



POLITECNICO
MILANO 1863
Master Degree Thesis

New Moment For Old Memory

PORTO WINE INTERPRETATION CENTER

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I want to discuss a kind of architecture which is belonged to urban context. It is not only taking advantage from urban resource but also making contribution to city. What's more it will keep the identification by the meaning of the building itself.

Douro wine region has a long history, and Porto was famous for Porto wine. I choose the River bank as the site near the Douro River. By researching Douro river and Porto wine, Porto urban structure , urban history and current problem of the site. The architecture was designed following the principles as below:

- Recovering the memory the site which was facing to Douro River.
- Providing a Water Platform for public using.
- Continuing the accessibility to the site from different levels of the topographic.
- Creating the atmosphere for Wine Tasting area to represent Porto Wine.

ABSTRACT

water / memory / public / system

The Port wine is one of the most known and important Porto brands. In the Douro Valley there are 500 producers and 100 of them produce Port Wine.

Since 2006, tourism growth in the city is approximately 25% per year.

I made some research about:

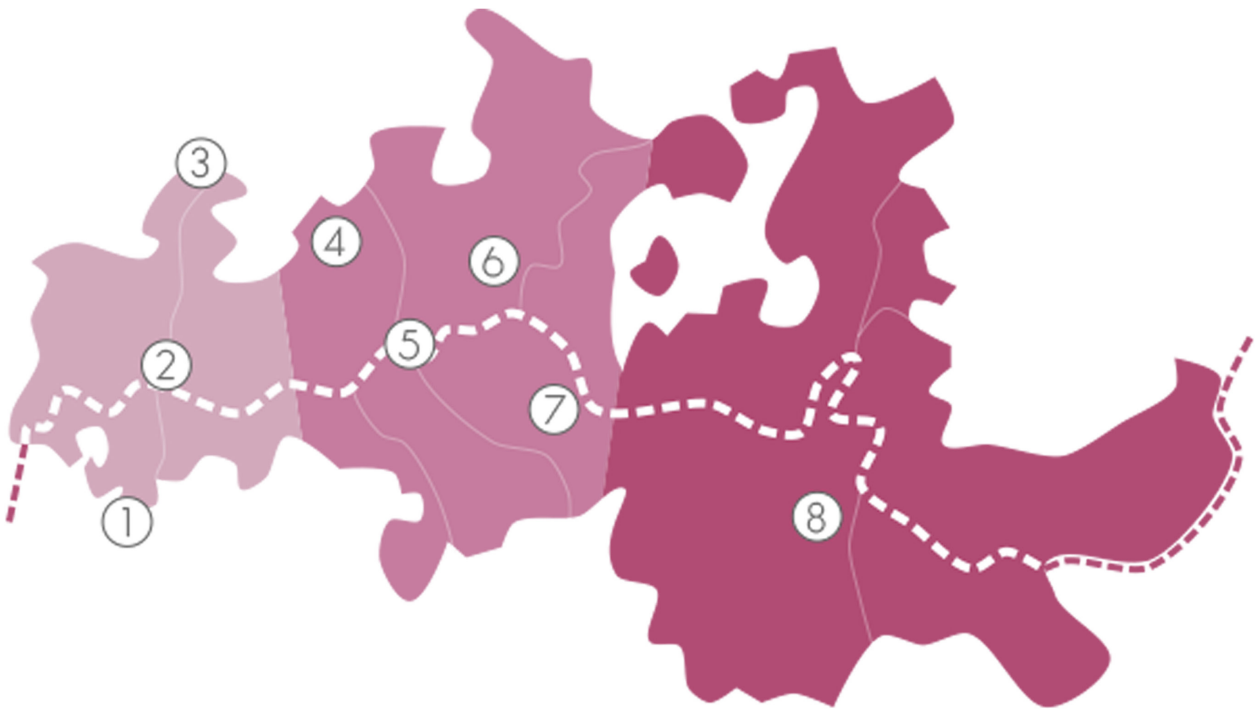
- The relationship for water and wine in Douro wine region.
- The tide and temperature
- The character of port wine.
- The production of port wine.
- The activities related to port wine in Douro Valley and Douro River of Porto.

