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PONCE ARCHITECTURE

An award-winning, research-driven design practice exploring the intersection of culture, context, and the built environment.

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Celeste Ponce, founder and principal of Ponce Architecture, is a registered architect. She earned her Master of Science in Advanced Architectural Design from Columbia University’s Graduate School of Architecture, Planning, and Preservation, where she was awarded honors for Excellence in Design. She holds a Bachelor of Architecture from the University of Houston. Celeste is a faculty member at the University of Houston’s Gerald D. Hines College of Architecture and Design and is a LEED Accredited Professional and a member of the American Institute of Architects.

Her research, “Seeing Double: A Journey Along the Rio Bravo,” was featured in *Cite 103* (Rice Design Alliance, 2022) and exhibited in a solo show at the University of New Mexico’s School of Architecture and Planning in 2018. Her writings on Houston’s East Side have appeared in *Texas Architect* magazine’s March/April 2021 (Nature/Culture and Commercial) and July/August 2023 (Public/Private) issues.

“The Mediatized Church Box”

Mega-church architecture is not a reemergence of the “church as theater” influences of the 1880s and 1890s. Instead, the influence appears to be a result of television or as Marshall McLuhan states a “switch from a visual world to an auditory one.”

The stress-free TV environment of the typical malls, movie theaters, car, and sports arena are the new inspirations for the Mega-Church.



“Social Landscapes,” Existing prefabricated metal church building in rural Northeast Houston.



Woodlands Christian Center, Spring, Texas, Ponce Architecture, Photography by Paul Hester

Woodlands Christian Center

Spring, Texas

The client approached us with a series of design constraints for their 10,000 square foot prefabricated temporary sanctuary. These included a modest budget, the limitations imposed by the building manufacturer, and the challenge of redefining sacred space without natural light. The pastor requested we set aside traditional notions of church architecture

and instead create a “black box” environment suitable for his illustrated sermons.

Our goal was to make the most impact within these constraints while establishing a unique identity for this innovative church. The solution was an undulating roof that became a defining feature of the church. It drew attention while blending with the surrounding landscape, incorporating the site’s existing trees that punctuated the roof. The roof’s dynamic form is also connected with the movement of the adjacent interstate.



“Social Landscapes,” Index of existing prefabricated metal church buildings near site in Northeast Houston



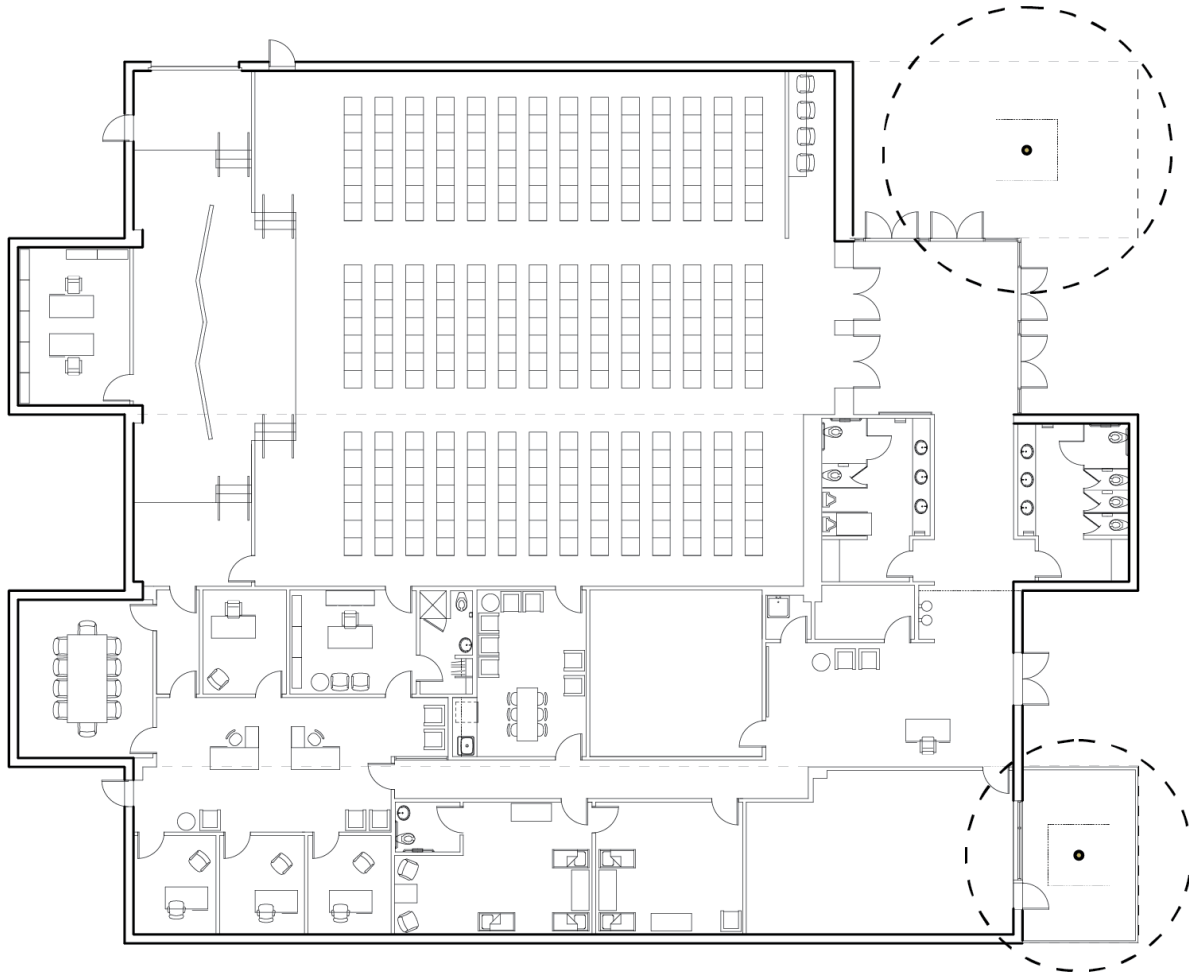
Woodlands Christian Center, Spring, Texas, Ponce Architecture, Photography by Paul Hester



Woodlands Christian Center, Spring, Texas, Ponce Architecture, Photography by Paul Hester



By reducing the design to its most essential prefabricated elements—windowless facades, roof slope, material, and structural constraints—we created a design free of unnecessary ornamentation. This simplification allowed the form to be interpreted in various ways. In this way, the design’s form is the sum of its “constrained” parts while challenging traditional notions of worship and sacredness inside a black box.

