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Polimi TIS

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TIS  
#

THESIS INCUBATOR STUDIO

The Suspended Wave

How to strengthen the cultural value of fisheries and sailing in  
Genoa and make them part of the Ocean Race



**POLITECNICO**  
MILANO 1863

SCUOLA DEL DESIGN



**POLI.DESIGN**  
FOUNDED BY POLITECNICO DI MILANO



**THE OCEAN RACE**

GENOVA  
THE GRAND FINALE  
2022-23

Project developed within the Thesis Incubator Studio - Politecnico di Milano  
in partnership with The Ocean Race

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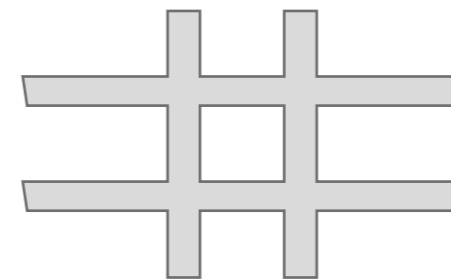
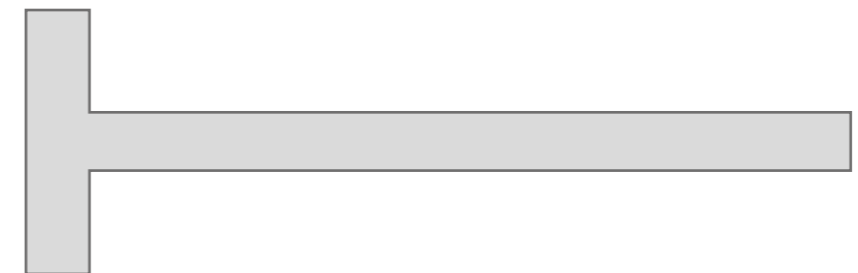
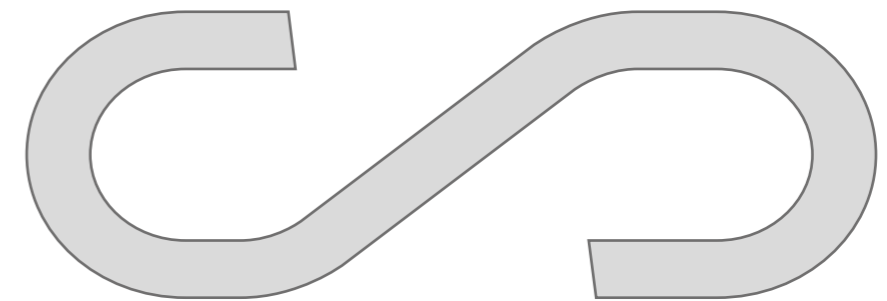
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THESIS INCUBATOR STUDIO

**The Suspended Wave**

How to strengthen the cultural value of fisheries and sailing in  
Genoa and make them part of the Ocean Race



THE SUSPENDED WAVE

## DEDICATION

Dedicated to my parents, my brothers, my sisters and my families  
for their endless love and support.

Not forgotten to all my dear friends and lecturers.

Blue for Sudan, the blue cover is a dedication for my country Sudan,  
because all through the master's year, my country was fighting for  
freedom, peace, and justice.

## ACKNOWLEDGEMENT

This dissertation represents my hard work of gaining a lot of experience through two years studying Master of Interior and Spatial Design, in Politecnico di Milano.

First and foremost, I would like to express my deep and sincere gratitude to my thesis supervisor, Prof. Anna Barbra, for her invaluable advice, continues support and patience during the #TIS Studio Thesis Incubator as part of my master's Study. I would also like to thank all members of #TIS, Prof. Giovanna Piccinno, Prof. Cristina Morbi, Communication Consultant Giulia Pellegrino, Assistants Alice Zingales Daniele Mazzinghi, for their guidance and technical support of my journey.

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Lastly but most importantly, I wish to thank all my family, my dearest parents, brothers, and sisters for their endless love and unwavering faith in me. They raised me, supported me, taught me, and loved me. To them I dedicate this thesis.

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# RESEARCH ABSTRACT

Research Brief | Aim | Research Methods | Findings  
Conclusions | Research Methodology | Research Framework

## THE SEA

The Sea  
Holds dark secrets  
Vicious truths  
Swallows what has been  
What could have been  
Binds and bounds  
Fact and fiction  
And harbors the dark side of humanity  
In its infinite darkness  
A purgatory for truth  
That's whispered in the waves

April Hayward <sup>1</sup>

## Fisheries Poetry

Fisheries are showing their way of life by describing nature, expressing their surroundings, and their adventures.



**RESEARCH BREIF**

This race is an opportunity for Genoa to develop worldwide recognition and attraction through innovative growth and flourishing of the city with development projects, set during the 3-years preparation period for the race since 2020. This is an opportunity to enhance one’s potential as the capital of the blue economy. The development focus is oriented towards sea business and cultural communities, triggering legacy and heritage. Promotional activities in the welcoming festival for the Ocean Race headquarters will attract talents, investments, as well as companies and develop research, innovation, and dissemination activities throughout the preparation period. Changes of the fishery management system (Multi Annual Guidance Plans – MAGP) in 1997 has led to a current reduction of -21% in the Italian fishing capacity. In addition, industrialization of fishing has overshadowed the value and appearance, socioeconomic and cultural, of local fisheries and their observers in community. For this reason, this research focuses on investigating fisheries to trace their footprints and highlight the cultural value by exploring the hidden networks of fisheries and connect them to the community to reflect and protect their cultural heritage and legacy.

**AIM**

Strengthen the cultural heritage of fisheries that was neglected because of industrialization bonding culture and community with sport.

**RESEARCH METHODS**

We collected data by searching the literature. The collected data focused on the theoretical aspect of the blue economy, the ocean race, the fishery community, and co-design. Information was analyzed based on a framework which involved the research theory, focus, and case studies to deduce the concept they will be used to strengthen the cultural value of fisheries. the research theories we related to blue economy, ocean race and fisheries, while the research focus targeted community analysis and fisheries efforts. Cases studies included focused on the history, tradition, and legacy of fisheries.

**FINDINGS**

The Fishery generations are traditionally intertwined with the history of Genoa along the coast or near inland water since ancient times of the Ligurian coast. Other findings show that fisheries are passing down inherited in generations to protect the legacy and the sea tradition. The blue economy sector has a gradual percentage of a reduction because of the fishery industrial management system changes

**CONCLUSIONS**

From the given results, co-design seems to be a suitable research concept that will be adopted to develop interventions designed in collaboration with the community and fisheries members, which will improve the cultural value of fisheries and connect them with the community.

FISHERIES OBSERVERS

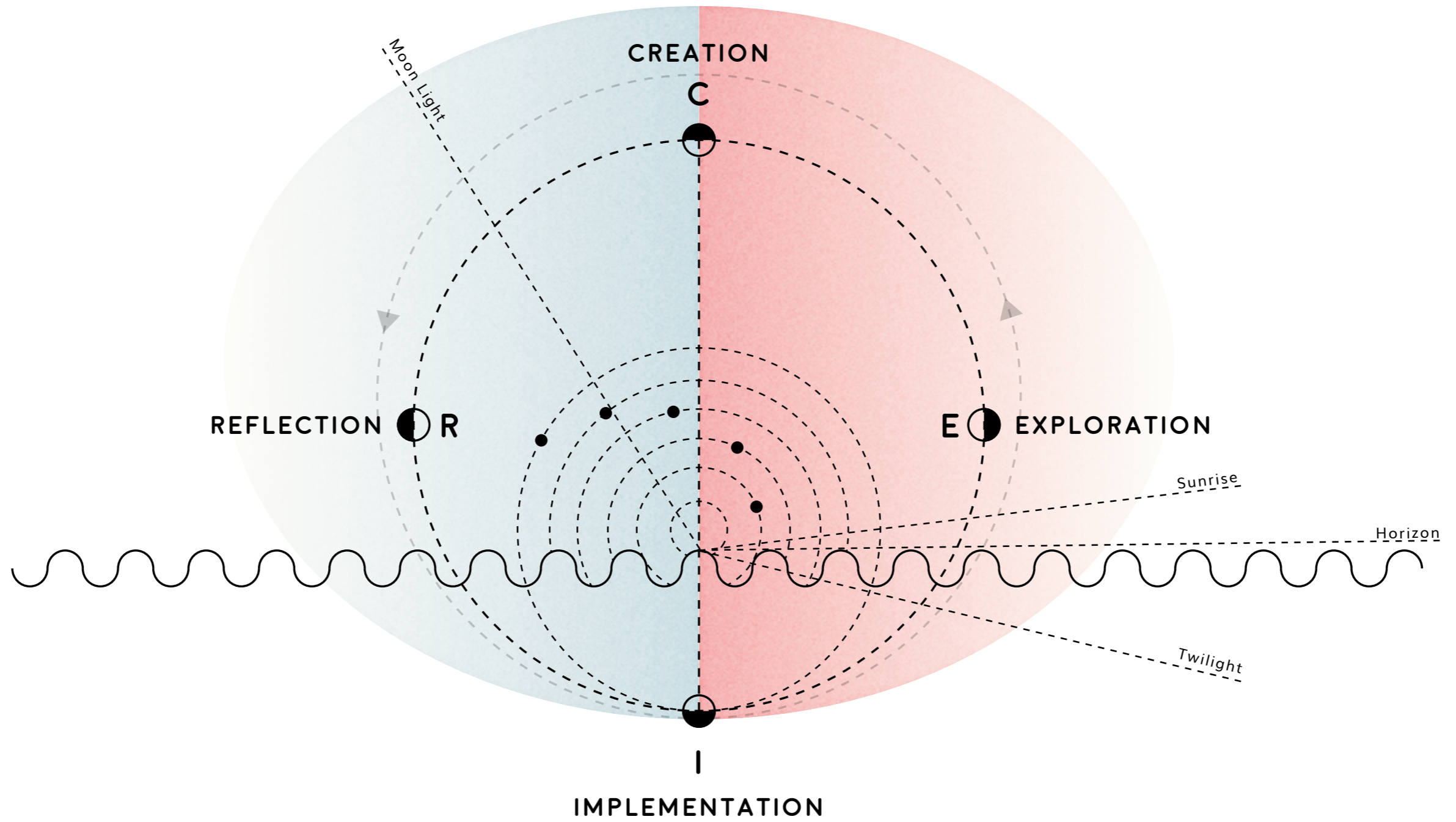
L I F E O F A F I S H E R Y





Figure 1.1  
Research Keywords

FISHERIES OBSERVERS



THE SUSPENDED WAVE

# CHAPTER 1 RESEARCH EXPLORATION

The Ocean Race | Genoa and Blue Economy | Fisheries Observers

## Walking Across The Atlantic

I wait for the holiday crowd to clear the beach  
before stepping onto the first wave.

Soon am walking across the Atlantic  
thinking about Spain,  
checking for whales, waterspouts.

I feel the water holding up my shifting weight  
Tonight I will sleep on its rocking surface.

But for now I try to imagine what  
this must look like to the fish below,  
the bottoms of my feet appearing, disappearing.

Billy Collins <sup>1</sup>



## Introduction

Researching the existing simple techniques to incorporate the research, by doing desk research through books, newspapers, journals, and papers on simple techniques available to introduce all about This chapter is to understand. The exploring has targeted the following topics related to the Ocean Race and the impact has made on the city of the blue economy Genoa. The research focus is highlighting the Fisheries Observers. Moreover, investigate their industrial and social aspects that lead us to find the problem of the research question.



## THE OCEAN RACE

The Ocean Race is the world’s longest and most challenging marine sporting event. The best sailors on the planet are battling to reach the finals. The sailors face many challenges and test their individual, teamwork, and endurance skills. The experience makes the competitors undergo the risks of sleep deprivation, physical exhaustion, fear and psychological trauma, and isolation in the sea. Sailing in the Ocean race requires total commitment, as *“this is not a situation where you can dip your toes into the water to test the temperature before jumping in.”* The race lasts for 9 months and covers 45,000 nautical miles.<sup>1</sup> There is no prize money for the winners.

1. Race Report, “Volvo Ocean Race”.





2. Race Report, "Volvo Ocean Race."

3. Verri Paolo, "The Ocean Race \_ Client Report" (Comune di Genova, n.d.).

4. Race Report, "Volvo Ocean Race."

Rather, the victory reward comes from the self-measurement of the journey's difficulties that the sailors withstood with perseverance and the sense of achievement of overcoming one of the toughest challenges in all the sport. Winners will have the ultimate achievement of lifting the trophy and their dreams fulfilled. <sup>2</sup> The Ocean race 2023 will start in Spanish waters, from Alicante to Cabo Verde, Cape Town, Shenzhen, Auckland, Itajai, New Port, Aarhus, The Hague, and will finally end in the Ligurian Sea in Italy, where Genoa city is charged with sailors' welcoming ceremony. <sup>3</sup> (Figure 1) The Ocean Race has been considered one of the three pillar events in international sailing, sitting alongside the Olympic Games and America's Cup, where it corresponds well with both media and marketing metrics in Genoa. This global event crossing the continents with elite sporting competition over eight months, the Ocean Race provides a unique hospitality and storytelling platform, alongside positive brand benefits in Genoa. The awareness of the event is strong among the general population, and among fans, the Ocean Race stands out for its incredibly strong engagement. In the events world, the Ocean Race internationally has been considered one of the three pillar events in international sailing, sitting alongside the Olympic Games and America's Cup, where it corresponds well with both media and marketing metrics in Genoa. This global event crossing the continents with elite sporting competition over eight months, the Ocean Race provides a unique hospitality and storytelling platform, alongside positive brand benefits in Genoa. The awareness of the event is strong among the general population, and among fans, the Ocean Race stands out for its incredibly strong engagement. <sup>4</sup>

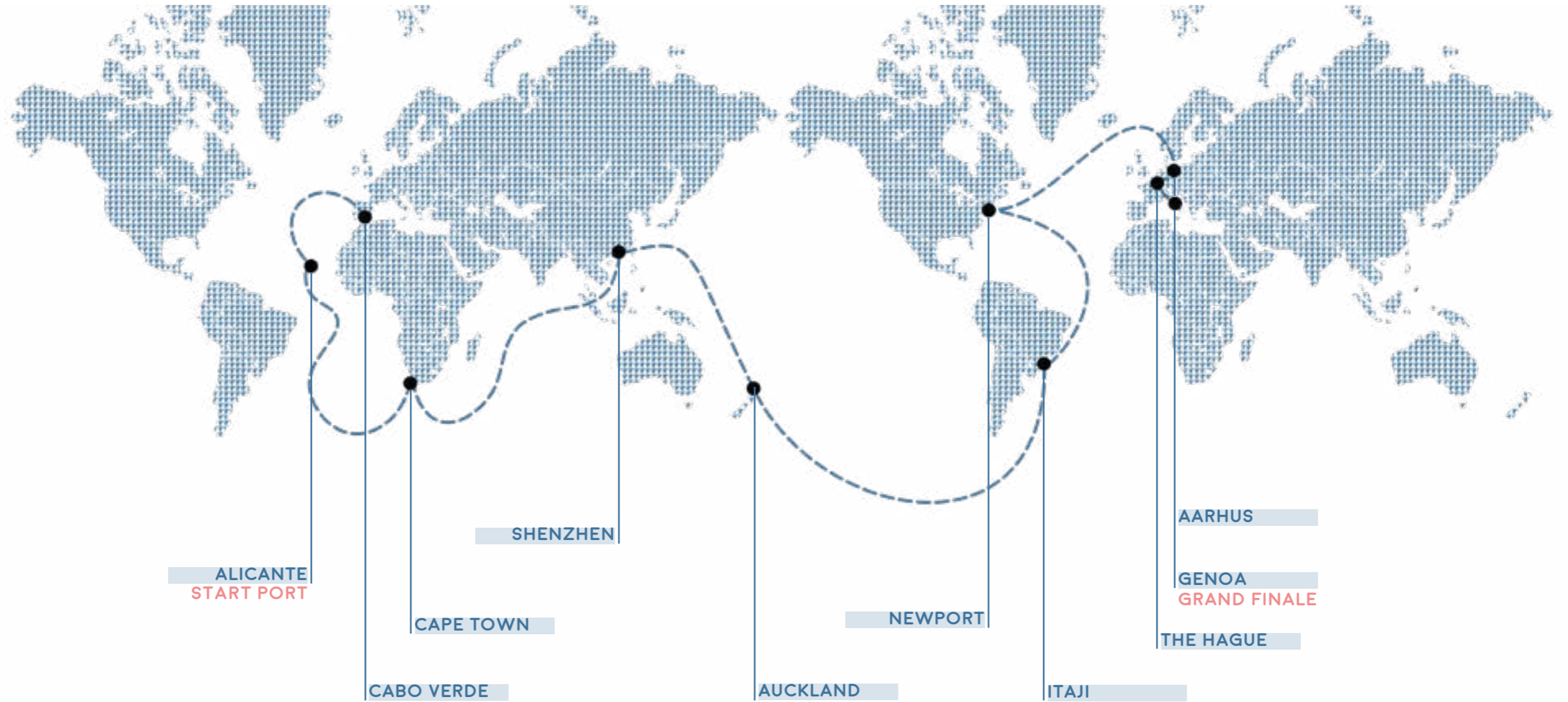


FIGURE 1 : THE OCEAN RACE, RACE MAP.

THIS EDITION OF THE OCEAN RACE, SCHEDULED TO START FROM ALICANTE, SPAIN IN OCTOBER 2022, WILL VISIT 10 INTERNATIONAL CITIES, INCLUDING THE START PORT AND THE GRAND FINALE FINISH IN GENOA, ITALY IN THE SUMMER OF 2023.

**THE OCEAN  
RACE EVENT IN  
GENOA 2021  
VISIT**





## GENOA AND BLUE ECONOMY

5. Blue Economy Summit, ClickutilityTeam, and Comuni Di Genova, "Genova Blue Economy Summit."

Genoa is the leading city in sea activities in the Ligurian region and is considered the capital of the Blue Economy in Italy. It is the platform of industrial activities and the development of services such as aquaculture, fishing, marine biotechnology, maritime and transport, coastal and cruise tourism, ports, and shipbuilding, as well as marine renewable energy, as a perspective of sustainable development. In a peninsular country like Italy, surrounded by the sea for about 80% of its borders, the Blue Economy has an essential share in its productive system. <sup>5</sup>

FISHERIES OBSERVERS

RESEARCH FOCUS  
FISHERIES OBSERVERS

Industrial Perspective | Social Perspective

# FISHERIES OBSERVERES INDUSTRIAL PRESPECTIVE

Fishery Managment Syetem  
The OECD Fisheries Managment Report



## FISHERIES OBSERVERS

6. Morandeira, "Masther's Thesis MSc in Sustainability, Society and the Environment."

The fishing industry is an important source of human nutrition. It supplies proteins, healthy fatty acids, vitamins, and other essential elements for health. Nowadays, the world fish consumption pattern has increased from 9.9 kg per capita in the 1960s to 20 kg per capita in 2015, and the forecast for the year 2025 is further increased to 21.8 kg per capita. Fish consumption are differing profoundly among countries and consumers' behavior. The availability of fish in the Ligurian region is in both local and seasonal terms. However, globalization flourishment has increased exports all around the world. <sup>6</sup>

## Fisheries Management System Complications

### 1) Reduction

The industrialization of fishing has led to a significant decline in the number of fisheries employees between 1950 to 1980. In the economic industrial change occurring within the 30 years, around 48.9% in the number of employees were reduced at a national scale. Sociological and psychological factors were other reasons for the seen reduction. In 1981, fisheries workers comprised 26% aged under 20 years and 32% aged between 20 and 29 years at the national level.

Throughout history, Workers in fisheries were not bound by regulations and enjoyed the condition of being relatively free men in terms of their fishing habits.<sup>7</sup>

### 2) The Change OECD of Rules

However, the introduction of OECD (Organisation for Economic Co-operation and Development) policies, governed by the Multi-Annual Guidance Plans (MAGP), in the last 20 years of the 20th century and the first decade of the present one, has regulated fishing process by lowering the fishing efforts and led to a further marked decrease in the number of fisheries. This drop produces a strong social and economic effect on the Italian fishery sector. Also, a constant decrease in the average levels of fishing productivity in the Ligurian Sea was seen in various geographical areas in Italy.<sup>8</sup>

### 3) Fishing Rules

In addition, the increase in the cost of fishing gears and fuels have led to the withdrawal of several operators permanently in 2001.

9. Ministry of Agricultural, Food and Forestry Policies, "The Fisheries Information System".

Reaching 1,250 vessels and decreasing the gross registered tonnage by 21 units. Thus, a remarkable reduction of 21% fishing days was recorded in 2002.<sup>9</sup>

### 4) Sustainability

The decrease in the fishing capacity was aimed to enhance the sustainability of the fishing sector. New policies of self-management approaches are expected to have a primary role in the sector's future, shifting of responsibilities from the central administration to ship owners. This new management approach has achieved the following goals: reduction of over-capacity and fishing effort, improved product quality, gross commercial production, a substantial increase in revenues, and reduced exploitation costs for controlled management.

### 5) Generation Turn Over

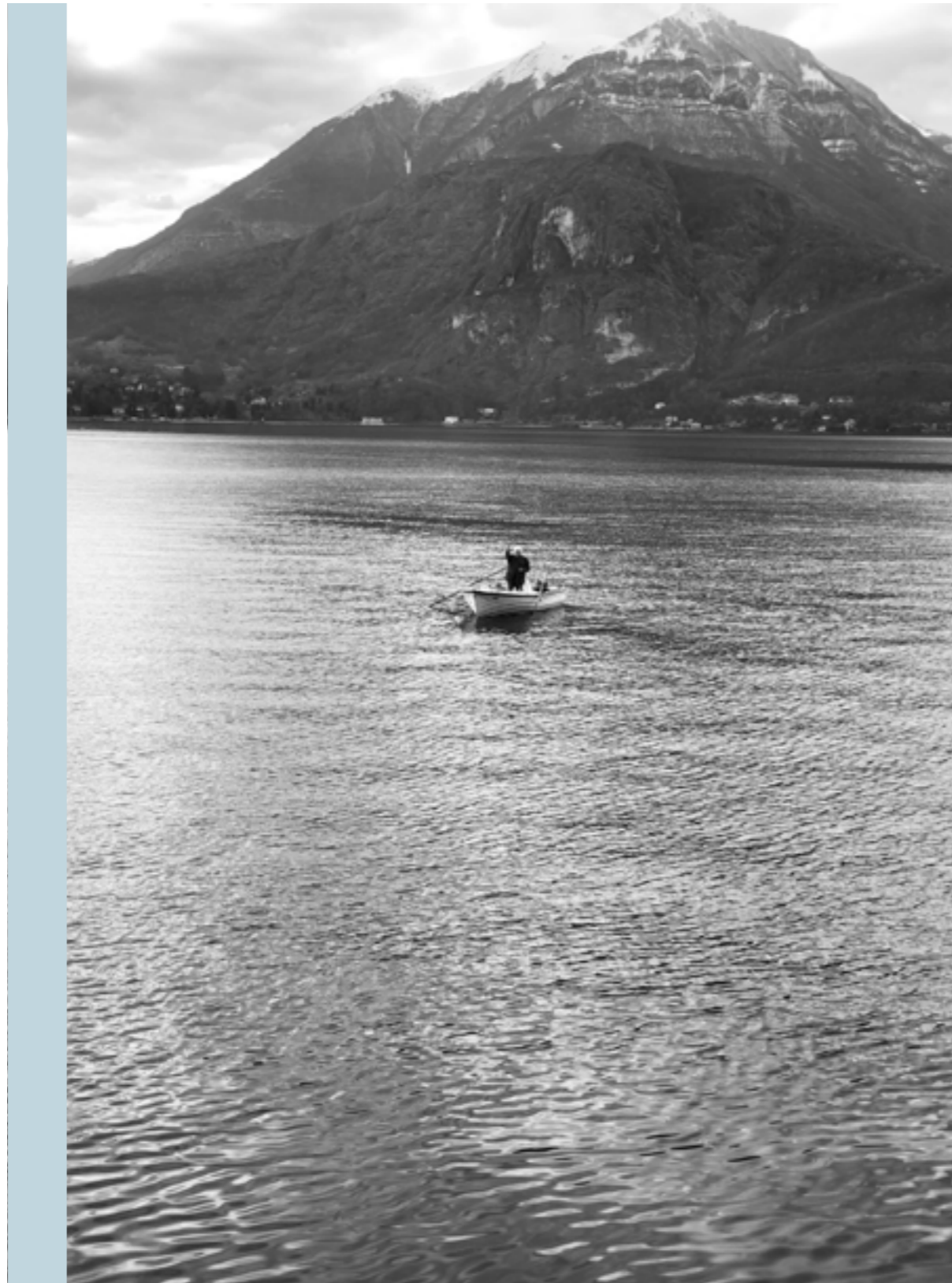
However, fisheries face a lack of expertise and difficulties in self-management as they face exhaustion and a decrease in motivation for work. The fleet is also facing a generational turnover, which negatively impacts the production revenues and the value of several companies. A study of ISMEA (Institute of Services of the Agricultural Food Market) has shown that the Italian fleet's crew had a lower number of members in 2008 compared 2003 (29,349 vs. 38,157). The seen number of members in the Italian fleet are of concern, especially since they are drastically lower than its Spanish and French counterparts (92,800 and 64,700 members reported in 2007, respectively).<sup>10</sup>

10. Ministry of Agricultural, Food and Forestry Policies, "The Fisheries Information System" (Italian Government, n.d.).

7. Ministry Of Agricultural, Food And Forestry Policies, "Fisheries And Their Main Stakeholders."

8. OECD, "Fisheries and Aquaculture in Italy."





## FISHERIES OECD MANAGMENT REPORT

11. OECD, "Fisheries and Aquaculture in Italy," January 2021.

The OECD aims to support policymakers and stakeholders' sectors to provide sustainable and resilient jobs, food, and suitable livelihoods for future generations of fisheries. The OECD review is showing updates and analyses for the fisheries support estimate (FSE) database.<sup>11</sup> It is the most extensive, detailed, and completed package collection of Italy data on government support to fisheries. It shows the updates of newly assembled data on the health of the fish stock, on the management of key stocks of commercial interests, and the governance of fisheries across OECD countries and emerging

12 OECD, “Fisheries and Aquaculture in Italy,” January 2021.”

economies with large fishing sectors. This report is subjected to highlight the government management for fisheries to decrease the harmful impacts on resources, ecosystems, the development of the socio-economic benefits from fishing. The priority goes in a determination for actions at the national level and the international community.

