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PERFORMING, CURATING, AND RECONSTRUCTING TRADITIONS

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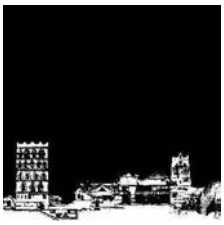

TRADITIONAL DWELLINGS AND SETTLEMENTS WORKING PAPER SERIES

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Volume 366

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Traditional Dwellings and Settlements
Working Paper Series

DANCING ABOUT ARCHITECTURE

Thomas Daniell

DANCING ABOUT ARCHITECTURE

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This paper chronicles architect Keisuke Oka's two-decade-long construction of the Arimasuton Building in Tokyo as a form of lived, performative architecture shaped as much by personal transformation as by material process. Built incrementally and largely by hand, the Arimasuton Building emerged through improvisation, collective labor, and tactile negotiation with materials rather than adherence to fixed drawings, reflecting Oka's formative experiences in Butoh dance and avant-garde pedagogy at Takayama Architecture Seminar School. Threatened with demolition and ultimately relocated at enormous expense, the building is a symbol of resistance to industrialized construction and regulatory abstraction. Ultimately, the Arimasuton Building embodies the radical proposition that designing and building can be a single, improvisational act in which architecture arises from lived duration, collective creativity, and the entanglement of human intention with social, legal, and environmental forces.

1. INTRODUCTION

As if gradually spinning a cocoon from liquid concrete, Keisuke Oka has spent the last 20 years building a home in which he has yet to start living. In 2000, he bought a 40-square-meter plot in the Mita district of Tokyo, a neighborhood once full of aristocratic estates and Buddhist temples, now known for embassies, schools, offices, and the homes of celebrities. Unsure what his house was going to become, Oka submitted structural and planning documents containing just enough detail to obtain a building permit (the Japanese building code is relatively lax in the case of a small, private structure for which the architect, contractor, and client are all the same person), then in 2005, he began to dig a hole. Using little more than pickaxes and shovels, it took him a year and a half just to excavate the three-meter-deep basement. Rudimentary walls began to emerge from the ground, slouching skyward as if extruded from the bedrock. Typically, concrete is poured one floor at a time, but Oka worked in increments of about 70 centimeters, shallow enough to allow him to reach inside the formwork to clean the surfaces or adjust the rebar, and gradual enough for him to modify the design at each step of the way.

Figure 1: Arimasuton Building under construction. (Source: Keisuke Oka).

For the first decade or so, Oka worked mostly alone, but others began joining in for irregular periods. As the house grew, so did his small but convivial community of builders, who shared meals and held impromptu concerts on the site. In October 2024, with construction largely complete, the hoardings were removed to reveal a 10-meter-high, misshapen concrete tower, both picturesque and uncanny, evoking a weather-beaten tree trunk infested with insects and fungi. Lacking obvious regulating lines or modularity, the exposed concrete surfaces are punctuated by ridges and crevices, notches and holes, ruffles and spikes, blisters and scars, irregularly streaked with rust from the steel window frames and rainspouts. Aging gracefully before it has even reached its mature form, this is architecture as animate installation, construction as slow performance art.

Figure 2: Arimasuton Building exterior wall detail. (Source: Masaru Kaido).

2. DANCE

Indeed, the building might be regarded as the residue of an interminable street performance, condensing or coagulating in the wake of the movements of a dancer rather than being assembled according to the drawings of an architect. During the 1990s, when he was in his 20s, Oka apprenticed with avant-garde performance artist Yukio Waguri (1952–2017), who himself had studied directly under Tatsumi Hijikata (1928–1986), the founder of Butoh dance. A disturbing and cathartic type of performance art that emerged in postwar Japan, Butoh comprises a flow of tiny, convulsive movements, usually performed extremely slowly. Though they appeared to be unstructured and extemporized, Hijikata's dances were codified using what is now known as "Butoh notation."[1] He broke down his movements into discrete stances and gestures that he demonstrated to his disciples, who diligently recorded them in notebooks. Rather than instructions to be followed precisely, Butoh notation consists of modules that may be reordered or merged as a basis for improvisation, filtered through each dancer's unique physiology and psychology, a manifestation of raw emotion as much as bodily expression. After Hijikata's death, Waguri analyzed and adapted the hundreds of notations he had collected in his notebooks, organizing them under 60 thematic headings. He augmented these with copies of paintings by artists whose aesthetics had influenced Hijikata (notably Willem de Kooning and Francis Bacon) to produce a training manual for his own students. Oka thereby learned the balance of control and freedom inherent to Butoh dance, as well as an extreme level of mental and physical discipline.

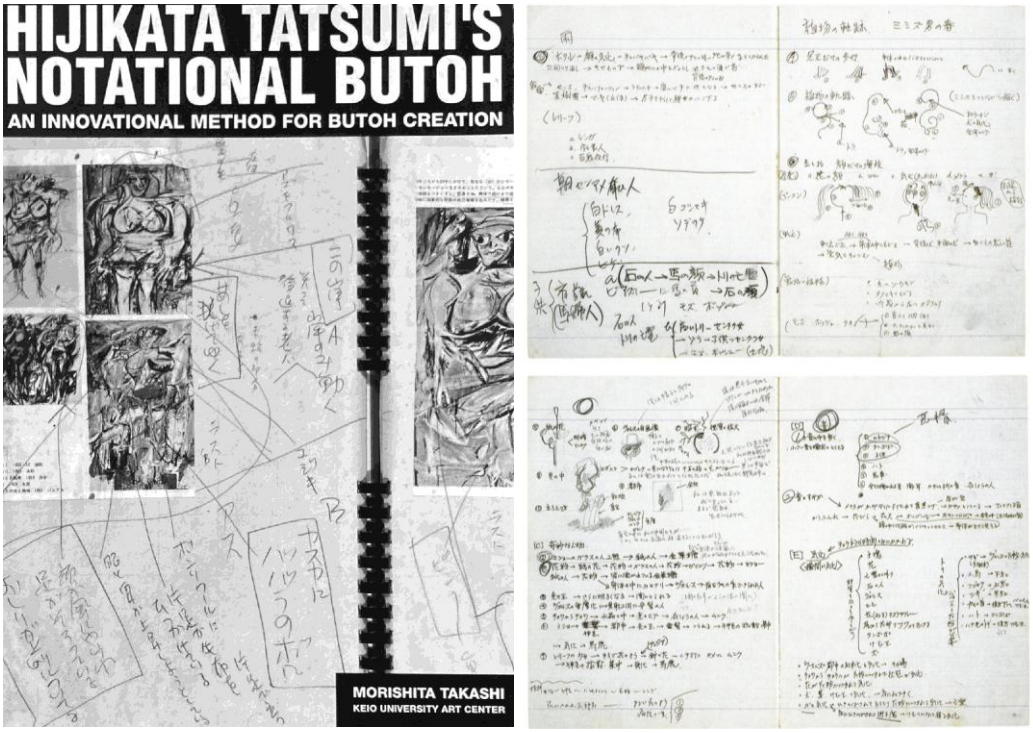

Figure 3: *Hijikata Tatsumi's Notational Butoh* (Source: Keio University Art Center, 2015).

Surprisingly, Oka had never had any prior interest in dance. His involvement was almost accidental, though in retrospect it seems like fate. Finishing top of his class in the architecture program at the provincial National Institute of Technology, Ariake College, Oka nonetheless doubted he could compete against graduates from prestigious universities in big cities, and lacked the confidence to apply to the office of a famous architect. After a year working for a generic housing manufacturer, during which he gained a first-class architect license, he quit in order to learn how to build for himself. Since then, he has spent eight or nine months of each year working on construction sites for some of Japan's largest contractors, and the rest of his time bicycling around the country and sketching architecture.

Starting in 1988, Oka became a regular participant in the Takayama Architecture Seminar School (TASS), a monthlong gathering of radical students and teachers still held every summer in the Japanese countryside. While engaged in full-scale, self-build design projects, participants are exposed to the ideas of visiting historians, philosophers, scientists, and artists.[2] Early on, Yasuo Kurata, the founding director of the school, became annoyed by Oka's diffidence and banned him from architecture for a year, telling him he needed to go away and expand his mind. Despondent but obedient, Oka returned to Tokyo determined to accept the next invitation he received, whatever it might be, and a chance encounter with Waguri drew him into the world of Butoh. Before long, Oka found himself performing in dishabille on the streets with Waguri's troupe, which he now believes was a crucial step in his progress toward becoming an architect – a way to force himself to be publicly exposed, and thereby overcome some of his insecurities.

Oka continued attending TASS each summer, where he came under the influence of Osamu Ishiyama, a maverick architect and teacher who has spent his career challenging the most fundamental aspects of architecture, both in his writing, through innumerable books and essays, and by example, through his buildings. Ishiyama is fascinated by the work of "outsider" architects (in particular, European eccentrics such as Raymond Isidore, Karl Junker, and Ferdinand Cheval) and their painstakingly self-built homes, which he regards as attempts to escape the constraints of the construction industry, and of society at large.[3] In fact, Ishiyama sometimes seems more interested in the mental state, and possible neurodivergence, of these obsessive amateurs than in the composition and aesthetics of their work. Recognizing Oka to be a kindred spirit, Ishiyama supported his haphazard search for new approaches to making architecture.

3. CONFIDENCE

But around the time Oka turned 30, things fell apart. He developed a dangerous hypersensitivity to the formaldehyde in the plywood panels used for concrete formwork, leaving him with shaking hands and heart palpitations, and unable to continue his work on construction sites. Depressed about his future, intimidated

by his peers, and insecure about his own talents, Oka decided that his only hope was to remake himself as a "confident person," which he semiseriously estimated would take about 30 more years of incessant effort. Architecture would be the path, and building his own home the goal.[4] He turned the front room of his apartment into a contemporary art gallery with a large display window facing the street, and began to expand his social network.

Following the death of Yasuo Kurata in 2000, Oka became the new leader of TASS, yet he still lacked the courage to begin the design of his house. In 2003, he was invited by Ishiyama to join a two-week design workshop at Waseda University. Participants were asked to conceive their ideal home, and so Oka drew the first, inchoate sketches for what he hoped to build on his land. Ishiyama praised the design, and Oka spent the rest of the workshop adapting it to the realities of site and function, unavoidably diluting his initial inspiration. At the final presentation, Ishiyama scornfully dismissed the new drawings, leaving Oka weeping in a corner of the classroom. But he continued to develop the house, entering it in the "SD Review" competition that year, where it received the Fujimori Prize from eccentric historian-turned-architect Terunobu Fujimori. Finally, Oka had the confidence to close his art gallery, pick up a shovel, and get to work.

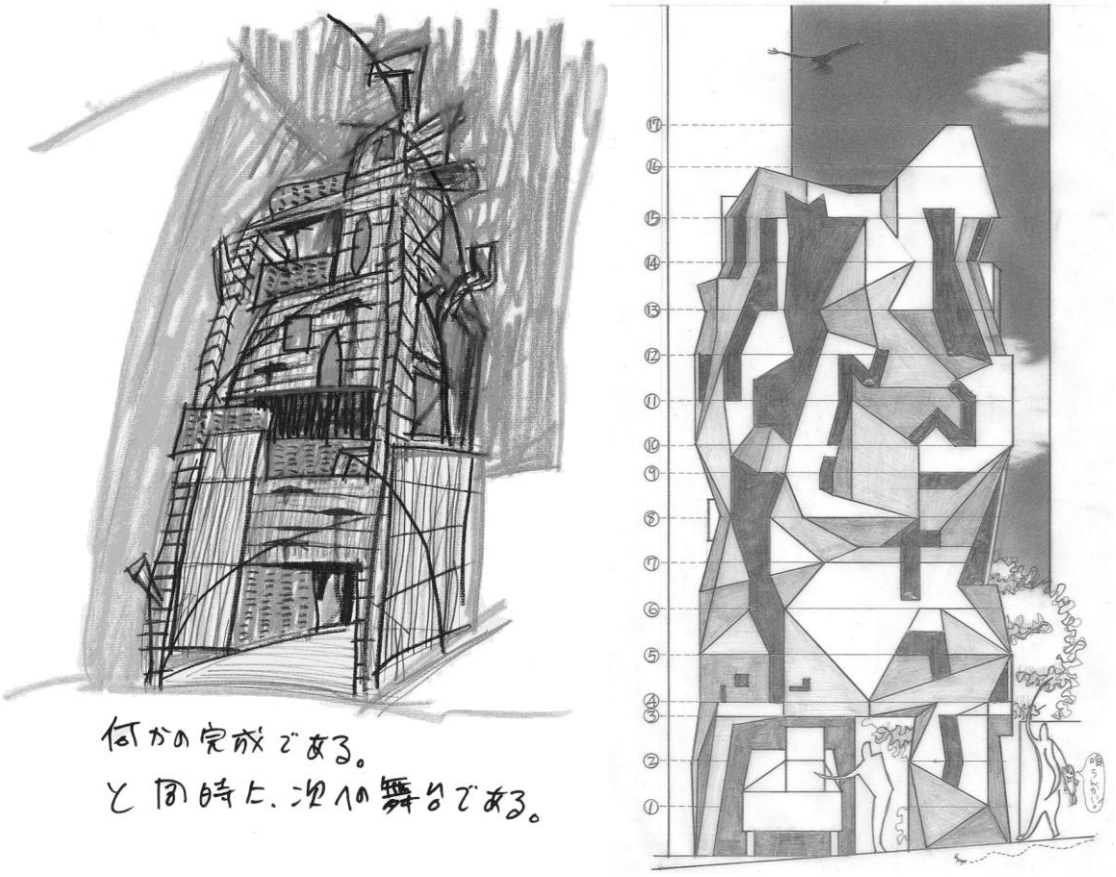

Figure 4: First sketches for the Arimasuton Building. (Source: Keisuke Oka).

4. CONCRETE

Searching for nontoxic alternatives to ordinary concrete formwork, Oka assembled frames of untreated wood filled with irregular offcuts, all wrapped in thin plastic sheets. He mixed the concrete using an unusually low water–cement ratio, making it heavy and difficult to manipulate, but also giving it the potential to last for centuries. When poured, the concrete would ooze and bulge through the gaps between the wood offcuts, drying with a strangely nacreous finish due to the plastic sheets. The serendipitous textures and shapes inspired him to start inserting random objects between the plastic and the wood, thereby distorting and embossing the concrete surfaces. As ever more friends and acquaintances came to help, Oka gradually relinquished control of the design and encouraged them to leave their own marks on the building, literally. He had long believed that the process of construction should be more than the dutiful implementation of a set of drawings received from an architect, but in any case, he never made any detailed design drawings (though the schematic plans produced for the building permit had to be revised and resubmitted to the city office several times over the years). Comparing himself to an orchestra conductor, Oka set the direction and tempo, guiding verbally or through sketches. Rather than merely imposing arbitrary shapes on inert concrete and steel, each contributor was engaged in a personal negotiation with viscosity, humidity, gravity, and so on, conditioned by their own kinaesthetic dexterity and intuition. As the building began to exceed the imagination of its ostensible designer, Oka was surprised and even disturbed by certain interventions – the aggressively ragged parapets, the polyhedral complexity of the windows, the folded steel plates of the entrance door, the eclectic motifs embossed on many of the concrete surfaces – but also delighted by the implausible coherence of the results.

Figure 5: Construction team at the Arimasuton Building. (Source: Keisuke Oka).

5. NAMING

Oka's house is now known as the Arimasuton Building, a name that is itself a kind of polysemous dance, the outcome of a year of brainstorming with an artist friend. Their starting point was *arimasu*, the Japanese verb "to be," a bald assertion of physical (or phenomenological) presence, combined with the word *tonbi*, Japanese for "steeplejack," one of the jobs that Oka used to do on construction sites. He knew he did not want to call the structure a house or home – as well as being his residence, it is intended to contain other, more public activities – so they appended the suffix *-ru*, which allowed the final two syllables to be detached as *biru*, Japanese for "building." This left the nonsensical name Arimasuton, which amused Oka due to its echo of luxury hotel chains such as Hilton and Sheraton. They then tried substituting the phonemes with kanji characters for animals: "ant" (*ari*), "trout" (*masu*), and "black kite" (*tonbi*), implying the environments of land, sea, and sky, or the elements of earth, water, and air. Oka decided that the leftover *ru* should represent Le Corbusier – and implicitly the element of fire.

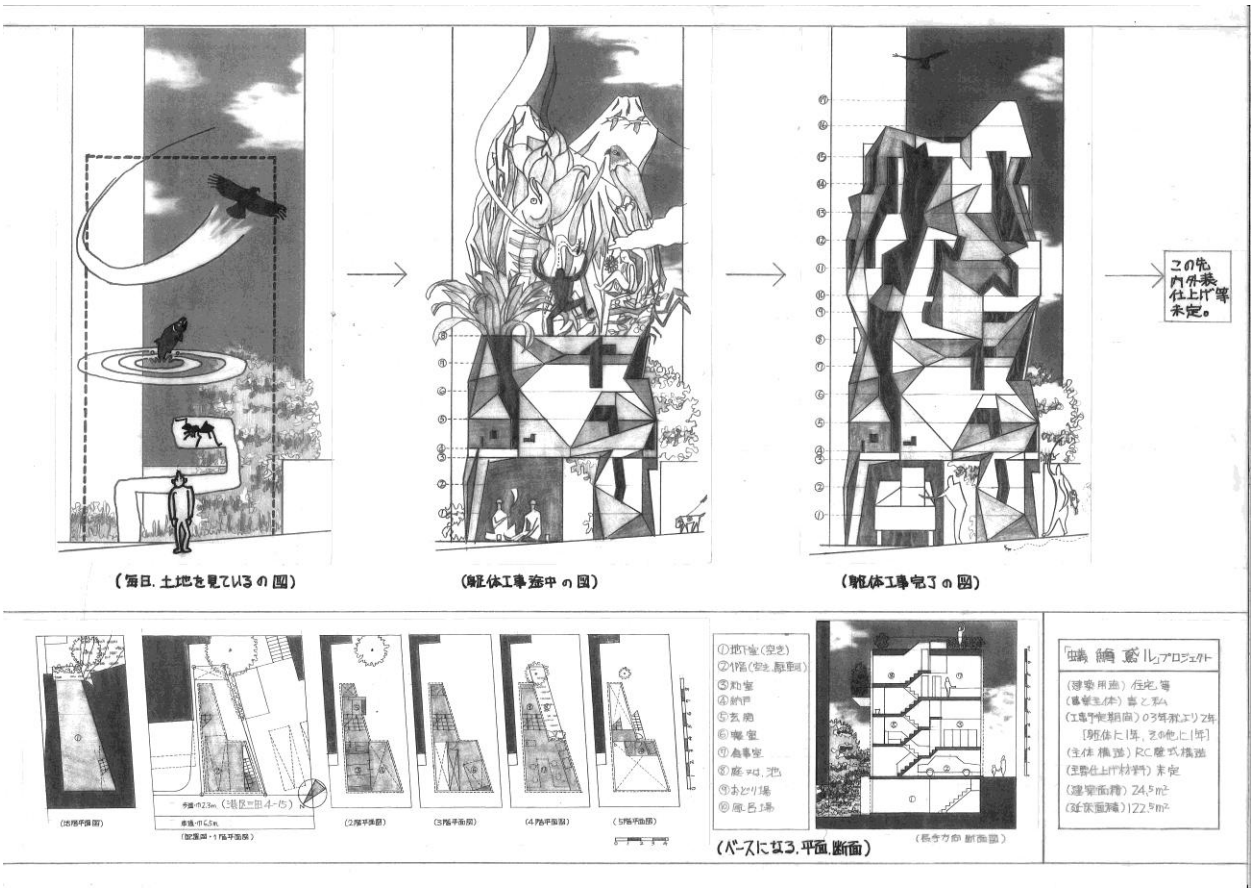

Figure 6: Drawings of the Arimasuton Building. (Source: Keisuke Oka).

6. RELOCATION

Over the two decades of construction, the surrounding city changed, as did the house, as did its architect. Collaborators came and went, some loyal, others treacherous. Believing the building would never be completed, the bemused neighbors took to calling it "Tokyo's Sagrada Família" and Oka the "Gaudí of Mita." Then, just as the Arimasuton Building attained a state of dynamic equilibrium, the neighborhood was rezoned. Sitting right at the street's edge, the Arimasuton Building no longer complied with the urban regulations, and the authorities put a halt to construction. It was slated for demolition along with its neighbors: a stillborn home, its life over before its gestation was complete. The eventual reprieve took a few years of tense legal negotiations, bolstered by a grassroots publicity campaign that included a self-published monthly newsletter, a viral social media presence, innumerable magazine articles and television features, and even a short documentary by architectural cineastes Ila Bêka and Louise Lemoine,[5] who stumbled across the Arimasuton Building while filming its neighbor, Kenzo Tange's Kuwait Embassy. Astonishingly, the company developing the area agreed to incorporate the house into their plans at their own expense, even though this meant moving it about 10 meters back from the street. A concrete monolith, the Arimasuton Building could not be readily dismantled, so its relocation entailed excavating around the basement, jacking the entire 350-tonne volume up on steel scaffolding, sliding it backward along tracks, and then lowering it into a new hole in the ground. The vertical lift took three days in late August 2025, followed by a two-stage horizontal shift in mid-September and early October, at a cost of approximately 2 billion yen. Sometime in 2026, Oka should finally have a home in which to dwell: a protean, anachronistic object posed within a tableau of sleek new office buildings, awkward and vulnerable yet capable of outliving them all.

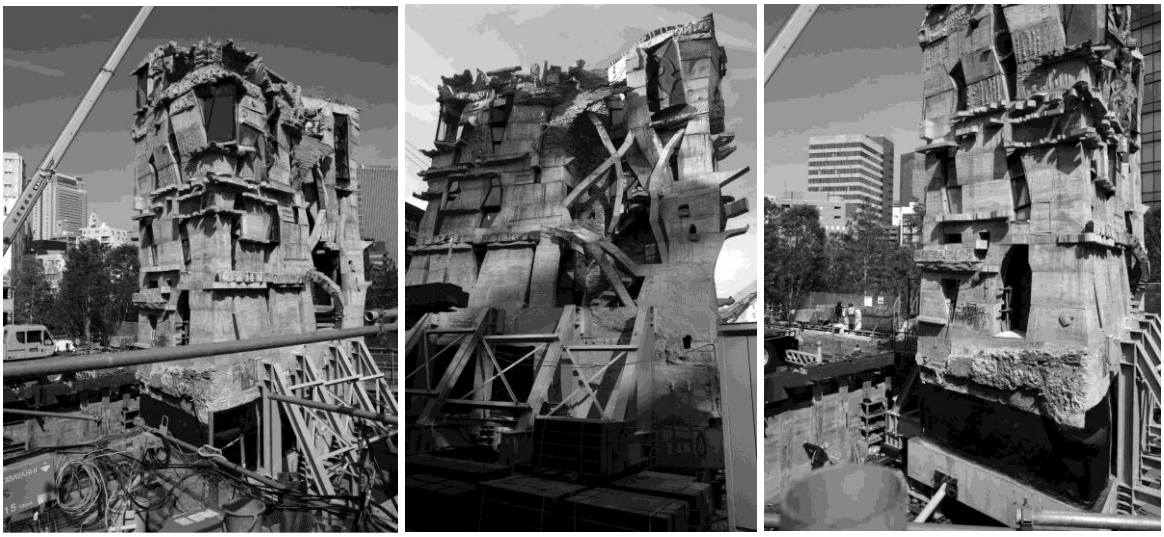

Figure 7: Arimasuton Building being moved. (Source: Keisuke Oka).

7. CONCLUSION

Asked to explain his house, Oka will smile, then silently start to dance. For him, excessive fidelity to drawings creates an excessive distance between thinking and making, whereas in improvisational dance, one moves before one thinks. There is no gap between conception and realization. To close that gap in architecture, Oka suggests that designing and building might become the same activity, with minimum premeditation and maximum spontaneity. Of course, this is not merely a pas de deux. The somatic interactions of the builder and building – or the "quasi-subject" and "quasi-object," to borrow jargon from Bruno Latour's actor-network theory[6] – are themselves enmeshed within an infinitely wider field of fluctuating forces, of climate, geology, law, economics, neighbors, photographers, critics, and so on. As anomalous and otherworldly as it appears, the Arimasuton Building is inseparable from its place and time. To be sure, few of us are willing to wait 20 years for a place to live, or have the physical and mental stamina to build it ourselves. But we can take some comfort in the perseverance of people such as Keisuke Oka and the concrete fact of his house, with its embodied evidence of an evolutionary ascent from anxiety, abjection, and personal obsession to confidence, freedom, and collective creativity.

Figure 8: Keisuke Oka outside the Arimasuton Building. (Source: Nao Kimura).

NOTES AND REFERENCES

1. See Takashi Morishita, *Hijikata Tatsumi's Notational Butoh*, trans. Mutsumi and Jeff Horning. Tokyo, Keio University Art Center, 2015.
2. See Umihiko Chō, ed., *Takayama kenchiku gakkō densetsu: Self-build no tetsugaku to kenchiku no utopia* [Legends of the Takayama Architecture School: Self-build philosophy and architectural utopia]. Tokyo, Kajima Institute Publishing, 2004.
3. The relevant essays are collected in Osamu Ishiyama and Kikō Mozuna, *Igyō kenchiku junrei* [Pilgrimages to strange architecture]. Tokyo, Kokushokankokai, 2016.
4. Most of the biographical information here derives from a July 2025 conversation between Keisuke Oka and the author, but the story is also told in Keisuke Oka and Masatsugu Kayahara, *Babel! Jiriki de biru o tateru otoko* [Babel! A man constructing a building under his own power]. Tokyo, Chikuma Shobō, 2018, and Nao Kimura, ed, *Utai, odori, tateru: Arimasutonbiru no tsukurikata* [Sing, Dance, Build: How the Arimasuton Building was Made]. Tokyo, Seidosha, 2025.
5. *ButoHouse*, directed by Ila Bêka and Louise Lemoine, 2019.
6. See Bruno Latour, *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford, Oxford University Press, 2005.

Traditional Dwellings and Settlements
Working Paper Series

THE ROLE OF MOBILE ART INSTALLATION PRACTICES IN COMMUNITY RENEWAL: A CASE STUDY OF THE "TRANSFORMED TRICYCLE MOBILE EXHIBITION" ART INSTALLATION IN ZHUHAI

Wendai Zhu, Liran Chen

THE ROLE OF MOBILE ART INSTALLATION PRACTICES IN COMMUNITY RENEWAL: A CASE STUDY OF THE "TRANSFORMED TRICYCLE MOBILE EXHIBITION" ART INSTALLATION IN ZHUHAI

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Urban quick-fix is a low-cost, participatory repair practice. Taking a modified tricycle mobile exhibition in Zhuhai's Shishan subdistrict as a case study, this research shows how highly mobile artistic interventions activate public space, rebuild neighborly relations, and facilitate living transmission of collective memory. The tricycle's transformation from broken vehicle into interactive platform demonstrates that quick-fix is not merely physical repair but a social practice stimulating collective creativity. Its dynamic and fluid roadshow traces a narrative thread, offering a flexible, replicable, low-impact model for urban micro-regeneration.

1. INTRODUCTION

In the context of intensifying global climate change and the increasing frequency of extreme weather events in cities, community resilience and adaptability have become frontier issues in urban studies. Some of the Chinese cities are generally confronted with common problems such as aging infrastructure in old neighborhoods, shrinkage of public spaces, and the decline of neighborly relations. Extensive urban renewal is not only costly but also often leads to the disruption of social networks and local culture. Against this backdrop, "urban quick-fix" as a low-cost, highly flexible, community-engaging and micro-intervention has gradually come into the spotlight of society.

However, existing research has paid insufficient attention to the high-mobility dimension of the quick-fix strategy. The existing quick-fix practices are often fixed to specific locations (e.g., building facades, street corner facilities), with their influence constrained by physical boundaries. If quick-fix actions could be combined with mobile carriers, there exists the potential to transcend spatial limitations and activate broader community networks. This question has not yet been systematically answered.

This study takes the "Transformed Tricycle Mobile Exhibition" in Shishan subdistrict, Zhuhai, as a core case to explore how mobile art installations can advance urban quick-fix practices, and further asks: how do such highly mobile practices activate community public spaces and rebuild neighborly relations, and how do they facilitate the living transmission of collective memory through this practice? The tricycle modification project began with workshops organized in collaboration with local residents and partner groups, during which residents were guided to visit existing quick-fix works in Shishan subdistrict, while field observations were conducted and feedback on second-hand tricycles was collected, leading to the formulation of a modification plan and subsequent operational procedures. The modified tricycle was then used as a mobile exhibition

platform to showcase the outcomes of the quick-fix workshop and to host creative exchange activities on "urban quick-fix." This process aimed to arouse awareness of grassroots urban restoration practices, thereby gaining a comprehensive understanding of low-cost, highly participatory intervention methods. The project further explored how mobile art installations, through dynamic, interactive, and spatially fluid modes of participation, sustain community relationships and contribute to the practice and activation of intangible culture.

