

The experience of walking through the streets of Puerto Real and talking to its residents made me realize that this project has to bring back the presence of the coast and the water to the daily activities of the residents' life. Thinking about the needs of its residents and visitors and the natural resources that this town enjoys I imagined a project that works as a window that opens the streets of the town and the life of its people to the neighboring coast and water. Being the water the main source of food, work, and entertainment in a fishing village this project has to be built into the water and exclaim all the properties of this natural resource. I considered all characteristics and possibilities of the site I chose that could help me achieve all my expectations and goals as a designer while fulfilling the needs of the town.

I decided to bring the coast back from its present unnatural shape to its original contour by removing the entire fill from the site, thus respecting the natural contour of the bay. In order to make this idea possible I removed the existing buildings and disconnected the piers from the land. I then proposed a location for the Fish Market right in the water to create a direct contact with the fishermen and the natural resources. The location of the buildings, separated from land, gives better access to the boats and fishermen when using the piers while creating a close and intimate space in the water between the land and the building. At the same time the provoked separation provides an attraction for the tourists to enjoy the astonishing views provided by the bay while getting pleasure from the building and boardwalk in the water. Even though I removed the existing buildings and part of the piers, I used their original orientation, the form of the spaces and the contour of the fill, to orient the spaces and the structure of the new project. In this way I believe I am both respecting the original natural surrounding of the site while showing consideration for the years of human presence on this piece of land.

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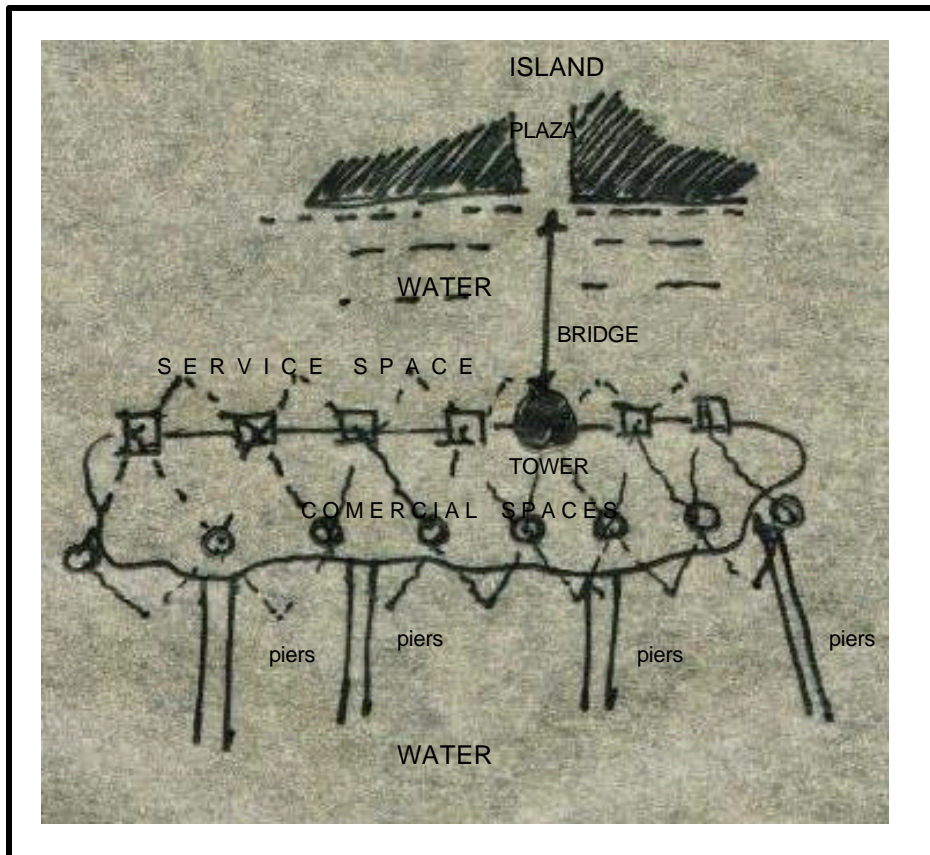
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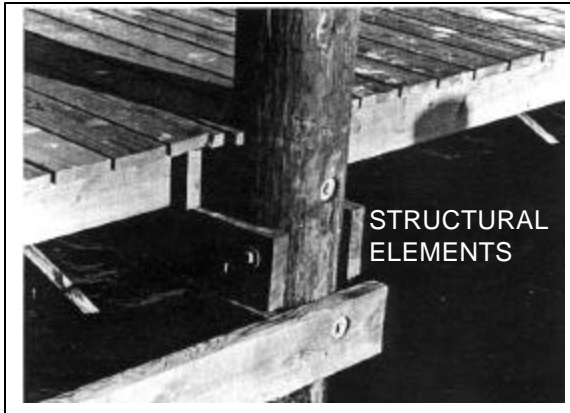
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The project was designed to contain all the spaces needed to fulfill the needs of a building that is going to work as a public Fish Market; but at the same time a building that is expected to work as the economic, cultural and social center of the village of Puerto Real. To complete all its expectation the program of the project is as follows:

