

Tarragona Cruise Terminal





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Engineering: CQD Ingeniería (Structure), JG Ingenieros (MEP), Xavier Ferré (MEP on site)
Contractor: Serom
Industrialized Modules Contractor: Nevo
Client: Port Tarragona, Global Ports Tarragona SL
Photographer: Simón García / Stupendastic
Vídeo: Simón García / Stupendastic
Location: Muelle de Balears, SN, Tarragona
Completion year: 2024
Area: 2851 m²
Prizes and awards: 1st Prize in the project, work and concession competition for the construction of the public passenger terminal. Port Authority of Tarragona.

Faced with the challenge of an unpredictable future marked by rapid changes and shifting needs, we propose an architecture capable of evolving over time, allowing for expansions, transformations, or reductions to adapt to new demands without losing its architectural qualities. It should even be possible, if necessary, for the structure to be easily and economically dismantled. Perhaps, instead of pursuing the traditional notion of eternal and heavy architecture, sustainability and current demands call for a lightweight and modular architecture that facilitates future changes and aligns with modern production methods, which no longer rely on increasingly scarce traditional construction but on industrialized processes.

In this context, the Tarragona Public Passenger Terminal explores modularity and off-site industrialized construction. However, rather than resorting to the conventional stacking of rectangular boxes, it proposes complex geometries inspired by tradition and the mathematics of plane tessellation. These non-orthogonal geometries enhance passenger flow and allow for spatial explorations that create a plastic identity linked to Mediterranean architectural heritage.

The proposed geometry also represents a triumph of the organic forms of the underwater world over the rigidity typical of port infrastructure concrete.

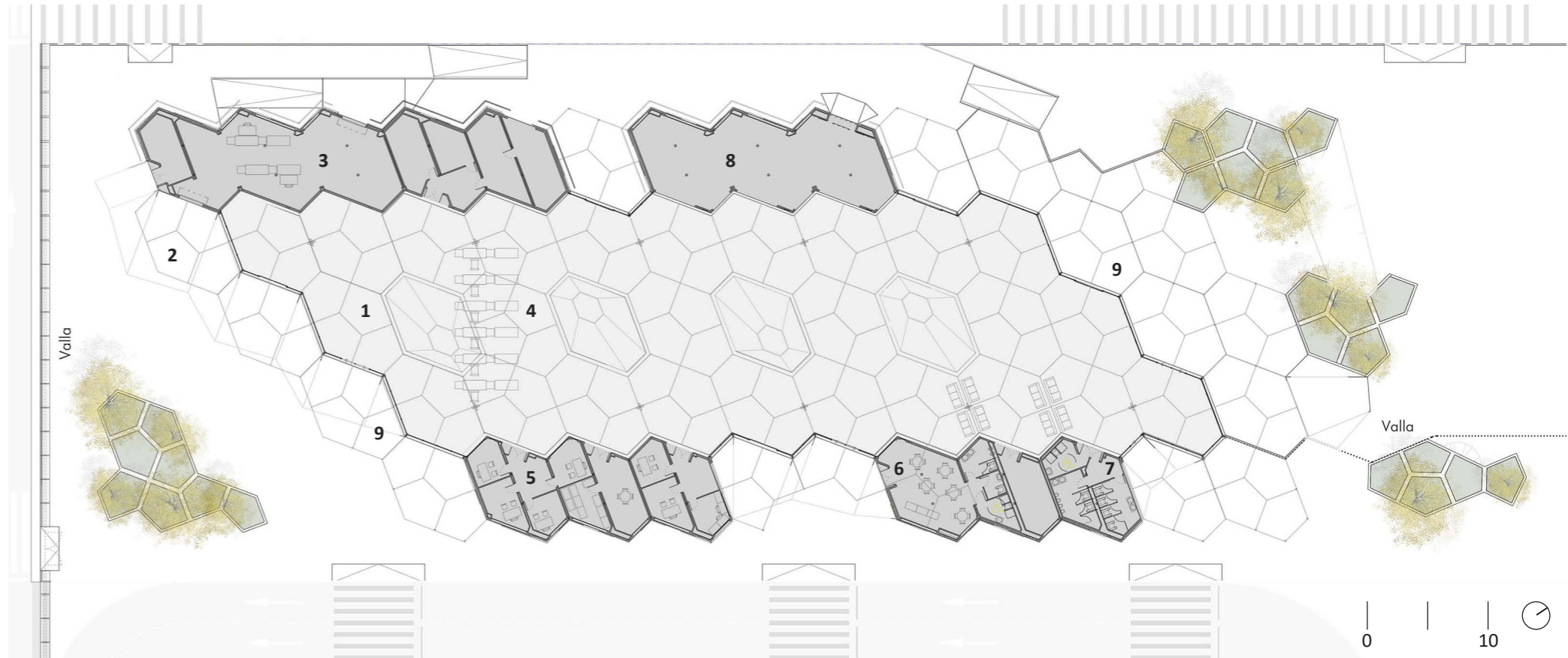
The large scale of cruise ships offers passengers an aerial perspective, turning the roof into the building's main facade. A unique pattern reveals the interior geometry of irregular pentagons, all identical, crowned by large skylights that evoke mollusk-like shapes. This design nods to Mediterranean traditions, from Roman mosaics to Modernist trencadís.

The architecture reflects, without artifice, the essence of an economical and sustainable construction. Inside, the dynamic geometry is mirrored in the visible metal structures of the ceiling, reminiscent of ancient Catalan markets. Natural light has been designed to suggest an underwater landscape, creating a pleasant environment that transforms transit into a delightful experience.

The lightness of a construction can be an indicator of its sustainability. The amount of mass mobilized reflects the use of material and energy resources. In this case, the building's weight is especially critical due to the limited load-bearing capacity of the artificial dock reclaimed from the sea. A traditionally constructed building could not be founded on this soil layer due to its weight, requiring piles over 25 meters long to anchor to the seabed. The lightness of the construction has allowed for a shallow foundation, a more sustainable solution both economically and environmentally. Never has Fuller's question to Foster about the weight of a building been more pertinent.

This lightness, along with its off-site industrialized construction, contributes to environmental achievements: a 55% reduction in waste, a 60% reduction in CO2 emissions, and an 80% reduction in water consumption compared to the average of traditionally constructed buildings. It is easily expandable, dismantlable, relocatable, and recyclable, with an energy rating of "A." Moreover, its execution was completed in record time, minimizing the uneconomical occupation of the dock, inconveniences to citizens, and environmental impact. The modular industrialized construction carried out in Almería allowed most of the work to be completed in less than 10 months, ensuring reliability and quality by avoiding the unpredictability and chaos typical of traditional construction, which relies on artisanal methods in a context of scarce skilled labor. In short, the building is an adaptive architecture designed to meet current needs.





- 1. Passenger reception
- 2. Baggage claim
- 3. Scanners
- 4. Security Control
- 5. Administration Office
- 6. Coffee bar
- 7. WC
- 8. Retail
- 9. Exterior canopy