**1) Fisheries and Aquaculture Production**

In 2018, Italy produced 0.3 million tonnes of fish (including molluscs and crustaceans), with a value of USD 1658.4 million. 32% of this value came from aquaculture and 68% from fisheries (that is, the capture of wild resources). Between 2008 and 2018, the quantity produced decreased by 10%, while its value decreased by 15%. (Figure 2)

**2) Production and Trade in The Global Context**

Italy is a net importer of fish and fish products. Between 2008 and 2018, exports decreased by a total of 1%, while imports increased by 16%. (Figure 3)

**2) Employment and Fleet**

The employment in the seafood sector had 36363 jobs, including processing, in 2018. However, this is representing 8% fewer jobs in 2008. Over the same period, the average value of production per employee decreased by 7% in marine fisheries and decreased by 9% in aquaculture. Moreover, the fleet has 12059 powered vessels, and it’s decreasing by 11% over the same period. <sup>12</sup>



(Figure 2) : Fisheries and aquaculture’s controbution to seafood production. Source: FAO dataset ‘Global Fishery and Aquaculture Production Statistics’ (FishStat)); OECD dataset ‘Marine landings’ (OECD.Stat). Note: Seafood production volume is expressed in live weight tonnes. The value of aquaculture production is estimated based on unit value by live weight tonne, while the value of marine fisheries refers to the value of landings.

13. OECD, “Fisheries and Aquaculture in Italy,” January 2021.

Small-scale vessels below 12 meters in length, are estimated for 71.7% of the total number of vessels. The average total gross tonnage of the Italian fleet in 2018 was 14626 tonnes, which is done by 26% since 2008. The small-scale vessels are estimated for 12.2% of the total gross tonnage. (Figure 4) (Figure 5)

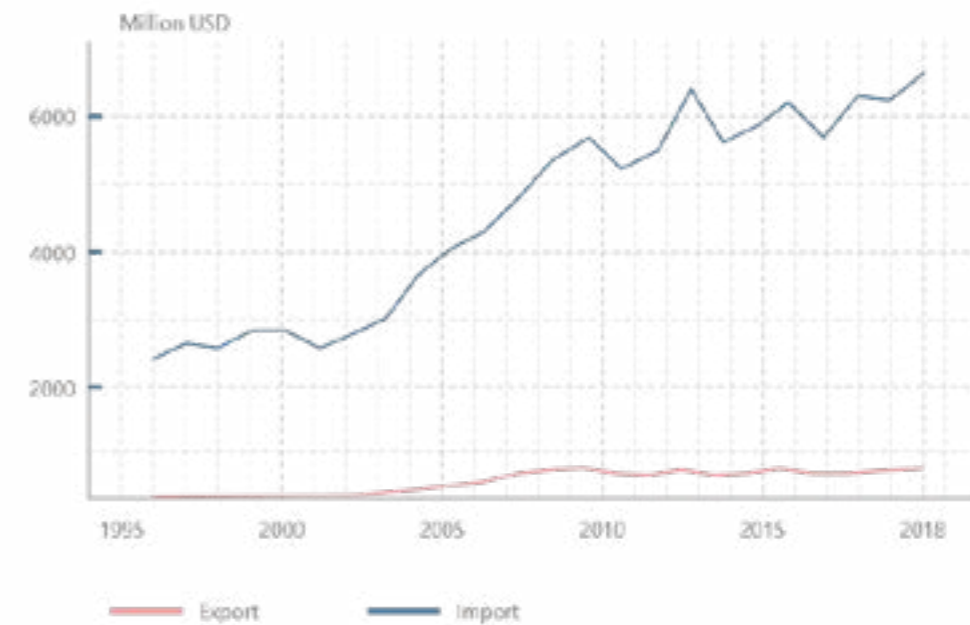
**3) Government Support of Fisheries**

Through a wide range of policies, the government is contributing to support its fisheries sectors. These policies aim to maintain employment, improving fisheries profits and ensuring the sustainability of fisheries and the resources they rely on. However, the government is financing services to the fisheries sector that benefit the sector and assisting individuals and companies.

**3.1) Financing of services to the fisheries sector :**

The Italian Government has spent EUR 41.8 million (USD 49.4 million) in 2018 to finance the fisheries services, port access and management, taxes of resources, and associated profits. However, the net of coast-recovery charges the public cost of services of fisheries amounted to 4.4% of the value of the production, while the OECD average was 8.5% in 2018. (Figure 6) Fisheries intensity for the financing services is relative to the fleet size, it was USD 337.4 per gross tonne (gt) of total capacity in 2018. The capacity of the fleet in a comparison with an OECD average of USD 601.8 per gt in 2018. Moreover, other services are aiming to improve the community’s well-being. In the OECD such services including management control and monitoring.<sup>13</sup>

In 2018	
Share of global fisheries production volume	0.238 %
Share of global aquaculture production volume	0.125 %
Share of global fisheries and aquaculture exports	0.527 %
share global fisheries and aquaculture imports	4.323 %



(Figure 3) : Trade in fish and fish products.

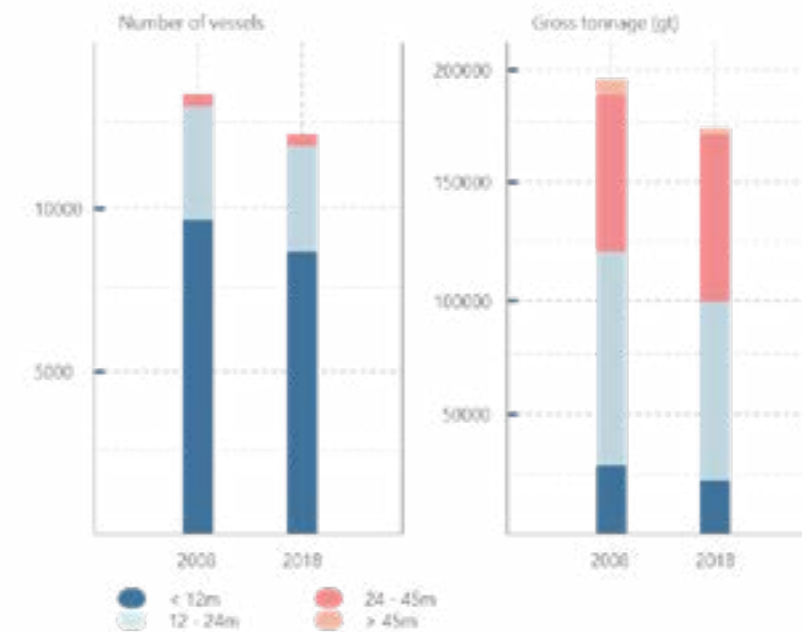
Source: Trade data (UN Comtrade; WITS - World Integrated Trade Solution - the list of commodities included is specified in the OECD dataset 'International trade of fisheries products', OECD.stat) and FAO dataset 'Fishery and Aquaculture Production Statistics' (FishStat).

14. OECD, “Fisheries and Aquaculture in Italy,” January 2021.

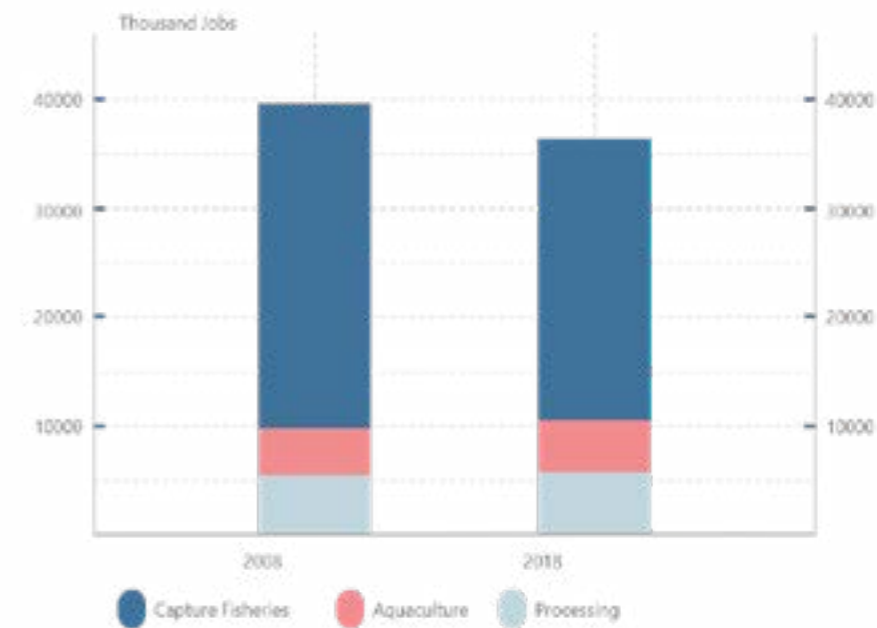
Are estimated for an average of 59.2% of spending on services to the sector in 2018. (Figure 6) Other Services such as investment in education, training marketing in promotion, research, and development. These services are working on fisheries’ abilities on operating their business more efficiently. These services are estimated for an average of 16% of spending on services to the sector in the OECD in 2018. (Figure 6) Finally, the government in the flexibility of having a direct relationship with the production capacity can help on supporting the sector. The support is by implementing investment in or subsidized access to infrastructure like ports. in the OECD, these services have estimated an average of 24.5% of the financing of services to the sector in 2018. (Figure 6)

**3.2) Direct Support to individuals and companies in the fisheries sector :**

The Italian government is supporting the fisheries sector in totaling EUR 64.7 million (USD 76.4 million) through policies directly benefiting individuals and companies. The support is up by a total of 1713% since 2008. this assembled to 6.8% of the value of production. The direct support policy’s objectives are to maintain or increase the incomes of the fisheries. The estimation support of individuals and companies increased 1575% since 2008, reaching USD 2935.1 per fisher in 2018. The direct support is in the income support and special insurance systems. The Italian government has spent USD 427.7 per fish on these types of policies in 2018. while in the OECD, the average spending per fish was USD 496.8 in 2018.<sup>14</sup>



(Figure 4) : Employment by sub-sector



(Figure 5) : Fleet size by fleet segment

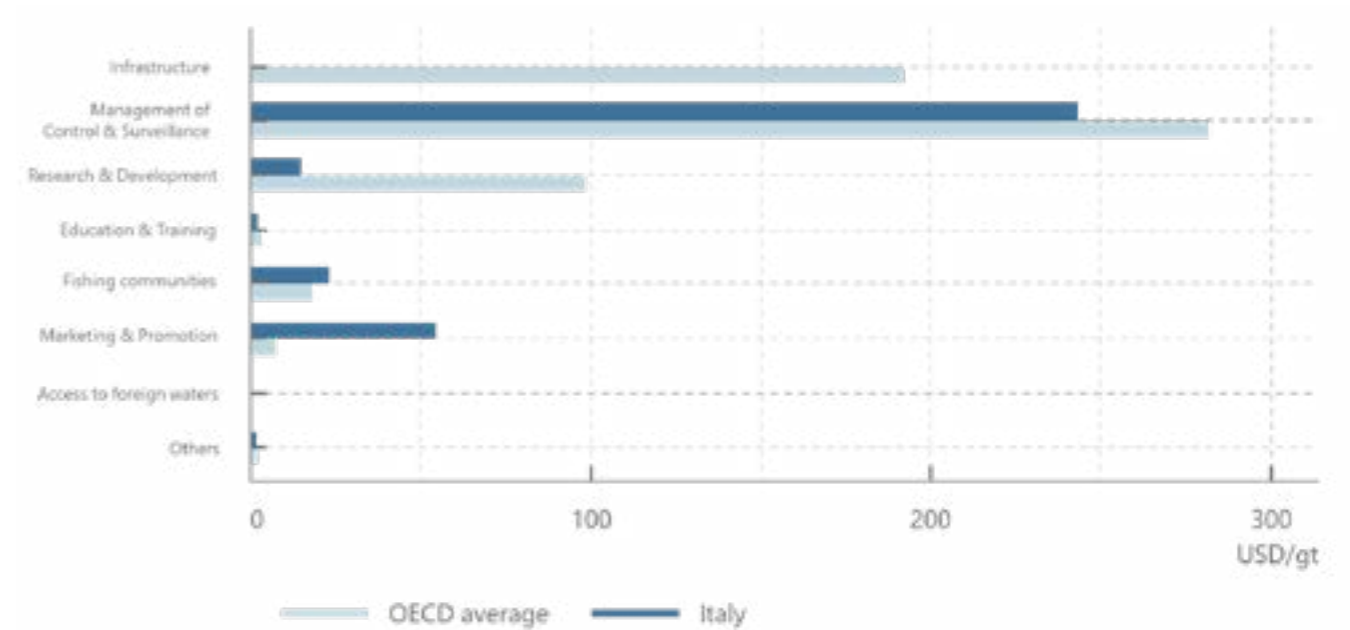
Source: OECD datasets ‘Employment’ and ‘Fishing fleet’ (OECD.Stat).

15. OECD, “Fisheries and Aquaculture in Italy,” January 2021.

Moreover, benefits can be provided in exchange for capacity reduction, such as for decommissioning plans or payments for early retirement. More policies are directed to lower the cost of inputs. These include support for fuel, ice, bait, and the modernization of vessel gears. By lowering the cost of inputs, it took the Italian government to spend USD 11.5 per fisher. This action had an impact on supporting the policies, and the effectiveness of fisheries management. For example, OECD work had shown that supporting the fuel is one of the least effective policies of transferring income to fisheries; while policies of lowering down the cost of inputs are for provoking overcapacity, overfishing, and illegal, unreported, and unregulated (IUU) fishing. The OECD had given an analysis of policies supporting that is generally an asset to encourage unsustainable fishing when an effective management system is in place. (Figure 7)

**3.3) Sustainable fisheries management :**

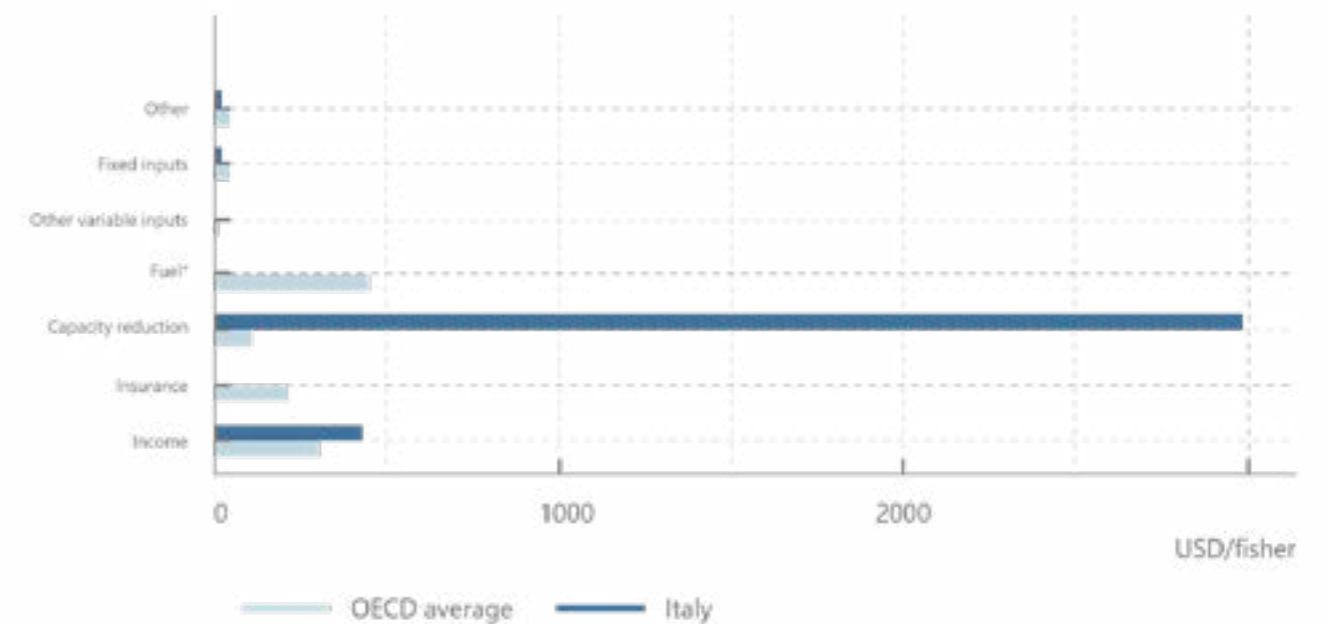
Sustainable development is a policy goal of the agenda 2030, for the Italian government is a member of the United Nations (UN). This Policy is responsible to end overfishing by 2020 and effectively regulated fishing activities based on science. Moreover, to end overfishing there are main conditions that rely upon controlling the quantity of fish being caught and enforcing scientifically established total allowable catches (TACs). The System of (TAC) is to calculate the main species of market interest. However, the value of production of the top 5 species was USD 351.7 million estimating for 31.2% of total fisheries production value in 2018.<sup>15</sup>



(Figure 6) : Financing of services to the fisheries sector, 2018

Source: OECD datasets ‘Fisheries Support Estimate (FSE)’ and ‘Fishing fleet’ (OECD.Stat).

Note: Figure uses the latest data reported by Italy (2018) and OECD average for 2018.



(Figure 7) : Intensity of direct support to individuals and companies relative to employment, 2018

Source: OECD datasets ‘Fisheries Support Estimate (FSE)’ and ‘Employment’ (OECD.Stat)

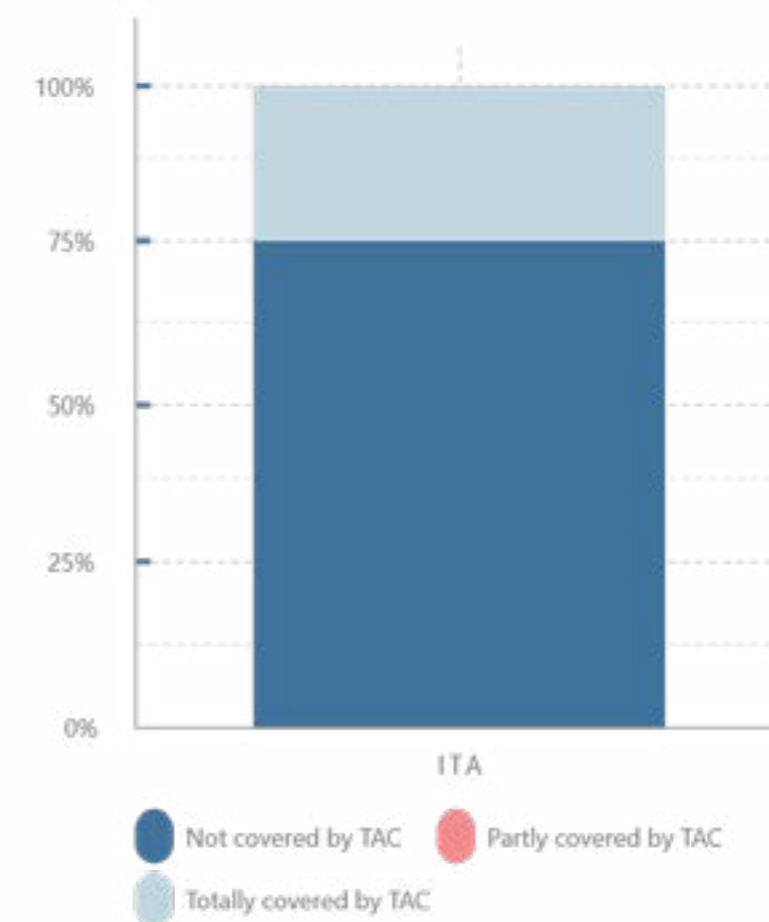
Notes: Figure uses the latest data reported by Italy (2018) and OECD average for 2018

16. OECD, “Fisheries and Aquaculture in Italy,” January 2021.

Only 1 species were entirely under TAC limits, and 0 were partly under TAC limits (TAC limits were set for some fisheries targeting some species). The individual fish stock and performance are under continuous evaluation by the fisheries’ sustainable management. Fisheries review of 2020 shows a total of 1119 stocks across 16 countries and economies (including the European Union) were reported as having recently been assessed to have biologically favorable status by 66%. Managing stock status and making TACs based on quantitative assessments can require extensive information and expertise. However, some cases show that when fisheries harvest a wide variety of species, the value of the stock is low. In this case, the cost and practicality of quantitatively assessing and managing individual stocks with TACs can be prescriptive. Nowadays, the data on the catches rates and other relevant information might be utilized to infer stock status. In addition, substitutional tools to control the impact of fishing include limits to fishing effort such as, on days at the sea, or fishing licenses. Also, restrictions on fishing practices, such as on fishing areas, gear, and seasons. These tools are used to manage 5 of the top 5 species. (Figure 8)

**4) Fighting Illegal, Unreported, and Unregulated (IUU) Fishing**

The IUU fishing is causing damages to fisheries law. It causes unfair cutting of profitability and employment opportunities. However, it goes in parallel to weakening food security in countries that are relying on seafood.<sup>16</sup>



(Figure 8) : Use of total allowable catch (TAC) limits in managing the key species

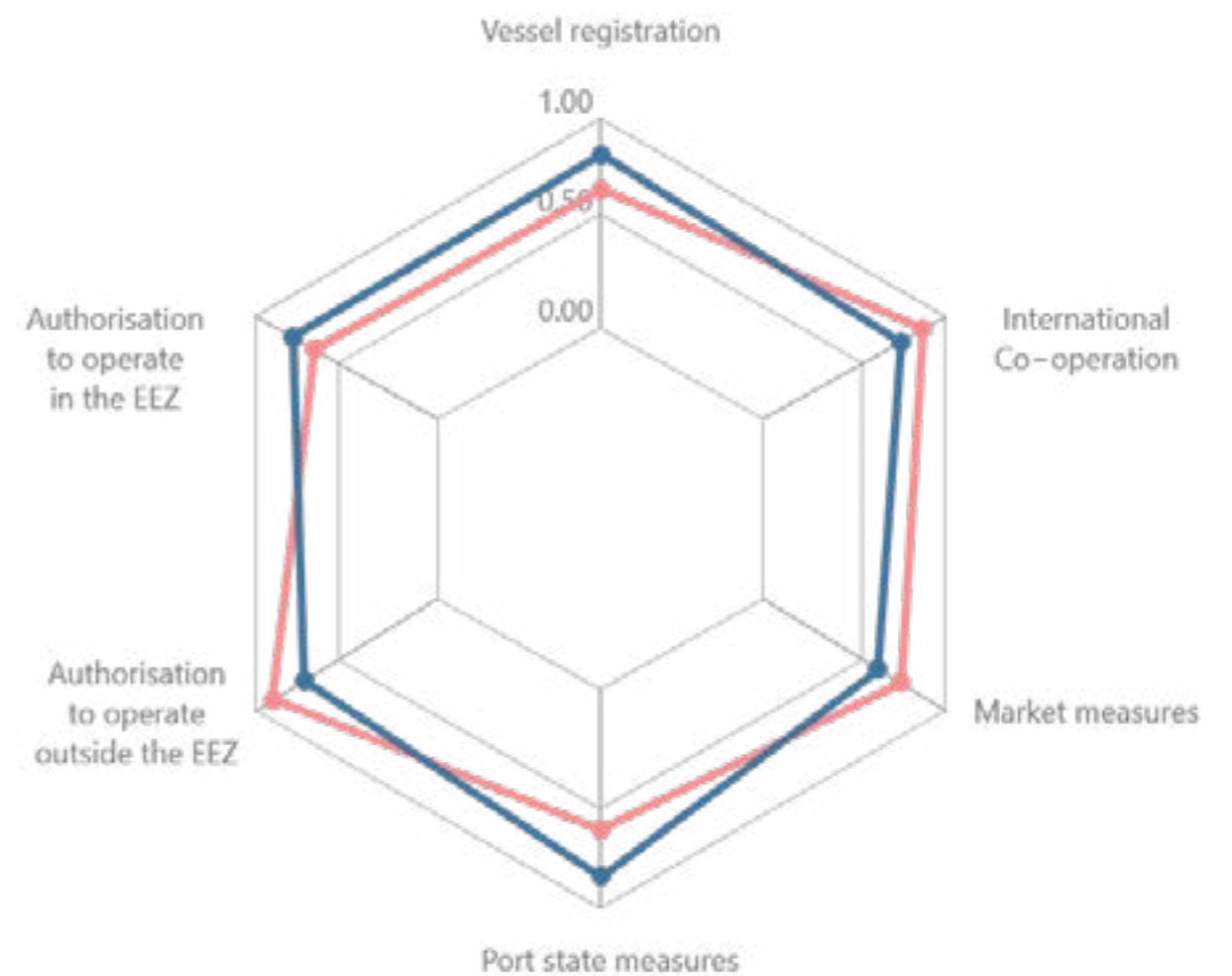
Note: Figure uses the latest data reported (2018)

17. OECD, “Fisheries and Aquaculture in Italy,” January 2021.

IUU fishing also weakens governments’ capacity of managing fish stocks’ sustainability by adding the pressure of having difficulties on counting and sort in the catch’s limits. It also causes some threats to the ecosystems by targeting endangered species. Implementing international policies against IUU fishing practices is a key to accelerate the elimination of threats as agreed under SDG 14. That helps to set clear objectives to end IUU fishing and eliminate subsidies contributing to it by 2020. (Figure 9) The OECD IUU policy compiled restrictions for responsibilities in the most important requirements of intervention concerning IUU fishing as the following:

1. Vessel registration, according to their economic zone (EEZ) symbolized by their flag.
2. Authorization for countries to operate in their economic zone (EEZ).
3. Authorization for countries to operate outside their economic zone (EEZ) by flying their flag in areas beyond national authorities and foreign EEZs.
4. Port measure, by monitor and control port accessibility and activities.
5. Market measure, by monitor and control entry and flow of products to the market through the supply chains.
6. International co-operation, by engaging countries regionally and globally, to join activities against IUU fishing.