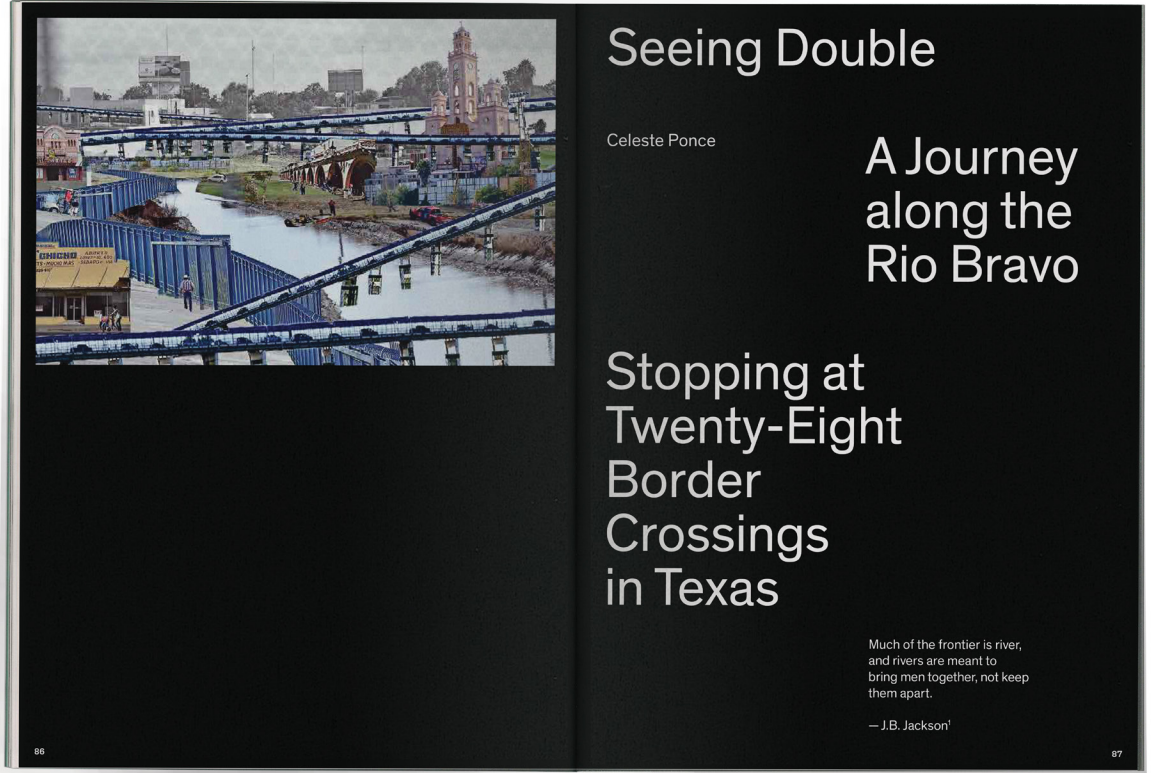


“Seeing Double: A Journey Along the Rio Bravo, Stopping at Twenty-Eight Border Crossings in Texas,” *Cite 103*

In J.B. Jackson’s first issue of Landscape magazine, Jackson describes human geography by quoting French geographer Maurice le Lannou.

“We have before us a picture, constantly being retouched, that is vigorously composed of spots of light and zones of shadow, of remarkable convergences of lines of forces at certain points, of road networks sometimes loose, sometimes closely knit.”
-Maurice le Lannou

Today, conversations about the Texas–Mexico border are about fears projected onto a wall. I’m interested in a different picture; one made through life overcoming misconceptions and prejudice. Is it possible to turn the transgression that the closed border and its objects represent into an open dialogue about reciprocity? Can we convert this topographic aggression into a more appropriate demarcation and inspiration for people on both sides of the river?



“Seeing Double: A Journey Along the Rio Bravo, Stopping at Twenty-Eight Border Crossings in Texas,” *Cite 103*, Ponce Architecture



Extreme Cheer Star along Commercial and Ford near the International Bridge I, Eagle Pass, Texas.

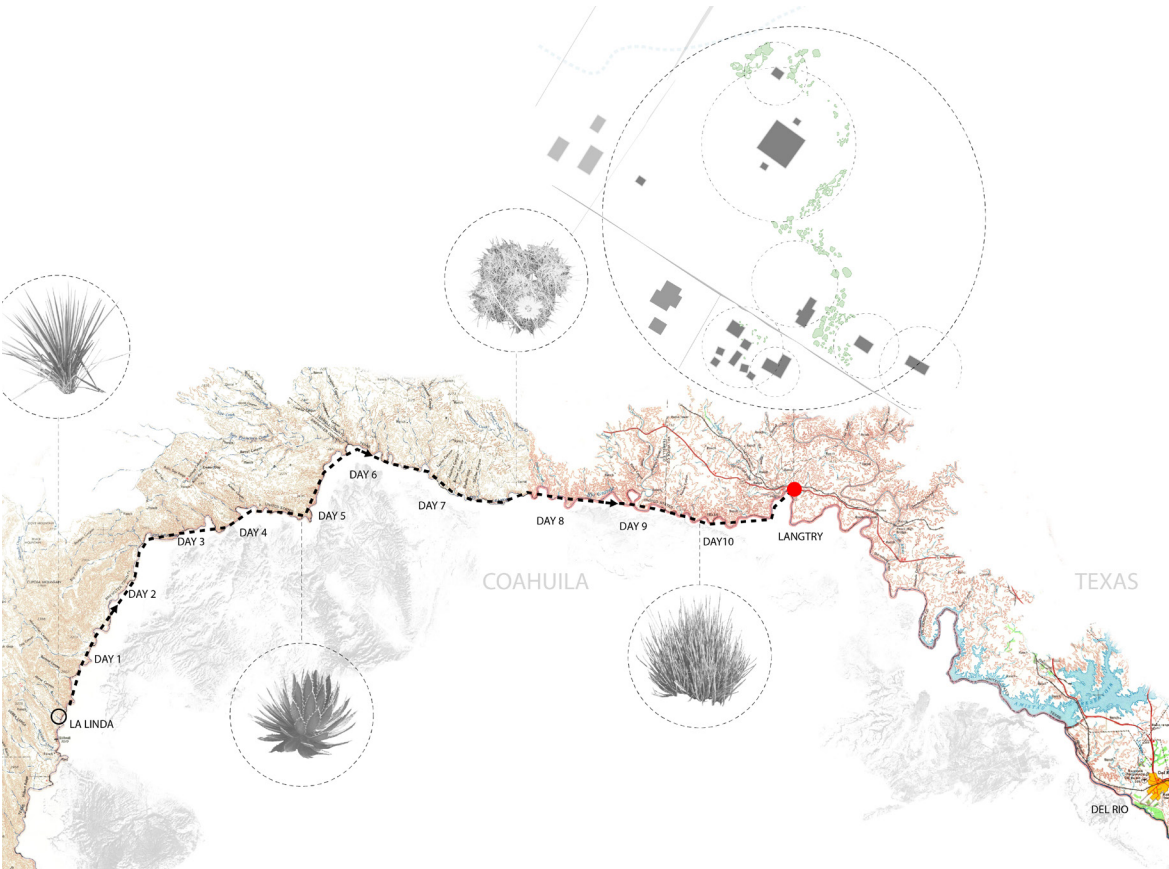


Texas Border Port of Entries, Brownsville – Donna, Texas.



Ysleta–Zaragoza Wall between El Paso, Texas and Ciudad Juárez, Chihuahua.

