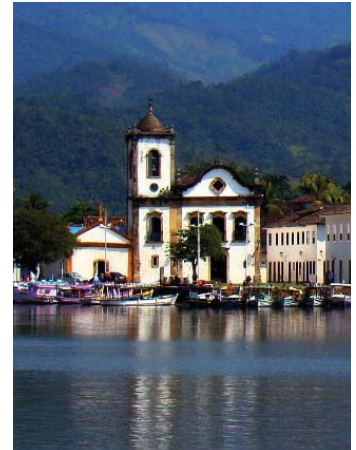
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SOURCE: COMMONS.WIKIMEDIA.ORG

CHAPEL OF SAINT RITA

ARCHITECT: UNKNOWN



SOURCE: SAVEIROS.COM.BR/ALUGUEL-DE-BARCOS

ARCHES AND ARCHWAYS

ST. LOUIS ARCH

ARCHITECT: EERO SAARINEN



SOURCE: UPLOAD.WIKIMEDIA.ORG

ARC DE TRIOMPHE

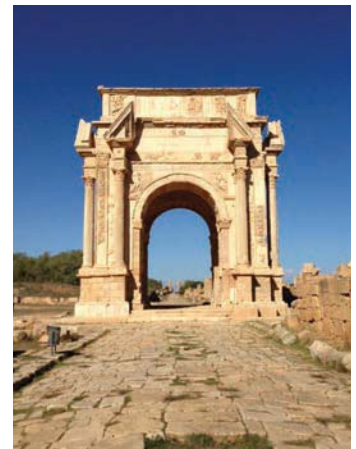
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SOURCE: COMMONS.WIKIMEDIA.ORG

ARCH OF SEPTIMUS SEVERUS

ARCHITECT: UNKNOWN



SOURCE: JASONAROUNDTHEWORLD.COM

Bruder Klaus Field Chapel

Location: Mechernich, Germany

Architect: Peter Zumthor

Arguably the most interesting aspects of the church are found in the methods of construction, beginning with a wigwam made of 112 tree trunks. Upon completion of the frame, layers of concrete were poured and rammed atop the existing surface, each around 50cm thick. When the concrete of all 24 layers had set, the wooden frame was set on fire, leaving behind a hollowed blackened cavity and charred walls. The unique roofing surface of the interior is balanced by a floor of frozen molten lead. Gaze is pulled up by way of obvious directionality, to the point where the roof is open to the sky and night stars. This controls the weather of the chapel, as rain and sunlight both penetrate the opening and create an ambience or experience very specific to the time of day and year.

archdaily.com/106352/bruder-klaus-field-chapel-peter-zumthor

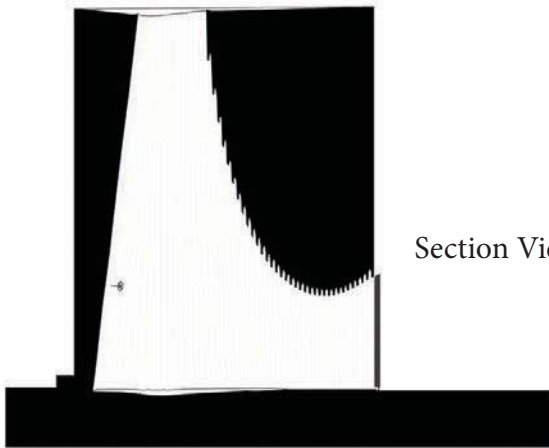
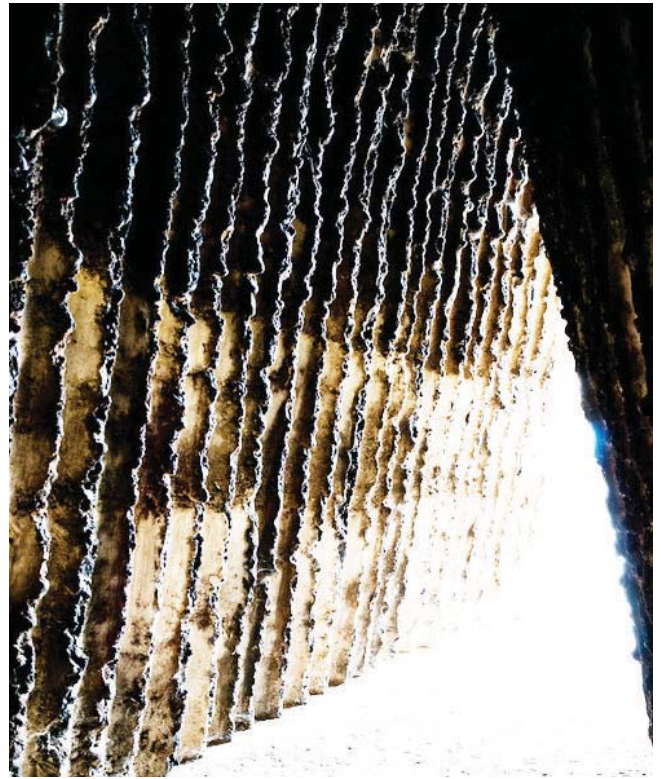
Photos From:

Samuel Ludwig

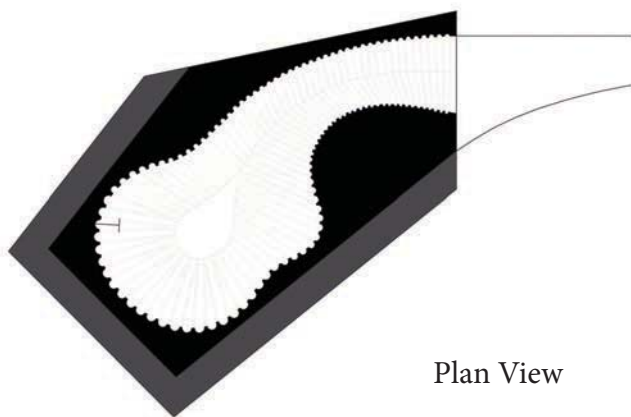
Studio Red

openbuildings.com/buildings/bruder-klaus-field-chapel-profile-38798#

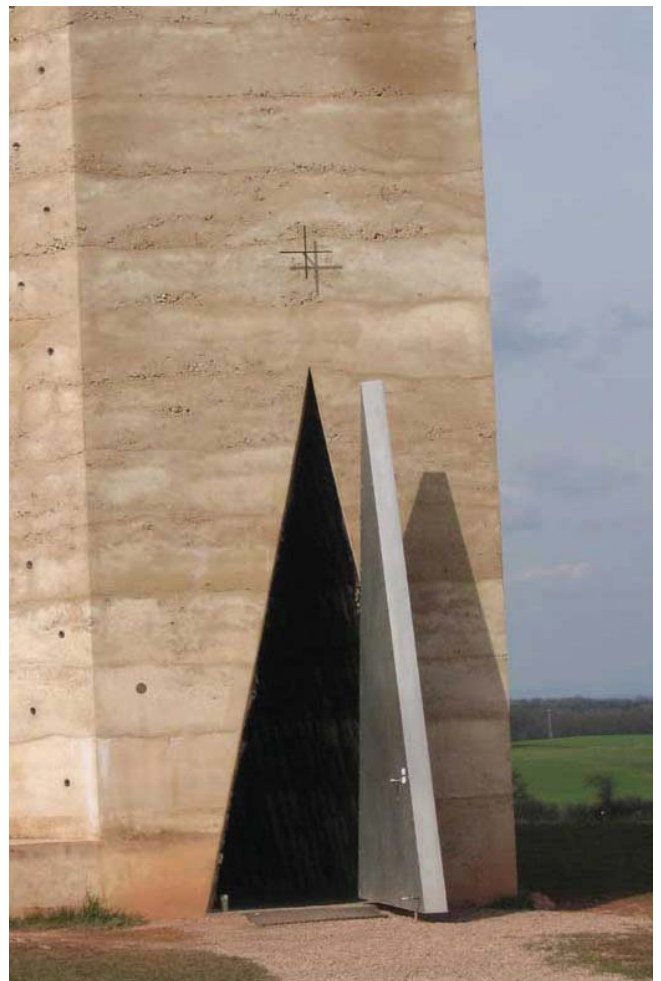




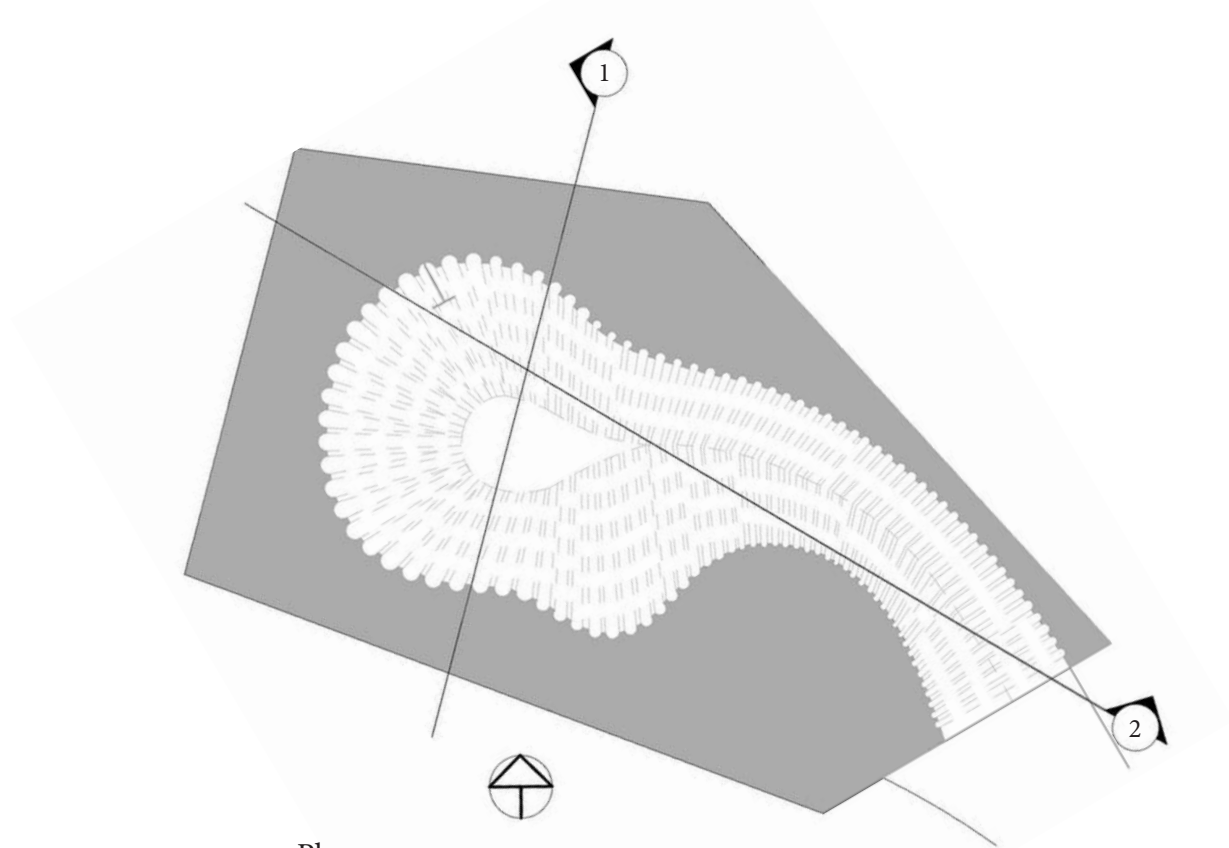
Section View



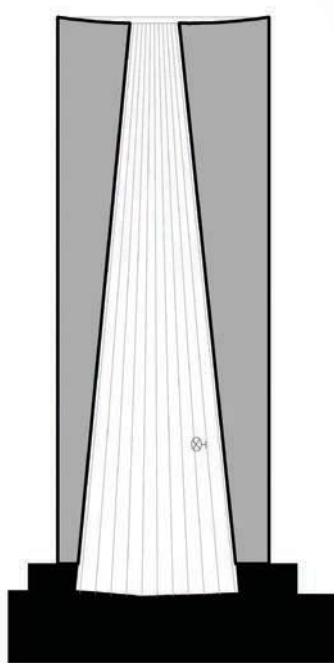
Plan View



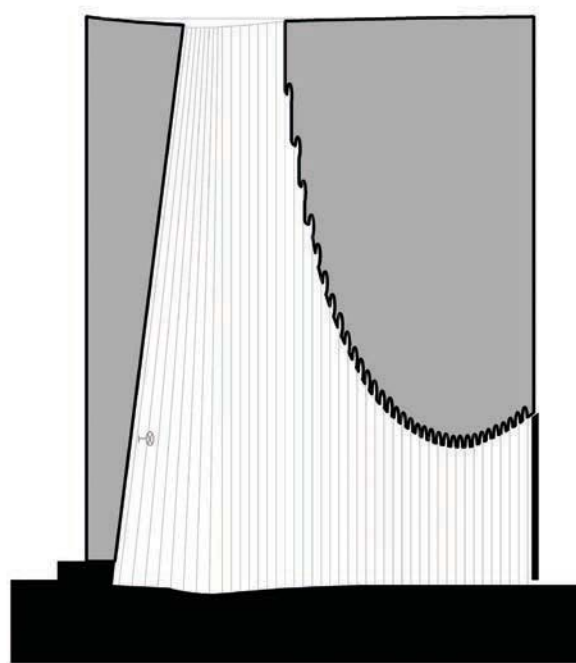
Bruder Klaus Field Chapel



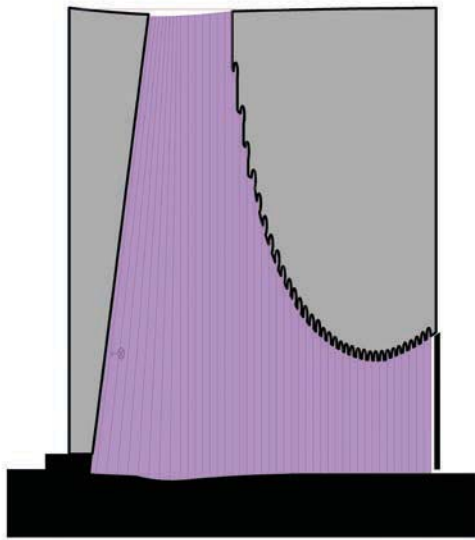
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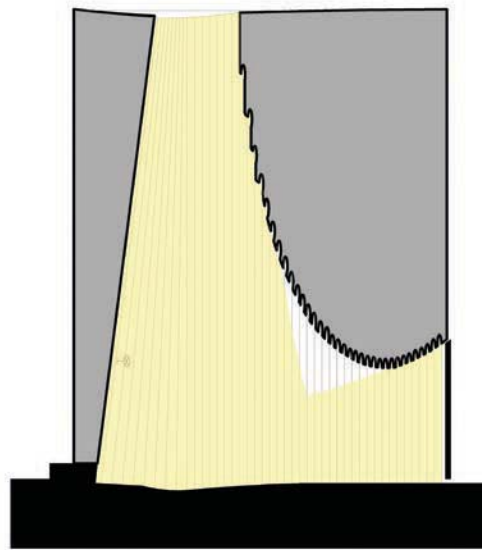
Section 1



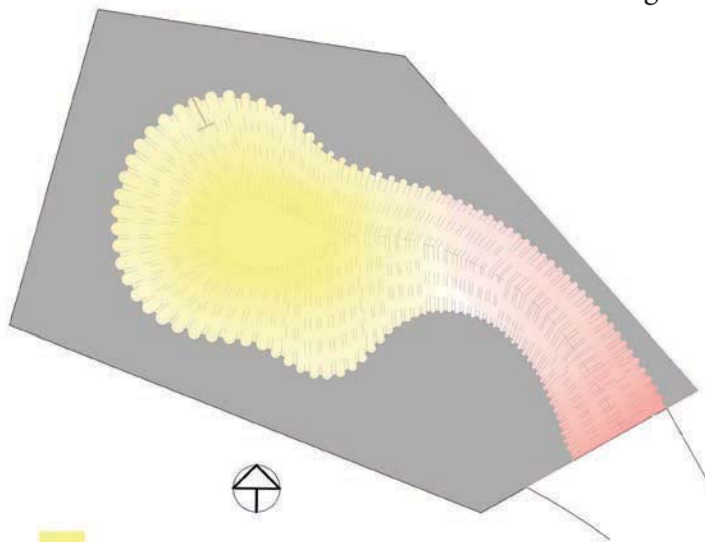
Section 2



Volume



Natural Lighting

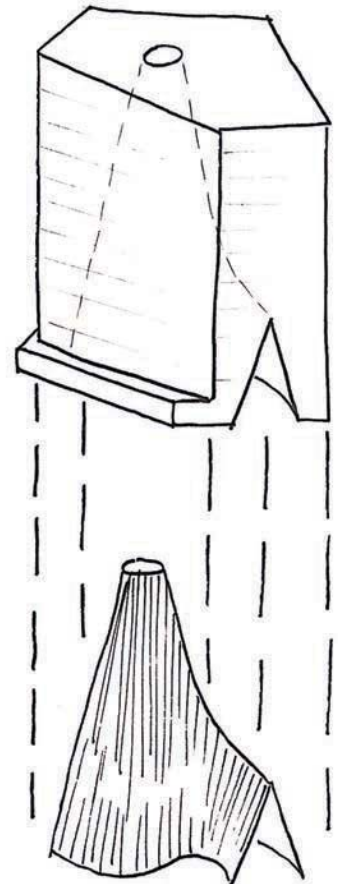


- Ambient - All day
- Southern

Orientation & Lighting



Texture



Construction

Chapelle Notre Dame du Haut

Location: Ronchamp, France

Architect: Le Corbusier

Le Corbusier's "chapel of our lady of the height" is a pilgrimage chapel, though on most days more frequented by architectural pilgrims than the intended variety. Perched on a commanding hill above the village of Ronchamp, it is the latest of a long history of chapels on the site. Its predecessor was destroyed in fighting in the Second World War, though much of its stone is used in the walls of Le Corbusier's building.

The thick, curved walls - especially the buttress-shaped south wall - and the vast shell of the concrete roof give the building a massive, sculptural form. Small, brightly painted and apparently irregular windows punched in these thick walls give a dim but exciting light within the cool building, enhanced by further indirect light coming down the three light towers.

galinsky.com/buildings/ronchamp/

Photos From:

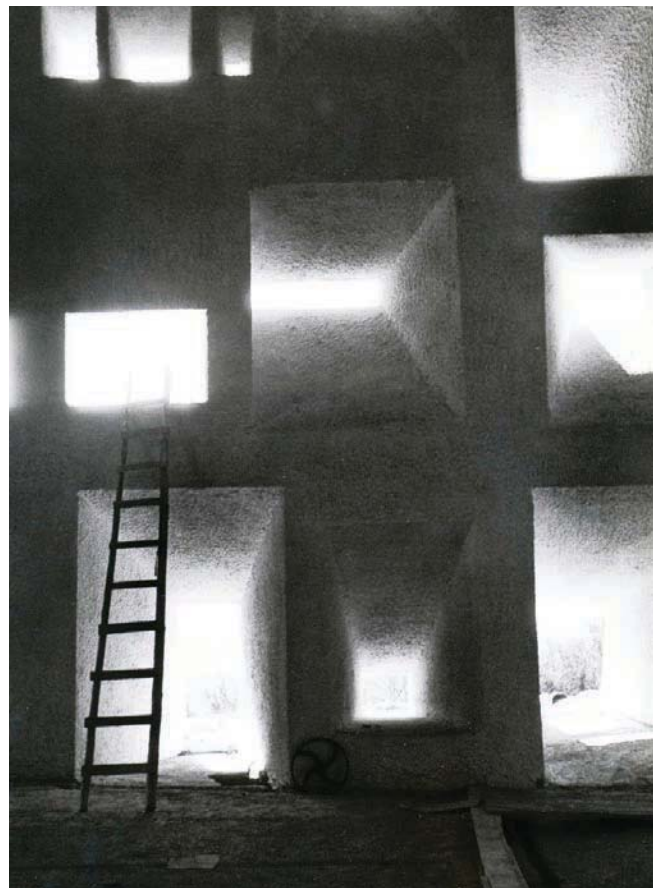
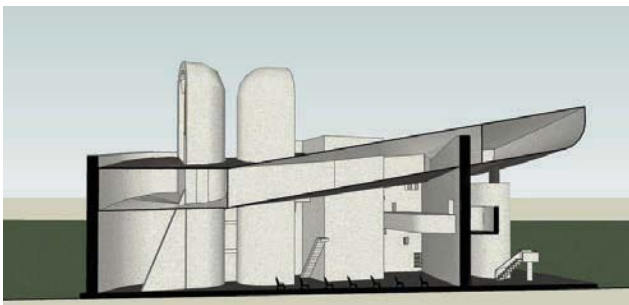
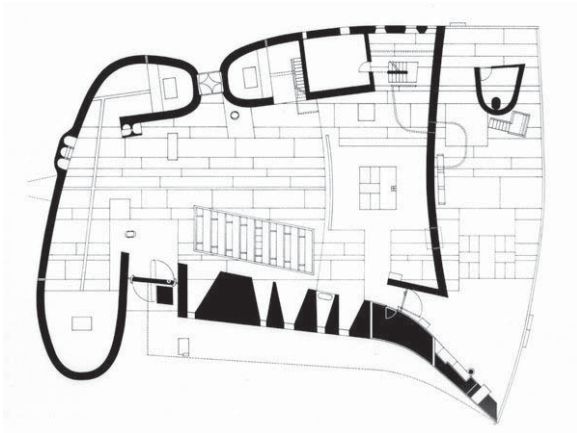
besttourism.com/medias/dfp/13800

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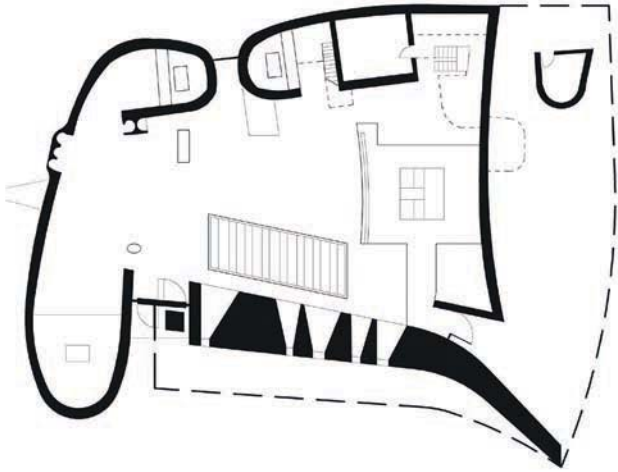
architecturalmoleskine.blogspot.com/

reblololo.tumblr.com/post/822513324/liquidnight-rene-burri-shell-of-the-chapel

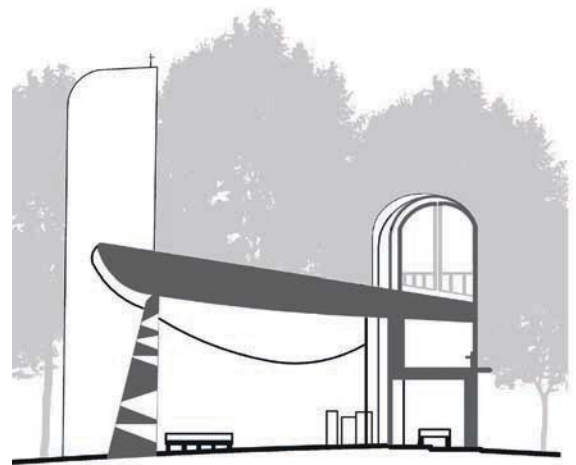




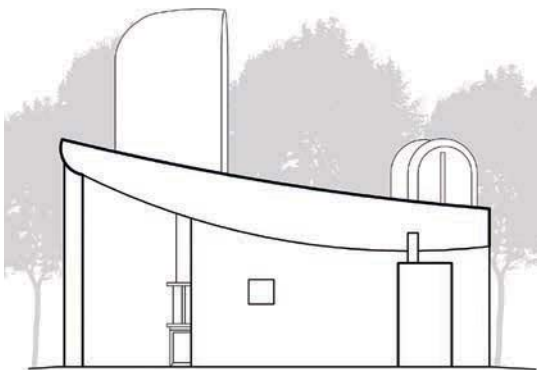
Notre Dame du Haut



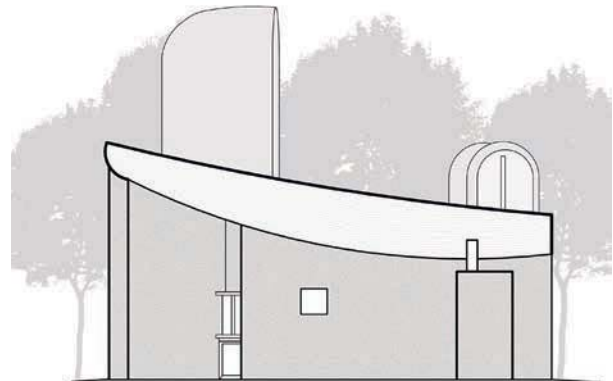
Plan



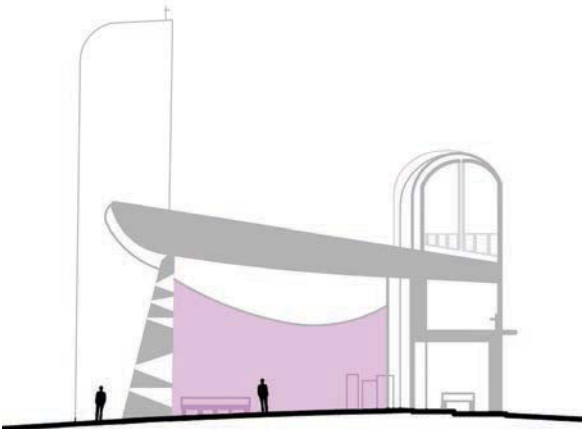
Section



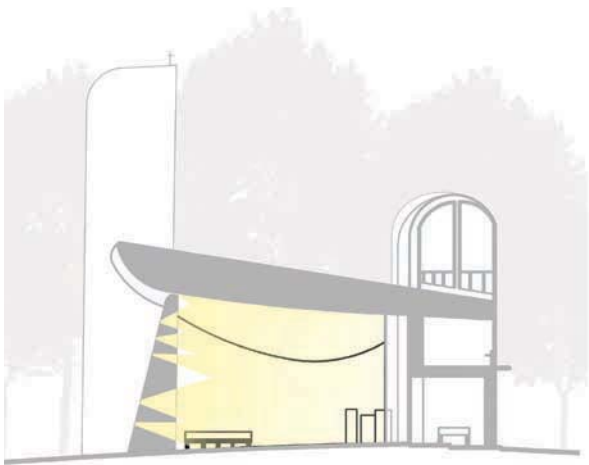
Elevation



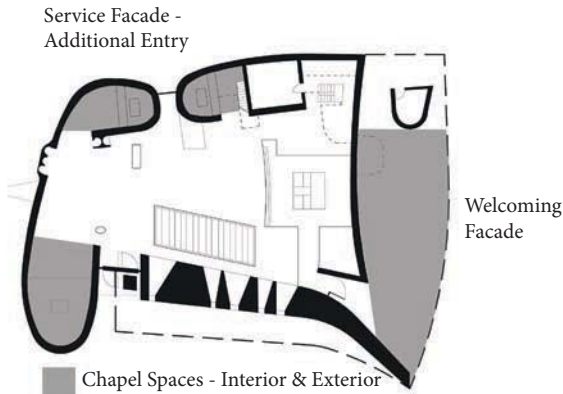
Texture



Volume



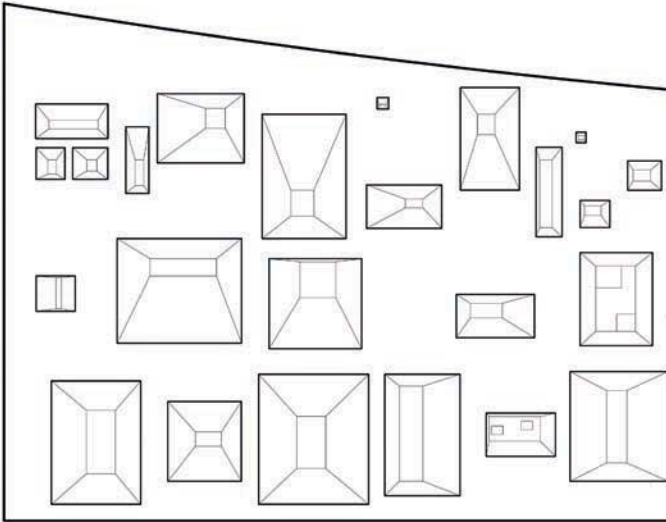
Natural Lighting



Building Use



Orientation & Lighting



Windows - Southern Wall

Church of Light

Location: Osaka, Japan

Architect: Tadao Ando

Located in a quiet residential neighborhood in the suburbs of Osaka, the small Christian church made of silky smooth concrete sits modestly within its environment. The communal church consists of two rectangular volumes that are both cut at a 15 degree angles by freestanding concrete walls. One indirectly enters the church by slipping between the two volumes, one that contains the Sunday school and the other that contains the worship hall.

The space of the chapel is defined by light, by the strong contrast between light and shade. In the chapel light enters from behind the altar, from a cruciform cut in the concrete wall that extends vertically from floor to ceiling and horizontally from wall to wall, aligning perfectly with the joints in the concrete. From this cruciform shape an abstract and universal light seems to be floating on the concrete wall, its rays extending and receding over time with the movement of the sun. Light is also permitted to seep into the interior from the slicing of the volume by the freestanding concrete wall. The darkness of the chapel is further accentuated by the dark and rough-textured wood of the floor planks and the pews which are built out of reused wood used during construction as scaffolding.

galinsky.com/buildings/churchoflight/

Photos From:

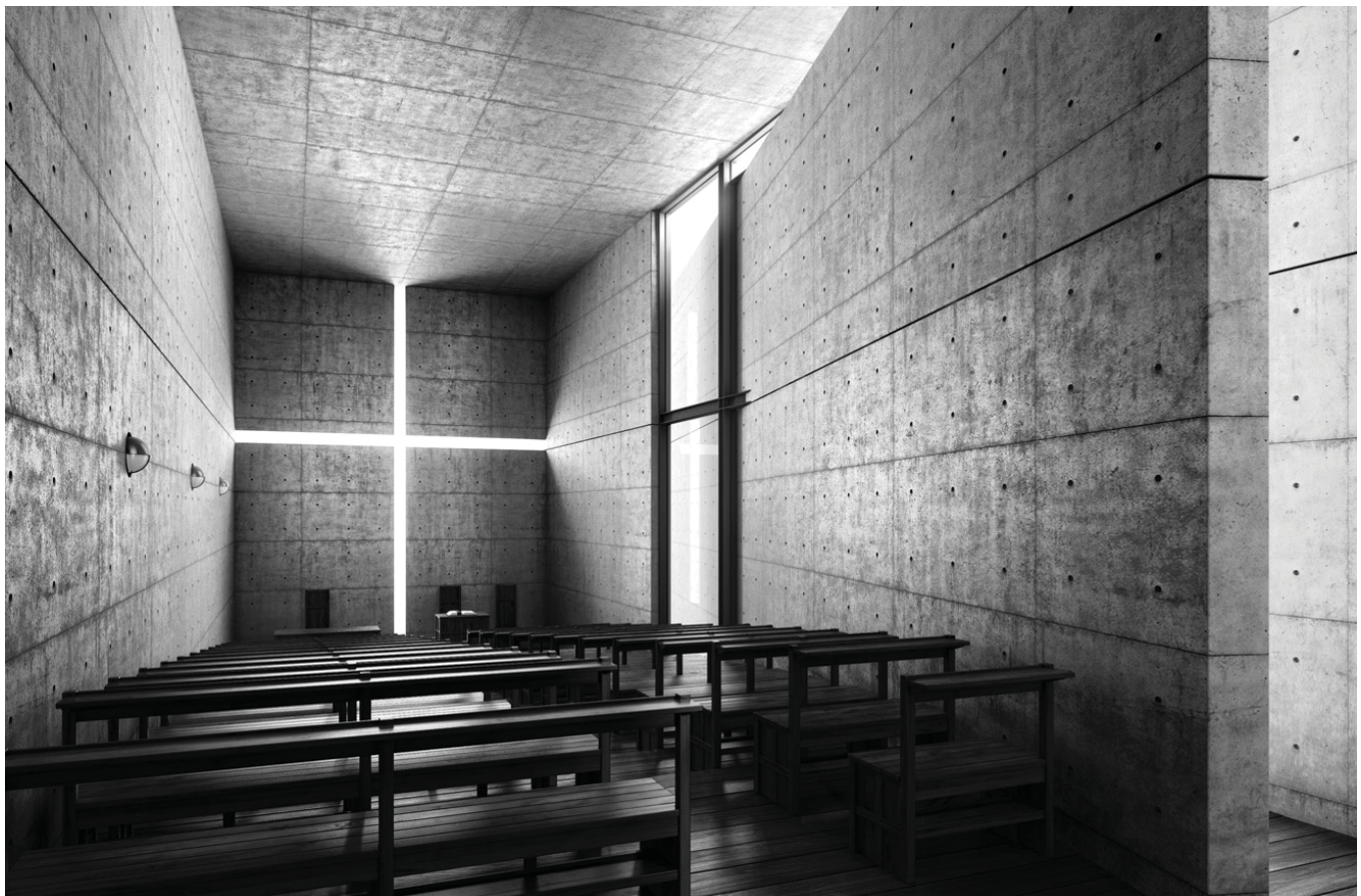
forums.cgsociety.org/showthread.php?t=943364

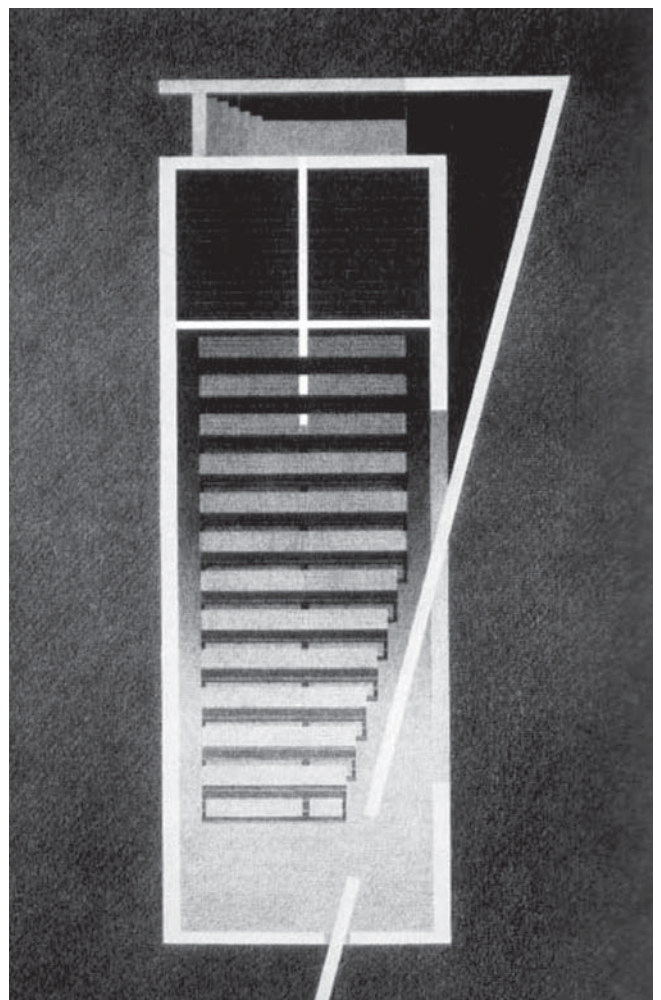
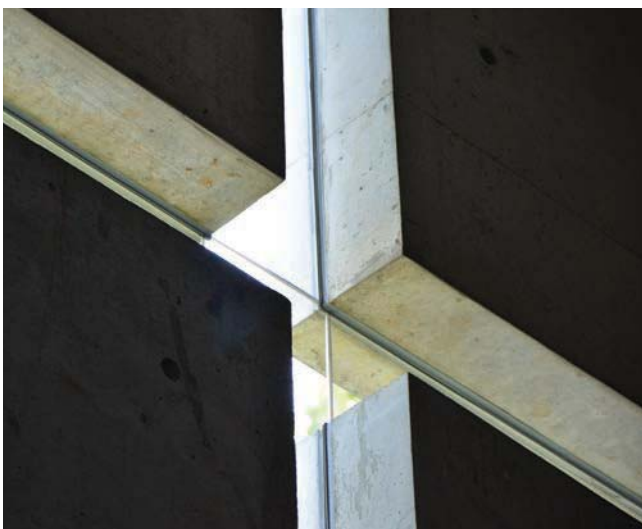
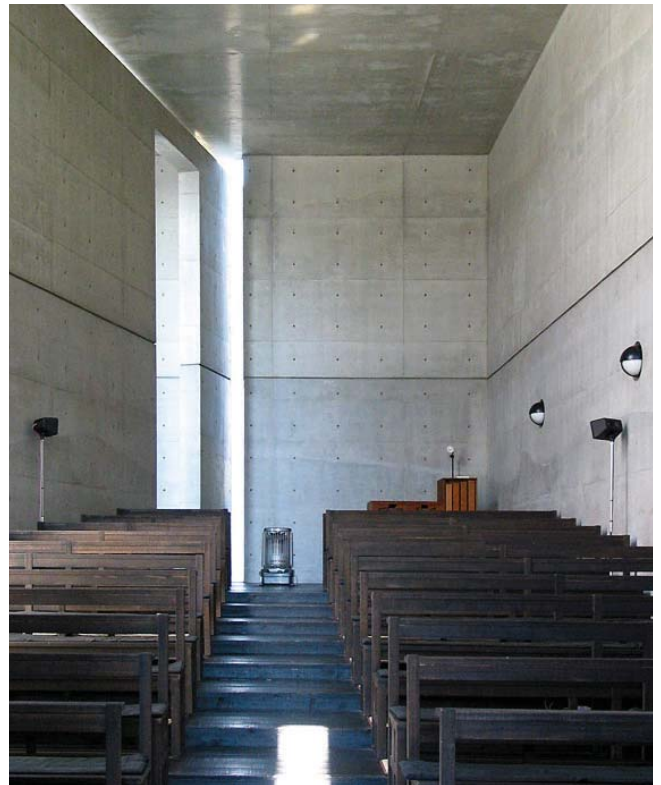
atelier29.blogspot.com

figure-ground.com/church_light/0006/

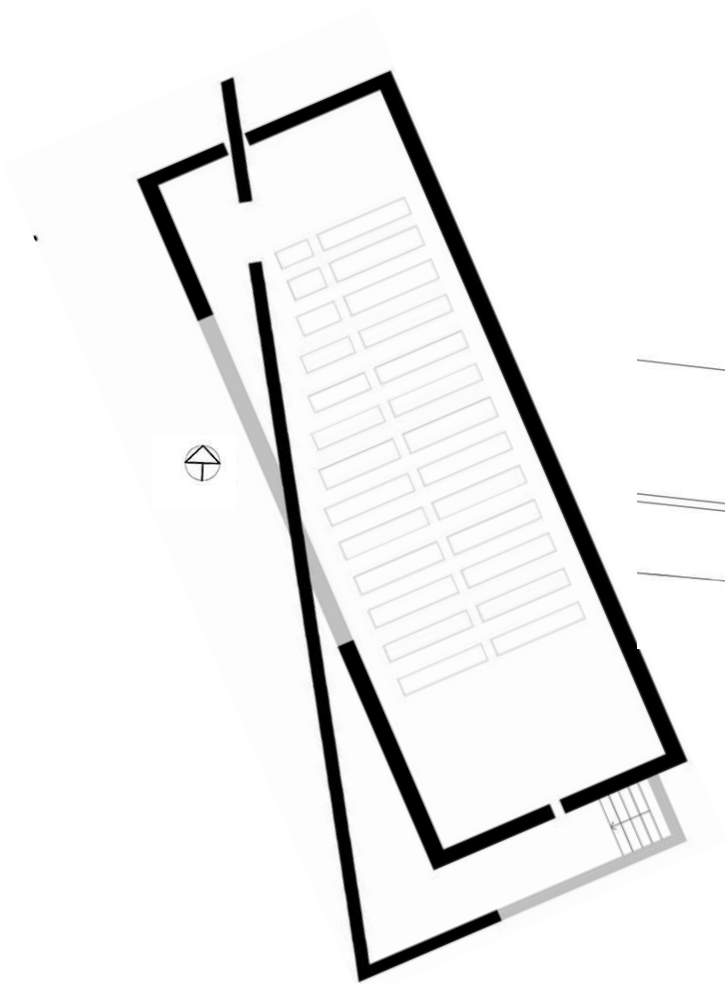
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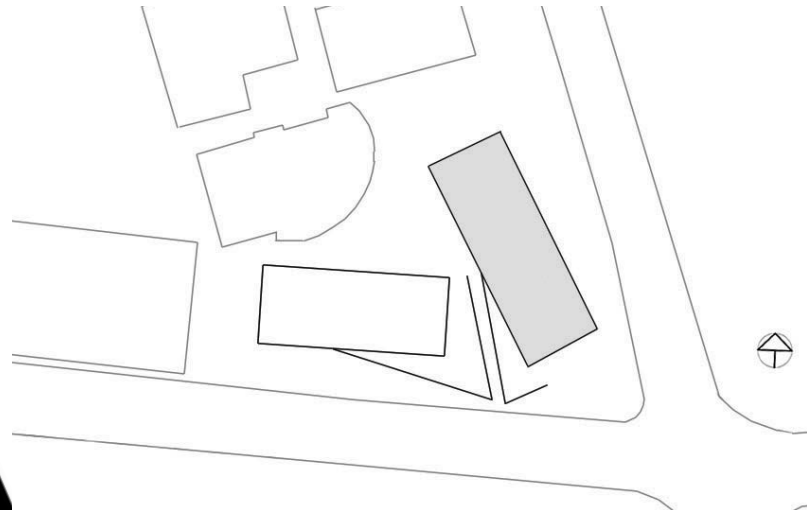




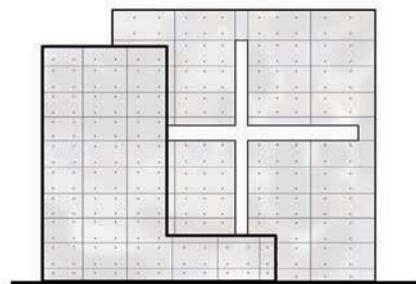
Church of Light



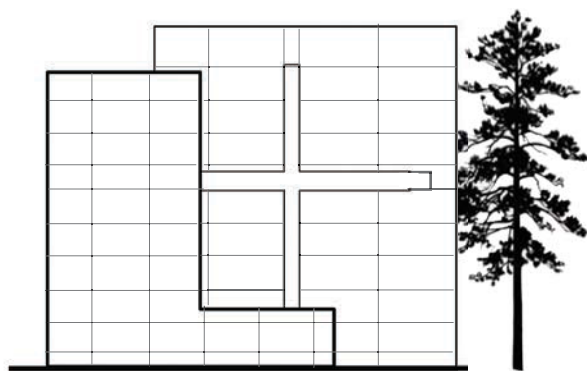
Plan



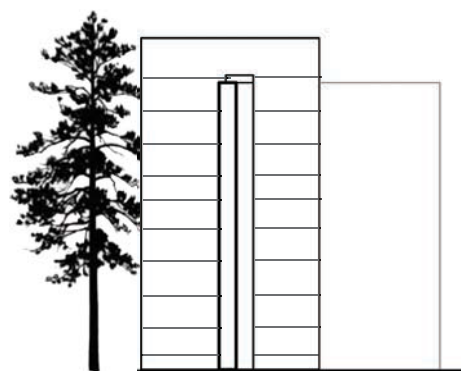
Site Response



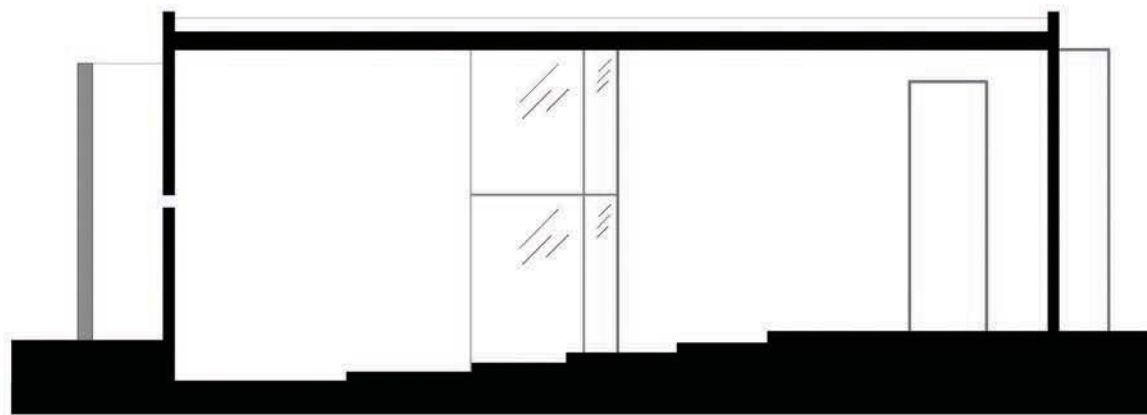
Texture



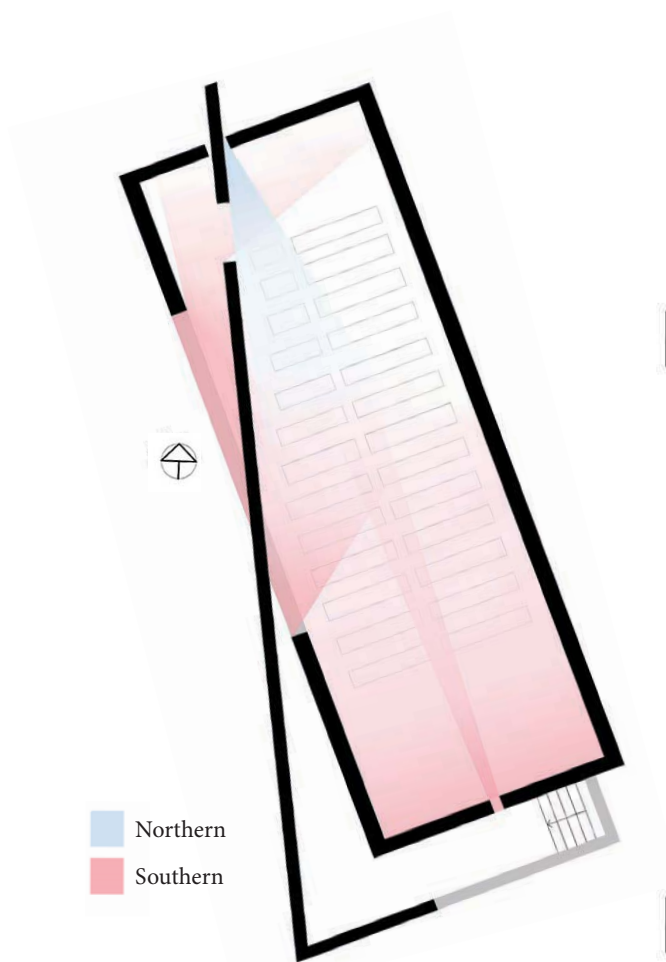
South Elevation



North Elevation



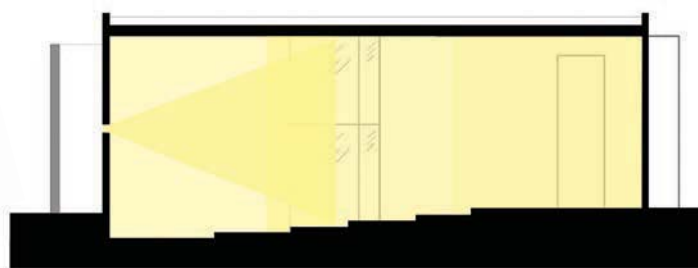
Section



Orientation & Lighting



Volume



Natural Lighting

Holy Redeemer Church

Location: Los Majuelos, San Cristóbal de la Laguna, Tenerife, Spain

Architect: Fernando Menis

This project built in La Laguna (Tenerife), was thought to be a space that incites reflection, a meditation space, a intrinsic place, mystic, a meeting point between different cultures. A place where a person of any race, character or belief, can go to find himself in the temple, or join with other people in the cultural center.

The project starts from a big piece of concrete that is broken in four volumes, being separated from one another, as a result of these cuts made to the original piece and the relative movement of each piece independently. The light penetrates through these courts getting a special meaning, designed from the rationality and endowed with a profound theological root.

In this sense, the first light of day, through the cross, lights the baptismal font, the firstlight of the Christian. At noon, across the ceiling, lights the altar, confirmation and eucharist. Soon after, a beam of light falls into the confessional on the sacrament of penance, illuminates the Word. The transition from darkness to light, from death to life. The strategic position of the celings achieves the same effect on the anointing, marriage and holy orders.

archello.com/en/project/holy-redeemer-church

Photos From:

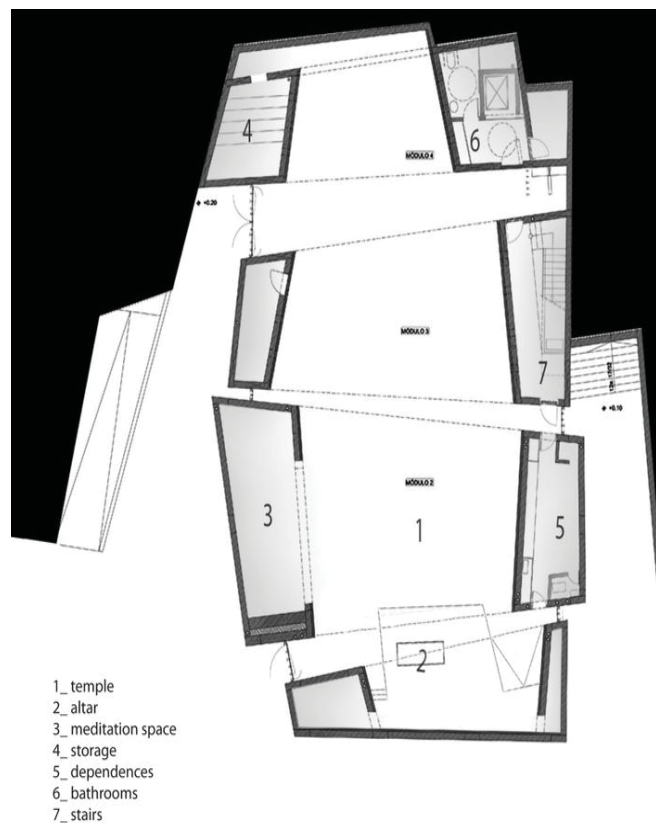
archello.com/en/project/holy-redeemer-church

menis.es/holy-redeemer-church/

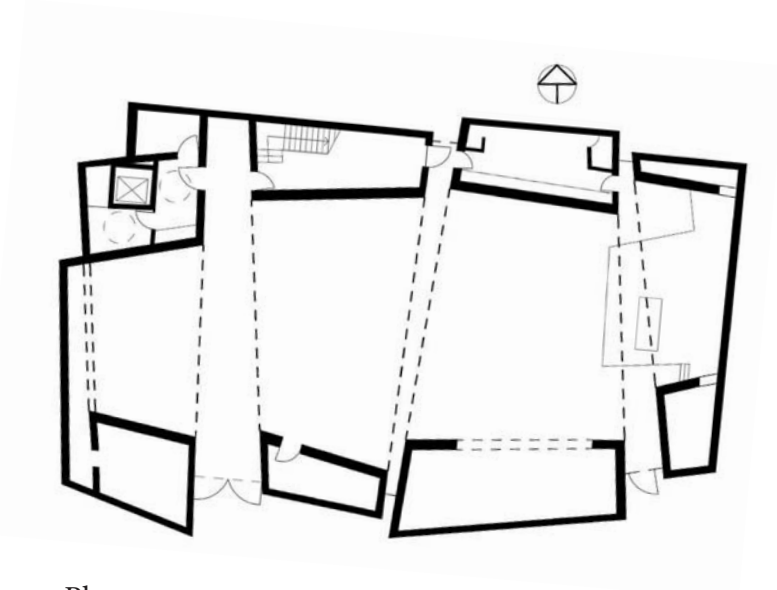
[dezeen.com/2012/03/20/church-in-la-laguna-](http://dezeen.com/2012/03/20/church-in-la-laguna-by-menis-arquitectos/)

[by-menis-arquitectos/](http://dezeen.com/2012/03/20/church-in-la-laguna-by-menis-arquitectos/)

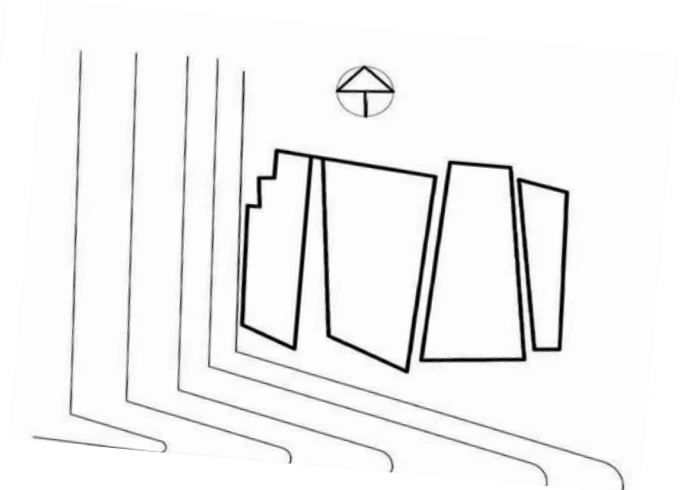




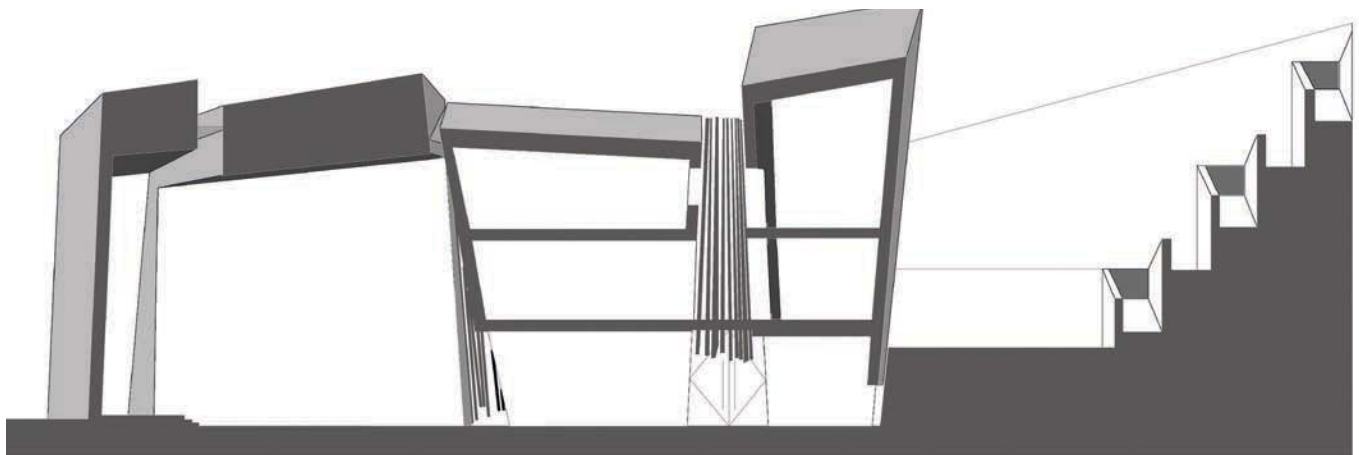
Holy Redeemer Church



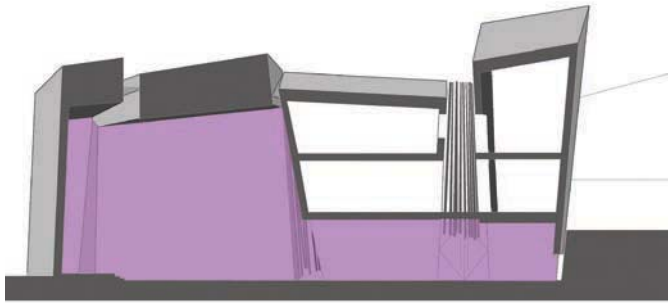
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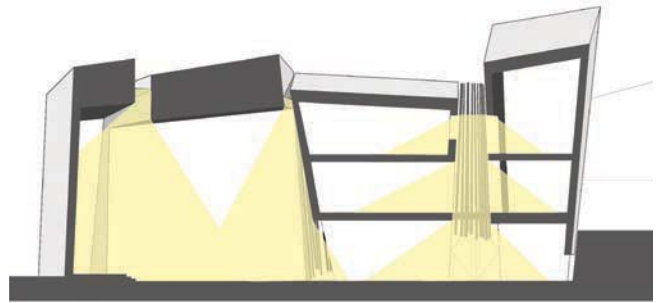
Site Plan



Section



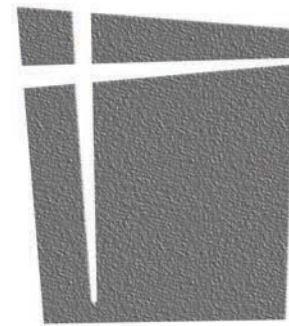
Volume



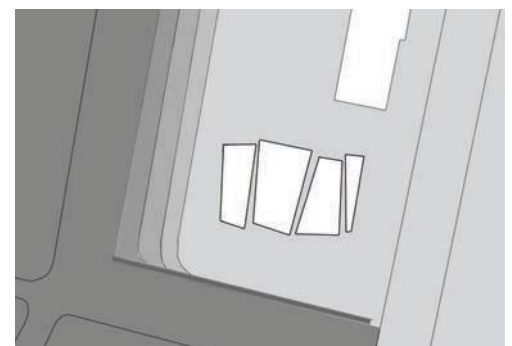
Natural Lighting



Orientation & Lighting



Texture



Site Response

Church of Seed

Location: Huizhou, China

Architect(s): O Studio Architects

This church provides not only worship and meditation space for Christians, but also recreational and gathering places for the surrounding village people. Instead of promoting Christian religion actively and aggressively, the message of religion is communicated subtly through the play of light and shadow in this architecture. The design concept is triggered by the form of a seed - a famous metaphorical element in the Gospel stories. A curve line follows the outline of a seed and marks the enclosing wall element. The curve is then split into three parts, and three entries are formed at where the curve wall splits: the south east facing wall has a cross shape opening which introduces morning sun into the interior; the west facing wall is solid and blocking the afternoon sun.

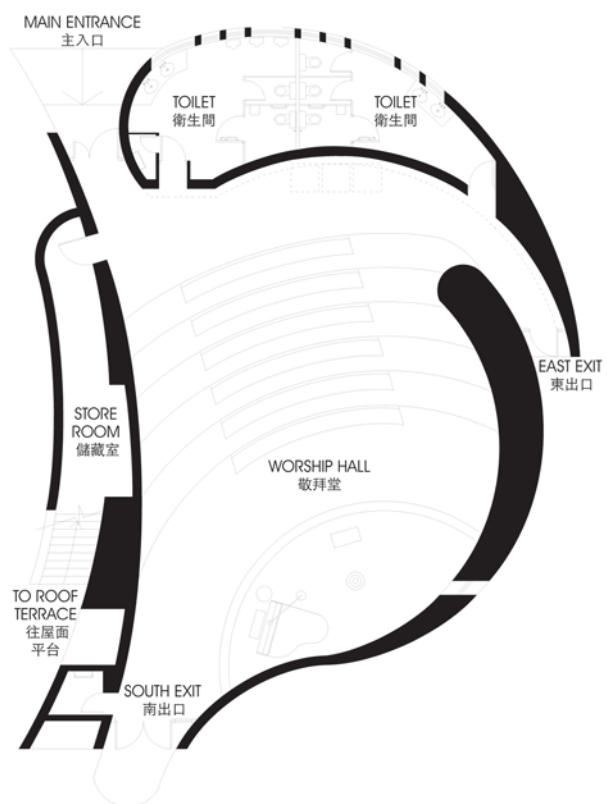
The stepping roof terrace allows diffuse northern daylight into the interior and provides a dramatic headroom increment (3 – 12 meters) from the main entrance towards the worshiping space. Visitors can walk up to the stepping roof terrace, arrive at the observation deck and enjoy the distant view of mountain and water.

<http://www.dezeen.com/2012/02/08/church-of-seed-by-o-studio-architects/>

Photos From:

[dezeen.com/2012/02/08/church-of-seed-by-o-studio-architects/](http://www.dezeen.com/2012/02/08/church-of-seed-by-o-studio-architects/)

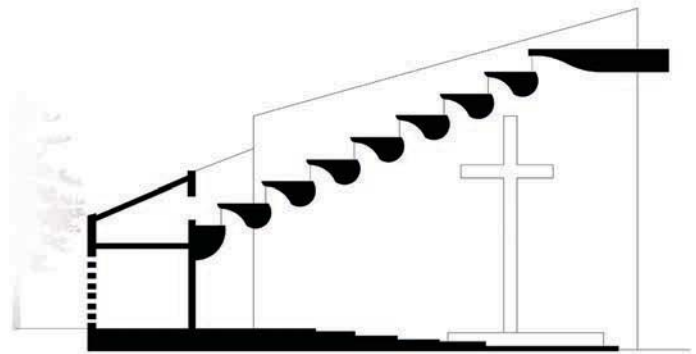




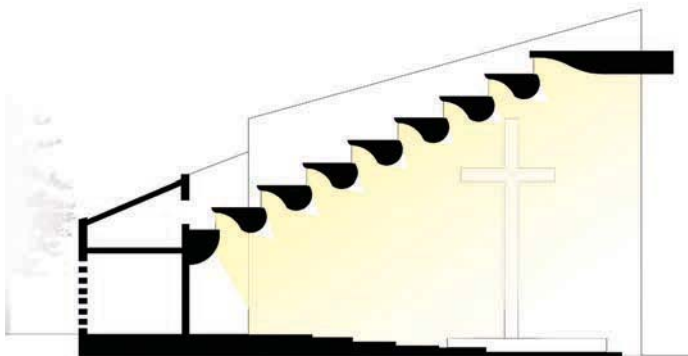
Church of Seed



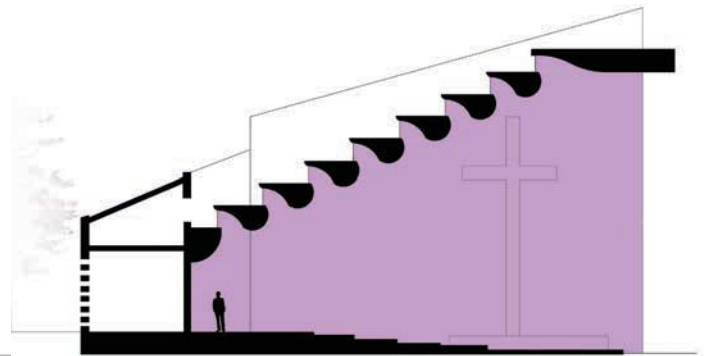
Plan



Section



Natural Lighting

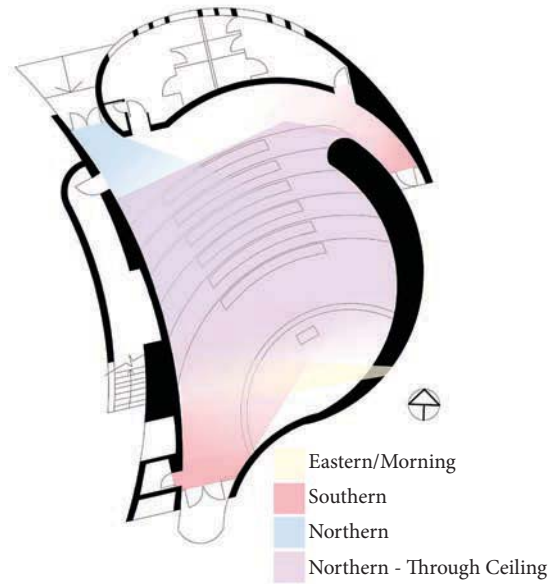


Volume

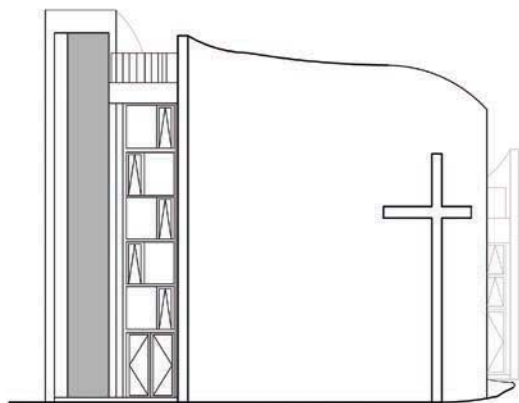


Building Shape

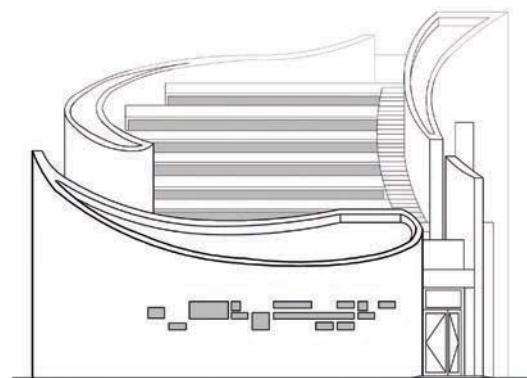
- Seed - Strong metaphor in gospel stories
- Casing that surrounds and protects the seed



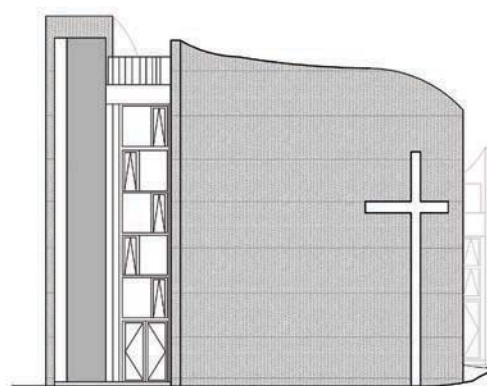
Orientation & Lighting



South Elevation



North Elevation



Texture

Capilla del Retiro

Location: Santuario de Auco, Calle Larga, Región de Valparaíso, Chile

Architect: Undurraga Devés Arquitectos - Cristián Undurraga

The chapel rises as a confirmation of the extraordinary geography that surrounds it, while respecting the axes established by the series of preexisting buildings. Concrete is the main material of the building's structure. Its volume, strictly economical, rises up from a crosspiece of 4 beams in the shape of a cross that is supported with the least possible structural elements so that its relationship with the ground is slight but sufficient. Shape and structure here are an indissoluble synthesis.

Under the strict geometry of the concrete a patio was excavated, whose rustic stone wall rises hazardously up and around the chapel, compressing and expanding that space of light. As a counterpoint to the magnitude of the geographic surroundings, the interior was designed in the shape of a wooden box recycled from old railway lines. This box hangs from the concrete structure and lies 2 meters under the beams that support it, limiting the view of the emptiness outside.

The whole of this piece, which appears to levitate over the ground, refers us to the spiritual dimension inside. This space is illuminated from the lower part, leaving a space to view a weightless body in the interior that hides the rationality of its supports, whilst the exterior affords us a view of the stone wall that surrounds the patio. The upper light has been restricted so as to maintain a certain half-light in the box, which is heightened by the dark color of the wood. Here, the duality of the rational exterior / metaphysical interior, so typical of Gothic architecture, assumes a new expression of a commitment to modernity.

<http://www.archdaily.com/221334/capilla-del-retiro-undurraga-deves-arquitectos>

Photos From:

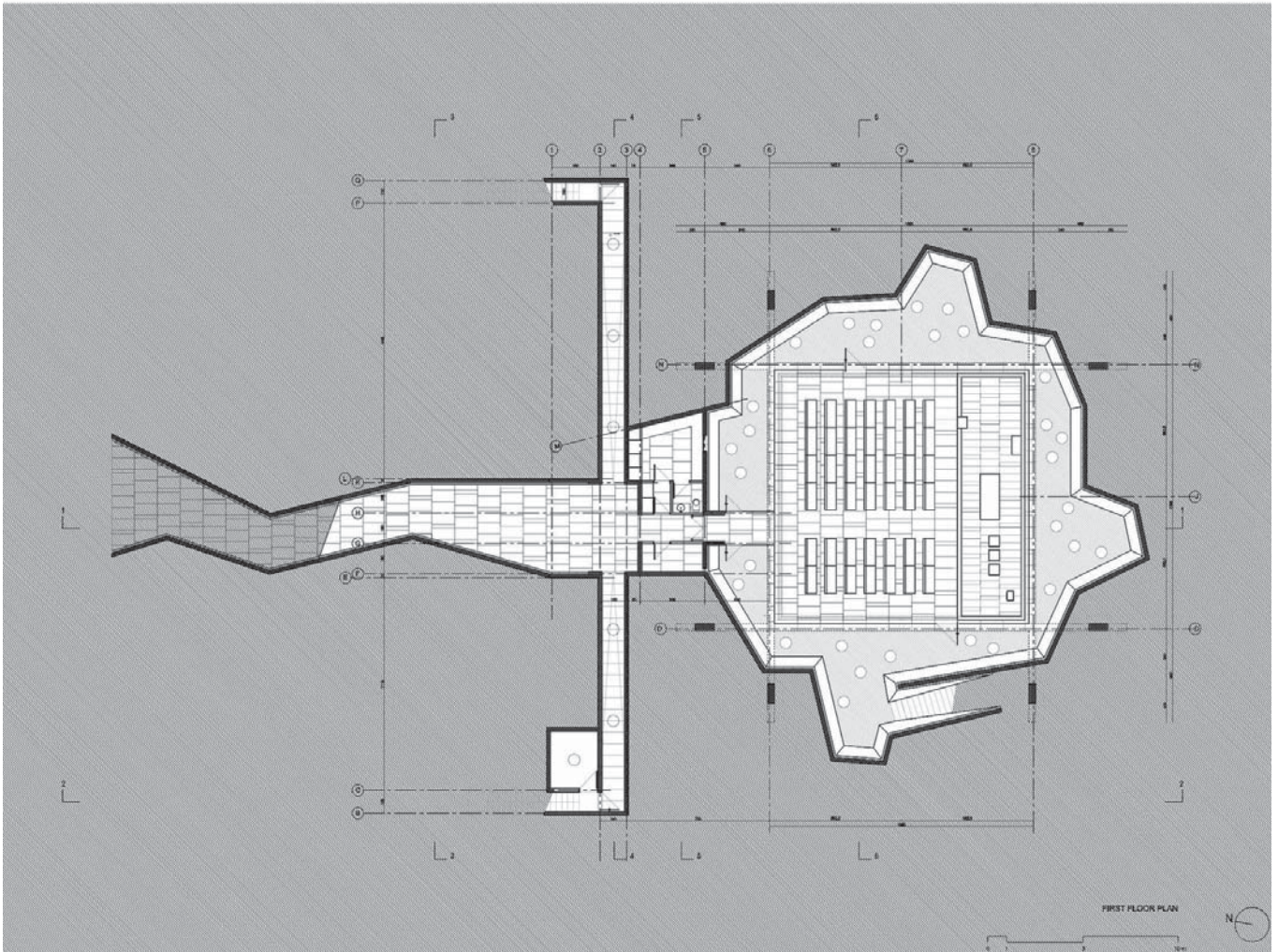
Sergio Pirrone

wallpaper.com/gallery/architecture/interactive-floor-plan-capilla-del-retiro-chile/17051641#25855

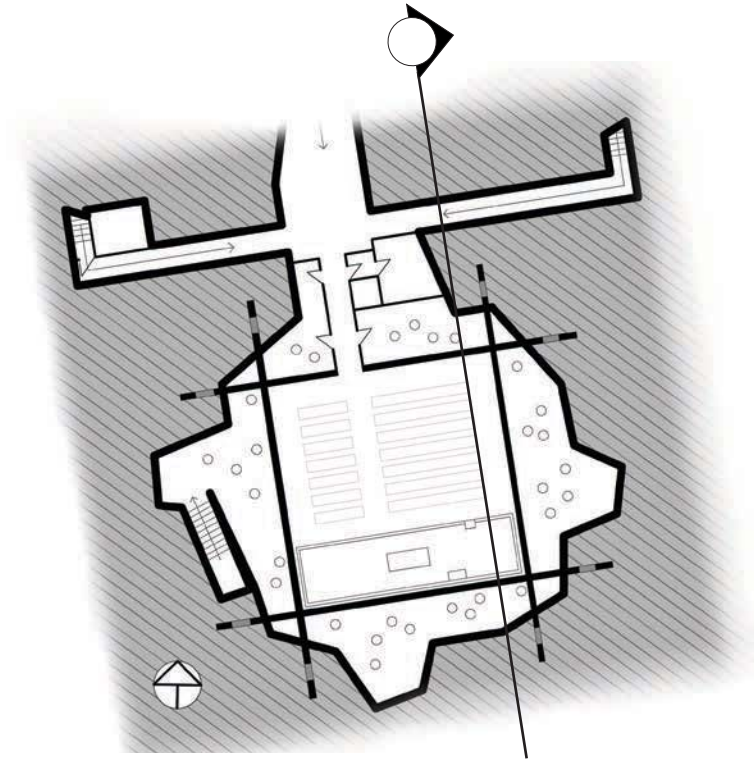
plataformaarquitectura.cl/cl/02-148507/capilla-del-retiro-cristian-undurraga

archdaily.com/221334/capilla-del-retiro-undurraga-deves-arquitectos

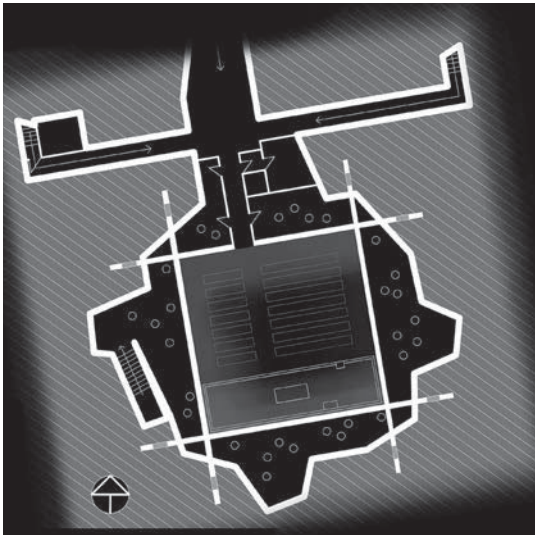




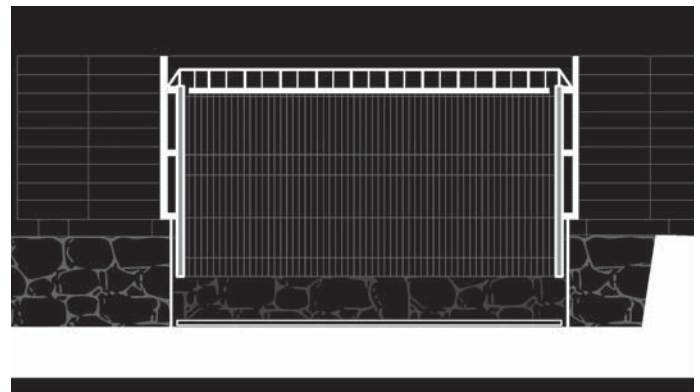
Capilla del Retiro



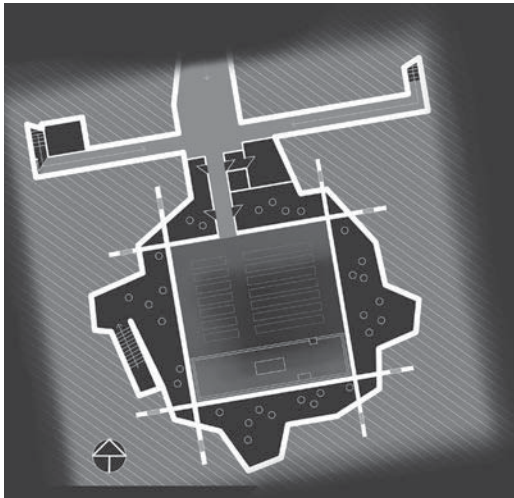
Plan



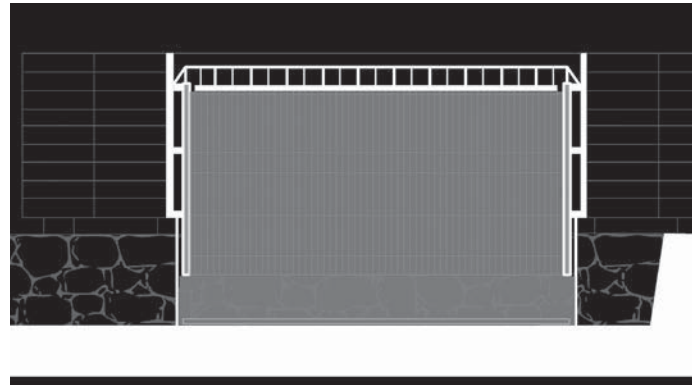
Site Plan



Section



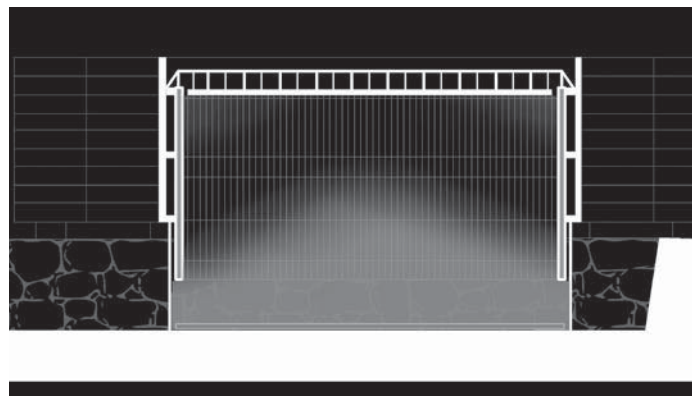
Paths of Entry



Volume



Orientation & Lighting



Natural Lighting

PROGRAM ANALYSIS

My museum strives to showcase stereotomic chapels from all over the world and how they utilize natural lighting and their concrete-based construction to enhance the user's spiritual experience. In the same way, my museum will heighten the visitor's experience and understanding of the museum itself and the exhibition pieces.

My museum is broken down into five main areas of programming, grouped primarily by function and the user(s) of the space.

FIVE AREAS OF PROGRAMMING:

1) ENTRY/PUBLIC SPACES:

- Lobby
- Reception/Entry
- Gift Shop
- Lockers/Personal Storage
- Cafe/Food Service

2) ADMINISTRATIVE SPACES:

- Offices
- Security

3) GALLERY SPACES:

- Gallery
- Storage
- Prep
- Shop

1) ENTRY/PUBLIC SPACES:

The entry spaces function not only to welcome users to the museum but also to service them, whether by providing space for personal storage or a place to relax and eat.

-Lobby (600-700 sq.ft.):

The lobby is the first space experienced by the user. It serves as the entry and welcome area for the museum and a gathering space for visitors. From here, users disperse to the building exhibit or other areas of the design, including the gift shop and/or cafe areas. The design of the lobby will include thoughtful use of natural lighting brought into the space.

-Reception/Entry (100 sq.ft.):

The reception/entry is itself a part of the museum lobby - it serves to welcome the users of the space.

-Gift Shop (150-200 sq.ft.):

This space will provide users the opportunity to purchase gifts and souvenirs while visiting the museum. Whether buying for themselves or a loved one, the user can take part of their memorable exhibit experience home with them.

-Lockers/Personal Storage (150 sq.ft.):

Lockers and personal storage space provide convenience to the user. This area will give them the opportunity to lock up their belongings so that they may have a more enjoyable museum experience. They do not have to have their belongings with them during the duration of their visit.

-Cafe/Food Service (550-650 sq.ft.):

A cafe will provide users with an additional space to relax and spend more time at the museum. The cafe will offer visitors food and refreshments and provide more

4) SUPPORT SPACES:

- Toilets
- Janitor's Closet(s)
- Mechanical Space
- Storage
- Loading Dock & Trash Area

5) SITE SPACES/CONSIDERATIONS:

- Grounds
- Parking
- Landscaping
- Rest Areas
- Signage
- Storm Shelter(s)

opportunities to interact with their family and friends, as well as other museum patrons. The cafe will provide users with views outside so that they can stay connected with the outdoors and the overall site.

ENTRY/PUBLIC SPACES TOTAL: 1800 sq.ft.

2) ADMINISTRATIVE SPACES:

Administrative spaces will be those utilized by museum and exhibit workers. Contained in this area will be several offices, including those for curators, assistants, as well as security personnel.

-Offices (140-200 sq.ft. each):

The offices will provide necessary space for museum workers to successfully operate and conduct business for the museum. Office space will be provided for:

- Secretary/Receptionist
- Curator(s)
- Administration
- Assistant(s)
- Business/Financial Personnel
- Maintenance Personnel

Additionally, these spaces will be designed for use by office employees:

- Conference Room (280-300 sq.ft.)
- Break Room (350 sq.ft.)
 - Including vending and storage
- Storage (40-50 sq.ft.)
- Toilets - Men & Women, (60 sq.ft.)

ADMINISTRATIVE SPACES TOTAL: 2160 sq.ft.

3) GALLERY SPACES:

This area will contain spaces, in addition to a gallery, that will provide support for the gallery. These spaces will serve to help prep, repair, or store exhibition pieces that will be used for display.

-Gallery (800-1000 sq.ft.):

The gallery is used as a supplemental exhibition space for the primary building collection. It provides necessary space and equipment to display a variety of different showcases. As with the lobby, the gallery will also strongly utilize natural lighting to enhance the visitors' experience. Strong views to the outside will also be important to connect the user to the outdoors and the open-air museum that awaits.

-Gallery Storage (700-900 sq.ft.):

This space stores all of the gallery exhibits when not in use. The gallery will display a wide spectrum of works over time, so a spacious storage area is necessary.

-Gallery Prep (200-300 sq.ft.):

The gallery prep area is used to prepare the gallery exhibits before they are displayed. Cleaning and set-up for displays will be a major portion of the work performed in this space.

-Gallery Shop (300-400 sq.ft.):

The shop is used to custom produce displays and casework for gallery exhibits. Additionally, this space may be used for any exhibit or display repairs and/or maintenance.

GALLERY SPACES TOTAL: 2600 sq.ft.

4) SUPPORT SPACES:

This grouping of spaces support not only the other programmatic groupings, but also the building. In this area is included mechanical spaces and storage as well.

-Toilets (300 sq.ft.)

-Janitor's Closet(s) (60-75 sq.ft.)

-Mechanical Space (500 sq.ft.)

-Storage (200 sq.ft.)

-Loading Dock & Trash Area (350 sq.ft.)

SUPPORT SPACES TOTAL: 1500 sq.ft.

5) SITE SPACES/CONSIDERATIONS

The site spaces and other considerations help maintain the site as well as enhance the user's overall experience of the museum.

-Grounds (800-1000 sq.ft.)

The grounds area will house equipment and tools for workers to maintain and care for the site and the buildings.

-Parking (2000 sq.ft.)

The parking lot is easily accessible for any user and has a close proximity to the entry building.

-Landscaping

Landscaping helps to dress-up the site and to make it more appealing to the users. The landscape can be used to guide visitors throughout the exhibit and to also provide shade in addition to its aesthetic benefits.

-Rest Areas

Rest areas serve as stopping points for visitors while traveling through the exhibit. These spaces are beneficial for all users, not just those who may be physically challenged. Rest areas can be utilized additionally as a way to enhance the users' experience of the outdoor exhibit by slowing or altering visitors' movement.

-Signage

Signage serves not only to identify, but to also guide. The signage will benefit the user and their museum experience by identifying the pieces of the exhibit and by guiding them throughout it.

-Storm Shelter(s)

Regionally, this area is a hot-spot for tornadoes and other severe weather-related events. Storm shelters will insure visitor and staff safety in the event of such an emergency.

SITE SPACES TOTAL: 3000 sq.ft.

BUILDING TOTAL SQUARE FOOTAGE: 9060 sq.ft.

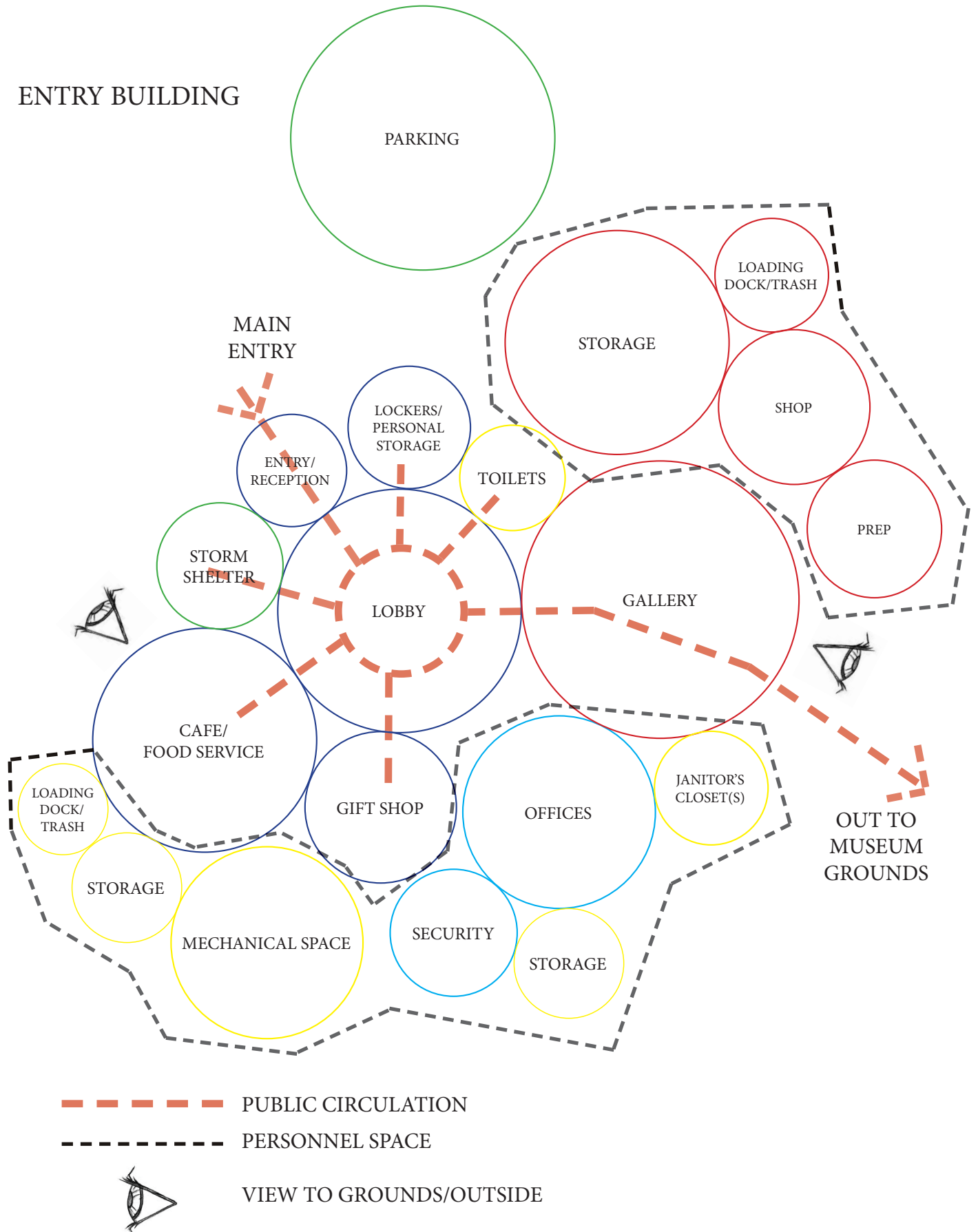
EXCLUDING PARKING, REST AREAS, AND
STORM SHELTERS

BUILDING EFFECIENCY: 60-70%

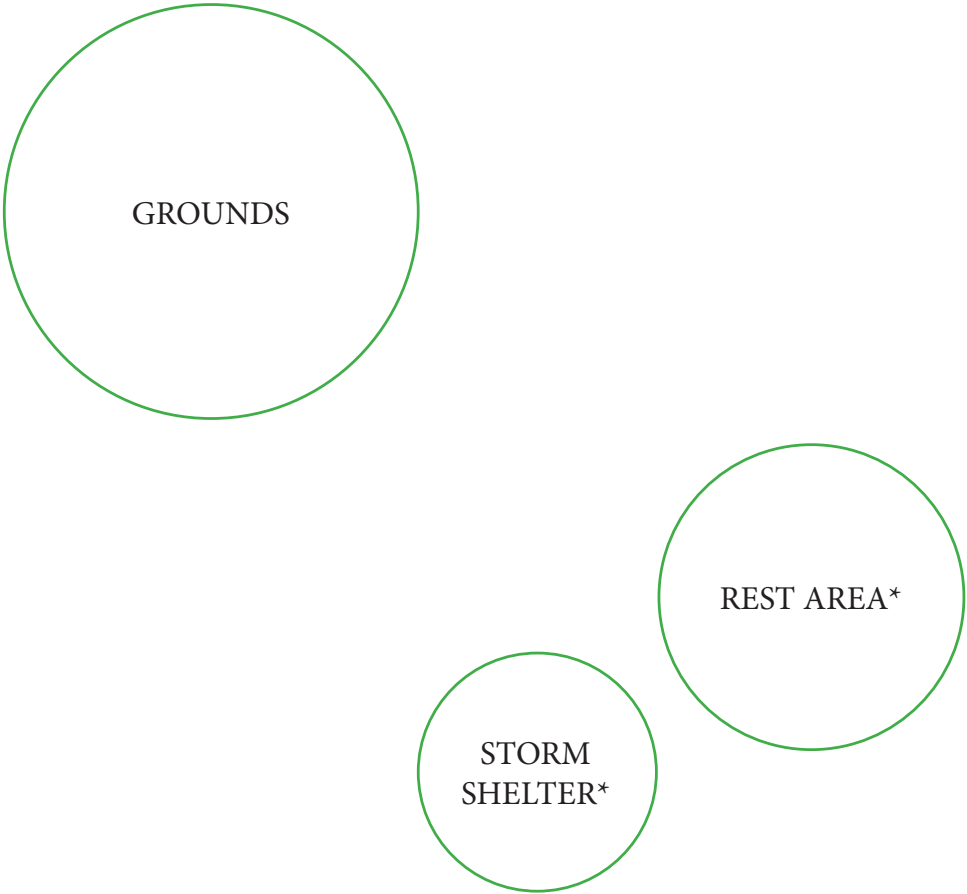
TOILETS, JANITOR'S CLOSET(S), MECHANICAL
SPACE, STORAGE, AND CIRCULATION WILL
MAKE-UP 30-40% OF THE TOTAL BUILDING
SPACE

PROGRAM ANALYSIS

ENTRY BUILDING



OPEN-AIR MUSEUM



*MULTIPLE INSTANCES OF THESE SPACES WILL BE STRATEGICALLY PLACED THROUGHOUT THE SITE FOR USE BY THE MUSEUM VISITORS.

WRITTEN SUMMARY

Research and analysis on my collection of six buildings has given me many concepts and ideas to carefully consider when moving forward to the design phase. Items to contemplate are the use of natural lighting, changing volume within the space, and the effects of texture. Although from different parts of the world, each of the buildings in my collection use lighting, volume, and texture in very different and useful ways.

The Bruder Klaus Field Chapel is the most unique as far as texture is concerned. Its distinctive method of construction, burning away the logs that the building was encapsulating, leaves a very dark, rough, and organically ribbed surface that contradicts heavily with the exterior.¹ Additionally, the chapel features an oculus at the very top of the structure that allows natural light to penetrate the space throughout most of the day. This effect enhances the spiritual experience of the users. When users enter the chapel, the building around them is very tight and the ceiling height is very low. As they enter deeper into the space, the chapel walls open up and reach to the top of the building, providing for a much more grandiose space.

Le Corbusier's Notre Dame du Haut utilizes natural light in a couple of different and very unique ways. Along the south wall, there are several different windows of all shapes, sizes, and positions that let large amounts of sunlight into the chapel. Additionally, many of these windows have colored glass, so the user experiences more of a stained glass effect. Along the top of the chapel where the ceiling and roof meet, a small strand of natural light enters into the space. Le Corbusier designed the building so that the roof is supported by columns embedded within the exterior walls that make it appear as if it is floating. The small gap between the roof and the top of the walls provides enough room for an ambient strip of light to brighten the interior.² The volume of the main chapel space varies drastically throughout its expanse. Its highest point is at the southeast end, where the roof of the building peaks. From there, the ceiling height lowers toward the western side of the structure. This creates a drooping or sinking-in feeling that the user experiences within the interior. The texture and heavy aesthetic of the concrete construction opposes the light and spiritual experience created within the interior. The

juxtaposition of these two elements leaves the user with a more fulfilled experience of the architecture.

The Church of Light in Osaka, Japan is a simple building generally speaking; it is composed of essentially a rectangle with an angled wall cut through a portion of it. However, it is just as complex as the others as far as lighting, volume, and texture are concerned. The southeast wall of the building, behind the altar, has a large crucifix shaped opening from wall-to-wall and ceiling-to-ceiling that allows natural light into the space in a symbolic way. This opening in the wall allows for the strong balance of lighting and shadows within the chapel.³ Towards the back of the chapel another concrete wall intersects the main building, again allowing large amounts of natural light to brighten the space. The volume within the chapel varies from one end to the other. Until the user reaches the altar, the space tapers downward allowing for the volume in this portion of the building to increase and to give the user a more grandiose experience. The building's exterior appearance is very cold and massive. However, the concrete finish is smooth and is very precise when paired with the very detailed control joints throughout the entire length of the structure. Ando wanted the construction of the church to be simple and minimalistic so as not to distract the user and to accentuate the natural light penetration.⁴

As with the Church of Light, the Holy Redeemer Church in Spain has a crucifix-shaped fenestration that allows morning light to infiltrate the sanctuary. The light is also able to enter deep into the space through both the sides and the top of the building where the four major pieces of the structure come together. This lighting affect as well as the volume variation that is created "exist as if to signify a higher meaning inspiring a spiritual presence and sense of tranquility."⁵ The four pieces of the building make the church appear as if it is segmented; this separation allows for variations in the interior volume of the space. The pieces of the building work together to create a single volume that the user experiences. The texture of the church works in many different ways. The architect wanted to exploit the thermal and acoustical qualities of the concrete construction as well as maintain its simplicity as to not distract from the spiritual experience of the church.⁶

The Church of Seed in China uses a cross-shaped opening for natural lighting like the Church of Light and Holy Redeemer Church do, however it utilizes a completely different method of lighting within the ceiling and roof. This building's roof terraces up to an observation deck, resulting in a louvered ceiling that lets continuous beams of northern light into the interior. Like some of the other chapels, the volume of the space increases as you approach the altar, enhancing again the user's spiritual experience within the sanctuary. The texture of the church is very unique, but similar in a way to the Bruder Klaus Field Chapel. Bamboo was used for the formwork when the concrete was poured. When the forms were taken away, a very distinct and organically textured surface was left behind, which "reduces the massiveness of concrete wall and harmonizes with the surrounding trees and green landscape." Although the texture is rich with the bamboo relief, the walls overall are simple, again in an attempt to not distract the user from the spirituality of the space and their experience.

The Capilla del Retiro in Chile uses natural lighting in a different way than the other buildings. Instead of bringing light in through the top of the building, this chapel brings in the light from near the ground, allowing it to brighten the space from below. The building itself is set beneath the ground, and the four walls of the main chapel sit on supports even with the ground level. There are glass walls that extend to the excavated ground from the concrete walls, "creating the illusion of a room suspended in a void, an inversion of the traditional top-lit ecclesiastical space." This sense of a floating space creates a unique volume experience for the user. In addition to the building seeming afloat, the ceiling is back-lit with artificial lighting around the edges, giving it the appearance that it is detached and floating as well. The texture of the building is best experienced from within the chapel itself. The rigid concrete on the exterior is in juxtaposition with the heavily wooded interior, constructed with old railway lines. This "duality of the rational exterior & metaphysical interior, so typical of Gothic architecture, assumes a new expression of a commitment to modernity."

There will be many things to consider when moving into the design phase. How my building

utilizes natural light, varies its volume, and exploits the texture of the materials can heighten the experience of the user. Some opportunities for success in these areas include the building shape, fenestrations in the walls, ceilings, and roof, carefully considered circulation patterns, a special relationship between the building and the site, and unique and thoughtful methods of construction.

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“Earth-Sheltered Homes”

Kristen Ellis

Earth-sheltered homes are highly efficient structures that are built into the ground.

no admittance
except on party business

ANALYSIS OF READINGS

Frampton - Towards a Critical Regionalism

Venturi - Complexity and Contradiction in Architecture

Where is human civilization headed?
People have asked this question since first emerging on this planet. Currently at 7 billion, the human population continues to multiply by the day. As the times change and our global population continues to grow, the number of people moving to urban cities will continue to increase as open land continues to diminish. However, this is not necessarily a negative statement. People have been living in cities since the dawn of the Agricultural Revolution, due to benefits such as trade opportunities, jobs, communication, convenience, and less travel. In the last couple decades, technology has advanced more quickly than it has in thousands of years, with the invention of the automobile and computers, and the largest, most successful cities on the globe feed off of these new ideas, while continuing to expand.

Bringing Cultures Together with New Ideas

New technology for the betterment of human civilization is an exciting idea, but it is necessary to note that many of the large metropolises in the modern world were built upon old ideas and fundamentals. Early cities depended on the availability of natural resources, for example, but cities now have the capability to transport materials and resources more efficiently than ever before. Also, the majority of urban landscapes were planned around the wealthy, most powerful positions in the community, namely, political and religious figures. This is still generally true, but there is no longer a need to continue to use ancient ideas for urban planning.

Society has the ability to develop healthier, more efficient cities, but as the number of cities increases, the number of slums in the world will ultimately increase as well. The predicament with straying from traditional values when developing new cities is that not every culture fits with the current model of modern urbanization. Kenneth Frampton writes,

And while it is obviously misleading to conceive of our inheriting world culture to the same degree as we are all heirs to universal civilization, it is nonetheless evident that since we are, in principle, subject to the impact of both, we have no choice but to take cognizance today of their interaction. {23}

In other words, as a global culture, we need to understand that cities need to be able adapt to different ways of life, but at the same time, provide an effective model for everyone in order to bring cultures together.

Developing a Sense of Place

In order to get other cultures onboard towards a more unified global society, there must be other ways of expanding and improving existing cities that are not a total culture shock to less developed areas. For example, a main characteristic of many urban landscapes is the prevalence of roads and the availability of public transportation. However, new technology can get expensive, so new ideas may be more obtainable for some areas when compared to others. Kenneth Frampton points out several different ideas in his work regarding to this idea of place. On one note, new ideas in different societies cannot be put into place without political programs and some kind of cultural motivation. Also, Frampton discusses Heidegger's theory of universal placelessness. He states "being" can only take place in a domain that is clearly bounded" (Frampton 24). It is important when designing new cities that the plan fits with each specific culture, and that each area and piece of architecture feels authentic and unique to that area, rather than just adding more sprawling, sterile, apocalyptic landscapes to the world.

In order to improve the new world culture and pave the way towards global urbanization, cities need to be tailored to each individual culture. It is mindful to help developing countries and work as a team rather than try to make them be something they're not. This claim doesn't just apply to global populations, but also to small communities, even in our own country. Following these ideals will not only make our lives easier, but also make our world more beautiful.

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Frampton - Rappel a l'Ordre

When designing, many architects feel the need to express themselves through the structure and inherent beauty of their creations. Design and personal expression are arguably some of the most rewarding reasons for going into the field. However, the claim can be made that when designing pieces of architecture, the focus of the design should not be on the inherent beauty of the structure, but rather the place and environment as a whole. Architecture, in most cases, exists to serve a purpose in society. Architecture without a concrete purpose is simply art.

Since architecture is designed to serve a purpose, whether it is to improve human life and psychology, or simply for shelter, it is imperative to place a high priority on the safety and structure of a building. For this reason, the planet is cluttered with utilitarian *barndlandschaft*. Although "derelict sheds" are typically cheap, efficient, and easily constructed, they fail to take into consideration the essence of the building's surroundings. Kenneth Frampton shares ideas for using architecture as a joint between tectonic utilitarianism and the overall beauty of the environment, and that there should ultimately be a "poetic manifestation of structure". He continues, "The joint is essential, not gratuitous, and it thus avoids the possibility of conspicuous consumption that plagues contemporary architecture and reduces it to fashion" (Frampton). Even though modern architecture tends to focus on either tectonics or physical beauty, Frampton believes it is possible to marry the two concepts. However, Immanuel Kant would argue with the idea of architecture being inherently beautiful.

Kant classifies beauty into three aesthetic theories. The first is aesthetic value, which is our basic understanding of beauty in its qualitative form. The second and third theories of aesthetics are artistic generation, or genius (artistic skill), and natural generation, or epigenesis (creation in the realm of nature). In terms of the aesthetic value, Kant classifies this type of beauty into two subcategories: free beauty and adherent beauty. Free beauty, according to Kant, "does not presuppose a concept of what the object is [meant] to be" (Keller 43). Free beauty, in other words, is inherent beauty. Adherent beauty, according to Sean Keller, "is determined by a concept of its end, by a

purpose" (44). This type of beauty exists solely because it meets preconceived expectations of beauty.

Architecture falls into Kant's idea of adherent beauty. People design architecture with a specific use in mind, and so it does not qualify as free beauty. Free beauty is generally reserved for pieces of nature and things that don't necessarily have to be created by mankind. It is arguable that architecture cannot necessarily be beautiful though. Frampton identifies "the structural unit as the irreducible essence of architectural form. It thus deserves more attention than spatial invention and the pursuit of novelty." Simply the complexity of the structure of architecture can be considered beautiful to some, but it depends on how it is viewed.

While Kant never explicitly says that he doesn't think that architecture can have its own beauty, it makes sense to use it to work with the entire site. Nature and the existing land, according to Kant, are inherently beautiful, and when used correctly, it can make a structure appear beautiful in its environment. Architecture should be contextual and be designed for each specific area and culture, not plopped down on a piece of land and designed as a creative free-for-all. In the end, buildings are meant to serve a purpose and are created with the client in mind, but it doesn't have to be boring or sterile, and with the use of new technology, creating it can be a very creative journey.

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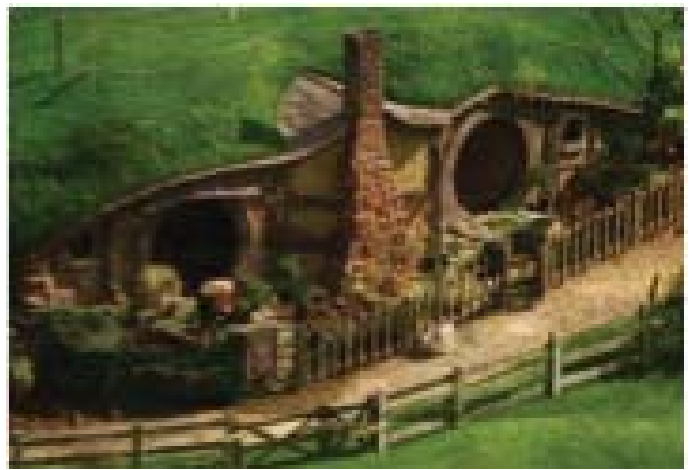
“Bag End” in Hobbiton, New Zealand

Location: Hobbiton, The Shire, New Zealand

The farm is an actual farm (1250 acre property), near Matamata, to which the current owners, the Alexanders moved in 1978. Since then it has been farmed as a traditional New Zealand sheep and beef farm with 13,000 sheep and 300 Angus beef cattle. The main sources of income from farming are mutton, wool and beef. It is still farmed the same today and is run by the brothers and their father. The Hobbiton set was built starting in 1999 and was rebuilt in 2011 for the feature films “The Hobbit: An Unexpected Journey”, “The Hobbit: The Desolation of Smaug”, and “The Hobbit: There and Back Again”. It is now a permanent attraction complete with hobbit holes, gardens, bridge, Mill and “The Green Dragon” Inn.

<https://traveltoeat.com/hobbiton-movie-set-matamata-new-zealand/#sthash.Cdv1ASFH.dpuf>





Gary Neville's Underground Home

Location: United Kingdom

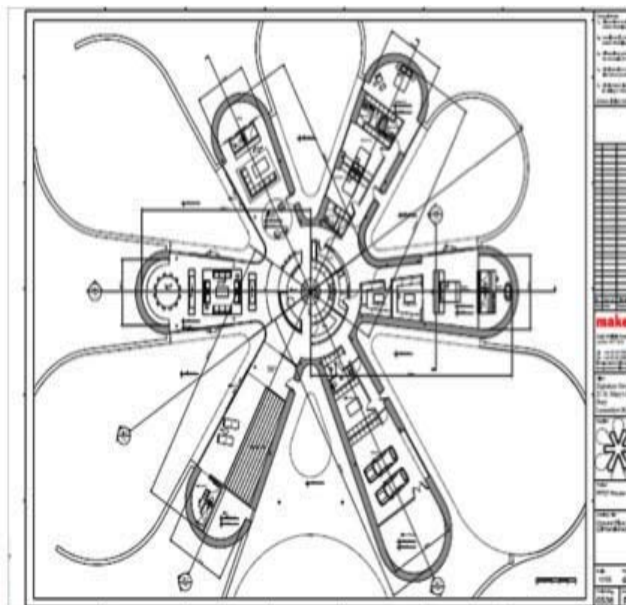
Architect: Make Architects

Bolton Council in the United Kingdom may soon see the construction of its first zero-carbon underground home. Designed by Make Architects for green enthusiast and British football star Gary Neville, the one-story, nearly 8,000 sq ft structure has been designed to be beautiful and functional while keeping energy consumption to a minimum.

Far from classification as a drab bunker, this thoughtful design not only considers its eco-impact, but keeps in tune with the tranquil and expansive meadows and hillsides which surround it. The positioning and orientation of the property was carefully thought out, building materials will be locally sourced, and traditional building methods will be used where possible. A ground source heat pump will provide the heating and photovoltaic panels and an on-site wind turbine will generate renewable energy.

<http://inhabitat.com/gary-nevilles-zero-carbon-underground-home/nevilleecohome1/>





Dune House

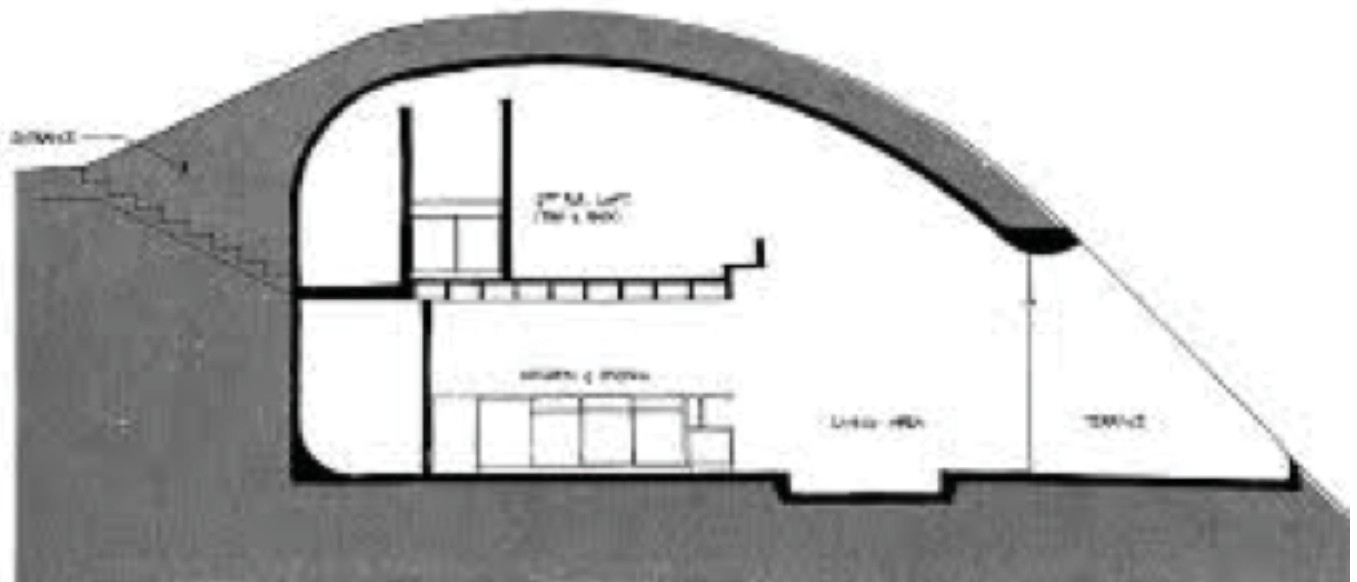
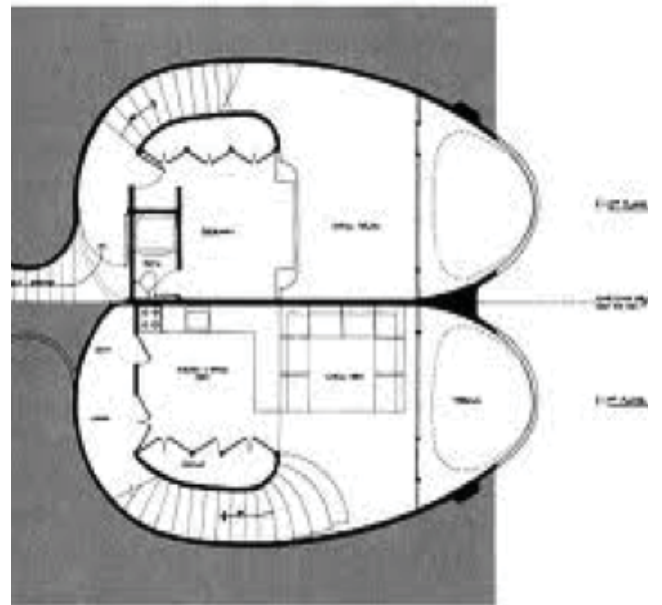
Location: Atlantic Beach, Florida

Architect: William Morgan

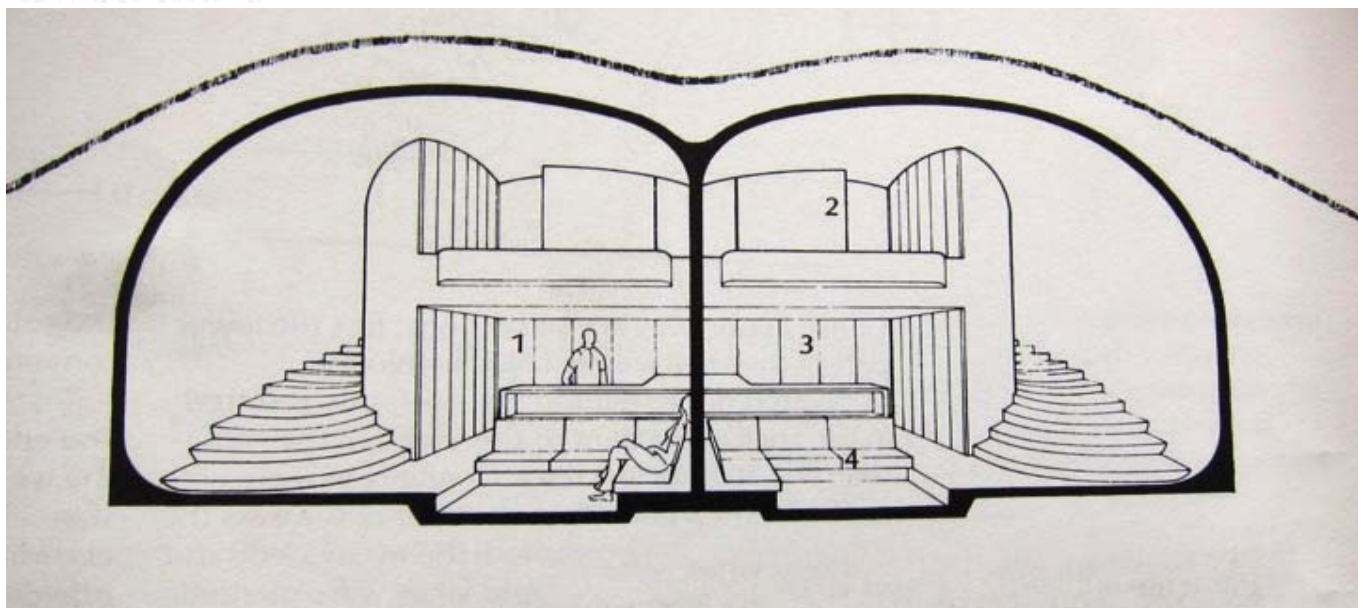
This small earth-sheltered house in Atlantic Beach, Florida is actually a duplex, two near-identical homes of 750 ft² (69.7 m²) each. They were built in 1975 by architect William Morgan to use as vacation rentals. As he himself lived right next door, he did not want the new house to block his view of the ocean, and preferred to keep the landscape natural. Morgan's solution was to bury the house in an existing sand dune. It is barely visible from the street above. From the ocean side it appears somewhat frog-like with two large rounded openings framing the twin patios. The mass of sand over and around the homes moderates the inside temperatures year-round so very little heating or cooling is needed.

<http://smallhousebliss.com/2012/08/10/the-dune-house-by-william-morgan/>





section



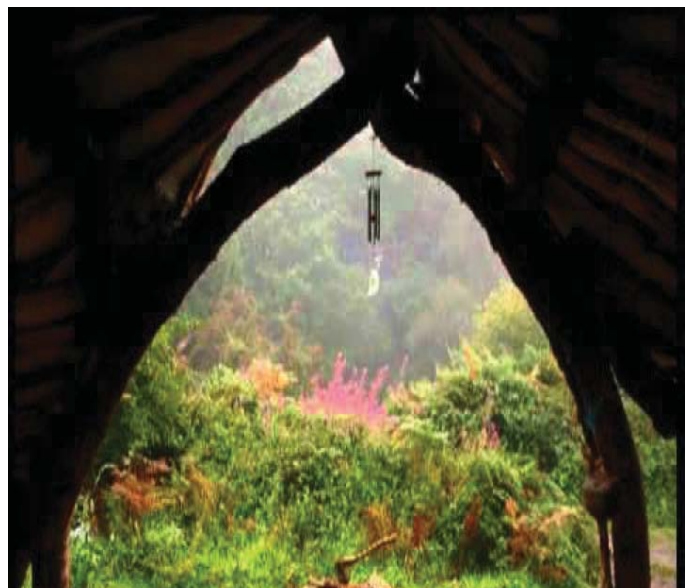
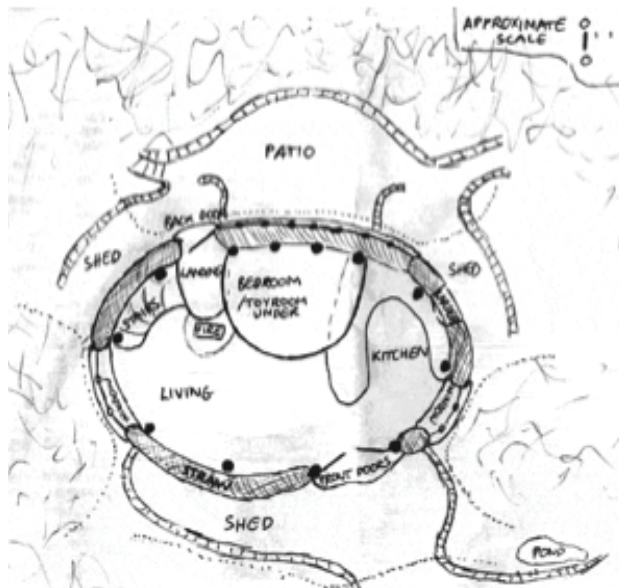
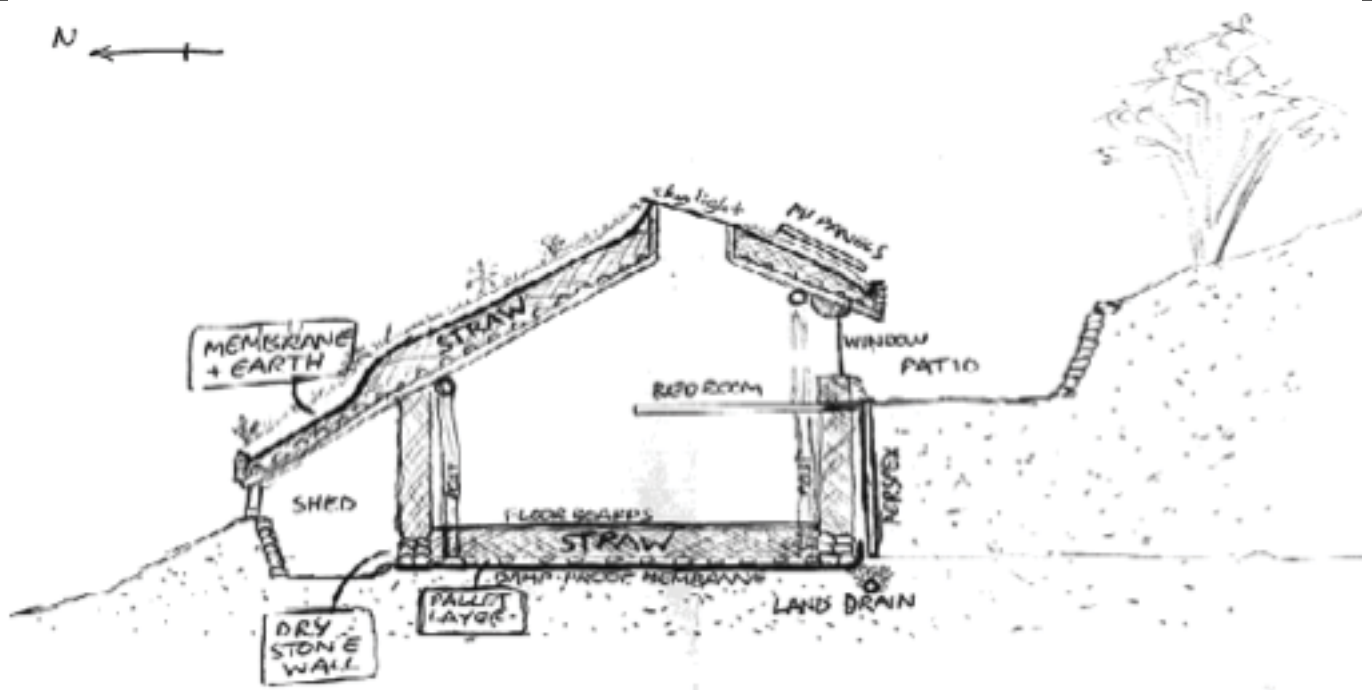
“The Hobbit House”

Location: West Wales
Architect: Simon Dale

“The house was built with maximum regard for the environment and by reciprocation gave us a unique opportunity to live close to nature. It housed our family whilst we worked in the woodland surrounding the house doing ecological woodland management and setting up a forest garden, things that would have been impossible had we had to pay a regular rent or mortgage.”

<http://www.beingsomewhere.net/hobbit.htm>





Edgeland House

Location: Austin, Texas

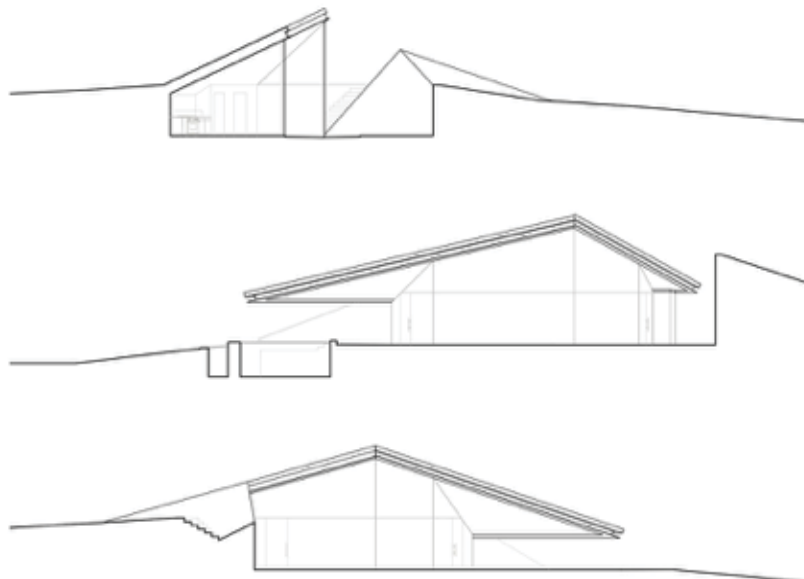
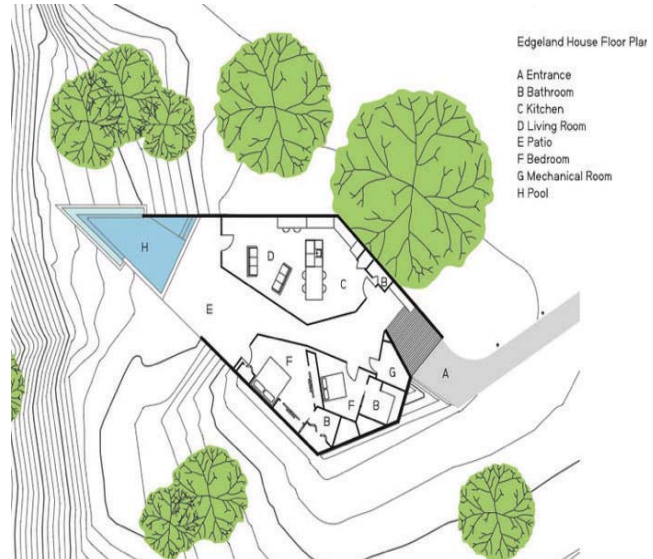
Architect: Bercy Chen

“Located on a rehabilitated brownfield site in Austin, TX, the Edgeland House is a unique, triangular home designed by Bercy Chen Studio that is built into the earth and covered with a thick layer of sod. Because it is an earth-sheltered home, the Edgeland House is highly efficient, and it can stay warmer in the winter and cooler in the summer from the added thermal mass and insulation. Additionally, the high-tech home features hydronic heating and cooling, geothermal heat exchange, and phase-change thermal heat storage.”

<http://bcarc.com/Project/50>

<http://inhabitat.com/bercy-chen-studios-earth-bermed-edgeland-house-transforms-a-former-brownfield-site-in-texas/>





Earth-Sheltered Homes

Intent

The purpose of this project is to create an open-air museum in which guests are encouraged to wander throughout the space and explore nature, as well as experience earth-sheltered homes in southern Illinois. There will be a dirt path leading out to the earth-sheltered homes, but it will feel like a walk through nature, as guests have to pass through security to get to this area. The main building will be home to photography and sustainability exhibits, as well as artifacts found in the Little Grassy Lake area.

Public Spaces

The public portion of this space houses two small galleries for galleries and sustainability exhibits, as well as a cafe and a gift shop area. The main lobby includes a large reception hall, with a coat check area on one side, and administration offices on the other side. Security oversees this portion of the building, and they are also in charge of the coat check area. In the center of the public space is a small auditorium for guest speakers or films that may be shown. Most of the private space in the building is in the corners, with there being a central public space.

Administrative Spaces

The administrative portion of the building houses all of the offices, including the main curator, business office, and others. The area also includes a break room and private toilets, as well as a prime view of the surrounding scenery. There is a receptionist in the lobby of the administrative space to direct visitors to the appropriate office.

Grounds Spaces

The grounds area consists of the parking lot and main pavilion, as well as the bulk of the open air museum. The pavilion area includes picnic shelters and landscaping for relaxation. Apart from the main building, there is another building that houses the shop, equipment garage, and tool shed. Also, guests must go through security in order to get into the outdoor portion of the museum, since it encourages guests to wander throughout the space. All children must be accompanied by an adult at this point.

