



**MASTER JOURNAL**  
FRANCISCO NABOR

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## **BACKGROUND**

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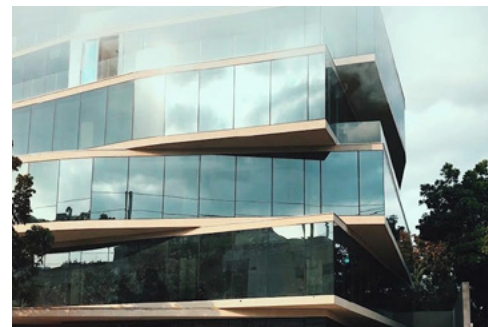
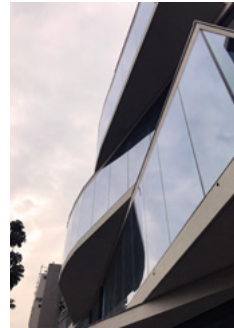
ARCHITECT BASED IN MANILA, PHILIPPINES WITH 6 YEARS EXPERIENCE WORKING IN AN ARCHITECTURE STUDIO.

WORKED ON RESIDENTIAL, COMMERCIAL, INSTITUTIONAL ARCHITECTURE AND INTERIORS.

EXPOSED TO ALL PHASES OF A PROJECT, FROM CONCEPT TO DOCUMENTATION TO CONSTRUCTION.

REGULARLY PART OF THE COMPETITION TEAM THAT WORKS ON PROJECTS THAT THE STUDIO SUBMITS.

MY FATHER IS ALSO AN ARCHITECT WITH HIS OWN STUDIO.



## OUTDOOR KITCHEN FOR FOOD BLOGGERS

### WINNER KITCHEN DESIGN WORKSHOP

MASTERS IN INDUSTRIAL DESIGN  
FOR ARCHITECTURE  
POLITECNICO DI MILANO. POLI.DEISNG

[MILAN, JUNE-JULY 2018]

**frigo2000**  
high performance kitchen

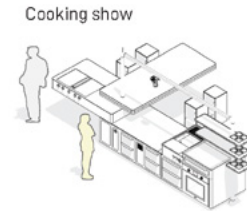
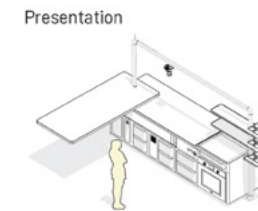
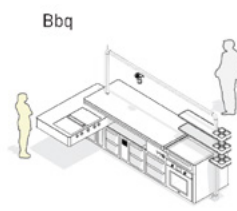
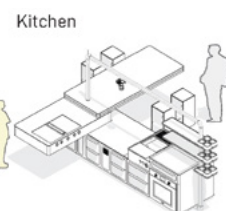
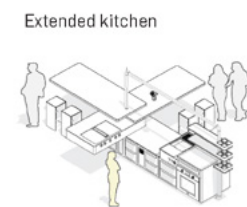
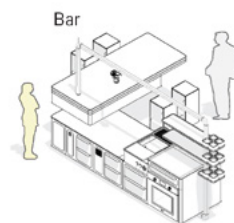
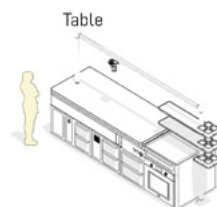
**ABIMIS**  
CUCINE PER PASSIONE

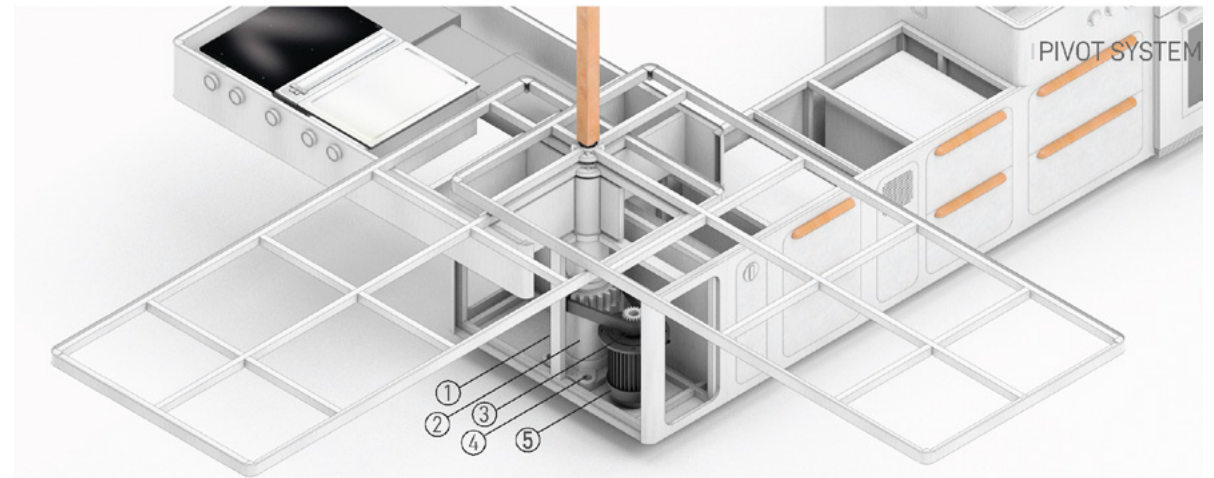
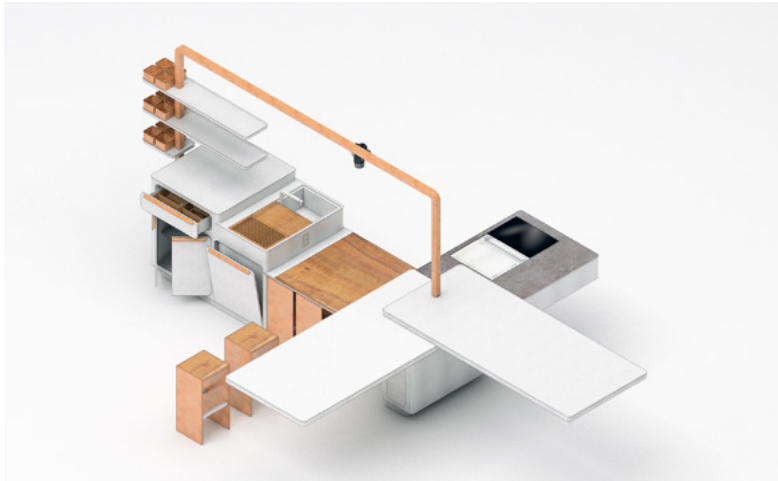
PROFESSORS:  
VENERE FERRARO  
RICARDO NEGRI  
FEDERICO ELLI

GROUP WORKSHOP

PRESS

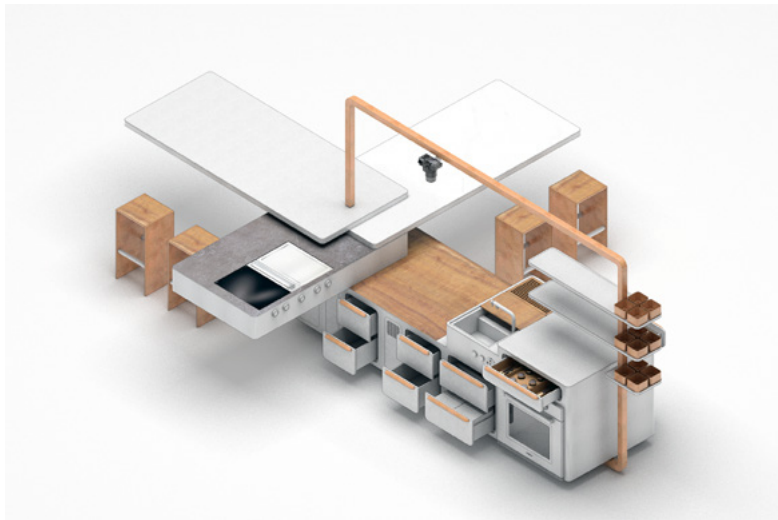
<https://www.ambientecucinaweb.it/secon-da-edizione-del-workshop-promosso-da-politecnico-e-frigo2000/>



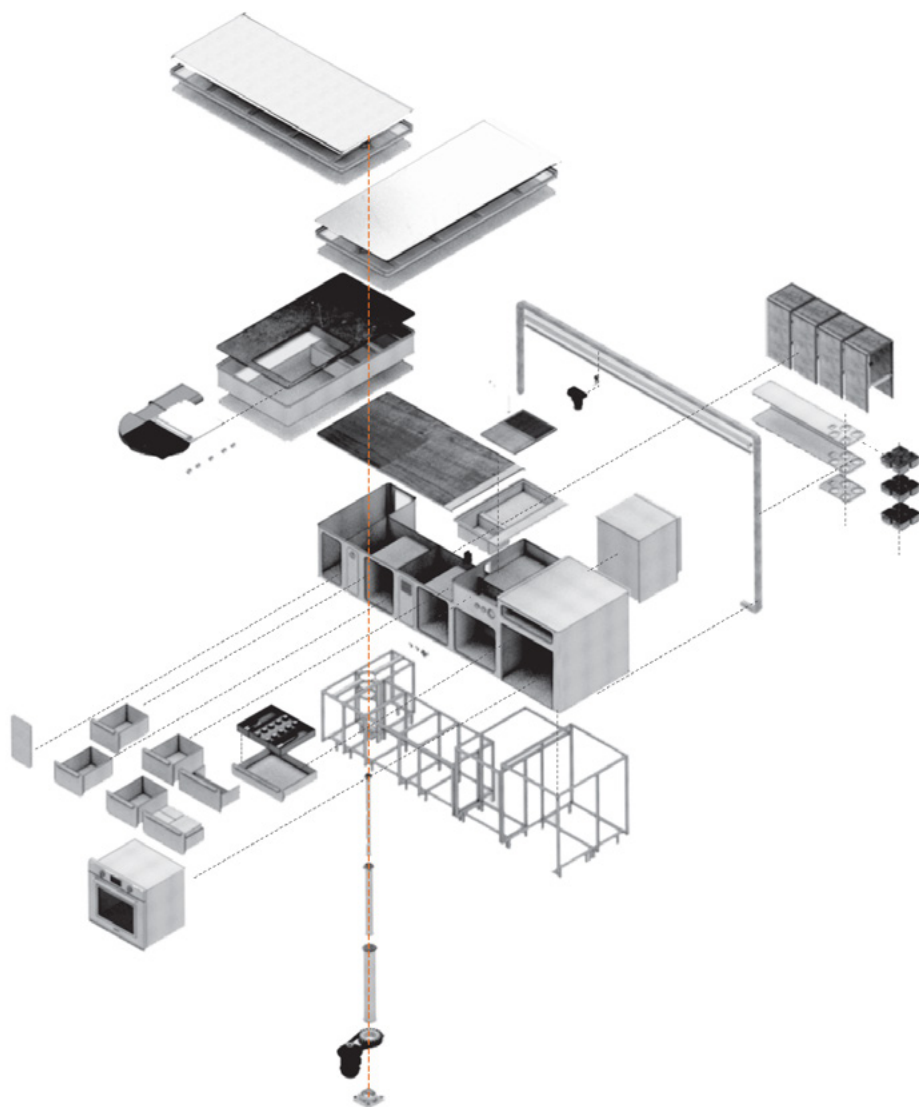


ONE KITCHEN

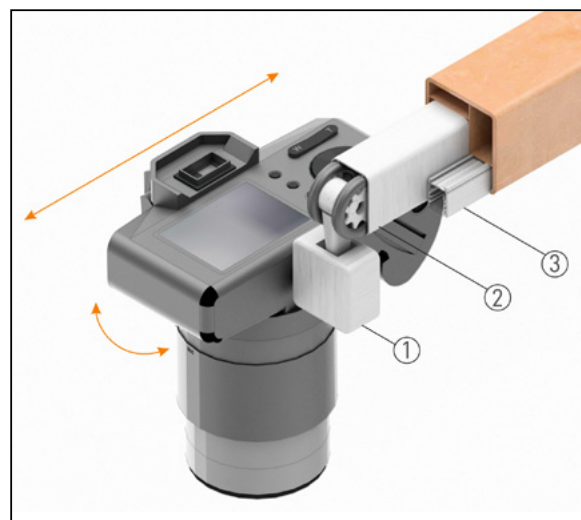
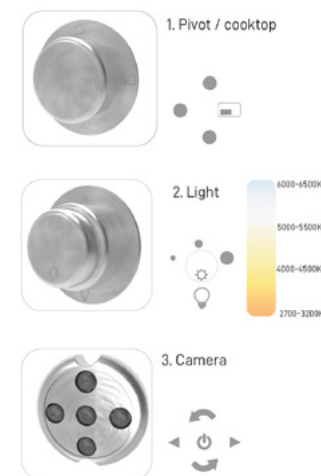
MULTIPLE LAYOUTS







## CONTROL INTERFACE



## CAMERA /LIGHT SYSTEM



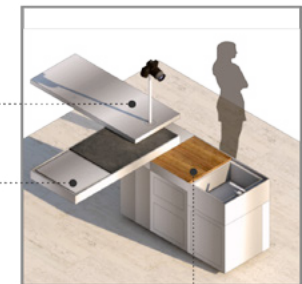
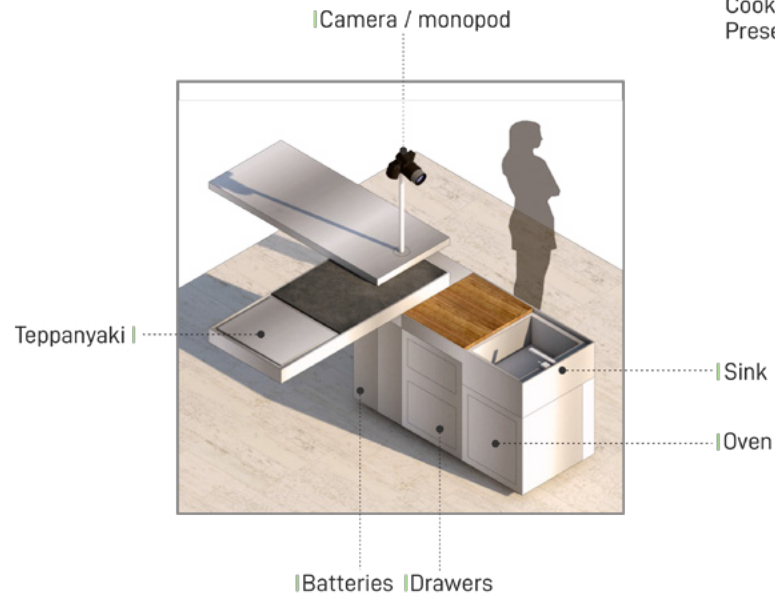
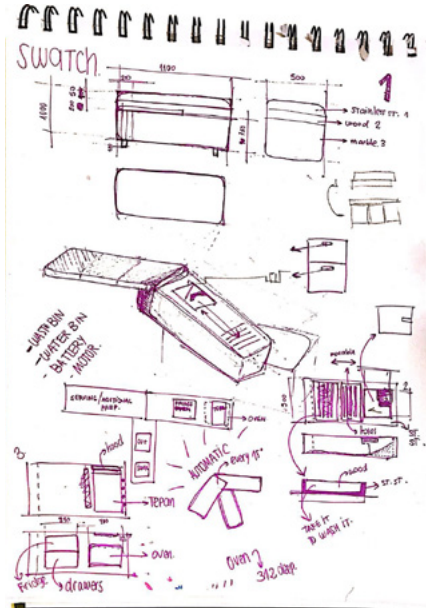


### ORIGINAL CONCEPT

INSPIRED BY ACHILLE CASTIGLIONI'S THOUGHT PROCESS IT STARTED WHEN I FOUND IDEAS IN OBJECTS I HAD ON MY DESK, A SWISS KNIFE AND A MATERIAL SWATCH. ONLY WHEN I TINKERED THEM DID I REALIZE THAT THEY CAN BE A NEW KITCHEN DESIGN PROTOTYPE

WE THEN STARTED MAKING STUDIES AND SKETCHES ON HOW IT CAN WORK UNTIL WE WERE ABLE TO DEVELOP A SCHEMATIC DESIGN

### SWATCH



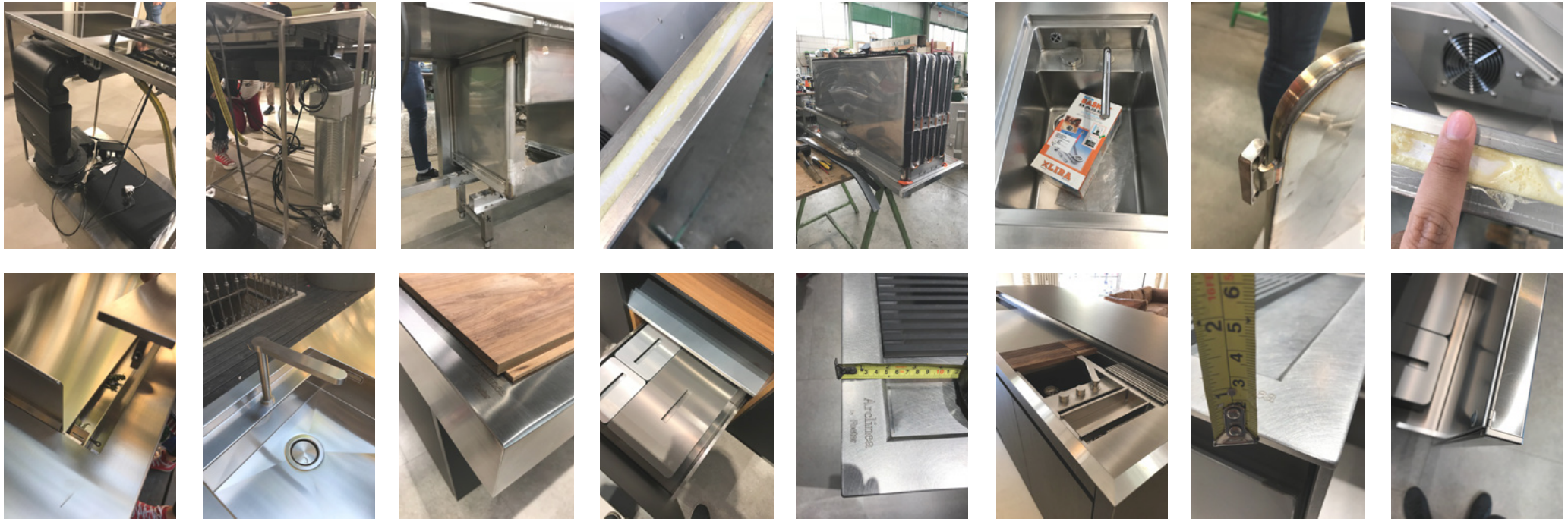
Preparation |  
Cooking |



Stainless  
steel    Stone    Wood

## RESEARCH

VISITING FRIGO 2000 AND THE ABIMIS FACTORY TO DOCUMENT AND OBSERVE HOW STAINLESS STEEL KITCHENS ARE MADE.



