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Back Cover: "Canal St." by Eve O'Shea

Edited and Designed by Ella Comberg

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FROM THE EDITOR

In times of immense crisis, our academic communities can, at worst, be sources of stress and neglect. The past months have been all-too rife with stories of academic layoffs, shaky contracts, suspended funding, and overburdened students. But at best, these same communities can be sources of relief, support, and pride. For me, Urban Studies—by which I mean, the department’s faculty, staff, and students—has been the latter. I hope it has been for you too. And I hope the pages that follow can represent the community upon which this program thrives.

The Urban Studies publications, this Journal and our bi-annual newsletter, are meant to honor the work of the year, which is otherwise fleeting, left to sit in a Canvas assignment page of yore. The work, of course, varies from year to year depending on which students pass through the program, what courses are offered, and what events transpire that year, but it is invariably rigorous and thoughtful. This year, I hope the Journal can be less a testament to how resilient students have been in a time of immense turbulence that has rocked us all, to varying degrees, but rather a monument to the fact that *we did it together*.

I greatly enjoyed compiling the following pieces, which include an associative essay on the images of emptiness that have pervaded the news in recent months; an analysis of federal housing policy by way of Judith Butler’s work on idealized subjectivity; a reassessment of modernism in the American West that considers the contributions of Pacific Northwestern regionalism; a study of Medellín, Colombia’s narrative arc through the prism of neoliberal reforms; and much more. They all share an interest in place and space, and they are all a joy to read.

-Ella Comberg

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MODERN ARCHITECTURE IN THE COASTAL WEST

Yeon, Neutra, and an Emergent Western Regionalism

by Jango McCormick

During the early to mid-twentieth century, modern architects in the American West brought into existence a new style of residential architecture. Two such architects, John Yeon and Richard Neutra, synthesized historical influences and geographical context into an original and distinctively regional modernism. Yeon's work in the Pacific Northwest and Neutra's in Southern California bear little resemblance to one another on a formal level, but the two architects were united in their project of designing houses that foregrounded place. Working in parallel but never actually overlapping, the two architects and their work converged in several important ways. Though not the only point of intersection, the most notable similarity in their work is the privilege given to landscape and location in the design of residential buildings. That there exist points of aesthetic convergence between two architects who are in many ways stylistically dissimilar speaks to the emergence of a regional character of the West that transcends the will of any individual architect. The regional character of modern architecture in the American Coastal West comes to the fore through a comparative analysis of the work of Yeon and Neutra, specifically with respect to their residential designs. By examining the historical influences and actual manifestations of their design choices, we begin to see points of greater commonality between their disparate styles, ultimately providing an account of the origins and underpinnings of what is distinctive about this particular regional style of modern architecture.

In order to describe the ways in which John Yeon and Richard Neutra can be thought of as standard bearers of a Pacific Coast regional architecture, we must first speak to the historical and stylistic influences that exerted themselves on the two architects. It cannot be denied that the modernist, "International Style" movement affected the aesthetic education of both Yeon and Neutra. While the criteria for what kind of architect and taste can be considered International Style is vague and ultimately up to the discretion of the given list-maker, the MOMA's 1932 exhibition on the International Style provides some introduction to the term. Neutra's early work was featured in the exhibition, and in the affiliated catalogue for the show, his 1929 Lovell House (Figure 1) was lauded by Henry-Russell Hitchcock Jr. as being "the most attractive house built in America since the war. Although he took issue with the house for "lacking in serenity," he positively emphasized its "steel skeleton" and praised the "logical and attractive" use of "exposed steel with fine cement surface spandrels." These characteristics closely align with the exposition's definition of the International Style. "Slender steel posts and beams, and concrete reinforced by steel make possible structures of skeleton-like strength and lightness," wrote Alfred H. Barr in the catalogue's preface. Planning, he continued, "liberated from the necessity for symmetry...is, in the new style, flexibly dependent on convenience." Neutra's work fit the bill for the International Style movement, and his architectural career—beginning in Vienna where he was influenced by Otto Wagner and taught by Adolf Loos until he immigrated to the United States—seems like ready-made testimony for the style's international claim.

It is easy to see in Neutra's work a notion of the ideal "International Style," in part for his background and the clear influence of the style's favored architectural predecessors. The style's impact is less apparent—yet still present—in Yeon's designs. While not featured in the MOMA's 1932 International Exhibition, his Watzek House (1938, Figure 2) was included in the "Art in our Time" exhibition in 1939 among just a few other architects, most of whom— including Ludwig Mies van der Rohe, Frank Lloyd Wright, Walter Gropius, and Neutra— had also been included in the International Exhibition. The Watzek House (to which we will return) fits into the



Bottom, Figure 1: The Lovell House (1929). From J. Paul Getty Trust, Getty Research Institute. Top, Figure 2: The Watzek House (1936), included in MoMA's 1939 *Art in Our Time* exhibition—John Yeon Center for Architecture and Landscape.

International Style's paradigm of asymmetrical, function-based design, although its heavy use of wood rather than glass, steel, or stucco makes it something of a nonconformist. In his book on John Yeon's architecture, Marc Treib argues that the "three characteristics by which to identify the International Style" according to Henry-Russell Hitchcock and Philip Johnson in their book *The International Style*— which are "an emphasis on volume rather than mass; a lack of applied ornament; and an asymmetrical balance"— "well qualify the Watzek House design" as part of the movement. He acknowledges, however, that it is not a perfect match. Its use of wood instead of "composite materials" and its "pitched rather than the preferred flat roof" make the exterior look far different than, say, the contributions of Mies van der Rohe or Gropius. And the "inclusive eclecticism" of its interior, with spaces that "while connecting... hardly possessed the same fluidity as the most advanced experiments in Europe" conclusively mark it for Treib as "not completely international." The "Art in Our Time" catalogue may best summarize these tensions by delicately describing the house as having "more in common with straightforward native building types than with historical 'styles,'" calling it "emphatically American."

Unlike Neutra, whose work had strong roots in the International camp from his beginnings, it is Yeon's later designs that better fit the credo of International Style. His 1948 Visitors Information Center in Portland is a testament to what Chrissy Curran, in an article on Oregon's 1959 Centennial Exposition, refers to as "the integration of the Northwest Style and the International Style." The Information Center (Figure 3), writes Curran, partakes in a "Miesian aesthetic" with its "flat roofs, aluminum and glass, curtain walls," and "grid-like forms." These emblems of the International Style are tempered, however, with Yeon's use of painted plywood panels on the exterior and unfinished hemlock for the interior, including "six-foot- square panels of hemlock, their boards turned perpendicular to each other" to make a "subtle checkerboard ceiling." The extensive use of wood is a departure from the Miesian and International aesthetics and a stylistic choice that remains in accordance with the wood-heavy Watzek House.

Even so, the constant presence of a squared and rectangular grid, the extensive use of glass, and the flat roof make the building's International Style roots undeniable. The Visitor Center is the only one of Yeon's buildings in which this historical context is so clearly legible, but it confirms the existence of this strain of influence in his larger oeuvre. Its singularity may partially account for Yeon's insistence in his later life, noted by Treib, that the city of Portland "simply remove" the building (which still stands today) rather than repurpose it, assigning the building, in Treib's words, "to the dustbin of history."

Although more apparent from the outset of Yeon's career, neither he nor Neutra can be cleanly assigned to the paradigm of the International Style. The International Style is an effective summary of the cultural ground from which Neutra and Yeon both sprang, but it is most helpful if we understand it as a counterpoint to the kind of architectural project they ultimately sought out. Part of their eventual breaks from being straightforwardly international in design come from non-Western influences, primarily from Japan and China.

For Neutra, Japanese architecture was not merely a source of novel inspiration or cultural departure, but rather a point of resonance with his modernist thinking. In her paper on the lasting effects of Neutra's visit to Japan and East Asia, Barbara Lamprecht writes that "Neutra saw a kindred spirit in the respect for a standardized architectural vocabulary" in traditional Japanese architecture. While this respect meant different things for the "Japanese tradition of craft and artistry" than it did for "modernity's promise of long-span steel... and large plate glass" that Neutra worked with, formal principles of Japanese architecture are visible in Neutra's work. Lamprecht articulates a few "Japanese tenets in Neutra's buildings" which include "a standard



Figure 3: The Visitor Information Center (1948) in Portland, a clearer representation of the Miesian aesthetic so important to the International Style.

architectural grammar and restricted palette of materials used in different ways according to client, site, and budget,” along with “landscaped internal courtyards,” and “transitions from building to landscape, from one aspect of nature to another.”

The role of nature is key for understanding the influence Japan had on Neutra as well as Neutra’s evolution from being a party-line International Style architect to a regional modernist whose work integrated a style we can argue to be specific to the Coastal West. Lamprecht writes that nature’s place in Neutra’s thought was as a “spectrum” of which “man was part.” His houses reflect this fact. The 1956 Troxell House (Figure 4) was built perched on a hillside in the Pacific Palisades, jutting out like another cliff face. Up close, its unity with the natural world is still more apparent: garden and courtyard spaces are integrated into the house through the use of sheets of glass, sliding doors, and an overhanging roof which unites inside and out through a collective covering. The “deep, sheltering overhang” and “wood post-and-beam construction,” both seen in the Troxell House, are also trademarks that Neutra shares with Japanese design, according to Lamprecht. In his book *World and Dwelling*, Neutra describes the use of a reflecting pool outside the living room of the Troxell House (Figure 5) as “a sheet of water... ever-changing with reflection that mirrors the mood of the hour, the day and the season.” The sheet of water formally corresponds to the sheets of glass and similarly acts as a portal between nature and structure. Neutra did not merely frame nature with his houses, nor did he design his houses as architectural gems to be inset in the natural world; he attempted to recreate living space as part of the natural spectrum, and in this task the Japanese tradition offered him a substantial precedent.

Yeon was drawn to East Asian influences in part by the kinship between Chinese landscape paintings and the environment of the Pacific Northwest, particularly the “craggs and twisted trees and tall, vertical waterfalls” of the Columbia River Gorge. Yeon collected paintings and print from China and Japan, and spoke about the influence of this art on his architectural thinking: “Houses are very much absorbed into the landscape. They were almost invisible and, of course, that’s what I feel should happen in beautiful landscapes too.” Much of



Figures 4 + 5, Richard Neutra's Troxell House, photographed after it was built in 1956. Julius Shulman Photography Archive, 1936-1997, Getty Research Institute.

what has been said for Neutra's turn to Japan for this "absorption" of the house into the landscape can be said for Yeon as well. But Yeon's vision for the integration of architecture and nature was perhaps more Romantic in its dualism of structure and nature than Neutra's "spectrum" of nature that included humans and, by extension, their homes. Kevin Nute, in his paper on Yeon's East Asian influences, traces Yeon's style to "traditional Sino-Japanese landscape art" in its "mutual mirroring and framing of landscapes and buildings." The famous photograph of the Watzek House (Figure 2) neatly showcases this double mirroring-framing. The mirroring effect of the "matching profiles" between the house and Mt. Hood behind it was "novel in American architecture at the time" according to Nute, though far from new in "far eastern landscape art." Mary Anne Beecher suggests in her paper on the Watzek House that the narrow columns of the exterior also do a kind of mirroring work with the tall douglas firs that surround the house. Framing is also an important technique in the the house, which was more or less designed around the image Mount Hood, an image it captured in a "floor-to-ceiling framed view" in the living room—"the room that belongs to the mountain," as one visitor wrote.

So far, a kind of regional character has emerged by virtue of Yeon and Neutra's mutual interest in what Yeon called the "absorption" of the house into its landscape. But precisely how this is specific to the West Coast remains to be seen. Further analysis of the Watzek House can help to demonstrate the precise nature of the mirroring and framing that occurs in the design, one which we will find again in Neutra and be able to identify more conclusively as a trait characteristic of modern design in the Coastal West.

In a paper on the architecture of Pacific Northwest architect Van Evera Bailey, Hope Svenson eloquently describes some of what is particular about the form of the Watzek House's absorption into its surroundings. Citing the house's "broad eaves," "slanted roofs," and "liberal use of wood," Svenson writes that "the Northwest Regional style was about informal living and people's relationship to—and dependence on—nature." Unlike many attempts at an organic unity between structure and nature, Yeon's design had an ultimate deference to what was useful. "The Northwest style submits to the climate of western Oregon," writes Svenson: its features are based around convenience and function. This tenet of following convenience and function has the strange trait of being both a modernist credo as well as an unthought necessity for much of human history, including very recent history in the American West. The profile of the Watzek House mirrors Mount Hood, but it also references traditional structures of early non-indigenous settlement. Lauren Bricker, discussing the work of Yeon's close colleague Pietro Belluschi, could have been talking about Yeon when she writes "he developed a domestic architecture that captured the simplicity of form, relatedness to site, and use of local wood—all qualities found in barns." The iconic photograph of the Watzek House (Figure 2) shows a certain resemblance to the barns of rural Oregon in its use of wood and its profile. The interior of the Watzek House, primarily wood-paneled and with repeating square and rectangular forms that accentuate the length of hallways and rooms, call to mind interiors of historic northwestern lodges and buildings where wood was the primary material available. The emphasis on wood and the practicality of long, low shapes with sloped roofs goes back further, of course, and Marc Treib quotes Northwest architect Paul Thiry as describing a regional aesthetic developed from "molding an indigenous architecture borrowing from... the Indians of the northwest coast" along with barns and "simple mill sheds... built in open span determined by timber size." These influences are evidently part of Yeon's architectural imagination, but it should be noted that the kinship among these dwellings is also the natural result of the shared location and will toward practicality. Out of that combination emerges an affinity, a loosely bound style local to one place across hundreds of years.

Undoubtedly, it is more difficult to locate Neutra in an argument based on a historical sense of practicality. His modernism—curtained with glass and framed in metal—is more difficult to trace back; it lacks historical precedents and so may appear unjustified, gratuitous, or like a mere transplant of the cosmopolitan standard of the modern day. But we have in fact already seen many of the most practical features of his style in our attention to the deep overhangs, the use of landscaping immediately around the houses, and the fluid but still well-articulated relationship between inside and out. His 1946 Kaufmann House, while flashy, demonstrates these effects well. The axial design of the floor plan increases the opportunities for windowed walls and interaction between outside and inside space while also maximizing usable exterior space with the shade of its deep overhangs. In a harsh, desert environment, thoughtful integration of inside and out proves essential, and although the aridity made permanent residence (and therefore architectural precedent) a rarity before industrialization, the maximization of sheltered space (in this case from the sun) finds its self-justification as a feature born out of the clash between basic human necessity and the environment. The Watzek House is also built with a quasi-axial floor plan that encloses a courtyard, thereby interiorizing as much exterior as it can. The Kaufmann House can be thought of as a kind of desert corollary to the Watzek House in this respect, placing and framing its exterior not merely for observation, but for use. The maximization of shade and protected space is joined with what Johannes Stoffer, in a study of Neutra's landscaping, aptly describes as “the desert, horticulturally staged by Neutra as a leitmotif in diverse nuances” which include cacti, boulders, and the rocky wash that runs through the property. The house stages its site not merely in an ideal, aesthetic realm (though the amply proved photogenicity shows that this too is the case), but rather in the terms of practical usage—not just how the site photographs, but how a person walks through it—thereby creating an altogether new sense of place, which, while still defined by its surroundings, exceeds the walls of the structure itself.

Neutra's approach, exemplified by the Kaufmann House, later inspired other architects who took the Coastal Western desert tradition further, drawing out its most distinctive elements in order to do so. In an essay that touches on the subject, Keith Eggner describes Mexican architect Luis Barragan as referencing Neutra when he insisted on the preservation of “the harmony of the architectural development and the landscape.” “The continuity of [the] indoor and outdoor spaces” of the Kaufmann House even as it “contrasted itself to the rugged desert setting” proved influential for Barragan, and the design was in keeping with his thinking that for a structure to keep intact the site's “geographical character,” it must prioritize garden over indoor space. Evidently, Barragan located the essential tenets distinct to Neutra's approach, showing the legibility of the regional principles given some analysis of his buildings. These very principles, mostly regarding absorption into the site, are reminiscent not just of Neutra but of Yeon, despite the starkly different environmental context of western Oregon's forests from the Californian or Mexican desert. The common point is the privileging of landscape by means of a house that recedes into its environment, a structure that renders its site—inside and out—useful while also seeming to make itself transparent, better revealing the sense of place where it is located.

This distinctive manner of foregrounding place is at the center of the regional character of modernism in the American Coastal West as Yeon and Neutra demonstrate it. The works of Yeon and Neutra we have seen do not wear their similarities on their surface. Though the houses of both architects are readily identifiable as works of modernism, their divergence from one another in terms of material and governing aesthetic makes similarities invisible to the first glance. Where the commonality begins—and with it, an identifiable regional idiom—is in their style of what gets prioritized in design, in what is privileged. Both favor materials and forms that are practical for their climates. For Yeon this is often wood and rock, where for Neutra it is the metal and glass that permit the long, low forms that minimize sun exposure while maximizing integration with the

desert. With these materials both architects design structures that not only fit into their place but in some sense create place. This is the result of successful integration of structure into landscape and a fluid border between interior and exterior. Deep overhangs, courtyard spaces, gardens, and windows are mainstays of both architects, but the design of the buildings and their floor plans—while typically working to maximize points of contact between inside and out—change based on site. The bond between Yeon and Neutra is not one between two architects in close surface-level aesthetic correspondence, but rather two very different aesthetes in whom shared priorities are visible, priorities from which a common sentiment can be ascertained. They share a mission of producing habitable spaces that dissolve the inside-outside frame, and in so doing place the house in its immediate geographical context, thereby producing a sense of place. It is ultimately this persistent and attentive relationship with space and place that is at the core of the regional style of the Coastal West, a style they both—separately, differently, yet convergently—brought into existence.

DOCUMENTING IN PLACE

Dorothy Wordsworth, ruin-porn, and a call for sensory ethnography

by Tara Sharma

Between May of 1800 and January of 1803, while living in a cottage in England's northwest Lake District, Dorothy Wordsworth diligently kept a journal chronicling the interactions of ecological actors in her sensory radius: weather, trees, house, neighbor, animals, moon, and brother, William—who, in 1822, sifted through her entries, tinkered with her prose, and published the popular *Guide through the District of the Lakes* under his own name. Unlike most of her Romantic contemporaries, Dorothy wrote *people* into and out of her bucolic terrain, tangling the contours between the human and ecological. In language that slips between empiric and lyric, she sketches her environment relationally, flattening material taxonomies into a continuous perceptual plane. She distilled a mass of sensory data into a hybrid literary form—one that unravels conventional distinctions between poetic and ecological descriptive toolkits. These vocabularies, Dorothy suggests, have a lot in common.

Overwhelmed by an excess of sensory information, a reader of Dorothy's journals is left with little more to do than piece together her environment through the tiny accretions of matter and incremental processes of change she lays bare in her notes. But despite her relentless noticing, her style was always tightly controlled—an 'objective,' scientific tone that came to characterize her own subjectivity, rendered implicitly by describing what's around her. The entries came to resemble something like a poetic sketchbook, ecological language compressing and distending, scraps of sensory minutiae arranging and rearranging themselves into an exterior account subtly suggestive of a rich interior life. William combed through his sister's notes ravenously, ascribing public-facing potential to what he perceived her language to be: feminized, amorphous matter in need of an order-giving principle. "Dorothy stored her mood in prose," Virginia Woolf wrote in an essay of criticism, "and later William came and bathed in it and made it into poetry." He compressed her meandering language into verse, manipulating her subjectivity until it became something he could possess.

But even in its nascent form, Dorothy's journal holds its own. The journal works both microscopically and imaginatively, binding together bits and pieces of sensory detail into something at once empirically precise and otherworldly. Typically ending with dashes, not periods, her entries overlap into one another, working as what ecocritical scholar Kenneth Cervelli calls "an ever-expanding whole"—an ecological form mimicking the lively landscape in which she finds herself. The journal models a documentary apparatus rooted in human subjectivity—where ecology meets interiority, producing a reserve of sensory information beginning in a body and extending into the land. Through the journal, we come to know a landscape as always invoking a human documentarian—one whose interiority is just as textured and varied as the world it resides in, and whose relationship to that world is so much more than just ocular.

The journal calls upon the human presence in two primary ways: as *subjects* embedded in the ecological landscape at hand, and in the *subjectivity* embedded in the apparatus itself. This situated mode makes it nearly impossible to uphold the binary between the phenomenological and scientific—the "subjective" and "objective"—that undergirds Romantic-era literature, let alone an entire imperial history contingent on defining "nature" as inert and pastoral, offering itself for extraction.

Dorothy's peopled terrain and experiential accounts can offer us something today as we navigate the newest iteration of an old documentary trope, surfacing as aesthetic reprieve throughout the internet over the last



Tehran during Persian New Year. Arash Khamooshi for *The New York Times*.

few weeks: images of deserted cityscapes, emptied commons typically brimming with human interaction, defamiliarized industrial expanses. These images both haunt and soothe, briefly offering visual breathing room amid the density of virus-related news updates and thinkpiece influx. Evading both human subjects and human subjectivity, they sanitize the loss they depict. They allow an impossible glimpse into something that would disappear as soon as we stepped inside of it: a landscape constructed by people, where the people are nowhere to be found.