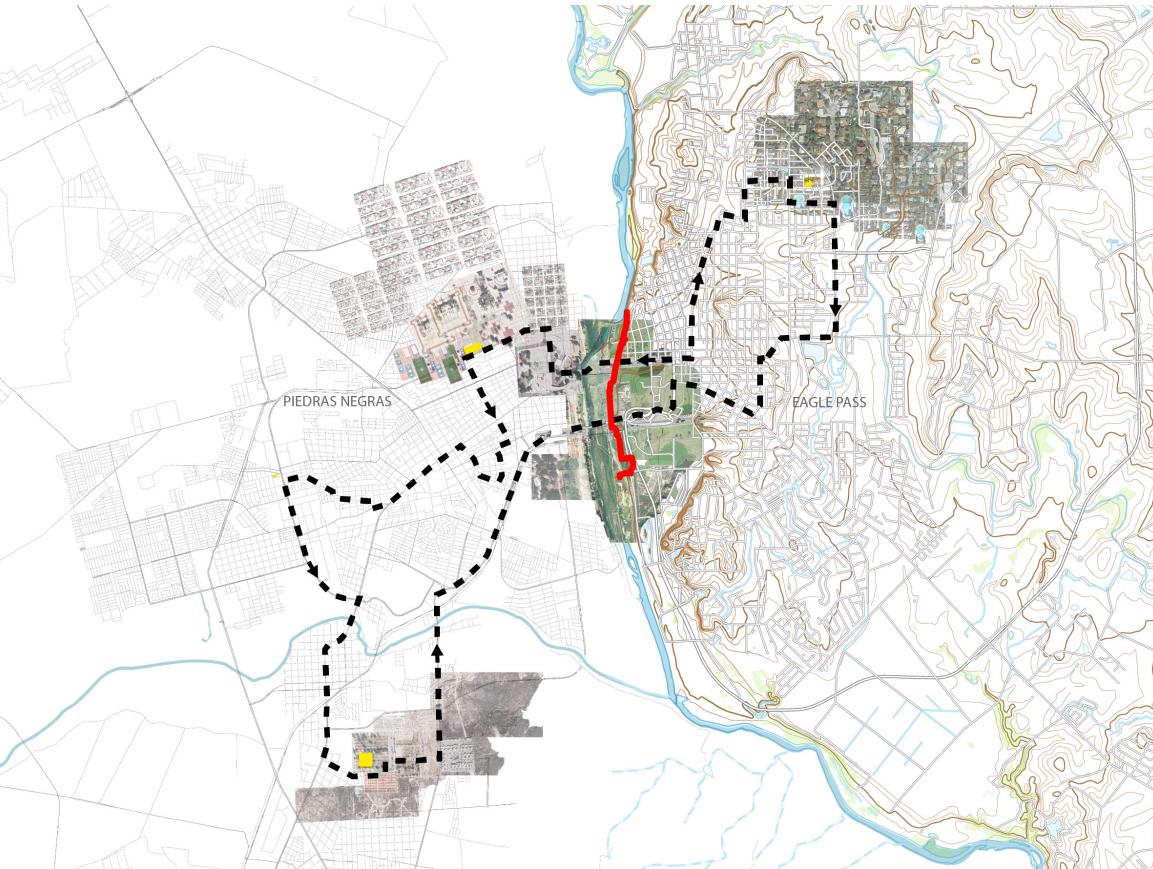
Oralia Trevino Parra describes how her family carefully orchestrates their daily schedule around the most advantageous choices. These choices collectively make up a series of binational selections. The daily, weekly, and monthly crossings illustrate a sophisticated network used to stitch the binational exchange of the Parra family into a single fabric.



Langtry is vulnerable to the environmental impact of droughts and rising temperatures. Bowden is trying to slow the process through his plantings. The map illustrates his excursions to collect plants from both sides of the river.



Keith Bowden standing in front of a view of the Rio Grande in Langtry, Texas.



Oralia Parra's Daily/Weekly/Monthly Networks that oscillates between two options for almost every area of their lives.



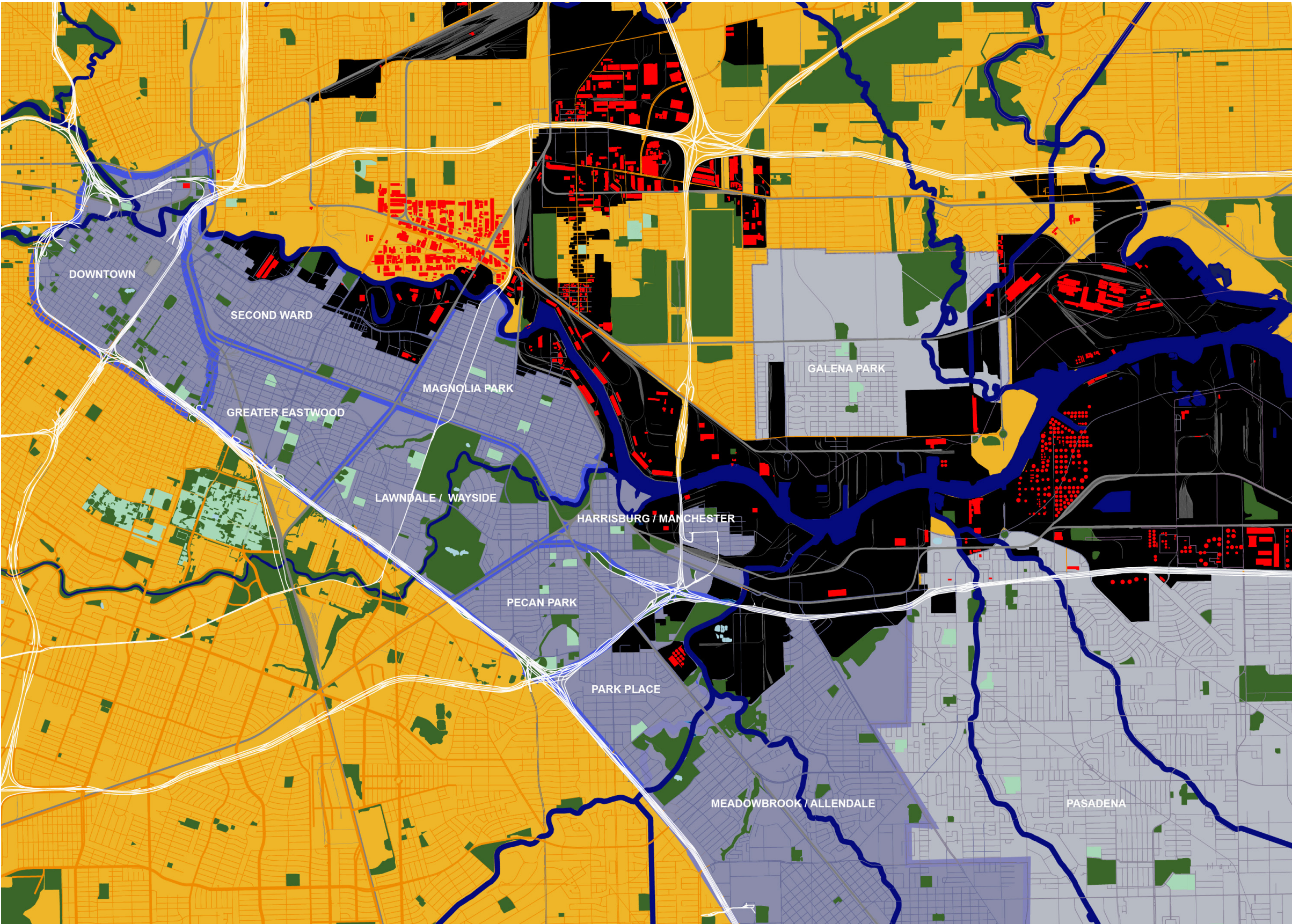
Oralia Parra in front of Ruiz & Associates, P.C, in Eagle Pass, Texas.

Keith Bowden, a retired English professor from Laredo, resides in Langtry just west of Eagle Nest Canyon, also known as Mile Canyon. A short walk from his front door leads you to a view of the canyon's dry rock shelters, burned rock middens, and prehistoric caves. The Rio Grande laps at the foot of the canyon walls. The well-preserved pictograms, fossils, and other artifacts in the rock shelters have made the lower limestone canyonlands into an archaeological site.



“Seeing Double: A Journey Along the Rio Bravo, Stopping at Twenty-Eight Border Crossings in Texas,” *Cite 103*, Ponce Architecture

“The environmental imprint that man makes in 140 years is depressing. Overgrazing by stock, a century of trash, and decades of neglect magnifies the problem. I plant gardens around trash piles. I remove non-native plants and replace them with native species I collect from the surrounding countryside. I am not going to stop people from throwing trash so the transplanting may slow down the possibility of the trash and invasive plants from igniting.” – Keith Bowden



An East End site map highlights the industrial parks (shown in black) and adjacent schools, parks, and residential communities.



