



The Studio

400 Rubio Avenue

Studio Rick Joy

Jacob Shreve

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Details of the Desert
ARCH 715 | Summer 2023
Professor Chad Schwartz
Kansas State University



figure 0.1

A view of the interior courtyard at 400 Rubio Avenue, looking east toward the main entry of the studio.

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Studio Rick Joy



figure 1.1

In 1993, Rick Joy founded his cooperative practice, Studio Rick Joy in Tucson, Arizona. The practice focuses on architectural work that “lives well in its surroundings and that becomes a stage for daily life”.² Gaining acclaim through their work in the Sonoran Desert region, the studio has a deep knowledge of place, informed by their understanding of the “origin of craft”.³ This is accomplished through an adaptation of the traditional construction techniques and attention to detail of a place to create a contemporary application of a historical craft that captures the spirit of the site. This is exemplified in work completed on a wide range of scales across the desert.

Rick Joy began work as a musician, carpenter, and cabinetmaker in Maine, where he studied at the University of Maine, majoring in music. He later moved to Tucson to study architecture at the University of Arizona. Following his graduation in 1990, Rick Joy worked for Will Bruder Architects, developing his knowledge of “authenticity of material ... and rigorous detail resolution”.¹ Joy’s time at Will Bruder Architects paired perfectly with the interdisciplinary preface to his architectural career to form his studio’s current philosophy.

East facade of 400 Rubio Avenue, the main entry to the practice’s office space. (right)

Portrait of Rick Joy (left)

The Tubac House, Catalina House, and Desert Nomad House illustrate the power of site-specific design, creating an atmospheric identity unique to the Sonoran Desert.⁴ Studio Rick Joy continues to push the limits of an immersive architectural and contextual experience, resulting in numerous accomplished awards such as the (Cooper-Hewitt, Smithsonian Design Museum) National Design Award in 2004.

400 Rubio Avenue



figure 1.2

Studio Rick Joy is located near downtown Tucson, Arizona, in an area called Barrio Viejo (Barrio Historico). This barrio was created in the mid-nineteenth century, nurturing a traditional Sonoran architecture and one of the most diverse neighborhoods in Tucson.⁵ Twenty-four years ago, when this studio began, the neighborhood was dilapidated, where the “immediate environs of the site (car park, service alley, and yards) were not particularly salubrious”.⁶ With an extremely low budget Rick Joy and his team completed and constructed the studio at 400 Rubio Avenue in 1999. Preceding this, the award-winning Convent Avenue Studios were built in 1997 at 469 South Convent Avenue. A space directly adjacent to 400 Rubio Avenue that houses the expanded offices of the practice.

The introspective studio at 400 Rubio Avenue abstracts and integrates the deserts qualities into the space through material, detailing, and “blurred boundaries”.⁷ Protected by a shell of rammed earth walls 1.2 meters thick, the two main spaces consist of an interior courtyard and the studio. Here, the project “in virtue [is] one room” bisected by a glass enclosure that accentuates the relationship between the interior and exterior.⁸ In this space Studio Rick Joy exhibits the experimentation of craft and spirit, while exploring a reductive approach to the Sonoran elements.



figure 2.1
*Interior of workspace at 400 Rubio Avenue, eastern wall illuminated
by midday sunlight.*