The photo series perhaps mostly widely circulated in light of global lockdowns and social distancing mandates was one published by *The New York Times* on March 23, titled “The Great Empty.” In it, a dim theater in Moscow bears empty seats and a lone cellist on stage; a deserted Santa Monica beach reflects a heavy golden hour; a masked attendant in an information booth glows beneath Bangkok’s green lamplights, alone. Though almost every photograph is punctuated by at least one human figure, the images call upon conventions of landscape paintings which have historically concealed any trace of human presence and perspective in an attempt to depict an unblemished, Romantic “nature.” It’s an elision that is part of the broader settler-colonial project of categorizing all matter as human or nonhuman, active or inert.

In his recent *Verso* article, “The Deserted Cities of the Heart,” Rob Horning identifies humans in these virus-gutted cityscapes as “othered to themselves, becoming a species for remote observation.” The wide, vignetted angles in the photo series point to a far-off documentarian suspended above the plane of the human in the frame, rendering the occasional appearance of the species an intrusive, stark presence—one that no longer belongs in the cityscape. In all of these photos, visual distance dilutes the emotional valences. Some are captured by drones; others, like those featured in a March 24 *WIRED* magazine feature, by imaging sat-

ellites in space. “Immune to being objects in the world,” Horning writes, the detached documentarian not only offers us—the even more distant viewers, whose experience of abandoned cityscape is further mediated through digital platforms—a feeling akin to the Romantic sublime that early landscape painters sought to imbue in wild, pastoral American expanses, but also allows us to briefly imagine that “the erasure of humanity doesn’t actually include us.” In obscuring both human subjects in the scene and human subjectivity from the apparatus, these photos unsympathetically produce empty space. And for the viewer who is given no visual points-of-access to the human, such emptiness only elicits a desire for more.

This proliferation of “ruin-porn,” an emergent photographic genre that saturates industrial collapse with Romantic, affective qualities of the “natural” or sublime, echoes what *Jacobi*’s Dora Apel deems “the epicenter of a photographic genre” and “the global metaphor for capitalist decline”: the glamorized deindustrial landscape of Detroit. Sedated by refined, minimalist aesthetics, voyeurs of ruin-porn lose sight of the imminent material crises these images neglect, finding mindless appetite—and even pleasure—in the dissociative visuals of decay. Ruin-porn, Apel argues, invokes co-constitutive human subjects: the insider and the outsider, which, in light of this moment, distinguishes between those privileged enough to remain domestically confined and those whose sustained essential labor makes such domestic confinement possible. The former views ruin-porn images; the latter punctuates them. While partially a compulsory nod at a vague sense of alienation and loneliness, scenes of industrial abandonment are most powerful in their production of hunger and desire, which—for the insider viewer, repeatedly removed from the material conditions of the deserted cityscape at hand—simultaneously accelerates and exalts a world without humans. Only this time, the pristine panorama is one of asphalt expanse and ambient streetlights with no one beneath them.

At the Sensory Ethnography Lab (SEL) in Cambridge, Massachusetts, director and founder Lucien Castaing-Taylor leads a group of filmmakers through an introductory class where students are urged, through exercise and experimentation, to consider the camera a complex sensory apparatus—not unlike a human mouth or hand. Quietly an extension of Harvard, SEL merges experimental artist collective with graduate-level academic study at the intersection of anthropology, visual art, and environmental studies. Situated within a larger critical turn toward nonhuman materiality and as a site of semiotic and agentic capacity, the mission of SEL, as articulated on its website, is to attend to the “aesthetics and ontology of the natural and unnatural world”—to produce documentary forms that privilege rich, immersive sensory experience over conventions of logic, narrative arc, and verbal sign systems. SEL’s most popular films of late include *Leviathan* (2013) and *Sweetgrass* (2010). The former documents the interactions of fish, flesh, machinery, saltwater, and human labor on an Atlantic fishing boat off the coast of New Bedford, and the latter follows cowboys leading sheep up a mountain in Montana. Extending such situated accounts into urban spaces, *People’s Park* is a 75-minute unbroken piece of footage filmed from the visual perspective of director Libbie Cohn as she is pushed around a wheelchair through a popular park in Chengdu.

This work emerges from a long lineage of documentarians hybridizing poetic and scientific registers—a history in which Dorothy Wordsworth is squarely positioned. In an interview with *Point of View* magazine, anthropologist and filmmaker Véréna Paravel establishes SEL’s collection as the “counterpoint to mainstream docs” in that they are “less discursive, less interpretive, more invested in aesthetic opaqueness and the interpretive agency of the viewer.” SEL’s work engages the camera as a tangible object that physically interacts with the world and—unlike a human mouth or hand—holds a record of these points of sensory contact. Cameras that

assume a nonhuman subject, maybe by way of adhering themselves to nonhuman materiality, become collaborators of authorship, telling stories that push the narrative limits of human language and sensory systems. Challenging conventions of both ethnographic and documentary filmic tropes, SEL positions its documentaries as not only records of material interactions but material entities of their own accord—ones that possess full, complex sensory systems, not unlike our own. By understanding the camera as its own documentary and sensory agent, we are asked to forgo a certain sense of directorial intent.

While the point at which the camera ends and the editorial hand begins is left deliberately ambiguous, human subjectivity is always central to SEL's projects. To sanitize the nonhuman documentary apparatus—in other words, to give it the authority of an purportedly 'objective' perspective—is to reproduce the dangerous formal distancing mechanisms of ruin-porn. It's a displacement of subjectivity reminiscent of William's sanitization of Dorothy's prose, his extracting of empirical accounts and disposing of the residue of her interiority. Footage filmed from the slick floor of an Atlantic fishing boat is still footage assembled and sculpted—co-authored—by a person. To glorify mediated access into a world without humans is to neglect the fact that every documentary apparatus is further mediated by a human subject.

SEL asks us to see the similarities between the camera and the human—primarily, that neither offers a purely 'objective' perspective. But it's also crucial to resist the temptation to fetishize the slippage between human and digital sensory systems. Paravel notes a common misconception of the filmic process of *Leviathan* that dangerously borders on conflating human and nonhuman subjectivities, eliding differences in experience, power, and affective capacity. It's easy to imagine that the filmmakers secured countless tiny cameras to countless exterior nodes of the boat—an assumption that “goes hand in hand with the fetishization of new small digital technology, as if the filmmaker is neither here nor there,” a detached, suspended subject, not unlike the drones and satellites photographing the defamiliarized city. Paravel confirms that all footage in *Leviathan*, except four shots, was “attached to a body—ours or the fisherman.”

There could be a version of the *New York Times* photo series that returns the images to the subjectivities that produce them, the subjects that populate them. This return would be like tracing William Wordsworth's poetry for evidence of Dorothy, or finding in his pastoral landscapes the human figures she was keen to write in. The photo series would demand that a deserted cityscape linger in its own emptiness, because without the people—present or absent—the photos would have no way to exist.

MEDELLÍN'S MASTER NARRATIVE

The Metrocable and Social Urbanism's Neoliberalism

by *Thomas Wilson*

As recently as the 1990s, Medellín, Colombia was inundated with drug cartel violence and instability; today, it has become heralded as a leader in urban innovation. Its once dangerous hillside neighborhoods, better known as barrios, have grown into touted tourist attractions that are paraded as economically accessible to the more formal city below. These barrios were once prime cartel recruiting grounds because of their lack of formal economic opportunities for residents. After the weakening of the Medellín Cartel, the city began to experiment with social urbanism, a form of planning that would “transform the city’s social and spatial dynamics by improving the infrastructural and morphological reality of urban space.” Here, social urbanism took on many realized forms, but one of the most prominent was the novel Metrocable, an aerial cable car with routes that ran from the downtown central business district (CBD) into the hillside barrios. Since its implementation, the Metrocable has been perceived as a powerful tool for community improvement in Medellín’s barrios.

It is undeniable that Medellín’s barrios have been transformed over the past few decades. Homicide rates have decreased drastically, and ethnographic observations describe the streets as a place of communal pride, with residents making sure they are “swept scrupulously clean.” Tourism websites have lists of the “10 Best Medellín Metrocable Tours,” many of which go directly into Comuna 13 or Santo Domingo, two barrios infamous for their historically high homicide rates. While there have been undisputable positive developments in Medellín’s barrios since the implementation of the Metrocable, they seem to be part of a neoliberal-driven narrative, partially perpetrated by international urban organizations and media outlets, that highly-visible infrastructural projects equate to economic and social justice.

Barrios have seen some meaningful quality of life improvements, which are often associated with the connectivity provided by the Metrocable. However, there has not been significant progress in Medellín’s economic equality. 70.9 percent of the city’s residents belong to its lowest three estratos, and barrios are predominantly filled with members from these classes. As a general rule of thumb, the city of Medellín gets progressively poorer from its city center outwards. The Metrocable has done little to change that. This inequality is in disjuncture with the widely-believed “master narrative” that neoliberalism and social urbanism have led to ubiquitous positive change.

To challenge this narrative, this paper will examine the role of neoliberal approaches to urban innovation, using the Metrocable as a focus. First, we’ll look at the historical context surrounding the Metrocable, social urbanism, and neoliberalism. Then, we will analyze and challenge the perpetuated master narrative of economic accessibility for barrio residents. Finally, this paper will conclude with a discussion that reflects on the inconsistencies between the two narratives. Ultimately, the Metrocable has served both as a traditional form of transport infrastructure, but also an infrastructure that allows for the circumnavigation of meaningful change in Medellín’s barrios.

Historical Development of Barrios

Today, Medellín’s metropolitan area has nearly 3.1 million residents, many of which are served by transport infrastructure like the Metrocable. Medellín’s twenty-first-century urban innovations were made necessary by



Metrocable over barrios in Medellín. Photo from Fodors Travel.

twentieth-century historical developments. Therefore, an understanding of the context that created the Metrocable is essential to fully analyze modern-day Medellín's dueling narratives of infrastructural improvement.

Much of Medellín's population migrated to the city during the twentieth century, as many Colombians were seeking refuge from rural poverty or government violence. By the 1970s, the city was already dealing with the consequences of a growing population and gradual deindustrialization; homes were not being built quickly enough to match the influx of the rural poor. In response to this housing shortage, many new residents simply built their own abodes atop the city's steep peripheral hillsides. These new informal settlements eventually became extremely populated and were the beginning of today's barrios. By 1996, these types of peripheral, self-made homes accounted for 50 percent of Medellín's housing.

These barrios were built on physically and socially precarious land, making them extremely inaccessible. Medellín's hillsides are difficult to traverse due to their steepness, making walking or even driving trips into the lower city center time-consuming. The majority of employment opportunities were in the central city below, which meant that many barrio residents were unemployed. These conditions also made it problematic for local government to reach the barrios. Because of this basic services and state security were often denied to barrio residents. Early in this development, barrios they were not even officially recognized by the city, which excused the government from supporting their residents. The combination of economic desperation and a lack of government presence caused by isolation led to the involvement of barrios in narcotics and paramili-

tary warfare by the 1990s.

The Medellín Cartel, run by Pablo Escobar, used barrios as a primary place of recruitment for members to their activities. Escobar recognized that the absence of government interference in barrios meant that illicit activities were much more easily facilitated on the city's hillsides. Thus, during the late 1980s and early 1990s, he recruited young men from barrios to perform different functions for the cartel. While some of these recruits helped produce or transport narcotics, many of them served as militants to protect the cartel and its members. These militants would sometimes clash with rival cartels, but they mainly experienced warfare with paramilitary gangs that represented far-right or far-left political groups, who oftentimes recruited from similar areas. Ultimately, this made Medellín one of the most violent cities of the twentieth century, with 381 homicides per 100,000 people in 1991, which was “comparable to a warzone.” While this statistic was representative of the entire city, young men—and especially those from the barrios—were the most likely to fall victim to the urban warfare. The violence that came to characterize Medellín was most apparent in barrios, deeply stigmatizing them as “a synonym of danger” “feared by the rest of the city.”

The prominence of violence in barrios made it even more unappealing for the government to involve themselves on the hillsides. Cartels had seemingly implemented “invisible borders” between the central city and its barrios, and at times between individual barrios. Carlos Leite, who researches social urbanism in Latin America, characterizes the invisible borders of barrios as lines that trapped residents within them. These invisible borders had very real means of keeping people both in and out, as prior permission was often needed to enter specific barrios without the incitement of violence. This impermeability, which was apparent throughout the end of the twentieth century, closely mirrors that described in Elizabeth Roberts's research on Colonia Periférico. Roberts describes Colonia Periférico, a barrio-like neighborhood in Mexico City as an impermeable place, oft-avoided by policing figures. While there are functional differences in the reality of impermeability in Medellín and Mexico City, Roberts's ideas of communities that are unaffected by municipal involvement because of internal turmoil is useful. The simultaneous inaccessibility to the formal city and accessibility to illicit groups of barrio residents is further considered by Eryka Y. Torrejón, a researcher from the University of Barcelona, who says that “While the slope zone is a social universe, it can also become a social prison.” This paradox of accessibility contributed to the eventual development of social urbanism in Medellín.

Implementation of Social Urbanism and Neoliberal Reforms

At the start of the twenty-first century, nearly a decade after the fall of the Medellín Cartel, the City of Medellín recognized its need to establish a more robust connection between barrios and the formal economic core. In order to better integrate the peripheral city with the central city, Medellín developed a series of social urbanism-based reforms that closely align with neoliberal principles. This section will further explore how these ideals resulted in the implementation of the Metrocable and the narratives of improvement that followed it.

Social urbanism, as found in Medellín, is a form of city planning that focuses on connecting socially isolated groups through both physical infrastructures, such as the Metrocable, and social ones, like increased government participation. The first steps towards social urbanism in Medellín were implemented directly after the death of Pablo Escobar in 1993. Several laws pertaining to urban growth and development were passed at a national level, each of which concerned the level of transparency or citizen-participation in urban planning. Land Use Development Law 388, passed in 1997, outlined a series of tools that cities like Medellín were to use to accomplish their individual urban goals; these tools were often aligned with social urbanism, including things like infrastructural projects. Notably, significant government decentralization also occurred during

this period, which led to stronger municipal governments. With more power to control its own urban fate, Medellín implemented the Plan de Ordenamiento Territorial (POT) in 1999. The POT established different zones of the city, and aimed to involve barrio residents in the city's center, requiring transportation infrastructure to facilitate this. Each of these reforms led to the heavy-handed usage of social urbanism in planning for the connection of Medellín's barrios.

Medellín's implementation of social urbanism involved many large, visible projects. In 2004, the new mayor of Medellín, Sergio Fajardo, began to heavily implement new social urbanism-oriented infrastructures. In his term, Fajardo placed a larger focus still on increasing accessibility to "the peripheral [areas], lacking public services and that presented the worst rates of violence and social vulnerability." Fajardo was deeply convinced that these reforms had to project the goals that they represented, as he explained in 2012:

We knew the importance of building new public spaces to ignite social transformation, but it was clear to us that these public spaces had to be associated with other reforms in education, science, technology, innovation, entrepreneurship and culture, and we knew what these projects could mean to the community. So these spaces had to convey a sense of dignity and respect.

Fajardo's description of social urbanism clearly places value upon visible social interaction, as well as the entanglement of institutional ideals in barrio life; he felt that projects like libraries, of which he built many in barrios, would be symbolic of the change he wanted to see.

The social urbanist reforms in Medellín are closely aligned with the goals of neoliberalism, even if this has not been explicitly stated in government plans. Neoliberalism involves, amongst other things, the use of private markets to solve public issues as well as "the reinforcement of dominant class hierarchies." Many of the social infrastructures involved in social urbanism, such as transparency, became known as the "good governance" model in Medellín. Tobias Franz from the University of London asserts that the goal of this model and social urbanism as a whole was to promote business confidence in Medellín and try to attract both foreign and domestic investment in barrios and other trouble areas. According to Eryka Y. Torrejón Cardona, one aspect of the neoliberal city "is the continual transformation of space in order to generate greater levels of urban income through local and international investment flows." The project associated with social urbanism directly meet this qualification. Although neoliberal reforms have been credited with assisting urban reform, they have failed in several ways in Medellín, as will be discussed later.

The Metrocable became one of the most prominent results of both social urbanism and neoliberalism. In 2004 the first Metrocable line, the K-Line connected Santo Domingo, a northeastern barrio, with the rest of the city for \$24,000,000. Today, there are four other Metrocable lines, as J, L, H, and M have all finished construction, with a sixth line, P, still in progress. Each of these lines involved a significant investment for the city, even though the system was primarily meant to supplement alternatives like bus rapid transit (BRT) which achieve a higher ridership for a lower cost, despite a slower transit time. Since its inception, the Metrocable has become one of the Fajardo's neoliberal icons, project a perceived culture of urban innovation, as its often mentioned in publications and given international awards. Not only does the transport infrastructure abide by the goals of social urbanism, as a project that connects the lowest rungs of society to the main city, it also abides by neoliberalism by attracting investors in the areas of the city that the government is unwilling to develop.

Master Narrative of Improvement

In her essay “The Ethnography of Infrastructure,” Susan Leigh Star, of the University of San Diego, describes the idea of a “master narrative” as it relates to the social context of infrastructure. She defines this master narrative as “a single voice that does not problematize diversity,” often installed and then perpetuated by the predominant ruling class. In the case of Medellín, there exists a strong master narrative that the Metrocable has brought improvement to the city’s hillside barrios. This section will explore the formation of this narrative, and the statistics and groups that have worked to sustain it.

One of the chief goals of Medellín’s social urbanism was increasing the accessibility of barrio residents into the formal downtown core. This goal, perceived as achieved by many different indicators, is a primary driver of Medellín’s master narrative. As of 2013, over 48,000 commuters used the Metrocable daily; this was before the installation of several existing lines. In their study on the Metrocable’s impact on barrio accessibility, Dirk Heinrichs and Judith Bernet of the Institute of Transportation Research found that the system’s main benefit was its reduction in travel times, as the Metrocable traversed the hillside and its 400m drop in 15 minutes – much faster than any other form of local transit. Furthermore, the Metrocable acts as a permanent fixture that runs regardless of perception of the neighborhood. Many of the barrios connected with Metrocable lines have been considered the most dangerous neighborhoods in the city, driving away transport operators like taxi drivers. Because the Metrocable is not subject to the fear of individual transporters, it is a reliable method of transport for barrio residents. This evidence supports the narrative that the Metrocable has, in many ways, increased accessibility into hillside barrios.

Another sub-narrative used to support the overall master narrative is the decline of violence within barrios, as well as the ethnographic description of generally improved lives. The homicide rate has fallen by over 300 people annually, reaching a low of 20 homicides per 100,000 residents in 2015. Academic research has attributed limited amounts of this to the increased security and police presence in areas around the Metrocable. Ethnographic details of barrios have also described them as reformed areas, with authors like Richard Sennett detailing the newfound ability of residents to take pride in their community thanks to massive, tourist-oriented projects like library parks and graffiti displays. Some reports go as far as to say that local residents are proud of the Metrocable, and even identify themselves with it. Sennett is a supporter of infrastructures like the library, praising Mayor Fajardo. “To have people ‘take ownership’ in their communities,” he is quoted saying, “you have to build something worth owning. Therefore [Mayor Fajardo] hired star architects to design libraries for people becoming literate, rather than commissioning a new, world-class opera house. He was a good mayor.” This quote is one of many that shows an affinity for the Metrocable and other descendants of social urbanism.

Media portrayal plays a large role in justifying the master narrative of urban innovation’s success in Medellín. Prominent magazines and newspapers such as *The Economist*, *The New York Times*, and *The Guardian* have all released articles that detail Medellín as a city reborn. Oftentimes, the Metrocable is at the center of these articles because of its visibly novel approach to urban problems. In fact, international urban organizations have also contributed to the heralding of Medellín’s Metrocable. The Urban Land Institute, in coordination with *The Wall Street Journal* and CitiBank, awarded Medellín with 2013’s “Most Innovative City” Award. The cover photo for the press release was of the Metrocable. At times, academic arguments were even used to support neoliberalism and the overall master narrative in Medellín. For example, in their discussion of slum improvement, Blanco and Kobayashi acknowledge that developing public services in places like hillside barrios is often difficult to publicly justify. They argue that creating entirely new, formal structures in barrios is often disruptive to the informally developed neighborhoods, which makes public involvement the projects

both expensive and unpopular. Several different sectors have worked to drive the master narrative created by the government of Medellín.

The visual nature of Medellín's social urbanism has helped construct the neoliberal aspects of the master narrative. Beginning with the administration of Mayor Fajardo, a strong emphasis was placed on installing infrastructures that "conveyed" their purposes. Cardona asserts that "the generation of urban income through promotional campaigns for the city," or "city-marketing" is yet another aspect of a Medellín's neoliberal city. This campaign was also an extension of the aforementioned 'good government' strategy that portrayed Medellín's government as a responsive one, making it seem that the government would finally take "responsibility for these areas" that they had neglected for so long. As projects like the Metrocable were installed, the city used them in advertising campaigns to help portray Medellín as welcoming to foreign investors. The Metrocable is particularly useful in these portrayals because it is visually which is prominent in the city itself. Therefore, while the Metrocable statistically expands the accessibility of barrios, it is also being used as a metaphorical tool to emphasise its infrastructural capabilities and sustain neoliberalism.