Fenceline properties for sale in front of BWC Terminals on Becker Street in Manchester.



Car/tire service and drive-through bar named Michelada on Pasadena Boulevard.



“In the Air”, *Texas Architect*, Feature Volume 71, Issue 2 – Nature/Culture, March/April 2021



Valero Campus in Manchester.

“In the Air”

Texas Architect, Feature Volume 71,
Issue 2 – Nature/Culture, March/April 2021

Featured in *Texas Architect*, “In the Air” describes a topographic view of three East Enders’ daily struggles and personal lives in the backyards of industrial parks in Magnolia Park, Harrisburg/ Manchester, and Pasadena. The photographic journal details where humans and nature collide, while also revealing a human nature defined by culture and resiliency.

“Fuentes de trabajo” (sources of work) is 75-year-old Roberto Castillo’s impression of the industrial plants in Houston’s East End. Castillo was a commercial air duct designer who immigrated to the U.S. in 1967. He settled down in a one-bedroom apartment with his mother and brother in Magnolia Park, along Avenue O, soon after a short-lived stint in Louisiana. “I like to go to Mexico often, so I decided to live in Houston instead,” he says.

We met at Taqueria Allende along Manchester Street in the Harrisburg/ Manchester super neighborhood half a mile south of Brady Island. I was greeted by his son and granddaughter on a sunny afternoon in front of the restaurant’s unpaved parking lot. Roberto Castillo Jr., a former medic and safety director for several refineries, including Valero and Aramco, offered to drive us around. Prior to merging onto U.S. Highway 90 north to I-10, we stopped and photographed the three generations in front of Roberto’s original home. The poignant event was memorialized while a neighbor stared from his second-floor balcony and the homeowner’s pet chihuahua watched from behind the entry door’s fiberglass panel. As we approached Interstate 610, I asked Roberto, Jr. if he would consider moving back to the East End. “Never,” he said without hesitation. “I will never come back here.” Roberto interrupted: “Don’t say that. You never know — you may end up back here. Your family grew up here.” “No, Dad,” Roberto Jr. replied. “The east side situation is bad, and people are complacent. They don’t do anything about it.” We were all silent as the car accelerated onto 610.

“Breathing Lessons”

Texas Architect, Feature Volume 73,
Issue 4 – Public/Private, July/August 2023

“Breathing Lessons” is featured in Texas Architect’s July/August Public-Private-Civic issue. In the article, Celeste Ponce writes about how residents of Galena Park mobilize to fight chemical air pollution. On a late November morning I met with Juan Flores, a lifelong resident of the Houston suburb Galena Park. Flores is also the community air monitoring program manager for Air Alliance Houston, a nonprofit that works with local communities to advance environmental justice.

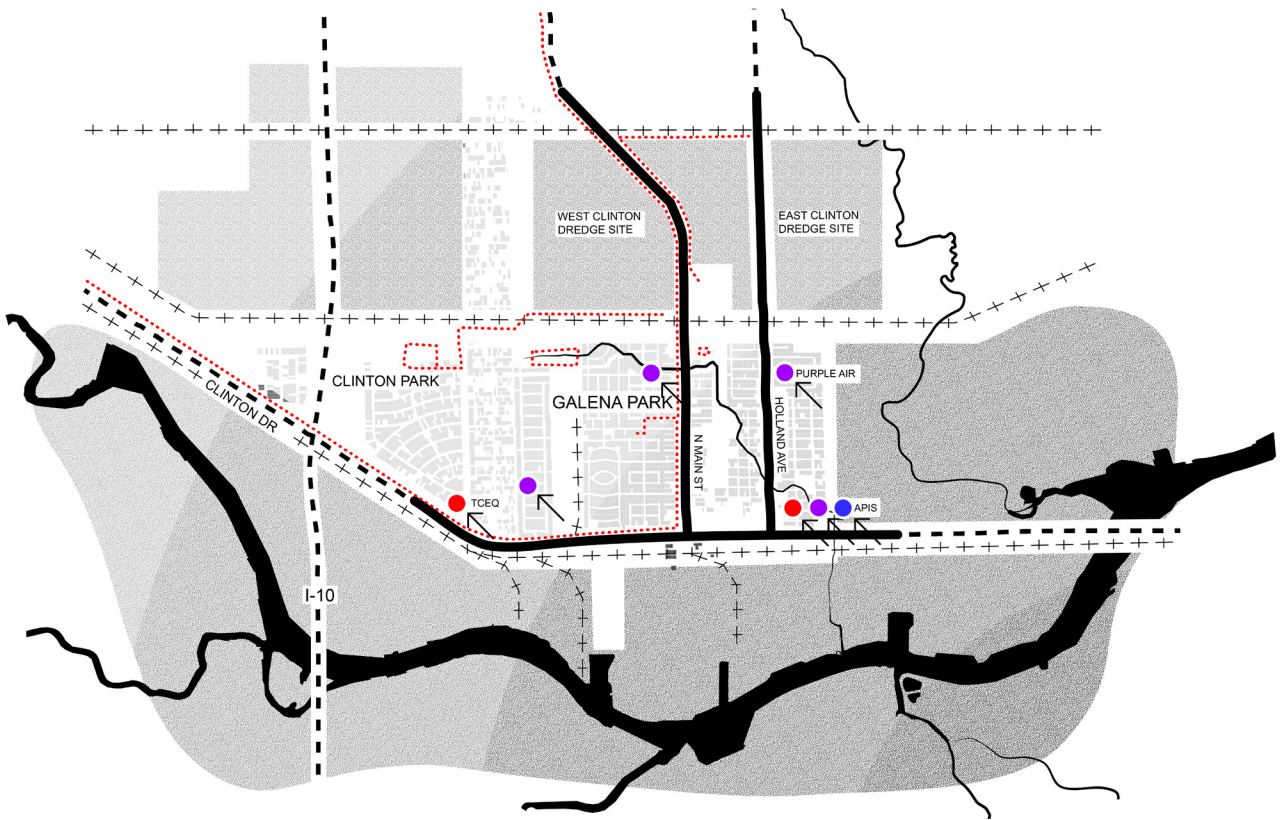
Together, he and I toured the city, visiting key sites along the way. Clinton Drive’s diesel emissions from the north coupled with emissions from the large clusters of refineries and petrochemical plants to the south means that chemical air pollution is a real problem for neighborhood residents — nearly half of Galena Park’s 10,000 residents live within one mile of an industrial plant.



Breathing Lessons

Citizens of Galena Park mobilize to fight chemical air pollution.