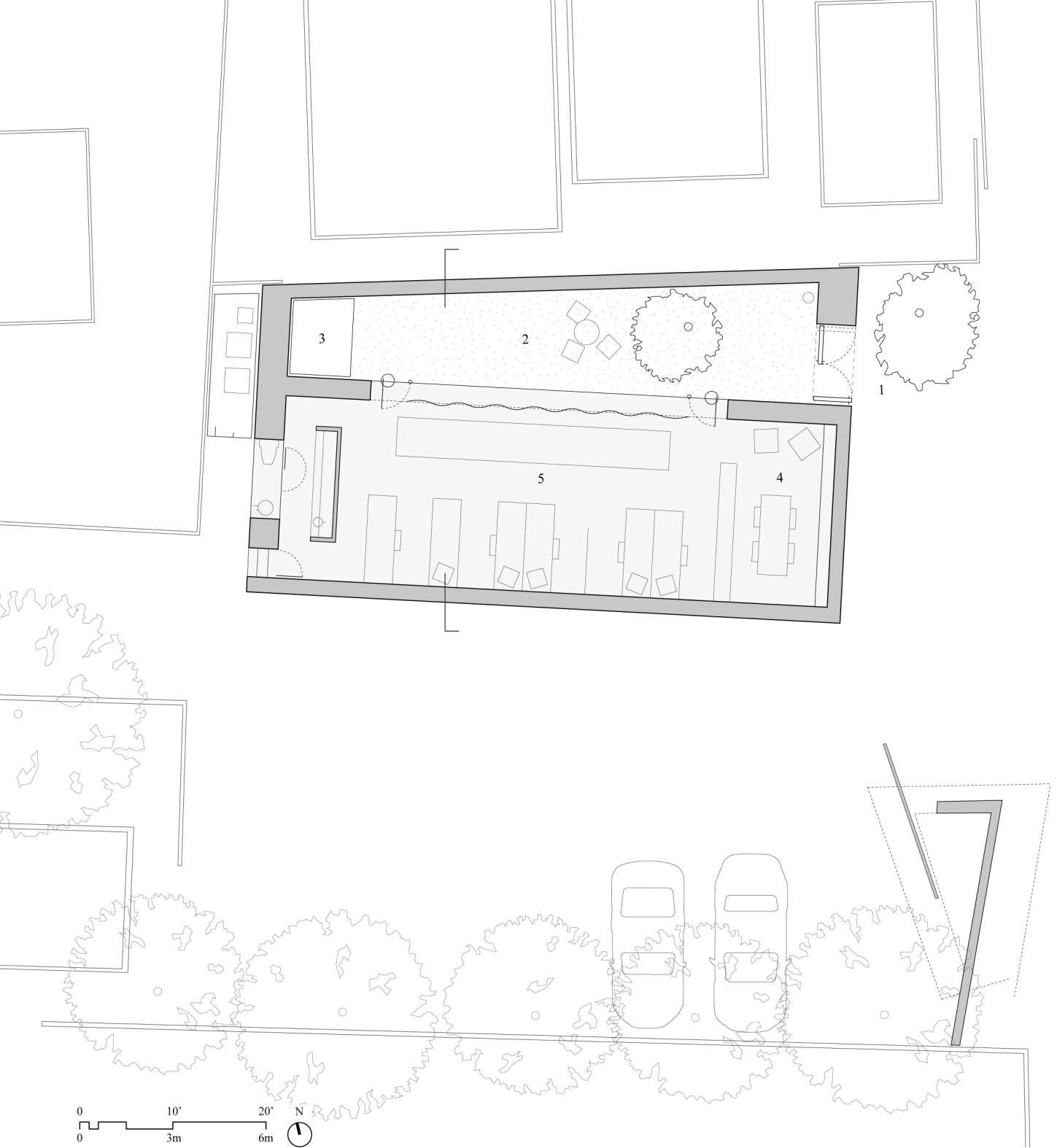


figure 2.2

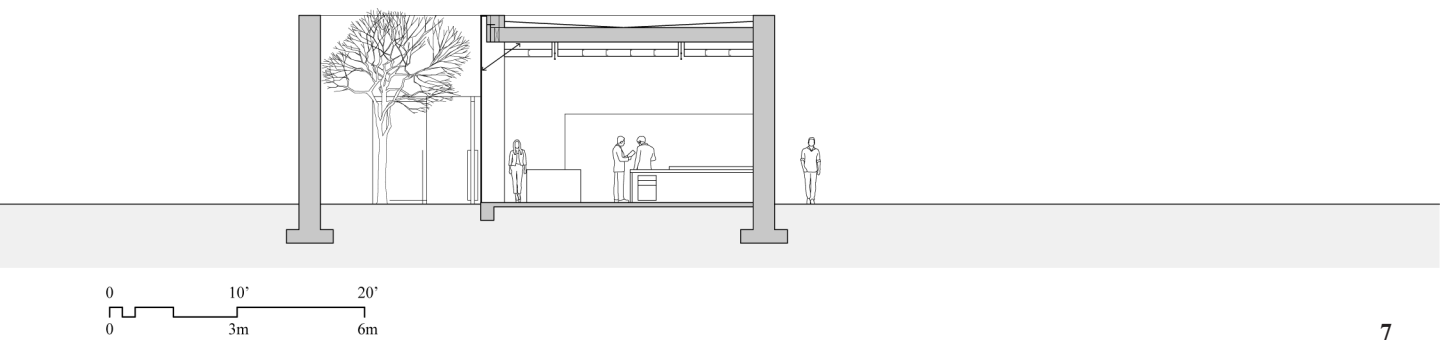


figure 2.3

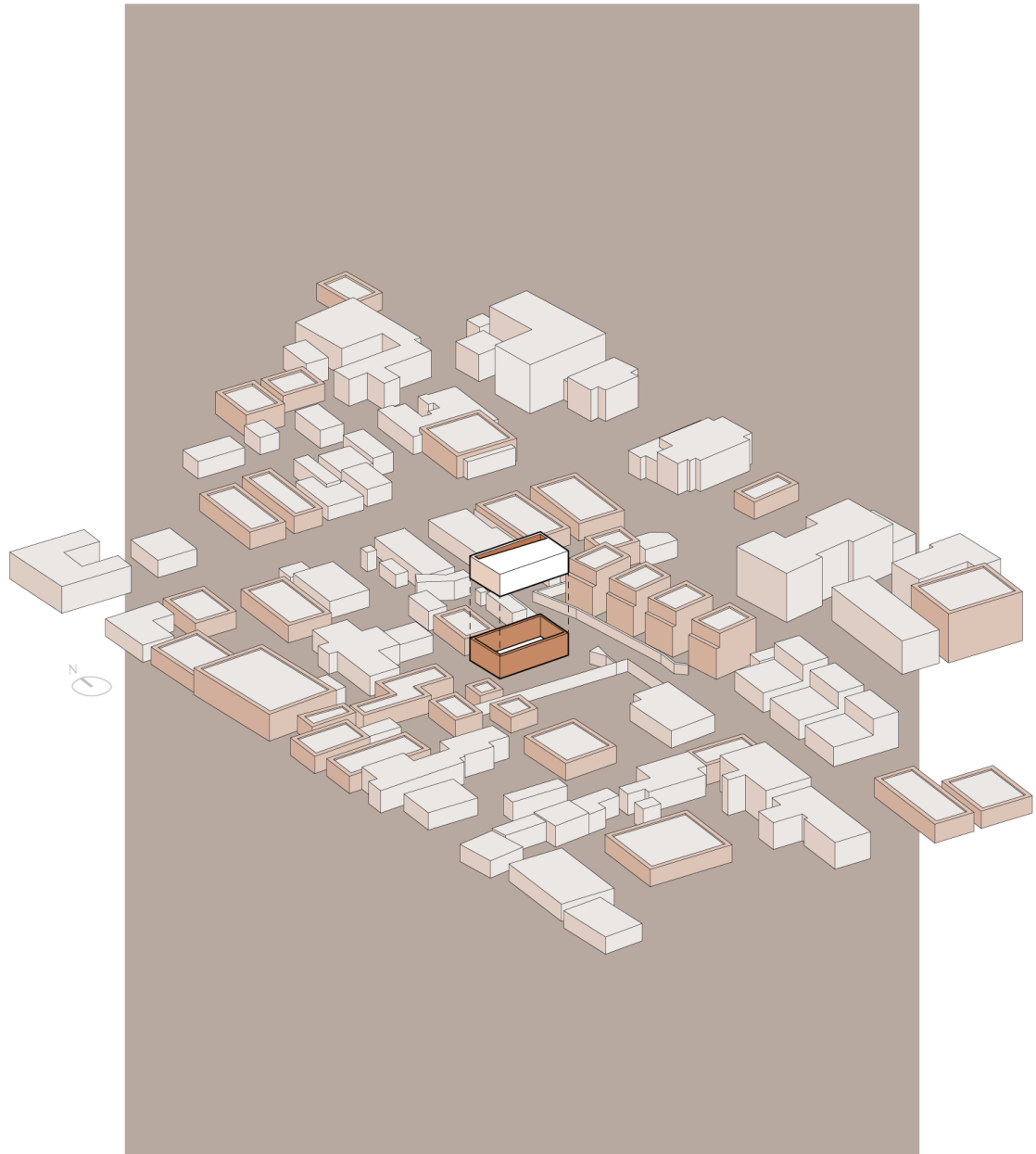


figure 3.1

Protective Wall

Barrio Libre, before the gentrification of the 1960s, was dominated by a Spanish speaking population; an area with “a wide variety of people with different ethnic and economic backgrounds”.¹ Today the fear of gentrification continues to threaten this community. On streets like Rubio Avenue the neighborhood began to decay, transforming the environment into a series “of vacant lots, fences, and dumpsters”.² This reality necessitated the design of a thick, masonry exterior wall, at 400 Rubio Ave, focusing the project inward rather than out to the street. This shell becomes a barrier from the crowded and chaotic environment of the barrio alleys, shielding the space from distracting visual, auditory, olfactory, and tactile elements.