The "Modified Tricycle Mobile Exhibition" served as a highly fluid "tactic" mobile art installations, through the practical chain of "appropriation–display–roadshow" can activate public spaces, weave temporary social networks, and facilitate the flow and translation of local culture in old neighborhoods. The innovative contributions of this study are threefold: Initially, it introduces "mobility" into the theory of urban quick-fix, proposing the preliminary concept of "mobile quick-fix"; Then, through participatory action research, it verifies the feasibility of transforming an everyday means of transport (the tricycle) into a node of social interaction; After that, it provides a "low-cost, highly participatory, and replicable" micro-pathway for climate-adaptive community.

2. LITERATURE REVIEW

In the theoretical discourse on urban vitality, the views of Jane Jacobs hold a foundational significance. She pointed out that urban vitality does not originate from top-down planning and design, but is rooted in residents and their everyday activities; the order of the city is essentially a complex system that emerges spontaneously from daily interactions. To describe this phenomenon, Jacobs proposed the poetic concept of the "sidewalk ballet." On a "healthy street", residents, shopkeepers, pedestrians, and children continuously intersect and interact at different times of the day; what appears superficially chaotic is in fact a precisely coordinated and resilient rhythm of operation, resembling a ballet.**Error! Unknown switch argument.** This order is not designed by any top-level authority, but emerges spontaneously from the numerous everyday decisions of individuals. Jacobs further emphasized that such order possesses significant resilience: when a component of the system changes, the whole is capable of self-regulation and adaptation. Further scholars emphasized the importance of designing public spaces centered on human scale and needs. These studies provide a theoretical foundation for understanding informal, bottom-up urban practices.**Error! Unknown switch argument.**

Everyday Urbanism, regarded as a theoretical framework for analyzing everyday urban life, holds a central premise that the meaning of urban space is not predetermined but continuously generated through residents' daily use, adaptation, and modification. It has been defined as "a concept or attitude that emphasizes informality, bottom-up processes, attention to everyday life and spatial use, opposition to grand narratives and

formal planning." It emphasizes community participation, spontaneous actions, and the creative use of public space, making it an important conceptual tool for understanding the dynamics of contemporary cities.**Error! Unknown switch argument.** However, while this theoretical framework has gained broad recognition, it also faces multiple critiques. Among these, Michael Speaks and others criticize it for having a "vague theoretical foundation, simplistic binaries, and lack of specificity, treating the city as a text for analysis rather than design intervention, resulting in projects that are overly literal and decorative."**Error! Unknown switch argument.**

Other critics point out that Everyday Urbanism may overemphasize practicality, neglect conflict and grand visions, and tend to accept the status quo uncritically. Some scholars argue that it lacks criticality and fails to provide long-term innovative urban solutions.**Error! Unknown switch argument.** These dialectical views on Everyday Urbanism do not entirely negate its value, but help clarify the key elements that drive Everyday Urbanism. In response, Crawford (2013) defends the approach: … Everyday Urbanism is an attitude toward the city that can produce many different outcomes. It is a shifting type of activity that adapts to different circumstances, thus does not yield a single formal product; rather, its strength lies in its diversity and heterogeneity. It is empirically driven, highly specific rather than prescriptive. It starts from what already exists, then encourages and reinforces it.**Error! Unknown switch argument.**

If Everyday Urbanism leans toward a theoretical framework of narrative commentary, Michel de Certeau's *The Practice of Everyday Life* offers a more critical perspective on the everyday urban life. The concepts of "strategy" and "tactics" in de Certeau's theory constitute a core binary opposition. "strategy" is closely linked to power, institutions, and structures. "tactics" belong to those "others" who have no "proper place," namely, ordinary people, consumers, pedestrians. de Certeau's theory focuses on the analysis of "tactics," in which the practice of walking is a form of "enunciation." Through the movement of the body, it creates a series of temporary, fluid spatial narratives. The trajectories of pedestrians are ephemeral and invisible; they are not fixed like buildings. Yet together, they constitute a vibrant "practiced city" that coexists with and even resists official planning. Thus, de Certeau's theory offers a new perspective for urban studies, shifting attention from the physical form and macro-planning of cities to how residents creatively "practice" urban space through their everyday walking, use, and experience, transforming it into a place integrated with personal meaning and lived character.**Error! Unknown switch argument.**

In contemporary urban studies, tactical urbanism seeks to improve public space accessibility and livability, significantly enhancing public perception through short-term, low-cost, and experimental spatial interventions. For example, in an empirical study in Cairo, public perception scores for quality attributes such as accessibility, safety, aesthetic image, and comfort improved markedly.**Error! Unknown switch argument.** As a responsive practice against the control logic of the "closed city," it activates residents' capacity for daily

participation, empowering local communities to actively shape their social and physical lives, while emphasizing that a truly open city perspective should transcend brand marketing and support diversity and spontaneous activities.**Error! Unknown switch argument.** Furthermore, originating from independent, bottom-up approaches, tactical urbanism accelerates localized responses to social inclusion, bypasses bureaucracy to support local communities in devising low-cost immediate solutions to resource limitations, and, as demonstrated in the case of Bari, redistributes space through tactical interventions to test upscaling to the urban scale.**Error! Unknown switch argument.** This approach adopts an iterative methodology derived from design thinking, emphasizing that community participation is crucial for achieving effective and lasting urban transformations, and can establish enduring connections and significantly influence urban development.**Error! Unknown switch argument.** In promoting tactical urbanism practices, local governments achieve strategic incorporation and climate agenda embedding through institutional interfaces, typically reflected in integrating tactical interventions into formal climate transition frameworks. The municipality of Brescia explicitly incorporated tactical urbanism into its Climate Transition Strategy (CTS), approved in 2021, as a collaborative approach to addressing climate change adaptation and mitigation. This strategy includes 30 specific actions aimed at transforming the city into "green oasis," "sponge," and "people-centered" spaces.**Error! Unknown switch argument.**

In Japan, "Roadside Observation Studies" and "Modernology"**Error! Unknown switch argument.** advocate for aimless street collection as a means of resisting the viewing methods disciplined by capital further focus on the overlooked "Thomasson"**Error! Unknown switch argument.** in the city (e.g., abandoned staircases, sealed windows and doors), proposing the concept of "beyond-art" to reveal the aesthetic and cultural value of "useless things" in everyday space.**Error! Unknown switch argument.** This tradition provides methodological inspiration for this study's observation of community quick-fix installations, quick-fix is not merely functional repair but also a potential form of "everyday art." The concept of "urban quick-fix" proposed by Bill Aitchison refers to a ubiquitous creative practice in Chinese society, serving not only as a means for grassroots populations to cope with needs but also as coexisting symbiotically with state mechanisms, whose value has yet to be fully recognized. Re-examined, it can be seen as a potential resource for environmental protection and design fields, promoting more sustainable and humane development.**Error! Unknown switch argument.** Similar concepts of rapid makeshift repair and vernacular wisdom are found in Xiang Zairong's discussion of "gambiarra" in his essay *Shanzhai: A Southern Theory for the Times Museum*. He cites Leandro Fazolla's definition of "gambiarra" as a quick, improvised, and often basic solution generated in contexts of resource scarcity or lack of alternatives—solutions that subvert the original functions of objects and repurpose them for new situations. Key features of "gambiarra" include creativity and ingenuity, elements also commonly found in artistic practice.**Error! Unknown switch argument.** Urban quick-fix, as a means of urban regeneration, reveals the aesthetic and cultural value of "useless or useful things" in everyday space through community participatory renewal, thereby expanding the

boundaries of art research. The life attitude of "roadside observation" enhances the public's deep perception of the urban environment and offers a unique lens for understanding the historical layering and cultural memory of urban space.

Currently, in the practice of micro-regeneration in Chinese communities, public participation generally exhibits a "symbolic" character. Many planning activities only adopt conventional, shallow forms of participation such as questionnaire surveys, feedback collection, and community tea gatherings, which have limited effects in stimulating participatory motivation.Error! Unknown switch argument. In community regeneration involving subject interaction, there has been a failure to effectively integrate the two types of relationships-intersubjective (communicative rationality) and subject-object (instrumental rationality), and a lack of concrete pathways to combine residents' everyday practices with professional designers' "rationality," resulting in superficial or disoriented participation.Error! Unknown switch argument. In summary, existing theories provide a rich set of conceptual tools: Jacobs' everyday vitality, de Certeau's tactics, the bottom-up attitude of Everyday Urbanism, the aesthetic critique of Roadside Observation Studies, and the design potential of quick-fix theory. This study aligns with the above positions, yet simultaneously proposes a critical reflection: spontaneous repair actions, if lacking sufficient organization and support, may struggle to generate sustained social impact. This is precisely why the introduction of "participatory action research" and "mobile platform" design is necessary. Furthermore, a common gap in existing research is insufficient attention to mobility. Through the medium of the "mobile tricycle art installation," this study attempts to connect and extend the above theories into mobile scenarios, thereby addressing the research gap concerning a "high-mobility quick-fix community regeneration strategy."

3. RESEARCH AND METHODOLOGY

3.1. Research Background

Urban quick-fix, originating from the theory of artist Bill Aitchson, refers to the utilitarian repair and modification of damaged objects or spaces as an action-oriented problem-solving approach. This method is characterized by low cost, high flexibility, and strong community participation, aligning with the current trend in community regeneration that emphasizes the preservation of social relations and intangible culture. The strategy of urban quick-fix provides valuable insights for community regeneration practices in China. However, existing research has paid insufficient attention to the high-mobility dimension of the quick-fix strategy, which is precisely an important pathway for unlocking its potential in community revitalization.

In the context of intensifying global climate change and the increasing frequency of extreme weather events in cities, the adaptive capacity and resilience building of urban communities have become important issues in contemporary urban studies. Conventional top-down infrastructure development models often fail to address the micro-scale needs of communities, while the "vernacular wisdom" and "improvisational creativity" embedded within communities are frequently overlooked. "Quick-fix," a practice of temporarily addressing everyday problems using resources at hand (tools, materials), is widely present in the daily life of urban communities.**Error! Unknown switch argument.** This kind of micro-action, rooted in lived experience and capable of reaching the most grassroots levels of daily life, embodies residents' creative coping strategies in the face of resource constraints and environmental changes.

Given this context, the present study asks four interrelated questions: (1) How does quick-fix practice respond to community regeneration strategies under climate change? (2) How does participatory quick-fix creation promote interaction among community members and foster resilience building? (3) How does quick-fix, as an artistic intervention, become an effective medium for connecting residents and activating communities? (4) How can a "highly flexible", "replicable", " sustainable" and "low-impact intervention" model be developed for urban micro-regeneration?

3.2. Research Objectives

To discover and document community quick-fix creativity and everyday wisdom, and through participatory co-creation, enhance residents' awareness and action capacity for climate adaptation. To build communication networks and mutual support networks among community members, thereby activating community networks. To explore a replicable practical model of community micro-regeneration, providing reference value for micro-scale urban renewal in other cities.

3.3. Theoretical Framework

This study adopts the methodology of Participatory Action Research (PAR), which emphasizes equal collaboration between researchers and community members, achieving the dual goals of knowledge production and social transformation through the iterative process of "observation-reflection-action." It integrates sustainable design principles, emphasizing that design should consider the full lifecycle, promote resource circulation, and respond to genuine needs. At the same time, drawing on social innovation theory, it regards quick-fix as a form of grassroots social innovation practice.

de Certeau distinguished between two modes of everyday life practice: "strategy" and "tactics." "strategy" refers to a top-down mode of planning, characterized by clear boundaries, rules, and resources, through

which power is exercised in the city by means of institutional planning . In contrast, "tactics" belong to the art of the weak. According to de Certeau, tactics must seize opportunities within the domain of the powerful, achieving goals through improvisation and resources at hand. The characteristics of tactics include temporal urgency, spatial fluidity (having no fixed place), and creativity in action. The tricycle studied in this paper responds to the notion of "tactics" as articulated by de Certeau an informal, community-initiated and micro-regeneration strategy initiated by residents. Timely repair embodies the pursuit of speed, while the mobility of the tricycle exhibition creates flexible and changeable spaces, addressing everyday problems with creative thinking in a low-cost, efficient manner.

Furthermore, de Certeau's concept of "appropriation" is key to understanding quick-fix practice. "Appropriation" refers to the creativity of external systems (such as social norms, cultural products, spatial order, etc.) by individuals or groups. This appropriation is not passive acceptance, but rather a subtle transformation of established rules through "tactics" to serve one's own interests and meaning-making. The concept of "appropriation," as central to quick-fix practice, denotes the re-appropriation and meaning-giving of objects, spaces, or systems by users. Rather than using things in the ways preset by designers, users creatively modify and reuse them according to their own needs and contexts. Residents do not passively "discard" waste objects; instead, through creative force, they transform them into items with new functions. This "secondary production" not only generates practical value but also produces social significance: community emotional identification and cultural connections, community regeneration, and resilience in response to climate change.

This study adopts de Certeau's tactics/appropriation as its core analytical framework, complemented by the bottom-up perspective of Everyday Urbanism, and uses the "mobile art installation: tricycle modification" to connect the three dimensions of quick-fix practice, mobile carrier, and community regeneration.

3.4. Research Site

The study is located in the communities surrounding Shishan Subdistrict, Zhuhai City, Guangdong Province (see Figure 1: including Huwanli, Shanzuitou, Guangming Street, and other areas). The site selection is based on the coexistence of old and new neighborhoods, relatively high population density, diverse resident composition, varying disrepair of community infrastructure, and a certain foundation of community self-governance tradition and neighborly mutual assistance.

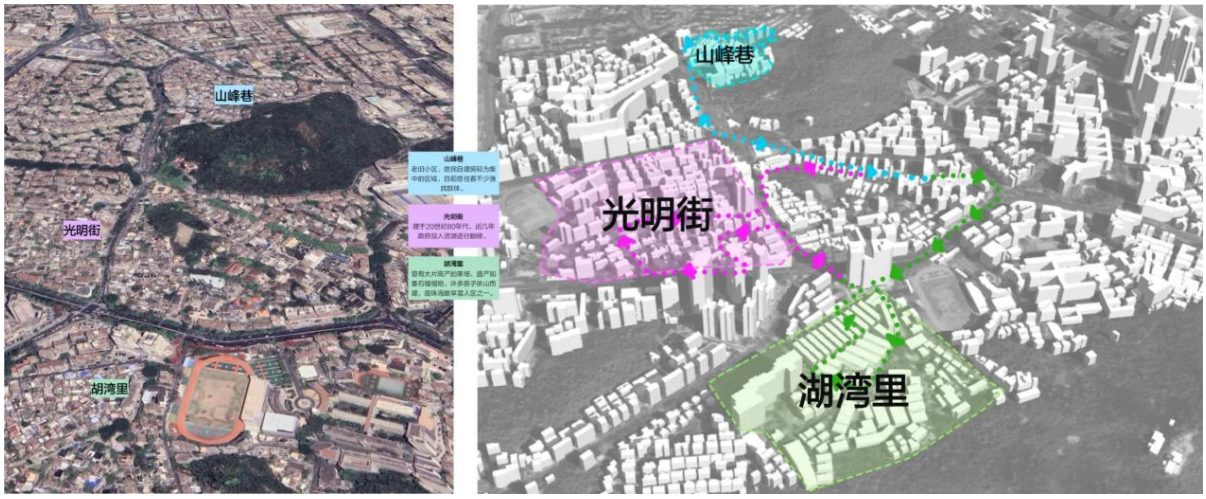

Figure 1: "Quick-Fix" Action Map. (Source: Online Exhibition of Community Quick-Fix Exploration, May 15-June 22).

3.5. Research Timeline

Phase	Time	Core Activities
Community Exploration	May 18–24	Field research, quick-fix installation survey, resident interviews
Group Practice	May 25–31	Co-creation activities, installation design and fabrication
Tricycle Modification	May 31 – June 19	Mobile platform conversion, exhibition planning and design
Community Roadshow	June 21–22	Mobile exhibition, community interaction, story collection

Table 1: Project Implementation Timeline. (Source: Author).

3.6. Research Methods: Mixed Methods Approach

This study adopts the following research methods:

Field Research Method: Conduct participatory observation in the community, document community quick-fix observation, record visual documentation, and produce a community resource map.

Participatory Co-creation Workshops: Organize community members to collectively participate in the design and fabrication of quick-fix installations.

Action Research Method: Employ the research process itself as an intervention, promoting community change through practical action.

4. RESEARCH IMPLEMENTATION PROCESS

4.1. Phase 1: Community Exploration (May 18–24)

4.1.1. Quick-fix installation survey

The research team conducted two quick-fix exploration activities in the vicinity of Shishan Subdistrict, Zhuhai, on May 18 and 24, 2025. The activity began with an examination of existing quick-fix installations on Anping Road to understand their basic characteristics and concepts. Despite the variable weather(typhoon or heavy rain) in Zhuhai, the team persisted in completing the research tasks and genuinely experienced the adaptability of quick-fix installations under different conditions. In the search for "quick-fix installations" (see Figure 2), the survey identified types of quick-fix installations present in the community (see Figure 3), including: traffic-related (warning signs and barriers made from discarded materials), storage-related (storage units converted from recycled containers), protective (temporary repairs addressing building aging issues), and decorative (modifications using waste items).

Figure 2: Artist Bill Aitchison leading workshop members in searching for quick-fix installations. (Source: Xuyu Huanbian 须臾欢汴）

4.1.2. Resident needs identification

Subsequently, residents and volunteers formed groups to venture into Shanzuitou, Huwanli, and Guangming Street communities, conducting on-site visits to quick-fix installations hidden in streets and alleys, observing their convenience and design ingenuity, and communicating with residents and shopkeepers to understand how they operate "quick-fix" and the stories behind them. Particular attention was paid to the wisdom in addressing everyday problems (such as human-induced and climate-related impacts), thereby understanding the significance of quick-fix in the community.

The research found that community quick-fix practices exhibit the following characteristics: immediacy (rapid response to emergent issues), locality (use of locally available materials and tools), creativity (non-standardized innovative solutions), and sociality (promoting neighborhood interaction and knowledge sharing).

Figure 3: Common types of quick-fix installations. (Source: Xuyu Huanbian 须臾欢汴).

4.2. Phase 2: Group Practice (May 25–31)

4.2.1. Co-creation workshop design

Based on the preliminary community exploration and understanding of "quick-fix," the team organized two co-creation activities on May 25 and 31, 2025. The workshop design followed these principles: openness (welcoming community members from diverse backgrounds), low threshold (using simple, low-cost materials), practicality (responding to real everyday problems), and sustainability (integrating climate adaptation and sustainable concepts).

4.2.2. Quick-fix installation creation

After visiting and learning from existing "quick-fix" installations, activities such as quick-fix installation workshops were conducted (see Figure 4). The workshop process included: review and inspiration (quick-fix installations observed in multiple communities and common materials such as bricks, ropes, plastic bags), problem identification (participants shared everyday problems and needs), idea generation (design concepts developed individually or in groups), prototype making (using recycled materials to create quick-fix installation prototypes), and presentation and feedback (each group presented their work and received feedback).

Figure 4: Workshop on-site photo. (Source: Xuyu Huanbian 须臾欢汴).

Outputs: 11 small-scale "quick-fix" installations (see Table 3). These installations were inspired by real needs of the community or individuals, made from recycled materials, and emphasized contextualization, simplicity, and replicability.

Work	Designer	Problem / Solution	Materials
Mobile Obstacle	Chloe et al.	Parking disorder / Beer barrel converted into obstacle	Discarded beer barrel, toys
Anti-slip Coaster	Alison	Need for coasters / Bottle converted into coaster	Glass bottle, rope
Courtesy Sign	Barry	No traffic lights / Courtesy sign	Egg carton, wooden strips
Book Exchange Cart	Jason	Lack of exchange platform / Delivery box converted	Cardboard box, paper cups
Magic Drawing Bottle	Jason et al.	Need for fun in daily life / Drawing bottle	Glass bottle, rope
“Hermès”Handbag	Edith et al.	Consumption downgrade / Calendar converted into handbag	Old calendar, chain
Coffee Quote Ornament	Kuma	Spiritual comfort / Coffee bag ornament	Coffee bag, paper strips

Work	Designer	Problem / Solution	Materials
Safety Slogan Box	Jason	Safety reminder / Slogan box	Paper box, stickers
Dragon Boat Ornament	Min Zi et al.	Festive atmosphere / Cardboard ornament	Cardboard box, pipe cleaners
Dual-mode Sign	Kuma	Switching between "neijuan" and "rest"	Coffee cup lid, cardstock
Multi-purpose Rubber Duck	A Gai	Egg tray / Pendant dual use	Cardboard, rubber duck

Table 3: Small-scale "quick-fix" installations. (Source: Drawn by the author; Xuyu Huanbian 须臾欢汴)

These 11 installations (see Table 3) are typical cases of "appropriation": participants reclaim discarded materials and assign them new functions—a practice of "appropriating consumption as production." Instead of discarding waste, they transform it through re-creation into objects with new use value.

4.3. Phase 3: Tricycle Modification and Exhibition Design (May 31 – June 22)

4.3.1. The significance of the tricycle as community infrastructure

In urban communities, the common tricycle serves as both an extension of infrastructure and a bond of social relations. As a primary means of short-distance transport, it bridges the "last mile" of parcel delivery, while vendors use it to build a network of material circulation within the community. Its inherently slow pace

unexpectedly creates spaces for social interaction, greetings between residents and riders, children chasing and playing around tricycles, all becoming vivid scenes of everyday community life.

From de Certeau's perspective, the tricycle itself is a "tactical" tool—flexible, low-cost, and capable of navigating narrow alleys—serving as a complement to areas not covered by the formal logistics system "strategy". The research team's transformation of the tricycle into a "mobile exhibition" constitutes a further "appropriation" of this tactical tool.

4.3.2. Transformation concept and functional design

The research team transformed the tricycle into a "mobile exhibition." Through brainstorming (see Figure 5) and co-creation, multiple possibilities were explored during the design process: a mobile living room (a social space for neighborhood tea gatherings), an emergency supply vehicle (a community rescue tool traversing alleys after typhoons), an exhibition platform (a mobile display space for quick-fix works), and a story exchange station (a space for residents to share life memories and quick-fix knowledge). The tricycle's technical specifications are 2 m long × 0.9 m wide × 1.1 m high. Its functional modules include a quick-fix service area, exhibition area, storage area, and neighborhood interaction place.

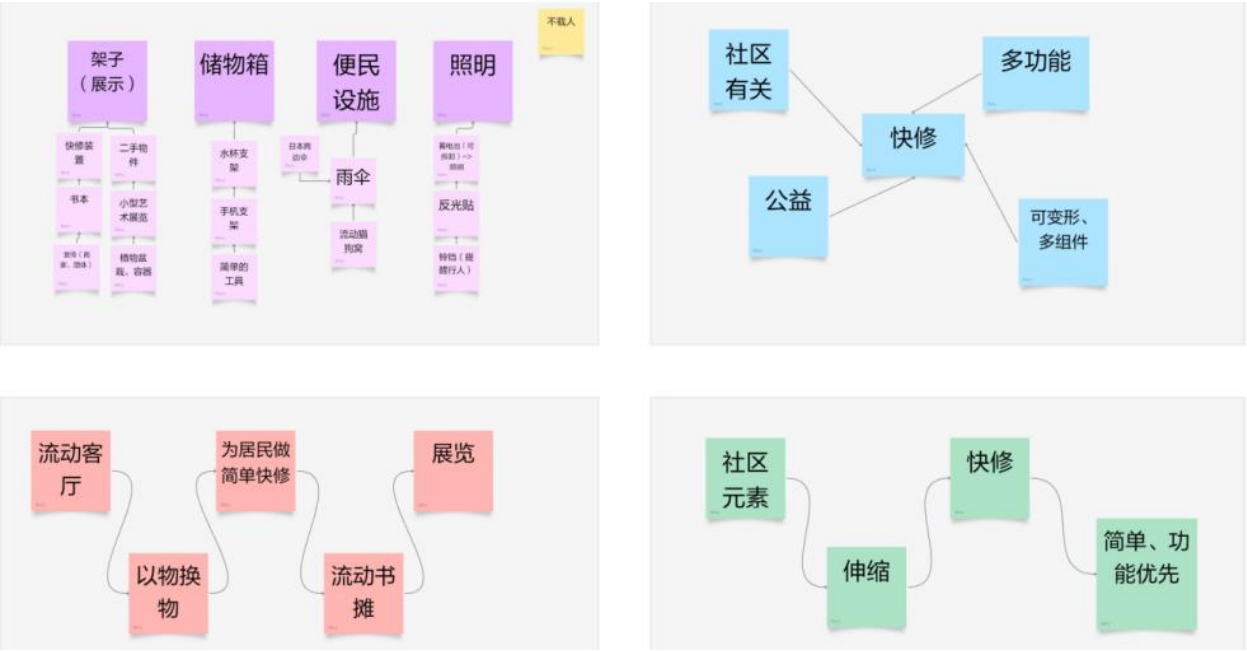

Figure 5: Brainstorming process for the tricycle transformation. (Source: Online Exhibition of Community Quick-Fix Exploration, May 15 – June 22).

4.3.3. Tricycle transformation process

The tricycle itself was second-hand, with certain issues with the brakes and handlebars. After carrying out quick repairs together with team members, it was put into sustained use. For the modification of other parts of the tricycle, discarded wooden strips and some other construction materials were collected from a waste recycling station, while a small number of connectors were purchased online. Hand-drawn design sketches and 3D software modeling were carried out before the actual modification was implemented.

The transformation process of the tricycle (see Figure 6) included: needs analysis and solution design, material collection and preparation (see Figure 7), structural modification and functional zoning (see Figure 8), visual design and decoration, and functional testing and optimization.

Figure 6: Initial state of the second-hand tricycle. (Source: Xuyu Huanbian 须臾欢汴).

Figure 7: Collecting raw materials for modification from a scrapyard.

Figure 8: Tricycle transformation process. (Source: Xuyu Huanbian 须臾欢汴).

4.4. Phase 4: Community Roadshow (June 21–22)

4.4.1. Mobile exhibition implementation

On June 21 and 22, 2025, the team used the modified tricycle as a vehicle to carry out two mobile exhibition tours through various communities in Shishan Subdistrict, Zhuhai. The transformed tricycle became an exhibition space and a platform for exchanging stories and items, serving as a significant action in the final phase of this community quick-fix exploration project (see Figure 9).

Figure 9: Exhibition content: display of quick-fix works (11 co-created installations), item exchange, story collection, etc. (Source: Xuyu Huanbian 须臾欢汴).

The tricycle's roadshow creates a form of path space. Unlike fixed locations such as squares or street corners, path space is defined by the trajectory of movement and has the following characteristics. The tricycle itself illustrates tactical flexibility. It can halt and relocate at any time, bypassing the official constraints within the bigger scale: Official strategic urban planning frame. The movement of the tricycle from one exhibition point to another connects scattered traces of community quick-fix into a narrative storyline. Viewers do not need to go to a dedicated exhibition hall. Instead, they encounter the tricycle by chance along their daily routes, significantly reducing the psychological and time costs of participation. The moving, colorful tricycle is more eye-catching than static quick-fix installations, effectively promoting the quick-fix concept.

4.4.2. Community interaction mechanism

The activity design followed the principle of "item-for-item exchange": residents could bring old items, books, or share stories to participate in the exchange event (see Figure 10), sharing everyday wisdom and community experiences during the exchange process. Thereby establishing emotional bonds and mutual support networks among residents. Volunteers included the quick-fix workshop artefact as part of the exchange items and introduced the concept of quick-fix to community residents.

This exchange system not only facilitated material recycling but also reinforced a sense of shared ownership and collective identity. By converting everyday transactions into moments of storytelling and quick-fix skill sharing, the process turned the tricycle into a catalyst for ongoing and self-organized community interaction.

Figure 10: Tricycle roadshow event. Collection date: June 21, 2025. Location: Near Hongqi Book House. (Source: Xuyu Huanbian 须臾欢汴).

4.4.3. Social impact

The actions not only corresponded to the coping approaches for living under the circumstances of climate change, but also established bridges of communication and comprehension among individuals in the streets and lanes, further delving into the potentialities of artistic intervention in community life. The community tales gathered consisted of, for example: long-standing residents sharing recollections of neighborhood alterations, residents who inherit the conveyance of quick-solution wisdom, young individuals expressing their comprehension of sustainable living, and small merchants sharing their adaptable strategies in daily business.

5. DISCUSSION AND CONCLUSION

5.1. The Multidimensional Value of Quick-Fix Practice

5.1.1. Environmental value: resource circulation and low-carbon living

From the perspective of environmental sustainability and energy use, quick-fix practice contributes directly to carbon reduction targets by reusing second-hand materials, reducing consumption and waste. The initial observation of quick-fix works while walking through the alleys to the application of quick-fix techniques in the workshops, the eleven quick-fix installations in this study were all made from recycled materials. Thus, it embodies the circular economy concept of from waste to resources.