Public Spaces

Space	Quantity	S.F.
Gallery Exhibition spaces for artifacts and art pieces.	2	500
Gallery Storage Storage rooms for artifacts, art, and furniture.		
Art	2	250
Furniture	2	250
Gallery Prep Prep rooms for preparation of exhibition spaces. Includes clean prep and dirty prep areas.	2	500
Prep	1	250
Shipping/Receiving	1	500
Workshop Workshop for maintenance of museum pieces.	1	500
Vestibule ADA accessible airlock space at entryway.	2	50
Lobby Reception desk to greet and provide information to visitors.	1	250
Toilets 3 fixtures and 3 lavatories each; ADA accessible.	2	100
Security Oversees entire building and site.	2	150
First Aid First aid and nurse station.	1	150
Gift Shop Shop for souvenirs and other merchandise.	1	500
Storage	1	300
Cloakroom Lockers and coat check space.	1	250
Café Café with indoor and outdoor seating.	1	1000
Storage	1	300
Food Prep	1	500
Janitor Closet Closet for cleaning supplies and maintenance items.	1	100
Storage General storage closets.	2	100
Total Public Space	26	8,100

Administrative Spaces

Space	Quantity	S.F.
Curator's Office Office for lead museum curator.	1	200
Administrative Offices Offices for office assistants.	2	150
Maintenance Office for head of maintenance.	1	150
Business Office Office for financial and marketing officer.	1	150
Conference Room Meeting space.	1	350
Secretary Secretary/Admin receptionist office.	1	150
Toilets 1 fixture and 1 lavatory; ADA accessible.	2	100
Break Room Kitchenette with tables and chairs, as well as a small lounge.	1	500
Storage General storage closet.	1	50
Total Private Space	11	2,200
Admin Total Square Footage	+30%	2860

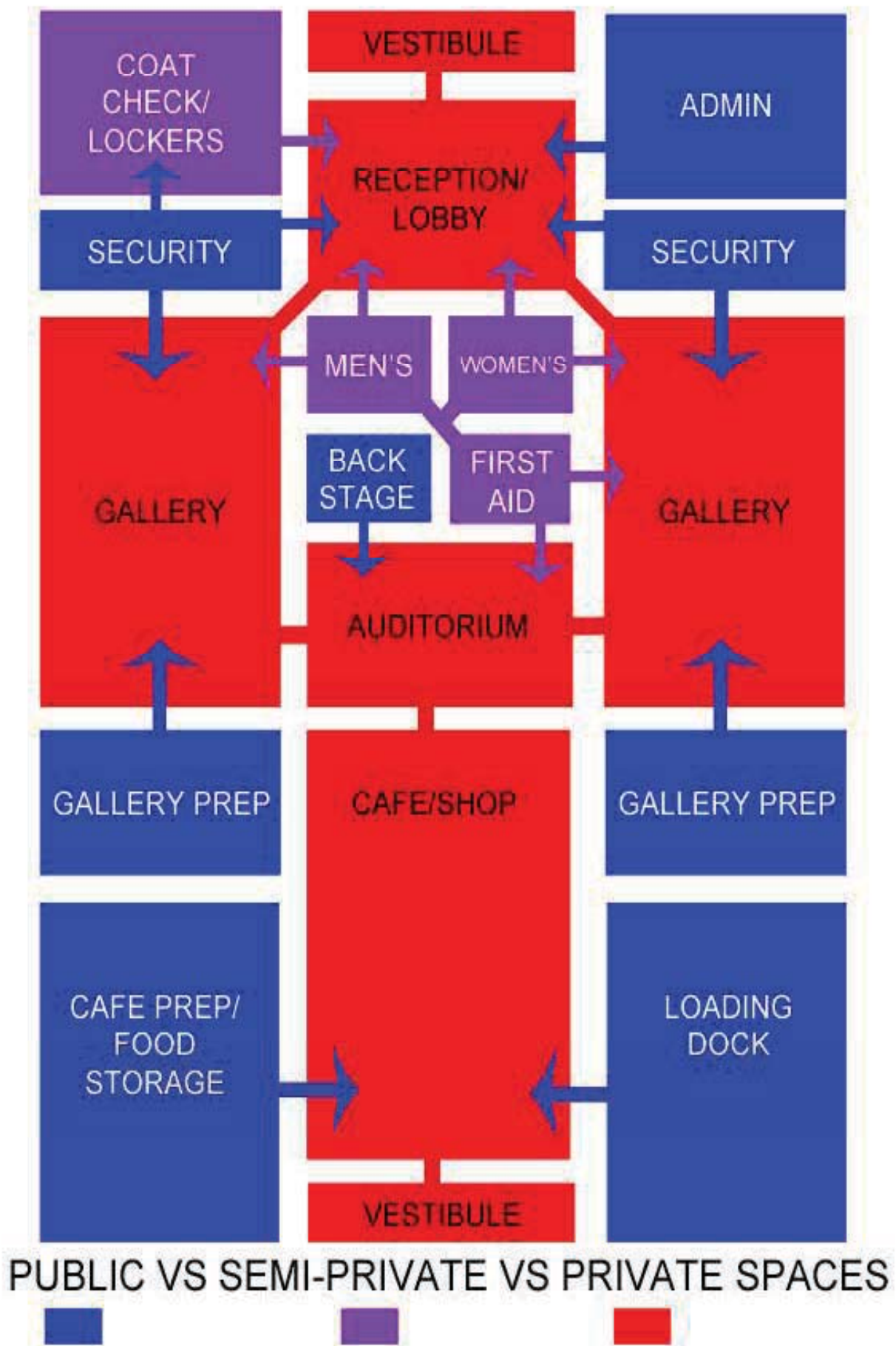
Grounds

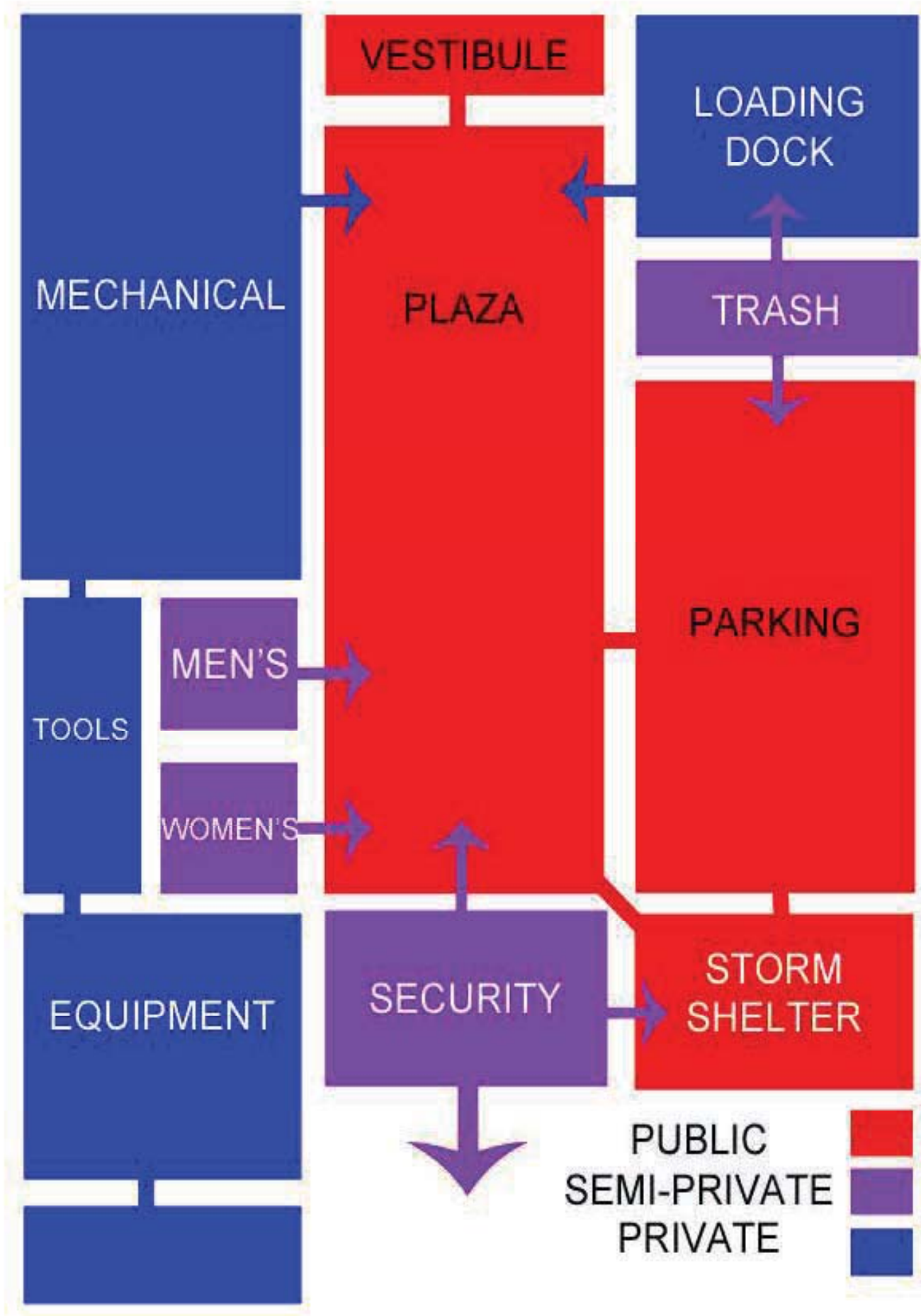
Space	Quantity	S.F.
Equipment Storage Garage for site equipment and other large tools.	1	2,500
Tool Storage Storage for tools and other materials.	1	500
Shop Workbenches, tools, and repair stations.	1	1000
Mechanical Mechanical equipment for all areas.	1	10%
Loading Dock Loading bay with office, storage, and security.	1	1000
Recycling and Trash Area for trash receptacles.	1	500
Storm Shelter Underground storm shelter for inclement weather.	1	250
Toilets 1 fixture and 1 lavatory; ADA accessible.	2	100
Storage General storage closet.	1	250
Parking Outdoor parking.	1	18,000
Plaza Outdoor courtyard.	1	
Grounds Total	12	24,100 + 10%

Grounds Total Square Footage +30% 34,463

Overall Total Square Footage +30% 47,853

Diagrams





WRITTEN SUMMARY

*All that is gold does not glitter,
Not all those who wander are lost;
The old that is strong does not wither,
Deep roots are not reached by the
frost.
From the ashes a fire shall be woken,
A light from the shadows shall spring;
Renewed shall be blade that was
broken,
The crownless again shall be king.*

A lot can be said about J. R. R. Tolkien's poem from *The Lord of the Rings*, "All that is gold does not glitter". In the novel, it is intended to symbolize a beacon of hope for the protagonist, Frodo Baggins. In particular, the quote, "Not all those who wander are lost", speaks volumes. In short, the poem is talking about straying from the path most traveled in order to reach the destination, because sometimes the outcome is worth the struggle. The two articles by Kenneth Frampton discussed earlier encircle around this concept of straying away from societal norms.

In the first article, Frampton talks about designing architecture differently in order to evolve into something better. For example, many cities are designed using ancient principles and ideals. However, many of the world's more prominent cities are designed for the current times, and are constantly changing to fit society's needs. Frampton believes that if new cities are designed with this in mind, it will allow other developing cities to catch up, and fit into a more global culture.

In the second article, Frampton talks about architecture being a joint between the technical and the beautiful. Architecture must be functional in order to have a definite purpose for using up valuable land. However, many buildings do not take beauty into consideration, because it is more costly, and sometimes sacrifices some functionality. Frampton, however, believes that beauty and technicals can be joined together to form beautiful architecture.

Between the two articles, it can be said that the design approach for the future should focus on the human spirit. Architecture should not plague the globe with mindless, sterile buildings. There are countless problems arising from the growing human population, and space is just one issue,

with pollution being another primary concern. Modern technology has allowed for the development of highly sustainable architecture that works with the environment, and does very little to harm the environment. According to *Architecture 2030*, buildings account for nearly half of all the energy produced in the U.S. Not only is architecture expensive to operate, but also people spend most of their time indoors. As the population grows, these problems will only worsen, unless ways of living change for the betterment of the planet. Going back to Tolkien's quote, just because new technology and urban growth generally make living on earth easier, doesn't mean it is necessarily best for the big picture.

Earth-sheltered architecture is beginning to emerge as a new, energy-efficient way of living. According to the U.S. Department of Energy, there are two types of earth-sheltered designs: underground and bermed architecture. Underground earth-sheltering is defined as "When an entire earth-sheltered house is built below grade or completely underground, it's called an underground structure" (USDE). These types of structures often accompany a central courtyard, or other outdoor living space in order to get natural light into the underground space. The other type of earth-sheltering is berming. The USDE writes,

A bermed house may be built above grade or partially below grade, with earth covering one or more walls. An "elevational" bermed design exposes one elevation or face of the house and covers the other sides—and sometimes the roof—with earth to protect and insulate the house. (USDE)

Both styles of earth-sheltering can help minimize heating and cooling costs, because most of the insulation comes from the thick, surrounding earth.

As with any style of architecture, there are pros and cons to using earth-sheltered designs. An obvious advantage to using this style of architecture is conserving the surrounding landscape. Since these designs are built into the earth itself, there is

little need to disrupt or flatten the earth to fit the structure. Any cutting and filling being done might even benefit the site aesthetically. The USDE lists several other advantages to this style, including minimal impact of extreme weather changes and lower insurance costs.

There are also disadvantages to using earth-sheltering. One downside, according to the USDE, is the initial cost of construction. Since it is not a conventional method of construction, moisture problems need to be taken into more consideration. Also, it is typically more difficult to resell earth-sheltered homes, due to the mortgaging process (USDE). Regardless, these buildings are intended to adapt to the existing site, so the benefits may outweigh the negatives, and the costs will eventually pay off.

Earth-sheltered homes can be constructed with several different materials, including wood, steel, and concrete. Because of its density and load-bearing capacity, concrete is the most common material for design of these structures. For the Little Grassy museum project, waterproofing will have to be customized for each of the exhibited homes, because the climate southern Illinois is entirely different from the original sites. USDE warns that, "Humidity levels may increase in earth-sheltered houses during the summer, which can cause condensation on the interior walls". Since southern Illinois can get extremely humid, extreme care for moisture must be taken into consideration.

So that being said, a lot of care goes into designing these structures, which is exactly what needs to be done in order to return to nature. For example, design of architecture should begin at the site, and that is exactly what earth-sheltered homes rely on. By getting the most out of the existing site, it brings people closer to nature. These types of buildings are very different from traditional architecture, and as mentioned earlier, they can come with a host of problems, but as Tolkien writes, straying from the norm is not always a bad thing.

The earth is precious, and when there is no more space left, people will have no other option but to rethink their way of living. Earth-sheltering does not exactly fit in with the traditional modern city model, but it can be used as a means of preserving existing

landscape. According to Kant, nature is inherently beautiful, so without it, architecture is simply tectonic and utilitarian. It would seem that returning to nature is the best way to marry beauty with technics, and help make the world a more efficient, attractive place to live. The selected buildings for the Little Grassy museum are examples of earth-sheltered homes, and the purpose of the project is to create an open-field museum, in which the visitors are encouraged to wander throughout the landscape. The museum should focus on the outdoor space more than anything else, and by making these interesting structures underground, it allows for the patrons to admire the beauty of the entire site. Spoken by Gandalf the Grey, "All we have to decide is what to do with the time that is given to us" (J. R. R. Tolkien). Growing up, it's been taught to always leave a place better than it was found, and so the museum will be an example of the stories each individual creates on their journey through life.

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Faezeh Ensafi

Half Collapsed Buildings

ANALYSIS OF READINGS

Frampton - Reading 1 Title

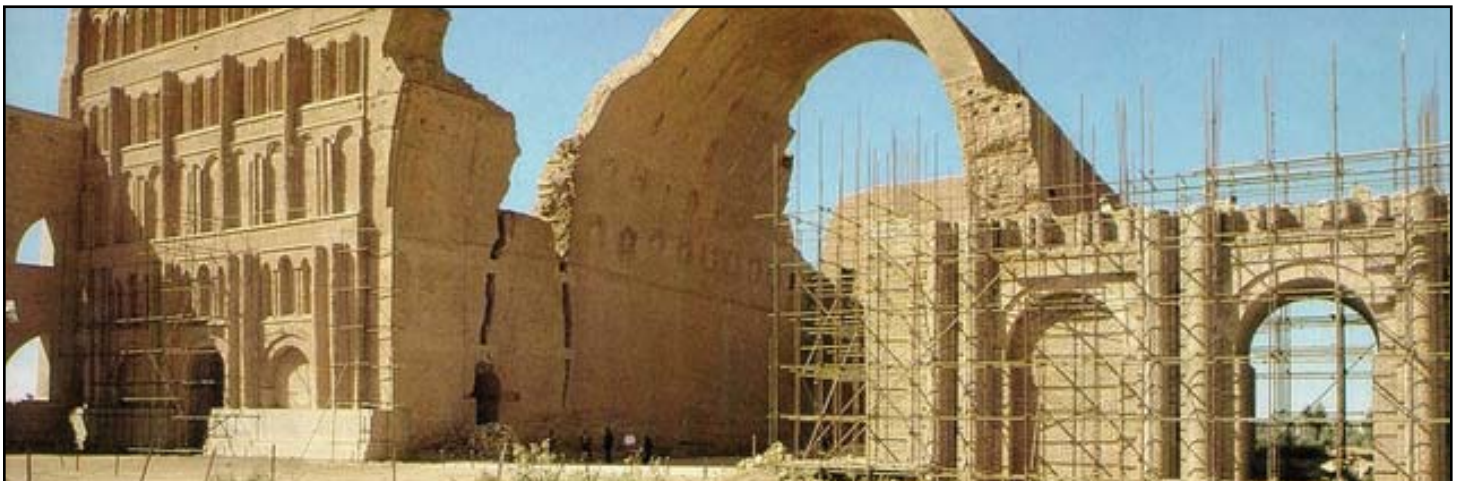
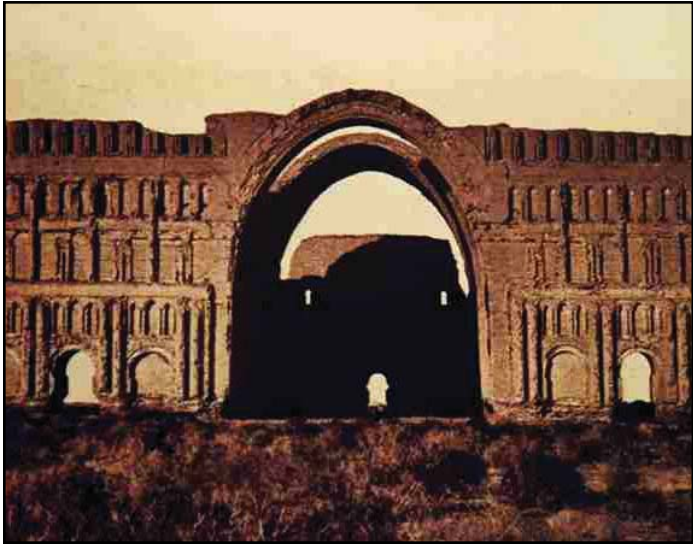
Since I have been born in Iran, a country with lots of historical buildings, sculptures and art I am very familiar with the architect's involvement at finding a way to bring all those histories back again. But the main question is; what is the history? is it something except social and cultural conditions or even living environment? Are all these remained constant or they have been changing during the these years? What about atmospheric conditions? How can the historical and vernacular building can face some important issues like climate changes?

First of all, in each period of time there are people who can make a history, after all these years there maybe you can't even find any similarity between the people who has been living and nowadays people, so as we concentrate on people's behavior and requests and, in a word, by studying sociology we reach to our designing which are not similar to the past, hence by repeating and following some historical and vernacular patterns, unfortunately we are designing the spaces which don't work anymore for upgraded society with new methods of living. Cultural uniformity even doesn't work in a same year in same city or country. Therefore, we need to concentrate and analyze the site prior to design.

KASRA vault

Construction began during the reign of Khosrau after a campaign against the byzantines in 540 AD .The arched iwan hall, open on the facade side, was about 37 meters high 26 meters across and 50 meters long, the largest man-made, free standing vault constructed until modern times

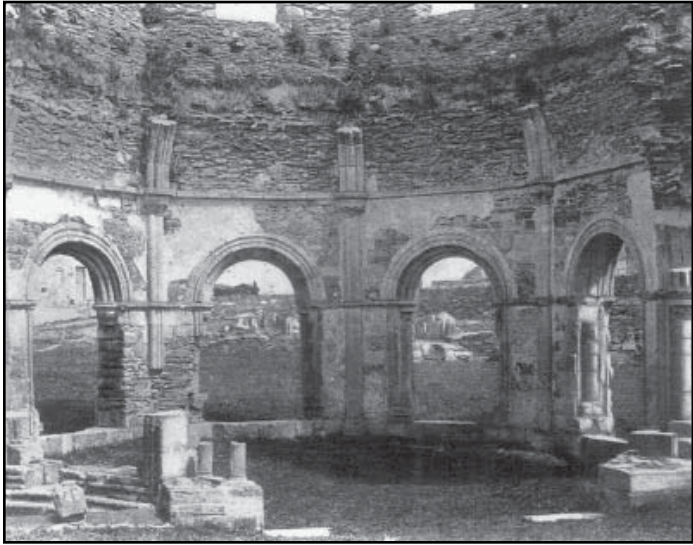




OLD MELLIFONT

Mellifont Abbey is now a ruin. Little of the original Abbey remains, save a 13th-century lavabo (where the monks washed their hands before eating), some Romanesque arches and a 14th-century chapter house.





Belchite Viejo

Belchite is a municipality and village in the province of Zaragoza, Spain

The remains of the old village have been used as filming locations in films including Terry Gilliam's 1988 film



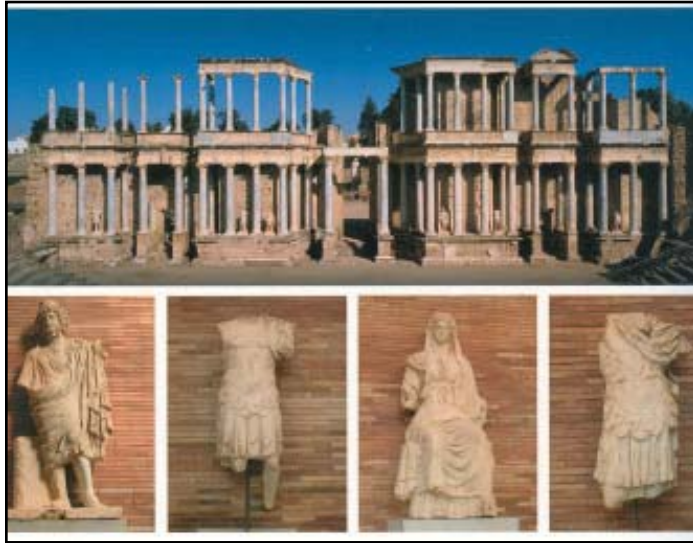


Emerita Augusta

The Roman colony of Emerita Augusta (present day Merida) was founded in 25 BC by Augustus, to resettle emeritus soldiers discharged from the Roman army from two veteran legions of the Cantabrian wars: Legio V Alaudae and Legio X Gemina. The city was the capital of the Roman Province of Lusitania.

Today the Archaeological Ensemble of Mérida is one of the largest and most extensive archaeological sites in Spain and a UNESCO World Heritage Site since 1993.





Glastonbury Abbey

Glastonbury Abbey was a monastery in Glastonbury, Somerset, England. The ruins are now a grade I Listed buildings, and a Scheduled Ancient Monument and are open as a visitor attraction.

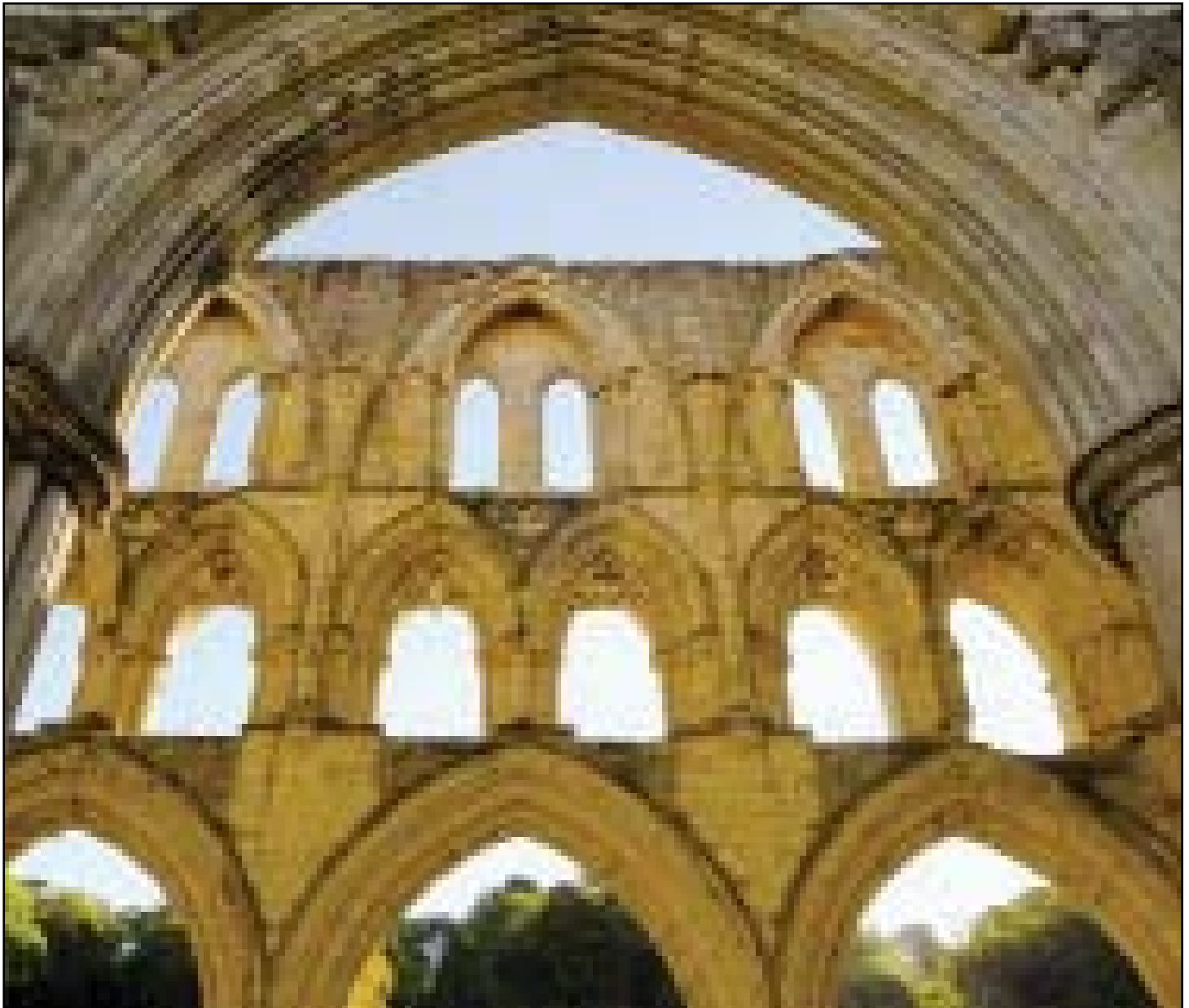


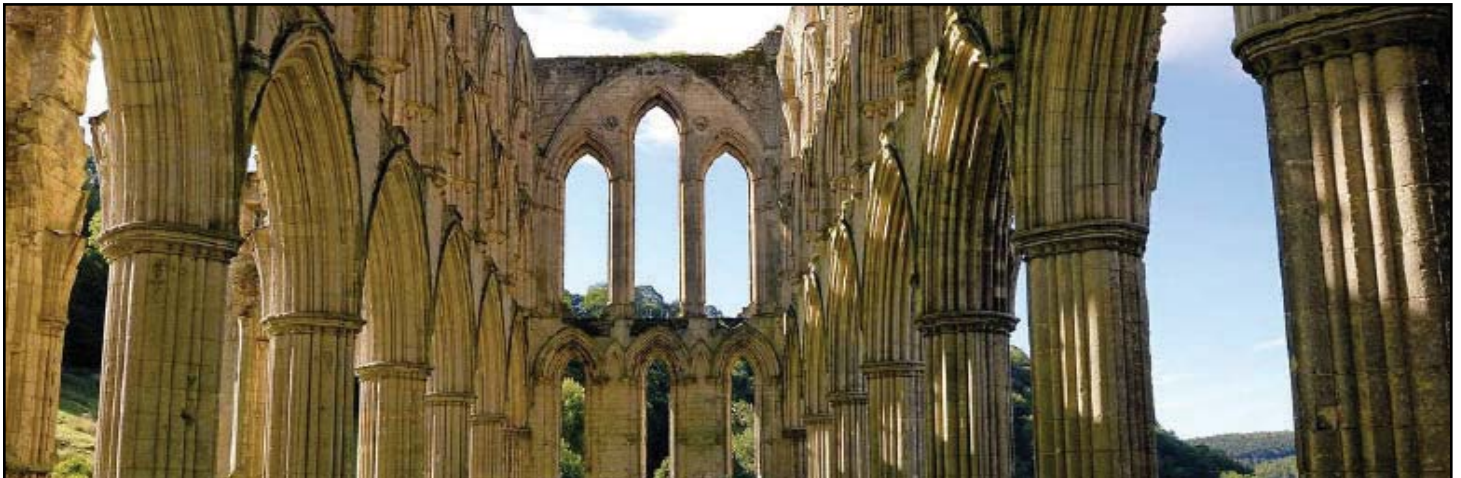


Rievaulx Abbey

Rievaulx Abbey was founded in 1132 by twelve monks from Clairvaux Abbey as a mission for the colonisation of the north of England and Scotland. It was the first Cistercian abbey in the north. With time it became one of the great Cistercian abbeys of Yorkshire, second only to Fountains Abbey in fame.[citation needed]

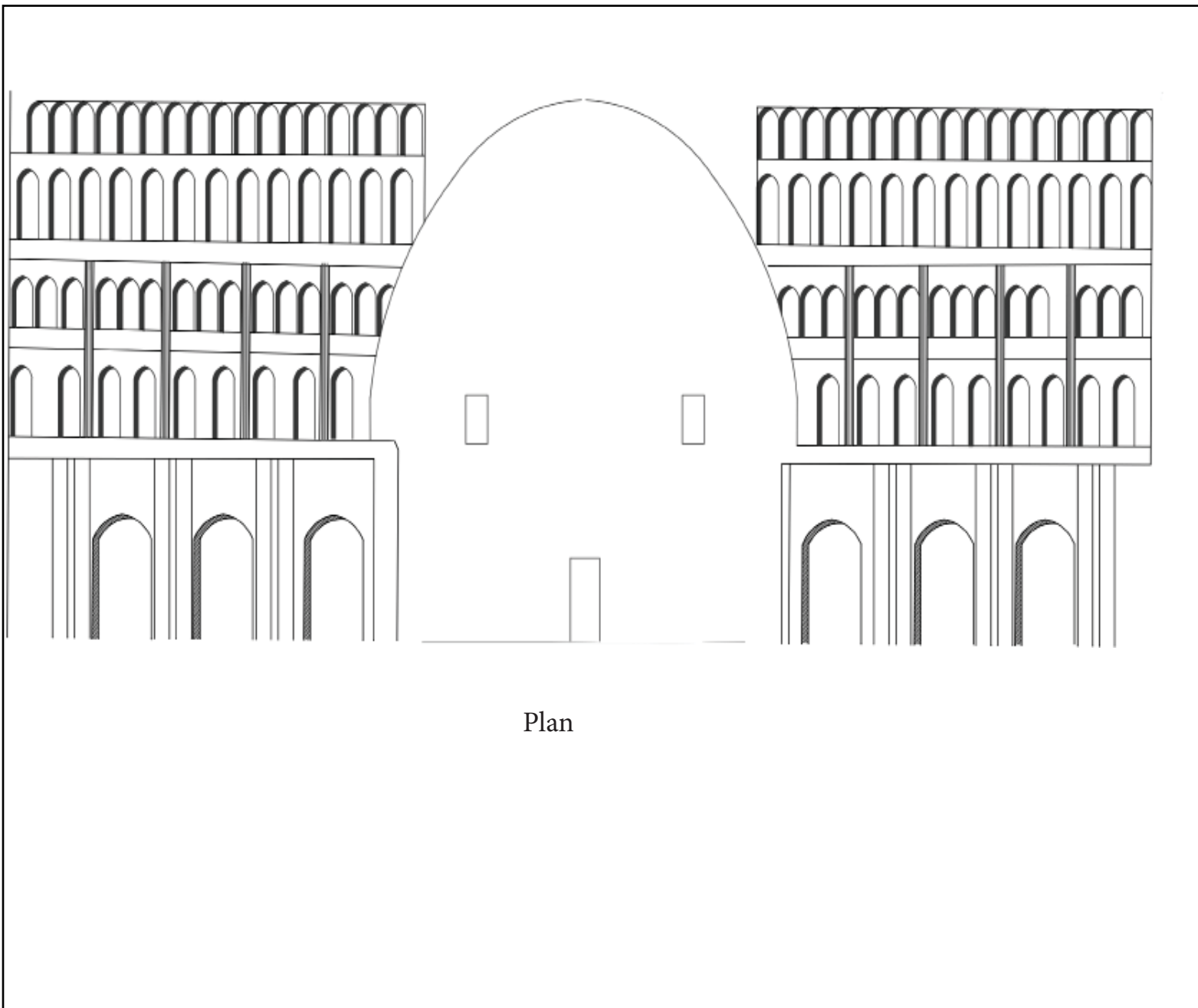
Its remote location was ideal for the Cistercians, whose desire was to follow a strict life of prayer and self-sufficiency with little contact with the outside world. The patron, Walter Espec, settled another Cistercian community, founding Warden Abbey in Bedfordshire on unprofitable wasteland on one of his inherited estates.

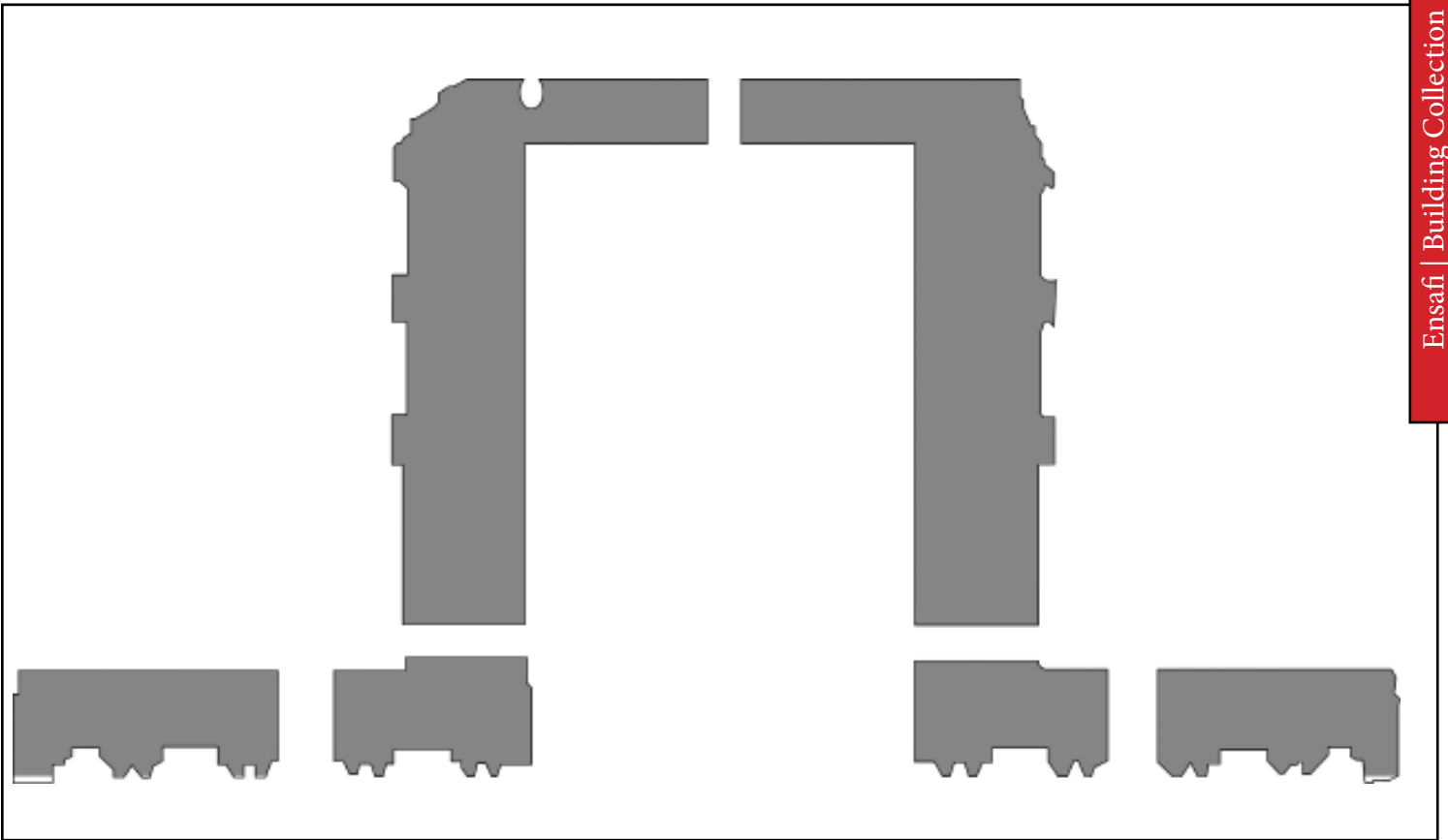




Building Set Diagrams

KASRA Vault
Iran

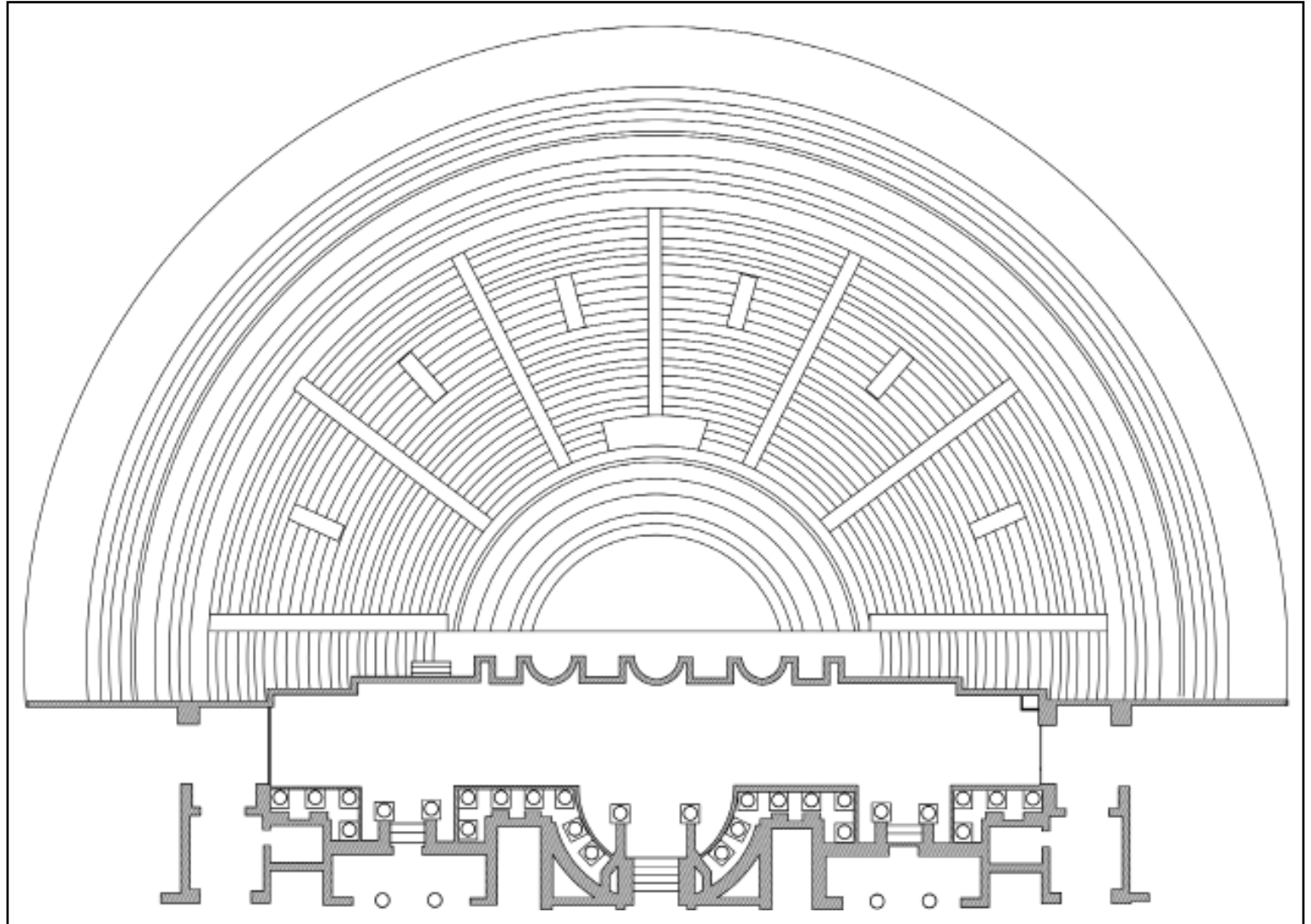




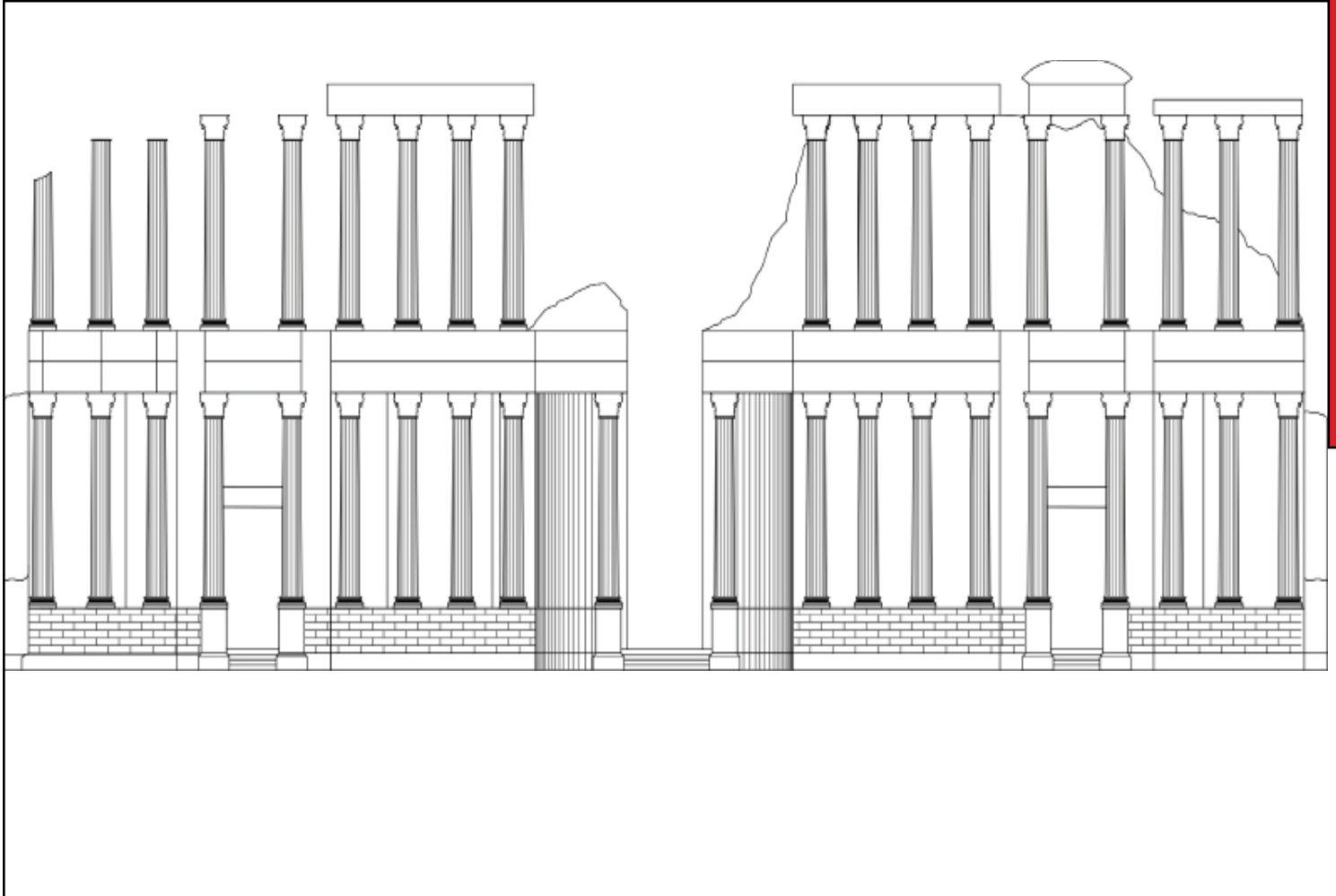
Main elevation

Building Set Diagrams

Emerita Augusta
Spain



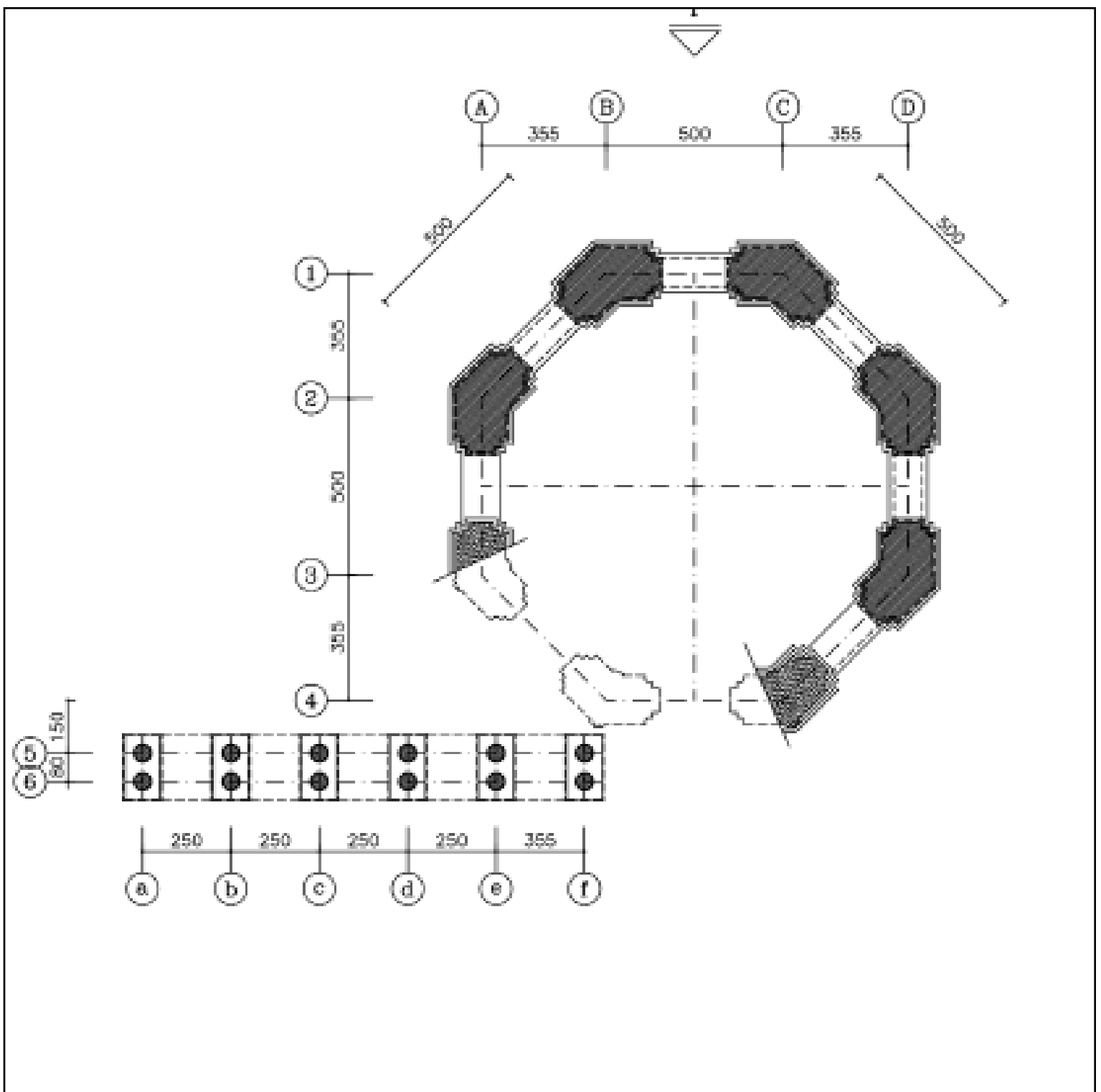
Plan

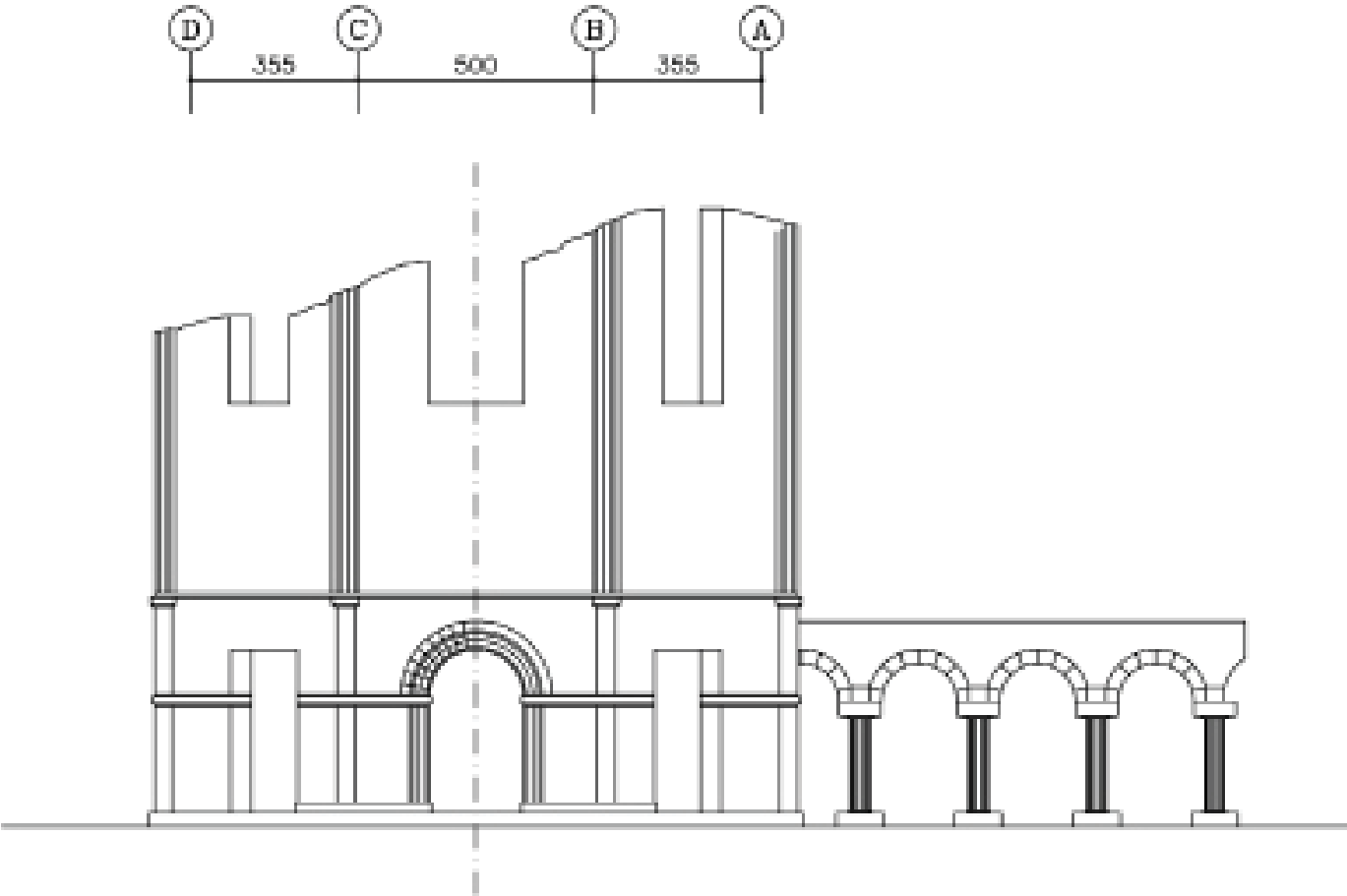


Main Elevation

Building Set Diagrams

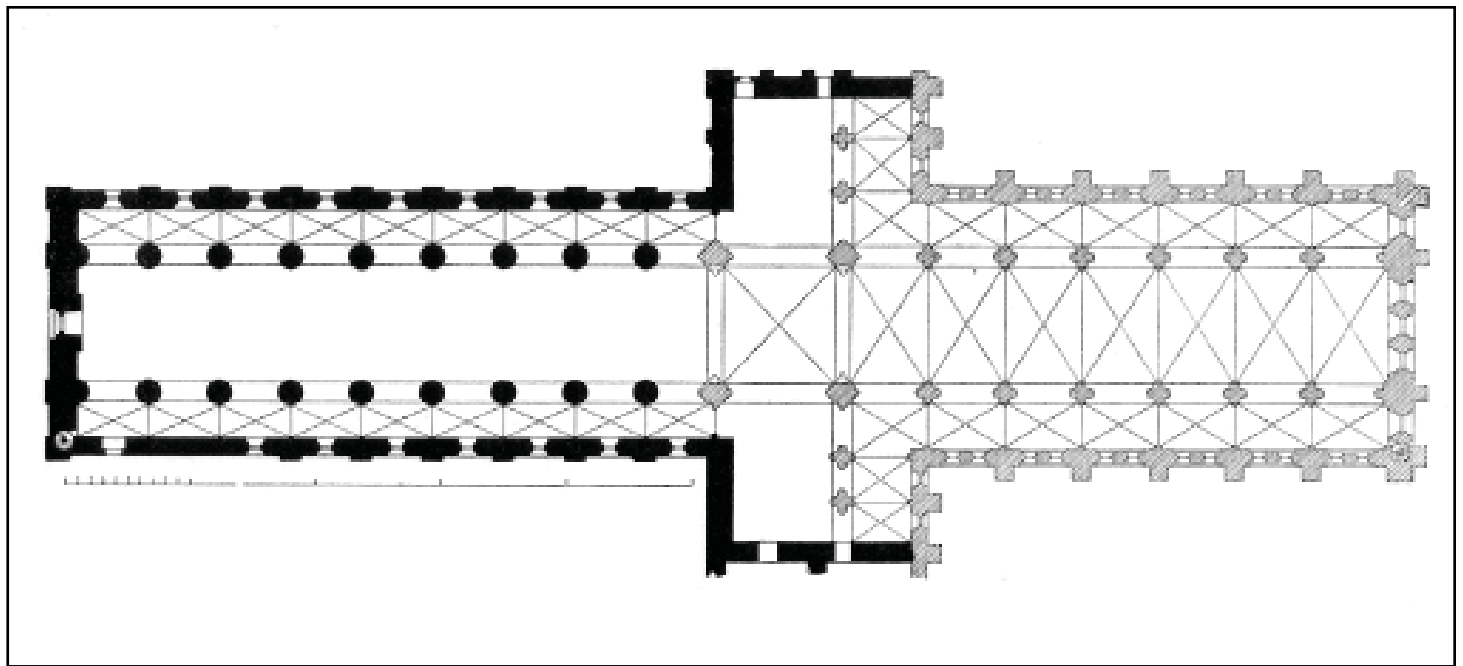
Old Mellifont Abbey
Ireland



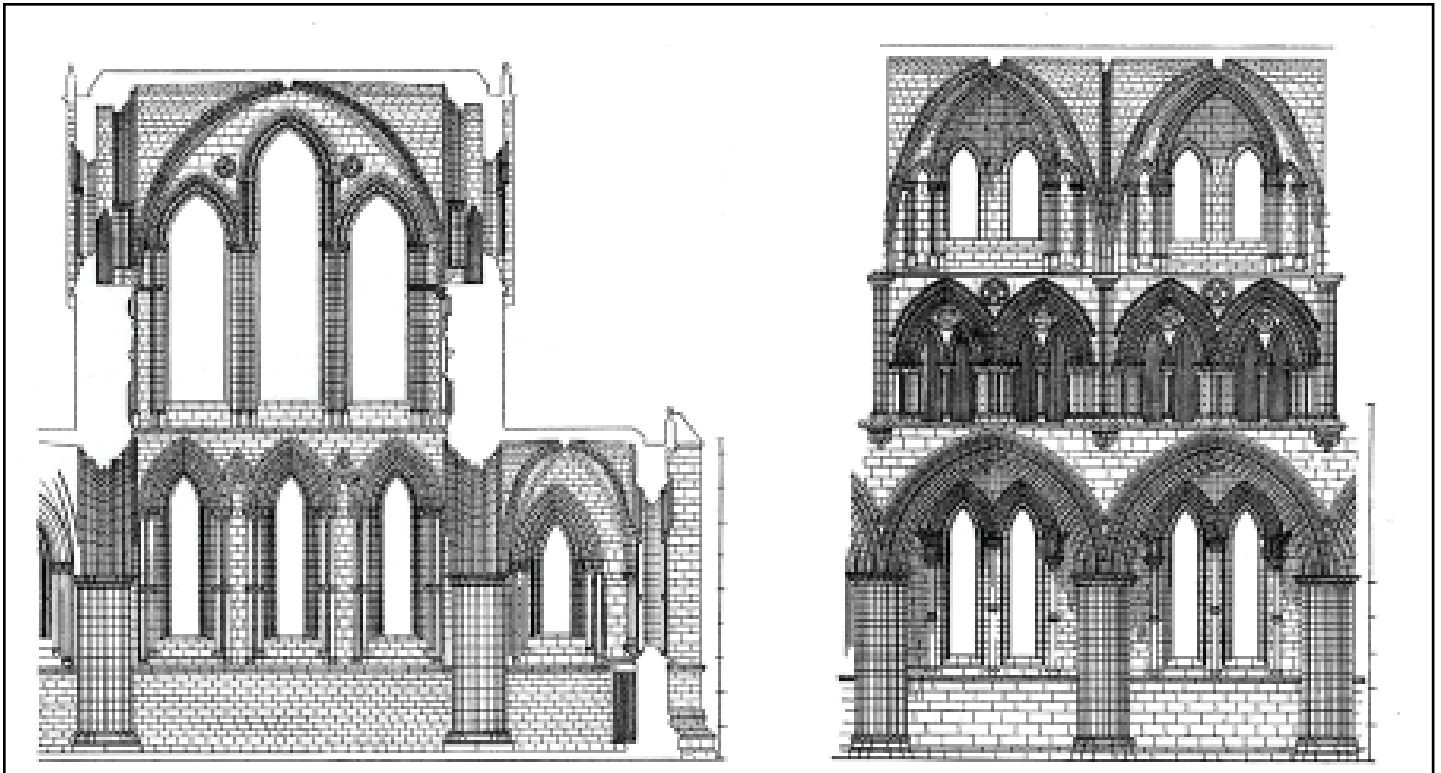


Building Set Diagrams

Rievaulx Abbey
England

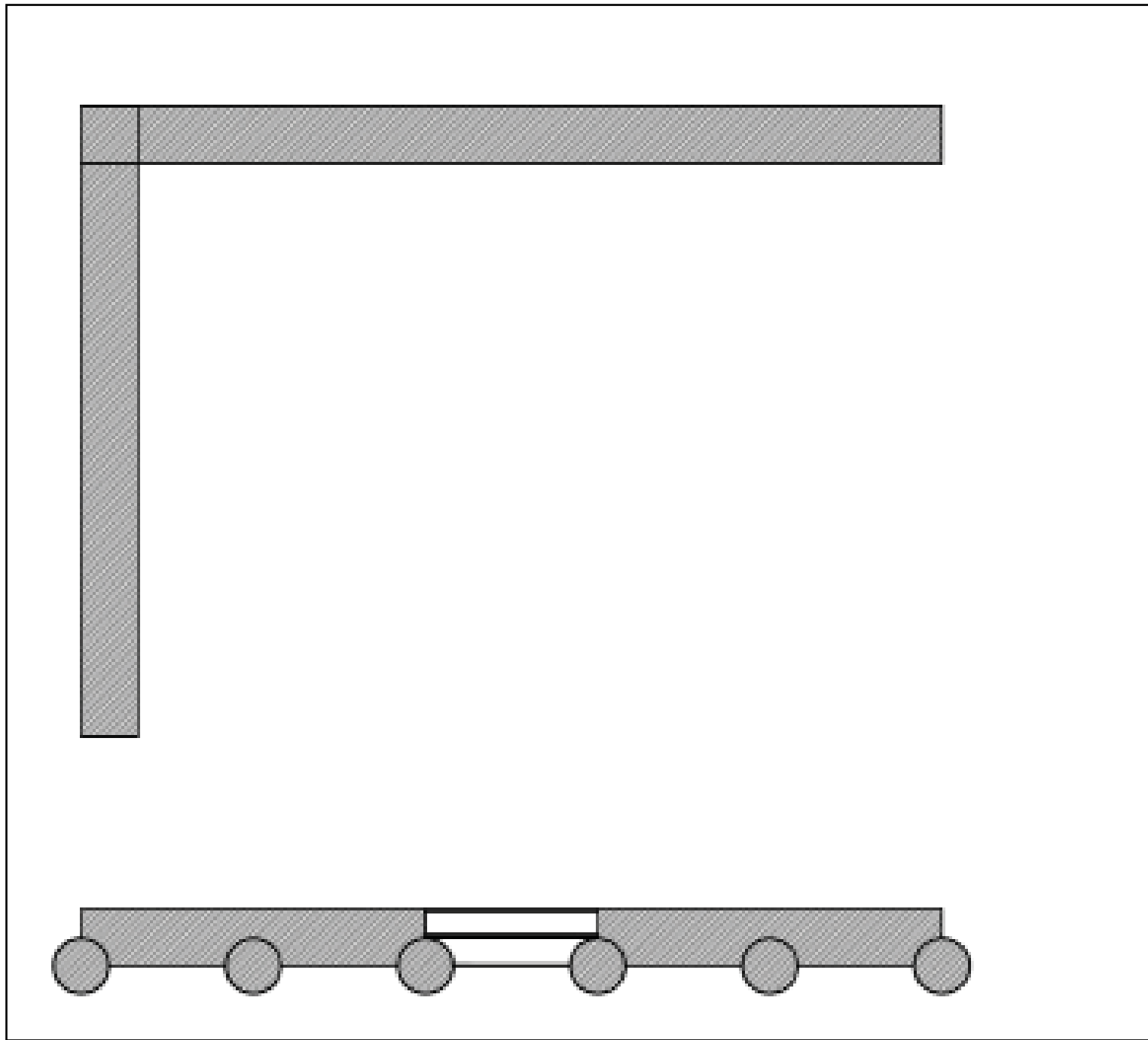


PLAN

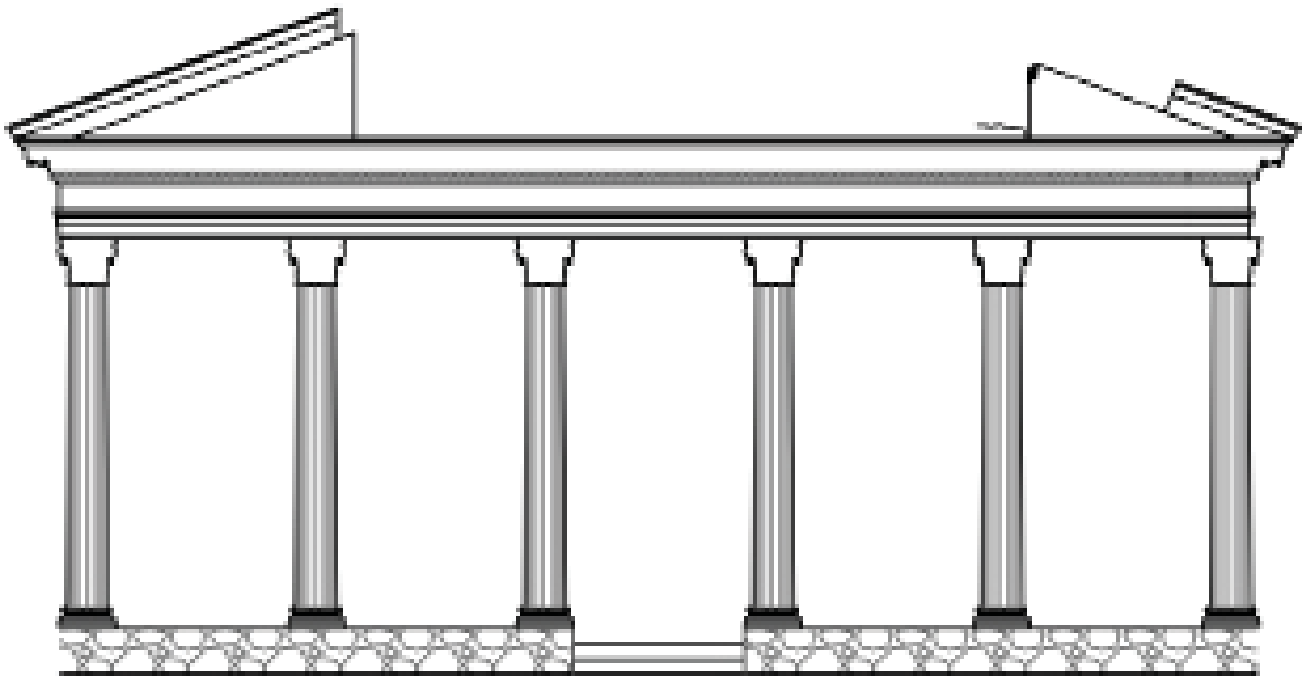


Building Set Diagrams

Palmyra
Syria



Plan



Elevation

Program Analysis

This museum is an open air museum which is a category of museum that exhibits collections of buildings and artifact out-of-doors, the museum is proposed to be located on the side of listtle grassy lake which is situated in the southest of carbondale (southern illnois) .

There will be six buildings in the museum's collection of building, each building has it's specific story in it. Therefore, people are going to visit the variety of spaces and areas with different functions.



grassy lake

CORE

Lobby 1600 sf

The space that visitors pass through as they enter a museum on their way to the actual exhibitions

Reception/Entry 80 sf

is about figuring out where things are and what courses of action are possible. Basically, where am I and what can I do here?

Security 80 sf

Toilets/men 250 sf

The availability of public ADA accessible restroom is required

Toilets/Women 250 sf

The availability of public ADA accessible restroom is required

Gift shop 250 sf

Cafeteria 900 sf

Kitchen 250 sf

Locker 250 sf

The lobby is a sort of in between space, as it is not a part of the exhibition space, but never the less part of the museum building. It is both the first and last impression the visitor experiences when visiting a museum. Often visitors recollection of museum visits are connected with service facilities, like toilets and catering. These services which also include facilities such as ticketing, security control, shopping, and cloakroom are often placed in connection with the lobby, and play a crucial role for the visitor experience



Program Analysis

EXHIBITION

Gallery

The main display area of each museum . capacity of 300 people. it proposed to design as single or multiple spaces for displayment

	6000	sf
Gallery Storage	970	sf
Art	430	sf
Furniture	540	sf
Gallery preparation	1000	sf



saint louis museum galleries



visitors in groups generally negotiate their readiness to enter the exhibition area. They might make use of maps and folders or other information material and talk about where to go first. School classes are given last minute instructions, like where to go and not to go, for how long and where to meet for lunch. The preparation phase may involve special equipment.

OFFICES

Curator	430	sf
Administration	300	sf
Maintain	540	sf
Business	250	sf

GROUNDINGS

Reception	80	sf
Equipment / tools	430	sf
Shop	430	sf
Mechanical	3200	sf
Storm shelter the capacity of storm shelter is 350	500*2	sf
Circulations	depends to the design	
Recycling	100	sf

PARKING

Auditorium

Including an area for concerts, theaters and lectures

6000 sf
4300 sf

Media Art

2 rooms for digital Arts, playing movies and small installations

430*2 sf

Outdoor installation space

Outdoor spaces for locating the installations and big sculptures

500*2 sf

Library

4300 sf

Art & Class rooms

These areas are proposed to design the rooms with the capacity of 35 people for holding some courses.

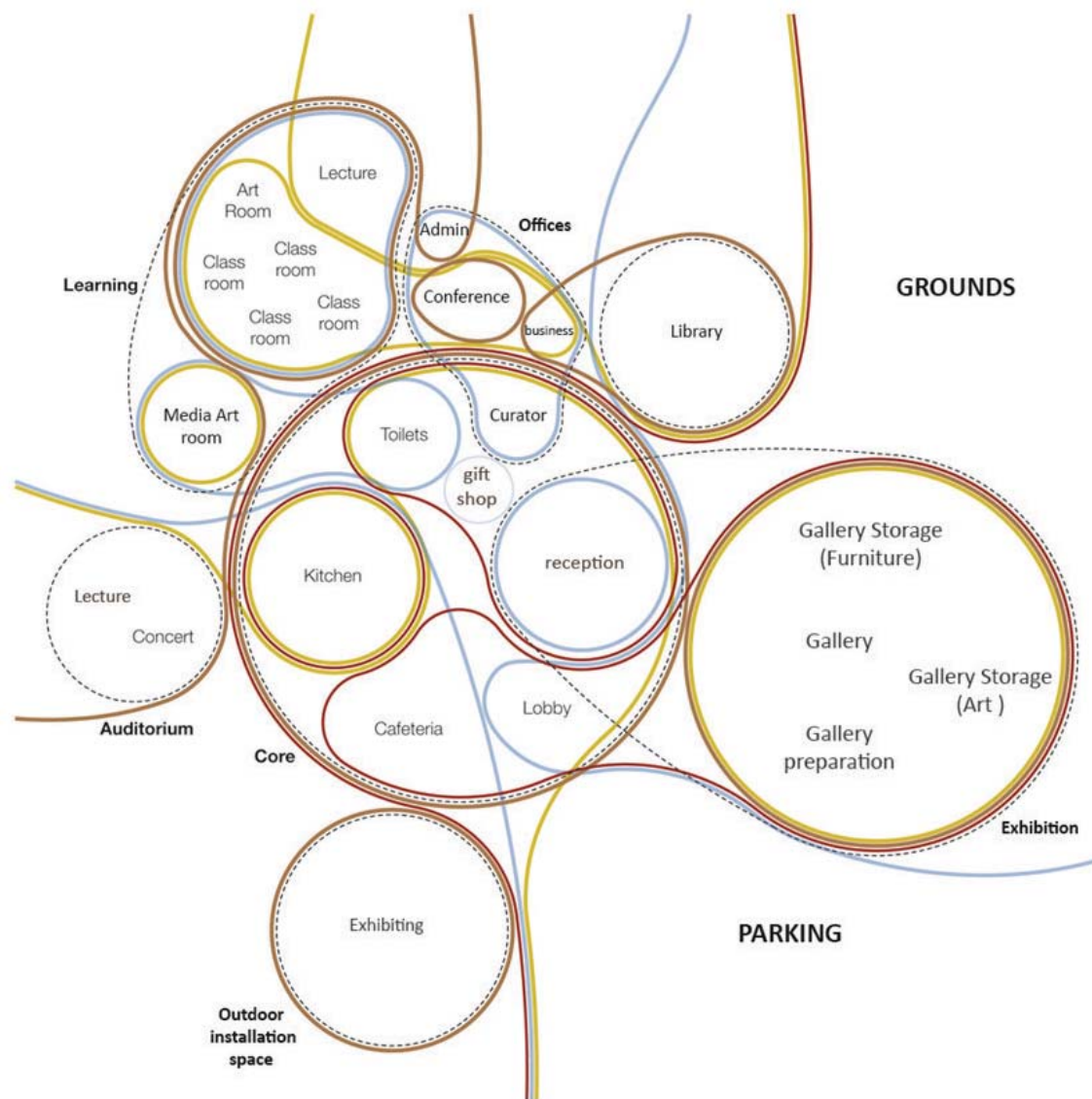
200*5 sf



chicago museum's campus

Program Analysis

The bubble diagram of museum's area



WRITTEN SUMMARY

This Studio's aim can be best expressed in three words :

Relations

Exhibitions

collections

Regarding to the aim of the studio we had to choose 5-7 buildings with common architectural topic. Therefore, our mission started with choosing and collecting these buildings.

Although, the massive stone amphitheater known as the colosseum, has not mentioned in the list of my building's collection, however, It is the best and the most famous building that could be named "half collapsed building".

By the 20th century, a combination of weather, natural disaster, neglect and vandalism had destroyed nearly two-third of the original colosseum, including all of the arena's marble seats and it's decorative elements.



The colosseum is not the only building all around the world which is half destroyed, there are many famous or even unknown buildings around the world that have been ruined and collapsed by natural factor during the long time of their existence.

The half collapsed buildings collection included six buildings from different parts of the world, such as Iran, Ireland, Spain and England. Therefore, this collections is the complex of various Art, Architecture and Culture.

The buildings have lost some parts of their architecture but the most important factors are still remained and they are the displays of their glorious past and the reflection of their country's culture and art.



From asia (Middle East)

To all around the
europe
variety of culture
and Art







Kristina Shrestha Hada

Building Forms From Nature
The journey that started with the natural form of Falling water lead to extra ordinary journey of building which are derived from Nature.

ANALYSIS OF READINGS

Frampton - Towards a Critical Regionalism

Spirn - Ecological Urbanism: A Framework for the Design of Resilient Cities

"It is possible to argue that in the last instance the specific culture of the region - that is to say, its history in both a geological and agricultural sense - becomes inscribed into the form and realization of the work. This inscription, which arises out of 'in-laying' the building into the site, has many levels of significance, for it has a capacity to embody, in built form, the prehistory of the place, its archaeological past and its subsequent cultivation and transformation across time." [1] A building is like a shadow of a site whether it is flat, terrace, or rocky it acts as a major aspect when it comes to the design of a building. It is impossible to design a building ignoring the site where it is to be located. The site not only includes mere land but also includes topology, soil condition, climate and environment as a whole. Besides that the bearing capacity of a site also plays an important role while designing a building for a particular site. When a site meets a building its unification gives inhabitants a built environment. One of the best examples for synchronization of a site and building is falling water designed by Frank Lloyd Wright. The site with flowing water was the perfect spot for the building which now resides on its top. The harmony between the site and building has created an extraordinary built environment. "this delicate synthesis of nature and the built environment probably counts as the main reason why Fallingwater is such a well-loved work. The contouring of the house into cantilevered ledges responds so sympathetically to the rock strata of the stream banks that it does make Bear Run a more wondrous landscape than it had been before". [4] Similarly, the terrain land of Greece has unique as well as harmonious set of buildings residing in the terrain setting. Site also has archaeological significance. The history of a site speaks the story of a site. It is the history of site which project itself and demands a unique attention. For an instance, the site of Acropolis in Greece has a history and a story to tell to the world. The site of the Acropolis is at the top of the hill because of the value of the site and building which reside in top of that particular site. Another good example can be the temples of Kathmandu valley of Nepal which resides at the top of the hills because of religious belief of having God always above us. Religious buildings and their respective sites have significance because of emotional and cultural attachment. There are many religious places in the world which has a history related to human civilization. These sites have a unique emotional relationship with us. The emotions include love,

hope, courage, and the history of the place itself which resonates through generations. The site which has an archaeological past has significance which resembles to the fact that how our ancestors were able to find the particular place and made it their home. As there is no qualm that most of the human civilization flourished near river banks. "On Architecture, written in the mid fifteenth century, expanded these recommendations, advocating that the siting of cities and the design of streets, squares, and buildings should be adapted to the character of their environment so that cities might promote health, safety, convenience, dignity, and pleasure." [2]

It basically tells us that the sitting for the cities and other public areas should be specific. It should meet the criteria of a healthy environment. The health of people is directly related to site of the city. It gives us guidelines on requirement of site and the condition of site which is necessary for mass inhabitation. Therefore, it implies that the environment of site which consists of the culture of the region, its topography as well as its historic importance. It should also promote the health and well beings of its inhabitation. Also, the design itself should reflect the essence of the environment. "When you look at Japanese traditional architecture, you have to look at Japanese culture and its relationship with nature. You can actually live in a harmonious, close contact with nature - this very unique to Japan." - Tadao Ando [3]

R e f e r e n c e s :

1. Frampton K., "Towards a Critical Regionalism: Six Points for an Architecture of Resistance"
2. Spirn A. W., "Ecological Urbanism: A Framework for the Design of Resilient Cities"
3. <http://archrecord.construction.com/people/interviews/archives/0205ando.asp>
4. Tower F., "Fallingwater Rising: Frank Lloyd Wright, E. J. Kaufmann, and America's Most Extraordinary House"

Frampton - Rappel a l'Ordre

Walter Benjamin and Tectonic Unconscious: Using Architecture as an Optical Instrument

"The first involves a constructional element, that is shaped so as to emphasize its static role and cultural status. This is the tectonic as it appears in Botticher's interpretation of Doric column. The second mode involves the representation of a constructional element which is present but hidden." [1]

"The term 'tectonic' to mean 'pertaining to build or construct in general'" [1]

Tectonic is the act of building a structure. The building made should have a definite shape and size. It is tangible which can be seen, touched and felt. The building also symbolizes the cultural aspect of that environment. Here, culture can be a key aspect for the construction of a particular building. The building is constructed with the help of elements like pillars and beams which can be made up of different materials like timber, bamboo, steel, concrete or brick. It is present for construction of building but rather in hidden form. A building is an output of so many elements like structural element, cultural aspect, ecological aspect, a different era of design, etc.

"The build environment that surrounds us is, we believe, the physical representation of its history and the way in which it has accumulated different levels of meaning to form the specific quality of site, not just for what it appears to be in perceptual terms, but for what it appears to be, in perceptual terms, but for what it is in structural terms." [2]

The design of the building is guided by different aspects like cultural, religious and the site itself act as a major contributing factor. Also, the structure of the building plays a major role in the final form of the building. For an instance, the traditional architecture of Kathmandu Valley guides the new buildings in nearby areas to follow similar pattern of building design. Also, the availability of local materials also defines the buildings and materials to use in it. For an instance, the places which has adequate amount of timber will have buildings made out of timber. Similarly, when designing a building near a historic site we should respect the architecture of that area and should design building which can merge with the surroundings.

"However, other dialogical conditions are involved

in the articulation of tectonic form, particularly the contrast between the culture of heavy- stereotomia and the culture of the light- tectonics. The first implies load bearing masonry and tend towards the earth and opacity. The second implies the dematerialized A- frame and tend towards sky and translucence." [1]

The presence of load bearing structure or A-frame both has its own functions. A-frame can be used in urban areas to make multi storey buildings where as load - bearing structures can be made where there is abundance of local materials. However, it will not be feasible to build multi storey building with the help of load bearing structure. The building with load - bearing structure has a long history whereas A-frame is the outcome of modern architecture. A-frame has given us a possibility to have thinner walls as well as provided the opportunity for large windows. It was a modern miracle and a breakthrough in our human civilization with regard to habitation.

"The metaphorical evocation of the bird, trees, not only provides the spatial organization, but also clarity of tectonic structural expression, with triangular gussets between the columns and beams providing lateral stability." [3]

Nature can be an inspiration when designing a building. It can be a driving force which inspires architect to push their limits and design something totally unique. The use of tectonic structure can be inspired by the site where it is designed. There can be either use of load bearing structure or A - frame structure which largely relies upon the site condition.

References:

1. Frampton K., Rappel a l'Ordre
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Falling Water

“Study nature, love nature, stay close to nature. It will never fail you.”

– Frank Lloyd Wright

Falling Water is the most popular building of Frank Lloyd Wright. It is located in Bear Run, Pennsylvania, USA. It was designed for Edgar Kaufmann. This building is designed near a stream called Bear Run while the cantilever runs over the spring which gives the impression of water falling under the building.

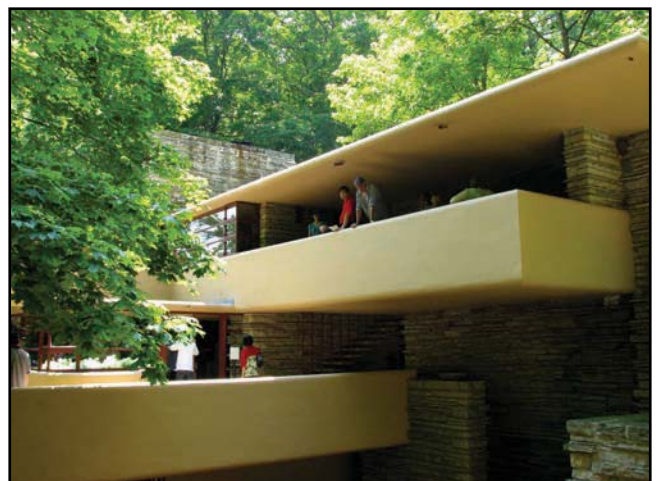
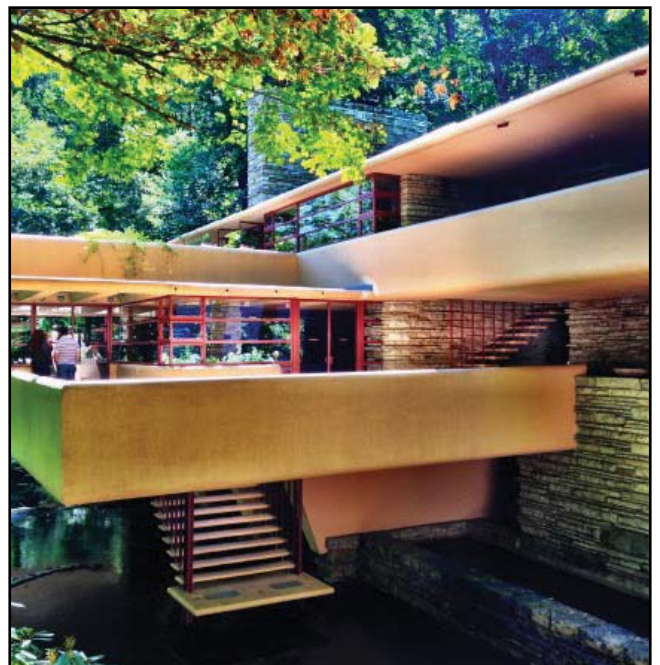
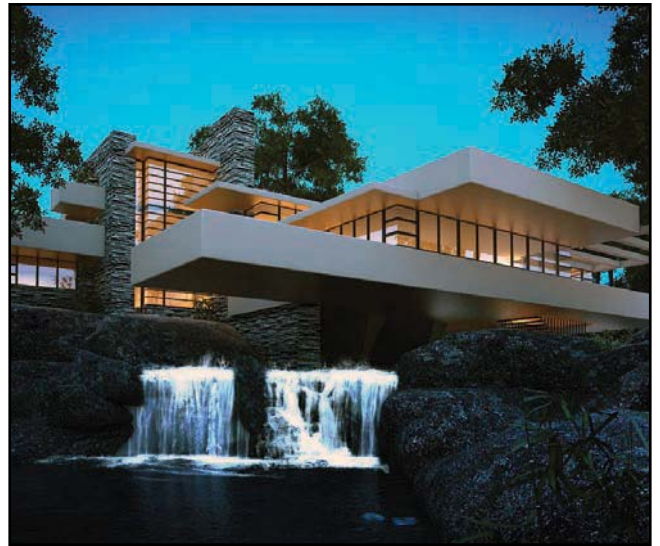
“When Wright came to the site he appreciated the powerful sound of the falls, the vitality of the young forest, the dramatic rock ledges and boulders; these were elements to be interwoven with the serenely soaring spaces of his structure. But Wright’s insight penetrated more deeply. He understood that people were creatures of nature, hence an architecture which conformed to nature would conform to what was basic in people. [1]

References

1. <http://www.wright-house.com/frank-lloyd-wright/fallingwater.html>

Photos From:





Bavinger House

Location: Norman, Oklahoma, USA

Architect: Bruce Goff

Built: Eugene Bavinger

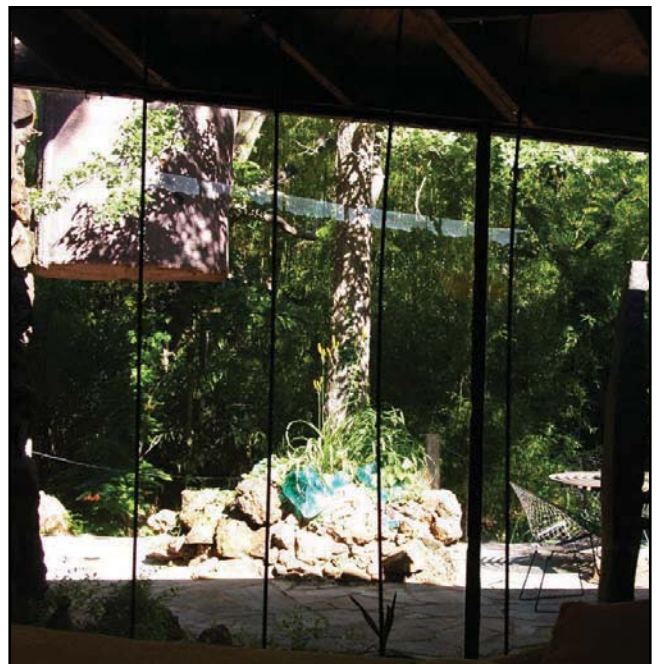
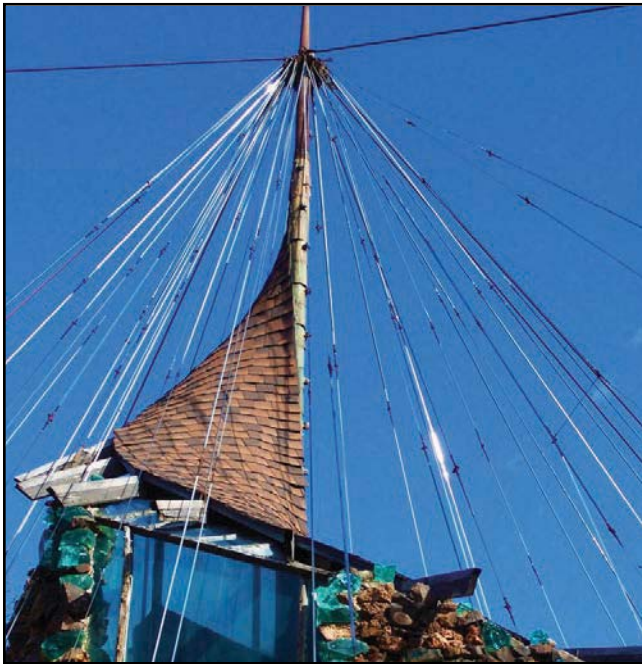
“The house has won the Twenty-Five Year Award by the American Institute of Architects in 1987, and is listed on the National Historic Register, a National Landmark, and Oklahoma Historical Society.” [1]

This house is inspired by double helix structure. It has an organic theme. The house is made up of ironstone and blue-green glass chunks scattered all over the house.

Refences:

1. <http://mid-century-modern.net/the-bavinger-house/>
2. <http://ronstahlsoklahoma.blogspot.com/2011/04/bavinger-house-art-meets-archtechture.html>
3. <http://rubens.anu.edu.au/htdocs/surveys/modarch/byarch/display00100.html>





Leaf House

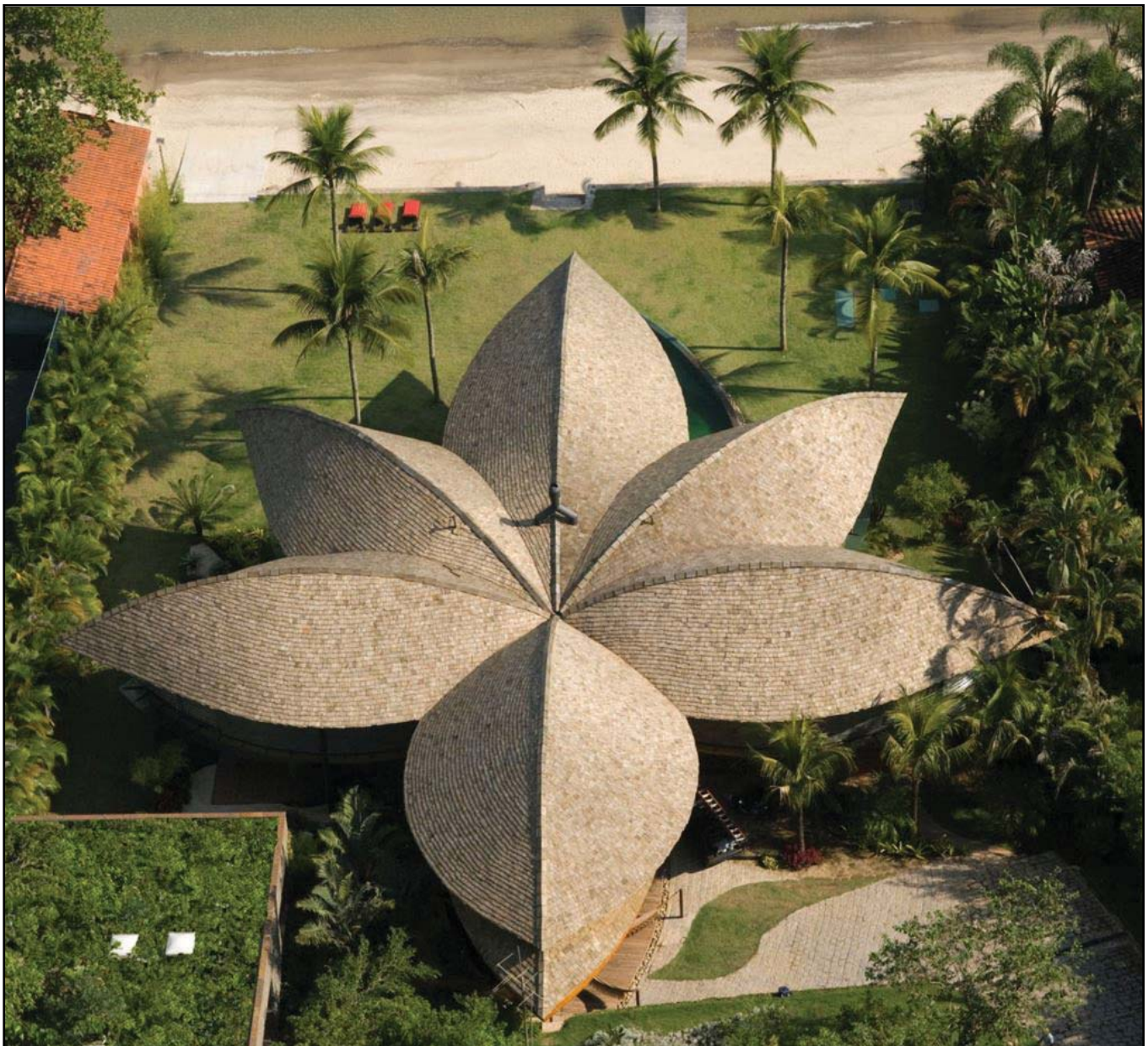
Location: Near Rio De Jenirio, Brazil

Architect: Mareines + Patalano Arquitetura Company

The leaf house is inspired by nature. It is designed by Brazilian architect with Indian origin. It is situated in a beach with green blue water in Brazil. This is a tropical building which integrates nature and human. It has many glass doors which bring the outdoor experience indoors. The beautiful swimming pool replicates the water of the island. [1]

References:

1. <http://bestdesignideas.com/leaf-house-brazilian-flower-from-mareines-patalano-arquitetura>
2. <http://www.e-architect.co.uk/brazil/leaf-house-in-brazil>
3. <http://inhabitat.com/brazilian-leaf-house-by-mareines-and-patalano/>
4. <http://www.decoist.com/2011/07/01/fabulous-leaf-shapes-home-in-brazil-casa-folha/>





Shell House

Location: Karuizawa, Kitasaku, Nagano, Japan

Architect: Kotaro Ide / ARTechnic architects

This Shell House is designed for the purpose of private villa. This building is build around a fir tree. It is shaped like alphabet “J”. The two oval structures seem to rise above the ground.

“Being in sync with nature isn’t about yielding to nature – it’s about coexistence. The existence of the structure depends on its power to endure nature. By isolating living space from the wilderness, and upgrading its quality as a shelter, the house will be protected from nature and will provide a comfortable environment.”

[1]

References:

1. <http://www10.aeccafe.com/blogs/arch-showcase/2012/02/16/shell-in-nagano-japan-by-artech-nic-architects>
2. <http://decoratorshowcase.blogspot.ae/2013/05/japanese-shell-house.html>
3. <http://thenewarchitecture.blogspot.com/2011/02/shell-villa-by-artech-nic-architects.html>





Casey Key Guest House

Casey Key Guest House

Location: Casey Key, Florida

Architect: TOTeMS Architecture

Lead Architect: Jerry Sparkman, AIA, NCARB

This building is inspired by the shape of oak tree when the coastal winds flow from the west. It has openings for the view of the water.

References

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<http://www.archiii.com/2013/04/casey-key-guest-house-design-by-totems-architecture/>





The Pod Pavilion

Location : Petaling Jaya, Kuala Lumpur, Malaysia

Architect : Hijjas Kasturi Associates Sdn and Studio Nicoletti Associates

The Pod Pavilion is designed as a new building for sales exhibition and office area for the staff. The pod ends with the exhibition area with a water body. The pod sits in flat land and it has landscape of green grass.

References

<http://inhabitat.com/awesome-worm-like-pod-pavilion-in-kuala-lumpur-is-inspired-by-water-droplets/the-pod-manfredi-nicoletti-1/>

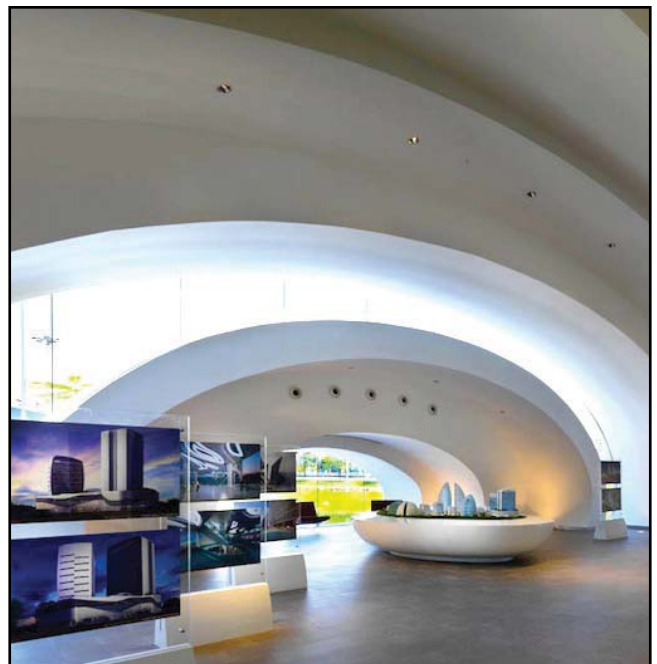
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<http://architecturelinked.com/profiles/blogs/the-pod-exhibition-pavilion>

http://en.wikiarquitectura.com/index.php/Pod_Pavilion





Building Set Diagrams

Falling Water

The design of Falling water is open plan and it has simple circulation. The building is graduate change of height wih is inspired by the surrounding and site. The use of different materials also are in harmony with the site of rocks and trees. Also, few walls of the building are made up of rock from the site.

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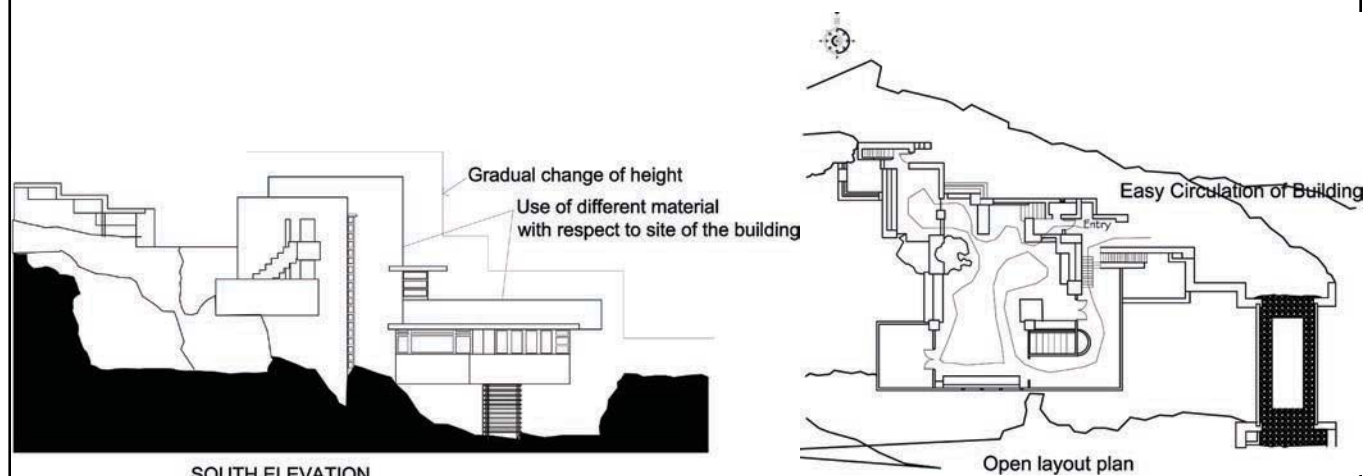
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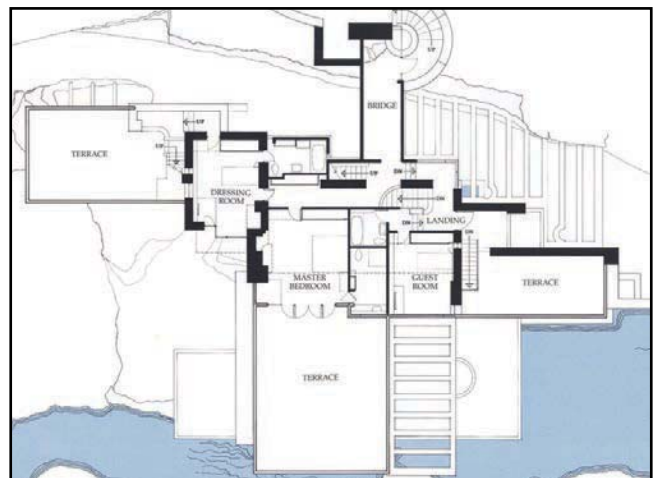
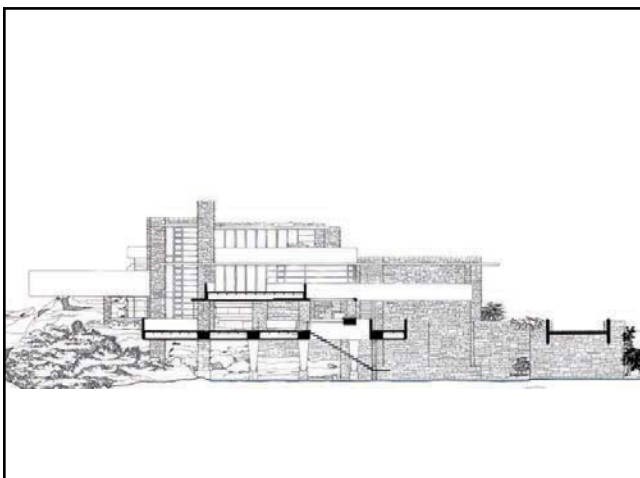
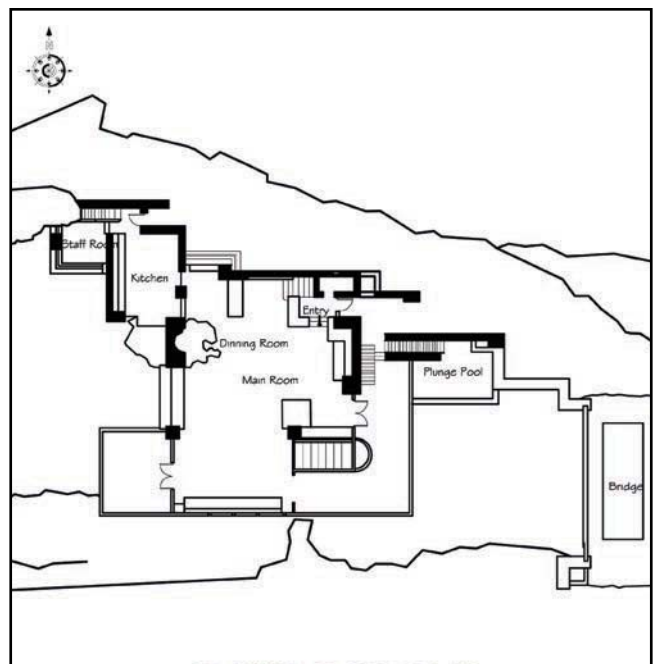
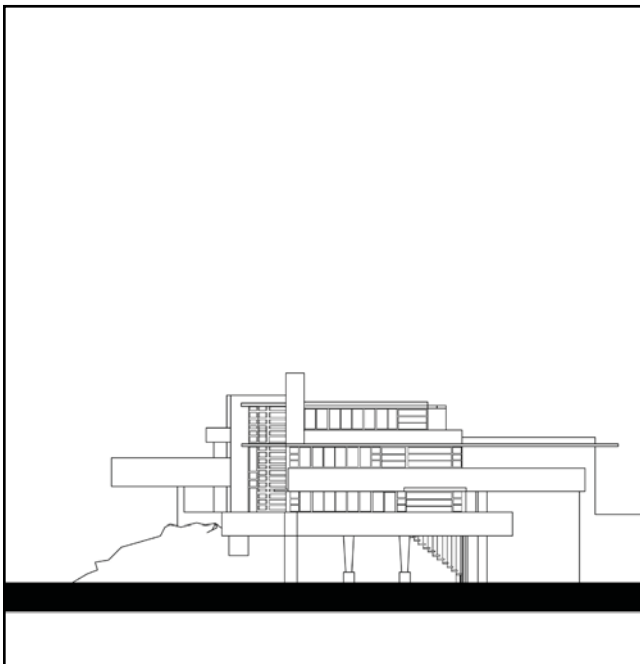
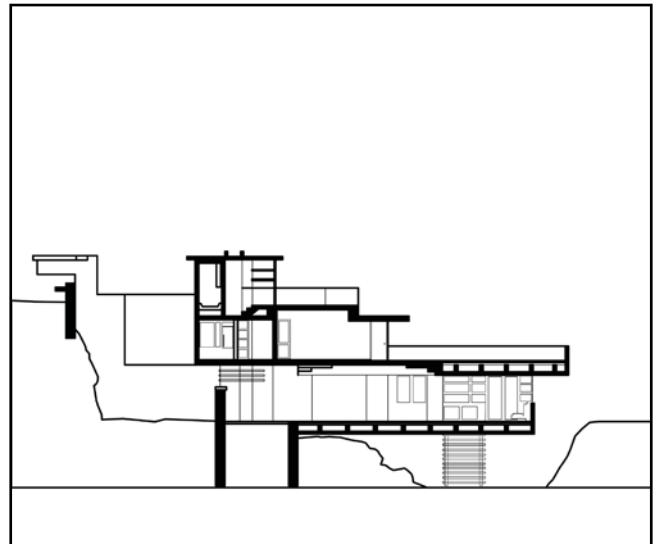
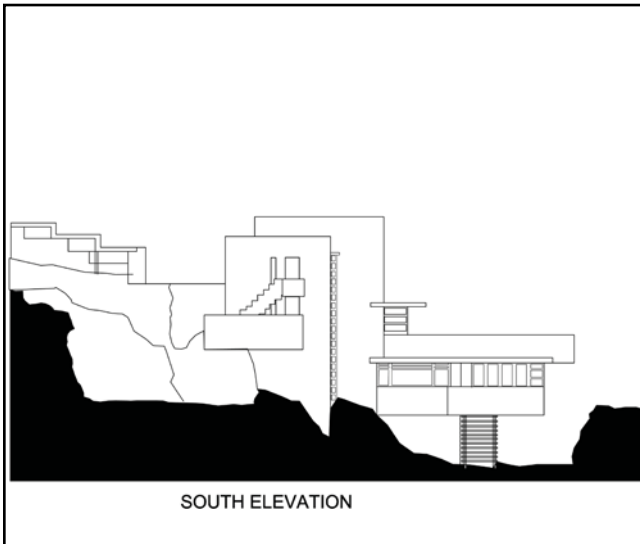
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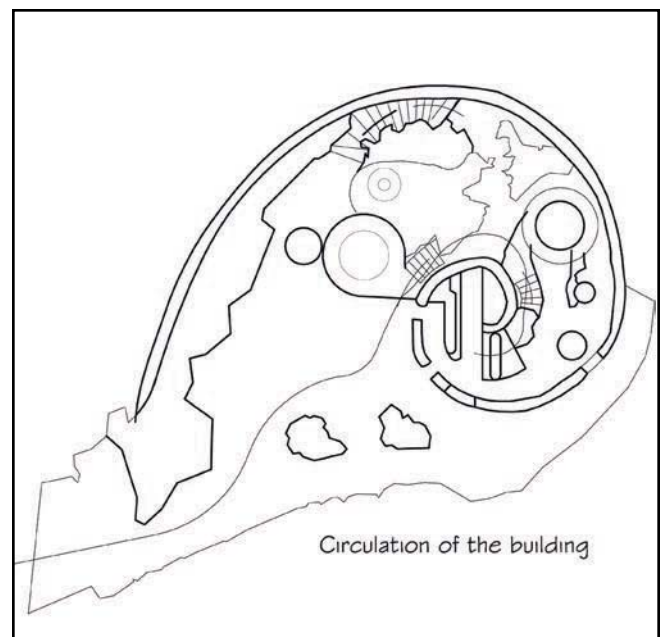
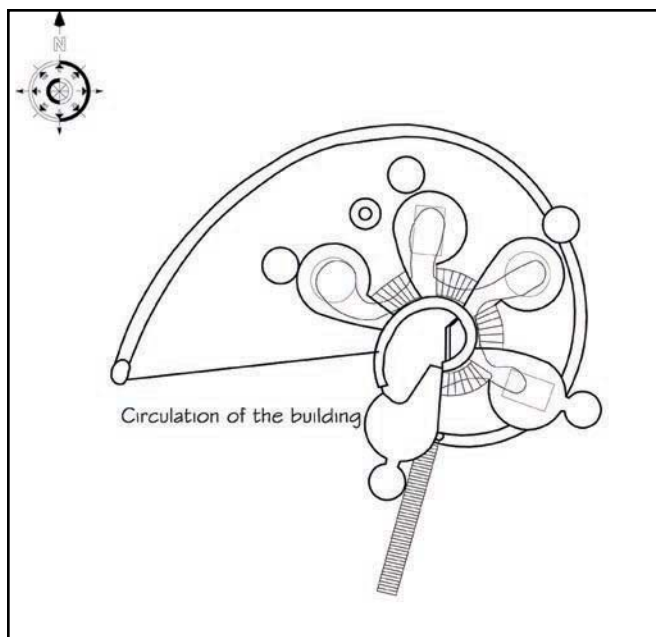
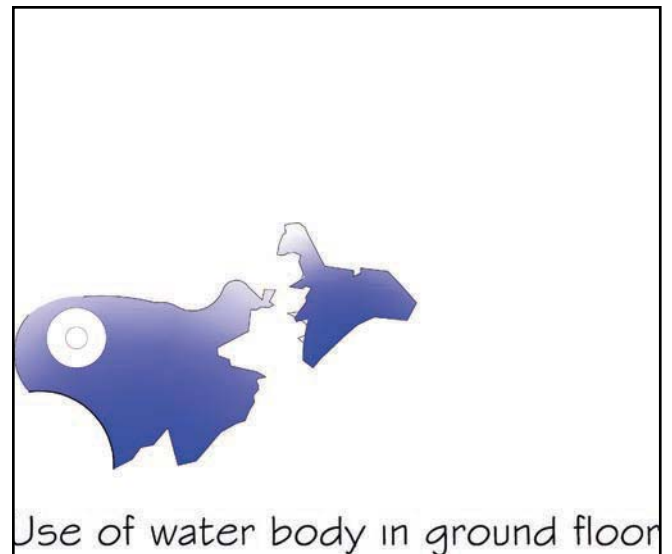
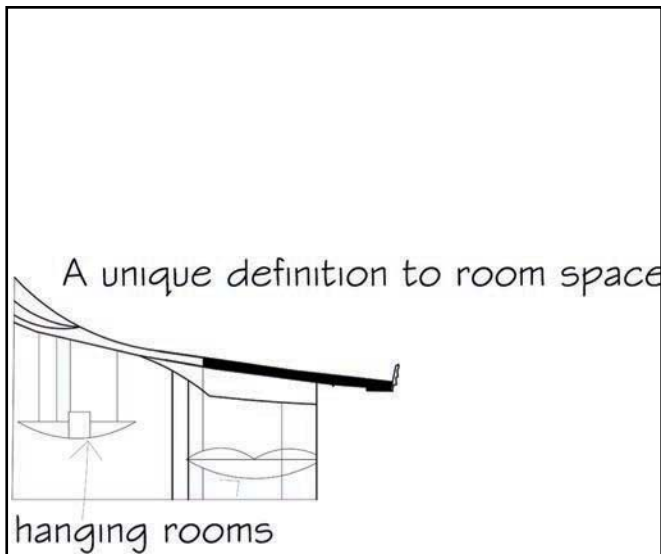


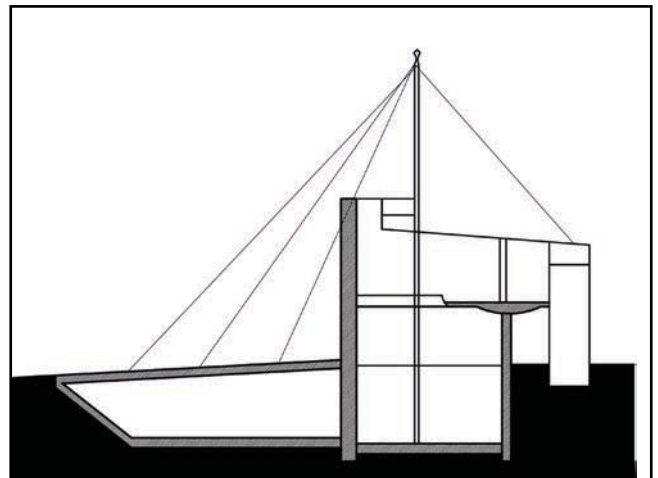
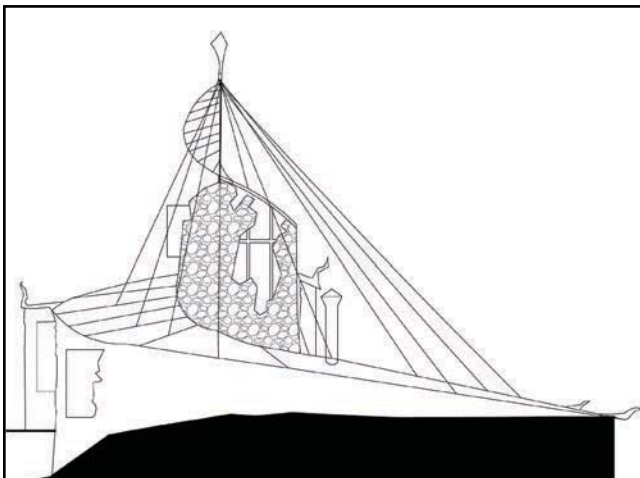
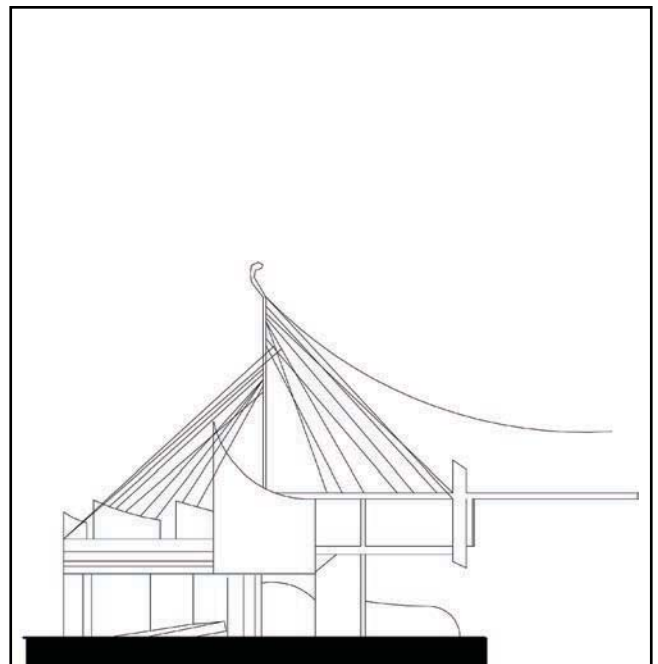
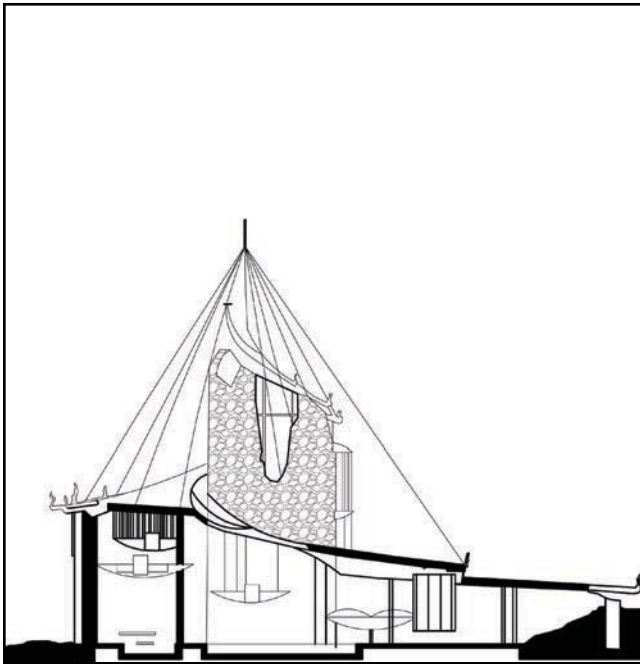
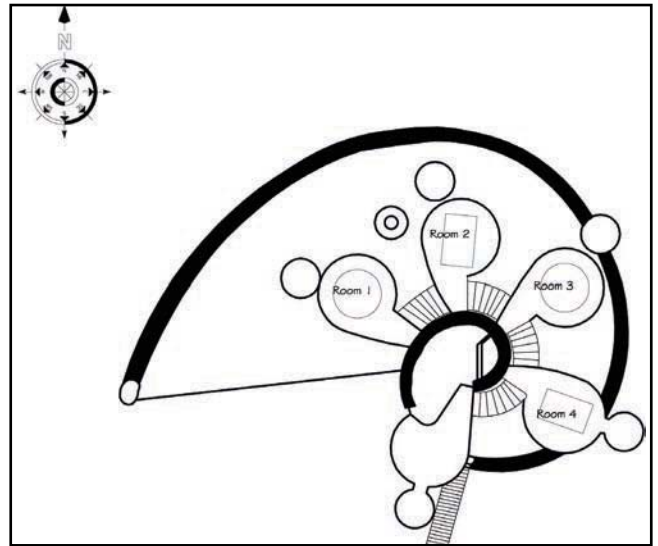
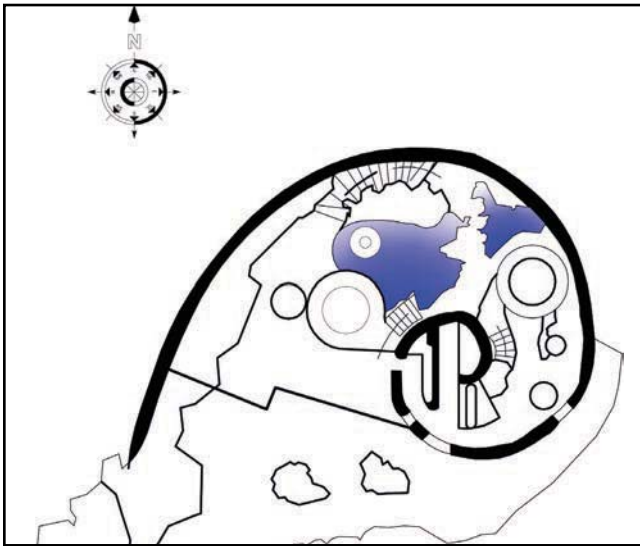


Building Set Diagrams

Bavinger House

The house has open plan layout. The water body in the interior gives the sense of outdoor space. There is predominant use of local materials. The circulation of the house is guided by the design of the curve. The hanging rooms are very unique and it gives a different perspective to the house.

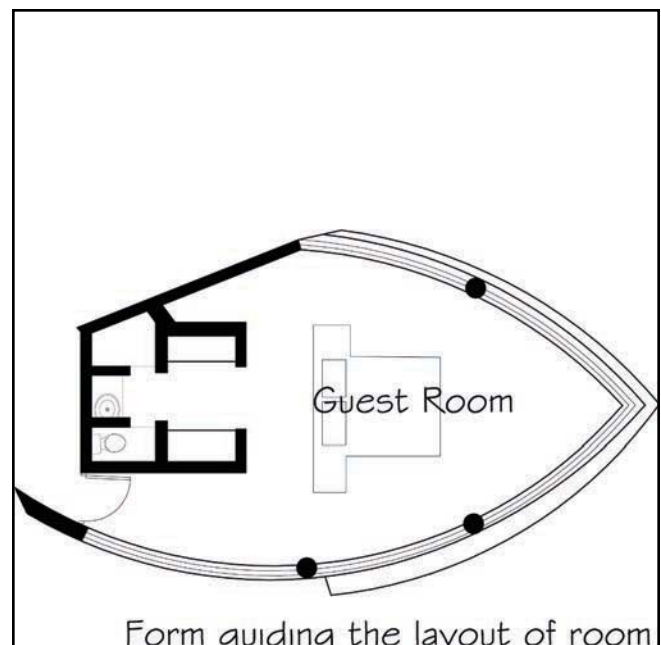
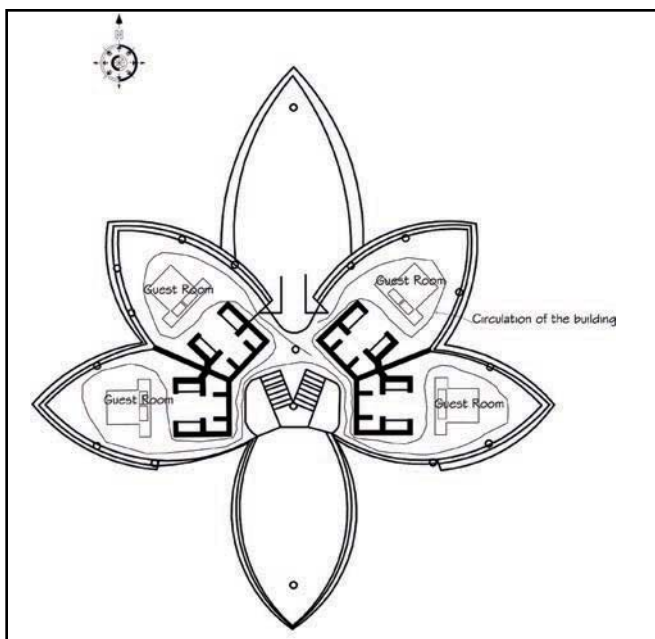
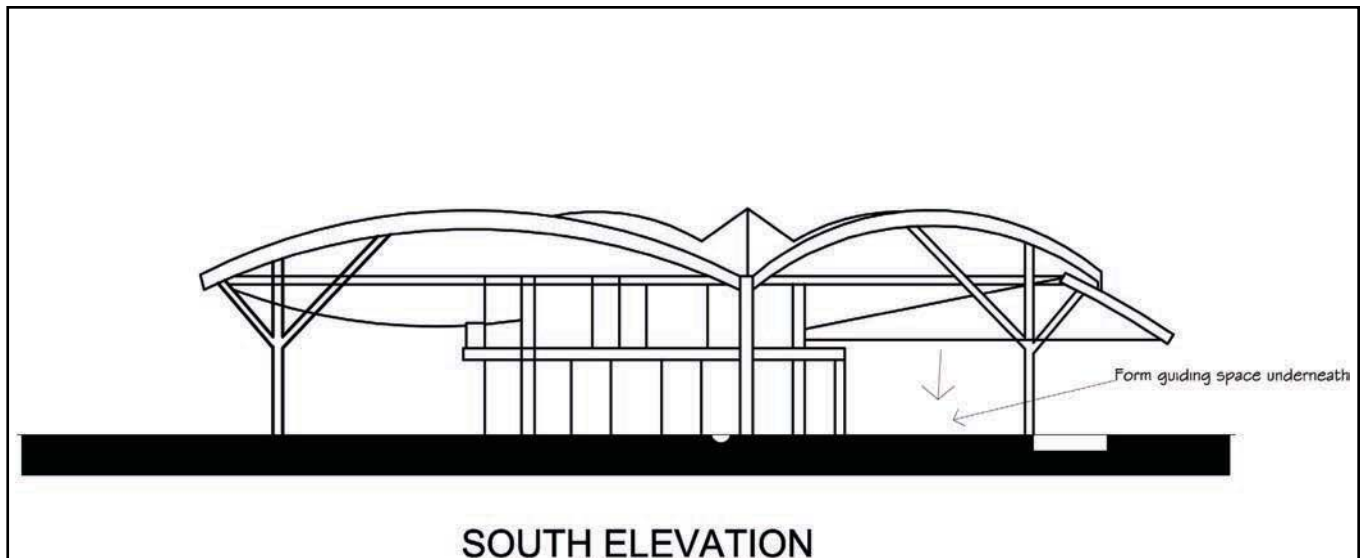


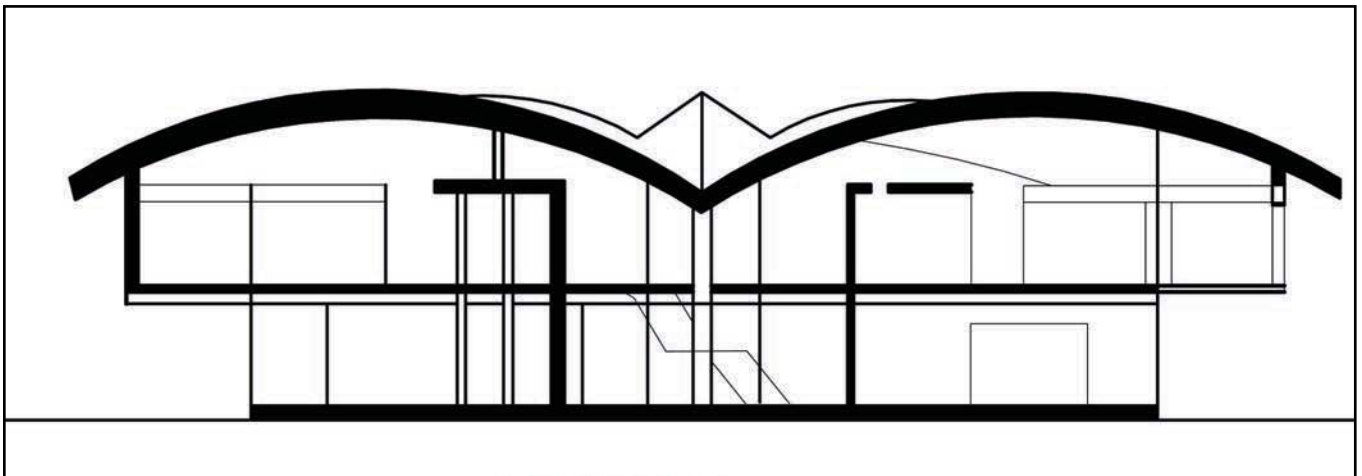
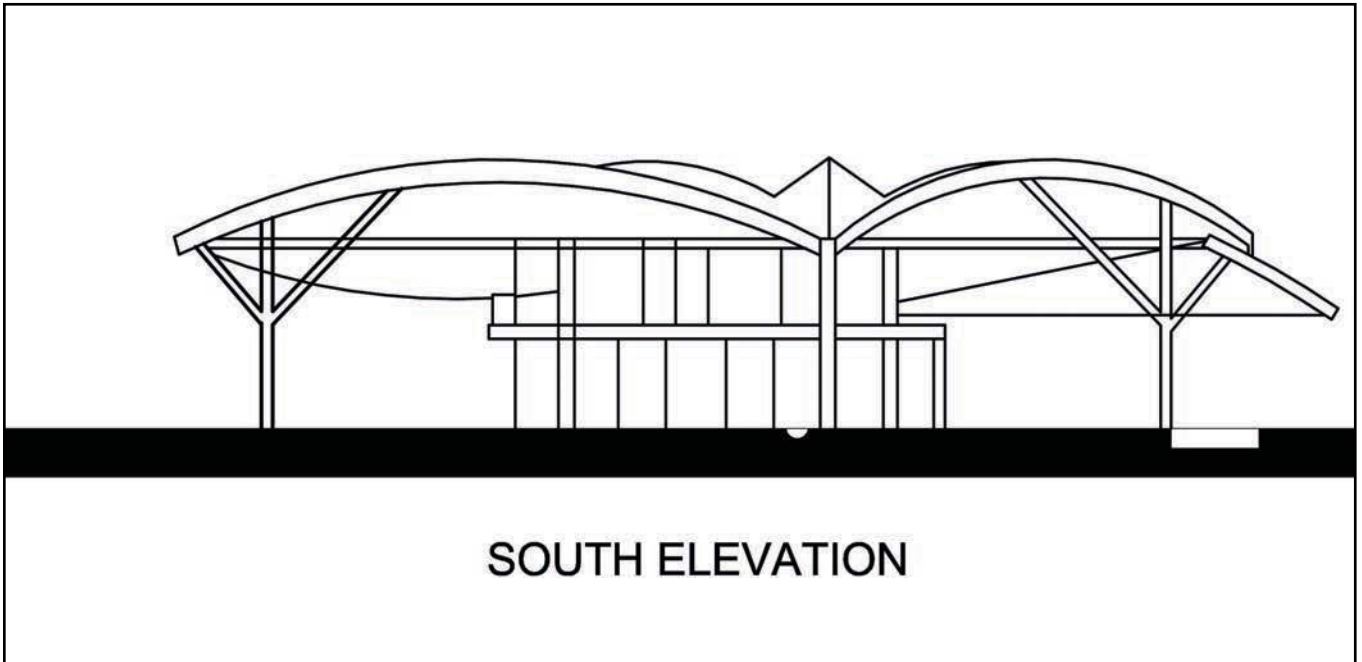
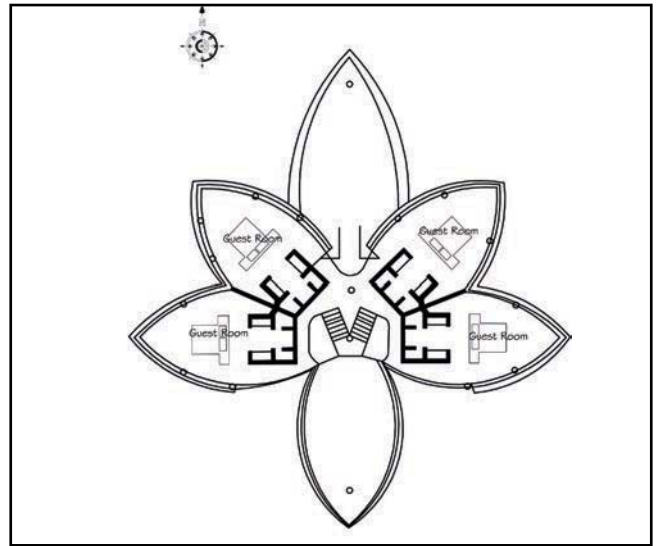
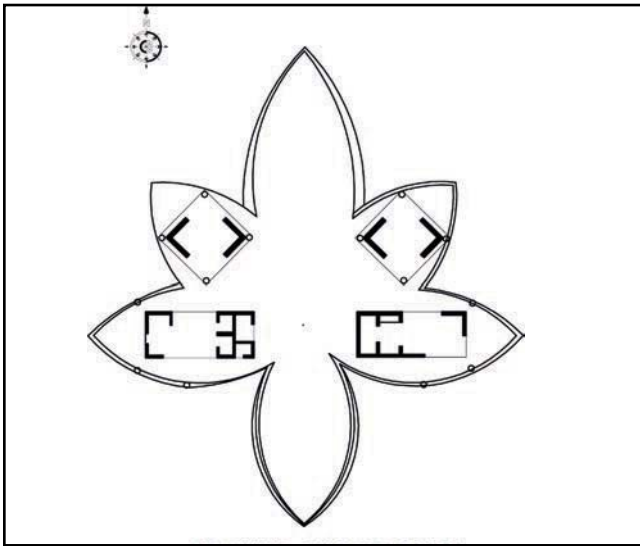


Building Set Diagrams

Leaf House

The design of building is inspired by leaf. The form of the building guides the layout of room and interior spaces. Also, the form has been used as a canopy as well as a guest room. Since, the building is near the beach, the rooms are placed for the best view of the water. There is also presence of swimming pool to replicate the feel of the ocean. Also, this building has use of tropical building material so it is successful to give us the sense of place.