Studio Rick Joy, sought this introspective environment. The 1.2 meter thick rammed earth wall of the studio becomes the protective shell against any visual connection between the interior to exterior environments, while light pours into the space from above. The incessant sunlight in Tucson requires consideration of the studio’s relationship with heat as well. The rammed earth wall acts as a thermal mass, with an R-value of 22, the wall will absorb the intense heat throughout the day and release it at night.³ The barrio alleys throughout the day were chaotic environments home to a variety

of sounds and smells. With an STC of up to 57 and a density of 1.5 t/m³, the acoustic properties and density of the wall work well to absorb sound and deflect smell.⁴

Barrio Viejo is a neighborhood associated with traditional Sonoran construction, with colorful façades that are flush with the street and thick adobe walls that shape interior courtyards. By creating a monolithic wall dependent on the sunlight, the protective shell of the 400 Rubio Ave is reflective of the adobe structures throughout Barrio Viejo. Understanding the importance of the courtyard in historic adobe houses, Studio Rick Joy brings this into their space. The courtyards found in the barrio supply indirect daylight and fresh air into the space, forming important connections to the surrounding environment. Resembling elements of the Sonoran Desert, the thermal mass wall protecting the studio is constructed using three various types of soil from the Tucson area. This soil is transformed from existing as a part of the natural landscape into living in the urban fabric of the neighborhood. The character of the barrio and the Sonoran Desert influence the protective shell of 400 Rubio Avenue, and its materiality, form, construction, creating a unique relationship with the contextual environment.



figure 3.2

Exterior wall of 469 Convent Avenue Studios, reminiscent of the layers of stucco walls found in Barrio Viejo. The sunlight and shadows fall delicately onto the walls below.

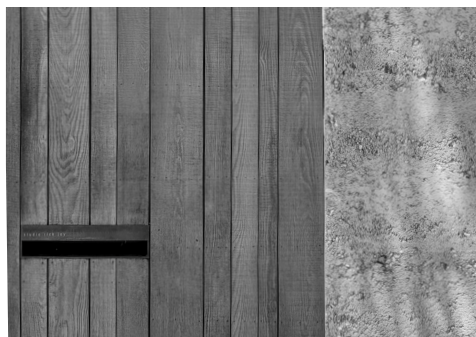
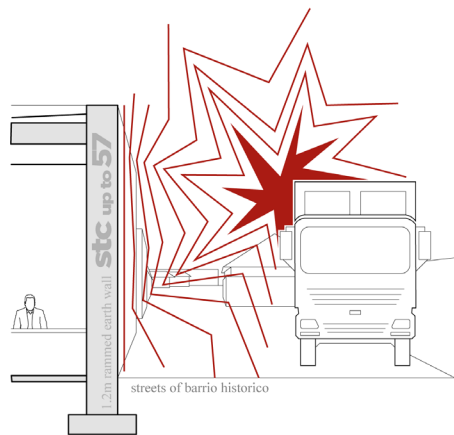


figure 3.3

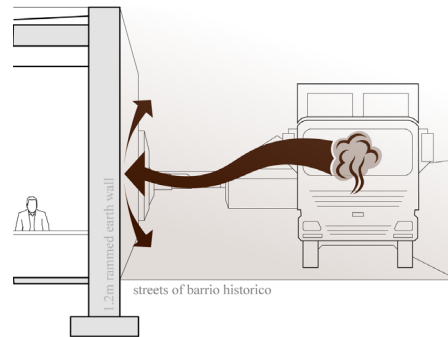
Exterior wall and door of 400 Rubio Avenue, a simple material palette give the exterior a contextual understanding.

*A view through the entry of the studio at 400 Rubio Avenue,
with the thickness of the rammed earth acting as a thermal
mass and barrier from the elements.*