Such grassroots recycling practices are modest in scale. Yet they collectively reduce the demand for primary materials. They also lower the carbon footprint linked to production, transport, and waste disposal. Moreover, these practices show that circular economy principles can work at the community level. They bypass the logistical and financial barriers common in centralized recycling systems. In this sense, quick-fix offers a localized, low-tech path to climate mitigation, which makes sustainability tangible and actionable for residents.

5.1.2. Social and cultural value: community resilience and mutual support networks

Quick-fix practice boosts community resilience during emergency scenarios like extreme weather. When infrastructure gets damaged, the quick-fix capacity within the community and neighborhood mutual support networks can provide immediate assistance. At the same time, it could shorten recovery period and embody the principle of environmental adaptability. Resilience stems from formal institutions and infrastructure (strategy) as well as from residents' everyday practices (tactics). When formal systems fail or require extended

response times, it is precisely these "tactical" capacities that enable communities to respond quickly, adapt as well as recover. Quick-fix carries community life wisdom and local knowledge. Through participatory co-creation, this tacit knowledge becomes explicit and innovated. The popularization of quick-fix knowledge also represents the transmission of vernacular wisdom, giving a second life to discarded or damaged items through creative reuse.

5.2. Place-Making Effects of Participatory Design

The collaborative co-creation of quick-fix transforms residents from service recipients into creators. It enhances community members' subjectivity and action-taking ability of community members. Just as the intervention of Everyday Urbanism adopts a critical perspective toward urban planning and design, shifting from grand blueprints to the everyday practices of ordinary citizens. Quick-fix emphasizes informal, bottom-up approaches and the use of tools attentive to daily life. Everyday Urbanism focuses on spaces planned for the city as opposed to everyday life, which emphasizes collaborative community involvement, spontaneous actions, and the creative use of public space. It intends to complement formal urban planning and design practices while addressing the socio-cultural needs of the people. Through their daily practices, residents constantly redefine and transform space naturally. And this creative spatial practice constitutes a primary source of urban vitality. The activities promoted interaction among residents, enriched the community's social capital and laid a foundation for subsequent community self-governance. By focusing on specific community problems and using local materials, quick-fix practice strengthens residents' sense of identity and belonging to the community.

5.3. Social Function of Artistic Intervention

Art is brought from the art museum into the streets and lanes. In a dynamic and flexible way, it integrates community memory into daily life and enhances the usability of community spaces. Artistic installations become a medium for resident interaction that lowers social barriers and facilitates dialogue across age groups and neighborhoods. Through artistic expression, daily problems that are often overlooked and are now becoming apparent draw more attention and discussion. Residents' daily practices are transformed into visible and communicable symbols. When possessing a local character, the mobile tricycle confers universal communicability upon these practices within the city.

This mobile roadshow enables the integration of quick-fix knowledge across various neighborhoods, turning local skills into a city-wide collection of grassroots resilience. By circulating through diverse social and spatial contexts, the mobile tricycle amplifies the visibility of everyday creativity and invites iterative adaptations. It allows each encounter to generate new meanings and applications. In this way, art-driven mobility becomes a

mechanism for diffusing low-carbon, participatory practices without top-down prescription in order to foster an emergent, citizen-led urban imaginary that complements formal planning.

5.4. A New Paradigm for Community Regeneration

The community rapid-fix exploration initiative offers a lightweight option for urban renewal. It changes from the conventional large-scale demolition and reconstruction to incremental micro-renewal and enables residents to shift from being passive receivers to active innovators via participatory design.

Simultaneously, the limits of stationary service facilities are disrupted by mobile service platforms (like the modified tricycle), which leverage mobility, flexibility, and visibility to connect the last mile of community services. It was a method that was especially suitable for old communities with restricted space and inadequate funding. The project further uncovers more profound aspects of community revitalization: the re-establishment of social connections and the stimulation of daily wisdom. The movement ability of the altered tricycle represents a unique academic innovation. Unlike traditional community interventions that are tied to set locations, like a particular square, street corner, or public facility, a path space determined by movement instead of stillness is formed by the tricycles wandering nature. Via this flexibility, rapid-repair practices are made capable of reaching scattered and concealed areas, turning solitary repair efforts into a visible, city-wide network of community resilience. In theory, de Certeau's concept of tactics is put into practice by this form of mobility with the incorporation of a spatial-dynamic aspect: the tricycle takes over discarded materials, and urban routes are also taken over, transforming the act of navigation into a type of spatial production. From a methodological perspective, the drawbacks of static case-based studies are surmounted by the mobile platform. This platform immerses the researcher and the participants in an ongoing, real-time interaction with various community settings. Therefore, the significance of this research does not simply rest in applying rapid-solution principles to a tricycle. Instead, it shows how mobility can be utilized as a strategic resource for micro-regeneration, presenting a reproducible logic that emphasizes adaptability, low cost, and social engagement rather than fixed infrastructure.

Through item-for-item exchange and co-creation activities, neighborhood mutual assistance networks are rebuilt, while implicit community knowledge is made explicit and passed on. Moreover, quick-fix practice itself serves as a small-scale approach for climate adaptation and a community-based version of circular economy, offering a replicable paradigm for urban resilience building.

In summary, the tricycle modified in this project acts as the bearer of the mobile exhibition. It goes beyond the static characteristics of conventional temporary art installations, demonstrating a high degree of flexibility, adaptability, and participatory nature. Its tour through the community traces a narrative thread of

urban quick-fix, linking diverse spaces, people, and stories. Through methodological integration, this study validates that urban quick-fix, as a micro-scale, dynamic, and highly interactive community regeneration strategy, possesses significant social value and practical potential. The modification and roadshow of the tricycle are not merely a technical act of repair but also a process of community cultural translation, thereby offering a highly flexible, replicable, and sustainable and low-impact intervention model for urban micro-regeneration.

5.5. Reflections on Everyday Urbanism Theory

This research, mainly situated within de Certeau's theoretical framework, offers a practical response to multiple critiques directed at Everyday Urbanism. It endeavors to offer a more incisive and practical supplement to the theory. Everyday Urbanism has faced criticism for being overly fixated on daily details and romanticizing the actions of ordinary individuals, while the power frameworks, resource disparities, and systemic exclusions underlying these actions are overlooked. A critical perspective is provided by de Certeau's theory: tactics are not decoration. This study explores rapid-solution practice in the context of climate adaptation and resource disparity. It shows that the rapid-solution approach is not just community wisdom but also an essential alternative when formal systems break down. When large-scale urban planning strategies and formal repair services (strategy) fail to reach the community's grassroots, residents have to develop makeshift capacities (tactics) to deal with the uncertainties of daily life. The outcome of the project evidently indicates the necessity for more in-depth interaction with residents and even collaborative co-creation, mirroring a self-reflective criticism of the definition of resilience.

5.6. Research Conclusions

Through the tricycle mobile exhibition art installation project, this study draws the following main conclusions:

Firstly, rapid solution is a significant element of community resilience. Quick-solution practice is a classic tactic. When the formal infrastructure and repair services (strategy) don't offer a timely response, residents resort to the resources available to them. Problems in daily life are resolved in an inexpensive and effective way. The core of rapid solutions lies in pinning down problems and the smart utilization of accessible resources: thrown-away pillows, hangers, and plastic bags for instant settlement. Dependence on specialized instruments is surpassed, and an in-depth interaction between the individual and space is formed. In such a manner, the robustness of community life is repaired. Appropriation serves as the central mechanism of rapid-solution practice. de Certeau's idea of appropriation exactly matches this kind of practice. Residents retrieve discarded items and bestow new functions upon them. This serves as an exercise of consumption as

production. Waste is not casually disposed of. Rather, via creative work, it gets turned into daily objects. These items possess fresh use value and symbolic significance.

Secondly, the fostering of community empowerment occurs via participatory co-creation. This strategy centered on everyday life addresses minor, frequently neglected issues. It promotes involvement and innovation. Confronted with resource limitations, communities are able to improve their adaptability and resilience. Quick-fix attains this via repair, alteration, and reuse. From the view of de Certeau, participatory co-creation stands for a collectivization of tactics. During this procedure, the strategic capabilities of single residents are magnified and strengthened via collective endeavors.

Thirdly, the mobile artistic intervention is an effective means of place-making. Yet its impact goes further. It activates the community as well as encourages neighborly exchange. It promotes community culture and strengthens social cohesion. The tricycle's transformation into a mobile service platform breaks the spatial limitations of ordinary fixed exhibition areas. By doing this, it enables services to reach more corners of the community.

Fourthly, urban regeneration involves the physical transformation of space. But it also entails the reconstruction of social relations and the activation of everyday wisdom. The tricycle offers a different paradigm. This does not require large-scale demolition and reconstruction. Instead, it activates internal community resources and capacities through participatory co-creation, mobile service platforms, and knowledge social networks. Through this approach, it achieves incremental and sustainable community improvement.

5.7. Research Limitations and Future Directions

First, the duration of this study was relatively short, making it difficult to observe and document long-term effects. Multiple experiments and validation in other cities with similar contextual conditions are needed to obtain more robust conclusions. Second, workshop participants were predominantly young and middle-aged adults, with insufficient representation of the elderly population. Third, the durability and maintenance mechanisms of the quick-fix installations have not yet been established. Further detailed design, such as waterproofing and anti-corrosion measures. It should be undertaken to adapt these installations to the rainy and humid climate of the Greater Bay Area.

As a reflection of the rapid repair strategy embedded in vernacular wisdom, "quick-fix" installations are relatively common in cities across China. For community regeneration practices, the implication of this study is not to directly replicate the tricycle model, but rather to draw on its methodological logic: for example,

identifying existing quick-fix wisdom and underutilized resources within the community, stimulating residents' sense of participation through low-threshold co-creation activities; expanding the coverage of interventions by incorporating mobile carriers; and, more importantly, negotiating with strategic systems (e.g., neighborhood committees, property management) at an early stage of project design to establish maintenance and institutionalization pathways for quick-fix outcomes.

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CRATED HERITAGE: THE SOCIAL LIFE OF A PERSIAN TEAHOUSE ACROSS CONTINENTS

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What are the social and economic implications of radically transplanting a building from its cultural and temporal context? This paper examines a teahouse from Tajikistan that has traversed spatial and economic systems, from Central Asia to rural Maryland and from late socialism into contemporary capitalism. I trace the artifact's social transformation from the 1980s to the present, from a priceless commodity to an object for the landfill. The paper offers a narrative of the Teahouse's unusual trajectory and an anthropological analysis of the post-socialist conditions, shifting regimes of value, and the global processes shaping its journey and uncertain future.

1. INTRODUCTION: A TEAHOUSE OUT OF TIME AND PLACE

This paper offers both a story and an analysis of how things, in this case traditional buildings, create social relations. In this case, the thing is a Persian teahouse from Tajikistan distributed amongst approximately 110 boxes laying in two tractor trailers on a farm in Poolesville, Maryland. My narrative primarily expounds upon the unique, physical journey of a teahouse and how its movement has created relationships, conflicts, hopes, and expectations along the way. The story and the analytical content I provide to accentuate it underscore the conditions of life under the Soviet Union and the transition to post-socialism that drastically changed the conditions of how things were exchanged. Therefore, the teahouse journey and my anthropological consideration of it offer a reexamination of the post-socialist experience through the lens of a traveling commodity and the lives it has affected.

Having undertaken years of ethnographic fieldwork in Central Asia, I have visited dozens of teahouses and have experienced them as an environment of not just commodity consumption but also socialization, community-building, recreation, and spiritual rehabilitation. The teahouse of interest here was crafted in the Central Asian Ferghana Valley in the late 1980s and sent to the United States as the Soviet Union began its journey to demise. Thus the "artifact" has existed for close to 35 years but has never been assembled into a standing building. I make an account of this wonderful and mysterious story but also consider the matter from an ethnographic and critical lens. The contents of this paper address both the story of a teahouse from Tajikistan and offer a projection for its possible future as a constructed traditional building used for transcultural consumption. I also examine critically, ethnographically, and theoretically the socio-cultural dimensions that lead to the Teahouse's creation and current state of being. In what follows, I describe how the matter quite literally "fell into my lap" and frame my subsequent investigation as an ethnographic research project. I then consider the historical and contemporary conditions that have influenced the journey and

current circumstances of the Maryland Teahouse and conclude with a discussion of how we foresee its journey to a conclusion.

Finally, my account represents a point along a much longer journey and far from a completed research project. What I offer is but a portion of a grander story presently unfolding about a Teahouse from Tajikistan. Given the nature of this stage of the project and my study of it, I am still clarifying the details regarding the Teahouse's origins and lifespan. While I have interviewed several individuals involved with producing and delivering the Teahouse to North America, my descriptions grapple with blurred memories, competing accounts, and conflicts over possession and ownership. I have honed these details as accurately as possible in my narrative but recognize they may require amendment as further information about the Teahouse's provenance arises.

2. THE DISCOVERY OF A PERSIAN CULTURAL RELIC IN RURAL MARYLAND

On the morning of May 2, 2025, a man named Brian Jamison called me to discuss a "Russian teahouse" he claimed to have in his possession. Jamison emailed me images of a crate with a few wood panels exposed from its interior. The objects certainly possessed the artwork characteristic of design that one sees on the exterior of traditional Persian teahouses popular in Central Asia, especially Tajikistan and Uzbekistan. Jamison explained he had recovered the crates containing the "artifact" ten years prior, in 2015. Looking to sell the property, a married couple in rural Maryland had employed him to clear out a barn on a farm ladened with trash. They had simply asked Jamison to clear all the debris on the premises and dispose of it as he saw fit. Amongst the supposed junk, Brian discovered dozens of crates containing hundreds of pieces decorated with bright colors and designs. Sensing the cultural significance of these objects, Jamison decided to hold on to the crates, storing them in a tractor trailer on his family farm in Poolesville. From his investigation of the crates, it was clear to him they could be assembled to fashion some kind of traditional building.

Having become aware of the artifact, I assembled a team composed of colleagues from the College of Communication, Media, Design, and Information at the University of Colorado, artisans in Tajikistan, and prominent members of the sizeable Tajik community in Colorado. We investigated the decorative panels and deemed them an artifact of authentic cultural art originating from Tajik master artisans in Khujand, Tajikistan. Our current objective is to recover the artifact (Jamison plans to "loan" it to the University for investigation) scan all its parts with LIDAR technology, assemble the parts digitally into a building, and from the scans design and build a Teahouse, presumably in Colorado. Since the point of discovery, my team has visually documented our efforts using photography, film, and LIDAR scanning technology, and copious written documentation. We plan to produce a documentary film and academic publications from our efforts.

Our ultimate objective is to see this "Persian Teahouse from Maryland" built and serve as a cultural center for our Colorado Tajik community. We also see the project as a fascinating examination of the stewards of material culture. These stakeholders include an anthropologist (myself), the original designers in Tajikistan, the individuals who commissioned the building, architecture academics (my colleagues), and the curious consuming public valuing an experience of "cultural authenticity." I consider these social dimensions while weaving together a remarkable story that elucidates lived experiences from the political and economic chaos following the collapse of the Soviet Union, migration and commercial efforts in North America, and the cultural and artistic legacies of designers residing in a small Central Asian country.

This paper represents an act of storytelling, as I make an account of the Teahouse's procurement, transport, storage, loss, and rediscovery. However, I also frame my narrative around an ethnographic investigation. I am a cultural anthropologist, working and teaching for a university design program and consider myself a design anthropologist. I have undertaken much of my engagement with the Maryland Teahouse and the people associated with it as an ethnographic study, positioning myself as a participant observer. Conversely, I am an applied anthropologist and have likewise positioned myself as a subject in this story through actions such as verifying the Teahouse's authenticity, serving as mediator between the parties claiming ownership, soliciting investors to support the Teahouse's construction, and enlisting architect colleagues to assist with assembling the building.

As an investigation into the shadowy journey and current circumstances of the Maryland Teahouse, I have asked questions pertaining to its provenance, the legal state of its current ownership, and the possibilities of having the artifact constructed and maintained. However, as an ethnographic research project, I ask how, why, and under what circumstances cultural artifacts, or objects of culture, affect social relations. More specific to the Maryland Teahouse, I am interested in how the economic, political, and social circumstances of post-socialism have facilitated the existence and circumstances of the artifact, and how our contemporary conditions, choices, and actions pattern its fate and the social relations of the people involved with it.

In terms of the current social conditions associated with the Maryland Teahouse, the crates and their contents constitute a commodity. They were produced in Tajikistan for the purpose of assembling them into a building to serve as a restaurant. Those who commissioned, designed, fabricated, and shipped the Teahouse to Maryland intended it to become a commodity, versus the Boulder Dushanbe Teahouse that was produced and offered as a gift. Arjun Appadurai argues that commodities, just like people, possess social lives, and to discover their social nature we must follow their trajectories, detect how meanings are inscribed in their forms and uses, and interpret how the human interactions enliven them.[1] As a commodity, the Maryland Teahouse has experienced a rather thorny social trajectory – its pieces have remained inactive in their crates for decades

and are currently a subject of financial conflict (as I describe below). However, given the recent social activity around the crates, they are becoming enlivened again after their long period of dormancy

The project as it currently stands is an early-stage reflexive, activist, multi-sited ethnography. In cases of research examining "the circulation of cultural meanings, objects, and identities in diffuse time-space," George Marcus proposes a "mobile ethnography" that follows the trajectories over a world-system and across multiple sites to investigate cultural formations that would otherwise remain undetectable if concentrating on a single site.[2] Indeed, in the year since beginning the project, I have visited with members of the Tajik community in Aurora, Colorado, travelled to Maryland to confirm the authenticity of the Teahouse, interacted with colleagues in Khujand, Tajikistan to consider the artifact's provenance, and shared emails, telephone calls, and WhatsApp texts with Tajiks in Madrid, Moscow, and Washington D.C. to fill in the details of its existence. My experience with this project has placed me in a position of what Marcus calls the circumstantial activist. As I have worked from site to site and amongst the individual and group stakeholders across the globe, I have experienced a "condition of shifting personal positions" in relation to my subjects. I have served as the chief communicator between all the interested parties, including the current possessor of the Teahouse, its initial owner, the groups and individuals interested in acquiring it, the artisans prepared to act upon it, and the academics interested in constructing it. My role in this work suggests a step beyond ethnographer as I inhabit an apolitical activist sensibility.[3]

A related dimension of this project as a work of ethnographic practice is my engagement with the various stakeholders associated with the Maryland Teahouse via digital technologies. Those have included email messaging, WhatsApp texts, video conferences through WhatsApp, Zoom, and GoogleMeets, and numerous Google and ChatGPT searches in my year-long hunt to discover the provenance of the Teahouse. In relation to my digital ethnographic efforts, Nancy Baym and Markham point out that changes in global communication infrastructures have shifted the traditional grounds and audiences for qualitative research, creating a transformation of both the temporal and spatial boundaries of our sites of inquiry.[4] My colleagues in the project are also employing design technologies, such as LIDAR scanning and 3D modeling to authenticate and visualize the material we discovered and digitally reconstruct it into a structure. The field site of this project is therefore not singular or bounded, but distributed across physical locations, digital media, and technological processes of representation and reconstruction.

In what follows, I frame my story within anthropological reflections of the conditions of socialism and post-socialism in the former Soviet Union. These accounts consider the breakdown of social networks, disruption of economic processes, and the arising public uncertainty happening in the aftermath of the regime's collapse. The forces foreground both the Maryland Teahouse's origins as well as its journey and forecast its possible

futures. With that context, I then offer a comprehensive account of the provenance, physical journey, and current state of the Teahouse and a description of the social activity undertaken over the last year amongst the various stakeholders to possess it and eventually orchestrate its future construction, use, and maintenance. I end with a discussion of the possible outcomes of the artifact that have arisen from various conversations with all the stakeholders.

3. SOCIALISM TO POST-SOCIALIST TRANSITION

From the mid-1990s until well into the decades of our current century, a host of anthropologists and other social scientists have investigated the conditions of life in the former Soviet Union and other post-socialist countries.[5] Here I consider research that examines the chaos, uncertainty, and disruption waged upon people's lives that socialist regime collapse triggered. This social disruption and uncertainty occurred with the blitz of an unregulated free market as the countries of the former Soviet Union privatized formerly state-controlled assets that represented the primary resources supporting the livelihoods of the majority of Soviet peoples. The chaos that ensued occurred largely as those resources were dismantled leading to growing state corruption, violence, lawlessness, arbitrariness of state officials, and the dispossession of people from economic and social rights. The result on the dazed public was high degrees of despair, fear, alcoholism, suicide, prostitution, and ethnic conflicts, among other chaotic outcomes.[6] These circumstances of post-socialist life foreground the events leading to the commissioning, production, and shipment of the Maryland Teahouse to North America from the late 1980s until the 2000s and provide a useful resource for understanding how a Teahouse from Tajikistan ended up buried in a barn in Maryland and the contemporary prospects for its future.

Catherine Alexander has described the social conditions post-Soviet peoples faced in the immediate aftermath of its collapse as a "transition of recognition." In the midst of regime change, people experienced a transition in how they recognized people, things, and the relations between them. As these perceptions of social relations changed, so did the values that people ascribed to them. In this sense, value constitutes an understanding of what something is, its moral worth, and financial cost. Post-Soviets experienced a crisis of interpretation over how to measure changing standards of value as their primary economic and social institutions collapsed vis-à-vis their privatization.[7]

One of the major systems of valuation under socialism that was entrenched in both social and economic relations that soon withered with the establishment of a market economy and the privatization of state property was the practice of *blat*. Shelia Fitzpatrick explains blat as a mutual reciprocity through favors. Under the constraints and material shortages characteristic of the Soviet economy, *blat* arose as a system of

leveraging social relations to acquire necessary resources. Those who excelled with blat could make friends easily and understood how to entice friendships (quite often through offering vodka and other pleasures). Those whose jobs depended upon acquiring materials, supplies, and favors for their factories, farms, or other sources of labor had to be skilled in making friends and utilizing those relationships for successful procurement.

However, blat was also about day-to-day reciprocity amongst one's close social relations – once a friendly relation provided a resource of some sort, the giving party expected to receive something of similar value in return at some, undetermined point in the future. In the aggregate, these relationship-based transactions created a second economy, simultaneously subverting and paralleling the socialist economy predicated upon state ownership and central planning. This second economy was often more critical to the rank-and-file citizen for obtaining required goods and services than the official, socialist economy.[8] Alas, with the collapse of socialism and subsequent transition to a market-based capitalist economy the importance of blat quickly weakened. Soon commodities and services that were in short supply during socialism were suddenly available in abundance, conditional upon the availability of money.[9]

My description of the collapse of socialist systems, such as blat, foreshadows a critical dimension of my overall narrative – the shifting social nature of property. The exchange of property in the instances I describe has been highly dependent upon social relations, as well as the socioeconomic and political systems in place when the property has been exchanged. Before the dismantling of the Soviet Union, property was a state possession, and the state managed production, distribution and maintenance of goods and services (albeit often problematically, inequitably, and inconsistently). For most Soviet citizens, the state had spent nothing on their housing since the onset of perestroika. Nevertheless, as state property was privatized, post-Soviets found themselves with title of their possessions (most notably housing) but lacked the resources to suitably maintain them. In Alexander's words, "…the old social contract was smashed and it was not clear if or how it was being replaced."[10] An interesting comparison for the Maryland Teahouse under investigation here is a similar Persian teahouse (likely an exact replica) that the City of Dushanbe in the Tajik Socialist Republic gifted to the City of Boulder in the 1980s. The differences between the two teahouses illustrate how the transition from a Soviet to a post-Soviet economy critically impacted systems of material exchange and the social relations they implied.

While visiting Boulder to celebrate the establishment of Boulder Dushanbe Sister Cities in 1987, Dushanbe's mayor, Maksud Ikramov announced that his city would gift a teahouse from Tajikistan to their Colorado partners. This instance of gifting physical property to a city during the late Soviet period might be considered a rather prolific instance of *blat* exchange. One might understand the gesture according to Marcel Mauss's

notion of gifting as a "total service," meaning an offering that implies a compulsory return from the receiver.[11] For Mauss, the act of gifting contains a "polite fiction" that disguises the tacit obligation for the receiver to reciprocate.[12] In this sense, the act of gifting creates social relations, binding people together, through obligation and expectation. Adding the practice of *blat* under socialism to the equation, which operated within an environment where critically necessary material goods and services were often scarce, one can see how Mauss's system operated under socialism. The gift of a teahouse to Boulder in 1987 thus operated as part of a Soviet moral and political economy in which value was created through exchange and a spirit of goodwill and coalition, rather than the capitalist marketplace.

Mauss largely considered gift exchange in the context of pre-capitalist societies in places like Polynesia and northwestern America. In those settings, he perceived individuals to understand the gift containing a spiritual fragment of the giver, or a portion of their soul, creating an even greater responsibility to reciprocate.[13] Although Soviets engaging in *blat* did not necessarily understand their exchanges in those terms, there often existed a dimension of "care," or what Dale Pesman refers to as "a folk aesthetic that arose from consciousness and sentiment that was labeled and experienced as morality, humanity, and soul.[14] Under those circumstances, people felt moral obligations for reciprocity just as strongly and for similar reasons as the exchanges happening among the Māori, Kwakiutl, and Trobriand Islanders whom Mauss considered.

As the socialist regime withered into the waiting arms of capitalism, an identical object, namely a Teahouse from Tajikistan, was produced but socially configured this time as a commodity and was thereby severed from those reciprocal obligations that blat *implied* and Mauss expounds upon. Returning to Appadurai, I don't intend to separate the social lives of the two teahouses as binary experiences because of the nature of their regimes of exchange. Rather I consider the differences along the lines of Marshall Sahlins who perceives gifts and commodities existing as points along a continuum of exchange practices.[15] Nevertheless, these regimes of exchange have had great influence on the social trajectories of each teahouse.

Appadurai describes the phases of a commodity's lifespan as a "total trajectory from production, through exchange/distribution, to consumption." Yet, things can move into and out of the commodity state, as the dormancy of the Maryland Teahouse has demonstrated. For Appadurai, the commodity nature of a thing is contingent upon its exchangeability for something else – that exchangeability is the factor that enlivens it, making it a socially relevant commodity eligible for exchange in the context of capitalism. Once its relevance disappears, the object's being is positioned as an "ex-commodity."[16] The social life of the gifted Boulder Teahouse, however, was enlivened more by the social obligations characteristic of *blat* and the sort of gift exchange that Mauss explains. My account below of the Maryland Teahouse's provenance nicely exemplifies

how the transition to market capitalism in the latter stages of glasnost through early post-socialism enlivened the artifact through its intended production as a commodity.

4. THE PROVENANCE OF THE MARYLAND TEAHOUSE

The story begins with Izatullo Koshmukhamedov – a Soviet citizen from the Tajik Socialist Republic appointed to serve as the Republic's trade and commercial affairs representative in Moscow in the 1980s. The story also involves an identical Teahouse that was commissioned, fabricated, and sent to Boulder, Colorado a few years before as part of a Sister Cities relationship between the cities of Boulder and Dushanbe, Tajikistan. The story of how the sister cities relationship materialized between Boulder and Dushanbe and the subsequent construction of a Persian Teahouse in Boulder is a compelling story in its own right.[17] Rather than offering a chronicle of the Teahouse in Boulder and the sister cities organization that inspired it, I provide a few details of its history relevant to the provenance of the Maryland Teahouse.

The sister cities organization that developed between Boulder and Dushanbe, the capital of the Tajik Socialist Republic of the Soviet Union, was established in the early 1980s. As a gesture to celebrate the newfound partnership, the mayor of Dushanbe commissioned a Persian Teahouse to be fabricated, packed in wooden crates, and shipped to Colorado. At that time, Koshmukhamedov served as the Tajik republican representative for commerce and trade in Moscow. According to Koshmukhamedov, he was a major agent assisting the fabrication of the Boulder Dushanbe Teahouse and its delivery to the United States.[18] Working with the mayor's office in Dushanbe, Koshmukhamedov arranged to have the wood for the Teahouse procured from Siberia and sent to the Tajik Republic. He also assisted with having the approximately one hundred crates shipped from the Tajik Republic to Leningrad (contemporary St. Petersburg) and sent on a boat to New York City. The crates containing the Teahouse parts then made their way by truck to Boulder.

A few years after that experience in 1989, as the Soviet Union warmed to Western visitors and investors via Gorbachev's glasnost policies, an American investor named Michael Ray arrived in Moscow with the intention of establishing a chain of hotels in Russia. As one of the few former Soviet apparatchiks experienced in commercial relationships with the U.S. (thanks to his experience with the Teahouse), Ray became acquainted with Koshmukhamedov, who joined as a Moscow-based partner of Ray's hotel venture. Koshmukhamedov maintains that because of corrupt Soviet officials, he and Ray were unable to take ownership of a few aged Intourist hotels they were expecting to renovate and reopen. As an alternative venture, given the experience Koshmukhamedov had with the Boulder Teahouse, the partners decided to procure an additional Teahouse from the Tajik Republic in 1990 and likewise send it to the U.S. to be built and commercialized into a restaurant in Washington D.C..