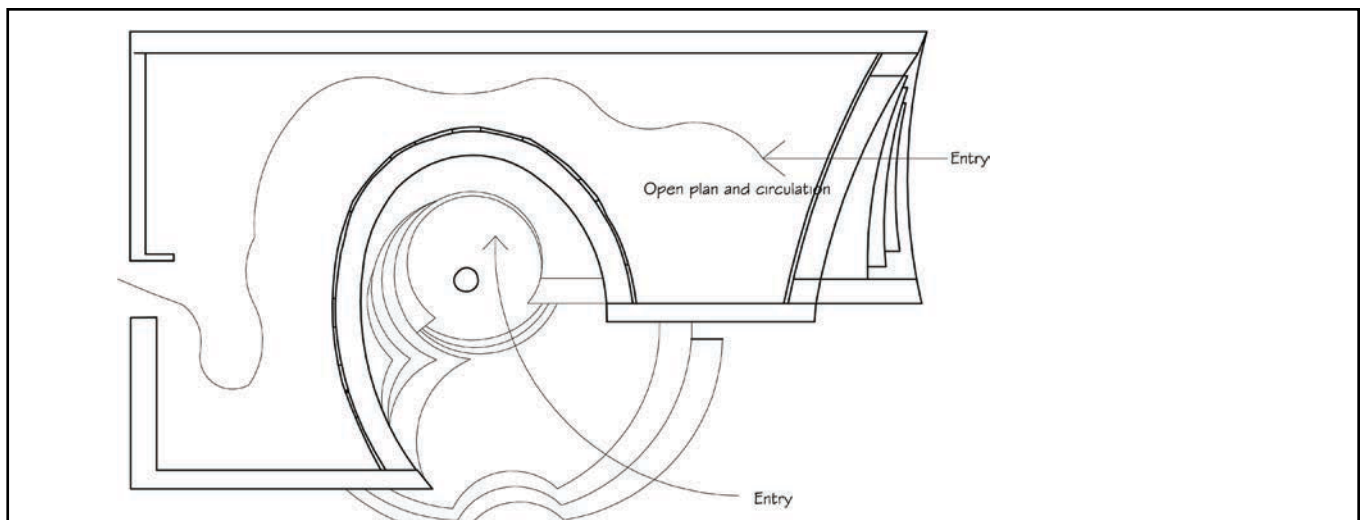
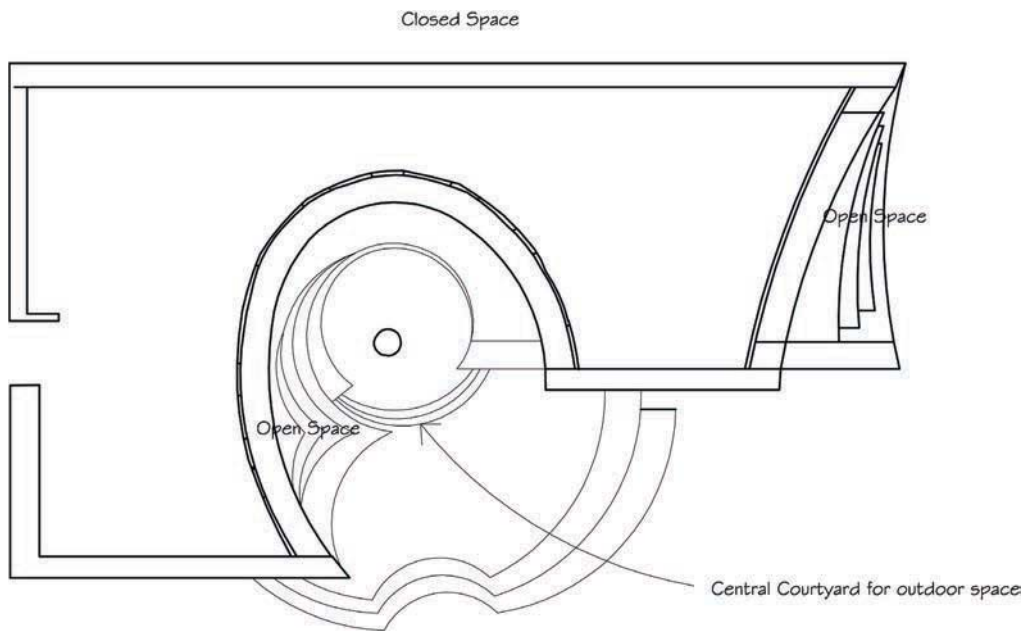


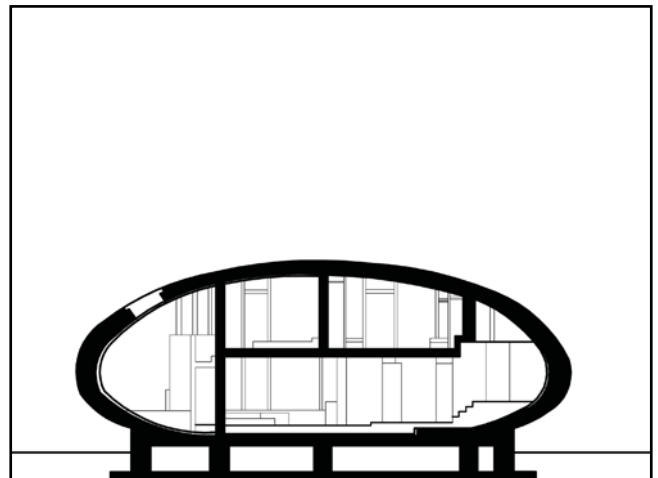
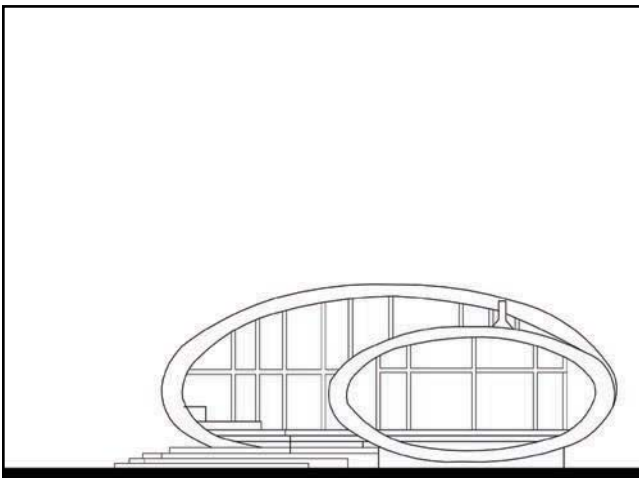
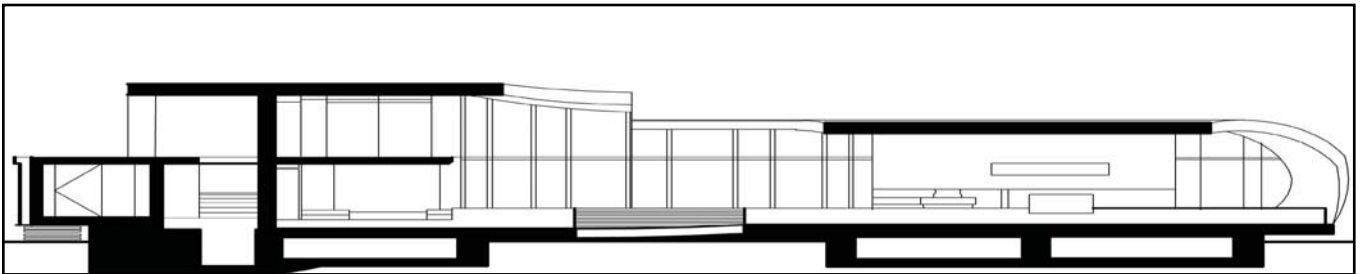
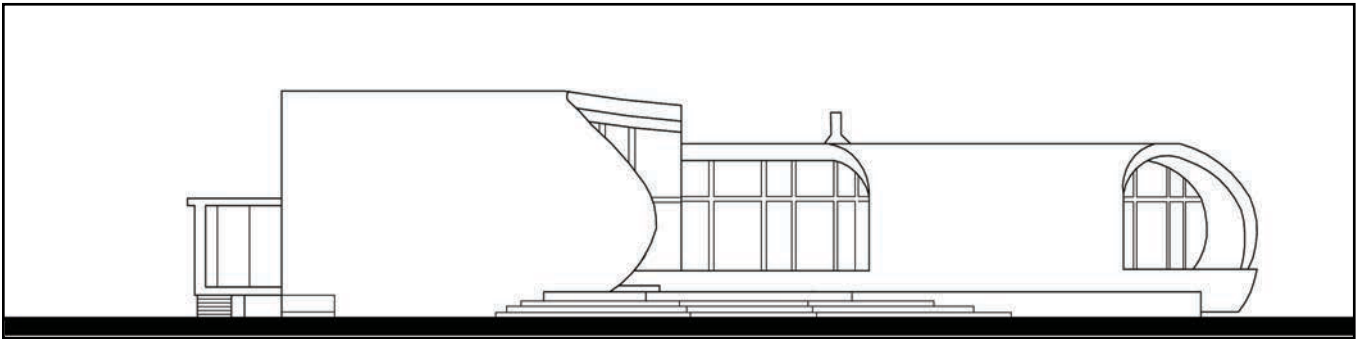
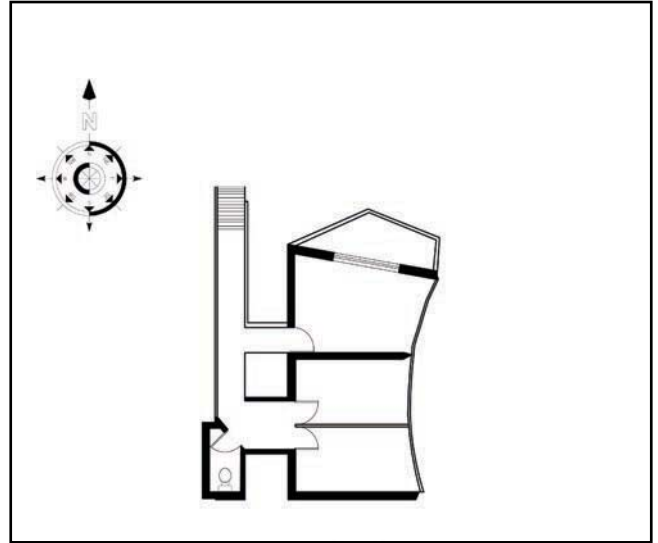
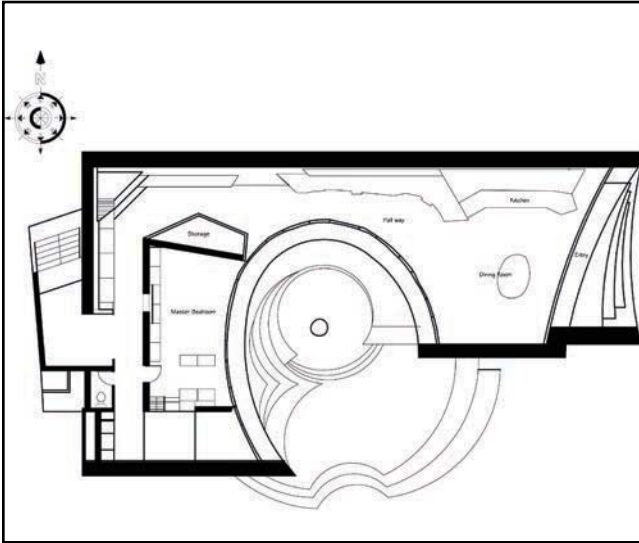


Building Set Diagrams

Shell House

The building is inspired by shell. It has central courtyard which acts as a outdoor space. The house is open planned. There is repition of shell form in the building. The circulation is very easy and it has many entry and exit spaces.

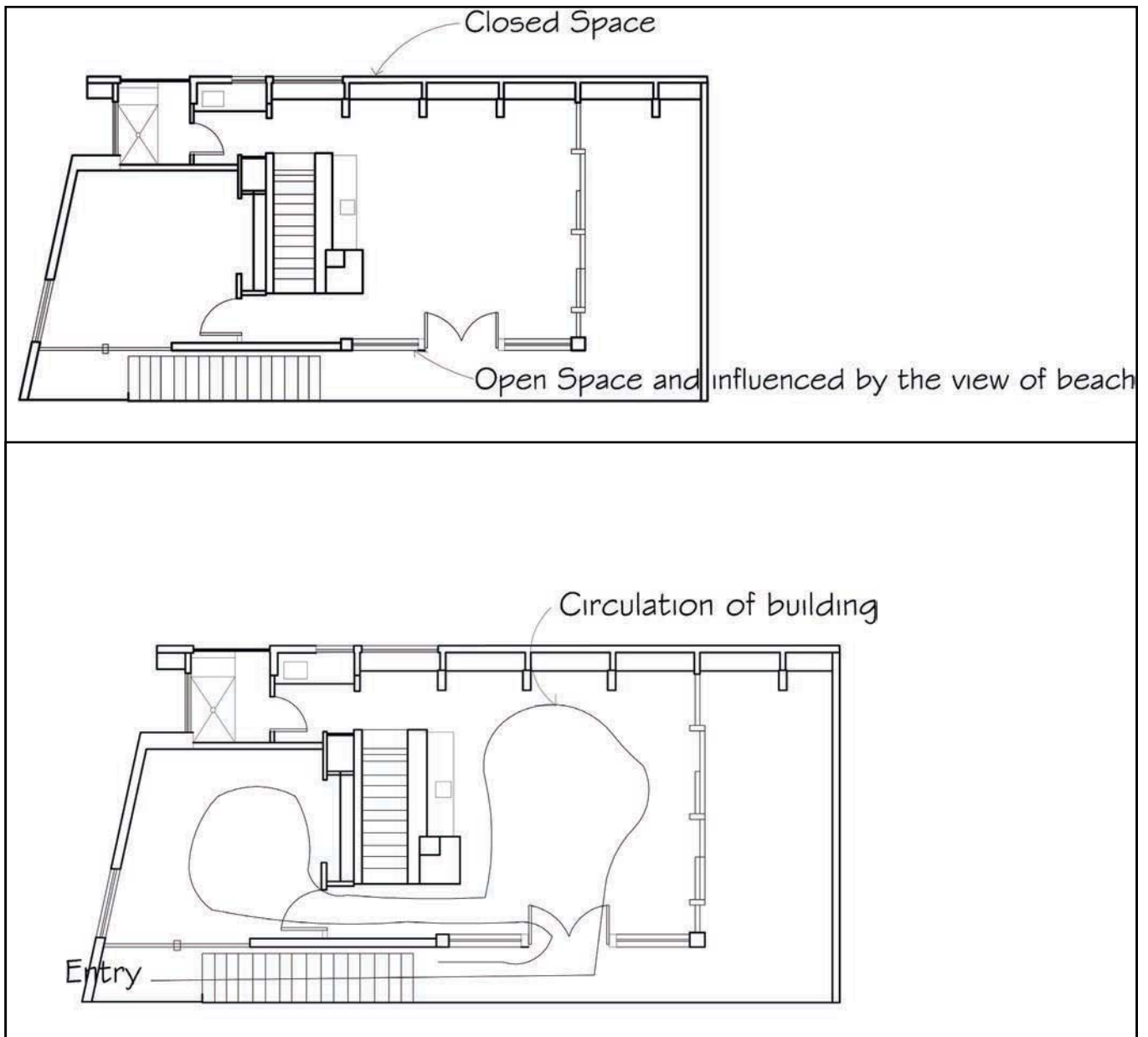


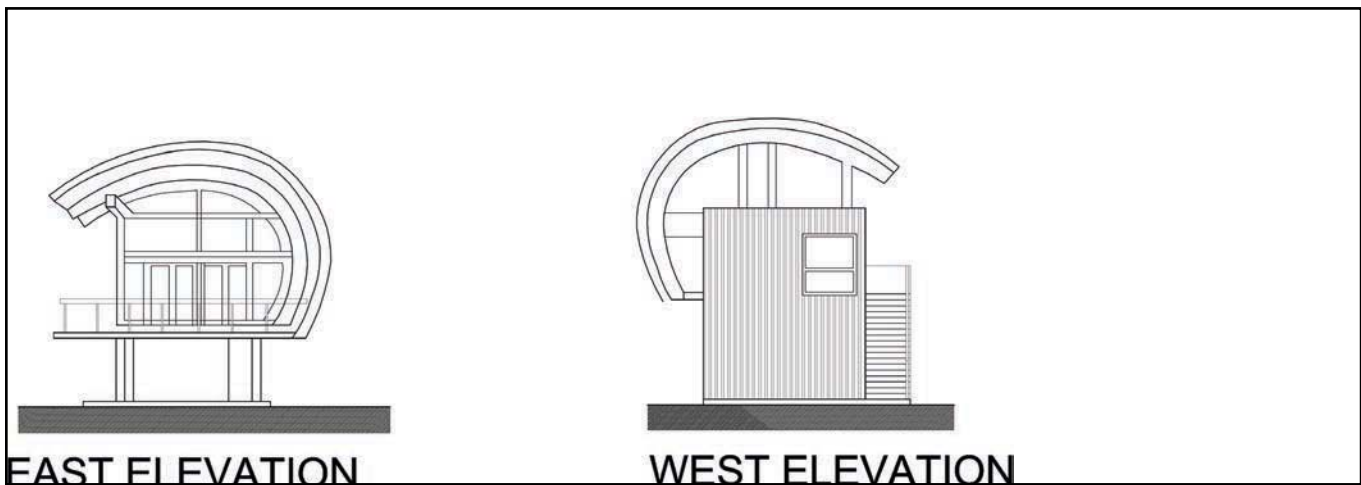
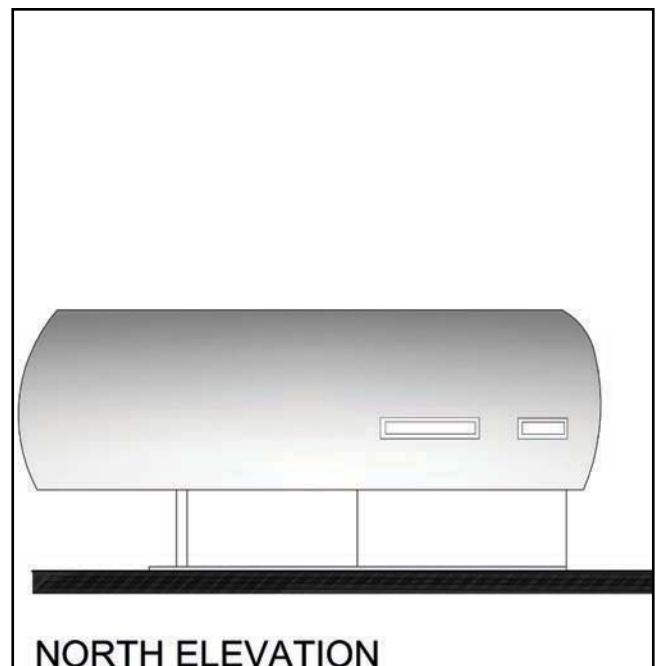
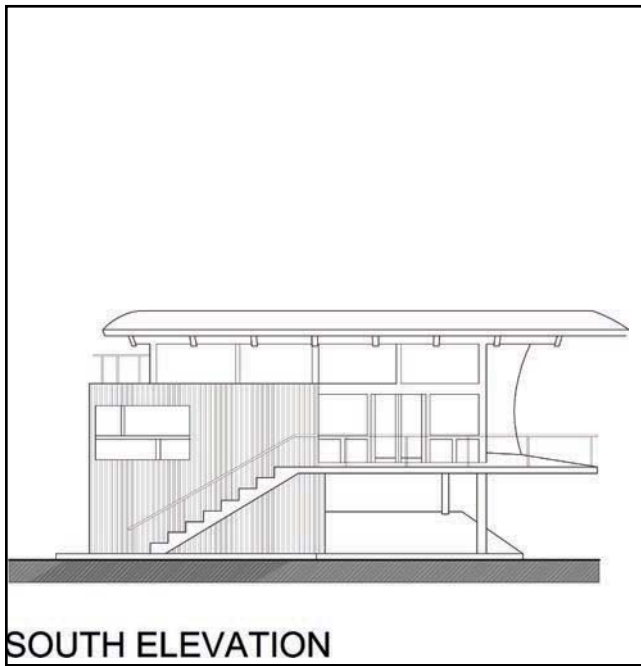
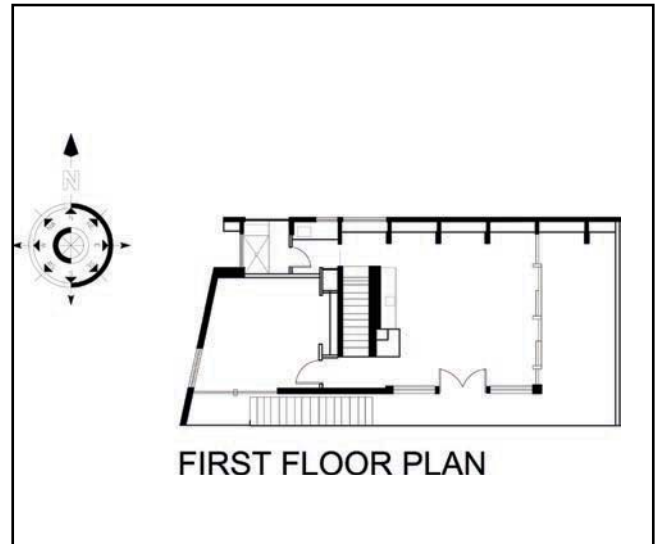
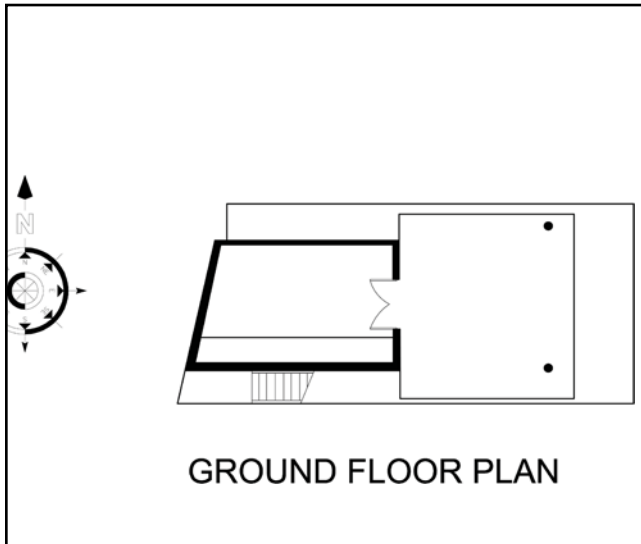


Building Set Diagrams

Casey Key Guest House

The building is inspired by the curve oak trees. The curve form itself is used as the closed component of the building. The building is closed in one side for privacy were as the other side is open for the view of the beach. The design of the building is guided by the surrounding and site. The building has open plan layout with one bedroom.

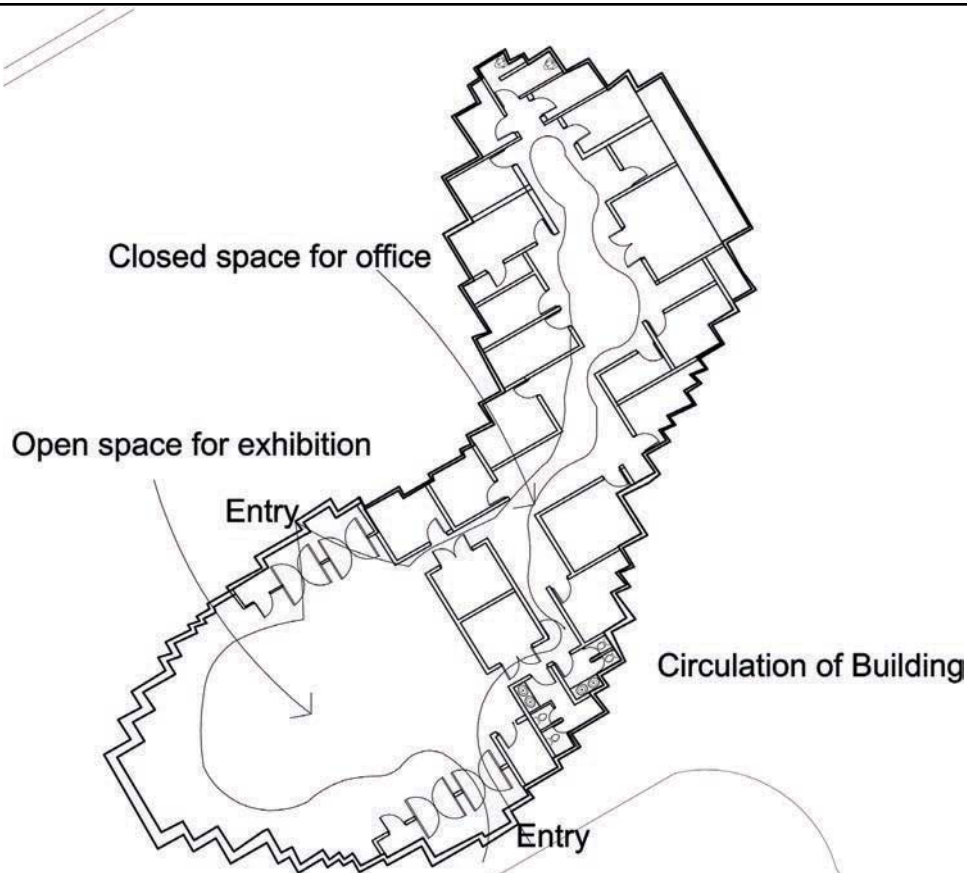
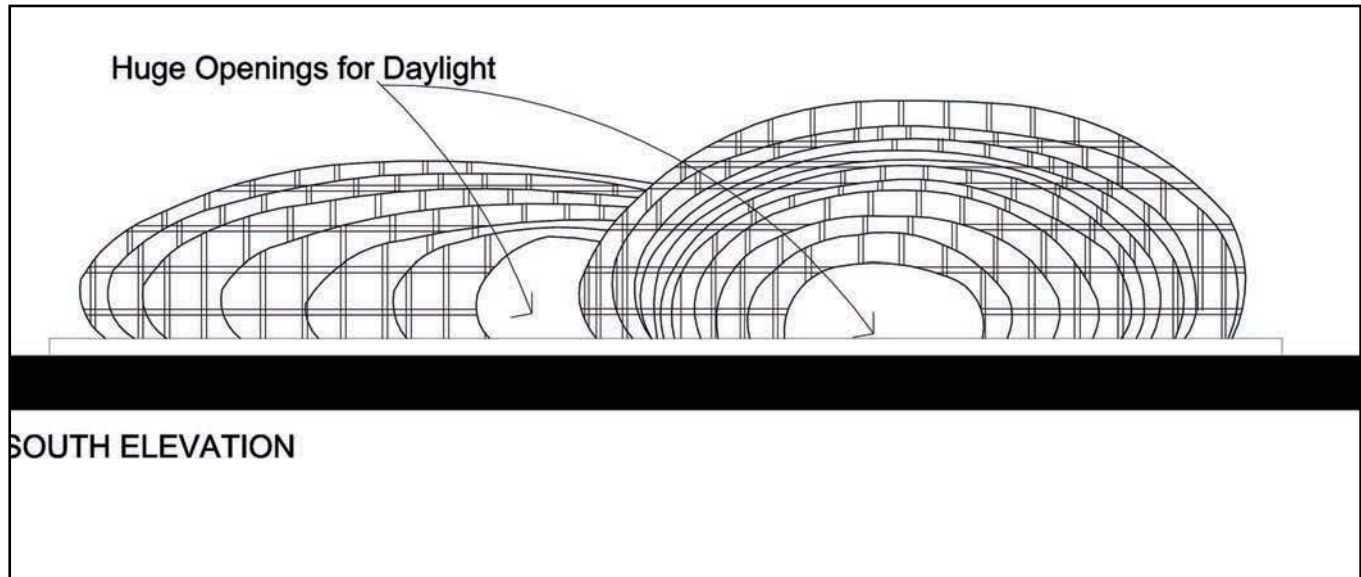


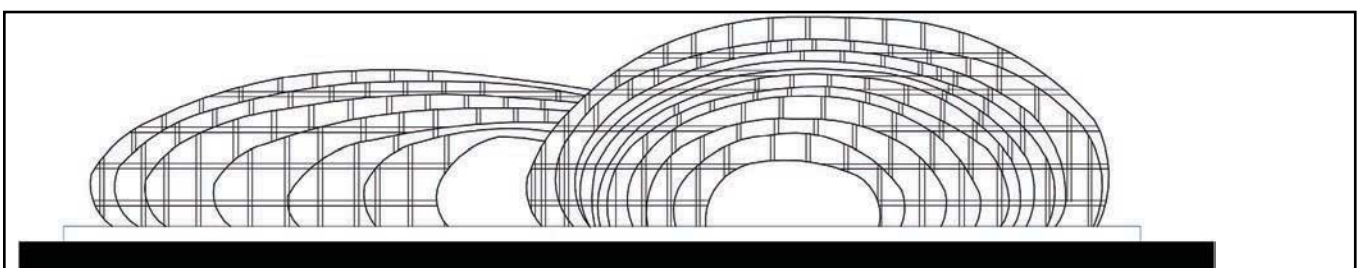
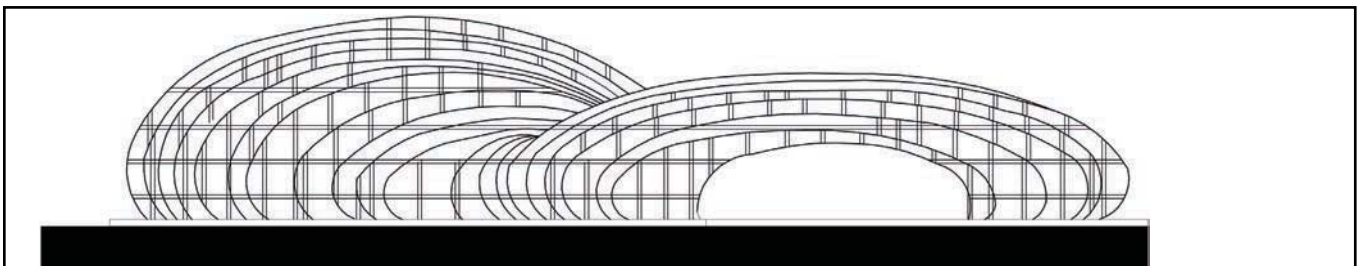
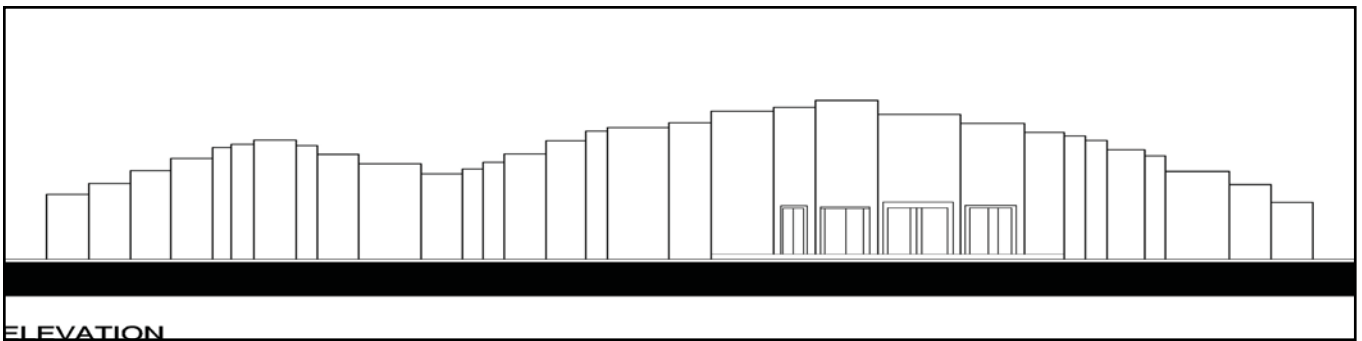
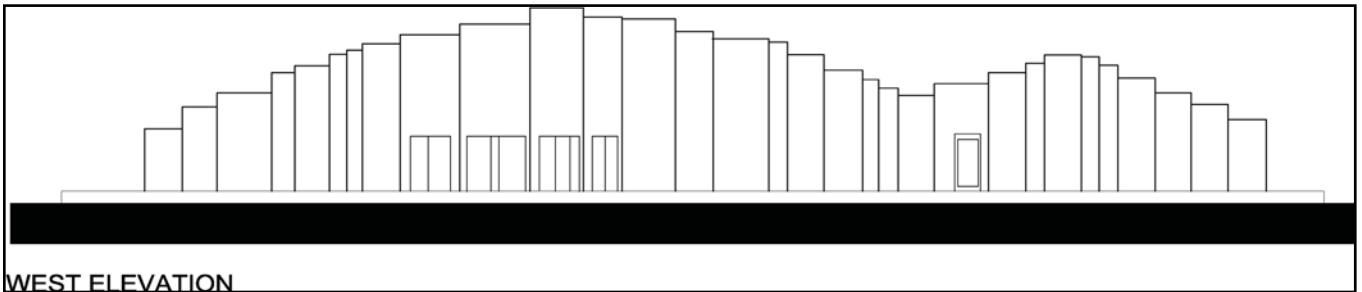
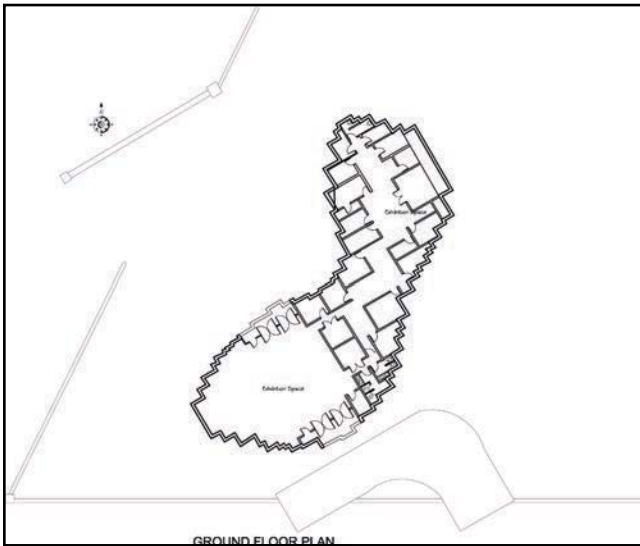


Building Set Diagrams

The Pod Pavilion

The Pod Pavilion is inspired with water in the nature which has a abstract form of a worm. It uses modern materials. The use of water in the pavilion end has enhance the built form. There are openings for the natural light in the exhibition area. The building is a closed structure which has openings in only few places. The construction of the building is done using steel pipes and the exterior finishing is done with aluminium panels. The circulation of the building is easy. The exhibition space is designed as a open space where as the office areas are designed as closed spaces.



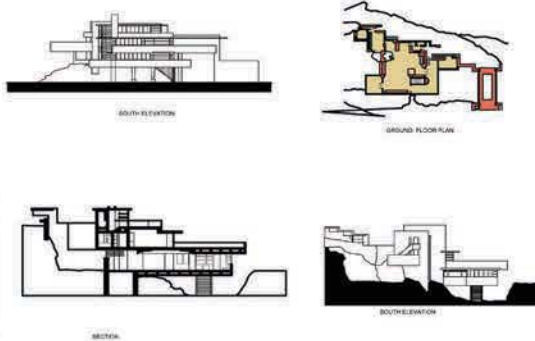


Building Set Analysis

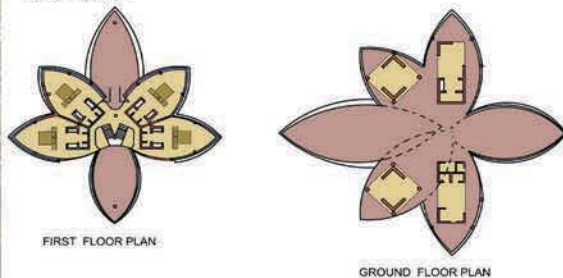
KRISTINA SHRESTHA HADA



Falling water



Leaf House



Natural Forms

Buildings inspired from natural forms. For example: Bavinger House is inspired with double helix structure. Falling water is inspired from the fall and leaf house is inspired from a leaf. It can be an abstract form of natural. Like worm like pod pavillion which is rather an abstract form.

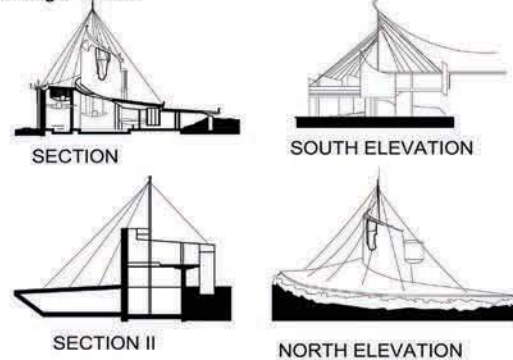
Regional Characteristics

The use of local materials as pre-dominant character. Also, the use of south facing windows and open spaces for air circulation.

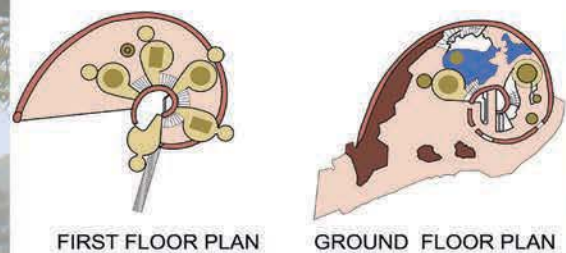


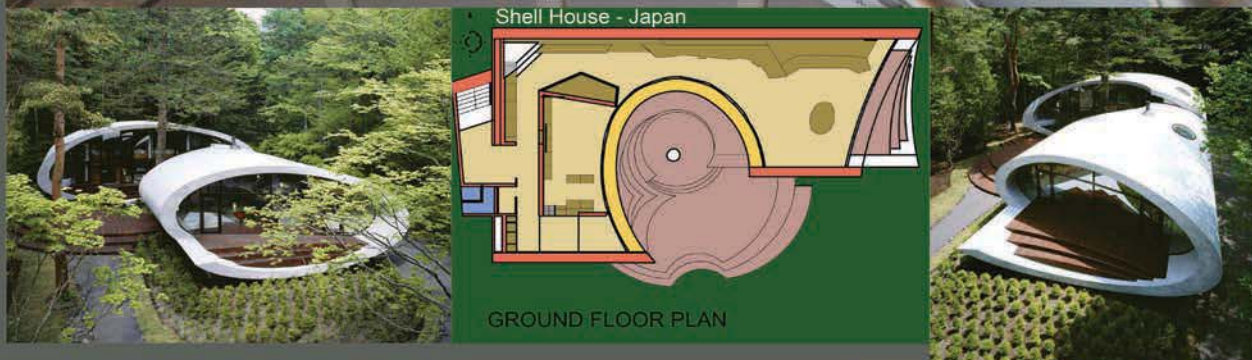
Bavinger House

Building Forms from Nature



Bavinger House





Tectonic

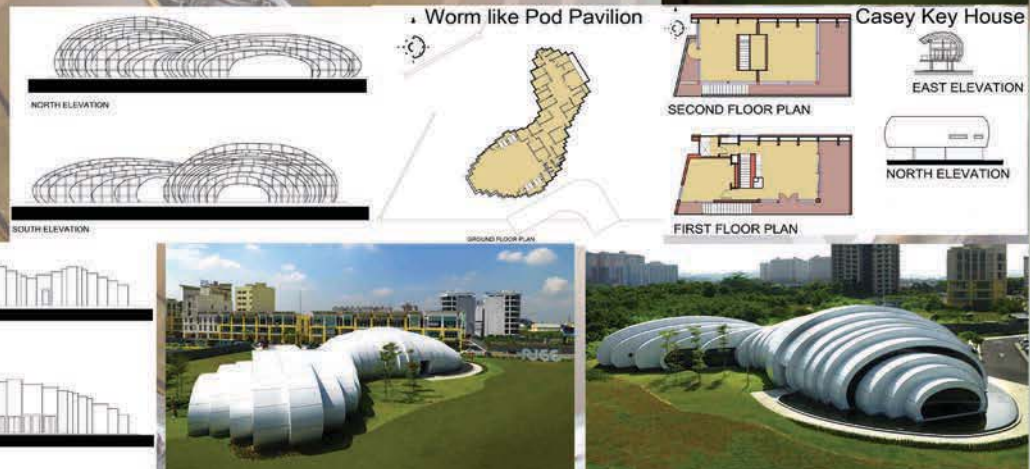
There are use of light materials like glass to open up the building.

Open and Close

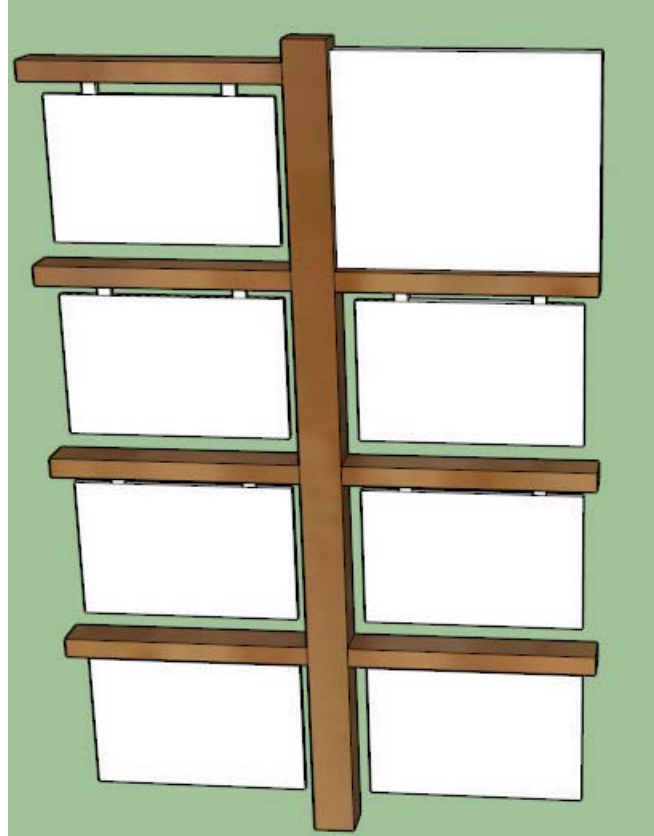
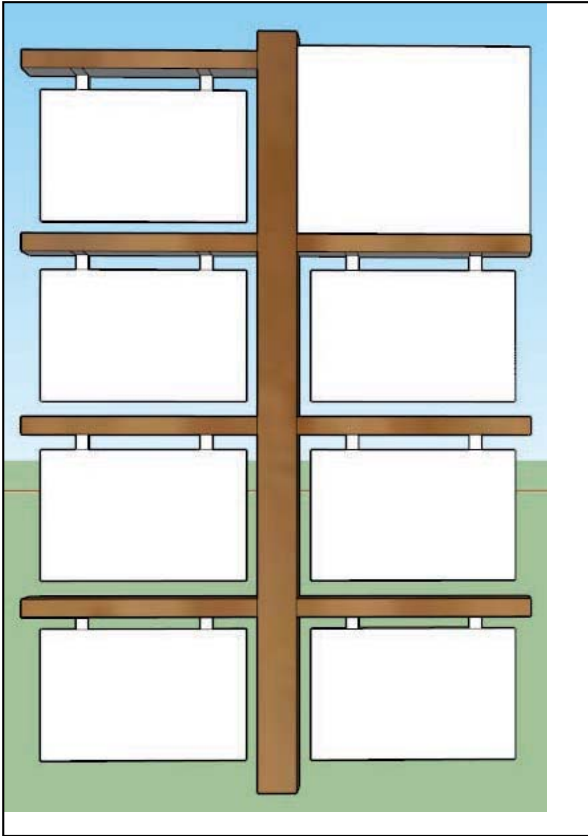
The other lesson from this project is opening up living spaces and kitchen whereas bedroom should be closed. The southern side of the building are open in most building.

Circulation

There should be easy flow of movement to different part. As well as the building forms also guides for easy circulation.



Building Set Analysis

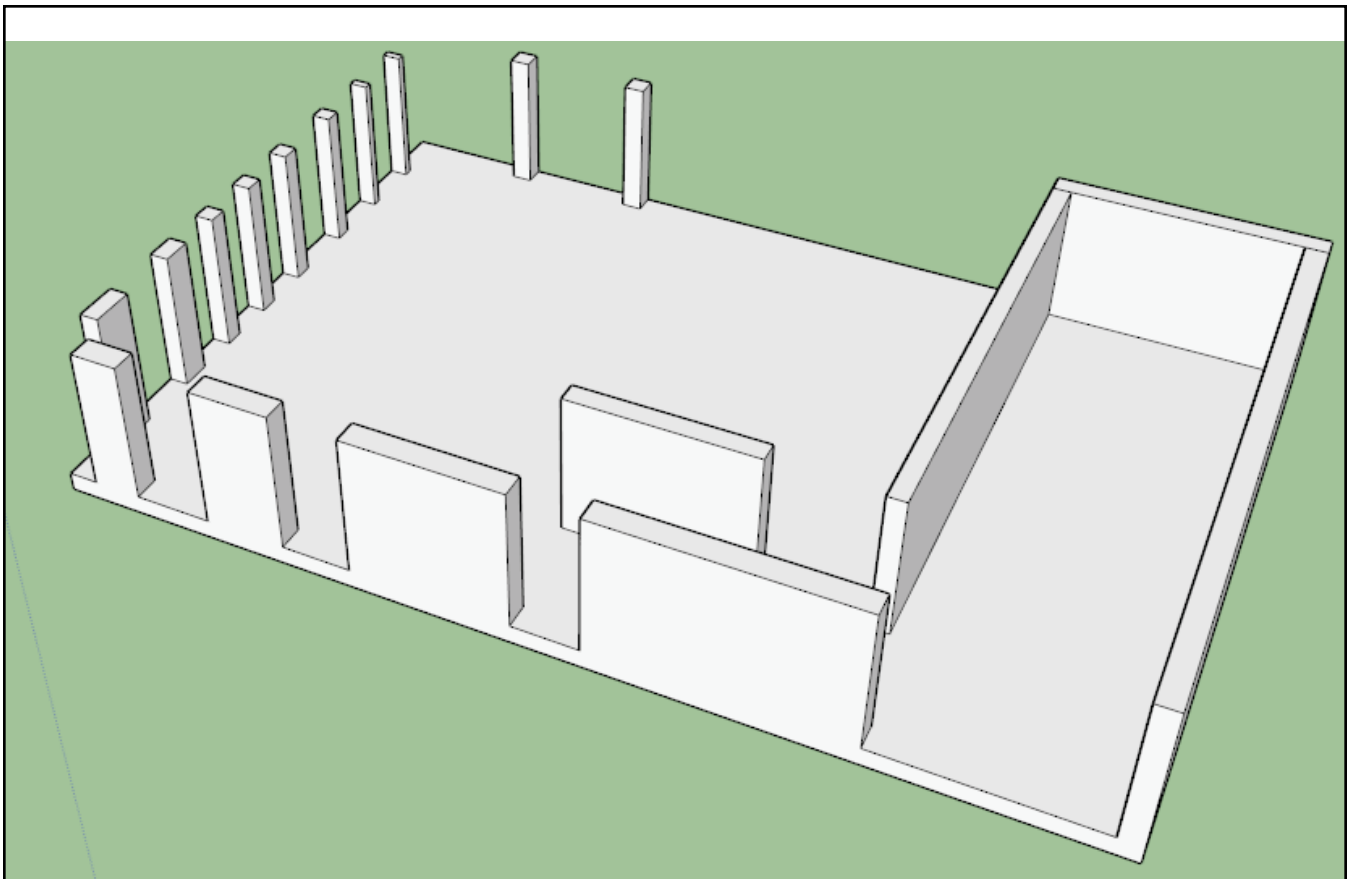
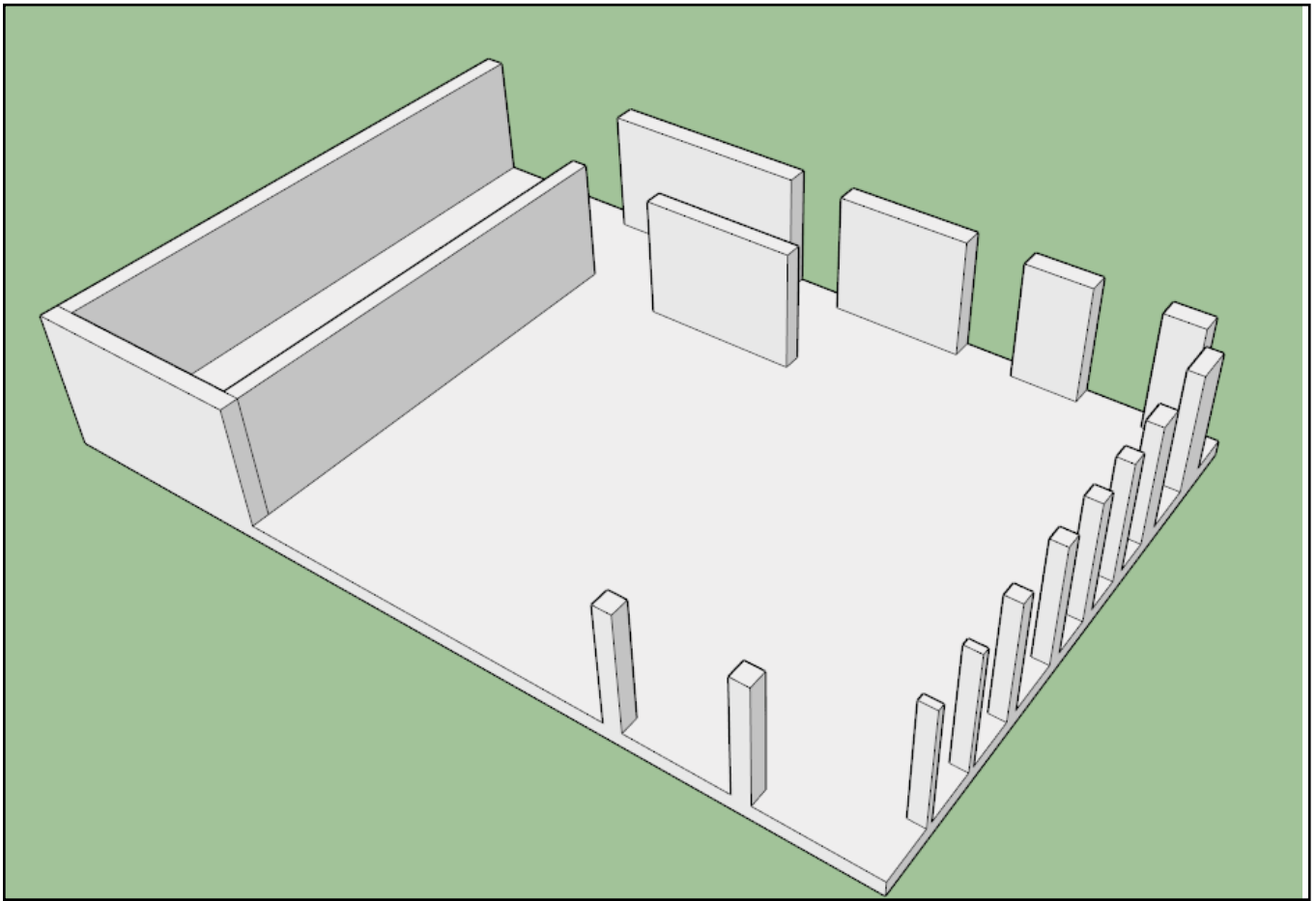


Abstract Form of Tree

I have tried to represent tree as a form of nature.

Open, Close Space and Circulation

The Walls represent the close spaces were as the change of the size of the wall represent the movement from close space to the open space.



Program Analysis

Introduction

The open air museum is proposed to be situated near Little Grassy Lake which is situated in the southeast of Southern Illinois. The site has beautiful view of the lake which can be enjoyed by the buildings. I have proposed an open air museum in the site which will have opening building near the main road. The building collection will be placed near the lake were as Falling Water building will be situated in the higher ground. Also, I have proposed to upgrade the current parking lot.

“Taken as a whole, museum collections and exhibition materials represent the world’s natural and cultural common wealth. As stewards of that wealth, museums are compelled to advance an understanding of all natural forms and of the human experience. It is incumbent on museums to be resources for humankind and in all their activities to foster an informed appreciation of the rich and diverse world we have inherited.”
Code of Ethics for Museums, American Association of Museums, 2000



Gary Marks - SHOUTdoors.com

Required Programs

1. Lobby

1. Entry Vestibule 650 Sq ft

It will consist of open space for the visitor and it would direct visitor towards the reception. The lobby will be open space, lit by natural light. It will have glass windows and sky light. Its main purpose is to welcome visitor to museum space.

- It will have queue line to guide flow to visitor towards the reception.
- The size of queue line will be 38.5" by 13.5"

2. Reception/ Entry 200 Sq ft

A reception area is required to give information to the visitors. It will also have map of museum and brochures regarding the display artifacts. The reception will have a kiosk.

- The size of kiosk will be about 14' by 7' and will have up to two people.

3. Locker/ Coat Room 100 Sq ft

The locker/ coats room should be located near the reception area and lobby. It is convenient to have a place to store visitor's belongings.

- Locker room will have a table and a chair for the staff.
- It will have lockers attached to wall on two sides of room.
- The lockers will be mix of single tier and double tiers.

4. Security 100 Sq ft

Museum security is a major concern. It is essential to have a security room.

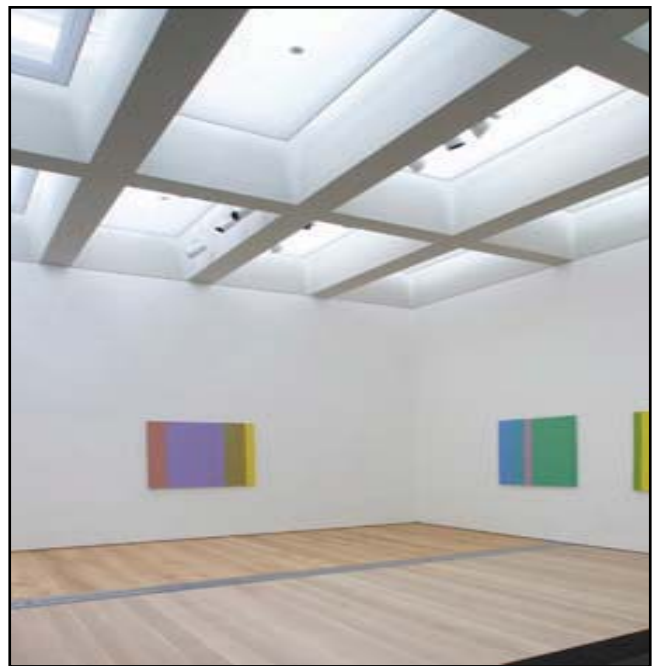
- Security room will have two racks and one table and a chair.

5. Restrooms 240 Sq ft

Male Restroom - 2 @ 60 - 120 Sq ft

Female Restroom - 2 @ 60 - 120 Sq ft

The toilets according to International Plumbing Code, Section 403, Minimum Plumbing Facility, is 1 per 125 for male and 1 per 65 for female. The restroom are available near the lobby area.



Program Analysis

6. Gift Shop 600 Sq ft

Gift shop helps museum for economic boost. It can be used to sell souvenirs.

- Gift shop will have a retail counter to use for register
- There will be two small rotating display cases of 1' wide and 4' height.
- There will be a small table of 3' by 2' for the display of items.

7. Janitor's Room 60 Sq ft

Janitor's room is placed near lobby to keep the place neat and tidy at all times.

- There will be two storage cupboard on two sides of room.
- There will be a chair for the janitor.

Total Area of Lobby is 1390 Sq ft.

2 . Gallery Area

1. Gallery - 350 x 40 14000 Sq ft

The Gallery space will be the main display area of the building. It has capacity of 350 people. I have proposed for on single large gallery space. The gallery space is 40 Sq ft person.

- There will be one large gallery space
- Partition wall will be place at certain intervals.

2. Gallery Storage 600 Sq ft

Gallery Storage houses artifacts which are not in display or need some restoration works. Some artifacts cannot be displayed because it cannot be restored. Also, in some gallery, the exhibits are changed frequently.

- There will be two tables in the middle of the room measuring 5' by 3' each.
- There will be about seven cupboard shelf each 5' by 3' and will have height 7'.

3. Gallery Preparation 400 Sq ft

Gallery Preparation room is designated for the preparation of exhibits. The exhibits are prepared for display in this room. Some exhibits may need stand where all of them need description of the artifact.

- There will be two table in each approx. 4' by 3'.
- The cupboard storage will be about seven with each one of dimension length 5', width 3' and 7' height

4. Workshop 1200 Sq ft

Workshop is the place where specialized display cases for the museum are made. Along with that it would be very cost effective to have a workshop in the museum. Transporting museum artifacts can add up the cost of restorations.

- There will be drawers attach to wall measuring 3' in width
- There will be tables in the centre with 6' spacing between them.
- There will be six table in room measuring approx. length 4' and width 3'.

Total Gallery area is 16200 Sq ft.

Program Analysis

3. Café/ Food Service

1. Sitting Area

1570 Sq ft

The cafe will accommodate 100 people at a time.

- There will be round table with four chairs.
- The size of table will be 5' diameter.

2. Kitchen

400 Sq ft

- There will be one big oven range.
- There will be 2 sink areas.
- Sink will have cold as well as hot water.
- There will be 3 refrigerators.
- The full size cupboards will be 3' by 5'.

3. Restrooms

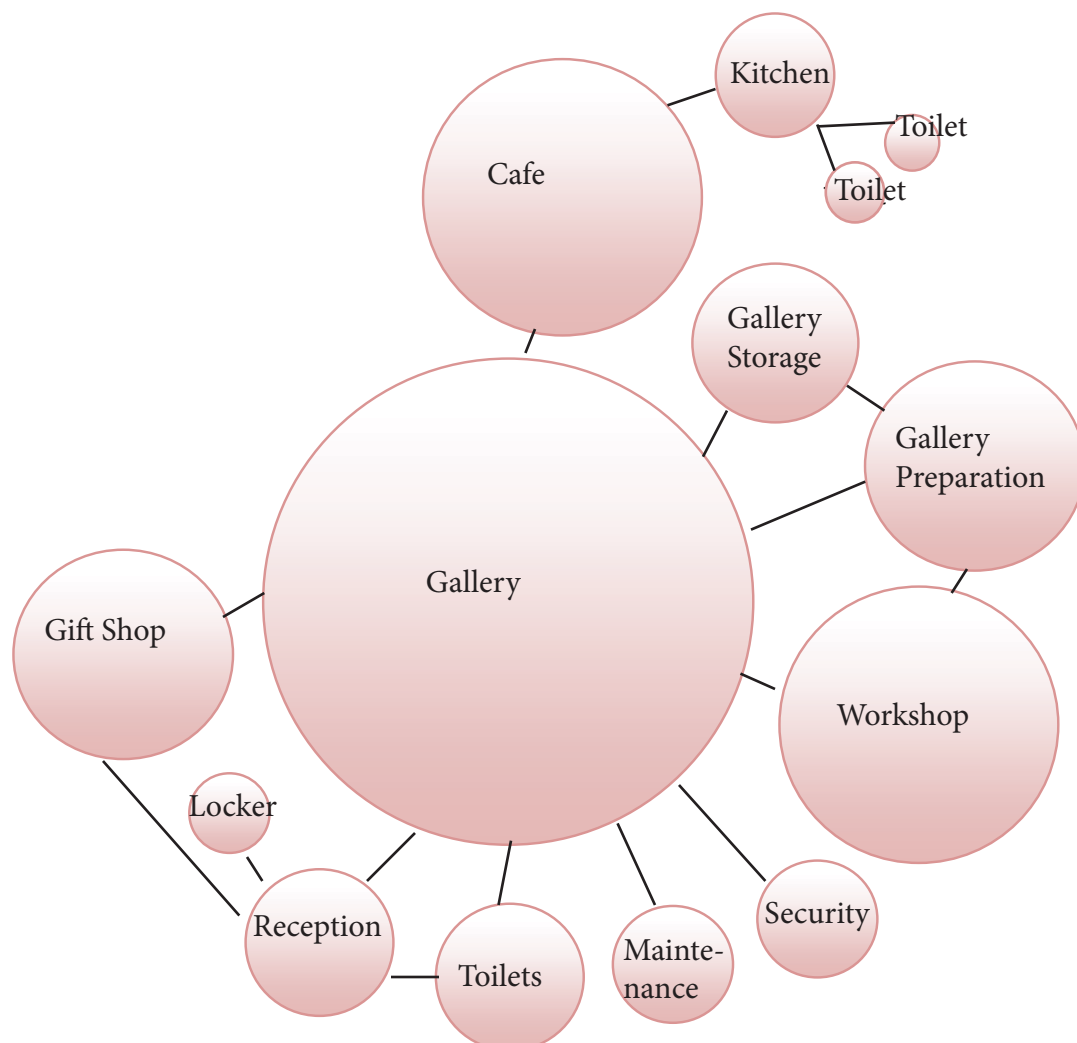
120 Sq ft

Male - 60 Sq ft

Female – 60 Sq ft

Total Cafe area is 2090 Sq ft

Gallery Area Bubble Diagram



Program Analysis

4. Office Area

1. Curator 200 Sq ft

The curator is the main person who handles the display of the entire gallery. I have proposed comfortable space for curator.

- There will be one table and three chairs.
- There will be three cupboard storage each with width 3' and length 5'

2. Admin – 2 x 120 240 Sq ft

The museum gallery is small therefore there are few staff. There are two administrative staff.

- There will be two small cubicle.
- Each with two tables.
- There will be one cupboard.

3. Finance/ Business 140 Sq ft

The finance or business staff deals with the tickets, souvenir shop's revenue and it is also responsible for managing other income sources.

- There will be in 3 cupboards
- There will be one table and a chair

4. Break Room/ Vending 350 Sq ft

The break room is intended for the staff and it will also have a vending machine as well as sitting spaces.

- There will be one table of 7' by 3'
- There will be 8 chairs and 2 vending machine

5. Secretary/ Reception 200 Sq ft

This is a small office building so there are only two secretary or Receptionist.

- There will be two tables and two chair



6. Storage

40 Sq ft

Storage room is required for storing files and office supplies.

- There will be one cupboard of 4' by 3' and height 7'

7. Maintenance

120 Sq ft

The maintenance room is required to manage museum. It is required to repair electrical, central heating system and mechanical problems in museum.

8. Office Toilets

120 Sq ft

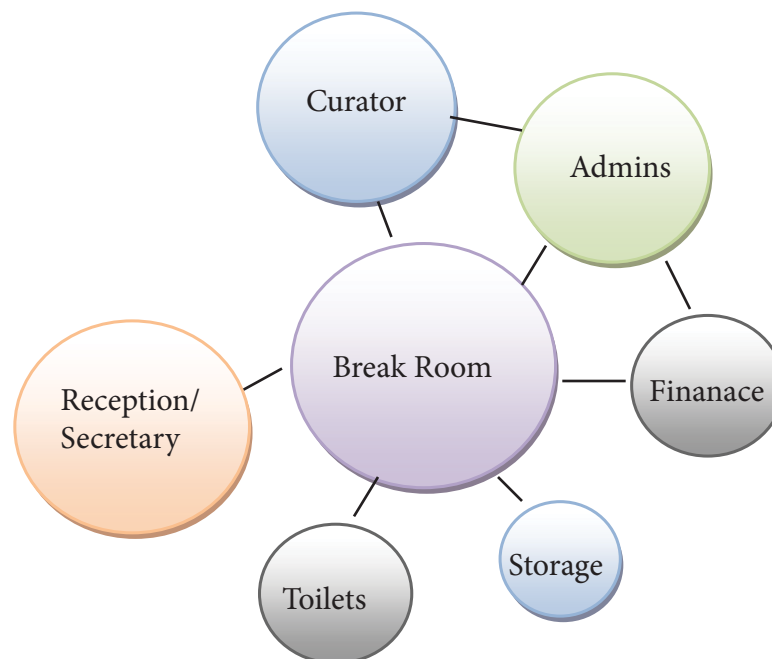
Men- 60 Sq ft

Women- 60 Sq ft

Total Office Space - 1410 Sq ft

5. Grounds

Office Area Bubble Diagram



Program Analysis

1. Equipment/ Tools

400 Sq ft

This room houses lawn mowers and other different tools.

- There will be six storage cabinets of approx. size 6' by 3'
- There will be a big work space of table 6' by 6'
- Smaller Tools will be stored in the cabinets

2. Shop

400 Sq ft

- There will be central working station of 6' by 3'
- There will be full size cabinets of size 5' by 3'.

3. Mechanical Room

2244 Sq ft

The mechanical room is estimated as 30 percent of total area of entrance building.

4. Recycling

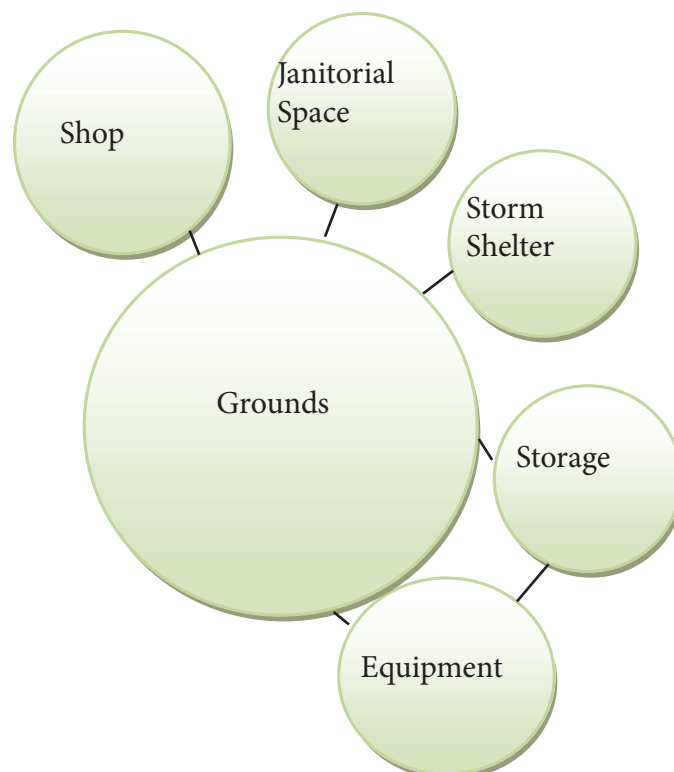
100 Sq ft

Recycling will have trash cans for recycling as well as regular trash.

- There will be separate cans for plastic, paper, bottle and bio- degradable items.
- 32 Gallon recycling bin will be used for each type.

Total Ground Area - 3144 Sq ft

Grounds Area Bubble Diagram





Program Analysis

6. Parking

The Open area Bcc Nbc 1996 states:

406.1.1 Openings:

The exterior walls of the open parking structure shall have uniformly distributed openings on not less than two sides totaling not less than 40 percent of the building perimeter. The aggregate area of such openings in exterior walls in each level shall not be less than 20 percent of the total perimeter wall area of each level. Interior wall lines and column lines shall be at least 20 percent open with openings distributed to provide ventilation.

Exception:

Openings are not required to be distributed over 40 percent of the building perimeter where the required openings are uniformly distributed over two opposing sides of the building.

406.1.2 Separation:

Exterior walls containing openings shall have a fire separation distance of greater than 10 feet (3048 mm).

1. Car Parking 50000 Sq ft

- There will be car parking for 250 cars at a time.
- 90 degrees car parking will be used for the parking
- Current parking lot will be upgraded for parking. For every 201 - 300 car parking there should be 7 accessible parking according to Bcc Nbc 1996 11 sec005

Accessible Parking

1105.5 Location:

Accessible parking spaces shall be located on the shortest accessible route of travel from adjacent parking to an accessible building entrance. In parking facilities that do not serve a particular building, accessible parking spaces shall be located on the shortest route to an accessible pedestrian entrance to the parking facility. Where buildings have multiple accessible entrances with adjacent parking, accessible parking spaces shall be dispersed and located near the accessible entrances.

- Bcc Nbc 1996

2. Bus Parking 720 Sq ft

- There will be four bus parking at a time.
- 90 degrees parking will be used for the parking

3. Drop Off 50 Sq ft

- There will be drop off area of 5' by 10'
- It will be painted in yellow lines

4. Gathering Space 200 Sq ft

- Gathering Space will be near drop off area.

5. Loading Dock 600 Sq ft

- The loading dock has capacity for two trucks at a time.

Total Parking Area - 51570 Sq ft

7. Storm Shelter

900 Sq ft

Storm Shelter has the capacity of 390 people.

- This will be made up of concrete wall and floors.

8. Janitorial Room

150 Sq ft

Janitorial Room should be near rest room to clean the place in case of emergency.

- This will have storage space for the equipment and the trollies.

- This room will be used to house big cleaning machines.

9. Storage

200 Sq ft

- This storage will be the biggest storage space after gallery store.

- This storage will have full size cabinets and extra equipments as well as extra supplies for the museum.

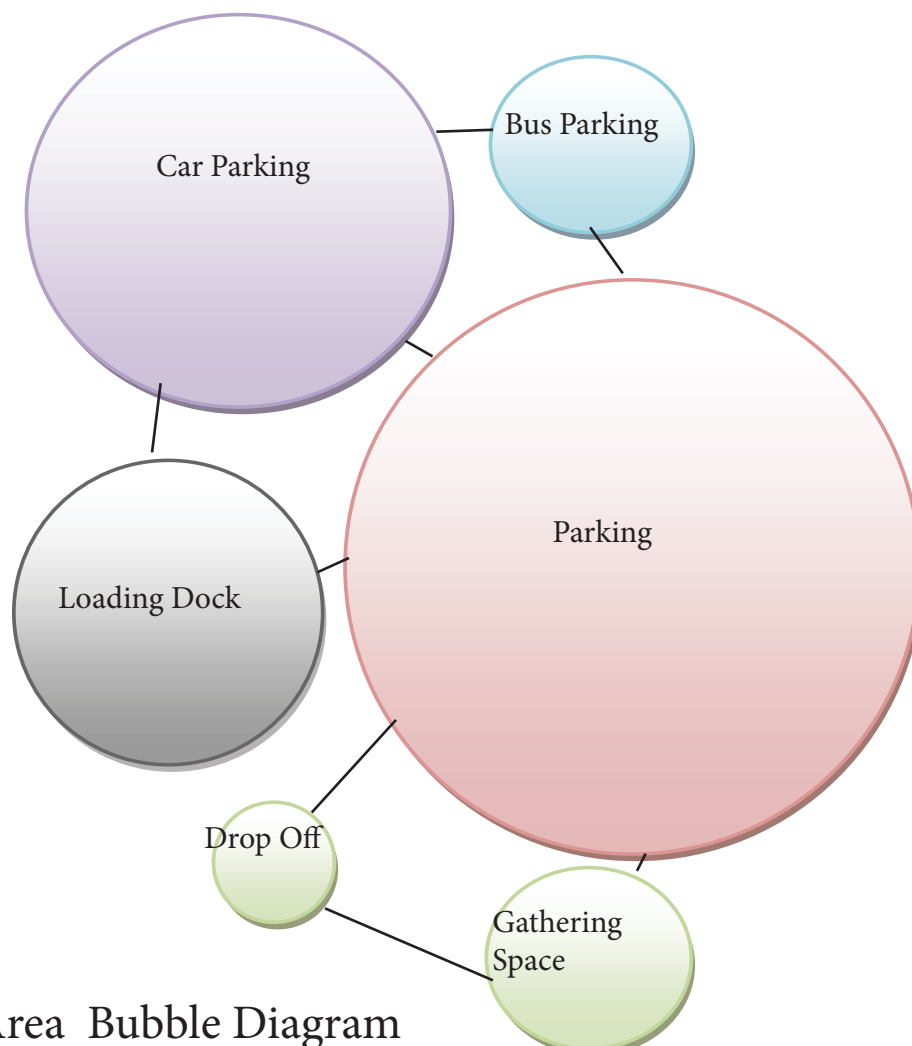
10. Circulation

7481 Sq ft

- Circulation as 10 percent of total area.

Total – 74810 Sq ft

Total Area in Sq ft - 83195 Sq ft

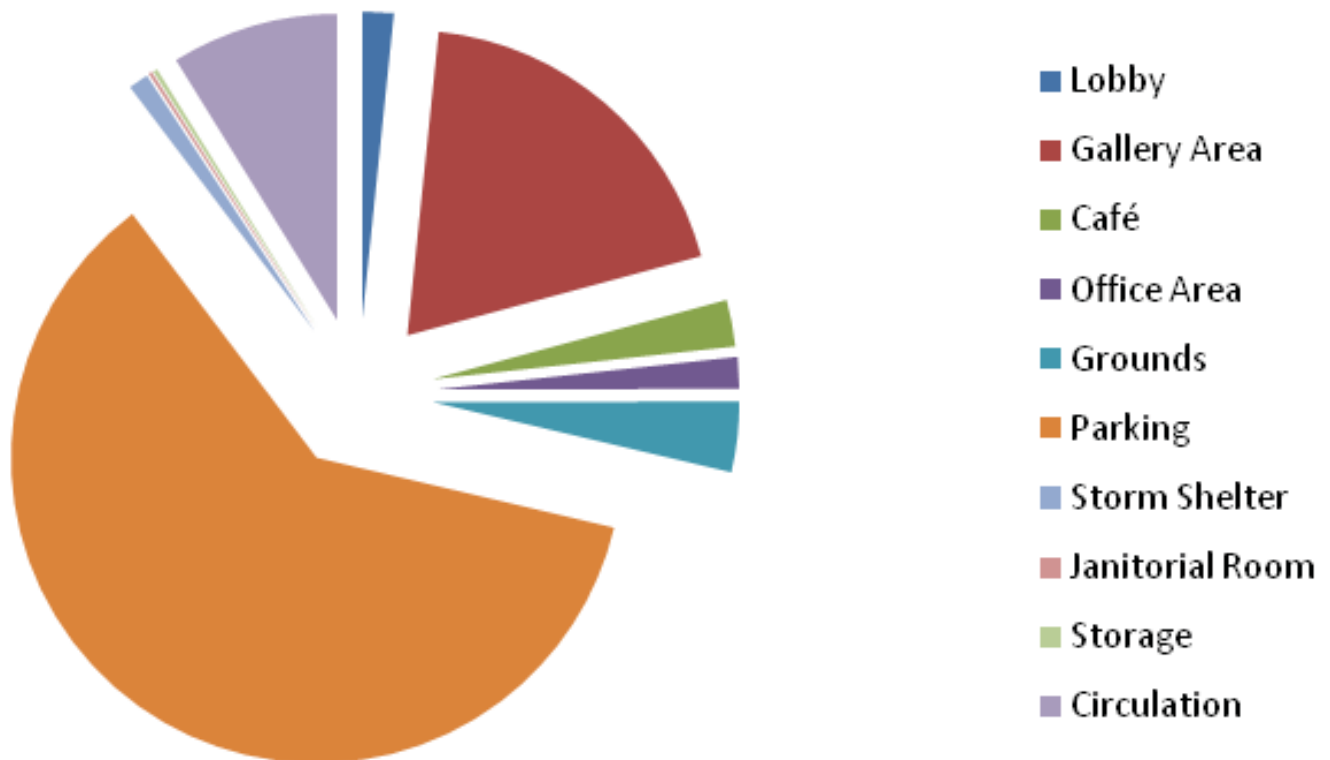


Parking Area Bubble Diagram

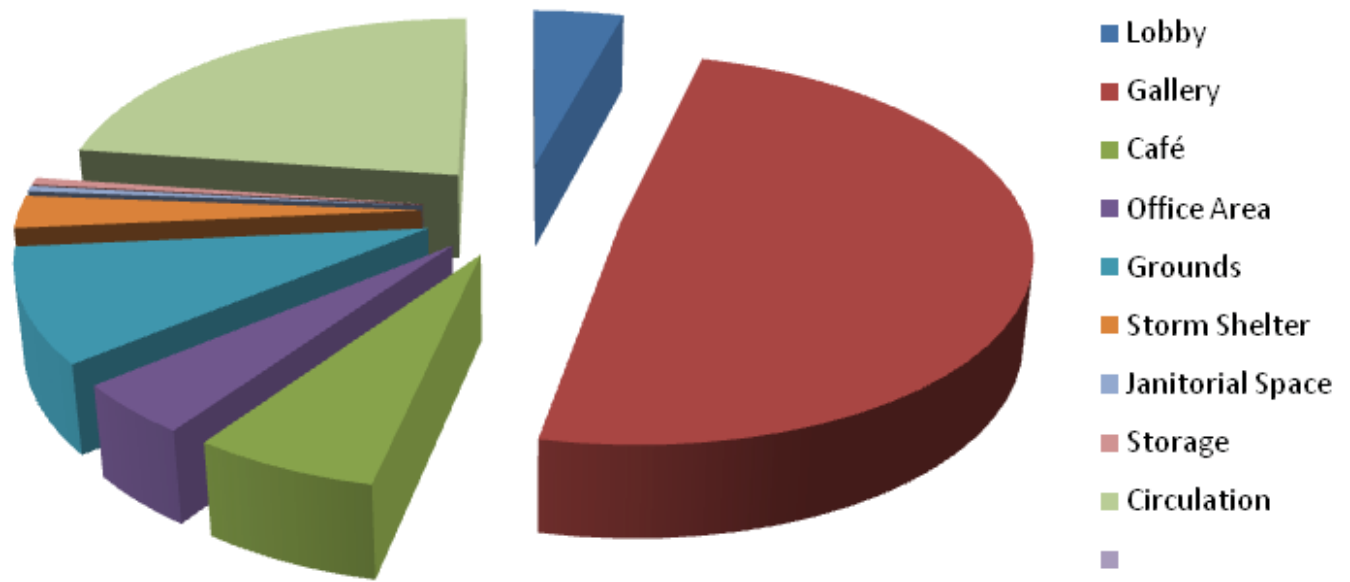
Building Space Relations



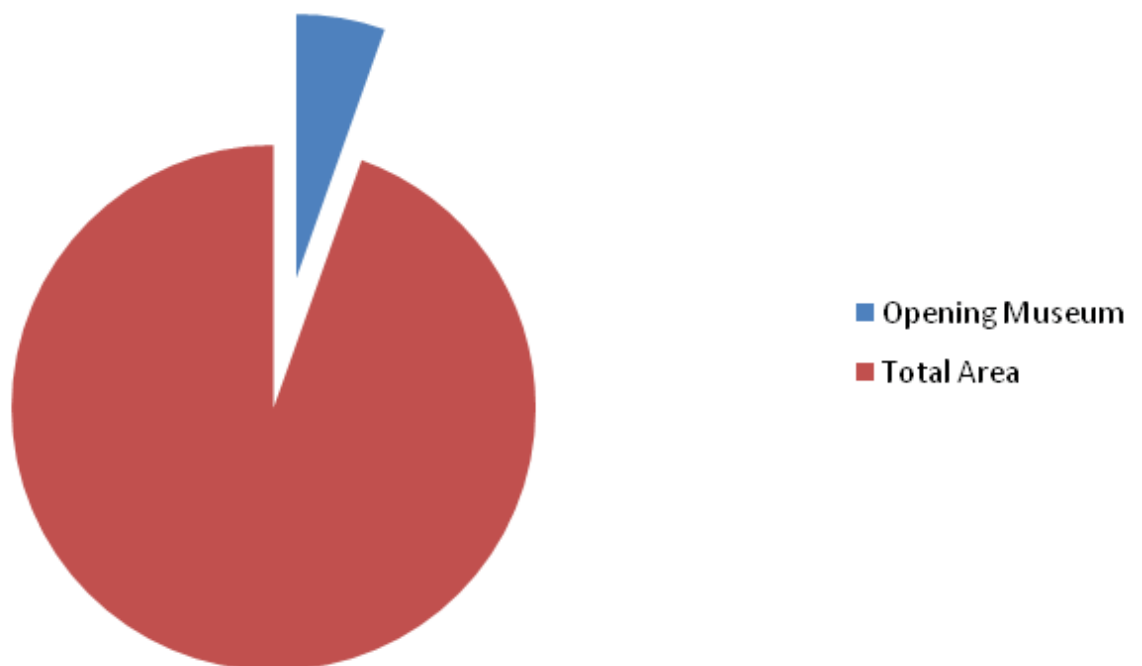
Area Allocation



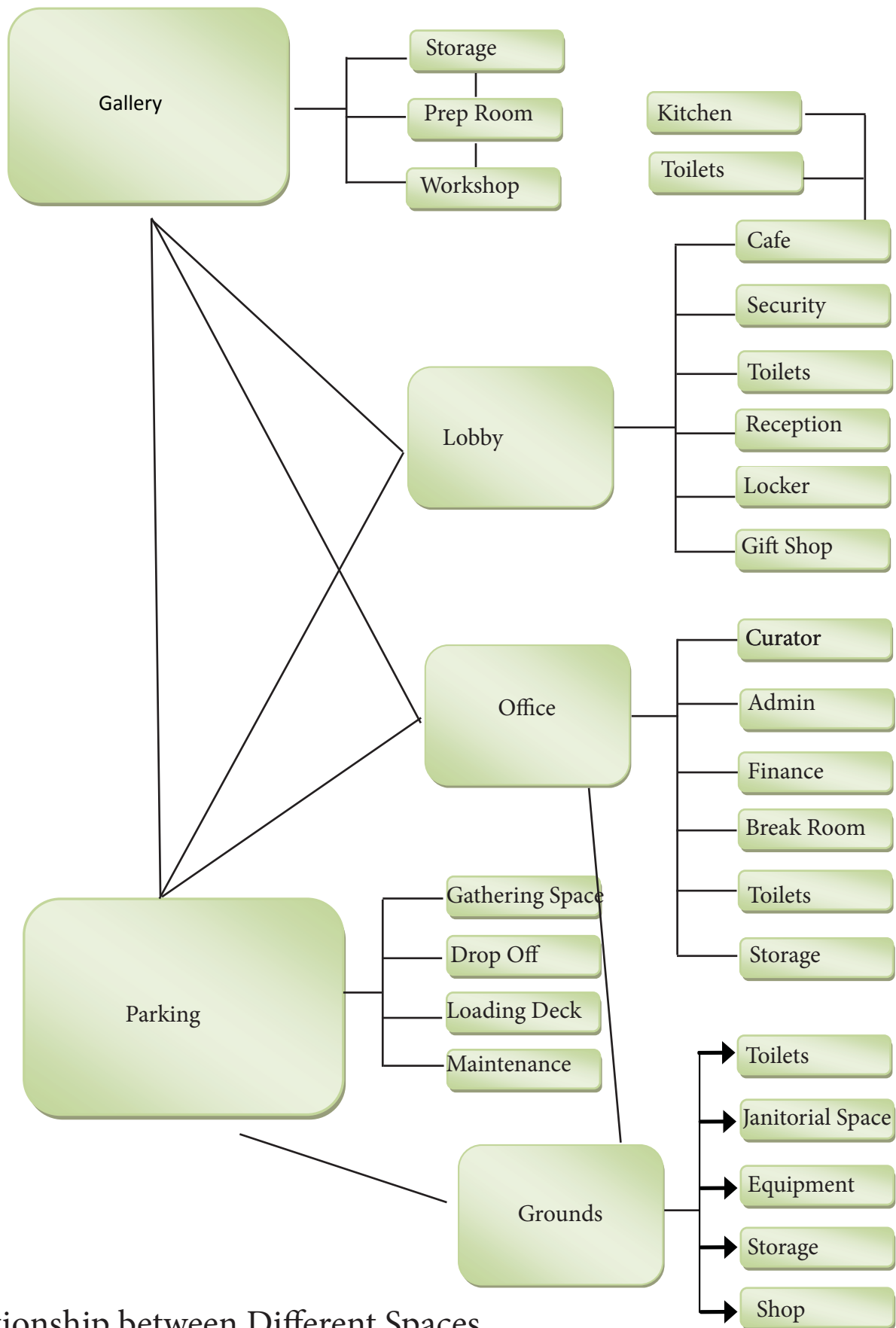
Building Space Allocation



Museum area with respect to site



Program Analysis



Relationship between Different Spaces



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WRITTEN SUMMARY

“No house should ever be on a hill or on anything. It should be of the hill. Belonging to it.” – Frank Lloyd Wright [1]

The whole process of understanding, knowing, drawing, analysis of the beautiful building designs from all over the world as well as designed from various architects was very fulfilling and educative. It started with the research article paper, “Towards a Critical Regionalism: Six Points for an Architecture of Resistance” by Kenneth Frampton. During research, I was intrigued by the concepts of Iconic building designs, building forms from nature, passive building, floating houses and concrete and glass buildings. I found all of these topics very interesting and we had to present a presentation regarding these topics. After further research, I was very interested in the topic, building forms from nature.

It was very interesting to see different buildings from all around the world and how these buildings were inspired by forms of different components found in nature. The most unique designs were inspired by nature and natural things like plants, animals or objects. During the research, there were many types of buildings inspired from nature. Some of the buildings had just the form of nature but were not executed in the entire building. Therefore, six buildings were picked and these buildings had forms which are derived from nature or natural things. The forms of the buildings had been executed very well in the built form, the plans as well as in regionalism.

After the selection of buildings, the buildings were studied and drawings were re- drawn. The analysis of the building set was very useful to know the functionality and the relationship of these building to the region. These building responded very well with the site condition. The form of these buildings have inspired exterior as well as interior layout of the building.

“Nature, above all else, was Wright’s most inspirational force. He advised students to “study nature, love nature, stay close to nature. It will never fail you.” He did not suggest copying nature, but instead allowing it to be an inspiration.” [2]

Along with the form, the selection of materials also plays major role on the final outlook of the building. The use of local materials gives a building the regional look. The building collection for my theme ranges from small to large sizes. The buildings I have chosen for my set of six building are Falling Water in Pennsylvania, Bavinger House in Oklahoma, Leaf House in Brazil, Shell House in Japan, Casey Key Guest House in Florida and The Pod Pavilion in Kuala Lumpur, Malaysia.

Falling Water

Falling water is the master piece of Frank Lloyd Wright. It was designed on top of mountain with a small fall on the side of the building. The used of large cantilever represents layers of rock. The colors of building matches with the background of the forest during fall. He has used huge rocks as the walls of the building. The elements of the environment have been used very well in the building. The building itself is inspired by the surrounding and falling water running beside it, which gives a picturesque view to the visitors.

Bavinger House

Bavinger house is designed by Architect Bruce Goff. Bavinger house was the most important building of Bruce Goff’s career. It was inspired by the double helix structure. This house was a master piece in organic architecture.[3] The use of ironstone and green- blue glass cullet is predominant in the walls of the building. The house has open floor plan with a central furnace. The interior has a small water body. There are 4 rooms in the house which are hanging. The forms of the house not only guide the circulation of the house but also guide the spaces within.

Casey Key Guest House

Casey Key Guest House was inspired by the shape of oak trees which are shaped by the winds of the south. The building opens the view of beach. It has been closed on one side for complete privacy. The private space is separated and has less opening than that of living spaces. It is a single unit guest house. It has one living room, one dining and one bedroom.

The Pod Pavilion

The Pod pavilion is designed by Hijjas Kasturi Associates Sdn and Studio Nicoletti Associates. The pavilion has a big space for sales exhibition and there are numerous offices. The bring natural light from windows, lights up the exhibition hall. There are few windows for natural light in the office areas. The exhibition hall is designed as an open space were as the office areas are closed spaces.

Shell House

“Being in sync with nature isn’t about yielding to nature – it’s about coexistence. The existence of the structure depends on its power to endure nature. By isolating living space from the wilderness, and upgrading its quality as a shelter, the house will be protected from nature and will provide a comfortable environment.” [5]
The shell house is a modern approach to building forms from nature. The architect has chosen concrete shell because of the location of the building which is inside a forest. He believes that wooden structure will not last much inside the forest due to weather condition. The building is located around a tree which is located in the central courtyard. The building is used as guest house or a cabin. It is designed to provide people with comfortable living spaces even though they are in forest. The concrete shell of the building acts as closed space where as the glass walls facing the courtyard give the feeling of open spaces. The circulation of building is simple with few spaces and few rooms.

Leaf House

Leaf house is located south, in a beach near Rio de Janeiro in Brazil. It was designed by Mareines + Patalano Arquitetura. It is shaped like leaf. The leaf protects the interior spaces from the heat of sun. This is designed as a guest house. The building is symmetrical and has four rooms. The layouts of the rooms are inspired by the shape of the building. The building is designed to have view of the beach and island. The rooms have big windows for the view of the sea.

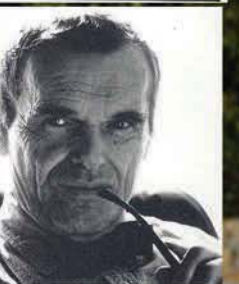
“This is a tropical building which integrates nature and human. It has many glass doors which bring the outdoor experience indoors. The beautiful swimming pool replicated the water of the island.” [4]

Conclusion

The building forms derived as well as inspired from nature are the abstract form of nature. The building forms are important but we should also see the functionality of the space. The form of the building guides the planning of the building, layout as well as the function of the building. The building form should be comfortable for its residence. These buildings provide a sense of excitement and adventure to the resident. These buildings are very responsive to the environment. They are also inspired by the site condition. The buildings which are responsive to its environment, brings the sense of nature and are fully functional makes the best building forms from nature.

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Khaled Hasan

Pioneers of Modern Architecture 1920-1960

These Architects started what was considered to be a revolution against historicism and formed the principle of what we call today Modern Architecture :

- Form Follows Function
- Less is more
- Truth to materials
- visual expression of structure
- machine aesthetic

ANALYSIS OF READINGS

Frampton - Towards a Critical Regionalism

Wagih Fawzi - Architect Ideology and politics

“How to become Modern and return to sources; how to revive an old, dormant civilization and take part in universal civilization”. Paul Ricoeur – History and Truth.

This has always been a dilemma for architects, problematic relation between authentic innovation and tradition.

Opposition between architecture and building rose to the surface in the beginning of the 19th century. The paradox between innovation and continuity emerged in the conflict between the positive classic system advanced by Jean Nicolas Louis Durand and the intrinsic resistance of Gothic culture. European architecture was divided between two different interpretations of Durand, one with, and one without; these anti-modernist decorated and modernist versions of Durand were variously experimented with in Holland and Sweden. This has led to the implosion of progressive culture upon itself with a total division between the aesthetic and the political avant-gardes.

The emergence of the avant-gardes is inseparable from the modernization of society and architecture. It has played an important role in facilitating the processes of modernization by acting as a progressive liberative form. Despite being at times virulently opposed to the positivism of the bourgeois culture. But it has played an important role in the progressive trajectory of enlightenment. For example, this role was played by Neoclassicism from the mid 18th century onwards. In the beginning of the 19th the avant-gardes had no choice but to break up with all prior history in order to enter into the future of the golden age free from any constraint. However, it assumed an adversary stance towards both industrial process and neoclassical form. In 1841 Augustus Welby Northmore Pugin sensed the bond linking classicism to utilitarianism or while classicism seems to have been involved with the reification of the monument, it can also be claimed that the more rooted culture of building realized, in its own way, another order of continuity. Despite this critique modernization continues unabated and throughout the last half of 19th century bourgeois

art distanced itself from progressively from the harsh realities of the colonialism and paleo-technological exploitation.

The unabated apocalyptic modernism has caused modern buildings being universally conditioned technology that the possibility of creating significant urban form has become extremely limited. The urban fabric changed over the last two decades as the metropolitan centers of the developed world radically transformed from being the typical downtown into being something more than *borulandschaft* city scape resulting in the victory of universal civilisation over locally inflected culture.

Kenneth Frampton has opted for a different methodology which views the history of modern architecture as a fragmented, ruptured discontinuous reality. For him, it suffices to pursue a theme, a school, an architect, but it is not necessary to fit all the pieces of the historical puzzle together. In as much ideas create and destroy buildings, Frampton makes an attempt to show the meaning of an architecture connected to the world in which it is produced, thus providing once again the synthetic quality of this condition; synthetic in that one finds in this state the key to understanding the prevailing and dominant ideology in the period under consideration.

Following the road explored by Tafuri and the School of Venice, Frampton attempted to condense in a single quotation the significance of the work of an architect, thus Loos is understood only through the crisis of culture, and the later Le Corbusier is only to be comprehended if his work is seen as the ‘monumentalisation’ of the vernacular. Therein, for Frampton, lies the importance of interpretation in history, without which it would be difficult to comprehend its significance. Frampton’s way of dealing with the problem has been to superimpose three historical approaches and to use these to create a balance between objective history and a perspective point of view.

Frampton - Rappel à l'Ordre

Frampton- **Studies in Tectonic Culture The Poetics of Construction in Nineteenth and Twentieth Century Architecture**

As a response to Robert Venturi's decorated shed: the syndrome in which shelter is packaged like a giant commodity. Kenneth Frampton explains how scenography has become a response to architecture as commodity resulting in a one-sided development of man's faculties- the organic almost always at the expense of the inorganic, the raping and destruction of earth, the ultimate nourisher of man, reflecting the distortion of human microcosm.

In the 20th century modern movement vanguards followed fugitive arts such as Cubism, Suprematism, and Neoplasticism as an investigation into this process but only occurred in secondary thought in architecture. Rather than join in a recapitulation of avant-garde tropes or enter into historicist pastiche or into the superfluous proliferation of sculptural gestures all of which have an arbitrary dimension to the degree that they are based in neither structure nor in construction, we may return instead to the structural unit as the irreducible essence of architectural form.

Structural form could only acquire by virtue of its capacity to engender analogies between tectonic and organic form. Direct imitation of natural form was to be avoided but according to Schelling & Botticher "Architecture was an imitative art only to the extent that it imitated itself". Gottfried Semper identified the joint as the primitive tectonic element, which implies the fundamental syntactical transition may be expressed as one passes from the stereometric base to the tectonic frame. These transitions constitute the essence of architecture. [1] [3]

Semper constituted a break with the four hundred year old humanist formula "utilitas, firmitas, venustas" that was intentional trait of Roman architecture, this radical formulation stemmed from seeing a Arabian hut in an expedition to the south seas in 1851, which indebted to him his theory of cultural transformation in which southern passive races are succeeded by northern nomadic, active, warlike tribes with aboriginal dwelling becoming modified according to climate and the racial origins of the nomads as they settle down. This pacifying process will give rise to southern building types in masonry, for Semper that formed a historical beginning

of architecture, the empirical fact of this primordial shelter prompted Semper an anthropological counter thesis to Laugier's primitive hut of 1753

Semper's emphasis on the joint implies that a fundamental syntactical transition is expressed as one passes from the stereometric base of a building to its tectonic frame and that such transitions are of the very essence of architecture.

In accordance with the primacy he gave to textile. Semper maintained that the knot was the earliest basic structural artifact from which follows the primary nomadic building form of the tent, especially in the Bedouin tent and its textile interior. As is well known there is etymological indication residing here in which Semper was aware of the connection between knot and joint and their connection to the concept "Die Verbindung: the binding", all of this evidence supports Semper's assumption that the ultimate consistent of the art building is joint or the knot.

Semper's distinction between tectonic and stereometric returns us to the arguments advanced by Italian architect who proposes that the making of ground rather than the primitive hut is the primordial tectonic act, in his address to the New York Architectural League he stated :

"...though the concept of the site and the principle of settlement, the environment becomes the essence of architectural production. From this vantage point new principles and methods can be seen for design. principles and methods that give precedence to the sitting in a specific area. This is an act of knowledge of the context that comes out of architectural modification. The origin of architecture is not the primitive hut, the cave or the mythical Adam's house in paradise. Before transforming a support into a column, roof in a tympanum, before placing a stone on a stone, man placed a stone on the ground to recognize a site in the midst of the unknown universe in order to take account of it and modify it..."

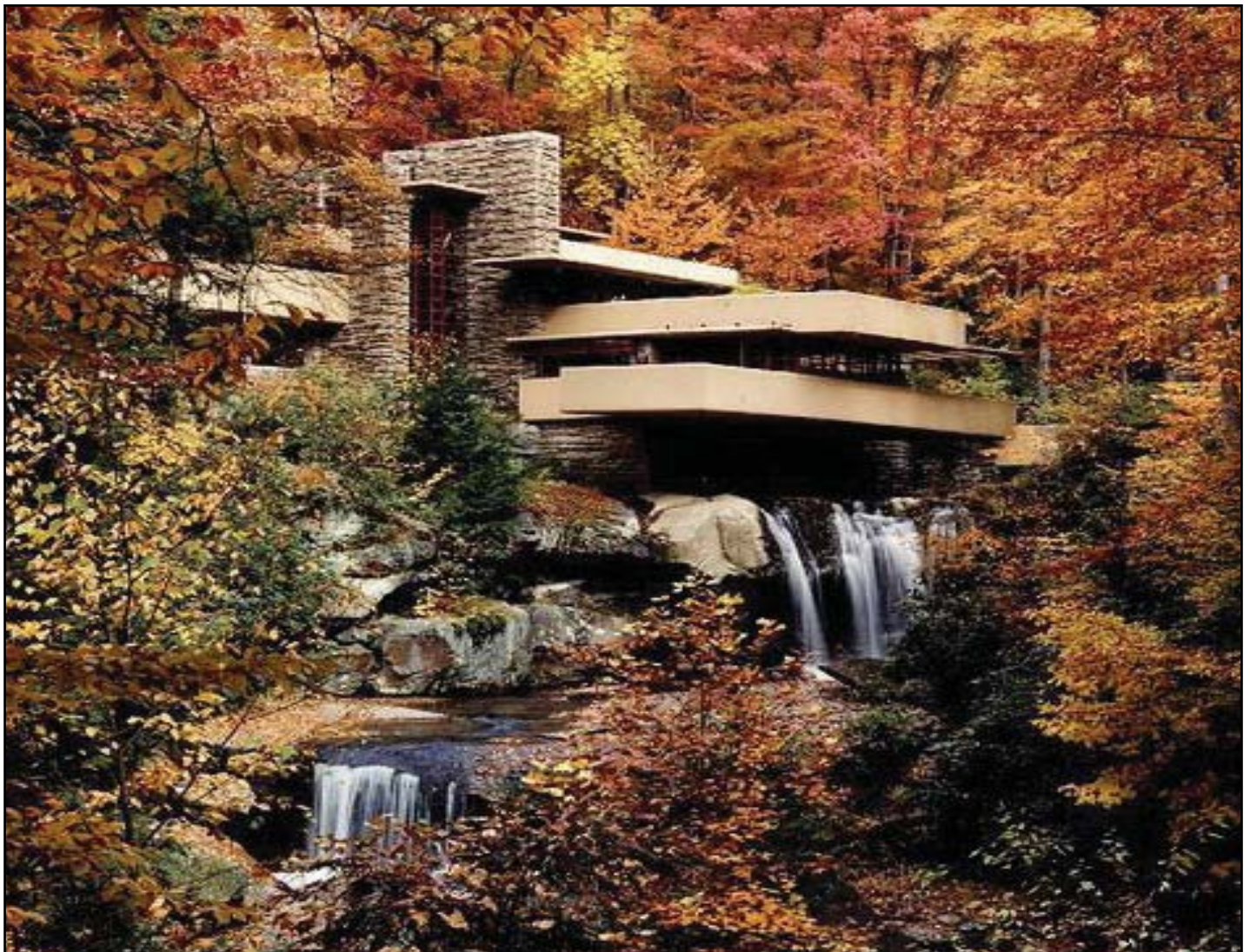
Falling Water House, Frank Lloyd Wright 1930

Frank Lloyd Wright designed an extraordinary house known as Fallingwater that redefined the relationship between man, architecture, and nature. The house was built as a weekend home for owners Mr. Edgar Kaufmann, his wife, and their son, whom he developed a friendship with through their son who was studying at Wright's school, the Taliesin Fellowship.

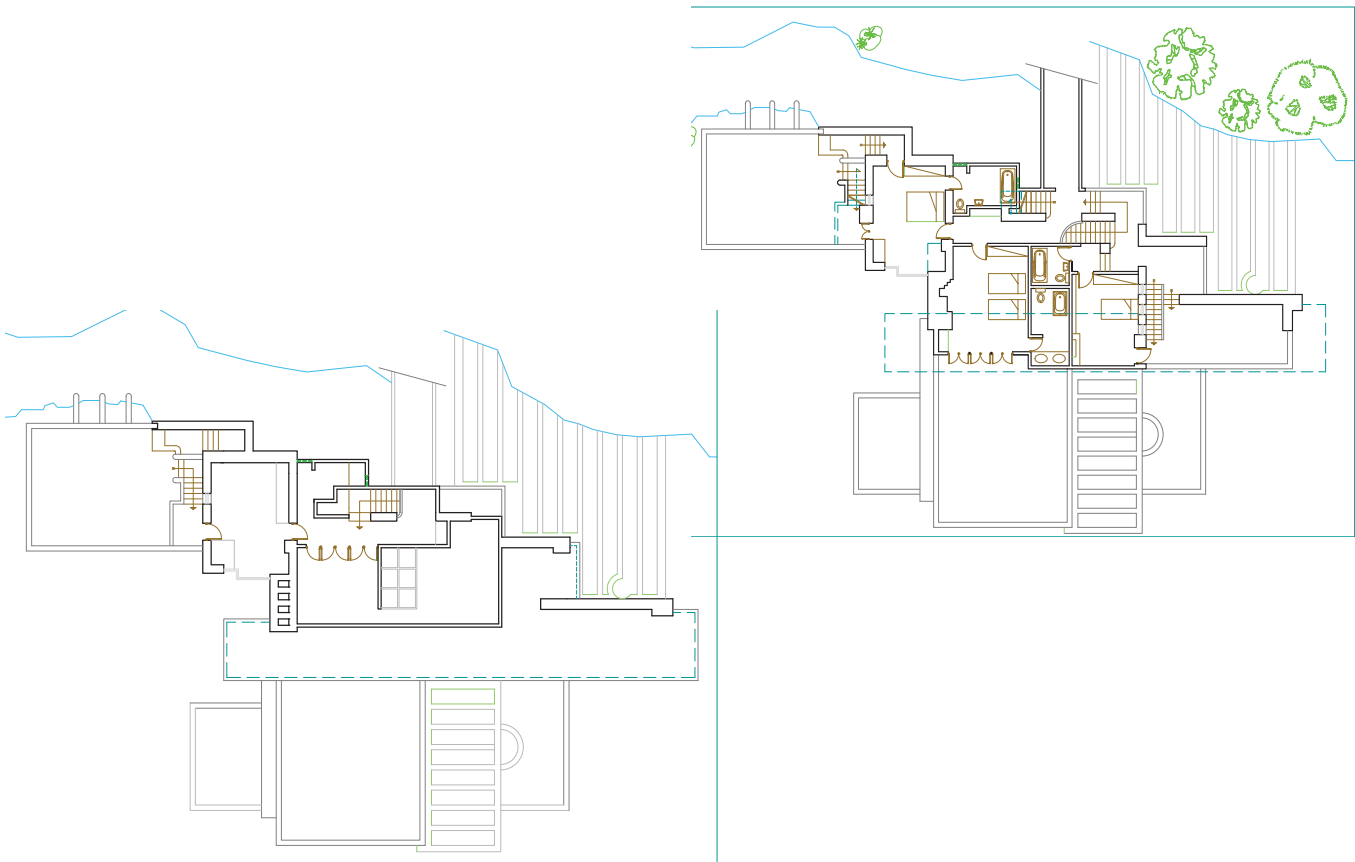
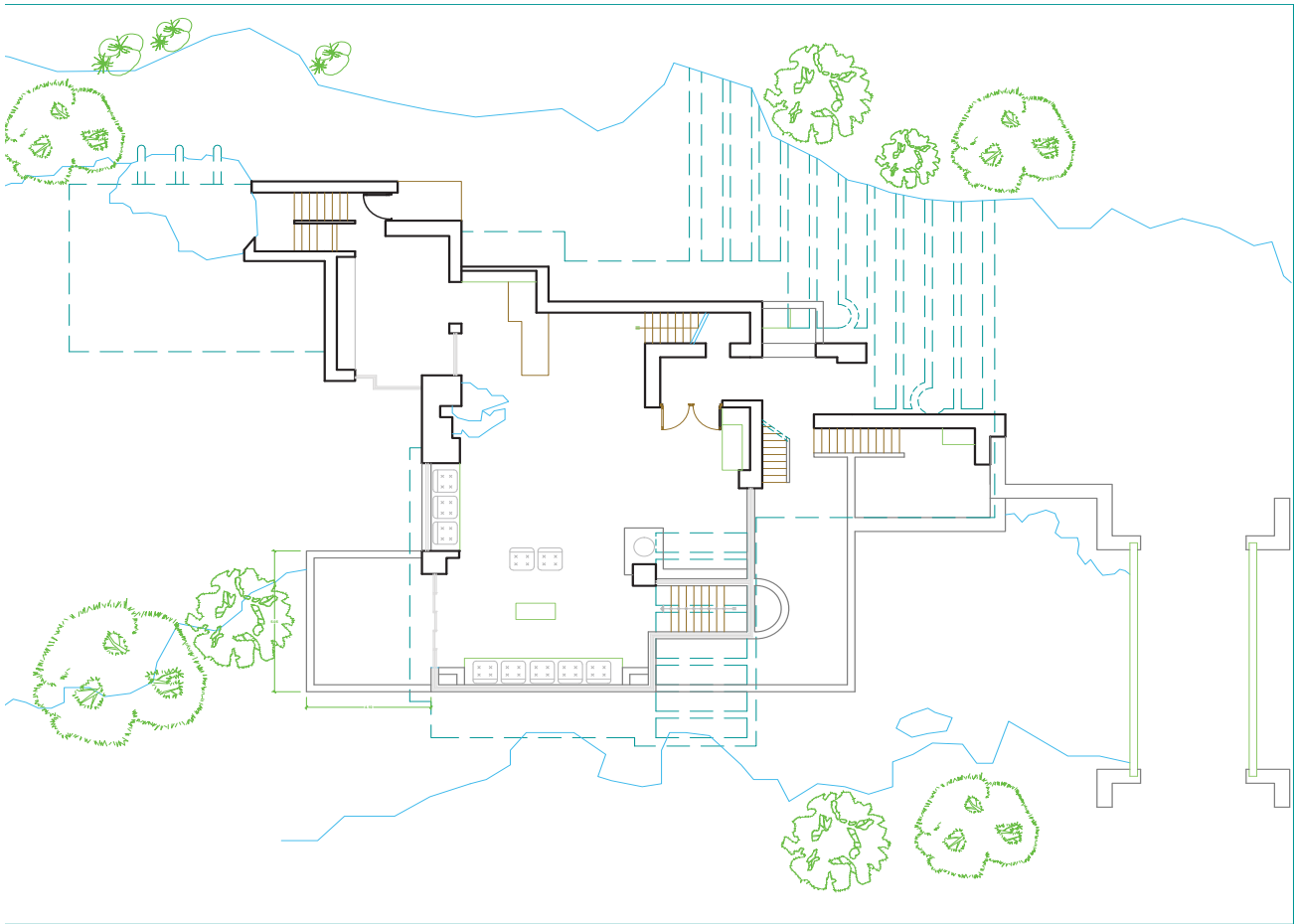
when they commissioned Wright to design the house they envisioned one across from the waterfall, so that they could have it in their view. Instead, Wright integrated the design of the house with the waterfall itself, placing it right on top of it to make it a part of the Kaufmanns' lives

Wright's admiration for Japanese architecture was important in his inspiration for this house, along with most of his work. Just like in Japanese architecture, Wright wanted to create harmony between man and nature, and his integration of the house with the waterfall was successful in doing so.

source : <http://www.archdaily.com/60022/ad-classics-fallingwater-frank-lloyd-wright>



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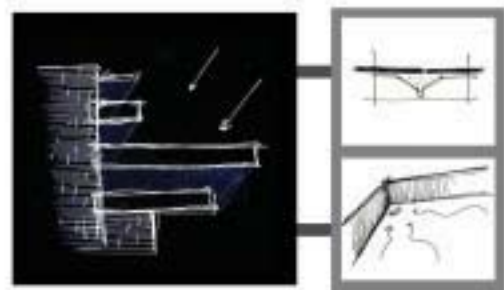
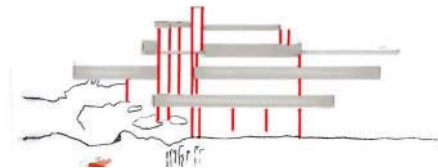
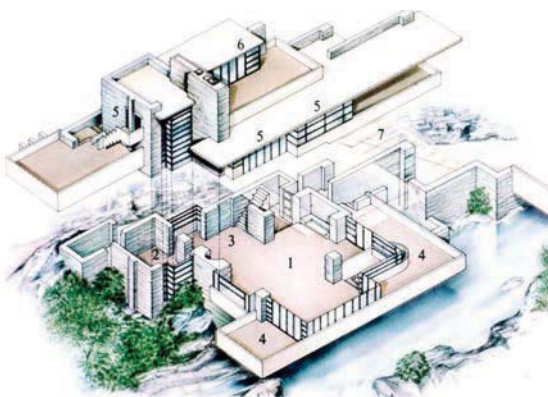
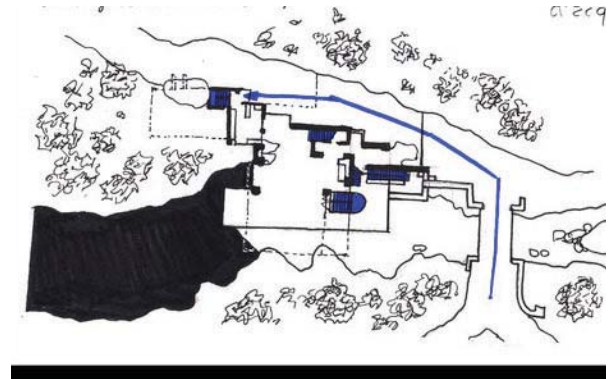
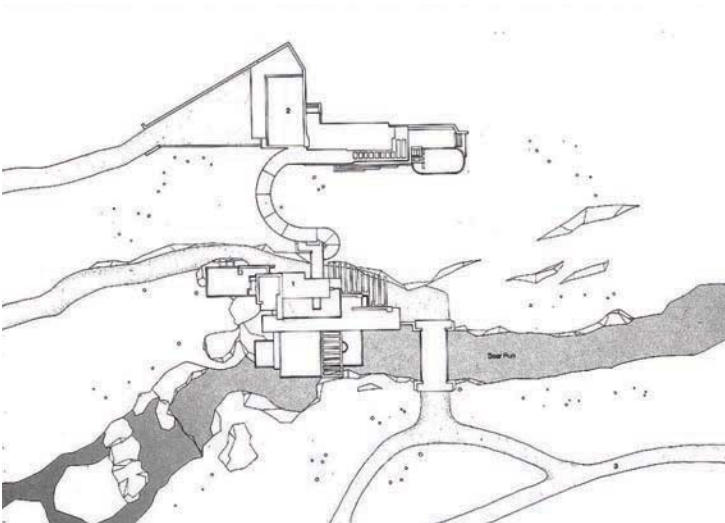
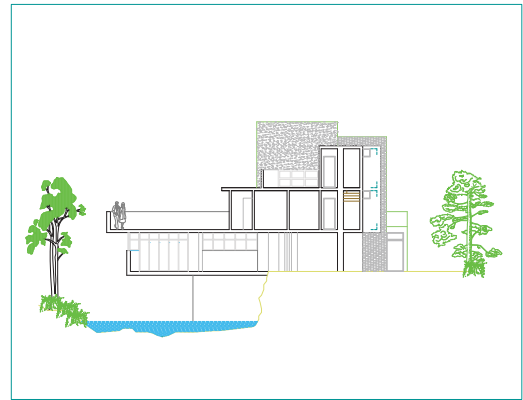
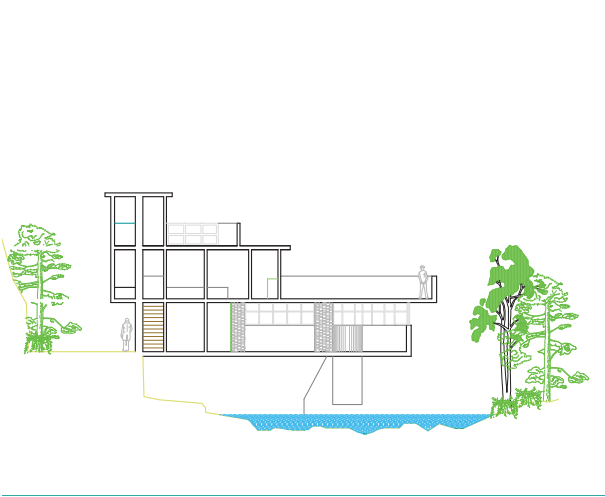




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Villa Muller , Adolf Loos 1930

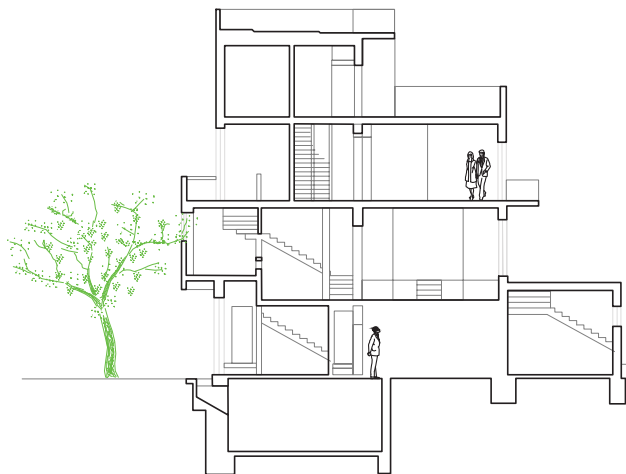
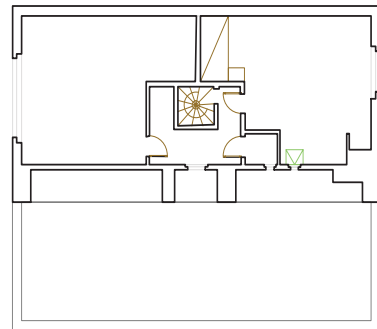
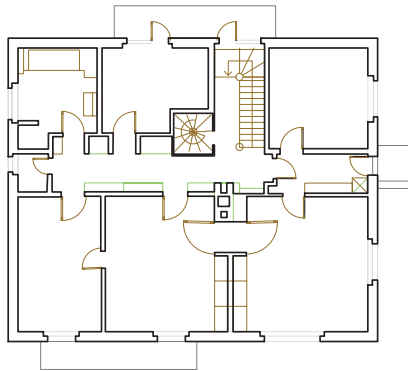
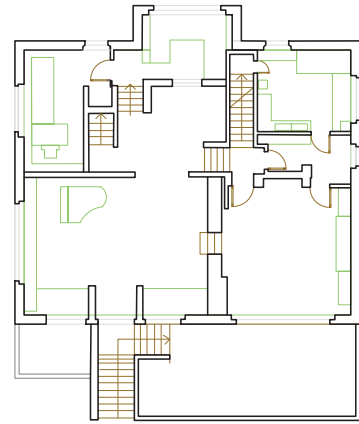
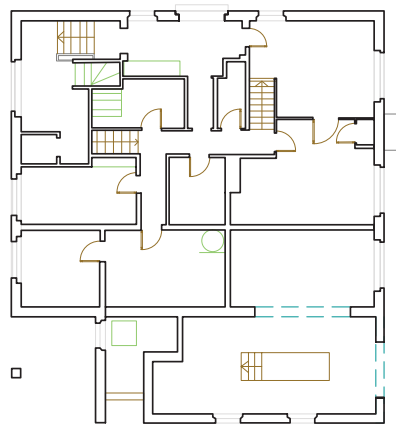
Villa Müller in Prague was designed by architect Adolf Loos, assisted by architect Karel Lhota, in 1930 for František Müller and his wife, Milada Müllerová. The client was the owner of a company specialized in reinforced concrete, so the house was to be a showcase of this (at the time) pioneering technique as well as of the influent architect's theories. The Villa, with its cubic shape and its white and austere façade, embodies in its exterior appearance the principles exposed by the architect in his seminal essay "Ornament and Crime".

A strong contrast is staged between the simple, almost hermetic façade and the rich and complex interiors clad in marble for the public areas and wood for the private rooms. The distribution is based on the principles of the Raumplan (spatial plan) already applied by Loos for the Ministry of War ("Kriegsministerium") in Vienna in 1907. The Villa Mueller's Raumplan is a complex exercise set to avoid the organization in separated floors and structure the space in a sequence of stepped areas while differentiating the height of the ceiling in relation to different functions.

source : <http://socks-studio.com/2014/03/03/i-do-not-draw-plans-facades-or-sections-adolf-loos-and-the-villa-muller/>



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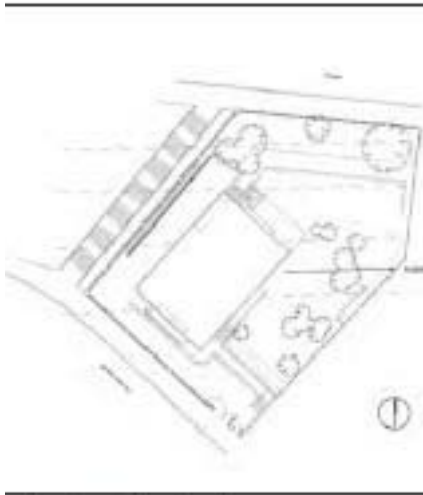
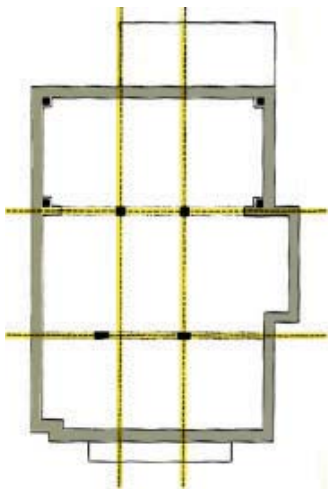
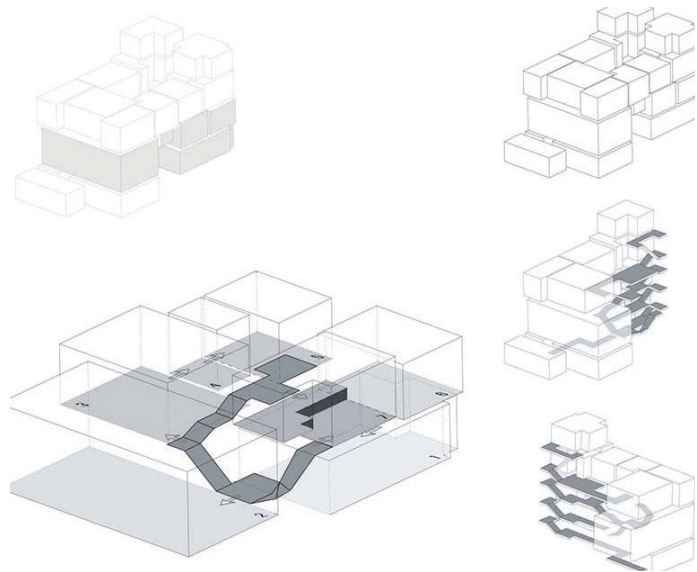
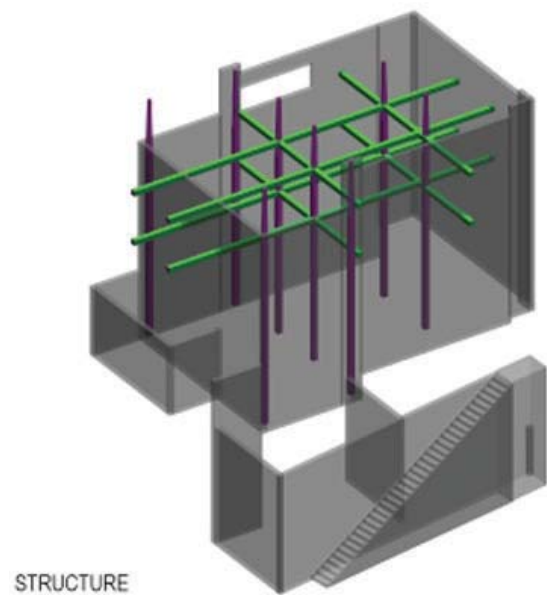


Illustration 14: siteplan



4.4 - Diagram of the irregular column grid juxtaposed by surrounding load bearing walls



STRUCTURE

Villa Savoye , Le Corbusier 1931

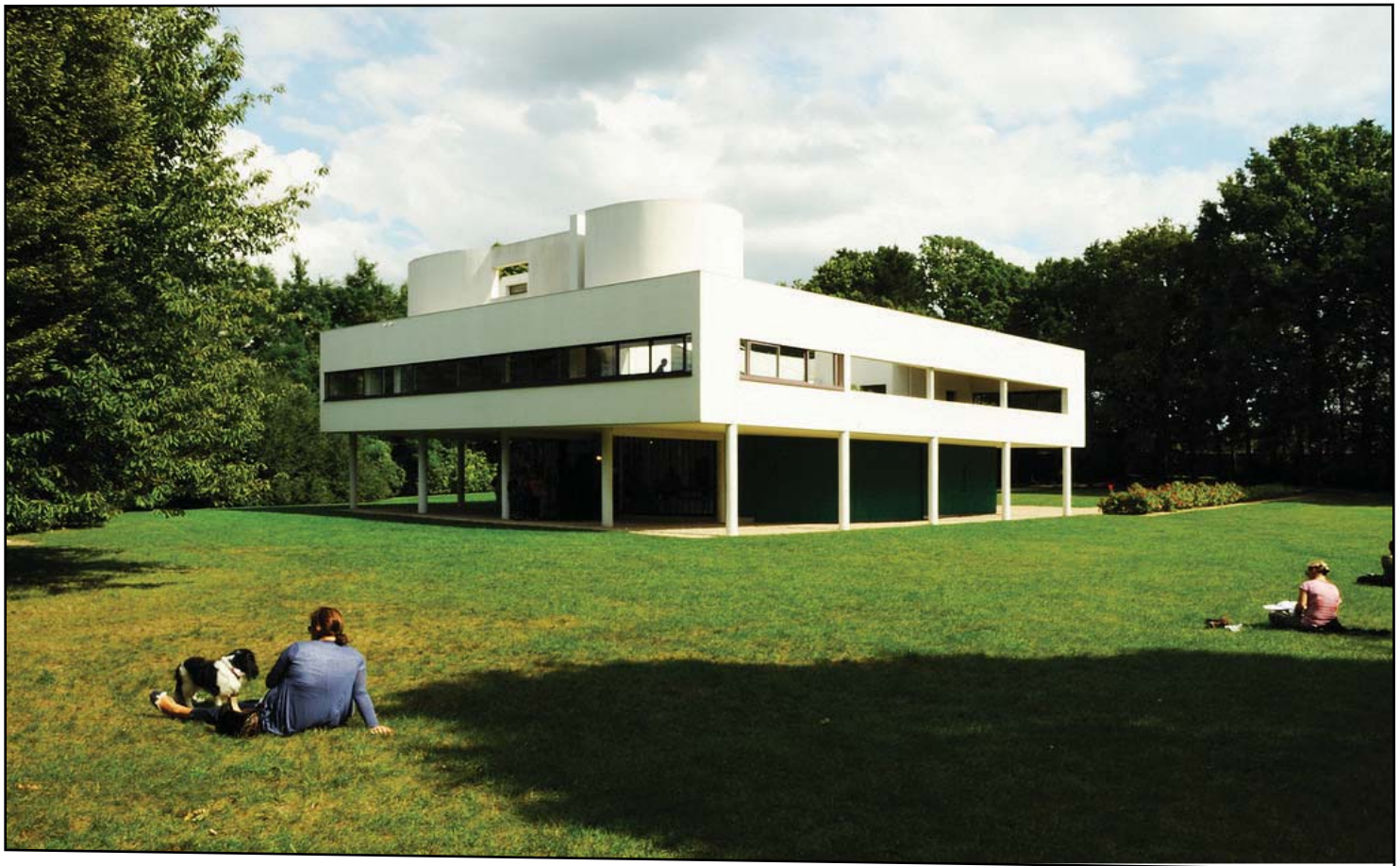
Villa Savoye is one of the most significant contributions to modern architecture in the 20th century.