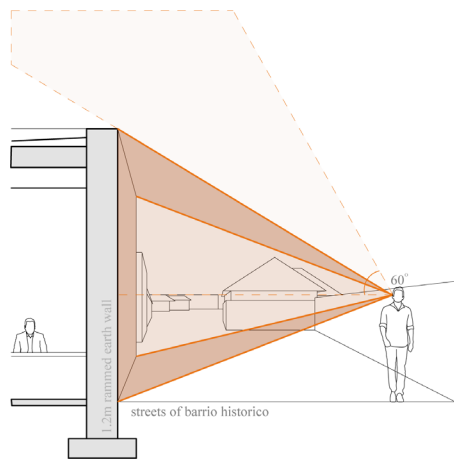




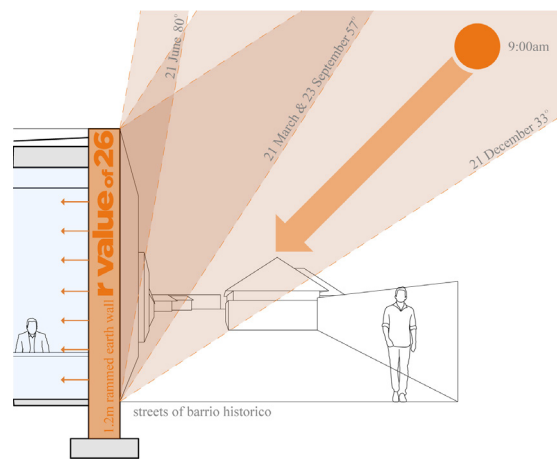
sound



smell



sight



sun

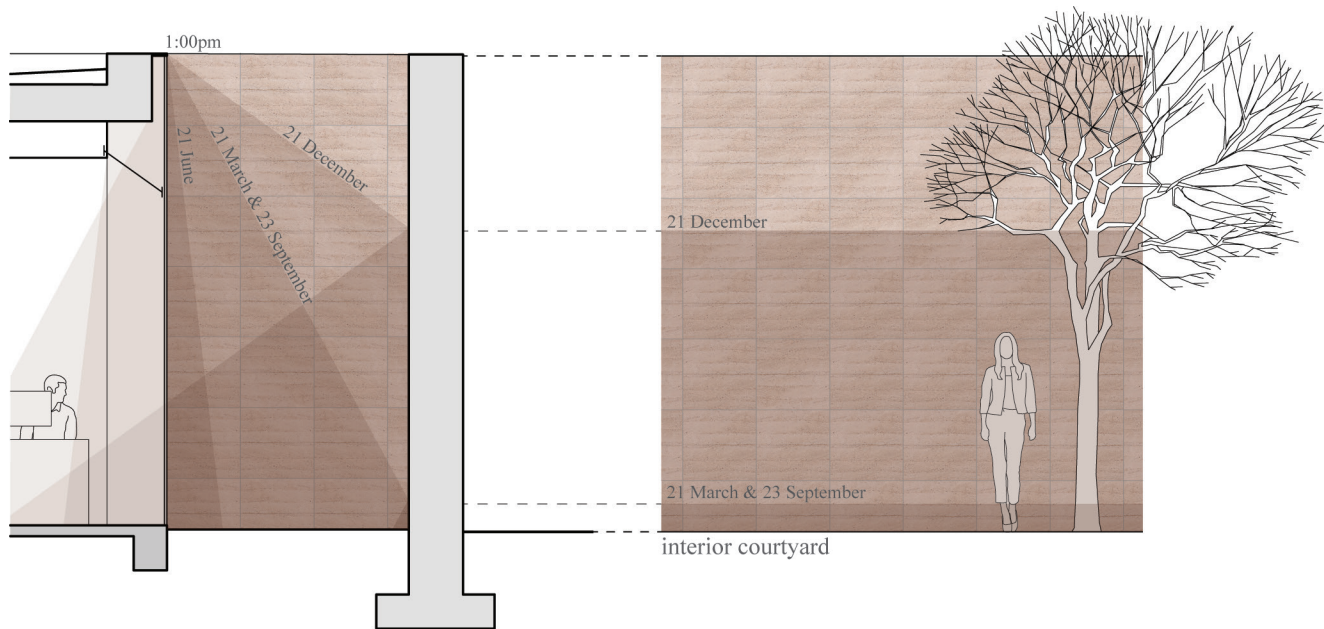


figure 4.1 (above)

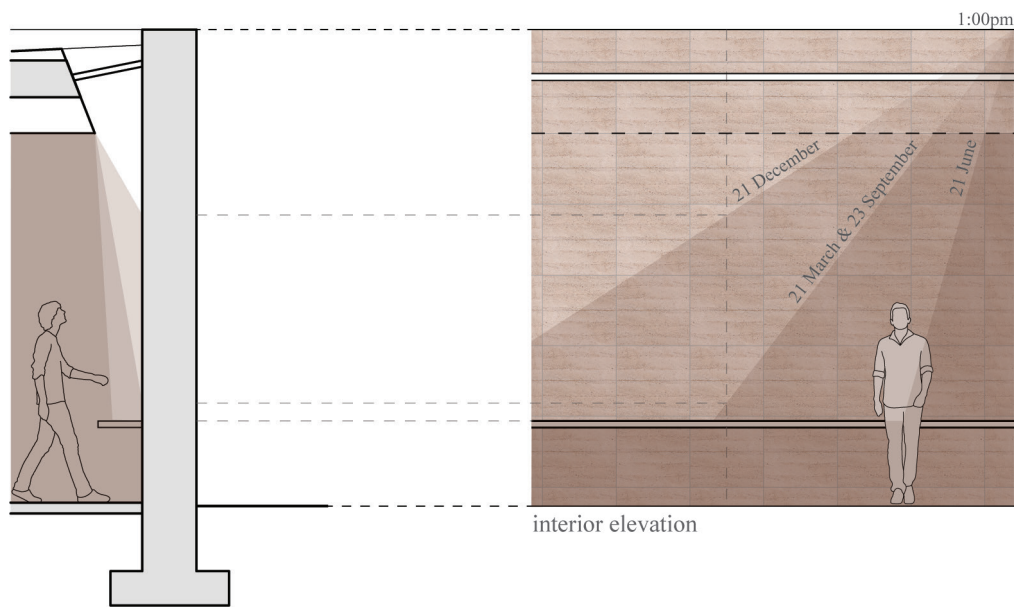
figure 4.2 (page 13)