CHAPTER 1 - RESEARCH
Douro River / Porto Wine

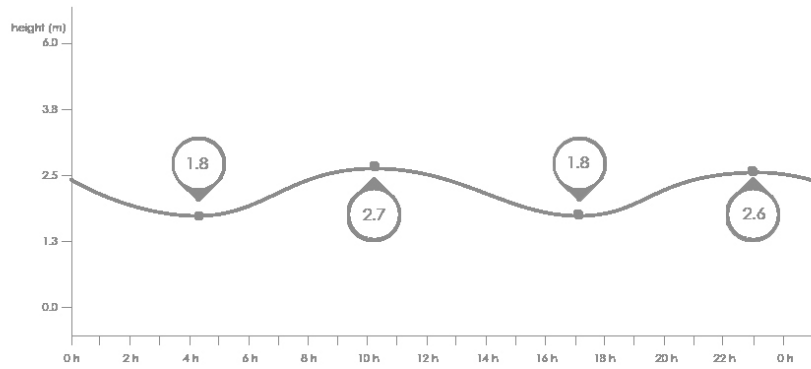


DOURO WINE REGION IN PORTUGAL

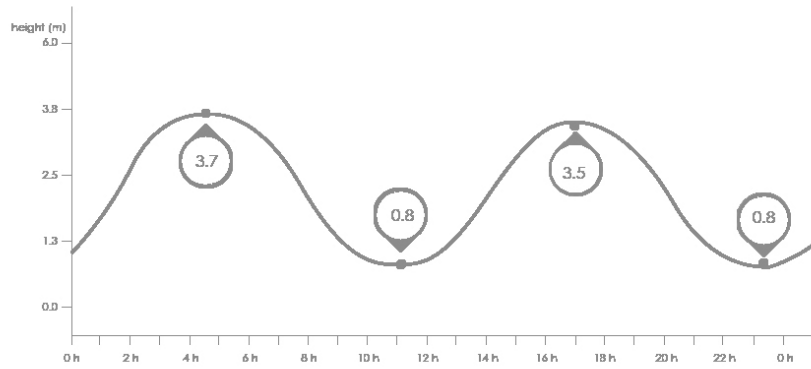
- ① LAMEGO
- ② PESO DA RÉGUA
- ③ VILA REAL
- ④ SABROSA
- ⑤ PINHÃO
- ⑥ ALIJO
- ⑦ S. JOÃO DA PESQUEIRA
- ⑧ VILA NOVA DE FOZ CÔA
- BAIXO CORGO
- CIMA CORGO
- DOURO SUPERIOR
- DOURO RIVER