Completed in 1929, Villa Savoye is a modern take on a French country house that celebrates and reacts to the new machine age. The house single handedly transformed Le Corbusier's career as well as the principles of the International Style; becoming one of the most important architectural precedents in the history. Villa Savoye's detachment from its physical context lends its design to be contextually integrated into the mechanistic/industrial context of the early 20th century, conceptually defining the house as a mechanized entity.

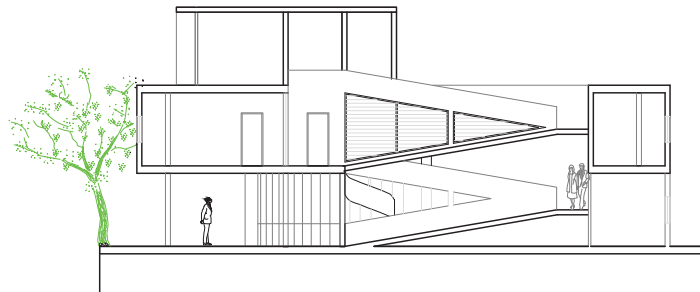
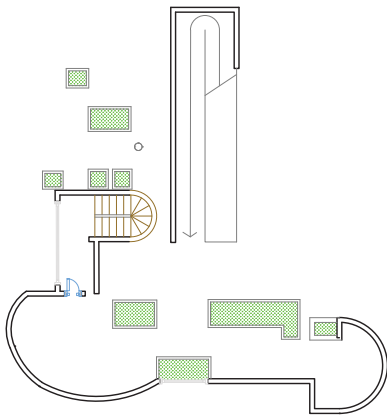
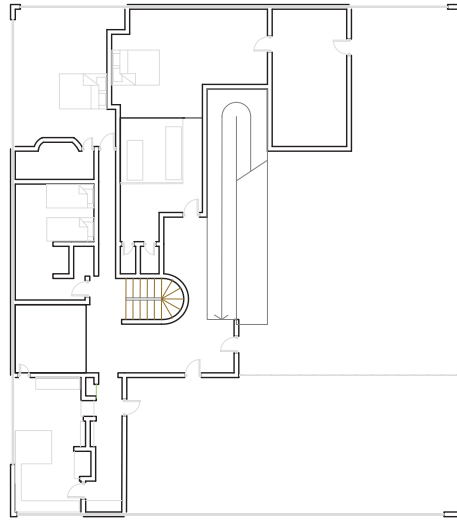
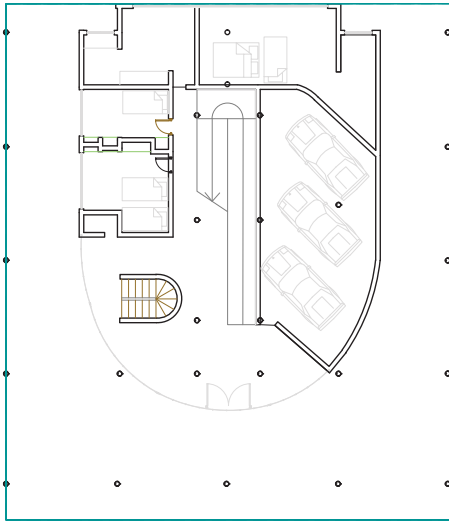
Le Corbusier is famous for stating, "The house is a machine for living." This statement is not simply translated into the design of a human scaled assembly line; rather the design begins to take on innovative qualities and advances found in other fields of industry, in the name of efficiency.

In response to his aspirations and admiration of mechanized design, Le Corbusier established "The Five Points" of architecture, which is simply a list of prescribed elements to be incorporated in design. The Five Points of architecture can be thought of as Le Corbusier's modern interpretation of Vitruvius' Ten Books on Architecture, not literally in the sense of an instructional manual for architects, but rather a checklist of necessary components of design. So much so that Villa Savoye is thoroughly tailored to Corbusier's Five Points.

source : <http://www.archdaily.com/84524/ad-classics-villa-savoye-le-corbusier>



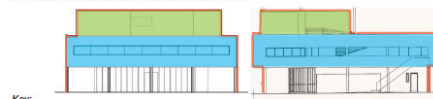
source : <http://www.archdaily.com/84524/ad-classics-villa-savoye-le-corbusier>



2D ORGANIZING PRINCIPLE & CIRCULATION



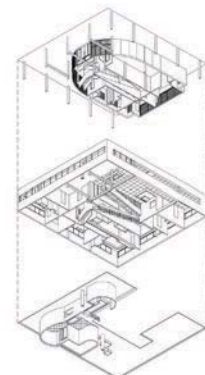
MASSING & HIERARCHY



STRUCTURE



PLAN TO ELEVATION RELATIONSHIP



Gropius House, Walter Gropius

1938

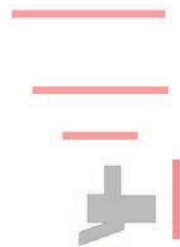
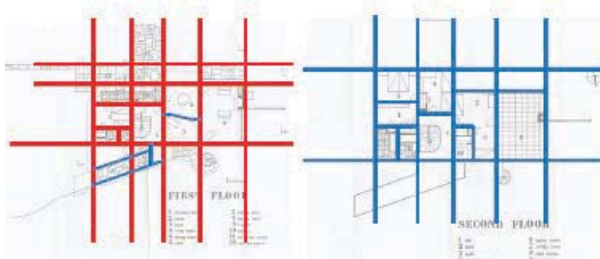
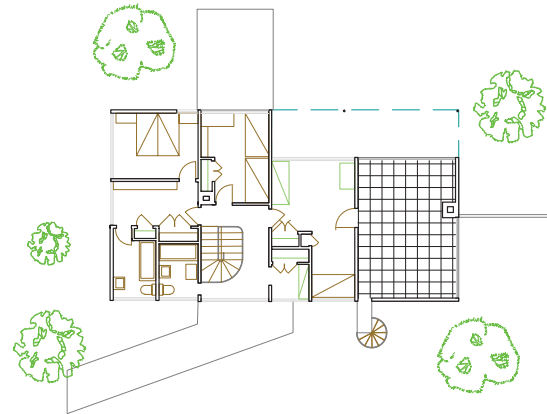
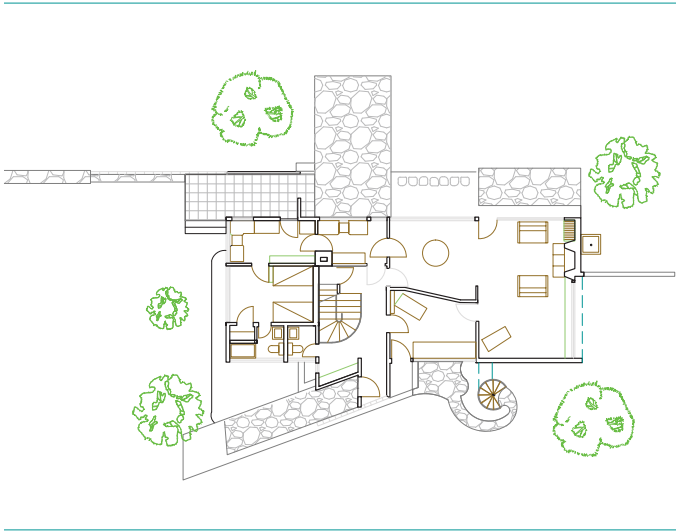
Home to one of the most influential architects of the 20th Century, the Gropius House was the residence of Walter Gropius and his family during his tenure at Harvard University during the mid 1900s. Completed in 1938, the Gropius House was the first commissioned project in the United States for the famed architect. The site for the house is set adjacent to the main road that cuts through the town, which is sits among fields, forests of trees, and farmhouses. In Gropius' mind keeping with the vernacular of the surround New England farmhouse aesthetic was of primary concern, while also introducing modern, mass-produced, pre-fabricated elements into the design as well.

Situated amidst war and the spread of the modern architectural movement to the United States, the Gropius House is a fairly modest building that maintains the scale and materially identity with the surrounding area. The facade of the house combines common brick and local clapboard with manufactured ribbons windows and glass block evoking a sense of stability and balance between old and new, traditional and modern, New England and European.

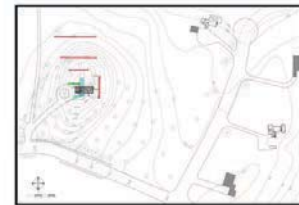
source : <http://www.archdaily.com/118207/ad-classics-gropius-house-walter-gropius>



source: <http://www.archdaily.com/118207/ad-classics-gropius-house-walter-gropius>



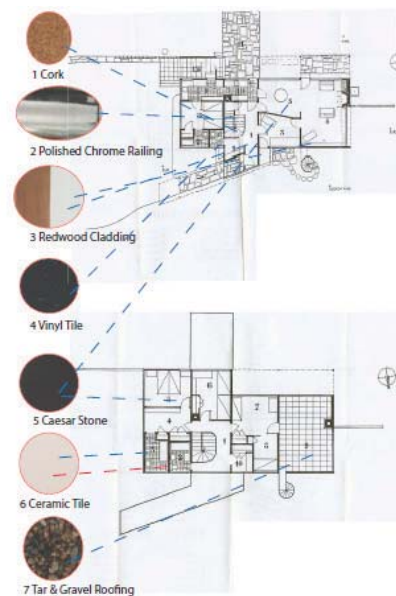
CONTAINING WALLS



CANOPY



TRELLIS



sources : <https://njitarch382.files.wordpress.com/2012/04/jorge-dussan-david-ahumada-history-iv-building-analysis1.pdf>
<http://minglongtan14.wix.com/ming-s-creations#!gropius-house-by-walter-gropius/c1shb-wiered-jbg>

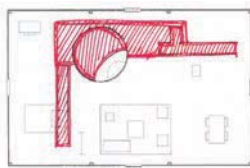
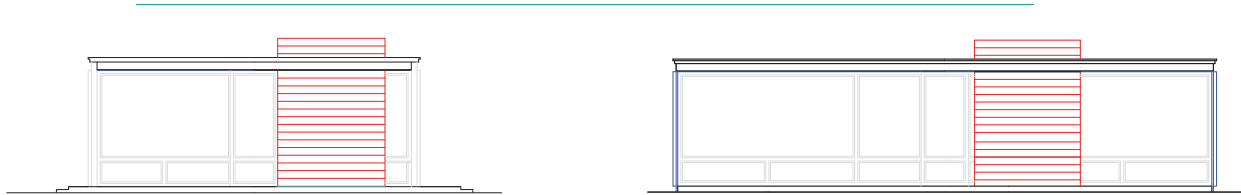
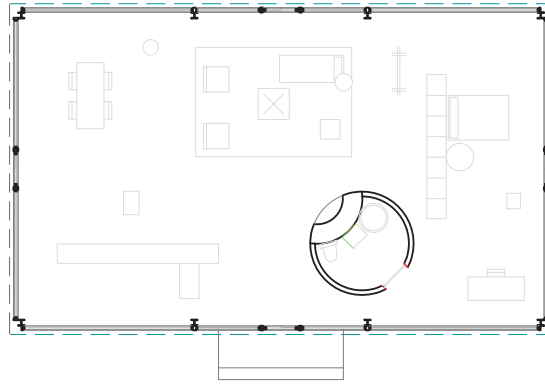
Johnson House “Glass House”, Philip Johnson 1949

one of the masterworks of modern American architecture, Philip Johnson's Glass House is a key monument in postwar construction. It is significant because it epitomizes the International Style and has long been regarded as one of the premier representatives of modernism. It also has national significance because of its association with Johnson, whose work as an architect and critic has had a profound effect on the course of 20th century architecture. Finally, the Glass House estate--including both the original 1949 elements and the subsequent additions made by Johnson--is significant because it provides an understanding of the architect that no other single property can equal

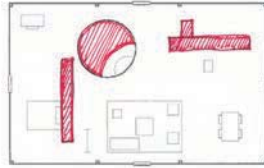
source : <http://tps.cr.nps.gov/nhl/detail.cfm?ResourceId=2202&ResourceType=District>



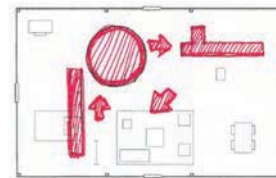
source: <http://www.archdaily.com/60259/ad-classics-the-glass-house-philip-johnson>



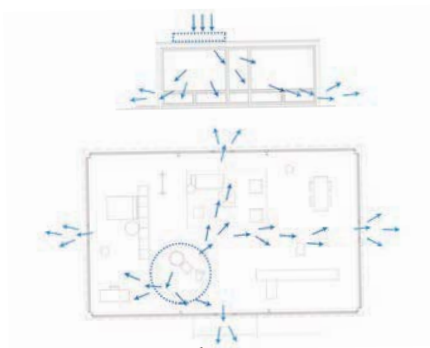
fixed vs. free space



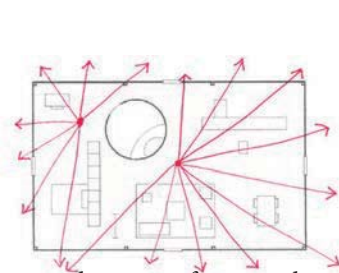
storage space



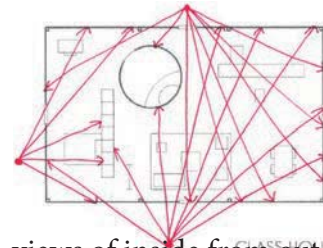
service relationship



ventilation



window views from inside



views of inside from outside

Eames House, Charles Eames 1949

Eames House was such a spatially pleasant modern residence that it became the home of the architects themselves. Charles and Ray Eames began designing the house in 1945 for the Case Study House Program in Los Angeles' Arts and Architecture Magazine published and built these case study homes that had to focus on the use of new materials and technologies developed during World War II. The intention was for the house to be made of prefabricated materials that would not interrupt the site, be easy to build, and exhibit a modern style.

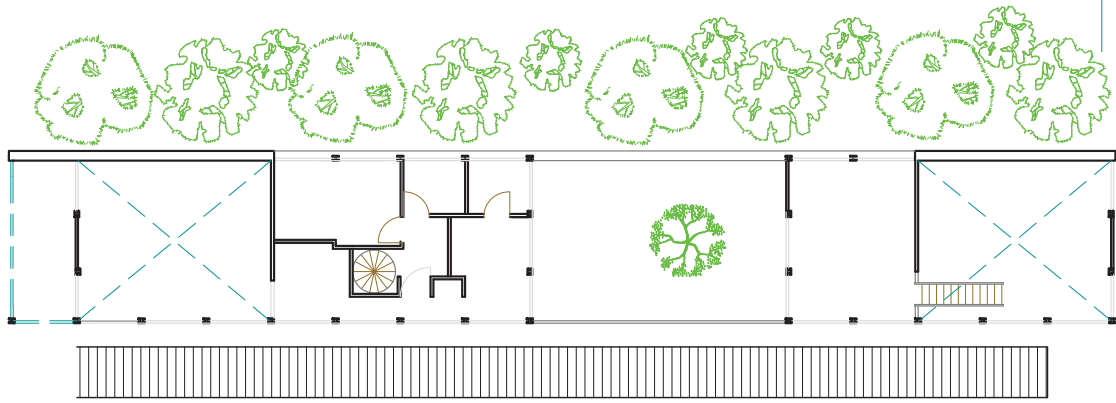
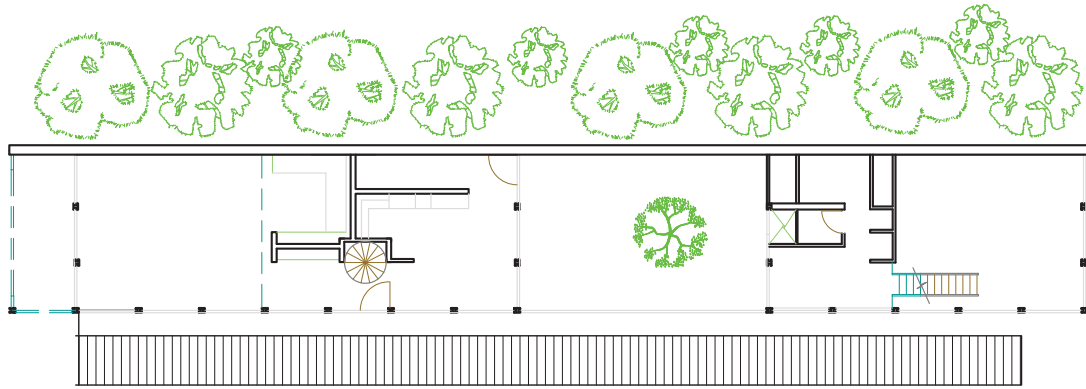
The house is situated on a three-acre site on top of an 150-foot cliff that overlooks the Pacific Ocean. The site is a flat parcel on otherwise steep land that creates a retaining wall to the west. The response to this condition was a concrete retaining wall that ties together the two boxes separated by a courtyard that make up the parti of the residence.

source : <http://www.archdaily.com/66302/ad-classics-eames-house-charles-and-ray-eames>



source :

http://www.getty.edu/conservation/our_projects/field_projects/eameshouse/eames_overview.html



Eames House, Charles Eames 1949

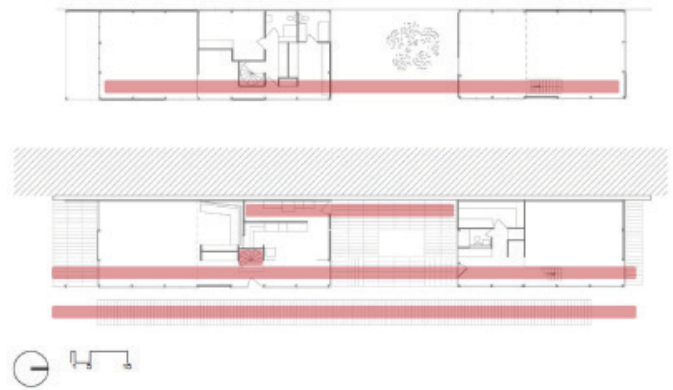


source : https://openlab.citytech.cuny.edu/arch-1210-spring-2013/files/2013/04/Valdez_F12_Diana-Gonzaga-01.pdf

site plans



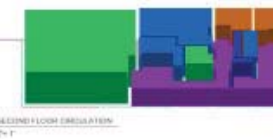
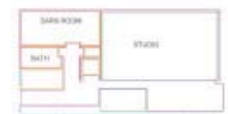
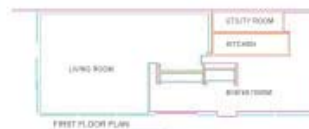
circulation



materials



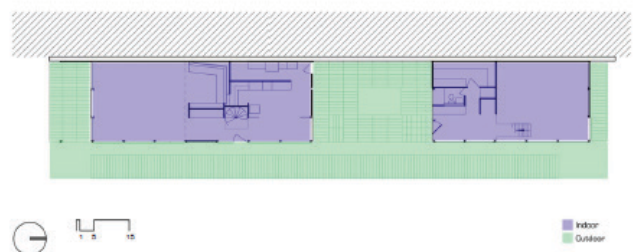
Massing



structure



indoor/outdoor



Fransworth House, Meis van der rohe 1951

The Farnsworth House, built between 1945 and 1951 for Dr. Edith Farnsworth as a weekend retreat Just right outside of Chicago in a 10-acre secluded wooded site with the Fox River to the south, the glass pavilion takes full advantage of relating to its natural surroundings, achieving Mies' concept of a strong relationship between the house and nature.

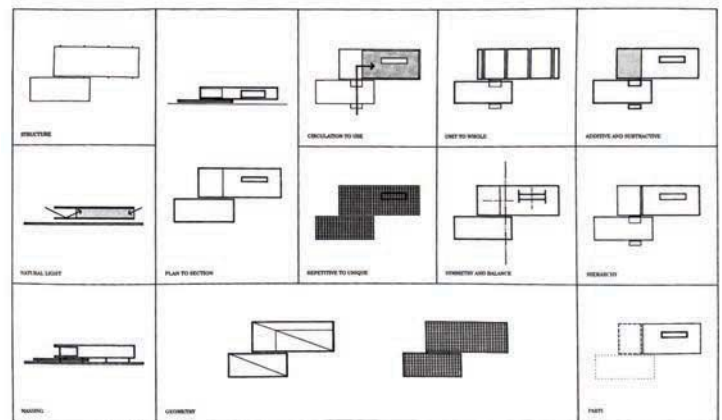
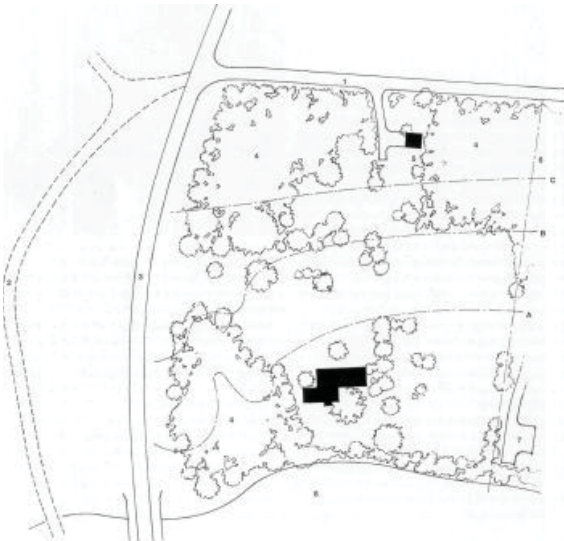
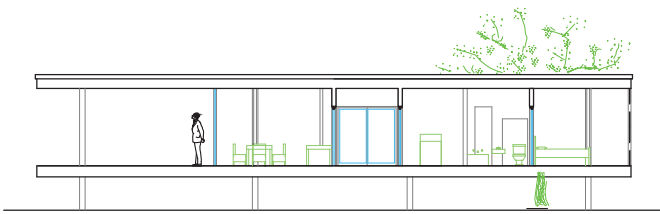
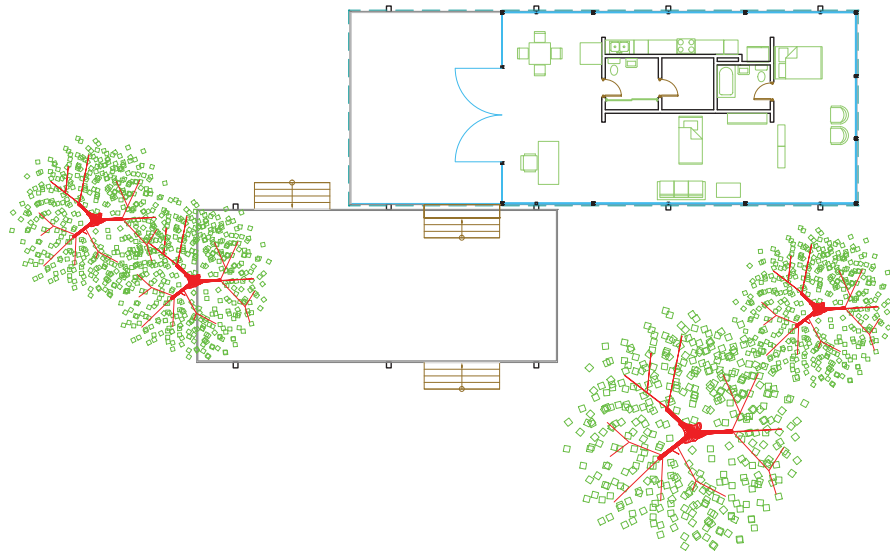
The single-story house consists of eight I-shaped steel columns that support the roof and floor frame-works, and therefore are both structural and expressive. In between these columns are floor-to-ceiling windows around the entire house, opening up the rooms to the woods around it.

The windows are what provide the beauty of Mies' idea of tying the residence with its tranquil surroundings. His idea for shading and privacy was through the many trees that were located on the private site. Mies explained this concept in an interview about the glass pavilion stating, "Nature, too, shall live its own life. We must beware not to disrupt it with the color of our houses and interior fittings. Yet we should attempt to bring nature, houses, and human beings together into a higher unity."

source : <http://www.archdaily.com/59719/ad-classics-the-farnsworth-house-mies-van-der-rohe>



source : http://www.greatbuildings.com/buildings/Farnsworth_House.html



sources : <http://andrewraimist.com/2013/03/precedents-in-architecture.html>
<http://valogianni.blogspot.com/2009/10/farnsworth-house-structure.html>

Program Analysis

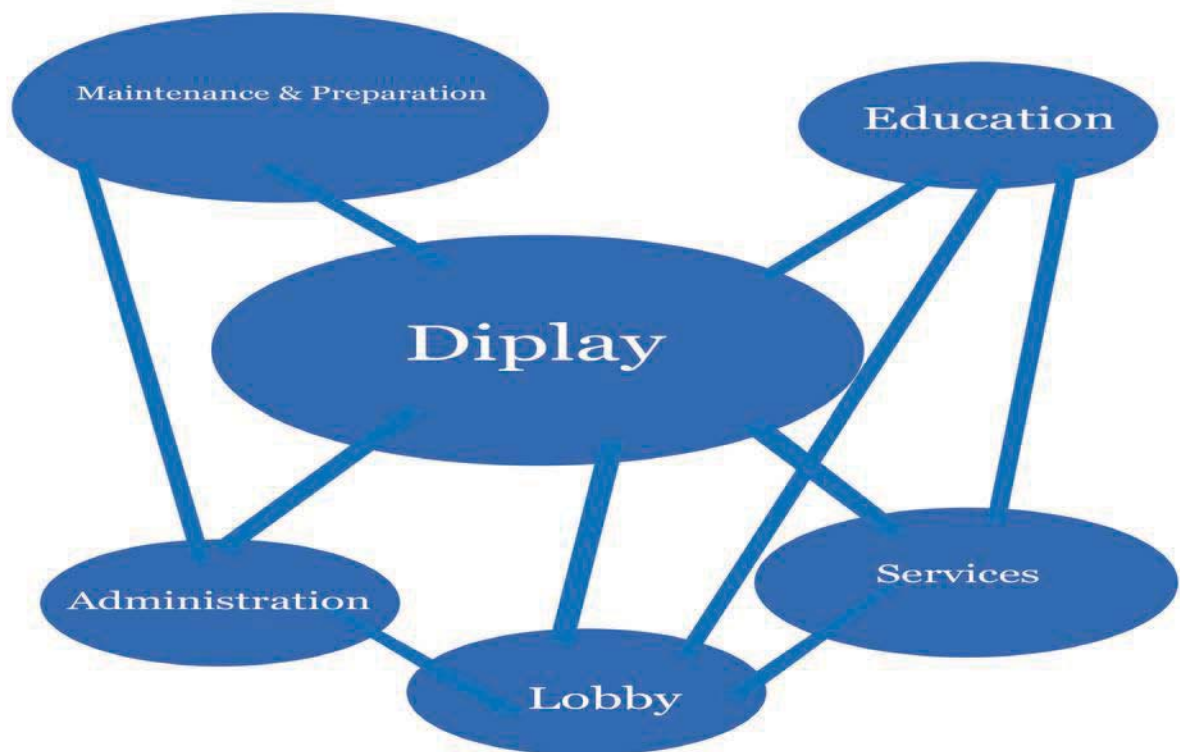
Overview

Museums are big business, attracting billions of tourist dollars, advancing science, and educating and amusing more than 850 million people annually.

Their role is not well-understood or well-publicized. And then there's also the "boring" fact

This Museum Consists of six Main zones ; each zone consists of its own subzones

- | | |
|-------------------|-----------------------------|
| 1. Lobby | 4. Education |
| 2. Display | 5. Workshop and preparation |
| 3. Administration | 6. Services |



1. Lobby



source: http://www.tripadvisor.com/LocationPhotoDirectLink-g55857-d531661-i37008090-Modern_Art_Museum_of_Fort_Worth-Fort_Worth_Texas.html

Reception / Entrance

2000 sqft

entrance of the building and distributor to the rest of the spaces

Receptionist/information

30 sqft

an office or a desk for a person to help and guide visitors

Tickets

30 sqft

an office for an employee to sell tickets to visitors

Security

30 sqft

and office for the security staff securing the building

2. Diplay



source: <http://www.codart.nl/594/>



source: <https://commons.wikimedia.org/wiki/File:Auditorium.jpg>



source: <http://uncrate.com/stuff/imax-private-theatre/>

Gallery (s)

4000, 2000 sqft

Gallies with variable Areas connected to one another in a narrative order

Auditorium/Theatre

3000 sqft

Multi Purpose Hall which can hold various events such as Symposiums concerts, plays, press confrences,..etc.

I Max Theatre

2000 sqft

cinametic theatre which could give a virthal tour of the musuem , display the artifacts of the museum , display documentries

3. Museum Administration



Source: <http://www.saukcountyhistory.org/saukcohistorycenter/historycenter.html>



Source: <http://www.saukcountyhistory.org/saukcohistorycenter/historycenter.html>

Manager/Admin

300

sqft

an office for the museum manager

Secretary

100

sqft

an office connected to the managers office for the secratery

Curator (s)

200

sqft

an office or more for the curators

Exhibit Designer

150

sqft

an office space for the exhibit designer

Accountant (s)

140

sqft

an office or more for the accountants

Break Room/Lounge/cafeteria

350

sqft

an area for the employees to take a break in or have lunch

4. Education



source : <http://graduate.assumption.edu/admissions/campus-photo-tour>



source : http://www.sciencemuseum.org.uk/about_us/collections/science_library/visit_library_london.aspx

Lecture Hall (s)

1500

sqft

lecture Hall for Students Studying Mueseum Related Sciences

Research Lab (s)

1000

sqft

research labs for students and scholars studying Mueseum Related Sciences

Computer Lab (s)

500

sqft

computer labs for Students and puplic

Library

3000

sqft

museum library for Students and puplic

5. Maintenance & Preparation



Source : <http://www.deutsches-museum.de/en/information/about-us/workshops/workshops/electrical-workshop/>



Source : http://www.fleetraveller.com/news/local_news/new-qm-museum-gallery-to-feature-rare-uniforms/article_ceb6a432-a739-11e4-9c13-07a56e0f3554.html



Source : <http://northeaststoragesolutions.spacesaver.com/gallery/9454/-Mammology-Storage-on-Mobile-with-pull-out-drawers-at-the-American-Museum-of-Natural-Historyzz>

Work Shop	1500	sqft	a space where artifacts are fixed, maintenanced, or to fabricate accessories such as cases for artifacts
Gallery Prep	1000	sqft	a space where artifacts from the storage are prepared to be put on display
Maintenance	200	sqft	an office or more for the maintence employees
Storage	3000	sqft	a space where artifacts that are not on dsplay are stored

6. Services



source : <http://www.gtm.org.uk/plan-your-visit/gift-shop/>



source : http://www.tripadvisor.in/LocationPhotoDirect-Link-g186620-d189754-i27944977-Foynes_Flying_Boat_Museum-Foynes_County_Limerick.html

Cafeteria	300	sqft
Gift Shop (s)	1000	sqft
Toilets		
Office Toilets (M/F)	60	sqft
Puplic Toilets (M/F)	300	sqft

WRITTEN SUMMARY

At the beginning of the research we started with Kenneth Frampton's take on Critical Regionalism; as he explained how region can affect the design of a building in six points. Culture and civilization, the rise and fall of avant-garde, critical regionalism and world culture, the resistance of the place-form, culture versus nature and the visual versus the tectonic. What interested me in this article was the part about the opposition between Civilization and Culture. Especially that this was an opposition I have always thought about. He explained how Modernism took over in a huge pace without regard to the architectural characteristics that were established decades before and how everything became industrial and how that affected the layout of the city and changed it in a short period of time and he then raises the question of "how to become Modern and return the sources". I think this question is in the mind of every Architect. Every architect is the struggle of wanting to keep pace with Modernism and its meretricious features but at the same time an architect doesn't want to lose the architectural characteristics he already have from centuries ago. The problem with modernism is that it doesn't build on what was built before and that's probably because it emerged with the industrial revolution so it was kind of a revolution on the past. On the second reading "Rappel à l'Ordre, the case for the tectonic" which was also by Kenneth Frampton he explains how scenography has become a response to architecture as commodity. In response to Robert Venturi's decorated shed: the syndrome in which shelter is packaged like a giant commodity. He attempted to evaluate twentieth century architecture in terms of continuity and inflection rather than the terms of originality as an end in itself. Frampton saw that it was better to return to the structural unit as the irreducible essence of architectural form rather than join in a recapitulation of avant-gardes tropes or enter into historicist pastiche or into the superfluous proliferation of sculptural gestures all of which have an arbitrary dimension to the degree that they are based in neither structure nor in construction. Frampton looks at the importance of engaging this theme in order for architects to re-position this predominant tendency today, the

reduction of architectural expression to commodity culture. Frampton mentions Gottfried Semper identification of the joint as the primitive tectonic element which implies the fundamental syntactical transition may be expressed as one passes from the stereomic base to the tectonic frame which constitutes the essence of architecture. Semper was inspired by a Carrabin hut in an expedition to the South Seas in 1851. Which lead him to his theory of cultural transformation. Which caused him to break with the four hundred year old humanist formula "utilitas, firmitas, venustas" that was intentional trait of roman architecture. Semper maintained that the knot was the earliest basic structural artifact from which follows the primary nomadic building form of the tent there is etymological indication residing here in which semper was aware of the connection between knot and joint and their connection to the concept "Die Verbindung: the binding", all of this evidence supports Semper's assumption that the ultimate consistent of the art building is joint or the knot.

The next step in the research was to collect five to seven buildings to exhibit in the open air museum but the buildings should be connected to one another in kind of a narrative order. Of course the readings had a great effect on the proposed ideas. Especially the first one which was about Critical Regionalism as it had a role with three ideas. The first idea was about power centers and its movement from a civilization to another. The plan was to collect seven buildings from seven civilizations which were a decision making places such as the Parthenon from ancient Greece and the pantheon from ancient Rome. which will give us seven different buildings which were designed based on regional factors and regional architectural style and they all share being the center of power at one time. The second idea was about vernacular homes; the plan was to collect seven houses from various parts of the world which were built according to regional elements such as climate and were built with local materials. For example the blackhouses in Scotland, rondavel in Cameron, toda tribal hut in India,...etc.

The third idea was derived from one point of the first article not the main point. It's about the pioneers of modern architecture. Whether we agree or disagree with the architects of modern architecture. They have started the architectural revolution of the 20th century. So they should get credit for that. And if they haven't done what we consider nowadays mistakes we wouldn't have learned from it and we wouldn't have what we have today of knowledge. The plan here is to collect seven iconic buildings to seven iconic architects from the modern era 1920s to 1960s such as Farnsworth house to Meis van der rohe and Villa Savoye to Le Corbusier. The second reading inspired me to tectonic based idea which was about the evolution of the construction of domes since it was built by stones and bricks until it is built nowadays with truss and steel structure. For example the pantheon in Rome and Reichstag dome in Berlin. The last idea was actually inspired from a research on which I have participated in with my colleagues in my undergrad about the evolution of museum from which artifacts were stored at homes in what was called the cabinet of curiosities until nowadays modern museums. The plan was to collect seven museums indicating that evolution.

However I decided to go with the pioneers of modern architecture museum and my building collection for that was the Falling Water House to Frank Lloyd Wright maybe the building is not the best example of modern architecture but since we're talking about pioneers of modern architecture we can't ignore Wright and what is more iconic than the falling water house , Villa Muller to Adolf Loos which is a better Representative to modern architecture and a perfect sample on Loos's "ornament is a crime" , Villa Savoye to Le Corbusier which is the best example on the modernist principle form follows function and also le Corbusier's " Houses are machines to live in" , Gropius house to Walter Gropius ; of course when we are mentioning pioneers we can't ignore the founder of the Bauhaus and his iconic house , Eames House to Charles Eames; great iconic house which is a good example on modern architecture and it's industrial side ,Glass House to Philip Johnson and Farnsworth House to Meis van der rohe ; these two houses are the best example

to modern architecture and to Meis van der rohe's principle "less is more" .

The next step was the museum entry building program analysis; the museum consists of six main zones

The lobby or the entrance which is distribution zone to the rest of the zones , the display zone which is main zone and the biggest in area in the museum , administration of the museum , educational zone of the museum as one of the main goals of a museum is education it should have an educational zone, prep/maintenance which is mandatory for the artifacts or the exhibits and services which serves the museum public . Each of these zones consists of subzones

The Lobby: receptionist, Tickets, security

The Museum Display: Gallery, auditorium, I max theatre

The Museum Administration: Manager, Secretary, Curator, ..etc.

The Educational zone: Lecture hall, research lab, Computer lab, ..etc

Prep and maintenance : Workshop, gallery prep, maintenance Storage

Services : Gift Shop, Cafeteria, Toilets



A misty, forested landscape with a winding path or road visible through the trees. The scene is hazy, with soft light filtering through the dense foliage. The path leads from the lower left towards the center of the frame, disappearing into the distance. The trees are mostly evergreens, with some bare branches visible in the upper left. The overall mood is serene and quiet.

Stephen Lauer

This project is all about watch towers around the world. Each tower is designed specifically for the area that they are built in. Some are designed for the sole purpose to be observation towers while others serve an additional purpose. They pose interesting design questions in should these structures be used solely for observing the surroundings or should they serve alternate purposes.

ANALYSIS OF READINGS

Frampton - Towards a Critical Regionalism

Venturi - Complexity and Contradiction in Architecture

In both articles, Frampton and Venturi, discuss the idea that architecture is a concrete and grounded subject or that it is ambiguous and unknown. The idea that it is a very concrete and tangible subject is very agreeable and realistic because in the end a building or structure is built and becomes a physical object. This makes the concrete side very easy to argue for because it is an obvious outcome while the ambiguous and abstract side of the argument is more difficult to explain but is still very true. Venturi's article discusses the side of architecture that makes building designs be questioned by other people such as whether the architect intended this or that with the design.¹ This makes people wonder what the intended design concept was, when it was created by the architect to be portrayed by the design causing architecture to become the unknown and not concrete side of the subject. Questions can be asked about every aspect of architecture from the design of a building's floor plan to the exterior/interior material choices that can change the feel of a space. All of these choices made by the architect can change how each person views a building and can create or answer these questions. Some designs can be very simplistic while others complex. This brings up another topic that both authors discuss that architecture throughout the ages has gone through different eras where some buildings are simple to other eras where buildings are very ornate and complex. Venturi brings up Mies van der Rohe's quote of "Less is More" by discussing that even simple and basic buildings can be very complex.¹ The "Less is More" idea makes sense because very simple concepts or buildings can spark very complex questions that can go on to create amazing structures or ideas. Also every idea starts out as a simple thought that must grow to become a finished product.

In the case of architecture it becomes a building design that should cohesively work together while allowing for infrastructure. Other aspects also need to be considered for this little thought as it grows into a design such as, according to Frampton, season of the year, weather conditions, lighting (artificial versus natural), and the structure of the building. This proves that the simple beginning of a building as a box grows quickly into an extremely complex design problem that needs many hours of attention in order to understand how each of the elements in question will work together. Once the design process and drawings are all done then the process moves to the construction or tectonic phase of the process which opens a whole new bag of worms in the simplistic versus complex argument. Actually constructing a building means that the theoretical design ideas must be completely worked out or thrown away because it will become a concrete tangible object at this point. This means that all of the different aspects of a structure must be planned to work cohesively so that when the tradesmen start to build the tangible object it will work for the final outcome. The process from conception of the simple idea to the final outcome of a complex working structure goes through many stages and plans. In the end both of these authors are completely correct in their ideas and concepts that architecture is both a simple yet complex subject and it is also an ambiguous yet concrete. Overall architecture can be very deep and difficult to some but seem very easy to understand and see for others to comprehend and enjoy for many years to come.

Sources

- ¹Venturi, Robert. Complexity and Contradiction in Architecture. 1966. http://designtheory.fiu.edu/readings/venturi_complexity_complete.pdf.

Frampton - Rappel a l'Ordre Heidegger - Building, Dwelling, Thinking

Frampton's *Rappel a l'Ordre* and Heidegger's *Building, Dwelling, Thinking* discuss the tectonic side of architecture and how it plays a major role in the industry. Tectonics is the building or construction of anything whether it is a building or a simple art piece. The basis of tectonics is in our everyday life according to Heidegger's article because everything we interact with is constructed in one way or another. He discusses that all people must interact with the built environment in two main ways. First the "dwelling" or home which is where people live and go back to and as a place to relax and be comfortable. The second way is the building which also houses humans but is not the place that we continually go to for relaxation and comfort but instead to fulfill other purposes in our lives. This creates a fine line between which is which and makes the confusing paradigm of a dwelling is a building but yet a building may not be a dwelling. Semper's four elements go on to explain what makes a dwelling a dwelling instead of a building, a hearth, earthwork, framework & a roof, and an enclosing membrane. Now the average building has earthwork, framework & roof, and exterior cladding but not a hearth to create a spiritual connection to the dwelling. The idea of a spiritual connection to a home is very interesting because people are much more comfortable in their own homes and many would rather be there than at work in just an average building. A building does not always have to be a structure with walls and a roof though because it can also be anything that is in the built environment that links multiple spaces together in order for humans to better commute. Heidegger gives an example of a bridge and how we use bridges to get across water in order for us to better make use of the spaces around us. This is very true that without structures like bridges or roads we would have a much more difficult time doing things that make our world function in the manner it does today.

The Heidegger article was a very interesting read but raised a few questions. First why does Heidegger write as though he is a divine entity that sees all and is explaining a divine principle to mortals? He seems to be talking as a divine entity but also states that something "mortals" do is that they await the chance to be with their divine entities? Does he consider himself to be a divinity? I do agree with most of what he says but I feel that he is very condescending in his writing. It almost seems as though he is writing this article for a very select group of people who already understand his basic ideas and just want to learn more. Towards the end of the article Heidegger says "I am never here only, as this encapsulated body; rather, I am there, that is, I already pervade the space of the room, and only thus can I go through it".² This sentence is extremely confusing because he is discussing being able to go through a door into a room and transition between spaces and locales. This also reinforces my original question of does he believe he is some kind of divine entity because this seems as though he is considering that he is never here nor there and can go wherever he wants as long as that space exists. If the entire world is considered a space then would he not be able to go anywhere he wanted even as a person, cannot I go anywhere? I feel like this article is very deep and at first I thought I understood what he was saying but now after reading it a few times I am more confused and am questioning much more than I originally did.

Sources

¹Frampton, Kenneth. *Rappel a l'ordre: the case for the tectonic*. na, 1990.

²Heidegger, Martin. *Basic Writings: From Being and Time (1927) to The Task of Thinking (1964)*. New York: Harper & Row, 1977.

Building Collection Ideas

My collection of ideas ranged through a variety of topics and eras. My first idea was tree houses, this is a very broad topic which allows for a wide range of buildings. The second idea was bunkers which ranged from early World War II to present day apocalyptic bunkers. The next topic was houses and homes under 200 square feet in total. This type of housing is very interesting because it crams a lot into a tiny space. My fourth topic was watch towers that are more of an art form or serve multiple purposes than a tower in a historical context. My final building collection idea was blockhouses which are mini forts used throughout history to protect soldiers during wars. I feel that this collection of buildings is very unique and brings a wide variety of buildings into a group. Each group of ideas brings a different aspect of design together to create this collection of ideas.

¹<http://www.costaverde.com/727.htm>

²<http://www.geeky-gadgets.com/the-mirrorcube-treehouse-takes-building-a-den-to-a-new-level-for-e275000-07-11-2011/>

³<http://www.ftmac.org/baseendstations.htm>

⁴<http://www.apartmenttherapy.com/the-hermits-cabin-for-solitude-125427>

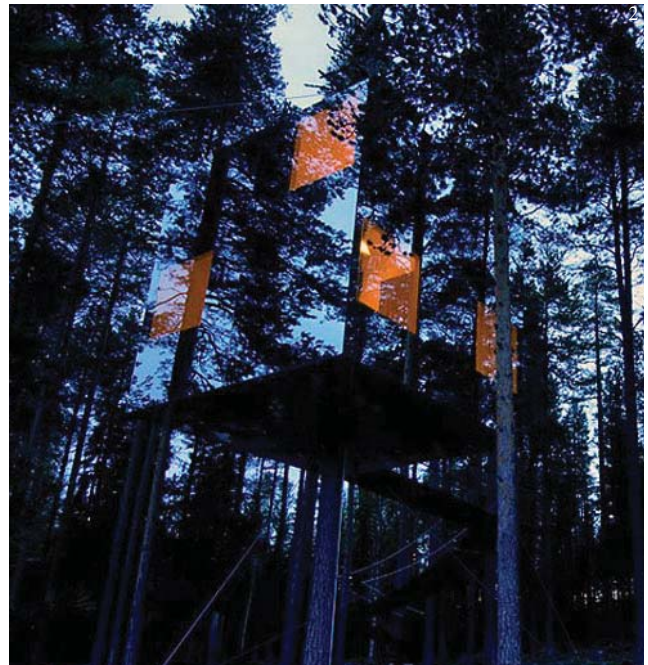
⁵<http://www.apartmenttherapy.com/four-people-and-a-dog-living-i-123518>

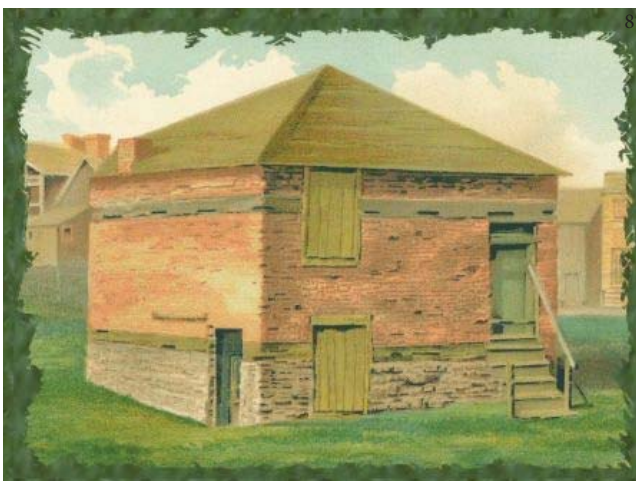
⁶<http://www.archdaily.com/121882/observation-tower-on-the-river-mur-terrainloenhartmayr/>

⁷<http://www.archdaily.com/197854/arche-nebra-holzer-kobler-architekten/>

⁸<http://www.fortpittblockhouse.com/about/>

⁹<http://translate.google.com/translate?hl=en&sl=de&u=http://de.wikipedia.org/wiki/Hochbunker&prev=search>





Observation Tower on the River Mur

Location: Styria, Austria

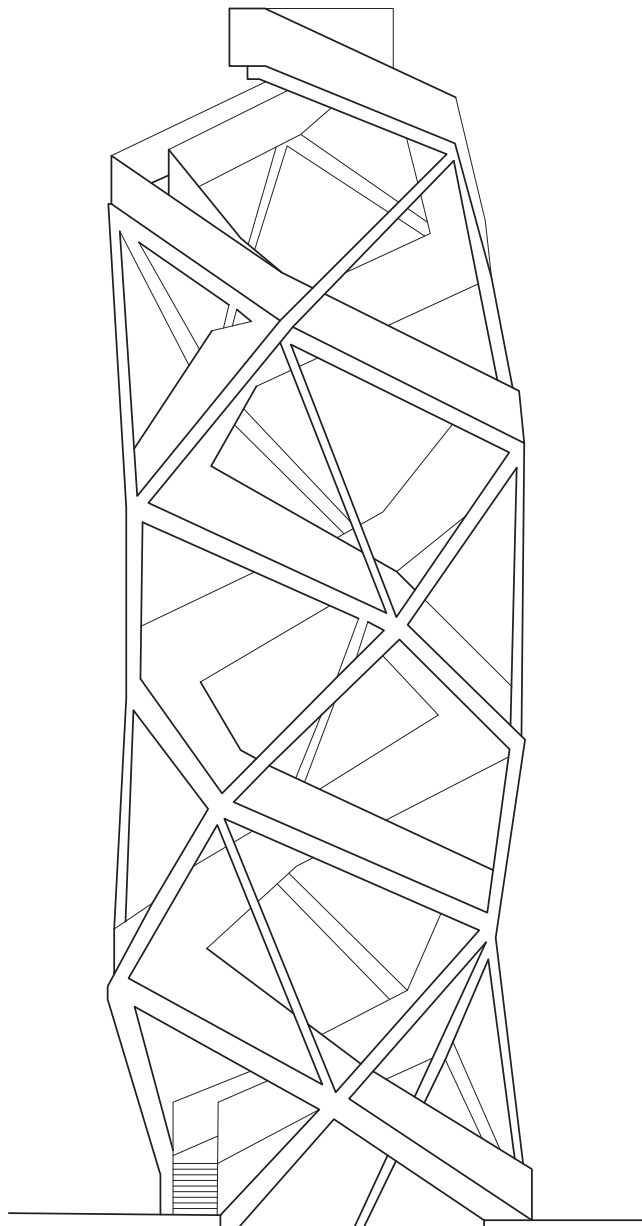
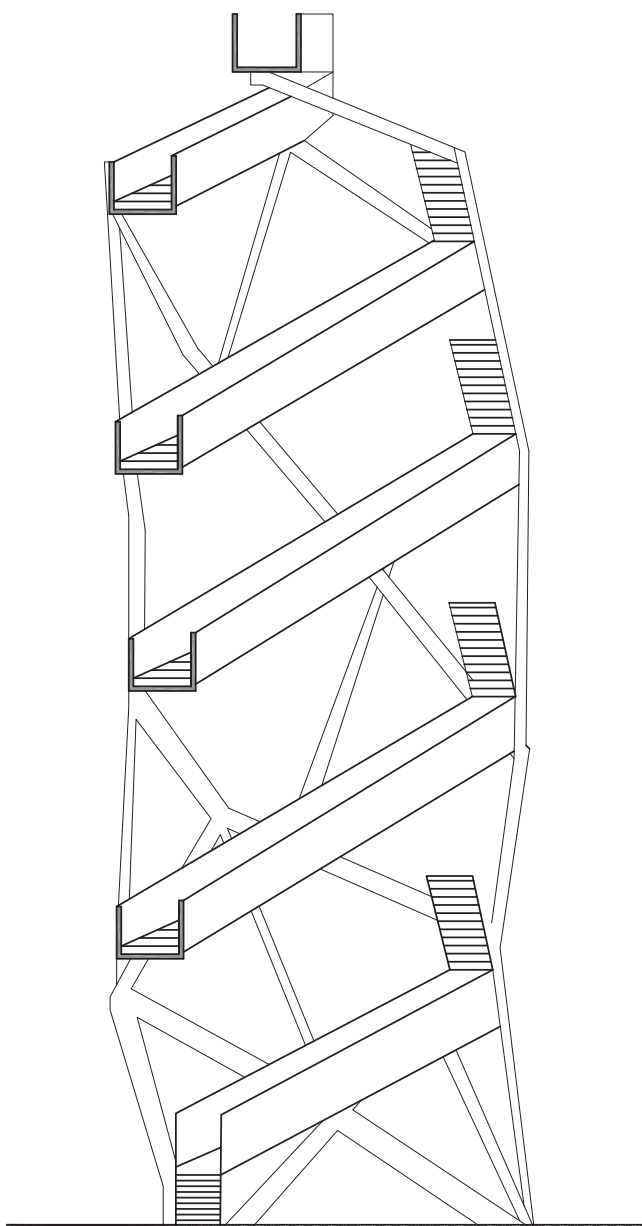
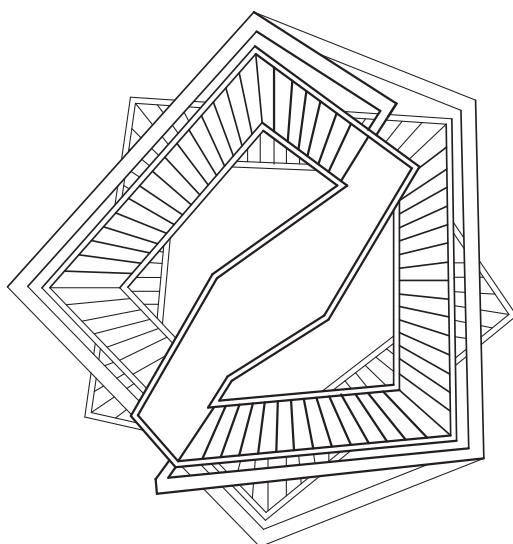
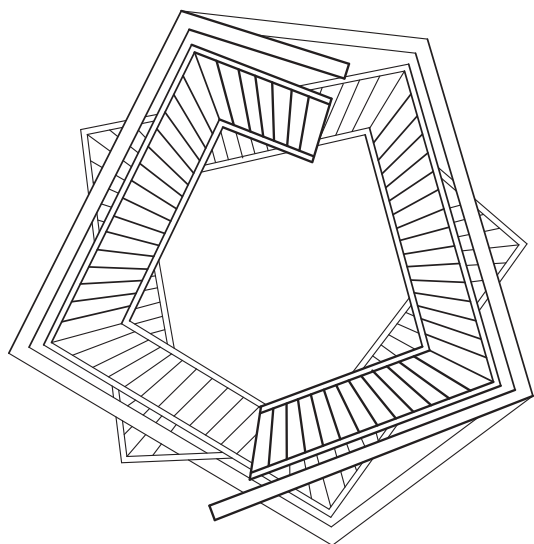
Architect: Terrain: Loenhardt & Mayr Architects and Landscape Architects

Height: 27 meters (88.58 feet)

The overall shape of the tower is based on the double helix which creates a continuous shape rising out of the canopy. The winding stairs creates a journey for the visitors to experience as they climb to the top to look out over the trees and river. The second staircase takes the visitors back down which creates another adventure back down to the ground. By separating the up and down traffic it allows the visitors to experience the space multiple times, on the way up, at the top, and then once again on the way down. This circular staircase was not only based on the idea of the double helix but also on the precedent of the Graz Castle which was built around the beginning of the 14th century.

¹ "Observation Tower on the River Mur / Terrain:loenhardt&mayr." ArchDaily. March 23, 2011. Accessed July 3, 2015. <http://www.archdaily.com/121882/observation-tower-on-the-river-mur-terrainloenhardtmayr>.





Bostoren Forest Tower

Location: Netherlands

Architect: SeARCH Architects

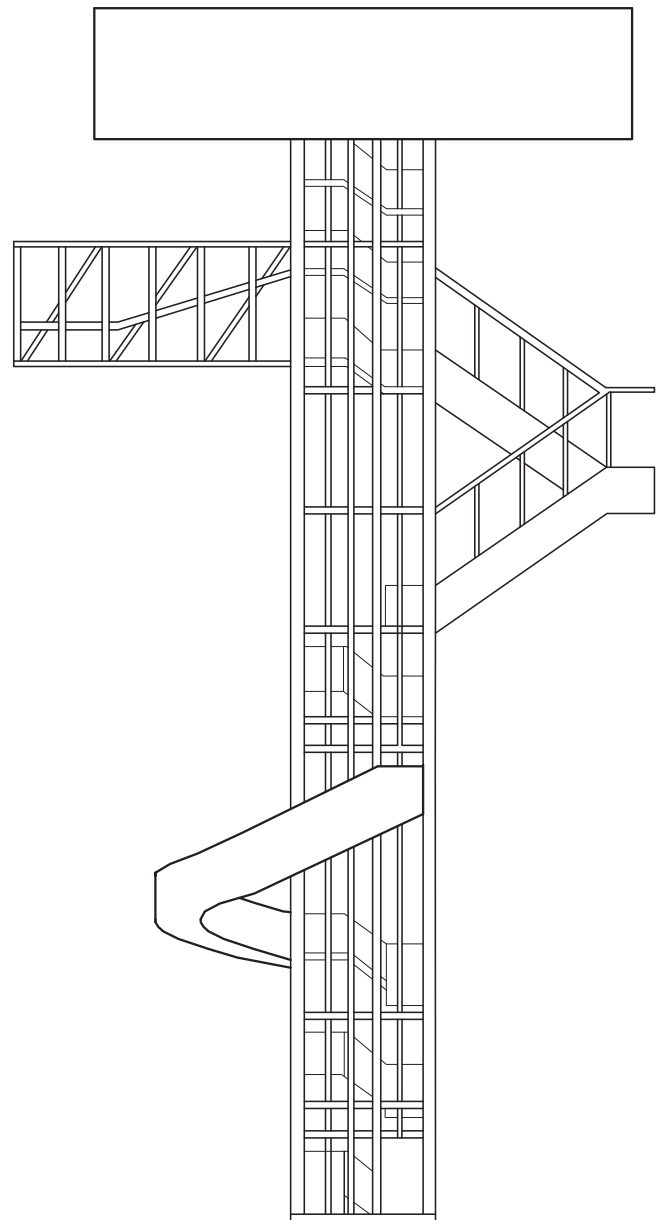
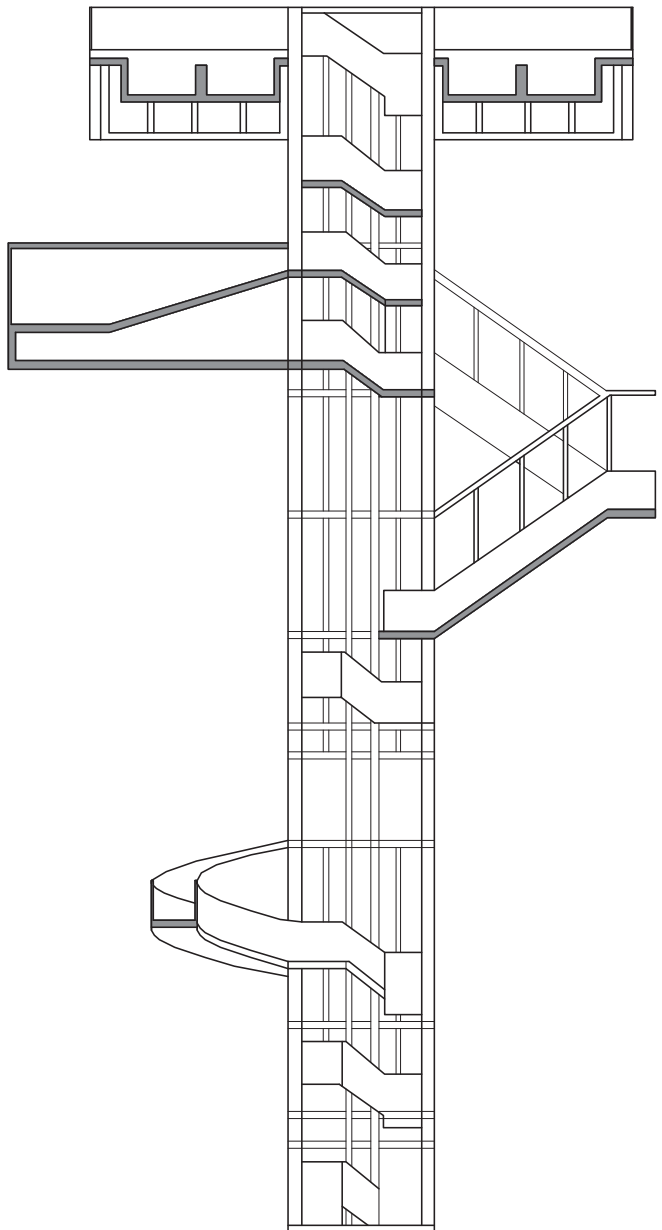
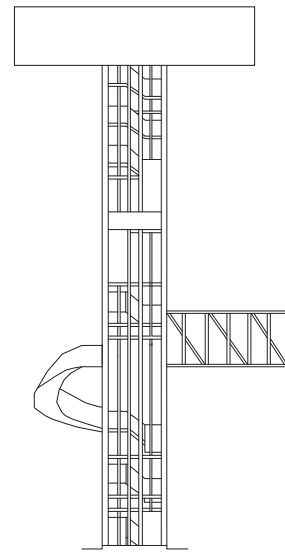
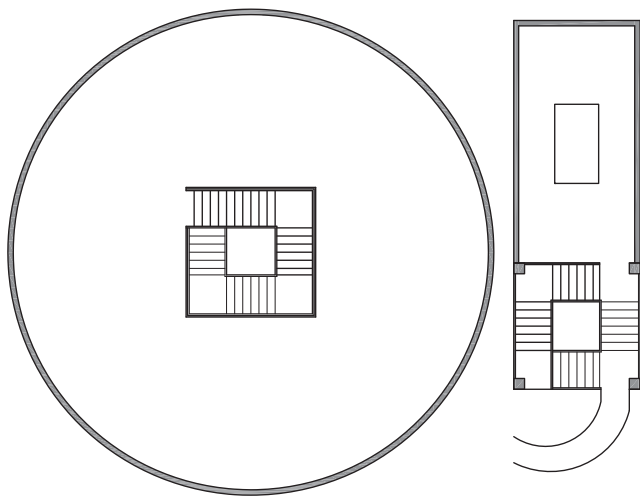
Height: 30 meters (98.43 feet)

SeARCH Architects designed this observation tower to be a journey from the forest floor up to the treetops. At the top there is a 17 meter (55.77 feet) diameter platform which has a miniature forest for visitors to walk around.¹ There is another, smaller observation area about half way up the tower which places visitors about half way up the trees and gives a great view looking into the trees. Before reaching the top, visitors have another observation point where the ceiling is a large mirror and reflects everything below the tower, giving the illusion that the forest is now above you also.

¹"SeARCH's Green-Roofed Bostoren Forest Tower Is a Wilderness Retreat." Inhabitat Sustainable Design Innovation Eco Architecture Green Building SeARCH's GreenRoofed Bostoren Forest Tower Is a Wilderness Retreat Comments. Accessed July 3, 2015. <http://inhabitat.com/searchs-wild-tower-sits-high-in-the-sky-with-its-own-forest-in-miniature/>

²Michiel, Van Raaij. "Bostoren, by SeARCH." Eikongraphia RSS. Accessed July 3, 2015. <http://www.eikongraphia.com/?p=2777>.





10 Cal Tower

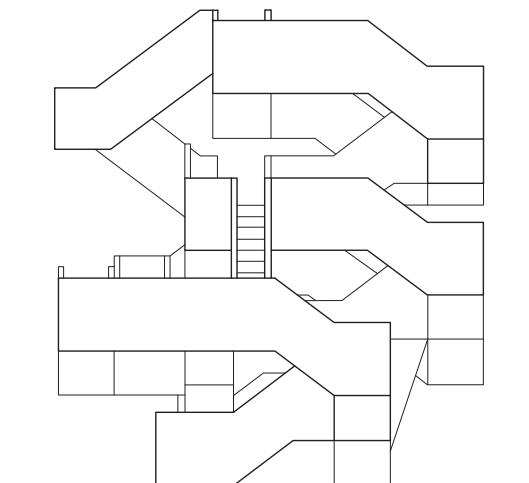
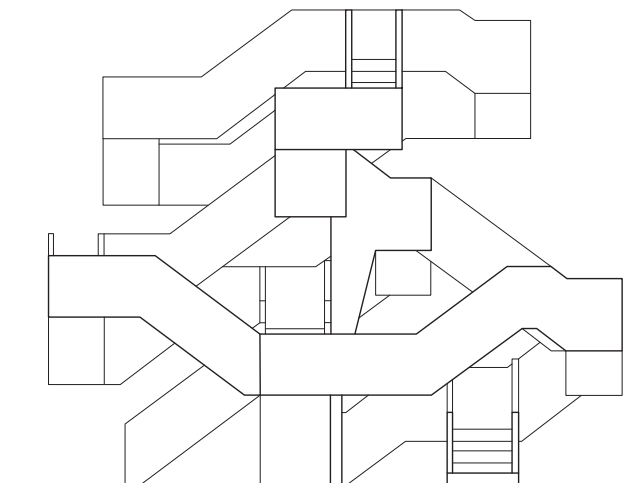
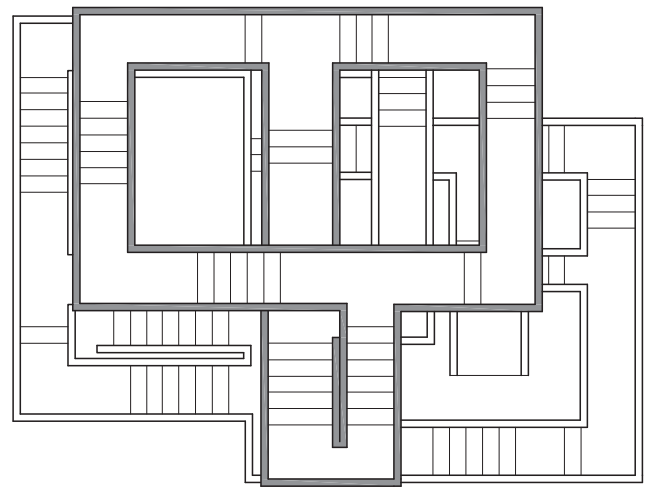
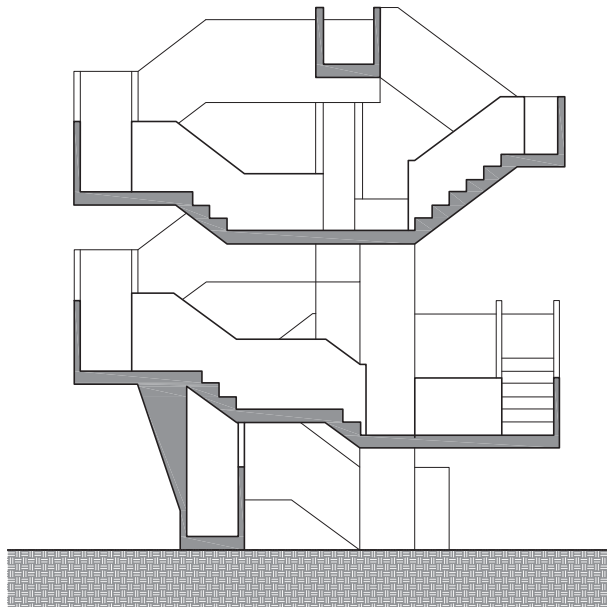
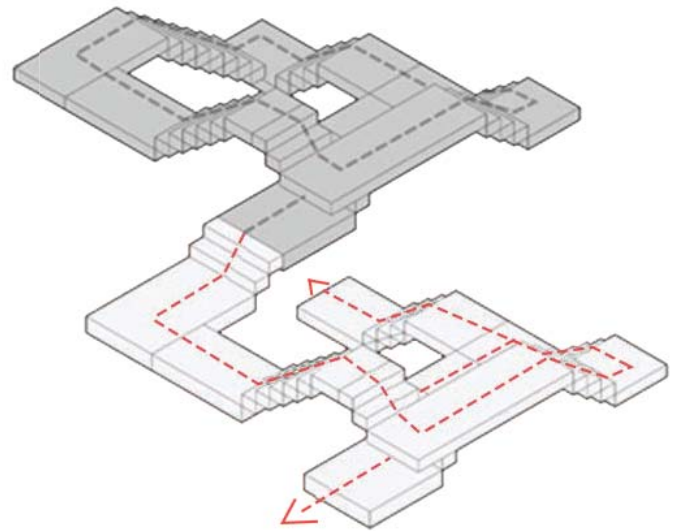
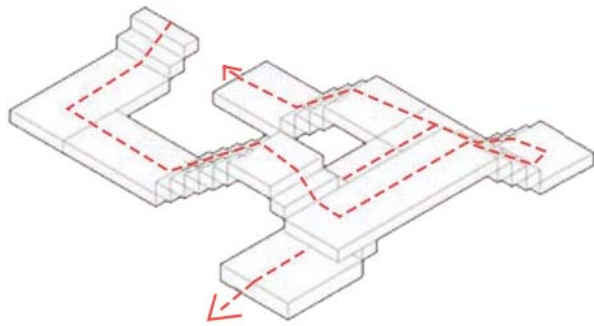
Location: Bang Saen Beach, Thailand

Architect: Supermachine Studio

The 10 Cal Tower was designed as a part of a three piece project designed by three different firms for a public facility in Bang Saen. This tower was designed to be a playground for families to be able to play on but also as a tower to look out over the beach and ocean. Supermachine Studio wanted to create a place where both parents and kids could play together while making it something that both age groups would be able to enjoy. The name “10 Cal Tower” comes from the exercise side of the tower in that a person will burn 10 calories going from the bottom to the top of the tower.

¹“10Cal Tower / Supermachine Studio.” ArchDaily. Accessed July 3, 2015. <http://www.archdaily.com/594809/10cal-tower-supermachine-studio>





Arche Nebra

Location: Wangen, Germany

Architect: Holzer Kobler Architekturen

Height: 30 meters (98.43 feet)

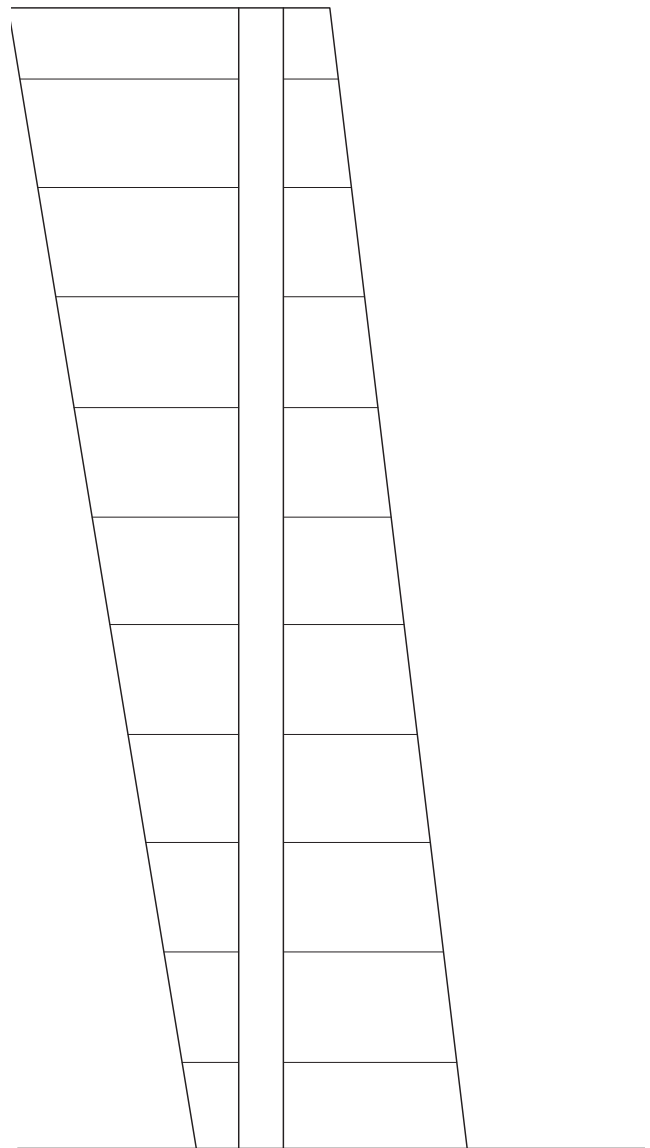
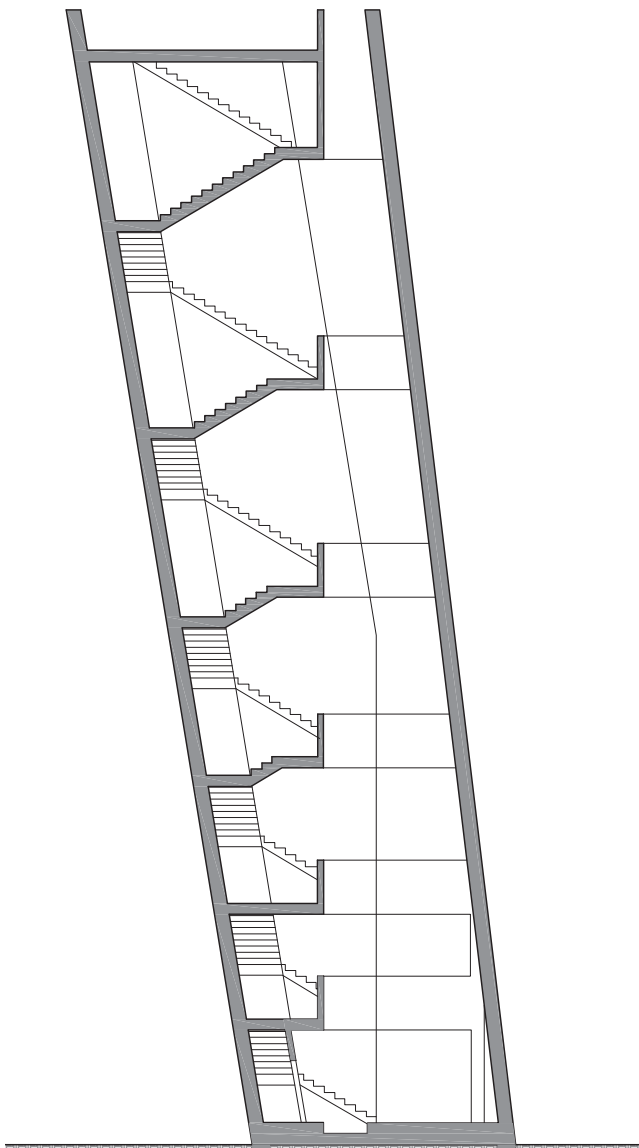
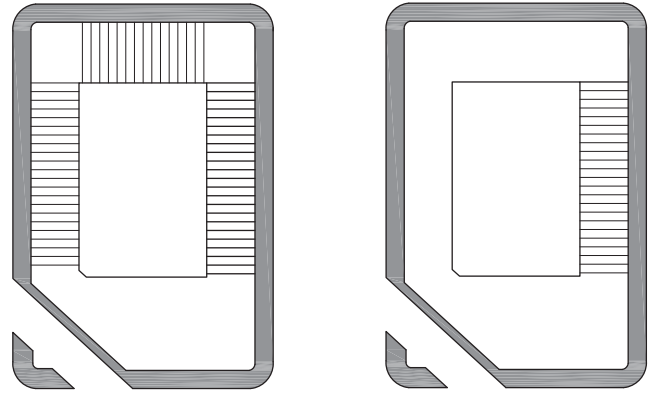
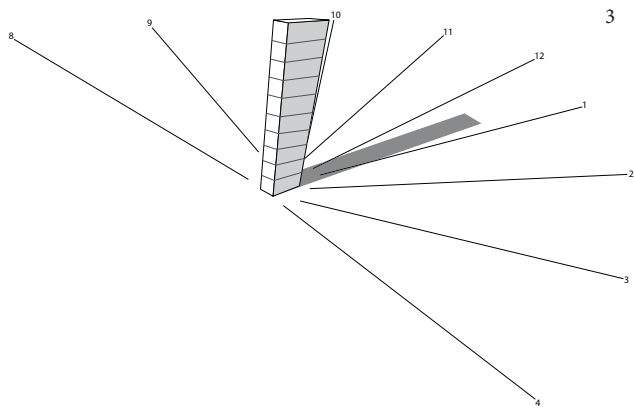
The Arche Nebra was designed on top of a 3,600 year old solar disc. The discovery of the sky disc led to the design competition to build a structure and a tower to showcase the disc and the surrounding area.¹ Holzer Kobler designed the tower to sit exactly on top of the discovered disc and be functional. The tower leans at a 10° angle to the north and has a glass crevice the height of the tower in order to replicate the sky disc's original purpose.¹ This glass crevice also directs the views attention through it and onto the Brocken mountains beyond the tower.

¹"Arche Nebra/Holzer Kobler Architekturen" ArchDaily. January 5, 2012. Accessed 3 July 2015. <http://www.archdaily.com/197854/arche-nebra-holzer-kobler-architekturen>

²"Arche Nebra - Aussichtsturm Auf Dem Mittelberg,Photo-Germany Worldmapz.com." Arche Nebra - Aussichtsturm Auf Dem Mittelberg,Photo-Germany Worldmapz.com. Accessed July 3, 2015. http://de.worldmapz.com/photo/161714_en.htm

³Holzer Kobler Architekturen. "Email Correspondence." E-mail interview by author. June 24, 2015.





Lookout Tower

Location: Bruneck, Italy (Unbuilt but planned to be built soon)

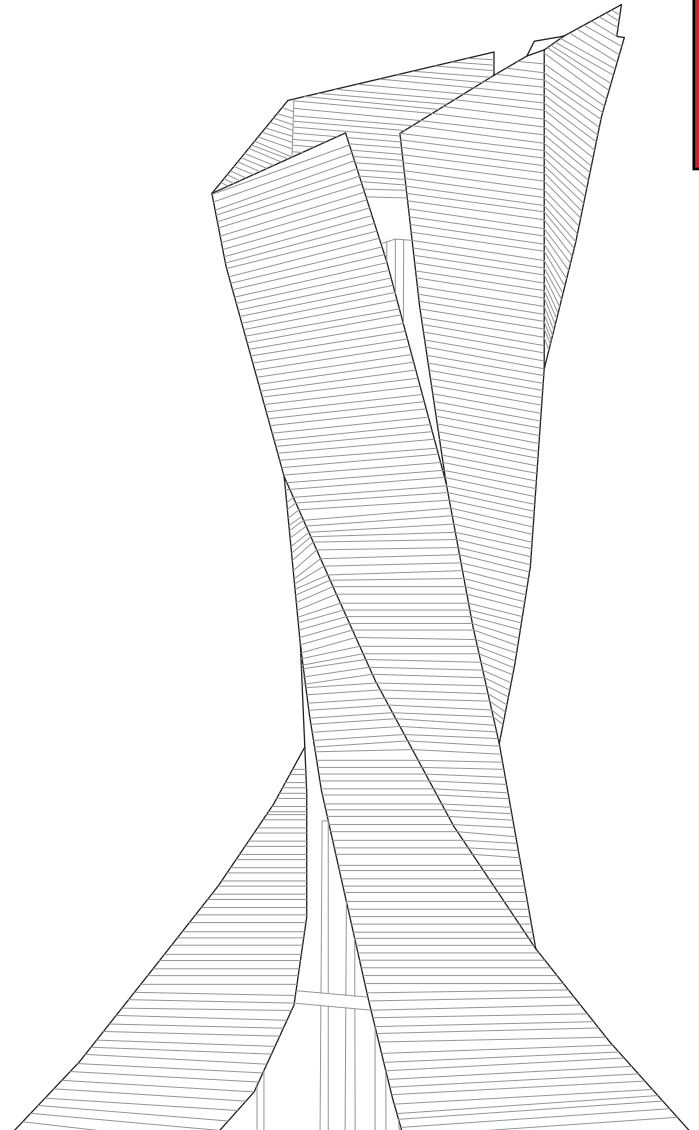
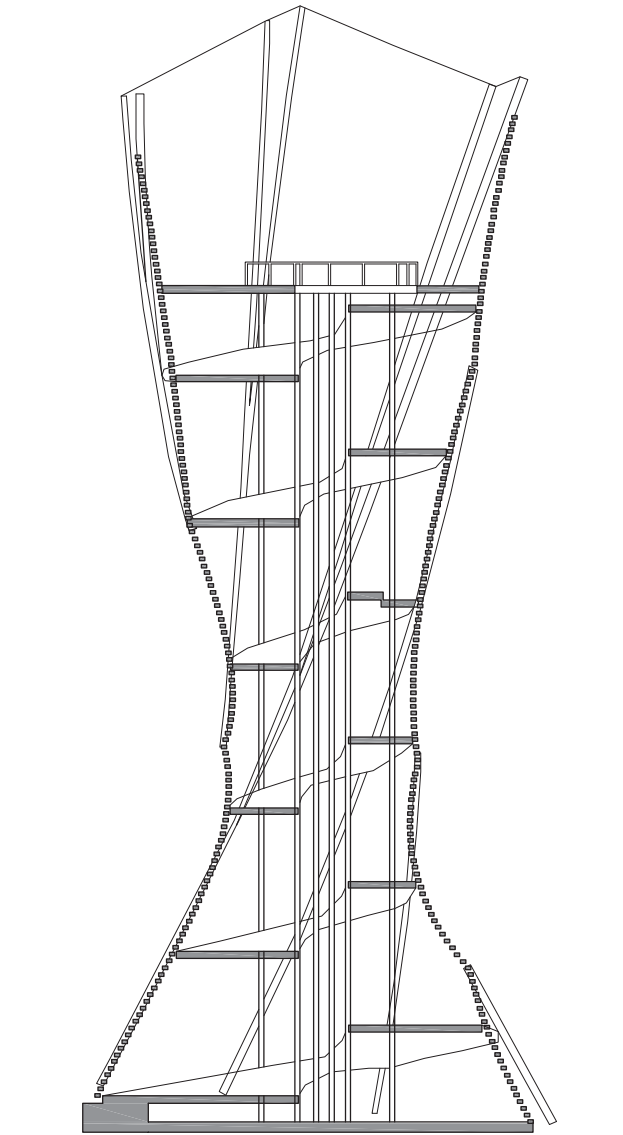
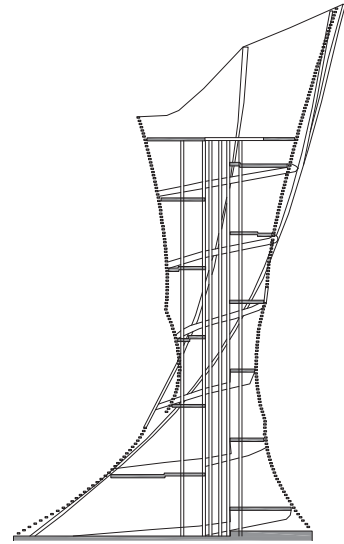
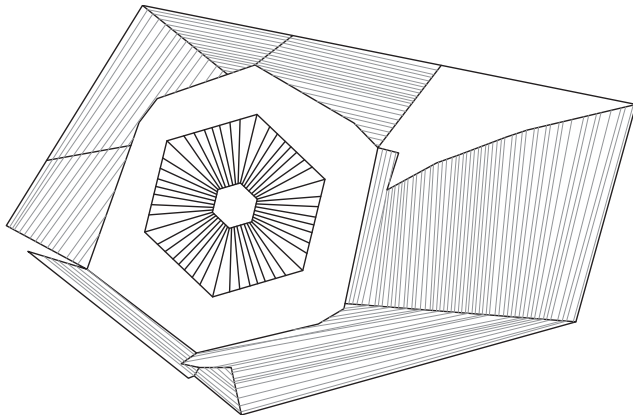
Architect: Anton Pramstrahler & Alex Niederkofler

Height: 33 meters (108.27 feet)

The design of this tower was based of the surrounding trees. It is supposed to be a tree trunk with all its roots spreading out underneath itself. The tower is made out of straight wood beams that rotate and twist with the overall structure. The structure twists “a few degrees every two meters” as the tower goes up. In the middle is a wooden staircase, pictured at the right, that creates a feeling that you are circling around a central trunk and climb up to the top of the trees. By using wooden beams as cladding and creating slats into the interior space this allows air to free flow throughout the entire tower to create a natural feel as wind blows through the forest around it.

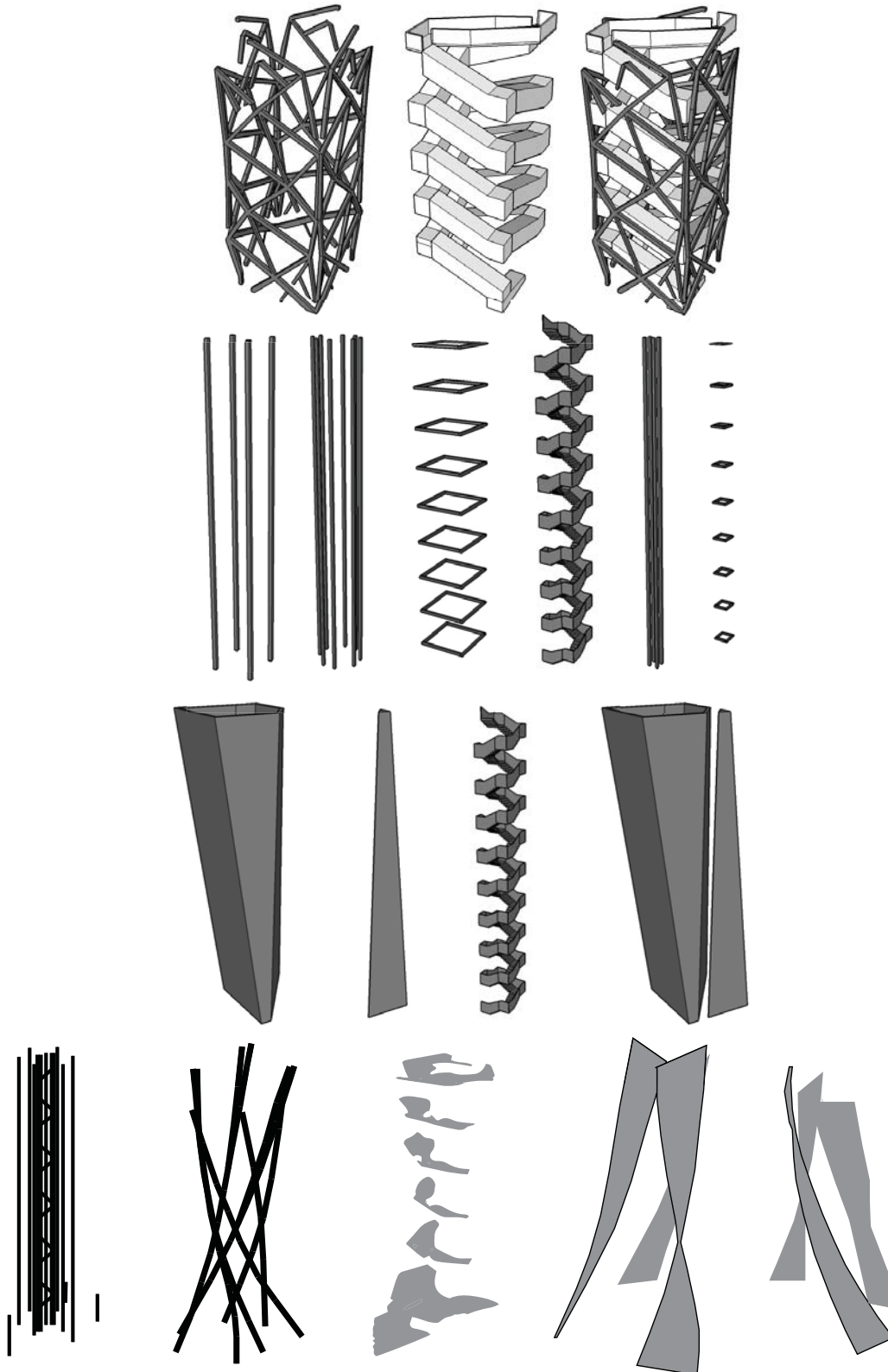
¹“Twisting Observation Tower Could Be Built in an Italian Forest.” Dezeen Twisting Observation Tower Could Be Built in a Northern Italian Forest Comments. April 20, 2015. Accessed July 3, 2015. <http://www.dezeen.com/2015/04/20/twisting-observation-tower-bruneck-italy-anton-pramstrahler-alex-niederkofler/>.

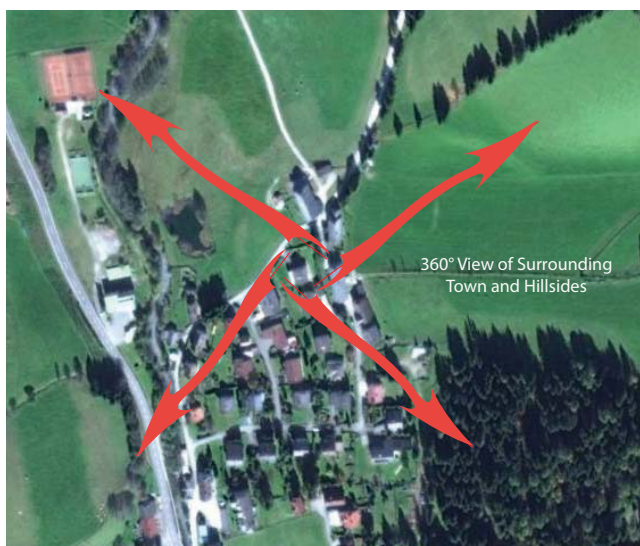




Diagrams

The diagram below is a study of the parts of each of the towers. First is the two components of steel and stairs in the Observation Tower on the River Mur. The next is the timber columns and supports integrated with the stairs to create the Bostoren Forest Tower. The following is the concrete walls of the Arche Nebra which is made up of two pieces with a set of stairs climbing to the top. The final diagram below is the components of the Lookout Tower which consist of wooden columns twisting up to the peak with a core of wooden columns to attach the stairs to. The final piece of the Lookout Tower is the wooden slats that create the exterior cladding.

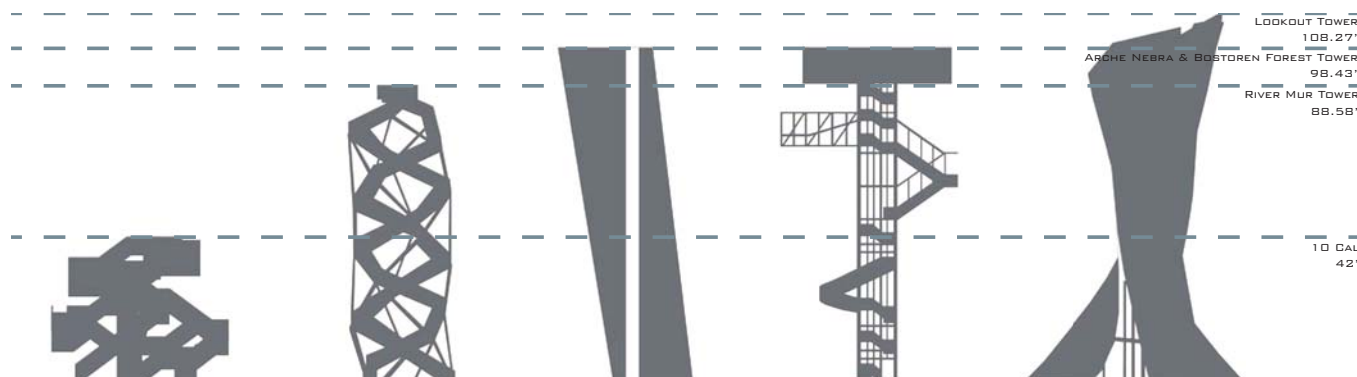




These diagrams are maps of the locations of the buildings showing the surrounding views from the towers. Each of them have very unique views and locations, from hillsides to forests, to beaches each tower has very unique characteristics.



The height study below shows the height relations between the towers. Each tower varies in height based on its location and surrounding objects. The towers' height also depends on the functions of the tower such as the 10 Cal Tower which is also used as a playground or the Arche Nebra which doubles as a massive sun dial.



Program Analysis

Watch Tower Open Air Museum

The Watch Tower Museum will have multiple spaces that will need to house different functions. The first portion is the public space that allows the visitors to see and interact with the museum. The next portion are the private or administrative spaces that will be off limits to the public but are necessary for the museum to function behind the scenes. The final grouping of spaces are the grounds. The grounds will keep the museum in tip-top shape and will require the correct spaces to do so while staying behind the scenes.

Public Spaces

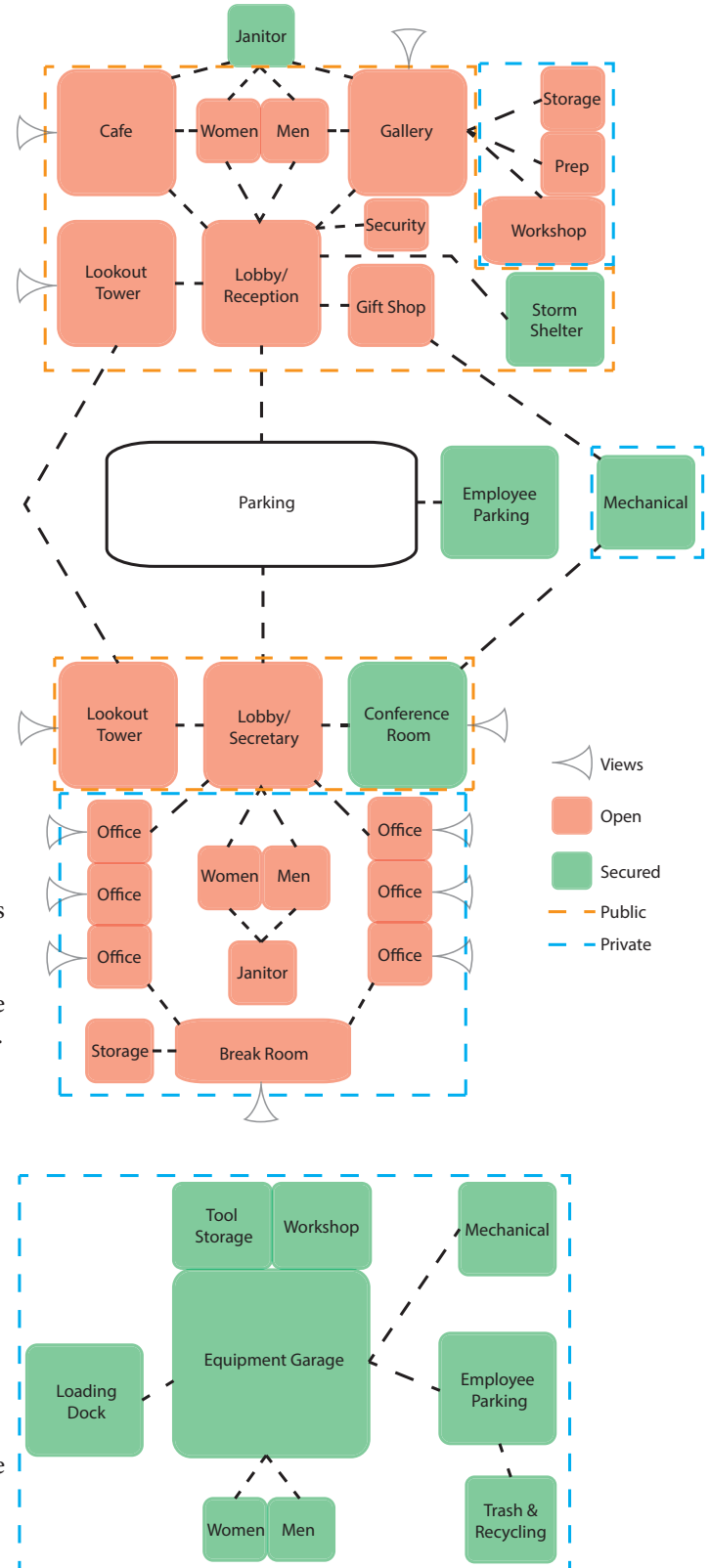
The public portion of the entry building to the museum will house a small gallery for displaying art exhibits or will explain the open air museum. Along with the gallery will be gallery storage and a preparation space for the curators to put together exhibits before placing them in the actual gallery. This portion will also house a gift shop and cafe to bring in extra revenue for the museum. A major feature of this portion will also be the lookout tower that will allow visitors to climb and view the entire museum before venturing out to see the individual buildings.

Administrative Spaces

The administrative portion of the building will house the offices for the administrative staff. There will need to be multiple sizes for the different staff members and the size of the office will vary upon the staff members need. The conference room will be used to hold meetings for business purposes and staff meetings. It will need to be large enough to hold roughly 20-30 people. This portion will also house a break room for all museum employees to be able to relax during their breaks. Also this space will need to house an area for general office equipment (copier, fax machine, etc).

Grounds Spaces

The grounds building will be detached from the main entrance to the museum but will serve a vital role in the functioning of the museum. This department will need a large garage for storing tractors and equipment along with a space for tools. The workers will also need a space to fix and repair any equipment or pieces around the museum. This building will also house the loading dock and dock storage area so that large trucks will not be interrupting the flow of visitors around the main entry building.



Public Spaces

Space	Quantity	S.F.
Gallery	1	1500
Space for exhibits explaining tower design strategies		
Gallery Storage	1	250
Area to store gallery furniture and other gallery supplies		
Gallery Preparation Space	1	250
Area to prepare new exhibits for the gallery		
Workshop	1	500
Space to fix gallery furniture or exhibits with closet for tools		
Lookout Towers	2	150
Towers that over look the site from the entry building(s)		
Vestibule	2	50
Airlock		
Lobby	1	200
Reception/info desk to greet visitors, seating area		
Toilets ¹	2	300
3 fixtures & 2 lavatories per toilet room, 1 drinking fountain		
Security	1	200
Office to oversee site & collection security		
Safety Center	1	200
First Aid center for visitors and employees		
Gift Shop	1	500
Store for museum memorabilia & collectibles		
Lockers	1	200
Secure coat check/lockers for visitor's belongings		
Food Service	1	2000
Small cafe & kitchen with seating area for guests, vending area		
Janitorial	2	100
Shelving for maintenance supplies & mop sink		
Storage	1	250
General storage		
Storm Shelter	1	1000
Underground shelter to keep visitors safe during storms		
Total for Public Spaces		8,250
Overall Total for Public Spaces	+30%	10,725

Administrative Spaces

Space	Quantity	S.F.
Curator Office Larger office for museum curator	1	200
Administrative Assistants Offices with desks and filing cabinets to allow for productivity	2	120
Head of Maintenance Office for maintenance personnel in main building	1	160
Business Executive Office for marketing & financial officers	2	160
Conference Room Space for 20-30 people for various meetings	1	320
Vestibule Airlock	1	50
Secretary Receptionist Space in lobby at information desk	1	100
Toilets 1 fixture & 1 lavatory per toilet room, 1 drinking fountain	2	60
Break Room Kitchenette, tables, chairs, couches, copier, etc.	1	350
Storage General storage	1	50
<hr/>		
Total for Administrative Spaces		2,060
Overall Total for Administrative Spaces	+30%	2,678

Grounds

Space	Quantity	S.F.
Equipment Storage Garage for tractors and equipment	1	3000
Tool Storage Space for tools and materials	1	500
Workshop Space for fixing and building items for the museum	1	1000
Mechanical Space Mechanical equipment for all buildings	2	2000
Loading Dock 1 bay dock with storage, exterior & interior spaces	1	2000
Recycling & Trash Dumpsters & recycling bins	1	500
Toilets 1 fixture & 1 lavatory per toilet room, 1 drinking fountain	2	60
Storage General storage for materials	1	200
Parking Lot ² 80 parking spaces & 3 bus parking spaces	1	20,000
Total for Grounds Spaces		11,320
Overall Total for Grounds Spaces	+30%	14,716

Overall Total Square Footage **28,119**

¹Based on the IBC Plumbing Code Section 403.1 based on an occupancy of 300 people. Fixture count table is found under the previously stated section and on http://publicecodes.cyberregs.com/icod/ipc/2012/icod_ipc_2012_4_par008.htm

²Based on Jackson County Code for parking lot space requirements of 1 space for every 5 occupants. Eighty spaces allows for 300 visitors plus 20 employees.

³All spaces must be ADA compliant.

WRITTEN SUMMARY

Over the past three weeks, much research has been done on watch towers. During this research I have found that each tower serves one similar purpose, to be an observation tower, but sometimes they also can serve a dual purpose. This idea of a seemingly simplistic tower serving more than one purpose is very intriguing. Two of the towers in this collection have this dual functionality, Arche Nebra and 10 Cal Tower. Arche Nebra is not only an observation tower but doubles as a massive sun dial as it was built directly on top of a 3,600 year old sky disc.¹ The 10 Cal Tower also doubles as a playground for the locals to take their children to and have fun while getting exercise climbing all over the tower. Having these structures have dual purposes make them a more intriguing building because this means another level of design had to be brought into the program. This idea of having a structure that serves multiple purposes is a great way to design because this makes a building have a longer life span. By taking the idea of a multipurpose building into consideration for my design it makes me begin to think how I will be able to create a museum that can serve multiple purposes. I believe that designing a museum to be a multi-functioning building will be rather difficult because museums usually serve a very narrow purpose, to show off various treasures from around the world. In order to design something that is intended to be very specific and turn it into a building that can serve different functions will require spaces that can be used for various purposes. This is where I feel it will become a difficult design problem because only so many spaces can be used for many different purposes. This leads the project to become a more open design concept so that if it can have multiple lives after the museum.

The other portion of the design problem with a multifunction building is that the site and its design must play into the hands to be used for other purposes. The site needs to be able to be used for indoor and outdoor activities and especially

allow anyone to traverse it. This means that there should be indoor and outdoor spaces to allow for activities that require either. The next part of traversing the site means that the site should be a journey to allow for people to have an adventure traveling throughout the site. This means that the site should allow for anyone to go throughout the site in multiple ways or fashions. Creating an adventure for visitors is a very important design step that allows each person to experience the site in multiple ways and create a different experience every time someone experiences it. This idea of creating adventures leads to creating different ways to go around the site whether that be walking, boat riding, or zip lining around the entire site. Each mode of traversing the site brings a new perspective on how the visitors view the art and buildings which in turn make people want to come back and experience the place multiple times. To give people an experience that makes them want to experience it over and over again is what I feel architects should be trying to do. By creating this experience allows for people to become a part of the space and site and feel something when they move around and interact. This is one of the goals I hope to achieve with my design, to create a space that allows for people to experience it in many different ways.

I have discussed two main goals for my project, to create a structure that is multi-functional and to create a site/space that allows for people to experience it multiple ways and each time have a different experience. I feel that from the buildings in my collection will greatly compliment my ideas to create this experience and spaces. Each of these buildings create their own spaces that will only help me in achieving my goals. The only problem with bringing in buildings to a site and placing them is that the structure may not have the same affect on people as it does in its original placement. This problem can be solved in a few different ways. First is that they need to be placed in a similar fashion

as they are originally to create a similar feeling on my site. The second option is to place them so that they create a different feeling than intended but they begin to create a different feeling that is special to the site and allows people to experience the same architecture but in different environments. The second option, I feel, is much more interesting because a person can experience the building in its natural environment but then experience it a second time in a different place and see different things about the structure. A different place can bring out different aspects of the structure and make it a completely different building and experience. Overall I plan to design a space that is multi-functional and creates an amazing experience many times over for all visitors.

Another goal of mine for this open air museum is to have the entrance facility relate to the towers in some way or another. I plan to create a way to experience the site and towers before ever adventuring out onto the site so that the visitors get a sneak peek at what they will soon get to experience. By creating this small sneak peek it will build the anticipation of the visitor and make the journey that much more exciting. I want the journey for the visitors as they arrive at each tower to feel as though they are small and the tower is almost monumental but once the visitor climbs to the tower and reach the top they themselves will get the feeling of being monumental. I feel that this will add another aspect to the experience because as a person approaches each tower they will all look different in depending on how they are placed on the site. The placement of the towers will also make them look shorter or taller than they really are depending on their surroundings and their placement on the changing terrain.

Overall I hope to design a structure that is able to serve many different purposes and functions while being able to have a long life span to function as many different buildings if need be. I also

hope to create an experience that makes people want to come back many times in order to have many different experiences and adventures. I want this open air museum to be a place where people want to go to have and create their own adventure while interacting with architecture found around the world but placed in one location. If both of these goals are accomplished then I feel that my design will be able to create a space that has the ability to bring people together for any purpose and let them create an adventure that could take them anywhere.

Sources

¹"Arche Nebra/Holzer Kobler Architekturen" ArchDaily. January 5, 2012. Accessed 3 July 2015. <http://www.archdaily.com/197854/arche-nebra-holzer-kobler-architekturen>.





Mark Lazowski

Southern Illinois has a strong connection to the natural environment, that is unlike anywhere else in Illinois. My research has driven me to learn more about buildings that are integrated with nature. This building set highlights several examples of this.

ANALYSIS OF READINGS

Frampton - Reading 1 Title

Arditi - Interactive Tactile Maps, Visual Disability, and Accessibility of Building Interiors

There are many ways one can experience architecture, art, and other physical entities; besides using one's vision. There is a common theme of this in the two articles chosen for this analysis. The use of senses other than sight to bring harmony to the experience of a place. The concept of sensual attunement, is to bring into harmony the aspects of all the senses to create something that can be experienced at all levels more equally than before, but also enhancing the experience when more than one sense is used. Making it no longer "the visual versus the tactile" (Frampton 1991, 29). as Frampton says, but making the combination something that can be experienced to enhance the eclectic, and also not take away from the people that cannot experience all the senses "properly".

In the first essay, written by Kenneth Frampton, he mentions in the sixth point that there is a "suppression of the senses of smell, hearing, and taste; and a consequent distancing from a more direct experience of the environment" (Frampton 1991, 29). In other words there is a lack of the use of other senses in the experience, due to the fact that everything is thought of in a way that is more scenographic. This excerpt brings up a topic that is a major issue for people with impaired senses, most noticeably the visually impaired, which is the topic of the second essay chosen, written by Aries Ardit and Emily Holmes. Their research on how the visually impaired interact with the built environment lead them to try and find a way to make it easier for blind people to maneuver through the insides of buildings by using a tactile map of the plans that would let them map out a path to follow to their destination. "There are interactive options which guide the user in where to move their finger to reach desired goals on the map, or allow free exploration of map features by providing speech output identification of tactile features in response to pressing on them" (Arditi 1999, 14).

Before the ADA, and all the guidelines were set for handicapped persons, people relied on a bystanders directions, but now people are working to find ways for people who lack one sense, to be able

to use a different one to experience the building. Whether that be hearing the sizes of rooms change, or the feel of the materials on the floors and walls. All the senses tell a different story about what architecture is like, and not only just architecture and the built environment, but also art and other objects that are usually predominantly visually and not through the other senses.

This idea of having people experience interior spaces independently with their sense of touch and hearing, is why the second essay was chosen, to go along with the points made in Frampton's essay. The tactile world is completely separate from the visual, though some people can experience all the senses in a building, having the ability to experience the other senses besides visually is usually overlooked. The people that are able to see do not notice the tactile world as prominently because they do not rely on those senses to "see", while others rely on the ability to experience and function on these senses. By working with both tactile and visual stimuli, the "capacity to arouse the impulse to touch [can return] the architect to the poetics of construction and to the erection of works in which the tectonic value of each component depends upon the density of its objecthood" (Frampton 1991, 29). and coupled with strong visual representation, create a complete experience that can be enjoyed by anyone to its fullest.

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Frampton, Kenneth. "Towards a Critical Regionalism: Six Points for an Architecture of Resistance." In *The Anti-Aesthetic*, 16-30. Seventh ed. Seattle, WA: Bay Press, 1991.

Frampton - Rappel a l'Ordre

Walton - Heide II Project: Dance, Music, Architecture

Though there are many different types of art, the uniqueness of the types of art that reach out to the viewer in a rhythmic sense have a completely different effect on people than most other forms. Through dance and music, the viewer (or listener) experiences emotion through movement, which is far different than most traditional art like statues or paintings; along with music and dance however, is architecture. Architecture fits into this category in several ways, though most people see the built environment as stationary like statues.

In Kenneth Frampton's "Rappel a l'Ordre", he talks about Gottfried Semper's "Theory of Formal Beauty" (1865). and in that piece Semper states that "he no longer grouped architecture with painting and sculptures as a plastic art, but with dance and music as a cosmic art, as an ontological world-making art rather than as representational form" (Frampton 2002, 4). This is interesting to think about as an architect, because many people only see architecture as the form that it is, and not think about what it really represents, and how emotions arise through the movement about the space and acoustical cognition of the interior and exterior.

Similarly, in an article written by Judith Walton, a student at Victoria University, she uses the space of a building, Heide II (an exhibition space for Heide Museum of Modern Art), to create rhythmic art from its form. Walton believes that architecture is performative, comparatively to dance and music she mentions "architecture is performative in the way(s) it allows itself to be seen, how it turns to reveal itself through certain apertures, views, and reflections. The dance of architecture can be found in the time span of the building: the rehearsal of its design, the sketch, drawings, plans, and models; the construction and composition..." (Walton 2008, 228).

It is clearly seen that there is a sense in architecture that is more than a static building, something "moves" inside of it, which is likely where Semper comes from by saying it is cosmic art. It is "world-making art" and more interactive on

the emotional level than "plastic art" which is only visually stimulating. Size, shape, perspective, and materiality of architectural space can change how one experiences the space, and interprets it through their senses; mostly auditory, visual, and tactile. Increases and decreases in area, ceiling height, and elevation can all directly correlate to dance and music; rising and falling chords or lengthened or abrupt notes in music; to choppy and fluid or fast and slow movements in dance. They all initiate different emotions through the medium they are being portrayed in/on.

In closing, though everyone has their own opinion on architecture as art, it is fair to say that it embodies more than a static structure. The order of flow in design, and the interaction of persons through the interior and also around the exterior can be directly compared to that of rhythmic art, compliant with senses besides visual. Through movement and auditory factors, there are many different ways architecture can be interpreted, and better experienced with integration of as many senses, to generate a complete experience physically and emotionally, in order to better the experience of the visitors. The built environment is an exhibit of all forms of art in itself.

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Lennox Residence

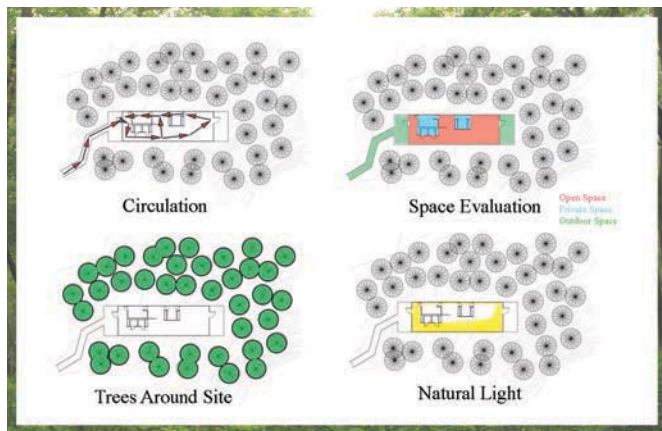
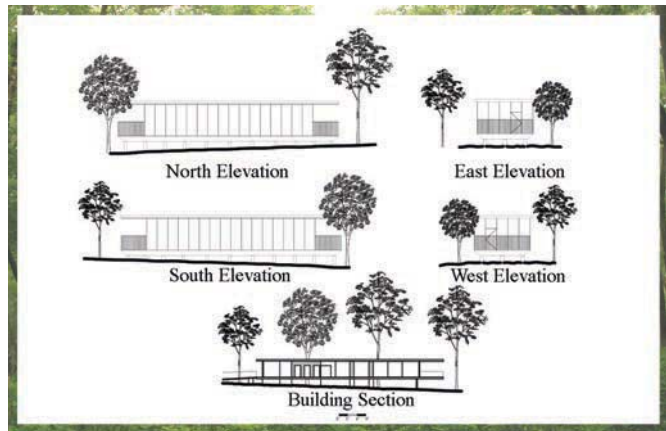
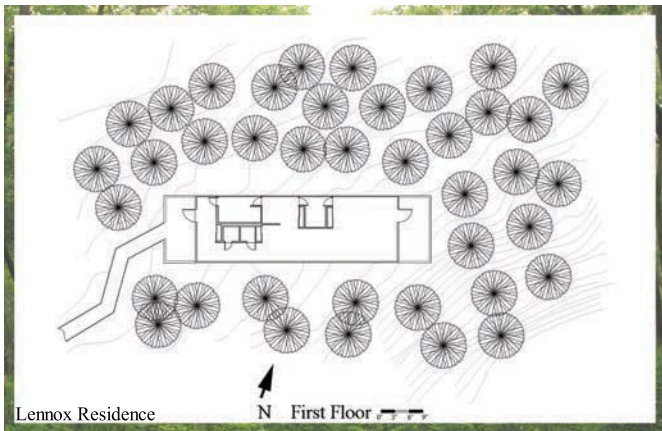
Location: Ottignies, Belgium
Architect: Artau Architecture

This building accommodates people with epilepsy who have poor mobility. It is located within a pine at the edge of a reserve forest. The room with windows on every side offers permanent contact with the surrounding nature and gives them the impression of being outdoors.

The “vessel” is made of glass, with a timber/iron structure, and stands on pillars, thereby making it float above the natural surroundings. A wooden footbridge winds under the pine trees, creating assures a link to the existing building.

<http://www.homedsgn.com/2014/02/02/lennox-residence-by-artau-architecture/>





Izabelin House

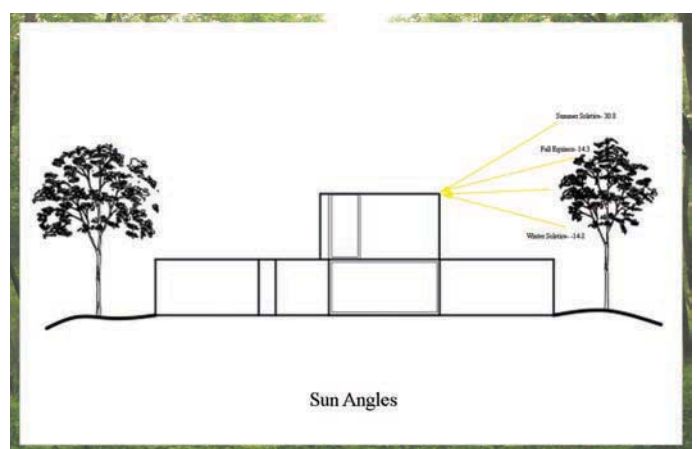
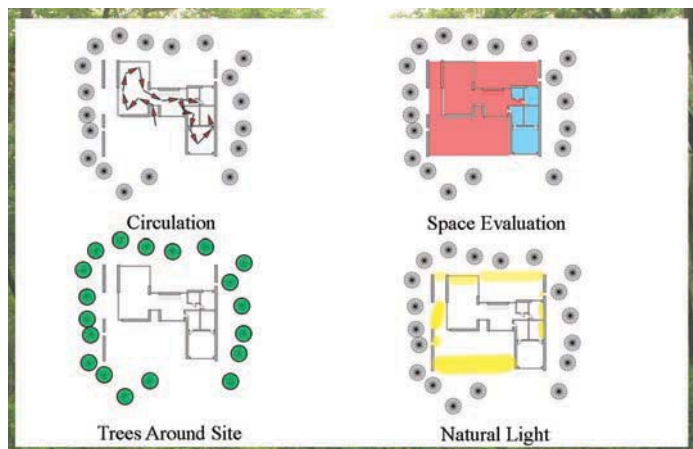
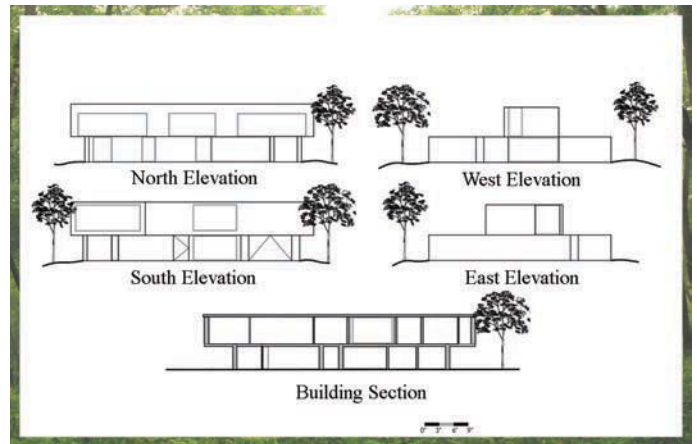
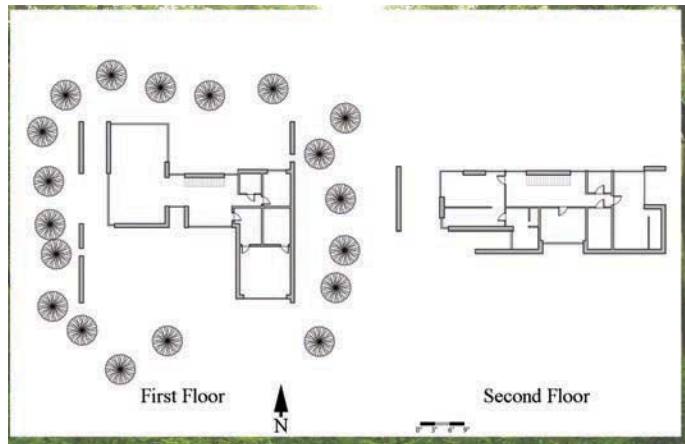
Location: Warsaw, Poland

Architect: REFORM Architekt

These mirrored surfaces appear as an extension of the forest floor, with opaque areas stacked above. The bottom level includes also a sheltered terrace in a shade of dark brown wood that matches the surrounding earth.

<http://www.archdaily.com/605608/izabelin-house-reform-architekt>





Concrete House in Mar Azul

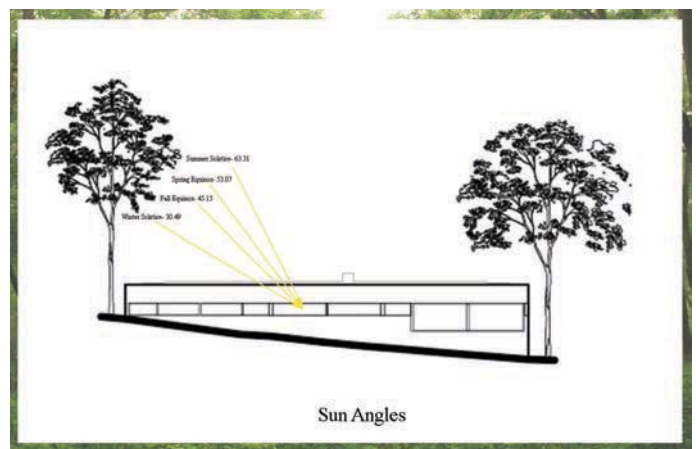
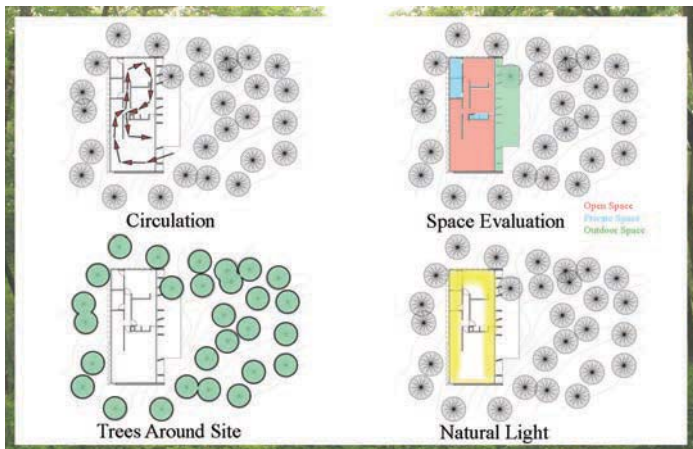
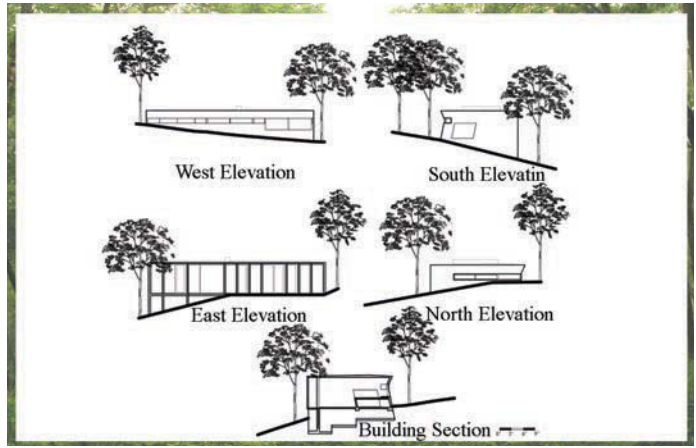
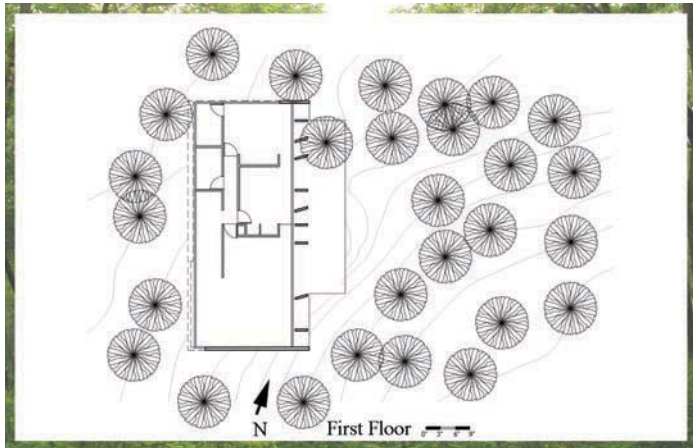
Location: Mar Azul Forest, Argentina

Architect: BAK Arquitectos

Amidst the soaring pines and sloping sands of Argentina's Mar Azul Forest, this concrete house by BAK Arquitectos rests silently. A short hike from the Atlantic coast, this home is located in one of Argentina's top bathing destinations, a few hundred miles south of Buenos Aires. To escape the busy shoreline activity and enjoy more of Mar Azul's nature, this concrete house was constructed on a rolling sandy hill inland from the beach.