Difficulties with the Master Narrative

As Star explicitly states, a master narrative fails to account for those not responsible for generating it. In Medellín, it is important to consider how the master narrative of change brought upon by the Metrocable fails to account for the life experiences of barrio residents. The social urbanism, and by extension neoliberalism, that fueled the implementation of the Metrocable have not facilitated economic equality within barrios; they have accomplished the visibility of neoliberalism, but even this has failed to bring in widespread investment as predicted. Thus, this section will critique the supposed successes of the master narrative in order to examine to shortcomings of the Metrocable in advancing economic equality in Medellín.

Today, Medellín is the most unequal Colombian city. There is an unemployment rate of 11.8 percent, and poverty rates are rising again after having fallen from the early 2000s until 2015. According to UN-Habitat Representative for Medellín, Eduardo Lopez, "In Medellín, we see an oligarchy that continues to dominate the economy and so the wealth created since the mid-nineties still hasn't reached the poor." There are two important counter arguments for this point. First, urban environments are generally more equal than rural ones in Colombia; second, Medellín has become more equal since the implementation of the Metrocable and other social urbanist reforms. While both of these are true, Lopez characterizes most of the inequality in Medellín as stuck in its barrios—that is, equality is growing in the city center, but this equality still has not spread to the inaccessible places the Metrocable is attempting to reach.

This inequality has persisted partially because barrios are not as accessible as the master narrative suggests. While the Metrocable has been a step forward in creating a quick way to traverse the hillsides of the city, its capacity is limited. As of 2013, the total number of trips made on the Metrocable was 43,000; only 44 percent of these were for work. This means that, considering one worker must go both up and down the Metrocable in one day, it can be estimated that as of 2013 less than 10,000 individuals from barrios used the Metrocable to make work-related trips. In interviews with barrio residents, Heinrichs and Bernet found that many residents rarely visited the city center even once a year. This lack of usage is partially due to the lack of capacity in the cars, but it can also be attributed to affordability. According to one resident, "I tell you, everything depends on how much money you have at that moment." Even though a Metrocable trip is less than two pesos, this cost can still be a barrier for barrio residents. Thus, one third of barrio residents still make their daily commute on foot, largely because this commute is free. The Metrocable has not been able to make the distant voyage down

the hillside available to all barrio residents.

Meanwhile, some of this inaccessibility has simply been pushed to other places. Luisa Sotomayor of York University argues that as long as projects like the Metrocable draw attention to certain areas of the city, then other areas of the city will be developed “like usual.” This theory has been realized in the city. The Metrocable has increased land values directly around its end terminals. According to Leite, this has pushed some residents far away even from these points of accessibility and is “creating a periphery within the periphery.” Unlike taxi or busing services, the Metrocable is not able to seek out its riders. So, even while areas directly adjacent to the Metrocable are somewhat accessible, the peripheral peripheries are not served by the fixed infrastructure. While the Metrocable has created a reliable, efficient form of transport it has not done so on a scale that has created meaningful change in hillside barrios.

The narrative surrounding improvements in violence and general community appearance is also not as straightforward as presented by media outlets and urban groups. While homicides have decreased, other crimes such as armed robbery and extortion have skyrocketed in Medellín since the implementation of the Metrocable. In 2003, there were 5,474 street robberies in the city, and by 2018 there were 21,079; extortion has grown at a similar rate. While there isn’t published research explaining the rise in these statistics, it is possible that the increase of wealthy tourists into barrios and the ability of economically desperate barrio residents to reach the inner city has contributed to this rise in crime. Furthermore, it is difficult to assign any credit to the Metrocable for falling homicide rates, as the fall is very closely linked with a similar fall in the rest of the country, which is attributable to the fall of organized crime.

Although the Medellín cartel has a significantly decreased presence in barrios, there exists a paradox of accessibility. The central city is still difficult to access for barrio residents, while the Metrocable has made the hillsides much more available to tourists interested in topics like urban transformation and cartel history. Medellín has begun to see 550,000 international visitors annually, while the hostel market has increased thirtyfold in the city. An entire Metrocable line, the L-Line has even been created to serve tourists. The line begins in Santo Domingo, at the end of the K-Line, and takes riders into a nearby nature preserve. This is particularly problematic, as it costs more than the traditional car and serves to bring tourists up along the K-Line, through Santo Domingo. This increase in tourism serves the neoliberal principle of increasing the city’s visibility. Medellín supports the industry because it brings in foreign investment to the city, and justifies its adherence to neoliberalism. However, this tourism fails to benefit barrio residents, as tourists often stay in the central city, and contribute little economically to the hillsides.

The perceived benefits of neoliberalism, such as the involvement of private industry, have failed to fulfill many of the needs of barrio residents. As Medellín has attempted to draw in investment, it has used public dollars to create projects like the Metrocable and flashy libraries that showcase the potential of barrios. While these projects have succeeded in attracting international conventions and awards, they have not created fundamental quality of life improvements in barrios. Sotomayor conducted a series of interviews with barrio residents to explore their perception of the projects. One respondent’s thoughts eloquently described the responses of so many others as they said, “Everything looks very nice, and they can wrap the neighbourhood in gold, but as long as there is so much violence, hunger, and poverty in the comuna, all of that will be out of tune and extravagant.” In an interview with an urban designer in the city, Sotomayor finds that even some of the employees working on these places are frustrated by the creation of visible infrastructures, but in the face of continued absence of systems like sewage that would improve barrios. The visible systems used to achieve



Medellin, Colombia. Photograph by Joris Hermans.

arguably more essential systems.

Conclusion

There are many shortcomings in Medellín's master narrative of improvement. The examination of historical context creates a basic understanding of what led to the creation of the Medellín's master narrative. The early development of the Medellín's barrios involves a legacy of isolation created by government absence and cartel involvement. The eventual recognition of barrios as legitimate areas needing government assistance, brought upon in the early twenty-first century, contributed to the development of social urbanism's neoliberal infrastructure, of which the Metrocable is a prominent example. The Metrocable meets the government goals, initiated by Sergio Fajardo, of visibly symbolizing the improved accessibility associated with social urbanism. Ultimately, this accessibility is more aligned with the needs of neoliberalism than those of barrio residents.

The Metrocable and social urbanism as a whole were meant to free residents from Cardona's "social prison," but in reality Medellín's reliance on neoliberalism has failed to improve the "social universe" of Medellín's barrios. The international acclaim brought to the Metrocable has a basis in realized quality of life improvements for barrio residents, though the extent to which the infrastructure itself is responsible for these can be debated. Today, Medellín's barrio residents still face severe issues with economic accessibility and inequality; simultaneously, neoliberalism has maintained prominence. Tourism has become a major consideration along the Metrocable, exemplified by the L-Line. Meanwhile, the terminuses of the Metrocable are the only real attractions for investment and have led to mild gentrification. The problem with the master narrative of the Metrocable's improvement is not that it is incorrect; rather, it is incomplete. The Metrocable can still be understood according to its master narrative, as an infrastructure that transports barrio residents up and down the hills of Medellín., but not unless it is acknowledged as an infrastructure that assists in visually perpetuating neoliberal ideas actively fall short of serving Medellín's barrio residents.

PROVIDENCE

by Eve O'Shea



Volume 6

THE ROAD TO HOUSING REFORM: PAVED WITH GOOD INTENTIONS?

Promotion of the American Family Ideal in Federal Affordable housing policy
By Katherine Xiong

Judith Butler frames every nation as having a vested interest in identifying and supporting a certain legal subject: in America's case, the essential reproductive nuclear family. This family, led by a married, white, heterosexual couple with children, receives government recognition through subsidies and legal rights, which then align with notions of respectability and propriety. The wealth such family units can accrue becomes a signifier that that kinship model produces its success entirely on its own, justifying government subsidy. In the U.S., housing functions as a crucial site of this national reproduction of the family ideal, given the nine decades-long period during which the single-family, suburban home solidified a naturalized ideal legislative unit/subject directly tied to the so-called American dream. In serving this purpose, as well as the capitalistic interests of the real estate and construction industries, owning that kind of home thus becomes another set of core attributes of the essential 'American family.' Alternative family models—large extended families and expansive kinship networks not related by marriage, families that work interdependently rather acting as purely independent entities, family models closely associated with LGBTQ+ communities—thus suffer the financial consequences of lacking government recognition. Affordable housing policy has the potential to act as a safety net for these non-conforming households. Due to an admitted dearth of quantitative data on how LGBTQ+ households use federal housing aid and in what ways, as well as on how being LGBTQ+ affects how aid is awarded, this assessment of affordable housing policies' effects on the non-conforming family must instead analyze the goals and ideation behind affordable housing policies. Such an analysis reveals that not only do current housing subsidies that incentivize homeownership through tax benefits and reductions actively enforce the so-called American family as the legislative 'subject' to which the government caters, the underlying goals of housing assistance's direct expenditures press the non-conforming households—the non-subjects—into conformity under the guise of progress rather than attempting to recognize and meet the actual needs of these households. Affordable housing policy thus becomes a tool for enforcing conformity to the naturalized ideal subject.

The governmental support afforded to families that conform to the idealized single-family household gives them a structural advantage over non-conforming individuals and families in their ability to accumulate wealth/raise their socioeconomic standing. This support manifests itself mainly through financial incentives and legal/financial rights for maintaining both the ideal residence structure (owning a home that aligns with the so-called "streetcar suburb") and the ideal family structure (two parents in a heterosexual marriage and their children). Only homeowners have access to housing subsidies given via tax expenditures, including mortgage interest deductions, property tax reductions, and capital gains exclusions, for example, with the magnitude of the benefits determined by property value, family income, and the minimum expenditure threshold that would allow for the itemizing of one's tax deductions. In other words, families who already have higher socioeconomic statuses derive greater benefits from reductions in mortgage interests and property taxes, further solidifying their place within the nation's socioeconomic hierarchy. Marriage adds another layer of tax benefits, as well as the ability to file mortgage tax reductions jointly, transfer property between one another, establish one another as joint owners of a home, share a home insurance policy, etc., financial boons to which unmarried and/or same-sex couples have limited access. Thus, under current tax expenditure housing subsidies, married heterosexual couples with higher incomes stand to benefit more from homeown-



Promotional imagery from the US Department of Housing and Urban Development

ership than same-sex couples or other, non-heterosexual kinship structures. Given the way homeownership functions as a primary pathway towards wealth accumulation in the U.S. and how many of these federal benefits have existed for generations (mortgage interest deductions, for example, began in 1913), homeownership has thus become a vehicle for the continuous compounding of wealth within certain families. If government recognition and support constitute having subjectivity, therefore, the American nuclear family becomes the standard subject towards which the federal government directs its policy.

“CURRENT HOUSING SUBSIDIES THAT INCENTIVIZE HOMEOWNERSHIP...ACTIVELY ENFORCE THE SO-CALLED AMERICAN FAMILY AS THE LEGISLATIVE SUBJECT TO WHICH THE GOVERNMENT CATERS.”

If typical homeownership remains the domain of the American-dream family, affordable housing policy's primary goal should ostensibly be to create a safety net for those who, like many LGBTQ+ households, do not conform to that family structure. The way this structural inequity, combined with the effects of past discrimination against LGBTQ+ households in particular in areas such as hiring, housing, policing, medical treatment, etc., continues to leave financial scars on LGBTQ+ households' finances explains why LGBTQ+ people, particularly LGBTQ+ people of color, transgender individuals, and LGBTQ+ people living with disabilities, disproportionately rely on housing assistance. For example, a 2018 Center for American Progress survey found that 6.3 percent of LGBTQ+ people reported receiving public housing assistance, in contrast to 2.5 percent of non-LGBTQ+ people, with even larger disparities between trans and cis people (14.3 percent vs. 2.7 percent), disabled and non-disabled LGBTQ+ people (17.6 percent vs. 2.2 percent), and LGBTQ+ peo-

ple of color vs. white LGBTQ+ individuals (12.5 percent vs. 3.8 percent). Given that the federal government bases eligibility for housing assistance on a maximum area medium income (AMI) threshold rather than the severity or degree of need, this disparity does not signify a prioritization of specific groups when awarding aid out of recognition of their unique needs; instead, it reflect the extent to which LGBTQ+ households have had comparative difficulty attaining advancing their socioeconomic statuses, especially along intersectional lines. That level of need behooves federal housing policy to provide a mechanism through which the systemic inequity and lack of recognition LGBTQ+ households face could be addressed, an alternate form of subjectivity for a social group whose needs and priorities have been ignored.

The federal government's attempts to offset that lack of subjectivity through direct expenditure housing assistance, however, only reinforce the notion that the ideal family is the necessary and essential structure for a household. The U.S. Department of Housing and Urban Development's stated goals in policy implementation, to emphasize poverty deconcentration and mixed-income communities, treats each household receiving aid as a self-contained, self-reliant unit that can simply be moved between neighborhoods with only positive results. Bolstered by federal housing choice vouchers, ostensibly designed to allow households as much freedom as possible as a sign of the government's trust in their ability to make sound decisions, this household takes singular responsibility for its own financial success and failure. Such a perspective disregards not just the structural boons and barriers involved in financial success and failure but also the potential value of community support networks and kinship structures that extend across multiple households in promoting the financial, social, and emotional health of a household. These extended kinship structures can offer support through free/shared childcare, sharing of financial burdens, social/emotional care, and even community organizing and internal investment that would promote growth of a community as a whole, not just a single family at a time. LGBTQ+ households in particular rely on these kinship structures for support against discrimination and for a sense of stable community, especially when considering that many LGBTQ+ individuals lose the support of their own nuclear families because of their identities, seen in the rise of the 'chosen family.' To incentivize individual households to break out of these communities in order to receive government support thus forces families to place their own interests at odds and choose between them rather than allowing the benefits of increased support to compound on existing forms of support. Mobility becomes an individual choice: a household can either take it on the federal government's terms, or it can capitulate to its own poverty, at fault for its own failure, for refusing the obvious 'better' choice.

Faced with this choice, many individuals, particularly renters, choose housing in lower-income neighborhoods even when their aid comes as a Housing Choice Voucher, if not because of trust in their current community, then because of how alienating and outwardly exclusive better neighborhoods appear. Though these mixed-income communities do also present opportunities for community formation, the risks of NIMBYism, social isolation, and outright discrimination against low-income renters, particularly those who already face identity-based discrimination, limit the strength of those community networks. Despite proponents of poverty deconcentration who recognize that this policy means little for the newly-introduced household unless social networks form around it, policies aimed at poverty deconcentration make little mention of contending with those social aspects, indicating HUD's lack of consideration for them as a significant aspect of survival. To make matters worse, HUD's policies neglect to support low-income neighborhoods themselves in favor of facilitating flight out of them, as if those communities were not also constituted of people critically in need of aid. Poverty deconcentration reinforces the perception of poor neighborhoods not as places of opportunity for investment and community growth, but as places of transition and permanent stagnation, decreasing the likelihood of individuals in the community seeking out community networks and the likelihood of those

communities being able to increase their current socioeconomic standing. Meanwhile, the myth of the household as being individually responsible for its own success or failure frames individuals who choose to remain in those communities—often for legitimate, important reasons—as the causes of their own economic demise when in reality, the economic situation has far more complexity. As Butler notes, this confusion of effect for cause works as a typical tactic for which individuals receive the blame for structural biases, as those biases may not be readily visible. Housing policy’s focus on actively disrupting existing communities in pursuit of increasing individual access to resources thus reinforces the enclosed, American nuclear family ideal while disregarding the needs of the households and communities that most need its help.

This framing of the situation does not signify that individuals’ choices to move out of lower-income neighborhoods has no justification and cannot result in tangible benefit, nor does it attempt to point to individual choices as a sign of false consciousness, i.e. the presumption that individuals’ free choices act against their own self-interests. The causes of those benefits, however, may have more to do with the government’s resource allocation across communities, a governmental form of reinforcing existing “good” neighborhoods over “bad” ones, than those wealthier neighborhoods being more stable because of non-wealth related reasons (i.e. cultural reasons related to typical family and neighborhood structures and ways of life). Thus, faced with the question of how to properly recognize non-traditional family structures, governments have two choices. The first, expanding recognitions by writing in special cases in which non-traditional families can access the same financial rights and tax benefits as married couples, may in itself prove reductive, as attempting to outline every possible exception may inherently exclude certain families from consideration. Yet this option remains the one most modern activism pursues, given that the second option, removing recognition altogether—i.e. removing the tax benefits associated with marriage and homeownership, but also removing restrictions on who can access what financial rights—may prove strenuous, both due to the difficulty of rolling back benefits once given and the need for legal recognition of family subjects in order to provide aid to them. Building a more inclusive state necessitates active, ongoing negotiation between these two understandings of legal recognition. Having an understanding of how this narrative of the stable American family came to be in the first place may at least help bring that negotiation the attention it deserves.

URBAN FLOODING

A Solutions-based Analysis of a Rising Problem

By Evan Kindler

Definition of Issue

Urban flooding occurs when there is more storm water in a city at a given time than the drainage system is capable of removing. This flooding can be caused by two phenomena. Heavy rainfall can collect on the landscape (pluvial flooding) or cause rivers to overflow their banks, while storm surges and high tides can bring water into coastal cities. This movement of water is influenced by two factors: land development and their coinciding storm water systems. Land development disrupts natural drainage pathways and creates impervious surfaces that prevent water from seeping into the earth. If storm water systems do not account for these disruptions or the other water runoff needs of an expanding city with increased risk flooding, flooding will occur. This flooding causes a variety of issues that span from illness and loss of life to property damage and widespread water pollution, as receding floodwater is toxic waste.

A large number of US cities were founded along waterways to encourage trade, ease manufacturing, transport people and things, and because water is beautiful. Cities were able to grow with the Industrial Revolution as trains, trolleys, subways, and cars allowed people to live further away from their jobs. The expansion of cities meant the growth of developed land which, combined with the building of roads for cars, covered the ground with impervious materials. The old sewer systems proved to age poorly as they were generally undersized, outdated, and inadequately maintained, keeping them from effectively dealing with the expanding sewage needs of developing cities.

Unfortunately, rather than fading away, this issue of drainage appears to be increasing in magnitude. National trends show that coastal cities are gaining population density coinciding with an 2% per year increase in occupancy of flood prone areas. As these cities expand, more and more land is converted into impervious surfaces, creating more runoff, and thus, more flood damage. The increased adverse effects of climate change will also contribute to more urban flooding. As the atmosphere warms, it will hold more moisture, which in turn increases the intensity or frequency of heavy rainfall. Heavy rainfall in the Northeast and Mid-west is expected to increase by 40% by 2100, bringing with it an increase in pluvial flooding. Rising temperatures cause rising sea levels as glaciers and ice sheets melt into the ocean. Storm surge related flooding will reach further inland as the sea levels upsurge, an effect that we have already seen as tidal flooding in the US has increased by 300%-900% over the past fifty years.

The issue of urban flooding can be separated into four dimensions: physical, social, action and decision-making, and information. The physical dimension is the built or natural environment that interacts with flood water, from slopes to drainage systems. The social dimension is the impacts that flooding has on the people whom it affects. Action and decision-making refer to the plans in place to manage urban flooding, whether it be development plans or disaster relief. Finally, the information dimension is the data on the other dimensions that allows us to understand and effectively communicate urban flooding's affects. The separation of these dimensions gives a more holistic understanding of the problem by forcing one to consider how variables interact. If there was better communication of the economic impact of a major street flooding on local business, would cities implement new projects and plans to deal with sewage backups? How does the



Current flooding possibilities from a 1% annual chance storm with level darkness linked to water height. At the darkest places it is more than 11 feet. Maps made by author in Stormtools.



Flooding possibilities from a 1% annual chance storm in 2050 with level darkness linked to water height. At the darkest places it is more than 15 feet. Maps made by author in Stormtools.

operation of daily life in a city change when flooding pre-vents kids from walking to school? By creating a framework to address these questions, the multidimensionality of the issue can be understood through the interdimensional relationships and readjust the focus of policymakers to find the right balance between them.

Policymakers must understand the location and the scale of necessary interventions in order to act effectively. If estimates show that an area will be in a floodplain in 20 years, code and zoning measures should be taken to address this potential danger before it actualizes. If the local government does not step in, insurance agencies will act. Many private insurance agencies create their own risk assessments and will not insure areas in floodplains because of the substantial risk involved with building there. Floodplains that are usually categorized into one of two types: 1% or 0.2%. Their names are derived from their chance of flooding during any given year. FEMA's National Flood Insurance Program acts as a counter, insuring structures in 1% floodplains in attempts to "mitigate the effects of flooding on new and improved structures," according to the FEMA website. However, this federal program has been attacked for subsidizing growth in floodplains. As Robert Azar, Deputy City Planner in Providence, points out, "This is one area where a free market might actually be a good thing because if you can't get insurance to build in a floodplain, you don't build in a floodplain."

While we may not know the exact extent of flood risk, we do know who is at risk from urban flooding. The most vulnerable populations with the fewest resources are the most drastically affected. Children and the elderly have higher mortality, morbidity, and trauma rates than others. Nonwhite racial groups and immigrants face higher rates of death, injury, and negative post-flood health outcomes with lower rates of flood insurance and trust in authorities for post flood assistance. Low-income individuals have higher post-flood health impacts, limited post-flood housing, and disproportionately live in flood-prone areas. Similar impacts effect people with disabilities, people experiencing homelessness, women, the chronically ill, those who are uninsured, renters, households without vehicles, and people without high school degrees. In order to protect our society's most exposed populations from worsening conditions, action must be taken. There is a dearth of research about social vulnerability associated with urban flooding, especially when compared with the amount of research on the physical dimension.