- **Plaza** – 1430 square feet
- **Bridge** – 125 feet long
- **Tower** – 80 feet height
- **Fish Market**
 - 7 spaces for storage, freezers, and bathrooms – 121 square feet each
 - 10 kiosks for fresh fish sale – 144 square feet each
 - Kitchen – 540 square feet
 - Open terrace for restaurant – 1680 square feet
 - 1 internal stair
 - 1 external ramp – 122 feet long
 - 4 wood docks for the fishermen's use – 300 feet long each



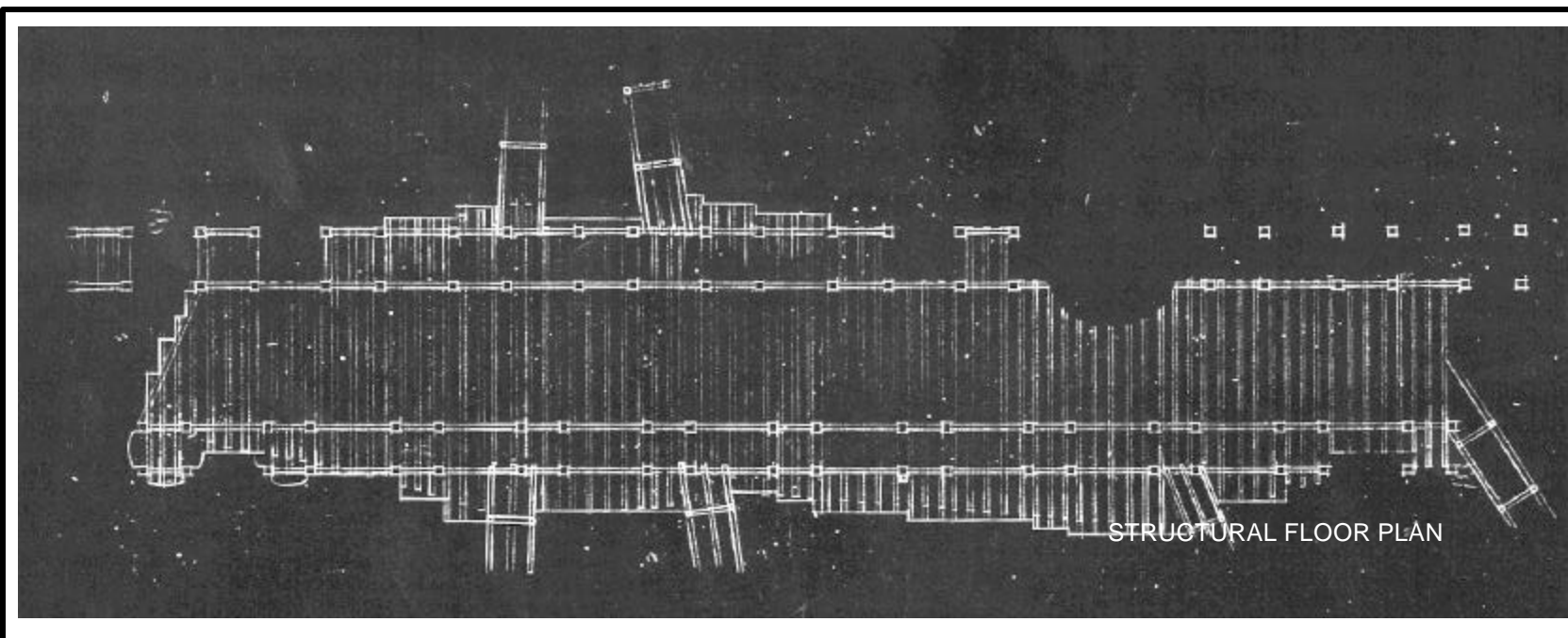
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DETAIL OF WOOD, FIXED PIER CONSTRUCTION USING SPLIT, PILE CAP.
 Photograph from book: *Marinas and Small craft harbors*

The structure of the Fish Market's building was designed with various materials that single out the different use of each structural member and represent the architectural elements existing in the buildings of the Puerto Real community. The structure of the building was a dual representation of the town being designed in concrete and wood as the representative materials of the village's vernacular architecture while steel and fabric were introduced as modern materials and techniques in construction. The foundation of the building along with the system of underwater columns and beams are to be built in concrete thus fulfilling the requirement of a strong and long lasting structure. The solidity of the concrete in the main columns contrast and disseminate in a metal structure consisting of columns and beams that concludes in a translucent and light fabric roof structure. The transparent and ephemeral condition of the building's structure avoid the possibility of being a visual obstacle to the bay's views and permits a visual fusion among the market, coast, and the people. The market and the commercial kiosks floor were designed in wood, a more natural and human scale material that embraces the construction that characterizes the housing of Puerto Real. The four existing docks for the fishermen's boats will be built using wood piles and beams with a wood deck on top. The scope of this project encompasses the renovation of the docks' structure to maintain a safe and useful condition.