<http://www.thecoolist.com/concrete-house-in-mar-azul-forest-argentina/#sthash.6jWRmRB2.dpuf>





JD House

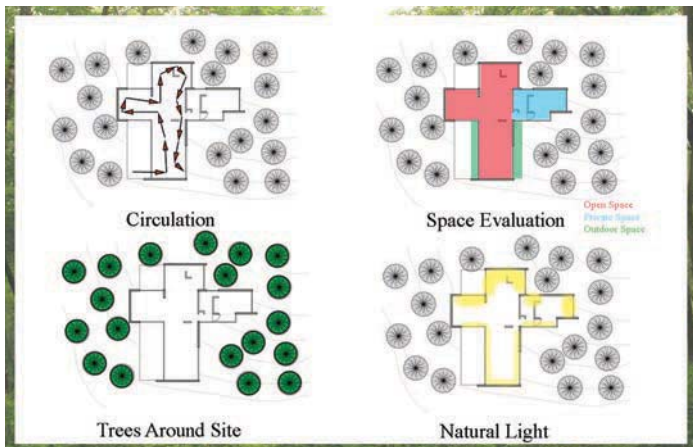
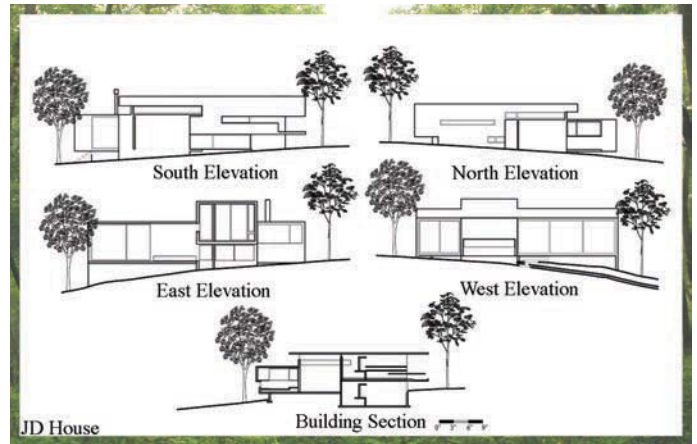
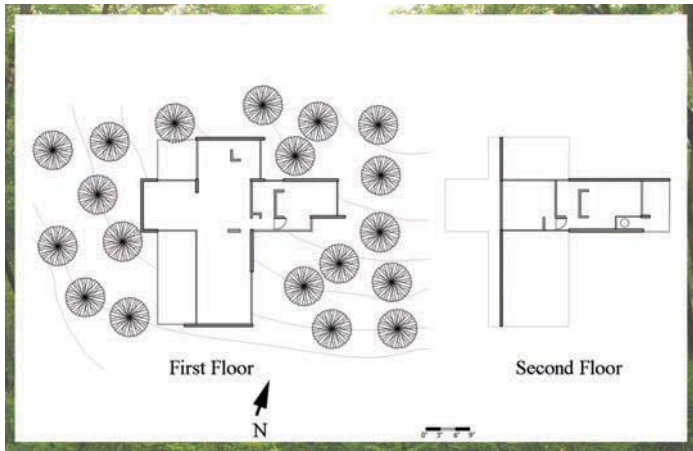
Location: Mar Azul, Argentina

Architect: BAK Architects

The home has a geometric concrete envelope. For a home contained in the woods (somehow privateness guarantee, right?) it has flooring-to-ceiling glass partitions to favor natura delicate. A tree has made it on the porch on the doorway entrance, or significantly by the use of it, whereas completely totally different timber peek intently via the home house home windows. The forest appears to increase into the home, with its picket plated partitions and picket furnishings and the dim yellow delicate on the surfaces and edges

<http://www.dreamhomestyle.com/design-ideas/forest-jd-house-by-bak-architects-in-argentina>





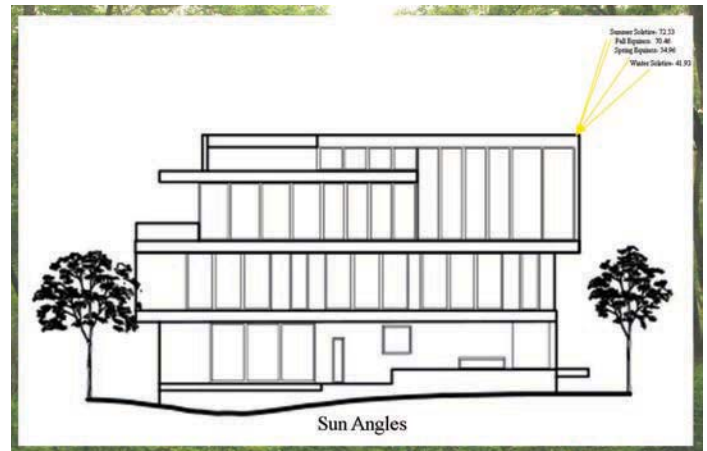
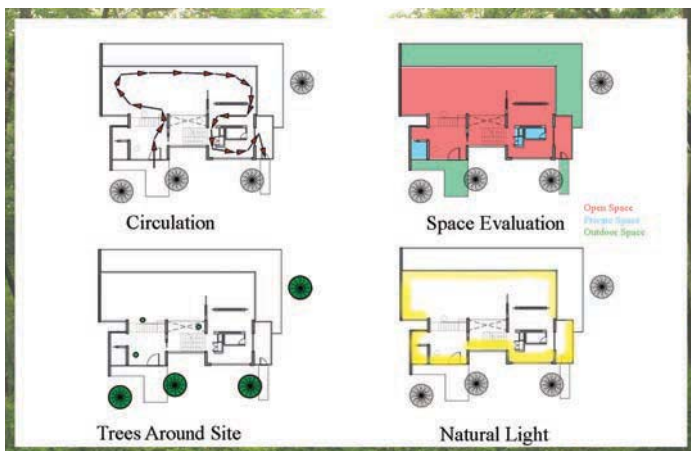
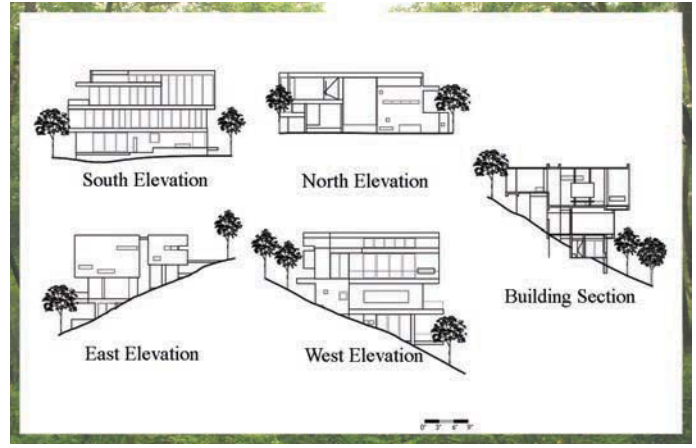
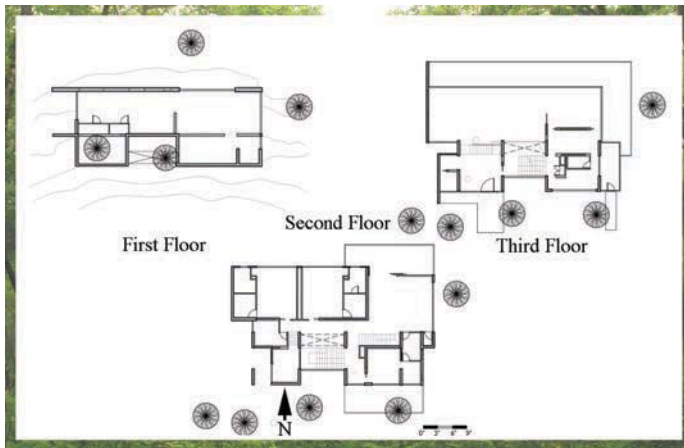
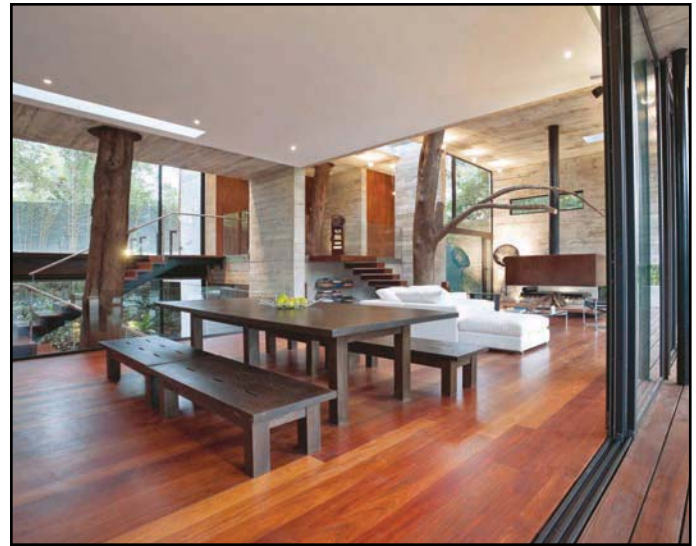
Corallo House

Location: Santa Rosalía, Guatemala City, Guatemala
Architect: Alejandro Paz

The floor plan is free of columns and the changes in level adapt to the existing topography. Both façades are mostly glass in order to connect the interior to the exterior. The main structural component is exposed concrete, which shows the rustic texture of the wood formwork, allowing a dialogue between the formal element and the textures of the forest.

<http://www.archdaily.com/218585/corallo-house-paz-arquitectura>





HP Tree House

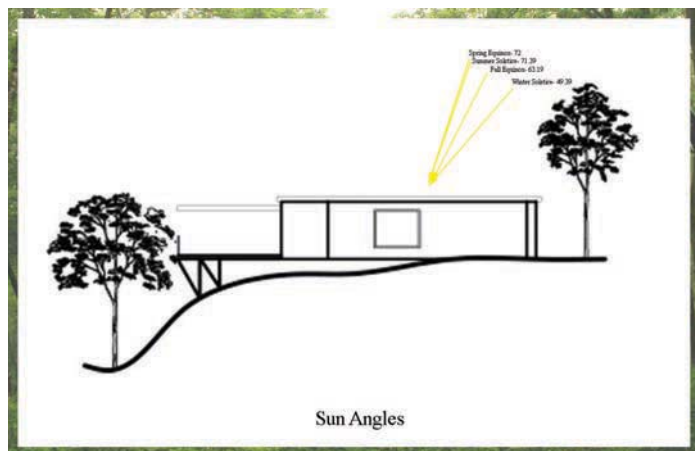
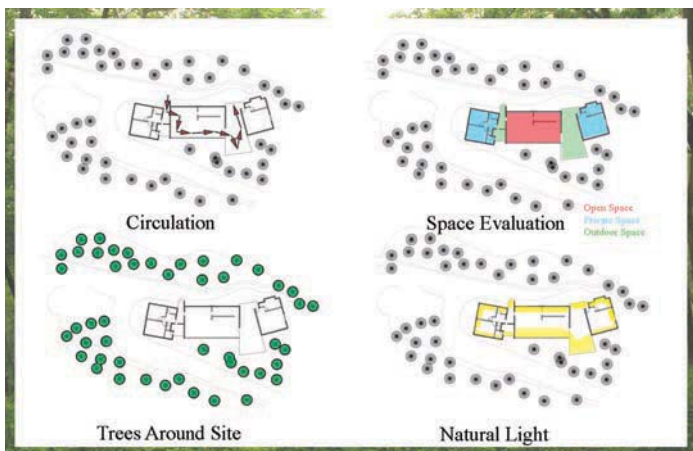
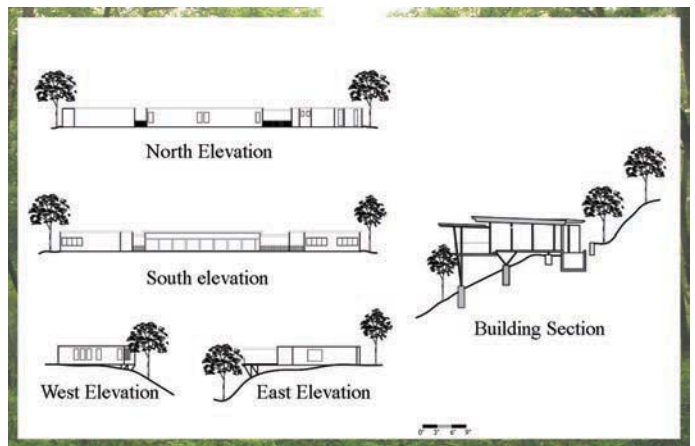
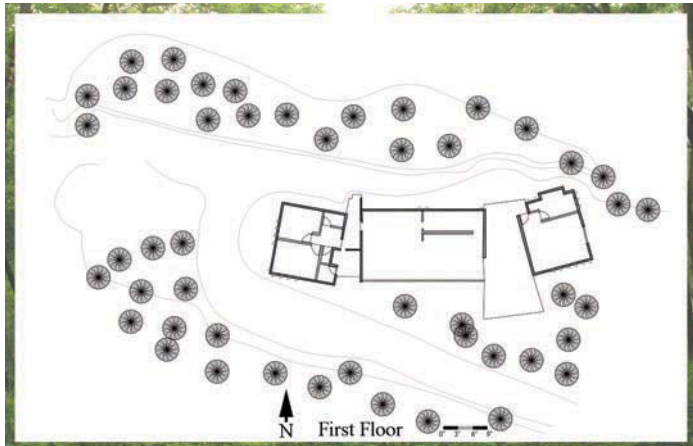
Location: Mt Whitfield, Cairns

Architect: mmp Architects

Nestled among the rain forest located in Mt Whitfield in Cairns, this lovely home uses glass extensively and sports walls that are made entirely out of glass alone. This offers a wonderful vantage point that blends in with the surroundings and seems like a natural extension of the rainforest. To ensure that it does not cause a detrimental effect on the panoramic natural surroundings, the home uses various eco-friendly measures like a solar panel rooftop that allows it to go off grid and low energy lighting installations that save up on power.

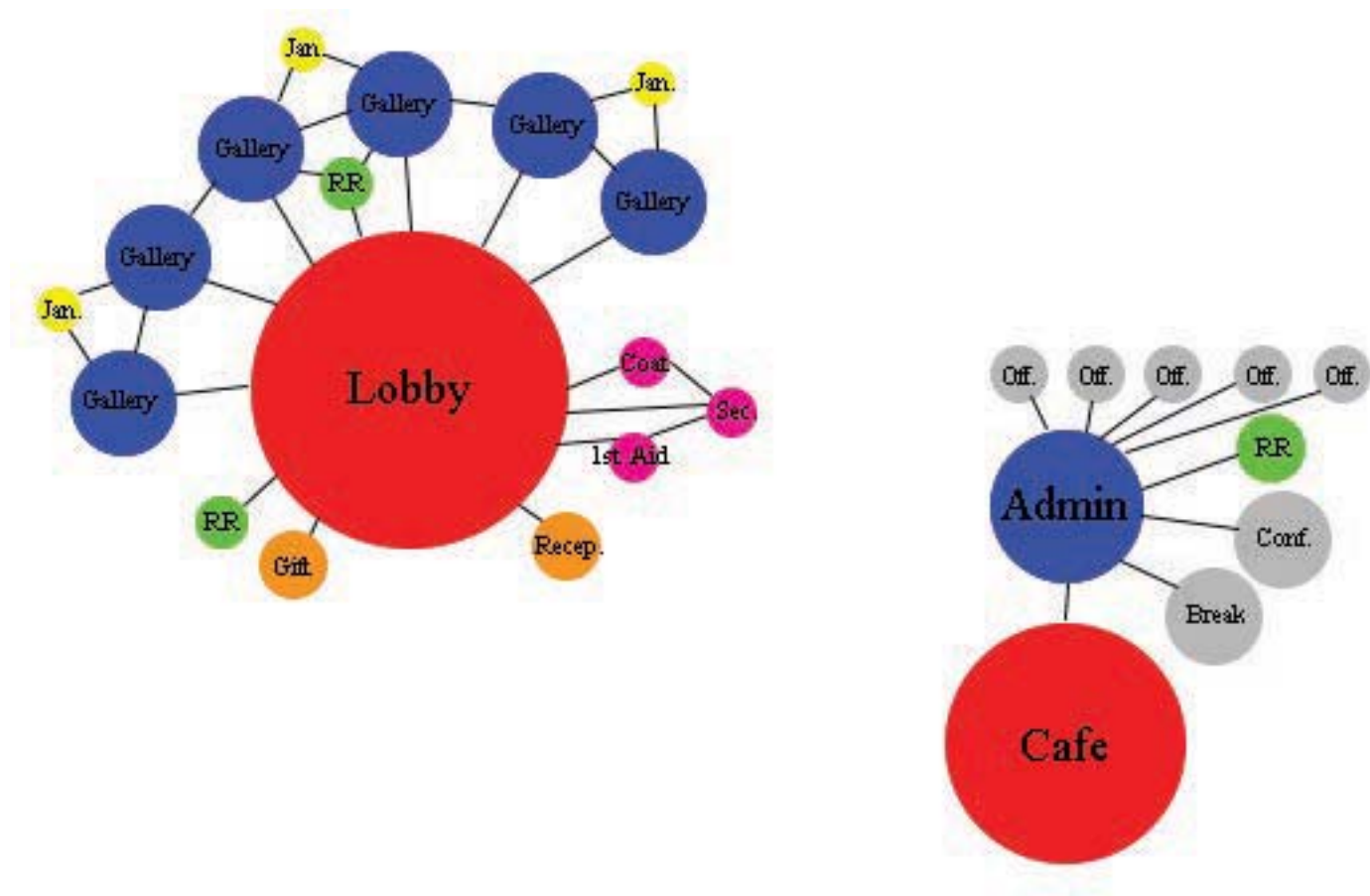
<http://www.decoist.com/2012/06/13/environmentally-friendly-hp-tree-house/>





Program Analysis

Southern Illinois Nature Center and Museum



Introduction and overview: Southern Illinois is an area filled with plenty of wildlife to learn about, and the Nature Center and Museum will provide an educational environment for people of any age to learn about the wildlife in the area; in addition to several other regions wildlife for comparison. With the collection of forest homes around the world, patrons of the center will be able to make their way through the museum, interacting with the exhibits and gaining knowlege about the immediate area, as well as other countries.

1) Lobby

Entry/Reception – 500sf
Vestibule
Reception Desk
Waiting Area
Gift Shop – 150sf
Security/Safety – 200sf
-Security Post
-First Aid Station
Locker/Coat Room – 200sf
Men's Restroom – 150sf
-ADA Accessible Restroom
Women's Restroom – 150sf
-ADA Accessible Restroom

2) Administrative

Offices
Administrator (2) – 175sf
Business – 150sf
Curator – 200sf
Maintenance – 175sf
Break Room – 350sf
Conference Room – 320sf
Staff Restroom – 75sf
-ADA Accessible

3) Maintenance

Storage (6) – 125sf
Workshops – 250sf
Janitorial (3) – 60sf
Receiving– 289sf
-Receiving space connected to loading dock.
Garbage – 225sf
-Space accounted for Recycling.
Supply Room (3) - 100

4) Grounds

Equipment/Tools – 300sf
-Auxiliary Shed with all grounds keeping tools and equipment.
Shop – 255sf
Storage – 200sf

5) Gallery/Event Space

Gallery (6) – 3000 total sf
Event Space – 1,200sf
Cafe (Kitchen/Seating) – 900sf
-Kitchen (400sf)
-Seating (500sf)
Men's Restroom – 150sf
-ADA Accessible
Women's Restroom – 150
-ADA Accessible

Total = 10,964sf

6) Mechanical/Circulation

Circulation – 3,290sf
Mechanical – 1,425sf

Total w/ Mechanical/Circulation = 15,679

7) Outdoor Space

Pavillion (2) – 1,200sf
- Outdoor Space for group gatherings (picnics, parties, etc.)
Parking – 3 spaces for every 1,000sf (30 Spaces)
Accessible Spaces – 4
Bus Parking – for 3-5 Buses
Drop-off Zone

WRITTEN SUMMARY

“Earth and sky, woods and fields, lakes and rivers, the mountain and the sea, are excellent schoolmasters, and teach some of us more than we could ever learn from books.” -John Lubbock

After putting the research into the building set chosen, there are multiple reasons as to why this specific set was picked. Southern Illinois is filled with an abundance of wildlife and forests, and on the site there is a fair amount of wooded area, this was the primary reasoning behind including forest homes into the initial group of five set ideas. It was a tough decision between all five of the different types at first, but after further research into each type the decision started to narrow itself down. The ideas were strongest with train stations, live-in galleries, and the eventually chosen forest homes; leaving chapels and wineries in the dust. After knocking out two, the final three were assessed further, and the sheer scale of the train stations would make it near impossible to fit on the site in a manner that would be more than plopping them where they fit. Then chapels were looked at more critically, and the vagueness of the initial idea halted any further research on those buildings. The last set that was looked into deeper were the forest homes, and though many of the other possible sets offered strong ideas as well, the forest homes were by far the strongest and made the most sense with the site context. The connection between man and nature is something of interest with the choice made, and the goal is to teach the patrons about the immediate nature around them here in the Carbondale area, also about other countries where the buildings in the set are from; including all the differences and similarities.

The intersection of built and natural environment is the main focus of what the entrance building will embody. The buildings chosen blend with the forest around them, and interrupt the trees and other plants as minimally as possible, some even include trees jutting through the building. However, the building still stands independent from the environment as the fabricated addition it is to the forest. This is the goal of the entrance

building, to be integrated and one with the nature, but also stand out as its own entity.

Through the use of wood, glass, and concrete; the building will get across the message desired. The wood, being from the forest, will give a warm natural feel to the entrance building, and aid the transition from the exterior to the interior and the interior to the exterior. The use of wood primarily on the interior will help with that soft transition as to keep the flow seamless. The concrete will give the entrance building a sense of foundation and strength, using the cold strength on the exterior will give the building its stability while also giving a bit of separation and independence from the forest, so the building stands as its own, but also a part of the forest. Lastly, the glass will be a portal, connecting the interior and exterior visually. Though physically separated by the barrier of glass, whether you are inside or outside, the large use of glass (similar to several of the buildings in the set) will connect the interior and exterior on a level that standard framed windows would be unable to do. The hope is the combination of these three materials will produce a seamless yet independent structure that aids the integration and learning from nature.

The interior space is where education will come in, the nature center will be a place for people to learn, with interactive exhibits inside that will stimulate all five senses. Like the readings in class, there is more to buildings than the visual. The plan for the entrance building will be to engage patrons with smell, taste, sound, touch, and sight. Nature has a multitude of smells, and several of the exhibits will be stations where people can smell different plants, animals, etc. from the immediate area. As far as taste goes, that goes hand-in-hand with the cafe, where visitors can go to get food during their visit. Sound is one of the easier senses to work with, by having live animals from the forests in Southern Illinois, anyone who walks through the galleries will be able to hear the same sounds they would if they trekked through the forest on their own, while staying in the safety of the building. Touch is another sense that will be easy to cater to, by having

small pallets of fur, leaves, and any other material one could think of to touch. And lastly is sight, which goes with the building itself and its connection to nature, and also all the exhibits inside to supplement as visual stimuli.

With the layout of the site, the idea is to create a flow through the woods that feels natural, and not something that is just set up in a line or something as simple as that. The way the buildings from the set will be laid out will not give the feeling of a normal museum where the galleries are all lined up or set in a grid. The buildings, with all being different, will need to be placed according to the way the land is set up, working with the existing contours to have them fit in the most logical way. Another thing to look for is as much of a clearing in the forest as possible. There is no reason to tear down more forest than necessary. Therefore, the minimization of tree clearing is a top priority. After the first site visit, most of the spots have been found for the placement of the building sets, as well as the area for the entrance building, which will stick slightly out of the forest into the open. This will be done for ease of finding the building, also to create a gateway from the open to the forest as one enters the building.

The final goal of the building is to design a destination with the research completed, that will attract people to nature the way these buildings were intended to, also to educate people in a fun manner. Though the visitors do not have to make it a trip for education, they can visit for the peacefulness that the building type and the overall design of building and site aims to accomplish. The fusion of built and natural environment will be the main purpose and will hopefully be achieved to the fullest potential.

“All those who love Nature she loves in return, and will richly reward, not perhaps with the good things, as they are commonly called, but with the best things of this world-not with money and titles, horses and carriages, but with bright and happy thoughts, contentment and peace of mind.”
-John Lubbock

Quote Citations

1-http://www.brainyquote.com/quotes/quotes/j/johnlubboc122570.html?src=t_nature

2-http://www.notable-quotes.com/n/nature_quotes.html

Images

1-<http://www.thewinanews.com/wp-content/uploads/2013/01/freedom-in-nature.jpg>

2-<http://www.wallallies.com/forest-cano-py-3-hd-wallpaper/>







Rob Lyons

Exhibit Spaces Whose Impermanence We Regret. There are pavilions and temporary structures built for event that are not designed to survive the test of time, yet still they are impressive and important works of architecture.

ANALYSIS OF READINGS

Frampton - Towards a Critical Regionalism

Ozaslan Nuray - The Role of Architectural History in Building Modern Turkish Architecture

Globalization, a Lack of Identity

“Universal civilization and world culture can not be drawn upon to sustain “the myth of the state....” Diversity is needed in architecture to define place and context on a macro-scale. By creating cultural architecture you define a city or place as a part of a community with common history and culture. Cultural surroundings invoke feelings and can even be a reminder of social ques.

Although we are drawn to what is trendy or accepting of rules, we do not want all architecture to look the same. We want architecture to reflect and compliment the geography and/or the built world around it but we do not want it to be the same. We are disinterested in buildings being identical to others. There is not uniqueness about it.

Avant-garde is not a single movement but ongoing experiments and trends in architecture. The avant-garde of modernism was not widely accepted at first but as its popularity grew so did its uniqueness. In many cases, early modernism removed context in exchange for rules and orders; similar to the avant-garde movements of the Greek Revival.

The modernization of the world, particularly architecture is causing cultures to lose their identities. Architecture has the opportunity to express cultural context and history.

Cultural architecture can be very important in telling the history of a country or city. An important example of this would be Poland. Poland is historically one of the most conquered and contested over regions in the world; as such it has adopted many styles of its occupiers and peoples. The architecture and reconstruction of which gives the Polish culture a historic track to follow. The Biskupin, open-air museum allows Poland to trace its Lusatian roots into the Bronze Age. Poland's numerous churches show how styles, materials, and building methods have evolved and adopted gothic and revival architecture from Central and Southern Europe. In the 1950s, communists erected Stalin's Palace (soviet classicalism). As these buildings survive today they are tangible example of Polish

history.

Ozaslan states, “Design is now free from its traditional factors such as local environment and cultural indicating the end of borders, customs and earthly differences.” The globalization of architecture has arrived. However, we should find a way to preserve and continue to embrace local building methods and styles.

Sedad Hakki Eldem, a prominent Turkish architect, and contemporary of the early modern movement sought to preserve the uniqueness of a culture's architecture, specifically the Ottoman-Turkish historical style. But Turkey did not have a purely Turkish style. Historically, Turkey is a heterogeneous country, both architecturally and culturally. Because of its location, it has become a melting pot of as it joins Asia and Europe. It has adopted classical, baroque, rococo, renaissance, and revival architecture from Europe. He sought to find a purely Turkish style.... One did not exist. As a country or region willing to adopt avant-garde architecture so readily for centuries, it never had architecture to call its own.

In his attempt to find Turkish architecture, he did not reject the popularity and importance of modern architecture. Instead he sought to adapt modernism into domestic Ottoman architecture. He proved unsuccessful. This is because he attempted to create something that was no longer vernacular. Since the experiments of Eldem, Turkey adopted modern architecture.

Cultures and countries that have rich architectural histories, and building methods should fight hard to not only preserve these treasures but try to incorporate tradition into buildings and design. There is a potential that history and national pride might disappear with avant-garde trends. While globalization is a recent achievement, it is very dangerous if it does not incorporate cultures and tradition.

ÖZASLAN*, Nuray. “THE ROLE OF ARCHITECTURAL HISTORY IN BUILDING MODERN TURKISH ARCHITECTURE.” The Journal of International Social Research 4.17

Frampton - Rappel a l'Ordre

Semper / Malgrave - The Four Elements of Architecture: And Other Writings

The Adoption of Avant-Garde Architecture

Avant-garde is not always appreciated nor as important as the tectonics of the space. Whenever a new idea is thrust into practice there is going to be some resistance. It holds a close association to a technology products introduction; there will be early adopters, early and late majorities, then finally laggards or those that do not adopt at all. In the case of architecture, adoption is not the end all be all of design it is how a space makes one feel.

Architect, Giorgio Grassi was opposed to any avant-garde movement. Why change what works? "It is pathetic to see architects of that "heroic period" and the best among them trying with difficulty to accommodate themselves to these "isms"; experimenting in a perplexed manner because of their fascination with the new doctorines, measuring them, only later to realize their ineffectuality." (Frampton)

There are always two options in life, and design is no different: follow the rules or don't follow the rules. However the choice should be justified with an effective solution. With each "ism" a set or many sets of standards or rules arise. These rules and manifestos are created by innovators and early adopters; in an ironic sense that they were the ones who broke the rules of previous "isms" Ex: Le Corbusier, a rebel of neo-classicism established his rules, Five Points of Architecture just as Vitruvius' *de architectura* in the 1st Century.

A new ism does not need to ignore all the rules of the past but it should not conform to them if they are not in the interest of the design. Semper underlines the functionalism of a building and the emotions that follow.

Semper emphasizes a purpose to architectural elements and it's belonging to a building, not the established course. All buildings do the same thing, provide shelter. He feels that they should be expressed more than that, how history has defined what we do in a home and how it is used. As the most important of his four elements, the hearth provides a sense of morality in the building:

"...rest after the hunt, the battle, and wandering... setting up of the fireplace and the lighting of the reviving, warming, and food-preparing flame. Around the hearth the first groups assembled, first alliances formed, first rude religious concepts were put into customs... Throughout all phases of society, the hearth formed that sacred focus around which the whole took order and shape."

-Semper

The other elements are the roof (carpentry), enclosure (textile and weaving), and mound (earthwork). All of these elements are derived from primitive and "barbaric" times. They are the basic need and reason we create buildings. The anthropology of a building is closely related to the tectonics. (Semper)

The tectonics that a semper emphasizes is vastly more important than the type of column used on the exterior of the building. They give the building a purpose beyond basic shelter and form. He does not let isms drive design but rather the tectonics. As for any artistic rules of design, he could not care less if they are followed or broken, as long as they express functionalism and belonging.

The metaphysical of a space is as important as the architectural style and rules it follows. Whether you adopt an avant-garde or not, you should be more concerned about the functionalism of the building rather than the rules and artistic styling. Civilization, "isms" and theoretical architecture have only been around for several millennia, the basic elements have been practiced (though in different ways) much longer and with more defined goals. We should not ignore the latter, and give attention to it.

Semper, Gottfried, and Harry Francis. Mallgrave. *The Four Elements of Architecture: And Other Writings*. Cambridge: Cambridge U, 1989. Print.

Bunkers

Bunkers are used for protection. But protection for what? There are those that are designed for traditional warfare, nuclear fallout, and those that protect the survival of the human race.

Photos, Left, Right Clockwise:

<http://www.pgatour.com/news/2010/07/28/bunker-greenbrier.html>

<http://earthsky.org/earth/seeds-of-time-to-hit-theaters-in-may>

<http://thefoxisblack.com/2011/01/31/lets-cut-this-bunker-in-half/>

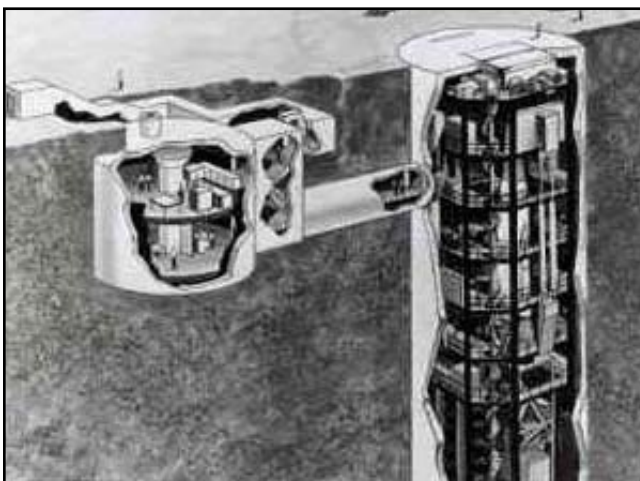
<http://www.atlasmissilesilo.com>

<http://en.tracesofwar.com/article/14443/U-Boot-Bunker-Keroman-K3.htm>

<http://banksottage.hubpages.com/hub/Memorial-Day-a-Day-at-the-Beach>

<http://en.tracesofwar.com/article/51482/Italian-Bunker.htm>





Architecture Designed to Return to the Earth

There exists architecture that is designed to recede back to the earth with little or no deconstruction by man. It is in essence a disappearing footprint.

Photos, Left, Right Clockwise:

<http://www.animalarchitecture.org/wp-content/uploads/2012/12/Sanfte-strukturen-copy.jpg>

<http://www.cappersfarmer.com/~media/Images/CFR/Editorial/Articles/Magazine%20Articles>

<http://www.expandedenvironment.org/monstrous-architecture/>

<http://www.earthbagbuilding.com/projects/casaeco.htm>

<http://www.sightunseen.com/2010/12/stephan-jaklitsch-architect/>

<http://www.greenprophet.com/2012/04/earth-friendly-vernacular-date-palm-leaf-architecture-revisited-in-london/>





Disaster Relief Architecture

Photos, Left, Right Clockwise:

<http://chambersarchitects.com>

<http://archrecord.construction.com/features/humanitarian/design/0810roundtable-1.asp>

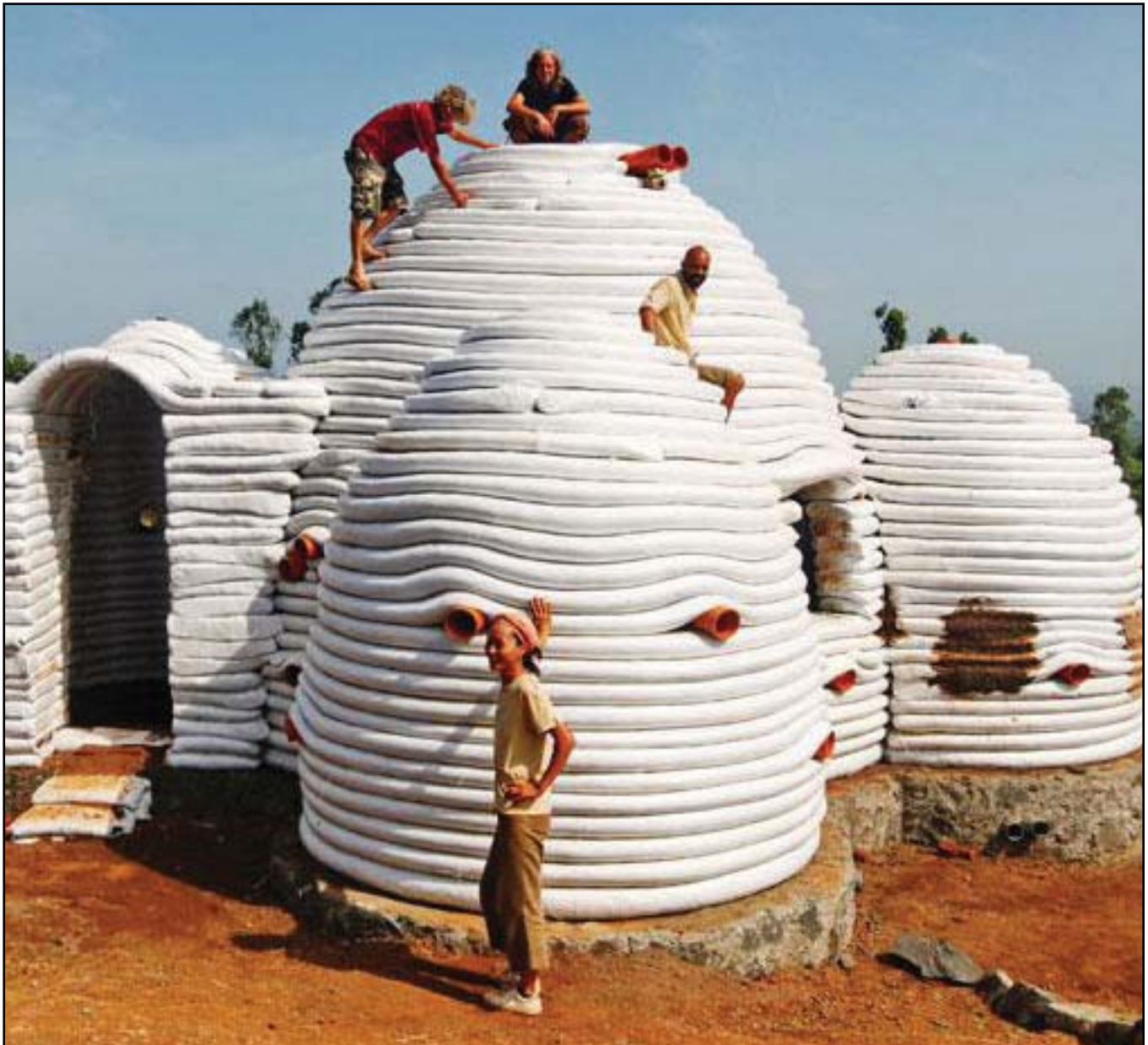
<http://www.homedesignfind.com/architecture/a-sustainable-thai-orphanage-designed-by-norwegian-students/>

<http://america.aljazeera.com/articles/2014/3/24/japanese-architectshigerubanawardedpritzkerprize.html>

<http://inhabitat.com/emergency-shelters-and-disaster-relief-for-the-people-of-haiti/>

<http://inhabitat.com/tag/disaster-relief/>

<http://www.pacifiqa.com/news/shigeru-ban-architect-housing-yolanda-philippines/>





Traditional Stilt Homes

Photos From:

<http://virtualfunzone.com/stilt-houses.html>

http://the-stenzels.com/photo/2007/ac/jun_12_trollfjord_to_henningsvaer.htm

<http://signtouch.net/stilt-house.html>

<http://signtouch.net/stilt-house.html> (image 2)

<https://anabruno.wordpress.com/2008/06/27/vang-vieng-laos/>

<https://architecture.knoji.com/unusual-houses-from-around-the-world/>

<http://www.houzz.com/ideabooks/28579905/list/time-tested-low-tech-ways-to-cool-a-home>





Buildings Destroyed Before Their Time

Photos From:

<http://archexpo.net/en/contenu/great-exhibition-crystal-palace-1851>

<http://padfield.com/greece/athens/index.html>

<http://www.demotix.com/news/1991822/historic-minaret-great-umayyad-mosque-destroyed-aleppo>

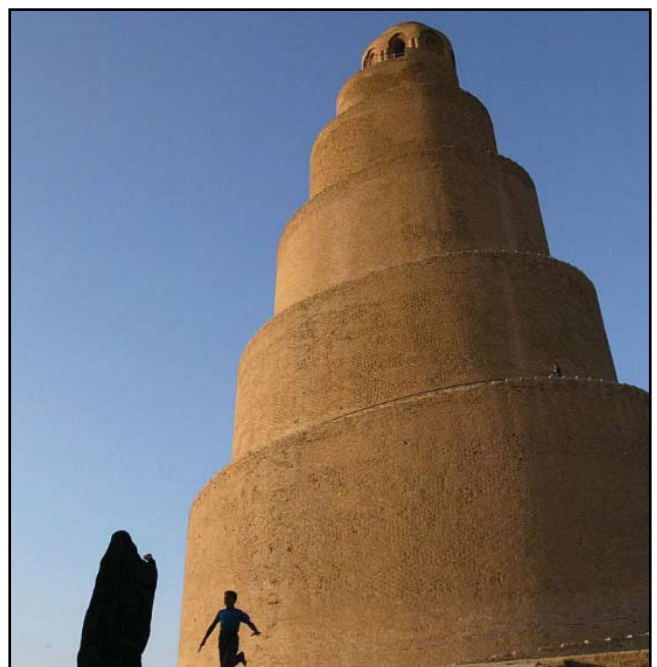
<http://searcharchives.vancouver.ca/ypres-cathedral-from-market-square>

<http://www.cnn.com/2014/11/05/world/gallery/precious-monuments-lost-in-middle-east-conflicts/> (1)

<http://www.cnn.com/2014/11/05/world/gallery/precious-monuments-lost-in-middle-east-conflicts/> (2)

<http://www.cnn.com/2014/11/05/world/gallery/precious-monuments-lost-in-middle-east-conflicts/> (3)





Regional Cultural Shelters

Photos From:

https://greengroundsatuva.files.wordpress.com/2014/04/mahiga_panorama2.jpg

<http://www.domusweb.it/en/architecture/2010/12/30/francis-kere-see-africa.html>

http://www.huffingtonpost.com/2013/10/12/winners-of-the-world-arch_n_4040931.html

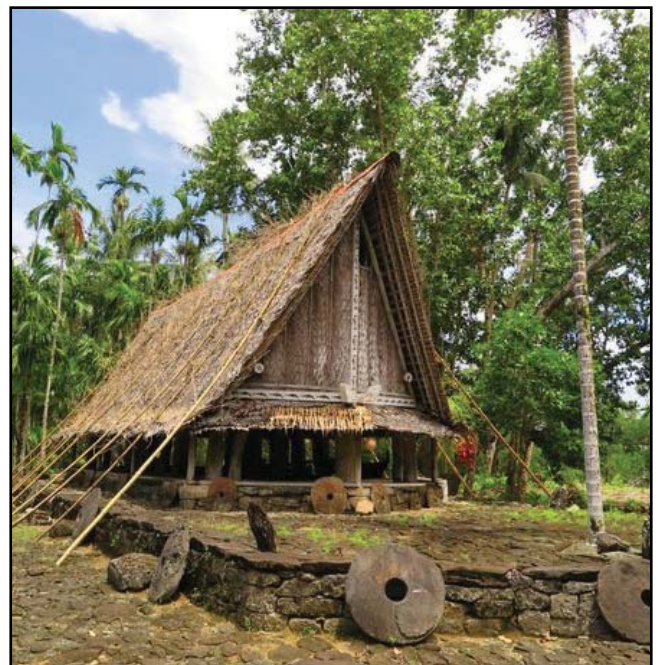
<http://assets.inhabitat.com/wp-content/blogs.dir/1/files/2010/07/Tjibaou-Cultural-Center-7.jpg>

<http://japanvisitor.blogspot.com/2015/06/japan-on-island-of-yap.html>

<http://whc.unesco.org/en/documents/115038>

<http://aasarchitecture.com/2013/04/art-center-and-cite-de-la-musique-by-kengo-kuma.html>





Soviet Pavilion, 1925, Melnikov

The Soviet Pavilion marked the arrival and implementation of a communist state. The pavilion and its contents expressed the ideas of constructivism, productionism, while borrowing from De Stijl and Bauhaus movement

<http://theredlist.com/wiki-2-19-879-605-681-view-melnikov-konstantin-profile-melnikov-konstantinussr-pavilion-of-1925-paris-france.html>

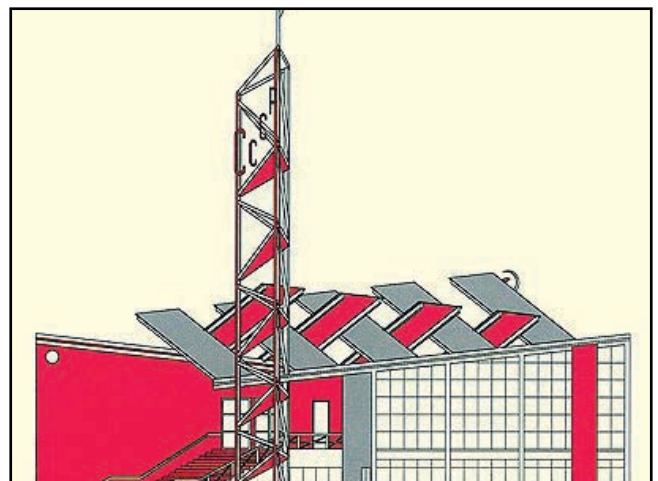
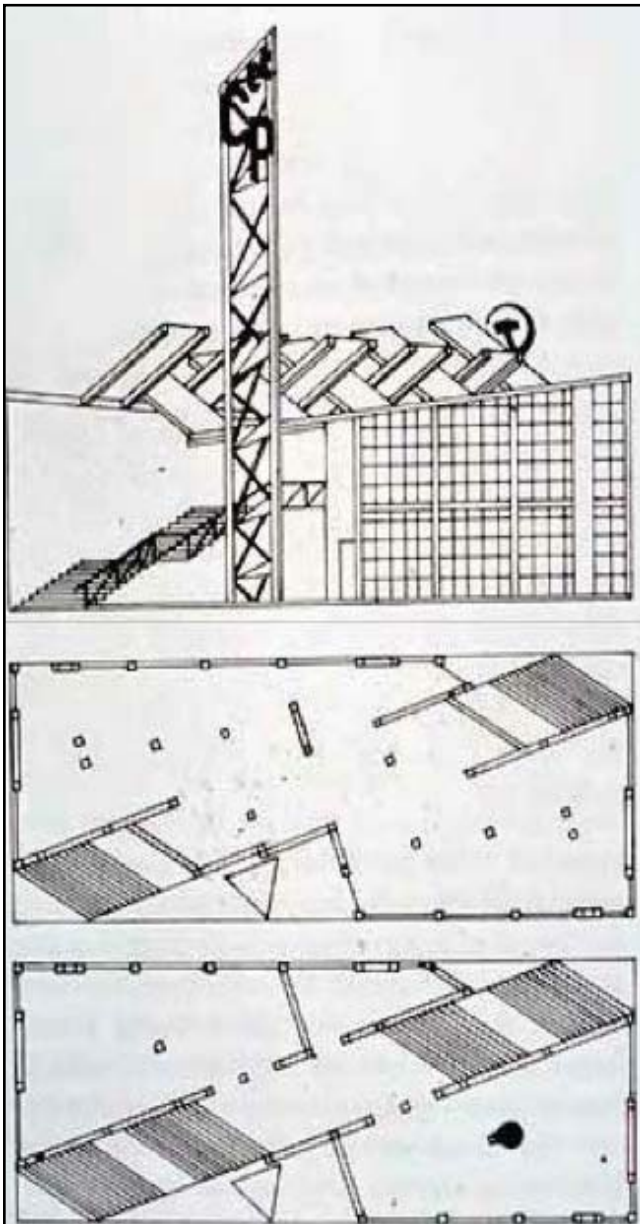
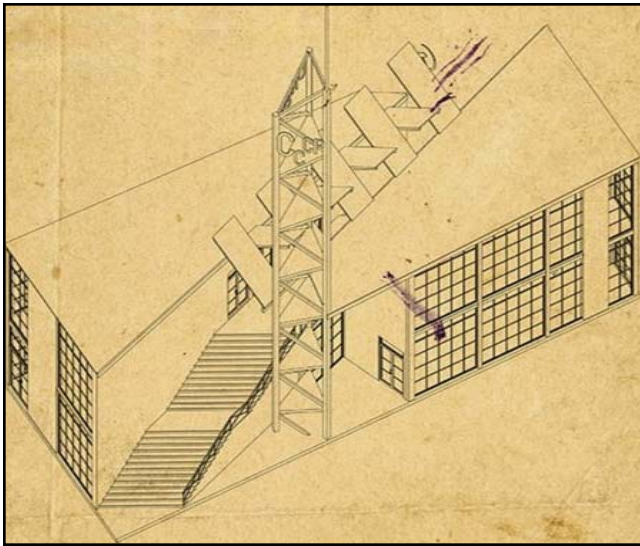
<http://thecharnelhouse.org/2013/08/03/the-soviet-pavilion-at-the-1925-paris-international-exposition/#-jp-carousel-11167>

<http://thecharnelhouse.org/2013/08/03/the-soviet-pavilion-at-the-1925-paris-international-exposition/#-jp-carousel-11175>

<http://thecharnelhouse.org/2013/08/03/the-soviet-pavilion-at-the-1925-paris-international-exposition/#-jp-carousel-11145>

<http://thecharnelhouse.org/2013/08/03/the-soviet-pavilion-at-the-1925-paris-international-exposition/#-jp-carousel-11175>



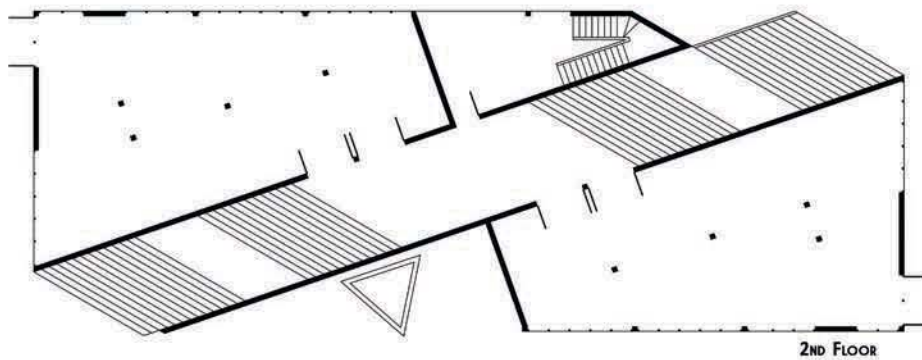


Soviet Pavilion Documentation

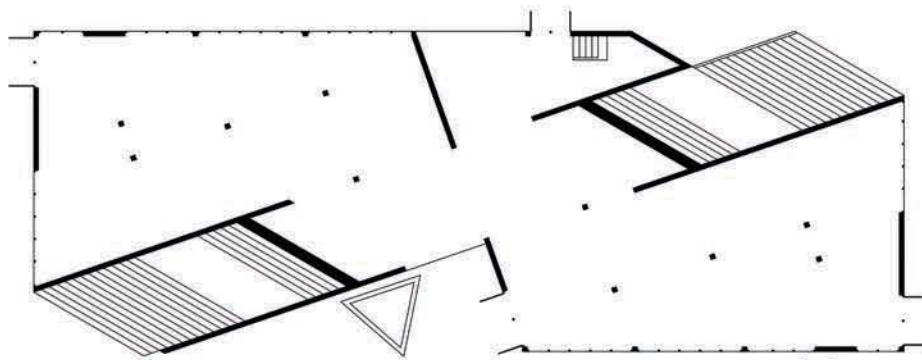
Photo From:

<http://thecharnelhouse.org/2013/08/03/the-soviet-pavilion-at-the-1925-paris-international-exposition/>

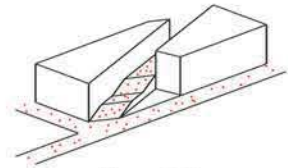
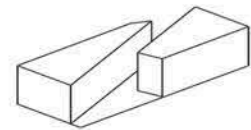
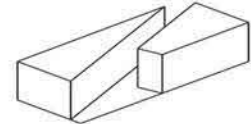
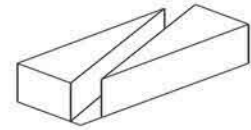
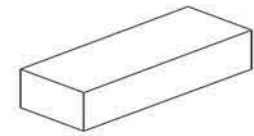




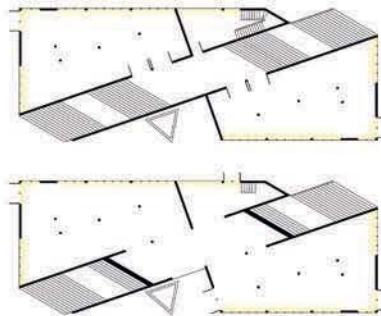
2ND FLOOR



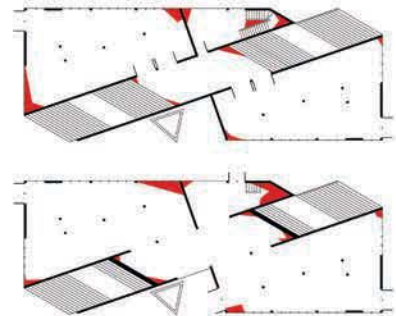
1ST FLOOR



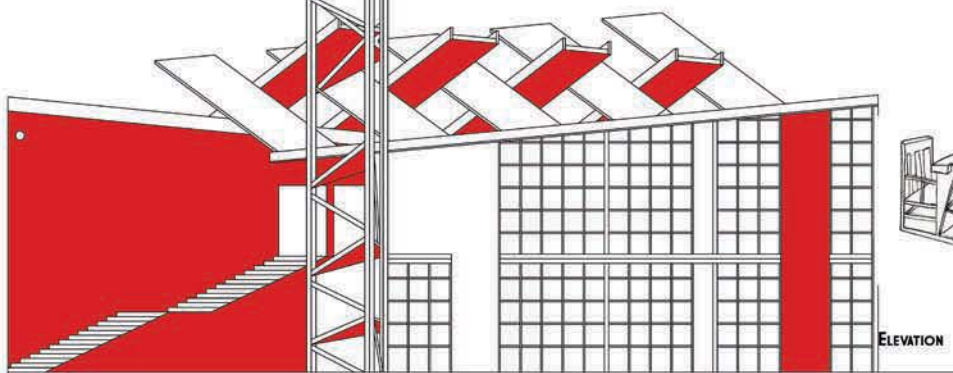
MASSING & CIRCULATION



LIGHT PENTRATION



PRIMARY CONSTRUCTIVIST ANGLES



ELEVATION



SKETCHES OF EXHIBIT CONTENTS,
FURNITURE BY ALEXANDER RODCHENKO.
CONSTRUCTIVISM & PRODUCTIONISM

Finish Pavilion, 1939, Aalto

1939-40s World Fair saw the arrival of Aalto in the western hemisphere. The Pavilion was a purely interior exhibit of space and form. The shell of the building was a skeleton of mass scaforlding that allowed for surprise when the visitor entered. The building permits free circulation as it displays finnish culture and traditions. By using sloped walls, the pavilion regulates the sounds of the exhibits and is able to showcase images to guests below.

Images

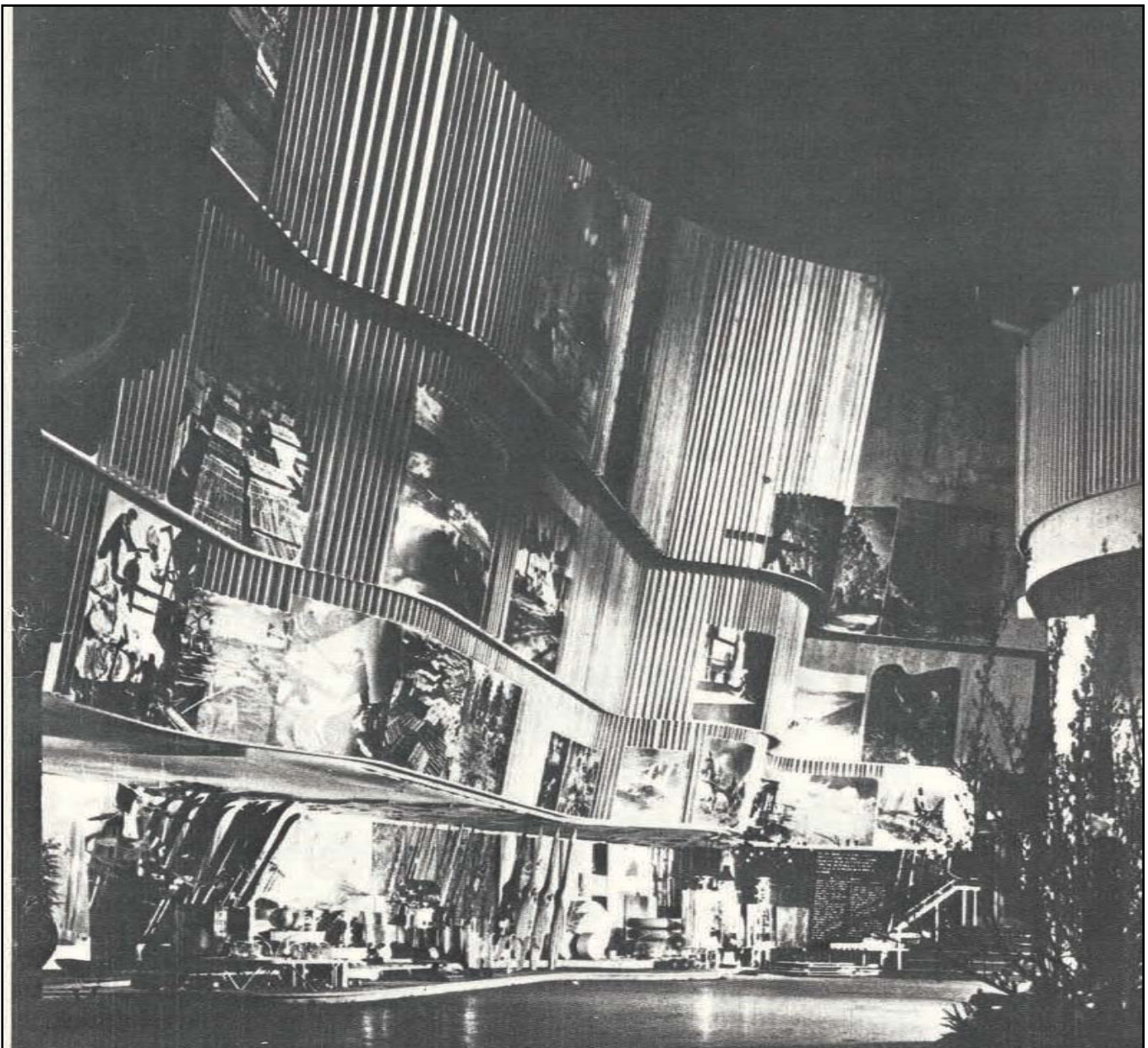
http://greg.org/archive/2010/10/18/the_enlarged_pictures_generation_alvar_aaltos_1939_finnish_pavilion_.html

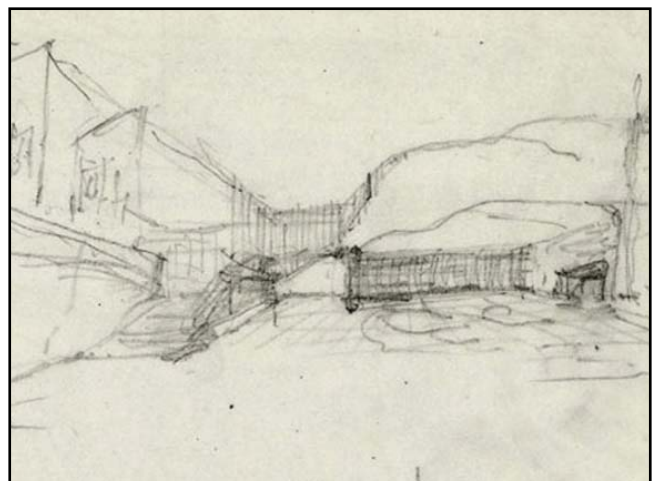
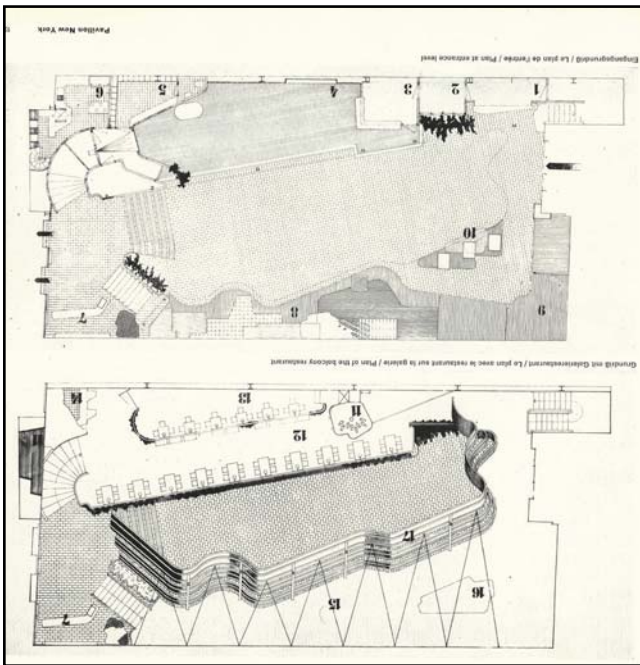
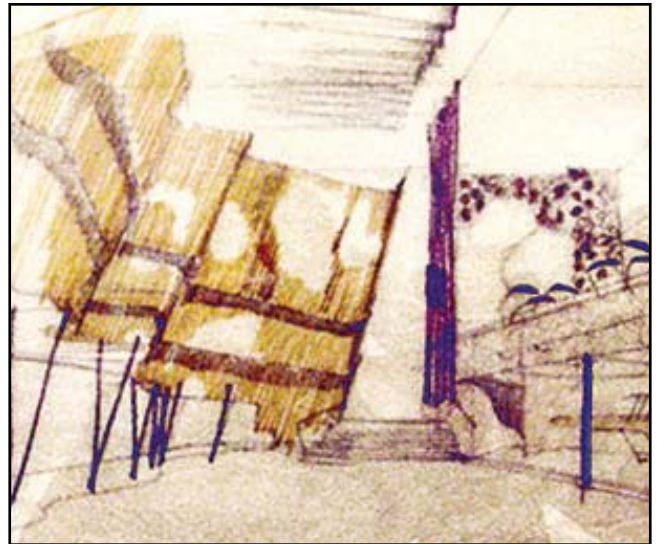
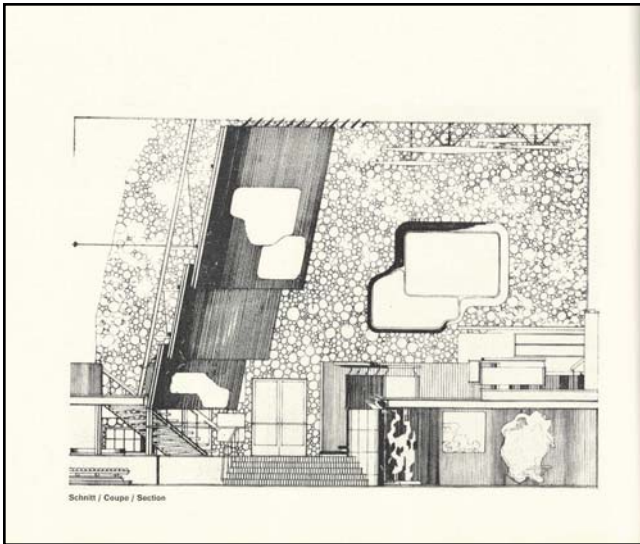
<http://carriehaddadgallery.com/index.cfm?method=Photography.PopUpDetail&exhibitID=AD3EE9A2-19DB-5802-E05DC5BDEE2E0E51&artidx=1&artistidx=10>

<http://www.designboom.com/history/aalto/pavilion.html>

<http://www.designboom.com/history/aalto/pavilion.html> (2)

http://www.alvaraalto.fi/net/villa_mairea/en/9.htm



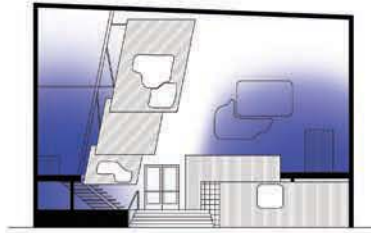


Finnish Pavilion Documentation

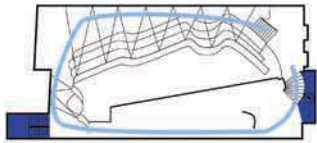
Photo From:

<http://www.docomomo-nytri.org/2014/04/>





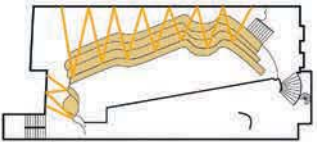
SOUND



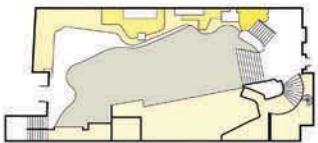
CIRCULATION & BACK OF HOUSE



FORM & STRUCTURE



LEVELS



DINING ROOM

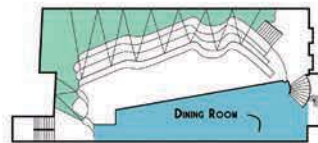
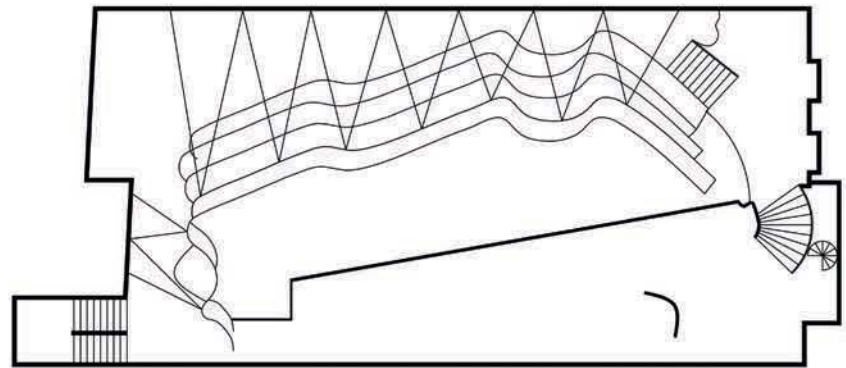
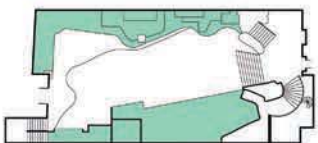
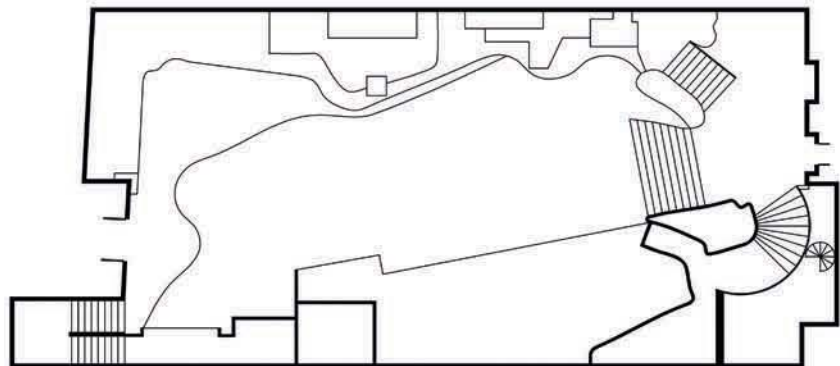


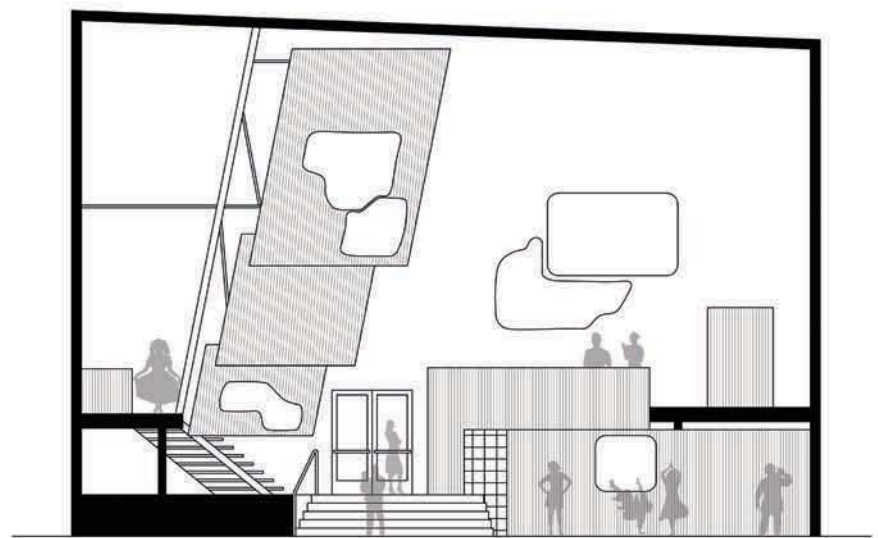
EXHIBIT & DINING



2ND FLOOR



1ST FLOOR



SECTION

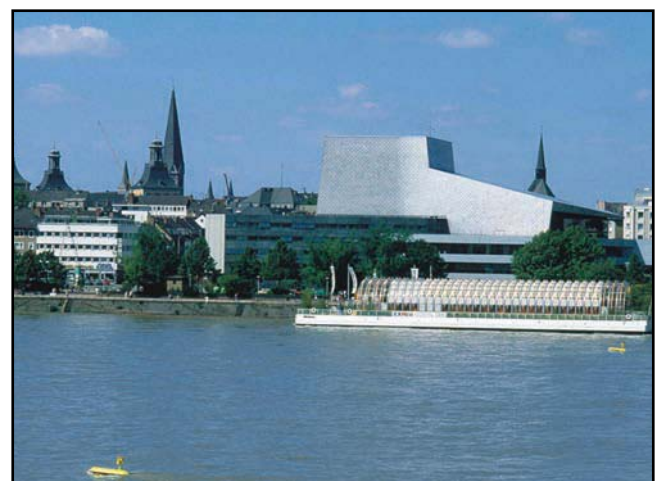
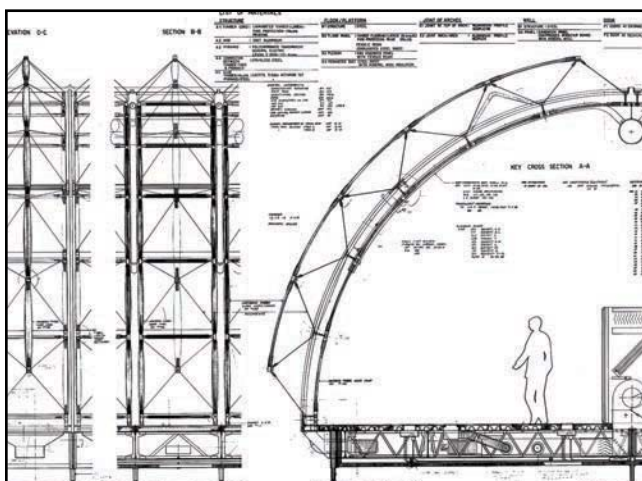
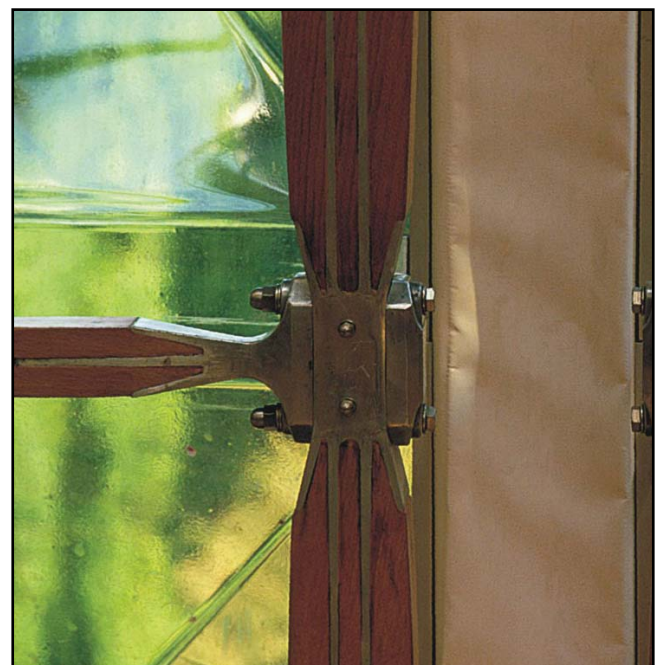
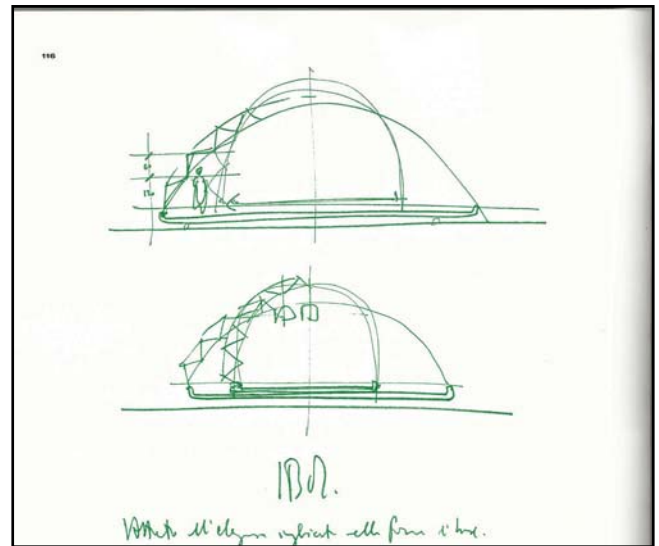
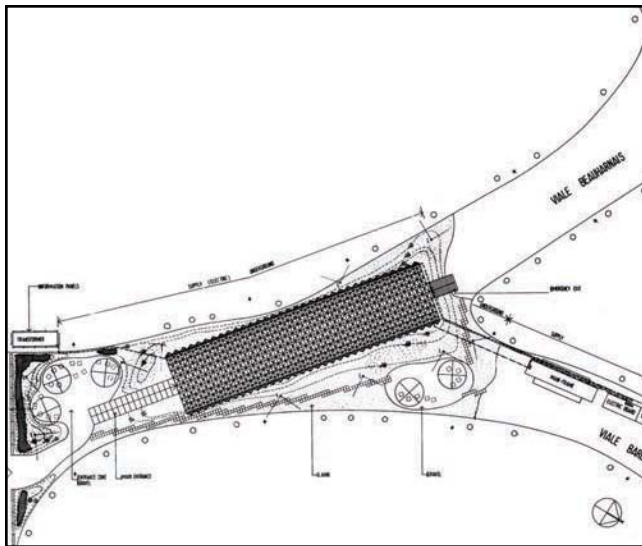
IBM Pavilion 1983-6, Piano

The transparent tunnel of IBM connects users and technology to the outside world. The concept of bringing the computer to the user and out of the intimidating cubicle office. Although the pavilion is categorized as “high-tech” architecture, it is warmed by the canvas facade and wood flooring. However, the most impressive part of the pavilion is its ease of assembly/disassembly and transportation.

Photos From:

All shown are from rpbw.com

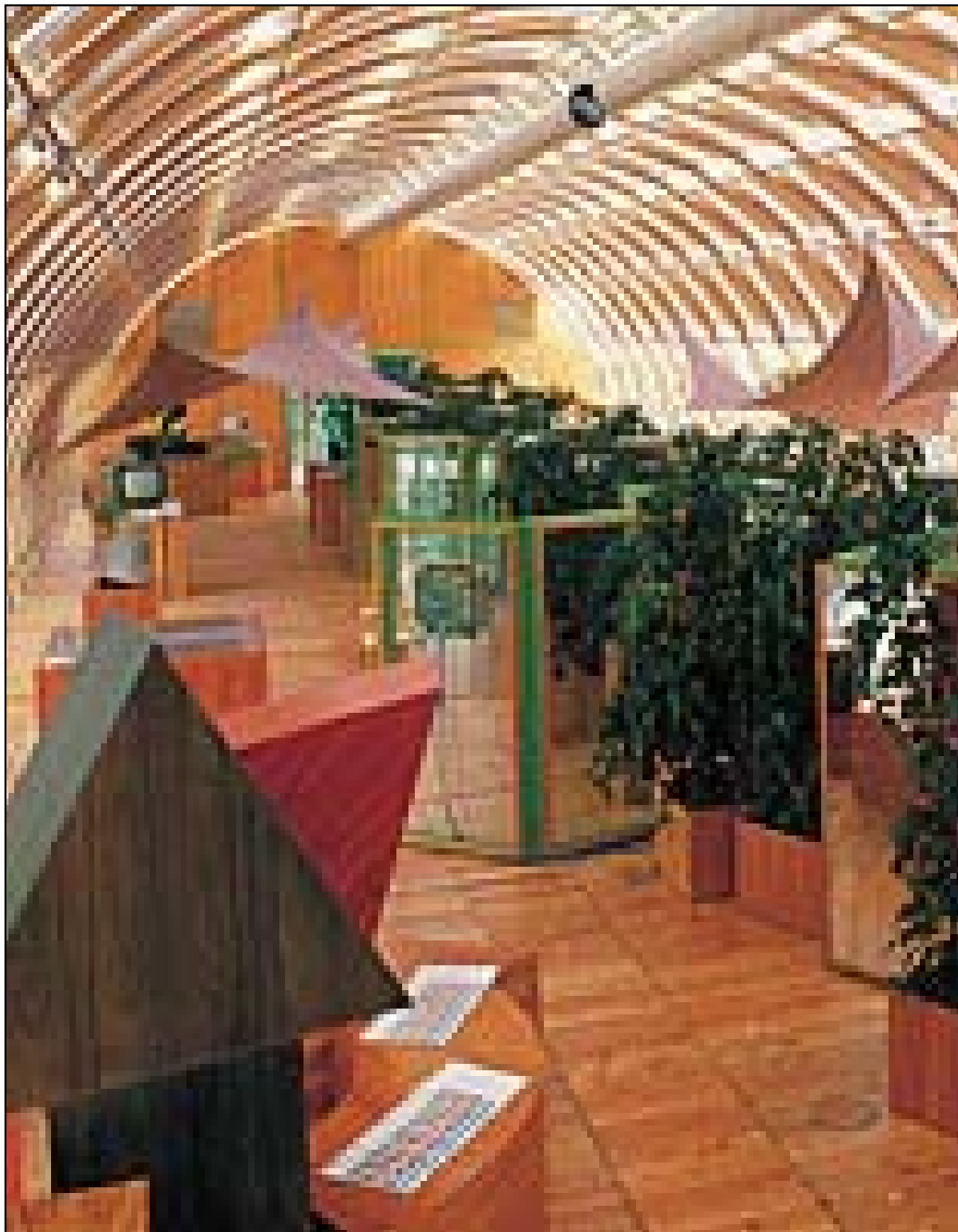


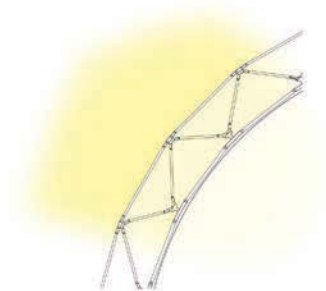


IBM Documentation

Photo From:

<http://www.quonsethuts.org/book/chapter6.htm>

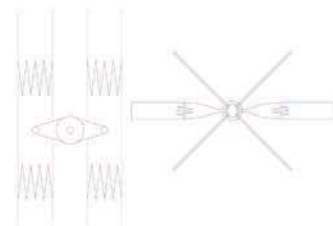




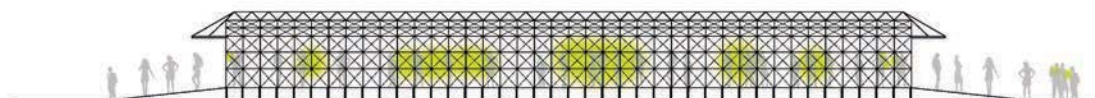
LIGHT PENETRATION



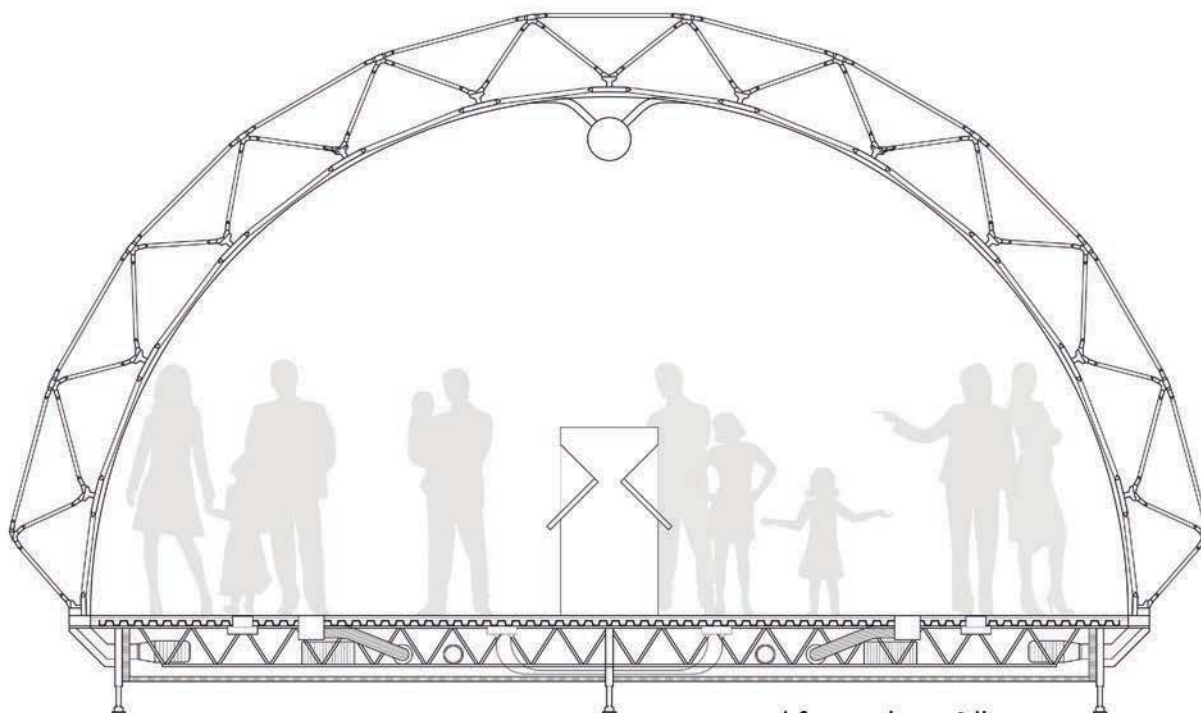
ELEVATION LEVELING



FACADE JOINT DETAILS



INTERACTION / ELEVATION



A SECTION OF LEARNING & MARKETING

Odawara East Gate, 1990, Ban

Odawara's Paper Pavilion was the first display of Shigeru Ban's paper architecture series. The 26' facade, consisting of 330 cardboard encloses the occupant(s). A second, hidden, steel structure carries the roof and entertainment rigging as there was no time to get a permit for (at the time) untested strength of the paper tubes. By...manipulating the curvature of the walls, individual spaces are created, views are imposed and a natural aura is brought to the structure.

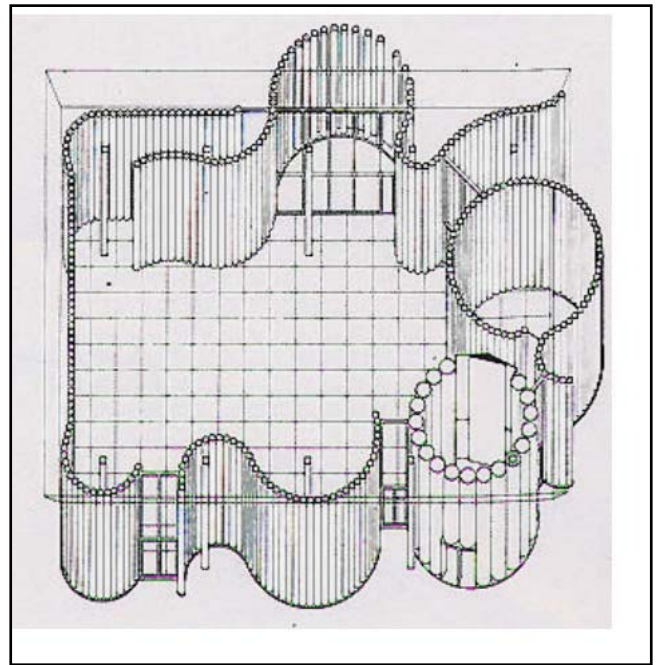
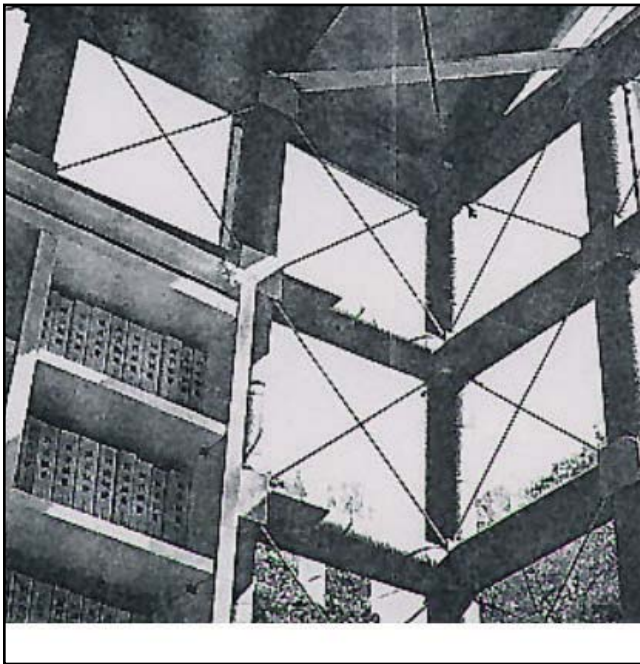
http://www.shigerubanarchitects.com/works/1990_odawara-hall-and-east-gate/index.html (1)

<http://www.latimes.com/home/la-hm-shigerubanpaper-3-photo.html>

<http://docslide.us/documents/constructing-a-cardboard-building-literature-review.html> (2+3)

http://www.shigerubanarchitects.com/works/1990_odawara-hall-and-east-gate/index.html (4)



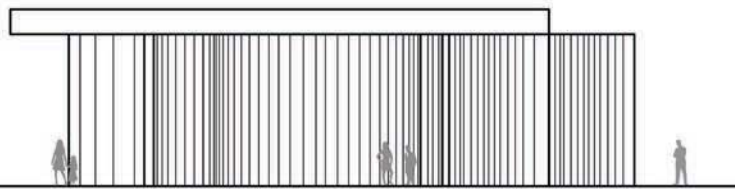


Odawara Hall Documentation

Photo From:

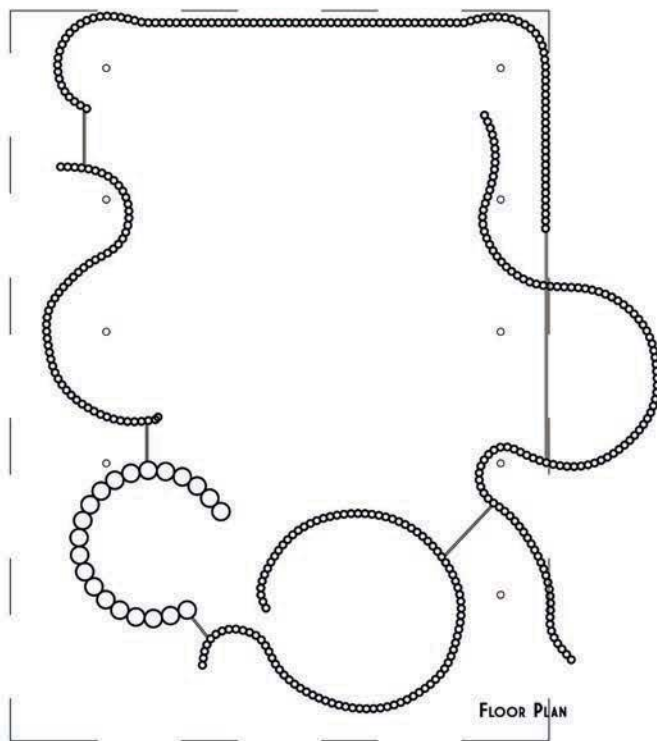
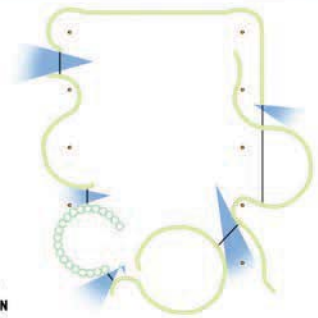
<http://www.latimes.com/home/la-hm-shigerubanpaper-3-photo.html>





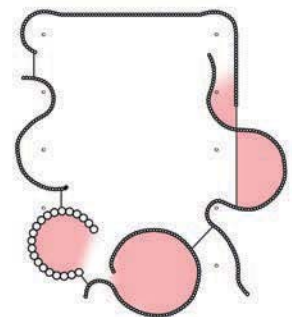
SOUTH ELEVATION

STRUCTURE,
MASSING, &
EXTERIOR
SIGHT LINES
FROM WITHIN

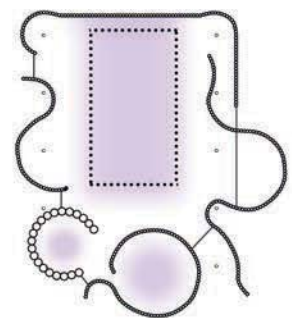


FLOOR PLAN

PRIVATE
EXPERIENCES



USAGE



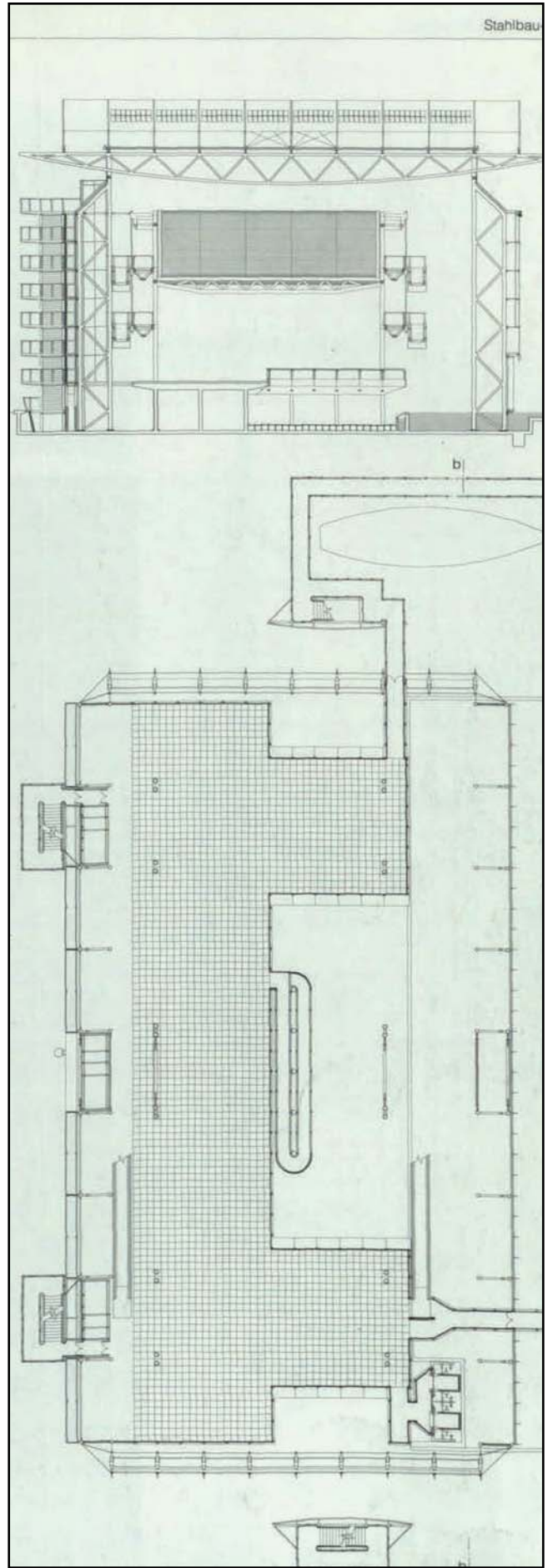
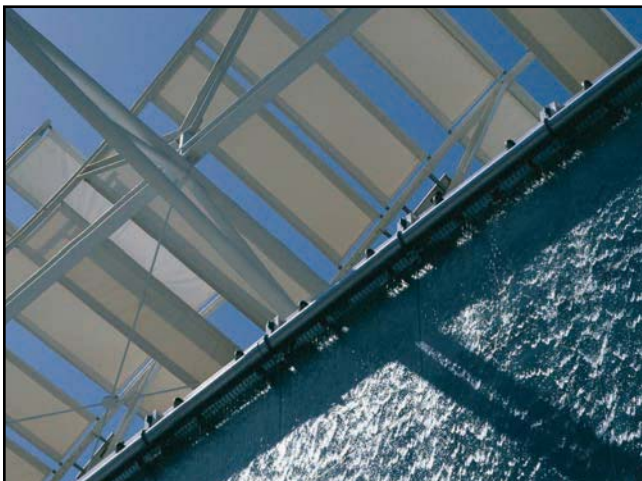
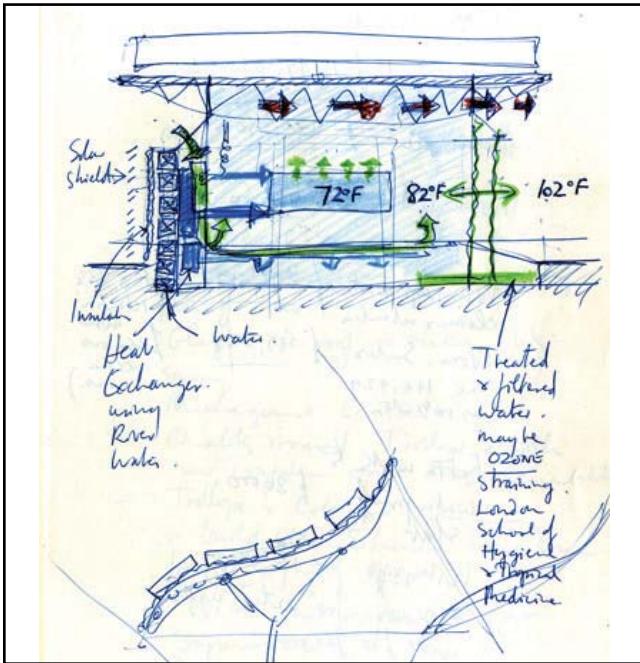
British Pavilion, 1992, Grimshaw

A prefabricated structure, the pavilion represented Great Britain at the Seville World Expo. The building emphasized the great sea power that Britain is. The kit of parts borrows from sailing technology as the structure and facade is comprised of hollow, curved steel masts with sails that allow the building to respond to climate conditions. The use of passive cooling techniques was showcased with the building, including water walls, solar cells, and shading principals.

<http://grimshaw-architects.com/project/british-pavilion-expo/> (1,2,4)

<http://www.architecturetoday.co.uk/?p=1541> (3)



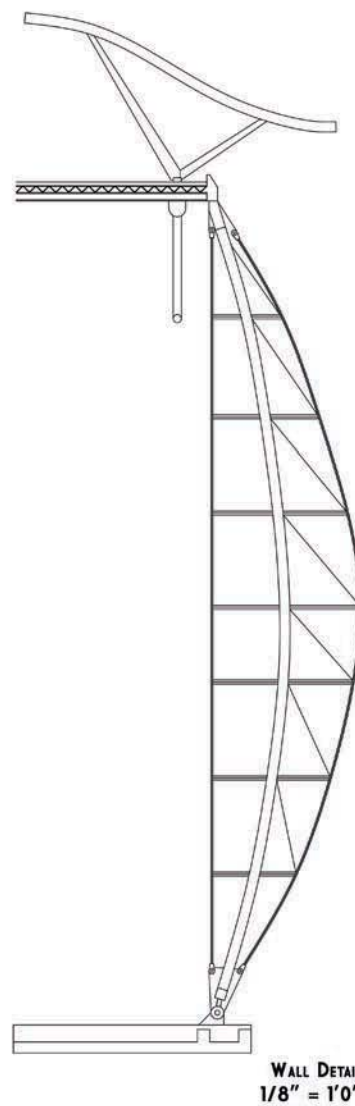
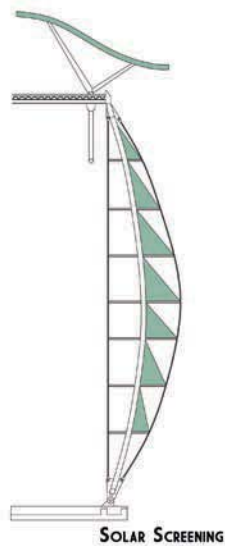
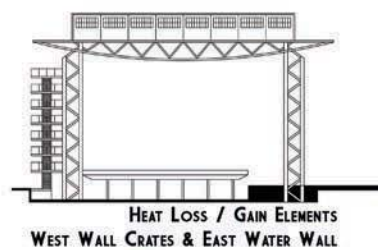
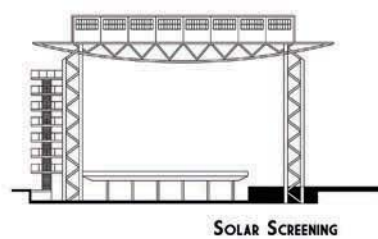
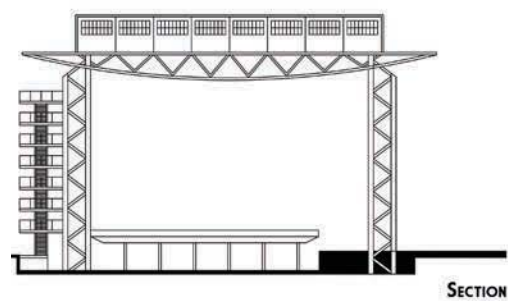
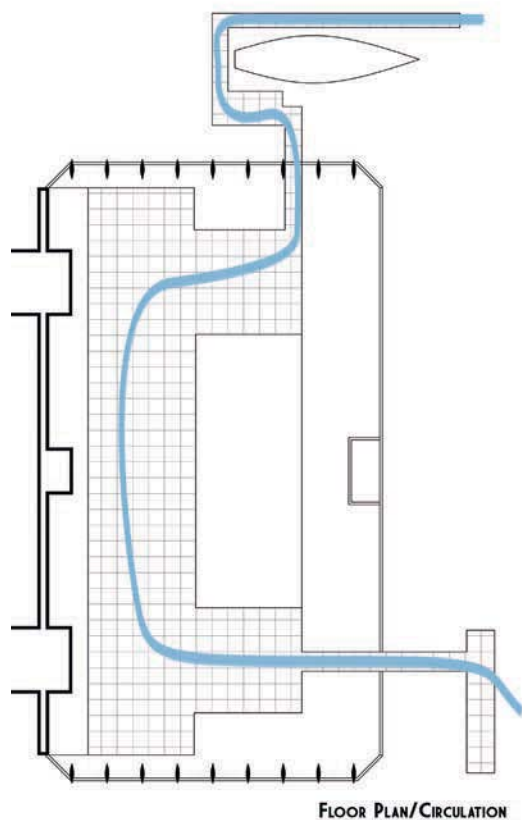


British Pavilion Documentation

Photo From:

<http://www.columbia.edu/cu/gsap/bt/EEI/HEATLOAD/heatload.html>





Swiss Sound Box, 2000, Zumthor

The Swiss Sound Box was created as a space to retreat from the constant noise of the fair. Zumthor described it as a “re-sounding” experiment. While it eliminated the exterior noise it allows the occupants to produce their own experience within as they act and react to the form, structure and materials.

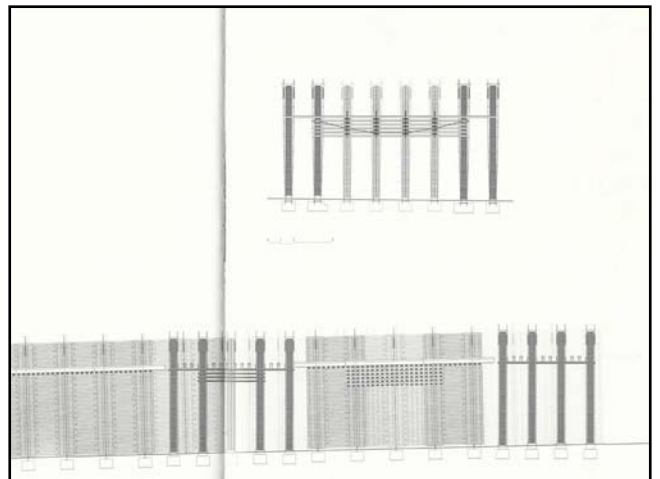
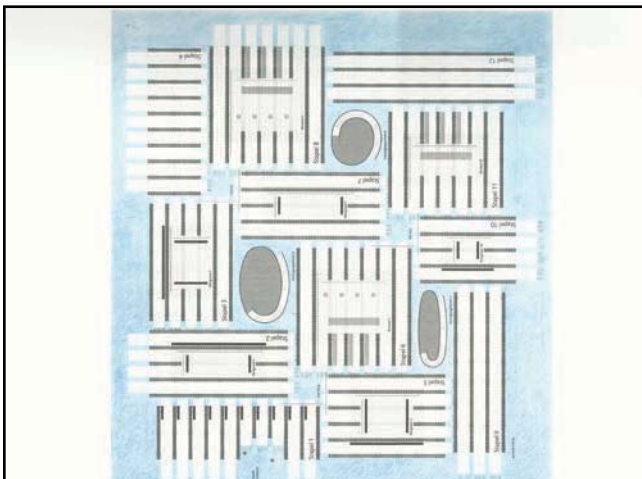
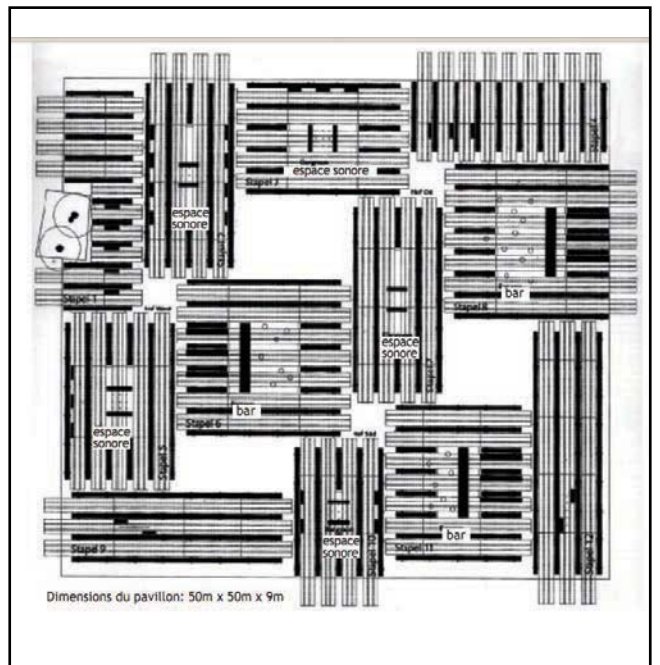
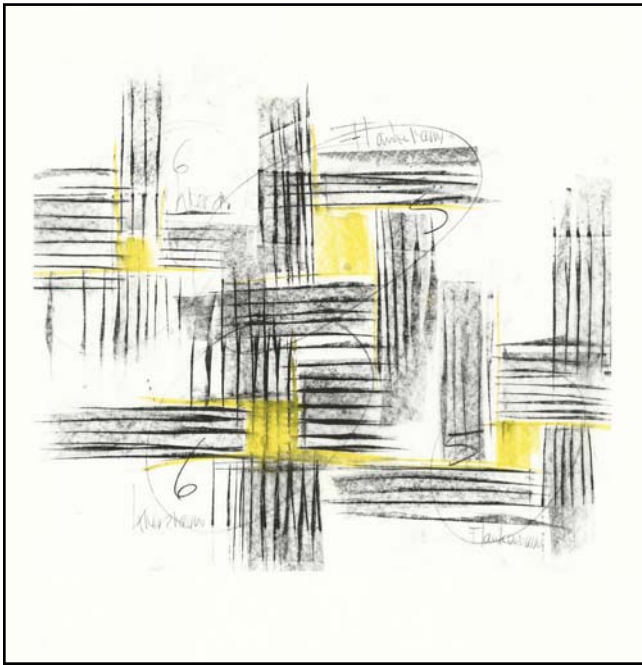
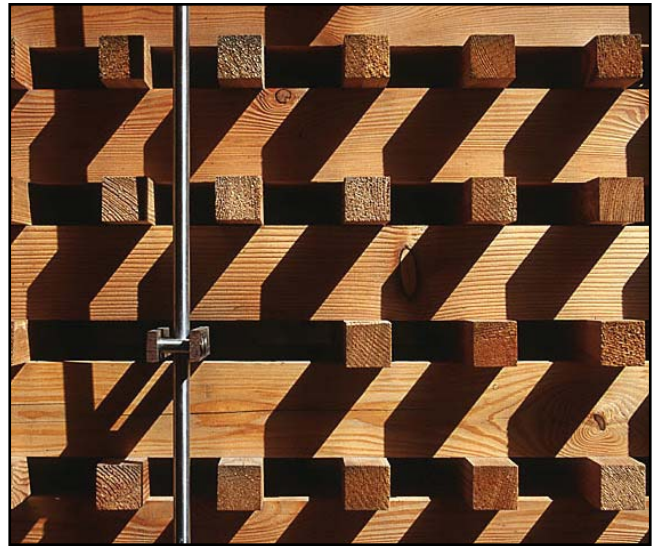
<http://digiitalarchfab.com/arch226/archive-fall-2011/audrey-simper>

http://www.academia.edu/12320031/Dissertation_on_Peter_Zumthors_Therme_Vals

<http://ahohoya.diandian.com/post/2012-04-06/17863771> (1+5)

Zumthor 1990-1997, Scheidegger & Spiess (2,3,6)



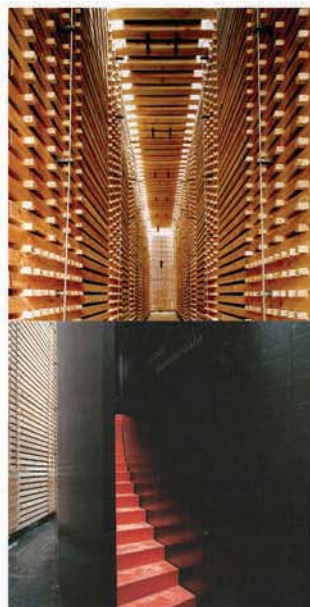
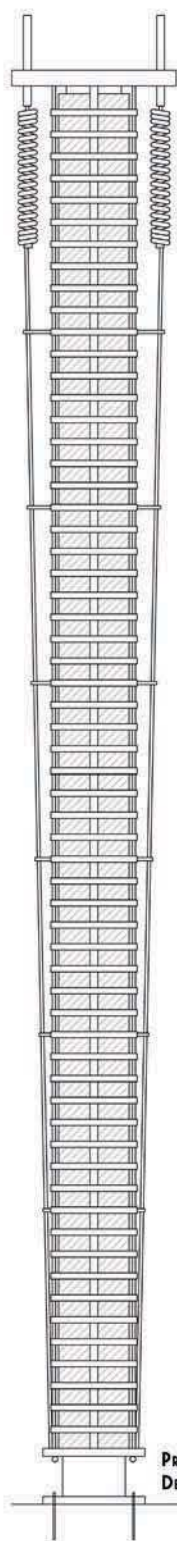


Swiss Sound Box Documentation

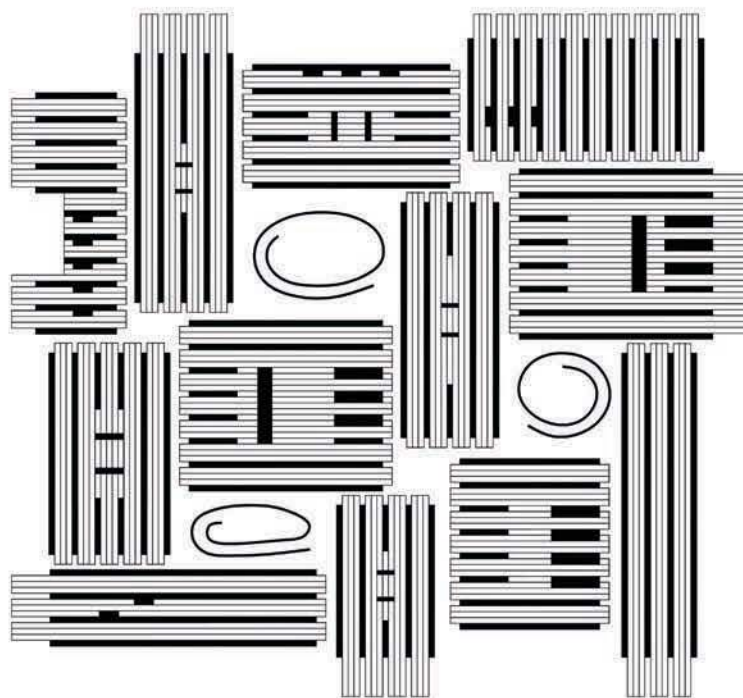
Photos From:

<http://www.fontecedro.it/blog/category/architecture/8>





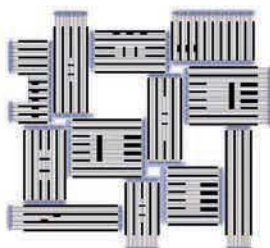
SOUND CHAMBER & SERVICE STAIRCASE



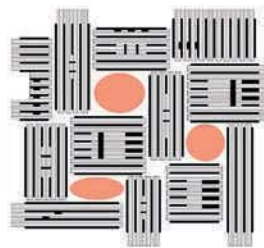
FLOOR & SEQUENCE PLAN



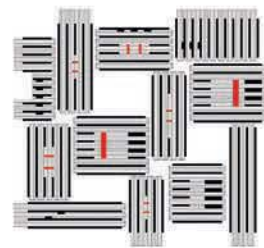
LIGHT POCKETS / DECISIONS



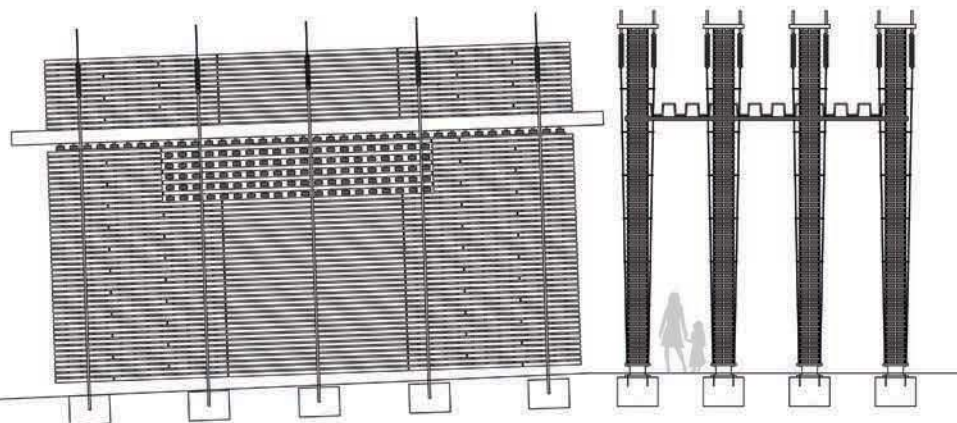
WATER / SOUND



SOUND CHAMBERS / MECHANICAL
/ OBSERVATION POINTS



DEVIATIONS / INTERFERENCE



ELEVATION

PRIMARY WALL
DETAIL

EXHIBIT SPACES WHOSE IMPERMANENCE WE REGRET SEQUENTIAL MUSEUM/PARK



The park is a compilation of pavilions that have made a significant effect on architecture. They are recreated on site so that visitors can tour the structures in the summer months. The pavilions can be converted into additional art spaces or used for private events.

At the front of the site will be placed a larger building that houses administration offices, a restaurant, grounds support spaces and a museum. This building will serve as the entrance to the park in addition to being an art destination. The museum will focus on experimental art, just as the pavilions have provided architecture with innovative concepts. As experimental art, there is no set medium that the museum will limit pieces, however it will include spaces to display common mediums (sculpture, prints, and painting).

Important factors to be considered will be making the park/museum a journey. This will be expressed via the placement and site manipulation of the pavilions, and design of the forward building.

Images Above (L,R)

<http://www.latimes.com/home/la-hm-shigerubanpaper-3-photo.html>

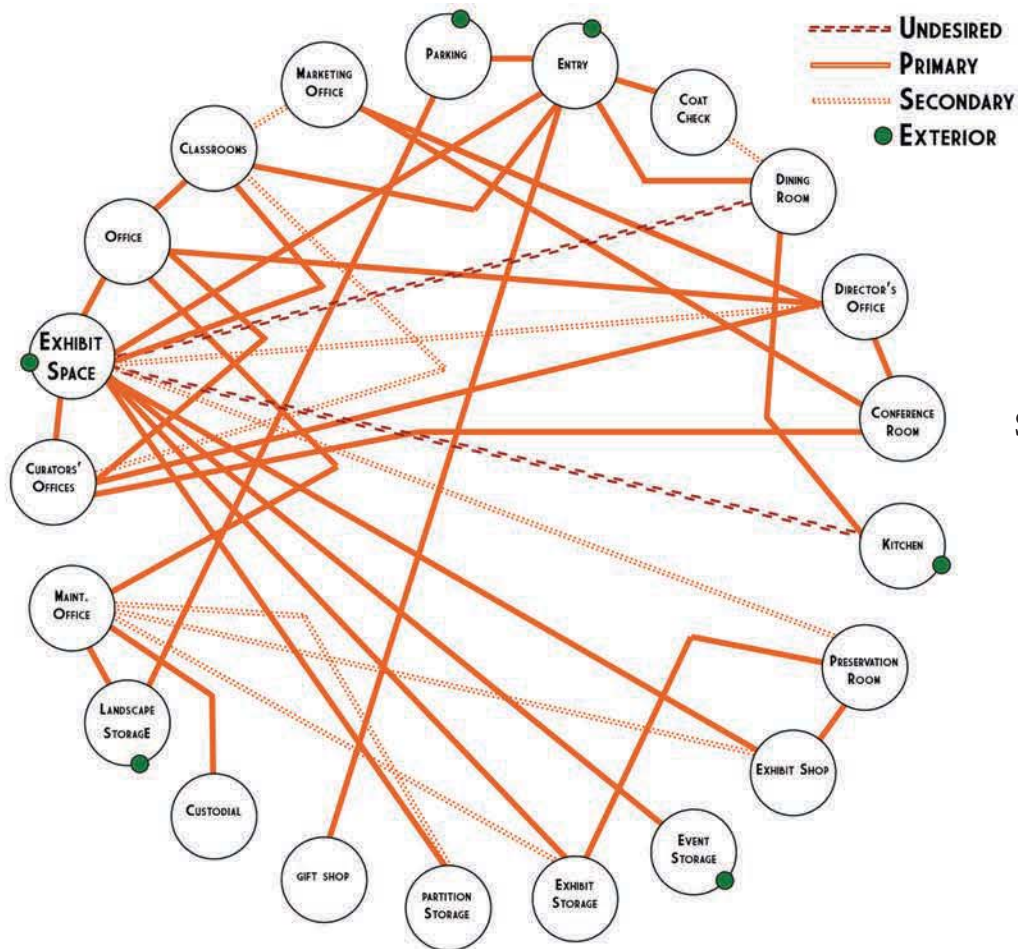
<http://rpbw.com/project/22/ibm-travelling-pavillion/>

Spaces & Square Footage

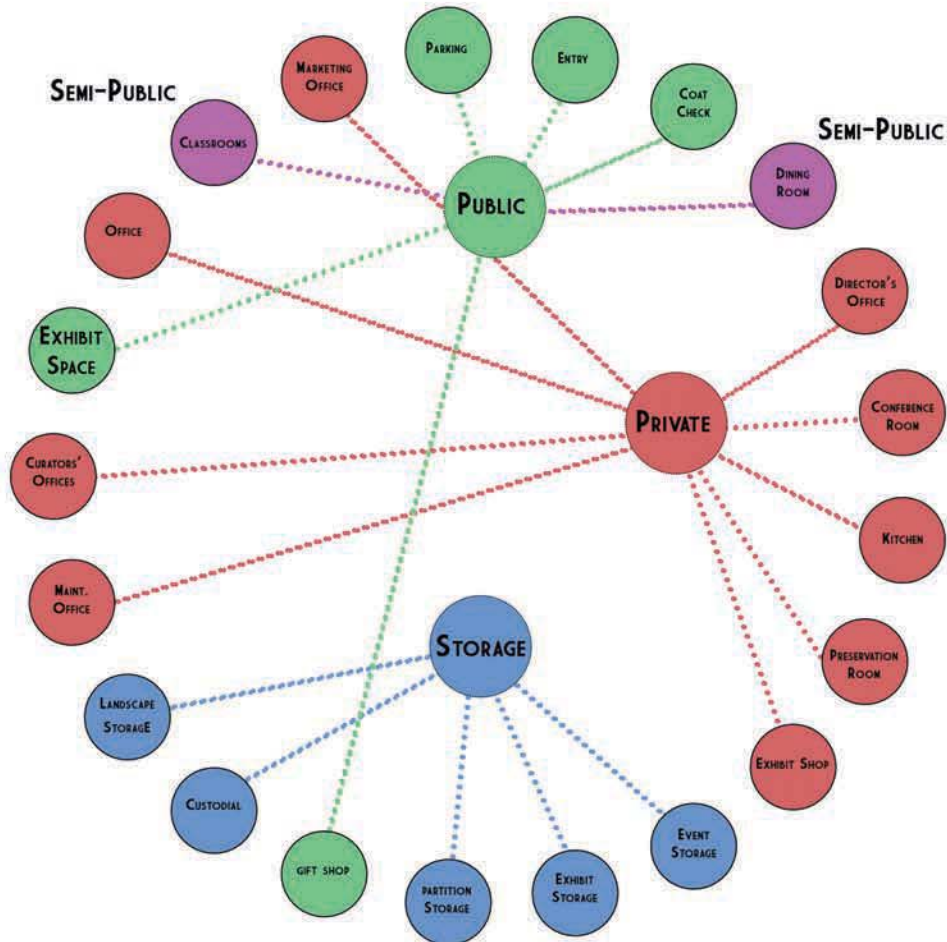
Public Access Space	
Entry/Reception	300
Exhibit Space	4000
Coat Check	50
Gift Shop	300
	4650
Storage	
Event Storage	500
Exhibit Storage	1000
Partition Storage	500
	2000
Administration	
Office Space	500
Director's Office	200
Curator #1 Office	150
Curator #2 Office	150
Marketing Office	150
Conference Room	300
	1450
Dining	
Kitchen	750
Dining Room	1000
	1750
Back of House	
Custodial	70
Maintenance Office	100
Landscape Storage	1000
Workshop	500
Preservation Room	300
Breakroom	300
	2270
Toilets	
Male Toilet	300
Female Toilet	300
Family Toilet	100
	700
Total	11370
Est. 10% Mechanical	1137
	12507

Occupancies

Day-Day
Director
Curators (x2)
Marketing Coordinator
Office Staff (x3)
Reception (x2)
Waitstaff (x3)
Chef
Line Cooks (x2)
Security (x2)
Gift Shop Sales
Landscaping (x2)
Custodial (x2)
Tourguides (x2)
As Need Basis
Display Maker
Carpenter
Preservationist
Event Staff
Guests
Up to 250
Total Occupancy
Up to 300 (including temp staff)

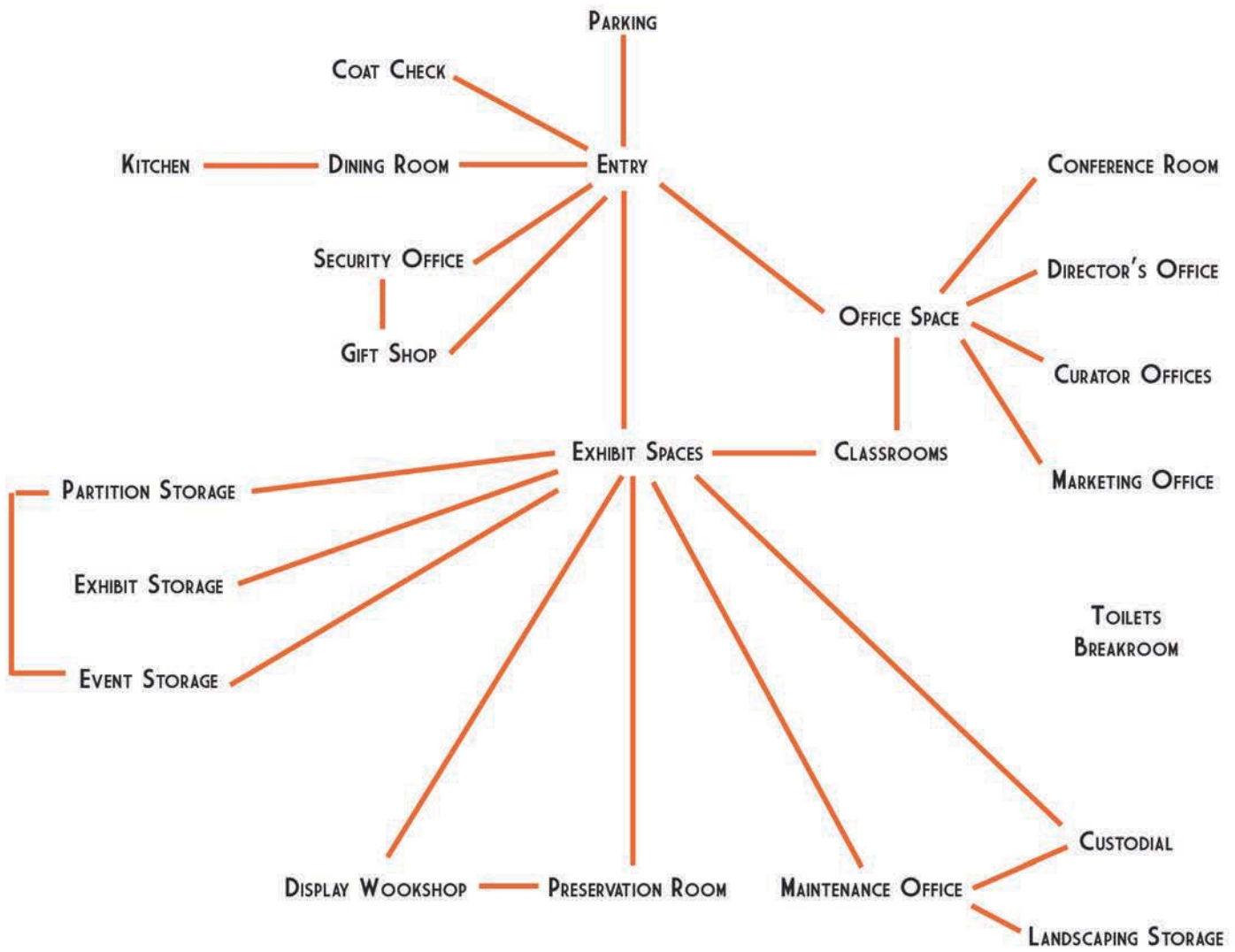


Spatial Relationships



Spacial Grouping
Pubic vs Private

Sequence & Relationships



Space

Reception / Entry Space (Including Vestibule)

Approx. SQFT

300min

Purpose / Activities

Welcome Visitors
Sell Tickets
Provide Information

Users

Employees
Visitors (including large groups and tours)

Critical Performance / Environment Criteria

Large enough for groups to gather before entering primary spaces.
Durable, Nonslip Flooring
Avoid noise traveling through space.

Unique Convenience, Safety or Security

Security readily available or close
Proximity to office spaces
Proximity to restrooms
ADA accessible

Contents of Space

Front Desk
Desk Chairs (2x min)
Computer(s)
Guide / Queue Ropes
Wheelchair Storage w/ 5 wheelchairs

Interactions

Parking
Gift Shop
Dining Room
Coat Check
Security Office
Office Spaces
Custodial

Space

Director's Office

Approx. SQFT

200

Purpose / Activities

Manage art collections
Plan events
Manage Payroll

Users

Curator (Primary)
All Employees
Vendors
Clients

Critical Performance / Environment Criteria

Quiet Space, able to hold very small meetings
Well Lit Area

Unique Convenience, Safety or Security

Proximity to other office spaces.
Closed off to public.

Contents of Space

Desk
Desk Chair
Guest Chairs (x2)
File Cabinet

Meeting Table
Table Chairs (x4)

Interactions

Office Space
Conference Room
Marketing Office
Curators' Offices

Space

Curator & Marketing Offices(x2)

Approx. SQFT

200

Purpose / Activities

Manage art collections
Plan events

Users

Curator (Primary)
Employees
Clients

Critical Performance / Environment Criteria

Quiet Space Well lit

Unique Convenience, Safety or Security

Proximity to other office spaces and the entry space.
Closed off to public.

Contents of Space eac

Desk
Desk Chair
Guest Chairs (x2)
File Cabinet

Interactions

Office Space
Conference Room
Marketing Office
Director's Office

Space

Conference room resources

Approx. SQFT

00

Purpose / Activities

Meetings, (Day to Day, board)
Plan events

Users

Employees
board of Directors

Critical Performance / Environment Criteria

Quiet Space, suitable for meetings

Unique Convenience, Safety or Security

Proximity to other office spaces.
Closed off areas.

Contents of Space

bookshelves
Conference Table
Table Chairs (x 0)
TV Available inputs (0in min.)

Interactions

Office Space
Curators' Office
Marketing Office
Director's Office

Space

Office Space

Approx. SQFT

00

Purpose / Activities

Facilitate day to day activities

Users

Employees

Critical Performance / Environment Criteria

Quiet Space, able to hold very small meetings

Unique Convenience, Safety or Security

Proximity to other office spaces.

Closed off areas.

Contents of Space

Desks (x4)

Desk Chair (x4)

bookshelves

Filing Cabinets

Large Copier Printer

Interactions

Conference Room

Curators' Office

Marketing Office

Director's Office

Classrooms

Space

Custodial Closet

Approx. SQFT

0

Purpose / Activities

Storage of chemicals cleaning supplies

Users

Custodial Staff

Critical Performance / Environment Criteria

Spill resistant flooring
2hr firerating enclosure

Unique Convenience, Safety or Security

Proximity to high traffic areas
ot a prominent location (tuck in a hall ay)

Contents of Space

Metal Shelving
Mop Sink
Mop olling ucket

Interactions

All Indoor Spaces

Space

Furniture Display Storage Ea

Approx. SQFT

000min

Purpose / Activities

Storage of displays, furniture, partitions

Users

Custodial Staff

Exhibit Designers

Catering Event Staff

Critical Performance / Environment Criteria

Wide, tall doors

Unique Convenience, Safety or Security

Proximity to event space.