At that time, Ray had a Lebanese acquaintance who was a restaurateur in D.C. and was interested in acquiring the Teahouse to house a new restaurant in the District. The partners established a joint venture company to support the business plan, and Koshmukhamedov commissioned the Tajik artisans who designed and crafted the Boulder Teahouse to produce a second Teahouse for their venture. Upon its completion, Koshmukhamedov arranged for the hundred and ten crates containing the pieces of the Teahouse to be shipped to the Port of Baltimore. Once the crates arrived in Maryland, U.S. Custom Officials seized the crates to determine whether tariffs should be charged for their entry into the country. Given the crates's contents constituted a building and not a commodity for consumption, the partners petitioned the officials to have any tariffs waived. The unique artifacts in the crates were a puzzle for the customs officials, and they sent the crates to the Smithsonian in Washington to be studied by their cultural experts.

As the crates sat in Washington, Ray's Lebanese business partner was on a visit to Beirut and became involved in a physical confrontation from which he suffered a brain injury and was no longer able to participate in the joint venture. The prospect of establishing a restaurant in D.C. with the crated Teahouse faded from the partners' prospects. After a two-year wait, the experts at the Smithsonian deemed the Teahouse a cultural artifact and thereby not a commodity, and the crates were released to Ray and Koshmukhamedov with no tariff assessed. Once the partners took possession of the Teahouse, they were unsure of how to proceed. While discussing the matter at Ray's Baltimore suburban home, his Russian landscaper overheard the conversation and offered the space in a barn he was renting and residing in located in Barnesville, Maryland to store the crates until Ray and Koshmukhamedov could identify a home for their Teahouse.

During this time period from the mid-1990s through the mid-2000s, Koshmukhamedov was working as an agent for the newly established, independent Republic of Tajikistan to procure materials and equipment in support of its aluminum production industry. With this professional venture arising and no prospects for their Maryland Teahouse, the partners placed a pause on the project, and Koshmukhamedov returned to Eurasia. When visiting the U.S. multiple times during the 2000s to check on his teahouse, Koshmukhamedov was unable to gain access to the property where the barn storing the crates were stored in Maryland. The former owner of the barn explained that the Russian landscaper caring for the crates disappeared in the early 2000s.[19] Later, the married couple who owned and resided in a house on the property with the barn experienced a conflict in their relationship and lived in the home only intermittently, accounting for Koshmukhamedov's inability to gain access to the property upon his visits to Maryland).

Here the story takes an abrupt shift. Around 2008, Koshmukhamedov's engagement with the teahouse comes to a halt, at least temporarily, while Jamison's role begins in 2015 when he is contracted to clear the property

surrounding the barn in which the crates were stored. Aihwa Ong's concept of flexible citizenship is most clearly reflected in the actions of Koshmukhamedov, whose trajectory spans late socialism, post-socialist transition, and emergent global capitalism. As Ong suggests, such actors navigate shifting political and economic regimes by strategically mobilizing transnational networks, institutional affiliations, and opportunities for capital accumulation.[20]

Koshmukhamedov's efforts to commission and circulate a second teahouse in the United States during the 1990s and early 2000s reflect this adaptive positioning, even as they ultimately reveal the instability of value systems during the post-socialist transition. While his earlier involvement in the Boulder teahouse was embedded in state-sponsored gifting and diplomatic reciprocity, the Maryland teahouse emerges within a context structured by market logics, private investment, and uncertain legal frameworks. Jamison's later discovery of the crated structure, by contrast, demonstrates how locally situated actors may become entangled in these transnational trajectories of value without themselves operating within the same regimes of strategic mobility. In the following section, I describe how these transnational and local trajectories have collided.

5. THE CURRENT STATE OF THE MARYLAND TEAHOUSE

I have already described the present state of the Maryland Teahouse in the early sections of this paper. Rather than reiterating those points, I reflect upon my investigation and discovery of the Teahouse's exact provenance. At the moment of this writing, the ownership of the Teahouse is a matter of dispute and its future a matter of uncertainty. Discovering the exact provenance of the Teahouse required a period of rigorous investigation, a measure of luck, and the helpfulness of interested parties. I offer this description of my pathway of discovery more as a prologue for the future possibilities of the artifact, which are heavily conditioned by the decisions I made while undertaking my investigation of its provenance – decisions that will likely take part in determining the Teahouse's fate.

I became involved with the Teahouse largely because of my membership on the Board of Directors of Boulder Dushanbe Sister Cities (BDSC). Shortly after moving to Boulder in 2016 to begin my professional role at the University of Colorado, I was approached by a board member to join once they became aware of my doctoral dissertation based on my ethnographic research in Kazakhstan.[21] At the moment I joined BDSC, it became clear that the City of Boulder was in need of assistance to have the delicate artwork that adorns the façade of the Teahouse restored (a restoration is required every five to six years given the climate impact on the building). A few years previously, Boulder officials had enlisted Haydar Mirakhmatov to visit Colorado from Khujand, Tajikistan to restore the building's art. The city had brought Mirakhmatov to the U.S. on a B-2 visitor visa, which was not an appropriate credential for Mirakhmatov to earn money for his labor with the

Teahouse. Once U.S. immigration officials learned of Mirakhmatov's earnings, his visa was revoked and he was indefinitely barred from applying for another one.

With the need for another Teahouse restorationist, BDSC dispatched me to Tajikistan, and I became acquainted with Haydar's son, Marufjon Mirakhmatov, who had been trained in the *kundal* painting style characteristic of Persian teahouses found in Central Asia. Once I ascertained Marufjon's capabilities, I invited him to Boulder for a six-month period in 2018 to restore a section of the Teahouse's exterior art. Working with an administrative colleague in the Program of Environmental Design (ENVD) at the University, we began the work of arranging for Marufjon's F1 work visa and teaching appointment in ENVD. We appointed another colleague, Shawhin Roudbari to co-teach a historic preservation course with Marufjon. While Roudbari taught our design students the historical and contemporary contexts of the Teahouse, Marufjon instructed the students in the *kundal* painting technique. After two months of painting instruction in the 2018 Fall semester, the students joined Marufjon on the scaffolding to assist with the restoration work. Following the course and successful restoration of the Teahouse, Roudbari, our colleague Kate Sector, and I co-authored a book about the experience.[22]

My intimate experience with the Teahouse from 2016 through 2019 nearly coincided with Brian Jamison's possession of the Maryland Teahouse in 2015. After ten years of stewardship over the 110 crates containing the Teahouse, Jamison decided to act. His subsequent research led him to the history of the Boulder Dushanbe Teahouse, published in George Peknik's book[23] and scattered amongst numerous websites and blogs. Jamison's investigation also led him to the book I published with Roudbari and Sector, and he called me in May 2025, provoking my visit to investigate the crates a month later. I sent the images, digital scans, and film footage we took to Mirakhmatov and his son Marufjon, who shared the images with Mirakhmatov's brother Josef. This individual had been involved with the production of the Boulder Teahouse in the 1980s with Mirakhmatov's father, Mirpulat Mirakhmatov and his partner Manon Khaidarov and confirmed that the same team had fabricated the teahouse in Maryland.

Once I had discovered the provenance, I began to consider viable parties who might take possession of the Maryland Teahouse from Brian, who hopes to see the contents of the crates eventually built. I first considered Lincoln or Omaha Nebraska, which is home to one of the largest populations of immigrants from Tajikistan (with Colorado a close second). While searching for a possible partner in Nebraska, a Tajik friend of mine in Colorado contacted me, expressing interest in possibly purchasing the crates from Brian. This individual and her family are hoping to build a Tajik cultural center and Central Asian restaurant on a site near Denver. In the months following our discovery in Maryland, several journalistic accounts have been published describing the story of the Maryland Teahouse thanks to Jamison widely publicizing to the

circumstances.[24] This had led to several parties contacting me from Colorado to Maryland interested in gaining ownership of the crates and establishing a building like the Boulder Teahouse (including the Tajik group I mention above). In those early months through the summer and fall of 2025, enlisting someone to purchase the crates and take possession of them seemed unlikely, as we were unaware of how the Teahouse came to the barn in Maryland and Koshmukhamedov's role in the matter.

With the mystery of the Teahouse's provenance still a factor, I undertook an investigation to identify the crate's initial owner and the reason why they were sent to Maryland from Tajikistan. I first interviewed the property owner of the barn who had contracted Jamison to remove the "debris" from the barn. This person had separated from her husband and had not lived in the location since the early 2000s. In 2015, she had recently finalized a divorce with the person who shared ownership of the property on which Jamison hauled the Teahouse away. She was familiar with Koshmukhamedov, as he had visited the property several times and had paid her husband in monthly installments to keep the crates in their barn. At some point in the mid-2000s, Koshmukhamedov stopped visiting and the person thought he had purchased a home in Chesapeake, Maryland. I was able to verify that Koshmukhamedov had indeed owned a house in Chesapeake through real estate records but quickly discovered that he had sold it in 2018.

Feeling I had hit a dead end with the case, I contacted Sophia Stoller, a colleague from BDSC, who had been involved with the establishment of the organization in the 1980s. She recalled a visit from Koshmukhamedov to Boulder with his son Tajiddin, which took place in the mid-1990s. Stoller recalled that Koshmukhamedov presented himself as a shrewd post-Soviet businessman; however, she had no idea how to contact him. Sophia did put me in touch with a Tajik friend in D.C. who might be acquainted with Koshmukhamedov while he was residing in Chesapeake. I contacted this person, who wasn't familiar with Koshmukhamedov but did have a former student who shared the last name, when he was a professor of education at the Pedagogical University in Dushanbe. He contacted the former student via WhatsApp, and the person confirmed that Koshmukhamedov is her uncle, and she would share my contact details with him and explain that I had discovered "his teahouse."

Several weeks later, while sitting in a bar watching college football, I received the WhatsApp text I mentioned above. The person who answered was Tajiddin Koshmukhamedov, Izatullo Koshmukhamedov's son. He explained to me that the Maryland Teahouse indeed belongs to his father, and they would like to take back possession of the crates from Jamison. From multiple conversations with both Tajiddin and Koshmukhamedov, I have learned that the father has resided in Moscow since his involvement with the Maryland Teahouse, maintaining his business dealings with the Tajikistan's aluminum industry, while his son lives in Madrid, Spain. After several conversations, Koshmukhamedov requested that I contact Jamison to

schedule a virtual meeting between the two parties. However, Jamison has refused to meet with them. He believes that the crates were abandoned, and given his investment and caretaking of them, he is the rightful owner.

Since then, I have served as an intermediary between Jamison and Koshmukhamedov. They both claim ownership over the crates and want to see the Teahouse built in the U.S. This is where the matter stands. Jamison would like to see the crates transported to the University of Colorado, where we can study and digitally scan them and send the scans to Mirakhmatov and Marufjon to digitally assemble them. We are currently fundraising to accumulate the thousands of dollars necessary to have the crates shipped to Colorado. Yet, the ownership of the crates is still an issue that must be resolved before we can solicit an investor to have the Teahouse built and commercialized.

6. CONCLUSION: THE FUTURE OF THE MARYLAND TEAHOUSE?

The story of the Maryland Teahouse is not simply an unusual narrative of a misplaced architectural artifact. Rather, it reveals how objects can move through shifting regimes of value and, in doing so, generate new social relations, obligations, and conflicts. Across its trajectory, the Teahouse has moved from a commodity within an arising post-socialist market, to what might be understood as an "ex-commodity" lying dormant in a Maryland barn. Its rediscovery and reactivation demonstrate that sometimes objects might emerge from their static state - their social lives can persist, even in periods of apparent inactivity, awaiting new conditions under which they may again become meaningful.

The uncertainty surrounding the teahouse's ownership and future underscores the instability of value in post-socialist and global capitalist contexts. Competing claims to possession, differing visions for its use, and the legal ambiguities surrounding its status illustrate how cultural artifacts can become sites of negotiation, rather than fixed entities with singular meanings or trajectories. At the same time, the project raises further questions about stewardship. Who has the authority to claim, reconstruct, and interpret such an object? What responsibilities accompany the recovery and reassembly of cultural heritage displaced across continents and decades? In this case, the answer is not singular, but distributed across an array of actors, including former Soviet officials, local property holders, diasporic communities, artisans, and researchers.

The future of the Maryland Teahouse remains unresolved. It may be reconstructed as a cultural center, commercialized as a restaurant, or remain in its current state of suspension. Yet regardless of its ultimate fate, its journey offers a compelling lens through which to understand the social life of things under conditions of

political and economic transformation. In this sense, the teahouse is not simply an object awaiting completion, but an ongoing assemblage of relationships, histories, and possibilities that continue to unfold.

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Traditional Dwellings and Settlements
Working Paper Series

THE MYAAMIA'S PINŠIWA HOUSE: FROM AN INDIGENOUS DOMESTIC SPACE TO A CURATED HISTORIC SITE

May Khalife

THE MYAAMIA'S PINŠIWA HOUSE: FROM AN INDIGENOUS DOMESTIC SPACE TO A CURATED HISTORIC SITE

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This paper examines the translation and adaptation of classical architectural traditions in the construction and preservation of the Pinšiwa House, built by the Myaamia Chief Jean-Baptiste de Richardville in 1827 in Fort Wayne, Indiana. It interrogates the adaptation and negotiation of Myaamia traditions within a colonial framework that aligns Indigenous leadership with American political structures. The sale of the property and its later acquisition by the museum of the Fort Wayne Historical Society in 1991 marked a major shift in its function from a lived-in domestic space to a curated historical site. This study traces how the house's significance and material integrity shifted with successive ownership, engaging questions on how stewardship practices can either recover or misinterpret cultural meaning.

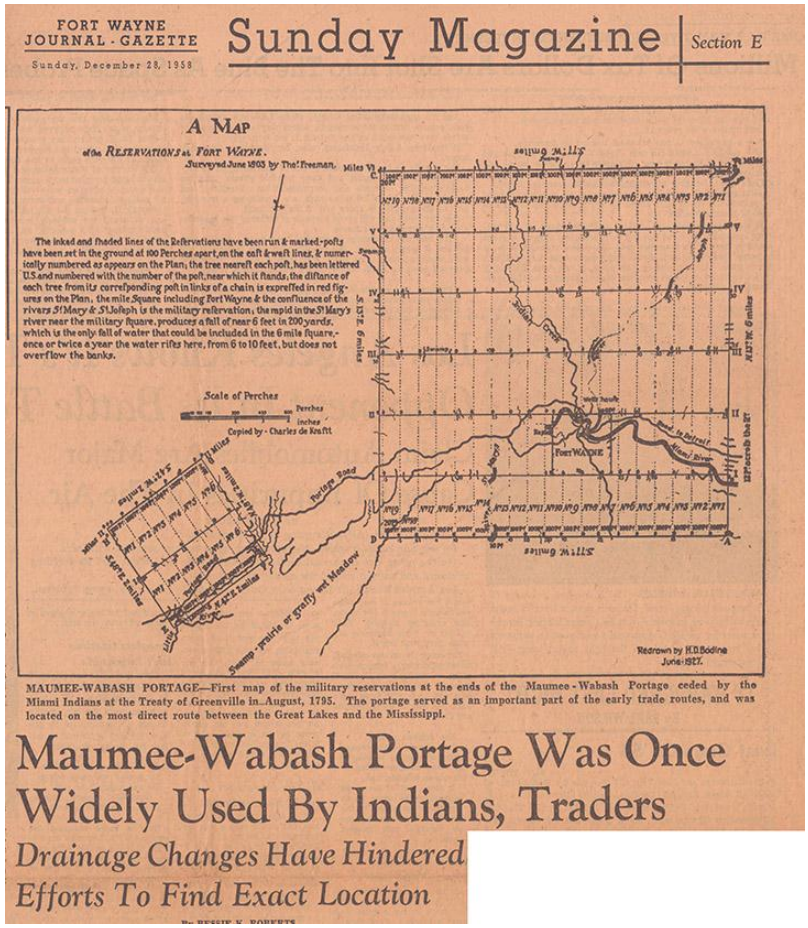
1. INTRODUCTION

The *Pinšiwa* House in Fort Wayne, Indiana, also known as the residence of Chief Jean Baptiste Richardville, embodies the character and enduring legacy of nineteenth-century diplomatic relations between Indigenous leaders and colonial settlers. Built in 1827 as part of treaty obligations between the United States government and the *Myaamia* Tribe, the house occupies a strategic and symbolic location overlooking the historic Maumee-Wabash portage. Managed by Richardville's Miami mother Tacumwah, this nine-mile-long overland trail was a carrying place that connected the St. Mary's and St. Joseph rivers.[1] It was a vital corridor for travel, trade, and cultural exchange across the Wabash and Ohio rivers, particularly situated in the rich Maumee-Wabash fur producing region (Figure 1).[2]

Emerging from political negotiations, the house's construction required a careful approach to balancing *Myaamia* traditions with the pressures of colonial influence. *Pinšiwa* played a key mediating role between the tribe and the U.S. government. He used his position to negotiate exemptions from removal and ensure that over half of the *Myaamia* were able to remain in Indiana after their official removal in 1845.[3] He secured resources and influence and became reportedly the wealthiest man in Indiana and resided in this house from 1827 until 1841.[4] The house was constructed in the Greek Revival style, which represents a deliberate

[1] Tom Castaldi, "The Beginnings of the Portage to the Wabash River," History Center, Allen County – Fort Wayne Historical Society (June 10, 2013), originally published in "Along the Heritage Trail with Tom Castaldi," Fort Wayne Magazine, no.13 (June 2005): 37, accessed from https://historycenterfw.blogspot.com/2013/06/the-beginnings-of-portage-to-wabash.html.
[2] Charles Poinsatte, *Outpost in the Wilderness: Fort Wayne, 1706-1828* (Allen County, Fort Wayne Historical Society, 1976), accessed from https://www.gutenberg.org/files/55762/55762-h/55762-h.htm.
[3] Michael Galbraith, and Angela M. Quinn, National Historic Landmark Nomination: Pinšiwa House, edited by the National Park Service (2009).
[4] Chief Richardville acquired over 44 sections of land and $31,800 in five treaties and was known to have $200,000 in silver alone at the time of his death in 1841. In Bert Anson, *The Miami Indians* (Norman, Oklahoma: University of Oklahoma Press, 1970), 189; Poinsatte, *Outpost in the Wilderness,* 80.

engagement of Euro-centric aesthetics to facilitate the transition of power and the assimilation of cultures.


FORT WAYNE JOURNAL-GAZETTE
Sunday, December 28, 1958

Sunday Magazine | Section E

A Map
of the Reservations at Fort Wayne.
Surveyed June 1803 by Tho: Freeman.

The inked and shaded lines of the Reservations have been run & marked-posts have been set in the ground at 100 Perches apart, on the east & west lines, & numerically numbered as appears on the Plan; the tree nearest each post, has been lettered U.S. and numbered with the number of the post, near which it stands; the distance of each tree from its corresponding post in links of a chain is expressed in red figures on the Plan. the mile Square including Fort Wayne & the confluence of the rivers St Mary's & St Joseph is the military reservation; the rapid in the St Mary's river near the military square, produces a fall of near 6 feet in 200 yards. which is the only fall of water that could be included in the 6 mile square.- once or twice a year the water rises here, from 6 to 10 feet, but does not overflow the banks.

Scale of Perches
Copied by - Charles de Krafft

Fort WAYNE
Portage Road
Swamp - prairie or gratty wet Meadow
Redrawn by H.D.Bodine June 1917.

MAUMEE-WABASH PORTAGE—First map of the military reservations at the ends of the Maumee-Wabash Portage ceded by the Miami Indians at the Treaty of Greenville in August, 1795. The portage served as an important part of the early trade routes, and was located on the most direct route between the Great Lakes and the Mississippi.

Maumee-Wabash Portage Was Once Widely Used By Indians, Traders

Drainage Changes Have Hindered Efforts To Find Exact Location

Figure 1: Map surveyed in June 1803, Fort Wayne Journal-Gazette (December 28, 1958). (Source: The Allen County-Fort Wayne Historical Society).

Since 1991, the historic house has remained under the stewardship of the History Center from Allen County–Fort Wayne Historical Society. It has been transformed from an Indigenous domestic space into a curated historic site. This shift shows how preservation frameworks shape the translation of Indigenous traditions into legacy sites. Such practices can either restore, reinterpret, or erase cultural meaning. This paper examines the *Pinšiwa* House as a case study, exploring how stewardship practices reinterpret Indigenous domesticity through collaboration between the *Myaamia* Tribe and the Historical Society.

2. METHODOLOGY

The study here engages a combination of historical research and architectural analysis using archival materials, restoration records, and interviews with stakeholders. Community-informed interpretations,

supported by Dani Tippmann who is a citizen of the Miami Tribe of Oklahoma and a descendant of Tacumwah, are central to this study. Such insights offer a closer look into how the community connects with the house's evolving physical form over time. Museum documentation guides the analysis of the house's material and structural changes, situating them within the broader framework of its institutional evolution. Tippmann's work as Food Program Director with the Cultural Resources Extension Office (CREO) highlights the importance of foodways, spatial practices, and intergenerational knowledge in interpreting the site. The research methodology here recognizes the house as a living site of cultural meaning instead of framing it as an architectural artifact. It foregrounds how collaboration with the *Myaamia* community is crucial for fostering a sustained and meaningful relationship with the History Center.

3. THE *PINŠIWA* HOUSE: ARCHITECTURE AND CULTURAL ASSIMILATION

Figure 2: Front of the Chief Richardville Historic House in Fort Wayne, Indiana. (Source: Author, November 2024).

The Greek Revival architecture of the house was adapted to an Indigenous context. Its symmetrical façade, classical orders with the Tuscan piers and Doric columns, the crossetted window architraves, and ornamental

details align with early nineteenth century Euro-American ideals (Figure 2). The north-facing entrance, which used to be framed by a modest one-bay porch sheltering the front door until 1995, further reinforced the house's classical architectural traditions and aesthetic language of order (Figure 3).[5] Added by Richardville's eldest daughter LaBlonde, a perpendicular wing or ell extends on the south side of the house in the form of a two-story brick loft and half-gabled enclosed back porch supported by three square Doric columns and a pilaster (Figure 4).

Figure 3: Photograph of the Chief Richardville House, 1920s, by B.J. Griswold. (Source: Dani Tippmann).

[5] Galbraith and Quinn, National Historic Landmark Nomination, 7.

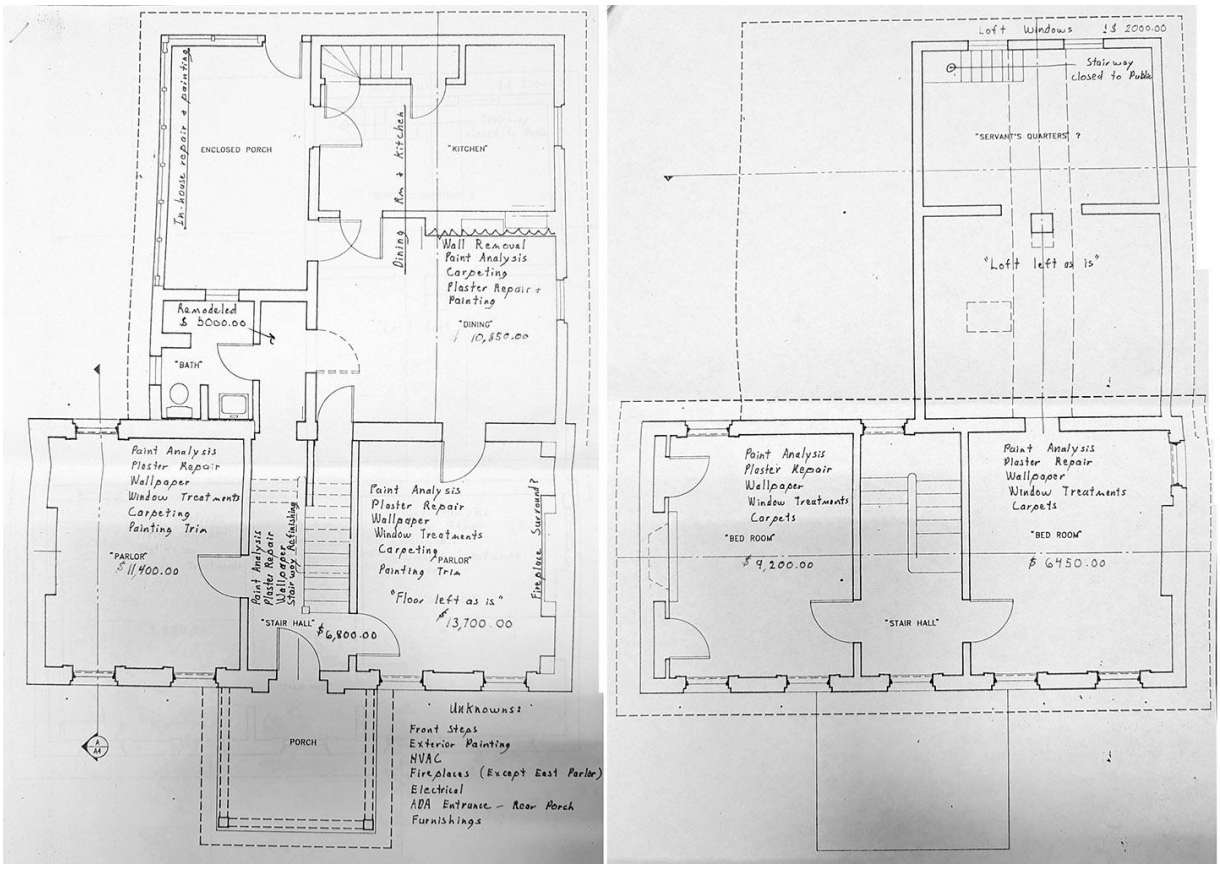


Figure 4: First and Second Floor Plans of the Chief Richardville House. (Source: Allen County–Fort Wayne Historical Society).

Inside, the central hall divides the house into the east and west parlors on the ground floor and two bedrooms on the upper floor. The two-flight staircase facilitates both circulation and ventilation (Figure 5). These features reflect not only architectural convention, but also adaptation to local environmental conditions, with an opening above the staircase allowing air to flow from the bottom to the top. The rear ell's presence introduces functional spaces such as a kitchen, a bathroom, servant quarters, and narrow backstairs, suggesting a layered domestic environment shaped by family needs and evolving social dynamics. The design's integration of environmental knowledge reveals an awareness of climate and comfort consistent with Indigenous building traditions, even as the architecture adapts to a Euro-American framework. Likewise, the integration of the kitchen addition reflects the centrality of food preparation and communal gathering in *Myaamia* life.

Figure 5: Staircase with the opening designed to improve ventilation. (Source: Author, November 2024).

The house acts as a site of translation, through which Indigenous *Myaamia* traditions and colonial spatial practices intersect. The chimney mantelpieces and the windows in both parlors have eared architraves or crossetted corners, a reflection of the overall Greek Revival style. The east parlor features a portrait of *Pinšiwa* dressed in European attire, wearing a coat with a white waistcoat and a back neckcloth, and holding a paper scroll (Figure 6). This look demonstrates this leader's diplomatic authority within a colonial context. Although the interior reflects the complexities of colonial assimilation, the *Myaamia* community's constant engagement with the surrounding landscape and back porch highlights the continued presence of Indigenous spatial practices that transcend the building's formal architecture.

Figure 6: Portrait of Chief Richardville. (Source: Author, November 2024).

