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MATAMOROS MARKET: SYNTHESIS OF THE CULTURE

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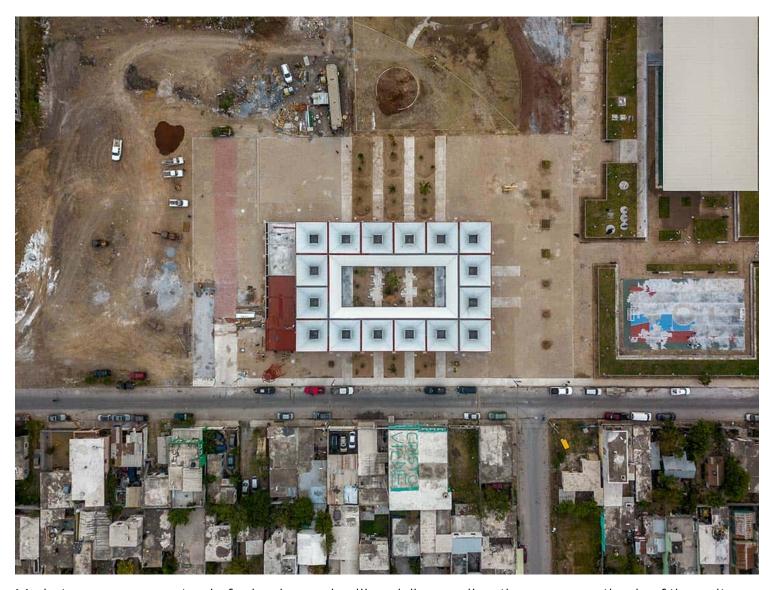


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"This city has many squares with continuous markets. It has one square twice as big as the city of Salamanca, surrounded by galleries that receive over sixty thousand buying and selling people per day..." (Hernán Cortés, 1521)



Markets are spaces not only for buying and selling daily supplies, they are a synthesis of the culture,

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the history of a region and of the commercial relations with its neighbors. These places have historically housed all kinds of products, habits, traditions, artistic expressions, knowledge, and world visions.





Vernacular constructions in Northeastern Mexico have a naturally defensive character and resource economy. The need for protection against a hot climate and the lack of humidity resulted in solid

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archetypes with massive proportions. The use of inner patios, local materials, cross ventilation, orientation, and façade density to protect from direct sunlight are some of its principal characteristics.



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Strategy

In late March 2019, the Faculty of Architecture of the National Autonomous University of Mexico (UNAM) summoned a group of academics who are also architecture practitioners to take part in a competition to design replicable projects for a number of public facilities, convened by the SEDATU (Secretary for Urban and Territorial Development). The facilities were located in places of high vulnerability, in North-border cities. The timeline for the projects was three months for the executive design and three months for construction. With a limited budget, this market was built from December 2019 through March 2020. It would have opened on April 4th if the COVID-19 emergency had not happened.

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We considered three fundamental design strategies. First, for the constructive criteria, we reduced civil construction to 50% and left the remaining 50% for lightweight prefab techniques. Second, we focused on material adaptability, so the proposal would be adaptable to different locations across the country. The third strategy was spatial versatility, in accordance with its flexible spirit. The ambulatory nature of markets, population variation because of migration, and the lack of infrastructure resources at border cities provided the setting to imagine a mixed-use public space

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with green recreational areas. Rather than designing a particular type of building, we thought it was essential to offer a flexible system for the community capable of strengthening social bonds and generating a sense of belonging, evoking the spirit of the original Pre-Hispanic "Parián" markets that achieved a perfect balance of square and market.





Matamoros Market

The architectural structure is located in a residual plot within a residential area on the outskirts of

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Matamoros city. The building is set back from the street in order to make room for a public square and future garden. The first component, the wall, recalls the solid and hermetic vernacular structures. Its openings generate a three directional corridor system, connecting with neighboring sport and recreational venues. This perimetral structure houses 40 commercial stands and the service area, serving as a backdrop to protect the stands from the hottest orientations.