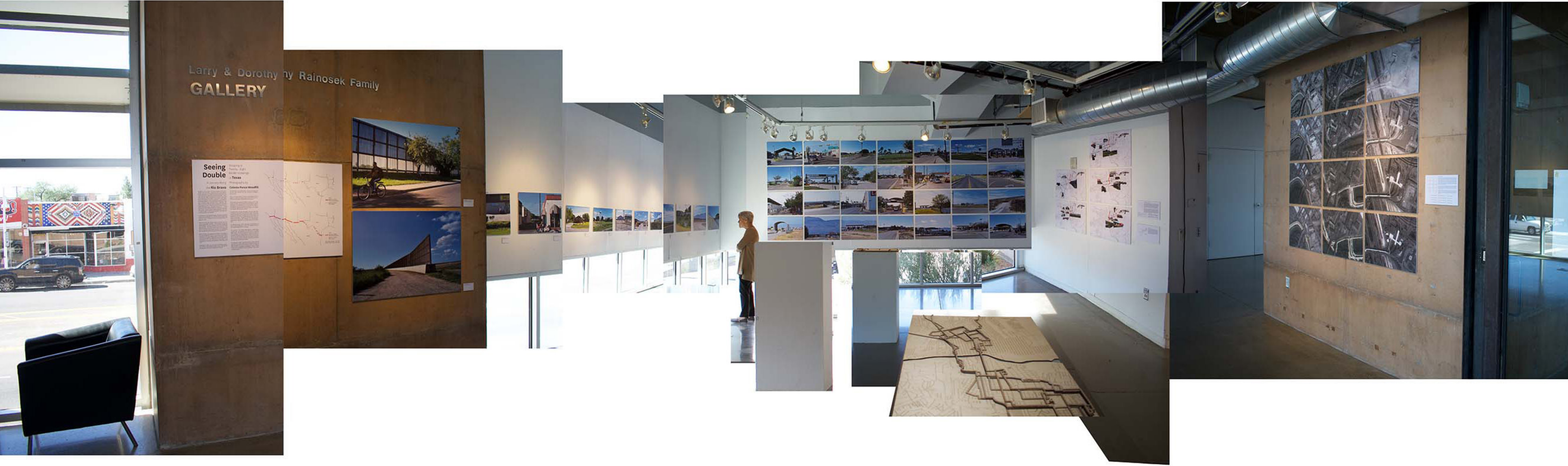
by Celeste Ponce, AIA



Site map highlighting the industrial parks (shown hatched in grey), Juan Flores’s daily routes/paths (shown in red), and the air monitoring networks capturing the prevailing wind from refineries along Houston’s Ship Channel.



Flores in front of the Apis and Purple Air monitors installed at the National Health Care Massage’s light posts along Clinton Drive.



Celeste Ponce was invited to present a solo exhibition at the University of New Mexico School of Architecture and Planning, where she shared her exploration of the U.S.–Mexico Border. The exhibition was accompanied by a lecture as part of the university’s “Food for Thought” lecture series, hosted by the UNM Department of Landscape Architecture.



Hot Ticket: Strategies for Cooling Transit Stops and Adjacencies in Houston’s Second Ward, University of Houston, Exhibition Announcement, POST Houston, Drawing by Rachel Gutierrez.

Hot Ticket: Strategies for Cooling Transit Stops and Adjacencies in Houston’s Second Ward

University of Houston, ARCH 5500
Faculty: Celeste Ponce

Situated south of Buffalo Bayou between downtown Houston and the Port Authority, “El Segundo Barrio”—Houston’s historic Second Ward—stands as one of the city’s most culturally rich and diverse neighborhoods. Known predominantly for its Hispanic population, the East Side became a hub for immigrants in the early 20th century who sought to establish new lives near the Gulf Coast’s booming port.

Today, the East Side remains a vital cultural center, reflecting the intersection of Houston’s maritime economy and its evolving urban landscape. Yet, this community’s cultural and environmental resilience is continuously tested. Bordered to the north by Houston’s 52-mile-long ship channel, the East Side is directly exposed to air pollution from one of the nation’s densest concentrations of petrochemical and refinery plants.



Hot Ticket: Strategies for Cooling Transit Stops and Adjacencies in Houston’s Second Ward, Exhibition, X-Atrium, Post Houston, Photography by University of Houston.

This project explores the social and cultural systems that sustain the community, focusing on economic ties, neighborhood identity, and grassroots mobilization. By examining a corridor along Harrisburg Boulevard extending to the fenceline community of Manchester, students documented the area’s built environment and social fabric through photojournalism, cartographic and diagrammatic analysis, interviews, and fieldwork. The research also investigated the layered topography and historical development of the Harrisburg corridor.

In parallel, students engaged with recent findings from Houston Public Media, which investigated the effects of extreme heat on METRO bus riders. The report revealed dangerously high temperatures inside many Houston bus shelters, with 73% of temperature readings indicating an extreme risk of heat-related illness. Using this context, the studio reinterpreted its historical research as a framework for proposing the next generation of transit shelters and heat-resilient infrastructure for Houston’s East Side.



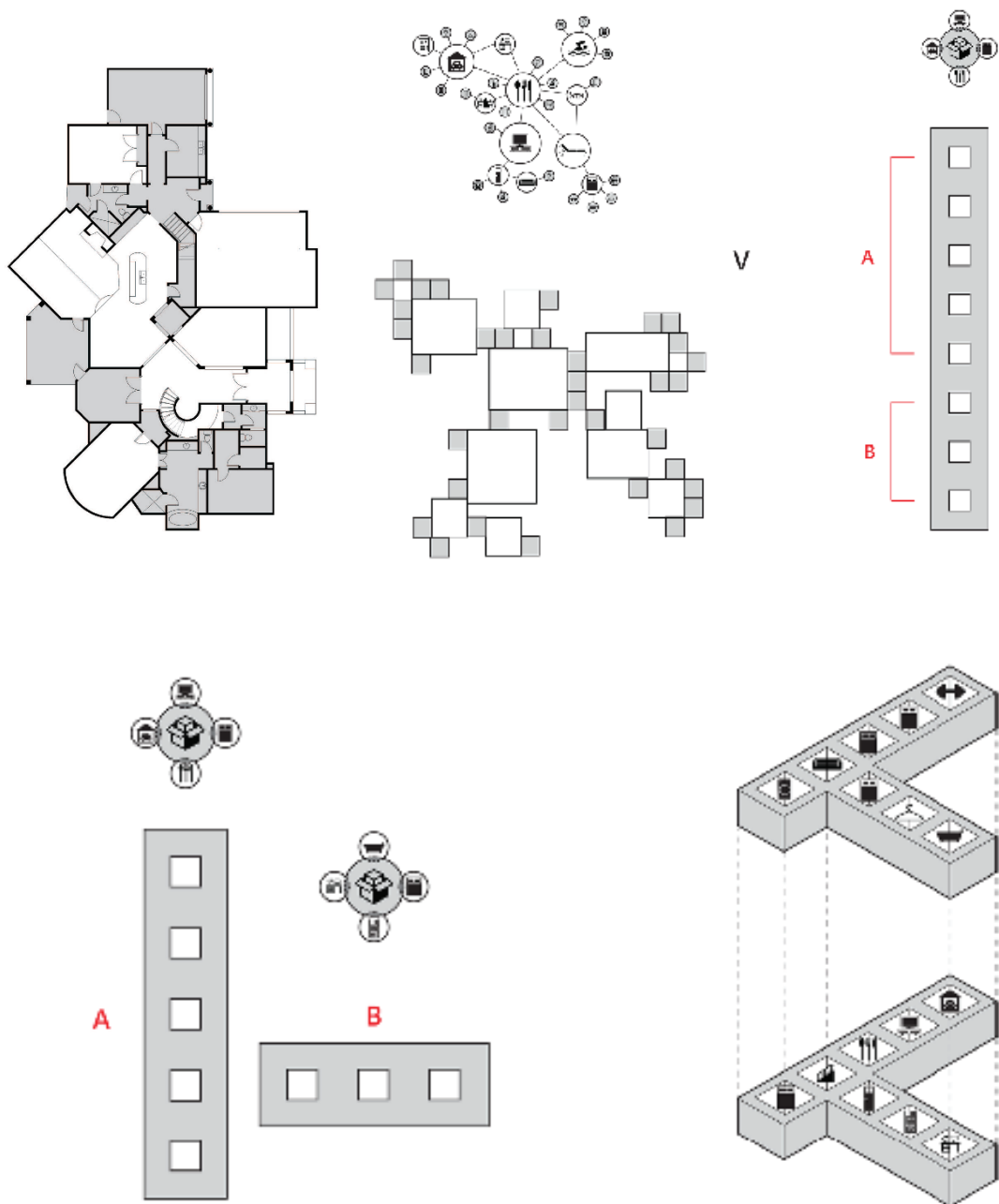
View of Green Line METRORail made up of seven stations along Harrisburg Boulevard serving East Side Houston between downtown’s Smith Street and terminating at Magnolia Park Transit Center.