## RESEARCH

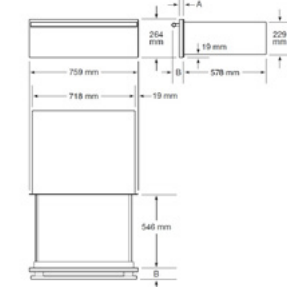
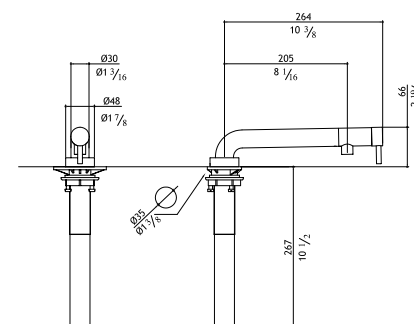
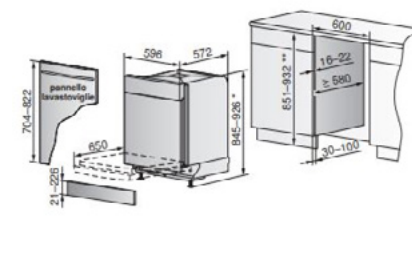
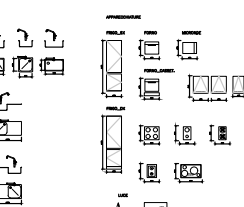
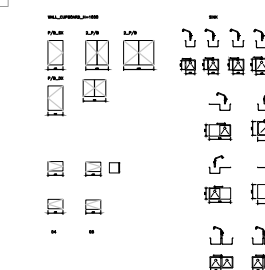
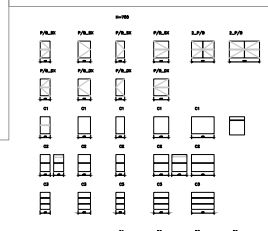
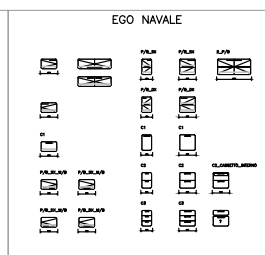
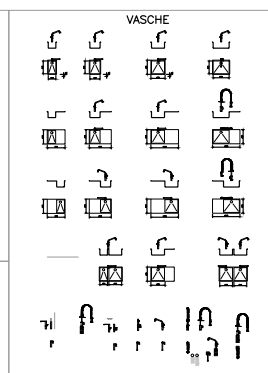
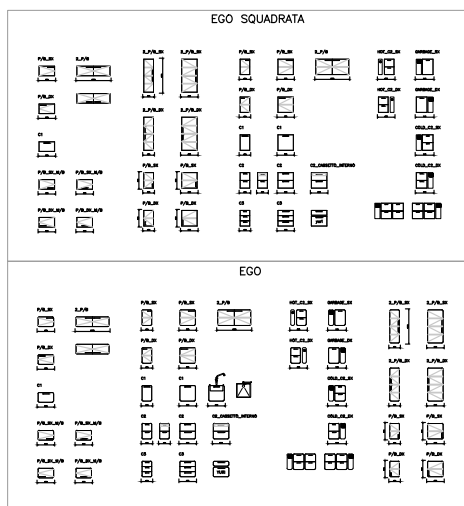
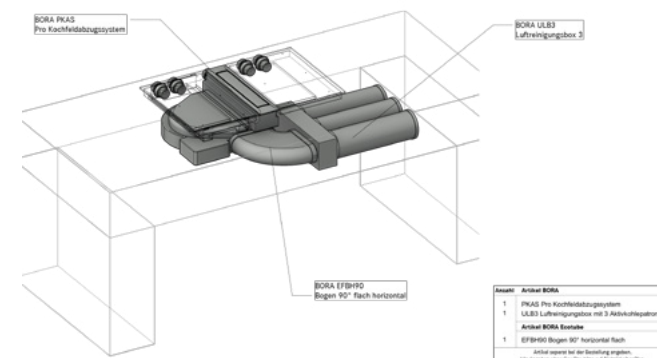
ASIDE FROM RESEARCHING THE REQUIRED KITCHEN TRENDS, I ALSO VISITED OTHER OUTDOOR STAINLESS STEEL BRANDS SUCH AS ARCLINEA AND BOFFI TO DOCUMENT AND OBSERVE HOW EVERYTHING WORKS AND PUT TOGETHER.



## INTEGRATION OF REQUIREMENTS

CONSIDERATION OF:  
FRIGO 2000 APPLIANCES SIZES  
INSTALLATION METHODS

CONSIDERATION OF:  
ABIMIS MODULES  
STANDARD DETAILS





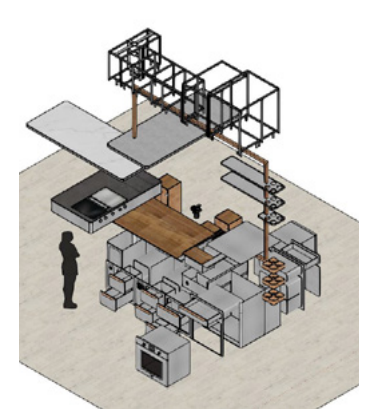
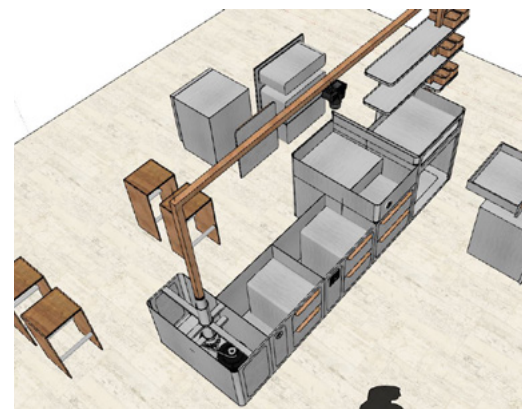
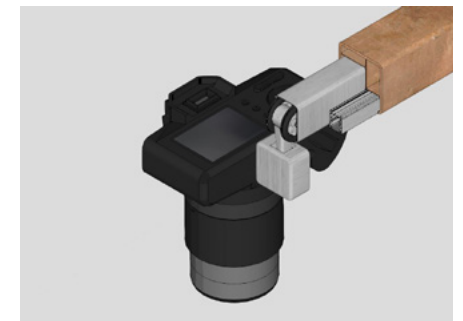
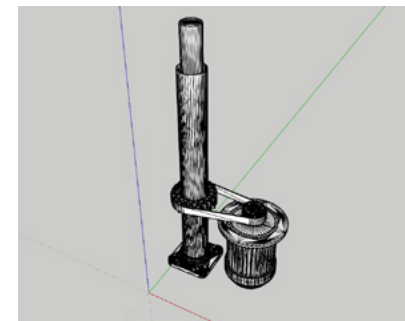
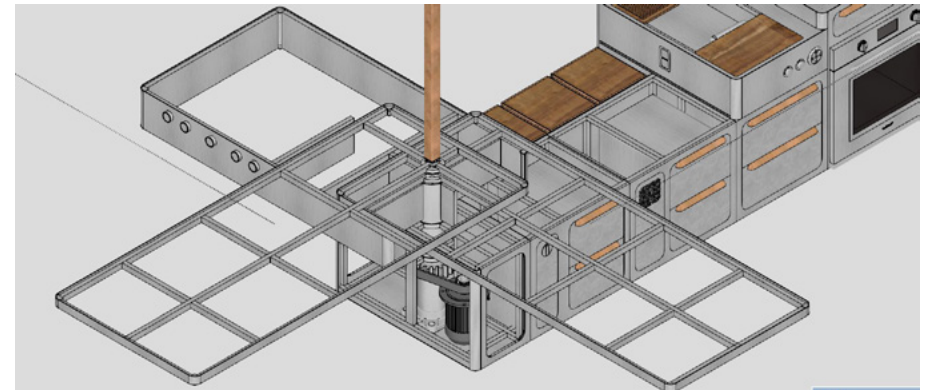
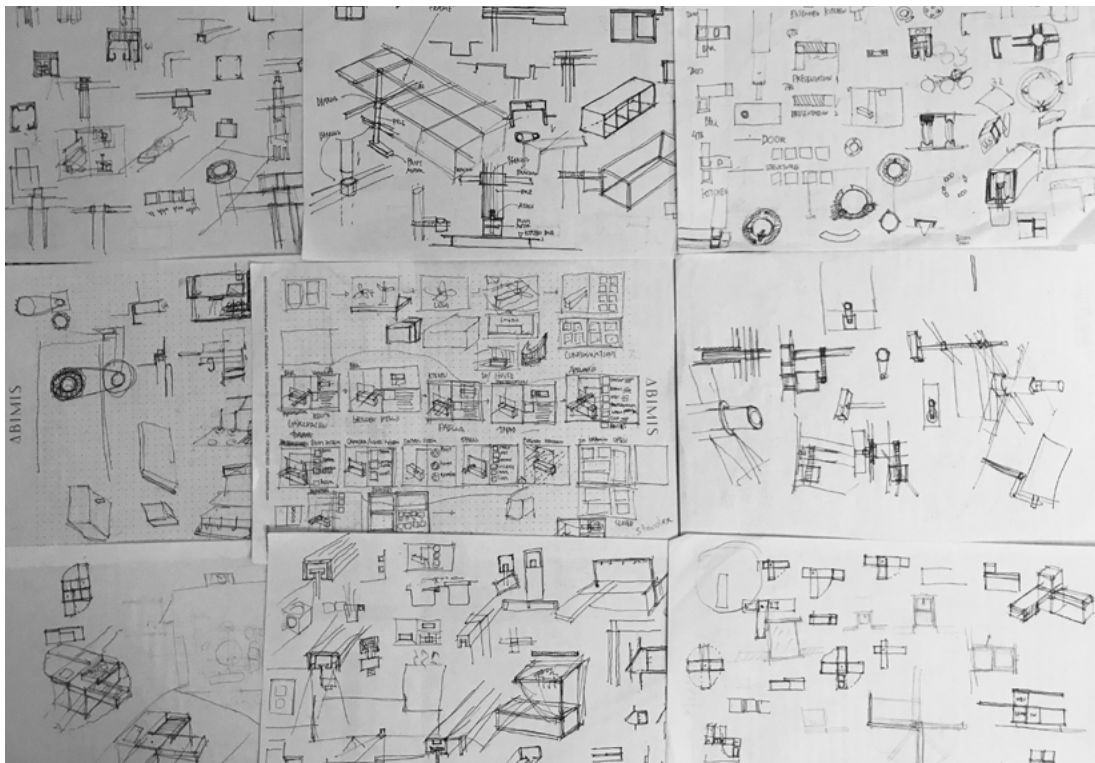
## 3D MODELING

## CONSTRUCTION OF AN INTEGRATED 3D MODEL OF THE PRODUCT

INTEGRATION OF 3D MODELS OF INDIVIDUAL COMPONENTS DESIGNED BY THE TEAM'S INDUSTRIAL DESIGNER INTO THE MAIN MODEL.

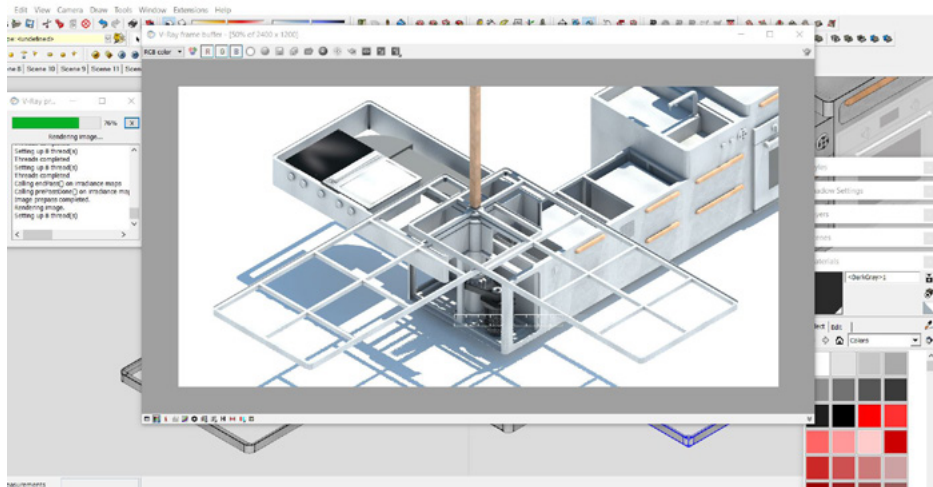
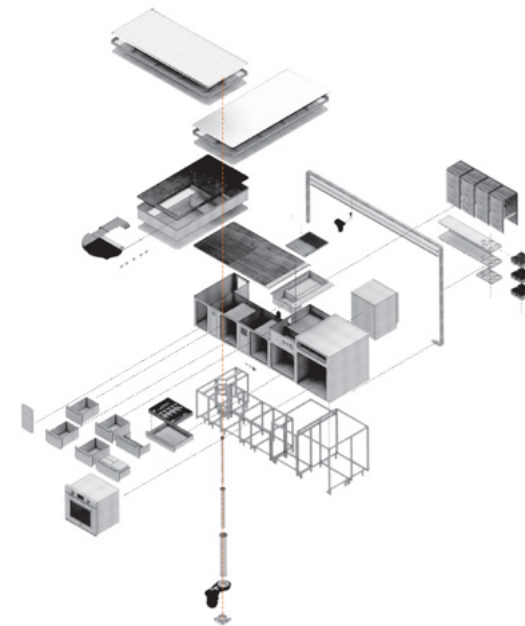
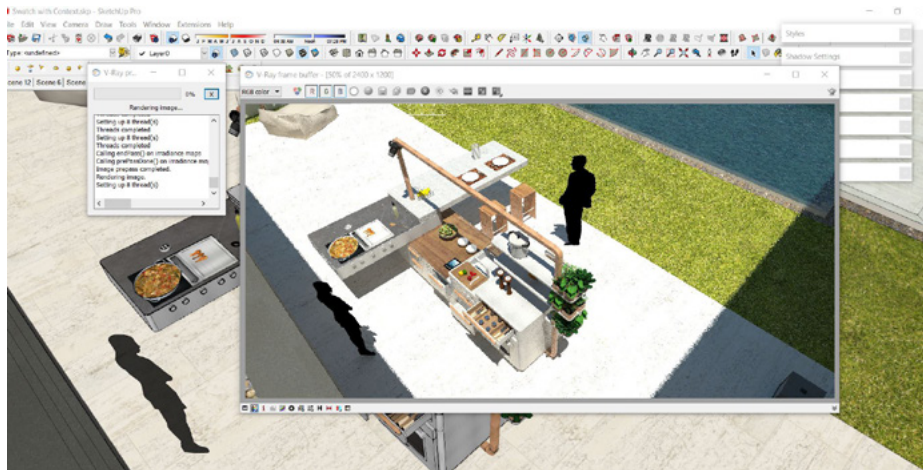
DOING SKETCHES OF DETAILS TO SOLVE PROBLEMS AND FORMULATE NEW IDEAS ALONG THE WAY.

EXTRACTING IMAGES, DIAGRAMS AND INFORMATION FROM THE MODEL FOR PRESENTATION PURPOSES.

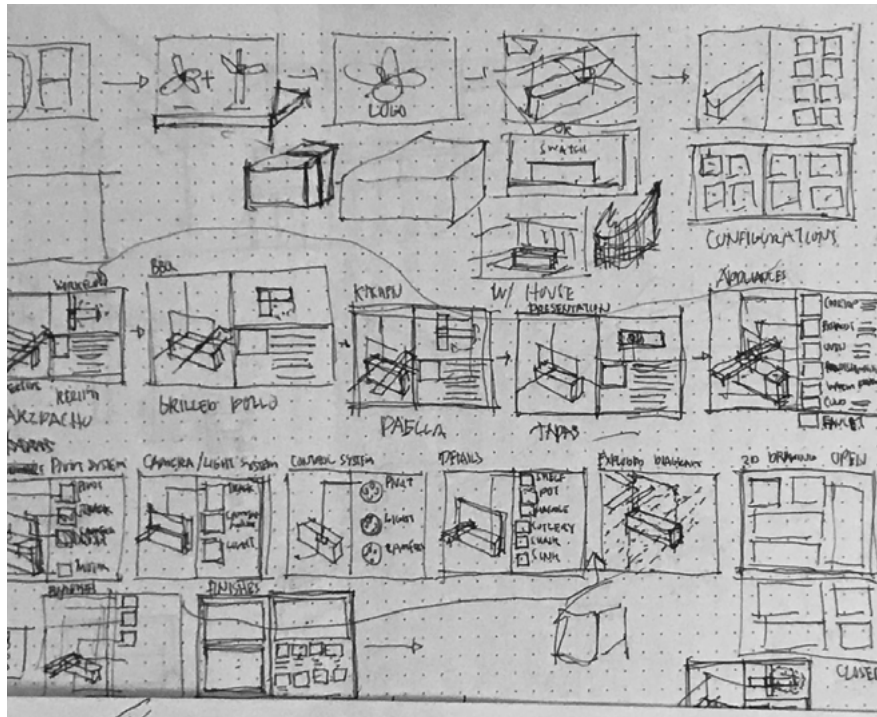


## RENDERING

PRODUCING RENDERED IMAGES FROM THE 3D MODEL FOR PRESENTATION PURPOSES. FORMULATED STRATEGIES HOW TO BEST SHOWCASE THE PRODUCT AND IT'S CHARACTERISTICS.