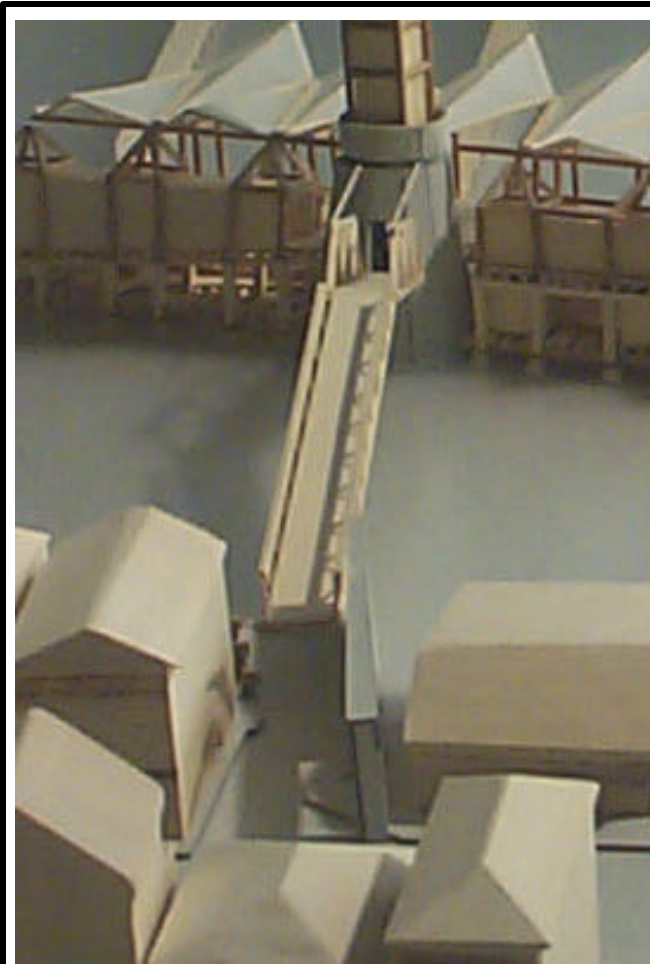
The diversity in scale, form and appearance of the various materials used throughout the circulation path of the project will help its users to orient themselves in its surroundings and relate with the different uses of the spaces and its presence in the town.