Contents of Space

enches
Folding Chairs (0)
Folding Tables (0)
Partitions
Portable ar

Interactions

Exhibit Space
Outdoor Area

Space
Parking

Approx. SQFT
A

Purpose / Activities

To house Transportation for
Visitor Employee Arrival and Parking

Users

Visitors Employee Parking

Critical Performance / Environment Criteria

Traffic circulation and egress incredibly important
nighttime lighting

Unique Convenience, Safety or Security

Away from main road security cameras
Crosswalk(s)
Possible valet dropoff location.

Contents of Space

Space for
(x) Full Length uses
(0x) Standard Automobiles
(x) Accessibility Automobiles

Interactions

Entrance

Space

itchen

Approx. SQFT

0

Purpose / Activities

Preparation of food for the dining room and private events

Users

Chef
Assistant Cooks
Wait Staff
Restaurant Manager

Critical Performance / Environment Criteria

Non-slip flooring
Well Lit
Ventilation

Unique Convenience, Safety or Security

Emergency exit from space

Contents of Space

Stove
Ovens
Walk in Fridge
Microwave
Prep Sink
Food Prep Surface
Garbage Waste
Stock Area
Food Service Counter
Dish Washing Station

Interactions

Dining Room
Any area being used as an event space

Space
Dining room

Approx. SQFT
000

Purpose / Activities
To provide guests with meals

Users
Visitors
Waitstaff
restaurant Manager

Critical Performance / Environment Criteria
noise and smells generated should not be heard elsewhere

Unique Convenience, Safety or Security
Proximity to restrooms

Contents of Space

Dining Tables
 (x 0) 2 person
 (x 0) 4 person
Dining Chairs (0 Extra)

Interactions

Entrance
Kitchen

Space

reakroom

Approx. SQFT

00

Purpose / Activities

Employee relaxation and meals during breaks, host employee celebrations and to house personal belongings

Users

All Employees

Critical Performance / Environment Criteria

Away from activity areas

Unique Convenience, Safety or Security**Contents of Space**

Television
Couch
Lockers
Table(s)
Chairs
Vending Machines

Interactions

None

Space

Vehicle Landscaping Storage

Approx. SQFT

000

Purpose / Activities

To store vehicles and landscaping equipment when not in use

Users

Landscaping Staff
Maintenance Staff

Critical Performance / Environment Criteria

Large overhead door.
Should not be readily visible

Unique Convenience, Safety or Security

Should be lockable

Contents of Space

Vehicles

Pickup Trucks (x2)
Large Lawnmowers

Landscaping and Tools

Landscaping Power Tools
Wheelbarrows

Interactions

Exterior
Maintenance Office

Space

Maintenance Office

Approx. SQFT

00

Purpose / Activities

Managment of grounds cre , supplies e uip
ment

Users

Maintenance Manager
Maintenance Staff

Critical Performance / Environment Criteria**Unique Convenience, Safety or Security**

ear Landscape Maintenace Storage

Contents of Space

Desk
Chair
File Cabinet

Interactions

Custodial Room
Office Space

Space
Preservation room

Approx. SQFT
100

Purpose / Activities
Basic Preservation Activities.
Third Party Preservationist and Artist basic maintenance of gallery pieces

Users
Preservationist
Curator
Artists

Critical Performance / Environment Criteria
White room, needs to be free of dust and outside environment

Unique Convenience, Safety or Security
Should be a back of house space

Contents of Space

Padded Table
Cabinets
Sink

Interactions

Workshop
Exhibit Space

Space
Workshop

Approx. SQFT
00

Purpose / Activities

Construction of frames and display cases
asic maintenance of surrounding spaces

Users

Curators
Maintenance
Private Contractor(s)

Critical Performance / Environment Criteria

220 Outlets
solate sound to ard public spaces

Unique Convenience, Safety or Security

Dust Collection System

Contents of Space

Table Sa
Mitre Sa
and Sa
Drill Press
Work ench
ointer
Planer
Disc Sander

Interactions

Workshop
Exhibit Space

Space
Exhibit Space

Approx. SQFT
000

Purpose / Activities
Exhibition of art that provokes innovation
Private events

Users
Patrons

Critical Performance / Environment Criteria
Manipulation of natural daylight
reduction of sound

Unique Convenience, Safety or Security
revealing Safety Equipment

Contents of Space

anging Art
Sculpture

Interactions

Entry
Offices
Classrooms
Storage Spaces
Custodial

Space

Toilet

Approx. SQFT

00

Purpose / Activities

Conducting business

Users

Visitors

Staff

Critical Performance / Environment Criteria

Family Bathroom Option

Thick walls or sound proofing

Unique Convenience, Safety or Security

Easy to find

o Ceiling Tile

Contents of Space

Toilets (x4)

Sinks (x4)

Trashcan

Air Dryer Toilet Dispenser

Interactions

All spaces

Space

Classrooms

Approx. SQFT

00

Purpose / Activities

To educate visiting groups and children about architecture and art concept and design process

Users

Tour guides
Visitors

Critical Performance / Environment Criteria**Unique Convenience, Safety or Security****Contents of Space**

Desks
Televison (0in min)
esources

Interactions

Exhibit Space
Office Area

Space
Gift Shop

Approx. SQFT
00

Purpose / Activities

To generate revenue for museum

Users

Gift Shop Employees
Visitors

Critical Performance / Environment Criteria

Unique Convenience, Safety or Security

Anti Theft Design

Contents of Space

egister
Display Cases
ookshelves

Interactions

Entrance Space

Space

Exhibit Storage

Approx. SQFT

000

Purpose / Activities

Storage of art not on display

Users

Curators
Staff

Critical Performance / Environment Criteria

Climate controlled
o direct light

Unique Convenience, Safety or Security

restricted Access, away from general public

Contents of Space

Shelving
Art Pieces

Interactions

Workshop
Exhibit Space

Space

Coat Check

Approx. SQFT

0

Purpose / Activities

Storage of peoples belongings

Users

Visitors

reception Staff

Critical Performance / Environment Criteria**Unique Convenience, Safety or Security**

Lockable Area

near Door

Contents of Space

Coat racks

Lockers

Interactions

Entrance

WRITTEN SUMMARY

Exhibit Spaces Whose Impermanence We Regret

Ephemeros (Greek) meaning, “lasting only one day” embodies the sadness of a short lifespan. (Jodidio) Temporary architecture is designed for many reasons however there is a general regret in the impermanence of those that exhibit innovative and stunning results and techniques.

It can be said that all architecture is fundamentally impermanent, as materials will eventually return to the earth. However we as architects generally consider architecture to be permanent. For the purpose of this essay we, as architects expect that building to survive, at least through the end of one’s lifetime. We consider temporary architecture to last much less.

Before the digital age, World Fairs and Olympics were the largest gatherings of ideas and people (outside of war), showcasing cultures, people and technologies. In order to host an event, you need place of belonging, architecture facilitates this. However buildings are expensive and require a process to complete. Temporary architecture allow us to create magnificent, yet impermeable architecture.

There are three main factors in the decisions to create temporary architecture. The first being architecture often is not need after an event is over. Unused buildings become exposed to vandalism and decay. A large-scale example of this, the 2014 World Cup in Brazil left the country with an abundance of unusable structures, Brasilia’s stadium now serves as a bus park. The event literally paved over paradise to create a parking lot. (Douglas 2015) Temporary architecture is a means of reducing waste by designing it to be removed after the event is completed.

The second factor in the decision to make something temporary is cost. Pavilions are created at a fraction of the cost by omitting the factors that allow permanent buildings to last. Temporary exhibit space is not designed to be a full time occupancy structures nor be able to stand the test of time, thus do not need to be sealed to the extremes, be set on the same foundations or pylons, nor require the same environmental conditions.

The third and final factor in the decision to make something temporary is that events, more often than not have very restrictive, fixed dates. Olympic Committees announce host cities only 6 years in advance. World Fairs generally get less than 5 years. This is the allotted time that cities have to create destinations for world travelers. A traditional building often takes years to go through the processes of design, permit acquisition, and construction. Temporary architecture often takes weeks.

In 1925, at the Paris International Exposition Konstantin Melnikov announced the arrival of communism with a pavilion representing Russia’s adoption of new ideas. The pavilion was a symbol of forward thinking as it expressed ideas and concepts of *de stijl*, constructivism, and productionism. The pavilion welcomed patrons to ascend to the top floor as they walk into the heart of the structure. This exemplifies the important principal of drawing people into an exhibit.

Alvar Aalto’s 1937 Finnish Pavilion in New York showcased a material, wood. The pavilion removed the idea that wood was a structural material and did not belong as an ornamental one. By finishing the wood and using it to create non-linear forms he brought a respect to the material, its uniqueness and opportunities.

The IBM Traveling Pavilion switched the notion of going to an event; but an event coming to you. It brought a dynamic element to the space and made it more impressive to its visitors that something so large and beautiful can be moved. “Mobility has an innate potency, Kronenburg believes. Movable environments are more dynamic than static ones, so why should architecture be so static? The idea that perhaps all buildings shouldn’t aspire to permanence represents a huge shift for architecture. Without that burden, architects, designers, builders and developers can take advantage of and implement current technologies faster. Architecture could be reusable, recyclable and sustainable.

Recast in this way, it could better solve seemingly unsolvable problems. And still succeed in creating a sense of place.” (Arieff 2011)

Pavilions have built architects’ careers and rarely broken any. Shigeru Ban has established himself as the expert of paper architecture. Renzo Piano solidified his career after the Pompidou Center with the IBM Pavilion, being only his second large project. Alvar Aalto made a career out of designing pavilions for fairs and exhibitions. Temporary architecture allowed these architects to experiment early (and some often) in their careers.

Temporary architecture is not just expressions of materials and form; it is art. In the traditional way of looking at modern art, it is something new and although it may be simple, it is creative nonetheless. Pavilions are often not designed by architects, but sculptors, medium artists, lighting technicians, etc. Like an art exhibit we appreciate the uniqueness and creativity of exploring the untried or discovered. We can think of temporary architecture as an experiment of trial and error in trends and ideas of how architecture should be.

Pavilions can give us a glimpse into the future. As relatively inexpensive structures they imply what the world is currently thinking about architecture, the broad directions it has come together from and its possibilities. Temporary architecture has contributed greatly in the advancements of permanent architecture. We should recognize the pavilions that did not deserve to have their lives deemed short by rebuilding them to the standard they deserve. The great ones have shaped architecture today and warrant remembrance.

Arieff, Allison. “The New York Times.” *nytimes.com*. December 19, 2011. http://opinionator.blogs.nytimes.com/2011/12/19/its-time-to-rethink-temporary/?_r=0.

Douglas, Bruce. “World Cup leaves Brazil with bus depots and empty stadiums.” *British Broadcasting Company*. Rio de Janeiro, March 25, 2015.

Philip Jodidio. “Forward.” Introduction. *Temporary Architecture Now!* Köln U.a.: Taschen, 2011. N. pag. Print.



A scenic view of a body of water, likely a lake or bay, with a rocky shoreline in the foreground. A wooden pier or breakwater extends from the shore into the water. The sky is a clear, pale blue. The overall mood is calm and serene.

Aaron Neal

Advancements in off site construction have been implemented in numerous residential projects around the world. My research has lead me to explore the different methods of prefabrication used in houses or small dwellings. This is a collection of a few projects that showcase the varied techniques used in their construction.

ANALYSIS OF READINGS

Frampton - Towards a Critical Regionalism

Kashikar Vishwanath - Modernity and Universalism: *Modernity as a timeless tradition*

The past versus the future; can society and architecture rely solely on one?¹ The past can be an influence in architecture in the form of tradition. How this tradition controls the way we step forward in a given society can easily be seen. In architecture one can easily see how the tradition of a culture is incorporated into designs such as in the structural systems used or the basic building form. The past sets in place a list of guidelines to adhere too when designing to the vernacular. Frampton, by quoting Hamilton Harwell Harris, alludes that by following the past can sometimes become restrictive.² It can be quite easy to see in our culture how the regional design standards become more of a set back then a guideline. In historic zones, design is very limited with the mindset to preserve the nature of that given district. In many ways I feel like this hampers the development of the city or culture. While I agree that respect should be given to these districts, I feel like if nothing new ever changes that area then it will eventually die.

Likewise, culture can look forward. The future always seems grand with its new technologies that promise to change life how we know it. Especially in present times when new inventions happen every day and the connected nature of culture seems to advance at an exponential rate. With these advancements, society has become accustomed to expecting the future to be incorporated in everything. This can be seen in architecture with the inclusion of green buildings. The top buildings people talk about are made smart so that they adapt and react to the environment. In some respects these inventions are a marvel and allow for design to develop and grow, but they can also become a hindrance to design as well. If technology allows for a building to take any form and have no consequence, then what shapes the design? Frampton refers to this method of design as “placelessness”.³ This issue is just one of many that can come from over reliance on modern ways.

What then could be the steps to rightly move forward in architecture and as a society? Both the past and the future are important, but by themselves

lead to stilted growth. As noted by Kashikar, the key is to not stare into the past, nor to dream into the future.⁴ Instead, we should be taking note of the present. This way of looking seems the most appropriate to me in my design work. One must research and respect the traditions in a given region or building typology, but they also need to be pushing forward with today’s technology to most efficiently develop said region. By mixing both and dealing with what is in the present the designer allows for growth that is effective and relatable. Frampton agrees with this ideology by bringing up the Bagsvaerd Church. By mixing the new technologies and the feeling of the vaulted ceiling, the spaces is progressive while still being relatable.⁵ While this is an older project, the notions can be carried through to today’s architecture. New methods for building such as prefabrication can still make for regionalistic architecture. One such building, KieranTimberlake’s Loblolly House, is a perfect example of how a building can use new technologies while still relating to the context and culture that it is located in. The prefabricated nature of the house is push towards the possibilities of the future, but the designers still treated the design as a normal project that responded to the surrounding Loblolly Trees and the bay on which it resides. In my mind that perfect example of how to combine the past and the future into a present day design. I hope that as a designer that I can do likewise with my designs to help push my community on an appropriate path.

1. Kashikar (2005) page 4
2. Frampton (1983) page 22
3. Frampton (1983) page 26
4. Kashikar (2005) page 8
5. Frampton (1983) page 22-23

Frampton - Rappel a l'Ordre

Carles Vallhonrat - **Tectonics Considered:** Between the Presence and the Absence of Artifact

Architecture to me is a very experiential form of art. Buildings are very real things, and are constructed by tangible materials. The building becomes more than a visual piece, and transcends into something that must be experienced by the user. Frampton makes note of this by comparing architecture to music or dance in which the order and rhythm found in human nature makes an appearance in the art.¹ I like to think that this rhythm is the heartbeat of a building which then resonates with the user's soul. Vallhonrat likens experiencing architecture to listening to music.² Both Frampton and Vallhonrat agree that we achieve this rhythm in our buildings through tectonic methods. The nature of construction becomes the notes used to explain the building to the user much like notes in a song work together to create a melody. Architecture like music has the power to reach the soul and become spiritual in nature. I believe it can do this because hidden deep within the human nature is the desire to create similar to how we have the desire to keep a beat. By highlighting the construction of the building, the user experiences how these materials were put together to create the space they are in. People can relate to these methods even if they have no actual skill or knowledge in construction practices. It then becomes the designer's role to take these individual notes – or building elements – and compose them in a manner that is orderly and intriguing. On their own, each material is only an object, but how these materials are connected together is what defines it as art. Frampton quotes Frascari by saying, "Architecture is an art because it is interested not only in the original need for shelter but also in putting together, spaces and materials, in a meaningful manner. This occurs through formal and actual joints."³ These joints then become the central component of all architecture. This to me really shows the ingenuity behind the architect. The skill to take worthless individual pieces and combine them together to create a masterpiece is like a composer that takes individual noises to create a tune that can touch the soul.

As the nature of the joint is vital to architecture, Vallhonrat examines what materials are

actually being joined. He goes through the basic elements commonly used in construction, - wood, steel, masonry, glass, and concrete.⁴ It's pretty easy to see how these different materials are joined together. In wood frame construction, the wooden elements are attached to the masonry or concrete foundation. Skyscrapers soar high with a framework of steel members welded and bolted together. These basic elements are common and efficient, but I feel like technology has progressed enough for new materials to be used and joined to these existing elements. In other industries other metals and frame designs have been used to create stronger, more lightweight skeletons. The advancements in composite or plastic materials are being used in consumer products, but fail to make their way into mainstream architecture. I feel like the cause of this failure is that these new technologies attempt to mimic the older materials. Stone behaves like stone because it is actually stone. A composite façade that appears like stone, is only a farce and ultimately falls short of the real thing. I think it would be real interesting if we used these new materials in the raw and make use of their unique properties. With the rise of material science, we should be getting new units to build our melodies with. By bringing in a whole new elements, a brand new door opens full of possibilities for the designer. Imagine the possibilities if a composer learned about another range of notes or a new instrument that they could incorporate in their music!

1. Frampton (?) page 4
2. Vallhonrat (1988) page 123
3. Frampton (?) page 6
4. Vallhonrat (1988) page 128

Potential Building Collections

To start my research for this regional studio, I started by exploring different types of building collections. I found five different types of sets that I thought would make for a good open air museum. All of these choices would have been an excellent choice, as they would all work in a rural environment. Most of them would be educational in the process which would work well towards a museum. Ultimately I chose to do prefabricated houses, but here is a small description of each of the potential candidates.

Open Air Chapels

This collection of buildings would comprise of small chapels that are open in nature. The idea behind this would be to see how cultures around the world create small religious spaces for public use. These structures would make for a good exhibit for an open air museum given the similar nature.

Lost Pines Chapel

<http://www.pestructural.com/projects/buildings-institutional/lost-pines-outdoor-chapel.php>



Prefabricated Houses

There are an abundance of Pre-Fabricated homes on the market now, and I would like to take a piece that explores each method of pre-fabrication. Research can be done to see how these houses are constructed in different parts of the world. The exhibits could be used to highlight the different aspects of each type of construction.

Loblolly House

<http://kierantimberlake.com/pages/view/20/loblolly-house/parent:3>

Photograph © Halkin Photography LLC

School Houses

Small rural school houses could lead to some major cultural research in how education and architecture played or plays a part in a society. I could look at the american midwest region to the small schools in third world countries. This collection would be more about the cultural research more than the actual architecture of the

Little red school, Cedar Falls, Iowa.

<http://ejas.revues.org/9205>

Photo. L Mydland 2007



Indigenous Portable Dwellings

A collective look at nomadic units used by indigenous cultures, would be very interesting in terms of both architecture and culturally. Analysis could be made by looking at the construction methods used in each structure and how these relate back to the region in which they were used. The outdoor nature of this museum leads itself well to exhibiting these pieces in a museum setting.



Yurt

<http://www.ancient-origins.net/news-history-archaeology/europeans-share-more-language-and-genes-asia-previously-thought-002682>

Off-the-Grid Houses

A collection of houses that are capable of generating their own source of power would fit well into the context of our site. By being in a rural location, being off the grid would be an excellent highlight to the designs of the buildings. My only concern would be the solar differences by taking these buildings out of their original geographical position.

Soleta zeroEnergy

<http://flavorwire.com/393699/15-beautiful-off-grid-homes-wed-like-to-live-in/3>



Loblolly House

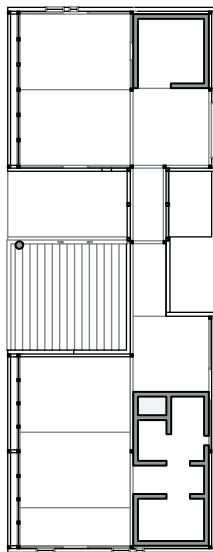
Architect: KieranTimberlake

Location: Maryland, USA

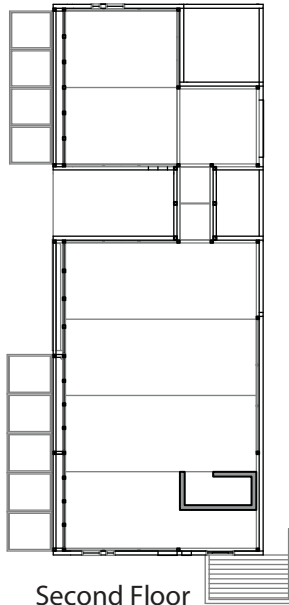
The Loblolly House is a vacation house designed as an experiment for KieranTimberlake as they explored new ways of construction. Influenced by the manufacturing industries of aviation and automobiles, this project was designed to fit together as an assembly. The prefabricated frame connects together by bolts that are ratcheted into place for a strong friction fit. This new form of assembly reduced the amount of time of on site construction. While being prefabricated, this building still responds to its surroundings. Hidden through a forest of loblolly pines, from which it gets its name, the house sits next to the shore line. The wooden facade blends into the treeline as you approach the site, while the other side opens up to the waterfront. This house is perfect example of how to push forward the methods of construction while still being a piece of architecture.

Photos & Research From: <http://kierantimberlake.com/pages/view/20/loblolly-house/parent:3>

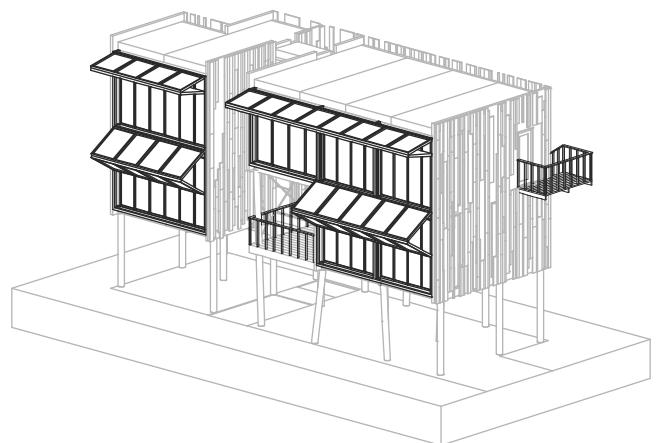
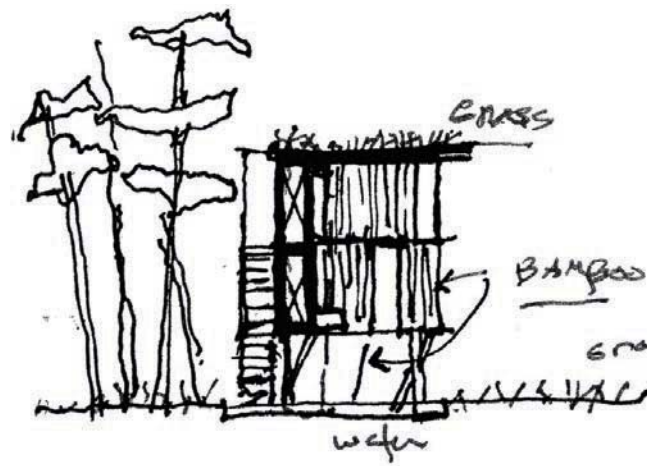




First Floor



Second Floor



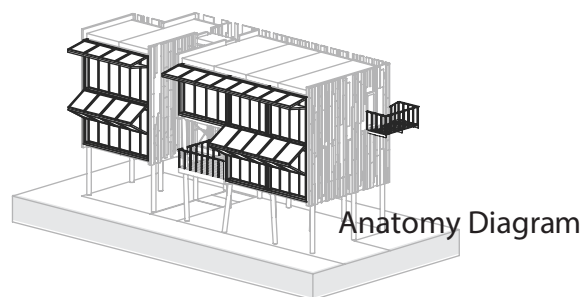
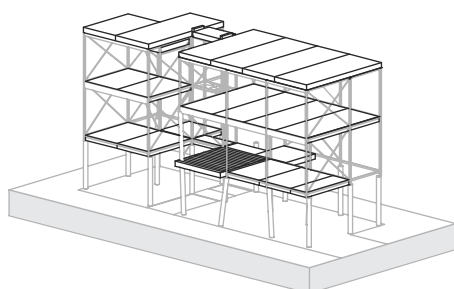
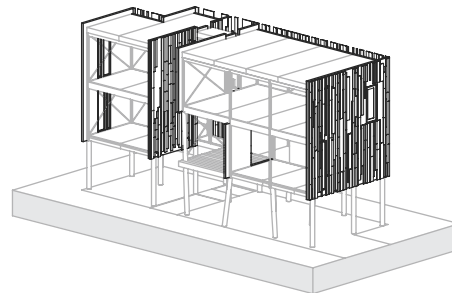
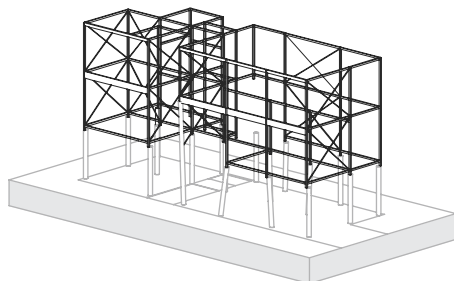
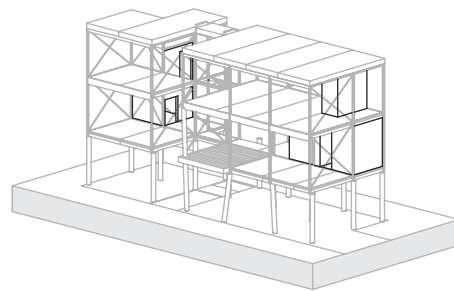
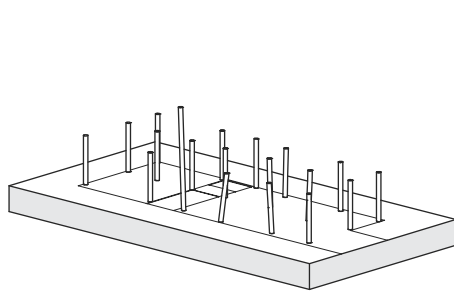
Loblolly House

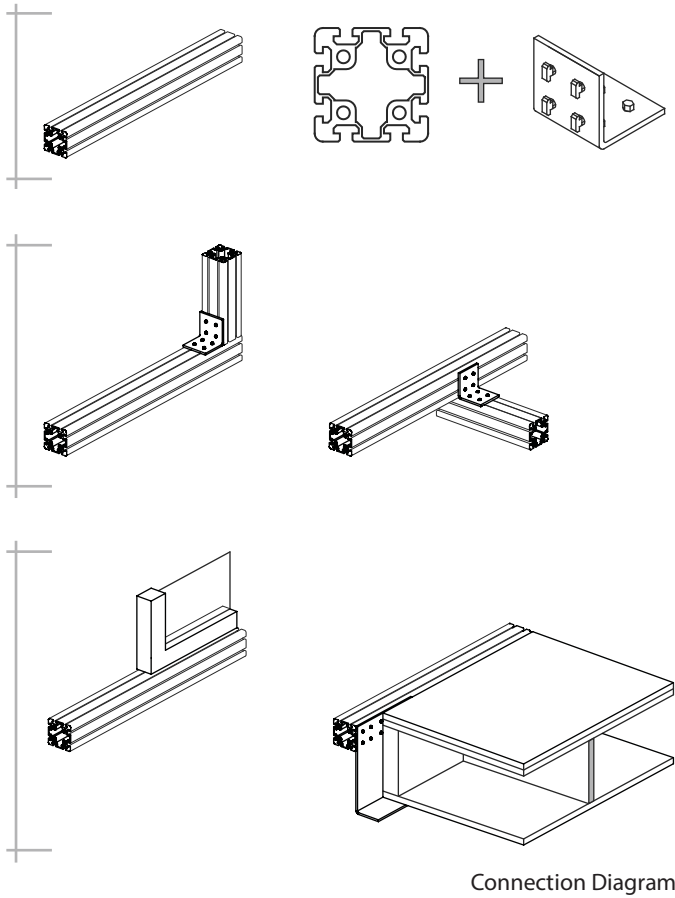
Architect: KieranTimberlake

Location: Maryland, USA

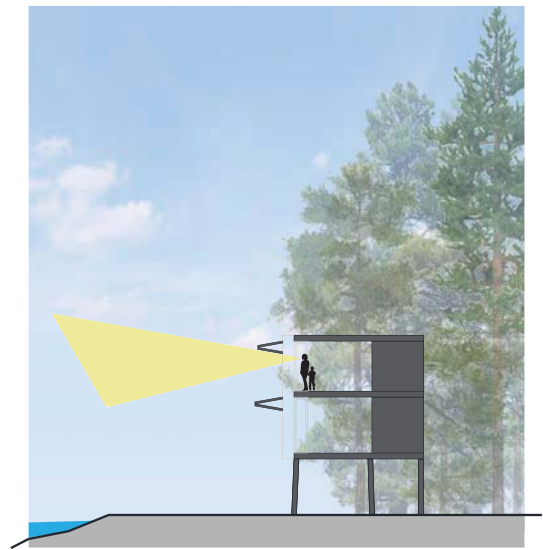
The Loblolly House can be broken down into six new architectural “elements”. The first being the wooden piles that act as the foundation for the house. Attached to these piles is the factory fabricated aluminum frame that serves as the skeleton. Floor cartridges are set in the frame and are bolted in place. Central cores containing restroom and utilities are placed into the frame next. The outer wall cartridges are hung in place. These walls are clad with wooden strips to help blend the building in with the forest behind it. Lastly the window, door, and other equipment are attached to fully enclose and complete the house.

Photos & Research From: <http://kierantimberlake.com/pages/view/20/loblolly-house/parent:3>

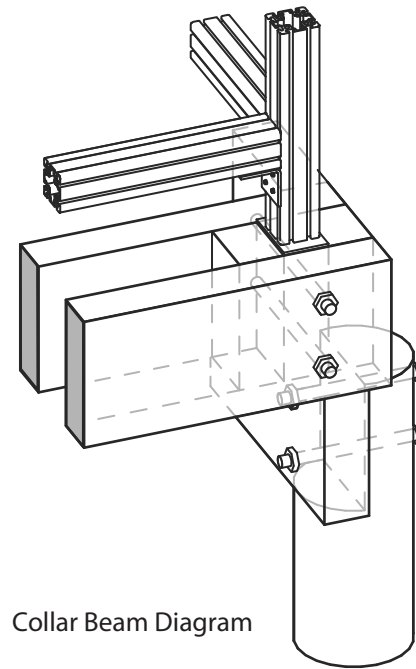




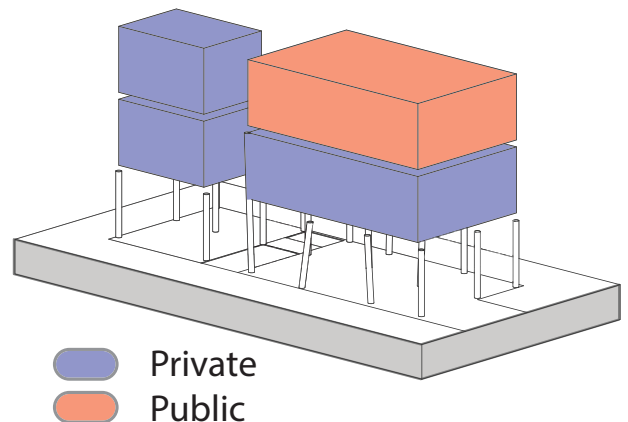
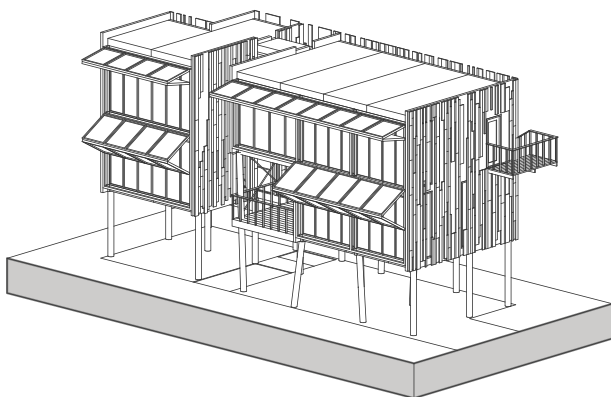
The aluminum frame is uniformly designed so that the joint may be used throughout the project in many different ways. It can be used to attach to similar frame members for the structure, or it can attach to wall and floor cartridges forming the enclosure. It can also be used for sliding doors and door frames.



View Diagram



Collar Beam Diagram



Hemeroscopium House

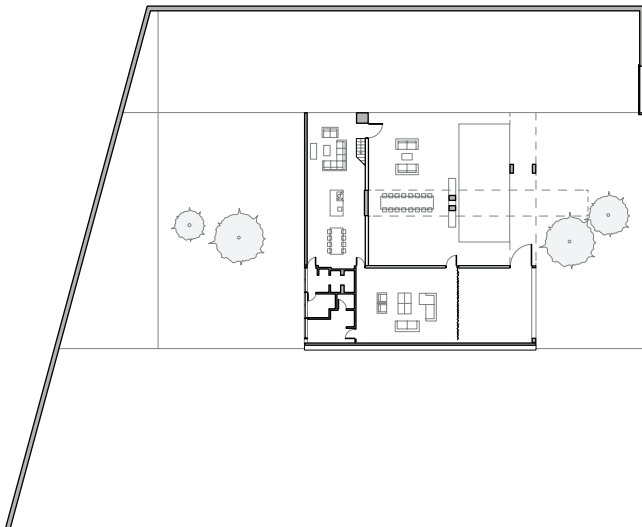
Architect: Ensamble Studio

Location: Madrid, Spain

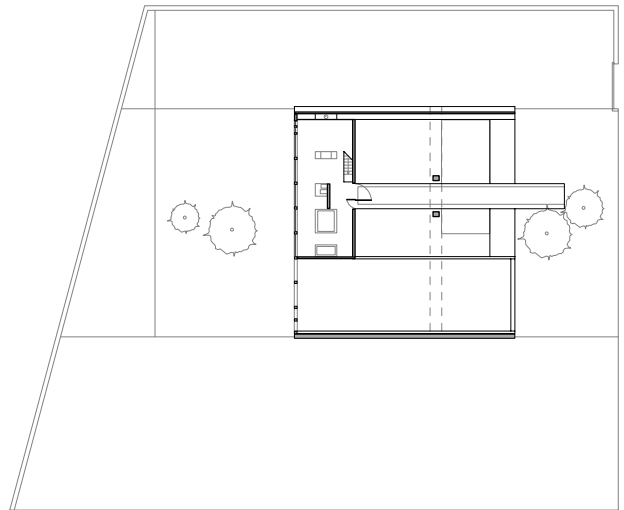
The beauty of this massive concrete house, is that it took only seven days to construct it. By prefabricating the massive concrete beams, they were able to set in place easily in a few days. The rest of the house is infilled with glass wall systems which also add to the speed of construction. Sitting on top of the structure is a massive rock that is the counterbalance to hold up those massive beams. As you walk through the space, you can see the forces travel through the concrete like a massive balancing act.

Photos & Research From: <http://www.archdaily.com/16598/hemeroscopium-house-ensamble-studio>

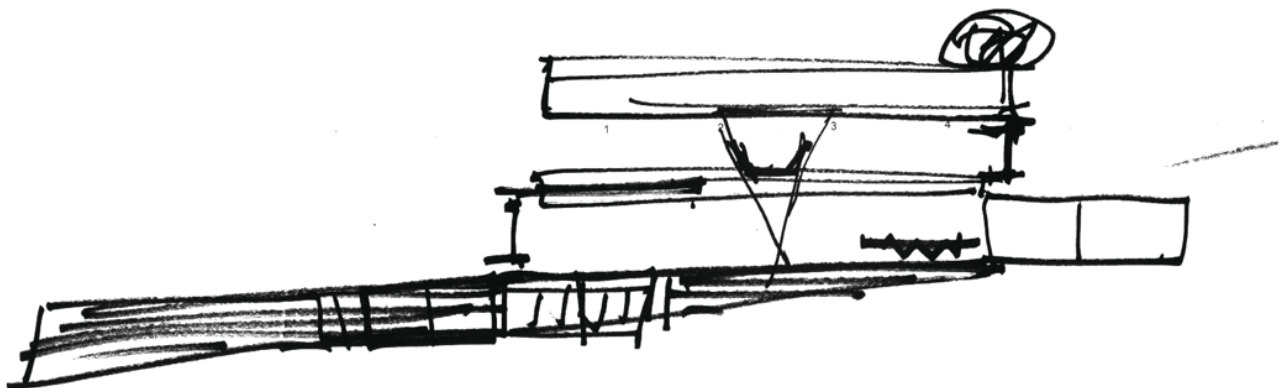




First Floor



Second Floor



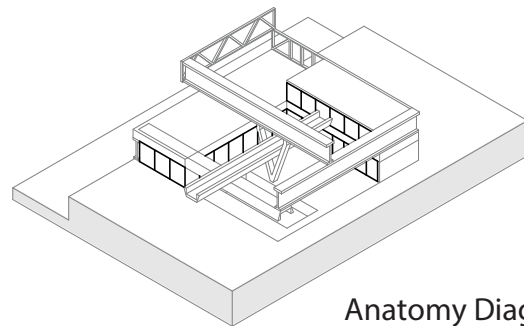
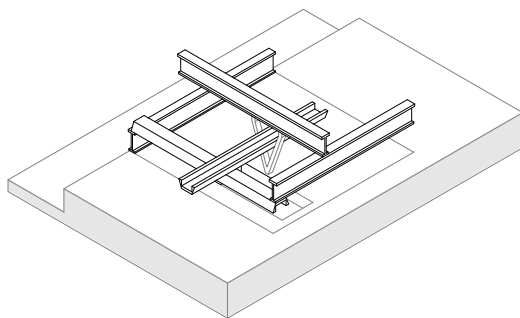
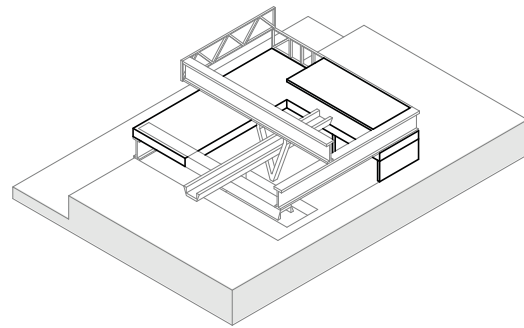
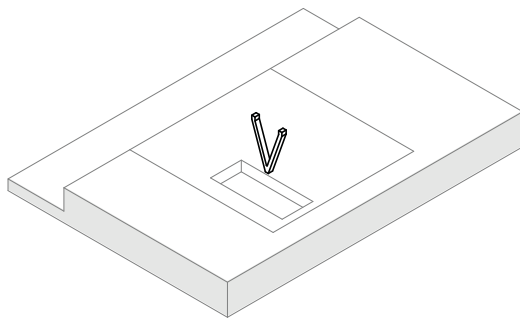
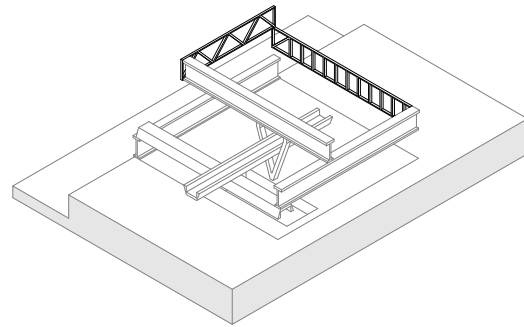
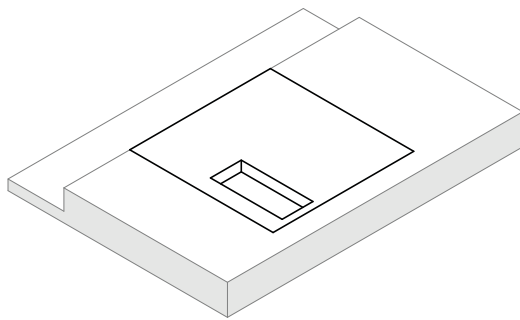
Hemeroscopium House

Architect: Ensamble Studio

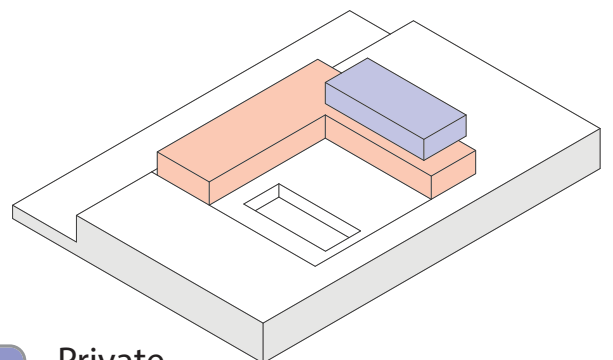
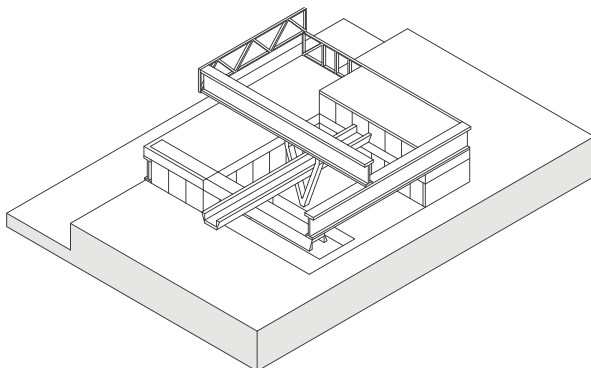
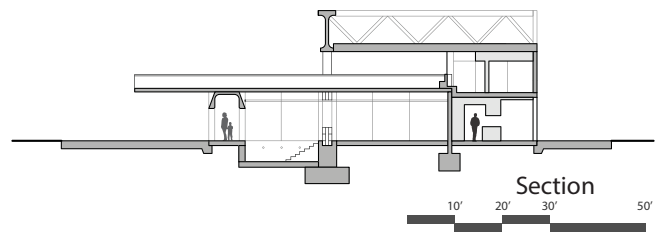
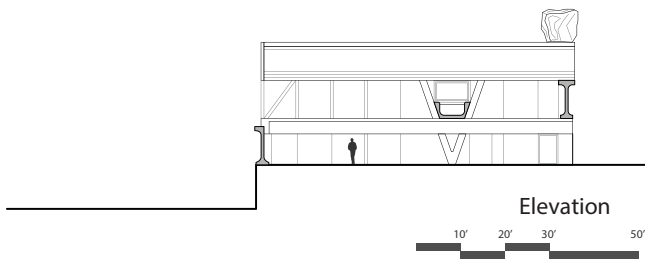
Location: Madrid, Spain

When broken down into its basic components, the Hemeorscopium House consists of the base-ment and foundation, the steel V, the concrete beams, the steel trusses, the walls and floors, and the Glass cladding. The foundation portion consists of the bottom floor slab, the pool and the subterranean pool machine room. The steel V acts as a main support for the whole concrete system. The Beams act as the main form driver and structural system. They are balanced in place showcasing the forces of gravity. The steel trusses add the last bit of structural stability while appearing lightweight compared to the concrete. The walls and floors set in place of the knot of concrete and steel to form the functional spaces of the house. Glass glazing is used to enclose most of the house stretching from floor to ceiling.

Photos & Research From: <http://www.archdaily.com/16598/hemeroscopium-house-ensamble-studio>



Anatomy Diagram



Private
 Public

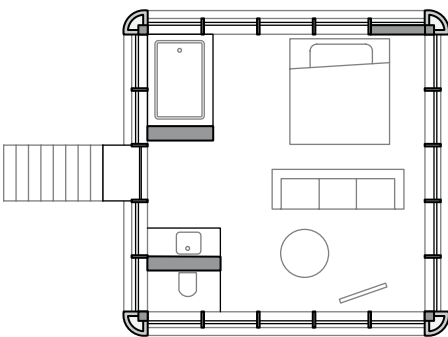
Loftcube

Architect: Studio Aisslinger
Location: Varies

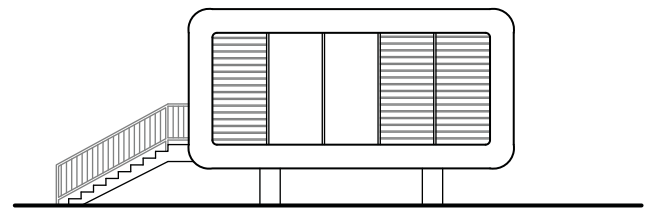
The Loftcube houses come in various sizes and layouts, but overall the concept is the same throughout - to create a home with strong panoramic views with the ability to be placed practically anywhere. The structure consists of a fiberglass shell that is then infilled with high quality materials to create a space that is geared for living, relaxing, or sight seeing. These cubes can be a place of retreat or they can be placed together as modules to create a full sized living area. The Loftcubes are move in ready after only three days of on site construction which allows for these structures to be placed in many locations.

Photos & Research From: http://www.aisslinger.de/index.php?option=com_project&view=detail&pid=10&Itemid=1





First Floor



Elevation



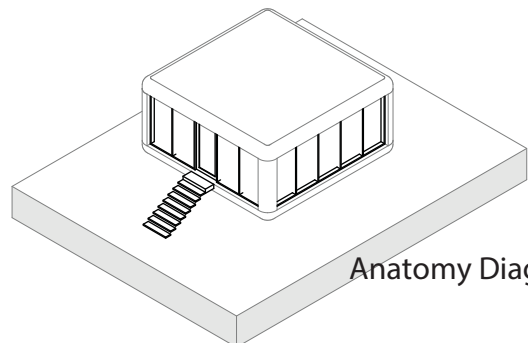
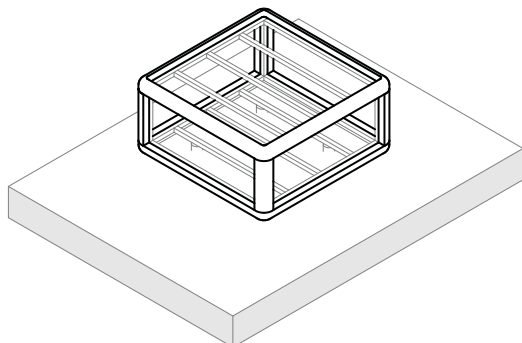
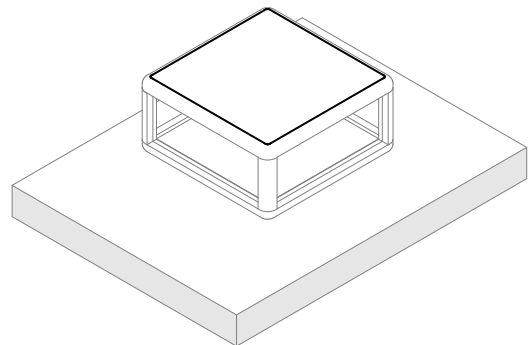
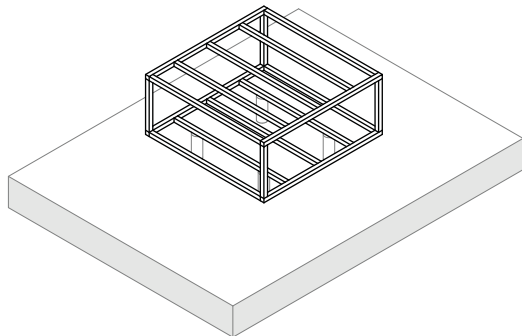
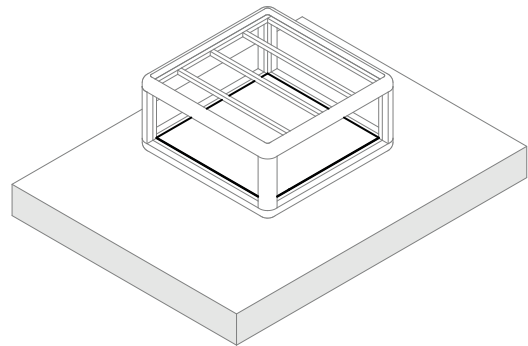
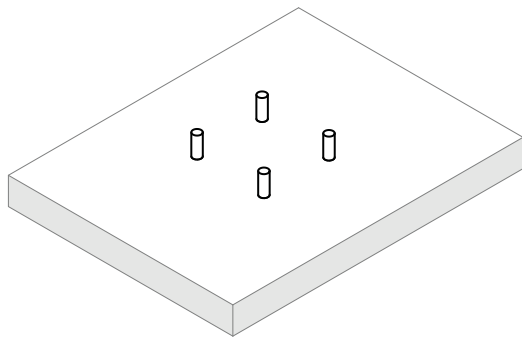
Loftcube

Architect: Studio Aisslinger

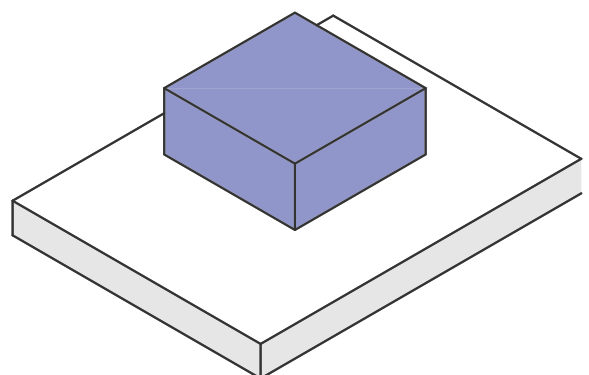
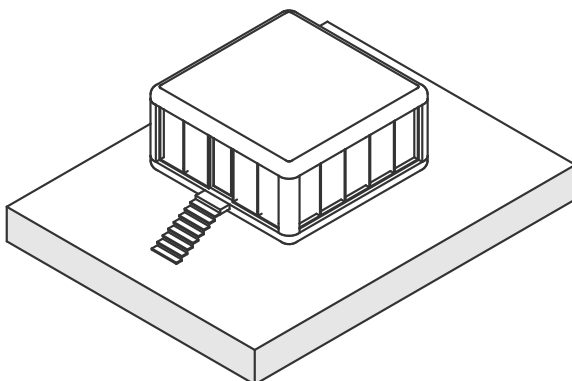
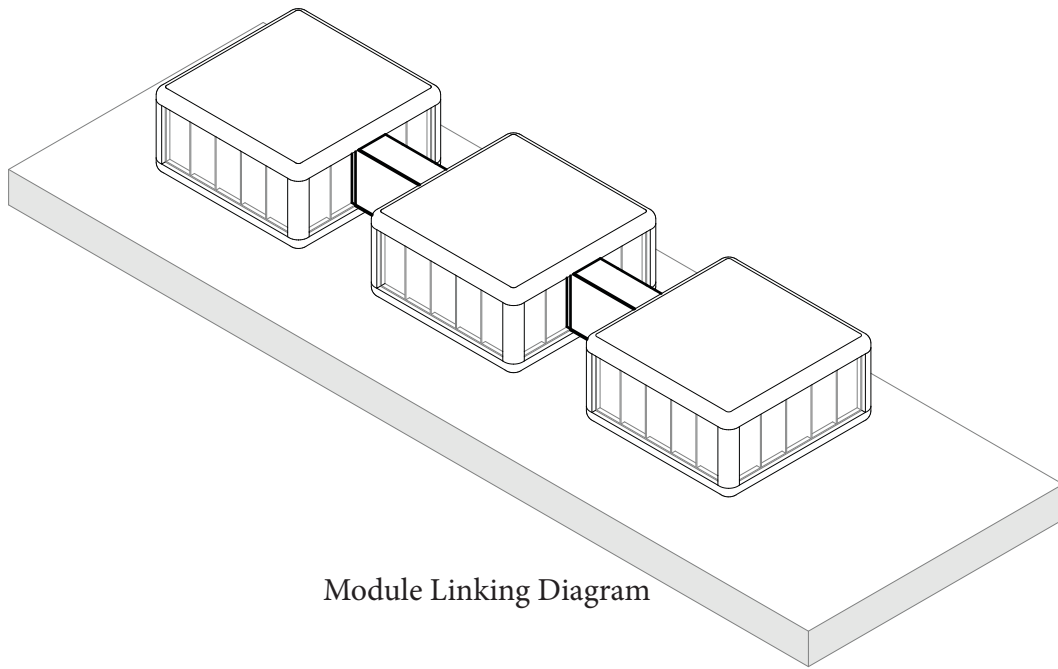
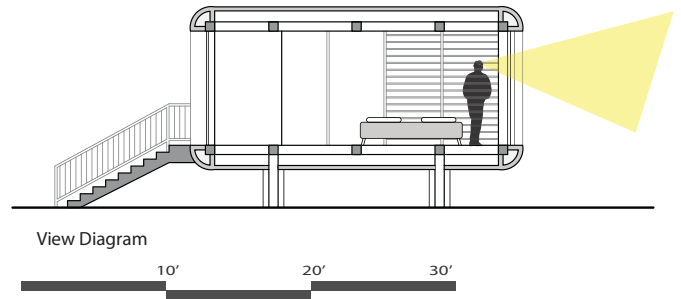
Location: Varies

The Loftcube is pretty simple, but can still be broken down into separate working components. First are the pillars that act as the foundation system and allow for these dwellings to be placed pretty much anywhere. Attached to these pillars is a steel frame that serves as the main structural element. Encasing this frame is a fiberglass shell that provides the modern sleek appearance of these cubes. Inset in the frame and shell is a simple floor system that allows for different surfaces depending on the need of the unit. The roof has a simple membrane style roof that matches the fiberglass frame. Finally the outside glazing encloses the dwelling.

Photos & Research From: http://www.aisslinger.de/index.php?option=com_project&view=detail&pid=10&Itemid=1



Anatomy Diagram



Cantilever House

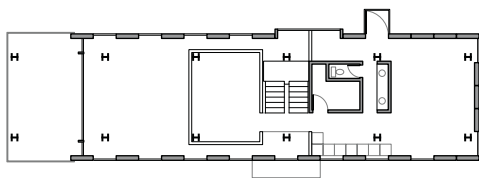
Architect: Anderson Anderson Architecture

Location: Washington, USA

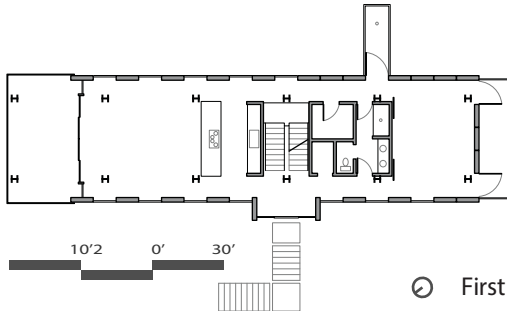
This house serves as a prototype of new ways of construction to lower building costs and environmental impact during construction. Two common systems are blended together in the house to create a system that can be assembled quickly and allow for adaptable designs for later projects. First, a prefabricated steel frame is placed on the site. This frame anchors down and can be craned into place. Secondly, Structural Insulated Panel System (SIPS) are used on all non glazing portions of the house. These panels allow for easy wall assembly and can be bolted into place fairly easily. This house shows that a site specific building can be built with these two systems working together.

Photos & Research From: <http://www.archdaily.com/56853/cantilever-house-anderson-anderson-architecture>

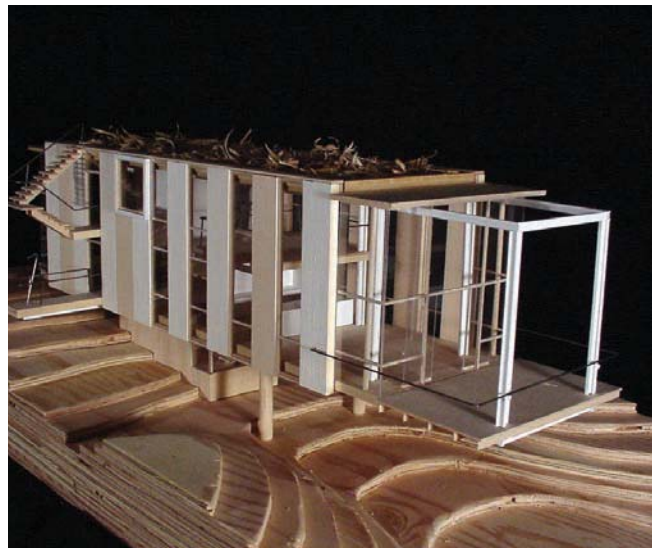




Second Floor



First Floor



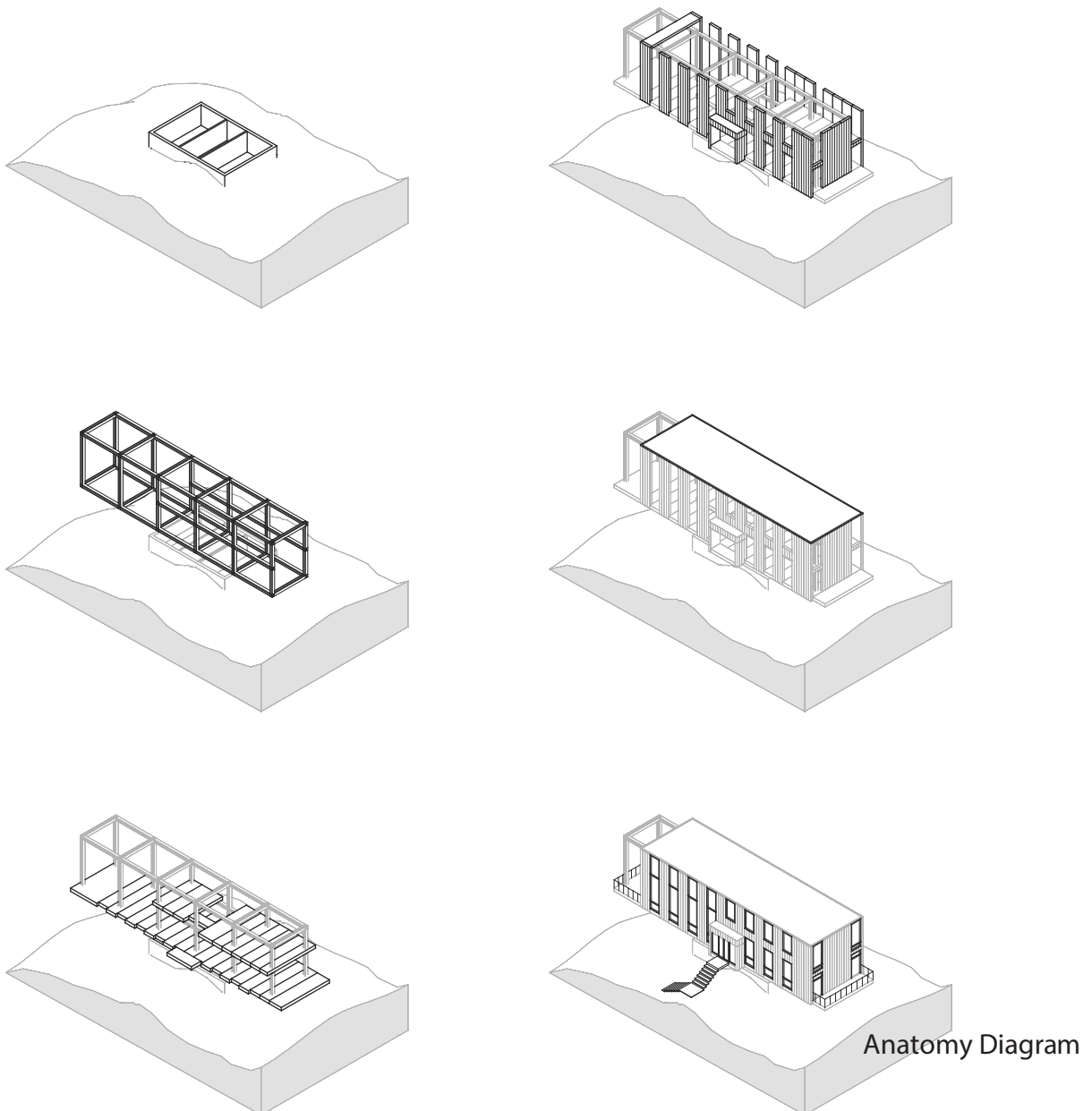
Cantilever House

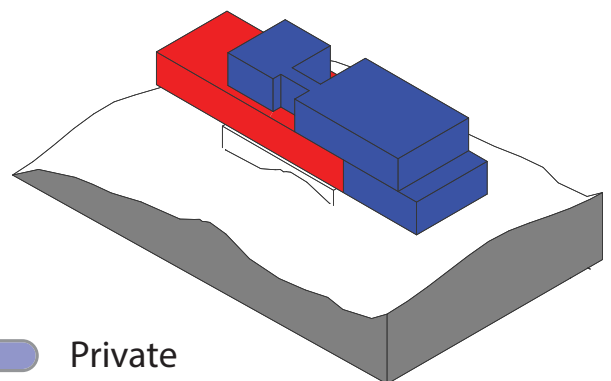
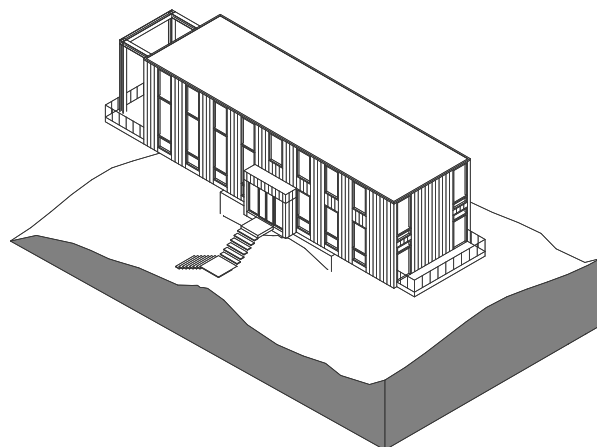
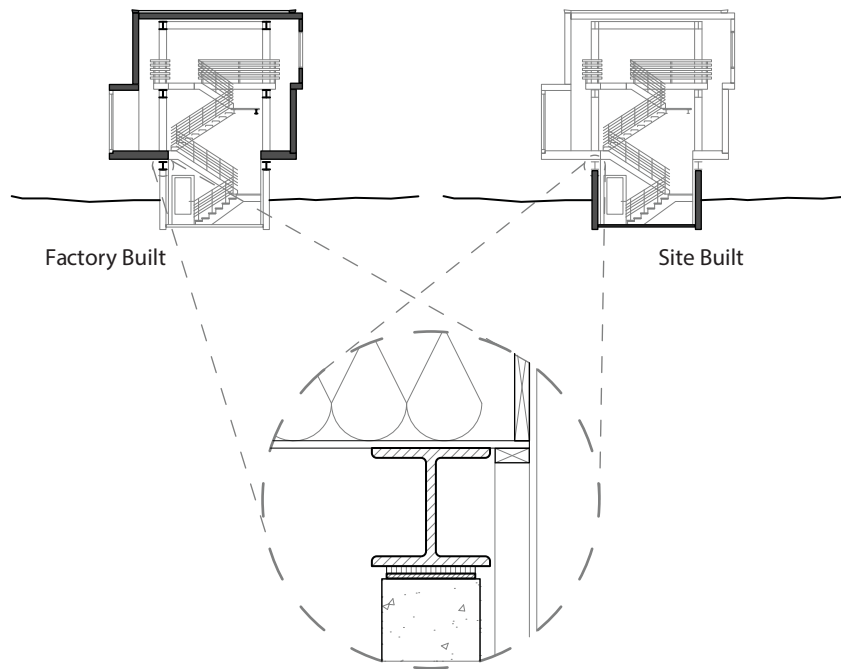
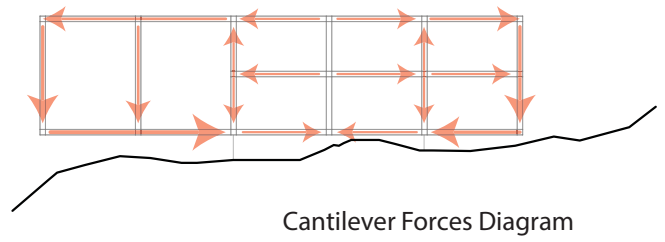
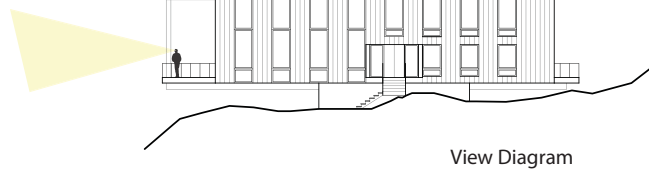
Architect: Anderson Anderson Architecture

Location: Washington, USA

The Cantilever House is a prime example of a building that was built in components. The basement or the building is site built and serves as the connection between the prefabricated to the landscape. The steel frame attaches to the concrete to become the main load bearing member of the house. Floor panels attach over the lower portion of the steel members. SIP panels are then layed up to form all non glazed portions of the facade. An accesible roof rests upon the upper steel members and is fastened into place. Lastly, the windows and other building equipment are attached in place.

Photos & Researc From: <http://www.archdaily.com/56853/cantilever-house-anderson-anderson-architecture>





Dwell Home

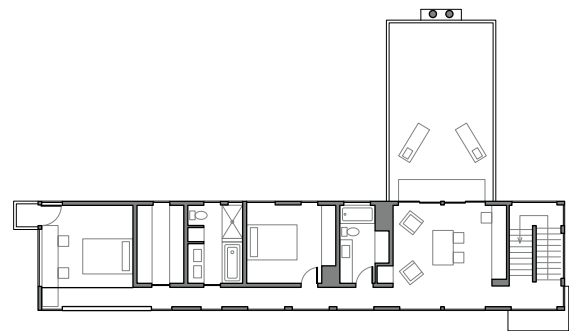
Architect: RESOLUTION: 4 ARCHITECTURE

Location: North Carolina, USA

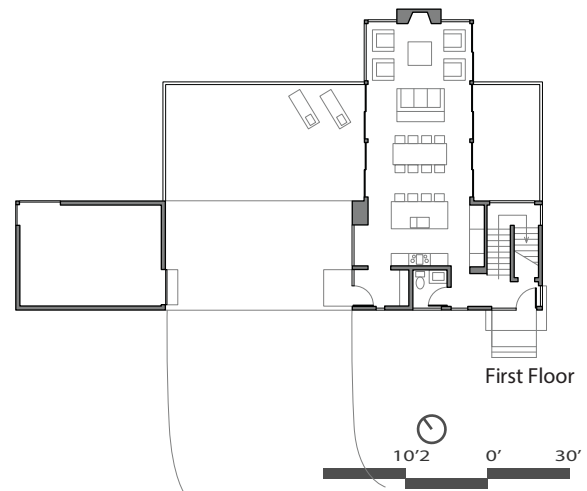
Designed for the 2003 Dwell Home Design Invitational, this house is a showcase of what can be done with a modular approach to design. While being a competition, it was still a real project with a specific site. What this meant to RES4 was that, they had to design this project to relate and fit within the given context. The main form of the house consists of two rectangular bars. The lower bar is the public portion of the house, while the upper bar contains the private sections as requested by the client. Construction of this building went by quick with 80 percent of the actual construction taking place in an off site factory. Overall the house consists of 5 modular boxes along with the roof module.

Photos & Research From: <http://re4a.com/projects/dwell-home/>





Second Floor



First Floor

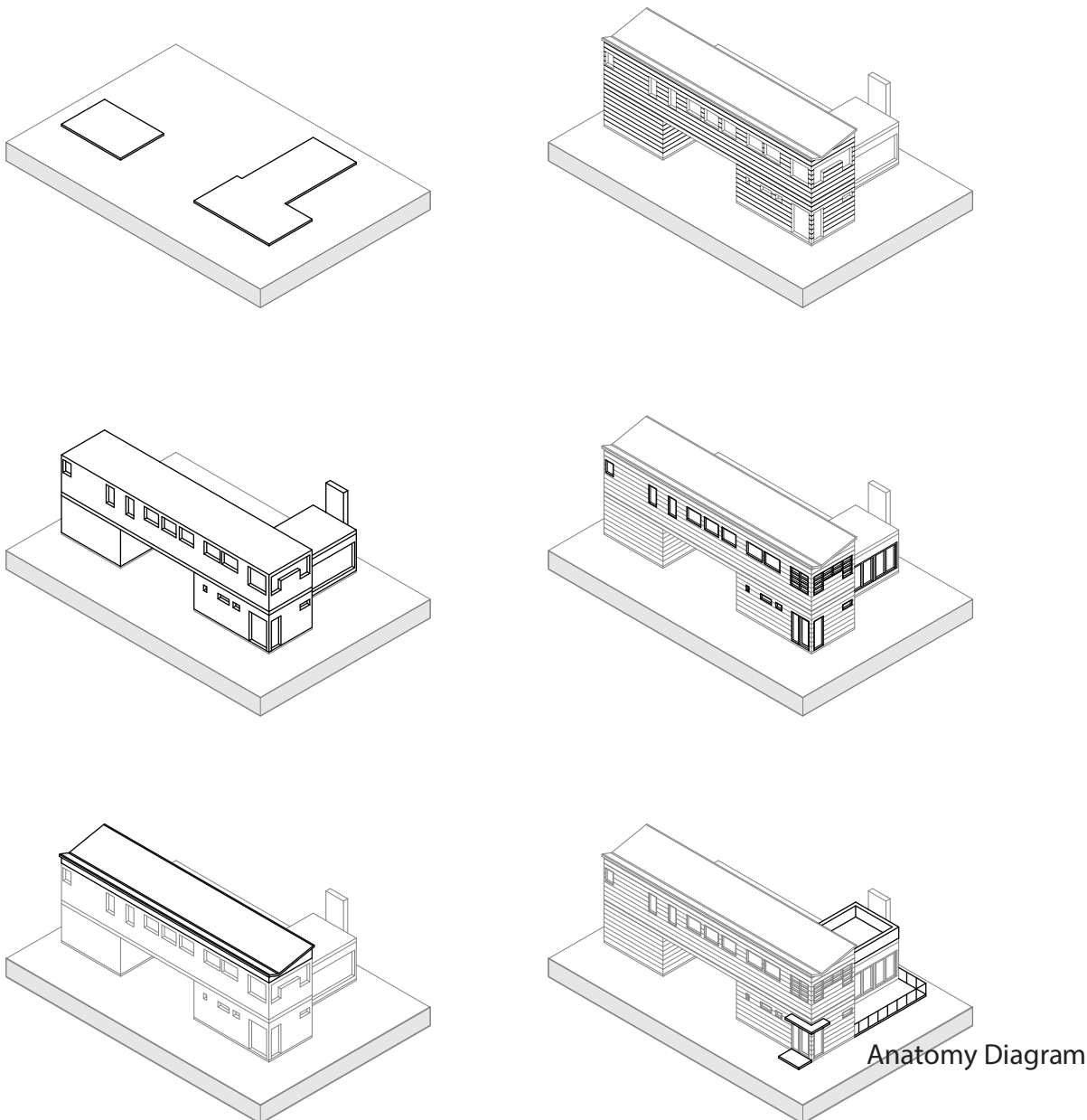
Dwell Home

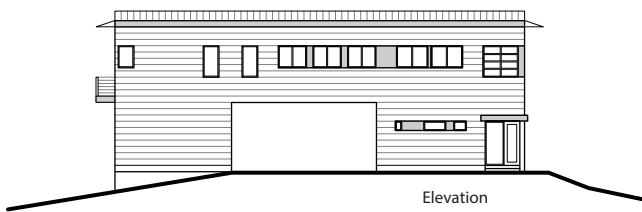
Architect: RESOLUTION: 4 ARCHITECTURE

Location: North Carolina, USA

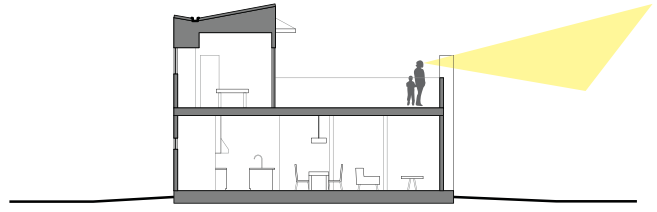
The dwell house's components are pretty basic compared to the other methods of prefabrication. There is a concrete pad, or plinth that the building sits on. The majority of the house is brought in as a series of modules that are craned into place. On top of these modules sits a roof module. This roof is sloped to collect rainwater. The house is then clad with the wood and cement panels. Windows compose the next element and fit into the modules. Finally, the rest of the house equipment such as overhangs, railings, and porches are included.

Photos & Research From: <http://re4a.com/projects/dwell-home/>

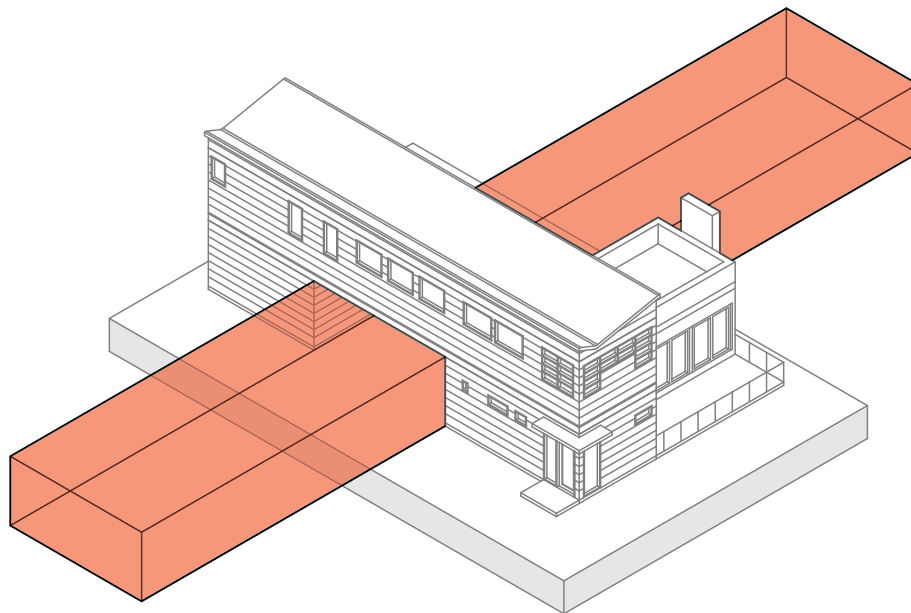




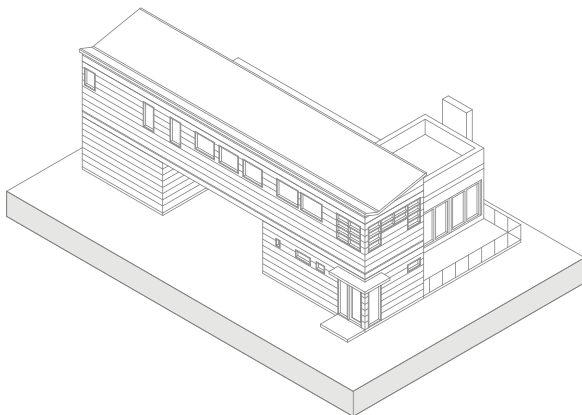
Elevation



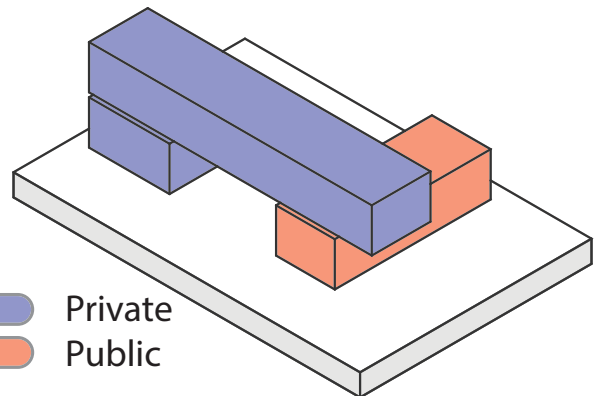
View Diagram



Public Entry Portal



Public Entry Portal



Program Analysis

Prefabricated House Open Air Museum Entry

Located just off Little Grassy Lake in Williamson County, IL a small collection of buildings will comprise an open air museum. Located at the start of this complex will be a welcoming center. This small building will house the maintenance and administration that is needed for the complex to run. Along with these spaces, the center will have a large lobby area to house events and seminars. It will also include a small dining area, that will serve mainly small sandwiches. The main space for this building though, will be a set of galleries. One that will be filled with interactive exhibits to educate guests on the construction techniques used in the prefabricated buildings on site. The other gallery will have a brief exhibit on the history of prefabrication. Guest traffic will go through the history gallery before they leave to tour the buildings, and then they will return into the interactive gallery to learn more about the buildings they just explored. To keep with the theme of prefabrication, this whole building will be composed of some sort of prefabricated frame, and this frame will be highlighted throughout the project.



Museum

Interactive Gallery-2000 ft²

The main gallery space that comprises of a small interactive exhibit spaces that highlight the construction elements in each of the five buildings. This room will be located right off the lobby and will be the primary ending destination of the tour.

History Gallery-1000 ft²

The main gallery space for the introduction to prefabrication. This room will be based off an history gallery, will images and text describing the history of prefabricated techniques used in construction. This will be the starting place for guests who start the tour of the open air museum.

Gallery Storage-500 ft²

This storage room will be connected to the gallery to store equipment and exhibits for the main gallery space. This will mostly be more of multipurpose back of the house room to meet all of the small gallery's needs.

Lobby-2000 ft²

This will be the main entrance room for the space. It will be mostly open to accomodate the potential use to be used to house events. This room should probably be mostly daylit as the gallery space will be mostly controlled light.

Recption-120 ft²

A small reception desk/office should be located in or adjacent to the main lobby. Its main purpose is to welcome guests and answer any questions that may arise.

Security-150ft²

This would be a security office that also doubles as a first aid station for guests. This space would be located adjacent to the lobby to be fully accesible by guests.

Toilets-350 ft²

These toilets (2male/2female) should be located near the lobby and gallery space. They need to hold 4 fixtures and 3 lavatories for the female, and 2 fixtures, 2 urinal, and 3 lavatories for the male. This is in accordance with the Illinois Plumbing Code with an overall building population of 366 and building type as "public building".

Gift Shop

Retail Space-800 ft²

This space would house the actual retail component of the gift shop. It would have an open floor plan to accomodate for any arrangement of shelving. This space should be adjacent to the lobby as well.

Gift Shop Storage-400 ft²

This storage space is located near the back of the retail space and houses the inventory of the shop along with any supplies it might need.

Gift Shop Office-120 ft²

A small office would be located off of the main storage for the gift shop administrator to house files and do business work. The shop would only employ a handfull of people so only one office would be neccesary.

Program Analysis

Food Services

Dining-1200 ft²

This area would include cafeteria style seating with an allotted area of 12 ft² for each person. This dining area should be located off of the main lobby, but away from the gallery as to not make much noise.

Kitchen-500 ft²

This kitchen space only needs to house equipment for a small deli. Along with the kitchen supplies, this space also takes into consideration the service area - such as ordering/cash register.

Cooler-100 ft²

A small cooler for kitchen supplies located off of kitchen.

Freezer-100 ft²

A small freezer for kitchen supplies located off of kitchen.

Dry Storage-100 ft²

A small storage space for dry food goods located off of kitchen.

Supply Closet-60 ft²

A small closet to hold cleaning equipment and other supplies that the kitchen might need.

Kitchen Office-120 ft²

A small office to handle administration of deli.

Offices

Administrator-200 ft²

A main office for the head administrator that oversees the whole complex. This room should be adjacent to the secretary for ease of communication.

Office Aid-120 ft²

A smaller office that could be filled by any position needed to help run the complex. This space should also be near the secretary.

Business Office-140 ft²

This office would house the main financial official for the complex. This room would also house the all the files. It should also be located next to the secretary.

Secretary-200 ft²

This room would have desk space for a secretary along with the equipment that goes along with an office - such as copier, printer, fax machine. This room would be centrally located in the office portion of the building.

Conference Room-200 ft²

This would be a small room for meetings with the administrators and potential guests. Would include media utilities for presentations.

Break Room-200 ft²

A break room located near the offices would be necessary. This room would include a kitchenette and seating area. This room would also house small storage cells for the employees.

Storage-60 ft²

A small supply closet to house all office related materials-such as paper, ink, toner, pens, clips, and other supplies. This closet should be centrally located and will be serviced by the secretary.

Toilets-60 ft²

Single fixture male and female toilets will be located off the break room for employees.

Custodial/Groundskeeping

Custodial Office-120 ft²

A small office for administrating all custodial needs. This office should be located back of house near the unloading.

Custodial Storage-200 ft²

This storage room will house the cleaning equipment such as buffers, vacuums, mops, and chemical supplies. This room should be located back of house too near the unloading, but with ease of access to the lobby.

Custodial Closet-40 ft²

Small closets that will house basic supplies on a cart. This room should also include a mop sink. This room should also include proper ventilation to keep fumes from escaping into the main areas. A closet should be placed in the main lobby, along with a closet being in the dining area.

Unloading-400 ft²

A small unloading area located back of house to recieve office, cleaning, and food supplies for regular maintence of the building. This space may or may not have a formal loading dock. This would depend of site location and possibility of going down into the landscape. If not, then unloading can happen in an enclosed space indoors.

Recycling/Waste-250 ft²

A small space located near unloading that houses waste and recycling dumpsters that are enclosed and gated off.

Grounds Keeper Office-200 ft²

A large office for the main grounds keeper and employees. This would house small storage units for employees and be located adjacent to the main equipment garage.

Equipment Garage-1200 ft²

A three bay garage that would house grounds equipment such as mower, tractor, and atv for general site maintence.

Workshop-400 ft²

A small shop located in or adjacent to the equipment garage. It would include standard tools for machining to fix/repair the grounds equipment and other complex needs.

Toilet-60 ft²

A single unisex toilet for employees.

Totals

Museum-	7170 ft ²
Gift Shop-	1320 ft ²
Food Services-	2180 ft ²
Offices-	1240 ft ²
<u>Custodial/Ground Keeping-</u>	<u>2910 ft²</u>
Subtotal-	13,820 ft ²

Efficiency Ratio 25%
(includes walls, hallways, circulation, and mechanical)

Total 18,275 ft²

Parking Requirements

(per Jackson County Ordinance)

Stalls-	54
<u>Handicap Stalls-</u>	<u>8</u>
Total	58

Occupancy

(per IBC & Illinois Plumbing Code)

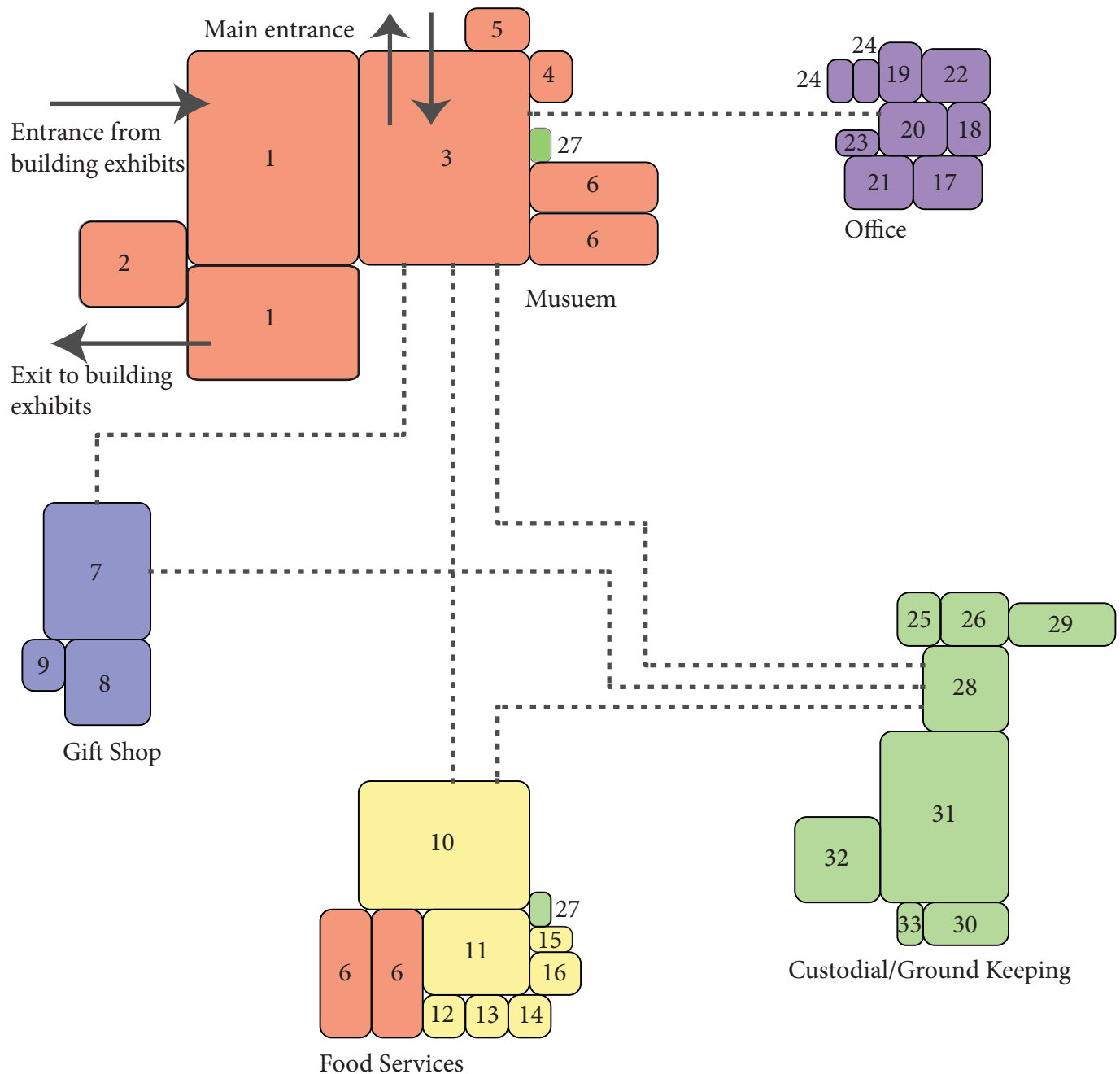
Occupancy type	A-3
	Museum
Total Sq. Ft.	18,275 ft ²
<u>Sq. Ft. per person</u>	<u>50 ft²</u>
Occupancy	366 People

Toilets

(per Illinois Plumbing Code)

Men	183
Fixtures	8
Lavotories	6
Women	183
Fixtures	8
Lavorotries	6

Program Analysis



Musuem

1. Galleries
2. Gallery Storage
3. Lobby
4. Reception
5. Security
6. Toilet

Gift Shop

7. Retail Space
8. Gift Shop Storage
9. Gift Shop Office

Food Services

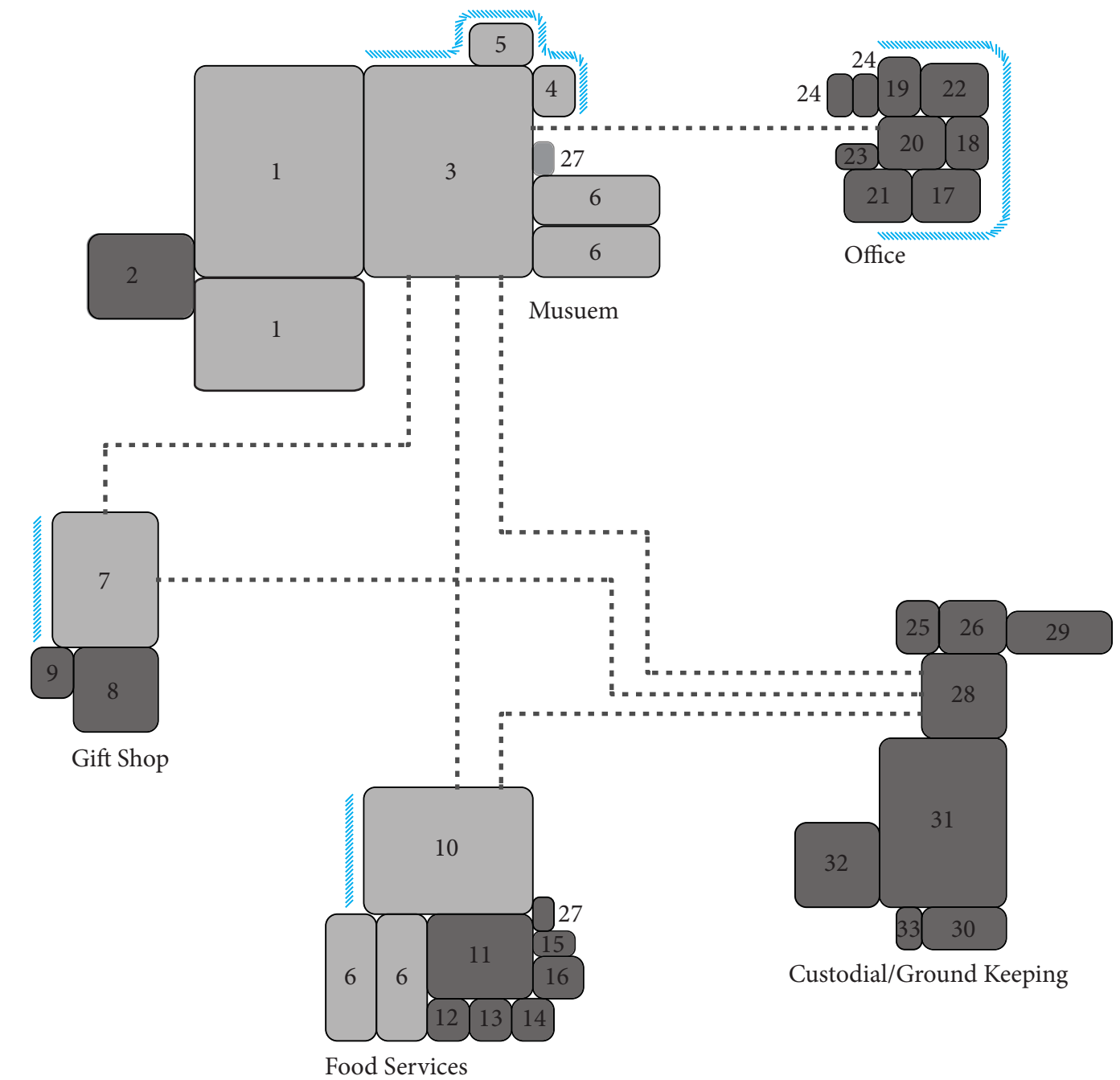
10. Dining
11. Kitchen
12. Cooler
13. Freezer
14. Dry Storage
15. Supply Closet
16. Kitchen Office




Offices

17. Administrator
18. Office Aid
19. Business Office
20. Secretary
21. Conference Room
22. Break Room
23. Storage
24. Toilet

Custodial/Ground Keeping

25. Custodial Office
26. Custodial Storage
27. Custodial Closet
28. Unloading
29. Recycling/Waste
30. Grounds Keeper
31. Equipment Garage
32. Workshop
33. Toilet



-  Private
-  Public
-  Exterior View

WRITTEN SUMMARY

Frampton - Towards a Critical Regionalism

Kashikar Vishwanath - Modernity and Universalism: *Modernity as a timeless tradition*

The advancement of technology has always interested me as far as I can remember. Taking that same interest into my architectural studies has led me to research how we can improve and streamline the construction industry. As I looked into the matter more, the more I saw that prefabrication has the potential to be the change we need. I read through KieranTimberlake's, *Refabricating Architecture*, and in their book, they suggest that the construction industry needs to look at the manufacturing industry in order to adapt and survive in the future.¹ It was then that my interest in prefabricated architecture took full course. I became invested in the different types of prefabrication and just how broad the subject was. Most of these methods are still in an experimental phase, so they are only implemented on small projects, most of them being houses.

This collection served as a base point to focus my research on the individual types of prefabricated construction. By looking at only one house from one type of construction, I could see the different methods used to not only build a house quickly, but provide a structure that was site specific and was worthy of being called a piece of architecture. I was able to find a good selection of houses, with building materials, ranging from wood, steel, aluminum, fiberglass, and even concrete. With all these different methods, I want to design an open air museum that tries to educate people about these new methods that have already been used in real projects.

From my experience, when most people hear the term "Prefab", they instantly think about shipping containers, or cheaply made cookie cutter houses. While these connotations might have been true in the past, we have the skills now to design high quality homes, which are fully designed to their site. I want to design an open air museum that will be a showcase to let people who are not familiar with the advancements of prefabrication, experience them for themselves. With each building being different, people can learn about the experimental nature of the field, and might become more prone to the idea of pushing technology to improve the

construction industry. Once they hear how fast these homes were assembled on site, they will surely be amazed. For instance, the Hemeroscopium House was constructed on site in only seven days. The size of the concrete beams alone on that house will cause patrons to marvel at the possibilities of prefabrication.² By highlighting these great works, the general public will become more aware of these new techniques, and thus the technology will be pushed further.

The museum itself will be open air, to allow for each house to be experienced in solitude. If each building were just in a warehouse, then no one would be able to experience the house like it was originally intended by the designer. The proposed site, off of Little Grassy Lake, has plenty of space to allow for each house to be placed in a setting that closely matches the essence of the original locations. This large site will also allow for each house to be experienced independently of each other. The landscape is also varied enough to allow for the different needs of the homes. For instance there is a water front on the west side for the Loblolly House which originally faces a westward bay. There is also enough topography change for the cantilever house which is strongly designed to its hilltop site. The hillside could also be used to embed the Hemeroscopium House. The site is large and varied which allows for this museum to be focused on isolated exhibits which is my main goal. Connecting these exhibits will be trails that flow along the landscape taking you from one building to another with the intention of guided views. What this means, is that as you are walking the path, your view of each building will be obstructed to allow for a close and intimate entrance to the building just like these homes were designed. Dwellings are meant to be personal and intimate, so making each entrance a nice surprise in the landscape is more effective than being presented in some grandiose manner.

Patrons will enter the site off of little grassy road onto the existing gravel road and be promptly met with roadside parking, and small parking lot, and an entrance building. The approach to the site

will be important. I want to show case a hint of one or two buildings to draw people in, but still retain that surprise when they experience the house for the first time in the museum. Once they pull in, the entrance building will welcome and start the theme of the museum. This building will be constructed with some sort of prefabricated frame to showcase the technology. Along with being a showcase, a prefabricated design will allow for little environmental impact on the site.

This building will house not only the main services needed to make the museum run – offices, maintenance, and utilities – but will also have two galleries of its own. Since the building collection was chosen to highlight different methods of construction, I want these galleries to build off that concept. The first gallery will be the starting point of the museum tour, and will include exhibits that explain the history of prefabrication and the advancements made through out history of architecture, allowing for a backdrop of information to get the guests up to speed before they experience the new buildings. From this gallery they will exit onto the trail that will take them from building to building eventually leading them back to the original entry building. They will then enter into the second gallery that will compose of interactive exhibits that showcase the methods of construction used in the building collection. These exhibits will be informative for adults but will be child friendly similar to a science museum. By buildings or interacting with something hands on, the patrons will be more inclined to remember the information they gained by going through the museum. After exiting this portion they will enter back into a main lobby where they can go to the gift shop to buy toy building kits or other items or a small café to grab a bite to eat while enjoying a nice lakeside view while the appreciating the prefabricated nature of the entry building.

While designing this museum, I want to continue my research in these buildings original site to make arrangement on the site as best as possible. The challenge will come from trying to get each building into a space that relates to the building's original context while still being far enough away from each other to allow for the seclusion I am looking for. Other considerations that will have to

be made is where the entry building will be located and what kind of prefabrication I want to design it out of. To figure those out, I will explore the options to find the one that has the least impact on the environment while still allowing for a site specific building. In the end I want a museum complex that will be able to draw people from all over to learn more about prefabrication and experience a nice day walking around through the southern Illinois landscape.

1. Refabricating Architecture: How Manufacturing Methodologies Are Poised to Transform Building Construction (New York: McGraw-Hill, 2004)

2. <http://www.archdaily.com/16598/hemeroscopium-house-ensamble-studio>





Eric Okerstrom

Defensive Towers

ANALYSIS OF READINGS

Frampton - Towards a Critical Regionalism, Six points for an Architecture of Resistance

If you don't have boundaries, then what do you have? Kenneth Frampton describes his vision, or his opinion, on what boundaries are and what creates them. In terms of wanting space to be defined in its natural ways rather than concretely, I found these articles to be rather stimulating. Implementing the defined spaces that nature provides within the site can have a large impact on the payout of the design. Incorporating the open space that is defined by nature into my project will benefit each exhibit itself as individual people walk through the building and experience it for themselves. I also found interesting that the likelihood of an event or action to reoccur relates directly to human interaction and settlement which in turn will help grow our future (Hannah Arendt, *The Human Condition*). As Frampton stated in his writing *Living in a densely populated area* can also help create power and control for that area. One of the main goals I have is to show or capitalize the power that can be created when people work together for the better. A second important goal is for the defined space of the building to be open enough where nature can come in and take over rather than disrupting the natural aspects of the layout. In a sense, bringing life back into the buildings.

The second article, "Inform Form Perform" by Nate Holland at University of Nebraska. As he states in his writing "true beauty can be found in the way we interpret it." (Holland pg.1) This is the same type of beauty that I want individuals to experience when they walk through the design that I propose later in the semester. He also talks about everyone's boundaries between each other shrinking. This means that the two party's involved are starting to collaborate with each other on projects. (Holland pg.1) I would have to agree with Mr. Holland that many items completed are becoming a collaboration between people now. An item that I want to make sure to address throughout the proposed design is personal space to ensure the comfort of the visit. There are a hand full of solutions for design for personal space. Holland talks about some of the useful tools that architects have available now. (Holland pg.4) He goes into detail about how computers are a tremendous help in figuring out different configurations for space within the buildings. (Holland pg.4) Along with providing enough space for everyone to move around in the design, a

flexible footprint for a building is crucial for defining the natural boundaries of the building. With designing for the future in mind and one day being able to use this building for a different purpose, I want to make sure that the footprint of the building follows the flow of nature within each floor plan and allows for growth and development in the future. I would like to be able to redirect any walkway in a different direction to show case any piece of work that is on display, making the design flexible for spontaneous flow changes. This will allow for the nature to spill into the building design to allow the feeling of life and movement throughout the building's life span.

Within both articles they talk about space and how it can be used in different ways. Space can be determined by nature's boundaries or the boundaries that man set up for themselves when they live in close quarters to each other. This is what the main goal or focus of my project is going to be, which is creating an overall shape or boundary for the building that is efficient in its footprint and in its design layout to accommodate for both immediate and future use.

Frampton - Rappel a l'Ordre

The third article “The Case for the Tectonic”, written by Kenneth Frampton, goes into great detail about tectonic, how he portrays it, and how it is used in the field. Tectonic is an English word that dates back to the 1656, which at the time meant “belonging to the building.” (Frampton pg.3). Tectonic can be interpreted in a few different ways. The first way is ontological and the second is a representational way. The ontological relates to a constructional element, or puts emphasis on its static role and cultural status, (Frampton pg.3). The second way or representational is the representation of a constructional element which is present or hidden in a building. Within the elements of tectonic there are two different material cases to deal with. The first material that is the most common is wood. Wood has been one of the most popular building materials throughout history, (Frampton pg.3). The second material that is widely used is brick or stone, (Frampton pg.3). Both of these materials have left lasting impressions on how buildings are constructed today. Not only do these materials serve as exterior building materials but also interior. I would have to personally say that using these materials for interior spaces is great because of the substantial amount of nature’s detail that is visible. These are the level of detail that people enjoy seeing in different types of buildings. Implementing different finishing materials for the exterior or interior can have a direct role in permanence of how the building works internally and how it interacts with individuals. The way the building sits on the site, how it reacts with people, and what takes place inside all can determine or persuade a particular building to be for a particular group of people.

Within the second article, written by Natalia Silverman and Azree Othuman, clearly nearing her focus in on how many resources that all the humans take up. Natalia goes into great detail of how individuals should be informed about the destructive path that humans have on the earth even with their everyday activities like landfills, toxic waste, global warming, deforestation, etc. (Othuman pg.1). Finding the correct materials for the right job within the building can be very important to make sure that material is not wasted. The earth’s ability to provide the resources that are needed for someone to sustain life are pushed

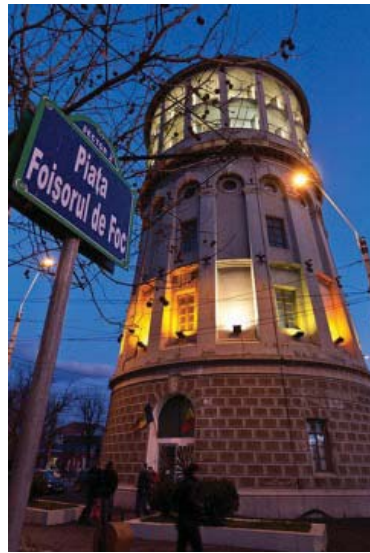
to the limit, (Othuman pg.1). These are all items that are touched on in the article “Green Technologies for Sustainable Building.” Some of the other items that are talked about are solar panels, natural ventilation, rainwater harvesting, heat pumps, and so on. The relationship between the two articles are they both are concerned about the earth’s future state by showing emphasis on and having appreciation for the materials that are being used and respecting them enough not to waste them. By implementing most, if not all, of these methods to the proposed building design will greatly benefit the occupants inside and the building as a whole along with conserving energy for future generations. The author breaks down technologies for sustainable buildings into four different categories. They are energy, water technology, natural lighting, and natural ventilation, (Othuman pg.2). I believe by relying on more of these natural ways of building to influence our building design the earth’s ability to sustain life will not be pushed to its limits so easily. I can also tie this back to both of the previous articles, one and two, because each one talked about and felt very strongly about taking design back to the time when we design with the environmental benefits to help a building survive instead of controlling it with a man made system.

Potential Collection Ideas

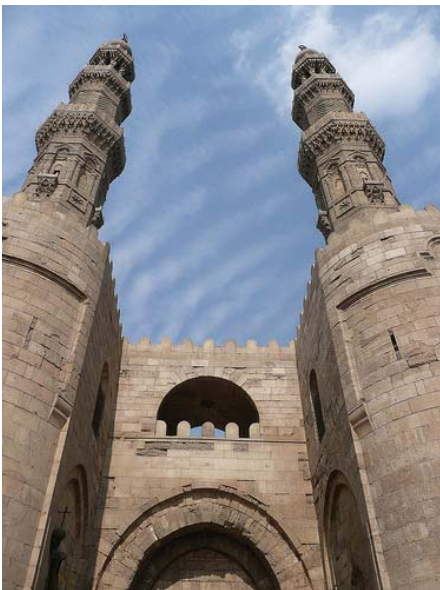
Amphitheaters



Defensive - Tower



Defensive - Gate



Civic - Courthouse



Civic - City Hall

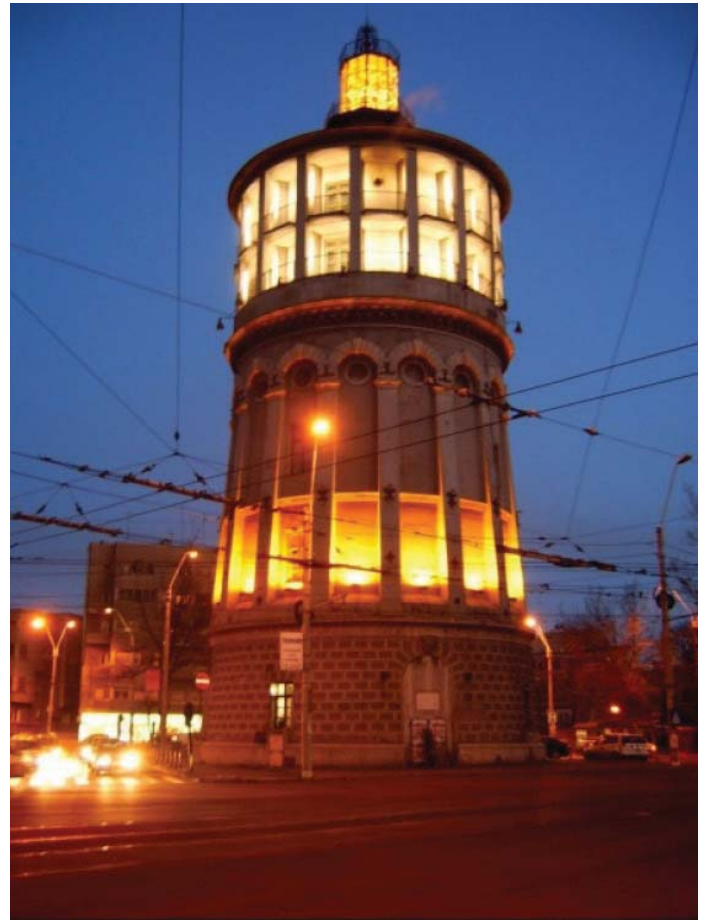
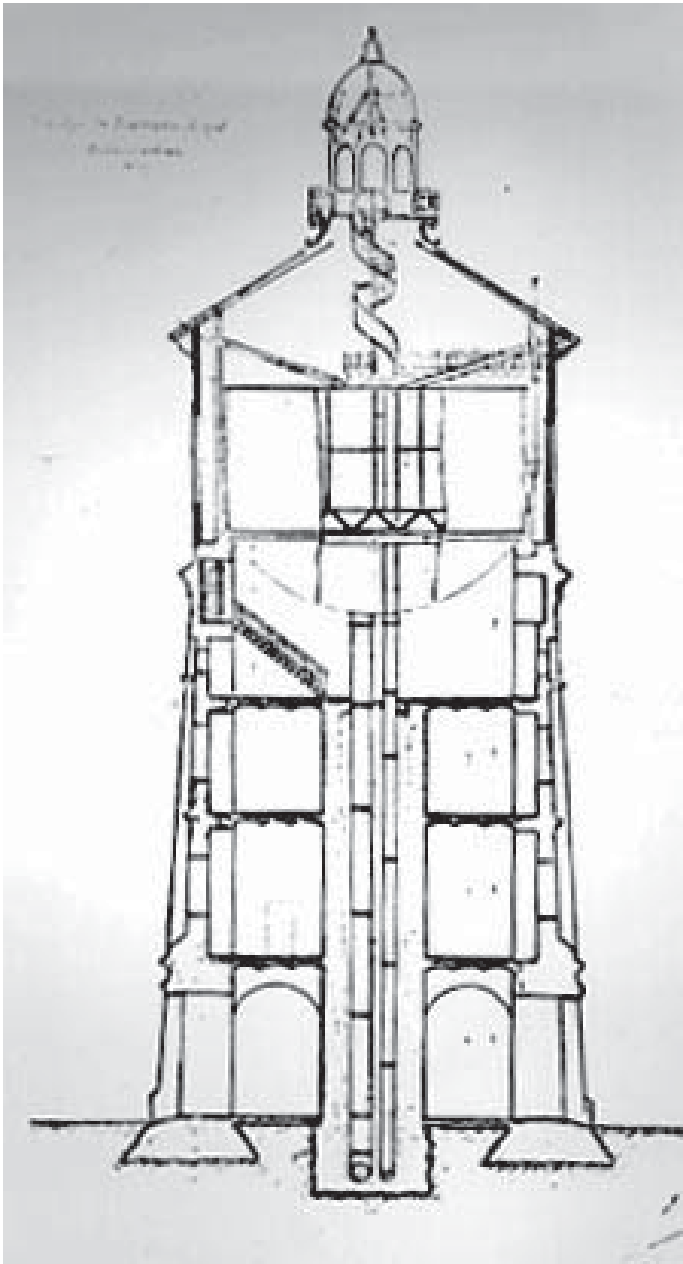


Defensive - Tower

Foisorul De Foc

Foisorul De Foc or The Fire Tower stands in the middle of Bucharest, Romania. This building stands 42 meters tall and was original built to serve as a fire tower post, and served as that function up until 1935. However, that changed in 1965 when it became the Firefighter Museum.

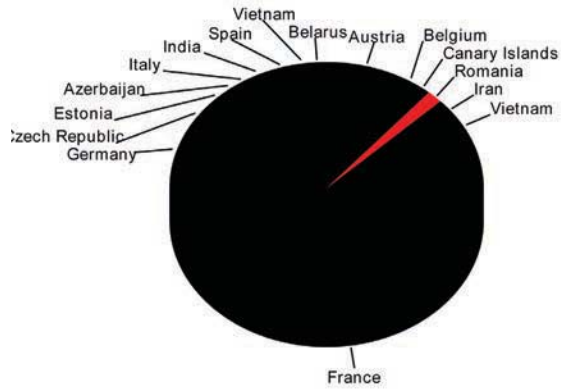




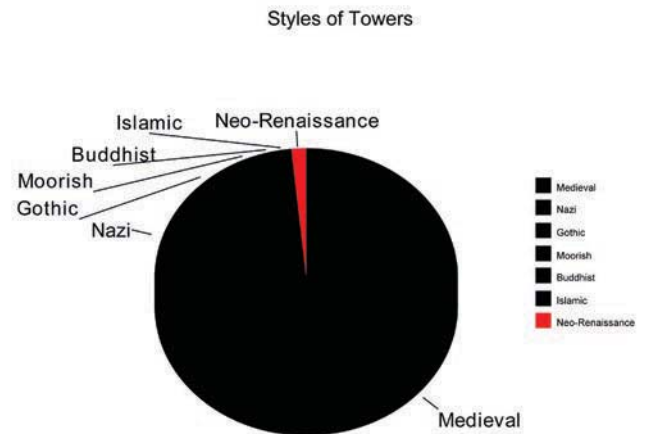
Okerstrom | Building Collection



Foisorul De Foc Technical Drawings / Diagrams

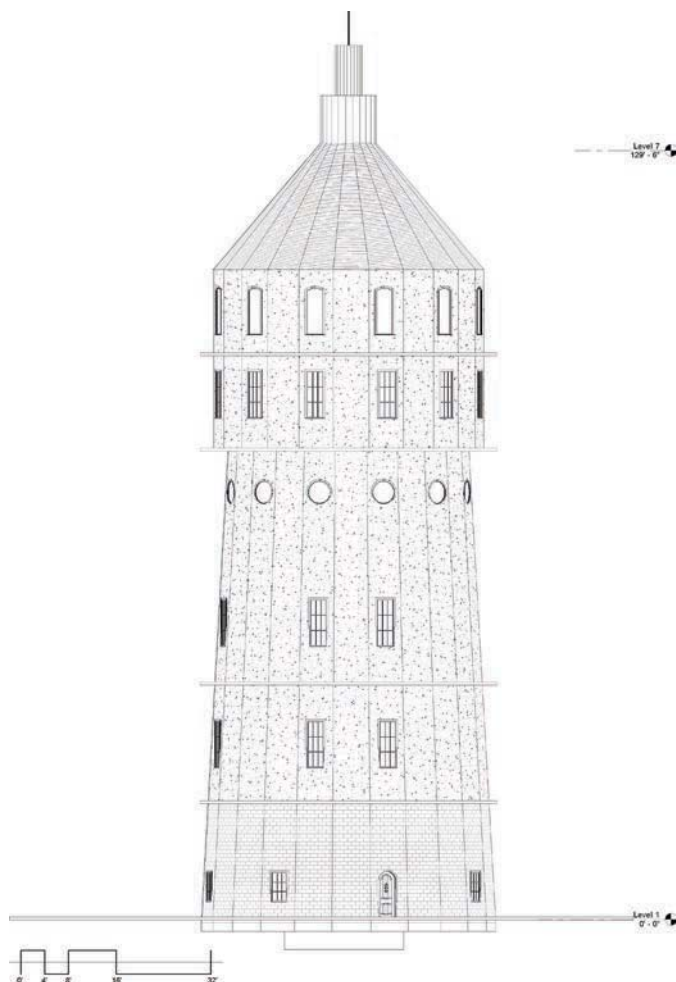


Austria
 Belgium
 Canary I
 Romania
 Iran
 Vietnam
 France
 Germany
 Czech R
 Estonia
 Azerbaij
 Italy
 India
 Spain
 Vietnam
 Belarus



Medieval
 Nazi
 Gothic
 Moorish
 Buddhist
 Islamic
 Neo-Renaissance

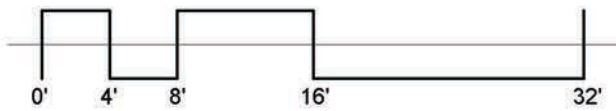
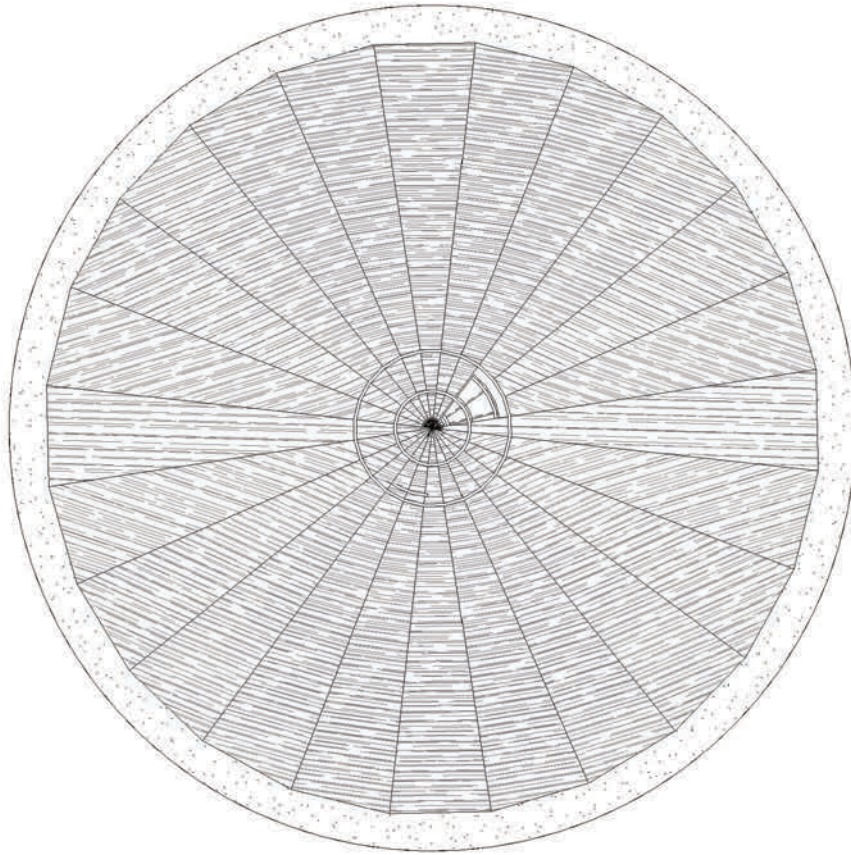
East Elevation



Section



Site



Defensive - Tower

Augarten Flakturm Tower 3

The Augarten Flak Tower 3 is located in Vienna, Austria and was built in 1940. This building part of a set of three, and the last to be built, which completes the triangle. This triangle is placed around Berlin and built with 3 meter thick reinforced concrete walls that can withstand an 8,000 round per minute rate of fire. It can also answer back with its eight 128mm guns with a range of 14km, along with 32 20mm guns that cover 360 degrees around the building.





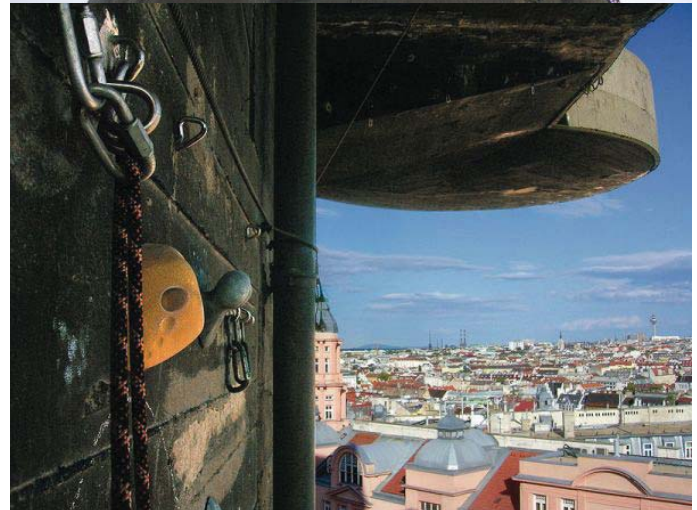
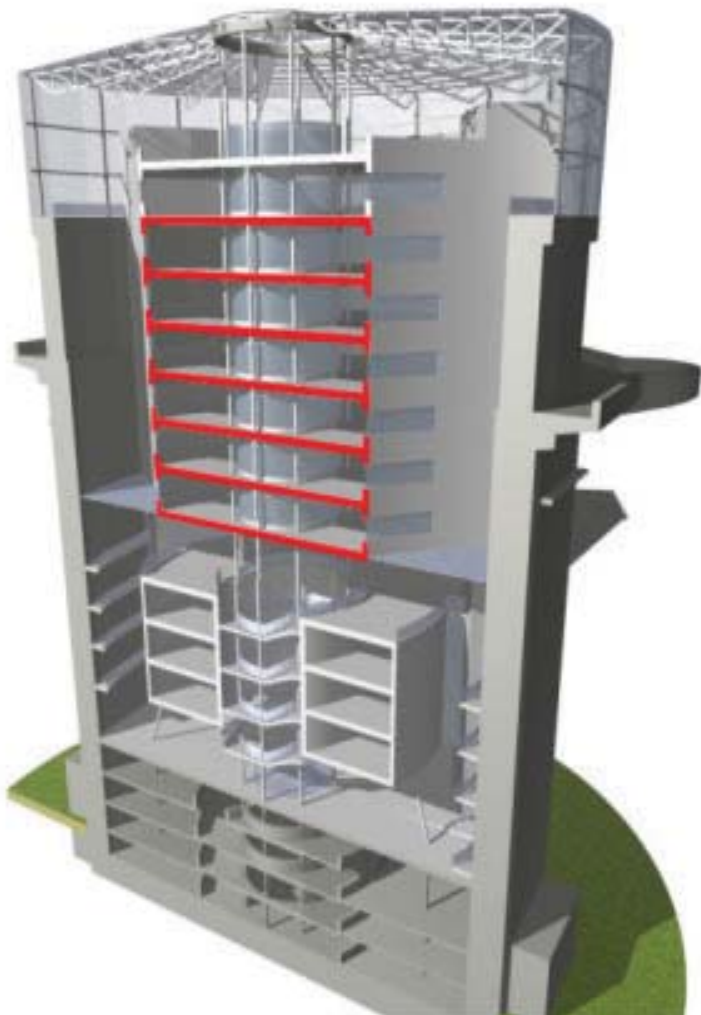
Bauart 1



Bauart 2

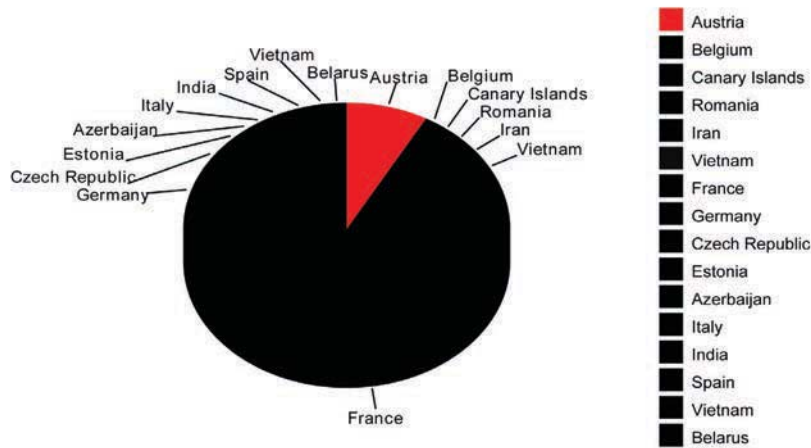


Bauart 3

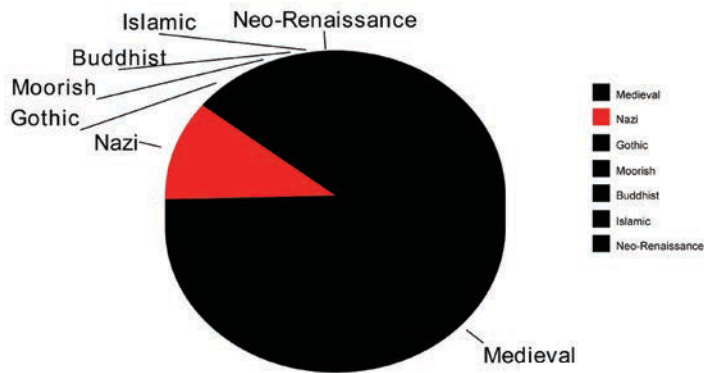


Augarten Flakturm Tower 3 Technical Drawings / Diagrams

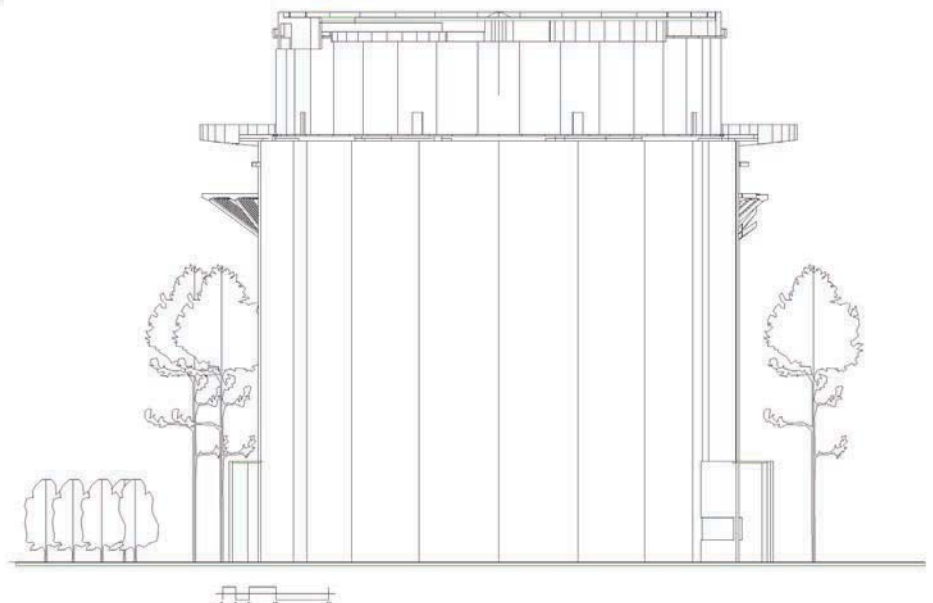
Location of Towers



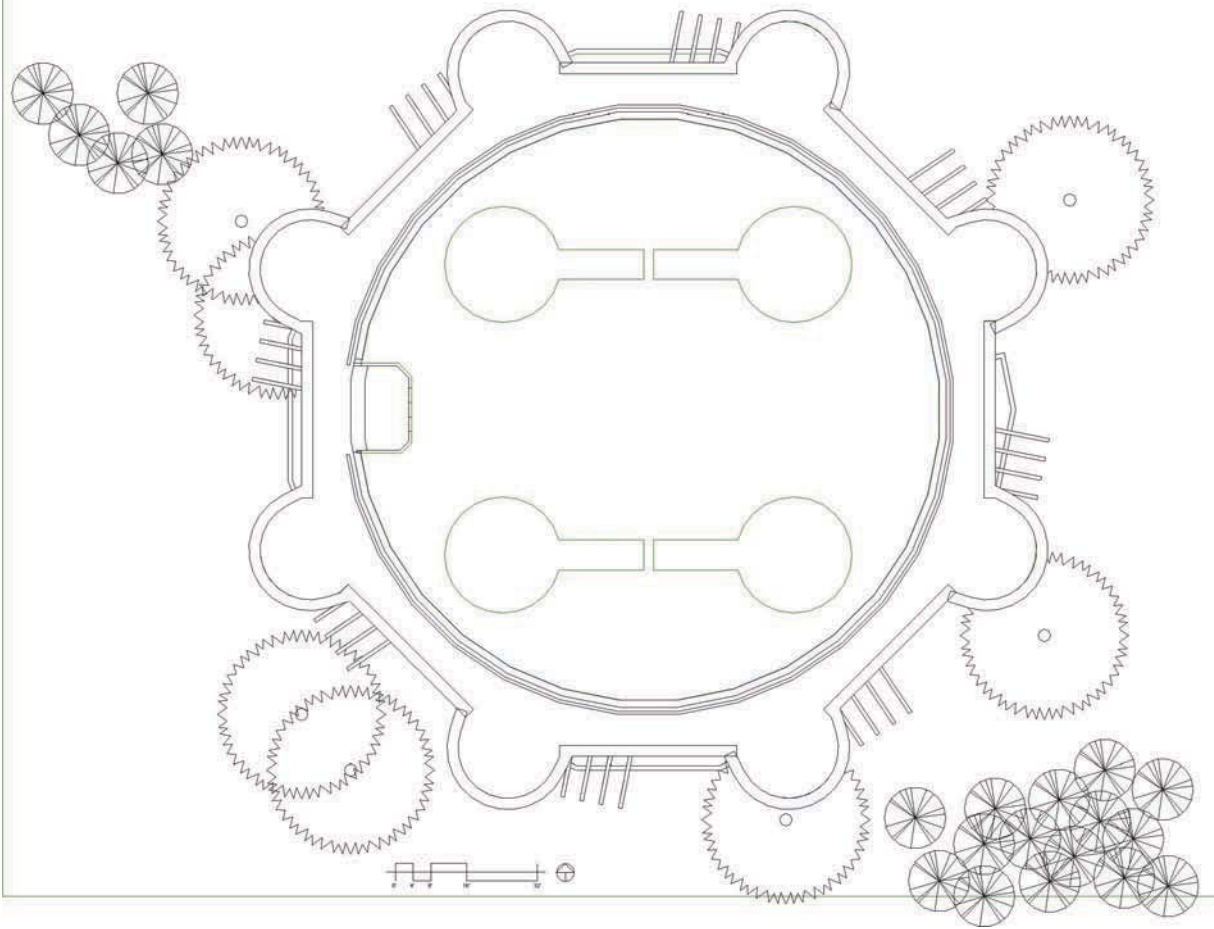
Styles of Towers



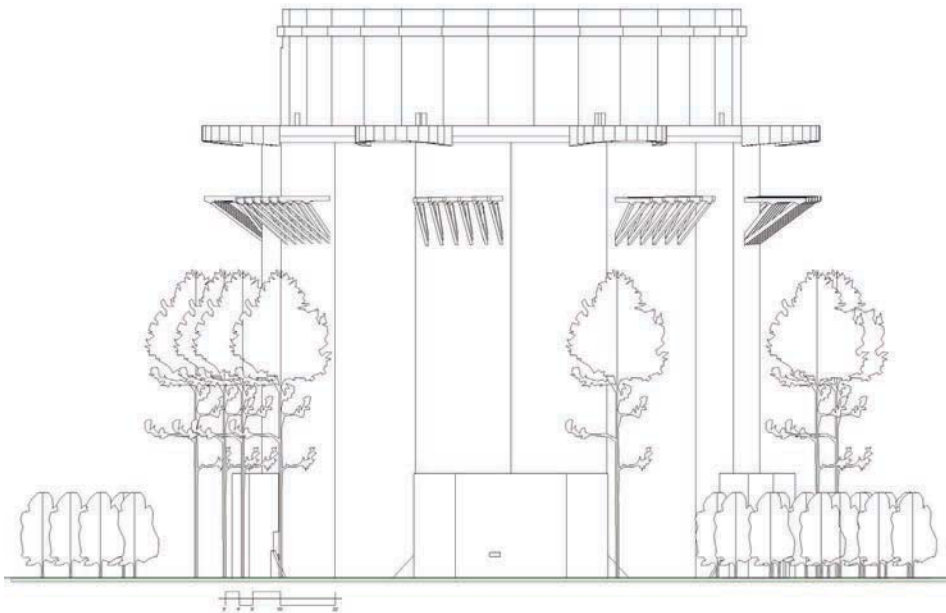
Section



Site



South Elevation



Defensive - Tower

Tour Tanguy

The Tour Tanguy Tower was built in 1350 in Brest, France. It sits on the right side of the bank of the Penfeld River facing the castle. It was originally built to watch over both the river bank and insure the protect of the castle. There for the foundation of this building was built out of granite. It wasn't until WWII that this building became damaged by fire during the bombings of the war. Then in 1954 restoration started with the help of artist Jim Sevellec. On June 24, 1964 it was opened as the Tanguy Tower Museum.