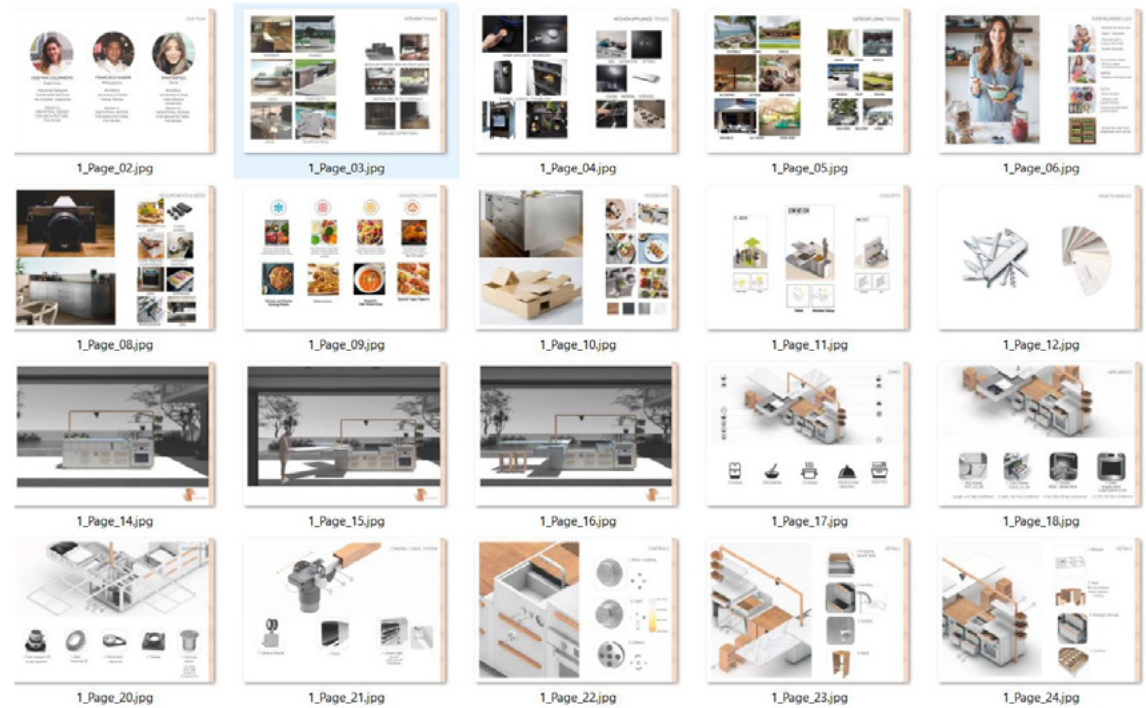




### PRESENTATION SEQUENCE AND STRATEGIES

DRAFTING PRESENTATION STORYBOARD AND FLOW.

FORMULATING PRESENTATION STRATEGIES WITH GROUPMATES





### CONCLUSION

WE PRESENTED THE PRODUCT IN FRONT OF A JURY AND THE MEDIA AND IT WAS A REAL LEARNING EXPERIENCE. WE EVENTUALLY CAME OUT AS WINNERS OF THE CONTEST.

WE BELIEVE THAT WE WERE CHOSEN BECAUSE OUR PRODUCT IS A CLEAR AND CONCISE CONCEPT THAT ANSWERS THE BRIEF WITH A TECHNICAL AND FUNCTIONAL SOLUTION.





## FLOATING VACATION HOUSE

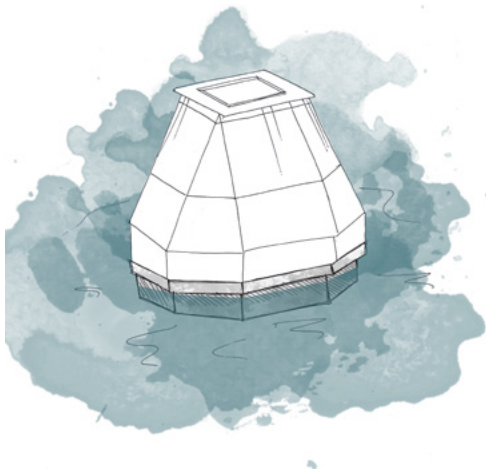
## LIVING UNIT DESIGN WORKSHOP

MASTERS IN INDUSTRIAL DESIGN  
FOR ARCHITECTURE  
POLITECNICO DI MILANO. POLI.DEISNG

[MILAN, SEPTEMBER-OCTOBER 2018]

PROFESSORS:  
FRANCESCO TRABUCCO  
SERGIO DANESI  
GIACOMO WILHELM

GROUP WORKSHOP



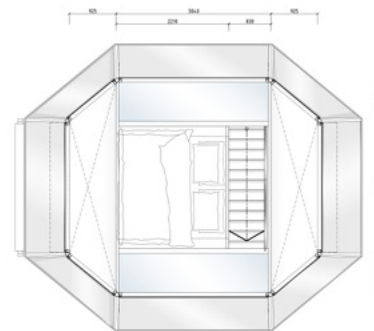
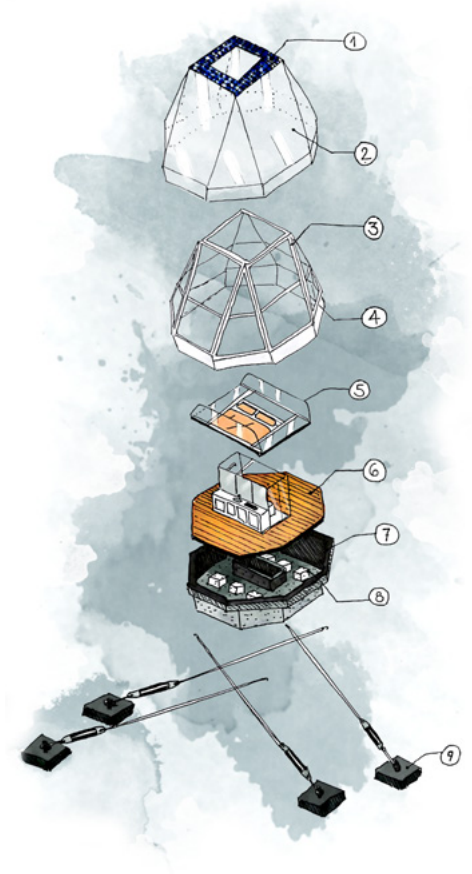
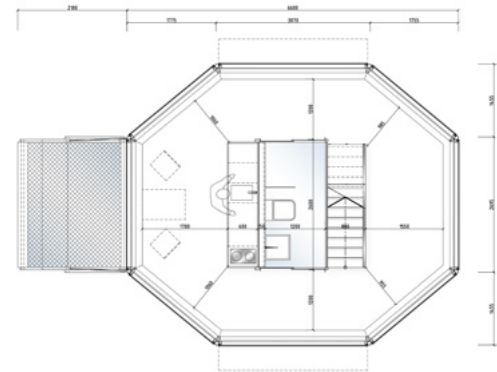
WHAT IS LIVING?

\_LIVING IN ESSENCE IS TO CO-EXIST WITH NATURE

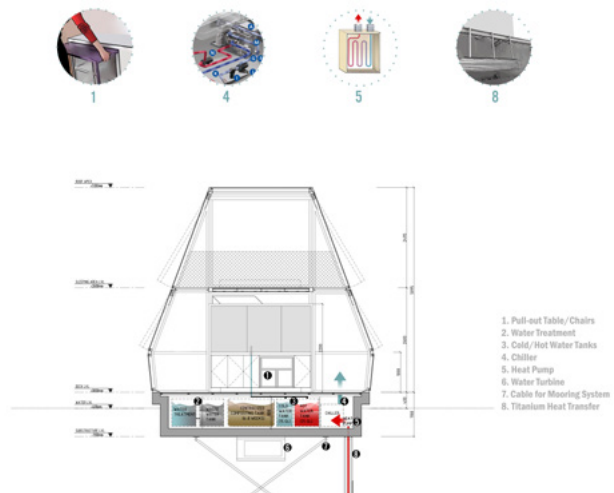
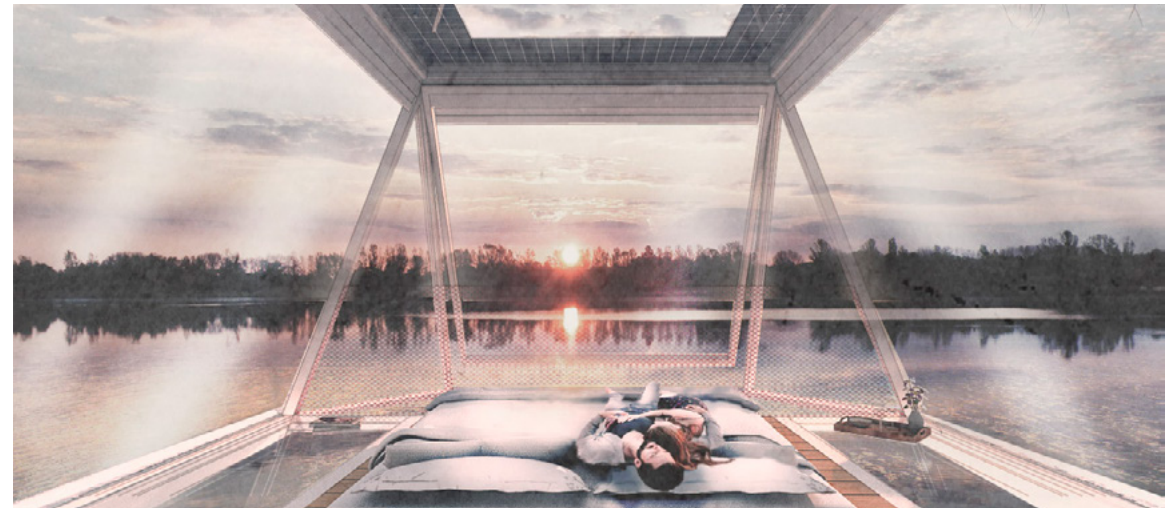
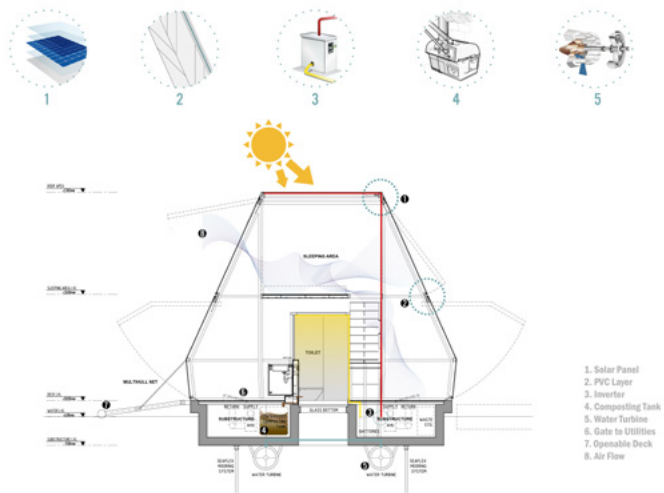


## LANTERN HOUSE

OUTPUT

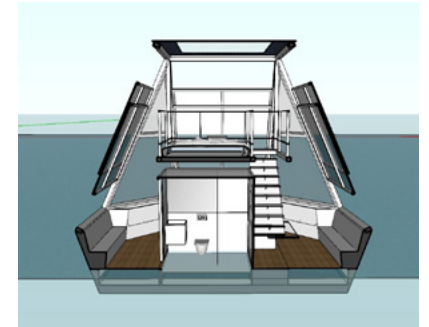
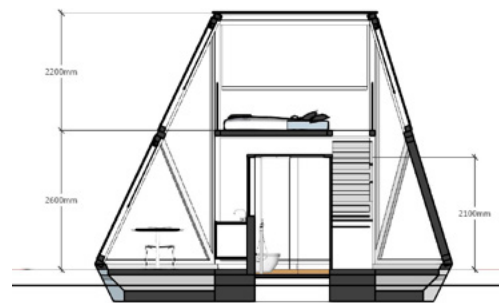
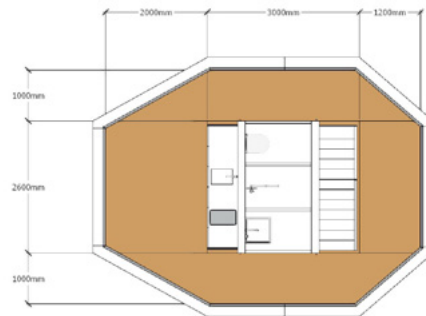
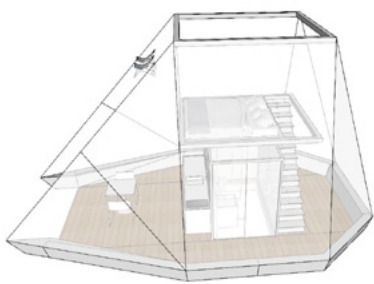
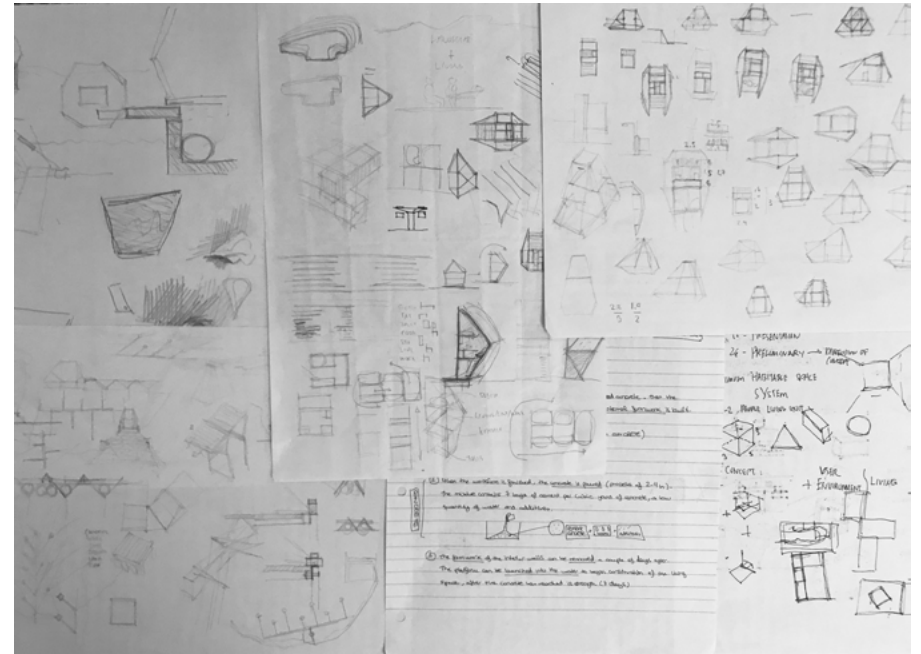






**TRANSLATING A CONCEPT TO REALITY**  
AS THE ARCHITECT OF THE TEAM, I GAVE FORM TO THE CONCEPT BY DEFINING THE SPACES, DIMENSIONS AND INTEGRATING THE DIFFERENT COMPONENTS.

THROUGH THE USE OF 3D MODELLING WITH SKETCHING WE WERE ABLE TO MAKE THE CONCEPT MORE AND MORE REFINED AND DEFINED.

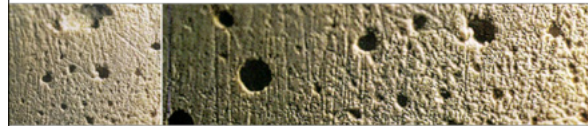
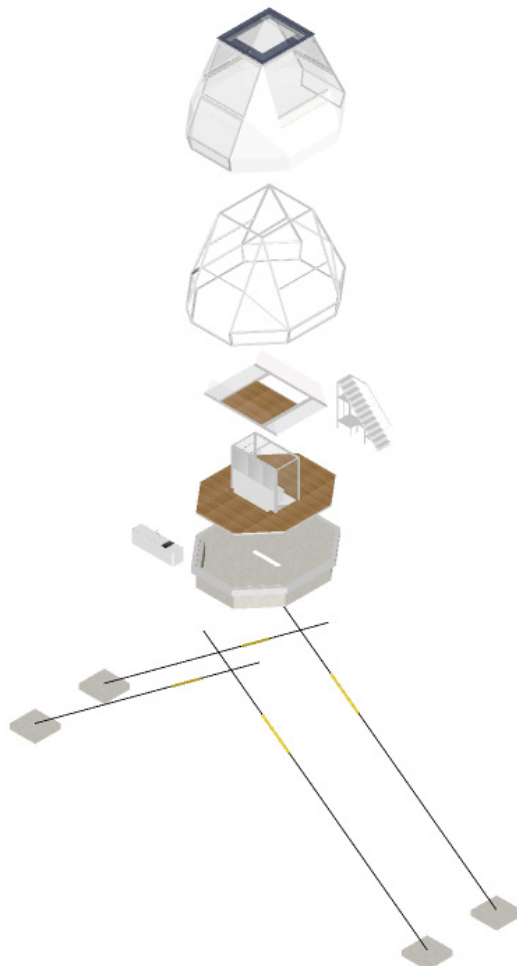




# LANTERN HOUSE

## INDIVIDUAL CONTRIBUTION

RESEARCH AND INTEGRATION OF MAIN COMPONENTS HELPED RESEARCH ON APPLICABLE SYSTEMS IN THE MARKET AND INTEGRATED IN THE PROJECT WITH CONSIDERATION TO THE SYSTEM'S PARAMETERS.



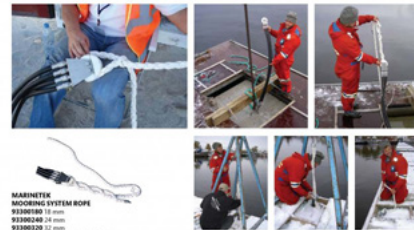
### FLOATING CONCRETE

By replacing sand and gravel with tiny polymer spheres, University of Washington materials scientists have created a concrete stronger than traditional concrete but so light it floats in water. The team won the regional American Society of Civil Engineers Concrete Canoe Competition last year.