Providence

In this section I will look at how Providence, Rhode Island is preparing itself to face the ever-rising risks of urban flooding. I chose Providence because of its coastal location and its accessibility to me as the city where I am based. I have a personal connection with Robert Azar, the Deputy City Planner, so I was able to get insider information about the systems and regulations that Providence has in place beyond the reports and plans.

Fox Point Hurricane Barrier

Providence's main line of defense against flooding is the hurricane barrier that separates the Providence River from Narragansett Bay. Spanning 3,000 feet, the barrier was constructed in the 1960s in response to two major flooding events in 1938 and 1954. It is controlled by the US Army Corps of Engineers, while the City's Department of Public Works has responsibility for the levee and street gates and the Narragansett Bay Commission attends to wastewater control. The aforementioned street gates can close off the road between the Fox Point neighborhood and waterside India Point Park to prevent flood waters from circumventing the barrier. Closing off the river with the barrier presents another flooding danger as the river water will have nowhere to go but over the banks. To combat this possibility, there are pumps that will move water from the river, across the barrier, into the bay.

Narragansett Bay Combined Sewer Overflow Abatement System (NBCSOAS)

Providence has a combined sewage system, meaning that the storm drains and sewage are processed through the same pipes and water treatment plant. This system caused overflows of contaminated water into the surrounding bodies of water when there was heavy rain, so the NBCSOAS was built. This 26-foot-wide, 3-mile-long pipe stores rainwater until the flooding has decreased so that the treatment plant is not overtasked. This system has worked wonders for the surrounding water with Azar calling its effects "totally crazy!" and noting that the water quality has improved to a point which it has not been in 100 years.

Problem Areas

Despite these two systems, Providence still faces flooding. In 2006, torrential rains induced major flooding of the Woonasquatucket River (which feeds into the Providence River) causing occupants of Valley Street to employ "discreet interventions" like sandbags to stop water from entering their buildings. Waterplace Park, the main stage for Providence's world-famous Waterfire, floods onto the walkways with no storm nor extraordinary weather.

While most of the area surrounding the barrier to the east is elevated on College Hill and is safe from the majority of flooding, without the hurricane barrier "all of downtown would be in a floodplain" and if it fails "all bets are off" according to Azar.

The current flooding issues are only going to worsen with time. Projections show that many areas in Providence are at risk from flooding with a 1% annual chance storm and by 2050 that area expands and the water depth increases significantly. When asked about future prevention methods, Azar responded that there has been discussion of adding to the hurricane barrier or creating a new system further out in the bay to mitigate flood risks. While both of these ideas seem as though they would prevent flooding, I believe it would make more sense to implement them in addition to a series of smaller scale changes that will address current flooding while adding to Providence's overall flood defense and beautifying the landscape.

Future Solutions

Luckily, there are numerous technologies, design strategies, and zoning regulations that can be implemented to mitigate the dangers of urban flooding. There is no single answer to the issue of flooding. It requires a series of changes to the urban environment in order to be adequately addressed as it continues to affect cities more intensely across the globe. Just as each city is unique, so is their flooding problem. However, there are common steps that every city can take in order to reduce the damage of flooding while improving the quality of life of its residents and visitors in the process.

Water Retention Parks

Areas that have seen recent upsurges in flooding have started using parks as a way to temporarily store excess stormwater to keep it from flooding the landscape or overworking the sewer system. In Bangkok, 11-acre Centenary Park is slightly sloped so that water runs into receptacles that, with the retention pond at the bottom, can store 1 million gallons of water before releasing it into the public sewer system. The designer, Kotchakorn Voraakhom, and her architecture firm, Landprocess, have plans to open another 36-acre park with the same retentions functions next year. This treatment is not only limited to new parks. Tredje Natur won a competition to redesign Copenhagen's Enghavenparken which had been initially constructed in 1929. Their redesign allows the park to hold more than 6 million gallons in a 'dustpan,' an excavated area inside the park, and a closed underground reservoir through a one-meter slope across the park. Many of these interventions are invisible, but those above ground serve a purpose beyond water retention. There are water gutters throughout the park that add an aesthetic element while hinting at the park's incorporation of water. The Multi Pitch is lowered into the ground, creating seats from which to view the sport activities that happen in the basin or the retention pond that forms with heavy rain. The main stormwater management element of the park is a levee sits along the park's three lower sides. It creates a wall with sitting spaces, pools of water, and water elements meant for play. I believe a similar park could be implemented in Providence on the 195 land on the western side of the pedestrian bridge. Currently, this land is being used to build Providence Waterfront Park. Adding a water retention element to this park would not only help reduce flooding but work to purify the water in the river faster than the NBCSOAS alone.

Green Alleys

Since 2006, Chicago has built more than 100 green alleys. Essentially, the goal is to create more permeable surfaces for stormwater to filter through and drain into the ground. These generally take the form of bioswales, channels into and through which water runs, which contain clusters of rocks that decontaminate the water. This water then feeds to the plants in the bioswale or seeps into the ground to return to Lake Michigan. This system has diverted 80% of the rainfall from the sewer system, reducing the infrastructures load and keeping the streets clear of water. While Chicago is the only city that has implemented green alleys to this degree, the Trust for Public Land is partnering with various local agencies and organizations in Los Angeles to create them in the southern portion of the city.

Providence could similarly implement green alleys throughout its floodplains to enhance the quality of the water flowing back into the river while slowing the amount of runoff via natural water management.

Eco-Boulevards

UrbanLabs, a Chicago-based architecture and urban design firm, has plans for the streets of Chicago as well.



A visualization of Changde's eco-boulevards before and after heavy rain

Currently, rainfall and the water used in the daily activity of Chicagoans both drain into Chicago's deep tunnel sewer that empties into the Gulf of Mexico. They proposed using eco-boulevards to filter this water and return it to Lake Michigan. Changde, China, however, will be the site of implementation for the world's first eco-boulevards. UrbanLabs were commissioned in 2016 by the Chinese government to create this 5 square mile, 600,000 inhabitant city around a polluted, flood-prone lake. By using eco-boulevards to filter storm water entering the lake, Changde's liability becomes its biggest asset. The eco-boulevards link different water filtering infrastructures together creating a "Sponge City." The connected web of foliage, parks, and gardens provide a utilitarian service while beautifying the streetscape. While this idea is not applicable to Providence currently due to its already narrow streets, the idea itself is inspiring and could be applied to divert excess water from the various rivers surrounding the city if they begin to become dangerously high.

Berms

While still eco-boulevardless, a different type of flood-protecting road is being planned for the US. The flooding caused by Hurricane Sandy prompted the US Department of Housing and Urban Development to give \$150 million in funding to Rotterdam-based architecture firm ZUS to create berms in New Meadowlands, New Jersey. These berms are raised banks that have bike lanes, recreation zones, and a rapid transit bus lane, all the while allowing restored wetlands to flourish. This marshland will work to soak up water when there is excess and slow the speed of tidal waves. ZUS calls the design "berms with benefits," hinting at the multi-functional nature of their infrastructural design. Berms could be implemented along the Providence River surrounding the pedestrian bridge. There is plenty of open land and concrete walkways that could be reworked to become berms and thus naturally flood resistant barriers.

Densifying High Ground

A more zoning and code-based solution to flooding has been commissioned by the Regional Plan Association and the Rockefeller Foundation for this same area of New Jersey and New York. Recognizing that there are 2.5 million people in this area who live in a floodplain, a team was tasked with responding to sea level rise and the need for expansion. They determined that this area should focus on densifying development on high ground rather than continuing to build in flood zones. The homes that are already there should be elevated and connected by docks. Rather than trying to keep the ocean out of the cities, the team believes that a more effective strategy is to blur the line distinguishing ocean from city by allowing water to flow into developments



Climate tile system as shown in Dezeen.

that have been planned around its presence. If necessary, this type of density zoning could be implemented in Providence. There is plenty of high ground for people to move onto if certain areas increased density. I do not see this becoming necessary in Providence nearly as soon as in the NYC area.

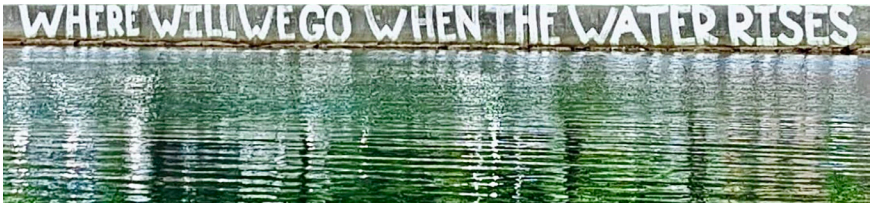
Climate Tile:

Another method that has been used to reduce impermeable surfaces is to transform them into permeable surfaces. Tredje Natur, the same firm behind Enghavenparken's re-design, is implementing their Climate Tile on Copenhagen sidewalks. The first pilot sidewalk was inaugurated in September 2018 with the goal of "teach[ing] the world how to walk on water." The tile itself is a square of concrete with a grid of small holes spanning its surface. These holes allow water to move through the sidewalk to an underground water management system that filters it and feeds it to planters where it is either used by plants or it seeps into the ground. This system is designed to handle 30% of the extra rainfall expected from climate change. Beyond its water management function, the Climate Tile promotes a higher quality of life and health in the city by contributing to the growth of a more natural urban climate. The Climate Tile should replace sidewalks in all floodplains if it works as effectively as its claims suggest. Specifically, I believe the Climate Tile would be perfect for Valley Street and Waterplace Park where there is already flooding. Not only would the permeable concrete handle water, but it would promote more greenery in Providence's urban landscape.

Conclusion

While urban flooding will present a litany of difficulties for contemporary cities, they also present an opportunity to rethink our cities' relationship to water. The solutions listed above not only relieve some of water's onus but enhance the urban landscape through their incorporation of water as a positive element through its very presence combined with its life bringing powers. As discussed in the introduction, cities were built on water because of the various benefits it provides. Let us not lose sight of a better standard of urban life by allowing outdated systems and infrastructure to sour our relationship with one of our cities' greatest assets.

At Right: Graffiti on South Water St. Providence, Photo from PREP-RI.



PROUVÉ'S MOVING HOUSES

The Changing Narratives of the Maison Tropicale as Colonial, Post-colonial, and Iconic

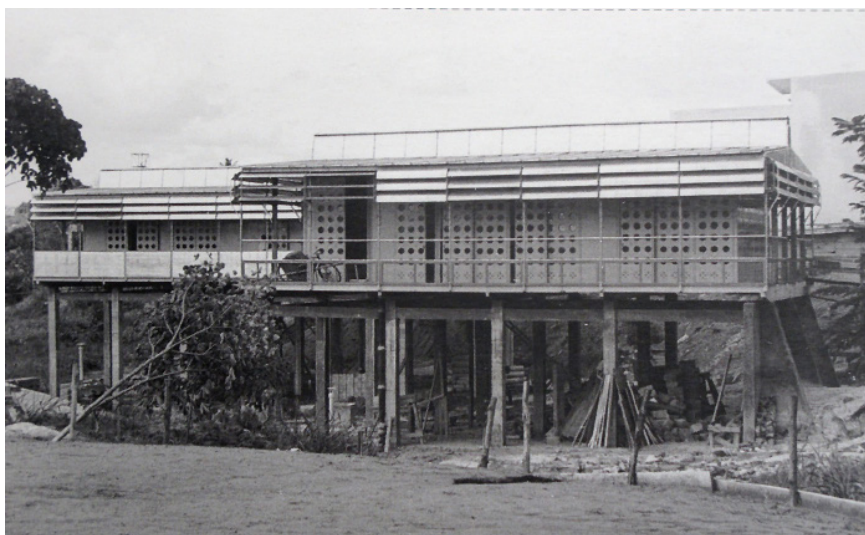
By Zoe Pottinger

In the late 1940s, French designer Jean Prouvé created a prototype for a steel and aluminum prefabricated house to be sent in pieces to the French colonies in what is now Niger and Congo. The houses were lauded as marvels of modern design by Prouvé's architecture contemporaries, and in 1951 were flown to Africa and assembled, where they housed colonial officials. Although the Maison Tropicale was meant to be a large-scale housing project, only three were constructed due to budgetary concerns. After Niger and Congo gained independence in 1960, France moved out of the area and the prototypes were left behind. For nearly fifty years, the houses were inhabited by several local families and adapted into an African existence. However, following a rise in interest in Prouvé's designs in the 1990s, wealthy French art collector Eric Touchaleaume traveled to the sites of the houses and, in 2000 bought the houses from the current owners and governments, taking them back to France to be restored, sold at auction for millions, and exhibited around the Western world.

Upon their return to France, the buildings were widely regarded by scholars and the media as icons of modernist design, seen purely as industrial, modern objects. Journalists wrote of the buildings as being "saved" from complete disintegration or as being "rescued from squatters" who did not appreciate the building for the "design marvel" it was. This canonically-accepted Western narrative raises a series of questions about the complex web between architecture, colonialism, and the modernism movement in the twentieth century. Additionally, the history and movement of the Maison Tropicale prototypes has more recently sparked dialogue about the role of modern heritage in Africa, and of colonial Africa in the integration of modernist movements. The transition of Jean Prouvé's Maison Tropicale prototypes from colonial object to post-colonial object to 'design icon' offer insight into historical connections between modern architecture and colonial power structures, as well as guidance for how to best proceed with post-colonial Western and African relationships today.

Jean Prouvé was born in Nancy, France, in 1901, and was formally trained in the Art Nouveau movement as an ironworker who specialized in ornamental metalwork and furniture design. Although much of his focus was on industrial design, Prouvé's appreciation for craftsmanship granted him a more creative side than a purely analytical approach as was used by many industrial designers at the time. Prouvé worked closely alongside other architects such as Le Corbusier and Robert Mallet-Stevens, with all of whom he joined the Union des Artistes Moderne in 1930. Prouvé believed in constant improvement and the importance of developing and using new materials and production methods in the field of architecture. In 1947 he opened his own studio and factory, Ateliers Prouvé. Working both independently and in collaboration with colleagues, Prouvé invented a plethora of prefabricated components. His modular systems used aluminum, steel framing, and wooden paneling. As a strong believer in socialist principles, Prouvé centered his work around a dictum of "industrializing the habitat," which he felt could be achieved through the use of "standardized, factory-fabricated components that could be assembled in any geographical location."

Modernism, standardization, and efficiency were all key values for wartime and post-war France, which saw the rise of a "technical elite" as it attempted to repair physical environments as well as the economy. Thus, much of Prouvé's work in the 1930s and '40s was sponsored by the government on commission, including prefabricated emergency housing and barracks for the French military during the Second World War and a small social housing project called Meudon Houses for the Ministry of Reconstruction and Urban Planning.



Prouvé. Maison Tropicale prototypes in Brazzaville, Congo, 1951. Banque d'Images, ADAGP/Art Resource, NY © ARS, NY.

Prouvé strongly believed in improving social conditions through modernism. However, at the same time that standardization was meant to raise living standards for French citizens, a very different side of industrial modern architecture was taking place in the colonies. In French colonial Africa, transplantation of French architecture reinforced power dynamics and divided colonists and natives, rather than bringing them closer. At its apex, colonial France was one of the largest empires in the world. In Africa, French colonies include what is now Congo, Senegal, Mali, French Guinea, Burkina-Faso, Ivory Coast, Benin, Niger, Mauritania, Chad, Central African Republic, Gabon, Cameroon, and Togo. France's relationship with these lands was one of extractive colonialism: the exploitation of natural resources, including agriculture, mining, and labor. The French administration created virtually no dialogue with locals, instead imposing taxation and slavery, which triggered unrest and violence throughout the region. France had strong imperialist ambitions, and one of its main goals was to bring "modernity" and "civility" to Africa, something which colonizers felt could be achieved with the use of implanted architectural styles.

For architects, designers, and engineers, the colonies were often seen as a laboratory or playground, a *tabula rasa* on which to try new designs in much wider spaces than urban France could allow. Different lands, materials, and climate constraints presented new design challenges, and over time a distinct French "regionalist architecture style" developed. This outlook on colonial architecture entirely ignored the indigenous people and cultures of the area, and the buildings and cultural touchstones that were forced upon the native people melded with and changed their culture over time. It is also important to recognize that this style of colonial architecture is not something that has always existed—it had to be specifically created for an extractive, violent system; without that system, the Maison Tropicale never would have existed.

The Maison Tropicale was commissioned in 1947 by French authorities as a colonial version of the prefabricated Meudon Houses Prouvé made for France, conceived out of a shortage of French architecture for colo-

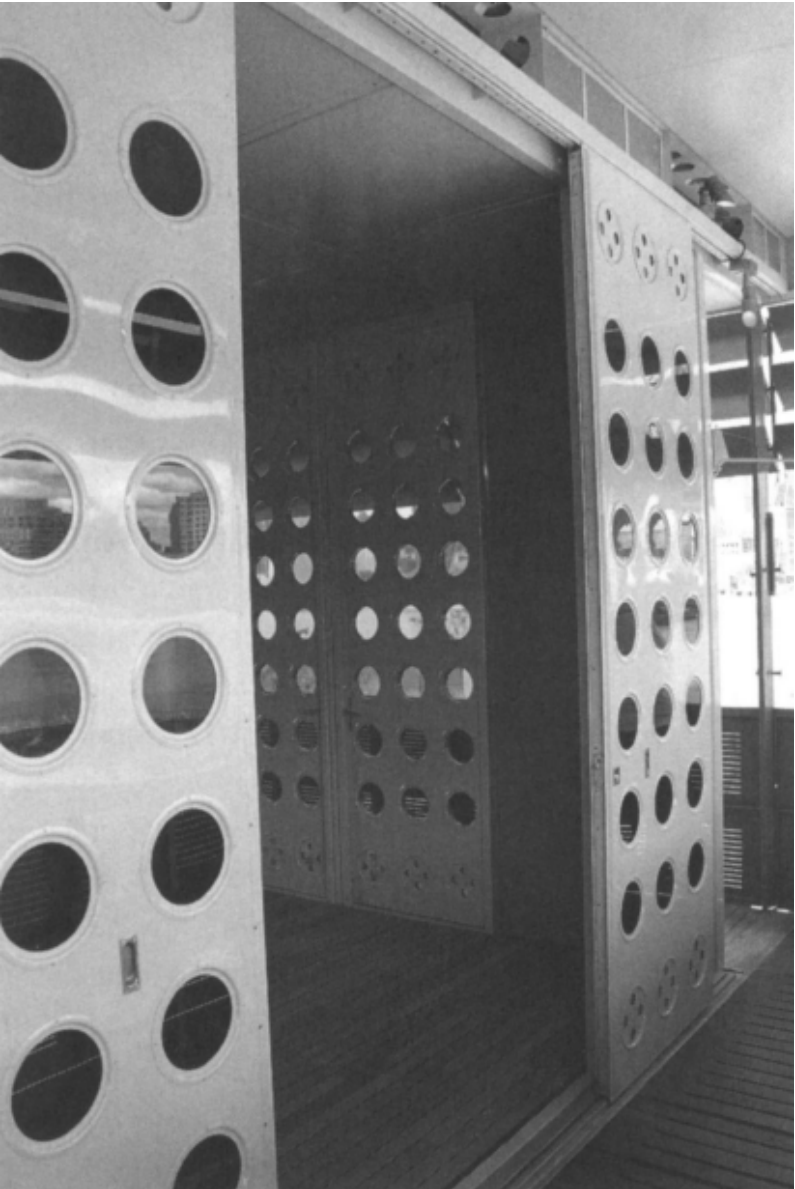
nists. The houses needed to be affordable, prefabricated so that parts could be stored in an airplane, able to survive the arid and tropical climates of the colonies, and able to be assembled quickly and without expert construction skills. Once parts were on location, the houses took about two weeks to construct, compared to the months it took to build a more expensive traditional house.

Both locations in Niamey, Niger, and Brazzaville, Congo saw forced mass evictions and the destruction of native homes and social centers to create space for the Maison Tropicale prototypes and other colonial settlements, all of which became the designated 'European part of town' where natives were not allowed to move freely, strictly limiting their interactions with the Maison Tropicale as a colonial object. The three prototypes were used as a house and office for a junior high principal, and a regional director for the Aluminium Français company, which was mining massive quantities of aluminum in Congo. There was an abundance of aluminum production in post-World War II France, and the Aluminium Français company in fact held a 17 percent share in Prouvé's factory, tying him almost exclusively to using aluminum in his designs. The design of the Maison Tropicale prototypes is widely regarded as ingenious, as Prouvé pulled together many specific design requirements as part of the commission.