Italy is performing and progressing strongly on the authorization to operate outside the EEZ in port state measures.<sup>17</sup>



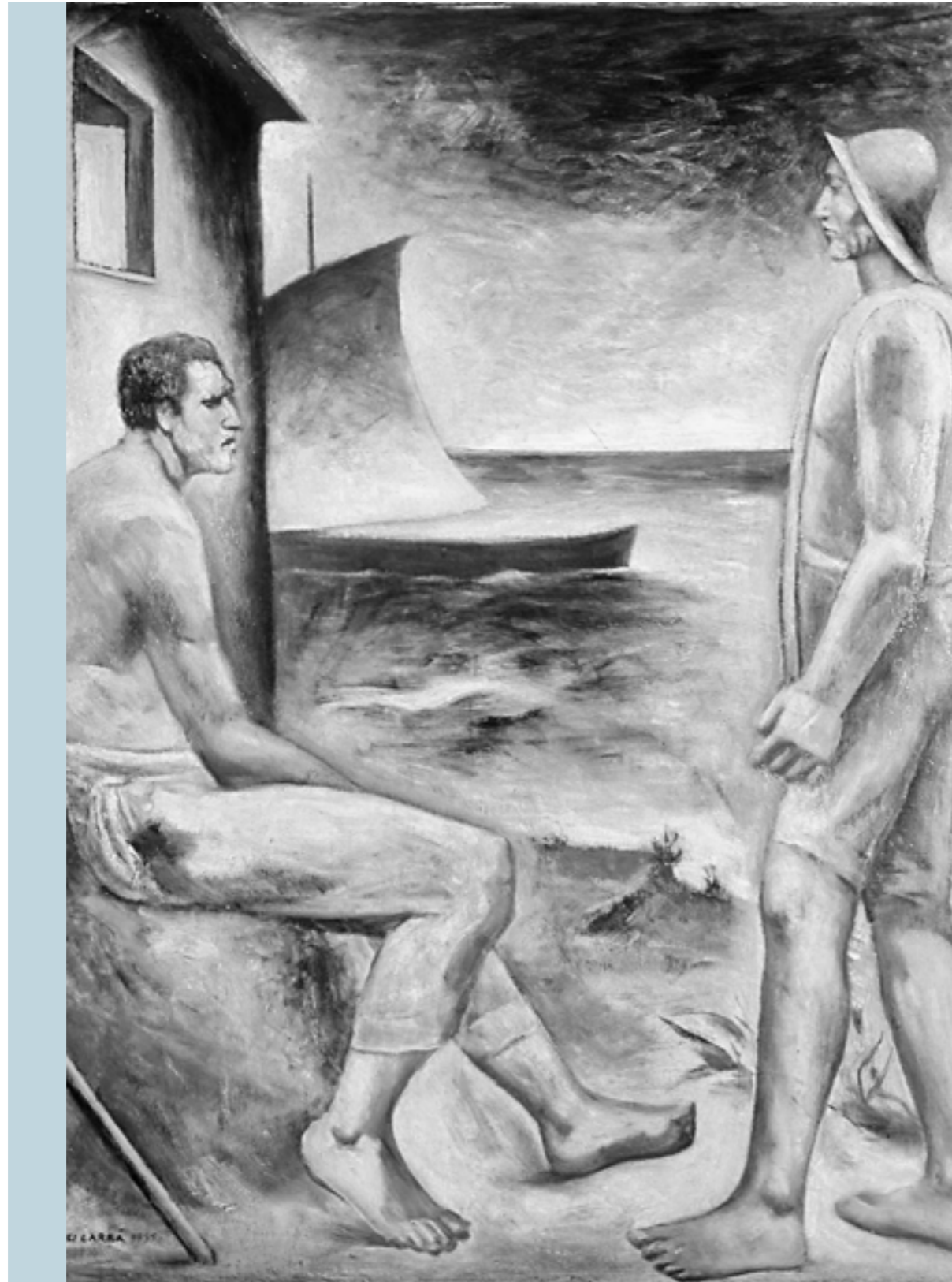
(Figure 9) : Use of total allowable catch (TAC) limits in managing the key species  
 Note: Figure uses the latest data reported (2018)

FISHERIES OBSERVERS

# FISHERIES OBSERVERS SOCIAL PERSPECTIVE

Fisheries Community  
Fishermen's Wives





## FISHERIES COMMUNITY

18. Ministry Of Agricultural, Food and Forestry Policies, "Introducing the Fisheries System."

Since ancient times, the history of fisheries in Genoa and fishing along the coast and near inland waters has been carried and passed down traditionally from generation to generation.<sup>18</sup> Through tradition, the history of fishing is connected to the value of culture that lives in the Genoese people that worked on shaping the environment to be part of their lives. People take the shape of the geographical locations taking the most benefits having its natural resources. Fishermen took the advantage of the natural fish tendency approaching the coast. They built the knowledge and became experts with practicing

through techniques and methods handed down from generation to generation. They carried out the knowledge of the geographical indications of nets targets, also periods of variety types of fish nesting. Sea Fishing was free, and the fish became the property of catchers, as like air. The sea was a common good for everyone.<sup>19</sup> Each proud family owned a boat or two and sailed the Mediterranean. Young boys accompanied to sea at a age as early as five, when sea trades was a primary activity. “I remember my father used to tell me how dangerous it was for them sometimes to off the Tunisian Coast. The people there would swim out to his boats and try capture them when they had their fishing nets out. My father had to club their hands so they wouldn’t get into the boat. It was the only way to escape.” Recalls one Santa Cruzan.<sup>20</sup>

19. “Storia e Trad Dispense Definitive e Corrette 2012.Pdf.”

20. Riccardo Gaudino, “Portrait of a Ligurian Fishing Colony. Pdf.”

**The Fishermen’s Wives**

Women have a great role in mending nets and helping the fishermen paddle their goods. Fishermen’s wives in the family are taking care of the fish that comes fresh from the fishery. They cook it to make traditional meals that go back to 500 years ago like the fish, squid and anchovies is fried flawlessly in the historical chip shops of the old town. Also, they net a very functional sweater for their husbands to protect them from the weather and cold winds in the sea. Also, they help on the market selling fish, where sometimes they wait for them at the shore to help them on the lifting and the carrying They help on repairing fish-net and sometimes they work on making new ones for them. All these tasks show that the fishermen’s wives are helping on rolling the family business. This role and contribution are supporting enterprises that should be adequately and fully recognized.<sup>21</sup>

21. “Women In Fishing.”

22. “Women In Fishing.”

Today, a qualitative leap is necessary for defining employment in fishing. Women must have the support to be an active subject in fishing entrepreneurship. To bring on the surface recognizing their hidden work. Also, to define their hidden role as “fishing women” in Italy for assisting the fishing enterprise. “Lega Pesca” is one of the associations that is working on calling to make this happen.<sup>22</sup>

**Genoa Fish Market**

The Genoese people like to buy fresh fish directly from the hands of fisheries who have fished during the night. It’s a habit that became a tradition nowadays. This habit is a way to praise the fishery’s hard work. In the morning after fish delivery near the docks, fisheries silently gather their nets checking them meter by meter, if necessary, repairing them. They are always concentrated and deep in their thoughts. The local and the seasonal fish are always available in the market. The market sells fish like hakes, goatfishes, shrimps, octopus, and anchovies. “Good, clean, and fair.” said the local people because it was fished by Genoese fishermen. This is working on enhancing and encouraging the local work. The fishing has carefully been done following tradition and sustainable methods. This process respecting for the sea and its ecosystem, with no intensive or unjustified fishing. Moreover, you can see with your eyes the fishery freeing fish from the net and putting it in the box. It’s a great opportunity for both consumers and fishermen to appreciate, value, and promote local fish. Fish can be bought every day of the week, in morning timing (from 8:30 to 12:00) is for anchovies, sardines, and small fishes, brought by small fishing boats.<sup>23</sup>

23. “Genoa Fish Market: Just Fresh Local and Seasonal Fish.”

The afternoon (from 14:00 to 17:00) is for trawlers, prawns, shrimp, cuttlefish, squid and octopus, and bigger fishes. Future projects to open in a Genoese fish market is to create a spot for cooking fresh fish by the fishermen because some are working as chefs. A small restaurant has recently been opened at the beach of Boccadasse by young aspiring fishermen. It cooks freshly landed fish where it is possible to have takeaway orders. The restaurant is named after the fishing boat registration number GE8317. They say it's the perfect place where to take a box of fish & chips and eat it directly on the beach drinking a cool beer. An ancient fish market that goes back to 1699 is the Mercato Orientale. It's not just serving the people of Genoa; it serves and attracts tourists who come from all over the world. The market has a wide variety of all the types of shopping like vegetables and fruits. And contain different sections than selling, you can find restaurants and a cooking school for some cooking experiences for our customers who want to learn the traditions of Ligurian dishes.<sup>24</sup>

24. "Genoa Fish Market: Just Fresh Local and Seasonal Fish."

**Social Networks and Sharing Information**

Women have a great role in mending nets and helping the fishermen paddle their goods. Fishermen's wives in the family are taking care of the fish that comes fresh from the fishery. They cook it to make traditional meals that go back to 500 years ago like the fish, squid and anchovies is fried flawlessly in the historical chip shops of the old town. Also, they net a very functional sweater for their husbands to protect them from the weather and cold winds in the sea. Also, they help on the market selling fish, where sometimes they wait for them at the shore to help them on the lifting and the carrying . They help on repairing fish-net and sometimes they work on making new ones for them.

25. "Genoa Fish Market: Just Fresh Local and Seasonal Fish."

All these tasks show that the fishermen's wives are helping on rolling the family business. This role and contribution are supporting enterprises that should be adequately and fully recognized.<sup>25</sup>

**Conclusion**

The research exploration has identified the research path were the information's that has been collected has identify a clear vision to go through next stages of the research.

**GENOA  
RESTURANT  
CASE STUDY**

**THE GE8317  
BOCCADASSE**



FISHERIES OBSERVERS

# FISHERIES OBSERVERS RESEARCH QUESTION

Observed Problems | Paradox  
Research Question | Research Hypothesis

### OBSERVED PROBLEMS/ PARADOX

Although policies and industrialization enhanced the fishing sustainability, identity of the fishery community was overshadowed by their impact. Extracted information from the reviewed literature poses the following questions: what has become of the fisheries in our present time? Do they still carry their tradition as the same old days? Is their legacy being maintained? and how can we let them participate in the welcoming festival of the Ocean Race 2023 as influential members of the community? <sup>26</sup>

26. "Storia e Trad Dispense Definitive e Corrette 2012.Pdf."

### PARADOX 1

**1) Because of the industrialization trends and economics focus of fishing, people do not know the life of fisheries behind the scenes.**

**2) Because fisheries and sailing are among the most influential sectors in The Ocean Race experience, their cultural value should be known to the community.**

**Q. "How to strengthen the cultural value of fisheries and sailing in Genoa and make them part of the Ocean Race?"**

### Working Hypothesis

The working hypothesis assumes that the cultural value of fisheries has been waned by the industrialization of fishing. And so, the research aims to recover the cultural heritage and network of fisheries through the Ocean Race event by using a strategic tool of special design to highlight the socio-cultural value of fisheries in Genoa.

### RESEARCH QUESTION

**" HOW TO STRENGTHEN THE CULTURAL VALUE OF FISHERIES AND SAILING IN GENOA AND MAKE THEM PART OF THE OCEAN RACE? "**

## CASE STUDIES

The following series of cases represents projects that were meant connecting people with their surrounding environment as well as blend historical and naval chronicles with community.



## THE FISH MARKET IN BERGEN BY EDER BIESEL ARKITEKTER

KEYWORDS . FISH MARKET . CULTURE . HERITAGE . TRADITION



27. Eder Biesel Arkitekter, "Fish Market in Bergen / Eder Biesel Arkitekter."

The new fish found in the heart of Bergen is located at the center of the world cultural heritage commercial buildings, Bryggen. The building meets all conceptional urban requirements, blending the historical context while creating an image for the marketplace by means of modern architecture. The line of sight from the Almenning roads to the sea as well as the lines sight to the landmark across the property. Maintaining those is essential for experiencing the urban context around the historic bay.<sup>27</sup>



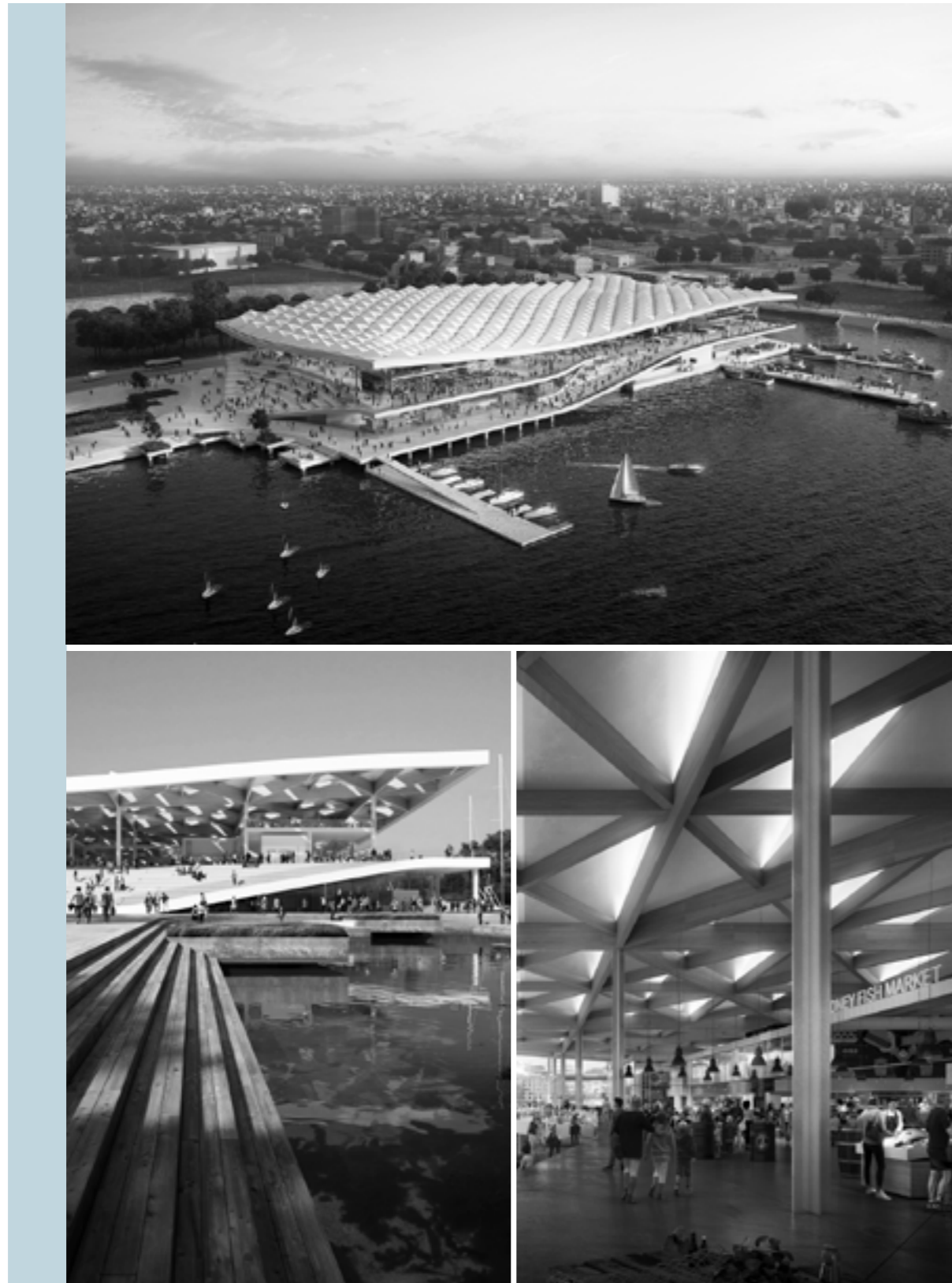


## THE BESIKTAS FISH MARKET IN TURKEY BY GAD

KEYWORDS . FISH MARKET . FRESH FISH DAILY . LANDMARK

28. GAD Architecture, "Besiktas Fishmarket / GAD."

The Basikats Fish Market is located on a triangular site. It is an iconic venue where many locals and visitors buy fresh fish daily. The construction of the old fish market was in a very poor shape and needed to be renovated. The design solution was to maintain its iconic neighborhood presence, while reaffirming its welcoming feeling. GAD designed a triangular shaped concrete shell covering the entire site with large openings at street level. <sup>28</sup>



## THE FISH MARKET IN SYDNEY BY 3XN

KEYWORDS . FISH MARKET . COMMUNITY . WORKPLACE . HARBOR

29. Infrastructure New South Wales, "Sydney Fish Market."

The Sydney Fish Market project seeks to set exemplary case for integrating the public realm and contemporary market space in Sydney's unique harbor-based urban landscape. The new will place people at the center of the architectural response, with an emphasis on place-making to foster a strong sense of community at Blackwattle Bay.<sup>29</sup>



## HOME FOR ALL IN JAPAN BY SANAA

KEYWORDS . RETIREMENT COMMUNITY . FISHERMEN . RESTING PLACE

30. SANAA, "Home for All Shelter in Tsukihama."

The Home-for-All program was initiated by architect Toyo Ito in response to Tohoku earthquake and tsunami that hit the eastern coast of Japan in 2011. The intent of the program is to provide a place rest and retirement out of the Tasukihama building for visitors and for the fishermen. We proposed a place that can be used for various activities with a ventilated roof which is comprised of a resting place open to the sea, which also accommodated work for several people.<sup>30</sup>



## THE SHIVER HOUSE BY NEON

KEYWORDS . KINETIC . EMOTIONAL LINK . ALIVE . WEATHER

31. Lilly Cao, "Experiential Shelter: 600 Kinetic Shingles Reinvent the Traditional Finnish Hut."

The project's structure is kinetic "animal-like" that responds to the surrounding natural forces to move and adapt along with it. The shiver house is attaching and creating the emotional link between the inhabitants and nature. It explores the idea that natural effects can make architecture seem "alive" to engender a more profound and longer lasting dynamic relationship between people and the structures they inhabit. The pieces static is poetic, living, and dynamic element that changes how we relate to the landscape surrounding us.<sup>31</sup>



## THE BENT INSTALLATION BY EDOUARD CABAY AND MARGHERITA

KEYWORDS . FESTIVAL . NAVAL HISTORY . WIND - SAILS . TRADITION

32. Emma Tucker, "Bent Installation for Genoa's New Generations Festival Resembles Billowing Sails."

The Billowing Sails installation was produced during the 'New Generations' architecture festival in Genoa. The installation was resembling the shapes of the ship made from wooden materials. The sculpture's concept was intended to refer to the naval history of the city, which hosted a four-day workshop and an experimental architectural "shipyard" as part of the festival. Thin strips of wood were bent into curved shapes, evoking the forms of wind-filled sails, and housing in rectangular wooden frames. <sup>32</sup>



## THE LIGHTSAILS IN AUSTRIA BY SOHNE & PARTNER

KEYWORDS . LIGHTHOUSE . GUIDE . EXHIBITIONS . SYMBOLS . WAYFINDING

33. Söhne & Partner, "Lightsails / Söhne & Partner."

In this case study, the project of the 'Lightsails' is a guiding symbol and a metaphor to guide the visitors for different exhibitions around the Millstätter See lake. The resemblance of the process in pathways defines the Lighthouse as a symbol of holidays, sea, adventures, and water. The objects are abstract sails, as "light-space-installation." The items are oriented to the lake. The lake Millstätter See is getting a tribune out of water because the lake's energy is trapped, converted, and reflected as light. <sup>33</sup>



## ON THE WAY TO THE SEA BY DERMAN VERBAKEL ARCHITECTURE

KEYWORDS . SEA . CITY EDGE . LINK . PUBLIC ACTIVITIES . EVENTS

34. Derman Verbakel Architecture, "On the Way to the Sea / Derman Verbakel Architecture."

The Billowing Sails installation was produced during the 'New Generations' architecture festival in Genoa. The installation was resembling the shapes of the ship made from wooden materials. The sculpture's concept was intended to refer to the naval history of the city, which hosted a four-day workshop and an experimental architectural "shipyard" as part of the festival. Thin strips of wood were bent into curved shapes, evoking the forms of wind-filled sails, and housing in rectangular wooden frames. <sup>34</sup>



## BIENNIAL OF YOUNG ARTISTS IN TURIN 1997

KEYWORDS . URBAN EPIDEMICS . COMMUNITY . FISHERMEN

35. Gruppo A12, "Urban Epidemics."

The Biennial highlighted the local artistic communities' activity, especially the young ones, at an international level. It demonstrated that a territory's different cultural components could be joined into a system and started an important dialogue between culture and enterprises. Furthermore, the Biennial managed to bring the public at large closer to contemporary art and its messages. It has also been an opportunity to recovering some forgotten spaces of the town for cultural purposes. <sup>35</sup>





## SEA STORIES FESTIVALS IN GENOA

KEYWORDS . MUSIC . COMMUNITY . ADVENTURE . SEA STORIES . GENOA

36. "Sea Stories Festivals in Genoa."

The Sea Stories Festival has reached its 4th edition in the scenographic space of Isola Delle Chiatte. The sea's rolling, the sound of the barges, and the natural context's magic will be the fundamental elements that will guide the public in the most magical evening events in Genoa. Igor Chierici, Luca Cicolella have told sea stories, and Federico Sirianni will be entrusted with telling fascinating stories that have the sea as the main protagonist. <sup>36</sup>

FISHERIES OBSERVERS



# CHAPTER 2 RESEARCH CREATION

Concept of Hydroluster | Concept of The Third Place  
Concept of Codesign

## Midnight Mid Ocean Snack

Fresh and apples  
Are delicious  
Nive crisp tart ones  
Are sublime

Still ..

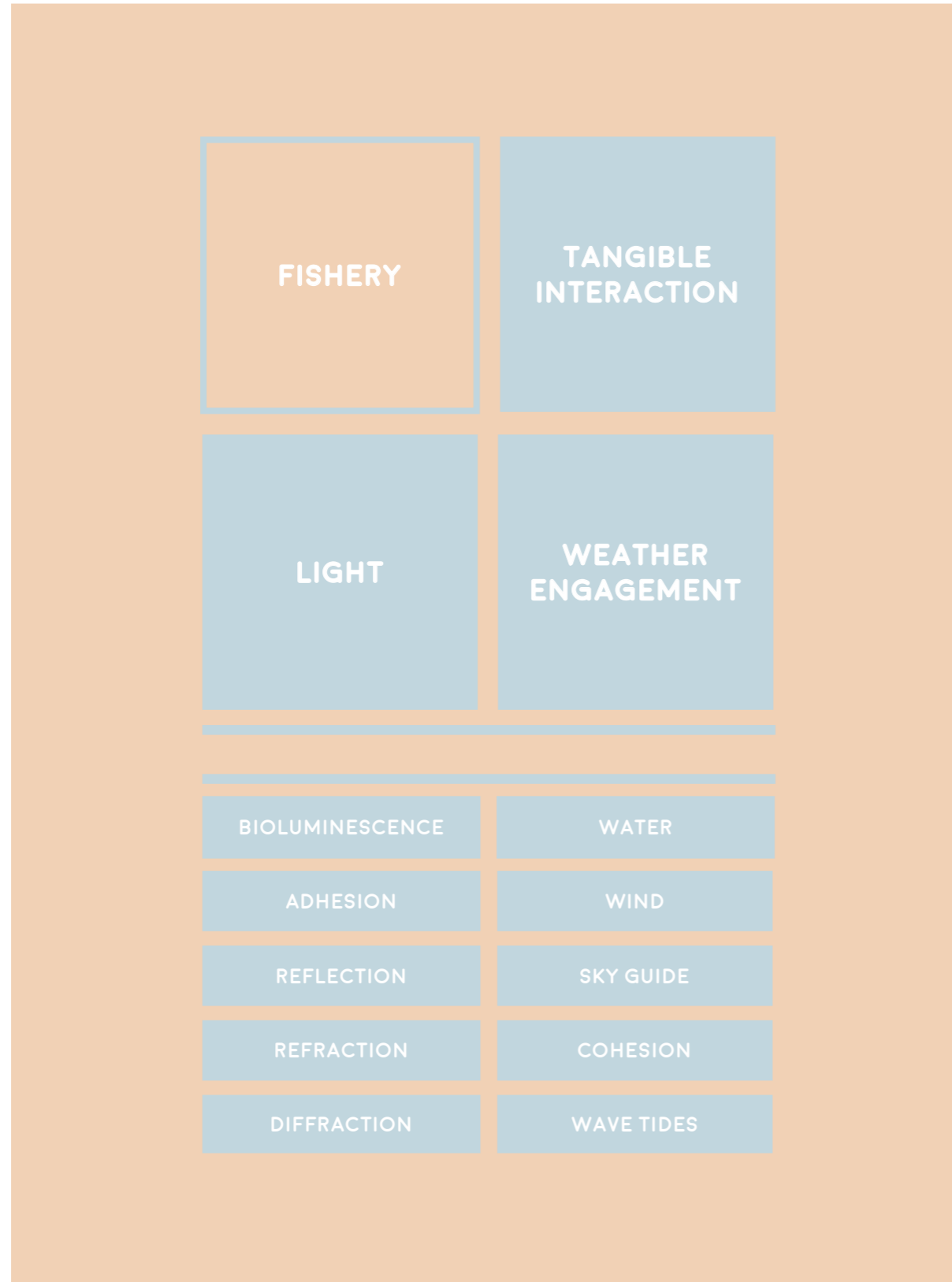
The experience  
Loses something  
When your hands still smell  
Like Lancetfish

Daniel Griffin <sup>1</sup>

## Introduction

After gaining insight on the research exploration, a pre synthesis of concepts was conducted targeting the incorporate elements of the fisheries and their environment into the ocean race.