162, "Stiff Love," Wired January 2006, p. 164



### Mooring System



**MARINETEK MOORING SYSTEM ROPE**  
93300080 10 mm  
93300248 24 mm  
93300209 32 mm  
Square plated Polyester, 220 m.

**MARINETEK MOORING SYSTEM EE**  
1 and 2 rubber hawsers  
Economic model for light pontoons and buoys.

**MARINETEK MOORING SYSTEM TS**  
2, 3 and 4 rubber hawsers  
A standard model with stainless steel shackles for anchor fixing. Designed for small and mid-size pontoons.

**MARINETEK MOORING SYSTEM TSBP**  
4, 6, 8 and 10 rubber hawsers  
The By Pass rope prevents Marinetek Mooring System from being extended over its elongation capacity in extreme conditions. The model can also withstand extreme forces and loads. For larger pontoons, wave absorbers, large sailing moorings and navigation buoys.

#### BENEFITS

**WATER LEVEL VARIATIONS**  
The flexibility of Marinetek Mooring System allows extreme water level variations.

**STABLE POSITIONING**  
Being always vertical, Marinetek Mooring System stabilizes the movements of the pontoon and keeps it firmly in its place.

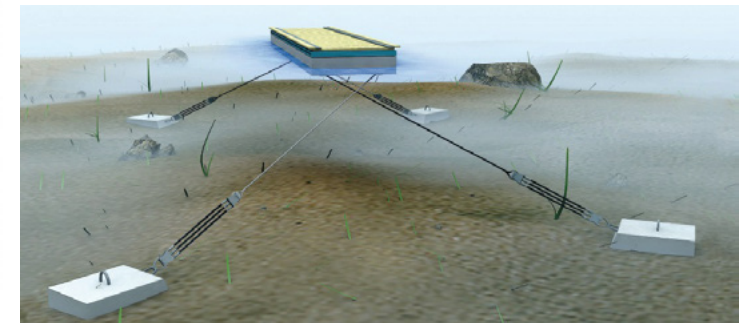
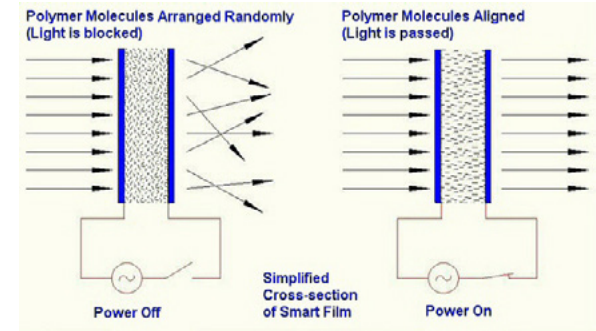
**LOW MAINTENANCE**  
Marinetek Mooring System requires minimal maintenance along the years. The life span of Marinetek Mooring System is much longer compared with steel.

**SECURE AND ENVIRONMENTAL**  
Marinetek Mooring System has been approved to be a secure mooring system during its 30 years history. Marinetek Mooring System does not harm the seabed at all.

PRODUCT NO.	TYPE	RUBBER HAWSERS	LENGTH	BY PASS
93300021	Marinetek Mooring System T020-EE	1	22 m	No
93300021	Marinetek Mooring System T020-EE	2	28 m	No
93300029	Marinetek Mooring System T020-TS	2	28 m	No
93300029	Marinetek Mooring System T020-TS	3	23 m	No
93300030	Marinetek Mooring System T020-TS	3	23 m	No
93300035	Marinetek Mooring System T025-TS	3	25 m	No
93300036	Marinetek Mooring System T025-TSBP	3	28 m	No
93300120	Marinetek Mooring System T025-TSBP	3	23 m	No
93300130	Marinetek Mooring System T025-TSBP	4	28 m	No
93300130	Marinetek Mooring System T025-TSBP	4	23 m	No

**PLEASE CONTACT** your Marinetek distributor to choose the right Marinetek Mooring System. Rope lengths in different pontoon available.

Mooring System MARINETEK® 23



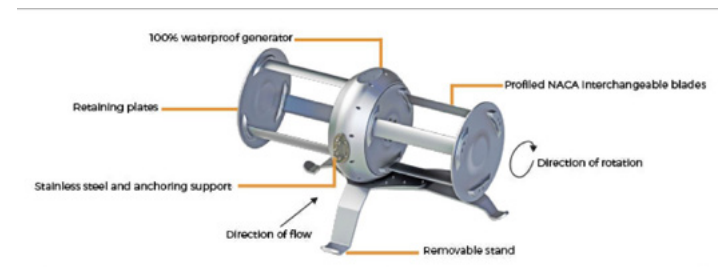
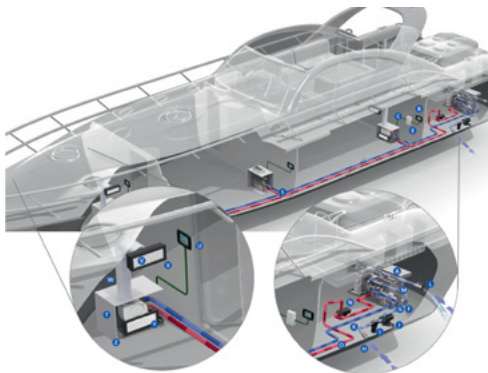
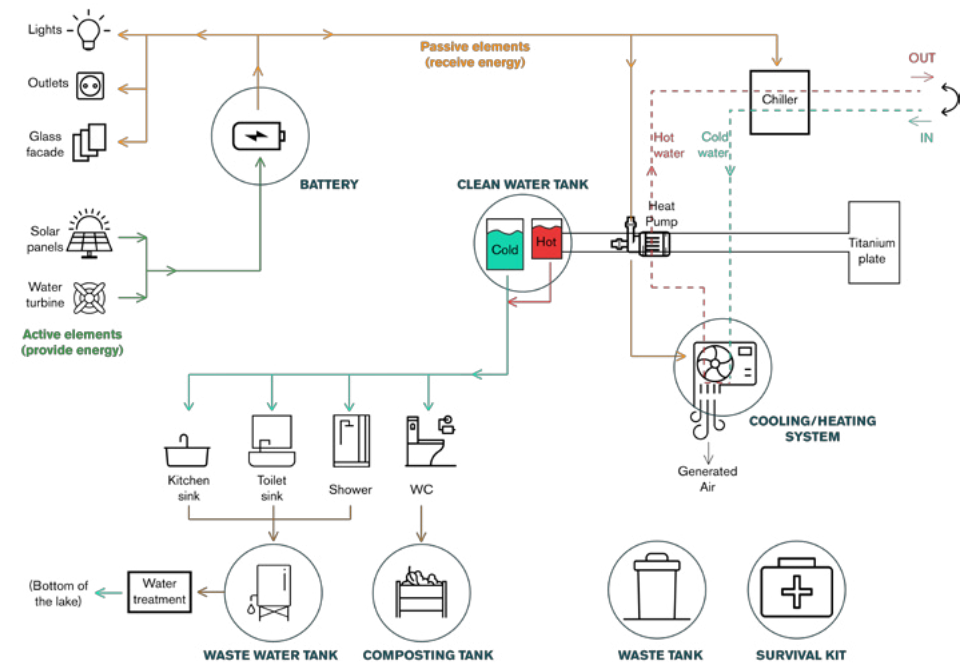
# LANTERN HOUSE

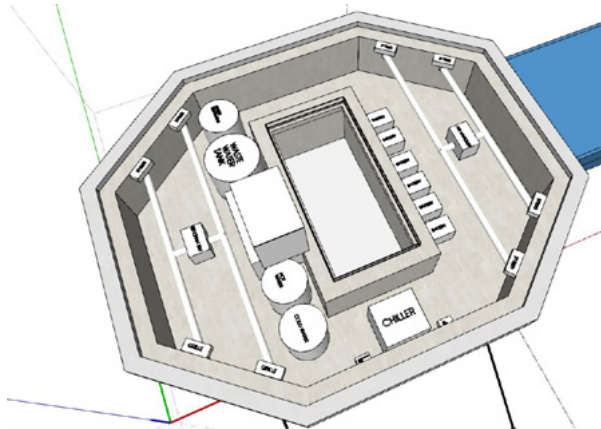
## INDIVIDUAL CONTRIBUTION

## RESEARCH AND LAYOUT OF UTILITIES

RESEARCH ON DIFFERENT APPLICABLE  
SYSTEMS FOR HEATING, COOLING, POWER,  
WATER AND WASTE.

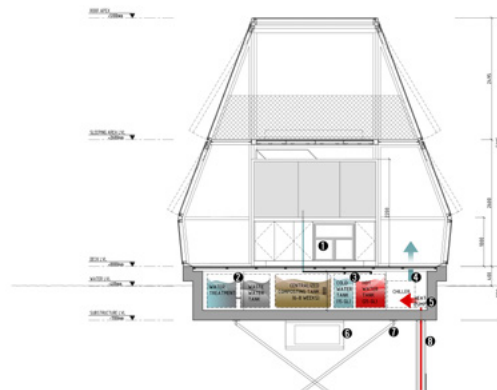
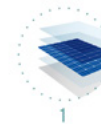
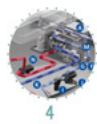
LAI D OUT ALL UTILITES AND CONNECTIONS IN  
RELATION TO THE LIVING UNIT INTO A FLOW  
CHART DIAGRAM



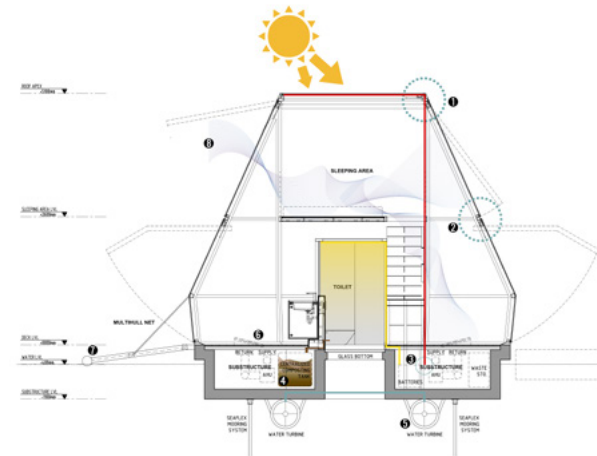


### INTEGRATING SPACES FOR UTILITIES IN THE DESIGN

LAYOUT AND INTERGRATION OF THE DIFFERENT ENGINEERING SYSTEMS IN THE LIVING UNIT.



1. Pull-out Table/ Chairs
2. Water Treatment
3. Cold/ Hot Water Tanks
4. Chiller
5. Heat Pump
6. Water Turbine
7. Cable for Mooring System
8. Titanium Heat Transfer



1. Solar Panel
2. PVC Layer
3. Inverter
4. Composting Tank
5. Water Turbine
6. Gate to Utilities
7. Openable Deck
8. Air Flow



### CALCULATIONS

DOING CALCULATIONS FOR THE UNIT'S BUOYANCY USING FLOATING CONCRETE PROPERTIES.  
VERIFYING ENERGY CONSUMPTION AND PRODUCTION FOR THE UNIT'S SUSTAINABILITY OFF THE GRID.

Floating House Energy Production

Skylight PV				
	Area	Wp/sqm	Power	
crystalline PV	51.7		165	8530.5 wp
Total				8530.5
				8.5 kwh
Hydro turbine				
	Water Velocity		power	
	1 knot			2 kwh
		Total Daily kwh produced per unit		10.5 kw
		Average Residential Daily Consumption		8.5-10 kwh



#### Photovoltaic glass

Sun energy --> Photovoltaics --> Battery

- Surface area: ~~1.62sqm~~ **51.7 sqm**
- Nominal peak power: ~~285Wp~~ **daily peak power per sqm: 165 wp**
- Voltage: 32V
- Current: 8.39A
- Operating module temperature: -40°C to +80°C

**daily generated power: 8.5 kwh**

#### Water turbines

Water energy --> Turbine --> Battery

- Turbine: Darriens double zero debris
- Generator: three-phase permanent magnet
- Weight: 131kg
- Rated power output: ~~100-500W~~
- Daily energy production: ~~1.4 KWh (at 2.5m/s)~~

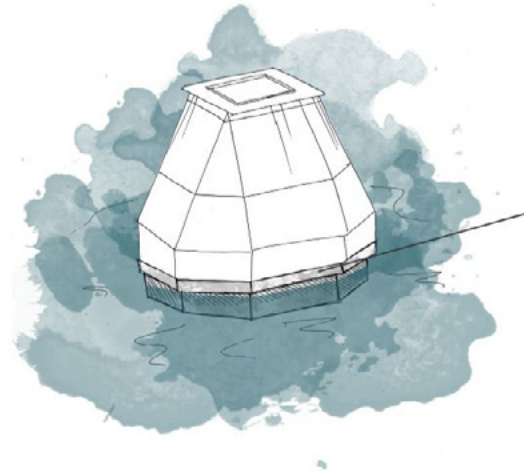
**daily peak power at 1 knot water velocity: 2 kwh**

**minimum daily generated power: 2 kwh**



**TOTAL DAILY GENERATED POWER PER UNIT: 10.5 KWH**

AVERAGE 2018 RESIDENTIAL DAILY CONSUMPTION: 8.5-10 KWH  
source: <https://smarterbusiness.co.uk/average-gas-electricity-usage-uk/>



#### material

Floating concrete with polymeric inclusions

#### properties

Good buoyancy, stability, resistance, balance, low weight, cheap, easy manufacture  
In the market for 30 years

Calculations concrete casco for house boats

#### Casco dimensions

width	5.40	m¹
length	6.40	m¹
height	1.10	m¹
floor thickness	0.20	m¹
wall thickness	0.20	m¹
gallery width	-	m¹
thickness	-	m¹

#### Volumes of concrete

floor	3.52	m³
walls	6.42	m³
gallery	-	m³
<b>Total</b>	<b>9.94</b>	<b>m³</b>

Weight of the concrete	24,353.00	kg
------------------------	-----------	----

#### Draught and carrying capacity

Water area	34.56	m²
Draught of concrete casco	0.67	m¹
Freeboard	0.43	m¹
Any additional weight of means 1 cm more draught	345.60	kg

#### ARCHIMIDES

#### calculations FOR CONCRETE CASCO

Total volume: ~~9.94sqm~~ **9.94 m³**

**CONCRETE WEIGHT PER m³: 2,450 kg**  
Weight of the concrete: ~~24353kg~~ **24353kg**

Water area: 34.56sqm

Draught of casco: ~~0.67sqm~~ **0.67m BELOW WATER LEVEL**

~~Distance below water line: 1cm~~

**FREEBOARD: 0.43 M ABOVE WATER LEVEL**

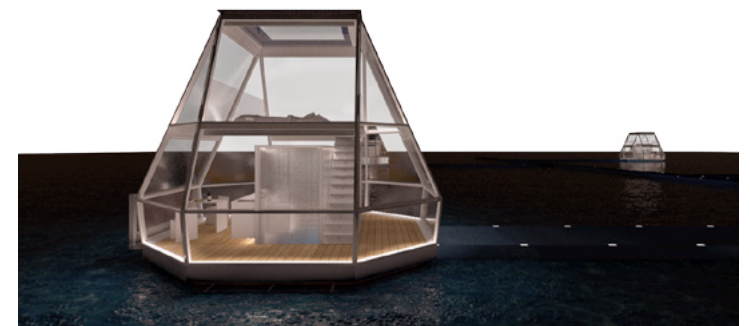
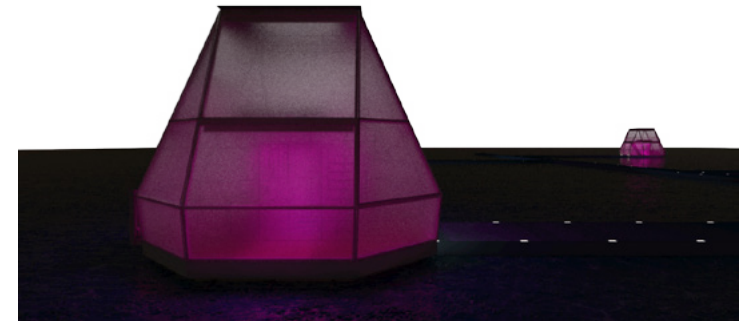
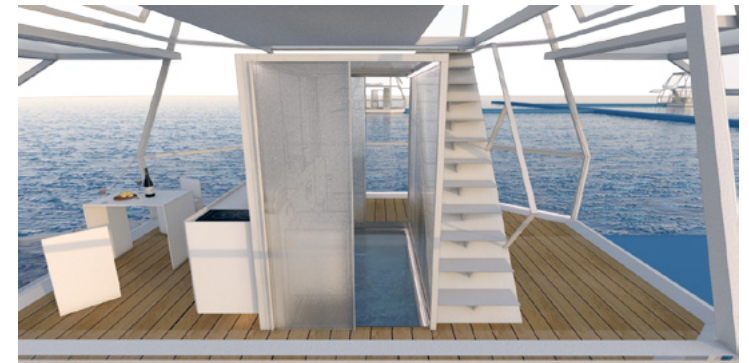
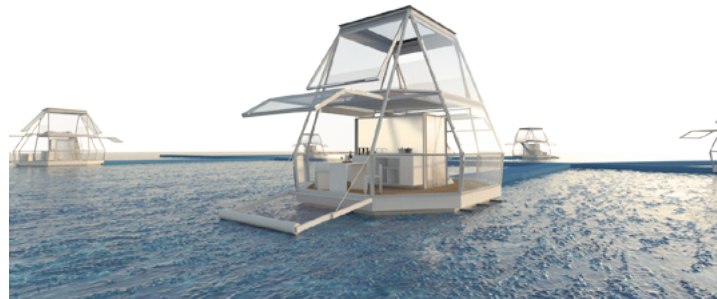


# LANTERN HOUSE

INDIVIDUAL CONTRIBUTION


## RENDERING


PRODUCING RAW RENDERINGS  
FOR POST PRODUCTION FROM  
THE CREATED 3D MODEL




### CONCLUSION

IN THE END WE WERE ABLE TO CREATE SOMETHING FEASIBLE FROM A POETIC, ROMANTIC, PHILOSOPHICAL IDEA ABOUT LIVING BY BRIDING WHAT IS TANGIBLE WITH THE INTAGIBLE THROUGH THE RESEARCH OF DIFFERENT MATERIALS, SYSTEMS AND APPLICATIONS. ALL THESE COMPONENTS WERE CONSIDERED IN COHERENCE WITH THE CONCEPT AND IT'S GOAL.