The Niamey house was the largest of the three prototypes, about 26x10m. (Figure 1). The Brazzaville structures were smaller, about 10x18m and 10x14m, and connected by a small bridge. (Figure 2). All three consist of a steel-frame interior cell with both fixed and sliding aluminum panel walls, surrounded by an aluminum-paneled balcony. The Niamey house, located in a more arid climate, rested on a concrete base covered in tiles to aid in cooling the structure, whereas the Brazzaville structures were elevated on steel columns in case of flooding, and to allow for the potential of a sloped site. Nearly every component of the building was designed to accommodate the hot weather. The walls were cut with numerous blue glass portholes and small open-air circles for ventilation, and wide eaves complete with adjustable slats for shade covered the balcony surrounding the central cell. (Figure 3). The aluminum-paneled roof was itself a flue to pull hot air out of the space, with the ceiling constructed separately from the roof to add another insulating layer. Every aspect of the component parts was intricately designed: aluminum was used for its light weight, flat pieces were optimized for transit in airplanes, and even the color palate of the internal cell was pre-painted with a neutral cream and green color palate and outfitted with thin steel columns to allow for adaptable subdivision of space.

The modernist design of the Maison Tropicale cannot be separated from its relationship with French colonialism, and the regime's perspective of the tropical environment as hostile, as something that needed to be controlled and regulated. The planned success of the structures was seen as part of the "streamlined" way France would conquer Africa, with aluminum signifying technological control and the industrialized orderliness of the space relating to the French sense of calculated control over the colonies. As scholar D.J. Huppertz has explained, "As both a modernist object and a colonial object, the Maison Tropicale stands at the logical endpoint of the Enlightenment narrative of progress, tangible evidence of reason's triumph over the primitive." That perspective was the dominant one in twentieth century France and its notions continue to reverberate in academic thought today.

Prouvé himself never visited the colonies and his personal opinions toward colonialism are largely unknown, but he was proud that he was "industrializing the habitat" of the tropics through his detailed design work. However, the idea of "industrializing the habitat" without acknowledging the environment of colonialism and the tensions it created were a part of the Maison Tropicale's failure as a housing project. Despite an aluminum surplus, the costs of materials were high compared to local African ones, and the colonial officials living in



Detail of the sliding aluminum doors with blue glass portholes and circular ventilation, restored Maison Tropicale on exhibit in New York City, 2007. Image appears in *Design Issues*.

Niamey and Brazzaville reported feeling the houses looked too unusual for the region. Prouvé continued to design other industrial components for the colonies, but only three Maison Tropicale prototypes were ever created.

In 1960, after the French colonial regime withdrew from Africa, governmental instability, sustained Western involvement, and massive debt continued to plague many formerly-colonized countries as they struggled to develop after generations of forced trauma. But despite governmental involvement in other sectors, the French government essentially chose to forget about the infrastructure they left after withdrawing from the colonies, and for the most part, the rest of the Western world also forgot. However, beginning in the 1990s, a resurgence in Prouvé's popularity struck among art collectors and museums, and his designs began selling for increasingly high prices at auction. After hearing rumors of a wealth of Prouvé pieces in Niger and Congo, French antiques dealer Eric Touchaleaume traveled to the sites and bought all three prototypes, restoring them in France and selling them at auction for nearly \$5 million.

The sale, transportation, and restoration of the Maisons Tropicale was logistically challenging and cost Touchaleaume over \$1.5 million, all of which he explained to the media as worth it because he was "determined to salvage them from ruin and bring them back to France." The news clung to the triumphant narrative of the prototypes as "design icons" that needed to return to France to save them from "African destruction and squatters." This narrative of repatriation is made especially ironic that an estimated 90% to 95% of sub-Saharan cultural artifacts are housed outside Africa, most of which were forcefully taken during the colonial period.

The restoration and current exhibitions of the Maison Tropicale all repress and erase the buildings' African existence. Restoration teams refinished the houses, but made a conscious choice to "keep a number of bullet holes in the sun-shutters, to leave intact witness marks of the structure's age that could be discerned through its apparent "newness"; and at the same time to be particularly provocative." By keeping bullet holes as the only signs of the buildings' African existence, (as opposed to natural aging), curators fall into tropes of viewing "modern authentic" African items only as portraying a sense of violence and insecurity.

The Niamey house remains in Touchaleaume's personal collection, but both Brazzaville structures have been displayed in France and around the United States, in exhibitions that portray the buildings as modern in a way that is "transcendent, neutral, and universal and thus beyond the specifics of culture, politics, or history." (Figure 4). This narrative represses a complex colonial history, corroborates European cultural superiority, and prevents further understanding of African history and social identities. Western art dealers and museums only lauded the houses as objects of value once they had assigned their own system of value to the structures, removing any African systems of value.

Although Western intellectuals have tried to erase the Maison Tropicale's distinctly Nigerian and Congolese existences, those experiences were very real. In the nearly fifty years the structures stood as post-colonial objects, African elites did not pay much attention to them, and local families moved into and adapted some of the houses, which served various purposes throughout the late twentieth century.

In Brazzaville, several families moved in and out before ownership of the building settled with Mireille Ngatse after her father's death. Alone and destitute after losing everything following his passing, Ngatse reminisced in an interview of finding comfort in the house: "That's where I cried, where I talked to myself ... it was very

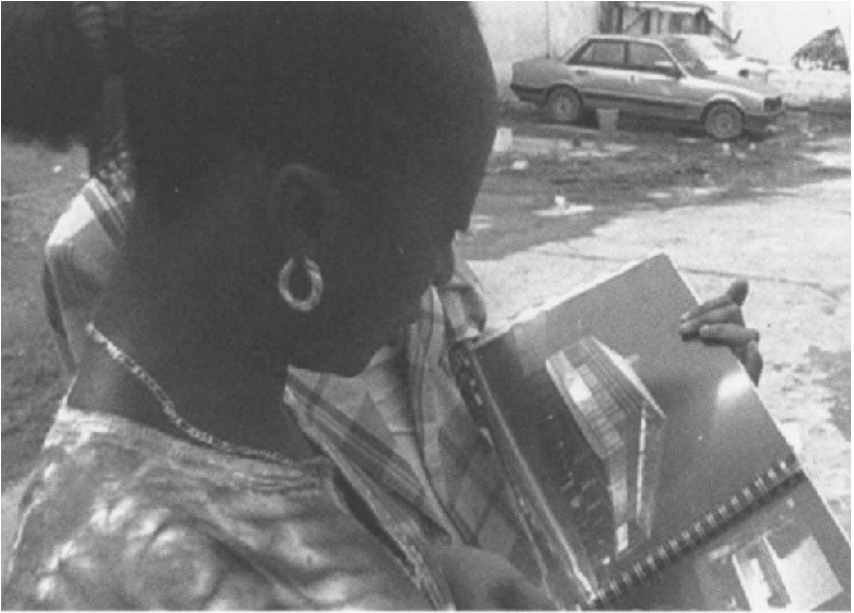
useful, this house helped me a lot.” (Figure 5). Ngatse noted that despite not having electricity or running water, the house made her feel safe at night and cool in the heat, with her favorite part being the blue glass port-holes because “it felt as if you were in the middle of the ocean.” When Touchaleaume came, Ngatse worked with a lawyer to settle the paperwork and was paid for the sale of the house, using the money to rebuild new apartments on the property. Ângela Ferreira, an artist working on reconfiguring post-colonial narratives, “In Brazzaville, there’s an enormous amount of readaptation of the leftovers of the [Maison Tropicale] in order to create new architecture where people could inhabit.”

In Niamey, the Maison Tropicale stood uninhabited for the final 2-3 years of its post-colonial existence. A tall concrete wall was at one point built around it, and the majority of neighborhood residents did not even know of its existence. However, to a few, it remained a vital structure. Amadou Ousmane, who grew up next door, remembered it as having good air circulation and at one point being used as a dance hall. Artonnor Ibriahine, a nomadic Tuareg woman and former resident of the house told interviewers that she was unhappy that they took the house away but felt she had no rights in the situation as a poor person who only spoke indigenous languages. She said of its movement: “I feel sad and think of the house often. Especially when it rains. Now that it’s gone, I no longer have shelter from the rain.” The French collectors left behind only the concrete base of the house, which today is used only for prayer, surrounded by the tents of Tuareg people who have made it a part of their environment. (Figure 6).

Western understandings of architecture view it as permanent, as woven into the history of a place. The Maison Tropicale departed from this thinking when it was removed from Africa, but the African people who remain must still grapple with ideas of heritage in a post-colonial environment. A colonial historical memory means that Africans rarely have any choice in their heritage, and “in Africa, heritage is seen as a taboo topic.” The Maison Tropicale prototypes were only a few of the many modern buildings the French constructed in the colonies, and for many Africans, those buildings do not have local value other than being odd-looking or a painful memory of a violent, traumatic past. The Western idea of conservation does not relate to post-colonial Africa, where afro-pessimism is a wide-reaching body of thought that only Europeans have a true ‘heritage.’ Many choose to believe new constructions are the only architecture of value because they indicate a new, free Africa, or that colonial architecture like the Maison Tropicale does not “belong” to Africans.

However, despite the Western perspective that the Maisons Tropicale are not African objects, some scholars from both Africa and the West are working to develop an alternative narrative for the lasting legacy of the homes. One of the greatest questions opened in their bodies of work is: “Are these buildings African?” According to the patrimony definition outlined by the UNESCO World Heritage Convention, the Maisons Tropicale belong to Niger and Congo. However, powerful lawyers and loophole-filled policies from the West make repatriation of African work in general immensely difficult. Additionally, there is the question of when and how Africa adopts modern architecture, a distinctly European style, into their own vernacular, and how it influences African architecture today.

Portuguese artist Ângela Ferreira and Malian filmmaker Manthia Diawara are two scholars working to question the “official” narrative of post-colonial relations between Africa and the West, via a sculptural/photography exhibit for the 2007 Venice Biennale and accompanying documentary film, *Maison Tropicale*. Their work addresses notions “of shared cultural heritage – a notion which is controversial and does not often shape practice in Africa.” Ferreira believes that because the prototypes were built for Africa, (and would not exist without it) that they belong to Africa. Her exhibition included photographs of the spaces left behind from



Top: Restored Maison Tropicale on exhibit installed on the waterfront in Queens, N.Y., 2007. Image appears in *October*.

Bottom: Former Brazzaville Maison Tropicale owner Mireille Ngatse looks at an image of the restored house being exhibited in Europe. Image appears in Manthia Diawara's *Maison Tropicale* documentary.

and Western viewerships and metaphorically give back the Maisons Tropicale to Africa.

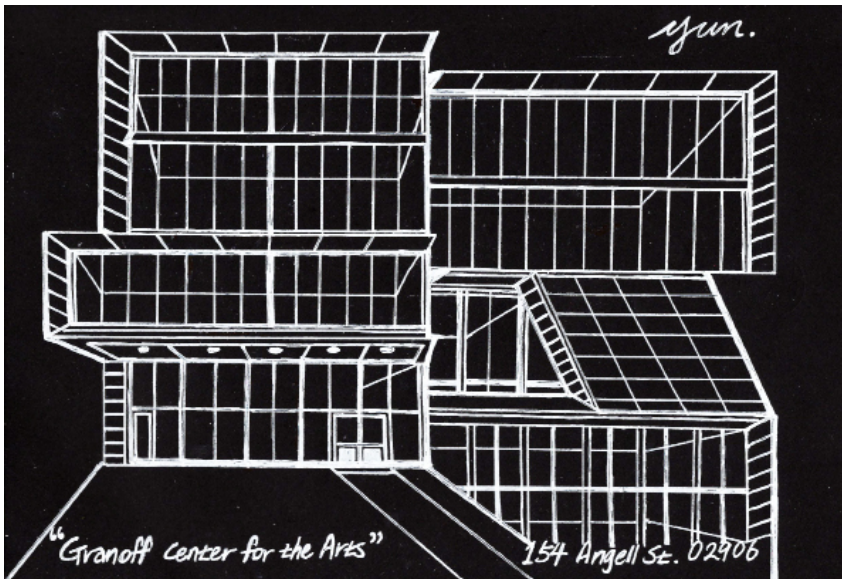
Over the course of its existence, the Maison Tropicale has transitioned from a colonial object, to a post-colonial object, to a “design icon.” This transition teaches us about the connections between stylistic and social impacts of architecture, and how vital it is to understand both when examining a structure. For example, the modernist stylistic elements of the Maison Tropicale are fundamentally intertwined with extractive colonialism on multiple planes of thought. In Western culture, Africa is not associated with contemporaneity and thus is rarely viewed as a contributor to modernism. Additionally, African social contexts were completely removed from the decision to remove the houses, and from the aesthetic canonization that followed their return to France. The Western world currently sees the Maisons Tropicale only as modern architectural items and Prouvé only as a designer – but we should not study modern colonial architecture without also understanding the local African social history, a facet the canon postcolonial discourse often ignores.

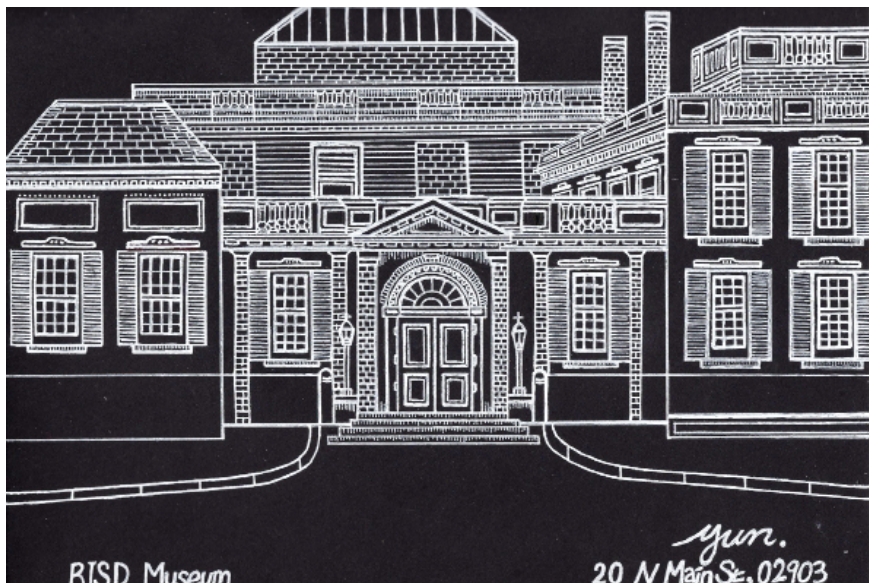
The “geographies of loss” of the past and the silencing of African voices by Western involvement continues to shape contemporary African urbanisms. The refurbished Maison Tropicale prototypes should be returned to Niger and Congo, where they can continue to be exhibited in a museum space or used as public spaces, aiding local people's development of the complex post-colonial vernaculars that surround them today. Colonialism cannot be erased, but countries can work to make reparations, and to support African perspectives, designs, and histories.

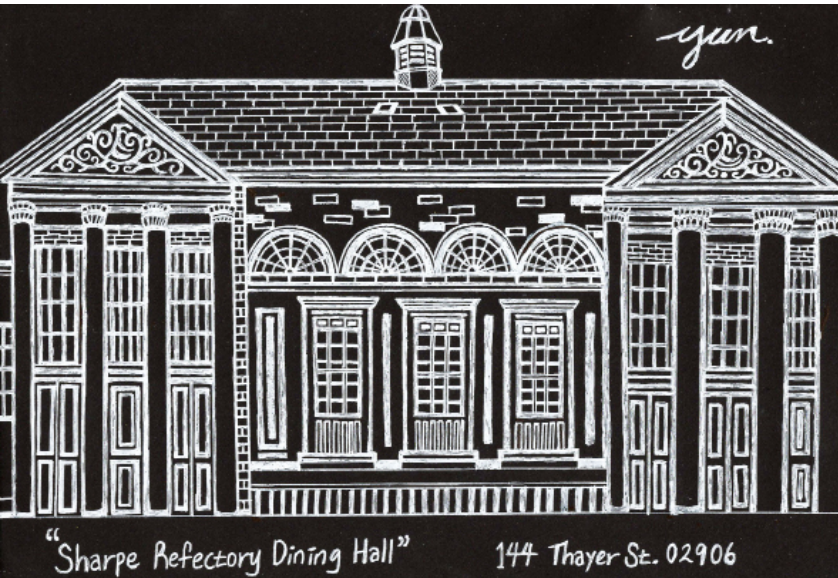
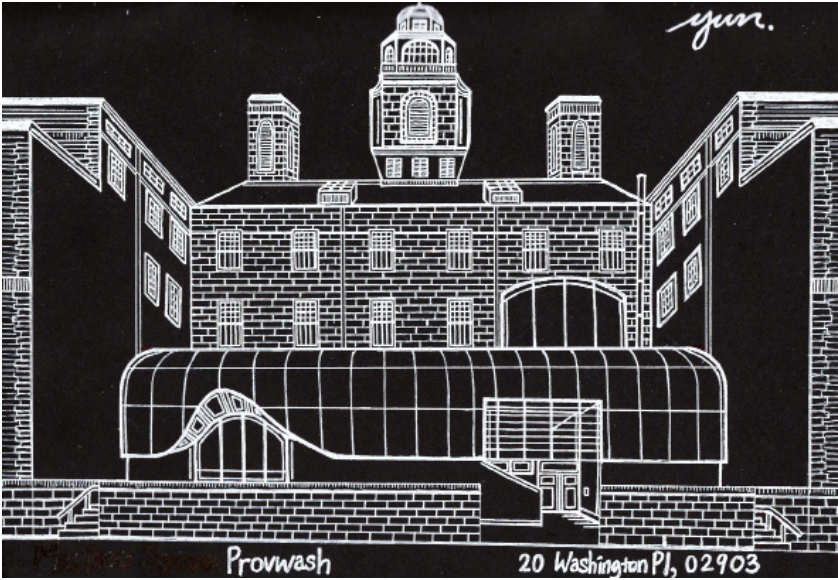
TWENTY DRAWINGS FOR THE CLASS OF 2020

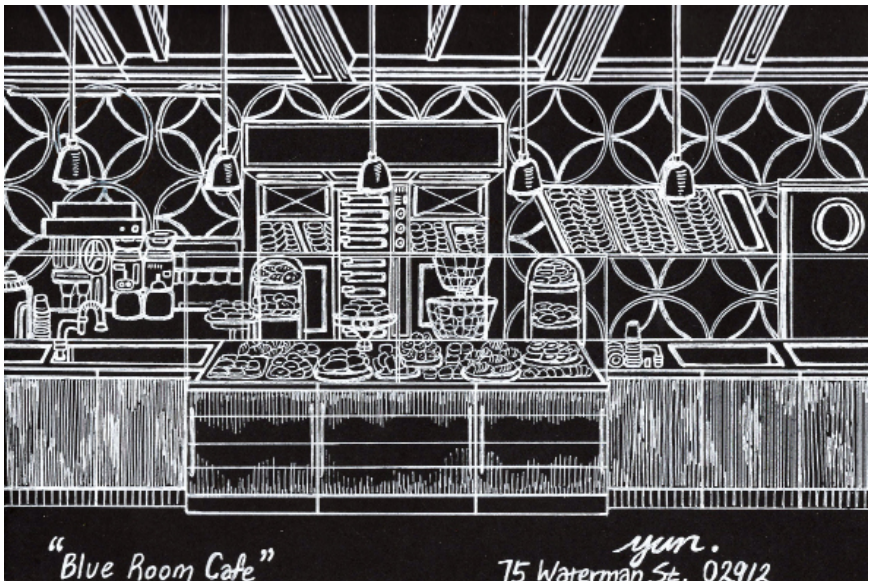
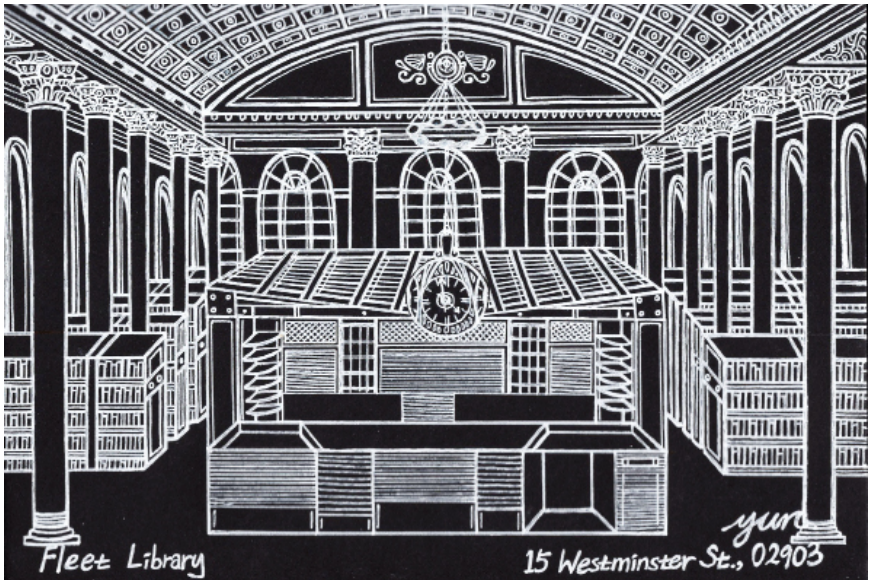
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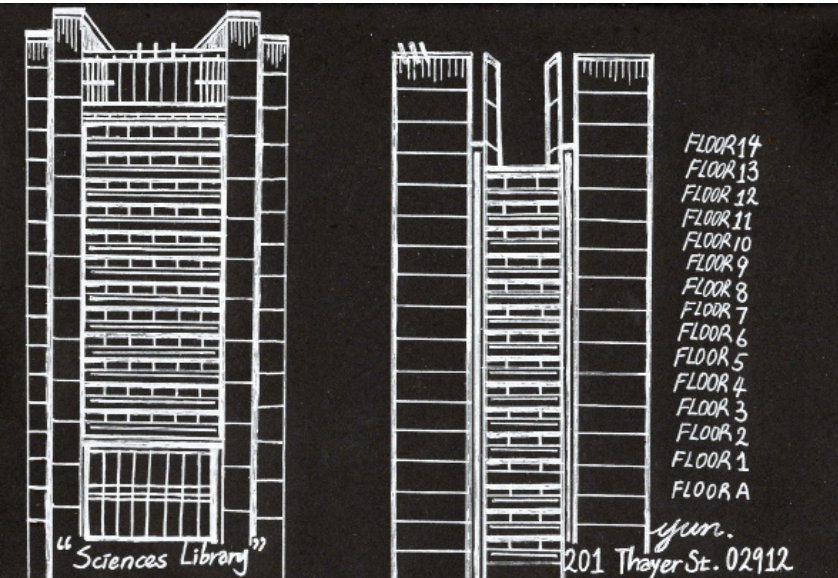
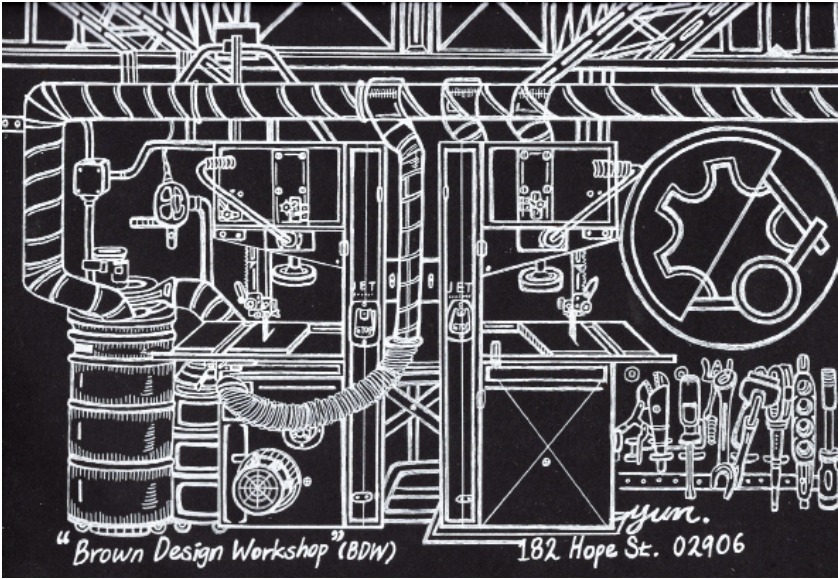
By Yunni Cho