4. THE STEWARDSHIP OF THE HISTORIC HOUSE BEYOND THE DESCENDANT LINE

After Chief Richardville's daughter LaBlonde and granddaughter Archangel, his descendants transferred ownership of the house outside the family sometime after 1894–1902.[6] The Allen County–Fort Wayne Historical Society acquired the *Pinšiwa* House in 1991, beginning its transition into a museum property. When the Historical Society purchased the house, there were no real plans for long term stewardship. At that time, the primary goal of the acquisition was for preservation rather than interpretation. One of the Historical Society's highest priorities was submitting the nomination to the National Register of Historic Places in 1994.[7] Recognized for its historical significance, the house required stabilization and protection, including the installation of a security system in the early 1990s.[8] The restoration included removing the stucco, repairing

[6] Richardville House Ownership Timeline (June 7, 1995), Archival Collections at the Allen County–Fort Wayne Historical Society.
[7] Minutes of Richardville House Committee Meeting (November 11, 1993), Archival Collections at the Allen County–Fort Wayne Historical Society.
[8] Interview with Todd Maxwell Pelfrey, December 9, 2025.

the masonry, and renovating the windows, shutters, doors, roof, and gutters.[9] During the Historical Society's ownership, the house joined the National Register of Historic Places in 1997.[10]

The Richardville House Committee, including preservationist Craig Leonard and historian Lois E. Headings, was tasked with promoting the house's history, developing public programs to strengthen the understanding of its heritage, providing recommendations for future use of the house, and overseeing the management of the property. In a 1992 statement, the committee acknowledged that "the history of Fort Wayne begins before the First Europeans ever came to the headwaters of the Maumee."[11] The role of the Richardville House Committee was to mediate between the values of the *Myaamia* community and the requirements to preserve its history as a meeting ground between Indigenous and Euro-American cultures. In their 1993 minutes of meeting, their statement included questions such as "how much restoration is necessary before programming can begin?" and "how much Native American versus Euro-American influence is to be stressed."[12]

Several individuals, among them anthropology professor Robert Jeske and Miami descendant Susan Burns, took turns chairing the committee to ensure broad representation. Later on, Jeske became the emergency consultant for any work affecting the grounds.[13] He led archaeological excavations at the site from 1992 to 1995, working with students and staff from the Indiana University–Purdue University Fort Wayne (IPFW) field school.[14] These excavations provided new insights into how Chief Richardville shaped and sustained his identity through the incorporation of a selection of artifacts and architectural elements.[15]

In 2002, a major restoration effort was funded by the Save America's Treasures (SAT) program and the Wabash River Heritage Corridor (WRHCC) Fund.[16] The aim was to return the house to an earlier historical appearance. However, the challenge lay in determining which alterations to keep or remove, and which historical period to restore. The decision-making process notably shaped the narrative that was presented to the public. The restoration of classical elements at the expense of Indigenous spatial practices would risk foregrounding the colonial architectural values and reinforce the narrative of assimilation. This approach to

[9] Elizabeth, K. Spott, "Identity in The Archaeological Record: Richardville, Natoequah and the Fur Trade in Northeastern Indiana" (Ph.D. dissertation, University of Wisconsin-Milwaukee, 2018), 81–82.
[10] National Register of Historic Places Inventory – Nomination Form, December 29, 1997.
[11] Richardville House Committee, Statement of Philosophy (April 22, 1992), Archival Collections at the Allen County–Fort Wayne Historical Society.
[12] Minutes of Richardville House Committee Meeting (November 11, 1993).
[13] Susan B. Burns, letter to Richardville Committee Members (October 9, 1994), Archival Collections at the Allen County–Fort Wayne Historical Society.
[14] Spott, 91–92. Robert J. Jeske, "Preliminary Excavations at the Richardville Site: A Prehistoric and Historic Miami Home in Fort Wayne, Allen County, Indiana" (Paper presented at the Annual Midwest Archaeological Conference, Beloit, Wisconsin, October 29, 1995).
[15] Spott, 94.
[16] Interview with Todd Maxwell Pelfrey, December 9, 2025.

preservation could obscure the understanding of the house and its role as an Indigenous domestic space. The *Pinšiwa* House achieved the National Landmark Status by the National Park Service in 2012 with the assistance from George Ironstrack and Daryl Baldwin through a tribal initiative created in 2001 known as the *Myaamia* Project.[17]

While this designation makes the house more competitive for grants and partnerships, the History Center relies on external funding to maintain it. Since the center operates without consistent public funding, this financial structure affords it more flexibility and freedom to rely on private donations and community support.[18] In other instances, it can influence curatorial priorities and programming, requiring broader public appeal. The interpretation of the house must balance between the educational goals and institutional sustainability.

5. SHARED INTERPRETATIONS: THE HISTORY CENTER AND THE *MYAAMIA* COMMUNITY

The *Myaamia* community plays a significant role in determining the interpretations of the house and the communication of its history in collaboration with the History Center. It signals a shift in partnership from traditional museum authority to a more cooperative model of stewardship. Historic interpretations of the house started from the 1990s. As both a Richardville descendant and a member of the Richardville House Committee, Sue Strass played a role in shaping the language used to describe *Myaamia* activities and programming in the house. The 1994 meeting minutes note that the term "rituals" should be removed when referring to Miami ceremonies.[19] The word was also scratched out in another set of meeting minutes.[20] Such terms often carry dehumanizing connotations rooted in colonial or academic contexts and can be reductive, implying that Indigenous practices are merely rigid or overly formalized. Referring to these activities as ceremonies can be more accurate, as it recognizes that they do not necessarily reflect repeated actions but lived experiences connected to their identity, ancestors, and spiritual beliefs while reflecting their relationships with the land and responsibilities to the community.

The tribe plays a central role in defining the site's interpretations for a public audience. The Indigenous narratives that support the preservation of the house and convey the family's history emphasize continuity

[17] George M. Ironstrack and Daryl Baldwin, Myaamia Project, Miami University, Oxford, Ohio to Angie Quinn, 19 December 2008, ARCH, Inc. files, Fort Wayne, Indiana.
[18] Interview with Todd Maxwell Pelfrey, December 9, 2025.
[19] Minutes of Richardville House Committee Meeting (September 28, 1994), Archival Collections at the Allen County–Fort Wayne Historical Society.
[20] Minutes of Richardville House Committee Meeting (March 30, 1994), Archival Collections at the Allen County–Fort Wayne Historical Society.

rather than limited interpretations. Preserving the house in a specific historical state cannot interfere with Indigenous uses and adaptations. Institutional constraints, funding limitations, and differing perspectives on preservation increase the challenges that face such a collaboration.[21] One challenge in preserving the historic house is that the Historical Center receives no public funding, an unusual situation given that neither the county, school district, nor city provides financial support for museums. As a result, the organization depends on private contributions and donations. This limitation can further restrict how the house's history can be interpreted and presented.

Figure 7: Miami Traders Day banner. (Source: Author, November 2024).

6. CONCLUSION: COLONIAL AESTHETICS AND INDIGENOUS AGENCY

The history of the Chief Richardville Historic House in Fort Wayne reflects the upheavals of the nineteenth century, when the U.S. government began enforcing the assimilation of Indigenous tribes. Its architectural features reveal a clear concern with social hierarchy and shifting power dynamics within this changing political landscape. The preservation of this house is essential to conveying that history. In later decades, when stewardship passed to the Allen County–Fort Wayne Historical Society, a new set of questions emerged: How can the *Myaamia* community sustain and communicate their history through material culture in ways that address the losses incurred during assimilation? Challenges surrounding interpretive language and funding highlight how museum stewardship can incorporate community voices into curatorial decisions, shaping whether preservation practices convey or inadvertently misinterpret living traditions.

[21] Interview with Todd Maxwell Pelfrey, December 9, 2025.

Traditional Dwellings and Settlements
Working Paper Series

TRANSFORMING STANDARD 20GP CONTAINERS INTO LONGER-TERM TRANSITIONAL HOUSING UNITS: AN INTEGRATED STRUCTURE–ENVELOPE–SPACE–DEPLOYMENT APPROACH

Ganghui Chen, Shixing Liu

TRANSFORMING STANDARD 20GP CONTAINERS INTO LONGER-TERM TRANSITIONAL HOUSING UNITS: AN INTEGRATED STRUCTURE–ENVELOPE–SPACE–DEPLOYMENT APPROACH

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In protracted displacement and infrastructure-constrained contexts, transitional housing often remains in use far beyond its intended short-term function. As a result, housing units must support not only rapid shelter provision, but also longer-term habitation, environmental comfort, household routines, and repeated deployment. Existing container-based housing studies have demonstrated the logistical and structural potential of shipping containers; however, fewer studies have systematically translated longer-term user needs into integrated design strategies linking structure, envelope, spatial organization, and deployment.

This study investigates how a standard 20GP shipping container can be transformed from a freight unit into a longer-term transitional dwelling unit while retaining transportability and deployment efficiency. Based on a literature review, typological comparison, and research-through-design process, the study proposes an integrated Structure–Envelope–Space–Deployment framework. The framework is then applied to the design of a 20GP container-based dwelling prototype.

The proposed design introduces a secondary lattice frame to support controlled openings and load-path reorganization, a composite envelope system to improve insulation and moisture control, a zoning strategy organized around service, rest, and flexible areas, and a controlled configuration mechanism for openings and furniture modules. The study further outlines a workflow linking user configuration, factory pre-integration, sea–land transportation, and on-site deployment.

The contribution of this paper lies in developing a design-oriented framework for translating longer-term transitional housing requirements into an operable container-based unit system. Rather than presenting a universal housing solution, the study provides a structured method for adapting standardized transport units to extended residential use under constrained conditions.

Keywords: longer-term transitional housing; 20GP shipping container; modular housing; envelope design; deployment; research-through-design

1. INTRODUCTION

In recent years, armed conflicts and violent incidents have shown a trend toward spatial diffusion and protraction, with persistently unstable security conditions exerting profound effects on population mobility and the built environment. Existing studies indicate that contemporary conflicts are no longer confined to short-term or localized events; rather, they have evolved into long-duration risk processes involving multiple actors across regions.[1] Against this backdrop, the scale of displacement continues to expand, and disruptions to housing have become increasingly pronounced. According to United Nations statistics, the global forcibly displaced population exceeded 120 million by 2024, with conflict and violence remaining among the primary drivers.[2] This shift suggests that housing is no longer a phase-specific concern in post-disaster contexts but has become an enduring issue embedded within prolonged crises.

Unlike the relatively linear trajectory observed in natural disasters, typically characterized by emergency sheltering, transitional accommodation, and eventual reconstruction, housing conditions in protracted conflict settings and infrastructure-constrained environments are marked by significant uncertainty and recurrence. Cycles of ceasefire and escalation, alongside interruptions and partial restoration of infrastructure, lead to repeated transitions between evacuation, temporary settlement, and re-displacement. As a result, residential stability is difficult to maintain. In this context, dwellings originally conceived as "temporary" often assume medium- to longer-term residential functions in practice.[3] For instance, in the Gaza Strip, the combined effects of extensive housing damage and sustained displacement have prevented transitional arrangements from following a conventional exit pathway, instead leading to their persistence as de facto longer-term housing forms.[4] This indicates that, under conditions of prolonged crisis, housing is no longer a one-time recovery issue following destruction, but rather a continuously extended and recurrent state of disruption.

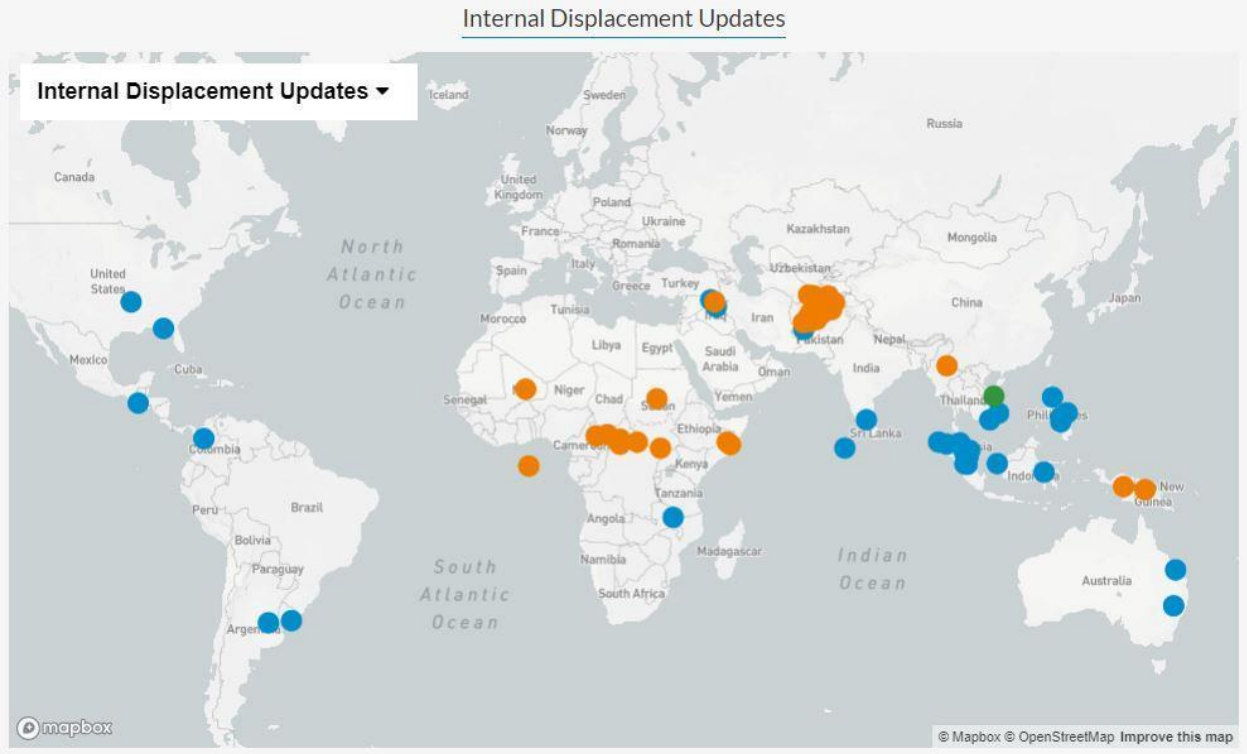

Figure 1: Global internal displacement updates. (Source: Internal Displacement Monitoring Center (IDMC), 2025. Internal Displacement Updates).

Correspondingly, the role of transitional housing has undergone a fundamental shift. Conventionally, such housing prioritizes rapid deployment and short-term shelter, with design strategies emphasizing construction speed, transportability, and low cost. However, as the duration of use extends, these short-term-oriented solutions increasingly reveal limitations, including inadequate envelope performance, simplistic spatial

organization, limited integration of building services, and insufficient support for household activities. These challenges suggest that the central question is no longer solely how to deploy housing quickly, but how to sustain basic living conditions under constrained circumstances over extended periods.

Moreover, these demands are not limited to conflict scenarios. Similar requirements arise in contexts such as protracted displacement, extended post-disaster recovery, chronically fragile infrastructure systems, and temporary habitation in remote areas.[5] In such situations, permanent housing solutions are often constrained by economic limitations, construction timelines, and implementation conditions, making timely provision difficult. Transitional housing thus becomes the primary spatial carrier of actual living needs. Consequently, a key challenge is how to enhance habitability and functional completeness while retaining the advantages of standardization, transportability, and rapid deployment.

Based on these considerations, this study defines its focus as "longer-term transitional housing" and shifts the emphasis from short-term emergency shelter toward design strategies that support extended use. Through a re-examination of existing transitional housing approaches, the study seeks to establish a systematic design framework that integrates structural safety, environmental performance, spatial organization, and modular configuration under the constraints of standardization and deployment efficiency, thereby addressing the evolving housing demands in protracted crisis contexts.

This study does not attempt to address the full complexity of displacement settlement planning or permanent reconstruction. Instead, it focuses on the unit-scale design problem of converting a globally standardized transport object into a more habitable transitional dwelling unit. The central research question is: How can a standard 20GP shipping container be systematically transformed into a longer-term transitional housing unit while maintaining transportability, constructability, and deployment efficiency?

To answer this question, the study addresses three sub-questions:

(1) What requirements distinguish longer-term transitional housing from short-term emergency shelter?
(2) How can these requirements be translated into coordinated design dimensions?
(3) How can these dimensions inform the design of a container-based dwelling unit and its implementation workflow?

2. LITERATURE REVIEW

Research on transitional housing initially emerged in the context of post-disaster resettlement and humanitarian assistance, where it has generally been defined as an intermediate form of accommodation situated between emergency shelters and permanent housing. As noted by Félix et al., early studies primarily

focused on rapid deployment, short-term occupancy, and phased use during post-disaster recovery, with transitional housing long regarded as a temporary solution intended to meet minimum shelter requirements.[6] However, this understanding has been increasingly challenged as displacement durations lengthen and temporary settlements become protracted. Conzatti et al. highlight that a significant number of low-quality shelters remain in use for several years in practice, with issues such as poor thermal conditions, inadequate indoor air quality, and spatial overcrowding exerting longer-term impacts on occupants' health.[7] Accordingly, research on transitional housing has gradually shifted from an emphasis on rapid provision toward a broader concern with safety, comfort, privacy, and the maintenance of basic living conditions.

Within this context, some studies further identify a group of displaced populations who are unable to transition rapidly into permanent housing yet must sustain relatively sustained daily living. For such groups, housing needs extend beyond the scope of short-term emergency accommodation. Scholars in China have similarly argued that transitional housing should not be limited to emergency shelter functions but should be further developed in terms of spatial organization and quality of use.[10] This indicates a conceptual shift in which transitional housing is no longer understood merely as a temporary facility, but rather as a phased housing type capable of supporting ongoing everyday life.

In response to constraints related to time, cost, and site conditions, modular and prefabricated construction has increasingly been adopted as a key technical approach. Existing studies suggest that modular construction offers significant advantages in terms of standardized production, transportation efficiency, and construction speed.[8,13] Container-based housing, in particular, demonstrates potential for rapid deployment and reuse due to its clearly defined structural units and transportable dimensions.[9] At the same time, prior research also points out that converting container prototypes into habitable spaces remains challenging, especially in terms of structural limitations on openings, insufficient envelope performance, and constraints in spatial organization.[10] Studies in China further indicate that although modular construction has reached a relatively mature stage in engineering implementation, there is still considerable room for improvement in residential adaptability, system integration, and application development.[11]

Overall, existing literature has, on the one hand, recognized the prolonged use cycles of transitional housing and their implications for living quality, and, on the other hand, demonstrated the technical feasibility of modular approaches. Nevertheless, most studies remain focused on short-term accommodation or isolated technical optimizations, lacking systematic integration for longer-term use scenarios. Moreover, requirements related to safety, comfort, and family life are seldom translated into coordinated design strategies across structure, envelope, spatial organization, and deployment. Therefore, the key gap lies not simply in the lack of container-based housing prototypes, but in the absence of an integrated design framework that translates

longer-term habitation requirements into coordinated structural, environmental, spatial, and deployment strategies. This gap defines the aim of the present study.

3. METHODS

This study adopts a research-through-design approach combined with literature-based requirement analysis and typological comparison. The research process consists of four steps. First, requirements for longer-term transitional housing are identified from humanitarian shelter literature, displacement reports, and studies on post-disaster and refugee housing. Second, major transitional housing typologies are compared in terms of transportability, installability, and durability to justify the selection of the 20GP container as the base prototype. Third, the identified requirements and container-specific constraints are translated into an integrated SESD framework, covering Structure, Envelope, Space, and Deployment. Finally, the framework is applied to the design of a 20GP container dwelling prototype, including structural reinforcement, envelope optimization, spatial zoning, furniture configuration, factory assembly, transportation, and on-site deployment.

The study is therefore not based on post-occupancy evaluation or full-scale prototype testing. Instead, it provides a design-led analytical framework and a technically reasoned prototype proposal. The feasibility of the proposal is assessed at the level of dimensional compatibility, modular coordination, transport logic, and constructability.

3.1. Characteristics of longer-term Transitional Housing and User Needs

longer-term transitional housing cannot be equated with conventional temporary shelters. Although both respond to post-crisis disruptions in habitation, they differ fundamentally in duration of use, site conditions, and implementation context. Conventional transitional shelters are typically intended for short-term refuge and phased transition, with design priorities focused on rapid deployment and basic protection. In practice, however, prolonged displacement, delayed recovery processes, and fluctuating site conditions often result in "temporary" units being occupied for years rather than weeks or months.[12] Under such circumstances, transitional housing evolves from an emergency provision into a primary spatial carrier of everyday life, shifting the core question from the provision of immediate shelter to the capacity to sustain continuous habitation under unstable conditions.

At the same time, longer-term transitional housing is rarely supported by stable construction environments and is instead embedded within continuously changing deployment contexts. Relocation of settlements, incomplete infrastructure, and repeated assembly and disassembly processes transform housing from a fixed,

one-time construction into a dynamic system requiring organization, transportation, and reconfiguration.[12,15] This instability is further compounded by constrained resource availability and limited construction capacity, precluding reliance on complete building systems or stable supply chains. Instead, housing design must operate within a persistent state of constraint.[13] Consequently, the viability of longer-term transitional housing depends not only on the rationality of individual units but also on their capacity to maintain continuity of use across variable conditions, aligning more closely with modular and prefabricated system logics.

Within this context, user needs exhibit a more integrated and complex profile compared to short-term shelter scenarios. Housing must extend beyond basic protection to support rest, storage, family activities, and the re-establishment of daily routines over prolonged periods.[12,14] First, safety and durability constitute fundamental prerequisites: units must maintain structural integrity and reliability under repeated use, environmental variation, and potential external risks, with spatial organization grounded in clearly defined structural boundaries.[15,19] Second, environmental comfort becomes critical to sustained occupancy. Daylighting, ventilation, and thermal performance are no longer secondary attributes but essential determinants of indoor health and usability, translating into integrated requirements for envelope performance and opening configurations.[16,17] Third, as households represent the primary user unit, variations in family composition generate diverse spatial demands. Spatial suitability depends not only on size but also on the organization of functional zones, movement patterns, and privacy gradients.[17,18] Finally, given uncertainties in both occupancy duration and household structure, housing must accommodate temporal change, making adaptability and configurability essential for sustained use.[19]

Aspect	Short-term shelter logic	longer-term transitional housing logic	Implication for design
Core objective	Emergency protection	Sustained habitation	Housing should support everyday life, not only survival
Time frame	Temporary and short-term	Prolonged and uncertain	Durability and adaptability become essential
User assumption	Relatively standardized users	Diverse households and changing needs	Layouts should allow limited customization
Spatial function	Sleeping and basic refuge	Rest, storage, hygiene, family activities, and routine recovery	Functional zoning and service integration are required
Environmental requirement	Basic enclosure	Continuous comfort and health	Envelope, daylighting, ventilation, and thermal performance must be coordinated
Construction logic	Rapid distribution and assembly	Repeated deployment, relocation, and maintenance	Modular and prefabricated systems are more suitable
Evaluation focus	Speed and coverage	longer-term usability, dignity, and continuity	Design should balance efficiency, comfort, and spatial adaptability

Table 1: Key differences between short-term shelters and longer-term transitional housing. (Source: Authors).

Based on the above, the design of longer-term transitional housing can be understood as a process of "requirement translation," in which multidimensional demands, safety, environmental performance, household adaptability, and temporal variability, are converted into operable spatial and systemic conditions. Safety requirements impose constraints on structural continuity and load paths; environmental demands are expressed through coordinated control of envelope systems and openings; household diversity informs spatial capacity and functional relationships; and temporal variability necessitates flexible spatial organization and configuration strategies. Establishing these correspondences enables the transformation of abstract functional requirements into concrete design parameters.

Therefore, the specificity of longer-term transitional housing lies not only in the complexity of its external conditions but also in the systemic nature of its internal requirements and the complexity of their translation into design. The task is no longer the optimization of isolated performance metrics but the integrated organization of structure, environment, space, and use under multiple constraints. This analytical framework provides the foundation for subsequent prototype adaptation and strategy development.

3.2. Adaptability Analysis of the 20GP Container Prototype

Previous studies indicate that transitional housing has evolved into a multi-tiered typological system, ranging from "rapid shelter" to "longer-term transitional dwelling units," including tents, temporary prefabricated structures, modular units, and container-based housing. These types differ significantly in transport logistics, construction methods, spatial organization, and durability, directly affecting their suitability for medium- to longer-term deployment.[19] Tent systems, characterized by lightweight construction and rapid deployment, enable efficient large-scale initial response but offer limited envelope performance, spatial integrity, and environmental comfort, making them unsuitable for prolonged use. In contrast, prefabricated temporary structures achieve improved spatial completeness and functional stability through assembled components and on-site construction; however, they typically require substantial organizational capacity and site preparation and exhibit limitations in repeated relocation and cross-regional deployment.

With the advancement of humanitarian response systems, prefabricated modular housing has sought to balance transport efficiency and spatial quality. Lightweight modular systems, often transported in flat-pack form and rapidly assembled on site, demonstrate improved enclosure performance and living conditions compared to tents and can support sustained use over a defined period.[20] Nevertheless, these systems are generally constrained by lightweight structural frameworks, limiting their capacity for spatial expansion, configurational flexibility, and integration of complex building systems.

Against this backdrop, container-based housing has emerged as a prototype combining the dual attributes of

transport units and structural units. Its standardized dimensional system, integration within a mature global logistics network, and inherent structural robustness offer advantages in rapid deployment, reuse, and modular expansion. Furthermore, clearly defined unit boundaries and stackability provide a basis for multi-unit aggregation and settlement-scale organization.

However, existing research consistently highlights that containers originate from freight systems and are not inherently optimized for habitation.[21] Common challenges in their conversion include constraints on structural openings, inadequate thermal performance of the envelope, elongated and monotonous interior spaces, and difficulties in integrating building service systems. These limitations not only affect spatial quality but also undermine adaptability and sustainability in longer-term use scenarios. In other words, while container housing benefits from well-established engineering and logistical systems, a significant gap remains in its translation into habitable environments.

Type	Representative Case	Transportability	Installability	Durability
Tent	UNHCR Family Tent	Very high; lightweight and suitable for large-scale distribution	Very high; rapid deployment	Low; primarily intended for short-term emergency shelter
Temporary Housing (Prefab Panels)	Post-Wenchuan Earthquake Temporary Housing	Moderate; dependent on component transport and on-site assembly	Relatively high; requires basic site conditions and construction organization	Moderate; improved performance compared to tents
Prefabricated Modular Unit	Better Shelter RHU	Very high; flat-pack system enables efficient transportation	Very high; short on-site assembly time	Relatively high; service life of several years with upgrade potential
Container Housing	Post-disaster container housing (cases and studies)	Very high; supported by mature logistics and lifting systems	Relatively high; efficient placement as integral units	Relatively high; strong structural integrity

Table 2: Comparison of typical transitional housing types in terms of transportability, installation efficiency, and durability. (Source: Authors' elaboration based on UNHCR, Jin and Fu (2021), Better Shelter, and Hong (2017)).

Comparative analysis and practical observations suggest that contemporary modular and industrialized housing systems have developed relatively mature technical pathways in prefabrication, transport organization, and on-site assembly. However, their primary focus remains on rapid construction and temporary deployment, with insufficient attention to spatial organization, environmental performance, and the completeness of everyday living conditions required for longer-term habitation. As such, the key challenge in transitional housing research is no longer the optimization of individual typologies but the development of integrated design approaches capable of simultaneously addressing transport efficiency, constructability, and longer-term residential performance.

Based on these considerations, the 20GP standard container is selected as the research prototype. Its significance lies not in possessing ideal residential qualities but in providing a clear and operable technical

foundation through its standardized transport system, structural integrity, and modular potential. Building on this foundation, the study reframes key issues, structural constraints, thermal performance, spatial limitations, and system integration, as design entry points. Under the premise of maintaining transport logic and engineering feasibility, strategies are proposed, including structurally controlled opening interventions, coordinated integration of envelope and building systems, and the unification of spatial and furniture design. These approaches aim to transform the container from a "freight unit" into a "longer-term transitional dwelling unit," addressing the practical demands of longer-term transitional housing while contributing to the systematic application of modular housing in complex environments.

3.3. Retrofit Design of a 20GP Container-Based Dwelling Unit under the SESD Framework

This study proposes an SESD design strategy—encompassing Structure, Envelope, Space, and Deployment—to establish an integrated logic for the residential transformation of standard shipping containers. Based on this framework, a transitional dwelling unit derived from a 20GP container is developed. Rather than remaining at the level of typological abstraction, the study advances toward a realizable unit prototype that operates within standard transportation constraints while supporting basic independent living. Through coordinated interventions across structural, envelope, spatial, and system layers, the 20GP container is transformed from a purely logistical object into a transitional dwelling unit capable of sustaining essential domestic functions, offering a baseline level of habitability, and entering subsequent stages of fabrication, transportation, and on-site deployment.

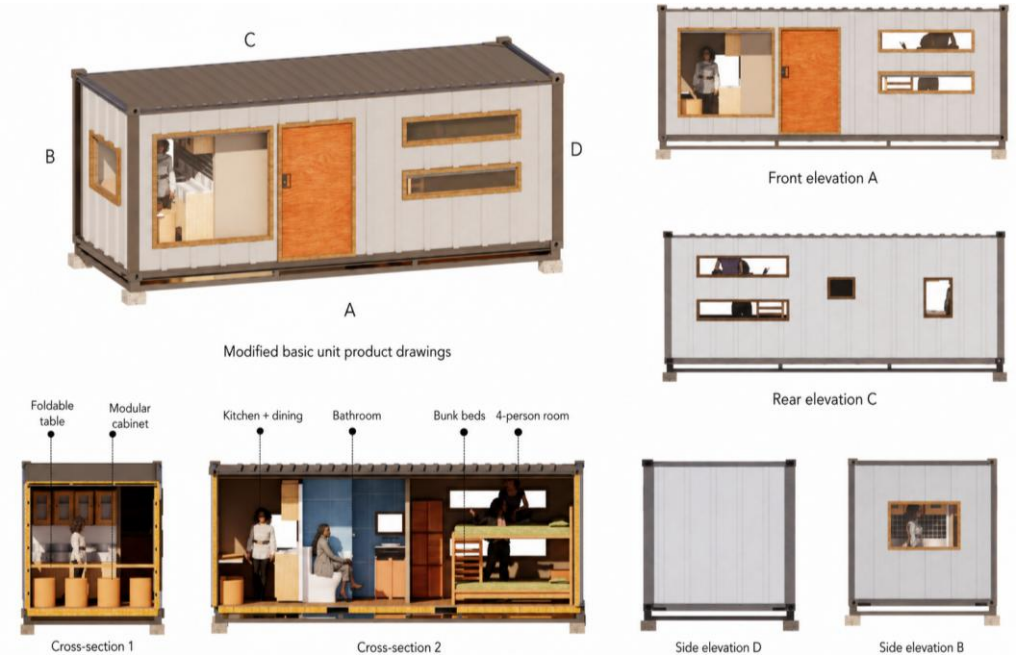

Figure 2: Proposed 20GP container-based dwelling unit prototype. (Source: Authors).