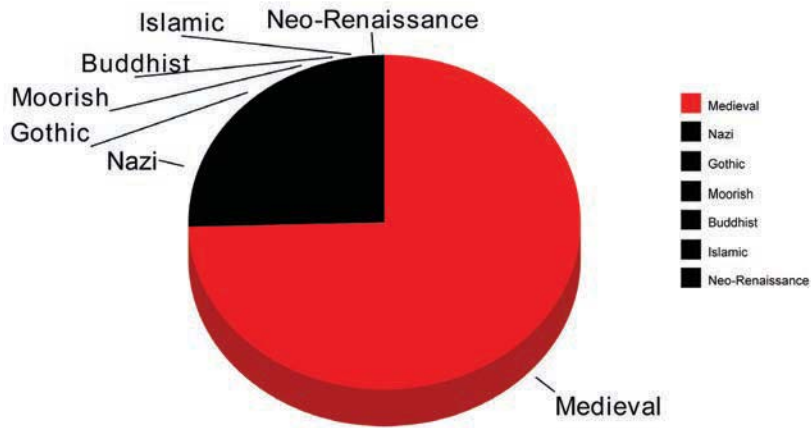




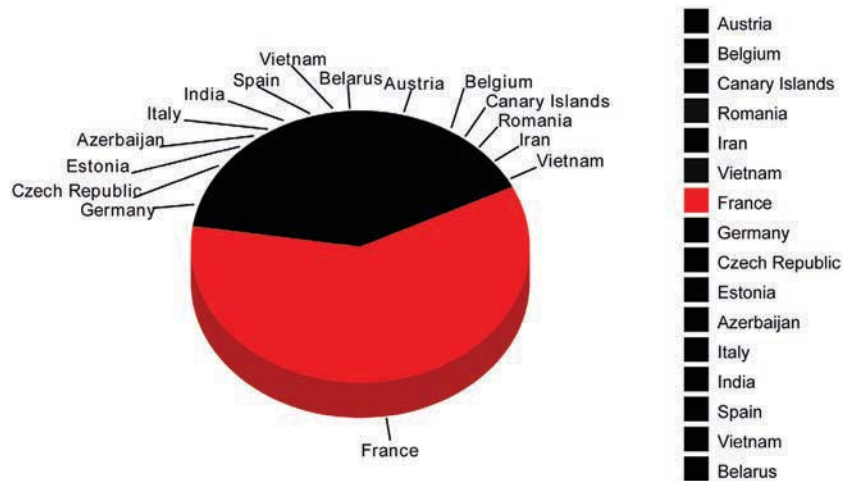
Castle that Tour Tanguy Tower protected

Tour Tanguy Technical Drawings / Diagrams

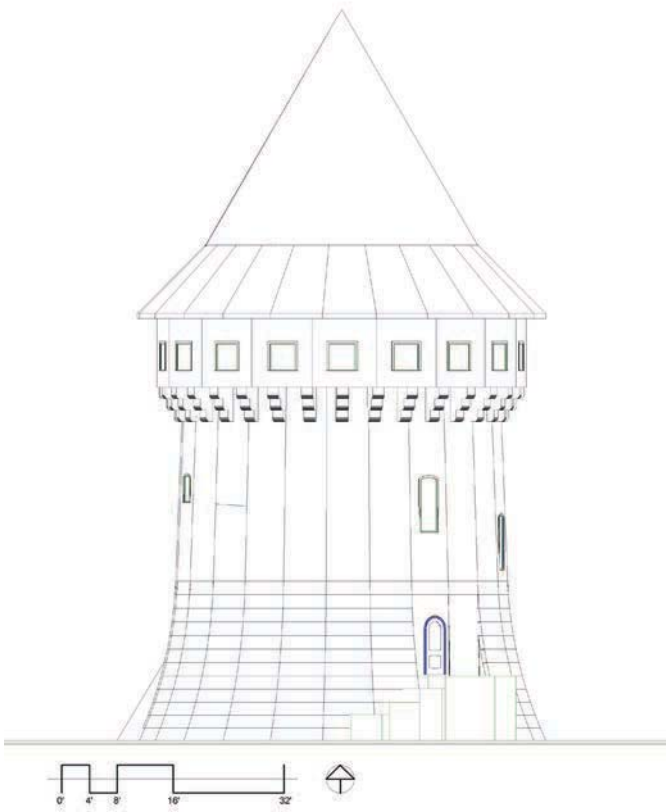
Styles of Towers



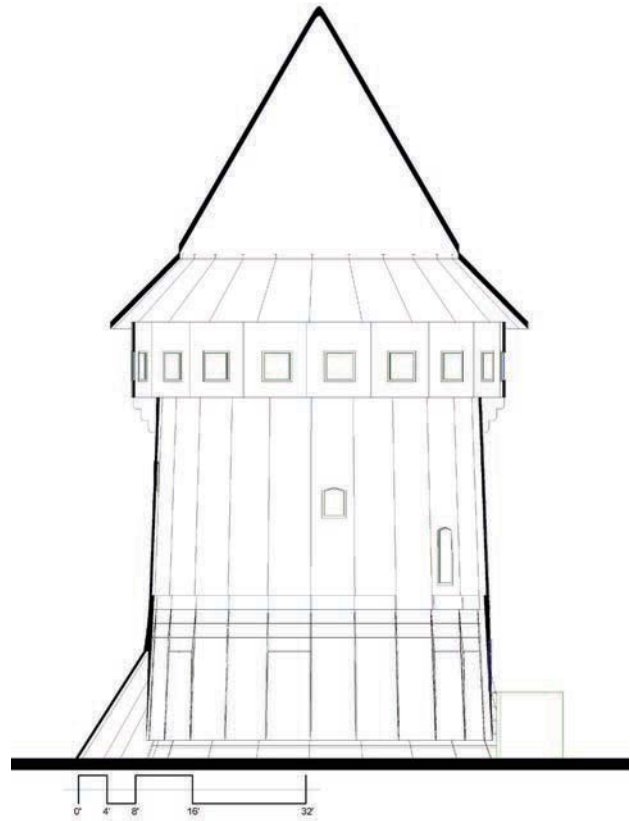
Location of Towers



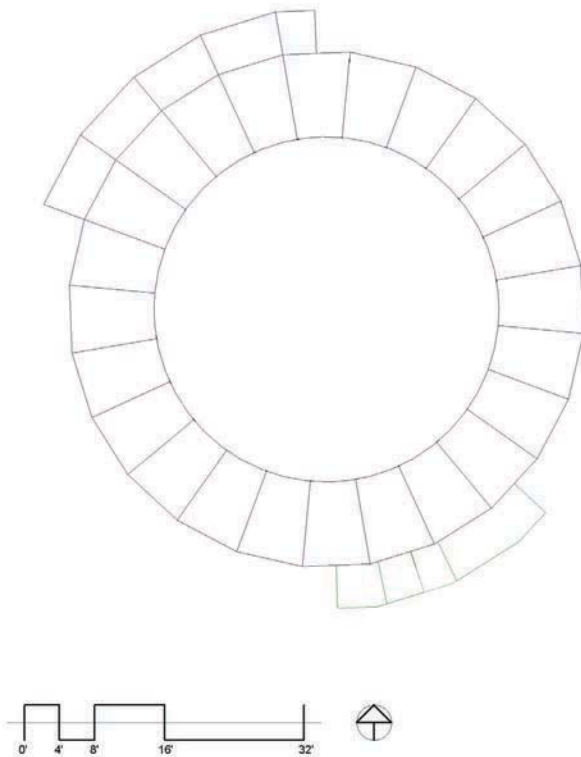
South Elevation



Section



Site



Defensive - Tower

Montale Tower 3

The Montale Tower 3 is a set of three buildings that are built in San Marino, Italy for protection during the 14th century. This tower was built in 1350. It served as two main functions. The first one an outlook post for during war time and the second item was a prison. Being that this building had the function of a prison it was design with the entrance 7 meters above the ground. Todays time this tower is closed to the public and the other two remain open.





Tower One



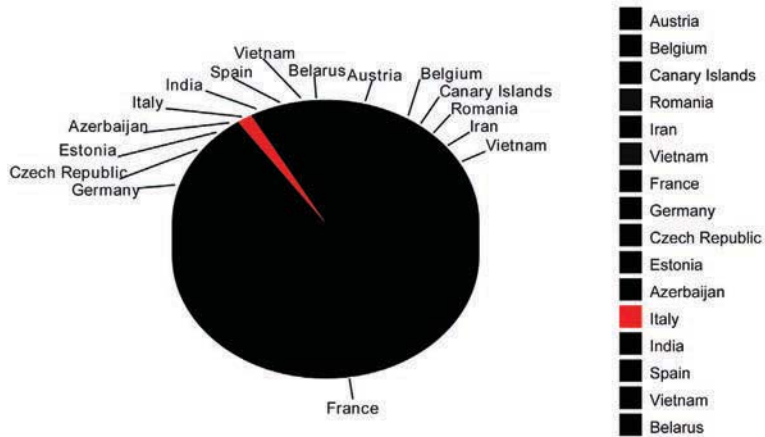
Tower Two



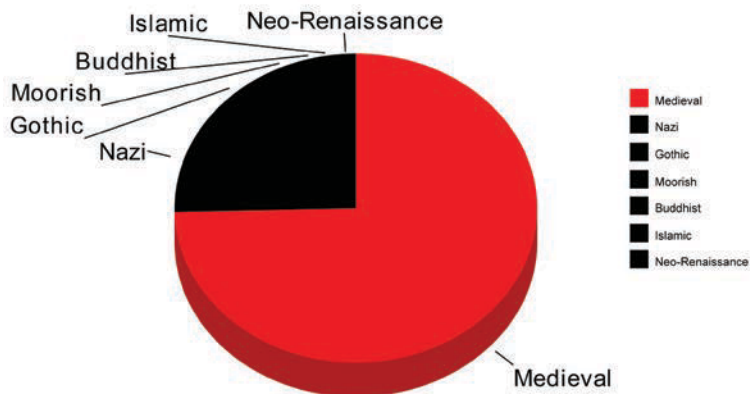
Tower Three

Montale Tower 3 Technical Drawings / Diagrams

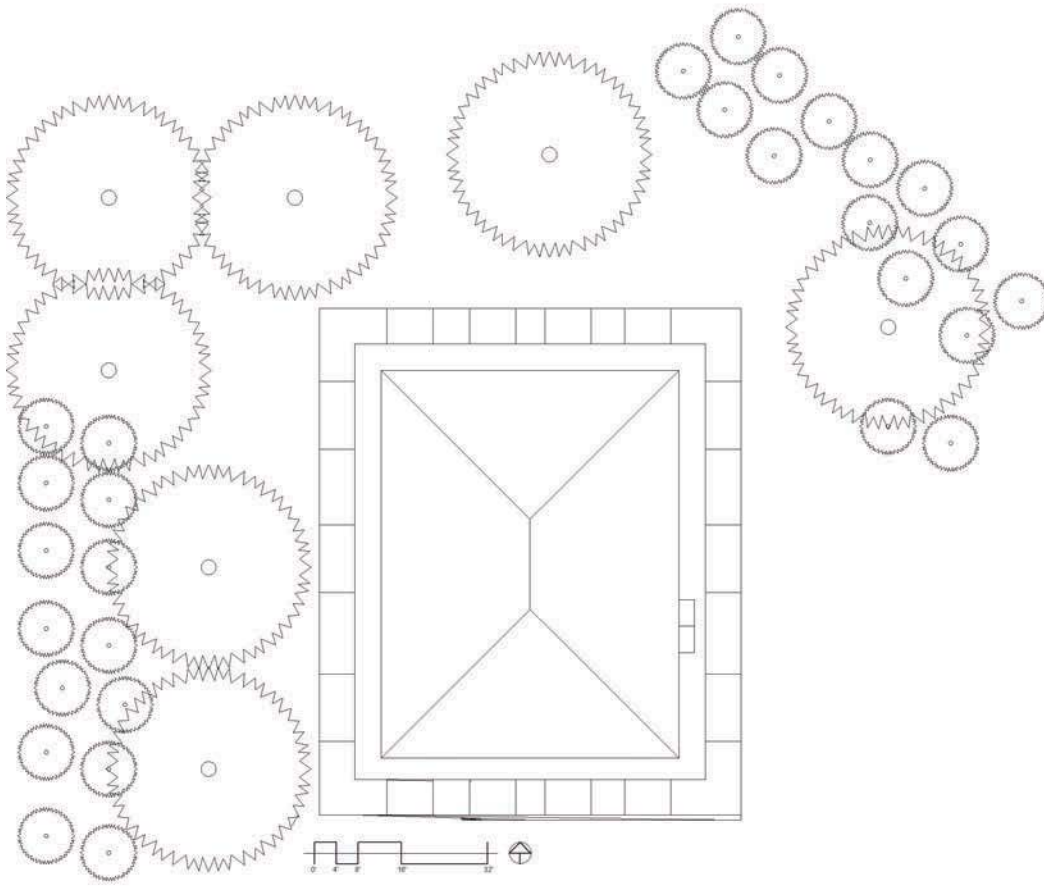
Location of Towers



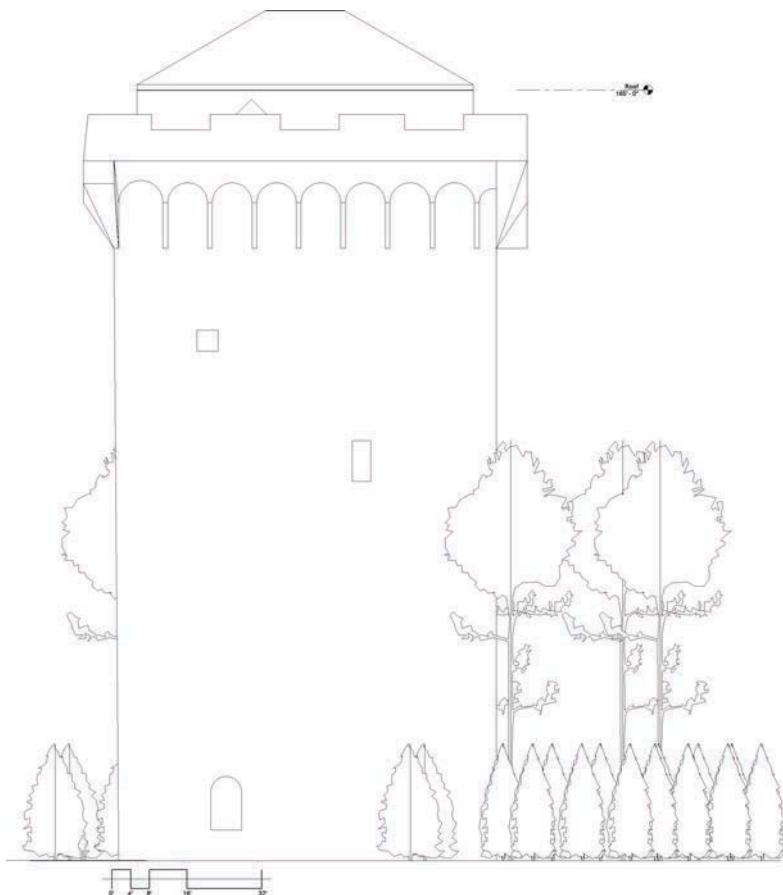
Styles of Towers



Site



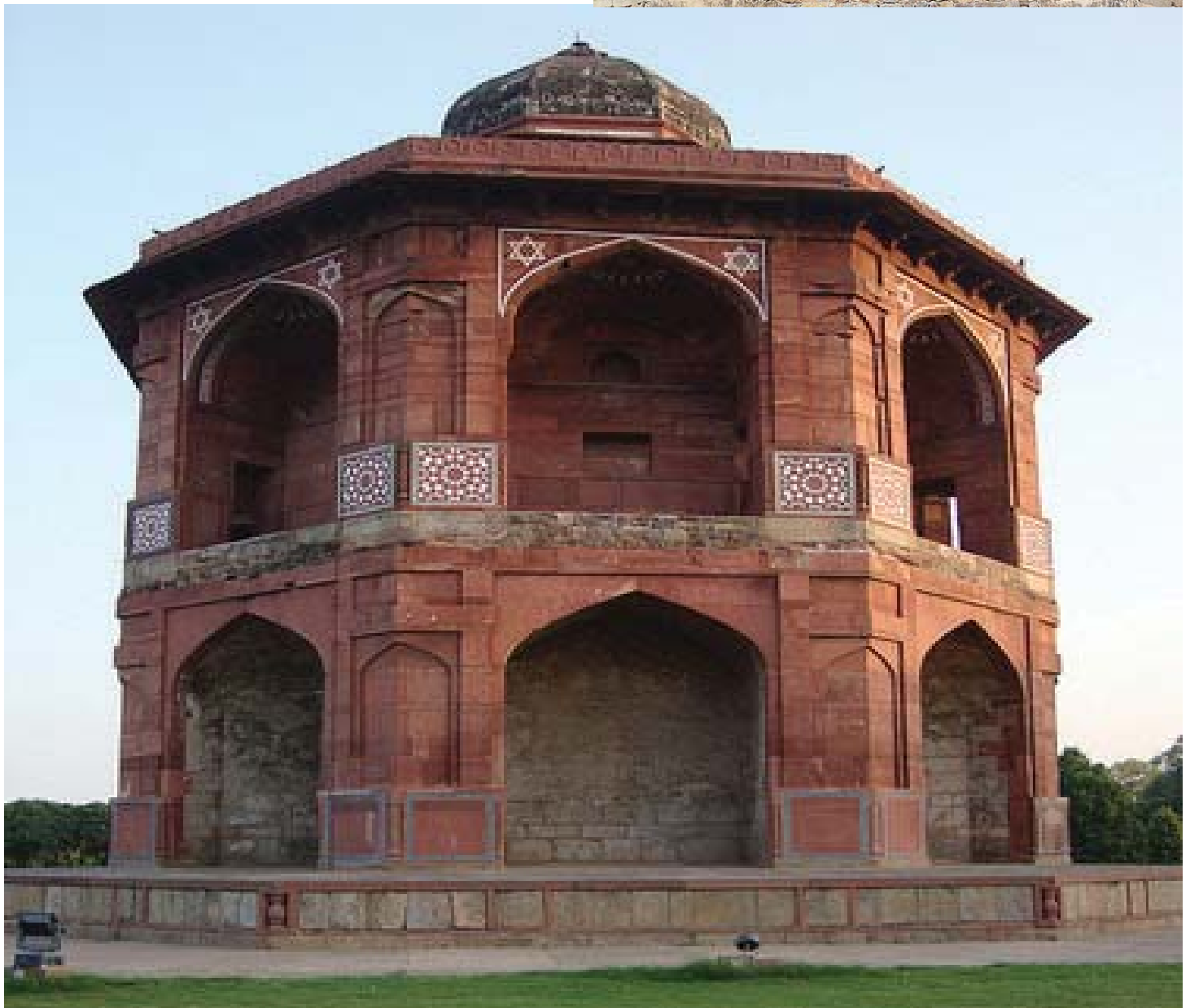
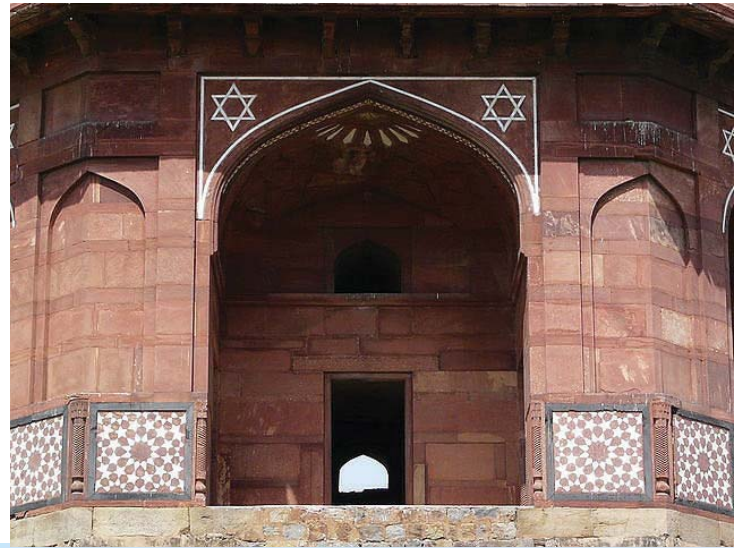
East Elevation

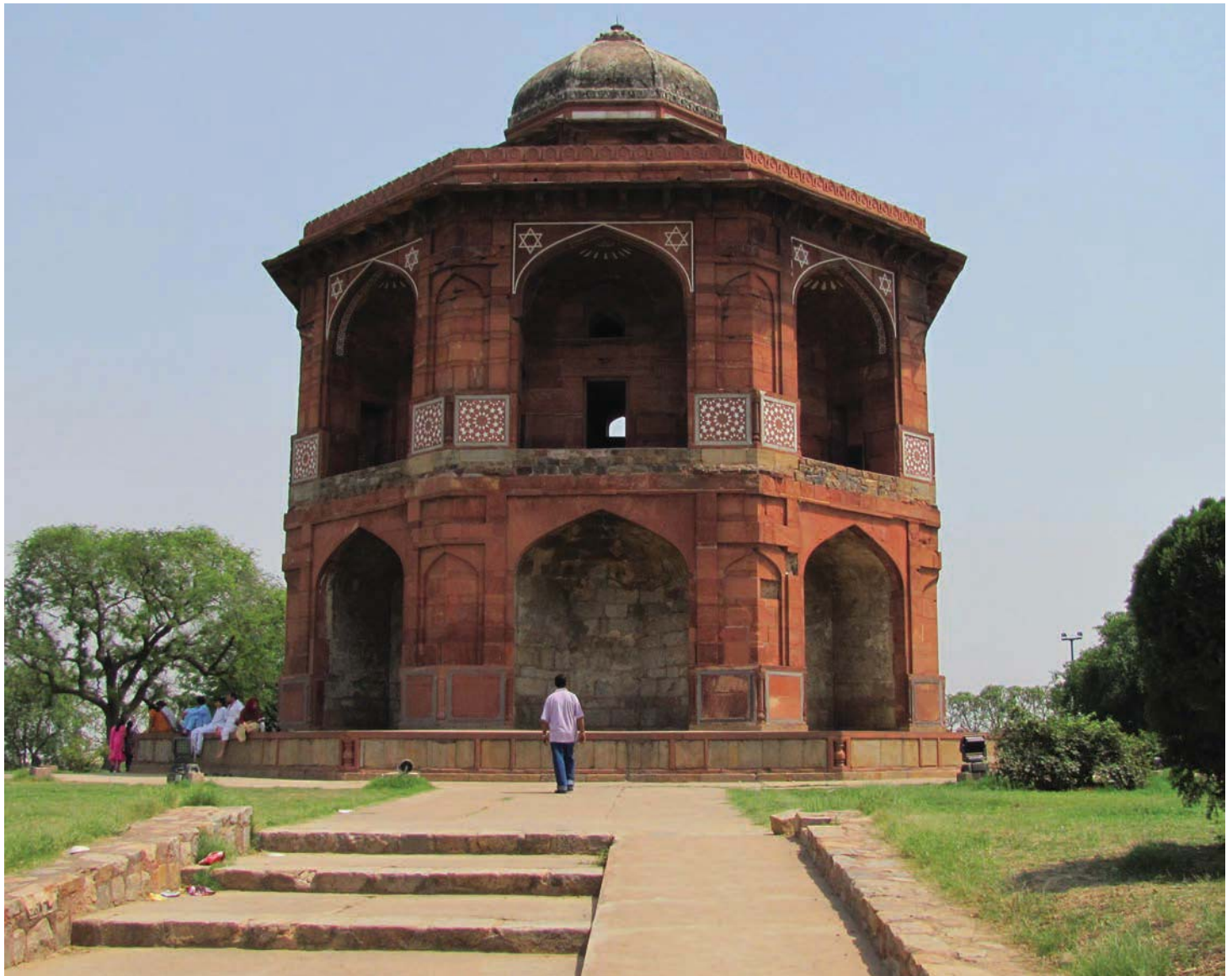
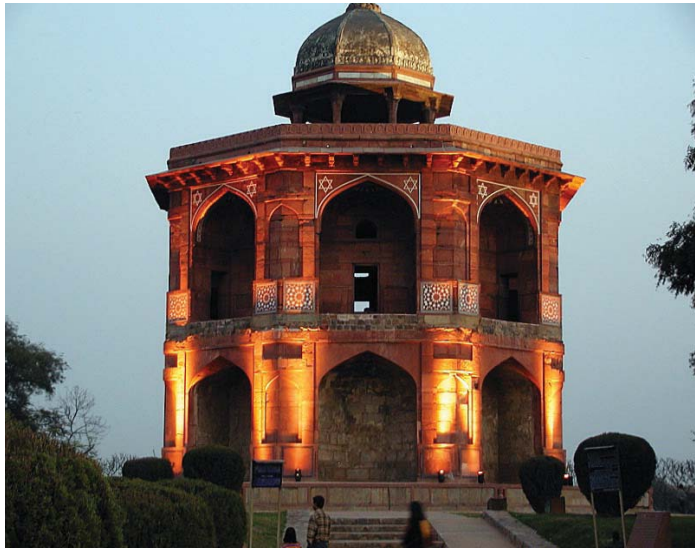


Defensive - Tower

Sher Mandal

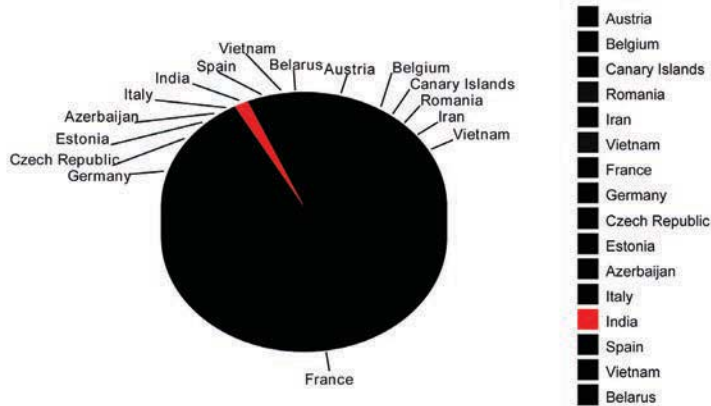
The Sher Mandal building is located in New Delhi, India and was built in 1350. It is an octagonal shaped building that is covered with a pavilion that is a dome. Is made out of red sandstone and nine inches arches on all eight sides. Now it stands as a private library



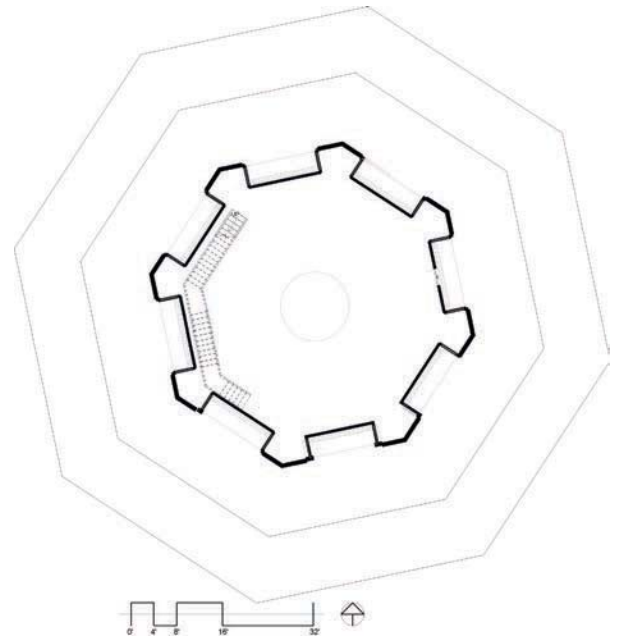


Sher Mandal Technical Drawings / Diagrams

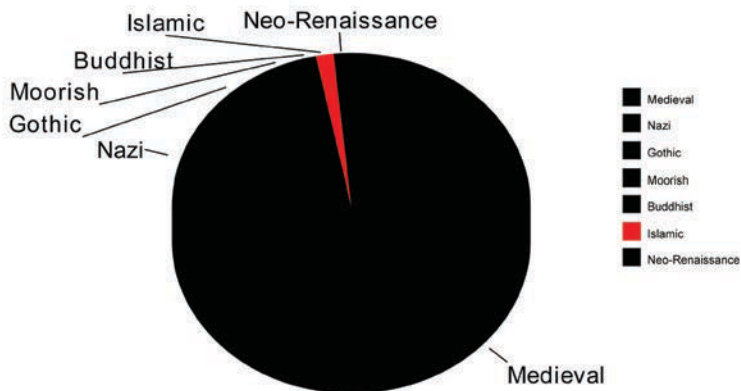
Location of Towers



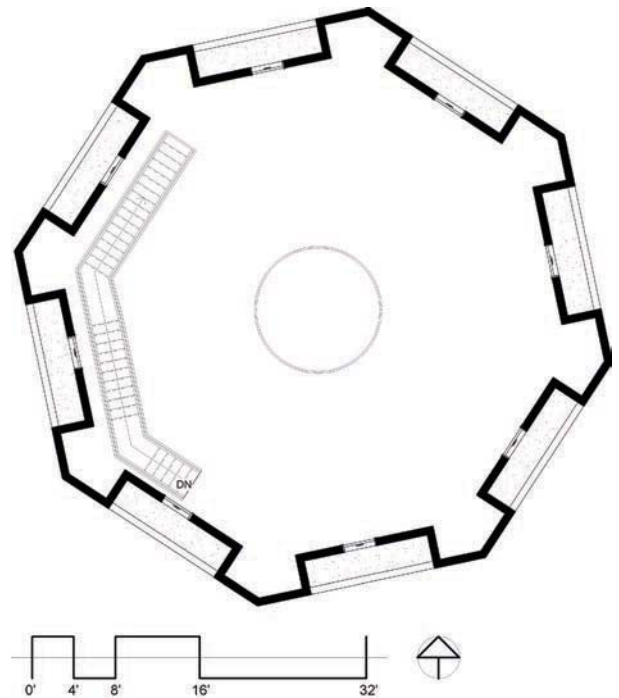
1st. Floor

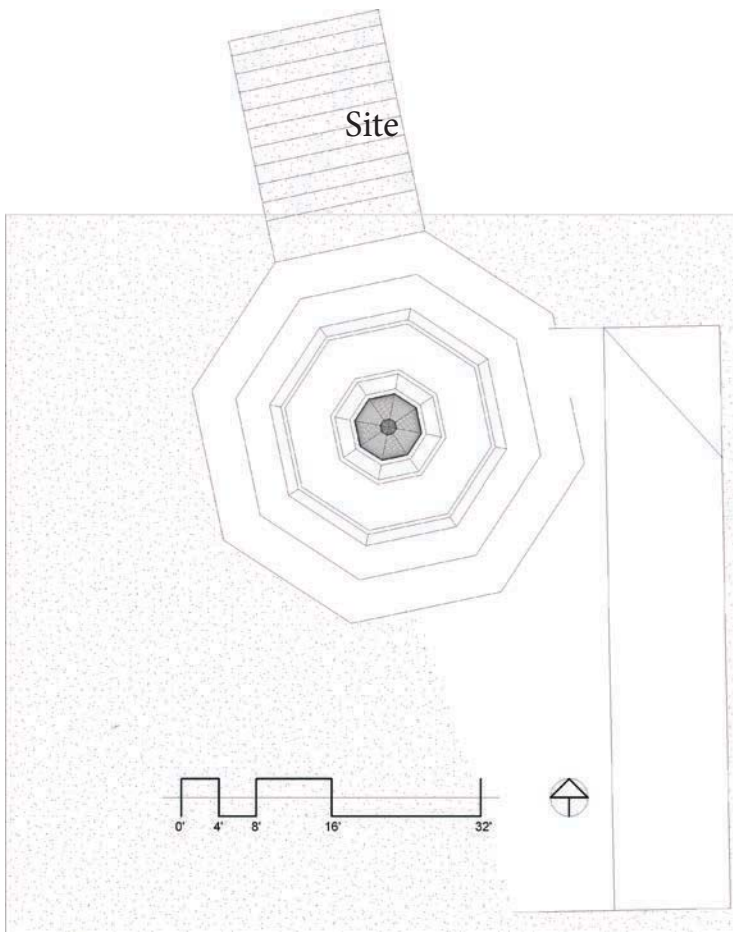


Styles of Towers

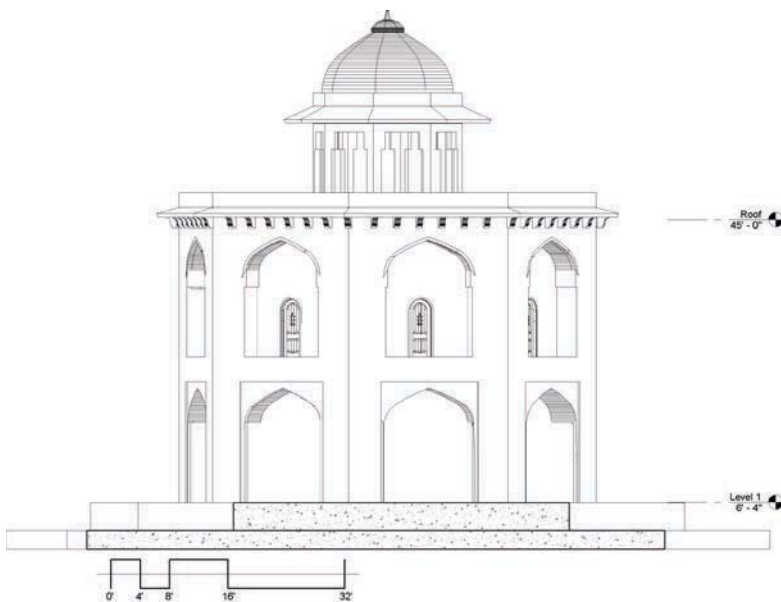


2nd. Floor

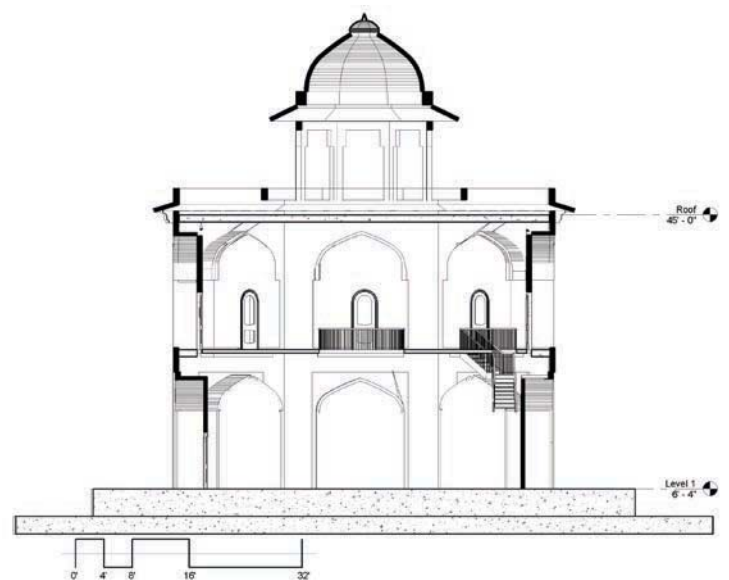




North Elevation



Section



Program Analysis

ARC 550 Regional Graduate Architecture Studio
Eric Okerstrom



Defensive Towers

Architecture, of all the arts, is the one which acts the most slowly, but the most surely, on the soul. By: Ernest Dimnet

Introduction & Overview

The objective of my open-air museum design is to provide a collection of buildings from around the world that are collectively arranged to capture each building in its original state. This open-air museum will allow the possibility for citizens of the US to experience different countries' defensive buildings and learn the reasons why they needed them.

The location of Little Grass Lake allows for a multiple of extraordinary scenic views. Designating particular places on the site for each building will help achieve the right scenic atmosphere for each building. When I was at the site one of the first items that I noticed was the retaining wall located right behind the parking lot. I saw this as a great elevation starting point for my entry building. This will allow construction to take place with any type of design and still be able to provide a damn in case of flooding.

PROGRAM ANALYSIS FOR PUBLIC SPACE

- **Entry Vestibule / Reception / Waiting Room** 350 sq. ft.
 - Users
 - Employees
 - Visitors
 - Activities
 - Entering / Leaving
 - Tickets sales
 - Information
 - Welcome Visitors
 - Items Needed
 - Desk & Chairs x2
 - Computer
 - ADA accessible
- **Gallery** 600 sq. ft.
 - Users
 - Everyone
 - Activities
 - Showcase art work
 - Items Needed
 - Versatile layout for walls & furniture
 - Furniture
- **Gallery Storage** 250 sq. ft.
 - Users
 - Employees
 - Activities
 - Storing different art pieces
 - Furniture not being used
 - Items Needed
 - Cabinets
 - Shelving
- **Gallery Preparation Room** 120 sq. ft.
 - Users
 - Employees
 - Activities
 - Preparing items for display
 - Items Needed
 - Cabinets
 - Simply hand tools
 - Tables / work area
- **Toilets** 350 sq. ft.
 - Users
 - Visitors
 - Staff
 - Activities
 - Conduct Business
 - Items Needed
 - Toilets
 - ADA accessible
 - Family style option

PROGRAM ANALYSIS FOR PUBLIC SPACE

- **Workshop** 350 sq. ft.
 - Users
 - Employees
 - Activities
 - Building of frames & display cases
 - Repairs / Maintenance
 - Items Needed
 - Work Bench
 - Required Tools
 - Dust Collector
- **Gift Shop** 150 sq. ft.
 - Users
 - Visitors
 - Activities
 - Create Profit
 - Items Needed
 - ADA accessible
 - Register
 - Display Cases
- **Lockers** 100 sq. ft.
 - Users
 - Visitors
 - Activities
 - Storage of personal belongings
 - Items Needed
 - Racks for coats
 - Desk
- **Food Service** 300 sq. ft.
 - Users
 - Visitors
 - Staff
 - Activities
 - Food consumption
 - Items Needed
 - ADA accessible
 - Dining Table / Chairs (20 tables / 70 chairs)
- **Janitor's Closet** 50 sq. ft.
 - Users
 - Employees
 - Activities
 - Storage of cleaning supplies
 - Items Needed
 - Mop Sink
 - Mop Bucket

Total Public Space (NSF)	2,620 sq. ft.
30% Efficiency space	786 sq. ft.
Gross Public Space (GSF)	3,406 sq. ft.

PROGRAM ANALYSIS FOR ADMINISTRATION SPACE

- **Curator Office** 150 sq. ft.
 - Users
 - Curator
 - Activities
 - Plan events
 - Manage art collection
 - Items Needed
 - Desk & Chair
 - Guest Chair
 - Storage
- **Maintenance Office** 160 sq. ft.
 - Users
 - Employees
 - Activities
 - Repairs
 - Items Needed
 - Storage
 - Tools
 - Materials
- **Financing Office** 140 sq. ft.
 - Users
 - Employees
 - Activities
 - Billing
 - Payroll
 - Items Needed
 - Desk & Chair
 - Computer
 - File cabinets
- **Security Office** 150 sq. ft.
 - Users
 - Security officer (s)
 - Activities
 - Protection for visitors
 - Crime stopping
 - Items Needed
 - Desk & Chair
 - Holding Cell
 - Computer
 - Video surveillance
- **Administration Offices x2** each 120 sq. ft.
 - Users
 - Employees
 - Activities
 - Day to day activities
 - Items Needed
 - Desk & Chair
 - Filing Cabinets
 - Copier & Printer

PROGRAM ANALYSIS FOR ADMINISTRATION SPACE

<ul style="list-style-type: none"> • Staff Toilets <ul style="list-style-type: none"> • <u>Users</u> <ul style="list-style-type: none"> • Employees • <u>Activities</u> <ul style="list-style-type: none"> • Conduct Business • <u>Items Needed</u> <ul style="list-style-type: none"> • Toilets • ADA accessible 	300 sq. ft.
<ul style="list-style-type: none"> • Storage <ul style="list-style-type: none"> • <u>Users</u> <ul style="list-style-type: none"> • Employees • <u>Activities</u> <ul style="list-style-type: none"> • Storing Items • <u>Items Needed</u> <ul style="list-style-type: none"> • Shelving Units • Step stool 	100 sq. ft.
<ul style="list-style-type: none"> • Break Room <ul style="list-style-type: none"> • <u>Users</u> <ul style="list-style-type: none"> • Employees • <u>Activities</u> <ul style="list-style-type: none"> • Food Consumption • Relaxation • <u>Items Needed</u> <ul style="list-style-type: none"> • Tables & Chairs • Vending Machines • TV • Couch 	250 sq. ft.
<ul style="list-style-type: none"> • Janitor's Closet <ul style="list-style-type: none"> • <u>Users</u> <ul style="list-style-type: none"> • Employees • <u>Activities</u> <ul style="list-style-type: none"> • Storage of cleaning supplies • <u>Items Needed</u> <ul style="list-style-type: none"> • Mop Sink • Mop Bucket 	50 sq. ft.
Total Administration Space (NSF)	1,710 sq. ft.
30% Efficiency space	513 sq. ft.
Gross Public Space (GSF)	2,223 sq. ft.

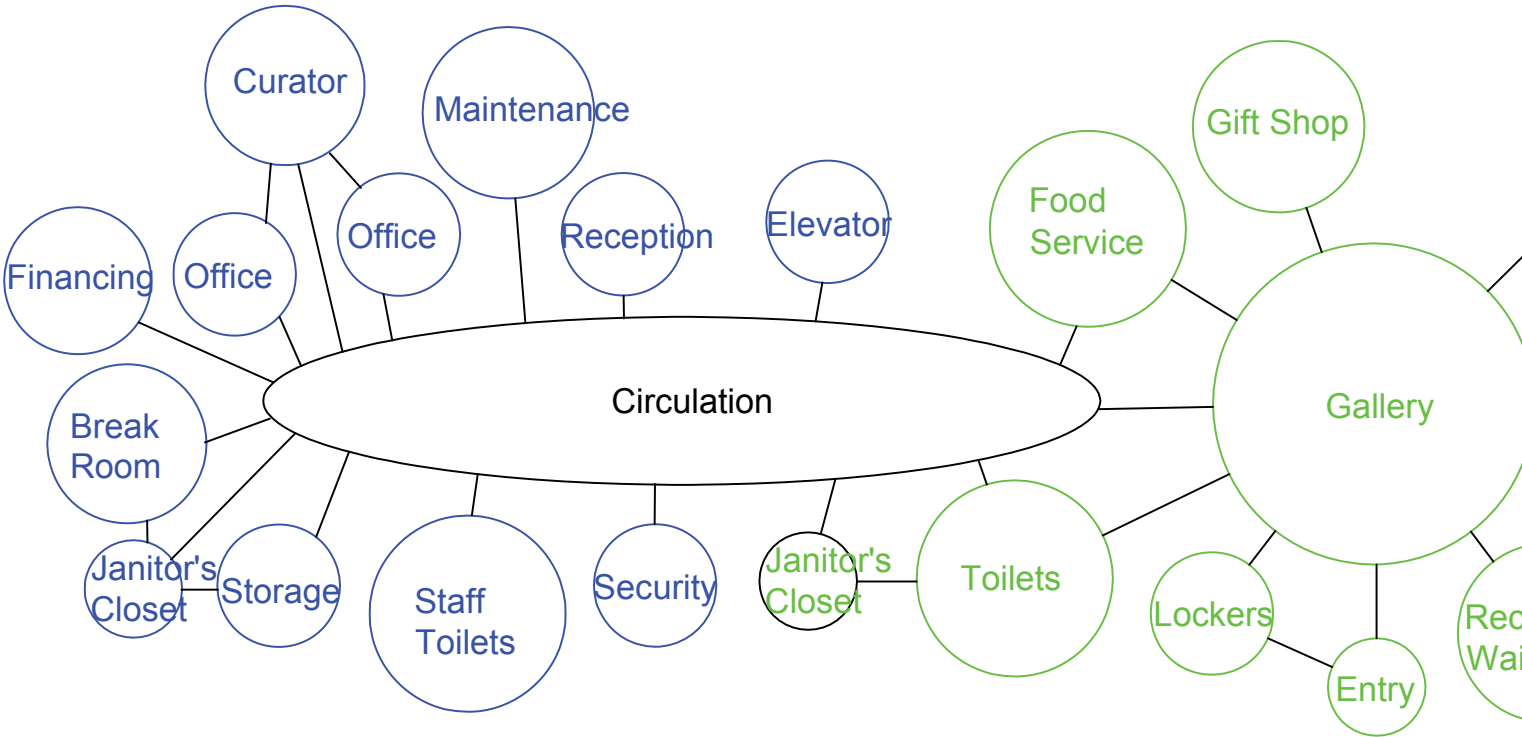
PROGRAM ANALYSIS FOR GROUNDS KEEPER

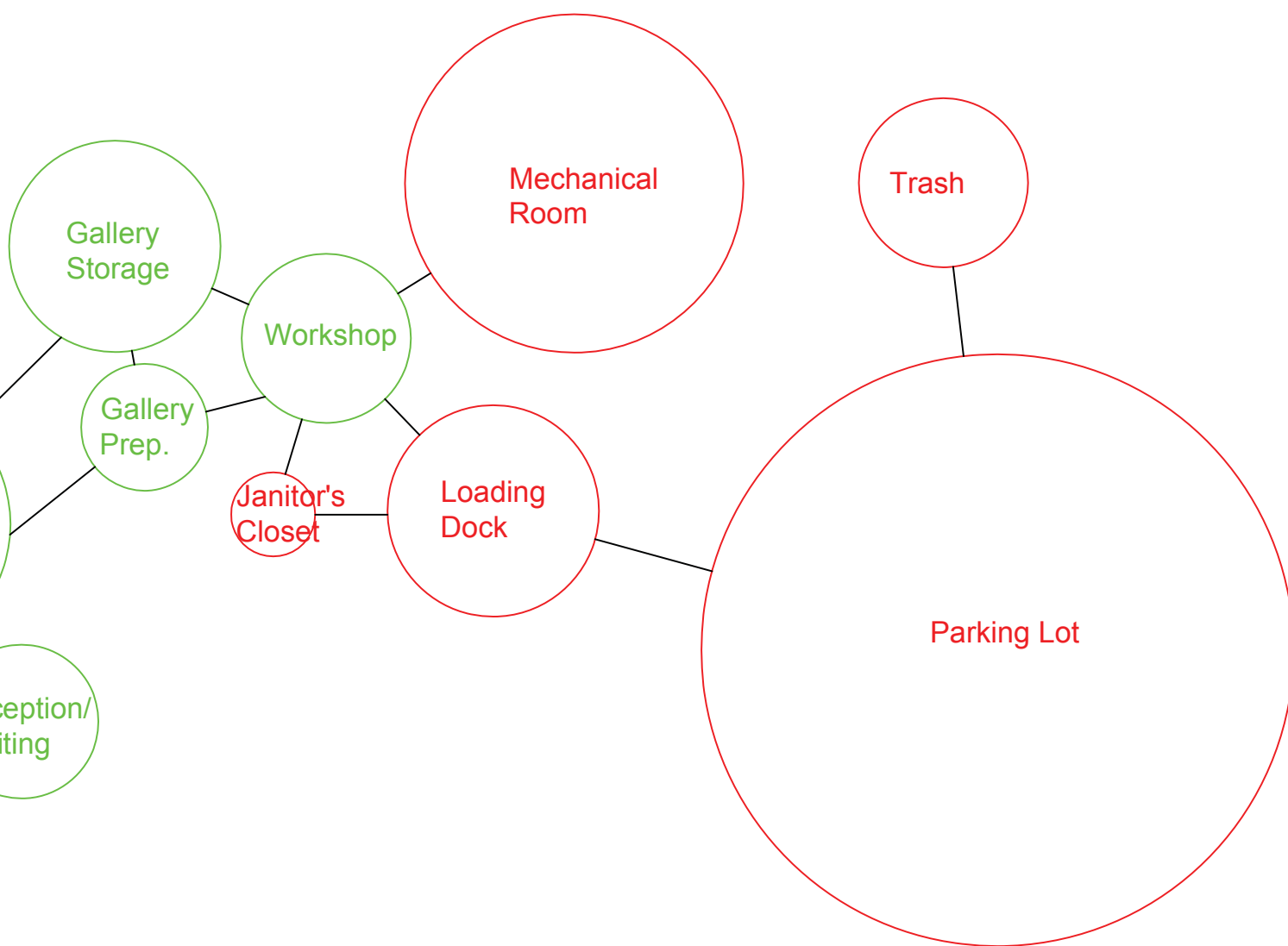
<ul style="list-style-type: none"> • Trash <ul style="list-style-type: none"> • <u>Users</u> <ul style="list-style-type: none"> • Employees • <u>Activities</u> <ul style="list-style-type: none"> • Saving the world • <u>Items Needed</u> <ul style="list-style-type: none"> • Dumpster (trash & recyclables) 	200 sq. ft.
<ul style="list-style-type: none"> • Parking Lot <ul style="list-style-type: none"> • <u>Users</u> <ul style="list-style-type: none"> • Visitors & Employees • <u>Activities</u> <ul style="list-style-type: none"> • Parking vehicles • <u>Items Needed</u> <ul style="list-style-type: none"> • Crosswalks • Video Surveillance 	N/A
<ul style="list-style-type: none"> • Loading Dock <ul style="list-style-type: none"> • <u>Users</u> <ul style="list-style-type: none"> • Employees • <u>Activities</u> <ul style="list-style-type: none"> • Loading & unloading items of importance • <u>Items Needed</u> <ul style="list-style-type: none"> • Adjustable Landing • Large Entry Door 	300 sq. ft.
<ul style="list-style-type: none"> • Mechanical Room <ul style="list-style-type: none"> • <u>Users</u> <ul style="list-style-type: none"> • Employees • <u>Activities</u> <ul style="list-style-type: none"> • Control over buildings air system • <u>Items Needed</u> <ul style="list-style-type: none"> • Heater(s) • Chiller(s) • Water Pumps 	600 sq. ft.
<ul style="list-style-type: none"> • Janitor's Closet <ul style="list-style-type: none"> • <u>Users</u> <ul style="list-style-type: none"> • Employees • <u>Activities</u> <ul style="list-style-type: none"> • Storage of cleaning supplies • <u>Items Needed</u> <ul style="list-style-type: none"> • Mop Sink • Mop Bucket 	80 sq. ft.

Total Administration Space NSF	1,180 sq. ft.
30% Efficiency space	354 sq. ft.
Gross Public Space (GSF)	1,534 sq. ft.

Buddle Diagram

Blue = Administration
Green = Public Space
Red = Grounds Keeper





WRITTEN SUMMARY

“Architecture, of all the arts, is the one which acts the most slowly, but the most surely, on the soul,” stated by Ernest Dimnet.¹ I immediately was drawn to this quote by Mr. Dimnet. This gut wrenching feeling came about and it felt as if he was speaking directly about this project. While gathering a collection of different defensive buildings from around the world throughout many time periods, it became apparent time played an important role in the attraction of these fine master pieces. The key factors that I was able to discover about this topic are boundaries, how the true beauty of a building is interpreted in everyone’s individual ways, the collaboration between people that didn’t work together before, the role of tectonics, and the lasting effects from these buildings. Another item is the location of the site has always been significant in the style and use of these towers. Lastly, with heading into the design phase I have a tremendous amount of information to help guide my project.

If you don’t have boundaries, then what do you have? Kenneth Frampton wrote an article in which he went into great detail about his view on boundaries and what they mean to him.² Over the time spent reading and doing research about boundaries I have come up with a few assumptions. They are to allow nature to help form the shape of the desired area and not all areas need to be defined by spaces with four walls. During our class visit to the site of Little Grass Lake I was trying to picture the boundaries for each of the buildings and where they are going to be on the site. A couple items that stood out to me were the great amount of change in the topography and a service road or creek, that is completely grown over, that runs across the middle of the site from east to west. There will be a great diversity of building heights located throughout the site given the topography changes throughout the site. This will allow for an extremely challenging and interesting boundary formation of the buildings. Arranging these monumental magnificent buildings together will allow for the viewers of this building collection to interpret each individual building by itself or as a full collection, whichever each viewer prefers. A main goal of mine that I have for this collection is to be able to allow each individual person to be able to feel the full effects of these buildings. The effects in regards to the natural surroundings, what took place inside each tower, working conditions, and any other of the five senses that can be stimulated.

The second article that I found was “Inform Form Perform” by Nate Holland at the University of Nebraska.³ Nate goes on to talk about the collaboration among people today and how it is becoming more predominate in today’s work field. He went ahead and related this back to boundaries. He describes boundaries as something that is shrinking. I would agree with Holland’s statement that the amount of collaboration work between people today has increased. Collaborating between all parties of this open-air museum will be their main priority, and I believe this will allow for a smoother business atmosphere among all employees. Another item that Holland talked about was the comfort of personal space inside a building and making sure to design in a way that the occupants don’t feel cramped. With saying that, it inspired myself to ensure ample space for all activities throughout the proposed design.

The concept that I have for this open-air museum is “zugzwang”, which is a situation in which the opponent is limited in options and is forced into some type of deficit.⁴ Derived from two different

¹ http://www.brainyquote.com/quotes/topics/topic_architecture3.html

² Kenneth Frampton assigned reading article from class

³ [file:///C:/Users/Eric%20Okerstrom/Desktop/Arc%20550%20regional%20studio%20\(grad\)/Inform%20Form%20Perform_%20OneSearch%20\(reading%201%262\).html](file:///C:/Users/Eric%20Okerstrom/Desktop/Arc%20550%20regional%20studio%20(grad)/Inform%20Form%20Perform_%20OneSearch%20(reading%201%262).html)

⁴ <http://dictionary.reference.com/browse/zugzwang>

words, Zug, which means “move” and Zwang which means “constraint”. When the topic of someone’s protection or the security of something gets brought up, the immediate reaction is to be defensive. Therefore, the connection between defensive towers and zugzwang is apparent. For example, if an individual is located on the exterior side of the tower the patrons on the inside are in complete control over the outcome of the situation.

During this research that I was doing the term tectonics appeared quite frequently. The overall relationship between the buildings and their purposes are very similar. These defensive towers played a great role in shaping history and telling magnificent stories along the way. The majority of spaces within this building set have similarly designated spaces within the buildings that allow them to function. Some of the items that they all have in common are: a compressed efficient 1st floor plan that typically contains an entry, vertical movement throughout buildings and not too much else. I believe the reason for this is to ensure enough space within each building to designate for times of panic. Among all of these buildings, the materials used do have some differences. For example, the color of the stone, the arrangements of the stone, and the tower as a whole being reinforced gives additional strength to the walls and building. Using similar materials to complete each building and design the surrounding landscaping will allow the tectonics of the buildings to be expressed with easily throughout the entire site.

In comparison to other countries, the United States is a very young one architecturally, which would explain why we do not have any of these towers. Many of these defensive buildings are tied to countries that have been around for thousands of years. Each country has their own particular ways that they find impeccable to construct and protect their items. This can be seen in the many different styles of defensive buildings. The design of each building was also driven by the function that each particular building needed to have when finished, along with the location playing a huge part too. The location is another indicator of the types of materials that are going to be used for a few different reasons. The first factor when determining what materials to build with is dependent upon what items are available to use nearby and another factor is if the materials will have characteristics of the indigenous peoples and their ways of building for that area. Since location is an extremely important aspect of defining each building finding the right location for the entry building of this museum is crucial. I want this building to face towards the lake, placed along the embankment, and the ground level can stay at the same level as the embankment sits now. This will accommodate and ensure flooding will not occur from the lake. I’m thinking about this particular space because of its direct relationship between the water and the site and is able to link these two items together. In addition to the proposed site plan I want to make sure to leave parts of Southern Illinois still intact within the site. I would be able to do this by leaving the camping grounds on the site and having them contribute to the overall function.

The concept “Zugzwang” you can say is backing this building collection into a corner that it cannot escape from! With the notion of fortification, this is going to be the most safeguarded area around.

WRITTEN SUMMARY

Sources

Foisorul De Foc

- <http://www.worldarchitecturemap.org/buildings/foisorul-de-foc>
- <http://www.foisoruldefoc.ro/>
- <http://stiati-ca.epistole.ro/2013/02/stiati-ca-arhitectul-george-mandrea-este-cel-care-a-realizat-planurile-foisorului-de-foc/>

Augarten Flak Tower 3

- <http://www.urbanghostsmidia.com/2013/06/nazi-germany-ww2-flak-towers-adaptive-reuse-climbing-walls/>
- <http://fhpubforum.warumdarum.de/index.php?topic=3095.15>
- <http://www.worldarchitecturemap.org/buildings/augarten-flakturm-g>

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Patrick Szczecina

The focus of this project is all about Transformative Architecture. The concept behind this type of architecture is that the structure transforms to create new spaces from the original space. Each type of building has its own type of joint that allows transformation, based off a sliding system or hinge system.

ANALYSIS OF READINGS

Frampton - Towards a Critical Regionalism

Keith L. Eggener - Placing Resistance: A Critique of Critical Regionalism

Critical Regionalism has been around for nearly 30 years, writers and architects all defining and changing what they think the meaning of the word is. Critical Regionalism was a type of architectural concept that dealt with geographical and cultural circumstance². One of the leading advocates for critical regionalism, Kenneth Frampton, acknowledged that it's an "Architecture of resistance seeking to mediate the impact of universal civilization and to reflect and serve the limited constituencies³. Critical regionalism to the understanding of what Frampton stated is that it is an architecture that resists the works of the common man and looks at the ideas of the unusual. In a way to me it is saying that take little from the large main idea and fill it with the side theories. To me Critical Regionalism is the idea of using culture and the geography of an area for the structure itself. Culture in the terms of regionalism to me should be based off of the traditions and the lives of the people within that culture and not based off of what is best suited for the people by an outside source. According to Eggener, he quotes a man Lewis Mumford who stated Culture and identity...it's not a matter of using the most available local material, or of copying some simple form of construction that our ancestors used, for want of anything better, a century or two ago. Regional forms are those which most closely meet the actual conditions of life and which most fully succeed in making a people feel at home in their environment: they do not merely utilize the soil but they reflect the current conditions of culture in the region². This is stating that the way the structure be built shouldn't be so much based off of what is best for the people from the perspective of an outside source but rather what the people themselves think is best for them and the lives they wish to live. The other aspect of critical regionalism should be that of geography and that aspect is using the land around in many ways. A well stated quote from Jeremy Clow That is a lawn when no one is occupying it, but when people come it can be viewed as a park or plaza. This is what I think the idea of geography in

Regionalism should be used for. Showing that a site can have one set definition and then change under circumstances can be used under Critical Regionalism. Another way geography can be looked at is what I think is the main point is that you want to make something small fit into the location it is in. Frampton says "The examples of critical regionalist practice were for the most part limited and localized, small-scale projects (houses in nature, Gardens, Churches)." This can be seen as something where people build a structure within nature and try to make it fit. That is one of the biggest problems we currently have, context, where we ignore or destroy the context around instead of adopting. An aspect of critical regionalism that I found an example for was the Gilardi House, Mexico City by Luis Barragan Morfin, where stated by Olivier Boissiere off of Domus digital archive, Seclusion and Serenity¹, explaining that the client wanted these aspects in the building itself. He used nature (trees and water) for serenity and large colored walls for the seclusion. Luis Barragan used the ideas of culture through the use of colors (Culture) and trees and water for geography. To me Critical Regionalism is trying to make some form, structure to fit into an area through the use of the local culture as well as geography.

¹Boissiere, Olivier. 2013. "Luis Barragan: Seclusion and Serenity." *Sections from the Domus Archive Domus Archive*. (accessed June, 15, 2015). <http://www.domusweb.it/en/from-the-archive/2013/03/23/luis-barragan-seclusion-and-serenity.html>

²Eggener, Keith L. 2002. "Placing Resistance: A Critique of Critical Regionalism." *Journal of Architectural Education (1984-)*, 2002. 228. *JSTOR Journals*, EBSCOhost (accessed June 15, 2015). <https://login.proxy.lib.siu.edu/login?url=http://search.ebscohost.com/login.aspx?direct=true&db=edsjsr&AN=edsjsr.1425724&site=eds-live&scope=site>

³Frampton, Kenneth. 1983. "Towards a Critical Regionalism: Six Points for an Architecture of Resistance." *Article*.

Frampton - Rappel a l'Ordre

Witold Rybczynski - God Isn't in the Details, After All (Excerpt) -

In the two articles that I have read with Frampton's *Rappel a l'Ordre* and Witold Rybczynski excerpt of *Looking Around: A Journey Through Architecture*, 'God Isn't in the Details, After All', I found that they both speak of a 'Joint'. In Witold's article he spoke of Mies van Der Rohe stating God is in the details², referring to the minimalistic details or joints. I found this to be the biggest aspect in my research of buildings. Through my collection of ideas I gathered information that was based on an idea of a small piece that is unseen that acts upon a larger scene, which can be seen as the joint of a structure. Eventually through my research I found materials, view points to be used as joints but the one that interested me the most was that of joints that control spaces. In this concept I refer to space that is able to transform to create new spaces, in size, shape, temperature and light control. In both Frampton's and Witold's articles they state that the joint is more than that a 'Joint', but instead they are a living component of the larger system. This is what my research went off of, focusing on a joint that makes a building come alive, makes the building change to act differently whenever it is needed, and to function in the best possible way by moving spaces around. Once I have selected the topic of Transformative Architecture I broke it down further to see buildings that open up to create views, open up space to create a different area, and transformations that controlled light and movement. My first part of the research was that of buildings that created new views from the inside to the outside world. This brought me to find two buildings the Safe house in Poland and the Sharifi-Ha house in Iran, the following buildings that created new spaces were the La Milagrosa Chapel and M-Velope structure. The final two buildings Sliding House and Leaf Chapel, which played with light and controlled movement through the building. From looking at these buildings I noticed all of the buildings focused around the Joint or the space that

moved. I believe that this is the new way to go around designing spaces, which is that of one space can be used for multiple purposes to be a more efficient machine.

This brings me to the problem at hand, to design a structure open air museum that will contain the works of art, in this case the buildings that have been researched. This structure must follow the concept of transforming to create a storyline to the structure that are sitting throughout the site. The building will be focused on individual joints throughout the building that control spaces that will allow them to change depending on needs of the museum. As previously stated the joint is a living component to that of the larger system, which will be the main focus of the structure. The joint will not only be acting to create spaces on the outside between the buildings of administration, grounds and gallery but will also play an intricate role on the interior of the spaces. For the outdoor, the transformation will create courtyards, plaza and new paths, this can also play the role of a continuously changing system where one can create their own journey. The interior on the other hand will have 3 levels of sophistication, grounds being the lowest since it not being public, administration being in the middle for the reason of not many people will visit, and high in the gallery space. The reason for the gallery space having the most importance is that because it is where people will visit and where the idea of transformation can be shown, through the building itself and the art or sculptures that are within the structure. This is the main focus of the museum, to show what transforming architecture is, which is the way a structure inside and is out can transform to create spaces that will work efficiently. This in return will show that the joint not only plays a role of a connection or a moving piece but a piece in the larger scheme. It will connect spaces, to emphasize all aspects

Building Collection Ideas

My building collection was accumulated of 5 different concepts that followed the ideas of material, program, type of construction. The first choice that I selected was that of life guard towers that could be located from different parts of world that all had different ways to be constructed. The following choice was that of Earth Made Homes, which was specified to be homes made of mud. The next choice was that of shipping containers and this had a multitude of forms and material builds. The following choice was that of light house which could be located anywhere in the world and through different time periods. The final choice and the choice that was selected by me to be further studied is that of transformative architecture. The reason I chose this topic was that of the buildings being drastically different and brought a new element of design and concept, which was movement and growth of an space.

Photos from:

1. http://2.bp.blogspot.com/-bK6I_YAS__Y/Tji_nzPC2bI/AAAAAAAAANqA/xgAAIFrEdLs/s1600/DSC_3808.JPG
2. <http://static.panoramio.com/photos/large/10233489.jpg>
3. https://upload.wikimedia.org/wikipedia/commons/1/13/Primary_School_Gando.jpg
4. <http://www.chilearq.com/barqo/2008-06-03-1580.jpg>
5. http://ad009cdnb.archdaily.net/wp-content/uploads/2013/07/51cbc0b1b3fc4b70f1000033_caterpillar-house-sebasti-n-irarr-zaval_sergio_ricaroruga_461-1000x674.jpg
6. <http://wereblog.com/wp-content/uploads/2014/05/Containers-of-Hope-1-520x245.jpg>
7. <http://locusiste.org/buildings/2009/01/06/attachment-2.jpg>
8. <http://ideasgn.com/wp-content/uploads/2013/06/Leaf-Chapel-Japan-by-Klein-Dytham-architecture-002.jpg>





Safe House

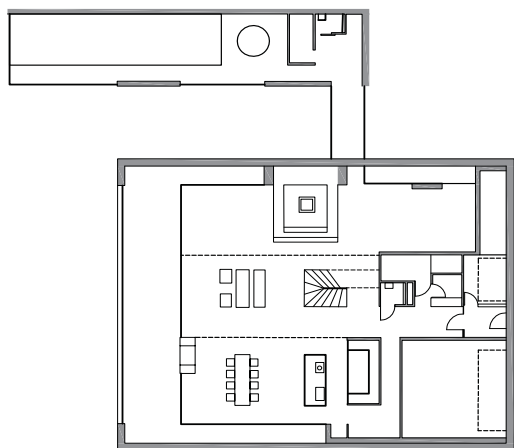
Warsaw, Poland

KWK Promes - Robert Konieczny

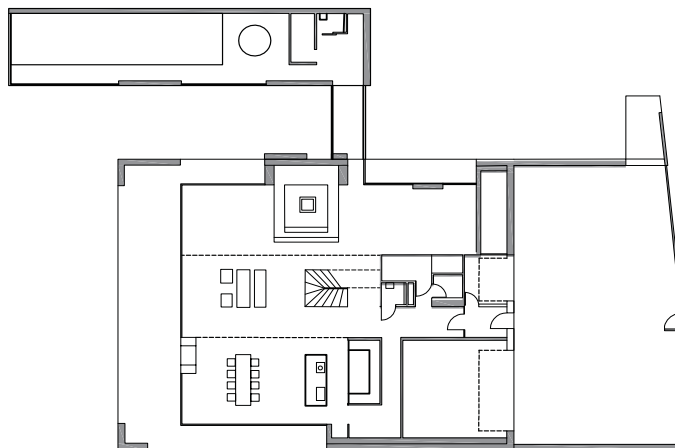
The clients for this project asked for a home that would act as a safe house (security top priority), taking a cubic form with move-able exterior walls. One major area is the garden, where the Eastern and Western walls slide to the outside fence creating a courtyard. During the night the “Safe Zone” goes only to the building exterior walls, but during the day walls are adjustable to move to create out door spaces that are enclosed. The move-able portions of the structure are the exterior walls, large window shutters, and a draw bridge, the structure itself is made of concrete, having all the mobile pieces made of light steel trusses. Wide glazings behind the movable walls let the building acquire energy during the day (winter) or prevent the sun’s heat from going into the house (summer). “This routine reminds of the processes occurring in nature – the house resembles a plant in its day and night cycle.” - Robert Konieczny

<http://www.home-reviews.com/the-safe-house-in-poland-by-kwk-promes>

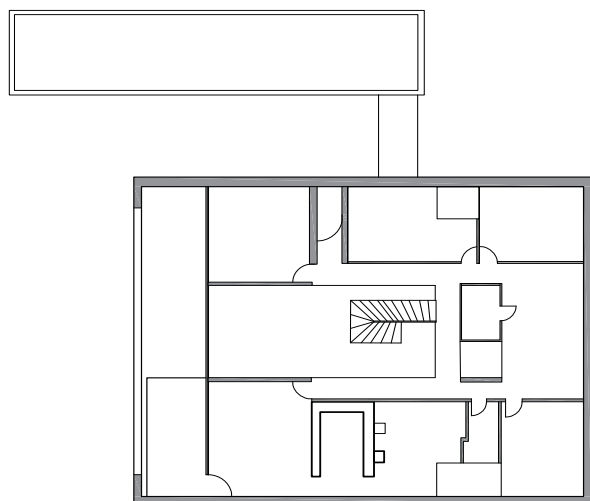




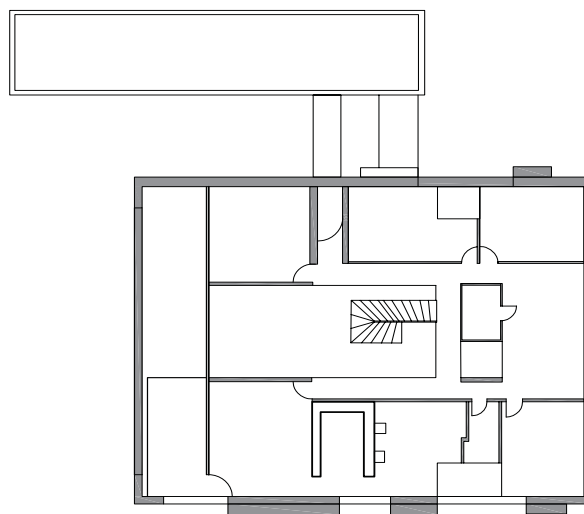
1st Floor Plan Closed



1st Floor Plan Open



2nd Floor Plan Closed



2nd Floor Plan Open



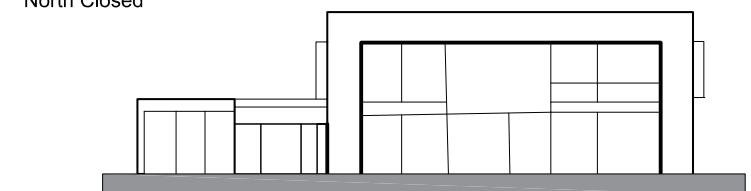
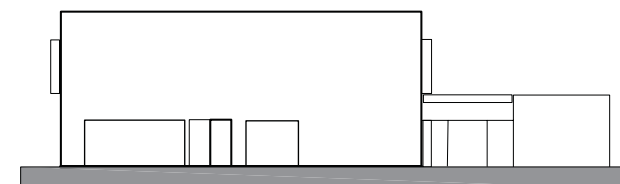
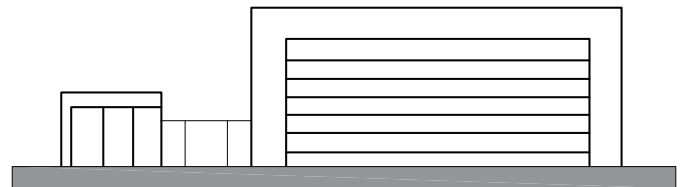
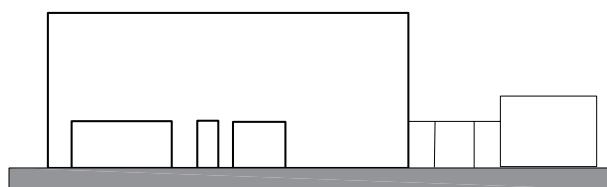
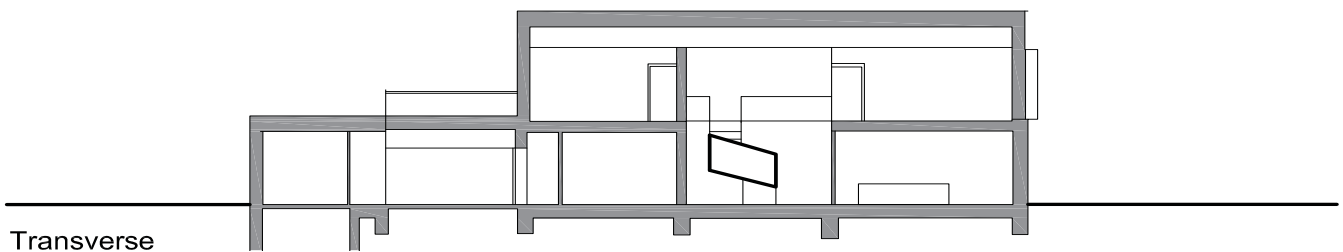
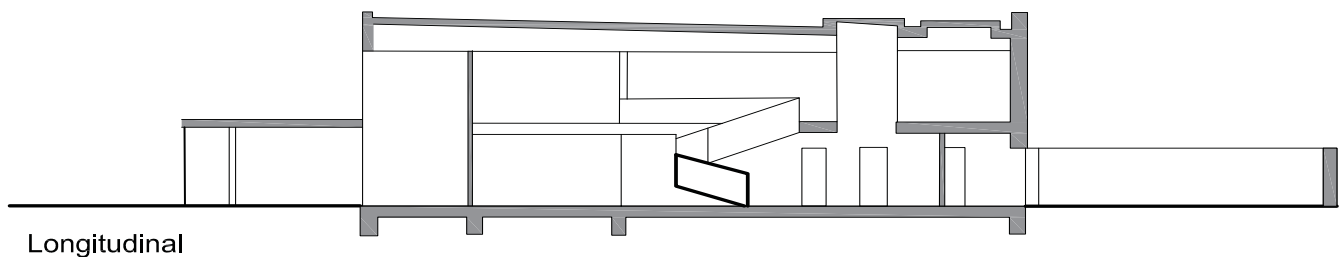
Safe House

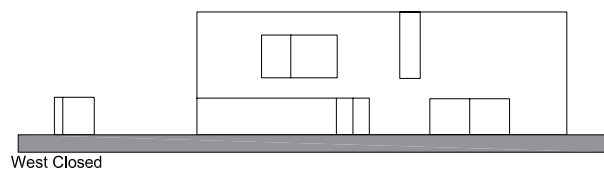
Warsaw, Poland

KWK Promes - Robert Konieczny

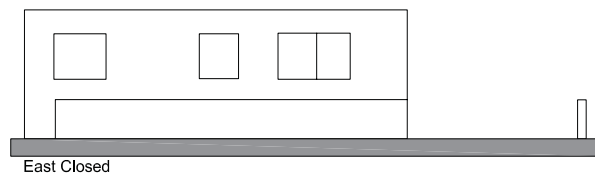
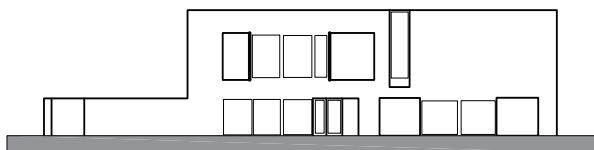
The Safe House is an example of a building system that transforms from hinges and rails. Portions of the wall that cover windows or openings are set on hinges so that they are able to open to create views. The building only consists of one rail system and that is the backside that has the eastern and western walls slide in order to create an outdoor courtyard. There are three diagrams that show how the building works as well as what happens from the movement of the structure. The first diagram of **Heavy vs Light material** shows the construction of concrete vs glass and how they work together. The following diagram is **moving panels** which show how the building operates to create views and new spaces. The following **area open** shows the areas that open up due to the moving panels. The final diagram **views open** show the views that open up due to the panels opening.

<http://www.home-reviews.com/the-safe-house-in-poland-by-kwk-promes>

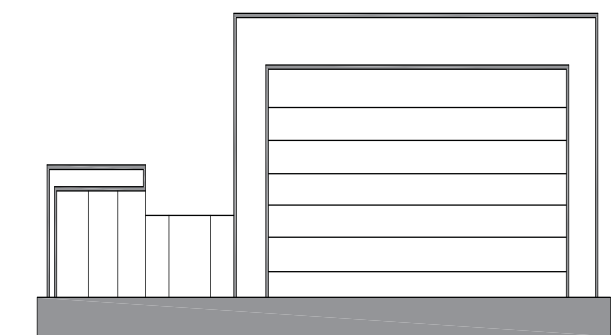
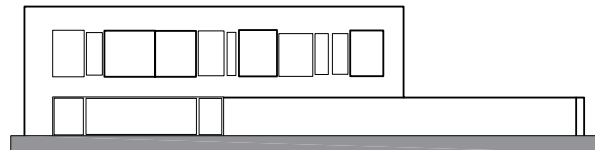




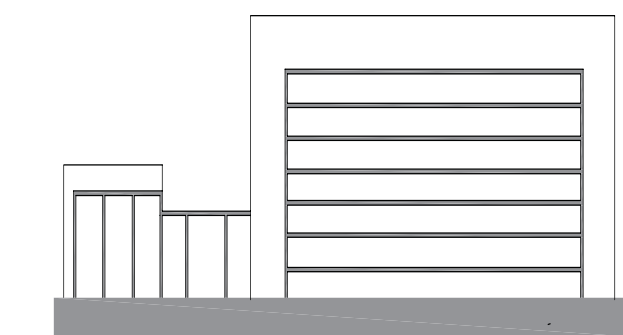
West Open



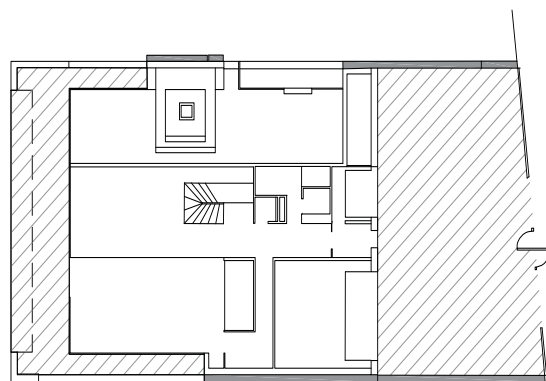
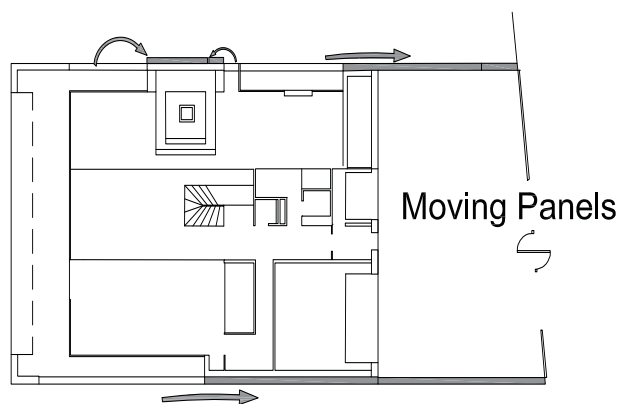
East Open



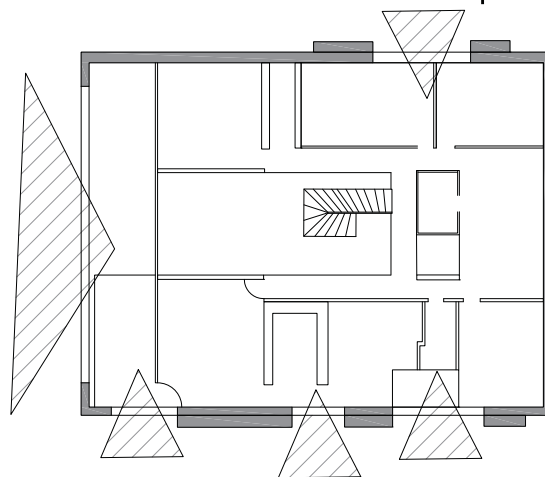
Heavy Material



Light Material



Area Opened



View Open

La Milagrosa Chapel

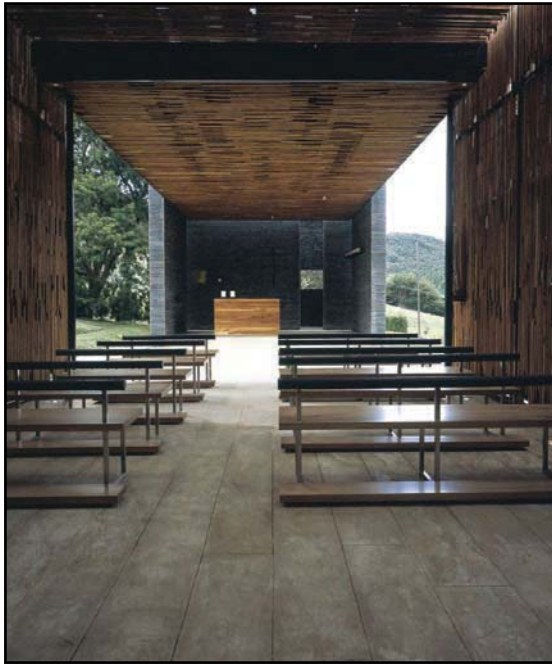
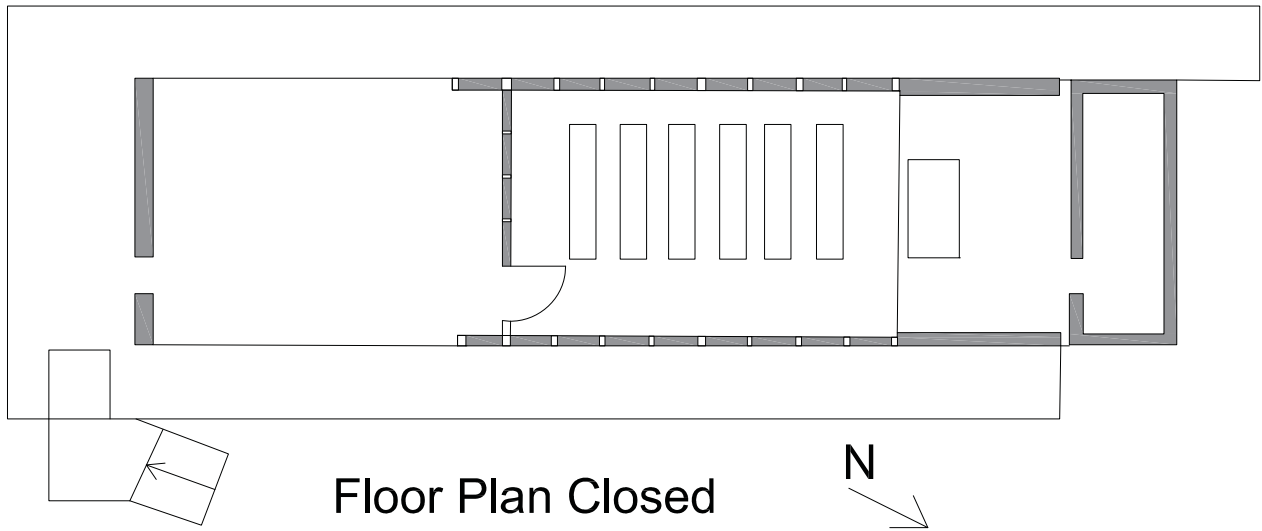
La Calera, Colombia
Daniel Bonilla Arquitectos

The concept behind La Milagrosa Chapel is that to not change any of the site, and to build off the natural features of the environment; wind and the light to create an essential harmony. The largest feature of this structure is that to open to the natural world, allowing for large masses (Open) and private masses (closed). Some of the features include move-able alter allowing for choir space, tabernacle becomes part of the landscape. The structure is made of 4 materials; Stone (rigid), Steel, wood and glass (Mobile).

“The relation between a still and a mobile volume represents “the passage between two worlds, between the known and the unknown, the light and the darkness. As the door opens, a mystery is revealed, and has a dynamic and psychological value, not only showing us a landscape, but inviting us to pass through it.” - Daniel Bonilla

<http://www.contemporist.com/2010/04/10/porciuncula-de-la-milagrosa-chapel-by-daniel-bonilla-architects/>



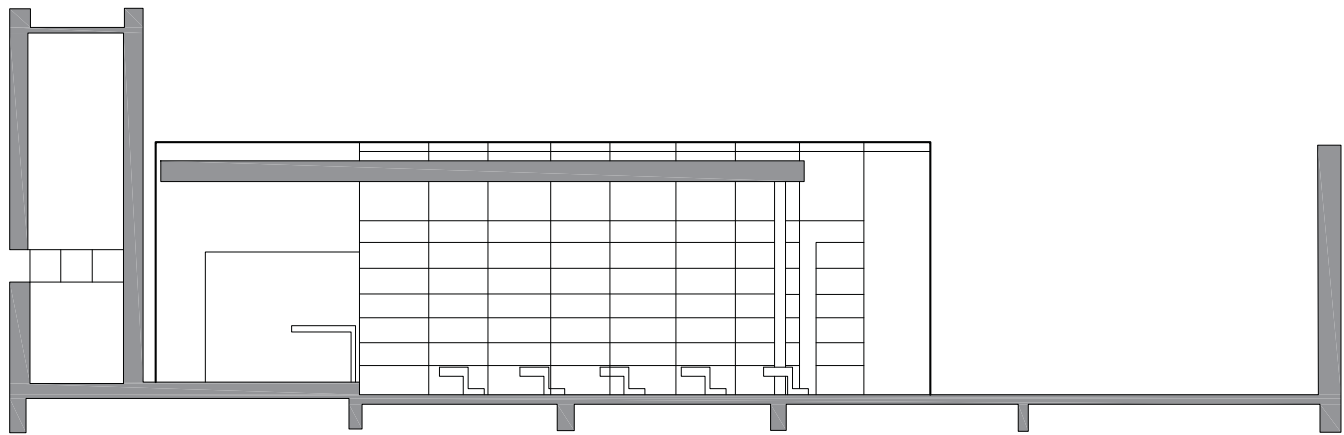


La Milagrosa Chapel

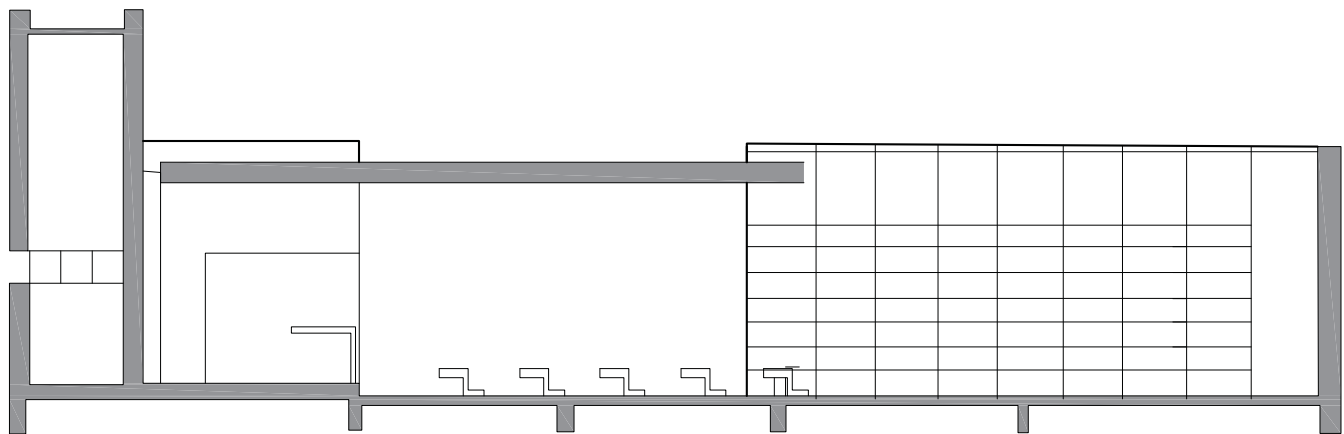
La Calera, Colombia
Daniel Bonilla Arquitectos

La Milagrosa Chapel is an example of a building system that transforms on a rail system. The building acts as a closed chapel, but when it needs to be opened the lightweight system of wood and glass are able to slide to create an open space. This allows for a larger group gathering space. There are three diagrams that show how the building works as well as what happens from the movement of the structure. The first diagram of **Heavy vs Light material** shows the construction of concrete vs glass/wood and how they work together. The following diagram is **moving walls** which show how the building slides to create and open and closed space. The following **area opened** shows the areas that is usable once the wall slides to the open position.

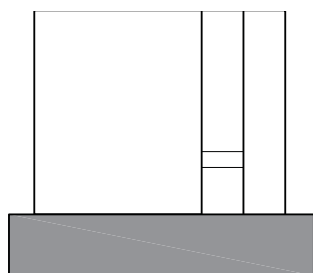
<http://www.contemporist.com/2010/04/10/porciuncula-de-la-milagrosa-chapel-by-daniel-bonilla-architects/>



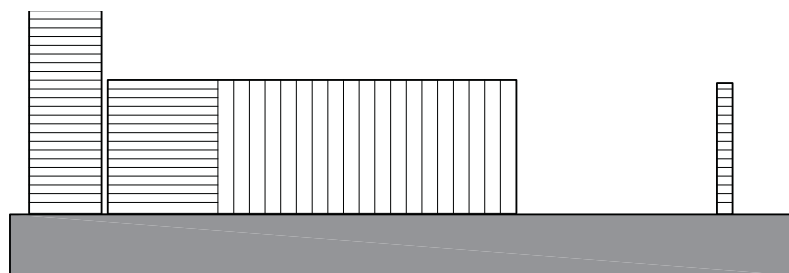
Section Closed



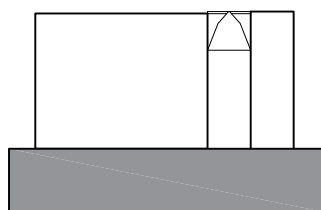
Section Open



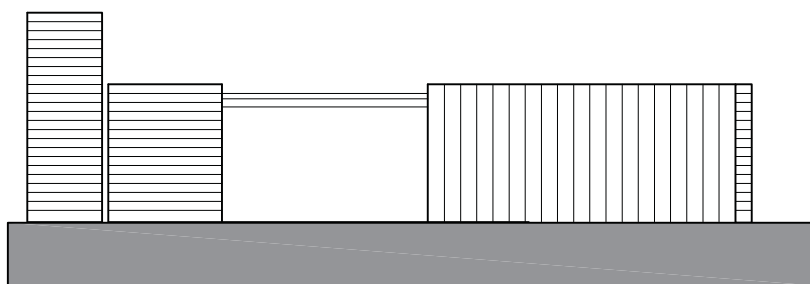
North Elevation



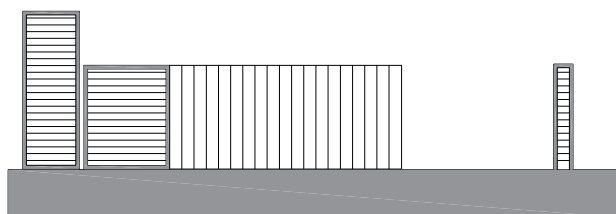
East Elevation Closed



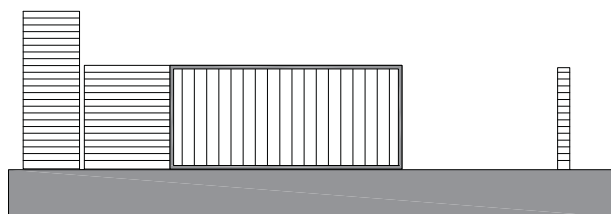
South Elevation



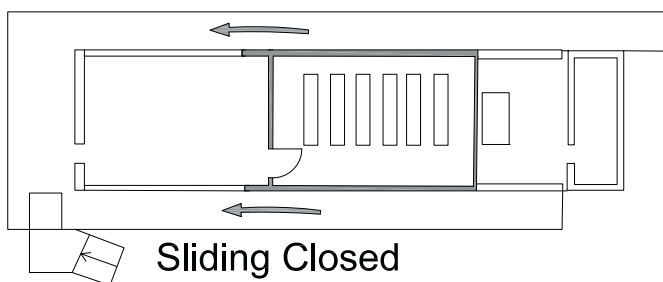
East Elevation Open



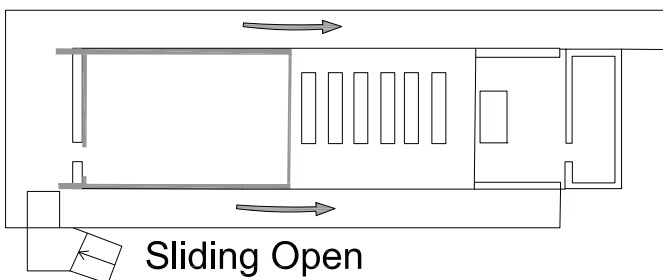
Heavy Material



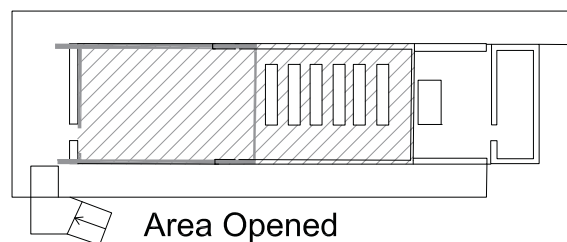
Light Material



Sliding Closed



Sliding Open



Area Opened

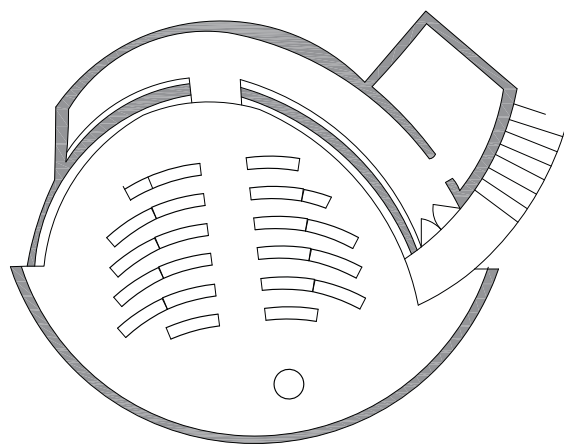
Leaf Chapel

Kobuchizawa, Japan
Klein Dytham Architecture

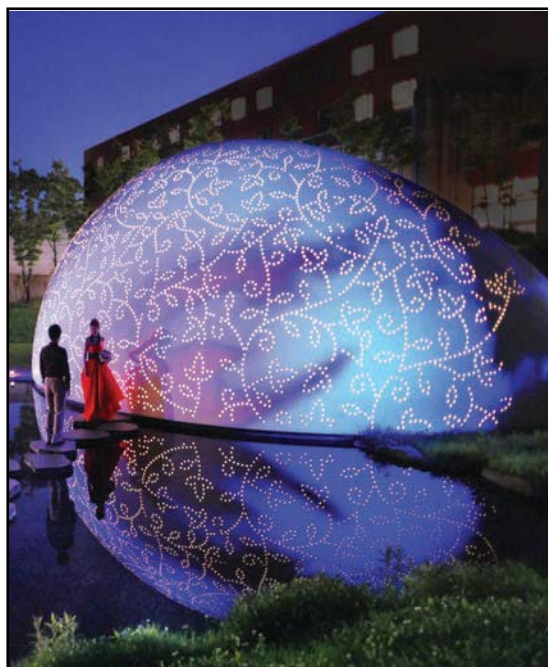
The Leaf Chapel sits in a courtyard of Risonare Hotel Resort, having views of Southern Japanese Alps, Yatsugatake peaks and Mt. Fuji. The Chapel has two components, one glass (Stationary) and one steel (Mobile). The glass portion acts as the structure, having the look of a stem of a leaf. The Steel leaf contains 4700 holes, filled with acrylic having a leaf/branch pattern as well as acting as the brides veil. When the Groom lifts the brides veil for the kiss, the metal leaf lifts up (Within 38sec, weighting 11 tons) revealing the pond and the natural world.

<http://architizer.com/projects/leaf-chapel/>





Floor Plan

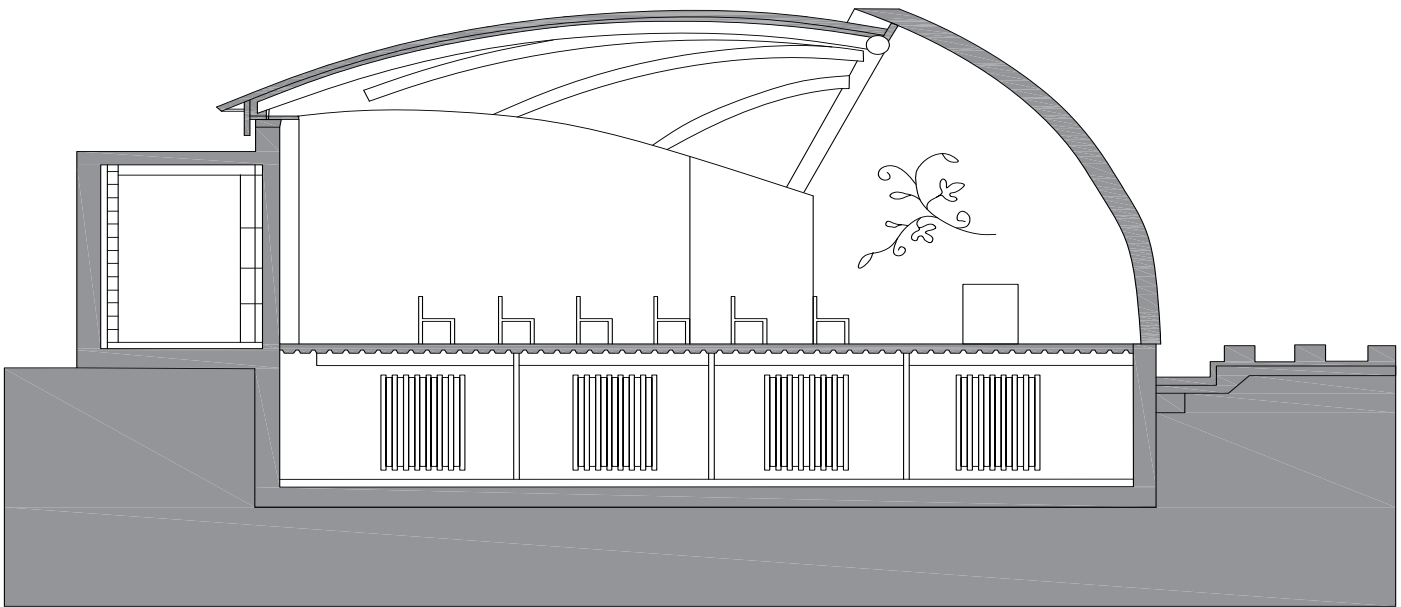


Leaf Chapel

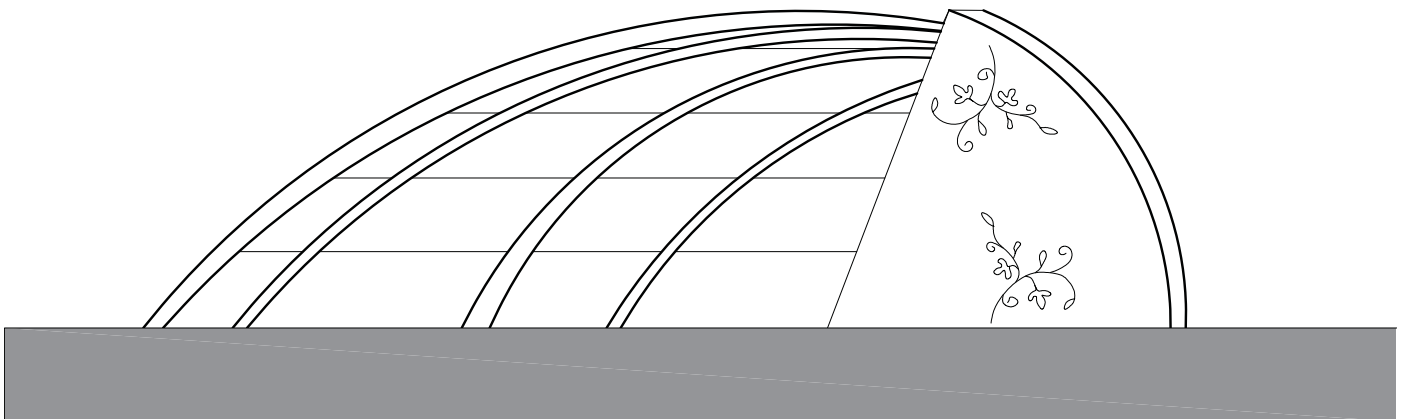
Kobuchizawa, Japan
Klein Dytham Architecture

The Leaf Chapel is another example of transforming joint, when this joint moves it has a hydraulic system rotate disks so that the metal portion of the chapel rotates to open. The building acts as a closed chapel, but when the wedding or mass is over the 'Veil' steel opens up into the courtyard/pond. There are three diagrams that show how the building works as well as what happens from the movement of the structure. The first diagram of **Heavy vs Light material** shows the construction of Steel vs Glass and how they work together. The following diagram is **Rotating Veil** which show how the building opens up to create an opening to allow movement. The following diagram is of **Entering and Exiting** the chapel which shows how people enter and interact with the space and leave upon the opening of the Veil.

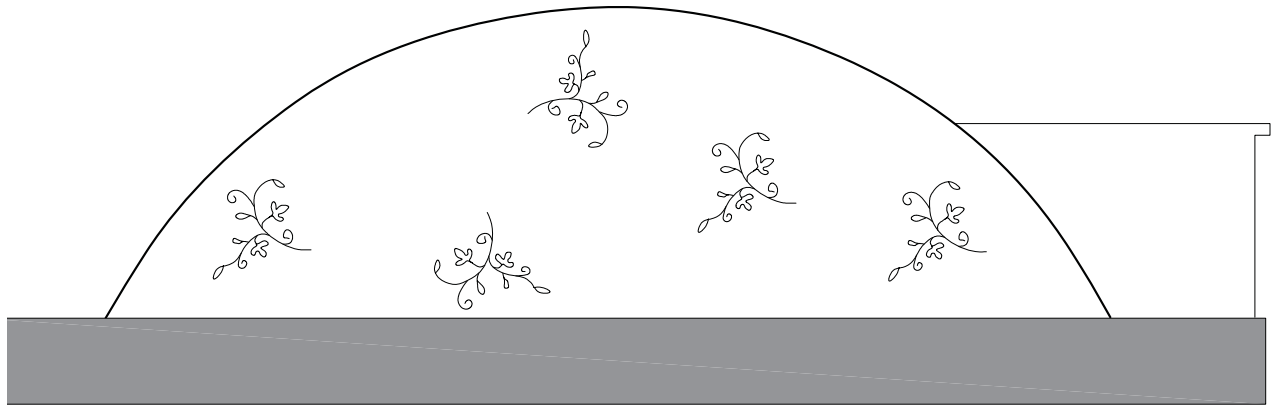
<http://architizer.com/projects/leaf-chapel/>



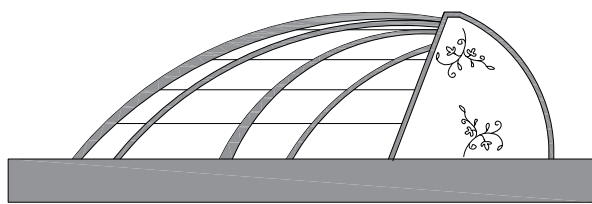
Section



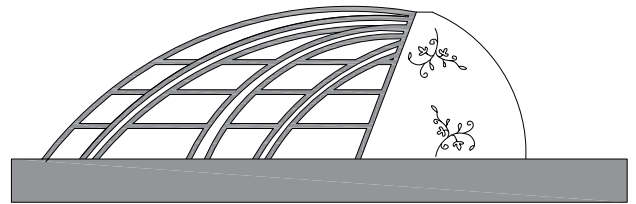
East Elevation



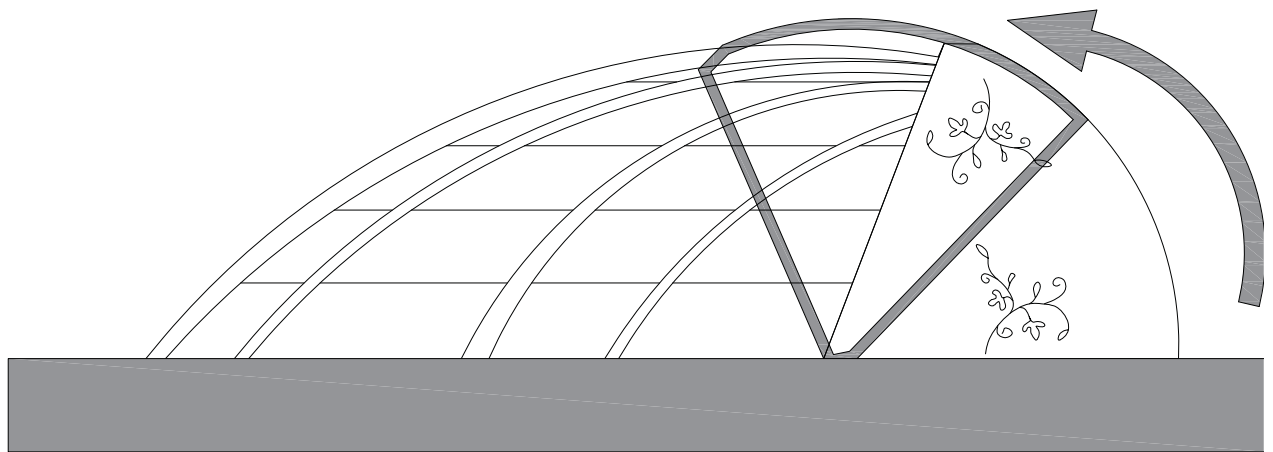
North Elevation



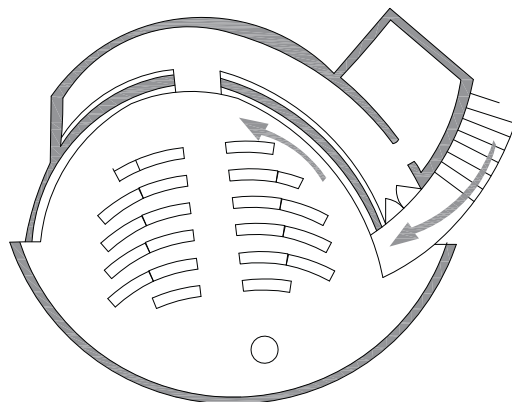
Heavy Material



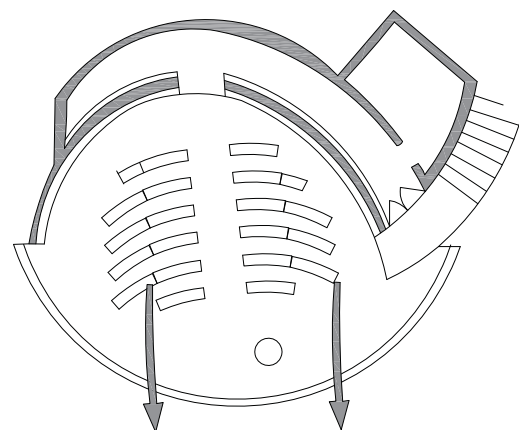
Light Material



Lifting the Veil - Rotate Open



Entering Chapel



Exiting Chapel

M-Velope & M-House

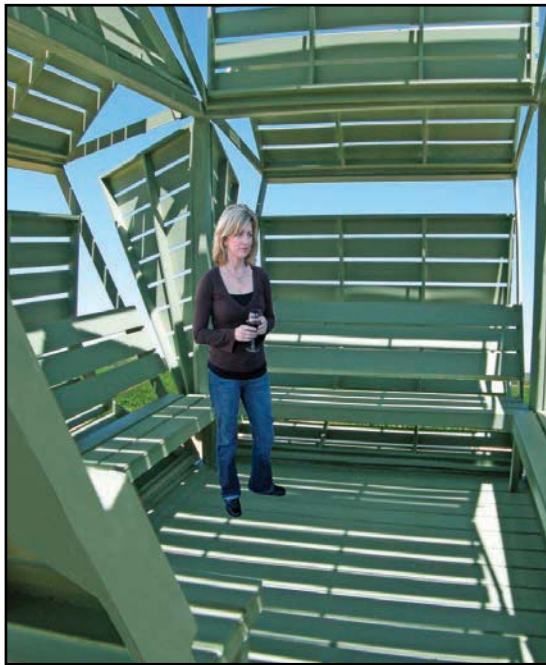
Mobile
Michael Jantzen

The M-Velope is a smaller scale of the M-House, where one is able to live, while the M-Velope is more of an outdoor structure where someone is able to sit. M-Projects are made of wooden panels fastened with hinges to the supporting structure, allowing for each panel to be opened or closed, into one of the two positions. All the panels are different allowing for a variety of options to open the structure. Not just being a home that allows for space to be manipulated, the panels locations along with how they are open allow for control of the climate on the interior and surrounding structure. Both projects were designed to allow variations of configuration along with allowing for relocations whenever it is suited.

<http://www.gizmag.com/m-velope-shelter/23776/>

<http://inhabitat.com/transformable-mvelope-by-michael-jantzen/>





M-Velope

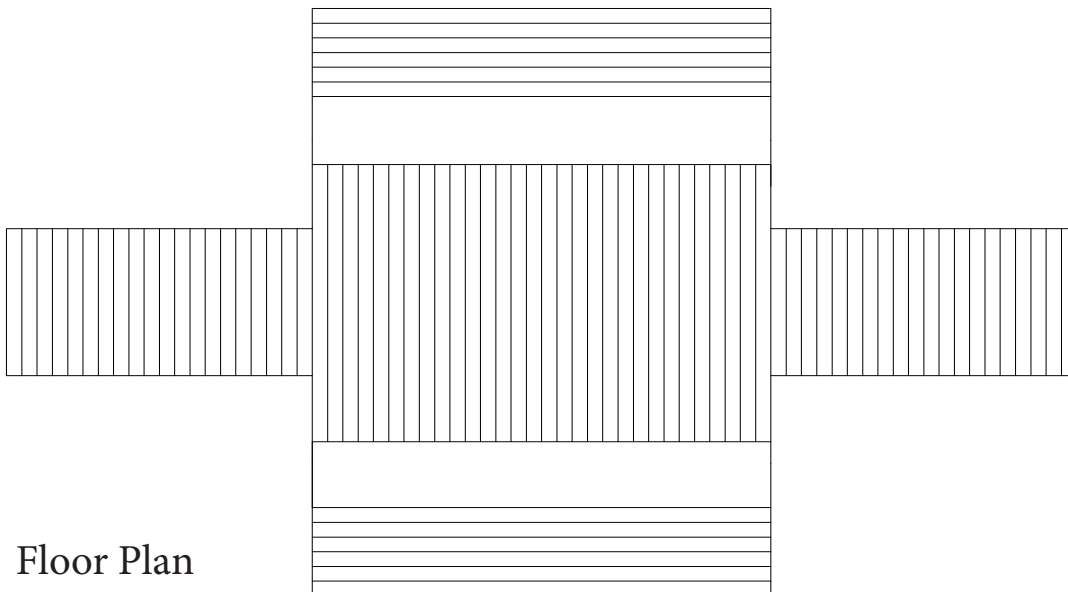
Mobile

Michael Jantzen

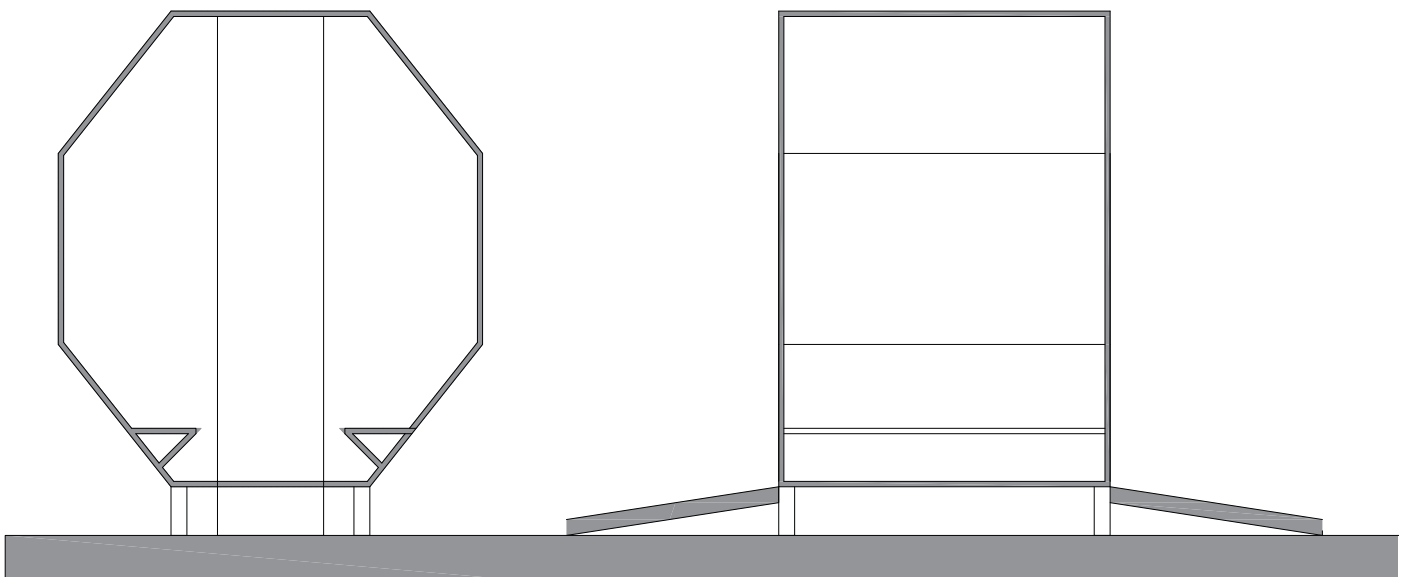
M-Velope structure is a structure made entirely of wood and works off of a hinge system. The building can act as a home or a gazebo. There are two diagrams that show how the building works as well as what happens from the movement of the structure. The first diagram of **Ventilation** shows how the ventilation in the structure works. When the building is closed the wood panels do not allow much wind to pass through, once opened the wood panel open to allow air circulation. The following diagram is of **Closed and Open Structure** showing how the building sits as an enclosed space and how someone is able to open to create more space on the inside.

<http://www.gizmag.com/m-velope-shelter/23776/>

<http://inhabitat.com/transformable-mvelope-by-michael-jantzen/>

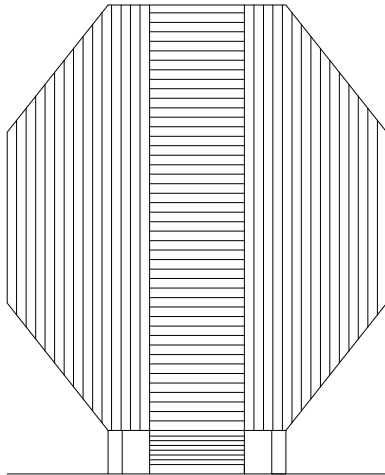


Floor Plan

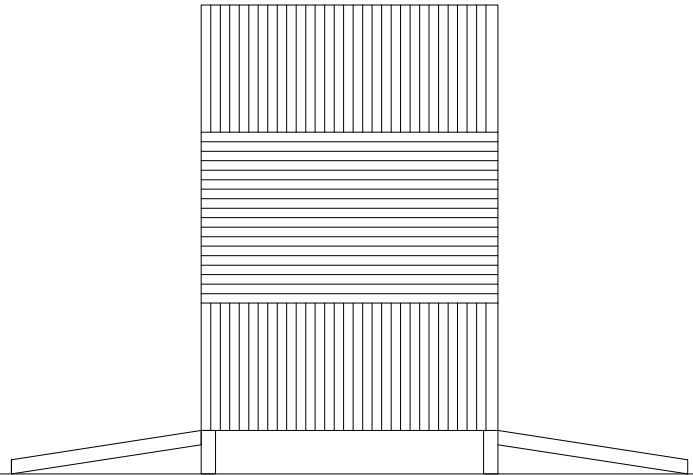


Longitudinal Section

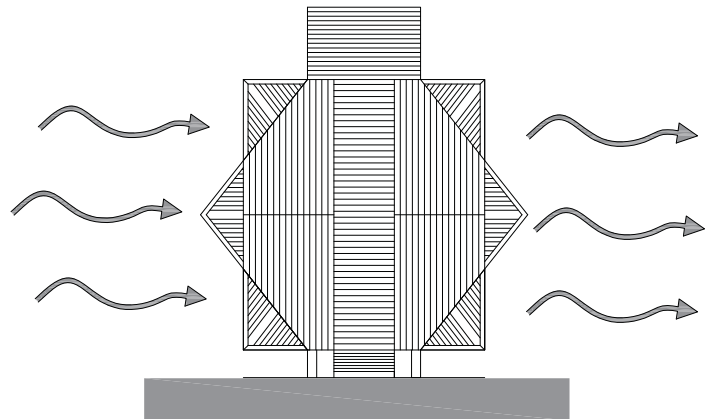
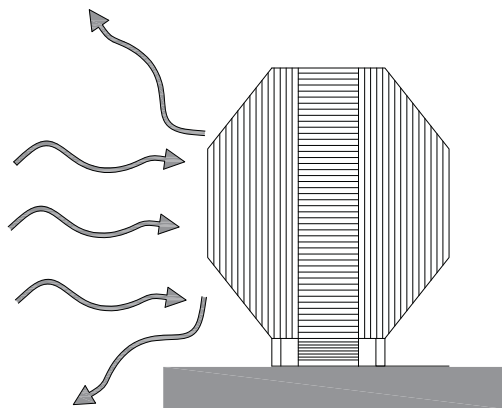
Transverse Section



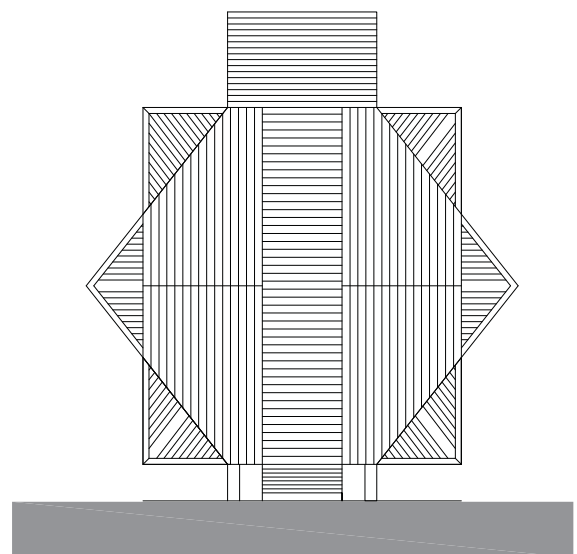
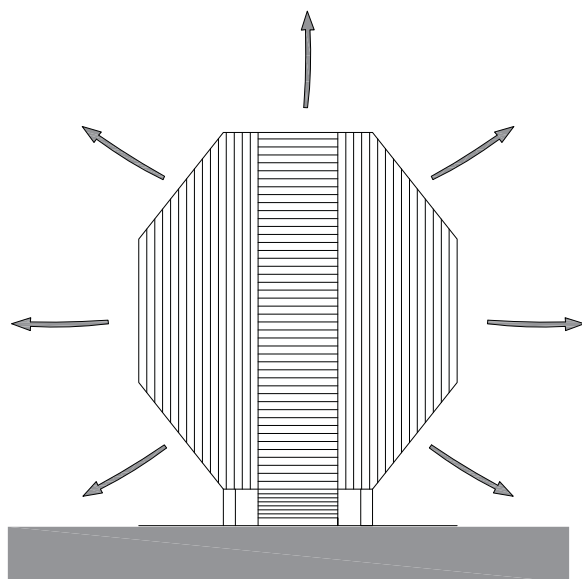
Entry Elevation



Side Elevation



Ventilation - Closed vs Open Structure



M-Velpe Closed vs Open

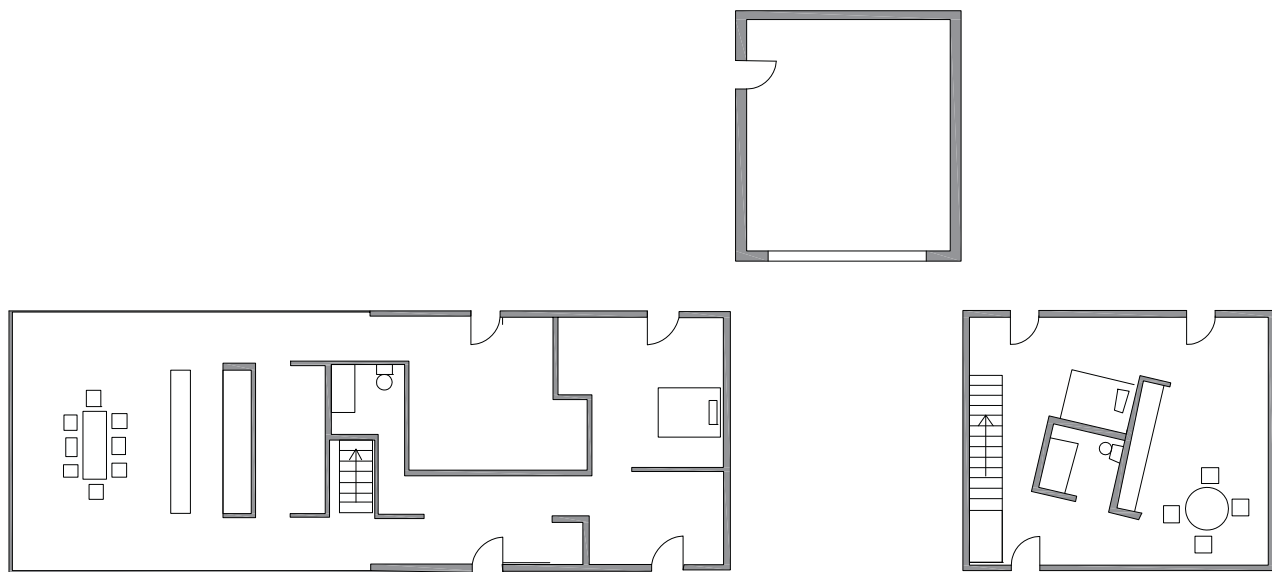
Sliding House

Suffolk, United Kingdom
dRMM

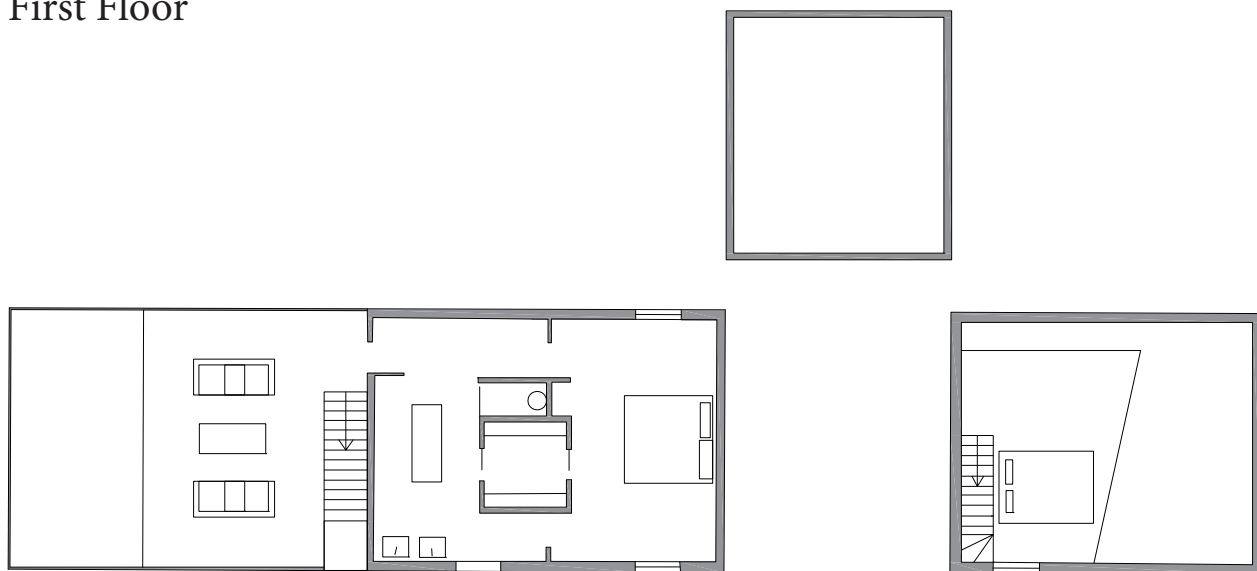
This structure was designed in order for the client to shift the move-able outer wall and roof to open and close off areas of the home, guest annexe and greenhouse. The barn-style shape was due to the client wanting a home that he can grow his own greenery and to entertain guests. The outer skin weights 50 tons, and is moved along rails that are set into the ground. Movement is powered by electric motors on Bogeys that are built into the thick walls, each motor has four separate batteries that are powered PV Solar Panels. This allows the structure to create outdoor spaces from interior and vice versa.