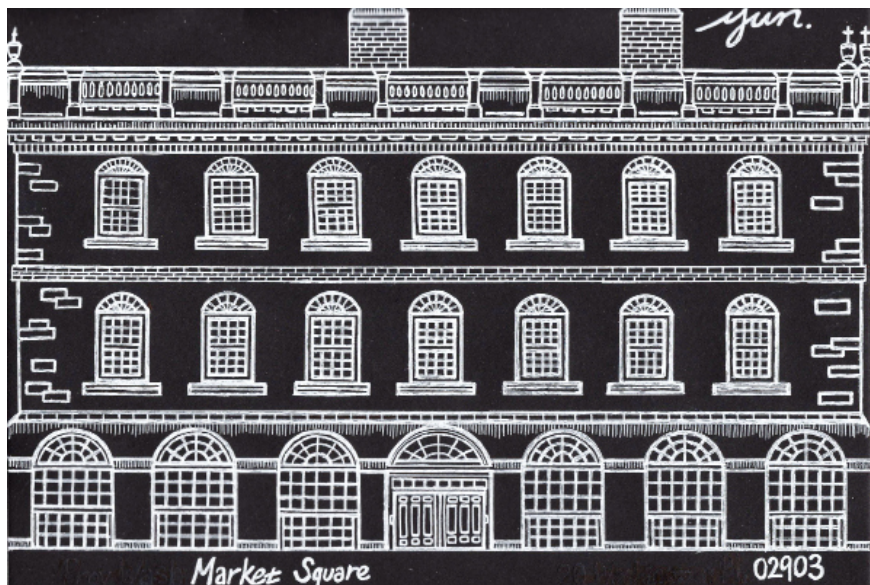
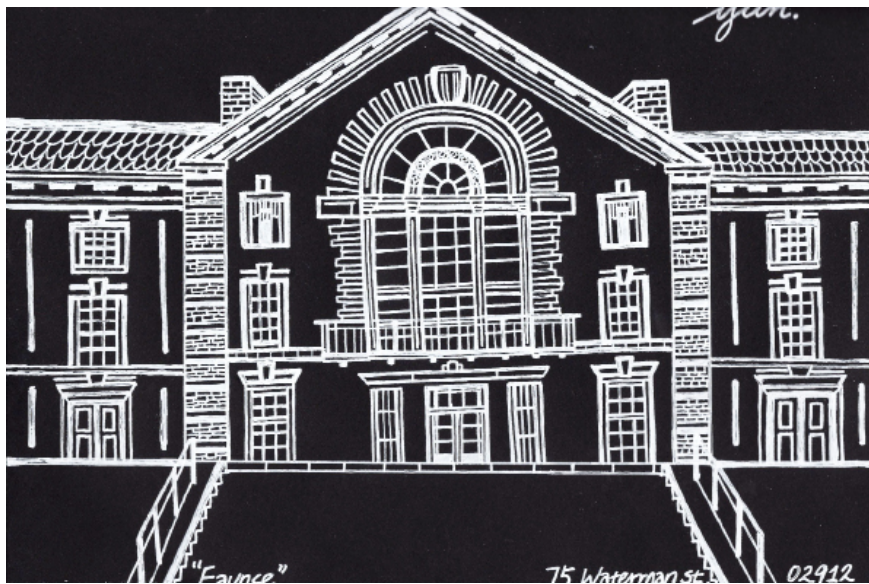












WHAT BROWN COULD PAY

By Sara Van Horn and Hal Triedman

“How is it that a city—a small city—can continue to have public schools that fail repeatedly?” Marco McWilliams was insistent. A former organizer for Direct Action for Rights and Equality, graduate student at Brown University, and a program coordinator at the Brown’s Swearer Center, he noted that, “someone benefits from that. This is not an accident.”

Scattered across the Jewelry District, College Hill, and Downtown, the plethora of property owned by Brown University is valued at \$1.1 billion. Despite an endowment of \$3.8 billion, the University does not pay federal, state, or local taxes on the vast majority of its real-estate holdings. Meanwhile, the Providence Public School District is in the midst of a financial crisis, as revealed by a devastating report released by researchers at Johns Hopkins University this past June. Following the report, university president Christina Paxson avowed the University’s ongoing commitment to Providence public schools, asserting that the University would “develop plans to support local schools in Providence.”

If Brown University paid taxes on all of its 193 properties, the city of Providence would receive over \$38 million annually, *Inside Higher Ed* reported in 2012. Instead, Brown makes \$6.7 million in voluntary payments to the city each year. The amount of these Payments In Lieu of Taxes (PILOT) has fluctuated historically, depending on the severity of the city’s financial situation and the willingness of various mayors to put political pressure on the University.

The question of property taxes is often framed by university administrators as a foregone legal conclusion. Because private universities are classified as nonprofits, the familiar argument goes, they have historically found themselves exempt from paying taxes on their property. Although this tax-exemption is longstanding, there is growing concern over the legal underpinnings of private university wealth, reflected in the New Haven community campaign to “Tax Yale”; the 2016 lawsuit filed against Princeton by Princeton residents contesting its tax-exemption (settled out of court for \$18 million); and the city legislation, proposed in Providence in 2017, to tax Brown’s non-mission essential properties. One model for legislation like this is a 1977 New Hampshire Supreme Court ruling that required Dartmouth College to pay taxes on its dormitories, dining halls, and kitchens.

The most important questions in the debate over taxation, however, are not legal ones. Instead, they are more fundamental questions about not only the ways in which University goals are prioritized over the needs of students, but also the history of elite institutions in relation to the cities in which they are located. “What are our responsibilities to those local communities as an institution?” asked Mathew Johnson, executive director of Brown’s Swearer Center, in an interview with the us. And what should working-class cities with mostly residents of color like Providence demand of rich, mostly-white institutions like Brown? Implicit in McWilliams’ original question is the fact that current educational inequities are tied to Brown’s historic relationship to the city of Providence.

In letter to parents and faculty this past August, President Paxson cited Brown’s historical ties to the transatlantic slave trade, including the Brown family’s direct involvement, as grounding for Brown’s responsibility to the city’s public schools, writing that “Brown has a longstanding commitment to K-12 education, as noted



Brown University's Robinson Hall, illustrated by Pia Mileaf-Patel.

in the 2007 Report of the Steering Committee on Slavery and Justice.” This report, commissioned to investigate the University’s historical relationship to the transatlantic slave trade and provide recommendations on how best to address this legacy, is unequivocal about the centrality of education to the project of reparations. “If a single theme runs through this report,” the document reads, “it is education. This focus reflects not only Brown’s nature as an educational institution but also the nature of slavery.” The report describes both how, in many states, it was once a criminal offense to teach free and Black people to read and how many Americans, during the age of abolition, “recognized education as essential to repairing the legacy of slavery and equipping the formerly enslaved for the full enjoyment of their rights as free people.”

Because of the central importance of education within the history of American slavery—a history to which Brown is intimately tied—the Report explicitly recommends that Brown “use the resources of the University to help ensure a quality education for the children of Rhode Island.” Yet as both the University’s extraordinary wealth, which is due in large part to its tax-exempt status, and the harsh reality of the Providence Public School District make damningly clear, Brown has fundamentally failed to honor this recommendation. “You got the slave monument on campus,” McWilliams emphasized. “I believe I can make the moral argument—the ethical argument—that Brown has a responsibility to be doing something given its history.”

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As students, parents, and activists have known for decades, Providence is a city in the midst of an ongoing educational crisis. This past summer, however, its public school district garnered long-deserved and widespread media attention after the release of the devastating report on school quality in Providence. According to “We’re Not Gonna Take It,” previously published by the College Hill Independent, the report documents the alarming state of school facilities, widespread teacher absenteeism, physical violence, and a culture of low expectations. Within a district that is 87 percent economically disadvantaged, 64.6 percent Hispanic, 16.6 percent Black, and 9 percent white, these alarming descriptions provide context an extremely segregated educational environment where, across grade levels and especially among students of color, only 14 percent of students are proficient in English Language Arts and only 10 percent are proficient in math. Although underemphasized by the report—which was funded the Partnership for Rhode Island, a nonprofit made up of the CEOs of major Rhode Island employers like Brown University—the centrality of the city’s finances to the challenges of its public schools cannot be overstated. Buried in the report, in a section entitled “Academic Outcomes,” financial constraints are listed as one of many factors hindering student success: “Almost everyone [on the school board] said that money is a problem, or even that it is the number one problem.”

According to Tom Sgouros, tax policy expert and former advisor to the Rhode Island general treasurer, Providence is being financially squeezed by both the state legislature and the city’s small property tax base. In the context of this fiscal strain, Brown’s presence is often justified as an important economic driver. In an interview with us, however, Sgouros noted that while Brown generates income and sales that are both subject to state taxes, this money does not go to Providence. “Brown is generating a tremendous amount of economic activity,” Sgouros emphasized, “but the city doesn’t actually benefit from it. The city could benefit from it if the state would share, but the state mostly treats Providence as a wayward child, not as a partner.”

In an interview with the us, former Mayor of Providence Angel Taveras highlighted the ostensibly non-financial aspects of the educational crisis. “I think we need to change the culture of education,” he argued. “I

think we need to change the expectations we have for our kids. There may be some money associated with that, but I don't think it's simply a money problem." As even a basic perusal of the Johns Hopkins report reveals, there are fundamental structural problems—failing welfare programs, a lack of linguistic and racial representation of students among their teachers, and profound segregation—that impact the ability of local schools to educate their students. For Brown University, however, the question at hand is the underemphasized financial impact of accumulated wealth on the functioning of public schools. "Money is a factor," Boston Globe reporter Dan McGowan emphasized. "There's no question about that." Sgouros similarly cautioned against overlooking the importance of financial relationships. "The fundamental issues, in my opinion, almost always come down to the dollars and cents," Sgouros told us. "You know the rule: when people say, 'It's not about the money,' it's about the money."

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Despite their tax-exempt status, nonprofits constitute an important source of city funding through their voluntary PILOT payments. These transactions, according to McGowan, are all "negotiated, optional payments" and the result of hard-fought political battles between university presidents and the various mayors of Providence. "There's always this game of tug-of-war," McGowan said, "between the city and all the nonprofits, but Brown in particular."

This financial tug-of-war is currently dictated by two legal documents: a 2003 Memorandum of Understanding (MOU) and a 2012 Memorandum of Agreement (MOA), signed during moments of fiscal crisis, which establish a minimum floor of University contributions of about \$3.5 million per year.

Following the Great Recession, Providence was on the brink of financial catastrophe. Yet Mayor Angel Taveras successfully struck a deal with Brown, increasing yearly voluntary payments until 2023 in return for giving the University ownership over several city streets and 250 parking spots, which the University charges its faculty and staff to use. In spite of their difficulties negotiating, the relationship between Brown and Providence, according to Taveras, is "codependent. We need Brown and Brown needs us." Yet this analysis is not necessarily reflective of the ongoing conflict between city government and the Brown administration. As McGowan succinctly summarizes, "Every person that has ever run for mayor has fought with Brown." In part, the University is reluctant to pay more because of the lingering perception of corruption in city government. "There's a hesitation to write a blank check to the city of Providence," McGowan explained. "What nonprofit leaders, Brown included, think of Providence government is that it's some combination of

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corrupt and inept.” Yet the frequent citation of corruption seems to impede both the state government and nonprofits from contributing to meaningful conversations about their financial responsibilities to the city. Additionally, according to Sgouros, the gesture by majority-white institutions toward corruption as a primary rationalization for denying funding to a city with predominantly residents of color is grounded in racist funding priorities: “There’s this idea in the legislature that city councils are drunken sailors, and that we can’t trust them with anything. The issues of race are rarely far behind.”

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In lieu of property taxes, Providence receives both voluntary payments and a variety of services from Brown University. According to a 2015 independent review of nonprofit payments to the city of Providence by the Rhode Island Internal Auditor, Brown owns 193 properties in the city of Providence. Of these properties, 158 are classified as tax-exempt.

Included in the tax-exempt properties—usually specified, in the case of universities, as buildings used for educational purposes—is the \$2.24 million residence of the University president, currently occupied by Christina Paxson. If taxed like a normal residence, this property alone would generate over \$40,000 per year for the city. According to the National Education Association, the median starting salary of a teacher in Rhode Island for the 2017-18 school year was \$41,689.

Albert Dahlberg, Assistant Vice President for Government and Community Relations at Brown, said that the University paid \$6.7 million in voluntary payments to the city in the fiscal year (FY) 2017. This \$6.7 million payment in FY 2017 can be broken down into four separate revenue columns: commercial property taxes, properties bought by Brown transitioning off of normal property taxes, payments specified by the 2003 MOU and the 2012 MOA, and other payments. “There are a variety of reasons we make those payments,” Dahlberg said, “But it’s mostly to be a good neighbor.” However well-intentioned those payments may be, as Kinverly Dicupe, a former community organizer for Fuerza Laboral, explained, “None of that money is actually felt by the people who live in Providence.”

The University also contributes to the public school district more directly. According to Paxson, “In recent years, Brown has spent more than \$800,000 annually on direct support to Providence school children in the form of after-school programs, summer education experiences on campus, college scholarships, and more.” For example, the Swearer Center connects Brown students with local schools to provide various kinds of programming, including Rhode Island Urban Debate League and Brown Elementary Afterschool Mentoring (BEAM) at the William D’Abate Elementary School, which has vastly overperformed similar schools in the district.

While Brown dedicates significant financial and human resources to the city of Providence, its priorities are reflected in its fundraising successes—and failures. In 2017, Brown embarked on a three billion dollar capital fundraising campaign BrownTogether. Brown has since raised over two billion dollars in under two years, generating funds for new facilities, renovations, and dozens of endowed professorships. In 2007, Brown promised to raise 10 million dollars for Providence public schools following recommendations in the Slavery and Justice Report. Yet, as the Boston Globe reports, the “Fund for the Education of the Children of Providence” raised just one-fifth of its professed ten million dollar goal. In McGowan’s eyes, “the value of the PR far outweighed the money that was actually raised. That’s a shame.”

Brown frequently gestures to these services as evidence of its committed, reciprocal relationship to the city. “Brown, and all the other nonprofits, have talented lobbyists and a legitimate case to make about what would Providence be without Brown University,” McGowan said. “It would be a lot less without Brown. That’s always the Brown argument. We do a lot. We are helping in the schools.” As evidenced by the multiplicity of tutoring programs and grants, there is no doubt that Brown does provide services to the city. The question, according to McGowan, becomes: “Is it enough?”

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“If you look at the history of our relationship with the city, it goes all the way back to our founding,” Dahlberg said. “There have always been issues between Providence and Brown University.” As the Report of the Brown University Steering Committee on Slavery and Justice makes evidently clear, Brown owes its wealth to American slavery: “There is no question that many of the assets that underwrote the University’s creation and growth derived, directly and indirectly, from slavery and the slave trade.” This history informs its relationship with Providence, a northern hub of the Atlantic slave trade during the nineteenth century. As McWilliams notes, “We live with these legacies today. Brown can’t escape its own history.”

For McWilliams, this history, as well as the racial-economic structures it created, is reflected in the way in which the failures of the Providence Public School District leave Black students behind. “Black labor has always been positioned to fit in a particular place in the capitalist marketplace: as a low-wage, perpetually exploitable group,” McWilliams emphasized, attributing the failing public education system to the assumption that “students that come out of the schools aren’t expected to compete in the marketplace. They’re not expected to come to Brown.”

The culture of low expectations for students rings true for Dicupe, as well. “Most of the people who go to Brown come out of state, so it’s not an experience that people from Rhode Island really have,” Dicupe told the us. “We’re asked to be proud about Brown when most of us are never going to get to Brown. We can’t afford it, and it’s not really a possibility for many of us.”

Brown’s inaccessibility illustrates how relationships of racial inequity between the University and Providence cannot be reduced to Brown lining its pockets. “If Brown invests a ton of money in the [Providence Public School District] and if, when those students graduate, they still can’t apply to go to school here, I’m gonna be curious about that,” McWilliams said. “Because when we say elite institution, we don’t just mean money.” To illustrate his point, McWilliams gestured in a sweeping arc around the conference room in the Swearer Center. “This room is intended to do something,” he asserted, glancing at the ornately gilded mirror on the wall behind him; at the glittering chandelier above his head; at the large mahogany table at which he sat. “It’s intended to convey power.”

For some, this elitism prevents the University from meaningfully addressing the city’s challenges. “You would think that a center for education would be actively pushing and working super hard to end poverty,” Dicupe told the us. “But that’s not what we see from universities like Brown. These institutions have forgotten what they’re there for. You’re not there to make money, you’re there to educate. And you’re supposed to be the best of the best.”

Because Brown is first and foremost an educational institution, many see education, and the Providence Public School District specifically, as the most appropriate sphere within which Brown can make reparative change. The Steering Committee Report, for example, believes the University's response "should reflect Brown's specific nature as an educational institution." Because Brown is best at learning and teaching, the report reads, education is the area "in which Brown can most appropriately and effectively make amends." McWilliams agrees: "Brown is a university. They issue college degrees. That's what they do. They don't build bridges and skyscrapers. They aren't in landscaping. They do education."

The demand that Brown pay property taxes presents a similar financial challenge to the demand from student organizers that Brown divest from companies perpetrating human rights abuses in Palestine or that Brown refuse monetary gifts acquired through profit from the sale of so-called "non-lethal" crowd control weapons. Honoring each demand would require the University to reevaluate its current priorities. It would require jettisoning endowment growth as the University's governing ideology and prioritizing both the wellbeing of students—down the hill and across the world—as well as the importance of fulfilling the University's promises in light of its foundational connection to American slavery.

Because of how private donors sustain elite universities, however, interrupting the movement of capital into these institutions—as well as questioning its accumulation—might very well mean changing what private universities look like and seek to do. For Johnson, one of the fundamental questions is whether the issue of property taxes can "be solved in the context of a system that places cities and universities in their financial reality." Instead, he argued, "the question is really about a system that essentially ends up pitting the city and the University against each other in an artificially scarce resource environment." Within the context of growing national demand for government funded, tuition-free, public higher education, it may also be time to question the necessity for private higher education. As McWilliams argues, "We gotta make a space where everybody can come at the table to eat." Perhaps, he argues, we have to build a bigger table. Or perhaps we have to get rid of the table and have everyone sit on the floor. Either way, the moral imperative is clear. "Everybody gotta eat. If we believe in the constitution, in these rights, in this democracy, everybody gotta eat. And if we can't, I gotta call this thing a sham."