3.1.1. S: Structure — Structural Reinforcement

Within the SESD framework, Structure constitutes the primary precondition for converting a standard container into a habitable unit. While the original container possesses a well-defined load-bearing system optimized for transport and stacking, it is not inherently suited to accommodate openings, spatial reconfiguration, or residential functions.[23] Accordingly, the structural intervention does not aim to replace the original system, but rather to operate within its established load-transfer logic. Through localized reinforcement, structural supplementation, and the introduction of a regularized secondary framing system, a stable boundary is created for subsequent spatial modification and envelope integration.

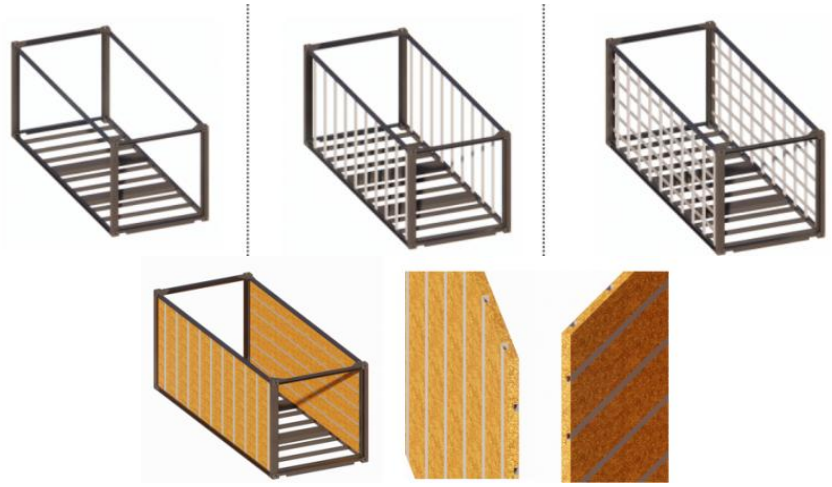

Figure 3: Reinforcement of container sidewall structure. (Source: Authors).

A critical constraint in container conversion lies in the incompatibility between the original structural system and the requirements of the building envelope. The container's structural logic—based on corner posts, longitudinal beams, and corrugated steel panels—prioritizes global stiffness and continuity. However, this metal-dominated system leads to insufficient support for layered envelope assemblies and introduces pronounced thermal bridging when adapted for habitation. The insertion of openings, insulation, and interior finishes further exacerbates this conflict, as the original envelope is unable to simultaneously satisfy structural support, interface installation, and thermal performance requirements. Therefore, the core challenge is not merely structural strengthening, but the reconfiguration of load paths and envelope logic to accommodate residential use.

To address this issue, the study proposes a coordinated strategy centered on load redistribution, connection optimization, and thermal bridge mitigation. While preserving the primary structural boundaries and transport logic of the container, an internal secondary lattice frame is introduced, forming a composite system

consisting of the original container structure, a lightweight steel subframe, and interior envelope layers. The subframe, composed of primary and secondary C-section members, establishes a regular grid along the inner face of the container and is mechanically connected to the existing structural frame. This configuration transforms the envelope support mechanism from reliance on a single corrugated steel layer into a multi-layer composite load-sharing system. Compared to simply thickening the envelope, this approach—through optimized member dimensions—provides a stable base for insulation infill and interior finishes while minimizing spatial encroachment, thereby enabling coordinated structural and spatial performance.

At the node level, continuous welded joints—identified as major contributors to linear thermal bridging—are replaced by interlocking mechanical connections. This strategy is intended to reduce continuous conductive paths by transforming surface contact into more discrete connection points, while maintaining the original structural logic of the container. At the roof level, continuous I-section members integrate the wall lattice into an overall load-bearing system. Combined with localized insulation infill and node detailing, this prevents the formation of new thermal bridge concentrations at wall–roof junctions. In this way, structural continuity and thermal continuity are considered as interrelated design constraints rather than as separate technical problems.

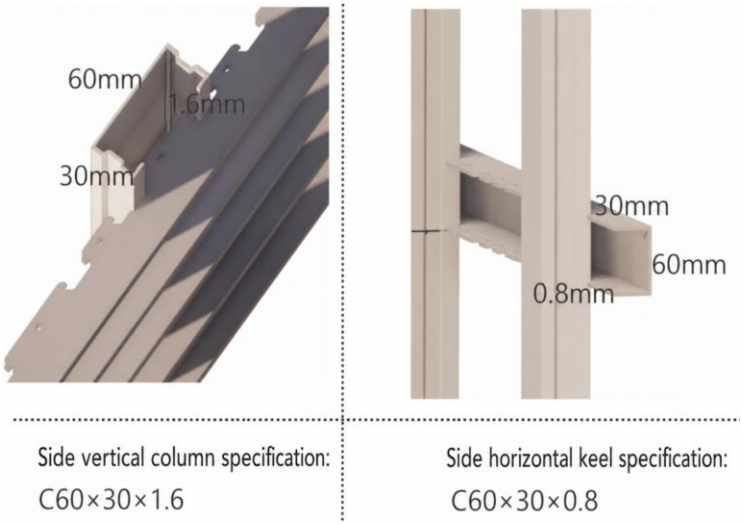

Figure 4: Addition of a lattice structural system. (Source: Authors).

Based on this structural system, further envelope optimization is carried out with a focus on thermal performance. The original container envelope, composed primarily of single-layer steel panels, exhibits high thermal conductivity and leads to rapid heat loss and low interior surface temperatures under cold conditions. To address this, a continuous low-conductivity envelope layer is established by infilling the lattice frame with mineral wool insulation, combined with interior finishes and moisture-control layers. This transforms the envelope from a steel-dominated system into a composite assembly governed by insulation performance. The

continuous infill also prevents discontinuities at joints, thereby enhancing overall thermal stability.

It is important to note that envelope performance is highly dependent on the integrity of opening details. Openings, as weak points in the envelope system, involve both structural modification and risks of thermal bridging and water ingress. In this study, the lattice grid is used to regulate the position and dimensions of openings, ensuring alignment with structural modules. Reinforced members and a subframe system are introduced around openings, forming a continuous construction sequence of structural boundary–installation transition–window fixation. Combined with thermally broken aluminum frames, insulated glazing, and multi-layer sealing strategies, the opening achieves a balanced integration of structural support, thermal continuity, and waterproofing performance. Openings are thus transformed from local structural reductions into controlled and integral components of the envelope system.

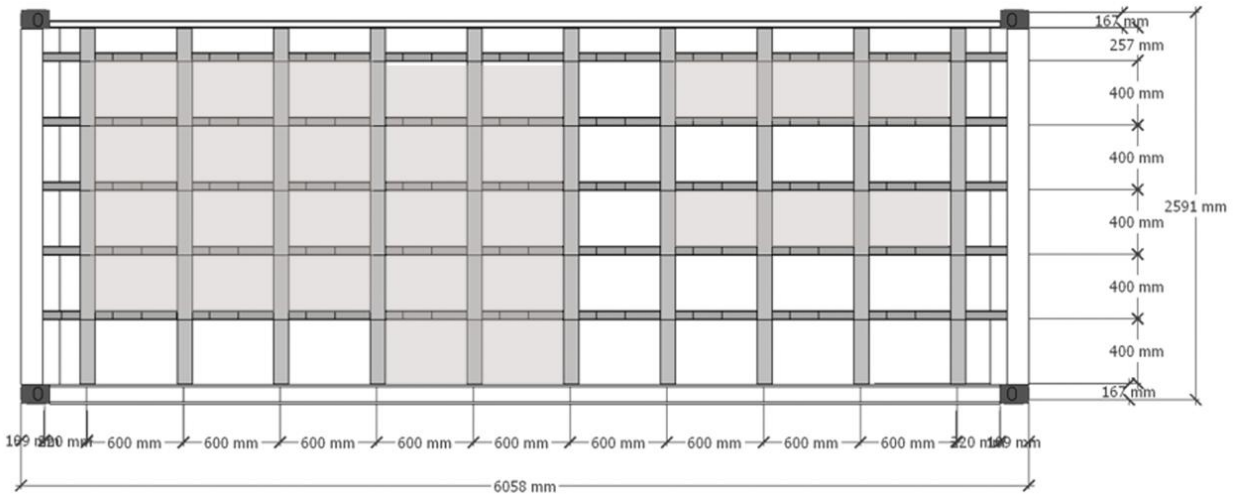

Figure 5: Structural grid and opening layout of the 20GP container unit. (Source: Authors).

In summary, structural reinforcement and envelope optimization are treated as an integrated problem. Through the introduction of a secondary framing system and the refinement of connection strategies, the design simultaneously addresses load redistribution and thermal control. The resulting system transforms the container envelope from a single-layer metal shell into a composite interface capable of structural support, thermal regulation, and constructive integration, thereby establishing the foundation for subsequent spatial organization and longer-term use.

3.1.2. E: Envelope — Envelope Optimization

Within the SESD framework, Envelope addresses the establishment of an environmental boundary that enables the transition from a "sealed container" to a "habitable living space."[23] The original container

envelope, designed primarily for durability and transport, cannot directly satisfy requirements for thermal insulation, moisture control, airtightness, and indoor comfort. Therefore, envelope optimization is not limited to adding insulation or interior finishes; rather, it requires a reorganization of the relationships among walls, roof, floor, and openings. Within constrained thickness limits, it must reconcile thermal performance, service integration, and usable interior space. The formation of an effective envelope marks the transition of the container from a protective shell to a viable longer-term transitional dwelling environment.

In response to the inherent thermal deficiencies of the 20GP prototype, this study adopts a system-level approach to optimize the three primary interfaces: walls, roof, and floor. The original steel-based enclosure system, while structurally efficient for transport, exhibits high thermal conductivity, low thermal inertia, and significant thermal bridging, making it unsuitable for habitation—particularly in cold climates where heat loss and condensation risks are pronounced. Instead of simple material layering, the study reorganizes the framing system, insulation, and interface layers within the constraints of standard transport dimensions to construct a continuous, buildable internal composite envelope.

For wall assemblies, a composite system combining an internal framing layer with continuous insulation infill is adopted to address the high conductivity of corrugated steel panels. Specifically, interlocking internal battens are installed along the inner surface of the steel shell, forming a support system for mineral wool insulation infill. Interior finish panels and a vapor control layer complete the assembly. This configuration is expected to reduce linear thermal bridges associated with the steel shell, transforming the enclosure from a high-conductivity single layer into a low-conductivity composite system. At openings, which represent critical points of weakness, a combined strategy of thermally broken window frames, auxiliary subframes, and insulated closure detailing is employed to control localized thermal bridging and improve waterproofing performance.

For the roof assembly, the original corrugated steel panel and structural members form a major pathway for heat loss under residential conditions. To address this, a strategy of "external form retention with internal layer reconfiguration" is adopted. A continuous insulation and service integration layer is established beneath the existing structure. Insulation is placed within newly introduced structural members, while a suspended ceiling system defines the interior interface, creating a thermal buffer zone between structure and occupied space. Continuity between roof and wall insulation is maintained at corner junctions to reduce thermal bridging at the system level. In terms of drainage and moisture control, slight internal slopes and concealed drainage paths are integrated with the existing roof geometry, while an interior vapor barrier mitigates condensation risks, ensuring both thermal performance and constructability.

For the floor assembly, although the original bottom frame provides sufficient load-bearing capacity, it lacks

thermal and functional adequacy for residential use. The study retains the structural role of the base frame while transforming the underfloor space into a service layer. A composite floor system is formed through bottom enclosure and upper insulation layering. Specifically, an additional steel plate is installed beneath the frame to protect the service zone, while continuous insulation is placed above to establish an integrated thermal boundary with the wall system. A waterproof layer and finish surface complete the interior interface. This approach achieves a balance among service integration, thermal optimization, and spatial efficiency without significantly increasing floor height.

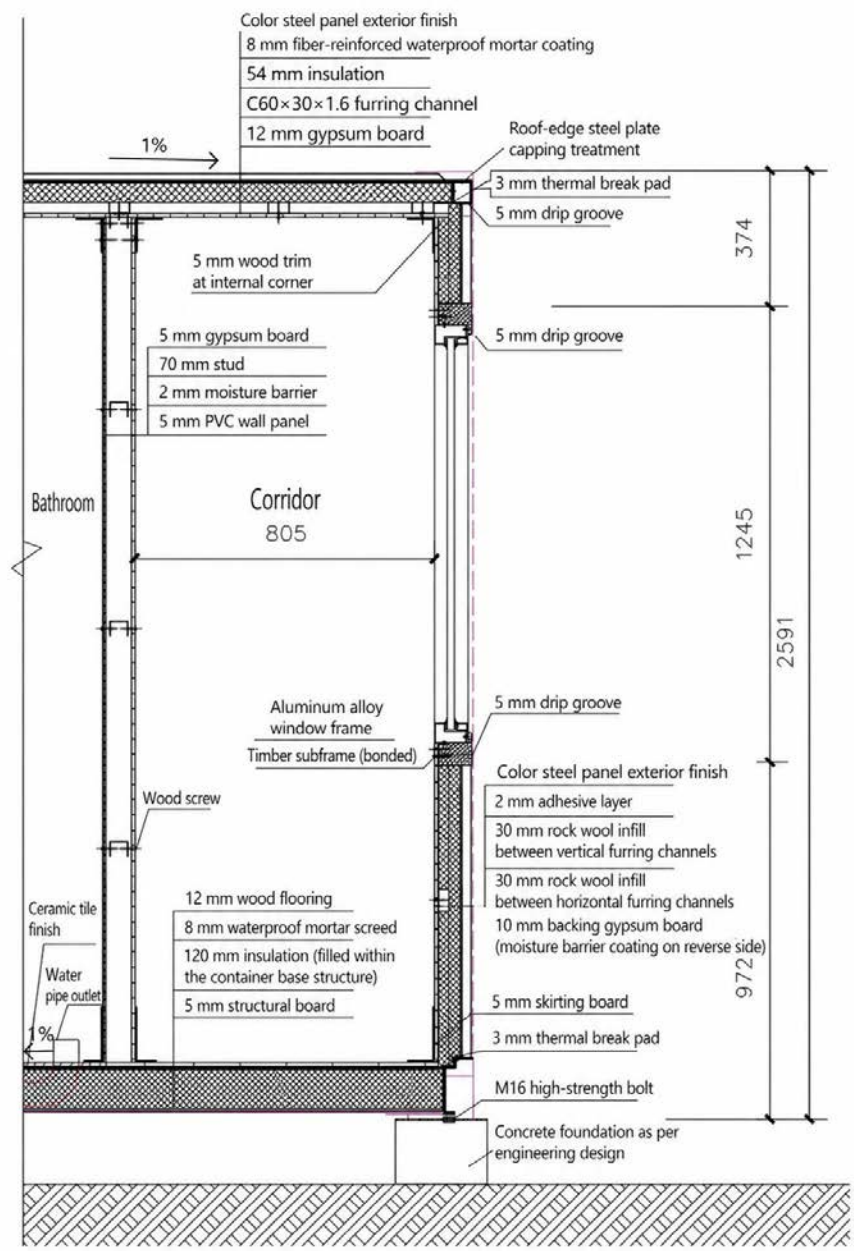

Figure 6: Typical envelope section detail of the container-based dwelling unit. (Source: Authors).

Overall, envelope optimization is approached not as isolated component improvement but as a coordinated system across walls, roof, and floor. The resulting envelope aims to establish a more continuous and constructible thermal boundary. While maintaining the standardization and transportability of the container, the strategy is intended to enhance environmental performance and longer-term usability under transitional housing conditions.

3.1.3. S: Space — Spatial Reconfiguration

The "Space" dimension addresses how domestic programs are accommodated within a standardized container shell. The interior of a 20GP container is characterized by limited dimensions, uniform interfaces, and a highly homogeneous spatial condition. While such properties are advantageous for freight, they are inadequate for dwelling. Spatial reconfiguration, therefore, is not concerned with merely inserting functions into the container, but with re-establishing an operative order among fundamental activities—sleeping, staying, storage, circulation, and social interaction—within a constrained volume.[9] In this study, spatial considerations extend beyond plan layout to include gradients of privacy, opening relationships, furniture integration, and functional hybridity. Only through such reorganization can the container evolve from a space that accommodates to one that supports inhabitation.

During the transformation of a standard 20GP container into a dwelling unit, spatial constraints are not primarily defined by insufficient floor area, but by the superposition and potential conflict of multiple domestic activities within a limited envelope. Compared with conventional housing, the container's compact internal dimensions are further reduced by envelope thickening, system integration, and built-in furniture, rendering room-based spatial organization ineffective. The design challenge thus lies not in functional accumulation, but in reconstructing a coherent living order under clearly defined boundary conditions.

Accordingly, the internal space is structured into three primary zones based on essential domestic activities: a service zone, a resting zone, and a flexible zone. The service zone accommodates kitchen, sanitary, equipment, and basic storage functions, involving technical systems such as water supply, drainage, electricity, and ventilation. Due to its infrastructural dependencies, it is arranged in a compact and stable configuration. The resting zone serves as the main carrier of sleeping and daily stay, and its organization varies with occupancy, constituting the core of spatial reconfiguration. The flexible zone, by contrast, is not assigned a fixed function; rather, it operates as a buffer interface that mitigates spatial conflicts and adapts to varying use scenarios, supporting dining, working, leisure, or temporary sleeping. Together, these zones establish a fundamental spatial structure defined as "Flexible Zone—Service Zone—Rest Zone," transforming the container from a homogeneous enclosure into a hierarchical and ordered dwelling system.

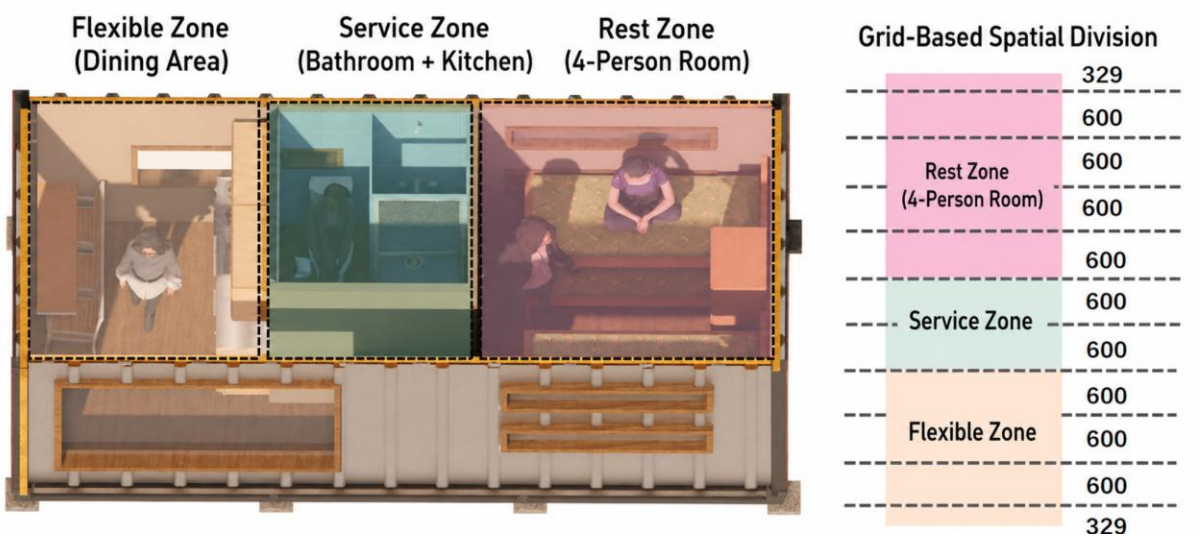

Figure 7: Zoning and grid-based spatial division of the four-person unit. (Source: Authors).

For transitional housing intended for medium- to longer-term use, a single unit must possess the attributes of an independent dwelling, capable of sustaining sleeping, staying, and basic domestic activities simultaneously. The service and resting zones are therefore indispensable components rather than optional modules; the absence of either would reduce the unit to a dormitory-like space or a single-service node, undermining its capacity to support continuous living. Meanwhile, the previously established structural grid not only serves as a basis for reinforcement and envelope installation, but also provides a constructive framework for internal spatial subdivision, enabling the integration of spatial organization within the structural logic.

Within this framework, spatial configurations vary according to occupancy. For single occupancy, the emphasis lies in ensuring completeness and autonomy rather than maximizing capacity. By maintaining spatial continuity and minimizing unnecessary partitions, the unit supports a comfortable living experience within limited dimensions, transitioning from mere occupancy to livability. For two occupants, spatial organization seeks a balance between sharing and privacy; the resting zone typically adopts parallel sleeping arrangements to reduce spatial occupation, while the flexible zone mediates daily activities, establishing a basic order between shared and individual use.

With three occupants, spatial organization enters the domain of family living, requiring accommodation of behavioral differences and varied daily rhythms. The resting zone must support diversified sleeping arrangements within constrained space, while the flexible zone becomes critical for maintaining household activities and facilitating transitions between functions. This scenario achieves a relative balance among spatial pressure, household integrity, and operational feasibility, and is therefore considered a representative configuration. At four occupants, the unit should be understood as an upper-bound configuration rather than

a preferred living standard. Spatial conflicts intensify, and the flexible zone is reduced to a minimal residual area. In this scenario, the design objective shifts from enhancing living quality to maintaining basic functional order and privacy as far as possible.

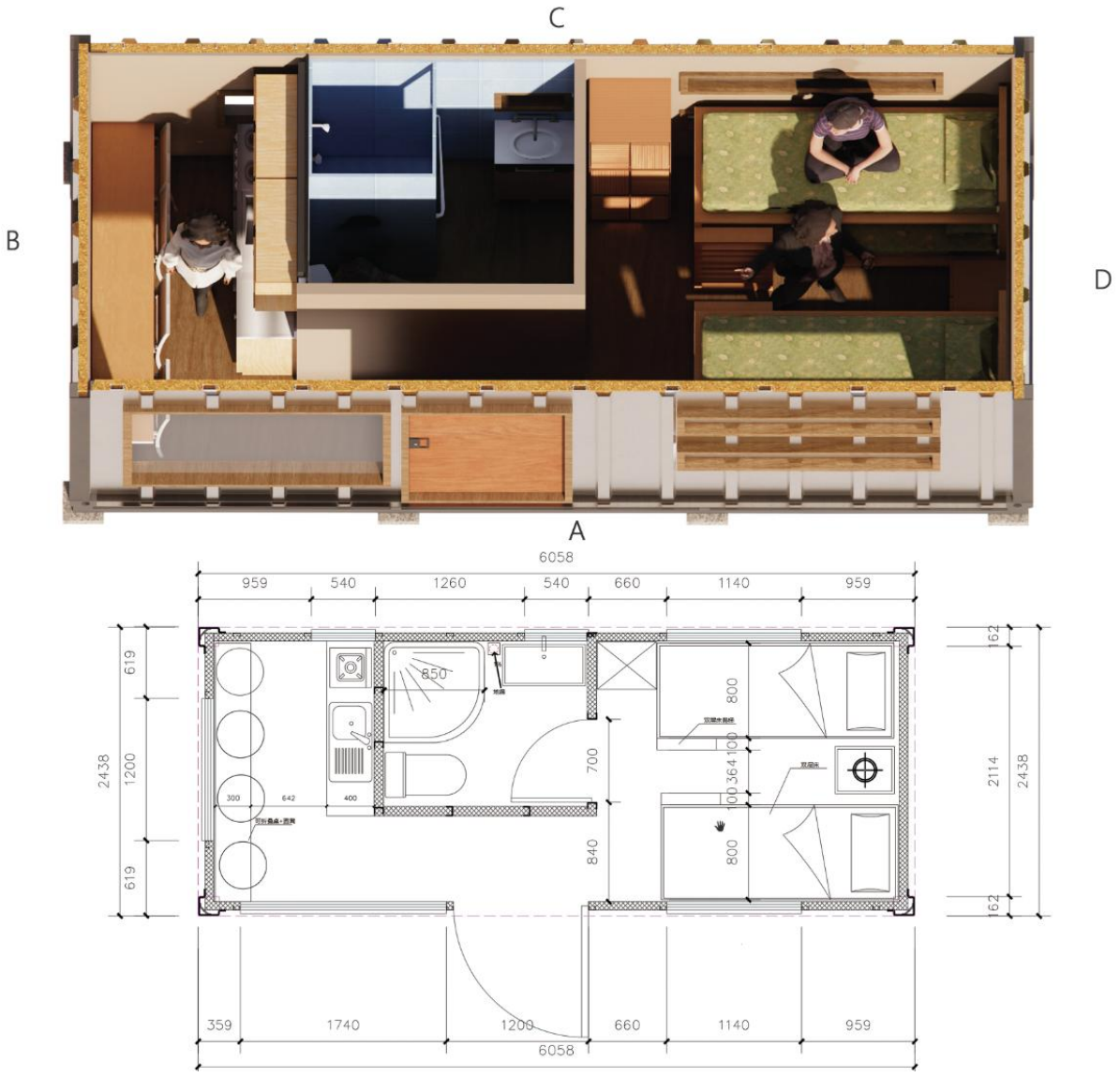

Figure 8: Plan and interior layout of the four-person unit. (Source: Authors).

In summary, the spatial reconfiguration strategy does not aim to maximize functional density, but to establish a coherent residential structure by prioritizing the service and resting zones while introducing the flexible zone as an adaptive interface. This approach ensures that the unit operates as housing rather than temporary shelter, thereby providing a spatial foundation for transitional living over extended periods.

3.1.3. D: Deployment — Modular Configuration and Implementation

In this study, "Deployment" refers to the controlled configuration, positioning, and implementation of modular components within predefined structural, envelope, manufacturing, and transport constraints. It is not limited to on-site construction, but also includes the selection and arrangement of openings, furniture modules, and service interfaces before fabrication. The value of transitional housing in this study lies not only in the viability of individual units, but also in their capacity to respond to variations in occupancy, functional requirements, and living preferences through modular configuration.[11] Deployment is thus understood as a configuration-oriented logic that integrates opening types, furniture systems, and spatial modules into a coherent framework, enabling controlled variation on a standardized basis.

It operates across two interrelated levels: "what to configure" and "how to configure." The former involves the selection of spatial functions, opening strategies, and furniture modules; the latter concerns their combinatory relationships and spatial arrangement within the unit. For instance, users may select modules based on occupancy, daylighting requirements, or furniture preferences, and these selections are subsequently translated into specific spatial configurations.

Under the dimensional and structural constraints of a standard 20GP container, the generation of dwelling units does not correspond to a single fixed solution. Instead, transitional housing designed for extended use must accommodate diverse household sizes, lifestyles, and spatial preferences. A modular configuration mechanism is therefore introduced to enhance adaptability without exceeding the limits of the base prototype. This configurational variability is not arbitrary, but operates within a tripartite constraint system: (1) all openings and furniture placements must align with the structural grid and load-bearing system; (2) the integrity of the envelope and integrated building systems must be preserved; and (3) the fundamental spatial order defined by the service, resting, and flexible zones must remain stable. In this sense, modular configuration represents a form of "controlled diversity" within standardized boundaries.

Within this framework, openings are defined as parametric modules derived from the structural grid rather than arbitrary façade operations. The longitudinal walls adopt a 5×9 subdivision based on a 400 mm×600 mm module. Door openings are standardized at five vertical modules (2000 mm) and positioned discretely along the horizontal axis, ensuring predictability and manufacturability. Window openings, in contrast, are generated through the aggregation of grid cells into rectangular configurations, offering greater combinatorial potential. However, such theoretical variability is further constrained by functional requirements: differences in daylighting, privacy, and external connectivity across spatial zones lead to controlled variations in sill height and opening size. As a result, the opening system evolves from unrestricted generation to a modular, function-based selection process, implemented through parametric interfaces that enables user participation.