[Become a host](#)
[Saved](#)
[Trips](#)
[Messages](#)
[Help](#)




ENTIRE APARTMENT IN COMO  
★★★★★ 202


## Romantic, Lakeside Home with Views of Lake Como



Wake up to stunning views of Lake Como from every window of this romantic home, before strolling down to the beach nearby and diving into the refreshing waters of the lake. In the evening, drink a glass of wine on the deck, taking in the view together with watching stars.

**2 guests 1 bedroom 1 bed 1 bath**



ENTIRE APARTMENT IN COMO  
★★★★★ 202

200 € / NIGHT

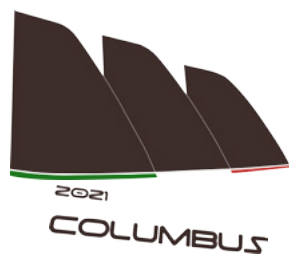
REQUEST TO BOOK

TEAM COLUMBUS  
CASA ITALIA PAVILLION  
2021 AMERICA'S CUP

TEMPORARY STRUCTURE  
DESIGN WORKSHOP

MASTERS IN INDUSTRIAL DESIGN  
FOR ARCHITECTURE  
POLITECNICO DI MILANO. POLI.DEISNG

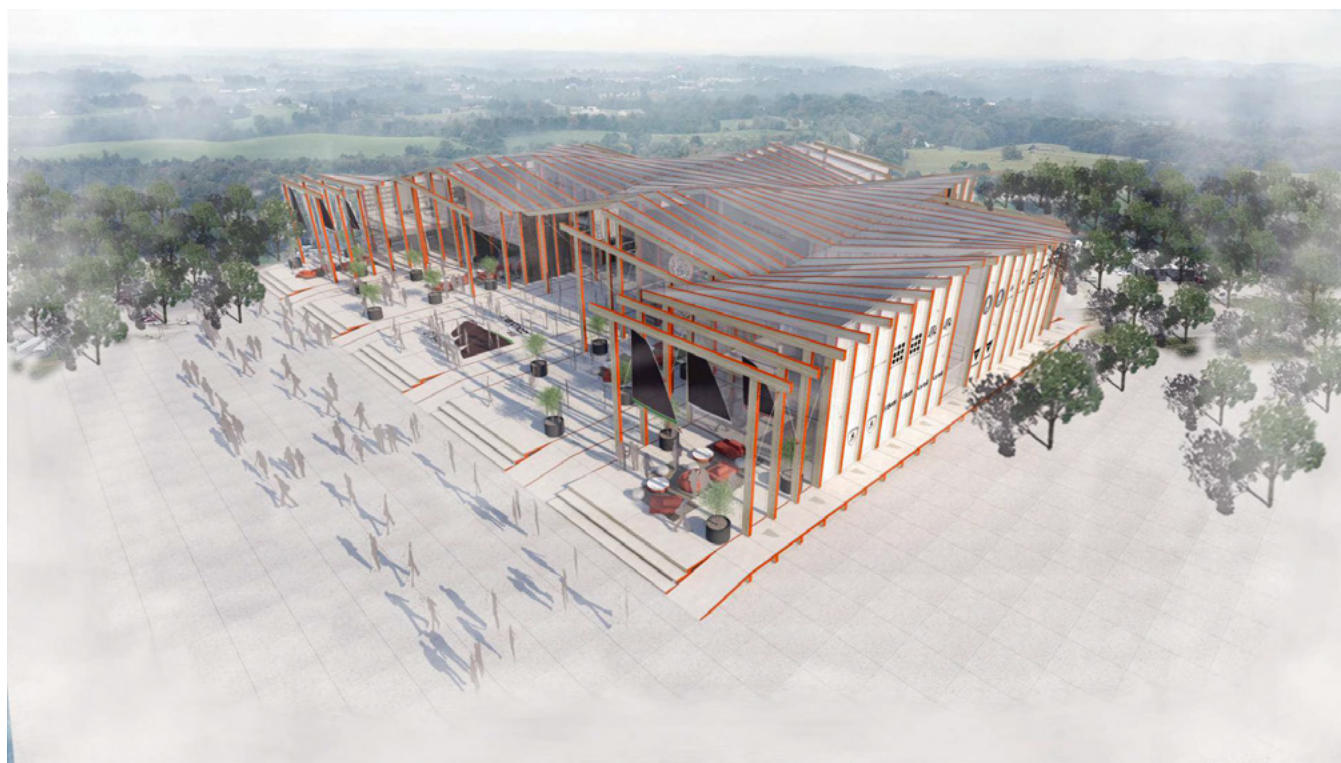
[MILAN, OCTOBER-NOVEMBER 2018]



BERTONE DESIGN  
ITALIA

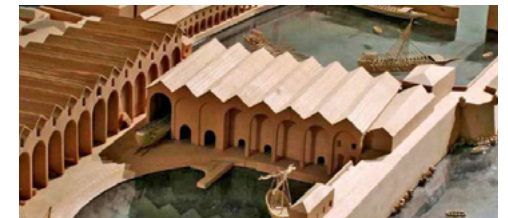
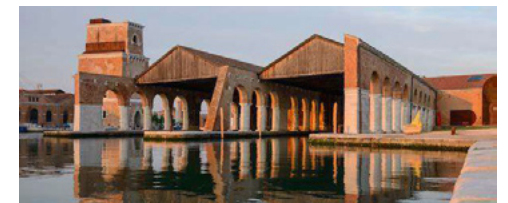
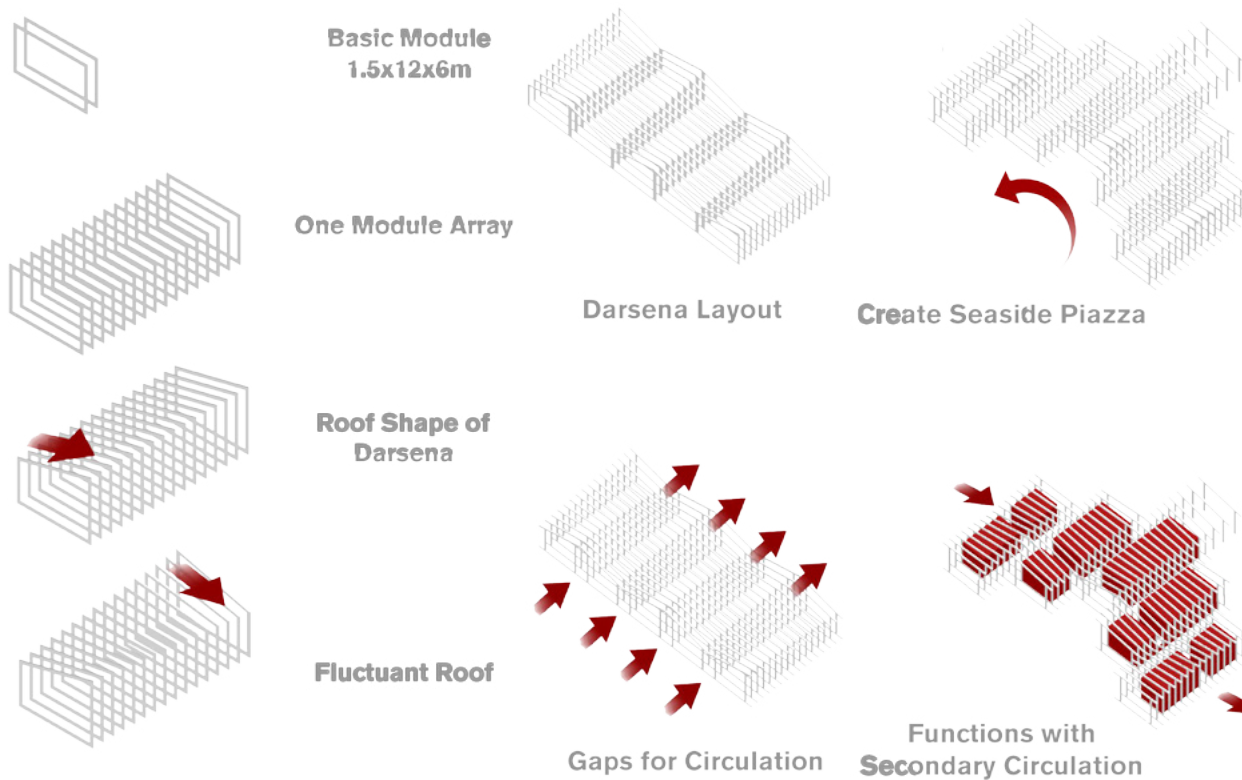
PROFESSORS:  
MATTEO INGARAMO  
ALESSANDRO BIAMONTI  
ALDO CINGOLANI  
SILVIA GRAMEGNA

GROUP WORKSHOP



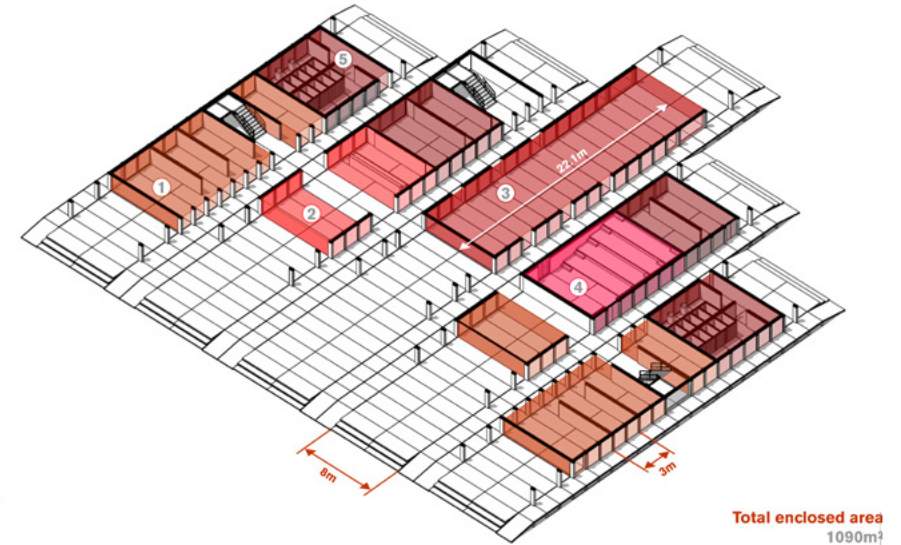


**\_RELATE THE GALEA DOMINANCE FROM THE SEA TO THE ARCHITECTURE**

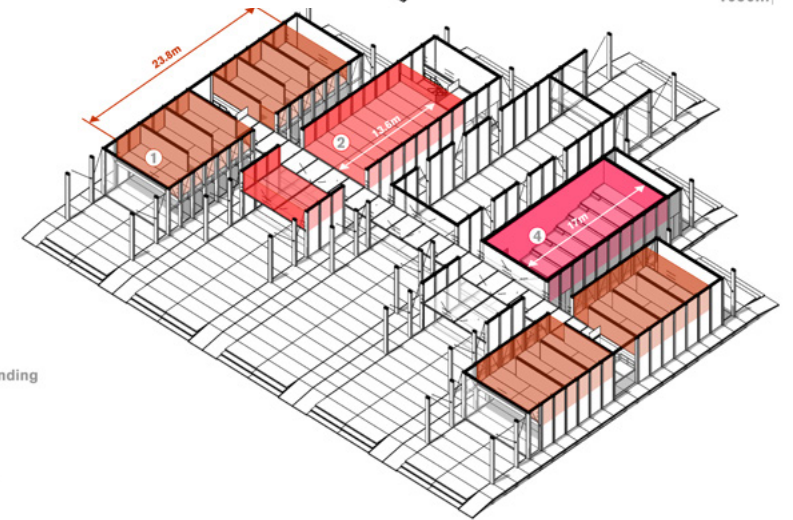




## FRAMES THAT FRAME THE SEA

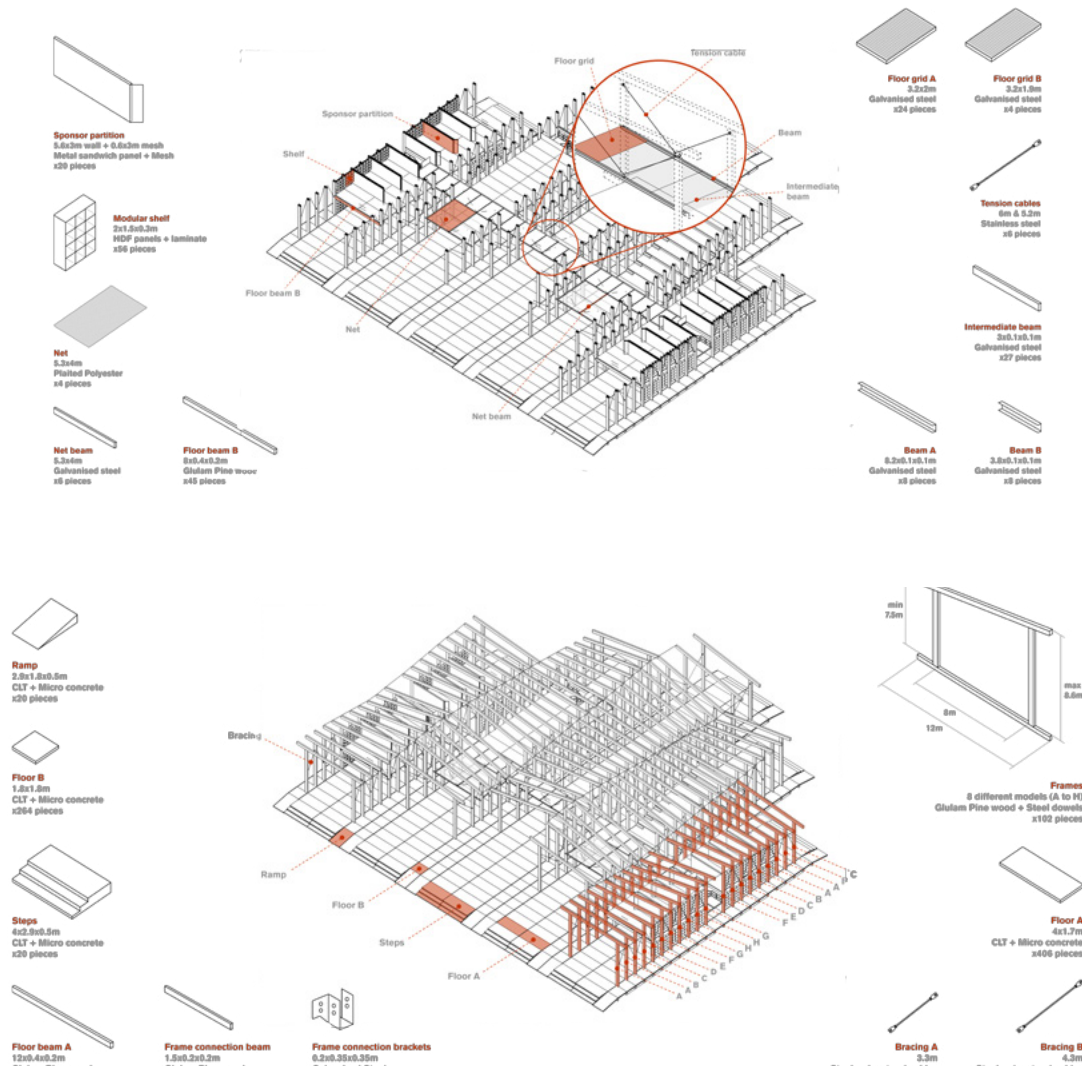


- 1 Sponsors' booths  
20 booths | 20m² each  
Main sponsor 41.8m²
- 2 Bar, restaurant and cafe  
Restaurant 124.4m² | 64pax  
Cafe 97.6m² | 48pax
- 3 Events space  
181.2m² | 100 pax sitting, 180 standing
- 4 Multimedia space  
139.4m² | 56pax
- 5 Services  
Toilets 55.8m² | 10 cubicles each  
Kitchen + storage 69.7m²  
Control room 55.8m²





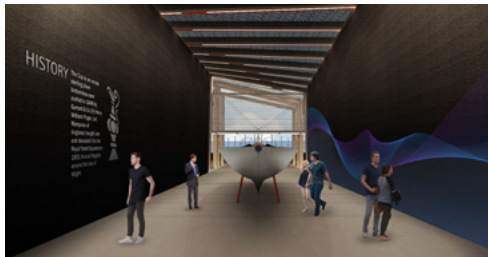
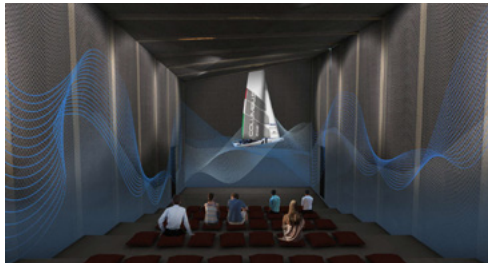
## MODULAR AND CAN BE ASSEMBLED







## 1 HALL 4 FUNCTIONS



### INSPIRATION

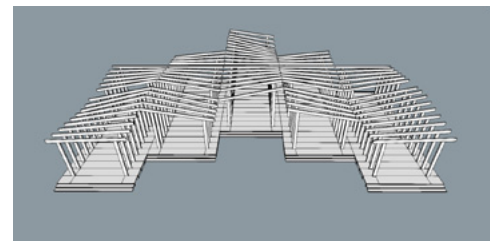
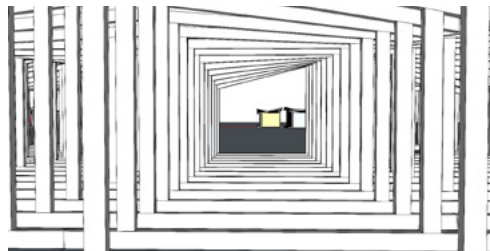
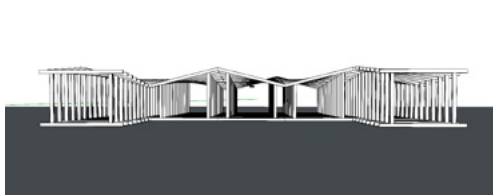
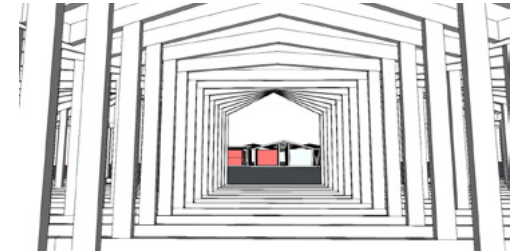
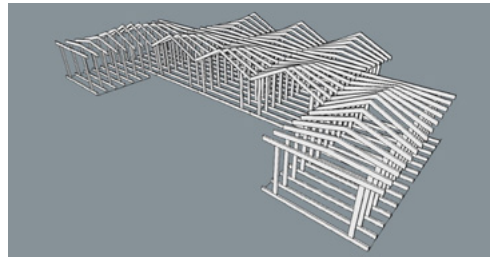
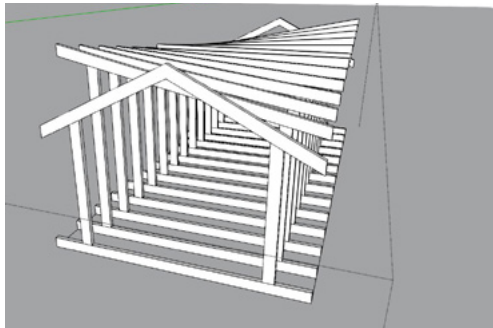
IT STARTED MANY MONTHS BEFORE THE WORKSHOP WHEN I WAS INSPIRED BY MY TRAVELS IN GENOVA. I VISITED THE MARITIME MUSEUM AND THE EXPERIENCE STAYED WITH ME TILL THE WORKSHOP. THUS THIS MARITIME TRADITION BECAME THE WHOLE STARTING POINT OF THE PROJECT BECAUSE OF THE LINK WITH IMPERIA-LIGURIA-COLUMBUS AND SAILING.