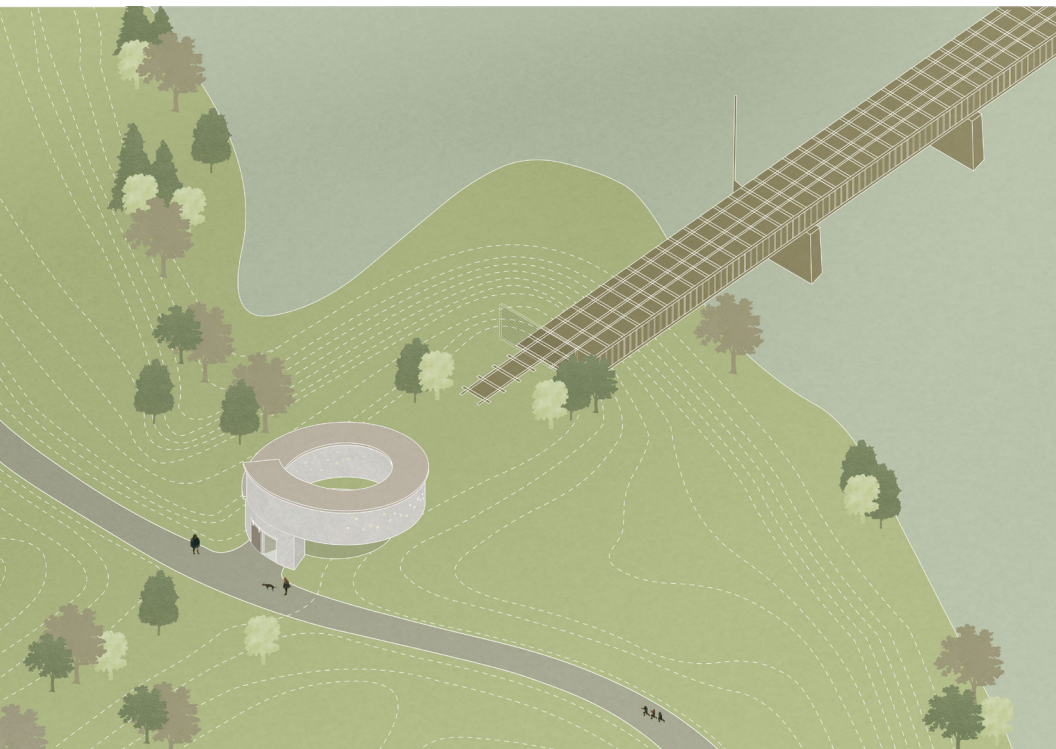
GANO PARK PAVILLION

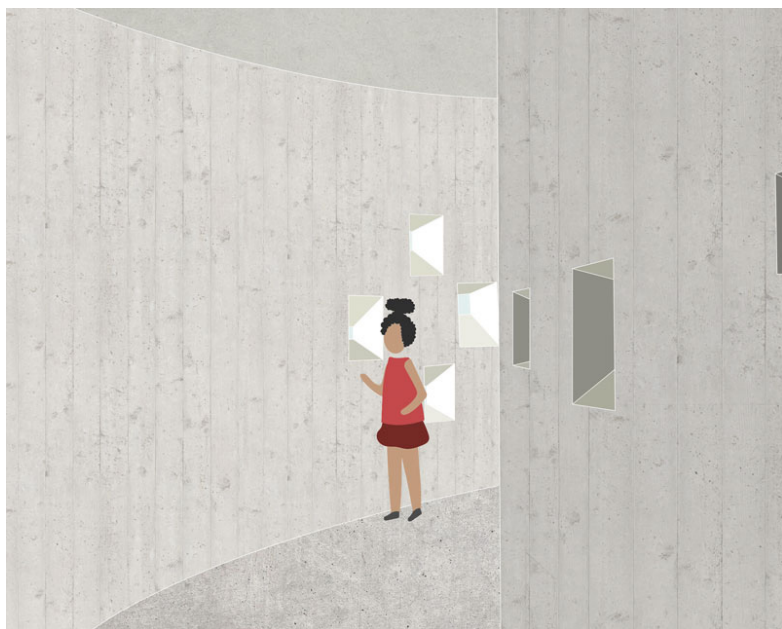
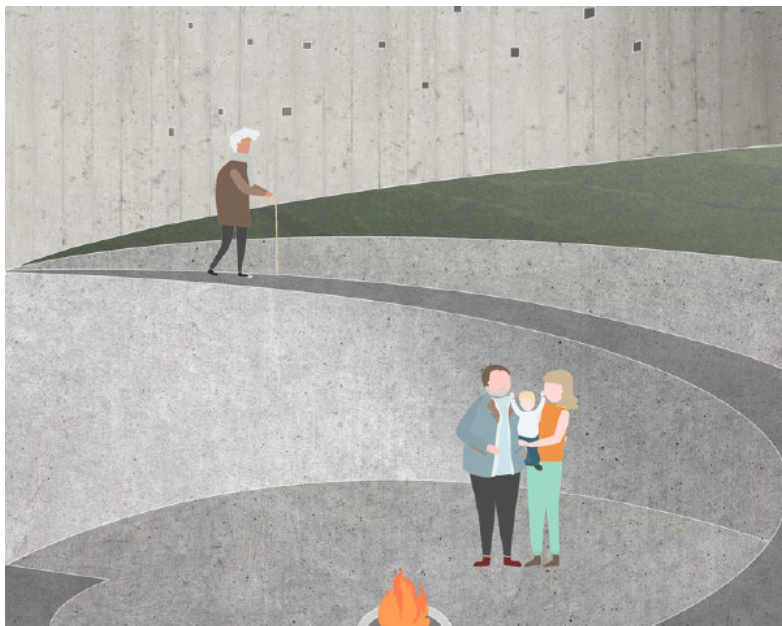
Design Concept
By Isabel Scanlon

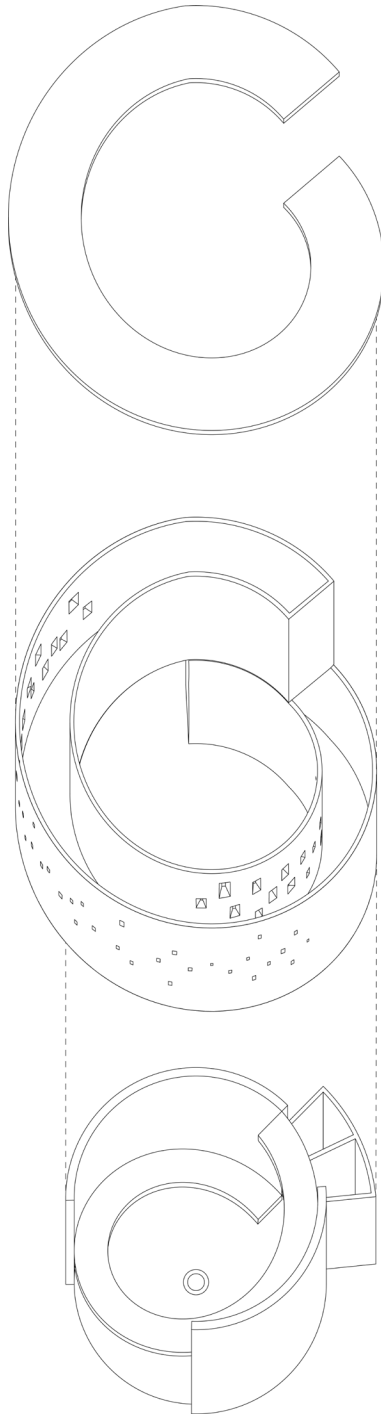


THE GANO PARK PAVILION IS A COMMUNITY SPACE PROPOSED FOR THE GANO PARK BIKE PATH IN PROVIDENCE, RI. PINHOLE WINDOWS PERFORATE THE WALLS OF THE SPIRAL STRUCTURE, INTERACTING WITH SUNLIGHT AND THE SURROUNDING RIVERFRONT VIEWS TO PROVIDE AN EVER-CHANGING DETOUR FROM THE EXISTING BIKE PATH. VISITORS CAN EITHER END THEIR JOURNEY AFTER THE SPIRAL HAS BEEN COMPLETED, OR CONTINUE ALONG A SECOND SPIRAL PATH TO A COMMUNAL HEARTH THAT FACES THE RIVER.

The pavilion is an attempt to create architecture that showcases nature. It was designed as a final project for Introduction to Architectural Design, taught by Prof. Laura Briggs.







THE TWO CULTURES

The Corporate Campus's Interdisciplinarity

By Ella Comberg

One of the first and finest iterations of the “corporate campus” model that would come to dominate the American office in the second half of the twentieth century, AT&T’s Bell Labs in Murry Hill, NJ (1942) resembled the ideal American college campus in more than name. With meticulously landscaped grounds and buildings connected by long corridors, this site for industrial research “mimicked the university’s encompassing landscape, prestige, and reputation for independent intellectual inquiry,” as Louise Mozingo described it. By the time Bell Labs erected its next and more famous suburban New Jersey office in 1962, the company embraced modern design head-on, with an Eero Saarinen-designed complex. There, Saarinen took lessons from his recently completed IBM Watson Research Center in Yorktown, NY, another suburban New York research facility of the same ilk. A member of the IBM planning committee remembered Saarinen’s program:

There were centers in electrical engineering, and there were centers in process science, and so on. He visualized these centers being all independent buildings, and that these buildings would then be connected together with walkways so the philosopher-like people would be strolling on these walkways, discussing things, but they would have homes that would be focused on their disciplines. So, he was kind of thinking in terms of universities with departments.

Evidently, the university model, routed through the bigwigs of modernism, informed the design for the depots of post-war computing. But what prompted the turn from stuffy laboratory to incubator of the future? That is, how did the once-avant-garde aesthetics—if not the values—of mid-century modernism travel to the otherwise mainstream office and laboratory? As the campus idyll came to define suburban corporate landscapes in the 1950s and ’60s, we will see, it carried with it values that were popular at the university in this period. In particular, interdisciplinarity—a word so ubiquitous today that it has largely lost meaning—was at the time gaining popularity as a structuring pedagogical principle at the American research university. For colleges—and especially their part-corporate, part-military bedfellow, the think tank—interdisciplinarity meant creatively plucking from fields to innovate scientific, sociological, and artistic solutions to the strategic problems of the day. I suggest that this key value, which verifiably influenced the way experimental laboratories looked and led to many of the key scientific advances of this period, also migrated beyond the hyper-secured gates of the lab to impact the non-experimental, still ‘disciplinarily’ siloed offices of many American workplace.

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California—and in particular, Stanford University and the RAND Corporation—was, by most accounts, the primary hotbed of interdisciplinary thinking and collaboration in the post-war period. Stanford, alongside MIT, Caltech, the University of Illinois, the University of Pennsylvania, and other major hubs for scientific study, expanded its research practices in the late 1940s and early 1950s. However, the disciplinary and security mandates of the university precluded the research that would be necessary during the Cold War. In turn, hubs of research and development—auxiliary to the university but nevertheless tacitly-related—formed in this period. At Stanford, research overflowed into the Center for the Advanced Study of the Behavioral Sciences and Santa Monica’s RAND Corporation, founded in 1948. At RAND, the collaboration by intellectuals and professionals working across disciplines presented “one (rare) device for overcoming the increasing compartmentalization and specialization of knowledge,” as one Airforce officer working at RAND described it. The



IBM Watson Research Center, Yorktown, NY, 1962, Designed by Eero Saarinen

think tank was, in no uncertain terms, founded in opposition to the university's limitations.

Art historian Pamela Lee traces the growth of this mode of Cold War thinking through the archives of Albert Wohlstetter, a nuclear arms strategist and political scientist who worked as a consultant at the RAND Corporation. Wohlstetter, as metonymy for so many intellectuals concurrently enraptured with defense research and the humanities (in his case, art history), found interdisciplinarity a necessary precondition for Cold War research. Following the foundational network-thinking of Claude Shannon and Norbert Wiener, in information theory and cybernetics respectively, Wohlstetter turned to semiotics as a way to relate his disparate pursuits. Shannon had understood signs and symbols literally during World War II, theorizing ways to transmit messages cryptically enough that they couldn't be decoded by enemy insurgents, but clearly enough that they could be read by their intended recipients; art critics following the war took up signs more theoretically. Most famously, Meyer Shapiro, with whom Wohlstetter had a long-term correspondence, turned to semiotics as a way to understand notions of representation in modern art. At RAND, liminally situated between the military (home to Shannon's work) and the university (home to Shapiro's humanist-materialist inquiry), Wohlstetter was able to combine these seemingly disparate fields in the name of strategic analysis.

Indeed, it was not at the university, but the think tank (as Lee describes it, that "extra-academic" or even "para-political" place, not "bound by the university's historical disciplinary mandates or by scholarly claims, however quantified, to objectivity") where the interdisciplinarity that would be reproduced in the office flourished. As a term and structuring principle, however, interdisciplinarity migrated back to the university, where it today remains a goal so enshrined that it often serves as justification for corporate entanglements and the existence of think-tank-like "centers" and "projects," now barely divorced from the university proper; investment, monetarily or pedagogically, in the values of the right—and the decimation of the humanities through the mandate that they ascribe to the standards of laboratory research—is made possible by the otherwise inoffensive language of interdisciplinarity.

In the 1950s and '60s, as universities began to embrace the interdisciplinarity that seemed to be their opposite, corporate offices and labs reproduced these values on their own "campuses." That is, the mainstream



Wohlstetter House, Designed by Josef Van der Kar for the Wohlstetters, 1954. Pictured in *Modernism Magazine*.

American office did not replicate the university of old, but a particular, interdisciplinarily-inflected version of the university that came to prominence in the early Cold War. But why was the popularization of interdisciplinarity in the mainstream American office articulated through the aesthetics of mid-century modernism? Once associated with the humanist (and formalist, medium-specific) inquiry of the early twentieth century, modernist aesthetics and sensibilities were likewise enveloped by an interdisciplinarity that seemed to be their opposite. Writes Lee, “RAND’s appeal to art,” through residencies and museum programming, “was not just a public relations campaign designed to humanize the institution’s increasingly troubled public image.” That is, modernism at the think tank was not simply a decorative program. Rather, “something about the relationship...was structurally consistent with the think tank’s own methodological explorations—a flexible and creative approach to the range of contemporary phenomena that might now include humanistic endeavor as part of its behavioral outlook.” In other words, the arts could legitimately learn something from the sciences, and vice versa.

But as the aesthetics of European modernism came to the United States, colonizing the homes, offices, and laboratories of the West Coast elite, something was undeniably lost, as has been widely noted, evinced most profoundly by the transition from mass worker housing in Europe to the villas that speckled California. An examination of this process alongside the rise of the think tank—and the ways in which it came to bear on the university through interdisciplinarity—suggests that the humanist vision of early modernism was likewise lost as it came to serve the technological sciences.

In a series of well-documented projects, various scientific research agencies funded the work of avant-garde artists. Through the Los Angeles County Museum of Art’s “Art and Technology” program, for example, RAND hosted artist John Chamberlain. Most of Chamberlain’s projects were, in one form or another, critiques of the think tank lodged from the inside. In one project, he sent a memo to the staff on which he had



Members of E.A.T. outside of the Pepsi pavilion, 1970. Getty Research Institute.



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Charles and Ray Eames, *Think for IBM*. New York World's Fair, 1964. Eames Office.

written, “an artist in residence smooths the conscience of management.” Other such ‘collaborations’ were more earnest. Experiments in Art and Technology (E.A.T.), for example, was an artist collective founded by Robert Rauschenberg and others that collaborated with engineers with funding from Bell Labs. In 1970, the group produced a the “Pepsi Pavilion” for the Osaka World’s Fair, a geodesic dome (the engineers’ contribution) on which they projected various multimedia (the artists’ contribution). In other iterations of collaborations between artists and scientific researchers, corporations directly commissioned artists to promote their products. Most famously, the designers Charles and Ray Eames produced a series of videos for IBM that were meant to humanize the computer as it entered civilian life, one of which was part of the couple’s “IBM Pavilion” at the 1964 World’s Fair in New York.

These sorts of relationships between art and technology, made possible by the interdisciplinary values of the think tank, demonstrate that the arts were not simply parasites to the sciences or vice versa, but that for Wohlstetter and his “defense intellectual” equivalents at IBM, Bell Labs, and the like, the arts and humanities offered something to be learned along the lines of creativity, individuality, and experimentation—what we might today call *innovation*. For artists, these relationships offered something more practical: funding and stability. If indeed many artists used the tools and ideas of early networked technologies, the major intervention into the arts by technology was not ideological but material.

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This dynamic, in which the ideal of interdisciplinarity purported to benefit all disciplines but in fact took more from the humanities than it gave, can be seen nowhere more clearly than in the office. In the insurance, retail, advertising, and, indeed, scientific offices of the years following the birth of modern interdisciplinarity, Eames chairs, glass curtain walls, and abstract expressionism became the dominant style of fields that had little to do with the mission of these practices, and likely learned little from their presence. If interdisciplinarity once meant collaboration, by the time it went mainstream, it meant little more than using the avant-garde in the arts to signal progressivism with no real claim to it in practice.

We might understand the incorporation of avant-garde aesthetics into the office as part of the broader conservative corruption of interdisciplinarity. As Louise Mozingo notes in her study of the corporate pastoral landscape, for the office to replicate the values of the university in a “campus”-like environment ripe for collaboration, it would first need to move to the suburbs. Grounded in racist fears among white, white-collar workers and decision-makers about the dangers of locating an office downtown in the 1960s, moving offices to the suburbs was also, Mozingo notes, due to the development of managerial capitalism. With its hierarchical management structures, dispersed branches, and white-collar labor divorced from blue, the suburban corporate campus was a “manifestation of the specialization and decentralization that marked the suburbs as a whole.”

Mozingo’s account of the mid-century corporation as prizing dispersal, hierarchy, and the deliberate separation of manual from intellectual labor stands at odds with the vision of interdisciplinarity articulated at the RAND Corporation, Bell Labs, and IBM. Even if the office, once lodged in the suburbs, would take on subtly programmed architectural interdisciplinarity—as modernist designers like Saarinen forced “serendipitous encounters” between workers from different branches of the company in the hallways of their shared workspace—Mozingo’s broader historical account makes clear the limits of this conception of interdisciplinarity. If the corporate campus itself was interdisciplinary, its relationship with the world outside certainly was not.



RAND Corporation employees meet in Albert Wohlstetter's home, 1959. Leonard McCombe for Time Life Corporation.

PRONK!

By Miranda Van-Boswell





MEMORIALIZATION IN DETERIORATION

BUCHAREST AND ITS 20,000 CONTESTED PROPERTIES

By Jordana Siegel

When I first landed in Bucharest, Romania, I was unsure what I would find. Having embarked on this journey to learn how Romania has dealt with its history, particularly that of its Jewish history, I was excited to learn how Romania was and would be weaving their history into the fabric of their capital city for future generations, particularly as they made large strides to modernize it.

Having just spent a semester studying Jewish life and its memory in Berlin, Germany, I had quite high standards of how governments and countries had dealt with the collective guilt of their history and remembering those whose lives had been taken in the Holocaust and World War II. One particularly compelling method I had seen in Berlin was the active encouragement and prevalence of 'Stolpersteines', which are brass bricks placed in front of victims of the Holocaust's last known residence, throughout the city. The bricks provide the name, birth and death date, and the location of where the person ultimately died. Not only were these smaller memorials to individuals prevalent throughout the city, Germany had instated multiple larger scale memorials and museums across the city, and had extremely rigorous education around the Holocaust implemented in



The Coral Temple in Bucharest, restored in 2014. Photographed in 2019 by the author.

the school system. Rather than conceal the Holocaust and its atrocities as a secret of a past regime, Germany had instead chosen to embrace its history and ensure it was never forgotten, using the past as a way to learn for the future, incorporating the history into the city's architecture.

While Germany was the birthplace of the Third Reich and the headquarters of the Nazi Party, Romania, during World War II, had still played a large role in furthering the 'Final Solution'. Romania had allied with the Nazis and murdered approximately 220,000 Jewish Romanians throughout the course of the war. There is, however, little to no recognition by the Romanian government of the atrocities and virtually no education about the Holocaust in the Romanian school system. Instead, when chatting with a few Romanians in the city, they were quick to simply brush off my questions about Jewish life and history in Bucharest, instead remarking on how great of a place it is for Jewish people now, the less than 3,000 remaining in the country.

I had chosen to stay in the Jewish Quarter and as I wondered about the area, I was struck by how little I saw acknowledging the history and people who had once lived there. There was hardly a monument or landmark to be found recording what the area had once been. There were moments where I questioned if I was in the right area of the city, the small gray label on my Google Maps announcing the Jewish Quarter oftentimes being the only sign I was still there.

Upon closer inspection, however, the history began to reveal itself through the buildings themselves. In the early 20th century, Bucharest prided itself on being an artistic city, even attempting to coin the nickname "the Paris of the East" about itself. The city embraced the avant-garde artistic movement and modernist architecture. The Jewish residents of the city were integral in the establishment of modern architecture as the style of the city, as most architects of the time were Jewish, since most other employment opportunities were closed off to them.

The beautiful, white modernist buildings, many with round porthole windows, were quickly abandoned in the 1930s and 40s, as the Jewish residents were forced to flee or were killed throughout World War II.