DOURO WINE REGION

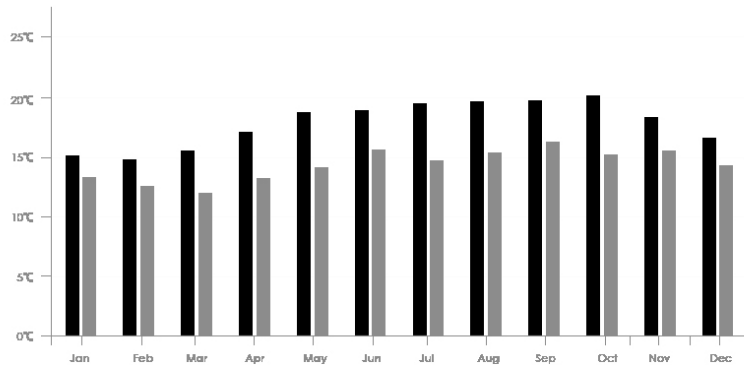


WINTER

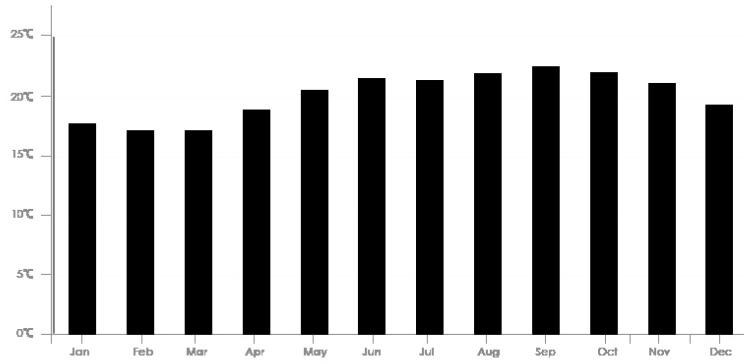


SUMMER

DOURO RIVER TIDE

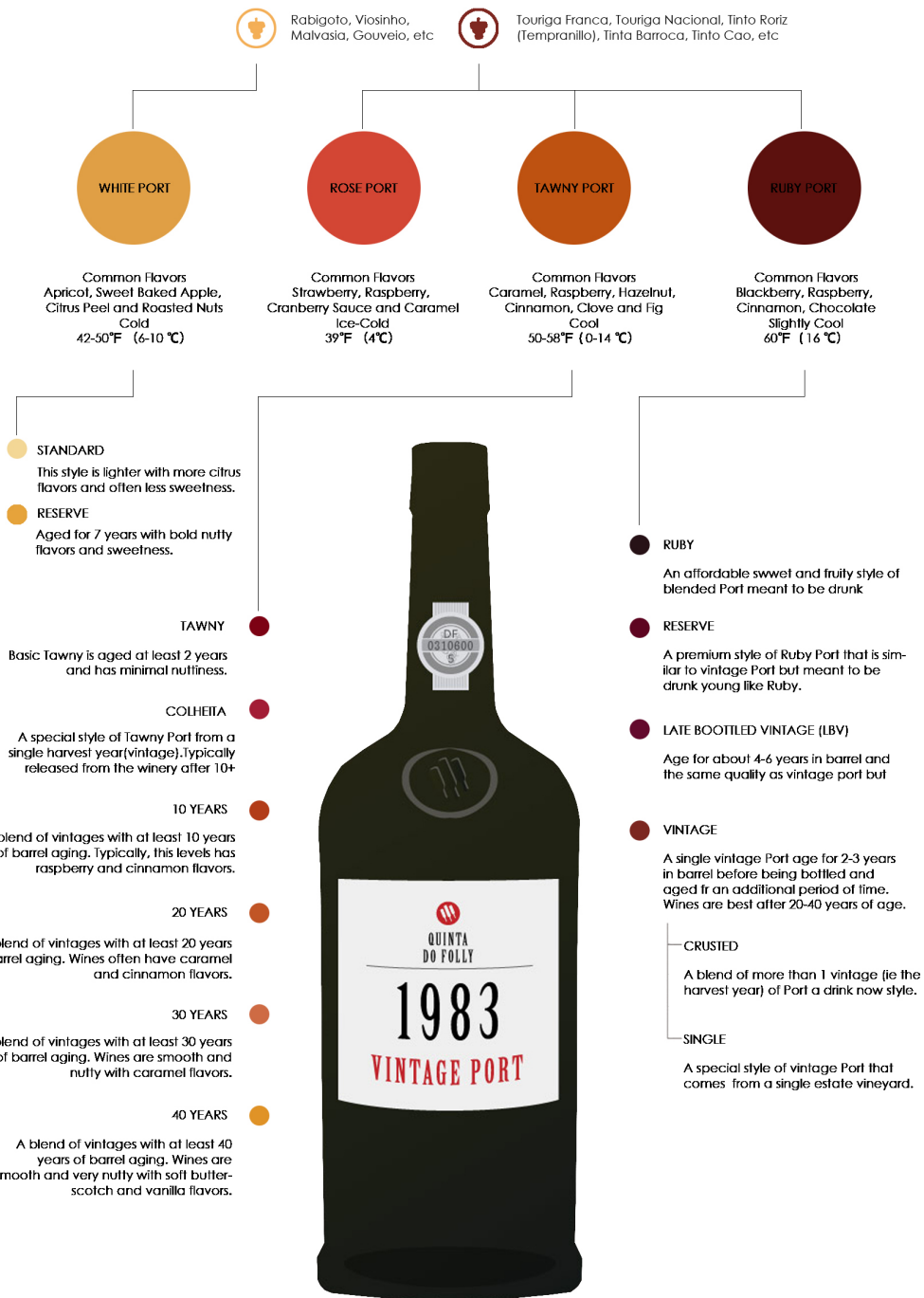


MONTHLY MAX / MIN



MONTHLY AVERAGE

DOURO RIVER WATER TEMPERATURE



PORTO WINE

PORT WINE GLASS



SERVING SIZE: 3OZ (85ML)

Port glasses are smaller than a regular wine glasses due to the typically high alcohol and sweetness in Port wine. A single serving of Port wine is approximately 3 oz (85 ml).

PORTO WINE GLASS

WEIGHTING AND SAMPLE THE GRAPES

The initial quality control of the "raw material" is essential to making premium quality wines.

DESTEMMING & CRUSHING

The stems are separated from the grapes. The berries are then crushed to release the sugary juice they contain.

MACERATION & REMONTAGE

The fermenting juice is left in contact with the grape skins for period of time in order to extract color, aromas and tannins. At the same time, the juice fermenting at bottom of the vat is pumped over the skins accumulating on the surface. This is known as the cap.

ALCOHOLIC FERMENTATION

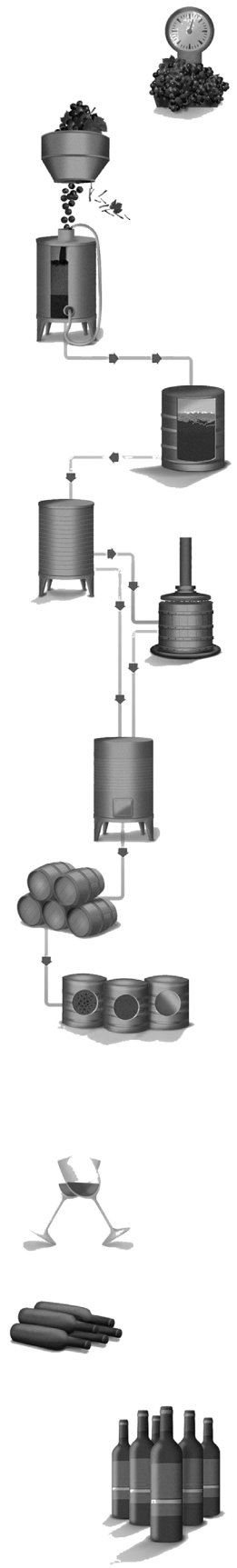
Due to the effects of the yeast, the natural sugars of the juice are transformed into alcohol.