Correspondingly, the furniture system is categorized into modules associated with the resting, service, and flexible zones, each following a differentiated configuration logic. The resting zone focuses on sleeping functions, employing a limited set of typologies—single beds, double beds, and bunk beds—adapted to varying occupancy levels, and supplemented by scalable desk and storage modules to achieve "limited types with adjustable quantities." The service zone prioritizes the integrity of essential domestic interfaces by integrating sanitary, cleaning, and simplified cooking functions into a minimal functional set; its module types remain stable, allowing only limited positional adjustments to ensure system reliability and constructability.

REST	R-1		Single bed	L2000×W1200×H500mm	R-7		1-person desk	L800×W400×H600mm
	R-2		Double bed	L2000×W1600×H500mm	R-8		2-person desk	L1200×W400×H600mm
	R-3		Bunk bed	L2000×W800×H1000mm	R-9		3-person desk	L1500×W400×H600mm
	R-4		Bedside cabinet	L500×W400×H500mm	R-10		4-person desk	L2000×W400×H600mm
	R-5		Sofa	L600×W600×H400mm	R-11		3-person desk - corner	L2000×W600×H600mm
	R-6		Wardrobe	L500×W400×H1800mm				
SERVICE	S-1		Shower room	L800×W800×H1800mm	S-4		Kitchen workbench	L1500×W400×H700mm
	S-2		Toilet	L500×W400×H500mm	S-5		Kitchen storage cabinet	L800×W500×H500mm
	S-3		Wash basin	L600×W300×H600mm				
FLEXIBLE	F-1		Bookshelf	L1200×W300×H1200mm	F-6		1-person folding dining table	L800×W300×H600mm
	F-2		Dining table	L800×W800×H600mm	F-7		2-person folding dining table	L1200×W300×H600mm
	F-3		Children's play table	L1200×W600×H900mm	F-8		3-person folding dining table	L1500×W300×H600mm
	F-4		Arc cabinet	L1200×W300×H900mm	F-9		4-person folding dining table	L2000×W300×H600mm
	F-5		Round stool	Diameter 500×H500mm	F-10		3-person folding dining table - corner	L2000×W300×H600mm

Figure 9: Coded furniture modules for rest, service, and flexible zones. (Source: Authors).

The flexible zone serves as the primary source of adaptability, enabling functional transformation through interchangeable modules such as desks, dining tables, sofas, and children's activity units. These three categories correspond to hierarchical levels of "stable—adjustable—variable," forming a dynamic adaptation mechanism within the unit.

At the implementation level, furniture is no longer treated as a secondary addition but is integrated with the structural and envelope systems. All fixed furniture is designed as prefabricated modules with backing panels and mechanically connected to the structural grid to ensure stability during transport and use. This integration enhances construction reliability and aligns furniture placement with structural modules, opening boundaries, and spatial zoning, thereby supporting prefabrication and rapid on-site assembly.

In summary, by establishing a grid-based opening generation system and a zoned furniture module framework, the study transforms the container unit into a dwelling system with parametric configurability. While maintaining standardization and constructability, it enables a shift from fixed spatial layouts to a modular logic characterized by selection, combination, and deployment, providing a controlled and feasible design approach for transitional housing intended for extended use.

Within the SESD framework, Structure defines the transformation boundary, Envelope establishes environmental performance, Space organizes living order, and Deployment governs modular deployment. Together, these dimensions constitute an integrated pathway for the habitation-oriented transformation of container units. Based on this framework, a transitional dwelling prototype using a standard 20GP container is developed: structural reinforcement and grid reorganization establish the foundational system; envelope optimization improves thermal and moisture performance; spatial reconfiguration into service, resting, and flexible zones addresses the needs of one to four occupants; and the integration of openings, furniture, and equipment modules enables a coherent logic of selection, combination, and arrangement within the unit.

3.4. User Configuration, Prefabrication, and Deployment Workflow

Under the premise that standardized modules serve as the basic unit, this study does not constrain container-based transitional housing to a single fixed layout. Instead, a bounded user-configuration mechanism is introduced within predefined constraints of transportation and manufacturing. This approach recognizes that transitional housing intended for medium- to longer-term use serves heterogeneous user groups, whose household composition, daily activities, privacy requirements, and spatial preferences vary substantially. Fully predefined schemes, while beneficial for industrialized production and logistical coordination, often fail to adequately respond to actual use scenarios. Therefore, user configuration is positioned as a front-end organizational process, in which differentiated demands are translated into executable spatial configurations

through a controlled set of parameters within a standardized framework.

The configuration mechanism follows a principle of "limited parameter-driven design," restricting inputs to several key dimensions, including occupancy, functional requirements, opening configurations, and furniture systems. Occupancy serves as the primary determinant, defining unit capacity and the organization of sleeping areas. Functional requirements influence the allocation and attributes of flexible spaces. Opening configurations regulate daylighting, ventilation, and privacy boundaries within a fixed modular grid. The furniture system, as an integral component of space, is co-developed with structural boundaries and usage patterns. These inputs are not processed in parallel but are structured hierarchically, progressing from fundamental to more detailed levels. This sequencing maintains operational feasibility while preventing excessive complexity. The resulting outputs include spatial zoning, functional allocation, façade openings, and fixed furniture systems, forming unit schemes that can directly proceed to manufacturing and implementation.

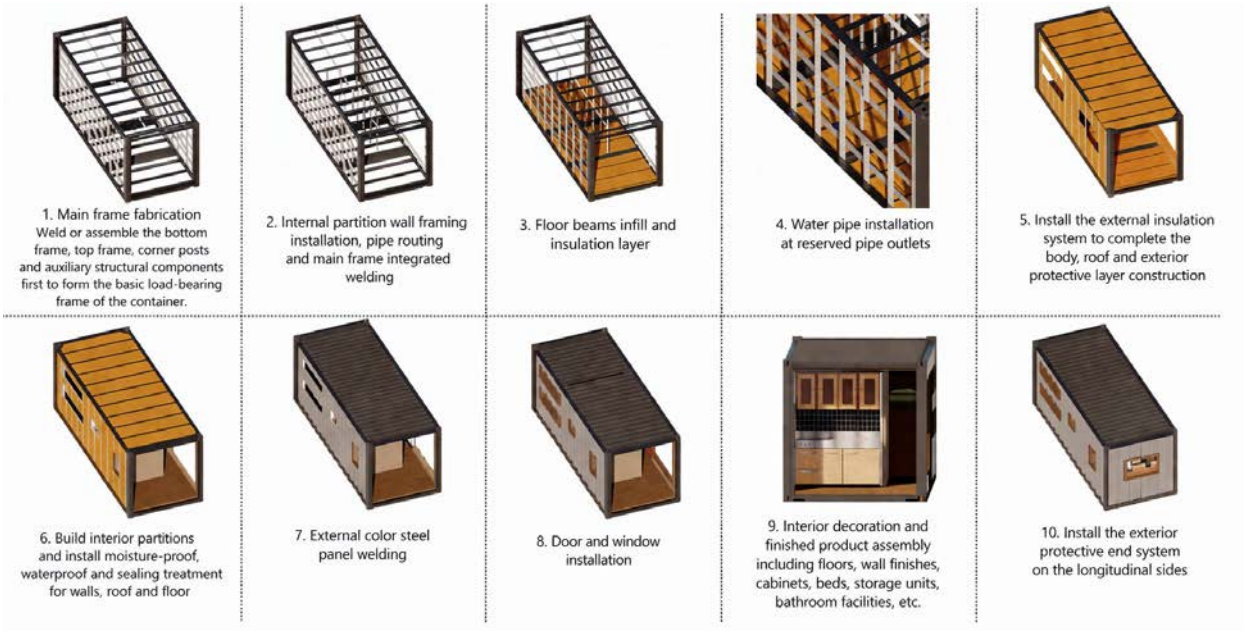

Figure 10: Integrated Container Factory Assembly Process. (Source: Authors).

At the manufacturing level, an integrated construction approach centered on off-site prefabrication is adopted. Structural, envelope, service, and interior systems are advanced to the factory stage to the greatest extent possible. Specifically, the container prototype undergoes opening modification and structural reinforcement, installation of framing systems, integration of envelope insulation assemblies, and pre-embedding of mechanical and electrical interfaces. Fixed components such as beds, storage units, and kitchen worktops are simultaneously assembled. Increasing the level of completion prior to delivery reduces the need

for high-precision on-site operations and wet trades, thereby lowering construction complexity and improving overall quality control. The manufacturing process begins with structural system formation, followed by enclosure completion and service integration, ultimately producing a highly finished modular unit with basic residential functionality.

In terms of transportation, manufacturing, logistics, and on-site deployment are treated as a unified system and coordinated in advance. Based on the international standard container transport system, external dimensions and structural nodes are strictly controlled at the design stage to ensure compatibility with both maritime and land transportation. For cross-regional or international deployment, long-distance and large-scale transfer may rely on maritime shipping, while last-mile delivery from port or logistics hub to site can be completed by land transport. This combined "sea–land" strategy aligns with the fundamental structure of global logistics systems and enables a balance between cost and efficiency. Within this framework, units are transported as complete modules, following a strategy of "internal integration and external constraint," whereby envelope, equipment, and furniture systems are incorporated within the container boundary to avoid exceeding standard transport limits.

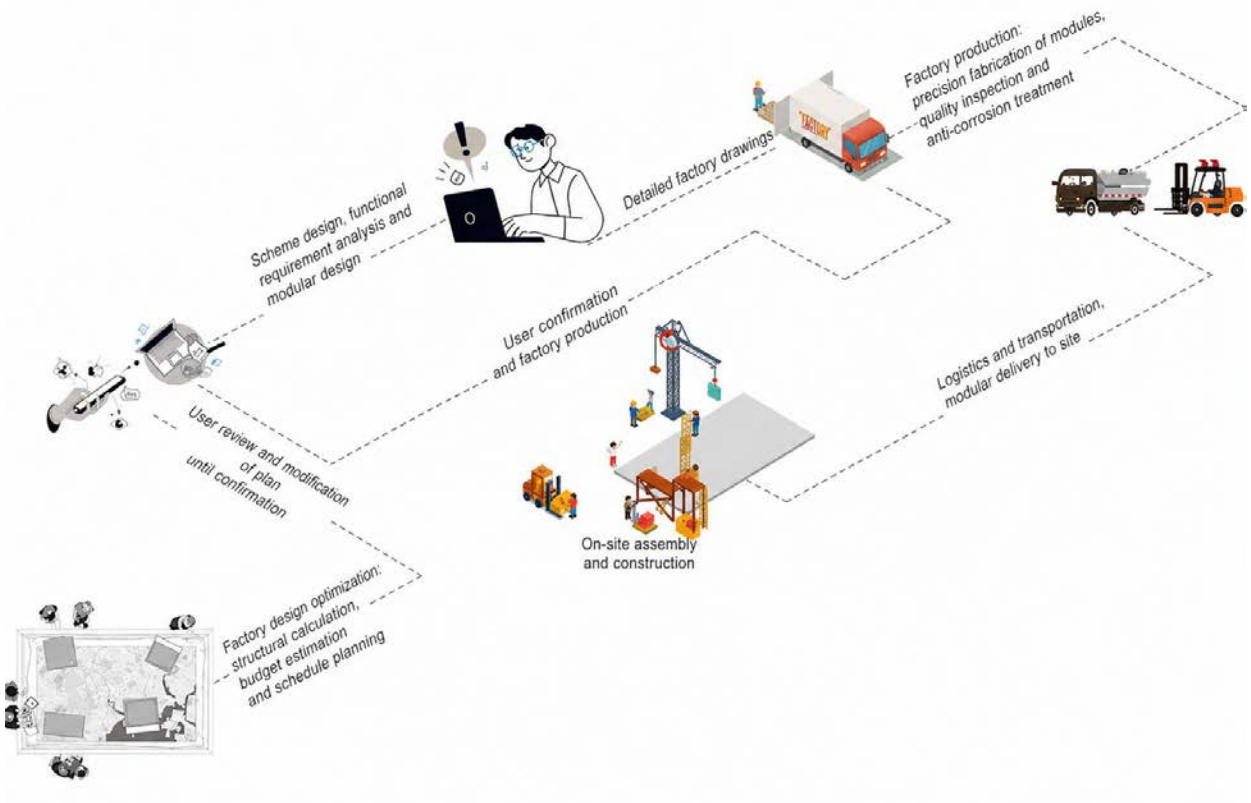

Figure 11: Workflow from user configuration to factory production, transportation, and on-site deployment. (Source: Authors).

To address structural impact and interface degradation during transportation, a strategy of graded protection and deferred installation is proposed. Structural loads continue to be borne by the standard corner casting system, preventing auxiliary components from participating in lifting operations. Openings, finishes, and service interfaces are protected through temporary measures to minimize transport-related damage. Sensitive components, such as glazing and sanitary fixtures, are installed on-site. In addition, anti-corrosion treatments and joint sealing are applied to mitigate the effects of humidity and salt exposure during maritime transport, thereby controlling material and assembly degradation while maintaining transport efficiency.

At the implementation stage, construction is redefined from conventional on-site building processes to a deployment-oriented system installation. On-site activities primarily include foundation preparation, module lifting and placement, multi-unit assembly, and service connections. Foundations are adapted to site conditions to ensure load-bearing capacity and drainage performance. Modules are positioned precisely using lifting equipment and secured with connectors that also accommodate alignment adjustments. Subsequent steps involve the connection of water supply, drainage, and electrical systems, as well as sealing and finishing of envelope interfaces. Wet areas adopt a "semi-prefabricated with on-site closure" approach, balancing integration with adaptability to actual service conditions. Entrance platforms and auxiliary components are installed according to site elevation differences to complete the functional interface.

In summary, this study establishes an integrated workflow that begins with user requirements, generates unit schemes through parameterized configuration, and achieves implementation through factory prefabrication, standardized transportation, and on-site deployment. While maintaining the standardization and efficiency inherent in modular systems, the approach incorporates controlled customization to enhance spatial adaptability. By integrating manufacturing and transportation considerations in advance, the design outcomes are translated into technically feasible construction solutions, forming a continuous system from requirement identification to project realization.

4. CONCLUSION

This study contributes to the design research on longer-term transitional housing in three ways. First, it clarifies the difference between short-term shelter provision and longer-term transitional habitation, emphasizing the need to support safety, environmental comfort, household routines, and adaptive use under unstable conditions. Second, it proposes an integrated Structure–Envelope–Space–Deployment framework for translating these requirements into coordinated design strategies. Third, it applies this framework to a standard 20GP shipping container, demonstrating how a freight unit can be reorganized into a more habitable, configurable, and deployable transitional dwelling prototype.

At the unit level, the study develops a housing adaptation strategy based on the 20GP container, focusing on spatial reconfiguration and functional accommodation. A fundamental spatial structure composed of service, resting, and flexible zones is established, and further optimized for occupancy scenarios ranging from one to four users. This approach enables the limited interior space to support essential domestic activities and functional transitions. The results demonstrate that, through appropriate modification, a container can evolve from a mono-functional transport space into a dwelling unit capable of accommodating basic living requirements, thereby extending its original functional boundaries.

At the technical level, the study advances the engineering articulation of structural, envelope, and system integration. A lattice subframe and optimized node design are introduced to adapt and reorganize the original structural system. Composite envelope assemblies are employed to enhance thermal performance and moisture resistance. In parallel, the integration of building services and furniture modules contributes to the formation of a relatively complete unit construction system. These developments extend the design from spatial organization to manufacturable and assemblable technical solutions, improving its practical feasibility.

At the system level, the research expands from individual unit design to a modular deployment strategy. An integrated process is proposed, encompassing user customization, module configuration, factory pre-integration, transport coordination, and on-site installation. Through the systematic linkage of prefabrication, transportation, and deployment, a continuous logical framework is established from unit generation to system implementation. The findings suggest that a modular system based on standard containers demonstrates practical adaptability in both transport and deployment, supporting rapid organization and repeatable use in complex environments.

Several limitations should be acknowledged. First, the study remains at the stage of design deduction and prototype development. Structural performance, joint behavior, assembly tolerance, and transport stability have not yet been verified through full-scale construction or physical testing. Second, the envelope strategy is developed as a general thermal improvement approach; detailed performance evaluation, including U-value calculation, condensation risk analysis, and climate-specific simulation, remains necessary. Third, the study focuses on the unit scale. Future research should examine multi-unit aggregation, settlement layout, shared facilities, infrastructure connection, and governance mechanisms in real deployment contexts.

In summary, this research does not propose a singular design solution for a specific scenario, but rather establishes a foundational pathway for modular transitional housing intended for extended use. Future work may focus on prototype validation, climate-responsive optimization, and expansion to settlement-scale systems, thereby enhancing its applicability and engineering feasibility under complex real-world conditions.

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Traditional Dwellings and Settlements

Working Paper Series

IN THE SHADOW OF BRASÍLIA: MAPPING TRADITION THROUGH THE ARCHIVE OF LUCIO COSTA

Ana Vaz Milheiro, Leonor Matos Silva

IN THE SHADOW OF BRASÍLIA: MAPPING TRADITION THROUGH THE ARCHIVE OF LUCIO COSTA

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This article stems from the research for the exhibition and catalog 'Lucio Costa Arquivo/Archive', curated by Ana Vaz Milheiro with the collaboration of Leonor Matos Silva. It proposes a critical immersion into the urbanist's personal archive, deposited in 2021 at Casa da Arquitectura in Matosinhos, Portugal. The text is organized into three complementary sections: Engaging with the Archive, The relationship with Portugal, and the place of Oral History. The central challenge lies in the confrontation between tradition and contemporaneity across these themes. In the Shadow of Brasilia serves as a framework to explore the collection's cultural capital, interrogating the tensions between monumental legacy and the minor narratives of everyday life.

1. INTRODUCTION

This article introduces the research conducted for the exhibition and catalog 'Lucio Costa Arquivo/Archive' on display until September 13, 2026, at the Casa da Arquitectura (CA) in Matosinhos, Portugal. It proposes a critical in-depth study of the personal archive of the urbanist who designed Brasília. Deposited in 2021 at the CA,[1] this documentary collection comprises approximately eleven thousand items. Due to its nature, it allows us to move away from hagiography or the laudatory inventory of projects previously celebrated by historiography.[2]

Born in France in 1902, Lucio Costa received a European education before settling definitively in Rio de Janeiro, where he entered the National School of Fine Arts. His professional genesis was marked by the study of Brazilian colonial architecture, an identity root he preserved even after seemingly abandoning 'traditionalist' aesthetics in favor of the modern. With a career that achieved early international prominence through key buildings – such as the Ministry of Education and Public Health (MESP)[3] – he extended his influence on heritage preservation policies and established himself as an influential essayist, capable of placing Brazilian culture on the global map. He died in 1998 in Rio de Janeiro, eleven years after Brasília was designated a UNESCO World Heritage site.

Rather than tracing a retrospective, this research sought to uncover an 'archaeology of the everyday' through his personal estate: drawings and sketches interspersed with his mother's poems, travel receipts tracing geographies of influence, flight tickets, and the affectivity of the domestic world found in notes from his daughters, Maria Elisa and Helena, scribbled on loose envelopes that evoke scattered correspondences.

These records, preserved for decades in his apartment on Av. Delfim Moreira in Rio de Janeiro, summon the intimacy of one of the 20th century's most powerful architects. The curatorial alignment is organized into six fundamental nuclei – *Family, Writings, Portugal, Pilot Plan, Brasília*, and *Drawing* – structuring a narrative where essayistic reflection and visual digression cohabit. While in the physical space of the CA, the exhibition culminates in the 'Povo Brasileiro' [Brazilian People] square (a title sparingly borrowed from Darcy Ribeiro),[4] evoking the 1964 installation 'Riposatevi'[5] [Rest Yourselves]; in the catalog, the final momentum dwells upon twenty specific documents. These are analyzed as fragments of a 'minor archive', as will be explained hereafter.

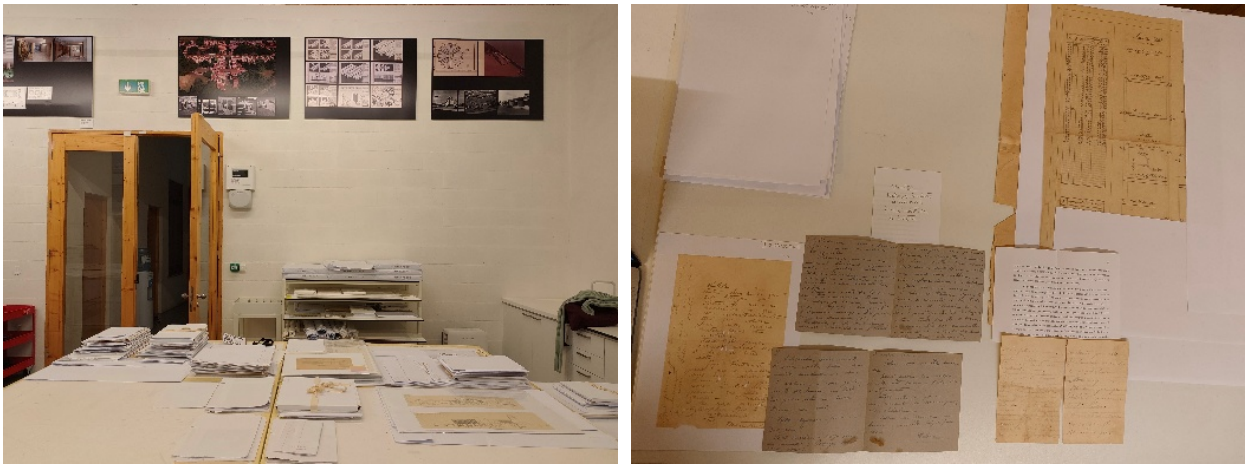

Figure 1: *Lucio Costa Arquivo/Archive*: General overview of the selected material, [Ana Vaz Milheiro, January 22, 2026] and pieces from the Lucio Costa collection illustrating the concept of the "minor archive". (Source: Ana Vaz Milheiro, January 7, 2026, both at Casa da Arquitectura, Matosinhos, Portugal).

They become clues equivalent to the artistic intervention by Angela Detanico and Rafael Lain on display[6] and to the voices emerging from the interstices of the modern habitat – between the 'social' alternative of the Lucio Costa Economic Blocks (Quadras Económicas Lucio Costa, QELC) in Guará, and the memories of the *candango* camps, filtered through urban transformations in territories now heritage-listed, such as Vila Planalto in the heart of Brasília.[7] During the exhibition's preparation, these two sites were visited with the same conviction (and naivety) as Georges Duby when traversing the sacred sites of Cluny.[8] Signs were sought from the testimonies of the "pioneers" that the social sciences have popularized,[9] and which architectural history now aims to integrate as a disciplinary foundation of its own discourse.

Figure 2: *Lucio Costa Arquivo/Archive*: Overview of the Brasília-Drawing room during the setup (*left*); and the second day of the exhibition opening (*right*). (Source: Ana Vaz Milheiro, April 16, 2026 (*left*); Leonor Matos Silva, April 19, 2026 (*right*)).

The presence of this estate in Portugal also served as an invitation to revisit Lucio Costa's stays in the country (1926, 1948, 1952-1953, 1961). On this point, the archive provides clues that allow us to partially challenge the historiography on Lucio Costa, which has examined this relationship, particularly that led by Portuguese historians.[10] However, the enthusiasm manifested by a generation of Portuguese professionals born in the first three decades of the 20th century appears to contrast with the Brazilian architect's reserved stance.[11]

The ultimate goal of this exercise was, however, the necessary confrontation between historiographical paradigms concerning Lucio Costa – specifically regarding his relationship with the idea of 'tradition,' still deeply rooted in a specific period of Brazilian colonial history – and contemporary critical readings.[12] The archive was treated as an open territory, prompting a recourse to postmodern readings that explore the potential of archives from their darker perspectives, evoking, for instance, the "voracity of forgetting."[13]

This cultural capital was interrogated through the anxieties that shadow current debate: was there a racist root in Lucio Costa's discourse? Did his design exacerbate situations of segregation and elitism? How does the utopia of the *superquadra*, as an engine of social democratization, survive in the face of the fissures of Brazilian urban reality? How to deal with the presence of tradition within an eminently modern layout? These questions are intensified by the opposition between the Enlightenment power of the drawing that organized the capital of the Brazilian nation and the corrosive capacity of the architectural sketch, the record of ancestral realities, the draft, the marginal note, and the obsessive insistence on the same scheme.

These questions also presuppose Lucio Costa's admiration and respect for Brazilian vernacular architecture, which converges both in the architect's written work and in the pieces of an archive he personally assembled. Here, therefore, the intent is not to analyze Lucio Costa's thought through canonical texts, but rather through the trail of the archive. What is proposed is an exploration of this archive, wandering through the contradictions of a heritage that only remains alive if it continues to fuel critical speculation. Far from being a static reading in his honor, the research that gave rise to the exhibition and catalog emerged as an invitation to address – through the fractures exposed by the archive – the legacy and contradictions of the modern project today, so viscerally defended by Lucio Costa throughout his life.

2. ENGAGING WITH THE ARCHIVE

The term 'minor archive' hardly seems to describe the sheer breadth of a documentary collection belonging to a man like Lucio Costa. However, although a critical and activist-driven historiography has captured the term for gender and minority studies,[14] we embrace here the epistemological path set forth by Gilles Deleuze regarding Kafka's literature.[15] In this collection, that path finds a timely and valid resonance that is well worth exploring in depth.

We propose, therefore, that this 'minor archive' is defined not by disciplinary affinities or the volume of items, but by its marginal, fragmentary, and, above all, deterritorialized nature in relation to the grand official narratives – precisely those that recent criticism has sought to challenge.[16] In this sense, the collection on which this research is based should not be read as a palimpsest of ordered layers, but as a 'miscellany' that resists classical stratification, standing out for its randomness and the eloquence of each individual document.

Primarily, it replaces the canonical architectural archive – preferentially focused on technical drawings, executive projects, descriptive reports, and scale models – with clues enunciated from materials of an imponderable nature.[17] Lucio Costa's collection thus opens new perspectives on a widely biographed architect, shifting the focus away from the finished design (projects) to observe personal documentation, namely correspondence (sketches). A preview of the possibilities of this approach was, in fact, raised in *Registro de uma Vivência*[18] – Costa's autobiography constructed from fragments of a similar origin – which the present investigation has allowed to further deepen.

In the past, José Pessôa had already shifted the analysis of Lucio Costa into the sphere of bureaucracy, albeit while maintaining an institutional root. Pessôa began by compiling the written technical opinions (*pareceres*) from the National Historical and Artistic Heritage Service (SPHAN).[19] This pioneering collection has proven extremely fruitful, allowing researchers to pinpoint and demonstrate Costa's authority in the crafting of

heritage policies and guidelines. In this regard, critical readings have been useful, such as those suggested by Fernando Luiz Lara,[20] who argues for an elitist tendency in Lucio Costa's thought and his manipulation of the past to construct a culturalist historiography that would bolster Brazilian modern culture.[21] In this sense, eclectic culture would have been discarded in favor of the idea of 'tradition' grounded in 18th-century colonial architecture.

While different historiographies have benefited from this conceptual broadening, access to the private sphere – with an emphasis on the everyday – allows traditional questions to be extended into new interpretive fields. It points, for instance, to alternative paths beyond the formal design to confirm Lucio Costa as an architect with access to the power mechanisms of the architectural culture of his time. From the perspective of this (new) statement, we question the place of the archival *pièce de résistance* within the collection deposited at the CA, debating between the Pilot Plan for Brasília,[22] or alternatively, the body of correspondence exchanged with his peers. Even a limited survey of his epistolary production demonstrates that he operated within an international network with significant impact on spheres of power, mediating figures such as Le Corbusier and Walter Gropius – whom in the early 1950s he described as "two veterans and outstanding personalities in contemporary architecture"[23] – and exercising cultural and political power far beyond the Brazilian scale.

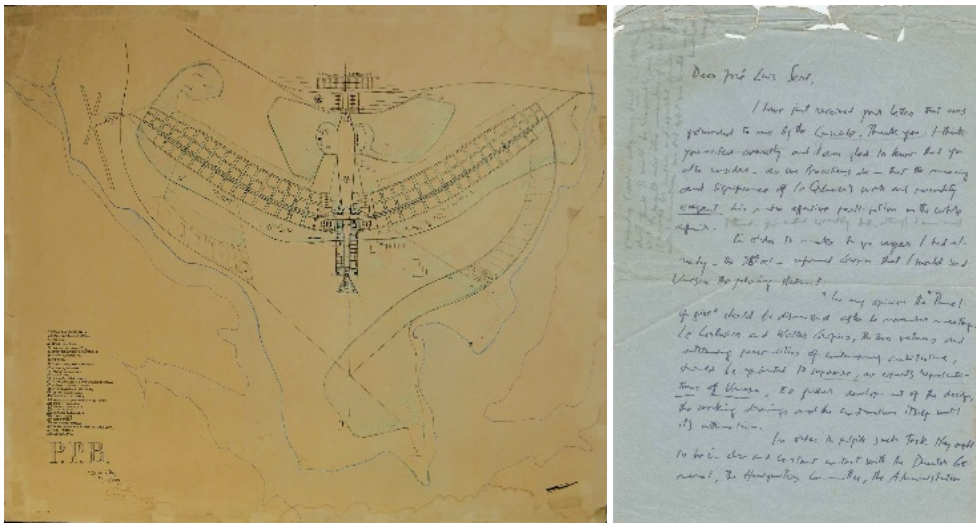

Figure 3: Carbon copy of the original urban scheme for the Pilot Plan of Brasília submitted to the competition held by the Urban Development Company of the New Capital of Brazil (March 10, 1957) (CA: III.B.02-03364) and letter to José Luis Sert regarding the future of the 'Committee of Five', November 15, 1952 (CA: VI.A.01-01841).