After the War, Romania was under Communist regimes, most notably the dictator Ceausescu until the 1990s. Since the Jewish architects had mainly designed residential buildings, they were able to avoid demolition at the hands of Ceausescu that many large public buildings had received. Instead, the former Jewish quarter's houses were adapted quickly and shoddily into apartment buildings, their white exteriors turning gray with dirt and disrepair, as hordes of people were crammed inside.

Once the Communist regime fell, there was suddenly no clear owners for buildings across Bucharest, as no one living in them at the time had valid claims to the properties since they had been placed there by the Communist regime. This was especially the case in the Jewish quarter, as the original owners had long ago fled or perished in the Holocaust. As cases surrounding restitution began to file into the Romanian government offices, over 40,000 cases flooded in for Bucharest alone. As of 2016, 21,000 of those cases have still yet to be resolved. As the buildings remain disputed, their upkeep has fallen entirely to the wayside – leaving buildings to crumble with time. As I walked the streets of Bucharest's Jewish Quarter, I saw elaborate balconies hanging by strings and exteriors of once-elegant buildings adorned with graffiti along with dirt. It felt somehow appropriate, as if these homes were simply waiting for their long-gone owners to return and repair them.

Romania has made large strides in recent years to capitalize on tourism and build up Bucharest as a destina-



A modern building from the 1920s, photographed in 2019 by the author.



Another example of the Modernist style completed in 1931, upon which a plaque was affixed, acknowledging J. Monda, one of the Modernist Jewish architects, as the designer. Photographs by author.

tion for Europeans and the world, starting with renovating their Old City Center. As they turn towards the crumbling Jewish quarter next door, I am left feeling fiercely possessive of the buildings and worried about what Romanian government has envisioned. During my research, I took the chance to step into one of the three synagogues in the city, that are still standing. I was lucky enough to speak with a rabbi in one of the synagogues, who, although facing a congregation of woefully old and few members, was anticipating being able to stay standing for many years to come. He, and the city itself, had seen a business opportunity in recent years, since Jewish tourism had increased since the Communism regime had ended. The rabbi anticipated only a greater increase Jewish tourists with time and word-of-mouth. He explained how it was only a handful of years until these places of worship would become entirely bereft of congregant members, as the last of the elderly congregants pass away and instead, solely serve as places for international Jewish people to stop and wander at the life that was once there. These synagogues do serve as memorials, to a collective culture and identity.

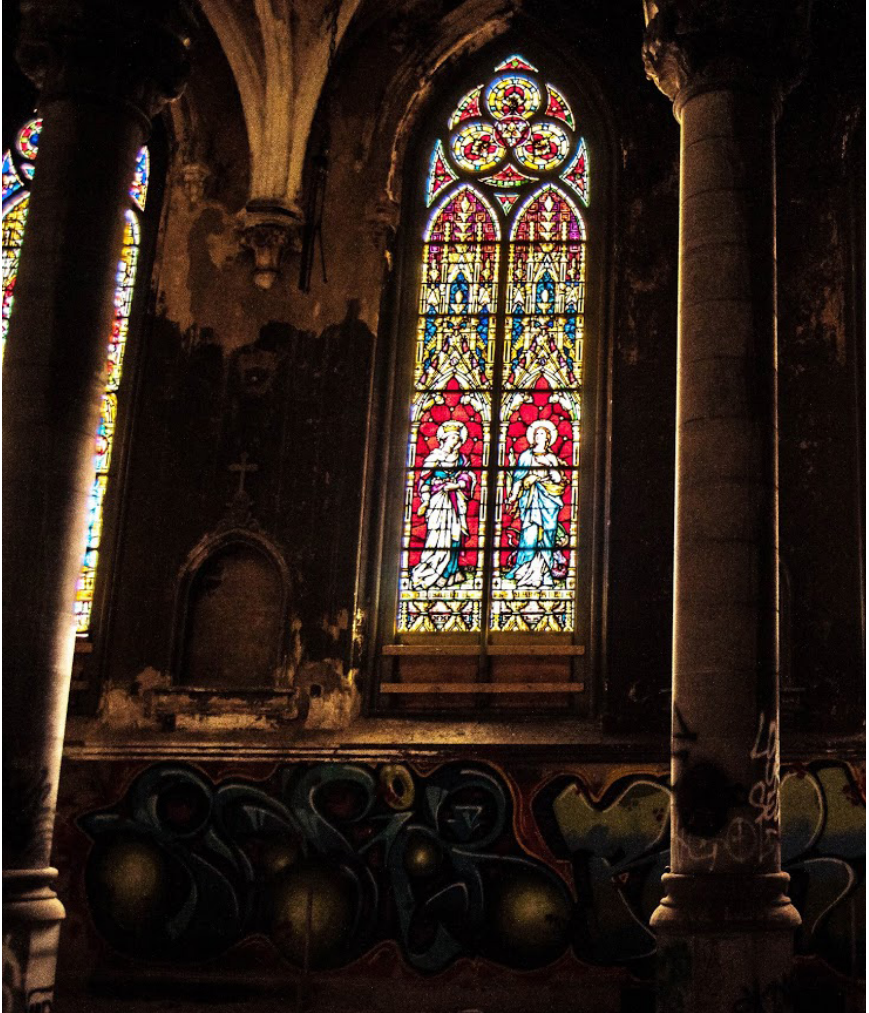
The modernist buildings I walked by, however, not only capture a period of Romania and Bucharest's history, but also visually display the layers of history that have occurred since then, reminding those walking by of the layers of what has occurred since the 1920s. Are these buildings doomed, however, to become simply a memory of the past and razed to the ground? I hope, instead, that these modernist buildings will be left intact, will be used as an instrument in helping Romanians and foreigners alike understand the rich, multilayered history of the Jewish people in Romania and all that has happened in the country since.

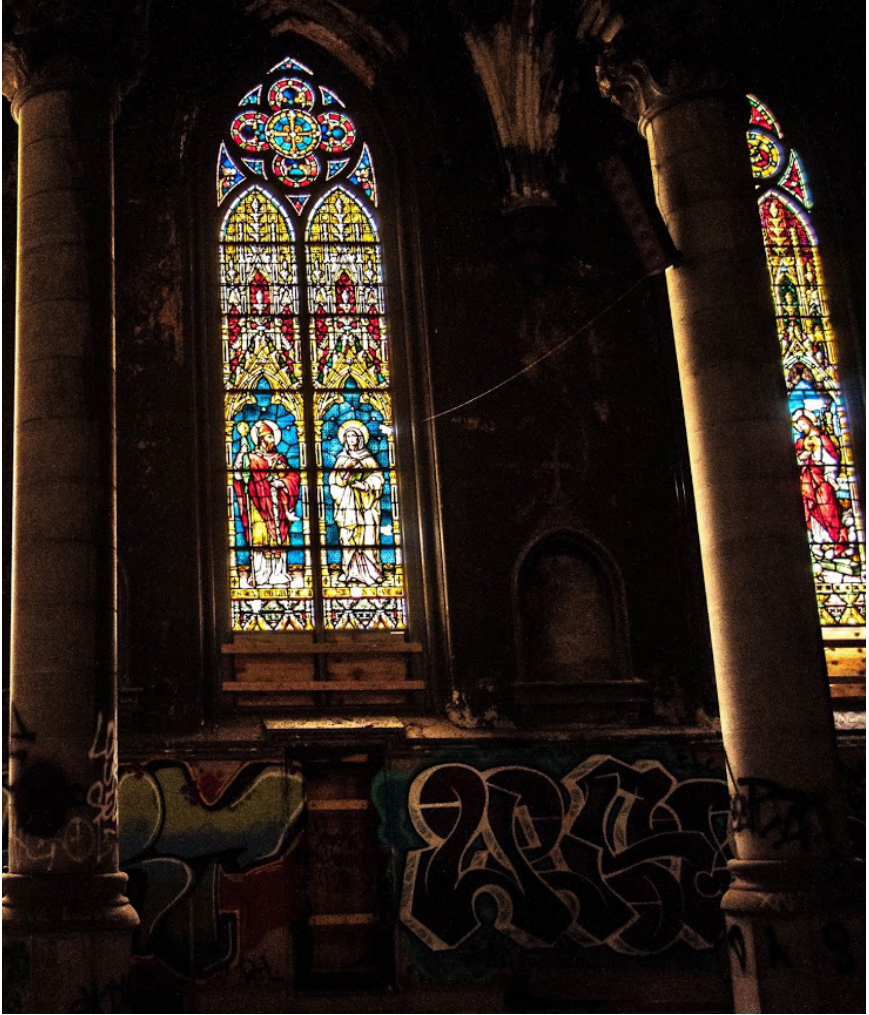
Special thanks to the Edward Guiliano Global Fellowship for making my trip & research possible.

A DAY ON THE JOB

By Charlie Bares

Charlie Bares photographs the decay of steel towns and their churches, which bear witness to the redevelopment of industrial America.









ENDNOTES

McCormick

- Blanco, Carolina, and Hidetsugu Kobayashi. "Urban Transformation in Slum Districts through Public Space Generation and Cable Transportation at Northeastern Area: Medellín, Colombia." *Journal of International Social Research* 2, no. 8 (August 2009): 75–90.
- Cardona, Eryka Y. Torrejón. "Alternative Geographies for Social Action in Medellín." *Gentrification as a Global Strategy*, 2017, 239–45.
- "Crime and Security in Medellín." *Colombia Reports*, July 25, 2019. <https://colombiareports.com/Medellin-crime-security-statistics/>.
- "Economy of Medellín." *Colombia Reports*, July 28, 2019. <https://colombiareports.com/Medellin/#economy>.
- Franz, Tobias. "Urban Governance and Economic Development in Medellín." *Latin American Perspectives* 44, no. 2 (2016): 52–70.
- Heinrichs, Dirk, and Judith S. Bernet. "Public Transport and Accessibility in Informal Settlements: Aerial Cable Cars in Medellín, Colombia." *Transportation Research Procedia* 4 (2014): 55–67.
- Leite, Carlos. "Medellín" in *Social Urbanism in Latin America*. New York: Springer International Publishing, 2019, 25–66.
- "Medellin Factfile." Medellín. MedellínColombia.co. Accessed December 22, 2019. <https://www.Medellincolombia.co/general-information/Medellin-factfile/>.
- "Metrocable." Viator. Accessed December 23, 2019. <https://www.viator.com/Medellin-attractions/Metrocable/d4563-a15676>.
- "Metrocable Lines." The Gondola Project. SCJ Alliance Consulting Services, November 28, 2017. <http://gondolaproject.com/category/installations/metrocable-line-h/>.
- Roberts, Elizabeth F. S. "What Gets Inside: Violent Entanglements and Toxic Boundaries in Mexico City." *Cultural Anthropology* 32, no. 4 (2017): 592–619. <https://doi.org/10.14506/ca32.4.07>.
- Sennett, Richard. *Building and Dwelling: Ethics for the City*. London: Penguin Books, 2019.
- Sotomayor, Luisa. "Equitable Planning through Territories of Exception: The Contours of Medellín's Urban Development Projects." *International Development Planning Review* 37, no. 4 (October 2015): 373–97. doi:10.3828/idpr.2015.23.
- Star, Susan Leigh. "The Ethnography of Infrastructure." *American Behavioral Scientist* 43, no. 3 (1999): 377–91.

Velasquez, Juan Miguel, and Dario Hidalgo. "Colombia" in *Urban Transport Crisis in Emerging Economies*. New York: Springer, 2018.

Volckhausen, Taran. "Colombia Has Most Unequal Cities in Latin America." *Colombia Reports*, February 27, 2015. <https://colombiareports.com/un-report-colombia-unequal-cities-latin-america/>.

"Which Cities Are the World's Most Innovative?" *Urban Land Magazine*, January 6, 2014. <https://urbanland.uli.org/economy-markets-trends/which-cities-are-worlds-most-innovative-winner/>.

Xiong

Addis, Samia, Myfanwy Davies, Giles Greene, Sara MacBride-Stewart, and Michael Shepherd. "The Health, Social Care and Housing Needs of Lesbian, Gay, Bisexual and Transgender Older People: A Review of the Literature." *Health & Social Care in the Community* 17, no. 6 (2009): 647–58.

Bull, Marijoan. "Housing Needs, Affordability, and Federal Responses." In *Housing in America: An Introduction*, by M.B. Gross, 91–109, 2018.

Butler, Judith. "Is Kinship Always Already Heterosexual?" *Differences: A Journal of Feminist Cultural Studies* 13, no. 1 (2002): 14–44.

Cross, Christina. "The Myth of the Two-Parent Home." *The New York Times*, December 9, 2019, sec. Opinion. <https://www.nytimes.com/2019/12/09/opinion/two-parent-family.html>.

Fischer, Will, and Barbara Sard. "Chart Book: Federal Housing Spending Is Poorly Matched to Need." Center on Budget and Policy Priorities, December 18, 2013. <https://www.cbpp.org/research/housing/chart-book-federal-housing-spending-is-poorly-matched-to-need>.

Human Rights Campaign. "Housing for LGBTQ People: What You Need to Know." Accessed November 26, 2019. <https://www.hrc.org/resources/housing-for-lgbt-people-what-you-need-to-know-about-property-ownership-and/>.

Kalugina, Anastasia. "Affordable Housing Policies: An Overview." *Cornell Real Estate Review* 14, no. 1 (2016): 76–83.

McClure, Kirk. "Deconcentrating Poverty with Housing Programs." *Journal of the American Planning Association* 74, no. 1 (February 8, 2008): 90–99.

Palen, J. John. "The Suburban Era?" In *The Urban World*, 11th ed., 107–31. New York: Oxford University Press, 2018.

Rooney, Caitlin, Charlie Whittington, and Laura E. Durso. "Protecting Basic Living Standards for LGBTQ People." Center for American Progress. Accessed December 10, 2019. <https://www.americaprogress.org/issues/lgbt/reports/2018/08/13/454592/protecting-basic-living-sta>

dards-lgbtq-people/.

Shelton, Jama, Jonah DeChants, Kim Bender, Hsun-Ta Hsu, Diane Santa Maria, Robin Petering, Kristin Ferguson, Sarah Narendorf, and Anamika Barman-Adhikari. "Homelessness and Housing Experiences among LGBTQ Young Adults in Seven U.S. Cities." *Cityscape* 20, no. 3 (2018): 9-34.

Sugrue, Thomas. "Crabgrass Roots Politics: Race, Rights, and the Reaction against Liberalism in the Urban North, 1940-1964." *Journal of American History* 82, no. 2 (September 1994): 551-78.

Kindler

Azar, Robert. "On Providence's Flooding Plan." Interview by Evan Kindler. October 30, 2019. Audio, 32:52.

Baldwin, Eric. "Climate Tile Designed to Catch and Redirect Excess Rainwater from Climate Change." *ArchDaily*. September 20, 2018. <https://www.archdaily.com/902399/climate-tile-designed-to-catch-and-redirect-excess-rainwater-from-climate-change>.

Berger, Louis. "Narragansett Bay Combined Sewer Overflow Abatement Program." <https://www.louisberger.com/our-work/project/narragansett-bay-combined-sewer-overflow-abatement-program-providence-ri-us>

City of Copenhagen. Copenhagen Climate Resilient Neighbourhood. (2010).

City of Providence. "Hurricanes." <http://www.providenceri.gov/pema/hurricanes/>.

Committee on Urban Flooding in the United States. "Framing the Challenge of Urban Flooding in The United States," The National Academies of Sciences, Engineering, and Medicine, (2019).

Fullerton, Jamie. "As Bangkok Sinks, Could this Anti-Flood Park be the Answer?" *The Guardian*. October 3, 2018. <https://www.theguardian.com/cities/2018/oct/03/as-bangkok-sinks-could-this-anti-flood-park-be-the-answer>.

Knight, Sophie. "What Would an Entirely Flood-Proof City Look Like?" *The Guardian*. September 25, 2017. <https://www.theguardian.com/cities/2017/sep/25/what-flood-proof-city-china-dhaka-houston>.

Palazzo, Elisa. "Design for Flooding: How Cities Can Make Room For Water." *The Conversation*. December 4, 2018. <https://theconversation.com/design-for-flooding-how-cities-can-make-room-for-water-105844>.

The Trust for Public Land. Green Alleys. <https://www.tpl.org/green-alleys>

Tredje Natur. Enghaveparken Now. <https://www.tredjenatur.dk/en/portfolio/enghaveparken-now/>.

Tredje Natur. Climate Tile. <https://www.tredjenatur.dk/en/portfolio/climatetile/>.

UrbanLab. "Changde, China." <https://www.urbanlab.com/yangming-archipelago>.

UrbanLab. "Eco-Boulevard." Posted 2009. Vimeo, <https://vimeo.com/7354723>.

Pottinger

Diakhaté, Lydie. "Museum Ethics, Missing Voices and the Case of the Tropical Houses." *Museum Management and Curatorship* 26, no. 2 (May 1, 2011): 177–95.

Diawara, Manthia. *Maison Tropicale*. DVD, Documentary. Third World Newsreel, 2008.

Godonou, Alain. "Memory and Universality: New Challenges Facing Museums." UNESCO, 2007.

Huppertz, D. J. "Jean Prouvé's Maison Tropicale: The Poetics of the Colonial Object." *Design Issues* 26, no. 4 (October 1, 2010): 32–44.

Nelson, Margaret I. "Re-Imagining the Maison Tropicale: A 21st Century Prefabricated Building System Inspired by Jean Prouvé." Master's thesis, Massachusetts Institute of Technology, 2011.

Prouvé, Jean. *Jean Prouvé: Prefabrication, Structures and Elements*. Edited by Jean-Claude Steinegger and Benedikt Huber. Pall Mall Press, 1971.

Rodenbeck, Judith. "Maison Tropicale: A Conversation with Manthia Diawara." *October* 133 (2010): 106–32.

Rose, Steve. "House Hunting." *The Guardian*, February 7, 2008. <https://www.theguardian.com/artanddesign/2008/feb/07/design>.

Rossen, Isabella. "La Maison Tropicale: From Failure in Niamey to Masterpiece in NYC." *Failed Architecture*, April 19, 2013. <https://failedarchitecture.com/la-maison-tropicale-from-failure-in-niamey-to-masterpiece-in-new-york/>.

Rubin, Robert. "From Brazzaville to Paris." In *Jean Prouvé La Maison Tropicale/The Tropical House*. Paris: Editions du Centre Georges Pompidou, 2009.

———. "Preserving and Presenting Prefab: Jean Prouvé's Tropical House." *Future Anterior: Journal of Historic Preservation, History, Theory, and Criticism* 2, no. 1 (2005): 30–39.

Tadei, Federico. "Measuring Extractive Institutions: Colonial Trade and Price Gaps in French Africa." *European Review of Economic History*, no. 027 (October 31, 2018).

Comberg

Mozingo, Louise. "Campus, Estate, and Park: Lawn Culture Comes to the Corporation." In *Everyday America: Cultural Landscape Studies after J.B. Jackson*, edited by Chris Wilson and Paul Groth. Oakland, CA: University of California Press.

Knowles Scott G. and Stuart W. Leslie. "'Industrial Versailles': Eero Saarinen's Corporate Campuses for GM, IBM, and AT&T." *Isis* (History of Science Society) 92, no. 1 (2001): 1-33.

Lee, Pamela. *Think Tank Aesthetics: Midcentury Modernism, the Cold War, and the Neoliberal Present*. Cambridge, MA: MIT Press, 2020.

Turner, Fred. "The Corporation and the Counterculture: Revisiting the Pepsi Pavilion and the Politics of Cold War Multimedia." *The Velvet Light Trap* 73 (Spring 2014): 66-78.

Colomina, Beatriz. "Enclosed by Images: The Eameses' Multimedia Architecture." *Grey Room* 2 (Winter 2001): 6-29.

Nikil Saval, *Cubed: A Secret History of the Workplace*. New York: Anchor Books, 2014.

Siegel

"English Version." Stolpersteine. Accessed May 13, 2019. <http://www.stolpersteine.eu/en/>.

Misco, Thomas, "'We did also save people': A Study of Holocaust Education in Romania After Decades of Historical Silence." *Theory & Research in Social Education*, no. 36(2008): 61-94.

"Final Report of the International Commission on the Holocaust in Romania Presented to Romania President Ion Ilies-cu." International Commission on the Holocaust in Romania. Accessed March 8, 2019. <https://www.ushmm.org/m/pdfs/20080226-romania-commission-findings-recommendations.pdf>

Perlez, Jane. "Bucharest Rediscovered Houses by a Modernist." *The New York Times*, January 14 1997. <https://www.nytimes.com/1997/01/14/arts/bucharest-rediscovered-houses-by-a-modernist.html>

Ancel, Jean. *The History of the Holocaust In Romania*. Lincoln: University of Nebraska Press, 2011.

Beurq, Julia. "Bucharest's Housing Crisis" Post-Communist Restitution Victimises Roma." *Equal Times*, May 27, 2016. <https://www.equaltimes.org/bucharest-s-housing-crisis-post?lang=en#>. Xrhbi1NKhQI.

Gillet, Kit. "In Bucharest, The Old Town Sees New Life." *The New York Times*, November 11, 2015. <https://www.nytimes.com/2015/11/15/travel/bucharest-nightlife.html>