RACKING

A process following alcoholic fermentation that involves emptying the vat and moving the wine to another tank or a barrel to separate it from the pomace and obtain what is known as free run wine.

CAP PRESSING

A winepress is used to press the skins and extract the last of the wine. This is known as the press wine.



BLENDING

Blending of the free run wine and the press wine.

AGING

Once fermented ,the wines can also undergo malolactic fermentation, which turns the malic acid into far gentler lactic acid.

The fermented wines are barrel aged for varying lengths of time, which imparts characteristic oak flavors.

CLARIFICATION - STABILIZATION - FILTRATION

Steps to “clean” the final product, removing impurities and small, suspended particles as well as stabilizing the wine so that it may be shipped and stored.

BOTTLING AND BOTTLE AGING

The finished wines may be bottle aged for longer or shorter periods, endowing them with the characteristic aromas of time.

LABELLING

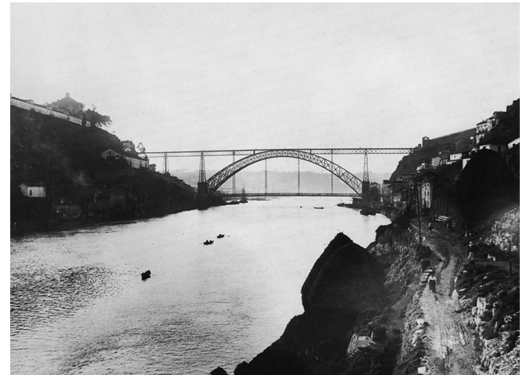
PORTO PRODUCTION



VINICULTREO



TRANSPORTATION

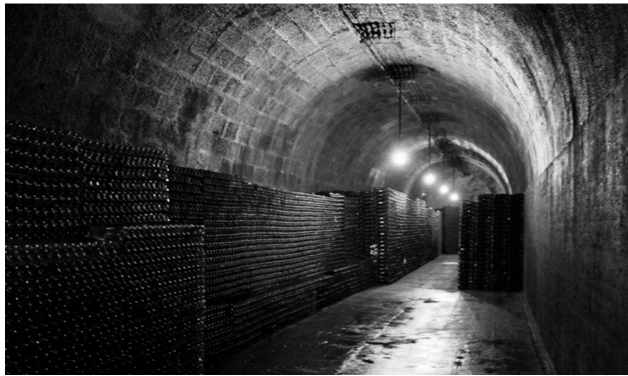


INFRASTRUCTURE

TRANSPORTATION



TRADING



STORAGE

WINE BUSSINESS

By researching Douro river and Porto wine, Porto urban structure , urban history and current problem of the site. The architecture was designed following the principles as below:

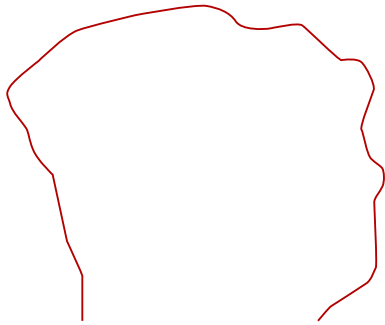
- Recovering the memory the site which was facing to Douro River.
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CHAPTER 2 - STRATEGY

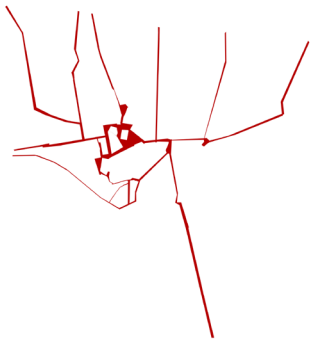
Urban Structure / Historical Memory / Currency / Concept



AXIS



CYCLATION



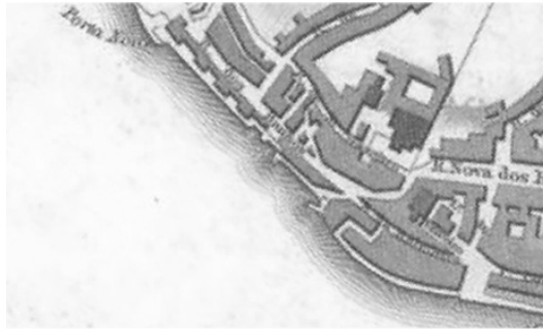
"HANDS" PATH





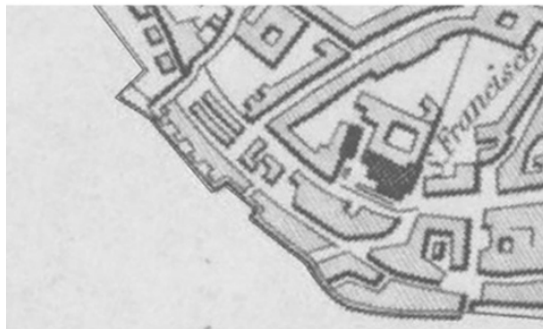
URBAN STRUCTURE

1800s



City was directly facing to the Douro River.