FISHERIES OBSERVERS



## CONCEPT OF HYDROLUSTER

37. Edward Twitchell Hall, *The Hidden Dimension*, Reprinted (New York, NY: Anchor Books, 1990)

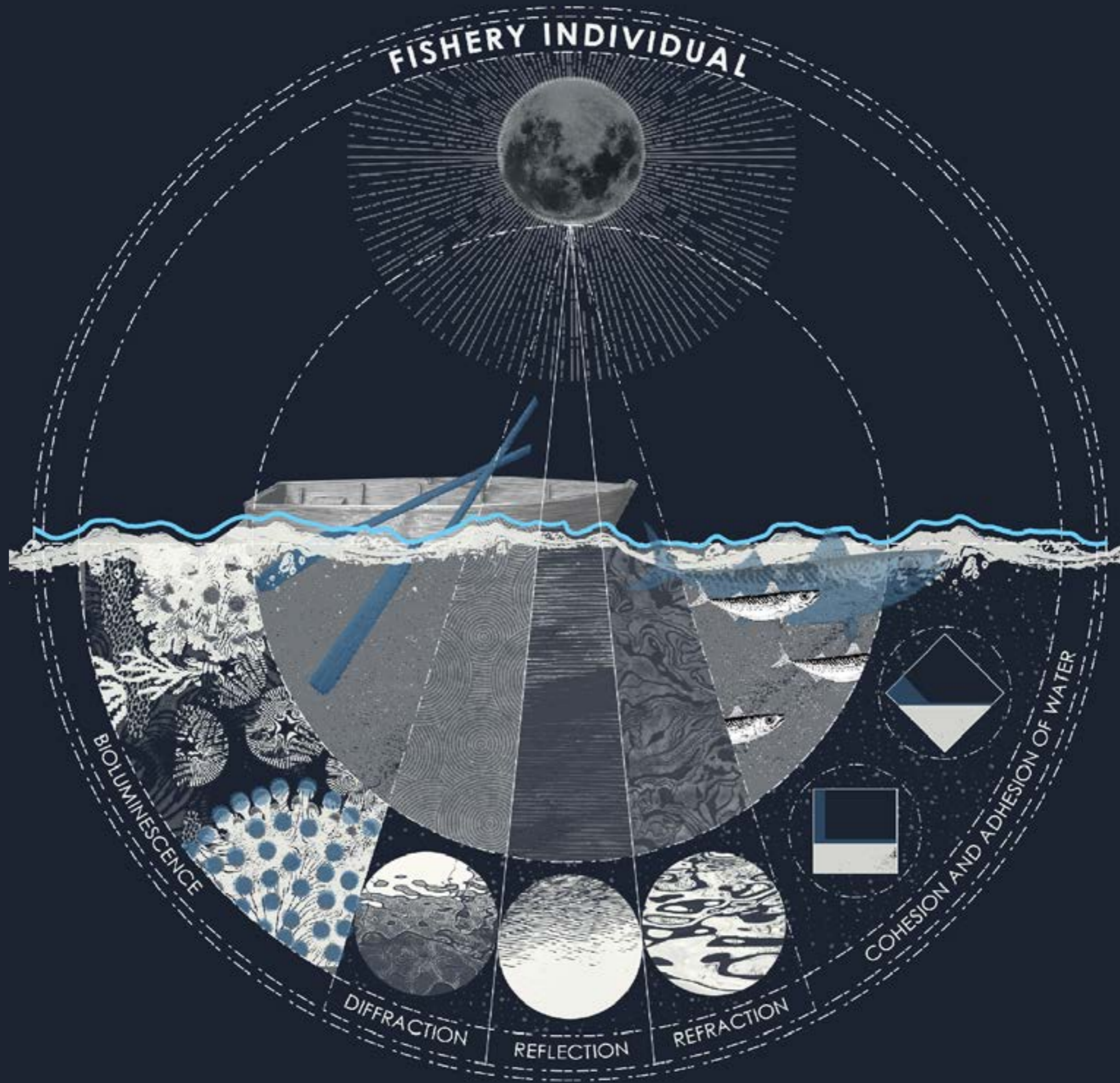
This concept describes weather engagements and the continuous influence of the sea on the fishers' work and journeys. The concept shows the interaction between the weather, creatures, and water.<sup>37</sup>

### **HYDROLUSTER . HYDRO . LUSTER**

**HYDROLUSTER** ; A combining from meaning.

**HYDRO** ; A combining from meaning Water.

**LUSTER** ; The state or quality of shining by reflecting light.



**The Element of Water**

Water is the medium that carries fishers and allows them to catch their yield. The way in which fishers perceive the sea and its nature results from the interaction of the water properties, with either elements embedded within (aquatic organisms, salt, and other objects), or external elements (light, weather).<sup>38</sup>

38. Edward Twitchell Hall, *The Hidden Dimension*, Reprinted (New York, NY: Anchor Books, 1990)

**Molecular Properties That Govern The Interaction of Water With Other Elements**

The elements are like the following :

- 1. Adhesion :** when water molecules are stuck together.
- 2. Cohesion :** when water molecules stick to different substances and objects.<sup>39</sup>

39. "Cohesion, Surface Tension, and Adhesion,"

**Elements Interacting With Water**

The elements are like the following :

**1. Light**

Generally, the blue to green spectrum of the sea is caused by the reflection of the blue part of the visible light by water molecules as they absorb the red part of the spectrum; with exceptions during sunset. When the sea is calm and still, water can act as a mirror, reflecting the image of the sky and objects floating in the sea. Objects and organisms can appear to be 'bent' and shallower than their actual position from refraction of light as it changes direction when it enters the water from air; especially when the water surface in the sea is not even.

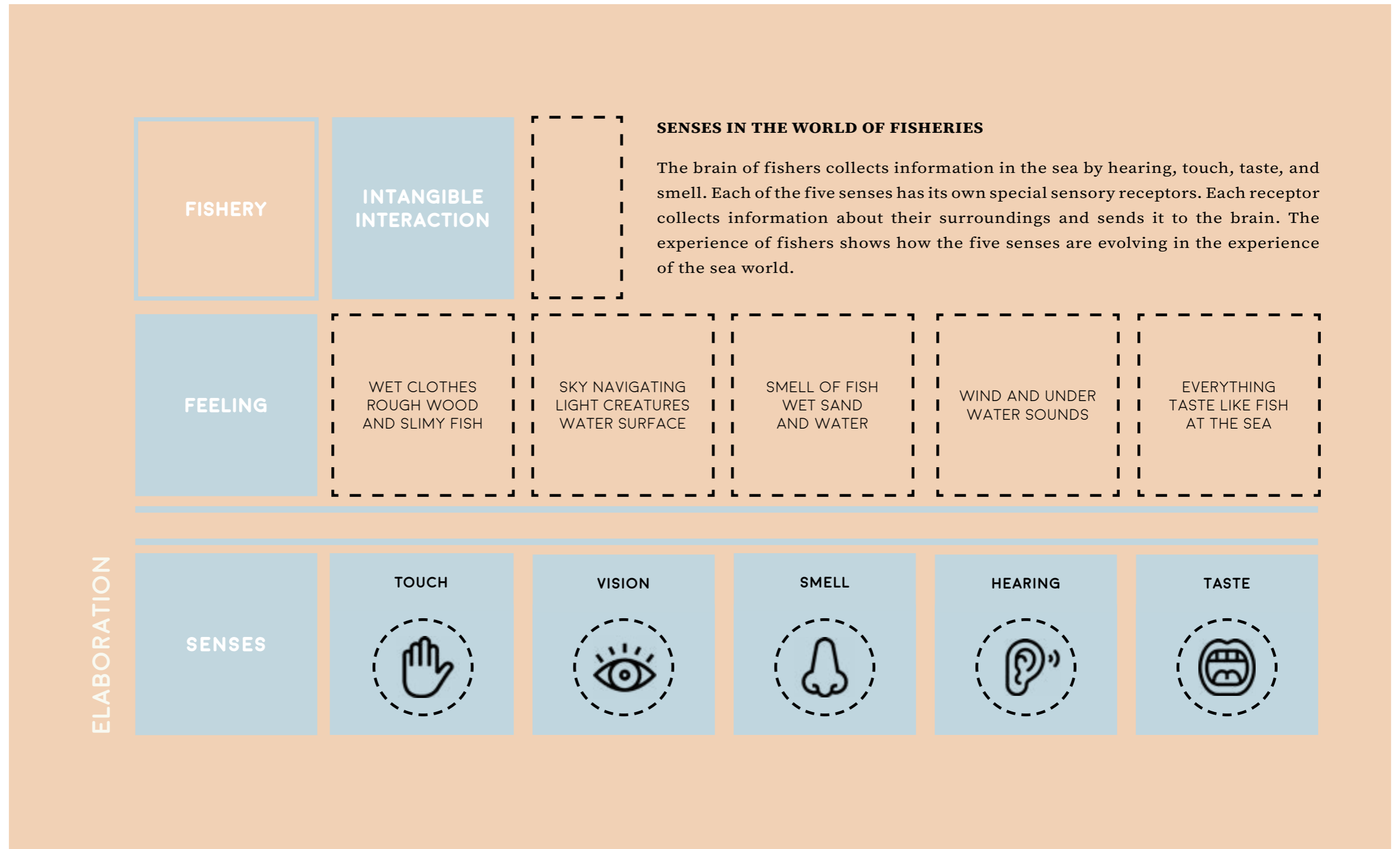
**2. Weather**

Different seasons and changes in temperature, air movement and precipitation levels, as well as lunar movements can change the tides of the sea, leading to different water movements (from still water to vigorous waves) that influences fishing pattern as well as the behavior of aquatic organisms.

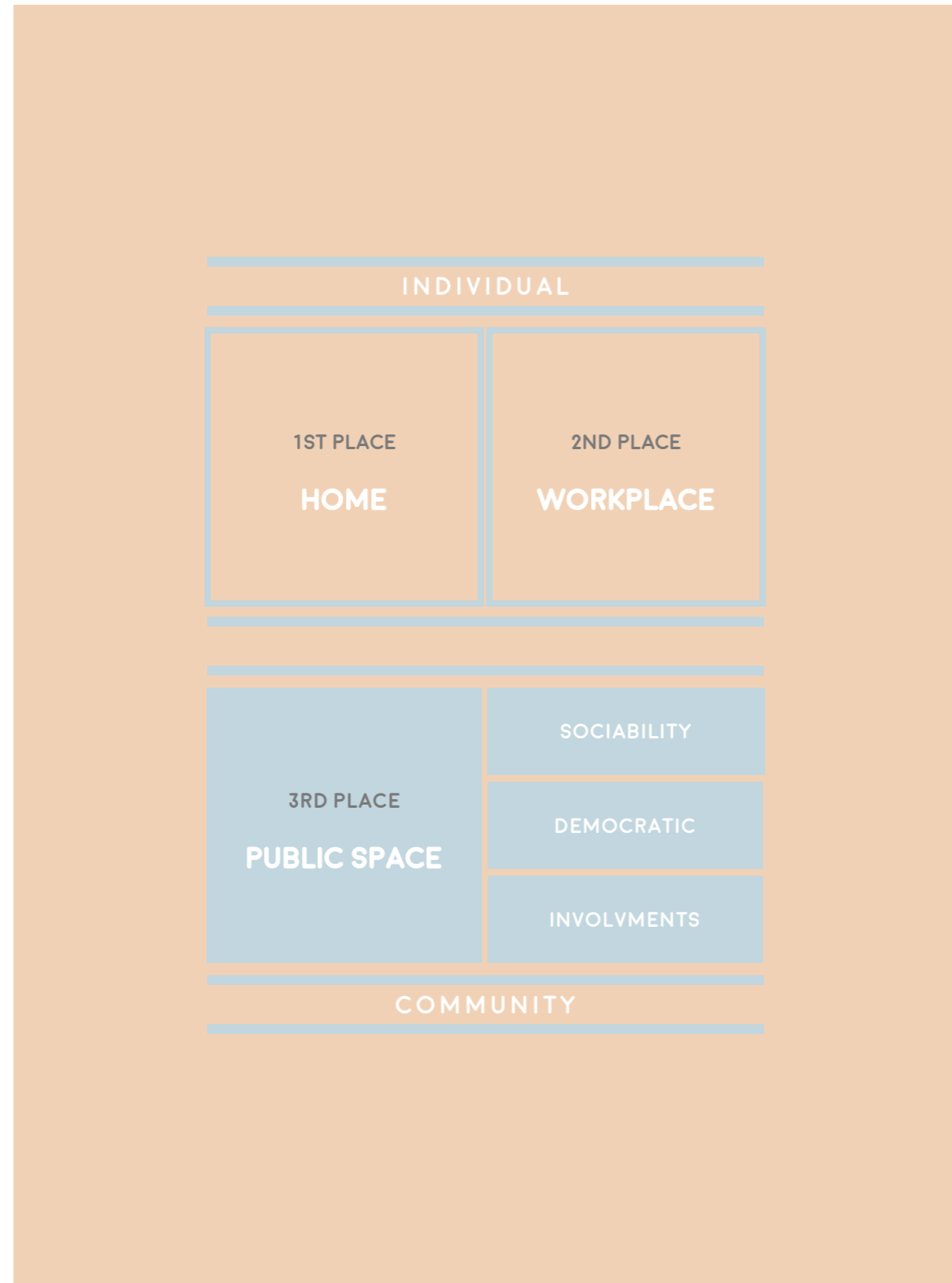
**3. Aquatic Organisms and Objects With The Sea**

As water waves encounter objects and barriers, including aquatic organisms, the waves would bend and change their shape as a result of the obstacle encountered; a phenomenon known as diffraction. Aquatic organisms interact in different ways with the water bodies. The continuous locomotion of fish and other creatures contribute to the continuous movement of the water in the sea. They can also contribute to the color of the water perceived. Such is the case of green algae in ponds, lakes and rivers, which changes the color of water to a greenish hue. Where traces of light can barely reach, some aquatic organisms living in the deeper levels of the sea, and along the coasts, (including fish, bacteria, and jellyfish) produce their own source of light through bioluminescence; chemical reactions that produce light within organisms; to perceive surroundings, attract prey, or dispersal.<sup>40</sup>

40. National Geographic, "Bioluminescence," Biology, Chemistry, Earth Science, Oceanography, n.d.







## CONCEPT OF THIRD PLACE

41. Ray Oldenburg, *The Great Good Place* (New York: Paragon House, 1989).

**A Modern Fish Market as a Center for Genevan Fishery Community for Public Participation in Genova** The general characteristics of third places are known from the natural fundamental functions of the indicated place. The first place, that is represents the fishery home. The second place, that is represents the fishery workplace, in Genoa port or at the sea. These definitions show lack for social interaction; an essential component to strengthen the social element in a community. In general, the characteristics of a place that could be categorized as the third place have the following properties. <sup>41</sup>



### Fisheries Community Characteristics

**1) Sociability:** having interactions and communication between users. **2) Democratic:** having equity regardless of social and economic background of a person.

**3) Involvement:** having engagement activities between users to build up values with each other.

Genova has a tight history with fisheries as it is linked to families' lineage and heritage through ancestors who used to practice the profession at earlier times. Thus, fisheries contribute to the city's long-term nourishment and place a strong mark on its identity. Since Genova's identity reflects its community fishing origin, heritage and history of fisheries should be emphasized in the city to highlight the importance of fisheries in shaping the socioeconomic and cultural status that derived Genova's crucial part in the fishing industry. Otherwise, the efforts that have been done through time will be neglected and soon forgotten by the newer generations, with loss of interest in fisheries that sucks away Genova's soul and fishing identity.<sup>41</sup> To maintain Genova's fishing heritage, sustainable urban development should be achieved to reflect the history of the city, using co-design methods that take in consideration community participation, as well as other agents and stakeholders involved in Genova's fishing sector (UNCD, 1992). Since this is a socio-cultural issue, "the third place" architectural theory will be adopted as a co-design process to create a place that reflects the culture of fisheries. The third place theory emphasizes the idea of understanding the importance of a place as a point of gathering between community members for active

interaction and communication. This creates a platform for purposes other than work or staying at home and triggers a sense of community that produces a social structure through vibrant public participation (Oldenburg, 1982).

The fish market in Porto Antico di Genova, Piazza Caricamento, was selected as a building typology that focuses a fishing Third Place for Genova's context. The selection is based on the proximity of the fish market to Porto Antico as well as its value as a suitable point for social gathering; the same space was used for a similar purpose in the past. To design the fish market which brings character of a good Third Place, the frame and the architecture guidelines are needed. The aim of this dissertation is to propose the design framework for an efficient Third Place in the scope of fish market typology, implementing a co-design process for social participation in Genova's urban context to strengthen its fishing cultural heritage.<sup>43</sup>

### Definition of the Third Place

The third place is an architectural theory that was introduced by the American-urban sociologist, Ray Oldenburg (1989) who put the attention to the importance of social participation in the modern community. Daily activities of the modern community are portrayed by "two daily bases" to be either at home or work: the first and second places. Brey A. (2009) stated that these two activities lead to a missing link of significant social value in the modern community, and static interaction between users from the rigid and monotonic environment is created in the two places (Oldenburg, 1989).<sup>44</sup>

42. Ray Oldenburg, *The Great Good Place* (New York: Paragon House, 1989).

43. 44. Ray Oldenburg, *The Great Good Place* (New York: Paragon House, 1989).

Hence there are needs for places purposed to break the rigidness of user activities from these “two-daily-basis” modes. Thus, the third place comes into play to provide a place for people to engage with each other and become a platform for as active interaction and communication, triggering a sense of community with a social structure (Oldenburg, 1989). And so, social interaction became the main theme and target for the Third Place theory. The third place can be any public place of facility. For our purpose, the fish market was chosen as it has a significant role in the sociocultural context of Genova and will emphasize the fishing role of the city. The fish market will act as the third place for a multi-purpose point of interaction between fishermen, traders, and customers, encouraging engagement between community members, and creating a social venue for a cohesive community as well as maintaining its identity. Therefore, efficiency of designing a modern fish market as third place is needed to accommodate the potential of social participation for the modern community in Genova.<sup>44</sup>

44. Ray Oldenburg, *The Great Good Place* (New York: Paragon House, 1989).

**Characteristics of public spaces**

To understand what attracts people to public spaces that support social activities, researchers and social commentators have been exploring the relationship between the environment and human behavior for decades. Findings point to characteristics of the environment that are either place-based or people-based; that is, some characteristics are a result of the physical environment while others are a consequence of human actions and management. An example place-based characteristics include main streets, which fall under the control of public and private authorities or

is controlled and managed by individual property or business owners. Other physical characteristics are solely controlled by public and private authorities, such as sidewalk width and the provision of sitting benches. The four place-based characteristics that can be controlled by both authorities and business owners include personalization, permeability, seating, and shelter. Personalization is the act of modifying the physical environment to meet the people’s needs and specific activity patterns. By personalizing a space, people change the environment to suit their need, marking the territory and presenting psychological security with symbolicaesthetic to the space (Lang, 1987). This creates a “distinctive and an identifiable” territory for community members to use and be familiar with (Edney, 1976). Perkins (1986) found that personalization of property made the street environment appear safer compared to non-personalized spaces (Taylor, Gottfredson, & Brower, 1984). Various studies have found the perception of safety to be negatively associated with the lack of personalization and care for spaces, resulting in increased prevalence of litter, vandalism, and poorly maintained buildings (Hope & Hough, 1988; Perkins, Meeks, & Taylor, 1992; Skogan & Maxfield, 1981). According to Gehl (1987), personalization adds elements of to the environment that are of prime interest to the community. Personalization of the street front also allows for changes to occur in an otherwise familiar setting. This provides stimulation and interests that attract people towards the personalized spaces and generate possibilities for people to interact and engage in social activities.<sup>45</sup>

45. Ray Oldenburg, *The Great Good Place* (New York: Paragon House, 1989).

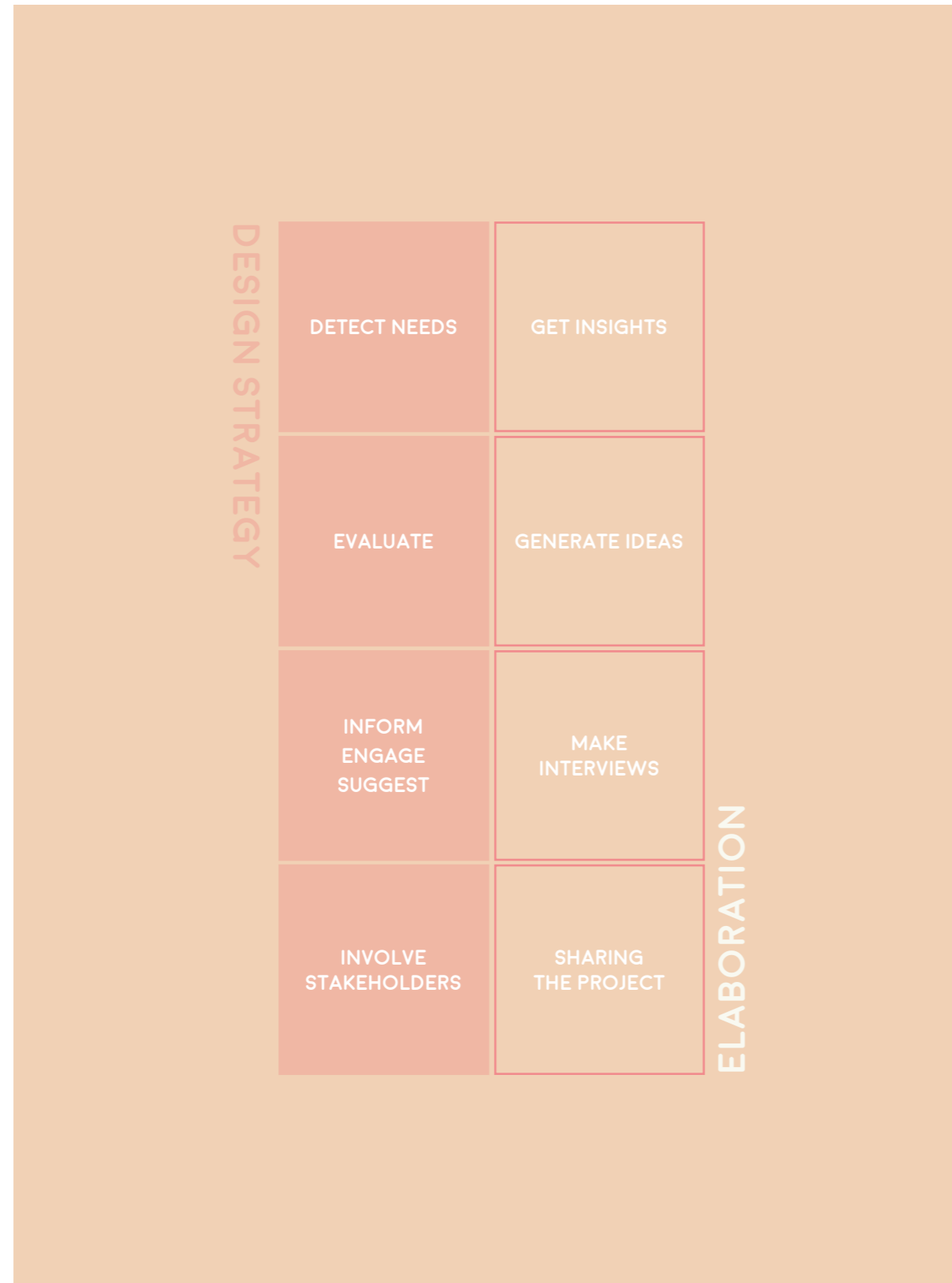
Permeability of the street front is more than just the transparency of the building façade. Permeable street fronts are those that actively reveal the interior to the exterior, such that people on the street can comprehend activities that are carried out inside the buildings and respective space of interest. Besides the primary activity of acquiring goods and services, research in marketing and retailing suggests that people go shopping to meet people and spend time with their friends. Sensory stimulation seems to play a significant part for explaining people's shopping behavior (Bloch, Ridgway, & Sherrell, 1989; Falk, 1997; Tauber, 1972). Findings show that pedestrians tend to experience pleasure from building edges that define the street, including shop windows and the display of goods (Ciolek, 1978; Whyte, 1980), creating a sensory stimulation that is significant for the permeability of the street front. Sitting space has been identified as one of the most important characteristics in retaining people in public spaces and supporting social behavior and interaction (Lindsay, 1978; Mehta, 2007; Whyte, 1980). Movable chairs are a desired form of seating due to the flexibility and comfort they offer (Whyte, 1980). Stores selling goods and services that may be consumed outdoors sometimes provide outdoor seating. This allows for goods or services to be consumed outside the store, thus extending the activity that would otherwise be limited within the store. Eating and drinking are activities commonly associated with relaxation, and people frequently combine eating and drinking with socializing. This combination of food and social activity that is supported by outdoor seating makes people stay longer, making it a very important characteristic to support social life.<sup>46</sup>

46. Ray Oldenburg, *The Great Good Place* (New York: Paragon House, 1989).

Outdoor seating makes patrons more visible, and several empirical studies show that people are attracted to places with people in them (Ciolek, 1978; Gehl, 1987; Hass-Klau, Crampton, Dowland, & Nold, 1999; Share, 1978; Whyte, 1980).

Designers and planners often recommend that public spaces should generally be oriented in a way to receive maximum sunlight. However, it is equally important to provide shade and shelter as people's preferences change with changing seasons and weather. Whyte's (1980) study of plazas in New York City showed that although sunlight was an important factor in the spring, people sought shade provided by trees, awnings, canopies, and overhangs during the warmer summer months. Research on the effects of environmental factors on human behavior shows that comfortable microclimatic conditions, including temperature, sunlight, and shade are important in supporting outdoor activities. Zacharias et al. (2001) found that people preferred to move to areas under shade in Montreal's public open spaces at temperatures above 20° Celsius (68° Fahrenheit). Hence, there is considerable empirical research that suggests the importance of personalization, permeability, seating, and shelter in making public spaces such as more attractive for human use and social interaction.<sup>47</sup>

47. Ray Oldenburg, *The Great Good Place* (New York: Paragon House, 1989).



## CONCEPT OF CODESIGN

48. Anna Meroni, Daniela Selloni, and Martina Rossi, Massive Codesign - A Proposal for a Collaborative Design Framework, n.d.

We currently live in an “era of participation” and “participatory culture” (Smith, Bossen, and Kanstrup, 2017; Jenkins, 2006). Codesign is when people contribute in modern ways, sharing their interests and concerns and receiving public consultation from experts and designers in design sessions, focused civil groups, and other forms of creative meetings or workshops to propose solutions and interventions for given problems. These groups are the case owners. Codesign is useful as it involves the perspectives of beneficiaries and other stakeholders, which could be experts, entrepreneurs, investors, public officials.<sup>48</sup>

49. Anna Meroni, Daniela Selloni, and Martina Rossi, *Massive Codesign - A Proposal for a Collaborative Design Framework*, n.d.

Also, policymakers within companies, governments, and other organizations. To solve complex problems, it is necessary to include a multitude of diverse players. The concept of the codesign is precisely based on the idea that people having different voices would collaborate in the design process and convey their ideas.<sup>49</sup> Designers communicate closely with the community long enough to activate a particular initiative, enabling this community to pursue its path of innovation and implement the project as a common shared aim. Objects and tools that help communications with public communities are created to design artifacts, and define a common design language for co-designers to explore, imagine and express ideas about a topic. The process of generating solutions is done by creating and interacting with a prototype to transform and evolve it. Codesign involves participatory productions, such as opening innovations and living Labs, peer-production, maker spaces, public participation, and social innovation. Although public involvement remains a challenge in codesign, in recent years, we have observed an increase in public consultations that improve the efficiency and transparency of public participation in large-scale projects and, above all, allow people to participate in decision-making processes to practice a more extended idea of democracy. It covers a broad spectrum of activities: information, consultation, involvement, collaboration, and empowerment.<sup>50</sup>

50. Daniela Selloni, *CoDesign for Public-Interest Services, Research for Development* (Cham: Springer International Publishing, 2017)

### **Codesign and The Ocean Race**

The Ocean Race will provide a good opportunity filling the cultural deficit of fisheries in Genoa. As a major naval event, the race will attract investors and increase

the influx of tourism which will flourish Genoa during the period of the event. Fisheries involved, as influential community in the blue economy growth, will benefit from the publicity and the investment provided from the Ocean Race preparation and will be acknowledged for their efforts and value in Genoa. Co-design will provide a good opportunity to directly connect the fisheries with the Ocean Race organizers and governmental officials and convey their needs. It will also provide a platform for the fishery community to have a voice in stating its ideas and be empowered by participating in the decision-making process. Co-design will allow for an interdisciplinary holistic approach where major stakeholders; the Ocean Race organizers, community, governmental and other organizations; sit in the same table with fishery community and create a social as well as an environmental experience that will be translated to spatial design projects that reflect the cultural aspect of fisheries in Genoa.