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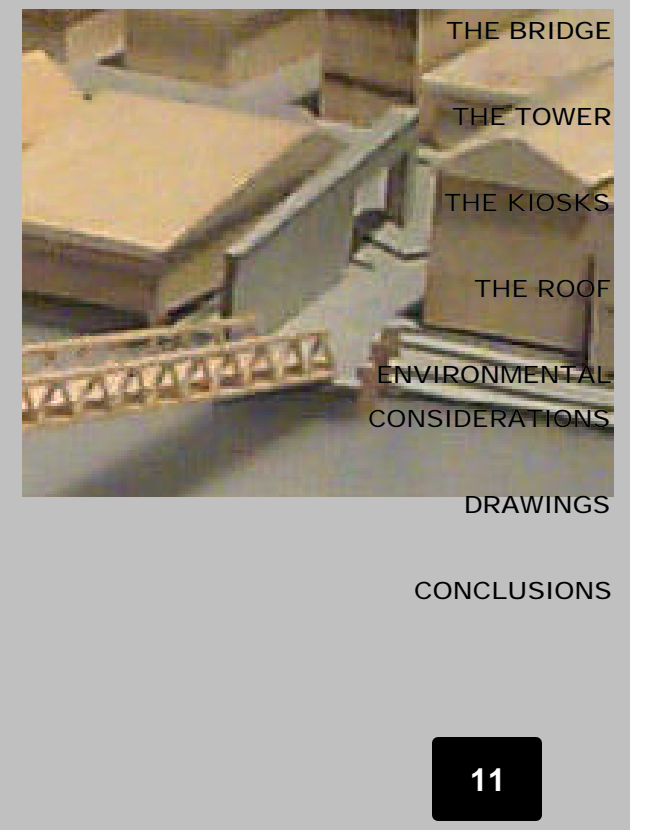
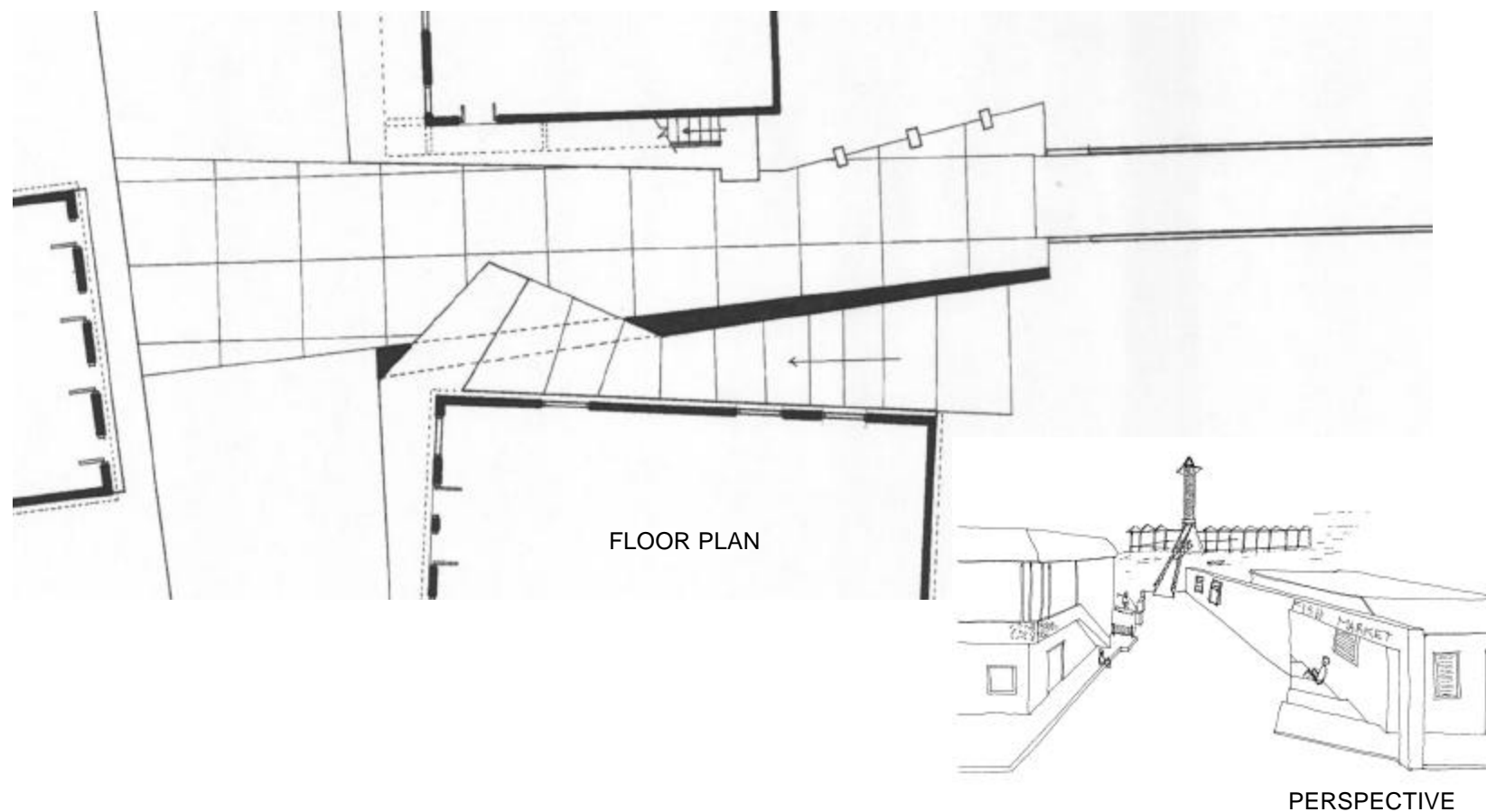


