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This project was to produce a space for making wine in the valle de guadelupe.

The wineries in this region balance two programs, one of production, and one of experience for those who visit them. Because of its geography, the Valle has a number of climatic qualities that frustrate both of these goals. This project proposes a system for producing, at the scale of the winery, the microclimate need for producing and enjoying wine. And that means not only producing the climate conditions needed for enjoying the space, but to produce the social conditions as well. To produce a social space for the visitor.

To accomplish this goal, this project employs two tectonic systems. A cloud and a crater. Which together make the experience of climate making visible, recognizable, visceral.

1. Is a solar balloon. During the day, the balloon traps heat from the sun, heating and then lifting off the ground. Cables spanning from the ground to the balloon can be used to tether it in a particular relation to the sun. This system is light, often transparent, ephemeral.

2. The other system is essentially its opposite. The ground is sculpted using bags filled with earth. The bags serve as retaining systems for most of the site, following the topographic lines, and when these topographic lines collect at the walls, the bags organize there as well. So the landscape is able to collect for the purpose of forming enclosure. This system is heavy, more permanent.

These two systems work together to produce a set of three climate, social and spatial conditions.

1. When the plaza needs shade, the balloon is positioned between it and the sun, producing a patch of shade within the plaza. This allows for work or visits to occupy the outdoor space during the hottest part of the day.

2. When the begins to cool off, the balloon can be moved out of the way of the sun, allowing light to penetrate to the thermally massive earth system below, warming it.

3. So that at night when the valley cools off, the valley experiences obvious diurnal swings the earth has some heat to radiate back out. The cloud, which is also cooling, then settles on a cable net covering the plaza, now not to block light, but to retain heat in this space. This position is designed for night gathering activities, such as cooking with fire.

w/ MIT Sheila Kennedy
1. When the plaza needs shade, the balloon is positioned between it and the sun, producing a patch of shade within the plaza. This allows for work or visits to occupy the outdoor space, making it possible to enjoy the space for certain activities. These two systems work together to produce a set of three climate, social and spatial conditions that reduce the internal heat gain to roughly 3000 BTU/hr.

2. When the plaza begins to cool off, the balloon can be moved out of the way of the sun, allowing light to penetrate to the thermally massive earth system below, warming it. This is necessary to cool off the space around 7913 BTU/hr.

3. So that at night when the valley cools off, (the valley experiences obvious diurnal swings) the earth has some heat to radiate back out. The cloud, which is also cooling, then settles on a 3 cm Weathering Steel Plate, a protective layer against the ambient temperature. The Steel Rebar Cage provides structural support, and the Concrete Footing anchors the entire assembly to the ground. Steel W Section contributes to the overall stability of the enclosure. Geotextile Sock and Metal Plate offer additional insulation and protection, while the Geotextile Sock also helps in water drainage and root penetration prevention. The Water Proofing Membrane ensures that the entire structure remains waterproof. The Finish Wood Panel and Tar Gutter provide aesthetic and functional finishes to the enclosure. The Low E Double Glazed Window reduces heat loss and gain, significantly improving the energy efficiency of the space. Washer and Sealant, Window Casement, Welded Steel Bolt, Blocking, Steel Column and Foundation Detail are all critical components that ensure the structural integrity and durability of the enclosure. A Heat Gain Through Facade is calculated during winter night and summer day, which is essential for understanding the thermal behavior of the enclosure. A Heat Balance table is provided, comparing Int Air Film, Rigid Insulation, Vapor Barrier, and Ext Air Film, highlighting the importance of each component in maintaining the desired conditions inside the enclosure.