## SLOW FISH

Slow Fish is an association assigned to enhance a better future for coastal and inland fisheries. Moreover, it's developing to be the source of sustainable fisheries references. Slow Food is a subsidized association of Slow Fish. They worked to establish a global network that is represented by fisher organizations, fishmongers, cooks and restaurant owners', biologists, anthropologists, journalists, filmmakers, teachers, researchers, students, consultants and environmentalists, artists, concerned citizens, and many others. This network is willing to face the complexity, contradictions, and uncertainties in the fishing industry. Slow Fish hosted the international network in 2019 in Genoa, Italy. This network gathered more than 100 delegates from over 20 countries, reaching for a framework that reformed the fishery group. Considering oceans as common resources, Slow Fish's goal is to be a lighthouse in this culture shift. In 2019 Slow Fish was dedicated to build and articulate a shared strategy and narrative around a vision for fisheries and coastal development that opposes the dominant discourse of the "blue economy," which currently translates into the industrialization of the oceans.

Fundamental to the Slow Fish mission is the idea that the ocean and its resources are a common good for all humankind. The association is working in the blue growth model to the collection methods of the "blue commons" that is fair and sustainable and makes this common accessible for small-scale communities. Moreover, equally important is the concept that the diversity of healthy small-scale fishing communities is key to the success of a sustainable seafood system that can feed the world's population. This means recovering and promoting the traditions of adaptable coastal cultures to improve the commons and guarantee access for future generations, rather than prioritizing the profits of a few private interests in the short term. Slow Fish actively fights for intergenerational equity, as the participants worked on creating a new vision for systemic reform and strategized about how to communicate the stories and struggles of the small-scale fishing communities and stewards of the oceans who are fighting for sustainability in global fisheries. Both now and in the future. <sup>51</sup>

51. Lapo Degl'Innocenti, "Slow Fish" (Slow Food, May 2019).

SLOW FISH ASSOCIATION

SLOW FISH FISHERY COMMUNITY

SLOW FISH INTERVIEW

INTERVIEW

**Outcomes of the problem** *“The government works on taking the biggest part of the pie, and the small-scale fisheries are taking very few benefits from the share. The days passes for changing and adapting on the new policies, where the government is taking the biggest share of the fish catches.”*

**The main reason for changing** *“The main reason is the changes of the historical rules. The historical rules had affected the fisheries community, for having high and low levels of benefits. Also, Fisheries doesn’t have enough awareness to know about the new management business model plan that made them out of the formula. Fisheries from awareness perspective, they said that they don’t have the knowledge to know or understand the new management policies, divisions, and business plan forms. Because of that they are out of the formula.”*

**MAGP knowledge, blames and awareness** *“Because of the lack of the corroboration channels and communication channels the fisheries in the MAP, know all about the*

*species and the nesting places, and with the new designing rules, there was no flexibility for the small-scale fisheries in their catches and work. Because of the lack of the cooperation and communication channels in the MAGP (Multi Annual Guidance Plans), fisheries are blaming the government for not showing the rules and give them their rights in their work share. The aim of this awareness is to create a common vision for the future for the government and fisheries.”*

**Fishery to be one union**

*“The solution is to create one vision for the future between the two parties (Small-Scale Fisheries and the government) and let the fisheries community to be part of designing the rules and let them reach out their voice. They should be part of the process of designing the rule. In management there is the business model, where it’s designed the fishermen might have a voice. We don’t have to remember the mistakes in the past, but we must fix and not to repeat the mistakes in the past and try to create a common vision and a common future plan.”*

**Union solution**

*“From competition to cooperation, and from chaos to order and fixations. A part of the awareness for the community is changing their mindset and helping on creating the right awareness and changing the community dynamics. The time factor for finding solutions instead of blaming others, and the whole world and to fight together for change on fixing the policies.”*

INTERVIEW

**The female fishery**

*“Knitting is part of the Fisheries culture (Female Fishery) is the one who is responsible on doing this or the fishermen wife. Knitting is a family business nowadays, and it’s part of the social aspect for making his own knit and culture. Female Fishery: are making a huge effort helping the male fisheries, they are taking main tasks like being charged on the fish catches resorting. The problem of the female fisheries is, they are not part of the insurance system, because they are not registered, or part of the medical system, some organizations are trying to put them in the system. Some female fisheries tried to register claiming and calling for their rights because with the effort they do, they deserve to have a full package of benefits.”*

**Where fisheries are located today**

*“They changed their work location to move to the east from Port Antico, and it’s been three to two years since this change. They work in Borgo Antico, Boccadasse ”*

**Fisheries activities**

*“Fisheries activity besides knitting, and its Poetry and Music. It explains the ocean, the frustrated they feel, and how they see themselves in the sea, were poetry and music are a link of expression between the fishery and the ocean.”*

**Our look to the fisheries**

*“We need to make a voice and one union of interest and benefits; we need to stop blaming the small-scale fisheries and represent them as a bad influence for sustainability as they are the ones who causes pollution to the ocean. They are the heroes of the ocean and the sea.”*

**SLOW FISH  
EVENT 2021  
VISIT**





**Conclusions**

This chapter has settled defining a very clear synthesis plan and final strategy for the research outcomes. This is done by creating a spatial project for the fisheries observers and for the community, blending all the communities in Genoa at the time of the ocean race.

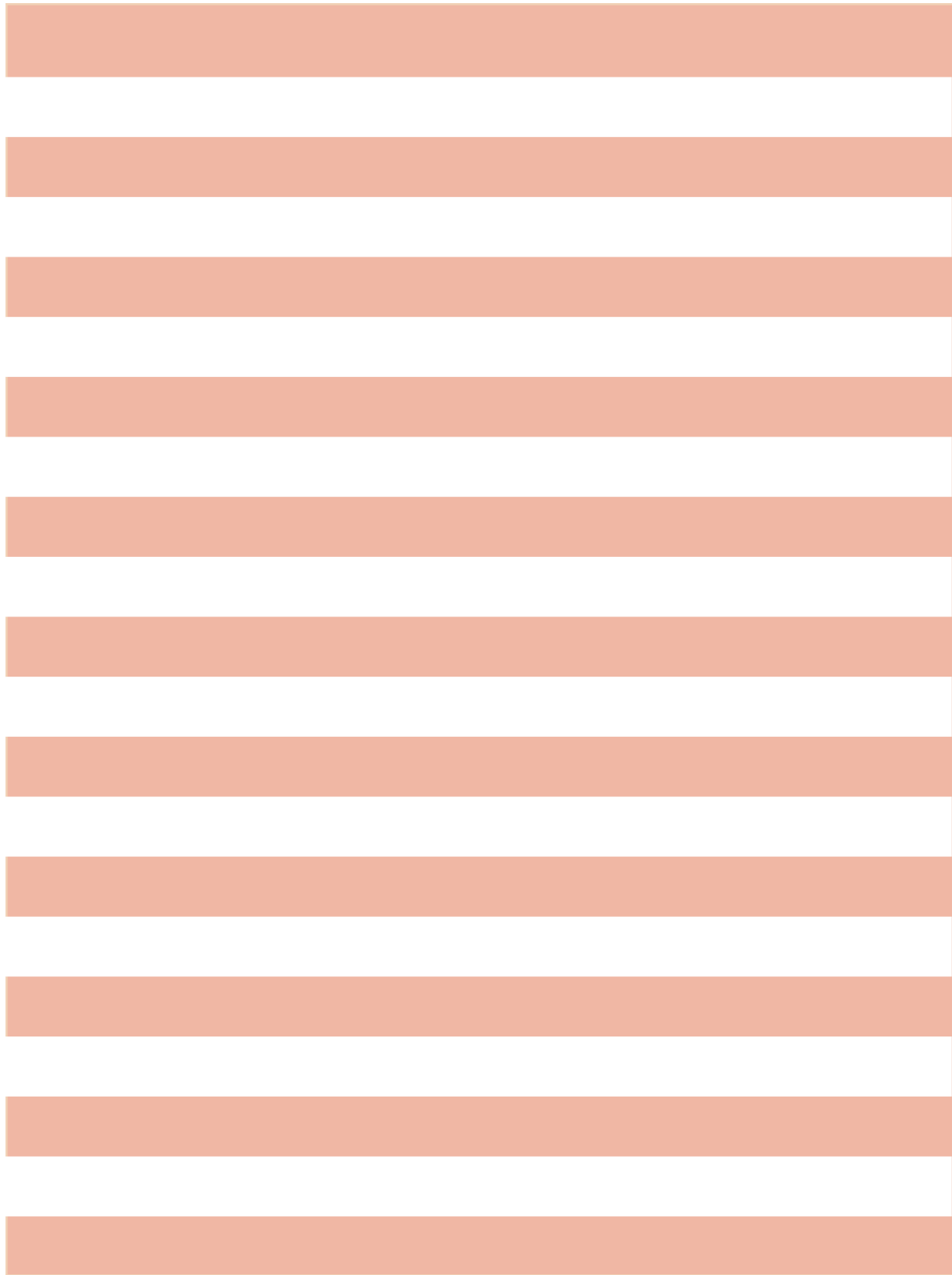
# CHAPTER 3 RESEARCH REFLECTION

Research Brief | Aim | Methods | Findings  
Conclusions | Research Methodology | Research Framework

## Father and Son

A boy and his dad on a fishing trip  
 There is a glorious fellowship!  
 Father and son and the open sky  
 And the white clouds lazily drifting by  
 And the father teaching his son  
 How to land a fish in the sportsman's way  
 I fancy I hear them talking there  
 In an open boat, and the speech is fair  
 And the boy is learning the ways of men  
 From the finest man in his youthful ken  
 Kings, to the youngster, cannot compare  
 With the gentle father who's with him there  
 And the greatest mind of the human race  
 Not for one minute could take his place

Edgar A. Guest <sup>1</sup>



## Introduction

After gaining insight on the research exploration, a pre synthesis of concepts was conducted targeting the incorporate elements of the fisheries and their environment into the ocean race.





## RESEARCH SYNTHESIS FISHERY COMMUNITY SPACE

51. Leo W. Jeffres et al., "The Impact of Third Places on Community Quality of Life," *Applied Research in Quality of Life* 4, no. 4 (December 2009)

The combinations of the three concepts of the Third Place, Codesign for having the interview The Slow Fish Assosiation, The Project of The Fish Market serves to provide an engaging space for community members and public in general to carry out activities that are related to fisheries and the fishing industry. The fish market design is based on the "third place" concept and the utilization of place-based characteristics for efficiency to attract people towards the and promote a vibrant social structure where people come together to socialize and learn from each other and share common interests and traditions. <sup>51</sup>

This creates a sense of attachment for the community towards the fish market and helps maintain the participation of its members as well as strengthen the cultural heritage of fishing in Genova. The measurement and retention of the crowds or people from the public that participate in the fish market will be obtained from the existence of seven specific characteristics of third place.<sup>52</sup> Stated as following :

1. Natural Ground
2. Leveler
3. Accessibility and accommodation
4. Having regulars
5. Low Profile
6. The mood is playful
7. A home away from home

#### **Fish Market Seven Characteristics of Third Place**

1. Natural Ground  
A natural ground means that a space would be flexible for people to freely to enter and exit whenever they see fit.
2. Leveler  
With a common public space for people to interact with each other in, a sense of equity would be created as communication between community members would be improved from socialization and engagement in shared activities and interests as well as the facilitation of the communication process between people promoted by the third place.

3. Accessibility and accommodation  
An accessible space provides comfort for people in carrying out their activities, which would increase the number of community members visiting the third place and increase the rate of participation and socialization of people with each other.

4. Having regulars  
Regular visitors and users of the third space would facilitate socialization and participation of community members as they are more open to engage with people, which would strengthen communication in the third place.

5. Low Profile  
A low-profile setting would provide comfort and flexibility for people to visit the space without any pressure from certain standards that would be expected in some places, creating a sense of acceptance for people when visiting the third place.

6. The mood is playful  
The third place should provide an environment that would allow for activities and light social conversations that generate a playful mood to facilitate ease of communication between community members of all ages.

7. A home away from home  
The third place should act as a second home for users in the sense that they would feel the same level of comfort and flexibility while engaging in the third place as that in their home and would be able to perform their social activities with familiar faces as well as with new people.

52. Dennis Brissett, The Third Place, n.d.



## THE REVIVAL OF PIAZZA CARICAMENTO

### Selected Site Plan

53. Wikipedia, "Piazza Caricamento."

Piazza Caricamento (The Loading Square) is located in Porto Antico and was built in 1839, where the Palazzo San Giorgio is located at the east, Via Gramsci and Sopraelevata at the south, and the Acquario di Genova at the west. The Piazza Caricamento can be reached by taking Via Antonio Gramsci Street, where it's the main road all along the sea front, at the port area.<sup>53</sup>

54. Wikipedia, “Strada Sopraelevata Di Genova.”

The bridge Aldo Moro Flyover that crosses the piazza is the first line that links the historic west side with the modern east side of Genova and also its know as the first elevated road in Italy.<sup>54</sup> The piazza is a historic maneuvering place of maritime goods on the mainland located at the city edge of Genoa. It serves as a symbol for the city and the port. The docks were moved to their current position and the square was destined for loading, unloading, and sorting goods related to the port as well as fish handling. the Piazza is quadrilateral in shape and have completely an area for pedestrian use, with the exception of a bus terminus.<sup>55</sup>

55. Wikipedia, “Piazza Caricamento.”

### Conclusions

This chapter has settled defining a very clear synthesis plan and final strategy for the research outcomes. This is done by creating a spatial project for the fisheries observers and for the community, blending all the communities in Genoa at the time of the ocean race.

FISHERIES OBSERVERS



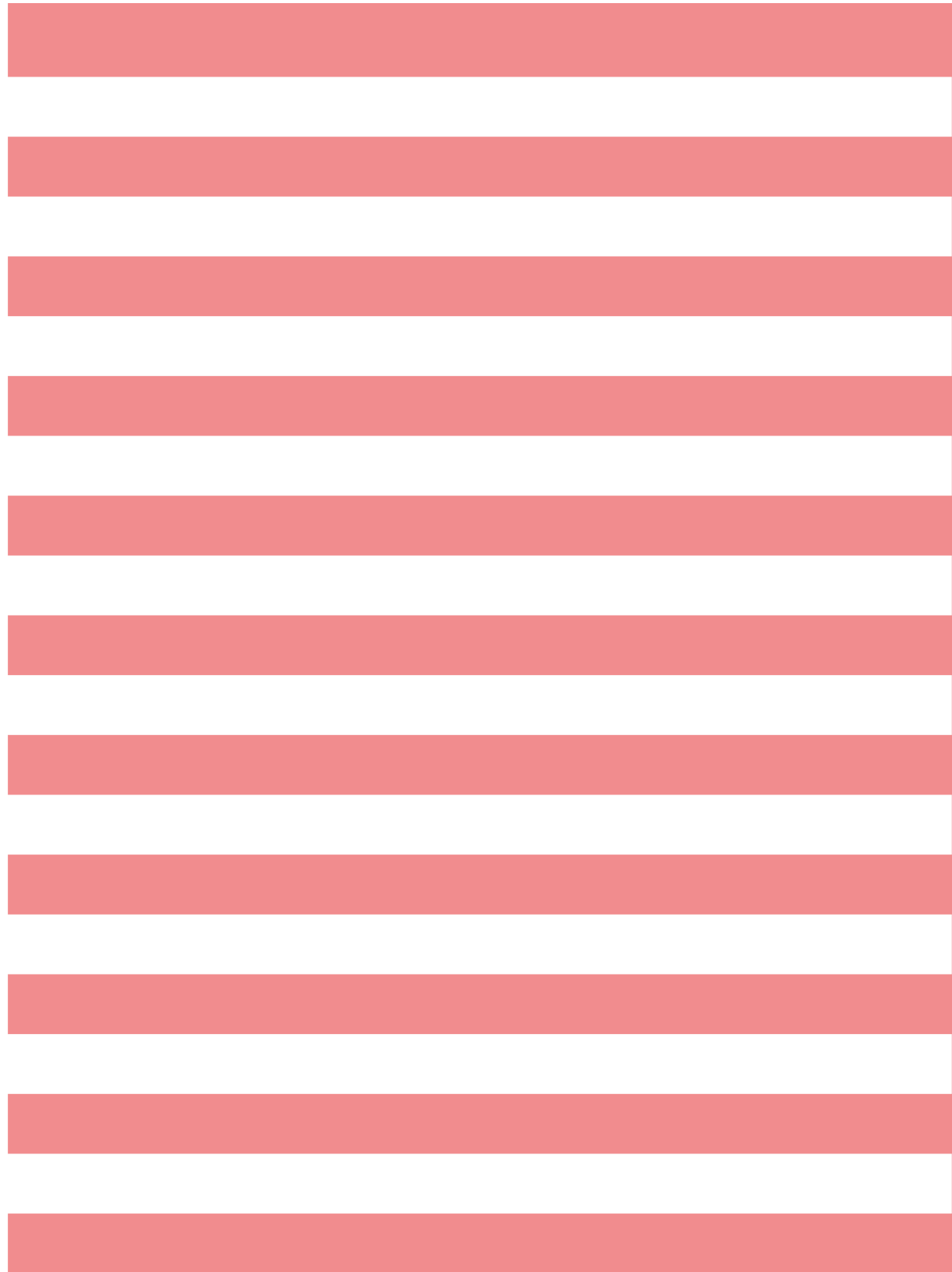
# CHAPTER 4 RESEARCH REFLECTION

Design Set

## The Fisher

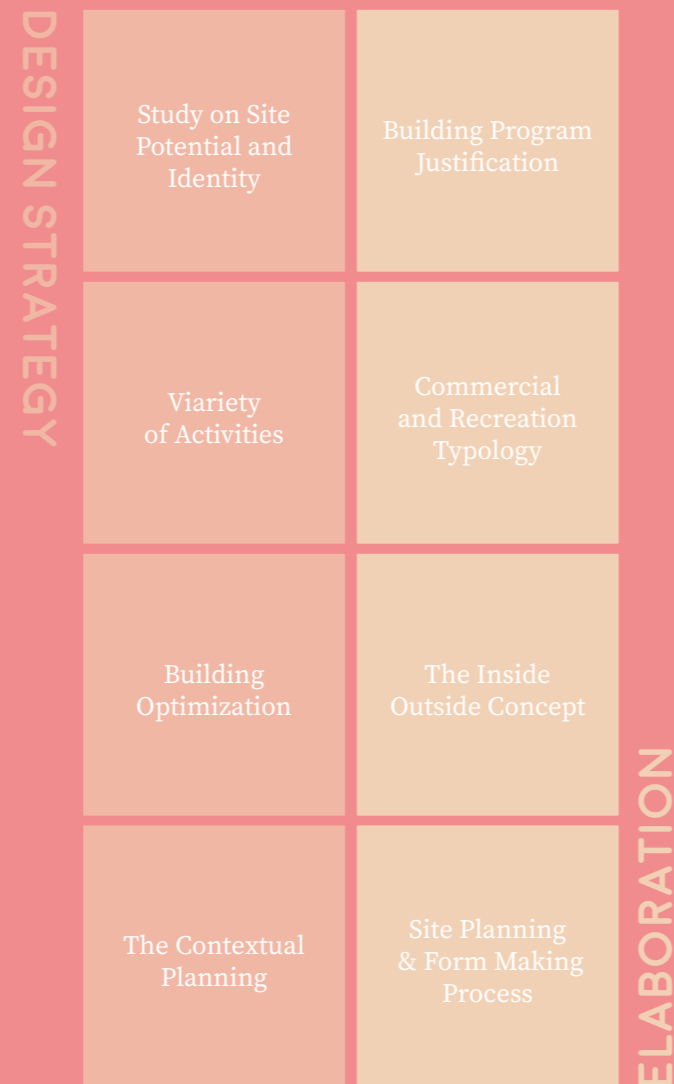
On background of the bluest blue  
A misty temple whitely towered  
In vines of purple shadow bowered  
And opal lights gleamed faintly through.  
Fine pinnacles of purest white  
And snowy domes the clouds had builded  
While sunbeams every wall had gilded.  
How fair it lay within his sight!  
He watched it vanish, tower and beam  
The radiant form by dusk imprisoned  
Then sought his rod with eyes that visioned  
The architecture of a dream.

RubyArcher <sup>1</sup>



## Introduction

This chapter is elaborating the preliminary study and analysis from previous chapter to produce the findings as a design framework. Theoretical data that collected from literature review is mainly discussing about ( Third Place Theory) and the significant of the fish market to the Genoa community , it will help to clarify the direction of aim of thesis. The case studies and site observation studies has observed in order to strengthen the decision making in realizing the research objective. All those previous processes are purposed to contribute in clarifying the optimum results and findings that will be presented in this fifth chapter.

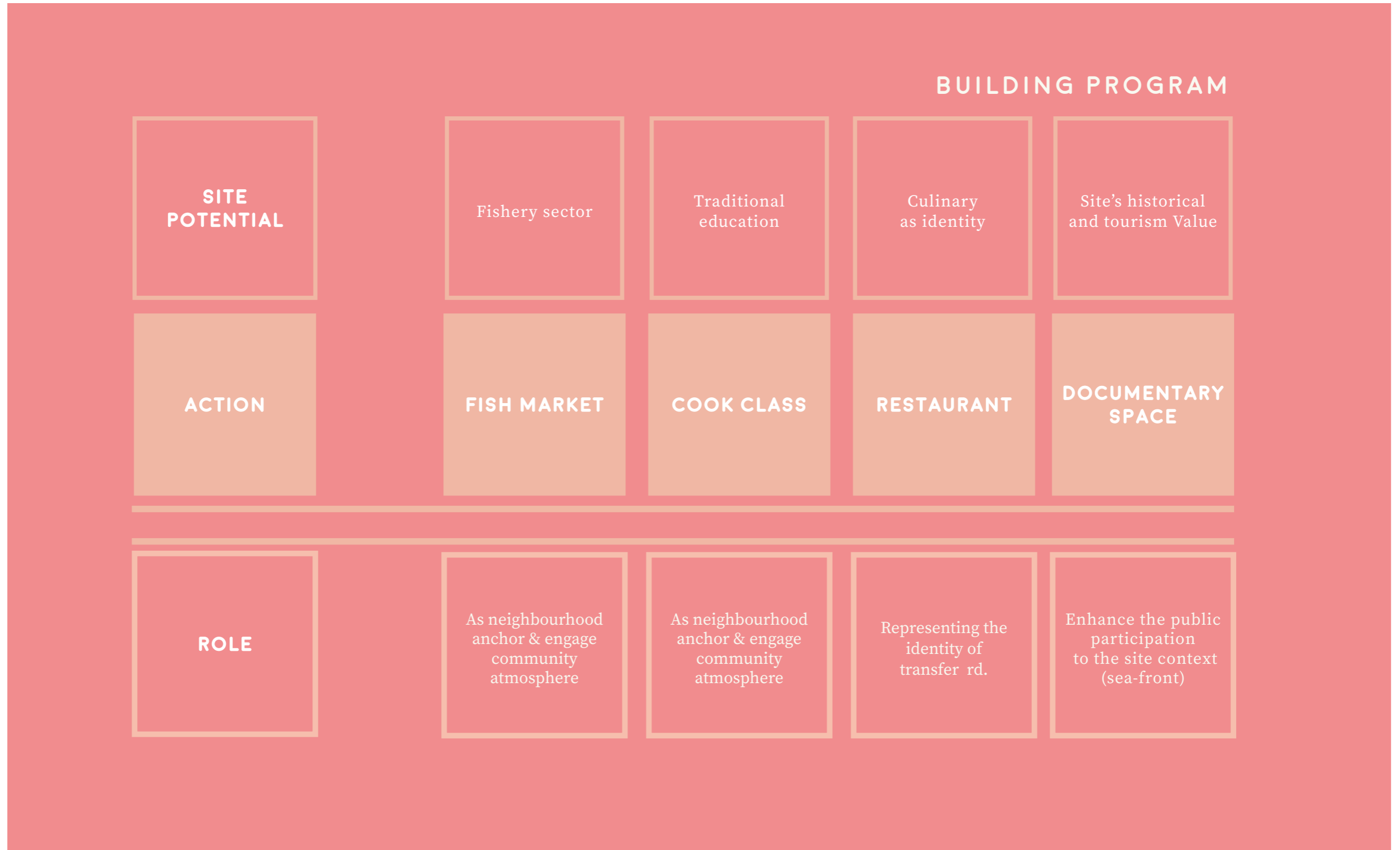


## The Proposal Design Framework An Efficient Third Place

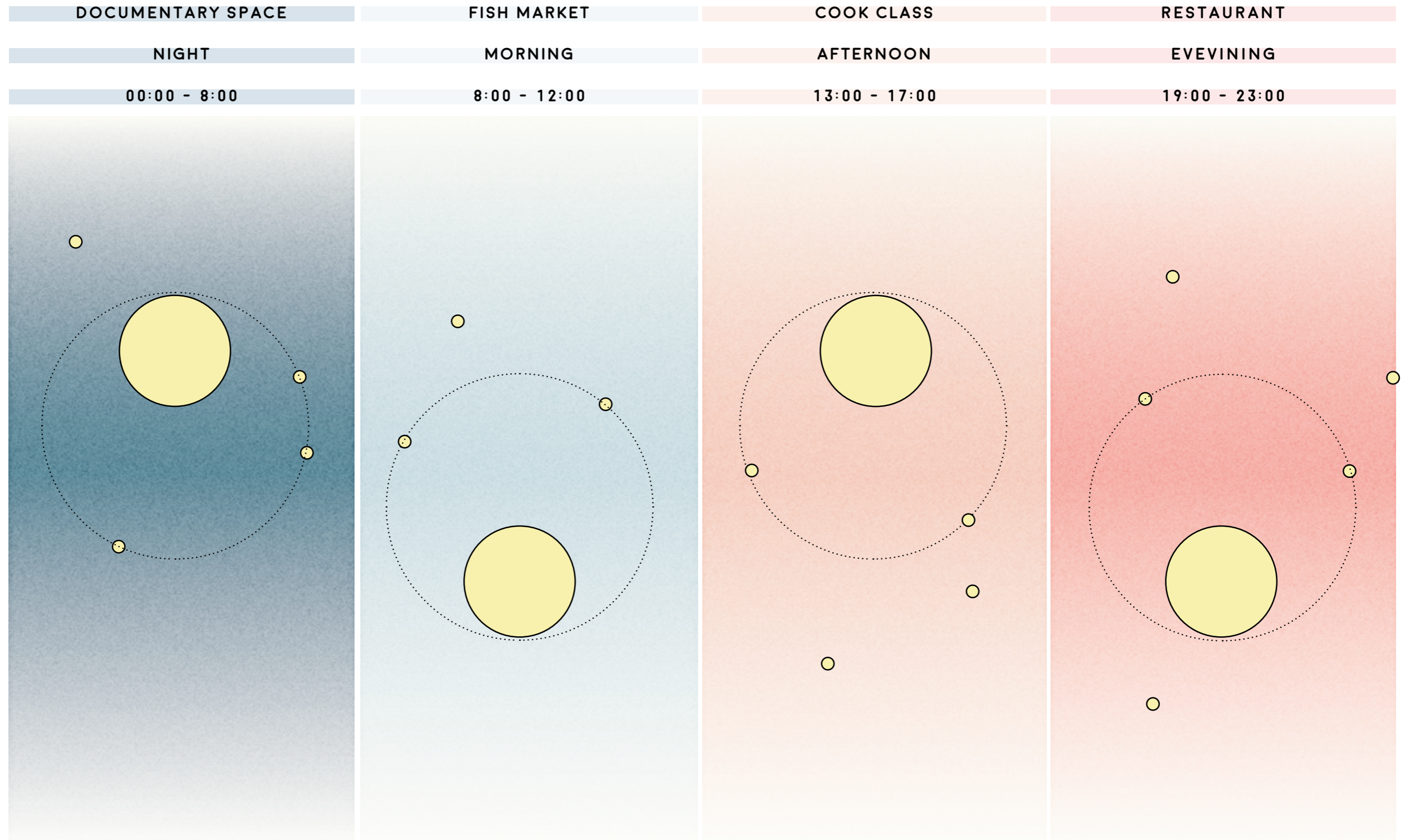
As referred to the research structure, the aim of this research is to propose the guidelines and design framework as an architectural strategy to designing an efficient Third Place. This proposal is based on the on lack pf social participation on urban community context, by using fish market building typology as the main targeted building to be focused on the application of the design strategy. From all the analysis research methods that being done, the synthesis is produced in the form of four main design strategies.