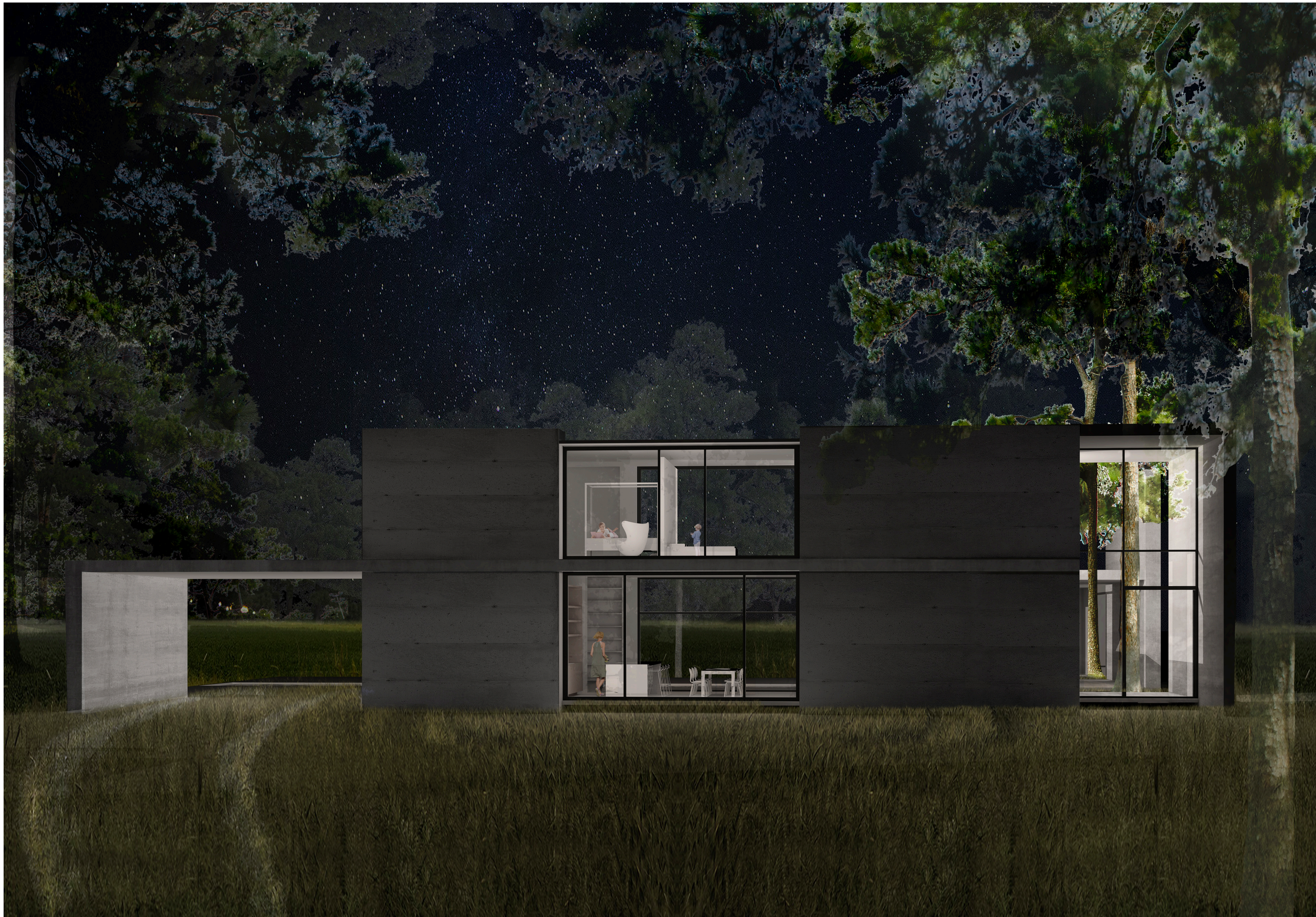
Spec House
Houston, Texas
2019 AIA Houston Design Award Winner
2020 Texas Architect Studio Award Winner

Through an analysis of residential development in Houston, a recurring pattern emerged, revealing three dominant architectural trends: room configurations, exterior styles, and arbitrary forms. Developers often describe floor plans as

“open,” yet the interiors resemble a series of disconnected, “piggy-back” rooms. Secondary spaces have little relationship to the primary rooms, resulting in a design that limits flexibility and opportunities for improvisation. In contrast, today’s living patterns demand adaptability. Spec House addresses this need by designing a home that accommodates the everyday programs of a work-live family of four. Rather than isolating functions into separate rooms, the design allows spaces to shift and adapt within a single volume.

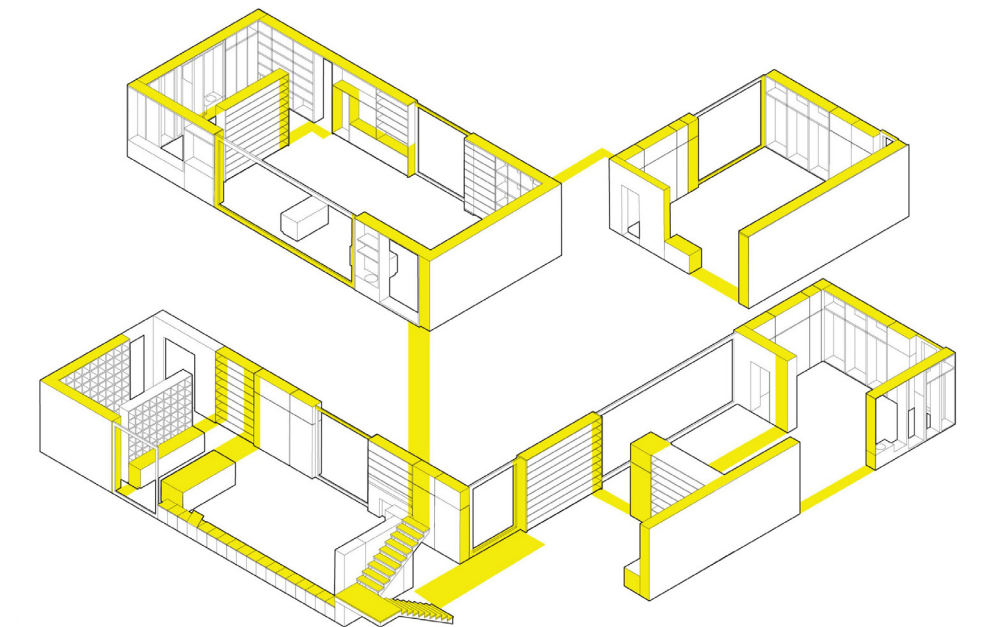
For example, the kitchen is not only a place for cooking, but also for doing homework and working, eliminating the need for secondary spaces. Unlike the typical developer layout of small rooms attached to larger ones, Spec House integrates both primary and secondary functions into a unified, flexible space.





A thickened concrete wall serves as both structure and enclosure, while also defining functional areas within the home. This wall bends and shifts where daily work and living activities naturally overlap. Trees and overhangs provide shading to the home's most active areas, protecting them from direct sun during the hot months.