1900s



A beach was between the city and Douro River.

2000s



A river bank was block Douro River to city.

RIVERSIDE EVOLUTION



HISTORICAL MAP 1865

200 years ago, the River Bank was not existing. There was a beach in front of city and facing to the Douro river. And in the beach there were activities related to port wine transportation and trading.

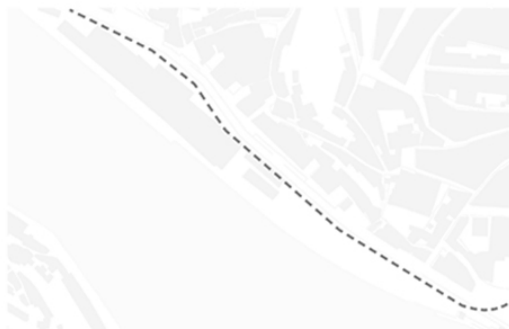


HISTORICAL IMAGE

LEVELS



INFRASTRUCTURE



LIMITS





CURRENT SITUATION

CUT - MEMORY



Cutting the river bank give a opportunity for the city facing to river.

ISOLATED - CENTER



A isolated island was creat to give the special to the museum built near riverside.

EXTENTION - PUBLIC



Water platform was created as a public space which is a extension of infrastructure.



CONCEPT

The Port wine is one of the most known and important Porto brands. In the Douro Valley there are 500 producers and 100 of them produce Port Wine.

Since 2006, tourism growth in the city is approximately 25% per year.

The city is still lacking a Port Wine Interpretation Centre and my proposal wants to solve that, creating in Porto riverine area a Structure and a new Public Space. The chosen plot is an urban void in the city of Porto, which actually needs to be filled. It is situated in the North bank of the Douro River and the adjacent area is mainly residential.

Porto Information:

Area (main city): 389 km²

Population (main city): 1.6 million

Elevation : 0-149m

CHAPTER 3 - PROPOSAL
URBAN STRATEGY/ WATER & PUBLIC/ UNDERGROUD



PORTO WINE INTERPRETA

MASTER PLAN 1:

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ATION CENTER

1000

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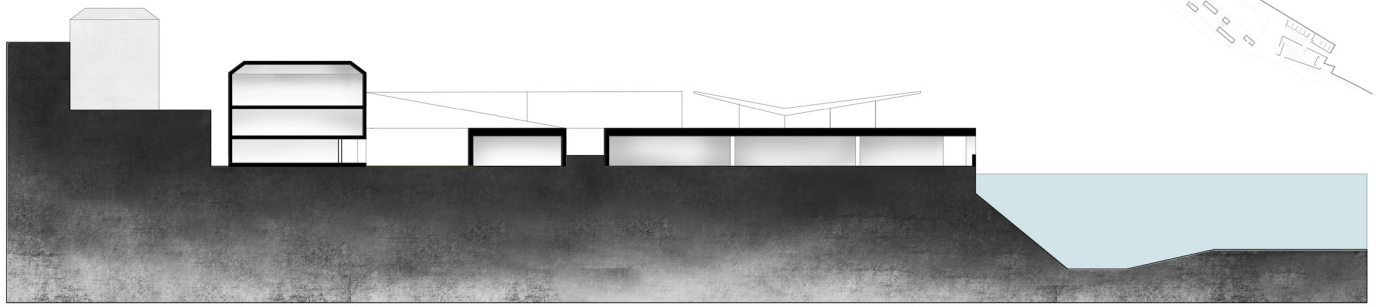