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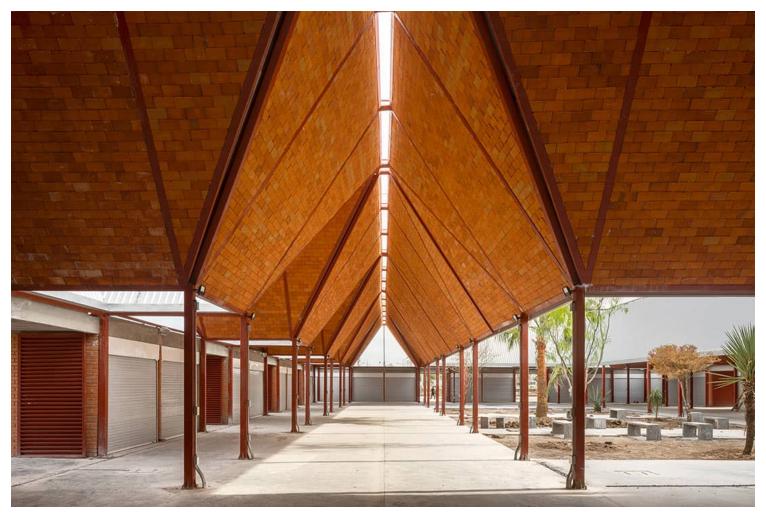




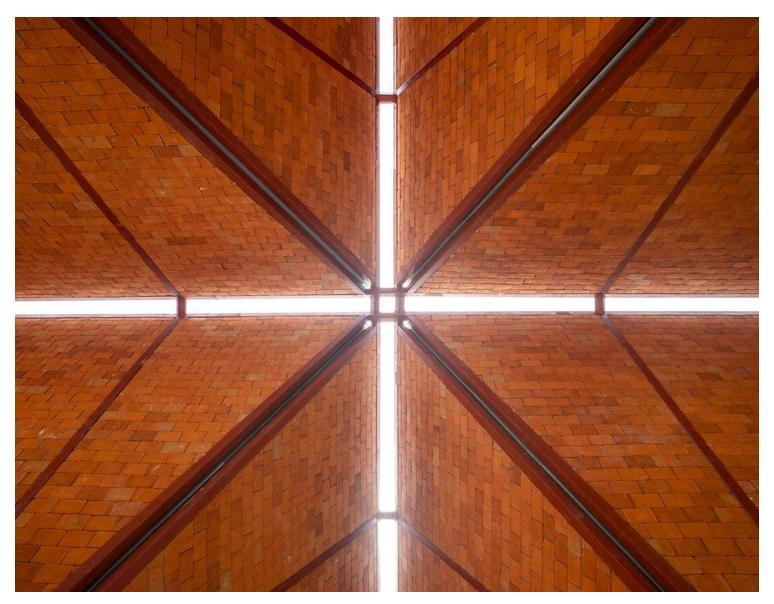
This brick envelope is reinforced by transversal walls that separate stands and generate doorways into the main hall of the project. The central space is a hypostyle gallery made from prefabricated lightweight umbrellas, structured using a system of triangular-trapezoidal metallic modules, clearing distances of up to nine meters and supported by five-inch-thick posts, capable of resisting hurricanes and flooding. The roof slope is calculated to reduce load-bearing and allow proper runoff of water and snow. The constructive system for the roof consists of a lower 2-cm-thick layer of brick that provides thermal insulation and an upper galvanized sheet ideal for rainwater harvesting and

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heat reflection. Linear domes in between structural modules facilitate warm air escape as well as proper natural lighting during the day. Another set of 40 3x3-meter "informal" stands sit under this structural system, which offers spatial flexibility for used by the community.



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Finally, at the heart of the market there is the Oasis: a garden planted with local dry-weather vegetation, irrigated with the harvested rainwater – a flexible patio that in time will grow thicker vegetation to enhance natural shading, thermal control, and provide a new silent space within the city.

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