Slice of Light

Studio Rick Joy has developed an architectural language that speaks to each site, tapping into the spirit of the place that allow them to create unique and respectful spaces.¹ One of the elements that is vital to the identity of the Sonoran Desert is the sunlight. In response, the studio implemented a variety of fundamentally different interactions with light at 400 Rubio Avenue. The first interaction occurs in the interior courtyard, where the sunlight floods into the space throughout the day, illuminating the rammed earth wall opposite the office. A single mesquite tree displays speckled shadows across the rammed earth and granite gravel below. Water trickles in a fountain at the end of the space as the wall open to the sky above, each of these elements “lead to a series of [unique] encounters with light”.² The natural light coming in from the courtyard becomes the studio’s main source

of light. The intensity of the sunlight in Tucson and the reflectivity of the rammed earth wall washes the workspace with indirect sunlight. Further reflected by the metal overhead, the light is diffused and directed, creating an atmosphere reminiscent of the Sonoran landscape.

At 400 Rubio Avenue there is a rammed earth shell around the building that acts a threshold separating the context from the introspective interior. Abstracting visual and tactile qualities of the context, rammed earth has very specific characteristics that the practice displays in many ways. On the interior of the eastern wall of the studio these characteristics are highlighted at midday. Above the wall sits a light well that is positioned to allow sunlight to bleed down the undulating surface of the rammed earth. The textured surface of the rammed earth keeps the light from becoming stagnant on a flat



surface, instead it dances with the shadows that the inconsistencies create. The variation invites individuals to interact with the surface, gaining a further material understanding through the tactile nature of the wall. The movement of the seasonal light occurs at a different scale, where it creates an “ever-changing light that reveals its beauty slowly over time”.³ As the summer sunlight (21 June) washes the majority of the wall, the shadow cast across the wall grows from right to left as the year progresses from summer to winter. Throughout the year this wall becomes one of the most powerful moments in the space, taking advantage of the Sonoran Desert’s incredible sunlight that “contribut[es] to a uniquely sensual experience of place”.⁴



figure 4.3



figure 5.1

Interior of Studio Rick Joy office, with reflected light above and the interior space visually bleeding out into the courtyard.

Interior Exterior

The dialogue between the interior and exterior spaces of 400 Rubio Avenue are intentionally blurred to further the understanding of the relationship between nature, light, and architecture. This is done through a series of layered techniques of enclosure throughout the structure. By wrapping the building in a thick rammed earth exterior, Studio Rick Joy developed a series of spaces that act as one. In this space there is a flush glass enclosure that bisects the building, separating the workspace from the courtyard. The glazing extends up to the top of the structure and meets the ground with virtually no framing, allowing it to read as a single vertical plane cutting through the space. Upon entering 400 Rubio Avenue and “moving [into] the courtyard, reflections of sky, wall, tree, and gravel are visible in the ... glass surface that defines the courtyard”.¹ The reflection is interrupted only through its connection to the interior workspace, which further increases the relationship between the two spaces. While the edges of the courtyard are defined by the glazing, they disappear when inside the studio, visually expanding the workspace to the edges of the rammed earth beyond the glass. Above the courtyard and studio are horizontal planes of enclosure that complete each of the spaces. The interior courtyard is open above, with 14-foot-high walls the opening frames the sky to create an unobstructed overhead plane that floods the interior with natural light. Inside the studio space hangs a “reflective metallic ceiling [that] seems to float above [the] walls”.² The ceiling opens the studio with a playful reflection



figure 5.2

The exterior glazing of the office at 400 Rubio Avenue, detailed with stainless steel supports and fasteners to create a physically and visually continuous wall of glass.

of the light coming into the space, reminiscent of the sky that rests above the courtyard.