### FRAME STUDIES

INSPIRED BY THE GALEA'S STRUCTURE AND FRAMEWORK WE STARTED MAKING DIFFERENT FRAME STUDIES THAT CAN BOTH SATISFY INDUSTRIAL PROCESSES, PROGRAM, LOGISTICS AND AESTHETICS.

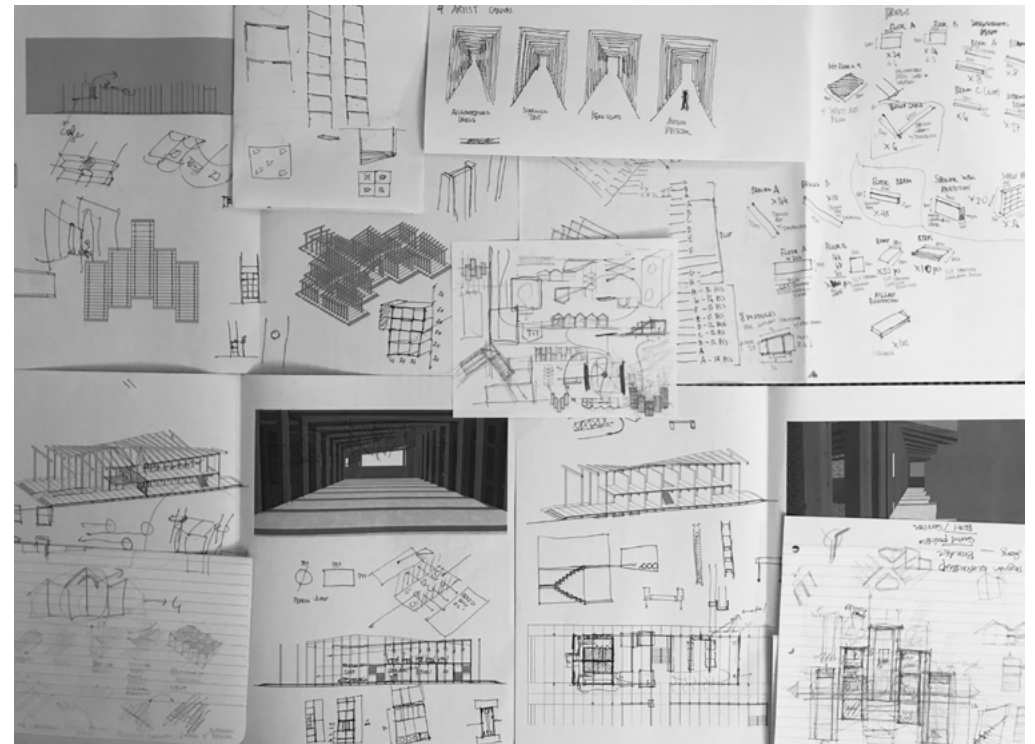
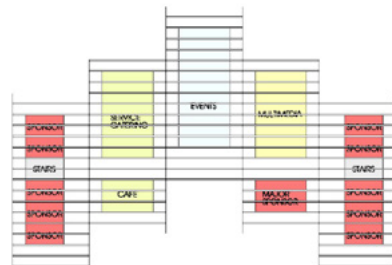
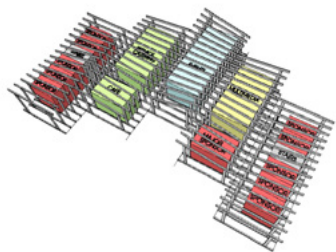
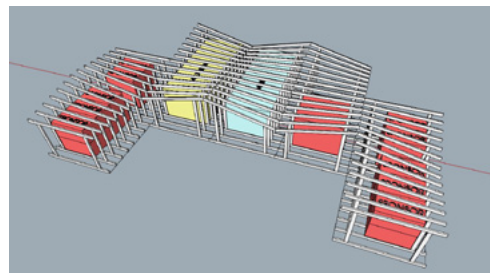
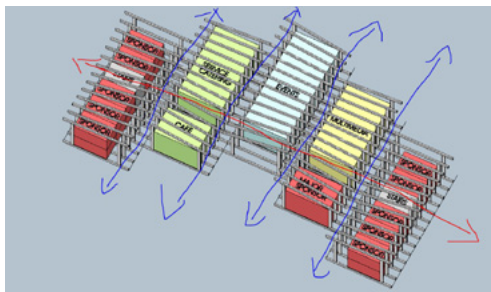
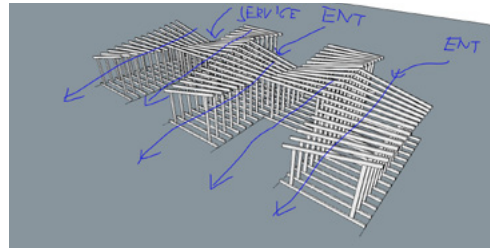
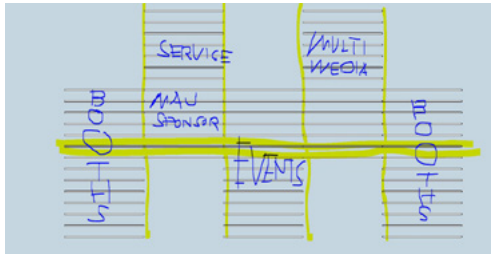




## PROGRAM AND PLANNING

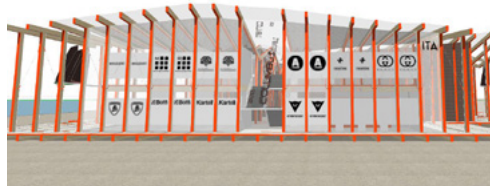
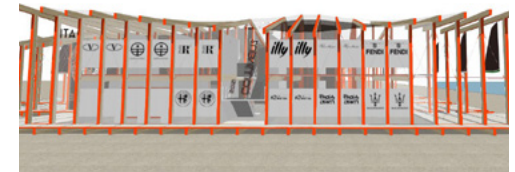
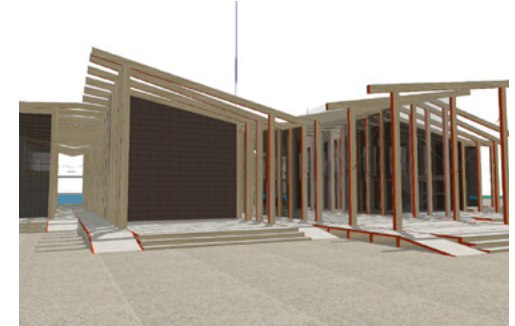
LAYOUT OF PROGRAM REQUIREMENTS, ADJACENCIES, CIRCULATION WITHIN THE FRAMEWORK. THE PROCESS ALSO GAVE US AN IDEA HOW MANY FRAME MODULES WE NEED.

SKETCHING CAME HAND IN HAND WITH THE 3D MODELLING PROCESS TO SOLVE SOME PROBLEMS ENCOUNTERED IN A MORE COLLABORATIVE WAY.



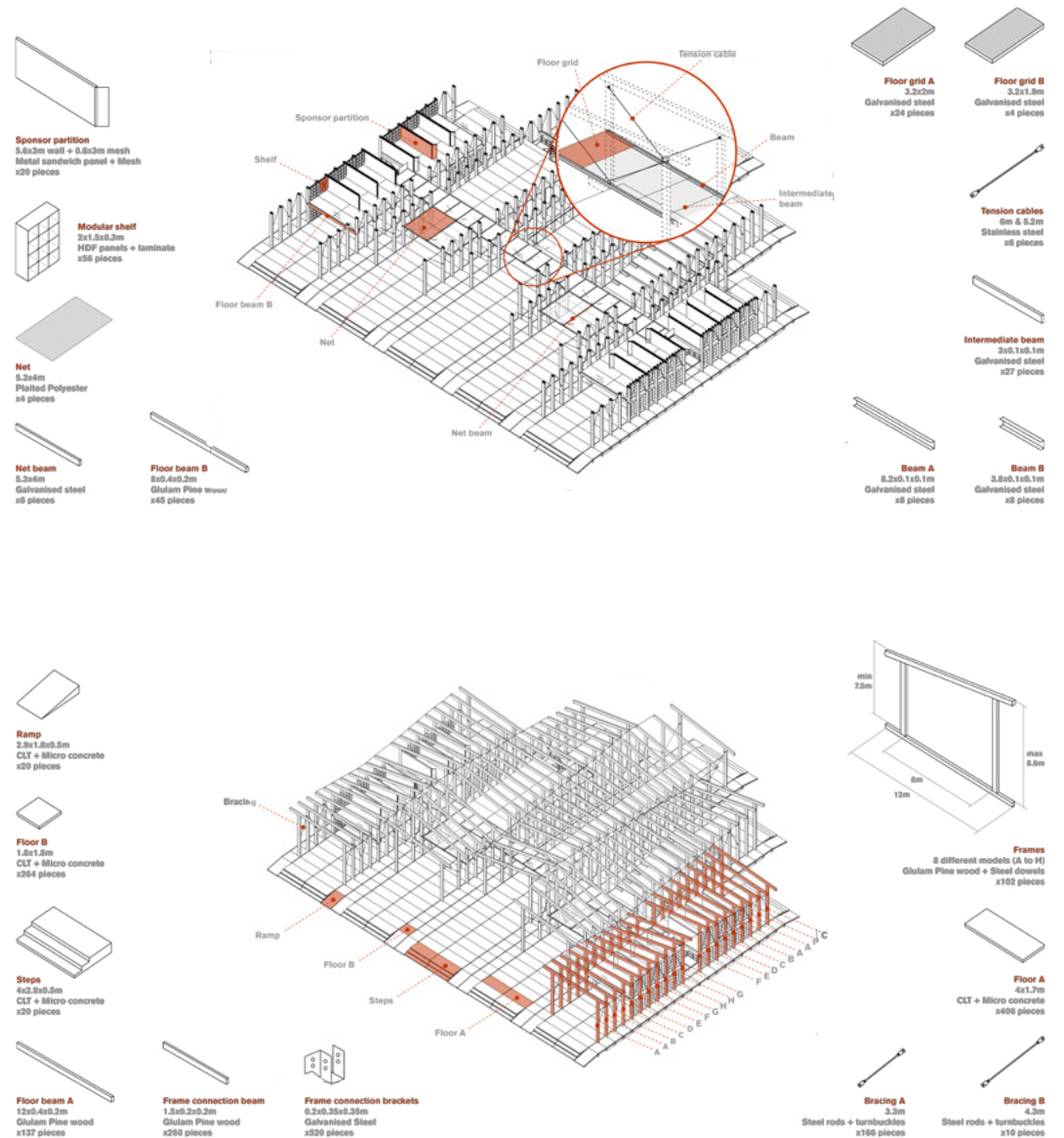
### DEVELOPING THE DESIGN OF THE SPACES

ADDING MORE DETAILS, SPACE PLANNING, FUNCTIONS, CONSIDERATION OF GRAPHICS.





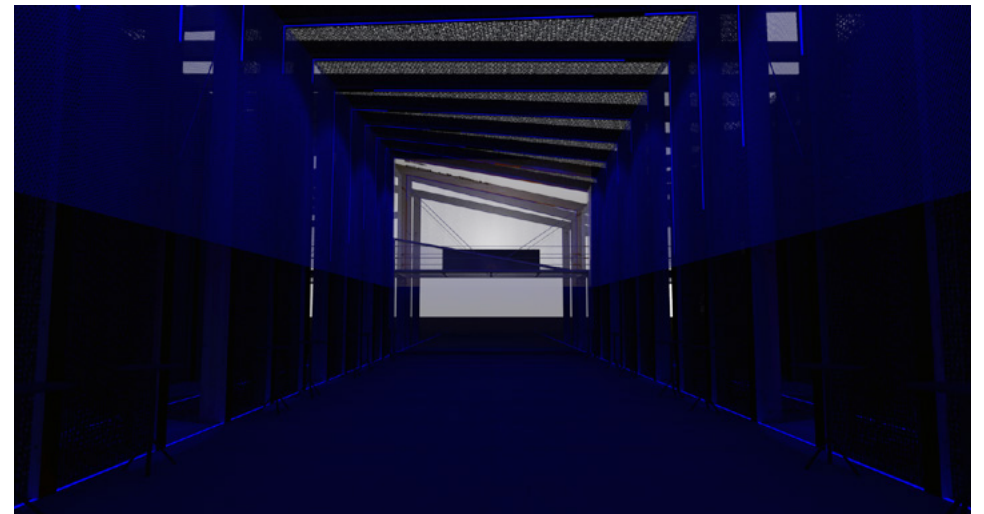
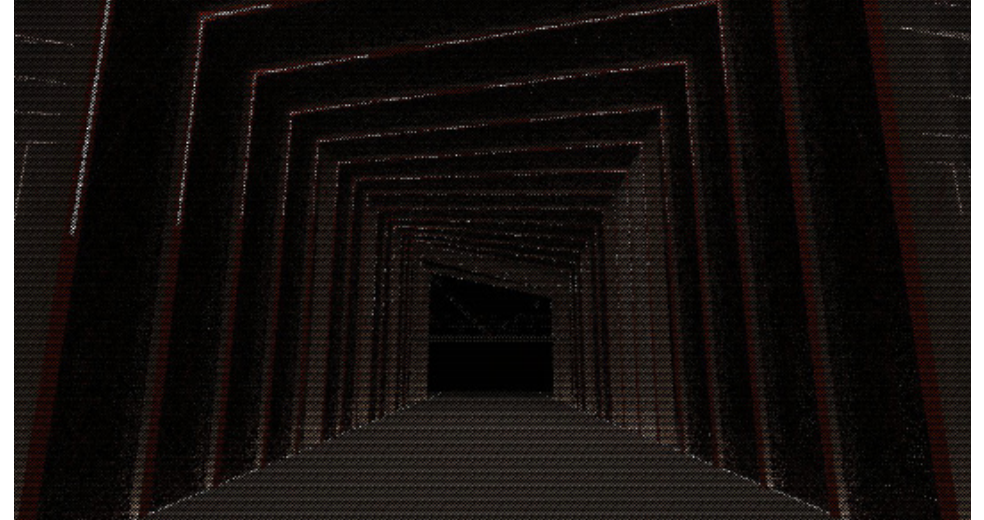
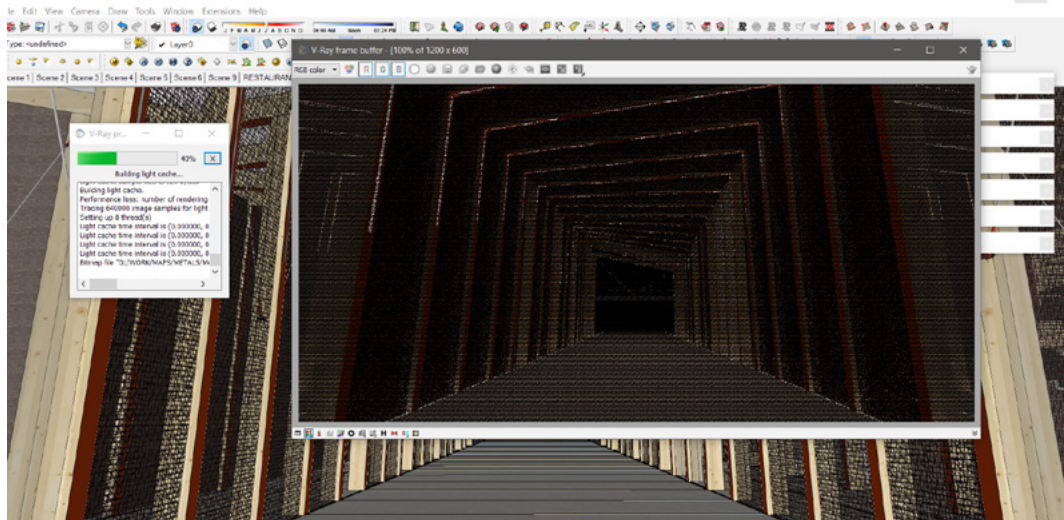
USING THE 3D MODEL TO TABULATE AND DOCUMENT ALL  
MODULAR BUILDING COMPONENTS FOR THE ASSEMBLY  
DIAGRAM





## RENDERING

RENDERING IMAGES FOR PRESENTATION. ALSO USED RENDERING PROCESS TO FORMULATE LIGHTING STRATEGIES FOR THE DIFFERENT SPACES.