The project is to produce a space for making and enjoying wine in the valle de guadelupe. The wineries in this region balance two programs, one of production, and one of experience. The project employs two tectonic systems, a cloud and a crater, which together make the experience of climate making visual, recognizable, visceral. These two systems work together to produce a set of three climate, social and spatial conditions. These conditions are not permanent. Instead, they are created and maintained through a series of interventions and adjustments. The interventions include the placement of the balloon, the positioning of the cloud, and the placement of the bags. Each of these interventions is designed to produce the climate conditions needed for enjoying the space, but to produce the social experience of climate making visual, recognizable, visceral. To accomplish this, the project employs two tectonic systems, a cloud, and a crater. These two systems work together to produce a set of three climate, social and spatial conditions. These conditions are not permanent. Instead, they are created and maintained through a series of interventions and adjustments. The interventions include the placement of the balloon, the positioning of the cloud, and the placement of the bags. Each of these interventions is designed to produce the climate conditions needed for enjoying the space, but to produce the social experience of climate making visual, recognizable, visceral.
YMCA in Coney Island

This project was to design a new YMCA building on its existing site in Coney Island. Like all YMCAs, the Coney Island program is diverse and community-minded. This program has made the existing YMCA building an active and vibrant place. The Y’s Coney Island context, however, remains underused. This project, then, was a good opportunity to rethink how a building could transform the YMCA’s institutional vibrance into an urban.

We started this project by reimaging it as a zoning exercise. In order to better activate the currently under-used urban environment, the project first proposes expanding the current program of the YMCA to include both commercial and residential spaces.

We propose expanding the building to produce an urban scale street wall. The functions of the YMCA would be stacked with residential on the top, Y in the middle, and commercial spaces on the level of the street. These functions would be bridged by a monumental ramp, which also creates a direct visual connection between the beach and the YMCA.

Openings would be cut through the residential and commercial volumes, producing additional streets through the building. On the top, residential volumes would read at the scale of a townhouse and have shared outdoor roof space. On the bottom, additional openings would produce additional store fronts.

w/ MIT Christoph Kumpusch
2 Theaters

This project was to design a pair of theaters on an urban site in Boston. To accommodate the tight footprint, the two theater types were collected and stacked into a block at the center of the building. This freed up space between the theater and curtain wall for lobby and circulation functions.

On the site's two free facades, the building is veiled in an undulating curtain, dramatizing the activity inside. The site is divided into two levels. Audiences enter at the upper level, slipping into the lobby under the curtain facade. The lower level allows load-in to the theater space.

The theater boxes are wrapped in circulation space. Before the show, audience members descend from a gathering space on the top level to the theaters below. Along the way, a series of balconies reach from the circulation space to folds in the curtain facade, producing alcoves for gathering before shows and during intermission.

w/ MIT Liam O'Brien
Drop Ceiling

The project was to produce an architectural intervention at the scale of a room. Our solution was to use lightweight, found materials to produce a cloud in a hallway at MIT.

At eight feet above the floor, we ran lines of string. We secured these strings to the wall using a jig made of pushpins and flexible plastic tubing. This allowed us to adjust the tension in the lines. In the opposite direction, we tied shorter lengths of string that could be used to change the spacing between lines.

The space’s high ceilings and skylight meant that the translucent balloons reflected the changing light over the course of the day.

w/ MIT, Ben Hoyle, Clarence Lee
Parque del Este: Parafictional Archive

The goal of this project was to offer a critical reading of Burle Marx's Parque del Este in Caracas, Venezuela, accomplishing the following in the process:

1/ Compile historical and architectural research on the park.
2/ Craft an innovative method for presenting this research.
3/ Offer an interpretation of how politics and economics factor into the design process of the park.

In reasearching the park, we found that little was known about why Burle Marx, a Brazilian Architect, had been given a major Venezuelan project. We decided to craft our own parafictional explanation that wove together Latin American, U.S., and Architectural History.

The goal was to, through the lens of Parque del Este, illustrate the types of forces that would have influenced its development.

The narrative we crafted starts with the history of Venezuela. Where there were holes in the record, we invented our own documents, weaving together Venezuelan politicians, a political coup, Standard Oil, Le Corbusier, and landscape architecture.

The project's final form was a book that explores and explains a fabricated archive. We mixed real documents with forged in order to tell the story visually.

w/ Princeton SDA Mario Gandelsonas, Ben Denzer, Meghan Duarte
In celebration of the event, a naval battle was recreated in the ponds of Parque del Este between Miranda’s and Columbus’s ships. Newspapers reported that the event was well attended by the public and featured expensive pyrotechnics.

It is interesting to note that the confrontation recreated during the pageant never actually occurred. Considering that the lives of Miranda and Columbus did not overlap, such a meeting would have been, at very least, improbable.