The studio at 400 Rubio Avenue is similar to many Studio Rick Joy projects in its understanding of space and contextual specificity. The practice accomplishes this through their detailing, creating specific moments that cast light, create visual connections, and make things disappear. In this project the details allow the simplicity of the project to appear effortless. The “flush-recessing [of] the butt-glazed tempered glass into the rammed-earth walls and ground, and bracing it with elegant, internal stainless-steel supports”³ are details that allow the wall to read as a single plane of glass. The studio’s workspace is visually expanded due to the consistency of the glazing wall, allowing the space to become one with the courtyard and gaining a visual connection with the framed view of the sky. Another moment where the detailing supports the visual understanding of planes of enclosure is at the intersection of the roof and the glass wall. Here the roof steps back, allowing the glass to continue up with almost no visible cap. This detail allows the glass to meet the sky directly, this corner of the structure allows the glass to become the framing edge of the sky.

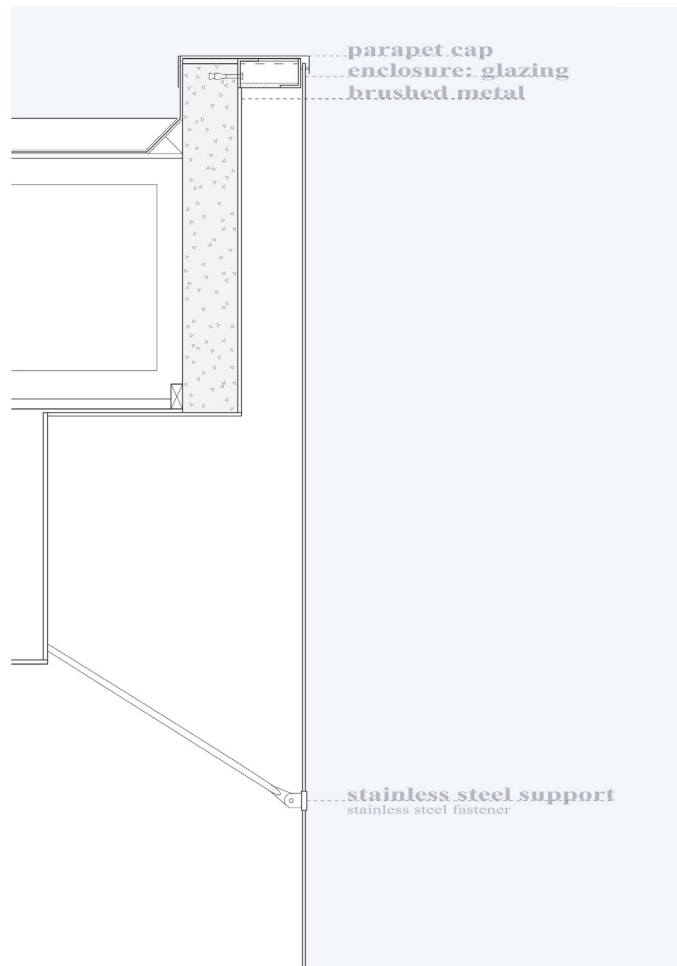


figure 5.3

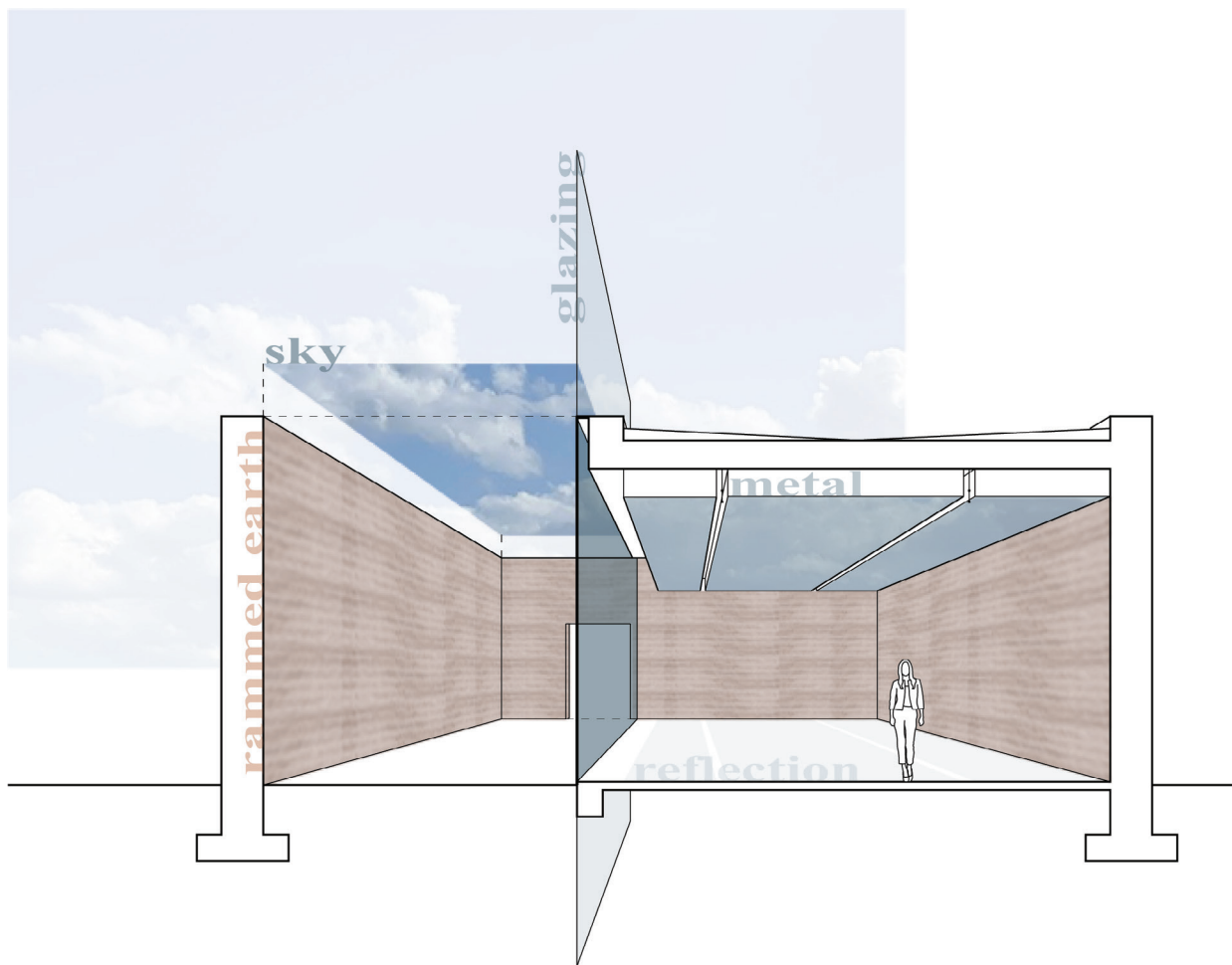


figure 5.4

Notes

Endnotes

Introduction

- 1 "Philosophy", Will Bruder Architects, accessed June 15, 2023, <https://willbruderarchitects.com/philosophy/>.
- 2 "About", Studio Rick Joy, accessed June 12, 2023, <https://studiorickjoy.com/about>.
- 3 *ibid.*
- 4 "Work", Studio Rick Joy, accessed June 14, 2023, <https://studiorickjoy.com/work>.