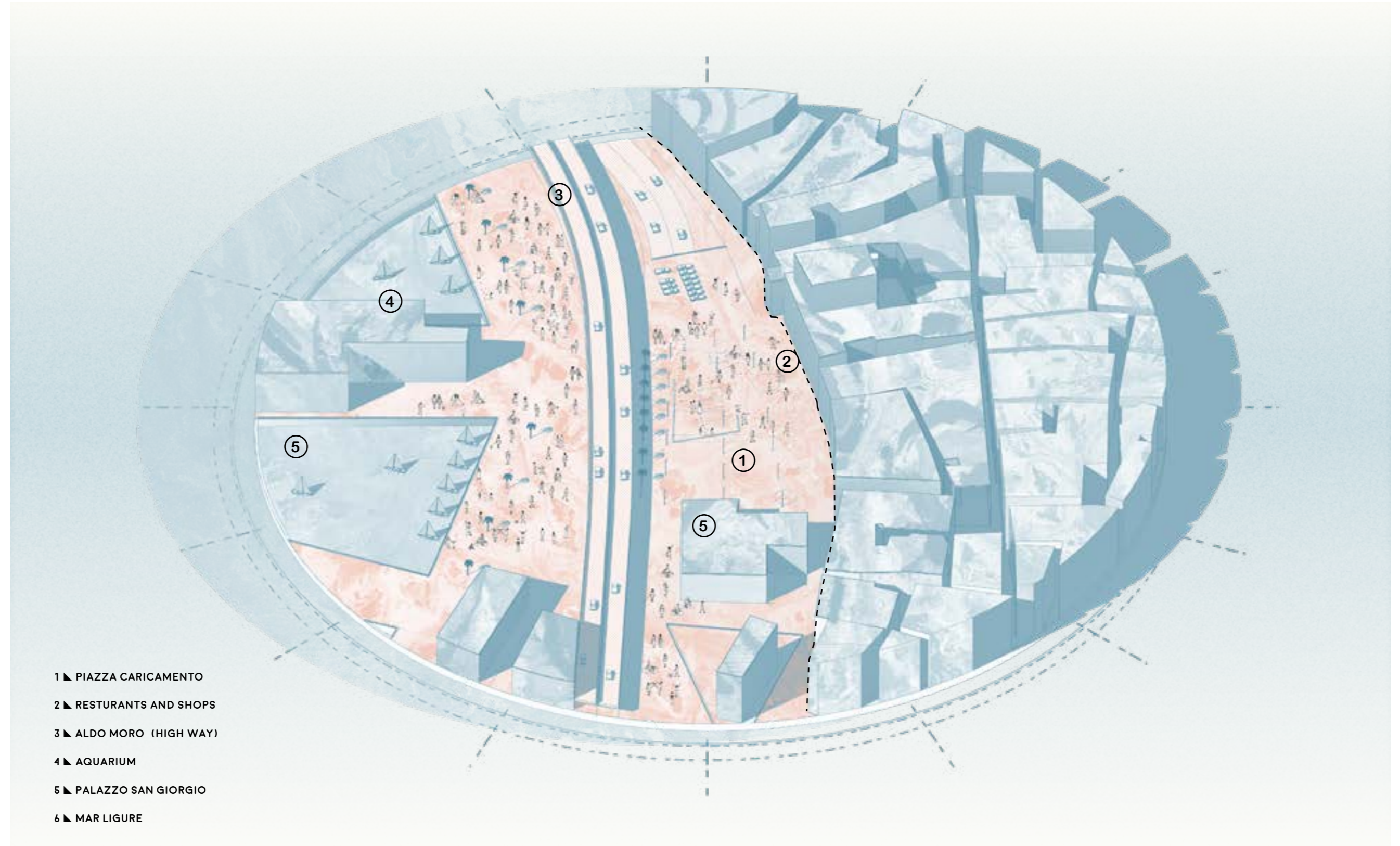
FISHERIES OBSERVERS



PROJECT SCHEDULE AND ACTIVITIES

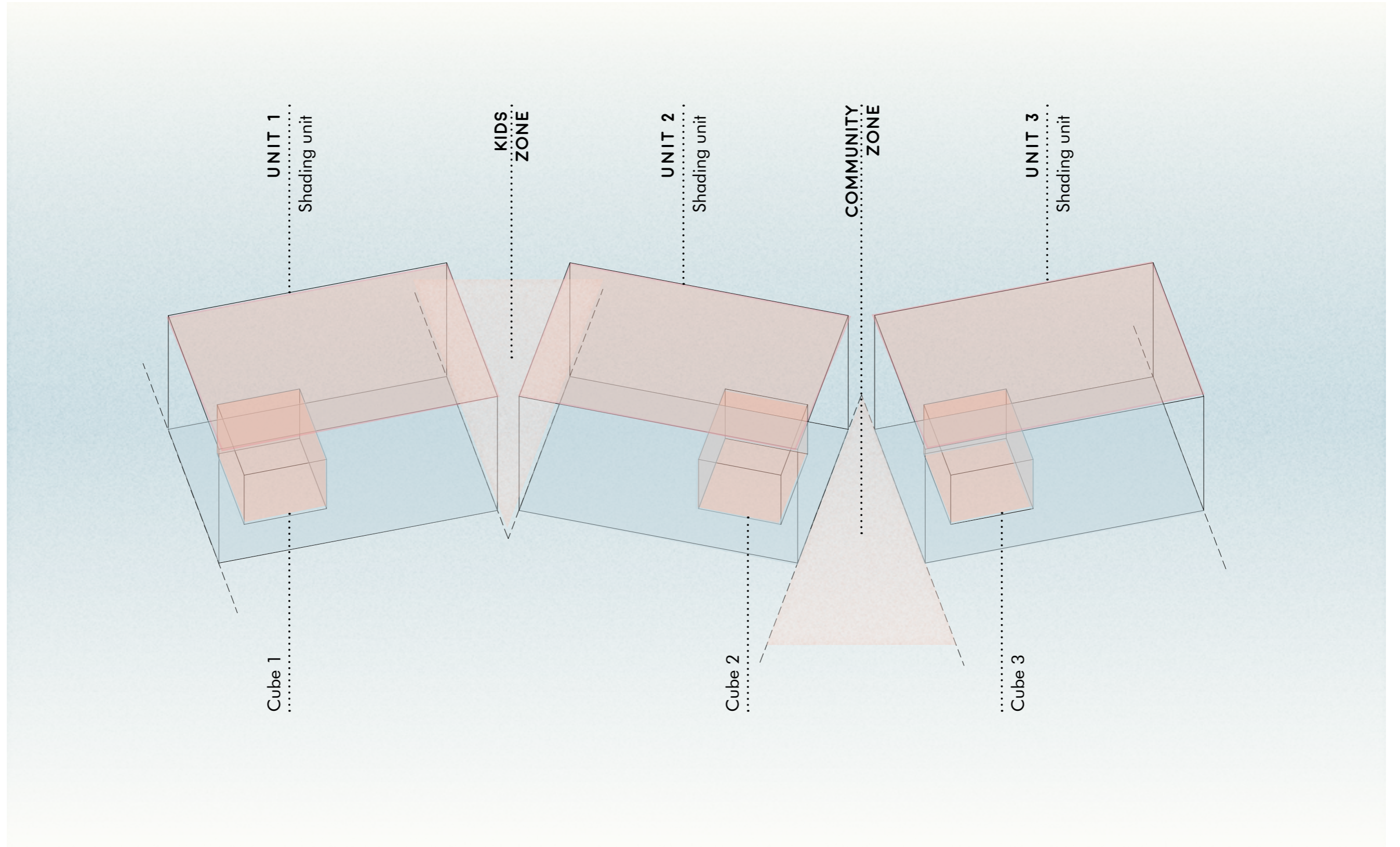


PROJECT SITE LOCATION IN GENOA  
PORTO ANTICO - PIAZZA CARICAMENTO

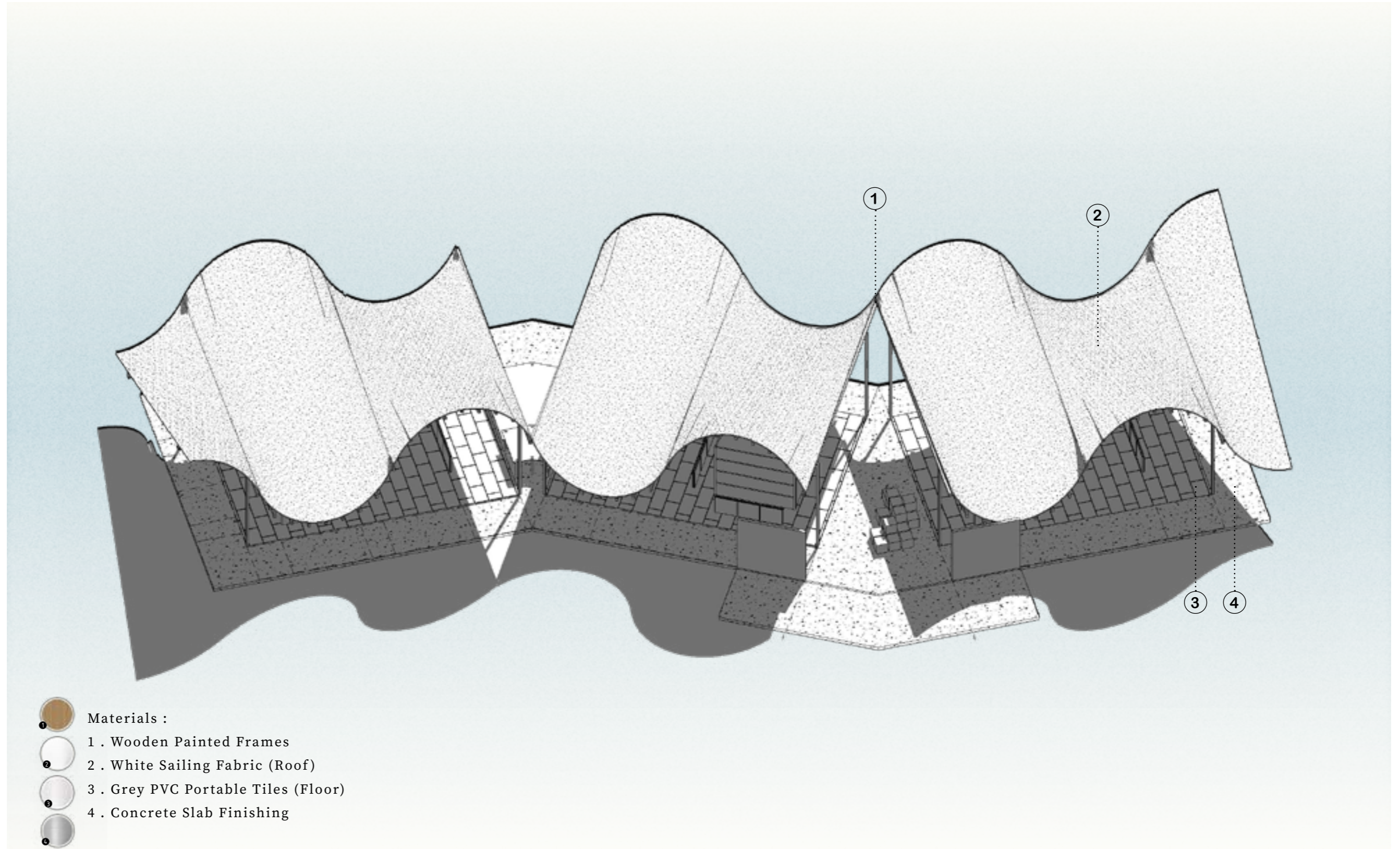


- 1 ▲ PIAZZA CARICAMENTO
- 2 ▲ RESTURANTS AND SHOPS
- 3 ▲ ALDO MORO (HIGH WAY)
- 4 ▲ AQUARIUM
- 5 ▲ PALAZZO SAN GIORGIO
- 6 ▲ MAR LIGURE

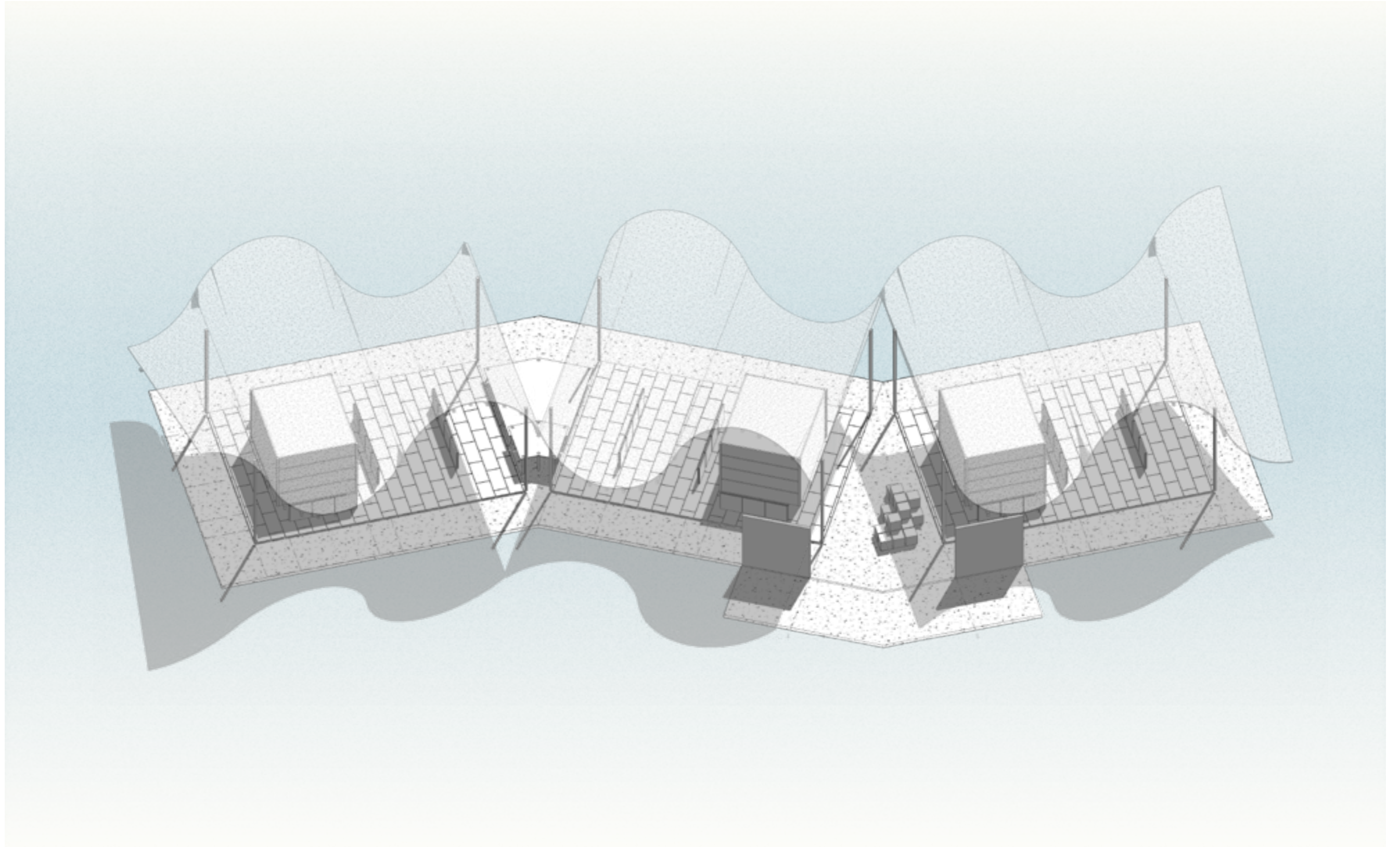
PROJECT COMMERCIAL AND RECREATION TYPOLOGY