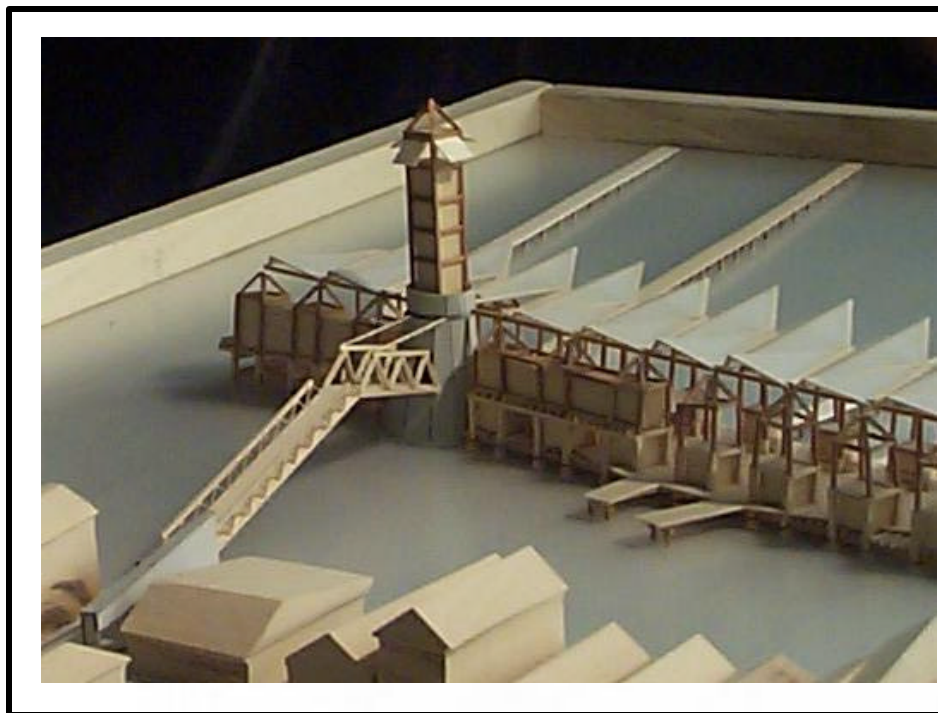
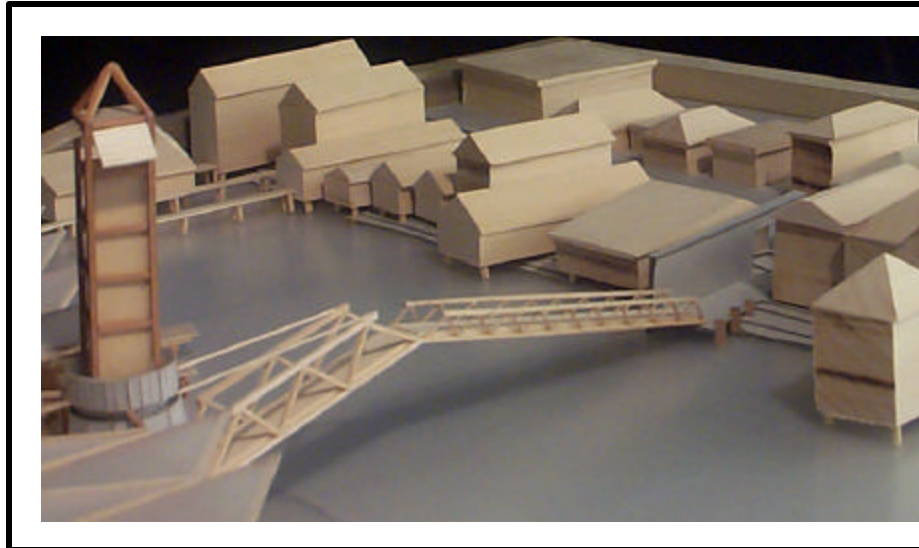
The project was designed with the idea of providing a public urban space to the residents of this small town. The circulation of the building begins with an open urban space at the shoreline of the bay. This space was designed with the idea of a plaza, "a city public meeting space, where collective affairs, rallies, concerts, and commemorative events took place" 3. In this project the plaza works as a foyer to the market, or main building. A diagonal wall crosses the space of the plaza addressing the user to a stair that ends in the water on one side and connects the town to the bridge that brings the people to the market on the other side. The concrete wall works as a public clipboard to announce the daily activities in the market and town. This plaza then becomes the only public space in the coast where one can enjoy the presence of the water and the fusion of the new building with its context and environment.

3. Rigau, Puerto Rico 1900: Turn-of-the-Century Architecture in Hispanic Caribbean 1890-1930, 138.



THE "PLAZA"