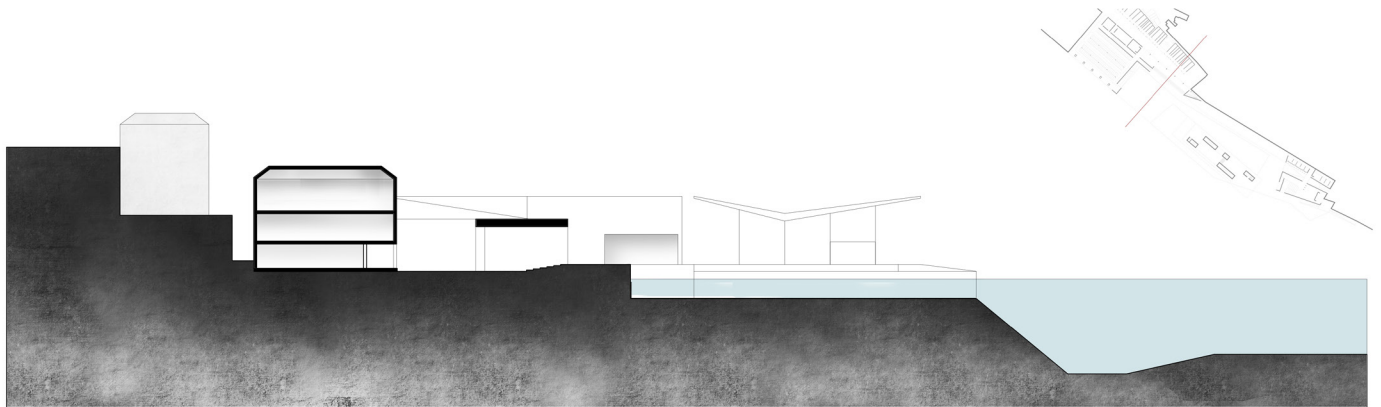




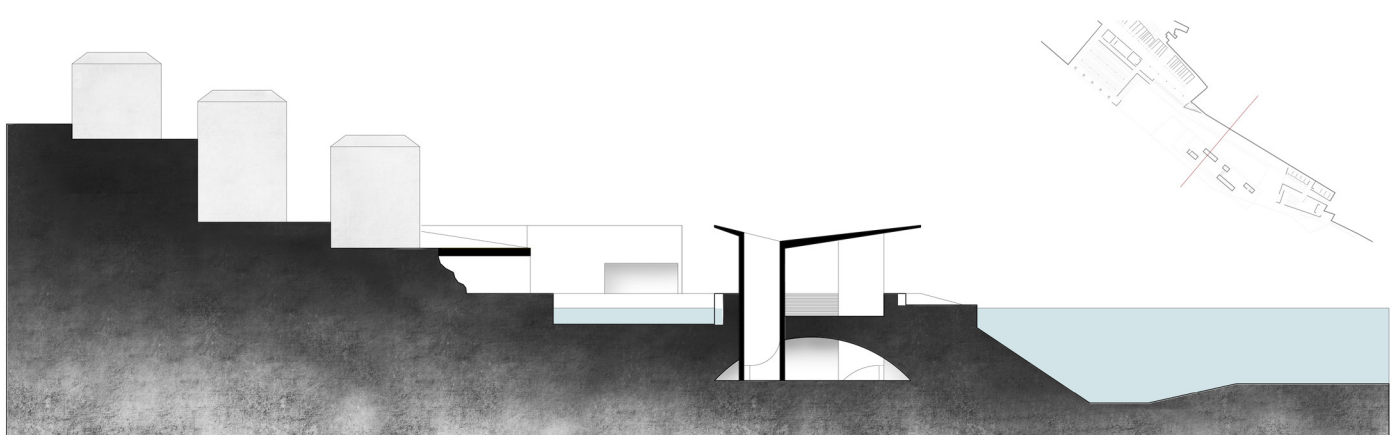




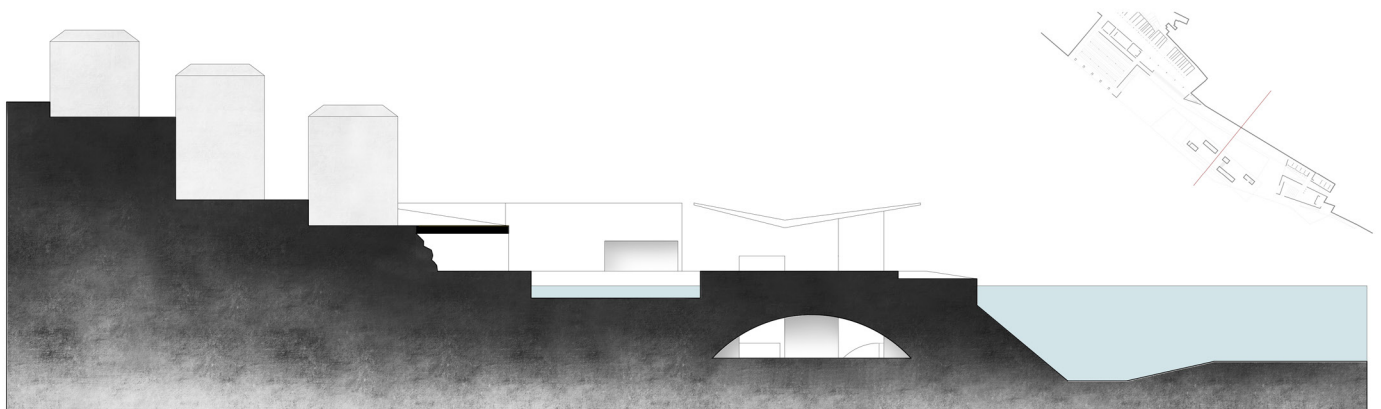
SECTION A 1:500



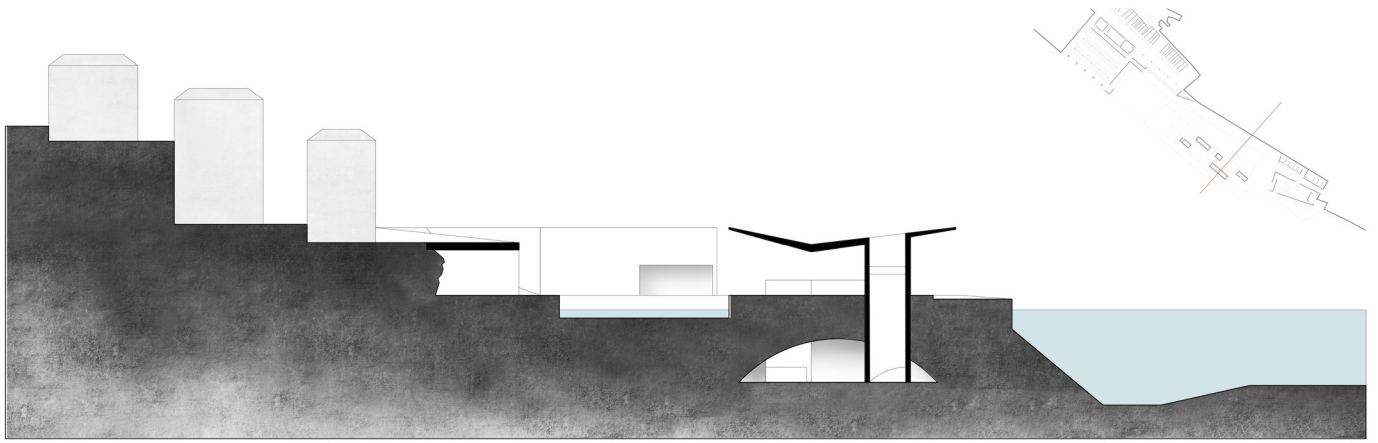
SECTION B 1:500



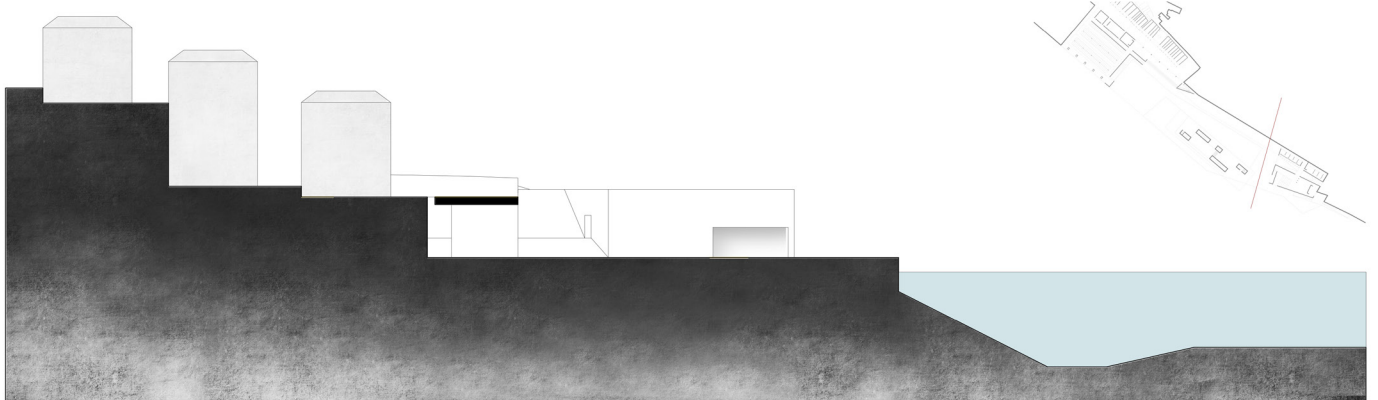
SECTION C 1:500



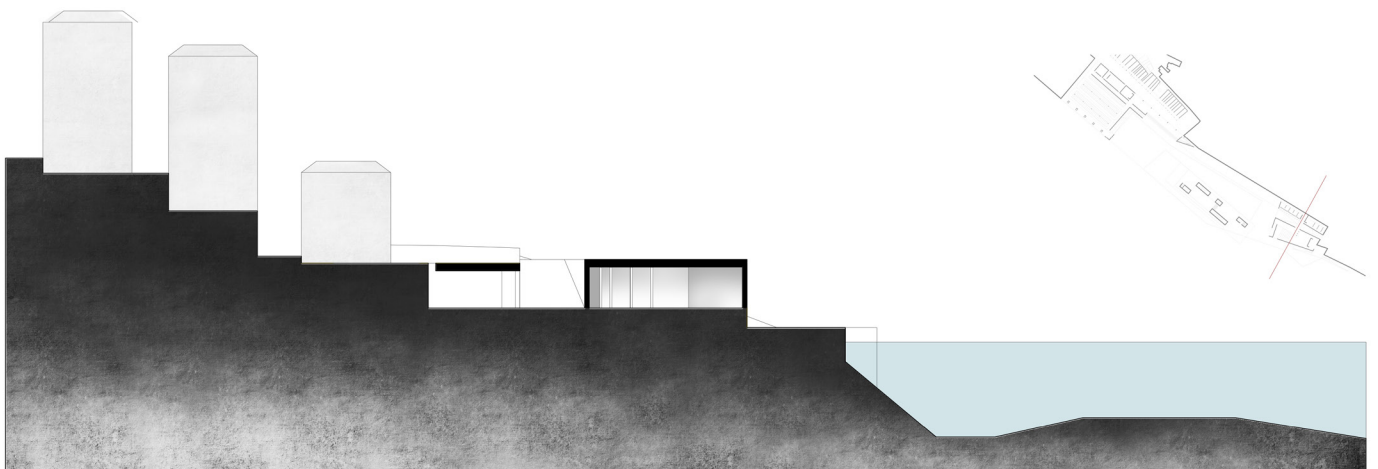
SECTION D 1:500



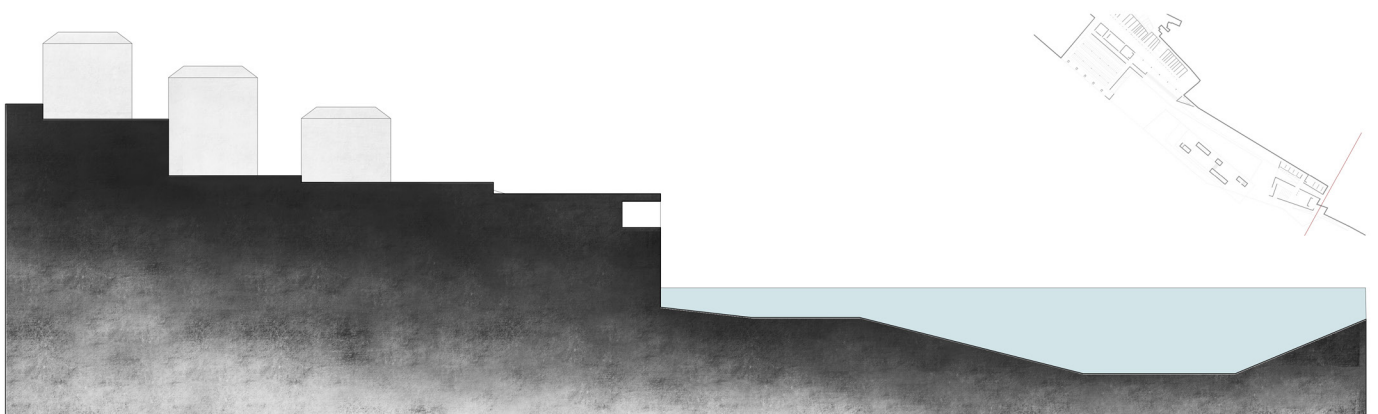
SECTION E 1:500



SECTION F 1:500



SECTION G 1:500