<http://www.dezeen.com/2009/01/19/sliding-house-by-drmm-2/>





First Floor



Second Floor

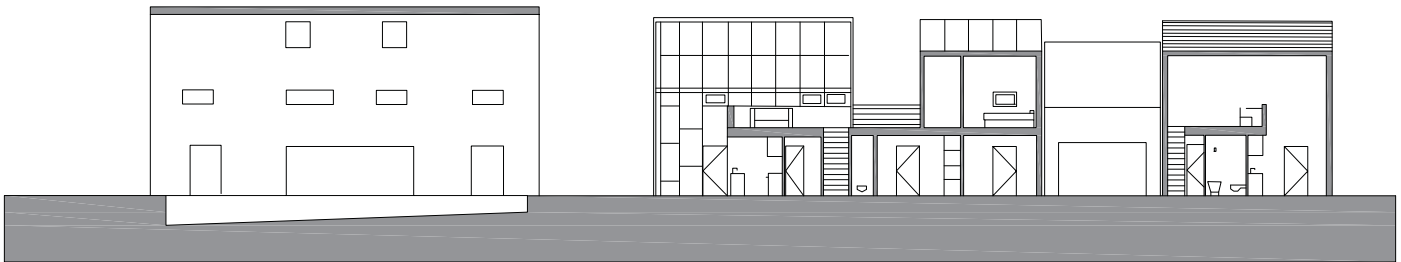


Sliding House

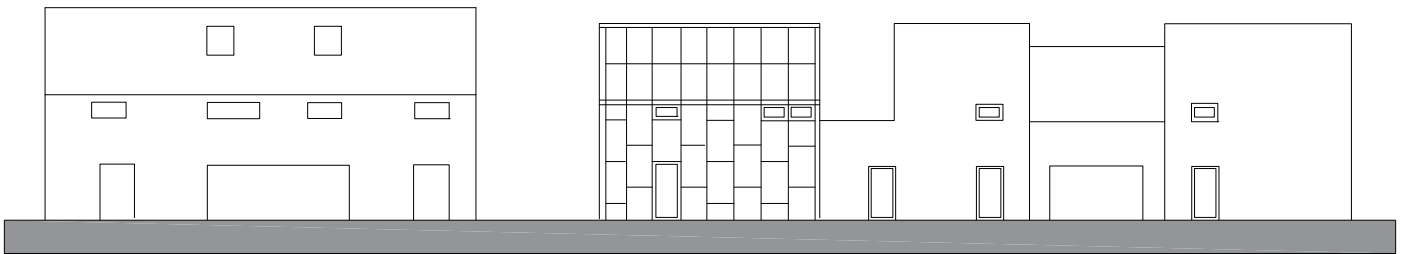
Suffolk, United Kingdom
dRMM

The Sliding House doesn't transform into a larger space, instead it creates spaces by having a rail system carry a facade over the existing building. There are two diagrams that show how the building works as well as a detail of the rail system showing the movement of the structure. The first diagram of **Heavy vs Light material** shows the construction of Wood vs Glass and how they work together. The following diagram is **Sliding Facade** which show how the building slides to cover certain areas to control light and solar gain. The detail of **Rail System Detail** shows what parts make up the rail. A interesting component of this detail is that Nylon brush that acts a wind proofing, spaced 6'-0" O.C. top to bottom.

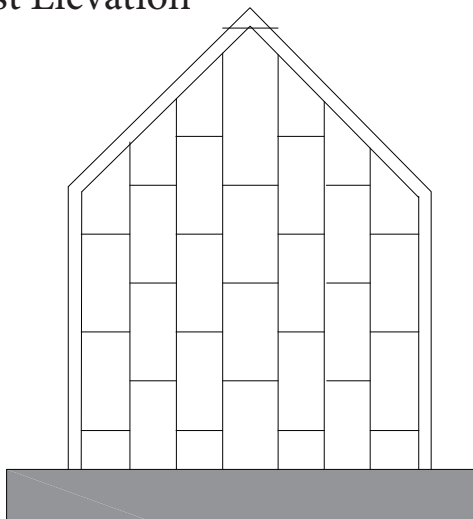
<http://www.dezeen.com/2009/01/19/sliding-house-by-drmm-2/>



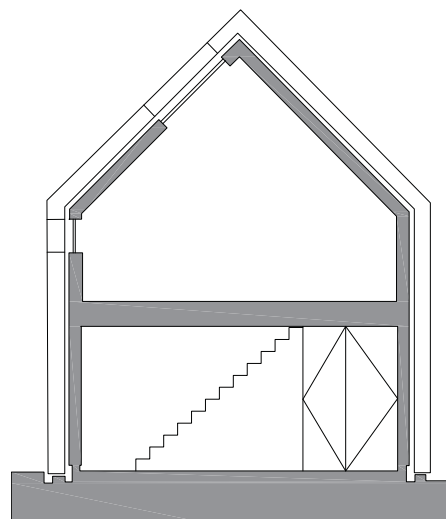
Longitudinal Section



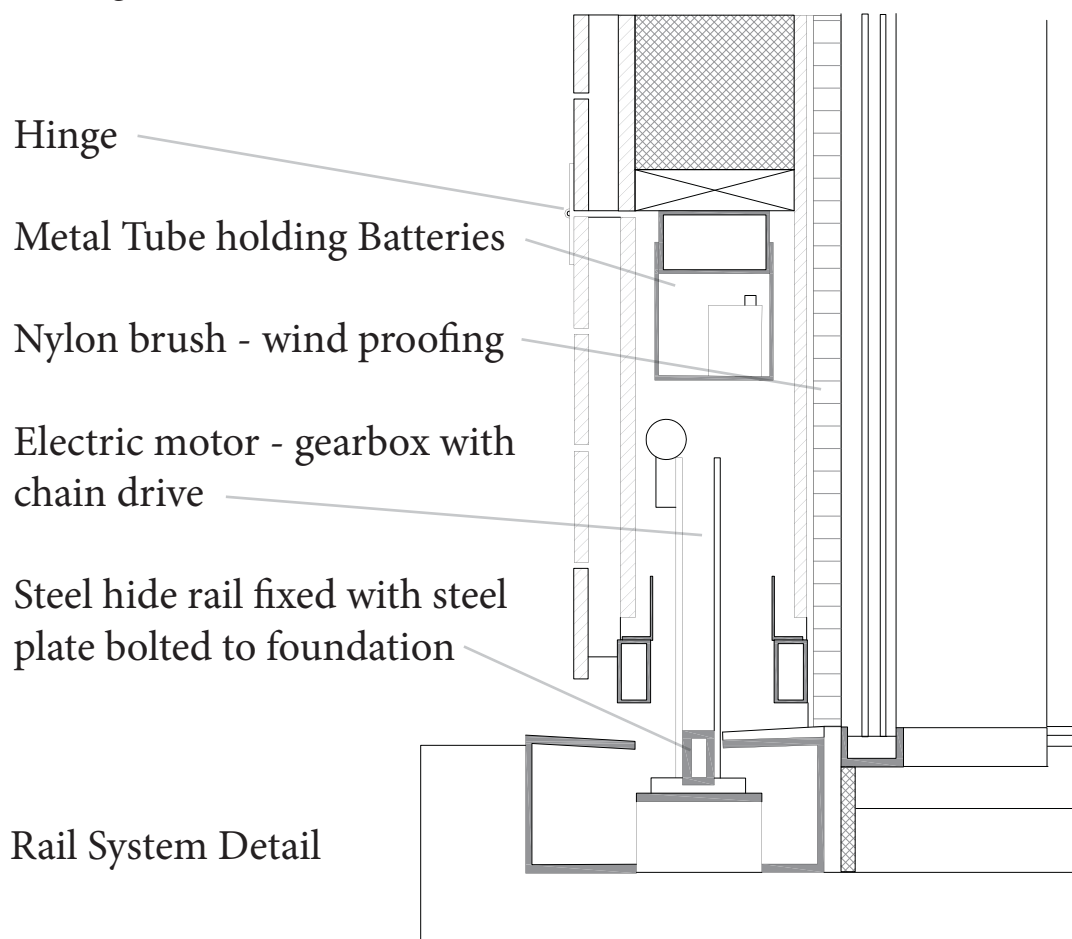
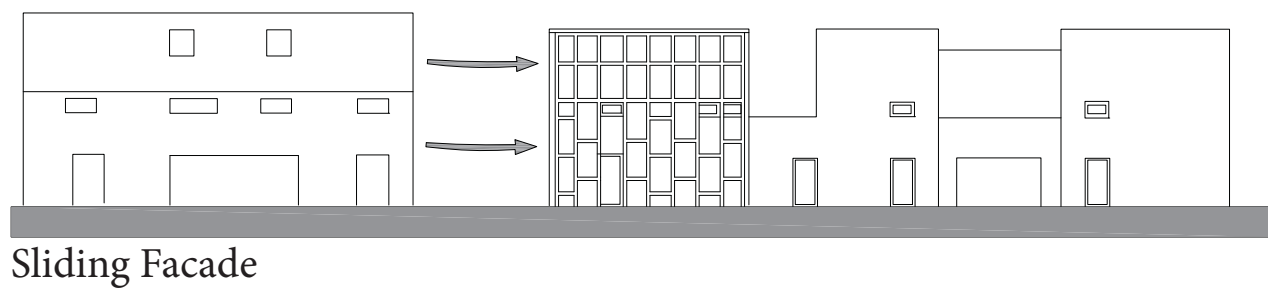
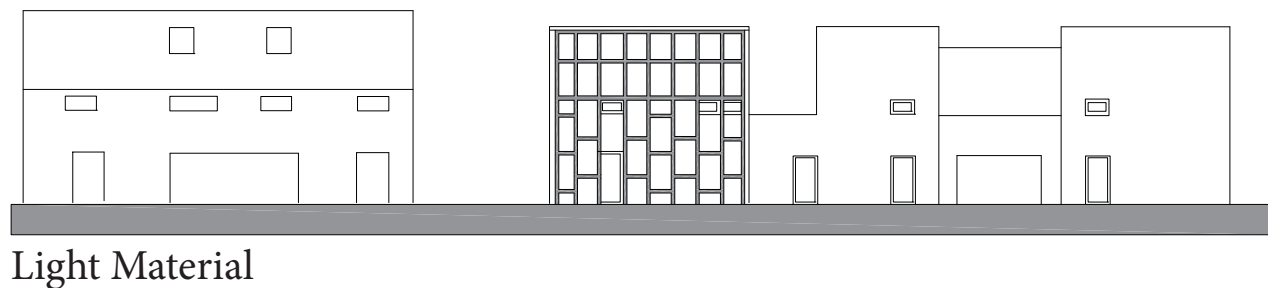
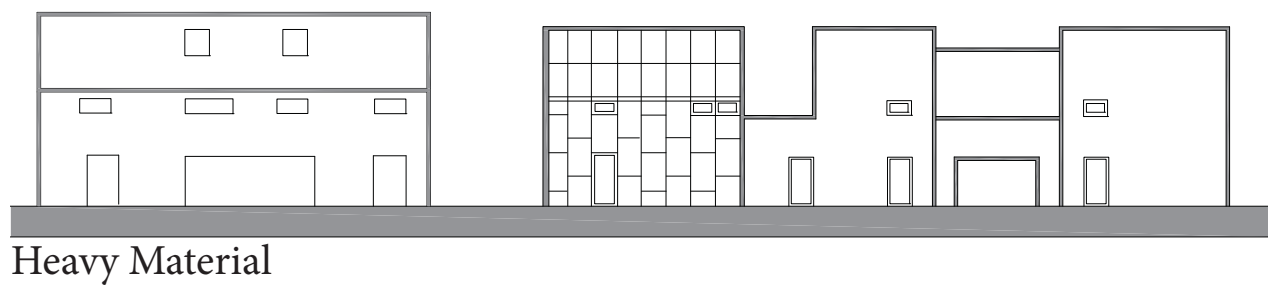
East/ West Elevation



North/ South Elevation



Transverse Section

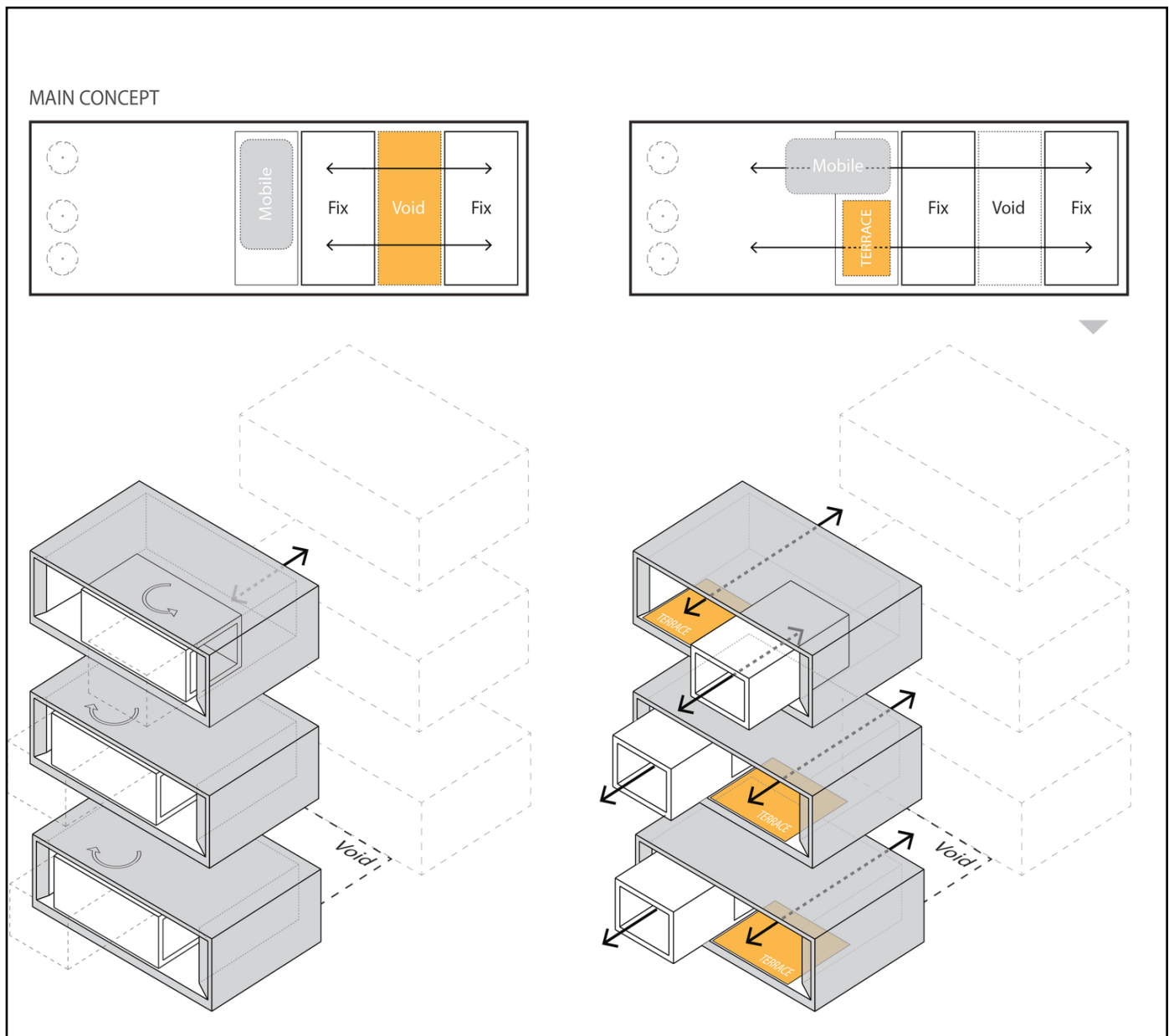


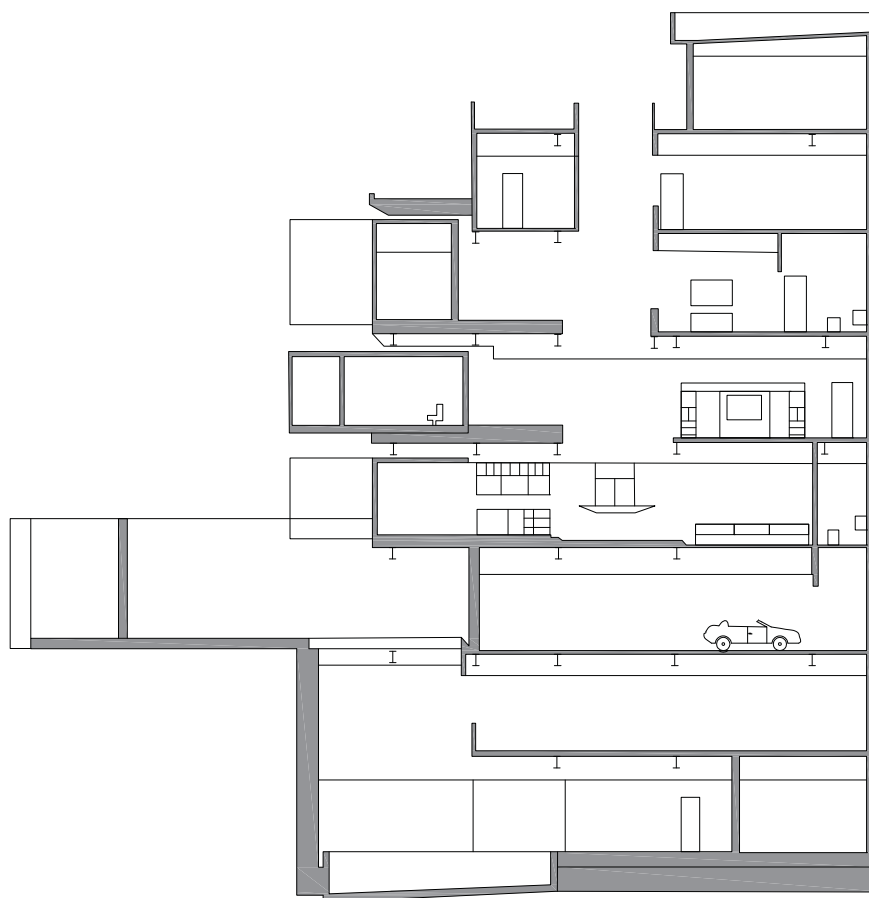
Sharifi-Ha House

Darrous, Tehran, Iran
Alireza Taghaboni

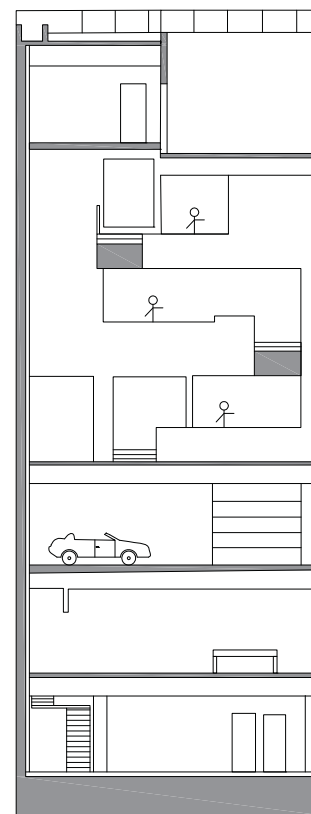
The site location and context left this project having narrow facade width compared to its depth. Alireza stated that “The sensational, spatial qualities of the interiors, as well as the formal configuration of its exterior, directly respond to the displacement of turning boxes that lead the building’s volume to become open or closed, introverted or extroverted.” The architect intended on having the turning boxes used seasonally and to the clients needs, mainly open in warm seasons and closed during the colder ones or nights. The structure is seven stories high, having every other floor with the turning box which allows for a larger configuration space, along these lines the interior portions can be transformed as well due to the boxes.

<http://www.archdaily.com/522344/sharifi-ha-house-nextoffice/>

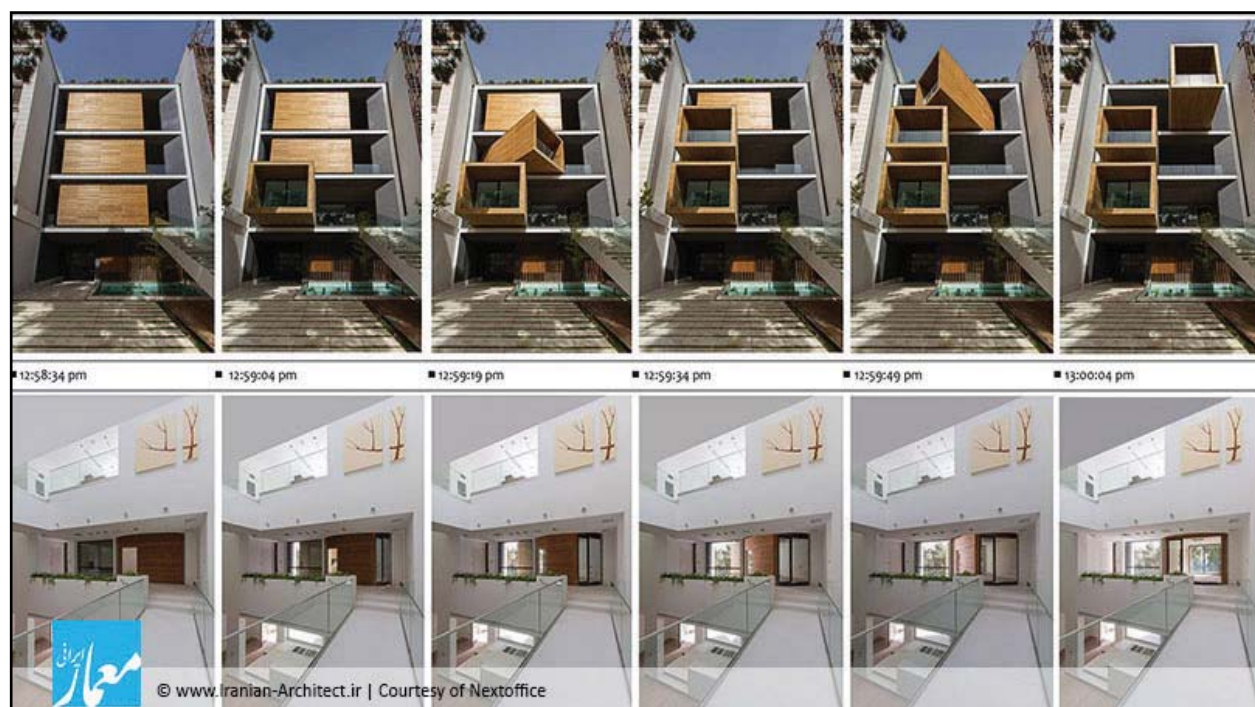




Longitudinal Section



Transverse Section

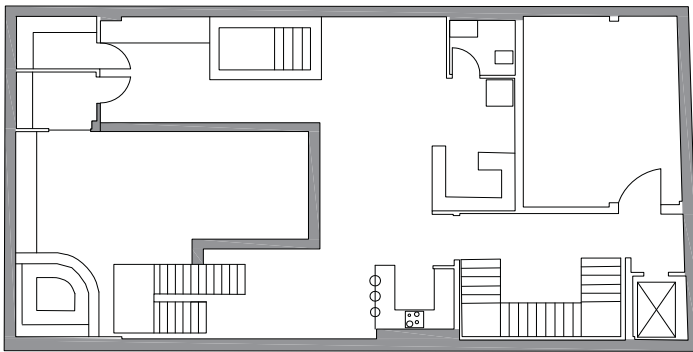


Sharifi-Ha House

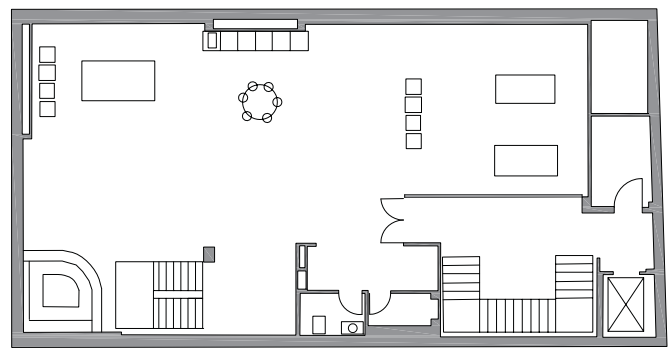
Darrous, Tehran, Iran
Alireza Taghaboni

The Sharifi-Ha House is a home in downtown Tehran located between two buildings has limited space. There are three rooms that rotate out into the site of the building to expand room inside, also it allows the control of light and heat by opening and closing. There are three diagrams that show how the building works as well as what happens from the movement of the structure. The first diagram of **Heavy vs Light material** shows the construction of Concrete vs Glass/Wood and how they work together. The following diagram is **Rotating Rooms with Area** which shows the portion of the house that actually rotate out. Each room acts in different ways, all depending on how the client wants the room to act. When the room rotates out, the space on the inside opens up to create more room.

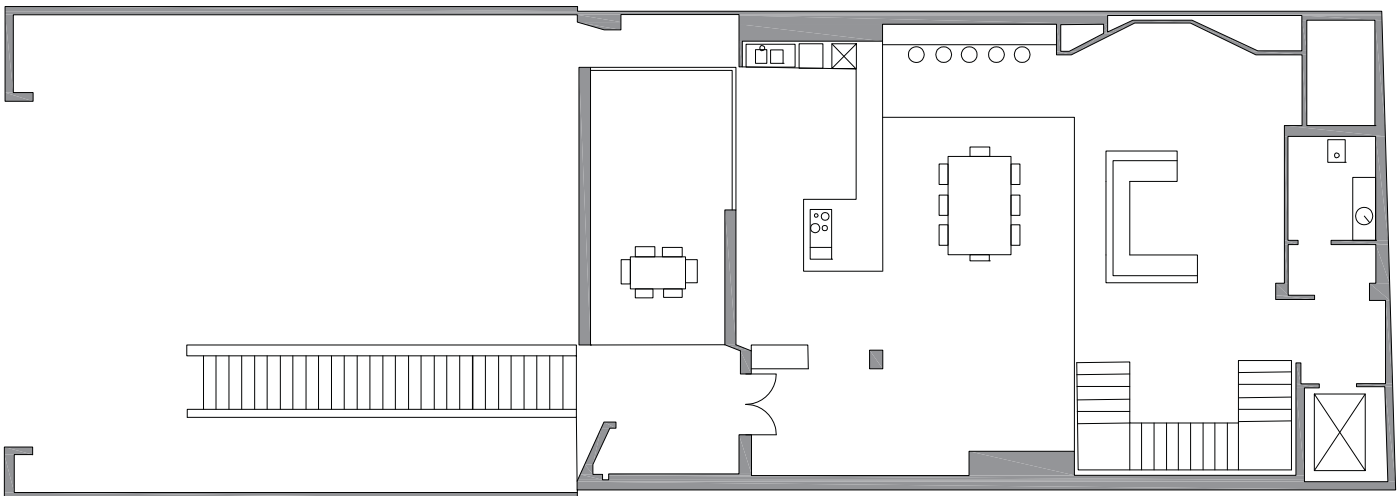
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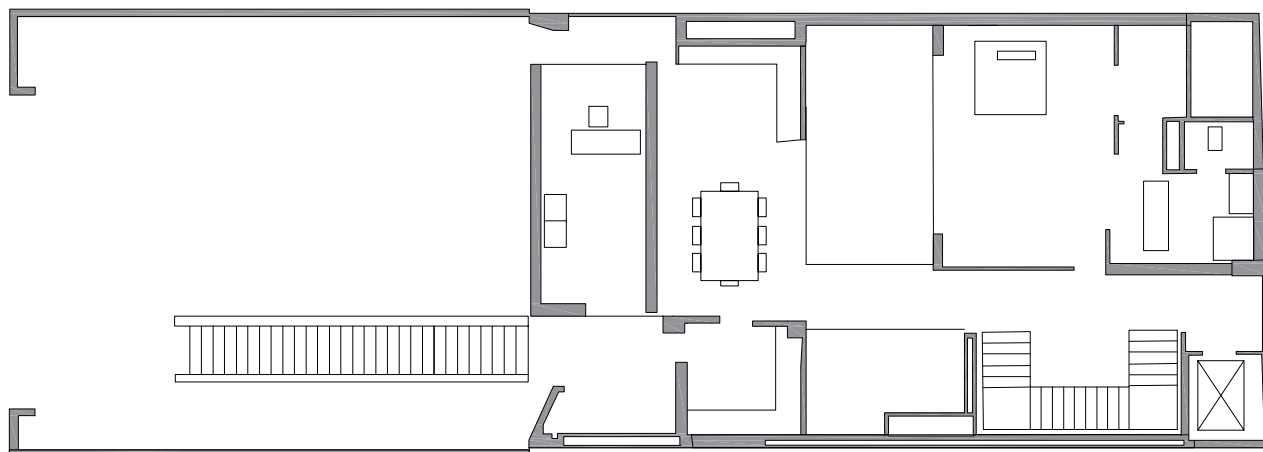
Basement 1



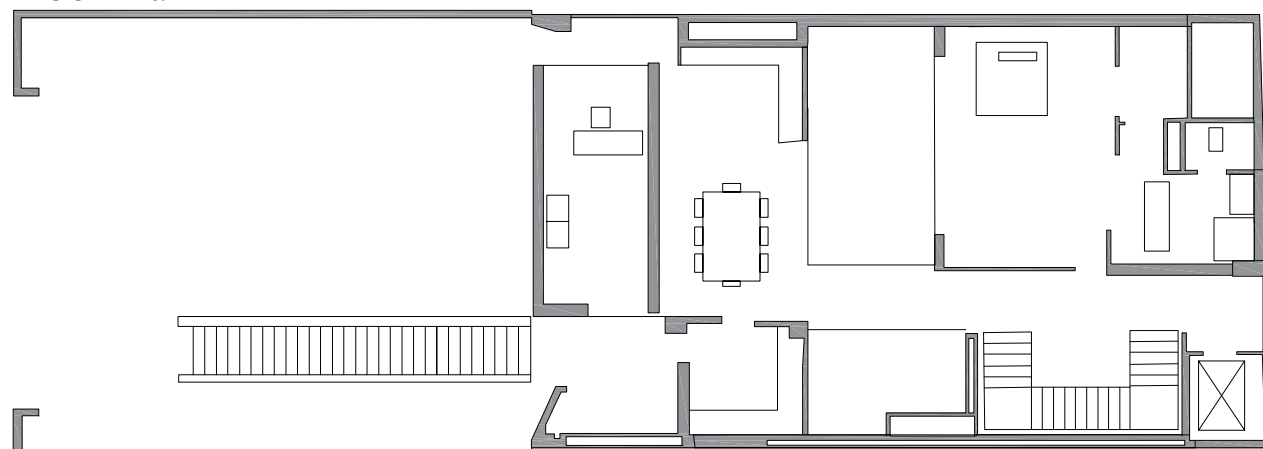
Basement 2



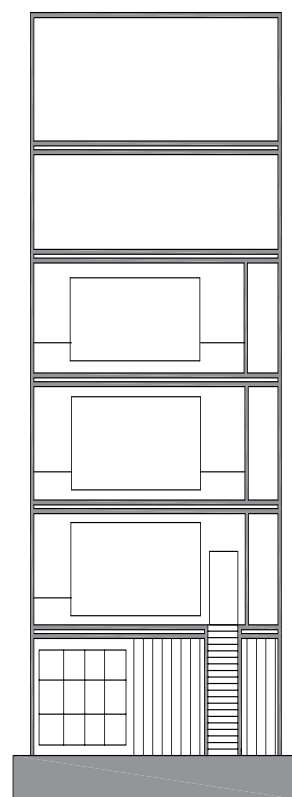
Floor Plan 1



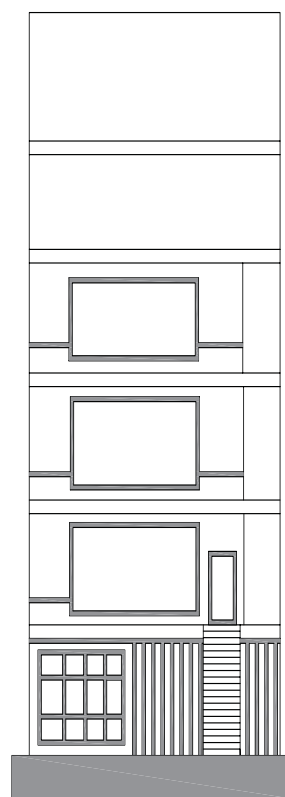
Floor Plan 2



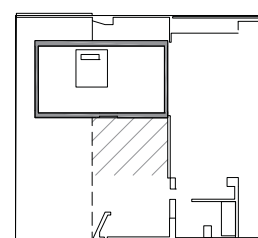
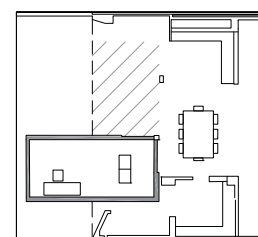
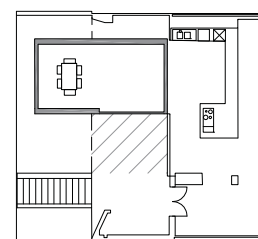
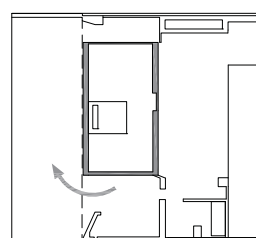
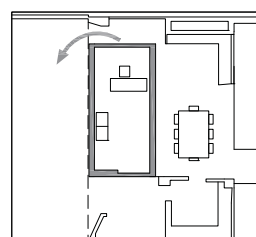
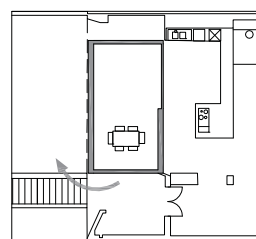
Floor Plan 3



Heavy Material



Light Material



Rotating Rooms with Area

Transformative Architecture

Intent

This museum is to focus on Transformative Architecture, for the purpose of showing different structure that are able to adapt to their surroundings, the spaces within the building or adapt to the climate. This museum shows a collection of 6 buildings that have a type of 'Joint' that allows the structure to rotate, slide or swing. Not only will the museum itself be showing the collection, the entry building will also act as Transformative Architecture, in the way of the building open, closing, sliding and rotating on the interior and exterior, to play on the environment and to create new spaces. The concept of Transformative is to show that buildings are able to transform to create spaces, it is to show a new ideology with the ever growing population and shortage of space. This type of architecture will allow to save space, extend spaces to allow for more efficient space use.

Public Spaces

The public portion of the entry building to the museum will house a two small gallery spaces for displaying art exhibits or help explain the outdoor exhibits. Along with the gallery there will be a multipurpose space that can be split into multiple rooms that can range from exhibits, gathering and event spaces. There will be gallery storage and a preparation space adjacent to the gallery spaces in order for the curators to have an efficient work space. Along with the space there will be a small gift shop and cafeteria, that will act as another income for the museum. The cafeteria will be an indoor and outdoor space that will act upon the building transforming to create different spaces. The focus of this area will also have move-able sections of the interior and exterior to reference the type of art that will be displayed on the outside.

Administrative Spaces

The administrative portion of the building will house the offices for the administrative staff. This building will be smaller in size, containing only a small number of employees. There will be a conference room in order to allow meetings with clients, and staff, should be able to contain twenty plus people. There will be a break room for all of the employees throughout the museum.

Grounds Spaces

The grounds building will be also separate from the other two buildings in order to create spaces between the buildings that could be manipulated. The main portion of the structure will be a garage that will house tractor and other large vehicles to maintain the grounds. Adjacent spaces will include workshops to maintain the art on the outside, storage spaces, mechanical for all buildings, and a storm shelter in case of emergencies. Along with the building, parking will fit into this area, containing roughly 60 parking spaces, bus drop-off and pick-up. A plaza in between all 3 structures will be placed in order to create outdoor spaces, so that people can experience the museum outdoors mainly, thus being the purpose of an open air museum.

Public Spaces

Space	Quantity	S.F.
Gallery 2 small exhibits spaces for small art and paintings based on the concept of Transforming. New ideas, as well as old ideas of transforming to be displayed.	2	600
Multipurpose Multipurpose room with 2 adjustable walls in order to create new spaces: event gallery and gathering spaces. This is showing how walls can act as a transforming piece to create new spaces.	1	2000
Gallery Storage 2 storage rooms for transformative art (Sculptures and art pieces).	2	500
Gallery Preparation Space Preparation area for exhibit and events spaces.	1	500
Workshop Shop to allow maintenance to art pieces, and items in gallery that are damaged or additions.	1	500
Lookout Towers Towers that over look the site from the entry building to help locate outdoor art and pathways. Able for walls, and floor to be manipulated to create larger space.	1	150
Vestibule ADA accessible entry to act as airlock between building and outside.	1	80
Lobby Reception/info desk to greet visitors and direct indoor traffic.	2	200
Toilets¹ 3 fixtures & 3 lavatories, 2 drinking fountains, ADA accessible.	2	300
Security Office to oversee building and site security.	1	200
Safety Center First Aid center, nurse on site.	1	200
Gift Shop Store for museum memorabilia, and local merchandise.	1	500
Lockers Coat check & lockers for visitor's belongings.	1	200
Food Service Small cafe with indoor and outdoor seating, ADA accessible, will have transforming aspect for indoor and outdoor use.	1	2000
Janitorial Shelving for maintenance and cleaning supplies.	2	100
Storage General storage for cafe, and other small items.	2	250
Total for Public Spaces	22	10,150

Overall Public Total Square Footage

+ 30%

13,195

Administrative Spaces

Space	Quantity	S.F.
Curator Office Office for museum curator, larger room to allow workspace.	1	250
Administrative Assistants Office Assistants for all offices, in administration.	2	100
Head of Maintenance Maintenance for site and buildings office.	1	250
Business Executive Office for marketing & financial officer.	2	150
Conference Room Meeting room for employees, sit 20-30.	1	300
Vestibule ADA accessible entry door.	1	80
Secretary Receptionist Receptionist front desk, to direct foot traffic.	1	100
Toilets ¹ 1 fixtures & 1 lavatories, with drinking fountain.	2	60
Break Room Employee lounge, sits all employees. Kitchenette, tables, chairs, couches, copier, etc.	1	350
Storage General office storage, papers and office supplies.	1	50
<hr/>		
Total for Administrative Spaces	13	2000
Overall Admin Total Square Footage	+ 30%	2600

Grounds

Space	Quantity	S.F.
Equipment Storage Garage for tractors and large equipment for lawn care, building repair.	1	3000
Tool Storage Space for tools and materials.	1	500
Shop Work benches & cabinets, repairs for outdoor art.	1	1000
Mechanical Space Mechanical equipment for all buildings.	2	2000
Loading Dock 1 bay dock with storage and office.	1	2000
Recycling & Trash Dumpsters & recycling bins detached from building.	1	500
Storm Shelter Underground shelter against extreme climate.	1	1000
Toilets ¹ 1 fixtures & 1 lavatories, with drinking fountain.	1	60
Storage General storage for materials.	2	200
Parking ² Parking for Bus and Personal vehicles.	1	18,000
Plaza Outdoor courtyard, transformative portion that connects all buildings.	1	----
<hr/>		
Total for Grounds Spaces	13	2000

Overall Grounds Total Square Footage + 30% 30,260

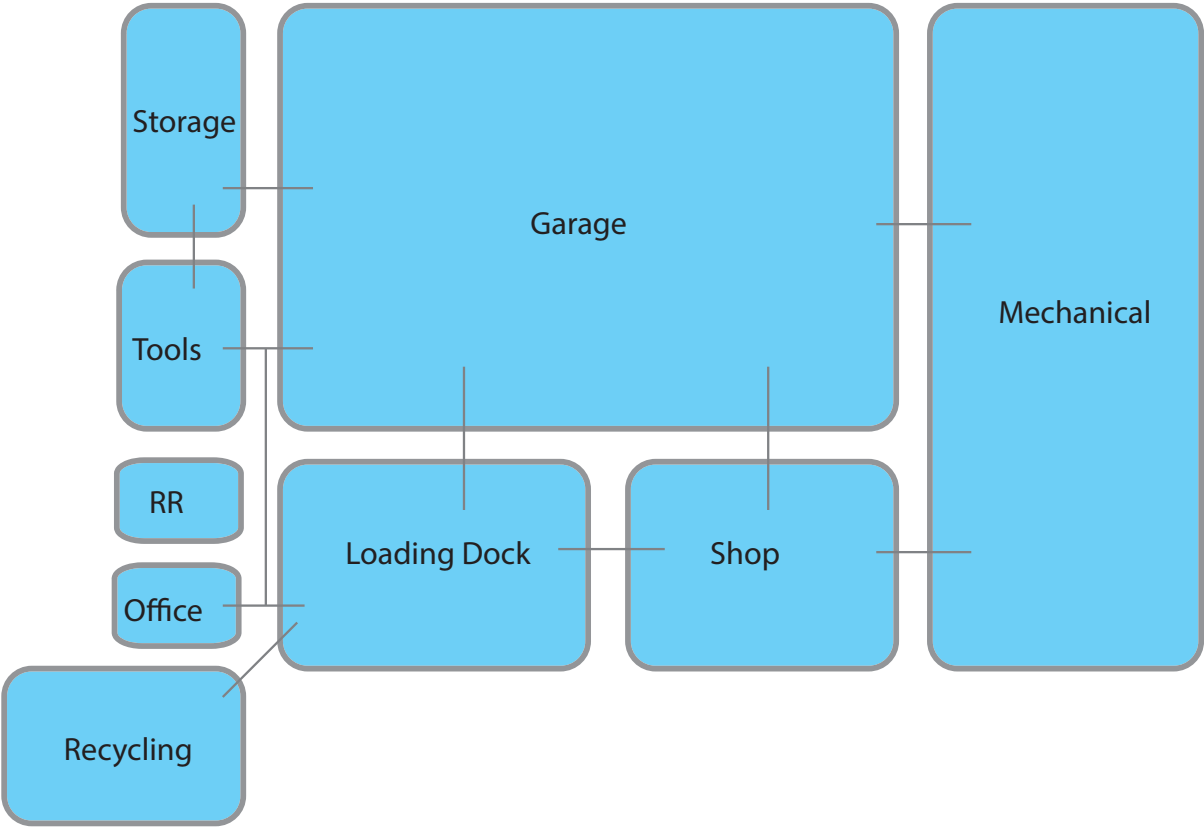
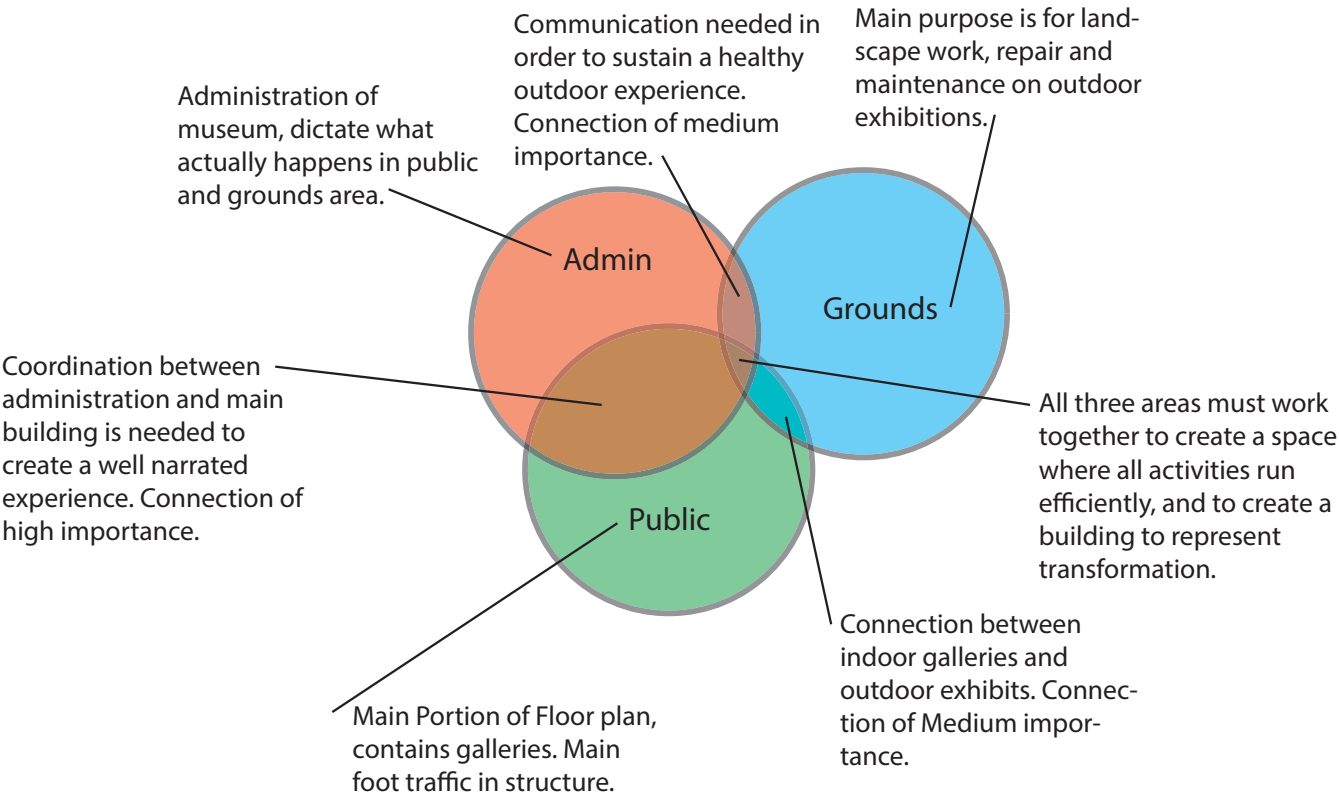
Overall Total Square Footage 46,055

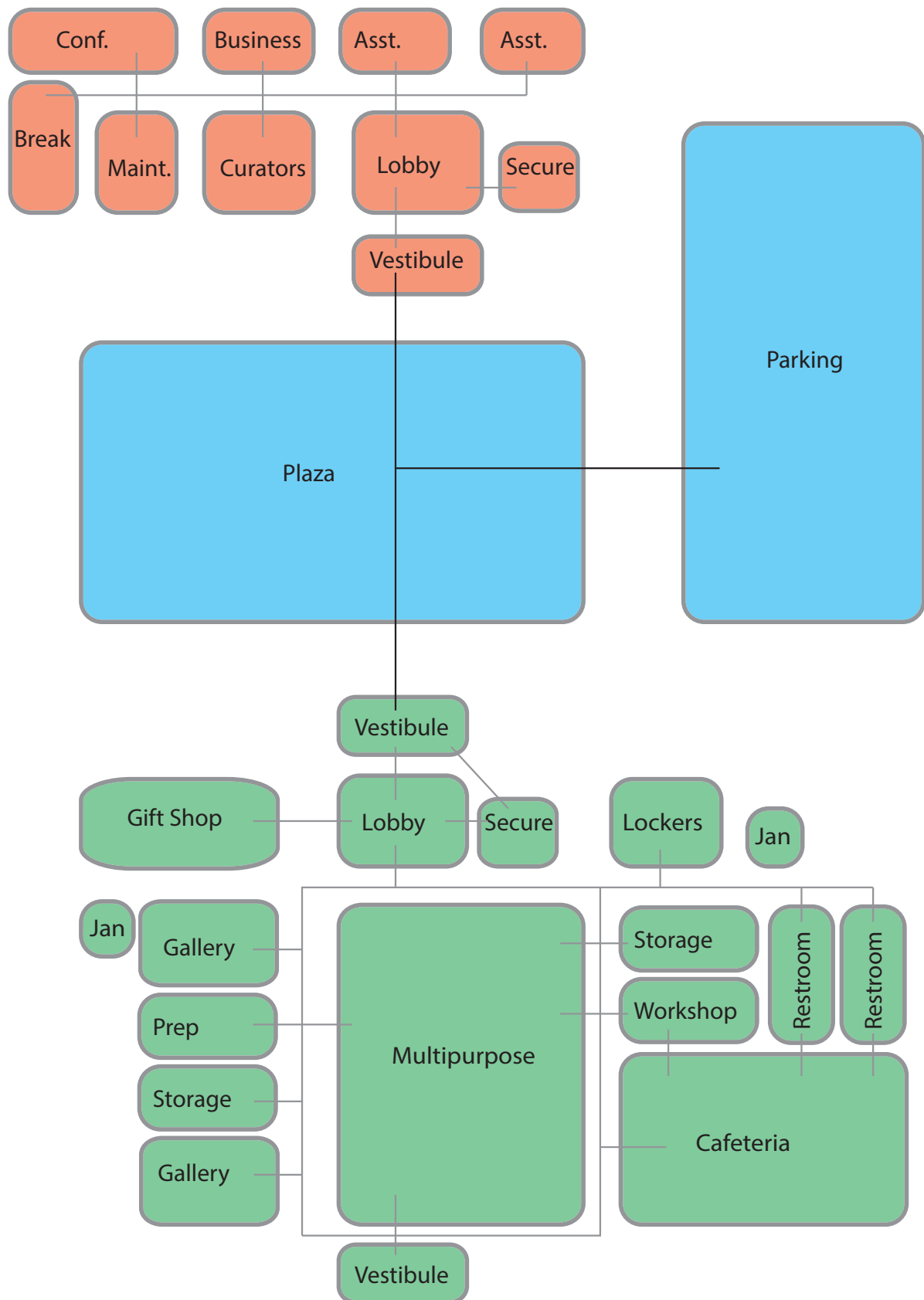
¹Based on the IBC Plumbing Code Section 403.1 based on an occupancy of 300 people. Fixture count table is found under the previously stated section and on http://publicecodes.cyberregs.com/icod/ipc/2012/icod_ipc_2012_4_par008.htm

²Based on Jackson County Code for parking lot space requirements of 1 space for every 5 occupants. Eighty spaces allows for 300 visitors plus 20 employees.

³All spaces must be ADA compliant.

Diagrams





WRITTEN SUMMARY

In the two articles that I have read with Frampton's *Rappel à l'Ordre* and Witold Rybczynski excerpt of *Looking Around: A Journey Through Architecture*, 'God Isn't in the Details, After All', I found that they both speak of a 'Joint'. In Witold's article he spoke of Mies van Der Rohe stating God is in the details², referring to the minimalistic details or joints. I found this to be the biggest aspect in my research of buildings. Through my collection of ideas I gathered information that was based on an idea of a small piece that is unseen that acts upon a larger scene, which can be seen as the joint of a structure. Eventually through my research I found materials, view points to be used as joints but the one that interested me the most was that of joints that control spaces. In this concept I refer to space that is able to transform to create new spaces, in size, shape, temperature and light control. In both Frampton's and Witold's articles they state that the joint is more than that a 'Joint', but instead they are a living component of the larger system. This is what my research went off of, focusing on a joint that makes a building come alive, makes the building change to act differently whenever it is needed, and to function in the best possible way by moving spaces around. Once I have selected the topic of Transformative Architecture I broke it down further to see buildings that open up to create views, open up space to create a different area, and transformations that controlled light and movement. My first part of the research was that of buildings that created new views from the inside to the outside world. This brought me to find two buildings the Safe house in Poland and the Sharifi-Ha house in Iran, the following buildings that created new spaces were the La Milagrosa Chapel and M-Velope structure. The final two buildings Sliding House and Leaf Chapel, which played with light and controlled movement through the building. From looking at these buildings I noticed all of the buildings focused around the Joint or the space that

moved. I believe that this is the new way to go around designing spaces, which is that of one space can be used for multiple purposes to be a more efficient machine.

This brings me to the problem at hand, to design a structure open air museum that will contain the works of art, in this case the buildings that have been researched. This structure must follow the concept of transforming to create a storyline to the structure that are sitting throughout the site. The building will be focused on individual joints throughout the building that control spaces that will allow them to change depending on needs of the museum. As previously stated the joint is a living component to that of the larger system, which will be the main focus of the structure. The joint will not only be acting to create spaces on the outside between the buildings of administration, grounds and gallery but will also play an intricate role on the interior of the spaces. For the outdoor, the transformation will create courtyards, plaza and new paths, this can also play the role of a continuously changing system where one can create their own journey. The interior on the other hand will have 3 levels of sophistication, grounds being the lowest since it not being public, administration being in the middle for the reason of not many people will visit, and high in the gallery space. The reason for the gallery space having the most importance is that because it is where people will visit and where the idea of transformation can be shown, through the building itself and the art or sculptures that are within the structure. This is the main focus of the museum, to show what transforming architecture is, which is the way a structure inside and is out can transform to create spaces that will work efficiently. This in return will show that the joint not only plays a role of a connection or a moving piece but a piece in the larger scheme. It will connect spaces, to emphasize all aspects

of a building by controlling movements and creating views that normally would not be seen.

The next area of importance is the storyline that the structure plays with the site and the buildings within it. With the research done on how museums work, and site visits a storyline is very important in the way a museum works. The difference between art museums and this one is that there are buildings on the site that must connect in a way to show a story of transforming. When looking at museums, the way stories are created is that of linking art pieces together, and creating different perspectives. The way that the site can work is that by leaving the way the site contours are, but manipulating how one follows the site, or the way the paths transform through perspective or material. The biggest issue with the site is how the buildings themselves sit on the site, however the aspect of transforming helps in a way. The buildings themselves may not fit onto the site without their context, or because the site does not allow it. On the other hand the emphasis on the transforming is that the spaces create their own unique spaces, in this the sliding, rotating, and swinging can create new spaces or similar spaces to that of the idea that was originally intended. As stated before with the idea of god is in the details, the focus must not be only on the structure of the museum but also with the connection of the buildings on the site. All the miniscule details, of how the site works must be planned out accordingly to create an adventure from space to space, all linking to the idea of transforming.

The idea of critical regionalism place a very important part in the way the story can be told and the way a structure is defined. One of the focus of regionalism is that of cultural and geographical circumstances, in this idea a structure must fit within the site contextually and culturally¹. The way that I took this idea is that people must build with what outside sources see to be the best, but to what is the

most efficient way to live, feel at home, to be comfortable. In this, my idea of the joint or the transforming architecture comes into play, in the fact that a space can be transformed to create more efficient spaces. I believe that this is the new way to go in designing, where spaces can work more effectively by changing how they act with the rest of the space. In this concept, spaces should be surrounded by a focal point where multiple outcomes arise, in which a space can be used.

Overall the way that the structure I will develop will be based on the idea of a structure transforming that will allow for efficient space use. A building that will be a living system based on the simple connection of the structure that revolve around a transforming piece. Along with this to create an adventure from building to building that will create a new perspective and to teach how transforming architecture can play into the bigger world.

Sources :

- ¹Frampton, Kenneth. 1983. "Towards a Critical Regionalism: Six Points for an Architecture of Resistance." *Article*.
- ²Rybczynski, Witold. "God Isnt in the Details, After All." *Looking Around: A Journey through Architecture*. New York, NY, U.S.A.: Viking, 1993. 255-63. Print.





Josh West

The use of small vernacular buildings have been built around the world and they all serve a different purpose. My research has led me to understand the meaning of these eight modern huts and how they interact with every visitor that comes. This collection showcases the the different cultural and regional menaings behind each of these projects.

ANALYSIS OF READINGS

Kenneth Frampton - Towards a Critical Regionalism

Norberg Schulz - Dwelling in the Workspace

Understanding the relationship between a person and the dwelling of a space can be very critical when designing and creating a building. Seeing the space as a form, and making a boundary to contribute to change people's behavior and social patterns are some critical things when you are creating a dwelling in these spaces. Not only do you have to take into consideration all of the architectural aspects but also of the everyday working person. Everyday people encounter new spaces within their work life and these spaces give the building an entire form of placelessness. When people enter a space, especially during the normal workday, it is important for the "being" of that space to be able to change the behavior of any person. It is crucial that any designer take control of how the building looks and how people will react whenever they enter the space. Defining a building's own placelessness can help achieve the dwelling of a workspace and "the state of crisis urban planning has come to." (Gottman)

Soltani stated within his article, "When 'being' happens through the sense of belonging to a place, and the building also is meant by the human presence, it becomes possible to strengthen the sense of individual identity." Relating this to Heidegger's essay, an empty space is an empty space and the boundaries of that space are weak but when people are brought into a space, the boundaries become strong, full of energy and create a sense of being. "A boundary is not that at which something stops, but the boundary is that from which something begins its presencing." (Heidegger) Spaces that create a sense of being, not only give the attention to more people, but it also connects them with the architectonics itself. Stated in Schultz's suggestions, "architecture associated with dwelling, so goes into the being placed. Dwelling a meaningful link between humans and assumed environment." The connection between people and the environment also creates the sense of belonging to the space.

Another way to understand the relationship between building and the environment is a sense of cultivating the site. By this, the architect is building the site by understatement of the context

and climate around the area. This can also play a huge role when trying to fit a "being" within the space. "The site may be layered to create its own characteristics apart from the rest and giving it a good expression to everyone." Along with the site, comes the most important tool, light. Heidegger, within his essay, explains that natural light has a much greater significance on either an art piece or in my case, the every workday person.

When understanding the relationship of creating a "being" in the space, it can be very crucial of how the construction of a building relates to the design of the site, but "despite the importance of topography and light, the primary principle of architectural autonomy resides in the tectonic rather than the site." (Heidegger) Tectonics then take control of creating a better space and make the construction of the building answer certain needs for the space. By just using the design of the building alone can conquer the task of changing the behavior of a person when they enter the space. When a person can walk into a space and their body can immediately adapt to the new environment, allowing their behavior to change, bringing the building closer to the person. But along with the tectonics of the building, it is important for the building to be functionally adequate to adapt their every workday needs.

Kenneth Frampton - Rappel a l'Ordre

Kenneth Frampton - The Case for the Tectonic

Tectonics reveal the basic knowledge of the art and science of building construction. All things are built in certain ways and have a unique art of assembling the materials used during the construction phase. Frampton talks a lot about art form and the way it is expressed differently throughout architecture and how it can create a better space. He describes the tectonics of construction with two key elements: Core Form and Art Form. Frampton wrote, "the art form" is only a covering and symbolic attribute of the part or building" (Frampton, 139). By viewing a building with these two elements, you can begin to describe and understand the construction phase and knowing the difference between just a building and a building that has purposeful spaces giving it its own being. As Le Corbusier has stated in Frampton's reading, "it can be argued that a building is essentially tectonic rather than scenographic in character and it may be argued that it is an act of construction first." Some can argue that the construction phase is the most important but only to realize that the emphasizing more of the art form can help anyone better understand a building.

Tectonics, in a Greek version, was described as a carpenter or builder. Where here the carpenter then takes the role as a poet, creating poet construction, taking the time and creating their own masterpiece of construction within their built space. This can then be related to the art form of the building where the tectonic form can have a "belonging to the building." From here, Semper divided his built form into two construction categories; tectonic and stereotomic. Semper then leads into looking at the building in another way. While creating the framework of the building and its mass, he looks at the building as a body, creating its own physique, a building's art form, creating its own being as a structure. This is where we, as designers, can give our buildings a presence of itself, creating a being within the space and bringing the art form to life. By bringing the art form to life, it can open up many tectonic opportunities to create a poetic construction. Semper really emphasized the joint in a stereotomic version, stating it as an es-

sentia piece of any building.

Another phrase which caught my attention was from Semper, "the most significant basic tectonic element was the joint or the knot" (Semper, 145). This to me explains tectonics as a whole and emphasizes the meaning of the knot. The knot, which we have been using for centuries, was maintained to be the first structural building tool to be used. Like any other knot, we use it to tie two pieces together or to create a loop to hang something or tie something down and to make sure it never comes loose or slips. One of the first uses that Semper discussed about was the building of huts, using these tectonic knots, to not only tie down the structure, but to also give this small space an art form. Even though a hut is a small space, it is given a place of being. As we look at in a way of construction, we have to recognize everything that goes into these buildings. We have to tie every piece of the building together and make sure it is structurally sound.

Modern Hut Building Collection

This Building Collection has a wide variety of Modern Huts around the world. Each of these buildings relate in its own way culturally and regionally within its context. All of the buildings have different purposes for arrival and gives each visitor a different feeling and behavior after entering the space. Many of these are meant for meditation and relaxation; while some are for emphasizing views across the landscape. All of these buildings take highly into consideration climate, sun exposure, views, tectonics and regionalism to create a beautifully designed structure.

Pictures taken from:

- 1 - <http://www.archdaily.com/7638/final-wooden-house-sou-fujimoto>
- 2 - <http://architizer.com/projects/swamp-hut/>
- 3 - <http://www.archdaily.com/279377/the-plongoir-spray-architecture/>
- 4 - <http://www.archdaily.com/330969/forest-pond-house-tdo-architecture>
- 5 - <http://www.archdaily.com/24959/rolling-huts-oska-architects>
- 6 - <http://www.archdaily.com/188077/meditation-hut-iii-%25e2%2580%259cvictor%25e2%2580%259d-jeffery-s-poss-architect>
- 7 - <http://www.archdaily.com/600658/warming-huts-bring-life-and-shelter-to-winnipeg-s-frozen-rivertrail/>
- 8 - <http://www.jagnefaltmilton.se/black-lodge/>



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8

Black Lodge Hut

Location. Sweden

By. Jagnefalt Milton

Year. In Construction

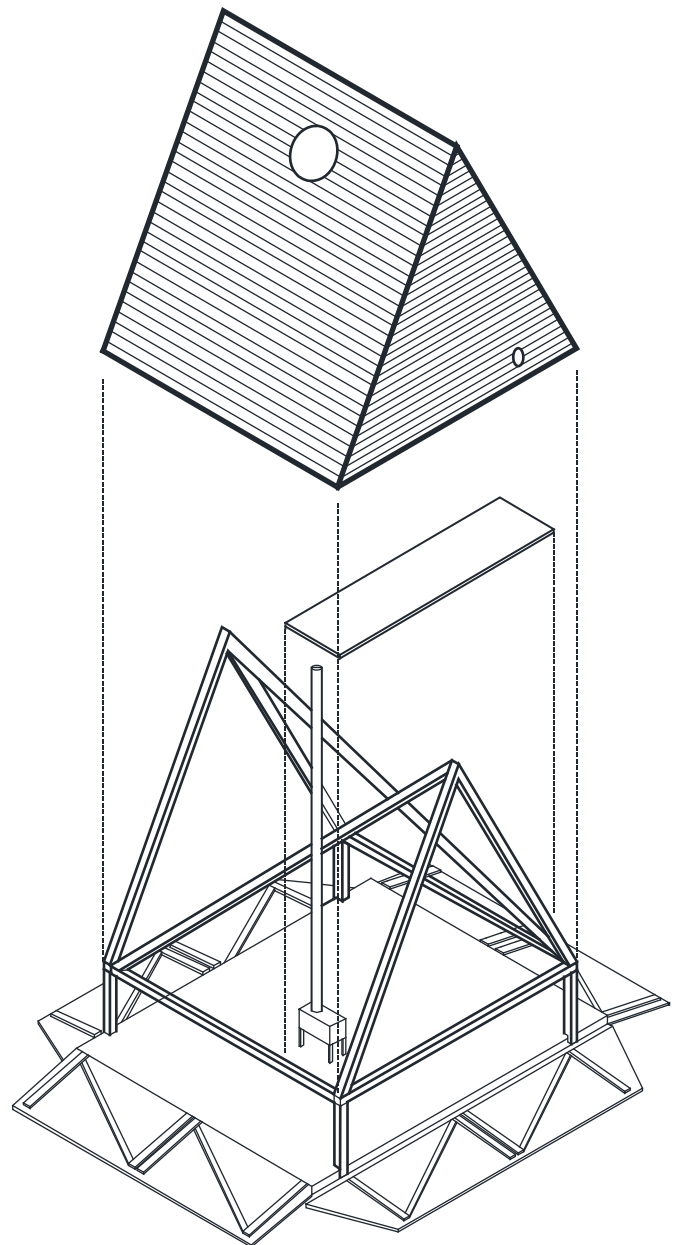
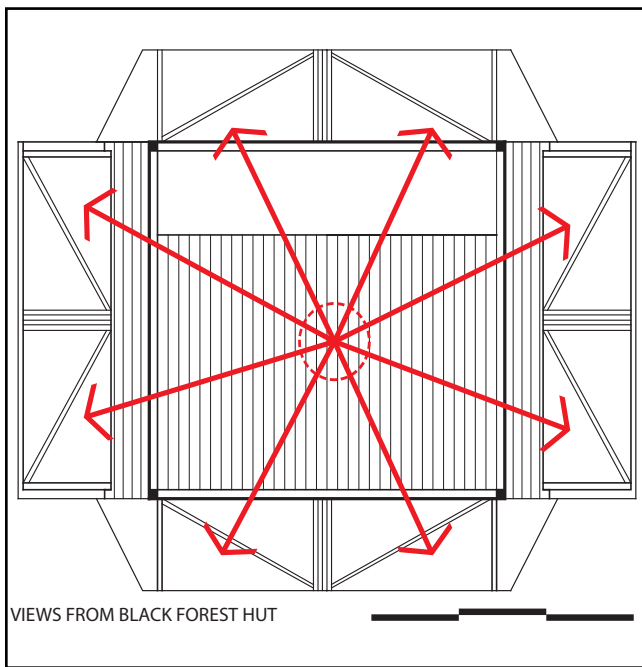
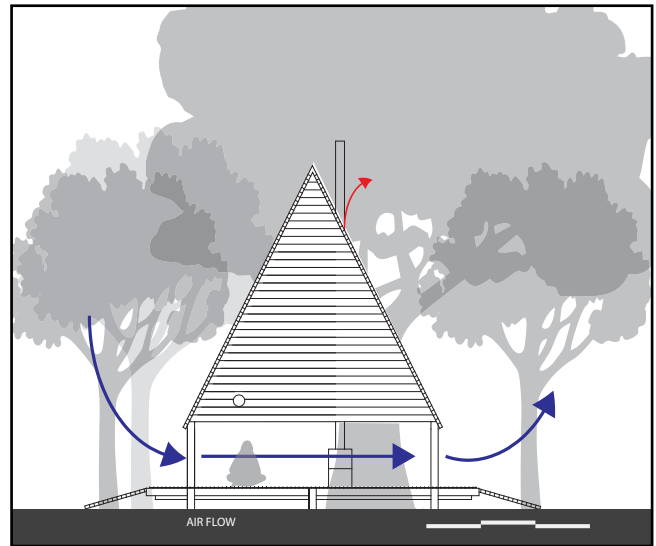
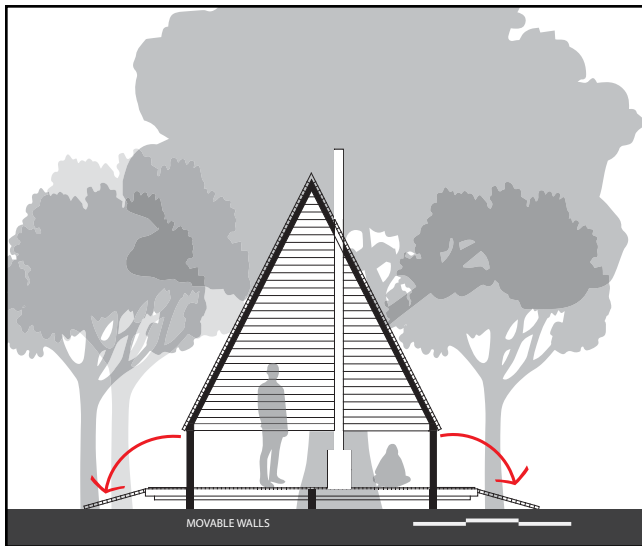
Description. In a remote location in Sweden, tourist who are staying in the hotel, will now be able to venture off and stay in this small hut. The guest who are staying there can open and close the walls to give themselves as much privacy as they wish. By doing this, it allows for maximum air flow for any time throughout the year. The hut is made of local pine to fit within the surrounding environment. If the visitors needed anything, they would easily be able to leave and come back within a short amount of time.

Photos From:

<http://www.jagnefaltmilton.se/black-lodge/>

<http://www.dezeen.com/2012/06/21/black-lodge-by-jagnefalt-milton/>





Le Plongoir

Location. Muttersholtz, France

By. Spray Architecture

Year. 2012

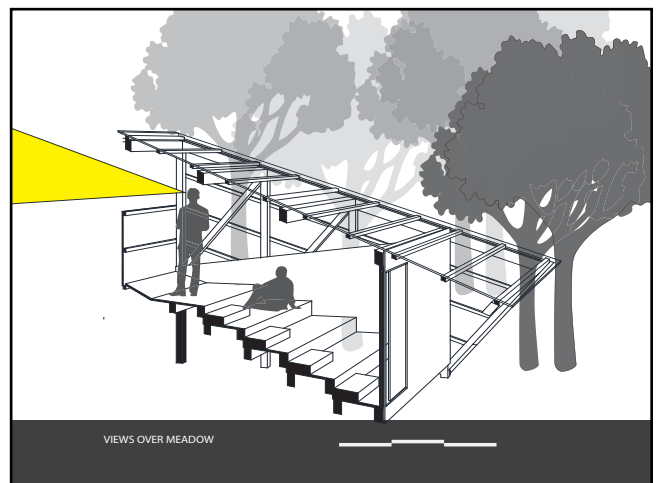
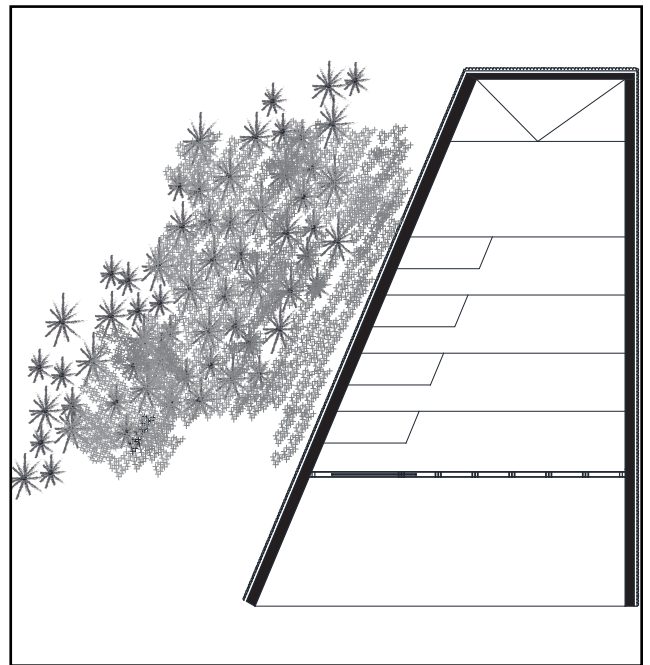
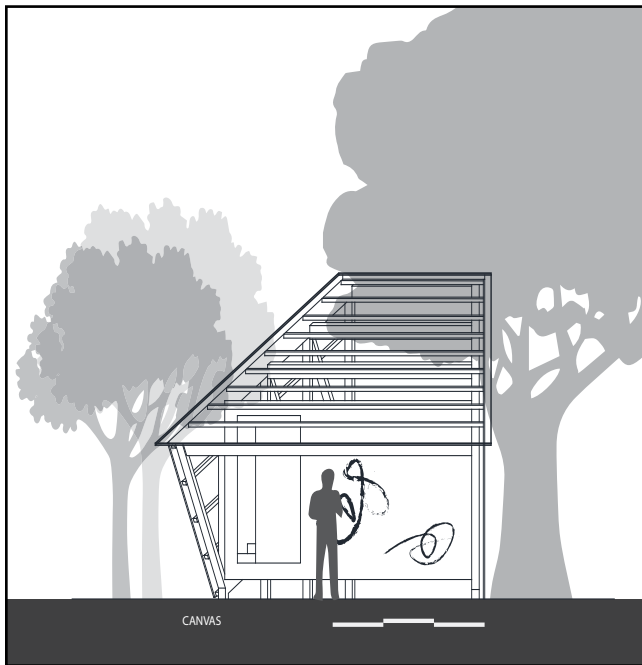
Description. Le Plongoir is located in the middle of nature in eastern France, where it shows how the movement and perception of space and how to use it. This structure, at its most simple state, has everything for a living environment; shelter contemplation, relaxation, exchange and it is an appropriate space. With the main materials of wood and polycarbonate, the Plongoir, resembling a house on stilts, touches the ground on one end reducing the footholds to the minimum to respect the environment. As you ascend from the structure, the facades increase transparency and dematerialize to reveal the beautiful structure of the wooden lattice.

Photos From:

www.archdaily.com/LePlongoir

www.blog.2.modern.com





Rolling Hut

Location. Mazama, United States

By. Olson Kundig Architects

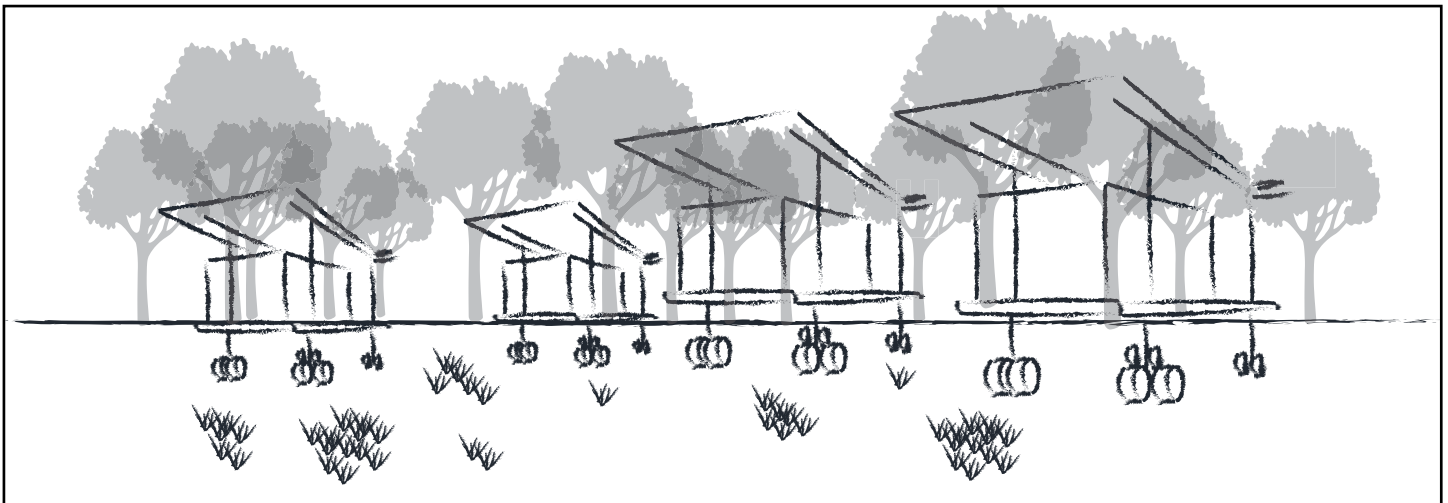
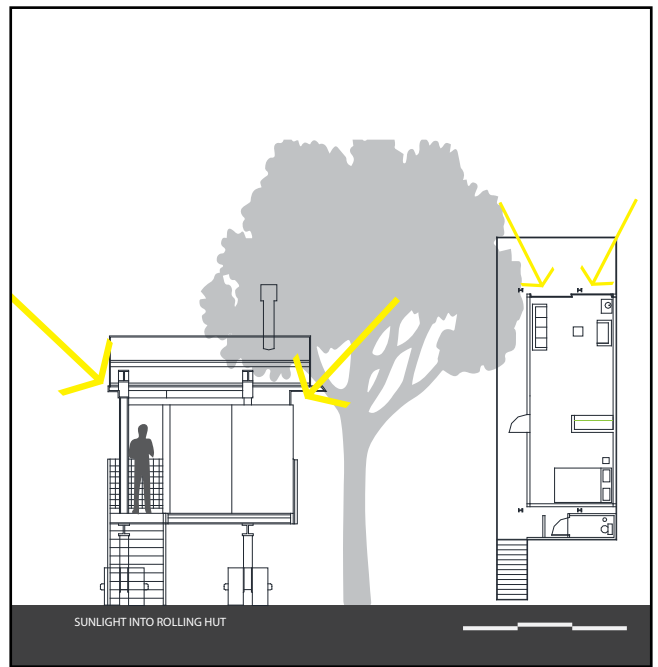
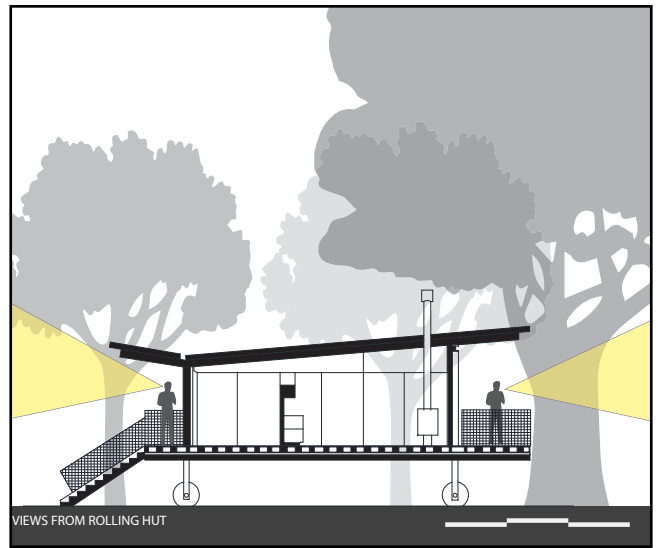
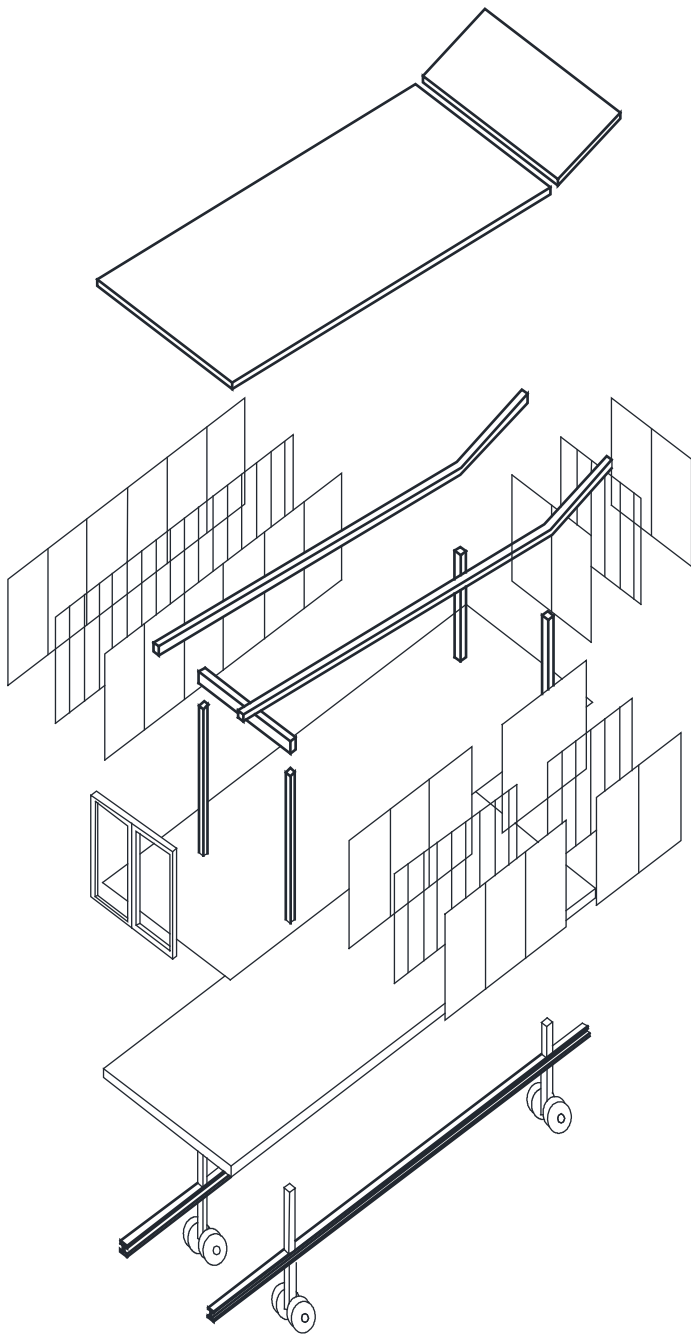
Year. 2007

Description. For this project, the architects responded to the special needs of their clients by helping the house more of their visitors and friends. The Rolling Huts are several steps beyond camping, while remaining low-tech and low-impact with their design. These huts sit lightly on their site within the alpine river valley. The wheels lift the huts above the meadow, providing an unobstructed view into nature and of the surrounding mountains. They are also grouped as a herd, while some are singly placed, creating amazing views towards the mountains.

Photos From:

www.architizer.com/rollinghut





Forest Pond Hut

Location. Hampshire, UK

By. TDO Architecture

Year. 2012

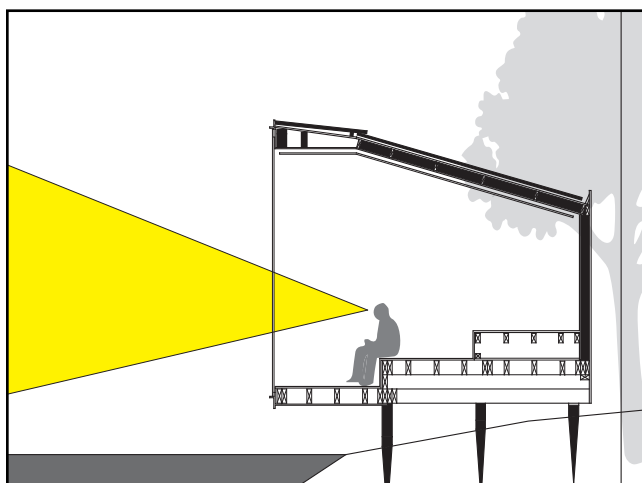
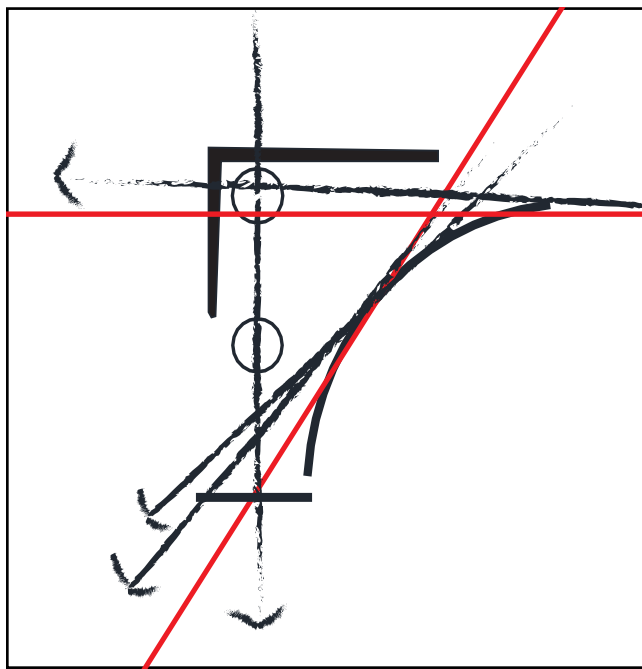
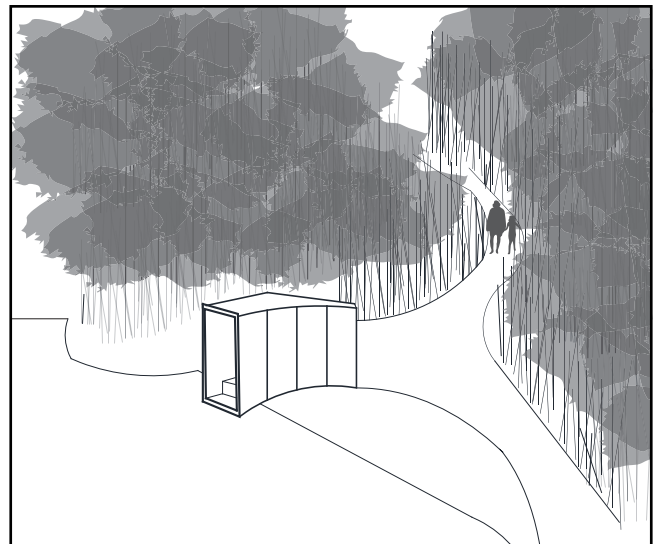
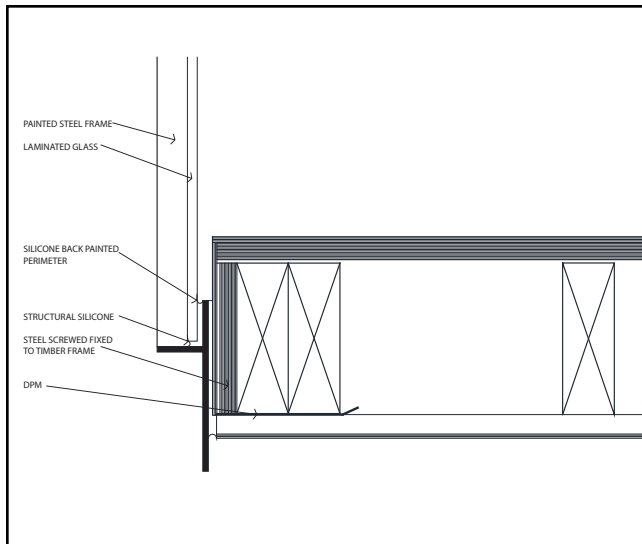
Description. Cantilevering over the bank of the pond at the foot of a family garden, sits a timber framed structure that is finished with plywood, glass and copper. This design overlays the two functions to give a single diagram. The forest pond hut was shaped by the the forest to give a simple form to the building. It combines the contrasting surroundings by nestling it between the darkness of the forest and the bright calmness of the water. The black, angular sides address the forest and the light curved surfaces resume the light and the glass resembles the pond. A rising floor and falling ceiling shrinks one corner down to the size of a small child. The brighter end of the hut, with its single source of light and bench looking onto the water, offers focus and a place for reflection. This certainly gives the space a special place of being.

Photos From:

www.archdaily.com

www.architizer.com





Hybrid Hut

Location. Winnipeg

By. Rojkind Arquitectos

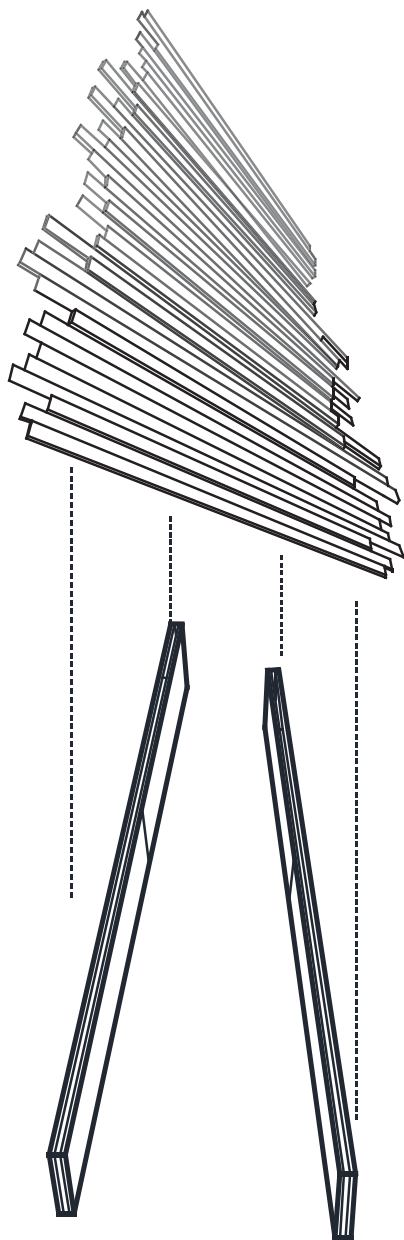
Year. 2015

Description. Behind the design of this hut, the architects were really pushing the evolution of technology in the industry to design this warming hut. With their constant focus on “digital design and local fabrication” rojkind architects, took action to design these shelters against the cold Winnipeg weather along the Red River. This project was produced by the help of computer design and the understanding process of laminated wooden beams; understanding the possibilities of using reclaimed wood along with local craft techniques. Understanding its parts, once the digitally designed structure was assembled and put in place, they arrived to building the rest of the hut. By leaving the tree bark on the outside of the hut allowed a contrast between the smooth inside to the textured pieces on the outside.

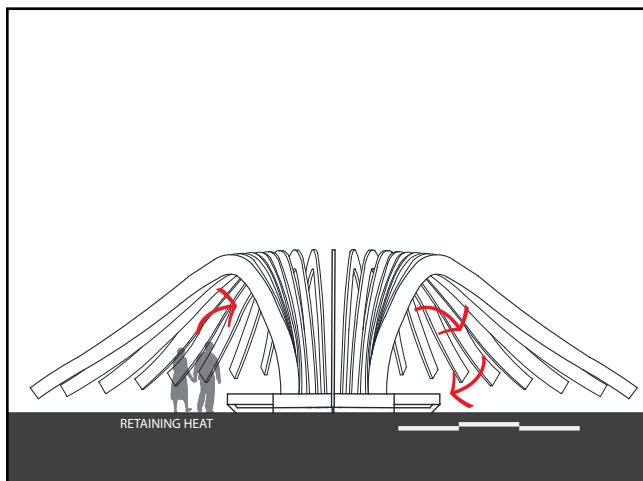
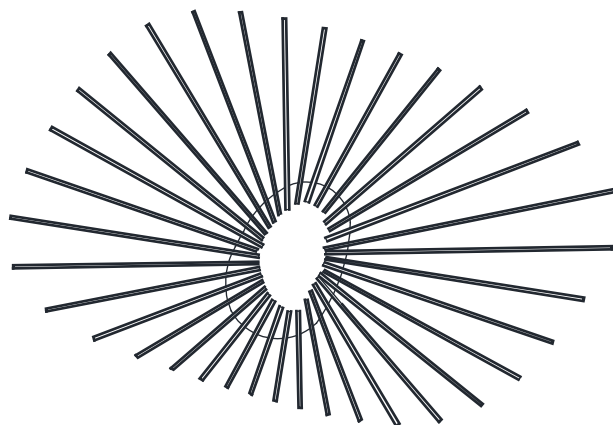
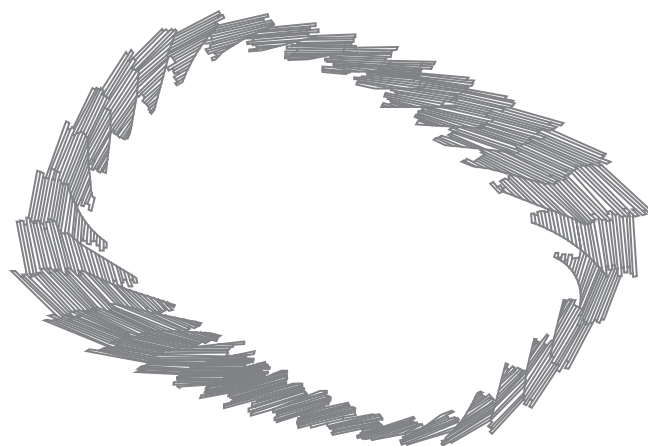
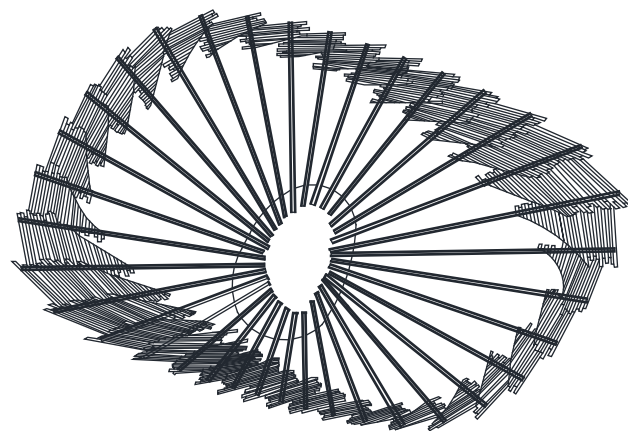
Photos From:

www.archdaily.com





WOOD SLAT PLACEMENT



Swamp Hut

Location. United States

By. Moskow Linn Architects

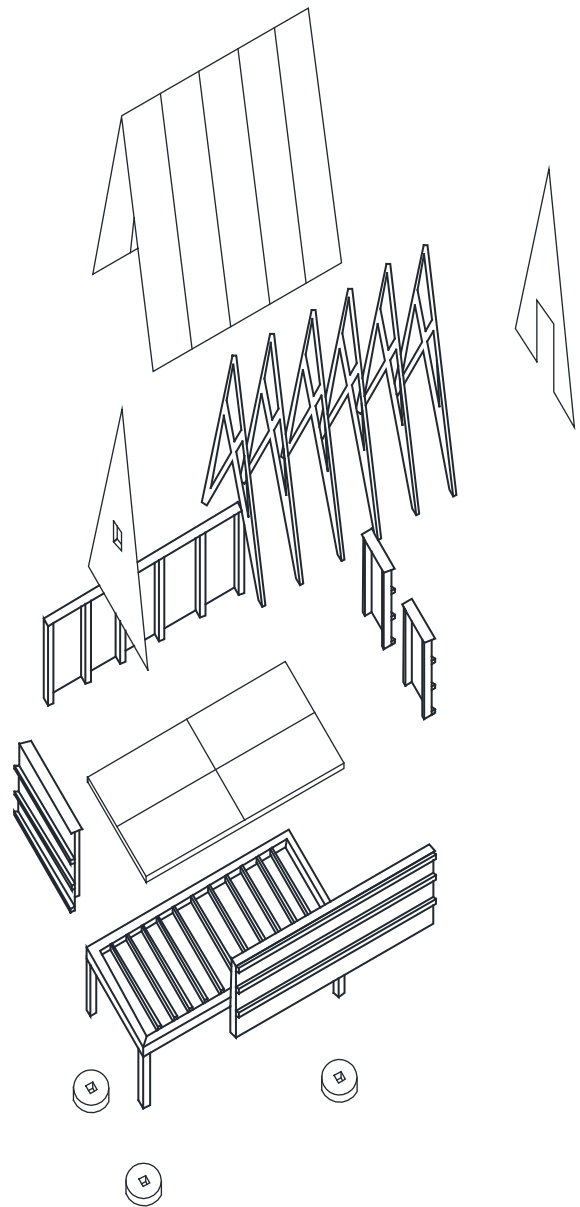
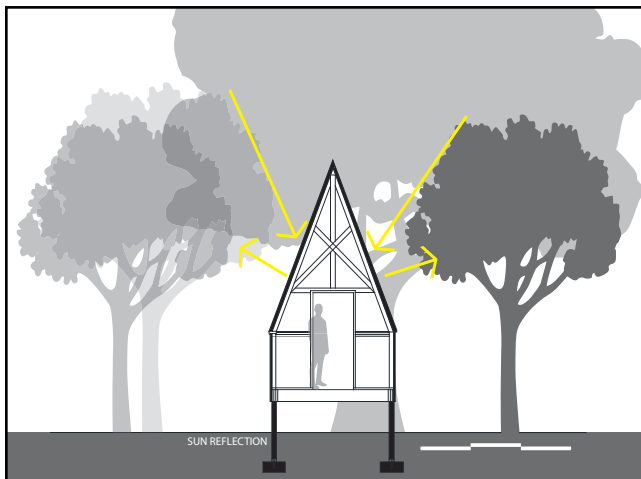
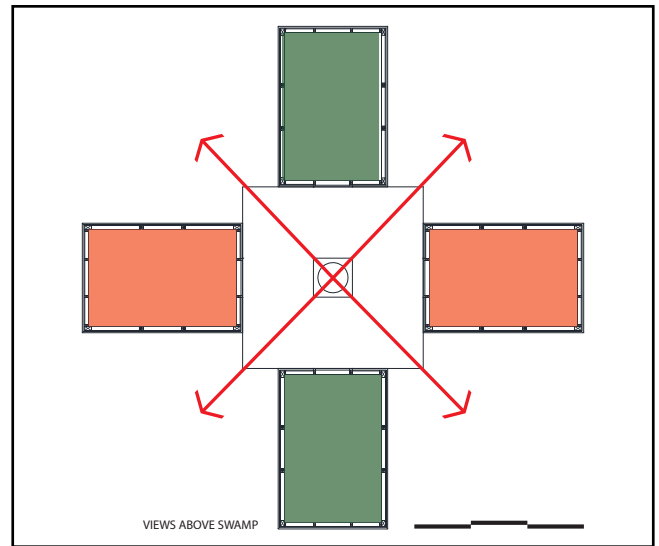
Year. 2008

Description. The swamp hut is designed to sit lightly upon the land. Four huts surround a central deck creating a protective enclosure. Each building component has its own distinct characteristics appropriate to its use. The hut is divided into four distinct areas; cleansing, sleeping, eating and the deck. The cleansing hut is positioned to the north where it is most enclosed with an aluminum roof. The sleeping huts are positioned to the east and west, having translucent roofs. The table hut is positioned to the south, furnished with a table for eating and writing. The hut extends over the swamp, creating a beautiful spot for wildlife observation.

Photos From:

www.archrecord.construction.com/swamphut





EXPLODED ISOMETRIC

Wood Hut

Location. Kunamoto, Japan

By. Sou Fujimoto Architects

Year. 2006

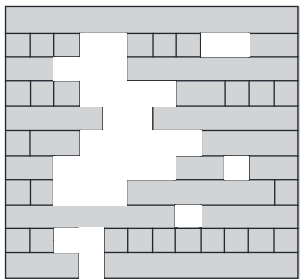
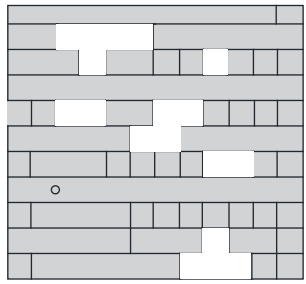
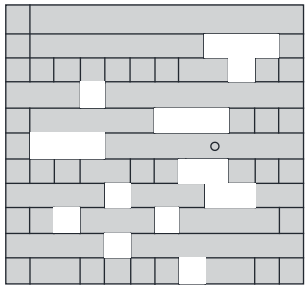
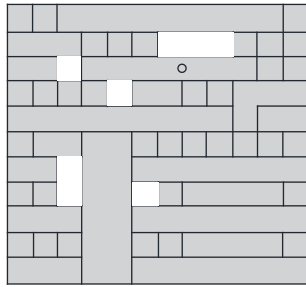
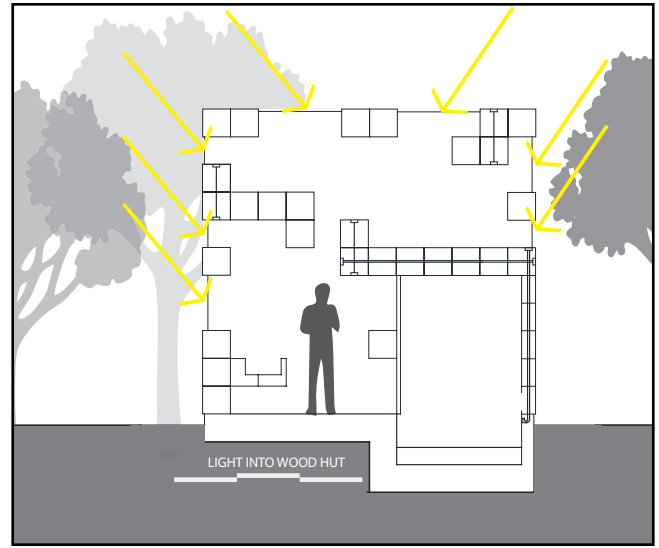
Description. The architects who designed this hut ultimately wanted to create a wooden structure by mindlessly stacking the heavy timbers that were 350mm square, which is roughly 14 inches. They envisioned the creation of the wooden hut of new form of spatial uses that preserved primitive conditions of a harmonious being before various functions and roles differentiated. In this structure, there are no separations between floor, wall and ceiling; a place that one thought was a floor becomes a chair. The floor levels are relative and spatiality is perceived differently according to one's position within the hut. The wood hut is like a vast landscape with a new experience of various senses of distances.

Photos From:

www.archdaily.com/woodhut

www.busyboo.com





ELEVATIONS OF WOOD HUT



Meditation Hut

Location. Champaign, Illinois

By. Jefferey S. Poss Architects

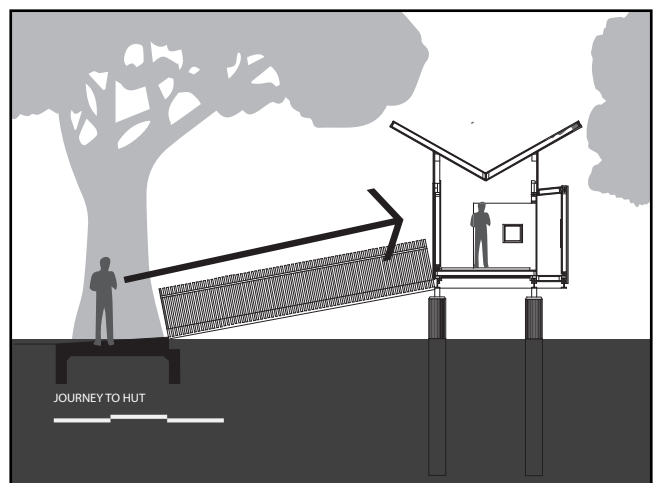
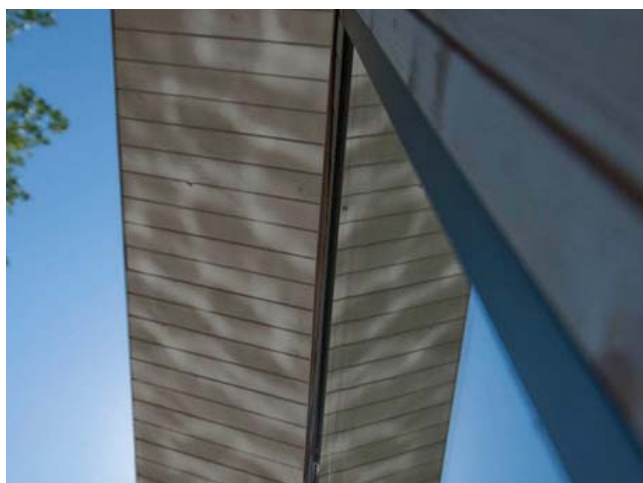
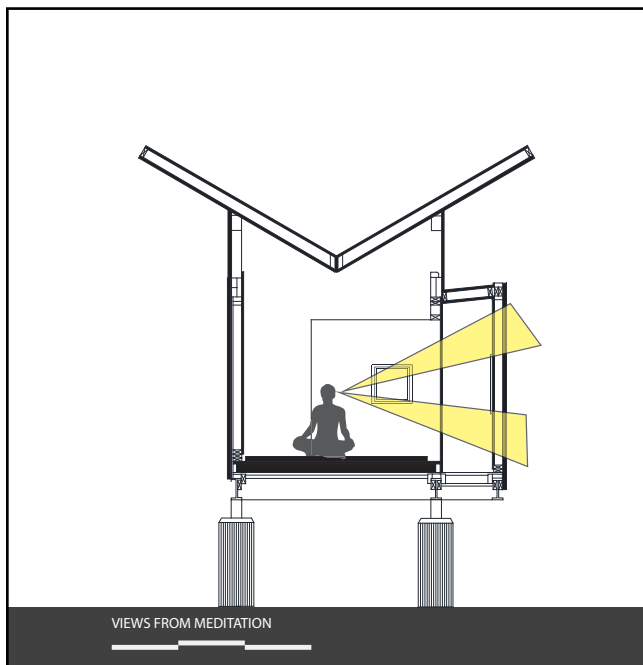
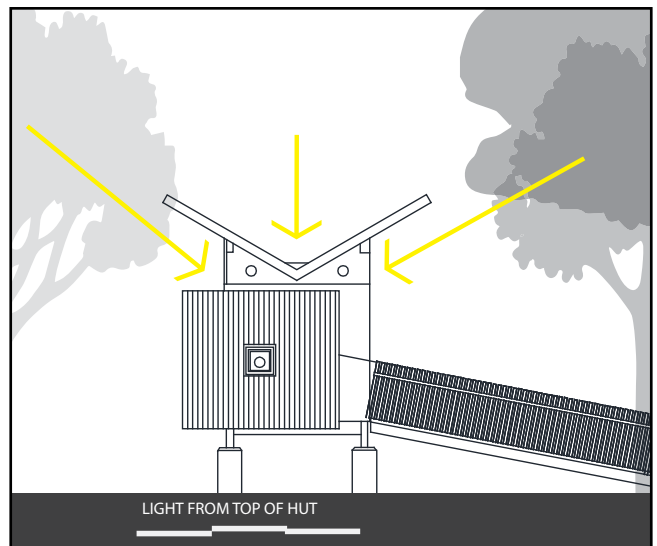
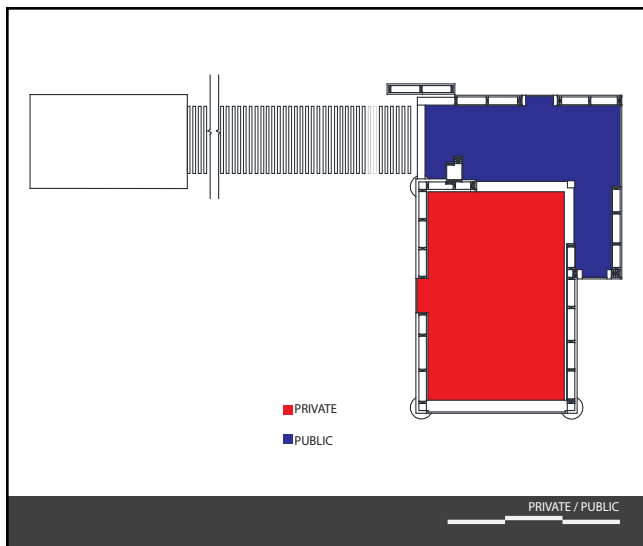
Year. 2010

Description. The owners of this forested property were looking for a quiet space to observe and be one with nature. A naturalized understory leads to a visually kinetic approach ramp that contrasts to the subtle interior. The entry to the hut is through an obscured door detailed like the cedar walls. The structure, sitting along the north side of the small pond, allows for the development of several effluvial sensations. Throughout the day, water reflections are projected onto the soffit. The roof channels rainwater to a central spout over the pond. The floor of glossy ebonized birch has sensation of a deep still pool, where the tatami mats serve as the island within an island.

Photos From:

www.archdaily.com/meditation-teahut





Program Analysis

Museum

Gallery. 2 @ 1500 ft²

These gallery spaces will both include history of huts with different cultures and how they have evolved to what they are today.

Gallery Storage. 300 ft²

This space will be connected to the gallery spaces and will house more of the exhibit pieces and other materials to help benefit the gallery.

Lobby. 1000 ft²

This will be the main entrance to for the museum. Here you will find information that will help you maneuver throughout the entire museum.

Reception. 120 ft²

The reception desk will be located within the lobby space to greet visitors upon arrival and help them with whatever their needs may be.

Security. 150 ft²

This space will be located directly off of the lobby space. The security office will be a multipurpose space that will also serve as a first aid for medical attention.

Toilets. 4 @ 400 ft²

These spaces, for men and women, will be located around the lobby space to give easy access for all the visitors to the museum no matter their location.

Total Square Footage - 6170 ft²

Gift Shop

Retail Space. 500 ft²

The retail shop will hold all of the gifts and souvenirs and will be located near the lobby entrance. It will have an open floor plan so that any adjustment can be made if needed.

Retail Space Storage. 250 ft²

This space will be directly off of the retail space. It will mainly hold all of the overstock merchandise for the retail shop.

Retail Office. 120 ft²

This space will be mainly for the manager of the shop. Files and financial work will be the only things done within this space.

Total Square Footage - 870 ft²

Café

Dining. 1200 ft²

The café would be located off of the lobby space for all of the visitors to stop for lunch. It will also be away from the galleries since there are no food and drinks allowed there.

Kitchen. 500 ft²

The kitchen will be held behind all of the dining spaces. Here all the meals will be prepared for the entire facility.

Cooler. 100 ft²

Here all of the cold cooking materials will be held directly off of the kitchen.

Freezer. 100 ft²

The freezer will house all of the frozen foods for the kitchen space.

Dry Food Storage. 100 ft²

The dry food storage will be directly off of the kitchen for easy access. Here all of the dry materials will be stored.

Supply Closet. 100 ft²

This space will house all of the cleaning materials for the kitchen.

Kitchen Office. 100 ft²

This kitchen will only be used for the kitchen director so only a small space is needed.

Total Square Footage - 2100 ft²

Offices

Museum Curator. 160 ft²

The curator office will be held near the lobby and gallery spaces. This will give easy access to both spaces if any changes need to be made to any of the exhibit pieces.

Administrator. 200 ft²

The administrator office will be for the head person in charge of the entire building. Located near the lobby for the administrator to easily oversee the entire building.

Office Aid. 120 ft²

This small office will be located next to the administrator to help them with any of their needs and to improve communication.

Secretary. 160 ft²

This office space would include all of the essential equipment that a secretary would need. This be located in the middle of all the offices.

Business Office. 140 ft²

This will be the financial office for the entire complex. All of the files and records will be held in this room.

Conference Room. 200 ft²

Located near all of offices, this space will be used for meetings for the entire building.

Break Room. 200 ft²

The break room will be located with all of the other office spaces that will house basic kitchen needs for the employees.

Storage. 60 ft²

Storage spaces will be held off of the offices to store all of the office materials.

Toilets. 60 ft²

Small bathrooms for male and female will be held within the office spaces.

Total Square Footage - 1300 ft²

Grounds keeping/ Custodial

Custodial Office. 100 ft²

This will be located near the back of the building for all of the custodial administration.

Custodial Storage. 200 ft²

Custodial storage will be directly off of the office and will also hold all of the cleaning equipment for the entire museum.

Custodial Closet. 40 ft²

These closets will be located around the entire complex to give easy access if need be.

Unloading/Loading Zone. 300 ft²

This space will be located in the back of the building near the custodial office. Here all of the exhibit pieces, food, and cleaning materials will be dropped off.

Waste/Recycle. 300 ft²

This space will be located next to the unloading zone in the back of the building. Here all of the trash and recycling will be help for the building.

Grounds Keeper Office. 200 ft²

This office space will be for the person who is in charge of the maintence for the entire site. This will also be for the groundskeeper employees to keep their stuff while working.

Equipment Garage. 1000 ft²

This will be located off of the main building for noise purposes. All of the outdoor equipment will be held in here.

Shop. 500 ft²

This shop will be located off of the equipment garage. It will include all of the basic equipment to allow for pieces to be fixed and exhibits to be made.

Total Square Footage - 2640 ft²

Program Analysis

The goal for this program was as people entered the front of the site from Little Grassy Road, they would enter down to the water front along with the parking. This would lead them into the lobby space where they would be able to view every space from the central point. The Cafe, Gallery Spaces, Gift Shop, all of the Administrative Offices and all the Restrooms would be accessible from the central lobby space. All of the Groundskeeping Offices, Musuem Shop, Unloading, Gallery Storage and the trash would be located in the back of the building that will not be accessible to the public. All of the spaces within this program will work together to create a better sense of space when each visitor enters a new room.

Program Square Footage Totals

Museum - 6170 ft²

Gift Shop - 870 ft²

Cafe - 2100 ft²

Adiministrative - 1300 ft²

Grounds Keeping / Custodail - 2640 ft²

Subtotal Square Footage - 13080 ft²

Efficiency Ratio - 30%

(This includes walls, hallways, circulation and mechanical spaces)

Total After E.R. - 17004 ft²

Parking (Jackson County Ordinance)

Regular Parking Stalls (10' x 20') - 50 Stalls

Handicap Stalls (15' x 20') - 8 Stalls

Total Parking Stalls - 58

Toilets

Men - 8 fixtures and 6 Lavatories

Women - 8 fixtures and 6 Lavatories

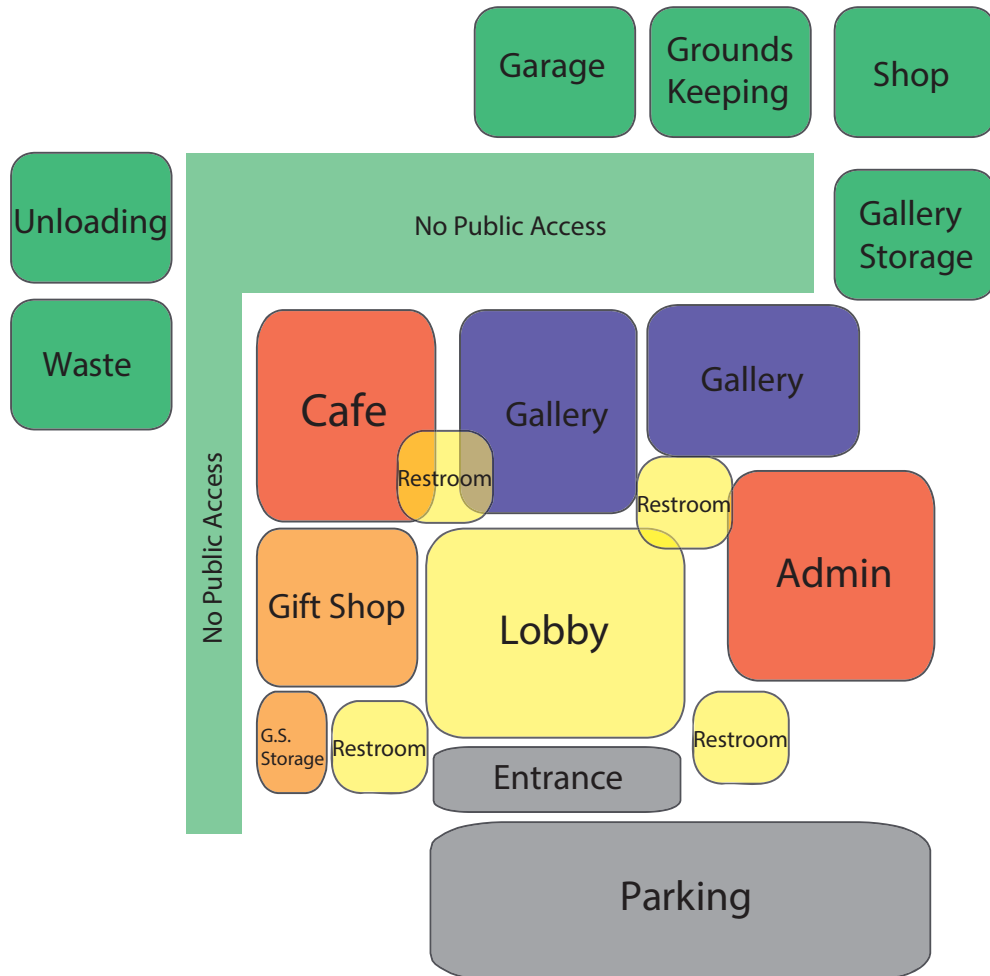
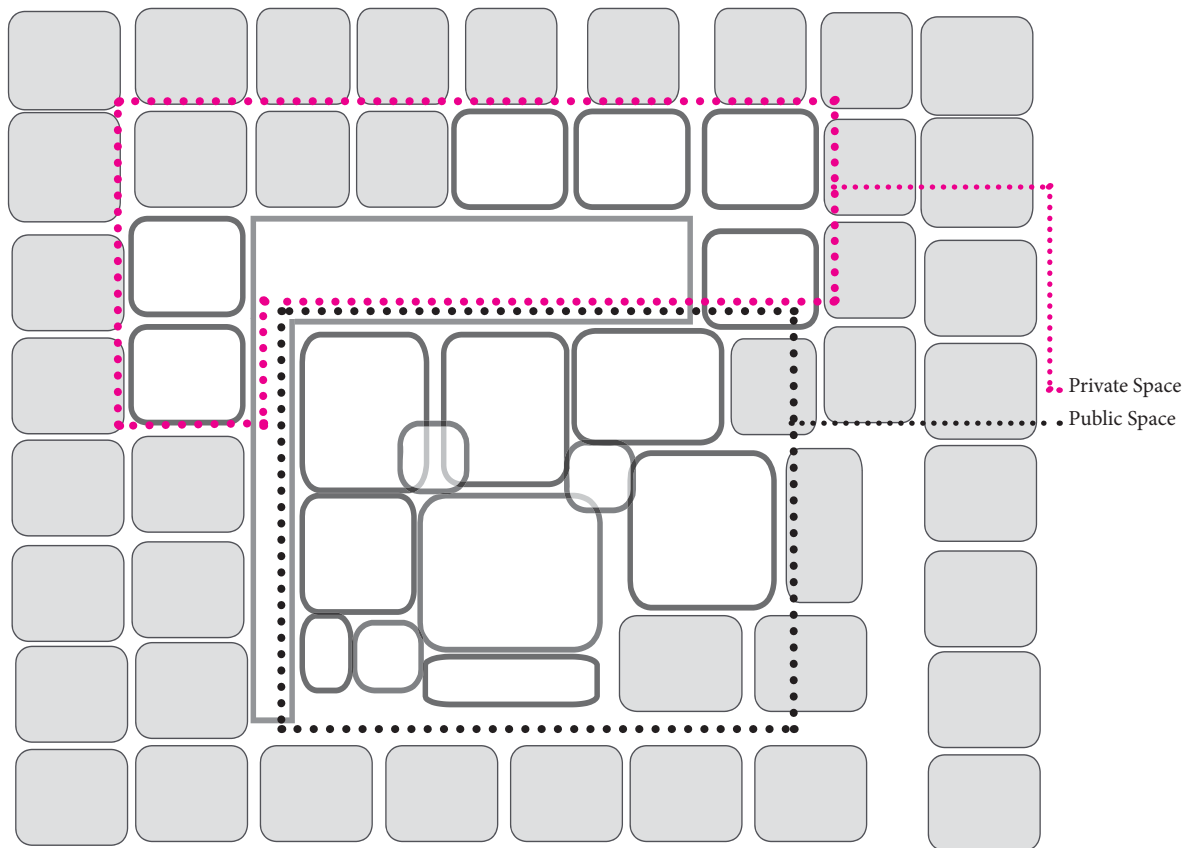
Occupancy of Building (Jackson County Ordinance)

Occupancy Type - Musueum, A-3

Total Square Footage - 17004ft²

Square Footage per Person - 50 ft²

Occupancy of Building - 341 People



WRITTEN SUMMARY

What is the definition of a modern hut? Culturally, a hut was a small, confined dwelling that uses local materials that are readily available for construction. A lot of these materials included wood, snow, ice, grass, branches and mud. Even with a lack of good materials, the creators of these huts were able to design structurally sound huts that fit well within their environment. A hut was built smaller than a house but still had all of the essential spaces for everyday living. Regionally, the designs of huts created a sense of space and a strong identity to its tribe and culture. Each hut would have its own meaning, letting everyone know what each huts purpose was but how has the hut changed throughout the centuries? Do they serve as a different purpose? Do they still fit regionally within their space? ¹Paul Ricoeur asked regionally how to become modern and return to the sources. The modern hut today has not changed that much from years before. Huts were always designed for small spaces and minimal movement inside the huts. Today, huts are designed for the same reason but each space inside the hut responds differently to each environment and creates a sense of place for each of its visitors.

For my building collection, I have chosen a group of huts that have a strong relationship to its site and that are deeply programmatic to its design. All of these react to its site and fit within their environment in their own special way. Each of these huts serves a purpose as you are walking up to them and noticing them for the first time. If it's walking through the forest or overlooking a meadow and seeing the structure from the other side, they have their own meaning and understanding on what each visitor must realize when approaching them. ²When the architects were designing these small vernacular structures, they took highly into consideration its surroundings; topography, climate, sun exposure, wind and tectonics. They wanted these modern huts to be more than just a small getaway in the woods, but creating special pieces within these huts that always keep the visitors mind thinking and wondering what they will notice next. ³Frampton talked about seeing the space as a form and making a

boundary to contribute to change people's behavior and social patterns. Everyday people encounter new spaces within their day and all of these huts give an entirely new sense of space and being to change the behavior of each visitor. The goal for this building collection was to acquire a different behavior for each individual.

Another essential piece to the modern hut is being completely interactive with each visitor. Each hut I have chosen for my collection interacts differently from the others and creates a different sense of space. Some huts have movable pieces and some just interact with the visitors mentally within the spaces. For example, the Wood Hut, designed by Sou Fujimoto in Japan, creates an overall new experience from the beginning to the end. It starts by climbing the hill and seeing the square, large timber framed structure above. Once entering the space the mind is confused but shortly understands how many functions this space creates. There are no separations to the floor, walls and ceiling. ⁴A place that one thought was a floor becomes a chair, a ceiling and a wall from various positions. The floor levels are relative and spatiality is perceived differently according to the location inside the hut. From here, visitors are distributed three-dimensionally in the space. The Wood Hut is a place like an amorphous landscape with a new experience of various senses of distances and each visitor discover, rather than being prescribed. On the other hand, Le Plongoir, located in France by Spray Architecture, gives a completely different affect to its visitors. Once approaching the hut, looking across a grassy meadow in eastern France, the mind wonders what the buildings purpose is, seeing the transparent walls and the structure climbing from the ground. After arriving to the site, they see the artwork on the side of the hut from past visitors. This is to create a new sense of space and interaction every time anyone visits this hut. ⁵The transition of experience through the structure, which only touches the ground by thin wooden columns, helps create privacy for the individual and a new sense of living.

¹Kenneth Frampton. *Six points of Architecture of Resistance*. 1983.

²Norberg Schulz. *Dwelling in the workplace*. 2000.

³Kenneth Frampton. *Core Form and Art Form*. 2002.

⁴www.archdaily.com/woodhut/japan

⁵www.archdaily.com/LePlongoir/France

The Plongoir because, of its shape and its spatial organization, changes our way of living. ¹Usually, we use our space horizontally, not vertically. With each of these two huts serving the same purposes of living and bringing in new visitors, they still serve the same purpose of site interaction and regionality.

After choosing my building collection and understanding each individual building and how they all relate to each other. I then began to create a simple program that will give the same affect to every visitor as each building does. First I started with the arrival of open air museum. Looking back at all of the building, I understood that each one had a different arrival than one another. One could be climbing the side of a mountain, looking over a grassy meadow or rising above a swamp, they all gave a different sense of arrival. For my main building, I wanted to take all of these into consideration. I want people driving from a distance away to begin to see the building and as they get closer to the structure, they start to understand the building even more. As the seasons change, the building will create a different feel to every visitor no matter what direction they are coming from. Upon arrival, the goal for this building is to bring a heavy stereotomic feeling to the front of the building; which will be the first thing everyone sees and as you are walking through the exhibits within the site and look back at the building, they will see a very light tectonic structure. All of the visitors will arrive and drive underneath the building to the parking lot and then have access to the lower lobby of the building, along with other office spaces. The building will then drive every visitor upstairs to where they will be greeted with two galleries, café space and lobby spaces. Every visitor will then continue outside to all eight building exhibits.

One of the most important things I wanted to consider with this entire project was to be very interactive with the site. Each building responds to its site in its own special way and I wanted to keep that the same for my arrival building and all of its exhibits. Our site, located east of Little Grassy Lake, is very versatile and doing this can be crucial when trying to keep the same behavior each building is trying to pursue for its visitors.

Having a very contoured space along with a lake front view can almost capture everything that is needed. As each individual interacts with the exhibits and travels through their stories, I plan on having transitional spaces between each exhibit to enhance the feeling and almost change the behavior immediately after exiting the exhibit beforehand. This will keep every visitor on their toes and giving them spatially, culturally, and regionally a better understanding of each building.

⁶www.archdaily.com/LePlongoir/France