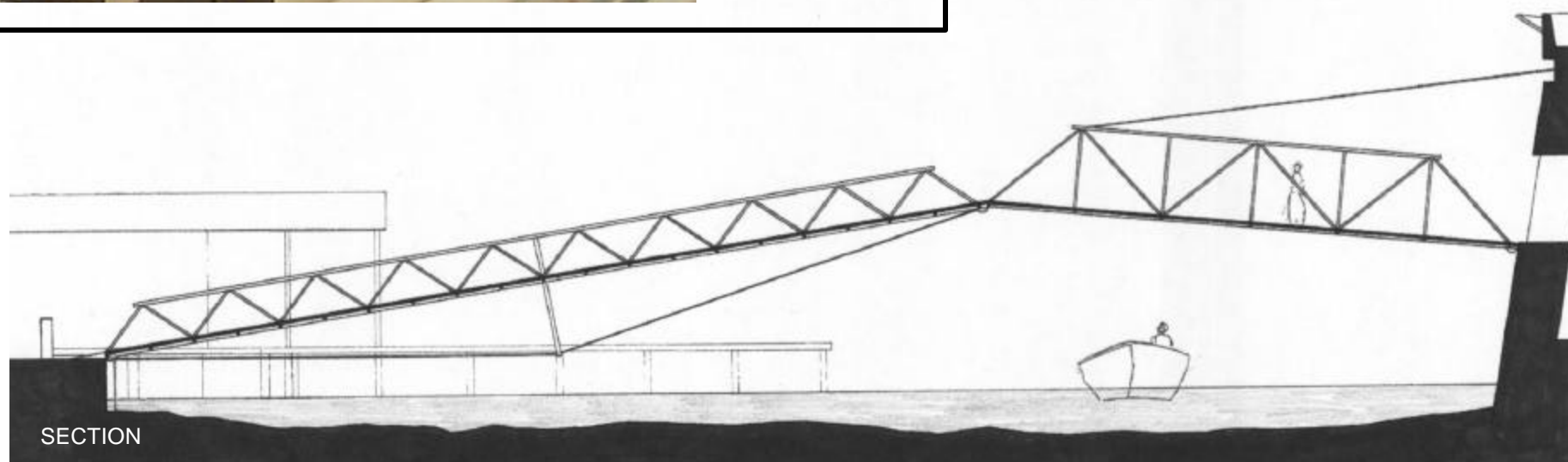




The pedestrian bridge functions as the connecting element between the town and the fish market. The bridge starts out in the plaza located in the coast connecting it to the concrete base of the tower. It crosses the space between the coast and the market leaving a definitive area under the structure for the path of the small fishing boats creating a channel for the fishermen daily circulation.

The design of the bridge is as complex as the design of a building itself; it demands *“proportion, symmetry, rhythm, repetition, contrast, and similar factors”* 4. The bridge was designed with techniques of both a truss bridge and a suspension bridge. The structure of the bridge develops in two fragments that come together in a structural joint. The two fragments are to be built with the use of two steel truss beams running parallel and serving as support for the wood floor decking. The first fragment starts out in the shoreline plaza with dimensions of 5 feet tall, 80 feet long and 9 feet wide. This section is the longer of the two and is supported in the border of the plaza. The second piece continues unto the tower’s base with dimensions of 8 feet tall, 48 feet long and 9 feet wide. The two sections are then supported in a structural joint at their merger point. The two bridge sections are also interconnected amongst themselves and its supporting areas by a series of tension cables that provide additional carrying capabilities to the continuous loads caused by its users. The cable located on the section of the bridge departing from the tower runs atop the bridge and connects to the structural joint while the cable on the section of the bridge departing from the plaza runs below the bridge also connecting to the structural joint. Thus, the cables not only provide additional load carrying support but also provide a distinctive appearance to each of the sections.

4. National Research Council, *Bridge aesthetics around the world* (Washington, D.C.: Transportation Research Board, National Research Council, 1991), 32.



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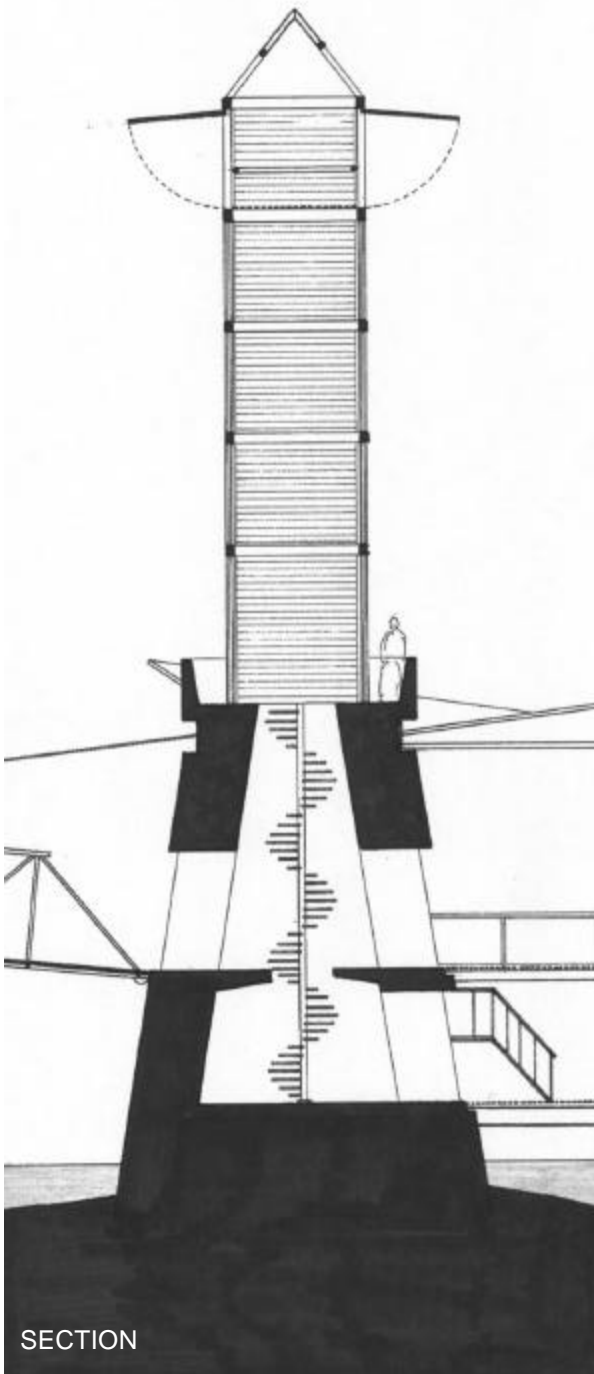
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The fish market's tower was designed as a landmark, as the dominant element in the urban planning of the town of Puerto Real. The design of this architectural element was intended to *"contribute as well to the beauty of the town, to the enrichment of the landscape, and hence to the joy of the people"* 5.