SECTION H 1:500







PORTO WIN

E

Prof. GUYA BERTELLI & P



E INTERPRETATION CENTER

LEVATION 1:500

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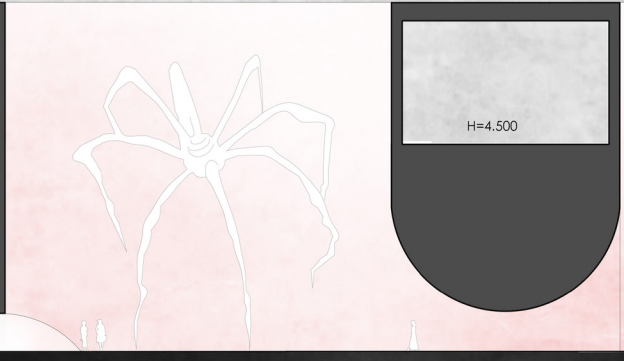


H=15.500



H=4.500

H=3.600



H=4.500



H=12.00

H=12.00

H=4.500

H=9.500



H=15.000



H=12.000

H=8.500

H=4.500

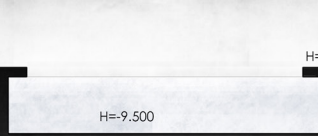
H=3.600



H=1.500



H=-6.500



H=-9.500











In conclusion, After one year discussion for this topic I understand a process to develop a architecture design by creating a system to Integrate different aspects: urban context, city memory , structure, materials, lights, details, public landscape.

Special thanks to My Prof. Guya Bertelli, Prof. Camio Rebelo ,Tutor. Patricio Guedes For the help in thesis improvement.

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CONCLUSION