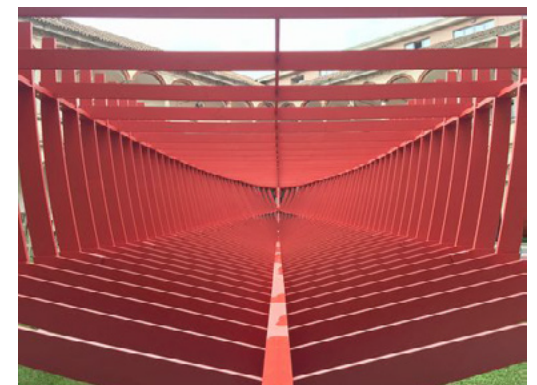
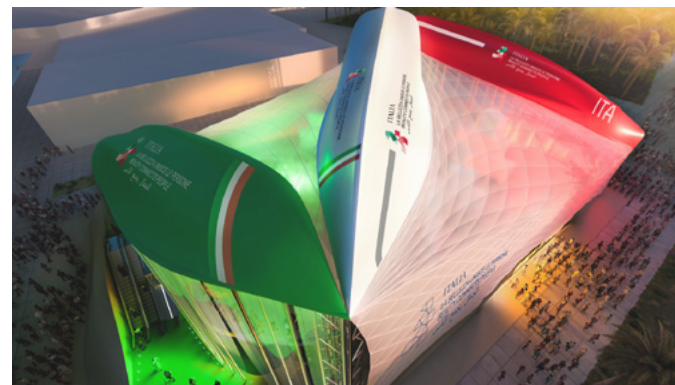
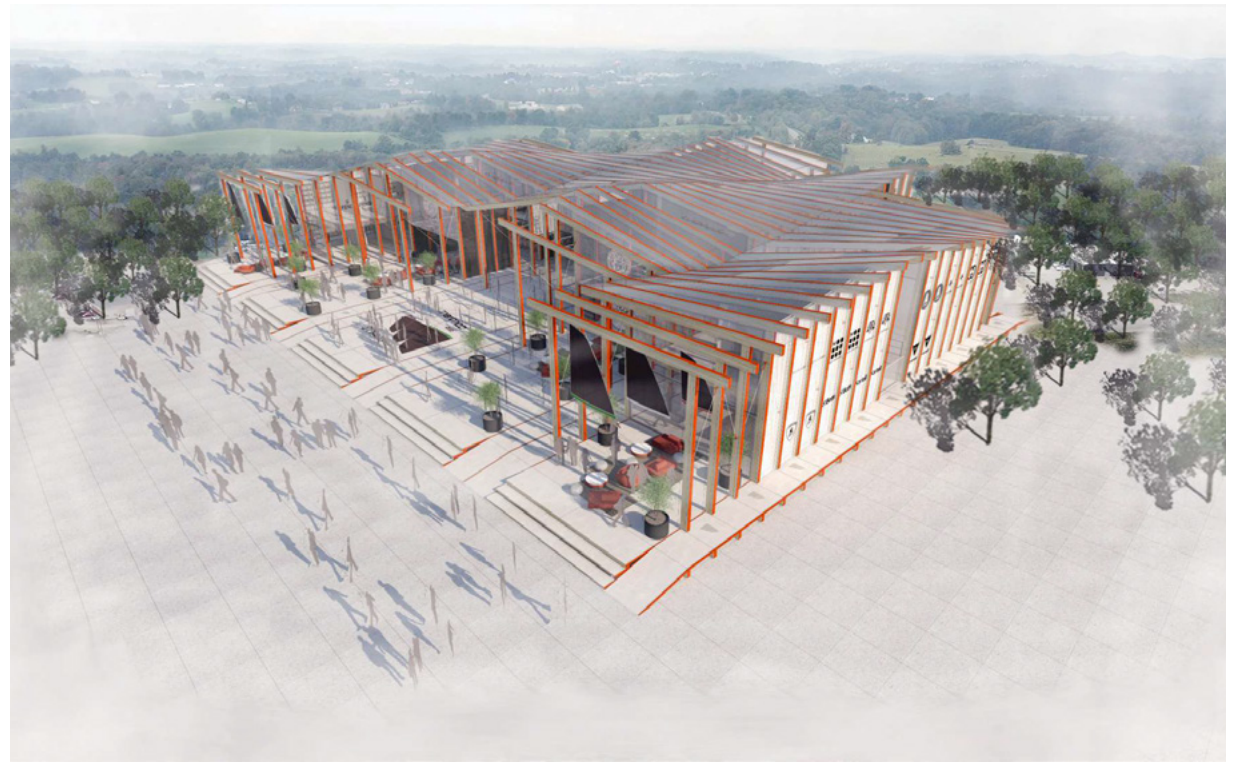




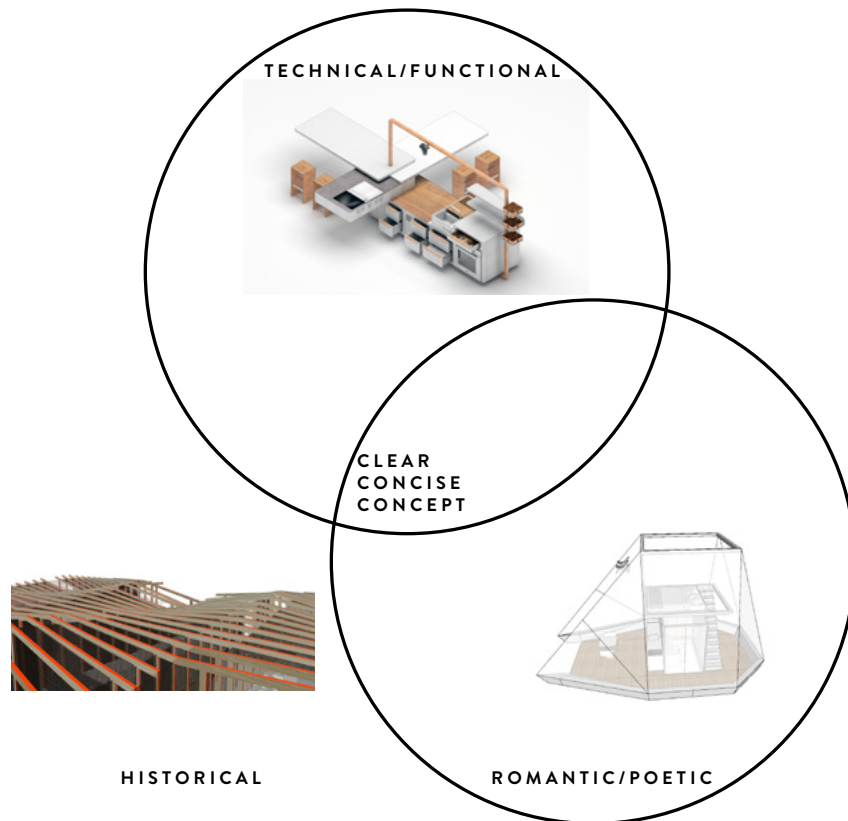
### CONCLUSION

WE ARE ABLE TO COME UP WITH A FEASIBLE AND FLEXIBLE CONCEPT USING A FRAMEWORK USED FOR NAVAL VESSELS.

OUR IDEAS WERE FURTHER AFFIRMED MONTHS AFTER THE WORKSHOP ENDED BY THE INCREASE OF PROJECTS FOR TEMPORARY STRUCTURES USING ITALY'S MARITIME TRADITION AS AN INSPIRATION.



## WORKSHOP CONCLUSION



### CONCLUSION

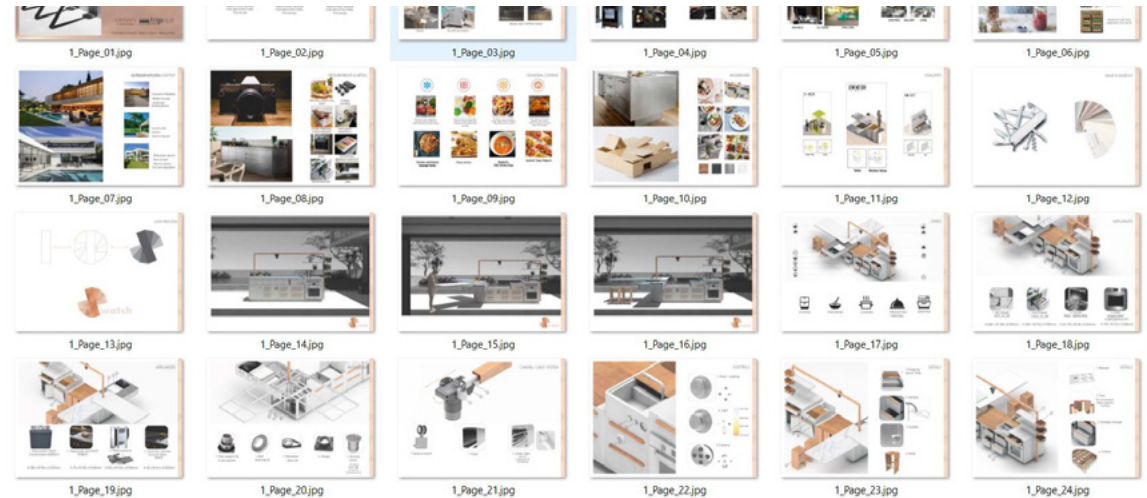
ALL WORKSHOPS HAD DIFFERENT SOURCES OF INSPIRATION: TECHNICAL, POETIC, HISTORICAL. BUT ALL HAD A COMMON GOAL, TO HAVE A CLEAR, CONCISE CONCEPT THAT IS EASY TO GRASP AND UNDERSTAND, A CONCEPT THAT WILL STEER THE PROJECT IN ALL STAGES OF DEVELOPMENT.

THE WORKSHOPS ALSO GAVE ME THE CHANCE TO WORK WITH PEOPLE FROM DIVERSE CULTURES AND BACKGROUNDS FROM THE ONSET OF A PROJECT. IT TAUGHT ME HOW TO MANAGE MYSELF AND THE PEOPLE I WORK WITH TO HAVE A COMMON GOAL EVEN WITH DIFFERENT MINDSETS.. TO BE ABLE TO MANAGE OUR DIFFERENT STRENGTHS AND EXPERTISE FOR A COMMON GOAL WAS ONE OF THE REWARDING ASPECTS OF THE WORKSHOPS.





I LEARNED THE IMPORTANCE OF HOW A PRESENTATION IS STRUCTURED AND COMING UP WITH STRATEGIES DEPENDING ON THE GOAL OF THE PRESENTATION. USING VISUALS WAS IMPORTANT ESPECIALLY IN AN INTERNATIONAL SETTING.



EXPOSURE TO DIFFERENT COMPANIES CONTRIBUTED TO MY DESIGN KNOWLEDGE. IT TAUGHT ME HOW COMPANIES OPERATE AND PRESENT THEMSELVES. IN A WAY IT WAS A SIMULATION OF OUR FUTURE WORK.





### UMBERTO ZANETTI, A RENNAISSANCE MAN

DEGREE IN CIVIL ENGINEERING AT THE  
POLITECNICO DI MILANO

1982-ZDA ZANETTI DESIGN ARCHITETTURA – S  
PECIALIZING IN ARCHITECTURAL DESIGN,  
INTERIOR DESIGN AND INDUSTRIAL AND GRAPHIC  
DESIGN

HAD PROJECTS IN ITALY AND ABROAD (THE U.S.A,  
FRANCE, BELGIUM, SWITZERLAND AND RUSSIA)

FOR INDUSTRIAL DESIGN, HE DESIGNED A  
FURNITURE COLLECTION FOR UNIFOR, NERO3

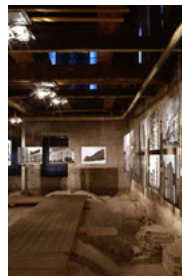
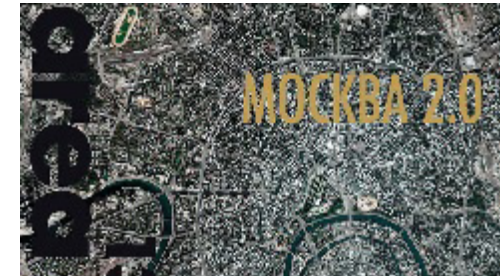
DID EXHIBITIONS SUCH AS “MOCKBA XXI”  
EXHIBITION IN MOSCOW AND MILAN, AND THE  
“GABRIELE BASILICO MOSCOU VERTICALE”  
EXHIBITION IN PARIS AND IN MILAN.

PARTICIPATED IN NUMEROUS CONFERENCES ON  
HIS WORKS AT THE POLITECNICO IN MILAN AND  
DOMUS ACADEMY, INCLUDING THE UIA – XXIII  
WORLD CONGRESS OF ARCHITECTURE.

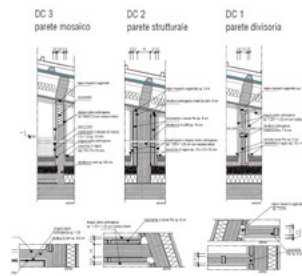
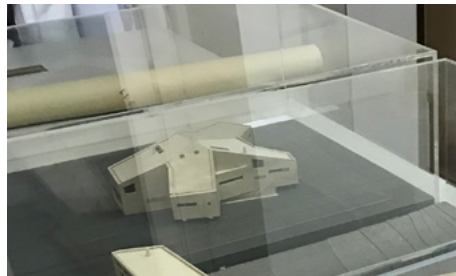
CURRENTLY ENGAGED IN DESIGNING RESIDENTIAL  
BUILDINGS, SOCIAL HOUSING, OFFICES, LOW-COST  
HOTELS AS WELL AS DEVELOPING NUMEROUS  
PREFABRICATED DESIGN PROJECTS IN EMERGING  
NATIONS SUCH AS MYANMAR AND MONGOLIA.

HE ACTIVELY PARTICIPATES IN THE EST LAB OF THE  
POLITECNICO IN MILAN, ON RESEARCH TOPICS  
RELATING TO ARCHITECTURE AND THE URBAN  
DEVELOPMENT OF EAST EUROPE NATIONS.

RECENT PROJECTS IN ST. PETERSBURG AND  
MOSCOW WERE SELECTED FOR THE NATIONAL  
AWARD IN/ARCH AS THE BEST ITALIAN  
ARCHITECTURE OF 2014 AND FOR THE PRIZE GOLD  
MEDAL ITALIAN ARCHITECTURE OF 2015.







## NEW ZDA PROJECTS DESIGNED BY PREFABRICATION USING CROSS LAMINATED TIMBER

THE CLT PANELS ARE THE LATEST EVOLUTION OF WOODEN BUILDING SYSTEMS. IT'S A PREFABRICATED SOLID WOOD PANEL MADE FROM AT LEAST THREE LAYERS OF SOLID-SAWN LUMBER OR STRUCTURAL COMPOSITE LUMBER, THAT ARE STACKED CROSS-WISE AND BONDED TOGETHER WITH STRUCTURAL ADHESIVES TO FORM A SOLID, RECTANGULAR-SHAPED PANEL THAT IS INTENDED FOR CONSTRUCTION APPLICATIONS, INCLUDING ROOFS, FLOORS AND WALLS IN RESIDENTIAL AND NON-RESIDENTIAL BUILDINGS.

COST-COMPETITIVE ALTERNATIVE FOR STEEL AND CONCRETE APPLICATIONS.

REDUCES CONSTRUCTION TIME, ARE LIGHTER AND THINNER THAN CONCRETE, HAVE A REDUCED CARBON FOOTPRINT AND ONLY REQUIRE BASIC CARPENTRY SKILLS AND POWER TOOLS TO INSTALL.

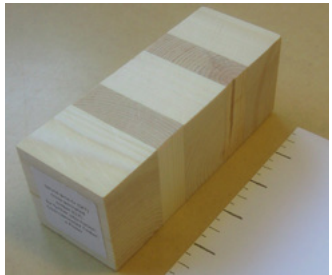
THE TRANSPORT AND THE ASSEMBLY ARE EASY AND CAN BE DONE WITH LIGHT VEHICLES.

THE SIZE OF THE PANELS CAN REACH 16-18 METERS LENGTH AND 2.40 METERS HEIGHT FOR NORMAL TRANSPORT.

THE X-LAM PANELS REDUCE THE ENVIRONMENTAL IMPACT REDUCING ENERGY DEMAND, MINIMIZING POLLUTION AND CREATING AN ECO-FRIENDLY THERMAL BARRIER.

THE X-LAM PANEL IS ALSO A PERFECT ACOUSTIC INSULATION.

A BUILDING MADE WITH THE X-LAM STRUCTURE CAN WITHSTAND A FIRE FOR A PERIOD OF ONE HOUR WHILE MAINTAINING ITS MECHANICAL PROPERTIES





### 3 STOREY VILLA IN LASINO, CAVEDINE, TRENTO, ITALY

THE TASK WAS TO FURTHER DEVELOP AN ALREADY EXISTING DESIGN WITH REGARDS TO INTERIORS, LIGHTING, FURNITURE LAYOUT, MATERIAL SELECTION USING 3D MODELLING.

I WAS ALSO TASKED TO PRODUCE PRESENTATION DRAWINGS FOR THE CLIENT SUCH AS RENDERINGS OF PERSPECTIVES, PLANS, SECTIONS AND ELEVATIONS.