- 5 "Earth Moves: Studios, Tucson, Arizona." *The Architectural Review*. 208, no. 1246 (2000): 47.
- 6 *ibid.*, 47-48.
- 7 "Rick Joy: 400 Rubio Avenue Studio, Tucson, Arizona 1998-1999." *Kenchiku to toshi = Architecture and urbanism: A + U.*, no. 7382 (2002): 79.
- 8 "Earth Moves" *The Architectural Review*. (2000): 48.

Protective Wall

- 1 "Earth Moves: Studios, Tucson, Arizona." *The Architectural Review*. 208, no. 1246 (2000): 47.
- 2 "Collective Construction." *Architectural design: A.D.* 72, no. 5 (2002): 42.
- 3 Baker, Peter. "GM-0702: Guide to Insulating Sheathing". *Buildingscience.com*. <https://buildingscience.com/documents/guides-and-manuals/gm-guide-insulating-sheathing/view>. (2007).
- 4 Burroughs, Steve. "Relationships between the density and strength of rammed earth. *Proceedings of The Ice - Construction Materials*". 162. 113-120. 10.1680/coma.2009.162.3.113. (2009).

Slice of Light

- 1 "About", Studio Rick Joy, accessed June 30, 2023, <https://studiorickjoy.com/about>.
- 2 Underwood, Max. "Rick Joy Architect: 400 South Rubio: The AIA Journal." *Architecture* 89, no. 1 (01, 2000): 82.
- 3 *ibid.*
- 4 *ibid.*

Interior Exterior

- 1 Underwood, Max. "Rick Joy Architect: 400 South Rubio: The AIA Journal." *Architecture* 89, no. 1 (01, 2000): 82.
- 2 "400 Rubio Avenue Studio, Tucson, Arizona" V-IA: *Arquitectura*, vol. 15. (2005): 94.
- 3 Underwood. "Rick Joy Architect." *Architecture* 89, no. 1 (2000): 82.

Figure Notes

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figure 6.1



Southwest corner of the studio at 400 Rubio Avenue, the entrance from the parking lot into the space.

figure 6.2

Studio Rick Joy
400 South Rubio Avenue, Tucson, AZ