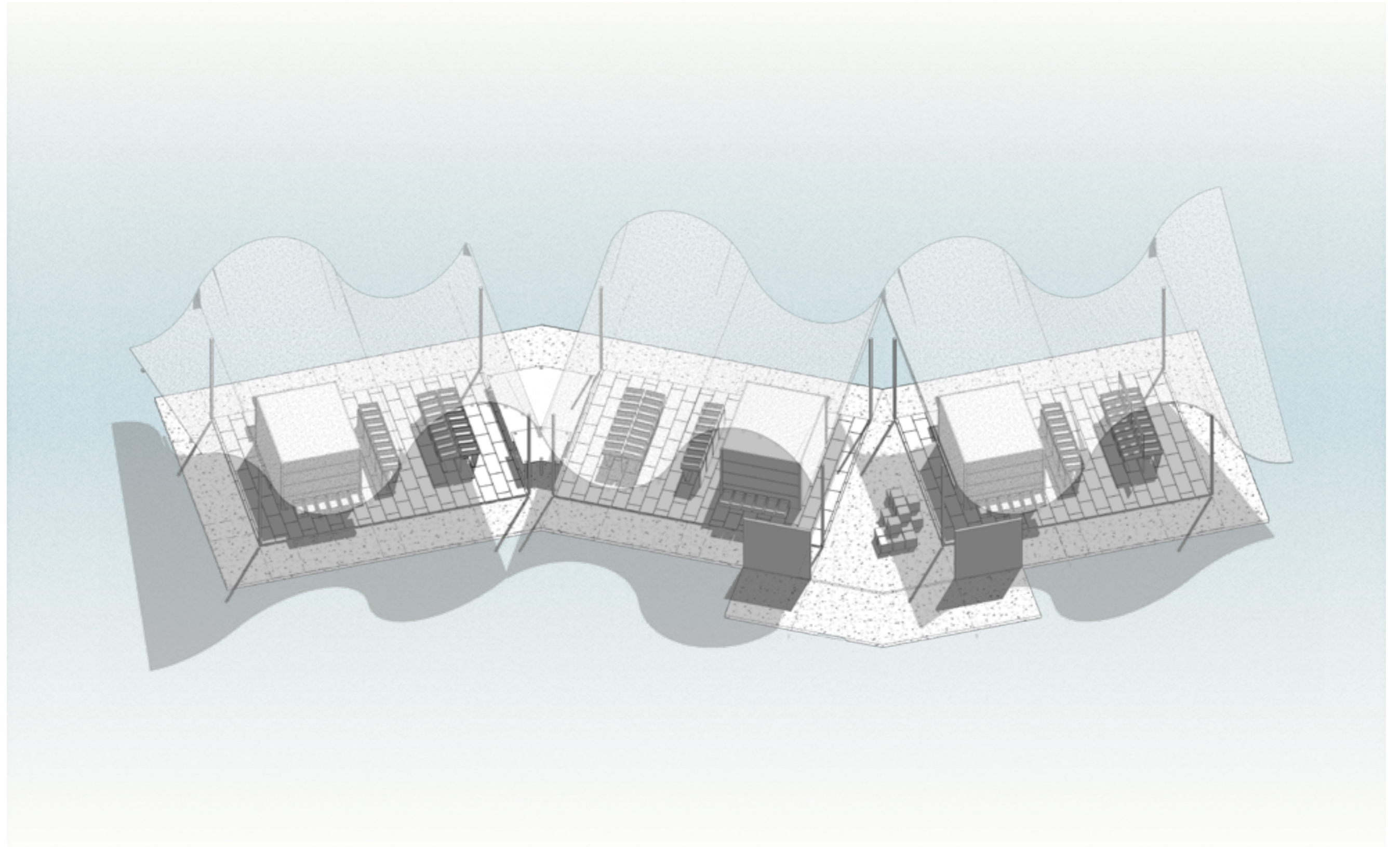
PROJECT COMMERCIAL AND RECREATION TYPOLOGY  
THE OUTSIDE CONCEPT



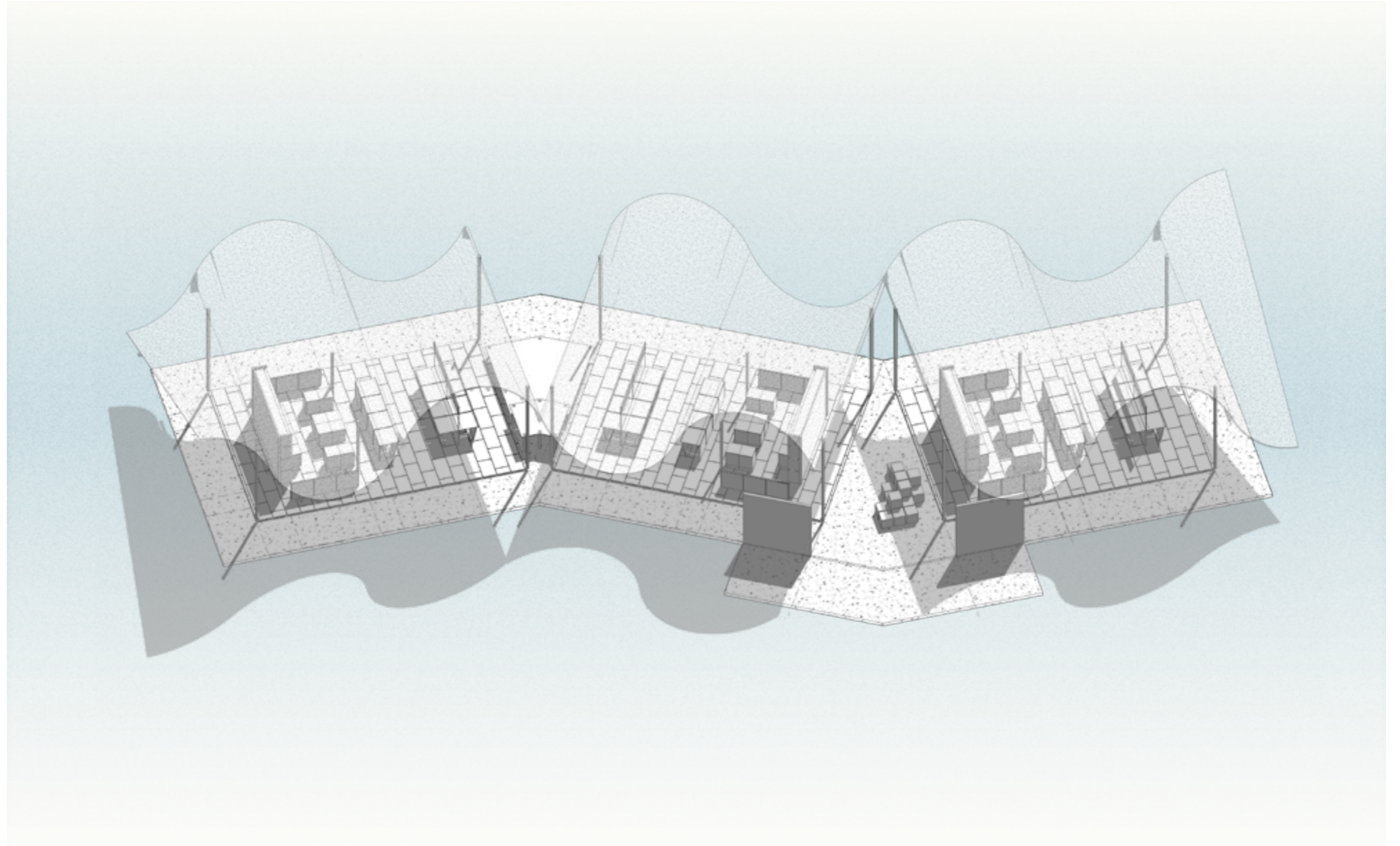
PROJECT COMMERCIAL AND RECREATION TYPOLOGY  
CLOSE - DOCUMENTARY SPACE



PROJECT COMMERCIAL AND RECREATION TYPOLOGY  
MORNING - FISH MARKET

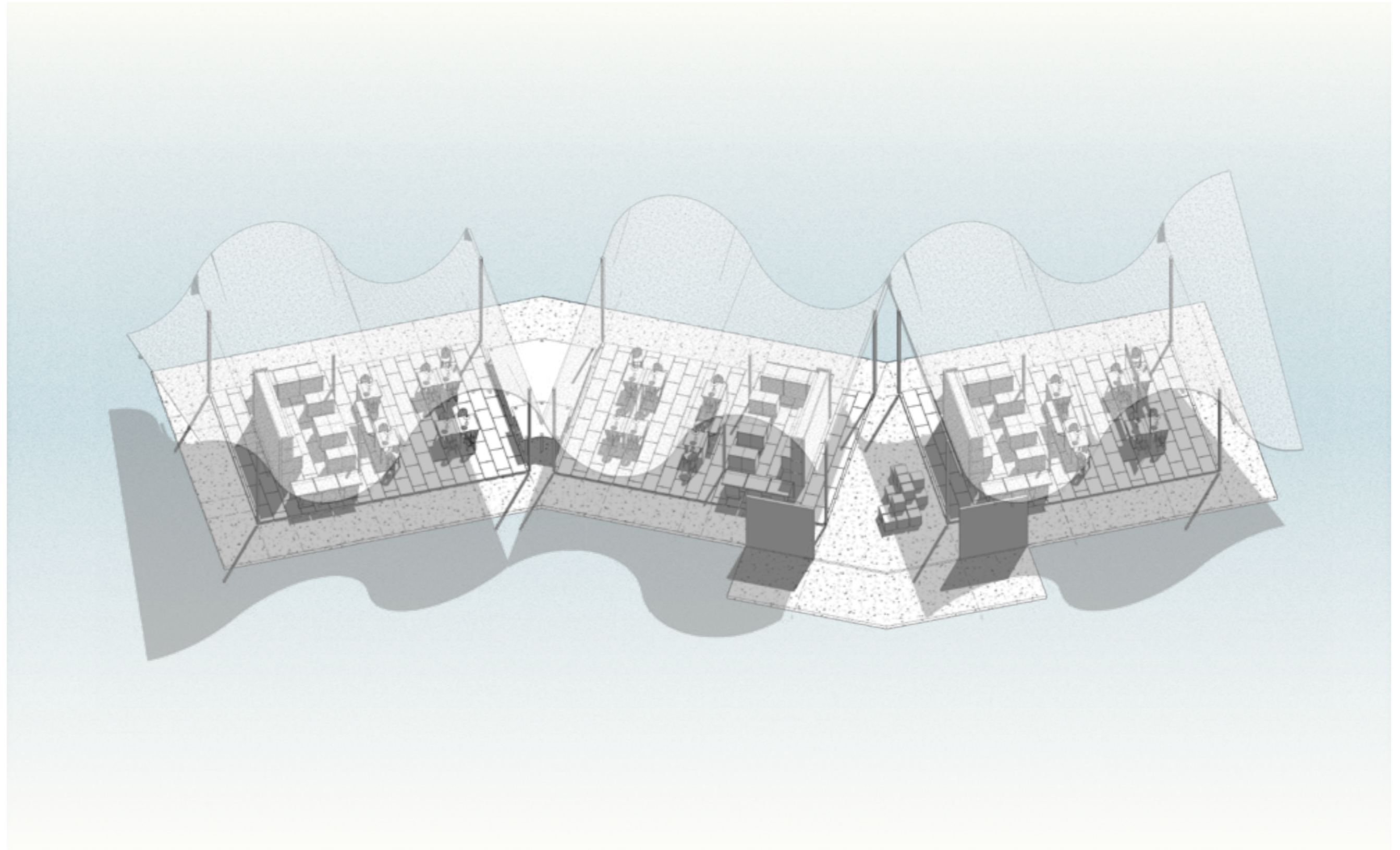


PROJECT COMMERCIAL AND RECREATION TYPOLOGY  
AFTERNOON - COOK CLASS

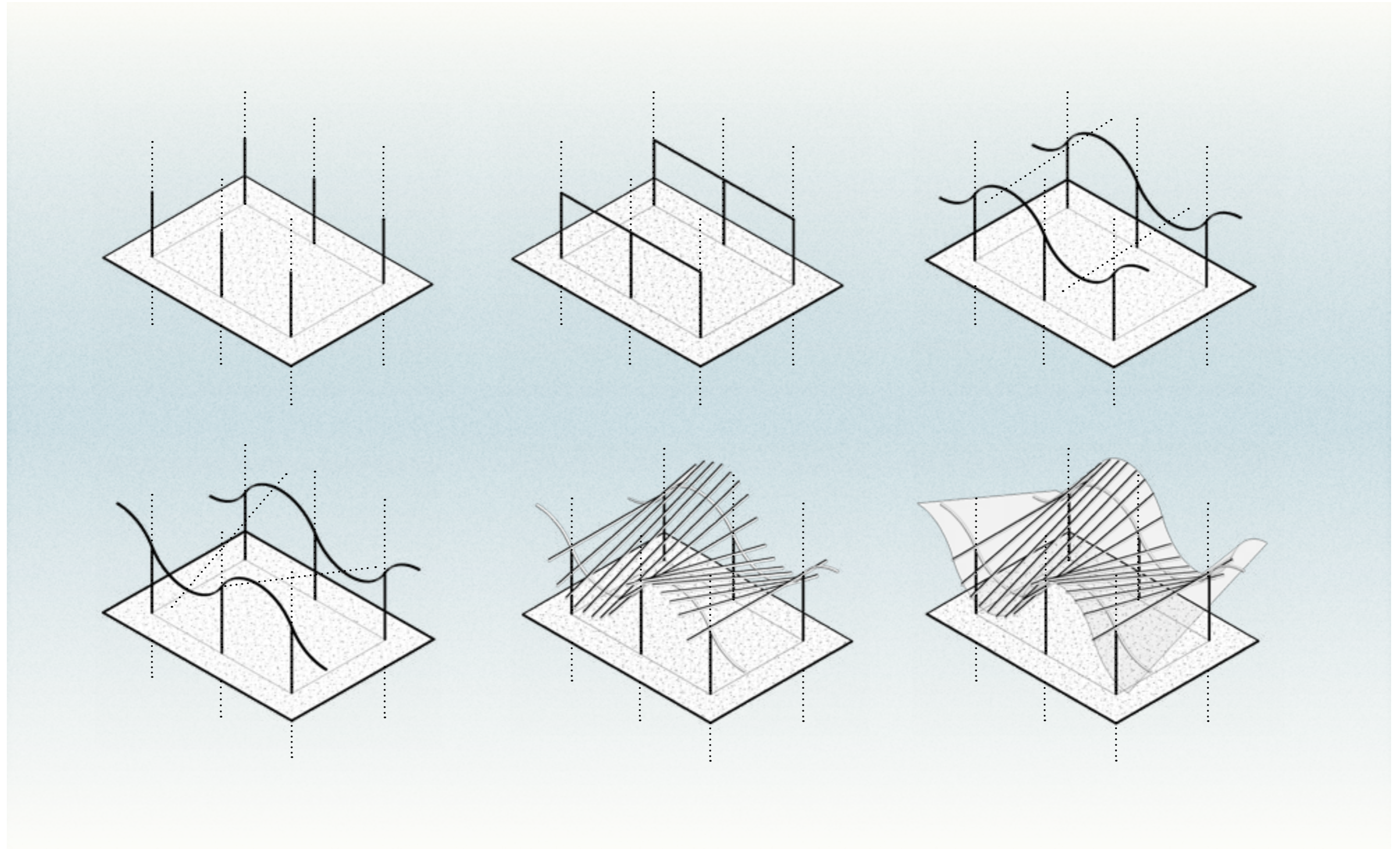


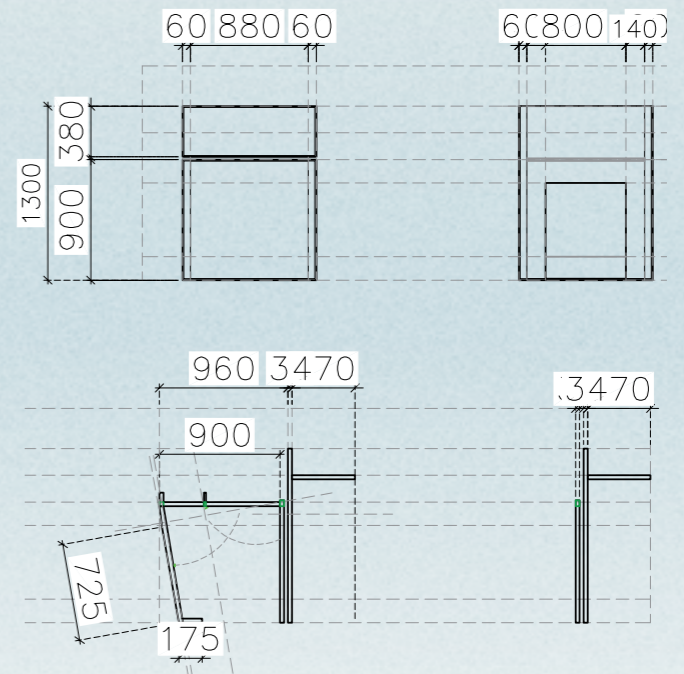
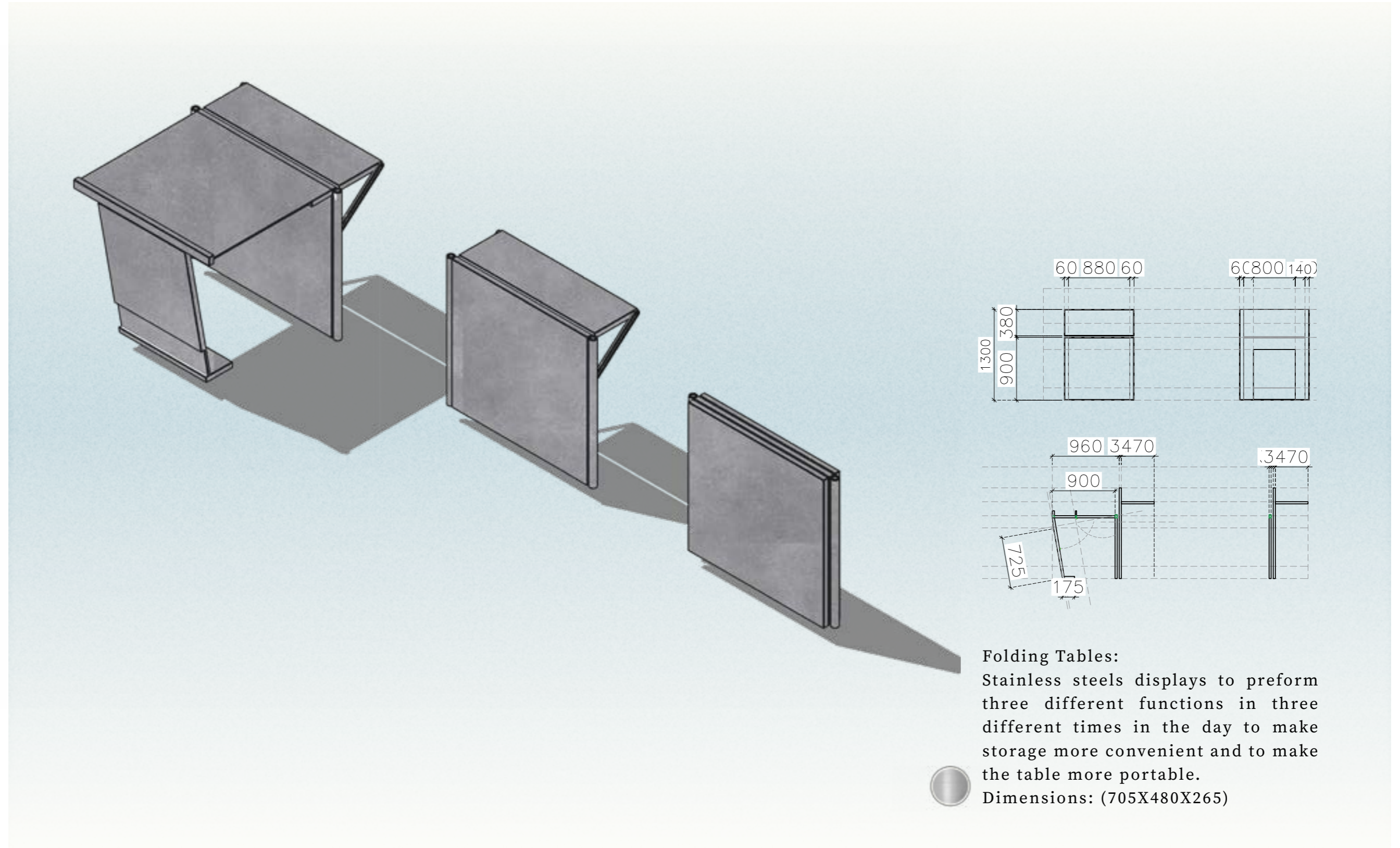


PROJECT COMMERCIAL AND RECREATION TYPOLOGY  
EVENING - RESTAURANT

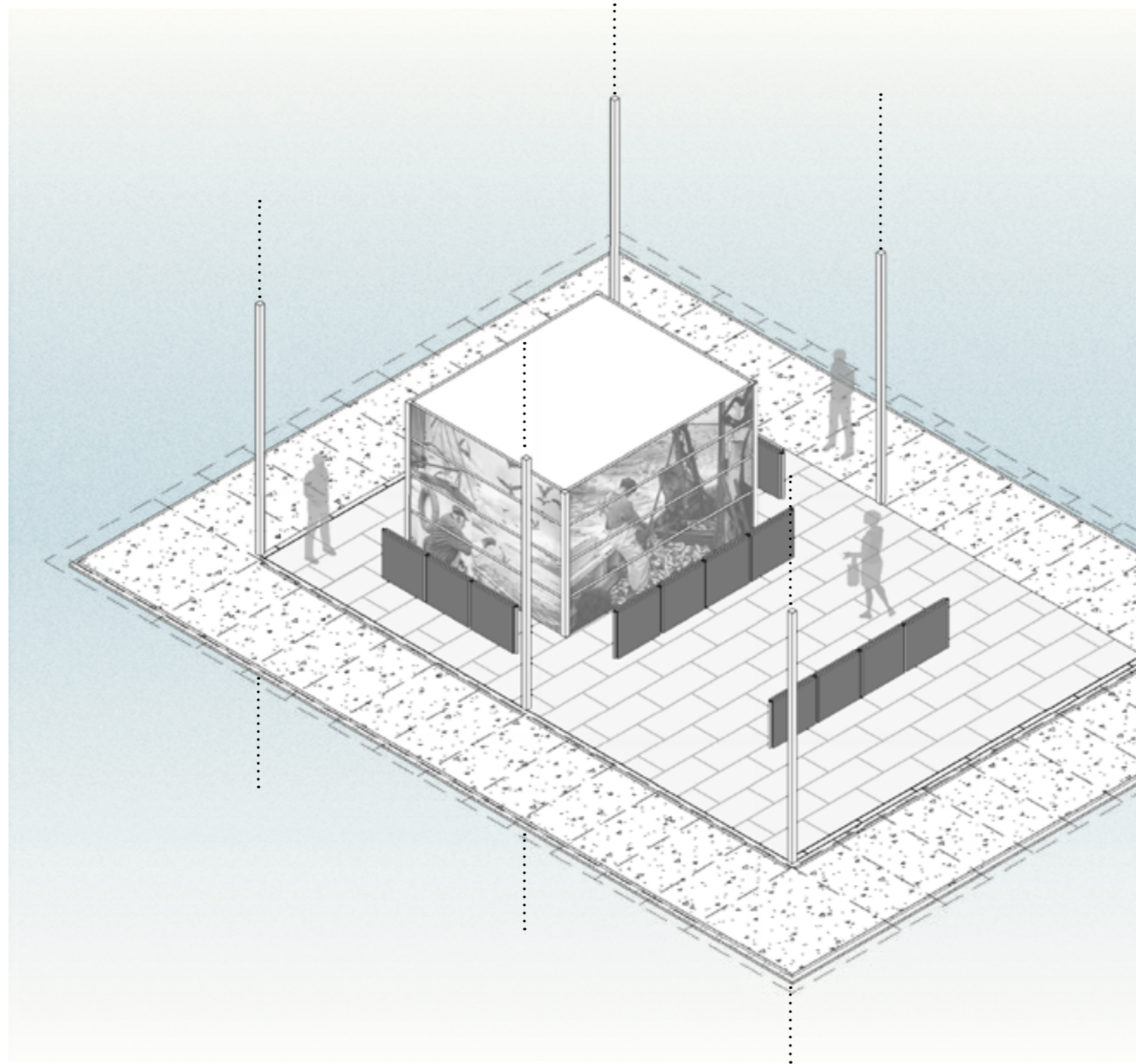


PROJECT COMMERCIAL AND RECREATION TYPOLOGY  
EVENING - RESTAURANT





**Folding Tables:**  
 Stainless steels displays to preform three different functions in three different times in the day to make storage more convenient and to make the table more portable.  
 Dimensions: (705X480X265)



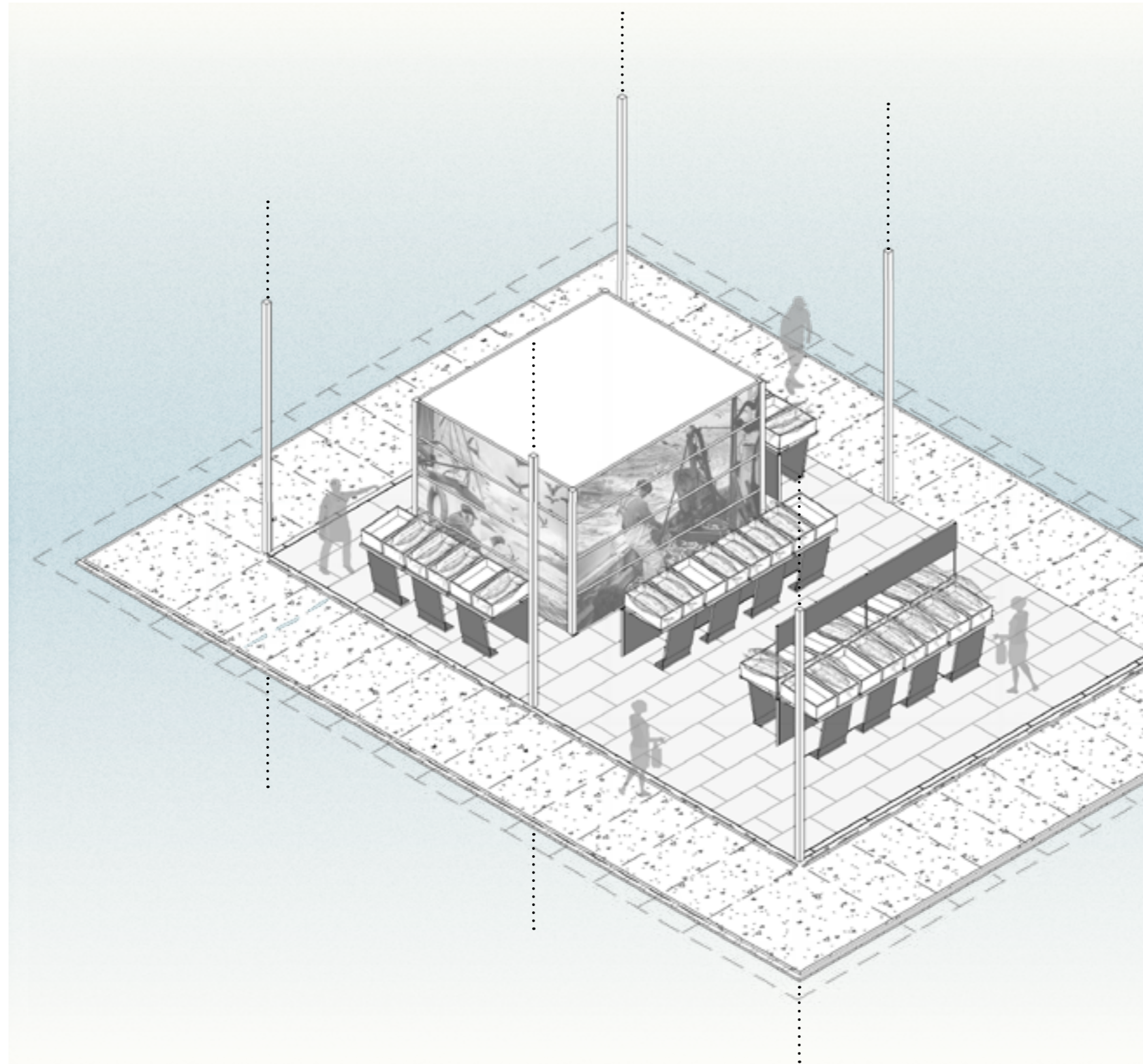
DOCUMENTARY ROOM  
MORNING  
00.00 - 08.00

**Closing Time:**  
The space is a living Museum at the closing times, the walls are flexible to be moved, some walls are used as images displays and projector walls to show and screen videos about the fishery documentary life also the life of the sea under their eye of scope.

INTERIOR VIEW - DOCUMENTARY SPACE



PROJECT COMMERCIAL AND RECREATION TYPOLOGY  
THE THE INSIDE CONCEPT

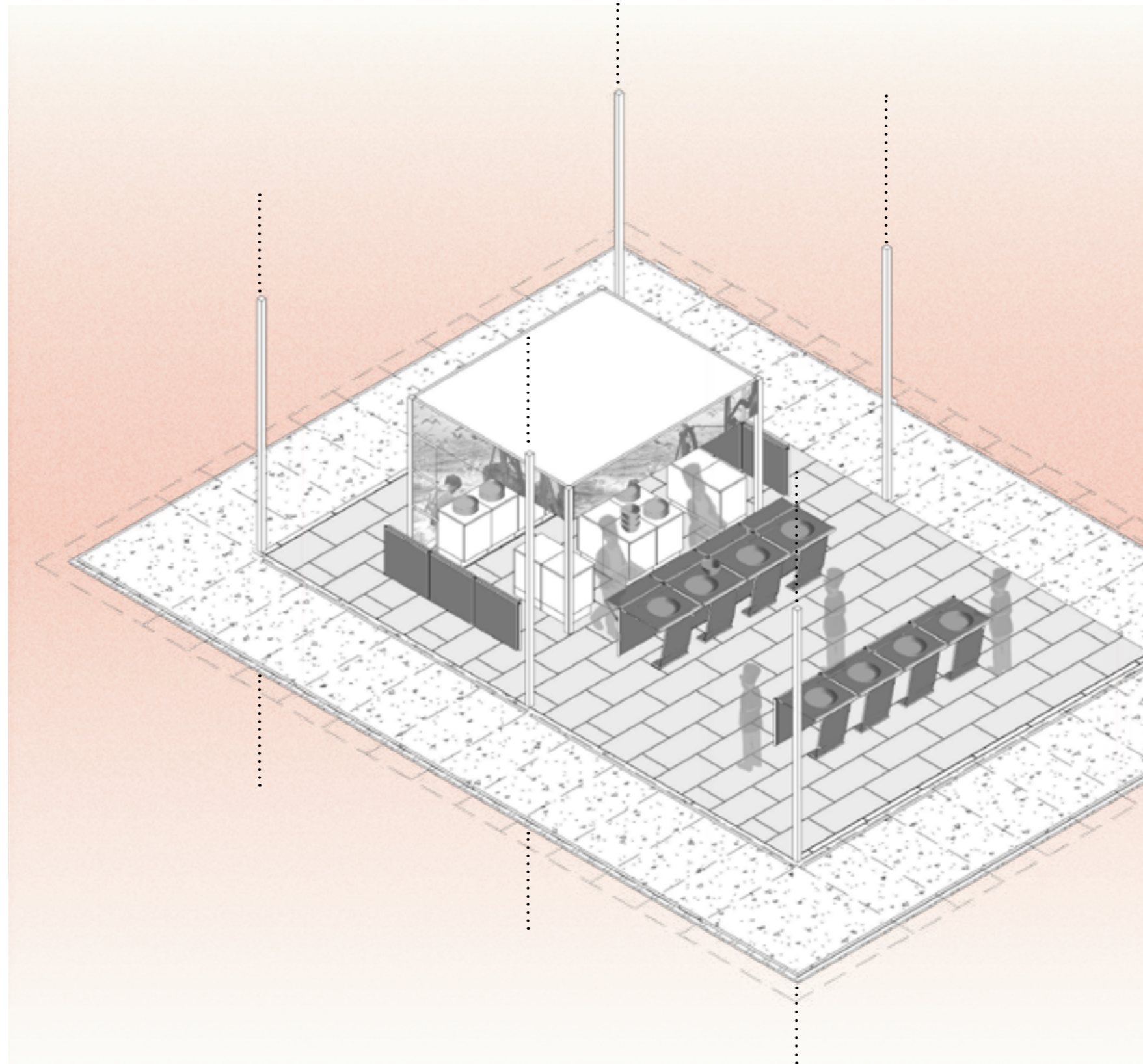


FISH MARKET  
MORNING  
8:00 - 12:00

**Morning Time:**  
The space is occupied to be fish market that serves the population of Genova, the displays furniture is flexible to be opened and work as racks for the fish and the visitor can easily walk through approaching the goods.