The importance of the international correspondence involving Lucio Costa begins to clarify with Le Corbusier's role in this process, starting with the MESP project. However, it is not an overstatement to suggest that the ongoing epistolary exchange between the two[24] – initiated in 1936[25] – rivals in importance the

historical enthronement of that building, which was prematurely crystallized in *Brazil Builds.*[26] A letter from Lucio Costa anticipating their meeting in Rio de Janeiro during the project's development sets the stage for the proximity between them that historiography has long projected. From that point on, the exchange of correspondence occurs with varying intensities. It strengthens in the mid-1940s as the MESP nears completion; it resumes in the following decade through the complicity maintained during the "Committee of Five" (*Grupo dos Cinco*), which we will mention hereafter; it continues with the shared project of the Maison du Brésil in Paris and concludes with the commissions for Brasília. These include the invitation from Darcy Ribeiro[27] – then Minister of Education and Culture – for the museum in Brasília's cultural sector, and from the French Embassy in Brazil, covering both the building's design and its furniture.[28] Contexts such as these would further open new relationships, such as the one initiated with Charlotte Perriand in the 1950s, due to her involvement in the interiors of the Maison du Brésil.

Consequently, Lucio Costa's leadership of the team behind the first modern public building on *pilotis*, alongside his co-authorship of the Maison du Brésil with the Franco-Swiss master,[29] provides a crucial data point for situating him within a more nuanced cartography of influences. This map is more delicate and persistent than the one traditionally privileged by historiography, which has largely confined Costa to a national (Brazilian) scope.

This perspective shifts him to the center of international debates where the concept of 'tradition' circulated from the post-war period throughout the 1950s – a time when modernists began to reclaim distinct local and national expressions. This dialogue, notably shaped by figures such as Ernesto Nathan Rogers (also a member of the 'Committee of Five'), remained a permanent channel at the epicenter of global modernism until 1964, a year before Le Corbusier's death. Beyond mere technical collaboration, this correspondence established a space of mutual legitimation, where the built project served as a pretext for the sophisticated exercise of architectural diplomacy. Any future understanding of this diplomacy will, therefore, depend on a meticulous mapping of these epistolary networks.

This exercise in architectural diplomacy finds its most concrete expression in the formation and internal debates of the 'Committee of Five'. By 1952, Lucio Costa was already discussing the group's future with José Luis Sert,[30] another pivotal figure in the discourse on tradition within Ibero-American cultures. Tasked as consultants to select the design for the UNESCO headquarters in Paris,[31] the group's eclectic composition reflected the very internationalism Costa navigated: beyond himself, it included Walter Gropius**,** Le Corbusier**,** Ernesto Nathan Rogers – who may be described here as an advocate for modern continuity within the historical plane – and Sven Markelius, a representative of Nordic humanist regionalism.

Written on the threshold between the technical and the personal, these missives often expose a balance between institutional courtesy and a veiled intimacy, typical of the codes of conduct of the elites of that era,[32] revealing the circuits in which Costa sought to position himself. During the same period, with the complicity of figures such as Sigfried Giedion,[33] he was invited to join restricted yet influential circles, such as the CIAM.

Crucially, while the letters he received constitute final versions, Lucio Costa's own letters are often drafts subject to last-minute corrections. This condition of uncertainty introduces an instability into the archive's credibility, presenting an additional challenge. Navigating this correspondence further allows for the identification of interlocutors outside the usual radar associated with Lucio Costa, launching him into constellations that traditional historiography rarely intersects and which began to run in parallel to the Brasília phenomenon.

From 1959, for example, Alison and Peter Smithson initiated contacts whose repercussions are not yet fully clarified[34] – a probable case of an intellectual and pragmatic "flirtation,"[35] – manifesting a transgenerational influence and the impact of Brasília on professionals born in the interwar period. No less surprising is the intimate note to Richard Neutra, where Costa declares himself a "pacifist."[36] Immersed in the ideological polarization of the Cold War, he challenges Californian architects to debate "Architecture and Coexistence."

This gesture configures a persuasive political incursion, which he had previously confirmed in another manifesto, likely delivered at Harvard upon receiving his *doctor honoris causa* degree:[37] "I am Lucio Costa, the planner of Brasília. It is in this capacity as an urbanist and architect that I am here to call for the end of the Cold War, for peaceful coexistence, and for peace. My task is to contribute to the well-being of humanity, not to its destruction."[38]

By confronting North American hegemony, he tested the effectiveness of his global authority, mediated by the personal proximity he maintained with figures like Neutra and others that a more careful immersion in this epistolary universe may yet reveal. Among the questions raised by Lucio Costa's political stance on the international stage is what idea of 'tradition' might be contained within such an anti-Cold War declaration, given that the division of the world into two military and political blocs also presupposed the neutralization of regional positions and the prevention of new traditions from taking root. These and other stories can be deactivated or reanimated at any moment, enhancing the kaleidoscopic effect that characterizes these archives.

The sum of these clues consolidates the narrative that Lucio Costa possessed an authority within international circuits that transcends the conventional architectural design as a *pièce de résistance*. Unlike Oscar Niemeyer, whose centrality within a network of aesthetic transmission remains historiographically valid, Lucio Costa's

weight is reflected in multiple political dimensions and institutional developments, permanently under the scrutiny of social criticism. The exploration of this 'minor archive' allows us to traverse its interstices, proving – with renewed force – Costa's strategic centrality within contemporary history.

3. THE RELATIONSHIP WITH PORTUGAL

Given that this exhibition is promoted by an institution based in Portugal, interrogating the presence of this geography within the collection was considered essential. A balance was struck between the expectations - projected by a historiography seeking reciprocity in 'Luso-Brazilian' relations – and the concrete material that the documentation actually reveals. After four journeys through the country, the material trail is paradoxical, raising suspicions of a selective process. Displacing the role of the archivist, Lucio Costa appears in this context as an active agent in the construction of his own "house of memory" – in the sense advocated by Terry Cook[39] – a possibility that opens multiple interpretations of his relationship with Portugal.

Consider, for example, his arrival in Lisbon in 1926, after crossing the Atlantic aboard the ship *Bagé;* [40] if we take this as a first stay, we are met with documentary silence. There is no detectable trace in the collection to attest to a first impression. Knowledge of a 'lost' letter reporting this brief visit further confirms the disparity between the *ne varietur* edition of *Registro de uma Vivência* – where the narrative is sanctioned by the subject himself – and the almost amnestic state toward which any documentary collection tends through destruction or disappearance.[41]

Parallelly, the lack of a material trail from his 1948 journey – other than the video records integrated into the exhibition's moving images titled "Vida" [Life][42] – introduces a discontinuity in the linear sequence of Lucio Costa's (known) biographical time. This 1948 stay,[43] it should be noted, was converted into a manifesto-trip regarding the autonomy of colonial architecture in relation to the former metropole.

However, it is in the field of visual records that scarcity frustrates the researcher. Amidst the deprivation of photographs, a solitary image emerges, portraying a walk with Leleta (Julieta Modesto Guimarães Costa) through the streets of Lisbon,[44] captured in 1952.[45] Contemporary post-colonial studies are fraught with interpretive keys for dealing with the topic of 'absence.'[46] Yet, even if other records remain unidentified within the material deposited at the CA, little literature prepares us for such a void. If the myth of an affective and professional proximity between Costa and Portuguese architectural culture persists, the archive seems, at first glance, to contradict this hypothesis

Figure 4: Lucio Costa and Leleta (Julieta Modesto Guimarães Costa), his wife, in Lisbon (February 20, 1952) (CA: PT/CA/LC/RF-A2-02-1-0035), and Lucio Costa, likely at a fair in Barcelos, Minho [1961] (courtesy of José Pessôa).

Addressing this hiatus required integrating visual materials from an external source: the archive of architect António Menéres, relating to the visit of March 1961.[47] Menéres, then a young man, accompanied Lucio Costa and a group of professors on a journey from Porto to Bragança, including a stop at the Solar de Mateus and a brief stay at the São Bartolomeu Pousada. The snapshots captured during this trip document what was purportedly Costa's final visit to the country.

However, challenging the earlier assertion that only a single image of Costa in Portugal had been preserved within his own collection, José Pessôa identified two additional records: one at the São Bento railway station upon arrival in Porto, and another at a traditional fair in Northern Portugal (likely in Barcelos). While the latter appears to stem from the Menéres collection, the former lacks a precise dating. Ultimately, these discrepancies underscore the propensity for forgetting that is inherently embodied within the archive.

The 1961 journey, undertaken at the invitation of the Porto School of Fine Arts (ESBAP),[48] remains only partially documented, with the telegram from the school's director, Carlos Ramos, being the most prominent record.[49] Its memory persists, however, through the recollections of survivors, of which the testimony of Alexandre Alves Costa – then a student in Porto – serves as compelling proof.[50] Long-term repercussions of the 1961 trip are further revealed in singular objects, such as a Christmas postcard featuring the Church of Santa Maria in Bragança, sent years later by Alfredo Viana de Lima.[51]

It is curious, nonetheless, that Portuguese historiography has treated the journey and Lucio Costa's lecture in Porto with marked inequality.[52] The former remained obscured by memories that oral history has tended to discard in favor of the latter. However, through the selection of photographed sites – the keep and the domus municipalis in Bragança, the stone granaries (espigueiros), and the São Lourenço Pousada[53] – this journey reinforces a potential dialogue with previous visits and with the specific sense of tradition sought by Costa in Portugal. Which traces did he ultimately elect for his 'imaginary museum': an architecture that was vernacular and erudite, or one that was vernacular and popular?

The hypothesis that Lucio Costa awakened in Portuguese architects a desire to traverse the national territory in search of an identity-based architecture is grounded in these very travels. Nevertheless, the domestic debate on popular architecture – and its potential utility for Portuguese professionals – dates back to 1947.[54] Being practically contemporary with the 1948 journey, this chronology leaves more questions open than it provides clear answers.

In the absence of a collective or institutional strategy clarifying the relationship between Lucio Costa and Portuguese professionals, personal ties – particularly those suggested through correspondence – emerge as the most consequential clues. Fernando Távora, whom Portuguese historiography initially viewed as a key link in the connection with Costa,[55] appears occasionally through an exchange regarding a potential commission from a São Paulo investor that never materialized and remains undated.[56] It is interesting to note that relations with architects were essentially centered on potential work. Carlos Ramos maintained some contact during the 1960s concerning the commission to design the Portuguese Embassy in Brasília, which also never came to fruition.[57]

More resilient bonds seem to have been reserved for other figures, such as the historian Mário Tavares Chicó, whose funeral eulogy reveals the depth of Costa's affective connections with Portuguese interlocutors. Regarding the Alentejo historian, Costa wrote a moving testimony – a rare emotional dimension among the surviving documentation (as far as research has managed to excavate). Describing "the long walk beyond the Tagus... with [Chicó, his] wife, and the girls - when the 'Costa Tribe'... was still whole," he expresses for the historian "a sorrow beyond remedy."[58]

This bond, anchored in the period preceding Leleta's fatal accident, places Chicó in a position of prominence. It reflects, perhaps, a greater intellectual affinity felt toward historians, who were capable of providing the factual evidence and rigor that the architect valued in his search for the genesis of Brazilian architecture. Among the professors from the Lisbon School of Fine Arts (ESBAL) who accompanied him on the aforementioned trip to Bragança, one also belonged to the lineage of art and architectural historians: Jorge Henrique Pais da Silva. Furthermore, it was another major figure in art historiography at the time – Reynaldo

dos Santos – who informed him of his election as a foreign correspondent for the Portuguese Academy of Fine Arts,[59] an illustrious position revealing the degree of acceptance he held within Portugal's most erudite historical circles. Once again, however, we find ourselves moving within the realm of speculation.

Figure 5: Example of documentation related to Portugal, showing Lucio Costa at an exhibition organized by Mário Tavares Chicó. The caption reads: "Lucio Costa, present at the opening, paused to observe an oratory", Museum of Fine Arts, Portuguese Commission for the Commemoration of the Fourth Centenary of Rio de Janeiro, RJ [1965], ["Portugal inaugura exposição de arte e de arquitetura", unidentified newspaper, (CA: VIII. A.01.03067)]

At the close of his travel cycle, the archive once again subverts established narratives. Evidence suggesting a passage through Lisbon between March 23 and 27, 1966, appears in a passport issued in the late 1960s.[60] When cross-referenced with other correspondence, this date leads to a letter addressed to his daughter, Maria Elisa, during her pregnancy. The subject is the commission for Quinta do Rouxinol – the only known project designed for Portugal. Its presence in the archive, and particularly its problematic chronology, causes profound perplexity:[61] while the drawings in the collection date the unbuilt project to 1952-1953, the letter and passport firmly situate the debate in the 1960s. More significantly, these documents reflect an urban configuration and a residential cell strikingly similar to solutions Costa would only later materialize in the Pilot Economic Block (Lucio Costa Economic Blocks, no. 1).

Intended for "underprivileged" populations in suburban environments – and considering the current reception of the Guará neighborhood, addressed in the final section of this article – one must ask whether Costa was rehearsing a specific tradition through these Economic Blocks. Did this tradition descend from a localized modernism, or did it merely reinforce the universalist tone of the era? What tradition do these blocks propose now that we can trace a direct lineage between the proposal for Seixal (Quinta do Rouxinol) and those for Bahia (Alagados), São Luís do Maranhão (NPU), and the eventual implementation in Brasília (Guará)?

Paradoxically, this and other cases reinforce the graphic dimension that defines the Portuguese context. Significantly, the scarcity of photographic records noted earlier is offset by the density of the surveys contained in the famous "Bloquinhos de Portugal" (Portugal Little Sketchbooks), produced during the journey between the summer of 1952 and the winter of 1953.[62] For Costa, the Portuguese territory seemed the ideal setting for analytical drawing – a practice modernists cultivated following the Corbusian protocol of observation,[63] often neglecting photography as an inventory tool. Today, the sketches inscribed in these five notebooks possess an expressiveness that renders any other form of annotation redundant. The fact that they remained for decades outside of Lucio Costa's control constitutes a point of 'historiographical anguish', especially among the Portuguese.

Following the discovery of the "Bloquinhos" in 1998, an analysis of their contents (observational drawings) revealed a selection of sites and built heritage shaped by a twofold idea of tradition: vernacular architecture, which this generation of architects perceived as timeless; and 18th-century architecture of Baroque affiliation, likely echoing the powerful images from his youthful travels through the state of Minas Gerais. Costa does not record the architecture contemporary to him – with the notable exception of the house designed by Maurício de Vasconcellos on Av. Almirante Gago Coutinho in Lisbon[64] – but focuses instead on vernacular buildings, including constructive details found in building ornaments, interior spaces, and the urban environment. It is clear that this record-based study, spanning the country from north to south, interested him far more than contemporary architectural culture. The only link between his journey and the works of that period is a text of his own, published in the magazine *Arquitectura*, which he kept in his records.[65]

It is disconcerting to observe that Costa's theses regarding Brazilian colonial architecture managed to dispense with the direct support these records could have provided. Perhaps the experience remained etched in his retinal memory; or, alternatively, the observed forms were immediately replaced by their Brazilian counterparts in a process of cultural emancipation. Regardless, the recent discovery of the collection[66] has restored balance to the archive.

Figure 6: A sketch of a contemporary house in Lisbon and one of a late 17th-century aqueduct in Serpa. (Source: Both in the Portuguese Little Red Sketchbook).

4. THE PLACE OF ORAL HISTORY

In this section, we analyze the receptivity to an idea of tradition – one that reflects the Brazilian inland town (*cidade do interior*), the minimal apartment, and the social interaction within the *pilotis*. We have chosen as our information vehicle the anonymous residents currently living in the most celebrated neighborhoods designed by Costa, as well as those whose families were involved in the construction of Brasília. In doing so, we found a means of engaging with the most forceful criticisms that distance Costa from this profile of client or inhabitant.

In reality, a modern design that has already materialized and stands 'out of time' has been appropriated and transformed through a mythical ideal.[67] Today, the tradition associated with Lucio Costa is constructed more through these specific projects, these neighborhoods, and these lived experiences than through the historical archetypes of the farmhouse (*casa fazenda*), the Baroque church, or the colonial towns of Minas Gerais. The research most celebrated by historiography is precisely that which enabled him to design diamond-shaped urban schemes and minimal area parameters, thereby contributing to a contemporary tradition: one defined by *pilotis*, by spaces for playful social interaction, and by democratic arenas for collective decision-making. Furthermore, these have become places of repose and sites for the parking of small-scale means of transport.

The documentary narrative necessitates a critical counterpoint to the gaps within the archive – silences that oral history allows us to fill. This approach opens a field for questioning the current *status quo*, which points to a latent racist matrix or, at the very least, a segregating social model within Lucio Costa's thought.[68] Facing a legacy built between utopia and exclusion, how do the inhabitants of Brasília position themselves today? What happens when we allow the spoken word to infiltrate the rigidity of the archive? The intrusion of oral testimony operates as a destabilizing force that corrupts the static order of documents, regardless of their domestic or institutional roots. If international historiography has assimilated that buildings are not "frozen in time,"[69] why should archives remain crystallized?

By the same token, the immobility imposed upon Brasília's landscape contrasts with the peripheral and interstitial spaces where contemporary communities forge new social clusters. This is an appropriation of space in a Lefebvrian sense,[70] where daily practice subverts the theoretical plan. Within these territories – which have carved out a freedom inside the segregating logic established by Novacap's logistics – resides a muted history: a memory of resistance and reconfiguration that the archive, in its technical polish, has insisted on ignoring. These have thus become privileged sites for observing the pertinence of Lucio Costa today.

Much like the erasures and amendments that corrupt the documentary order, the historical sites housing the memory of Brasília's builders bring new protagonists to the stage, who in turn resort to their own 'minor archives'. In this context, it is perhaps only just to summon the reminiscences of the old construction camps, such as Vila Planalto – situated practically wall-to-wall with the Praça dos Três Poderes – or the Lucio Costa Economic Blocks (QELC),[71] as landmarks that bound the extremes of Costa's project, and to interrogate their stories.

In Vila Planalto, Lucio Costa initially proposed its transformation into an Economic Block structure, aiming to ensure the residents' permanence and prevent land privatization. The archive preserves the memory of the moment he resisted the *tabula rasa*, crossing out the sentence: "If Vila Planalto is important, let us agree that Brasília is more so."[72] The draft reveals itself as ethical proof: Costa seems conscious of the historical dimension of this site, which from its inception reproduced a segregating condition based on labor (separating engineers from laborers, foremen, and their families). But this dimension is also measured by the cultural capital of the stories circulating there: "All the accounts I heard from my neighbors were just like my father's," admits Leiliane Lopes Rebouças,[73] a writer and daughter of a *candango* who arrived in 1958.

This awareness surfaces when Costa defends the authenticity of Brasília as a 'collective project,'[74] although the candango's exact place is rarely clarified within the collection – except for the elegy in the verses of Donatilla Dantas,[75] which he preserved, thereby creating an affective space for this key figure of Brasília's identity. During the military dictatorship, the threat of "favelization" posed by the camps prompted a

response in the form of the scattered city, where the former builder/candango was transformed into a resident of the metropolitan area; for Costa, the urbanistic solution to contain this threat and preserve the capital's scale was the implementation of the Economic Blocks.

Far from the Pilot Plan, yet under the same urbanistic rigor, Manoel Alves Leitão – a pioneer who arrived from Ceará in late 1972 and is now a resident and building manager at QE 1, Block A 12 – confirms: 'We had no asphalt, no telephone... but we had light... in the apartments." [76] The transposition of Brasília's Superblock from the Pilot Plan to the roadside fringes requires a realistic readjustment without abandoning utopia, positioning the architect within a field of social negotiation. Despite the rigid diamond-shaped structure that ensures urban cohesion, the ensemble of the four QELC is shaped by the visions of the developers who proceeded with the construction, by the residents who received a roof and transformed it to the measure of their ambitions, and even by the promise of social upward mobility. Speaking of Lucio Costa, Mr. Manoel continues: "In the beginning, I imagine he created [designed] it in the sense of supporting, in a way, low-income families, and today that issue has been lost, hasn't it?" The introduction of fencing, the choice of tile color, or the decision to polish the cement – deliberate improvements made collectively and through democratic exercise – do not reveal a community distancing itself from the architect, much in the same way that the residents of Pessac were not against Le Corbusier; they simply resolve 'their needs'.[77]

Figure 7: 'Pioneer' and resident Manoel Alves Leitão, showing his 'personal archive' of the QELC, Guará (Source: Ana Vaz Milheiro, February 24, 2026) and Patrícia Calazans Oliveira, a leader of the QELC Residents' Association, during filming for the exhibition *Lucio Costa Arquivo/Archive*, Guará (Source: Ana Vaz Milheiro, February 24, 2026).

If the pioneers brought the struggle for the basics – "on the occasion of the inauguration, improvements in sewage, rainwater drainage, paving, sidewalks" – threats to alter the urban layout or the privatization of public facilities now trigger new forms of resistance. As noted, "here, it is preserved like a small town, a place where people still interact as they do in the interior; everyone cares about everyone."[78] The testimony of Patrícia Calazans Oliveira, leader of the residents' association, confirms that the right to the urban is a permanent conquest. Urbanism becomes a tool for dignity and, above all, a place of belonging: "If he could receive this message today," Oliveira continues, "[I would tell him:] 'architect, it worked'. And I get emotional because I chose to live here. So, I believe in this place."

5. CONCLUSION

Concluding this mapping through Lucio Costa's archive requires recognizing that the 'shadow of Brasília' is not merely a space of obscurity, but the place where tradition becomes tactile, human, and contradictory. By traversing the diagonal between the 'minor archive' of Leblon, now at CA, and the daily lived experiences of Guará or Vila Planalto, what emerges is not the static profile of a modern patriarch, but a contrasting apparatus of permanent negotiation.

The tradition mapped within these documents is not that of official hagiography, but a tradition of resistance and appropriation. It is here that the relationship with Portugal reveals its true depth: Costa's journeys through the former metropole were not an exercise in nostalgia, but a search for information. In the fissure between the Enlightenment power of the drawing and the corrosive capacity of the sketch, Costa found the point of convergence where the 18th-century vernacular tradition – with its rational yet human scale – fulfilled itself within the modern tradition of the superblocks. The 'imaginary museum' he constructed in Portugal provided more than a mere vernacular and erudite grammar; it allowed the modern project to claim its own ancestry while confirming the technical and cultural distinction between colony and metropole, thereby establishing the foundations of a powerful identity-based architecture.

If Brasília cast a monumental shadow over 20th-century architecture, Costa's archive has allowed us to walk through its interstices, revealing that the 'collective project' is only fulfilled when the inhabitant – the new protagonist of this archive – takes the stage to confirm: 'it worked.' The mapping conducted here proves that Lucio Costa's legacy remains alive mainly because of its fractures, which continue to address the necessary debate on the modern habitat.

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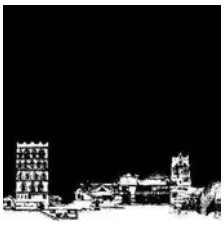
54. Amaral, Francisco Keil do, "Uma iniciativa necessária", *Arquitectura* no. 14, pp. 12-13.
55. Cf. Figueira, Jorge, *Escola do Porto, um mapa crítico*, Edarq, 2002.
56. This entry comprises two letters: A letter to Mendel Aronis, reiterating a previous recommendation by Augusto Amaral and Fernando Távora regarding potential developers for the coastal area near Grândola acquired for tourism investment (a commission that was not carried out), undated (CA: VI.A.01-02625); Letter to Fernando Távora and Augusto Amaral, introducing Mendel Aronis, an investor from São Paulo in a tourism project for the coastal region of Grândola [includes another letter to Guilherme Machado, with a handwritten note], undated (CA: VI.A.01-04526).

57. Letter from Carlos Ramos regarding his and Luís Cunha's commissioning to design the Portuguese Embassy in Brasília (February 15, 1962) (CA: VI.A.02-03422); Letter from Lucio Costa to Carlos Ramos regarding the design of the Portuguese Embassy in Brasília (undated) (CA: VI.A.01-00728).
58. *A Compassionate Bond*, A Tribute to Mário Tavares Chicó, June 5, 1969 (CA: V.C.01-02389). The text is a response to a request from Maria João Madeira Rodrigues in connection with the exhibition commemorating the historian, at the Museu de S. Roque, Lisbon (undated). Mário Chicó died on 10 August 1966.
59. Letter from Reynaldo dos Santos, president of the National Academy of Fine Arts of Lisbon, announcing the election of Lucio Costa as a Foreign Corresponding Member of the institution (May 3, 1954) (CA: VI.A.02-03423).
60. Republic of the United States of Brazil, passport, showing entry at Lisbon Airport on 23 March 1966 and departure on March 27, 1966, according to a stamp issued by the PIDE – International and State Security Police (Ref: II.A.03-01316).
61. Letter to his daughter Maria Elisa regarding the Quinta do Rouxinol project, Portugal, probably from 1966 (CA: III.C.05-04107). The letter is analysed by Carla Conceição Barreto in "Maria Elisa, it must be half past midnight (Saturday) (undated)", *Lucio Costa Arquivo*, pp. 324–327.
62. Portuguese little sketchbooks: Swiss, Red, Ochre, Brown (Summer 1952); Blue (Winter 1953) (CA: Portuguese Little Sketchbooks)
63. Le Corbusier, *Viagem ao Oriente*, Cosac Naify, 2008 (1911, 1st edition, 1965).
64. Maurício de Vasconcellos. "Habitação Rangel de Lima – Av. do Aeroporto, Lisboa", *Arquitectura*, no. 75, June 1962, p. 6. Cf. Tostões, Ana, "Casa Rangel de Lima, Avenida Almirante Gago Coutinho, Lisboa, 1950- 1952", in Tostões, Ana, Annette Becker and Wilfried Wang, *Portugal: Arquitectura do século XX*, Munique, New York: Prestel; Lisbon: Portugal-Frankfurt 97, Centro Cultural de Belém, 1997, p. 204.
65. *Arquitectura*, no. 47, 1953, pp. 7-10 and 19-21.
66. Costa, Maria Elisa and José Pessôa, *A Arquitetura Portuguesa no traço de Lucio Costa, Bloquinhos de Portugal*, Caixa Cultural do Rio de Janeiro, 2012. According to Maria Elisa Costa's testimony: "They simply disappeared! ... the fact is that the little sketchbooks only resurfaced after his death.", p. 3.
67. Cf. "Morei no interior, nesse interior desproporcionado do nosso paiz. (…)", 1932, (CA: V.D.04-03209) (incluído em *Lucio Costa: Registro de uma Vivência*, São Paulo: Edições Sesc São Paulo, Editora 34, 2018 (1ª edição de 1995), com o título "Constatação", p. 82.
68. Cf. Tavares, 2022.
69. Gosseye, Janina, "A Short History of Silence", in Gosseye, Janina, Naomi Stead and Deborah van der Plaat (ed.), *Speaking of Buildings, Oral History in Architectural Reseach*, New York: Princeton Architectural Press, 2019, p. 11.
70. Lefebvre, Henri, "Preface", in Boudon, Philippe, *Lived-In Architecture: Le Corbusier's Pessac Revisited*, Lund Humphries, 1972.
71. The QELCs are located along the Taguatinga Park Road (DF-085). Proposal by Lucio Costa regarding the use of the strips of land bordering the roads connecting the Pilot Plan and the satellite cities for affordable multi-family residential development, 1985 (CA: III.B.10-00826).
72. Vila Planalto: Apoio à sua salvaguarda e análise da proposta da sua ampliação, s.d. (CA: III.B.13-03720).

73. Interview with Leiliane Cristina Lopes Rebouças [conducted by Ana Vaz Milheiro], Vicente Pires, February 25, 2026.
74. "Brasília é um projecto colectivo", letter to Dr. Nascimento Brito, s.d. (CA: VI.A.01-04544).
75. "Candango", a poem by Donatilla Dantas, March 30, 1960, (CA: IX.A.01-03624).
76. Interview with Manuel Alves Leitão [conducted by Ana Vaz Milheiro], QELC, Guará, February 24, 2026.
77. Lefebvre, 1972 in Gosseye, Janina, 2019, p. 11.
78. Interview with Patrícia Calazans Oliveira [conducted by Ana Vaz Milheiro], QELC, Guará, February 24, 2026.



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