A secondary wall of vegetation weaves through the interior, notching into spaces and diffusing natural light. Large glazed openings are meant to disappear visually, extending the home's living areas outdoors. These open volumes float above the ground to encourage natural ventilation, allowing cool, dry air to circulate through the house while expelling humid, stale air through operable louvered panels positioned on the roof.





Four Leaf Towers

Houston, Texas

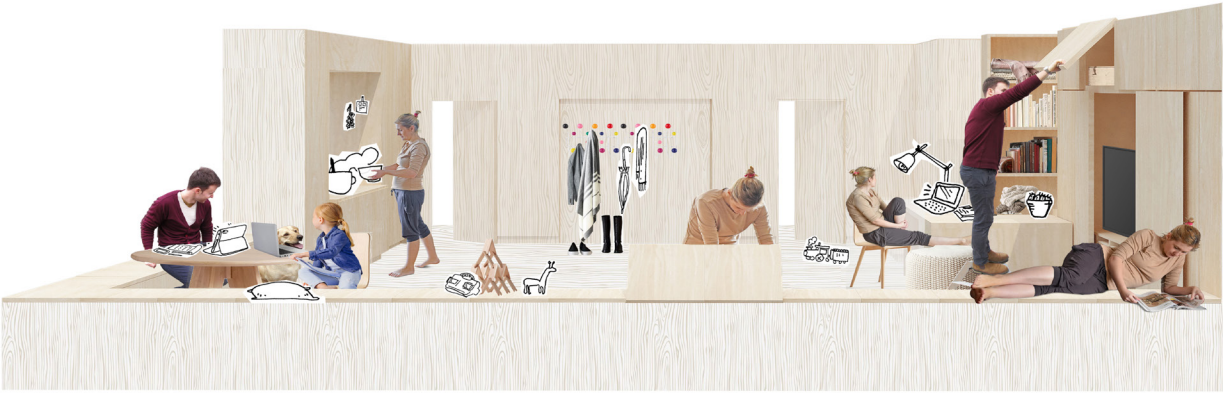
This renovation, located within Cesar Pelli’s iconic Four Leaf Towers, transforms a traditional condominium unit into a dynamic, work-live space for a family, adapting to the modern need for multifunctional living environments.

The “new normal” requires a shift in how we design our domestic spaces, where programmatic relationships are more fluid, and a new kind of home is needed—one that accommodates the growing demands of technology and working from home.

The 1982 condominium, located in Houston’s Uptown district, needed a complete update. With working from home being a key aspect of the design, the space required careful consideration of natural light and fresh air integration. Positioned in the center of 9.5 acres with expansive recreational areas, the tower offers unobstructed daylight, a distinctive feature compared to newer neighboring developments where light and views are often compromised.



The renovation makes strategic use of the unit’s perimeter to absorb various functional needs. The walls are thickened to house storage, media displays, a console, a bench, kitchen counters, and a desk, all within a continuous wall system. The living area’s storage also serves as a light shelf, reflecting daylight deeper into the space. The layout opens up by pushing the family’s needs against the boundary walls and removing existing partitions, such as the wall separating the kitchen from the living space. A small wet bar and storage area are replaced with a dedicated work zone that maintains visual connection to the multifunctional living and play areas.



Rise Academy of Dance

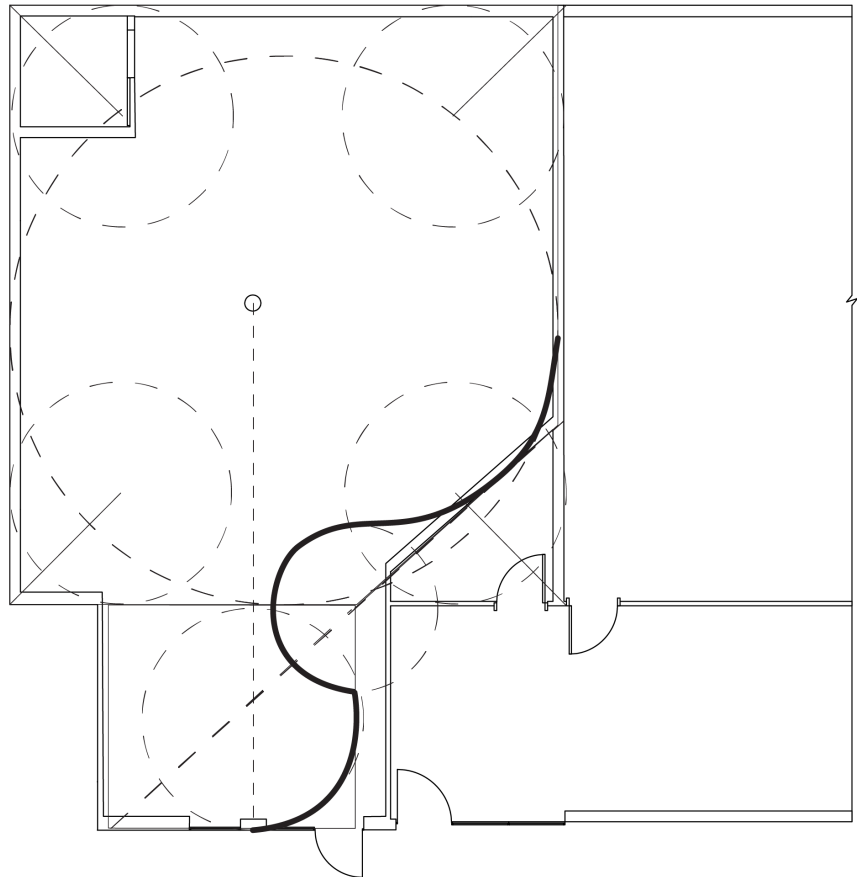
Los Angeles, California

Rise Academy of Dance approached Ponce Architecture to create a conceptual design proposal for their expanding dance studio. The client sought a vision for the space that would reflect their mission to nurture students’ artistry while maintaining a strong focus on technique and training. They asked us to draw inspiration from the fluidity and grace of

dance while ensuring that the design also provided order and visibility within the constraints of a strip mall storefront in Los Angeles.

The existing storefront featured an irregular polygon-shaped interior. By carefully analyzing the floor plan and drawing upon design principles often associated with dance, we developed a spatial ordering system. Techniques such as mirroring, projection, and reflection were employed to create a “choreographed” interior, resulting in a seamless relationship

between the lobby, studio, and the program’s users. Light filters through the lobby, illuminating an undulating, acoustically treated wall system that extends throughout the dance studio. Much like the folds of a theater curtain, the wall’s curves frame the reflected performance, capturing the essence of movement in one continuous gesture.