The intention of the tower is to function as the anchor of the project. This anchor feature has a dual function: as a visual connector between the project and the town's people and as the main structural element supporting the market and the bridge. The visual connection attribute allows the tower to be seen from the town and the town to be seen from the tower. Surpassing in height all existing structures in the area, the tower will serve as a guide or landmark for visitors and residents alike to orient regarding the project, the shoreline and the water. Being the main structural element the tower is designed with a concrete cone base (40 feet high, 20 feet in diameter) and a structural steel structure body (50 feet tall, 10 feet long and 10 feet wide). The cone concrete base is the structural element that supports the tower's body, the bridge and market's steel roof structure. Wood louver walls allow visitors to see through the walls of the tower providing a bird's eye view of the town.

The tower also becomes the project's space that distributes the circulation through the building. From this space you can choose between going to one of the two levels of the market through the stairs or the ramp, going to the plaza through the bridge or going up to the balcony at the top of the tower to admire the view of the bay.

5. Erwin Heinle and Fritz Leonhardt, *Towers: a historical survey* (New York: Rizzoli, 1989), 7.



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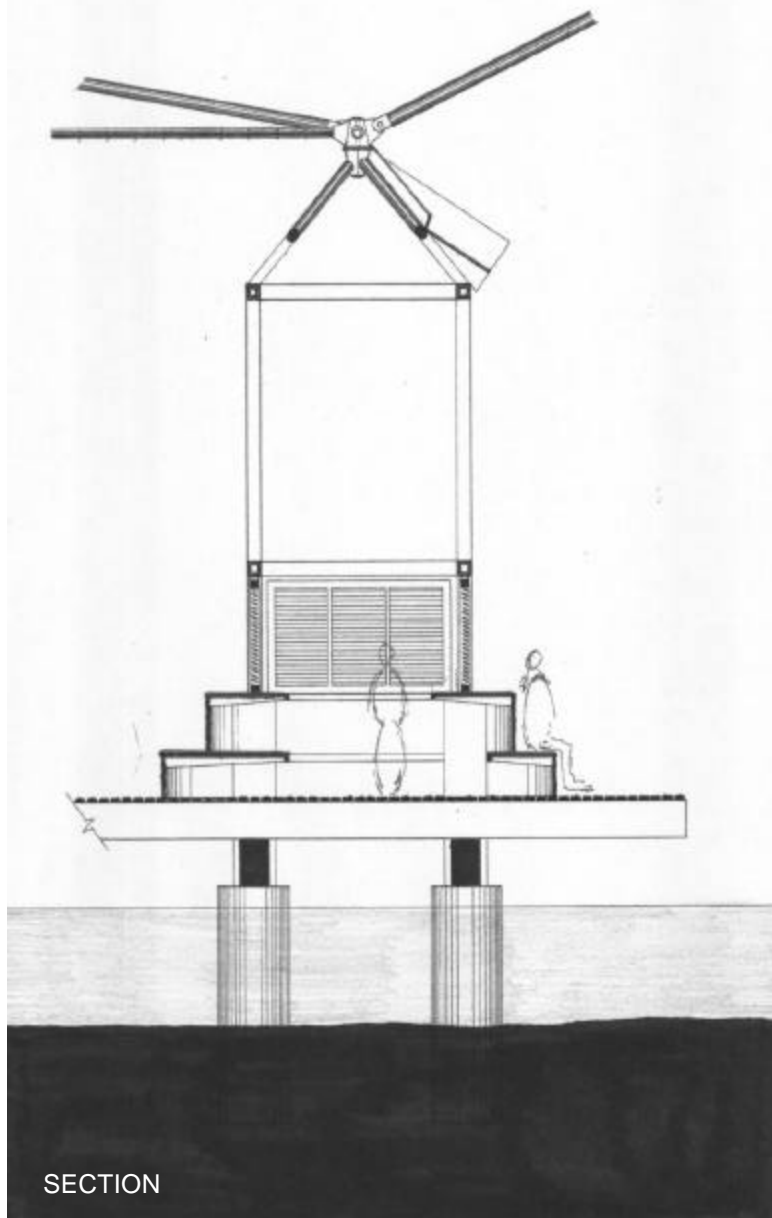
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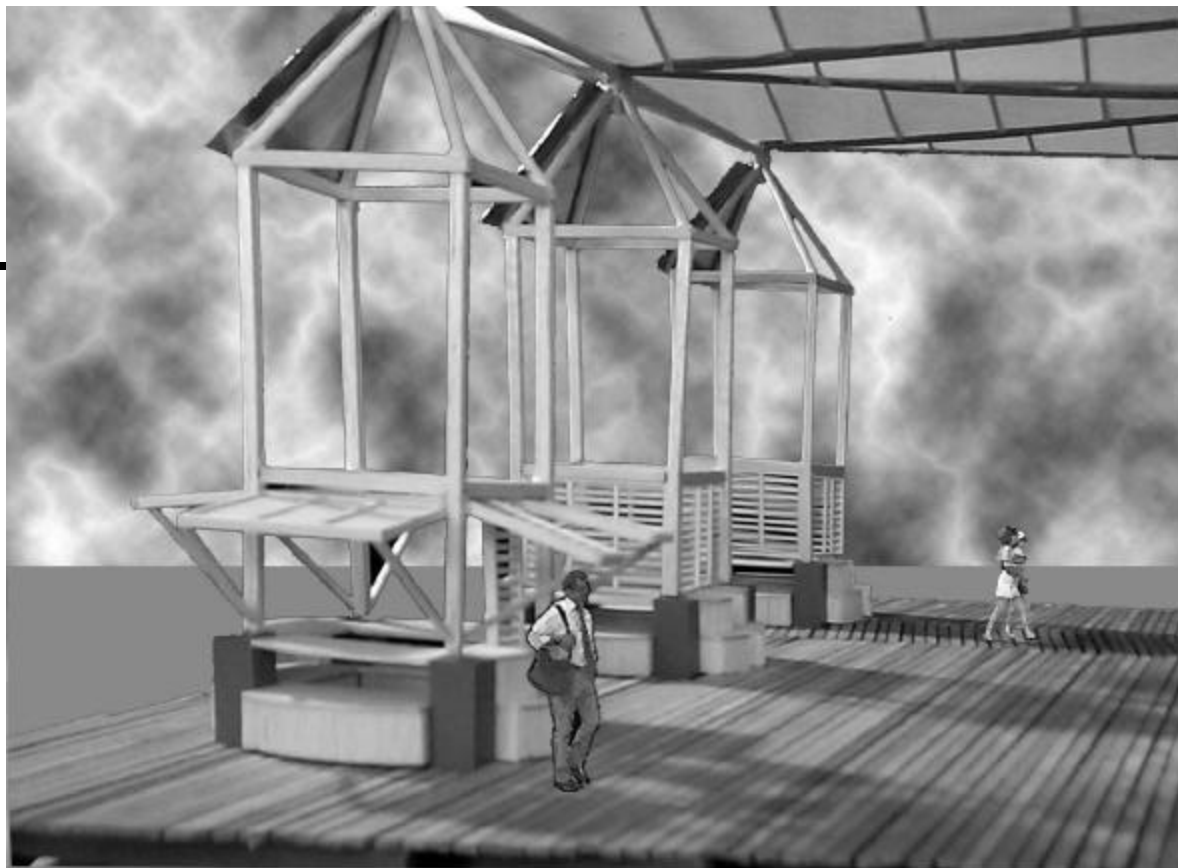
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The kiosks or retail spaces were designed in concept as large columns that interpolate rhythmically throughout the open space provided by the wooden deck of the structure. Each kiosk is composed of four slender steel columns that are connected at the top to the roof steel structure by a joint and at the bottom to the concrete pile foundation. The service area consists of a wooden base which works both as display area for the fishermen as well as a working surface. Wood louver doors enclose the kiosk space while maintaining the idea of transparency and providing ventilation and shade to the interior of the kiosks.



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