INTERIOR VIEW - FISH MARKET





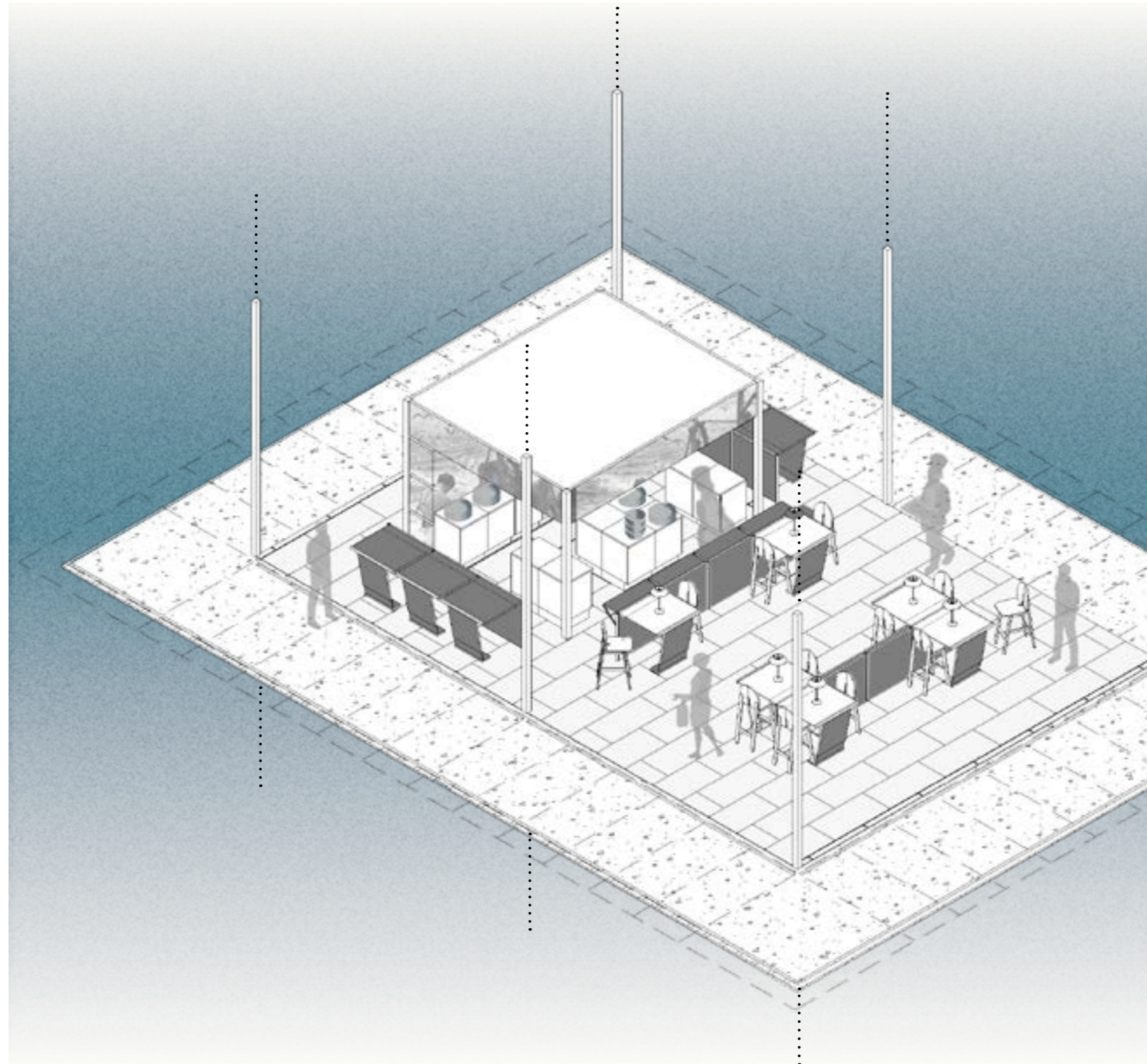
COOK CLASS  
AFTERNOON  
13:00 - 17:00

Afternoon Time:  
The space is occupied to be Traditional Food Cooking Classes, for Genevan traditional sea food, the furniture settings are going to be adjusted to serve the space and learners can be easily use the racks as a cooking surface.



INTERIOR VIEW - SEA FOOD COOK CLASS





RESTAURANT  
EVENING  
19:00 - 23:00

Evening Time:  
The space is occupied to be Seafood Restaurant at night, the furniture will be adjusted in a flexible possession to make the displays utilized for eating or dining activities.

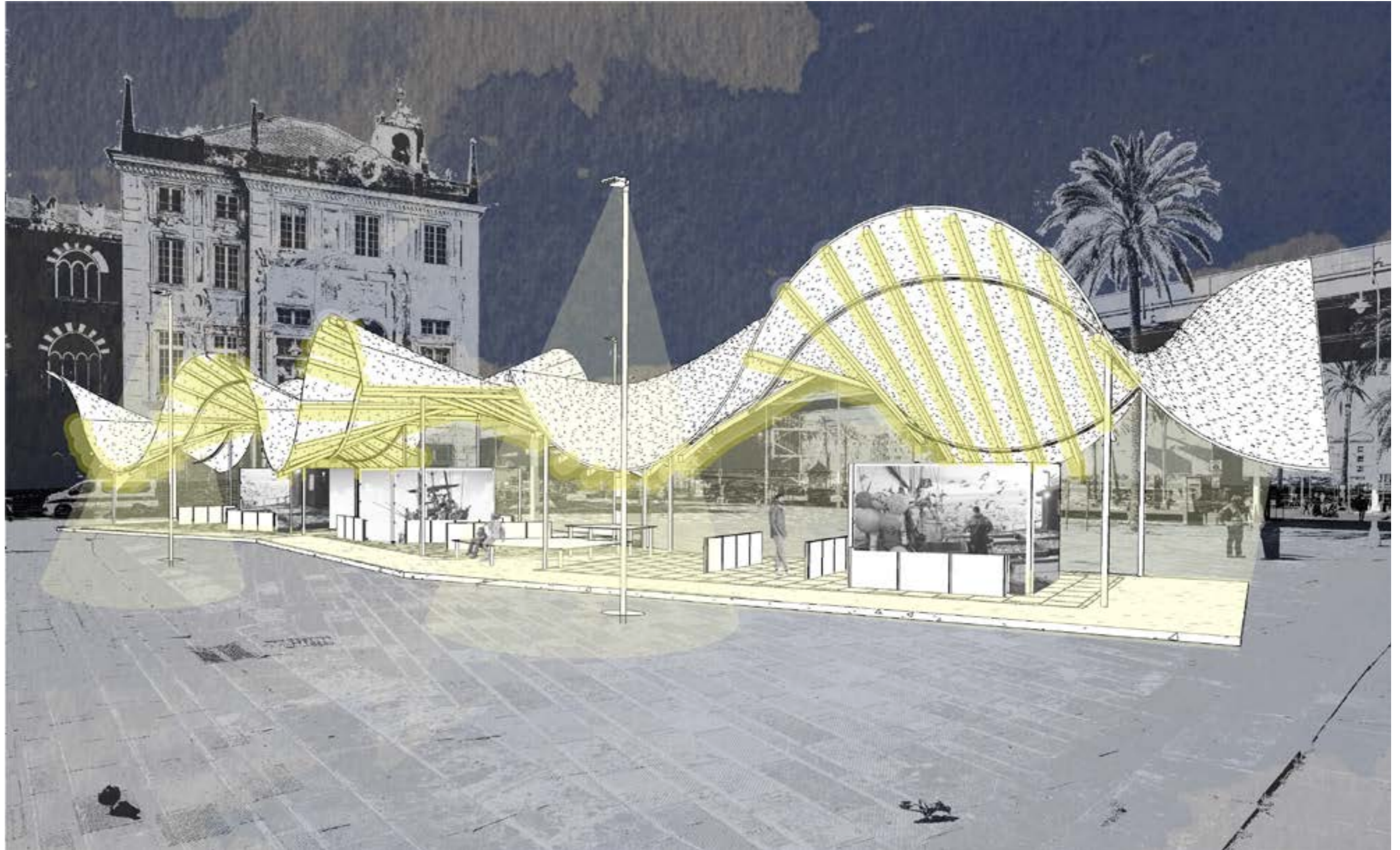
INTERIOR VIEW - RESTAURANT



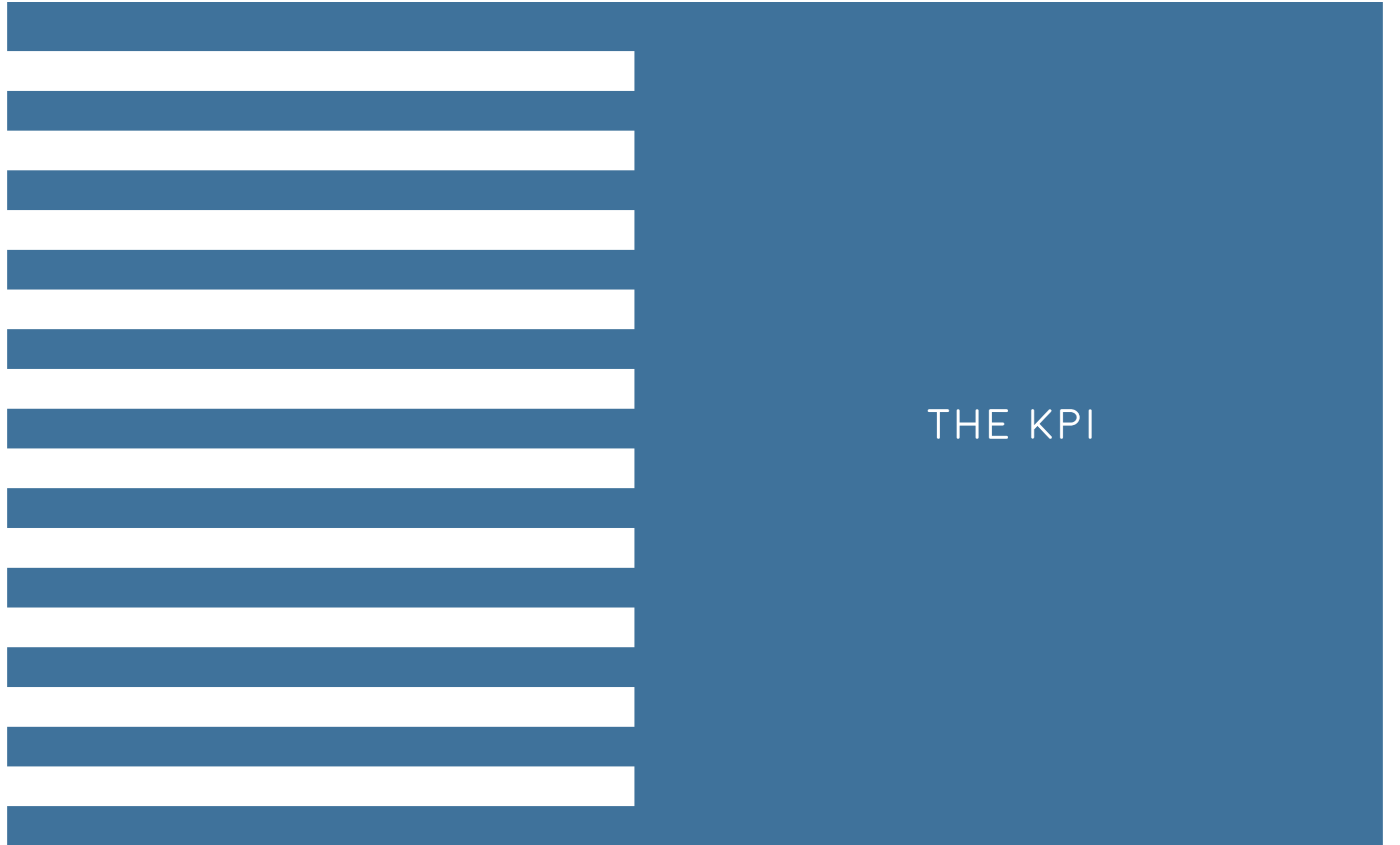
DAY PERSPECTIVE



NIGHT PERSPECTIVE



FISHERIES OBSERVERS



THE KPI

<b>TARGET</b>	The desired outcome of let the population of Genoa revives the comunity of fisheries by attending their events programs.
<b>TIME FRAME</b>	<ol style="list-style-type: none"> <li>1. Fish Market (08:00 - 13:00)</li> <li>2. Cook Class (14:00 - 17:00)</li> <li>3. Restaurant (19:00 - 23:00)</li> </ol>
<b>BUDGET CALCULATIONS</b>	<ol style="list-style-type: none"> <li>1. Number of fish supplies and selling.</li> <li>2. Number of participants in a class.</li> <li>3. Number of visitors to the restaurant.</li> </ol>

### THE KPI

The KPI in the fishing industry is by showing the global cases studies of the Fishery Performance Indicators (FPI) management tool by Anderson et al, which is based on assessing fishery performance based on the economy, community, and ecological sustainability measured by triple bottom line (TBL) indicators.

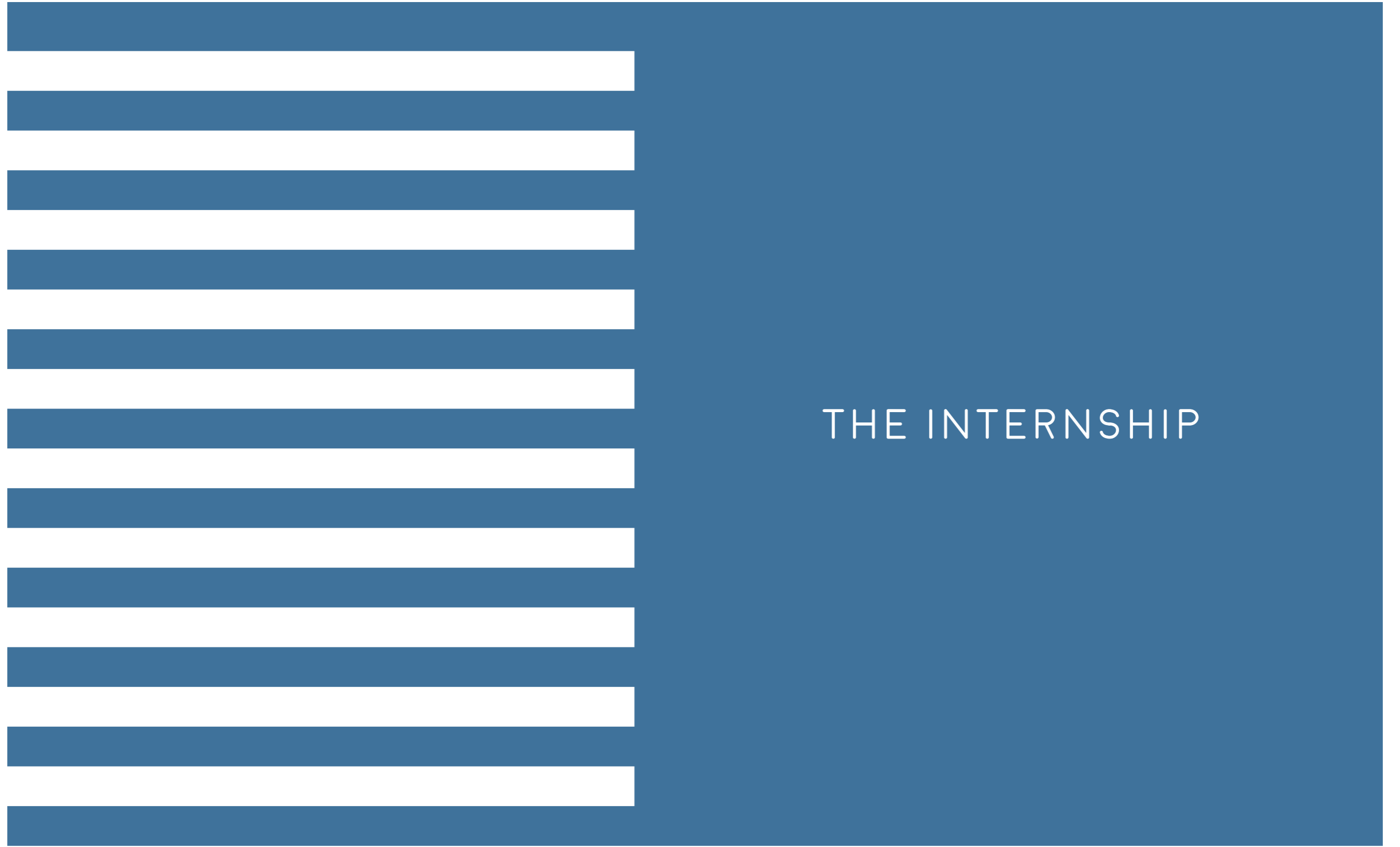
#### Data tools:

1. TBL Tripl Bottom Line
2. FBIs can provide data for their stakeholders outreach and political action materials and enhance the knowledge base on their contributors.

56. James L Anderson et al., "The Fishery Performance Indicators: A Management Tool for Tripple Bottom Line Outcomes." PLOS ONE 2015, 20.



FISHERIES OBSERVERS



THE INTERNSHIP



THE  
INTERNSHIP





**The Internship Report - Phase 1  
Genoa Over The Ocean**

The internship was collaboration work between The Ocean Race company in Genoa with the university of Politecnico Di Milano in a closer scope with the studio of #TIS (Thesis Incubator). The internship was for our group who is consisting of five students, and we were working with our thesis under the topic of the Ocean Race with the supervision of our professor Anna Barbara. Moreover, I and my colleagues are undertaking the lead of five different branches of the main topping, and they are all under these four keywords: Sustainability, Sport, Fishery, and Tourism. The internship went through two phases. The first phase and mission were to create an exhibition for the ocean race Europe and collaborate with the Design week of Genoa. The exhibition went through many stages supervised by our professor to satisfy the client's needs and demands. The exhibition was to show graduation projects for students who worked under the umbrella of the Ocean Race topic. The exhibition was inspired by the Sea, Ocean, and the Ocean Race, with the participant's and competitors' experiences.

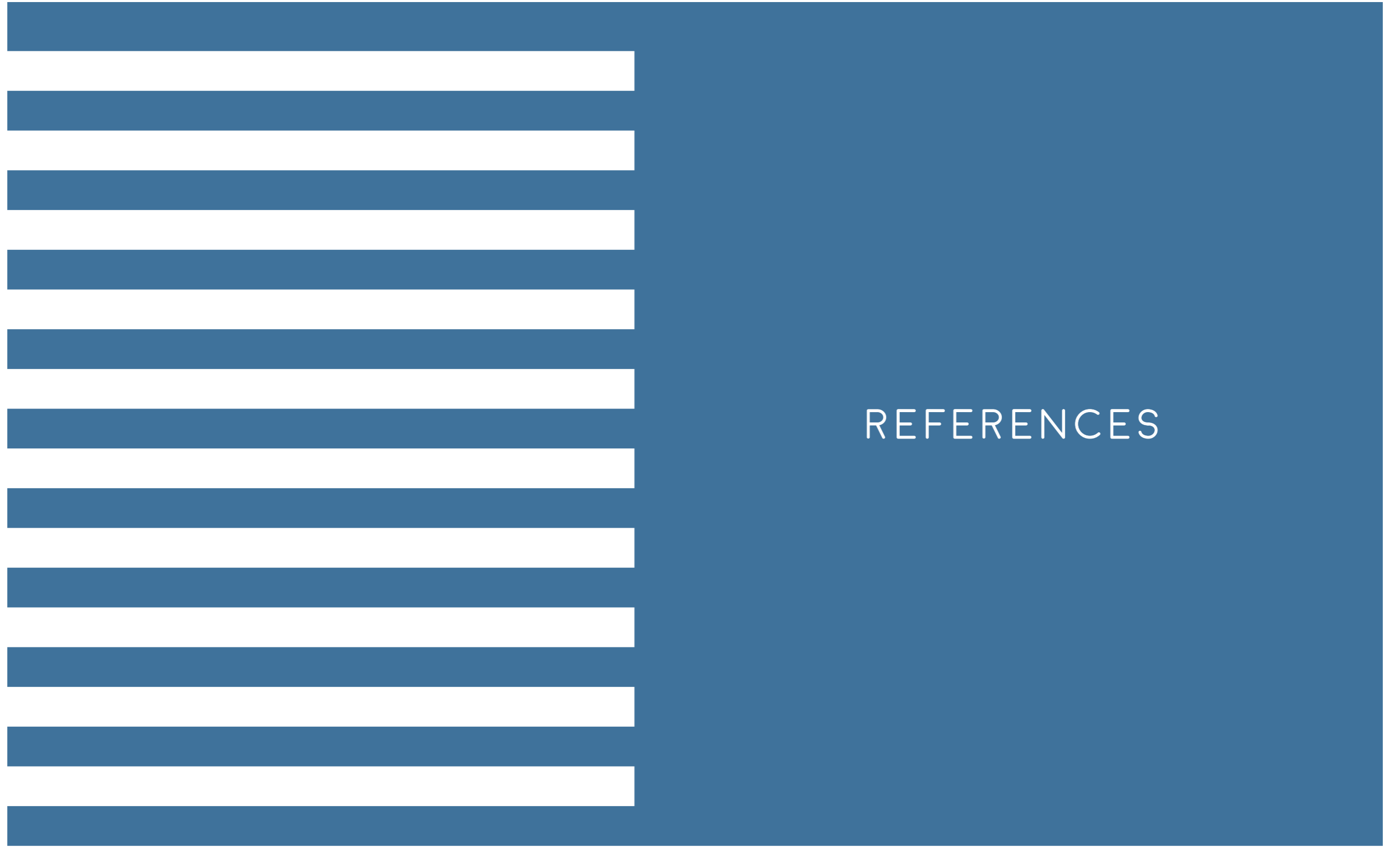


The design's main idea in components is to print the A0 banners of all the projects on sails sheets with their main keyword as the main title representing the project according to their field and scope. Then the idea has been accelerated to print them on PVC plastic fabrics in the shape of strips and that's to follow the budget was given by the client. With the collaboration of the printing company and colleagues in the implementation phase, the exhibition was executed perfectly in the best high-quality leveling. We have worked all together with high motivated spirits. The client was satisfied and happy about the outcomes. People in the time of the Ocean Race came and visited the exhibition, and University of Genoa students and professors took the exhibition as a place to work on their relative workshops.



**The Internship Report - Phase 2**  
**Drink . Recycle . Repeat Workshop**

The second phase was to create a workshop with the collaboration of the University of Genoa, as they have started to collect keywords from visitors the most describable to the topic of the Ocean Race. So, we had the idea to participate in one of our main topics, related to the plastic recycling project of our colleague Tin Tiancheng. The workshop aims to raise awareness about plastic pollution in the oceans, the main aim of The Ocean Race, by letting the community collect plastic waste to be part of the collaboration on the plastic recycling process. The workshop is representing a sustainable solution for collecting (plastic cover bottles) where it's a simple method of reusing plastic by simple heating home appliances that creates molding plastic chips that can be represented as self-iconic pins for the collectors.



REFERENCES

**BOOKS**

- Anna Meroni, Daniela Selloni, and Martina Rossi, *Massive Codesign - A Proposal for a Collaborative Design Framework*, n.d.
- Daniela Selloni, *CoDesign for Public-Interest Services, Research for Development* (Cham: Springer International Publishing, 2017), <https://doi.org/10.1007/978-3-319-53243-1>. <https://doi.org/10.1007/978-3-319-53243-1>
- Dennis Brissett, *The Third Place*, n.d., <http://illinois-online.org/krassa/ps410/Readings/Third%20Places/The%20Third%20Place.pdf>.
- Edward Twitchell Hall, *The Hidden Dimension*, Reprinted (New York, NY: Anchor Books, 1990)
- Ray Oldenburg, *The Great Good Place* (New York: Paragon House, 1989)  
“Storia e Trad Dispense Definitive e Corrette 2012.Pdf.”

**REPORT**

- Blue Economy Summit, ClickutilityTeam, and Comuni Di Genova, “Genova Blue Economy Summit,” n.d., <https://www.besummit.it/>. <https://www.besummit.it/>
- Genoa Fish Market: Just Fresh Local and Seasonal Fish.
- National Geographic, “Bioluminescence,” *Biology, Chemistry, Earth Science, Oceanography*.
- Ministry of Agricultural, Food and Forestry Policies, “Introducing the Fisheries System” (Italian Government, n.d.), <https://www.politicheagricole.it/flex/cm/pages/ServeAttachment.php/L/IT/D/6%252F2%252Fd%252FD.801adbd2cc59024d0373/P/BLOB%3AID%3D6412/E/pdf>
- Ministry of Agricultural, Food and Forestry Policies, “Introducing the Fisheries System” (Italian Government, n.d.), <https://www.politicheagricole.it/flex/cm/pages/ServeAttachment.php/L/IT/D/6%252F2%252Fd%252FD.801adbd2cc59024d0373/P/BLOB%3AID%3D6412/E/pdf>
- Ministry of Agricultural, Food and Forestry Policies, “The Fisheries Information System” (Italian Government, n.d.), <https://www.politicheagricole.it/flex/cm/pages/ServeAttachment.php/L/IT/D/6%252F9%252Fd%252FD.e7fe5c1f1d2e50079a81/P/BLOB%3AID%3D6412/E/pdf>
- Morandeira, “Masther’s Thesis MSc in Sustainability, Society and the Environment.”
- OECD, “Fisheries and Aquaculture in Italy,” January 2021.
- Women In Fishing.

- OECD, “Country Note on National Fisheries Management Systems - Italy” (Organization for Economic Co-operation and Development, n.d.), <https://www.oecd.org/italy/34429640.pdf>
- “Cohesion, Surface Tension, and Adhesion,” n.d., 29
- Wikipedia, “Piazza Caricamento,” n.d., [https://it.wikipedia.org/wiki/Piazza\\_Caricamento](https://it.wikipedia.org/wiki/Piazza_Caricamento).
- JAMES L ANDERSON ET AL., “THE FISHERY PERFORMANCE INDICATORS: A MANAGEMENT TOOL FOR TRIPLE BOTTOM LINE OUTCOMES,” *PLOS ONE*, 2015, 20.

**CITOGRAPHY**

- Derman Verbakel Architecture, “On the Way to the Sea / Derman Verbakel Architecture,” n.d., <https://www.archdaily.com/91335/on-the-way-to-the-sea-derman-verbakel-architecture>
- Emma Tucker, “Bent Installation for Genoa’s New Generations Festival Resembles Billowing Sails,” *Dezeen*, n.d., <https://www.dezeen.com/2016/01/04/bent-wooden-installation-geoa-new-generations-architecture-festival-edouard-cabay-margherita-del-gross/>
- Eric Oh, “Félix Guyon’s Sails Benches Are Anchored in Montreal,” n.d., <https://www.archdaily.com/778887/sails-benches-wins-at-world-interiors-awards-2015-in-london>
- Gruppo A12, “Urban Epidemics,” n.d., [http://www.gruppoa12.org/cubi/cubi\\_01.htm](http://www.gruppoa12.org/cubi/cubi_01.htm)
- Kurt Perschke, “Redball Project,” n.d., <https://www.redballproject.com/>
- Lilly Cao, “Experiential Shelter: 600 Kinetic Shingles Reinvent the Traditional Finnish Hut,” n.d., <https://www.archdaily.com/942956/functional-shelter-and-experiential-device-600-kinetic-shingles-shape-neons-shiver-house>
- Olafur Eliasson, Frederik Ottesen, and Felix Hallwachs, “Little Sun,” n.d., <https://littlesun.com/>
- Söhne & Partner, “Lightsails / Söhne & Partner,” n.d., <https://www.archdaily.com/69156/light-sails-sohne-partner>
- Infrastructure New South Wales, “Sydney Fish Market,” n.d., <https://3xn.com/project/sydney-fish-market>.
- Eder Biesel Arkitekter, “Fish Market in Bergen / Eder Biesel Arkitekter,” *Archdaily*, n.d.
- SANAA, “Home for All Shelter in Tsukihama,” 2014, <https://archeyes.com/home-tsukihama-sanaa/>.
- Derman Verbakel Architecture, “On the Way to the Sea / Derman Verbakel Architecture,” *Archdaily*, n.d., <https://www.archdaily.com/91335/on-the-way-to-the-sea-derman-verbakel-architecture>.