Zina Garrison Tennis Academy

Houston, Texas
2017 AIA Houston Design Award Winner

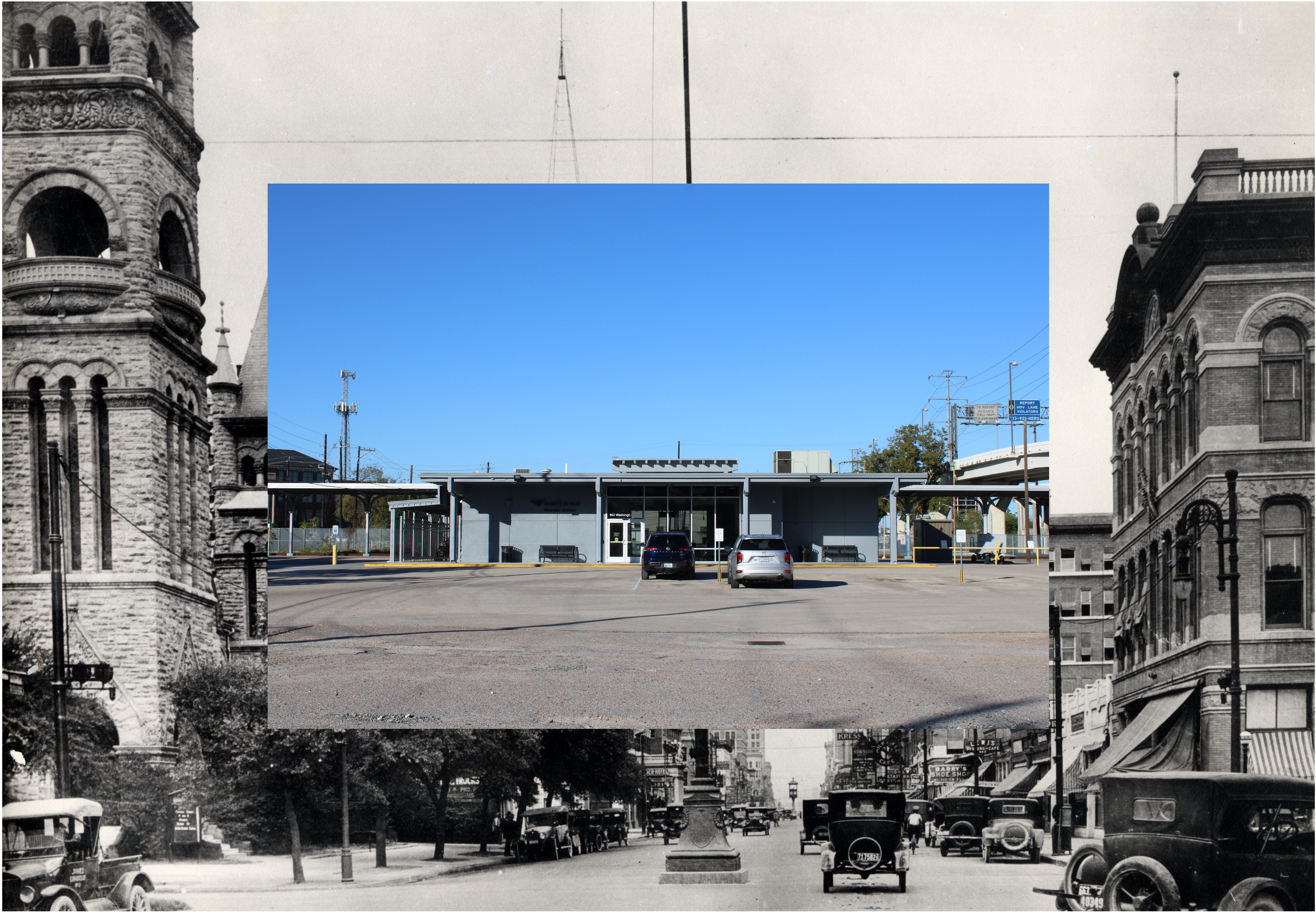
The Homer Ford Tennis Center, located on the 82-acre site of MacGregor Park, is well-known for its dedication to tennis education. Brays Bayou frames the park’s northern edge, while the Metro light rail station along Martin Luther King Boulevard marks the southeastern boundary near the park’s trail. Situ-

ated within walking distance of the University of Houston and just four miles from downtown, MacGregor Park has long been a hub for urban connectivity, linking the Third Ward and Sunnyside communities with prominent business leaders, educators, and professional athletes. The design of the academy reinforces pedestrian connectivity by extending the existing trail through the site, reaching out toward the rail station, and encouraging public access for both users and non-users alike. By reorienting the entry from the

north to the south, the trail extension creates a direct connection between the campus and public transportation, eliminating the need for additional parking. Pathways widen beneath large overhangs or the shade of existing oak and pine trees, providing seating areas for tennis spectators. The arrangement of the four indoor tennis courts prioritizes the preservation of the existing vegetated open space. The courts are sunken into the site, reducing energy costs associated with cooling the building. Positioned along the site’s

edges, the courts create a defined, accessible enclosure, contributing to the overall design’s sense of openness and integration with the natural landscape.





“The National Trunk Line”
Background Image: Main Street facing north at McKinney Avenue, Photography by George Fuermann, Texas and Houston, 1924
Foreground Image: Amtrak Station, 2025

“The National Trunk Line”

Uncovering the Southern Borderlands
along the Old Spanish Trail

The OST Centennial Celebration Association—formed five years ago—aims to coordinate the preservation and revitalization of historic sites along the Old Spanish Trail. Their website extends an open invitation to “anyone loving the open road,” echoing America’s enduring fascination with mobility, freedom, and the romance of the highway. This nostalgia continues to shape the identity of communities along the southern borderlands and beyond.

The allure of the Old Spanish Trail is rooted not only in its historic role connecting east and west but also in its symbolism—mirroring countless other American highways—as a pursuit of fast, affordable transportation. Yet, as cities today contend with challenges around public transit, infrastructure, and the unintended landscapes left in the wake of westward expansion, it becomes crucial to revisit the history of such routes. We are called to do so “not as spectators,” but as people who “belong to the land.”

This project examines the cultural geography, physical transformation, and development patterns of the Old Spanish Trail (OST) from the Texas–Louisiana border to the New Mexico state line. While many portions have been erased or overtaken by the uniformity of Interstate 10, others remain, telling a more nuanced and layered story—one that shifts, like the landscape itself, from east to west. Drawing inspiration from the work of J. B. Jackson, Ed Ruscha, and Lee Friedlander, the project follows the OST through archival research and contemporary documentation, treating the road as both a physical path and a cultural phenomenon.

Human Nature, Collisions and Resiliency in Galena Park’s Urban Food Desert
University of Houston, ARCH 5500

Located just north of the Ship Channel and east of downtown Houston, Galena Park is a city of approximately 10,000 residents with a layered and complex history. The arrival of the petrochemical industry in the early 20th century helped shape the community, drawing workers to the area as the Ship

Channel economy expanded. Today, more than 80% of Galena Park’s population identifies as Hispanic, and nearly 30% of residents live below the poverty line. The community faces serious health and environmental challenges, including chronic exposure to toxic air pollution from the dense concentration of nearby industrial facilities. These risks are intensified by the city’s proximity to chemical plants, aging infrastructure, and frequent flooding. With more than 50 industrial sites in the surrounding area, the

environmental and societal impacts on this low-income community are often ignored, or worse, justified. In response, local leaders and grassroots organizations such as the Environmental Community Advocates of Galena Park (ECAGP) are working to reclaim agency and drive change from within. Galena Park remains a food desert, lacking a major grocery store and offering only a limited selection of chain restaurants and convenience stores, none of which provide consistent access to fresh produce. This studio project

centered on the initiatives of ECAGP, focusing on community-driven solutions to improve access to healthy food, clean air, and environmental education. Interventions and initiatives were drawn from students’ observations of the daily routines and intersections of economic, social, and environmental factors in the lives of the residents.



“Breathing Lessons” *Texas Architect*, Feature Volume 73, Issue 4 – Public/Private, July/August 2023



Galena Park Index, Benjamin Blankenburg and Shaila George, Human Nature: Collisions and Resiliency in Galena Park’s Urban Food Desert, University of Houston, ARCH 5500



Galena Park Index, Benjamin Blankenburg and Shaila George, Human Nature: Collisions and Resiliency in Galena Park’s Urban Food Desert, University of Houston, ARCH 5500