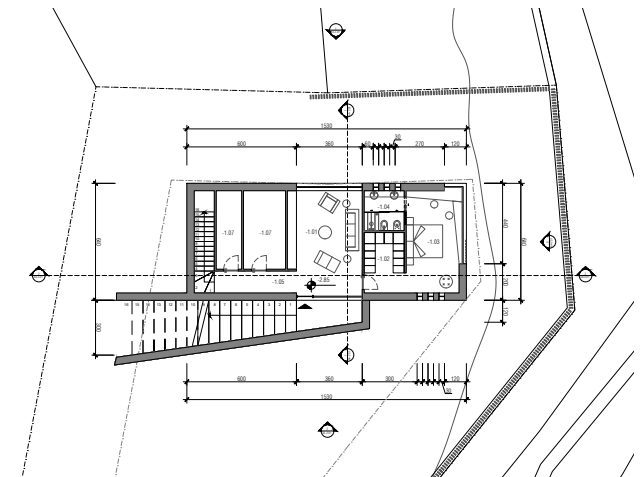
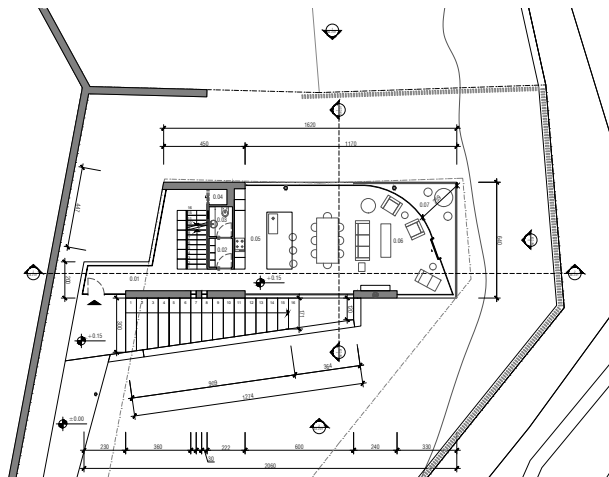
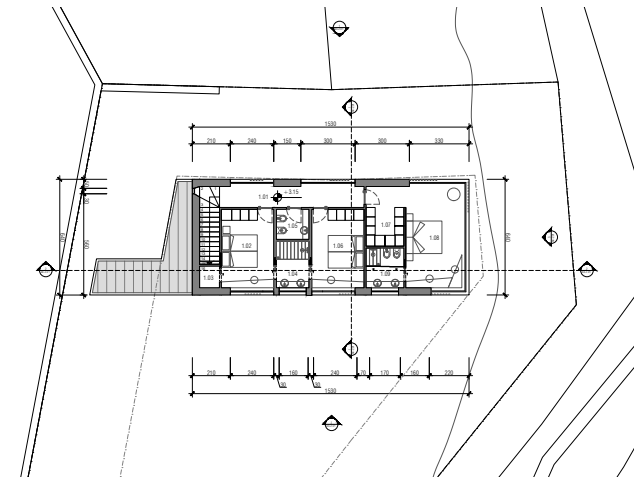
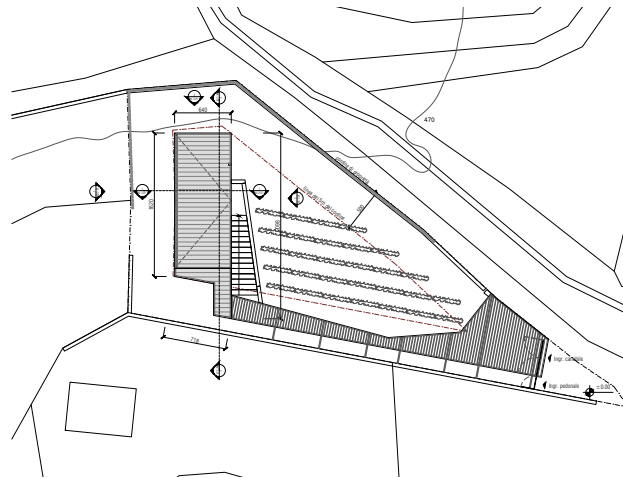
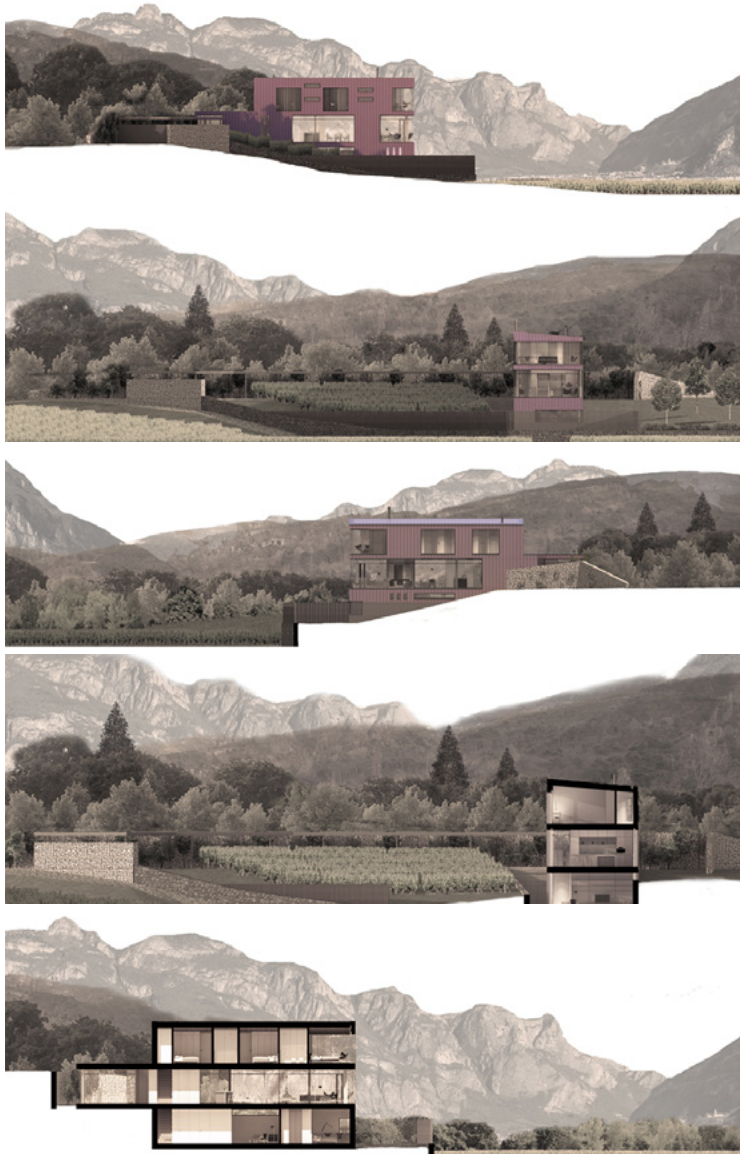
WE FIRST STARTED BY STUDYING THE SITE AND SELECTING THE APPROPRIATE FACADE MATERIAL WITH THE INTENT TO BLEND IN THE SURROUNDINGS BUT PROVIDE CONTRAST WHICH IS WHY IN THE END WE CHOOSE TO USE ZINC CLADDING.

ZINC CLADDING AGES WELL, HAS EXCELLENT WEATHERING PROPERTIES AND IS LIGHTWEIGHT ENOUGH TO FULFILL THE PREFABRICATION PROCESS. WE ALSO CONSIDERED THE COMMERCIAL SIZES AND INSTALLATION PROCESS.



### ARCHITECTURAL DRAWINGS

EACH DRAWING WAS CAREFULLY STUDIED IN RELATION TO THE CONTEXT. EACH TREE, ROAD, WALL, AND FEATURE WERE CONSIDERED.









THE INTERNSHIP WAS A REAL LEARNING EXPERIENCE FOR ME, MORE IN TERMS OF CHARACTER BUILDING THAN SKILLS TRAINING.

TRUTH BE TOLD IT DID NOT START OUT WELL. THE INTERVIEW WAS IN ENGLISH SO I ASSUMED THAT THE STUDIO CAN OPERATE IN THIS WAY WHICH WAS NOT THE CASE. DURING THE FIRST DAY, THE BOSS TOLD ME THAT WE HAVE TO START SPEAKING IN ITALIAN IN THE OFFICE IF I WISH TO WORK THERE BECAUSE I WAS THE ONLY NON ITALIAN. I ALSO REALIZED THAT ALL THE SOFTWARES AND SYSTEMS WERE IN ITALIAN WHICH MAKES THE LEARNING CURVE ALL THE MORE DIFFICULT. TO TOP IT OFF, WE HAD A DEADLINE THAT SAME WEEKEND. I TRIED MY BEST TO ADJUST BUT WE STILL DID NOT MAKE THE DEADLINE. OF COURSE BEING THE FOREIGNER AND NEW GUY, I WAS THE ONE TO BLAME. MY SENIOR EVEN BROKE DOWN BECAUSE OF THE TENSION. IT WAS NOT THE START I WANTED. I WOULD SAY IT WAS ONE OF MY CAREER LOWS.

EVERYDAY I WOULD COME TO WORK SHAKING MY HEAD AND THINK I MUST BE CRAZY DOING ALL THESE THINGS EVEN IF I COULD'VE MADE IT EASIER FOR MYSELF JUST TO BE AN ARCHITECT BACK HOME OR WORK FOR MY DAD'S OFFICE. WHY AM I HERE AT THE BOTTOM OF THE LADDER AGAIN AS AN INTERN. IT WAS DIFFICULT COMMUNICATING WITH MY BOSS BECAUSE HE WAS REALLY FIRM ABOUT HIS RULE. TO MAKE THINGS WORSE, IT WAS ALSO THE TIME I WAS SEARCHING FOR A NEW APARTMENT. A LOT OF CHANGES AT THE SAME TIME.

BUT I REALIZED THAT YES THESE CHALLENGES ARE DIFFICULT BUT NOT IMPOSSIBLE SO I TOOK IT UPON MYSELF TO TAKE ITALIAN CLASSES AND TO TAKE ON EACH DAY SLOWLY, PATIENTLY, TRYING AND PROVING MYSELF AND TO EVERYONE. SLOWLY THROUGH MY PERCEIVERANCE AND THE OUTPUT I DID I GAINED MY BOSS' TRUST AND COMPLIMENTS. IT WAS ALSO GOOD TIMING BECAUSE THE STUDIO HIRED MORE FOREIGNERS AFTER I CAME IN AND THE INTERNATIONAL ENVIRONMENT HELPED WITH THE INTEGRATION ALTHOUGH I STILL SPEAK ITALIAN TO MY BOSS.

THE BIGGEST AFFIRMATION FOR ALL MY EFFORTS IS THE FACT THAT I WAS HIRED IMMEDIATELY AFTER MY INTERNSHIP ENDED. MY BOSS OPENLY EXPRESSED THAT HE IS PLEASED WITH MY WORK AND HE WANTS ME TO STAY. HE SOMETIMES WOULD ALSO PERSONALLY INVITE ME TO HIS LECTURES AND TALKS.

TODAY THE CHALLENGES STILL PERSISTS AND I KNOW THERE ARE MORE STRUGGLES TO COME BUT AFTER THIS EXPERIENCE I AM CONFIDENT THAT I HAVE THE CHARACTER TO MEET THESE HEAD-ON.

NOTHING IS MORE REWARDING THAN SUCH EXPERIENCES.



## PERSONAL REFLECTION

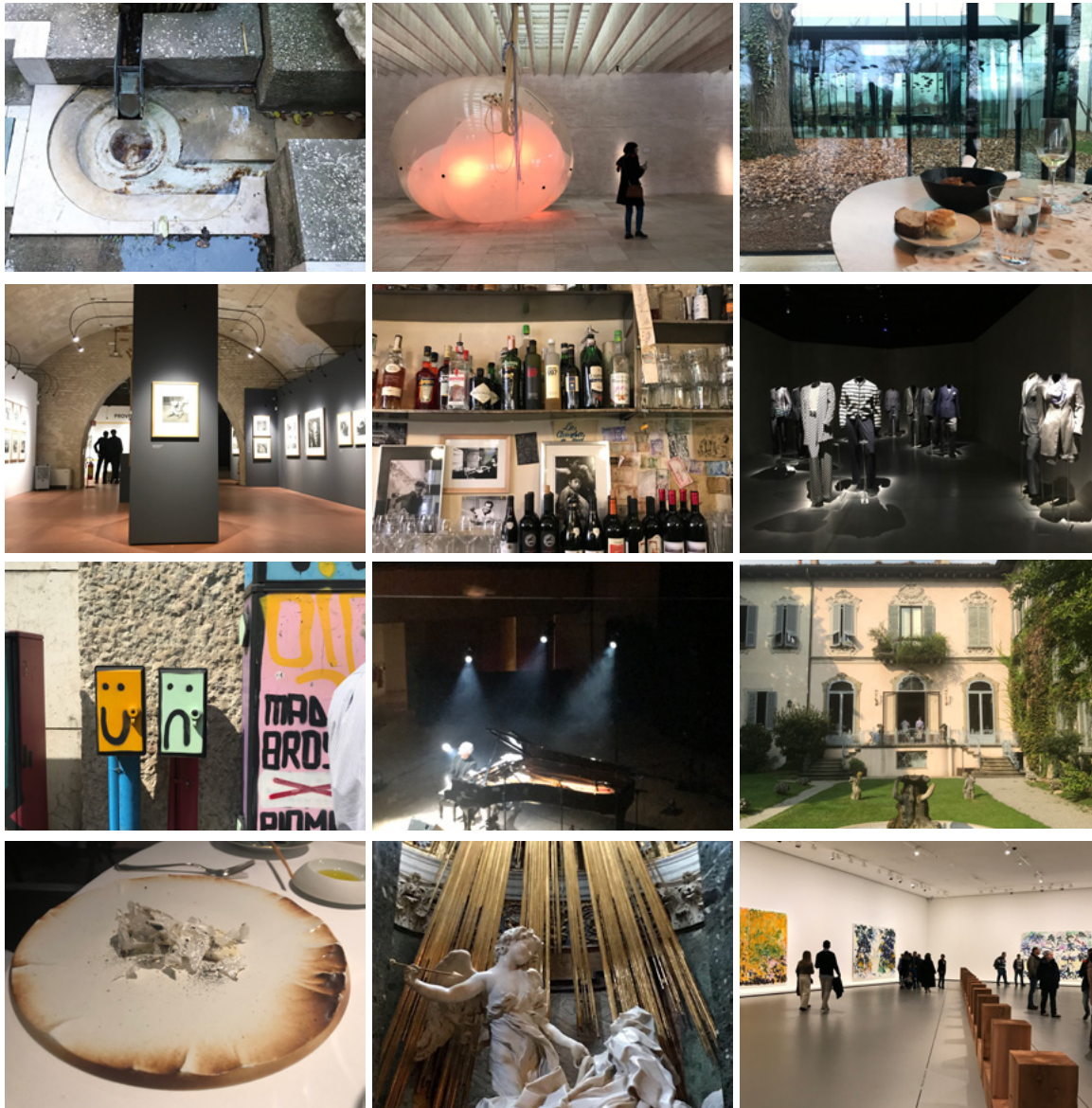
### IMMERSION

THE EXPERIENCE OF STUDYING AND LIVING IN A DIFFERENT COUNTRY CONTRIBUTED GREATLY TO MY DEVELOPMENT AS A PERSON. THE ENCOUNTERS WITH PEOPLE FROM DIFFERENT CULTURES AND BACKGROUND OPENED MY MIND TO MANY POSSIBILITIES AND IDEAS. IT GAVE ME A DIFFERENT LEVEL OF UNDERSTANDING. NONETHELESS THERE WERE MANY CHALLENGES THAT CAME WITH LIVING ALONE AS A FOREIGNER BUT IT MADE ME A MORE RESILIENT, INDEPENDENT, FLEXIBLE, PATIENT AND DILIGENT PERSON. MANY TIMES I HAVE TO REMIND MYSELF WHY I'M DOING THIS TO BE BACK ON TRACK AND THE ANSWER IS ALWAYS THE SAME, THE PURSUIT OF KNOWLEDGE AND EXPERIENCE.





## PERSONAL REFLECTION



### INSPIRATION

BEFORE MY STAY, LIFE WAS CENTERED ON ARCHITECTURE. I WORKED ON ARCHITECTURE, READ ABOUT ARCHITECTURE, TALKED ABOUT ARCHITECTURE AND VISITED ARCHITECTURE. TODAY I LEARNED ESPECIALLY AFTER I STARTED LIVING IN ITALY THAT THERE CAN BE MANY SOURCES OF INSPIRATION FOR ARCHITECTURE AND DESIGN BESIDES OTHER ARCHITECTURE AND DESIGNS. WE CAN SEEK AND FIND INSPIRATION IN EVERYDAY OBJECTS, IN NATURE, IN MUSIC, IN FOOD, IN ART, IN EVENTS, IN EXHIBITS OR EVEN BY JUST TALKING TO PEOPLE FROM DIFFERENT BACKGROUNDS. IT BUILDS THAT BODY OF KNOWLEDGE WHERE WE CAN STORE AND INCUBATE NEW IDEAS. TODAY I'M TRYING TO FORM A HABIT OF GOING TO MORE MUSEUMS, EXHIBITS, EVENTS, PLACES THAT ARE DIVERSE IN NATURE TO FIND MORE INSPIRATION AND TO GAIN MORE KNOWLEDGE.

### COURSE OF ACTION

THE OBVIOUS PLAN IS TO GAIN MORE EXPERIENCE AND KNOWLEDGE IN ZDA REGARDING PREFABRICATION AND APPLY THE SAME KNOW HOW BACK HOME. ANOTHER PLAN IS TO CONTACT ABIMIS AND IF POSSIBLE MAYBE COLLABORATE WITH THEM BECAUSE I ALSO HOPE TO ALSO REALIZE THE OUTDOOR KITCHEN GIVEN THE LEVEL OF RESEARCH AND DETAIL WE DID FOR THE PROJECT. I WOULD ALSO LOVE TO TRY TO WORK FOR A MORE DESIGN ORIENTED STUDIO GIVEN THE CHANCE. WHEN THE TIME IS RIGHT TO GO BACK TO MY COUNTRY I PLAN TO APPLY ALL WHAT I LEARNED AND TRY TO INTRODUCE SOMETHING DIFFERENT IN THE INDUSTRY. THE FUTURE IS NOT YET DEFINED BUT THE PROSPECTS ARE SURELY EXCITING.



**GRAZIE MILLE!**

